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Cornelia Butler Flora^a & Ardyth Harris Gillespie^b

^a Department of Sociology, Iowa State University, Ames, IA, USA

^b Division of Nutritional Sciences, Cornell University, Ithaca, NY, USA

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Making Healthy Choices to Reduce Childhood Obesity: Community Capitals and Food and Fitness

Cornelia Butler Flora

Department of Sociology, Iowa State University, Ames, IA, USA

Ardyth Harris Gillespie

Division of Nutritional Sciences, Cornell University, Ithaca, NY, USA

Attention has shifted to environmental causes of health status, particularly obesity, now defined as a worldwide epidemic. Moving from medical and educational models of intervention, this approach focuses on how changes in the social and physical environment enhance families and individuals to make health choices. Using illustrations from current intervention programs, we demonstrate how a community capitals approach can help identify what is in place to enable healthy food and exercise choices, and how those assets can be used to empower families and individuals to take conscious actions to improve their health and quality of life.

Keywords: childhood obesity, community capitals, healthy food, physical activity

Overweight is a reality of modern life throughout the world. Once thought to be a lack of knowledge or a moral failure (Spitzack, 1990) on the part of the overweight individual (or that individual's mother), obesity is now widely recognized as an environmental problem (Hill & Peters, 1998; Hill, Wyatt, Reed, & Peters, 2003; Institute of Medicine [IOM], 2005, 2007). Obesity is the result of high food intake (often in the form of dense calories) and low levels of physical activity. It is the community environment that provides opportunities for healthy eating and being physically active in our everyday lives (IOM, 2007). Even scholars who focus on individual food behaviors of acquiring, preparing, serving, and eating food acknowledge the importance context (Bisogni et al., 2007; Sobal & Wansink, 2008).

The Community Capitals Framework (CCF; Flora & Flora, 2008) is helpful in classifying and evaluating environmental factors to determine what in a community creates access to healthy food and active recreation in order to create more opportunities for healthy choices. The most important use of the CCF is to involve people in their own change. For example, the CCF can be a tool in creating a healthier environment and the systems that support that environment. All communities have assets that can be invested, which is when they become capital. Return on investment should be measured in terms of the increase in all capitals. Improvement in human capital is the goal of community-based actions to reduce childhood obesity. But only through

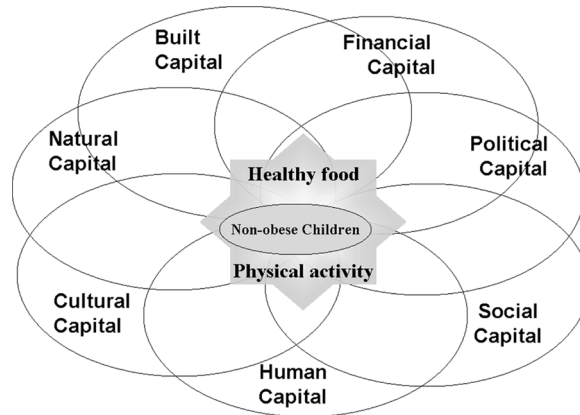


FIGURE 1 Community capitals for healthy children.

systematic investments in all the capitals can the proper environment of access to appropriate quantities of healthy food and opportunities for regular physical activity, which are the key to reducing obesity, come into place and be put into practice (Figure 1).

The capitals framework is a systemic approach to change that can bring together whole communities to reduce the multiple contributors to childhood obesity by building on the assets that are already there that provide for physical activity and access to healthy food. The Food and Fitness Initiative sponsored by the Kellogg Foundation in nine communities in the United States is an example of such an effort (see <http://www.wkkf.org/default.aspx?tabid=75&CID=383&NID=61&LanguageID=0>). The community provides a particularly powerful site for reducing childhood obesity as it combines a geographic location with groups of people who are linked by social ties, share common interests and cultural characteristics, and engage in interaction in that setting.

The current configuration of community capitals presents the “choice architecture” (Thaler & Sunstein, 2008) that results in childhood obesity. Choice architecture are those structures that enhance or inhibit healthy choices. Choice architecture varies from community to community, with inner city families in much more limited choice architecture than suburban families. Market, state, and civil society actors can invest in the capitals to change that architecture to make it easier for institutions, families, and individuals to make healthy choices.

Improving the choice architecture requires mobilizing communities to prevent childhood obesity. For that mobilization to be effective, there must be evaluation to activate a community’s assets around the common goal of preventing childhood obesity (IOM, 2007, p. 229). The CCF provides a tool for identifying local assets that can be invested to decrease the prevalence of childhood obesity, for monitoring their change over time, and for determining their impact in reducing and preventing childhood obesity.

