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## Families and Community Partners Learning Together to Prevent Obesity

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## Families and Community Partners Learning Together to Prevent Obesity

### Abstract

Reducing adult and childhood obesity is a shared community responsibility. Extension professionals can play an important role in developing collaborative, interdisciplinary partnerships with multiple community members to help reduce obesity and related chronic disease that disproportionately affect people with limited resources. This article describes how community partners learned to work together in implementing a family intervention pilot program in a low-income urban population at high risk for obesity and related chronic disease. Healthy Weigh/El camino saludable, a successful community-campus partnership, helps families learn to adopt healthy eating and physical activity patterns.

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## Obesity in Disadvantaged Populations

Obesity is a complex and increasingly prevalent public health issue (Hedley et al., 2004). Experts agree the continued decline in daily exercise and an increase in caloric intake are the key contributors (Centers for Disease Control and Prevention [CDC], 2004a; CDC, 2004b; Kahn et al., 2002; U.S. Department of Agriculture [USDA]; U.S. Department of Health and Human Services [USDHHS], 2000, 2005). People with limited resources, food-insecure families, and racial-ethnic minorities have increased risk for obesity and related chronic disease (Townsend, Peerson, Love, Achterberg, & Murphy, 2001; USDHHS, 2000; USDHHS, 2006). Low-income populations are particularly vulnerable, because they combine limited leisure-time physical activity with consumption of less expensive, energy-dense foods (CDC, 2004a; Drewnowski & Spector, 2004; Kahn et al., 2002; Leibtag & Kaufman, 2003).

Texas rates of poverty, food insecurity, overweight, and obesity are particularly high. In Texas, 16.5% live in poverty (DeNavas-Walt, Proctor, & Lee, 2006), 16.4% reside in food-insecure households (Nord, Andrews, & Carlson, 2005), and more than 35% of African-American and 30% of Hispanic adults are obese (Texas Department of State Health Services [TDSHS], 2005).

## Preventing Obesity in High-Risk Communities

U.S. health initiatives increasingly focus on promoting health and reducing chronic disease

associated with excess weight (USDA & USDHHS, 2000, 2005; USDHHS, 2000). Collaborative, interdisciplinary partnerships with community members can help (1) identify effective strategies that support behavioral change among racial, ethnic, and socioeconomic populations in high-risk communities (Kahn et al., 2002; TDSHS, 2005; USDHHS, 2006); and (2) implement sustainable program outcomes for "healthy, well-nourished children, youth and families" (Cooperative State Research, Education, and Extension Service [CSREES], 2006; Expanded Food and Nutrition Education Program [EFNEP], 2006).

## Community-Campus Program for Families

Healthy Weigh/*El camino saludable* (HW) was a multi-component initiative that helped low-income families adopt healthy eating and physical activity patterns. Responding to United Way's obesity prevention initiative (United Way of Metropolitan Tarrant County, 2002), Texas Christian University (TCU) faculty (Nursing, Nutritional Sciences, Exercise Science, Kinesiology, and Social Work) partnered with community members and agencies to implement HW in a community at high risk for obesity and related chronic disease.

The geographic target community was predominantly African-American (35%) and Hispanic (26.4%), living below poverty (44.6%), overweight or obese (37%), and lacking high school diplomas (41.9%) (Fort Worth Public Health Department, 1998; U.S. Census Bureau, 2000). HW program objectives included (1) increasing community awareness about lifelong benefits of healthy eating and physical activity, (2) evaluating effectiveness of community-campus partnerships in a family-focused program, and (3) providing service-learning opportunities for university students.

Community involvement was integral to HW's success. HW's design incorporated multiple community partners, including Texas Cooperative Extension, committed to finding effective solutions for sustainable healthy lifestyle changes (Table 1). Collaboration among HW partners created a working relationship reflecting community-based participatory research principles (Israel, Schulz, Parker, & Becker, 1998):

- Build on community strengths and resources
- Integrate knowledge and action for mutual benefits
- Promote co-learning and empowerment processes, and
- Disseminate findings and knowledge gained.

**Table 1.**

Community-Campus Participation in Healthy Weigh/*El Camino Saludable*<sup>a</sup>

Community Partner	Support Provided
United Way of Metropolitan Tarrant County	<ul style="list-style-type: none"> <li>• Established Health Way Impact Council that proactively directed funds to fight obesity</li> <li>• Funded HW grant proposals for two consecutive years</li> </ul>
Texas Christian University	<ul style="list-style-type: none"> <li>• Provided in-kind materials and human support</li> <li>• Served as primary source of faculty, staff, and student volunteers</li> </ul>
Texas Cooperative Extension, Expanded Food and Nutrition Education Program	<ul style="list-style-type: none"> <li>• Contributed nutrition education materials to HW program curriculum based on Dietary Guidelines for Americans.</li> <li>• Consulted during initial HW development phase</li> </ul>
Tarrant Area Food Bank	<ul style="list-style-type: none"> <li>• Allowed purchase of food for family meals at agency cost</li> <li>• Provided free fruits/vegetables for family bags as participant incentive</li> </ul>
Fort Worth Public Health Department	<ul style="list-style-type: none"> <li>• Shared registered nurses for health screenings</li> </ul>
Cornerstone Community Center, an independent, faith-based organization	<ul style="list-style-type: none"> <li>• Provided building space and use of facilities for weekly program</li> <li>• Helped with weekly reminder calls to</li> </ul>

	participants <ul style="list-style-type: none"> <li>• Referred and helped recruit participants and community volunteers to program.</li> </ul>
Community Focus Groups	<ul style="list-style-type: none"> <li>• Participated in community assessment and program planning</li> <li>• Assisted in Phase 1 recruitment</li> </ul>
<sup>a</sup> Healthy Weigh/ <i>El camino saludable</i> Phase 1 and Phase 2 (HW; 2003-2005)	

