

Barriers to Physical Activity and Healthy Eating in Children as Perceived by Low-Income Parents: A Case Study

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Abstract

During the past three decades the prevalence of childhood obesity has steadily increased in the United States. Causes of childhood obesity are complex and include numerous individual and environmental factors. The purpose of this study was to determine parent perceptions on the social-ecological barriers (community, school, and family) to physical activity and healthy eating, perceived specific to their children. Self-reported data gathered from a 50-item questionnaire and six focus groups were conducted with parents ($n=43$) enrolled in the Women, Infants, and Children (WIC) Program. Participants (16 to 67 years old) were predominately female (88.4%), Hispanic (67%), low income, and living in or near Lompoc in Santa Barbara County, CA. The social-ecological model (family, school, and community) was utilized to create focus group questions and provide recommendations as part of the Lompoc Community Health Improvement Project (2006-to-the-present). Popular community barriers for physical activity were: disconnected sidewalks, lack of safe bike routes to school, lack of recreational programming at an affordable cost, and language barriers (lack of marketing physical activity programs in Spanish). Two safety barriers involved parks; fear of injury (dilapidated equipment) and fear of gangs (violence). Common school barriers were: teachers do not lead-by-example, lack of healthy food in school cafeteria, and insufficient time for children to purchase food and eat. Family barriers included: grandparents sabotaging healthy eating environments (e.g., spoiling children), insufficient nutrition knowledge (both children and parents), and economics (not being able to afford healthy food and a recreation/gym membership).

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Introduction

Global changes in diet and physical activity (PA) patterns are fueling an obesity epidemic as obesity is reaching pandemic proportions throughout the world [1]. As the availability of fast, inexpensive, energy-dense foods grows and PA declines, obesity rates across all ethnic and age groups in the United States are projected to climb [2]. Notably, in the United States, the speed of the epidemic spread is alarmingly more pronounced [3,4,5] as experts estimate roughly 17% or 12.5 million American children and adolescents are obese [6]. Persistence of childhood obesity into adolescence and adulthood depends on several factors, including age of obesity onset, severity of obesity, and presence of obesity in one or both parents [7,8]. The relationship of sedentary lifestyle and poor eating habits to childhood obesity is of particular interest because of the long-term health effects. These health effects carry with them increased health care costs to the public through Medicare and Medicaid, as low-income and minority populations are at higher risk for cardiovascular disease, diabetes, obesity, and many other conditions [9]. Obesity and its consequences disproportionately affect ethnic minority populations [10,11] with those of Hispanic origin, particularly Mexican-Americans, among the groups with the highest risk [12].

In 2007-2008, Hispanic boys, aged 2-19 years, were significantly more likely to be obese than non-Hispanic white boys, and non-Hispanic black girls were significantly more likely to be obese than non-Hispanic white girls [10]. According to a recent study, U.S. economic costs of obesity in 2005 were estimated to be \$190 billion spent on obesity-related healthcare expenses [13].

Popular theory suggests that the current epidemic of childhood obesity is caused by existing in a culture that encourages excessive food intake and discourages PA [14]. Specifically, excessive consumption of sugar- and fat-enriched food, lack of exercise, and excessive television viewing are

positively related to weight gain [15]. Hill and Peters (1998) described the U.S. culture as an aberration, one that is conducive to obesity, and more recently, detailed how the environmental forces in our society have promoted weight gain in children. This is particularly true in low socioeconomic, single-parent households and households in which parents work full time, favoring the preparation and consumption of time-saving convenience foods [16].

A host of researchers [17,18,19,20] have recommended identifying environmental causes of childhood obesity using a social-ecological framework that considers multiple environments that have influence on the child, such as the peer group, the school, the neighborhood community, and the media, among others. While researchers recognize that a person-centered approach to disease prevention may yield marginal improvements in health, they suggest that prevention strategies that focus solely on individual behavior change (e.g., altering diet and increasing exercise) should remain secondary to environmental approaches, including changes in the physical and social environment [21]. For example, health promotion media campaigns that encourage people to walk in their community may be irrelevant to people in low-income neighborhoods with poorly maintained sidewalks, parks controlled by drug dealers, limited recreational programming options, including limited transportation to recreational programs in other parts of town. First, environmental policies should be adopted to fix sidewalks, reduce crime, police parks, create neighborhood watch programs, and provide free or affordable recreational programs. After implementing the newly adopted improvement strategies, then and only then might one educate or launch an educational component. Stressing and focusing on environmental factors, which contribute to obesity development in children, represents a shift in thinking from the individual to targeting risk factors beyond the individual [22]. Environmental risk factors or antecedents to unhealthy behavior can be identified through utilization of the social-ecological model of

