Community Health Worker (CHW) Toolkit

A GUIDE FOR EMPLOYERS

MDH Minnesota Department *of* Health

OFFICE OF RURAL HEALTH AND PRIMARY CARE

CHW Toolkit: A Guide for Employers

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Tables and Figures

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Development of this Toolkit was coordinated by:

- **WellShare International (http://www.wellshareinternational.org/)** – WellShare International's mission is to advance sustainable community health around the world. Since 1979, WellShare has trained more than 5,000 community health workers to deliver health education and care to underserved communities in Africa, Asia, Central America and the United States. WellShare founded and facilitates the Minnesota Community Health Worker Peer Network (http://wellshareinternational.org/program/mnchwpeernetwork/)

- **Minnesota Community Health Worker Alliance (http://www.mnchwalliance.org/) –** The Minnesota CHW Alliance seeks to build community and systems capacity for better health through the integration of community health worker (CHW) strategies. As a nonprofit governed by a voluntary board, the Alliance serves as a statewide catalyst, convener, consultant and resource to advance health equity and the Triple Aim with a nationally-recognized track record of innovation and partnership.

Acronyms

ACA   The Patient Protection and Affordable Care Act (ACA) of 2010

ACH   Accountable Communities for Health

ACO   Accountable Care Organization

CHW   Community Health Worker

CMMI   Center for Medicare and Medicaid Innovation

DHS   Minnesota Department of Human Services

EHR   Electronic Health Records

IHP   Integrated Health Partnerships

MDH   Minnesota Department of Health

SIM   State Innovation Model

SOP   Scope of Practice

WHO   World Health Organization

1   Introduction

1.1   Toolkit Aims

This Toolkit focuses on Community Health Workers (CHWs). Its purpose is to provide employers and prospective employers with practical guidance for organizational and practice integration of CHWs, and to understand the education and competencies of CHWs. Specifically, the Toolkit aims to assist employers in understanding:

- CHW program planning and stakeholder engagement;
- CHW emerging scope of practice/roles and responsibilities;
- Education and workplace training opportunities;
- Hiring and onboarding practices;
- Financial sustainability of a CHW position; and,
- Return on investment and evaluation of CHW program outcomes.

Toolkit content is organized into the following sections:

- Background and history;
- Scope of practice development;
- Education and training;
- Models of care;
- Program planning;
- Hiring, onboarding, integrating and supervising;
- Financing;
- Quality measures and evaluation;
- Return on investment;
- Resources; and
- References.

The Toolkit is intended to be helpful and relevant to a broad spectrum of CHW employer types with a particular focus on clinical settings such as clinics, hospitals, oral health programs, mental health agencies and local public health agencies that serve Medicaid-eligible patients. Many of the tools, resources and practices that appear in the Toolkit are drawn from these provider types.

> **PRACTICE TIPS:** _A CHW can become a very real bridge between an organization and the community it wants to serve better._ _According to one employer, "any number of benefits [of utilizing CHWs] come to mind, but the first and foremost is that we consider the community workers a linkage to the community. All of our community health workers are bilingual and so they are able to connect with a very diverse community customer base. We feel confident sending a community health worker out into the field, because_

they basically mirror the residents. When the residents see a community health worker from [our clinic], they are basically looking at themselves….This makes it much easier to interact and explain our services and [alleviate] any misconceptions that they may have or any hesitation about coming and using the services here…." -- Director of Community Outreach

2   Background and History

In 2013, the Minnesota Department of Health (MDH) (http://www.health.state.mn.us/) and Minnesota Department of Human Services (DHS) (http://mn.gov/dhs/) were awarded a three-year, $45 million State Innovation Model (SIM) grant by the Center for Medicare and Medicaid Innovation (CMMI) with the goal of expanding and deepening accountable care models in the state. Minnesota's SIM (http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_Home) grant expanded its Accountable Health Model framework with the ultimate goal of improving the triple aim of better health, better care and lower costs (FIGURE 1).

FIGURE 1. THE TRIPLE AIM OF HEALTH CARE

Source: Adapted from the IHI Triple Aim. Institute for Healthcare Improvement, Cambridge, MA.

In addition to contributing to the Triple Aim of Health Care, these emerging professions bridge the gap for the Triple Aim of Health Equity (FIGURE 2). Health equity is a persistent problem in Minnesota, and addressing the causes and symptoms of systemic health inequities takes a

coordinated effort across multiple sectors. It is the intent of SIM grant to embed health equity goals in all aspects of the project – especially in strengthening opportunities for CHWs.

FIGURE 2. THE TRIPLE AIM OF HEALTH EQUITY.
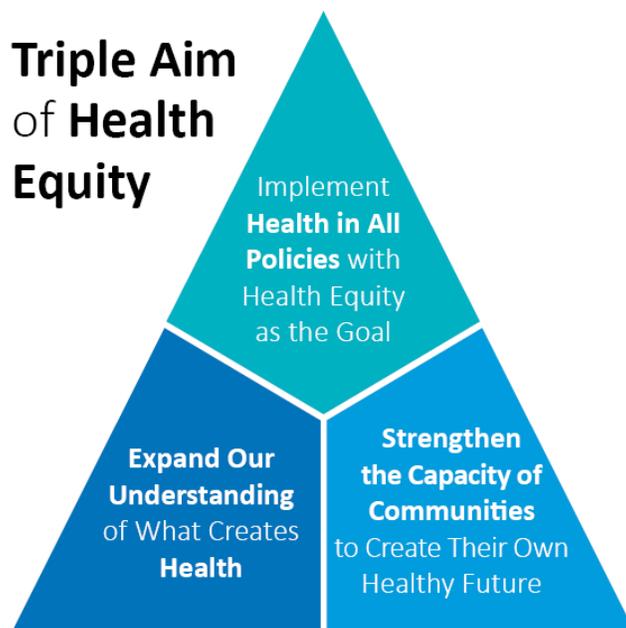
The adoption of emerging health professionals was identified as an evidence-based strategy to achieve the Triple Aim (DHS SIM) and the Triple Aim of Health Equity (MDH Advancing Health Equity Report). The Accountable Health Model focuses on supporting the adoption of three emerging professions: Community Health Workers, Community Paramedics, and Dental Therapists/Advanced Dental Therapists through direct funding and technical assistance:

- An Emerging Professions Integration Grant Program awarded 14 organizations start-up funds to support the salary and fringe benefits of emerging professionals in innovative settings. Grant funds supported five Community Health Workers, five Community Paramedics, and four Dental Therapists/Advanced Dental Therapists
- Three organizations were awarded contracts to develop Emerging Professions Toolkits, one for each emerging profession listed above. The CHW Toolkit contract was awarded to WellShare International in collaboration with the Minnesota CHW Alliance. Further information on each profession and respective toolkits can be found on the MDH Emerging Professions website (http://www.health.state.mn.us/divs/orhpc/workforce/emerging/index.html)

2.1   Definitions

The CHW role is unique because of CHWs ability to develop trusting relationships based on shared life experience with the communities they serve. Typically, this means CHWs come from the same cultural and/or socio-economic background and speak the same language as the clients they intend to reach. The definitions below provide some additional insights on what it means to be a CHW.

American Public Health Association (APHA)

Community Health Workers (CHWs) are frontline public health workers who are trusted members of and /or have an unusually close understanding of the community served. This trusting relationship enables CHWs 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. CHWs also build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy.

Minnesota CHW Alliance

Community Health Workers (CHWs) come from the communities they serve, building trust and vital relationships. This trusting relationship enables the CHWs to be effective links between their own communities and systems of care. This crucial relationship significantly lowers health disparities in Minnesota because CHWs: provide access to services, improve the quality and cultural competence of care, create an effective system of chronic disease management, and increase the health knowledge and self-sufficiency of underserved populations.

U.S. Bureau of Health Professions

Lay members of communities who work either for pay or as volunteers in association with the local health care system in both urban and rural environments and usually share ethnicity, language, socioeconomic status and life experiences with the community members they serve. CHWs offer interpretation and translation services, provide culturally appropriate education and information, assist people in receiving the care they need, give informal counseling on guidance on health behaviors, advocate individual and community health needs, provide some direct services such as first aid and blood pressure screening.

U.S. Bureau of Labor Statistics

Community Health Workers (BLS Job Code 21-1094) *assist individuals and communities to adopt healthy behaviors. Conduct outreach for medical personnel or health organizations to implement programs in the community that promote, maintain, and improve individual and community health. May provide information on available resources, provide social support and informal counseling, advocate for individuals and community health needs, and provide services such as first aid and blood pressure screening. May collect data to help identify community health needs.*

World Health Organization (WHO)

CHWs should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their

*activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers (*WHO, 1989, as cited by Bhutta et al., 2010, p. 17)*.*

2.2   History

The modern history of CHWs started in 1960's China with the *barefoot doctors*, peasants trained in basic medical and preventive medicine (Zhang & Unschuld, 2008; Sidel, 1972). The 1978 Declaration of Alma Ata proposed CHW programs as a policy for promoting primary health care (World Health Organization, 1978), and contributed to CHW program expansion in the early 1980s and 1990s.

While early programs suffered set-backs due to poor planning and resource allocation (Perry & Zulliger, 2012), the 1990's saw re-investment in large-scale programs such as Pakistan's Lady Health Worker program launched with 8,000 CHWs in 1992 which led to a reduction in perinatal and newborn mortality (Crigler et al., 2013). The 2000's saw renewed interest in CHWs with the launching of the United Nations Millennium Development Goals (MDGs) along with a growing body of empirical evidence supporting CHWs as an integral part of the workforce to achieve MDGs (Crigler et al., 2013).

In the United States, CHW workforce development has been marked by initial engagement in low-income and Tribal communities (1966-1972); utilization in special projects linked to university-based research (1973-1989); state and federal initiatives (1990-1998); and finally various public policy options for CHWs (1999-2006) (CHW National Workforce Study, Health Resources and Service Administration, 2007). These included:

- **Community Health Representative (CHR)**: The CHR model began in 1968 to train Tribal health workers to provide education and navigation services for their communities, with a strong emphasis on Tribal customs and language. (National Association of Community Health Representatives, 2016)

- **Occupational Regulation**: State credentialing legislation addressing CHWs' training standards and certification was passed in Texas in 1999, and signed into Ohio law in 2003 (US Department of Health and Human Services, 2007).

- **Utilization of CHWs**: Many bills were passed at the state level that mandated studies of the impact, status and utilization of CHWs in health services (New Mexico Department of Health, 2003; James Madison University, 2006).

- **Emerging Funding Opportunity Models:** A growing body of empirical evidence emerged supporting the effectiveness of CHWs interventions. Findings from a study on cancer prevention and treatment among minority groups by Brandeis University and the Center for Medicare and Medicaid Services clearly demonstrated that adding CHWs to the care team played a central role in addressing disparities in cancer prevention and treatment and had a beneficial effect on the quality of care for populations most in need of appropriate health services (Centers for Medicare and Medicaid Services,

2003). The findings of the study opened doors to additional funding opportunities for cancer patient navigator services to minority Medicare beneficiaries (US Department of Health and Human Services, 2007).

On June 29, 2005, the federal **Patient Navigator Outreach and Chronic Disease Prevention Act (PL 109-18) (https://www.congress.gov/109/plaws/publ18/PLAW-109publ18.pdf)** was signed into law helping promote and expand the emerging profession of Community Health Worker. The measure provided $25 million for patient navigator services through community health centers over a period of five years (US Department of Health and Human Services, 2005). The law required that facilities receiving the grant agree to recruit, train, and employ patient navigators with direct knowledge of the communities they serve to provide health care services to individuals (PL 109-18, 2005).

The Patient Navigator Outreach and Chronic Disease Prevention Act was reauthorized under the Patient Protection and Affordable Care Act in 2010. **The Patient Protection and Affordable Care Act (ACA) of 2010** also contains elements that have provided more funding opportunities for community health centers and increased the number of CHWs and the number of people they serve in the US. These laws coincided with creation of an occupation code for CHWs in 2009 and official recognition of the CHWs role via their own Standard Occupational Classification (SOC#21-1094) in 2010 by the Department of Labor, Bureau of Labor Statistics.

TABLE 1. FEDERAL LAWS RELATED TO CHWS

Law	Citation	Year	Summary
Patient Navigator Outreach and Chronic Disease Prevention Act	PL 109-18	2005	Provided more funding opportunities for community health centers and increased the number of CHWs and number of people they serve.
The Patient Protection and Affordable Care Act (ACA)		2010	Reauthorized the Patient Navigator Outreach and Chronic Disease Prevention Act; Provided for changes to Medicaid Essential Health Benefit rules allowing reimbursement of non-licensed providers; supported use of CHWs through focus on medical homes and establishment of State Innovation Model funding
	Section 5313	2010	Requires the Centers for Disease Control and Prevention to award grants to eligible entities to promote positive health outcomes for underserved populations through the use of CHWs.
	US Department of Health and Human Services, 2013, p.1	2013	Revisions to the ACA to give more flexibility to states to recognize unlicensed providers in the delivery of preventive services.

According to Katzen & Morgan (2014), three main Affordable Care Act changes led to new community-based service options:

- The ACA provides **increased health care access** through affordable health insurance. Recent Medicaid Essential Health Benefits (https://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/alternative-benefit-plans.html)

rules clarify that state Medicaid programs may reimburse non-licensed providers (i.e., CHWs) for preventive services;

▪ The ACA focuses on **establishing a medical home** for beneficiaries with chronic diseases, which gives states the flexibility in determining a range of eligible health home providers; and

▪ The ACA **establishes funding for the State Innovation Models (SIM) Initiative** through the Center for Medicare & Medicaid Innovation (CMMI), which provides $275 million in funding for states to develop and test state-based models for multi-payer health care payment and service delivery models in accordance with the requirements of section 1115A of the Social Security Act.

The SIM design and test awards offer a significant opportunity to increase the use of CHWs and better integrate them into the health care delivery system. According to CMMI's guidance, the focus of the SIM Initiative is improving population health outcomes and reducing the cost of Medicare, Medicaid and Children's Health Insurance Program (CHIP). Round One was awarded to six states (Oregon, Vermont, Massachusetts, Arkansas, Minnesota and Maine), of which four have included CHWs in their models (Oregon, Arkansas, Minnesota and Maine) (Katzen & Morgan, 2014, p.2; Centers for Medicare & Medicaid Services, 2015). Currently, 38 states have some type of SIM award.

2.3   CHWs in Minnesota

The Healthcare Education-Industry Partnership or HEIP (now HealthForce Minnesota) was funded by the Minnesota Legislature in 1998 under the Minnesota State Colleges and Universities system – now known as Minnesota State. In the early 2000's, as a proposed means to address health disparities, HEIP began to examine the role of CHWs through the Minnesota Community Health Worker Project (MCHWP). MCHWP brought together 21 health care industry, university, and non-profit organizations to examine processes for developing a sustainable CHW profession. Based on outcomes from this project:

▪ In 2003, a CHW [scope of practice](http://mnchwalliance.org/who-are-chws/roles/) (http://mnchwalliance.org/who-are-chws/roles/) was defined;
▪ In 2005, Minnesota became the first state to implement a CHW certificate program with a standardized curriculum, through its state college system and private higher education institutions; and,
▪ In 2007, the Minnesota Legislature approved the direct Medicaid reimbursement of specific CHW services.

Total estimates of those who identify themselves as CHWs in Minnesota are between 990 employed (USBLS, 2014) and 2,000 paid and unpaid (HRSA, 2002). Of those, 658 have completed the CHW certificate program, based on the Minnesota State approved curriculum (completion dates vary by school; timeframe is 2015 and 2016) and an additional 63 CHWs were "grandparented" in based on legislative provisions (see [Section 8.1](#)).

An Environmental Scan report, developed as background under the CHW toolkit data gathering phase, provides additional information on the characteristics of CHWs in Minnesota.

(NOTE: at the end of some sections, this Toolkit will list and link to highly pertinent Key Resources. A complete list of Resources and links to documents can be found in Section 11.)

KEY RESOURCES: CHW Toolkit Background Research (http://www.health.state.mn.us/divs/ orhpc/workforce/emerging/chw/index.html#toolkit): Literature Review Report, Employer Survey/Interview Report, Environmental Scan Report, Review and Analysis of Trends Report

3   Scope of Practice Development

3.1   CHW Roles and Emerging Scope of Practice

In health care professions, scope of practice is most often defined by specific laws and regulations that are typically guided by education and training as well as government and institutional requirements. A formal scope of practice creates boundaries for day-to-day performance of a profession, and also reinforces expectations related to patient interaction, workforce flow, and billing. Typically, scopes of practice are broadly defined and some overlap in scope of practice naturally exists between many health professions. To add further context of how health professions are typically regulated, here are some standard definitions of common concepts:

Scope of Practice – *describes the procedures, actions, and processes that a health care practitioner is permitted to undertake in keeping with the terms of their professional license* (Wikipedia - https://en.wikipedia.org/wiki/Scope_of_practice)

License – *an agency or government-granted permission issued to a health care professional to engage in a given occupation on finding that the applicant has attained the degree of competency and met educational requirements necessary to ensure that the public health, safety and welfare are reasonably well-protected*. (*Mosby's Medical Dictionary, 8th edition*. (2009). Retrieved August 31 2016 from Medical-Dictionary The Free Dictionary - http://medical-dictionary.thefreedictionary.com/license)

Certification – *The attainment of board approval and credentialing in a specialty.* (*Medical Dictionary for the Health Professions and Nursing*. (2012). Retrieved August 31, 2016 from Medical-Dictionary The Free Dictionary - http://medical-dictionary.thefreedictionary.com/certification)

Registration - *The least restrictive form of state regulation of persons with certain professional qualifications which requires the filing of name, address and qualifications before practicing the field of expertise. (*McGraw-Hill Concise Dictionary of Modern Medicine*. (2002). Retrieved August 31, 2016 from Medical-Dictionary The Free Dictionary - http://medical-dictionary.thefreedictionary.com/registration)

While CHWs in Minnesota have state-recognized competency-based education (through the certificate program), as yet, day-to-day practice is not guided by formal regulations and CHWs are not formally registered, certified or licensed. While other states have required education, almost none require CHW licensure. The lack of a formal certification or license can be challenging for employers in areas such as:

- No central point of reference or language to talk about CHW roles;

- No regulating entity to enforce compliance or define professional standards;

- Articulating CHW tasks to contractors/donors for billing/reimbursement; and,

- Concerns about extent of supervisory responsibilities and boundaries for CHWs.

Currently, the CHW profession and interested stakeholders are beginning to explore state certification (see CHW Toolkit: Review and Analysis of Trends Report for more information on this process), however no formal proposal has been put forward.

While a formal CHW scope of practice is not in place, there is growing consensus around competencies. In 2003, the Healthcare Education-Industry Partnership (now HealthForce Minnesota - http://www.healthforceminnesota.org/), examined the role of CHWs through their Minnesota Community Health Worker Project and developed a CHW scope of practice – (http://mnchwalliance.org/who-are-chws/roles/) (as mentioned in Section 2.3 above), drawing on various sources including the seminal 1998 University of Arizona Community Health Advisor Study. As shown in Figure 3, these Minnesota-defined roles include: 1) bridging the gap between communities and health and social service systems, 2) navigating the health and human services system, 3) Advocating for individual and community needs, 4) providing direct services, and 5) building individual and community capacity.

