

Leisure, Health, and Wellness: *Making the Connections*

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Chapter 38

Healthy Outdoor Recreation: An Integrated Approach to Linking Physical Activity with Wellness Goals

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The purpose of this chapter is to discuss the shared interest of the public health and leisure fields in promoting outdoor recreation. We describe how transdisciplinary integration of research efforts across these fields can lead to a better understanding of how outdoor recreation facilities and programs can help realize a full range of health and wellness benefits. Collaboration between practitioners in these fields can help a community meet its health and wellness goals. A case study of a proposed community recreational trail development is used as an example for how public health and leisure fields can collaborate to achieve shared health and wellness goals.

Outdoor Recreation and Health: Historical Precedents, Contemporary Issues

Collaboration between the public health and leisure fields may seem like a recent phenomenon. Yet more than a century and a half ago, the parks and recreation movement conceived the idea that promoting outdoor recreation could improve health. At that time, cities were growing rapidly and experiencing significant public health problems from industrial pollution, inadequate sanitary facilities, crime, and other stressors of urban life. Relying more on intuition than scientific evidence, civic leaders promoted parks and recreation as solutions to these problems. In Chicago for example, medical doctor John Rauch saw parks as the “lungs of the city” and advocated their development to provide citizens fresh air and physical health; landscape architects Swain Nelson and Frederick Law Olmsted promoted parks for aesthetic pleasure and spiritual uplift as well as a means of economic development; University of Chicago ecologist Henry Cowles and landscape architect Jens Jensen lobbied for the acquisition of nearby natural areas to protect the health of remnant native ecosystems; and social reformer Jane Addams helped establish a neighborhood parks and playground movement to address a range of social and community health issues. In their visionary 1909 *Plan of Chicago*, city planners Daniel Burnham and Edward Bennett laid out a system of parks and boulevards that would not only serve to

connect the city's diverse neighborhoods to each other but would also underscore the important interconnections among the various health and wellness benefits that parks and recreation can provide: physical, psychological, economic, environmental, and social (1).

As public health science progressed, promotion of physical activity emerged as one specific reason for the collaboration between health and leisure fields. The 1996 Surgeon General's Report, *Physical Activity and Health*, found conclusive evidence that regular physical activity provides substantial health benefits. Lack of regular physical activity has major health consequences and increases risk of many chronic health conditions, including obesity, cardiovascular disease, diabetes, depression, and anxiety. The U.S. Preventive Services Task Force found strong scientific evidence that improving access to recreational opportunities resulted in higher levels of physical activity in a community. Ironically, as the evidence for the health benefits of physical activity accumulated, people were adopting less active lifestyles. As health and leisure fields began to collaborate to promote physical activity, three important issues emerged.

The first issue was how to use park and outdoor recreation opportunities to reverse the trend toward low levels of physical inactivity among adults and children. Because work and school settings are increasingly sedentary in nature, public health realized that leisure time probably represented the best chance for incorporating regular bouts of moderate-to-vigorous physical activity (2). Over the past decade a good deal of research has been conducted with the goal of identifying how park and other outdoor environments can be designed, managed, and programmed to encourage people to increase their physical activity (3).

Like many indicators of community health, levels of physical activity demonstrate disparities: generally less advantaged groups in the population have a disproportionately high burden of disease due to inactivity. A second issue, then, is how park and outdoor recreation opportunities can help reduce the substantial health and wellness disparities that exist between various segments of our population. African-American and Hispanic adults and children have higher obesity prevalence and higher rates of some chronic diseases such as asthma and diabetes than those of European-American descent (4). Similar findings prevail for those living in low-income neighborhoods, and those who are minority and/or have low incomes not only tend to have less access to opportunities for leisure time physical activity but may also live in "food deserts" that lack access to nutritious foods from local stores and restaurants (5). These physical health disparities are often compounded by substantial environmental, social, and economic disparities that afflict the communities in which they live. While park

and recreation opportunities are not a panacea, attractive vegetation and open spaces can help spur economic activity and increase social capital.

