COMMUNITY-BASED CHILDHOOD OBESITY PREVENTION: PERSPECTIVES, PRACTICES AND POTENTIAL

by Christine Porter

COMMUNITY-BASED CHILDHOOD OBESITY PREVENTION: PERSPECTIVES, PRACTICES AND POTENTIAL

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Childhood obesity rates in the US have tripled over the past 30 years and dozens of communities have launched prevention initiatives in the last 10. However, little research has been conducted on what stakeholders believe communities *should* do or on what community initiatives *are* doing. This dissertation addresses these gaps with three studies.

The first study identifies values underlying discourses about "choice" in childhood obesity prevention (COP) and discusses ethical implications. Through analysis of 105 stakeholder interviews it identifies three main "choice" frames: choice as freedom, choice as moral responsibility, and the influence of context on choice. Dominant values revealed were, respectively, autonomy, personal accountability, and social responsibility for enabling autonomy and accountability. COP strategies that respect these values include investing in developing agency through community organizing approaches and evaluating impacts of community prevention efforts beyond anthropometric and behavioral outcomes.

The second study identifies four perspectives on what communities should do to prevent childhood obesity using Q methodology with 95 people in an upstate New York community. One stance fits the environmental perspective common in public

health and three are variations of individual-responsibility-centered perspectives. Areas of agreement include providing access to free family activities and making fruits and vegetables more affordable.

The third study examines community-based COP practice through case studies of three COP projects, including interviews (n=22), participation in meetings/events (n≥7 per case), and document analysis (n≈100 per case). It profiles each project and maps its actions to the ANGELO framework. Project actions were concentrated in physical food and activity environments, being weaker in creating policy change and economic incentives for healthy eating and activity. Projects were also weak on involving those most affected by this issue, particularly youth. The study's concludes by proposing regional networking and technical assistance to tackle these weaknesses, leverage strengths, and build advocacy. It also questions the current community COP model, which entangles the solution-focused, values-based strategies of social movements with problem-centered, evidence-based approaches of obesity interventions. Bridging rather than confusing these by investing in related movements such as community food security, paired with technocratic obesity-specific interventions, may unleash more of the potential for effective and inclusive community COP.

BIOGRAPHICAL SKETCH

Christine M. Porter was born in 1971 in Rochester, New York, USA. After attending schools there and in Baltimore, Maryland, she earned a BS in Biology, with a concentration in Ecology and Evolution, from the University of Maryland, College Park. She then taught high school biology in rural Fiji for two years as a US Peace Corps volunteer, later moving to the capital, Suva, and working as a curriculum development officer with the Ministry of Education for a further two years. In this capacity she developed the senior high school biology textbooks still being used today in Fijian schools, as well as an HIV/AIDS prevention curriculum. She also met her future husband, Felix Naschold. Following a brief stint of consulting in the US, Christine moved to London, UK, in 1998 and founded the international office of a US web-based firm that provides research services to universities. She also began part-time Masters studies at the Institute of Education, University of London. After following her husband to Ithaca, New York in 2002, she completed her MA in Education and International Development: Health Promotion and consulted as a learning designer for Cornell University's online learning arm, eCornell. Christine began a PhD in Cornell's Adult and Extension Education program in 2005 and transferred to the Community Nutrition program in 2008. Her daughter Isabel was born in 2004 and Alexa arrived in 2007. Starting in 2006, Christine became deeply involved not only as a researcher, but as an actor in local childhood obesity prevention and food justice organizing, and now calls herself a "born-again citizen." Starting in August 2010 she will be an assistant professor of public health at the University of Wyoming.

For my favorite fellow players—Felix, Isabel and Alexa Naschold—and in insufficient honor of food democracy, justice and sovereignty organizers everywhere.

ACKNOWLEDGMENTS

This work relied on the insights and perspectives of the many participants in my research, the actors in the three childhood obesity prevention projects, my community and academic mentors, and the extensive literatures cited herein. I am deeply grateful for this wisdom and I hope I have made good enough use of it here to have made it worth the effort of sharing it.

I started a PhD in Adult and Extension Education to change the way I thought. I didn't know what was wrong with the way I was thinking or how I needed to change it, but I did know that ways to social justice were not visible from where I was standing. With two years of coursework with Sofia Villenas, Troy Richardson, Davydd Greenwood, Jeff Sobal and, especially, Arthur "Butch" Wilson and Scott Peters, I learned new landscapes of possible perspectives on the world and the language to talk about them, finally escaping the constraints of US society's dominant positivist, modernist and reductionist standpoints. Thank you.

Then I introduced myself to David Pelletier who introduced me to the Whole Community Project (WCP). Through this work, the concepts in Scott Peters' classes came to life. I became a born-again citizen, i.e., for the first time in my life, I thought of myself as a citizen (as opposed to an individual or, god forbid, a consumer) with public work to do (and—regarding the "born-again" part—take it too seriously and think everyone else has public work to do too). I have learned at the knee of many wise citizens and community organizers (even if they didn't know I was there), especially Jemila Sequeira, and also Alicia Swords, Audrey Cooper, Liz Karabinakis, Scott Perez, Wayne Roberts, and Hank Herrera. Thank you.

Then I transferred to Community Nutrition so that, frankly, I would be able to get a job in and succeed in the public health field. In that latter endeavor I received expert guidance from Kimberley O'Brien, David Pelletier and, especially, Kathleen Rasmussen. I should add that I also learned about public health nutrition from David and Kathy and how to begin framing my work to make it relevant in this field. Thank you.

Then, with help from Phil McMichael, Harriet Friedmann and Eva Monterrosa, I was finally able to make it all add up—my new ways of thinking about the world, community organizing, public health nutrition, and obesity prevention. Thank you.

In addition, I'd like to specifically thank the people who participated in this research, participated in one of the three community childhood obesity prevention projects, reviewed and checked/commented on my analyses. This includes Jemila Sequeira, Kirtrina Baxter, Marnie Kirschgessner, Judy Hoffman, Nicole Rioles, Virginia "Ginny" Chomitz and Lisa Brukilacchio. I am naming only those who gave me explicit permission to do so, but I thank you all. I hope I have done your work and your insights justice. If I have not, I apologize, and I take full responsibility for any errors or mischaracterizations.

I am grateful for travel, software, and transcript funding from Hatch and Smith-Lever grants and a Cornell Human Ecology Alumnae Association student grant and also for helpful suggestions from Boyd Swinburn.

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Chapter 1: Introduction

Child obesity in the US has tripled in the last three decades.[1] Since 1998, communities have been launching childhood obesity prevention projects, with perhaps 100 currently active specifically aimed at children and/or adolescents. In the early 2000s public health institutions began promoting and investing in such community-based prevention, an investment that has expanded dramatically in the last few years. However, little published research examines what sorts of approaches communities are taking or what stakeholders believe communities *should* be taking, much less the effectiveness of these community initiatives. This dissertation aims to contribute to the literature on perspectives on and action in community-based childhood obesity prevention in the US to help frame and ground future research and practice.

Background

This section reviews the literature on childhood obesity as a problem, causes of childhood obesity, childhood obesity prevention, and community-based prevention.

Childhood obesity as a problem

Childhood obesity has been cast as one of the most serious and potentially costly current public health issues, threatening to reverse the health gains of the last 50 years.[1] Childhood obesity became the number one child health concern of white adults in 2008 and the top concern of whites, African-Americans and Latino/as by 2009.[2, 3]

[1] Overweight and obesity in children has been defined as a body mass index (BMI—a height and weight calculation) above the 85th percentile and 95th percentile, respectively, for their age. This is unlike adult designations, which are based on absolute BMI cut-offs (25 for overweight and 30 for obese). Both BMI as a measure of fatness and these categorizations are controversial, especially as individual clinical measures. However, few to none challenge BMI's usefulness as a population-wide metric that indicates our collective fatness and thinness and its changes over time.

Currently, about a third of children over 2 are overweight and, of these, half are obese.[4, 5] This rise in child fatness has been accompanied by a rapid spread of concomitant health problems. For example, rates of type II diabetes in childhood have soared, so much so that the medical community has had to drop the former moniker of "adult onset" diabetes.[6] While the steep rise in childhood obesity rates may be tapering,[5] about 35% of babies born in the US in 2000 can expect a diabetes diagnosis at some point in their lives,[1] and diabetes is only one of many health problems stemming from obesity. Obesity increases risks for cardiovascular disease[7] and several kinds of cancer.[8] Childhood obesity is linked with premature death in adulthood.[9] It also damages economic, social and emotional health, especially among females. For example, obesity has been associated with lower income and educational achievement, school absenteeism, lowered self-esteem, and high risk behaviors.[10-12] This is likely not because of obesity itself, but the stigma our society has attached to it, with the bullying, teasing and marginalization that accompanies that stigma.[13, 14]

Obesity rates have been rising in all groups, across race, age, class and gender. However, as with many other health issues, children in families struggling with poverty and in most communities of color suffer disproportionately from both obesity and resulting health problems.[6, 15, 16] For example, an African-American teenage girl is twice as likely to be overweight as her white counterpart.[4] Among whites, lower educational attainment is associated with higher obesity rates.[17] Also, even if aggregate measures may be showing reduced incidence, childhood obesity rates seem still to be rising in communities most affected by obesity.[18, 19]

Causes

An ecological model[20] for the causes of and solutions to obesity has been almost universally accepted and adopted in the health fields, at least in theory. An energy

imbalance, where a child consumes more calories than she burns, is normally considered to be the "ultimate" cause of childhood obesity. However, the ecological model considers the "upstream" and environmental factors that interact with and influence calorie intake and expenditure. Davison and Birch developed the childhood-obesity-specific ecological model shown in Figure 1 to illustrate where empirical research may indicate links to childhood obesity. Beyond biology and behavior, these factors would include everything from what the child's parents eat to crime rates in her neighborhood. Some model representations split the outside layer into two, adding an explicit society, culture and/or public policy outer ring. In an expanded childhood obesity model, this additional layer would include influences like food advertising (both the ads themselves and their regulation) and zoning laws.

The farther researchers move out in the model the more difficult it becomes to demonstrate direct associations, much less causal relationships, between these factors and childhood overweight. This, along with an individualistic cultural tendency, may be reasons for a starkly disproportionate focus on child and parent characteristics in the childhood obesity literature, in spite of the theoretical acceptance of this model.[21]

In empirical and theoretical peer-reviewed literature, commonly mentioned causes for and associations with the increase in childhood obesity nearly all relate to increases in calorie intake or reductions in activity. On the intake side, these include increases in portion sizes, increase in sugars and fats in the food supply, replacement of milk and water with soda, increased exposure to and sophistication of child-directed junk food marketing, skipping breakfast, vending and á la carte sales of unhealthy foods in schools, fast food consumption, and low intakes of produce and whole grains. Related parenting issues associated with childhood obesity may include formula feeding (instead of breastfeeding), lack of family meals, controlling food practices (e.g.,

instructing children to clean their plate or coaxing to consume particular foods such as vegetables), and using food as a reward or comfort.

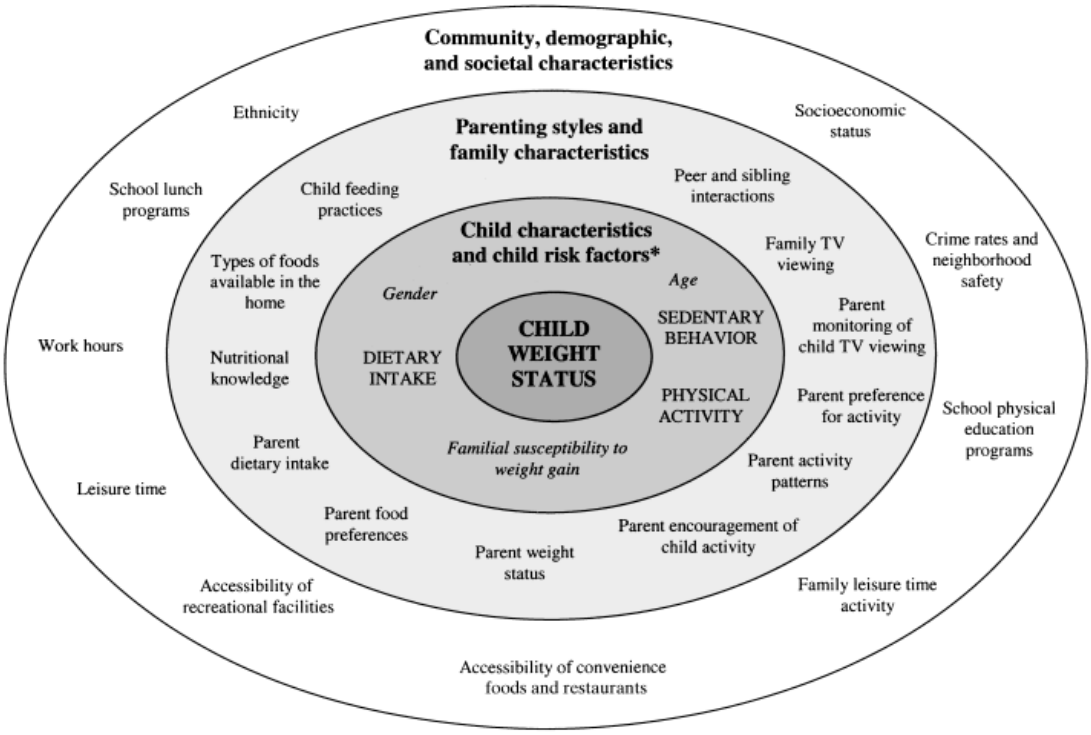


Figure 1: Ecological model of predictors of childhood overweight

Child risk factors (shown in upper case lettering) refer to child behaviours associated with the development of overweight. Characteristics of the child (shown in italic lettering) interact with child risk factors and contextual factors to influence the development of overweight (i.e. moderator variables).[21: 161]

On the activity side, commonly cited issues include reduced physical education and recess in schools, increased screen time (TV, computers, video games), reduction in walking or biking to school, and a reduction in active play outside of school.

Reviews of empirical investigations of such nutrition and activity associations with obesity tend to conclude as this one does:

> Although there are multiple aspects of diet that have changed over the past several decades that may account for the association between diet and obesity, the available literature does not generally support a consistent association between most dietary factors and obesity among children… the strongest conclusion that can therefore be made from this review regarding associations between dietary

intakes, eating behaviors, and childhood obesity is that more research is clearly needed.[22: 51]

Prevention

Failure rates for individual interventions after excessive weight gain are so high that academics increasingly are agreeing that prevention is the only "cure", with environmental changes essential to such prevention.[1, 23] However, the evidence base for effective prevention strategies is even smaller and weaker than on causes.[24]

Several reviews of interventions to prevent childhood obesity have appeared in the past decade. While some find positive impacts of interventions on behaviors, if not on actual fatness measures, each concludes that research design has generally been poor, follow-up too short, and/or that major gaps in particular areas (e.g., interventions on environmental factors or with pre-school children) and on factors beyond efficacy (e.g., cost or sustainability) need attention. For example, one reports that "systematic reviews of this topic have not provided practice-relevant guidance because of the generally low quality of research and the heterogeneity of reported effectiveness."[25] Another notes, "the mismatch between the prevalence and significance of the condition and the knowledge base from which to inform preventions activity continues to be remarkable."[26] Most studies reviewed intervened only in the inner circles of the ecological model.[27] A recent review of reviews also complains that such reviews have provided little information relevant to practice.[28]

Perspectives

Research examining perspectives on causes, solutions and responsibility regarding childhood obesity prevention has generally applied one of three methods: content analysis of published texts, surveys, and analysis of focus groups and/or interviews.

Some content analysis of popular media coverage of childhood obesity has found a rise in attribution of causes of the problem to systemic or environmental factors[29, 30] but this does not appear to have translated into advocacy for social responsibility (as opposed to individual responsibility) for solutions.[30, 31]

Some work has also surveyed parents and other adults about their views on responsibility for childhood obesity causes and solutions. This has tended to indicate a preference for both individual causes and solutions. For example, in a survey of over 1000 US adults, 91% said that parents bear "a lot of responsibility" to reduce childhood obesity.[32] TV advertising and children themselves were distant seconds at 45% and 39% respectively. Government was last, at 17%. On the causal side, the explicitly systemic causes (lack of exercise in school, lack of places to exercise and crime) were chosen the least as "significant" contributors to childhood obesity (vs. junk food and sodas, fast food, and watching more than 2 hours of TV, which were the top choices).

Focus group and interview approaches allow a more nuanced exploration of perspectives on what stakeholders believe should be done to prevent childhood obesity. A number of studies, particularly with parents, have been conducted, and a recent review of 21 such studies mapped the themes that emerged to the ecological model, as shown in Figure 2. Overall, participants focused on individual and family-level causes and solutions, though parents also identified a number of barriers at more macro levels to healthy child and family behaviors presumed to prevent obesity, as shown in the outer ring.[33]

On the whole these studies indicate a tendency in the US to focus on individual and family-level approaches to childhood obesity prevention. However, they also indicate

arenas for acceptable community and higher level social action for prevention which, if shifting media framing of causes is any guide, are growing.

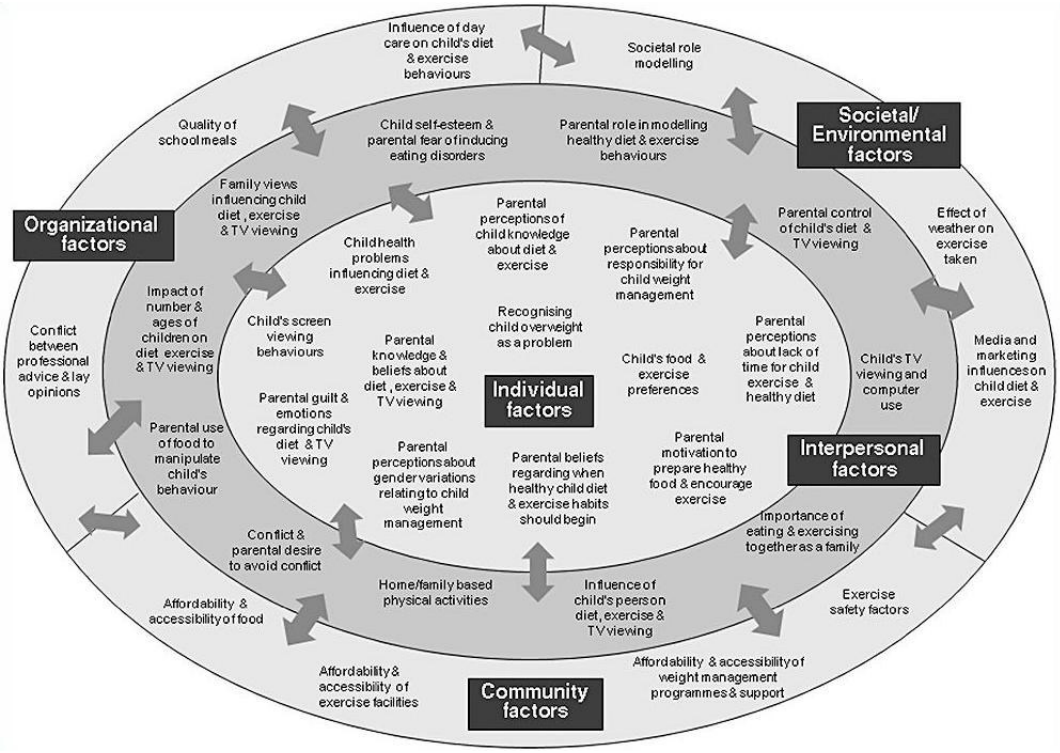


Figure 2: Childhood Obesity Parent Interview Themes Mapped to Ecological Model reproduced from 33: 347

Communities and childhood obesity prevention

The Institute of Medicine (IOM) has argued that "prevention of obesity in children and youth is, ultimately, about *community*."[1: 193, emphasis in original] Given all the other possible layers of the ecological model and a historical health promotion focus on individual behavior, this is a notable claim. It reflects a recent "paradigm shift" in obesity prevention from individual to environment,[27] as well as the overall increase in interest in community-based health promotion approaches (including community-based participatory research, or CBPR) in the last decade.[34] For example, two of the childhood obesity prevention reviews mentioned above noted a trend towards increasing community involvement in the intervention studies.[23, 26] Milestones

marking an increasingly coordinated focus on childhood obesity prevention, including community-based prevention, are summarized in Table 1.

Table 1: Selected US Milestones in Childhood Obesity Prevention

Year	What	Who
1998	First community childhood obesity prevention project founded (that I have 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[35]
1999	Division of Nutrition, Physical Activity and Obesity (DNPAO) founded	Centers for Disease Control (CDC)
2001	*Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* published[36]	Department of Health and Human Services
2002/ 2005	IOM report on childhood obesity prevention commissioned/published[37]	CDC and Robert Wood Johnson Foundation (RWJF)
2005/ 2007	IOM report on progress in childhood obesity commissioned/published[24]	RWJF
2007	RWFJ announces $500 million investment in childhood obesity prevention,[38] much of which is later invested in community-based projects[39]	RWJF
2007	Web-based Childhood Obesity Action Network (COAN) of healthcare professionals founded (3589 members as of May 10th 2010)	National Initiative for Children's Healthcare Quality (NICHQ)
2007	First (and still only) controlled study of community-based childhood obesity prevention published, with positive results	Economos et. al on Shape up Somerville[40]
2007	Healthy Eating Active Living Convergence Partnership launched	Including CDC and RWFJ
2008	First (and still only) national workshops convening stakeholders in community-based childhood obesity prevention projects held	IOM[41] and CDC[42]
2008	IOM standing committee on childhood obesity prevention formed	CDC and RWJF
2008/ 2009	IOM report on local government actions to childhood obesity prevention commissioned/published[43]	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[44]

In spite of the interest and growing investments in community-based childhood obesity prevention work (as opposed to prevention in individual, family and school-based settings), very little on this approach appears in the academic literature.[45, 46] So far in the US, the only community-based intervention to lead to published results showing impact on child fatness measures has been Tufts University's Shape up Somerville (SUS) study, a controlled trial with a CBPR community-wide intervention. In year two of this three-year, $1.5 million intervention, the researchers found a reduction in annual weight gain of about a pound per child in 1st to 3rd graders in the intervention community vs. the two control communities.[40] Another (arguably *the* other) large-scale community prevention project in the US is Consortium to Lower Obesity in Chicago Children (CLOCC), which has published some process papers.[47-49] Also, outside the States, results from Europe's EPODE (*Ensemble, prévenons l'obésité des enfants*, or Together, let's prevent obesity in children) look very promising.[50]

An editorial that opened an issue of the *New England Journal of Medicine* last year argued:

> It is obvious by now that weight losses among participants in diet trials will at best average 3 to 4 kg after 2 to 4 years and that they will be less among people who are poor or uneducated, groups that are hit hardest by obesity. We do not need another diet trial; *we need a change of paradigm*… Like cholera, obesity may be a problem that cannot be solved by individual persons but that requires community action. Evidence for the efficacy of the EPODE approach is only tentative, and what works for small towns in France may not work for Mexico City or rural Louisiana. However, the apparent success of such community interventions suggests that *we may need a new approach to preventing and to treating obesity and that it must be a total-environment approach that involves and activates entire neighborhoods and communities*. It is an approach that *deserves serious investigation*, because the only effective alternative that we have at present for halting the obesity epidemic is large-scale gastric surgery.[51: 924, emphasis added]

This dissertation aims to be a part of that investigation and to push for the paradigm change I believe is needed to make community-based childhood obesity prevention both more effective and more ethical.

Frame & Ground

I have approached this work from an *a priori* ethical standpoint that community-based childhood obesity prevention should be radically democratic, not (just) because it is effective, but because it is right and good. The "radical" part of this, as Chantal Mouffe explains, is to "abandon the myth of a transparent society, reconciled with itself, for that kind of fantasy leads to totalitarianism." She continues:

> This is the best way, particularly when a range of citizens acknowledges this internal strife, to define the limits, norms and ends appropriate to the common life… [we need a] hegemony of democratic values… institutionalizing them through ever more diverse social relations… it is in this way–and not by trying to provide it with a rational foundation–that we will not only be able to defend democracy but also to deepen it.[52: 222, 230]

For insights on how to practice such radical democracy, I have turned in the literature particularly to Iris Marion Young,[53, 54] Harry Boyte[55] and, within health, David Buchanan.[56] My study in this area was guided or influenced by academic mentors including Scott Peters, Arthur "Butch" Wilson, Sofia Villenas, Phil McMichael and David Pelletier. Most importantly, community organizers who do this every day brought this intellectual work to life for me by letting me into their lives, especially Jemila Sequeira and Hank Herrera, and also Audrey Cooper, Scott Perez, Liz Karabinakis, and Mary Regan.

I am striving for a standpoint rooted in a radically axiological paradigm, as outlined by philosopher Hugh McDonald.[57] Ontological questions ask, "what is?" Epistemological questions ask "how can we know what is?" Axiological questions ask, "what should be?" and "how should we make it be?" Radical axiology poses

these values questions as the foundation for answering ontological and epistemological ones.

Conventional research normally begins with ontological and epistemological (and often technical) questions. For example, does calcium interfere with iron absorption? To find out, can we use epidemiological data or should we conduct a randomized controlled trial (RCT)? In an RCT, will studying a few meals suffice, or do we need to conduct a whole diet study?

Radical axiology does not preclude these kinds of questions. It just comes before them to guide both which to ask and the work in answering them.[58] I have attempted to have such values-driven questions come first in this research.

Investigation

As claimed in the title, these studies aim to examine perspectives, practices and potential in community-based childhood obesity prevention in the United States.

The first two papers investigate perspectives on what communities should (and should not) do to prevent childhood obesity. Chapter 2 surfaces values underlying discourses about "choice" and discusses their implications for action given my own radical democracy frame above. Chapter 3 identifies perspectives more holistically (as opposed to the narrow lens of "choice") on what stakeholders in one community believe we should do, as a community, to prevent childhood obesity.

Chapter 4 examines practice through deep case studies of three community-based childhood obesity prevention projects. It profiles these three initiatives and documents the actions each has taken. This study then segues to interpreting this practice in relation to potential, mapping ways each has succeeded in generating action to change obesogenic environments and suggesting potential explanations or understandings of

the gaps. It proposes several strategies for tapping more of the potential these initiatives may have to generate community action to prevent obesity.

