Community Assessment

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OUTLINE

Objectives

Upon completion of this chapter, the reader will be able to do the following:

1. Discuss the major dimensions of a community.
2. Identify sources of information about a community's health.
3. Describe the process of conducting a community assessment.
4. Formulate community and aggregate diagnoses.
5. Identify uses for epidemiological data at each step of the nursing process.

KEY TERMS

aggregate

census tracts

community diagnosis

community of solution

metropolitan statistical areas

needs assessment

social system

vital statistics

windshield survey

The primary concern of community health nurses is to improve the health of the community. To address this concern, community health nurses use all the principles and skills of nursing and public health practice. This process involves using demographic and epidemiological methods to assess the community's health and diagnose its health needs.

Before beginning this process, the community health nurse must define the community. The nurse may wonder how he or she can provide services to such a large and nontraditional "client," but there are smaller and more circumscribed entities that constitute a community than towns and cities. A major aspect of public health practice is the application of approaches and solutions to health problems that ensure that the majority of people receive the maximum benefit. To this end, the nurse works to use time and resources efficiently.

Despite the desire to provide services to each individual in a community, the community health nurse recognizes the impracticality of this task. An alternative approach considers the community itself to be the unit of service and works collaboratively with the community using the steps of the nursing process. Therefore, the community is not only the context or place where community health nursing occurs, it is the focus of community

health nursing care. The nurse partners with community members to identify community problems and develop solutions to ultimately improve the community's health.

Another central goal of public health practitioners is primary prevention, which protects the public's health and prevents disease development. Chapter 3 discusses how these "upstream efforts" are intended to reduce the pain, suffering, and huge expenditures that occur when significant segments of the population essentially "fall into the river" and require downstream resources to resolve their health problems. In a society greatly concerned about increasingly high health care costs, the need to prevent health problems becomes dire. In addition to reducing the occurrence of disease in individuals, community health nurses must examine the larger aggregate—its structures, environments, and shared health risks—to develop improved upstream prevention programs.

This chapter addresses the first steps in adopting a community- or population-oriented practice. A community health nurse must define a community and describe its characteristics before applying the nursing process. Then, the nurse can launch the assessment and diagnosis phase of the nursing process at the aggregate level and incorporate epidemiological approaches. Comprehensive assessment data are essential to directing effective primary prevention interventions within a community.

Gathering these data is one of the core public health functions identified in the Institute of Medicine's (2002) report on the future of public health. The community health nurse participates in assessing the community's health and its ability to deal with health needs. With sound data, the nurse makes a valuable contribution to health policy development (Wold et al., 2008).

The Nature of Community

Many dimensions describe the nature of community. These include an aggregate of people, a location in space and time, and a social system (Box 6-1).

Aggregate of People

An **aggregate** is a community composed of people who have common characteristics. For example, members of a community may share residence in the same city, membership in the same religious organization, or similar demographic characteristics such as age and ethnic background. The aggregate of senior citizens, for example, comprises primarily retirees who frequently share ages, economic pressures, life experiences, interests, and concerns. This group lived through the many societal changes of the past 50 years; therefore, they may possess similar perspectives on current issues and trends. Many elderly people share concern for the maintenance of good health, the pursuit of an active lifestyle, and the security of needed services to support a quality life. These shared interests translate into common goals and activities, which also are defining attributes of a common interest community. Communities also may consist of overlapping aggregates, in which case some community members belong to multiple aggregates.

BOX 6-1 MAJOR FEATURES OF A COMMUNITY

- Aggregate of people

  The "who": personal characteristics and risks

- Location in space and time

  The "where" and "when": physical location frequently delineated by boundaries and influenced by the passage of time

- Social system

  The "why" and "how": interrelationships of aggregates fulfilling community functions

Many human factors help delineate a community. Health-related traits, or *risk factors,* are one aspect of "people factors" to be considered. People who have impaired health or a shared predisposition to disease may join together in a group, or community, to learn from and support each other. Parents of disabled infants, people with acquired immunodeficiency syndrome (AIDS), or those at risk for a second myocardial infarction may consider themselves a community. Even when these individuals are not organized, the nurse may recognize that their unique needs constitute a form of community, or aggregate.

A **community of solution** may form when a common problem unites individuals. Although people may have little else in common with each other, their desire to redress problems brings them together. Such problems may include a shared hazard from environmental contamination, a shared health problem arising from a soaring rate of teenage suicide, or a shared political concern about an upcoming city council election. The community of solution often disbands after problem resolution, but it may subsequently identify other common issues.

Each of these shared features may exist among people who are geographically dispersed or in close proximity to one another. However, in many situations, proximity facilitates the recognition of commonality and the development of cohesion among members. This active sharing of features fosters a sense of community among individuals.

Location in Space and Time

Regardless of shared features, geographic or physical location may define communities of people. Traditionally, a community is an entity delineated by geopolitical boundaries; this view best exemplifies the dimension of location. These boundaries demarcate the periphery of cities, counties, states, and nations. Voting

precincts, school districts, water districts, and fire and police protection precincts set less visible boundary lines.

Census tracts subdivide larger communities. The U.S. Census Bureau uses them for data collection and population assessment. Census tracts facilitate the organization of resident information in specific community geographic locales. In densely populated urban areas, the size of tracts tends to be small; therefore, data for one or more census tracts frequently describe neighborhood residents. Although residents may not be aware of their census tract's boundaries, census tract data help define and describe neighborhood communities.

RESEARCH HIGHLIGHTS

Using Community Participatory Research to Assess a Substance Use in a Rural Community

Kulbok and colleagues (2012) employed a Community Participatory Model to guide the assessment of youth substance abuse in a rural Virginia county and the development of a prevention model. They integrated multiple assessment modalities that represent current public health nursing competencies. Specifically, this project engaged local community members and leaders with community health professionals in every step of the project, from planning the assessment to developing and evaluating the intervention. This process allowed public health nurses to integrate their knowledge of the local community with that gained from community partners and to develop a deeper understanding of substance use and its local ecological and cultural context.

Researchers used a geographic information system not only to map the location of youth substance use but also to pinpoint areas where preventive behaviors were more common. These maps helped to specifically target the location for preventive interventions. Perspectives of the youth about key "teen places" were also geographically mapped. The project used the

photographic charity Photovoice to capture participants' descriptions of local strengths as well as concerns, and then employed the images to facilitate conversation about the nature of alcohol, tobacco, and substance use in the community. Qualitative data about youth beliefs about substance use were gathered from focus groups. These data were combined with descriptive information about the local population, the community environment, and local social systems and beliefs, to develop a comprehensive picture of the local community. Involvement of a broad range of community members throughout the project planning enabled a more effective, culturally appropriate, and sustainable intervention to be developed for this rural community.

Data from Kulbok PA, Thatcher E, Park E, et al: Evolving public health nursing roles: focus on community participatory health promotion and prevention, *Online J Issues Nurs* 17(2):1, 2012. Available from <http://nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/17-2012/No2-May-2012/Evolving-Public-Health-Nursing-Roles.html>.

A *geographic community* can encompass less formalized areas that lack official geopolitical boundaries. A geographic landmark may define neighborhoods (e.g., the East Lake section of town or the North Shore area). A particular building style or a common development era also may identify community neighborhoods. Similarly, a dormitory, a communal home, or a summer camp may be a community because each facility shares a close geographic proximity. Geographic location, including the urban or rural nature of a community, strongly influences the nature of the health problems a community health nurse might find there. Public health is increasingly recognizing that the interaction of humans with the natural environment and with constructed environments consisting of buildings and spaces, for example, is critical to healthy behavior and quality of life. The spatial location of health problems in a geographic area can be mapped with the use of geographic information system software, assisting the nurse to identify vulnerable populations and public health departments to develop programs specific to geographic communities.

Location and the dimension of time define communities. The community's character and health problems evolve over time.

Although some communities are very stable, most tend to change with the members' health status and demographics and the larger community's development or decline. For example, the presence of an emerging young workforce may attract new industry, which can alter a neighborhood's health and environment. A community's history illustrates its ability to change and how well it addresses health problems over time.

Social System

The third major feature of a community is the relationships that community members form with one another. Community members fulfill the essential functions of community by interacting in groups. These functions provide socialization, role fulfillment, goal achievement, and member support. Therefore, a community is a complex **social system**, and its interacting members constitute various subsystems within the community. These subsystems are interrelated and interdependent (i.e., the subsystems affect one another and affect various internal and external stimuli). These stimuli consist of a broad range of events, values, conditions, and needs.

A health care system is an example of a complex system that consists of smaller, interrelated subsystems. A health care system can also be a subsystem because it interacts with and depends on larger systems such as the city government. Changes in the larger system can cause repercussions in many subsystems. For example, when local economic pressures cause a health department to scale back its operations, many subsystems are affected. The health department may eliminate or cut back programs, limit service to other health care providers, reduce access to groups that normally use the system, and deny needed care to families who constitute subsystems in society. Almost every subsystem in the community must react and readjust to such a financial constraint.

EXAMPLE OF SYSTEMS

INTERRELATIONSHIPS

Health problems can have a severe impact on multiple systems. For example, the acquired immunodeficiency syndrome (AIDS) epidemic required significant funds for clients with AIDS and for public education and prevention. It made unrelenting demands on many communities that were already strapped for funds to meet their citizens' basic health needs. In San Francisco, the allocation of funds for AIDS programs initially reduced funding for other programs, such as immunizations, family planning, and well-child care.

Healthy Communities

Complex community systems receive many varied stimuli. The community's ability to respond effectively to changing dynamics and meet the needs of its members indicates productive functioning. Examining the community's functions and subsystems provides clues to existing and potential health problems. Examples of a community's functions include the provision of accessible and acceptable health services, educational opportunities, and safe, crime-free environments.

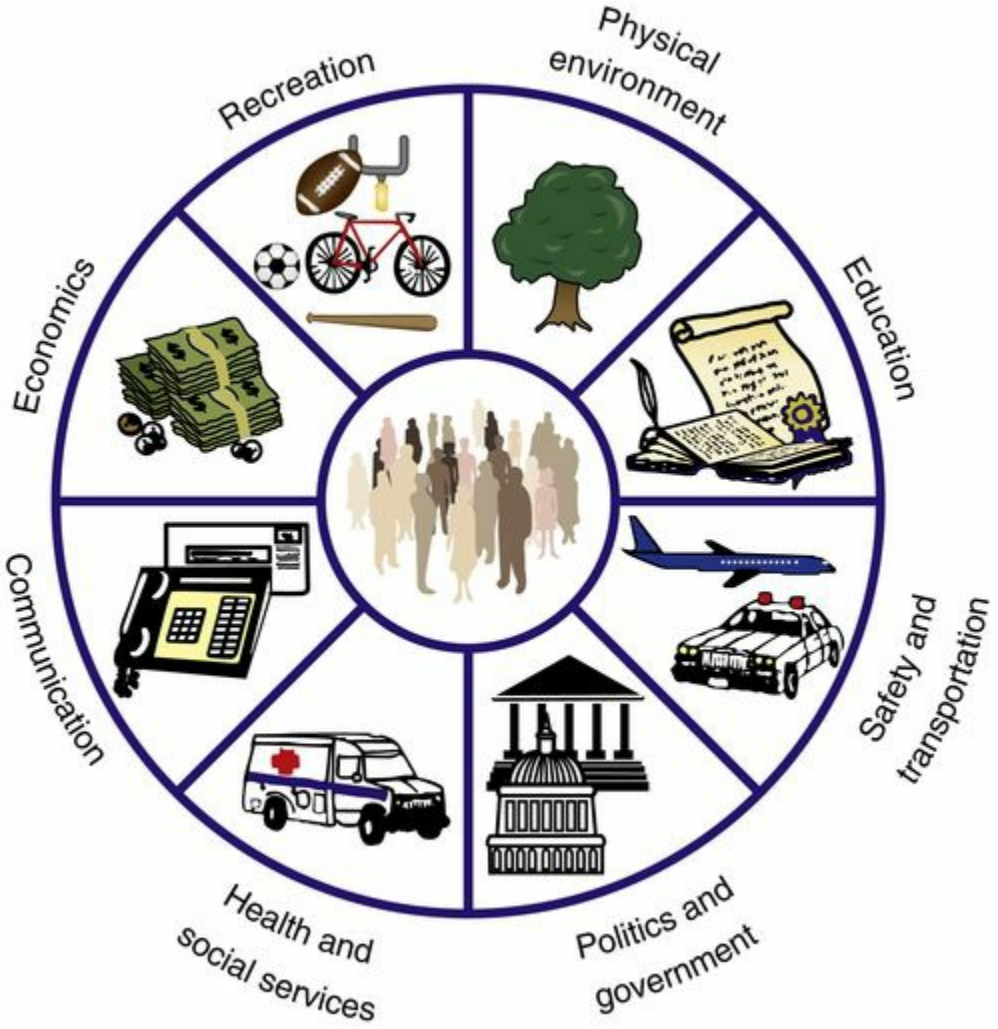

FIGURE 6-1 Diagram of assessment parameters. (Modified from Anderson ET, McFarlane J: *Community as partner: theory and practice in nursing,* ed 6, Philadelphia, 2011, Lippincott Williams & Wilkins.)

The model in Figure 6-1 suggests assessment parameters that can help a nurse develop a more complete list of critical community functions. The community health nurse can then prioritize these functions from a particular community's perspective. For example, a study of Americans' views on health and healthy communities suggested that the public is more concerned with quality-of-life issues than the absence of disease. According to a national study (Healthcare Forum, 1994), the important determinants of a health community include a low crime rate, a good place to bring up children, good schools, a strong family life, good environmental quality, and a healthy economy. These findings are echoed in city-sponsored health surveys across the nation: Ensuring safe and healthy environments that allow for healthy lifestyles, which include activity and nutritious food, is as important to residents as accessing quality health care.

Movements such as *Healthy Cities and Healthy Places* urge community members and leaders to bring about positive health changes in their local environments (World Health Organization, n.d., CDC, 2009). Involving many cities around the nation and world, these models stress the interconnectedness among people and the public and private sectors essential for local communities to address the causes of poor health. In particular, examining the role the "built environment" has on community health (e.g., its physical and environmental design), is an increasing priority (Designing Healthy Communities, 2013). Urban communities are encouraged to consider the health consequences of new policies and programs they introduce by conducting Health Impact Assessments (HIAs) (Pew Charitable Trusts, 2013). These assessments of projects such as the potential impact of zoning decisions, transit systems and sick leave policies serve the important function of bringing a public health perspective to urban and civic initiatives.