NATURAL CAPITAL

Natural capital determines what is grown locally and when it is grown. Increasing consumption of local fruits and vegetables, particularly ones grown and prepared by children, reduces

obesity. Community and school gardens transform the potential of vacant lots to food production. Farm-to-school and farm-to-hospital programs increase the demand for locally grown food, which in turn transforms the landscape. Greenhouses and high tunnels extend the growing season. Natural capital combined with built capital increases the availability of local fruits, vegetables, and meats. But good food production alone will not prevent childhood obesity. Berti, Krasevec, and FitzGerald (2004) found that interventions in food production alone did not increase the nutritional status of participants. Those agriculture interventions that invested broadly in different types of capital were more likely to improve nutrition outcomes.

Natural capital determines what activities we can do outside and when we do them. Yet often cultural capital sets limits on natural capital possibilities based on beliefs about what is possible. “Iowa can only grow corn and soybeans,” “If you go outside and sweat, it is too hot,” and “It is too much trouble to get children to put on boots and snow suits,” are the types of beliefs that restrain the use of natural capital to reduce overweight and obesity.

CULTURAL CAPITAL

Cultural capital determines how we see the world, how we explain what happens, and what we think is possible to change. Not only does it influence what we prefer to eat and do for recreation, it determines what we think is possible to change in these realms. Changing cultural capital in terms of helping people think about what could be—beyond winning the lottery—is a critical piece of changing environments to reduce obesity and promote human health.

We tend to think of these choices as immutable—that we do what we do because it is “natural.” Yet when provided with alternatives, humans are surprisingly malleable in what they eat and how they engage in physical activity.

Appreciation of food—its flavors, preparation, how it is grown, and where it is grown—*terroir*—is part of identity and a major result of cultural capital. The increasing appreciation of local foods (Trubek, 2008) demonstrates a change in cultural capital and the formation of new food-based identities. Attention to walking and biking, rather than driving a car, is part of another facet of identity that is healthy for the individual and the planet.

Traditional foods from Africa, Asia, and Latin America and the traditional food of Native Americans were low in fat and high in nutrients, in part because of the combination of ingredients and the use of home-raised, gathered, and hunted food (Bachar et al., 2006; Calloway, Giaque, & Costa, 1974; Wirsing, Logan, & Micozzi, 1985). As our understanding of the importance of cultural identity as a source of health increases, programs that build on that linkage are growing (Cohen, Finch, Bower, & Sastry, 2006; Davis et al., 1999; Flora, Livingston, Honyestewa, & Koiyaquaptewa, 2009).

Family and ceremonial meals are an important part of cultural capital. Cultural associations, from ethnic affiliations to church groups, provide a setting for recalling healthy traditions and providing healthy food. Often, it is not only the food itself, but its gathering—from berries to hunting wild game—and preparing it in a group setting that are part of the cultural fabric that can support the combination of physical activity and healthy food choices.

HUMAN CAPITAL

Human capital is composed of the attributes of individuals: education, skills, health, and leadership. It consists of both potential and actualized potential. One of the goals of building a healthy community is to realize the potential of individual community members to make the kind of healthy choices that lead to decreased obesity and its associated diseases.

Increasing the knowledge and skills of local populations to change their behavior and reduce childhood obesity requires more than telling mothers what their children should eat. It involves connecting parents and their children to local sources of fresh fruits and vegetables through community gardens and including them in food growing and food preparation activities as families. Giving students and parents embedded knowledge about food and empowering them to use that knowledge is critical for behavioral change that leads to obesity reduction. Likewise, arranging physical activities in the work and school day, as well as weekend hiking and walking outings for families, not only tells people what they should do, but provides a venue for them to be successful at it. There is wide support for improving the infrastructure for walking, which needs to be supplemented through formal and informal activities through work, school, and churches to help inactive people become more active.

Committed and sustained leadership is critical for community changes to prevent childhood obesity. That leadership, which initially may be motivated by a variety of component parts, from reducing health disparities to organizing local farmers, must transition “from a focus on projects that address the symptoms of social problems (e.g., chronic disease outcomes) to a focus on changing the underlying cultures, incentives and settings that give rise to these symptoms” (Norris & Pittman, 2000, p. 122).

SOCIAL CAPITAL

Social capital is made up of the interactions among groups and individuals for mutual support. Social capital can contribute to the maintenance of unhealthy communities and to changing communities to provide more opportunities for healthy choices. Social capital can be both bonding—among similar people and groups—and bridging—across differences of place, class, gender, ethnicity, and religion. Bridging social capital is often necessary to introduce innovative ideas for creating a healthier community, but bonding capital is necessary to adapt those innovations to the specific community context. Social capital helps unite the leaders from public and private sectors to shift their perspective collectively from projects to a program with multiple functions to meet the shared goal.

