BRIEF SUMMARY

Designing a Program to Reduce Overweight and Obesity Among Low-income Californians:

Results of Formative Research

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UC DAVIS INSTITUTE FOR POPULATION HEALTH IMPROVEMENT

DHCS California Department of Health Care Services

NORC at the UNIVERSITY of CHICAGO

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Introduction

Study Background and Purpose

The California Department of Health Care Services (DHCS) and the University of California, Davis Institute for Population Health Improvement (IPHI) received a grant from the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program-Education (SNAP-Ed) to reduce obesity among low-income Californians. The project includes formative research, program development and pilot testing, and a formal impact evaluation. The National Opinion Research Center (NORC) at the University of Chicago and LTG Associates assisted in conducting the formative research, which consisted of three studies to identify the best approaches to reduce the risk and prevalence of obesity among low-income Californians. Key informant interviews were conducted among subject experts in California and nationally, followed by focus groups with low-income mothers with children, aged 0 to 18 years, as well as in-depth video ethnographies among low-income mothers and fathers with children, under 18 years, and community leaders.

Results from the three studies will be used to inform planning of programs targeting obesity and chronic disease, which have a high prevalence in California's low-income communities. The findings are also designed to support future collaborations among stakeholders and local communities to create healthier families and communities.

Key Informant Interviews

Methods

Twenty-five key informant interviews were conducted with experts in the health care, population health, academia, research, and policy sectors. Interviews were conducted over the telephone and were recorded and transcribed. Respondents represented multiple sectors but all had considerable experience (typically, 10 years or more) in areas such as health promotion, obesity prevention, nutrition education, and physical activity promotion. A discussion guide asked respondents about their thoughts on personal and community health and well-being, and their suggestions for ways to measurably improve the health of a low-income, racially diverse community in California. They were asked for

suggestions to improve health overall and to reduce the prevalence of obesity in that same community, given a 3-year timeframe and $7 million investment. Three example obesity prevention scenarios were also described in a one-page outline format for respondents to react to and provide their impression of applicability to California's low-income communities. Interviews were conducted in English during February, March, and April 2016.

Findings: Contributors to a Good Life, Healthy Life, and Healthy Community

Strong personal relationships, social connections, and the feeling of belonging were the factors most frequently mentioned by respondents as contributors to a good life. Respondents also described safe physical environments and access to basic needs such as housing, jobs, education, health care, and food as important contributors to a good life. Factors that respondents thought contribute to a healthy life were focused more on making good choices through personal health habits, such as obtaining enough, regular sleep, eating healthy foods, and being physically active. Access to affordable food and physical activity opportunities to support choices that contribute to a healthy life were also considered important factors. Access to healthy foods, health care, housing, and other basic resources were cited as important contributors to a healthy community overall. One key informant said,

> **"Contributors [to a healthy life include] where you live, socioeconomic background, the level of stress you have in your life, where you live in your housing conditions, income, community support, having access to fruits and vegetables, access to exercise, safe neighborhoods, having potable drinking water, being able to exercise, having your network of friends and family to support you, having stress levels being managed, having access to health care, your education level, your income level, some genetics, and community support."**

Respondents were also asked to comment on potential reasons for high rates of chronic disease and obesity in low-income California communities, and they pointed mainly to lack of education about healthy living and the disconnection between knowledge of healthy behaviors and carrying them out in daily life.

Findings: Measurably Improving Health and Reducing Prevalence of Overweight and Obesity

Key informants proposed similar approaches for both improving health generally and lowering the prevalence of overweight and obesity in low-income, racially diverse communities in California. An important theme in many of the interviews was addressing the social determinants of health such as economic stability, safe and healthy neighborhood conditions, quality housing, and access to education and health care.[1] The elements that make up to the social determinants of health were pervasive throughout the interviews. Experts also suggested convening community members and developing coalitions to maximize solution-oriented, collaborative decision-making. Building capacity for community change among local leaders was also an important approach suggested by the key informants.

