

States Implementing Community Health Worker Strategies

For the Centers for Disease Control and Prevention's "State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health" Program

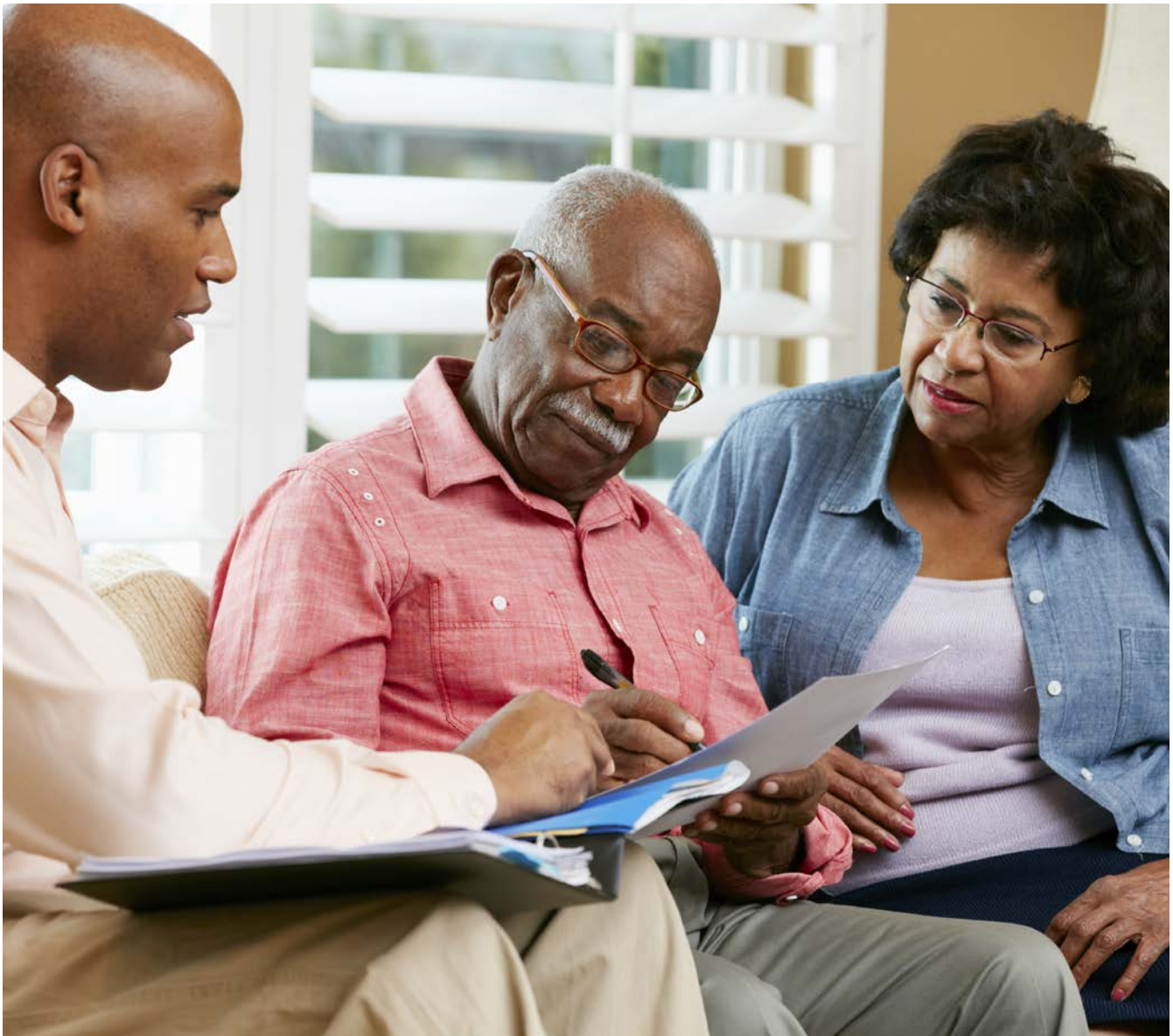




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EXECUTIVE SUMMARY

The transformation of the health care system in the U.S. and the recognition of the effectiveness of community health workers (CHWs) in facilitating the care of persons with chronic disease has accelerated state and local efforts to engage CHWs in the delivery of appropriate support for members of high-need populations. Innovative practices are evolving rapidly; however, there is much to be learned about how to successfully integrate CHWs into health care teams, how to maximize the impact of these workers in the self-management of chronic disease, and how to strengthen their role as key emissaries between clinical services and community resources.

Opportunities for States

The [“State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health”](#) program (CDC-RFA-DP13-1305) includes evidence-based strategies targeting the engagement of CHWs in Domain 3 (Health Systems Interventions) and Domain 4 (Community-Clinical Linkages).

Of the 32 state grantees receiving competitively based enhanced funding, 23 chose to use the following CHW strategies to reduce health disparities in chronic diseases:

- Offering training for CHWs to give them skills needed for coaching patients on chronic disease self-management.
- Giving CHWs access to electronic health record (EHR) systems to facilitate follow-up with patients, communication with providers on the care team, and the referral of patients to community resources.
- Addressing the sustainability of CHWs by exploring financing mechanisms to support them.
- Assisting with development of core competencies, and developing training and certification programs for CHWs.

Grantee efforts to engage CHWs in team-based care are occurring primarily in Federally Qualified Health Centers, and in health care practices using the patient-centered medical home model.

To meet the technical assistance needs of the states to implement this work, the authors of this guide conducted structured interviews with staff from nine organizations. Findings indicate that the top recommendations that emerged from these interviews were

- Develop logistical support (e.g., having protocols that remind physicians to read the CHW’s notes in the EHR about the patient encounter prior to the next patient visit) for the integration of CHWs into health care teams.
- Build institutional support for these workers.
- Expand the scope of practice for CHWs.

- Provide appropriate training and supervision for CHWs.
- Create workforce development programs for these workers.
- Provide reimbursement for CHW services.
- Work effectively with coalitions through state-level partnerships to enhance the integration of CHWs into practice.

There are many opportunities for states to assist in increasing the use of CHWs in health care. Ten general recommendations for providing state-level support include

1. Develop logistical support for integrating CHWs into health care teams.
2. Build institutional support for CHWs.
3. Expand the CHW scope of practice.
4. Allow and promote CHW access to EHR systems to facilitate follow-up with patients, communication with providers on the care team, and patient referrals to community resources.
5. Create workforce development strategies for CHWs, including on-the-job strategies.
6. Carry out initiatives in training and career development, as well as standardized training for CHWs and their supervisors.
7. Address the sustainability of CHWs by exploring financing mechanisms and providing reimbursement for CHW services.
8. Work effectively with coalitions through state-level partnerships.
9. Offer a training program in patient self-management for CHWs.
10. Assist with occupational regulation, including the development of core competencies, and the establishment of standards for training and, where appropriate, certification at the state level.