Finally, the concluding chapter addresses how well the actions of the three projects documented in Chapter 4 match the values and perspectives documented in Chapters 2 and 3. Given this comparison, the learning from the three case studies, and the radically democratic stance of this research, I sketch a larger strategy for community-based childhood obesity prevention in the context of a "national movement to reverse the childhood obesity epidemic."[59]

Chapter 2: Valuing "choice" in community childhood obesity prevention

> "Figuring out how we should live, individually and collectively, is a moral and political process, not a scientific problem to be solved."[60]

Nearly 20% of pre-school aged children in the United States are obese.[61] One-third of US children born since 2000 are expected to become diabetic, rising to half for African-American and Latina/o children.[1] Other rich countries, and rich families in poor countries, are following our lead.[62]

We largely agree this isn't how we should live. However, how to change how we're living is a much more contested question. This paper examines a slice of the morals and politics of community-based childhood obesity prevention through the lens of "choice." Moral values underlying common discourses about "choice" in US obesity prevention matter for two reasons. One, the word calls into play public health ethics themes of autonomy, responsibility and paternalism. Two, community prevention efforts should build on our moral values for reasons both practical and ethical.

This paper first describes three different ways people used the notion of "choice" as it related to childhood obesity prevention in the course of interviews about community-based prevention (n=105) and surfaces the implied moral understandings underlying these uses. Second, it engages philosophical public health debates, such as about autonomy/paternalism and structure/agency, to discuss these "choice" discourses in these contexts. Third, it draws on both the empirical and theoretical work to suggest democratic and non-paternalistic community approaches to childhood obesity prevention that respect these varied moral understandings of "choice."

Methods

Data

The empirical part of this paper, on discourses of choice, draws from three sets of semi-structured interviews with adults about childhood obesity prevention (total n=105), particularly the roles of communities in prevention. One set (n=29) was conducted in 2006 with stakeholders in child health and wellbeing in an upstate New York community as part of founding a new community childhood obesity prevention initiative. Analysis of these 29 interviews is based on only partial transcripts. At that time I transcribed only those passages that seemed relevant to the project development (e.g., advice on causes of, responsibility for, and strategies for childhood obesity prevention). Quotes from these are identified as (a). Another set (n=54) was conducted in 2009 following a research exercise that asked a different set of people in that same community to sort statements about the role communities should play in childhood obesity by how much they agreed or disagreed with each. Interviewers asked participants why they sorted the way that they did. These two sets of participants were recruited through strategic snowballing, with "strategic" part being regular recalibration of recruitment to achieve demographic diversity and to include key stakeholders in community childhood obesity prevention (e.g., parents, teachers, medical professionals, and human service professionals). Quotes from these are identified as (b).The third set of in-depth interviews (n=22) were conducted in 2009 and 2010. Participants were recruited from stakeholders/members from three community-based childhood obesity prevention projects in the northeastern US. Quotes from these are identified as (c-i) for those from participants in the same upstate New York community as (a) and (b). Quotes from the other two sites are identified by (c-ii) and (c-iii). An "m" appended to these, e.g., (c-ii-m) means the quote comes from a public setting rather than an interview. Finally, in each of these quote identifying

codes, the last number indicates a person, so two quotes identified as (a2) and (a3) are from two different people interviewed in 2006 in an Upstate New York community.

The first two sets of interviews were conducted by me or by members of student research teams. The third set I conducted myself. These interviews were not about "choice" in particular, but about the roles communities should, could or do play in childhood obesity prevention.

Analysis

The analysis included transcripts of these 105 interviews. I also reexamined my field notes from dozens of meetings related to the three community childhood obesity prevention projects and reviewed childhood obesity prevention literature as context for this work. Unless otherwise noted, the quotations used here are from these interviews or meetings.

Using ATLAs.ti,[63] I coded these interview transcripts and notes for uses of the word "choice" and its variants (e.g., chose, choices, choose). I also coded for synonyms when their use related to decision making or influences on those decisions (e.g., decide, options, decision). In the reports generated of these coded passages, I analyzed each use of these terms for its framing.

Frames are the "metamessages" in which we embed our communications, consciously or otherwise, largely determining their meaning.[64, 65] Framing heavily influences interpretation and understanding, including indicating how we should understand an issue; "framing is about more than a message. It is about what a society values."[66] In most cases the framing was transparent, as in most of the quotes presented here. In the few cases it was not, I used grammatical critical discourse analysis tools to pick apart the sentences.[67]

In the discussion, I drew on this empirical work and on philosophy, public health ethics and radical democracy literatures to contextualize the "choice" frames identified.

Results

Three "choices"

Talk in these interviews about obesity prevention tended to frame "choice" in three ways. Interestingly, nearly all of this "choice" talk was about food or more abstractly about lifestyle. Very few comments using choice-related language were about activity.

1. Having choices (freedom)

One frame cast choice as freedom to choose from a variety of options, especially food options, with minimal restrictions. For example, a school food director described the crux of the job as providing a variety of food choices to students, including the majority who "don't have a problem" with weight (c-i-m1). One person said, "I think people have a sense of empowerment when they can choose." (b1) This choice-as-freedom frame assumes and values individual autonomy. For example, one parent and youth worker expressed mixed feelings about pressuring restaurants to offer healthier child menus, "I'm a big protector of individual freedom and personal choice… The opposite end of the spectrum has this big brother, 'I'll tell you what to eat, this is how to live' kind of thing." (b2)

Some noted a need for information to help navigate these choices, for example, "Freedom has to do with making choices and to make choices you need the information about the choices that you're making" and "let people have choices, let them make educated choices." (b3) This expressed need for education or information bleeds a little into the context for choice frame below, as discussed later.

2. Making choices (responsibility)

A second framing was choice as individual responsibility. A parent at a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) clinic used this frame when she said:

> I shouldn't be going to a fast food restaurant in the first place but if I happened to go, then there's a choice, either getting something crispy or grilled. That's really on me. I think it falls on ourselves to make the right choice. (a1)

The words "shouldn't" and "right" are value-laden. So is the word "accountable," as in "if they had fresh produce at the food pantry then they would have that choice, then they could be more accountable to choose fresh produce over the junk food." (b4) This latter quote also bleeds into the context frame, with conditions of availability being necessary to render someone accountable for their choice in this case.

A moralized responsibility notion of choice reflects conventional American values of self-control and willpower and, perhaps, a direct health imperative.[68] Americans tend to make moral judgments of others by the healthfulness of what they eat[69] and view obese people as morally lacking.[70] This frame tends to accept the freedom frame and assume individual autonomy.

3. Influencing choices (context)

A third framing widened the picture to include policy and other environmental contexts for individual choice. The common sentiment in health promotion of "making the healthy choice the easy choice" epitomizes this frame.

In these data, those who employed a context-for-choice frame usually accepted the moral values underlying the individual frames while challenging their assumptions. For example, people occasionally used this frame to highlight private-sector vs. state threats to freedom. One person said "putting all the power in all the [food] production

and in the distribution, rather than in the consumer, although it's voiced as giving it to the consumer, this is an esoteric trick." (b5) Another argued, "making people fat protects capitalism but it doesn't protect individual freedom. It protects the status quo." (b1) Most often, while accepting or even advocating the individual responsibility ethic, the context frame was employed to question "response-ability"[71] assumptions. This asks how *able* people are to make healthy choices. For example:

> You can't tell people what to buy in the supermarket for their home use. But hopefully if there's enough education out there then they would make some healthy choices. (a2)
>
> How do you expect families that are struggling to be healthier if they can't afford it and it's not provided for them? (b6)
>
> I don't agree that parents actually have the *ability* to take responsibility. Yes, they should take responsibility, but for various reasons it can be hard. (b7)

These uses of the frame generally imply that improving contexts for choice, even if in some cases only through education, will meet the assumptions of the first two frames.

However, the context frame does not inherently encompass the values underlying the two individual frames. For example, reacting to a statement explicitly in a choice-as-freedom frame, one person argued, "what that perspective calls a nanny state the rest of us call a functioning society, abiding by a social contract." (b8) This assigns value to the group, not just the individual. Another noted that "nannies can nurture," (b7) suggesting that the care and support provided by choice restrictions can have positive moral value, not simply function negatively as curtailment of individual liberty. As discussed more below, restricting choices for children was often palatable as a way to enforce healthier choices since children may not yet have the capacity to choose wisely ("children don't have the same reasoning as adults, and no matter…even if they're a kid that eats healthy at home, a lot of kids, if they see two choices and they see junk food versus healthy food, they're going to go for the junk food,

unfortunately") (b4) and/or to help scaffold child learning about how to choose responsibly.

Power to Choose

Framing heavily influences how we understand a problem and, therefore, its likely solutions.[65] "Ultimately, framing is about more than a message. It is about what a society values."[66] Although the values underlying the three choice frames may not always have been shared among these interview participants, they are not mutually exclusive. In fact, single individuals often talked about choice in two or even all three ways.

Teaching children how to choose

Some people talked explicitly about teaching children how to choose responsibly. For example:

> We have to give children the opportunity to make healthy choices. Even if we did that [mandate "healthy" children's menus in restaurants] in this area or this county, they're going to be exposed to lots of events where there's gonna be some pretty unhealthy food on the table. We need to give them a chance to make some informed decisions with the support of their parents, teachers, and community members… we are demeaning our children by trying to eliminate the possibility of them taking ownership. (b9)

One talked about improving sociocultural influences, saying "there should be more positive images of young people being active and eating healthy foods, I think that is impactful on children's choices about how they take care of themselves." (b10)

Some simply suggested that schools should limit choices for children, even if they otherwise employed a freedom frame for choice, without explicitly mentioning a teaching function for this. For example, "decisions on what to eat are personal choices, but the schools should focus on providing just healthy foods." (b11) Another echoed this sentiment, "I think the decision about what types of food to eat is a personal

choice. If you don't like what is at the school or youth center, you could supplement it somewhere else, but I think schools and youth centers have a responsibility to promote the health of the people." (b12) A third took this argument further, arguing that schools robbed parental autonomy if they did not place such restrictions on children's food options:

> If parents do teach their kids well, but schools have vending machines with unhealthy food and drinks for profits, schools override parents' right to make choices for their children. They are taking away a parent's right to teach and enforce their kids' healthy habits. (b13)

Many also talked about parental responsibility in lieu of the child's, as is implicit in the above quote. Another person said, "when you see a 6-year-old and they're like damn near 100 pounds the first thing that runs through your mind is 'what the hell are their parents doing?'" (b14) A former teacher argued, "I saw what parents would pack for the children to eat for their snacks and lunches and they weren't always the most healthy choices, especially for the children who were overweight. Childhood obesity is really the parent's responsibility." (b15)

Enabling autonomous choice

With few exceptions, the discourses about choice tended to endorse or, at least, assume core values of freedom and of personal responsibility. The differences usually lay not in these underlying values, but in implicit or explicit beliefs about how much agency people have to be able to choose. For example, the two people quoted below differ on what counts as enabling autonomous choice:

> God gave us all free choice. Once you get the knowledge that changes your free choice. Once you know this is how to eat to maintain a healthy lifestyle and then you choose not to do it, then it's on you. Instead of making it a law, you give people the knowledge. (b16)

> While some people can have this personal choice, most of the people who are obese, overweight or unhealthy because of food they eat don't necessarily have the choice. I don't believe that even with the knowledge and education everyone has

the equal ability to change and make the choice. (b17)

One suggests knowledge suffices while the other believes it takes more. Often, the positions expressed on what supports are adequate to confer autonomy (and, with that, responsibility) were "soft," with most people using more than one frame about decision making. For example, the person quoted first above also said "it's not fair to expect struggling families to have the energy and determination it takes to eat well" and that you "can't really blame" parents who keep children inside for safety. (b16) Similarly, the WIC participant who noted her responsibility for choosing grilled over crispy food later mentioned she'd like to eat healthier and organic, "but it's not in my reach. Not by a long shot." (a1) Another parent picking up WIC checks was explicit about both the capacity and context for her food choices: "I think if you're determined to have a healthy diet that you find ways to work with it but, you know, I know that when I go in the grocery store all the junk food is cheaper." (a2)

Changing the system

As a more extreme version of enabling healthy choices, some used the context frame exclusively, focusing on the structure side of the classic structure vs. agency dialectic. As one public health professional said, "I tend not to think of things in terms of choice because my background is systems… as opposed to promoting choices, just creating a structure that's naturally healthy." (c-iii1) Another took this even further, debating the merits of approaches that "make the healthy choice the only choice," (c-iii2) which would clash with the freedom frame and obviate the responsibility one.

Discussion: Values of "choice" in the great debates

This section discusses the moral values underlying these "choice" frames in the context of the greatest (and heavily intertwined) public health debates, particularly in

ethics. It assumes that the values underlying these frames are all potentially ethical ones, with the exception of when they are used as described in Box 1.

Box 1: Who is being framed?

The responsibility and context frames can be used in ethically dubious ways. The responsibility frame can employ socially acceptable values of individual accountability as a cover for stigmatizing fat people and possibly for race or class discrimination.[72, 73] For example, a study of causal attribution in the news media found that "articles that mentioned the poor, blacks, or Latinos were statistically more likely, compared to those that did not mention these groups, to ascribe higher weights to poor food or exercise choices."[31] Some counter such responsibility discourses using the context frame by warning against "blaming the victim." This use, however, risks painting people–often poor people or people of color–as incapable, powerless and/or ignorant (e.g., who need to be "provided for" and who do not have "ability"). For example, one mom managing on almost no income responded to a proposal to motivate and educate parents about childhood obesity, saying "it sounded a little bit like condescending, like we're going to educate you on why you're fat." (b18)

Autonomy and paternalism

Of the debates discussed here, the one about autonomy and paternalism is most fraught with definitional issues. For example, some have posed the "essence" of paternalism as "wanting to do good for another person."[74: 194] The standard philosophical definition, by Dworkin, is "the interference of a state or an individual with another person, against their will, and justified by a claim that the person interfered with will be better off or protected from harm."[75] He elaborates:

> I suggest the following conditions as an analysis of *X acts paternalistically towards Y by doing (omitting) Z*:
>
> 1. Z (or its omission) interferes with the liberty or autonomy of Y.
> 2. X does so without the consent of Y.
> 3. X does so just because Z will improve the welfare of Y (where this includes preventing his *[sic]* welfare from diminishing), or in some way promote the interests, values, or good of Y.
>
> Condition one is the trickiest to capture.[75]

Definitions of autonomy (the tricky condition to capture) tend to accord with this one: "the capacity to be one's own person, to live one's life according to reasons and motives that are taken as one's own and not the product of manipulative or distorting external forces."[76] Drawing on Charles Taylor, one philosopher distinguishes between "shallow" autonomy as "making autonomous choices/decisions" and "deep" autonomy as "being an autonomous person."[77: 392] He goes on to argue, "the exercise of deep autonomy consists in reflection on the values by which one's life will be structured… having and exercising control over one's life."[77: 393] Autonomy requires agency and assumes an individual (vs. communal or group) world view.

Particularly relevant to this discussion, public health ethicist Nys blends these definitions by arguing that "respect for autonomy means showing respect for those choices, decisions or preferences that are appropriately rooted in a person's value-system."[78: 66] He cites an essay by Archard limiting the notion of "choice" to "major life-affecting choices and across life-times; we do not value autonomy—or do not value it to any significant degree—merely when it allows a one-off choice from the restaurant menu of a main course. Autonomy is global, not occurent."[cited in 78]

By these accounts, many of the "choices" in the choice-as-freedom discourse analyzed here are would not fall under this rubric of autonomy, for example, providing a variety of entrée options for school lunch. However the larger "big brother, 'I'll tell you what to eat, this is how to live' kind of thing" (b2) captures the notion of shallow autonomy. The framing used by a few of the people considering influences on choice may have entered the realm of deep autonomy. Also, it is likely that some people view having a variety of choices in a daily sense as being about autonomy and freedom, even if philosophers don't concur.

In the case of children

Children need caregivers; even John Stuart Mill favored paternalism with minors. Similarly, even those who strongly valued autonomy, per the choice-as-freedom frame, tended to believe children cannot and should not be fully autonomous, as in the examples about limiting food in schools and youth centers and teaching children how to make healthy choices.

From an adult perspective, this creates some common ground for paternalistic policies in schools and child care settings, though contention seemed to begin at what I'll call a "cupcake line" about bake sales and birthdays in schools. One parent said, "I think it's important that proper foods be available for kids. I do think we have to be careful we're not being 'super food police.' Never having a cupcake cross the door is, I think, a little bit extreme." (b3) Another commented "let's not turn into food Nazis!" (b19) A third complained, "telling people that they can't sell cookies for a fundraiser, I mean gimme a break." (b20) In one school wellness committee meeting, a suggestion that adopting stringent Institute of Medicine standards[79] would apply to fundraising as well as à la carte sales scuttled plans to recommend them.

However, from a youth perspective, though not included in this research, changing school food offerings without youth input or consent might be seen as unjust infringement of their autonomy, particularly for older youth. Results of the study reported in Chapter 3 seem to bear this out. Only one participant in this research explicitly raised this issue (see quote from b9, above).

Agency and structure

To have autonomy, particularly deep autonomy, we must have agency; i.e., the capacity to reflect on and develop the values by which to structure our lives, and to make choices and decisions accordingly. Societal structures, however, influence, limit

and sometimes determine the values we hold and the choices we can or do make. People in this and other aspects of my research tended use the word "systems" to refer to this notion of structures or, particularly in communities our society marginalizes, the phrase, "the system."

Giddens reconceptualized this ancient philosophical structure/agency dualism as a duality. In his theory of structuration, structures and agents are interdependent and mutually constituting, i.e., the rules and conditions of our context affect our actions and our actions affect the rules and conditions. His theory incorporates the concept of "routinization," or the habits of day-to-day social activity, which is one site of agency-structure mutual production and reproduction.[80]

The structure-agency debate formed the crux of the differences among those interviewed for this research about what counts as sufficient structural support to confer agency and, thus, responsibility for, making "right" choices in the moral frame. Some thought education and information should suffice, others implied or mentioned more extensive structural constraints such as pricing, poverty, and availability. For example, an immigrant mocked the "choices" common on American menus, "I eat pizza or I eat hamburgers and fries. No I eat hot dogs. There's some kids who only ever eat pizza and that's their personal choice but it obviously is within the choices offered." (b7) But for the most part, those using the "context for choice" frame also shared the values of autonomy and moral responsibility underlying the other, more individualistic choice frames.

Individual and group

Autonomy and agency are about individuals. Public health, public health paternalism, and structure are about groups, populations or society as a whole. The US is famously individualistic, as noted from de Tocqueville's times onwards. In public health, two

alternatives to this worldview include Beauchamp's community-centered ethic[81] and the Nuffield Council on Bioethics concept of stewardship, where the state is not just responsible to individuals, but also for ensuring conditions that allow people to be healthy and, especially, reducing health inequalities between groups.[82]

Most of the choice discourses studied here took an individualist world view, implicitly or explicitly. That said, the coding methods of this research likely underrepresented alternative views among the study participants because those with more structural or group views, as with the public health professional quoted earlier, tend not to talk in terms of choice. The notion of "choice" itself tends to be an individualist one. Although groups also make choices or decisions collaboratively, we may use different language for this. Some discussions on influencing choice, especially the explicit mentions of a "social contract" and nurturing nannies (in a play on anti-paternalist "nanny state" rhetoric), embodied some of the community-centered and stewardship standpoints that view people as communities or groups, not just as a collection of individuals.

Evidence and ethics: the value of values

In 1974, the Canadian Health Minster famously began the public health discussion on where the line falls between responsibility and response-ability saying, "the fact that there is some truth in both hypotheses… requires a philosophical and moral response rather than a purely intellectual one."[83] Yet, in contrast with the dualisms above, the discussion of evidence-based policy and practice in association with ethics is not currently a high-profile debate. But it should be.

Ontological questions ask, "what is?" Epistemological questions ask "how can we know what is?" Conventional scientific discourse, particularly around evidence-based practice, starts here. Axiological questions ask, "what should be?" and "how should

we make it be?" An ethics-based discourse would start here. The scientific discourse should too, because our values (e.g., neutrality, prediction, understanding, equity, autonomy, community) drive what questions we pose, how we try to answer them, and how we interpret those answers.[56-58, 84, 85]

For example, the obesity researcher Kelly Brownell notes that "the matter of what causes obesity is debated primarily on political, philosophical, and even moral grounds… Lost in the fiery debate are a key fact and a key value. The fact: there really are causes of obesity. The value: science should be the referee in this debate." [86: 959-60] In a perceived battle between a "moral versus public health perspective," he advocates the latter. A radically axiological paradigm[57] would suggest that there is no difference. Regardless, scientific evidence should of course *inform* the debate and decisions on what to do about obesity and other public health problems. It cannot and should not, however, *decide* what to do. Those decisions are the province of evidence-informed philosophic and moral democratic debate among stakeholders, which I discuss below. The *base* of this debate is the moral values, or normative, ethical stances that stakeholders bring to the table, such as those elucidated here.

Summary

The following table summarizes the three frames, the values underlying them, and their relationships to the first three debates discussed above.

Table 2: "Choice" frames and the great debates

Frame	Values	Autonomy/ paternalism	Agency/ structure	Individual/ group
Having choices (as freedom)	Autonomy, unrestricted choices	Anti-paternalist; shallow autonomy. As variety is not autonomy issue	Assumes agency	Individualist
Making choices (as responsibility)	Individual accountability	Assumes deep autonomy	Assumes agency	Individualist
Influencing choices (in context)	Above + supports to enable autonomy & accountability	Some paternalism OK, especially with children, if net gain of shallow or deep autonomy	How structure enhances or inhibits agency	Group support for individual decision making

In addition, a small subset of people using the context-for-choice frame did not seem to think much about choice at all, or at least not in an individualistic way as decision-making. These few tended most strongly to the structure and group ends of these debates as, perhaps, enabling deep autonomy. These differences bear further investigation, including through a more holistic analytical methods with these interviews (i.e., narrative inquiry) and through follow-up interviews specific to these issues.

Democracy: politics, participation and negotiation

Former CDC director William Roper once described public health as "the intersection of science and politics," adding, "politics is the way we make decisions in a free society."[87] Thomas Nys, in a discussion of paternalism and autonomy, writes,

> These public health care regulations did not just fall out of thin air; they are the result of—let's hope—fair and democratic mechanisms, and as such they reflect the will of the people. Finally, it is hard to see how a system of democracy violates the principle of respect for the public's autonomy. Democracy means that the '*demos*' rules itself, and therefore that its laws are the product of self-rule.[78: 69]

In practice, of course, Nys' hope is not always fulfilled. What counts as "the will of the people" or "fair and democratic"; which people, what kind of democracy, and who

decides? Although paternalism in public health policy is sometimes discussed as opposed to autonomy, the definitions of these terms provided earlier mean that to be paternalistic, a policy must not only infringe on autonomy, but do so with beneficence and *without consent*. However, autonomy is an individual-level concept and public health is a group-level concept, rendering the meaning of "consent" problematic. What counts as "consent" at a population level? Some might suggest participation in making the decision.

"Participation" finally became a buzzword in health[34] just as some began questioning whether the term retains meaning.[88, 89] City planner John Forester reclaims it by incorporating power. His participation matrix combines "low-to-high voice" with "weak-to-effective negotiation." For example, he characterizes the "decide-announce-defend" format of most public hearings as high-voice, weak negotiation. Back-room deal making exemplifies low-voice, effective negotiation.[90] The democratic ideal, of course, is high-voice, effective negotiation. In fact, inviting people to participate when they won't have much or any influence is probably even less ethical than excluding them.[91]

An ethical process for determining childhood obesity prevention policy must be an equitable one. An equitable process supports stakeholders not only in *participating* but in *negotiating*. As democracy theorist Iris Marion Young argues, equality refers not just to distribution of goods but "primarily to the full participation and inclusion of everyone in a society's major institutions and the socially supported substantive opportunity for all to develop and exercise their capacities and realize their choices." This inclusion requires particular investment in communities our society disadvantages or oppresses, including supporting "self-organization" of group members for developing their own analyses and policy positions and creating

institutional mechanisms for hearing and incorporating these groups' perspectives in policy making.[54] Cornel West calls this deep democracy.[92]

Democracy theorist Harry Boyte advocates a "public work politics" as "negotiation and work to solve problems and create public things"[55: 93] This politics is not just distributive, but also constructive. It can, for example, both create and distribute public health, such as in community efforts to prevent childhood obesity.

Implications for preventing childhood obesity in communities

One academic involved in obesity prevention, asked what to do about the challenges of garnering participation among low-income individuals in efforts to change their communities, suggested to "change the environment around them." This technocratic approach stems from what Boyte has called a "liberal professional culture" that is "eroding the civic life of everyday settings and the authority and standing of ordinary citizens."[55] This is a potential price of paternalism. Why infringe on autonomy, a value so many Americans hold so dear, when there is an alternative?

Supporting people in choosing and making their own changes cultivates citizens who not only more able to change their environments next year, but over the next decades; citizens who can not only create and distribute public health, but other public goods. It is also more ethical. Citizens bring their priorities and values to the table, consider the evidence, and negotiate and decide what to do. Providing a micro example of this, an community obesity prevention project stakeholder told this story:

> It has to be a slow process with the people you're trying to engage. They ultimately have to demand it. I was at a meeting the other day. At the end this woman [said] "please don't have chips next time, I don't want to eat them and the fact that you have them here and I'm stuck in this room for 4 hours." And I was like "beautiful, you're demanding it." (ciii3)

Particularly in the smaller scale of community settings, Nys' hope for democratic decision making precluding paternalism and accounting for people's values can be at least partly realized in organizing for community health. However, not everyone comes to the table with equal agency and autonomy; most never make it to a planning table, literal or figurative, at all for these reasons. Public work to prevent childhood obesity requires building skills in negotiation, power mapping, patience and compromise. It requires time. It requires money managed with, by and for communities most affected by malnutrition. It means making community organizing as central to public health as epidemiology. Some strategies for doing so are discussed below.

Invest in agency

Citizens and communities are capable of creating and distributing public health. Post-paternalist community health strategies would invest in that capacity. This in keeping with the Ottawa Charter for Health Promotion, which defines that field's work as "enabling people to increase control over, and to improve, their health." [93]

Promising public health strategies, each of which deserves further investigation, include to:

- Talk and think about people and the public as *citizens and communities* not populations; *thinkers*, not targets; *negotiators*, not consumers; *actors*, not audiences.

- Facilitate public discussion and debate. As a colleague found in parent focus groups,[94] public discussion about these issues may facilitate consensus and compromises. This might include traditional consciousness raising about constraints on agency[95] to help reconcile differences in views on what enable

autonomy. (By contrast, media frames extolling structural views may backfire.[96])

- Help inform that discussion with evidence. For example, if people are discussing media policies, they should know the results of research on how minors are influenced by food advertising and the capacity of children to distinguish between advertising and programming.