1. Centers for Disease Control and Prevention, [http://www.cdc.gov/socialdeterminants/] May 2016.

Increasing access to healthy foods through urban agriculture and other locally sourced methods was recognized as critical to solving obesity and chronic disease problems in low-income communities in California. In addition, respondents felt that nutrition education and changes in the built environment to encourage physical activity would be needed as part of any approach. There was also strong support for the use of realistic and meaningful measurement strategies in order to determine the effectiveness of program efforts.

Findings: Effective Scenarios

Respondents reacted positively overall to three scenarios presented during the interview. The scenarios were described in standardized formats to present examples of tested interventions previously implemented in the field. They included: (1) *Wholesome Wave Fruit and Vegetable Prescription Program*[2] — an incentive-based program where physicians give families prescriptions that can be redeemed for fruits and vegetables with participating retailers; (2) *Shape Up Somerville*[3] —a community-based intervention with various programs and policies targeted toward increasing access to healthy foods and opportunities for active living in sectors such as schools, worksites, restaurants, and the built environment; and (3) *Greenprint: Planting Trees for Public Health*[4] —a tree-planting program aimed at schools and parks to improve the physical environment and increase physical activity. Key informants recognized that each approach had many merits. Comparison of the three scenarios to each other directly may not be applicable as they were individually unique, some with greater complexity in their intervention methods.

The *Shape Up Somerville* scenario, however, was viewed as the most viable option for application in low-income communities in California. It resonated as a program that is comprehensive and engages community members as part of the solution to reduce the prevalence of overweight and obesity where they live. Respondents thought that a program similar to *Shape Up Somerville* had the potential to increase access to healthy foods, provide nutrition education, and foster increased opportunities for physical activity. Concerns included how to apply it across the tremendous cultural diversity of the state as well as the capacity to achieve challenging outcomes, such as reductions in Body Mass Index (BMI) among residents in a relatively short intervention period. Respondents also thought that *Shape Up Somerville* would need strong local leadership to guide the community activation process.

The other two scenarios were also well received, but neither received the strength of support as *Shape Up Somerville. Greenprint: Planting Trees for Public Health* was not seen as a stand-alone program. It was suggested that it could be combined with other intervention approaches. Respondents recognized more potential problems in implementation of the *Wholesome Wave Fruit and Vegetable Prescription Program* in California compared to the other scenarios, with the main issues being that it requires a lot of investment, was not a population-level approach, and it might not be scalable across all low-income communities in California. Key informants thought that the strongest aspect of the the *Wholesome Wave Program* was the involvement of physicians as credible, trusted sources for information about health.

2. *Wholesome Wave [http://www.wholesomewave.org/] July 2016.*
3. *Shape Up Somerville [http://www.somervillema.gov/departments/health/sus] July 2016.*
4. *Greenprint [http://www.sactree.com/greenprint] July 2016.*

Focus Groups

Methods

Eight focus groups were conducted with low-income respondents eligible for California's Medicaid program (Medi-Cal) and SNAP-Ed. Focus groups were conducted in Sacramento, Oakland, Fresno, Visalia, and Los Angeles. One English group and one Spanish group were conducted in each location except Oakland and Visalia, where only one English group in each location was conducted. The sample was composed of low-income women (at or below 185% of the Federal Poverty Level) of different race/ethnicities and between 18 and 54 years of age. All of the women were mothers of children, aged 0 to 18 years. Overall, a total of 66 respondents participated in the focus groups. The Oakland group was excluded from the results due to low turnout.

