McKENZIE NEIGER THACKERAY

PLANNING, IMPLEMENTING & EVALUATING

Health Promotion Programs

A PRIMER

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Planning, Implementing, and Evaluating Health Promotion Programs

A Primer

SEVENTH EDITION

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This book is dedicated to seven special people—

Bonnie, Anne, Greg, Mitchell, Julia, Sherry,
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and to our teachers and mentors—

Marshall H. Becker (deceased), Mary K. Beyer, Noreen Clark (deceased),
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PREFACE

This book is written for students who are enrolled in a professional course in health promotion program planning. It is designed to help them understand and develop the skills necessary to carry out program planning regardless of the setting. The book is unique among the health promotion planning textbooks on the market in that it provides readers with both theoretical and practical information. A straightforward, step-by-step format is used to make concepts clear and the full process of health promotion planning understandable. This book provides, under a single cover, material on all three areas of program development: planning, implementing, and evaluating.

Learning Aids

Each chapter includes chapter objectives, a list of key terms, presentation of content, chapter summary, review questions, activities, and Weblinks. In addition, many of the key concepts are further explained with information presented in boxes, figures, and tables. There are also two appendixes: *Code of Ethics for the Health Education Profession* and *Health Education Specialist Practice Analysis 2015—Responsibilities, Competencies, and Sub-competencies;* an extensive list of references; and a Glossary.

Chapter Objectives

The chapter objectives identify the content and skills that should be mastered after reading the chapter, answering the review questions, completing the activities, and using the Weblinks. Most of the objectives are written using the cognitive and psychomotor (behavior) educational domains. For most effective use of the objectives, we suggest that they be reviewed before reading the chapter. This will help readers focus on the major points in each chapter and facilitate answering the questions and completing the activities at the end.

Key Terms

Key terms are introduced in each chapter and are important to the understanding of the content. The terms are presented in a list at the beginning of each chapter and are printed in boldface at the appropriate points within the chapter. In addition, all the key terms are presented in the Glossary. Again, as with the chapter objectives, we suggest that readers skim

the key terms list before reading the chapter. Then, as the chapter is read, particular attention should be paid to the definition of each term.

Presentation of Content

Although each chapter could be expanded—in some cases, entire books have been written on topics we have covered in a chapter or less—we believe that each chapter contains the necessary information to help students understand and develop many of the skills required to be successful health promotion planners, implementers, and evaluators.

Responsibilities and Competencies Boxes

Within the first few pages of all except the first chapter, readers will find a box that contains the responsibilities and competencies for health education specialists that are applicable to the content of the chapter. The responsibilities and competencies presented in each chapter are the result of the most recent practice analysis—the *Health Education Specialist Practice Analysis 2015* (HESPA 2015), which is published in *A Competency-Based Framework for Health Education Specialists—2015* (NCHEC & SOPHE, 2015). These boxes will help readers understand how the chapter content applies to the responsibilities and competencies required of health education specialists. In addition, these boxes should help guide candidates as they prepare to take either the Certified Health Education Specialist (CHES) or Master Certified Health Education Specialist (MCHES) exam. A complete listing of the Responsibilities, Competencies, and Sub-competencies are presented in Appendix B.

Chapter Summary

At the end of each chapter, readers will find a one- or two-paragraph review of the major concepts covered in the chapter.

Review Questions

The questions at the end of each chapter provide readers with some feedback regarding their mastery of the content. These questions also reinforce the objectives and key terms presented in each chapter.

Activities

Each chapter includes several activities that allow students to use their new knowledge and skills. The activities are presented in several different formats for the sake of variety and to appeal to the different learning styles of students. It should be noted that, depending on the ones selected for completion, the activities in one chapter can build on those in a previous chapter and lead to the final product of a completely developed health promotion program plan.

Weblinks

The final portion of each chapter consists of a list of updated links on the World Wide Web. These links encourage students to explore a number of different Websites that are available to support planning, implementing, and evaluating programs.

New to This Edition

In revising this textbook, we incorporated as many suggestions from reviewers, colleagues, and former students as possible. In addition to updating material throughout the text, the following points reflect the major changes in this new edition:

- Chapter 1 has been updated to include information about the revised areas of responsibility, competencies, and subcompetencies based on the *Health Education Specialist Practice Analysis* (HESPA 2015) (NCHEC & SOPHE, 2015), and the implications of HESPA 2015 for the Health Education Profession.
- Chapter 2 has been expanded to include additional information on sources of evidence to support a program rationale, additional information on determining the financial burden of ill health, a new example of a written program rationale, and information on the importance of partnering with others when creating a program.
- Chapter 3 has been restructured to place more emphasis on the prominent planning models used in health promotion. The chapter also now includes the Evidence-Based Planning Framework in Public Health, the CHANGE tool used to plan healthy community initiatives, and more evidence-based examples of how planning models are used in practice.
- Chapter 4 has new information on the importance of needs assessment in the accreditation of health departments and the IRS requirement for not-for-profit hospitals, new information on using technology while conducting a needs assessment, and a new section on organizational health assessments.
- Chapter 5 includes new information on wording questions for different levels of measurement, how to present data in charts and graphs, how to write questions and response items for data collection instruments, and guidelines for the layout and visual presentation of data collection instruments.
- Chapter 6 now includes a new section on short-term, intermediate, and long-term objectives, and a new SMART objective checklist.
- Chapter 7 includes additional information on the expansion of the socio-ecological approach, additional information on the constructs of the social cognitive theory, the inclusion of the diffusion of innovations theory which was previously found in Chapter 11, and a new section on the limitations of theory.
- Chapter 8 features new information on motivational interviewing, new content on the built environment, new content on behavioral economics, information on the Affordable Care Act and its impact on incentives, and new content on the limitations of interventions.
- Chapter 9 includes new information on the renaming of community organizing strategies and updated figures on community organizing and community building typology and on mapping community capacity.
- Chapter 10 now includes expanded information on using volunteers as a program resource, and program funding by governmental agencies.
- Chapter 11 has been reworked and now has several new boxes and tables that include a social marketing planning sheet, factors to consider when selecting pre-testing methods, a 4Ps marketing mix example, types of questions to ask for formative research, and examples of segmentation.

- Chapter 12 content includes expanded information on logic models, new content on professional development including a template for a professional development plan, new content on monitoring implementation, and new content on the implementation of an evidence-based intervention.
- Chapter 13 now includes updated information on CDC's Framework for Program Evaluation and new information on CDC's characteristics of a good evaluator. In addition, new information has been added to support the importance of evaluation and the use of evaluation standards.
- Chapter 14 includes updated terminology and context for internal and external validity, and updated context for experimental, quasi-experimental, and non-experimental evaluation designs.
- Chapter 15 includes updated information for data management, data cleaning, and the transition to data analysis. In addition, new information is presented to show the relationship between levels of measurement and the selection of statistical tests including parametric and non-parametric tests.
- All chapters include more practical planning examples and, where appropriate, new application boxes have been added to chapters.
- A new appendix has been added that contains all of the Responsibilities, Competencies, and Sub-competencies that resulted from the Health Education Specialist Practice Analysis 2015.
- To assist students, the Companion Website (https://media.pearsoncmg.com/bc/bc_mckenzie_health_7) has been updated and includes chapter objectives, practice quizzes, Responsibilities and Competencies boxes, Weblinks, a new example program plan, the Glossary, and flashcards.
- To assist instructors, all of the teaching resources have been updated by Michelle LaClair, Pennsylvania State College of Medicine. These resources are available for download on the Pearson Instructor Resource Center. Go to http://www.pearsonhighered.com and search for the title to access and download the PowerPoint® presentations, electronic *Instructor Manual* and Test Bank, and TestGen Computerized Test Bank.

Students will find this book easy to understand and use. We are confident that if the chapters are carefully read and an honest effort is put into completing the activities and visiting the Weblinks, students will gain the essential knowledge and skills for program planning, implementation, and evaluation.

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J. F. M.
B. L. N.
R. T.

Chapter 1

Health Education, Health Promotion, Health Education Specialists, and Program Planning

Chapter Objectives

After reading this chapter and answering the questions at the end, you should be able to:

- Explain the relationship among good health behavior, health education, and health promotion.
- Explain the difference between health education and health promotion.
- Write your own definition of health education.
- Explain the role of the health educator as defined by the Role Delineation Project.
- Explain how a person becomes a Certified Health Education Specialist or a Master Certified Health Education Specialist.
- Explain what the Competencies Update Project (CUP), Health Educators Job Analysis (HEJA-2010), and Health Education Specialists Practice Analysis (HESPA-2015) have in common.
- Explain how the Competency-Based Framework for Health Education Specialist is used by colleges and universities, the National Commission for Health Education Credentialing, Inc. (NCHEC), Council for the Accreditation of Educator Preparation (CAEP), and the Council on Education for Public Health (CEPH)
- Identify the assumptions upon which health education is based.
- Define the term *pre-planning*.

Key Terms

Advanced level 1-health education specialist
Advanced level-2 health education specialist
community
decision makers
entry-level health education specialist
Framework
health behavior
health education
health education specialist
health promotion
Healthy People
pre-planning
primary prevention
priority population
Role Delineation Project
secondary prevention
stakeholders
tertiary prevention

History has shown that much progress was made in the health and life expectancy of Americans since 1900. During these 116+ years, we have seen a sharp drop in infant mortality (NCHS, 2015); the eradication of smallpox; the elimination of poliomyelitis in the Americas; the control of measles, rubella, tetanus, diphtheria, Haemophilus influenzae type b, and other infectious diseases; better family planning (CDC, 2001); and an increase of 31.5 years in the average life span of a person in the United States (CDC, 2015e). Over this same time, we have witnessed disease prevention change "from focusing on reducing environmental exposures over which the individual had little control, such as providing potable water, to emphasizing behaviors such as avoiding use of tobacco, fatty foods, and a sedentary lifestyle" (Breslow, 1999, p. 1030). Yet, even with this change in focus we, as a society, have done little to encourage health community design, and as individuals, most Americans have not changed their lifestyle enough to reduce their risk of illness, disability, and premature death. As a result, unhealthy lifestyle characteristics have lead to the United States ranking 94th (out of 225 countries) in crude death rate; 42nd (out of 224 countries) in life expectancy at birth; and 1st in health care spending (CIA, 2015).