PURPOSE

The goal of this technical assistance (TA) guide is to support state grantees that have chosen to use CHW strategies as described in Domains 3 and 4 (Health Systems Interventions and Community-Clinical Linkages) of the national CDC program “[State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health](#)” (CDC-RFA-DP13-1305).¹ Members of CDC’s CHW workgroup, located in the agency’s National Center for Chronic Disease Prevention and Health Promotion, developed this guide. The recommendations contained in this document were developed by compiling the results of interviews with nine organizations having a special interest in integrating CHWs into health care teams and, where appropriate, adding findings from the workgroup’s review of the literature-based evidence on CHWs. The guide summarizes the successful work of the nine organizations as it relates to Domains 3 and 4 and offers insight for states that are implementing the CHW strategies.

BACKGROUND ON CHWS

The U.S. is home to more than 100,000 CHWs.² CHWs are called by a variety of other names, including outreach workers, promotores(as) de salud (Spanish for “health promoters”), community health representatives (CHRs), and patient navigators.^{3,4} Regardless of title, CHWs are typically community members who assist in addressing social and health issues that affect the areas in which they live. They provide cultural mediation between communities and the health care system. Because of their ability to relate to patients, CHWs often can gain a high level of trust from patients and help improve health outcomes for vulnerable populations. They are particularly effective because of their ability to connect with the community and their experience-based expertise.⁵

Definition of a CHW

The CHW Section of the American Public Health Association defines a CHW as a “frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community being 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. In addition, a CHW builds individual and community capacity to improve health outcomes by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, the provision of social support and advocacy.”³

Role of a CHW

A national study conducted in 1998 identified seven core roles for CHWs⁴—roles that remain the gold standard for defining the field:

1. Culturally mediating between communities and the health care system.
2. Providing culturally appropriate and accessible health education and information, often by using popular education methods.
3. Ensuring that people get the services they need.
4. Providing informal counseling and social support.
5. Advocating for individuals and communities.
6. Providing direct services (such as basic first aid) and administering health screening tests.
7. Building individual and community capacity.

Additionally, CHWs can provide support to health care teams in the prevention and control of chronic disease by assuming a variety of roles that support both patients and providers: helping with the determination of eligibility for services and with enrollment, providing educational interventions, following up with patients to help with adherence to medications and treatment regimens and appointment keeping, coaching to assist in the management of chronic diseases (including goal setting and behavioral changes), helping patients navigate health care systems and planning for discharge from the hospital (patient navigation), and improving the engagement of patients with providers.^{6,7,8}

METHODS

To support CDC-RFA-DP13-1305 grantees that are using CHW strategies, members of the CHW work-group gathered information through the use of structured interviews, which included questions based on expected technical assistance needs for states choosing Domain 3 and 4 interventions. Clinics, state health departments, and various other organizations were asked about their effective strategies to integrate CHWs into health care teams. Evidence-based literature also informs this guide.

HEALTH CARE SYSTEMS

The goal of this section is to assist states in understanding the steps and mechanisms necessary to implement Strategy 2 in Domain 3. The section highlights key elements of successful health system interventions focused on integrating CHWs into team-based care.

Domain 3:

Health Systems Interventions

Strategy 2:

Increase use of team-based care in health systems.

Intervention:

Increase engagement of non-physician team members (i.e., nurses, pharmacists, and patient navigators) in hypertension and diabetes management in health care systems.

Having a program champion is a key element to successful CHW implementation. In 2005, the medical director began focusing on CHWs, and it was with his leadership and buy-in from other upper-level management that CHWs were successfully integrated into the Bronx Lebanon Hospital.

—CHW Network of NYC

1. Integration of CHWs into Organizations and Care Teams

Interviewees described the various facets and steps associated with integration of CHWs into team-based care. Organizations noted that integrating CHWs is not without challenges; however, they provided important features that led to successful implementation. Proper implementation is especially important because it can set the stage for continued success throughout the life of an intervention or program. This section includes strategies that organizations use to implement CHW programs as well as suggestions for ways states can support the integration of CHWs into health systems.

1a. Setting the Stage for Successful Integration of CHWs into Health Care Teams

While the amount of time it took organizations to implement CHW programs and integrate these workers into a health care team varied considerably, interviewees noted the importance of laying a strong foundation for the use of CHWs in the health care team. Strategies included

- Educating health care staff, administrators, and payers to improve their understanding and acceptance of CHWs and the unique contributions they make.
- Establishing a home for CHWs within the health care system and clinics (e.g., in the department of health promotions or of family medicine).
- Creating the CHW position within human resources and other appropriate departments.
- Clearly defining a scope of work for CHWs (i.e., their roles and what they are allowed to do) and sharing this with leadership.
- Defining where and when CHWs will work (e.g., in the clinic during its regular hours versus outside the clinic hours).
- Engaging program champions to assist in building and maintaining support for CHWs.
- Involving leadership within departments and across organizations to build centralized support for CHWs.

It is important to have driven individuals as part of the team.

—Mary's Center

1b. Building and Continuing Institutional Support from Non-CHW Groups

In addition to setting the stage and logistics for appropriate integration of CHWs, it is important to build institutional support (i.e., within the health care practice or organization) for CHWs through the entire program's lifetime. Appropriate support and integration are important to help increase quality of service and ensure that CHWs and providers are giving patients consistent information and health education. This process includes the following actions:

Education

- Incorporating education for non-CHWs on the roles of CHWs and their qualifications.
- Educating others on the value added by CHWs through their support of patients and helping physicians deal with patient-related challenges.
- Emphasizing that CHWs assist in reducing the burden of clinicians and provide support for personal and system issues (e.g., domestic violence, food insecurity, housing) that do not require clinical training but help patients solve basic needs so that they can deal with their health needs.
- Informing others that by providing time and support, CHWs enable community members to understand their health risks and learn how to prevent and control chronic diseases and other health conditions
- Reassuring other members of the care team that CHWs are not less expensive social workers, health educators, or physician extenders.⁹ They play a unique and complementary role as mediators between community members and health and social service professionals.
- Inviting non-CHWs to participate in CHW trainings, in-services, and team meetings.

Inclusion

- Involving everyone, including CHWs, in the conversation on CHW integration from the beginning and in continuing discussions and education. This approach also helps with workflow issues (e.g., streamlining processes, integrating CHWs into the care team).
- Focusing on CHWs as team members with unique skills. These workers support but do not replace any other team members.
- Including CHWs as partners in team meetings and on committees (e.g., the health promotions committee).

Promotion

- Advertising the accomplishments of CHWs. In order to appropriately promote CHW accomplishments, the states should start evaluation planning and data collection at the beginning of the intervention to learn about potential process issues and select the outcomes to be documented (e.g., value added, cost savings to programs, patient behavioral and clinical improvements).

“CHWs have been a vital part of the Community Health Team; they are valued by all. In the beginning, there was a fear from agencies that we would lose funding, but now they know we do not duplicate services; instead, we partner!”

—Northeastern Vermont Regional Hospital

“The most important thing was forming relationships and trust, proving our success, following through, and reporting back to the referrer.”

—Northeastern Vermont Regional Hospital

1c. Access to EHRs

Several interviewees stressed the importance of providing CHWs with access to EHRs. This was accomplished in a variety of ways:

- EHR access was granted only to the CHW's supervisor.
- CHWs were granted access to EHR auto-generated templates that were arranged using the "SOAP" note style (i.e., subjective, objective, assessment, and plan).
- The medical director assisted in developing a form that permits CHWs to free-text (write in their own form within the EHR) to physicians.
- Structured questionnaires and templates were developed for CHWs to use for different conditions (e.g., asthma, HIV, diabetes).

