

Community Action To Prevent Childhood Obesity: Lessons from Three US Case Studies

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Abstract

Background: A 2005 Institute of Medicine report argues that “prevention of obesity in children and youth is, ultimately, about community,” yet the literature lacks empirical research on what communities are doing to prevent childhood obesity. This research helps fill this gap and highlights promising practices.

Cases: This research entailed exploratory analysis of three descriptive case studies of community efforts to prevent childhood obesity in the northeastern United States: Shape Up Somerville in Massachusetts, MA (urban), Whole Community Project in New York, NY (semiurban), and Eat Well Play Hard Chemung in NY (semirural). Data included stakeholder interviews ($n=23$), participant observation ($n \geq 7$ events and meetings/case), and document analysis ($n \approx 100$ /case) from project inceptions until March, 2010. Meeting participation was tracked. Data were coded for actions and strategies. Actions were mapped to an adapted version of the ANalysis Grid for Environments Linked to Obesity (ANGELO) framework.

Discussion: These three projects were successful in changing physical environments for food and activity through program and event offerings. The projects were less active in generating policy and economic change. The scale and scope of actions related to project longevity. Demographics of key project stakeholders may have hinged on individual and institutional identities of project facilitators and on intentionality of inclusion strategies.

Conclusion: Such projects could likely generate greater scope and scale of environmental changes to prevent childhood obesity if funding agencies provided long-term financial support and technical assistance, even if at lower levels. Diversity of participation would also benefit from stable support and from dispersal of decision-making powers, including through distributed funding.

Introduction

Childhood obesity rates in the United States have tripled in the last 3 decades. Failure rates for individual interventions after excessive weight gain are so high that prevention is often posed as the only “cure,” with environmental changes essential to such prevention.¹⁻⁴

Communities in the United States have been launching childhood obesity prevention projects since 1998. In the early 2000s, public health institutions such as the Robert Wood Johnson Foundation (RWJF) and the CDC began promoting and investing in such community-based prevention, with dramatic expansion in the last 5 years (Table 1). Despite this, little empirical research documents community strategies to prevent childhood obesity.⁵⁻⁹ To date in the United States, two community-based interventions have published child overweight outcomes^{10,11} with another publishing process papers.¹²⁻¹⁴ Outside the United

States, results from Europe’s EPODE¹⁵ and projects in Australia’s CO-OPS collaboration¹⁶ look promising. Given recent investments in evaluating such projects, more research results on community efforts to prevent obesity are expected. However, currently little is known about how communities are tackling this issue, and much less about whether their efforts are effective. Information relevant to practice is particularly lacking.^{5,9,17}

This article examines how communities are organizing to prevent childhood obesity by presenting an exploratory analysis of three case studies. It adapts the ANalysis Grid for Environments Linked to Obesity (ANGELO) framework¹⁸ to map project actions and identify areas of coverage. It also examines project participation. The article concludes with strategies to broaden participation and the scale and scope of action for similar projects. Unless otherwise indicated, all findings and discussion points are drawn from the case study data.