Each community and aggregate presumably will have a unique perspective on critical health qualities. Indeed, a community or aggregate may have divergent definitions of health, differing even from that of the community health nurse (Aronson, Norton, and Kegler, 2007). Nevertheless, nurses and health professionals work with communities in developing effective solutions that are

acceptable to residents. Building a community's capacity to address future problems is often referred to as developing *community competence.* The nurse assesses the community's commitment to a healthy future, the ability to foster open communication and to elicit broad participation in problem identification and resolution, the active involvement of structures such as a health department that can assist a community with health issues, and the extent to which members have successfully worked together on past problems. This information provides the nurse with an indication of the community's strengths and potential for developing long-term solutions to identified problems.

Assessing the Community: Sources of Data

The community health nurse becomes familiar with the community and begins to understand its nature by traveling through the area. The nurse begins to establish certain hunches or hypotheses about the community's health, strengths, and potential health problems through this down-to-earth approach, called "shoe leather epidemiology." The community health nurse must substantiate these initial assessments and impressions with more concrete or defined data before he or she can formulate a community diagnosis and plan.

Community health nurses often perform a community **windshield survey** by driving or walking through an area and making organized observations. The nurse can gain an understanding of the environmental layout, including geographic features and the location of agencies, services, businesses, and industries, and can locate possible areas of environmental concern through "sight, sense, and sound." The windshield survey offers the nurse an opportunity to observe people and their role in the community. Box 6-2 provides examples of questions to guide a windshield survey assessment. See illustrations depicting an actual "windshield survey" in the photo series in this chapter.

In addition to direct observational methods, certain public health tools become essential to an aggregate-focused nursing practice. The analysis of demographic information and statistical data provides descriptive information about the population. Epidemiology involves the analysis of health data to discover the patterns of health and illness distribution in a population. Epidemiology also involves conducting research to explain the nature of health problems and identify the aggregates at increased risk. The rest of this section provides data sources and describes how the community health nurse can use demographic and epidemiological data to assess the aggregate.

WINDSHIELD SURVEY

Brookshire is a town of about 3500 in Southeast Texas.

Sugar mills and farms are the source of most jobs.

Accessible and affordable health care is a challenge. This van provides services to unskilled workers and area elders.


The economy of the town is predominantly agriculture and processing.

The car’s thermometer shows 99°, evidence of a pervasive health threat in the summertime.

Much of the housing is substandard and suggests low-income families.

Many people live in small homes on multiple-acre lots.

Photos courtesy University of Texas Health Science Center at Houston, School of Nursing, Community Health Division.

The important determinants of a health community include a low crime rate, a good place to bring up children, good schools, a strong family life, good environmental quality and a healthy economy. (Photos Copyright © 2014 Thinkstock. All rights reserved. Image #76729783, 83273609, 144292431, 178762413.)

Census Data

Every 10 years, the U.S. Census Bureau undertakes a massive survey of all American families. In addition to this decennial census, intermediate surveys collect specific types of information. These collections of statistical data describe the population characteristics of the nation within progressively smaller geopolitical entities (e.g., states, counties, and census tracts). The census also describes large metropolitan areas that extend beyond formal city boundaries, called **metropolitan statistical areas** (MSAs). An MSA consists of a central city with more than 50,000 people and includes the associated suburban or adjacent counties, which yields a total metropolitan area with more than 100,000 people. Adjacent MSAs with their associated cities and counties constitute very large metropolitan regions called combined statistical areas (CSAs). A census tract is one of the smallest reporting units. It usually consists of 3000 to 6000 people who share characteristics such as ethnicity, socioeconomic status, and housing class.

The census is extremely helpful to community health nurses familiarizing themselves with a new community. The census tabulates many demographic variables, including population size, and the distribution of age, sex, race, and ethnicity. The American Community Survey, conducted annually, reports social data such as income, poverty, and occupational factors. Both data sets can be accessed through the use of the Census Bureau's American Factfinder tools—available at http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml—where the nurse can view several variables in combination (e.g., age and ethnicity). One can easily construct a community profile and compare trends with those in other communities. Note that variables that describe the community's health are not part of census data. However, census numbers are frequently used as denominators for morbidity and mortality rates (see the Calculation of Rates section in Chapter 5).

The nurse analyzes and interprets data by comparing current and local census data with previous data and information from various locations, to pinpoint key local differences and changes over time.

The nurse can identify the attributes that make each community unique by comparing data for one census unit, such as a census tract or a city, with those of another community or the entire nation. These attributes provide clues to the community's potential vulnerabilities or health risks. For example, a community health nurse may review census reports and discover that a district has many elderly people. This knowledge directs the nurse toward further assessment of the social resources (i.e., housing, transportation, and community centers), health resources (i.e., hospitals, nursing homes, and geriatric clinics), and health problems common to aging people. By identifying the trends in the population over time, the community health nurse can modify public health programs to meet the changing needs of the community.

BOX 6-2 QUESTIONS TO GUIDE COMMUNITY OBSERVATIONS DURING A WINDSHIELD SURVEY

1. **Community vitality:**
   - Are people visible in the community? What are they doing?
   - Who are the people living in the neighborhood? What is their age range? What is the predominant age (e.g., elderly, preschoolers, young mothers, or school-aged children)?
   - What ethnicity or race is most common?
   - What is the general appearance of those you observed? Do they appear healthy? Do you notice any people with obvious disabilities, such as those using walkers or wheelchairs, or those with mental or emotional disabilities? Where do they live?
   - Do you notice residents who are well nourished or malnourished, thin or obese, vigorous or frail, unkempt or scantily dressed, or well dressed and clean?
   - Do you notice tourists or visitors to the community?

- Do you observe any people who appear to be under the influence of drugs or alcohol?
- Do you see any pregnant women? Do you see women with strollers and young children?

2. **Indicators of social and economic conditions:**

- What is the general condition of the homes you observe? Are these single-family homes or multifamily structures? Is there any evidence of dilapidated housing or of areas undergoing urban renewal? Is there public housing? What is its condition?
- What forms of transportation do people seem to be using? Is there public transit? Are there adequate bus stops with benches and shade? Is transportation to health care resources available?
- Are there any indicators of the kinds of work available to residents? Are there job opportunities nearby, such as factories, small businesses, or military installations? Are there unemployed people visible, such as homeless people?
- Do you see men congregating in groups on the street? What do they look like, and what are they doing?
- Is this a rural area? Are there farms or agricultural businesses?
- Do you note any seasonal workers, such as migrant or day laborers?
- Do you see any women hanging out along the streets? What are they doing?
- Do you observe any children or adolescents out of school during the daytime?
- Do you observe any interest in political campaigns or issues, such as campaign signs?
- Do you see any evidence of health education on billboards, advertisements, signs, radio stations, or television stations? Do these methods seem appropriate for the people you

observed?

- What kinds of schools and day care centers are available?

3. **Health resources:**

- Do you notice any hospitals? What kind are they? Where are they located?
- Are there any clinics? Whom do they serve? Are there any family planning services?
- Are there doctors' and dentists' offices? Are they specialists or generalists?
- Do you notice any nursing homes, rehabilitation centers, mental health clinics, alcohol or drug treatment centers, homeless or abused shelters, wellness clinics, health department facilities, urgent care centers, mobile health vehicles, blood donation centers, or pharmacies?
- Are these resources appropriate and sufficient to address the kinds of problems that exist in this community?

4. **Environmental conditions related to health:**

- Do you see evidence of anything that might make you suspicious of ground, water, or air pollutants?
- What is the sanitary condition of the housing? Is housing overcrowded, dirty, or in need of repair? Are windows screened?
- What is the condition of the roads? Are potholes present? Are drainage systems in place? Are there low water crossings, and do they have warning signals? Are there adequate traffic lights, signs, sidewalks, and curbs? Are railroad crossings fitted with warnings and barriers? Are streets and parking lots well lit? Is this a heavily trafficked area, or are roads rural? Are there curves or features that make the roads hazardous?
- Is there handicapped access to buildings, sidewalks, and streets?

- Do you observe recreational facilities and playgrounds? Are they being used? Is there a YMCA/YWCA or community center? Are there any day care facilities or preschools?
- Are children playing in the streets, alleys, yards, or parks?
- Do you see any restaurants?
- Is food sold on the streets? Are people eating in public areas? Are there trash receptacles and places for people to sit? Are public restrooms available?
- What evidence of any nuisances such as ants, flies, mosquitoes, or rodents do you observe? Are there stray animals wandering in the neighborhood?

5. **Social functioning:**

- Do you observe any families in the neighborhoods? Can you observe their structure or functioning? Who is caring for the children? What kind of supervision do they have? Is more than one generation present?
- Are there any identifiable subgroups related to one another either socially or geographically?
- What evidence of a sense of neighborliness can you observe?
- What evidence of community cohesiveness can you observe? Are there any group efforts in the neighborhood to improve the living conditions or the neighborhood? Is there a neighborhood watch? Do community groups post signs for neighborhood meetings?
- How many and what type of churches, synagogues, and other places of worship are there?
- Can you observe anything that would make you suspicious of social problems, such as gang activity, juvenile delinquency, drug or alcohol abuse, and adolescent pregnancy?

6. **Attitude toward health and health care:**

- Do you observe any evidence of folk medicine practice, such as a botanical or herbal medicine shop? Are there any

alternative medicine practitioners?

- Do you observe that health resources are well utilized or underutilized?
- Is there evidence of preventive or wellness care?
- Do you observe any efforts to improve the neighborhood's health? Planned health fairs? Do you see advertisements for health-related events, clinics, or lectures?

Vital Statistics

The official registration records of births, deaths, marriages, divorces, and adoptions form the basis of data in **vital statistics.** Every year, city, county, and state health departments aggregate and report these events for the preceding year. When compared with those from previous years, vital statistics provide indicators of population growth or reduction. In addition to supplying information about the number of births and deaths, registration certificates record the causes of death, which is useful in determining morbidity and mortality trends. Similarly, birth certificates document birth information (e.g., cesarean delivery, prenatal care, and teen mothers) and the occurrence of any congenital malformations. This information also is important in assessments of the community's health status.

ETHICAL INSIGHTS

Attending to Nondominant Trends: "Hidden Pockets" of Need

Whereas most public health practitioners are attuned to the leading indicators or dominant trends in data, vital statistics or census data can suggest the existence of small "hidden pockets" of people with special needs. One nurse initially assessed her community as in being an upper-middle-class bracket. She was surprised to find 20 families living below the poverty level and 3 families living without running water. Although these 20 families

made up far less than 1% of the community population, they nevertheless necessitated the attention of the community health nurse. Some may view a focus on such a minority segment as insignificant and in conflict with the "Rule of Utility," which posits "the greatest good for the greatest number." However, community health nursing practice combines principles of beneficence and social justice with utilitarianism, and thus, small vulnerable segments of the community are considered legitimate clients of community health nursing. Indeed, social justice not only "gives moral privilege to the needs of the most vulnerable," but also suggests the amelioration of conditions that create social and economic disparities (Boutain, 2012). Furthermore, nurses recognize that this "hidden pocket" is a small piece of the total community and, as such, contributes to its overall health. By attending to these families' health needs, the nurse positively affects the health of the whole.

Other Sources of Health Data

The U.S. Census Bureau conducts numerous surveys on subjects of government interest, such as crime, housing, and labor. Results of these surveys, the census reports, and vital statistics reports are usually available through public libraries and on the Internet. The National Center for Health Statistics (NCHS) compiles annual National Health Interview Survey data, which describe health trends in a national sample. The NCHS publishes reports on the prevalence of disability, illness, and other health-related variables. Specifically, the Behavioral Risk Factor Surveillance System is the world's largest telephone survey of U.S. citizens' health behaviors and risk factors. It tracks trends by nation, state, and year, with the goal of identifying emerging health problems. Data also are used to evaluate achievement of health objectives and develop prevention strategies. The Behavior Risk Factor Surveillance System's website allows one to compile graphs and maps to describe specific risk behaviors by state (http://www.cdc.gov/brfss/).

In addition to these important sources of information, community health nurses can access a broad range of local, regional, and state government reports that contribute to the

comprehensive assessment of a population. Local agencies, chambers of commerce, and health and hospital districts collect invaluable information on their community's health. Local health planning agencies also compile and analyze statistical data during the planning process. The community health nurse can use all of these formal and informal resources in learning about a community or aggregate (Table 6-1). Box 6-3 lists additional information about sources of population health data.

Formal data collection does not exist for all community aspects; therefore many community health nurses must perform additional data collection, compilation, and analysis. For example, school nurses regularly use aggregate data from student records to learn about the demographic composition of their population. They conduct ongoing surveys of classroom attendance and causes of illness, which are essential to an effective school health program. Sometimes the nurse must screen the entire school population to discover the extent of a disease. Thus the school nurse is both a consumer of existent data and a researcher who collects new data for the assessment of the school community.

Needs Assessment

The nurse must understand the community's perspective on health status, the services it uses or requires, and its concerns. Most official data do not capture this type of information. Data collected directly from an aggregate may be more insightful and accurate; therefore community health nurses sometimes conduct community needs assessments. There are several approaches to gathering subjective data; however, a nurse's careful planning of the process will contribute to its reliability and utility regardless of the method. Box 6-4 presents the required steps in conducting a **needs assessment**.

The strategy chosen for collecting needs assessment data depends on the size and nature of the aggregate, the purpose for collecting information, and the resources available to the nurse. In some cases, the nurse may survey a small sample of clients to measure their satisfaction with a program. In other situations, a large-scale community needs assessment may help the nurse determine gaps in service. Although the process of needs assessment can indicate a program's strengths and weaknesses, it can also raise expectations for new services on the part of community members. Involving community members in the planning of the assessment builds trust and ownership in the process, and subsequently in the improvements that result. With the implementation of the U.S. Patient Protection and Affordable Care Act, nonprofit hospitals must conduct comprehensive community health needs assessments, which create an important opportunity to coordinate with public health agencies to more effectively address local health needs (National Association of County and City Health Officials [NACCHO], 2013).