1d. Opportunities for State-Level Support

While various interviewees noted that CHW strategies are implemented at the community level, they also stressed the importance of gaining statewide support and guidance to improve the understanding of CHWs' roles, their importance in improving patient experiences and outcomes, and their value in reducing costs.

Appropriate organizational integration allows CHWs to practice to their fullest capacity—across the full spectrum of their various roles—and to assume a wide range of responsibilities (e.g., cultural mediators between individuals and health care providers, informal counselors and educators, facilitators for health care access, advocates, navigators of the health care system).⁵

Improving the integration of CHWs into the existing system increases sustainability, allows for better care, and increases cost savings. Below are suggestions for how states can engage with health care organizations and assist in supporting CHW integration into care teams:

- Provide technical assistance toolkits (which should include a list of resources) for clinics implementing CHW programs (e.g., guidance on how to supervise CHWs or guidance on training CHWs to use the EHR).
- Provide access to databases that contain statewide information about CHWs who are practicing in that state, trainings for these workers, and other resources.
- Educate community-level organizations about the federal provisions (e.g., for Medicaid, provide contacts for state Medicaid staff and Centers for Medicare & Medicaid Services [CMS] regional staff) that support CHWs, focusing specifically on reimbursement opportunities, including the 2014 CMS rule change.
- Educate stakeholders at the state and local levels about the observational data from practice and the evidence-based interventions that have demonstrated the effectiveness of CHWs, the beneficial outcomes for the public's health of integrating CHWs into health care systems, and the necessary components of comprehensive policies that support such integration.

CHWs help fill the gap between patients and providers. They provide both cultural competency and care. Oftentimes, barriers to patient engagement have nothing to do with the health care system. Having CHWs as part of the health care team means they can support health care providers and help patients become more engaged in their health and health care.

—National Kidney Foundation of Michigan (partner with Michigan Department of Community Health)

- Educate groups of health care providers (either privately or publicly funded) on the roles that CHWs can play: how CHWs fit into the medical home model; how CHWs can contribute to the Triple Aim, a framework that has been adopted by the CMS that strives to improve the patient's experience of care (including its quality and the patient's satisfaction), improve the health of populations, and reduce the per capita cost of health care; and how to engage community-based organizations that employ CHWs.¹⁰
- Develop templates for creating memoranda of understanding on the engagement of CHWs that can be distributed for use by health care organizations, academic institutions, and community-based organizations.

2. Improving Occupational Regulations and Workforce Development

Although CHWs are an important part of the health care system, they are often not recognized at the same level as other team members and are frequently marginalized, because their unique roles, skill sets, and rich knowledge of the community are not understood.^{11,12} A national survey of CHW training and certification programs found, however, that training and certification improve CHWs' income and retention levels while also facilitating Medicaid reimbursement for their services.¹³

Workforce development involves core skills and competency-based training. Occupational regulation involves competency-based standards that are compatible with a set of core competency skills recognized state wide, standards for certification, and scope of work for CHWs.⁴

This section will outline interviewees' ideas about how to advance the workforce and improve occupational regulation for CHWs and provide opportunities for state assistance.

2a. Qualities of CHWs

Although specific job qualifications change depending on the program, the most important qualities of CHWs are their understanding of the community and their commitment to helping people in that community. CHWs are neither clinicians nor office staff; they have their own job category and unique occupational identity and should be supervised and evaluated accordingly.

When hiring new CHWs, it is important for employers to focus on interpersonal qualities, abilities, and skills as opposed to specific subject matter skills and competencies (e.g., knowing the dangers of high blood pressure and being able to take blood pressure measurements—two areas that can be taught). Interviewees emphasized that an individual's background is an asset, not a liability. For example, CHWs who are qualified but do not speak English may be a valuable part of the team if the clinical entity is working with a non-English-speaking patient population.

The CHW Network of New York City and Mary's Center emphasized that CHWs are community builders, connecting people to friends, neighborhoods, and society at large and helping to reduce social isolation. States should keep this perspective in mind as they address the development of CHW guidelines.

Case Study: Mary's Center

The Mary's Center health promotion department provides health education and health promotion services on nutrition and healthy lifestyles and on sexual health. It also provides information on the prevention, management, and navigation of cancer, cardiovascular disease, diabetes, tobacco cessation, asthma, HIV, and sexually transmitted diseases within the clinical setting, both before and after patient visits with the clinician. This department develops programs that help patients understand and manage their clinical diagnosis, and it offers prevention activities based on the social ecological model, which allows engagement at the individual, group, organizational, community, and societal levels. The Mary's Center team uses "popular education" tools and techniques, motivational interviewing, and illustrations to provide information on the primary, secondary, and tertiary prevention of health or disease conditions to allow participants to make informed decisions about their health.

2b. Training

The majority of interviewees considered training to be an important aspect of their work with CHWs. Trainings can be conducted on the job or through a community-based organization, an Area Health Education Center (AHEC), or an academic institution.¹⁴ Interviewees noted the importance of providing culturally appropriate and accessible trainings (e.g., training in Spanish if the workforce was predominantly Hispanic).

Trainings ensure that CHWs and clinical staff are providing consistent information and messages, which is essential. The trainings may cover basic aspects of professionalism (e.g., how to interact with physicians and other staff and patients), but it is important that CHWs not be judged by the same standards as clinical or administrative personnel, as CHWs should be seen as part of the community. Interviewees cited the following features of successful training:

- Ensuring that CHW strengths, including their ability to connect with communities through their commonalities of shared life experience, are reinforced.
- Using CHW training modules that emphasize health promotion and teach CHWs how to help patients prevent or prioritize and manage their chronic diseases (e.g., diabetes, heart failure) and conditions (e.g., high blood pressure, cholesterol values that are not normal).
- Beginning with basic training for CHWs and continuing with specific training in areas related to chronic disease (e.g., nutrition to prevent disease, dealing with mental health problems) as demand arises.
- Providing in-house training and/or developing partnerships with outside organizations that are experts in training.

- Holding regular continuing training sessions, offering in-program services (for answering questions and dealing with situational issues, program content, and stress), and presenting case studies.
- Incorporating mini-training sessions into regular team meetings.
- Holding trainings in an appropriate language (e.g., Spanish).

Critical pieces of occupational training include appropriate content, the use of workable delivery mechanisms, and ongoing support. Opportunities for state-level support to improve training include those set forth below.

Training Content

- Develop a CHW training curriculum that includes skills, core competencies, roles of CHWs, community outreach, the skills required for individual and community capacity building for improve behavioral and health outcomes and advocacy, and a listing of current CHW organizations and other related resources.
- Develop a set of core skills, competencies, and scope of practice for CHWs that are recognized statewide. This should be done in collaboration with a larger stakeholder, such as a statewide coalition that includes CHW organizations, the local health department, universities, CHW trainers and employers, insurers, public agencies, nonprofits, and other interested groups.
- Develop an appropriate CHW curriculum or adapt an existing one that includes legal and ethical responsibilities, coordination with health care providers, documentation of work performed, rules governing third-party payers, communication, cultural competency, and requisite knowledge and skills.
- Develop or adapt a statewide training curriculum for supervisors of CHWs and make resources available to ensure its implementation.

