The Case for

HEALTHY PLACES

IMPROVING HEALTH OUTCOMES THROUGH PLACEMAKING

Produced by

PROJECT FOR PUBLIC SPACES

Acknowledgements

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Project for Public Spaces, Inc. is a nonprofit planning, design and educational organization dedicated to helping people create and sustain public spaces that build stronger, healthier, and happier communities. Through placemaking, PPS helps citizens and others transform their public spaces into vital places that highlight local assets, spur rejuvenation, and serve common needs. For more information visit www.pps.org.

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FORWARD

Place matters for health. It is well documented that one's zip code can be a more reliable determinant of health that their genetic code.

As a mission-driven health plan and integrated delivery system "at risk" for the health of our members and the communities we serve, the 200,000 employees of Kaiser Permanente work hard every day to provide the highest quality care at the lowest possible cost. But we also know that only 10-20% of what creates health has to do with access to care services. The rest of what creates health is directly shaped by where we live, work, learn, play and worship.

So if we are committed to improving population health and well being; reinforcing healthy lifestyle and behavior patterns; reducing health disparities by race and ethnicity; and seeking to reduce the drivers of chronic disease and preventable demand for services (and associated costs) that can make healthcare more affordable—we need to be involved in creating healthy places.

This report codifies and presents the current evidence based on how placemaking strategies and projects—on a community's streets, in parks and open spaces, in housing projects, and in diverse public settings—can contribute to improving people's mental, physical and social health. It explores how built and natural environments that facilitate human connectivity and reduce isolation, while fostering equitable access to the social and economic determinants of health, directly supports human flourishing. It further addresses how placemaking undergirds economic prosperity, but also how leaders can create inclusionary strategies that reduce displacement of lower income and vulnerable families as property values increase.

By increasing access to places that foster these five things—social support and interaction, play and active recreation, green and natural environments, access to healthy foods, and safe routes to walk and bike—communities everywhere are demonstrating innovative ways to increase quality of life and maximize shared value for all their residents.

For placemakers, this report illustrates how in the marketplace for health, you are "health producers." For leaders in the healthcare sector making the transition from volume (of treatment services) to value (in health outcomes), the report illustrates how we increasingly need to be "purchasers" of the health that is created outside the walls of our care facilities. It highlights how via the Community Health Needs Assessment (CHNA) processes required of all non-profit health providers, and analysis of the non-medical needs of members/patients that impact health—that community partnerships to create healthy places is essential to having a measurable impact. Together, we are reminded that there is much that we can all do, indeed must do, to engage diverse community voices and collaborate across sectors to deliver on the full promise of placemaking.

It has been a delight to witness the decades-long contribution of Project for Public Spaces to measurably improving the health and vitality of communities across the United States and around the world. And it has been a distinct pleasure to work with and sponsor the team behind this report, as they they bridge a "field of fields," ranging from equitable community development, to housing design and land use planning, to health and well being.

We encourage you to apply the learning embedded here, to challenge the assumptions presented, and to further contribute your experiences and outcomes to the evidence base of promising practices. Placemaking is perhaps the most powerful means available to business, civic and health leaders for invigorating our democracy and revitalizing our communities. Join us!

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INTRODUCTION

From obesity and chronic disease to depression, social isolation, or increased exposure to environmental toxins and pollutants, communities around the world face pressing health challenges that are far different than those we've experienced in the past. Along with unprecedented rates of chronic disease, which affect half of all American adults and include conditions such as heart disease, stroke, type 2 Diabetes, and certain types of cancer, Americans are also facing tremendous mental health challenges today.[1] The CDC estimates that only about 17 percent of U.S. adults are considered to be in a state of optimal mental health, with depression being the most common type of illness, affecting more than 26 percent of the adult population. Poor mental health, especially depression, is connected to elevated risks for poor physical health, including diabetes, cancer, cardiovascular disease, asthma, and obesity, as well as many risk behaviors for chronic disease, such as physical inactivity, smoking, excessive drinking, and insufficient sleep.[2]

While many of today's most common diseases and poor health conditions are linked to behavior—such as physical activity levels and eating habits—these are in turn dependent on access and opportunities within an individual's physical, social, and economic environments. In other words, many of the factors determining individual and community health are directly related to how the public spaces in our communities are designed and operated. As issues such as sprawl and poorly planned growth have resulted in unwalkable communities, poor air quality due to traffic congestion, and streets that are unsafe for walking or bicycling, it has become increasingly clear that the way we design our built environment has a direct impact on our health well-being.

The CDC describes healthy places as "those designed and built to improve the quality of life for all people who live, work, worship, learn and play within their borders—where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options."[3] The health challenges faced by those living in disadvantaged neighborhoods that struggle with persistent and systemic problems like unemployment and poverty, are evidence of the growing gulf of health inequities that exist between the wealthy and poor.

> *"In placemaking, the important transformation happens in the mind of participants, not simply in the space itself. ... The iterative actions and collaboration inherent in the making of places nourish communities and empower people."*
>
> *— Susan Silberberg, "Places in the Making"[4]*

To address the unique health challenges of the 21st century, we will need integrative and innovative solutions that consider not just the physical causes and symptoms of poor health, but also the social, economic, and environmental components of what Kaiser Permanente refers to as "total health." This report is structured around the belief that achieving widespread health improvement—particularly for disadvantaged communities that suffer most from health and healthcare disparities—requires creating public health policies and initiatives that move beyond this focus on individual behaviors, paying closer attention to underlying social issues as well as the built environments that play a crucial role in determining individual and community health.[5]

This report uses the idea of "placemaking" as a framework for describing how transforming

public spaces can improve health outcomes. As both an overarching idea and a hands-on approach for improving a neighborhood, city, or region, placemaking is a collaborative process for reshaping the public realm—a community's streets, parks, and other public spaces—in order to maximize shared value. Placemaking includes a broad cross-section of strategies and projects, running the gamut from farmers markets, community gardens, and public plazas, to efforts to make streets more amenable to pedestrians and bicyclists. But placemaking is not just about the *outcome* of an improved place, it is grounded in the process itself—observing, listening to, and asking questions of the people who live, work, and play in a particular area in order to understand their specific needs and aspirations for the place.

Even beyond the tangible benefits that placemaking projects can yield, the very process of bringing community members and stakeholders together to shape a place can have powerful social benefits that in turn connect to positive health outcomes.

Outlining the ways in which placemaking strategies and projects can improve people's physical, mental, and social health, this report analyzes these impacts in five key areas: Social Support & Interaction; Play & Active Recreation; Green & Natural Environments; Healthy Food; and Walking & Biking. These five chapter areas describe characteristics of many placemaking projects, while connecting them to what the World Health Organization calls the "social determinants of health," defined as the "conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life."[6] The final chapter of this report will address healthcare institutions specifically, outlining ways in which they can take action to become placemaking champions in the communities they serve.

What is Placemaking?

While there is no single consistent definition for placemaking, its projects and processes share several common characteristics:

- *Placemaking happens in public places that are accessible to everyone in a community, including streets, markets, squares, parks, and publicly owned or accessible lots. Other sites can include the spaces adjacent to and within institutions like libraries, museums, government buildings, and healthcare facilities, so long as those spaces are open and accessible to the public.*
- *Placemaking helps fulfill local community needs and visions for a place—which means that local residents are meaningfully engaged throughout the process of conceiving, planning, and implementing improvements.*
- *Placemaking projects highlight local assets or talent, whether through art, programming, volunteerism, entrepreneurship opportunities, food or other offerings, or the showcasing of historic or natural features.*
- *Placemaking brings diverse community members together, facilitating social interaction and engagement through the space's design, programming, amenities, and the planning process itself.*
- *Placemaking fosters quality public spaces that help people feel connected to the place and to the greater community.*

Beyond healthcare institutions and public health organizations, placemaking projects can marshal wide sources of support, funding, and interest, generating outcomes such as:

- *Boosting social connections and **social capital** by bringing together diverse groups of people both in the process and the space that it creates*
- *Providing opportunities for **civic engagement**, skill building, and leadership development*
- *Enhancing local **economic development** by creating a place that attracts people to the neighborhood, creating opportunities for home-grown entrepreneurship and skills development*
- ***Improving safety and reducing violence** by creating a space that is well managed and frequented by diverse groups of people*
- *Promoting **environmental protection** by offering non-motor vehicle accessibility, adding greenery to an area, and/or cleaning up toxic land or waterways for use*

Placemaking and the Health Connection

Research by the University of Wisconsin Population Health Institute (2016) has found that only 10 to 20 percent of a person's health is related to access to care and the quality of services received. In comparison, over 40 percent of the factors that contribute to the length and quality of a person's life are social and economic, while another 30 percent are health-related behaviors directly shaped by socio-economic factors, and an additional 10 percent are related to the physical environment.[7]

Over the last several decades, a growing body of literature has emphasized the importance of "place" to people's health, with a frequently cited finding suggesting that a person's zip code can be a larger determinant of his or her health than any other factor, including genetics. Numerous studies have shown that differences in how low and high-income neighborhoods are designed and function contribute to health disparities. Research shows that low-income groups and racial and ethnic minorities have limited access to well-maintained parks or safe recreational facilities, and that low-income urban neighborhoods are more likely to lack features that support walking, such as clean and well-maintained sidewalks, trees, and attractive scenery.[8,9] Low-income areas are also significantly more likely to lack access to supermarkets and places to obtain healthy, fresh food than wealthier areas.[10]

Methodology & Scope

To date, there are few available guidelines for creating healthy places that are grounded in the kind of empirical evidence public health practice requires.[11] In addressing this critical gap, this report provides evidence-based guidance and multiple case studies to which health institutions, community organizations, and other partners can refer in order to create and support multiple healthy placemaking initiatives. Given the dearth of research that references the term placemaking specifically, this review incorporates peer-reviewed literature from many disciplines that intersect with place and health, including environment and behavior, epidemiology, food and agribusiness, mental health policy and economics, preventive medicine, public health, social science and medicine, sustainability, urban forestry and greening, and urban health. While there are many studies investigating the effect of specific public spaces (parks and playgrounds, community gardens, farmers markets, sidewalks, trails, etc.) on health, there is far less research on health benefits of *participating* in placemaking activities—by growing a garden, cleaning up a park, or creating a public square, for example.

Across each of these subject areas, this report identifies the following core findings:

1. ***Encouraging social interaction, community building, and civic engagement within a public space—all central components of placemaking—yields important physical and mental health benefits*** including a greater sense of belonging, increased physical activity, and reduced rates of depression and psychological distress. Research shows that the experiences of volunteering, acting in a leadership role, organizing and recruiting others, and learning new skills, all facilitate key social processes that benefit health. Other studies indicate that engaging community members in a public space's planning process increases the degree and frequency of its use.

2. ***Because of health inequities tied to income, race, gender, and geography, placemaking efforts can have the most substantial impacts on low-income and disadvantaged communities***. African Americans are 21 percent more likely to die from heart disease; people living below the poverty line are 25 percent more likely to develop hypertension. Research shows that low-income neighborhoods are more likely to lack access to fresh and healthy food, and public spaces in these areas are also more likely to be poorly maintained, unattractive, unsafe, and lacking in greenery, which reduces physical activity and use. Community-driven placemaking activities like farmers market programs, vacant lot greening, or intersection repair efforts, can build social capital while helping residents mobilize health-promoting activities.

3. ***The active use of a public space depends on its features, appearance, proximity, and accessibility***. Parks and other spaces that encourage physical activity and frequent use help combat obesity and related chronic diseases such as diabetes and heart disease. Research suggests that the public space qualities most likely to encourage use and produce to positive health outcomes for users are: appealing aesthetics; amenities for different age groups; good maintenance and cleanliness; opportunities for social interaction; safety; lighting; natural features such as trees, water features, or bird life; and proximity to home and other destinations like shops and services.

4. ***Aesthetics and the visual appeal of the public realm play an important role in encouraging people to walk or bicycle***. Along with assets like safe street design, accessibility, and mixed-use development, recent research links street aesthetics—trees, green infrastructure, and street furniture—to increased rates of walking and bicycling. Conversely, studies link poor aesthetics, such as rundown and littered environments, to increased anxiety and poor mood among public space users.

5. ***A wide array of natural landscapes and greening strategies in the public realm produce multiple mental and physical health benefits*** including reductions in depression, anxiety, stress, Attention Deficit Disorder, diabetes and other cardio-metabolic risks, as well as improvements in working memory and physical activity levels. Community gardens in particular have been found to encourage a large number of health promoting behaviors, including increased consumption of fruits and vegetables, physical activity, socialization, and civic engagement.

Areas for Further Research

The review of research outlined in this report shows how both the *quality* of public spaces and the *process* of creating them can help improve physical, mental, and social health on multiple fronts. While a substantial body of research exists relating to the health impacts of various placemaking projects, the literature tends to be siloed and sector-driven. There are separate sets of research on parks, community gardens, farmers markets, walking and biking, and social support issues, for example, while very few studies examine the commonalities across placemaking projects, or how to maximize benefits by combining strategies (by co-locating a farmers market at a park or playground, for example). Greater research capacity is needed for documenting these interrelated advantages, which would include the development of consistent metrics and methodologies for evaluating and sharing the potential health benefits of these projects.

Each chapter in this report identifies specific areas of research that need greater exploration in order to better connect placemaking strategies to health. Some of the most important areas to which health researchers should devote attention include:

- *Examining the health impacts of projects that meaningfully engage residents in the planning, implementation, and management of a public space improvement*
- *Identifying placemaking and other strategies that are most effective in combating crime and improving the safety of streets and public spaces, as this is a proven driver of physical activity and use in disadvantaged areas*
- *Exploring which public space features (amenities, programming, design elements, etc.) contribute most to increasing social interaction and social capital, particularly amongst and within diverse populations*
- *Evaluating the unique benefits and possibilities of co-locating placemaking projects and strategies*
- *Identifying and testing innovative placemaking strategies that can complement and deepen existing research on the health impacts of public spaces such as plazas, squares, and markets*

Healthy People 2020 & the Social Determinants of Health

"Determinants of Health" is a core foundation health measure within ***Healthy People 2020***, the Office of Disease Prevention and Health Promotion's (ODPHP) 10-year national health promotion strategy. In looking at the range of personal, social, economic, and environmental factors that influence health status, the initiative defines social determinants of health as "the **social factors** and **physical conditions** of the environment in which people are born, live, learn, play, work, and age."

