

**CDC's Division of Diabetes Translation
Community Health Workers/Promotores de Salud:
Critical Connections in Communities**

Introduction

The epidemic of type 2 diabetes is exacting a staggering toll on individuals, families, and communities in the United States and, increasingly, around the world. In the United States, the burden is disproportionately borne by American Indian and Alaska Natives, African Americans, Hispanic or Latino Americans, and Asian and Pacific Islanders. The condition reflects complex, reciprocal interactions between physiological and social determinants of health. Effective strategies to address these interactions require a global view, innovative models, partnerships, and accountability to all stakeholders (Vinicor 1999). Multi-factor, multi-system, and multi-level interventions are needed (Ellis 1998; Davis, Schwartz, Wheeler, & Lancaster 1998; Institute of Medicine 2000).

The underlying premise of *Healthy People 2010*, a "road map" to help guide the nation in promoting the public's health, is that the health of individual community members is almost inseparable from the health of the larger community (U.S. Department of Health and Human Services 2000, p. 3). Successful programs to close the gap in diabetes-related health disparities in various racial and ethnic populations are built on strengthening the links between health care providers and the community members they serve (Roe & Thomas 2002). Like a number of other chronic disease challenges, diabetes prevention and self-care are less dependent on "high-tech" clinical approaches than they are on "high-talk" efforts that provide social support, outreach, consistent follow-up, preventive care, community and family education, and community mobilization (Love et al. 1997).

Many health programs are turning to community health workers and promotores de salud (CHWs) for their unique ability to serve as "bridges" between community members and health care services (Satterfield, Burd, Valdez, Hosey, & Eagle Shield 2001). Recognition of the roles, skills, and contributions of CHWs; support for programs, including stable funding, technical assistance, and evaluation; and continuing education are needed to respectfully and effectively integrate these workers into the health care delivery system (Witmer 1995).

An emerging body of literature appears to support the unique role of these community workers and advocates in strengthening existing community networks for care, providing community members with social support, education, and facilitating access to care and communities with a stimulus for action. CDC's Division of Diabetes Translation (DDT) has reflected on expanding experience in projects now using the talents of community health workers and the history of this interest, beginning in 1995, with recommendations of the National Hispanic/Latino Diabetes Initiative for Action Recommendations report (1997).

To facilitate and support the activities of community health workers and promotores de salud across the nation to help accomplish the CDC's goals to eliminate the preventable burden of diabetes through public health leadership, linkages, research, programs, and policies that translate science into practice, a workgroup has prepared this position statement.

Community Health Workers and Promotores de Salud

Capacities and Contributions

Community health workers—also known as community health advocates, lay health educators, community health representatives, peer health promoters, community health outreach workers, and in Spanish, promotores de salud—are "community members who work almost exclusively in community settings. They serve as connectors between health care consumers and providers to promote health among groups that have traditionally lacked access to adequate health care."(Witmer 1995, p. 1055)

One of the most important features of CHW programs is that they strengthen already existing community network ties (Israel 1985; Institute of Medicine 2002). CHWs are uniquely qualified as connectors because they live in the communities in which they work, understand what is meaningful to those communities, communicate in the language of the people, and recognize and incorporate cultural buffers (e.g., cultural identity, spiritual coping, traditional health practices) to help community members cope with stress and promote health outcomes (Wilson 1998; Walters & Simoni 2002).

CHWs can build partnerships with formal health care delivery systems to connect people with the services they need and to stimulate social action that influences community participation in the health system and political dynamics (DiClemente, Grady & Kegler 2002). Such workers provide a community-based system of care and social support that complements, but does not extend or substitute for, the more specialized services of health care providers (Oregon Public Health Association 1999).

CHWs also educate providers about the community's health needs and the cultural relevancy of interventions (Witmer 1995) by helping providers and health care systems build their cultural competence (Institute of Medicine 2002). Using their unique position, skills, and an expanded knowledge base, CHWs can feasibly help reduce health care and personal costs as they help improve outcomes for community members (Witmer 1995).