Delivery Mechanisms

- Training can take place before and/or after the CHW is hired and either on or off site.
- A variety of instructional models can be used for CHW trainings and education, but they should all be appropriate to the state in which the CHWs will be working.
- A range of CHW training programs can be offered, such as college courses for academic credit, programs run by training institution, and apprenticeship programs.
- Partnerships can be formed with organizations such as the state AHEC program to engage in discussions about training curricula and implementation of a CHW program.
- The state should identify settings and resources for CHW trainings and education, such as health care sites, employers, community colleges, community-based organizations, employer-based consortia, and AHECs.
- There should be communication with regulatory offices to develop specific recommendations and guidelines for training.
- Adult-learning methodologies should be employed in all training efforts.

Ongoing Support

- The state may wish to encourage and incentivize supplemental job trainings even for experienced CHWs.
- State agencies should encourage the creation of a career development model for the CHW workforce that includes career ladders and pathways as well as entry points into the workforce.
- The state should assist in the creation of a CHW network for ongoing training, education, and peer support.
- The state may wish to support continuous education and specialized training for CHWs through in-program services, case reviews, and team meetings.

Case Study: La Clínica del Pueblo

La Clínica, located in Washington, DC, conducts on-site training for CHWs and uses other institutions for support in training on specific topics (e.g., diabetes, hypertension). Because many of its clients and CHWs are recent immigrants, La Clínica conducts training in Spanish. Training includes basic information about health disparities and social and mental health as well as basic health education information (e.g., on nutrition and exercise). La Clínica also facilitates monthly training for all CHWs.

2c. Credentialing and Certification

Credentialing is the process by which a qualified entity (e.g., a community college, a professional association, a state health department) grants formal recognition to CHWs based on predetermined standards. These standards must be met in order for CHWs to be officially certified by the state and receive the formal title of “certified CHW.” States that use this certification protocol typically base their qualifications on the successful completion of an approved training program or a combination of work experience and training.

Processes for credentialing vary by state, but an important aspect of a certification system is that it provides multiple pathways to becoming certified, including the pathway of experience or a “grand-fathering” of people into the workforce. Ideally, education for certification is available in a familiar, accessible setting and taught by using appropriate methods.

Proponents of credentialing CHWs note that it allows better recognition of these workers among physicians, administrators, and Medicaid; provides transferrable skills; increases expectations for wages; and can improve quality of care.

Case Study: Baylor Health Care System

The Baylor Health Care System employs CHWs trained under the Texas CHW certification process. Texas holds a 160-hour certification program through its state health department, which provides prospective CHWs with skills related to patient navigation, community resources, and communication. This training can be augmented with education on diabetes or other chronic diseases (50 hours). Additionally, certification requires continuing education of at least 20 hours every two years, which helps with staff development, professionalization of the CHW, and receipt of buy-in from physicians. Furthermore, additional training increases the opportunity for CHWs to network and share experiences.

Opportunities for states to assist with the certification process include

- Developing a set of certification guidelines.
- Including CHWs in the development of guidelines.
- Pilot-testing the certification guidelines.
- Enlisting the participation of CHWs in the implementation of certification programs.
- Engaging stakeholders in addressing barriers to implementing a certification program.
- Developing a scope of practice for CHWs that identifies specific competencies and skills.
- Sponsoring or housing the state certification and continuing education process.

2d. Workforce Development

Several of the interviewees indicated that workforce development is an important component of successful CHW programs. Providing workforce development within a community-based organization allows for the sustainability of CHWs and legitimizes their role. Common elements of workforce development for CHWs include

- Building a career ladder with various positions, titles, and pay increases (e.g., CHW, senior CHW, CHW supervisor, administrator or CHW I, CHW II, CHW supervisor).
- Creating clear job descriptions for each job level.
- Providing opportunities for advanced training.
- Creating additional supervisory responsibilities for CHWs.
- Allowing CHWs to become trainers and consultants.
- Providing training and opportunities for specialist CHW positions (e.g., a breastfeeding counselor).

For adults who were previously unemployed but are passionate about their community, a job as a CHW provides a special opportunity. In addition, creating new job opportunities for community members helps build community capacity for improving health.

Opportunities for states to assist with workforce development include

- Developing educational materials for health care providers and other potential employers on the benefits of engaging CHWs and the mechanisms for hiring and training them.
- Developing a framework in which to consider task outcomes, performance variables, and supervisory issues for each CHW role.

2e. General Opportunities for State-Level Support to Improve Occupational Regulation and Workforce Development

Regardless of whether states choose to require the completion of specific training for CHWs or mandate the credentialing of these workers, some general features for improving occupational regulation and enhancing workforce development can be implemented at the state level:

- Developing a set of CHW attributes (e.g., prerequisite skills, a record of having completed certain trainings, connectedness to the community) that can inform the development of a model scope of CHW practice.
- Creating a set of general core competencies for CHWs that have broad application. Core competencies for CHWs help define the profession and scope of practice.^{5,15} Competencies can be created at the state level and used to help gain support from providers and administrators, focusing efforts toward team-based care and improving health at the population level.
- Defining the scope of practice necessary for CHWs to practice in health care and community-based settings and then developing needed competencies.
- Connecting CHWs to training programs and possible certification programs.
- Introducing billing codes and state and labor categories similar to those of the U.S. Department of Labor for CHWs.

3. Identifying Viable Financing Mechanisms

One of the major barriers to the sustainability of the CHW role is the lack of financial support for these workers. Interviewees noted that program costs for CHWs primarily include salaries, which ranged from \$30,000 to \$40,000 per year, plus benefits. The salary was typically associated with experience or education level. The number of CHWs at an institution also varied, depending on size and need and ranging from 7 to 35.

The majority of CHW programs were financed through “soft” money and lacked a constant funding stream. Longer-term funding streams are important, because they allow for long-term approaches that center on the patient. Additionally, the American Public Health Association supports longer-term

funding streams, noting that they encourage CHWs to stay in the field, reduce CHW turnover, and increase job security and employer commitment.¹⁶

This section will describe the strategies used by interviewees for financing CHWs and provide examples of ways that states can support the financing of these workers.

3a. Demonstrate the Effectiveness of CHWs

Pilot programs and demonstration projects are useful for providing evidence about the effectiveness of CHWs and the cost savings associated with employing these workers. Many interviewees cited the importance of collecting data early on to build an evidence base for the effectiveness of CHWs. Common elements of these strategies include

- Identifying appropriate evaluation methods to demonstrate effectiveness of the CHW role in helping community members in managing their chronic conditions and using appropriate health services. This can be done through pilot studies of payment strategies, studies on return on investment, cost savings, health outcomes, and assessment of the effective use of services.
- An organizational and managerial commitment to regular monitoring of the costs and outcomes of CHW programs.
- Using results to support an appropriate expansion of CHW programs.