Examples of *social determinants* include:

- Availability of resources to meet daily needs, like educational and job opportunities, living wages, or healthful foods
- Social norms and attitudes, such as discrimination
- Exposure to crime, violence, and social disorder, such as the presence of trash
- Social support and social interactions
- Public safety
- Exposure to mass media and emerging technologies, such as the Internet or cell phones
- Socioeconomic conditions, such as concentrated poverty
- Quality schools
- Transportation options
- Residential segregation

Examples of *physical determinants* include:

- Natural environment, such as plants, weather, or climate change
- Built environment, such as buildings or transportation
- Worksites, schools, and recreational settings
- Housing, homes, and neighborhoods
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements, such as good lighting, trees, or benches

Healthy People 2020 emphasizes that interventions targeting multiple determinants at once will be most effective in determining individual and community health. Since "determinants of health reach beyond the boundaries of traditional health care and public health sectors, sectors such as education, housing, transportation, agriculture, and environment can be important allies in improving population health."[12] These kinds of convergences, partnerships, and projects are at the center of the placemaking approach.

NOTES

1 U.S. Centers for Disease Control and Prevention. *Chronic Disease and Health Promotion* (2016). Accessible from http://www.cdc.gov/chronicdisease

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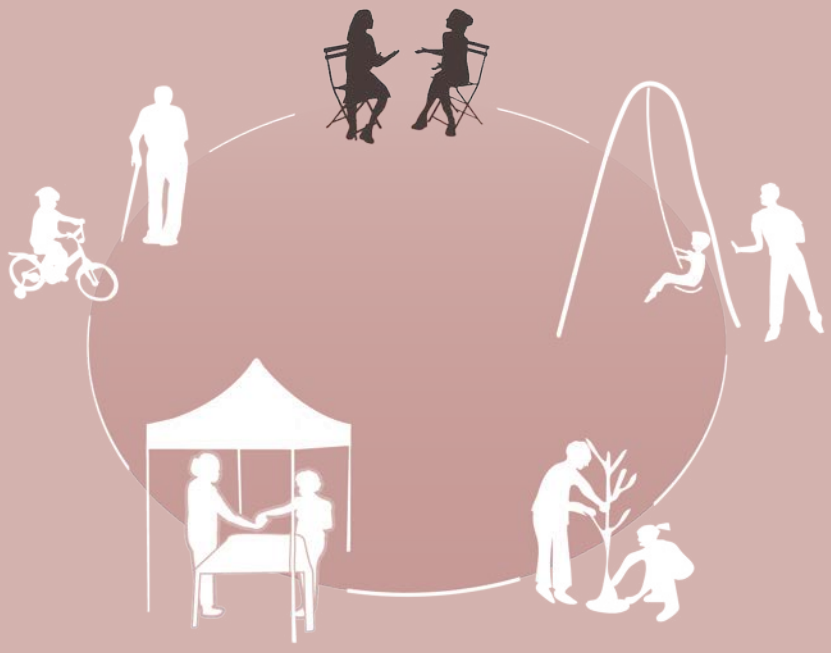
10 Treuhaft, S., & Karpyn, A. (2010). *The grocery gap: Who has access to healthy food and why it matters.* PolicyLink and The Food Trust.

11 Frumkin H. (2003). Healthy places: Exploring the evidence. *American Journal of Public Health* 93(9), 1451-1456.

12 https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health



SOCIAL SUPPORT & INTERACTION

Strong social support and networks help ***instill a sense of belonging*** *amongst community members, which is an important contributing factor for mental health and overall well-being.*

Placemaking initiatives, such as resident-led pavement painting or community garden projects, ***create opportunities for gathering, socialization, and volunteerism****, which have been shown to* ***reduce psychological distress and depression****. Evidence also indicates that placemaking strategies in this area work to i****ncrease perceived safety*** *and* ***mitigate crime****.*

SOCIAL SUPPORT & INTERACTION
THE ROLE OF PLACEMAKING

By design, placemaking initiatives create opportunities and spaces for gathering and socialization. The placemaking process also offers opportunities for neighbors to work together on a common project, creating new social connections and networks. For example, places like community gardens and markets provide ongoing opportunities for local citizens to build their social connections and leadership skills, while also creating pathways to self-empowerment and entrepreneurship. For local communities, the placemaking process-and the places that result-can also work to bring diverse populations together, including people of different ages, ethnicities, backgrounds and cultures.

"It takes a community to create a place, and a place to create a community."

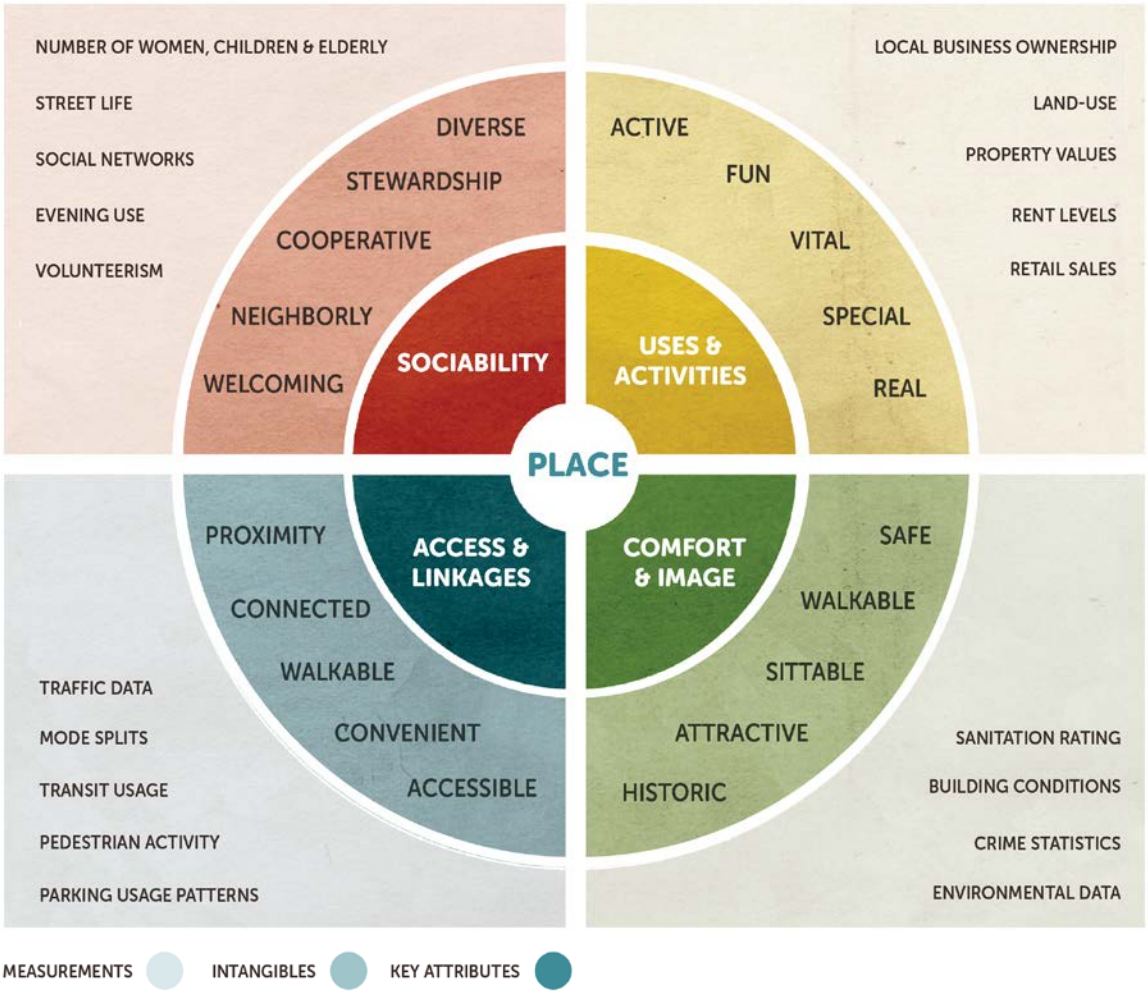
– Fred Kent

As social beings, humans need places to come together in person. Traditionally, humans built their communities around important public spaces: the ancient Greek agora, public markets, or the town green. While much socialization occurs in private spaces, public gathering spaces—whether it's a plaza, a park, a farmers market, or even a bench outside of a shop—provide access to a broader array of people and opportunities, as well as the potential for unplanned encounters and new connections. When PPS surveyed farmers market shoppers in 2007, participants ranked socialization among the top reasons for their visits, on par with factors such as product quality, convenience, and price.[1] In tracing the impact of green spaces on social health, numerous studies have identified a correlation between vegetation levels in common public spaces and the strength of neighborhood social ties among urban residents.[2]

Kawachi et al. (1999) define "social capital" as features of a collective entity that include "networks of secondary associations, high levels of interpersonal trust and norms of mutual aid and reciprocity—which act as resources for individuals and facilitate collective action." Neighborhoods with higher levels of social capital report better general health overall. Similarly, those neighborhoods with low levels of mistrust, high rates of reciprocity, and high volunteering rates (all proxies for measuring social capital) have been associated with lower mortality rates.[3]

However, despite evidence demonstrating the importance of social support and interaction on overall health and well-being, people today spend less time interacting with neighbors, family, and friends.[4] For example, nearly two decades ago, in *Bowling Alone* (2000), political scientist Robert Putnam warned about plummeting social capital in the U.S., drawing on national data which showed that Americans were joining fewer organizations, meeting with neighbors less frequently, signing fewer petitions, and even socializing with their families less often. Today, only about 20 percent of Americans spend time with neighbors regularly, while the number of respondents who reported having no one to turn to in difficult times tripled between 1985 and 2004.[5] Further, without "automatic relationship generators" such as having a job or school-age children, aging populations may be at a higher risk of experiencing social isolation,[6] while research at Brigham Young University suggests that single person households (which

WHAT MAKES A GREAT PLACE?



are also associated with premature mortality) are the fastest growing household type in the United States.[7]

Growing evidence is showing how place-making efforts work to build social capital, generating what the James L. Knight Foundation refers to as "place attachment." After interviewing nearly 43,000 people in 26 communities as part of a groundbreaking three-year study called "Soul of the Community," researchers identified three qualities of a place that lead to place attachment: (1) Social offerings (opportunities for social interaction and citizen caring); (2) Openness (how welcoming a place is); and (3) Aesthetics (its physical beauty and green spaces). These qualities mirror those that PPS uses in defining a "great place" (see diagram above). Notably, the Soul of the Community project also analyzed the connection between community attachment and economic growth, finding that cities with the highest levels of attachment also had the highest rate of GDP growth.[8]

LITERATURE REVIEW: THE HEALTH CONNECTION

There is a wealth of literature emphasizing the importance of social support and connection in improving health and other outcomes at the individual and community level, and the World Health Organization, along with the Office of Disease Prevention and Health Promotion's *Healthy People 2020* initiative, identify social support and good social relations as key determinants of health and well-being.

Social support—friends, family, and other community networks—helps individuals to meet emotional and practical needs, and belonging to a strong social network that requires communication and mutual obligation makes people feel cared for and valued.[9] Across academic and professional fields, research has repeatedly shown that people who feel a stronger sense of belonging to their local community tend to live healthier lives and have fewer mental health challenges than those who lack this emotional/spatial connection. Indeed, many studies indicate that a sense of belonging to one's community has a strong impact on health behavior change—i.e., the stronger the sense of belonging, the more likely people were to exercise, lose weight or eat more healthily.[10]

Research shows, for example, that people who are socially disconnected are between two and five times more likely to die from all causes, compared with those who have close ties with family, friends, and their community.[11] Stress alone can make people more vulnerable to infections, diabetes, stroke, depression and aggression.[12] Other consequences of a lack of social support include elevated risks for pregnancy complications, premature death,[13] some cancers,[14] and higher levels of disability from chronic disease.[15] On the other hand, positive social networks, civic engagement, and social interaction have all been shown to decrease risks of mental health disorders, as well as some physical health problems.[16,17]

There is also evidence of an association between social capital (including factors like volunteerism community trust) and health, in which social participation and community empowerment has shown to increase protective factors against dementia and cognitive decline in older adults.[18,19] Many placemaking efforts provide an opportunity to engage volunteers in the process of shaping, managing, and/or programming the space, and research examining the health effects of volunteering has found that such engagement can decrease mortality and improve self-rated health, mental health, life satisfaction, happiness, social interaction, healthy behaviors, and coping ability.[20] Participation in volunteering and other civic engagement activities also relate to several factors that two national studies have associated with well-being and happiness, including positive relations with others, personal growth, sense of meaning and purpose, and feelings of autonomy and independence.[21]

The sociability of a place also relates to safety and crime. The Office of Disease Prevention and Health Promotion's (ODPHP) *Healthy People 2020* initiative identifies crime and violence as key underlying factors in determining the health of a neighborhood or built environment.[22] In providing opportunities for people to connect with each on a regular basis, placemaking efforts and initiatives are especially important for those living in disadvantaged or deteriorating neighborhoods, or those in which opportunities for social connections among neighbors are otherwise limited. Research has also shown that factors such as physical deterioration, high poverty rates, high residential mobility, ethnic heterogeneity, and weak social networks can decrease a community's capacity to control resident behavior, which increases both social disorganization and the likelihood of crime.[23] According to a 2015 report by Active Living Research on promoting activity-friendly communities, perceived safety from crime in

public spaces is associated with greater order and upkeep as well as a greater likelihood for children and adults to be physically active within them.[24]

By increasing "eyes on the street" and encouraging positive activities in shared public spaces, placemaking efforts can have a marked impact in mobilizing a community's physical and social structures to enhance perceptions of safety and combat crime. Included in the National Crime Prevention Council's Environmental Design Guidelines are several strategies that connect crime prevention to placemaking activities.[25] These include promoting open space and community activities such as block parties or neighborhood clean-up days; increasing natural surveillance by installing better lighting and creating pedestrian-friendly streets to avoid traffic; hosting community events and meet-ups; and promoting a sense of community ownership by incorporating signs and artwork into public spaces.

