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Best Practice Guidelines for Implementing and Evaluating Community Health Worker Programs in Health Care Settings

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INTRODUCTION

There is a growing movement among health care organizations to adopt the Community Health Worker (CHW) model into their system as a way to provide comprehensive care to patients and community members. At the same time there is uncertainty about *how* to implement the CHW model to achieve better patient outcomes, higher quality of care, and lower health care costs. With generous funding from the Lloyd A. Fry Foundation, the Sinai Urban Health Institute (SUHI) in Chicago, IL embarked on a two-year project (2011-2013) to create the *Community Health Worker Best Practice Guidelines* with the aim of addressing the gaps in knowledge about how to effectively implement the CHW model.

BACKGROUND

The American Public Health Association defines a Community Health Worker as:

> *"...a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.*
>
> *A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy."*[2]

Description of CHW Models

The literature describes seven or more CHW models (described at length in Appendix A); none of which are mutually exclusive. Interventions may be a combination of one or more models. In brief, these include:

- Navigator/Care Coordinator
- Lay Health Educator
- Outreach/Enrollment Agent
- Researcher
- Community Organizer/Advocate
- Promotor(a) de Salud
- Member of Care Delivery Team

Most importantly, at the core of each model are the same two basic principles: the CHW should be non-clinical staff and a member of the community served.

PURPOSE OF THE CHW BEST PRACTICE GUIDELINES

The *CHW Best Practice Guidelines* are intended to be a blue print for health care organizations interested in implementing the CHW model in their system or improving upon their current system. These practice guidelines were developed to address gaps in the CHW professional literature and assist health care administrators, public health professionals, health care providers, CHWs, and communities in designing and implementing CHW interventions grounded in *evidence-based* science. The recommendations can be tailored to specific program needs and are intended to offer guidance in decision-making and solutions to common program implementation challenges.

Objectives

- To create CHW Best Practices grounded in evidence-based science by summarizing the available evidence from professional literature, national and local surveys, and successes, lessons learned, and case stories from the field.
- To aid programs wanting to more critically examine processes, outcomes, cost, and cost-benefits associated with their CHW interventions.

Topics included in the Best Practice Guidelines

- Innovative approaches to CHW hiring, training, and performance evaluation;
- Supervision challenges and strategies for success;
- Providing a positive organizational climate to facilitate CHW integration;
- Other effective elements of program design; and
- Program evaluation, including standardized CHW process and outcome measures.

SOURCES OF BACKGROUND INFORMATION

The guidelines developed are a synthesis of the best available evidence on CHW research and experience. The recommendations provided in this report were informed by five data elements, described in Table 1.

Table 1. Sources of Background Information

1. An Extensive Review of Available Published Professional Literature
We conducted an extensive review of the available published literature which provides one of the largest pools of evidence gathered on CHW hiring, training, supervision, integration, and evaluation. With over 100 citations, our literature review offers substantial evidence regarding the structure of CHW programs.
2. Evidence from the CHW National Workforce Study
To provide a snapshot of CHW practices nationally, we present findings from the Community Health Worker National Workforce Study (CHW-NWS) published in 2007 by the U.S. Department of Health and Human Services Health Resources and Services Administration. The CHW-NWS provided the first national profile of the CHW workforce. Questions from surveys used in this work provide the basis for SUHI's local "CHW in Chicago Health Care Setting Survey." Thus the CHW-NWS provides useful comparison data and is an important element of our summary of evidence.
3. Findings from the CHW in Chicago Health Care Setting Survey
To understand how CHW programs operate locally, in 2011, SUHI conducted its CHW in Chicago Health Care Setting Survey. The purpose of the survey was to gain insight into CHW roles, program structures, and evaluation within a wide range of health care centers. Results from this study are presented to provide a summary of local findings.
4. Experience from SUHI's CHW programs
Since 2000, SUHI has been implementing CHW programs in both the community and hospital setting. A wealth of experience has been amassed in recruiting, training, supervising and deploying the CHW workforce to deliver health education, assist clients in navigating the health care system, and connect clients with appropriate social service needs. Throughout the best practices document, we reflect on this knowledge and SUHI's everyday experience in the field.
5. Additional perspectives from the field
Lastly, to provide illustrative examples, we include case studies of CHW practice experience and lessons learned from our own programs, as well as outside organizations, regarding CHW hiring, training, supervision, and integration. These stories are included in each section of the CHW Best Practice Guidelines and serve to highlight the evidence presented.

FINDINGS AND RECOMMENDATIONS

The *CHW Best Practice Guidelines* are broken up into the following five Summary of Evidence sections.

- *Section 1: CHW Hiring*
  - An effective hiring process begins with a clear vision for the CHW intervention and a realistic plan for implementation. Employers must develop a thoughtful strategy to identify and hire community members who may excel most as CHWs. In this section, we discuss:
    - Reasons for Hiring CHWs;
    - Barriers to Hiring CHWs;
    - Identifying CHW Candidates;
    - CHW Selection Criteria and Hiring Process; and
    - CHW Salary and Benefits.

- *Section 2: CHW Training*
  - CHWs are primarily trained on the job, and the quality and quantity of that training is of vital importance to their job preparedness and potential for optimal productivity. Solid initial training and sufficient on-going training of CHWs is crucial to intervention quality and effectiveness. In this section, we discuss:
    - Length, Content, and Scope of CHW training;
    - Training Instructor, Methods, and Style; and
    - Training Evaluation.

- *Section 3: CHW Supervision*
  - Organizations must decide how closely CHWs are supervised and by what staff. CHW supervisors play an integral role in program management, providing mentorship to CHWs and helping them work most effectively in their role. In this section, we discuss;
    - The Structure of CHW Supervision; and
    - The Role of the CHW Supervisor.

- *Section 4: CHW Integration into Health Care Systems*
  - CHWs may perform any number of duties in the health care setting, including patient navigation, health education, outreach, and advocacy. CHWs may be members of a care delivery team and can be vital in facilitating communication, especially in non-English speaking populations, through cultural mediation and translation. However, given that integration of CHWs into traditional health care is relatively new, sometimes there can be confusion about roles, or even resistance to change, on the part of those trying to adopt the model. In this section, we discuss:
    - The CHW Role and Role Confusion;
    - Stakeholder Perspective on CHW Integration; and
    - Facilitating Positive Integration of CHWs.

- *Section 5: Evaluating CHW Programs and Interventions*
  - Implementing a rigorous evaluation plan is imperative to the long term success of a CHW intervention. Both intervention processes and outcomes must be tracked and evaluated to show meaningful outcomes such as improved patient health. Following a few guidelines on how to implement an evaluation plan such as involving CHWs in the evaluation design, standardizing data collection procedures, and connecting CHW intervention measures to patient medical records, will greatly increase the success of documenting the value of the work of CHWs and intervention outcomes. A final noteworthy point is that is it vital for CHW interventions to have both CHW systems and structures *and* a sound intervention and evaluation plan in place in order to achieve improvements in health and reductions in cost. In this section, we discuss:
    - Considerations in CHW Evaluation;
    - Key Factors in Implementing a CHW Program or Intervention Evaluation Plan; and
    - The Importance of CHW Systems and Structures to Intervention Outcomes.

Introduction

There is a growing movement among health care organizations to adopt the Community Health Worker (CHW) model as part of their system as a way to provide comprehensive care to patients and community members. At the same time there is uncertainty about how to implement the CHW model to obtain the triple aim of health care – better health, better quality, and lower costs. The exact benefits and improvements in health outcomes attributable to the CHW model are also vague and often come into question when health care organizations consider implementing the CHW model.

Since 2000, the CHW profession has grown tremendously. The field has become visible in the mainstream and it continues to develop and define itself. The Institute of Medicine (IOM) endorsed the work of CHWs in its 2002 report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*,[1] calling for support and evaluation of CHW work and urging for CHW integration into the medical team as a strategy for decreasing health disparities. In 2007, the CHW Section of the American Public Health Association created a common definition for CHWs,[2] and two years later, in 2009, the U.S. Department of Labor developed a Standard Occupational Classification (21-1094) for the CHW profession.[3] Throughout the years a handful of individual state and federal legislation has been adopted regarding CHW training, certification, research, and funding.[4] Though some progress has been made, legislative efforts at both the state and federal level have additional work ahead.

At the national legislative level, the Patient Protection and Affordable Care Act (ACA), one of the more significant pieces of health care legislation in the last 50 years, has several sections in the health care reform law that make reference to CHWs, especially Section 5101, which includes CHWs in the definition of 'primary care professionals.'[5] Provisions of the ACA regarding hospital readmission reduction, patient navigation, and patient-centered medical homes match CHW roles and work. Thus, the utilization of CHWs as valued members of health care teams is progressively being discussed by medical providers, researchers, and policy-makers as a strategy for compliance with health care reform and meeting the goals of health care's triple aim.

With generous funding from the Lloyd A. Fry Foundation, the Sinai Urban Health Institute in Chicago, IL set out to create *Community Health Worker Best Practice Guidelines* to address the gaps in knowledge about how to effectively implement the CHW model. The *CHW Best Practice Guidelines* are intended to be a blue print for health care organizations interested in implementing the CHW model in their system or improving upon their current system. The guidelines included in this document are evidence-based and provide practical recommendations for successfully adopting the CHW model and ultimately improving the health of vulnerable communities.

Background

Defining Community Health Workers. CHW is an umbrella term that refers to workers who may be employed under a variety of titles, including but not limited to: Community Health Worker, Community Health Educator, Patient Navigator, Promotor(a) de Salud, Peer Mentor/Counselor, Chronic Disease Educator, Community Health Representative, Health Advisor, Lay Health Advocate, and Outreach Worker. Many CHWs live in or have strong roots in the communities they serve and/or share any or all of language, culture, ethnicity, socioeconomic status, life experiences, and disease state[2] with their clients. While some CHWs are volunteers, it is estimated that over 65% of the workforce is paid, either hourly or full-time.[4]

The American Public Health Association defines a Community Health Worker as:

> *"...a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.*
>
> *A CHW also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy."*[2]

CHWs work in a variety of clinical and non-clinical settings and have unique roles and duties that are different from, yet compliment, the roles of other service providers.[6, 7] Drawing from shared life experiences with the community, CHWs possess a distinct type of non-clinical, largely experience-based skill set and knowledge.[8] A CHW focuses on relationship-building and provides resources and support to reach a patient's health goals. Through education, social support, and advocacy, CHWs work to build individual and community capacity and self-reliance.[2]

Many CHWs work in disease-specific programs[6] and provide such services as health education, guidance on how to navigate the health care system, referrals to medical care and social services, social support, patient advocacy, follow-up to ensure compliance with treatment recommendations, and cultural consultation to clinical and administrative staff. Many participate in interpreting, translating, mentoring, and transportation.[4]

Community Health Worker Models. CHW models are largely categorized by CHW roles and functions. There are at least seven CHW models (described in length in Appendix A), any of which may be found within health care settings. In brief, these models include:

1. Navigator/Care Coordinator
2. Lay Health Educator
3. Outreach/Enrollment Agent
4. Community Organizer/Advocate
5. Researcher
6. Promotor(a) de Salud
7. Member of Care Delivery Team.

CHW models are not mutually exclusive, therefore any given intervention can be, and often is, a blend of more than one CHW model. For instance, a program may employ a Promotor(a) de Salud who works as a patient navigator and member of a care delivery team.

Additional models may exist on a smaller scale. But at the core of each model are the same two basic principles: the CHW should be non-clinical staff and a member of the community served. Demographics such as language and race often define community, however, for many CHW programs, additional factors should be considered. Community is a somewhat subjective term and should be defined on a program-by-program basis, for example, by geographic communities, socially constructed communities, or communities formed around a disease state or health condition, such as disability or pregnancy. Depending on the program, shared experiences can be vital in helping CHWs relate to the clients they serve. Examples include: drug or incarceration history, homelessness, immigration or refugee experiences, and single or teen parenthood.

In general, CHWs must possess a strong enough connection to the community to achieve insider status.[4] This relationship affords CHWs a deep understanding of the needs and strengths of the communities they serve.[9]

Description and Objectives of the CHW Practice Guidelines

These practice guidelines were developed to address gaps in the CHW professional literature and to assist public health professionals, health care administrators, health care providers, CHWs, and communities in designing and implementing CHW interventions *grounded in evidence-based science.* Practice guidelines can be tailored to specific program needs and are intended to provide guidance in decision-making and to offer solutions to common program implementation challenges.

Objectives for this Report

- To create CHW Best Practices grounded in evidence-based science by summarizing the available evidence from professional literature, national and local surveys, and successes, lessons learned, and case stories from the field.
- To aid programs wanting to more critically examine processes, outcomes, cost, and cost-benefits associated with their CHW interventions.

Topics included in the Best Practice Guidelines

- Innovative approaches to CHW hiring, training, and performance evaluation;
- Supervision challenges and strategies for success;
- Providing a positive organizational climate to facilitate CHW integration;
- Program evaluation, including the inclusion of standardized CHW process and outcome measures; and
- Other effective elements of program design.

Although intended for use by health care agencies, these guidelines may prove useful to a variety of CHW practice settings, including faith-based or community-based organizations, and may be especially useful in instances of new uptake of the CHW model and its principles. Please use discretion in what may be applicable and work best for your program. It is our intention that these Best Practice Guidelines will lead to better implementation of the CHW model, better training, higher standards of evaluation, improved patient care, improved connection with the health care system, and ultimately improve health outcomes and quality of life for vulnerable communities.

The next section in the *CHW Best Practice Guidelines* contains a breakdown of the background information used by the authors to produce their findings. Following are five *Summary of Evidence* sections on topics important to implementing the CHW model in health care settings:

Section 1: CHW Hiring
Section 2: CHW Training
Section 3: CHW Supervision
Section 4: CHW Integration into Health Care Systems
Section 5: Evaluating CHW Programs and Interventions

Each of the five sections provides recommendations on CHW best practices.

Sources of Background Information

The work on this two-year project (2011-2013) was undertaken by the Sinai Urban Health Institute (SUHI) and funded by the Lloyd A. Fry Foundation. The CHW best practice guidelines that have been developed are a synthesis of the best available evidence on CHW research and experience.

The best practices contained in each of the *Summary of Evidence* sections were derived from five data elements relating to the practice topic:

1. Evidence from the professional literature: We conducted an extensive review of the available published literature that provides one of the largest pools of evidence gathered on the subject areas.
2. Evidence from the Community Health Worker National Workforce Study (CHW-NWS)[4]: To provide a snapshot of CHW programs nationally, we present findings from the 2007 *CHW-NWS*.
3. Evidence from the CHW in Chicago Health Care Setting Survey: Results from the 2011 CHW in Chicago Health Care Setting Survey are presented and provide a summary of local findings specific to health care settings.
4. Experience from the SUHI's CHW programs: SUHI has extensive experience developing CHW practices, programs, and interventions since 2000. Throughout the best practices we reflect on SUHI's everyday experience in the field, as we implement the CHW model.
5. Additional perspectives from the field: Lastly, to provide illustrative examples, we include case studies of CHW practice experience and lessons learned relating to the practice topics. These case studies come from our own as well as outside organizations whose input we solicited.

Below, we describe in full the sources that comprise each of the five data elements.