A first approach to gathering data is to interview *key informants* in the community. These may be knowledgeable residents, elected officials, or health care providers. It is essential that the community health nurse recognize that the views of these people may not reflect the views of all residents. A second approach is to hold a *community forum* to discuss selected questions. It is important for the nurse to carefully plan the meeting in advance to gain the most

useful information. The community health nurse can also mail surveys to community members to elicit information from a more diverse group of people who may be unwilling or unable to attend a community forum. *Focus groups* are a third approach; these can be very effective in gathering community views, particularly for remote and vulnerable segments of a community and for those with underdeveloped opinions (Hildebrandt, 1999). Nurses who conduct focus groups must carefully select participants, formulate questions, and analyze recorded sessions. These sessions can produce greater interaction and expression of ideas than surveys and may provide more insight into an aggregate's opinions. In addition to encouraging community participation in the identification of assets and needs, focus groups may lay the groundwork for community involvement in planning the solutions to identified problems (Clark et al., 2003).

TABLE 6-1

COMMUNITY ASSESSMENT PARAMETERS

PARAMETER	IMPORTANCE TO CHN	SOURCE OF INFORMATION
Geography Topography Climate (e.g., extreme heat or cold)	Influences nature of health problems and access to health care	Almanac Chamber of commerce
Population Size Demographic character (e.g., aged or young) Trends Migration Density	Describes population served; suggests their health risks and needs Suggests growth or decline Increases stress; may increase exposure to communicable disease	Census documents Chamber of commerce
Environment Water (e.g., source, fluoridated) Sewage and waste disposal Air quality (e.g., ozone, pollutants) Food quality and access Housing (e.g., single-family or multifamily dwellings) Animal control (e.g., exposure to rabies and other zoonotic diseases)	Affects quality of life and nature of environmental health problems Reflects community resources Suggests socioeconomic issues	Local and state health departments Newspapers Local environmental action group Census documents
Industry Employment levels Manufacturing White vs. blue collar Income levels	Affects social class, access to health care, and resources Influences nature of health problems	Chamber of commerce Almanac Employment commission Census documents
Education Schools (e.g., physical plant, playground safety) Types of education Literacy rates Special education Health services Sex education School lunch programs (e.g., nutritious diets) After-school programs Day care Access to higher education	Influences socioeconomic status, access to health care, and ability to read and understand health information	Census documents School districts and nurses
Recreation Parks and playgrounds Libraries Public and private recreation Special facilities	Reflects quality of life, resources available to community, and concern for the young and disadvantaged	Parks and recreation departments Newspapers
Religion Churches and synagogues Denominations Community programs Health-related programs and parish health programs Community organizations	Influences values in community by organizing common interests and concerns Reflects involvement of members, community skills, and resources for community needs	Chamber of commerce Newspapers Community center newsletters
Communication Newspapers Neighborhood news Radio and television Telephone Internet Hotlines Medical media Public service announcements	Reflects concerns and needs of the community Contains networks and resources available for health-related use	Local libraries Newspapers Local health department Medical and nursing societies
Transportation Intercity and intracity Handicapped Emergency transport	Affects access to services, food, and other resources Reflects resources available to community	Local bus and train services Local hospital emergency service
Public Services Fire protection Police protection Emergency medical services Rape treatment centers Utilities	Affects community security Reflects available resources	Local police department

Table Continued

PARAMETER	IMPORTANCE TO CHN	SOURCE OF INFORMATION
Political Organization Structure Method for filing positions Responsibilities of positions Sources of revenue Voter registration	Reflects level of citizen activism, involvement, values, and concerns Mechanism for nurse activism and lobbying	Newspapers Local political party organization Local board of elections Local representatives
Community Development or Planning Activities Major issues	Reflects community needs and concerns Affects level of professionals' involvement in issues	Newspapers Local and state planning board Local community organizations
Disaster Programs American Red Cross Disaster plans Potential sources of disaster	Offers a level of preparedness, coordination, and available resources Influences resources and plans	Local American Red Cross office Local emergency coordinating council Local fire department
Health Statistics Mortality Morbidity Leading causes of death Births	Reflects health problems, trends, and state of community health Affects resources needed and CHN services provided	Local and state health department Health facilities and programs National vital statistics reports National Center for Health Statistics reports Morbidity and Mortality Weekly Report
Social Problems Mental health issues Alcoholism and drug abuse Suicide Crime School dropout Unemployment Gangs	Affects health problems and amounts of required services Influences CHN program priorities	Local and state department of social services Local mental health centers Local hotlines Libraries
Health Manpower Number of physicians, dentists, and nurses per population	Influences available health resources and nature of CHN practice	Local and state health planning agencies Health professional organizations Telephone directory Community service director
Health Professional Organizations	Provides support for CHN practice	Public health association
Community Services (e.g., cost and eligibility, accessibility, and acceptability) Institutional care (e.g., hospitals and nursing homes) Mental health care Ambulatory care Preventive health services Nursing services Welfare services	Reflect available resources	Local United Way organization Local voluntary service directory County hospital Local health department Telephone directory

CHN, Community health nursing.

Diagnosing Health Problems

The next step of the nursing process is synthesizing assessment data, in which the nurse examines data and creates a list of all actual and potential problems. Then the nurse develops diagnostic statements about the community's health. These statements, or diagnoses, specify the nature and cause of an actual or potential community health problem and direct the community health nurses' plans to resolve the problem. Muecke (1984) developed a format that assists in writing a **community diagnosis**. The diagnosis consists of four components: the identification of the health problem or risk, the affected aggregate or community, the etiological or causal statement, and the evidence or support for the diagnosis (Figure 6-2). Each of these components has an important role to play in the nursing process. The problem represents a synthesis of all assessment data. The "among" phrase specifies the aggregate that will be the beneficiary of the nurse's action plan and whose health is at risk. The "related to" phrase describes the cause of the health problem and directs the focus of the intervention. All plans and interventions will be aimed at addressing this underlying cause. Last, the health indicators are the supporting data or evidence, drawn from the completed assessment. These data can suggest the magnitude of the problem and have a bearing on prioritizing diagnoses. Other factors that assist the nurse in ranking the importance of diagnoses include the nature of the diagnosis, its potential impact on a broad range of community residents, and the community's perceptions of the health issue.

BOX 6-3 RETRIEVAL OF DATA

Current data on U.S. population health are stored in many places. Finding the latest statistics at the local, state, or national level can be a challenging experience for a student, community health nurse, graduate student, or nurse researcher. However, statistics provide a necessary comparison in identifying the health status

of an aggregate or population in a community. The following guidelines suggest places to begin a search.

Reference Librarian

The best place to start is in a school or community library or in a large university's health sciences library. Cultivate a relationship with the reference librarian and learn how to access the literature of interest (e.g., government documents) or how to perform computer-guided literature searches.

Government Documents

Local libraries have a listing of government depository libraries, which house government documents for the public. If the government document is not available at a local library, ask the reference librarian to contact a regional or state library for an interlibrary loan. The Library of Congress in Washington, D.C., has a *Directory of U.S. Government Depository Libraries*.

Health, United States, 2012

An annual publication of the National Center for Health Statistics (2012), *Health, United States* reports the latest health statistics for the country. It presents statistics in areas such as maternal-child health indicators (e.g., prenatal care, low birth weight, and infant mortality), life expectancy, mortality, morbidity (e.g., cancer incidence and survival, acquired immunodeficiency syndrome [AIDS], and diabetes), environmental health indicators (e.g., air pollution and noise exposure), and health system use (e.g., national health expenditures, health insurance coverage, physician contacts, and diagnostic and surgical procedures). Graphs and tables are easy to read and interpret with accompanying texts. Many statistics include a selected number of years to illustrate trends. Some statistics compare themselves with those from other countries and U.S. minority populations. (For more information, visit http://www.cdc.gov/nchs/hus.htm).

Morbidity and Mortality Weekly Report (MMWR)

The Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, prepares this publication. State health

departments compile weekly reports for the publication that outline the numbers of cases of notifiable diseases such as AIDS, gonorrhea, hepatitis, measles (rubeola), pertussis, rubella, syphilis, tuberculosis, and rabies and reports the deaths in 122 U.S. cities by age. It also reports accounts of interesting cases, environmental hazards, disease outbreaks, or other public health problems. Local and state health departments and many local and health sciences libraries house this weekly publication. A subscription is available at http://www.cdc.gov/mmwr/.

Centers for Disease Control and Prevention

The CDC compiles information on a range of topics including health behavior, educational and community-based programs, unintentional injuries, occupational safety and health, environmental health, oral health, diabetes and chronic disabling conditions, communicable disease, immunizations, clinical preventive services, and surveillance and data systems. Data are reported in several publications and on the website: http://www.cdc.gov/.

BOX 6-4 STEPS IN THE NEEDS ASSESSMENT PROCESS

1. Identify aggregate for assessment.
2. Engage community in planning the assessment.
3. Identify required information.
4. Select method of data gathering.
5. Develop questionnaire or interview questions.
6. Develop procedures for data collection.
7. Train data collectors.
8. Arrange for a sample representative of the aggregate.
9. Conduct needs assessment.

10. Tabulate and analyze data.
11. Identify needs suggested by data.
12. Develop an action plan.

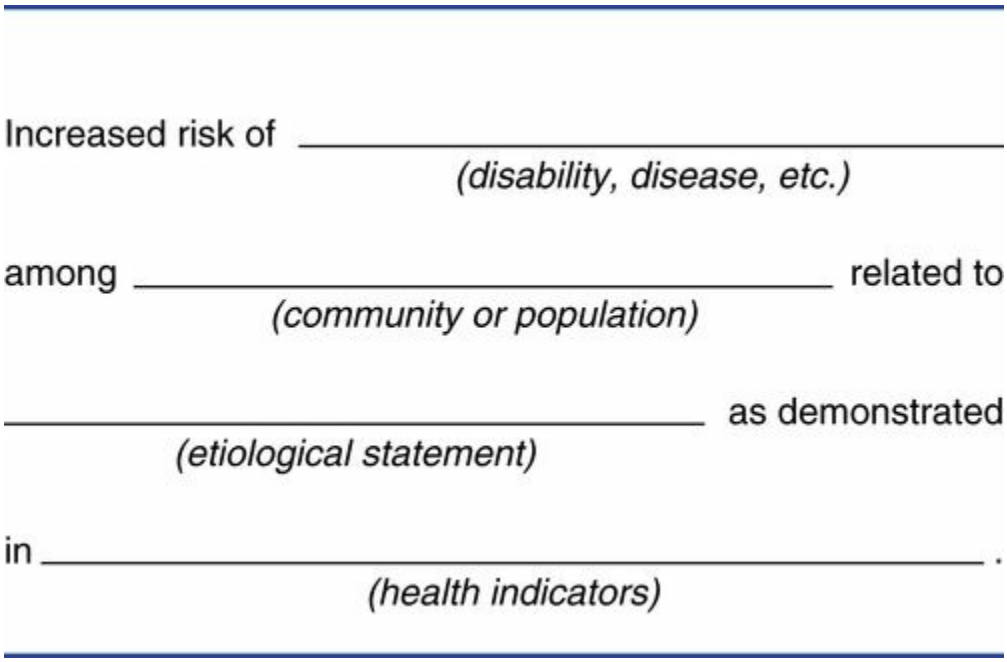

FIGURE 6-2 Format for community health diagnosis. (Redrawn from Muecke MA: Community health diagnosis in nursing, *Public Health Nurs* 1:23-35, 1984. Used with permission of Blackwell Scientific Publications.)

With a clear statement of the problem in the form of a diagnosis, the community health nurse is ready to begin the planning phase of the nursing process. Inherent in this phase is a plan for the intervention and its evaluation. Once again, epidemiological data can be useful as a basis for determining success. By comparing baseline data, national and local data, and other relevant indicators, the nurse can construct benchmarks to gauge achievement of program objectives. This step may entail the calculation of incidence rates, if the goal is to reduce the development of disease, or primary prevention. Comparing data with national rates or with prevalence rates found in a local community may be other indicators of success. Reducing the presence of risk factors and documenting patterns of healthy behavior are other objective indices of successful programs.

It is evident that epidemiological data and methods are essential

to each phase of the nursing process. The community health nurse compiles a range of assessment data that support the nursing diagnosis. Epidemiological studies support program planning by establishing the effectiveness of certain interventions and their specificity for different aggregates. Finally, epidemiological data are important for the community health nurse's documentation of a program's long-term effectiveness. Box 6-5 provides an evaluation example.

BOX 6-5 EXAMPLE OF OUTCOMES EVALUATIONExample of Community-Based Intervention

Fritz and colleagues (2008) reported on a school-based intervention directed at reducing cigarette smoking among high school–aged adolescents. In this intervention, a team of nurses developed a Computerized Adolescent Smoking Cessation Program (CASCP) consisting of four 30-minute computerized sessions designed to support the student's desire to quit smoking and to decrease the factors that promote continuation of smoking.

In the study, a group of 121 students who were current, self-reported smokers were divided into "experimental" and "control" groups, and the experimental group completed the CASCP program. Evaluation of the data showed that the program was quite effective, in that 23% of the experimental group quit smoking, compared with 5% of the control group. Furthermore, for those in the experimental group who did not quit, nicotine dependence and the number of cigarettes smoked daily decreased. The researchers concluded that the use of a program such as the CASCP can be an effective and inexpensive intervention to help adolescent smokers reduce nicotine dependence and stop smoking.

Data from Fritz DJ, Gore PA, Hardin SB, et al: A computerized smoking cessation intervention for high school smokers, *Pediatr Nurs* 34(1):13-17, 2008.

CASE STUDY

Application of the Nursing Process Assessment and Diagnosis

The following example demonstrates the process of collecting and analyzing data and deriving community diagnoses. It also exemplifies the multiple care levels within which community health nurses function: the individual client, the family, and the aggregate or community levels. In this scenario, the nurse identified an individual client health problem during a home visit, which provided the initial impetus for an aggregate health education program. Data collection expanded from the assessment of the individual to a broad range of literature and data about the nature of the problem in populations. The nurse then formulated a community-level diagnosis to direct the ensuing plan. This was subsequently implemented at the aggregate level and then evaluated.

School nurses frequently address a broad range of student health problems. In the West San Antonio School District, school nurses generally reserve several hours a week for home visits. In a recent case, a teacher expressed concern for a high school junior named "John," whose brother was dying of cancer. In a health class, John shared his personal fears about cancer, which caused his classmates to question their own cancer risks and how they might reduce them.

Assessment

The school nurse visited John's family and learned that the 25-year-old son had testicular cancer. Since his diagnosis 1 year earlier, he had undergone a range of therapies that were palliative but not curative; the cancer was advanced at the time of diagnosis. The nurse spent time with the family discussing care, answering questions, and exploring available support for the entire family.