SELECTED RESEARCH FINDINGS

» ***Placemaking projects improve social capital, sense of community, and individual well-being, including decreased reports of depression***

In 2007, researchers tracked the physical and social outcomes of public square restoration efforts in three low- to moderate-income neighborhoods in Portland, OR, in order to measure any resulting improvements in community well-being and social capital. The study measured "social capital" along four dimensions: sense of community; social interaction; perceived control; and neighborhood participation. For each project, municipal officials approved interventions such as community-designed street murals, public benches, planter boxes, and information kiosks with bulletin boards and trellises for hanging gardens, and after the completion of all three placemaking, the study found statistically significant improvements in residents' sense of community, mental health (depression), and social capital.[26]

» ***People who have a stronger sense of belonging to their local community tend to live healthier lives and have fewer mental health challenges than those with a weaker sense of belonging***

A 2012 survey of almost 120,000 people across all socioeconomic strata and geographic regions in Canada found that a sense of belonging to one's community had a strong impact on health behavior change—i.e., the stronger the sense of belonging, the more likely people were to exercise, lose weight or eat more healthily.[27] Given the association between reported sense of belonging and actual changes in health behavior (and the potential for prevention interventions), the study recommended more research on how community factors can increase sense of belonging among those who did not experience it.

» ***Public space features and amenities that facilitate face-to-face interaction have been linked to reduced levels of psychological distress***

A 2009 study of Miami's East Little Havana neighborhood examined whether or not certain common architectural features of the neighborhood contributed to psychological distress amongst residents. The research concluded that those features which facilitated face-to-face social interactions, such as front porches, increased perceptions of social support and, in turn, reduced levels of psychological distress. On the other hand, features that inhibited interaction—such as ground floor parking and low windows/small setbacks—generated feelings of unease, isolation, and a lack of social support.[28]

NEW AREAS OF RESEARCH

Additional research underscoring the impact of placemaking on social support, social capital, and safety might include:

- *Exploring the connection between mental health, social supports, and social capital in communities with high versus low levels of quality public spaces*
- *Expanding research capacity for evaluating the relationship between place attachment and health, identifying which factors of placemaking projects lead to a greater sense of community*
- *Identifying the specific types of activities, amenities, and programming in public spaces that most effectively bridge social capital and attract a diversity of users*
- *Further measuring connections between placemaking and crime reduction/prevention*

TAKING ACTION

Both the processes and outcomes of placemaking can facilitate social connections, which is a key factor in improving and maintaining health, safety, community capacity, and sense of belonging. Municipalities and other entities seeking to improve health and quality of life in all neighborhoods, especially those facing significant disparities, should institutionalize community engagement processes in the development and implementation of projects. Recommended actions for moving forward with these efforts include:

1. ***Engaging local residents, employees, and other stakeholders in a meaningful process to help shape the use and design of spaces that impact the public***

2. ***Evaluating opportunities for existing properties (building lobbies, plazas in front of buildings, undeveloped lots, adjacent streets) to become social gathering places that can host a diverse range of activities and programs***

3. ***Organizing and/or hosting events that explicitly seek to bring together community members from varying social, economic, and cultural backgrounds***

4. ***Providing public space amenities that encourage social interaction (tables and chairs, music, games, etc.) and offering private meeting space for free or at a discount to local groups and interests***

5. ***Identifying ways to build the long-term capacity of local residents, especially those with health disparities and other disadvantages, through programs that build skills and connections such as trainings, internship programs, volunteer opportunities, and working groups that help to manage and program specific spaces***

6. ***Showcasing local talent and culture with events or exhibits such as art displays and performances, or by featuring locally-designed and built amenities like seating and tables***

Peaches & Greens, DETROIT, MI

A small produce store grows into a community and health hub that houses a commercial kitchen, a meeting space, a plaza and park, community gardens, and an orchard.

In 2011, PPS worked with community development corporation Central Detroit Christian (CDC) to develop a plan for transforming a brick-and-mortar produce store, Peaches & Greens, and the entire block on which it is located, into a healthy community place.

With financial support from The Kresge Foundation, Peaches & Greens expanded the store to include a commercial kitchen, a community meeting room, and a "front porch." Through the commercial kitchen, CDC now offers cooking and baking space for neighbors and entrepreneurs as well as a location for Peaches & Greens' sliced fruit business, which distributes throughout the city (including a mobile truck that distributes fresh produce throughout the neighborhood). Each year, community members of all ages participate in cooking classes in the kitchen where new friendships are formed, and conversations often lead to new ideas for neighborhood improvement.

Through a community placemaking process, a corner vacant lot has since become a neighborhood park with basketball courts, exercise pods, games, and picnic areas, and across the street from the store, a new shed houses the local domino players who gather almost daily to play and socialize. The shed also adopts a number of impromptu functions—for special events like memorial services, for example—and each of these spaces has become an important site of social activity in the community while also lending itself to an "eyes on the street" approach to neighborhood safety and security.

On adjacent blocks, CDC also operates two community gardens, two hoop houses, an orchard, and an aquaponic farm home for tilapia fish and various herbs. A teen farmers program educates area youth on the growing process from seed to harvest to sale, with the goal of creating a comprehensive neighborhood food system that includes growing, processing, distribution, and retail, creating jobs while simultaneously providing access to healthy, fresh foods.

The block hosts an annual Harvest Festival, which began as a way to demonstrate placemaking opportunities for the area and to solicit ideas from the community. The event was so successful that it became a regular event, and it continues to be an avenue for residents to share their ideas for improving the neighborhood. "The impact [of these gatherings] is incredible," explained CDC Director Lisa Johanson, "and many have commented about how placemaking has changed the feel of the neighborhood in a very positive way."

Peaches and Greens has become much more than a place to buy food: today, it is the heart of the neighborhood.

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PLAY & ACTIVE RECREATION

Placemaking engages people in creating quality public spaces that include a variety of activities and amenities to facilitate play and active recreation. Regular physical activity is critical for health, helping people live ***longer lives****, maintain* ***healthier weights****, improve* ***cognitive function****, and decrease the risk of chronic illnesses such as heart disease and type 2 diabetes.*

Evidence has found that placemaking strategies directed at creating or improving parks and play spaces help to ***encourage recreational walking****;* ***increase physical activity****; and help to* ***diversify use of the space****. Studies have also shown that involving community members in the planning process of these spaces helps* ***generate a sense of community and ownership****, which in turn contributes to greater use of parks.*

PLAY & ACTIVE RECREATION
THE ROLE OF PLACEMAKING

By engaging neighbors in enjoyable social activities and in making public places lively and welcoming, placemaking offers multiple opportunities to encourage recreational physical activity for people all ages, backgrounds and abilities. Parks, plazas, squares, and even streets offer possibilities for adding permanent or temporary active recreation equipment and programming that can facilitate activities like ball games, dancing, and children's play.

Research shows that a combination of physical attributes and social factors may encourage park use, especially in lower income neighborhoods. A 2010 study comparing levels of park use and recreational walking in poorer and wealthier neighborhoods, determined that those living in poorer neighborhoods reported lower levels of park safety, maintenance and attractiveness, along with fewer opportunities for socialization. In turn, they visited local parks less frequently and walked less for recreation.[1]

A core tenet of placemaking is engaging a community to determine what they want to do in a public space, so that its design, amenities, and features accommodate activities that meet specific local needs. Working in collaboration, its goal is to create multi-use places with activities that cater to all kinds of users. While a single playground can only facilitate activity for young children, for example, a great place has activities and amenities that attract a diversity of visitors. A 2008 report from the Trust for Public Land emphasizes the importance of designing parks as multi-use destinations that promote health and wellness: "Most parks simply don't offer enough choices and opportunities for activity. Rather than being like old-fashioned hardware stores, filled to the brim with unexpected delights and choices, many are more like convenience stores, with a small, predictable number of lowest-common-denominator wares... The more facilities and discrete spaces that are layered onto a park, the more it can get from people with different interests and skills."[2]

Parks, plazas, squares, and even streets provide opportunities for the placement of permanent or temporary active recreation equipment and programming.

LITERATURE REVIEW: THE HEALTH CONNECTION

Access to opportunities for recreational physical activity is one of the social determinants of health identified in Healthy People 2020.[3] According to the 2010 ODPHP Physical Activity Guidelines, regular physical activity is essential for improving overall health and fitness and preventing a number of adverse health outcomes. For adults, the benefits of regular physical activity include healthy weight maintenance, improved cognitive function, and reduced risk of heart disease, stroke, diabetes, breast cancer, colon cancer and depression.[4] Physically active young people also have better bone health and lower risks of being overweight and developing chronic disease in adulthood.

Physical activity has also been found to be "neuroprotective," helping to guard against diseases like Alzheimer's. Brain scans of active individuals show substantially more gray matter than their less active peers, which is correlated with greater brain health and improved memory. These outcomes can be achieved by making behavioral changes, with research showing that individuals who increased their physical activity over a 5-year period experienced notable increases in their brain's gray matter function.[5]

To maintain optimum health, children and adolescents need 60 minutes of daily physical activity.[6] In a 2008 study in Ontario, CAN, researchers found that children within 1km of a park with a playground were almost five times as likely to be at a healthy weight as those without playgrounds in nearby parks.[7] A review of research on the effect of strategies to prevent childhood obesity found that creating or improving access to parks and recreational facilities, combined with information outreach is among the most effective interventions for promoting physical activity.[8,9,10]

But beyond the importance of physical activity in combating obesity and related diseases, play and interactive recreation has been shown to be a critical part of children's early social, emotional, cognitive, and physical development processes.[11] Some researchers suggest that as a result of increasing time spent on electronic media, as well greater parental restrictions on their independence, children and youth increasingly have fewer opportunities to engage in active play.[12] In 2010, for example, research by the Kaiser Family Foundation determined that children between the ages of 6 months and 6 years spend an average of 1.5 hours per day with electronic media, while youth between the ages of 8 and 18 spend an average of 6.5 hours a day on electronic media.[13]

Children are deeply impacted by a lack of places to play and be physically active. Due to fewer resources for in-school and after-school programs, the lack of safe play areas, and a dearth of time and resources on the part of caregivers, the lack of opportunities for active play is especially critical for children living in poverty.[14] There is much research demonstrating that those living in low-income areas often lack access to parks and other public spaces encouraging physical activity. A 2006 study on the relationship between disparity in access to recreational facilities and obesity in adolescents found that those living in high-minority, lower-educated areas were half as likely to have access to an exercise facility as those in low-minority, higher-educated areas.[15]

A 2005 study of Los Angeles parks also determined that those living in areas of concentrated poverty—particularly in Latino, African American, and Asian American neighborhoods—were less likely to have nearby access to parks, playgrounds, and other exercise facilities than those living in predominately white neighborhoods.[16]

Research also shows that low-income

populations, as well as racial and ethnic minorities, are more likely to live in areas with real and perceived safety issues, which can further impact levels of physical activity and willingness to frequent public spaces like parks or playgrounds.[17]

SELECTED RESEARCH FINDINGS

Both the availability and quality of parks and recreation facilities has a significant impact on people's ability to be physically active.[18,19,20,21] Qualitative research on the physical attributes of parks show that factors such as safety, appealing aesthetics, amenities suited to use across the life-span, good maintenance and cleanliness, and proximity to people's homes all encourage more frequent park use.[22]

A park's social environment also influences its use and outcomes. Several studies have indicated that safe and supportive social environments in a park are especially important for women and girls,[23,24,25,26,27] while for adolescents, participating in park cleanups and planting helped them to develop a sense of community and neighborhood pride.[28] Further, involving community members in the park planning process may result in spaces that more effectively balance the specific needs of population groups that vary in relation to age, gender, socio-economic status, race and ethnicity.[29]

Below are selected research findings showing the health impacts of placemaking efforts aiming to increase access to parks and opportunities for active recreation:

» ***Having clean and nearby park access has been associated with healthier weights and greater life satisfaction amongst users***

A 2014 New York City-based study showed greater availability of neighborhood parks (either large or small, as determined by proportion of space dedicated to parks in a given zip code) and greater park cleanliness to be associated with healthier weights among NYC adults, after adjusting for neighborhood features that could influence park use such as walkability and violent crime.[30] In a survey of older adults in England, features such as the quality of trees and plants, the presence of children playing, and opportunities to socialize, increased participants levels of recreational walking (while the presence of nuisances such as youngsters perceived as loitering and dog waste resulted in less walking).[31] Studies have also shown that along with perceived safety in public spaces, the distance to neighborhood public spaces correlate with life satisfaction in older adults.[32]

» ***Parks with higher levels of social capital generate more physical activity***

A city-wide study in New Orleans found that parks with higher levels of social capital were used by more people and generated higher volumes of physical activity. To measure social capital, researchers used indicators such as trust and harmony among park users ("getting along with other park users"), and feelings of responsibility for children's safety in the park or reporting incidents of graffiti or vandalism.[33]

» ***Play streets can increase children's physical activity, at no cost to their families***

A recent study in Ghent, Belgium, looked at the effects of a free municipal program that closed neighborhood streets so the elementary school-aged children living on those streets could play outside during summer vacation afternoons. Volunteers living on the street set up these play streets, and the city distributes boxes of items such as balloons, flags, chalk, and balls to encourage free play. Researchers measured the impact of this outdoor play opportunity on time spent in moderate- to-vigorous physical activity versus being sedentary, and results indicated that children playing on the designated streets increased their moderate-to-vigorous physical activity by nine minutes per day (whereas that of comparable children not involved decreased by three minutes). Sedentary time for the children involved decreased by eight minutes per day, going up by nine minutes among comparable non-participating children.[34]

