



## PART 1

# Introduction: The Links Between Health and Behavior

The two selections in Part 1 provide a general introduction to an *ecological approach* toward understanding health behavior. An ecological approach assumes that there is a kind of “behavioral ecology” where multiple factors work together to influence people’s health-related behavior. The first selection, from Lawrence Green and Marshall Kreuter’s *Health Promotion Planning: An Educational and Ecological Approach* (3rd Edition), is an excellent summary of the evolution of the ecological approach in public health as well as the key issues involved. The second selection, from *Healthy People 2010*, is a slightly different take on an ecological approach that sets out *determinants of health* in different domains, including access to care, policies/interventions, biology, and the physical and social environment. *Healthy People* is the major planning document for all health promotion interventions supported by the federal government.

## READING 1

# Health Promotion Planning—An Educational and Ecological Approach

Source: Excerpt from Green, L. W., & Kreuter, M. W. (1999). *Health Promotion Planning—An Educational and Ecological Approach*. McGraw Hill: New York, pp. 20–26.

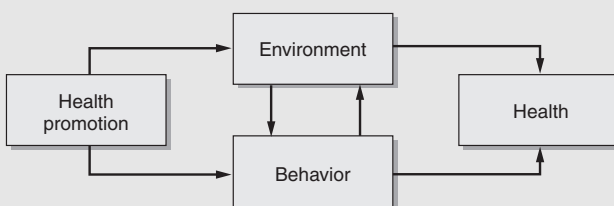
## THE ECOLOGICAL APPROACH

The interaction of behavior and environment in the middle of Figure 1-1 isolates the essence of the ecological approach to health promotion. The reciprocal, virtually inseparable, relationship of behavior and its environment is what makes the combination of educational and ecological approaches a defining feature of health promotion.

### Precedents for Ecological Approaches

One can find several streams of thought and action from which ecological perspectives have influenced health promotion.

**FIGURE 1-1**



Source: Green, L. W., & Kreuter, M. W. (1999). *Health Promotion Planning—An Educational and Ecological Approach*. McGraw Hill: New York, pp. 20–26.

Before that, they influenced public health education, and public health before that. These disciplines converged with various social and behavioral sciences and other professional perspectives to form the ecological and behavioral foundations of health promotion.

*Public Health.* The ecological perspective has been central to public health concepts and methods from their earliest formulations and applications.<sup>108</sup> It was influenced by the 19th century development of biological, especially Darwinian, concepts of the “web of life” and the role of the environment and adaptation in the survival of species. Public health first sought to ensure the survival of human species by controlling the physical environment. John Snow’s removal in 1854 of London’s Broad Street pump handle to prevent people from using cholera-contaminated water was heralded as the first classic epidemiological study. By mapping the sources of drinking water of those who died of cholera, Snow identified the environmental source of the illness 30 years before Koch isolated the cholera organism. The host-agent-environment triad was central to the development of epidemiology, but this ecological analysis informed an effective public health intervention even before the discovery of the agent.

*Epidemiology.* Epidemiology remained almost exclusively preoccupied with the physical, chemical, and biological environments until the 1960s. Its host-agent-environment triad kept it tied to human ecology, but its avoidance of social science theory made it a diffident partner of social ecology. The refocusing of epidemiology on chronic diseases in the 1960s added a growing concern with behavioral determinants of health,

accelerated in the 1980s with the advent of HIV and AIDS as the newest epidemic. The behavioral emphasis resulted in a narrowing of the focus and methodologies of epidemiology. This has led to a growing clamour in other sectors of public health, especially public health education, to widen the focus to include social, economic, organizational, and political environments as determinants of health and points of intervention.<sup>109</sup>