Table 1. Selected US Milestones in Childhood Obesity Prevention

Year	What	Who
1998	First community childhood obesity prevention project founded in United States (that this author has been able to identify); first of over 15 Eat Well Play Hard (EWPH) community projects	New York State Department of Health in Jefferson and Lewis Counties ¹⁹
1999	Division of Nutrition, Physical Activity, and Obesity (DNPAO) founded	Centers for Disease Control and Prevention (CDC)
2001	<i>Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity</i> published ²⁰	US Department of Health and Human Services
2002/2005	Institute of Medicine (IOM) report on childhood obesity prevention commissioned/published ¹	CDC and Robert Wood Johnson Foundation (RWJF)
2005/2007	IOM report on progress in childhood obesity commissioned/published ²¹	RWJF
2007	RWJF announces \$500 million investment in childhood obesity prevention, ²² much of which is later invested in community-based projects ²³	RWJF
2007	Web-based Childhood Obesity Action Network (COAN) of healthcare professionals founded	National Initiative for Children's Healthcare Quality (NICHQ)
2007	First controlled study of community-based childhood obesity prevention published, with positive results	Economos et al. on Shape Up Somerville ¹⁰
2007	Healthy Eating Active Living Convergence Partnership launched	Including CDC and RWJF
2008	First national workshops convening stakeholders in community-based childhood obesity prevention projects held	IOM ²⁴ and CDC ²⁵
2008	IOM standing committee on childhood obesity prevention formed	CDC and RWJF
2008/2009	IOM report on local government actions to prevent childhood obesity commissioned/published ²⁶	CDC and RWJF
2009	National Collaborative on Childhood Obesity Research (NCCOR) founded	CDC, National Institutes of Health (NIH), RWJF and (as of 2010) US Department of Agriculture (USDA)
2010	"Let's Move" initiative launched, including forming first federal cross-agency "Task Force on Childhood Obesity"	First Lady Michelle Obama, White House ²⁷
2012	IOM report on accelerating progress in obesity prevention ⁴	RWJF

Cases

This study used an exploratory multiple case study design²⁸ with three community-based childhood obesity prevention projects in the northeastern United States:

1. Eat Well Play Hard Chemung (EWPH-C), Chemung County, New York.
2. Whole Community Project (WCP), Tompkins County, New York.
3. Shape Up Somerville (SUS), Somerville, Massachusetts

Forty-five US community childhood obesity prevention projects were identified through web and literature searches before selecting these three cases to maximize variation^{29(p79)} and research accessibility. Variation was sought in institutional location and funding source to explore (although, given inherent limitations of case study approaches, not explain) their influences on project action. Geographic variation was limited by a practical need for participation and observation accessibility, although SUS, in particular, operated in a much denser and more urban

setting than the others (Table 2). This study defined "community projects" as those engaging multiple institutions (*e.g.*, not just schools) and people in a geographically bounded setting in decision-making and action. Cases were selected from initiatives that focused on children and youth and on prevention, not treatment.

Case study data included semistructured interviews with project stakeholders about project history, goals, challenges, and strategies ($n=23$); participant observation ($n=7$ for SUS, $n=10$ for EWPH-C; $n>100$ for WCP, via the author's involvement as citizen and researcher); and over 100 documents per project (*e.g.*, meeting minutes and news media). Most interviews and participant observation took place between January, 2009, and February, 2010. Documents dated from each project's inception until March, 2010. Since then, the author has remained in contact with some stakeholders from each project and has followed relevant media coverage through press alerts.

Analysis included coding interview transcripts and project documents for actions (with a code for each domain of ANGELO), participation and strategies (using ATLAS.ti³¹), as well as narrative inquiry analysis of

Table 2. Summary of Project Characteristics

Project	EWPH-C	WCP	SUS
Community/site geography ³⁰	Chemung County, NY; 88,000 people in 411 square miles	Tompkins County, NY; 100,500 people in 492 square miles	Somerville City, MA; 70,000 people in 4.1 square miles
Community/site demographics ³⁰	90% white, 12.4% family poverty, \$54,256 median family income. Elmira (county seat and facilitator location) is 78% white.	83% white, 6.2% family poverty, \$71,341 median family income. Ithaca (county seat and facilitator location) is 70% white.	75% white, 10% family poverty, 31% speak language other than English at home, \$71,057 median family income.
Project duration	2003–2010	2006–present	2003–present
Estimated mean funding per year based on total funding since inception divided by years of operation (start to 2010). Excludes major physical infrastructure.	\$78,000	\$60,000	\$430,000
Coordinators	1 full-time coordinator at County Health Department/Education Services Agency. Turnover: 4 coordinators in 7 years (to end in 2010).	1 full-time coordinator at County Cooperative Extension (CCE). Turnover: 2 coordinators in 6 years (to 2012).	1–2 full time coordinators/directors at City Health Department. Plus active transport planner in some years. Turnover: 3 coordinators in 9 years (to 2012).
Core project funder	New York State Department of Health, Nutrition Division	CCE adopted; previously supported by a Cornell professor's federal Hatch and Smith Lever grants.	RWJF. City also adopted an active transport planner position and will adopt project director position.
Other funders	Few. Some donations and funding matches from partnership members for initiatives.	Few. Handful of grants each year, almost entirely local microgrants.	Extensive, from local microgrants to multiyear funding from national sources, for staff, contracts and purchasing.
Mission in 2010	To promote age appropriate physical activity and the increased consumption of fruits, vegetables and low fat dairy for 2- to 10-year olds in Chemung County.	To ensure that all children in Tompkins County have all the healthy food they need and plenty of opportunities for safe, fun and active play.	To increase daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work.