- Pay for community microgrants, with stipends for community "animators" to help communities prioritize, plan, implement and sustain the work they would like to do.

- Provide networking support and technical assistance across and between communities.

- Offer low-level but long-term funding for community self-organizing.

These investments especially should be with the most affected stakeholders in self-organizing to negotiate policy and action as in, for example, Robert Wood Johnson Foundation's Communities Creating Healthy Environments. In childhood obesity prevention, children and youth are the most affected and yet also the most neglected stakeholders. Good reference points include LA's Youth Activism Against Obesity, California's Statewide Youth Board on Obesity Prevention, and Kellogg's Food & Fitness 2008 Youth Conference. Coaching models can help compensate for starkly differential power relationships between youth and adults.[97]

Community venues for such debate and organizing include (but are certainly not limited to) food policy councils,[98] community centers, school wellness committees,

cooperative extension agencies, school parent-teacher associations, religious institutions, soup kitchens, and community action agencies.

Target structural change

"Stop blaming people for bad choices, help start naming obstacles," is how a community organizer expressed this strategy. (c-iii-m4) Community health and health promotion should not be in the behavior business but work to augment autonomy so communities can tackle structural change. As McKinlay has argued, we need a "social policy approach to healthy lifestyles rather than the current lifestyle approach to health policy."[99]

This means, for example, allowing use of SNAP (formerly Food Stamp) education funds for participant organizing work, such as bringing fruits and vegetables to their corner store or founding a cooking cooperative. It means no housing developments without sidewalks and play spaces. It means taking our eyes off white bread and soda in a parent's grocery cart and focusing on agricultural subsidies.

This work would also include public health social marketing approaches and infrastructure investments to help facilitate a "new normal." (c-iii-m5) Related arguments that people interviewed for this work made included:

> We're in a culture that does not support healthy eating and active living, we're being counter cultural when we do that. It's easier for people who have the resources to be counter cultural. When you are poor, it's hard. (c-iii-m4)
>
> If everyone around us is eating stuff that's unhealthy we're just not gonna have the motivation to make that right choice. (b21)
>
> When you step out the door, it should be as convenient to walk or bike to get something as to drive a car. (c-iii-m5)

This is about influencing routines and practices that bridge structure and agency, as theorized in Giddens' "routinization." Beauchamp's distinction between practices and

behavior also gets at this. Practices are more than the sum of individual behaviors, they "have a stability and endure, are passed on from one generation to the next… it is only through policy and societal change that reforms can occur."[81] In this sense, behaviors are individual, practices are population. The ethics in this bridge area requires more theorizing, but is beyond the scope of this paper.

This structure-agency interaction also sets a research agenda for obesity prevention and other health issues, especially given huge gaps in understanding the "macro-environment, and the political and economic micro-environments" for obesity.[100] Identifying barriers to health in communities with the highest obesity rates should be a particular priority as in, for example, a review of food marketing to African Americans.[101] This names concrete targets for change and resistance without painting people as victims.

Count more than BMI

The farther out in the socioecological model we work, the less biological (such as body mass index, or BMI) or behavioral metrics can tell us about success, particularly in the short term. For example, comparing weight gain avoided in a community-wide approach vs. a screen-time intervention ignores the former's investments in civic and physical infrastructure that pay off over decades and in more than obesity prevention.

For example, through being a stakeholder in a community childhood obesity prevention project myself, I found the most skilled and consistent childcare providers my young children have ever had, with follow-on effects for their development and my capacity to work. One of those child care providers joined a "natural leaders" development program for which I had nominated her and she went on to win a minigrant to organize improvements in activity and nutrition environments at her

child's school. Few evaluations would (or could) count these as outcomes, contributing to that project's cost effectiveness calculations, but they still have value.

Stakeholders in community initiatives investigated here valued outcomes such as stronger social networks and teen job opportunities. Dominance of middle-class, white professional women was a concern in some projects. (Can a community project be called a success if the planning excludes groups most affected?) The impending studies on community childhood obesity prevention funded by the National Institutes of Health should work to account for what participating community's value, beyond BMI.

Public Health as Public Work

Democracy as public work builds on values of moral responsibility and develops "second languages" of community[102] with less trespass on individual freedom. As an approach to public health, public work would mean school wellness committees forming, coaching, and listening to groups of school children. Service provider contracts for WIC implementation would require (and pay for) WIC participant councils that would choose topics and formats for education programming and inform local and national policy development. The standing Institute of Medicine expert committee on childhood obesity prevention would support and convene regularly with representatives from each of several regional expert committees composed of citizens, including children.

People co-designing policy changes that affect them is an ambiguous, imperfect, and demanding process. It is also right and good and potentially very effective. For example, children debating and determining their school's fundraising and other food policies sidesteps paternalism, improves their school food environments, and teaches citizen skills along the way.[103]

Over two decades ago a paper in a health policy journal noted an American "unspoken, perhaps unspeakable, commitment to health and well-being of individuals and the community" in public health policy development.[104] Stakeholders in community childhood obesity projects talk of nothing else. Let's listen.

Chapter 3: Common Ground—Perspectives on Community Childhood Obesity Prevention

Childhood obesity, with its concomitant health problems, arguably presents the biggest US public health issue of our time. Debate about causes and solutions has flourished over the past decade. The Institute of Medicine (IOM) has argued that "prevention of obesity in children and youth is, ultimately, about *community*" [1: 193] and dozens of communities have launched childhood obesity prevention projects. This begs several questions, including what *are* communities doing, what *should* they be doing, and as part of that latter question, what do members of those communities *think* they should be doing? This paper begins to answer that last question in one upstate New York county. The question is important for practical reasons (to minimize oppositional politics) and normative reasons (there are significant community values at stake).

Published work to date on what community members believe about the importance, causes and prevention of childhood obesity has used surveys[2, 32, 105, 106] or interviews and focus groups.[107-109] Often, the aim is to identify what public health prevention strategies citizens might find acceptable.[32, 105-107] For example, one study found that Americans "supported most school-, community-, and media-based strategies that involved offering health information, limiting unhealthy food promotion, and increasing healthy nutrition and physical activity choices, but were generally opposed to regulatory and tax- or cost-based interventions."[32] Although such data provides a useful bellwether for national actions, a passionately opposed minority can block change even if most people support a particular approach. Surveys in particular reveal little about the opposition specific policies might face from citizens, such as

eliminating chocolate milk in a school or banning food advertising during children's television programming nationally. Identifying acceptable public health strategies via surveys or interviews is perhaps further complicated by the findings of one poll revealing "that typical determinants of policy preferences, such as ideology or partisanship, are not good predictors of attitudes on obesity policy" among US adults.[110]

Another approach to understanding perspectives on this issue has been to examine how news media and academic publications frame responsibility for causes of and solutions to obesity, usually categorizing frames as biological (e.g., genes or medicines), behavioral, or systemic (e.g. built environment or policies).[29-31] While the media may be increasing use of systemic frames,[29] this does not appear to translate into readers adopting such frames,[96] so that research does not provide reliable insight into popular perspectives on the issue. Even if it did, qualitative work illuminates complex perspectives among parents and other citizens[94, 111] that are not reducible to, for example, an individual responsibility frame vs. a social determinants frame.

Our study circumvented some of these issues by using a statement-sorting method called Q methodology. This method explores the distinctive and overlapping perspectives[112] on an issue rather than describing the distribution of these perspectives within a population or categorizing them into preconceived groups. In contrast to previous survey research, which by design could reveal majority opinion but not areas of consensus, the present research identified potential common ground for community action, or at least arenas for unopposed action, for childhood obesity prevention. The methodology also avoids imposing any preconceived notions about perspectives on participants.

Methods

This study used Q methodology, in combination with demographic surveys and structured interviews, to identify perspectives on the roles communities should play in preventing childhood obesity in a New York State community with an active childhood obesity prevention project.

Q methodology provides a semi-quantitative and systematic way to study subjectivity, or views and feelings, about an issue.[113, 114] The method requires that participants sort statements about an issue according to how much they agree or disagree with each. Factor analysis is then used to group these sorts. Interpretation of the resulting factors reveals perspectives on the issue and permits detailed analysis of areas of relative agreement, disagreement and indifference about that issue. Q factor analysis identifies sub-groups of *people* based on the correlations among their sorts rather than, as in more commonly used Pearson's R factor analysis, forming factors based on correlations among people's *traits*. Unlike R, Q does not assume that participating individuals share a conceptual structure.

Participants

This study was conducted, in part, to inform strategy for the participating community's childhood obesity prevention project and to foster stakeholder reflection on the issues. Participants were selected accordingly.

The research team used strategic snowball sampling to invite individuals in one upstate New York county to participate. The sampling goals were to identify and characterize a diversity of *perspectives*, without aiming to identify all existing perspectives nor their distribution in the general population. The "snowball" began

with personal and professional contacts of the research team (composed of the myself, Dr. David Pelletier, two community members and 14 university students). The "strategic" part was two-fold. One, invitations to participate were recalibrated weekly according to ongoing analysis of demographic survey results to achieve diversity (e.g., in geography, employment, political party) in case these markers correlated with perspectives on the issue. Two, we were interested in the views of two particular demographic groups: high schoolers (because we felt their views were underrepresented in local work in this area) and members of the local childhood obesity prevention project (because their views were overrepresented). We "oversampled" these two groups so that if their perspectives differed it would be visible.

Of the 157 invited to participate, 99 people took the survey and conducted the Q methodology statement sort (a 63% participation rate). Of these, only 59 were asked to participate in audio-recorded post-sort interviews, due to time constraints or exclusively online participation. Of those asked, 54 agreed (91% participation). High school participants were recruited as entire classes through their teachers. Three senior classes in two institutions participated. The students and teachers conducted surveys and sorts in a normal classroom period, which did not allow enough time for interviews. After four people were excluded due to incomplete sorts or extensive inconsistencies, the survey and sort analysis included 95 participants (see Table 3). However, all interviews were included in the qualitative analysis.

Data Gathering

Q methodology has four steps: development of the statement set, statement sorts by participants, factor analysis of the sorts, and factor interpretation. This research also included a pre-sort demographic survey and structured post-sort interviews.

Table 3: Summary of Participant Demographics/Characteristics

Demographic		n (95)	percent (calculated from those responding)
Age	≤ 18 (high school seniors)	29	32%
	19-30	9	9%
	31-45	23	24%
	46-60	28	29%
	61+	5	6%
Sex	Female	71	74%
	Male	24	26%
Race/ethnicity (could choose >1)	of color	13	14%
	White	84	88%
Political party	Democrat	56	63%
	Republican	17	19%
	Other	16	8%
Have/had children	Yes	49	51%
	No	46	49%
Home location	In the city	40	43%
	Outside the city	57	57%
Household income	<$20	5	7%
	$20-40	13	17%
	$40-80	32	42%
	$80- 120	16	21%
	>$120	10	13%
Involved in their community's childhood obesity prevention project		17	18%

Creating the Q-Sort Statements

The statements that participants sort in a Q study should represent the range of social views held on the research question,[114, 115] in this case the role that communities should play in childhood obesity prevention. Statements that best represent the opinion domain originate in actual discourse on the issue. Sources for the 36 statements generated for this study included 40 local stakeholder interviews conducted earlier in the community's prevention project, blogs and discussion forums, interviews quoted in academic literature, and texts from organizations working in this area. This

"natural" language usually results in statements that are more complex than survey questions. For example, one statement was "the decision about what types of food to eat is a personal choice. Schools and youth centers should not restrict the availability of certain foods just because they are considered less healthy." Appendix 3A lists the 36 statements that participants sorted. Internal assessments and pilot tests with 12 participants confirmed the statement set was generally balanced, though a few pilot participants mentioned they had trouble finding enough statements to disagree with.

Pre-sort Demographic Survey

All participants filled out a 17-question survey before the sort. This survey (see Appendix 3B) measured demographic variables and asked participants to rank childhood obesity prevention in terms of its importance, reasons for prevention, what should be measured as success indicators, and who can and should work to prevent it.

Conducting Q Sorts

Participants were asked to sort the 36 statements into a quasi-normal distribution according to how much they agreed or disagreed with each statement. Unlike a survey, participants ranked each statement in relation to the others into one of five "buckets", from strongly disagree to strongly agree, rather than responding to each independently. On the sort grid's five-point scale, only 4 statements could be placed in each of the strongly agree (+2) and strongly disagree (-2) extremes. The agree (+1) and disagree (-1) slots accommodated 8 statements each. The remaining 12 spaces were in the middle (0). The forced distribution is not a statistical requirement but a means of pushing participants to prioritize, thus providing more granularity in their views.[114]

All but nine of the adults met with research team members in a place convenient to the participant(s). Seven took the survey and conducted the sort online.[116,117] A previous study has indicated no difference in results between online vs. face-to-face sorts.[118]

The high school students, plus two teachers, conducted the surveys and sorts at their desks during their normal class time.

Post-Sort Interviews

Following their sorts, 54 of the adults participated in a short structured interview. Also, five of the seven online participants contributed written comments. Interviewers asked participants to select at least 2 strongly agreed statements, 2 strongly disagreed statements and 2 statements in the middle to comment on what they were thinking when they categorized them and then to comment on the sorting overall. Interviewers provided transcriptions with research notes reflecting on the process.

Analysis and Results

Analysis began with reading each interview transcript twice to get a sense of how participants interpreted statements and felt about the sorts and any issues it raised. Then 95 sorts were entered into PQMethod statistical software[119] and subjected to centroid factor analysis with one varimax rotation. Centroid was selected over principal component analysis because the goal was to identify viewpoints and their overlaps, where applicable, and forcing them to be orthogonal defeats that purpose.

The four resulting factors were interpreted to characterize the perspective that each revealed. First, "idealized" sorts for each perspective were generated by ordering statements by their z-scores (see Appendix 3C). Then interviews were reread in the context of each interviewee's sort correlations with the factors. Finally, survey results were tabulated for the 77 people who positively defined perspectives. For each survey question, group-level chi square tests were conducted to compare the distribution of characteristics across the four perspectives to the expected distribution.

Four Perspectives

Factor analysis of the sorts identified four perspectives on what communities should do to prevent childhood obesity. One group took a "system" view commonly found in public health and three focused more on individual responsibility. We called the groups holding these views Environmentalists (n=37), Libertarians (n=11), Technocrats (n=10), and Bootstrappers (n=19).

Of the 95 people included in this analysis, 78 defined (i.e., were significantly correlated with) one of these four groups. Of course, these four groups are idealized. No sort correlated fully with one view (greatest was r=.91) and most (72%) positively correlated reasonably well (r>0.2) with at least two factors. The four factors identified explain 46% of the variation in the 78 sorts that defined them.

The following sections describe each perspective based on the normalized rank scores of statements in each factor (see Appendix 3C) and on interviews. Relevant statement numbers appear in brackets, referencing the list in Appendix 3A. These numbers are bolded if its rank in that factor is significantly different from the other three at p<.05. The correlations shown identify how well participants that are quoted here correlated with that factor.

Any demographic differences by group are also mentioned to provide some insight into who might hold which perspectives within this sample. Group-level chi square tests distinguished factor differences in age, involvement in the local obesity prevention project, and perceived importance of the issue at p<.05. Household income, political party and gender approached but did not reach statistical significance. It is noteworthy that the four perspectives were in almost perfect agreement (p>.99) on ranking questions about *why* we should prevent childhood obesity (for child health, then happiness, then reducing costs), *what* to measure (eating and activity, with

obesity rates vs. equitable access to healthy food and activity vying for second place, followed by environmental change then community development), and *who* "can and should do the most" (families, then local institutions and governments, with state and federal governments and the private sector trailing).

Environmentalists

"Environmentalists" took a public-health perspective on childhood obesity prevention, focusing less on individual responsibility and more on how surrounding environments and systems influence and constrain family behaviors. They viewed childhood obesity as not only a food and activity issue, but one related to inequity (**3**, 4). They believed it is unfair to expect struggling families to have the energy and determination it takes to eat well (**7**). Accordingly, they favored community organizing approaches to childhood obesity prevention, such as providing free family physical activities (**30**), supplying fruits and vegetables to pantries (31), lengthening school lunch periods and integrating food into the school day (**32**), lobbying for fruit and vegetable subsidies (29); and providing family cooking courses, bulk-buying clubs, and community gardens (**7**).

Although Environmentalists agreed that parents need to take some responsibility (**13,** which includes "parents must take responsibility for setting a good example by eating well themselves"), they disagreed with statements that put that responsibility exclusively on parents' shoulders (**6, 8, 11, 22**). As one person in this group (r =.59) said, specifically about statement 13, "I don't agree with the implications of the statement that parents actually have the *ability* to take responsibility." Another (r =.74) noted that "my views really center on economic equity, education and local action. Those are kind of my values." A third (r=.78) provided the name for this group with this comment:

> A lot of issues that people might think are private issues are actually public health issues…. Given that it's harder to get fruits and vegetables [and] harder to exercise in poor neighborhoods, it's not a personal choice, it's an environmental choice.

On the survey, most Environmentalists ranked community childhood obesity prevention as very important (n=33), with two ranking it as the most important health issue communities face and two as only somewhat important. Also, out of the 17 research participants who were also part of a community childhood obesity prevention effort, 16 defined the Environmentalist group. Of the 21 high schoolers who defined factors, none were Environmentalists and one actually defined this factor negatively (r = -.59), meaning that person held extreme feelings on the same statements as the others in this factor, but in the opposite direction. This teen was the only research participant to negatively define a factor.

Libertarians

The Libertarians strongly favored individual responsibility (13, 10), feeling that prevention is more about personal accountability than community efforts (**8**). They did not like any policy suggestions that included mandates, restrictions or taxes (e.g., 5, **24**, 26, **28**, 34, 35), particularly surrounding school food (**21**, **25**). However, they favored free opportunities for family physical activity (30) and, more than any other factor, improving access to fruits and vegetables through subsidies (**29**).

This was the only group to agree that protecting individual freedoms and keeping taxes low is more important than preventing childhood obesity (**36**) and that schools and youth centers should not restrict the availability of certain foods just because they are considered less healthy (**25**). While this group's agreement with these two statements was not particularly strong, it contrasted sharply with often fervent disagreement from those defining the other three factors.

Of the 11 Libertarians, 10 were high school students. The teens in this group ranked community childhood obesity prevention as only somewhat important (n=9) or not important (n=1). Unfortunately, no interviews were conducted with people defining this factor.

Technocrats

Like the Libertarians, the Technocrats put prevention responsibility on parent shoulders (8, 10, 13). However, they also favored all of the "hard" policy approaches that Libertarians rejected, including being the only group to support a junk food tax (**35**). The Technocrats stood alone in disliking "softer" statements about nurturing child self-esteem (**1**, **12**) and offering longer lunch periods and more integrated school approaches to food and culture (**32**).

This comment from someone defining this group (r=.34) represents the practical, goal-oriented stance on childhood obesity prevention that Technocrats held:

> It's regulated as far as how the food's grown so why shouldn't it be regulated as far as what foods they're allowed to offer the public? Because it's going to be us paying for it in the long run if people are eating a lot of unhealthy things. It's going to affect their overall health and put stress on the health system and Medicaid.

Though the group-level differences for political party did not reach significance (p=.10), this group had more Republicans than the others. Nine ranked the issue as very important and one as somewhat important for communities to address.

Bootstrappers

The self-reliance advocated by this group inspired a moniker from the "pull yourself up by your bootstraps" saying. The Bootstrappers held that, however challenging feeding children healthy foods might be, it is within a parent's responsibility and capacity to do so (**6**, 8, 10, 11, **13**). They were the only group to agree that "all parents

have the capacity to keep their children from becoming obese. Parents have to take responsibly first and foremost, and community efforts won't help much until and unless parents make this a priority" (**2**) and the only to disagree with a statement opening with "it's not fair to expect struggling families to have the energy and determination it takes to eat well" (**7**). Also, while not opposing systemic approaches to supporting healthy eating and activity—such as fruit and vegetable subsidies (**29**), equitable economic development (4), and free physical activities (30)—this group also did not support them as much as the others. Bootstrappers instead preferred education approaches (**9**, **14**).

These comments from a "Boostrapper" (r=.70) characterize this group's perspective:

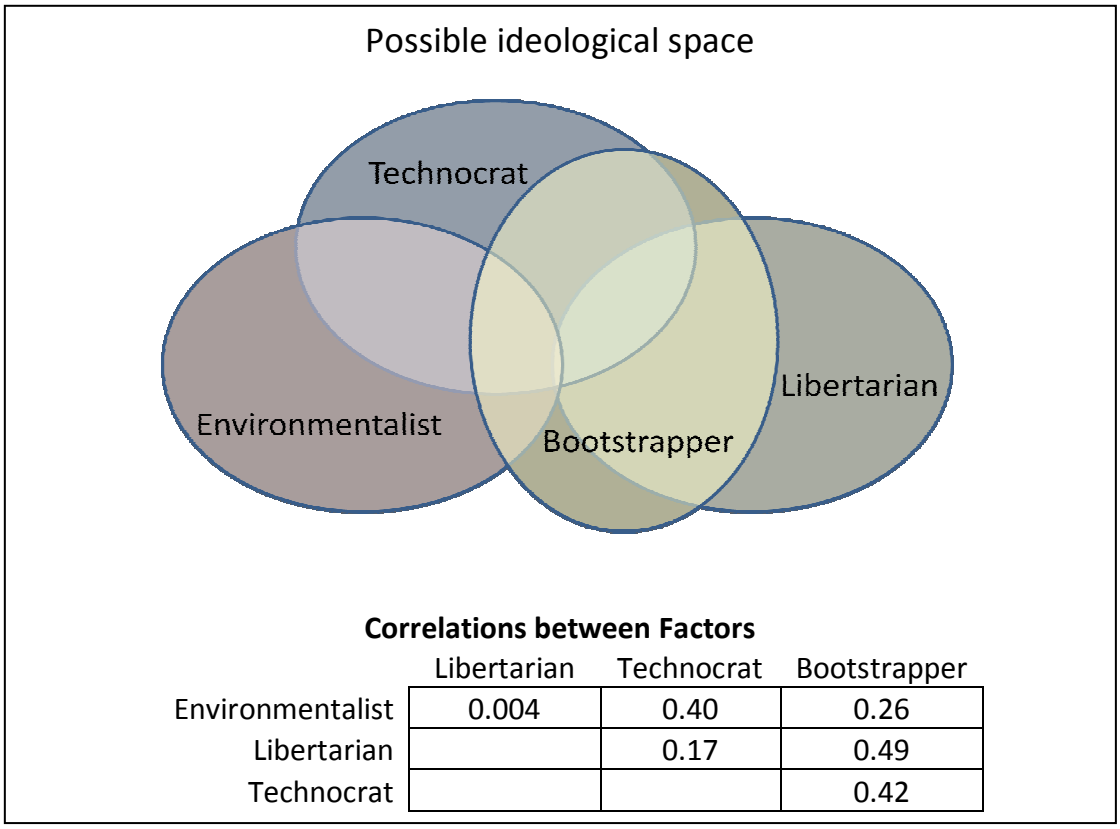
> If you take your kids to a fast food restaurant…you can make them eat the healthy stuff. And if they go out with friends to those places, you can say 'You're forbidden to eat that garbage.' That's all you got to do. It's as simple as that…. Taxing junk foods? I strongly disagree. People should be smart enough to figure out that if they eat a bag of chips everyday, they're going to get overweight and it's not good for them. And if they can't figure it out then that's their choice… The only way you're going to change it is by trying to educate people.

Demographically, Bootstrappers may have been more likely to be male and to earn household incomes over $120,000 per annum than the other groups, though these differences fell short of significance (p=.13 and p=.06 respectively). Their ratings of the issue's importance varied more than other groups, with 7 saying community prevention is somewhat important, 10 that it is very important, 2 that it is the most important health issue communities need to address.

Potential Common Ground

Statistically speaking, there was little consensus among the four perspectives. Only one statement showed no statistical difference in how groups sorted it, with a z-score in each perspective just below zero. The Environmentalist and Libertarian views in

particular had little overlap Figure 3. However, ideologically and practically speaking, this research shows extensive potential common ground for childhood obesity prevention action in three ways.



Correlations between Factors

	Libertarian	Technocrat	Bootstrapper
Environmentalist	0.004	0.40	0.26
Libertarian		0.17	0.49
Technocrat			0.42

Figure 3: Conceptual map of factor relationships and their correlations

First, the four perspectives are actually quite close together in comparison to possible ideological space shown in Figure 3. Inter-factor correlations ranged from zero to .49, with a notable absence of negative correlations. The statements that any one group placed at the extremes of the sort grid, the others tended to place in the middle sort columns. This shows that while these perspectives may not always agree, they also do not often actively *dis*agree.

Second, the individual-level results indicate great potential for agreement. Looking at the factor loadings for each of the 95 participants, of the 380 correlations (95 people x 4 factors), only 18% were negative and the average negative correlation was only -0.11. Over 40% of participants correlated positively, even if only slightly, with all four factors. The average positive correlation was 0.30. Only one person negatively defined a factor.

Third, negotiation and agreement are qualitative processes. Statistical difference does not necessarily translate to actual disagreement. For example, factor z-scores for a statement advocating fruits and vegetable subsidies ranged from 1.63 (Libertarians) to -0.15 (Bootstrappers), with Technocrats and Environmentalists near 1. A Bootstrapper would be unlikely to protest a move for such advocacy in a community effort, even if she did not join the effort herself. A Bootstrapper would, however, likely resist junk food taxes (relevant statement z-score -1.27) or advertising bans (z-score -1.27). Even among the two groups with the least correlation, Environmentalists and Libertarians, both groups agreed (had positive z-scores) that communities should provide free family activity opportunities, provide more than 20 minutes for school lunch, organize fruits and vegetables for food pantries, pay attention to child self-esteem, lobby to subsidize fruits and vegetables and strive for successful and equitable local economies.

Uncontested and Contested Prevention Strategies

Approaches to community childhood obesity prevention summarized in the "uncontested" column of Table 4 garnered strong support from at least two perspectives and faced no opposition. Also, temporarily setting the teenaged Libertarian perspective aside, the other three groups all felt strongly that individual freedoms and low taxes are *not* more important than childhood obesity prevention and that schools and youth centers should restrict foods available for health reasons. Table

4 also lists the most contested prevention strategies among the four perspectives. Perhaps the most telling difference on the "systemic" vs. "individualist" split between Environmentalists and the other perspectives was that while all groups agreed communities can and should work to prevent childhood obesity, all but the Environmentalists agreed with a statement ending "this is more about personal accountability than community childhood obesity prevention efforts."

