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Innovative solutions; engaging non-traditional partners to reduce health disparities

Abstract:

In this paper we describe the role that diverse coalition membership played in the development of a series of innovative projects implemented by a community based coalition to reduce the health disparities experienced by two underserved, predominantly Hispanic, urban neighborhoods located in the Arizona-Sonora border region. This coalition is a model for the organization and functioning of strategic community mobilization to reduce health disparities. The projects developed and implemented by the coalition were made possible by the engagement and recruitment of diverse partners (both traditional and non traditional health coalition partners). Although the focus of this coalition is on diabetes and substance abuse, the interconnection of local economic, health, and social issues led to the involvement of a diverse membership that included agencies and organizations not traditionally associated with health programs. Not only were the usual health organizations involved, but libraries, grocery stores, transportation systems, neighborhood associations, and city urban planning and design departments all played important roles. Further, the coalition includes community members as well as the organizational members. The broad base of the membership has made accessible a wide range of talents and innovative viewpoints that have led to the development of creative and effective approaches to reduce health disparities.

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Introduction

Community based health coalitions have long been recognized as essential to effective health interventions (Brownson, Koffman, Novotny, Hughes, & Eriksen, 1995; Meister & Guernsey de Zapien, 2005; Clark, Doctor, Friedman, Lachance, Houle, Geng, & Grisso, 2006; Provan, Nakama, Veazie, Teufel-Shone, & Huddleston, 2003; Norris & Pittman, 2000) as they help to ensure programmatic and policy relevance, creativity, cultural relevance and sustainability. Central to the success of coalitions are the talents and commitment of the membership. This paper describes how unique partnerships were developed to implement innovative projects to reduce the disparities experienced by residents of two underserved neighborhoods (Sunnyside and Elvira Neighborhoods), which are located in the Arizona-Sonora border region.

Health Disparities refer to preventable inequality in health status based upon race, ethnicity or socioeconomic status. The Health Resources and Services Administration define health disparities as "population-specific differences in the presence of disease, health outcomes, or access to health care (U.S. Department of Health and Human Services, 2000).

The causes of health disparities include socioeconomic factors such as inadequate infrastructure, differential access to resources, cultural and structural barriers encountered by underserved groups within the health care system as well as poor or lack of access to quality medical care and information.



Given a broad mission of reducing health disparities related to diabetes and substance abuse, this coalition effectively promoted policy and environmental change and provided health education/promotion services. This coalition's multi-sector membership resulted in considerable strength providing the coalition with the capacity to creatively address the wide array of factors contributing to these health disparities, while working toward significant sustainable change. Non-traditional members are affiliated with agencies and organizations not usually associated with public health, i.e., library science, grocery store management, transportation systems, local neighborhood associations, and landscape architecture.

The Setting

The Sunnyside and Elvira Neighborhoods are located on the south side of Tucson, Arizona. The two neighborhoods share a history of strong leadership, community based initiatives and significant health disparities. The neighborhoods are multicultural, though predominantly Hispanic, and underserved. More than 80% of residents identify as Hispanic (2000 Census). According to local school district data, during the 2005-2006 school year, 87% of the students were Hispanic, 4.1% Native American, 2.1% African-American, and 5.6% white non-Hispanic. In addition, 82% of the students received free or reduced lunch, and 5.8% were homeless (www.sunnysideud.k12.az.us, 2006).

A study conducted in 2005 by researchers at the University of Arizona, found that local school children are at high risk for developing diabetes. These researchers collected baseline measurements of body mass index in over 7,000 elementary children attending schools in the local school district. This study found that overall, students in the district had above average body mass index for their age and gender and a large percentage were found to be at risk of being overweight (45.3% above the 85th percentile of BMI and 28.2% above the 95th percentile of BMI). (Unpublished data, Going and Reeves, 2006).

In addition, 681 residents from these communities participated in Proyecto Ver, a study conducted by Johns Hopkins University and the University of Arizona in 1999 (Quigly et al, 2002; West et al, 2002). Proyecto Ver was a population based study focusing on ocular disorders and risk factors of Hispanic Community residents over age 40 living in Santa Cruz and Pima Counties in the state of Arizona. Participants were selected through a stratified random sampling of households. Secondary analyses of the Pima County participants found that 23.6 % reported having been told by a doctor they had diabetes, and 26.6% tested positive for diabetes based on the Hemoglobin A1C test.

