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Hortaliza: A Youth "Nutrition" Garden in Southwest Detroit

Kameshwari Pothukuchi
Wayne State University, k.pothukuchi@wayne.edu

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Kameshwari Pothukuchi
Department of Geography and Urban Planning
Wayne State University
Detroit, Michigan

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Abstract

This paper documents a youth garden that was developed in 2000 through a university-community partnership in a low-income, predominantly Latino neighborhood in southwest Detroit. It involved four community-based organizations and several residents—youth among them—from the neighborhood, in garden planning, set-up, and management. Kids grew vegetables of different kinds to take home and ate healthy snacks at the garden. They learned about the importance of vegetables and fruits to healthy diets, the nutritional value of particular vegetables, and how to grow vegetables. At the end of the season, we documented increased interest among kids in eating fruits and vegetables, kids making new friends, an appreciation for working with neighborhood adults and improvement of neighborhood appearance. Kids also showed increased knowledge about nutrition, plant ecology, and gardening and indicated interest in participating in the garden the following year. Although the garden lot was sold two years later, this documentation of benefits is helping inform advocacy of youth gardens with local public agencies and community-based nonprofits.

Keywords: urban gardens, **nutrition**, **youth gardens**.

Introduction

Inner-city neighborhoods are home to large numbers of low-income and racial and ethnic minority residents who experience less access to fresh and nutritious foods than their suburban counterparts, as well as higher levels of morbidity associated with dietary health. Vegetable gardens in urban neighborhoods have the potential for addressing several of these problems with the resources available there—vacant land, adults with knowledge and interest in gardening, neighborhood youth, and the organizational capacity of neighborhood-based nonprofits.

Vegetable gardening's benefits are being documented along many dimensions, including gardens' contribution to healthy diets, physical activity, neighborhood improvement, social network development, and community greening (Blair et al. 1991, Brown and Jameton 2000, Patel 1991, Bunn 1986). Poor and unemployed residents may grow their own food and maintain healthful diets at a low cost. Gardens transform unkempt vacant lots into healthy, green areas, thereby improving neighborhoods, while also providing positive recreation and social opportunities to city residents. Garden and food wastes can be composted and recycled to improve soil quality. Gardeners may share produce with neighbors or food-assistance programs, thereby promoting neighborliness and civic involvement. Community gardens also foster contacts between people from diverse cultural, ethnic, and class backgrounds in non-threatening environments in which they may communicate about common interests or shared concerns. Community gardens can also help increase property values around them. Taken together, these benefits ultimately help enhance neighborhood livability and community health.

The youth gardening movement has gained significant momentum in recent years. For example, a recent Google™ search on the key words "youth gardens" obtained nearly a million sites. A scan of the top 30 hits revealed youth garden programs by national organizations such as the American Horticultural Society, National Gardening Association, and Rooted in Community, as well as those for particular states, regions, or localities. Many of these programs are of recent origin. Although school-based gardening is the dominant model for such programs, neighborhood garden programs targeted at youth are a growing sector. (See also Hung 2004, McGuinn and Relf 2001, Dawson and Zajicek 1998, and Skelly and Zajicek 1998, for research on youth gardens.) This paper documents the benefits to individuals—youth and adults included—and neighborhoods of gardens organized for young people around nutritional objectives. The project—Hortaliza, or "vegetable garden" in Spanish—was started to address problems identified by a community health assessment in southwest Detroit conducted by the Urban Health Research Program at a local university (Robinson et al. 2000).

Detroit's southwest is noted for its multi-ethnic (but predominantly Latino) character, wide age distribution, existing partnerships, and lack of access to medical resources. See Table 1 for details about the study area and the garden neighborhood, relative to the rest of the city. In summary, the population in the area surrounding the garden (census tracts 5232 and 5233) is almost three-quarters Latino (72 percent in the 2000 Census, in a city that is over 85 percent African-American) and shows rates of poverty on par with the city as a whole (27

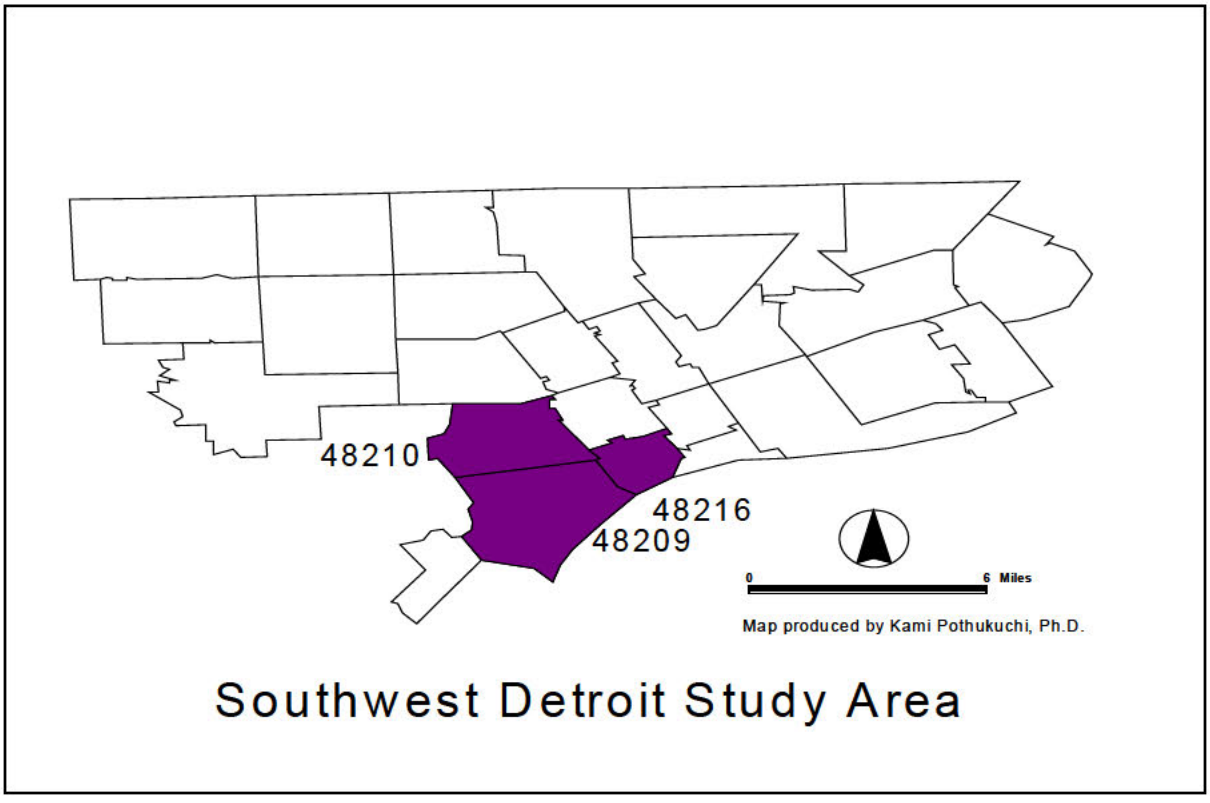
percent and 26 percent of the respective populations). Over one-half of the households in the area are renters (53 percent, compared to 45 percent for the city as a whole), while an equal proportion contain children under age 18 (50 percent compared to 42 percent for the city as a whole). Over four out of ten households (44 percent) in the two census tracts earned an income less than $25,000.

Table 1. Comparative Statistics for Detroit, Study Area, and Garden Neighborhood, Census 2000

Geography	Detroit	Study Area*	Garden Neighborhood*
Total population	951,270	85,234	8,608
White	12%	44%	51%
Black	82%	25%	5%
Hispanic or Latino	5%	44%	72%
Percent of population w income in 1999 below poverty level	26%	32%	27%
Percent of population w income below poverty level, who were under age 17	41%	40%	44%
Total Households	336,428	27,004	2,408
Average household size	2.77	3.16	3.57
Households w 1 or more people under 18 years	42%	45%	50%
Total housing units	375,096	30,864	2,784
Housing vacancy rate	10%	13%	14%
Renter-occupied housing units	45%	53%	53%
Percent Spanish-speaking households, linguistically isolated	21%	37%	35%
Workers 16 years and over: Total	319,449	26,183	2,934
Automobile access: Percent of workers who drove alone to work	69%	55%	47%
Percent of households with income less than $24,999	43%	50%	44%
Percent of households with income between $25,000 and $49,999	28%	29%	34%
Percent of households with public assistance income	11%	12%	10%

*****Note: The study area for the assessment included three zip codes: 48209, 48210, 48216 (see Figure 1). The garden neighborhood consists of two census tracts: 5232 and 5233. However, a much smaller area, shown in Figure 2, was delineated for the purpose of recruiting children and interviewing neighborhood residents.

Figure 1. Location of Study Area for the Urban Health Research Program



The assessment, led by a team of nursing and urban planning faculty and practitioners, found that community residents and representatives of local churches and nonprofit organizations were concerned about inadequate medical resources, sources of fresh food, and recreation resources in southwest Detroit; deteriorating housing and trash-filled vacant lots (which posed hazards for health and safety); and poor dietary behaviors, especially among youth. A youth garden was suggested by a resident in a community forum in which findings were presented. Participants of the Urban Health Research Program, which was constituted by university faculty and community-based consultants advising the program, were immediately taken by the idea: a garden would be a small, but visible, project; relatively inexpensive and quick to organize; and an opportunity to pull together stakeholders around shared objectives, without demanding significant commitments from them. Working with neighborhood adults and kids, a team of two university faculty members and a graduate student set up the garden in May 2000. It was located on a city lot (1/8 acre), two blocks south of the Holy Redeemer Church in the heart of the Hispanic neighborhood.