Table 4: Contested and Uncontested Prevention Strategies across Perspectives

Uncontested Strategies	Contested Strategies
a. Our communities should provide access for all families to free, fun physical activities. b. Community efforts are not a waste. We can change kids' eating and activity. c. Our communities should ensure food pantries have fruits and vegetables for clients. d. Parents should set a good example for their children by eating healthy foods themselves. e. It falls on parents to make right food choices for themselves and their children. f. Educating people is not more important than, e.g., environmental changes like playgrounds, gardens, and policy changes. g. More successful and equitable local economies will help us tackle this problem. h. We should make healthy options cheaper, e.g., by lobbying to subsidize fruits and vegetables.	a. Taxing junk food (only Technocrats in favor of it). b. Longer lunch periods with food and food culture being more integral to the school day (only Technocrats against it). c. Banning all junk food in schools – including from bake sales and vending machines (Libertarians and Bootstrappers against it). d. Raising taxes to fund more fruits and vegetables in school (Libertarians and Bootstrappers against it). e. Banning junk food advertising to children (Libertarians and Bootstrappers against it).

Table 4 notes:"Uncontested" strategies are listed from most to least agreed. The "contested" list begins with strategies drawing the most disagreement. To account for overall and comparative strength of agreement, relative agreement/disagreement was calculated as the absolute value of each statement's average z-score across 4 factors minus the z-score spread. Also, only statements with at least one group expressing strong views, i.e., >|1| are included, since these would be more likely to have advocates/opponents among those holding these perspectives.

Limitations

This research has a number of limitations. It does not identify all existing perspectives, even within the community in question. People may not have sorted as they truly felt;

they may have misunderstood statements or rushed through the sorting. Many statements are multidimensional and participants may have focused on different parts or made varied interpretations when sorting so the same placement might not signal similar perspectives. Another weakness was a lack of post-sort interviews with any people defining the Libertarian factor. Finally, because of the non-random sample, all demographic associations found here apply only to this sample. However, none of these issues threatens the findings above. Also, the richness of the interviews, and their heavy use in interpreting the factors, partly compensate for several of these limitations.

Implications

Community Action for Access

The common-ground views found here support improving families' access to healthy food and activity, with tolerance or support for restricting food in schools and youth centers. Strategies to ban or tax unhealthy options garnered strong opposition from at least two groups.

Within the school food environment, there appears to be a "cupcake line" that would be crossed at peril. This was indicated not only by z-score splits on a statement advocating a school ban on all junk foods, including at bake sales, but also comments about that statement. For example, one Environmentalist (r=.60) wrote in online comments, "let's not turn into food nazis!!" Another person cautioned "we have to be careful we're not being super food police, never having a cupcake cross the door is a little bit extreme." (This participant did not define a factor and correlated with Environmentalists, Libertarians, Technocrats and Bootstrappers with 0.5, 0.0, 0.5 and 0.3 respectively).

Following the positive and asset-based strategies advocated in community development practice[120, 121] appears to be a promising guide to achieving consensus on community action for childhood obesity prevention.

Participation, negotiation and discussion

A democratic ethic demands that stakeholders have the opportunity and support needed to substantively negotiate policy decisions that affect them. Applying this ethic offers practical benefits as well, because even a small group of opponents can derail policy changes if they are well-organized. In addition to mapping agreed areas for action, this research raises three important democratic action issues for, at a minimum, the childhood obesity prevention project in the community where this research was conducted.

One, account for non-Environmentalist views in "community-based" childhood obesity prevention work. The most active participants in this community's childhood obesity prevention project overwhelmingly held Environmentalist views. This research suggests a need to become aware of other viewpoints in the community and seek common ground with people that hold those views, even if they are not active project participants.

Two, include children, youth and teens. The 29 high school senior participants ranked community childhood obesity prevention radically lower in priority than the adults did, with 66% ranking it as somewhat or not important, compared with 91% of adults ranking it either as very important or more important than any other health issue. Twelve of these teens were enrolled in a special program for those interested in health professions; while this sub-group rated it as more important than their peers, this still fell far short of the adult rankings. High schoolers also defined the Libertarian factor and were entirely absent from the Environmental one. Yet, of course, children and

teens arguably are the single most important stakeholder in this issue. These teenagers are unlikely to want to get involved in an obesity prevention project per se, but might be drawn by specific initiatives such as gardening, developing activity opportunities, and improving fruit and vegetable access. For example, youth have been key partners in a number of community-based food, fitness and health initiatives,[122-124] including to improve the nutritional quality of school foods.[125-128] Also, youth deliberations with adults can provide important mentoring and enable both age groups to become more informed, appropriate, engaged and effective citizens.

Three, facilitate informed public discussion and debate. Obesity is perhaps the most complex public health issue we face, without clear links to any one gene, vector, practice or product. Prevention is intertwined with issues that are deeply complex in their own right, from parenting to pollution to agricultural policy. Calls for evidence-based strategies in community childhood obesity prevention ring hollow in the face of inadequate evidence about what actions work best at this level.[23, 24, 100, 129] The evidence-based narrative is further challenged by reliance on mobilizing community volunteers to address issues like childhood obesity, because this mobilization must also build upon volunteer passions, beliefs, and priorities. Yet high obesity rates, inequity in these rates, and their toll on well-being demand effective action. Citizen values, beliefs and priorities can, should and do impact what is possible in community-based childhood obesity prevention. Participants shared rich and complex beliefs and values about these issues in interviews. Some participants and other community members who joined email or face-to-face forums about these results reported that this research provided a welcome opportunity to think more deeply about these issues. Further informed dialogue can help shape these beliefs and values and create a foundation for negotiating appropriate community actions.

In sum, the relative absence of polarized viewpoints points to several promising areas for community action. These include providing and promoting access to free family activities and developing policies to make fruits and vegetables more available and affordable. At the same time, the differences require attention. These differences include but also transcend rudimentary frames of individual responsibility vs. social responsibility for health. This research highlights important distinctions within "individual" views on what would constitute acceptable action as well as overlaps with "environmental" perspectives. Finally, at least in this upstate New York community, local childhood obesity prevention actors should take special care to incorporate the views and priorities of youth and of people holding non-Environmentalist perspectives in their project's actions.

APPENDIX 3A: the statements

1: If children had better self-images, they would be more likely to take care of themselves better and we wouldn't have so much of an obesity problem. Communities should invest in youth development programs that build confidence, skills and self-esteem as a core part of obesity prevention.

2: Unless their kids have some kind of special medical issue, all parents have the capacity to keep their children from becoming obese. Parents have to take responsibly first and foremost, and community efforts won't help much until and unless parents make this a priority.

3: Childhood obesity isn't an isolated problem; it's a symptom of a huge network of problems related to inequity, advertizing, and farm policies. Teaching people about the food pyramid won't solve the problem. Community obesity prevention efforts should focus more on community organizing than on providing information.

4: It is important to improve access to affordable, healthy foods and increase opportunities for physical activity, but it isn't enough. To prevent childhood obesity, communities also need to develop local economies that are successful and equitable.

5: While it is important for schools to make fruits and vegetables more available to kids, funds for this should come from existing resources, not through additional taxes.

6: Families eat on the run, use prepared foods, and spend too much time working and in front of the TV. Community organizations are not responsible for addressing these issues. Parents simply must prioritize having family meals with healthy foods.

7: It's not fair to expect struggling families to have the energy and determination it takes to eat well. Junk food is cheap and easy, and you know kids will eat it. Vegetables are expensive. They take time, skill and equipment to prepare, and after all that maybe no one will eat them. Communities should work to make healthy eating easier by organizing, for example, family cooking courses, bulk-buying clubs, and community gardens.

8: You can provide all the supports in the world for healthy eating and activity, but somebody still has to make the decision to partake. While people might be influenced by their environment, they still have to make the decision to take whatever they learn and apply it to their life. This is more about personal accountability than community childhood obesity prevention efforts.

9: Kids and parents are only able to make a good decision if it is an informed decision. Community organizations should provide families with as much information as possible so that they can make good decisions about their health.

10: I shouldn't be going to fast food restaurants in the first place but if I do go, then there's a choice, for example, either getting something crispy or grilled. That's really on me. I think it falls on us to make the right choices for ourselves and our children.

11: A lot of parents complain about what their kids eat and how they beg for junk food they've seen advertised. But parents do the grocery shopping, and they can and should set limits. Communities don't have much of a role to play there.

12: We have to be really careful in how we talk about obesity. We'll hurt self-esteem and might start eating disorders if we pressure kids about their weight or how much they eat. Fun, positive messages, not restrictions or negative messages, are the right approach. Community organizations and health professionals should talk about eating well and

playing more, not about obesity.

13: Nine times out of ten a child is going to go with whatever the parents eats. If the parent eats junk food all day, that's what the kids are going to do. Parents must take responsibility for setting a good example by eating well themselves.

14: Research shows that most parents of overweight kids don't think their kids are overweight, even if their doctor tells them so. Communities should help organize training for pediatricians and school nurses for talking effectively to parents about child weight problems.

15: Children consume up to half their daily calories at school. While school districts can change their food policies, it makes more sense for communities to throw their efforts behind changing national school food policies. This might take longer, but will help everyone at once and let us make bigger changes. Otherwise, each district in the country will be spending tons of time to change just a handful of schools.

16: Approaches like building playgrounds, creating community gardens and lobbying for policy changes are expensive and time consuming, and we're not even sure it will help prevent obesity in the kids who need help the most. Community efforts should focus instead on motivating and educating people, especially people most at risk for obesity.

17: Fear of crime makes many parents keep their kids inside. When this is a problem, community obesity prevention efforts should focus on creating safer neighborhoods, for example by organizing neighborhood patrols and beautification and lobbying for better police protection.

18: Developing community coalitions with citizen participation, especially of those most affected by childhood obesity, is key to solving the problem.

19: Grassroots participation in community childhood obesity prevention is great, but you aren't going to be able to get the big changes needed to solve the problem unless communities can get top level officials involved and committed.

20: State and federal governments should provide basic public health policies and funding. The rest should be locally determined. Communities and local governments should be able to decide what health issues are most important to them, even if they decide that childhood obesity isn't one of their priorities.

21: Parents cannot control what their children are eating at school. Communities should work with their local school districts to eliminate unhealthy foods. We need to ban junk food not just from vending machines and cafeterias, but also from fundraisers and the snacks parents often provide for elementary school classrooms.

22: A lack of physical activity is increasing the number of obese children. However, while it is important to include physical education in the school curriculum, the main focus in schools should be academics. Parents and children bear the responsibility of including enough physical activity in their daily routines.

23: Local restaurants should only offer healthy options on the children's menu. Communities should publish health ratings of local children's menus to reward restaurants who do this and pressure those who don't.

24: Communities should lobby their state and local governments to require that all nutrition information be prominently displayed at chain restaurants so that parents can make healthier choices.

25: The decision about what types of food to eat is a personal choice. Schools and youth

centers should not restrict the availability of certain foods just because they are considered less healthy.

26: Private businesses such as restaurants and grocery stores must operate according to supply and demand to survive. It is wrong to force companies to include healthier eating options because it will interfere with their right to run their business and may reduce profits.

27: Our society has changed so much, and some of these changes have probably contributed to the increases in obesity. However, kids will be kids. Most are going to eat junk food and watch TV and be overweight no matter what we do. We shouldn't waste community efforts on trying to change these behaviors when we face other issues that are at least as important and that we can do more about.

28: Children today are so overscheduled with homework and clubs that they do not have time to exercise outside of school. Therefore, daily physical education in schools should be required by state law, without the option for schools to get the exemptions that are so common today.

29: Potato chips are less than a dollar, but fresh fruits and vegetables are expensive. The best way to change the way we eat is to make healthy options cheaper. For example, by lobbying for fruit and vegetable to be subsidized.

30: It's easy for people with money to sign up their kids for swim lessons, join a soccer league, go skiing and ice-skating. Youth recreation programs should offer scholarships for their programs and communities should organize free family activities in public buildings and parks so that all community members have access to fun physical activity.

31: Food pantries are stuck with whatever is donated, which usually includes lots of junk food. But most pantry users are families with children, and they need healthy food as much as anyone. Communities should organize local resources to supply fruits and vegetables to food pantries.

32: Lunchtime in schools should not just be 20 minutes to fuel kid's bodies. Food is also social and cultural, and we should celebrate it. Growing, preparing and eating food should become an integral part of our school's activities and this should represent the cultural diversity of the students who go there.

33: As a member of a community where childhood obesity is a health concern, I have an obligation to contribute to its prevention, even if the issue does not directly affect my family.

34: Parents should resist their children's demands for the junk food they see advertised on TV. Yet it would be that much easier and effective if kids didn't see the ads in the first place. Communities should lobby for a national ban on junk food advertising during children's programming.

35: Taxing junk foods to discourage people from eating them, like we already do with alcohol and cigarettes, is a good idea. It still leaves people with the choice of whether to eat them or not.

36: Protecting individual freedoms and keeping taxes low is more important than preventing childhood obesity. I don't want to live in a nanny state. Sure, government action such as banning junk food from schools, making kids take gym and mandating calorie labels might reduce obesity, but this isn't worth the costs to our freedoms and to taxpayers' pockets.

APPENDIX 3B: the pre-sort survey

1. *Circle your age*: Under 18 18 to 30 31 to 45 46 to 60 61 and over

2. *Circle your sex*: Female Male

3. *Circle your ethnicity/ies* (can choose more than one):
   African American East Asian South Asian Latino/a White
   Pacific Islander Native American Other, please specify:_____

4. *Are you a U.S. Citizen?* Yes No
   a. If "No"*, how many years have you lived in the US?* _____

5. *Circle your political party:* Republican Democrat
   Other, please specify:_____

6. *Circle areas of work (paid or unpaid) you do in this community* (can choose more than one):
   Parent Youth education Youth development Food service Food production Health service Spiritual service Government, elected Government, civil service Community development Higher education Media Student(K-12) Student (higher ed)
   Others, please specify:_____

7. *What is your occupation (if relevant), with a one-sentence description?*:
   _____
   _____

8. *Circle your annual household income range*:
   < $20,000 $ 20,001-$40,000 $40,001-$80,000 $80,001-$120,000 >$120,000

9. *How many people live in your household?:* _____

10. *Do you have any children?* Yes No
    a. *If yes, what is/are their ages in years?* ___ ___ ___ ___ ___ ___ ___

b. *If yes, have you ever been concerned about any of them being overweight?* Yes No

11. *Circle where you live:*

Enfield Ulysses (includes Tburg) Lansing Groton Dryden (includes Freeville, Etna, Varna) Caroline Danby Newfield Ithaca Outside Tompkins County

Not applicable

12. *Circle where you work/study:*

Enfield Ulysses (includes Tburg) Lansing Groton Dryden (includes Freeville, Etna, Varna) Caroline Danby Newfield Ithaca Outside Tompkins County

Not applicable

13. *Had you previously heard of "The Whole Community Project"?* Yes No Not sure

a. *If yes, have you ever participated in it?* Yes No Not sure

14. *How important do you feel it is for communities to work together to prevent obesity in children?*

Not important Somewhat important Very important More important than any other health issue

15. *Please rank the <u>reasons</u> below for preventing childhood obesity. Rank them from 1 to 3 (or 4, if you specify an additional reason),* ***with 1 as most important****.*

___ reducing economic costs to society
___ improving child physical health
___ increasing child happiness
___ other? (please specify): _____

16. *What is most important to <u>measure</u> to evaluate success in a community's childhood obesity prevention effort? Please rank the statements below from 1 to 5 (or 6, if you specify an additional measure),* ***with 1 as most important****.*

Whether the project has:
___reduced overweight and obesity rates
___ resulted in kids eating healthier foods and/or being more active
___ increased community development and social networks
___ increased equitable access to healthy food and activity
___ made policy and other environmental changes that support healthy eating and activity
___ other? (please specify): _____

17. *Please rank who you think <u>can and should do the most</u> to prevent childhood obesity. Rank them from 1 to 4 (or 5, if you specify another responsible party)**, with 1 as should be doing the most**.*
___ families
___ local institutions such as community organizations, schools and local government
___ state and federal governments
___ the private sector
___ other? (please specify): _____

APPENDIX 3C: statements' normalized rank scores

	Z-score Rank by Factor			
Statement No.	Environmentalist	Libertarian	Technocrat	Bootstrapper
1	0.7	0.84	**-0.45**	**0.26**
2	-0.92	-0.65	**0.21**	**2.06**
3	**0.8**	**-0.29**	-0.73	-0.8
4	1.17	0.23	0.99	0.05
5	**-1**	1.16	1.2	**-0.23**
6	**-0.61**	0.25	0.6	**1.19**
7	**1.03**	0.44	0.33	**-0.31**
8	**-0.73**	**1.76**	1.14	0.79
9	**0.64**	**-1.02**	**-0.06**	**1.17**
10	**0.03**	1.45	1.17	1.33
11	**-0.86**	0.84	0.47	0.73
12	0.51	0.68	**-0.82**	0.31
13	0.61	**1.75**	1.73	**2.14**
14	0.11	0.15	**-0.79**	**0.95**
15	-0.05	-0.62	0.22	-0.52
16	**-1.25**	-0.33	-0.7	-0.2
17	**0.41**	-1.29	-0.99	-1.03
18	**0.59**	-0.62	-0.67	**0.09**
19	-0.16	**-0.72**	-0.16	-0.27
20	-0.34	-0.36	-0.18	-0.08
21	0.81	**-1.52**	0.61	**-1**
22	**-1.58**	**-0.66**	0.28	-0.05
23	-0.15	-1.92	0.18	-1.72
24	0.47	**-0.85**	0.53	**-0.13**
25	-1.96	**0.95**	-2.08	**-1.21**
26	-1.08	0.61	-1.25	0.28
27	-2.06	**-0.79**	-2.33	-2.01
28	0.78	**-0.74**	0.67	**0.21**
29	0.92	**1.63**	1.19	**-0.15**
30	**1.42**	1.05	0.83	0.7
31	1.35	0.74	0.55	1.2
32	**1.11**	**0.75**	**-1.53**	**0.28**
33	**0.81**	**-0.78**	-0.24	0.04
34	0.69	-1.03	0.37	-1.25
35	**-0.13**	-1.46	**1.37**	-1.27
36	**-2.08**	**0.37**	-1.66	-1.52

Chapter 4: Community Action to Prevent Childhood Obesity—three US case studies

Child obesity in the US has tripled in the last three decades. Public health institutions have begun promoting and investing in community-based prevention. Dozens of communities, at the very least, have launched childhood obesity prevention projects in the US. However, there is almost no published research on these community initiatives. Using a multiple-case-study approach, this research documents the actions three community projects are taking to prevent childhood obesity. Case studies were composed of stakeholder interviews (n=22 total), participation and observation (n≥7 events and meetings per case), and document analysis (n≈100 per case). This research then maps these actions to an adapted version of the ANGELO (Analysis Grid for Environments Linked to Obesity) Framework. Using these maps and data from the case studies, it demonstrates what arenas these communities are already addressing and documents the gaps. By comparing these cases studies, it suggests which of these gaps communities could cover if provided with the right supports and proposes strategies to for providing such support.

Introduction

Childhood obesity as a public health problem

Childhood obesity has been cast as one of the most serious and potentially costly current public health issues, threatening to reverse the health gains of the last 50 years.[1] A recent national poll found that childhood obesity has moved up to the number one child health concern of adults.[2] Currently, almost a third of children over 6 are overweight. Of these, about half are obese.[4] This rise in child fatness has been accompanied by a rapid spread of concomitant health problems. For example, rates of

type II diabetes in childhood have soared, so much so that the medical community has had to drop the former moniker of "adult onset" diabetes.[6] Though the increases in childhood obesity may finally be leveling off, about 35% of babies born in the US in 2000 can expect a diabetes diagnosis at some point in their lives.[1] Of course, diabetes is only one of many health problems stemming from obesity. Obesity increases risks for cardiovascular disease[7] and several kinds of cancer.[8] It also damages economic, social and emotional health, especially among females. For example, obesity has been associated with lower income and educational achievement, school absenteeism, lowered self-esteem, and high risk behaviors.[10-12]

As with most other health issues, children in families struggling with poverty and in most communities of color suffer disproportionately from both obesity and resulting health problems.[6, 15] For example, an African-American teenage girl is twice as likely to be overweight as her white counterpart.[4] Among whites, lower educational attainment is associated with higher obesity rates.[17] That said, obesity rates have been rising in all groups, across race, age, class and gender.

Community projects to prevent childhood obesity

The Institute of Medicine (IOM) has argued that "prevention of obesity in children and youth is, ultimately, about *community*."[1: 193, emphasis in original] Given all the other possible layers of the ecological model and a historical health promotion focus on individual behavior, this is a notable claim. It reflects the recent "paradigm shift" in obesity prevention from individual to environment[27, 51] as well as the overall increase in interest in community-based health promotion approaches (including community-based participatory research, or CBPR) in the last decade.[34] The "healthy people in healthy communities" vision of *Healthy People 2010* exemplifies this contextualized, community focus in public health.[130]

However, defining "community-based" as projects engaging multiple institutions and people in a geographically bounded setting in decision making and action to prevent childhood obesity, very little about these projects appears in the academic literature.[46] Even the paper cited for the IOM community claim above based its argument mainly on theory because there were few examples on which to rest an argument for the effectiveness of community-based work supporting child activity and nutrition.[131] Also, few published reports on childhood obesity prevention interventions have provided detail relevant to practice.[28] The American Dietetic Association position paper on this topic argues, "to support and enhance the efficacy of family- and school-based weight interventions, community-wide interventions should be undertaken; few such interventions have been conducted and even fewer evaluated."[45] As that paper documents, the literature offers some evidence for effective family prevention interventions[132, 133] and more extensive evidence for school-based[134-140] obesity prevention. For example, a recent school nutrition policy intervention in one urban district resulted in a 50% reduction in childhood overweight incidence compared to control schools.[141] However, in even the schools with that policy intervention, overweight incidence rose by over 7% in two years. Family and school levels of intervention alone are clearly not sufficient. The public health community has reached consensus that all levels of intervention, including and perhaps especially communities, are required to reverse the childhood obesity epidemic.[1, 21, 51, 142]

In the US, only one community-based childhood obesity prevention program has a significant academic literature documenting and evaluating its work, Shape Up Somerville (SUS) near Boston.[127, 143-146] Their 2007 study documented a one-pound lower weight gain in first to third graders in Somerville vs. two control communities.[40] This finding rocketed that initiative to relative fame, with extensive popular press

coverage.[147-150] Also, a large Chicago-based initiative, the Consortium to Lower Obesity in Chicago Children (CLOCC), has published a few papers describing their approaches.[47-49] This is the sum total of peer-reviewed retrospective studies on community projects in the US aiming to prevent childhood obesity.

There is plenty of reason to hope for better research on this issue in the future. For example, three major institutions working in this area formed the National Collaborative on Childhood Obesity Research (NCCOR) in February 2009, which should advance the research agenda in this area. It was founded by the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC) and the Robert Wood Johnson Foundation (RWJF). The United States Department of Agriculture (USDA) just joined this March. The first lady, Michelle Obama, has just put a bright and hot spotlight on this issue with her "Let's Move" campaign. This campaign has spawned a cross-governmental taskforce and a new funders collaborative, Partnership for a Healthier America. The Partnership includes RWJF as well as most of the members of another, only slightly older funders collaborative on community obesity prevention, Convergence Partnership. External funding from these foundations and collaborations to multiple communities may help foster project evaluation across these initiatives; certainly this is one of their goals. The lead author of the SUS study is currently conducting and studying similar interventions in other communities in the US. Given the recent investments in this issue nationally, other action research projects must also be underway, such as a church-based childhood obesity prevention initiative in Galveston, Texas.[151]

In addition, several other industrialized countries are advancing research in this arena. Europe has 275 EPODE communities (*Ensemble, prévenons l'obésité des enfants* or Together, let's prevent obesity in children). Over 200 of these are in France, where the

campaign began in 2004 as community-action initiatives in 10 French towns. The French part of the collaborative is conducting extensive process and anthropometric outcome evaluations. In a recent paper examining child BMI data in two towns where the EPODE initiative was born—which started with school interventions in the early 1990s and expanded to community initiatives in 1999—researchers found significantly lower childhood obesity rates in the intervention towns than in two comparison towns.[50] Australia also boasts a government-supported network of projects, the Collaboration of Community-based Obesity Prevention Sites (CO-OPS Collaboration) and several comparative studies of community childhood obesity initiatives are underway.[152]

In the meantime, at least 45 US communities (see Appendix 4A) have launched childhood obesity prevention initiatives in the past 12 years. These are in addition to hundreds of other communities making obesity prevention efforts aimed at all ages. Also, particularly thanks to recent funding streams from RWJF, 41 more are about to begin or significantly expand their childhood obesity prevention work, informed by another 9 lead sites.[39] This paper begins to fill the literature gap on what these projects are doing, with some insight into how they are doing it, with three case studies on communities preventing childhood obesity.

Why & how to prevent childhood obesity with community action

Theories from public health and community health organizing enrich the very limited empirical work on community childhood obesity prevention projects. These literatures tout the benefits of community health approaches for identifying local needs and for tapping and expanding local resources, especially human resources and social networks, that are able to influence local policy and infrastructure development.[1, 27, 46]

Process recommendations include building coalitions to organize actions with multiple strategies in multiple sites[49, 152] and to link projects together so that community action will "flow through to action in states, nations and internationally."[152] Such links would also provide opportunities to build community capacity for action.[152] Action recommendations for communities, built from literature reviews of targeted (as opposed to community-wide) initiatives, have included changing food and activity environments such as incentives for grocery stores in underserved neighborhoods and improving sidewalks and local recreation opportunities.[1, 27] In addition, the literature makes repeated calls for early assessments and ongoing formative and summative evaluations of community initiatives, though to little effect to date.[1, 24, 152]

These recommendations have been framed in terms of the socioecological model, which arguably has become *the* theoretical model guiding public health practice in the US. This includes childhood obesity prevention, often citing a childhood obesity-specific version that mapped existing research in this arena.[21] The IOM urges communities "to undertake a comprehensive, interrelated set of interventions operating at each ecological level and in multiple sectors and settings."[1: 203] This advice has not historically been heeded. Although the literature is relatively rich in individual, school and afterschool program interventions, little research has been done on how to prevent obesity through changes in the outer rings of the ecological model.[24, 26, 153, 154]

A well-regarded model for planning obesity prevention initiatives, the ANGELO (Analysis Grid for Environments Linked to Obesity) framework, sets the environment as the target for change.[155] The ANGELO framework (Table 5) has been used as a conceptual model for mapping how environments encourage obesity[140, 156, 157] and as a tool for prioritizing research and action to change those environments.[158, 159] This

research adapts this framework to use it retrospectively to classify actions taken by three US community childhood obesity prevention projects.

