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.
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 citi-
zens. 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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This is the last town in the world...
Before this came to be, there were all the possibilities in the world.
There were all the opportunities for starting with small things to create a sweet new history and future.
If only we had seen them.

Ben Okri, A Prayer for the Living

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...
The 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.
The city map of Boyle Heights, CA shows only two kinds of open spaces: freeway on- and off-ramps and a cemetery. But this didn’t stop community organizers from creating an outdoor fitness area that promotes health by encouraging physical activity. With the help of the Latino Urban Forum, residents transformed a cracked sidewalk that ringed the Evergreen Cemetery into a 1.5 mile rubberized jogging path. The Evergreen Jogging Path Coalition (EJPC) worked intensively with city officials, emphasizing the need for capital improvements in the area, designing careful plans and securing materials. Six months later, in June 2003, the new path was in use, not only by Boyle Heights residents but also by people from neighboring communities.

The Latino Urban Forum and residents of Boyle Heights create the Evergreen Cemetery Jogging Path to promote a safe, pedestrian-friendly environment

Boyle Heights, CA is a small, densely populated urban community east of downtown Los Angeles. Seventy-five percent of the city’s 91,000 residents (US Census, 2000) were born outside of the US in Mexico or elsewhere in Latin America (LA Department of City Planning), and most primarily speak Spanish or are bilingual. Residents’ median income was just under $21,500 in 2000 (US Census). Designated as a redevelopment zone at the city, state, and federal levels, Boyle Heights was eligible for funding through the City of Los Angeles Redevelopment Zone, California State Enterprise Zone, and Federal Empowerment Zone projects.

The Project

With no nearby parks available, exercise-minded Boyle Heights residents looking to walk or jog in the neighborhood did laps around a cemetery. The centrally located Evergreen Cemetery provided a convenient location, but the sidewalks’ poor condition made the route increasingly more treacherous over time, creating a barrier to health-promoting activity. “I watched it get worse and worse because the roots were pulling up the sidewalk, and they were getting cracked and more and more unsafe,” says resident Diana Terrango, who had been walking around the cemetery for 20 years. “Then I went out to Pasadena and saw that they had a jogging path going through their neighborhood and thought it was a wonderful idea.” Terrango shared her idea with James Rojas, co-founder of the Latino Urban Forum, and he got the ball rolling.

The fact that Boyle Heights community members had been politically active in the past helped get the idea off the ground quickly. Terrango, Rojas and several leaders approached Los Angeles City Councilmember Nick Pacheco, who agreed to support the
The newly formed EJPC presented their plan at community meetings and neighbors loved the idea. Community advocate George Magallanes credits Rojas’ experience with organizing for the plan’s quick success: “James was the key to making it happen. He talked about his research and experience with open spaces and how to make them useful to the community.”

With community support behind them, the EJPC began to formalize their plan. They documented the conditions of the sidewalk:
- holes that measured “half a foot deep or more,”
- “root systems that have caused the sidewalk to buckle,”
- “a ½ foot gully” caused by weeds and erosion,
- trash strewn along adjacent dirt paths, and
- “few pedestrian crosswalks” or traffic stops on perimeter streets to protect pedestrians using the space.

Rather than replace the sidewalks with new cement, the group decided to pursue construction of a rubberized path. As manager for sustainability programs at the Department of Public Works, Lupe Vela was in charge of keeping the Bureau of Street Services on track to keep the project moving forward. “I was pushing to have recycled, rubberized asphalt that was high quality and would stand the test of time,” said Vela. “Because the area would be functioning like a track, but was not protected, the material had to be sturdy enough to withstand people walking on it with high heels. We wanted to make sure everyone could walk on it safely.”

The next time the EJPC met with Pacheco they brought a clear statement about the problems along with proposed solutions. “James has a way of coming up with ideas and giving people the power to turn them into reality,” says Magallanes. “He never comes to a politician and says, ‘You’re not doing a good job’. It’s easy to say you’re not doing enough, but coming up with an idea that is good for the community is harder.”

Encouraged by community support for the project, Councilmember Pacheco secured $800,000 from the County Department of Parks and Recreation to build a continuous, rubberized jogging path that would be safe and comfortable for pedestrians and joggers. This path became the first public sidewalk in the country to be designated a recreational public space.