interviews. Narrative inquiry seeks stories of practice and considers the interviews holistically, with a focus on lessons from these stories embedded in context.³² The author summarized and checked these lessons with each interviewee. Meeting minutes were used to estimate formal project participation, recorded in spreadsheets of names of people present at a meeting versus meeting dates. Gender of core participants was identified by author observation and otherwise by names when possible (>95% of people listed as meeting attendees).

Each project's actions were mapped to an adapted ANGELO framework, a tool for operationalizing the socio-ecological model³³ in obesity prevention by: (1) Breaking down the factors that purportedly cause obesity into physical, policy, sociocultural, and economic categories; (2) segmenting the scale of the environment from micro to macro; and (3) dividing each into factors influencing activity or eating.¹⁸ Only completed actions were mapped, *i.e.*, those that were successfully implemented. To date, the framework has been used as a conceptual model for mapping how environments encourage obesity^{34–36} and as a tool for prioritizing research and action to change those envi-

ronments.^{37,38} It has also provided a framework for childhood obesity prevention initiatives in the Pacific.^{16,39,40}

Retrospective use of ANGELO required several adaptations, shown in italics in Table 3. This adapted ANGELO framework provides a yardstick for the Institute of Medicine's recommendation that communities should "undertake a comprehensive, interrelated set of interventions operating at each ecological level and in multiple sectors and settings."^{1(p203)} This provides at least a theoretical approximation of ideal practice in obesity prevention, against which this study maps actions of each project.

From this analysis and field notes, 6- to 9-page narratives were drafted about each case (available from the author). Individual participants were invited to review interpretations of their interviews and any use of their comments in this article. Where approved, research participant initials appear with their quotes; see the Acknowledgments section for full names. Also, at least two key stakeholders in each project reviewed their project's narrative and ANGELO tables. The cross-case analysis included comparing ANGELO tables, participation grids, strategies, and interview analyses to map the practices in

Table 3. Arenas of Project Action Summarized in Adapted ANGELO Framework

Environment: ^a type ↓	size →	Microenvironment (e.g., one school)	Mesoenvironment (e.g., school system)	Macroenvironment (e.g., state or national education system)
<i> durable/infrastructure</i> Physical		☑	~	
<i> program/event</i>		☑☑	~	✗
Economic (<i>direct financial supports or disincentives</i>)		~	✗	✗
Political/policy		~	~	~
Sociocultural		☑	☑	✗
Child/family education		~	~	✗

☑-☑☑ = extensive action arena for all three projects.

~ = some action by one to two projects or limited action by all three; ✗ = little to no action.

This chart summarizes extent and areas of action in three US childhood obesity prevention projects (SUS, Somerville, Massachusetts; WCP in Tompkins County, New York; and EWPH-C in Chemung County, New York) based on the author's classification of each project's actions within an adapted ANGELO framework. Sample actions are in Table 4. Complete action tables are available from the author. Action does not necessarily equate to impact.

^aAdditions to original ANGELO format are in italics.

use and to identify those that appear promising for encouraging environmental change and citizen engagement. Cornell University's Institutional Review Board approved this research and all participants provided written informed consent. (At the time of this study, the article author was a PhD candidate at Cornell University.)

The sections below profile each project. Table 2 summarizes community and project data.

EWPH-C in Chemung County, New York

The New York State Department of Health ("the State") funded the first EWPH community project in 1998, which may have been the first community childhood obesity prevention project in the United States. The State later funded over a dozen such projects, including EWPH-C starting in 2003.