Figure 2. Recruitment and Interview Boundaries for Hortaliza. The star marks the location of the garden. The two rectangles above roughly indicate the boundaries within which recruitment of youth and interviews of residents were conducted and invitations to community potlucks distributed. Land use on Junction Street becomes increasingly commercial and institutional (related to the Holy Redeemer Church), as one proceeds towards Vernor Highway. To capture more homes on Junction Street, we decided to extend our recruitment boundaries south of Porter Street, towards the highway.

The author, a faculty member in the urban planning program at the university, was Hortaliza's principal investigator; she was accompanied by nutrition coordinator Joan Bickes, a lecturer of community nutrition at the university, and Sara Schillinger, a graduate student of urban planning at the university, who coordinated gardening and community activities. Project partners in the community included:

- *Southwest Alliance for Neighborhood* (SWAN), a local community development corporation that owned the lot;

- *Holy Redeemer Church*, a local Catholic church that helped with entrée into the neighborhood and offered space to implement community potlucks and related events;
- *Latino Family Services*, a social services agency that helped recruit kids and integrate the garden into related programming offered by the organization;
- *Detroit Agriculture Network*, a local gardening resource organization that provided technical assistance related to gardening

Several neighbors were involved—at varying levels of intensity—in garden planning, set up, ongoing management, and care taking. Among these, the next-door neighbor's contribution was particularly notable. He provided water connections (for which we made a modest payment of $25 over the season), yard space for training sessions and storage for garden tools, assisted with other tasks, and kept an eye, along with other neighbors, on the garden. Most early conversations with neighbors happened at the garden site, and first occurred when one or two curious neighbors came out to investigate our presence on the site. Brother Gerry Patin of the Holy Redeemer Church typically accompanied us to the site early in the season. Sometimes a neighbor would direct us to another neighbor for recruiting children or seeking assistance with building garden beds or moving dirt. After a while, we freely knocked on their doors to ask a particular question, enquire about their kid's absence in the garden, or seek their assistance. Focus groups during neighborhood potlucks at the church offered more systematic opportunities to brainstorm with neighbors, seek feedback and specific forms of assistance. Neighbors were always friendly and gracious, even on the one tense occasion when we had to escort home a boy with a bloody nose, following a fight with another boy.

Project Goals

As we engaged neighborhood adults and youth in informal discussions about the potential garden, three project goals emerged, which provided the framework for future activities:

1. To provide a positive community resource in the form of a garden in which about 20 to 25 youth grow vegetables on a vacant city-lot, learn about healthy diets, and gain gardening skills;
2. To conduct research assessing benefits in varied categories of the youth "nutrition garden;"
3. To develop long-term partnerships in southwest Detroit between university faculty and students, on the one hand, and community organizations and residents on the other, through projects that build community capacity and deliver mutual objectives.

To achieve these goals, we designed activities to maximize opportunities to:

- Engage children in structured and unstructured interactions highlighting the value of vegetables to healthy eating, and to persuade them to consume more fruits and vegetables;

- Provide harvested vegetables to children and their families, and model healthy snacks at the garden (with vegetables from the garden, whenever possible);
- Provide participants with information related to gardening and impart related skills;
- Generate relevant research data from planned and unplanned encounters with neighborhood children and adults;
- Improve the physical appearance of the garden environs to present an inviting image, and to encourage and support (with supplies) neighbors' efforts to garden on their properties;
- Involve youth, parents, and neighbors in garden-related decisions, and enhance opportunities through the garden for neighborhood-based youth-youth, youth-adult, and adult-adult interactions;
- Connect garden neighbors whenever possible with community organizations that were partners in the project; and,
- Build neighborhood capacity for leading the garden in future years by providing tools, organizing neighbors, and compiling relevant information.

Researching Benefits of the Garden

To assess the effects of these activities and the project as a whole, we gathered information, whenever possible, related to:

- Knowledge and attitudes among participants related to eating vegetables and patterns of consumption of vegetables; and other kinds of knowledge and skills gained by participants (gardening, environmental issues, community food issues, etc.);
- Physical activities in the garden;
- Perceptions of participants, their parents, and neighbors of the neighborhood's physical and social characteristics before and after the garden season;
- Social networks among youth and between youth and adults developed over the garden; and,
- Youth, neighbor, and organizational interest and capacity in leading the garden in the future.

To gather data for this assessment, we employed a variety of methods that also helped us overcome unanticipated challenges in the context. Methods consisted of pre- and post-garden interviews using semi-structured instruments with participating youth, their parents, and neighbors within two blocks around the garden; quizzes to assess knowledge components; informal interviews with children, parents, and other neighbors during garden sessions and events; photography of activities and events to assess changes in the physical and social environment; and journals maintained by coordinators on all garden-related activities.

Pre- and post-project interviews were conducted, respectively, in May-June and September-October of 2000. The number of youth participants, who stayed on in the project from the very beginning to its close in October, is rather small—only

nine of the 25 children who participated, of whom five were girls. This small number is explained by housing turnover during the summer in the neighborhood. As Table 1 shows, the neighborhood is populated by significant numbers of renter households containing disproportionately more children than the city as a whole. Renter families in the neighborhood tend to relocate during the summer. Although all children were interviewed when they came in, many left without completing their second set of interviews. Further, responses related to the neighborhood and its residents, from children who joined the garden in the middle of the summer, were inevitably colored by the garden, and hence not valid for assessing changes in perceptions as a result of the garden's development. This small sample size constrains the generalizability of our findings; however, qualitative data obtained from the many encounters with neighbors, parents, and kids (recorded in coordinators' journals), and from informal focus groups assembled at potluck dinners, surfaced and reinforced many themes related to the actual and perceived benefits among youth and adults. (These are outlined in Table 2 and discussed in a subsequent section.)

From May through October 2000, children between the ages of six and 15 harvested over 200 pounds of various vegetables, learned about their value to healthy diets, and ate culturally-familiar meals and snacks prepared from the harvests. In all, the children grew onions, yellow squash, zucchini, cucumber, cabbage, beets, radish, carrots, kale, green beans, bell peppers, three kinds of chiles, tomatoes, pumpkins, and lettuce. Sunflowers and marigolds framed a sign announcing the garden at the corner closest to the street intersection. Kids participated enthusiastically from the beginning:

> *I noticed that the kids do enjoy coming to the garden—they come running when we arrive—and are somewhat disappointed (some of them, at least) when we tell them that it is time [for us] to go home. Given all the work involved, this enthusiasm is intriguing! [Two boys] especially complain when asked to weed. [On the whole, however], the garden gives kids something to do, some place to be, and people to hang out with who pay attention to them. I had not really thought of this aspect until now, as we need to recruit more kids*.
>
> - Journal entry, June 24, 2000

Project participants assembled formally twice a week—on Wednesday and Saturday afternoons—for about an hour and a half to two hours each day. A typical garden session started with watering, weeding, and hoeing to loosen compacted dirt, collecting garbage and organic waste, and related demonstrations to the children. For example, coordinators—the two faculty members and one student assistant—discussed the functions of seeds, roots, leaves, stems, tendrils, flowers, the types and roles of insects, and the importance of weeding and watering with the children during these times in informal groups.

Following these tasks, we adjourned to a shaded place (a neighbor's backyard or porch) for lessons, snacks, and fun activities such as solving puzzles and coloring. A day's lesson led by the project's nutrition coordinator, Joan Bickes, but involving

other coordinators as well, might consist of a few key points about a particular vegetable conveyed in interesting ways, sometimes with accompanying taste-tests. Needless to say, the most memorable taste-test was one that included the jalapeno peppers, which kids insisted on tasting raw, despite—or perhaps *because* of—our strident warnings! Most of the vegetables grown in the garden were studied in these lessons. Vegetables were eaten raw when possible, sometimes in ways suggested by the kids themselves. For example, one day after we had cut the cucumbers for a taste-test, one of the children ran home and brought back a green lime and some salt. We tested the cucumber plain and also with a twist of lime and salt sprinkled over. Children unanimously expressed their preference for the latter.

Furthermore, coordinators grabbed every "teachable moment" in the garden to engage youth in conversations about dietary and growing practices—from the importance of washing vegetables prior to eating or cooking them, to the practice of saving seeds for future seasons. Finally, before we dispersed for the day, we gathered and distributed the harvests. Kids contributed to decisions about distribution; they were usually tolerant of others' desire to take one or another kind of vegetable home and were quick to readjust the distribution accordingly the following session so that all were able to take home a variety of selections over the season. We emphatically refused harvests for ourselves, except for making dishes for potlucks, to reinforce to children, parents, and neighbors the message that the kids were "laboring" for themselves and not for us.

