THE BUILT ENVIRONMENT AND HEALTH

11 Profiles of Neighborhood Transformation
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Prevention Institute is a nonprofit, national center dedicated to improving community health and well-being by building momentum for effective primary prevention. Primary prevention means taking action to build resilience and to prevent problems before they occur. The Institute’s work is characterized by a strong commitment to community participation and promotion of equitable health outcomes among all social and economic groups. Since its founding in 1997, the organization has focused on injury and violence prevention, traffic safety, health disparities, nutrition and physical activity, and youth development. This, and other Prevention Institute documents, are available at no cost on our website.

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Prevention and equity at the center of community well-being
In recent years the public health community has become increasingly aware that the design of the built environment can have a major impact on the health of the public. For example, one may expect more physical activity and healthier diets among persons in communities with convenient, safe walking paths and accessible sources of fresh fruits and vegetables. On the other hand, poorer health indicators may be expected among residents of communities with high crime rates, few parks or walking paths, numerous alcohol and tobacco outlets, and little access to fresh food.

In this monograph, the Prevention Institute has profiled eleven projects in predominantly low-income communities where local residents mobilized public and private resources to make changes in their physical environments to improve the health and quality of life for their citizens. Such changes included building a jogging path around a cemetery, transforming vacant lots into community gardens, reducing the prevalence of nuisance liquor stores, and creating attractive murals on walls where graffiti once reigned.

These case studies will help concerned citizens, urban planners, and public officials examine possibilities for local environmental changes that would improve the health of the residents of their communities.

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The Built Environment and Health

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There is growing recognition that the built environment—the physical structures and infrastructure of communities—plays a significant role in shaping our health. To a great extent, the connection between environment and health has centered on the results of human exposure to contaminated air, water, and soil. Decisions about land use, zoning, and community design influence the degree of human exposure to toxins, but also have implications for neighborhood access to healthy foods, and the level of safety and attractiveness of neighborhoods for activities such as walking and biking. The designated use, layout, and design of a community’s physical structures including its housing, businesses, transportation systems, and recreational resources affect patterns of living (behaviors) that, in turn, influence health.

With support from the Centers for Disease Control and Prevention’s National Center for Environmental Health, Prevention Institute crafted 11 profiles about communities across the country that reveal how the built environment can positively influence the health of community residents. These profiles were written to:

1. Describe the important connections between the built environment and health for practitioners in public health, city and regional planning, community economic development, and other related fields;

2. Support public health practitioners in looking beyond the traditional bounds of the healthcare system to address social and environmental determinants of health;

3. Suggest potential expanded roles for practitioners from diverse fields to promote health-enhancing improvements to the built environment;

4. Highlight a range of opportunities to create community-level change to the built environment through multi-sector partnerships with community residents, businesses, community organizations, and local government; and,

5. Provide concrete examples that demonstrate the importance of the built environment in promoting health.

Environmental factors contribute to disproportionately high incidences of negative health outcomes (cancer, asthma, injuries) in low-income communities which are often also beset with structural and institutional inequities. Disenfranchised communities are more likely than wealthy communities to be the sites of hazards and,
The program profiles include: 1) a description of the geographic area and changes that were made; 2) the process required to implement the changes, including leadership and organizational collaboration; 3) any documented impacts, positive and negative; 4) lessons learned, framed as “wisdom from experience;” 5) supporting research that documents the connection between the built environment and health; and 6) next steps for action.

The program profiles tell the following stories:

1. **Evergreen Cemetery Jogging Path:** In the predominantly Latino, urban area of Boyle Heights, California in East Los Angeles, the Latino Urban Forum and neighborhood residents rally community-wide support to create a safe, 1.5 mile walking/jogging path. Community members previously had no access to parks or open space, but can now get physically active, in their own neighborhood.

2. **Partners Through Food:** In the Upper Falls community of Rochester, New York, a dynamic collaborative of community members increases access to healthy food by organizing for over five years to bring a full-service supermarket into a community which lacked a single grocery store.

3. **Boston Lead-Safe Yard Project:** An innovative partnership focusing on Roxbury and Dorchester in Boston, Massachusetts uses affordable techniques to minimize exposure to lead in inner-city yards—a contemporary environmental hazard linked to developmental disabilities and learning delays, particularly among children under six, living in older, urban homes.