FIGURE 3. MINNESOTA CHW ROLES

Role 1: Bridge the gap between communities and the health and social service systems

1. Enhance care quality by aiding communication between provider and patient to clarify cultural practices
2. Educate community members about how to use the health care and social service systems
3. Educate the health and social service systems about community needs and perspectives
4. Establish better communication processes

Role 2: Navigate the health and human services system

1. Increase access to primary care through culturally competent outreach and enrollment strategies
2. Make referrals and coordinate services
3. Teach people the knowledge and skills needed to obtain care
4. Facilitate continuity of care by providing follow-up
5. Enroll clients into programs such as health insurance and public assistance
6. Link clients to and inform them of available community resources

Role 3: Advocate for individual and community needs

1. Articulate and advocate needs of community and individuals to others
2. Be a spokesperson for clients when they are unable to speak for themselves
3. Involve participants in self and community advocacy
4. Map communities to help locate and support needed services

Role 4: Provide Direct Services

1. Promote wellness by providing culturally appropriate health information to clients and providers
2. Educate clients on disease prevention
3. Assist clients in self-management of chronic illnesses and medication adherence
4. Provide individual social and health care support
5. Organize and/or facilitate support groups
6. Refer and link to preventive services through health screenings and healthcare information
7. Conduct health related screenings

Role 5: Build Individual and Community Capacity

1. Build individual capacity to achieve wellness
2. Build community capacity by addressing social determinants of health
3. Identify individual and community needs
4. Mentor other CHWs – capacity building
5. Seek professional development (continuing education)

Adapted from the Minnesota CHW Alliance

In April 2016, an emerging CHW scope of practice was released by the Community Health Worker Core Consensus (C3) Project for state-level consideration, affirmation and endorsement. Building on previous work, this project provides the most articulated vision for

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CHW scope of practice to date, although it has not been fully vetted by Minnesota or other states as yet. Through its comprehensive delineation of CHW roles, skills, and qualities (see TABLE 2), it may provide a basis for a formal CHW Scope of Practice.

TABLE 2. SUMMARY OF C3 PROJECT CHW SCOPE OF PRACTICE.

Roles	Skills	Qualities
1. Cultural Mediation among Individuals, Communities, and Health and Social Service Systems 2. Providing Culturally Appropriate Health Education and Information 3. Care Coordination, Case Management, and System Navigation 4. Providing Coaching and Social Support 5. Advocating for Individuals and Communities 6. Building Individual and Community Capacity 7. Providing Direct Service 8. Implementing Individual and Community Assessments 9. Conducting Outreach 10. Participating in Evaluation and Research	1. Communication Skills 2. Interpersonal and Relationship-Building Skills 3. Service Coordination and Navigation Skills 4. Capacity Building Skills 5. Advocacy Skills 6. Education and Facilitation Skills 7. Individual and Community Assessment Skills 8. Outreach Skills 9. Professional Skills and Conduct 10. Evaluation and Research Skills 11. Knowledge Base	1. Connected to the community 2. Strong and courageous 3. Friendly/outgoing/sociable 4. Patient 5. Open-minded/non-judgmental 6. Motivated and capable of self-directed work 7. Caring 8. Empathetic 9. Committed/dedicated 10. Respectful 11. Honest 12. Open/eager to grow/change/learn 13. Dependable/responsible/reliable 14. Compassionate 15. Flexible/adaptable 16. Desires to help the community 17. Persistent 18. Creative/resourceful

From *Understanding Scope and Competencies: A Contemporary Look at the United States Community Health Worker Field Progress Report of the Community Health Worker (CHW) Core Consensus (C3) Project: BUILDING NATIONAL CONSENSUS ON CHW CORE ROLES, SKILLS, AND QUALITIES.* April 2016.

In addition to the C3 Project, the 2016 Minnesota CHW Employer Survey described in the CHW Toolkit: Employer Survey/Interview Report summarizes roles and tasks commonly performed by CHWs as reported by Minnesota CHW employers.

KEY RESOURCES: CHW Toolkit Background Research (http://www.health.state.mn.us/divs/orhpc/workforce/emerging/chw/index.html#toolkit): Literature Review Report, Employer Survey/Interview Report; AONE CHW Toolkit (http://www.aone.org/), Pathways Community HUB (https://innovations.ahrq.gov/sites/default/files/Guides/CommunityHubManual.pdf), IMPaCT (http://chw.upenn.edu/impact), MN CHW Alliance (http://mnchwalliance.org/who-are-chws/roles/), Rural Health Information Hub CHW Toolkit (https://www.ruralhealthinfo.org/community-health/community-health-workers), NASHP National Map of CHW Regulations (http://www.nashp.org/state-community-health-worker-models/), C3 Project Scope of Practice document

4　Education and Training

4.1　Basic Qualifications

CHWs working in Minnesota typically have had at least a high school diploma or GED. However, recent surveys (conducted in 2012 and 2014) of Minnesota CHWs indicate that CHW respondents attained higher levels of education compared to the overall Minnesota population (see TABLE 3). A CHW survey conducted by WellShare International in 2014 noted that 46% of respondents had completed a bachelor's degree or higher, whereas a survey conducted by Wilder Research in 2012 reported 52% of respondents had completed a bachelor's degree or higher.

TABLE 3. HIGHEST LEVEL OF EDUCATION COMPLETED BY CHWS IN MINNESOTA.

Highest Level of Education of CHWs	WellShare International Survey (2014, n=146, adults over 18)	Wilder Survey (2012, N=82, adults over 18)	MN OHE (2014; ages 25-64, entire MN population)
Less than high school diploma	1%		6%
Some high school		0%	
High school diploma/GED	5%	5%	23%
Some college completed	32%		22%
Vocational training/some college		30%	
Associate's degree	16%	12%	13%
Bachelor's degree	30%	34%	24%
Master's degree/PhD	16%	18%	12%

4.2　Certificate Program

4.2.1　Certificate Program Description

Minnesota is currently the only state that offers a standardized, competency-based curriculum for CHWs to earn a certificate through accredited post-secondary educational institutions. While the certificate is not currently required for CHW employment in the state, it is increasingly recognized by employers as evidence of foundational training for the role, and is required for billing for CHW services covered under Minnesota Health Care Programs (MHCP) including Medicaid (see Section 8.1). The implementation of Minnesota's standardized CHW curriculum began in January 2005 at South Central Technical College in Mankato and at the Minneapolis Community & Technical College in downtown Minneapolis and later became available to other Minnesota State Colleges and Universities (MnSCU) schools (Minnesota State University Mankato, 2006). Upon successful completion of this sequence of courses, individuals are awarded a certificate. The outline for the Minnesota standardized training curriculum for CHWs is presented in TABLE 4, and a longer summary of program content (http://mnchwalliance.org/wp-content/uploads/2012/12/Minnesota-CHW-Curriculum-Outline-Updated-Feb-2015.pdf)

is available from the MN CHW Alliance. There are no continuing education units required at this time, but continuing education supports quality and professional development.

TABLE 4. MINNESOTA STANDARDIZED CURRICULUM OUTLINE FOR CHWS

Phase	Components	Credit Hours (14 total)
1—Role of CHW, Core Competencies	Role, Advocacy and Outreach	2
	Organization and Resources: Community and Personal Strategies	1
	Teaching and Capacity Building	2
	Legal and Ethical Responsibilities	1
	Coordination, Documentation and Reporting	1
	Communication and Cultural Competence	2
2—Role of the CHW, Health Promotion Competencies	Healthy Lifestyle, Hearth Disease & Stroke, Maternal, Child and Teen Health, Diabetes, Cancer, Oral Health, Mental Health	3
3—Practice Competencies	Internship	2

*Minnesota Community Health Workers Alliance. (2013). Minnesota CHW Curriculum.

In 2015/2016, the curriculum is undergoing some revisions to strengthen pre-diabetes and pre-hypertension content as well as expand information on mental health and mind-body modalities.

Institutions offering the program typically require a minimum of 14, with up to 17 credits with additional course offerings in areas such as motivational interviewing, public speaking, medical terminology, and others. In part, the additional credits allow students to reach the financial aid threshold. Most programs can be completed over two semesters.

Not all CHWs – or those who define themselves as CHWs -- have completed the certificate program, and some employers are choosing to assist new CHW employees to complete the certificate program (e.g., pay tuition) while the CHW continues to work either part-time or full-time hours as an employee. Reasons for this include being able to access Medical Assistance reimbursement (see Section 8.1), to show competency in the field, and to be on par with other professions requiring specific education.

4.2.2   Institutions Offering Certificate Program

As of January 2016, four schools within the Minnesota State system, one private university and one vocational school offer the program. One additional institution is currently waiting for Minnesota State approval to begin offering the program, with courses expected to start in the spring of 2017. The intent is to offer the program throughout the state including in-person and online options. Table 5 provides an overview of each institution, program duration and mode of instruction. Program tuition (2015/2016 academic year) ranges from $2,583 to $11,288, and financial aid is available at all institutions. A high school diploma or GED is required to apply.

(See CHW Toolkit: Environmental Scan for more information on institutions who have offered/are offering the certificate program.)

As of 2015/2016, a total of 658 individuals have completed the CHW certificate program and an additional 63 CHWs were "grandfathered" in based on legislative provisions (see Section 8.1).

TABLE 5. POST-SECONDARY INSTITUTIONS OFFERING CHW CERTIFICATE PROGRAM

Institution / Website	Location (in MN)	Program Duration	Mode of Instruction
Minneapolis Community & Technical College (MCTC)	Minneapolis	17 credits (Fall or Spring/ Summer semesters)	In-person
Minnesota West	Marshall; with locations in Canby, Granite Falls, Jackson, Pipestone, Worthington	16 credits	Online or hybrid
Normandale Community College	Bloomington	16 credits / 2 semesters	In-person, Online in future
Northwest Technical College	Bemidji	17 credits / 2 semesters (Fall or Spring start)	Online, offsite (virtual meetings)
Rochester Community & Technical College (RCTC)	Rochester	16-17 credits/ 1 semester	In-person, Customized contract only**
Summit Academy OIC	St. Paul	20 weeks	In-person
St. Catherine University	St. Paul	17 credits (2 semesters)	In-person or hybrid evening/ weekend

*Financial aid is available for qualifying students at all institutions.
**Program content follows MnSCU-approved curriculum with timeline and additional course offerings customizable.

4.3   Continuing Education

While the certificate program provides CHWs with the foundational education for practice, as with any health profession, continuing education is important for quality performance and professional development. In addition to employers, numerous organizations do offer formal learning experiences for CHWs with some providing continuing education units or college credit. TABLE 6 lists some of the key organizations that currently provide continuing education. Past continuing education topics included: motivational interviewing, maternal and child health, asthma, electronic health records (EHR), diabetes management, and many others. Section 7.1.4 of this toolkit lists skills identified by respondents to a 2016 employer survey that CHWs need in order to be "practice ready."

TABLE 6. ORGANIZATIONS PROVIDING CONTINUING EDUCATION FOR CHWS

Organization / Website	Content	Frequency	Mode	Customiz-able	CEU/ credit offered
American Lung Association	Asthma 101	Varies	Workshop	Yes	No
Many Faces of Community Health Conference	Varies	Annual	2-day conference	No	Yes
Minneapolis Community & Technical College	Varies	Varies	TBD	Yes	Yes
MN CHW Alliance	Varies	Varies	Workshop, Online	Yes	No
MN CHW Peer Network (WellShare International)	Varies	8 times per year	Workshop, Online	No (topic suggestions welcome)	No
Normandale Community College	Varies	TBD	TBD	In planning stage	TBD
Northwest Technical College	Varies	Varies	Online, Offsite	Yes	Yes
WellShare International	Varies	Varies	Online, Offsite	Yes	No

5 CHW Models of Care

A **Model of Care** *broadly defines the way health services are delivered. It outlines best practice care and services for a person, population group or patient cohort as they progress through the stages of a condition, injury or event* (Agency for Clinical Innovation: http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0009/181935/HS13-034_Framework-DevelopMoC_D7.pdf).

5.1 Models of Care Categories

CHW care models vary primarily by: 1) CHW roles within the health care team and 2) the type of clients CHWs serve. The U.S. Department of Health and Human Services identified seven CHW model of care categories (2011) presented in TABLE 7.

TABLE 7. CHW MODELS OF CARE CATEGORIES

Model of Care	Description	References
Member of Care Delivery Team Model	CHW works with a lead provider, typically a physician, nurse, or social worker. CHWs provide health education and informal counseling to patients/clients through individual and group sessions.	McElmurry, Park & Buseh, 2003
Navigator Model/Care Coordinator	CHW works with individuals (and their families) from cultural and linguistically different backgrounds who face barriers in obtaining and seeking timely health care to help coordinate care for complex disease and address disparities.	Palmas et al., 2012
Screening and Health Education Provider	CHWs use their social embedded-ness and personal network to reach isolated individuals. CHWs deliver health education focused on healthy behavior and prevention, administer basic screening instruments (e.g. rapid diagnostic tests) and measure vital signs. This model requires competent supervision and additional training to ensure CHWs stay within their scope of practice.	Prezio et al., 2013 Hamer et al., 2012 Yeboah-Antwi et al., 2012
Outreach Enrolling-informing Agent	CHWs conduct intensive home visits to deliver psychosocial support, improve maternal and child health, perform an environmental health assessment, offer one-on-one counselling, and make necessary referrals	MN CHW Alliance
Community Organizer / Capacity Builder Model	CHWs work as catalysts to encourage community action or as negotiators for creation of change. CHWs may be *employed* by a health care provider or may be acting as a committed *volunteer.*	MN CHW Alliance
Promotora de Salud/Lay Health Worker Model	Lay health workers offer a link between providers and underserved minority community members. CHWs receive training based upon theoretical frameworks, including social support, social learning theory, empowerment model and/or health belief model, in which CHWs are empowered to create their own action plan regarding the community's *perceived health needs*. Rhodes et al. (2007) identified six primary roles of a LHW: 1) being involved in recruitment of community members and data collection, 2) serving as traditional health advisors/educator and referral sources, 3) distributing health-related materials, 4) being role models, 5) serving as community advocates to ensure culturally and linguistically tailored interventions for their community members, and 6) being involved in relevant parts of community-based participatory research projects including designing research question, developing appropriate methodologies for data collection, and disseminating research findings.	Palmas et al., 2012 Getrich et al., 2007 McElmurry, Park, & Buseh, 2003 Rhodes et al., 2007
Community Health Representative (CHR)	CHRs are a trained, medically guided Tribal or Native community-based health care worker who may include traditional Native concepts in his/her work. Funding and training provided by the Indian Health Service	IHS, 2016

5.2   Other Models and Case Studies

While this Toolkit focuses on clinical settings (Federally Qualified Health Centers (FQHC), Health Care Homes, hospitals, dental clinics, behavioral health services, public health, long-term care), CHWs have been found to be valuable in other settings: prisons, housing programs, social service agencies, community organizations, workforce development agencies, schools and early childhood programs. Additionally, while the Model of Care categories presented in the previous section provide some level of classification, there are many unique CHW program models. The

CHW Toolkit – Case Studies document provides an overview of the following CHW and lay health worker programs/models:

- Community HUB Pathway Model
- IMPaCT^{TM} Model
- Allina Health
- Children's Hospitals and Clinics of Minnesota
- Essentia Health
- HealthEast Care System
- Hennepin Healthcare System
- Mayo Clinic, IMAA and the United Way of Olmsted County
- MVNA (part of Hennepin County Medical Center)
- WellShare International

In addition to these models (along with many others in Minnesota and across the United States), Accountable Care Organizations (ACO) and Integrated Health Partnerships (IHPs) are incubators for new CHW models.

Accountable Care Organizations. In 2011, the U.S. Department of Health and Human Services created the structure for ACOs as part of new rules related to the Affordable Care Act (ACA). The goal was to improve the *triple aim*, especially for high-utilizer patients, through care coordination. ACOs can use traditional fee-for-service payment with both private and public insurers, but CMS rules also require shared savings agreements conditional on meeting specified quality measures. The ACO model creates an incentive for providers to efficiently and effectively manage the health of their patients regardless of where the patient received care. Innovation lies in the flexibility of their structure, payments and risk assumption. That structure is likely to include primary care providers, specialists, a hospital and other provider and community agreements/partnerships. When an ACO succeeds both at delivering high-quality care and spending dollars more wisely, the ACO will share in the savings it achieves. Examples of ACO models in Minnesota and other states is described below see CHW Toolkit: ACO/IHP Report for full background):

Integrated Health Partnerships. Integrated Health Partnerships (IHPs) (originally known as the Health Care Delivery System (HCDS) demonstration) is a statewide program under Minnesota's Medicaid program borne out of legislation passed in 2010 (Minnesota Statutes, 256B.0755). The IHPs are Minnesota's ACO model for its Medical Assistance (Medicaid) enrollees, designed to improve care delivery and lower the cost of care through innovative delivery models. IHPs are unique on the national level for their flexibility and alignment, allowing for wide-spread adoption of the model among providers. Specifically, Minnesota's IHP approach is novel for: 1) the types of organizations that can form ACOs; 2) the type of governance structures used by ACOs; and 3) the services included in the shared saving / shared risk model (beyond primary care). The Minnesota Department of Human Services currently funds 19 organizations ([see list)](#) through the IHP program and plans are to expand the program to reach half of Minnesota's Medical Assistance and MinnesotaCare enrollees by 2018.

As payment under the ACO/IHP structure moves more to prospective payment, there will be less reliance on fee-for-service models of reimbursement and therefore more opportunity to

finance and sustain creative and flexible CHW models that specific
service, or a payment code.

KEY RESOURCES: CHW Toolkit Background Research (http://www.health.state.mn.us/divs/
orhpc/workforce/emerging/chw/index.html#toolkit); Integrated Health Partnerships (IHP)
(http://www.dhs.state.mn.us/main/idcplg?
IdcService=GET_DYNAMIC_CONVERSION&RevisionS
electionMethod=LatestReleased&dDocName=dhs16_161441) programs in Minnesota, Case
Studies, ACO/IHP Report, Examples of ACO Models in other states.

6   Program Planning

6.1   Business Case Model

*A Business Case for health care improvement intervention exists if the entity that invests
in the intervention realizes a financial return on its investment in a reasonable time
frame, using a reasonable rate of discounting. This may be realized in "bankable
dollars" (profit), a reduction in losses for a given program or population, or avoided
costs. In addition, a business case may exist if the investing entity believes that a positive
indirect effect on organizational function and sustainability will accrue within a
reasonable time frame.* (Leatherman et al, 2003)

Building a business case model can help introduce stakeholders to the logic, effectiveness,
efficiency and sustainability of a CHW program in a concrete, reviewable manner and provide a
plan for measuring and sharing outcomes including return on investment. Numerous templates
exist for adaptation, but typical components of a business case model may include:

- Strategic Context (organizational fit, need, and scope),
- Potential Options (pro/cons of solutions to address the strategic context)
- Viable Options (alignment, costs, cost-benefit, risk, policy considerations,
  advantages/disadvantages)
- Justification/Recommendation (comparison summary)
- Management of the Investment (governance; strategies for project management,
  outcome management, risk management, change management and performance
  management).

TABLE 8 presents some key issues to consider when developing a business case model for a
CHW program. Additionally, subsequent sections of the toolkit provide additional information
to help plan a business model, including Section 10, Return on Investment.

TABLE 8. KEY CONSIDERATIONS FOR DEVELOPING A BUSINESS CASE FOR CHW PROGRAMS

Component	Key Considerations for CHW Programs
Strategic Context	▪ Enormous ethnic and racial health disparities exist in Minnesota. See Advancing Health Equity in Minnesota: Report to the Legislature (http://www.health.state.mn.us/divs/chs/healthequity/). ▪ National and local trends support use of CHWs. ▪ Federal and state initiatives, including provisions under the ACA such as SIM grants, offer opportunities to expand CHW roles in the state. ▪ As health care homes initiatives expand, CHWs models may contribute to financial and patient success and hold potential to broaden the team's focus to underlying social drivers of illness. ▪ CHWs contribute to health care system improvements. Embedding CHWs into care teams is seen as a way to improve care outcomes, reduce costs, and increase both provider and patient satisfaction. Expanding provider awareness of how CHWs can contribute to care teams is an important goal moving forward.
Potential Options	Certain CHW functions may be carried out by other health occupations or volunteers. For example, patient education, social support and/or and navigation may be provided by nurses and social workers or even by lay health workers including trained student volunteers such as in the Winona Health model or paid Care Guides such as in the Allina model. However, organizations should consider the advantages offered by the CHW role, such as cultural and language alignment, a consistent community presence, certificate-holding CHWs for reimbursement, and enabling clinical members of the team to work at the top of their licenses, etc., when weighing potential options. Because CHWs share life experience and develop trusting relationships with the patients they serve, they are effective in patient activation and patient engagement. Integration of CHWs on health teams promotes efficiency by allowing other professions to work at the top of their license while ensuring that sufficient time is spent educating patients and addressing social determinants of health as part of care coordination activities. Through home visiting and other interactions with patients and clients, CHWs can serve as the "eyes and ears" of the clinic. CHWs also help staff and team members understand cultural beliefs and traditions that impact health behaviors, care-seeking, decision-making. In addition to being effective, CHW contributions to health care system improvements come with a lower cost than other professions. Rather than hiring CHWs directly, another cost-effective option is for CHWs to be contracted out from community-based organizations such as in the Mayo/IMAA model, the WellShare/Clinic model or the CHW Solutions LLC model.
Viable Options	A CHW program should be clearly aligned with organizational needs, strategies and policies. The structure of the program should allow for reasonable cost to benefit returns and start-up costs should be within available resources (see Section 10). Potential risks should be identified (e.g., lack of certificate-holding CHWs) and both advantages and disadvantages should be deliberated.
Justification/ Recommendation	Potential options are weighed against the most-viable options and a clear case for choosing a CHW program has been identified with actionable implementation steps.
Managing the Investment	Organizations need a clear outline for governance, project management, outcome management, risk management, change management and performance management. A pilot project or trial period may allow evidence for effectiveness of CHWs and associated cost savings to be accumulated. Such evidence may increase support for organization-wide programs. A pilot also allows time to develop the necessary documentation strategies and forms, referral mechanisms, and billing processes within multi-disciplinary teams.