The National Community Health Advisor Study, conducted by the University of Arizona and the Annie E. Casey Foundation (1998), reached almost 500 CHWs across the country to help identify the core skills, competencies, and the core services of CHWs. The following seven core services were identified:

- Bridging cultural mediation between communities and the health care system;
- Providing culturally appropriate and accessible health education and information, often by using popular education methods;
- Assuring that people get the services they need;
- Providing informal counseling and social support;
- Advocating for individuals and communities within the health and social service systems;
- Providing direct services (such as basic first aid) and administering health screening tests; and
- Building individual and community capacity.

Background

All of the world's cultures have a lay health care system made up of people who are natural helpers-community members whom neighbors turned to for social support and advice (Leninger 1991; Israel 1985; Satterfield et al. 2002). In the United States, formal participation of trained workers in this role has been documented since the 1950s (University of Arizona & Annie E. Casey Foundation 1998). The federal Migrant Health Act of 1962 and the Economic Opportunity Act of 1964 mandated such outreach, which included employment of community-based service aides in many neighborhoods and migrant worker camps (Hill, Bone, & Butz 1996).

The largest system to formally use the skills of CHWs was established in 1968, when the Indian Health Service adopted the fledgling Community Health Representative Program from the Office of Economic Opportunity. The program was designed to bridge gaps between people and resources and to integrate basic medical knowledge about disease prevention and care with local knowledge. Currently about 1,500 community health representatives work with tribally managed or Indian Health Service programs in more than 560 federally recognized American Indian and Alaska Native Nations. The CHW model is attracting increasing interest among health program planners across the country (Beam & Tessaro 1994; Love, Gardner, & Legion 1997; University of Arizona & Annie E. Casey Foundation 1998).

The Centers for Disease Control and Prevention has provided leadership in documenting and acknowledging the role of CHWs. CDC established the first national database in 1993. It includes CHW programs, training centers, and journal articles on models, research and practice information. The Combined Health Information Database (CHID) has documented more than 200 programs, representing about 10,000 CHWs. These estimates are known to be low because the database has not been consistently maintained.

In 2002, the CHW programs supported by the Bureau of Primary Health Care in the Health Resources and Services Administration (HRSA) were added to the database. Published literature, related to CHWs, is continually identified and added to the database. The National Community Health Advisor Study estimated there are actually more than 600 programs and at least 12,500 CHWs throughout the United States (one-fourth serve as volunteers) (University of Arizona & Annie E. Casey Foundation 1998). CDC has been involved in all phases of the work of this study, including recommendations for management practices (Wilson 1998), the establishment of the need and strategies for evaluation (Brownstein 1998), and the development of A Community Health Worker Evaluation Toolkit (Annie E. Casey Foundation 2002). Other initiatives of interest include the following:

- CDC helped establish the American Public Health Association's (APHA) Community Health Worker Special Interest Group. In 2002, the APHA passed a resolution, "Recognition and Support for Community Health Workers' Contributions to Meeting Our Nation's Health Care Needs." (2002)
- The Institute of Medicine recommends supporting the use of CHWs as part of a comprehensive, multi-level strategy to address racial and ethnic disparities in health care, stating that CHWs "offer promise as a community-based resource to increase racial and ethnic minorities' access to health care and to serve as a liaison between healthcare providers and the communities they serve." (Institute of Medicine 2002, p. 195)
- A number of states (including Arizona, California, Maryland, Massachusetts, Mississippi, New Jersey, New Mexico, New York, and Texas) have formed associations to promote and standardize the role of CHWs. Maryland and Texas have legislation that requires health maintenance organizations and other health care providers to use CHWs to reach priority populations. Mississippi is currently reviewing similar legislation.
- The Health Resources Service Administration mandates that all of its Area Health Education Centers use CHWs for outreach to community members. Bills currently before the 107th Congress in support of CHWs are S1878 2139, and HR5187.

