

# GREENING THE CITY FOR HEALTH

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Parks, trees, and green spaces boost human health and well-being in ways that support urban revitalization and quality of life for all.

Across the nation, communities are working to build strong local economies and what is often called “a sense of place.” Successful, resurgent cities have leaders and organizations that collaborate to restore economic foundations, energize residents, and attract new businesses. They recognize, too, that part of the redevelopment equation is *urban greening*: city parks, trees, and green spaces.

Today more and more studies are confirming the common perception that natural amenities not only add beauty to communities, but also boost renewal. And smart reinvestment includes green fea-

tures distributed fairly. Everyone benefits when the amenities are in neighborhoods of all income levels.

## Special Kinds of Cities

Many formerly thriving industrial cities experienced a decline in recent decades. They seemed to lose their way as manufacturing departed and employment, income, and population plummeted. The Boston Fed calls them “Working Cities.” Others call them “gateway cities,” “secondary cities,” or “legacy cities.”<sup>1</sup> They may have challenges, but they also have assets. Today these cities are building on their assets and working toward rebirth.

The older cities that reemerge as vital, vibrant places are likely to do so through communitywide action and shared purpose. Key actors develop a vision, set priorities, determine both the industries and the areas of the city to focus on for growth, then commit themselves to a plan that provides guidance as opportunities and resources emerge. Areas where such transformations are occurring today include Utica in New York, Chattanooga in Tennessee, and neighborhoods within Baltimore.

Community renaissance works best when everyone is involved, including the minorities, immigrants, and lower-income residents who in the past were often overlooked. Organizations may be the administrative agents of change, but the long-term work is dependent on dedicated individuals. Having a broad array of community members on board can keep the efforts moving along. Business leaders have a role, too, and can help attract new industries and business services.

## What Nature Offers

Parks, trees, and open space are widely appreciated not only for their beauty but for their connection to better health. Early

photos Kathleen L. Wolf



city beautification programs focused on quality of life and generating a harmonious social order within crowded industrial cities. Today, incorporating nature is seen as important for an additional reason—the effect on revitalization efforts. Cities with amenities are more desirable, and people who are healthy and have a good quality of life may also be better able to work toward change.

### General Health Benefits

Studies show a positive relationship between access to everyday natural environments and people’s perception of their mental health, physical health, and social health.<sup>2</sup> Survey respondents appreciate how parks provide opportunities for exercise, and they report that easy access contributes to their increased physical activity. Having neighborhood parks is especially important for lower-income communities, where there may be higher rates of obesity.

While parks are the green hubs of a nature network, trees form the connective corridors in neighborhoods and along streets. Both parks and trees play a role in the overall livability of neighborhoods, providing constant—but often unnoticed—benefits. For instance, interviewees say that merely looking at trees tends to reduce mental and physical stress. A walkable green environment is also thought to increase life satisfaction in later life and even longevity.<sup>3</sup> The presence of trees may influence people’s behaviors, too, as streets with more canopy encourage children to walk to school, and greenways motivate people to choose walking or bicycling over driving.

### Mental Health

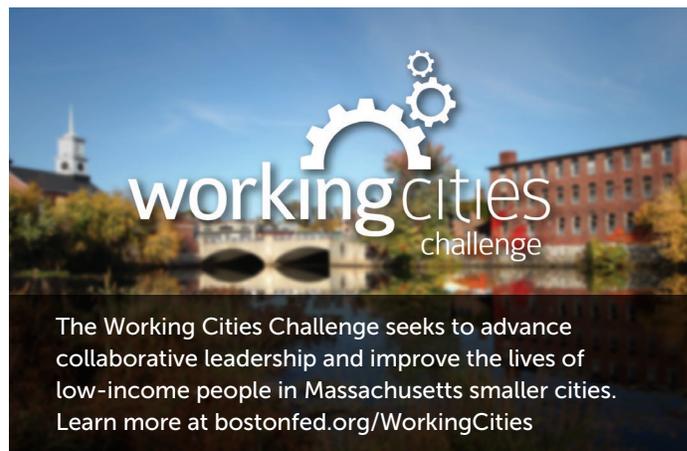
The evidence is strong for positive associations between natural environments and mental health.<sup>4</sup> Parks are used by people for relaxation and revitalization, which are conducive to mental well-being. Contact with natural environments promotes psychological restoration, improved mood, improved attention, and reduced stress and anxiety. Research conducted in public housing settings, for example, has consistently shown the benefit of green space for



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Having greenery nearby has been shown to moderate mental fatigue, too. Attention restoration theory (ART) addresses how exposure to nature can have a restorative effect on the brain’s ability to focus. Today’s lifestyles require constant attention to many inputs in work and school—and in navigating the daily demands of commuting, shopping, and household chores. A person must consciously



focus on the task at hand, even though it may not be interesting. In order to do all we do, we suppress the urge to pay attention to distractions. After prolonged use, this capability can become fatigued, leading to difficulties in concentrating and irritability.