Local organizations, governments, and businesses that have a stake in the health and quality of life of children and youth must work together to make explicit their theory of change in order to determine how to best mobilize local resources. Although this requires enormous effort, the payoff is clear (IOM, 2007). A number of foundations—including the Kellogg Foundation, Robert Wood Johnson Foundation, and state Health Foundations, as well as businesses related to health care, including Kaiser Permanente, and not-for-profit organizations such as Save the Children—have invested to build these collaborations to reduce childhood obesity. Thus, bonding and bridging social capital are critical in mobilizing assets, primarily local but also from the outside, to change community environments for healthier children.

There is evidence that bonding social capital contributes to supporting unhealthy eating patterns and low levels of physical activity through the formation of networks of obese people (Christakis & Fowler, 2007). Further, social capital is a major part of comprehensive community health initiatives (Petersen, 2002). Cohen et al. (2006) found that when controlling for community socioeconomic characteristics, the body mass index (BMI) is lower for adolescents living in communities with a strong sense of connection (social capital).

Social capital, such as that generated by Community Supported Agriculture, where consumers buy a share in a farm enterprise in advance in order for the farmer to buy seeds and other inputs in exchange for a share of the production during growing season, are increasing and contributing directly to more healthy eating (Bregendahl, 2006).

POLITICAL CAPITAL

Political capital is dependent on cultural capital to determine the community norms that lead to formal standards that lead to rules and regulations and their enforcement. It is not enough to have programs that subsidize fresh fruits and vegetables in the schools, yet limit the proportion of the funding for fresh fruits and vegetables that can be spent on preparation. The result of this well-meaning policy was that carrots and apples were shipped across the continent already in individual serving packages and served with fatty and sugary sauces in order to be palatable. When school cafeterias attempted to provide local apples and carrots, the young people ate them without the garnishes, as the flavor was discernibly better. The money spent on dips could have paid for the labor to prepare the local produce. Yet, the law was written in a way that privileged suppliers, not producers or children (Bregendahl, 2006).

At the local level, school food service and hospital administrators are extremely cautious in allowing local food in their cafeterias. Sometimes this caution is due to a local school policy and sometimes it is due to a misinterpretation of food safety rules to avoid getting into trouble with the state health department. Political capital must be mobilized to clarify the rules and make clear to local decision makers that it is within established regulations to prepare and serve local fresh produce. This use of political capital is to simply make existing standards and rules known.

Setting standards and the rules that enforce them is also an important way to mobilize political capital. Communities and local governments can mobilize political capital to set standards for planning and capital improvements that prioritize areas to grow local food and provide widely accessible opportunities for physical activity.

Political capital contributes to the safety of outdoor activity. Are residents organized to combat crime, particularly attacks on children? Are there enough eyes on the street to insure that children will not be assaulted when they walk or bicycle in their neighborhoods? The degree to which local neighborhoods determine collectively that they have the right to safe streets and can make demands on both government and nongovernment entities to ensure that outdoor play or walking to school is a critical community variable that requires both neighborhood collective action and linkages to power brokers at high levels.

Increasing political capital to act in ways that creates the community environment for healthy choices must involve those for whom childhood obesity is not a major issue, but where coalitions can be formed with those concerned with reducing crime. Effective community political capital to reduce obesity builds the coalitions whose goals can mutually reinforce each other.

FINANCIAL CAPITAL

Financial capital is made up of cash and other financial instruments that can be invested to create new resources, impacting all the other capitals. When money is spent on consumption, it is not capital but becomes capital when oriented to create other capitals.

One of the reasons often given for not eating healthy foods is that they are too expensive. Another financial barrier to healthy behavior is the cost of active recreation, particularly health clubs. Community actions to make public places for active behavior—from trails and sidewalks to scholarships for YMCA memberships—increase opportunities for recreation.

There can also be financial incentives for healthy living leading to a decrease in childhood obesity. The 2005 IOM report suggests that insurers and accrediting organizations provide incentives for maintaining a healthy body weight and include screening and obesity prevention services in routine clinical practice. Thus, political capital—setting standards and a policy on the part of market and civil society organization—can be reinforced by the use of financial rewards.

BUILT CAPITAL

Built capital provides venues for active or sedentary choices and for access to growing and eating healthy food. It includes how the interiors of buildings are structured to accommodate or require movement and the structure of the community food environment, which determines access to fruits, vegetables, and whole grains (Brownson, Haire-Joshu, & Luke, 2006; Larsen, Mandleco, Williams, & Tiedeman, 2006; Zimring, Joseph, Nicoll, & Tsepas, 2005).