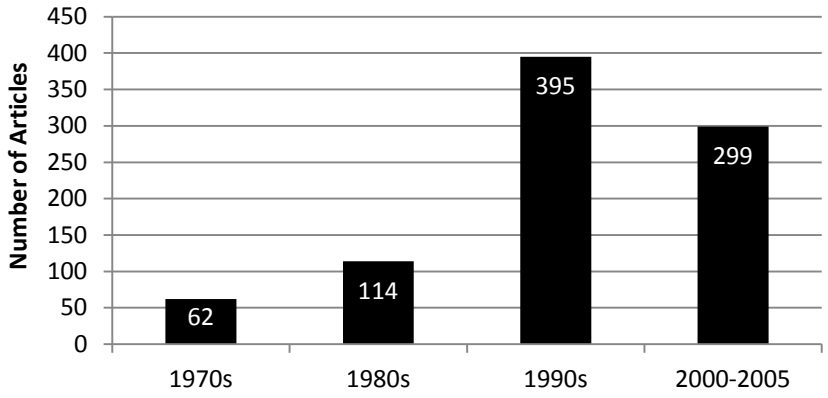
1. Evidence from the professional literature

To identify the most current and relevant CHW publications, an extensive literature search was conducted in April 2013 using PubMed and the Cumulative Index to Nursing and Allied Health Literature (CINAHL), two computerized databases that house a broad collection of health-related articles. CHWs are referred to by varying titles, therefore, to be most inclusive, we searched thirty-four terms including:

- Community Health Worker(s)
- Community Health Representative(s)
- Patient Navigator(s)
- Lay Navigator(s)
- Promotor(a)
- Promotores(as)
- Community Health Educator(s)
- Lay Health Worker(s)
- Peer Educator(s)
- Lay Health Educator(s)
- Lay Health Advisor(s)
- Health Advocate(s)
- Community Health Advisors(s)
- Health Promoter(s)
- Outreach Worker(s)
- Lay Worker(s)
- Community Health Aide(s)

The existing CHW literature-base is vast. As an illustration of its proliferation, we can compare the volume of articles published through the decades (see Figure 1). In the 1970s, 62 CHW articles were published; this increased to 114 in the 1980s and 395 in the 1990s. Then, in just a five-year period (2000-2005), nearly 300 new articles came into print,[4] and publishing rates continue to increase at a fast pace.

Figure 1. Articles on CHWs Published in the Professional Literature



Source: CHW-NWS 2007[4]

Given our limited staff availability, we only reviewed those articles written in English and published after 1997. Articles were included if determined to have substantial reporting on the selected CHW practice topics (supervision, hiring, etc.), and both intervention and non-intervention studies were considered. We included summaries or literature reviews when found. We did not include articles in which the intervention setting was outside the U.S. as health care systems differ so drastically across countries. Also excluded were articles for which full-text was unable to be retrieved. Additional articles and published reports were gathered by hand-searching the citations of relevant articles, through networking, and via web-searching. Information from the included articles was abstracted and entered into a table by relevant characteristics.

Finally, given that the basic structure of CHW programs (i.e., hiring, supervision, training, etc.) is similar across practice settings and that few articles focus specifically on CHWs in health care settings, we chose not to limit the literature review to only those CHW programs existing in health care. When available, healthcare-specific examples are made prominent.

Many researchers have recognized the need for further exploration of CHWs in the healthcare setting.[10-13] It is possible that CHWs are being included within multidisciplinary teams in clinics, health departments, and hospitals, yet a minority of studies exist because programs are not publishing results,[11] possibly due to lack of time, evaluation methods, experience in the publishing process,[7] or other reasons. Although not exhaustive, our literature review contains over 100 citations, providing substantial evidence regarding the structure of CHW programs. This literature review, combined with the other data elements described below, provides the most comprehensive overview of the selected CHW practice topics to date.

2. Evidence from the CHW National Workforce Study (2007)[4]

The CHW National Workforce Study (CHW-NWS), published in 2007, is a landmark study of the CHW profession. It consists of a comprehensive literature review, surveys of CHWs and CHW employers in all fifty states, and interviews with CHW employers in four select states. The CHW-NWS provided the first profile of the CHW workforce and

included information on who CHWs are, where they work, what types of CHW programs exist, and how CHW programs are implemented and funded. Questions from surveys used in this work provide the basis for a local survey that SUHI conducted, discussed below. Thus the CHW-NWS provides a useful example of comparison data and is an important element of our summary of evidence.

3. Evidence from the CHW in Chicago Health Care Setting Survey (2011)

In July 2011, SUHI received funding from the Lloyd A. Fry Foundation to implement the *Community Health Worker Programs in Chicago's Health Care Institutions: Research and Evaluation* project. As part of the project, SUHI surveyed CHWs and CHW administrators working in health care centers on the Westside of Chicago and late throughout Chicago. The purpose of the survey was to gain insight into CHW roles, program structures, and evaluation in health care settings.

Survey Methods

Survey Area. The study surveyed health care centers located on the Westside of Chicago, a cluster of predominantly low-income, inner-city, African American and Hispanic/Latino communities. The Westside is not a medically underserved area, located within close distance to the Illinois Medical District; it has large university-based research hospitals, specialty hospitals, and the largest safety-net medical facilities in the region. However, Westside residents suffer some of the worst health outcomes in the city. For example, life expectancy, or how long on average a person may expect to live, is 77 years for Chicago as a whole (2005-2007), while the life expectancy for Westside neighborhoods such as North Lawndale is 70 years. In other words, those living in North Lawndale can expect to live seven years less than the average Chicagoan.[14] Many of these communities also have elevated rates of diabetes,[15, 16] asthma,[17] hypertension,[18] and obesity.[19] Therefore, surveying Westside communities allows for a robust sample of health care centers in communities facing substantial health disparities to determine: 1) whether agencies which may benefit from CHW utilization employ CHWs; and 2) how CHW programs operate within a wide range of health care centers.

Study Recruitment. A list of hospitals and clinics was abstracted from a comprehensive online health care directory compiled and kept up-to-date by a local non-profit, the Chicago Asthma Consortium. Recruitment occurred between October 2011 and April 2012, based on the criteria that agencies must: 1) Be a health care setting (clinic, hospital, outpatient facility, health department); 2) Employ CHWs based on the APHA definition; 3) Be located within the zip codes of 60608, 60612, 60622, 60623, 60624, 60644, and 60651.

Contact was attempted with 25 organizations (see Table 2 for recruitment outcomes). Nearly half (44%) of Westside agencies reported that they do not employ CHWs. Of those that do (28%), on average each organization has two CHW programs.

Table 2. Study Recruitment

Recruitment Outcome	Number of Agencies
Agencies With No CHW on Staff	11 (44%)
Agencies That Employ CHWs*	7 (28%)
Agencies Which Were Unresponsive	7 (28%)
Total Organizations	25 (100%)

*Of those agencies, a total of 16 programs were surveyed.

Data Collection and Analysis. Survey instruments were a modified version of the surveys used in the 2007 *CHW-NWS* described above. Unlike the *CHW-NWS*, which was designed to capture an array of CHW practice settings (i.e. community- or faith-based organizations, universities, hospitals, clinics, and schools), our survey, entitled *CHW in Chicago Health Care Setting Survey*, specifically focused on CHW programs in health care agencies.

Existing questions from the *CHW-NWS* were redesigned and new questions added to increase the relevance of the survey to medical settings. For instance, "medical record review" would be an added answer choice to a question regarding program evaluation. Surveys were collected from both CHWs and program administrators. There were 34 questions on the CHW survey and it took approximately thirty minutes to complete. Topics included: CHW background information, program information, CHW job duties, training, hiring, and compensation, and CHW connection to the community. The administrator survey consisted of fifty-six questions and took approximately one hour to complete. Topics included agency information and CHW program details, CHW background, compensation, hiring, training, CHW demand and barriers, supervision, CHW connection to the community, funding information, and program evaluation. Process and outcome measures were assessed for each program to determine how health care centers evaluate the impact of CHWs. Findings were used to inform the CHW Best Practice Guidelines and develop CHW evaluation measures that can be used in health care settings, a task that has been called for by researchers in this field.[4, 20]

After initial recruitment, outreach was expanded throughout Chicago via an online survey to get a more citywide representation of how CHWs are used in health care settings. We reasoned that additional surveys might provide further insight and a more robust sample concerning the scope of CHW models, implementation approaches, and evaluation capacities of local health care agencies. We also wanted to test the feasibility of obtaining this type of data through an anonymous online survey. A citywide list of Chicago area clinics and hospitals was derived from the same health care directory used in our initial study recruitment. Health care agencies citywide were notified of the survey via email. Additional recruitment consisted of advertisements through networking meetings and professional contacts. These recruitment efforts resulted in eligible and complete surveys for twelve additional CHWs and eight additional administrators of CHW programs in health care settings.

Results

Below are the findings of 62 CHW survey respondents and 21 administrator survey respondents. It should be noted that there was only one administrator surveyed per program. Multiple CHW programs could have existed within one health care organization and administrators were therefore surveyed separately for each program included. All CHWs in any program per organization were included in the survey. The average number of CHWs surveyed per program was three (with a range of one to seven). Therefore, the results of the CHW survey data should be interpreted with this caveat.

Program information. Of the programs surveyed, 76% rely on short-term funding and 65% were established after 2000. On average, each organization employs seven CHWs with a range of one to thirteen. The number of clients served annually by the CHW programs is displayed in Table 3.

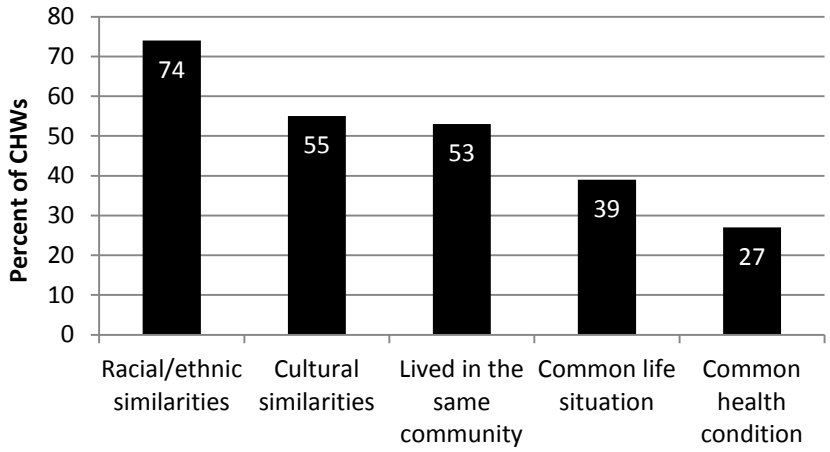
Table 3. Annual number of clients served by CHW Program

Number of Clients Served Annually by CHWs (N=21 Administrators)	Percent
1-100	9.5%
101-250	4.8%
251-500	19.0%
501-750	4.8%
751-1,000	0.0%
1,001-2,500	38.1%
2,501-5,000	4.8%
5,001 or more	19.0%

Demographics. The majority of the CHWs surveyed are female (69%) and were on average 41 years old. Nearly half were Hispanic (47%), 42% were Non-Hispanic Black, with the rest being Non-Hispanic White (8%), or other (2%). Most CHWs had some college education or vocational schooling (40%), 37% had a college degree, and 19% had a high school degree or below. All CHWs that we surveyed were paid employees. They worked an average of eight years as a CHW and six years at their current organization.

CHW Relationship with Community Served. We surveyed CHWs in health care settings regarding their relationship with the community they serve. Figure 2 shows how the CHWs surveyed connect with the community.

Figure 2. Characteristics CHWs share with the community they serve



We were also interested in the CHWs' agreement and association with the widely accepted American Public Health Association (APHA) definition of a CHW (see page 2). The APHA has five main components in the definition of CHWs. In the survey the definition was deconstructed and CHWs were asked whether or not they agreed with the statement. The five traits and the percent of CHWs who associated with that part of the definition are as follows:

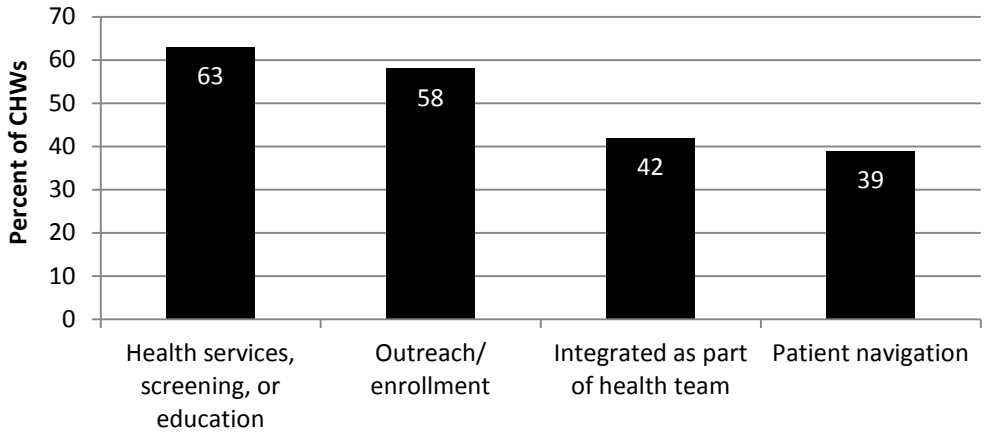
1) I am a trusted member of the community I work with (71% agreement)
2) I have a close understanding of the community I work with (68% agreement)
3) I improve the quality of health and/or social services for my clients (65% agreement)
4) I help my clients access health and/or social services (68% agreement)
5) I improve the cultural competence of health and social services for my clients (39% agreement)

On average, each CHW agreed with at least 3 statements.

CHW Titles and Assignments. In the professional literature, CHWs are commonly referred to as "Community Health Workers"; however, only one respondent stated that they use the title Community Health Worker. The majority are called Community Health Educator (34%) or Patient Navigator (11%). The term "peer" sometimes appeared in CHW titles, such as Peer Educator (8%), Peer Mentor (7%), and Peer Counselor (7%).

Figure 3 displays data for the assignments that CHWs reported performing in their role. Eighty-two percent of CHWs stated they collaborated with others on the service delivery team, including the Program Manager (57%), other CHWs (47%), doctors (45%), nurses (45%), and social workers (28%).

Figure 3. Assignment CHWs perform on the job in health care settings



CHW Job Duties and Functions. Fifty-seven percent of CHWs in health care settings surveyed assisted their clients in gaining access to medical services and programs, 51% provide culturally appropriate health education to their clients, 46% assist their clients in gaining access to social services, 34% provide social support, and only 25% conduct outreach and recruitment.

Populations Served, Service Area, and Location of Service Delivery. In general, the majority of CHWs and CHW programs reported serving women (77%), but men were also a population of concern (66%). More specifically, children and the elderly were the populations served the most by CHWs in health care settings (50% and 37%, respectively). CHWs tended to provide services to the clients across the city of Chicago and to clients receiving health care services at their organization. In regard to the location of health service delivery, health and social services were mainly provided on-site at the organization (69%), in the hospital (45%), and at community events (55%). Only 23% of CHWs surveyed in health care settings delivered services in a client's home. This may be a lower percent than those CHWs who serve in a community-based organization.

Health and Social Issues. On average CHWs surveyed on the Westside of Chicago worked to address five different health topics in their role (see Table 4), and these matched the health needs of the community as evidenced by previous research conducted by SUHI.[21] The social service topics addressed by programs (see Table 5) were found to be more specific to health care settings and their existing areas of expertise (i.e. providing health literature, health insurance issues, etc.).

Table 4. Top Health Topics Addressed

Health Topics Addressed (N=62 CHWs)	Percent of Agencies
Diabetes	44%
Nutrition	42%
Physical activity	31%
Asthma	29%
Women's health	29%

Table 5. Top Social Service Issues Addressed

Social Service Issues Addressed (N=62 CHWs)	Percent of Agencies
Health information access	65%
Health insurance	31%
Housing	26%
Community Violence	23%
Domestic Violence	23%

Additional Data. CHWs and administrators of CHW programs were also surveyed on CHW hiring, training, supervision, program structure, and program evaluation. A detailed description of these outcomes can be found in the various *Summary of Evidence* sections.

4. Experience from SUHI's CHW programs

Since its founding in 2000, SUHI has been implementing CHW programs in both the community and hospital setting. While this document strives to create CHW Best Practice Guidelines from evidence-based science, it would be difficult to separate our own experience from information that is available from other Chicago-based institutions and across the nation. During our time implementing and revising our CHW practice at SUHI, we have gained extensive experience, translating it into some successes and experiencing some failures, but always aware of important lessons learned.

