

Community Health Workers' Role in DSMES and Prediabetes

Reviewed by AADE Professional Practice Committee

For every diabetes educator working in the United States, there are at least 1,000 people living with diabetes in need of diabetes self-management education and support (DSMES).¹ For every person with prediabetes seeking evidence-based care to prevent or delay the development of type 2 diabetes, there are another 5,600 who could join a lifestyle change program.² As the number of Americans living with diabetes and prediabetes grows and the population of the United States grows increasingly diverse, investing in an agile, culturally competent workforce to provide person-centered DSMES and diabetes prevention is critical; community health workers, promotores and community health representatives can be that workforce.

Introduction

The American Association of Diabetes Educators defines community health workers, or CHWs, as complementary healthcare workers who interact with people with diabetes or those at risk of diabetes. This group can be community health advisors, outreach workers, community health representatives (CHRs), promotores de salud (health promoters), patient navigators, navigator promotores (navegadores para pacientes), peer counselors, lay health advisors, peer health advisors, peer leader lifestyle coaches, or advocates.³ Although they are known by a variety of job titles, based on the settings in which they work and the work they do within those settings, the term CHW is used as an umbrella occupational category to describe this important workforce.⁴ CHWs are a trusted, frontline public health workforce. CHWs share many characteristics with the communities they serve. They speak a common dialect or language, empathize with community challenges, share cultural or religious beliefs, and can relate to the lived experiences of people with diabetes or prediabetes.⁵

For both DSMES and diabetes prevention, social support matters. Drawing on their personal knowledge of the community, CHWs can provide practical education, guidance, and support to help individuals build self-management skills. Because CHWs may work across community and clinical

settings, they can conduct home visits, lead faith-based support groups, assist with community-based screenings, promote healthy eating through Women, Infants, and Children (WIC) clinics or congregate meal sites, offer peer support in migrant health centers, and act as navigators inside large hospital systems. By working across settings, where community members live, eat, work, learn, play, worship, and access health services, CHWs understand the very real challenges to eating healthy foods, being physically active, taking medication, coping with stress, and accessing care that their own neighbors with diabetes and prediabetes experience.⁶

For that reason, CHWs play a valuable role in advancing health equity. While more than 30 million Americans have diabetes, and more than 84 million have prediabetes, certain populations, due to their ethnicity, gender, or socioeconomic status are disparately impacted by prediabetes, diabetes, and the complications of diabetes. According to the Centers for Disease Control and Prevention (CDC), diagnosed diabetes rates are highest among American Indians and Alaskan natives, Latinos, especially those of Mexican and Puerto Rican descent, and African Americans. Diabetes rates among Asian American Pacific Islanders (AAPI) vary widely, with Native Hawaiians and Pacific Islanders as well as those of Filipino and South Asian descent having the highest prevalence. Latinas, African

American women, and women from certain AAPI subgroups are more likely to develop gestational diabetes mellitus (GDM) and twice as likely to develop type 2 diabetes during their lifespan compared with non-Hispanic white women.² Within these ethnic groups, people are not just living with diabetes, they are dying from it. Diabetes is in the top five causes of death for African American, American Indian and Alaskan Native, AAPI, and Latina women, and it is in the top five causes of death for men across ethnic groups.⁷

We know socioeconomic, gender, and ethnic inequalities exist in health care for individuals with diabetes⁸. CHWs can help address these inequities through improving health literacy, promoting screening for diabetes, increasing healthcare access and utilization, and providing culturally competent and person-centered forms of support in trusted settings such as churches and mosques, congregational meal sites and senior centers, schools and social service agencies, and other centers of community life across frontier, rural, and urban communities. Although CHWs cannot address all inequities related to healthcare, meaningful social support has been shown to lead to improved outcomes and healthier lifestyles.⁹ Through their work, they can provide that support, helping community members overcome linguistic and cultural barriers, connect with health-promoting resources, and mitigate inequalities in the delivery of high-quality diabetes education and proven diabetes prevention programming.