4. **Gardens for Growing Healthy Communities:** A community/academic partnership transforms vacant lots into community gardens in urban neighborhoods throughout Denver, Colorado, creating and documenting new opportunities for physical activity, healthy eating and social connections among community residents, survivors of abuse and homeless people.

5. **South Los Angeles Liquor Store Closures:** Working to reduce violence and crime in South Los Angeles, California, this community-driven, grassroots effort organizes community residents to close neighborhood liquor stores that negatively impact community health and safety.

6. **The Paterno Trivium:** Community residents work collaboratively with city government to transform an unsafe traffic intersection into a neighborhood gathering spot and to improve the pedestrian environment on adjacent streets in Hudson Heights, New York City—an ethnically diverse, urban community.

7. **The Fenway Alliance:** A powerful coalition of 20 well-respected arts, culture and academic institutions revitalizes a cultural district by improving walkability through major infrastructure projects in Boston, Massachusetts. Although focused in a commercial district, their efforts demonstrate innovative roles for large-scale institutions in improving the built environment. Their work is focused on attracting African American and Latino pedestrians from nearby schools and communities.

8. **Westside Project:** With an eye toward improving the built environment, a collaborative of local government agencies, including the public health department, work to build community support and trust before building pedestrian amenities for residents in Stamford, Connecticut who had become wary after a history of displacement and gentrification.

9. **The Seattle Department of Transportation:** This citywide department pays special attention to achieving equity across geographic and economic boundaries while working to create an integrated network of pedestrian and bicycle infrastructure that promotes safe physical activity for residents throughout Seattle, Washington.

10. **The Wray Health Initiative:** In the rural town of Wray, Colorado a coalition builds a neighborhood walking path, basketball court and other features to make fitness fun for people of all ages by soliciting community buy-in and creating social support for activity.

11. **Philadelphia Mural Arts Program:** Utilizing a grassroots model, this effort engages community members, including ex-gang members, in the creation and painting of murals that improve aesthetics and transform neighborhoods in urban, economically disenfranchised communities throughout Philadelphia, Pennsylvania.
at the same time, often lack the infrastructure to support physical activity and healthy eating. Too many residents live in community environments that promote disease and injury and do not support healthy behaviors that can help them avoid major chronic diseases that result from sedentary lifestyles and poor nutrition (e.g., heart disease and stroke). Many people live in neighborhoods that are over-saturated with alcohol outlets and advertisements, lack grocery stores, have sidewalks in disrepair, have little access to open space, and have dangerously high traffic speeds.

Further, compared to residents of middle-class communities, residents of low-income neighborhoods—struggling with the presence of environmental hazards, crumbling infrastructure, and a lack of economic resources—face even more barriers to overcoming them. They often need to implement change in the face of inadequate transportation, fewer businesses in the neighborhood to support them, institutional barriers to neighborhood investment, and lack of influence within the local government. In addition, people’s previous experiences of housing cost increases and gentrification may create a realistic concern that enhancing the neighborhood could result in unintended strain and disruption to the community.

However, the physical environment can promote health directly through access to clean air and water and can influence people’s behavior by facilitating health-promoting activities, such as walking, biking, and healthy eating. Changes to the built environment can have a positive impact on many health-related issues, from diabetes and asthma, to traffic safety and community violence. In many cases, a change to the built environment will simultaneously impact multiple health conditions.

In choosing these 11 profiles, we focus primarily on improvements in communities where the mean resident income is low and where concentrations of African American and Latino residents are high. We highlight how improvements to the built environment can enhance the health and well-being of members of these communities. The examples illustrate how changes to the built environment can be particularly meaningful in communities that have historically lacked important features such as well-maintained pedestrian infrastructure, services and institutions, or public art. Taken more broadly, the profiles demonstrate how improvements to the built environment have the potential to reduce health disparities.

In compiling these profiles, several themes emerged about how communities are able to overcome challenges and succeed.