SUHI is a research- and intervention-driven organization whose work involves examining the impact of social issues such as poverty and racism on health. We strive to develop and implement effective interventions that improve the health of urban communities through data-driven research, evaluation, and community engagement. SUHI's mission is grounded in the belief that in order to serve our neighbors well, we need to understand not just the patients who enter our doors but the entire community. SUHI is part of the Sinai Health System (SHS), whose mission is to become the national model for the delivery of urban health care. Going beyond traditional health care and trying to understand all the factors that influence the health of a community is one approach that makes Sinai unique. This method of delivering health care has been labeled as "*pre-primary care©*" and is discussed in greater detail on page 94.

CHWs have been central to SUHI's work in eliminating health disparities in Chicago's most vulnerable communities since its inception. A wealth of experience has been amassed in recruiting, training, supervising and deploying the CHW workforce to deliver health education, assist clients in navigating the health care system, and connecting clients with appropriate social service needs. As of the time of this document's creation in 2013, SUHI has had fourteen different projects in six different health conditions that implement the CHW model. The length and breadth of our experience make SUHI a leading expert in the field of CHW research, both locally and nationally.

Since 2000, SUHI has employed 27 CHWs and has trained well over 100 on various health topics. CHWs function as integral members of intervention teams. Expressed in person years, SUHI has had 115 years of CHW service in the community. As employees of the SHS, SUHI's CHWs are provided with benefits for themselves and their families. SHS has created a CHW job ladder (i.e., CHW 1, CHW 2, and CHW 3 positions) that allows for growth and upward mobility in the job and at the organization. SUHI's CHW programs have consistently hired people from the communities being served. These community members in turn receive training, salaries, full benefits, including health insurance, and in turn they become assets to their community.

5. Additional perspectives from the field

Lastly, to provide illustrative examples, we include case studies of CHW practice experience and lessons learned relating to the practice topics. CHW practice experience was derived from various sources, including interviews and informal discussions with local and national CHW employers, researchers and CHWs themselves. We also solicited case stories from colleagues who are prominent in the CHW field and who are experts in a specific area such as CHW training, hiring, or supervising. These stories are included in each section of the *CHW Best Practice Guidelines* and serve to highlight the evidence presented.

Summary

The *CHW Best Practice Guidelines* were developed using input from various sources, including a thorough assessment of the professional literature, findings from a local survey of CHWs and administrators of CHW programs in health care settings, and the on-the-ground experience of local and national CHW programs through interviews and discussions with CHW employers, researchers, and CHW themselves.

These recommendations are based on the available evidence and represent the judgments of the researchers on this project, but we encourage program and hospital administrators to apply these *CHW Best Practice Guidelines* and use what is applicable and works best for their organization. It is our intention that this work will lead to better implementation of the CHW model, better training, higher standards of evaluation, improved patient care, improved community connection with the health care system, and ultimately improved health and quality of life for vulnerable communities.

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Section 1: CHW Hiring

In this section, we first offer recommendations on CHW hiring to health care organizations interested in the uptake of the CHW model and to those revising their current CHW practices.

The section features findings on five distinct CHW hiring subsections which correspond with a recommendation or set of recommendations. The CHW hiring section is divided into the following subsections:

1.1 Reasons for Hiring CHWs;
1.2 Barriers to Hiring CHWs;
1.3 Identifying CHW Candidates;
1.4 CHW Selection Criteria and Hiring Process;
1.5 CHW Salary and Benefits.

Based on the available evidence, each of the five subsections provides:

- An extensive review of available published literature concerning CHW hiring;
- National findings from the 2007 *Community Health Worker National Workforce Study (CHW-NWS)*[1]*;*
- Data derived from a local Chicago-based survey of CHWs and administrators of CHW programs in health care settings.

Articles which were considered to have substantial information concerning CHW hiring are included within this section.

While every organization is different, these guidelines regarding CHW hiring will assist in preparing sound practices and avoiding pitfalls that will likely impact the success of your CHW program and its impact on patient health outcomes.

Recommendations for CHW Hiring

Effective CHW hiring processes are important to the success of a CHW intervention. Employers must develop a thoughtful process to identify and hire community members who may excel most as CHWs. The following recommendations are based on available professional literature, survey data, and CHW practice experience.

1.1 Reasons for Hiring CHWs: Start by understanding your reasons for hiring CHWs and your desired outcomes. Employers hire CHWs for various reasons including: their impact on health outcomes, cost, and health care system navigation; CHW's ability to connect with the community and impact change; the CHW's role in tailoring programs to meet community needs; and that hiring CHWs increases job opportunities for low-income communities. When employers are developing a CHW program, it is recommended that they develop a thoughtful understanding of what impact they expect CHWs to make on clinic operations and patient outcomes and how CHWs may best be utilized within the health care setting to achieve those goals. A summary of the evidence supporting this recommendation can be found starting on page 18. (See Section 4, CHW Integration into Health Care Systems, for a discussion of CHW roles and duties in health care settings).

1.2 Barriers to Hiring CHWs: Gain organizational support and create a plan for CHW funding and hiring. Having knowledge of potential barriers to CHW hiring can be helpful in planning CHW programs. By far, funding is identified as the largest challenge to CHW hiring. Others include problems with identifying CHW candidates which may be most suited for the job and struggles in obtaining strong management support for the intervention. A summary of the evidence supporting this recommendation can be found starting on page 22.

1.3 How to Identify Potential CHW Candidates: Multiple channels should be used to identify CHW candidates, but always include CHW networking and word of mouth referrals. The recruitment of CHW job candidates should be pursued through several pathways. Programs should engage community partners such as churches, clinics, and community-based organizations, local businesses, CHW groups, and other CHWs to recommend community members for the position. As a supplement, programs can advertise job announcements via the internet and place job opening flyers throughout popular community locations. Agencies may also consider recruiting from their patient list as it most likely reflects the organization's service population. A summary of the evidence supporting this recommendation can be found starting on page 24.

1.4 CHW Selection Criteria and Hiring Process

a. **When selecting a candidate, it is important to choose a CHW who is an active member of the community s/he serves.** CHWs should have a shared connection with and desire to serve the community. This is a fundamental principle of the CHW profession. Communities are defined in various ways, including shared disability or disease status, culture, language, residency, history or life experience. A summary of the evidence supporting recommendations 1.4a, b, and c can be found starting on page 26.

b. **A CHW's background and personality traits should weigh more heavily in the hiring decision than their level of education.** General consensus within the field is that the skills and traits which make CHWs successful are inherent or gained through work and life experience. The technical skills and specific health knowledge needed for a CHW position can be learned through sufficient on the job training. Employers should hire CHWs with positive communication skills, adaptability, reliability, strength, and both passion for and sensitivity to community issues. Regarding setting requirements for CHW education level, a recommendation cannot be made, as this is likely to be program- or organization-specific.

c. **The hiring process should be formal.** Prior to interview, some CHWs are required to complete a pre-hiring training program or submit letters of recommendation. During interviews, CHWs should be given a clear job description and employers should clearly articulate what the position entails. Candidates should be asked to discuss their relationship with and knowledge of the community, passion for the job, comfort with the position requirements, and overall work experience.

1.5 CHW Salary and Benefits: CHW positions should be adequately compensated and include benefits and potential for career advancement.

CHWs should receive adequate wages and benefits. Morale can also be boosted by recognizing CHWs for their work and providing opportunities for CHW professional development and advancement. These factors will also help with CHW motivation and retention – two key components for CHW program success. A summary of the evidence supporting this recommendation can be found starting on page 33.

Section 1.1: Reasons for Hiring CHWs

Recommendation 1.1 - Understand why your organization wants to hire CHWs and what your desired outcomes are. This step can provide insight into the ways in which the CHW model can be implemented within your organization. CHWs are hired for a variety of reasons, including their impact on health care outcomes, cost, access to care, patient knowledge, and health care quality. Some health care agencies also report CHWs improving clinic operations, such as show rates and patient volume.

CHWs are members of the community they serve, and in this close relationship often have a unique ability to both connect with hard-to-reach populations and tailor programs to community needs. These are important assets to community work. Moreover, CHW employment provides jobs for low-income communities and a platform for residents to gain work experience, professional skills, and for some, a launching pad to the pursuit of higher education.

In building a CHW program, employers should develop a thoughtful understanding of what impact they expect CHWs to make on patient outcomes and clinic operations and then develop the CHW role accordingly. A clear vision for the program can assist employers in creating an effective and realistic implementation plan to achieve the desired outcomes.

Summary of Evidence

Evidence from the professional literature. Stakeholders report various reasons for employing CHWs. Box 1.1 provides a summary of common reasons that appear in the literature, each of which is discussed in detail.

CHWs' impact on health outcomes, cost, and system navigation. CHWs have demonstrated effectiveness in improving health outcomes,[2-4] participant knowledge and behavior,[5] increasing access to care,[6] and reducing health care costs.[7-12] Also valued is the CHW role in improving quality of care by providing cultural mediation, facilitating improved doctor-patient communication, and providing linkages to health and social services.[13, 14] In various capacities, CHWs have also shown effectiveness as research partners.[15-18]

Box 1.1 Summary of Reasons for Hiring

1. CHWs' Impact on Health Outcomes, Cost, and System Navigation
2. CHWs' Ability to Connect to Community and Impact Change
3. CHWs Ability to Help Tailor Programs to Community Needs
4. Hiring CHWs Increases Job Opportunities for Low-Income Communities

A 2005 Cochrane Review reported positive associations between interventions that included the CHW model and outcomes of childhood immunization, some infectious diseases, and breastfeeding promotion.[19] In a review from 1980 to 2008 conducted by the Agency for Healthcare Research in Quality, CHW interventions had the greatest effectiveness for asthma management, cervical cancer screening, and mammography screening outcomes.[4] At the forefront of employers' reasons for hiring CHWs is the documented evidence of effectiveness within the professional literature.

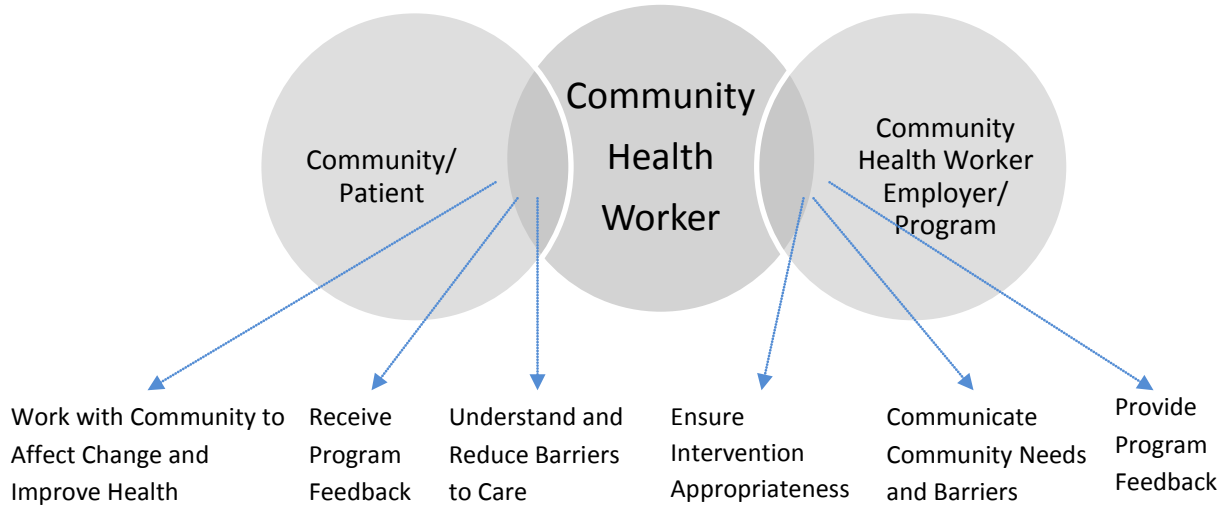
CHWs' ability to connect to the community and impact change. Some consider CHWs as "key informants" and "gatekeepers" to the communities they serve.[20] CHWs share perspectives and experiences, and speak the same language, both verbal and nonverbal, as the community.[20, 21] Many times CHWs have expertise in overcoming similar struggles as their clients.[13, 22] The underlying assumption is that because of this, CHWs are able to contact, relate to, and impact hard to reach communities.[20] In contrast to "*outsiders,*" many note the ease with which CHWs can establish rapport and trust.[14, 21, 23]

Another theory for CHWs' ability to connect is the idea that peers can influence behavior-change and act as role models.[14] Zuvekas and colleagues (1999) provide an example of hiring formerly homeless persons as CHWs for a program serving homeless populations.[7] This common life factor was pointed out by program participants as a key element of the program's success.[7] The idea is that CHWs can use the life skills gained through their own experiences and struggles to teach others how to overcome challenges and maintain success. The CHW's unique ability to connect with and impact communities which are hard to reach makes them a valuable asset to many programs.

CHWs help tailor programs to community needs. CHWs are part of a critical feedback loop between the community and their program and organization. As seen in Figure 1.1, a CHW's work is often "*bidirectional.*"[24] CHWs work to affect community change and improve patient health. However, they also influence the organizations in which they work. For example, CHWs often advocate for more cultural sensitivity within their programs and remind employers about the community's perspectives and needs.[24, 25]

With extensive knowledge of the community, CHWs may provide guidance to employers on how best to reach targeted populations and whether interventions are culturally appropriate.[18, 28, 7, 29] As frontline workers, CHWs observe which aspects of the intervention work and which do not and may also receive program feedback from patients which can be passed along. Lastly, as relationships are built, patients and families often disclose to the CHW barriers to disease management and prevention unknown to other members of the service delivery team. The feedback of this information to doctors and other care providers can be a valuable asset to understanding patient health and barriers to care.[26]

Figure 1.1. Community Health Worker Relationships with Community and Employer



CHWs work closely with the community and are often community members themselves. CHWs provide culturally sensitive services and have insights into the community's perspective, needs, and barriers to health.[27, 28] This can be used to tailor education and outreach to the community.[29] The information feedback loop between CHWs and their agency or CHWs and health care providers can be valuable in understanding why the patient is struggling to manage the disease, addressing barriers to disease management and solutions which work for the patient, and ensuring that the patient does not "fall through the cracks."[14] These relations are displayed in Figure 1.1.

Increasing job opportunities for low-income communities. Some view the CHW profession as a vehicle to employment for low-income communities and a platform to gain work experience, professional skills, and personal development[14, 22, 28] Additionally, once working in the field, CHWs often transition to social work,[30] nursing, and a number of other health-related professions.[28, 31] Employing CHWs not only provides jobs to community members but builds skills and opportunities in CHWs for future employment. Ultimately, this strengthens communities.

Evidence from the CHW National Workforce Study (2007)[1]. Through a review of published literature and interviews with CHW employers in four states, the CHW-NWS[1] found similar results for why CHWs are hired, including the documented success of CHW programs in professional journals; employer belief that CHWs are cost-effective; evidence that CHWs can help individuals manage disease and develop health action plans; and findings suggesting that CHWs can be effective at addressing health disparities through one-on-one outreach.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We conducted a survey of Chicago-area employers of CHWs in health care settings and asked employers why CHWs were hired at their organization. Many of the responses, as displayed in Table 1.1, echoed the literature.

Table 1.1. Why Does Your Organization Employ CHWs?

Employer Response (N=21)	
CHWs are connected to/ "know" the target population	81%
CHWs are effective at improving the health of clients	76%
CHWs are viewed as cost-effective resources	52%
Funding source requirements	29%
Interest by management to test CHW model	5%

When asked why CHWs in health care settings are important to their organization (Table 1.2), employers responded with enthusiasm.

Table 1.2. Why Are CHWs Important to Your Organization?

Employer Response (N=21)	
Can help reach clients who couldn't be reached before	86%
Help improve communication between providers and clients	81%
Improved patient experience	71%
Perform tasks that doctors/nurses do not have time to perform	67%
Program/services are now more responsive to community's needs	57%
Cost-effective	43%

Lastly, we wanted to ask employers about outcomes seen at their health care agency (Table 1.3). What we found is that CHWs can impact both patient health and clinic operations (e.g. increased patient volume, improved show-rate). Most often CHWs improve health outcomes, patient satisfaction, and quality of care.