Table 5: ANGELO Framework[160]

Environment Size→	**Micro-environment (settings)**		**Macro-environment (sectors)**	
Environment Type↓	*Food*	*Physical Activity*	*Food*	*Physical Activity*
Physical what is available				
Economic costs				
Policy rules				
Sociocultural attitudes, beliefs, values				

Research questions

This paper maps the actions three US community initiatives are taking to prevent childhood obesity to an adapted version of the ANGELO framework to:

- Document and categorize what these projects are doing.
- Identify areas of coverage and the gaps in action.
- Generate hypotheses about why there are these gaps and how regional and national institutions might be able to help fill them.

Notably, this research is *not* attempting to assess the quality or effectiveness of these actions. It also provides only a very rough sketch of the extent of coverage, "dose," or reach of these actions.

Methods

This study used an exploratory multiple case study design, following Yin,[161] with three community-based childhood obesity prevention projects in the Northeastern US. The primary data collected for analysis was open-ended, narrative interviews with stakeholders (n=22), participation in and observation of project meetings and events (n=17 for two projects plus over 100 for the third), and hundreds of project documents (e.g., meeting minutes, reports, websites, memos etc.). Data also included popular media reports, identified through Lexis-Nexus searches and Google news email alerts on each project name, and any academic literature relating to the projects. To address the research questions posed in this study, analysis started with conducting narrative inquiry analysis of interviews, coding project texts, mapping actions to an expanded ANGELO framework, and reviewing my field notes to generate draft hypotheses regarding action drivers for each project. I then conducted cross-case analysis, comparing the frameworks and further developing the hypotheses.

The goal was to conduct instrumental case studies, ones useful for gaining a more general understanding of what communities are doing to prevent childhood obesity so as to suggest potential strategies for supporting their best work and improving their weakest, as opposed to intrinsic case studies interested in these particular, unique projects.[162] Methods are described in more detail in the sections below.

Case study data gathering

I selected three case studies to maximize both variation[163: 79] and research accessibility from a list that I generated of 45 US community-based childhood obesity prevention projects I could identify through web and grey and published literature searches by May 2009. This study defined "community-based" as those engaging multiple institutions and people in a geographically bounded setting in decision making and

action. For example, school-based interventions or health department education campaigns would not qualify. It also selected from initiatives focused on children, youth and/or teens, rather than adults or the community's population at large. It considered only prevention projects, not interventions specifically for children who are already overweight or obese. Finally, though communities can have many kinds of boundaries,[164] for this research I used geographic boundaries. Sociologists might call these "sites" rather than communities,[165] but this is how these projects defined their communities and how the IOM discusses communities in obesity prevention.[1: 194]

The projects I analyzed as case studies are:

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

Interviews

I interviewed 22 stakeholders across the three projects, including the coordinator of each. I interviewed more SUS people (11) than EWPH-C people (7) because the project was more complex and had more central stakeholders. I interviewed the fewest in the WCP (4) because information I was forced to glean from interviews on other projects I knew first-hand as a project participant and because I could draw on many more field notes and experiences from meetings and conversations.

After asking about the stakeholders' involvement in their projects, I posed open-ended "how" questions about project decision making, participation, and actions. These interviews, which lasted between 30 and 90 minutes, were audio-recorded and transcribed. I listened to the recordings and corrected transcriptions before analysis. In

two cases I followed up with a second audio recorded interview and in several other cases with clarifications in telephone conversations during which I took extensive notes.

Participation and observation

In addition to extensive participation over nearly four years in hundreds of WCP meetings and events, I made 2 overnight trips to Somerville and 6 day visits to Chemung. In Somerville I participated in a four-hour "sustainability" workshop aimed at reviewing past actions and planning and prioritizing for the future of SUS. I also toured the city by bicycle. Later, I returned for three days to join 6 events and meetings, 5 of which were organized to coincide with a site visit by two RWJF staff. I also then conducted all but one of the 11 SUS stakeholder interviews. The WCP project coordinator accompanied me on this second visit, providing another perspective on SUS' work. In Chemung I participated in 6 project meetings, attended 3 of their signature events/activities, and joined 2 of their region- or state-level EWPH meetings. For most of the WCP meetings and all of the EWPH and SUS meetings I took extensive notes. From these I created detailed proceedings and executive summaries to check and share with meeting participants and, once final, for public use. I included both my raw notes and the final meeting reports in my analysis.

Aside from filling my research needs, project stakeholders valued my note-taking as a service. It saved them from having to do it and provided much more detail than they would otherwise have. The RWJF staff making the SUS site visit frequently referenced the sustainability workshop notes, noting they had studied them before the visit and almost felt like they had been at that meeting. In addition, sharing the notes reduced the tension of being observed for research. It made my note taking for

research also a more familiar minute-taking activity. I also participated in these meetings as a childhood obesity prevention project stakeholder myself.

Project and other related documents

I requested documentation from the project coordinators such as agendas, minutes, reports, evaluation tools or results, and promotion material going back as far as they could provide. I managed this data by creating file names sortable by date and by pasting them, when possible, into a single word-processing file and generating a table of contents. This also let me see gaps in the data so I could request additional files from the coordinators and/or other stakeholders. Including the primary documents I had created myself through participation and observation, my analysis included about 100 primary documents per project.

In addition, I read secondary data documents such as media stories, funder reports and, in the case of SUS, research papers. Some of these were provided by project stakeholders. Most I found through Google Web, LexisNexis, Google Scholar, PubMed, and saved Google News Alert searches on the project names. For SUS and EWPH-C, I also visited the funder websites for documentation. When these documents provided data about project history or actions, I included them in my coding analysis as well.

Data analysis & interpretation

Data analysis and interpretation had four stages:

Conducting narrative inquiry analysis of stakeholder interviews.

Reading then coding texts for each project.

Mapping actions to adapted ANGELO framework for each project.

Generating hypotheses through comparing ANGELO maps in light of additional analysis of interviews and reports from the coded texts.

The sections below detail each of these stages.

Narrative inquiry interview analysis

Narrative inquiry considers an interview holistically, with the stories participants tell as the unit of analysis.[166-168] In addition to looking for information on what "actually happened," I analyzed these stories in context, seeking understanding of the teller's perspective and practical theory of how and why the events or actions discussed came to be. This contrasts with my coding analysis, which extracted bits of text from each interview and compiled them according to how I had labeled them.

I blend realist and narrative approaches to interview interpretation.[168] As a group of feminist narrative inquiry theorists argue, "when talking about their lives, people… are revealing truths. These truths don't reveal the past 'as it actually was,' aspiring to a standard of objectivity. They give us instead the truths of our experiences."[166: 22] These "truths," considered individually and across interviews, provide "plausible accounts of the world" that form at least partially "'true' pictures of 'reality.'"[166: 343]

This approach involved: reading a transcript directly after listening to the audio; pasting key passages and making notes in a new document; generating headings by themes emerging from the passages and notes; writing short summaries of the implications of each theme with relevant quotes; checking the summaries and transcripts with the interview participant; and, finally, updating the analysis if required according to participant comments.

My reasons for using this approach with the interviews include that narrative inquiry are that it:

- Provides a window for an outsider to glimpse the meanings participants make of the experiences and events in their project work, important for generating

hypotheses on how to fill gaps in action as well as answer process and participation research questions in future papers using this data.

- Draws on local, contextualized knowledge and keeps this knowledge in context, important for understanding if and how lessons from these projects may be transferable to other communities.

- Creates opportunities for practitioner reflection and learning, for both me and the participants.

- Retains the integrity and diversity of each person's experience and wisdom. As Iris Marion Young writes, "narrative fosters understanding across such difference without making those who are different symmetrical."[53: 131]

Interviews and narrative inquiry do have limitations, both in representing reality transparently and in eliciting only selected stories from a selected set of participants. However, I've chosen this approach for the depth of insights it provides in understanding how these projects are working, why, for what, and with whom, as context for their actions. Also, other methods used helped compensate for some of these weaknesses.

Reading then coding texts

After reading through all project texts, making memos as I read, I used a constrained version of the constant comparative method[169] to code and analyze the project documents and interviews using ATLAS.ti.[63]

The constant comparative method works by developing theory or hypotheses through open coding (i.e., not starting with any predefined coding vocabulary or idea of what I am looking for) and analysis of qualitative data. However, my coding was only semi-

open. I did not generate an a priori code list, but did develop the codes with a focus on the project action questions posed for this paper and on research questions for other papers (on project participation and process, and notions of "choice"). Also, though I coded each project's texts separately (in ATLAS.ti terms, each project was its own "hermeneutic unit"), I imported codes from the first project to the next, and deleted or added codes as needed from there.

To get to the next stage of analysis, I generated reports of food and activity actions taken in each project.

Mapping project actions: adapting ANGELO

I reviewed the code reports of actions from each project then categorized each action in an adapted ANGELO framework. The original framework breaks food and activity environment sizes into "micro", e.g., a school or home, and "macro" which addresses entire sectors (Table 5). Very few project actions tackled the macro level, so I replaced that with a "meso" level to represent local sectors, such as a school district or a city-wide policy. ANGELO further breaks environment types into physical (what's available, including things like trainings), economic (e.g., subsidies and financial incentives), political (policies and in/formal rules), and sociocultural. Outside the environmental framework, I also added the category of heath education aimed at individuals or families. I then extended and corrected the frameworks based on analysis of other code reports on "action approaches," rereading my narrative analysis of interviews, and feedback from project participants.

I also narrowed the conception of "economic type" action. The ANGELO framework authors cite research supporting effectiveness of food economic actions such as "(1) monetary incentives and disincentives in the form of taxes, pricing policies, and subsidies, (2) financial support for health promotion programs, and (3) 'purchasing'

healthy food policies and practices through sponsorship." Activity examples included reducing costs of activity (e.g., recreation program scholarships), increasing opportunities for free or low-cost activity (e.g., building bike paths) and increasing motivation (e.g., funding health campaigns and improving public transport).[155] By these descriptions, nearly all physical actions and some sociocultural actions, especially around physical activity, would also qualify as economic actions. Thus, using the ANGELO framework for this retrospective purpose, I found it more useful to think of economic action more narrowly in terms of subsidies or financial supports.

Finally, I subdivided the "physical type" actions into durable/infrastructural and events/programs.

Generating hypotheses

In the final phase of analysis, I:

- Used minutes from each project to generate a table of meetings vs. participants to get a sense of who was participating in central meetings and how often.

- Used all project data sources to generate tables of what grants were received, by whom, from whom, for what, in what time periods. I checked these with stakeholders and corrected them accordingly.

- Drafted the project profiles below, generated these using all of the analysis above, particularly from code reports and stakeholder narratives. I then refined and revised them according to feedback from several stakeholders in each project, including checking them with at least one project stakeholder in each case that I had not interviewed for this work.

- Examined the action maps (Tables 8-13) to identify coverage and gaps within projects and across the projects overall.

- Generated potential explanations and understandings of coverage and gaps based on cross-case data analysis, referring back to my memos and field notes, and also referring to the literature.

Strong objectivity, inside and out

Following science philosopher Sandra Harding's notion of "strong objectivity,"[170] I aim for detachment not impersonality, objectivity not neutrality, and sociological relativism not epistemological relativism. Conventional ideals of neutrality, including objectivity as neutrality, assume the impossible—a view from nowhere.

Not only did I have a particular standpoint location on these case studies, but it varied between them. In the WCP I have been a key stakeholder, being the consummate insider. For SUS I was an outsider, one of many interested in or even studying their project. With only two site visits, I did not have much opportunity to build relationships. For EWPH-C I was less of an outsider as a member of a similar project in a neighboring community. We exchanged ideas and have some shared regional networks. This status was emphasized when they invited me to facilitate the project for a few months when their coordinator went on maternity leave. (I declined.) They also had none of the interview fatigue SUS stakeholders have suffered through external evaluators hired by funders and from the press. Each standpoint, and their blend, had advantages and disadvantages, as summarized in Table 6.

Table 6: Advantages and Disadvantages of Standpoints on Case Studies

Case	My standpoint	Advantages	Disadvantages
WCP	Insider, project stakeholder	Had fully immersed experience, participation and observation, access to data and to people. Chance to test different approaches.	Harder to achieve a detached view. My learning from other projects influenced WCP action.
EWPH-C	Outsider, but colleague with shared network	Easily gained trust, access to data; minimized observation effect on meetings.	Minimal, but some inclination to view the project more positively.
SUS	Outsider, one of many	Easier to be innocuous, minimizing observation effects. My "story" of this project not the only public one.	Stakeholders less interested providing information for my research. Many had been interviewed several times already.
Combined Standpoints		Easier to map potential blind spots of each standpoint and account for them through data gathering, analysis and/or interpretation.	Harder to make direct case study comparisons. More open to critique from conventional scientific standpoints on objectivity as neutrality and favoring control and replication.

Project Profiles

This section presents abbreviated narratives of each project's trajectory. Each covers the project origins, community characteristics, funding, mission, membership and decision making structure, evaluation approaches, and current status. Table 7 summarizes basic project and community characteristics. Tables 8-13 summarize the actions mentioned here.

EWPH-C

This research covers EWPH-C from its inception in late 2003 to March 2010.

Eat Well Play Hard Chemung is one of 15 community childhood obesity prevention projects currently funded by the New York State Department of Health (NYS DoH, or "the State"). NYS DoH funded the first EWPH pilot initiative in Jefferson County 1998 and expanded to two additional counties in 1999. These projects are the earliest

community-based efforts to prevent childhood obesity I have identified in the US. In 2003-4 the State expanded to ten total EWPH projects covering 14 counties, including Chemung County. The EWPH community projects were referred to as "contractors" during regional and State-level meetings and in NYS DoH texts.

According to estimates from the 2006-2008 American Community Survey[171] circa 88,000 people live in Chemung County, about 90% of whom are white, 6% African-American and the rest identifying as other races. Just over 12% of families subsist below the poverty line. The County has voted Republican in all recent county, state, and federal elections. It has three school districts plus one shared with another county; two hospitals; and one small college. EWPH-C meetings are held in the County's only city, Elmira, which has a population of 30,000, including 80% of the African-Americans living in the County. Recent city mayors have been registered Democrats.

The Chemung County Department of Health (County DoH) first won funding to found EWPH-C in 2003 and has had two contract renewals since. The County DoH has managed the funds, receiving circa $78,000 per year. The bulk of that pays for a project coordinator, who is employed by a local educational service institution (Greater Southern Tier Board of Cooperative Educational Services, or GST-BOCES), with about $17,000 left over for project initiatives each year. The project has not applied for grants, though project partners sometimes co-fund actions. Because of the rigidity and, sometimes, late or unexpected funds with tight spending deadlines that are common New York State-funded contracts, the funding problem for the partnership has been as much about how to "spend-down" to meet the State's calendar as about how to finance their actions.

EWPH-C's mission is to be:

> A community collaboration that promotes age appropriate physical activity and the increased consumption of fruits, vegetables and low fat dairy for 2-10 year olds in Chemung County to keep children healthy.

This mission was authored and approved by the EWPH-C partnership members. However, the content derives almost entirely from the State's directives established in contracts with each EWPH project, which define the age range and strategies for childhood obesity prevention. These State strategies were determined through expert panel review of current evidence.[172]

Because the EWPH-C partnership wished to address obesity in the County beyond these age constraints, the partnership formed a separate committee, though one with almost entirely overlapping membership, called Shape Up Chemung! (SUC!) to facilitate population-wide obesity prevention planning and action.

The EWPH-C partnership is convened and facilitated by the full-time project coordinator. The partnership has suffered high turnover in this position, with four coordinators in their 6.5 years. However, the contract manager/partnership member from the County DoH has provided steady leadership throughout, and several other partnership members have been involved from the beginning or nearly from the beginning. EWPH-C partnership members are almost entirely health, education and/or recreation community or human service professionals who attend meetings and conduct project work because it complements and/or is part of their jobs. While anyone can join, the coordinator actively recruits representatives from those sectors: "I call and network and connect with people, talk to them about our goals and objectives and how they can help us and how we can help them." For example, when the coordinator asked one member to chair a new subcommittee, that member remembers agreeing because, "it fits right in with what I'm doing anyway." Nearly all partnership members were actively recruited. Partnership is codified with a Memorandum of

Understanding, which was created in response to member feedback about lack of clarity about their roles, and also by inclusion on an email list for announcements and distribution of meeting minutes (I have been included on that list since July 2009).

Project actions are discussed and, usually, decided in the partnership meetings, and then planned and implemented by subcommittees. The subcommittees are usually chaired by partnership members, attended by the coordinator and some members, and often garner additional participants for whom that action area is relevant.

Nearly all of the project's assessment, monitoring and evaluation activities have been driven by the State's reporting requirements. In particular, in the second round of EWPH project funding, the State required all projects to conduct community assessments of food and activity needs and resources. It currently also asks for quarterly reports on relevant practice or policy changes in project communities and on media/social marketing activities. Some of the results are discussed below. In addition to State data collection and reporting requirements, the EWPH-C and SUC! partnerships compiled existing data on chronic disease in the County related to overweight/obesity.

The project had been scheduled to run until September 2011, however the State recently shortened all EWPH contracts by a year to invest in a different, though related, funding stream.[173] Given these circumstances, SUC! and EWPH-C recently agreed to join as one partnership and one member is leading a coalition, including the partnership, responding to a request for proposals for that new funding stream. Even if their application is not successful, the partnership is likely to continue meeting, as SUC! has done without any dedicated funding stream. Under significant pressure from the State, the partnership has been striving to focus on actions that can be sustainable

without the NYS DoH support. For example, a local nature center that hosted recent Gold Shoe Hunts has just taken over chairing the task of organizing this popular annual event for 2010. Also, that subcommittee slashed that event's operating budget 70% to $2525 in 2009. The Youth Bureau has gradually taken over funding the supplies for the fruits and vegetable summer program. Their Farmers Market action group already runs with little EWPH-C financial or organizational support. However, organizing trainings and, potential, new action areas will likely be challenging if they have neither staff nor project funding support.

WCP

This research covers WCP from its planning in mid-2006 to March 2010. I have been personally involved with WCP since June 2006 not only as a researcher but also, increasingly over time, a community activist and organizer.

In the summer of 2006, Cornell Cooperative Extension Tompkins County (CCE-TC) responded to a NYS DoH request for childhood obesity prevention funding applications (related to but not the same as EWPH)[174] with letters of support from 35 community partners. A primary partner was a Cornell University nutrition professor, David Pelletier. Though the CCE-TC application was unsuccessful, Pelletier used the bulk of his three-year federal Hatch and Smith-Lever grants to fund most of a full-time childhood obesity initiative facilitator based at CCE-TC, with CCE-TC covering the rest. Hoping to engage the "whole community," Pelletier optimistically and provisionally called it the Whole Community Project, and the name stuck.

Tompkins County has circa 100,500 residents, about 83% of whom are white, 4% African-American, 10% Asian and the rest identifying as other races. About 9.6% of families subsist below the poverty line.[171] The County as a whole and its one city,

Ithaca, tend to vote Democrat, though many of the surrounding towns elect Republican representatives. It has six school districts, one hospital, and three higher education institutions including New York's land grant, Cornell University. The vast majority of WCP meetings are held in Ithaca, which has a population just under 30,000, including most of the County's racial diversity.

When funds from the federal grant were exhausted in 2009, CCE-TC adopted the WCP facilitator position by cobbling together other grant and some core funding, rendering the position and the project as tenuous, but at least continuous. The project began with less than $25,000 per annum and now subsists on about $40,000, covering the direct costs of one position (New York State covers most overhead for employees in the CCE system, so the equivalent funding that would be required in another organization would be closer to $60,000). Project actions requiring funding have needed to garner additional grant support, totaling about $100,000 in the past four years, plus a the $324,000 Safe Routes to School (SRTS) grant.

WCP has had two facilitators. The first project facilitator, who held the position from January 2007 until she moved out of the country in August 2008, launched the project with a series of open community forums, publicized through listservs and press releases. These tended to draw people from the community and human service professional community, similar to the make-up of the EWPH-C partnership. About 15-20 people would come to each, with some returning for multiple meetings. These participants became an unofficial advisory group. After the third forum, where we brainstormed and then multivoted on project priorities, the facilitator began hosting themed panel discussions (e.g., "Increasing the Affordability of Healthy Food: How can community groups and agencies play a role?" and "How are local youth programs working to prevent childhood obesity in Tompkins County?") and helped to form two

sub-groups to plan action in the areas that emerged as highest priority in the multivoting (school food activities, including gardening, and increasing free family recreation opportunities). She also participated in nearly 100 meetings of other organizations. She promoted the project, its mission, and its approach as follows:

> The Whole Community Project (WCP) is a collaborative effort of organizations and individuals in Tompkins County to support the health and well-being of our children and youth. The WCP does not embrace just one solution or strategy. It brings together the collective experience of community members to support existing and new initiatives that foster healthy children and families in our community. Childhood overweight and obesity is an increasing concern for our community -locally and nationally- especially because both can lead to long-term health problems, poor body image, and low self-esteem. By supporting our children in healthy eating and active play, we promote positive development for all. It will take our whole, diverse community to make a difference. The WCP aims to be a place of dialogue and action for all the communities that make up Tompkins County. By drawing on our collective knowledge and strengths, we hope to promote healthy food and activity environments for all our children and youth. We need you!

The current project facilitator started in October 2008. CCE-TC staff and I provided some continuity between facilitators. The current facilitator takes an informal, grassroots approach to organizing project action, rarely calling open forums or using email listservs. A resident of the county for the last 20 years, she has leveraged her existing networks as well as the WCP sub-group structure created by her predecessor to involve and support action by citizens (rather than only professionals) and by community organizations working in lower-income neighborhoods who had not previously been involved with WCP. She also capitalized on my nascent organizing around "food justice" in the County, something that had been evolving somewhat in parallel to WCP but which she subsumed as a core WCP initiative. A new school and community garden coordinator, funded by a local foundation and based at CCE has been a key partner as well in farm and garden actions.

WCP's current mission is "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,"

authored by the current facilitator and myself at my kitchen table. The project has never had a formal decision making structure or membership. The email lists, for example, are listservs that are self-subscribe and unsubscribe. Some action groups, however, such as Gardens 4 Humanity (G4H), Congo Square Market, and the current incarnation of the healthy school foods group, are codified by who is included on their emails. (With the exception of the Congo Square Market, I have been on all of these email lists and groups since their inception and had a hand in creating some of them.) G4H has its own mission statement, determined by group deliberation, to be "a community-driven organization that promotes economic, personal, and neighborhood empowerment through urban gardening and local farm connections."

What little assessment, monitoring and evaluation the WCP has had has largely been through this research. Pelletier tasked students in a university course with conducting community stakeholder interviews to identify project scope and strategy which I analyzed. Pelletier and I also conducted a Q study of what 90 County residents believe our community should do to prevent childhood obesity (see Chapter 3). In addition, with support from each of the project facilitators, I have tracked the project's activities and participation.

SUS

In 2000, a community food assessment conducted in the City of Somerville catalyzed a group of citizens to form a "Nutrition Taskforce" to address some of the findings. In 2002, a Tufts University nutrition researcher contacted them about doing a childhood obesity prevention participatory research project. When she was granted $1.5 million from CDC, the three-year Tufts Shape up Somerville project was born. That research brought SUS the fame mentioned in the introduction. Actions through Tufts SUS (as I will call it, using the language of a few interview participants) have been reasonably

well documented.[127, 145, 146, 149] My analysis of this case focuses on the post-Tufts and the non-Tufts actions that paralleled and integrated with the Tufts project. In this paper, "SUS" refers to this non-Tufts work unless otherwise specified. However, differentiating in the 2002-2005 period of Tufts SUS can be challenging and the work that followed often built on Tufts SUS achievements. My analysis includes SUS work until the March 2010. Also, in the post-Tufts era the project expanded from a focus on children to the entire population. This research addresses only the actions aimed at children and their families.

The City of Somerville currently has about 70,000 residents in its 4.2 square miles.[171] The 2000 census found it was the most densely populated New England municipality at that time. About 75% of the population identifies as white, 4.4% African-American, 10% Asian and other races for the rest. However, these numbers do not divulge the City's international diversity. A quarter of the city's people were born outside the US, with the top countries, in descending order, being Brazil, Portugal, El Salvador, Haiti, and China. Poverty rates are just under 10% for families. City trends towards both immigration and gentrification are widening the income gap. One person described the three main groups of Somerville residents this way:

> "There's the old-time white guys, descendants of Italian or Irish immigrants, the key movers and shakers in Somerville government. There's new immigrants, the largest groups of people of color in Somerville are immigrants. Then there's educated leftist 20-to-45 folks and you see a lot of them at the Shape Up Somerville meetings."

SUS has garnered numerous grants, including a $200,000 RWJF Active Living by Design (ALbD) award for 2003-2008 and a $1.4 million Carol M. White Physical Education Program (PEP) award for 2004-2008. For 2009-2013, SUS has a $400,000 RWJF Healthy Kids, Healthy Communities (HKHC) award as one of 9 "lead sites" for the 50 HKHC initiatives funded nationwide. *Excluding* the Tufts SUS $1.5 million

from CDC, a more recent $1.3 million NIH grant to the same lead researcher for action research on obesity prevention in recent immigrants, and about $3.5 million for the community path extension, SUS has garnered over $3 million in external funding for their work since 2003. Subtracting the funding not yet received for their HKHC work, this is about $430,000 per year. In addition, the City has invested its own funds in many of the physical activity infrastructure changes and in staffing. This relative (to other projects) largesse has enabled SUS to pay partner organizations, consultants and staff to organize most of the actions summarized in Table 12 and Table 13, conduct evaluations, as well as purchase materials and equipment (e.g., school food service ovens, gardening tools, bike helmets, SUS magnetic poetry sets).

When Tufts SUS ended in 2005, much of the food and physical activity work continued under other grants and with many of the same players, though often in different positions. For example, the Tufts SUS project manager became director of a city-community-hospital health partnership, called the Somerville Community Health Agenda (SCHA), and her predecessor became the City Health Department director. A person who had been involved in the community food assessment in 2000, had conducted much of the groundwork for the school and community gardening projects, served as Tufts-Somerville community liaison during much of the Tufts SUS, is now director of the SCHA. In 2006, after much soul-searching, negotiating, and cajoling, people and partners who had been associated with Tufts SUS, or who had been doing related work (e.g., ALbD, Growing Healthy gardens), agreed to capitalize on the "brand equity" Tufts SUS had established and the mayor's increasing interest in the project and join efforts under the SUS umbrella.