EWPH-C's funding, at circa \$78,000 per year, was managed by the county health department, although the project facilitator was based at an educational institution. In keeping with the State's mandate, EWPH-C's mission was to promote "age appropriate physical activity and the increased consumption of fruits, vegetables and low-fat dairy for 2–10 year olds in Chemung County." Nearly all EWPH-C activities were funded with State contract funds. The bulk of this supported the full-time facilitator position. The remainder (about \$17,000/year) funded minigrants and prizes at events (see Discussion and Table 4, below).

The project had been scheduled to run until September, 2011, but the State shortened all EWPH community project contracts by a year to invest in a different, though related, funding stream, and EWPH-C ended in September, 2010. However, an EWPH-C partner submitted a successful application for this redirected funding stream, and many of

the same people are involved in an initiative to create "healthy places to live, work and play" in Chemung County.⁴¹

WCP in Tompkins County, New York

WCP began in 2006 with an unsuccessful grant application enrolling 30 institutional partners to prevent childhood obesity in Tompkins County, New York. A Cornell University nutrition professor enabled these partners to capitalize on their partnership by contributing his 3-year federal extension grant to support Cornell Cooperative Extension Tompkins County (CCE-TC) in hiring a full-time facilitator for community-based childhood obesity prevention. When that grant expired in 2009, CCE-TC drew from several funding streams to adopt the WCP facilitator position. This rendered the position and project tenuous but continuous.

WCP survived its first 4 years on approximately \$40,000 core funding per annum, all of which supported the staff position. To fund actions such as minigrants, gardens, and a new market (see Discussion and Table 4, below), project collaborators garnered additional grant support averaging about \$25,000 a year, excluding a \$324,000 Safe Routes to School grant for a new sidewalk. Until 2011, the project mission was "to ensure that all children in Tompkins County have all the healthy food they need and plenty of opportunities for safe, fun and active play."

Since 2008, WCP has become increasingly focused on community food system organizing. Since 2011, WCP has also received some funding that the State had diverted from EWPH community projects. The project recently coled a community food assessment funded by the USDA and is now a funded partner with a 5-year national action research project on food systems and food security.

SUS in City of Somerville, Massachusetts

After a community food assessment in 2000, a Nutrition Taskforce formed in response to local childhood obesity rates that exceeded state and national averages. In 2002, the CDC funded Tuft University's collaboration with that Taskforce to tackle childhood obesity. This launched the \$1.5 million, 3-year SUS action research project. Actions through "Tufts' SUS," as several stakeholders described that project, have been well documented.^{8,10,42-46} This research focused on the post- and non-Tufts actions that paralleled and integrated with Tufts' SUS, supported largely with RWJF funding starting in 2003. While SUS' scope expanded from children to the entire population in the post-Tufts era, this research focused on SUS actions aimed at children and families.

Between 2003 and early 2010, SUS had secured over \$3 million in external funding to support their work (approximately \$430,000 per year). This estimate includes \$80,000–\$120,000/year of core funding for SUS operations, including a full-time coordinator (since 2009, this lead position has been classified as "director" and for a 1-year period the project had a director and a coordinator). The City also created an active transportation position, originally paid for with grant funds. The remaining amount supports extensive activities such as afterschool programming, school food improvements, events, gardens, and pilot programs (see Discussion and Table 4, below). This funding estimate excludes the CDC grant and about \$3.5 million for extending a community path. RWJF has provided SUS' core funding, including a \$200,000 Active Living By Design (ALBD) award for 2003–2008 and a \$400,000 Healthy Kids, Healthy Communities (HKHC) award for 2009–2013.

One full-time City Health Department staff facilitates the SUS Taskforce. Since the fall of 2009, the mayor himself has chaired Taskforce meetings. The SUS mission is "to increase daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work."

Discussion

These communities were successful in enacting changes in their environments. Table 3 summarizes the extent of action in each environmental type and size. Table 4 describes selected examples of project actions in each arena. Both draw from the author's classification of each action taken by each project in the adapted ANGELO framework (available from the author).