Today in the United States, much of the death and disability of Americans is associated with chronic diseases. Seven out of every 10 deaths among Americans each year are from chronic diseases, while heart disease, cancer, and stroke account for approximately 50% of deaths each year (CDC, 2015b). In addition, more than 86% of all health care spending in the United States is on people with chronic conditions (CDC, 2015b). Chronic diseases are not only the most common, deadly, and costly, they are also the most preventable of all health problems in the United States (CDC, 2105b). They are the most preventable because four modifiable risk behaviors—lack of exercise or physical activity, poor nutrition, tobacco use, and excessive alcohol use—are responsible for much of the illness, suffering, and early death related to chronic diseases (CDC, 2015b) (see **Table 1.1**). In fact, one study estimates that all causes of mortality could be cut by 55% by never smoking, engaging in regular physical activity, eating a healthy diet, and avoiding being overweight (van Dam, Li, Spiegelman, Franco, & Hu, 2008).

TABLE 1.1 **Comparison of Most Common Causes of Death and Actual Causes of Death**

Most Common Causes of Death, United States, 2013*	Actual Causes of Death, United States, 2000**
1. Heart disease	1. Tobacco
2. Cancer	2. Poor diet and physical inactivity
3. Chronic lower respiratory diseases	3. Alcohol consumption
4. Unintentional injuries	4. Microbial agents
5. Stroke	5. Toxic agents
6. Alzheimer's disease	6. Motor vehicles
7. Diabetes	7. Firearms
8. Influenza and pneumonia	8. Sexual behavior
9. Kidney disease	9. Illicit drug use
10. Suicide	

*Kochanek, Murphy, Xu, & Arias (2014).

**Mokdad, Marks, Stroup, & Greberding (2004, 2005).

But modifying risk behaviors does not come easy to Americans. One study (Reeves & Rafferty, 2005) has shown that only 3% of U.S. adults adhere to four healthy lifestyle characteristics (not smoking, engaging in regular physical activity, maintaining a healthy weight, and eating five fruits and vegetables a day). If moderate alcohol use were included in the healthy lifestyle characteristics the percentage would be even lower (King, Mainous, Carnemolla, & Everett, 2009). Now in the second decade of the twenty-first century, behavior patterns continue to "represent the single most prominent domain of influence over health prospects in the United States" (McGinnis, Williams-Russo, & Knickman, 2002, p. 82).

Though the focus on good health, wellness, and **health behavior** (those behaviors that impact a person's health) seem commonplace in our lives today, it was not until the last fourth of the twentieth century that health promotion was recognized for its potential to help control injury and disease and to promote health.

> Most scholars, policymakers, and practitioners in health promotion would pick 1974 as the turning point that marks the beginning of health promotion as a significant component of national health policy in the twentieth century. That year Canada published its landmark policy statement, *A New Perspective on the Health of Canadians* (Lalonde, 1974). In the United States, Congress passed PL 94-317, the Health Information and Health Promotion Act, which created the Office of Health Information and Health Promotion, later renamed the Office of Disease Prevention and Health Promotion (Green 1999, p. 69).

This paved the way for the U.S. government's *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (USDHEW, 1979), which brought together much of what was known about the relationship of personal behavior and health status. The document also presented a "personal responsibility" model that provided Americans with a prescription for reducing their health risks and increasing their chances for good health.

It may not have been the content of ***Healthy People*** that made the publication so significant, because several publications written before it provided a similar message. Rather, *Healthy People* was important because it summarized the research available up to that point, presented it in a very readable format, and made the information available to the general public. *Healthy People* was followed by the release of the first set of health goals and objectives for the nation, titled *Promoting Health/Preventing Disease: Objectives for the Nation* (USDHHS, 1980).

These goals and objectives, now in their fourth generation (USDHHS, 2015c), have defined the nation's health agenda and guided its health policy since their inception. And, in part, they have kept the importance of good health visible to all Americans.

This focus on good health has given many people in the United States a desire to do something about their health. This desire, in turn, has increased the need for good health information that can be easily understood by the average person. One need only look at the Internet, current best-seller list, read the daily newspaper, observe the health advertisements delivered via electronic mass media, or consider the increase in the number of health-promoting facilities (not illness or sickness facilities) to verify the interest that American consumers have in health. Because of the increased interest in health and changing health behavior, health professionals are now faced with providing the public with information. However, obtaining good information does not mean that those who receive it will make healthy decisions and then act on those decisions. Good health education and health promotion programs are needed to assist people in reducing their health risks in order to obtain and maintain good health.

Health Education and Health Promotion

There is more to health education than simply disseminating health information (Auld et al., 2011). Health education is a much more involved process. Two formal definitions of health education have been frequently cited in the literature. The first comes from the *Report of the 2011 Joint Committee on Health Education and Promotion Terminology* (Joint Committee on Health Education and Promotion Terminology [known hereafter as the Joint Committee on Terminology], 2012). The committee defined **health education** as "[a]ny combination of planned learning experiences using evidence-based practices and/or sound theories that provide the opportunity to acquire knowledge, attitudes, and skills needed to adopt and maintain healthy behaviors" (Joint Committee on Terminology, 2012, p. S17). The second definition was presented by Green and Kreuter (2005), who defined health education as "any planned combination of learning experiences designed to predispose, enable, and reinforce voluntary behavior conducive to health in individuals, groups, or communities" (p. G-4).

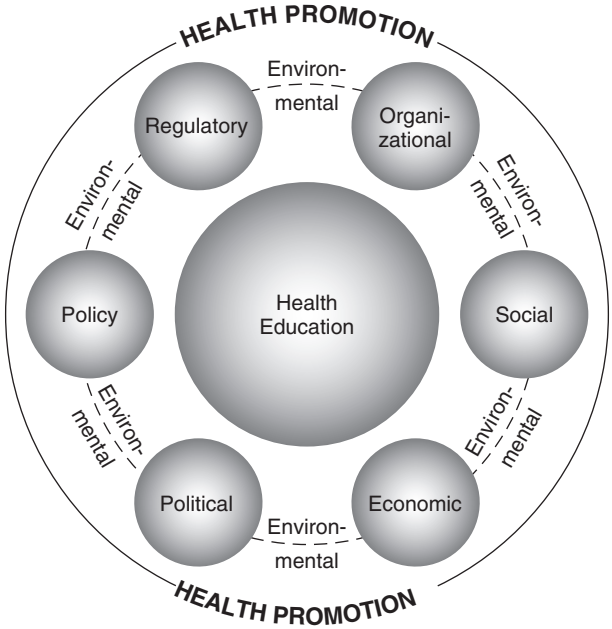
Another term that is closely related to health education, and sometimes incorrectly used in its place, is health promotion. *Health promotion* is a broader term than *health education*. In the *Report of the 2011 Joint Committee on Health Education and Promotion Terminology* (Joint Committee on Terminology, 2012, p. S19) **health promotion** is defined as "[a]ny planned combination of educational, political, environmental, regulatory, or organizational mechanisms that support actions and conditions of living conducive to the health of individuals, groups, and communities." Green and Kreuter (2005) offered a slightly different definition of *health promotion*, calling it "any planned combination of educational, political, regulatory and organizational supports for actions and conditions of living conducive to the health of individuals, groups, and communities" (p. G-4).

To help us further understand and operationalize the term *health promotion,* Breslow (1999) has stated, "Each person has a certain degree of health that may be expressed as a place in a spectrum. From that perspective, promoting health must focus on enhancing people's capacities for living. That means moving them toward the health end of the spectrum, just as prevention is aimed at avoiding disease that can move people toward the opposite end of the spectrum" (p. 1031). According to these definitions of health promotion, health education is an important component of health promotion and firmly implanted in it (see **Figure 1.1**). "Health promotion takes into account that human behavior is not only governed by personal factors (e.g., knowledge, expectancies, competencies, and well-being), but also by structural aspects of the environment" (Vogele, 2005, p. 272). However, "without health education, health promotion would be a manipulative social engineering enterprise" (Green & Kreuter, 1999, p. 19).

The effectiveness of health promotion programs can vary greatly. However, the success of a program can usually be linked to the planning that takes place before implementation of the program. Programs that have undergone a thorough planning process are usually the most successful. As the old saying goes, "If you fail to plan, your plan will fail."

Health Education Specialists

The individuals best qualified to plan health promotion programs are health education specialists. A **health education specialist** has been defined as "[a]n individual who has met, at a minimum, baccalaureate-level required health education academic preparation qualifications,



▲ **Figure 1.1** Relationship of Health Education and Health Promotion

who serves in a variety of settings, and is able to use appropriate educational strategies and methods to facilitate the development of policies, procedures, interventions, and systems conducive to the health of individuals, groups, and communities" (Joint Committee on Terminology, 2012, p. S18). Today, health education specialists can be found working in a variety of settings, including schools (K–12, colleges, and universities), community health agencies (governmental and nongovernmental), worksites (business, industry, and other work settings), and health care settings (e.g., clinics, hospitals, and managed care organizations). (Note: Prior to the term *health education specialists* being used by the health education profession, health education specialists were referred to as *health educators*. Throughout the remainder of this book the term *health education specialist* will be used except when the term *health educator* is part of a title or when the term carries historical relevance.)