PRACTICE TIPS: *If implemented well, hiring a CHW can change the culture of an organization in a positive way. Managing this change can be challenging for some organizations. However, according to a recent survey, "all CHW supervisors remained extremely positive about the future of CHW work. All believed that the use of CHWs will expand both for their own organization and within the health system overall.*

Respondents felt that the use of CHWs will only enhance the health care system, because they can address some of the shortcomings of traditional health care delivery. This includes addressing social determinants of health, increasing community members' knowledge of and access to health care, promoting equality in health care delivery, and bridging the gap in time and resource investment for each patient. CHWs are able to achieve this as a result of the trust and relationships they build with communities, their role in care coordination, and the fact that they share the same cultural background as those they serve." Schulz, 2015

At the strategic level, large health disparities, the potential for CHWs to affect health care system improvements (e.g. lower costs through targeted interventions and increase patient activation through cultural competence) and support at the national and state level may encourage a decision to develop an organizational CHW program.

However, it is also important to assess organizational fit (see Section 6.2). Potential options to achieve desired outcomes may include realigning existing members of the workforce such as health educators or family advocates. A key consideration for CHW programs is the need for cultural understanding, community trust and language skills. (See Section 7)

To assess viability, a valuation of potential costs and cost-benefit (see Section 10.2) is needed with an appraisal of risk and alignment with organizational and other policies. It is important to have support from key stakeholders (see Section 6.4) for governance and implementation and clearly defined roles for all team members involved (see Section 7.3.2). Section 6.3 describes key elements of a successful CHW program for consideration in developing effective project management strategies. A pilot program may allow time to develop integration mechanisms, forms, and billing processes without significant initial commitment of organizational resources.

6.2   Organizational Fit

Once an organization has determined that a CHW program might be a good fit, it can invest in developing a more comprehensive plan. Health care organizations that answer "yes" to several of the following questions might be most suitable to bringing on CHWs (from MN Community Health Worker Alliance Issue Brief, July 2016, p. 8).

- Is your clinic underperforming on clinical indicators among low-income patients, communities of color or immigrant and refugee populations?
- Are you finding that culture and language barriers are getting in the way of success?
- Are clinical staff members spending time on non-medical tasks, such as reminder calls, arrangements for transportation, paperwork, community resources for patients, missed appointments and unnecessary ER use?
- Are you finding that patient activation and trust are issues that need attention, especially among low- income patients?
- Are clinic-community linkages falling short due to lack of time and knowledge about cultural groups and community nonprofits?

6.3   CHW Program Elements

Developed by Crigler et al. (2011), the following checklist (TABLE 9) identifies key components of a successful CHW program. Sections 3 through 7 of this report provide practical tips on planning for these elements.

TABLE 9. COMPONENTS OF SUCCESSFUL CHW PROGRAMS

Component	Definition
Recruitment	How and from where a community health worker is identified, selected and assigned to a community. [How and what criteria define the target patient population.]
CHW Role	The alignment, design, and clarity of the role from the community, CHW, and health system perspectives.
Initial Training [Onboarding]	Training is provided to the CHW to prepare for his or her organizational roles and ensure that he or she has the necessary skills to provide safe and quality services.
Continuing Training	Ongoing training is provided to update CHWs on new skills, to reinforce initial training, and to ensure they are practicing skills learned.
Equipment and Supplies	The requisite equipment and supplies are available when needed to deliver expected services.
Supervision	Supportive supervision is carried out regularly to provide feedback, coaching, problem solving, skill development, and data review.
Individual Performance Evaluation	Evaluation to fairly assess work during a set period of time.
Incentives [Compensation]	A balanced incentive package includes financial incentives such as salary and bonuses and non-financial incentives such as training, recognition, certification, uniforms, and medicines [applicable in some international program contexts], etc. appropriate to job expectations.
Community Involvement	The role that the community plays in supporting a CHW.
Referral System	A process for determining when a referral is needed; a logistics plan in place for transport and funds when required; and a process to track and document referrals.
Opportunity for Advancement	Opportunity for Advancement: The possibility for growth and advancement for a CHW.
Documentation and Information Management	How CHWs document visits; how data flows to the health system and back to the community; and how data is used for service improvement.
Linkages to Health Systems	How the CHWs and communities are linked to the larger health system through involvement in recruitment, training, incentives, supervision, evaluation, equipment and supplies, use of data and referrals.
Program Performance Evaluation	General program evaluation of performance against targets, overall program objectives, and indicators carried out on a regular basis.
Country Ownership	Country Ownership (not applicable to U.S. based programs): The extent to which the Ministry of Health has policies in place that integrate and include CHWs in health system planning and budgeting and provides logistical support to sustain district, regional and/or national CHW programs. *[As adapted for U.S. programs, this could include applicable support from organization administration, health plans and state and local government.]*

Source: Crigler et al. 2011, CHW AIM Toolkit, pg. 15

6.4   Stakeholder Engagement

Engaging all stakeholders is a critical initial step in developing a CHW program. Building early buy-in of key influencers will contribute to the successful uptake of the program. TABLE 10 summarizes lessons learned, highlights stakeholder groups (administrators, providers, clinic management/supervisors, social workers, and patients), identifies potential concerns, and suggests ways to address apprehensions relevant to a CHW program.

TABLE 10. KEY STAKEHOLDERS AND ENGAGEMENT STRATEGIES FOR CHW PROGRAMS

Stakeholder	Key Concerns	Actions
Administrators	Financial sustainability Return on investment	▪ Provide information on funding sources (see Section 8). MHCP (Medicaid) reimburses CHW services provided by CHWs who have completed the certificate program and are supervised by a MHCP enrolled provider (physician, advanced practice nurse, dentist, public health nurse, or mental health professional) ▪ Provide ROI data (see Section 10.1)
Clinicians (e.g. physicians, nurses, therapists, etc.)	Empirical proof of CHW outcomes and relevance Potential overlap in some activities (nurses)	▪ Provide ROI data (see Section 10.1) ▪ Offer training on how CHWs can benefit patient outcomes ▪ Offer training on how CHWs can benefit clinician ability to practice at the top of licensure ▪ Engage medical staff in determining CHW roles and integration points. ▪ Train CHWs on scope of practice, HIPAA, mandatory reporting, and documentation including electronic health records, etc. to facilitate comfortable alignment ▪ Ongoing: Create regular team-based quality improvement opportunities to identify gaps in CHW program, training, integration, and assessment.
Clinic management/ supervisors	Not familiar with CHW role No experience working with, integrating or supervising CHWs Lack of familiarity with supervising staff outside of clinic (e.g. home visiting)	▪ Assist team members to understand the CHW role, its scope and benefits to patients, the care team and organization ▪ Offer training and technical assistance to equip supervisors with skills to effectively oversee and support CHW services. ▪ Ongoing: Hold regular team meetings and quality improvement sessions to optimize team performance, identify needs that CHWs can meet, and identify CHW program, training, integration, and assessment opportunities
Social workers	Potential overlap in some activities	▪ Provide training and technical assistance on CHW scope of practice. CHWs supplement professional social worker activities by assisting with tasks social workers do not have time for, such as helping patients complete insurance forms and making transportation arrangements. CHWs also serve as language and cultural bridge between social workers and patients.
Patients	Not understanding or misunderstanding CHW role	▪ Provide information on CHW role and benefits to patients. Explain how CHWs do not provide "hands on" care but instead, as members of the team, furnish culturally-competent patient support, care coordination, service navigation and patient education. CHWs typically share the same language and culture and can assist in increasing the effectiveness and efficiency of communication between health providers and patients.

KEY RESOURCES: Business case templates, AONE toolkit (http://www.aone.org/)

7 Hiring, Onboarding, and Supervision

7.1 Recruitment and Hiring

7.1.1 Things to Consider – CHW Hiring

The structure of CHW positions within an organization should be carefully considered. While pilot programs are typically launched without all of the following structural elements in place (and can be very helpful in building lasting success), long-term positions should be designed to:

- Offer a clear pathway for advancement (e.g., multiple levels of CHW positions such as "CHW" advancing to "Senior CHW").
- Include increasing compensation opportunities commensurate with advancement, performance and duration of employment.
- Offer a starting pay scale that considers market rates, level of education, experience and skills. Some existing employees (e.g., medical assistants, care coordinators) may be a good fit for the position but may require a salary adjustment to take the position. Flexibility in the pay scale may be a cost-effective strategy for an organization in order to ensure an employee with the right skill set.
- Account for degree holders (and others) without CHW certificates and provide mechanisms for obtaining the certificate while employed. Existing CHW certificate holders are not always a job match and some areas of the state have few CHW certificate holders.
- Allow for additional training for qualified individuals who may lack certain job skills such as intermediate computer literacy and written English proficiency.

Similarly, thoughtful attention should be given to the daily requirements of a particular employee or group of employees and their workloads. For example, visiting clients and patients in their home is a challenging task and caseloads need to be realistic. Some employers have found that incentives (e.g. flexible schedules) can be built into programs to motivate employees.

7.1.2. Developing a CHW Job Description

Many organizations require formal approval of a job classification and job description prior to posting a job announcement. If CHWs are a new employee category, working with Human Resources to develop and approve a job classification may take some time. One alternative to explore is using an existing job classification with a modified job description (e.g. Health Educator or Family Advocate positions).

CHW job descriptions are very diverse and dependent on organizational needs. Key considerations for developing a job description include:

- Primary duties (e.g. home visiting, patient education);
- Workload (see Section 7.2.2);

- Educational requirements (e.g. certificate holder);
- Language requirements (e.g. both oral and written, English, other languages);
- Special skills (e.g. computer skills, EHR experience, phone calling skills, driver's license);
- Personal skills (e.g. empathy, ability to develop trusting relationships, interest in helping the community), and,
- Physical requirements (e.g. transporting education materials, walking and stair-climbing to visit patient homes).
- Prior health and other related work experience (including knowledge of CHW community)

KEY RESOURCES: University of New Mexico CHW job classification (http://jobdescriptions.unm.edu/detail.php?id=6503), job descriptions

7.1.3   Recruiting a CHW

Almost half (44%) of the 55 responding employers to the 2016 Minnesota CHW Employer Survey (see CHW Toolkit: Employer Survey/Interview Report) reported challenges in recruiting CHWs with minimum qualifications needed for specific positions. As a result – and as is the case with many roles -- recruitment should focus on highlighting the essential qualities needed to excel at specific CHW work (see Section 7.1.4) rather than focusing solely on skills that can be obtained through training or education.

According to survey respondents, the most popular recruitment methods were employee/colleague word of mouth (76%) and advertisement (75%). Popular websites for posting CHW jobs include Indeed (http://www.indeed.com/), Minnesota Council of Nonprofits (http://www.minnesotanonprofits.org/post-jobs), MN CHW Alliance (http://mnchwalliance.org/contact/) (via monthly newsletters), MN CHW Peer Network (http://wellshareinternational.org/program/mnchwpeernetwork/), and employer-specific sites. Other recruitment methods include referrals/recruitment from a provider or other agency, posting job announcements in community centers and local businesses and advertising through local ethnic media (e.g. ethnic newspapers and websites). CHW certificate-offering institutions are good places to recruit as well. Schools that offer the certificate program require their students to complete an internship, offering a potential opportunity to see if a specific CHW is a "good fit" for the organization and the position.

An innovative recruitment strategy used by some employers is to hold a large group recruiting session similar to a job fair. Widely advertised through community media, such sessions can draw large numbers of potential candidates and offer an opportunity to see how they interact with their target audience—a fundamental skill needed by CHWs. Health education can be given at the events in addition to recruiting activities.

Multiple interviews may be needed to identify the "right" candidate for the position. Members of the interviewing team can include supervisors and other team members such as existing CHWs. (In particular, an already-employed CHW with the appropriate language skills can assist in determining how well a potential candidate knows the desired languages.) A number of organizations have shared interview protocols and templates (see Resources section).

KEY RESOURCES: Interview scripts

7.1.4   Essential CHW Skills

The 2016 Minnesota CHW Employer Survey respondents' weighed the importance of CHW roles, skills and qualities from the C3 Project list. (See CHW Toolkit: Employer Survey/Interview Report for the full ranked list of roles, skills and qualities.) The most frequently identified items included:

Roles

- Assuring access to health care and other services (79%)
- Individual and community advocacy (75%)

Skills

- Interpersonal skills (98%)
- Communication skills (95%)

Qualities

- Being motivated and capable of self-directed work (93%)
- Dependable/responsible (93%)
- Open-minded (91%),
- Committed (91%)
- Respectful (91%)

PRACTICE TIPS: *A recruitment strategy that assesses and prioritizes the "right" skills can identify individuals appropriately qualified for the role. When Children's Hospitals and Clinics of Minnesota first launched its Service Coordinators (their term for CHWs), its hiring priorities focused on candidates who had obtained post-high school education, had experience with patient coaching and possessed clinic awareness and familiarity. Over time, they found that recruiting the "right person" meant identifying someone with a demonstrated mix of strong communication skills, the ability to create trusted relationships with patients and families, and the understanding to meet the families "where they are." When these qualities are combined with cultural and language skills and some health background, a Service Coordinator will be able to identify where to start and move forward with families from one set of goals to the next. To successfully recruit such candidates, Children's uses a two-tiered interview process including an initial interview with a manager followed by a second team interview that relies heavily on behavioral interviewing techniques.*

KEY RESOURCES: CHW Toolkit Background Research (http://www.health.state.mn.us/divs/ orhpc/workforce/emerging/chw/index.html#toolkit): Employer Survey/Interview Report, Interview Scripts, C3 Project Progress Report 2016 (http://files.ctctcdn.com/ a907c850501/1c1289f0-88cc-49c3-a238-66def942c147.pdf)

7.1.5   CHW Compensation

Most CHWs employed in Minnesota are full-time, paid hourly and receive a package of benefits such as health insurance and paid time off. CHW compensation varies by factors typical to other types of professions such as:

- Employer organization characteristics;
- Employer location (e.g. urban vs. rural);
- Employee education/certificate completion;
- Duration of employment; and,
- Level of experience.

TABLE 11 notes the hourly mean and median wages for CHWs in Minnesota according to various recent data sources.

TABLE 11. HOURLY MEAN AND MEDIAN WAGES FOR CHWS IN MINNESOTA

Data Source	Hourly Mean Wage for CHWs in Minnesota
U.S. Bureau of Labor Statistics (2014)	$18.35
MN CHW Employer Survey (2016)	$17.63 (new hires) $22.45 (top earners)
WellShare International CHW Survey (2014)	$18.42
MN CHW Employer Survey (2016)	$17.00 (new hires) $22.00 (top earners)
Iseek.org (2015)	$17.05

TABLE 12 summarizes data from the 2016 Minnesota CHW Employer Survey (see CHW Toolkit: Employer Survey/Interview Report) on the types of benefits commonly received by CHWs.

TABLE 12. EMPLOYMENT BENEFITS OFFERED TO CHWS (n=49)

Benefit	n*	Percent
Health insurance	46	94
Mileage reimbursement	46	94
Vacation accrual	44	90
Personal leave	42	85
Sick leave	40	82
Pension or retirement plan	34	69
Tuition assistance	25	51
Parking	21	43
Educational leave	7	14
Commuter subsidy	3	6
Child care	2	4
Other (please specify)	7	14

*Multiple responses allowed, so percentages sum to greater than 100%.

7.2   Onboarding

7.2.1   Things to Consider – CHW Onboarding

While specific requirements for orienting a new CHW will depend on organizational practice and job duties, CHW performance could be enhanced by familiarization and training including:

- Buy-in and ongoing organizational support from leadership;
- Awareness of organizational culture;
- Orientation to organizational history, logistics, policies and procedures;
- Introduction to provider, care team and support staff;
- Job shadowing of provider, care team and support staff as well as other CHWs;
- Introductions to clients/patients by existing staff members;
- Education on specific health topics to be addressed;
- Education on specific social service topics and resources; and,
- Training on EHR and other computer software.

Experiential learning, particularly from other CHWs, is an effective method for onboarding. However, if the role of the CHW is brand new to the organization, it is important to identify internal mentors and sources of support for the CHW. It is also crucial for leadership to ensure that existing staff and providers are aware that hiring a CHW may mean a significant cultural shift to the organization – both in how the organization functions internally, and in how it meets the needs of its clients and patients. Sustained, frequent communication about how best to incorporate input from the CHW is recommended.

KEY RESOURCES: Retaining and Developing High Potential Talent

7.2.2   Orientation and On-the-job Training

Orientation and on-the-job training is essential for onboarding a CHW. Training/orientation undertaken as part of the onboarding process could include:

- Organizational logistics/structure, policies, and procedures;
- Communications practices including email;
- Electronic health records and documentation requirements;
- HIPAA;
- Practice limitations and boundary issues;
- Mandatory reporting;
- Self-care;
- Care team job-shadowing;
- Patient observation; and
- Participation in quality improvement or other process improvement meetings.

In an open-ended question, 2016 Minnesota CHW Employer Survey respondents (n=37) indicated the type of skills training they felt had been most beneficial to CHWs in their organizations (TABLE 13).

TABLE 13. TRAINING TOPICS/PROGRAMS MOST BENEFICIAL TO CHWS (n=37)

Training Topic	n	Percent*
Motivational interviewing	7	19
Medical record and documentation	5	13
Cultural awareness	4	11
Diabetes	4	11
Infants and children	4	11
Oral health	3	8
Insurance	3	8
Mental health	3	8
Outreach and screening	2	5
Asthma	2	5
Mentoring by experienced CHWs	2	5
Interpersonal skills	2	5
Patient navigation	2	5
Care coordination	2	5
Home care training [home visiting]	1	2
Opportunities to attend conferences	1	2
Care transition	1	2

In an earlier national study (2007 CHW/NEI - http://bhpr.hrsa.gov/healthworkforce/reports/chwstudy2007.pdf), the most common topics for CHW on-the-job training were cultural awareness (80%), acquisition of competencies for addressing specific health issues (e.g., asthma, diabetes or cancer), interpersonal communication skills (70%), and client advocacy (59%).

7.2.2.   Determining CHW Workload

A time or task-based analysis can assist employers in determining position workloads and aligning staffing. Although relatively few time or task-based analyses are available in the literature, one internationally-focused study suggested that CHWs have no more than 100 possible types of tasks organized into no more than 12 categories (Jaskiewicz & Tulenko, 2012). The same study also presented a model of productivity in FIGURE 4 where knowledge and skills (e.g. performance standards) plus motivation (e.g. accountability) plus the work environment (notably inclusive of mutual respect) equals productivity.