NEW AREAS OF RESEARCH

Research findings that could help strengthen the impact of placemaking on recreational physical activity include:

- *Examining the impact of co-locating active recreational facilities and programming for different age groups*
- *Evaluating the impact of co-locating active recreational facilities with other facilities or activities such as a farmers market, health and social services centers, and other health-promoting uses*
- *Further exploring the effectiveness of physical activity programming in public spaces, particularly in attracting people most in need of physical activity and improved health*

TAKING ACTION

The research summarized above provides guidance about how to design public spaces and other active recreation facilities that will engage and encourage use by a wide variety of demographic groups, including residents of neighborhoods where health disparities are more likely. Recommended actions for health care and other institutions and others in this area include:

1. ***Engaging residents in the planning and creation of parks and other active recreation places, and in making improvements to make these spaces greener, safer, cleaner, more accessible, and supportive of social interaction***[35]

2. ***Partnering with community groups and engage local residents to provide ideas and feedback about improvements to and programming for local parks and public active recreation spaces***

3. ***Seeking opportunities to increase the number, size, safety, and quality public active recreation spaces in close walking distance to where people live***

4. ***Evaluating opportunities to add active recreation amenities, equipment, and/or programming on a permanent or temporary basis in existing properties (plazas in front of buildings, parking lots, undeveloped lots, adjacent streets, etc.)***

5. ***Sponsoring or organizing Play Street or Open Street events***

6. ***Marketing physical activity programming and public active recreation spaces by using language, imagery, and methods that appeal to diverse populations, including non-English speakers and those most impacted by health disparities***

7. ***Improving walking, bicycling, and public transportation access and connections to local community parks, playgrounds, physical activity programming, and public active recreation spaces***

8. ***Finding new ways to promote socialization and interaction in public active recreation spaces, through strategies like cleanup days, special events, interactive equipment or games, and the co-location of equipment for multiple ages and interests***

78th Street Play Street,

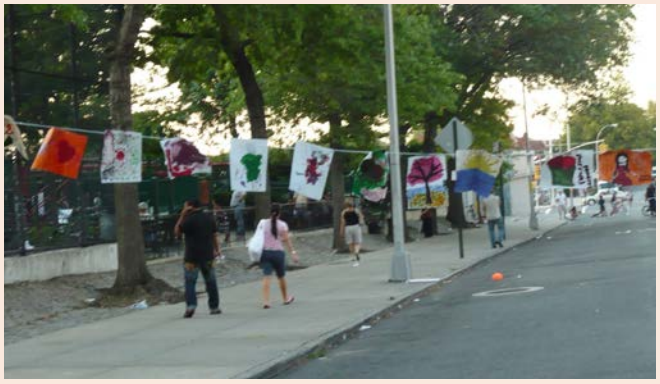
QUEENS, NY

Addressing a lack of open and play space, residents created a Play Street that became a community anchor not just for children's play, but also for adult fitness, a farmers market, and various neighborhood events.

Beginning in 2008, local resident group Jackson Heights Green Alliance (JHGA) worked with the NYC Department of Transportation to close a one-block stretch of 78th Street off to car traffic in order to create a summer play space for children. The project addressed a critical need for more open space in Jackson Heights, Queens, which ranked second-to-last in available park space per resident of all neighborhoods in New York City. At first, the street was a Play Street only on odd weekends in the summer, but it soon evolved into a Play Street for the entire summer.

In 2012, JHGA was selected as the first-ever all-volunteer neighborhood group to operate a permanent public plaza on this block. The plaza provided space for active recreation activities like yoga and fitness classes, as well as children's play events, concerts, summer movies, a local farmers market, and a number of other activities. EmblemHealth, one of the nation's largest nonprofit health plans, has provided funding for yoga, Zumba, and aerobics classes each summer, which has allowed these programs to be free of charge for community members.

As a volunteer-run organization, JHGA relies on the time, talent, and resources of local residents and businesses, and this engagement has also connected local residents to this place. A call on JHGA's website, for example, invited community members to work with a local artist to paint benches for the plaza during an End of Summer Party.



New York Playground Program, NEW YORK, NY

A program created to address unequal access to outdoor play areas across New York City Neighborhoods of varying income levels is now celebrating its 20th year and nearly 200 playgrounds designed and built in New York City public schools since its inception in 1996.

The Trust for Public Land began its New York City Playground Program in response to a striking scarcity of public, outdoor play areas in low-income neighborhoods in New York City in the late nineties. When the program began, 73 percent of the city's low-income neighborhoods failed to meet the city's standard of 2.5 acres of parkland per 1,000 residents. Several neighborhood schools lacked playground facilities all together.

Through the programs cornerstone participatory design practice, which involves a diverse range of community members—students, parents, teachers, school administrators, support staff and neighborsin the three month planning process behind each playground, over 186 playgrounds have been build in New York City schools, each tailored to the community it serves. The success of this process is apparent as once barren asphalt lots transform into vibrant play structures, gardens, and athletic facilities that are used by both students and community members. The most recent playground, unveiled September 22, 2016 at PS 15 The Roberto Clemente school, was built in partnership with the Trust for Public Land, the Department of Education, the Department of Environmental Protection and the School Construction Authority and features one-third of an acre of green infrastructure, which allows the space to capture 400,000 gallons of stormwater runoff each year and serves to both improve the health of the nearby East River and give students the opportunity for hands-on environmental education. On weekends, holidays and school vacations, the playground opens to the surrounding community.

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GREEN & NATURAL ENVIRONMENTS

A key component of the placemaking process involves making simple, immediate, and low-cost improvements to a space, and adding natural elements to a public space is a great place to start. In terms of placemaking, greenery can help make public spaces more attractive by adding ***visual appeal****,* ***comfort****, and the opportunity to develop and reflect a place's unique* ***identity****.*

Research also suggests that green places can help address a wide range of direct physical and mental health benefits, including increasing ***physical activity*** *and* ***cardio-metabolic health****; reducing mental health issues such as* ***depression****,* ***anxiety*** *and* ***stress****; increasing cognitive functions like* ***attention*** *and* ***memory****; providing a platform for social interaction and community activities that build* ***social capital****. Furthermore, green spaces affect other environmental factors that in turn improve health outcomes, such as reducing* ***violent crime****; improving* ***air and water quality****; and building* ***resilience to flooding****.*

GREEN & NATURAL ENVIRONMENTS
THE ROLE OF PLACEMAKING

Access to green space is one of the social determinants of health included in *Healthy People 2020*,[2] and improving the availability and accessibility of a wide array of green spaces is a key objective of placemaking efforts. Adding plants and landscaping to public spaces, such streets and plazas, accomplishes multiple placemaking goals, including providing shade, beauty, and the opportunity for residents to help cultivate and reflect the unique identity of a place.

Landscaping improvements can be a quick, relatively low-cost way to begin public space transformations, indicating to visitors that the space is well cared for. As Project for Public Spaces says in its year 2000 manual *How to Turn a Place Around*, the best public spaces may experiment with different uses and designs throughout its lifetime, but it's best to "start with the petunias"—that is, the cheapest, fastest, and least permanent to implement interventions. Although greenery does require regular maintenance after the initial planting, this organization and collaboration among local residents, institutions, and/or businesses also helps build social capital between neighbors, which, as earlier chapters have stated, improves mental health and gives people support in times of need.

> ***"Whether a city park, a community garden, a tree-lined street, or wilderness—nature in people's daily lives reduces stress, renews the spirit, connects people to each other and increases physical activity. In short, humans are part of nature, our connection with nature is a fundamental human need, and we believe that access to nature is a basic right."***
>
> *— The Wingspread Declaration on Health and Nature*[1]

While many neighborhood residents may lack the resources and ability to single-handedly create infrastructure like a new sidewalk, anyone with a green thumb—or a willingness to learn from others—can grow and care for greenery. This is why some of the most common placemaking projects involve community gardens or the greening of vacant lots.

Even though much research continues to connect access to natural environments with stress reduction and lower levels of certain autoimmune diseases and depression, today's population may have less exposure to green spaces and nature than ever before. Author Richard Louv uses the term "nature deficit disorder" to describe children's increasing lack of time outdoors and in green space, which he connects to a wide range of behavioral and health problems.[3] To address this deficit, some physicians have even begun writing "Park Prescriptions" for their patients.[4] In Maine, for example, primary care physicians can distribute free passes to 47 State Parks, thanks to a partnership with Harvard Pilgrim Health Care, the state's Bureau of Parks and Lands, and *Let's Move!*, Michelle Obama's childhood obesity prevention program.[5]

LITERATURE REVIEW: THE HEALTH CONNECTION

In recent years, a number of researchers have explored how proximity to green space influences health outcomes. There is significant and growing evidence of the physical and mental health benefits of green space, including lower levels of anxiety disorder and depression, reduced risk of diabetes, higher levels of physical activity, lower levels of overweight and obesity, reduced heart rates,[6] and lower levels of autoimmune disease.[7]

A study recording obesity levels across a number of European countries found residents living in areas with large amounts of green space to be three times as likely to by physically active than those living in areas in which there is little green and open space.[8] Researchers in the Netherlands also found that the percentage of green space inside a one- and a three-kilometer radius of someone's residence had a significant relation to self-reported general health, whether or not they lived in a highly urban area.[9]

Having good access to green space has even been associated with living longer. A study in Japan looked at the correlation between green public space in urban areas and the lifespan of 3,133 local residents (born in 1903, 1908, 1013, and 1918) over a five-year period. The two environmental actors shown to increase their longevity included: (1) having green space within a walkable distance from home; and (2) having a positive attitude towards the local community. These factors were shown to consistently increase the life span of participants regardless of demographic factors such as age, sex, marital status, and socioeconomic background.[10]

Even outside of parks, natural elements can play an important role in mental health. Research in Toronto, Ontario, found that people living in neighborhoods with a higher density of trees on their streets reported significantly higher health perception and significantly less cardio-metabolic conditions, such as diabetes, high cholesterol, heart disease, and stroke. Authors estimated that having 10 or more trees on a city block improved health perception in ways comparable to being 7 years younger or having a higher annual personal income of $10,000 more.[11]

Visits to green spaces, including walks along tree-lined streets, have been connected to lower levels of stress, an increased ability to focus, and decreased anxiety, and studies have shown, too, that children with Attention Deficit Disorder can better concentrate on schoolwork and other tasks after taking part in activities in green settings, such as playing in a park.[12,13] These health benefits are applicable to a wide array of accessible green spaces—including not just local parks, gardens, or playgrounds, but also areas like bike paths or streets with vegetation. This issue of access—meaning green spaces that are safe, close to home, easy to walk to, and which have well-maintained facilities—underscores the need for an equitable distribution of investment in the public realm.

By making our cities more sustainable and resilient, green spaces also indirectly improve health outcomes. Research finds that green space can protect biodiversity, improve air and water quality, cancel noise pollution, reduce the "urban heat island" effect, and reduce the likelihood of flooding and sewage overflow by absorbing excess rainwater.[14] All of these impacts affect day-to-day mental and physical health, as well as the likelihood of illness or injury during increasingly common extreme events like floods or heat waves.

SELECTED RESEARCH FINDINGS

» ***Close proximity to parks and green spaces positively impacts physical activity levels, mental health, and cognitive function***

In a recent survey of low-income neighborhoods in Los Angeles looking at the correlation between individuals' proximity to a park and their mental health, findings indicated that residents with the best mental health (as assessed by levels of depression and anxiety) lived within a short walking distance to a park, and they also had higher reported levels of physical activity.[15] Another 2014 study examining the connection between mental health and neighborhood green space (measured by the percentage of tree canopy), found higher levels of neighborhood green space to be correlated with fewer experienced symptoms of depression, anxiety and stress.[16]

A 2012 experiment in Michigan found that people were better able to perform a test of working memory (which measures one's ability to focus or concentrate) after walking through a green arboretum, compared to those who walked on traffic-heavy urban streets. Subjects who walked through the arboretum had a 20 percent improvement in working memory.[17] Another study determined that people who went for a 50-minute walk in nature, compared to those who went for a similar length walk in an urban environment, experienced less anxiety and rumination, along with increased working memory performance.[18]

» ***People living in neighborhoods with high-quality parks or other public spaces report better mental health than those with low-quality spaces***

Some research suggests that the simple supply of green space is not enough. Qualitative aspects of public green space have health implications as well. In addition to proximity to home, the size of an open public space and the amenities/natural features within it are important factors in encouraging physical activity.[19,20] A 2005 Australian study found that a combination of three characteristics of public open spaces—proximity to home, size, and attractiveness—appeared to encourage higher levels of walking. Respondents preferred public open spaces large enough to contain trees, water features, and birdlife, and in which they had the opportunity to "lose themselves."[21]

Similarly, studies in Perth, Australia found that people in new neighborhoods with "high-quality" public open space had better mental health than those with low-quality public open space. Features that made an open space high quality included walking paths, lighting, water features, playgrounds and birdlife. Mental health was assessed based on symptoms of psychological distress such as nervousness and hopelessness. Findings were not affected by the quantity of open space in the neighborhood, nor by how frequently residents used the open space.[22]

» ***Green spaces and placemaking activities may reduce crime by creating "eyes on the street"***

Greening strategies have also been connected to other environmental factors that can have less direct but significant impacts on health. For example, research suggests that green places may reduce violent crime.[23,24,25] A study in Philadelphia, PA, measured the impact of a vacant lot greening program on inner-city health and safety outcomes over ten years. In the four Philadelphia neighborhoods that comprised the survey, findings indicated a relationship between vacant lot greening and a reduction in gun assaults in all four neighborhoods, and a reduction in vandalism in one. With respect to health-related outcomes, residents reported significantly less stress in one neighborhood and getting more exercise in one other neighborhood.[26] The mechanism for reducing crime is unclear, however some theories suggest a variation on Jane Jacobs's well-known idea of "eyes on the street." Better public places and the increases in human activity they harbor add to "natural surveillance" in the area.[27]

NEW AREAS OF RESEARCH

The effects of green and open space on mental health will only grow in importance as rates of urbanization swell worldwide. City dwellers are generally at a higher risk for mood and anxiety disorders, as well as schizophrenia, even after accounting for the greater likelihood of people with mental health issues to move to urban areas.[28] While more research is needed in order to better understand the connection between urban living and mental health, some researchers attribute the difference to greater sources of stress, such as noise, crime, and crowds,[29] as well as a lack of green spaces.[30] Beyond this, additional research is needed regarding the relationship between green environments, health, and placemaking. Specific areas of focus might include:

- *Deeper analyses of the health impacts of greening strategies outside of parks and natural areas, in places such as streets and plazas*
- *Further exploration of how contact with nature impacts brain development in children and youth*
- *Crafting community engagement procedures for identifying why certain groups are less likely to visit green space to ensure equitable access to green space*

TAKING ACTION

Placemaking strategies can help create and enhance green spaces at low cost and in urban neighborhoods that may lack them. Recommended actions for in this area include:

1. *Seeking opportunities to increase the number, size, safety, and quality of green spaces, parks, and trails within close walking distance to people's homes, particularly in vacant lots*
2. *Incorporating more natural features into existing green spaces that have been connected to improved health outcomes, such as trees, water features, walking paths, and birdlife*
3. *Incorporating trees, landscaping, and engaging natural features into the urban fabric at large, such as street trees or plantings in plazas*

A CLOSER LOOK

Happiness and Health

Whether it's enjoying a walk through a beautiful park, chatting with a vendor at a farmers market, admiring a new street mural, or meeting a friend for coffee in a neighborhood square, even everyday activities in public spaces can be some of the most memorable and pleasurable.