Despite these challenges, both neighborhoods are rich in assets. Local leaders, businesses and organizations are active in advocacy and support efforts. The Sunnyside and Elvira Neighborhood Associations, created in 1988 and 1990, respectively, have been effective community advocates and change agents. Their success is demonstrated by the creation of a community park, community garden,



street improvements, environmental advocacy, substance abuse prevention, and efforts that reduced the number of area establishments licensed to sell liquor. Within these neighborhoods, there has been a history of coalitions created to focus on specific social problems such as substance abuse, teen pregnancy, senior health, and environmental contamination. In addition, the schools are active partners in the community programs. These Programs, initiated by the local school district, have become state and national models to improve academic achievement in underserved areas. Finally, both neighborhood associations have long-standing relationships with local government at the city and county levels. Out of these two neighborhood associations grew the Sunnyside and Elvira Advocates for Health Coalition (SEAH), with funding provided by a Project EXPORT grant from the National Center on Minority Health and Health Disparities and technical support from the University of Arizona.

The Coalition

SEAH was formed as a community partnership to reduce health disparities in two underserved neighborhoods related to substance abuse and diabetes. The coalition was created with membership open to area residents, members of the two neighborhood associations, as well as any individuals and institutions interested in collaborating. Local political leaders, school district staff, neighborhood associations, community activists and health care providers initially identified potential coalition members. Additional partners joined as a result of community health education and promotion events or became a part of the group, as their skills were required for specific coalition projects.

Initial activities included several neighborhood based strategic planning sessions, which were held to identify the primary problems shared by both neighborhoods as well as to prioritize solutions to these problems. During this informal assessment, members focused upon policy issues related to physical activity and nutrition, as well as upon the development of an educational outreach model for diabetes prevention and control. Specifically, community members addressed these issues through the development and dissemination of culturally relevant health information, leadership and advocacy, and outreach and prevention activities.

Diverse Coalition Membership and Resources

According to Norris and Pitman (2000), effective local and regional collaborations bridge sector, race and class divisions. These researchers add that broad based coalitions make it possible to develop innovative strategies to address complex issues because they can tackle the vexing issues that no single institution, sector, program, or grant can handle alone. They improve the health status of a community as a byproduct of institutions, individuals and communities working together. While health care providers play a key role in efforts to reduce health disparities, one implication is that by restricting membership to healthcare professionals, one limits a coalition's capacity to impact the root causes of health disparities. A number of researchers have pointed out that diverse membership is essential to a coalition's success



(Norris and Pittman 2000; Quigley, West, Rodríguez, Munoz, Klein, & Zinder, 2001; Wolff & Maurana 2001). These scholars define diverse membership as the inclusion of representatives outside of traditional health care settings, such as schools and policy makers.

Over time, as the number, size and scope of SEAH coalition activities grew, new coalition partners came into the group, bringing with them additional resources that were seen as necessary to accomplish new goals. For example, in response to community-based training to evaluate neighborhood infrastructure related to physical activity, local transportation staff, landscape architects, and planners were invited to join the coalition. The breadth of the coalition membership has allowed it to create projects focused on individual behavioral change, neighborhood change as well as macro level policy and environmental issues.

Membership and the Development of Coalition Activities

The broad-based membership has led to the development and implementation of innovative, sustainable community relevant projects and policies designed to reduce health disparities related to diabetes and substance abuse. Tables 1-3 display examples of specific projects and how broad-based membership and skills contributed to the unique nature of the projects. Although there are a large number of SEAH projects, this analysis is limited to three of the coalition's initiatives which best demonstrate the contributions of non traditional partners: the walking school bus, strategic bicycling plan and initiatives to influence policy and improve local infrastructure. These initiatives were chosen because they illustrate creative solutions that can be developed and implemented by a diverse coalition.

Walking School Bus Program

A walking school bus program was implemented by the coalition to encourage physical activity among children, school staff and parents, increase safety at student drop-off and pick up points and address concerns related to safety of routes to school. Walking school bus programs have become a strategy to increase physical activity among youth, nationally and internationally. Although, a well established safe routes to school and walking school bus programs had been implemented throughout the county none had been initiated in the Sunnyside Unified School District despite the fact that some schools do not have bus service. Coalition members identified the barriers and worked with one of the elementary schools to establish a pilot program.

On specified days, adult volunteer leaders (or bus drivers) pick up children and parents at specified "bus stops" along the identified "bus" routes and walk to school together. The adult leaders are trained in pedestrian safety topics and wear brightly colored shirts to increase visibility. Incentives are provided to the children for participating in the program.



Key partners in the development and implementation of this project are listed in Table 1. At first glance, a county department of transportation may not seem like an obvious partner in diabetes prevention initiatives. However, they have played an important role in the design of coalition projects to encourage low cost forms of life long physical activity such as walking and bicycling. Community members identified traffic, safety concerns and inadequate infrastructure as significant barriers. The technical skills and resources of the county department of transportation combined with those of the coalition partners resulted in a sustainable program that has been replicated in other areas.

