



# Footprints to Health: Franklin Neighborhood Initiative Executive Summary

## Background / Summary

In 2005, The Wisconsin Nutrition, Physical Activity, and Obesity (NPAO) Program awarded a grant to the Healthy Eating, Active Living (HEAL) Coalition of Marathon County. The project was designed to create a local obesity prevention intervention that might be transferable to other Wisconsin communities.

The grant provided the HEAL coalition with technical assistance from NPAO and funds to try and change behavior in a neighborhood setting for the period of April 2006 to April 2008. The premise of this community-based intervention was to reduce the prevalence of obesity in a neighborhood in Wausau, Wisconsin. The intervention had three main components that included: changing individual behavior, environmental factors, and policies in the selected neighborhood of Franklin. The primary target audience of the intervention was parents of elementary-aged children attending the Franklin Elementary School. A secondary target audience was the elementary students themselves. These two target audiences involved about 250 families whose children attended this neighborhood school.

This community-based intervention was developed using a theoretical model, intervention planning processes and evidence-based obesity prevention strategies. The concept was that a defined neighborhood environment would present enough opportunities to impact residents' behavior in several ways and via addressing multiple settings (school, worksite, community, etc.). By changing

policy and environmental factors, while also addressing the need for knowledge and skill-based objectives to assist with individual level behavior change, it was hoped that the neighborhood changes would lead to healthier lifestyles centered on improved nutrition through increased fruit and vegetable consumption and increased physical activity.

The Franklin Neighborhood was chosen based on several factors, including the following:

- a traditional grid neighborhood;
- a fairly well-defined geographical area.
- support from the local school district to help with the initiative and be a hub for information;
- other potential local supports that could be utilized for the initiative.

### SUMMARY:

**Objective** – To highlight lessons learned from the Footprints to Health Initiative in increasing physical activity and fruit and vegetable consumption amongst residents living in a Wausau neighborhood.

**Methods** – Data and feedback were gathered from evaluation markers for each of 15 objectives.

**Findings** – The degree of success for any of the 15 objectives was mixed. However, there were some favorable changes in the physical activity indicators. The intervention also had positive ancillary outcomes, including the creation of new partnerships.

**Implications** –It can be difficult to address obesity in multiple sectors of a community, while also using a systems approach. Nevertheless, the community-setting is still very important in terms of creating a supportive environment for residents where they live, work, play, worship, and learn. It will be imperative for coalitions intervening at the community-level to match available resources to intervention objectives.

## Methods

The Footprints to Health-Franklin Neighborhood Initiative intended to:

- Create a working partnership between a local coalition and the NPAO Program to improve health behaviors in a local neighborhood.
- Serve as a model where lessons learned could be replicated in other communities.
- Focus partner efforts on interventions that are practical, achievable, and realistic for reducing the burden of obesity and improving health.
- Encourage policy and environmental changes that support healthy eating, physical activity and a healthy weight.

The coalition utilized a multi-step intervention action planning process, social marketing, and the Social Ecological Model (SEM) as tools for designing their intervention. They utilized the SEM as a means for

ensuring their intervention had behavioral, environmental, and policy components (*for more information, see the SEM Case Study on the NPAO Program website*). To address their overall health outcome of reducing overweight and obesity in their community, the coalition decided to increase physical activity and fruit and vegetable consumption. To accomplish this, HEAL's planning process resulted in 15 high-level intervention objectives.

The coalition ensured that there was at least one strategy for both physical activity and nutrition at each level of the SEM Model, since having both of these components increases the likelihood of changing behavior.

### Objectives By SEM Levels

Level	Physical Activity	Fruits & Vegetables
Individual	Messages/Tips on how to be more active	Fruit & Vegetable Recipes/Tips for Selecting & Preparing
	Map of nearby destinations to walk to (restaurants, stores)	
Inter-personal	Activity Resource Guide for Wausau	Family Meal Planning Tips & Training
	Walk to School program and Safe Routes	
School/Organization	Safe Routes to School	Adoption of healthy eating policy at school
	Increase access to school facilities during off hours	
Community/Environment	Activity Resource Guide for Wausau	Farmers' Market coupons to Franklin parents
	Increase access to community facilities (YMCA)	Increase access to fruits & vegetables at restaurants and stores
	Media Campaign: family activity	Media Campaign: family meal
	Spring Walking Challenge	
Social/Policy	Traffic Calming at school – Safe Routes	Healthy eating policies at businesses
	Increase access to school facilities during off hours	