The role of the health education specialist in the United States as we know it today is one that has evolved over time based on the need to provide people with educational interventions to enhance their health. The earliest signs of the role of the health education specialist appeared in the mid-1800s with school hygiene education, which was closely associated with physical activity. By the early 1900s, the need for health education spread to the public health arena, but it was the writers, journalists, social workers, and visiting nurses who were doing the educating—not health education specialists as we know them today (Deeds, 1992). As we gained more knowledge about the relationship between health, disease, and health behavior, it was obvious that the writers, journalists, social workers, visiting nurses, and primary caregivers—mainly physicians, dentists, other independent practitioners, and nurses—were unable to provide the needed health

TABLE 1.2 **Levels of Prevention**

Level of Prevention	Health Status	Example Interventions
Primary prevention – measures that forestall the onset of a disease, illness, or injury	Healthy, without signs and symptoms of disease, illness or injury	Activities directed at improving well-being while preventing specific health problems, e.g., legislation to mandate safe practices, exercise programs, immunizations, fluoride treatments
Secondary prevention – measures that lead to early diagnosis and prompt treatment of a disease, illness, or injury to minimize progression of health problem	Presence of disease, illness, or injury	Activities directed at early diagnosis, referral, and prompt treatment, e.g., mammograms, self-testicular exam, laboratory tests to diagnosis diabetes, hypercholesterolemia, hypothyroidism, programs to prevent reinjury
Tertiary prevention – measures aimed at rehabilitation following significant disease, illness, or injury	Disability, impairment, or dependency	Activities directed at rehabilitation to return a person to maximum usefulness, e.g., disease management programs, support groups, cardiac rehabilitation programs

education. The combination of the heavy workload of the primary caregivers, the lack of formal training in the process of educating others, and the need for education at all levels of prevention—**primary**, **secondary**, and **tertiary**—(see **Table 1.2**) created a need for health education specialists.

As the role of the health educator grew over the years, there was a movement by those in the discipline to clearly define their role so that people inside and outside the profession would have a better understanding of what the health education specialist did. In January 1979, the **Role Delineation Project** began (National Task Force on the Preparation and Practice of Health Educators, 1985). Through a comprehensive process, this project yielded a generic role for the **entry-level health educator**—that is, responsibilities for health education specialists taking their first job regardless of their work setting. Once the role of the entry-level health educator was delineated, the task became to translate the role into a structure that professional preparation programs in health education could use to design competency-based curricula. The resulting document, *A Framework for the Development of Competency-Based Curricula for Entry Level Health Educators* (NCHEC, 1985), and its revised version, *A Competency-Based Framework for the Professional Development of Certified Health Education Specialists* (NCHEC, 1996), provided such a structure. These documents, simply referred to as the **Framework** were comprised of the seven major areas of responsibility,

which defined the scope of practice, and several different competencies and subcompetencies, which further delineated the responsibilities.

Even though the seven areas of responsibility defined the role of the entry-level health educator, they did not fully express the work of the health education specialist with an advanced degree. Thus, over a four-year period beginning in 1992, the profession worked to define the role of an advanced-level practitioner. By July 1997, the governing boards of the National Commission for Health Education Credentialing, Inc. (NCHEC), the American Association of Health Education (AAHE), and the Society for Public Health Education (SOPHE) had endorsed three additional responsibilities for the advanced-level health educator. Those responsibilities revolved around research, administration, and the advancement of the profession (AAHE, NCHEC, & SOPHE, 1999).

The seven entry-level and three additional advanced-level responsibilities served the profession well, but during the mid- to late-1990s it became obvious that there was a need to revisit the responsibilities and competencies and to make sure that they still defined the role of the health educator. Thus in 1998, the profession launched a six-year multiphase research study known as the *National Health Educator Competencies Update Project* (CUP) to reverify the entry-level health educator responsibilities, competencies, and subcompetencies and to verify the advanced-level competencies and subcompetencies (Airhihenbuwa et al., 2005).

What became obvious from the analysis of the CUP data was that the seven responsibilities and many of the competencies and subcompetencies identified in the earlier Role Delineation Project were still valid. However, the wording of the responsibilities was changed slightly, some competencies and subcompetencies were dropped, and a few new ones were added. Also, certain subcompetencies were reported as more important and performed more regularly by health education specialists who had both more work experience and academic degrees beyond the baccalaureate level. Thus, the CUP model that emerged included responsibilities, competencies, and subcompetencies and the development of a three-tiered (i.e., Entry, **Advanced Level-1**, and **Advanced Level-2**) hierarchical model reflecting the role of the health educator. The results of the CUP, which were published approximately 20 years after the initial role delineation project, lead to the creation of a revised framework titled *A Competency-Based Framework for Health Educators* (NCHEC, SOPHE, & AAHE, 2006).

To keep the role of the health education specialist contemporary and to meet best practice guidelines of the National Commission for Certifying Agencies (NCCA), a third national research study known as the *Health Educator Job Analysis* (HEJA-2010) was conducted. The results of this study generated a new *Framework* titled *A Competency-Based Framework for Health Education Specialist–2010* (NCHEC, SOPHE, AAHE, 2010). The NCCA, the agency that accredits the Certified Health Education Specialist (CHES) and the Master Certified Health Education Specialist (MCHES) exam programs, has a standard that requires periodic updates of a job/practice analysis to keep the practice of the profession contemporary.

The most recent edition of the *Framework* titled *A Competency-Based Framework for Health Education Specialist–2015* (NCHEC & SOPHE, 2015) is the result of the *Health Education Specialist Practice Analysis* (HESPA-2015). Over the years, the number of Areas of Responsibility outlined in the *Framework* have remained fairly consistent (see **Box 1.1**). What has changed over the years is the wording of the Areas of Responsibilities and the number and wording

BOX 1.1

Areas of Responsibility for Health Education Specialists

AREA OF RESPONSIBILITY I:	Assess Needs, Resources, and Capacity for Health Education/Promotion
AREA OF RESPONSIBILITY II:	Plan Health Education/Promotion
AREA OF RESPONSIBILITY III:	Implement Health Education/Promotion
AREA OF RESPONSIBILITY IV:	Conduct Evaluation and Research Related to Health Education/Promotion
AREA OF RESPONSIBILITY V:	Administer and Manage Health Education/Promotion
AREA OF RESPONSIBILITY VI:	Serve as a Health Education/Promotion Resource Person
AREA OF RESPONSIBILITY VII:	Communicate, Promote, and Advocate for Health, Health Education/Promotion, and the Profession

Source: *A Competency-Based Framework for Health Education Specialists—2015*. Whitehall, PA: National Commission for Health Education Credentialing, Inc. (NCHEC) and the Society for Public Health Education (SOPHE). Reprinted by permission of the National Commission for Health Education Credentialing, Inc. (NCHEC) and the Society for Public Health Education (SOPHE).

of the competencies and subcompetencies found under the Areas of Responsibility. In the 2015 *Framework*, there are 36 competencies and 258 subcompetencies (141 Entry-level, 76 Advanced 1-level, and 41 Advanced 2-level) (NCHEC & SOPHE, 2015).

In reviewing the current seven areas of responsibility, it is obvious that four of the seven are directly related to program planning, implementation, and evaluation and that the other three could be associated with these processes, depending on the type of program being planned. In effect, these responsibilities distinguish health education specialists from other professionals who try to provide health education experiences.

The importance of the defined role of the health education specialist is becoming greater as the profession of health promotion continues to mature. This is exhibited by its use in several major professional activities. First, the *Framework* has provided a guide for all colleges and universities to use when designing and revising their curricula in health education to prepare future health education specialists. Second, the *Framework* was used by the National Commission for Health Education Credentialing, Inc. (NCHEC) to develop the core criteria for certifying individuals as health education specialists (Certified Health Education Specialists, or CHES). The first group of individuals (N=1,558) to receive the CHES credential did so between October 1988 and December 1989, during the charter certification period. "Charter certification allows qualified individuals to be certified based on their academic training, work experience, and references without taking the exam" (Cottrell, Girvan, McKenzie & Seabert, 2015, p. 171). In 1990, using a criterion-referenced examination based on the *Framework,* the nationwide testing program to certify health education specialists was begun by NCHEC, Inc.

In 2011, again using a criterion-referenced examination based on the *Framework*, NCHEC began offering an examination to certify advanced-level health education specialists. Those who passed the examination were awarded the Master Certified Health Education Specialist (MCHES) credential. Prior to the first MCHES examination, this new certification was made available to those who had held active CHES status since 2005 and who could demonstrate that they were practicing health education at an advanced-level. This process was known as the Experience Documentation Opportunity (EDO). All those

who successfully completed the EDO were granted the MCHES credential in April 2011. Currently, both the CHES and MCHES examinations are given twice a year—once in April and once in October—at approximately 130 college-campus locations around the United States. Both examinations are composed of 165 questions (150 are scored and 15 are pilot questions) and are offered in a paper-and-pencil format (NCHEC, 2015). Information about eligibility for the examinations and the percentage of questions from each Area of Responsibility are available on the NCHEC Website (see the link for the Website in the Weblinks section at the end of the chapter).

Third, the *Framework* is used by program accrediting bodies to review college and university academic programs in health education. Both the Council for the Accreditation of Educator Preparation (CAEP), which accredits teacher education programs, and the Council on Education for Public Health (CEPH), which accredits public health programs, use components of the *Framework* when accrediting programs that have a focus on health education. The accrediting processes used by both CAEP and CEPH are based on programs conducting a self-study by comparing components of their program to accrediting body criteria or standards. After the self-study is completed, peer external reviewers visit the campus of the college or university seeking accreditation to verify the contents of the self-study. The governing boards of CAEP and CEPH review the findings of the self-study and external reviewers report and vote on awarding accreditation.