Table 1: Walking School Bus Program

Problem	Solution	Members *	Outcomes
Lack of physical activity	Walking School Bus	SUSD	Program sustained and institutionalized
Unsafe vehicular activity during student drop off/ pick up	Program: volunteers walk children to school created a safe walking environment for families	PDOT YMCA/Activate Tucson; SNA/ENA Community members; COPH/Cooperative	Increased interest in walking A walking program for parents
Concerns about safety of routes		Extension ADHS COPH Mayor's Healthy Tucson Initiative	Increased community integration Training on identifying barriers to physical activity and solutions PDOT walking school bus mini-grant program and toolkit Plan to expand program throughout school district

*SUSD: Sunnyside Unified School District; PDOT: Pima County Department of Transportation; SNA/ENA: Sunnyside Neighborhood Association, Elvira Neighborhood Association; ADHS: Arizona Department of Health Services; COPH: Mel and Enid Zuckerman College of Public Health

Bicycling Plan

A strategic plan to encourage bicycling among youth and families was drafted. Bicycling is a relatively low cost form of exercise that can be enjoyed by all regardless of age. The strategic plan grew from a community based needs assessment implemented by graduate students from the Mel and Enid



Zuckerman College of Public Health, which revealed that many children in the community were not riding bicycles. The primary barriers to bicycling reported by participants included safety concerns, bicycles in disrepair and a general lack of knowledge of bicycle maintenance and repair. In order to implement the strategic plan new institutional members were brought into the coalition; the City of Tucson Department of Transportation, Bicycle Inter-Community Action & Salvage (BICAS) a local bicycle advocacy group, and Pro Neighborhoods a local capacity building non-profit organization. Local youth, in conjunction with the departments of transportation, developed a community specific bike map for youth and families identifying safer routes. A grant was submitted to purchase bike maintenance trailers equipped with tools that can be pulled by a bicycle as part of workshops, which provide basic information on bicycle maintenance and repair.

The bicycle plan demonstrates how the skills and resources of the non-traditional partners allowed for the development of creative solutions to critical health issues in the community. Knowledge of GPS systems, mapping, and bike mechanics are not usually associated with diabetes prevention and management and lie beyond the domain of health care professionals. The partnership between health care professionals, community members and non-traditional partners has led to solutions that are “outside of the box”. Rather than just emphasizing the importance of physical activity the partners are breaking the social barriers to physical activity.

Policy and Built Environment Initiatives

During the initial stages of the coalition residents expressed the need to address policy and environmental issues as a means of creating significant sustainable improvement in the health of the community. As a result, a number of initiatives addressing policy and environmental issues were undertaken which included establishing a school board policy banning the sale of junk food in vending machines located in the school district, changing food promotion policies in the local grocery store, decreasing the number of establishments licensed to sell liquor, and creating more communal and recreational spaces in the community and improving access to affordable healthy food, among others. Through SEAH advocacy, land has been acquired from the City of Tucson and a local church to establish a community garden to be used as a recreational site, an area for health and nutrition education and to increase community integration. Landscape architects have joined the coalition to help design the garden. Hydrologists, soil, and plant scientists will take part in the development of the garden. Once again, wide ranging skills and resources outside of traditional health care settings were incorporated to create structural changes that facilitate active healthy lifestyles.



Table 2: Strategic Plan to Increase Bicycling

Problem	Solution	Members*	Outcomes
Lack of bicycling by youth	Community specific bicycle route map	ENA/SNA PDOT/TDOT	Road safety evaluation tool and map created
Lack of safe bike routes for children and families	targeting youth and families	BICAS ADHS	Obtained grant to purchase tools and trailer
Lack of knowledge of bike mechanics and tools for bicycle maintenance and repair	Training on bike maintenance and repair Tools Bike trailer	Pro Neighborhoods COPH SUSD Public Library Local bike shop	County funds and staff designated to work on the project Youth trained in bicycle safety and repair Youth and family bicycling events

* ENA: Elvira Neighborhood Association, SNA: Sunnyside Neighborhood Association, PDOT: Pima County Department of Transportation; TDOT: City of Tucson Department of Transportation; BICAS Bicycle Inter-Community Action & Salvage: local bicycling advocacy group; ADHS: Arizona Department of Health Services; Pro Neighborhoods; COPH: Mel and Enid Zuckerman College of Public Health

Sustaining Coalition Activities

The diversity of coalition partners and resources has been instrumental to sustaining activities through increasing community capacity, providing a vast array of local resources not dependent upon a single grant program, and engaging individuals and organizations with a stable presence and strong connection to the community. The coalition has brought together groups and individuals, some of whom have already been working in the area. Others joined because they were interested in working toward the goals of the coalition. Some of these organizations have a long-standing presence in the community and others bring new resources into the community. Coalition members working together have created sustainable projects by pooling these resources and working collaboratively rather than independently. Thus many projects are not dependent upon a single source of leadership, funding or an individual institution.