Recommendations for Engaging Community Health Workers

CHWs can deliver DSMES and diabetes prevention programming to improve outcomes for people with prediabetes and diabetes. The 2017 National Standards for DSMES¹⁰, jointly developed by AADE and the American Diabetes Association, affirm the value of CHWs to the DSMES team. The National Standards note that they can teach, reinforce self-management skills, support behavior change, facilitate group discussion, and provide psychosocial support and ongoing self-management support. The National Standards require continuing education specific to the role the CHW serves within the team. Additionally, the CDC identifies CHWs as effective lifestyle coaches for National Diabetes Prevention Programs (National DPP). The CDC requires all CHWs to receive lifestyle coach training to enhance their skills in interpersonal communications, group facilitation, cultural competency, and behavior change as well as learn basic health, nutrition,

physical activity, and healthy lifestyle knowledge before providing a CDC-recognized lifestyle change program. Both the CDC Diabetes Recognition and Program Standards¹¹ and the 2017 National Standards for DSMES state that CHWs should report directly to a quality coordinator, program coordinator, or another qualified DSMES/National DPP team member to receive mentorship, supervision, and support for ongoing improvement.

Scope, Role, and Competencies

CHWs are distinct from other healthcare professionals because they are chosen specifically for their knowledge and experience within the cultural and socioeconomic contexts of the communities in which they work.¹² CHWs working with or within healthcare systems act as liaisons between healthcare providers and people with diabetes and prediabetes while connecting those individuals to needed medical and social resources.

Diabetes care teams working with CHWs are often better able to understand needs of those they serve while people with diabetes, working with CHWs, are better able to understand their health condition and provider's recommendations. Supporting the role of the CHW as a member of the care team promotes trust between the provider and the CHW. The most frequently reported CHW roles on care teams are¹³:

- Helping people gain access to medical services (86%)
- Advocating for individual needs (86%)
- Teaching people how to use health care and social services (78%)
- Helping people manage chronic conditions (77%)¹⁴

Diabetes-specific CHW functions include:

- Working with diabetes/healthcare teams to identify and overcome cultural barriers to self-care or behavior change
- Encouraging referrals to Medicare certified DSMES and CDC-recognized lifestyle change programs
- Gaining insight into cultural understandings of prediabetes and diabetes and educating community members about these conditions
- Utilizing culturally connected strategies like teach-backs, Ask Me 3™, and others to confirm

that individuals understand the information provided by diabetes educators and other healthcare professionals ¹⁵

- Participating in data collection, program evaluation, and continuous quality improvement initiatives
- Providing ongoing support to connect people with prediabetes or diabetes to community resources that address social determinants of health
- Collaborating with the diabetes/healthcare team to assist people with prediabetes or diabetes build effective self-management skills and sustain behavior change
- Supporting culturally informed changes to daily routines around healthy eating, being physically active, managing stress, and other self-care behaviors
- Serving as a bridge between people with diabetes, the diabetes healthcare team, and the healthcare system
- Building strong community connections through advisors, community health advisory boards, and multi-sector coalitions to inform healthcare providers about community needs, barriers to care, and facilitators for healthy behaviors

To understand scopes of work for CHWs, The Community Health Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles, Skills, and Qualities ⁶ identifies several core skills for CHWs that relate to the settings in which they work, the work they do within those settings, and the needs of the people they serve.

Community-based settings | Community-based settings may include childcare centers, faith-based communities, schools and community colleges, senior centers, social service agencies, immigrant-serving agencies, homeless shelters, domestic violence shelters, and other centers of community life. CHWs who work within these settings may be called outreach workers, health educators, lay health advisers, health ministry team members, promotores de salud, or, simply, CHW. In the community settings, CHWs:

- Conduct home visits

- Build health literacy and health insurance literacy skills
- Enroll community members in health insurance programs such as Medicaid, Medicare, and Affordable Care Act insurance options
- Lead culturally and linguistically competent education to promote healthy lifestyles, preventive screenings, and primary care
- Motivate individuals to access primary and specialty care through medical homes and “neighborhoods”
- Connect individuals to resources that address basic social needs such as food, housing, education, transportation, and support
- Develop community capacity and resiliency through support groups, community-led advocacy, and other programs
- Advocate for community needs and represent community perspectives with healthcare providers