*Sociology.* In 1921, Park and Burgess introduced the term *human ecology* in an attempt to apply the basic theoretical scheme of plant and animal ecology to the study of human communities.<sup>110</sup> The subdiscipline of demography had risen earlier, when Malthus and others in the 19th century attempted to interpret population growth and movement in relation to environmental capacity to support the survival of populations. Borrowing a mathematical model of population growth and distribution from demography, rural sociology examined the patterns of social forces that could account for the diffusion and adoption of new farm practices and other innovations in agricultural communities or geographic areas. These ecological concepts of diffusion and adoption of innovations influenced the breadth of early thinking about mass health-education campaigns,<sup>111</sup> and later family planning<sup>112</sup> and chronic disease control in public health.<sup>113</sup> Medical sociology and cultural contexts in which health conditions and health behavior developed and distributed in populations.<sup>114</sup>

*Psychology.* Because of its interest in individual differences in behavior, psychology had an ecological awakening,<sup>115</sup> even in its most behaviorist areas of specialization, including behavior modification and analysis.<sup>116</sup> Psychology's focus on micro-ecologies offers as much to health promotion within settings (such as clinical settings, workplaces, and schools) as the public health and sociological analyses of wider-ranging environments (macro-ecology) offer community, state or provincial, and national health promotion planning and policy. Further, the subdisciplines of social, community, and environmental psychology have emerged to encompass ecological perspectives on individual behavior. They have influenced health education since World War II in the formulation of theories about how the mass media influence behavior through social networks.<sup>117</sup> They also have influenced health education's use of group dynamics in resolving social conflict and bringing social forces into play in the decision-making process.<sup>118</sup> These applications spilled over into early public health applications of community organization, community development, and planned change.<sup>119</sup>

*Education.* Learning theory has always given prominence to the interaction of learner and environment.<sup>120</sup> This has been

elaborated in latter-day Social Learning Theory (more recently called Social Cognitive Theory) and its core concept of reciprocal determinism between person and environment.<sup>121</sup> Education formalized theories in which the role of the environment and its interdependency with the person were paramount considerations in the development of educational policies and programs.<sup>122</sup> These concepts extended into the development of the subspecialty of school health education and the broader field of school health, which encompassed health curriculum, school environment, school lunch programs, and school health services, among other elements in an ecological approach to the health of schoolchildren.<sup>123</sup> These ideas persist in the modern practice of school health promotion, in which ecological notions of school-community coordination<sup>124</sup> and multilevel interventions with students, faculty, school environment, school policy, and school districts have been studied.<sup>125</sup>

*Other Disciplines and Professional Contributions.* Human and medical geography have lent particular emphasis on place to the study of health and health behavior. This has blended with health promotion concepts of setting-specificity in the planning of interventions for schools, workplaces, neighborhoods, and clinical settings. Within the broader field of community health promotion, geography has provided critical analyses of the relation of environment and health.<sup>126</sup> Geography has teamed with social work and other professions in the development and critique of indicators of health communities.<sup>127</sup>

### The Central Lessons of Ecology for Health Promotion

Ecological approaches in health promotion view health as a product of the interdependence of the individual and *subsystems* of the ecosystem (such as family, community, culture, and physical and social environment).<sup>128</sup> To promote health, this ecosystem must offer economic and social conditions conducive to health and healthful lifestyles. These environments must also provide information and life skills so individuals can make decisions to engage in behavior that maintains their health. Finally, healthful options among goods and services offered must be available.<sup>129</sup> In the ecological model of health promotion, all these aspects are envisioned as determinants of health. They also provide essential support in helping individuals modify their behaviors and reduce their exposure to risk factors.<sup>130</sup>

Ecological perspectives have insinuated themselves into the consciousness of most health practitioners working outside the clinical setting because it is what distinguishes their work most from the one-to-one patient or client relationships of the more numerous clinical health professionals. Community health and

public health textbooks make ecology one of the four or five scientific foundations on which they build the community or population approach to health analysis and planning.<sup>131</sup> Besides the descriptive aspects of ecology, what do the lessons of ecology have to say to health promotion practitioners?