Table 1.3. Have CHW Efforts Resulted in Any of the Following Outcomes?

Employer Response (N=21)	
Improved health outcomes	67%
Increased patient satisfaction	62%
Increased quality of health care	52%
Increased patient/client volume	43%
Improved show-rate	43%
Increased medication or treatment adherence	38%
More use of preventive health services	24%

Summary. Understanding why CHWs are hired can provide insight into the ways in which CHWs can be utilized within the health care system. CHWs are hired for various reasons including their impact on health care outcomes and cost, system navigation, and ability to connect with hard to reach populations. Specifically, within the health care setting, CHWs can positively affect patient health and clinic operations, such as show rates or patient volume. *It is important for an agency to first understand why it wants to hire CHWs and then develop a strategy for achieving the wanted program results.*

Section 1.2: Barriers to Hiring CHWs

One of the biggest barriers to CHW employment is program funding. Understanding CHW program funding can be helpful both in getting the initiative off the ground and planning for sustainability. In many states, CHW services are not yet reimbursed by private insurers or Medicaid (at the time of publication changes were on the horizon). Therefore, the majority of CHW programs rely on grant funding. These funds provide a vital lifeline to programs, but do not offer long-term sustainability.

Payment methods for CHW work are slowly changing. With health care reform, some hospitals and clinics are integrating CHWs into systems of care in various ways; for example, to improve health care quality, patient outcomes, and to avoid penalties for preventable readmissions. For CHW programs which are proven successful at improving health and reducing costs, a business case can be made for health care agencies and insurance providers to add CHW services to their operating budgets.

Another barrier for some programs is lack of support from upper management and other staff. *It cannot be over-emphasized that CHW program success and sustainability hinge on the endorsement, encouragement and support of upper management and other staff.* Initial approval to implement a program, and efforts to sustain it, can be made easier with the support of key players and decision-makers.

Recommendation 1.2 - Having knowledge of potential barriers to CHW hiring can go a long way in preparing for CHW program implementation. *Some initial first steps should be gaining organizational support and creating a plan for both funding and hiring CHWs.*

Summary of Evidence

Evidence from the professional literature. Funding is one of the largest barriers to CHW employment. In most states, CHW services are not yet reimbursed by health insurers or Medicaid; most CHW programs rely on grant funding.[32, 33] This creates vulnerability for both the interventions and their staff. From year to year, grant funding priorities and amounts can change and therefore employers are constantly seeking new funding streams as grants are short-term, possibly lasting only a year or two.[32] Funding instabilities can cause job stress and employee turnover.[32, 33]

CHW payment mechanisms may be slowly expanding. *Health care reform brings both incentives and opportunities for further integration of CHWs into health care delivery teams*[34] as part of patient-centered medical homes or to reduce hospital readmissions and with reimbursement for CHW services.[35] On a program-by-program basis,[30] or state by state,[36] interventions have begun to secure reimbursement of CHW services through private or public health insurance. On a broader scale, movement from pay-for-service to global reimbursement systems could provide a reasonable gateway for the sustainment of CHW services.[34]

Another barrier to implementing successful CHW programs is the need for strong buy-in of leadership and staff for program success.[14, 20, 37] It may be assumed that programs most likely are not being implemented without top management support. Organizational buy-in of the CHW model and role is further discussed in Section 4, CHW Integration into Health Care Systems.

Evidence from the CHW National Workforce Study (2007)[1]. As reported in the national workforce survey, interviews with CHW employers, and a review of the literature, CHW funding is consistently recognized as a problem for and hindrance to CHW hiring. To ensure financial health, a large proportion of organizations depend on a patchwork of money through multiple funding streams. Roughly two-thirds of employers report their CHW program as supported by two or more sources. Program sustainability is a concern as well as CHW job growth and security. Alternative, potentially long-term funding streams, such as private or public insurance reimbursement, are gaining in popularity, as well as funding from "for-profit" organizations.[1]

Evidence from the CHW in Chicago Health Care Setting Survey (2011). In our survey, we asked Chicago-area employers what obstacles they encounter in hiring CHWs in health care settings. Table 1.4 displays those responses.

Table 1.4. What Barriers/Obstacles Do You Encounter in Hiring CHWs?

Employer Response (N=21)	
Lack of funding	60%
Lack of qualified applicants	40%
Not a legal resident of the US	15%
Lack of support from organization/top management	5%
No barriers/obstacles	20%

Summary. CHW funding is often stated as a challenge to program implementation. All evidence presented suggests it is a barrier to CHW hiring. Additionally, local survey results reveal that Chicago-based CHW programs in health care settings also have trouble finding qualified CHW applicants. Programs may have trouble identifying which CHWs might excel or how to find or attract applicants. These topics will be discussed further in the next two subsections.

Section 1.3: Identifying CHW Candidates

Recommendation 1.3- CHWs should be recruited through multiple channels. Among the various methods for recruiting CHWs, networking and word of mouth referrals are the most productive and widely practiced. Recruitment of this type consists of engaging staff and community partners, such as faith- or community-based organizations, clinics, local businesses, CHW groups, and other CHWs, to recommend community members for the position. As a supplement, agencies should advertise job announcements via the internet and place job opening flyers throughout the community in popular locations, such as churches, local businesses, medical or social service offices, and housing sites. Agencies may also consider recruiting from their patient list as it most likely reflects the organization's service population, or recruiting one of their non-clinical staff, if he/she is part of the community.

Summary of Evidence

Evidence from the professional literature. CHWs are often recruited through multiple channels. Box 1.2 displays the top four ways to recruit CHW candidates as reported in the literature.

Box 1.2 Ways to Identify CHW Candidates

1. Networking and word-of-mouth
2. Advertising extensively in community
3. Recruiting internally from clinic or organizational staff
4. Advertising through internet, newspapers, or other media

Of the fourteen studies reviewed which report substantially on approaches for identifying CHW candidates, ten (71%) list networking and word of mouth referrals as a method of identifying CHWs. CHW recruitment is often carried out by advertising extensively and networking with community groups, clinics, community leaders, and other CHWs to identify those in the community who are leaders, role models, "natural helpers," or would otherwise fit well with the CHW role.[14, 21, 38-45]

"Natural helpers" are those who already do the CHW role informally within the community, by nature always helping family, neighbors, and friends. For example, community members might describe a natural helper in the following way, "Maria's mama, she is always taking somebody someplace."[43] In recruiting natural helpers, some CHW programs,[43, 46] for example, describe gathering a list of names suggested by the community of good CHW candidates and then tallying how many times a particular name is suggested. The idea is that community members whose names are most often listed are those most likely to be true natural helpers.[43]

Other methods of identifying CHW candidates include hiring a community member to help with recruitment,[43] recruiting internally from staff,[43, 47, 48] advertising in local newspapers,[14, 39, 43] by radio or other media,[43] via the internet,[38, 45] or at community locations that residents frequent (i.e. businesses, places of worship, etc.)[14, 38, 40, 43] and at

community events.[14] One study noted that CHWs are very helpful in identifying other CHWs.[14] Additionally, programs have also identified CHWs through community advisory groups, recruitment assemblies/parties, former program participants, job banks or employment offices, and through community surveys.[43,21, 49]

Evidence from the CHW National Workforce Study (2007)[1]. A national workforce study of CHW programs found that 74% of employers use networking as a recruitment strategy, and that it is often used in combination with traditional advertising (68%). Some examples of networking include reaching out to churches or local businesses when recruiting CHWs. As many as 50% of employers seek referrals from community members or CHWs. Programs may advertise job openings through mass mailings or other media, and CHW programs based in clinics may internally network and recruit from their patient list.[1]

Evidence from the CHW in Chicago Health Care Setting Survey (2011). Not reported.

Summary. CHWs are often recruited through multiple channels. A great majority of employers use networking to obtain word-of-mouth referrals as a recruitment strategy; many in combination with traditional job advertising, such as placing job notification openings via the internet, newspapers, flyers within the community, and at job banks or employment offices. Some CHW programs recruit non-clinical staff from within their own organization.

Section 1.4: CHW Selection Criteria and Hiring Process

CHW hiring criteria should be tailored to the needs of the program. Employers should think about how they plan to utilize CHWs and then find a candidate to meet those needs. Many factors may be considered in CHW hiring, including the CHW's connection with the community, background and personality traits, and education and skills at hiring. However, what may be most important in the hiring decision is the CHW's connection with and desire to serve the community. ***Recommendation 1.4a - A fundamental principal of the CHW profession is that CHWs are an active member of the community they serve.***

Communities are defined in many ways and *often by a combination of factors*, including residency, race, language, socioeconomic status or other demographics, culture, shared health condition (i.e., diabetes, HIV, asthma) or life experience (i.e., pregnancy, drug use, single parenthood, homelessness). *It's important to know how the community served defines itself. Ideally, CHWs should reflect and relate to the most identifying or important characteristics of the community in relation to the intervention.* For example, a disability program may benefit most by employing a CHW who has the same or a similar disability as the population served. A teen doula program may want to employ a young mother or former teen mom from the community. In addition to these characteristics, the CHW should also have an active connection to the community (i.e., not just have a disability, for example, but intimately know the community and want to serve the community).

Recommendation 1.4b - Second, employers should not underestimate the value of the CHW's background and personality traits. Unlike knowledge or technical skills, which can be taught, CHWs must bring certain qualities to the job, such as passion for the work, commitment to and concern for people and the community, sensitivity to issues, and the ability to communicate ideas and connect well with others. Employers have found that positive personality traits are a predictor of CHW success, although it may be difficult to identify such traits during the hiring process. Since CHWs will be trained on the job, some employers suggest finding candidates with an interest in the subject material and both a willingness and ability to learn. When asked their preference, employers state value in finding CHWs with strong communication and interpersonal skills, problem-solving capability, organizational skills, respect for patient confidentiality, and the ability to teach others. It should be reiterated that many of these skills cannot be taught on the job.

There is some debate as to what level of education and set of skills should be required of CHWs at hiring. The uncertainty stems from the notion that what makes CHWs most successful is not their credentials, but who they are (i.e., their ability to relate to the population served).[35] Typically CHWs enter the profession with varying education levels and work experience and become successful through supportive supervision and sufficient on the job training. Therefore, a recommendation on education and skill requirement cannot be given.

Recommendation 1.4c - The process of hiring CHWs should be well thought out and structured to ensure the program hires the right candidate for the job and that the employer is clear with the CHW about the expectations of the position. Interviews should cover logistical questions (i.e., schedule flexibility, etc) and ask about the CHW's relationship with and knowledge of the community (including any formal and informal experience with community work), passion for the job, comfort with the position requirements, and overall work experience. CHWs help patients and families find practical solutions to complex barriers to care and disease-management with the goal of making measurable changes to health. That can be hard work. Therefore, employers should strive to hire CHWs who are up to the challenge and have what it takes to excel at the job.

Summary of Evidence

Evidence from the professional literature. Two formally published literature reviews on CHW hiring conclude that CHW hiring criteria and processes are not well studied and reported on within the CHW literature.[43, 50] The most recent review of 44 CHW intervention studies found that less than half (41%) report *any* criteria for selecting CHWs and only one (2.3%) discussed the hiring process.[50]

Box 1.3 Summary of CHW Selection Criteria

In hiring decisions, employers often consider a CHW applicant's

1. Connection with the Community
2. Background and Personality Traits
3. Education and Skills at Hiring

CHWs often work with families with limited resources and complex social problems, issues which affect patient health and the ability to prevent and manage diseases. CHWs work with patients to overcome these barriers, improve health, and implement change, which can be challenging work. *Therefore, it's important for employers to find a CHW that has the commitment and passion for the work and has what it takes to excel at the job.* Accordingly, CHW recruitment should be a thoughtful process.[35, 51]

As summarized in Box 1.3, employers consider several factors in the CHW hiring decision, all of which are described in greater detail below.

CHW connection with the community. A fundamental principle of the CHW profession is that CHWs have a shared connection or membership with and desire to serve the community. Summarized in Appendix B, articles allude to CHWs' connection to the community in various terms.

Within the field, there is disagreement whether CHWs must physically reside in the communities they serve; however, CHWs must have a close enough relationship with the community to achieve "insider status."[1] This relationship helps CHWs to reach and affect change in the population and generally gives CHWs a greater understanding of the community's strengths and needs.

CHW background and personality traits. Managers hire CHWs that are from the community and/or share similar backgrounds as the population served. Examples of this preference can be found throughout the literature.[39, 46, 50] CHWs may share demographics, such as gender, language, socioeconomic status, residence, or other factors. Most often, studies state that they hire CHWs to reflect the racial, ethnic, or linguistic background of the community served.[14, 39, 50-52] *Shared life experiences can also be a powerful, connecting factor between CHWs and their clients.* For instance, programs serving the homeless and substance abusers describe the high value placed on CHWs who have overcome similar struggles and could act as role models to the community by sharing how they had triumphed over their former situation and teaching others how to do the same.[14]

In addition to a CHW's background, employers state several personal qualities valued in CHW candidates.[14, 45] A few case examples are found in Appendix C. Employers prefer CHWs who display flexibility,[39, 44] reliability,[27] empathy, sympathy, willingness to listen, readiness to give help,[43] friendliness, ability to engage others and establish rapport, motivation, commitment to the community,[38, 39] being nonjudgmental, ability to adapt to change,[39] ability and willingness to learn,[39, 45] patience, perseverance, being caring, respectful, and energetic.[39] Some CHW programs specifically look for "natural helpers,"[13, 40, 46] described as people who are concerned, trusted, and already playing the CHW role within the community in an informal way; for example, people who by nature are always lending a hand to others in need.

Authors acknowledge it may be difficult to recognize the personality traits of a CHW during the hiring process.[42] Nonetheless, through experience, programs have observed these traits as predictors of CHW success.[14, 39] Unlike health education or technical skills which can be taught, CHW traits "must be brought to the job" and are therefore possibly the most important criteria[28] in CHW hiring.

CHW education and skills at hiring. There is debate as to what education and skills CHW should have at hiring. Should CHWs mirror the population they serve in terms of educational attainment? Do CHWs in community-based programs have different educational requirements than those who work in health care?

To date, CHW employers rely on on-the-job training to prepare CHWs for their roles. General consensus within the field is that the skills and traits which make CHWs successful are inherent and/or gained through work or life experience. It is thought that all technical skills and education needed for a CHW position can be learned through sufficient on the job training.[53] An asset to this approach is that it opens entrance to the profession, whereas having specific educational requirements restricts employment opportunities for community members who may excel as CHWs but who do not have formal education or credentials. This is especially true if employers require higher education. Rosenthal (2009) writes, *"Specifically, requirements for college-based programs may present barriers to and adversely affect the very communities with the greatest potential to be outstanding CHWs, including low-income communities, communities of color, undocumented immigrant communities, and English language learners."*[54]

CHW literature and intervention studies often lack reporting of CHW education level or education required at hiring.[50] Studies that do include this information reveal that CHWs have a wide range of education, skills, and previous work experience upon hiring.[38, 46, 51] Some programs explicitly state that CHWs must have at least a high school degree or GED.[43, 45]

In terms of skill requirement, employers prefer CHWs with strong communication skills,[27, 39, 51] problem-solving capabilities,[51] and organizational skills, such as the ability to set priorities, manage workload, pay attention to details, and the ability to teach others.[39] CHW employers want CHWs with knowledge of the community[39] and, if relevant to the study, employers favor CHWs who are bi-lingual.[27, 45] Published in 1997, survey results of 62 Northern California health care providers employing CHWs found that, of those surveyed, the most sought-after skills of CHWs were multicultural competence, community outreach, communication, conflict resolution, self-management, and bi-lingual /bi-culturalism.[55] Skills which employers reported as most difficult to find were group facilitation, self-management, and reporting/documentation skills.[55] *It is important to reiterate technical skills such as these can be taught, whereas a CHW's traits and established relationship to the community must be brought to the job.*

The hiring process. Typically CHW candidates are hired after completing a formal interview[36, 46, 47] or at the conclusion of a training session.[46] Sometimes applicants are asked to supply letters of recommendation.[45] During hiring, job candidates should be given a clear job description[20] and explanation of the nature of the work.[41] It is in the employer's interest to facilitate the CHW's understanding of program goals, their role, responsibilities, and expectations during the hiring process.[40] Staff should discuss which neighborhoods the program serves, whether home visits are performed, any need for flexibility in hours, what type of training CHWs should expect to receive, and any challenges CHWs typically encounter in their work. During the interview, CHWs may be asked how they feel about discussing sensitive topics, their previous formal or informal work within the community, and their connectedness to the community.[47]

Evidence from the CHW National Workforce Study (2007)[1].

