

EMERGING PRACTICES IN DIABETES PREVENTION AND CONTROL: ENGAGING COMMUNITY HEALTH WORKERS IN DIABETES SELF- MANAGEMENT EDUCATION PROGRAMS



TABLE OF CONTENTS

- Overview..... 1**
 - Community Health Workers and Diabetes Self-Management Education Programs..... 1**
 - CHW Sustainability in DSME Programs..... 3
- Wisconsin Collaboration with the Wheaton Franciscan Healthcare DSME Program 6**
 - Stakeholder Awareness 6**
 - DSME Program Readiness 7**
 - Implementation..... 7**
 - CHW Sustainability 8**
 - Lessons Learned from Implementation 8**
- References 10**
- Appendix: Engaging Community Health Workers in Diabetes Self-Management Education Programs Technical Assistance Guide (August 2015)**

OVERVIEW

Historically, the Centers for Disease Control and Prevention’s (CDC) National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) has provided funding for state chronic disease programs on a disease-specific level, releasing separate funding opportunity announcements (FOAs) to address chronic conditions such as cardiovascular disease, diabetes, and obesity. However, chronic diseases have a high incidence of comorbidity, and the burden of these diseases has continued to escalate. In recognition of these issues, CDC has adopted a more integrated approach to chronic disease prevention and control, increasing opportunities for coordination across related diseases and risk factors so public health programs can collaborate for greater impact and efficiency. One recent FOA that embraces this approach is the State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (CDC-RFA-DP13-1305, referred to in this document as SPHA 1305).

As state health departments are serving on the front lines of coordinated chronic disease public health prevention efforts, grantees are exploring and testing new and innovative approaches that will provide critical insight and lessons learned. The goal of the Emerging Practices in Diabetes series is to summarize and share information on these practices to inform the work of other grantees working in the same or related areas. This report provides an overview of a technical assistance tool developed by CDC staff to explain key drivers of engaging community health workers (CHWs) in diabetes self-management education (DSME) programs. It also describes three states that have done significant work in supporting the CHW workforce, including training, certification, and reimbursement initiatives. Finally, the report provides an illustrative example of one state’s efforts towards addressing each of the key drivers of engaging CHWs in DSME.

The Four Domains of Chronic Disease Prevention

To optimize public health’s efficiency and effectiveness, CDC recommends coordinating chronic disease prevention efforts in four key domains:

1. Epidemiology and surveillance—to monitor trends and track progress.
2. Environmental approaches—to promote health and support healthy behaviors.
3. Health care system interventions—to improve the effective delivery and use of clinical and other high-value preventive services.
4. Community programs linked to clinical services—to improve and sustain management of chronic conditions.

The four domains help organize and focus the effective work the public health community has been doing for many years. At the same time, they help concentrate efforts to strengthen programs and build expertise to address gaps in services. Finally, they help government agencies, state and local grantees, and diverse public and private partners find new ways to work together and support each other’s efforts.

Community Health Workers and Diabetes Self-Management Education Programs

The American Public Health Association’s Community Health Workers Section defines a CHW as follows:

A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker 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.¹

CHWs are referred to by various titles such as outreach workers, promotoras/promotores de salud, community health representatives, and patient navigators. They have long been frontline workers and active participants in addressing health care and related needs of the communities in which they serve. They assist community members in addressing social and health-related issues by providing “bridges” between diverse ethnic, cultural, or geographic communities and health care providers.² CHWs are well suited to providing self-management programs and offering ongoing support for adults with hypertension³⁻⁵ or diabetes.⁶⁻⁹ It has been recommended that CHWs assist in providing services for chronic disease care.^{2,3,9}

In recognition of the key role played by CHWs, CDC’s Division of Diabetes Translation (DDT) has included a strategy in 1305 to specifically increase the number of American Association of Diabetes Educators (AADE)-accredited and American Diabetes Association (ADA)-recognized DSME programs. DDT staff reviewed various sources to produce the implementation guidance increasing programs that use CHWs, including published literature on CHW effectiveness, practice-based evidence, and grantee work plans.