CDC's Efforts Integrally Linked to CHWs

Across the scope of CDC's diabetes programs, many ties link communities to health care systems through which runs a common thread—using and honoring the advocacy and teaching skills of community members in the role of CHWs. After reflection about cross-cutting strategies involving CHWs in CDC's community-based projects, an internal working group was formed in 2002 to build a firmer platform of support for this model. Current strategies involving CHWs include the following:

- The U.S.-Mexico Border Diabetes Prevention and Control Project's Intervention Phase 2 involves promotores de salud in a diabetes health promotion intervention at the family unit level. This project has been guided by the recommendations of the National Hispanic/Latino Diabetes Initiative for Action Recommendations report (1997).

- Validation of a diabetes curriculum by Midwest Latino Research and Training Center, in collaboration with CDC, demonstrated improvement of glucose control among Hispanic and Latino persons living with diabetes. A CHW specially trained in diabetes care and education taught the curriculum and provided social support to participants throughout the 24-month evaluation period.
- Project DIRECT's use of community exercise leaders (DIRECT is an acronym for Diabetes Intervention Reaching and Educating communities Together);
- The National Diabetes Prevention Center's activities in developing a directory of CHW resources and a video illustrating CHWs in action.
- The "Diabetes Today" curriculum and the catalyst of community projects involving CHWs.
- Diabetes education for CHWs in the Aberdeen area of the Indian Health Service.
- Formative research among CHWs to identify tools and materials they need to educate and empower individuals and communities about diabetes prevention and control. Messages and tools will be developed for distribution for CHWs and other community leaders nationwide.
- Numerous state- and territory-based diabetes prevention and control programs' use of CHWs in promising rural and urban community health programs.

Evidence for the Effectiveness of CHWs in Diabetes Education and Self-Care

The use of CHWs in health intervention programs has been associated with improved health care access, prenatal care, pregnancy and birth outcomes, client health status, health- and screening-related behaviors, as well as reduced health care costs (Brownstein 1998). A growing body of evidence documents the effectiveness of CHWs in diabetes care and education efforts.

Examples follow:

- A 6-month self-management program for patients with chronic disease who worked with lay health instructors resulted in improved health behaviors, improved health status, and fewer hospitalizations compared with usual care (Lorig et al. 1999).
- 44 clients with diabetes in St. Louis, Missouri, who accepted a home health aide to support their self-care efforts for 18 months showed improved glycemic control and attendance at eye and diabetes clinic visits, and fewer emergency room visits compared with a control group (Hopper, Miller, Birge, & Swift 1984).
- Hispanic clients who were assigned to a community health worker intervention group were more likely than those who were not to complete their diabetes education programs (Corkery et al. 1997; Brown & Harris 1995).

- More than 100 Spanish-speaking persons using peer educators demonstrated improved diabetes education and self-care (Lorig & Gonzalez 2001).
- After 2 years, African American patients with diabetes randomized to an integrated CHW and nurse case manager group had greater declines after 2 years in A1C values, cholesterol, triglycerides, and diastolic blood pressure than did a routine-care group or those led solely by CHWs or nurse case managers (Gary et al. 2003).
- Compared with a control group, Brazilian community members working with CHWs, had improved A1C values. (Costa Forti 2000) The curriculum used to train the CHWs was based on that developed by the New Mexico Diabetes Prevention and Control Program.
- The work of community health representatives among American Indians (Griffin, Gilliland, Perez & Carter 1999) and community health aides in Alaska Native communities (Mayer, Brown, & Kelly 1998) in accomplishing the diabetes program goals has also been noted.