*Unanticipated Effects.* Ecology cautions social reformers and practitioners in the applied sciences against tampering with change in smaller systems without considering and anticipating, before the intervention, their second- and third-order consequences, “not merely to rue them afterward.”<sup>132</sup> The unintended consequences on smaller systems may be even greater from larger systems when policy makers fail to consider cultural, geographic, and demographic variations within their scope of influence with technological and legislative changes. This has clearly also been the admonition and the contribution of cultural anthropology and applied anthropology to the field of public health.<sup>133</sup>

*Reciprocal Determinism.* The ecological or transactional view of behavior holds that the organism’s functioning is mediated by behavior-environment interaction. This has two implications for behavioral and social change:

1. Environment largely controls or sets limits on the behavior that occurs in it.
2. Changing environmental variables results in the modification of behavior.

These two points lead to the recognition that health promotion can achieve its best results by exercising whatever control or influence it can over the environment. But the reciprocal side of this equation also holds that the behavior of individuals, groups, and organizations also influences their environments. This leads to the credo of health promotion that seeks to “empower” people by giving them control over the determinants of their health, whether these are behavioral or environmental. By taking greater control themselves, rather than depending on health professionals to exercise the control for them, they should be in a better position to adjust their behavior to changing environmental conditions, or to adjust their environments to changing behavioral conditions.

*Environmental Specificity.* The same person will behave differently when observed in different environments.<sup>134</sup> This principle has led to a recognition in health promotion that environment modifies or conditions the more direct attempts to predispose, enable, and reinforce individual and collective behavior through persuasive or informative communications, training, rewards, or incentives. Its implication for health promotion planning and evaluation is that there is nothing *inher-*

*ently* superior or inferior in any health promotion method or strategy. A method’s effectiveness always depends on its appropriate fit with the people, the health issue at stake, and the environment in which it is to be applied. This gives further credence to the local or community focus of health promotion as its center of gravity, because it can be more adaptable and sensitive to particular traditions, cultural variations, and circumstances when planned at a community rather than a state, provincial, or national level.

*Multilevel and Multisectoral Intervention.* Because of its emphasis on the complex interdependencies of the elements making up an ecological web, an ecological approach would seem to demand interventions directed at several levels within an organizational structure or system and at multiple sectors (such as health, education, welfare, commerce, and transportation) of a social system. This is where most descriptions of ecological approaches take us and where most of them leave us. The specificity with which ecological guidelines can identify the particular levels and sectors in need of attention is inherently limited by the infinite variety of interactions that might apply in each idiosyncratic organization, community, or other social system. Following the first principle, “Do no harm,” and falling back on the prior lesson on environmental specificity, one might best in some instances restrict one’s interventions to selected levels and sectors of a complex system. At most, one should intervene where one can with certainty match interventions with need appropriately and where one can be accountable for side effects. The first calls for an assessment such as that offered by the Precede-Proceed model. The second requires restraint and a touch of humility.

### Limitations of the Ecological View for Health Promotion

Much as it forces a broader perspective on planning and practice that might otherwise drift into a reductionist, person-centered, or victim-blaming orientation, ecological thinking has its own traps and pitfalls. Because of their complexity, ecological approaches have not been worked out in great detail. Slobodkin complains that ecology is an intractable science, immature and not very helpful.<sup>135</sup> Others have reproached ecologists for not producing simple testable hypotheses. But the usual conclusion of such debates is that the scientific method requires the simplification of ecosystems, making artificial what is inherently complex. Health promotion is drawn to ecology because it enlarges the spotlight from a sharper focus on behavior to include the environment. But we are forced to retreat to behavior at some level. “We will have to learn that we don’t manage ecosystems, we manage our interaction with

them.”<sup>136</sup> Ecological approaches in health promotion cannot have been as thoroughly evaluated as clinical interventions, because the units of analysis lend themselves neither to random assignment to experimental and control groups nor to manipulation as independent variables, given the interdependence of persons and environments. Here follow some particular limitations that ecological approaches will face in health promotion in the near future.