The first post-Tufts SUS coordinator was hired in October 2006 as an employee of the City Health Department. The coordinator was recruited by the SCHA director (i.e., the

former Tufts SUS manager), and paid for with a two-year gift from Tufts University. Her work was guided and supported by the SUS Taskforce. In addition, action groups on school wellness and active transport have also convened separately. The HKHC grant has also spawned a new farmer's market action group.

Until May 2009, the SUS Taskforce was an advisory group that held monthly 1.5-2 hour meetings with open and unofficial membership, codified by an email list for announcements and minute distribution. It mainly included the project coordinator, the city planner originally hired with ALbD funds, and professionals representing community-based organizations (CBOs) and human services institutions. This group has been called the "SUS Taskforce" since early 2006, when the group officially adopted the SUS identity, post-Tufts. Its roots are in the pre-Tufts Nutrition Taskforce, which became the SUS Advisory Council in the Tufts period. This group had historically been chaired by the director of SCHA.

In May last year, SUS hosted a half-day "sustainability workshop", which marked a transition to a new project phase. SUS had a new grant (HKHC), a new City Health Department director, and a new SUS/HKHC director hired with an agreement for later adoption of the position by the City. The new SUS director wished to formalize the Taskforce and the mayor decided to step up his involvement. Meetings were suspended until fall 2009, when the SUS Taskforce began meeting again with membership by invitation and the mayor as the chair. Meeting and other announcements to the Taskforce from the City Health Department have been to a blinded recipient list. Some members are the same. The mayor and several city department heads, as well as more business representatives, have been added. Meetings have been shortened to an hour.

SUS still defines its mission as being:

> a city wide campaign to increase daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work. The campaign targets all segments of our community, including schools, city government, civic organizations, community groups, businesses, and other people who live, work, and play in Somerville.

The SUS Taskforce agendas, at least prior to May 2009, defined their aims at the bottom of each document:

a. solidify and sustain public health education messaging

b. inform policy-making

c. assist in grant writing to sustain programmatic and

d. physical infrastructure work

e. coordinate complimentary programming when appropriate

f. share data and information to support planning

Due in part to the influence of RWJF grants, and in keeping with trends noted in the introduction, SUS has increasingly focused on policy and other environmental changes and less on programming. The involvement of the mayor has been exceptional, even before he became SUS Taskforce chair.

SUS' large, national grants have mandated extensive evaluations and provided assistance for doing so. For example, the researchers in the local hospital network received a $200,000 grant from RWJF to evaluate the ALbD work in Somerville, largely tracking activity changes through surveys, interviews and observations. SUS has been tracking policy and infrastructure changes as well as behavior changes through surveys.

Table 7: Summary of Project Characteristics

Project	EWPH-C	WCP	SUS
Community/site geography[171]	Chemung County, NY pop 88,000 in 411 sq miles	Tompkins County, NY with pop 100,500 in 492 sq miles	Somerville City, MA pop 70,000 in 4.2 sq miles
Community/site Demographics[171]	90% white, 12.4% family poverty, $54,256 median family income	83% white, 6.2% family poverty, $71,341 median family income	75% white, 10% family poverty, 31% speak language other than English at home, $71,057 median family income
Start year	2003	2006	2002
Est. mean $/yr (see text for details)	$80,000	$60,000	$430,000
Coordinator location	County Health Dep't/ Ed Services Agency	County Cooperative Extension (CCE)	City Health Department
Project organization	Partnership, open membership, semi-formalized by email distribution and MoU. Mainly professionals recruited by coordinator. Action subcommittees.	Informal membership; public meetings and forums until 2008; public email listservs; action groups; formal and informal meetings.	SUS Taskforce. Was open, semi-formalized by email distribution, to May 2009. SCHA as chair. Now by invitation with mayor as chair + farmer's market group.
Core project funder	New York State Department of Health, Nutrition Division	CCE adopted, previously a Cornell professor's Hatch and Smith Lever grants	RWJF. City had adopted a new active transport planner position until 2010, will adopt project director position.
Other funders	Very little. Some donations and funding matches from partnership members for initiatives.	Handful of grants each year, almost entirely local microgrants.	Extensive, from local microgrants to multiyear funding from national sources, for staff, contracts and purchasing.

Project Actions

This section presents the actions each project took mapped to an adapted ANGELO framework. Food and activity actions are presented in separate tables and categorized into the four ANGELO environment types: physical, economic, policy and sociocultural. I adapted the framework to roughly sub-divide physical environment actions into "durable/infrastructure" and "events/programs." This is not a perfect

division. For example, I classified school gardens as infrastructure, since the work of planning, digging and fencing is relatively durable. However, gardens also require ongoing programming support to operate each year. The same goes for markets. But this division provides a rough indication of which actions have created new physical facts on the ground.

I then classified these actions as being on "micro-environments" such as individual schools or farmers markets, or "meso-environments" such as a school district or all farmers markets in a community. Also, macro-environment actions, though not in the tables, are described and discussed. The summary tables and accompanying text were reviewed by project stakeholders and revised accordingly. Note that while the number of items in each cell provides some indication of project foci, of course not all actions are equivalent in cost, effort, or potential impact.

EWPH-C

Table 8 and Table 9 summarize Eat Well Play Hard Chemung's actions.

Micro & meso-environment actions

Many of EWPH-C's actions have been taken in all of New York's EWPH community projects in keeping with their State contract requirements, such as the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) training, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) milk taste testing, 5-a-Day month promotional activities, and TV-turn-off campaigns. Chemung's signature actions have been the Hunt for the Gold Shoes, fruit slicing at schools and, more recently, raffles of 50 refurbished children's bikes (including helmets and fix kits) at an annual Juneteenth community festival.

This year will be the 6th annual Gold Shoe event and the first coordinated by an EWPH-C partner organization, rather than by the project facilitator. After heavy investments in media promotion and prizes in the first few years, it has become a community institution. One interview participant said "it's taken on a life because people recognize it, look forward to it" Another noted, "I'm amazed how many people ask me about it. I'm walking my dog in the morning and I see people say 'hey, when's Gold Shoe going to happen again?'" The goal is to get people out into the County's parks through the 4 weeks of shoe hunting. Each year at least 80% of survey respondents at the final Gold Shoe event have said their family's use of local parks and walking trails will likely increase as a result of the hunt. One year a woman told the facilitator at the final event that she started walking with her family on park trails at the start of the month-long hunt and had lost 20 pounds.

For the fruit slicing initiative, EWPH-C purchased Sunkist Sectionizers for several elementary schools with slicing blades for apples and oranges and has helped to coordinate volunteers. The volunteers staff the slicer once a week at each of three Elmira city elementary schools in coordination with the fruit being offered by the school lunch program. One school reported that on slicing days their fruit sales quadrupled from 60 pieces a day to about 240.

Also, in collaboration with SUC!, the partnership delivers an annual nutrition and activity training aimed at serving home-based, informal child care providers.

While the project has undertaken some individual and family education activities, the State's goal has been to focus on environmental change. As their report reviewing EWPH community projects from 2003-2006 notes about their early pilot projects:

> Key to these demonstration projects' success was the paradigm shift from treating individuals for obesity related problems to treating entire communities with sustained

> environmental or policy changes. This concept became the basis for the next round of funding.

EWPH-C has followed this directive.

Macro-environment action and influence

EWPH-C has not sought to influence macro systems for childhood obesity prevention, but the NYS DoH has consciously used their network of EWPH community projects both to inform and lay groundwork for state policy change, as well as to influence federal policy. For example, the WIC milk taste tests each community project conducted found that families usually could not tell the difference between milks with different fat content and convinced the vast majority to claim they would switch to low-fat milk. This information was used to encourage the January 2008 state policy change requiring that WIC checks for people 2 years and older can only be used to purchase 1% or skim milk. Also, New York proposed healthier food standards for the State's implementation of the Child and Adult Care Food Program (CACFP) and were granted federal permission to try the standards as a pilot.

Table 8: EWPH-C Food Actions in Adapted ANGELO Framework

Environment Type↓ Size→	**Food micro-environment (settings)**	**Food meso-environment (local sector)**
Physical Events/ programs, with partial exception of fruit sectionizing machines	**Fruit slicing**, sectionizing fruits during lunch periods once a week in 2 to 3 schools, by volunteers organized by EWPH facilitator. **Fruit & vegetable clubs**, CATCH clubs at lunch in 3 schools for about 50 children total, by Elmira College (project partner). **Farmer's market taste testings and recipes**, especially for SNAP and WIC users at a city market, by CCE-Chemung County (project partner) **Fruits and vegetables summer program** ("Summer Cohesion"), 6 lessons in using/eating fruits and vegetables for 300-450 6-to-7-year-olds in a summer enrichment program, by Youth Bureau (project partner) **Community center snack shop changes,** changed signage and stock (see policy), by and for the center staff and patrons. **Child care annual training**, full-day annual training and small equipment gifts for 15-25 home day-care providers in food and activity, SUC!/EWPH project partners. **Child care milk training**: taste tests and training about low-fat milk for 49 child care providers by EWPH facilitator.	**Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Training**, for 100 Head Start staff, by EWPH coordinator **Color Me Healthy training**: for teachers/child care providers in 20 preschool classrooms, by EWPH project partners
Economic	**EWPH sponsored 3 micro physical environment changes**: summer program (now adopted fully by Youth Bureau), grant to market to buy equipment for making hot foods, buys materials for fruit & vegetable clubs.	-

Table 8 (Continued)

Policy	**Community center snack shop changes,** no more sweetened beverages, only 100% juice & water; no more candy, only fruit cups, pretzels, and sun chips. **Post-child care milk training changes**: 80% reported serving 1% milk three months after the training.	**School Wellness Policies** with 1% milk only and only milk and water products in vending machines, in county's 3 school districts. EWPH partners also active in the city's school wellness policy 2009 updating. **Post-NAP SACC changes**: County Head Start classrooms have banned cupcakes and other "junk" foods for birthdays
Sociocultural	**WIC milk taste tests** (discontinued due to state policy change), blind test of skim to whole milk with WIC participants by EWPH facilitator **Tabling** at county events, providing activities, snacks and usually give-aways and prizes, especially at annual Strong Kids, Safe Kids fair that attracts about 10,000 people. **Farmers Market events and give-aways** (e.g., diapers, vegetables scrubbers, mini-pumpkins) weekly at one city market to attract new shoppers, some targeted to SNAP or WIC users. **Physical and policy actions also influence the sociocultural environment.**	**5-A-Day promotion** annually, has included a billboard for 6 months, weekly taste testings at one farmers market, fruit/veg beanbag give-aways to 1200 WIC clients, article in area paper, give-aways (e.g., relevant coloring books, backpacks) when tabling. **P.A.C.K. (pack assorted colorful fruits and veggies for kids lunches) week** promotion each year to parents and children in city's school system to change or add to school lunches, by EWPH facilitator, for two years.

Table 8 (Continued)

Child/Family Focus	All of New York State's EWPH project focus on policy and practice changes. However, many of the actions above also included a health education component, aimed to teach and encourage children and/or families to engage in healthier food behaviors. For example: - Milk taste tests at WIC and other locations included a health education component on why low fat milk is better for people aged 2 and up. - Letters encouraging more fruit and vegetable consumption went home to parents for children participating in the summer fruit and vegetable classes and education for children on why the fruits or vegetables they were prepared are healthy. - Fruit and vegetable clubs include an educational component. - Many media promotions, particularly a series of 6 articles the local newspapers, include health education. - CCE-CC educators used the farmer's market taste testings as an opportunity to educate people, as well as recruit low-income parents to their nutrition education classes. - The Color Me Healthy education and tasting curriculum is now being implemented twice a week in the preschool classrooms (with about 200 children).

Table 9: EWPH-C Food Actions in Adapted ANGELO Framework

Environment Type↓ Size→	**Physical Activity Micro-environment (settings)**	**Physical Activity meso-environment (local sector)**
↑ durable/ infrastructure **Physical** ↓ events/ programs	**New Crosswalk** to reach farmers market. **WIC activity bags**, for all 1200 County clients with physical activity items such as bean bags, beach ball, jump rope, and activity booklet. **Child care annual training**, as in Food environment. Attendees receive Kindermusik CD and some activity equipment (those pieces durable). **TV turn off week minigrants and events**, moved from city-wide event model in 1st year to minigrants for 3-7 schools and centers to organize at least two evening activities, such as dances, basketball and swimming. Now semi-annual. Also, several parent project partners have attended state-provided TV-turn-off training. **Juneteenth bike give-away**, 50 refurbished child and youth bikes raffled at a large, annual urban community event. Bikes include helmet, lock and other gear as well as fittings on the spot. Coordinated by Southern Tier Bicycle League (STBL, project partner). **Bike-to-school week**, promoted at two elementary schools. Bike racks appeared from storage after these promotions, and EWPH provided STBL with minigrant to use for racks and/or refurbishing children's bikes. **Community walking program**, an 8-week program for circa 80 adults with pre/post health measures. Childcare council training, CDs etc. See survey results 2009-09-01 **Friday fitness nights**, two evenings of physical activities per city elementary school led in 2007 by the EWPH facilitator.	**Exercise equipment for Head Start**, all 20 county classrooms received training & equipment, including treadmills or stationary bikes. **Hunt for the Gold Shoes** – a 4-week public, annual event where painted shoes are hidden in area parks. Over 300 participants bring shoes to a final event at a nature center to get raffle tickets for winning activity equipment and many more collect shoes in their local parks. In 2009 a pre-event hike was added with 120 people arriving early for it.

Table 9 (Continued)

Economic	The **minigrants** to STBL and for TV turn off, as well as **activity equipment give-aways**, subsidize physical activity opportunities.	
Policy	It is possible that TV-turn-off week activities and pledge forms and that child care training lead to "rule" changes in some home and day care environments.	**Post-NAP SACC policy changes**: County Head Start classrooms provide at least 30 minutes of physical activity daily.
Sociocultural	**Jumping Jill events** by a "nutrition edu-tainer" for four area elementary schools to promote fitness and fueling fitness with healthy food. Also, **bike-to-school week promotions** and the **fruit & vegetable/CATCH clubs** may positively influence a culture of activity.	**TV turn off promotions**, including pledge forms to all elementary schools with tips for parents, training for school staff, and morning announcements, plus reminder TV clings for all 3rd graders in the city. **Move It Monday** 15-second health tips ran every 30 min on a local cable channel every Mon for a year. Extensive tabling and promotions at events.
Child/Family Focus	All of New York State's EWPH project focus on policy and practice changes. However, some actions above also included a health education component, aimed to teach and encourage children and/or families to engage in more activity. For example: - The TV Turn Off tip sheets educate parents about screen time. - Jumping Jill's events/presentations include health education materials. - The community walking program includes health education components.	

WCP

Table 10 and Table 11 summarize Whole Community Project's actions in food and activity.

Micro & meso-environment actions

This project has taken more action at micro than meso-levels, and focused much more on food than on activity.

Under the first facilitator, WCP's signature activity was as a resource and communications hub for people, resources and information interested in food access, physical activity, gardening, school food, or other childhood-obesity related initiatives. This was achieved largely through five themed email discussion lists of about 100 people each, community forums, participation and presentations at other meetings (e.g. PTA, Coalition for Families), and a member-authored newsletter. For example, the fruit & vegetable snack program promoted their plan in the newsletter and a local foundation that saw it invited them to (successfully) apply for funding. The Safe Routes to School (SRTS) grant also won through a Town of Ithaca employee seeing it in the newsletter and applying after a WCP forum held with the local SRTS grant administrator. All community childhood obesity prevention projects I considered for this research (Appendix 4A) act as hubs and networks, but WCP's investment in this was exceptional (e.g., neither SUS nor EWPH had a newsletter, regular community forums, or public discussion email lists). This functioned as a sociocultural influence, bringing a childhood obesity prevention lens to existing organizations and initiatives, and eventually spawned action groups in school food, gardening, and recreation, laying the groundwork for many of the actions listed in Table 10.

The current facilitator has focused on supporting citizens and community center efforts to establish gardens, small-scale farming, and a new market. She rarely tables

at events, collates newsletters, posts to email lists, or hosts publicly advertised events or forums. Her "meetings" are as likely to be standing in a church garden or on the playground during Congo Square Market as around a table CCE-TC offices (something a colleague calls "paper-clip meetings").

WCP had almost no money to fund actions so leaders of each initiative have garnered action-specific funding, mainly through local donations and grants. For example, the head of recreation for the Town of Ithaca cobbled together $15,500 for the fencing and other supplies for the new Town/Linderman Creek community gardens from the town government, a local foundation, and a local sustainability CBO. Gardens 4 Humanity, managed by a citizen collaborative, has won funding from three local sources, from $500-$3000 each, plus time contributions from the school and community garden coordinator. The Head Start gardens began with a $500 state grant to fund a pilot at one site, organized by the local community action agency that coordinates Head Start sites outside the City of Ithaca. Parents there were so successful at getting donations of supplies and services those funds could largely be used to expand to other preschool sites.

Physical activity actions have included adding a sidewalk to a route near a middle-school with a $324,000 federal SRTS grant. This money will also fund expansion of the Healthy Passports maps. These initiatives were also led by the Town of Ithaca's head of recreation. The activity equipment provided to the community center resulted from match-making by the current WCP facilitator.

The policy-area changes here were almost accidental. I started leading family rides through the local cycling club and the club institutionalized this activity by creating a

'vice president of family cycling' position. My complaint to the school district about a film shown in my daughter's pre-Kindergarten class led to a policy change there.

Macro-environment action and influence

WCP has done very little in this area. The organization that started the fruit and vegetable snack program at one local elementary school is a state-wide advocacy program and is sharing lessons from that program with state legislators. Also, two Cornell student members of the project have organized two federal letter-writing campaigns on food system and justice issues.

SUS

Table 12 and Table 13 summarize Shape up Somerville's project actions in food and activity related to children and families outside the Tuft's University SUS research initiative.

Micro & meso-environment actions

In food, signature SUS activities have been in school food and school gardens. Tufts SUS worked very closely with the then-new school food director, including hiring a nutrition outreach coordinator to run taste tests, write grants, and communicate with families. This was the beginning of a massive school food service overhaul, moving from heat-and-serve to scratch cooking, with salads four days a week and unlimited fruit. These changes have entailed $500,000 worth of new equipment, continuous staff training, new union contracts, and lots of labor.

Table 10: WCP Food Actions in Adapted ANGELO Framework

Environment Type↓ Size→	**Food micro-environment** (settings)	**Food meso-environment** (local sector)
↑ durable/ infrastructure **Physical** ↓ events/ programs	**School gardens**, pilot gardens in several county Head Start sites, being expanded to all; first-grade garden boxes in one elementary school; middle-school garden. **Community gardens**, new community garden at one low-income housing development on public land by Town of Ithaca Recreation (project partner) **"Gardens for Humanity (G4H)"** initiative for tool sharing, land use advocacy and facilitating shared home and community gardens, plans to expand to County. **Congo Square Market founding**, at an historically African-American community center. **Department of Social Services (DSS) farm stand founding**, operated weekly at DSS, coincides with a neighboring WIC clinic.	**School food recipe development**, trials of several new recipes and introduction of one (bean taco) to city district's school lunch menu. **School and Community Garden network**, listserv and meetings for training and resource sharing.
	Fruit & vegetable snack program, two raw fruit and vegetable snacks per day in one elementary school, by New York Coalition for Healthy School Food (project partner). **After-school cooking classes** ("Cooking up Family Dinners"), 6-week session at one city middle school where students made dinner to bring home to families. **In and after-school food/nutrition programs**, offered by college students matched to 3 area elementary schools. **Facilitation of cooking cooperatives** (**"**Cooking up Community"), offers training and (if needed) supplies to family networks in a family host's home or community kitchen, training by "citizen chef" volunteers. **Teen Farm-to-Market** (started spring 2010) 4 youth leaders facilitate 20 other teens from one school and several community centers in maintaining a u-pick in exchange for use of several farming acres. **Nutritionists added to free clinic services** in County's free clinic.	**School and Community Garden directories and resource guides**

Table10 (Continued)

Economic	**WCP urban permaculture design training scholarships/ minigrants** for two low-income housing community members. **WCP minigrant for school garden** for first-graders in one elementary school. **WCP minigrant for new Congo Square Market vendor** for certification to serve food in summer 2010. *Congo Square Market* received some free produce for the farm stand in exchange for labor of two teen farm/farmstand workers, allowing discounted produce. This will expand this year with much more produce supplied by the *Teen Farm-to-Market* initiative. *Teen Farm-to-Market* initiative will allow teens to take home some harvest to their families, in addition to Youth Employment Services pay. The *DSS Market* also subsidized fruits and vegetables. *G4H tool share and connections for free supplies* (see community gardens above) to support gardening	-
Policy	*G4H* (see community gardens above) advocacy for allowing gardening on public land, mapped available spaces.	**Guide to county and city policy-making** for obesity prevention, compiled by a graduate student and distributed to County legislators. **Pilot of direct qualification** from DSS in city school district for free/reduced school meals. **School districts** all increasing whole grain use, serving only 1% milk.

Table 10 (Continued)

Sociocultural	The *fruit & vegetable snack program*, *school and community gardens, G4H, cooking and nutrition programs* and *Teen Farm-to-Market* all aim to expose youth and their families to fruits and vegetables and/or home cooking to shift to a culture of eating healthier diets. **Tabling** at about a dozen community events for the first two years of the project with healthy eating brainstorming activities for families and healthy snacks. **School wellness group**, formed at one elementary school, aimed to improve the school's nutrition culture, e.g., what snacks parents brought in, or having smoothie rather than ice cream socials. **Neighborhood vegetable tours**, two citizens/activists offered free samples of fresh, local vegetables door-to-door in their community.	**Articles, interviews** in local newspapers and radio and **project newsletter** discussing childhood obesity and promoting opportunities for healthy eating and physical activity. Newsletter not currently operating. **Food justice "think tank"** for community leaders and follow-on events and networks [e.g. Hugh Joseph, Wayne Roberts], to reframe obesity as a symptom of a unjust and unsustainable food system, with many community-level (rather than individual) solutions.
Child/Family Education Focus	Education efforts were a very small part of these activities. They included: - Student volunteers and interns offering nutrition and food education as part of school/summer school/afterschool programming in city. - After-school cooking classes included some nutrition education for middle schoolers. - school gardens included some nutrition education.	

Table 11: WCP Physical Activity Actions in Adapted ANGELO Framework

Environment Type↓ Size→	**Physical Activity Micro-environment** (settings)	**Physical Activity meso-environment** (local sector)
↑ durable/ infrastructure **Physical** ↓ events/ programs	**New sidewalk to a middle school** through a safe-routes-to-school grant. **"Healthy passports**" series of scavenger hunt maps leading children and families on one-mile walks seeking healthy food and activity opportunities in their city neighborhoods. **Activity equipment** provided in community center with County health department funds.	**Recreation Partnership email list**, for county recreation professionals (also open to public) to share and promote activity opportunities.
	Family cycling rides through County's cycling club.	-
Economic	**-**	-
Policy	**Restrictions on video/TV use** in city pre-K classrooms. **New VP of family cycling position** created in county cycling club to support and promote family and child riding.	-
Sociocultural	**Tabling** at about a dozen community events for the first two years of the project with brainstorming activities with families on how to be active.	-
Child/Family Education Focus	The safe-routes to school grant includes an education component as well as making a new Healthy Passport for that community.	

School gardens began as a "micro-environment" activity in 3 schools in 2003 and have now expanded to 8 of the 10 schools in the district. Garden work was initially funded by state and USDA "Growing Healthy" grants that included in-school curriculum as

well as farm-to-cafeteria and after-school programs, and run by a collaborative of six organizations. With current funding, school gardening occurs mainly through after-school programs. School food service still uses herbs from the school gardens in their meal programs.

SUS farmers' market work is expanding under the new HKHC grant. This began under a companion grant to ALbD, Healthy Eating by Design (HEbD), which included founding a new farmers market in the city. The current initiative focuses on serving community members who are poor and/or who are immigrants. These actions are shifting from the micro to the meso environment, as now both city farmers' markets will be included in this work.

The community path extension has consumed the most time and money in the physical activity arena. The immediate goal is to lengthen the current 0.8 miles by about 66%. The ultimate goal it to connect it to Boston. One city planner noted, "looking at the community path as a linear park, we're creating the most active park in Somerville." While the most challenging work has been raising funds ($3.5 million to date; another $16-20 million would bring the path to Boston as a commuter route) and acquiring land or land rights, other actions have included promoting use of the path with walking groups, lighting, activity centers, and multi-lingual signage. One piece of this has been to call it a "community path" rather than a "bike path." The last reference to the path as a "bike path" in SUS minutes was in 2006. As one project stakeholder noted at a SUS meeting, "bike paths might be great for white middle class folks like most of us" but are not that attractive for many immigrant communities. Another, referencing that comment, said "we keep calling it the bike path. It's not, it's a community path. It's for strollers, walking dogs, biking, just walking, for running. Listening to people's ideas of that path is one thing that we did really well. We did get the language changed

so that now officially everywhere it's the community path. It's not a bike path." Also, SUS Taskforce members spurred formation of the "Community Corridor Planning" project, organizing grassroots input into and influence on how station areas for a new extension of a Boston transit line should be developed.

The city has also invested considerable effort in other infrastructure improvements such as crosswalks, lighting, and bike lanes and parking and has established both policies and plans to guide further improvements. In my own tour of the city, I enjoyed the bike lanes and used the converted parking meters for bike parking. Much of this work was led by a city planner originally hired with ALbD money and whose position was later adopted by the city.

Macro-environment action and influence

SUS gained a strong regional and national reputation from the Tufts University study published in 2007[40] and has been held up as an example for community-based obesity prevention nationally as an example to follow. For example, it is part of several regional and national networks, particularly through its most influential funder, RWJF, and the City's mayor sits on an IOM childhood obesity prevention committee. In a SUS event speech he noted, "we want to spread this to every city and every town." RWJF chose SUS as a lead site for their HKHC initiatives. Project stakeholders have been invited to share experience and insights through these networks and others, for example at the CDC's Community Approaches to Address Obesity Conference in July 2008. First lady Michelle Obama not only referenced Somerville's work in her launch of Let's Move,[175] but the City mayor himself gave a speech.[176] A RWJF project officer mentioned in a speech to a city-sponsored public SUS gathering, "how important community conversation has been to national conversation," noting that "all your

successes and disappointments will be watched. We'll all learn from them." A SUS stakeholder seconded that, "we're at the start, the head of the movement."