CDC's Diabetes Goals and Recommendations

Based on this review of the literature and on CDC's experience to date with strategies involving CHWs, the internal workgroup identified these goals and recommendations:

1. Build stronger support for CHWs—integrated within diabetes health care teams and programs—to
 - a. Serve as bridges between the health care system and people living with and at risk for diabetes; and
 - b. Provide support for diabetes control programs, community-based organizations, and other agencies instrumental in establishing these links.
2. Create educational opportunities, including ongoing technical assistance for CHWs with diabetes training designed to help them
 - a. Promote actions that enable community members to access care that meets standard recommendations for diabetes care and prevention (e.g., annual eye exams and foot exams, regular A1C testing);
 - b. Develop and communicate culturally and linguistically appropriate messages on diabetes self-care and community action,
 - c. Provide social support to community members as they adapt their lifestyles, through counseling and motivational interviewing; and
 - d. Mobilize their communities for social action to address diabetes on several levels (e.g., social and political influences).

3. Value the contribution CHWs can make in educating health care providers about a community's needs, the relevance of interventions, and cultural competence.
4. Promote sustainability of CHW models by means that include the following:
 - a. Develop public health policy, appropriate management practices, and other innovations (e.g., policies, recommendations) that recognize and support the role of CHWs; and
 - b. Share evidence of successful programs in various communication channels (e.g., local newspapers and radio stations, state and national conferences, peer-reviewed publications).
5. Apply the seven core services provided by CHWs (identified through the National Community Health Advisor study) and their related skills and qualities to guide development of CHW-related programs.
6. Support evaluation of CHW models related to diabetes prevention and care.
7. Support the NCCDPHP to increasing the engagement of CHWs in theory and practice for strategies to help eliminate health disparities, and make possible the means to
 - a. Develop and maintain a CHW database;
 - b. Identify and share common "best processes" of CHW programs;
 - c. Create educational and networking opportunities for CHWs; and
 - d. Provide assistance with CHW-involved community-based evaluations.

References

American Public Health Association Resolution (2002). "Recognition and Support for Community Health Workers' Contributions to Meeting Our Nation's Health Care Needs." Accessed 10/22/02. <http://www.apha.org/legislative/policy/policysearch/>

Beam N, Tessaro I. (1994). The lay health advisor model in theory and practice: An example of an agency-based program. *Fam Comm Health*, 17, 70-79.

Brown SA, Harris CL. (1995). A community-based, culturally sensitive education and group-support intervention for Mexican Americans with non-insulin-dependent diabetes: a pilot study of efficacy. *Diabetes Educ*, 21, 203-210.

Brownstein, JN(1998). The challenge of evaluating CHA services. In: Rosenthtal EL, Wiggins N., Brownstein JN, Meister J, Rael R., de Zapien, G et al., editors. Report of the National Community Health Advisor Study. Baltimore, MD: University of Arizona Press, pp. 50-74.

Corkery E, Palmer C, Foley ME, Schechter CB, Frisher L, Roman SH. (1997). Effect of a bicultural community health worker on completion of diabetes education in a Hispanic population. *Diabetes Care*, 20, 254-257.

Costa de Forti, A. (2000). Lay health workers: A rural outreach program. In International Diabetes Federation (Ed.), Mexico City, Mexico: International Diabetes Federation.
Davis JR, Schwartz R, Wheeler F, Lancaster RB. (1998). Intervention methods for chronic disease control (chapter 14). In Brownson RC, Remington PL, Davis JR, editors (Eds.), *Chronic Disease Epidemiology and Control*, 2nd ed, Washington, D.C.: American Public Health Association.

DiClemente RJ, Crosby RA, Kegler MC. (2002). *Emerging Theories in Health Promotion Practice and Research*. San Francisco, CA: Jossey-Bass.

Centers for Disease Control and Prevention, Division of Diabetes Translation (2002). Diabetes Fact Sheet. Accessed 10/14/02. <http://www.cdc.gov/diabetes/pubs/estimates.htm#prev4>

Ellis RA. (1998). Filling the prevention gap: multi-factor, multi-system, multi-level intervention. *J Prim Prev*, 19, 57-71.

Gary TL, Bone L, Hill M, Levine D, McGuire M, Saudek C, Brancati FL. (2003). Project Sugar I: A randomized controlled trial of behavioral interventions to improve metabolic control in urban African Americans with type 2 diabetes. *Prev Med* 36.