*Complexity Breeds Despair.* If the ecological credo that everything influences everything else is carried to its logical extreme, the average health practitioner has good reason to do nothing, because the potential influence of or consequences on other parts of an ecological system lie beyond comprehension, much less control. Some specific forms of this despair include the following questions:

1. *How much is enough?* When trying to set the parameters around any given program, health planners, administrators, or practitioners must ask if they are doing enough to make a difference, but they will always be subject to the criticism that they have not gone deeply enough to the root of the problem. For example, even after public health workers had disavowed more strictly educational approaches to alcohol control, Pittman challenged the field, stating,

Environmental factors that impact alcohol problems are broader than such questions as alcohol availability, advertising, and the alcohol beverage industry’s marketing practices . . . It is much easier to mandate warning labels . . . or propose further restrictions on alcohol advertising or alcohol availability than to address and enact legislations to reduce social inequality, racism, discrimination, and inadequate health care in the United States.<sup>137</sup>

2. *Is everything that takes an educational approach, or attempts to help individuals, to be regarded as trivial and misguided?* Those health practitioners and teachers whose jobs are organized around helping or education people in clinical, school, or workplace settings are made to feel by some of the academic politically correct rhetoric that their efforts are a waste of time and, worse, part of the problem. The most vituperative epitaphs for such work are “victim blaming” and “Band-Aid” treatment of the symptoms rather than the cause.

*The Level of Analysis in an Ecosystem Hierarchy Is Observer-Dependent.* Neither a reductionist (small number, highly controllable), nor a holistic (large number, statistically described)

approach suffices to study or describe an ecosystem, because neither captures the system-subsystem relationships. One must examine both the system as a whole and the component subsystems. The frustration and inevitable criticism comes when one must acknowledge that the ecosystem within which one is examining subsystems is itself a subsystem of a larger ecosystem. The observer must decide what to include and what to omit from the analysis—that is, what slice of the hierarchy of subsystems to take for analysis.<sup>138</sup> This necessarily subjective decision will be invariably too narrow or too broad for the tastes (or values) of some other observers. Combine this problem with the dynamic rather than static nature of ecosystems, making the chosen slice a time-dependent set of observations, and one is left unavoidably with a case study of limited generalizability.

Planners wondering which slice of complex systems to analyze and target for intervention can do well by choosing those close enough to reach the people whose needs are to be served. Further, planners should reach as far as they can beyond that to assure support for the more immediate environmental changes needed, but not so far that the unknown needs of others might be affected adversely. Again, some restraint and humility might be blended with the courage it took to undertake an ecological approach in the first place.

## ENDNOTES

108. Green, L. W., & Ottoson, J. M. (1999). *Community and population health* (8th ed.). Boston: WCB/McGraw-Hill.
109. Rogers, E. S. (1960). *Human ecology and health: An introduction for administrators*. New York: Macmillan.
110. Rosen, G. (1958). *A history of public health*. New York: MD Publications.
111. Sydenstricker, E. (1933). *Health and environment*. New York: McGraw-Hill.
112. Brown, E. R., & Margo, G. E. (1978). Health education: Can the reformers be reformed? *International Journal of Health Services*, 8, 3–25.
113. Freudenberg, N. (1978). Shaping the future of health education: From behavior change to social change. *Health Education Monographs*, 6, 372–377.
114. Green, L. W. (1979b). National policy in the promotion of health. *International Journal of Health Education*, 22, 161–168.
115. Pearce, N. (1996). Traditional epidemiology, modern epidemiology, and public health. *American Journal of Public Health*, 86, 678–683.
116. Schwab, M., & Syme, S. L. (1997). On paradigms, community participation, and the future of public health. *American Journal of Public Health*, 87, 2049–2050.
117. Park, R. E., Burgess, E. W., & McKenzie, R. D. (Eds.). (1925). *The city*. Chicago: University of Chicago Press.
118. Griffiths, W., & Knutson, A. L. (1960). The role of mass media in public health. *American Journal of Public Health*, 50, 515–523.
119. Young, M. A. C. (1967). Review of research and studies related to health education communication: Methods and materials. *Health Education Monographs*, 1(25), 18–24.
120. Green, L. W. (1970a). Identifying and overcoming barriers to the diffusion of knowledge about family planning. *Advances in Fertility Control*, 5, 21–29.
121. Rogers, E. M. (1973). *Communication strategies for family planning*. New York: Free Press.
122. Green, L. W. (1975). Diffusion and adoption of innovations related to cardiovascular risk behavior in the public. In A. Enelow, & J. B. Henderson

