



Community Health Workers in Diabetes Management and Prevention American Association of Diabetes Educators (AADE) Position Paper

Introduction

A complex set of social, political, historical, environmental, cultural and behavioral factors influence both the management of type 2 diabetes and the sustainability of diabetes self-care practices. No single set of interventions is capable of addressing all of these influences. Rather, multiple approaches that include education, social support, and community programs are needed. These approaches should also be directed at multiple levels, including individuals, families, communities, healthcare providers, and policy makers. To strengthen the links between healthcare providers and community members, many health promotion and diabetes programs are engaging community health workers (CHW).¹⁻⁵

CHWs are uniquely positioned to collaborate with diabetes educators and other health care providers to improve the quality of diabetes education and care, as well as prevention in local communities. CHWs that have completed specialized diabetes training are especially needed. CHWs are individuals who represent their ethnic, cultural, or geographic communities and provide a link between these communities and health care providers.⁶⁻¹² CHWs can assist in preventing diabetes and controlling the disease and its complications through education, lifestyle change, self-management and social support. As a representative of the community they serve, CHWs are well positioned to engage the people in their community to prevent diabetes and its complications through education, lifestyle change, self-management and social support.¹³

CHWs are by definition, a member of the community they serve, and thus are uniquely skilled to serve as bridges between community members and healthcare services because they:

- live in the communities in which they work,
- understand how to translate “medical talk” to community members,
- explain the community perspective to providers, and
- communicate in the language of the people in their communities.

CHWs understand the cultural buffers, such as cultural identity, spiritual coping, and traditional health practices that can help community members cope with stress and promote positive health outcomes.^{13,14} A critical asset of programs that engage CHWs is that they build on already existing community network ties that contribute to the acceptance and sustainability of effective community programs.^{11,14,15}

Background and Definitions

CHWs—also known as community health advocates, lay health advisors, lay health educators, community health representatives, tribal diabetes educators, peer health promoters, community health outreach workers, and promotores de salud—are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community served. This

trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy.⁶

The history of CHWs has been described elsewhere.⁷ Over the past several years, a number of states have legislation in support of CHWs, in some cases collaborating with the Centers for Disease Control and Prevention's Diabetes Prevention and Control Programs within state health departments. AADE's 2010 White paper, *A Sustainable Model of Diabetes Self-Management Education/Training Involves a Multi-Level Team That Can Include Community Health Workers* helps diabetes educators understand how to meet the ever-increasing needs of people with diabetes by expanding the educational team.¹⁶ The White paper builds upon the AADE Guidelines and Competencies, in offering practical ways to involve community health workers in the diabetes education team.^{17,18}

Several studies support the use of CHWs in diabetes care.¹⁹⁻³⁰ A systematic review of the effectiveness of CHWs¹³ classified the roles of CHWs into five types of service: patient care and support; education and assistance with skill development; instrumental support; care coordination/ health care liaison; and social support.^{2,3,5,18}

The community-based system of care and social support provided by CHWs complements, but does not substitute for, the more specialized services of health care providers. A study of employers of CHWs indicates that half have established educational or training requirements for CHWs – 21% required a high school diploma (or GED high school equivalency); 32% required a bachelor's degree.^{6,10} DSME/T programs that have successfully met the Diabetes Education Accreditation Program (DEAP) requirements and that involve CHWs require formalized training and oversight for these individuals. In addition, most employers require some kind of training either through continuing education (68%), classroom instruction (32%), or mentoring (47%). The length of training reported varied greatly and ranged from nine to 100 hours.^{6,10,32,}

Role and Competencies of Community Health Workers

CHWs function as Level 1 educators according to the Guidelines for the Practice of Diabetes Self-Management Education and Training,¹⁷ Performance of activities at this level of care should be conducted under the direction of a qualified diabetes healthcare professional who has training and expertise in areas relative to direct care and ongoing support services.¹⁷ In this capacity, the CHWs serve as important community-based resources who increase outreach to underserved racial and ethnic minorities to facilitate access to health care and serve as liaisons between health care providers and the communities they serve.¹¹ They provide a bridge between health care systems, communities, and people diagnosed or at risk for diabetes. Under the direction of a diabetes educator who is a licensed healthcare professional (e.g., RN, RD, RPh), CHWs also promote primary prevention (e.g. lifestyle changes) and secondary prevention (e.g. smoking cessation and self-management skills). They can also help educate other health care providers about community health needs and the cultural relevance of diabetes education, care, and prevention programs.³⁴

