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Community Readiness for Childhood Obesity Prevention: Findings From a Statewide Assessment in Georgia

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Abstract

As investments are made to engage communities in childhood obesity prevention efforts, an approach to better understand local communities' readiness to implement evidence-based strategies is needed. The Community Readiness Model (CRM) was used to assess the readiness of 15 communities in Georgia actively working to prevent childhood obesity. Seventy-nine key informant interviews were conducted assessing six dimensions of readiness. Data were analyzed and scored using the CRM protocol. Overall community readiness scores ranged from 2.8 to 5.1 on a 9-point scale. The mean readiness score, 4.3 (*SD* = 0.5) corresponds with a preplanning level of readiness. Findings suggest that communities are recognizing the problem, organizing stakeholders, and beginning to develop solutions. There is a need for funders to match their community-based funding initiatives with the readiness levels of the communities being supported. Communities should focus their attention to the six dimensions of readiness while utilizing evidence-based frameworks and guidance on prevention.

Keywords

Community Readiness Model, community collaboration, childhood obesity prevention, policy, systems and environmental approaches, community capacity

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Background

Childhood obesity is a major threat to public health (World Health Organization, 2014). Rates of obesity have more than doubled in children and quadrupled in adolescents in the past 30 years (National Center for Health Statistics, 2011; Ogden, Carroll, Kit, & Flegal, 2014). The Centers for Disease Control and Prevention (CDC) and the Institute of Medicine (IOM) have recommended socio-ecological and systems-based approaches in response to the escalating rates of obesity and the many factors influencing behaviors contributing to obesity rates. These models seek multi-sectoral engagement to develop and implement policy, systems, and environmental (PSE) strategies that modify behavioral settings (e.g., school, community) and influence individual behaviors (IOM, Committee on Accelerating Progress in Obesity Prevention, & Glickman, 2012; Khan et al., 2009). According to the CDC (2009), IOM (2005), and other leading public health organizations, communities play a critical role in addressing childhood obesity. Community leaders, organizations, and local government agencies make decisions that affect land use, nutrition, community planning, transportation, all of which can impact the health status of residents (IOM, Committee on Accelerating Progress in Obesity Prevention, & Glickman, 2012). As a result, communities are well positioned to lead childhood obesity prevention efforts.

As state governments, national funders, state-and-local foundations, and other non-profits work to support community efforts, a better understanding of local communities' readiness to implement evidence-based strategies is vital (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000). Community readiness is described as the characteristics of a community that influence its capacity for change (Chilenski, Greenberg, & Feinberg, 2007; Sliwa et al., 2011). In this study, the concept of readiness will be understood through the Community Readiness Model (CRM). This approach is based on the Transtheoretical Model of Behavior Change and theories on community development and social action (Plested, Edwards, & Jumper-Thurman, 2006). The CRM has been utilized for many public health issues, including childhood obesity (Findholt, 2007; Sliwa et al., 2011). The model guides assessment across six community dimensions, as they relate to the topic under investigation (e.g., childhood obesity), including *existing community efforts, community knowledge of efforts, leadership, community climate, community knowledge about the issue*, and *resources available to support efforts* (Plested et al., 2006). The CRM provides for the scoring and categorization of each community into one of nine stages of readiness. Table 1 provides a description of the stages of readiness.

Table 1. Stages of Community Readiness.

Stage of readiness (score range)	Description
No awareness (score = 1-1.99)	Community does not recognize there is an issue and the culture within the community may encourage poor lifestyle behaviors.
Denial (score = 2-2.99)	Community is in denial, there is little recognition of the problem, although some members may indicate that the behavior in question can be a problem.
Vague awareness (score = 3-3.99)	There is more of a consensus in the community that there is an issue and that something should be done to resolve it. However, there is no motivation and leadership to address it.
Preplanning (score = 4-4.99)	There is recognition by at least some community members that there is a problem and something should be done locally to resolve it.
Preparation (score = 5-5.99)	There is some planning, leadership is active, and an action plan is in development. Leaders are beginning to identify and allocate resources.
Initiation (score = 6-6.99)	An action plan is established and early steps are being taken by leadership to address the issue.
Stabilization (score = 7.00-7.99)	There is at least one program or activity underway, it is supported by community leaders, and community climate is generally positive about the actions taken.
Confirmation/expansion (score = 8.00-8.99)	Community leaders try to expand or improve programs and/or activities.
High level of community ownership (score = 9)	Sophisticated understanding of the problem, specialized programs in place, highly trained staff, and effective evaluation.

Source. Adapted from *Community Readiness: A Handbook for Successful Change* by Edwards, Jumper-Thurman, Plested, Oetting, and Swanson (2000).