- (Eds.), *Applying Behavioral Sciences to Cardiovascular Risk*. New York: American Heart Association.
- Green, L. W., Gottlieb, N. H., & Parcel, G. S. (1991). Diffusion theory extended and applied. In W. Ward, & F. M. Lewis (Eds.), *Advances in health education and promotion* (Vol. 3, pp. 91–117). London: Jessica Kingsley.
114. Anderson, O. W. (1957). Infant mortality and social and cultural factors: Historical trends and current patterns. In E. G. Jaco (Ed.), *Patients, physicians and illness* (pp. 10–24). Glencoe, IL: Free Press.
115. Barker, R. G. (1965). Explorations in ecological psychology. *American Psychologist*, 20, 1–14.
116. Baer, D. M. (1974). A note on the absence of a Santa Claus in any known ecosystem: A rejoinder to Willems. *Journal of Applied Behavior Analysis*, 7, 167–170.
117. Flay, B. R. (1987). Social psychological approaches to smoking prevention: Review and recommendations. In W. B. Ward, & P. D. Mullen (Eds.), *Advances in Health Education and Promotion* (Vol. 2, pp. 121–180). Greenwich, CT: JAI Press.
- Hovland, C., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.
- Worden, J. K., Flynn, B. S., Geller, B. M., et al. (1988). Development of a smoking prevention mass-media program using diagnostic and formative research. *Preventive Medicine*, 17, 531–558.
118. Lewin, K. (1943). Forces behind food habits and methods of change. *Bulletin of the National Research Council*, 108, 35–65.
- Nyswander, D. (1942). *Solving school health problems*. New York: Oxford University Press.
119. Mico, P. R. (Ed.). (1982). *The heritage collection of health education monographs* (4 vols.). Oakland, CA: Third Party Associates.
- Morgan, L. S., & Horning, B. G. (1940). The community health education program. *American Journal of Public Health*, 30, 1323–1330.
- Steuart, G. W. (1965). Health, behavior and planned change: An approach to the professional preparation of the health education specialist. *Health Education Monographs*, 1(20), 3–26.
120. Miller, N. E. (1984). Learning: Some facts and needed research relevant to maintaining health. In J. D. Matarazzo et al. (Eds.), *Behavioral health: A handbook of health enhancement and disease prevention* (pp. 199–208). New York: Wiley.
121. Bandura, A. (1977b). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Clark, N. M. (1987). Social learning theory in current health education practice. In W. B. Ward, S. K. Simonds, P. D. Mullen, & M. H. Becker (Eds.), *Advances in Health Education and Promotion* (vol. 2, pp. 251–275). Greenwich, CT: JAI Press.
- Parcel, G. S., & Baranowski, T. (1981). Social learning theory and health education. *Health Education*, 12(3), 14–18.
122. Dewey, J. (1946). *The public and its problems: An essay in political inquiry*. Chicago: Gateway.
123. Creswell, W., Jr., & Newman, I. M. (1997). *School health practice* (10th ed.). St. Louis: Times Mirror/Mosby.
124. Kolbe, L. J. (1986). Increasing the impact of school health promotion programs: Emerging research perspectives. *Health Education*, 17(5), 47–52.
125. Parcel, G. S., Simons-Morton, B. G., & Kolbe, L. J. (1988). Health promotion: Integration organizational change and student learning strategies. *Health Education Quarterly*, 15, 435–450.
126. Poland, B., Green, L., & Rootman, I. (Eds.). (in press). *Settings for health promotion*. Thousand Oaks, CA: Sage.
127. Hayes, M. V., & Manson Willms, S. (1990). Healthy community indicators: The perils of the search and the paucity of the find. *Health Promotion International*, 5, 161–166.
128. Macdonald, G., & Bunton, R. (1992). Health promotion, discipline or disciplines? In R. Bunton, & G. Macdonald (Eds.), *Health promotion: Disciplines and diversity* (pp. 6–19). London: Routledge.
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351–377.
129. Thorogood, N. (1992). What is the relevance of sociology for health promotion? In R. Bunton, & G. Macdonald (Eds.), *Health promotion: Disciplines and diversity* (pp. 42–65). London: Routledge.
130. Green, L. W., & Raeburn, J. (1998). Health promotion: What is it? What will it become? *Health Promotion International*, 3, 151–159. Revised and reprinted as L. W. Green, & J. Raeburn (1990). Contemporary developments in health promotion: Definitions and challenges. In N. Bracht (Ed.), *Health promotion at the community level* (pp. 29–44). Newbury Park, CA: Sage.
- Minkler, M. (1989). Health education, health promotion and the open society: An historical perspective. *Health Education Quarterly*, 16, 17–30.
131. Green, L. W., & Ottoson, J. M. (1999). *Community and population health* (8th ed.). Boston: WCB/McGraw-Hill.
132. Eisenberg, L. (1972). The human nature of human nature. *Science*, 176, 123–128.
- Foster, G. M. (1962). *Traditional cultures and the impact of technological change*. New York: Harper.
- Paul, B. D. (Ed.). (1955). *Health, culture and community*. New York: Russell Sage Foundation.
133. Foster, G. M. (1962). *Traditional cultures and the impact of technological change*. New York: Harper.
- Paul, B. D. (Ed.). (1955). *Health, culture and community*. New York: Russell Sage Foundation.
134. Sells, S. B. (1969). Ecology and the science of psychology. In E. P. Willems, & H. L. Rausch (Eds.), *Naturalistic viewpoints in psychological research* (pp. 15–30). New York: Holt, Rinehart, & Winston.
135. Slobodkin, L. B. (1988). Intellectual problems of applied ecology. *Bioscience*, 38, 337–342.
136. Kay, J. J., & Schneider, E. (1994). Embracing complexity: The challenge of the ecosystem approach. *Alternatives*, 20(3), 39.
137. Pittman, D. J. (1993). The new temperance movement in the United States: What happened to macro-structural factors in alcohol problems? *Addiction*, 88, 169.
138. King, A. W. (1993). Considerations of scale and hierarchy. In S. Woodley, J. J. Kay, & G. Francis (Eds.), *Ecological integrity and the management of ecosystems* (pp. 19–46). Delray, FL: St. Lucie Press.