Griffin JA, Gilliland SS, Perez, G., Carter JS. (1999). Participant satisfaction with a culturally appropriate diabetes education program: The Native American Diabetes Project. *Diabetes Educ* 25, 351-363.

Hill MN, Bone LR, Butz AM. (1996). Enhancing the role of community-health workers in research. *Image* 28, 221-226.

Hopper SV, Miller JP, Birge C, Swift J. (1984). A randomized study of the impact of home health aides on diabetes control and utilization patterns. *Amer J Public Health* 74, 600-602.

Institute of Medicine (2000). *Promoting Health: Intervention Strategies from Social and Behavioral Research*. Washington, D.C.: Institute of Medicine.

Institute of Medicine (2002). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, D.C.: Institute of Medicine.

Israel B. (1985). Social networks and social support: Implications for natural helper and community level interventions. *Health Educ Q*, 12, 65-80.

Leninger MM. (1991). *Culture Care Diversity and Universality: A Theory of Nursing*. New York: National League of Nursing.

Lorig KR, Ritter P, Stewart AL, Sobel DS, Brown BW Jr, Bandura A, Gonzalez VM, Laurent DD, Holman HR. (2001). Chronic disease self-management program: 2-year health status and health care utilization outcomes. *Med Care* 39(11):1217-23.

Lorig, K, Sobel, DS, Stewart AL, Brown, BW, Bandura, A., Ritter P, Gonzalez VM, Laurent DD, & Holman HR. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: A randomized trial. *Med Care*, 37, 5-14.

Love MB, Gardner K, Legion V. (1997). Community Health Workers: Who they are and what they do. *Health Educ Behav*, 24, 510-522.

Mayer AM, Brown T, Kelly J. (1998). Of Muktuk and men. *Diabetes Spectrum*, 11, 141-143.

Oregon Public Health Association (1999). Community Health Worker Position Paper. Portland, Oregon.

Roe K, Thomas S. (2002). Acknowledgements. *Health Promot Pract* 3 : 106-107.

Satterfield DW, Burd C, Valdez , Hosey G, Eagle Shield J. (2002). The "in-between" people: participation of community health representatives in diabetes prevention and care in American Indian and Alaskan Native communities. *Health Promot Pract*, 3 (2): 166-175.

U.S. Department of Health and Human Services (2000). *Healthy People 2010*. Washington, D.C.: U.S. Department of Health and Human Services.

University of Arizona & Annie E. Casey Foundation (1998). *The National Community Health Advisor Study: Weaving the Future*. Tucson, Arizona: University of Arizona Press (410-223-2890). <http://www.aecf.org>.

University of Arizona, Rural Health Office (2002). *Community Health Worker Evaluation Toolkit*, University of Arizona, Rural Health Office, El Paso Satellite, Suite 205, El Paso, Texas, 79902. Telephone 914-351-9099.

Walters KL, Simoni JM. (2002). Reconceptualizing native women's health: An "indigenous" stress-coping model. *Am J Public Health* 92, 520-524.

Vinacor, F (1999). *Strategies for Addressing Health Disparities in Diabetes: 1999 Program Review*. Program Review; Division of Diabetes Translation.

Wilson K, Brownstein JN, Blanton C. Community Health Advisor Use: Insights from a National Survey. In: US Department of Human Services, Centers for Disease Control: *Community Health Advisors/Community Health Workers: Selected Annotations and Programs in the United States*, Vol III, June 1998.

Witmer A. (1995). Community health workers: integral members of the health care work force. *Am J Public Health*, 85, 1055-1058.

Community Health Worker and Promotora de Salud Workgroup Members

CDC Division of Diabetes Translation and Division of Adult and Community Health

- Ana Alfaro-Correa
- J. Nell Brownstein
- Lemyra DeBruyn
- Rita Diaz-Kenney
- Gwen Hosey
- Jane M. Kelly
- Betty M. Lamb
- JoAnne Pegler
- Betsy Rodriguez
- Dawn W. Satterfield