CHW background and personality traits. The CHW-NWS did not examine employer preference of CHW background and personality traits. However, this question was addressed indirectly. During interviews, CHW employers in four states were asked what qualifies CHWs as being culturally competent to work with their respective communities. In general, employers agree that CHWs should have a close understanding of the targeted population and hold "insider" standing.[1] However, there was disagreement as to whether cultural competence requires CHWs to be a resident of the community served. For some interventions residency may be important, such as those which target narrowly defined geographic populations. In other situations, residency status may hold less relevance. In urban areas or clinic-based settings, CHWs may serve patients from multiple communities or those with diverse cultural and ethnic backgrounds. Similarly, in rural settings, managers may have difficulty finding a qualified candidate within a small pool of applicants and may need to expand

recruitment to nearby areas. In these cases, the residency status of a CHW may or may not be important or as relevant. In any case, CHWs must still share traits with the population being served.

CHW education and skills at hiring. Nationwide, CHW employers were asked which skills and education are required of CHWs at hiring. About 21% of employers require CHWs to have at least a high school diploma and 32% require a bachelor's degree. The skills employers require at hiring include: communication (92%) and interpersonal skills (82%), knowledge of client confidentiality (76%), and relevant knowledge (67%). Organizational skills (62%), such as record-keeping, goal-setting, and the ability to create action plans, were also favorable. There were four skills that about half of employers require at hiring: advocacy, bilingualism, service coordination, and teaching. Only 28% of employers require capacity-building skills.[1]

Evidence from the CHW in Chicago Health Care Setting Survey (2011). Evidence from the CHW in Chicago Health Care Setting Survey is presented on two topics: CHW connection with the community and CHW education and skills at hiring.

CHW connection with the community. Similar to the CHW-NWS,[1] we asked Chicago-area employers what qualifies CHWs as being culturally competent. Table 1.5 displays their responses.

Table 1.5. What Qualifies CHWs as Being Culturally Competent?

Employer Response (N=21)	
Shared cultural experience	81%
Similar demographics as target population	67%
Membership in the community	62%
Cultural competency training	38%
Shared health experience	33%
Recognized community leader	24%

We then asked CHWs what characteristics they share with the communities they serve (Table 1.6). In comparing the results of these two questions, we conclude that Chicago-area employers of CHWs in health care settings hire CHWs that share several characteristics (on average 3) with the community served. Notably, this does not always include residency, which may be indicative of CHW programs in health care settings that serve a large geographic area and may not be geographically community specific, but may be more related to a disease state.

Table 1.6. CHW Characteristics Shared by Community

CHW Response (N=21)	
Racial/ ethnic similarities	74%
Live in same community	53%
Cultural similarities	55%
Common life situation	39%
Health condition	27%
Did not share any characteristic	5%
Avg. Number of Shared Characteristics	2.5/5

One of the most interesting findings of our study is that "community" can be defined in so many ways. Community can be geographically defined. It could mean race/ethnicity, language, or socio-economic status. Community can be a shared health condition (i.e., diabetes, HIV, asthma), a shared life situation (i.e., pregnancy, drug use, single parenthood, homelessness), or sexual orientation (i.e., Gay/ Bisexual/ Lesbian/Transgender community). Countless other factors may be considered to determine a "community", but more often than not a combination of factors discussed may come together to define a community. *Therefore, employers should be specific in defining the "community" served by an intervention and do so on a program-by-program basis.*

CHW education and skills at hiring. We asked Chicago-area administrators of CHW programs in health care settings what education is required of their CHWs at hiring. We then asked CHWs themselves about their educational background (see Table 1.7 for comparison). While 71% of CHW employers stated that the education required at hiring is a high school diploma or less, the actual education level of their employees reflects something much different with 37% of CHWs employed in health care settings having a college degree or higher level of education. However, we did not ask CHWs when they obtained their education (i.e., whether they had that educational level upon hiring or whether it was achieved after hiring).

Thus, we conclude that there are at least two possibilities for these differences:

1. In hiring decisions, CHW employers in health care settings may favor CHWs with additional education after high school; and/or
2. It may be possible that once CHWs began working, some went back to school to work towards a certificate or college degree. The CHWs who took our survey worked on average 8 years as a CHW and 5 ½ years in their current CHW role. Therefore this may be a plausible explanation for some CHWs regarding their level of educational attainment.

Table 1.7. Education Required at Hiring

Education Required at Hiring Employer Response (N=21)		Actual CHW Education Level CHW Response (N= 62)	
Less than high school	N/A*	Less than high school	8%
GED/ High school diploma	57%	GED/ High school graduate	11%
Vocational school	0%	Vocational school	5%
Some college	5%	Some college	35%
College degree	24%	College degree	29%
More than college	N/A*	More than college	8%
No formal education requirement	14%	No response	4%

*Data not available

Table 1.8 shows the knowledge required of CHWs at hiring. About 25% of CHW employers surveyed reported that they do not require CHWs to have prior health knowledge. Of the majority that do (75%), employers want CHWs with knowledge of the community (43%), CHW roles and functions (28%), and for CHWs to have previous experience as a CHW (33%).

Table 1.8. Knowledge Required at Hiring

Employer Response (N=21)	
Community	43%
Prior experience as a CHW	33%
No prior knowledge	24%
CHW roles and functions	29%
General health	14%
Health care system	14%
Social service system	14%
Specific disease/ health issues	10%

Summary. Many factors should be considered in developing the criteria for hiring CHWs, including the applicant's connection to and knowledge of the community, background, personality traits, education, and skills at hiring. CHW hiring criteria should be tailored to the needs of a program. Employers should understand how they plan to utilize CHWs and then hire someone who reflects those needs. Most importantly, CHWs should reflect the community they serve. *Employers recognize the importance of hiring CHWs with strong personal qualities that facilitate job success, such as ability to communicate ideas and relate well with others, adaptability, reliability, strength, connection to the community, and both passion and sensitivity to community issues.* An interest and ability to learn is important as most CHW training is on-the-job. Strong communication, organizational and problem-solving skills, the ability to maintain confidentiality, and previous experience as a CHW is often favored or required of CHWs in the hiring decision. A case story from the Sinai Urban Health Institute on the CHW hiring process can be found on page 40.

Section 1.5: CHW Salary and Benefits

Recommendation 1.5 - CHW positions should be adequately compensated and include benefits and potential for career advancement. Currently, CHW wages vary widely; however, most employers offer standard benefit packages, including health insurance. For volunteer CHWs, it is recommended that incentives be offered to offset the financial burden of volunteering on individuals and families, some of whom reside in the same low-income communities they are serving. Incentives may include a stipend, mileage reimbursement, meals during trainings, and other compensation for their time.

Although CHWs are playing an increasingly important role in health care access and outcomes, workforce development efforts within the field are still in their initial phases regarding standards in CHW compensation and development of career pathways. Historically, CHW positions have been viewed as a job and not a career due to low wages, insecurity in funding, and limited opportunities for vertical advancement. However, there has been a flurry of recent work and advocacy efforts to address these challenges and to create momentum for change so that the work of CHWs can be enhanced and expanded.[33, 36, 56-58]

Summary of Evidence

Evidence from the professional literature. The evidence from the professional literature is broken down into three subcategories: CHW compensation, employee benefits and incentives, and the CHW field as a job versus a career path.

Compensation. CHW compensation is not well-documented in the professional literature-base. When reported, most often studies distinguish CHWs as either paid staff or volunteer, but few other details are provided. Available CHW salary data has been presented in detail within 2007 CHW National Workforce Study[1] and other selected literature.[32, 55]

Existing data on CHW compensation is problematic for various seasons. CHW salary data is difficult to generalize, because it is most often state- or region-specific, making it difficult to compare across areas. Cost of living adjustments must be made when comparing CHW wages in different states and in urban vs. rural settings. Additionally, historical data is difficult to compare to current wages.

Employee benefits and incentives. In 2008, Massachusetts surveyed its CHW workforce and found that about 94% of employers offered benefits to full-time CHW staff.[32] Common benefits include health insurance, dental insurance, disability insurance, pension or 401(k) plan, and support for tuition or continuing education. Nearly 73% of employers offered similar benefit packages to CHWs who are part-time employees.[32]

It is recommended that non-paid CHW staff also receive some form of compensation. Various incentives can be used to offset the cost of participation and mitigate the impact of volunteering on the CHW's personal finances and family well-being.[38] Incentives may include a modest stipend, childcare, transportation reimbursement, meals during trainings, or similar provisions.[22, 38]

CHW field as a job versus a career path. In general, complaints about CHW positions include low wages,[42] job instability,[33] no clear career ladder and little opportunity for upward mobility.[28, 56] Some programs have experienced high CHW turnover,[20, 33, 39, 42] which they attribute to either "*competing priorities in the CHWs' lives*"[39, 42] or pay being too low.[20, 42] Additionally, experienced CHWs may "*find themselves at an impasse*"[28] without a clear path for upward mobility. To promote job morale and professional growth, CHWs should be recognized for their contributions[20] as well as offered opportunities such as continuing education,[39, 51] conference attendance[39] and networking with peers.[39]

Evidence from the CHW National Workforce Study (2007)[1]. A national workforce study of CHW employers found that CHW wages vary considerably (Table 1.9) and show some growth based on increased job experience. It should be noted that these wages reflect all CHWs, not solely those employed in health care settings.

The survey also asked employers what employee benefits CHWs receive. Many employers reported mileage reimbursement (76%), health insurance (71%), sick leave (71%), vacation accrual (68%), personal leave (56%), and a pension or retirement plan (54%). Less commonly offered were tuition assistance (31%) and educational leave (16.9%).

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We surveyed Chicago-area employers of CHWs in the health care settings about the wages and benefits offered to their CHWs. Our study also found that CHWs have a very wide range of salaries. Table 1.9 compares wages (2011) to those nationally (2007). In our data, we found that CHWs perform similar duties across organizations and that CHW salaries seemed to be organization-specific and less dependent on job duties or level of responsibility. Regarding employee benefits, CHWs most often report receiving health insurance, sick leave, mileage reimbursement, and personal leave. Some also report pension or retirement plan and paid training or continuing education credit. The least reported benefits were child care, educational leave, bus card, and cell phone reimbursement.

Table 1.9. CHW Wages in Health Care Settings

CHW Range of Salary Earned (Per Hour/Yearly)	CHW National Workforce Study (2007)*		CHW in Chicago Health Care Setting Survey (2011)
	New hires (N= 387)	Experienced workers (N=341)	Average CHW Wages by Agency (N=21)
Less than $7.00 ($14,539 or less)	3.4%	0.6%	9.5%
$7.00 - $8.99 ($14,560 - $18,699)	13.4%	2.9%	
$9.00 - $10.99 ($18,720 - $22,859)	23.8%	10.6%	9.5%
$11.00 - $12.99 ($22,880 - $27,019)	23.0%	15.8%	19.0%
$13.00 - $14.99 ($27,040 - $31,179)	15.8%	21.1%	23.8%
$15.00 or more ($31,200+ yearly)	20.7%	49.0%	38.1%

*CHW/National Employer Inventory (2006) wages reflect data for the first of up to five job titles reported by employers.

Summary. CHW compensation is not well documented. There is existing data that can be examined and compared, however, cost of living factors must be considered. In general many complain that the CHW profession pays a low wage and that there is no clear job ladder or path for upward mobility. To facilitate CHW retention, employers must provide compensation and recognize the work of CHWs. As appropriate, employers should create a CHW job ladder with opportunities for upward mobility at their agencies.

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Case Study on the CHW Hiring Process

Notes from the Sinai Urban Health Institute

Since 2004, the Sinai Urban Health Institute (SUHI) has implemented a particular method of hiring CHWs. When a position becomes available, potential CHW candidates are recruited through job opening flyers distributed to community-based organizations, clinics, libraries, housing management offices, and other widely attended community hotspots. Staff at these locations are asked to refer to us all community members thought to be well-suited for the position.

SUHI strives to hire CHWs who are from the program's target communities or from the communities served by the Sinai Health System. Most often this is defined by geographic boundaries. SUHI also assures that the CHW shares similar communal and demographic traits. To mirror the community served, it is a high priority of our programs to hire CHWs with a high school diploma or GED.

Candidates interested in and eligible for the open CHW position are invited to attend a 12-hour, 1½ day "pre-training" session on basic health knowledge. The "pre-training" session provides a unique opportunity for SUHI staff to meet and evaluate applicants pre-interview. In this interactive format, staff can observe candidates' ability to engage and interact with others. Trainees are assessed on timeliness, friendliness, enthusiasm, and ability to retain knowledge – all qualities SUHI deems important for CHW success, but which may not be evident in a typical job interview. Knowledge retention is evaluated via a pre-post test and a 2-minute mock health education role play.

At the end of the pre-training class, participants who attended and completed the entire training are invited for a one-on-one interview to discuss their relationship with and knowledge of the community, experience with community work, personal strengths and weaknesses, and overall past work experience. Logistical questions such as desired wage, transportation, and schedule flexibility are also discussed. Upon conclusion of interviewing, staff members meet to discuss their overall experience with each applicant. Three factors that weigh most heavily in the hiring decision are that the candidate: 1) is a part of the intervention's target community; 2) has positive social skills; and 3) demonstrates a strong passion for working with the community.

CHWs who are subsequently hired become members of the Sinai Health System (SHS) and are provided full-time pay and the SHS employee benefit package for themselves and their families. Moreover, SUHI has created a CHW job ladder (i.e., CHW I, CHW II, and Health Education Coordinator positions) so that CHWs can advance in level of work responsibility and pay without the requirement of a college degree. This allows for growth and upward mobility among CHWs in the job and at the organization.

<u>Lessons Learned</u>. SUHI has had substantial success in locating and hiring CHWs who excel in these positions. We believe a key element of this success has been in hiring CHWs who are not only from the community but are *active* and *engaged* in the

community. Additionally, we place great value in our “pre-training” session, which allows staff to meet applicants prior to interview. Through its evaluation mechanism, we are provided a glimpse of the CHW’s ease at performing health education and potential for success in the CHW role.

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Section 2: CHW Training

In this section on CHW training practices, we first offer recommendations on CHW training to health care organizations interested in the uptake of the CHW model and to those revising their current CHW practices. The section is then broken up into findings on three distinct CHW training subsections, which correspond with a recommendation or set of recommendations. The CHW training section is divided into the following subsections:

2.1 Length, Content, and Scope of CHW training
2.2 Training Instructor, Methods, and Style
2.3 Training Evaluation

Based on the available evidence, each of the five subsections provides:

- An extensive review of available published literature concerning CHW training;
- National findings from the 2007 *Community Health Worker National Workforce Study (CHW-NWS)*[1]*;*
- Data derived from a local Chicago-based survey of CHWs and administrators of CHW programs in health care settings.

Articles which were considered to have substantial information concerning CHW training are included within this section.

While every organization is different, these guidelines regarding CHW training practices will assist in preparing sound practices and avoiding pitfalls that will likely impact the success of your CHW program and its impact on patient health outcomes.

Recommendations for CHW Training

Successful CHW programs have effective training practices. Solid initial training and sufficient on-going training of CHWs is crucial to intervention quality and effectiveness. Thorough training enhances knowledge and skills and helps to prepare workers for their expected roles and duties. Furthermore, for new employees, positive training experiences can leave a good impression and help workers become meaningfully engaged in their work and organization. The following recommendations are based on available professional literature, survey data, and CHW practice experience.