## READING 2

## Determinants of Health

*Source:* Excerpt from *Healthy People 2010: A Systematic Approach to Health Improvement—DHHS 2000*. Available at [www.healthypeople.gov](http://www.healthypeople.gov).

Topics covered by the objectives in *Healthy People 2010* reflect the array of critical influences that determine the health of individuals and communities.

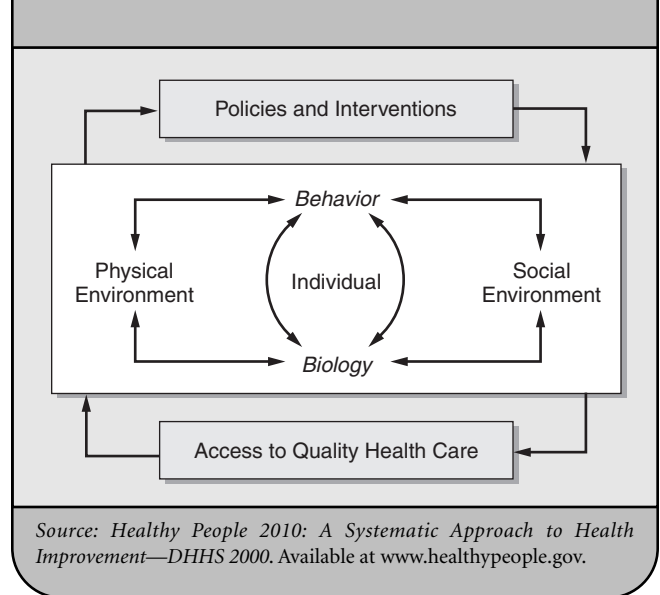
For example, individual behaviors and environmental factors are responsible for about 70 percent of all premature deaths in the United States. Developing and implementing policies and preventive interventions that effectively address these determinants of health can reduce the burden of illness, enhance quality of life, and increase longevity.

