

## **Collective Efficacy: A Community Level Health Promotion and Prevention Strategy**

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### **Abstract**

Hispanic-Americans are almost twice as likely to die from diabetes, than Caucasians. In an effort to improve health outcomes of Hispanic Appalachians, faculty researchers from East Tennessee State University (ETSU) and representatives from the Hispanic community came together in 2003 to form La Coalicion Hispano-Americano de la Salud (CHAS). Using CDC funds, the members of CHAS and ETSU faculty engaged in community-based participatory research (CBPR) focused on diabetes prevention. The team implemented thirteen health screenings and informational sessions serving approximately 400 people. Increased utilization of a local clinic resulted in a 30% increase in Hispanic diabetic patients. CHAS members were included in at least 3 advisory health boards throughout the city. Continued collaboration as a community resulted in other types of health promotion and prevention activities. These findings indicated that CBPR is an effective mechanism for strengthening community capacity for change. Collective efficacy is the linkage of mutual trust and a shared willingness to intervene for the good of the community. By increasing the ability of the community to work together to address health issues, collective efficacy becomes a significant community level intervention.

### **Introduction**

The Hispanic population in the United States has increased by more than 58% over the last decade. By the year 2000, the Hispanic population made up 12.5% of the total U. S. population. This percentage increased 2% by 2005 with the percentage of Hispanics reaching 14.5% (InfoPlease, n.d & U.S. Census Bureau, 2005). Hispanics are the fastest growing minority group in northeast Tennessee. According to the 2000 Census, the Hispanic population had increased more than 200% during the last decade in northeast Tennessee. At least 9.5% of American Hispanics have type 2 Diabetes; one of four leading causes of death in this ethnicity (U.S. Department of Health & Human Services, n.d.). Socioeconomic and cultural factors have been cited as barriers to appropriate diabetes care for Hispanics (Brown and Hanis, 1999).

### **Poverty and Culture**

Hispanics have higher rates of poverty, less education, less access to health care and less health insurance than non-Hispanic whites but have similar or lower all-cause mortality rates (Abriado-Lanza, Dohrenwend, Ng-Mak, & Turner, 1999 & Franzini, Fernandez-Esquer, 2004). According to the U.S. Census Bureau (2005) Hispanic households experienced a decline in median income of 2.6% between 2002 and 2003. The national poverty rate for Hispanics was 22.5% in 2003. The uninsured rate for Hispanics in the nation was 32.7% in 2003. In Johnson City, Tennessee, at the Johnson City Downtown Clinic, a Federal Qualified Health Center, the most commonly used source of primary care for Hispanics in the region, 89% were uninsured in 2003. Similar to national data, Tennessee Hispanics had a per capita income of \$12,087, well below the median state and national levels. While ten percent of

Tennessee residents' have less than a ninth grade education, twenty-seven percent of Hispanics in Tennessee have less than a sixth grade education (Tennessee Valley Authority, 2004).

Poverty, rurality and the associated limited availability and access to resources are seen as established precursors to health disparities for much of the Appalachian population. Cultural beliefs are identified as the third precursor that affects health mediators, the use of health care and healthy lifestyles. Cultural beliefs among Hispanic populations have been found to differ from those of other populations, and to affect use of health care and specific lifestyle factors (Brown, Kouzekanani, Garcia & Hanis, 2002). Families to Hispanics include their extended family as well as god-parents and close friends. Often they will live together or in close proximity (Niska, 1999 & Zoucha & Purnell, 2003). This can place economic strain on an already overextended budget decreasing the occasion for seeking health care. Thus cultural factors are viewed as a significant and meaningful precursor to the mediators of health outcomes for Hispanic populations in Appalachia.

#### Formation of La Coalición Hispano-Americano de la Salud

A 2001 survey of the Hispanic population in northeast Tennessee revealed that major health concerns included lack of access to care and the specific disease concerns of diabetes, high blood pressure, arthritis and depression (Anderson, Zahorik, & Troxler, 2002). In an effort to improve health outcomes of Hispanic Appalachians, faculty researchers from East Tennessee State University (ETSU) and representatives from the Hispanic community came together in 2003 to form La Coalición Hispano-Americano de la Salud (CHAS). As a committed group, the members of CHAS and ETSU faculty engaged in community-based participatory research (CBPR) focused on diabetes prevention and treatment. Led by CBPR principles, CHAS developed and implemented interventions focused on risk reduction, diabetes prevention and treatment in Hispanic Appalachians.