Parents confirmed to us the excitement and pride with which children handed over vegetables to them. One parent spoke for many when she said the following of her eight-year old daughter, who was a participant at the garden:

> *[After the garden], she came straight to the kitchen and dropped the vegetables off, before going back out to play. Even if it was only two beans that day, she insisted that I cook and serve whatever was harvested, for the very next meal. Then, when we were sitting down to eat, she bragged about all the items that were her contributions.*

Two potlucks were organized on the church grounds, to which the entire neighborhood around the garden was invited. In the second one, at the end of the season, a pumpkin symbolizing the garden on which kids had painted their names, was ceremoniously "handed-over" to neighborhood adults to signify their responsibility for its stewardship until the next season. Garden tools were given to the church for retrieval the following year. Certificates of appreciation and t-shirts were awarded to youth and adult participants and scrapbooks containing pictures and information about the garden were also distributed to help preserve memories of the garden. Copies of a handbook on garden management (with templates recording decisions at various points) were also distributed at season-end to help interested neighbors and agency staff administer the project in subsequent years with less university involvement.

The handbook was used intensively the following year by a parent who volunteered at the garden during the first season and an intern who was hired by SWAN, the

neighborhood organization, to re-start and manage the garden. University faculty had little involvement in the garden in Year 2, beyond providing moral support and advice, collecting data through informal interviews with garden participants and neighborhood residents, and photography of the garden and its environs. Year 2 of the garden also saw systematic incorporation of feedback from our previous year's experience, especially in decisions about what to grow—more corn, tomatillos, and other vegetables and herbs desired by the families of garden participants—and how to recruit participants.

Findings and Discussion

Through our pre- and post-garden interviews with kids, parents, and other neighbors, and qualitative and visual sources in Year 1, we documented positive outcomes in both perceptions and real changes in a variety of categories. Table 2 lists these categories. In short, youth-related findings include, among others, improvement in knowledge and adoption of positive attitudes and behaviors related to the consumption of vegetables and fruits in meals and snacks (confirmed by parents), knowledge development related to gardening and plant systems, increased self-reported interaction among kids and between kids and adults, more positive perceptions of the neighborhood's physical and social environment, and greater interest in gardening.

Table 2. Benefits of the Garden: Themes Identified by Participants and Neighbors

Categories of Benefits	Youth participants (or their parents)	Neighbors
Nutrition value of vegetables: knowledge, attitudes, and practices among kids	Kids • were able to name more F&V* in post-test • provided richer descriptions of "healthy diets" • showed increased knowledge of nutritional benefits of particular F&V • reported including more F&V in snacks • liked salads and simpler dishes than more complex ones Parents indicated • greater kid interest in eating F&V • pride among kids in supplying elements of family	Acknowledged importance of teaching kids about nutrition, and growing F&V for home-based consumption

	meals • pressure from kids to eat more F&V	
Other kinds of knowledge, skills	• Knowledge and skills related to gardening, plant systems, ecology • Benefits of neighborhood greening • Food system issues	
Physical activity	• Running, walking, digging, pulling (weeds, hose), lifting and carrying (watering can or hose), hammering, raking, bending, stretching, squatting, pushing (mowing). • Older kids: building beds, installing picket fence, moving dirt, building plant supports, etc. • Participants brought neighborhood friends over to play • Kids played on swings in neighbor's yard following sessions	• Neighbors reported taking more walks by the garden to track growth and for errands to main street nearby • Mothers brought younger children to play in garden because of perceived safety and opportunities for socializing • Neighbors reported starting container or backyard gardens
Perceptions of neighborhood physical and social quality	Kids felt: • Proud of neighborhood • They had friends in neighborhood • Neighborhood has variety of plants • Safe in neighborhood (during day)	Long time neighbors noted less dumping nearby, speeding through intersection; multiple value of gardens to neighborhood: • as destination for visitors • positive recreation source • food security source • helping neighbors get to know each other, cooperate • source of knowledge and skills for kids Greater interest among neighbors in growing vegetables
Social networks among youth and between	Kids noted positively about: • Making new friends • Playing with friends	Neighbors commented on: • Parents and kids working together to

youth and adults	• Learning to respect and work with other kids, despite disagreements • Working closely with coordinators, neighbors on tasks, planning • Opportunities to lead, make decisions, take responsibility • Opportunities for "friendly" competition	make the neighborhood better • Garden makes neighbors come out and talk to each other about other things • Older people in neighborhood are hanging out near the garden
Neighborhood interest and capacity in garden management	• All kids but one wanted to participate next year • Parents of all participants agreed to help out the following year • Parents volunteered to recruit children, manage and watch over garden, provide gardening and other supplies, coordinate volunteers, prepare meals for potlucks, and help with special occasions	• SWAN CDC agreed to let us have the lot for the following year • Church encouraged us to return the following season; offered church facilities • Neighbors used Handbook to initiate garden activities the following year • Neighbors volunteered similar assistance as parents
Other, unanticipated benefits	Kids bringing over visitors, friends from other neighborhoods, school to garden to play and show off!	• Spontaneous organizing on other neighborhood concerns (speeding, vacant lots, etc.) • Greater interest among neighborhood organizations in the surrounding area to start gardens on vacant lots • Handbook used to support gardens in other neighborhoods • Close to zero vegetable thefts (despite dire warnings from neighbors)

* F&V=fruits and vegetables

For example, all children were able to name more fruits and vegetables in their post-season interviews, and provided richer descriptions of healthful diets. Most were able to identify the nutritional benefits of particular vegetables (for example, "Carrots are a good source of Vitamin A which is good for the eyes, and chilies of Vitamin C, which prevents colds," according to one child). All kids showed greater knowledge related to gardening, such as the importance of sunlight, watering, weeding, and the functions of particular plant parts. Our journals also noted that children were starting to attend to food system issues such as the paucity of vegetable selections in nearby grocery stores, non-seasonal availability there of particular vegetables and fruit, the geographic sources of foods that could not be grown in Michigan, and the pros and cons of growing your vegetables versus purchasing them at the store. The following is an example of one such entry:

> *Today we had a brief discussion on the value of growing vegetables versus buying them from the store. I asked the kids which option they thought was better. Mostly, the children agreed that growing vegetables was better than buying them from the store. The following reasons were offered:*
> - *it is cheaper*
> - *it is closer to you (in your yard, or close by as in the case of our garden), so you don't have to drive to the store*
> - *it is fresher—you can pluck it and cut it when you want to eat it*
> - *it makes the neighborhood look pretty*
>
> *They also indicated difficulties in growing one's own food: what if someone did not have a place to grow vegetables? Or the time to devote to gardening? What about when it snows? And, what if someone did not know how to grow vegetables?*
>
> - Journal entry, July 15, 2000

In social categories, children noted making many friends at the garden and spending more time outdoors with friends than the previous summer. One girl, whose family had recently moved to the neighborhood, noted simply that, "the other kids respect me." When asked to elaborate, she mentioned that they listened and talked to her and periodically invited her to play in their backyard. Children also appreciated having adults work with them at the garden, and being included in decisions related to activities and the distribution of the harvest. During one session, kids even decided to share their harvest with a homeless person who walked by the garden with her cart. All but one of the children expressed an interest in returning to the garden the following season; the one exception was an older boy whose uncle volunteered at the garden and who felt that he was singled out by his relative for the harder work of mowing and moving heavier stuff.

Adults—including parents and other neighbors—noted many gains from the garden including in categories related to physical improvement, positive activities for youth, neighbor involvement, and a sense of the neighborhood as a *destination* for area residents (rather than simply a busy thoroughfare connecting the highway with the district's main drag, Vernor Highway).

> *There's a lot of traffic on Junction; everyone wants to [get to] Vernor and there's a lot of speeding through the neighborhood. We are talking about a stop-sign here to slow traffic down. But now, people are coming here, to our neighborhood, to see the garden. Everytime I walk by, there's usually three or four people in the garden, looking at things, bringing their kids or just hanging out*
>
> - resident living two blocks away

Parents from two households also noted—with mock exasperation—pressure from their kids to eat in healthful ways themselves! Thanks to the vigilance of garden neighbors (which households also sent the most kids to the garden), theft of vegetables from the garden was not the significant problem they had earlier predicted. Recognizing these benefits, many parents agreed to volunteer time and effort to sustain the garden in future years.

The three garden coordinators (all of whom resided outside the community) and volunteers also learned much from the exercise. Following is a sampling:

> *This is the kind of neighborhood I might have been afraid of walking in, before. I learned so much about the neighborhood and its residents in working at the garden. And now I can call out to people by their name, and they recognize me, even though I don't live here. People are very friendly, care about much the same kinds of things that you might find elsewhere, and are interested in being outdoors. They really appreciated the garden and its benefits for kids.*
>
> - Coordinator 1, post-garden interview

> *I learned a lot about vegetables and nutrients from the lessons we planned for the kids. I mean, I knew that vegetables are good for you, but Vitamin C and chilies? What a fun way to get more Vitamin C!"*
>
> - Coordinator 2, post-garden interview

The following comments from participants and neighbors sum up many of the garden's accomplishments in creating a sense of wonder at nature's processes, providing positive activities for kids, learning about healthy eating and gardening, improving the neighborhood's physical appearance, promoting social interaction among and between youth and adults, and inculcating a "can-do" spirit about bringing about neighborhood change:

> *One day I was sleeping, and I woke up and saw a sunflower! It was so great!*
>
> - Garden participant, 10 years old

> *[The garden] was a great idea! It was good for the children. They get excited whenever you come. They are learning about vegetables, plus meeting new friends.… Now they're bugging me to eat more salads!*
>
> - Neighbor and parent in focus group

The garden got the kids something to do, made neighbors and passers-by look and see what's going on, made the neighborhood look good. Kids like what they are doing, they got something to do after school. …There was a lot of junk here; people stopped throwing things here when they saw the garden. All benefits and no new problems!

