THE BUILT ENVIRONMENT AND HEALTH

11 Profiles of Neighborhood Transformation
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Funding for this report was provided by the
Centers for Disease Control and Prevention,
National Center for Environmental Health

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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 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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Prevention Institute would like to thank each of the following individuals who gave so generously of their time to provide us with the information, photos and supporting materials that made these profiles possible.

**Kelly Brilliant**
Executive Director
The Fenway Alliance

**Jane Golden**
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City of Philadelphia Mural Arts Program

**Marqueeece Harris-Dawson**
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**Thomas Navin, AIA, ASLA**
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Friends of The Paterno Trivium

**James T. Rojas**
Co-Founder
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**Jennifer Kramer, RN**
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We would also like to extend our gratitude to Nancy Bruning (Paterno Trivium); Lupe Vela, George Magallenes and Tina Zenzola (Evergreen Jogging Path Cemetery); and Revae Parker (Wray Health Initiative) for providing supporting details and information for selected profiles. Dan Burden and Marla Hollander also provided valuable insight and guidance in identifying existing community efforts. Special thanks to Joseph Devall for highlighting the work of the Community Coalition in South Los Angeles for inclusion in the profiles.
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THE BUILT ENVIRONMENT AND HEALTH
11 Profiles of Neighborhood Transformation

Introduction

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,
BUILT ENVIRONMENT AND HEALTH: OVERVIEW OF PROFILES

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.
When a fire destroyed the only grocery store in town, Upper Falls, NY residents had no local access to affordable, fresh foods. Those who could travel miles to the nearest suburban supermarket, but the added time and travel costs strained many residents. Recognizing the injustice of living in a community with such limited food options, residents and activists collaborated with local government officials to lobby for a new supermarket. After five years of tireless efforts and shifting strategies, the community group Partners Through Food convinced TOPS, a major grocery chain, to bring a shopping plaza and full-service supermarket to the neighborhood. The new shopping plaza opened in 1997 and since then residents say the retail area has transformed the neighborhood. Now they have easy access to affordable, healthy foods which research suggests encourages more nutritious eating.

W

hen a fire destroyed the only grocery store in these numbers, the federal Department of Housing and Urban Development has designated the City of Rochester an Enterprise Community, making public funds available for redevelopment.

THE PROJECT

During the 1980’s, the number of supermarkets in the Rochester metropolitan area dropped steadily from 42 in 1970 to a meager 8 by 1995. With only eight supermarkets to serve Rochester’s residents, access to affordable, healthy food options had become severely limited. When the last supermarket in Upper Falls burned down in the spring of 1992, it was the final straw. After the fire, residents who wished to shop at supermarkets rather than high-priced, low-variety convenience stores were forced to travel long distances to outlying suburbs. Increased grocery shopping travel times and transportation costs burdened low-income residents, many of whom made their purchases with food stamps.

Frustrated that the fire had destroyed their only option for affordable, healthy food, Upper Falls residents started meeting in 1992 to brainstorm solutions. “There was a core group that started the ball rolling and then after an early series of meetings we began to reach out to the community to learn about the interests of neighborhood residents,” said Hank Herrera, who took on a lead organizing role.

THE PLACE

Rochester, NY is a city with 219,773 residents. The Upper Falls community is located in the northeast quadrant of the city, and is home to 5,000 residents, the majority of whom are African American and Puerto Rican, according to the 2000 US Census. From 1994 to 1996, the volume of food stamps distributed in the three zip codes surrounding the Upper Falls supermarket site totaled approximately $24 million, reflecting high rates of low-income residents. Because of
stamps were issued and used outside of the community in the suburban stores to the tune of $17 to $18 million originating from the zip codes right around the proposed store site.”

Meanwhile, others began to consider building on the proposed supermarket site. One developer planned to take over the area to expand a social service agency called Action for a Better Community (ABC). When Partners Through Food expressed their concerns, the developer responded: “Face reality, there will never be a supermarket on that corner,” Herrera recalled. Residents were furious. And in the spring of 1994, about 30 people stormed the City Council with paper bags full of apples, beans and collard greens shouting: “Apples, Beans and Collard Greens! We don’t want no ABC!” They dumped the food in front of the building. This event led Mayor William Johnson to get involved. He sided with the people, making a commitment to help bring the store to the area. By collaborating with the mayor, Partners Through Food was finally able to make progress. “The developer had bought the building for $300,000, but the building process stopped cold because the people didn’t want it,” Herrera explained.

The group approached the major grocery chains with the research data they had accumulated. But despite what they thought were compelling numbers, the stores expressed concern that they couldn’t make enough money in this area. “That baffled us,” recalled Herrera. Finally, TOPS, a multinational retail supermar-
Market corporation, expressed interest. “I think what it finally came down to was that a major supermarket chain that competes with TOPS began to move into their market territory,” he said. So behind closed doors, the mayor and TOPS began to negotiate.