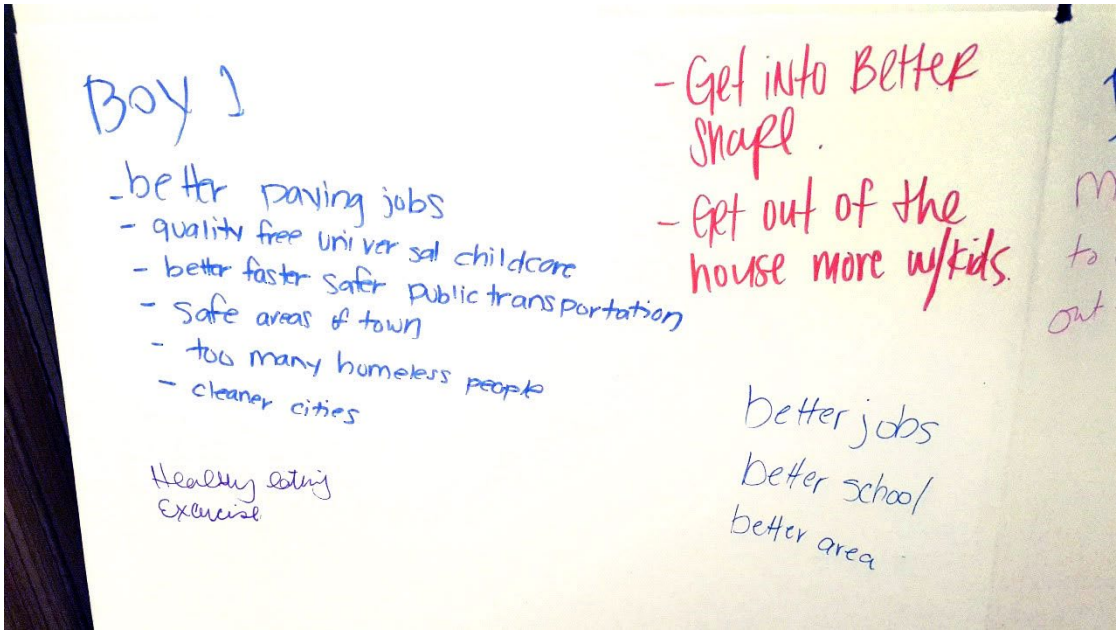
Each session began with a hands-on activity designed to elicit their thoughts and emotions about improving their quality of life, their experiences living in low-income neighborhoods, and what it might feel like to live in an ideal neighborhood. Participants were invited to write or draw on large, white cardboard boxes each inscribed with one of four prompts:

1. What are some things that could improve your quality of life?
2. What are some things that could improve the neighborhood where you live?
3. Imagine your ideal neighborhood—a place where you would love to live and raise your children. Describe things in this neighborhood that make you want to live there.
4. How do you feel living in your ideal neighborhood?

Additionally, they were asked for suggestions to improve health overall and later, to reduce the prevalence of obesity in that same community, given a 3-year timeframe and $7 million investment. Three example obesity prevention scenarios were also described in a one-page outline format for respondents to react to and provide their impression of applicability to their communities. Focus groups were conducted in April and August, 2016.

Findings: Exploring Conditions for a High Quality Life and Envisioning an Ideal Neighborhood

Among the many topics discussed, better jobs, better education, and improved safety emerged as particularly salient themes for participants in all groups; perhaps most important, however, as a cross-cutting theme unifying all the focus group discussions was the theme of social connection. This theme included desires as simple as closer neighbor-to-neighbor relationships, but also encompassed broader desires for a sense of common purpose and spirit within neighborhoods or larger communities. Other themes included the availability of healthy foods and inviting public spaces that foster greater physical activity. Most respondents emphasized feeling safe and secure in their ideal neighborhood and wanted to enjoy a place where they could be active as a family. Some differences were found between the groups by language and geography, which are noted within the focus group report.