Some critical groups of activities emerged from this analysis which are called the “drivers”. The three drivers follow:

1. Stakeholder awareness of potential CHW roles in DSME programs
2. DSME program readiness to engage CHWs
3. CHW sustainability in DSME programs

These drivers will facilitate the following intended outcomes (which are linked to specific SPHA 1305 performance measures).

- Increase the proportion of recognized/accredited DSME programs using CHWs (SPHA 1305 Performance Measure 4.3.01)
- Increase participants in recognized/accredited DSME programs that use CHWs (SPHA 1305 Performance Measure 4.3.07)

To help grantees achieve these outcomes, DDT further developed a technical assistance tool to explain the three key drivers of engaging CHWs in DSME. A copy of the technical assistance guide is provided in the appendix. State health departments can play a critical role in implementing these drivers in a comprehensive way to enable more CHW engagement in DSME programs.

CHW Sustainability in DSME Programs

While all three drivers are essential to full implementation of the required 1305 strategies, grantees are in various stages of implementation of this work. Some states have done significant work in supporting the CHW workforce, including training, certification, and reimbursement initiatives. This support will provide a solid base for intervention work related to the required performance measures in years 3–5 of the FOA. This section highlights examples from three states:

- Core training efforts (Massachusetts and Michigan),
- Efforts to identify sustainable financing mechanisms (Minnesota),
- CHW certification and credentialing (Massachusetts and Minnesota), and
- Efforts to identify best practices for integrating CHWs into multidisciplinary teams (Massachusetts, Michigan, and Minnesota), and efforts to promote the professional identity of CHWs (Massachusetts, Michigan, and Minnesota).

The next section highlights a comprehensive example of how one state has employed activities in all drivers.

Massachusetts Department of Public Health

The Massachusetts Department of Public Health (MDPH) has collaborated with numerous partners to provide technical guidance and leadership, inform policy, and provide training and technical assistance for CHWs. Among its key partners are the Massachusetts Association of Community Health Workers (MACHW), MassHealth, and other major payers, providers, and organizations in the state. In 2012, MDPH established a state chronic disease prevention plan. This plan led to the establishment of seven communities of practice (CoPs). The Community and Healthcare Linkages CoP identified involving CHWs as a priority strategy for improving patient outcomes.

Key Activities Reflected in Massachusetts' Program Efforts

- Facilitate adoption of a core CHW training curriculum and delivery process with partners (area health education centers [AHECs], community colleges, etc.)
- Identify a certification and credentialing process and mechanism (certifying entity, training/experience requirements)
- Identify best practices for integration of CHWs into multidisciplinary teams
- Promote the professional identity of CHWs through CHW associations

MDPH provided technical guidance and convened key stakeholders to promote policy efforts in CHW certification, core training requirements, and reimbursement. This included working to articulate a definition of the CHW role and workforce. MDPH also plays a key role in identifying and disseminating evidence and lessons learned to support involvement of CHWs through assessment and evaluation efforts, such as statewide surveys and literature reviews, and by tracking legislation. For example, through its collaboration with MACHW, MDPH is working with Northeastern University to conduct surveys of CHWs and provider groups to assess how CHWs are being used. Such efforts are typically documented in white papers and other publications to

help inform policy change (see www.mass.gov/eohhs/gov/departments/dph/programs/community-health/prevention-and-wellness/comm-health-wkrs/). MDPH's report, *Achieving the Triple Aim: Success with Community Health Workers*, is a key example of one such publication (see www.mass.gov/eohhs/docs/dph/com-health/com-health-workers/achieving-the-triple-aim.pdf).

Michigan Department of Health and Human Services

For several years, the Michigan Department of Health and Human Services (MDHHS) has been involved in core training and professional development opportunities to enhance the capacity of CHWs in chronic disease prevention and management. In 2013, MDHHS collaborated with

Key Activities Reflected in Michigan's Program Efforts
<ul style="list-style-type: none">• Facilitate adoption of a core CHW training curriculum and delivery process with partners (AHECs, community colleges, etc.)• Identify best practices for integration of CHWs into multidisciplinary teams• Promote the professional identity of CHWs through CHW associations

Michigan Pathways to Better Health, a Medicare/Medicaid program that uses CHWs to assist beneficiaries in addressing social service needs and link them to preventive health care services. Building on this relationship, MDHHS used 1305 funding to develop a self-management education pathway—a specific curriculum for CHWs to use in presenting educational information and documenting referrals. The self-management

education pathway contains educational modules for diabetes, hypertension, and tobacco cessation.

