

DENVER, COLORADO

Gardens for Growing Healthy Communities transforms vacant lots into community gardens

Vacant lots of land once strewn with garbage now bloom with new life in some of Denver’s poorest neighborhoods. Denver Urban gardens has been transforming unused lots onto community gardens, creating pockets of green in the midst of inner-city communities. A recently formed collaborative, Gardens for Growing Healthy Communities, studies how the gardens impact community health and translates findings for stakeholders. These urban oases foster neighborhood ties and promote physical, social, and mental well-being. By providing access to fresh organic produce, opportunities for physical activity, contact with nature, and neighborhood meeting places, these gardens promote physical and mental health in communities with diverse residents.

THE PLACE

Denver is a rapidly growing urban center that must cope with the challenges of expansion and pressures that growth can place on low-income, inner-city residents. Denver’s population of about 554,636 is about 32% Latino and 10% African American. Denver has over 70 gardens and garden parks in 30 of its 77 neighborhoods. Gardens for Growing Healthy Communities has been working to transform unused land into urban gardens in moderate and low-income neighborhoods which have higher concentrations of Latino and African American residents than the city as a whole. Approximately 14% of

the mostly Latino population lives below the poverty line, according to the 2000 US Census. In the communities where gardens have been constructed, 22% of the population 25 years and older has less than a high school degree.

THE PROJECT

Gardens for Growing Healthy Communities represents a partnership between Denver-based community organizations, the University of Colorado and community residents. This project fosters a “class-blind environment” among neighbors who share a passion for gardening, explained Jill Litt, Gardens for Growing Healthy Communities program director and principal investigator of the project’s research/academic component. “Gardens cross all boundaries: age, race, education and ethnicity,” she said. Denver Urban Gardens, the lead community organization responsible for building and maintaining gardens, estimates that over 25,000 people participate in gardening-related activities each year.

Litt believes that community gardens are a “true public health intervention because they influence so many aspects of health: mental health, physical well-being and social capital through both direct and indirect pathways. The goal of this project is to understand the role of community gardens as a catalyst for broader neighborhood improvements and public health changes,

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including physical activity and dietary patterns. We are slowly gathering the data to learn the many ways gardens impact health.”

By drawing upon the core competencies of each of the partner organizations, the Denver gardening collaborative manages to bridge the gap between research and implementation. Not only do the groups foster the creation of urban gardens, but they also document the significant health impact these gardens have on local community health. Community involvement and leadership are cornerstones of the program’s sustainability and popularity.

When it comes to doing the hands-on work of garden creation, Denver Urban Gardens takes the lead. Working with volunteers of all ages, the group provides technical assistance, helping residents plan, design, coordinate, and construct urban gardens in their neighborhoods. It also offers training and education about herbs, composting, tractors, food preservation, water conservation, and other gardening skills. Central to the sustainability of local gardens is the group’s commitment to leadership training and community empowerment to maintain, promote, and nurture gardens. Gardens are community initiated and maintained and gardeners collectively assume responsibility for improving their own neighborhoods and cultivating a sense of pride in their surroundings while growing fresh, organic food close to home.