Most action concentrated on changing physical environments to improve opportunities for healthy eating or activity. This was particularly through programs and events, but also through more durable changes. Change in policy and economic arenas was less prevalent despite extensive discussion of these issues among project stakeholders. This is consistent with findings from a recent review on obesogenic environments.⁴⁷ While all three

initiatives offered some individual education, such as cooking classes and TV turn-off tip sheets for parents, health education was not a focus, in keeping with trends and recommendations noted in the literature.^{2,48,49}

All projects took some action at both the micro and meso levels. SUS worked mainly at meso levels, EWPH-C was relatively balanced between the two, and most WCP changes were in microenvironments. These differences were associated with longevity, with older projects like SUS having more time to branch out to larger-scale action. Also, Somerville's population density, small geographic size, and single layer of governance likely eased citywide changes. For example, Somerville could work with one school district to change the school food environment for all public school students in the city, whereas Chemung County has three school districts and Tompkins has five.

These differences may also relate to facilitator institutional location. SUS' facilitators have been based at City Hall in senior levels of the health department. EWPH-C split between middle rungs of the county health department and a local vocational organization. WCP worked through the county's extension office and increasingly used "grassroots" approaches, appealing not only to professionals, as SUS and EWPH-C do, but also citizens at large.

The people who volunteered with these projects were overwhelmingly female, 85% with SUS and EWPH-C and 76% for WCP. The core participants—as measured by attendance frequency in project meetings—were all female, including the top five in WCP and approximately the top 20 in the others. Most of these women held human services jobs. Observations and interviews indicated that they viewed their participation as relevant to their jobs, but also as "volunteer" in that none were assigned to represent their organizations and the meetings were in addition to rather than instead of other work-related commitments. Race-identity data were not collected, but interviews and observations indicated the participants were disproportionately (and sometimes exclusively) white with WCP in the first 3 years and with SUS overall. White women have served as project facilitators for SUS since project inception, for EWPH-C after the first year (a white man held the post first), and for WCP until 2008.

The discussion of potential implications of these cases below assumes two goals for childhood obesity prevention in communities: (1) Environmental change across the ANGELO grid and (2) decision making that includes the most affected individuals.⁵⁰⁻⁵³ These assumed goals aim for effectiveness and equity. The sections below discuss priority issues and promising strategies for supporting these goals that emerged from these three case studies. These sections also contextualize each issue and strategy in the wider literature. The discussion includes strategies for attracting project participants who reflect the socioeconomic, ethnic and racial composition of the communities in which they are working (see demographics in Table 2) versus the overrepresentation of white female human service professionals described above in some of the projects.