A direct macro-level action the project has taken was in the policy arena, hosting the Healthy Communities Summit in 2008 for municipal leaders in Massachusetts. This shared the SUS experience and asked leaders to sign a "summit pledge" to bring healthy community policies to their own towns and cities.

Table 12: SUS Food Actions in Adapted ANGELO Framework (non-Tufts, for children and families)

Environment Type↓ Size→	**Food micro-environment** (settings)	**Food meso-environment** (local sector)
↑ durable/ infrastructure **Physical** ↓ events/ programs	**Community gardens**, two new gardens in 2007 with contributions from SUS project partners, particularly the city. **Union Square Farmers Market founding** in 2005 included contributions from many SUS project partners **Expanded CSA pick-up sites**	**School food service equipment**, extensive acquisitions for cooking from scratch. **School food recipe development**, frequent trials and introductions of new healthy entrees, e.g., vegetarian chili. **School gardens**, started with 3 schools in 2002 and now in 8 of the 10 city schools, support from Cambridge Health Alliance and Groundwork Somerville (project partners). Gardens currently used in after-school programming, less integrated into school day than under Tufts, though also a source of herbs and taste testings for school lunch. Several grant sources including Growing Healthy.
	Training Volunteer Health Advisors in nutrition and local agriculture for Union Square Farmers Market education and outreach, Cambridge Health Alliance and HEbD. **Cooking classes** in 2008, 1.5 hour sessions of cooking, education, and eating together with East Somerville families with children in grades 4-8. **Teen gardening jobs and training** ("Green Team") expanded opportunities in 2009 for students from diverse and low income families with Groundwork Somerville (project partner) and RWJF HKHC grant.	**School food service training**, for all staff three times a year, monthly train-the-trainer sessions, and once a professional chef trainer and recipe developer. Mainly in food preparation but also nutrition education. **SUS-Approved Restaurants**, a SUS seal and promotion awarded to restaurants that make healthier choices available (fruits and vegetables, low-fat dairy, trans-fat free, and smaller portion sizes) and to promote those choices. Started under Tufts, being expanded under HKHC.
Economic		**School Wellness Minigrants** in 2007, five of 10 schools applied, to implement school wellness policies with district funding.

Table 12 Continued

Policy		**School Wellness Policy**, extensive nutrition and nutrition education guidelines, including fresh fruit offered at every school meal, meeting Mass Action for Healthy Kids standards and providing annual staff training. Also banning candy as a reward and providing snack guides. **Farm to school policy updated** to expand amount schools buy from local farms. E.g., apples small enough for children to finish in short lunch periods are sources from a local orchard. **School meal forecasting** tracks what is served daily at each school for planning to minimize waste.
Sociocultural	**Union Square Farmers Market by design**, promotion of SNAP and WIC use, staff member to promote market, events, magnet give-aways, posters, to reduce economic and cultural barriers, under HEbD and now HKHC. HKHC work has expanded to include Somerville's other farmers market in Davis Square.	**School vegetable of the month**, promoted and featured weekly in school menus, with schools and other SUS project partners under food service funds and PEP and Growing Healthy grants. **School cafeteria taste tests** to assess and promote new healthy recipes, started under Tufts and with Growing Healthy and PEP grants, continued with UMass Extension educator and SUS project partner support. Also student advisory teams established in elementary schools and taste tests with school food staff. **SUS marketing, promotion & branding** including monthly articles in local media, frequent news coverage, tabling at and co-hosting many annual events, give-aways (e.g., magnetic active living/healthy eating word set, SUS water bottles). Extremely strong brand with national

Table 12 Continued

Sociocultural (continued)		recognition (e.g., All America City, medals in the USDA Healthier US Schools Challenge), begun by the Tufts research results but capitalized on by branding most city active living/healthy eating activities as "SUS." **SUS-Approved Restaurant Program** encourages food-service business to rethink and reframe their offerings, and clients to consider their decisions.
Child/Family Education Focus	Some actions above also included a nutrition education component for children and/or parents. Education efforts included: - Union Square farmers market HEbD healthy eating education by volunteer health advisors - Nutrition education for 3rd-8th graders for schools that meet income requirements (5 of the 7 elementary) by UMass Extension educator, assigned to SPS full time. - Cooking videos on community television in 2006, Mass. Alliance of Portuguese Speakers (MAPS) through ALbD and 2008 family cooking classes, including class on "how to shop and cook with farmers market produce".	

Table 13: SUS Physical Activity Actions in Adapted ANGELO Framework (non-Tufts, for children and families)

Environment Type↓ Size→	**Physical Activity Micro-environment** (settings)	**Physical Activity meso-environment** (local sector)
↑ durable/ infrastructure **Physical** ↓ events/ programs	**Painted walking route**, yellow feet for 1.4 miles between schools, businesses, and youth center in East Somerville, by 10 AmeriCorps under ALbD. (Paint is wearing out, unlikely to be reapplied.) **Safe Routes to School maps** in four languages to three elementary schools, under ALbD. **New school bike parking** at two elementary schools, and one with improved pedestrian access, under ALbD. **New City Park**,(Junction)	**Community path extension**, including advocacy, participatory planning, 1.5 acre land acquisitions, securing right-of-way, and garnering $3,500,000 to build it, mainly from EPA; multi-lingual signage and activity centers along path. Organized by city planning department under ALbD. **Crosswalk re-striping** for 750 longer-lasting and more visible crossings in the city. **Mid-street pedestrian crossings**, 14 new, 60 with new high-visibility signs, 75 with highly reflective "safety sticks." **Stop sign additions** at 25 locations.
	HEAT Club After School Curriculum, activity program introduced to 6 sites by Tufts' SUS, still going in 3. **Monthly walk/ ride days**, including walking school busses, coordinated by GreenStreets (project partner). **Teen dance and nutrition program** ("Latinas Living Better") 8-week afterschool program for 9 Latina middle-schoolers at risk for overweight or diabetes, since 2009 by SCHA. **Healthy Mind, Healthy Body/ *Mente Sa, Corpo Saudavel***, dance classes for 8-12 year olds in 4 schools by MAPS under ALbD until 2008.	**Somerville Physical Activity Guide** updated, distributed on paper and online, under ALbD. **SafeSTART** (see policy) initiative garnered 50 new bike racks throughout city, changed crossing guard locations according to parent feedback and accident data, replaced streetlight bulbs. **SPS Recess Programming**, at all 7 elementary schools, mainly by retired PE teachers, coordinated by Somerville City Recreation (project partner). **Shape Up Somerville 5k family race**, annually with up to 300 participants each year with special youth events such as obstacle courses and sprints. **SPS Elementary PE teachers FitMath training**, nearly all have been trained, coordinated by SPS Supervisor of Health and PE (project partner).

Table 13 (Continued)

	East Somerville Walking Groups for families, under ALbD, used walking route above. Ended when the coordinating health clinic merged with another in a different part of town due to state funding cuts.	
Economic		**School Wellness Minigrants**, see food table.
Policy		**School Wellness Policy** with enhanced physical education and encouraged alternative transport. **Plans and policies in place to guide all new or renewed construction**, e.g., count-down lights for any intersection replacements, higher bike-to-car parking ratios, bike lane additions, including **SUS Resolution** passed by the Board of Aldermen institutionalizing policy support for physical activity, nutrition, and open space priorities in the City. **SafeSTART** coordinating advocacy, accident data evaluations, and community input to prioritize recommendations for pedestrian and cycling safety. Organized by city planning department under ALbD. Implementing all recommendation would cost $7 million over 5 years. To date secured about $480,000.
Sociocultural		**Walk-to-School promotions,** video on city TV channel under ALbD, monthly promotions part of larger Walk/Ride day, including the maps, incentives and educational information. **Active living map features** added to public and some private city maps. **SUS marketing, promotion, branding** see Table 12.

Table 13 (Continued)

Child/Family Education Focus	Some actions above also included a nutrition education component for children and/or parents. Education efforts included: - SafeSTART created safety brochure for parents on active routes to school, included in annual "home packet" for student families. - Union Square Farmers Market healthy eating education - Physical fitness, fitness progress, and BMI report cards to parents, started with under PEP grant - Health fair education in association with SUS 5k.

Discussion

Seeded even just with enough funding for a facilitator position, these communities could and did organize significant changes in their food and activity environments, especially physical environments. This section proposes potential explanations or understandings of what enabled the actions the projects took and explores alternative explanations.

Action on environment types

As the actions reported in Tables 8-13 indicate, these three projects have focused on changing environments to provide opportunities for and/or encourage healthy behavior, more than on education and information approaches to individual behavior change. Most action concentrated on changing physical environments to improve opportunities for healthy eating or activity. The projects were weakest in policy change and, especially, in tackling economic incentives and costs. Perhaps not by accident, these gaps match those found in a recent review of evidence about obesogenic environments.[100]

Actions in environment types are discussed below in decreasing order of how comprehensively projects acted on each.

Physical

All three projects acted extensively in physical food and activity environments, creating programming, event and training opportunities as well making infrastructure investments, particularly SUS. These communities are doing very well on their own here, including tapping nationally available programs such as Color Me Healthy[177] and CATCH (Coordinated Approach To Child Health)[178] as well as developing their own (e.g., HEAT and Cooking up Family Dinners). Establishing local communication networks has helped support these initiatives. For example, the WCP's gardening networks have shared grant opportunities, materials, and expertise and helped recruit volunteer supports.

Sociocultural

All three projects aimed to help their communities reconsider their work and actions through a childhood obesity prevention lens. They aimed to create a "new normal" through physical and policy changes. For example, the city planner on the SUS Taskforce argued, "when you step out the door, it should be as convenient to walk or bike as to drive a car." SUS and EWPH-C also conducted extensive social marketing campaigns, including media pieces, item give-aways (e.g. branded water bottles), and tabling at events, to put nutritional and physical fitness health at the forefront of people's minds. WCP, particularly as the project evolved, increasingly framed childhood obesity as symptom of a food system problem. Those WCP stakeholders frame their work in terms of food access and social justice, rather than childhood obesity, as in the overall project and particular G4H missions. This lens has been promoted through workshops with visiting speakers (Wayne Roberts, Hugh Joseph), an email listserv network, and a half-day "think tank" with community leaders such as the head of a local foundation and the County's Department of Social Services director.

Policy

All three projects have had some policy accomplishments, though these were weak in WCP and EWPH-C. All three provided some support for the federally mandated development and implementation of school wellness policies, though likely much of this would have happened without the projects because of that mandate.

In WCP, just the word "policy" seemed to put some stakeholders off as being too abstract and distant, and thus irrelevant to immediate issues and/or too challenging to tackle. A citizen living in poverty argued at a food justice forum, "I appreciate the policy thought, but it is not a solution that will work for us any time soon. I need something this year." A core project stakeholder told me, "it's so hard to make that leap to talk to policymakers." However, the specific action suggestions that the citizen living in poverty had for change included "small-p" policy action, and the current WCP facilitator is in frequent contact with city council representatives about gardening land and food markets. This project may be reaching a turning point in building community capacity for influencing city and county policy, with the notion of forming a food policy council being floated with increasing frequency. However, returning to the problem with the word itself, any such group will likely be called something else.

SUS, with project staff located in the city's government, heavy mayoral involvement, and extensive technical support from RWJF, likely represents the maximum meso-level policy change that could be expected from a community initiative in a 7-year time frame in the current national political and policy climate.

Given the NYS DoH's push on EWPH projects to enact policy and practice changes, and the project's duration, the relative lack of policy action in EWPH-C is a little surprising. However, several factors have likely contributed to this gap. One, the

grantees required that their project coordinator be a registered dietician. While such clinical training does not preclude having policy or community development experience, it certainly does not assure it. Two, they suffered high turnover in the position; this, in turn, was at least in one case likely related to the mismatch between the person's clinical training and the comparatively ambiguous demands of the job. In another, it was because the State did not award contract renewal until very close to the end of the previous cycle, and the facilitator had needed to secure another job. Three, while the State provided some written guidance on policy change (e.g., "look to town planning board, attend meetings, get on agenda, and present findings.") they did not provide capacity building in this arena.

Economic

Action to lower costs related to food and activity was the weakest area in all three projects. SUS did the most, especially if taking a broader concept of economic action as city investment in physical infrastructure to make activity easier. (The city also subsidizes city employee gym membership, but this is for adults rather than families and children, and out of the scope of this paper.) WCP has taken action at the micro level to reduce economic barriers to buying and growing healthy food.

One strategy all three projects have tried in this area is offering minigrants (or, as the literature would call them, microgrants) to local individuals or organizations. While those provided have worked as intended, all three also faced problems with organizations having the capacity or interest to take the funds. For example, all Somerville schools were eligible to receive wellness policy implementation minigrants but only half applied. Chemung had even worse application ratios for similar opportunities, perhaps partly because these were competitive (or would have been, if all eligible organizations had applied). The first WCP coordinator and I offered $300-

$500 and a volunteer college student to help each of four organizations, three of which had planned activities they did not have funding to implement. Only two signed the memo of understanding we provided with the funding offer, which was required to transfer the funds. Of the other two, one said "with our full schedule we were not able to move forward with a new project." The fourth was able to implement the project (a garden) without WCP funds. More recently, the current facilitator was able to provide someone with a $300 minigrant to get food service certification from the health department so he can be a new vendor at Congo Square Market this year.

Action at environment sizes

All projects took at least some action in both micro (e.g., individual schools or youth centers) and meso (e.g., a school system, or nearly all community youth centers) levels, though WCP worked almost exclusively in micro-environments. SUS actions were at least as strong at meso levels as micro, and the project has also had macro-level influence, probably more so than any other single community obesity prevention project in the US. EWPH-C also had a balance of micro and meso level action and its State funder used the network EWPH communities to influence some macro level policies.

Determinants of what environment size (micro, meso and macro) projects are tackling likely included project longevity, the institutional location of the project facilitators and grant holders, and how the project is funded.

Longevity

Some actions that started at the micro level grew over time as participants garnered experience, capacity and publicity. For example, in SUS both school gardens and farmer's markets started out as "micro" activities that, grew to become sector-wide in the city over the course of the project. Both SUS and EWPH-C have founded annual

events (SUS 5K and Hunt for the Gold Shoe, respectively), that have become community institutions over time. The WCP, the youngest project by several years, had the least meso-level activity of the three projects, though both the Head Start gardens and G4H aim for county-wide expansion and are headed in that direction Similarly, the DSS direct qualification for school lunch is being piloted in the City of Ithaca for potential county-wide expansion.

Institutional location

Reflecting notions of "top-down" vs. "bottom-up" or grassroots driven change in community organizing literatures,[e.g. 121, 179] SUS' visiting HKHC project officer, Richard Bell, described advantages and disadvantages of "outside in" vs. "inside out" models for these initiatives at a SUS community meeting. He observed that outside-in projects like SUS, which are run from inside government, find it easier to create city level policy and system changes, but tend to struggle to include grassroots community needs, assets and perspectives. For inside-out approaches, run by CBOs, it tends to be the other way around.

These results may bear this out. SUS, with key players and coordinators working full time from the city's planning and health departments, has achieved extensive and significant city-wide environmental changes and is poised to make many more, particularly now with the mayor taking charge of the SUS Taskforce. Because of these government roles, many of SUS' actions were instantly city-wide, such as the bike parking ratios, crosswalk improvements and, less directly, school food improvements. At the same time, the project has largely failed to engage immigrant communities and communities of color that make up much of the city (and suffer from high obesity rates) in planning and implementing action. As one participant in the May 2009 sustainability workshop said, in a theme recurring there and at another community

meeting two months later, "given what Somerville is, this room doesn't look like that." One exception has been the Community Corridor Planning, perhaps in part because this is run by a partnership of four CBOs, three of whom have been active in the Taskforce, rather than by SUS per se. This is unlikely to change soon, partly because of the Taskforce change and partly because immigrant CBOs are currently tied up with the $1.3 million NIH grant the lead author of the original Tufts SUS study currently has.

By contrast, WCP, under the current coordinator in particular, exemplifies the "inside out" model. Its meso-level actions have been constrained almost exclusively to establishing communication networks and, to some extent, helping to reframe the discussions around obesity and food in the county. Many of its micro-level actions have been highly participatory and community driven, engaging people including but also well beyond "the usual suspects" in changing the local food system in particular.

Extending Bell's model, I'd call EWPH-C a "middle out" initiative, with mid-level health, education, and human service professionals tackling food and activity environments. These are the sorts of people that stakeholders from both SUS and WCP have called "the usual suspects," and is the model that the majority of the projects from which I recruited these three case studies have employed. WCP also operated on this model in its first two years, even though the facilitator attempted to also recruit a less professionalized membership. This "middle out" model has leveraged project member resources and passions to enact important micro-level changes. For example, the EWPH-C facilitator helped channel the talent and interests of a local bicycle league to create the child bike give-away at the Juneteenth festival.[180] That project also has helped create a support structure for a city farmer's market, in particular helping to attract low-income residents with events and give-

aways. In 2009, purchases of Supplemental Nutrition Assistance Program (SNAP, formerly Food Stamps) tokens quadrupled over the previous year even though state incentives for their use had ended. WCP has played similar roles, for example, helping the elementary school fruit and vegetable snack program find funding, staff and volunteers to keep it running; co-founding a school food action group that is still chipping away at enacting change; and providing supports such as volunteers and information that facilitated the Town of Ithaca recreation director's work to apply for the SRTS grant, start the Town's community garden, and create the Healthy Passports initiative.

Project funding model

The funding model for WCP, where there has been just enough money to pay a facilitator but no core funding for action, requires that every action initiative has at least one champion to see it through. This project builds no bridges to nowhere. Few will write grants, organize meetings, volunteer their time, and recruit and manage other volunteers for something they are not passionate about. These actions, not being dependant on or driven by external funding, may also be more sustainable. At the same time, they are also more likely to be and, possibly, remain micro-level actions. It is hard to plan and act systemically when projecting with a highly uncertain mix of minigrants and volunteer human resources. It is hard for the average citizen, or even the average mid-level professional, to conceive of creating city or county-wide change, much less make it happen. Micro-actions like those taken by WCP members are vital to meet needs of particular sub-communities and to seed and test potential larger scale actions. However, as important as such actions are to community development overall, collections of micro-actions *alone* seem unlikely to be an effective or efficient way to tackle environmental change.

The EWPH model began with state-level work which later added three community "demonstration projects"[35] to "link and reinforce EWPH recommendations at the community level."[172] Their strategies, age target range, and several of their annual activities have been prescribed by the State. The projects are referred to as "contractors;" they are charged with implementing the State's strategy. In this sense, the current 15 EWPH community projects add up to meso and macro level actions at the State level by informing and, possibly, enabling the macro-level changes discussed above. This is a strength of this model. Also, EWPH-C has had reliable funding for a series of three, 3-to-5 year terms from the State for both a facilitator and about $17,000 for action. The action funds have not been enough to pay people to help with actions, but do greatly ease the planning and preparation for initiatives to buy, for example, fruit sectionizers for schools or helmets and fix-kits for the Juneteenth bike raffle. As one partnership member said, out of the several collaborations she is involved with "this one is the most active. Eat Well Play Hard gets a lot of money and they have to do something with it. So you really feel like you're making use of your time because you're helping to bring something to the community. So it's more than just networking and sitting around chatting, you're actually making some decisions." Another told the story of recruiting a new organization to the partnership, "come to this meeting, this will be a good way to get you connected with this project because they have money and we don't have any."

At the same time, the rigidity of the State's model—in the "spend down" schedules for funding, the logic model plan that each project must create, and the several prescribed annual action arenas—appeared to have curtailed some of the advantages of having both money and action plans in advance. Even the phrase "spend down", which both the State and contractors used, sounds like a chore, and often became one for EWPH-

C as spending deadlines approached. The logic model, done at the start of each contract and then adjusted annually, was meant to be changeable, though in practice that is not how the partnership members experienced it when they asked the State if they could change it. With the logic model, "you're making a determination at one point and then opportunities come up that could be a really good fit" but the partnership has felt locked into the logic model and unable to seize such opportunities. In the case of EWPH-C, at least, the NYS DoH's top-down model facilitated state-wide changes, but also did not fully tap the advantages normally associated with community-level health action described in the introduction.

Alternative and additional understandings

Documenting and, even, classifying what actions these projects have taken is relatively straightforward. Understanding how and why these projects have taken these actions, as opposed to different actions, or more actions, is not. Those two questions do not have definitive answers and have many more answers than those I've roughly suggested above.

Certainly the geography, histories, cultures and demographics of each site heavily influenced each project's actions. For example, Somerville is 1% of the size of Chemung County, with a 80% of that County's population in its 4 square miles. This certainly made meso-level action easier with, for example, only 10 schools and one school district to work with, as opposed to Chemung's 24 schools and 3 districts, and no questions about what town or city to meet in. Somerville also faces incredible challenges, however, in including and meeting the needs of a diverse community with significant language and culture barriers and a lack of open space. Organizational histories also play a role.[165, 181] I have not focused on discussing these influences since they are unique to each project case and, thus, have less transferable implications.

The sheer amount of funding that projects have (or have not) received has been both a cause and a result of the actions they have taken, including developing the capacity to write grant applications and to win grants. This capacity includes not just the skills, but the staff time to write them and the track record (including having some evaluation data) to convince the funders their money will be well spent. SUS had all of these in spades, largely thanks to the investment made by the Tufts SUS project (which, in turn, was made possible by Somerville organizing in 1999-2001 around their community food security assessment grant) and the stakeholders' decision to capitalize on it in 2006. Until the recent Taskforce reorganization, SUS had achieved collaboration (as opposed to lesser levels of cooperation or coordination) among their organizational partners, with frequent comprehensive joint planning and pooled resources.

Many factors I was not able or astute enough to observe, from individual personality politics to macro-economic changes, also affect project trajectories and actions. The factors I do discuss here, such as longevity and institutional location, likely affect one another in ways I could not discern. Project organization, such as WCP facilitator decisions to not (at least not yet) create a formal steering or advisory committee, are both a cause and effect of project trajectories. SUS's advisory rather than steering model, for example, has allowed this recent shift in the Taskforce organization. Nonetheless, I have based this discussion, and the strategies below, on my analysis of the data from these three case studies, believing that most other explanations and understandings would be additional, rather than alternative.

Implications: Strategies to Support Community Action

This section draws on the analysis above to suggest regional and national strategies for leveraging community capacity to prevent childhood obesity.

Organizing inside, outside, and in-between

Perhaps the best of the "outside in", "inside out" and "middle out" models could be combined by having two co-facilitators, one based in a community's government and the other a trusted person (e.g., a long-time resident, someone who looks like people in his/her community) in a community organizing CBO. Individually they could tackle government change and community organizing. Collaboratively they could use the community-based learning to drive government policy, and government policy to support community-based action, as well as leverage resources of the "usual suspects" as all three projects did, through traditional "paper clip meetings" or forums. Over time, these facilitators would be building not just nodes within like-networks, but the all-too-rare bridges between them. To some extent CLOCC is now trying this model, with its 10 new "vanguard communities," hiring organizers to liaise between these communities and the Chicago-wide project. However, for both ethical and practical reasons I'm proposing this design from the start so that the grass-roots stakeholders are part of the design and decision-making about the project from day one. The goal in this design is to create the framework where both "grassroots" citizens, the "usual suspects" in the middle, and the local government policy-makers are all able to not just participate, but effectively negotiate what actions the project should take, per John Forester's model described in Chapter 2.[90]

Forming Project Networks

In the past five years, the nation's lead institutions in childhood obesity prevention have begun networking and collaborating, particularly through the Convergence Partnership, Partnership for a Healthier America, the new federal cross-agency Taskforce on Childhood Obesity Prevention, the standing IOM committee on childhood obesity prevention, and NCCOR. However, the community projects they are advocating and, often, funding, are laboring in relative isolation. Compiling the list

of the community childhood obesity prevention projects in the US (Appendix 3B) took me about two full working days, spread over several months. No one knows how many there are, or were, or how to find them. WCP, which will have its first website in the summer of 2010, is nearly invisible. There are probably others like it.

IOM hosted a workshop about and with community childhood obesity initiatives in 2008.[41] Last year marked the 5th biennial childhood obesity prevention conference, which has a "community track"[182] for those than can afford the travel and registration. A contact at CDC reported that when they invited applications from communities they considered to be successfully organizing for obesity prevention to come to a workshop,[42] 75 projects applied for the 25 spots. RWJF has done an excellent job of creating learning circles and providing technical assistance to the projects it funds. NYS DoH regularly gathers its EWPH community projects. WCP, however, is completely on its own and, other than through my research, these projects have zero contact with one another. Europe and Australia have led the way with their government-supported EPODE[183] and CO-OPS[184] community project networks, respectively. There are several reasons, discussed below, for the national childhood obesity prevention collaboratives in the US to build and fund regional, national and even international networks (occasionally face-to-face, extended with electronic tools) between community projects.

Transfer successful programs and strategies

Community project networks would enable their stakeholders to share their most promising practices, materials and strategies, instead of each starting from scratch. This would capitalize on their strengths, such as in physical environment changes. It would spread not just successful ideas and programs, but confidence and excitement. SUS stakeholders reported coming back from a RWJF HKHC meeting, exhilarated

with "the feeling that we were part of a movement." This confidence can be leveraged to help tackle the more ambiguous arenas of policy and economic change.

Provide technical assistance & capacity building

Such networks would also be a venue for providing horizontal and vertical technical assistance and capacity building with and to community project stakeholders to help them work more effectively where they are currently weakest, such as in policy and economic environments. RWJF, for example, provides the projects they fund with access to marketing & communications and legal assistance.

Build regional & national advocacy

Hundreds of US communities have been organizing to prevent obesity, including childhood obesity, yet legislative representatives on Capitol Hill have not heard a peep from them, according a colleague's dissertation research.[94] A SUS stakeholder reported the same silence on Beacon Hill, where the Massachusetts Legislature sits. Networking community projects would foster the "movement" that SUS people mentioned and help them connect their local efforts to national ones. Simply disseminating information on relevant pending legislation (as the EWPH State network has done with their email list) may help end this silence from communities on childhood obesity.

Providing stable core funding

Some public health problems, such as tobacco and drug use, have garnered steady federal and/or state funding streams for coordinating prevention regionally. Given that childhood obesity is arguably today's most serious and costly health threat, it deserves equal attention.