Community health center settings | Community health center (CHC) and CHC-like settings may include school-based health centers, WIC clinics, free clinics for undocumented or uninsured community members, refugee health clinics, federally-qualified health centers, including migrant, rural, and public housing health centers, medical student-run free clinics and service groups, and faith-based health centers. CHWs who work within these settings may also have a variety of titles including community health representatives, community liaisons, peer health advisers, health coaches, navigators, or promotores de salud. Because their role bridges the divide between communities and clinics, and some of their work takes them into community settings, they are also called by the umbrella term, CHW. In these healthcare contexts, CHWs:

- Build connections with community leaders, community influencers, and other key contacts within the community

- Conduct outreach to educate people and communities through health fairs, faith-based programs, and back-to-school fairs about how to access health resources and how health systems operate
- Facilitate health screenings, within the clinic or with community partners, to assess diabetes risk, weigh community members, monitor blood pressure, and connect participants to follow-up
- Through electronic health records, or other systems, identify individuals for recommended health screenings, immunizations, and referrals to care
- Motivate individuals, especially those seeking acute care, to return for preventive care and regular health screenings
- Conduct participant education to encourage individuals to enroll in DSMES programs or CDC-recognized lifestyle change programs
- Refer individuals to community partners for assistance with food, housing, education, transportation, and other health-related social needs
- Develop community capacity and resilience through clinic-based programs like walking and exercise programs, community gardens, and support groups for stress management, grief and bereavement, and other issues
- Advocate for community needs, such as high-quality medical interpretation, transportation assistance, and in-language materials, and represent community perspectives with healthcare providers

Health system settings | CHWs, like millions of other professionals, are also embedded within large non-profit and for-profit hospital systems, public health and hospital systems, state, county, and municipal health departments that provide direct care, and other large health delivery organizations. Within these settings, CHWs may help individuals from their communities, or similar communities, understand and manage their health conditions, navigate the healthcare delivery process, and access care through referrals, reimbursement, and prescription drug coverage. In these settings, CHWs may be called healthcare navigators, integrative care specialists, care coordination specialists,

advocates, or other roles that indicate their specialized functions within complicated healthcare systems, such as:

- Helping people with diabetes understand and prepare for medical procedures in plain language
- Facilitating referrals to specialty care
- Arranging follow-up and providing reminders to engage with care
- Helping individuals apply for support for prescription drugs, transportation, and other resources
- Participating in design, implementation and interpretation of individual-level assessments to identify opportunities to improve the quality of care for people with diabetes
- Participating in evaluation and research by identifying priority issues, research design and methods, collecting data and interpreting the data, sharing results and engaging stakeholders to act on findings.

Role of the Diabetes Educator

Training and empowering CHWs to provide current, accurate information to support DSMES delivery and evidence-based diabetes prevention programs can benefit the self-care behaviors, problem-solving skills and health outcomes of people affected by diabetes or those at risk for developing diabetes. When access to comprehensive diabetes education services is limited, the significance of CHWs becomes even more important¹⁶. Diabetes educators can work with CHWs on the diabetes healthcare team and promote continuity in diabetes care. In supporting CHWs, diabetes educators' functions may include the following:³

1. Convey evidence upon which DSMES national standards for diabetes care is based
2. Identify educational materials appropriate for age, literacy level, cultural background and physical and cognitive abilities of recipients
3. Assist in assessment of local and regional communities for effective support networks and resources important to people with diabetes

4. Assist in identification of diabetes self-management barriers and plans to mitigate barriers to timely care
5. Teach, reinforce or validate essential diabetes self-management skills using principles of teaching and learning

Recommendations for Diabetes Educators and other Health Professionals

1. Recognize how CHWs can transform practice and advance health equity by reducing costs, improving health outcomes, and improving the quality of care for individuals with diabetes or at risk of developing diabetes
2. Acknowledge the unique skills that CHWs provide by serving as a bridge between healthcare providers, the healthcare system, and people with prediabetes or diabetes
3. Support CHWs as valuable members of team-based care while offering DSMES services and lifestyle behavior change programs
4. Provide ongoing mentorship, support, and direction to CHWs that is informed by expertise in the Community Transformational Model, population health and chronic disease models of care
5. Invite CHWs to participate in the design, implementation and evaluation of the DSMES and DPP services