Case Study: CHW Network of NYC

CHW Network of NYC offered the story of the integration of CHWs into the patient-centered medical home team in the Bronx-Lebanon Hospital department of family medicine, a program that was launched in 2007. Although the program was unpopular at first, the department chair was persistent and enthusiastic and used regular communication to help gain support. The program actively collected data early in the implementation process, with information obtained on changes in use of the emergency department, hospitalization, and outcomes for hypertension. CHWs were given responsibility for care management, which included connecting clients to services with community partners; facilitating appointments through phone outreach, follow-up, and escort as needed; and making home visits. A quasi-randomized control trial showed a drop of a full point in the glycosylated hemoglobin (HbA1c) value in a group of patients with diabetes after the first six months of program implementation. Collecting these data allowed the CHW Network of NYC to demonstrate cost savings and was effective in increasing buy-in from managed care partners and hospital leadership.

Case Study: Michigan Department of Community Health

The Michigan Department of Community Health along with the Michigan Public Health Institute, created a Michigan Pathways to Better Health (MPBH) program that will operate from July 2012 to June 2015. This CMS grant-funded project is conducted in three counties and is expected to employ 75 CHWs, affect more than 13,000 people, and save more than \$17 million. The MPBH program is an example of a successful regional demonstration project to assist in increasing the engagement of CHWs as a result of demonstrated cost savings and improved quality care.

3b. Identify Sustainable Financing Strategies

Incorporating CHWs into interventions for health care access and delivery requires identification of payment strategies that have the most potential for future expansion. In doing this, the entities should consider current and future priorities of state and national public and private payers and the ongoing or future redesign of state-based payment. To achieve the best outcomes for the populations whom they wish to target, organizations must advocate for the most promising payment strategies. Common approaches used to date are

- Identification of a wider application of specific payment strategies based on the evidence of pilot programs and monitoring and evaluation.
- Identification of the target organization that could implement these payment strategies including health insurance payers, and CHW employers.
- Use of education and information on adjustments and modifications to payment strategies to enable payment for CHW services to meet the health care needs of disadvantaged or otherwise vulnerable populations.

A variety of funding mechanisms are available to support the engagement of CHWs in public health activities. The list includes government agencies, charitable foundations, general funds from governments, hospitals, managed care organizations, employers, and public insurance programs (e.g., Medicaid, the Children's Health Insurance Program [CHIP]).¹⁷ Approaches gleaned from interviewees and a review of the literature includes

- At the state level, understand funding for CHWs and then disseminate the relevant information to community-level organizations.
- Use a Medicaid 1115 waiver (see Section 1115 of the Social Security Act) to bill for services.
- Bill under Current Procedural Terminology® code "Patient Self-Management and Education" for up to four hours per month in 30-minute increments.

- Understand that CHWs can already be classified as providers for billing purposes in private or public programs. In 2007, the American Medical Association's National Uniform Claim Committee introduced CHWs as a category in its health care provider taxonomy using the Health Resources and Services Administration definition of CHWs.⁵

Case Study: Baylor Health Care System

Baylor Health Care System is functioning under a Section 1115 demonstration project through Medicaid. Demonstration projects provide flexibility in design and the opportunity to create pilot or demonstration projects that promote the objectives of the Medicaid and CHIP programs.¹⁸ In 2011, Baylor Health Care System received the Section 1115 waiver from the Texas Department of State services; now the system is required to send quality metrics to the state in exchange for CHW funding. Baylor has continued to demonstrate successful outcomes with CHW demonstration projects, providing support for expansion of CHW programs and integration into other locations.

3c. Understand Reimbursement for CHWs

Some interviewees noted confusion about reimbursement strategies for CHWs. Organizations observed:

- Because there is not enough direct funding to support CHW positions outright, it is important to obtain specific reimbursement for their services.
- While opportunities exist for organizations to be reimbursed through group visits that involve CHWs, and although collaboration with health maintenance organizations and major federal programs (Medicaid and CHIP) can be used to reimburse the costs of CHW preventative services, there is a lack of uniformity among these reimbursement strategies. The challenge in securing agreement via state Medicaid offices is a source of considerable confusion to providers and health systems.
- Lack of standardization for billing is detrimental to organizations' ability to fully integrate CHWs. This lack of standardization also means that CHWs cannot use their full range of functions.

Overall, the interviewees needed additional guidance on billing and assistance in understanding the impact of new federal legislation and rules on CHWs.

States may help organizations understand reimbursement for CHWs in several ways:

- By increasing awareness of federal legislation and rules related to CHW reimbursement.
- Through the dissemination of information about legislation and rulings related to CHW reimbursement at the federal level.

- By disseminating information about legislation related to CHW reimbursement at the state level (e.g., Medicaid and Medicare billing).
- By developing specific recommendations for payment strategies and the details of implementing CHW programs and then sending this information to different types of payers who could hire CHWs or reimburse for their services, including Medicaid, commercial insurers, health care providers, and employers.
- By offering information on specific concerns such as administrative costs, payment strategies for certified CHWs, the types of services to be covered, and required documentation for reimbursable services.
- By providing TA on issues such as billing guidelines and required certification and training as they relate to reimbursement of services for CHWs.

CMS Medicaid Ruling¹⁹

Effective January 2014, CMS has created a final rule (CMS-2334-F) titled “Medicaid and Children’s Health Insurance Programs: Essential Health Benefits in Alternative Benefit Plans, Eligible Notices, Fair Hearings and Appeal Process, and Premiums and Cost Sharing, Exchange: Eligibility and Enrollment,” which opens up payment opportunities for preventive services by unlicensed individuals. This rule changes earlier language to state, “Services must be recommended by physicians or other licensed practitioners of the healing arts within the scope of their practice under state law.” The new ruling helps improve people’s access to preventive services, facilitates partnerships between health care providers and advocates for CHWs, increases access to CHWs, broadens the scope of providers as an approach to reducing program expenditures, and carries the potential for CHWs to be reimbursed under Medicaid.

This new provision requires state Medicaid plans to provide comprehensive written statements describing the nature and scope of the state’s Medicaid program that contain all the information necessary for CMS to determine whether the plans can be approved to serve as the basis for federal financial participation. States are required to include a summary of the qualifications of practitioners for those that are not physicians or other licensed practitioners. The summary should include required training, education, experience, and credentialing or registration. Credentialing of CHWs is not required by CMS.

4. Building Infrastructure

Interviewees noted that building state-level structures and support systems eases the integration of CHWs, helps build support for this frontline workforce, and increases the sustainability of these workers in programs that deliver health services. This section will provide guidance for building infrastructure and statewide support for CHWs.

4a. Regional and State-Level CHW Associations

Interviewees noted the importance of state-level associations, coalitions, and networks in creating a successful, sustainable CHW workforce. High-level associations play an important role in advocating for policy and system changes that affect the CHW workforce and are critical to sustaining the services that CHWs provide. In many cases, the work to establish a CHW association is both initiated and implemented by a statewide coalition of diverse stakeholders, including CHWs; state, local, and county health departments; community clinics; Federally Qualified Health Centers (FQHCs); payers; the employers of CHWs; and health care systems.