Individual *biology* and *behaviors* influence health through their interaction with each other and with the individual's *social* and *physical environments*. In addition, *policies and interventions* can improve health by targeting factors related to individuals and their environments, including *access to quality health care* (see Figure 1-2).

**Biology** refers to the individual's genetic makeup (those factors with which he or she is born), family history (which may suggest risk for disease), and the physical and mental health problems acquired during life. Aging, diet, physical activity, smoking, stress, alcohol or illicit drug abuse, injury or violence, or an infectious or toxic agent may result in illness or disability and can produce a “new” biology for the individual.

**Behaviors** are individual responses or reactions to internal stimuli and external conditions. Behaviors can have a reciprocal relationship to biology; in other words, each can react to the other. For example, smoking (behavior) can alter the cells in the lung and result in shortness of breath, emphysema,

**FIGURE 1-2** Determinants of health



*Source:* *Healthy People 2010: A Systematic Approach to Health Improvement—DHHS 2000*. Available at [www.healthypeople.gov](http://www.healthypeople.gov).

or cancer (biology) that then may lead an individual to stop smoking (behavior). Similarly, a family history that includes heart disease (biology) may motivate an individual to develop good eating habits, avoid tobacco, and maintain an active lifestyle (behaviors), which may prevent his or her own development of heart disease (biology).

Personal choices and the social and physical environments surrounding individuals can shape behaviors. The social and physical environments include all factors that affect the life of individuals, positively or negatively, many of which may not be under their immediate or direct control.

**Social environment** includes interactions with family, friends, coworkers, and others in the community. It also encompasses social institutions, such as law enforcement, the workplace, places of worship, and schools. Housing, public transportation, and the presence or absence of violence in the community are among other components of the social environment. The social environment has a profound effect on individual health, as well as on the health of the larger community, and is unique because of cultural customs; language; and personal, religious, or spiritual beliefs. At the same time, individuals and their behaviors contribute to the quality of the social environment.

**Physical environment** can be thought of as that which can be seen, touched, heard, smelled, and tasted. However, the physical environment also contains less tangible elements, such as radiation and ozone. The physical environment can harm individual and community health, especially when individuals and communities are exposed to toxic substances; irritants; infectious agents; and physical hazards in homes, schools, and worksites. The physical environment also can promote good health, for example, by providing clean and safe places for people to work, exercise, and play.

**Policies and interventions** can have a powerful and positive effect on the health of individuals and the community. Examples include health promotion campaigns to prevent smoking; policies mandating child restraints and safety belt use in automobiles; disease prevention services, such as immunization of children, adolescents, and adults; and clinical services, such as enhanced mental health care. Policies and interventions that promote individual and community health

may be implemented by a variety of agencies, such as transportation, education, energy, housing, labor, justice, and other venues, or through places of worship, community-based organizations, civic groups, and businesses.

The health of individuals and communities also depends greatly on **access to quality health care**. Expanding access to quality health care is important to eliminate health disparities and to increase the quality and years of healthy life for all people living in the United States. Health care in the broadest sense not only includes services received through health care providers but also health information and services received through other venues in the community.

The determinants of health—individual biology and behavior, physical and social environments, policies and interventions, and access to quality health care—have a profound effect on the health of individuals, communities, and the Nation. An evaluation of these determinants is an important part of developing any strategy to improve health.

Our understanding of these determinants and how they relate to one another, coupled with our understanding of how individual and community health affects the health of the Nation, is perhaps the most important key to achieving our Healthy People 2010 goals of increasing the quality and years of life and of eliminating the Nation's health disparities.

## REFERENCES

- U.S. Department of Health and Human Services, November 2000. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. Washington, DC: U.S. Government Printing Office.