Wisconsin

Wisconsin changes intervention target based on formative research results

Background

Overview. Wisconsin received funding from the Centers for Disease Control and Prevention (CDC) in 2003 as part of the Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases. The staff from Wisconsin's Nutrition and Physical Activity Program (the "state team") wanted to use the social marketing process to address nutrition and physical activity behaviors in elementary school children. They began their project by developing a list of criteria for the community that would be selected for the intervention. In February 2005, they chose the Wausau community, located in Marathon County, WI. Wausau had an existing coalition focused on nutrition and physical activity, with motivated members.

The state and local groups worked closely to plan this pilot intervention. Coalition members looked to the state for guidance; however, decisions were ultimately left to the local coalition. This case describes how the state team and the local coalition made some initial decisions about a target audience and a focus for their intervention, and then modified those decisions as they conducted formative research.

Challenge: *All-volunteer coalitions can have a difficult time keeping everyone moving in the same direction. Volunteers have other jobs and responsibilities, and sometimes tasks do not get done quickly enough. Members of this coalition were consistently motivated and excited, but they realized that hiring someone who could spend dedicated time on coalition projects would keep them organized and focused. So, the coalition appointed someone to oversee the details of the intervention planning process.*

Training in Social Marketing. The state team contracted with a local university professor skilled in social marketing to serve as a consultant. This person was available to answer specific questions, give feedback on focus group questions, and help in the development of messages.

Describe the Problem

Problem Description. The Marathon County Health Department had conducted a community health assessment a few years before the pilot intervention planning process began. It identified obesity as a top community health priority, and inspired the formation of the HEAL (Healthy Eating and Active Living) coalition. This was the coalition that helped Wausau become the site for the pilot intervention.

Wisconsin also had data from the Youth Risk Behavior Survey (YRBS) and the Behavior Risk Factor Surveillance System (BRFSS) that described the scope of the overweight and obesity problem among adults and youth in Wisconsin and Marathon County. These two data sets provided intitial information on residents' nutrition and physical activity behaviors.

In addition to these background data, the HEAL coalition worked with a local foundation to conduct a school health study in 2004. This study collected heights, weights, and lipid panels on 715 students in four grades. This information provided a baseline measure of health status and body mass index (BMI).

Potential Target Audiences. Originally, the coalition decided to target fourth graders in the community through a series of summer activities. Fourth graders were chosen because they were one of the groups that had baseline information available from the school health study. Their parents would be a secondary target audience. However, the state team then realized that a series of summer activities was not enough to satisfy their funding requirements. Instead of starting over, they decided to go ahead with these activities and use them as a chance to gather formative data on their target population.

Apply it: *It is possible to change your mind about the target audience or desired behavior if you get unexpected results from your formative research. The results are meant to help you make well-informed decisions. You may feel you wasted time or money, but your intervention will be more effective if you allow your efforts to be guided by the formative research.*

As a result of this formative research, the coalition found that they needed to target parents instead of children, because parents have more influence on their children's behavior than previously expected. Therefore, they changed the primary target audience to parents. After making this change, the coalition considered targeting parents through a worksite intervention, but they soon realized that

this would not adequately take into account the influence of children on parents. The elementary school is the center of neighborhood life. The coalition also had existing connections with the school district, including several teachers and administrators who served as coalition members. As a result, the coalition chose to keep working with a local elementary school while changing their target audience to parents.

Challenge: *One of the difficulties that Wisconsin and its local partners faced was the decision about whom they should target. Your primary target audience is the group whose behavior you want to change. In this case, they decided it would be more effective to target parents' behavior than that of their children. If they had targeted children, they could have created messages and activities for parents as a secondary (or influencing) audience. But it would be for the purpose of changing the children's behaviors.*

Initial Decisions. Along with these decisions about a target audience, the coalition made some early decisions about what behaviors they wanted to target. These decisions were based on information from the state team about best practices for physical activity and nutrition interventions. The coalition chose to focus on increasing physical activity levels

and increasing fruit and vegetable consumption. These behavioral goals were refined as the team conducted formative research and made some decisions about intervention strategies.