CHWs are an important part of the multi-level team when working under the direction of credentialed diabetes educators and licensed health care professionals.¹⁶ In this capacity, the CHWs should have non-technical and non-clinical instructional responsibilities^{35,36}; they should receive ongoing informal and formal training.^{16-18,36} The role of the CHW has been defined as including ,practical problem solving, advocacy, and assistance with obtaining access to care, services, medications, etc.¹⁷ CHWs use a number of core skills and competencies to provide this community-based system of care and social support. They can be expected to perform the following activities, but these may vary based on the needs of the practice and community and the setting in which DSME/T is provided.^{33,34,37-41}:

- **Basic Assessment:** Measure vital signs and anthropometrics, assess literacy, and follow protocols for patient intake. Assessment may include family and social support systems. Provide support, general information, and guidance regarding accessing care, available diabetes education offerings, and financial assistance.
- **Goal Setting:** May help patients by providing basic information and assisting in setting basic goals for healthy eating and physical activity defined by protocols.
- **Planning:** Follow the prescriber's orders and diabetes educator's guidance for planning.
- **Implementation:** Refer/support diabetes management skill training, and offer guidance on accessing care and financial resources. Level 1 DSME/T providers may: a) lead support groups or organize a community physical activity (e.g., walking group); and b) refer to the prescriber or diabetes educator as needed.
- **Monitoring/Evaluation:** Monitor progress toward the plan and report findings to the prescriber and diabetes educator.¹⁷

Role of the Diabetes Educator

Diabetes educators: 1) supervise CHWs who have non-technical, non-instructional responsibilities in DSME/T programs^{16, 35}, 2) support the role of CHWs in primary and secondary prevention; and 3) provide training in core diabetes skills and competencies to these individuals.¹⁶⁻¹⁸ In this structure, CHWs are important members of the diabetes health care team who can effectively facilitate community-based diabetes care, education, and prevention.

Recommendations

1. Community health workers are an important part of the multi-level diabetes self-management education and training team.
2. Diabetes educators and other health care professionals should value the role of CHWs in serving as bridges between the health care system and people with and at risk for diabetes;
3. Diabetes educators and other health professionals should support the role of CHWs in primary and secondary prevention.
4. CHWs serve under the direction of a diabetes educator who is a licensed health care provider (e.g, RN, RD, RPh) should receive effective training in core diabetes skills and competencies.
5. There should be reciprocal exchange of information and support between CHWs and the health care team to facilitate the best outcomes for people with and at risk for diabetes.
6. Diabetes educators and other health care professionals should support continued research that evaluates the roles, contributions and effectiveness of CHWs.

Acknowledgements

AADE recognizes the contributions of the 2011 Professional Practice Committee and to the team that developed the 2009 version of this document. Ann Albright, PhD, RD; Racheal Araujo; Carol Brownson, MSPH, PHLC; Dawn Heffernan, RN, MS; Darrel Iron Shield, Melinda Maryniuk, MEd, RD, CDE; Laurie Ruggiero PhD; Phyllis Secraw, RNC, CDE; Kris Ernst, RN, CDE

References

*Criteria for rating evidence and grading recommendations**

Level-of- Study Design or Information Type Evidence

1 Large randomized controlled trial (RCT); Multicenter trial; Large meta-analyses with quality rating

2 Randomized controlled trial that has some design or methodological flaws; Prospective cohort study; Meta-analyses of cohort study; Case-control study; Quasi-Experimental study (rigorous pre-post with a control group); Systematic review that is well designed

3 Methodologically flawed randomized controlled trial; Nonrandomized controlled trial; Observational study; Case series or case report; Review (note Cochrane reviews are systematic reviews that could qualify as Level 2 evidence)

4 Expert consensus; Expert opinion based on experience; Theory-driven conclusions; Unproven claims; Experience-based information; Opinion Piece

**This is not an exhaustive list – Reviewers will need to use their own judgment at times.*

1. Hopper SV, Miller JP, Birge C, Swift J. A randomized study of the impact of home health aides on diabetes control and utilization patterns. *Am J Public Health.* 1984; 74(6):600-602.(1)
2. Brown SA, Harris CL. A community-based, culturally sensitive education and group-support intervention for Mexican Americans with NIDDM: a pilot study of efficacy. *Diabetes Educ.* 1995; 21(3): 203-210. (3)
3. Corkery E, Palmer C, Foley ME, Schechter CB, Frisher L, Roman SH. Effect of a bicultural community health worker on completion of diabetes education in a Hispanic population. *Diabetes Care.* 1997; 20(3):254-257.(3)
4. Lorig K, Gonzalez VM. Community-based diabetes self-management education: definition and case study. *Diabetes Spectrum.* 2000; 13(4): 234-238.(3)
5. Gary TL, Bone L, Hill M, Levine D, McGuire M, Sauder C, Brancat F. A randomized controlled trial of nurse case-manager and community health worker team interventions to improve risk factors for diabetes-related complications in African Americans. *Prev Med.* 2003; 37:23-32.(1)
6. U.S. Department of Health and Human Services Health Resources and Services Administration Bureau of Health Professions. Community Health Worker National Workforce Study. 2007. <http://bhpr.hrsa.gov/healthworkfoce/chw>. Accessed March 19, 2009.(2)
7. Albright A, Araujo R, Brownson C, Heffernan D, Shield DI, Maryniuk M, Ruggiero L, Secraw P. American Association of Diabetes Educators Position Statement - Community health workers in Diabetes Management and Prevention. 2009.