Findings: Creating a Healthier Neighborhood

Respondents generated ideas to address overweight and obesity in their neighborhoods. Strategies centered around increasing access to healthy foods and improving the built environment through investments in community gardens, urban agriculture, farmers' markets, and other approaches to locally sourced foods from the community or region. These strategies were also lauded for their ability to not only increase access to healthy food, but to build a greater sense of community connectedness. Expanding on this theme, respondents also suggested more frequent and sustained efforts to support community gatherings – everything from community cleanups or revitalization projects, to community-wide physical activities (walks, bikes, or runs), to free educational meetings on topics such as nutrition, to simple opportunities for socialization (block parties or potlucks). One focus group participant said,

> **"I think the voice of people is what is going to count the most…People's voice. The union among neighbors. In other words, if you need something in that neighborhood, getting all together."**

Respondents emphasized the need for increased feelings of safety in parks, other green spaces, and public spaces in general as a foundational condition for increased physical activity and socialization in low-income communities. Free or low-cost group activities were suggested repeatedly as a way to bring residents together to create community cohesion. However, among residents in the Central Valley, the need for indoor options for physical activity was raised due to poor air quality and extreme heat conditions. One focus group participant said,

> **"Safety is important to be able to feel at ease. For us to be comfortable at home, that we can come home. Trusting that we're going to be in a safe place. When you don't have that, you can't even go out to take your kids out to ride bicycles in front because then it's gone. And so that's an insecurity that you feel."**

Findings: Effective Scenarios

Respondents reacted positively overall to the three scenarios presented during the focus groups, the same scenarios presented to the key informants, in a simpler, more visual format. Both *Doctor Recommended Fruits and Vegetables* and *Shape Up Neighborhoods* were supported by the groups for use in low-income communities in California. *Tree Planting* was also well received but not seen as a stand-alone program. Participants suggested that it could be combined with other scenarios or be used as part of celebrations and events to raise awareness about the important role of the environment in health and well-being.

Shape Up Neighborhoods [Shape Up Somerville] resonated as a program that was flexible and engaged community members to collectively identify specific pathways for addressing causes of overweight and obesity that most significantly affect their communities. Concerns about the scenario had to do with the need for trust among community members and responsible leadership to work together with a common cause to improve neighborhood conditions. Increasing safety and reducing neighborhood crime were also important issues mentioned by respondents due to the program's focus on outdoor activities.

Respondents noted potential problems with implementing the *Doctor Recommended Fruits and Vegetables* scenario in California, with the main issue being that it only intervened with children after they had become overweight and was not a population-level approach aimed at primary prevention. Due to the high cost of produce in many areas of California, respondents recommended a larger incentive. Participants appreciated physician involvement, noting that doctors are trusted sources for health information. However, some raised concerns about physician availability, and suggested that other health professionals such as nutritionists, might have greater availability.

The *Tree Planting* scenario was well received in the Sacramento and Los Angeles groups. In Fresno, respondents were concerned that green spaces in their communities were too dangerous for exercise, and in both Fresno and Visalia, severe drought conditions in the Central Valley made the plan seem less viable (due to scarce water and poor soil quality). Respondents who reacted favorably to the *Tree Planting* scenario remarked about how the trees could not only benefit the environment but also would encourage residents to spend more time outdoors. Respondents thought that fruit trees could be particularly beneficial to the community if conditions were right for planting.

Conclusions

Addressing overweight and obesity at the community-level in low-income areas will require creative and collaborative solutions. This research demonstrated that strategies chosen should address multiple contributors to individual and community health, and foster social connections as a force for producing and sustaining beneficial habits. We recommend tailoring initiatives to the specific circumstances of the communities receiving interventions. This entails building trust among local leaders and residents by soliciting their opinions and including them in the decision-making process. The stability of a community should be assessed to ensure that basic needs, such as safety and crime issues, as well as access to jobs and education, are either in place of addressed as part of the intervention. These foundational elements of security are essential to building the social cohesion that will sustain healthy eating and physical activity habits among individuals in the community. Availability of healthy food and spaces for physical activity will be insufficient if community members do not feel safe outside, are not knowledgeable about healthy habits, or do not have the financial means to utilize community resources. For this reason, initiatives that leverage the employment and educational opportunities associated with making healthy food and spaces for physical activity more available in communities are particularly promising. With these types of approaches in place, sponsored community events and other activities can further enhance a sense of connectedness among community members. Communication about neighborhood events and strategies for improvement should occur through various media channels. Local access to healthful foods, opportunities for physical activity, built environment improvements including indoor options, and free or low-cost classes should all be explored as part of the solution.