6. Work with CHWs to assess community needs and identify resources to improve self-care and preventive behaviors for people with diabetes and prediabetes
7. Support continued research that explores the roles, contributions, and effectiveness of CHWs
8. Involve CHWs in AADE trainings, workshops, seminars, and events to improve the bidirectional exchange of education, learning, support, and mentoring from these community specialists and leaders in diabetes care
9. Support CHWs in their education, skill building and professional development

Conclusion

In communities most affected by prediabetes and diabetes, CHWs can work collaboratively with diabetes educators to activate CDC-recognized lifestyle change programs, extend the reach of diabetes prevention and DSMES care teams, and facilitate strategies that reduce health disparities in their own communities. When diabetes educators support CHWs in their role to deliver current, accurate, and evidence-based information, people with prediabetes and diabetes benefit with increased self-management skills, medication persistence, and adoption of healthy lifestyles.⁹ In turn, healthcare teams benefit from CHWs through collaboration and improved transitions, to minimize provider burnout, while enhancing the experience, improving population health, and reducing costs.^{12, 17}

Resource Guide:

Why Community Health Workers Matter

American Public Health Association

Community Health Workers: <https://www.apha.org/apha-communities/member-sections/community-health-workers/>

Support for Community Health Workers to Increase Health Access and Reduce Health Inequities: <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/09/14/19/support-for-community-health-workers-to-increase-health-access-and-to-reduce-health-inequities>

Community Health Worker (CHW) Core Consensus (C3) Project

Understanding Scope and Competencies: A Contemporary Look at the United States Community Health Worker Field: <https://sph.uth.edu/dotAsset/28044e61-fb10-41a2-bf3b-07efa4fe56ae.pdf>

Building Community Health Worker-Inclusive Healthcare Teams to Achieve the Triple/Quadruple Aim:

Academy Health, Robert Wood Johnson Foundation, and Nemours Children's Health System

Integrating Community Health Workers into State and Local Chronic Disease Prevention Efforts: Program and Financing Considerations: <https://www.movinghealthcareupstream.org/wp-content/uploads/2018/06/integrating-community-health-workers-into-domain-3d-projects.pdf>

American Hospital Association

Building a Community Health Worker Program: The Key to Better Care, Better Outcomes & Lower Costs: <https://www.aha.org/guidesreports/2018-10-17-building-community-health-worker-program-key-better-care-better-outcomes>

Centers for Disease Control and Prevention

Integrating Community Health Workers on Clinical Care Teams and in the Community: https://www.cdc.gov/dhds/pubs/docs/Best_Practice_Guide_CHW_508.pdf

CHW Forum: Community Health Worker Forum: Engaging Community Health Workers in the Development of a Statewide Infrastructure for Sustainability: <https://www.cdc.gov/diabetes/programs/stateandlocal/resources/chw-forum.html>

Massachusetts Department of Public Health

Achieving the Triple Aim: Success with Community Health Workers: <https://www.mass.gov/files/documents/2016/07/xb/achieving-the-triple-aim.pdf>

Sinai Urban Health Institute

Best Practice Guidelines for implementing and evaluating Community Health Worker Programs in Health Care Settings: <http://www.sinai.org/sites/default/files/SUHI%20Best%20Practice%20Guidelines%20for%20CHW%20Programs.pdf>

Community Health Workers in DSMES and Diabetes Prevention Programs

American Association of Diabetes Educators

Diabetes educator Practice Levels (2016) <https://www.diabeteseducator.org/practice/practice-documents/competencies-for-diabetes-educators>

Centers for Disease Control and Prevention

Diabetes Prevention Recognition Program Standards and Operating Procedures (March 1, 2018)
<https://www.cdc.gov/diabetes/prevention/pdf/dprp-standards.pdf>

The Community Guide

Diabetes Management: Interventions Engaging Community Health Workers:

<https://www.thecommunityguide.org/findings/diabetes-management-interventions-engaging-community-health-workers>

Diabetes Prevention: Interventions Engaging Community Health Workers:

<https://www.thecommunityguide.org/findings/diabetes-prevention-interventions-engaging-community-health-workers>

Acknowledgements:

Mary Jean Christian, MA, MBA, RD, CDE

Sheila Harmon, MSN, APN, CDE

Elva Hooker, RDN, CDE

Jamillah Hoy-Rosas, MPH, RD, CDN, CDE

Ardis Reed, MPH, RD, LD, CDE

Joanne Rinker MS, RD, CDE, LDN, FAADE

Betsy Rodriguez, MSN, DE

Brit Rotberg Wolfe, MS, RDN, CDE, BC-ADM

Angela Forfia, MA

References

1. American Association of Diabetes Educators. American Association of Diabetes Educators Facts Sheet. <https://www.diabeteseducator.org/docs/default-source/about-aade/aade-fact-sheet-2017.pdf?sfvrsn=0>. Published 2017. Accessed April 4, 2019.
2. Center for Disease Control and Prevention. National Diabetes Statistics Report, 2017. Estimates of Diabetes and Its Burden in the United States.
3. <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf> .Published 2017. Accessed April 4, 2019.
4. American Association of Diabetes Educators. Competencies for Diabetes Educators and Diabetes Paraprofessionals. <https://www.diabeteseducator.org/docs/default-source/practice/practice-resources/comp003.pdf> . Published 2016. Accessed April 4, 2019.
5. Malcarney MB, Pittman P, Quigley L, Horton K, Seiler N. The Changing Roles of Community Health Workers. *Health Serv Res.* 2017;52 Suppl 1(Suppl Suppl 1):360–382. doi:10.1111/1475-6773.12657
6. Gunderson JM, Wieland ML, Quirindongo-Cedeno O, et al. Community Health Workers as an Extension of Care Coordination in Primary Care: A Community-Based Cosupervisory Model. *J Ambul Care Manage.* 2018;41(4):333–340. doi:10.1097/JAC.0000000000000255
7. The C3 project. The Community Health Worker Core Consensus (C3) Project: 2016 Recommendations on CHW Roles, Skills, and Qualities. <https://sph.uth.edu/dotAsset/55d79410-46d3-4988-a0c2-94876da1e08d.pdf> . Published 2016. Accessed April 4, 2019.
8. American Diabetes Association. Standards of Medical Care in Diabetes 2019. *Diabetes Care.* 2019; 42: S81.
9. Leading Causes of Death (LCOD) in Males and Females, United States. Center for Disease Control and Prevention website. <https://www.cdc.gov/healthequity/lcod/index.htm> . Accessed April 4, 2019.
10. Beck J, Greenwood DA, Blanton L, et al. 2017 National Standards for Diabetes Self-Management Education and Support. *Diabetes Educ.* 2018; 44(1): 35-50.
11. Center for Disease Control and Prevention. Diabetes Prevention Recognition Program. Standards and Operating Procedures 2018; <https://www.cdc.gov/diabetes/prevention/pdf/dprp-standards.pdf> . Accessed April 24, 2019.
12. Strom JL, Egede LE. The impact of social support on outcomes in adult patients with type 2 diabetes: a systematic review. *Curr Diab Rep.* 2012;12(6):769–781. doi:10.1007/s11892-012-0317-0
13. Olaniran A, Smith H, Unkels R, Bar-Zeev S, van den Broek N. Who is a community health worker? - a systematic review of definitions. *Glob Health Action.* 2017;10(1):1272223. doi:10.1080/16549716.2017.1272223
14. Walton JW, Snead CA, Collinsworth AW, Schmidt KL. Reducing diabetes disparities through the implementation of a community health worker-led diabetes self-management education program. *Family & community health.* 2012; 35(2): 161-171. doi: 10.1097/FCH.0b013e31824651d3

15. Allen, C., Escoffery, C., Satsangi, A., & Brownstein, J.N. Strategies to improve the integration of community health workers into health care teams: "A little fish in a big pond". *Chronic Dis.* 2015; 12: 150199. doi: <http://dx.doi.org/10.5888/pcd12.150199>.
16. National Patient Safety Foundation®. Program Implementation Guide for Health Care Organizations. https://c.ymcdn.com/sites/npsf.site-ym.com/resource/resmgr/AskMe3/AskMe3_Implementation_dwnld.pdf . Accessed April 4,2019.
17. Jacob V, Chattopadhyay SK, Hopkins DP, et al. Economics of Community Health Workers for Chronic Disease: Findings From Community Guide Systematic Reviews. *Am J Prev Med.* 2019;56 (3): e95-e106. doi.org/10.1016/j.amepre.2018.10.009 .