FIGURE 4. PRODUCTIVITY EQUATION

Knowledge / Skills + Motivation + Environment = Productivity

Environment: Workload, Supportive supervision, Supplies and equipment, Respect
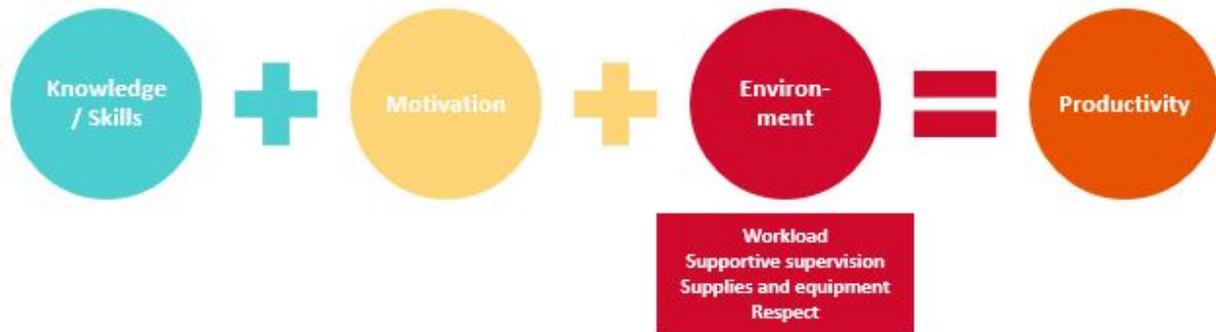
Locally, the *Healthy Communities* project (Hennepin County Medical Center, MVNA and Hospice of the Twin Cities, with funding from the Greater Twin Cities United Way via the Medtronic Foundation) has recently completed data collection on such a study with their CHWs. Their data collection tool records face-to-face activity areas of education, intake and information/resources as well as tasks of care coordination, documentation, phone calls and administrative.

General practice is also illustrative in determining CHW workload. Some key considerations for workload include:

- Complexity of patient health issues and social needs;
- Number of tasks/focus areas in the program;
- Organization and tools to assist CHW in workload;
- Documentation requirements; and,
- Distance traveled or time needed to travel between clients (especially for home visiting programs).

KEY RESOURCES: MVNA Time Study Submission Form (Section C)

7.3   Integration

7.3.1   Things to Consider – CHW Integration

CHW integration depends significantly on both the CHW role(s) within the organization and the flexibility and cooperation of existing staff. A thorough onboarding process will assist in ensuring that all staff are familiar with the individual CHW as well as the CHW roles and responsibilities and promote ease of integration. Other areas to consider during the integration process include:

- Ongoing support from leadership;
- Building rapport and racial/cultural understanding among team members;
- Identifying solutions to communication issues such as language barriers; HIPAA and information sharing restrictions; and EHR documentation;
- Including the CHW as a full member of the care team and any relevant committees, e.g. quality improvement;

- Providing sufficient orientation and learning curve for CHW to successfully carry out the requisite responsibilities with other team members;
- Allowing sufficient time and opportunity to discuss the process of change and make the needed changes to the status quo to fully integrate the CHW; and,
- Developing appropriate protocols, forms, and documents (e.g. front desk/scheduling flow sheets) to ensure formalization of an integrated CHW position.

When staff understand and experience the benefits to patients, the team, and their own positions as a direct result of the CHW role, employers find that other team members support CHW integration. Everyone should have an understanding that integration is an ongoing learning process and requires flexibility, creativity, and a trusting environment.

> **PRACTICE TIPS:** *Intentional recruitment and supervision is necessary. From Hennepin County Medical Center's perspective, the "key to be[ing] successful" with a CHW program is to recruit CHWs from within the communities to be served. Once recruited, to enable success, clearly define the CHW's role within the care team(s), continually revisit that role definition, and redefine as necessary. Work standardization allows clear understanding of responsibilities by the CHW, the supervisor, and other members of the care team. Then supervision outcome measures can be matched to the defined role and standardized work assignments.*

7.3.2   Overview of Frontline Professions/Roles

In a multi-disciplinary team environment, CHW employers deploy CHW integration strategies to strengthen existing care teams and augment clinical/organizational roles (e.g. care coordination). Key CHW roles include:

- Bridging the cultural divide with other care team members and the patient. The CHW can help other care team members understand cultural beliefs, family structures and histories, and situations that influence health behaviors and interaction with the health care system.
- As a member of the patient's community, CHWs not only speak the language but are trusted. Evidence and experience show that patients may feel more comfortable opening up about psychosocial issues, basic needs (e.g. food, housing) and cultural considerations affecting their health behaviors and health outcomes. CHWs typically have more time with patients to build individual capacity for better health through coaching, education and support.
- Outreach and advocacy including linking patients to needed services and coverage.
- Home visiting.

In addition, CHWs often broaden the experience base and composition of their teams in terms of racial, cultural and/or socioeconomic diversity in various health provider settings (e.g. clinics, oral health, mental health, etc.) and in public health agencies.

The CHW Toolkit: Overview of Frontline Professions table suggests some differences between various emerging and established professions (i.e. advanced dental therapist, CHW, community paramedic, home health aide, interpreter, medical assistant, nurse, social worker) and roles (i.e. care coordinator, navigator) that typically work together to provide patient care.

KEY RESOURCES: CHW Toolkit Background Research; AONE CHW Toolkit (http://www.aone.org/resources/Building%20a%20Community%20Health%20Worker%20Program) page 12 has a comparison table with other similar professions.

7.3.3   Care Delivery

The day-to-day activities of CHWs may be broad in scope and vary greatly. A number of helpful tools have been developed to assist CHWs and their supervisors and care teams in the process of service delivery. These include:

- Policy and procedure manuals;
- Triage protocols;
- Patient assessment;
- Health promotion and patient education materials;
- Follow-up protocols and forms; and,
- Care coordination protocols and forms.

Section 11.1 provides a detailed list and links to tools and templates. Some highlights include:

- Pathways Community HUB model (https://innovations.ahrq.gov/sites/default/files/Guides/CommHub_QuickStart.pdf) which has developed 20 open source pathways for a variety of health and social issues;
- HealthEast Care System has provided a number of protocols for CHW integration into care teams, including EHR protocols and examples.

KEY RESOURCES: See Section 11.1.2 for full list of tools and templates related to care delivery.

7.3.4   Documentation and Reporting

Documentation of CHW activities is important for the patient record, to communicate with the care team, to allow for evaluation and to meet reimbursement requirements. Most CHW programs in clinical settings integrate a CHW visit note within electronic health records, although pilot programs may use a paper form that can be scanned into the EHR as an attachment. Some considerations for documentation include:

- Inclusion of sufficient interaction data for business case development;
- Requirements of MHCP for reimbursement purposes;
- Organization-specific documentation policies.

Sample data that may be collected in a visit note include:

- Date and time of visit;
- Patient name and DOB;
- CHW name;
- Points for discussion including health education given;
- Materials or referrals provided;
- Follow-up plans.

A number of documentation and reporting tools have been developed by Minnesota-based CHW programs. See Section 11 Resources for more information.

KEY RESOURCES: See Section 11.1.2 for a full list of EHR related templates.

7.4 Supervision and Management

7.4.1 Things to Consider - Supervision

New CHW supervisors should be prepared to incorporate new skills and new learning to effectively perform their supervisory roles. As part of helping to successfully integrate this emerging health profession within their workplace, supervisors lead the way to champion, delineate and incorporate CHW services to improve team-based care. Employers point to the value of cultural competency skills to effectively supervise their CHW staff.

Dissimilarities in culture and educational background may require more on-the-job training (especially if the CHW has not completed the certificate program), more frequent check-ins in the beginning, and different communication methods than supervisors may have experienced with other staff roles. As a result, some CHWs may take more time to supervise compared to other staff. At the same time, CHW cultural skills provide supervisors with a greatly enhanced understanding of their patients/clients and an opportunity to improve patient satisfaction and compliance. CHW participation on the team improves work flow and productivity on the part of other team members.

7.4.2 Supervision Models

Factors affecting the supervisory structure used by organizations could include:

- Number of CHWs employed
- Program activities implemented by CHWs
- Roles and responsibilities of existing staff

In a clinical setting, CHWs are often supervised by an RN care coordinator or clinic manager with a healthcare administration background. CHWs may also be supervised by a licensed social worker or Master's of Public Health-prepared program manager. Some organizations use a "Senior CHW" model whereby a more experienced CHW provides mentorship and support to other CHWs, while not directly supervising them. Some examples of supervisory and co-supervisory models include:

- **Penn Center for CHWs, Philadelphia, PA** – In the Center's IMPaCT model, teams of six CHWs and two Senior CHWs are managed by one full-time manager and one half-time coordinator. CHW managers are typically social workers and CHWs work primarily at the community level. As of early 2016, 24 CHWs had been hired to serve 1,500 high-risk clients.
- **HCMC/MVNA, Minneapolis, MN** – After the integration of HCMC and MVNA in January of 2016, HCMC has 31.4 FTEs of CHWs working in the primary care clinic, hospital, Emergency Department and home visiting settings. HCMC has 2 CHW Supervisors and 2 program managers involved in the supervision and management of CHW services and programs.
- **Mayo/IMAA, Rochester, MN** – IMAA co-supervises CHWs seconded as contractual employees to Mayo Clinic. At Mayo, a public health nurse with a doctorate in nurse

practitioner services provides day-to-day supervision, but regular meetings are held with various teams at Mayo and in the community.

- **WellShare International (http://www.wellshareinternational.org/), Minneapolis, MN** – WellShare uses a co-supervisory model in its partnerships with clinics, with overall supervision provided by a WellShare manager and day-to-day supervision provided by clinic staff (usually a clinic manager or care coordinator). Supervision for its care coordination programs is provided by a WellShare program manager with a CHW typically providing home-visiting services to 16-20 clients per week along with follow-up to additional clients. These services can be offered on a contractual basis. In its non-clinical, community-based work one program manager typically supervises 3-4 CHWs whose scope of work (e.g. number clients reached) varies by program. WellShare currently has 8 CHWs (Somali, Hmong, and Karen).

- **CHW Solutions LLC, Minneapolis, MN** – A newly-formed business, this co-supervisory model hires CHWs and makes them available on a contractual basis for service provision in home, clinic and community settings.

The Minnesota CHW Alliance (http://mnchwalliance.org/contact/) founded an interest group known as the Minnesota Community Health Worker (CHW) Supervisor Roundtable, a forum by and for CHW supervisors that provides information, tools and best practices to CHW supervision through bimonthly teleconferences. Interested parties may contact the CHW Supervisor Roundtable chairpersons (http://mnchwalliance.org/contact/) to join the listserv and get involved.

Additionally, the Alliance held a webinar (https://www.youtube.com/watch?v=WJTq460rDQ0&feature=youtu.be) on CHW recruitment, hiring and supervision on April 11, 2016 which provides useful tips on supervising CHWs from the IMPaCT model and Nobles County Community Health Services as well as more information on the MN CHW Supervisor Roundtable.

7.4.3   Performance Review

Given the profession's emerging nature, performance assessment of a CHW should be viewed as a quality improvement and organizational learning opportunity as well as a review of employee performance. Kok et al. (2014) identified six intervention factors influencing CHW motivation and performance shown in TABLE 14 that could guide a performance review: 1) Trust, 2) Supervision, 3) Training, 4) Workload, 5) Clarity on CHW tasks/roles, and 6) Compensation. Although this research is primarily drawn from CHW program experience overseas and the description reflects international contexts, the six factors are relevant to CHW performance in the US.

TABLE 14. DETERMINANTS OF CHW PERFORMANCE

Factors	Description
Trust	The helping relationship between CHW and community involves building trust on both sides of the relationship (Glenton et al., 2013). In a review of literature on effectiveness of CHWs programs to improve adherence to antiretroviral therapy, Mwai et al. (2013) reported that building trust is a key ingredient to successfully conduct CHWs programs. CHWs that serve communities in which they live in were reported to be more trusted by the community, which can affect their occupational performance tasks (Kok et al., 2014).
Supervision	The central purpose of implementing regular supervision is to ensure that roles and responsibilities are properly exercised by CHWs, and to enhance CHWs functioning. If correctly done, adequate supervision could result in high CHWs motivation, by helping them to reach the highest possible performance level (Hill et al., 2014). Martinez et al. (2008) found that effective supervision by health workers and support from community leaders leads to increased credibility and external recognition, as well as the feeling of being part of the team. On the other hand, if done poorly or conducted by inadequately trained evaluators, supervision may harm motivation and good performance of CHWs (Moetlo, Pengpid, & Peltzer, 2011; Chanda et al., 2011). It is clear from the existing literature that CHWs motivation depends on the quality of supervision; however, few studies have focused on elements of effective *supervisory* performance (Kok et al., 2014).
Training	The literature suggests that adequate training has significant effect on CHWs' motivation and sustainability of CHW programs. In a systematic review of literature regarding factors influencing performance of CHWs, it is reported that training in a friendly environment by highly qualified trainers enhanced CHWs' motivation, performance and job satisfaction (Kok et al., 2014).
Workload	CHWs' performance may suffer from low motivation due to high workload resulting from high CHW population ratio. Several studies indicated that excessive workload was significantly associated with increased loss to follow up and poor performance among CHWs (Alam et al. 2012; Rahman et al., 2010).
Clarity on CHW Tasks and Roles	A lack of clarity on CHW tasks often leads to unrealistic expectations (e.g., asking for goods or money, demanding treatment in spite of a negative test) especially from people in the community, resulting in lowered motivation and performance of CHWs (Kok, et al., 2014). Therefore, prior to intervention's initiation, efforts should be made to ensure that communities have realistic expectations about the scope and knowledge of CHWs (LeBan et al., 2014).
Compensation	There are pay models to compensate CHWs including volunteer-based and paid models. However, it is clear from the existing literature that fair compensation is one performance-influencing factor (Davis, 2013; Dower et al., 2009; Kok et al., 2014). A combination of financial incentives (e.g., fixed pay, regular and irregular allowances, performance-related pay) and non-financial incentives (e.g., tangible rewards such as continuous training, feedback, frequent supervision and supplies) can lead to better performance, accountability and quality of work among CHWs (Kok et al., 2014; Crigler et al., 2013).

Ideally performance should be assessed on an as needed basis as well as during formal review periods (e.g. weekly, monthly, quarterly, annually). In community-based programs, supervisors and CHWs find weekly or monthly work plans to be a helpful way to assess ongoing achievement of performance measures.

KEY RESOURCES: See Section 11.1.5 for collaborative management templates, performance review templates, weekly/monthly work plan templates.

7.4.4   Retention

Retention is an important consideration in an entry-level, emerging profession. Some factors affecting retention (adapted from Strachan et al, 2012) include:

- Recruitment and hiring processes (e.g. selecting the 'right' person);
- Training (e.g. is the CHW confident and prepared for the job requirements?);
- Supervision;
- Compensation and incentives;
- Connection with and involvement of community can provide internal motivation;
- Inclusion in the mission of the organization;
- Ability to understand needs and outcomes through participation in data management; and,
- Job stability.

8 Financing

8.1 Models

Funding sources for covering CHWs may include:

- **Medicaid reimbursement**. *Note: Please see the MHCP CHW Provider Manual (http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=dhs16_140357) for current information on this topic.*

  Under this model, Minnesota Medicaid-eligible providers can submit claims to DHS or health plans that serve MHCP-enrollees to receive reimbursement for specific CHW services. Provisions related to CHW reimbursement, which passed initially in 2007, are codified under the following statutes:

  > Minnesota Statutes, Section 256B.0625 (https://www.revisor.mn.gov/statutes/?id=256B.0625), subd. 49 (Community health worker)
  > Minnesota Statutes, Section 245.462 (https://www.revisor.mn.gov/statutes/?id=245.462), subd. 18 (Mental health professional)
  > Minnesota Statutes, Section 245.4871 (https://www.revisor.mn.gov/statutes/?id=245.4871), subd. 27 (Mental health professional)

  In summary, the statutes provide for Minnesota Health Care Programs (MHCP) reimbursement of "care coordination and patient education services provided by a CHW" when the following primary conditions are met:

  - The CHW has completed a qualified certificate program using the Minnesota State-approved CHW curriculum. Per DHS guidelines, the CHW must also be enrolled as a MHCP rendering provider.

- The CHW is working under the supervision of a qualified health provider (defined as MHCP-enrolled physician, dentist, advanced practice registered nurse, certified public health nurse working in a unit of government, or mental health professional). Services must be ordered by a qualified provider.

At the time of the legislation, CHWs who had at least five years of experience as a CHW working under a qualified health provider were "grandfathered" in and could be eligible for reimbursement if they completed the certificate program by January 1, 2010. In practice, those CHWs who qualified under this clause passed an exam and received the certificate. This provision is no longer applicable.

As of August 2016, 38 CHWs have been fully enrolled as Medicaid providers. A total of five organizations received reimbursement for CHW services from DHS between January 1, 2014 and December 31, 2015.

In 2010, Minnesota received approval from the Centers for Medicaid and Medicare for coverage of diagnosis-related patient education services delivered by CHW certificate holders. The approval did not include approval for Medicaid payment for CHW provision of care coordination, even though coverage for care coordination is authorized by Minnesota statute.

By state Medicaid contracting rules, Managed Care Organizations (MCOs) are required to include reimbursement for CHW services in their Medicaid services package. As billing requirements vary, organizations should contact each MCO individually about rates and procedures.

More information on MHCP reimbursement for CHW services can be located in the CHW Toolkit Payment and Regulatory Report and the list of potentially reimbursable CHW education services compiled by MS Strategies, MVNA, and the Greater Twin Cities United Way.

- **Government agency and foundation grants and contracts.** This model is the most common CHW funding arrangement in the US. Under this model, government and philanthropic funds are allocated to CHW employers (e.g., community-based organizations, community clinics) to pay CHW salaries or administer CHW programs. Examples include the one-time CMS Statewide Innovation Model awards and the MNSure Navigator grants.

- **State and local general funds:** Under this model, federal, state or local government funding can be used to employ or reimburse CHW services directly. Government general funds are often used to provide support for a variety of programs that may not be supported by other funding mechanisms. States may provide dedicated line item budgets for CHW programs that include CHW salaries or services (Dower et al, 2006; Clary 2015). Some examples of state and local funding include the Kentucky Homeplace appropriation and San Francisco, CA and Fort Worth, TX public health departments

([National Health Care for the Homeless Council, 2011](#) - http://www.nhchc.org/wp-content/uploads/2011/10/CHW-Policy-Brief.pdf).

- **Commercial insurance:** Under this model, CHW services could be included in the benefit package offered by companies to their employees. This could be particularly attractive to companies and unions with significant numbers of employees with limited English proficiency, e.g. hospitality, meat processing, and home health services.

- **General operating/Administrative funds:** Under this model, CHWs can be either directly employed by private organizations such as health plans and hospitals or indirectly through a contract with clinics or community-based organizations. In Minnesota, health plans have used administrative funds to implement this model and several health systems have opted to build CHW services into their general operating budgets due to positive ROI and other benefits (e.g. CentraCare, Mayo Clinic). Some hospitals are directing their community benefit funds to support CHW programs.

Other models where CHW services can be reimbursed include:

- **Patient-Centered Medical Homes/Health Care Home**. Under Health Care Homes (HCH) in Minnesota, CHWs can provide services to Minnesota Health Care Program (MHCP)-enrolled patients as part of the care coordination team. Institutions must first be certified as Health Care Homes or Behavioral Health Care Homes by the Minnesota Department of Health and maintain a current list of eligible providers. (See the [MDH Health Care Homes website](#) (http://www.health.state.mn.us/healthreform/homes/certification/) for more information.) Under this model, certified HCH can obtain funding for care coordination services provided to MHCP-enrolled patients on a per member per month basis, with provisions for severity, co-occurring mental health diagnosis or language issues. In addition, CHW patient education services provided to MHCP enrollees can be billed for separately, under the mechanism described above. For more information on the HCH requirements and procedures, please see the [MHCP Provider Manual](#) (http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_000094).

- **Accountable Care Organizations**. In 2011, the U.S. Department of Health and Human Services created the structure for ACOs as part of new rules related to the Affordable Care Act (ACA). The goal was to improve the *triple aim*, especially for high-utilizer patients, through care coordination. ACOs can use traditional fee-for-service payment with both private and public insurers, but CMS rules also require shared savings agreements conditional on meeting specified quality measures. The ACO model creates an incentive for providers to efficiently and effectively manage the health of their patients regardless of where the patient received care. Innovation lies in the flexibility of their structure, payments and risk assumption. That structure is likely to include primary care providers, specialists, a hospital and other provider and community agreements/partnerships. When an ACO succeeds both at delivering high-quality care and spending dollars more wisely, the ACO will share in the savings it achieves. Utilizing

CHWs can improve health outcomes, enhance patient experience, and reduce the cost of care per patient, which would allow the ACO to use some of the shared savings to pay for the CHW services.