In terms of physical activity, built capital helps children better utilize natural capital by providing safe sidewalks, bike paths, trails, safe swimming places, and campgrounds. There is considerable evidence that current built capital, as manifested by urban sprawl and unwalkable communities, contributes to the increase in obesity (Booth, Pinkston, & Poston, 2005; Lopez, 2004). Community efforts around built capital to enhance human capital must, therefore, engage political capital to change the standards, rules, and regulations that determine future housing and commercial development.

The 2005 IOM report, *Preventing Childhood Obesity: Health in the Balance*, recommends that local governments, private developers, and community groups should expand opportunities for physical activity—including recreational facilities, parks, playgrounds, sidewalks, bicycle paths, routes for walking or bicycling to school, and safe streets and neighborhoods. The report calls upon local governments, working with private developers and community groups, to:

- revise comprehensive plans, zoning and subdivision ordinances, and other planning practices to increase the availability of and accessibility to opportunities for physical activity in new developments;
- prioritize capital improvements projects to increase opportunities for physical activity in existing space.

These actions require mobilizing political capital to focus financial capital to improve human capital. Community social capital is the basis of setting the norms that can generate community standards and the rules, regulations, and procedures that enforce them, including making sure that priorities are set based on a project's contribution to reducing childhood obesity.

Built capital influences the availability of healthy food through structures that promote produce and wide distribution of food. High tunnels to expand seasonal production of fruits and vegetables and community gardens where families can provision themselves at a reasonable cost are ways in which built capital facilitates the production of healthy food. .

Built capital—or the lack of it—determines differential access to healthy food. Minority and low income communities have fewer than average supermarkets and convenience stores that stock fresh, good-quality, affordable foods such as whole grains or low-fat dairy products and meats (Nayga & Weinberg, 1999; Sturm & Datar, 2005).

In some rural and inner city communities with little or no access to foods required to maintain a healthy diet (often referred to as “food deserts”), residents are using social capital to mobilize political capital to form cooperative community stores or to pressure existing food establishments to improve their menus and items for sale (Horowitz, Colson, Hebert, & Lancaster, 2004; Morland, Wing, Roux, & Poole, 2002; Morton, Bitto, Oakland, & Sand, 2005; Sloane et al., 2003; Zenk et al., 2005).

COMBINING CAPITALS TO INCREASE OPPORTUNITIES FOR HEALTHY CHOICES

Built capital that provides opportunities for active recreation to prevent childhood obesity cannot happen without local social capital influencing political capital, and together mobilizing financial capital and human capital. A number of community initiatives utilize social capital and collaboratives to impact built capital (construct a playground) or to change a local school district’s policies related to the availability and sale of unhealthy foods in the schools. These organizations may be temporary but because they are collective efforts and build on existing social capital, they leave a solid cultural capital base to take effective action to change political capital for a healthier environment for children (Kreuter, Lezin, & Young, 2000).

Getting healthier food into school systems requires the mobilization of social capital to change cultural capital’s focus on minimizing costs to a focus on good value in terms of healthy food and healthy students. A number of U.S. and Canadian communities have taken this on through organizing around healthy food to shift political capital at the local level and even built capital (getting rid of deep fat fryers in school kitchens) through school food gardens, farm-to-school programs, and school procurement policies (Carlsson & Williams, 2008).

Part of community efforts to reduce childhood obesity must involve making healthy food, particularly fruits and vegetables, affordable. This includes building cultural and social capital to convert natural capital to community gardens and increasing human capital in terms of increased knowledge of gardening and preparation of fresh fruits and vegetables.

Monitoring the investments of all these capitals can enhance each of them and set priorities on future investments.

CONCLUSIONS

The CCF is helpful in mapping the interconnections of interventions to reduce childhood obesity and in setting priorities in terms of what capitals should be strengthened and in what order. Communities can act collectively to increase the availability of healthy food for all and to provide

opportunities for physical activity. Those structural shifts can then be linked to behavioral changes, which often can be measured through observational techniques. Ultimately, the measure of decreased childhood obesity will not be measured in terms of BMI, but in decline in the childhood rates of Type II diabetes, cardiovascular disease, and sleep-disordered breathing in a particular place (Daniels, 2006). Healthy decisions occur in a series of nested environments: the nation, the region, the community, and the family. We can analyze the healthy propensities of systems at any of these levels, using the CCF. However, it is at the community level where the interactions among the capitals seem more approachable, and through community engagement individuals can become empowered to make visible changes in their own health and the opportunities for their relatives and their neighbors to more easily make healthy choices. It is through collective action at the local level that dominant unhealthy food and physical activity systems can either be circumvented or specific changes made.

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