At a school nurse staff meeting, the nurse inquired about her colleagues' experiences with other young clients with this type of

cancer. Only one nurse remembered a young man with testicular cancer. The nurses were not familiar with its prevalence, incidence, risk factors, prevention strategies, or early detection approaches. The nurse recognized the high probability that high school students would have similar questions and could benefit from reliable information.

The school nurse embarked on a community assessment to answer these questions. The nurse first collected information about testicular cancer. Second, the nurse reviewed the nursing and medical literature for key articles discussing client care, diagnosis, and treatment. Epidemiological studies provided additional data regarding testicular cancer's distribution pattern in the population and associated risk factors.

The nurse learned that young men aged 20 to 35 years were at the greatest risk. Other major risk factors were not identified. It was learned that healthy young men do not seek testicular cancer screening and regular health care; they may be apprehensive about conditions affecting sexual function. These factors contribute to delays in detection and treatment. Although only an estimated 7290 new cases of testicular cancer will have been diagnosed in the United States in 2013, it is one of the most common tumors in young men. Furthermore, this cancer is amenable to treatment with early diagnosis (American Cancer Society, n.d.).

On the basis of these facts, the nurse reasoned that a prevention program would benefit high school students. However, to perform a comprehensive assessment, it was important that the nurse clarified what students did know, how comfortable they were discussing sexual health, and how much the subject interested them. Therefore the nurse approached the junior and senior high school students and administered a questionnaire to elicit this information. The nurse also queried the health teacher about the amount of pertinent cancer and sexual development information the students received in the classroom. The nurse considered the latter an important prerequisite to dealing with the sensitive subject of sexual health. According to the health teacher, the students did receive

instruction about physical development and psychosexual issues. Students expressed a strong desire for more classroom instruction on these subjects and more information on cancer prevention. However, they did not have sufficient knowledge of the beneficial health practices related to cancer prevention and early detection.

Key Assessment Data

- Health status of John's brother
- Knowledge, coping, and support resources of family
- Testicular cancer, its natural history, treatment and prevention, incidence, prevalence, mortality, and risk factors
- High school students' knowledge about cancer and its prevention
- Students' comfort level discussing sexual health issues

Community Diagnosis

There is an increased risk of undetected testicular cancer among young men related to insufficient knowledge about the disease and the methods for preventing and detecting it at an early stage, as demonstrated by high rates of late initiation of treatment.

Planning

Clarifying the problem and its cause helped the nurse direct the planning phase of the nursing process and determine both long-term and short-term goals.

The long-term goal was:

- Students will identify testicular lesions at an early stage and seek care promptly.

The short-term goals were:

- Students will understand testicular cancer and self-detection techniques.
- Students will exhibit comfort with sexual health issues by

asking questions.

- Male students will report regular testicular self-examination.

Planning encompassed several activities, including the discovery of recommended health care practices regarding testicular cancer. The nurse also sought to determine the most effective and appropriate educational approaches for male and female high school students. Identifying helpful community agencies was also an essential part of the process. The local chapter of the American Cancer Society provided valuable information, materials, and consulting services. A nearby nursing school's media center and faculty were also very supportive of the program.

After formalizing her objectives and plan, the nurse presented the project to the high school's teaching coordinator and principal. Their approval was necessary before the nurse could implement the project. After eliciting their enthusiastic support, the nurse proceeded with more detailed plans. She selected and developed classroom instruction methods and activities that would maximize high school students' involvement. The nurse also ordered a film and physical models for demonstrating and practicing testicular self-examination. She prepared group exercises designed to relax students and help them be comfortable with the sensitive subject matter. The nurse scheduled two 40-minute sessions dealing with testicular cancer for the junior-level health class. In a final step of the planning phase, she designed evaluation tools that assessed knowledge levels after each class session and measured the extent to which students integrated these health practices into their lifestyles at the end of their junior and senior years.

The nurse was now ready to proceed with the implementation of a testicular cancer prevention and screening program. She initiated the assessment phase by identifying an individual client and family with a health need, and she extended the assessment to the high school aggregate. Her data collection at the aggregate level, for both the general and local high school populations, assisted in her community diagnosis. The diagnosis directed the

development of a community-specific health intervention program and its subsequent implementation and evaluation.

Intervention

The nurse conducted the two sessions in a health education class. At the beginning of the class period, students participated in a group exercise, and the nurse asked them about their knowledge of testicular cancer. The nurse showed a film and led a discussion about cancer screening. In the second session, she demonstrated the self-examination procedure using testicular models and supervised the students while they practiced the procedure on the models. The nurse advised the male students about the frequency of self-examination. With the females, she discussed the need for young men to be aware of their increased risk, drawing a parallel to breast self-examination.

Evaluation

After completing the class sessions, the nurse administered the questionnaires she had developed for evaluation purposes. Analysis of the questionnaires indicated that knowledge levels were very high immediately after the classes. Students were pleased with the frank discussion, the opportunity to ask questions, and the clear responses to a sensitive subject. Teachers also offered positive feedback. Consequently, the nurse became a knowledgeable health resource in the high school.

Intermediate-term evaluation occurred at the end of the students' junior and senior years. The nurse arranged a 15-minute evaluation during other classes, which assessed the integration of positive health practices and testicular self-examinations into the students' lifestyles. At the end of the school year, the prevalence of regular self-assessment was significantly lower than knowledge levels. However, 30% of male students reported regularly practicing self-examinations at the end of 1 year, and 70% reported they had performed self-examination at least once during the past year.

The compilation of incidence data is ideal for long-term evaluation, and it documents the reduction of a community

health problem. Testicular cancer is very rare; therefore, incidence data are not reliable and may not be feasible to collect. However, for more prevalent conditions, objective statistics help reveal increases and decreases in disease rates, and these may be related to the strengths and deficiencies of health programs.

Levels of Prevention

The following are examples of the three levels of prevention as applied to this case study.

Primary

- Promotion of healthy lifestyles and attitudes toward sexuality
- Education about sexual health and the care of one's body

Secondary

- Self-examination to detect testicular cancer in its earliest stage
- Referral for medical care as soon as a lump or symptom is discovered
- Medical and surgical care to treat and cure testicular cancer

Tertiary

- Advanced care, including hospice services for those with incurable disease
- Support services and grief counseling to help families cope with loss of a loved one

Summary

Communities form for a variety of reasons and can be homogeneous or heterogeneous in composition. To help them assess the nature of a given community, community health nurses study and interpret data from sources such as local government agencies, census reports, morbidity and mortality reports, and vital statistics. Nurses can gather valuable information about the causes and prevalence of health and disease in a community through epidemiological studies. On the basis of this information, the community health nurse can apply the nursing process, expanding assessment, diagnosis, planning, intervention, and evaluation from the individual client level to a targeted aggregate in the community.

Learning Activities

1. Walk through a neighborhood, and compile a list of variables that are important to describe with demographic and epidemiological data. Write down hunches or preconceived notions about the nature of the community's population. Compare ideas with the collected statistical data.

2. Walk through a neighborhood, and describe the sensory information (i.e., smells, sounds, and sights). How does each relate to the community's health?

3. Compile a range of relevant demographic and epidemiological data for the community by examining census reports, vital statistics reports, city records, and other library and agency sources.

4. Using the collected data, identify three community health problems, and formulate three community health diagnoses.

EVOLVE WEBSITE

http://evolve.elsevier.com/Nies

- NCLEX Review Questions
- Case Studies
- Glossary

References

Aronson R.E, Norton B.L, Kegler M.C. "Broad view of health": findings from the California Healthy Cities and Communities Evaluation. *Health Educ Behav*. 2007;34(3):441–452.

Boutain D.M. Social justice in nursing: a review of the literature. In: de Chesnay M, ed. *Caring for the vulnerable*. Boston: Jones and Bartlett; 2012.

Centers for Disease Control and Prevention. *About Healthy Places*. 2009 Available from. <http://www.cdc.gov/healthyplaces/about.htm> Accessed January 10, 2014.

Clark M.J, Cary S, Diemert G, et al. Involving communities in community assessment. *Public Health Nurs*. 2003;20:456–463.

Designing Healthy Communities. *Response to the built environment*. 2011 Available from. <http://designinghealthycommunities.org/built-environment/> Accessed March 5, 2013.

Healthcare Forum. *What creates health? Individuals and communities respond, a national study conducted by DYG, Inc., for the Healthcare Forum*. San Francisco: Author; 1994.

Hildebrandt E. Focus groups and vulnerable populations: insight into client strengths and needs in complex community health care environments. *Nurs Health Care Perspect*. 1999;20(5):256–259.

Institute of Medicine. *The future of the public's health in the 21st century*. Washington, DC: National Academies Press; 2002.

Muecke M.A. Community health diagnosis in nursing. *Public Health Nurs*. 1984;1:23–35.

National Association of County and City Health Officials: *Public Health Infrastructure and Systems*, n.d. Available from <http://www.naccho.org/topics/infrastructure/mapp/chahealthreform.cfm>. Accessed June 9, 2013.

Pew Charitable Trust: *Health impact project: about HIA*, n.d. Available from <http://www.healthimpactproject.org/hia>. Accessed March 5, 2013.

Wold S.J, Brown C.M, Chastain C.D, et al. Going the extra mile: beyond health teaching to political involvement. *Nurs Forum*. 2008;43(4):171–176.

CHAPTER 7

Community Health Planning, Implementation, and Evaluation

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OUTLINE

Objectives

Upon completion of this chapter, the reader will be able to do the following:

1. Describe the concept “community as client.”
2. Apply the nursing process to the larger aggregate within a system’s framework.
3. Describe the steps in the Health Planning Model.
4. Identify the appropriate prevention level and system level for nursing interventions in families, groups, aggregates, and communities.
5. Recognize major health planning legislation.
6. Analyze factors that have contributed to the failure of health planning legislation to control health care costs.
7. Describe the community health nurse’s role in health planning, implementation, and evaluation.

KEY TERMS

certificate of need

community as client

health planning

Health Planning Model

Hill-Burton Act

key informant

National Health Planning and Resources Development Act

Partnership for Health Program

Regional Medical Programs

Health planning for and with the community is an essential component of community health nursing practice. The term **health planning** seems simple, but the underlying concept is quite

complex. Like many of the other components of community health nursing, health planning tends to vary at the different aggregate levels. Health planning with an individual or a family may focus on direct care needs or self-care responsibilities. At the group level, the primary goal may be health education, and, at the community level, health planning may involve population disease prevention or environmental hazard control. The following example illustrates the interaction of community health nursing roles with health planning at a variety of aggregate levels.

Clinical Example

Maria Molina is a registered nurse (RN) in a suburban middle school. During the course of the school year, she noted an increased incidence of sexually transmitted infections (STIs) among the middle school students. After reviewing information in nursing journals, other professional journals, and Internet sources, Maria understood that there was a national increase in sexually transmitted infections among young adolescents. She found that significant numbers of adolescents are initiating sexual activity at age 13 and younger. The school nurse reviewed the Centers of Disease Control and Prevention (CDC, n.d.) site on "Adolescent and School Health—Sexual Risk Behavior." The CDC reported that many young people engage in sexual behaviors that can result in unintended health outcomes. It also reported that among U.S. high school students surveyed in 2011, 47.4% had never had sexual intercourse; 33.7% had had sexual intercourse during the previous 3 months, and, of these latter, 39.8% did not use a condom the last time they had sex; and 15.3% had had sex with four or more people during their lives.

Maria reviewed the reasons for the increased STIs. Her assessment of the problem had several findings. Sexually active teenagers do not use contraception regularly. Also, a variety of sexual misconceptions lead teens to believe they are invulnerable to STIs. Adolescents also find it difficult or embarrassing to obtain contraceptives that protect from not only pregnancy but

also STIs. The suburb does not have a local family planning clinic, and area primary care providers are reluctant to counsel teenagers or prescribe contraceptives without parental permission. The nurse also discovered that, several years earlier, a group of parents had stopped an attempt by the local school board to establish sex education in the school system. The parents believed this responsibility belonged in the home.

Maria considered all of these factors in developing her plan of action. She met with teachers, officials, and parents. Teachers and school officials were willing to deal with this sensitive issue if parents could recognize its validity. In meetings, many parents revealed they were uncomfortable discussing sexuality with their adolescent children and welcomed assistance. However, they were concerned that teachers might introduce the mechanics of reproduction without giving proper attention to the moral decisions and obligations involved in relationships. The parents expressed their desire to participate in curriculum planning and to meet with the teachers instead of following a previous plan that required parents to sign a consent form for each student. In support of the parents, Maria asked a nearby urban family planning agency to consider opening a part-time clinic in the suburb.

Implementing such a comprehensive plan is time consuming and requires community involvement and resources. The nurse enlisted the aid of school officials and other community professionals. Time will reveal the plan's long-term effectiveness in reducing teen pregnancy.

This example shows how nurses can and should become involved in health planning. Teen pregnancy is a significant health problem and often results in lower education and lower socioeconomic status, which can lead to further health problems. The nurse's assessment and planned interventions involved individual teenagers, parents and families, the school system, and community resources.

This chapter provides an overview of health planning and evaluation from a nursing perspective. It also describes a model for

student involvement in health planning projects and a review of significant health planning legislation.

Overview of Health Planning

One of the major criticisms of community health nursing practice involves the shift in focus from the community and larger aggregate to family caseload management or agency responsibilities. When focusing on the individual or family, nurses must remember that these clients are members of a larger population group or community and that environmental factors influence them. Nurses can identify these factors and plan health interventions by implementing an assessment of the entire aggregate or community. Figure 7-1 illustrates this process.

The concept of "community as client" is not new. Lillian Wald's work at New York City's Henry Street settlement in the late 1800s exemplifies this concept. At the Henry Street settlement, Miss Wald, Mary Brewster, and other public health nurses worked with extremely poor immigrants.

The increased focus on community-based nursing practice yields a greater emphasis on the aggregate as the client or care unit. However, the community health nurse should not neglect nursing care at the individual and family levels by focusing on health care only at the aggregate level. Rather, the nurse can use this community information to help him or her understand individual and family health problems and improve their health status. Table 7-1 illustrates the differences in community health nursing practice at the individual, family, and community levels. However, before nurses can participate in health care planning, they must be knowledgeable about the process and comfortable with the concept of **community as client** or care focus.

FIGURE 7-1 The community as client. Chapter 6, Table 6-1, provides assessment parameters that help identify the client's assets and needs.