Current biomedical research in the US tends to focus on individual risk factors for disease and development of regimens to minimize these risks. This approach fails to recognize the importance of social and environmental conditions which contribute to health, as illustrated in the growing health disparities between white Americans and American ethnic and racial minorities (Israel, Schulz, Parker, & Becker, 1998; Smedley et al, 2002). Although biomedical research has contributed significantly to health knowledge, the practical application of that

knowledge does not always follow. Both researchers and community leaders concerned with affecting social change to improve public health have increasingly acknowledged that health issues must be examined within the context of the communities in which they occur. CBPR employs the experience of those community members most affected by health issues and those who have control of community resources in the research process (Park, 1992). Knowledge gained from CBPR research targets change at several levels, including the individual, family and community to improve the health status of groups within the community (Lindsey & McGuinness, 1998). Using CBPR strengthened the abilities of the Hispanic community in Upper East Tennessee to assess its needs, set priorities, and work together to effectively ease the burden of diabetes and improve the health of the Hispanic population.

### Purpose of the Study

The purpose of the research was to examine the process of building community capacity in an underserved, minority community in southern Appalachia through adaptation and implementation of multi-level interventions for diabetes prevention. The Hispanic community had already identified that diabetes and access to health care were problems that must be addressed. The investigators, from the disciplines of nursing, medicine, and anthropology, engaged with the Hispanic community in community-based participatory research (CBPR) to address these diabetes-related health concerns and reduce the burden of diabetes, while aiming at the goal of increasing the community's health in the broadest sense.

### Community-Based Participatory Research

CBPR builds the community's capacity to engage in action that focuses on a specific issue. CBPR plays a direct role in the design and conduct of the research study by bringing community members into the study as partners, not just subjects and by using the knowledge of the community to understand their own health problems as they design activities to improve health and health care. CBPR connects community members to how research is done and to the results providing immediate benefits to the community. In CBPR, community members are also involved in getting the word out about the research and promoting the use of the research findings. This involvement can help improve the quality of life and health care in the community by putting new knowledge in the hands of those who need to make changes. Community members have an extensive set of skills, strengths, and resources which can be harnessed to

address the social determinants of health and to promote good health (The Agency for Healthcare Research and Quality, 2001; Reyes, Lichtenstein, & McGranaghan, 2005).

Community-based participatory research as a partnership approach to research that equitably involves community members, it builds the community's sense of social control and social cohesion as it increases social networks and social support. Moreover, it enables all partners to contribute their expertise with shared responsibility and ownership as it integrates the knowledge gained with interventions to improve the health and well-being of community members.

### **Empowerment and Capacity Building Lead to Collective Efficacy**

Social action that promotes participation toward increased community control allows community members to participate in the process of impacting social change and increasing social capital. As the community members recognize their roles in this process to effect change in their community, they increase social cohesion and a sense of control within their environments (Hawe & Shiell, 2000 & Wallerstein & Bernstein, 1994). Kawachi and Berkman (2000) define social cohesion and social control as referring to the extent of connectedness and solidarity within a community group. As this sense of connectedness increases by sharing of social support and assets, there is a presence of strong social bonds and a collective sense that the community can impact social issues.

This sense of community capacity creates a continuum from a micro to macro-level dimensions of social capital. At the micro-level you have the individual's integration of knowledge, skills, networking and a sense of reciprocity. The macro-level reflects resources, infrastructure and state to society connections. Both levels create a web of assets that enable a community to collectively address issues (Browning & Cagney, 2002; Dutta-Bergman, 2004; Hawe & Shiell, 2000; Kawachi & Berkman, 2000).