behavior, which recognizes that one's environment can restrict the range of behavior of individuals by promoting and sometimes demanding certain actions and by discouraging or prohibiting others [23]. Community-based health programs have been deemed in the research to be more successful if the environment is targeted in all five domains: individual, family, school/work, community, and policy [24,25]. Further research is needed to explore parents' perceptions of the barriers for PA and healthy eating that exist in a given environment. This study utilized the social-ecological model as a research tool and intervention framework to better understand and address the perceived barriers parents believe their children encounter daily in their community. In order to mitigate obesogenic (obesity producing) factors in the community, identifying the barriers (both real and perceived) to healthy eating and PA is the first step towards mobilizing public health strategies and interventions targeting the barriers [26].

Methods and Materials

The purpose of this study was to use focus group discussions to determine the perceptions of parents participating in the Women, Infants, and Children (WIC) program regarding the social-ecological barriers (community, school, and family) to their children's engagement in PA and healthy eating. After conducting literature reviews on perceived barriers to healthy eating and PA, the social-ecological model, and the built environment, the primary investigators developed a structured interview guide that was reviewed and validated for content and sensitivity [27,28]. The data collection protocol for this study was approved by the Cal Poly Institutional Review Board. Participants were recruited through the County Public Health Department's WIC Program. Participants were low-income caregivers of children at-risk for overweight. Six focus groups were conducted over a three-day period at the Lompoc Valley Community Healthcare Organization office. Before each session, permission to tape record and informed consent were

obtained from all participants in Spanish or English, as preferred. Participation in the study included two components: taking part in a focus group discussion and completing a self-report questionnaire.

Data Collection

WIC participants were recruited to attend one of six focus groups offered (five in English, one in Spanish) using study flyers, and word-of-mouth outreach. Three trained moderators (two- English speaking and one- Spanish speaking) led each focus group discussion. Each group included between 4 and 8 participants and lasted between 1.5 and 2 hours total. As incentives, lunch was provided and each participant was given a \$20 gift card. Prior to beginning the focus group discussion, each participant was asked to complete a 50-item questionnaire, available in both English and Spanish. A subset of items from that instrument deemed relevant for describing the focus group participants and their family contexts are described in these study results, including: (1) Participant characteristics (gender, age group, race/ethnicity, height and weight); (2) Family composition (number of children living in participants' homes and other individuals [spouse, relatives, friends, etc.] who live with them); (3) Responsibility for family nutrition (participant reports of who decides what to buy at the store, who shops for the food, and who cooks the food, with response options for all three questions of "you", "spouse" and "other"). After participants had completed their questionnaires, the focus group discussions commenced. Focus group questions included the following: (1) "What can families do to help prevent weight problems in children?" (2) "Understanding that changing habits is difficult, what do you think makes it hard for families to make changes?" (3) "Can schools help your children make changes? If so, how? If not, why?" (4) "Can the community help your children make changes? If so, how? If not, why?" (5) "If you were the mayor for the day and your job was to reduce childhood obesity in the community, what would you do? What would you

change?"

Focus Group Analysis

Audiotapes recorded during each session were transcribed verbatim in both English and Spanish languages and the written transcript was reviewed for accuracy. Focus group transcript themes were systematically identified, categorized, and coded by the three lead researchers utilizing the inductive analysis procedures outlined by Patton [29] and Thomas [30]. Results were compared and agreement was reached on the thematic coding. Once major themes were agreed upon, an inductive process was used to list all of the possible responses for each theme utilizing the social-ecological model as the framework for the codebook. Each researcher conducted an independent second analysis consisting of reading and rereading the interview transcripts and examining the data line by line to identify potential categories prior to a team discussion. Researchers discussed coding discrepancies until consensus was reached.