A growing body of research emphasizes the importance of happiness to physical and mental health. Higher levels of reported happiness have been linked to lower heart rates and blood pressure, reduced rates of coronary heart disease, stronger immune systems, and lower levels of stress.[31,32] Some studies also suggest that happiness can help to mitigate pain for those who suffer from chronic pain and illness.[33] Indeed, being happy may even lengthen our lives.[34]

Happiness is often connected to enjoyable interactions with loved ones and other social networks. In the *World Happiness Report*, which ranks 156 countries by their happiness levels, social support is among the top three contributing factors of happiness, along with income and healthy years of life expectancy.[35]

Another strain of new research is exploring the impact that positive emotions like awe and wonder—which can occur as people interact with nature, art, or music—have on individual health.[36] Preliminary findings have linked these feelings with lower levels of pro-inflammatory cytokines—body proteins that are connected to autoimmune diseases and depression. The contributing causes of happiness and awe, however, and the extent to which placemaking and the public realm can play a role in these experiences, is still emerging.[37]

Avers Community Garden,

NORTH LAWNDALE, CHICAGO, IL

A neighborhood collective transformed an empty lot into a community garden that has become a center of youth activity.

During the 1995 Chicago heat wave, the neighborhood of North Lawndale was hit hard. As sociologist Eric Klinenberg observes in *Heat Wave: A Social Autopsy of Disaster in Chicago*, vulnerable people in North Lawndale died at a rate ten times higher than people in the area's demographically and socioeconomically neighbor, South Lawndale. Although many health experts erroneously attributed the differences to the racial make-up of the two neighborhoods or other unsubstantiated platitudes, Klinenberg found the underlying problem in the built environment: abandonment of the neighborhood by businesses, service providers, and residents and a fear of leaving the home destroyed the social fabric of the neighborhood and left the most vulnerable populations stranded.

More than ten years later, the empty lot on the southeast corner of Avers Avenue and Cermak Road in North Lawndale was strewn with broken bottles and overrun with weeds. It had become a haven for drug dealers. When several neighborhood residents decided they had enough, they channeled their frustration into action. Residents Karen Trout and Laura Michel decided that creating their own community garden would be the most attractive, productive, and cost-efficient way to reclaim the space.

By the end of the garden's first summer, it had become an active public space, and the neighbors had achieved their goal of beautifying the block. However, Karen and Laura also knew the garden would be an excellent educational tool for teaching children about nutrition, especially given that the immediate area has few grocery stores that carry fresh produce.

They partnered with two nearby nonprofits, Young Men's Educational Network and Beyond the Ball, to start the Avers Backyard Club—an after-school sports and educational program for local youth. Neighborhood kids use the space regularly, and a newly constructed track around the perimeter of the garden facilitates bikes, scooters, and play. The space has also hosted ice cream socials, talent show, and block parties.

Karen and Laura use the garden to educate the club's young participants about stewardship and responsibility. Children help maintain the garden by picking up trash, pulling weeds, and watering plants. Karen and Laura believe the children's hard work and investment in the block helps them feel a sense of pride, ownership, and responsibility, not just for the garden but also for their block and the neighborhood as a whole.

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HEALTHY FOOD

Placemaking projects, such as creating public markets or community gardens, help to ensure the accessibility of ***fresh, affordable food****, while also providing a number of social and economic benefits for the communities they serve. Having access to healthy, affordable food is a key factor in preventing malnutrition and poor diets that can lead to obesity and related chronic diseases such as heart disease, type 2 diabetes, and some cancers.*

Placemaking efforts aimed at creating and supporting healthy food environments have been shown to: ***Increase people's consumption of fruits and vegetables****;* ***ensure food security****, particularly for low-income and disadvantaged populations;* ***provide economic development opportunities*** *to producers, distributors, and other members of the local food system;* ***create opportunities for local entrepreneurship, socialization, community building, and nutrition and food-based education****; and* ***support environmental sustainability****.*

HEALTHY FOOD
THE ROLE OF PLACEMAKING

Placemaking offers many opportunities to bring healthy foods to neighborhoods lacking such options. Projects like community gardens and farmers markets not only supply fresh and affordable produce, but they also encourage local entrepreneurship, socialization and community building, and educational programming on health-related topics such as nutrition, gardening, and food preparation. Even though community gardens and farmers markets tend to be seasonal sources of food, their prevalence in the U.S. continues to grow, and more and more people have access to markets that are within easy reach of home.[1]

Public markets and community gardens can be more than just places to grow or buy food. By adding amenities and programming, these public spaces become important community destinations, particularly for disadvantaged and low-income communities. Today, many farmers markets have begun to include health-promoting activities and services like cooking demonstrations, health testing, and food assistance programs (SNAP/WIC). Some community gardens and markets also have youth training programs that build leadership, community, and skills.

Throughout history and in towns and cities across the world, public markets have been neutral ground, encouraging people to gather, make connections, discover their similarities, and appreciate their differences. While many old public market buildings have been dismantled, particularly during the 20th century, inexpensive and lightweight alternatives have begun to take their place. By 1946, there were just 499 farmers markets left in the U.S. That number rose to 2,863 by 2000, and then shot up to 8,284 by 2014.[2] Many of the great public markets that we know today began as nothing more than a simple, informal street market.

Community gardens have also been part of American cities since the late-19th century. As a way to confront the congestion, economic instability, and environmental degradation that were part and parcel of turn-of-the-century urban life, residents took matters into their own hands—by planting school gardens, for example, or cultivating the vacant lots between buildings. Since then, the popularity of these gardens has ebbed and flowed in relation to the social and economic climates of particular eras. During the World Wars and the Great Depression, for example, the practice became much more widespread (as a result of the "Victory Gardens" encouraged by the federal government during WWII, Americans produced 40% of their own food) only to diminish once again as the nation's economy began to recover. Most recently, after the 2009 recession, there was a 19% increase in the prevalence of community gardens as a strategy for supplementing food costs and cultivating local resilience.[3]

> *"A garden is a solution that leads to other solutions. It is part of the limitless pattern of good health and good sense."*
>
> *— Wendell Berry*

While their ability to improve food access alone, especially among lower-income and under-served communities, is proof enough of their enduring value, public markets and community gardens embody powerful placemaking strategies that are showing to have multiple and measurable impacts as well.

LITERATURE REVIEW: THE HEALTH CONNECTION

Because access to good, affordable food is central to promoting health and well-being, the World Health Organization has determined food to be a "social determinant of health."[4] In the U.S., and increasingly worldwide, malnutrition often stems from excess consumption of unhealthy but inexpensive food that is high in salt, refined sugar, fats, and highly-processed starchy foods; these diets can lead to obesity and chronic diseases including heart disease, stroke, and cancer.[5]

Beyond encouraging participants to engage in healthy behaviors such as eating fresh vegetables and increasing physical activity, research shows that many of the qualities of community gardening help stimulate personal and social processes that support physical and mental health.[6] Through opportunities to volunteer, act in a leadership role, organize neighborhood activities and recruit new gardeners, community gardens facilitate key social processes that benefit health and well-being. Some of these processes include building reciprocity and trust, enabling collective decision-making, and fostering civic engagement and community building.[7]

SELECTED RESEARCH FINDINGS

» ***Neighborhood food environments can determine obesity levels***

A 2009 study in New York City found that residents living in neighborhoods with a high density of food outlets selling abundant options of healthier foods had healthier weights than those which lacked these resources. Recent research has also noted an inverse relationship between supermarket availability and adult obesity rates (though it did not examine the availability of farmers markets or community gardens).[8] Similarly, a 2012 study of neighborhoods in Seattle and California looked at the impact of food and physical activity environments on obesity levels, finding that children and parents were least obese in neighborhoods with more options for buying healthy food, more favorable walking environments, and better access to high quality parks. These findings were consistent regardless of other factors such as genetics, neighborhood income, or parent education levels.[9]

» ***There is a positive correlation between community gardens and mental health***

Given the physical exertion that gardening requires and the increased consumption of fresh fruits and vegetables, the connection between community gardens and physical health is clear. But recent research has also underscored the mental health benefits of these public spaces. For city dwellers, connecting with nature—a proven remedy for stress and depression—can be quite difficult. A recent UK study shows that people who gardened for at least 30 minutes a week had lower body mass indexes (BMIs) *as well as* higher levels of self-esteem and lower levels of tension and stress. "With an increasing number of people residing in urban areas, a decline in the number of homes with gardens, and the increased risk for mental ill health associated with urban living," researchers write, "allotment gardening might play an important role in promoting mental well-being in people residing in urban areas."[10]

» ***Adding a farmers market to a neighborhood lacking supermarkets can increase the availability and affordability of fresh produce***

While some studies have criticized farmers markets for having higher produce prices and failing to address socioeconomic and racial disparities in food access,[11, 12] recent research suggests that the opposite may be true. A study looking at the cost and availability of fresh produce after introducing a farmers market to a food desert[13] in London, Ontario, found that over three years, the price of groceries dropped by 12 percent in the neighborhood.[14]

» ***Incentives to purchase fruits and vegetables can help low-income populations to purchase and consume more of these products***

Much research has shown that providing food assistance programs and bonus incentives at farmers markets in low-income areas can have a positive impact on purchasing power.[15,16,17] In addition, in a 2012 study examining the role of newly established farmers markets in two low-income Los Angeles neighborhoods nearly almost all market customers (97 and 98 percent) reported eating more fruits and vegetables within a period of two years. Customers also reported high levels of satisfaction with both markets, appreciating their accessibility and closeness to home, affordability and quality of produce, educational offerings and opportunities to socialize.[18]

» ***Community Gardens can increase fruit and vegetable consumption***

In a 2011 survey of 436 adults in Denver, CO, researchers found that community gardeners consumed fruits and vegetables 5.7 times per day, compared with home gardeners (4.6 times per day) and non-gardeners (3.9 times per day). Fifty-six percent of community gardeners met national recommendations to consume fruits and vegetables at least 5 times per day, compared with 37 percent of home gardeners and 25 percent of non-gardeners.[19] Another study in Denver specified that garden vegetables are "perceived differently that store-bought vegetables," and gardeners reported that their children were more willing to eat vegetables that they could "pluck off the vine."[20]

NEW AREAS OF RESEARCH

While this review includes evidence of the social benefits of local public markets and community gardens, there is still great need for more rigorous and well-designed research on the impact of farmers markets and community gardens on nutritional outcomes.[21,22] Additional research needs in this area include:

- *Evaluating the impacts of markets and other health food areas in building social connections, support, and cohesion*
- *Greater examination of the benefits of co-locating farmers markets or farm stands with other public space activities and uses*
- *Evaluating the impacts of farmers markets on levels of walking and bicycling*

TAKING ACTION

Recommended health-related placemaking strategies in this area include:

1. *Utilizing already existing and centrally-located properties (plazas in front of buildings, parking lots, adjacent streets, etc.) for regular, year-round farmers markets*

2. *Supporting the co-location of health services and healthy food opportunities, and connecting food environments to other nodes in the local food system (farmers markets, food banks, etc.)*

3. *Integrating garden projects into the planning of schools, affordable housing, and other developments*

4. *Creating opportunities for education and health-related programming in public spaces*

5. *Ensuring the affordability of products sold at farmers markets by offering vouchers, Supplemental Nutrition Assistance Program (SNAP) and Women, Infants, and Children (WIC) program benefits, and/or "bonus bucks" or similar programs*

Flint Farmers Market, FLINT, MI

Relocating a public market downtown improves food access and health-related investment

Public markets can play a major role in addressing public health issues, even beyond their ability to provide fresh and affordable food. Conveniently, markets can also be *destinations*—public gathering places that give community members the opportunity to strengthen social ties and enhance civic engagement. A great example of this dual benefit is the case of Flint Farmers Market in Michigan, which moved in 2014 from its former location along the Flint River, to downtown, not far from where it was previously located until the 1940s.

For Flint residents, 41% of whom live in poverty, opportunities for healthy eating can be few and far between. Diet-related diseases—such as obesity, diabetes, cardiovascular diseases, and respiratory diseases—are a major public health concern, and while they affect people of all ages and socioeconomic classes, they have been shown to disproportionately affect marginalized and disadvantaged populations. From the beginning, the market had great potential to address some of these pressing public health issues, but for a while it was not quite hitting the mark.