Table 4. Selected Examples of Project Actions

Environment: type ↓ size →	Micro-environment (e.g., one school or neighborhood)	Meso-environment (e.g., school system or city-wide)
<p><i>durable/infrastructure</i> Physical <i>program/event</i></p>	<p>New Crosswalk to reach a city farmers market. (EWPH-C) Congo Square Market founding, a fruit and vegetable stand and mainly new-to-vending stands at community center. (WCP; SUS also founded new farmers market) New sidewalk to a middle school through a safe-routes-to-school grant (WCP). New school bike parking at two elementary schools, and one with improved pedestrian access (SUS; EWPH-C also arranged bike racks at schools)</p> <p>Juneteenth bike give-away, 50 refurbished child and youth bikes with accessories are raffled at an annual community event (EWPH-C; continued after project ended). “Cooking up Community” events, citizens hosted meals to further community building and involvement, e.g., one served dinner at parent-teacher meetings, tripling parent participation. (WCP) Fruit & vegetable snack program, two raw fruit and vegetable snacks per day in one elementary school, started by New York Coalition for Healthy School Food (WCP partner).</p>	<p>Community path extension, participatory planning, 1.5-acre land acquisitions, securing right-of-way, and garnering \$3,500,000 to build it. (SUS) School food service equipment, extensive acquisitions for cooking from scratch. (SUS) School gardens, in 8 of 10 city schools, used in after-school programming (SUS; WCP partners also created and/or support several school and community gardens.)</p> <p>Milk taste-tests: promoting low-fat milk with 49 child care providers. (EWPH-C) Hunt for the Gold Shoes, a 4-week annual event where painted shoes are hidden in area parks. Over 300 participants bring shoes to a final event to exchange for raffle tickets. Prizes are activity equipment. In 2009 a pre-event hike was added with 120 people arriving early for it. (EWPH-C; continued after project ended)</p>
Economic	<p>Minigrants to support proposals for “TV-turn-off” week activities (EWPH-C). Minigrant for food service certification for a new vendor to Congo Square Market. (WCP) “Green Team” teen gardening jobs and training for summers and after school. (SUS; WCP also founded a Youth Farm that includes 25 summer jobs for teens.)</p>	<p>School Wellness Minigrants in 2007. All schools eligible. Five of 10 applied to implement school wellness policies. (SUS)</p>
Political/Policy	<p>Family cycling coordinator position created in county cycling club to lead family rides (volunteer). (WCP) Community center snack shop changes, no more sweetened beverages, only 100% juice and water; no more candy, only fruit cups, pretzels, and sun chips. (EWPH-C)</p>	<p>Pre-school exercise: After training, county Head Start classrooms began providing at least 30 minutes of physical activity daily. (EWPH-C) Pilot of direct qualification from social services in city school district for free/reduced school meals. (WCP) Guide to all new or renewed city construction, e.g., countdown lights for intersection replacements, higher bike-to-car parking ratios, bike lane additions. (SUS)</p>
Sociocultural	<p>Union Square Farmers Market by design, promotion of federal food programs, staff member to promote market, events, magnet give-aways and posters aimed at reducing economic and cultural barriers. (SUS) Gardens 4 Humanity (G4H) citizen and organization collaboration to support empowerment and self-sufficiency through home, school and community gardens. (Also do policy advocacy and infrastructure changes through building gardens and planting fruit trees.) (WCP)</p>	<p>5-A-Day promotion annually, including billboards, weekly taste testings at a farmers market, fruit/vegetable beanbag give-aways, article in area paper. (EWPH-C). Food justice “think tank” (2008) and summit (2011 & 2012) discussing obesity and food insecurity as symptoms of an unjust and unsustainable food system. (WCP) SUS-Approved Restaurant Program encourages food-service business to rethink and reframe their offerings, and clients to consider their decisions. (SUS)</p>

Selected examples of actions taken by three US childhood obesity prevention projects: Shape Up Somerville (SUS), Somerville, Massachusetts; Whole Community Project (WCP) in Tompkins County, New York; and Eat Well Play Hard Chemung (EWPH-C) in Chemung County, New York.

Commit Funding for Long-Term Project Facilitation

Investments in community initiatives should be long term, even if at a relatively low level. In WCP’s case, funding the salary costs of a coordinator was enough to stimulate environmental changes. In all projects, such changes increased in number and scope over time. While

some community obesity prevention initiatives are volunteer collaboratives, reviews of community health efforts suggest paid organizers are important for creating and sustaining action.^{54,55} With both WCP and SUS, having that coordination enabled members to prioritize, plan actions, and garner additional funding for implementation.

The funding beyond staff costs in EWPH-C actually led to a problem of needing to quickly “spend down” their action budget in accordance with state budget cycles. Interviewees reported that uncertainty of core funding for facilitators disrupted action in both WCP and EWPH-C, including by causing high staff turnover in EWPH-C (see Table 2).

As one WCP collaborator observed, “so much has happened and stopped, happened and stopped that people are very standoffish when things first start happening here because there’s no sense of continuity.” (KB) Several SUS participants noted risks of short funding timelines in projects intended to integrate research and attributed dominance of white, professional, middle-class women in the project in part to these short funding cycles:

- “We have this race against the clock...you can’t expect community-based participatory research to involve community organizing if you have a tight timeline.”
- “Relationship building needs to happen and that is slower than the typical white-dominated concept of how things happen.” (MR)
- “Community-based research does have community organizing elements, usually. That’s where the community has a chance to demonstrate its expertise, but when you try to short change either one...the community organizing piece usually is what gets short changed.”