Conduct Market/Formative Research

Preliminary Formative Research. The first set of formative research studies conducted by the coalition included two sets of focus groups with fourth graders and focus groups with parents, teachers, and community leaders. The coalition learned about nutrition and physical activity behaviors from the fourth graders and from those who influence them. The results were used to plan the summer events. It was only after this information was gathered and the events were held that the coalition realized they needed to change their primary target audience. This preliminary formative research—focus groups and the evaluation of the summer events—is described below.

Focus Groups. The coalition hired an agency to conduct the focus groups. The state team developed the instruments and modified them according to feedback from the local coalition, the social marketing consultant, and the Nutrition and Physical Activity Communication Team (NuPAC) at CDC.

Coalition members who worked in the schools helped to recruit participants and arranged the use of schools as the setting for the focus groups with fourth graders. They were scheduled during lunchtime, so it was easy to get students' participation. Focus group results were used to develop possible activities and materials, which were then pre-tested with more students. The agency also conducted focus groups with local community leaders, teachers, and parents.

Apply it: *Conduct focus groups at a time and place that is convenient to your audience. For Wisconsin, this was during students' lunchtimes. It eliminated the need to inconvenience parents by having them bring children to a focus group in the evening when there were other competing activities for them to attend.*

Lesson Learned: *The coalition ultimately concluded that its summer events were too numerous and too intense. Although these events were supposed to be a major component of the intervention, they turned out to be just another data source. The process did, however, allow the coalition to accomplish something fairly quickly to keep coalition members engaged.*

Saving Money: *You do not always have to use focus groups as your method of formative research. Other low-cost methods include key informant interviews, intercept interviews, informal surveys, doer/non-doer analysis, or advisory groups comprising members of your target audience. Whatever method you use for formative research will have benefits and drawbacks, so you should be aware of them before you proceed.*

Evaluation of Summer Events. The coalition hosted four events showcasing physical activity and nutrition in the summer of 2005. These events reached the "low hanging fruit" population—parents who were already concerned about health and their children's health in particular. Attendance at the events was not as high as the coalition would have liked, but evaluations showed that participants enjoyed the events and learned from them.

The state team and coalition contracted with a local research and evaluation firm to evaluate the summer events held in 2005. This firm surveyed participants (both children and parents) about demographic variables, physical activity levels, social support for physical activity, fruit and vegetable consumption, knowledge of nutrition, social support for fruit and vegetable consumption, screen time, and feedback on the events.

Despite the low attendance, the events and subsequent evaluation allowed the coalition to learn about their potential audience. They learned that parents perceive that their time is too limited to be active with their children or to prepare fruits and vegetables. One of the most important things the coalition learned about its target audience through these events is the degree to which parents control their children's activities. Parents are responsible for purchasing food and deciding how children should spend their time. The literature in this field suggests that parent behavior and role modeling are important factors in determining children's nutrition and activity levels. Thus, an intervention that attempted to change parents' behaviors could then influence them to serve as role models for their children. The coalition switched the primary target audience from elementary school children to their parents to have a greater impact than if they had chosen to target children alone.

Conducting the summer events yielded other benefits. The coalition now had something to be proud of—they could coordinate a well-received event. The events also allowed the coalition to engage the community and develop partnerships with community organizations that would be useful in the future.

New Formative Research. Because of the change in target audience, the coalition needed to conduct more formative research to learn about parents and their target community. This new formative research consisted of community observation, key-informant interviews, and additional focus groups with parents.