(Note: A full description of the objectives can be found on the NPAO Program website)

<http://dhs.wisconsin.gov/health/physicalactivity/>



**Partners:** The HEAL Coalition networked with a diverse set of partners while planning and implementing the intervention. Partners included:

- Franklin Elementary School: Principal & staff
- Local UW-Extension Office
- Local WIC Project
- City and County Government
- A major local healthcare provider
- Local TV, radio and print media
- County Parks and Recreation Department
- County Planning Department
- Neighborhood grocery & convenience stores
- Neighborhood restaurants
- Farmer's Market Manager and Vendors
- Safe Kids Coalition

### Results

**Process Measures:** Each of the objectives had process measures that were used as a means for tracking progress on the activities related to each objective. Those measures, and ultimately the related objective, were achieved to varying degrees depending on the SEM Level. Based on objectives implemented, process measures at the individual, interpersonal and organizational levels were more readily collected than measures at the community and policy levels.

Perhaps the most important factor to note about the intervention results was the difficulty in implementing objectives at higher levels of the SEM. During the intervention, coalition members noted that this was probably the case because the objectives within the context of the lower-levels of the SEM were more familiar and easier to meet so they naturally gravitated toward implementing those versus the community and policy-related objectives. Moreover, implementing objectives depended on their available resources and expertise. As a result some of these objectives were not implemented as planned, which most likely impacted the "dose" to the target audience.

### Outcome Measures:

Outcome measures were primarily tracked by a comprehensive survey that was mailed to the primary target audience (parents) at three points in time: pre-intervention (April 2006), mid-intervention (April 2007) and post-intervention (April 2008).

Primary analyses were based on comparisons of the entire sample of survey participants in April 2006 and April 2008. Based on the available information, there is some support for a modest favorable impact of the intervention on the target

population. However, this was limited to the physical activity component of the intervention. Nutrition indicators showed little or no evidence of any effect due to the intervention and there are a variety of reasons that might explain this lack of change. Those reasons are summarized in the nutrition section below.

#### Physical Activity:

Indicators of physical activity outcomes support the occurrence of some level of positive change due to the intervention. Of the 12 indicators of physical activity or its predictors, 5 were at least marginally significant, and all of these observed differences occurred in a favorable direction. Some positive differences were apparent for both adults and children and were observed for indicators of both knowledge (opportunities for activity; safe routes to school) and behavior (adult inactivity / intention to exercise; child activity level). Of note, despite these positive changes, not all of the physical activity objectives were implemented at the higher-levels of the SEM.

#### Nutrition:

Although some significant favorable and unfavorable differences were observed during the course of the intervention, none persisted across the entire intervention period and no clear pattern of change was apparent. Different reasons are likely to have contributed to this apparent lack of change. At baseline, the sample reported relatively high levels of eating dinner together as a family and cooking at home, rather than eating out. The small amount of room for improvement or “ceiling effect” may be one explanation for these items.

Not all of the nutrition objectives at the higher levels of the SEM were implemented as planned for a variety of reasons. For example, HEAL was hoping to use existing family events (e.g Literacy Nights) as a conduit for reaching parents. Intervention objectives that relied on these types of conduits were not fully implemented. Also, several aspects of the intervention focused on changing higher social ecological influences on behavior, such as modifying stores and restaurants, changing organizational policies, and broadcasting media messages, were only partially implemented. Because key policy and environmental aspects of the intervention were not completed as intended, implementation could be a contributing factor to the lack of positive change in some nutrition and physical activity outcomes. Lack of implementation of certain objectives is likely to have impacted the dosage the target audience was receiving. “Dosage” is the amount or number of exposures

delivered to the target audience based on positive nutrition and physical activity opportunities during the intervention. This raises the question of whether there would have been even greater impact on individual-level health behavior indicators if all of these objectives had been fully implemented. This is illustrated by the number of survey respondents who appeared to be highly receptive to the idea of increased access to healthy choices in stores and restaurants. This suggests that some of the unimplemented aspects of the nutrition objectives might have had some additional impact on behavioral outcomes.

Based on the available evidence, there is some indication of favorable changes in physical activity outcomes that are likely due to the intervention. Nevertheless, because there was no comparable change in nutrition outcomes, this second aspect of the intervention should be examined closely before attempting to extend aspects of the intervention to other neighborhoods or communities.