Results

Participants

Forty-three participants took part in the focus groups. As Table 1 shows, all but five of the participants (88.4%) were women, and most were between the ages of 25-29 or 30-34 (30.2% and 25.6% of participants, respectively). About two-thirds were Hispanic/Latino, and they typically had 2 or 3 children living in their home ($M = 2.29$, $SD = 1.20$). Among responding participants, 21.4% reported that they lived alone with their child(ren), 52.4% lived with a spouse or partner and their child(ren), and 26.2% had one or more other family members or relatives living with them and their child(ren). Notably, participants themselves had serious weight issues; slightly more than half (52.5%) had a Body Mass Index (BMI) that placed them in the Obese (30 – 39.9 kg/m²) or Severely Obese (≥ 40 kg/m²) BMI range. Questionnaire reports indicated that the WIC participants generally wielded the most control in the

family over what their children were eating. The majority of participants indicated that they alone decided what food to buy (62.8%), they alone did the food shopping (60.5%), and they cooked their family's food (62.8%); nearly half (46.5%) of participants reported in their family they alone served as the food gate keeper and bore responsibility for all three of the above tasks.

Qualitative Findings

An overview of focus group themes, frequencies, and illustrative quotes is shown in Table 2, with results organized according to community, school, and family-level barriers to PA and health eating, respectively. Overall, the most common perceived barriers were a lack of recreational opportunities in the community, the higher cost of healthy food, safety concerns about children walking to school, poor quality of school lunches, general family financial concerns, and the ease and convenience of less healthy options.

Perceived Barriers in the Community

The most common response to what a community could do to prevent future weight problems was to increase accessibility of recreational programming, including increasing the number of – and enrollment caps on – classes, and offering them at times that were more convenient for working families. Participants reported that they were unaware of where and how to find information on what programming is available in their community, as evidenced by the following comment:

Aida ~ "If you not born and raised in this community, you're not going to know anything" [pertaining to the city recreational programming]. (Focus group transcript #3)

Many expressed frustration that the bowling alley had been closed, leaving no family-centered recreational activities in the community. Participants wanted the community to maximize the use of its parks and pool. They were pleased with the swimming pool fee

Table 1. Characteristics of Focus Group Participants

Characteristic	N	Percent
Female	38	88.4%
Age, years		
16-19	2	4.7
20-24	6	14.0
25-29	13	30.2
30-34	11	25.6
35-39	2	4.7
40-44	1	2.3
45 and older	8	18.6
Ethnicity		
Hispanic/Latino	28	65.1
White	7	16.3
Multi-racial/ethnic	4	9.3
Black or African American	3	7.0
Native American or Alaskan Native	1	2.3
Number of children in the home		
0	2	4.8
1	8	19.0
2	16	38.1
3	10	23.8
4 or more	6	14.3
BMI range		
Normal, 18.5 – 24.9 kg/m ²	9	22.5
Overweight, 25.0 – 29.9 kg/m ²	10	25.0
Obese, 30 – 39.0 kg/m ²	19	47.5
Severely obese, ≥ 40 kg/m ²	2	5.0

Table 2. Parents' Perceived Barriers to Their Children's Physical Activity and Healthy Eating

Construct	Common Themes and Frequencies	Illustrative Quotes
In the Community		
Perceived barriers to physical activity	Increase the number of recreational programs for kids (42); Reduced fees for pools and parks (30); Improve safety of parks by enforcing regulations mitigating criminal activity in parks (19); Maintain safe roads, bike lanes, and sidewalks providing safe corridors (1)	"Lompoc is for adults, we don't have a skate rink, so children can play, we barely have anything for children to have fun that is not at home." "We had a bowling alley but it's gone." "It's very expensive to get your child involved in some kind of a club." "The aquatic center has such limited time, it is always full." "It's the language too. It's a factor because everyone goes to the recreation center to get information but it's not in our language. I don't understand what is on the flyers."
Perceived barriers to healthy eating	Healthier foods tend to be priced higher (8); Lack of quality grocery stores in area (4)	"I don't see many healthy places here, you have to go outside of town to find a Trader Joes TM." "You can go buy a loaf of bread and the pastas are a lot cheaper than fruits and vegetables."
In the School		
Perceived barriers to physical activity	Funding commitment for quality physical education is low (5); School playground safety (4); Lack of motivation of school (3); Distance to school is too far to bike or walk (7); Not safe to walk to school (10)	"I ask my daughter about P.E. and she says "she had it on Monday"... and I asked 'what happened to Wednesday?' She said, 'they didn't have enough money to have a teacher full time.'" "School is very far away." "I don't want them to walk because you never know these days, we live close to school but what I hear in the news and read in the newspaper it's not secure." "Only after school do they get a guard." "They fight kids, they assault kids."
Perceived barriers to healthy eating	School food quality questioned (33)	"I used to work at the school my son is at and the food is not very healthy... they give them a little pizza." "The school gives them junk food... I tell my daughter I will pack a lunch and she says 'NO'... they have Doritos TM and other things."
In the Family		
Perceived barriers to physical activity	Funding commitment for healthy food is low (4); Family economics (10); Denial there is a weight problem in the family (2)	"Because of work I can't take my child to the recreation center or I can't afford to put my child in the activities." "Everything is about money, everything costs money." "When I was young, I was chubby, and everyone would say "how pretty, how pretty" but they said that because I was chubby."
Perceived barriers to healthy eating	Cultural custom to finish food on plate (7); Lack of nutrition education (8); Ease of preparing fast food (6); Preference for junk food (5)	"We have a culture that you won't get up until your plate is empty...the bigger the plate the more food we put on it." "In our culture it's a sin to discard food." "My husband has to have soda in the house." "I don't know how to make asparagus and they are full of vitamins, only rich people make them." "It's hard to be at work all day and when you come home you are too tired to make dinner. You just put in those Hot Pockets TM."