The state team and local coalition members immersed themselves in the chosen geographical neighborhood. They observed a number of things, such as who was out using the local park, what items people were choosing in the grocery stores, how accessible the

Lesson Learned: *Wisconsin used its local coalition members to help collect data for a formative assessment. The state team found this was helpful when planning strategies with the local coalition because coalition members had been a part of data collection. Coalition members saw and heard first-hand what concerns and ideas the target audience had. Therefore, the coalition members felt ownership in the process. They were then able to incorporate the audience's perspective in planning their intervention strategies.*

sidewalks and streets were to pedestrians and cyclists, and what kinds of programs were offered by the Parks and Recreation Service. These observations gave the coalition insight to the environment where these parents lived and worked.

The coalition conducted interviews with key informants from the neighborhood such as the school principal, school food service director, neighborhood leaders, a city planner, and the community liaison from the police department. These interviews gave the coalition background information on its target neighborhood.

Next, the coalition conducted two sets of focus groups with parents of elementary school students. For the first set, the coalition recruited the same type of parents who had attended the summer events, now named the "early adopters." These parents were already close to meeting nutrition and physical activity recommendations. The coalition offered gas cards as incentives to participate.

After that first set of focus groups, the coalition felt that it was still necessary to get input from the parents who were not close to meeting the guidelines for healthy eating and physical activity, now called the "slow to action" parents. The coalition conducted a second set of focus groups and made a special effort to recruit these parents. They devised a screening questionnaire for current behaviors around physical activity and fruit and vegetable intake. This screening questionnaire also doubled as an intercept interview guide, and based on the resulting data, respondents who weren't close to meeting government recommendations (the slow-to-action segment) were invited to participate in a focus group.

For this second round of focus groups, the coalition offered gas cards again, but also provided free child care and a free meal for participants. The screening questionnaire and improved incentives allowed Wisconsin to get more input from their slow-to-action segment.

Wisconsin developed three overarching questions for their formative research, specifically the focus groups. They are:

1. What are the influences (factors) that will most likely increase daily physical activity among the residents living in the Franklin neighborhood?
2. What are the influences (factors) that will most likely increase fruit and vegetable consumption among the residents living in the Franklin neighborhood?
3. What are the main differences between the

audience segments in the Franklin neighborhood, specifically the Southeast Asian population?

During the focus groups, parents were asked questions about physical activity and fruit and vegetable intake. Physical activity topics included current physical activity behaviors, reactions to the recommendations for daily physical activity, motivators to increasing physical activity, benefits and barriers to physical activity, and the physical activity habits of their children. Fruit and vegetable topics included current fruit and vegetable consumption, motivators to increasing fruit and vegetable intake, benefits and barriers to eating more fruits and vegetables, access to appealing fruits and vegetables, and feedback on several potential intervention strategies.

Combining three methods of formative research gave the intervention planners a better picture of what was going on in the neighborhood and the environment in which their target audience lived.

Creating the Intervention Strategy

Segmenting the Target Audience. After all of the formative data had been collected, the intervention planning team was able to describe three distinct segments within the target population (parents of elementary school children in the Franklin neighborhood). Early-adopter parents tended to be more highly educated and heavily involved with the school and school activities. Their primary barrier to physical activity and healthy eating was time. Early-adopters tended to be doing the desired behaviors, but were still not meeting the recommendations. Slow-to-action parents were more difficult to reach. These parents identified cost as an additional barrier to the desired behaviors. The third segment was Southeast Asian parents, mostly of Hmong background. Because of the distinct cultural differences with this segment, the coalition plans to conduct additional formative research to tailor intervention strategies for them at a later date. Hmong parents may fall into one of the other existing segments, but until the additional formative research is done to identify their benefits and barriers to the desired behaviors, the coalition chose to keep them separate.

The intervention planners started by targeting the early-adopter segment. This group had provided them with the most information. Also, following the diffusion-of-innovation theory, starting to encourage behavior change in the early-adopter segment may improve chances of behavior change in the later-adopting segments. In this case, the early-adopters will be targeted first, and tailored strategies for the other segments will be phased in later.