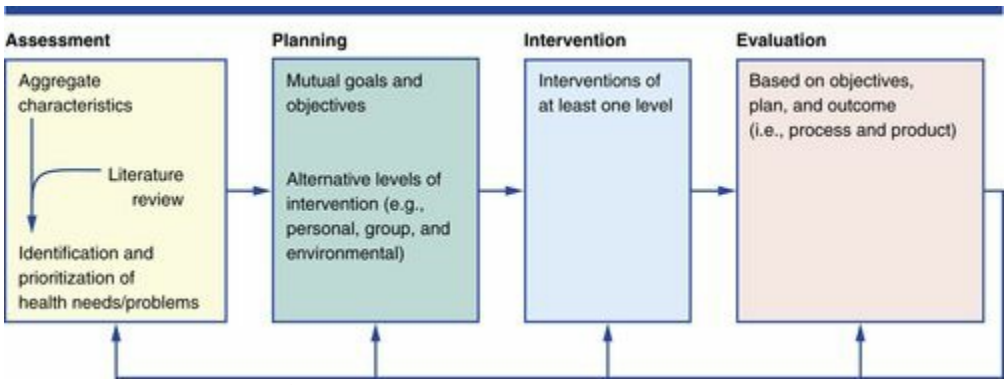


FIGURE 7-2 Health Planning Model.

TABLE 7-1

LEVELS OF COMMUNITY HEALTH NURSING PRACTICE

CLIENT	EXAMPLE	CHARACTERISTICS	HEALTH ASSESSMENT	NURSING INVOLVEMENT
Individual	Lisa McDonald	An individual with various needs	Individual strengths, problems, and needs	Client-nurse interaction
Family	Moniz family	A family system with individual and group needs	Individual and family strengths, problems, and needs	Interactions with individuals and the family group
Group	Boy Scout troop Alzheimer's support group	Common interests, problems, and needs Interdependency	Group dynamics Fulfillment of goals	Group member and leader
Population group	Patients with acquired immunodeficiency syndrome (AIDS) in a given state Pregnant adolescents in a school district	Large, unorganized group with common interests, problems, and needs	Assessment of common problems, needs, and vital statistics	Application of nursing process to identified needs
Organization	A workplace A school	Organized group in a common location with shared governance and goals	Relationship of goals, structure, communication, patterns of organization to its strengths, problems, and needs	Consultant and/or employee application of nursing process to identified needs
Community	Immigrant neighborhood Anytown, USA	An aggregate of people in a common location with organized social systems	Analysis of systems, strengths, characteristics, problems, and needs	Community leader, participant, and health care provider

Health Planning Model

A model based on Hogue's (1985) group intervention model was developed in response to this need for population focus. The **Health Planning Model** aims to improve aggregate health and applies the nursing process to the larger aggregate within a systems framework. Figure 7-2 depicts this model. Incorporated into a health planning project, the model can help students view larger client aggregates and gain knowledge and experience in the health planning process. Nurses must carefully consider each step in the process, using this model. Box 7-1 outlines these steps. In addition, Box 7-2 provides the systems framework premises that nurses should incorporate.

Several considerations affect how nurses choose a specific aggregate for study. The community may have extensive or limited opportunities appropriate for nursing involvement. Additionally, each community offers different possibilities for health intervention. For example, an urban area might have a variety of industrial and business settings that need assistance, whereas a suburban community may offer a choice of family-oriented organizations, such as boys' and girls' "clubs" and parent-teacher associations, that would benefit from intervention.

A nurse should also consider personal interests and strengths in selecting an aggregate for intervention. For example, the nurse should consider whether he or she has an interest in teaching health promotion and preventive health or in planning for organizational change, whether his or her communication skills are better suited to large or small groups, and whether he or she has a preference for working with the elderly or with children. Thoughtful consideration of these and other variables will facilitate assessment and planning.

BOX 7-1 HEALTH PLANNING PROJECT OBJECTIVES

I. Assessment

A. Specify the aggregate level for study (e.g., group, population group, or organization). Identify and provide a general orientation to the aggregate (e.g., characteristics of the aggregate system, suprasystem, and subsystems). Include the reasons for selecting this aggregate and the method for gaining entry.

B. Describe specific characteristics of the aggregate.

1. *Sociodemographic characteristics:* Including age, sex, race or ethnic group, religion, educational background and level, occupation, income, and marital status.

2. *Health status:* Work or school attendance, disease categories, mortality, health care use, and population growth and population pressure measurements (e.g., rates of birth and death, divorce, unemployment, and drug and alcohol abuse). Select indicators appropriate for the chosen aggregate.

3. *Suprasystem influences:* Existing health services to improve aggregate health and the existing or potential positive and negative impact of other community-level social system variables on the aggregate. Identify the data collection methods.

C. Provide relevant information from the literature review, especially in terms of the characteristics, problems, or needs within this type of aggregate. Compare the health status of the aggregate with that of similar aggregates, the community, the state, and the nation.

D. Identify the specific aggregate's health problems and needs on the basis of comparative data collection analysis and interpretation and literature review. Include input from clients regarding their need perceptions. Give priorities to health problems and needs, and indicate how to determine these priorities.

II. Planning

A. Select one health problem or need, and identify the ultimate goal of intervention. Identify specific, measurable objectives as mutually agreed upon by the student and aggregate.

B. Describe the alternative interventions that are necessary to accomplish the objectives. Consider interventions at each system level where appropriate (e.g., aggregate/target system, suprasystem, and subsystems). Select and validate the intervention(s) with the highest probability of success. Interventions may use existing resources, or they may require the development of new resources.

III. Intervention

A. Implement at least one level of planned intervention when possible.

B. If intervention was not implemented, provide reasons.

IV. Evaluation

A. Evaluate the plan, objectives, and outcomes of the intervention(s). Include the aggregate's evaluation of the project. Evaluation should consider the process, product, appropriateness, and effectiveness.

B. Make recommendations for further action based on the evaluation, and communicate them to the appropriate individuals or system levels. Discuss implications for community health nursing.

BOX 7-2 SYSTEMS FRAMEWORK PREMISES

I. Each system is a goal-directed collection of interacting or interdependent parts, or subsystems.

II. The whole system is continually interacting with and adapting to the environment, or suprasystem.

III. There is a hierarchical structure (suprasystem, system, subsystems).

IV. Each system is characterized by the following:

A. *Structure:* Arrangement and organization of parts, or subsystems.

1. Organization and configuration (e.g., traditional vs. nontraditional; greater variability [no right or wrong and no proper vs. improper form]).
2. Boundaries (open vs. closed; regulate input and output).
3. Territory (spatial and behavioral).
4. Role allocation.

B. *Functions:* Goals and purpose of system and activities necessary to ensure survival, continuity, and growth of system.

1. General.
    a. *Physical:* Food, clothing, shelter, protection from danger, and provision for health and illness care.
    b. *Affectional:* Meeting the emotional needs of affection and security.
    c. *Social:* Identity, affiliation, socialization, and controls.
2. Specific: Each family, group, or aggregate has its own individual agenda regarding values, aspirations, and cultural obligations.

C. Process and dynamics.

1. *Adaptation:* Attempt to establish and maintain equilibrium; balance between stability, differentiation, and growth; self-regulation and adaptation (equilibrium and homeostasis).
    a. *Internal:* Families, groups, or aggregates.
    b. *External:* Interaction with suprasystem.
2. *Integration:* Unity and ability to communicate.
3. *Decision making:* Power distribution, consensus, accommodation, and authority.

Assessment

As discussed in Chapter 6 on Assessment, it is essential to establish a professional relationship with the selected aggregate, which requires that a community health nurse first gaining entry into the group. Good communication skills are essential to making a positive first impression. The nurse should make an appointment with the group leaders to set up the first meeting.

The nurse must initially clarify his or her position, organizational affiliation, knowledge, and skills. The nurse should also clarify mutual expectations and available times. Once entry into the aggregate is established, the nurse continues negotiation to maintain a mutually beneficial relationship.

Meeting with the aggregate on a regular basis will allow the nurse to make an in-depth assessment. Determining sociodemographic characteristics (e.g., distribution of age, sex, and race) may help the nurse ascertain health needs and develop appropriate intervention methods. For example, adolescents need information regarding nutrition, abuse of drugs and alcohol, and relationships with the opposite sex. They usually do not enjoy lectures in a classroom environment, but the nurse must possess skills to initiate small-group involvement and participation. An adult group's average educational level will affect the group's knowledge base and its comfort with formal versus informal learning settings. The nurse may find it more difficult to coordinate time and energy commitments if an organization is the focus group, because the aggregate members may be more diverse.

The nurse may gather information about sociodemographic characteristics from a variety of sources. These sources include observing the aggregate, consulting with other aggregate workers (e.g., the factory or school nurse, a Head Start teacher, or the resident manager of a high-rise senior-citizen apartment building), reviewing available records or charts, interviewing members of the aggregate (i.e., verbally or via a short questionnaire), and interviewing a key informant. A **key informant** is a formal or informal leader in the community who provides data that are informed by his or her personal knowledge and experience with the

community.

In assessing the aggregate's health status, the nurse must consider both the positive and negative factors. Unemployment or the presence of disease may suggest specific health problems, but low rates of absenteeism at work or school may suggest a need to focus more on preventive interventions. The specific aggregate determines the appropriate health status measures. Immunization levels are an important index for children, but nurses rarely collect this information for adults. However, the nurse should consider the need for influenza and/or pneumonia vaccines with the elderly. Similarly, the nurse would expect a lower incidence of chronic disease among children, whereas the elderly have higher rates of long-term morbidity and mortality.

Public health nursing (PHN) competencies include applying systems theory to PHN practice with communities and populations. This includes integrating systems thinking into public health practice and evaluating new approaches to public health practice that integrate organizational and systems theories (Quad Council of Public Health Nursing Organizations, 2013).

A systems analysis is needed when one is assessing the aggregate. The three levels of the system are the subsystem, the system, and the suprasystem. A community health nurse working with incarcerated women in the prison needs to work at the three levels of the system to assist women planning to reunite with their children at release. The system is the group of women, the subsystem consists of the individual women, and the suprasytem would be the department of corrections and/or the state's department of social services.

The aggregate's suprasystem may facilitate or impede health status. Different organizations and communities provide various resources and services to their members. Some are obviously health related, such as the presence or absence of hospitals, clinics, private practitioners, emergency facilities, health centers, home health agencies, and health departments. Support services and facilities such as group meal sites or Meals on Wheels (MOW) for the elderly and recreational facilities and programs for children, adolescents, and adults are also important. Transportation availability,

reimbursement mechanisms or sliding-scale fees, and community-based volunteer groups may determine the use of services. An assessment of these factors requires researching public records (e.g., town halls, telephone directories, and community services directories) and interviewing health professionals, volunteers, and key informants in the community. The nurse should augment existing resources or create a new service rather than duplicating what is already available to the aggregate.

A literature review is an important means of comparing the aggregate with the norm. For example, children in a Head Start setting, day care center, or elementary school may exhibit a high rate of upper respiratory tract infections during the winter. The nurse should review the pediatric literature and determine the normal incidence for this age range in group environments. Furthermore, the nurse should research potential problems in an especially healthy aggregate (e.g., developmental stresses for adolescents or work or family stresses for adults) or determine whether a factory's experience with work-related injury is within an average range. Comparing the foregoing assessment with research reports, statistics, and health information will help to determine and prioritize the aggregate's health problems and needs.

The last phase of the initial assessment is identifying and prioritizing the specific aggregate's health problems and needs. This phase should relate directly to the assessment and the literature review and should include a comparative analysis of the two. Most important, this step should reflect the aggregate's perceptions of need. Depending on the aggregate, the nurse may consult the aggregate members directly or may interview others who work with the aggregate (e.g., a Head Start teacher). Interventions are seldom successful if the nurse omits or ignores the clients' input.

During the needs assessment, four types of needs should be assessed. The first is the expressed need or the need expressed by the behavior. This is seen as the demand for services and the market behavior of the targeted population. The second need is normative, which is the lack, deficit, or inadequacy as determined by expert health professionals. The third type of need is the perceived need

expressed by the audience. Perceived needs include the population's wants and preferences. The final need is the relative need, which is the gap showing health disparities between the advantaged and disadvantaged populations (Issel, 2009).

Finally, the nurse must prioritize the identified problems and needs to create an effective plan. The nurse should consider the following factors when determining priorities:

- The aggregate's preferences
- Number of individuals in the aggregate affected by the health problem
- Severity of the health need or problem
- Availability of potential solutions to the problem
- Practical considerations such as individual skills, time limitations, and available resources

In addition, the nurse may further refine the priorities by applying a framework such as Maslow's (1968) hierarchy of needs (i.e., lower-level needs have priority over higher-level needs) or Leavell and Clark's (1965) levels of prevention (i.e., primary prevention may take priority for children, whereas tertiary prevention may take higher priority for the elderly).

Assessment and data collection are ongoing throughout the nurse's relationship with the aggregate. However, the nurse should proceed to the planning step once the initial assessment is complete. It is particularly important to link the assessment stage with other stages at this point in the process. Planning should stem directly and logically from the assessment, and implementation should be realistic.

An essential component of health planning is to have a strong level of community involvement. The nurse is responsible for advocating for client empowerment throughout the assessment, planning, implementation, and evaluation steps of this process. Community organization reinforces one of the field's underlying premises, as outlined by Nyswander (1956): "Start where the people

are." Moreover, Labonte (1994) stated that the community is the engine of health promotion and a vehicle of empowerment. He describes five spheres of an empowerment model that focus on the following levels of social organization: interpersonal (personal empowerment), intragroup (small-group development), intergroup (community collaboration), interorganizational (coalition building), and political action. Paying attention to collective efforts and support of community involvement and empowerment, rather than focusing on individual efforts, will help ensure that the outcomes reflect the needs of the community and truly make a difference in people's lives.

Labonte's (1994) multilevel empowerment model allows us to consider both macro-level and micro-level forces that combine to create both health and disease. Therefore, it seems that both micro and macro viewpoints on health education provide nurses with multiple opportunities for intervention across a broad continuum. In summary, health education activities that have an "upstream" focus examine the underlying causes of health inequalities through multilevel education and research. This allows nurses to be informed by critical perspectives from education, anthropology, and public health (Israel et al., 2005).

Successful health programs rely on empowering citizens to make decisions about individual and community health. Empowering citizens causes power to shift from health providers to community members in addressing health priorities. Collaboration and cooperation among community members, academicians, clinicians, health agencies, and businesses help ensure that scientific advances, community needs, sociopolitical needs, and environmental needs converge in a humanistic manner.