Data collection, program components, and evaluation strategies were evidence-based. Comprehensive baseline and post-program participant health screenings assessed health profiles, body composition, dietary practices, physical activity patterns, and knowledge (nutrition, exercise, and weight management). The program design integrated evidence from *Healthy People 2010* (USDHHS, 2000); *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults* (National Heart, Lung, and Blood Institute, 1998); *Recommendations to Increase Physical Activity in Communities* (Task Force on Community Preventive Services, 2002); and *Dietary Guidelines for Americans* (USDA & USDHHS, 2000; 2005). Program evaluation was based on participant feedback and outcome measures for (1) increasing nutrition and exercise knowledge, (2) improving diet, exercise, and weight management patterns, and (3) achieving individually-determined goals. TCU's Human Subjects Institutional Review Board approved the program design.

## Families and Community Learning Together

HW Phase 1 (12-week program) and Phase 2 (8-week program) were successful community-campus partnerships that met program objectives. Innovative program features that contributed to the success of HW included family participation and design considerations integrating developmentally appropriate and culturally acceptable components for all ages. Weekly sessions in both phases consisted of physical activity classes, family meals with facilitated table talks that helped families apply nutrition and activity content, nutrition and physical activity lessons, and child care for preschool children (Table 2). Qualified Spanish language interpreters assisted in offering program components in English and Spanish.

**Table 2.**  
Healthy Weigh/*El Camino Saludable* Program

Services Provided	Overview of Services
Physical Activity Classes <sup>ab</sup>	<ul style="list-style-type: none"> <li>• Variety of exercise options - walking, low-impact aerobics, chair exercises</li> <li>• Appropriate for adults with limited fitness and/or physical restrictions, active adolescents/adults, and school-aged youth</li> </ul>
Nutrition and Physical Activity Lessons <sup>ab</sup>	<ul style="list-style-type: none"> <li>• Based on Dietary Guidelines for Americans</li> <li>• Developmentally appropriate formats for adults and youth</li> <li>• Lessons included topics on optimal nutrition, shopping on a budget, healthy cooking, appropriate food choices, increasing physical activity, weight management, and health conditions related to obesity</li> <li>• Applied interactive teaching strategies</li> </ul>
Family Meals <sup>a</sup>	<ul style="list-style-type: none"> <li>• Culturally acceptable</li> <li>• Affordable recipes for participants to use at home</li> <li>• Emphasized grains and a variety of fresh fruits and vegetables</li> <li>• Followed low-fat/low-sodium guidelines</li> <li>• Served buffet style with restaurant-like atmosphere</li> </ul>
Table Talks <sup>a</sup>	<ul style="list-style-type: none"> <li>• Meal-time conversations addressing successes, barriers and/or problem solving related to participants' goals</li> <li>• Reinforced healthy eating and exercise information learned prior week</li> </ul>
Child Care <sup>a</sup>	<ul style="list-style-type: none"> <li>• Included developmentally appropriate physical activity and nutrition education for infants through 4 years of age</li> </ul>
<sup>a</sup> Services offered in English and Spanish	

Age- and ability-appropriate physical activity classes included community walking. Nutrition and physical activity lessons focused on *Dietary Guidelines for Americans*. Family meals emphasized healthy eating and dietary/cooking practices, reinforcing weekly nutrition lessons. Meals provided foods from each food group for children and adults, and used recipes that were affordable and easy to prepare at home within limited time. Concurrent, structured child care for preschool children included physical activity and age-appropriate nutrition lessons. Other key retention strategies were telephone reminders and mailings to each family, weekly transportation as needed, and family food bags with fresh produce and healthy food items from Tarrant Area Food Bank.

A university research team implemented the program, which was coordinated by registered nurses, a registered dietitian, and volunteer and paid staff that included community members and supervised university students from nursing, nutrition/dietetics, social work, kinesiology, and medicine. Service learning was an important feature, with baccalaureate students involved in selected aspects of designing, implementing, and evaluating the program. Trained students helped facilitate health screening, physical activity classes, walking groups, meal preparation, nutrition classes, table talks, and child care.

## Community Challenges and Future Outreach

Finding ways to prevent and slow rising obesity among disadvantaged populations challenges community health professionals, educators, and researchers. The most difficult challenge is how best to facilitate sustainable changes and influence family values in low-income communities, whose priorities are more concerned with daily financial struggles than with adopting healthy lifestyle practices. In HW, community partners learned to work together to find solutions for reducing obesity, family members learned about their role in guiding and evaluating the intervention, and students learned to work with low-income families with limited literacy and English.

Reducing adult and childhood obesity is a shared community responsibility (CSREES, 2006). Outreach programs that integrate community-based research, education, and collaboration among committed partners hold promise for finding effective strategies to sustain health-related community changes (CSREES, 2006; EFNEP, 2006; TDSHS, 2005; USDHHS, 2006). With their history of community commitment and successful program implementation among low-income and underserved populations, Extension educators are in a key position to work with multiple community partners and initiate such outreach programs.

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