Secondary Audiences. Formative research with the early-adopter segment revealed that parents perceived their children to influence the family's eating and physical activity behaviors. Parents described performing these healthy behaviors more for their children than for themselves.

Strategy Development. The strategy development process began after all of the formative data had been collected and analyzed. Formative results from the target audience were combined with an extensive literature review focused on the role of parents and children in food preferences and eating

and activity behaviors. The state team expected this part of the social marketing process to be the easiest, but it turned out to be quite difficult. One of the state team's approaches for developing intervention strategies was to list results from the literature review and all of its formative research on big sheets of paper at a meeting. They then summarized these results by clustering them into common themes and factors that either inhibited or supported the behavior change. For example, one barrier mentioned repeatedly during the formative research was traffic problems around the elementary school. The state team summarized its results for a core planning group within the local coalition.

Apply it: *One of the difficulties of planning strategies for a social marketing program is that you will be accountable to a wide variety of sources. Your target audience is the most important voice to listen to, but you also must satisfy the needs of your local partners, your evaluators, and your funding agency. Go into the process with realistic expectations—it will take quite a bit of time and energy to complete.*

At this point, the state team and core planning group identified objectives and intervention strategies. The objectives and strategies were then presented to the entire coalition, which then approved them and worked out logistics for implementing them.

Intervention strategies for nutrition focus on encouraging family meals and improving access to fresh fruits and vegetables. Quick and healthy family meals will be promoted through the following activities: skill-based training for parents, child-friendly recipes, meal ideas that include fruits and vegetables, and tips on how to plan for and make time for family meals. Throughout the formative research process, parents indicated that eating dinner together was very important to them, but they had little time to do so. To minimize this barrier, the coalition plans to schedule the parent trainings at the local elementary school and piggy-back them onto existing events. Trainings will incorporate time-saving tips and ideas for how to fit healthy family meals into a busy schedule. Another concern noted by parents was the grocery store environment, particularly checkout lanes with non-nutritious foods. To address this concern, the coalition has chosen to work with local grocery stores to improve the environment by creating healthy checkout lanes stocked with fruits and vegetables, as well as making access to these healthy foods easier. Also, the coalition will work with local neighborhood organizations to create or implement healthy options for foods offered in vending machines and at events.

Strategies to address physical activity focus on environmental and policy changes to make activity easier and more accessible. During formative research, parents said they were not aware of many local opportunities for physical activity. Therefore, the coalition will promote opportunities for physical activity, and work to increase the availability of physical activity facilities. Walking programs have been well-received in the past, so the coalition also plans to start a coordinated neighborhood walking campaign and a walk-to-school program to promote individual behavior change. The coalition also plans to initiate some environmental changes (e.g., traffic calming) to improve the walking environment around the

elementary school; parents had indicated that it was easier to drive their children to and from school because of heavy traffic.

Refining Behavioral Objectives. Based on the information collected in the formative research process, Wisconsin chose several behavioral objectives[1] for its intervention in the Franklin neighborhood:

Apply it: *Define any potentially unclear terms that you are using in your behavioral objectives.*

1. By April 2007, 25% of the 375 parents of elementary-aged children will eat one additional healthy meal per week at dinner with their family at home.
   - A healthy meal is defined as one that contains nutrient-dense foods low in saturated and trans fat and high in fiber, such as fruits, vegetables, and whole grains. The meal also includes lean meats and low-fat dairy and few low-nutrient-dense foods such as fried food and soda that may be high in fat and sugar.
2. By April 2007, 25% of the 375 parents of elementary-aged children will eat one additional fruit or vegetable serving per day.
3. By April 2007, the percentage of parents of elementary-aged children who are physically active a minimum of 30 minutes per day, at least 5 days a week (moderate physical activity) will increase by 10%[2].
   - Moderate physical activity is defined as any activity that burns 3.5 to 7 calories per minute (kcal/min). These levels are equal to the effort a healthy person might burn while walking briskly, mowing the lawn, dancing, swimming for recreation, or bicycling.