Even though the Flint Farmers Market was already a community staple with a well-established customer base, its vendors and management knew that it needed some major capital improvements - it was always a year-round indoor market with a large number of seasonal vendors in an outdoor shed, however, it had clearly outgrown its facility. The market eventually relocated (in 2014) into the much larger and centrally located former printing building of the *Flint Journal*.

The decision to bring the market back downtown was part of Uptown Reinvestment Corporation's $32 million redevelopment project that included an integrated strategy to bring more people downtown, provide more space for vendors, and offer more community services. With the new larger site, the market could become a multi-use community destination. The new building allowed for substantial updates and expansion, and is twice the size of the old market, accommodating twice as many vendors. The facility also has room for other facilities and functions, such as a community room, a roof terrace for special events and dining, and also houses Flint Food Works, a culinary incubator for local businesses.

A 2016 study conducted by Richard Sadler at the College of Human Medicine at Michigan State University highlights the impacts that the relocation had on improving access to healthy food in an underserved community with few available options for making nutritious food choices. Based on extensive surveys and analysis of customer demographics and purchasing habits before and after the move (in 2011 and 2015), this research sheds light not only on how to successfully address food access and health issues in low-income communities, but it also speaks to the multiple benefits of proximity and co-located services in bringing new life and reinvestment into post-industrial downtown cores.

Flint's new market has addressed issues of access and affordability for many low-income residents, and only a year and a half after its relocation, the Flint Farmers Market has quickly become a treasured community asset. So much so, that in 2015, the American Planning Association announced the market as one of six "Great Places in America."


Farmers' Market


RYSTAL
SOL

East NY Farms, BROOKLYN, NY

More than a place to buy healthy food, this farmers market is an engine for local entrepreneurship and youth empowerment.

Established in 1998, Brooklyn's East New York Farmers Market has grown from a small community-run market on a vacant lot, to a major neighborhood attraction on a closed street that now includes produce from fifty local gardeners, two regional farmers, and eleven local vendors. The mission of the East New York Farms Project is to organize youth and adults to address issues of food justice by promoting local sustainable agriculture and community-led economic development.

The market serves local organic produce, Caribbean specialty crops, hot food, crafts, and health products to more than 16,000 people a year. To supply the local produce, East New York Farms manages two urban farms and works with a network of more than fifty gardeners representing multiple community and backyard gardens throughout East New York. East NY Farms also provides an important source of supplemental income to immigrants and people of color in this predominantly low-income neighborhood. Most of the vendors live in the surrounding neighborhood—many hailing from the Caribbean and the American South—and they generate income by selling fruits and vegetables that they have raised in community gardens and private plots.

> *"When I started, I thought that I would just be growing vegetables and working in some garden I never heard of, but I experienced so much more. I have experienced working at our farmers market with customers, have met a lot of farmers and gardeners. I started eating better and learning about food security around the world."*
>
> *— Musheerah, East NY Farms intern*

Every year, more than 35 young people participate in the program's nine month internship program, where they gain hands-on experience pertaining to the environment, health, community development, leadership and social justice. They are closely involved in all aspects of running a 1/2 acre organic farm, providing support to other gardens through East New York (which are often run by senior citizens). Interns work in multicultural and multi-generational teams to create change in their community, and many youth stay in the program for several years, taking on new leadership roles each season.


EAT NEW YORK FARMS!


Chicago

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WALKING & BIKING

Sidewalks, protected bike lanes, street designs that calm traffic, and having a number of quality destinations within walking distance are all community features that play a part in determining our activity levels. Placemaking supports more walkable and bikeable communities by ***fostering the creation of new community destinations****,* ***improving the safety and aesthetics of streets****, and* ***enhancing local sense of community****.*

Research also suggests that placemaking efforts to improve a community's walkability can have a number of cascading physical, social, economic, and environmental benefits including: ***increasing physical activity and cognitive function****;* ***reducing risk factors of obesity and chronic disease****;* ***improving the safety and accessibility of streets*** *and other public spaces; supporting and* ***boosting local economies****; and* ***reducing air pollution and greenhouse gases*** *by encouraging non-automotive transportation.*

WALKING & BIKING
THE ROLE OF PLACEMAKING

In a 2013 Kaiser Permanente survey designed to determine why people don't walk more despite knowledge of its health benefits, participants identified two central factors: (1) the non-walkability of their neighborhoods, and (2) the lack of destinations within walking distance from their homes.[1] These factors were rated above other issues such as lack of time, sidewalks, and walking companions. Since increasing physical activity levels is one of the most effective ways to reduce the risk of chronic diseases and related risk factors, the importance of placemaking to promote attractive, safe, streets and other public spaces that encourage walking and biking cannot be overstated.[2]

"Everyone should have access to spaces and places that make it safe and easy for us to walk. ... Walkable communities are good for social connectedness, good for business, good for the environment, and, most importantly, good for our personal health."

— U.S. Surgeon General, Vivek H. Murthy

In looking at community design elements that support active transportation, a 2015 report form the American Planning Association (APA) found nine street-scale features to be most effective for encouraging walking and biking: (1) sidewalks; (2) bicycle facilities, including lanes and racks; (3) traffic calming measures, including traffic circles and center islands; (4) crossing aids such as crosswalks and signals; (5) aesthetics and placemaking efforts, including public art and fountains; (6) public space including parks and plazas; (7) street trees; (8) green infrastructure including greenways and rain gardens; (9) street furniture, including benches, bus shelters and signage. [3]

From a fully connected network of dedicated bicycle infrastructure to temporary infrastructure improvements such as DIY wayfinding or intersection murals, placemaking efforts that incorporate these street-level features to accommodate walking and active transportation can benefit communities in a number of ways, beyond their ability to promote walking and biking. Not only can communities that are designed with walking and biking in mind improve safety for all residents,[4,5] but they also offer more opportunities for social interaction and improved social capital.[6]

Since walkable and bike-friendly communities are appealing sites for the location of local businesses, they can also be a boon for local economies.[7,8] In closely looking at the economic impacts of walkability, for example, research in 2004 in the country's largest metro cities found that the most walkable regions have substantially higher GDPs per capita, and that walkable urban space has a 74 percent rent-per-square-foot premium over rents in automobile-oriented suburban areas.[9]

Recognizing the importance of physical activity in increasing overall health and well-being, in 2015 the U.S. Surgeon General released *Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities,* which calls upon the nation to better support walking and related infrastructure. Improving walkability, the declaration states, means "communities are created or enhanced to make it

safe and easy to walk and that pedestrian activity is encouraged for all people."[10, 11]

There is a growing body of evidence showing that children who are more physically active perform better in school,[12] and in 2005 Congress passed federal legislation that established the National Safe Routes to School program to encourage more kids to walk and bike to school.[13] Indeed, every sector also has a role to play in making communities more amenable for bicycling. The League of American Bicyclists' "Bike Friendly America" program,[14] for example, advocates for better support of active transportation and related infrastructure, by providing guidelines and recognition for states, communities, universities and businesses who work to make bicycling safe and convenient for people of all ages and abilities. The program encourages states to adopt policies for creating great bicycling infrastructure, while also encouraging community institutions like universities and businesses to help support bicycling as a viable means for reducing traffic congestion and improving public health, air quality, and overall quality of life.

LITERATURE REVIEW: THE HEALTH CONNECTION

Access to environments that encourage active transportation are key determinants of health, as identified by *Healthy People 2020* and the World Health Organization, and studies show that a well-designed physical environment has significant impacts on physical activity.

A 2014 review of research on strategies to prevent childhood obesity found that among the most effective interventions for promoting physical activity (especially walking and biking) were community-level built environment strategies, including: bicycle and pedestrian accommodation on public roadways, a variety of destinations (housing, shops, schools, etc.) within walking distance of each other,[15] a network of streets and sidewalks that connect to destinations so people can easily reach them by foot or bicycle, as well as the creation or preservation of green space.[16]

A comprehensive review on adult walking rates reached similar findings: 80 percent of the 46 relevant studies identified the presence and proximity of local stores, services, and transit stops to be most strongly associated with rates of transportation walking, while 50 percent noted the importance of having sidewalks and streets that are continuously connected.[17]

Built environment factors are also crucial for the health of senior citizens. Looking at the ways in which neighborhood problems affect the physical functioning of older adults, a 2002 study of communities in Alameda County, CA, found neighborhood issues such as inadequate street lighting, heavy traffic, and poor access to public transportation to be most closely associated with decreased physical functioning (which included the ability to push a large object, lift a weight over 10 pounds, stand in place for over 15 minutes, walk a quarter mile, or walk up a flight of stairs.) Ultimately, researchers suggested that these factors negatively influence functional health by interfering with safety and self-care tasks such as food shopping, physical activity, and community participation.[18]

In examining evidence on the relationship of physical activity rates to the perceived aesthetics and comfort of public spaces such as streets and parks, a 2015 review by Active Living Research found that perceived safety from traffic (as well as crime) is one of the most important factors attracting people to places and encouraging walking. This perception of safety is also associated with the presence of sidewalks, footpaths, pedestrian infrastructure, street

connectivity, controlled intersections, clearly marked street crossings, and reduced traffic speed and volume. Based on the findings of this review, authors recommended that community stakeholders seeking to design active places "consider evidence that links physical activity to environments' actual characteristics, perceived characteristics, and aesthetic appeal."[19]

Not only do walking and bicycling *benefit* health, but research shows that large amounts of time spent driving, particularly for commuting, can in fact have detrimental impacts on both physical and mental health. A 2010 Gallup poll, for example, connected long commutes to poor health conditions ranging from increased back and neck pain to higher blood pressure to increased negative emotions. People with long commutes are more likely to be overweight and stressed, and they are more likely to exercise less, spend less time preparing healthy food, and experience sleep issues.[20] Beyond this, communities designed to be more walkable and bikeable have the potential to reduce air pollution and greenhouse gases because people who have the choice may walk or bike rather than drive.[21]

SELECTED RESEARCH FINDINGS

» ***Social places encourage walking***

Much research has also detailed a direct correlation between the sociality of public spaces and streets and their walkability.[22] A 2007 study conducted in Salt Lake City also found that participants rated a "positive social environment," or opportunities to people watch and see people enjoying themselves, as a key factor for a pleasant walk. A key takeaway from the research was the importance of recognizing "the entertainment value of the social scene" as a "positive support for walking."[23] Further research connects the walkability of neighborhoods not only with increased social capital and physical activity,[24] but also with fewer reports of depression and alcohol abuse.[25]

» ***Walkable neighborhoods foster social interaction and community cohesion, while perceptions of a neighborhood's walkability is often higher in those with higher levels of social capital***

A 2001 study comparing aesthetics and safety conditions among poor and non-poor neighborhoods to determine why residents in poor neighborhoods walk less (despite living in environments believed to promote walking), noted that these communities had fewer streetlights, landmarked buildings, clean streets, and sidewalk cafés, while also having higher rates of felony complaints, narcotics arrests and vehicular crashes. Another survey, based on responses from over 1,800 U.S. adults, found "enjoyable scenery" to be the factor most strongly associated with physical activity among lower-income respondents (although this demographic was less likely to report attractive scenery in their own neighborhoods than higher-income respondents.)[26]

» ***Low-income communities often face additional barriers to physical activity that reduce the health benefits of living in walkable and bike-friendly communities***

As important research continues to emerge on how the built environment affects rates of walking and biking, researchers are also recognizing the numerous challenges and additional barriers to physical activity that low-income communities often face. One study on neighborhood disadvantages and walkability across New York City found built environment characteristics such as transit access, higher population density, more mixed land use, and a variety of quality destinations to be positively associated with a lower body-mass index (BMI) amongst those with more education or higher incomes and among non-Hispanic Whites. However, these features were less consistently associated with BMI among disadvantaged groups. To better understand variances in health outcomes among different populations, researchers are further exploring other barriers to maintaining healthy weight encountered by disadvantaged populations, including built environment factors that can determine walkability and physical activity levels.[27]

NEW AREAS OF RESEARCH

While much research has been published addressing larger aspects of the built environment—such as road network connectivity, population density, and urban sprawl—studies engaging with the "place-scale," or the finer details of the streetscape and their relationship to walking and biking, have been more limited.[28] Additional research in this area might include:

- *Studying the impact of wayfinding signage on walking and bicycling rates*
- *Evaluating the impact of new public space destinations—such as a neighborhood plaza, playground, or market—on the amount of time people spend walking and bicycling*
- *Expanding research on the equity-related impacts of street-scale interventions*
- *Developing more tools and metrics for measuring the economic impacts of walkable/bikable communities*

TAKING ACTION

There is much existing research on creating environments that support active modes of transportation such as walking and bicycling. The most effective interventions aimed at creating environments that support walking and bicycling are community-wide, and they happen at the municipal or regional level. It is especially important that governments require mixed land use in new or revitalized developments that include residential, commercial, civic, and transit destinations within walking and bicycling distance for most people. Public policy must also ensure that there is a continuous and safe network of streets, sidewalks, and paths for pedestrian and cyclists. To complement strong and supportive public policy, placemaking can ensure that neighborhoods and public spaces provide useful destinations such as farmers markets, and support people's ability to safely walk and bike to these destinations. Further recommendations in this area include:

1. *Looking for opportunities to create new or enhanced public space destinations in the neighborhood, particularly those that are centrally located, near transit stops, and that make walking and bicycling access easy*
2. *Improving walking and bicycling access to key destinations in the neighborhood by providing safe infrastructure, crossings, secure bicycle storage, etc.*
3. *Sponsoring or helping to organize Play Street or Open Street events on a recurring basis*
4. *Supporting traffic calming efforts on neighborhood streets in order to create safer places for walking and bicycling*
5. *Working with residents to clean up, repair, green, and beautify streets to make walking a more enjoyable, safe experience*
6. *Providing wayfinding signage and maps in front of health institution buildings and at other key destinations*

Step It Up! The Surgeon General's Call to Action To Promote Walking and Walkable Communities

Released in 2015, *Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities* recognizes the importance of physical activity for people of all ages and abilities. It calls on Americans to be more physically active through walking and calls on the nation to better support walking and walkability. Improving walkability means that communities are created or enhanced to make it safe and easy to walk and that pedestrian activity is encouraged for all people.[29]

The landmark report is based on definitive medical evidence that moderate physical exercise boosts your health and cuts your chances of developing diabetes, dementia, depression, colon cancer, cardiovascular disease, anxiety and high blood pressure by 40 percent or more.