The use of the *Framework* by the profession to guide academic curricula, provide the core criteria for the health education specialist examinations, and form the basis of program accreditation processes has done much to advance the health education profession. "In 1998 the U.S. Department of Commerce and Labor formally acknowledged 'health educator' as a distinct occupation. Such recognition was justified, based to a large extent, on the ability of the profession to specify its unique skills" (AAHE, NCHEC, & SOPHE, 1999, p. 9). In 2010, in its most recent update, the U.S. Department of Labor Bureau of Labor Statistics (BLS) described the work of health educators (Standard Occupation Classification [SOC] 21-1091) using the following language:

> Provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May serve as resource to assist individuals, other health professionals, or the community, and may administer fiscal resources for health education programs (USDOL, BLS, 2015, para. 1).

Assumptions of Health Promotion

So far, we have discussed the need for health, what health education and health promotion are, and the role health education specialists play in delivering successful health promotion programs. We have not yet discussed the assumptions that underlie health promotion—all the things that must be in place before the whole process of health promotion begins. In the mid-1980s, Bates and Winder (1984) outlined what they saw as four critical assumptions of health education. Their list has been modified by adding several items, rewording others, and referring to them as "assumptions of health promotion." This expanded list of assumptions is critical to understanding what we can expect from health promotion programs.

Health promotion is by no means the sole answer to the nation's health problems or, for that matter, the sole means of getting a smoker to stop smoking or a nonexerciser to exercise. Health promotion is an important part of the health system, but it does have limitations. Here are the assumptions:

1. Health status can be changed.
2. "Health and disease are determined by dynamic interactions among biological, psychological, behavioral, and social factors" (Pellmar, Brandt, & Baird, 2002, p. 217).
3. "Behavior can be changed and those changes can influence health" (IOM, 2001, p. 333).
4. "Individual behavior, family interactions, community and workplace relationships and resources, and public policy all contribute to health and influence behavior change" (Pellmar et al., 2002, p. 217).
5. "Interventions can successfully teach health-promoting behaviors or attenuate risky behaviors" (IOM, 2001, p. 333).
6. Before health behavior is changed, the determinants of behavior, the nature of the behavior, and the motivation for the behavior must be understood (DiClemente, Salazar, & Crosby, 2013).
7. "Initiating and maintaining a behavior change is difficult" (Pellmar et al., 2002, p. 217).
8. Individual responsibility should not be viewed as victim blaming, yet the importance of health behavior to health status must be understood.
9. For health behavior change to be permanent, an individual must be motivated and ready to change.

The importance of these assumptions is made clearer if we refer to the definitions of health education and health promotion presented earlier in the chapter. Implicit in those definitions is the goal of having program participants voluntarily adopt actions conducive to health. To achieve such a goal, the assumptions must indeed be in place. We cannot expect people to adopt lifelong health-enhancing behavior if we force them into such change. Nor can we expect people to change their behavior just because they have been exposed to a health promotion program. Health behavior change is very complex, and health education specialists should not expect to change every person with whom they come in contact. However, the greatest chance for success will come to those who have the knowledge and skills to plan, implement, and evaluate appropriate programs.

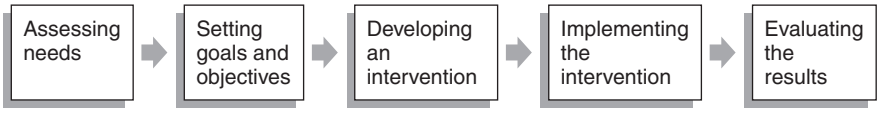
Program Planning

Because many of health education specialists' responsibilities are involved in some way with program planning, implementation, and evaluation, health education specialists need to become well versed in these processes. "Planning an effective program is more difficult than implementing it. Planning, implementing, and evaluating programs are all interrelated, but good planning skills are prerequisite to programs worthy of evaluation" (Minelli & Breckon, 2009, p. 137). All three processes are very involved, and much time, effort, practice, and on-the-job training are required to do them well. Even the most experienced health education specialists find program planning challenging because of the constant changes in settings, resources, and priority populations.

Hunnicutt (2007) offered four reasons why systematic planning is important. The first is that planning forces planners to think through details in advance. Detailed plans can help to avoid future problems. Second, planning helps to make a program transparent. Good planning keeps the program **stakeholders** (any person, community, or organization with a vested interest in a program; e.g., decision makers, partners, clients) informed. The planning process should not be mysterious or secretive. Third, planning is empowering. Once **decision makers** (those who have the authority to approve a plan; e.g., administrator of an organization, governing board, chief executive officer) give approval to the resulting comprehensive program plan, planners and facilitators are empowered to implement the program. Without an approved plan, planners will spend a great deal of time waiting for the "next step" to be approved and risk losing program momentum. And fourth, planning creates alignment. Once the decision makers have approved the program, all organization members have a better understanding of where it "fits" in the organization and the importance that the plan carries.

A general understanding of all that is involved in creating a health promotion program can be obtained by reviewing the Generalized Model (see **Figure 1.2**). (A more in-depth explanation of this model can be found in Chapter 3.) This model includes the five major steps involved in planning a program. However, prior to undertaking the first step in the Generalized Model, it is important to do some pre-planning. **Pre-planning** allows a core group of people (or steering committee) to gather answers to key questions (see **Box 1.2**) that are critical to the planning process before the actual planning process begins. It also helps to clarify and give direction to planning, and helps stakeholders avoid confusion as the planning progresses.

Also prior to starting the actual planning process, planners need to have a very good understanding of the "community" where the program will be implemented. When we say community, do not think of just a geographic area with specific boundaries like a neighborhood, city, county, or state. **Community** should be defined as "a collective body of individuals identified by common characteristics such as geography, interests, experiences, concerns, or values" (Joint Committee on Terminology, 2012, p. S15). For example, a community could be a religious community, a cancer-survivor community, a workplace community, or even a cyber community. Understanding the community means finding out as much as possible about the **priority population** (those for whom the program is intended to serve) and the environment in which it exists. Each setting and group is unique with its own nuances, resources, and culture. These are important to know at the beginning of the process. Planners should never assume they "know" a community. The more background information that planners secure, the better the resulting program can be. However, it is not enough to understand the community, planners also need to engage members of the priority population. Engaging the priority population means involving



▲ **Figure 1.2** Generalized Model

BOX 1.2 *Focus On*

Example Key Questions to Be Answered in the Pre-Planning Process

Purpose of program

- How is the community defined?
- What are the desired health outcomes?
- Does the community have the capacity and infrastructure to address the problem?
- Is a policy change needed?

Scope of the planning process

- Is it intra- or inter-organizational?
- What is the time frame for completing the project?

Planning process outcomes (deliverables)

- Written plan?
- Program proposal?
- Program documentation or justification?

Leadership and structure

- What authority, if any, will the planners have?
- How will the planners be organized?
- What is expected of those who participate in the planning process?

Identifying and engaging partners

- How will the partners be selected?
- Will the planning process use a top-down or bottom-up approach?

Identifying and securing resources

- How will the budget be determined?
- Will a written agreement (i.e., MOA—memorandum of agreement) outlining responsibilities be needed?
- If MOA is needed, what will it include?
- Will external funding (i.e., grants or contracts) be needed?
- Are there community resources (e.g., volunteers, space, donations) to support the planned program?
- How will the resources be obtained?

those in the priority population or a representative group from the priority population in the planning process.

Finally, before the actual planning begins thought must be given to "when the best time is to plan such a program, what data are needed, where the planning should occur, what resistance can be expected, and generally, what will enhance the success of the project" (Minelli & Breckon, 2009, p. 138).

The remaining chapters of this book present a process that health education specialists can use to plan, implement, and evaluate successful health promotion programs and will introduce you to the necessary knowledge and skills to carry out these tasks.

Summary

The increased interest in personal health and behavior change, and the flood of new health information have expanded the need for quality health promotion programs. Individuals are seeking guidance to enable them to make sound decisions about behavior that is conducive to their health. Those best prepared to help these people are health education specialists who complete a curriculum based upon the role defined by the profession. Properly trained health education specialists are aware of the limitations of the discipline and understand the assumptions on which health promotion is based. They also know that good planning does not happen by accident. Much time, effort, practice, and on-the-job training are needed to plan an effective program. The planning process begins with pre-planning.

Review Questions

1. Explain the role *Healthy People* played in the relationship between the American people and health.
2. How is *health education* defined by the Joint Committee on Terminology (2012)?
3. What are the key phrases in the definition of health education presented by Green and Kreuter (2005)?
4. What is the relationship between health education and health promotion?
5. Why is there a need for health education specialists?
6. What is the Role Delineation Project?
7. How is the *Competency-Based Framework for Health Education Specialists* used by colleges and universities? By NCHEC? By CAEP? By CEPH?
8. How does one become a Certified Health Education Specialist (CHES)?
9. How does one become a Master Certified Health Specialist (MCHES)?
10. What are the seven Areas of Responsibilities of health education specialists?
11. What is the National Health Educator Competencies Update Project (CUP)?
12. What is the Health Educator Job Analysis – 2010 (HEJA-2010)?
13. What is the Health Education Specialist Practice Analysis – 2015 (HESPA-2015)?
14. What assumptions are critical to health promotion?
15. What are the steps in the Generalized Model?
16. What is meant by the term *pre-planning*? Why is it important? What are some questions that should be answered during the pre-planning process?
17. How have stakeholders, decision makers, and community been defined in this chapter?