Potential state-level activities to facilitate the formation and maintenance of state-level CHW associations are

- Establishment of an advisory council or leadership advisory group through a funded or unfunded legislative mandate or through the collective action of a public-private partnership.
- Acceptance of a CHW association as a credible voice for a statewide CHW workforce.
- Creation of an office of community health workers within a state health department to support the work of CHWs and engage them as partners.¹²
- Adoption of the umbrella term “community health worker” in all state public health department communications and publications.

4b. State-Level Partnerships and Coalitions

Developing partnerships among CHW associations, public health agencies, and private organizations should help to achieve outcomes, leverage resources, and facilitate the sharing of ideas. Stakeholders that can be included in such partnerships include health care providers, foundations, academic institutions, researchers, public health departments, community-based organizations, and private corporations. Potential activities to assist in state-level partnerships include

- Creating and sustaining a statewide coalition, network, or alliance to provide TA, conduct demonstration projects, and carry out research about CHWs.

- Partnering with nonprofit agencies (e.g., AHECs, CHW associations, community-based organizations that employ CHWs, and academic institutions [e.g., state and community colleges]) to develop certification standards and provide training. These partners can also work together to develop strategies for training CHWs and their supervisors, and they can work on a plan for related research and evaluation.
- Linking CHW leadership with opinion leaders and stakeholders at the national, state, and community levels.
- Identifying the roles and strategies of potential partners.
- Engaging in collaborative efforts among federal, state, and local public health and government agencies as well as with private funders as a way of sharing resources.
- Identifying leaders who will serve as champions for partnerships.

Case Study: Michigan Department of Community Health

The Michigan Department of Community Health (MDCH) has partnered with the National Kidney Foundation of Michigan (NKFM) for more than 20 years to deliver high-quality interventions. This partnership has allowed the two organizations to gain a wider reach for their programs, integrate their training models, and achieve a greater impact. Specifically, MDCH and NKFM collaborate for the training of leaders, for staff training, and to assist each other in learning from the best practices for evidence-based programs. These programs all use CHWs and draw on the self-management education programs offered by Stanford Self-Management Education Programs, Enhance Fitness, and the National Diabetes Prevention Program. More than 50% of the self-management programs offered by the MDCH and the NKFM use CHWs. These group programs not only assist in the self-management of diabetes and hypertension but also help to combat social isolation and depression, both often associated with chronic conditions. The NKFM can submit program data to MDCH and shares communication resources with that agency. An interviewee from the NKFM stated, “It is amazing what you can accomplish when you work together and don’t worry about who is going to get the credit.”

COMMUNITY-CLINICAL LINKAGES

The goal of this section is to provide insight for states supporting CHWs in the provision of self-management programs and ongoing support for adults with high blood pressure or diabetes. Here we present examples of ways that the interviewees have engaged CHWs to create community-clinical service linkages. The work of interviewees also provides examples and ideas for state-level engagement to enhance the role of CHWs in fostering such linkages.

Domain 4:

Community-Clinical Linkages

Strategy 3:

Increase use of health-care extenders in community in support of self-management of high blood pressure and diabetes.

Intervention 1:

Increase engagement of CHWs in the provision of self-management program and ongoing support for adults with high blood pressure and adults with diabetes.

Intervention 2:

Increase engagement of CHWs to promote linkages between health systems and community resources for adults with high blood pressure and adults with diabetes.

1. Self-Management Programs and Ongoing Support for Adults with Hypertension and Diabetes

CHWs are well suited to assist in the provision of self-management programs and in offering ongoing support for adults with hypertension^{20,21} or diabetes.^{22,23} It has been widely recommended that CHWs assist in providing services for chronic disease care.²⁴ This section is based on the responses of interviewees and the relevant literature.

Growing evidence exists for the inclusion of CHWs into care teams^{6,25} as well as CHWs' ability to assist with chronic disease management in high-needs populations.⁴

1a. Self-Management Program Administration and Post-Program Support

CHWs can play multiple roles in program administration. Interviewees noted that CHWs can act as leaders of self-management programs or serve in a supporting role. Regardless of how CHWs are involved, evidence indicates that CHWs are an essential element of self-management programs.^{26,27} Although there are various ways to involve CHWs in providing ongoing support for patients with chronic conditions, CHWs are particularly useful in providing post-program and ongoing support for patients with hypertension or diabetes. There are two program styles—CHW-led and CHW-supported programs—as well as various ways to involve CHWs in the provision and ongoing support of patients with chronic conditions.

CHW-Led Self-Management Program

Having CHWs lead self-management programs makes sense because of the limited availability of certified health educators.^{28,29} A study published in 2008 found that CHWs can serve as primary patient educators in the absence of more highly educated personnel and are effective in delivering already existing self-management programs.^{30,31} More recently, a randomized controlled trial of a culturally tailored diabetes education and management program led by CHWs found a significant beneficial effect on the intervention group compared with controls.³²

In terms of what was learned from the interviewees for this TA guide, CHW-led self-management programs tended to be more culturally appropriate and locally tailored, integrating the CHW's knowledge about community-specific needs.

CHW-led self-management programs include one-on-one diabetes and hypertension management as well as group programs, both of which support patients in becoming self-sufficient. Most interviewees engaged CHWs in providing self-management programs. Those organizations that implemented CHW-led self-management programs provided supplemental training to assist CHWs with learning appropriate skills and information. One recommended learning source is the American Diabetes Association standards for CHW training, an online 16-hour course.³³

One-on-one self-management programs are focused, personal programs tailored to the individual patient. Baylor Health Care System, for example, described a program that supports meetings between a CHW and the patient and family at monthly and quarterly intervals. During this time, CHWs in the Baylor system also promote self-management classes and events.

The Canyon Ranch Center for Prevention and Health Promotion in Tucson, Arizona, an affiliate of the Arizona Prevention Research Center, noted that CHWs at that center are constantly providing self-management programs through one-on-one training and education in the clinical setting.

The Michigan Pathways to Better Health uses CHWs to assist Medicare and Medicaid beneficiaries with their health and social needs (e.g., primary care, housing, food, transportation). By addressing the social determinants of health, the project's directors hope to increase access to health and social services, improve outcomes for chronic disease, and reduce visits to the emergency department. The project is ongoing in three communities, each having an agency that receives referrals, assigns clients, and collects data (the Pathways Community HUB) and a lead agency to coordinate resources at the local

level. In working one on one with clients, CHWs use a specific curriculum and modules to present educational information and to document referrals. In 2013, a self-management education pathway was created; it includes education on tobacco cessation, control of high blood pressure, and diabetes.

Michigan's Personal Action Toward Health (PATH, the Stanford chronic disease self-management program in Michigan) is a group-based, CHW-led self-management program that relies on master trainers to train CHWs to lead programs in self-management. This program includes local, specific information for CHWs as well as information from high-level national organizations. CHWs continue to be supported by the organization through the provision of materials, logistical support, TA, and mentoring. CHWs who lead such programs take a refresher course twice a year to keep them engaged and up to speed on the important aspects of the program. Additionally, meeting for the refresher courses promotes exchange of best practices, enhances camaraderie, and provides empowerment for the CHW's work. CHW-led programs tend to be better attended and more effective among vulnerable populations, as CHWs are better at generating interest and providing leadership for the program.