- Neighbor and parent volunteer at the garden, at the end of the season

It beautified the neighborhood, made people drive a bit slower—[it] wasn't as crazy as last summer. It was good for the kids, they learned about the garden; [it was a] big plus that [a parent] was there. Neighbors see parents helping out; other parents might help too. [When they see] neighbors getting together, people say 'what can I do [to help]?'

- Neighbor

Figure 3. Site of garden plowed for planting, May 2000. Note convenience store across the street on the photograph's left, at the corner of Junction and Christiancy Streets.

Given the turnover of participants over the summer, we expected more muted expressions of benefits in the garden's first season, and therefore were pleasantly surprised both at the number of themes that arose as well as the widespread nature of sentiments across participants and neighbors, and the intensity of their expression by some. Themes related to benefits that were unanticipated by us, included, for example, the use of the garden by the neighborhood as a spontaneous destination for socializing especially by participating kids, neighborhood mothers

with toddlers, and seniors; and the garden's perceived impact on traffic calming at the intersection due, possibly, to the presence of children and the interest generated by the flowers and vegetables.

It is difficult to say, from this assessment, how stable these perceived and real benefits will be over time, given the fact that we (university-based participants) did not return the following year to conduct lessons and activities similar to those of Year 1, and given the demise of the garden after Year 3 following sale of the property. Our documentation of the garden's second season—not reported here—showed that the intern who co-led the garden emphasized ecological, rather than nutritional issues. Given our objective in helping neighbors and neighborhood organizations sustain the garden according to existing resources and interests, we did not intervene in garden-related decisions and activities, except to encourage local actors to take charge and support them in their efforts.

Figure 4. Setting the garden up with neighborhood adults and children

Figure 5. The first harvest: lettuce in the garden

Figure 6. Kids take home the harvest

Figure 7. Kids sign their names on the back of the sign to signify their ownership of the garden

Figure 8. A typical day at the garden

Figure 9. Learning about weeding

Figure 10. Taste-tests of garden produce at the church

Figure 11. Visitors to the garden

Figure 12. Fun and fantasy at the garden

Figure 13. Showing off the vegetables

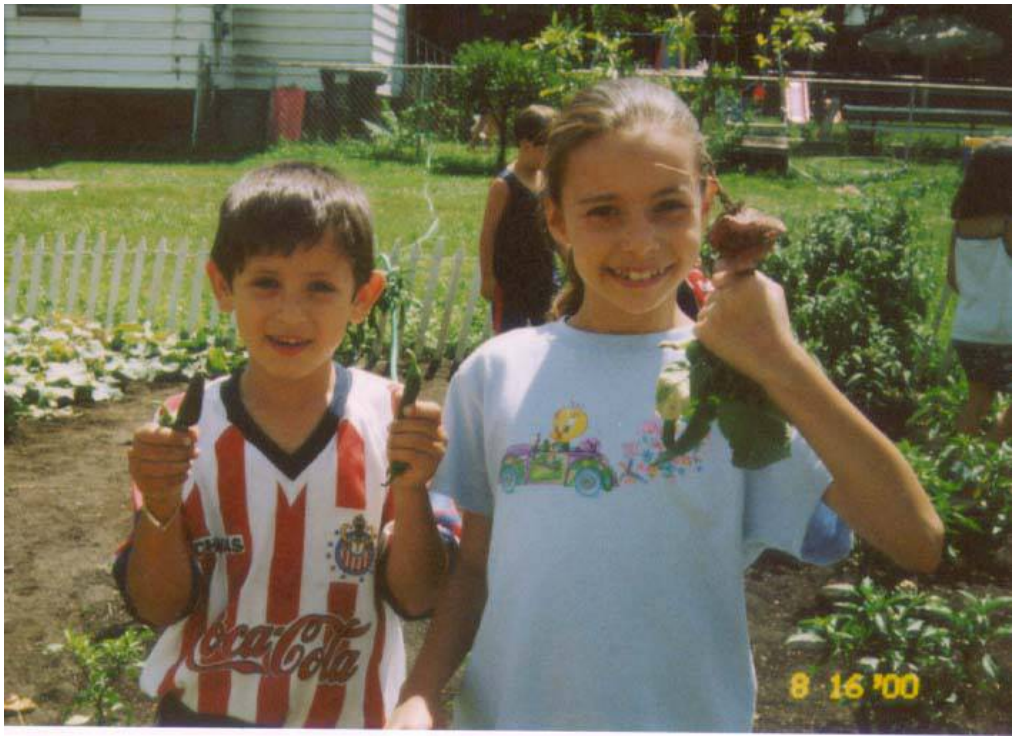


Figure 14. Eating salad with a smile

Figure 15. Bags of vegetables before distribution

Figure 16. Curious new-comers to the neighborhood

Figure 17. Kids make their own sign

Figure 18. A lesson about nutrition and vegetables

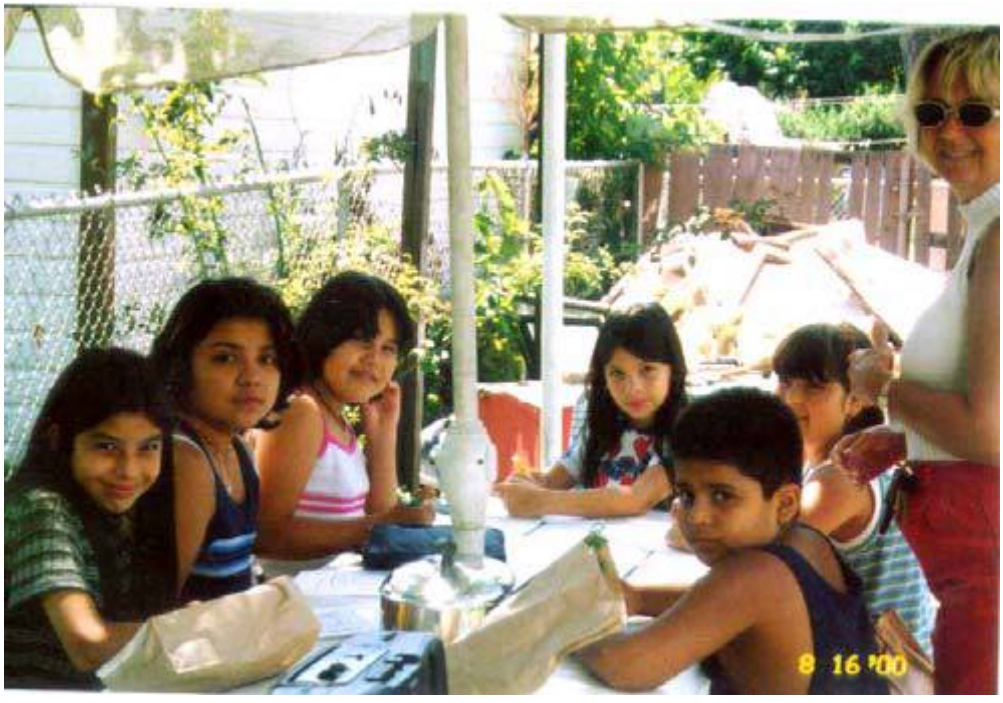
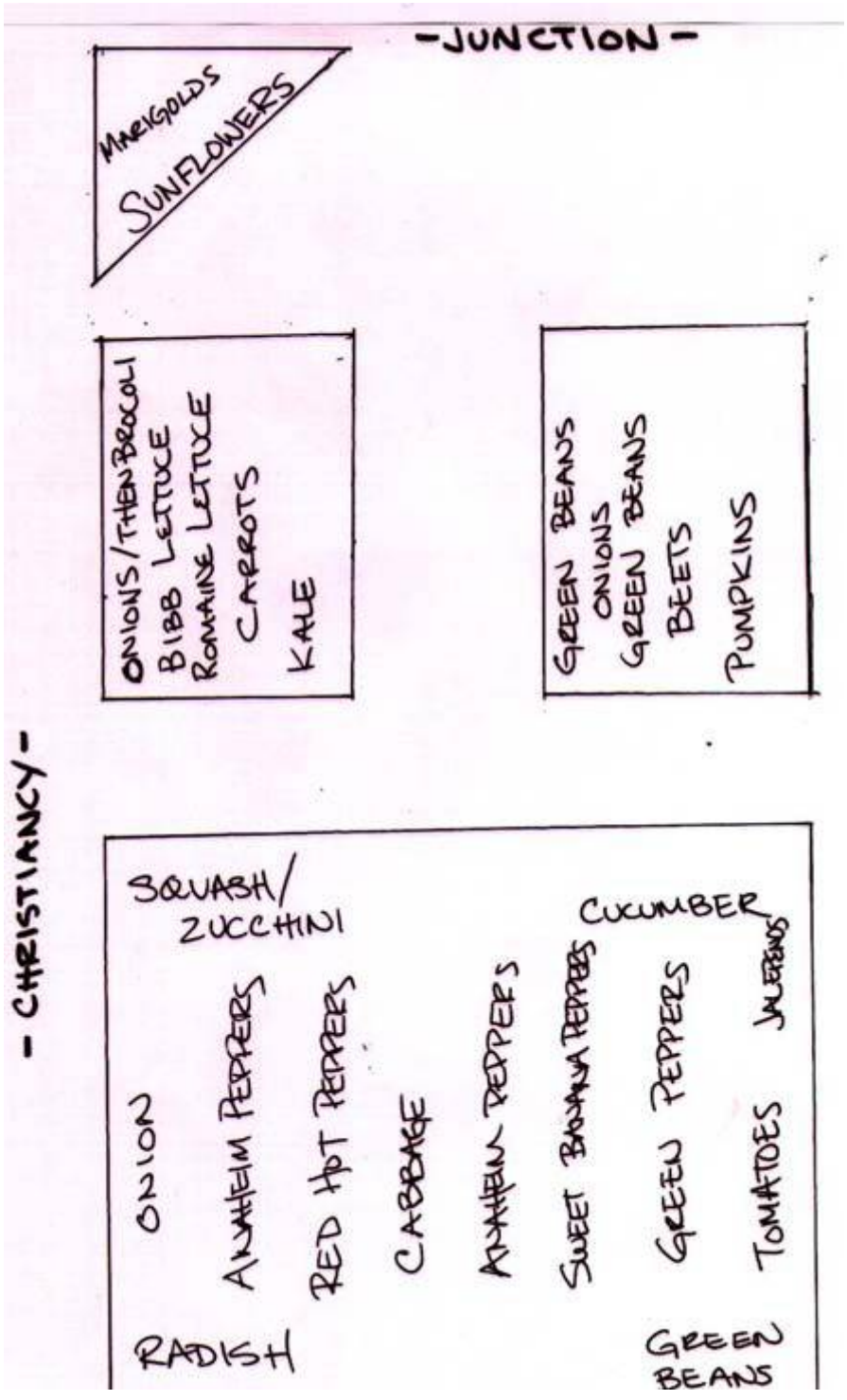