Planning

As already stated, the nurse should determine which problems or needs require intervention in conjunction with the aggregate's perception of its health problems and needs and on the basis of the outcomes of prioritization. Then the nurse must identify the desired outcome or ultimate goal of the intervention. For example, the

nurse should determine whether to increase the aggregate's knowledge level and whether an intervention will cause a change in health behavior. It is important to have specific and measurable goals and desired outcomes. Doing so will facilitate planning the nursing interventions and determining the evaluation process.

Planning interventions is a multistep process. First, the nurse must determine the intervention levels (e.g., subsystem, aggregate system, and/or suprasystem). A *system* is a set of interacting and interdependent parts (s*ubsystems*), organized as a whole with a specific purpose. Just as the human body can be viewed as a set of interacting subsystems (e.g., circulatory, neurological, integumentary), a family, a worksite, or a senior high-rise can also be viewed as a system. Each system then interacts with, and is further influenced by, its physical and social environment, or *suprasystem* (for example, the larger community).

Second, the nurse should plan interventions for each system level, which may center on the primary, secondary, or tertiary levels of prevention. These levels apply to aggregates, communities, and individuals. Primary prevention consists of health promotion and activities that protect the client from illness or dysfunction. Secondary prevention includes early diagnosis and treatment to reduce the duration and severity of disease or dysfunction. Tertiary prevention applies to irreversible disability or damage and aims to rehabilitate and restore an optimal level of functioning. Plans should include goals and activities that reflect the identified problem's prevention level.

Third, the nurse should validate the practicality of the planned interventions according to available personal as well as aggregate and suprasystem resources. Although teaching is often a major component of community health nursing, the nurse should consider other potential forms of intervention (e.g., personal counseling, policy change, or community service development). Input from other disciplines or community agencies may also be helpful. Finally, the nurse should coordinate the planned interventions with the aggregate's input to maximize participation.

Goals and Objectives

Development of goals and objectives is essential. The goal is generally where the nurse wants to be, and the objectives are the steps needed to get there. *Measurable objectives* are the specific measures used to determine whether or not the nurse is successful in achieving the goal. The objectives are instructions about what the nurse wants the population to be able to do. In writing the objectives, the nurse should use verbs and include specific conditions (how well or how many) that describe to what degree the population will be able to demonstrate mastery of the task.

Because the objectives are specific and can be quantified, they may be used to measure outcomes. Objectives may also be referred to as *behavioral objectives* or *outcomes* because they describe observable behavior rather than knowledge. An example of the goals and measurable objectives for a city with a high rate of childhood obesity is shown in Box 7-3.

Intervention

The intervention stage may be the most enjoyable stage for the nurse and the clients. The nurse's careful preliminary assessment and planning should help ensure the aggregate's positive response to the intervention. Although implementation should follow the initial plan, the nurse should prepare for unexpected problems (e.g., bad weather, transportation problems, poor attendance, or competing events). If the nurse is unable to complete the intervention, the reasons for its failure should be analyzed. Interventions should be included from a range of strategies, including mass media (public service announcements, radio, television, billboards), general information dissemination (e.g., pamphlets, DVDs, CDs, posters), electronic information dissemination (e.g., websites, blogs, tweets, video stream), and public forums (e.g., town meetings, focus groups, discussion groups).

Evaluation

Evaluation is an important component for determining the success or failure of a project and understanding the factors that

contributed to its success or failure. The evaluation should include the participant's verbal or written feedback and the nurse's detailed analysis. Evaluation includes reflecting on each previous stage to determine the plan's strengths and weaknesses *(process evaluation)*. Process evaluation is also referred to as *formative evaluation*. It allows one to evaluate both positive and negative aspects of each experience honestly and comprehensively and whether the desired outcomes were achieved *(product evaluation)*. Product evaluation is summative and can consist of end-of-intervention surveys and other tools that measure whether objectives have been met. *Summative evaluation* is another term for product evaluation and looks at outcomes. Evaluation should include adequacy, efficiency, appropriateness, and cost benefit. During both process and product evaluations, the nurse may ask the following questions:

- Was the assessment adequate?
- Were plans based on an incomplete assessment?
- Did the plan allow adequate client involvement?
- Were the interventions realistic or unrealistic in terms of available resources?
- Did the plan consider all levels of prevention?
- Were the stated goals and objectives accomplished?
- Were the participants satisfied with the interventions?
- Did the plan advance the knowledge levels of the aggregate and the nurse?

The intervention may have limited impact if the nurse fails to communicate follow-up recommendations to the aggregate upon completion of the project. Although follow-up activity is not necessary for all plans, most require additional interventions within the aggregate using community agencies and resources. A comprehensive health planning project involves a close working relationship with the aggregate and careful consideration of each step. Long-term evaluation may need to be done by those professionals working continuously with the aggregate to

determine behavior changes and/or changes in health status.

BOX 7-3 PROGRAM GOALS AND OBJECTIVES FOR REDUCTION OF CHILDHOOD OBESITY

Goal

Reduce the rate of childhood obesity in the city of New Bedford.

Objectives

1. The percentage of children whose body weight exceeds the 98th percentile for age and height will be reduced to 5%.
2. All the children will be invited to join a 5, 2, 1 program:
   - Five fruits and vegetables per day
   - Two-hour limit on TV, video games, and computer per day
   - One hour of physical activity per day
3. The food pyramid will be taught to all school nurses and health educators by the end of the school year.
4. The food pyramid will be presented and distributed to parents at all the summer health fairs.

RESEARCH HIGHLIGHTS

What about the Children Playing Sports? Pesticide Use on Athletic Fields

Children come in contact with athletic fields on a daily basis. How these fields are maintained may have an impact on children's potential exposure to pesticides and associated health effects.

This is a cross-sectional, descriptive study that utilized a

survey to assess playing field maintenance practices regarding the use of pesticides. Athletic fields (N = 101) in Maryland were stratified by population density and randomly selected.

A survey was administered to field managers (n = 33) to assess maintenance practices, including the use of pesticides. Analysis included descriptive statistics and generalized estimating equations.

Managers of 66 fields (65.3%) reported applying pesticides, mainly herbicides (57.4%). Managers of urban and suburban fields were less likely to apply pesticides than managers of rural fields. Combined cultivation practice was also a significant predictor of increased pesticide use.

The use of pesticides on athletic fields presents many possible health hazards. Results indicate that there is a significant risk of exposure to pesticide for children engaged in sports activities. Given that children are also often concurrently exposed to pesticides as food residues and from home pest management, we need to examine opportunities to reduce their exposures. Both policy and practice questions are raised.

Data from Gilden R, Friedmann E, Sattler B, et al: Potential health effects related to pesticide use on athletic fields, *Public Health Nurs* 29(3):198-207, 2012.

Health Planning Projects

Successful Projects

Student projects have used this health planning model with group, organization, population group, and community aggregates. Table 7-2 describes interventions with these aggregates at the subsystem, aggregate system, and suprasystem levels.

TABLE 7-2

INTERVENTIONS BY TYPE OF AGGREGATE AND SYSTEM LEVEL

PROJECT	TYPE OF AGGREGATE	SYSTEM LEVEL FOR INTERVENTION
Rehabilitation group	Group, organization	Subsystem and aggregate system
Textile industry	Population group	Aggregate system and suprasystem
Crime watch	Group, organization, and population group	Aggregate system and suprasystem
Bilingual students (case study)	Community	Aggregate system and suprasystem

Textile Industry

Clinical Example

A nursing student studied a textile plant that had approximately 470 employees but did not have an occupational health nurse. The student nurse collected data and identified three major problems or needs by collaborating with management and union representatives. First, the student nurse observed that the most common, costly, and chronic work-related injury in plant workers was lower back injury. Second, some employees had concerns about possible undetected hypertension. Third, the first-aid facilities were disorganized and without an accurate inventory system. The student nurse planned and implemented interventions for all three areas.

On the suprasystem level, the student nurse formulated plans with the company's physicians and lobbied management to enact an employee training program on proper lifting techniques. The

student nurse proposed creating specific and concise job descriptions and requirements to facilitate potential employees' medical assessments. In addition, the student nurse organized and clearly labeled the first-aid supplies and developed an inventory system. On the aggregate system level, the student nurse planned and conducted a hypertension screening program. Approximately 85% of the employees underwent screening, and 10 people had elevated blood pressure readings. These 10 people were referred for follow-up care, and hypertension was subsequently diagnosed in several of them.

In evaluating the project, management representatives recognized that a variety of nursing interventions could improve or maintain workers' health. Consequently, management hired the student nurse upon graduation to be the occupational health nurse.

Crime Watch

Clinical Example

Another nursing student was concerned with the rising incidence of crime in a community and organized a crime watch program. The student nurse met periodically with the police and local residents, or aggregate system. Interventions included posting crime watch signs in the neighborhood and establishing more frequent police patrols at the suprasystem level. Evaluation of the program revealed that the residents had greater awareness of and concern for neighborhood safety.

Rehabilitation Group

Clinical Example

After working at a senior citizens center for a few weeks, a

student nurse began a careful assessment of the center's clients. The student nurse interviewed the center's clients and visited its homebound clients served by social workers and the Meals on Wheels (MOW) program. Several of the homebound clients identified a need for socialization and rehabilitation. The center had recently purchased a van equipped to transport handicapped people in wheelchairs, which was a necessary factor in fulfilling this need.

After the student nurse assessed the clients' health and functional status and determined mutual goals, four of these homebound clients expressed a desire to attend a rehabilitation program at the center. The student nurse and the center's management initiated a weekly program based on the clients' needs, which included van transportation, a coffee hour, a noontime meal, an exercise class, and a craft class. Although some members were initially reluctant to participate and one man withdrew from the group, the group ultimately functioned very well. Evaluating this new program showed clearly that the student nurse made progress in meeting the goals of increased socialization and rehabilitation among elders at the center.

Unsuccessful Projects

Project failure is usually caused by problems with one or more steps of the nursing process. Usually the student does not discover problems until the evaluation phase. The following unsuccessful projects illustrate failures at different steps in the nursing process. Table 7-3 summarizes the identified problem areas for these examples.

Group Home for Developmentally Delayed Adults

Clinical Example

A nursing student worked with an aggregate of six women living in a group home for developmentally delayed citizens. The

nursing student observed that the clients were all overweight, and she decided to establish a weight reduction program. She proceeded to meet with the women, chart their weight, and discuss their food choices on a weekly basis. After 8 weeks, her evaluation revealed that none of the women had lost weight and a few had actually gained weight. During the assessment phase the student failed to consider the women's perceptions of need. The women did not consider their weight a priority health problem, and their boyfriends provided positive reinforcement regarding their appearance.

Safe Rides Program

Clinical Example

One student nurse assessed a university student community through a questionnaire and identified a drinking and driving problem. Of those she surveyed, 77% admitted to driving under the influence of alcohol, and 16.5% stated they had been involved in an alcohol-related car accident. After identifying the problem and determining student interest, the student nurse worked with the campus alcohol and drug resource center to plan and implement a program called Safe Rides. In this program, student volunteers would work a hotline and dispatch "on-call" drivers to pick up students who were unsafe to drive.

TABLE 7-3

UNSUCCESSFUL PROJECTS

PROJECT	PROBLEMATIC STEP OF NURSING PROCESS
Group home for developmentally delayed	Assessment (i.e., mutual identification of health problems and needs)
Safe Rides program	Planning (i.e., mutual identification of goals and objectives)
Manufacturing plant	Evaluation (i.e., recommendations for follow-up) Implementation

The student nurse resolved many potential complications before implementation (e.g., liability coverage for all participating individuals and expense funds for gasoline). The student nurse formulated a 12-hour training program that lasted

3 weeks to prepare student volunteers for the Safe Rides program. By the end of the semester, Safe Rides was ready to begin. However, the student nurse graduated at the semester's end, and her commitment had been the program's prime motivating force. Although others were committed and involved, the student nurse did not arrange for a replacement to coordinate and continue the program upon her departure. The Safe Rides program required ongoing coordination efforts, and no one fully implemented the program in the student nurse's absence.

Manufacturing Plant

Clinical Example

Even careful planning cannot always eliminate potential obstacles. For example, one student nurse chose to work in an occupational setting involving heavy industry. The occupational health nurse and the nurse's personnel supervisor both approved the student nurse's entry into the organization. After reviewing the literature, working with the nurse for several weeks, and assessing the organization and its employees, the student nurse concluded that back injury risk was a primary problem. She planned to reduce the risk factors involved in back injuries by distributing information about proper body mechanics in a teaching session.

The personnel manager resisted this plan. Although he recognized the need for education, he was initially unwilling to allow employees to attend the session on company time. The student nurse and manager reached a compromise by allowing attendance during extended coffee breaks. The personnel manager, however, canceled the program before the student nurse could implement the class; negotiations for a new union contract were forming, and there was high probability of a strike. This situation led management to deny any changes in the usual routine.

The student nurse proceeded appropriately and received

clearance from the proper officials, but she could not anticipate or circumvent union problems. The student nurse could only share her information and concern with the nurse and the personnel manager and encourage them to implement her plan when contract negotiations were complete.

Discussion

Each of these projects attempted to address a particular level of prevention. Most of these examples focused on primary prevention and health promotion because they were conducted by students and limited by time available due to the length of the academic semester. Table 7-4 lists these projects and their prevention levels. However, the full-time community health nurse working with an aggregate (e.g., in the occupational health setting) would target interventions for all three levels of prevention at a variety of system levels. It is useful to view nursing interventions with aggregates within a matrix structure to address all intervention opportunities. The matrix in Table 7-5 gives examples of how the occupational health nurse may intervene at all system levels and all prevention levels.

TABLE 7-4

LEVEL OF PREVENTION FOR EACH PROJECT

PRIMARY PREVENTION	SECONDARY PREVENTION	TERTIARY PREVENTION
Textile industry	Textile industry	Rehabilitation group
Crime watch	Group home for developmentally delayed	
Manufacturing plant		
Safe Rides program		

In practice, most interventions occur at the individual level and include all prevention levels. Interventions at the aggregate level are usually less common. For many community health nurses, time does not allow intervention at the suprasystem level. However, schools and schoolchildren are integral parts of the community system. Factors that affect the community's health also affect schoolchildren's health. For school nurses in these school districts, interventions at the suprasystem level may become a reality and improve the health of the community and the students. The suprasystem intervention can be used to reduce hunger and food

insufficiency for all schoolchildren in a district. A school nurse working with students in the school office may note that the students are presenting with dizziness, headaches, or abdominal pain in the morning and may keep intervention at the individual level by treating the symptoms presented (e.g., with acetaminophen or food). However, the school nurse my investigate why the students are presenting with the symptoms especially on Monday mornings and may realize that lack of food in the homes is an issue. The nurse then would work to develop a breakfast program for the school district. This strategy is a good example of refocusing upstream by addressing the real source of problems.