A third important issue relates to how to structure the collaboration between public health and leisure fields. A consensus has emerged that the fields should move toward transdisciplinary models of collaboration, as these offer the most promise for success. This approach involves merging knowledge, concepts, frameworks, and models from public health and leisure studies, as will be discussed. Such an approach counters the tendency of public health researchers interested in the connection between health and the environment to focus narrowly on physical health issues and neglect other dimensions of health and wellness. For example, it was tempting for public health to focus only on how physical features of parks (e.g., trails, sports fields) can be used to increase active visits to parks and ignore the mental health benefits which could be obtained by either inactive or active visits. Public health can benefit from research in leisure studies, which has studied how to increase active visits as part of a broader goal of increasing quality visits to parks. At the same time, public health science can provide park and recreation practitioners more information about promoting physical activity in a manner that promotes health. For example, parks should facilitate bouts of aerobic moderate-to-vigorous physical activity of 10 minutes or more, as these bouts produce the greatest health benefits. To an increasing extent, today's program and policy decisions are based on solid research evidence. Yet disciplinary knowledge tends to be fragmented, and efforts to synthesize knowledge across disciplines are needed. While specialization is a necessary component of scientific progress, issues such health and wellness are too complex and important to be worked on in an atmosphere of disciplinary isolation.

A Framework for Transdisciplinary Collaboration

Transdisciplinary approaches to research recognize the complexity of real world problems and organize research programs around collaborative problem solving. This differs from multidisciplinary approaches, where two or more disciplines each study an issue without integrating their methods or results, and interdisciplinary approaches, where people use the models and approaches of their discipline to contribute to an integrated effort or synthesis. With a transdisciplinary approach, people move beyond discipline specific models and approaches and develop a single model or approach that meets the needs of all disciplines involved. This often entails an integration of knowledge, concepts, and models from different disciplines in a way that leads to new ways of thinking and operating, not only within a research context but in how research ideas and findings are tested and implemented through policies and programs.

Transdisciplinary approaches have become increasingly used in “active living research” that addresses how the environment and policies can be designed to incorporate greater physical activity in people’s lives. In an earlier paper focusing on that issue, we discussed how models developed by public health and leisure researchers can be improved through transdisciplinary collaboration. In this section, we summarize this work in the broader context of outdoor recreation, health and wellness (6).

A Social-Ecological Model of Public Health Research and Program Delivery

Ecological models of human behavior examine the relationships between people and their environments and how interventions in these domains can affect outcomes. The public health sector has typically relied on a social-ecological model, arguing that successful solutions to complex health problems require coordinated interventions at individual, interpersonal, organizational, community, and societal levels (7). In particular, the model asserts that success in improving a health problem requires environmental and policy interventions. A social-ecological approach to promoting health and wellness through outdoor recreation might involve the following initiatives:

- *Individual:* Individual instruction to build skills and confidence in outdoor recreation activities (e.g., kayaking or rock climbing);
- *Interpersonal:* Programs for adults, children, families and other social groups that build support networks to encourage regular visits to a park;
- *Organization:* Free programs and outreach events that promote regular outdoor recreation in parks (e.g., foot races or outdoor exercise programs);
- *Community:* Community policing strategies that help ensure safe access to and in parks (e.g., community service bicycle patrols, improved lighting, and surveillance);
- *Society:* State and federal funding programs to develop park and greenway trails for outdoor recreation and health.

Socio-ecologic models are implemented using evidence-based interventions. Lacking evidence of their effectiveness, programs and policies risk failure in accomplishing desired behavioral change. Well-intentioned communities have developed parks and trails for physical activity, only to find that facilities were underutilized or are used for mainly sedentary purposes. Under such conditions, a transdisciplinary perspective can be

useful. This perspective recognizes that physical access to a park is only one of many factors which affect use of the park, so that affecting only one determinant of park use may not be sufficient to influence active visits.