Figure 19. Modeling healthy snacks

Figure 20. Regular visitors turn volunteers

Figure 21. Although dumping near the site did not entirely disappear for the duration of the garden, its frequency went down as the summer progressed, a sign, according to neighbors, of the garden's success.

Figure 22. A map of the garden planned with neighbor input and Assistance



Lessons Learned

Based on focus groups and conversations with neighborhood-based adults (neighbors and organizational representatives), the following factors help explain the early and significant success of this project and perhaps may benefit other groups contemplating a similar project:

- A focus on kids helped rally adults in the neighborhood to work collaboratively and care for a community resource (and effectively protect the garden from theft).
- The garden allowed local adults to be involved at levels they chose, allowing easy entry and exit, in ways that made them and their contributions visible to the rest of the neighborhood.
- The proximity of the garden to participants' homes allowed kids to walk to the garden independently, bring their friends over and recruit them, and work safely with others under adult eyes, thereby fostering a great sense of ownership of the garden among them.
- Bringing parents, neighbors, neighborhood organizations, and institutions together created a positive "buzz" in the neighborhood in ways that offered synergies for other neighborhood concerns.
- Neighbors and kids were involved in all aspects of garden set up and management decisions and related tasks, facilitating capacity development for future leadership.
- The high-traffic (pedestrian and vehicular) location made the project visible, and amplified benefits to residents who lived nearby and walked by the garden to get to a commercial street.

As the project moved forward, we had to cope with the following challenges, but were only able to overcome some of them. Similar efforts in this neighborhood or elsewhere may need to attend more carefully to the following dynamics, as relevant:

- Resident turnover necessitated constant recruitment of youth, fewer individual benefits over the duration of the growing season, and less capacity development among some individuals. Fortunately, when we realized what was happening, older youth took on the responsibility of recruiting other children, including those who had recently moved to the neighborhood.
- External factors continued to present challenges over the life of the garden. For example, although dumping was reduced near the site during the growing season, it did not disappear altogether. Pre-existing conflicts among some long-time neighbors were apparent and occasionally surfaced at the garden. Additionally, the convenience store across the garden continually undermined our messages of healthy diets and snacks with its readily available junk foods. We had to make a decision early on not to actively prevent kids from buying ice-candy from the store as they were assembling for the garden, but to rely on dialogue and persuasion to guide behavior.
- We learned much about garden management from mistakes in Year 1. For example, we wasted much organic matter from the garden because of lack of

plans for composting. Planting distances were too small in some cases (e.g., pumpkins), or could have been smaller (chilli peppers). We could have used techniques that might have helped us start the garden sooner than we did, such as starting some plants indoors earlier in the season. Many of these errors were corrected the following year.

- Making plans to sustain the garden into the distant future and institutionalize it as a neighborhood resource, without secure land tenure, was difficult. For example, one neighbor suggested building more permanent structures and water connections, but we did not have the permission from the property owner to develop these.
- Gardening is seen as low-status activity in some communities (e.g., African-American and Latino) with a history of oppression in agricultural settings. This sentiment resulted in a couple of parents' reluctance to allow their children to participate in the project, despite the children's own keen interest to do so. Because of human subject issues involved in university-sponsored research, we were unable to officially include these children in the project (and related photography), but did not actively discourage their presence in the garden and lessons.
- We found that, despite the involvement of neighborhood men in the garden, older boys were reluctant to work alongside girls and under an all-woman coordinating team. Mixed-gender teams of teenage youth may need special, appropriate strategies for recruitment and sustained participation.
- Sustaining partnerships among organizations may be difficult as interests shift and personnel leave. For example, Latino Family Services' involvement in Hortaliza dropped when their youth coordinator left her job.
- As gardening activities help "clean" up the land and make the neighborhood attractive, development pressures are likely to increase, as was the case with our lot.

Finally, although our Year 1 activities were designed to be sensitive to the amount of time we were asking young people to give to the garden, in future years we might encourage children to take more initiative in documenting their own garden experiences and guide them in doing so. For example, encouraging children to take pictures of the garden, their friends, and their neighborhood (through disposable cameras we funded if they didn't have their own), or to write journals about their experiences undoubtedly would have contributed additional dimensions to our understanding of the garden's benefits to participants. Such child-initiated documentation might have also helped children save memories of the garden in ways more meaningful to them.

Steps to Increase Neighborhood-Based Youth Garden Programs

As successful as the garden was in 2000 and 2001, it met a sad end, not unfamiliar to urban gardens without secure land tenure. Its size had to be reduced in 2002, and following the sale of the lot by the nonprofit owner to a private resident, the kids were only allowed to plant in a corner of the lot while development proposals were being considered. The 2003 season marked the end of the garden when the

land was dug up in anticipation of development. Having the lot for two years, and part of it for another year, was scarcely a decent return on our investment of labor, fresh dirt, bed construction, and other physical and organizational resources that went into the garden (a total of nearly $10,000 in 2000, including coordinator time, garden materials and tools, and food for snacks, as well as an additional $5,000 in in-kind resources such as church space and volunteer time). Nonetheless, the experience offered important lessons in our advocacy of youth gardens in the city. The report generated from this garden's experience has been circulated to local public and nonprofit agencies with interests or involvement in land use, open space, vacant lots, neighborhood development, youth empowerment, and food security, highlighting benefits and potential. It is receiving interest among local neighborhood planners, despite their inclination to prioritize development as a higher and better use for Detroit's 6,000 vacant lots.

As others have shown, communities can do much to increase access to and participation in community gardens to derive these multiple benefits for youth, adults, and seniors (Twiss et al. 2003). Many communities across the country have put into place programs to support community gardens and are host to organizations that bring people and resources together on related projects. Projects like Hortaliza need to be made integral to neighborhood development policies proposed by city agencies, community-based nonprofits, and informal groups of parents and neighbors. Primarily, policies and programs need to be put in place that:

1. Make available on a permanent or long-term basis, high-quality land, resources, and infrastructure for gardening within neighborhoods. Include gardens as a regular amenity much like schools, playlots, or community centers. For example, optimally-located vacant lots that have come into city ownership due to tax delinquency could be identified in every neighborhood, and given over on a long-term lease to neighborhood or resident organizations for the purpose of developing youth gardens.

2. Systematically connect youth and adult residents interested in gardening to public agencies and nonprofit organizations that focus on gardening, nutrition, or neighborhood development. For example, each of the groups managing gardening lots identified through the process described in item 1 above could be connected with citywide gardening or greening organizations to help with garden implementation and to ensure that lots are not diverted to other uses. A central information source such as a youth garden website, maintained, say, by the city parks department could help newcomers to neighborhoods find the nearest garden, and provide links to gardening tips, nutrition, and ethnically diverse recipes for healthful diets.

3. Link activities in health and nutrition, recreation, gardening, neighborhood and economic development within public sector agencies, and between public, private and nonprofit sector agencies with similar interests. For example, a local group that encouraged inter-generational gardening started to involve young people produce salsa and salad dressings with the help of Master Gardeners,

which were then sold by a local nonprofit as part of their fund-raising efforts. A website such as that mentioned above might help such groups connect to other organizations and activities in the city that are involved in gardening, youth, health, and neighborhood development.