ART suggests that nature is uniquely and inherently fascinating (flower color, leaf patterns, or wildlife behavior) and interactions are involuntary, giving our minds a chance to rest and restore. The result is that attentional reserves replenish, which can mean better performance on other tasks, gratification delay, and perhaps even reduced levels of stress. These are important considerations for everyone. Fortunately, today there is increased recognition that greening initiatives should encompass the neighborhoods of lower-income or disadvantaged people as much as they have other neighborhoods in the past.

### Community and Social Connections

Behavior studies in business and economics indicate that social cohesion contributes to economic development.<sup>5</sup> A socially stable community where there are strong networks, a sense of trust, and comfort in relationships is a favorable environment for business. People who have a general sense of well-being and confidence that interactions with other people will be positive are more likely to commit to communitywide programs of economic development. It has even been suggested that more-social cities breed more creativity and that a rapid exchange of ideas flows in such cities from both dense interactions and loose connections among residents.<sup>6</sup>

Urban parks and greening projects can help create the environments that facilitate social contacts and community attachment. Easy access to nature, opportunities to visit natural areas, having a view of nature from one’s home, and plentiful tree cover are all associated with higher levels of neighborhood satisfaction. In contrast, negative perceptions of the nearby physical environment, including

lack of green space, are associated with expectations of higher crime rates and reduced mental health.

Most important, the availability of green public areas facilitates informal social interactions. Residential common spaces with more trees and vegetation are associated with more use of common spaces and stronger neighborhood social ties. Moreover, urban green areas (parks, playgrounds, and forests) have been found to encourage children and adolescents in making cross-cultural contacts and friendships.<sup>7</sup> In sum, natural features contribute to more walkable neighborhoods, and people living in them are more likely to engage in informal contacts and to know their neighbors.

### Environmental Equity

Research confirms that convenient access to green space and tree canopies in neighborhoods provides substantial psychological and physical benefits to everyone.<sup>8</sup> However, such amenities are often unevenly distributed between white and racial/ethnic minority residents. There is evidence of historic disparities in many cities. Equitable access to nature for all of a city's residents is an environmental justice concern.



But the reasons for including all neighborhoods and sectors of a city in planning and programs for trees and parks go beyond ethical concerns. New urban greening initiatives can help create a “sense of place” for a community by acknowledging and integrating the unique gardens or landscape styles of diverse cultural groups. Restoring a vibrant economy requires participation by a majority of the people in a community. Equitable distribution of high-quality human habitat can motivate people to learn new skills and dig into the hard work of revitalization.

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Resurgent communities face many challenges on the road to recovery. Developing plans, building new places, and supporting new businesses are efforts dependent on the energy and commitment of individuals who bring their particular talents and passions to bear.

As the local economy grows, the founders and employees of new businesses must sustain themselves as they work to build their enterprises. The natural environment can make a difference in such entrepreneurial activity.

Many minor but nonetheless significant episodes of contact with the natural environment on a daily basis are shown to produce an array of benefits, and the evidence that has emerged over four decades and is now being published at an accelerating pace.<sup>9</sup>

People need to be at the top of their game to succeed individually and as a community. Past attention to the natural environment that focused on the potential presence of toxins or reduced environmental quality as sources of health risks had significant value. But the science presented here offers another perspective. The parks, green spaces, and trees that were mainly regarded as nice-to-have beautification projects are actually profoundly important as the sources of positive human health and well-being and prospering communities.

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### Endnotes

- <sup>1</sup> See <http://www.bostonfed.org/workingcities> to learn about a competition in Massachusetts for economic transformation called the Working Cities Challenge.
- <sup>2</sup> X. Zhou and M.M.P. Rana, “Social Benefits of Urban Green Space: A Conceptual Framework of Valuation and Accessibility Measurements,” *Management of Environmental Quality* 23, no. 2 (2012): 173–189.
- <sup>3</sup> T. Takano, K. Nakamura, and M. Watanabe, “Urban Residential Environments and Senior Citizens’ Longevity in Megacity Areas: The Importance of Walkable Green Spaces,” *Journal of Epidemiology and Community Health* 56, no. 12 (2002): 913–916.
- <sup>4</sup> G.N. Bratman, J.P. Hamilton, and G.C. Daily, “The Impacts of Nature Experience on Human Cognitive Function and Mental Health,” *Annals of the New York Academy of Sciences* 1249 (February 2012): 118–136.
- <sup>5</sup> R. Matsuoka and W. Sullivan, “Urban Nature: Human Psychological and Community Health” in *Handbook of Urban Ecology*, I. Douglas et al., eds. (New York: Routledge, 2011).
- <sup>6</sup> Richard Florida, “Where the Skills Are,” *Atlantic*, October 2011.
- <sup>7</sup> K. Seeland, S. Dübendorfer, and R. Hansmann, “Making Friends in Zurich’s Urban Forests and Parks: The Role of Public Green Space for Social Inclusion of Youths from Different Cultures,” *Forest Policy and Economics* 11, no. 1 (2009): 10–17.
- <sup>8</sup> P. Joassart-Marcelli, “Leveling the Playing Field? Urban Disparities in Funding for Local Parks and Recreation in the Los Angeles Region,” *Environment and Planning A* 42, no. 5 (2010): 1174–1192.
- <sup>9</sup> Additional information about urban greening research may be found at [www.naturewithin.info](http://www.naturewithin.info).

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