A Benefits Approach to Leisure Research and Management

Relying on reasoning similar to the underpinnings of the social-ecological model, leisure researchers have developed a benefits-based approach to leisure from a policy, problem-oriented perspective. The benefits approach recognizes that outdoor recreation settings and activities are situated within a larger sociopolitical context. This context could be management of wildlands, in which much of the foundational research on leisure benefits was conducted, or in urban planning situations such as the development of a trail in a low-income, minority community (8). Whatever the case, researchers and managers need to understand the potential range of benefits sought by stakeholders. Framed within a health and wellness perspective these can be described as:

- *Physical:* Outdoor recreation activities and settings can provide opportunities for people to improve their physical health through movement, active exercise, exposure to fresh air, and access to nutritional foods;
- *Psychological:* Exposure and access to outdoor recreation opportunities can help reduce psychological stress, improve attention, achieve positive mood states and emotions, and even realize valued aesthetic and spiritual experiences;
- *Economic:* Public green space and attractive landscaping can increase the value of nearby residential homes; at larger scales they can contribute to economic revitalization efforts;
- *Environmental:* A city’s green infrastructure can moderate urban heat island effects, filter out air particulates, reduce runoff and flooding, and provide other important environmental services for the well-being of individuals and communities;
- *Social and community:* Attractive, well-maintained green spaces can act as crime deterrents and improve social cohesion, and participation in community greening programs can empower communities and raise social capital.

As one contemplates how this range of outdoor recreation benefits relates to health and wellness goals, it becomes clear how well such an approach marries with the social-ecological model: particular evidence-based

interventions of the social-ecological approach are selected based upon their profile of benefits, with benefits occurring in a larger context than just individual physical health. Benefits are scale dependent and in providing them one must consider how they relate across the hierarchy of concerns from individual to societal levels.

In the next section of this chapter, we provide an example for how this transdisciplinary framework might be applied in a real-world setting: The proposed development of a recreational trail to address health and wellness goals within a low-income, minority community.

Case Study Example: The Englewood New ERA Community Trail Corridor

In a recent effort to identify new park and recreation opportunities in Chicago, planners discovered an abandoned rail corridor segment in the Englewood community on the city's south side. At first glance, the 2-mile, elevated rail segment did not fit the typical idea for recreational trail development. It was short and cut off from potential connections to other trails by an expressway and rail yard on either end, had few natural features of merit other than the volunteer trees and plants growing along the corridor itself, and went through one of the poorest and most crime-ridden neighborhoods in the city. But upon closer inspection community residents and advocates saw the corridor as an opportunity to connect health and outdoor recreation together in exciting new ways.

Englewood's residents are 98% African American, 43% are at or below poverty level, and since the white flight of the 1950s and 60s, the community has lost more than half its population and housing stock. Obesity prevalence and associated health problems are high, the community has been classified as a food desert, and indoor and outdoor fitness opportunities are constrained by poverty and concerns about safety. But after decades of decline, Englewood is working to address its many problems through planning and community organizing efforts that tie health and wellness issues to community revitalization. A 2005 Quality of Life Plan developed by community stakeholders and support groups set the stage by identifying strategies for revitalization through open space development, the promotion of healthy lifestyles, and the creation of recreation opportunities; these strategies link to others that aim to revitalize the community through the creation of employment, retail, and housing opportunities, as well as the improvement of neighborhood safety (Figure 38.1) (9).

The 2009 *New ERA Trail Community Vision Plan: A Path for Transformation* shows how development of the trail corridor can serve as a catalyst to help achieve the strategies put forth in the 2005 Quality of Life

plan and link them through new and ongoing projects. The trail itself would provide opportunities for active outdoor recreation but would also encourage physical activity by linking parks, shopping, and other community destinations with a safe, neighborhood transportation route. One particularly