2.1 Length, Content, and Scope of CHW Training.

a. **Initial CHW training should be comprehensive.** CHW training needs vary program-to-program and are likely dependent on the complexity of the CHW role and associated duties. CHWs should receive solid initial training, which includes: 1) relevant knowledge and skill-based teaching; 2) core-competency curriculum; and 3) cross-training on co-morbidities, mental health, or other common conditions within the population served. The goal of CHW training should be to adequately prepare CHWs for their wide-ranging duties and any foreseeable challenges they may encounter on the job. A summary of the evidence supporting recommendations 2.1a, b, and c can be found starting on page 45.

b. **Initial training should be spread out over an extended period of time.** We recommend conducting training in several segments over the course of a few weeks or months. Spacing out the training can help facilitate a deeper understanding of the subject matter and allow CHWs time between teachings to review lessons, practice skills, and shadow other CHWs or staff.

c. **CHWs should receive ongoing training throughout the course of employment.** Continuing training can provide CHWs with new knowledge and ongoing skill development. This also maintains the quality of the intervention by providing additional trainings to keep knowledge and skills up-to-date.

2.2 Training Instructor, Methods, and Style.

a. **Teaching should be delivered in an interactive, hands-on, and participatory format.** The method and style of training is important for the long-term retention of knowledge and skills. CHWs should not be given a textbook to memorize or instructed to do research on the internet and there should be minimal lectures. Training styles should be interactive, hands-on, and appeal to a wide variety of learners and literacy levels. Participatory approaches to education, such as popular education, can facilitate deeper learning of skill and content. Trainers should use interactive activities, such as case study, role play, skills practice, field work, discussion, mentoring, and

shadowing of more experienced CHW and staff. A summary of the evidence supporting recommendations 2.2a and b can be found starting on page 50.

b. **Employ a team-based approach to training.** CHW trainers may be more experienced CHWs or professionals of various backgrounds. Regardless of the trainer's background, involving CHWs in the development of curriculum or in facilitating training sessions can benefit the overall training and long-term learning of the CHWs and program. Additionally, it can be beneficial to have a physician or nurse available for consultation on medical management of particular diseases.

2.3 Training Evaluation.

a. **It is very important to evaluate CHW training.** Training is an on-going process which should be evaluated and revised as needed. Evaluating training can provide important feedback regarding the value and delivery of the training. It can also help track the development of staff knowledge and skill which can be used to indicate whether information has been successfully transferred and retained. A summary of the evidence supporting recommendations 2.3a and b can be found starting on page 53.

b. **Assess the quality and effectiveness of the CHW training.** Programs should evaluate: 1) CHW knowledge; 2) CHW skills gained from the training; 3) the effect of training on performance; and 4) CHW reaction to the training. Some suggested methods are pre-post knowledge test, written training evaluation, and evaluated role play. Once programs are underway, it is important to look at the processes and outcomes of the program and compare this with the training to see if additional training is needed to enhance quality control of the program.

Section 2.1: Length, Content, and Scope of CHW Training

As discussed in Section 1, *CHW Hiring*, CHWs are typically trained on the job. Consensus within the field is that CHWs are not hired for their credentials but for their knowledge of and connection to the community. Therefore, CHWs typically enter the profession with varying education, skills, and experience and are trained on the specific health knowledge and technical skills needed for their positions. With the field's reliance on on-the-job training, it is important for employers to develop strong and comprehensive training programs so that CHWs can be fully prepared for and achieve maximum productivity in their positions.

Recommendation 2.1a - It is recommended that CHW training be comprehensive Recommendation 2.1b – and spread out over an extended period. The teaching that CHWs receive may be fully or partially based on national curriculum or developed entirely by the employer. No single training program for CHWs has been adopted by the field; moreover, only a handful of states have developed standardized CHW training or credentialing systems. Without standardization, the length and scope of CHW training varies a great deal from employer to employer. The goal of CHW training is to teach the skills necessary for CHWs to complete their often wide-ranging duties. Therefore, in addition to any program or disease-specific information, CHWs should be taught strong core competency curriculum. This may include training on counseling and communication skills, leadership, client confidentiality, advocacy, and the CHW role, among other topics. As relevant, programs should also consider cross-training CHWs in any co-morbidities or mental health conditions that CHWs may encounter frequently within the population served.

Recommendation 2.1c - CHW training should be ongoing. In addition to initial orientation, CHWs should receive continuing training throughout the course of the intervention in order to maintain the quality of the program.

Summary of Evidence

Evidence from the professional literature. Forty articles reviewed were found to have substantial reporting on the length, content, or scope of CHW training.

Training length. Training length varies greatly from employer to employer and, in part, may be dependent on the complexity of the CHW role and associated duties.[2] While some CHWs receive comprehensive training, others may only be taught the skills and knowledge necessary to carry out a single intervention. Appendix D provides an example of the training structure found within a few multi-site studies.

Upon hiring, CHWs may receive anywhere from 8 to 240 hours of initial training.[3] The training period may last several days, several weeks,[4] or be spread out

over the course of a month or more. For example, the CHW training period was 3 months for one nurse-supervised hypertension reduction program,[5] one month for a clinic-based mental health intervention,[6] and two to three months for CHWs working for a New York-based network of community organizations and health care centers.[7] Some interventions may intentionally schedule spacing between trainings to allow time for the absorption of materials taught and for CHWs to practice skills. One study noted that it allows for "experiential learning" between sessions.[7]

Training content and scope. CHW training is typically on-the-job[8] and therefore employer-paid. CHWs may complete a formal curriculum training, often geared specifically for CHWs, from a college,[9] training institute,[10, 11] or state certification program.[12] However, only a few states have standardized CHW training and credentialing programs.[13] Most CHWs are trained in-house; teachings may be fully or partially based on national curriculum[2, 14] or developed entirely by the employer.

Commonly CHWs are trained on a specific disease topic, associated self-management skills, and the delivery of health education.[3-6, 11, 12, 15-24] Many CHWs are also trained on system navigation, including information gathering, knowledge of health and social resources, and service coordination.[6, 10, 15, 17, 22, 23, 25-28] Curricula may involve skills practice[4, 11, 29] or field work.[4, 18] Public health concepts,[22] such as intervention strategies,[15, 17] behavior change,[20] health education methods,[15] prevention and health promotion,[22] and the social determinants of health[23, 30] may be discussed. CHWs may also be trained on a variety of core competencies, found in Table 2.1. Depending on the program, some CHWs may be trained on clinical-based topics, such as patient assessment or risk assessment,[18, 27, 29] medical history taking, administering screenings or exams[18] (such as measuring blood pressure,[3, 5, 24, 31] using a blood glucose monitor,[3, 11, 24] CPR and first aid certification,[22] and height and weight measurement procedures.[24]

Table 2.1. CHW Core Competency Curriculum Reported in the Professional Literature

Commonly Reported Training Topics
1. Communication skills,[7, 15, 20, 22-25, 28] which may include training on: a.) health literacy,[23] b.) public speaking & presentation skills,[20, 25] or c.) group facilitation[20, 25, 32]
2. Counseling skills[5, 22, 27-29] and social support[5]
3. Interviewing or surveying skill;[4, 6, 15, 17, 23]
4. Confidentiality and ethics, which may include HIPPA and IRB training[6, 17, 22, 28, 33]
5. The CHW role[10, 15, 17]
6. Outreach[5, 7, 22, 25] and recruitment[6]
7. Scheduling, referral or follow-up[5, 7, 18, 22, 27]
8. Leadership development[23, 25, 34]
9. Advocacy[22, 23, 28, 34]
10. Cultural competency[23, 33, 35]
11. Documentation and reporting skills[4, 22, 31]
Less Frequently Reported Training Topics
1. Forming professional boundaries[33]
2. Basics of research and research design[24, 28]
3. Decision-making[20]
4. Capacity-building[28]
5. Organizational skills[28]
6. Professionalism[28, 33]
7. Medical records and data entry[33]
8. Safety[4]
9. Stress[25]
10. Conflict management[25]
11. Anger management[25]
12. Team work[7]
13. Time management[7]
14. Patient safety[33]
15. Evaluation[7]

Expanding the scope of training. Most CHW training is program- or disease-specific. Some criticize this approach, calling for a more comprehensive curriculum and CHWs themselves have advocated for stronger core skill training.[36] One New York-based organization has made concentrated efforts to establish CHW core competency curriculum to supplement existing trainings.[28] Others have begun cross-training CHWs in various chronic diseases[22, 28] and mental health conditions.[6, 20, 28, 37]

Ongoing training. Many programs [4, 7, 15, 25, 38-40] provide CHWs with continuing training throughout the course of the intervention, with some[4, 11] strongly emphasizing the importance of ongoing training. As CHWs have complex jobs,

anticipating training needs can be difficult. In hindsight, some programs acknowledge more training would have been beneficial[39, 40] or that CHWs did not know relevant information, such as organizational goals and outcomes, appointment scheduling, patient goal-setting, and how medical records are kept.[41] Even if not relevant to their immediate work, such knowledge could be useful in enabling CHWs to have a fuller understanding of the intervention.

Ongoing training can provide CHWs with new knowledge and further skill development.[4] It can also be used to increase their capacity to address challenges they have encountered in their role.[4, 11] For this reason, CHWs themselves often suggest training topics.[4]

It is not uncommon for CHWs to encounter situations that are beyond the scope of their role within the program and may therefore not have been included in their initial training,[3, 4] especially if it was heavily disease-focused. For example, a CHW may be employed within a heart disease or diabetes intervention but then discover through observation or disclosure that the patient is suffering from depression. The patient may also have social support or system navigation needs that are unrelated to the disease (i.e., a birth or a death in the family, job loss, new employment, etc.). Training needs such as these should be anticipated. It is ideal if the CHW is prepared to listen actively, provide social support, and, if appropriate, direct the patient to resources. This may also be inherent in the CHW's nature. Therefore, to better serve patients and families, additional training should be provided.

Evidence from the CHW National Workforce Study (2007)[1]. Most employers require training of CHWs after hiring, although length of training varies considerably. Employers often train CHWs on awareness (80%), specific health issues (79%), understanding social services (73%), interpersonal communication (70%), specific diseases (64%), being a CHW (60%), health education and counseling (59%), client advocacy (59%), understanding medical services (55%), coordinating access to services (53%), home visiting (47%), patient navigation (41%), administering first aid and CPR (40%), and leadership skills (38%).

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We conducted a survey of Chicago-area employers of CHWs in health care settings. We asked how often training is provided to CHWs, as displayed in Table 2.2.

Table 2.2. Frequency of which training is provided

Admin Response (N=21)	
Monthly	15%
Quarterly	5%
Annually	10%
Only once, after hired	0%
As training opportunities arise	71%

The administrators were also asked details about the training content. These responses are found in Table 2.3. In comparison to the skills taught, we wanted to ask CHWs what skills they learned through trainings. These responses follow in Table 2.4. CHWs most frequently reported gaining skills in accessing resources (64%), education on a specific disease (63%), knowledge of medical services (58%), and being a CHW (54%).

Table 2.3. Specific skills CHWs are trained on

Admin Response (N=21)	
Patient confidentiality	81%
Ability to access resources	76%
Record keeping/Data reporting skills	76%
Computer skills	71%
Cultural awareness	67%
Education on a specific disease	67%
Interpersonal communication skills	67%
Being a CHW	62%
Client advocacy	57%
Knowledge of medical services	57%
Coordination of services (medical and social)	52%
Knowledge of social services	52%
Public speaking skills	38%
Patient navigation	38%
Organizational skills	33%
Health insurance coverage	29%
Home visiting	24%

Table 2.4. CHW reported skills gained via training

CHW Response (N=61)*	
Ability to access resources	64%
Education on a specific disease	63%
Knowledge of medical services	58%
Being a CHW	54%
Record keeping/ data reporting	54%
Health care system	54%
Confidentiality skills	48%
Interpersonal communication skills	48%
Cultural awareness	46%
Knowledge of social services	44%
Patient navigation	42%
Organizational skills	42%
Education/Training/ Counseling	41%
Coordination of services	39%
Client advocacy	39%
Leadership	39%
Communication skills	37%
Computer skills	37%

*It is important to note that more than one CHW from an organization could have answered the survey; therefore, the administrator and CHW data do not match exactly.

Summary. The CHW field strongly supports on-the-job training to enhance CHW's knowledge and skill and to prepare them for their job roles. Initial CHW training should be comprehensive and include relevant knowledge and skill-based teaching, core competency curriculum, and cross-training on any relevant c0-morbidities or health conditions commonly found in the population served. In addition, it is very important to implement on-going training so that CHWs can stay current on the knowledge and skills needed for their position.

Section 2.2: Training Instructor, Methods, and Style

In teaching CHWs, the method and style of instruction is an important consideration. CHWs enter the profession with various levels of education and training. *Many consider CHWs non-traditional or adult learners. For this reason, CHWs themselves, as well as advocates, have argued against traditional classroom teaching and paper-pencil testing and have leaned more towards alterative instructional theories,* such as popular or participatory education, experiential learning, adult learning theory, and similar approaches.

Recommendation 2.2a - Trainings should be delivered in an interactive, hands-on, and participatory format. Most studies employ multiple teaching activities to appeal to a wide variety of learners, including some combination of skill practice or role play, classroom instruction, discussion, case studies, field work, and shadowing.

There is no clear answer as to which staff should train CHWs. CHW trainers have varying professional backgrounds and may be CHWs themselves. ***Recommendation 2.2b- It is often best to employ a team-based approach to CHW training.*** Many programs do so. Often some of the best CHW trainings come from pairing a program manager or medical professional with an experienced CHW to co-teach the curriculum. For example, programs may want to have a physician or nurse available for consultation on the medical management of a particular disease. Likewise, through shadowing and discussion, an experienced CHW may best be able to impart experience-based knowledge to new CHWs regarding what to expect in their position and how best to carry out the job role.

Summary of Evidence

Evidence from the professional literature. Thirty-three studies reviewed were found to have substantial reporting on the training instructor, methods, or style of CHW training.

Training instructors. CHW trainers have varying professional backgrounds and may be university staff,[7, 32, 42] program coordinators or managers,[15, 25, 31] community health directors,[27] health educators,[15] health department personnel,[7] or medical staff such as nurses,[15, 18, 25, 39, 42] physicians,[11] or psychologists.[11, 29] Often training is delivered by a team of trainers. Involving experienced CHWs in training can be beneficial and is recommended. Some studies include CHWs in curriculum development[28] or pair a licensed clinician with an experienced CHW to co-teach the trainings.[40]

Training method and teaching style. CHW training methods are an important consideration and are often discussed at length in the literature. CHWs are a diverse group with varying levels of education and experience. Many consider CHWs non-traditional or adult learners,[3, 43] therefore advocating against traditional academic-style

teaching and paper-pencil examination.[36, 43] In our review, we found that studies employ a variety of teaching approaches, some naming an underlying theoretical basis or model. Often mentioned in CHW articles[7, 11, 17, 25, 28, 40] is Paolo Freire's work[44] and associated models, referred to as popular education; the empowerment model of education; and participatory education. In brief, these teaching styles focus on actively engaging teachers and students as co-learners, encouraging students to share their knowledge from previous work and life experiences to reinforce and enhance the lesson plan.[43] The teaching method involves reflection and critical thinking to raise social consciousness and inspire action for change.[44] Experiential learning,[28] social cognitive theory,[29] and adult learning theory[11, 28, 45] have also been employed by some studies.

Many articles provide a more general description of their teaching format, using words such as "interactive,"[3, 7, 21, 32, 45] "hands-on,"[3] "participatory,"[3] or "collaborative."[29] To enhance the curriculum, some discuss employing "observational learning,"[3] having "visual demonstrations,"[21] and providing training manuals[11, 17] or written material[15, 29] to learners. Two studies discuss the use of audiovisuals, pictures, large print text, skits and other methods in their training approach,[15, 17] specifically to appeal to a wide variety of learners and literacy levels.