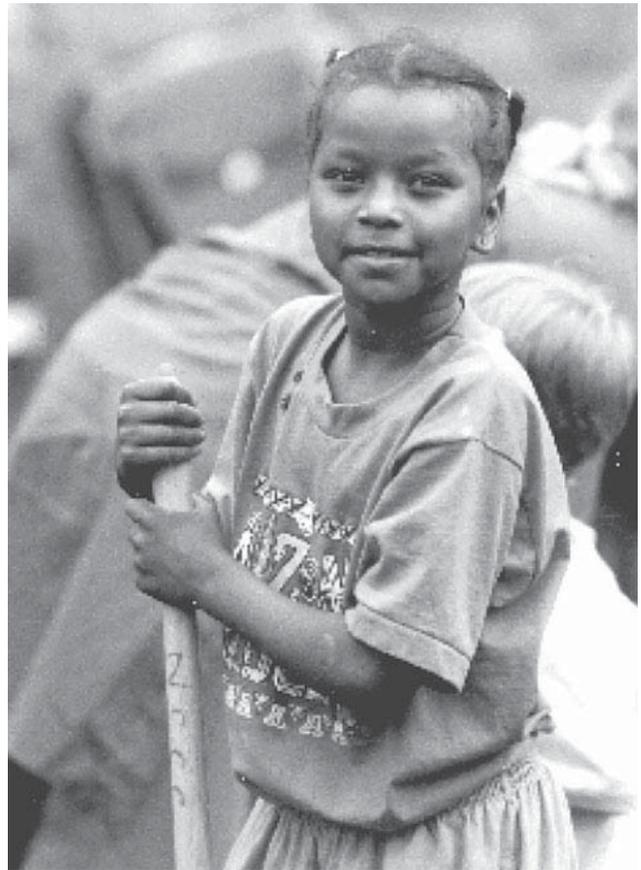
THE PEOPLE

Diverse Partners Collaborate to Build Healthy Environments

The Gardens for Growing Healthy Communities collaborative brings together a number of different community groups and academic and government institutions, each with different strengths and capabilities.

Community participants play a vital role in shaping garden design, building and planting gardens, and providing ongoing maintenance to gardens. Community groups in-

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CHILDREN DEVELOP A PASSION FOR GARDENING WHILE GETTING ACTIVE AND MASTERING NEW SKILLS TO GROW FRESH PRODUCE.

clude: Denver Urban Gardens, a well-established organization that brings gardens to Denver’s urban areas and has a great deal of influence on local policy; Groundwork Denver Inc., a nonprofit dedicated to restoring vacant and underutilized urban land (e.g., urban brownfields); and FrontRange Earth Force, a nonprofit that works with youth around environmental stewardship.

Meanwhile, the Department of Anthropology at the University of Colorado, Denver and the Department of Preventive Medicine and Biometrics at the University of Colorado Health Sciences Center in the School of Medicine provide coordination, funding, and researchers for the effort. As the lead academic part-

ner, the University of Colorado's Health Sciences Center tackles the data collection and monitoring components of the program. Since May 2002, the university has provided student and researcher volunteers to study the health impact of gardens on both the gardeners and the surrounding communities. As part of a class on community assessment, students collect qualitative research data through interviews with community participants and by conducting physical observation of garden sites and the surrounding neighborhoods. Using community-based, participatory techniques, the group has studied the health impact of gardens in approximately 30 Denver neighborhoods, with a focused pilot project in 14 community gardens in two Northern Denver neighborhoods. The collaborative has worked out a complex cost structure with state and local contractors to utilize overgrown and vacated lots. On average, building a new garden costs \$10,000 and making enhancements cost \$3,000 to \$5,000. Maintenance and upkeep costs are kept low through the in-kind efforts of community members. Additionally, Denver's Department of Parks and Recreation donates resources for basic garden maintenance, including sidewalks, accessibility to soil, streetlights, and water.

THE RESULTS

Healthy Change in Local Environments

Preliminary findings indicate that Denver's neighborhood gardens improve the health of resident gardeners by increasing physical activity levels, consumption of fresh fruits and vegetables, and social connectedness through gardening circles—not to mention stress relief.

These gardens provide fresh fruits and vegetables, which are eaten by gardeners and distrib-

uted to neighbors, homeless shelters, and assisted living facilities. In addition, gardeners share recipes for healthy salsas and other foods prepared from the gardens, which further encourage produce consumption. The gardens also contribute to strengthening the fabric of communities and building social capital, explained Litt. Social capital includes the "connections among individual-social networks and the norms of reciprocity and trustworthiness that arise from them,"¹ as well as standards for behavior that are socially dictated. In interviews, participants identified relaxation, decreased stress, and the feeling of a spiritual connection with "Mother Earth" as benefits of gardening.