As one leader in the WCP community noted, “healthy food, healthy families, and healthy communities is a long term investment—not a short term project.” (AC) Funding for at least 5-year spans, even if at lower levels, would give projects time and continuity to build stakeholder constituencies across the community, change community environments, and lay foundations for self-funding.

Form Project Networks

Face-to-face learning and action networks among projects show promise for:

- Sharing knowledge and providing foundations for larger-scale evaluations, as with the CO-OPs network in Australia.^{37,56}
- Providing conduits for technical assistance, including for policy and economic change.
- Informing direction of and building regional and national advocacy for policy change.
- Sustaining energy and enthusiasm of project organizers.

For example, the EWPH network of projects helped create state-level policy shifts in Women, Infants, and Children (WIC), which now supports only low-fat milk for toddlers and mothers, and in New York’s Child & Adult Care Food Program, which is piloting healthier food standards. Several SUS stakeholders returned from RWJF workshops feeling they are “part of a movement.” One noted that through these meetings participants “realize there isn’t a magic bullet and everybody is having the same challenges. These successes that seem very small are actually to be celebrated.”

The Convergence Partnership, CDC’s Healthy Communities Program, the National Collaborative on Childhood Obesity Research, and the USDA’s research programs in childhood obesity provide potential foundations for such networks in the United States.

Distribute Decision-Making and Action Powers

One SUS participant described project stakeholders as: “very white obviously, very female, people who get paid to work at community-based organizations, that get paid to be able to show up at meetings.” This quote represents the sentiment of many SUS participants. A key player in EWPH-C who reflected on that quote said, “actually, all of our partnerships are just about that.” As a participant in WCP until 2010, the author (also a white, middle-class female) observed similar demographics among that project’s stakeholders. This changed when CCE-TC recruited an experienced community organizer of color in 2008 who used strategies such as those discussed below to engage people from communities with the least access to healthy food and opportunities for physical activity.

Class, race, and gender uniformity in such projects is undemocratic, constrains ability to effect social change that meets the needs of diverse communities,^{57,58} and limits leadership development to create and sustain such change.^{55(p 390),59(p316)} Four promising strategies attempted by some project stakeholders to distribute powers for decision-making and action are discussed below, including challenges and achievements associated with each. Each requires commitment and intention. As one leader in the WCP community noted, “unless you really knowingly do it, change is not going to happen.” (AC) Someone in EWPH-C put it this way: “It has to be on purpose. It has to be intentional. Who are we really getting?”

Turning Tables

Stakeholders from each project described planning and action as happening around literal and figurative “tables.” Many noted that literal tables attract mainly white, middle class, female, human services professionals. WCP and SUS stakeholder comments included:

- “You can see by the people around the table that we’re not very good at reaching out to other communities.” (JL)
- “Let’s have a meeting. Okay. And you can always count on how many white people will be there and how many people of color and poor white folks won’t.” (AC)
- “People weren’t at the table because they couldn’t afford to get there. They didn’t know there was a table being prepared. They were never really invited, and does what’s being served at the table have anything to do with them?”

EWPH-C interviewees did not question the formal tables. Since 2008, such tables have not been a central WCP organizing approach. After the change in project facilitator that year, one WCP stakeholder noted: “before I feel like it

was up here, on top, speaking to the community. Now I think it's the opposite, the community speaking to what their involvement should be and what they need to be doing and how they would do it." (JH) A key decision-making strategy for some WCP and SUS stakeholders included visiting informal gatherings, particularly community gardens, and going door-to-door. WCP also supported "informal" community leaders in convening their own literal or figurative tables, including through mini-grants.

Paying Players

A white stakeholder told a story of two visiting interns of color asking after a SUS meeting, "Why is that whole group white?" And I said that's because who has those jobs and part of their job is to attend this taskforce." A WCP collaborator noted that for families struggling with low incomes, "compensation is big. You have to work to live." In recruiting for summer work on a youth farm, she said "every kid that I asked if they wanted to be part of the program, said yes...I was so surprised. What's totally different is an economic component, they're getting paid." (KB) A SUS partner also succeeds in recruiting diverse students to their gardening crews through stipends. Participation in WCP's Gardens 4 Humanity (see Table 4) has expanded after establishment of positions that earn a stipend.