We found that training activities are often a combination of skill practice[25] or role plays,[2, 4, 17, 24, 25, 29, 31, 38, 45, 46] classroom instruction or slide presentations,[2, 4, 24, 26, 32, 42, 45] discussion,[3, 6, 29, 42, 45] case studies,[6, 40, 45] field work,[4, 26] and shadowing of other CHWs and staff.[4, 24] Some trainings have team-building exercises.[42]

A 2010 national survey of 371 CHWs in 22 states[34] found that CHWs often receive some degree of training through conferences (87%), certification (61%), or through a community college (30%). In line with the literature previously described, mentoring (53%) and shadowing another CHW (41%) are also mentioned.

In the survey just described, there was an over-representation of Western states,[34] regions in which some evidence suggests CHW training capacity may be more advanced than other places. For example, Texas has a state-wide CHW certification program. Additionally, at time of publication in 2014, states such as New Mexico, Nevada, California (Southern), Arizona, Oregon, Alaska, and Hawaii all have made concentrated efforts towards standardizing CHW education, with many either pursuing certification, developing CHW curriculum at community colleges, or establishing statewide standards for CHW training.[13, 43, 47, 48] Non-Western States which have worked to standardize or advance CHW training include Ohio,[48] Massachusetts,[49, 50] Indiana,[48] North Carolina,[48] and New York,[28, 36] among others.[13] A case study on page 117 describes Illinois' efforts to develop CHW curricula and statewide policies involving the work of CHWs.

Evidence from the CHW National Workforce Study (2007)[1]. Most often training is provided by some combination of continuing education (68%), mentoring (47%), on-site technical assistance (43%), and classroom instruction (32%).

Evidence from the CHW in Chicago Health Care Setting Survey (2011). When employers in health care settings were asked how they train CHWs, many used multiple methods as shown in Table 2.5. CHWs had similar responses which can be seen in Table 2.6.

Table 2.5. Training Type

Employer Response (N=21)	
Continuing education or training (classes, conferences, seminars, etc.)	71%
Initial orientation	67%
Mentoring	62%
Shadowing of other CHWs or staff	62%
Classroom instruction	52%
Case management meetings	24%

Table 2.6. Training Type

CHW Response (N=59) *	
Continuing education or training	59%
Initial orientation	58%
Classroom instruction	42%
Mentoring	39%
Case management meetings	25%

*It is important to note that more than one CHW from an organization could have answered the survey; therefore, the administrator and CHW data do not match exactly.

Summary. In developing CHW trainings, the style and method of instruction matters. As a whole, CHWs have varying levels of education and training. While some CHWs may be recent graduates, others may not have attended school for quite a while. The literature suggests alternative teaching theories, such as popular or participatory education, experiential learning, adult learning theory, or similar approaches, instead of the traditional classroom lecture to enhance learning and also allow for relevant skill practice.

Many programs also implement a team-based approach to CHW training. Regardless of the trainer's background, involving CHWs in the development of curriculum or in facilitating training sessions can benefit the overall training and long-term learning of the CHWs and program. Additionally, it can be beneficial to have a physician or nurse available for consultation on medical management of particular diseases.

Section 2.3: Training Evaluation

For CHWs and CHW programs to be most effective, CHWs need to be trained well. Training evaluations can help assess whether information has been successfully transferred or applied and can provide valuable feedback on the delivery and quality of the training. Evaluations should not only assess knowledge gained, but also skill attainment.

Development of training is often an ongoing process that may require periodic revision based on training feedback and outcomes. *Recommendation 2.3 - CHW programs should assess both the quality and effectiveness of their CHW training.* This can be accomplished through an assessment of: 1) knowledge and skills learned; 2) impact of training on performance; and 3) trainee reaction.

Summary of Evidence

Evidence from the professional literature. Twelve studies reviewed were found to have substantial reporting on CHW training evaluation. Some programs[29] discuss tracking process measures, such as training attendance, number of training sessions, and problems with training logistics or curriculum. Measures such as these indicate training is an ongoing process that may require many revisions before being perfected. Some programs assess outcome measures of trainings to determine success as reported in various studies outlined below:

1. Knowledge learned. Change in knowledge is assessed by pre-post tests[22, 25, 26, 45] or post training tests.[29, 42] Alternatively, some CHWs and researchers advocate against these traditional methods to more performance-based evaluation.[36, 43] Programs[11] taking this approach test CHW knowledge and competency through graded role play.

2. Skills learned. CHW skill confidence and self-rated evaluation of skill is assessed by pre-post test.[22, 29, 32] Skill competency is measured by direct observation,[18, 25] role play,[25, 29] or performance review.[25]

3. Trainee reaction. CHWs may be asked to complete a written training evaluation, [7, 22, 25, 29, 32, 45] provide feedback during staff meetings[25] or participate in a formal, facilitated feedback session.[11] CHWs may be asked about training logistics; whether the training was beneficial, relevant, or understandable; what they liked most or least; and if they feel better prepared for their role as a CHW.

4. Impact of training on performance. Programs[25, 26] may use output measures indicating CHW productivity such as number of services performed or participants recruited as an indirect measure of training effectiveness. Via an anonymous follow-up survey, one program[22] asked CHWs to self-rate the impact

of training on their performance. For instance, whether training impacted communication skills, service coordination, or the delivery of counseling.

Evaluating the success of your training program can ensure that CHWs are well prepared for their duties. Some programs provide CHWs with a certificate of graduation upon meeting training competency and requirements[26] as an official recognition of job readiness. To ensure maintenance of CHW knowledge and skills after initial training, some programs[11] perform periodic random field observation. This can ensure the quality of service delivery and help identify any areas of additional training needs.

Evidence from the CHW National Workforce Study (2007)[1]. Not reported.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). In our survey, we did not ask any questions regarding training evaluation. However, we did ask employers what problems they encountered in training CHWs. Results are displayed in Table 2.7. For some, training cost and location are barriers, as well as finding trainings which are specific to the CHW role and job activities. About one-fourth of health care agencies reported encountering no problems in training CHWs.

Table 2.7. Problems Encountered Providing CHW Trainings

Employer Response (N=21)	
Cost of training	38%
Available trainings are not specific to job activities	33%
Location of training	24%
Availability of trainers	24%
Language of trainings	14%
Lack of time	5%
No problems encountered	24%

Summary. Development of training is often an ongoing process that may require periodic revision based on training feedback and program outcomes. Measuring the success of CHW training provides insight as to whether training methods were effective in preparing CHWs for their role and associated job duties. Training evaluation assesses whether knowledge and skills have been learned and measures the impact of training on CHW performance. For CHWs and CHW programs to be most effective, CHWs need to be trained well.

A case story regarding CHW training, provided by the Molly Martin from the Rush Center for Urban Health Equity, can be found on page 59.

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Case Study on CHW Training

Notes from the Rush Center for Urban Health Equity

While many CHW curriculums can be found at local universities and agencies, no formal CHW curriculum or certification exists, which results in tremendous variability in the existing CHW trainings. Most focus on knowledge, but it is behaviors that CHWs typically target. Similarly, many curriculums use didactic teaching methods, while CHWs typically work one-on-one or in small groups with their clients. The Rush Center for Urban Health Equity (CUHE) has developed a specialized training curriculum that first targets self-management skills and then incorporates these skills into interventions on asthma. CHWs practice these skills in their own lives and in structured role plays. They are assessed on their skills during training, and then monitored in the field to continually reinforce these self-management skills with their clients and in their own lives.

CUHE recommends that CHW trainings use Paulo Friere's critical pedagogy or popular education model in order to provide a curriculum for people of varying literacy levels, languages, and cultures. The trainings utilize minimal lectures and instead focus on brainstorming exercises, self-discovery learning exercises, and role playing to facilitate learning.

The curriculum is intended to be delivered to groups of 10-15 adults. CUHE typically trains more people than will be hired because this technique provides trained back-up staff to replace CHWs who leave the project. The other reason is that this type of basic education is meaningful and useful even if it does not directly translate into employment. All trainees who complete the training receive certificates and instructions for how to report the training on their resumes.

The training begins with the self-management curriculum which covers problem solving, environmental rearrangement, social support, self-monitoring, and making behavior change plans. Trainees brainstorm and role play these skills around challenges in their own lives. Then asthma is introduced and self-management skills are revisited in the context of each asthma topic. General asthma statistics are given followed by a discussion to define asthma. The training covers asthma physiology, symptoms, medications, triggers, and allergy. Smoking cessation is covered with the focus of directing clients to established resources. A specialist from the Safer Pest Control Project is brought in to introduce and demonstrate integrated pest management. Specifics on home visitation, documentation, and project details are covered in subsequent trainings for the CHWs hired onto the project.

Change plan creation and implementation are the main tool for CHWs to use with their clients. Change planning can be very difficult to master. Therefore, CHW training should focus heavily on change planning beginning with the CHWs. Once they can successfully create and achieve change plans for themselves, they can begin to teach the exercise to others. Each trainee completes an individual change plan at the end of each

training day. This change plan includes details on the specific intended action, when this will occur and how, potential barriers, and potential solutions to these barriers. These individual change plans are discussed and shared at the beginning of the following training day.

At the end of the training, all trainees complete a formal evaluation. First they must individually demonstrate competent medication delivery technique using demonstration inhaler devices. Then they each complete a standardized role play with an actor where they are scored on their asthma knowledge, use of self-management skills, and client engagement.

Lessons Learned. Continuing education is a critical component for CHW programs. Our continuing education sessions address two domains: 1) CHW self-discovery via goal setting, addressing barriers and successes, and CHW group social support; and 2) Topics brought forth by CHWs after their work in the field. We use local experts in our medical center to facilitate discussion of identified topics. Ongoing education is a work in progress and is driven by CHW-identified needs.

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Section 3: CHW Supervision

In this section, we first offer recommendations on CHW supervision to health care organizations interested in the uptake of the CHW model and to those revising their current CHW practices. The section is then broken up into findings on two distinct CHW supervision subsections, which correspond with a recommendation or set of recommendations:

3.1 The Structure of CHW Supervision
3.2 The Role of the CHW Supervisor

Based on the available evidence, the two topic areas provide:

- An extensive review of available published literature concerning CHW supervision;
- National findings from the 2007 *Community Health Worker National Workforce Study*[1]*;* and
- Data derived from a local Chicago-based survey of CHWs and administrators of CHW programs in health care settings.

Articles which were considered to have substantial information concerning CHW supervision are included within this section.

While every organization is different, these guidelines regarding CHW supervising practices will assist in preparing sound practices and avoiding pitfalls that might affect the success of CHW programs and their subsequent impact on patient health outcomes.

Recommendations for CHW Supervision

CHW supervisors play an integral role in program management, providing mentorship to CHWs and helping them work most effectively in their role. The following recommendations are based on available professional literature and CHW practice experience.

3.1 The Structure of CHW Supervision.

a. **Choose a supervisor who believes in and supports the CHW model and role.** CHW supervisors have a wide range of clinical and non-clinical backgrounds. Independent of professional background, what is most important is that the supervisor understands the unique role and contribution of the CHW on the service delivery team. A summary of the evidence supporting recommendations 3.1a and b can be found starting on page 64.

b. **Provide CHWs with adequate supervision.** CHWs should receive regular supervision from a primary supervisor. Additionally, to monitor the quality of the program and provide additional support to the CHW, programs should consider having regular team meetings.

3.2 The Role of the CHW Supervisor.

a. **CHW supervisors themselves must be provided with adequate support by management.** Supervisors should have workloads that allow time to provide regular supervision to CHWs and to address concerns of the CHW as they arise. Training on the CHW model, duties and roles, in addition to CHW supervision may be beneficial to those supervisors new to the role. A summary of the evidence supporting recommendations 3.2a-e can be found starting on page 67.

b. **Supervisors should clearly define the CHW role and communicate it throughout the organization.** The CHW position should have a clear job description. Both the CHW and other staff should understand the CHW's role, duties, professional boundaries, and reporting structure. When the CHW role is either unclear or not well-communicated, it can lead to a deviation of planned duties and cause frustration among CHWs and other staff, as described further in Section 4, CHW Integration into Health Care Systems on page 76.

c. **Supervisors should mentor and be available to support CHWs.** Supervisors should provide appropriate mentoring to CHWs to help them overcome challenges, manage their workload, and deal with complex patient cases. These actions can help prevent low morale and protect against CHW burnout. Supervisors should understand both the CHW's personal as well as professional demands, demonstrate appropriate flexibility, and if needed, help CHWs adapt to work culture.

d. **Supervisors should monitor CHW performance and set reasonable expectations.** Supervisors should help CHWs understand the level of demand and commitment required for the job, provide a reasonable workload, help CHWs uphold professional boundaries and hold workers accountable. CHWs should be periodically evaluated and provided with constructive feedback on any additional training needs or areas for improvement. Finally it is recommended that supervisors shadow CHWs in their work both: a) to gain a deeper understanding of the CHW's day-to-day work, and b) to evaluate CHW job performance.

e. **Supervisors should provide CHWs with adequate autonomy, recognize their contribution, and foster CHW professional development.** CHWs play an important role in the intervention and should be treated as full members of the health care delivery team. Treating CHWs as such will not only facilitate the recognition of their contribution, but will also communicate the value of their position to other staff and community partners.

Section 3.1: The Structure of CHW Supervision

CHW supervisors may be clinical or non-clinical staff. Some may be a former or more experienced CHW. Regardless of their background, ***recommendation 3.1 - one vital characteristic of a CHW supervisor is that s/he believes in and supports the role of CHWs and their contribution as a health care delivery team member.*** Supervisors must understand the unique role and contribution of the CHW and that the position supplements, but does not replace, the work of other service providers.

CHW supervision may be scheduled, informal, or some combination thereof. Typically CHWs are assigned a primary supervisor for one-on-one supervision and most programs also conduct weekly or bi-weekly team meetings. ***Recommendation 3.2 - It is recommended that supervision meetings be scheduled regularly.*** This provides an assured forum for staff to focus on and discuss intervention progress, answer CHW questions, address issues, and provide support. Some also use supervision meetings as a platform for formal or informal training.

Summary of Evidence

Evidence from the professional literature. Twenty-four studies were reviewed that provided examples, thoughtful guidance, and important lessons learned regarding how to structure CHW supervision. None of the studies provides suggestions regarding the ideal CHW-to-supervisor ratio; similarly, the frequency with which supervision should occur is rarely discussed. One study reported supervision as bi-monthly[2] and another emphasized the importance of "regular" supervision.[3] In terms of the organizational structure of supervision, most often studies report one-on-one supervision from a primary supervisor; however, some programs take a shared or team-based approach to CHW supervision, assigning two[4] or more staff[5] to jointly supervise CHWs.

Who should supervise CHWs. CHW supervisors have a wide range of professional backgrounds and may be a program coordinator;[6, 7] clinical psychologist[2] or psychiatrist;[4] physician;[4, 8] nurse or nurse practioner;[5, 8-16] director (program/field/clinical);[3, 15, 17, 18] health administrator;[12] health educator/certified health educator;[7, 8, 19] primary study investigator;[17] social worker;[12] health priority specialist;[20] or a more experienced CHW.[21-23]

Some studies report a preference for CHW supervisors with social work [12] or mental health backgrounds.[2, 12] Reasons stated are the supervisor's ability to express empathy and listen to CHW concerns,[2] and similarities between the professions, as in the case of social work.[12] For example, CHWs and social workers both have to establish appropriate boundaries with clients and address social issues which affect health or well-being.[12] Although in the literature we found that nurses often supervise CHWs, two studies noted caution with this arrangement,[5, 12] either perceiving it as less effective than

social work supervision[12] or describing a dysfunctional relationship between CHWs and their supervisor due to competition.[5] This could be a factor in health care settings where staff may feel that the CHW is infringing on their role on the service delivery team. For this reason, one of the most vital characteristics of a CHW supervisor is that s/he believes in and supports the role of CHWs in the intervention. This requires that the supervisor have a solid understanding of the CHW model. If not, misunderstandings can occur. One study reported resentment among supervisors towards CHWs for their varied tasks, opportunities for training, and ability to leave the department to work in the community.[24] These elements, which were interpreted as "special treatment" for the CHW, are traditional elements of the CHW model. Misunderstandings such as these can be very disruptive to an intervention. More examples are discussed in Section 4, *CHW Integration into Health Care Systems.*

Team Meetings. In addition to primary supervision, many articles discuss the importance of regular communication and guidance through team meetings. Some articles refer to this as "group supervision."[2] These meetings, which often occur weekly[11, 18, 21] or bi-weekly,[2] may discuss specific cases, intervention issues, or the CHW role; review policies, protocols, intervention progress or outcomes; be a format to answer CHW questions or an outlet for social support; and provide opportunity for teaching or continuing education for CHWs.[2, 18, 21]

Evidence from the CHW National Workforce Study (2007)[1]. Not reported.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We surveyed Chicago-area administrators of CHW programs in health care settings to find out who supervises CHWs. Most programs (71%) report CHWs being supervised by a Program Coordinator/Manager as opposed to medical staff (see Table 3.1). In some cases the Program Coordinator is a former CHW as noted by the respondent in additional survey commentary.