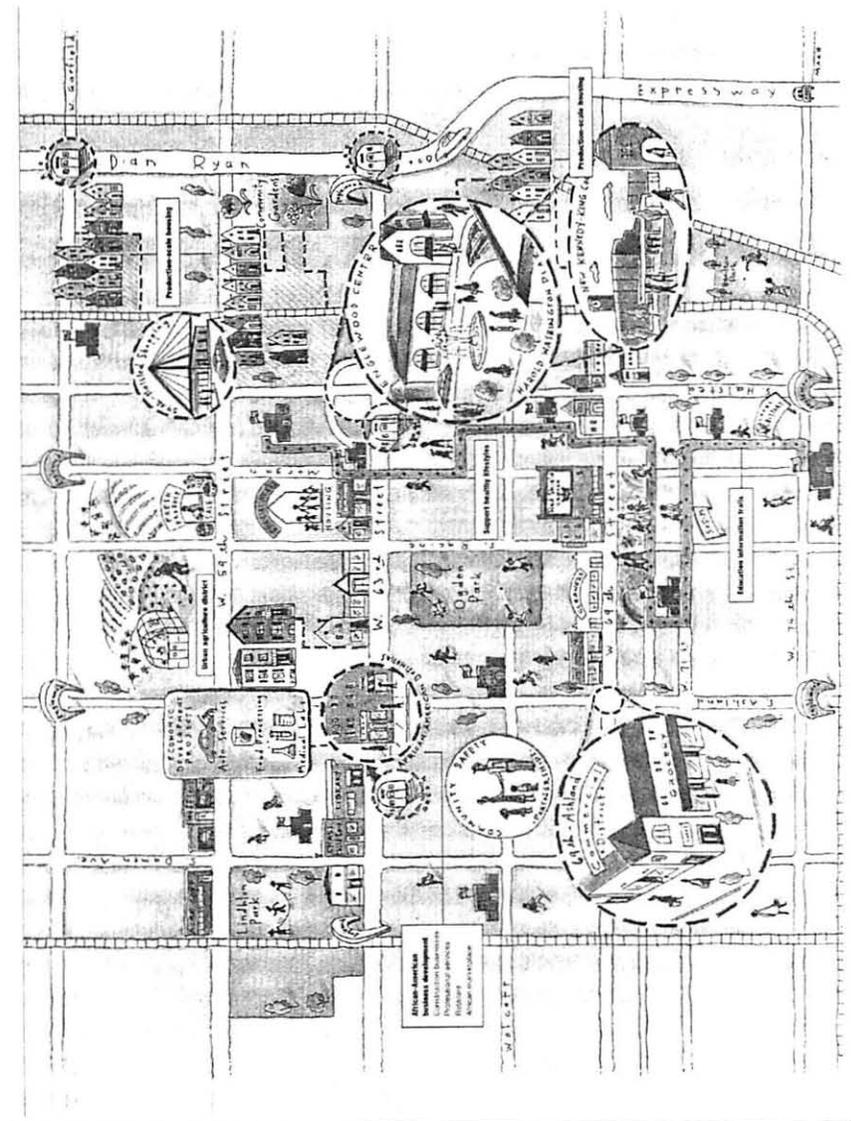


Figure 38.1 Community Vision from 2005 Englewood Quality of Life Plan (courtesy Local Initiatives Support Corporation/New Communities Program, Chicago)

important linkage is food production and delivery. Under the 2005 plan, community leaders established one of the city's first urban agriculture districts to creatively re-use a portion of Englewood's 700 acres of vacant land, and worked with the Chicago nonprofit group Growing Home to establish two urban farms. The farms train and employ homeless individuals and its greenhouses raise produce year round. An associated farmer's market run in coordination with local high school and church groups opened in 2008 to deliver the produce to residents. The foods emphasis has already been successful on many levels in improving the health and wellness of the Englewood community, and the *New ERA Trail Community Vision Plan* would more explicitly tie these goals to outdoor recreation through the development of a four-season food and festival market place, community garden plots, and orchards (Figure 38.2). Other signature features of the plan include green energy and sustainable development, and public art and signage that reflect the community's cultural heritage. The "ERA" in the proposed trail's name stands for Englewood Remaking America, and as the ambitious plan's subtitle expresses, the diverse group of stakeholders who developed the plan see the trail both literally and symbolically as "a path for transformation" for the community and beyond (10).