MDHHS also supports more specific training for CHWs to enable them to deliver the Michigan Personal Action Toward Health (PATH) program, Michigan's Stanford-based chronic disease self-management program (CDSMP). MDHHS has partnered with the National Kidney Foundation of Michigan to train CHWs as leaders and trainers. Its assessment data show that more than 50% of PATH programs and CDC-recognized lifestyle change programs for the prevention of type 2 diabetes in the state are now at least co-led by CHWs.

MDHHS helps identify and disseminate information concerning facilitators, challenges, and best practices for integrating CHWs into multidisciplinary teams through lessons learned from its pilot programs and work with partners. One of the lessons learned is that CHWs may have very heavy individual/family patient loads at times, and they may need support to help them manage their workloads in supporting these programs. Lack of continuous funding sources was also noted as a barrier to involving CHWs in CDSMP and CDC-recognized diabetes prevention programs. Through its assessment activities, MDHHS has found that most programs have grant funding to support CHW involvement that spans as little as 2 months up to 5 years (with an average of about 2 years).

MDHHS promotes the professional identity of CHWs in the state through a strong partnership with the Michigan Community Health Workers' Alliance (MiCHWA). MiCHWA plays an active role in working with MDHHS to provide training and technical assistance to CHWs in core skills (e.g., motivational interviewing) and in increasing engagement of CHWs in promoting

community-clinical linkages. This also includes education and efforts to raise awareness among providers and payers to encourage them to involve CHWs in their efforts.

Minnesota Department of Health

Minnesota Department of Health (MDH) staff provides technical leadership and serves as conveners and reputable power-brokers for key stakeholders to advance efforts involving CHWs. Key successes from these efforts include the following.

- In 2010, MDH contributed to the development of an evidence-based scope of CHW practice and a 14-credit-hour competency-based curriculum, now offered at postsecondary schools and online. CHWs who successfully complete the program through one of the schools offering the standardized curriculum are awarded a certificate.
- The Minnesota CHW Alliance, with support from its partners and evidence provided by its allies (including MDH), advocated for state legislation (which passed in 2006) that authorizes reimbursement for health education services provided by certified CHWs from Medicaid and Minnesota Care, the state's subsidized coverage program for low-income workers. Reimbursement is restricted to CHW certificate holders providing diagnostic-specific health education services under the supervision of a Medicaid-enrolled physician, advanced practice nurse, or mental health professional recognized by the Minnesota Department of Human Services, or a dentist or public health nurse working in a unit of government.
- The Minnesota CHW Alliance, with support from MDH, conducts presentations and webinars, offers technical assistance, and refers billing inquiries to the Minnesota Department of Human Services to help promote sustainable CHW employment.

Key Activities Reflected in Minnesota's Program Efforts

- Identify a certification and credentialing process and mechanism (certifying entity, training/experience requirements)
- Identify sustainable financing mechanisms at the state level (i.e., public insurance/Medicaid, private payers)
- Identify best practices for integration of CHWs into multidisciplinary teams
- Promote the professional identity of CHWs through CHW associations

MDH is also actively involved in working with partners to implement programs and evaluation activities to help identify and disseminate best practices for the integration of CHWs into multidisciplinary teams. The Minnesota CHW Alliance provides extensive education, promotion, and outreach throughout the state to promote the professional identity of CHWs.

Although policy permits CHW certificate holders providing diagnostic-specific health education services to be reimbursed, findings from Minnesota CHW Alliance research on the CHW workforce suggest that most CHW positions in the state are grant funded. The Minnesota CHW Alliance is exploring contributing factors to identify strategies to further promote sustainable resources for CHW employment.