- www.diabeteseducator.org/export/sites/aade/resources/pdf/CommunityHealthWorkerPositionStatement2009.pdf. Accessed 9/16/11. (4)
8. Leninger MM. Culture Care Diversity and Universality: A Theory of Nursing. New York: National League of Nursing; 1991.(4)
 9. Eng E, Parker E. Natural helper models to enhance a community's health and competence. In: DiClemente RJ, Crosby RA, Kegler MC. Emerging Theories in Health Promotion Practice and Research. San Francisco: Jossey-Bass; 2002:126-156.(4)
 10. Kash BA, May ML, Tai-Seake M. Community health worker training and certification programs in the United States: findings from a national survey. Health Policy. 2007;80(1):32-42.(2)
 11. Rosenthal EL, Wiggins N, Ingram M, Mayfield-Johnson S, DeZapien JG. Community health workers then and now: an overview of national studies aimed at defining the field. J Ambul Care Manage. 2011;34(3):247-59.(3)
 12. Brownstein JN, Norris SL, Chowdhury FM, Armour T, Jack L, Zheng X, Satterfield D. Effectiveness of community health workers in the care of persons with hypertension. Am J Prev Med. 2007; 32:435-447. (2)
 13. Norris S, Chowdhury F, Van Le K, Horsley T, Brownstein J, Zhang X, Satterfield DW. Effectiveness of community health workers in the care of persons with diabetes. Diabetic Medicine. 2006; 23(5):544-556. (2)
 14. Walters KL, Simoni JM. Reconceptualizing native women's health: an indigenist stress coping model. Am J Public Health. 2002;92(4):520-524.(4)
 15. University of Arizona and Annie E. Casey Foundation. The national community health advisor study: weaving the future. Tucson, Ariz: Mel and Enid Zuckerman Arizona College of Public Health. 1998. Publication 410-223-2890. <http://aecf.org>. Accessed March 19, 2009.(4)
 16. American Association of Diabetes Educators. A Sustainable Model of Diabetes Self-Management Education/Training Involves a Multi-Level Team That Can Include Community Health Workers. Chicago. 2010. Available at: http://www.diabeteseducator.org/export/sites/aade/resources/pdf/research/Community_Health_Workers_White_Paper.pdf. Accessed 9/2/2011.(4)
 17. American Association of Diabetes Educators. Guidelines for the Practice of Diabetes Self-Management Education and Training (DSME/T). 2011. Available at: www.diabeteseducator.org/DiabetesEducation/position/Practice_Guidelines.html. Accessed 9/16/2011. (4)
 18. American Association of Diabetes Educators. Competencies for diabetes educators: a companion document to the Guidelines for the Practice of Diabetes Education. 2009. Available at: www.diabeteseducator.org/DiabetesEducation/position/competencies.html. Accessed 9/16/2011. (4)
 19. Balcazar H, Alvarado M, Hollen M, Gonzalez-Cruz Y, Pedregon V. Evaluation of Salud Para Su Corazón (Health for Your Heart) — National Council of La Raza Promotora Outreach Program. Preventing Chronic Disease. 2005;2(3):1-9.(4)
 20. Ingram M, Gallegos G, Elenes J. Diabetes is a community issue: the critical elements of a successful outreach and education model on the U.S.-Mexico border. Preventing Chronic Disease. 2005; 2(1):A15.(4)
 21. Ingram M, Torres E, Redondo F, Bradford G, Wang C, O'Toole M. The impact of promotoras on social support and glycemic control among members of a farmworker