Prior studies suggest that communities with higher readiness scores possess greater capacity to implement and sustain comprehensive initiatives. Communities with lower readiness scores typically require significant support to implement evidence-based prevention strategies (Slater et al., 2005; Sliwa et al., 2011). Numerous funders have invested resources in local communities on childhood obesity prevention including grants, toolkits, webinars, expert

recommendations, and other resources. Improvements in health outcomes often serve as an indicator of progress; however, determining changes in intermediate outcomes (e.g., awareness, leadership) is also important for assessing progress of community efforts. Thus, there is value in conducting community-level assessment to understand whether capacity is increasing to implement interventions that produce the desired health outcomes. In Georgia, little is known about the number of communities addressing childhood obesity and their capacity to implement evidence-based strategies. The purpose of this study was to identify communities across Georgia actively working to prevent childhood obesity and to assess their readiness to implement evidence-based strategies.

Method

Sample and Design

An environmental scan was conducted to identify counties in Georgia with existing coalitions working on child health. The scan included an Internet search and outreach to leaders, county-and-district public health offices, not-for-profit organizations, and state agencies. The scan identified coalitions in 33 out of 159 counties. Fifteen of the 33 counties indicated interest in child obesity prevention specifically, and were included in our study. The socio-demographic characteristics of these counties are available in Table 2.

Key informants ($n = 79$) within each county were identified following the CRM protocol, which called for individuals who were best able to provide insight on actions being taken locally. Study participants represented community leaders in different sectors including city and county governments ($n = 15$), schools ($n = 12$), local businesses ($n = 1$), health care ($n = 7$), academia ($n = 3$), public health ($n = 12$), and local coalitions or non-profits ($n = 29$).

Procedures

Seventy-nine key informant interviews were conducted in 15 counties using a semi-structured interview guide provided as part of the CRM protocol (Plested et al., 2006). The interviews included 36 open-ended questions related to the six dimensions of readiness. Interviews were conducted over the telephone and lasted approximately 30 to 60 min. Consistent with the CRM protocol, four to six key informants were targeted in each community to achieve a greater understanding of the community context. With an approved protocol from the Institutional Review Board at Georgia State University, informed consent was obtained from each participant.

Table 2. Socio-Demographic Characteristics of Georgia Communities by Population Size, 2012.

Population size	Number of communities (n = 15)	Income	Education	Race or ethnicity			
		Mean household income	Mean high school graduation (%)	African American (%)	Non-Hispanic White (%)	Hispanic (%)	Other (%)
17,000-99,999	5	US$36,251	73	29.2	60.9	7.1	2.0
100,000-199,999	5	US$41,276	68	23.7	58.2	15.0	2.5
200,000-299,999	3	US$40,579	63	46.1	43.2	5.9	2.9
>700,000	2	US$56,380	67	39.6	42.4	10.9	5.9
All communities	15	US$41,475	68	32.1	54.0	10.0	2.8
State of Georgia	159	US$47,765	70	30.5	54.8	9.2	4.3

Source. Based on the 2012 data from the 2015 County Health Rankings, 2015, University of Wisconsin Population Health Institute (2015).

Analysis

Data were transcribed and analyzed using NVivo9 (QSR International Pty Ltd, 2010). Data were independently scored by two trained researchers. The inter-rater reliability between scorers was 89%. Researchers discussed differences in scores before achieving consensus on all scores. Following CRM procedures, interviews were scored by analyzing participants' responses to interview questions for each dimension of readiness. The CRM provides nine anchored rating statements for each dimension corresponding with a stage of readiness (scores range from 1.0-9.0). Interviews were assessed for evidence supporting the lowest rating statement. If that statement was supported, the scorer moved to the next statement until reaching a statement that was no longer supported by the interview. This process was completed to produce mean readiness scores for each dimension across all interviews. Overall community readiness scores were calculated as an average across all dimensions for each community. The overall readiness scores were rounded down to a whole number corresponding with a specific stage of readiness.

Results

Across the 15 communities, readiness scores ranged from 2.8 to 5.1 on a 9-point scale. Ten out of 15 communities scored in the *preplanning stage*, two communities scored in the *preparation stage*, two communities scored in the *vague awareness stage*, and one community scored in the *denial stage*. Readiness stages are defined in Table 1. The overall mean readiness score was 4.3 ($SD = 0.5$). The mean scores for each community across all dimensions are available in Table 3.

The dimensions exhibiting the highest mean scores were community efforts ($M = 6.1$, $SD = 0.6$) and resources available to support efforts ($M = 5.1$, $SD = 0.9$), corresponding with the initiation and preparation stages, respectively. The lowest scoring dimensions were community knowledge of the efforts ($M = 3.5$, $SD = 0.5$), community climate ($M = 3.1$, $SD = 0.5$), and community knowledge of the issue ($M = 3.5$, $SD = 0.5$), corresponding with the vague awareness stage.

Discussion

The CRM provides a method for assessing the context within which communities are working to prevent childhood obesity. Findings revealed that 10 out of the 15 communities scored in the preplanning stage and two scored in the preparation stage. This suggests that the majority of communities are

Table 3. Average Scores for Community Collaborative by Dimension.