Evaluation

Several components of Wisconsin's evaluation plan are designed to assess the intervention. Parents will be asked to complete two surveys: a pre-test before the intervention begins and a post-test one year later. The questionnaire will be designed to assess fruit and vegetable intake, physical activity, family meals, food preparation skills, and impression of the neighborhood environment.

After each family meal planning training, participants will be given surveys that ask about their knowledge and behavior before the training, and what they intend to do after the training. Surveys also will measure satisfaction with the trainings. Finally, environmental assessments and observation will be used to assess the healthy eating and physical activity environmental changes in the Franklin neighborhood.

Next Steps

The local coalition will begin to implement the strategies identified in the intervention planning within the Franklin neighborhood. They have used this planning process to obtain additional funding to replicate this process in other neighborhoods in Wisconsin. The University of Wisconsin School of Medicine and Public Health's Wisconsin Partnership Fund for a Healthy Future has awarded the coalition approximately $450,000 over the next 3 years.

Apply it: *Strategic planning can have financial payoffs as well. Based on results of the planning process along with its use of the social ecological model, the coalition was able to get a large amount of money from a local source to replicate their process in other neighborhoods.*

[1]Objectives taken from Wisconsin's intervention proposal.
[2]Absolute percentage increase (i.e., from 20% to 30%)

Wisconsin's Intervention Planning at a Glance	
Behavior Change Theories Used:	Stages of Change Diffusion of Innovations
Important Partners:	Wausau's Healthy Eating and Active Living (HEAL) coalition Franklin Elementary School
Decision-Making Process:	A majority of the decisions were made by a small core group of coalition members, although the full coalition was always informed
Overall Target Audience:	Parents of elementary-aged children in the Franklin neighborhood
Rationale for Target Audience:	Formative research indicated that parents should be targeted instead of elementary school children because parents had control over their children's food and activity choices
Secondary Audience/Influencers:	Children
Formative Research:	• Two rounds of focus groups with fourth graders • Focus groups with local community leaders, teachers, and parents • Observation of chosen neighborhood • Key informant interviews with neighborhood and school leaders • Intercept interviews with parents • Focus groups with early-adopter and slow-to-action parents
Audience Segments:	Early-adopter segment Slow-to-action segment Southeast Asian segment
Current Behaviors:	• Eating fruits and vegetables but not currently meeting the recommendations • Doing physical activity but not currently meeting the recommendations

Behavior Change Goal:	• **Physical activity:** Be physically active at least 30 minutes per day, 5 days per week • **Nutrition:** Eat one additional healthy family meal per week; add one extra serving of fruits/vegetables per day
Barriers/Costs to Behavior Change:	• Parents lack time to prepare healthy foods • Parents lack time to be physically active with their children • Environment is a deterrent to physical activity in the neighborhood
Benefits/Incentives Offered to Change Behavior:	• Spending quality time with family members • Scheduling intervention activities with events that parents are already attending • Spending quality time with family members • Scheduling intervention activities with events that parents are already attending
Pre-testing:	Second round of focus groups with fourth graders—tested messages and logos
Evaluation:	Surveys at each of the summer events tracked: demographic variables, physical activity levels, social support for physical activity, fruit and vegetable consumption, knowledge of nutrition, social support for fruit and vegetable consumption, screen time, and feedback on the events. Survey results were used to help develop the intervention. Evaluation for intervention: conducted pre- and post-survey of behavior changes; pre- and post-surveys at trainings and events to get feedback; and intercept interviews halfway through the intervention to monitor response to activities and get feedback.
Helpful Tools/ Resources Used:	
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Gray boxes indicate places where information either does not apply or is not yet available.

This case study is part of a series developed by:

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For additional case studies or more information on
NuPAC's other social marketing resources, please go to:
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