This project's findings echo the limited but growing body of published research that indicates that community gardens confer physical and mental health benefits to gardeners. A case-control study of the health impacts of urban gardening in Philadelphia conducted by Blair et al. found gardening to have a positive impact on dietary intake, psychosocial health, and community participation. The authors note that gardeners ate "significantly more of six vegetable categories than non-gardeners...and they also consumed less milk products, sweets, and sweet drinks." In addition, "gardeners were significantly more likely to participate in food distribution projects, neighborhood clean-ups and neighborhood social events."²

At community garden projects in California funded through the Healthy Cities and Communities effort, Twiss et al. documented a number of outcomes ranging from increased physical activity and consumption of fruits and vegetables at one site, to local policy development, community improvement, and increases in knowledge and skill at other sites.³

Community surveys also support the link between urban garden-



THE CHALLENGING WORK OF GARDENING IS AN INTERGENERATIONAL ACTIVITY, WHERE YOUNG PEOPLE LEARN FROM EXPERIENCED GARDENERS.

ing and improved perceptions of mental and physical well-being.⁴ In 2000, Armstrong published results from a survey of community garden coordinators from 63 community gardens in upstate New York which revealed several health reasons for participation in community gardens including: access to fresh food, exercise, contact with nature, and mental health benefits.⁵ In addition, Armstrong found that gardens located in low-income areas were four times more likely to catalyze efforts to deal with community concerns than gardens in non-low-income areas. Because this program reclaims vacant lots, garden creation and maintenance also result in the reduction of other environmental health hazards, including broken bottles and obvious illicit drug use. Finally, gardens provide a source of beauty that increases property values and desirability of properties in garden neighborhoods. Emerging research and program evaluations strongly suggest that community gardens influence several dimensions of health, particularly in low-income, urban neighborhoods where the gardens can be sanctuaries that promote physical, social, and mental well-being.

WISDOM FROM EXPERIENCE

Litt advises, “Communicating results of the program to partners so that they are aware of and fully engaged in each step of the process is essential. I work really hard to emphasize the importance of giving back to the community with project volunteers, students and fellow researchers, not simply going in and getting results. One way we have done this is to demonstrate support for, and investment in, the project’s success through volunteering time to the gardens and in the community.”

LOOKING AHEAD

Building on its current success, Gardens for Growing a Healthy Community is currently working with Denver Urban Gardens to use geographic information system technology to map out areas and expand work to bring gardens to areas of need. Over the long-term, the collaborative will work with community partners



COMMUNITY RESIDENTS BUILD, NURTURE AND MAINTAIN GARDENS WHICH OFTEN SERVE AS NEIGHBORHOOD MEETING PLACES.

to identify new sites for gardens. Community maps will be used to facilitate discussions with communities to identify areas in need of open space and redevelopment, and will allow project partners to prioritize areas for enhancement and cultivation. It will also allow residents to share their ideas about how to create and maintain gardens that will improve physical activity, nutrition, and other health behaviors in their particular communities.

In the future, Litt and her partners are planning to establish the North Denver Health and Sustainability Initiative to empower residents to make sustainable, neighborhood-level changes that will reduce and eliminate health disparities brought on by environmental inequities. This project will build on the community garden efforts by applying lessons learned about community organizing, leadership, and skill development to eliminate environmental injustices.

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ENDNOTES

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- 2 Blair D, Giesecke CC, and Sherman S. A dietary, social and economic evaluation of the Philadelphia urban gardening project. *J of Nutrition Education*. 1991;23(4): 161-167.
- 3 Twiss J et al. Community Gardens: Lessons Learned from California Healthy Cities and Communities. *Am J Pub Health*. 2003;93(9):1435-1438.
- 4 Lee SH. Community gardening benefits as perceived among American-born and immigrant gardeners in San Jose, California. Accessed 4/9/2004 at: socrates.berkeley.edu/~es196/projects/2002final/Lee.S.pdf
- 5 Armstrong D. A Survey of Community Gardens in Upstate New York: Implications for Health Promotion and Community Development. *Health and Place*. 2000; 6(4):319-327.

This is one in a series of 11 profiles that reveal how improvements to the built environment can positively influence the health of community residents. The examples illustrate how changes to the built environment can be particularly meaningful in communities that have historically lacked important features such as pedestrian infrastructure, services and institutions, or public art. Taken more broadly, the profiles demonstrate how improvements to the built environment have the potential to reduce health disparities.

The profiles were written and produced by Prevention Institute. Funding and guidance were provided by the Centers for Disease Control and Prevention's National Center for Environmental Health. It is our hope that these profiles will stimulate and inspire partnerships between community residents and practitioners from multiple fields and sectors to design solutions and take action to improve the built environment for the health and well-being of all.