4. Gardens could be systematically incorporated into policies and programs of public agencies such as parks and recreation, planning, and neighborhood development. Parks departments, for example, might offer vegetable gardens on park land and provide related infrastructure. City planning agencies could devise short- and longer-term land use and neighborhood plans that include neighborhood-based youth vegetable gardens. Because for children it is important that gardens have close proximity to homes, and the significance of neighbor involvement for their success, these spaces need to be planned so as to be no further than six to eight blocks apart from each other and centrally located within neighborhoods. Space set aside can be as small as a regular city lot—about an eighth of an acre—or much larger if close to a school or other community resource. Although seemingly ambitious, the vast number of vacant lots in inner cities should enable this strategy. Zoning ordinances need to allow urban agriculture and related uses as permitted (and permanent) uses rather than conditional or temporary ones that can be replaced by development at any time. In areas where soil contamination might be a potential obstacle, a partnership framework may be needed for replacing topsoil, constructing raised beds, or other remediation measures.

5. City departments of health could make available culturally and age-appropriate information on the value of vegetables in diets, culturally diverse ways of eating and preparing vegetables for optimum nutrition, and physical activity such as that provided by gardening. Most importantly, health outreach needs to be based on a recognition of vegetable gardens as valuable neighborhood health resources, and could encourage their development along with other activities fostering community health. Partnerships connecting fresh produce from youth gardens to local food pantries and other nutrition assistance programs could also be encouraged.

6. City school districts also have important roles to play as landowners, institutions with an educational mission, and as food suppliers. A portion of land around schools could easily be put into youth gardening. Classes related to health behavior and nutrition, ecology, and sports could integrate gardening in their activities, thereby also re-invigorating science education in the inner-city. Finally, bringing vegetables and fruits grown by youth into the cafeteria could help improve diets and reinforce more abstract lessons on healthy diets. Programs such as the Edible Schoolyard and the recent Farm to Cafeteria legislation offer important resources for such projects. (See the list of resources at the end).

Other city agencies such as police departments could also tap into the synergies that gardens offer to neighborhood watch groups, churches, schools, and after-school programs that keep youth out of trouble. As this research has shown,

gardens enlist neighbors' "eyes on the street," provide positive neighborhood activities for youth, send the message that the neighborhood is well-cared for, and support youth and adult networks in outdoor areas—all characteristics of secure neighborhoods.

This project has shown, albeit on a small scale and a relatively short time frame, that gardens can, indeed, offer a springboard for neighborhood health and revitalization efforts with the resident involvement and youth and neighbor networks they can generate, in addition to vegetable production and consumption. For neighborhood organizations with missions in community development, gardens can also contribute to successful programming in youth development, neighborhood improvement, economic opportunity, and community greening.

Resources

1. American Horticultural Society, Children and Youth Gardening Resource List
2. Edible schoolyard
3. National Gardening Association, Gardening with Children:
4. USDA Community Food Projects Competitive Grants Program.

Endnotes

1. A more complete report of this research may be obtained from K. Pothukuchi and J. Bickes (2001). The author is grateful to the College of Nursing and College of Urban, Labor, and Metropolitan Affairs at Wayne State University for making this project possible. Please see attached Appendix, "A Handbook for Sustaining Our Community Vegetable Garden" for more information.
2. The project was undertaken following Human Subject permissions at the University; signatures were obtained from participating youth and their parents for being interviewed and photographed. Forms were in English and Spanish.

Kameshwari Pothukuchi, ***Ph.D.,*** *is an assistant professor of urban planning at Wayne State University. Her research interests include community food systems planning, participatory processes, and gender issues in community planning.*
Address: *Wayne State University/ 225 State Hall/ Detroit, MI/*
k.pothukuchi@wayne.edu

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Youth Garden Demonstration Project

A Handbook for Sustaining Our Community Vegetable Garden/Hortaliza

October 2000

Sara Schillinger, Garden Coordinator
Graduate Student of Urban Planning
College of Urban, Labor & Metropolitan Affairs
Wayne State University

Kami Pothukuchi, Principal Investigator
Assistant Professor of Urban Planning,
College of Urban, Labor & Metropolitan Affairs
Wayne State University

Joan Bickes, Co-Investigator
Lecturer
College of Nursing
Wayne State University

Purpose of Handbook

This handbook compiles material used for the various activities related to the garden, nutrition lessons, and fun activities in the project.

Its purpose is to:

- Document the garden activities of Summer 2000 and provide a record for the children who participated, their parents, and community partners
- Provide a guide for neighbors who have volunteered to sustain the garden and keep it going in future years, and
- Provide a general tool for anyone who wishes to start a youth-nutrition garden.

Acknowledgements

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Rhonda Agnew, Staff, College of Urban, Labor, and Metropolitan Affairs

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Brother Gerry Patin, Holy Redeemer Church
Jeanne Bufton, SWAN (Southwest Alliance for Neighborhood)
Vicki Kovari, SWAN
Mr. Samuel Blackburn
Mr. Kenneth Willingham

and

Jason Fligger, Detroit Agriculture Network

This Handbook is dedicated to all the young people who grew the vegetables and worked in the garden during the summer of 2000.

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Section I: The Garden

A note to our friends about the garden

The Youth Gardens Demonstration Project is a community youth garden located on the corner of Junction and Christiancy in Southwest Detroit. Established during Spring 2000, the Project had many objectives including:

- improving attitudes of the participating children regarding the value of vegetables to healthy eating,
- providing vegetables to the children and their families, and offering healthy-food examples in the snacks we provided at the garden,
- improving, among the participating children, knowledge of gardening and related skills,
- improving the physical appearance of the neighborhood by turning a vacant lot (usually surrounded by garbage) into an area that presented a positive and inviting image, and
- involving parents and neighbors to build stronger neighborly networks around the garden, positive youth activities, food, and healthful diets.

In addition, the Project had some research goals as well. We wanted to see if, as a result of their participation, participating youth indeed had gained more knowledge of vegetables and fruits and their nutritional value, more positive attitudes toward eating vegetables and fruits, and if they reported asking for and eating more vegetables and fruits in their diets. We interviewed the youth, their parents, and neighbors of the garden to obtain answers to our research questions. We conducted interviews in two phases: a pre-test early in the Project, and a post-test towards the end.

We anticipate that the children, their parents, and other interested neighbors, who have agreed to maintain the garden till the end of the growing season in 2000 and to sustain it in the following years, will make many decisions related to the garden. These decisions will have to do with what to grow, where, when to sow and harvest, how to organize the garden and distribute the labor and the harvest, and so on. Some of these decisions will mirror those we made for the Project. Others will be different to reflect the tastes and preferences of the participants, and so as not to repeat our mistakes (such as, for example, growing the pumpkins too close to the beans!).

Whatever the decisions made regarding the garden in the future, we hope that the garden will continue the overall objectives of the project. In particular, we hope that:

- The garden will continue to be **primarily a youth garden**, and involve children ages 6 and over, in the activities and decisions related to the garden
- The garden will continue to be **primarily a vegetable garden**, in which a majority of the harvests can be used for food, rather than growing flowers or ornamental plants
- The garden's **harvest will be distributed to the participating children** rather than taken by the adults for their own purposes or harvested for sale.

A. The Set-Up for <u>Spring 2001</u> (and future years!)

Preparations for the garden begin weeks before the first Spring seeds are planted. Gather the children who participated last year and any interested friends and adults who volunteered to help sustain the garden (see the contact list in Section III). Decide on an "organizational" setup—which adults will be responsible for the tasks associated with garden management, coordination of participants, and special activities (such as tilling, mowing the grass, installing the fence, etc)? The garden in Spring 2000 was designed to involve about 12 to 15 children at a given time. If there are fewer than 15 children, how will more be recruited? Can the existing participants help with recruitment of other children? Prepare to start these activities around early April. Depending on the weather and weather forecasts, you may be ready to start the garden at April-end or early May.

The following activities will have to be organized:

- **Garden setup**: tilling the land, obtaining and laying new dirt and/or mulch if needed
- **Recruitment**: talking to children and adults in the community, getting children and their parents to attend the first meeting, copying permission slips and asking parents to sign them. See Appendix for sample permission slips.
- **Maintaining a database**: keeping a list of all children, their phone numbers and addresses; a list of adult volunteers; filing permission slips; taking attendance at all garden sessions (to help follow up with children who miss several sessions); and tracking garden activities, special events, and harvests if needed. These records are useful to keep track of what went well in the garden and what did not, and help analyze the garden's performance at the end of the season. Sample forms are located in Appendix B.
- **General garden coordination**: coordination of tasks associated with planting, weeding, watering, fertilizing, harvesting, teaching and watching the children.
- **Setting up a timetable for coordination tasks**: if more than one person is sharing the responsibilities, they should set up a timetable for activities and garden days for which they would be responsible. The timetable should contain names and phone numbers that should be distributed to all coordinators. A sample timetable is provided in Appendix B.

Those in charge of the garden should then plan (along with children who will garden there):

- **What will be planted**: determine what resources are available and what the children want to plant. Seeds may be available from Jason Fligger of the Detroit Agriculture Network (see list of contact people in Section III).
- **How will children be recruited**: by word of mouth, church bulletin, at school, door to door. Our experience has been that it helps to go around door-to-door to recruit new children.
- **When will children be recruited**: it is a good idea to start recruiting children at least a month before the garden actually begins. Inform them of the first meeting time, and get

their contact information, such as phone number and address. Give them a reminder call or visit a couple of days before the garden. Older children could be asked to bring their friends in the neighborhood (age 6 or older) to the first meeting.