WISCONSIN COLLABORATION WITH THE WHEATON FRANCISCAN HEALTHCARE DSME PROGRAM

The Wisconsin Department of Health Services (WI-DHS) has efforts aimed at all three drivers (see Figure 1) through a key partnership with Wheaton Franciscan Healthcare (Wheaton), a large integrated health system in southeast Wisconsin. Wheaton has more than 10,000 associates and affiliations with more than 1,300 physicians. The Wheaton system has a DSME program recognized by ADA and accredited by AADE. Ten sites offer DSME programs throughout southeastern Wisconsin; five are associated with acute care sites that are outpatient departments within a hospital, and the other five are in medical group clinics or other outpatient clinics. Based on the findings from a recent community needs assessment, Wheaton identified an opportunity to use CHWs to make more inroads with marginalized groups in the community and connect them with its DSME programs.

Stakeholder Awareness

WI-DHS and Wheaton have engaged in a number of activities to increase stakeholder awareness of the roles that CHWs can play in DSME programs (see Driver 1 in the appendix). In collaboration with United Voices, a CHW network in Wisconsin, WI-DHS conducted a survey of CHWs (CHW Census Survey) to understand the context in which CHWs work and the programs that involve CHWs throughout the state. The health department intends to use this information to encourage health systems with ADA-recognized or AADE-accredited DSME programs to connect with CHWs doing work in their communities. WI-DHS convened a partnership meeting with state-level entities, after which it established a connection with Wheaton.

The director of clinical nutrition/diabetes management (who manages the DSME program) at Wheaton was interested in engaging CHWs for two main purposes: (1) to conduct outreach in hard-to-reach communities and bring participants to the hospital-based DSME programs and (2) to follow up with participants who are lost to the program in between DSME sessions. CHWs in the Wheaton system work in the Community Wellness Department.

After gathering information from the AADE website on engaging CHWs, the director of clinical nutrition/diabetes management reached out to a CHW at the Community Wellness Department. The CHW completed the AADE online Diabetes Educator Associate Level 1 training, but left the hospital before work could start. The coordinator has since requested resources to hire a full-time CHW in clinical nutrition/diabetes management, which would enable the Diabetes Management Department to have greater control over the activities of the CHW. Alternately, the director of clinical nutrition/diabetes management plans to continue to work with the Community Wellness Department to engage a CHW from there. Cost effectiveness analyses will be needed in the future to justify hiring more CHWs.

DSME Program Readiness

To prepare and train CHWs for involvement in DSME programs (see Driver 2 in the appendix), Wheaton uses the AADE online Diabetes Educator Associate Level 1 training as a starting point. Wheaton then conducts additional on-site training by pairing CHWs with certified diabetes educators.

As Wheaton works to pair CHWs directly within its Diabetes Management Department, WI-DHS staff supports those efforts by providing guidance on mutual education opportunities that exist when a system employs CHWs. The mutual educational process acknowledges that CHWs working in a health care system are influenced by factors in the community in which they are working and factors in the health care system. Health care system staff need to be prepared for program efforts so that they understand how to capitalize on the lessons learned through the work of CHWs outside the clinic walls and out in the community, and then integrate this information into their clinical practice.

Diabetes Educator Associate Level 1 Training

AADE classifies CHWs as Diabetes Educator Associate Level 1.¹⁰ Associate Diabetes Educators serve in various roles that complement and support the work of diabetes educators. This includes disseminating information, supporting patients in developing baseline skills, and providing self-management support to patients. Diabetes Educator Associate Level 1 coursework includes the six-module Fundamentals of Diabetes Care course, six recorded webinars, and a selection of practice document readings.

Implementation

Wheaton sees the CHW's role in implementation (see appendix) as doing "grassroots" work to connect health care settings and diabetes educators to community members (especially those in marginalized communities). This is accomplished through community engagement efforts such as presentations in central gathering places like community centers, libraries, and churches. CHWs describe the DSME program and help recruit more people to join. In this manner, CHWs will help "put a face to the program" as individuals whom people in the community can trust and identify with. The DSME program consists of four classes over the course of 6 months, and there is often a drop in attendance from the third to fourth class. Wheaton staff believe that CHWs can help maintain connections with participants during the periods between classes to keep them engaged and interested and to address barriers that may prevent participants from completing classes. Wheaton staff will examine this belief as the project progresses.