The five strategic goals of Step It Up! include:

- Make walking a national priority
- Design communities that make it safe and easy to walk for people of all ages and abilities
- Promote programs and policies to support walking where people live, learn, work, and play
- Provide information to encourage walking and improve walkability
- Fill surveillance, research, and evaluation gaps related to walking and walkability

Guerrero Street, SAN FRANCISCO, CA

A group of neighborhood activists came together to create a safer, healthier, pedestrian friendly street.

San Francisco resident Gillian Gillett felt that taking her young daughter out for walks in her Guerrero Street neighborhood in the Mission District was too dangerous, as the street was full of speeding drivers who treated the six-lane arterial as an extension of the nearby interstate. "There were no traffic controls on the six-block stretch between Cesar Chavez and 29th Street," she explained. "There was a four-foot median on Guerrero, and it was very dangerous. Cars sped by at 50 to 60 miles per hour. You could wait as long as 10 minutes to cross the street. There was tremendous pollution and noise, and there were regular collisions between cars and houses."

After researching the history of her neighborhood, Gillett learned that both San Jose Avenue and Guerrero Street had been expanded from four to six lanes in the 1950s. Many houses on these streets were literally moved onto their own backyards, and the sidewalks had been severely narrowed to accommodate extra lanes.

In 2003, Gillian joined a neighborhood organization, the San Jose Avenue Coalition to Save Our Streets, and convinced them to expand its target area to include Guerrero Street. They circulated a petition among neighbors to submit to the City's Department of Parking and Traffic, in which they requested wider medians, bike lanes, fewer multiple-turn lanes and a "no right on red" policy near schools. The group also created a community resource website.

Then, after raising $5700 for the project, the Coalition worked with the Department of Public Health to produce street banners depicting children and the slogan, "We live here! Please slow down," in English and Spanish. More than 100 neighbors and students held a demonstration at Cesar Chavez and Guerrero Streets to protest traffic speeds and unsafe pedestrian conditions.

As a result of these efforts, in 2004 the San Francisco Board of Supervisors passed traffic calming legislation. On both streets, the city narrowed traffic lanes, created bicycle lanes, established buffer zones on both sides of the center medians, installed a new traffic signal, transformed rush-hour tow-away lanes into parking, reduced the speed limit and scaled back multiple-turn lanes.

The Coalition also raised money from local stakeholders to "green" Guerrero. In November 2005, more than 125 community members came out to plant drought-tolerant shrubs in medians along three blocks. "People are delighted to have their neighborhood back," said Gillian. "It changes the way you look at the street. It doesn't have to be the way it's been for 50 years."

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PLACEMAKING ACTIONS FOR HEALTHCARE INSTITUTIONS

By utilizing their facilities, land, funding capacity, employees, political power, and other resources to support placemaking, the healthcare sector and its civic partners have a special opportunity to promote health and well-being in their communities. For healthcare institutions, the research in this report underscores the value of engaging local constituents in new and meaningful ways—not just as individuals seeking care for illness, but as community partners working together to build healthy places.

INTRODUCTION

Healthcare and related institutions have unique opportunities to act as placemakers in their communities. Health systems and universities, for example, often encompass a large area that includes multiple buildings, parking lots, and street frontage. The physical footprints of these institutions can have wide-ranging health impacts on a community beyond what occurs within their four walls.

Ironically, as Jennifer Vey of the Brookings Institution has argued, urban health centers often create districts that fail to encourage a physically or mentally healthy lifestyle for the many people who work or are treated in them, and those who live nearby, in spite of their core missions.[1] Low-density land use, large-scale, inward-facing buildings surrounded by parking lots, and a lack of other uses and lively public spaces make many health centers unpleasant places to walk, bike, or do much of anything other than treat or be treated.

Thankfully, as major landowners, employers and economic actors in communities, sometimes with the capacity for research, healthcare institutions also have a unique set of opportunities to impact health outcomes through the public realm. They can achieve these goals by: shaping the public spaces that border their buildings or that are owned by the institution; providing services, programming, or amenities in other public spaces that can attract people and encourage healthy behaviors; influencing broader policies and/or development in their communities through sustained research efforts and tools such as health impact assessments.

Health institutions can also empower local residents to help shape healthy public spaces in their communities. Two specific opportunities in this area include:

- Using **Community Health Needs Assessments**, which non-profit hospitals must conduct every three years, to identify potential placemaking projects and strategies

- Utilizing **Community Health Workers,** defined by the American Public Health Association as "a frontline public health worker who is a trusted member and/or has a close understanding of the community served," to engage local residents in placemaking efforts.[2]

Placemaking can have many advantages for health institutions themselves too. These actions can help create goodwill in the community, and drive down the costs of care.

Some health institutions have already begun to embrace a broader mission that recognizes the social determinants of health. Building on an anchor institution framework, this chapter presents eight actions by which health institutions can support placemaking efforts, each paired with case study examples. As described throughout this report, there are many types of places and projects that can support robust placemaking strategies, from farmers markets and community gardens to parks and plazas to greening projects to street improvements that encourage walking and biking.

PROCESS

ACTIONS

1. *Engage local stakeholders to identify needs, assets, ideas & potential partners*
2. *Conduct or support research efforts to identify evidence-based approaches to plan, design & program public space*
3. *Build capacity with local residents and community groups to help them shape public space*
4. *Dedicate funding for a public space or public space improvement*
5. *Sponsor programming & activities in public space*
6. *Reprogram health facility space for physical activity & healthy food choices*
7. *Provide volunteers to help foster great public spaces*
8. *Track results & impacts of placemaking projects*

TAKING ACTION

1 Engage stakeholders to identify needs, assets, ideas, and potential partners

While it is the responsibility of agencies impacting the built environment to engage communities in public space planning, health institutions often have established ties to local residents with whom they can consult and collaborate in thinking about the design, amenities, and programming of public spaces. Many health agencies have community health districts or community health workers that interface directly with community members on a daily basis, and each of these contacts represent an opportunity to inform people about local placemaking projects, to solicit feedback, and to encourage deeper engagement.

When people are meaningfully included in the process of improving their communities, it can help to provide them with a sense of purpose, meaning, and belonging, qualities that have also been connected to well-being and good health.

For example, a hospital that is planning to start a farmers market on or near its facility could set up an informational table or posters soliciting community feedback about the types of products, services, and programming they would like to see at the market. Or, health research institutions could help connect neighbors with the appropriate tools and channels for identifying public-space-related challenges and needs in their community. Health institutions could also work with local planning, transportation, and park/recreation agencies to help identify opportunities for linking their patients and clients with upcoming projects and planning processes.

In following provisions within the federal Patient Protection and Affordable Care Act, non-profit hospitals are now required to conduct Community Health Needs Assessments at least once every three years and to create an implementation plan to address some or all of those needs. While it includes few specified requirements for these assessments, the Act does require that institutions outline "community-identified needs," after taking into account input from "persons who represent the broad interest of the community served."[3] (This requirement creates a framework for a health-focused placemaking process that engages community members, and an implementation plan for these Assessments could include any of the prevention-focused public space improvement strategies identified in this paper.

CASE STUDY

Stanford Healthy Neighborhood Discovery

STANFORD, CA

A new tool gives citizens a way to document barriers to a healthy, safe lifestyle and advocate for change in their communities.

Major partners: Stanford Health, Stanford Prevention Research Center

Stanford's Healthy Neighborhood Discovery Tool is a technology-driven, community-based participatory research tool that empowers marginalized communities by giving residents the opportunity to identify neighborhood problems and brainstorm solutions. Researchers from the Healthy Aging Research and Technology Solutions Laboratory at Stanford's Prevention Research Center have designed a computerized, tablet or smartphone-based participatory software application that allows "citizen scientists" to document impediments to walkability, safety, and access to healthy foods in their neighborhood.

The tool tracks users' walking routes and enables residents to geographically tag hazardous locations, linking them with the users' audio narratives and photographs. Following use of the tool, the Stanford team provides training on how to advocate for built environment needs with policy officials and leaders. Users can share the Discovery Tool data with local policymakers through a community stakeholder meeting with relevant agencies, such as police agencies and public works, transportation, planning, and public health departments.

Experts in community health, design, policy, medicine, and psychology at Stanford are currently exploring ways in which the information from these mobile devices can be used to empower communities around the world and inform policy decision that create healthier, safer, and more equitable build environments. The Discovery Tool has been used in low-income communities in the California Bay Area, as well as low-income neighborhoods in Delaware, New York, and Arizona. Internationally, the Discovery Tool has been used in Mexico and Israel, with more projects underway across the globe.

"In an era where cities need to rethink their car-centric urban landscapes and to explore creative ways to control rising healthcare costs, explained Kris Newby, Communications Manager and Science Writer at Stanford Medical School, "using citizen-scientists to lobby for more beautiful, walkable neighborhoods might be just what the doctor ordered."

TAKING ACTION

2 Conduct or support research efforts to identify evidence-based approaches to plan, design, and program public space

Health institutions often have extensive research staff, capacity, and resources that can help maximize the health opportunities of public spaces projects. In addition, because they maintain data on the health of the local population, they have statistical evidence of which populations are most in need of health interventions. Health institutions can also use local population data, as well as information about evidence-based approaches to encouraging healthy lifestyles, to directly inform the design of their own sites, and this information can be transmitted to other partners, such as local planning agencies, to impact their decision-making processes about the design of streets, parks, markets, and other public spaces.

A relevant practice in the health field is the implementing of Health Impact Assessments, defined by the National Research Council of the National Academies as: "A systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects."[4] In addition to utilizing data and health practitioners' knowledge, HIAs also rely on collaboration between community members and business interests in making sure that local needs and voices are heard.

CASE STUDY

Oasis on Ballou, BOSTON, MA

A Health Impact Assessment of a proposed mixed-use development resulted in evidence-based recommendations to promote physical activity, healthy eating, and social support through the project.

Major partners: Codman Square Neighborhood Development Corporation, Health Resources in Action, U.S. Centers for Disease Control and Prevention - Healthy Community Design Initiative, Massachusetts Department of Health.

To ensure that plans for Boston's mixed-use development project, called Oasis on Ballou, would benefit residents of the surrounding community, the Codman Square Neighborhood Development Corporation (CSNDC) partnered with non-profit organization Health Resources in Action (HRiA) to conduct a Health Impact Assessment (HIA) on potential health impacts. The proposed design of this 23,000 square foot vacant lot included multiple uses such as a playground, food production space, teaching garden, and a community building. By analyzing scientific data and engaging stakeholders in the process, HIAs help develop recommendations about how to enhance health benefits of a project before critical decisions are made. This particular HIA examined the potential uses of the parcels related to impacts on chronic health conditions such as obesity, heart disease, injury rates, and mental health.

By analyzing scientific data and engaging stakeholders in the process, HIAs help form recommendations about how to enhance health benefits of a project before critical decisions are made.

Results of the HIA determined a positive overall health impact of the Oasis on Ballou, detailing the project's potential for improving access to physical activity, healthy eating, safety, and social cohesion in the neighborhood. The HIA also included recommendations for maximizing these health benefits, including planting trees near play areas, installing signs to educate users about hand washing and safe food preparation, and notifying local schools, youth groups, and senior centers about opportunities to schedule use of the facilities.

Working with a group of neighborhood residents (the "Friends") who provided input about the project, Health Resources in Action facilitated a robust community engagement process throughout the HIA. In response to neighbors' concerns about pedestrian safety around the proposed park and potential injuries on the playground, for example, the HIA report recommended the installation of crosswalks and the use of shock-absorbent floor material.

TAKING ACTION

3 Build capacity with local residents and community groups to help them shape public space

The Surgeon General's National Prevention Strategy (2011) recommends that health institutions "promote positive social interactions and support healthy decision making," and "engage and empower people and communities to plan and implement prevention policies and programs." Giving residents the ability to shape their communities, and the public spaces within them, has several health-related benefits: it gives them an opportunity to build social relationships with their neighbors, it engages people in a positive community-building process, and it increases the likelihood that the spaces created will be well-used and maintained. Whether it is by offering free meeting space, providing access to technology, data, and other materials, or supporting empowerment-focused trainings, health institutions and their partners can help to foster community-driven improvement efforts.

Capacity building for community groups and local organizations is also an important anchor strategy for building stronger community partners. Given that low-income communities may lack the information, resources, or skills necessary for creating or implementing an effective revitalization strategy, some hospitals have recognized that through capacity building, local residents can become better advocates for community health needs and more active partners in a neighborhood improvement strategies. Capacity building initiatives help empower the community, while generating a level of buy-in that is critical for advancing a hospital's health-focused agenda. Through this type of outreach, hospitals or other health institutions can begin to address the feelings of mistrust and alienation that some of these communities have expressed regarding their relationships and experiences with the healthcare system.

CASE STUDY

Agents of Change Training in our Neighborhoods (ACTION)

SONOMA COUNTY, CA

This health system's capacity building training helps citizens in areas with high unmet health needs to advocate for change in their communities.