- **Integrated Health Partnerships.** Integrated Health Partnerships (IHPs) (originally known as the Health Care Delivery System (HCDS) demonstration) is a statewide program under Minnesota's Medicaid program borne out of legislation passed in 2010 (Minnesota Statutes, 256B.0755). The IHPs are Minnesota's Medicaid ACO model to improve care delivery and lower the cost of care through innovative delivery models. The Minnesota Department of Human Services currently funds 19 organizations (see list) through the IHP program and plans are to expand the program to reach half of Minnesota's Medical Assistance and MinnesotaCare enrollees by 2018.

Carl H. Rush, MRP, Principal of Community Resources LLC has developed a useful diagram which highlights three basic pathways of CHW financing: conventional health care, population/community-based public health, and patient-centered care systems (emerging hybrid structures).

KEY RESOURCES: Sustainable Financing of CHW Activities

8.2 Sustainability

While this section will focus on financial sustainability, overall sustainability of a CHW program requires:

- **Ongoing commitment** by all levels of leadership (administration, supervisory, community);

- An **educated workforce** (e.g. certificate-holding CHWs) that engages in continual professional development along with other members of the care team (or other workforce structures);

- **Evaluation** of program processes and outcomes for quality improvement and sharing success; as well as

- **Financial** and material (e.g. job aides, EHR) **resources**.

Most organizations use a variety of funding sources to sustain the CHW role. Some organizations with sustainable models include:

- **Penn Center for CHWs, Philadelphia, PA** – uses community and general funds from large health systems and health plans to fund 24 CHWs under its IMPaCT™ model. Other staff are funded partially or wholly through grants.

- **Northwest Ohio Pathways HUB** – started in 2006, one entity serves as a central clearinghouse for a variety of payers (e.g. health plans, foundations) to contract and pay for regional community care coordination services related to birth outcomes and chronic disease provided by CHW employers. Payers could use general or community funds, Medicaid reimbursement, grants, or other funding. The HUB partnered with Toledo/Lucas County CareNet in 2015 to provide care coordination to patients with

abnormal mammograms with funding from the Susan G. Komen Foundation (Northwest Ohio).

- **NorthPoint Health and Wellness Clinic, Minneapolis, MN** – primarily operates from grants.

- **Hennepin County Medical Center, Minneapolis, MN** – combines Health Care Home, grants and MHCP reimbursement.

- **St. Paul-Ramsey County Public Health, St. Paul, MN**– primarily MHCP reimbursement.

- **Mayo Clinic/IMAA, Rochester, MN** – uses ACO payment mechanisms along with grants and MNSure Navigator funding to cover CHW costs.

Accounting for the full cost of the CHW program is essential. Use of a pro forma, break-even and cash flow analyses can be helpful in setting goals and identifying appropriate funding sources. Some additional considerations when determining a sustainable funding constellation may include:

- **Flexibility of CHWs to engage in their work**. Some funding sources (e.g. Medicaid reimbursement) may not allow CHWs to reach all targeted patient populations or carry out key intervention activities.
- **Restrictions on program costs** such as training, mileage reimbursement, and paid time off. Not all funding sources will cover training and administrative activities that are part of a CHW's core job responsibilities and/or benefits package.
- **Reimbursement rates.** Some organizations report that low CHW payment rates do not warrant the investment needed to set up billing for Medicaid reimbursement. Minnesota FQHCs have been reluctant to renegotiate their bundled payment formulas in order to add CHW services, for a variety of reasons. Future payment reforms for community health centers will move away from the cost-based methodology (see CHW Toolkit: Payment and Regulatory Report for more information) and may provide a better financial model to sustain CHW services.

For many Minnesota providers and community-based organizations, the challenge of sustainable funding for CHW programs is a key factor in preventing uptake or expansion of a CHW strategy. There is a need to develop more robust, comprehensive and long-term financial mechanisms to fully support CHW strategies that assist Minnesota organizations in meeting both the Triple Aim for Health Care and the Triple Aim for Health Equity. Fortunately key stakeholders including health plans and health systems are now engaged in that process. Developments in other states provide some incremental examples. Michigan Medicaid requires all Medicaid managed care plans to maintain a ratio of at least 1 CHW for 20,000 enrollees and New Mexico covers CHW care coordination offered to managed care enrollees through a state waiver.

KEY RESOURCES: CHW Toolkit: Payment and Regulatory Report, Pro forma, List of potentially reimbursable services

9 Quality Measurement and Evaluation

For quality measurement purposes, while there are currently no standard clinical quality measures specific to CHW activities, it is important for organizations to incorporate the work CHWs perform into the collection of data for measures that can at least indirectly demonstrate their impact. Evaluation of CHW programs currently offers the best opportunity for assessing and measuring the impact of CHW activities, and for planning around quality improvement and resource allocation. The appropriate indicators to use to evaluate a CHW program will flow from the intended key audience(s) of the evaluation and anticipated questions to be asked by those audiences.

In a clinical context, Minnesota Community Measurement reports on many clinical performance indicators for primary care clinics that could be used to 1) assist in identifying where CHWs could be deployed to improve patient outcomes and 2) assess the effectiveness of CHW interventions. Areas where CHW effectiveness has been shown already (e.g. avoidable hospital readmissions and preventable emergency room visits) and Healthcare Effectiveness Data and Information Set (HEDIS) measures could be a place to start.

TABLE 15 below (adapted from The [University of Arizona Rural Health Office and College of Public Health CHW Evaluation Tool Kit](http://crh.arizona.edu/publications/toolkit/1601) (http://crh.arizona.edu/publications/toolkit/1601), 1998) highlights some questions that could be answered by an evaluation depending on the targeted audience.

TABLE 15. FRAMING THE EVALUATION: KEY AUDIENCES AND TYPICAL QUESTIONS

Key Audience	Typical Questions
Program Management & Staff Clinical Staff Administrators	Are we reaching our target population? Is the program being run efficiently? How can we improve our program? How many patients does the clinic/hospital/agency serve? How many clients/patients does the program serve? What is the ratio? How many visits/year does the average patient have…with a CHW? With a provider? How many uninsured patients seek care in the ER? What is the most common diagnosis? Does the program save the clinic/hospital/agency money? What is the cost per visit in the CHW program? Cost per visit in the ER? How satisfied are patients/CHWs/staff/administrators with the program? What are the most frequent sources of program referral? How has the program affected patients' knowledge, attitudes, and practices?
Clients/Patients	Did CHWs help me and people like me? What would improve the CHW program? How satisfied am I with the program?
Community Members	Is the program suited to our community needs? What is the program really accomplishing? Is the program reaching those most in need?
Public Officials	Who is the program serving? What difference has the program made? Is the program reaching its target population? Is the program worth the cost? How many citizens do not have health insurance? Has this program increased access to care for those who are uninsured?
Funders/Donors	Is what was promised being achieved? Is the program working? Is the program worth the cost? Who are the collaborative partners? What does each provide? Is this in line with roles proposed? Has the program increased access to care for a significant number of uninsured patients?

This list of questions is by no means exhaustive. Each evaluation team will need to draft its own list of anticipated questions to be answered.

> **PRACTICE TIPS**: _Standardized monitoring and evaluation processes can produce reliable data for decision-making. In the case of Hennepin County Medical Center (HCMC), program data indicate that CHW contributions to meeting better patient outcomes also impact important IHP financial goals. For example, CHWs at HCMC collect and monitor data on patient utilization, including inpatient and emergency room visits. According to HCMC's Director of Revenue Development, analysis of program data "has demonstrated that where we [HCMC] have integrated CHWs in the care model we have seen a reduction of high-cost utilization for the population while increasing outpatient clinic visit engagement, which is an objective for HCMC to establish long-term primary care/care coordination relationships."_

TABLE 16 below is adapted from a study published in the journal *Public Health Nursing* in 2003 and re-shared by the CDC's Division for Heart Disease and Stroke Prevention Evaluation and Program Effectiveness Team in 2012 (https://www.cdc.gov/dhdsp/pubs/docs/cb_november_2012.pdf), and the Best Practice Guidelines for Implementing and Evaluating Community Health Worker Programs in Health Care Settings (http://www.sinai.org/sites/default/files/SUHI%20Best%20Practice%20Guidelines%20for%20CHW%20Programs.pdf) report published by the Sinai Urban Health Institute in 2014. The table provides a sample of "best practice," commonly used process and outcome indicators to evaluate the impact of a CHW program. Additional indicators drawn from the CHW Evaluation Tool Kit (http://azprc.arizona.edu/sites/default/files/CHWtoolkit/default.htm) produced by the University of Arizona Rural Health Office and College of Public Health in 1998 are also included.

TABLE 16. INDICATORS AND IMPACT

CHW Roles	Process Indicators	Outcome Indicators	Impact
Increase access and appropriate use of services	Client/patient demographics # visits/encounters # enrolled # persons served per month/per year Appointment show rate % follow-up appointments kept # referrals made; sources of referrals # ER visits by uninsured pts per yr (collect 1 yr prior to program start) Cost per visit Hospital cost per visit for common diagnoses	Emergency department usage Urgent care usage Medication/treatment adherence Hospital admissions Hospital readmission rate Patient knowledge, attitudes, practices	Reduced health disparities Reduced health care costs Reduced morbidity and mortality
Improve patient health Reduce risk	# assessed / screened # educational offerings # enrolled in educational offerings # completing program # and type materials distributed	Biometrics (HbA1C, blood pressure, cholesterol) Screening rates	
Improve quality of care	Client/patient satisfaction % clients/patients receiving services in first language Timeliness of services	Self-rated health measures Quality of life; lifestyle changes (physical activity, dietary habits, smoking) Self-efficacy; self-management	

10 Return on Investment

Cost-Benefit Analysis is a systematic approach to estimating the strengths and weaknesses of alternatives that satisfy transactions, activities or functional requirements for a business. It is a technique that is used to determine options that provide the best approach for the adoption and practice in terms of benefits in labor, time and cost savings etc. (Wikipedia - https://en.wikipedia.org/wiki/Cost%E2%80%93benefit_analysis)

Return on Investment is a percentage or ratio that is used to *"compare the efficiency of different investments. The return on investment formula is: ROI = (Net Profit / Cost of Investment) X 100."*(Investing Answers - http://www.investinganswers.com/financial-dictionary/technical-analysis/return-investment-roi-1100)

10.1 Benefits of CHWs

A relatively large body of evidence has accumulated on the positive benefits of CHWs as they relate to the Triple Aim. Although less evidence is present in peer-reviewed literature, particularly for return on investment and patient satisfaction, there is a growing trend of organizations sharing data from their own internal studies. TABLE 17 summarizes some of the return on investment and cost savings findings.

TABLE 17. RETURN ON INVESTMENT FOR CHW PROGRAMS

ROI / Cost Savings	Health/ Disease Area	Description	Reference
$3.36 first year of life; $5.59 long-term for every $1	Low birth weight prevention	Home visiting care coordination using the Pathways Community HUB model	Redding et al, 2014
$1.80:1	Social determinants	CHW provide a wide range of services to high-risk populations in Philadelphia, PA.	Kangovi et al. 2014, 2016
2.3:1	Cancer	Wilder Research study of CHW services for cancer outreach	Diaz, 2012
Cost savings of $2,044,465 pre to post intervention; cost of $521,343 to manage the program over 25 months	High-utilizers, complex health issues	Based in New Mexico, Molina Healthcare's Community Connector Program assigned CHWs to reach members with complex health issues or high utilizers.	Johnson et al, 2012
2.28:1 $95,941 annual cost savings	High-utilizers (Focus on primary, specialty, urgent, inpatient, outpatient behavioral services)	CHW case management outreach to underserved men.	Whitley et al., 2006
3:1 to 15:1 for total cost of care	Emergency department	CHRISTUS Health System and Memorial Hermann Hospital in East Texas employed CHWs to work with emergency department patients.	C. H. Rush, 2012
$2,245 annual cost savings per patient	Asthma	CHW outreach program for Medicaid patients	Beckham et al., 2004
75% annual decrease in costs ($735 to $181)	Diabetes	Community-based diabetes case management by CHWs	Fedder et al., 2003

A growing number of studies show that CHW programs have significant, positive effects on a wide range of health issues and disease areas including: increasing access to services, management of asthma in adults and children, reducing cardiovascular disease risk including improving management of hypertension, improving cervical cancer screening rates, assisting patients across a range of activities related to diabetes management, supporting better mental health outcomes, and improving post-hospital outcomes. In addition, there is some research showing that CHWs improve the quality of care (TABLE 18).

TABLE 18. POSITIVE EFFECTS OF CHW PROGRAMS ON HEALTH OUTCOMES AND QUALITY OF CARE

Health/Disease Area	Reference
Access to services	Palmas et al., 2012; Harris, 2001
Asthma management	Peretz et al., 2012; Postma et al., 2009
Cardiovascular disease risk	Allen et al., 2011
Cervical cancer screening	Arrosi et al., 2015
Diabetes management	Islam et al., 2013; Spencer, 2011; Norris et al., 2006
Hypertension	Brownstein et al., 2007
Medication adherence	Brownstein et al., 2007
Mental health	Mutamba et al., 2013
Post-hospital outcomes	Kangovi et al., 2014
Quality of care	Hamer et al., 2012; Yousafzai et al., 2014; Rothschild et al., 2014

Most of the studies examining **patient satisfaction** have been conducted outside the U.S., but Heisler et al. (2014), in a randomized controlled trial, showed patients found medical information provided in a session with a CHW to be more helpful and have improved clarity compared to usual care. While the IMPaCT model (http://chw.upenn.edu/outcomes#results) found no change in patient satisfaction, it did identify increases in patient activation. Other anecdotal evidence supports improved patient satisfaction with CHW interventions, but to date, few studies for U.S.-based programs have been reported in peer-reviewed literature.

10.2   CHW Program Costs

While every CHW program will be unique in terms of actual and types of cost, some broad expense categories for CHW programs are described in TABLE 19 and include: recruitment and hiring, salary and benefits, technology and equipment, office space/supplies/activities, travel, training, job aides/materials, and overhead (indirect) costs. Particularly with personnel, sustainability means covering both direct costs (e.g. program staff) as well as indirect costs (e.g. administrative and other positions needed to ensure smooth operations).

TABLE 19. COST AREAS FOR CHW PROGRAMS

Cost Areas for CHW Programs	Description
Recruitment	Advertising, staff time, snacks/space for large-group recruiting
Salary	CHW positions Administrative positions: Medical or Executive Director, Clinic Manager, Education Manager, human resources staff, business/finance/billing staff, front desk staff Supervisory positions: Care Team members, Physician, Nurse, Social Worker, Program Manager Other positions: Electronic health records (EHR) trainer, EHR data gatherer/analyzer, IT support
Benefits	Medical and dental insurance, paid time off, 401K (as per organization)
Technology	IT support, computer, tablet, software
Equipment	Desk, chair, table/chairs for clients, bookcase, ergonomic equipment, copier, printer, suitcase/dolly for carting materials
Office space	Office space cost allocation (as applicable to the organization)
Office supplies/ activities	Office supplies (stapler, paper, etc.) Printing/copying costs Postage/mailing costs Break supplies (e.g. water, tea, plates, cups)
Travel	Mileage for home visiting Travel costs for attendance at continuing education or professional meetings
Training	Onboarding training: general employee orientation, HIPAA, medical research training (e.g. CITI), electronic health records training, CPR, disease-specific education, motivational interviewing training, etc. Continuing education costs: annual renewal of training (e.g. HIPAA, CPR), disease-specific education, behavioral health education, computer training, etc. Certificate costs: if CHW certificate needed
Job aides/ materials	Design and/or printing of education materials and job aides to be used with clients Copyright licenses for materials
Overhead	Varies by organization. Some organizations may directly cost all expenses. Others may use an indirect cost allocation for overhead costs. Some of the costs noted above may be included in an indirect allocation (e.g. office space, copier costs)

10.3   Determining Cost-Benefit

As described in Section 6.1, ideally, planning for cost-benefit analyses should be included in initial program planning. Estimated ROIs are beneficial for developing the business case, and advance planning ensures data is/are available and can be collected. A few templates and toolkits have been designed for conducting a cost-benefit analysis and are described below:

▪ ROI Toolkit: A Guide for Conducting a Return on Investment Analysis of Your Community Health Worker Program (http://mhpsalud.org/portfolio/roi-toolkit/). Developed by MHP Salud in Texas with funding from Health Resources Services Administration (HRSA), the toolkit is a practical, step-by-step guide for planning and implementing a ROI analysis. Designed specifically for community or clinical CHW programs, the guide includes many

sample data sources and some templates. The toolkit can be accessed by registering at the MHP Salud site.

- The ROI Calculator for Health Homes and Medical Homes (http://www.chcsroihealthhomes.org/Welcome.aspx) and ROI Calculator for Other Quality Initiatives (http://www.chcsroi.org/Welcome.aspx) were both developed by the Center for Health Care Strategies, Inc. While not specific to CHW programs, both provide extensive Excel-based templates for analysis of ROI data. An instruction manual is included with the templates.
- There are also disease-specific templates including Building the Business Case for Diabetes Self-Management: A Handbook for Program Managers (http://www.diabetesinitiative.org/documents/BusinessCasePrimerFINAL.pdf) that may provide some additional ideas for conceptualizing ROI for CHW programs.

Some factors to consider when planning cost-benefit analyses include:

- **Research questions** – are the research questions the right questions?
- **Indicators** – do the indicators sufficiently measure and provide answers to the research questions?
- **HIPAA** – is the data collection in line with HIPAA requirements?
- **Time** – is the data collection period long enough to allow for relevant costs and to show a change?
- **IRB**– if performing research on individuals, institutional review board approval is typically required up-front.

11   Resources

11.1   Tools and Templates

11.1.1   Business Case Models

Minnesota State Innovation Model (SIM) (http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_Home) website

This site includes program evaluation summaries of various Minnesota SIM grants (e.g. Accountable Communities for Health and Integrated Health Partnerships) including those using CHWs. The site also has patient success stories.

1-1 Affordable Care Act Opportunities for Community Health Workers PDF (http://www.chlpi.org/wp-content/uploads/2013/12/ACA-Opportunities-for-CHWsFINAL-8-12.pdf)A

Amy Katzen and Maggie Morgan provide an overview of CHWs under the ACA in the *Affordable Care Act Opportunities for Community Health Workers: How Medicaid Preventive Services, Medicaid Health Homes, and State Innovation Models are Including*

Community Health Workers. May 2014. Published by the Center for Health Law and Policy Innovation, Harvard Law School.

1-2 Incorporating Community Health Workers into State Health Care Systems: Options for Policymakers PDF
(http://www.ncsl.org/Portals/1/Documents/Health/CHWbrief2015.pdf)

Kate Blackman and Samantha Scotti describe new opportunities for CHWs at state level in Incorporating Community Health Workers into State Health Care Systems. August 2015. Published by the National Conference of State Legislatures.

1-3 The CHW Model & Accountable Care Structures PDF
(https://www.in.gov/isdh/files/The_CHW_Model_and_ACO_MHP_2013.pdf)

Odila Garcia presents the Migrant Health Promotion CHW model in *The CHW Model and Accountable Care Structures*. September 5, 2013. Primary Care Symposium: Enhancing Care with Community Health Workers.

1-4 The First Social ACO: Lessons from Commonwealth Care Alliance PDF
(http://www.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=16450&lid=3)

Authors Jim Maxwell et al. present lessons from a Massachusetts model in *The First Social ACO: Lessons from Commonwealth Care Alliance*. February 2016. JSI Research & Training Institute, Inc.

1-5 Promising Approaches to Integrating Community Health Workers into Health Systems: Four Case Studies (http://www.urban.org/research/publication/promising-approaches-integrating-community-health-workers-health-systems-four-case-studies)

Developed by Lauren Eyster and Randall Bovbjerg, the *Promising Approaches to Integrating Community Health Workers into Health Systems: Four Case Studies*, highlights CHW programs from Texas, Minnesota, North Carolina and Ohio. December 2013. Published by The Urban Institute, Washington, DC.