- community on the US-Mexico border. *The Diabetes Educator*. 2007; 33(6):S6:172S-178S.(2)
22. Liebman J, Heffernan D, Sarvela P. Establishing diabetes self-management in a community health center serving low-income Latinos. *The Diabetes Educator*. 2007;33(S6):132-138.(3)
 23. Lujan J, Ostwald S, Ortiz M. Promotora diabetes intervention for Mexican Americans. *The Diabetes Educator*. 2007; 33(4):660-670.(3)
 24. Plescia M, Groblewski M, Chavis L. A lay health advisor program to promote community capacity and change among change agents. *Health Promotion Practice*. 2006;9(4):434-439.(4)
 25. Sixta C, Ostwald S. Texas-Mexico border intervention by promotores for patients with type 2 diabetes. *The Diabetes Educator*. 2008; 34(2):299-309. (3)
 26. Teufel-Shone N, Drummond R, Rawiel U. Developing and adapting a family-based diabetes program at the U.S.-Mexico border. *Preventing Chronic Disease*. 2005;2(1):A20.(4)
 27. Thompson J, Horton C, Flores C. Advancing diabetes self-management in the Mexican American population: a community health worker model in a primary care setting. *The Diabetes Educator*. 2007;33(6):159S-165S.(3)
 28. Two Feathers J, Kieffer E, Palmisano G, Anderson M, Sinco B, Janz N, Heisler M, Spencer M, Guzman R, Thompson J, Wisdom K, James S. Racial and ethnic approaches to community health (REACH) Detroit partnership: improving diabetes-related outcomes among African American and Latino adults. *American Journal of Public Health*. 2005;95(9):1552-1560.(3)
 29. Vetter M, Bristow L, Ahrens J. A model for home care clinician and home health aide collaboration: diabetes care by nurse case managers and community health workers. *Home Healthcare Nurse*. 2004; 22(9):645-648.(4)
 30. Heisler M, Spencer M, Forman J, Robinson C, Schultz C, Palmisano G, Graddy-Dansby G, Kieffer E. Participants' assessments of the effects of a community health worker intervention on their diabetes self-management and interactions with healthcare providers. *Am J Prev Med*. 2009;37(6 Suppl 1):S270-9.(3)
 31. Struthers R, Hodge F, De Cora L, Geishirt-Cantrell B. The experience of native peer facilitators in the campaign against type 2 diabetes. *The Journal of Rural Health*. 2003;19(2):174-180.(4)
 32. Tregonning PB, Simmons D, Fleming C. A community diabetes educator course for the unemployed in South Auckland, New Zealand. *Diabetes Educ*. 2001;27(1):94-100.(4)
 33. Reichsman A, Werner J, Celia P, Bobiak S, Stange KC, SNPSA Diabetes Study working Group. Opportunities for improved diabetes care among patients of safety net practices: a safety net provider's strategic alliance study. *J Nat med Assoc*. 2009;101(1):4-11
 34. American Public Health Association. American Public Health Association resolution. Recognition and support for community health workers' contributions to meeting our nation's health care needs. 2002.
<http://www.apha.org/advocacy/policy/policysearch/default.htm?id=254>. Accessed March 19, 2009. (4)
 35. Centers for Medicare and Medicaid (CMS) personal communication with the American Association of Diabetes Educators' Diabetes Education Accreditation Program. 2010. (4)

36. American Association of Diabetes Educators. Diabetes Education Accreditation Program. http://www.diabeteseducator.org/export/sites/aade/resources/pdf/accred/Crosswalk_Between_National_Standards_and_AADE_DEAP_-_Final.pdf (4)
37. Gary TL, Batts-Turner M, Yeh HC, Hill-Briggs F, Bone LR, Wang NY, Levine DM, Powe NR, Saudek CD, Hill MN, McGuire M, Brancati FL. The effects of a nurse case manager and a community health worker team on diabetic control, emergency department visits, and hospitalizations among urban African Americans with type 2 diabetes mellitus: a randomized controlled trial. *Arch Intern Med.* 2009 Oct 26; 169(19):1788-94. (1)
38. DePue JD, Rosen RK, Batts-Turner M, Bereolos N, House M, Held RD, Nu'usolia O, Tuitele J, Goldstein GM, McGarvey St. Cultural translation of interventions: diabetes care in American Samoa. *Am J Pub Health.* 2010;111(11):2085-93.(3)
39. Allen JK, Himmelfarb CR, Szanton SL, Bone L, Hill MN, Levine DM. COACH trial: a randomized controlled trial of nurse practitioner/community health worker cardiovascular disease risk reduction in urban community health centers: rationale and design. *Contemp Clin trials.* 2011;32(3):403-11.(1)
40. Harvey I, Schulz A, Sand S, Myrie D, Lockett M, Weir S, Hill Y. The healthy connections project: a community-based participatory research project involving women at risk for diabetes and hypertension. *Prog Community Health Partnership.* 2009;3(4):287-300.(2)
41. Volkmann K, Castanares T. Clinical community health workers: linchpin of the medical home. *J Ambul Care Manage.* 2011;34(3):221-33.(4)