The supermarket chain agreed to build four new stores and expand an existing store to serve area residents. TOPS invested the $28 million needed to open the supermarket and the city agreed to contribute public money to the project. Public funds came through the Federal Enterprise Community Zone program, the Community Development Block Grant, the Urban Renewal Trust Fund, and the HUD 108 program. This money contributed to the construction of an entire shopping plaza around the supermarket, including a new police station, retail stores, and a medical office.

Six years after residents first rallied, a new supermarket opened in the plaza that had previously been run-down and abandoned. “Now, all the stores are occupied,” said Herrera. “TOPS is there, it has a very nice appearance.”

THE PEOPLE

Diverse Partners Collaborate to Build Healthy Environments

Partners Through Food developed when two independent groups united around a common goal: to bring a supermarket to the area. The merged group included concerned Upper Falls residents, activists, funders, people from the faith community, and representatives from the planning departments of the City of Rochester and Monroe County. Local organizations including the Coalition of Northeast Associations, the Regional Food Bank and St. Bridget’s Church were instrumental throughout the entire process of lobbying for the market.

By hosting community meetings and leading lobbying efforts aimed at city government, Partners Through Food played a vital role as a community leader and convener. Members led outreach and education initiatives and coordinated community meetings, often held at St. Bridget’s church, which donated space and time for meetings. The Coalition of Northeast Associations and Regional Food Bank served as valuable community partners to engage residents in community meetings and to build political clout for the effort, which was critical for obtaining the buy-in of city government. With such noticeable, established partners, Mayor Johnson committed himself to the cause and played a crucial role in initiating negotiations with TOPS, the Buffalo-based grocery chain that eventually partnered with the city to bring a store to the Upper Falls neighborhood as part of a five-store, citywide effort.

THE RESULTS

Healthy Change in Local Environments

The new supermarket and shopping plaza have greatly enhanced the quality of life of the Upper Falls community. The development is beautiful, said Herrera. “Life was there again. It transformed the neighborhood.” The store is thriving, and neighborhood residents—rather than needing to drive—now have a store within walking distance that offers a wide variety of food options. The city continues to encourage residents to shop at the new store by conducting community outreach efforts on behalf of the store, improving public safety by reassigning a police station to the area and including several service agencies such as banks in the mall where the store is located.

The neighborhood has also benefited from additional employment opportunities presented by the retail stores. During negotiations with TOPS, Partners Through Food insisted the store hire a percentage of people from the neighborhood. “To my knowledge they have been true to that in all the time they’ve been here,” said Herrera.
Although a health-impact evaluation of this particular project has not yet been done, published studies document the health benefits of supermarket access. Emerging research suggests that introducing supermarkets into urban, low-income communities can improve dietary behaviors. A landmark 2002 study based on over 10,000 residents in 221 census tracts (Maryland, North Carolina, Mississippi, Minnesota) by Morland et al. found that the local food environment was associated with residents’ dietary intakes. The authors found that African American residents increased their fruit and vegetable intake by an average of 32% for each supermarket in their census tract. Although 73% of African American residents had small neighborhood grocery stores in their neighborhoods, the presence of these establishments had little association with meeting recommended dietary intake.

An evaluation study conducted in the United Kingdom examined the link between introducing a supermarket into a food-retail deprived community and improvements in dietary behavior. The study used fresh fruit and vegetable consumption as proxy measures for healthy diets before and after the introduction of a large chain supermarket in the community. A significant increase was noted in participants with the poorest “before” diets; 75% increased their fruit and vegetable consumption after the supermarket opened, doubling their mean weekly fruit and vegetable portions. These same participants also switched their main source of fruit and vegetable purchasing from limited-range/budget stores in the “before” period to the new supermarket. These preliminary results indicate that opening a supermarket may produce positive benefits for the diets of the most nutritionally at risk.

**Wisdom from Experience**

“When working to affect community-level change, recognize your limits and seek support, resources, and funding from key partners,” recommended Herrera. This effort required the buy-in and support of city government and a major grocery chain. The support and resources of numerous community groups helped build momentum, provided the impetus for political involvement, and provided businesses with a market incentive to collaborate. “Stress the enormous amount of money and food stamps spent on food that is lost to other neighborhoods as a way to demonstrate the value of investing in the community.” In the end, it was only with community support and perseverance that the Upper Falls community was able to create the type of change to the built environment that would ensure access to healthy food and services for community residents.

**Looking Ahead**

Today the TOPS Corporation is using the success of the Upper Falls supermarket as a model of how business can contribute to urban redevelopment. The supermarket provides the community with higher quality food at lower prices than previous smaller stores could offer and always offers a steady supply of fresh meat and produce. The newly developed plaza has transformed the neighborhood and reconfigured the way people see that area.

“It wouldn’t have happened except for the fact that people worked to make it happen,” said Herrera. “Every time I go by that corner, I remember people saying ‘face reality’ and I smile. This is our reality.”
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.