1-6 Building Your Community CareTeam, Essentia Health-Ely Clinic
(https://minnesotaruralhealthconference.org/sites/default/files/1B%20Building%20You
r%20Community%20Care%20Team-Favet.pdf)

This presentation *Building Your Community Care Team—Essentia Health, Ely Clinic* was presented by Heidi Favet at the Minnesota Rural Health Conference on June 25, 2012.

1-7 Healthy Communities Project: Chronic Disease in the Twin Cities Metro Area, Minnesota Visiting Nurses Association

The Healthy Communities Project Chronic Disease I the Twin Cities Metro Area: Focal Areas for Intervention. Recommendations to the Health Communities Task Force presents a strategic plan and justification for the Healthy Communities Project, a joint effort of the Medtronic Foundation, Greater Twin Cities United Way and MVNA. November 30, 2014.

1-8 Business Case Model (http://www.tbs-sct.gc.ca/hgw-cgf/oversight-surveillance/itpm-itgp/pm-gp/emf-cag/bcg-gar/bcg-gar01-eng.asp#T16)

A brief model for developing a business case.

1-9 Appendix B: Business Plan Template PDF
(http://www.chcs.org/media/ACO_Toolkit_Appendix_B4.pdf)

The New Jersey Medicaid Accountable Care Organization Business Planning Toolkit, provides samples for marketing and financial planning. The complete toolkit is available at Center for Health Care Strategies (http://www.chcs.org). Developed by the Center for Health Care Strategies and Applied Health Strategies with funding from The Nicholson Foundation.

Building the Business Case for Diabetes Self-Management: A Handbook for Program Managers
(http://www.diabetesinitiative.org/documents/BusinessCasePrimerFINAL.pdf). Kerry E. Kilpatrick, PhD and Carol A. Brownson, MSPH. Diabetes Initiative National Program Office at Washington University School of Medicine, St. Louis, MO. 2008.

Business case for CHW integration in behavioral health, Employing CHWs for engagement and screening video clip (http://successwithchws.org/mental-health/2015/02/04/video-employing-chws-for-engagement-and-screening/) from Success with CHWs website.

Experiences of Community Health Worker Employers in Minnesota: A review of CHW utilization, lessons learned, and future outlook from select organizations employing CHWs in Minnesota
(http://www.health.state.mn.us/divs/healthimprovement/content/documents/CHWEmployerReport1115.pdf) compiled in November 2015 by Rebecca Schultz and published by Wilder Research provides an overview of CHW employer experiences.

11.1.2   Hiring

Below are sample job classifications, job descriptions and job announcements for CHWs.

CHW Position Classification Description – University of New Mexico
(http://jobdescriptions.unm.edu/detail.php?id=6503)

2-1 CHW Job Descriptions - UnitedHealth Group
(https://careers.unitedhealthgroup.com/search-jobs.aspx?kw=Community+Health+Worker&lc=&jf=0&inus=0)

2-2_CHW Job Description – Clinic Care Guide, HealthEast

CHW Job Descriptions – MN Community Health Worker Alliance
(http://mnchwalliance.org/explore-the-field/tools-resources/)

2-3 Community Health Worker - Family and Community Medicine
(http://mnchwalliance.org/wp-content/uploads/2012/12/2-3_CHWJobAnnouncement_TXBaylorFamMed.pdf)

HealthEast, which has a long-running CHW program using "Care Guides", provided CHW interview templates for an initial interview and a clinic-specific interview.

2-4 Health East Clinic Care Guide Interview Questions (http://mnchwalliance.org/wp-content/uploads/2012/12/2-4_CareGuideInterviewQuestions1_HealthEast.pdf)

2-5 Health East Clinic Specific – Care Guide Interview (http://mnchwalliance.org/wp-content/uploads/2012/12/2-5_ClinicSpecificCareGuideInterview_HealthEast.pdf)

Success with CHWs from the MN CHW Alliance has developed CHW hiring guidelines (http://successwithchws.org/asthma/2015/02/04/what-to-look-for-when-hiring-a-chw/) for RN-AEC Supervisors.

11.1.3   Onboarding

The presentation Community Health Workers (CHW) Orientation Toolkit Edward M. Kennedy Community Health Center Worcester, Framingham, Milford MA (http://www.massleague.org/Calendar/LeagueEvents/CHI/2016/NascimentoSchlotterbeck.pdf) provides an overview of a CHW orientation process. Presented at the Massachusetts League of Community Health Centers Community Health Institute on May 5, 2016 by Marcia Nascimento, Community Health Worker Supervisor and Sue Schlotterbeck, Director, Health Equity.

The Strong Beginnings (http://healthystartepic.org/wp-content/uploads/2016/05/CommunityHealthWorkers.pdf) program offers an orientation schedule for CHWs focused on providing services to new mothers and their babies (see Slide 4).

While not specific to CHWs, the National Association of Community Health Centers offers tips and links to resources for recruitment, onboarding and retention of community health center employees (http://nachc.org/wp-content/uploads/2015/06/NACHC-Recruitment-Onboarding-and-Retention-Toolkit-04092015.pdf). This resource also includes recruitment and retention information.

11.1.4   Integration

A. POLICY/PROCEDURE BRIEFS/MANUALS – Various policy and procedure briefs and manuals around important public health interventions have been developed for CHW practice. Below is a small collection of available documents from the MN CHW Alliance, the Minnesota Partnership on Pediatric Obesity Care and Coverage and Volunteers of America/Minneapolis Health Department.

4A-1 Success with CHWs: Oral Health Road Map (http://mnchwalliance.org/wp-content/uploads/2012/12/Oral_Health_Road_Map_FINAL.pdf)

4A-2 Minnesota's Health Care Homes and Chronic Disease Management: Understanding the Integration of Community Health Workers (http://mnchwalliance.org/wp-content/uploads/2012/12/HCHs_and_CHWs_Issue_Brief-FINAL.pdf)

4A-3 MN Partnership on Pediatric Obesity Care and coverage (MPPOCC) (http://mnchwalliance.org/wp-content/uploads/2012/12/4A-3_CHWsChildhoodObesity-DRAFT_MPPOCC.pdf)

4A-4 CHW Manual Minneapolis Health Department (http://mnchwalliance.org/wp-content/uploads/2012/12/4A-4_CHWManual-ChronicDisease-DRAFT_VoA-MplsHealthDept.pdf)

B. HEALTH PROMOTION MATERIALS – Below is a series of health promotion and patient/family education materials developed specifically for use by CHWs. The safety series (4B-1 to 4B-7) was developed by Ramsey County Public Health. The Centers for Disease Control and Prevention CHW Toolkit has resources particularly on chronic diseases and the Minnesota CHW Alliance has developed materials for CHWs to address pediatric asthma and mental health.

4B-1 St. Paul-Ramsey County Public Health CHW Guidelines for Best Practice for Fire Safety and Prevention (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-1_CHWFireSafety-BestPracticeGuidelines_RamseyCtyPubHealth.pdf)

4B-2 St. Paul-Ramsey County Public Health, CHW Fire Safety Fire Extinguisher Handout (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-2_CHWFireSafety-FireExtinguisherHandout_RamseyCtyPubHealth.pdf)

4B-3 St. Paul-Ramsey County Public Health, CHW Fire Safety Home Safety Checklist (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-3_CHWFireSafetyHandout-Checklist_RamseyCtyPubHealth.pdf)

4B-4 DROWNING. St. Paul-Ramsey County Public Health, CHW Guidelines for Best Practice for Childhood Injury Prevention, Ages 6-12 months (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-4_CHWPreventDrowning-6-12mos-BestPracticeGuidelines_RamseyCtyPubHealth.pdf)

4B-5 Best Practice to Prevent Drowning, Minnesota Department of Health (http://www.health.state.mn.us/injury/best/best.cfm?gcBest=drown)

4B-6 St. Paul-Ramsey County Public Health, CHW Guidelines for Best Practice for Childhood Injury Prevention (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-6_CHWPreventFalls-6-12mos_BestPracticeGuidelines_RamseyCtyPubHealth.pdf)

4B-7 FALLS. St. Paul-Ramsey County Public Health, CHW Guidelines for Best Practice for Childhood Injury Prevention Ages 6-12 months (http://mnchwalliance.org/wp-content/uploads/2012/12/4B-6_CHWPreventFalls-6-12mos_BestPracticeGuidelines_RamseyCtyPubHealth.pdf)

Centers for Disease Control and Prevention CHW Toolkit (http://www.cdc.gov/dhdsp/pubs/chw-toolkit.htm)

Success with CHWs: Asthma Care for Children (http://successwithchws.org/asthma/)

Success with CHWs: Mental Health Services (http://successwithchws.org/mental-health/)

Stanford University's Department of Medicine has several patient self-management programs (Arthritis, Chronic Disease, Diabetes, HIV, Chronic Pain, and Cancer) which require certified

facilitators. The Minnesota Department of Health currently has Master Trainers on staff for training Chronic Disease Self-Management Program Leaders.

Self-Management Program - Stanford (http://patienteducation.stanford.edu/programs/)

Developed by Boston University, A Matter of Balance is a falls prevention program modeled after the Stanford University programs. The Minnesota Department of Health provides training in partnership with the Minnesota Board on Aging.

It's A Matter of Balance – Boston University (https://www.bu.edu/sph/about/school-wide-centers/health-and-disability-research-institute/products-and-services/)

MN links: Healthy Aging (http://www.mnhealthyaging.org/FallsPrevention/MatterBalance.aspx)

C. TIME STUDIES – MVNA/HCMC shared its time study tool that can be used to analyze CHW activities. Results from their study are pending.

4C-1 CHW Time Study Submission Form (http://mnchwalliance.org/wp-content/uploads/2012/12/4C-1_CHWTimeStudySubmissionForm_MVNA.pdf)

D. SCOPE OF PRACTICE – The C3 Project has developed a comprehensive document on CHW roles, skills, qualities entitled: *Understanding Scope and Competencies: A Contemporary Look at the United States Community Health Worker Field Progress Report of the Community Health Worker (CHW) Core Consensus (C3) Project: Building a National Consensus on CHW Core Roles, Skills and Qualities.* April 2016

C3 Project Progress Report April 2016 (http://files.ctctcdn.com/a907c850501/1c1289f0-88cc-49c3-a238-66def942c147.pdf)

Based on their experience using CHWs in clinical settings, HealthEast has developed scope of practice guidelines for their Care Guides.

4D-1 Health East Deepening Care Guide Scope Of Practice (http://mnchwalliance.org/wp-content/uploads/2012/12/4D-1_DeepeningCareGuideScopeOfPractice_HealthEast.pdf)

E. SCHEDULING PROTOCOLS -

See Section G.

F. TRIAGE PROTOCOLS – For Red Flag situations, HealthEast developed a request for RN triage that can be used by CHWs.

4F-1 Health East Registered Nurse Triage Request Form (http://mnchwalliance.org/wp-content/uploads/2012/12/4F-1_RNTriageRequestForm_HealthEast.pdf)

G. PATIENT ASSESSMENT/CARE COORDINATION PROTOCOLS – HealthEast developed a series of protocols and forms for Care Guide patient assessment and care coordination activities. See also Section H below for the related EHR templates and protocols.

4G-1 Health East Goal Setting Visit Outline (http://mnchwalliance.org/wp-content/uploads/2012/12/4G-1_GoalSettingVisitOutline_HealthEast.pdf)

4G-2 Health East: Workflow and Documentation of Unsuccessful Outreach to Referred Patients (http://mnchwalliance.org/wp-content/uploads/2012/12/4G-2_UnsuccessfulOutreach-ReferredPatientsWorkflow_HealthEast.pdf)

4G-3 Health East: Clinic Care Coordination Policy on Unsuccessful Outreach to Referred Patients (http://mnchwalliance.org/wp-content/uploads/2012/12/4G-3_UnsuccessfulOutreach-EnrolledPatients_HealthEast.pdf)

4G-4 HealthEast Clinic Care Coordination Standard Work. Inpatient Hospital Discharge Referrals (http://mnchwalliance.org/wp-content/uploads/2012/12/4G-4_HospitalDischargeReferrals_HealthEast.pdf)

Portico Healthnet and WellShare International have developed a referral form to be used in community-based CHW programs to refer clients for health coverage.

4G-5 Portico Healthnet & WellShare International. Community Referral Form (http://mnchwalliance.org/wp-content/uploads/2012/12/4G-5_CommunityReferralForm_PorticoWellShare.pdf)

The Pathways Community HUB Model (https://innovations.ahrq.gov/sites/default/files/Guides/CommHub_QuickStart.pdf) has also developed a set of 20 pathways that are open source and can be used to assess patients across a wide range of health and social service areas.

H. VISIT NOTE/EHR TEMPLATES – HealthEast Care System has integrated their Care Guide/CHW functions into their EHR system and have shared a number of instruction manuals for various aspects of Care Guide activities and interaction with the Care Team.

4H-1 HealthEast Care Systems. Tip Sheet. Health Care Home Referrals. Screen shots (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-1_HCHReferrals-Documentation_HealthEast.pdf)

4H-2 HealthEast Care Systems. Tip Sheet. Health Care Home Scheduling Goal Setting Visits (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-2_SchedulingGoalSettingVisits-Documentation_HealthEast.pdf)

4H-3 HealthEast Care Systems. Tip Sheet. Health Care Home Goal Setting Visit (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-3_GoalSettingVisit-Documentation_HealthEast.pdf)

4H-4 HealthEast Care Systems. Tip Sheet. Health Care Home Patient Outreach (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-4_PatientOutreachProtocol-Documentation_HealthEast.pdf)

4H-5 HealthEast Health Care Home Standard Work. Follow-Up Documentation (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-5_FollowUpPolicy-Documentation_HealthEast.pdf)

4H-6 HealthEast Health Care Home Standard Work. Maintenance Plan (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-6_CareCoordMaintenanceStandardWorksheet_HealthEast.pdf)

4H-7 HealthEast Health Care Home Standard Work. When to Un-Enroll Patients (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-7_UnenrollingPatientStandardWorksheet-Documentation_HealthEast.pdf)

4H-8 HealthEast. Care Guide Delegated Task Documentation (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-8_CareGuideDelegatedTask-Documentation_HealthEast.pdf)

4H-9 HealthEast Health Care Home Standard Work. Patient Care Team (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-9_CareTeamEntering_Documentation_HealthEast.pdf)

4H-10 HealthEast. Process Standard Work RN Chart Review (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-10_StandardWorkRNChartReviewCareGuideDelegation_HealthEast.pdf)

4H-11 HealthEast Health Care Home Standard Work. Health Care Home "One Thing" Encounters (http://mnchwalliance.org/wp-content/uploads/2012/12/4H-11_OneThingStandardWorksheet-Documentation_HealthEast.pdf)

I. CARE TEAM QUALITY IMPROVEMENT – HealthEast has developed a number of protocols and processes for quality improvement and care team integration.

4I-1 HealthEast. How to Run Weekly HCH Team Huddles (http://mnchwalliance.org/wp-content/uploads/2012/12/4I-1_HowToRunWeeklyHCHTeamHuddle_HealthEast.pdf)

4I-2 HealthEast. Standard Work. Start-of-Shift Huddle Guide (http://mnchwalliance.org/wp-content/uploads/2012/12/4I-2_StartShiftHuddleGuide_HealthEast.pdf)

4I-3 HealthEast. Care Coordination Improvement Board (http://mnchwalliance.org/wp-content/uploads/2012/12/4I-3_CareCoordinationImprovementBoard_HealthEast.pdf)

4I-4 HealthEast. VBI Improvement Care (http://mnchwalliance.org/wp-content/uploads/2012/12/4I-4_VBI-ImprovementCard_HealthEast.pdf)

11.1.5   Supervision

Collaborative management and supervisory agreements related to CHWs have been developed by a few entities. Most of these agreements are proprietary, so the sample below is de-identified.

5-1 Collaborative Management Workflow Agreement (http://mnchwalliance.org/wp-content/uploads/2012/12/5-1_CollaborativeManagmentWorkflowAgreement.pdf)

5-2 Sample of a Weekly Workplan Template from WellShare International (http://mnchwalliance.org/wp-content/uploads/2012/12/5-2_WeeklyWorkplanTemplate_WellShareInternational.pdf)

USAID CHW Assessment and Improvement Matrix (AIM) (http://www.who.int/workforcealliance/knowledge/toolkit/CHWAIMToolkit_Revision_Sept13.pdf)

While geared to international program contexts, this toolkit includes a conceptual framework and checklists across several health areas (HIV/AIDS, Maternal/Newborn/Child Health, and Tuberculosis) for evaluating CHW performance that may be adaptable in the U.S. context.

11.1.6   Financing

The Minnesota Partnership on Pediatric Obesity Care and Coverage (MPPOCC) has developed a sample budget for CHW programs.

6-1 [Minnesota Partnership on Pediatric Obesity Care and Coverage (MPPOCC) Clinic Community Collaborative Services to Address Childhood Obesity Policy Brief CHW Childhood Obesity. Draft June 20, 2016](http://mnchwalliance.org/wp-content/uploads/2012/12/6-1_SampleCHWProgramBudget_MPPOCC.pdf)

Several policy briefs explain various options for funding CHWs developed by the National Health Care for the Homeless Council and Families USA.

6-2 [Community Health Workers: Financing and Administration](http://www.nhchc.org/wp-content/uploads/2011/10/CHW-Policy-Brief.pdf)

6-3 [How States Can Fund Community Health Workers through Medicaid to Improve People's Health, Decrease Costs, and Reduce Disparities](http://familiesusa.org/product/how-states-can-fund-community-health-workers-through-medicaid)

Developed as part of a health care strategic planning class at St. Leo University, the pro forma template below provides theoretical background along with a sample income statement and risk management plan.

6-4 [Module 4 Teamwork Discussion: Strategic Plan Pro Forma and Feasibility](http://documents.saintleo.edu/docs/HCM520/HCM520_M4_TeamResource.pdf)

C3 Strategies along with Greater Twin Cities United Way and MVNA have compiled a list of education services provided by CHWs that have the potential to be reimbursable from Medicaid/DHS. Check with DHS for final clarification on what services are reimbursable.

6-5 [Examples of Potentially Reimbursable Patient Education Services Provided by Community Health Workers. March 18, 2016](http://mnchwalliance.org/wp-content/uploads/2012/12/6-5_CHWReimbursablePatientEducationServices-Mar2016_C3-MVNA-UnitedWay.pdf)

11.1.7   Evaluation and ROI

The Centers for Disease Control and Prevention have developed a model that assesses CHW policies across evidence for quality, impact and evidence.

7-1 [Policy Evidence Assessment Report: Community Health Worker Policy Components](http://www.cdc.gov/dhdsp/pubs/docs/chw_evidence_assessment_report.pdf)

MVNA's Healthy Communities Project completed an evaluation of project Year 2 that includes implementation lessons learned along with evaluation measures used to assess program effectiveness.

> 7-2_Healthy Communities Year 2 Evaluation, Minnesota Visiting Nurses Association

Various organizations have developed models and toolkits for assessing CHW program outcomes and return on investment.

> 7-3_ Cost-Benefit Analysis: A Primer for Community Health Workers (http://azprc.arizona.edu/sites/default/files/CHWtoolkit/PDFs/FRAMEWOR/COSTBENE. PDF)

> 7-4_ HealthEast. Medica 2017 Care Initiatives ROI (http://mnchwalliance.org/wp-content/uploads/2012/12/7-4_MEDICA-ROIModel_HealthEast.pdf)

> CHW Evaluation Tool Kit (http://crh.arizona.edu/publications/toolkit/1601). Developed by the University of Arizona Rural Health Office and College of Public Health. 1998.

> A series of evaluation tools has been compiled by the Centers for Disease Control and Prevention Division for Heart Disease and Stroke Prevention. The tools can be found on the CDC website (http://www.cdc.gov/dhdsp/evaluation_resources.htm).

> ROI Calculator for Health Homes and Medical Homes (http://www.chcsroihealthhomes.org/Welcome.aspx) and ROI Calculator for Other Quality Initiatives (http://www.chcsroi.org/Welcome.aspx). Developed by the Center for Health Care Strategies, Inc.

> ROI Toolkit: A Guide for Conducting a Return on Investment Analysis of Your Community Health Worker Program (http://mhpsalud.org/portfolio/roi-toolkit/). Developed by MHP Salud.