Sharing power includes sharing funding, such as through stipends, part-time jobs, and minigrants. It also means hiring people who represent the community into positions that are paid to collaborate on community health projects. The demographics of WCP participation shifted not only through hiring a facilitator of color in 2008 but through her intentional efforts to connect citizens with ideas to resources they needed to implement them, including mini-grants and stipends. Racial diversity in the EWPH-C core partnership team stemmed in part from people of color serving in human services positions in the county seat. More research is needed to examine this anecdotal success in the use of stipends and hiring to engage people from affected but "underrepresented" communities to participate in project design and action.

Providing and Supporting Minigrants

Minigrants ranging from \$50 to \$5000 offer a promising means of changing the economic environment while also distributing labor and decision-making.⁶⁰⁻⁶² All three projects gave such grants. In two projects, WCP and SUS, members also received them. For example, in WCP, \$3000 minigrants seeded the Congo Square Market and Gardens 4 Humanity (see Table 4). These actions have expanded and have had 3 successful years with diverse community participation. However, these grants are "supportive but not sufficient" for reliably generating and sustaining action.^{63(p. 241)} For example, SUS and EWPH-C issued proposal requests that received insufficient applicants to distribute all funding. These projects sent their requests to

institutions, rather than being available to individuals, and applicants did not receive personal guidance and support in applying.

Employing "animators" or "catalyzers" to recruit applicants and provide flexible application modes (e.g., oral) may help to encourage applications from citizens who are unaccustomed to grant writing and suffer from health disparities. For example, the funding stream that supported the market and garden initiatives in WCP was designed specifically to nurture "natural leaders" in low-income communities by coaching applicants, inviting videotaped or written applications, and match-making with volunteer college students.⁶⁴ Funders should encourage minigrant strategies that include and support citizen action as a promising strategy, though this approach also bears further research.

Building and Nurturing Social Network Bridges

Academics have defined the term "bridge" as weak social ties that span "great distance in social space."^{65(p158)} Building such "bridges" may be worthy targets for investment⁶⁶ in enacting policy change. Many of the project stakeholders in this research appeared to agree. For example, one SUS participant said "the bridge people find each other and we do a lot of 'behind the scenes' beyond the formal tables, including working to bring more diverse voices into decision making." Some of Gardens 4 Humanity's success in creating new gardens has been through connecting city policy makers, community centers, and citizens. This kind of bridgework may facilitate more democratic "grassroots" participation in communities most affected by childhood obesity, by amplifying citizens' voices in local policy and service provision.

Conclusion

These three initiatives suggest that communities can change their environments to help prevent childhood obesity, including by working across the scope and scale arenas recommended by the ANGELO framework. SUS provides a top-down change model, with project sustainability, highly successful grantsmanship, and citywide environmental changes achieved largely through leadership at City Hall. EWPH-C represented a common community health promotion model of a "middle-out" coalition of mid-level human services professionals coalescing around a funding opportunity, a priority health issue or, as in this case, both. Their main actions were events and programs. When EWPH funding ended, many of the same people partnered on another state funding stream, and the project's two signature annual events have been continued. WCP was most successful in diversifying participation and building citizen leadership in the project by using the decision-making distribution strategies described above. The project achieved this with the least core funding of the three cases. This "bottom-up" model, anchored by a facilitator of color at a community-based

organization, generated mainly “micro-level” changes. However, these actions continue to grow in number and in scale as this article goes to press. For example, Gardens 4 Humanity activities are now going on countywide.

Partners in a 5-year initiative called Food Dignity, including WCP, are now enacting and evaluating such strategies to build healthier community food systems. “Bottom-up” approaches, which have the advantages of being more democratic and not hinging on who occupies elected offices, merit further field-testing not only in community-based childhood obesity prevention, but in building healthy communities overall.

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