- Broad, diverse participation is necessary to mobilize the resources and build the will to make community improvements.
- Efforts to create health-promoting environments provide opportunities to build community resilience and marshal community assets, rather than the more typical focus on risk factors.
- Persistence and innovation are common qualities of the organizers and organizing efforts that successfully brought about improvements to the built environment.
- Engaging communities to focus on changing the policies and practices of local organizations and institutions is part of an effective strategy for improving health and leaving behind lasting changes in neighborhoods.
- Focusing on the built environment fits well with other public health approaches that a) recognize that changing individual behavior involves changing social norms and environmental determinants of health and b) concentrate on the community as the unit of analysis and action.
While making built environment changes may be necessary, they are not sufficient. As the profiles of the Wray Health Initiative in Wray, Colorado and the Westside Project in Stamford, Connecticut illustrate, improvements to the physical environment are significant components of a multifaceted strategy for promoting health that includes community education, increasing social capital and enhancing social support.

Over the past decade, more and more communities have emphasized the importance of making design decisions in the context of the overall community. The term “smart growth” refers to a land development strategy aimed at managing the growth of a community, minimizing automobile transportation dependence, and improving the efficiency of infrastructure investments. While “smart growth” initiatives have brought attention to the need to manage new growth and development effectively, *Built Environment and Health: 11 Profiles*, calls attention to the value of neighborhood-level changes within existing structures. Many low-income urban environments suffering from disinvestments and decay already have the skeleton of a walkable community and possess great potential. Practices as simple and routine as road repavement are opportunities for neighborhood enhancement. One road at a time, more space can be created for bicycles and pedestrians, and routes can be narrowed and altered to promote “traffic calming,” (i.e., decreasing vehicular speed, and increasing safety). These profiles demonstrate that small and incremental changes are opportunities to design solutions that suit unique neighborhood environments and are significant contributions toward improving health and quality of life locally. These changes offer substantial enhancements for the affected residents, and build momentum for further improvements.

In identifying profiles, a key goal was to highlight initiatives that clearly demonstrate linkages between environmental changes and changes in health behaviors and outcomes. However, such projects are few and our selected efforts are not thoroughly evaluated. Documenting the health impact of environmental change efforts remains a challenge for a host of reasons. Communities generally are not collecting the quality and quantity of data needed to demonstrate impact. Some built environment initiatives are not explicitly designed with health outcomes in mind, and therefore health-related information may not be collected. Furthermore, multi-year surveillance of changes in population health status is often beyond the scale or resource capacity of localities. Therefore, to improve the evaluation of future initiatives it may be appropriate for local evaluation to focus on documenting changes in behavior. For example, a community can assess changes in rates of walking among residents in a manner that can be coordinated with national efforts examining changes in the rate of health conditions such as obesity and heart disease.

In cases where documenting behavior change is beyond an initiative’s scope or capacity, evaluation can focus on documenting the environmental change that occurred. With nationally supported evidence demonstrating that a specific environmental change at the community level yields a positive health outcome, communities can focus on implementing and documenting the particular environmental change, rather than attempt to document the expected behavior change. Toward this end, further investment in thorough case studies to evaluate the impact of some interventions, like those profiled in this report, may be warranted.

The powerful influence of the built environment on health suggests that public health practitioners should be involved in planning and policy decisions related to land use, zoning and community design. Health practitioners can serve an essential role in collaborating with other professionals and working alongside neighborhood residents to create and promote healthy communities. Their participation becomes imperative as the conviction grows that addressing the social and...
physical environment is an essential element of a strategy to encourage healthy behaviors. Thus, a new role for public health leadership is emerging. In this emerging role, practitioners need to engage in three principal areas of action. The first is to assess the health impact of land use and community design options before decisions are made as well as after improvements are implemented. The second is to catalyze and facilitate inclusive partnerships with membership that stretches far beyond traditional health fields to plan new structures and redesign existing ones. Third, public health practitioners need to participate in policy-making on issues related to the built environment to ensure protection from toxins, access to healthy food outlets, places to walk and recreate, and other health-promoting environments.