#### **Ancillary Results:**

Unintended or ancillary results of the intervention led to significant outcomes in a number of ways. The coalition formed a number of additional partnerships and is now involved in new areas that will increase opportunities for policy and environmental change within the community. Some of the more significant ancillary outcomes are:

- Many of the partnerships that were formed during the two years of the intervention are still continuing, even though the intervention has ended.
- The intervention action planning process helped focus coalition activities around some well defined and targeted (to parents) objectives.
- The SEM model, used to design the intervention, has been used by coalition members in planning other interventions for the community.
- Experience in implementing this intervention led to an additional grant award for HEAL. This new grant was \$150,000/year for three years and expanded the initiative to seven new neighborhoods.
- Involvement in the intervention led to a connection with the local Municipal Planning Organization and membership on the Pedestrian/Bike Committee.
- A Registered Dietitian was hired to provide more outreach to schools, restaurants, stores and the public based on needs identified during the intervention period.
- Technical assistance from Department of

Health Services' NPAO staff was helpful in providing the evidence-based strategies to implement.

### Conclusions/Key Lessons Learned

Successful obesity interventions are contingent on targeting multiple aspects of individual environments.<sup>1</sup> However, it can be difficult to address obesity in multiple sectors of a community, while also using a systems approach like the SEM. Community-based interventions are often more challenging than school- or worksite- based interventions in terms of measuring change in individual-level health indicators. Nevertheless, the community setting is still worth considering as a viable opportunity to prevent obesity. Working at the community-level may give coalitions an opportunity to design interventions with a greater reach in terms of impacting a greater number of people.

There is a definite need to match resources and expertise with well planned intervention objectives. For community-based interventions with limited resources, it may be wise to: 1) identify a more specific target audience or "segment" of the community to address; 2) use the SEM to select a smaller list of intervention objectives/strategies; or 3) select only one or two sectors of the community to initially address and then add additional sectors when resources become available. Focusing coalition efforts on implementing the environment and policy-based objectives may also be a viable means for improving dosage, as these types of changes are fairly sustainable (once implemented) when compared to individual-level objectives. For this reason, adequate intervention dosage is something to consider when planning.

The early focus of the intervention in Wausau was to impact all levels of the Socio-Ecological Model using both nutrition and physical activity objectives. In retrospect, this goal was highly ambitious. Despite the good intentions and skills of the key individuals from HEAL who were involved; there were a few key partners / champions that were not involved during the planning phases of the intervention. This may be a reason that the coalition had some difficulty in making progress with some of the organizational and community-level objectives. Making an impact at the community and policy levels in particular requires buy-in and leadership at a very high level, such as a mayor, county board member, or key policy maker.

### Key Lessons Learned:

In summary, the key lessons learned from the Footprints to Health Intervention are the following:

- Start with a high level concept of what you want to do.
- Tie your intervention action plan to this high-level strategic plan for your coalition.
- Define your coalition's role in the planning and implementation of the intervention; Lead? Facilitate? Coordinate don't "do it all" yourself.
- Inventory your community's assets and enlist key partner involvement.
- Identify and involve key community champions and key decision makers
- Conduct formative assessment; determine the current challenges and needs of your target audience and determine
- Develop a realistic intervention action plan using the SEM and consider the following:
  - Length – how long will it take for the behavior change goals and intervention objectives.
  - Build in "check-ins" or mid-point evaluations to monitor the intervention's progress.
  - Consider using the RE-AIM Framework to monitor the implementation of the intervention.
  - Consider intervention dosage to target audience
  - Consider the current and needed level of buy-in from partners, key champions, etc. before determining final objectives.
- Consider the use of mixed evaluation methods (qualitative and quantitative), use of different techniques (surveys, environmental assessments), and measurements of things that predict the behavior change you want (e.g. increased access to fruits and vegetables).

Addressing the community-setting, albeit difficult, is still very important in terms of creating a supportive environment for residents where they live, work, play, worship, and learn. More interventions focusing on multifaceted community-based environmental change approaches using key elements of other successful social change models, like the SEM model, are needed.

### Future Implications

Since time and resources will continue to be a major barrier to implementation of community interventions, the Nutrition, Physical Activity, and Obesity Program's role in future community-based interventions will be to provide key resources such as evidence-based obesity prevention strategies and intervention action planning resources. The NPAO Program's goal is to support the efforts of coalitions and communities in implementing multifaceted interventions to address obesity.