NorthPoint Health and Wellness Center has developed a series of patient experience/satisfaction tools.

> 7-5_ NorthPoint Health & Wellness Center. Client Experience in English (http://mnchwalliance.org/wp-content/uploads/2012/12/7-5_ClientExperience_English_NorthPoint.pdf)

> 7-6_ NorthPoint Health & Wellness Center. Client Experience Survey (http://mnchwalliance.org/wp-content/uploads/2012/12/7-6_ClientExperienceSurvey_NorthPoint.pdf)

> 7-7_ NorthPoint Health & Wellness Center. Success Stories (http://mnchwalliance.org/wp-content/uploads/2012/12/7-7_StorytellingForm_NorthPoint.pdf)

11.2 Background Data and Research Used to Develop the Community Health Worker (CHW) Toolkit

CHW Toolkit: A Guide for Employers

CHW Toolkit: Case Studies

CHW Toolkit: Overview of Frontline Health Workers Table

CHW Toolkit Data Gathering Reports

CHW Toolkit: Literature Review Report

CHW Toolkit: Environmental Scan Report

CHW Toolkit: Employer Survey/Interview Report

CHW Toolkit: Payment and Regulatory Report

CHW Toolkit: Review and Analysis of Trends Report

CHW Toolkit: ACH/IHP Model Report

11.3 Other Toolkits

CHW Toolkit: Existing Toolkits Report

A curated collection of toolkits focused on developing CHW programs.

American Organization of Nurse Executives – Community Health Works Toolkit (http://www.aone.org/resources/CHW_resource.pdf)

Building a Community Health Worker Program—The Key to Better Care, Better Outcomes & Lower Costs toolkit is a comprehensive resource for developing a CHW program geared to nurse administrators.

Centers for Disease Control and Prevention CHW Toolkit (http://www.cdc.gov/dhdsp/pubs/chw-toolkit.htm)

The CDC's Division for Heart Disease and Stroke Prevention has developed a CHW toolkit with general resources along with those focused on cardiovascular disease.

Rural Health Information Hub – Rural Community Health Workers Toolkit (https://www.ruralhealthinfo.org/community-health/community-health-workers)

The Rural Health Information Hub (formerly Rural Assistance Center) hosts an 8-module toolkit with numerous helpful resources including links to templates.

11.4 State-level Organizations

Minnesota Community Health Worker Alliance (http://mnchwalliance.org/) (the Alliance)

California Association of Community Health Workers (http://www.cachw.org/) (CACHW)

Florida Community Health Worker Coalition (http://www.floridahealth.gov/provider-and-partner-resources/community-health-workers/fl-chw-coalition/) (FCHWC)

Massachusetts Association of Community Health Workers (http://www.machw.org/) (MACHW)

Michigan Community Health Worker Alliance (http://www.michwa.org/) (MICHWA)

11.5   National Clearinghouses

American Public Health Association CHW Section (https://www.apha.org/apha-communities/member-sections/community-health-workers)

This site includes information and resources of interest to CHWs and CHW stakeholders.

Association of State and Territorial Health Officials (http://www.astho.org/community-health-workers/)

This site includes information on all CHW programs and policies by state along with other policy and program resources related to CHWs.

Center for Health Care Strategies (http://www.chcs.org/)

CHCS is a technical assistance provider to state-level SIM programs. The site has a large quantity of relevant reports.

National Academy for State Health Policy (http://www.nashp.org/state-community-health-worker-models/)

This site includes up-to-date information on financing, education, certification, legislation, links to state-level CHW organizations and CHW roles for all states.

The Community Health Worker Core Consensus (C3) Project (http://www.nashp.org/state-community-health-worker-models/) has developed recommendations for review of a scope of practice for CHWs.

11.6   Minnesota Emerging Professions Toolkits

Community Paramedic Toolkit

Dental Therapy Toolkit (ADT and DT)

12 References

Adair, Richard; Wholey, Douglas R.; Christianson, Jon; White, Katie M., Britt, Heather; Lee, Suhna. (2013). Improving Chronic Disease Care by Adding Laypersons to the Primary Care Team: A Parallel Randomized Trial. *Ann Intern Med.* 2013; 159(3):176-184. Retrieved from http://annals.org/article.aspx?articleid=1722498

Alam, K., Tasneem, S., & Oliveras, E. (2012). Performance of female volunteer community health workers in Dhaka urban slums. *Social science & medicine*, *75*(3), 511-515. Retrieved on August 25, 2015, from http://www.researchgate.net/profile/Khurshid_Alam9/publication/224976963_Performance_of_female_volunteer_community_health_workers_in_Dhaka_urban_slums/links/00b49534213e423785000000.pdf

Allen, J. K., Dennison-Himmelfarb, C. R., Szanton, S. L., Bone, L., Hill, M. N., Levine, D. M., & Curtis, C. (2011). Community Outreach and Cardiovascular Health (COACH) Trial A Randomized, Controlled Trial of Nurse Practitioner/Community Health Worker Cardiovascular Disease Risk Reduction in Urban Community Health Centers. *Circulation: Cardiovascular Quality and Outcomes*, *4*(6), 595-602.

Agency for Healthcare Research and Quality. (2010). Connecting those at risk to care. A guide to building a community "HUB" to promote a system of collaboration, accountability, and improved outcomes. Retrieved on December 13, 2015, from http://chap-ohio.net/press/wp-content/uploads/2010/09/CommunityHUBManual3.pdf

American Public Health Association. (2015). Community Health Workers. In: American Public Health Association. 2015. Retrieved on October 12, 2015, from: http://www.apha.org/apha-communities/member-sections/community-health-workers.

American Public Health Association. (2015). C3 Project: The Journey Toward a United Consensus. Presented on November 2, 2015 at the APHA National Conference.

Anderson, L. (2013). Understanding the Different Scopes of Nursing Practice. Retrieved on December 16, 2015, from http://www.nursetogether.com/understanding-different-scopes-nursing-practice

Andrews, J. O., Felton, G., Wewers, M. E., & Heath, J. (2004). Use of community health workers in research with ethnic minority women. *Journal of Nursing Scholarship*, *36*(4), 358-365. Retrieved on November 22, 2015, from http://www.researchgate.net/profile/Jeannette_Andrews/publication/8095725_Use_of_community_health_workers_in_research_with_ethnic_minority_women/links/543415720cf2dc341daf336f.pdf

APHA (2009). Roles, D. C. Support for Community Health Workers to Increase Health Access and to Reduce Health Inequities. Retrieved on October 23, 2015, from http://www.fachc.org/pdf/APHA%20Pol%20Stmt%202009-1.pdf

Arrossi, S., Thouyaret, L., Herrero, R., Campanera, A., Magdaleno, A., Cuberli, M., & EMA Study team. (2015). Effect of self-collection of HPV DNA offered by community health workers at home visits on uptake of screening for cervical cancer (the EMA study): a population-based cluster-randomized trial. *The Lancet Global Health*, *3*(2), e85-e94.

Beckham, S., Kaahaaina, D., Voloch, K.A., Washburn, A. (2004). A community-based asthma management program: effects on resource utilization and quality of life. *Hawaii Medical Journal*, 63(4), 121-126.

Brownstein, J. N., Chowdhury, F. M., Norris, S. L., Horsley, T., Jack, L., Zhang, X., & Satterfield, D. (2007). Effectiveness of community health workers in the care of people with hypertension. *American journal of preventive medicine*, *32*(5), 435-447.

Bhutta, Z. A., Lassi, Z. S., Pariyo, G., & Huicho, L. (2010). Global experience of community health workers for delivery of health related millennium development goals: a systematic review, country case studies, and recommendations for integration into national health systems. *Global Health Workforce Alliance*, *1*, 249-261. Retrieved on November 2, 2015, from http://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf

Blue Cross and Blue Shield of Minnesota Foundation. (2010). Community health workers in Minnesota: Bridging barriers expanding access, improving health. Retrieved on December 14, 2015, from https://www.bcbsmnfoundation.org/system/asset/resource/pdf_file/26/CHW_report_2010.pdf

Bureau of Labor Statistics (2010). Standard Occupational Classification. 21-1094 Community Health Workers, Retrieved from http://www.bls.gov/soc/2010/soc211094.htm

Burton, A., Chang, D., & Gratale, D. (2013). Medicaid Funding of Community-Based Prevention: Myths, State Successes Overcoming Barriers and the Promise of Integrated Payment Models. Retrieved on November 3, 2015, from http://www.nemours.org/content/dam/nemours/wwwv2/filebox/about/Medicaid_Funding_of_Community-Based_Prevention_Final.pdf

California Health Workforce Alliance. (2013). Taking Innovations to Scale: Community Health Workers, Promotores, and Triple Aim. Retrieved on August 23, 2015 from http://www.chhs.ca.gov/PRI/_Taking%20Innovation%20to%20Scale%20-%20CHWs,%20Promotores%20and%20the%20Triple%20Aim%20-%20CHWA%20Report%2012-22-13%20%281%29.pdf

Centers for Medicare and Medicaid Services. (2003). Cancer prevention and treatment demonstration for ethnic and racial minorities: Brandeis University. Retrieved November 21, 2015 from https://www.cms.gov/Medicare/Demonstration-Projects/DemoProjectsEvalRpts/downloads/cptd_brandeis_report.pdf

Centers for Medicare and Medicaid Services. (2015). State Innovations Models initiatives: General information. Retrieved on August 25, 2015, from https://innovation.cms.gov/initiatives/state-innovations/

Chanda, P., Hamainza B., Moonga, H.B., Chalwe, V., Pagnoni, F. (2011). Community case management of malaria using ACT and RDT in two districts in Zambia: achieving high adherence to test results using community health workers. *Malaria Journal*, 10, 158.

Chang, L. W., Kagaayi, J., Nakigozi, G., Ssempijja, V., Packer, A. H., Serwadda, D., & Reynolds, S. J. (2010). Effect of peer health workers on AIDS care in Rakai, Uganda: a cluster-randomized trial. *PloS one*, *5*(6), e10923.

Community Resources LLC. (2013). Sustainable Financing of CHW Activities. Retrieved on October 23, 2016 from https://www.ghdonline.org/uploads/Sustainable_Financing_of_CHW_Activities_v4.pdf

Crigler, L., Hill, K., Furth, R., & Bjerregaard, D. (2011). Community Health Worker Assessment and Improvement Matrix (CHW AIM): a toolkit for improving CHW programs and services. *Bethesda, MD: USAID*.

Crigler, L., Gergen, J., & Perry, H. (2013). Supervision of Community Health Workers. Retrieved on August 21, 2015, from http://www.mchip.net/sites/default/files/mchipfiles/09_CHW_Supervision.pdf

Cummings, D. M., Lutes, L. D., Littlewood, K., DiNatale, E., Hambidge, B., & Schulman, K. (2013). 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. *Contemporary Clinical Trials*, *36*(1), 147-153.

Davis, A. (2013). Leveraging Community Health Workers within California's State Innovation Model: Background, Options and Considerations. California Health and Human Services Agency. Retrieved on August 23, 2013, from http://www.chhs.ca.gov/Documents/Issue%20Brief%20on%20Leveraging%20Community%20Health%20Workers%20Under%20California's%20State%20Innovation%20Model%20%28SIM%29%20Initiative.pdf

Diaz, J. (2012). Social return on investment: Community Health Workers in cancer outreach. Retrieved on January 15, 2016, from http://www.wilder.org/Wilder-Research/Publications/Studies/Community%20Health%20Workers%20in%20the%20Midwest/Social%20Return%20on%20Investment%20-%20Community%20Health%20Workers%20in%20Cancer%20Outreach.pdf

Dower, C., Knox, M., Lindler, V., O'Neil, E. (2006). Funding CHW Programs and Services in Minnesota: Looking to the Future. Retrieved on December 14, 2015, from http://www.futurehealth.ucsf.edu/Content/29/2006-12_Funding_CHW_Programs_and_Services_in_Minnesota_Looking_to_the_Future.pdf

Dower, C., Knox, M., Lindler, V., O'Neil, E. (2009). Advancing Community Health Worker Practice and Utilization: the Focus on Financing , 2009 National Fund for Medical Education. Retrieved on August 25, 2015, from http://futurehealth.ucsf.edu/Content/29/2006-12_Advancing_Community_Health_Worker_Practice_and_Utilization_The_Focus_on_Financing.pdf

Durano, A. (2013). The use of community health workers in increasing antiretroviral adherence in the developing world: Systematic Review (Doctoral dissertation, Texas Christian University Fort Worth, Texas). Retrieved on November 20, 2015, from https://repository.tcu.edu/bitstream/handle/116099117/7184/THE_USE_OF_COMMUNITY_HEALTH_WORKERS_IN_INCREASING_ANTIRETROVIRAL_ADHERENCE_IN_THE_DEVELOPING_WORLD_-_SYSTEMATIC_REVIEW_.pdf?sequence=1&isAllowed=y

Eyster, Lauren; Bovbjerg, Randall R. (2013). Promising Approaches to Integrating Community Health Workers into Health Systems: Four Case Studies. Urban Institute, December 2013. Retrieved on August 25, 2016 from http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413073-Promising-Approaches-to-Integrating-Community-Health-Workers-into-Health-Systems-Four-Case-Studies.PDF

Fedder, et al., 2003. (Fedder DO, Chang RJ, Curry S, et al. The effectiveness of a community health worker outreach program on healthcare utilization of west Baltimore City Medicaid patients with diabetes, with or without hypertension. Ethnicity and Disease. 2003;12(1):22–27. [PubMed])

Findley, S. E., Matos, S., Hicks, A. L., Campbell, A., Moore, A., & Diaz, D. (2012). Building a consensus on community health workers' scope of practice: Lessons from New York. *American journal of public health*, *102*(10), 1981-1987. Retrieved on November 5, 2015, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490670/pdf/AJPH.2011.300566.pdf

Gaziano, T., Abrahams-Gessel, S., Surka, S., Sy, S., Pandya, A., Denman, C. A., & Levitt, N. S. (2015). Cardiovascular Disease Screening By Community Health Workers Can Be Cost-Effective In Low-Resource Countries. *Health Affairs*, *34*(9), 1538-1545.

Getrich, C., Heying, S., Willging, C., & Waitzkin, H. (2007). An ethnography of clinic "noise" in a community-based, promotora-centered mental health intervention. *Social Science & Medicine*, *65*(2), 319-330.

Gilmore, B., & McAuliffe, E. (2013). Effectiveness of community health workers delivering preventive interventions for maternal and child health in low-and middle-income countries: a systematic review. *BMC Public Health*, *13*(1), 847. Retrieved on November 10, 2015, from http://www.biomedcentral.com/1471-2458/13/847

Glenton, C., Colvin, C. J., Carlsen, B., Swartz, A., Lewin, S., Noyes, J., & Rashidian, A. (2013). Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis. *The Cochrane Library*. Retrieved on August 26, 2015 from http://www.researchgate.net/profile/Claire_Glenton/publication/257531083_Barriers_and_facilitators_to_the_implementation_of_lay_health_worker_programmes_to_improve_access_to_maternal_and_child_health_qualitative_evidence_synthesis/links/00b7d532fe8775afa8000000.pdf

Gutierrez Kapheim, Melissa and Campbell, Jamie. (2014). Best Practice Guidelines for Implementing and Evaluating Community Health Worker Programs in Health Care

Settings. Sinai Urban Health Institute, January 2014. Retrieved on August 26, 2016 from http://www.sinai.org/sites/default/files/SUHI%20Best%20Practice%20Guidelines%20for%20CHW%20Programs.pdf

Harris, M. I. (2001). Racial and ethnic differences in health care access and health outcomes for adults with type 2 diabetes. *Diabetes care*, *24*(3), 454-459.

Hamer, D. H., Brooks, E. T., Semrau, K., Pilingana, P., MacLeod, W. B., Siazeele, K., & Yeboah-Antwi, K. (2012). Quality and safety of integrated community case management of malaria using rapid diagnostic tests and pneumonia by community health workers. *Pathogens and Global Health*, *106*(1), 32-39.

Health Reform Minnesota. (2014). Minnesota Accountable Health Model – State Innovation Model Grant. Retrieved on 7/5/2016 from http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_Home

Heisler, M., Choi, H., Palmisano, G., Mase, R., Richardson, C., Fagerlin, A., Montori, V.M., Spencer, M., An, L.C. (2014). Comparison of community health worker-led diabetes medication decision-making support for low-income Latino and African American adults with diabetes using e-health tools versus print materials: a randomized, controlled trial. Annals of Internal Medicine, 161(10 Suppl), S13-22. http://www.ncbi.nlm.nih.gov/pubmed/25402398

Hill, Z., Dumbaugh, M., Benton, L., Källander, K., Strachan, D., ten Asbroek, A., & Meek, S. (2014). Supervising community health workers in low-income countries–a review of impact and implementation issues. *Global health action*, *7*. Retrieved on August 23, 2015, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4016747/

Institute for Healthcare Improvement. (2016). IHI Triple Aim Initiative. Retrieved on July 31, 2016 from http://www.ihi.org/engage/initiatives/tripleaim/pages/default.aspx.

Investing Answers. (2016). Return on Investment (ROI) definition. Retrieved on June 23, 2016 from http://www.investinganswers.com/financial-dictionary/technical-analysis/return-investment-roi-1100

Indian Health Services. (2016). Organization website, retrieved on October 11, 2016, from https://www.ihs.gov/chr/

Islam, N. S., Wyatt, L. C., Patel, S. D., Shapiro, E., Tandon, S. D., Mukherji, B. R., ... & Trinh-Shevrin, C. (2013). Evaluation of a community health worker pilot intervention to improve diabetes management in Bangladeshi immigrants with type 2 diabetes in New York City. *The Diabetes Educator*, 0145721713491438.

James Madison University. (2006). Final report on the status, impact, and utilization of community health workers. Commonwealth of Virginia. Retrieved November 5, 2015 from http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/HD92006/$file/HD9.pdf

Jaskiewicz, W., & Tulenko, K. (2012). Increasing community health worker productivity and effectiveness: A review of the influence of the work environment. *Human Resources for*

Health, 10(38). Retrieved on August 8, 2016 from https://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-10-38

Johnson, D., Saavedra, P., Sun, E., Stageman, A., Grovet D., Alfero, C., Maynes, C., … & Kaufman, A. (2012). Community Health Workers and Medicaid managed care in New Mexico. *Journal of Community Health*, 37(3), 563-571. Retrieved January 15, 2016 from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3343233/

Katzen, A., Morgan, M. (2014). Affordable Care Act opportunities for community health workers. Center for Health Law & Policy Innovation Harvard Law School. Retrieved on November 25, 2015, from http://www.chlpi.org/wp-content/uploads/2013/12/ACA-Opportunities-for-CHWsFINAL-8-12.pdf

Kangovi, S., Mitra, N., Grande, D., White, M. L., McCollum, S., Sellman, J., & Long, J. A. (2014). Patient-centered community health worker intervention to improve posthospital outcomes: a randomized clinical trial. *JAMA Internal Medicine*, *174*(4), 535-543.

Kenya, S., Chida, N., Symes, S., & Shor-Posner, G. (2011). Can community health workers improve adherence to highly active antiretroviral therapy in the USA? A review of the literature. *HIV Medicine*, *12*(9), 525-534.

Kok, M. C., Dieleman, M., Taegtmeyer, M., Broerse, J. E., Kane, S. S., Ormel, H., … & de Koning, K. A. (2014). Which intervention design factors influence performance of community health workers in low-and middle-income countries? A systematic review. *Health Policy and Planning*, czu126.

Krieger, J., Song, L., & Philby, M. (2015). Community Health Worker Home Visits for Adults With Uncontrolled Asthma: The HomeBASE Trial Randomized Clinical Trial. *JAMA Internal Medicine*, *175*(1), 109-117.