From the end of March, 2003 until the end of September, 2005, fifty-three (53) CHAS coalition meetings were held with an average of 80% participation from the members. Thirteen Chequeos (health fairs to screen for risks associated with DM and undiagnosed DM) were held that served over 400 people, mostly Hispanic. This indicated a strong commitment by CHAS members to focus on easing the burden of diabetes within their community as they increased

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their knowledge and skills and developed resources and an infrastructure for addressing DM health issues. Other theme that helped to facilitate the growth of the coalition included:

- Starting with education as the coalition identified their priority needs
- Planning something visible such as health screening at Sunday flea market
- Rehearsing with each other the event to increase confidence and cohesion
- Group reflection to improve quality & process and then implementing back to back health screenings events
- Established relationships with health care providers at JCDC and were able to refer Hispanic community members to the clinic
- Invited clinic personnel to provide educational programs, help facilitate and attend coalition meetings

Collective efficacy evolves as the linkage of mutual trust among community members (CHAS) and a shared willingness to intervene for the good of the community emerges. The capacity for informal social control and social cohesion are components of collective efficacy at the community level while social networks and social support are components at the individual level (Kawachi & Berkman, 2000 & Sampson, et al, 2002). Social support can be in the form of emotional support, instrumental support and informational support. Emotional support is thought of as love and caring, sympathy and understanding and can help to comfort or sustain someone in times of stress. Informational support would be giving advice or information related to a defined need or desire. Social relationships within a community form the basis for trust and strong bonds that lead to attachment to places and organizations (Berkman, Glass, Brissette, & Seeman, 2000). Social capacity is a feature of collective efficacy and consists of those attributes that facilitate the actions of members within them. Social capital can take a variety of forms which include levels of trust, norms and sanctions within the community, as well as social organizations that fit with the needs of the community (Kawachi & Berkman, 2000).

In order to better understand the Hispanic community of northeast Tennessee, two survey efforts were implemented using the tool *The Community Competence Assessment Survey* (CCAS). The CCAS measured the perceptions of the Hispanic community's abilities to identify and solve its problems. The CCAS was crafted to reflect indicators of health rather than disease, and the focus was on community capacity rather than aspects of diabetes. The data was collected by face-to-face survey interviews. Hispanic community members were trained and certified in

IRB and HIPAA regulations. At the time none of the training for IRB or HIPAA through East Tennessee State University had been translated into Spanish. In order to make the education meaningful for CHAS, disseminating the training in Spanish seemed vital. Steps were taken to translate the course into Spanish and then administered to CHAS members with a bi-lingual instructor who was not only IRB and HIPAA certified but also a member of the IRB board. By educating Hispanic community members to conduct their own research activities, increased cohesion and confidence in their abilities to improve their own health and well-being emerged. Moreover, social networks and social support were enlarged as Hispanic community members became acquainted with CHAS members who could help them navigate complex health care systems within northeast Tennessee. This improved social capital while building trust among community members and expanded social cohesion.

### Expanding the Community Capacity

As CHAS members increased confidence in their abilities to educate and improve the health of the community, some CHAS members became involved as informal interpreters for the Johnson City Downtown Clinic (JCDC). Moreover, they were able to help Hispanic community members navigate the health care system and receive health care for issues such as diabetes mellitus (DM), asthma and prenatal care. Hispanics receiving DM care at JCDC increased by 30% during the years from 2003 to 2005. This increase in patients also included better mean blood pressure readings as well as more frequent eye exams and foot exams for DM patients. The changes in values may reflect the clients using the clinic more and sooner as a result of the coalitions educating of the Hispanic community and by educational activities improving cultural awareness and standards of care for health care providers.

As CHAS members became more involved with health care issues in Johnson City, informal education activities increased the cultural competence of JCDC staff members. The clinic hired more interpreters for the Hispanic population, communicated with CHAS members regarding cultural implications focused on health care such as birthing practices, inclusion of family members in health care decision making, and educational methods regarding DM self-management.

Hispanics tend to use stories as avenues of educating community members about traditions and values. In order to assist CHAS members as they educated one another about culturally-relevant community needs, strengths, values and conditions, writing a composite story

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about addressing DM was employed. Members of CHAS interviewed Hispanic community members who had been diagnosed with DM or used personal experiences as they designed and wrote a composite narrative about how a family addressed DM. Developing and writing *The Story of Juan*, a composite narrative, helped to educate the coalition members as to important points of information needed in order to educate community members to the impact of DM. Moreover, the story became a cultural vehicle for teaching about DM to the Hispanic community. These story books are now used to disseminate information about DM at clinics and health fairs throughout northeast Tennessee.