These projects illustrate the variety of available opportunities for aggregate health planning. In addition, they exemplify the application of the nursing process within various aggregate types, at different systems levels, and at each prevention level. These examples demonstrate the vital importance of each step of the nursing process:

1. Aggregate assessments must be thorough. The textile industry project exemplifies this point. Assessments should elicit answers to key questions about the aggregate's health and demographic profile and should compare this information with information for similar aggregates presented in the literature.

2. The nurse must complete careful planning and set goals that the nurse and the aggregate accept. The rehabilitation group project illustrates the importance of mutual planning.

3. Interventions must include aggregate participation and must meet the mutual goals. The Crime Watch project exemplifies this point.

4. Evaluation must include process and product evaluation and aggregate input.

TABLE 7-5

OCCUPATIONAL HEALTH: LEVELS OF PREVENTION FOR SYSTEM LEVELS

SYSTEM LEVEL	PRIMARY PREVENTION	SECONDARY PREVENTION	TERTIARY PREVENTION
Subsystem	Yearly physical examination for each employee	Regular blood pressure monitoring and diet counseling for each employee with elevated blood pressure	Referral for job retraining for employee with a back injury
Aggregate and group system	Incentive program to encourage departments to use safety devices	Weight reduction group for overweight employees	Support group for employees who are recovering from problems with alcohol or drug use
Suprasystem	Health fair open to the community and employees	Counseling and referral of community members with elevated blood pressure or cholesterol on the basis of health fair findings	Media advertising to encourage people with substance abuse problems to seek help and use community resources that provide assistance

Health Planning Models in Public Health

According to Issel (2009), many planning programs to address public health problems began as environmental planning of water and sewer systems. Additional population-based planning became necessary with the advent of immunizations. Blum (1974) was the first to suggest how public health planning should be done. Perspectives on health planning range from systematic problem solving and an epidemiological approach to a social awareness approach.

Beginning in the mid-1980s the CDC began to develop and promote systematic methods for health planning in public health. These models were important for a structured approach to public health planning.

The PRECEDE-PROCEED model (Figure 7-3) provides a structure for assessing health and quality-of-life needs. It also assists in designing, implementing, and evaluating health promotion and public health programs to meet those needs. PRECEDE (*P*redisposing, *R*einforcing, and *E*nabling *C*onstructs in *E*ducational *D*iagnosis and *E*valuation) assesses the diagnostic and planning process to assist in the development of focused public health programs. PROCEED (*P*olicy, *R*egulatory, and *O*rganizational *C*onstructs in *E*ducational and *E*nvironmental *D*evelopment) guides the implementation and evaluation of the programs (Green & Kreuter, 2005).

The PRECEDE-PROCEED framework is an approach to planning that examines factors contributing to behavior change. They are:

Predisposing factors: The knowledge, attitudes, behavior, beliefs, and values before intervention that affect willingness to change.

Enabling factors: The environment or community of an individual that facilitates or presents obstacles to change.

Reinforcing factors: The positive or negative effects of adopting new behavior (including social support).

These factors require that individuals be considered in the context of their community and social structures, and not in isolation, in the planning of communication or health education strategies (Green and Kreuter, 2005).

PATCH

The Planning Approach to Community Health (PATCH) model was based on Green's PRECEDE (Green et al., 1980; Green and Kreuter, 2005). This model encouraged the idea that health promotion is a process that enables the population to have more control of its own health. An essential element of the PATCH model is community participation. Another element is the use of data to develop comprehensive health strategies. The PATCH model achieved this through mobilizing the community, collecting health data, selecting health priorities, developing a comprehensive intervention plan, and evaluating the process (Issel, 2009).

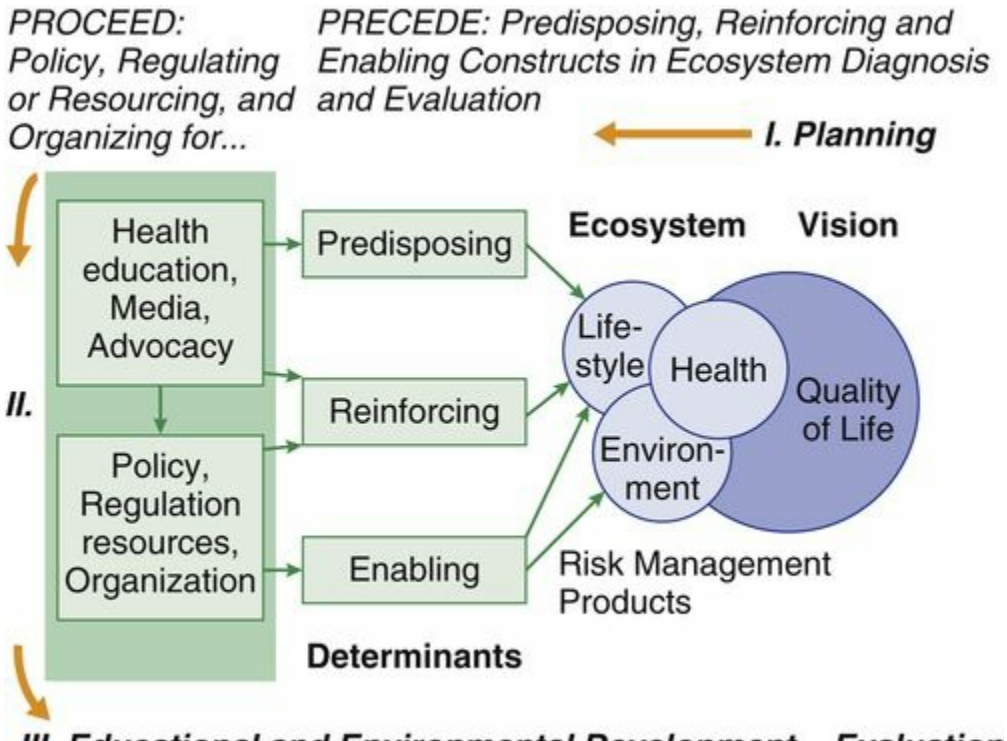


FIGURE 7-3 Green's PRECEDE-PROCEED Model. Green's

website provides assistance in guiding use and applications of this model, at http://www.lgreen.net/index.html. (From Green LW, Kreuter MW: *Health program planning: an educational and ecological approach,* ed 4, 2004, McGraw-Hill).

APEX-PH Program

The Assessment Protocol for Excellence in Public Health (APEX-PH) program began in 1987 as a cooperative project of the American Public Health Association (APHA), the Association of Schools of Public Health (ASPH), the Association of State and Territorial Health Officials (ASTHO), the CDC, the National Association of County and City Health Officials (NACCHO), and the United States Conference of Local Health Officers (USCLHO). The APEX-PH is a voluntary process for organizational and community self-assessment, planned improvements, and continuing evaluation and reassessment. It is a true self-assessment and is intended to be more of a public endeavor involving the community as well as the public organizations (CDC, 2009).

MAPP Model

More recently, the CDC and NACCHO have released the MAPP (Mobilizing for Action Through Planning and Partnerships) model. The MAPP model is a health planning model that helps public health leaders facilitate community priorities about health issues and identify sources to address them. The first phase of MAPP is to mobilize the community, the second is to guide the community toward a shared vision for long-range planning, and the third is to conduct four assessments: identifying community strengths, local health system, health status, and forces of change within the population (NACCHO, 2009).

Health Planning Federal Legislation

Health planning at the national, state, and local levels is another example of aggregate planning. Planning at any of these levels can be a broader extension of the suprasystem level and affects the individual, family, group, population, and organization levels. Again, upstream change can occur on these levels; for example, individual consumers and consumer groups have protested some managed-care practices at the suprasystem level because health policy can directly affect patient care.

Historically, nurses have influenced health planning only minimally at the community level, but health planning has a tremendous effect on nurses and nursing practice. It is necessary to understand planning on a suprasystem level; therefore the following section contains a review of past health planning efforts with projections for the future.

Hill-Burton Act

In 1946, Congress passed the Hospital Survey and Construction Act (Hill-Burton Act, PL 79-725) to address the need for better hospital access. This act provided federal aid to states for hospital facilities. A state had to submit a plan documenting available resources and need estimates to qualify for hospital construction and modernization funds under the **Hill-Burton Act (**Sultz and Young, 2006). In addition, each state had to designate a single agency for the development and implementation of the hospital construction plan. The Hill-Burton Act caused the expenditure of vast sums of money and resulted in an increase in the number of beds, especially in general hospitals. Although the act and its amendments focused only on construction, they improved the quality of care in rural areas and introduced systematic statewide planning (Gourevitch, Caronna, and Kalkut, 2005).

Regional Medical Programs

The Hill-Burton Act provided construction-related planning, but it did not address coordination and care delivery directly. In response to recommendations from Dr. Michael DeBakey's national commission, the Heart Disease, Cancer, and Stroke Amendments of 1965 (PL 89-239) were enacted. This legislation was more comprehensive and established regional medical programs.

The **Regional Medical Programs** (RMPs) intended to make the latest technology for the diagnosis and treatment of heart disease, cancer, stroke, and related diseases available to community health care providers through the establishment of regional cooperative arrangements among medical schools, research institutions, and hospitals. The goals of these cooperative arrangements were to improve the health manpower and facilities available to the communities. The intent was to avoid interfering with methods of financing, hospital administration, patient care, or professional practice.

Although RMPs have been credited with the regionalization of certain services and the introduction of innovative approaches to organization and care delivery, some observers believed the reforms were not comprehensive enough. The RMPs did not partner with the existing federal and state programs; therefore, there were gaps and duplication in service delivery, personnel training, and research (Kovner, 2002).

Comprehensive Health Planning

Congress signed the Comprehensive Health Planning and Public Health Services Amendments of 1966 (PL 89-749) into law to broaden the previous legislation's categorical approach to health planning. Combined with the Partnership for Health Amendments of 1967 (PL 90-174), these amendments created the **Partnership for Health Program (PHP).** The PHP provided federal grants to states to establish and administer a local agency program to enact local comprehensive health care planning. The PHP's objectives were promoting and ensuring the highest level of health for every person and not interfering with the existing private practice patterns (Shonick, 1995).

To meet these objectives, the PHP formulated a two-level planning system. Under this system, each state had to designate a single health planning agency, or "A" agency. To play a statewide coordinating role, the "A" agency had to partner with an advisory council, which consisted largely of health care consumers. Meanwhile, the local "B" agencies formulated plans to meet designated local community needs, which could be any public or nonprofit private agency or organization. "A" agencies were to encourage the formation of local, comprehensive, health planning "B" agencies, and federal grants were made available for that purpose (Shonick, 1995).

Although the comprehensive health plans were the first of these programs to mandate consumer involvement, they may have failed in their basic intent. The possible failure may have resulted from funding shortage, conflict avoidance in policy formulation and goal establishment, political absence, and provider opposition (e.g., American Medical Association, American Hospital Association, and major medical centers) (Shonick, 1995).

Certificate of Need

In response to increased capital investments and budgetary pressures, state governments developed the idea of obtaining prior governmental approval for certain projects through the use of a **certificate of need** (CON). New York State passed the first CON law in 1964, which required government approval of hospitals' and nursing homes' major capital investments. Eventually all states supported this CON requirement, and it ultimately became a component of health legislation (PL 93-641). In practice, state CON programs differ in structure and goals. These differences include program focus, decision-making levels, review standard scope, and appeals process exemption (Sultz and Young, 2006).

National Health Planning and Resources Development Act

Given the perceived failure of the comprehensive health planning

programs, the federal government focused on a new approach to health planning. The government was greatly concerned with the cost of health care, which escalated dramatically following the end of World War II; the uneven distribution of services; the general lack of knowledge of personal health practices; and the emphasis on more costly modalities of care. The **National Health Planning and Resources Development Act** of 1974 (PL 93-641) (Endicott, 1975) combined the strengths of the Hill-Burton Act, RMPs, and the comprehensive health planning program to forge a new system of single-state and area-wide health planning agencies (Harlow, 2006).

The goals and purposes of the new law were to increase accessibility to as well as acceptability, continuity, and quality of health services; control over the rising costs of health care services; and prevention of unnecessary duplication of health resources. The new law addressed the needs of the underserved and provided quality health care. The provider and consumer were to be involved in planning and improving health services, and the law placed the system of private practice under scrutiny.

At the center of the program was a network of local health planning agencies, which developed health systems plans for their geographic service areas. The local agencies then submitted these plans to a state health planning and development agency, which integrated the plans into a preliminary state plan. The state agency presented this preliminary plan to a statewide health coordinating council for approval. The law required that the council consist of at least 16 governor-appointed members and that 50% of these members represent health system agencies and 50% represent consumers. One major function of this council was to prepare a state health plan that reflected the goals and purposes of the act. Once the council formulated a tentative plan, they presented it at public hearings throughout the state for discussion and possible revisions (Thorpe, 2002).

Despite careful deliberations by health planners with input from consumers, not all states accepted the health system plan at the grass roots level. A number of problems were encountered, and in time, the legislation failed to effect major change in the health care system. A significant problem was that the legislation had

grandfathered the entire health care system (i.e., health care delivery methods did not change). Although legislation mandated consumer involvement in the health system agency, it was often difficult to implement this aspect. Additionally, despite the mandated efforts by CON and required reviews, costs continued to rise, and the health care system remained essentially unchanged (Thorpe, 2002).

Changing Focus of Health Planning

Health planning legislation is heavily influenced by the politics of the administration in power at any given time. The Reagan administration encouraged competition within the health care system. During the 1980s, the administration emphasized cost shifting and cost reduction with greater state power, less centralization of functions, and less national control. This approach represented the government's philosophical shift and combined it with a funding cutback from the Omnibus Budget Reconciliation Act in 1981. The result was a curtailment on federal health planning efforts at that time (Mueller, 1993). The cutbacks caused health system agencies to redefine their roles, and the federal government recommended eliminating these agencies.