Activities

1. Based on what you have read in this chapter and your knowledge of the profession of health education, write your own definitions for *health, health education, health promotion*, and *health promotion program.*

2. Write a response indicating what you see as the importance of each of the nine assumptions presented in the chapter. Write no more than one paragraph per assumption.
3. With your knowledge of health promotion, what other assumptions would you add to the list presented in this chapter? Provide a one-paragraph rationale for each.
4. If you have not already done so, go online (http://profiles.nlm.nih.gov/ps/access/NNBBGK.pdf) or to the government documents section of the library on your campus and read *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (USDHEW, 1979).
5. Say you are in your senior year and will graduate next May with a bachelor's degree in health education. What steps would you have to take in order to be able to take the CHES exam in April prior to your graduation? (Hint: Check the Website of the National Commission for Health Education Credentialing, Inc.)
6. In a one-page paper describe the differences and similarities in the two credentials—CHES and MCHES—available to health education specialists. (Hint: Check the Website of the National Commission for Health Education Credentialing, Inc.)
7. In a one-page paper describe what the job outlook is projected to be for health education specialists for the next ten years. (Hint: Check the Website of the Bureau of Labor Statistics *Occupational Outlook Handbook*.)

Weblinks

1. **http://www.healthypeople.gov**

   Healthy People

   This is the Webpage for the U.S. government's Healthy People initiative including a complete presentation of *Healthy People 2020*.

2. **http://www.nchec.org/**

   National Commission for Health Education Credentialing, Inc. (NCHEC)

   The NCHEC, Inc. Website provides the most current information about the CHES and MCHES credentials.

3. **http://www.bls.gov/ooh/community-and-social-service/health-educators.htm**

   Occupational Outlook Handbook

   This is a Webpage provided by the Bureau of Labor Statistics that describes the occupation outlook for health educators and community health workers.

PART I **PLANNING A HEALTH PROMOTION PROGRAM**

The chapters in this section of the book provide the basic information needed to plan a health promotion program. Each chapter presents readers with the information they will need to build the knowledge to develop the skills to create a successful program in a variety of settings.

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Chapter 2

Starting the Planning Process

Chapter Objectives

After reading this chapter and answering the questions at the end, you should be able to:

- Develop a rationale for planning and implementing a health promotion program.
- Explain the importance of gaining the support of decision makers.
- Identify the individuals who could make up a planning committee.
- Explain what planning parameters are and the impact they have on program planning.

Key Terms

advisory board
cost-benefit analysis (CBA)
doers
epidemiology
evidence
evidence-based practice
Guide to Community Preventive Services
influencers
institutionalized
literature
organizational culture
planning committee
planning parameters
planning team
program ownership
return on investment (ROI)
social math
steering committee

As noted earlier (Chapter 1), planning a health promotion program is a multistep process that begins after doing pre-planning. "To plan is to engage in a process or a procedure to develop a method of achieving an end" (Minelli & Breckon, 2009, p. 137). However, because of the many different variables and circumstances of any one setting, the multistep process of planning does not always begin the same way. There are times when the need for a program is obvious and there is recognition that a new program should be put in place. For example, if a community's immunization rate for its children is less than half the national average, a program should be created. There are other times when a program has been successful in the past but needs to be changed or reworked slightly before being implemented again. And, there are situations where planners have been given the independence and authority to create the programs that are needed in a community in order to improve the health and quality of life. However, when the need is not so obvious, or when there has not been successful health promotion programming in the past or decision makers want "proof" (i.e., evidence) that a program is needed and will be successful, the planning process often begins with the planners creating a rationale to gain the support of key people in order to obtain the necessary resources to ensure that the planning process and the eventual implementation proceed as smoothly as possible.

BOX **2.1**

Responsibilities and Competencies for Health Education Specialists

The content of this chapter includes information on several tasks that occur early in the program planning process. These tasks are not associated with a single area of responsibility, but rather five areas of responsibility of the health education specialist:

RESPONSIBILITY I: Assess Needs, Resources, and Capacity for Health Education/ Promotion

Competency 1.2: Access existing information and data related to health

Competency 1.6: Examine factors that enhance or impede the process of health education/promotion

RESPONSIBILITY II: Plan Health Education/Promotion

Competency 2.1: Involve priority populations, partners, and other stakeholders in the planning process

RESPONSIBILITY V: Administer and Manage Health Education/Promotion

Competency 5.3: Manage relationships with partners and other stakeholders

Competency 5.4: Gain acceptance and support for health education/ promotion

Competency 5.5: Demonstrate leadership

RESPONSIBILITY VI: Serve as a Health Education/Promotion Resource Person

Competency 6.1: Obtain and disseminate health-related information

Competency 6.3: Provide advice and consultation on health education/ promotion issues

RESPONSIBILITY VII: Communicate, Promote, and Advocate for Health and Health Education/ Promotion, and the Profession

Competency 7.2: Engage in advocacy for health education/promotion

Competency 7.3: Influence policy and/or systems change to promote health and health education/promotion

Source: *A Competency-Based Framework for Health Education Specialists—2015*. Whitehall, PA: National Commission for Health Education Credentialing, Inc. (NCHEC) and the Society for Public Health Education (SOPHE). Reprinted by permission of the National Commission for Health Education Credentialing, Inc. (NCHEC) and the Society for Public Health Education (SOPHE).

This chapter presents the steps of creating a program rationale to obtain the support of decision makers, identifying those who may be interested in helping to plan the program, and establishing the parameters in which the planners must work. **Box 2.1** identifies the responsibilities and competencies for health education specialists that pertain to the material presented in this chapter.

The Need for Creating a Rationale to Gain the Support of Decision Makers

No matter what the setting of a health promotion program—whether a business, an industry, the community, a clinic, a hospital, or a school—it is most important that the program have support from the highest level (e.g., the administration, chief executive

officer, church elders, board of health, or board of directors) of the "community" for which the program is being planned (Allen & Hunnicutt, 2007; Chapman, 1997, 2006; Hunnicutt & Leffelman, 2006; Ryan, Chapman, & Rink, 2008). It is the individuals in these top-level decision-making positions who are able to provide the necessary resource support for the program.

> "Resources" usually means money, which can be turned into staff, facilities, materials, supplies, utilities, and all the myriad number of things that enable organized activity to take place over time. "Support" usually means a range of things: congruent organizational policies, program and concept visibility, expressions of priority value, personal involvement of key managers, a place at the table of organizational power, organizational credibility, and a role in integrated functioning (Chapman, 1997, p. 1).

There will be times when the idea for, or the motivating force behind, a program comes from the top-level people. When this happens, it is a real boon for the program planners because they do not have to sell the idea to these people to gain their support. However, this scenario does not occur frequently.

Often, the idea or the big push for a health promotion program comes from someone other than one who is part of the top-level of the "community." The idea could start with an employee, an interested parent, a health education specialist within the organization, a member of the parish or congregation, or a concerned individual or group from within the community. The idea might even be generated by an individual outside the "community," such as one who may have administrative or oversight responsibilities for activities in a community. An example of this arrangement is the employee of a state health department who provides consultative services to a local health department. Or it may be an individual from a regional agency who is partnering with a group within the community to carry out a collaborative project. When the scenario begins at a level below the decision makers, those who want to create a program must "sell" it to the decision makers. In other words, in order for resources and support to flow into health promotion programming, decision makers need to clearly perceive a set of values or benefits associated with the proposed program (Chapman, 2006). Without the support of decision makers, it becomes more difficult, if not impossible, to plan and implement a program. A number of years ago, Behrens (1983) stated that health promotion programs in business and industry have a greater chance for success if all levels of management, including the top, are committed and supportive. This is still true today of health promotion programs in all settings, not just programs in business and industry (see **Box 2.2**).

If they need to gain the support of decision makers, program planners should develop a rationale for the program's existence. Why is it necessary to sell something that everyone knows is worthwhile? After all, does anyone doubt the value of trying to help people gain and maintain good health? The answer to these and similar questions is that few people are motivated by health concerns alone. Decisions by top-level management to develop new programs are based on a variety of factors, including finances, policies, public image, and politics, to name a few. Thus to sell the program to those at the top, planners need to develop a rationale that shows how the new program will help decision makers to meet the organization's goals and, in turn, to carry out its mission. In other words, planners need to position their program rationale politically, in line with the organization.

BOX 2.2 *Focus On*

Measuring Decision Makers' Support for Health Promotion

Though the importance of decision makers' support to the success of health promotion programs has been known for a number of years, it is only recently that efforts have been put forth to actually measure decision makers' support for health promotion programs. Della, DeJoy, Goetzel, Ozminkowski, and Wilson (2008) created a valid instrument to assess leadership support for health promotion programs in work settings. The measurement tool, referred to as the Leading by Example (LBE) Instrument, is a four-factor scale. The four factors are (1) business assignment with health promotion objectives, (2) awareness of the economics of health and worker productivity, (3) worksite support for health promotion, and (4) leadership support for health promotion (Della et al., 2010). Della and colleagues feel that the LBE could be used in two ways. The first would be through a single administration "to assess specific areas in which the health promotion climate might support/hinder programmatic efforts" (p. 139). The second would be to administer the LBE two different times to monitor change in support for health promotion programs over time.