Most organizations that provide PATH programs belong to the statewide network, Michigan Partners on the Path. In addition to a statewide network, there are useful tools available, including tools for marketing and a centralized statewide database. PATH has increasingly reached out to programs that use CHWs; for example, it piloted a training of PATH leaders at one of the MPBH CHW sites. Having MPBH CHWs lead PATH sessions helps support the program in improving chronic disease outcomes.

CHW-Supported Self-Management Program

Interviewees also described CHWs as a supporting role for self-management programs. CHWs can work in conjunction with certified diabetes educators or support classes.

The Prevention Research Center in Arizona helped community organizations develop a diabetes self-management program in which a bicultural nurse practitioner and a certified health educator lead self-management classes. In this model, the nurse practitioner oversees the class and manages medications while the CHW provides support to the other team members and ongoing support to participants in helping them integrate difficult self-management practices into their daily lives. In addition to assisting with ongoing education, the CHWs help participants access both health and social services.

Other sites have involved CHWs as peer mentors to provide social support throughout self-management programs. To further this goal, one site required CHWs to go through the program themselves before supporting self-management programs. The sites noted that having the support of CHWs during self-management programs allowed for continuity in care and increased patients' perceptions about the importance of their disease. Social support can take the form of listening to the concerns of patients and their family members and helping them solve problems.⁴

Post-Program Support

CHWs may continue to support patients after their completion of self-management programs. If CHWs are already involved in self-management programs as either leaders or assistants, it is easy to continue to promote the self-management of diabetes or hypertension. Post-program support also includes

facilitation of networking with other program participants, which interviewees noted as important in combating social isolation and depression while assisting in the formation of a sense of community. Finally, post-program support allows CHWs to connect patients to other self-management and health education programs.

Notably, individuals who have completed self-management programs may wish to become CHWs themselves. In Michigan, for example, the NKFM often trains individuals who have completed self-management programs and wish to deepen their understanding of disease while helping others in their community.

1b. Opportunities for State-Level Support

Interviewees cited state-level support as an important factor in their ability to carry out CHW-supported self-management programs. There are several opportunities for state-level support:

- Providing access to a database of approved self-management programs.
- Providing funding for CHWs to attend approved self-management programs.
- Creating materials for organizations to properly train CHWs in the provision or support of self-management programs.

Additionally, for community-level organizations to carry out effective self-management programs, it is important for them to be aware of (and be able to access) approved trainings for self-management in diabetes or hypertension. Additional links to approved self-management training programs can be found in the Resource section of this guide.

Case Study: Baylor Health Care System

Baylor Health Care System had six CHWs complete the American Diabetes Association Level 1 Certification Course and Exam. CHWs then led one-on-one self-management training for low-income, low-literacy adults with multiple barriers to care. Conducting this type of training was effective because CHWs were able to make referrals to social work and community resources on a patient-specific basis.

2. Engagement in Community-Clinical Linkages

Because CHWs are closely connected to the community in which they serve and are effective relationship builders, they can be particularly effective in promoting community-clinical linkages. Correspondingly, interviewees noted the importance of (a) ensuring that CHWs can continue to be an active part of their communities and (b) promoting CHW engagement in the community in support of community-clinical service linkages for patients.

“Many patients are alone and trying to deal with a complex health system. Having someone to point them in the direction of resources can really improve the quality of life for individuals who don’t have that information.”

—National Kidney Foundation of Michigan

CHWs have promoted community-clinical linkages in a variety of ways:

- Forging linkages and facilitating referrals to self-management programs, food banks, churches, and social workers.
- Following up on referrals to ensure that appointments are kept and patients are receiving provider-recommended appropriate care.
- Sharing linguistically appropriate health education materials for adults with low health literacy.
- Conducting motivational interviewing to discover patient needs.
- Providing appropriate referrals (e.g., to a church-sponsored gym for \$5 per year).
- Facilitating relationships with social workers with the goal that they will visit clinical sites and assist patients in applying to federal assistance programs.
- Connecting patients to each other to provide ongoing personal support.
- Serving on local boards and maintaining a healthy and active relationship within the community.
- Providing patients with a directory of resources and actively updating and maintaining the directory.
- Providing resources in an appropriate language and at the right literacy level (e.g., plain language).

2a. Opportunities for State-Level Support

Interviewees noted difficulty in developing and maintaining community linkages and thus having problems with connecting patients to resources. State-level strategies for increasing the engagement of CHWs in promoting linkages between the health care system and community resources include

- Using toolkits to help organizations understand how to create partnerships and develop community-clinical linkages.
- Creating and maintaining a robust resource list for CHWs to use in their outreach work (e.g., with multiservice organizations and faith-based organizations) that helps communities engage in resolving their own health problems.
- Creating and supporting a statewide CHW network to share resources and increase engagement.
- Improving access to mental health services, as this is an issue that often needs addressing, especially as CHWs have limited ability to obtain referrals for mental health services or learn about resources in that field.
- Working within an interdisciplinary care team to tailor resources to individual patients’ self-management and education needs.
- Promoting preventive behaviors.
- Having CHWs assist in providing community resources such as lists of resources for outreach (e.g., lists of mental and dental clinics).

- Encouraging CHWs to be patient navigators in the community so they can help encourage family support for the patient and assist with resource support as needed (e.g., referrals to dietitians and to programs that provide support for depression and stress; assistance with obtaining access to diabetic supplies, community diabetes self-management classes, free or low-cost medicines, and low-cost home blood pressure monitors; sites that offer free and regular blood pressure monitoring; and safe places to be physically active).
- Partnering with nonprofits to develop a set of resources for self-management (e.g., churches, other community-based organizations).

CONCLUSIONS

The goal of this TA guide is to support CDC-RFA-DP13-1305 grantees that have chosen to use CHW strategies as described in Domains 3 and 4. We hope that this guide provides useful material to assist states in implementing their CHW-related interventions.

In general, it is important to incorporate CHWs into planning, implementation, and leadership throughout all processes. CDC grantees are also welcome to contact their Project Officer or Evaluation Consultant for additional information or guidance.

RESOURCES

Contact Information for the Interview Sites

Name	Type of Organization	State	Contact
Northeastern Vermont Regional Hospital	Not-for-Profit	Vermont	Pam Smart, Care Integration Coordinator, p.smart@nvrh.org
Baylor Health Care System	Health System (Community Clinic Service Line)	Texas	Christine Snead, RN, Director, Care Coordination, christine.snead@baylorhealth.edu
La Clínica Del Pueblo	FQHC	District of Columbia	Suyanna Barker, DPH, Department Director, sbarker@lcdp.org
Hidalgo Medical Services Center for Health Innovation	Community Health Center Research and Development Division	New Mexico	Charlie Alfero, Executive Director, calfero@hmsnm.org
Mary's Center	FQHC	District of Columbia	Alis Marachelian, MPH, Health Promotion Director, amarachelian@maryscenter.org
CHW Network of NYC	Training Network/ Professional CHW Organization	New York	Sergio Matos, Executive Director, sergio.e.matos@gmail.com
Arizona Prevention Research Center	Academic Collaborative Research and Training Center	Arizona	Maia Ingram, Deputy Director, Canyon Ranch Center for Prevention and Health Promotion, maia@email.arizona.edu
Wisconsin Institute for Healthy Aging	Not-for-Profit	Wisconsin	Sherri Ohly, Special Projects Coordinator, sherri.ohly@gmail.com
Michigan Department of Community Health	State Government Organization	Michigan	Richard Wimberley, Manager, Diabetes and Other Chronic Diseases, wimberleyr@michigan.gov

List of States Implementing CHW Programs Through FOA 1305

Domain 3, Health Systems Interventions

Increase engagement of non-physician team members (i.e., nurses, pharmacists, and patient navigators) in hypertension and diabetes management in health care systems.