- **Time for meeting**: at the first meeting of the garden the children should set up a time for when they would like to meet to work on the garden on a regular basis. Twice a week would be ideal. We decided on a Wednesday and Saturday meeting time in Spring 2000 because that allowed us to water the garden in even time-intervals during the week. We moved the Wednesday time to later in the afternoon when school started in Fall.
- **Where will things be planted**: refer to next page for the layout of the garden, and the 4-H chart in the Appendix that suggests what vegetables may be grown in proximity to each other for optimal growth.

Below is a calendar for the 2000 season showing when important events occurred. This will provide a guide for important events in Spring 2001.

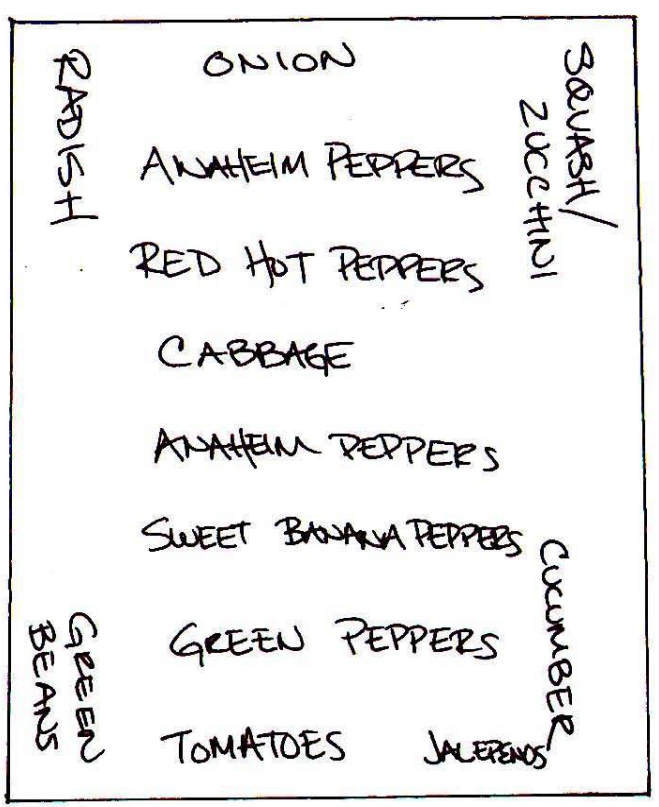
Activity (Summer 2000)	**Time-Line**
Begin Recruitment of children	Mid to late April
Configure garden beds*, obtain seeds and other materials	May 15-19
First day of garden, plant majority of seeds/starts	May 20
Fertilized the plants-1st time (Memorial Day)	June 10
Fertilized the plants-2nd time (Independence Day)	July 8
Group meal at Holy Redeemer church	July 22
Community Potluck	August 5
Fertilized the plants-3rd time (Labor Day)	September 6
Final Community Meal	September 23

*Not necessary for subsequent years, if the beds are already in place.

B. The Layout

The garden was originally set up to have two garden beds and one large plot. Plants can be grown in any configuration on the site but it important to rotate crops from year to year so that essential nutrients within the soil are always present. Also pay attention to what vegetables grow better with each other and what keeps certain kinds of pests away. Do not put similar "type" plants together because they attract the same bugs—(refer to 4H handouts included in the Appendix). It is important to keep in mind what the children would like to have planted. Many expressed a desire to have different vegetables, such as spinach and corn, herbs like cilantro, fruits, and more flowers in the future. Following is a diagram depicting the layout of the plantings for the 2000 season.

- CHRISTIANCY -



ONIONS / THEN BROCOLI
BIBB LETTUCE
ROMAINE LETTUCE
CARROTS
KALE

MARIGOLDS
SUNFLOWERS

GREEN BEANS
ONIONS
GREEN BEANS
BEETS
PUMPKINS

- JUNCTION -

C. The Rules

It is essential for any project that involves children to have an explicit set of rules to ensure the safety of the children and to keep the garden productive and a fun place to be. Some of the rules are intended for the adult coordinators, most for the children. Be sure the children understand the rules and the consequences of breaking them. Repeat the rules from time to time and get the children to say the rules to make sure they remember

1. All children from the community, male or female, are allowed and encouraged to participate in the garden. If the child is under the age of 6, an adult or older sibling **must** accompany them to the garden and stay with them till the end of the session. The garden coordinator is not a child-care provider and cannot be expected to look after children too young to be reasonably expected to understand instructions, use tools sensibly, and cross roads properly.
2. All children will be asked to do all of the work required to make the garden successful except tasks that require adult strength or heavy tools, special skills, or are potentially dangerous (like applying pesticide-soap). There are **NO** jobs in the garden that are only for girls or only for boys.
3. Every child who has taken part and completed all the work necessary in the garden will be considered equally and will receive an equal share of the harvest produced.
4. All of the harvest is to be distributed to the children who worked in the garden. Under no circumstances may the food be sold for profit nor given away to others who are not involved in the garden, without the children's consent. **Adults may not take produce from the garden except when they are preparing a snack or meal for the children.**
5. There is no running in the garden. Children may play, but there is to absolutely NO RUNNING in the area where seeds are sown or plants are growing. Mark with small sticks the places where you have sown seeds, and tread carefully around them so as not to destroy the seeds or tender saplings.
6. There is no throwing of objects in the garden. Again, children may play and throw balls or Frisbees for catch, which is acceptable, but there is to be no throwing of rocks, tools, sticks, dirt, etc…
7. There is no fighting in the garden. Anyone who is involved in a fight will be immediately sent home. If the action continues on a regular basis the child or children will be asked to stop coming to the garden in the future and their parents, notified.
8. Any child who has a problem with another child in the garden should bring the problem to the coordinators who will try to address the problem or resolve any conflict.
9. There is to be no use of foul language on the site.
10. Children are not to leave the garden site during the session without letting one of the coordinators know. They must cross the street with care, looking both sides for traffic and walk, not run, across the street.
11. There is no littering on the site. All waste must be disposed off properly.
12. There is to be no consumption of alcohol or tobacco products on the site.
13. Everyone keeps an eye out for the younger children. Older children and those experienced with gardening will teach the younger children how to weed, water, etc…

If any child is found violating any of the rules they will receive a verbal warning. If the warning is not heeded, the offender will be asked to leave the garden for the day. If an individual repeatedly ignores the rules of the garden, the coordinators will use their discretion to decide an appropriate punishment, including but not limited to, garbage pick-up, extra weeding, or removal from the garden for any length of time--from one week up to the entire season. Children are constantly watching the adults around them: be sure to uphold the rules yourself and lead by example.

Make every effort to keep cats and dogs away from the garden. Be sure to wash raw produce such as lettuce, tomatoes, etc. carefully in case cats and dogs may have left their waste in the garden.

Praise

- Adults should praise the children when they are performing tasks effectively, taking initiative, putting extraordinary effort, or doing something nice for the garden or for other children.
- Encourage children who seem reluctant to perform some chores by explaining the value of the activity to the garden or the group, and by making these interactions interesting. When introducing a new activity or asking them to do something, do explain the importance of the activity. The children are here to learn and are naturally curious; maximize the opportunities for learning.

D. Dividing The Harvest

Every child who has worked in the garden will receive a fair share of the harvest. This is not always an easy task on any given day because harvests will be uneven. As a general rule, divide up the food equally amongst the number of children present that day. However, sometimes only one or two cucumbers are harvested and everybody wants them. We suggest that the rare vegetable then either be given away to the child who has worked the most that day, or that you start a rotation where one child takes it home that day, and another child takes home another cucumber the following week. Talk to the children to see if they have any thoughts about how harvests may be distributed fairly. We encourage you to reward children with extra vegetables who have put in extra work or commitment. Make sure that the children understand this system so that they know that you are not being unfair or playing favorites.

Many times children come for just one day, and have not done the work that the other children have done. We then suggest that they receive some of the vegetables, but not as much as the regular children. Children understand this when it is explained to them. This shows our appreciation for their interest and may motivate them to return. This applies as well to very young children. Any participant under the age of 6 should not receive the same amount of vegetables as the older children who may have done more work. Often, a child of that age will be happy with a couple of jalapenos or sweet peppers. Be sure to warn the children against rubbing their faces with their hands after touching jalapeno peppers!!

Many children expressed a desire to have friendly contests and games, where the winner takes home some extra vegetables. This could mean giving out prizes (vegetables) to the children who pick the most weeds or pick up the most rubbish on the site.

E. The Meals

Although the majority of the vegetables produced are sent home with the children, it is nice to have a prepared snack at the garden once in a while. It is very easy to bring along some Ranch dressing (preferably low-fat) for the children to eat with carrots or peppers or to assemble a salad with the lettuce. We have also noticed that the children seem to be very fond of cucumbers, sliced lengthwise, sprinkled with salt and with a twist of lemon juice on them.

Having snacks at the garden from the vegetables grown there also exposes some children who've never tried some of these vegetables and shows them different ways of preparing the vegetables that may have been unfamiliar. It encourages culturally familiar practices and also places children in a position of teaching each other and the coordinators. Finally, it produces a sense of excitement and wonder among the children to eat vegetables right out of the garden!

We planned a community meal and potluck halfway and at the end of the season and highly encourage you to do so as well. It was a good time for the neighborhood residents to come together and see what a good job the children had done and taste what they had grown. These potlucks were also a good time for the coordinators to find people in the neighborhood who would be willing to assist with the project and contribute their skills.