structure when the pool first opened, but had since found it cost-prohibitive for larger families due to a policy change which required that one (paying) adult accompany each (paying) child, thus making the pool too expensive for some large families and impossible for others. Their perception was that the pool existed for the high school sports teams to use and for privately-paid birthday parties that generated money for the facility; serving the families of the Lompoc area was no longer the pool's primary purpose.

There were many comments regarding the design, maintenance and safety of the parks. Participants felt that certain parks were planned with areas serving younger children oriented too close to the street, presenting a car safety issue:

Nina ~ *"JM (Johns-Manville) park, there's just too many situations because it's right next to the street... all it takes is one drunk driver."*(Focus group transcript #4)

Other participants mentioned parks that only had equipment geared for older children (basketball, baseball, etc.) and very little equipment for the younger children (ex: few basket swings were available):

Lola ~ *"I went to Thompson Park with my son the other day, and what I remember about Thompson is that they have the baby swings you can put your baby in and swing. Uh-uh. There was a big bar with five big people swings on it. Are you serious? What a waste."*(Focus group transcript #1)

There were safety and maintenance concerns with glass in the sand, broken or absent water fountains, and unsanitary conditions voiced by many. The following are examples expressing frustration with the parks:

Maria ~ *"We have a downtown park, and they have the septic tank people come in and clean*

it out right by the little kiddy playground which has glass in it, and other stuff that my daughter would put in her mouth. We usually head as far away as we can and try to find some cleaner parks." (Focus group transcript #3)

Anna ~ *"Lompoc really needs to invest in a decent park. The parks aren't really, really bad, but just yesterday we took our girls to play softball at a park, and there's no bathroom there. No place to wash your hands. Maybe a port-a-potty wouldn't be such a big deal to bring out."*(Focus group transcript #3)

Another suggestion as to what the community could do to prevent future weight problems was to address and educate the public on safety issues, enforcing regulations regarding criminal's proximity to schools and parks, and road safety. Many parents commented on a lack of confidence in their children's safety when they are not in view, resulting in some resistance to allowing their children to walk to school or participate in other recreational opportunities.

When discussing the barriers the community faced in promoting health, participants mentioned that they felt leadership was failing to enlist community involvement and support. They were impressed with what private local groups like Lompoc/New Heights-Connections, a mental health provider, for transition-age youth, were doing for the benefit of the children in the community. They also mentioned the Big Brothers/Big Sisters program, the YMCA and the Air Force community at Vandenberg Air Force Base as being sources of support for families. While participants knew some services existed (scholarships through the city's parks and recreation department) they faulted the community organizers with failing to provide a consistent and known means by which to communicate to the public.

Although the Spanish language newspaper, *El Sol*, was mentioned as an avenue by which community

organizers communicate, language was still listed by the Spanish-speaking participants as a barrier to learning about available programming:

Sofia ~ *"It's the language, too. It's a factor too because everyone goes to the recreation center to get the information that is not in our language. I don't understand what it says on the flyers."*(Focus group transcript #6)

Blanca ~ *"And the question, the embarrassment of, 'Can you translate for me, can you tell me what this says?' They don't do it."*(Focus group transcript #6)

Ema ~ *"I would say the programs are there but the outreach to the families could be better."*(Focus group #2)

WIC was complimented as an agency that effectively provided information regarding health; however, it was pointed out that the WIC Program was not available to all segments of the population:

Elina ~ *"I don't think there are any other programs that actually reach out and try to teach families."*(Focus group transcript #2)