Leatherman, S.; Berwick, D.; Iles, D.; et al. (2003). The Business Case for Quality: case studies and an analysis. *Health Aff (Millwood).* 2003; 22: 17-30. Retrieved on August 10, 2016 from http://www.ncbi.nlm.nih.gov/pubmed/12674405

LeBan, K., Perry, H., Crigler, L., & Colvin, C. (2014). Community Participation in Large-Scale Community Health Worker Programs. *Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide and Case Studies for Program Managers and Policy Makers. Washington, DC: USAID and MCHIP*. Retrieved on August 25, 2015, from http://www.mchip.net/sites/default/files/mchipfiles/12_CHW_Communities.pdf

Lehmann, U., & Sanders, D. (2007). Community health workers: What do we know about them? The state of the evidence on programs, activities, costs and impact on health outcomes of using community health workers. Retrieved on October 20, 2015, from http://www.who.int/hrh/documents/community_health_workers_brief.pdf

Lewin, S. A., Babigumira, S. M., Bosch-Capblanch, X., Aja, G., Van Wyk, B., Glenton, C., & Daniels, K. (2006). Lay health workers in primary and community health care: A systematic review of trials. *Geneva: World Health Organization*. Retrieved on October 20, 2015, from http://www.who.int/rpc/meetings/LHW_review2.pdf

Matos, S., Findley, S., Hicks, A., Legendre, Y., & DoCanto, L. (2011). Paving a path to advance the community health worker workforce in New York State: A new summary report and recommendations. New York: Community Health Worker Network of NYC, New York State Health Foundation, and the Columbia University Mailman School of Public Health. Retrieved on December 12, 2015, from http://nyshealthfoundation.org/uploads/resources/paving-path-advance-community-health-worker-october-2011.pdf

Martinez, R., Vivancos, R., Visschers, B., Namatovu, L., Nyangoma, E., & Walley, J. (2008). Training needs, practices and barriers in the work of community reproductive health workers in Masindi district, Uganda. *Tropical Doctor*, *38*(2), 93-95.

McDermott, R. A., Schmidt, B., Preece, C., Owens, V., Taylor, S., Li, M., & Esterman, A. (2015). Community health workers improve diabetes care in remote Australian Indigenous communities: results of a pragmatic cluster randomized controlled trial. *BMC Health Services Research*, *15*(1), 68.

McElmurry, B. J., Park, C. G., & Buseh, A. G. (2003). The nurse-community health advocate team for urban immigrant primary health care. *Journal of Nursing Scholarship*, *35*(3), 275-281.

Minnesota Community Health Workers Alliance. (2013). Minnesota CHW Curriculum. Retrieved on December 12, 2015, from http://mnchwalliance.org/wp-content/uploads/2013/05/EducationCurriculum.pdf

Minnesota Community Health Worker Alliance. (2016). Minnesota's Health Care Homes and Chronic Disease Management: Understanding the Integration of Community Health Workers. MN Community Health Worker Alliance Issue Brief, July 2016, p.8. Retrieved on August 23, 2016 from http://mnchwalliance.org/wp-content/uploads/2012/12/HCHs_and_CHWs_Issue_Brief-FINAL.pdf

Minnesota Department of Health. (2014). Advancing Health Equity Report to the Legislature. Retrieved on October 20, 2016, from http://www.health.state.mn.us/divs/chs/healthequity/recommendations.htm

Minnesota Department of Human Services. (2015). MHCP provider manual: Community health workers. Retrieved on December 12, 2015, from http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=dhs16_140357

Minnesota State Colleges and Universities Careerwise. Search Community Health Worker salary. Retrieved on August 27, 2016. http://www.careerwise.mnscu.edu/careers/careerDetail?oc=211094

Minnesota State University Mankato. (2006). MSU, HEIP get funding for new Community Health Worker Training Program. Retrieved on December 13, 2015, from https://www.mnsu.edu/news/read/?id=old-1097211600&paper=topstories

Minnesota Statute 256B.0625 Subdivision 49, 2009: https://www.revisor.mn.gov/statutes/?id=256b.0625

Moetlo, G. J., Pengpid, S., & Peltzer, K. (2011). An evaluation of the implementation of integrated community home-based care services in vhembe district, South Africa. *Indian Journal of Palliative Care*, *17*(2), 137. Retrieved on August 23, 2013, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3183603/

Mubi, M., Janson, A., Warsame, M., Mårtensson, A., Källander, K., Petzold, M. G., & Björkman, A. (2011). Malaria rapid testing by community health workers is effective and safe for targeting malaria treatment: randomised cross-over trial in Tanzania. *PloS one*, *6*(7), e19753.

Mutamba, B. B., van Ginneken, N., Paintain, L. S., Wandiembe, S., & Schellenberg, D. (2013). Roles and effectiveness of lay community health workers in the prevention of mental, neurological and substance use disorders in low and middle income countries: a systematic review. *BMC health services research*, *13*(1), 412. Retrieved on January 8, 2016, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3852794/

Mwai, G. W., Mburu, G., Torpey, K., Frost, P., Ford, N., & Seeley, J. (2013). Role and outcomes of community health workers in HIV care in sub-Saharan Africa: a systematic review. *Journal of the International AIDS Society*, *16*(1).National Association of Community Health Representatives. (2016). Organization website, retrieved on October 11, 2016, from http://www.nachr.net/

National Health Care for the Homeless Council. (2011). Community Health Workers: Financing & Administration. Retrieved November 9, 2015, from http://www.nhchc.org/wp-content/uploads/2011/10/CHW-Policy-Brief.pdf

National Human Services Assembly. (2016). Retaining and Developing High Potential Talent. Retrieved October 16, 2016, from http://www.nassembly.org/Uploads2/Resources/RetainingAndDevelopingHighPotentialTalent_NHSAToolkit.pdf

Nemceck, MA & Sabatier, R. (2003). State of Evaluation of Community Health Workers. *Public Health Nursing*, 20(4), pp.260-270. Retrieved on August 10, 2016 from http://www.ncbi.nlm.nih.gov/pubmed/12823786

Newell, K. W. (1975). Health by the people. Geneva: World Health Organization. Retrieved on October 20, 2015 from http://apps.who.int/iris/bitstream/10665/40514/1/9241560428_eng.pdf

New Mexico Department of Health. (2003). Senate Joint Memorial 076 Report on the Development of a Community Health Advocacy Program in New Mexico. Santa Fe (NM): Department of Health. Retrieved on November 3, 2015, from http://nmhealth.org/publication/view/memorial/546/

Norris, S. L., Chowdhury, F. M., Van Le, K., Horsley, T., Brownstein, J. N., Zhang, X., & Satterfield, D. W. (2006). Effectiveness of community health workers in the care of persons with diabetes. *Diabetic Medicine*, *23*(5), 544-556. Retrieved on November 10, 2015, from http://www.researchgate.net/profile/Tanya_Horsley/publication/7098708_Effectiveness_of_community_health_workers_in_the_care_of_persons_with_diabetes/links/0912f505a2b8896104000000.pdf

O'Brien, M. J., Squires, A. P., Bixby, R. A., & Larson, S. C. (2009). Role development of community health workers: an examination of selection and training processes in the intervention literature. *American Journal of Preventive Medicine*, *37*(6), S262-S269.

Palmas, W., Findley, S. E., Mejia, M., Batista, M., Teresi, J., Kong, J., & Carrasquillo, O. (2014). Results of the northern Manhattan diabetes community outreach project: a randomized trial studying a community health worker intervention to improve diabetes care in Hispanic adults. *Diabetes Care*, *37*(4), 963-969.

Palmas, W., Teresi, J. A., Findley, S., Mejia, M., Batista, M., Kong, J., & Carrasquillo, O. (2012). Protocol for the Northern Manhattan Diabetes Community Outreach Project. A randomised trial of a community health worker intervention to improve diabetes care in Hispanic adults. *BMJ open*, *2*(2), e001051.

Parker, E. A., Schulz, A. J., Israel, B. A., & Hollis, R. (1998). Detroit's East Side Village Health Worker Partnership: community-based lay health advisor intervention in an urban area. *Health Education & Behavior*, *25*(1), 24-45. Retrieved on October 21, 2015, from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/67390/10.1177_109019 819802500104.pdf?sequence=2

PL 109-18 (2005). Patient Navigator Outreach and Chronic Disease Prevention Act of 2005. Retrieved on August 25, 2015, from http://www.gpo.gov/fdsys/pkg/PLAW-109publ18/pdf/PLAW-109publ18.pdf

Penn Center for Community Health Workers. (2015). IMPaCT™. Retrieved on December, 13, 2015, from http://chw.upenn.edu/impact

Peretz, P. J., Matiz, L. A., Findley, S., Lizardo, M., Evans, D., & McCord, M. (2012). Community health workers as drivers of a successful community-based disease management initiative. *American Journal of Public Health*, *102*(8), 1443-1446.

Pérez-Escamilla, R., Damio, G., Chhabra, J., Fernandez, M. L., Segura-Pérez, S., Vega-López, S., & D'Agostino, D. (2015). Impact of a community health workers–led structured program on blood glucose control among Latinos with type 2 diabetes: the DIALBEST trial. *Diabetes Care*, *38*(2), 197-205.

Perry, H., & Zulliger, R. (2012). How effective are community health workers. An overview of current evidence with recommendations for strengthening community health worker programs to accelerate progress in achieving the health-related Millennium Development Goals. Retrieved on October 12, 2015, from http://www.coregroup.org/storage/Program_Learning/Community_Health_Work ers/summary%20lit%20review_effectiveness%20of%20chws_november%202012.pdf

Postma, J., Karr, C., & Kieckhefer, G. (2009). Community health workers and environmental interventions for children with asthma: a systematic review. *Journal of Asthma*, *46*(6), 564-576.

Prezio, E. A., Cheng, D., Balasubramanian, B. A., Shuval, K., Kendzor, D. E., & Culica, D. (2013). Community Diabetes Education (CoDE) for uninsured Mexican Americans: a randomized controlled trial of a culturally tailored diabetes education and management program led

by a community health worker. *Diabetes Research and Clinical Practice*, *100*(1), 19-28. Retrieved on August 21,
from http://www.researchgate.net/profile/Elizabeth_Prezio/publication/235774248_Community_Diabetes_Education_%28CoDE%29_for_uninsured_Mexican_Americans_A_randomized_controlled_trial_of_a_culturally_tailored_diabetes_education_and_management_program_led_by_a_community_health_worker/links/00b4952cdca94d2d7b000000.pdf

Prezio, E.A., Pagán, J.A., Shuval, K., Culica, D. (2014). The Community Diabetes Education (CoDE) program: cost-effectiveness and health outcomes. 47(6), 771-779.

Rahman, S. M., Ali, N. A., Jennings, L., Seraji, M. H. R., Mannan, I., Shah, R., & Winch, P. J. (2010). Research Factors affecting recruitment and retention of community health workers in a newborn care intervention in Bangladesh. *Human Resource for Health*, *8*(12), 2-14. Retrieved on November 3, 2015,
from http://www.biomedcentral.com/content/pdf/1478-4491-8-12.pdf

Redding, S., Conrey, E., Porter, K., Paulson, J., Hughes, K., & Redding, M. (2015). Pathways Community Care Coordination in Low Birth Weight Prevention. *Maternal and child health journal*, *19*(3), 643-650.

Redding, S. (2010). Score Card Pilot Results. Retrieved on December 15, 2015,
from http://archive.ahrq.gov/news/events/conference/2010/redding/index.html

Rhodes, S. D., Foley, K. L., Zometa, C. S., & Bloom, F. R. (2007). Lay health advisor interventions among Hispanics/Latinos: a qualitative systematic review. *American Journal of Preventive Medicine*, *33*(5), 418-427. Retrieved on August 25, 2015,
from http://www.ajpmonline.org/article/S0749-3797%2807%2900466-7/fulltext?refuid=S0749-3797%2809%2900526-1&refissn=0749-3797

Roe K, Thomas S. (2002). Acknowledgements. *Health Promotion Practice* 3, 106-107.

Rosenthal, E. Lee; Rush, Carl H.; Allen, Caitlin G. (2016). Understanding Scope and Competencies: A Contemporary Look at the United States Community Health Worker Field, Progress Report of the Community Health Worker (CHW) Core Consensus (C3) Project: Building National Consensus on CHW Core Roles, Skills, and Qualities. April 2016. Retrieved on August 27, 2016
from http://www.chwcentral.org/sites/default/files/CHW%20C3%20Project.pdf

Rothschild, S. K., Martin, M. A., Swider, S. M., Tumialán Lynas, C. M., Janssen, I., Avery, E. F., & Powell, L. H. (2014). Mexican American trial of community health workers: a randomized controlled trial of a community health worker intervention for Mexican Americans with type 2 diabetes mellitus. *American journal of public health*, *104*(8), 1540-1548.

Rural Assistance Center. (2015). Kentucky Homeplace. Available
at https://www.raconline.org/community-health/project-examples/785

Rush, C. (2012). Return on investment from employment of Community Health Workers. *Journal of Ambulatory Care Management*, 35(2), 133-137. Retrieved on January 15, 2016 from

http://www.chwcentral.org/sites/default/files/Rush_Return%20on%20investment%20from%20employment%20of%20CHWs.pdf

Santa J. and Lipman, M. (2013) Knowledge and Ignorance in the Care of Chronic Disease. *Annals of Internal Medicine*, 159(3):176-184. Retrieved on August 27, 2016 from http://annals.org/article.aspx?articleid=1722511

Schulz R. (2015*) Experiences of Community Health Worker Employers in Minnesota: A review of CHW utilization, lessons learned, and future outlook from select organizations employing CHWs in Minnesota*, Wilder Research. Retrieved on August 29, 2016 from http://www.health.state.mn.us/divs/healthimprovement/content/documents/CHWEmployerReport1115.pdf

Schuster, A.L., Frick, K.D., Huh, B.Y., Kim, K.B., Kim, M., Han, H.R. (2015). Economic evaluation of a community health worker-led health literacy intervention to promote cancer screening among Korean American women. 26(2), 431-440. http://www.ncbi.nlm.nih.gov/pubmed/25913341

Sidel, Victor W. (1972). The Barefoot Doctors of the People's Republic of China. *New England Journal of Medicine,* June 15, 1972; 286: 1292-1300. Retrieved on January 15, 2016 from http://www.nejm.org/doi/pdf/10.1056/NEJM197206152862404.

Simmons, R., Baqee, L., Koenig, M. A., & Phillips, J. F. (1988). Beyond supply: the importance of female family planning workers in rural Bangladesh. *Studies in Family Planning*, 29-38.

Staten, L. K., Gregory-Mercado, K. Y., Ranger-Moore, J., Will, J. C., Giuliano, A. R., Ford, E. S., & Marshall, J. (2004). Provider counseling, health education, and community health workers: the Arizona WISEWOMAN project. *Journal of women's health*, *13*(5), 547-556. Retrieved on November 10, 2015, from http://www.liebertpub.com/media/content/jwh_wisewoman/p547.pdf

Spencer, M. S., Rosland, A. M., Kieffer, E. C., Sinco, B. R., Valerio, M., Palmisano, G., & Heisler, M. (2011). Effectiveness of a community health worker intervention among African American and Latino adults with type 2 diabetes: a randomized controlled trial. *American Journal of Public Health*, *101*(12), 2253-2260. Retrieved on August 30, 2015, from http://europepmc.org/articles/pmc3222418

Sprague, L. (2012). Community Health Workers: A Front Line for Primary Care? *Issue Brief*, *846*, 137-44. Retrieved on August 27, 2016 from http://ww.w.nhpf.org/library/issue-briefs/IB846_CHW_09-17-12.pdf

Strachan, D.L. et al. (2012) Interventions to Improve Motivation and Retention of Community Health Workers Delivering Integrated Community Case Management (iCCM): Stakeholder Perceptions and Priorities. *The American Journal of Tropical Medicine & Hygiene*, 87(5 Suppl):111-119. Retrieved on August 27, 2016 from http://www.ajtmh.org/content/87/5_Suppl/111.long

Sue, S., Fujino, D. C., Hu, L. T., Takeuchi, D. T., & Zane, N. W. (1991). Community mental health services for ethnic minority groups: a test of the cultural responsiveness hypothesis. *Journal of Consulting and Clinical Psychology*, *59*(4), 533.

The Institute for Clinical and Economic Review. (2013). Community Health Workers: A Review of Program Evolution, Evidence on Effectiveness and Value, and Status of Workforce Development in New England. Retrieved on December 12, 2015, from http://cepac.icer-review.org/wp-content/uploads/2011/04/CHW-Draft-Report-05-24-13-MASTER1.pdf

The Office of the Revisor of Statutes. (2015). 2015 Minnesota Statutes. Retrieved on December 14, 2015, from https://www.revisor.mn.gov/statutes/?id=256B.0625

University of Arizona Rural Health Office and College of Public Health. (1998). Community Health Worker Evaluation Tool Kit. Retrieved on August 27, 2016 from http://azprc.arizona.edu/sites/default/files/CHWtoolkit/intro.htm

Ursua, R. A., Aguilar, D. E., Wyatt, L. C., Katigbak, C., Islam, N. S., Tandon, S. D., ... & Trinh-Shevrin, C. (2014). A community health worker intervention to improve management of hypertension among Filipino Americans in New York and New Jersey: a pilot study. *Ethnicity & Disease*, *24*(1), 67.

US Department of Health and Human Services. (2005). Patient Navigator Outreach and Chronic Disease Prevention Act of 2005. Retrieved on November 2, 2015, from http://www.gpo.gov/fdsys/pkg/PLAW-109publ18/pdf/PLAW-109publ18.pdf

US Department of Health and Human Services. (2007). Community health worker national workforce study. *San Antonio: Regional Center for Health Workforce Studies of the University of Texas Health Science Center*. Retrieved on October 20, 2015 from http://bhpr.hrsa.gov/healthworkforce/reports/chwstudy2007.pdf

US Department of Health and Human Service. (2011). Community health workers evidence-based models toolbox HRSA office of rural health policy. Retrieved on August 23, 2015, from http://www.hrsa.gov/ruralhealth/pdf/chwtoolkit.pdf

US Department of Health and Human Services. (2013). Update on Preventive Services Initiatives. Centers for Medicate and Medicaid Services. Retrieved on November 4, 2015, from http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-11-27-2013-Prevention.pdf

U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. (2007). Community Health Worker National Workforce Study. P.19, March 2007. Retrieved on August 20, 2015 from http://bhpr.hrsa.gov/healthworkforce/reports/chwstudy2007.pdf

UNICEF (2008). *The State of Asia-Pacific's Children, 2008: Child Survival*. UNICEF: New York.

Viswanathan, M., Kraschnewski, J. L., Nishikawa, B., Morgan, L. C., Honeycutt, A. A., Thieda, P., & Jonas, D. E. (2010). Outcomes and costs of community health worker interventions: a systematic review. *Medical care*, *48*(9), 792-808.

Wikipedia. (2016). Scope of Practice, definition. Retrieved on July 20, 2016 from https://en.wikipedia.org/wiki/Scope_of_practice

World Health Organization (1978). Declaration of Alma-Ata. International Conference on Primary Health Care. Alma-Ata, USSR. Retrieved on October 21, 2015 from http://www.who.int/publications/almaata_declaration_en.pdf\

World Health Organization (1989). As cited by Bhutta et al. (2010). Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems, page 17. Retrieved on August 27, 2016 from http://www.who.int/workforcealliance/knowledge/resources/chwreport/en/

Whitley, E. M., Everhart, R. M., Wright, R. A. (2006). Measuring return on investment of outreach by community health workers. *Journal of Health Care for the Poor and Underserved*, 17(1 Suppl), 6-15.

Yeboah-Antwi, K., Pilingana, P., Macleod, W. B., Semrau, K., Siazeele, K., Kalesha, P., & Hamer, D. H. (2010). Community case management of fever due to malaria and pneumonia in children under five in Zambia: a cluster randomized controlled trial. *PLoS Medicine*, *7*(9), 1139.

Yousafzai, A. K., Rasheed, M. A., Rizvi, A., Armstrong, R., & Bhutta, Z. A. (2014). Effect of integrated responsive stimulation and nutrition interventions in the Lady Health Worker programme in Pakistan on child development, growth, and health outcomes: a cluster-randomised factorial effectiveness trial. *The Lancet*, *384*(9950), 1282-1293.

Zhang, D., & Unschuld, P. U. (2008). China's barefoot doctor: past, present, and future. *The Lancet*, *372*(9653), 1865-1867. 29 November, 2008. Retrieved on January 16, 2016 from http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)61355-0/abstract