Following are some of the recipes we used to include the vegetables harvested from the garden.

Cucumber Salad

6-7 Cucumbers
16 oz. Sour Cream (preferably low-fat)
1 cup Vinegar
½ cup chopped onion
Pepper, Garlic, and Salt to taste

Peel and slice cucumbers. In a large bowl, combine cucumbers, sour cream, vinegar, and onions. Mix well. Add salt, pepper, and garlic to taste.

Spicy Vegetarian Chili

2 Tbsp. Vegetable oil
1 onion, chopped
2 carrots, sliced into thin coins
1 green bell pepper, coarsely chopped
2 each small zucchini and small yellow squash, cut into ½-inch dice
1 can (28 oz.) crushed tomatoes
2 cans (15.5 oz. each) dark red kidney beans, drained and rinsed
1 can (15.5 oz.) corn, with liquid
6 oz. tomato paste
1 can (4 oz.) chopped green chilis, with liquid
6 Tbsp. Chili powder

1 Tbsp. Ground cumin
2 Tbsp. Sugar
1 to 2 tsp. Salt, to taste
½ tsp. Pepper
sour cream (for garnish), optional
grated Cheddar cheese (for garnish), optional

Place the oil in a large, heavy pot over medium heat. Add the onions, carrots, and bell pepper and cook about 8 minutes. Add the zucchini and squash; continue to cook until all the vegetables area tender, about 8 minutes more. Add remaining ingredients, except the garnishes; combine well. Bring to a boil, reduce heat; simmer gently for 1 hour, stirring occasionally. Serve in bowls with a dollop of sour cream and grated Cheddar, if desired.

Serves 6. Per serving: 415 calories, 74g carbohydrates, 20g protein, 7g fat, no cholesterol

Beets

Cut the ends off, then peel the skin off like you would do to a potato. Cut into chunks or slices. Boil a large pot water and add the sliced beets. Cover and let boil for 10 minutes. Turn heat down to medium and let cook for 15-20 more minutes. Drain. Sprinkle with salt and pepper to taste. May also cover in some vinegar to give a sour taste.

Kale

Traditionally cooked with a piece of salt pork or fat back, the black-eyed peas and greens in this recipe are combined with sautéed garlic, diced onions, and a pinch of crushed red pepper.

1 1/2 lbs. kale, washed and drained
1 Tbs. olive or other vegetable oil
1 Tbs. chopped fresh garlic, or more to taste
Pinch of dried red pepper
2 cups canned or cooked black-eyed peas
1 Tbs. cider vinegar, or to taste

Pull the kale leaves from the tough stems. Discard the stems and chop the leaves into one-inch pieces. Place about two inches of water in a large pot and heat to boiling. Add the kale, cover and cook until tender, stirring occasionally, 15 to 20 minutes. Drain. Reserve the water for soup, if desired. In a large non-stick skillet, combine the oil, the chopped onion, and garlic. Cook the onion and garlic over low heat, stirring, until they begin to sizzle, about two minutes. Add the peas and red pepper and cook until blended, stirring, about three minutes. Add the kale and stir to blend over low heat. Add the cider vinegar just before serving. Serve hot or at room temperature.

Serves 6, with 105 calories and 3 grams fat per serving.

F. The Lessons

Hortaliza was designed to be an educational garden, where the children would not only learn basic gardening skills such as planting, weeding, harvesting, etc, but also learn more about nutrition and healthy eating. Joan Bickes, our nutrition coordinator, and Sara Schillinger designed weekly lessons for the children. Each Saturday session focused on a particular vegetable. Joan would share interesting facts about the vegetable and the nutrients it contributed. These lessons would be accompanied by fun activities, such as a puzzle or pictures to color.

These sessions require planning and work and are not absolutely essential for the continuing success of the garden. However, we have included material should adults wish to incorporate all or part of it in their activities. We have also included our contact addresses in Section III if you would like to have more information or assistance with planning these lessons.

The following pages contain suggested activities with vegetables and handouts that guide the lessons. Feel free to make copies of these and distribute to the children.

Section III: Contact People

Wayne State University

Kami Pothukuchi-Project Coordinator
Information on funding or community partners or the garden project in 2000
225 State Hall
Detroit, MI, 48202
k.pothukuchi@wayne.edu

Joan Bickes-Nutrition Coordinator
Information on nutrition or vegetable lessons
254 Cohn Building
Detroit, MI, 48202
j.bickes@wayne.edu

Sara Schillinger-Garden Coordinator
Information on the garden in 2000
225 State Hall
Detroit, MI, 48202
schillse@aol.com

Amalia MacIntyre-Community Consultant
Contact with the church, Latino Family Services, other organizations in Southwest Detroit, speaks Spanish, attends Holy Redeemer Church
amaliamcintyre@worldnet.att.net

Detroit Agriculture Network

Jason Fligger
Contact for all gardening information. May be able to give seeds and gardening advice, and help with tilling the land
220 Bagley, Suite 326
Detroit, MI 48226
jason.fligger@prodigy.net

FARM-A-LOT

Provides free tilling of lots, information on gardening
Northwest Activities Center
Detroit, MI 48235
(313) 578-7524

Section III: Appendices

On the following pages you will various documents that will help you run the garden such as sample permission slips, attendance sheets, harvest records, etc...

Make copies of these samples for the 2001 season, so that the originals may be available for future years.

Appendix A: Permission Slips

Permission Slip in English
Permission Slip in Spanish

Appendix B: Sample Forms

Coordinator Schedule
Attendance Sheet
Harvest Record

Our Community Youth Garden

Permission Slip

What?	In this project, with the supervision of qualified adults at each session, children will grow vegetables and eat meals that include the vegetables they grow. The project seeks to teach children skills related to gardening and teamwork, increase their knowledge about nutrition and physical activity, and get them to eat more vegetables in their diets.
When?	The group will meet twice a week for 2 hours each day (Wednesday evenings from 4-6 and Saturday mornings 12-2, with rain days to be announced), from mid-May to mid-September.
Where?	The garden will be at the corner of Junction and Christiancy Streets, a block from Holy Redeemer.
Questions?	If you have any questions, call Brother Gerry at 842-3450

Agreement to permit your child to participate in the Project

By signing, you are giving your child permission to participate in the youth garden and group-meals.

I understand and give permission to the following:

_____ participation in the project (gardening and meals)

I THE UNDERSIGNED, HAVE READ AND UNDERSTAND THE ABOVE AGREEMENT OF THE YOUTH GARDENS DEMONSTRATION PROJECT AND HEREBY CONSENT.

_____ _____

(Print name of child) (Signature of child)

_____ _____

(Parent/Guardian signature) (Date)

_____

(Emergency Phone Number)

HORTALIZAS PARA LA JUVENTUD
Permiso para participar

¿Qué es? En este proyecto, y bajo la supervisión de por lo menos tres (3) personas adultas y capacitadas en cada sesión, los niños sembrarán y cosecharán vegetales, tambien comerán comidas que incluyan los vegetales que ellos han cosechado. Los objetivos del proyecto son: enseñar a los niños habilidades relacionadas con las hortalizas y trabajo en equipo, incrementar sus conocimientos sobre nutrición y actividad física, y conseguir que se interesen en incluir más frutas y vegetales en sus dietas.

¿Cuándo? Los niños se reunirán dos (2) veces por semana, 2 horas por día (los miércoles de 4 a 6 y los sábados de 12 a 2). En caso de lluvia, se les notificará. Las sesiones empezarán a mediados de mayo y terminarán a mediados de septiembre.

¿Dónde? La hortaliza será en la esquina de Junction y Christiancy a una cuadra de la iglesia Holly Redimer.

¿Preguntas? Si Ud. Tiene preguntas, por favor llame al Hermano Gerry al 842-3450

Consentimiento para permitir que su hijo/a participe en este Proyecto

Al firmar doy autorización para que mi hijo participe en el proyecto de la **Hortaliza para la Juventud** y en las comidas con los demás del grupo.

Yo comprendo y doy mi permiso para lo siguiente:
_____participación en proyecto (hortaliza, comidas,)

EL/LA ABAJO FIRMANTE HA LEÍDO Y COMPRENDE EL ACUERDO DELINEADO ARRIBA SOBRE EL PROYECTO DE DEMOSTRACION DE LA HORTALIZA PARA LA JUVENTUD Y DA SU CONSENTIMIENTO.

_____ _____
(Imprima el nombre del niño/niña) (Firma del niño)

++++++++++++++

_____ _____
(Firma de padres o tutores) (Fecha)

_____
(Teléfono de emergencia)

Coordinator Schedule-Our Community Youth Garden

Date	Coordinator 1	Coordinator 2	Coordinator 3	Coordinator 4

Attendance-Our Community Garden/Hortaliza

Name																		
1.																		
2.																		
3.																		
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26.																		
27.																		
28.																		
29.																		
30.																		
Total # Children																		

Harvest-Our Community Garden/Hortaliza

Anaheim Peppers																		
Beets																		
Broccoli																		
Cabbage																		
Carrots																		
Corn																		
Cucumber																		
Green Beans																		
Green Peppers																		
Jalapeno Peppers																		
Kale																		
Lettuce																		
Onion																		
Pumpkins																		
Radishes																		
Red Hot Cherry Peppers																		
Squash																		
Sweet Banana Peppers																		
Tomatoes																		
Zucchini																		