Major partners: St. Joseph Health

By building the capacity of grassroots organizations and community associations throughout Sonoma County, Neighborhood Care Staff (NCS) at St. Joseph Health System have empowered local groups to successfully advocate for social change and make quality of life improvements in their local communities through its Agents of Change Training in our Neighborhoods (ACTION) Grassroots Leadership Training program. Following its mission to empower community members to create and implement sustainable changes, Neighborhood Care Staff organizers train community leaders and activists in areas with high, unmet health needs. The Neighborhood Care Staff works with local community leaders to help define neighborhood issues and values, and to develop action steps. Rooted in social justice and healthy communities, ACTION training helps community members in vulnerable neighborhoods throughout Sonoma County develop the skills and capacity needed to collectively push for changes in their communities.

Today, ACTION graduates have successfully developed and implemented programs to protect and improve the health of their neighborhoods. Since completing the training, for example, two ACTION-trained leaders have formed their own nonprofit, Nuestra Voz (Our Voice), which organizes stakeholders in an economically challenged Latino community to address key issues such as physical and mental health, and civic engagement.

The ACTION-trained leaders of Nuestra Voz have had a major influence on local policy. In 2009, led by Nuestra Voz Executive Director Alejandra Cervantes, the Springs Community Garden Coalition—a community group comprised of over two dozen nonprofits—developed out of local efforts to boost food production and clean up Larson Park, a small pocket park near an elementary school in Boyes Hot Springs, California. In 2011, the Sonoma County Board of Supervisors partnered with the Larson Park Garden Coalition to create a community food garden at the Park. With a license agreement with Sonoma County, Nuestra Voz is in charge of the operations and maintenance of the garden. Before these efforts, Larson Park was rundown, underused, and plagued by gang violence and crime. Today, with 24 garden plots and the involvement of 15 families, it is a well-used, safe and healthy community place that provides fresh, organic vegetables to area residents.

TAKING ACTION

4 Dedicate funding for a public space or public space improvement

While public space development and improvement is traditionally the responsibility of municipal parks and recreation or public works departments, tight public budgets have helped to spur greater private sector involvement in many communities. Through public-private partnerships, conservancies now manage some city parks. In other cases, business improvement districts manage public plazas and urban parks. Similarly, some health institutions—particularly health insurers—are directly funding public space improvements, recognizing the benefits to community health outcomes, providing a public good, and boosting awareness about the health entity's services.

CASE STUDY

Canalside, BUFFALO, NY

BlueCross BlueShield of Western New York is helping to fund improvements and programming at this four-season park.

Major partners: BlueCross BlueShield of Western New York, Canal Harbor Development Corporation

Less than ten years ago, Buffalo's waterfront was barren and inaccessible--a vestigial remnant of a once industrious port, America's "Gateway to the West." However, concerted efforts at revitalizing the waterfront, led by the the Erie Canal Harbor Development Corporation and funded by a great deal of both public and private investment, Canalside is now a premier public space, teeming with activity year-round, even throughout Buffalo's legendary winters. Recognizing the potential for this newly developed public space with waterfront access to improve the health of both its members and the broader community, BlueCross BlueShield of Western New York joined in a multi-year partnership with Canalside to provide the financial support for numerous initiatives and events that have helped Canalside become hub for physical activity. In the winter, the sponsorship of "The Ice at Canalside," helped fund the construction of the state's largest public outdoor ice rink, allowing community members and visitors to skate on the historic canals, play hockey, try curling, broomball, or even ice-biking. In the summer, BlueCross BlueShield is the exclusive sponsor of the "Canalside Summer Fitness Series," which provides weekly Yoga, Zumba, Pilates and other group fitness classes free of charge.

"As a Buffalo-headquartered company, located only a stone's throw from Canalside, we've witnessed the development of the waterfront for seven years," said Dave Anderson, president and CEO, BlueCross BlueShield of Western New York. "We are proud to be a founding-partner in Canalside and offer the community and visitors a unique location for healthy and engaging events."

TAKING ACTION

5 Sponsor programming and activities in a public space

It is becoming more common for health institutions to provide or subsidize health-related programming and activities in public spaces. The ShapeUp NYC program, for example, offers free fitness classes across the five boroughs of New York, including in parks, community recreation centers, schools, and other public spaces. Operated through a partnership between the City's Departments of Park and Recreation, Health, Housing Authority, and Education, along with support from Empire BlueCross BlueShield, ShapeUp NYC offers public fitness classes such as aerobics, yoga, pilates, and zumba. Beyond fitness classes, health-supportive programming and activities could include other physical activity (dances, games); food-related classes or hands-on activities; or activities that provide opportunities for social engagement or volunteering. The Surgeon General's National Prevention Strategy (2011) recommends that health institutions "provide space and organized activities (e.g. opportunities for volunteering) that encourage social participation and inclusion for all people, including older people and persons with disabilities" as one way to support these priorities. It also identifies the importance of supporting child and youth development programs.

Health-supportive programming and activities are most successful when they are well located, easily accessible, and connected to other activities that attract people. For example, co-locating a yoga class or a children's play activity in conjunction with a farmers market, another community event, or at a major local destination can make it easier for people to learn about and participate in such events.

CASE STUDY

HealthParks, DETROIT, MI

HealthParks bring health and wellness activities to green spaces in the city.

Major partners: Healthy Detroit, Detroit Parks and Recreation Department

Through its HealthParks initiative, Healthy Detroit, a 501(c)(3) public health organization in Detroit, strives to build a culture of primary prevention in the city. Launched in partnership with the Detroit Parks and Recreation Department, the initiative brings together best practices in public health and placemaking in order to generate positive health outcomes for the city's residents.

HealthParks are integrated wellness campuses that use public recreation centers and parks to offer residents a one-stop shop for medical, behavioral, and social programs and services. According to Healthy Detroit Founder and CEO Nicholas Mukhtar, "Parks and public spaces provide a way to naturally instill a culture of health into the community. They are free, always open, and have few barriers for residents. It is the one place in a community where people are not limited by their income, race, or religion. Everyone is welcome. And so it just makes sense to build a culture of health through these spaces." The goal of HealthParks is to become the epicenter of underserved communities—serving as town squares of healthy, active living.

Through this innovative program, a Detroit resident can walk into a HealthPark and be immediately connected to on-site programs and services that are critical to his/her health. A unique technology tool called The Healthy Detroit Passport allows users to collect points and rewards for participating in HealthPark programs and services, while simultaneously compiling that information into a patient-owned electronic wellness record.

In discussing the importance of taking an interdisciplinary approach to public health, Healthy Detroit Co-Founder and Chief Operating Officer Eric Holka explains: "The rationale is simple: health effects everything, and everything effects health." HealthParks uses this idea to create an integrated support service delivery system that can address the multiple social determinants of health. The primary program pillars offered in a HealthPark include:

- Preventive healthcare services
- Physical activity and recreation programs
- Food and nutrition programs
- Family and child well-being programs
- Housing assistance
- Financial assistance and programs/services
- Job training and placement
- Education programs
- Transportation services

Healthy Detroit currently has District HealthParks operating in four of the city's seven city council districts and plans to rapidly expand to the remaining three. The initiative has been featured across the globe as an effective public health intervention.

TAKING ACTION

6 Reprogram health facility space for physical activity and healthy food choices

A major asset of many health institutions is the ownership of buildings, parking lots, or other spaces that can be part of placemaking projects and strategies. While many projects focus on the ways in which the interior spaces of hospitals or health centers can be used to benefit employees, patients, and visitors, these institutions can also consider external opportunities for creating or improving nearby public spaces. Whether it involves creating a public plaza in the space in front of a health center, using part of a surface parking lot for a farmers market during non-peak hours, or creating a children's play space on underutilized property, there are many ways in which health institutions can reach out to their neighboring community through similar public space projects.

In addition to property that is owned or leased directly, health institutions and their partners can also play an active role in supporting campaigns to create new or enhanced public spaces throughout the community. Every area has underutilized land—vacant lots, locations adjacent to or underneath highways, parking lots, etc.—that can be transformed into well-used places that better meet community needs and health goals. Further, health institutions can also take advantage of opportunities to provide services and education in these spaces, such as health testing and screening.

CASE STUDY

Kaiser Permanente Farmers Markets,

VARIOUS LOCATION, UNITED STATES

Farmers markets and farm stands at their offices and hospitals promote healthy eating among Kaiser Permanente's staff, patients, and local residents.

Major partners: Kaiser Permanente

Recognizing that farmers markets are important community gathering places as well as a means for providing healthy and fresh food, Kaiser Permanente, for over a decade Kaiser Permanente has managed, organized, and hosted markets at its hospitals and office buildings around the country. The first of these on-site farmers markets was established in 2003 by Preston Maring, MD, at Kaiser Permanente's Oakland Medical Center, today there more than 50 on-site Kaiser Permanente farmers markets locations, and the movement is spreading across the country.

A 2012 survey published in the peer-reviewed *Journal of Agriculture, Food Systems, and Community Development* (2012) found that 74 percent of patrons surveyed at Kaiser Permanente markets consume more fruits and vegetables as a result of shopping at the market, and 71 percent indicated that they were eating a greater variety of fruits and vegetables.

Kaiser Permanente Markets also offer health education and nutritional information to visitors, and many provide health screenings, disseminate nutrition and health information, and host cooking demonstrations and exercise activities. Most of the markets also support SNAP/EBT/WIC programs, which helps to make healthy food more accessible to low-income community members.

In 2008, Kaiser Permanente appointed a National Farmers Market Coordinator to help develop a market peer network for sharing best practices across markets. This network has had a profound impact on the success of the markets and their ability to align with KP's Healthy Food Access and Community Health Intiatives.[5] In 2014, the organization implemented total health guidelines to ensure that all markets meet healthy food standards such as eliminating sugar-sweetened beverages and fried foods, and implementing portion control on high-fat/high-sugar items.

In addition to hosting farmers markets, Kaiser Permanente also promotes sustainable food and agriculture, by sourcing local and sustainably produced food in its facilities (including hospitals, cafeterias, vending machines, etc.). To meet these standards, produce must be either grown within 250 miles of the facility or certified as sustainably produced by a third-party eco-label.[6]

TAKING ACTION

7 Provide volunteers to help foster great public spaces

To build, maintain, and program a successful public space requires a significant amount of time. Farmers markets typically need a team to help set up and dismantle the market; community gardens need regular maintenance; and good plazas and parks need local clean up and programming efforts. Since these tasks often require more support than local government can provide, particularly in low-resource communities, this kind of place management depends on residents and community groups.

Health institutions can offer a big boost to these local entities by lending their employees for volunteer efforts on a regular basis. The healthcare sector is one of the largest employers in the U.S., and when connected to local community groups, these volunteer initiatives can help create important partnerships between health institutions and local neighbors, facilitating greater understanding of each group's issues and priorities.

CASE STUDY

Urban Gardens, HOUSTON, TX

UnitedHealthcare volunteers help to create community gardens in neighborhoods with low access to healthy food.

Major partners: United HealthCare, CBS EcoMedia, City of Houston

UnitedHealthcare's "Do Good. Live Well." employee volunteer initiative is working to empower Houston's most at-risk communities to make healthier food decisions by building healthier communities. In 2013, UnitedHealthcare employees volunteered to develop a community garden in a park and made improvements to five other gardens in Houston neighborhoods with poor access to healthy foods and high rates of obesity and diet-related diseases.

The new community garden consists of six garden beds, a drip irrigation system, and a compost system, while the improvements to five existing parks included the addition of fencing and irrigation systems. To help address health disparities and improve access to nutritious foods in high-needs neighborhoods, produce from the urban gardens is distributed to community members, including garden volunteers and older populations. Overall, participants of UnitedHealthcare urban gardens programs have donated approximately 2,007 pounds of harvest, activated 2,500 square feet of garden space, and served over 4,283 people in total.

"The neighborhoods that have the lowest access to healthy foods are also those that have the highest rates of obesity, diet-related disease and lowest rates of fruit and vegetable consumption," said Paul Polizzotto, Founder and President, CBS EcoMedia. "We're grateful to UnitedHealthcare for addressing these disparities, building communities through these gardens, and improving access to nutritious foods in at-risk communities in Houston."

TAKING ACTION

8 Track results and impacts of placemaking projects

While it is the responsibility of agencies to create a substantial body of evidence on the health impacts of placemaking, health institutions can use their research capability to help evaluate placemaking projects and efforts. Health institutions can work directly with local groups undertaking placemaking activities, evaluate their own projects, and/or provide training on how to conduct and document such evaluation. Future work should explore some of the metrics that can be used in evaluating placemaking projects, and this is an area to which health researchers need to give greater attention.

CASE STUDY

Gardens for Growing Healthy Communities

DENVER, CO

In examining the impact of community gardens across Denver, researchers from the Colorado School of Public Health found that they generate positive social and health outcomes.

Major partners: Denver Urban Gardens, the Colorado School of Public Health, the University of Colorado College of Architecture and Planning, the Healthy Neighborhood Network, Front Range Earth Force

Since 2004, Denver Urban Gardens and the Colorado School of Public Health have worked together on Gardens for Growing Healthy Communities, a community-based, participatory research initiative exploring the impacts of local community gardens on population health.

The Colorado School of Public Health examined the relationship between fruit and vegetable intake, social involvement, and neighborhood pride through individual and group interviews with 67 gardeners across 29 community gardens in Denver, as well as a population-based survey of 470 households in Denver located within one mile of a community garden. Researchers found that community gardens have a positive social influence within neighborhoods, while also fulfilling an important public health strategy.

The research determined that these community gardens were places in which individuals felt connected to each other and capable of taking collective action to improve their communities, and they also allowed for social connections among neighbors who otherwise might never meet or engage with each other. The gardeners in the study described the community gardens as places to connect with nature; to relax; to connect socially with neighbors from different cultural backgrounds, with family members and friends; to feel a part of a community, and to promote social activism.

Results from the population-based survey show that community gardeners, when compared to non-gardeners, reported higher levels of fruit and vegetable intake, higher ratings of self-rated health, and fewer days spent in poor physical and mental health. Moreover, gardeners, when compared to non-gardeners, had more positive social and emotional connections to place. Their ratings of neighborhood attachment, neighborhood aesthetics, social involvement, and collective efficacy were statistically higher.

NOTES

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