Discussion and Conclusion

While much work and many challenges lie ahead in realizing Englewood's vision for community revitalization, the trail project serves as a prime real-world example of a more comprehensive approach to integrating health and wellness goals through outdoor recreation. In the context of the framework we described earlier, programs and policies address many of the key levels specified in the social-ecological model of public health, and they also tap into many of the key benefits described in the benefits approach to leisure. While to our knowledge there is not yet a research component to the project, it would make an excellent "natural experiment" for transdisciplinary research collaboration to evaluate both the program and the efficacy of our framework.

It is also fitting that the Englewood trail development was selected as a model project to highlight in the 2009 centennial celebration of the Burnham Plan of Chicago. As discussed in the beginning of this chapter, it took individuals from a variety of professions to come together to advocate for parks and outdoor recreation to address health and wellness issues for the city. Such efforts are needed more than ever today, and transdisciplinary collaboration between the public health and leisure fields will be increasingly important in achieving health and wellness goals through outdoor recreation.

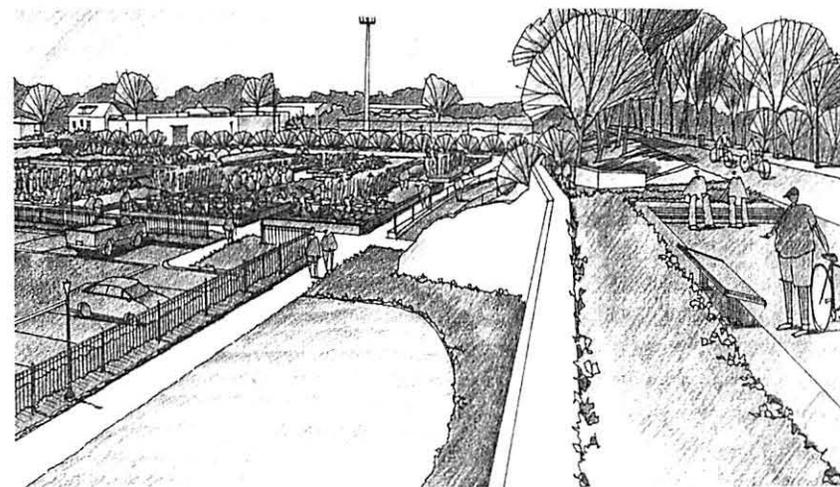


Figure 38.2 Englewood Trail Corridor Design Concept Incorporating an Urban Agriculture and Horticulture Component (courtesy Hitchcock Design Group)

References

1. Bachrach J. *The City in a Garden: A Photographic History of Chicago's Parks*. University of Chicago Press: Chicago, 2001.
2. U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health* (2nd ed). U.S. Government Printing Office, 2000.
3. Godbey GC, Caldwell LL, Floyd M, Payne LL. Contributions of leisure studies and recreation and park management to the active living agenda. *Am J Prev Med* 2005;**28** (Supp 2):150–158.
4. Centers for Disease Control and Prevention. Health disparities experienced by racial/ethnic minority populations. *MMWR* 2004;**53/33**:755–782.
5. Larson, NI, Story MT, Nelson MC. Neighborhood environments: disparities in access to healthy foods in the U.S. *Am J Prev Med* 2009;**36/1**:74–81.
6. Buchner D, Gobster PH. Recommendations for increasing physical activity through environmental ecologic models. *J PA Health* 2007;**4** (Supp 1):S36–S49.
7. McElroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q* 1988;**15**:351–377.
8. Driver BL, Brown PJ, Peterson GL (eds). *The Benefits of Leisure*. Venture Publishing, Inc.: State College, PA, 1991.
9. Teamwork Englewood. *Englewood: Making a Difference. Quality of Life Plan December 2005*. Local Initiatives Support Corporation/New Communities Program: Chicago, 2005.
10. Hitchcock Design Group in conjunction with Openlands. *New ERA Trail Community Vision Plan: A Path for Transformation*. Hitchcock Design Group: Chicago, 2009.