While Prevention Institute was successful at documenting compelling profiles, we also found critical needs and unfulfilled opportunities in communities throughout the country where health and quality of life could be improved through changes to the built environment. Our hope is that the profiles that follow will stimulate and inspire practitioners from multiple fields and sectors to partner with community residents, design solutions, and take action to improve the built environment for the health and well-being of all.
Redeveloping blighted Mill River Park has been the dream of several Stamford mayors. The waterway in the city's industrial Westside is littered with refuse, its dam clogged by old mattresses and other debris. City planners envisioned building a path for walking and biking that would provide space for recreation and exercise, as well as serving midtown residents commuting to local businesses. But when they asked Westside community members what they thought would improve neighborhood conditions, residents gave some unexpected answers. Because they felt earlier city developments had failed them, residents were wary of any plan for building new facilities. Instead, they said they wanted motivation and social support to help them get fit.

Not put off by resident feedback, planners and health department officials rerouted their original plan and focused first on rebuilding trust. They heeded neighborhood leaders’ initial requests to utilize existing community assets to promote physical activity and now have the foundation for future efforts to improve the built environment with community buy in.

THE PLACE

Stamford’s Westside is an inner-city community in an industrial area of the city. Half of the population of approximately 20,000 is African American, while 30% are Hispanic and 20% White or other. The Mill River Park is a largely neglected strip of parkland that creates both a physical and psychological barrier between the Westside and adjacent neighborhoods, including the more affluent midtown area.

THE PROJECT

With an eye toward making the Mill River Park and the adjacent greenway more pedestrian- and bicycle-friendly, the mayor joined with the local health department, the director of planning, and consultants to explore options for improving the area. Early on, the group decided to survey local residents to find out whether or not they used the park and what improvements might reduce the barriers to using it for activity.

The health department hired a consultant to adapt the World Health Organization’s International Physical Activity Questionnaire (IPAQ) to survey Westside residents. After conducting the telephone survey, the group had responses from 600 individuals. The group decided to present their findings to community residents as well as housing project tenant councils, business people, local political representatives, church and com-
munity leaders, and health department employees who lived in the Westside. People “were strongly impressed by the data. It was the most powerful thing they’d seen about their community and people were really moved by it,” according to Anthony Iton, the project’s principal advisor.

In addition to resident attitudes, the data showed extremely low levels of physical activity among residents. This came as no surprise. Most unforeseen however, was the survey’s finding that residents preferred leadership and encouragement more than physical improvements to the area. For the most part residents felt safe in their neighborhood, believed that the quality of sidewalks were good and that amenities and interesting destinations were within walking distance from respondents’ homes. “We had biased perspectives,” said Iton. “When we saw that self-described rates of physical activity were low, we assumed that we could reverse that by enhancing the built environment. Our idea was that we’d say, ‘What kind of equipment do you want? Weights? Stretching posts?’ But we learned that it wasn’t because of perceptions of crime, the quality of the sidewalks or amenities—these things were not the problems. What we discovered hit us like a ton of bricks,” said Iton. “The contentious history of urban renewal in the 70’s had produced a current of distrust of city redevelopment initiatives among many long-term residents of the Westside,” he said. Because the residents had experienced “systematic removal under the auspices of urban renewal...worse than gentrification...knocking down homes, destroying communities and replacing them with corporate office towers, a large shopping mall and freeway off-ramps,” they were more than wary of any proposed development projects.

For community residents it was more about working with one another to motivate change within individuals. “We found that the community members wanted motivation and social support for getting active. This was a real awakening,” said Iton.

Residents identified the need for more programming and leadership in their own community as essential ingredients to promote physical activity. So the city responded by establishing two separate community-based committees. First, the programming committee focused on enhancing programs for residents and supporting existing Westside institutions. In just one example, the city has demonstrated good faith by making tangible investments in the physical activity programming at Yerwood Center, a centrally located Westside community center.

The goal of the second committee is to solicit community feedback on proposed design changes to the Mill River Park and ultimately work with and change the built environment to support new programming and the community. The efforts of the second committee have been delayed, however, because the number of simultaneous redevelopment projects that the city is implementing has slowed the rate at which changes to the park will be funded.