A reduction in federal funding and the influence of medical lobbies caused the closure of some health system agencies. Those that remained open experienced a decrease in staff, a resulting drop in overall board functioning, and a reordering of priorities. In an effort to compensate for the decrease in federal funding, some health system agencies sought nonfederal funding or built coalitions to provide the necessary power base for change. Although the administration did not renew federal health planning legislation in the 1980s, it used other regulatory approaches to control costs. These included basing payments to Medicare on diagnosis-related groups (DRGs), and, in the 1990s, the requirement by many individual states that their Medicaid recipients enroll in health maintenance organizations (HMOs).

The Clinton administration's plan for health care reform included mechanisms to revitalize planning at the national level. The failure

of Congress to pass the plan in 1994 gave planning efforts back to state and local agencies. As a result, most states have become very involved in various aspects of health planning. Indeed, there is considerable variation as many have statewide health plans, local health plans, and some other type of local health planning (American Health Planning Association [AHPA], 2009).

At the beginning of the twenty-first century, 36 states and the District of Columbia still required CON reviews for selected expenditures that include nursing homes, psychiatric facilities, and expensive equipment (AHPA, 2009). However, within these programs, requirements for approval are more liberal, expedited reviews are conducted, and certain projects are exempted from review, weakening the CON cost-containment mandate. Newer high-technology services (i.e., lithotripsy, gamma knives, and positron emission tomography) still need CON review in most states. Furthermore, it is anticipated that state CON programs will continue to assume a stronger role because states must increasingly monitor and report the quality of, cost of, and access to health care that managed care promised.

Comprehensive Health Reform

The Patient Protection and Affordable Care Act of 2010 has several elements that involve health planning (Kaiser Family Foundation, 2010). Provisions from that act include:

- Creation of task forces on preventive services and community preventive services to develop, update, and disseminate evidence-based recommendations on health care delivery
- Establishment of the National Prevention, Health Promotion, and Public Health Council, an agency that is to be charged with development of a national strategy to improve the nation's health
- Creation of an innovation center within the Centers for Medicare and Medicaid Services
- Development of a national quality improvement strategy that will seek to improve delivery of health care services and population health

- Provision of billions of dollars for funding community health centers, school-based clinics and the National Health Service Corps to improve access to care
- Establishment of an Independent Payment Advisory Board to make proposals to reduce the growth in Medicare spending
- Establishment of a workforce advisory committee to develop a national workforce strategy and to suggest ways to enhance the workforce supply by supporting education of health professionals through scholarships and loans

Many of these provisions will not be implemented for several years, so their impact will not be realized for some time.

Patient Protection and Affordable Care Act (PL 111-148)

On March 23, 2010, President Obama signed comprehensive health reform, the Patient Protection and Affordable Care Act (ACA), into law. On June 28, 2012, the U.S. Supreme Court rendered a final decision to uphold the health care law. This law will require most U.S. citizens and legal residents to have health insurance.

This Act puts individuals, families and small business owners in control of their health care. It reduces premium costs for millions of working families and small businesses by providing hundreds of billions of dollars in tax relief—the largest middle class tax cut for health care in history. It also reduces what families will have to pay for health care by capping out-of-pocket expenses and requiring preventive care to be fully covered without any out-of-pocket expense. For Americans with insurance coverage who like what they have, they can keep it. It keeps insurance companies honest by setting clear rules that rein in the worst insurance industry abuses. And it bans insurance companies from denying insurance coverage because of a person's pre-existing medical conditions while giving consumers new power to appeal insurance company decisions that deny doctor-ordered treatments covered by insurance. (U.S. Department of Health and Human Services, 2013)

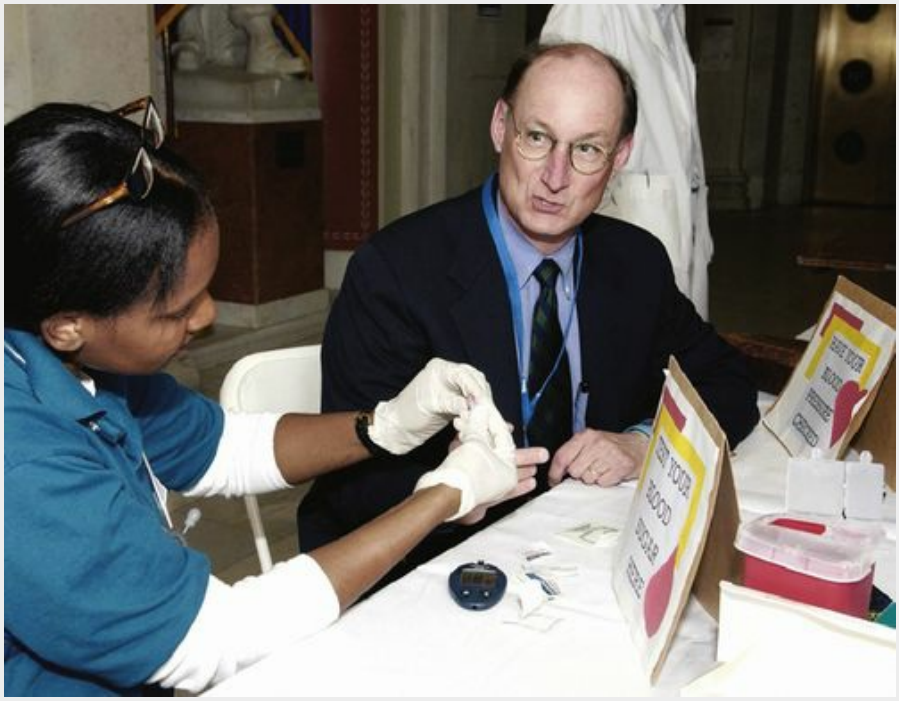
The U.S. government provides a website to understand the impact of this legislation for consumers from pregnant women to

the elderly, at http://www.hhs.gov/healthcare/rights/index.html, as well as a timeline for the ACA at http://www.hhs.gov/healthcare/facts/timeline/index.html. The Kaiser Family Foundation (2013) offers a video that will be helpful for all patients.

The *Healthy People 2020* objectives support this notion. To help achieve improved health status for all, health planning needs a coordinated approach that combines public and private cooperation with an emphasis on supplies and services. Advances in planning models and the sophistication level of planners will impact future health planning efforts.

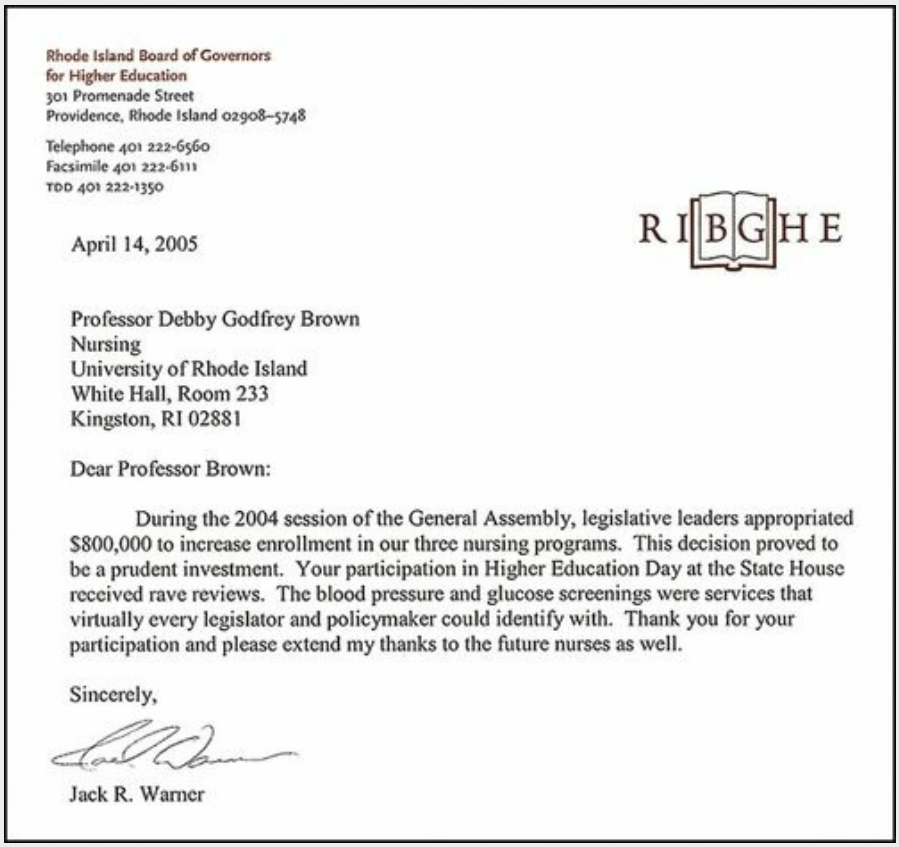
GETTING INVOLVED IN HEALTH PLANNING

Student nurses can support the health planning process to improve aggregate health care with awareness of, and involvement in, the political process. This involvement can consists of following health care legislation at the state and national levels, being an informed voter, contacting legislators on issues of concern, and participating in special events. (Photo from Architect of the Capital, Retrieved from http://www.aoc.gov/capitol-buildings/about-us-capitol-building.)



Student nurses also provide blood glucose screenings, with appropriate educational information regarding normal ranges, diet-controlled diabetes, and appropriate referral and treatment when necessary. (Courtesy Michael Salerno.)

Student nurses attend “Higher Ed Day” at the statehouse to highlight their accomplishments and their participation in the improvement of the health of the state’s residents. This student nurse is taking an individual’s blood pressure while providing educational information about hypertension identification, referral, and treatment. (Courtesy Michael Salerno.)



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April 14, 2005

RIBGHE

Professor Debby Godfrey Brown
Nursing
University of Rhode Island
White Hall, Room 233
Kingston, RI 02881

Dear Professor Brown:

During the 2004 session of the General Assembly, legislative leaders appropriated $800,000 to increase enrollment in our three nursing programs. This decision proved to be a prudent investment. Your participation in Higher Education Day at the State House received rave reviews. The blood pressure and glucose screenings were services that virtually every legislator and policymaker could identify with. Thank you for your participation and please extend my thanks to the future nurses as well.

Sincerely,

Jack R. Warner

They knew we were here! Positive feedback helps the student nurses recognize the importance of their participation and nursing actions. In addition, their role modeling can have an influence on other legislation, such as funding for their nursing program.

CASE STUDY APPLICATION OF THE NURSING PROCESS

José Mendez, a bilingual community health nursing student, worked with the school system in a community that had a large Portuguese subsystem. His primary responsibility was for students enrolled in the town's bilingual program. His contacts included the school nurse and the program teachers.

Assessment

José included the specific group of students, the members of the school system's organizational level, and the population group of the town's Portuguese-speaking residents in his assessment of the aggregate's health needs. José identified the subsystem's lack of primary disease prevention, specifically related to hygiene,

dental care, nutrition, and lifestyle choices, by observing the children, interviewing teachers and community residents, and reviewing the literature. José's continued assessment and prioritization revealed that the problem was related to a lack of knowledge and not a lack of concern.

Diagnosis

Individual

- Inadequate preparation at home regarding basic hygiene, dental care, nutrition, and healthy lifestyles

Family

- Developing strengths toward self-care regarding basic hygiene, dental care, nutrition, and healthy lifestyles

Community

- Inadequate resources for communicating basics of hygiene, dental care, nutrition, and healthy lifestyles to the Portuguese community

Planning

The teachers and staff of the bilingual program helped contract and set goals, which reinforced the need for mutuality at this step in the process. A variety of alternative interventions were necessary to accomplish the following goals:

Individual

Long-Term Goal

- Students will regularly practice good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Short-Term Goal

- Students will learn the basics of good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Family

Long-Term Goal

- Families will regularly practice and teach their children good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Short-Term Goal

- Families will learn the basics of good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Community

Long-Term Goal

- Systematic programs will provide families and their children with education and information regarding the basics of good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Short-Term Goal

- Bilingual personnel will translate information into Portuguese, and program teachers will distribute it to families. This information will cover the basics of good hygiene, preventive dental care, good nutrition, exercise, and adequate sleep habits.

Intervention

- Sometimes nursing students' projects are more limited than the planning stage's ideal; in this case, interventions assessed only one grade level.

Individual

- The student nurse taught children many healthy lifestyle basics, including nutrition, hygiene, and dental care. Classes presented information in Portuguese and English.

Family

- All parents received a summary of the class content in both languages and in pictures.

Community

- The local teachers communicated the student nurse's activities to their state-level coordinators, and the coordinators incorporated the student nurse's materials into the bilingual program throughout the state.

Evaluation

Individual, Family, Community

This community health planning project had an impact on the individuals in the specific aggregate and had broader implications for the family systems and the community suprasystem. The outcomes, or product, were hugely successful. Mutually identified goals and objectives influenced the development of the process and incorporated input from a variety of sources. The student nurse believed the resources and support for the bilingual program were adequate. Although the student nurse addressed only primary prevention, the continuing nature of the project will allow the teachers, the school nurse, and the families to assess problems related to the program's content. Future implementation may address secondary and tertiary prevention.

Questions

1. How would you evaluate this project?

2. How would you determine process and product evaluation?

3. What would you do differently?

Nursing Implications

Nurses must work collaboratively with health planners to improve aggregate health. Nurses can influence health planning at the local, state, or community level by fusing current technology with their knowledge of health care needs and skills gained through working with individuals, families, groups, and population groups. This is an example of "upstream interventions." Indeed, nurses may become directly involved in the planning process by participating in CON reviews or gaining membership on health planning councils. Even as students, nurses can begin to participate by engaging in aggregate-level projects, such as those outlined in this chapter, and by tracking health care legislation and contacting their legislators about important issues.

Increased nursing involvement is one method of strengthening local and national health planning. Nurses can use the Health Planning Model presented in this chapter to facilitate a systematic approach to improve aggregate health care. Nurses can assess aggregates from small groups through population groups; identify the group's health needs; and perform planning, intervention, and evaluations by applying this model. The health of individuals, families, and groups would improve if nurses reemphasized the larger aggregate.

Summary

Community health nurses are responsible for incorporating health planning into their practice. Nurses' unique talents and skills, augmented by the comprehensive application of the nursing process, can facilitate population health improvement at various aggregate levels. Health planning policy and process constitute part of the knowledge base of the baccalaureate-prepared nurse. Systems theory provides one framework for nursing process application in the community. Interventions are possible at subsystem, system, and suprasystem levels using all three levels of prevention.