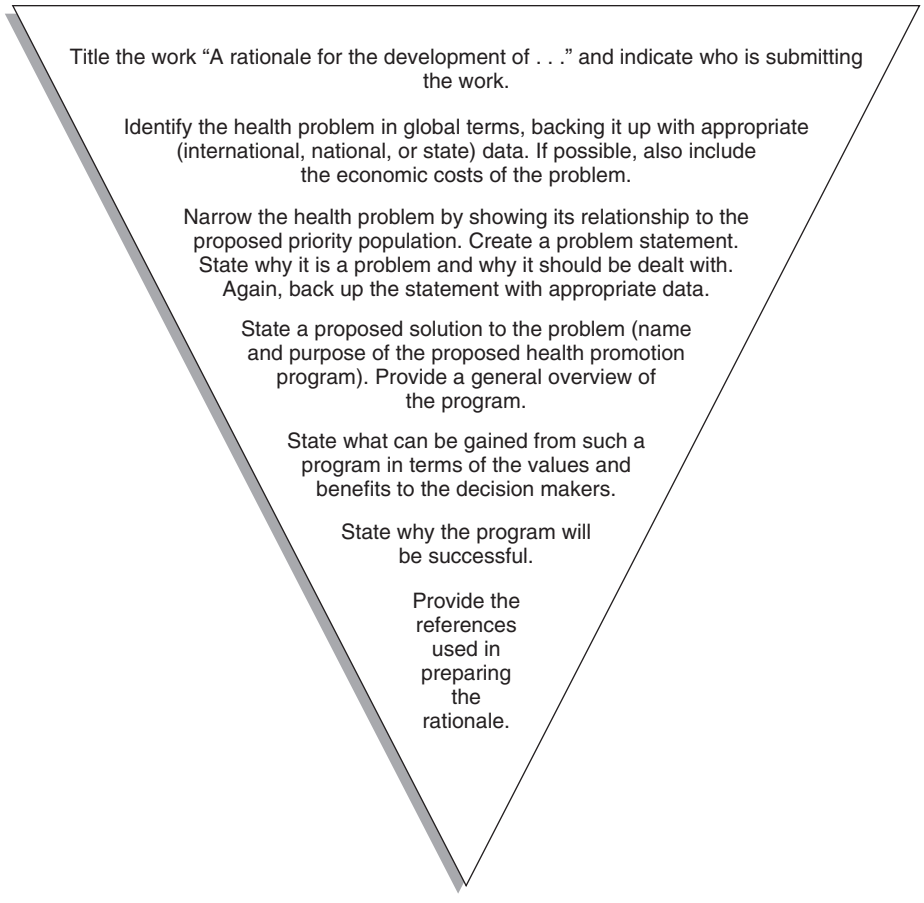
Steps in Creating a Program Rationale

Planners must understand that gaining the support of decision makers is one of the most important steps in the planning process and it should not be taken lightly. Many program ideas have died at this stage because the planners were not well prepared to sell the program to decision makers. Thus, before making an appeal to decision makers, planners need to have a sound rationale for creating a program that is supported by evidence that the proposed program will benefit those for whom it is planned.

There is no formula or recipe for writing a rationale, but through experience, the authors have found a logical format for putting ideas together to help guide planners (see **Figure 2.1**). Note that Figure 2.1 is presented as an inverted triangle. This inverted triangle is symbolic in design to reflect the flow of a program rationale beginning at the top by identifying a health problem in global terms and moving toward a more focused solution at the bottom of the triangle.

Step 1: Identify Appropriate Background Information

Before planners begin to write a program rationale, they need to identify appropriate sources of information and data that can be used to sell program development. The place to begin the process of identifying appropriate sources of information and data to support the development of a program rationale is to conduct a search of the existing literature. **Literature** includes the articles, books, government publications, and other documents that explain the past and current knowledge about a particular topic. By conducting a search, planners gain a better understanding of the health problem(s) of concern, approaches to reducing or eliminating the health problem, and an understanding of the people for whom the program is intended (remember these individuals are referred to as the priority population). There are a number of different ways that planners can carry out a review of the literature (see Chapter 4 for an explanation of the literature search process).



▲ **Figure 2.1** Creating a Rationale

In general, the types of information and data that are useful in writing a rationale include those that (1) express the needs and wants of the priority population, (2) describe the status of the health problem(s) within a given population, (3) show how the potential outcomes of the proposed program align with what the decision makers feel is important, (4) show compatibility with the health plan of a state or the nation, (5) provide evidence that the proposed program will make a difference, and (6) show how the proposed program will protect and preserve the single biggest asset of most organizations and communities—the people. Though many of these types of information and data are generated through a review of the literature, the first one discussed below—needs and wants of the priority population—is not.

Information and data that express the needs and wants of the priority population can be generated through a needs assessment. A *needs assessment* is the process of identifying, analyzing, and prioritizing the needs of a priority population. Needs assessments are carried out through a multiple-step process in which data are collected and analyzed. The analysis generates a

prioritized list of needs of the priority population (see Chapter 4 for a detailed explanation of the needs assessment process). Even though information and data that express the needs and wants of the priority population can be very useful in generating a rationale for a proposed program, more than likely at this point in the planning process, a formal needs assessment will not have been completed. Often, a complete needs assessment does not take place until decision makers give permission for the planning to begin. However, the review of literature may generate information about a needs assessment of another related or similar program. If so, it can provide valuable information and data that can help to develop the rationale.

Information and data that describe the status of a health problem within a population can be obtained by analyzing epidemiological data. Epidemiologic data are those that result from the process of **epidemiology**, which has been defined as "[t]he study of the occurrence and distribution of health-related events, states and processes in specific populations, including the study of determinants influencing such processes, and the application of this knowledge to control relevant health problems" (Porta, 2014, p. 95). Epidemiological data are available from a number of different sources including governmental agencies, governmental health agencies, non-governmental health agencies, and health care systems. **Table 2.1** provides some examples of useful sources of epidemiological data.

TABLE 2.1 **Example Sources of Epidemiological Data**

Source	Example Data
International	
World Health Organization	World Health Statistics Report (http://www.who.int/gho/publications/world_health_statistics/en/)
	Country Statistics (http://www.who.int/gho/countries/en/)
National	
Centers for Disease Control and Prevention	National Health and Nutrition Examination Survey (NHANES) (http://www.cdc.gov/nchs/nhanes.htm)
National Center for Health Statistics	National Health Interview Survey (NHIS) (http://www.cdc.gov/nchs/nhis.htm)
State	
Centers for Disease Control and Prevention	Behavioral Risk Factor Surveillance System (BRFSS) (http://www.cdc.gov/brfss/about/index.htm)
	Youth Risk Behavior Surveillance System (YRBSS) http://www.cdc.gov/healthyyouth/data/yrbs/index.htm
Pennsylvania Department of Health	Health Statistics (http://www.portal.state.pa.us/portal/server.pt/community/health_statistics/14136)
Local	
Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute	County Health Rankings & Roadmaps (http://www.countyhealthrankings.org/)

Epidemiologic data gain additional significance when it can be shown that the described health problem(s) is(are) the result of modifiable health behaviors and that spending money to promote healthy lifestyles and prevent health problems makes good economic sense. Here are a couple examples where modifiable health behaviors and health-related costs have been connected. The first deals with smoking. Approximately 17.8% of U.S. adults 18 years of age and older are cigarette smokers (CDC, 2015g). It has been estimated that the cost of ill effects from smoking in the United States totals approximately $300 billion per year. Almost equal amounts are spent on direct medical care ($170 billion) and productivity losses due to premature death and exposure to secondhand smoke ($156 billion) (CDC, 2015g). The second example deals with diabetes. It has been estimated that annual costs associated with diabetes are approximately $245 billion; $176 billion from direct medical costs and $69 billion indirect costs related to disability, work loss, and premature death (CDC, 2014a). We know that not all cases of diabetes are related to health behavior, but it is known for people with prediabetes, lifestyle changes, including a 5%–7% weight loss and at least 150 minutes of physical activity per week, can reduce the rate of onset of type 2 diabetes by 58% (CDC, 2012b). In addition, we know people with diagnosed diabetes have medical expenditures that are about 2.3 times higher than medical expenditures for people without diabetes (CDC, 2012b). When a rationale includes an economic component it is often reported based on a **cost-benefit analysis (CBA)**. A CBA of a health promotion program will yield the dollar benefit received from the dollars invested in the program. A common way of reporting a CBA is through a metric called **return on investment (ROI)**. ROI "measures the costs of a program (i.e., the investment) versus the financial return realized by that program" (Cavallo, 2006, p. 1) (see **Box 2.3** for formulas to calculate ROI). An example of ROI is a study that examined the economic impact of an investment of $10 per person per year in a proven community-based program to increase physical activity, improve nutrition, and prevent smoking and other tobacco use. The results of the study showed that the nation could save billions of dollars annually and have an ROI in one year of 0.96 to 1, 5.6 to 1 in 5 years, and 6.2 to 1 in 10–20 years (TFAH, 2009).

However, it should be noted that "proving" the economic impact of many health promotion programs is not easy. There are a number of reasons for this including the multiple

BOX 2.3 *Focus On*

Return on Investment

In general, ROI compares the dollars invested in something to the benefits produced by that investment:

$$\text{ROI} = \frac{(\text{benefits of investment} - \text{amount invested})}{\text{amount invested}}$$

In the case of an investment in a prevention program, ROI compares the savings produced by the intervention, net cost of the program, to how much the program cost:

$$\text{ROI} = \frac{\text{net savings}}{\text{cost of intervention}}$$

When ROI equals 0, the program pays for itself. When ROI is greater than 0, then the program is producing savings that exceed the cost of the program.

causes of many health problems, the complex interventions needed to deal with them, and the difficulty of carrying out rigorous research studies. Additionally, McGinnis and colleagues (2002) feel that part of the problem is that health promotion programs are held to a different standard than medical treatment programs when cost-effectiveness is being considered.

> In a vexing example of double standards, public investments in health promotion seem to require evidence that future savings in health and other social costs will offset the investments in prevention. Medical treatments do not need to measure up to the standard; all that is required here is evidence of safety and effectiveness. The cost-effectiveness challenge often is made tougher by a sense that the benefits need to accrue directly and in short term to the payer making investments. Neither of these two conditions applies in many interventions in health promotion (p. 84).

A helpful tool for calculating the financial burden of chronic diseases has been the Chronic Disease Cost Calculator Version 2 created by the Centers for Disease Control and Prevention and RTI International (see the link for the Website in the Weblinks section at the end of the chapter). For those planners interested in using economic impact and cost-effectiveness of health promotion programs as part of a program rationale, we recommend that the work of the following authors be reviewed: Centers for Disease Control and Prevention (CDC, 2015f), Chapman (2012), Cohen, Neumann, and Milton (2008), Goetzel and Ozminkowski (2008), Laine et al. (2014), McKenzie (1986), O'Donnell (2014), and Miller & Hendrie (2008).