A combined approach is suggested, with the *Shape Up* community-level scenario as the base. Coupons or other retail vouchers for fresh fruits and vegetables could be part of the strategy as well. A tree planting campaign could be part of other population-level approaches to bring community members together to improve the conditions of outdoor and park environments. In any approach, it will be essential to work closely with community members to identify which initiatives have the greatest potential for improving multiple factors in the community members' overall health.

Ethnography

Methods

Community leaders were drawn from across the state and included a health care provider, an educator, two community health and development service professionals, and a master gardener. Each had been identified by DHCS and IPHI for their leadership in programs affecting the health and well-being of children and families. Community leaders identified a number of themes and issues around raising healthy children and creating healthy families and communities. The priority themes were:

Ethnography is a qualitative method generally used by anthropologists that involves engaging with individuals and communities to understand how people see their world, understand their environment, and shape their lives. In this project, ethnographic methods were used in combination with videography to co-create with five community leaders and seven community participants videos that would illustrate barriers and opportunities for healthy living. Approximately 150 hours of video was captured over a period of about four months. Two video products were created as a result of the ethnography, one featuring the community leaders, who are working every day to create healthier communities, and the other featuring the community participants, who are all striving to be positive role models and live healthy, productive lives.

Community Participants

Community participants were ethnically diverse, included five women and two men, and were drawn from as far south as Los Angeles, as far north as Sacramento, as far west as Santa Maria, and as far east as Visalia. All were custodial parents of children under 18 and all were eligible for SNAP-Ed and Medi-Cal whether or not they accessed the programs. Five of the seven were single parents raising their children sometimes with support from extended family. As with the community leaders, there were many themes and issues identified that affect the ability of these parents to be healthy and raise healthy children. The following graphic illustrates the priority themes.

In comparing the leaders and participants, there was convergence around a group of priority issues that affect child, family, and community wellness. The graphic below illustrates the consensus themes.

Inequities were seen to erode both wellness and the opportunities to attain wellness for children. Disparities create complexity, challenge family structures, and sap the spirit and energy of parents and communities. And, disparities structure life priorities: not having a home immediately makes that a first priority; not having sufficient or predictable food makes other priorities pale. Being active and eating a high-quality diet quickly become low priorities among those struggling to find food and shelter for their families.

Everyone was clear about the need for children to be healthy and active. And, attaining that goal was subject to a variety of factors sometimes out of the hands of both parents and service providers. All were focused on wellness being holistic, that is, developing and maintaining a healthy body, mind, and spirit. All three were seen as requiring focus and careful nurturing by parents and the extended family who may support them, by communities, and by those who serve them.

Two final videos were created to share the stories captured through the ethnography process. The videos will be made available among stakeholders and partners to provide perspectives from the leaders actively creating positive change in their communities and from the parents ensuring their health and that of their children despite the challenging circumstances they face personally and in their communities. The two videos are: *Being the Change, Perspectives on Improving Health and Well-Being: Reflections from Community Leaders; and Raising Up the Children, Perspectives on Improving Health and Well-Being: Reflections from Community Members*.

Study Team

Alyssa Ghirardelli, MPH, RD, NORC Senior Research Scientist, led project management. Larry L. Bye, MA, NORC Senior Fellow, provided project oversight. Mike Benz, BA, NORC Senior Research Analyst, Sari Schy, MPH, CHES, NORC Survey Director and Danielle Noriega, NORC Research Analyst assisted with the key informant interview and focus group coding. The ethnography was conducted by Cathleen Crain, MA, and Niel Tashima, PhD, with LTG Associates and Erick Lee provided digital film making and editing.

"I think a lot of people have the same opinion about being closer to their neighbors, you live right next to them, I mean, you guys should be close…We don't smile at each other anymore… When we were kids, everybody played outside with everybody. When we came outside, there was 10 other kids out, all our neighbors, families out…It's not like that anymore."

FOCUS GROUP PARTICIPANT