WI-DHS also ensures that training for evidenced-based diabetes (the Diabetes Self-Management Program) and prediabetes (the National Diabetes Prevention Program) self-management workshop facilitation is available for CHWs employed by Wheaton and provides technical assistance in developing referral systems into evidence-based self-management programs.

CHW Sustainability

WI-DHS has four strategies to support the sustainability of CHWs (see Driver 3 in the appendix).

1. **Training for CHWs:** WI-DHS staff are working with the Wisconsin Department of Workforce Development to develop an apprenticeship program for CHWs. This program is intended for a CHW that is employed full time by a health care system, health plan, or local health department. This comprehensive year-long CHW training program specific to health care systems was developed through a collaborative effort with employers of CHWs in a health care setting, and CHWs created the program content. Wheaton was a key contributor in the process. The Wisconsin CHW Registered Apprenticeship is scheduled to launch in January 2016.
2. **Reimbursement Strategies:** WI-DHS works in collaboration with the Wisconsin Public Health Association to establish a path to reimbursement for preventive services like those provided by CHWs. Currently, the WI-DHS is working with MetaStar (Wisconsin's quality improvement organization) to analyze data from its CHW Census Survey and develop a white paper to justify the need for CHW reimbursement.
3. **Professional Identity of CHWs:** Through activities such as the CHW Census Survey and collaboration with partners such as the Wisconsin Community Health Worker Association and United Voices Worker Alliance and United Voices (www.unitedvoices-wi.org), WI-DHS seeks to promote the professional identity of CHWs.
4. **Training and Resources for Supervisors and Employers:** WI-DHS has found that supervisors need information/guidance on introducing CHWs to certified diabetes educators and other health professionals who may not fully understand the roles of CHWs in the community. A Wheaton Community Wellness Department staff member, with technical assistance from WI-DHS staff, leads the Collaborative Action Committee of the Wisconsin Community Health Worker Alliance. The committee is developing a CHW supervisor toolkit with training resources along with information on how health care systems can effectively utilize CHWs and the return on investment associated with using CHWs.

Lessons Learned from Implementation

While WI-DHS's and Wheaton's efforts to involve CHWs in DSME programs are still in development, they have found that assessment—through needs assessments or surveys—partner collaboration, and evaluation can help facilitate program efforts.

The following are some barriers and challenges that WI-DHS and Wheaton have experienced in working to integrate CHWs in DSME programs.

- **CHW interaction with health care providers may be limited.** WDHS program staff found that CHWs are often organizationally located within the fundraising arm of a health system or hospital. This structure can lead to limited interaction between CHWs and health care

providers. WI-DHS hopes to address this through training and resources for CHWs and CHW supervisors/employers.

- **CHWs working on multiple projects may have limited time to devote to DSME programs.** Wheaton found that CHWs in the Community Wellness Department have many responsibilities and are stretched across multiple programmatic efforts. The amount of time that they have to devote to the DSME program is limited. Wheaton is seeking to address this challenge by establishing a CHW position in the Diabetes Management Department.
- **Staff turnover can result in challenges in integrating CHWs into DSME programs.** Wheaton's Diabetes Management Department staff experienced a setback when the CHW they were working with in the Community Wellness Department left the organization; however, they hope to have a dedicated CHW position within the Diabetes Management Department in the coming months to minimize the impact of this turnover.

Through their efforts to engage CHWs in DSME programs, WI-DHS and Wheaton shared lessons learned that public health practitioners might take into consideration when implementing similar efforts.

- CHWs are based more in the community than in the medical arena. When developing interventions, practitioners should consider CHW training and education that takes into account social determinants of health. When CHWs work in a health care setting, it is important not to forget about the heart of their work: knowing people and being connected to the community. Health systems need to understand the total package of benefits that CHWs can bring to the table.
- CHWs can make valuable contributions to programmatic work. For example, CHWs were involved in administering the CHW Census Survey and have provided valuable input on the training and resources developed by WI-DHS.
- WI-DHS has found the CHW Census Survey to be a powerful tool in its efforts to engage CHWs in diabetes education programs. WI-DHS plans to administer the survey on an annual basis to continue to monitor CHW efforts across the state.