Sustainable walking programs have been developed through the collaboration and pooling of diverse resources from members. In response to the success of the Walking School Bus program and an



EXPORT mini-grant, the Safe Routes to School program and the Pima County Department of Transportation initiated its own mini-grant program and toolkit for Walking School Bus programs, thus

Table 3: Policy \ Built Environment Initiatives

Problem	Solution	Members*	Outcomes
Lack of recreational space Lack of physical activity Poor nutrition and limited access to healthy food	Develop community garden with culturally relevant activities to promote physical activity, good nutrition and community integration	COT Urban Landscape ENA/SNA ADHS City of Tucson Pima County COPH/Cooperative Extension SUSD Hope Methodist Church	Identified and acquired land for garden Community Garden needs assessment and implementation plan
Increased number of overweight children High consumption of junk food	District-wide school vending machine and wellness policy	SUSD SNA/ENA Activate Tucson COPH/CALS	Comprehensive School Vending machine policy Comprehensive Wellness Policy Wellness policy implementation plan and group Stronger university-school district ties SUSD wellness mini grant program

* COT: City of Tucson Urban Landscape and Design; ENA and SNA: Elvira Neighborhood Association and Sunnyside Neighborhood Association; ADHS: Arizona Department of Health Services; MEZCOPH: Mel and Enid Zuckerman College of Public Health; SUSD: Sunnyside Unified School District; Activate Tucson: city wide coalition to reduce obesity

helping to sustain a coalition initiative. In addition, the resources resulting from the partnership with a local grocery store contribute to sustaining coalition initiatives. The store-sponsored coalition projects include diabetes classes held at a local middle school. This partnership removes the need to write grants to sustain smaller programs.

SEAH's organizational members have adopted other projects. A free youth basketball clinic has been embraced by a sister coalition, diabetes classes have been incorporated into a community health center,



and the diabetes education program targeting middle school students has been adopted by the local Girl Scout Council, another non-traditional coalition member.

Challenges

Occasionally, organizational members are unable to participate in a particular activity due to mission and scope of their institution/organization. For example, a representative from the county department of transportation is a member of the coalition but is unable to chair the “Walkable Communities subcommittee,” given that some of the activities do not focus specifically on transportation issues. As a result, other coalition members have stepped forward to chair the committee.

Due to the growth of the coalition from 40 to 200 members, effective communication has been a challenge at times. This has been resolved through quarterly meetings, an email listserv, letters, and updates provided at other community events, and by maintaining regular contact through phone calls by the community health workers and outreach coordinator to community leaders.

An ongoing challenge is maintaining the coalition members’ perception of the University as an equal rather than the lead partner. The issue is further complicated by the role of the university as the fiscal and administrative arm of the coalition. Traditionally, universities have taken a leading/controlling role in these types of coalitions (Wolff & Maurana, 2001). Representatives from the university are equal partners in SEAH and members affiliated with the university continually reinforce their status as equal partners.

Finally, given the complexity of diabetes and substance abuse prevention, it is often difficult for the coalition to stay focused and to balance those activities related to policy and those related to outreach and education. This challenge was resolved by establishing and prioritizing short-term goals and objectives (related to outreach and education) as well as long-term goals and objectives (focus on policy issues).

Conclusions

The diversity of the coalition provides a wide pool of skills and resources and has contributed to relevant and sustainable initiatives to reduce the incidence of diabetes and substance abuse in the targeted area. There is ample clinical evidence demonstrating that increasing physical activity and improving diet reduces the risk of developing diabetes and are effective means of managing and reducing complications associated with diabetes. However, it has been difficult translating/replicating clinical results outside of a clinical setting. This gap is emphasized in a NIH translational grant research program:

Cost-effective strategies for promoting lifestyle modification leading to weight loss in these high-risk individuals, outside the setting of a controlled, clinical trial, need to be established. In addition, while behavioral treatment of obesity in adults leads to clinically significant weight loss, prevention of weight regain remains an elusive goal for many. (<http://grants.nih.gov/grants/guide/pa-files/PAR-06-358.html>, 2007).



The inability to translate these clinical results in a community setting is due in large part to social, structural and environmental barriers which hinder the ability for people living in underserved areas to improve their health status. These barriers include issues that lie outside the purview of health professionals' knowledge, skills and resources, such as safe accessible areas to exercise, access to healthy, affordable food. As a result, the coalition must continue to grow and expand its vision and, in so doing, draw in new members.

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