Other information and data that are useful in creating a rationale are those that show how the potential outcomes of the proposed program align with what decision makers feel is important. Planners can often get a hint of what decision makers value by reviewing the organization's mission statement, annual report, and/or budget for health-related items. Planners could also survey decision makers to determine what is important to them (Chapman, 1997). **Table 2.2** provides a list of values or benefits that can be derived from health promotion programs, while **Table 2.3** provides a list of sources where information about values or benefits could be found.

TABLE 2.2 **Values or Benefits from Health Promotion Programs**

Value or Benefit for:	Types of Values or Benefits
Community	Establishing good health as norm; improved quality of life; improve the economic well-being of the community; provide model for other communities
Employee/Individual	Improved health status; reduction in health risks; improved health behavior; improved job satisfaction; lower out-of-pocket costs for health care; increased well-being, self-image, and self-esteem
Employer	Increased worker morale; enhanced worker performance/ productivity; recruitment and retention tool; reduced absenteeism and presenteeism; reduced disability days/claims, reduced health care costs; enhanced corporate image

Sources: Adapted from ACS (2009); CDC (2014c); and Chapman (1997).

TABLE 2.3 **Selected Sources of Information About Values or Benefits of Health Promotion Programs**

Source	Location of Information
American Heart Association	http://www.heart.org/HEARTORG/GettingHealthy/WorkplaceWellness/Workplace-Wellness_UCM_460416_SubHomePage.jsp
Centers for Disease Control and Prevention	
National Center for Health Statistics	http://www.cdc.gov/nchs/
Worklife	http://www.cdc.gov/niosh/twh/default.html
Workplace Health Promotion	http://www.cdc.gov/workplacehealthpromotion/
The Community Tool Box	http://ctb.ku.edu/en
National Committee for Quality Assurance	http://www.ncqa.org
National Business Group on Health	https://www.businessgrouphealth.org/preventive/businesscase/index.cfm
Prevention Institute	http://www.preventioninstitute.org/
Robert Wood Johnson Foundation	http://www.rwjf.org/en.html
Trust for America's Health (TFAH)	http://healthyamericans.org/reports/
U.S. Department of Health & Human Services	
Office of Assistant Secretary for Planning & Evaluation	http://aspe.hhs.gov
Wellness Council of America (WELCOA)	http://www.welcoa.org/resources/

A fourth source of information for a rationale is a comparison between the proposed program and the health plan for the nation or a state. Comparing the health needs of the priority population with those of other citizens of the state or of all Americans, as outlined in the goals and objectives of the nation (USDHHS, 2015c), should enable planners to show the compatibility between the goals of the proposed program and those of the nation's health plan (see Chapter 6 for a discussion of the *Healthy People 2020* goals and objectives).

A fifth source of information and data is *evidence* that the proposed program will be effective and make a difference if implemented. By **evidence** we mean the body of data that can be used to make decisions when planning a program. Such data can come from needs assessments, knowledge about the causes of a health problem, research that has tested the effectiveness of an intervention, and evaluations conducted on other health promotion programs. When program planners systematically find, appraise, and use evidence as the basis for decision making when planning a health promotion program, it is referred to as **evidence-based practice** (Cottrell & McKenzie, 2011).

Various forms of evidence can be placed on a continuum anchored at one end by *objective evidence* (or science-based evidence) and *subjective evidence* at the other of the continuum (Chambers & Kerner, 2007). Others (Howlett, Rogo, & Shelton, 2014) have organized the various forms of evidence as a hierarchy within an *evidence pyramid* with the objective evidence at the top of the pyramid and the more subjective evidence at the base of the pyramid. Irrespective of format for aligning and presenting the various forms of evidence, "[m]ore objective types of evidence include systematic reviews, whereas more subjective data involve personal experience and observations as well as anecdotes" (Brownson, Diez

Roux, & Swartz, 2014, p. 1). Because it is derived from a scientific process, objective evidence is seen as a higher quality of evidence. Planners should strive to use the *best evidence possible* but also understand that "evidence is usually imperfect" (Brownson, Baker, Leet, Gillespie, & True, 2011, p. 6) and, as planners, they will often be faced with having to use the *best evidence available* (Muir Gray, 1997). Over the years, the number of organizations/agencies that have worked to identify evidence of various types of health-related programs (i.e., health care, disease prevention, health promotion) has increased (see **Box 2.4** for examples). A most useful source for those planning health promotion programs is the ***Guide to Community Preventive Services***, referred to simply as *The Community Guide* (CDC, 2015c). *The Community Guide* summarizes the findings from systematic reviews of public health interventions covering a variety of topics. The systematic reviews are used to answer several questions (CDC, 2015c, para. 1):

- "Which program and policy interventions have been proven effective?
- Are there effective interventions that are right for my community?
- What might effective interventions cost; what is the likely return on investment?"

The *Community Guide* was developed and is continually updated by the nonfederal Task Force on Community Preventive Services. The Task Force, which is comprised of public health experts who are appointed by the director of the CDC, is charged with reviewing and assessing the quality of available evidence and developing appropriate recommendations.

Finally, when preparing a rationale to gain the support of decision makers, planners should not overlook the most important resource of any community—the people who make up the community. Promoting, maintaining, and in some cases restoring human health should be at the core of any health promotion program. Whatever the setting, better health of those in the priority population provides for a better quality of life. For those planners who end up practicing in a worksite setting, the importance of protecting the health of employees (i.e., protecting human resources) should be noted in developing a rationale. "Labor costs typically represent 60% to 70% of total annual operating costs for most organizations" (Chapman, 2006, p. 10); thus people are a company's single biggest asset. "Fit and healthy people are more productive, are better able to meet extraordinary demands and deal with stress, are absent less, reflect better on the company or community as exemplars, and so forth" (Chapman, 2006, p. 29).

Step 2: Title the Rationale

Once planners have identified and are familiar with the sources of information and data that can be used to sell program development, they are ready to begin the process of putting a rationale together. Thus, the next step is giving a title to the rationale. This can be quite simple in nature, such as "A Rationale for (Title of Program): A Program to Enhance the Health of (Name of Priority Population)." Immediately following the title should be a listing of who contributed to the authorship of the rationale.

Step 3: Writing the Content of the Rationale

The first paragraph or two of the rationale should identify the health problem from a "global perspective." By global perspective we mean presenting the problem using information and data at the most macro level (whether it be international, national, regional, state,

BOX 2.4 *Focus On*

Examples of Sources of Evidence

The Campbell Collaboration

Type of evidence: Produces systematic reviews on the effects of social interventions in crime and justice, education, international development, and social welfare.

Website: http://www.campbellcollaboration.org/

Centre for Reviews and Dissemination; The University of York

Type of evidence: Synthesized research evidence on various topics including health technology assessment, public health, and child health.

Website: http://www.york.ac.uk/crd/

Cochrane

Type of evidence: Synthesized research evidence on health and health care. Can be searched using various terms including health education and health promotion.

Website: http://www.cochrane.org/

Canadian Task Force on Preventive Health Care

Type of evidence: Practice guidelines that support primary care providers in delivering preventive health care. Also, has information for general public.

Website: http://www.canadiantaskforce.ca

Health Evidence, McMaster University, Canada

Type of evidence: Effectiveness of public health interventions in Canada.

Website: http://healthevidence.org

National Cancer Institute

Document: *Research-tested Intervention Programs*

Type of evidence: A searchable database of cancer control interventions and program materials that are designed to provide program planners and public health practitioners easy and immediate access to research-tested materials.

Website: http://rtips.cancer.gov/rtips/index.do

Substance Abuse and Mental Health Services

Document: *National Registry of Evidence-based Programs and Practices*

Type of Evidence: Searchable online registry of substance abuse and mental health interventions.

Website: http://nrepp.samhsa.gov

Task Force on Community Preventive Services

Document: *Guide to Community Preventive Services*

Type of evidence: Programs and policies to improve health and prevent disease in communities.

Website: http://www.thecommunityguide.org

U.S. Preventive Services Task Force

Document: *The Guide to Clinical Preventive Services*

Type of evidence: Recommendations on the use of screening, counseling, and other preventive services that are typically delivered in primary care settings.

Website: http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/uspstf/index.html

World Health Organization

Document: *Health Evidence Network (HEN)*

Type of evidence: Summarized evidence for public health, health care, and health systems policymakers.

Website: http://www.euro.who.int/en/data-and-evidence/evidence-informed-policy-making/health-evidence-network-hen

or local) possible. In other words, begin the rationale by presenting the problem at the most macro level for which supporting data are available. So, if there is international information and data on the problem, say for example HIV/AIDS, begin describing the problem at that level. If data are not available to present the problem at the international level, say for example people without health insurance, move down to next level where the presentation can be supported with data. If available, also include the economic costs of such a problem; it will strengthen the rationale. "Much of the decision-making that occurs, for change to take place in an organization is based on financial considerations, and any change within an organization typically must be supported by a positive return on investment. Lacking sound financial support or a firm understanding of the financial implications, a good idea may not be realized in practice" (Gambatese, 2008, p. 153). Most health problems are also present at other levels. Presenting the problem at these higher levels shows decision makers that dealing with the health problem is consistent with the concerns of others.

Showing the relationship of the health problem to the "bigger problem" at the international, national, and/or state levels is the next logical step in presenting the rationale. Thus, the next portion of the rationale is to identify the health problem that is the focus of the rationale. This declaration of the health problem is referred to as the *problem statement* or *statement of the problem*. The problem statement should begin with a concise explanation of the issue that needs to be addressed (WKKF, 2004). The statement should also include *why* it is a problem and *why* it should be dealt with (see **Box 2.5**). If available, the statement should also include supporting data for the problem. Such data may come from a needs assessment if it has already been completed or from related literature.