Economic barriers in the community were also mentioned. An increase in bus fares caused transportation challenges for families to get to activities. Some distances were perceived as too far to walk or that unmonitored crossings were unsafe for walking or biking. The majority of the participants reported that during tough financial times these factors pose even more difficulty for financially challenged families:

Carisa ~ *"Maybe for some people for one child to play softball \$90 isn't very much, but when I have 5 who are able to (play), it's \$90 plus you have to buy their bat and cleats, and then you have to buy pants this year, and all the other things that come with buying for softball."*(Focus group transcript

#3)

Many activity program options mentioned by the focus group participants required the child provide their own equipment (which they quickly outgrew) in order to participate, thus adding to the overall cost and making the program unaffordable. When asked how well the community does on helping children and families achieve or maintain a healthy weight, participants overwhelming put the community at below average or failing.

Aside from the community barriers to PA, there were some concerns about the availability, accessibility, and affordability of healthy food in the community (e.g., access to healthy grocery stores, the availability of fresh fruits and vegetables):

Vanesa ~ *"I don't see many healthy places here, you have to go outside of town to find a Trader Joes TM. You can go buy a loaf of bread and the pastas are a lot cheaper than fruits and vegetables."*(Focus group transcript #5)

Perceived Barriers in the School

Overwhelmingly, participants felt schools should provide nutrition education. Specifically, healthier food choices at school breakfasts and lunches were cited as necessities to model healthy eating. It was acknowledged that there are healthy choices available but these food items aren't fresh:

Marie ~ *"[The healthy food] looks worse than the junk and my son will not eat it...a lot of the stuff that got thrown away was the fruit and milk ... I think most of the junkier stuff got eaten."*(Focus group transcript #4)

Participants felt more of an effort should be made to make the fresh, healthy food more appealing, perhaps by offering children incentives for eating it. Participants also recommended removing or reducing competitive food offerings. Having poor nutritional

quality foods in school was seen as undermining parent's best efforts to teach children about healthy food selections. As evidenced by the exchange below:

Esma ~ *"The school gives them junk food... I tell my daughter I will pack a lunch and she says 'NO'... they have Doritos TM and other things."* (Focus group transcript #1)

The greatest barrier perceived by the participants to schools promoting healthier eating and PA was a lack of funding and proper allocation of resources. They mentioned teachers' time constraints for curricula concerning nutrition and physical education. They also believed schools were remiss in not encouraging walking to school and in not improving street crossings as many are considered by the participants to be unsafe. While they acknowledged the constraints on schools, participants did believe more PA time during the school day was possible. They felt that if it were made a priority by the administration, solutions could be found. California's education system has been hit hard by deep cuts as evidenced by this woman's comment:

Madalynn ~ *"I ask my daughter about P.E. and she says 'she had it on Monday'... and I asked 'what happened to Wednesday?' She said, 'they didn't have enough money to have a teacher full time.'"* (Focus group transcript #2)

Lack of motivation on the school's part was the next most common barrier mentioned that prevented schools from promoting healthy eating and PA. An elementary teacher was highlighted as setting a positive example by getting "over 100 kids involved" for a track and field program at recess. This school-day program helped all kids, even those who couldn't stay after school because their parents needed them to come directly home. Over half of the participants assessed the schools in the Lompoc community as average, below average, or failing in their efforts to

help kids maintain a healthy weight. However, the parents of very young children (not yet in school) had an overall perception of the schools as "just fine".

Perceived Barriers in the Family

The most commonly reported barrier for families to make positive changes in nutrition and/or PA levels was a lack of support from a spouse or other adult members of the household, some of whom have cultural beliefs and practices that do not support healthy eating:

Cécile ~ *"We have a culture that you won't get up until your plate is empty...the bigger the plate the more food we put on it."* (Focus group transcript #6)

Camilla ~ *"In our culture it's a sin to discard food... your grandparents don't let you get up if your plate still has food on it."* (Focus group transcript #6)

Some participants reported that their spouses were reluctant to make a change in their personal eating behaviors and choices. This not only resulted in poor modeling of healthy eating but also presented a lack of a united front in parenting. This was also true for the grandparents living in the same household. Participants reported that it was common for grandparents to be more indulgent and to go against the wishes of the parents:

Rose Marie ~ *"I know my parents give them ice cream or chips and I'm always telling my dad 'don't do that!' But grandparents are supposed to spoil the kids, so a couple of chips are okay,... but it worries me."* (Focus group transcript #3).