- Arizona
- Colorado
- Florida
- Indiana
- Kentucky
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- New York
- North Carolina
- Oregon
- Tennessee

Domain 4, Community-Clinical Linkages

Increase engagement of CHWs in the provision of self-management programs and ongoing support for adults with diabetes.

- Arizona
- Colorado
- Florida
- Idaho
- Indiana
- Kentucky
- Maryland
- Massachusetts
- Michigan
- Missouri
- Montana
- Nebraska
- Rhode Island
- Utah
- Virginia
- Washington
- Wisconsin

Domain 4, Community-Clinical Linkages

Increase engagement of CHWs to promote linkages between health systems and community resources for adults with high blood pressure.

- Michigan
- Nebraska
- Rhode Island
- Virginia
- Wisconsin

CHW Sourcebooks and Training Materials

- Stanford Chronic Disease Self-Management Program³⁴: <http://patienteducation.stanford.edu/programs/cdsmp.html>
- Diabetes educator programs³⁵: www.diabeteseducator.org/export/sites/aade/resources/pdf/general/Competencies2011.pdf
- CHW Sourcebook: www.cdc.gov/dhdsp/programs/spha/chw_sourcebook/index.htm
- Spanish Sourcebook: www.cdc.gov/dhdsp/programs/nhdsp_program/chw_sourcebook/index_spanish.htm
- Spanish Sourcebook: www.chronicdisease.org/resource/resmgr/cvh/chw_sourcebook-spanish_web.pdf
- CHW Policy Brief: www.cdc.gov/dhdsp/docs/chw_brief.pdf
- E-Learning Course on CHWs: www.cdc.gov/dhdsp/pubs/chw_elearning.htm
- Tools to Control Hypertension: www.cdc.gov/bloodpressure/materials_for_patients.htm
- Diabetes Training and Technical Assistance Center (DTTAC), CDC and Rollins School of Public Health at Emory University online training course for DDTAC's National Diabetes Prevention Program coordinators: www.dttac.org
- DCPC Brief on CHWs and Patient Navigators: www.astho.org/Display/AssetDisplay.aspx?id=7160
- Hypertension Fotonovelas: www.cdc.gov/bloodpressure/materials_for_patients.htm
- Cholesterol Fotonovela: www.cdc.gov/cholesterol/materials_for_patients.htm
- Road to Health Toolkit (bilingual): www.cdc.gov/diabetes/ndep/index.htm
- Diabetes Prevention Fotonovela: Do it for them! But for you too. (¡Hazlo por ellos! Pero por ti también.): <http://ndep.nih.gov/media/DoltForThem.pdf>

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APPENDIX: INTERVIEW GUIDE

Background

We are conducting this interview mainly to gain information to assist states in implementing CHW-related strategies identified in our funding opportunity announcement “State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health” (CDC-RFA-DP13-1305). We chose to interview you because of your success with CHWs. This information will be used in a TA brief to be distributed to our program partners. This interview is completely voluntary and you may decline to answer any of the questions.

General Questions

1. Name of organization:
2. Which of the following best describes your organization? Private-owned practice, FQHC, free clinic, safety-net health care organization, other.
3. Please provide me with a brief summary of what your organization does as it relates to CHWs.

This first series of questions is meant to help us gain an understanding of the general environment which helped to facilitate and/or created barriers in CHW implementation.

Intervention 1:

Increase engagement of non-physician team members (i.e., nurses, pharmacists, and patient navigators) in hypertension and diabetes management in health care systems
(Domain 3, Strategy 2A)

1. What procedures and policies have you put in place that have helped you integrate CHWs into your health system? *(Probe: How long was the process for preparing to integrate CHWs into your organization?)*
2. Did you have a program champion to assist in CHW implementation? If so, please explain.
3. What were some challenges you faced when introducing CHWs into your health care system and how did you address them? *(Probe: Were there any particular policies or procedures in place that hindered CHW integration?)*
4. How do non-physician team members (clerical staff, nurses, social workers, medical assistance, etc.) engage with CHWs? *(Probe: Have you experienced resistance from staff in regards to CHWs? How did you overcome this resistance? How do you educate providers and other clinicians about the role of CHWs in the clinic?)*
5. What are program costs associated with CHWs? *(Probe: Are CHWs hired through your organization [or are they contracted, etc.]? Who pays the CHWs?)*
6. Are there any statewide policies and procedures that have impacted your ability to implement CHWs? *(Probe: Impact of ACA? Did your state decide to expand Medicaid? What reimbursement strategies does your state have in place?)*

This second set of questions is designed to give us a better understanding of organizational practices and strategies in place for CHWs.

Intervention 2:

Increase engagement of CHWs in the provision of self-management programs and ongoing support for adults with high blood pressure and adults with diabetes
(Domain 4, Strategy 3A)

1. Are your CHWs trained, licensed, or certified? If so, how were they certified? *(Probe: were they trained by the state? Does the state offer training programs? Who conducts the training?)*
2. Do you offer any ongoing support or trainings CHWs (in services, training, and career path development)? *(Probe: Are there any opportunities for CHWs to advance their careers?)*
3. How do your CHWs fit into your health care system? *(Probe: What type of supervision do you offer CHWs? How are CHWs treated/viewed in your organization? Are they part of the team, separate from the team, etc.?)*
4. How are CHWs integrated into your program to deliver self-management programs or support services? What are their specific tasks and functions? *(Probe: Do they deliver the program, assist the educator, conduct outreach, or help with follow-up after the program?)*
5. Do your CHWs have access to EMRs? How do they communicate with providers?

This final set of questions is designed to address ways in which CHWs facilitate community-clinical linkages and provide support for patients.

Intervention 3:

Increase engagement of CHWs to promote linkages between health systems and community resources for adults with high blood pressure and adults with diabetes. What resources do CHWs offer to patients? *(Domain 4, Strategy 3B)*

1. How do CHWs in your program promote linkages between health system and community resources for patients? What linkages do they make for patients? *(Probe: Do you provide a directory of local community resources? Do CHWs add resources? Do the CHWs do outreach in the communities? Provide specific examples.)*
2. How do CHWs provide continued support for patients with hypertension and diabetes? *(Probe: How do CHWs refer specifically to self-management programs?)*
3. What challenges have CHWs encountered in trying to promote linkages between health systems and community resources for adults with hypertension and diabetes?
4. What are lessons learned or recommendations that you would have for other organizations planning to implement a similar program?

Thank you for your time. We look forward to using the information from the interview today to gain a better understanding of best practices to assist our program partners. Please feel free to follow up with any additional information or questions.

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