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Diverse Partners Collaborate to Build Healthy Environments

Once the city officials—the mayor, the local health department, the director of planning, and consultants—involving residents, a wide range of perspectives informed decision-making about Westside redevelopment. These included resident senior citizens, housing facilities tenant councils, community leaders, city workers who live on the Westside, the local health officer, health educators, a health inspector, and representatives from the social services department. The health department played an instrumental role in engaging the community initially, through collecting and sharing local data. Later, the department continued its support by stepping back and providing money to support community-initiated requests for more programming. As Iton explained, “A lot of health departments would find it difficult to give up ownership, but our conclusion was that it was best to step back and give a few thousand dollars to build trust.”

Healthy Change in Local Environments

According to Iton, the most significant change in the Westside is “the renewed sense of trust that has been fostered through this process.” The public health department now understands much better the community’s perspectives on health and nutrition. Because the project is still underway (with the second committee still not yet launched into action) the full impact of these efforts remains to be seen. Repeat survey assessments were planned for Summer 2004. Meanwhile, the programming committee’s organizing efforts are already paying off. The local YMCA has also donated funds to support programming in conjunction with the Mill River Park project. And a group of ladies (dressed in bright pink) regularly walk around the Mill River corridor cleaning up the park while exercising and educating participants about the history of the river and parkway.

Research has demonstrated the powerful impact of peer encouragement on maintaining regular exercise. Interventions like walking groups that build social support for activity have been shown to increase physical activity, strength and flexibility and decrease body fat.1 And if the mayors’ dreams come true, there may one day be a walking and biking path along the entire Mill River. This could also help residents keep active. Studies have shown that convenient access to walking paths and local facilities have been associated with increased physical activity.2,3 Convenient access and social support may just be the winning combination that keeps residents moving.

As the link between the built environment and health becomes clearer, the role of public health departments in promoting health by developing healthier communities will become increasingly instrumental. The Role for Local Public Health Agencies in Land Use Planning and Community Design outlines several important ways that public health agencies can influence the building of healthy communities, including facilitation of community dialogue, provision of epidemiological data and “use of the public health process to mobilize the community and raise community awareness.”4 Public Health departments have a critical role in supporting effective community interventions to increase physical activity, bridging the communication gap between community members and other government agencies, and laying a foundation for efforts to promote health by transforming the built environment.

Wisdom from Experience

According to Iton, “Community members appreciate locally relevant data. They don’t want the generic data about how kids are getting fat; they want to know about their own community.”
know about their own community. We have all these assumptions and forget about the basic needs of the community.” For those dedicated to changing the built environment, Iton advises, “Remember, the time scale of changes to the built environment is years, not weeks or months. Health and planning departments should look at community participation differently to involve community members at the earliest stages, not once plans have already been drawn up.” Perhaps the most powerful lesson that Iton has learned from the process is one about engaging the community and listening: “Prepare to give up ownership in favor of building trust because ultimately, if you want to see behavior change it has to come from within and you can’t impose it on people. If there is the slightest sense of imposition, it will be resisted. Focus on the community participatory process and understanding the community as fully as possible beforehand. Whatever structure or physical improvements you are planning to build is almost irrelevant. If people have mistrust and don’t believe in the process, then it will fail—whatever you’re trying to sell.”

LOOKING AHEAD

While current efforts are focused on enhancing Westside community resources already in place, city officials still hope to clean up Mill River Park. They hope to build on the foundation of trust now being established so down the road they can count on local support for future redevelopment efforts. Meanwhile the city is in the process of redeveloping a couple of old properties, including one that burned down. The planning committee has not yet received funding to implement proposed changes, and the funding for the repeat assessments may be precarious. However, the cooperative efforts of Stamford officials and residents bode well for upcoming projects.

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ENDNOTES

4 The Role of Public Health Agencies in Land Use Planning and Community Design. National Association of County and City Health Officials.

This is one in a series of 11 profiles that reveal how improvements to the built environment can positively influence the health of community residents. The examples illustrate how changes to the built environment can be particularly meaningful in communities that have historically lacked important features such as pedestrian infrastructure, services and institutions, or public art. Taken more broadly, the profiles demonstrate how improvements to the built environment have the potential to reduce health disparities. The profiles were written and produced by Prevention Institute. Funding and guidance were provided by the Centers for Disease Control and Prevention’s National Center for Environmental Health. It is our hope that these profiles will stimulate and inspire partnerships between community residents and practitioners from multiple fields and sectors to design solutions and take action to improve the built environment for the health and well-being of all.