BOX 2.5 *Focus On*

Examples of Problem Statements

For a local-level program

The number of children entering kindergarten who have not received two doses of the measles-mumps-rubella (MMR) vaccine in Mitchell County continues to increase. In the 2011–12 school year, 95% of the children who entered kindergarten had received two doses, while only 91% were immunized properly in 2015–16. Because the number of cases of MMR does not seem too high to parents/guardians, many do not feel it is necessary to subject their children to immunizations. Infectious diseases remain a major cause of illness, disability, and mortality. "Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment" (USDHHS, 2015c, para. 6).

For a state-level program

Overweight and obesity are critical health threats facing the state of ABC. Between 2012 and 2015, the percentage of overweight adults in ABC increased from 34% to 35%, while the percentage of obese adults increased from 30% to 32%. Overweight and obesity are caused by an imbalance in the calories consumed vs. calories burned ratio. Both overweight and obesity increase the risks for heart disease, stroke, diabetes, and cancer. The annual costs (direct and indirect) of these diseases to the state have been estimated at $25 billion. There is good evidence that shows both the physical and financial costs of overweight and obesity are preventable.

In presenting the problem statement you may find it useful to use the technique of social math. **Social math** has been defined as "the practice of translating statistics and other data so they become interesting to the journalist, and meaningful to the audience" (Dorfman, Woodruff, Herbert, & Ervice, 2004, p. 112). In other words, data, especially large numbers, are presented in such a way that makes them easier to grasp by putting them in a context that gives instant meaning. "It is critical to select a social math fact that is 100 percent accurate, visual if possible, dramatic, and appropriate for the target audience" (NCIPC, 2008, 17). For example, $2.9 trillion was spent on health in 2013 in the United States (CMS, 2015b); 2.9 trillion is a large number and hard "to put our heads around." But equating that number with spending $9,255 for every person in the United States (CMS, 2015b) that year makes the number more comprehensible. Or, we could present the $2.9 trillion in social math terms by saying if every dollar equaled one second, then $2.9 trillion would equal 92,211 years! (See **Box 2.6** for other examples.)

BOX 2.6 *Focus On*

Examples of Social Math

- *Break the numbers down by time.*

  If you know the amount over a year, what does that look like per hour? Per minute? For example, the average annual salary of a childcare worker nationally is $15,430, roughly $7.42 per hour. While many people understand that an annual salary of $15,430 is low, breaking the figure down by the hour reinforces that point—and makes the need for some kind of intervention even more clear.
- *Break down the numbers by place.*

  Comparing a statistic with a well-known place can give people a sense of the statistic's magnitude. For instance, approximately 250,000 children are on waiting lists for childcare subsidies in California. That's enough children to fill almost every seat in every Major League ballpark in California. Such a comparison helps us visualize the scope of the problem and makes a solution all the more imperative.
- *Provide comparisons with familiar things.*

  Providing a comparison to something that is familiar can have great impact. For example, "While Head Start is a successful, celebrated educational program, it is so underfunded that it serves only about three-fifths of eligible children. Applying that proportion to social security would mean that almost a million currently eligible seniors wouldn't receive benefits."
- *Provide ironic comparisons.*

  For example, the average annual cost of full-time, licensed, center-based care for a child under age 2 in California is twice the tuition at the University of California at Berkeley. What's ironic here is how out of balance our public conversation is. Parents and the public focus so much on the cost of college when earlier education is dramatically more expensive.
- *Localize the numbers.*

  Make comparisons that will resonate with community members. For example, saying, "Center-based childcare for an infant costs $11,450 per year in Seattle, Washington," is one thing. Saying, "In Seattle, Washington, a father making minimum wage would have to spend 79 percent of his income per year to place his baby in a licensed care center," is much more powerful because it illustrates why it is nearly impossible.

Source: National Center for Injury Prevention and Control (2008; revised 2010). *Adding Power to Our Voices: A Framing Guide for Communicating About Injury*. Atlanta, GA: Author. Retrieved May 14, 2015, from http://www.cdc.gov/injury/pdfs/cdcframingguide-a.pdf

At this point in the rationale, propose a solution to the problem. The solution should include the name and purpose of the proposed health promotion program, and a general overview of what the program may include. Since the writing of a program rationale often precedes much of the formal planning process, the general overview of the program is often based upon the "best guess" of those creating the rationale. For example, if the purpose of a program is to improve the immunization rate of children in the community, a "best guess" of the eventual program might include interventions to increase awareness and knowledge about immunizations, and the reduction of the barriers that limit access to receiving immunizations. Following such an overview, include statements indicating what can be gained from the program. Do your best to align the potential values and benefits of the program with what is important to the decision makers.

Next, state why this program will be successful. This is the place to use the results of *evidence-based practice* to support the rationale. It can also be helpful to point out the similarity of the priority population to others with which similar programs have been successful. And finally, using the argument that the "timing is right" for the program can also be useful. By this we mean that there is no better time than now to work to solve the problem facing the priority population.

Step 4: Listing the References Used to Create the Rationale

The final step in creating a rationale is to include a list of the references used in preparing the rationale. Having a reference list shows decision makers that you studied the available information before presenting your idea. (See **Box 2.7** for an example of a program rationale.)

BOX 2.7 *Application*

Example Program Rationale

A Rationale for a Comprehensive Tobacco Control Program in Philadelphia County, Pennsylvania

The World Health Organization (WHO) has noted that tobacco "is one of the biggest public health threats the world has ever faced, killing nearly six million people a year. More than five million of those deaths are the result of direct tobacco use while more than 600,000 are the result of non-smokers being exposed to second-hand smoke. Approximately one person dies every six seconds due to tobacco, accounting for one in 10 adult deaths" (WHO, 2014, para. 4). In addition, it has been estimated that up to 50% of current users will die of a tobacco-related disease (WHO, 2014). To further quantify the burden of tobacco on the people of the world is to note that six million deaths is the equivalent of losing the entire population of the state of Maryland each year.

The impact of tobacco use and secondhand smoke exposure has also been a problem in the United States. In 2013, the percentage of adult (> 18 years of age) smokers in United States was 17.8%, which is the lowest it has ever been, but it still totals 42.1 million people. Tobacco is the single most preventable cause of disease, disability, and death in the United States (CDC, 2014), and accounts for approximately 480,000 deaths per year. It has been estimated that 41,000 of those deaths are of non-smokers exposed to secondhand smoke (CDC, 2015b). In total, tobacco use and secondhand smoke exposure are responsible for 20% of all deaths in the United States each year. In addition, more than 16 million Americans are living with a disease caused by smoking (CDC, 2015b). That means for every person who dies because of smoking, at least

BOX 2.7

continued

30 people live with a serious smoking-related illness. Smoking causes cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis, and it also increases risk for tuberculosis, certain eye diseases, and problems of the immune system, including rheumatoid arthritis (CDC, 2015d).

In addition to the costly physical burden of tobacco use and secondhand smoke exposure in the United States, there is also a significant economic cost. The total financial burden of tobacco to the United States is more than $300 billion per year. This includes $170 billion in direct medical costs and more than $156 billion in lost productivity due to premature death and exposure to secondhand smoke (CDC, 2015c).

Tobacco use and secondhand smoke exposure are also concerns for the residents of Pennsylvania. While the current national percentage of adult cigarette smokers is 17.8%, the current percentage of smokers in Pennsylvania is 21.0% (CI 19.9-22.0%) (CDC, 2015a). In addition, just over 4% of those residing in Pennsylvania use chewing tobacco, snuff, or snus (CDC, 2015a). Locally, the burden of tobacco use is even greater. Philadelphia County Pennsylvania, which is conterminous with the City of Philadelphia, is home to more than 1.5 million people. The current percentage of adult smokers in Philadelphia County is 23% (CI 22-25%) (University of Wisconsin [UW], 2015), which is clearly above both the state and national averages. In fact, Philadelphia has the highest rate of adult smoking among the 10 largest U.S. cities (CDC, 2013). Further, Philadelphia County is ranked last out of the 67 counties in Pennsylvania in both health outcomes and health factors (UW, 2015). The three leading causes of death in Philadelphia County are heart diseases, cancer, and stroke. All three of these causes have a common risk factor—smoking. Philadelphia County has implemented several interventions to reduce smoking including a public education program to encourage adults to quit, a clean indoor air ordinance, an ordinance to eliminate smoking at the city-owned outdoor recreational facilities, and compliance checks to ensure retailers are properly checking for identification before selling tobacco products (CDC, 2013). Although each of these efforts can contribute to the reduction in smoking, more needs to be done.

To reduce the prevalence of smoking in a community the CDC has recommended a comprehensive approach, which it has outlined in a document titled *Best Practices for Comprehensive Tobacco Control Programs–2014* (CDC, 2014). The program includes five components: 1) state and community interventions, 2) mass-reach health communication interventions, 3) cessation interventions, 4) surveillance and evaluation, and 5) infrastructure administration and management.

The goals of such a program are to:

- "Prevent initiation among youth and young adults.
- Promote quitting among adults and youth.
- Eliminate exposure to secondhand smoke.
- Identify and eliminate tobacco-related disparities among population groups" (CDC, 2014, p. 9).

This approach is not without its merits, it is recommended based on solid evidence. "The Community Preventive Services Task Force recommends comprehensive tobacco control programs based on strong evidence of effectiveness in reducing tobacco use and secondhand smoke exposure. Evidence indicates these programs reduce the prevalence of tobacco use among adults and young people, reduce tobacco product consumption, increase quitting, and contribute to reductions in tobacco-related diseases