Participants also cited single parenthood as a challenge to healthy eating, as single parents' lower incomes and long working hours made it difficult to prepare more time- consuming and costly healthy

meals. Additionally, parents reported that when they felt tired, they were less likely to model PA:

Tia ~ "I am just exhausted after cleaning and washing dishes, you get them ready for bed and it's just really hard. That's why I focus on their physical activity only on weekends.

At the beach they have a mission to run around, but me? I'm tired. I'm tired every moment." (Focus group transcript #5)

Work responsibilities and financial concerns were generally cited as being significant factors in limiting families' ability to help their children be active:

Lela ~ "Because of work I can't take my child to the recreation center or I can't afford to put my child in the activities. It's just too expensive... Everything is about money, everything costs money." (Focus group transcript #4)

Despite the barriers cited above, participants still evaluated their own family as 'above average' in how they were doing in regards to weight issues with their children.

Discussion

Focus group results showed that low-income WIC participants in Lompoc, CA, perceived a number of barriers to healthy eating and PA that existed at the community, school, and family levels. Notably, the community-level barriers focused more extensively on issues related to engaging in PA than healthy eating, and the issues cited are challenges that communities nationwide have been struggling with for years. Mirroring results found back in 1996 in a nationwide telephone sample [31] increased accessibility of recreational programs for children was the greatest need cited by most of these low-income participants – both in terms of the number of programs and their affordability. Similarly, safety concerns in the community were cited by many focus group participants, an issue which disproportionately affects

lower-income families [31]. There were some – but fewer – concerns about the availability, accessibility, and affordability of healthy food in the community (e.g., access to healthy grocery stores, the availability of fresh fruits and vegetables), which has also been demonstrated in other low socioeconomic Hispanic populations in the U.S. [32].

The discussion of school-level barriers in addressing childhood obesity revealed that WIC participants generally believed that much more could be done locally in schools to promote healthy behavior. There was strong consistency in the belief that the food provided by their local schools is of poor quality, and many participants felt there were missed opportunities to promote PA, either within the school or by facilitating safer routes for walking or biking to school. Research supports this avenue as a promising direction for obesity prevention in youth. School-based interventions represent an area in which there are many promising efforts, particularly in promoting healthier eating, that have shown that healthier food options in a school are associated with improved eating behaviors among students, such as higher-quality diets [33] and purchase of lower-fat foods [34].

Perhaps the most intriguing results in these focus group findings related to participants' perceptions of the healthy eating and activity barriers faced within their families. Although participants discussed having limited time and money to support activities for their children, it was in this area – more than in discussions of community- or school-level barriers – where participants focused on issues related to healthy eating. These issues proved to be complex, and the participants themselves provided a somewhat inconsistent portrait of the role they and their families played in their children's health. For example, most of the participants had reported that they alone were responsible for choosing, buying, and/or cooking the food their family ate.

However, despite having ultimate control over the food that entered and was served in the home, they still felt

that other family members often had a significant negative impact on their children's eating behaviors. These findings underscore the complexity of the interpersonal and cultural dynamics associated with food and mealtimes [35].

Consistent with other research [36,37], participants also cited socioeconomic factors as a challenge to healthy eating; lower incomes and long working hours – particularly among the single parents of the groups – made it difficult to prepare what they perceived to be more time-consuming and costly healthy meals.

Clearly these barriers had an impact on participants' own weight status in addition to that of their children; only 22.5% had a BMI in the "Healthy" range; the rest were overweight to morbidly obese themselves. Moreover, because parent obesity status is a predictor of children's obesity [38], this represents a significant risk factor for their children that was not acknowledged in the focus group discussions. In fact, surprisingly, participants largely felt that personally they were doing "better than average" in addressing weight issues in their children.

Conclusion

Taking Local Action Based on Local Results

Since January 2009, when a version of this report was delivered to the Lompoc Valley Community Health Improvement Project, the Lompoc community environment and policy committee initiated several public health programs via two infrastructure grants providing funds through the year 2015. These new programs included traffic calming measures and police traffic enforcement around schools, having volunteers oversee *Safe Routes to Schools*, engineering bike paths and sidewalks for better connectivity and surface quality, educational programs at schools on pedestrian and bike safety, and implementation of *Walk and Roll*, a bike-to-school safety program. These local efforts reflect a critically important environmental approach that complements individual-level educational and behavioral

prevention strategies, and enables a tailored response to the needs and perceptions of the community residents. Such locally-based data collection, paired with tailored, data-driven community responses, represents a model approach for other communities that seek to define and address the barriers to promoting healthy lifestyles – and preventing childhood obesity – in their own populations.

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