Activities involving reporting and disseminating experiences of the coalition were important for CHAS to feel that their efforts were not only improving health for northeast Tennessee Hispanics but as a model for other communities that are experiencing increased growth of Hispanic residents. CHAS members along with ETSU researchers presented results of coalition experiences through regional and national conferences. As participants in the development of the presentations, CHAS members were included as presenters and authors. This built confidence and cohesion as they learned to educate large groups about their issues and successes. Furthermore, CHAS increased their capacity to reach out to the greater community while focused on bettering the Hispanic community.

As CHAS members continue to influence the Hispanic community, they continue to expand the community capacity. CHAS chose five women to participate in an ETSU College of Nursing pilot study investigating the impact of using Promotoras (Hispanic lay health workers) to deliver health care information to Hispanic families. These women were trained as Promotoras (lay health workers) and visited families in their homes to deliver health care information with a focus on risk reduction of DM.

Members of CHAS who were trained as Promotoras have continued to visit families and teach other Hispanic community members the importance of disease prevention and health promotion. The Promotoras have asked for continued assistance from ETSU faculty in increasing the opportunities for them to learn more about health, risk reduction and the health care system.

Other examples of how CHAS continues to expand their community capacity include participating in a rural interdisciplinary learning environment for ETSU nursing, medical, public health, psychology, and environmental health students to assess communities and implement

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projects focused on community identified needs, assisting the Johnson City community in bringing representatives from Mexican Consulate to area to assist with immigration issues and aiding undergraduate nursing students to assess, plan and implement health projects focused on risk reduction and health promotion.

### Conclusion

Decreasing the burden of DM within the Hispanic Community in northeast Tennessee was a formidable task, but with enthusiasm and knowledge CHAS became advocates for their community. Because of CHAS, health resource manuals are now available through out northeast Tennessee written in Spanish. Knowledge of health care facilities that provide interpreter services are available as are CHAS members who can be advocates for Hispanics with no or limited command of the English language. Chequeos designed and focused on Hispanic health demonstrated to the Hispanic community that health care providers in northeast Tennessee cared about their health. More chequeos have been held since the end of the grant, although not lead by CHAS, included CHAS members for organization and implementation. Knowledge of DM as a leading health problem in the Hispanic community is now seen as something that can be addressed by ETSU clinics as well as other health care facilities in northeast Tennessee. Due to increased trust of health care providers, Hispanics are seeking care earlier and more often within the health departments and the Downtown clinic. Health care science students at ETSU who are interested in Hispanic health and speak limited Spanish are choosing to participate in the rural interdisciplinary course which allows them to work directly with the Hispanic community.

The capacity of the community to expand through the process of developing community-driven participatory prevention research is difficult to measure. However, by evaluating the changes in the coalition members and changes in the activities that now involve Hispanic Community members, changes in capacity can be inferred. Through the partnering of CHAS and ETSU faculty, education and development of leadership skills aided the members to increase their capacity to reach out to the Hispanic community. CHAS members have engaged themselves in projects such as: working as Promotoras (lay health advisors), board members of the Johnson City Downtown Clinic, the Appalachian Center for Translational Research in Disparities, (ACTRID) funded by National Institutes of Health Project Export Grant, advisory council members for the Centers of Excellence Program National Center on Minority Health and Health Disparities and participants with Puertas Abiertas a regional group to support the

Hispanic community, as well as working with the Mexican Consulate to aid in the immigrant status of Hispanics. Hispanic community members continue to work with ETSU students and faculty to educate members of health care agencies regarding the need for interpreters and cultural awareness focused on health issues.

Acquiring an understanding of the social and cultural environment of Hispanics, and communicating this knowledge and how it affects the decision to seek and comply with the health care recommendations of providers is paramount to the success of any educational or clinical intervention program. The scope of implementing such an initiative requires a community-based approach. Clearly, the challenge of addressing health disparities in Hispanics is a complex one, which requires more than simply making the health care services available to non-Hispanic Whites more convenient for Hispanic populations.

CHAS, as a partner in the delivery of risk reduction interventions, facilitated development of strategies that crossed over cultural barriers by empowering the Hispanic community to realize greater control over personal, family and community health issues. These actions demonstrated mutual trust among community members and a shared willingness to intervene for the good of the community, collective efficacy. These findings indicated that CBPR is an effective mechanism for strengthening community capacity for change. By increasing the ability of the community to work together to address health issues, collective efficacy becomes a significant community level intervention that could reduce the burden of preventable disease.

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