REFERENCES

1. American Public Health Association. Community health workers. <http://www.apha.org/apha-communities/member-sections/community-health-workers>. Accessed August 24, 2015.
2. Rosenthal EL, Brownstein JN, Rush CH, Hirsch GR, Willaert AM, Scott JR, et al. Community health workers: Part of the solution. *Health Affairs*. 2010;29(7):1338-1342.
3. Brownstein JN, Bone LR, Dennison CR, Hill MN, Kim MT, Levine DM. Community health workers as interventionists in the prevention and control of heart disease and stroke. *Am J Prev Med*. 2005;29(5 suppl 1):28-33.
4. Migrant Health Promotion & Migrant Clinicians Network. A guide to integrating community health workers into health disparities collaboratives. http://www.migrantclinician.org/files/resourcebox/Guide_For_Health_Disparities_Collaboratives-2007.pdf. Accessed October 3, 2014.
5. Guide to Community Preventive Services. Cardiovascular disease prevention and control: Interventions engaging community health workers. www.thecommunityguide.org/cvd/CHW.html. Accessed August 24, 2015.
6. Cummings D, Lutes L, Littlewood K, Hambridge B, Schulman K. EMPOWER: A randomized trial using community health workers to deliver a lifestyle intervention program in African American women with type 2 diabetes: Design, rationale, and baseline characteristics. *Contemp Clin Trials*. 2013;36:147-153.
7. Norris SL, Chowdhury FM, Van Le K, Horsely T, Brownstein JN, Zhang X, et al. Effectiveness of community health workers in the care of persons with diabetes. *Diabetes Medicine*. 23:544-556.
8. Palmas W, March D, Darakjy S, Findley SE, Teresi J, Carrasquillo O, et al. Community health worker interventions to improve glycemic control in people with diabetes: A systematic review and meta-analysis. *J Gen Intern Med*. 2015;30(7):1004-1012. doi:10.1007/s11606-015-3247-0.
9. American Association of Diabetes Educators. Community health workers in diabetes management and prevention. *Diabetes Educ*. 2009;35(3):48S-52S.
10. American Association of Diabetes Educators. Diabetes educator practice levels. http://www.diabeteseducator.org/export/sites/aade/_resources/pdf/general/PracLev2014.pdf. Accessed May 15, 2015.

Appendix

Engaging Community Health Workers in Diabetes Self- Management Education Programs: Technical Assistance Guide (August 2015)

APPENDIX: ENGAGING COMMUNITY HEALTH WORKERS IN DIABETES SELF-MANAGEMENT EDUCATION PROGRAMS

Technical Assistance Guide (August 2015)

This tool provides guidance for states implementing the following intervention under State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (SPHA 1305).

- *Increase the engagement of community health workers (CHWs) in the delivery and support of diabetes self-management education (DSME) programs* (Domain 4, Strategy 3, Intervention 1)

The tool identifies three key drivers that are critical in the implementation of this intervention:

1. Stakeholder awareness of potential CHW roles in DSME programs
2. DSME program readiness to engage CHWs
3. CHW sustainability in DSME programs

The outcomes to be accomplished from this intervention (i.e., the performance measures) are at the far left of the Figure 1. Each of the drivers is followed by a box that identifies the specific activities that state health departments can perform. Note that the first two drivers focus on activities related specifically to targeted DSME programs engaging CHWs, while the third driver focuses on CHW sustainability. This driver pertains to activities in which state health department grantees must engage with state-level partners to ensure the general sustainability of CHWs, which is a key prerequisite for the long-term engagement of this workforce in DSME programs. These drivers together result in the effective implementation of CHW roles in DSME programs.

Note: Before addressing the drivers, identify targeted new or existing DSME programs best suited for CHW engagement.

This diagram is intended to enable a more standardized approach for implementing this intervention among grantees to achieve progress on the required performance measures. The drivers represent the current evidence base as drawn from the literature as well as the experience of state grantees and other organizations and entities. A set of resources and references is also provided.

Figure 1. Increasing Engagement of CHWs in Diabetes Self-Management Education—State Health Department Role