		Dimensions of readiness					
Community number	Overall mean score	Community efforts	Community knowledge of efforts	Leadership	Community climate	Community knowledge about the issue	Resources available to support efforts
1	5.1	6.4	4.7	5.3	3.9	4.2	5.8
2	5.0	6.3	4.1	5.3	4.0	4.4	5.9
3	4.6	6.6	3.6	5.2	3.1	3.7	5.4
4	4.5	6.7	3.0	5.3	3.0	4.5	4.8
5	4.5	6.3	3.3	4.6	3.6	4.0	5.3
6	4.5	6.4	3.6	5.7	2.7	3.0	5.8
7	4.5	5.9	3.7	5.4	3.1	3.7	5.5
8	4.4	6.3	3.8	4.0	3.5	3.5	5.5
9	4.4	6.6	3.2	5.5	3.3	3.3	4.7
10	4.2	6.1	3.4	4.7	2.4	3.0	5.5
11	4.2	6.0	3.1	4.0	3.0	3.0	6.0
12	4.1	5.5	3.8	4.8	2.8	3.3	4.4
13	3.9	6.3	3.3	3.7	2.8	3.3	4.2
14	3.7	6.1	3.2	2.3	2.9	3.3	4.7
15	2.8	4.3	2.3	2.9	2.4	2.6	2.5
M scores	4.3	6.1	3.5	4.6	3.1	3.5	5.1
SD	0.5	0.6	0.5	1.0	0.5	0.6	0.9

recognizing the problem, organizing stakeholders, and initiating activities for prevention.

The mean scores for each of the six dimensions of readiness illuminate strengths and weaknesses of participating communities, and may inform efforts to support communities in improving their capacity to implement evidence-based strategies. Overall, communities scored lowest on dimensions for community knowledge of the efforts, community knowledge of the issue, and community climate. This finding raises questions about whether sufficient resources are being invested to increase the awareness and engagement of community residents. Findings suggest that there may be a gap between the efforts being implemented by leaders and the understanding among residents that a problem exists, and that there is a need to take action to address it. A lack of awareness of childhood obesity is evident in the literature. For example, studies have shown that parents, who are often central to successful implementation of community-based interventions, have difficulty recognizing obesity among their children (Baughcum, Chamberlin, Deeks, Powers, & Whitaker, 2000; Warschburger & Kroller, 2012). There have been limited investments in educational campaigns and social marketing for obesity prevention and this may contribute to the ongoing challenges in this area. Furthermore, the low mean scores on the community climate dimension suggests a lack of awareness or even a negative public perception of obesity prevention. There is a widespread narrative on childhood obesity that suggests mitigating the problem is a personal responsibility. First Lady Michele Obama's Let's Move! campaign is consistent with this framing. Although some leaders have embraced the spirit of this campaign, critics have suggested that the campaign is intrusive and that the First Lady is seeking to implement a nanny-state (Pew Research Center, 2013). Such beliefs about childhood obesity may impede adequate awareness of the problem and proactive community climates.

Communities scored highest on the dimensions of community efforts and resources available to support efforts. This finding may reflect the reach and progress of state and national efforts to engage and support communities in implementation of obesity prevention activities. The CDC has provided millions of dollars to states and local communities to spur action on obesity prevention, through initiatives such as *Communities Putting Prevention to Work, Community Transformation Grants, Partnerships to Improve Community Health*, and other funding to state public health agencies. The philanthropic community has provided significant resources to scale up community engagement and PSE approaches. It is possible that the areas where communities are exhibiting the highest levels of readiness—community efforts and resources available to support efforts—are also the areas where

funders have been focused. A clear linkage between the two is beyond the scope of this study. However, it is important to understand the impact that national recommendations and investments have had on the readiness of local communities. This is an area ripe for further investigation.

Implications

Findings from this study suggest that communities are recognizing the problem of childhood obesity, organizing stakeholders, and beginning to develop and implement solutions. Identified areas of strength in the communities appear to be consistent with the targets of investments made by funders. This suggests that external funding may have some influence on communities' capacity to carry out childhood obesity prevention activities. More research is needed to better understand this relationship.

It is well established in the literature that community-level capacity is vital to implement evidence-based strategies. Some communities have achieved a higher level of capacity to implement comprehensive strategies, and other communities are just beginning to build their capacity, resources, and leadership to effectively address childhood obesity. Funders would do well to match the goals of their community-based funding initiatives with the readiness level of the communities being supported. Communities interested in increasing their readiness for childhood obesity prevention should focus their attention to the six dimensions of readiness while utilizing evidence-based frameworks and guidance on prevention (Active Living Research Tools and Resources, 2015; IOM, Committee on Accelerating Progress in Obesity Prevention, & Glickman, 2012; Khan et al., 2009; Lyn et al., 2013).

The state of Georgia has a growing number of communities with interest in childhood obesity prevention. The community readiness scores for these communities leave considerable room for improvement and provide clear opportunities for funders to infuse resources to target dimensions reflecting low mean scores.

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