The conventional, trickle-down public health department model may not be the most effective way to capitalize on the strengths of community based approaches, given the

somewhat stifled EWPH-C project, the multi-layered organizing suggestion above, and that many of SUS' successes were coordinated by the RWJF-funded city planner. (A prominent academic in obesity prevention from outside the US, leading a discussion among obesity researchers at Cornell University, advised skipping health departments all together in their work, and heading straight to the planning department.)[185] The Convergence and NCCOR partnerships, both of which include CDC and RWJF, should lead the way in testing sustainable community funding models for childhood obesity initiatives that are at least as democratic (i.e., people most affected making, or at least effectively negotiating, project decisions) as they are technocratic.

Microgrants

Distributing small amounts of money—from $50 to $5000—are a means of changing the economic environment in ways accessible for community projects, while also distributing labor and decision-making power.[186-188] All three projects gave microgrants. Two projects, WCP and SUS, also received them. For example, in WCP, Congo Square Market and Gardens 4 Humanity were each seeded with $3000 grants. As with "regular" grants, however, even if applying is easy or noncompetitive, the capacity to plan, implement and sustain can be a barrier. The funding behind those two initiatives in WCP were designed specifically to tap potential among "natural leaders" in low-income communities, by offering flexible modes of application (videotaped or written), support in planning the initiatives, and match-making with volunteer college students. As one evaluation puts it, such grants are "supportive but not sufficient" for reliably generating and sustaining action.[189] But with such supports, they can unleash tremendous action, tapping or creating many times their value in human resources.[188] Also, practically speaking, even without providing those supports, the financial cost of microgrants is so little that the main cost for those that do not succeed is lost

opportunity. Funders should encourage these, as NYS DoH and RWJF's HKHC program have done.

Evaluation

Project evaluation was almost exclusively tied to funder requirements or research dollars. Without explicit funding and technical assistance, projects are unlikely to spend their limited resources on tracking and evaluation.

Changing Regional and National Environments

Though they had been left to do so until relatively recently, communities, of course, cannot prevent childhood obesity by themselves. In particular, most economic and policy food actions fall into the purview of state and federal governments, from WIC milk policy to reimbursement rates for school lunch to which crops, and which sorts of farms, we subsidize. While the activity environments are more local, certainly the terms of state and federal grants drive much decision-making there as well. Macro-level changes are almost exclusively the domain of these levels, though community networks can help determine and lay the ground work for those as well, as in the EWPH projects, and advocate for the changes they would like to see.

Strengths & Limitations

The hermeneutic depth of this case study method begins to fill the near complete void in the literature about community-based action to prevent childhood obesity. Methodologically, this is a strong implementation of exploratory and instrumental case studies. Data gathering was extensive in breadth and duration, analysis was triangulated and member-checked, and the research included multiple cases. This establishes the project profiles and action maps in particular as reliable (though certainly not perfect) guides to these aspects of each case.

This research also adapts an established obesity prevention planning framework for additional uses that could help community projects conduct formative assessments and governments and foundations map where their support is most required. It is largely a foundation for future research, including an action research agenda. Each of the suggestions above deserves future research—drawing more on the data from these case studies, the literature, experience from other projects, and "experiments" comparing strategies.

The implications I have drawn from the trajectory stories, action maps, and the raw data are much less certain than the stories and maps themselves. They are also triangulated and member checked, but the complexity of the projects—and the people, institutions, relationships and histories that compose them—means these are only a few of many possible ways of understanding their work and interpreting these results.

Other weaknesses of this research are inherent in the method. This research tells us nothing about whether these actions have had any impact on childhood overweight and obesity (and I doubt very much that EWPH-C or WCP have) and sketches only very rough lines about their extensiveness and intensiveness. Also, it is possible that the lessons I am drawing from these three case studies may not be very instrumental, i.e., transferable, to other community projects.

Most of all, this research asks only the implied question, "are we doing things right?" The more important question is, "are we doing the right things?"[190: 214] Creating childhood obesity prevention coalitions to "to facilitate and promote cross-cutting programs and community-wide efforts," is exactly what the IOM[37: 219] and the NYS DoH division funding the EWPH projects are asking communities to do. These three projects each have a full time coordinator who is working, at least in part, to do just

that. What if, however, no matter how well we do that, it is not the best community strategy for preventing childhood obesity? For example, perhaps more narrowly conceived, well-defined interventions would be more effective, such the state-wide EWPH in Child Care Settings intervention in New York.[191] At the other end of the spectrum, we could take a similar coalition model but tackle community food systems more holistically—addressing justice, community development, food supply, public health, sustainable ecosystems, and local economic development.[192] This is the community food security approach[192] and WCP has increasingly been taking this tack. Activity and play infrastructures can be similarly addressed, to encourage activity not just for obesity prevention but for changing streets into neighborhoods, reducing pollution, and improving total quality of life. RWJF's ALbD grant program largely encouraged this view (perhaps a contributor to SUS' successes?). The W.K. Kellogg Foundations' nine community Food & Fitness initiatives[193] and RWJF's ten Communities Creating Healthy Environments[194] encourage these food and activity system organizing approaches. Food and activity system approaches radically change and expands what counts (literally and figuratively) as success, well beyond BMI.

An excellent review of successful social efforts and movements to improve health, such as around smoking and seatbelt use, to inform social change strategies for obesity concluded that "no single approach will solve any health crisis and that there is a need to have a plan with pieces working synergistically."[195: S54] It is possible that the food and activity system organizing already being done by the Community Food Security and Livable Communities/Active Transport movements might be the most promising way to organize the "inside-out" piece of obesity prevention. The more technocratic and social marketing approaches favored by EWPH may be a good strategy for playing a supporting (as opposed to organizing) role for these efforts as well as

tackling obesity-specific issues such as drinking low-fat milk, increasing fruit and vegetable consumption, and reducing sugar intake.

Conclusion

With as little as $60,000 per year, these three communities organized changes in their environments, particularly physical environments, for food and activity. With some capacity building and simply with more time, they would also likely be able to act increasingly on the sociocultural and policy environments at micro and meso levels. Economic environment changes seem likely to remain minor without support from state or national policy changes and/or capacity building for community stakeholders. Microgrants are a promising community practice in this area. Also, these projects did not provide much in the way of individual and family education. Several federal and state programs provide nutrition education in communities, however, if any gaps remain, these projects, as currently conceived and implemented, are not the solution to

APPENDIX 4A: List of Potential Case Studies

Community Childhood Obesity Project Name	Location
Maricopa Council on Youth Sports & Physical Activity	AZ, Phoenix
Overweight Prevention and Treatment (OPT) for Fit Kids	CA, Chico
Contra Costa Nutrition and Physical Activity Coalition	CA, Davis/Contra Costa County
Childhood Obesity Brain Trust (COBT)	CA, Los Angeles, South
Marin County Children and Weight Coalition	CA, Marin County
San Diego Coalition on Children and Weight	CA, San Diego
San Diego County Childhood Obesity Initiative	CA, San Diego
Santa Barbara County Partners for Fit Youth (PFY)	CA, Santa Barbara County
Santa Clara County Children and Weight Coalition	CA, Santa Clara County
Solano County Children and Weight Coalition	CA, Solano County
Trinity Kids CAN (Coalition for Activity and Nutrition)	CA, Trinity County
Jacksonville Childhood Obesity Prevention Coalition /Healthy Jacksonville	FL, Duval County
Consortium to Lower Obesity in Chicago Children (CLOCC)	IL, Chicago
Louisville Metro Department of Public Health and Wellness	KY, Louisville
Healthy Weight Kids Coalition of Southern Kentucky	KY, Southern
GoKids Boston	MA, Boston
Shape Up Somerville	MA, Somerville
Kids Get a Life	MS, North Delta
EWPH Cayuga County Health and Human Services/CCE	NY, Cayuga County
EWPH Clinton County Health Department	NY, Clinton County
EWPH Cornell Cooperative Extension Delaware County	NY, Delaware County
EWPH Duchess County DOH 1999-2002, CCE 2006-present	NY, Duchess Count
EWPH Chemung County Health Department/Partnership	NY, Elmira
EWPH Erie County DOH, joined two other counties in 2002	NY, Erie County
EWPH Jefferson County Public Health Service/Lewis County	NY, Jefferson County
EWPH Madison County Health Department	NY, Madison County
EWPH Yeled V'Yalda Early Childhood Center, Inc.	NY, New York
EWPH North Country Healthy Heart Network, Inc./North Country Coalition	NY, North Country (Franklin, Hamilton, Essex)
EWPH Onondaga County Health Department	NY, Onondaga County
EWPH Orange County Department of Health	NY, Orange County
EWPH Rockland County Department of Health	NY, Rockland County
EWPH Cornell Cooperative Extension of Schenectady County	NY, Schenectady County

EWPH St. Lawrence County Health Initiative, Inc.	NY, St. Lawrence County
EWPH Cornell Cooperative Extension of Wayne County	NY, Wayne County
Healthy Eating and Active Living THrough policy and practice Initiatives for Kids (HEALTHi Kids)	NY, Monroe County
Whole Community Project	NY, Tompkins County
Lane Coalition for Healthy Active Youth- LCHAY	OR, Lane County
Dallas Area Coalition to Prevent Childhood Obesity	TX, Dallas and Collin Counties
Childhood Obesity Task Force	VA, Charlottesville
Chesterfield County Coalition for Active Children (COACH)	VA, Chesterville County
School Health Initiative Program	VA, Williamsburg
Spokane Healthy Families - Active Kids Coalition	WA, Spokane
SHIRE Early Childhood Obesity Prevention Collaborative	Washington DC
Dunn County Childhood Obesity Coalition	WI, Dunn County
Coulee Region Childhood Obesity Coalition	WI, LaCrosse County

Chapter 5: Conclusion

> "You think that if you understand one, you understand two–because one and one are two. But you must also understand 'and.'" –Sufi saying[196]
>
> "Are we doing things right, but also, are we doing the right things?" –*Getting to Maybe: How the world is changed* [190: 214]

This research aimed to examine perspectives, practices and potential in community-based childhood obesity prevention in the US. This final chapter summarizes the contributions of this dissertation to the literature. It then addresses how well the actions of the three projects documented in Chapter 4 match the values and perspectives documented in Chapters 2 and 3. Finally—given this comparison, the learning from the three case studies, and the radically democratic stance of this research—I begin to sketch a larger strategy for community-based childhood obesity prevention in the context of gathering state and national-level efforts to address the childhood obesity epidemic.

Contributions to the literature

As documented in the previous chapters, little research has been done that explores what people believe communities *should* be doing to prevent childhood obesity or that documents what they *are* doing. This dissertation begins to fill both of these gaps.

The study described in Chapter 2 is the first to document and analyze the ways people talk about "choice" in the context of obesity prevention and, then, to explore the values underlying these discourses. Given the dominant culture in the US, the finding that many of those interviewed valued autonomy and individual moral responsibility are no surprise. However, people using these frames often blended these with a third frame, which valued *social* responsibility for enabling autonomy and individual responsibility. This indicates important arenas for public debate and empirical research about what is required to enable such autonomy and personal responsibility, from

dinner plate sizes to agricultural subsidies. This research is also among the first to examine the values behind people's views on obesity prevention in the context of larger debates in public health ethics.

The research reported in Chapter 3 is the first to go beyond surveys or small sets of interviews to document perspectives on what communities should do to prevent childhood obesity. The unique contribution it makes is less about identifying where there is disagreement (e.g., taxing junk food and banning school bake sales) and agreement (generally about creating more opportunities, without taking any choices away). While in theory the Q methodology that was used here can identify genuine areas of agreement, rather than simply majority views, in this case the perspectives found tended simply to confirm survey results from other studies. However, this study makes two more unique contributions. One, it characterizes four world views on this issue and, in particular, differences between "individualistic" views that historically have tended to be lumped together. Understanding these differences informs negotiation strategies for reaching agreement on action. Two, this research indicates who tends to hold which perspectives within the people sampled for this research. It found that teenagers here did not take "environmental" views common in public health. Each of the 29 teens included in the sample took an individualistic perspective, even the half enrolled in a special program for those planning to enter health professions. A third of these teenagers also defined a "hands-off" libertarian perspective on obesity prevention. Given that youth are key stakeholders in this issue, the differences in their views from adults are important. Also, all but one of 17 participating adults who are involved in a childhood obesity prevention project had "environmental" perspective, as opposed to one of the three individualistic ones, on

what communities should do. This suggests project actions may not be in accord with these "missing" perspectives.

Chapter 4 presents the first study to examine and compare what multiple community obesity projects are doing, including being the first to use the ANGELO framework retrospectively to assess and describe (as opposed to plan) action. Since only two childhood obesity projects have been described in any detail in the literature and that community approaches to obesity prevention are being touted as a key solution, these three case studies provide context for future research and new insight on current and potential community obesity prevention practice.

Overall, this research contributes to public health research approaches by being conducted from a radically democratic and axiological standpoint. This standpoint puts truth and knowledge questions (what is? how do we know what is?) entirely in the service of two key normative questions: what should be and how should we make it be? While perhaps too radical for most disciplines claiming roots in biological and psychological sciences, the public health field is often explicitly normative (e.g., the next American Public Health Association conference theme is "Social Justice: a public health imperative" and Cornel West is a keynote speaker), making this a possible approach, even if still perhaps a marginal one.

Perspectives and Practices: doing things right?

The actions of the three projects studied here at most lightly trespassed on the values of autonomy inherent in the "choice as freedom" frame outlined in Chapter 2 and, in many cases, increased the diversity of options. For example, while Somerville's school wellness policies preclude using food as a reward, their breakfast and lunch program now offers daily salads and unlimited fruit. Also, though some policies did

restrict choice, even many adults believed this was appropriate for children, as documented in Chapter 2. All three projects focused on enabling and encouraging "good" choices through changing physical and sociocultural environments, fitting well with the moral responsibility and, especially, the "context for choice" frames.

Project actions were sometimes consistent with areas of relative agreement presented in Chapter 3 among perspectives on what communities should to do prevent childhood obesity. For example, the top area of agreement was to provide more opportunities for families to be active at no cost. WCP's healthy passports, EWPH-C's hunt for the gold shoes, and SUS' community path extension all provided this. However, none of the projects worked to provide access to fruits and vegetables in food pantries, which was another top-rated and uncontested strategy emerging from that perspectives research. Making healthier food options cheaper also garnered support across perspectives (or, at least, no opposition). However, economic action around food in these projects was minimal, with only WCP taking actions to make fruit and vegetables less expensive and those actions, at least to date, have been limited to micro-settings. Also, some project efforts to limit "junk" food in schools, such as the Head Start cupcake ban in EWPH-C, directly opposed the views espoused by "Libertarians" and "Bootstrappers." Though this research on perspectives was conducted only in the community where WCP is based, the views expressed in interviews by stakeholders in other projects suggest that that the vast majority of stakeholders in all three projects hold an "Environmentalist" perspective. In the case of WCP, all but one of the 17 stakeholders who participated in the perspectives research held that standpoint. This overrepresentation of one perspective raises questions about who was involved, and who was not, in choosing and taking the project actions documented in Chapter 4.

Participation and negotiation in the three projects

A small but significant literature challenges the usefulness of the controlled trial "gold standard" in public health and health promotion work, as well as the use of behavior change as an outcome.[e.g.,99, 197, 198] In the case of obesity, Lobstein returns to the Ottawa Charter's definition of health promotion as "the process of enabling people to increase control over, and to improve, their health"[93] to point out that control over health should be a success measure at least as much as health improvement. He argues:

> On this basis, obesity prevention would be seen as only one benefit from a larger social gain, including the gains made in the ability of a community or society to protect and promote its own health. Social and political empowerment becomes one of the indicators of health gain.[199: 75]

As I outlined in the latter part of Chapter 2, I share this view, making an ethics-based case for a radically democratic, community organizing approach to community health that involves the most affected stakeholders. In childhood obesity prevention, this would include children and youth, families struggling in poverty, and people who are African American, Latino/a and/or Native American.

However, even within the avowedly democratic end of community-based work, a consistent failure has been to include those most negatively affected by health disparities.[200, 201] For example, in a review of an otherwise successful CBPR project in Indiana, the authors write, "yet two groups with among the poorest health habits—factory workers and farmers—are greatly underrepresented, as is the County's small but growing Hispanic population".[202: 298]

Although who was participating in the three projects was not the focus of Chapter 4, I indicated that SUS in particular had not done well in involving communities most affected by childhood obesity. Many project actions *served* these communities. For

example, several SUS stakeholders pointed out that poor and immigrant children were likely to benefit most from the after-school gardening programs and the school food improvements. But being served is not the route to Lobstein's social and political empowerment. Chapter 4 also indicated that who was participating in WCP changed significantly with the change in project facilitators and a shift from a childhood obesity focus to a food-justice focus, from largely white, middle-class professional women to more grassroots and diverse citizens choosing and generating action. My research on and analysis of who participated in each of these projects, and my interpretation of why and how this came to be, is the subject of a future paper. However, I come back to this participation problem below in the context of proposals for leveraging the fuller potential of community-based childhood obesity prevention initiatives.

Potential: doing the right things?

The president and CEO of Robert Wood Johnson Foundation (RWJF) proclaimed recently, "the national movement to reverse the childhood obesity epidemic is gathering force. And rapidly."[59] Her foundation has played no small part in that (including through using "movement" language in relation to childhood obesity prevention. It is probably no accident that SUS stakeholders came back from a RWJF Health Kids Healthy Communities conference using that word.) Certainly dozens of communities have launched efforts to prevent childhood obesity, and not all with the incentive of funding streams particularly designed to do so.

However, social movements are solution-oriented and value-driven. Obesity interventions are problem-oriented and evidence-based. Therein lies a rub. I suggest that efforts to stimulate democratic, "community-based" action on a social movement/community organizing model are hampered by competing demands to be

"evidence-based" obesity interventions and, more broadly, by the problem-oriented rhetoric of obesity prevention.

Two political scientists captured this problem almost 20 years ago with their paper entitled "Bureaucratic Logic in New Social Movement Clothing: the Limits of Health Promotion Research." It addressed the field's "contradictory epistemological tendencies which reflect a positivist inspiration (as in the search for indicators) and an anti-positivist emphasis on agency and social change."[203: 281] Community-based childhood obesity prevention is trapped in these contradictions, fettering fulfillment of its potential for generating action overall and, particularly, democratic action. The EWPH-C case epitomized this problem, with the attempt to mobilize community partnerships to implement the State's evidence-based strategies for a particular age group. SUS stakeholders also differed on whether they were, or should be, a community-organizing initiative. In WCP, the first project facilitator stopped having general "childhood obesity" forums and instead focused on particular topics, such as gardening, to keep people at the table. This succeeded in seeding some action on the "middle out" model. Since late 2008, the second WCP facilitator has run the project on a community organizing model for food justice, treating childhood obesity as a symptom rather than a problem in its own right. Now WCP is the only of the three projects that has significantly involved citizens from communities affected by the problem in planning and implementing action including, most recently, youth. The discourses of the project names themselves partly tell this story. Contrast Somerville's imperative to "shape up" and Chemung County's to "eat well" and "play hard," with the process-oriented hope for a "whole community" initiative in Tompkins County. The directive project names imply individual behavior change solutions, whereas social movements propose systemic solutions to social problems.

US community food and physical activity movements

The obesity prevention "movement" is just one of several related to food and activity in the United States. The anti-hunger movement may be its closest cousin—not in on-the-ground collaboration, which was almost non-existent in these three projects—but in organizing around a negative approach to a large social problem. The implicit action that this movement conceives as a solution, as evidenced by its work, is food banks.

The small but vibrant "livable communities" movement aspires for community health, turning streets into neighborhoods (with the community and economic development that entails), and reduced pollution through enabling and encouraging active transport through changes in the physical infrastructure and in culture. This movement heavily influenced the trajectory and actions of SUS, embodied and organized by the city planner responsible for pedestrian and cycling transport whose position was initially funded by RWJF's Active Living by Design program.

A burgeoning movement of "foodies" values food quality. Beyond this shared platform, values behind this "food revolution"[204, 205] are all over the map, from people who just want to be sure they have a Whole Foods nearby to those passionate about local, sustainable and equitable food systems.[206]

Those latter locovores are part of the large community food security movement, which formalized with the formation of the Community Food Security Coalition in 1994. The values of this movement are illustrated in their explicitly values-based evaluation framework, summarized in Figure 4. This movement posits community-based food systems as the means to health (including obesity and hunger prevention), justice, economic and community development–including farming, and sustainability.

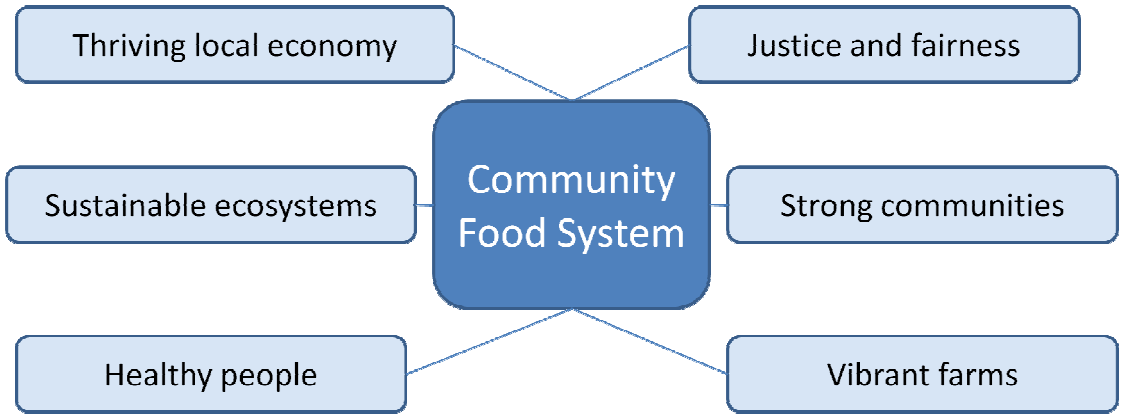


Figure 4: "Whole Measures for Community Food Systems"[adapted from 192]

Preventing obesity: a movement or an intervention?

What are the values behind and solutions proposed by the obesity prevention movement? If project actions are any guide, then access to produce markets, opportunities for family activity, school and community gardens, healthier foods in schools and youth programs, cooking classes, and infrastructural and policy encouragements for active transport are all perceived to be solutions. Fortunately, these actions do not trespass on the values and perspectives discussed in Chapters 2 and 3. They also completely overlap with solutions being promoted and organized by the three solution-focused community movements described above.

If you look to the evidence base for designing interventions, solutions will look a lot like the activities each EWPH community project site was contracted to implement: semi-annual TV-turn off campaigns, 5-a-day month promotions and–until the state-level WIC policy change–milk taste tests and other low-fat milk promotions. Reducing sugar consumption, and sugar-sweetened beverage consumption in particular, is also a solution largely specific to obesity, as opposed to the actions underway in other community food and activity movements.

Everyone wants children to be healthy. Also, funding a facilitator and some intervention initiatives will always attract some people to the table. However, expressing a concern that several shared in interviews conducted in Tompkins County before founding WCP, one African-American community leader said, "childhood obesity is not going to take food off your plate today, childhood obesity is not going to take the clothes off your back today. These are the kinds of things people are worried about." A stakeholder in Somerville (all the core SUS project stakeholders were native-English speaking and white) said, "you can see by the people around the table that we're not very good at reaching out to other communities," while noting that the community-based organizations (CBOs) in those "other" communities were already overstretched. Another SUS stakeholder said, specifically, these CBOs were overstretched with tackling pressing, daily issues such as housing, jobs and food access.

The community leader in Tompkins County quoted above went on to say:

> For somebody who steps back and looks the bigger broader picture about what [childhood obesity] is going to mean for the community 10-20 years from now, then it's extremely important and we need to kind of sort of do something. But you can't do it by yourself, and if the participants have other issues on their plates, then childhood obesity is not high to them.

I suggest that "prevent childhood obesity" does not provide a compelling rallying cry for a social movement. For people most affected, it may be a "kind of sort of do something" issue for many reasons, including a negative frame and no shared values base to mobilize people's passions. As mentioned above and described in Chapter 4, the three projects studied here almost entirely took actions that would be just as fitting in the livable communities, foodie, or community food security movements, seeing past the problem framing to solutions. The original Tufts SUS was built on the back of the local incarnation of the community food security movement and SUS' physical

infrastructure achievements were developed under an active transport frame. EWPH-C's capacity to create action seemed inhibited by competing pulls to be partner-driven while contracted to implement state policy, though used their "free" capacity largely to create new opportunities for physical activity. WCP action, and inclusive participation, took off once it got off the fence between being a human services collaborative for obesity prevention and a food justice organizing initiative, in favor of the latter. The key stakeholders from the original model continued with the initiative, partnering with and supporting the newly engaged participants as well as continuing leadership in school food improvements and gardening work. (Notably, of the food movements discussed here, community food security is the only one with explicit social justice values and not type-cast as a white middle class endeavor.)

CBPR researchers distinguish between "community-based" and "community-placed" health work.[207] McKinlay distinguishes between "a social policy approach to healthy lifestyles" and "the current lifestyle approach to health policy."[99] Social movements are the former. Obesity interventions are the latter.

This brings us back to the critique from those two political scientists, who wrote: "to state the matter baldly, the movement for health promotion is not a social movement but a bureaucratic tendency; not a movement against the state, but one within it."[203: 282] Community-level childhood obesity prevention confuses and entangles health promotion interventions with social movements. I posit that acknowledging and untangling this contradiction would unleash the potential of the projects studied here to be more effective and ethical in inclusive decision-making and in generating meso-level action. Instead of confusing these two approaches, we should bridge them.

With this strategic clarity, national funders in childhood obesity prevention, such as CDC to RWJF, might best leverage their investment in communities by supporting the values-based, solution-oriented community organizing composing the positive social movements to improve community health, particularly livable communities and community food security. They can also support community-level, evidence-based interventions specific to obesity through technocratic and social marketing approaches, without disguising them as "community-based," such as drinking low-fat milk, holding recess before lunch, reducing screen time, and limiting sugar intake. Also, improving the quality and coverage of the National School Breakfast and Lunch Program provides an ideal bridging area of action, both between movements and between movements and interventions.

The 360-degree staffing approach (outside in, inside out, and middle out) suggested in Chapter 4 would help facilitate this organizing and intervention combination, while keeping the technocratic and democratic approaches in touch and, hopefully, responsive to one another. Then by networking these initiatives regionally and nationally, the funders can mobilize advocacy for policy changes and economic incentives that support both the community movements and technocratic intervention strategies, such as allocations of agricultural subsidies and regulations on marketing food to children. This might be the right thing for obesity prevention in communities.

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