### THE PEOPLE

**Diverse Partners Collaborate to Build Healthy Environments**

Alliances between residents, community activists, and government agencies allowed for the swift, definitive action that brought the jogging path from idea to reality in a mere six months. Rojas teamed with EJPC members including Terrango, Nadine Diaz and Ullyses Sanchez, to collect data and conduct meetings with Councilmember Pacheco, who helped raise the necessary funds from Department of Parks and Recreation.
to complete the project. Vela helped keep the project on track. The Metropolitan Transit Authority, the City Council, and residents provided in-kind resources and money to clean and maintain the path.

THE RESULTS

Healthy Change in Local Environments

The EJPC’s collaborative efforts demonstrate that even where open space is limited existing sidewalks can provide space for recreational physical activity. Since the path was built, daily use has increased from about 200 to more than 1,000 people who use the path for jogging, walking, and socializing, says Rojas. He emphasizes the importance of building an exercise and social resource within the community. “It gives the residents a stronger sense of identity and a real sense of pride—now everyone points it out,” he says.

Magallanes agrees: “The EJPC has changed the face of Evergreen. Small things like the jogging path make a huge difference in how community residents see themselves and the community. The crime rate—I won’t say it’s disappeared, but I think it has really gone down because people have a lot more ownership. I see senior citizens with walkers and a lot of families walking. It might be a dad jogging and a mom pushing a stroller or a mom jogging and dad riding on a bike alongside with a baby basket in the back. I’ve had people tell me that their doctors have told them to walk on this jogging path because it is a good place to exercise and the soft rubber is easy on their knees and backs.”

The health benefits of regular physical activity are clear, and research shows that easy access to a safe place to exercise promotes fitness. Both access to walking/jogging paths and perceived safety of the paths are positively associated with physical activity behaviors. In particular, proximity to places for physical activity within the neighborhoods promotes activity. Studies using subjective (self-report) and objective (Geographic Information Systems) measures of proximity both indicate that nearness to walking paths appears to have a significant impact on physical activity for adults.

As Dr. Richard Jackson, former director of Centers for Disease Control and Prevention’s National Center for Environmental Health states, “It’s dishonest to tell people to walk, jog, or bicycle when there is not a safe or welcoming place to pursue these ‘life-saving’ activities.” Instead of being defeated by the limited open green space in their community, Boyle Heights residents marshalled community resources to improve health by improving access to, and availability of, safer walking routes.

WISDOM FROM EXPERIENCE

Reflecting on the project’s success, Rojas appreciates the significance of the first steps involved in community transformation. “Start with observation,” advises Rojas. “How is the community operating? What are its shortfalls? What are the needs? And then use creativity to envision solutions.” Next comes the action phase, says Rojas. “We had to conduct a lot of meetings, get the ‘man’ power, collect data, do research and get a handle on where the money was.” The assessing, envisioning and mobilizing that occurred at the project’s initial phases made a substantial difference in the final result.
LOOKING AHEAD

The Evergreen Jogging Path has become a catalyst for further community change, spurring new efforts specifically geared toward seniors. Walkable Neighborhoods for Seniors, a project of the California Center for Physical Activity, is funding the Los Angeles County Department of Health Services’ Injury and Violence Prevention Program (IVPP) to explore safety for Boyle Heights seniors, conduct walkability audits to identify potential danger zones for pedestrians on and near the path and to develop solutions. The program has paid particular attention to Evergreen Cemetery as a pedestrian magnet with community buy-in and support.

Today, community members hope to create safe routes to and from the jogging path. Based on walkability audits and injury/collision data provided by the county, Safe and Healthy Communities Consulting (SHCC) is helping to identify current barriers to walking and proposing potential design solutions. By documenting findings and providing recommendations on pedestrian hot spots, SHCC will provide research that the community can use to apply for future funding to implement solutions.

Now that the jogging path is in place and in regular use, EJPC organizers say the challenge is keeping it clean. Once every two months, community members come together for a regularly-scheduled clean-up day. Though funding from the City Council helps and the Metropolitan Transit Authority provides money, time, and resources (including personnel, trash bags and brooms), some EJPC members think the city should take more responsibility for keeping the path clean. “I often think that when we first had meetings, we should have gotten something in writing to keep it clean,” says Terrango. In the future, some organizers hope the path will develop to include public art installations and more native plants along the loop.

By pulling together the various skills, experiences and resources of Boyle Heights residents, community activists, and government agencies, the EJPC took advantage of what limited open space was available in the neighborhood to create a fitness-promoting resource for the whole community.

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ENDNOTES


Because the area would be functioning like a track, but was not protected, the material had to be sturdy enough to withstand people walking on it with high heels. It had to be safe and functional.