Table 3.1. Primary Supervisor of CHWs

Employer Response (N=21)	
Program Coordinator/ Manager	71%
Clinical Director	14%
Nurse	10%
Doctor	5%

Table 3.2. Frequency of CHW Supervision

Employer Response (N=21)	
Weekly	33%
Bi-weekly	19%
Monthly	24%
Quarterly	10%
Other	14%

We also asked employers, "How often is time set aside for CHW supervision?" (See Table 3.2). Frequency of supervision can vary and may be difficult to quantify. For example, supervisors might meet with CHWs on an as-needed basis or have an open door policy for questions. However, in our study we did not classify this as scheduled supervision time. Also, it is possible that more experienced CHWs may require less supervision than those new to the role. Nonetheless, we emphasize that regularly scheduled supervision time is recommended to provide both the CHW and their

supervisor a regular platform to focus, ask questions, and discuss issues on cases, service provision, and other job factors.

Summary. Generally CHW supervisors have wide-ranging professional backgrounds and may be either clinical or non-clinical staff. In Chicago, CHW programs in health care settings were found to more heavily rely on non-clinical staff. Regular supervision and team meetings are recommended to provide CHWs with additional monitoring, problem-solving, learning, and social support.

Section 3.2: The Role of the CHW Supervisor

CHW supervisors play a crucial role in program management, monitoring CHW performance, providing support, ensuring quality of service delivery, and guiding progress towards intervention goals. In a Chicago survey of CHW programs in health care settings, 50% of administrators surveyed reported that they encountered at least one challenge in supervising CHWs. Issues included lack of experience in supervising CHWs, inadequate time for ongoing support and training of CHWs, and lack of consistent program funding, among others. ***Recommendation 3.2a - We recommend that given the importance of the supervisor role and its complexity, programs should be sensitive to ensuring that CHW supervisors feel adequately supported.*** This may mean adjusting the supervisor's schedule to allow time for CHW supervision, involving supervisors in program planning and development to keep abreast of program information, providing new CHW supervisors with training, or similar provisions, as needed.

Recommendation 3.2b - The CHW role should be clearly defined and communicated to program staff working with the CHW, in particular, and throughout the organization, in general. Supervisors should create clear referral and reporting structures, provide a written job description, and communicate to staff a clear understanding of CHW duties, scope of practice, and professional boundaries to help CHWs work most effectively.

Recommendation 3.2c - Supervisors should be available to mentor CHWs, displaying trust, respect, and flexibility. Assisting CHWs in managing their workload and dealing with complex cases can help prevent low morale and protect against CHW burnout. CHWs play an important role in interventions and should be treated as full members of the intervention team.

Recommendation 3.2d - Monitoring CHW performance and setting reasonable expectations is another important role. To do this well, supervisors must have an understanding of the CHW model, the CHW's work, and challenges encountered on the job. Some suggest shadowing not only to gain a deep understanding of CHWs in their day-to-day duties but also to provide an ideal setting to evaluate job performance.

Recommendation 3.2e - CHWs should have adequate autonomy, recognition, and opportunities for professional development. Ensuring that this is the case can communicate to both staff and community partners the value of the CHW role and also help CHWs build skills while moving along the path to advancement.

Summary of Evidence

Evidence from the professional literature. Twenty-two articles were reviewed which discuss the role of the CHW supervisor. CHW supervisors play an integral role in managing a CHW intervention and should be adequately supported. To understand the CHW role, it is best for supervisors to be involved in the planning and development of the CHW intervention.[24] Other supportive measures may include CHW supervisor training[12, 25, 26] and adjusting the supervisor's workload to allow adequate time to support CHWs.[24, 27] Box 3.1 provides a summary of the various roles supervisors can play in supporting CHWs and monitoring their work. Each of these roles will be examined in further detail.

Box 3.1 Summary of Supervisor Roles

1. Establish Work Structure and Assist CHWs in Setting Professional Boundaries
2. Mentor CHWs
3. Monitor CHWs and Manage Performance
4. Ensure CHW Adaptation of Work Culture
5. Find the Right Balance Regarding CHW Autonomy
6. Foster CHW Professional Growth and Recognize CHW Work

Establish work structure and assist CHWs in setting professional boundaries. CHWs should be provided with meaningful work,[28] have a clear job description, and understand their roles, duties, expectations[29, 30] and reporting structures.[31] Supervisors should help CHWs set clear professional boundaries, regarding both their personal involvement with patients and scope of practice.[5] They should communicate this information to CHWs[12, 24, 31] and others in the organization. Establishing work structure can help CHWs operate most efficiently in their role and help in CHW integration into organizations and service delivery teams, which will be discussed in Section 4.

Mentor CHWs. CHW supervisors should be proactive in the supervisory role[12] and provide appropriate mentoring to CHWs to help them overcome challenges, manage their workload, and deal with complex patient cases. These actions will help prevent low morale and protect against CHW burnout.

CHW supervisors should mentor and advocate for CHWs,[5] listen actively,[5] and display empathy, trust, respect, and flexibility in supervision.[5, 12, 32] CHWs report various stressors in their work,[7, 10, 33] which may require supervisory support. These difficulties may include: challenges in setting boundaries with clients;[30] frustration with rigid intervention protocols and/or changes in role; frustration with logistical hassles such as having clients miss appointments, having to finish paperwork, and attending meetings;[30, 32, 34] feeling pressure in reaching quotas;[32] and feeling generally overwhelmed by the workload.[32] CHW supervisors need to be readily available to CHWs when they encounter problems or need guidance in dealing with difficult patients or situations.[3, 30] In instances where CHWs are overwhelmed by work duties, supervisors can help CHWs set goals[28] and remind CHWs that work will not always be as busy.[30]

CHWs often describe themselves as "wearing multiple hats,"[35] or as juggling roles in the organization and the community. Many CHWs have families and are active leaders and mentors outside work. Moreover, as CHWs are hired to reflect the communities they serve, some may also share similar life challenges and struggle as the community.[23, 30, 32] Programs have reported high CHW turnover when family obligations clash too much with work, for example, difficulties in securing childcare when having to work weekends and evenings.[30] *CHW supervisors should provide supportive supervision,[31] communicate understanding, and when possible, make reasonable accommodations, such as flexible scheduling, to CHWs experiencing personal or family struggle.[28, 30, 32]*

Monitor CHWs and manage performance. It is important for supervisors to monitor CHW performance and require accountability. Supervisors should help CHWs understand the level of demand and commitment required of the job and set reasonable expectations of CHW work.[23, 28] To accomplish this, the supervisor must have a clear understanding of the CHW model, his/her role as the CHW's supervisor, and the role and responsibilities of the CHWs s/he supervises, including challenges encountered in the job. CHW roles are different from, yet compliment, the roles of other service providers.[36, 37] *In gaining understanding of the CHW model and the CHW role, studies suggest that supervisors should shadow CHWs at least a few times in their daily work.*[5, 23]

Supervisors should establish clear standards for CHW performance[28] and ensure that all information taught by the CHWs is current and accurate. This can be done through periodic performance evaluations and the shadowing of CHWs in their work.[23] The management of CHW performance enables the supervisor to ensure intervention fidelity and to identify potential CHW training needs or areas for improvement.

Ensure CHW adaptation to work culture. CHWs will invariably enter the profession with differing levels of work experience. *Some CHWs who have not previously worked in a professional environment may need guidance in adapting to work culture.[5, 23, 24]* For a CHW supervisor, this may mean addressing sensitive issues such as proper dress, appropriate use of work time, attendance issues, and professional communication either on the phone or in person.[24] It is important to understand that professionalism is taught and comes with experience. Duthie and colleagues (2012)[5] note, "The nurses and social workers who were assigned initially as [CHW] supervisors were highly experienced in various health care settings where employees generally had completed many years of education, internships and workplace training. In their experience, guidelines for professional conduct were identified and enforced in a highly structured environment."[5] *This type of workplace structure may not come naturally to all CHWs, especially those new to a professional field. However, as discussed in Section 1: CHW Hiring, it is important to hire CHWs for their connection to and knowledge of the community being served and the organization should therefore be willing to teach things such as adaptation to work culture.*

Find the right balance regarding CHW autonomy and workplace structure. As mentioned in Section 1: *CHW Hiring,* CHWs have a close relationship with the

community being served and can help tailor interventions to community needs. However, in order for this to happen, CHWs must have the right balance of structure and freedom in their role. This was discussed by five studies reviewed.

Allowing CHWs an adequate degree of autonomy displays trust and can boost CHW motivation and performance.[32] *CHWs should be given the opportunity to provide program feedback, assist in decision-making,[5, 7] and work independently when appropriate,[32] and should be afforded a degree of flexibility and creativity in carrying out duties.[32, 34]* This not only enhances the intervention[5, 30] but validates CHWs as important members of the intervention team and, from experience, leads to better health outcomes for the communities being served.[5, 32] Supervisors should understand that there is more than one way to accomplish a job[5] and that listening to CHWs who know the community well may be beneficial to program outcomes.

Foster CHW professional growth and recognize the work of CHWs. Supervisors can promote morale and foster professional growth by providing opportunities and/or support for CHW professional development,[28, 30, 31] leadership opportunities,[28] continuing education,[5, 30] conference attendance,[30] and networking with peers.[30] Also important is the recognition of CHW contributions.[26, 31] This can be done by providing adequate compensation and communicating the credibility and value of the CHW role to others at the organization and in the community.[7] CHWs should also be recognized for their contribution to a study or program outcomes through authorships, award announcements, and public recognition. As a way to exemplify the value of the CHW perspective, one study allotted time at every team meeting for CHWs to provide feedback and share their ideas.[23] Other ways to recognize CHWs are celebratory meals or awards for achievement, throwing holiday or year-end parties,[29] and providing incentives such as flexibility[6] and opportunities for professional development.[6]

Evidence from the CHW National Workforce Study (2007)[1]. Not reported.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We asked Chicago administrators of CHW programs in health care settings what challenges, if any, they have faced in supervising CHWs. Ten supervisors (50%) reported no challenges in CHW supervision. Of those that did report challenges with CHW supervision, responses include:

- Lack of consistent funding
- Lack of time for on-going support and training for CHWs
- Lack of experience supervising CHWs
- Lack of available trainings specifically for CHWs
- Being patient while the CHW(s) learn his/her role on the project
- Supporting CHWs in setting up boundaries that make their work manageable
    - *"Once they are known to the community, people contact them freely for anything and everything and it is difficult for them to set limits….. Issues of not being able to respond to all types of needs (outside of those related to health care) can be seen as "withholding" and this can erode the CHW's effectiveness in the community."* - Survey Responder

- Difficulties with the structure of supervision
  - "We previously had some challenges with CHWs working out of three of our sites, while the Program Manager was regularly present only at one site. Since then, we have created a dual supervisory structure where our site-specific clinic managers are also assisting in supervising the CHWs for day-to-day operations, in addition to the Program Manager."- Survey Responder
- CHW adaptation to work culture

From time to time, CHW supervisors can encounter manageable challenges in their role. These findings re-iterate the importance of organizations supporting CHW supervisors by providing the proper time and resources to address any program issues and provide guidance to CHWs. It also suggests that the development of CHW supervisor training may be a beneficial asset to programs.

Summary. CHW supervisors play an integral role in helping to ensure the success of CHW interventions. The CHW supervisor's many roles include: establishing work structure and assisting CHWs in setting professional boundaries; mentoring CHWs; monitoring CHWs and managing performance; ensuring CHW adaptation to work culture; finding the right balance regarding CHW autonomy; and fostering CHW professional growth and recognizing CHW work. In the supervisory relationship, it is important for supervisors to understand the CHW perspective, as well as develop field sensitivity.

A case story on CHW supervision, from the Center for Community Health Development's National CHW Training Center out of the School of Rural Public Health at Texas A&M Health Science Center can be found on page 74.

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Case Study on Supervising CHWs

Notes from the Center for Community Health Development's National CHW Training Center

The Texas A&M School of Rural Public Health, Center for Community Health Development's (CCHD's) National CHW Training Center (NCHWTC) has worked with CHWs since 2001. Located in College Station, Texas and serving statewide, nationally, and internationally, CCHD is a Prevention Research Center funded by the CDC. Our mission is to develop relationships with communities to discover and disseminate ways to improve health status; the NCHWTC accomplishes this through training and equipping CHWs to build community capacity through leadership and partnership approaches. The number of CHWs employed by the NCHWTC has ranged from one to sixteen. The supervision of CHWs has shifted over the years as the awareness, utilization, and demand for CHWs has grown exponentially.

Initially, the hiring and supervision of CHWs was conducted by a program director; the number of programs employing CHWs has varied from one to five across the years. Generally, program directors are bilingual, share the same race/ethnicity as the CHWs and the focus population, and have some exposure or experience in working with CHWs. The Program Director conducted the training of the CHWs and supervised the CHWs; daily team meetings were usually conducted prior to sending out teams of CHWs to conduct outreach, education, and research. As the number of CHWs employed by our center grew, the need to adapt the supervision model arose. Two larger teams of CHWs were formed based on geographic areas served. Each team was then led by a CHW; this was a shift in supervision from Program Director to the CHW. The two CHW supervisors reported directly to the Program Director via biweekly meetings. The supervisors continued to meet with their teams on a daily basis. Every few weeks, the two teams would meet with the Project Director together.

After trying this supervision strategy for a year, the CHWs and staff felt like this model was not conducive to team unity nor was it the most efficient manner to carry out the project goals and objectives. CHWs shared that in this model, they felt the teams were "competing" against each other instead of learning from each other from the field and sharing what worked and didn't work in their respective areas. Having CHWs promoted to the supervisor role also created some issues where CHWs felt their opinions were not valued by the new supervisors and that they did not have access to other administrative staff or the Project Director. As a result, the supervisor roles were eliminated—though the two teams of CHWs were kept intact. After several conversations with staff and all the CHWs, together we developed a new supervisory model. Each CHW team had an assigned team leader that had responsibilities outlined by the CHWs. The CHW in the role of team leader held that position for a month and was responsible for communicating with the Project Director on a daily basis. The team leader position rotated monthly, so that every CHW had that responsibility every few months. There were also transitions in the project director position as it became clear that some

directors were not a good fit for leading this type of staff management model—even though they shared many of the same characteristics and backgrounds as the CHWs. Project Directors who were not a good fit in supervising CHWs tended to micro-manage and did not fully grasp how to lead while including the CHWs in decision-making and encouraging CHWs to take leadership and ownership of the specific projects.

While this model has shifted some as numbers of CHWs and staffing have changed over the years, the model of including CHWs in determining the supervisory strategy has remained a key element. CHWs are included in the decision making in all aspects in the project and are also involved in the hiring of additional staff and CHWs when the occasion arises through reviewing applications and conducting interviews.

Lessons Learned. Not all CHWs make great CHW supervisors and not all great supervisors have been CHWs. The common thread for CHW supervisory success has been a person that is actively engaged in the community and had previous experience in working with CHWs and experience in either supervising CHWs or other staff. Shared culture and language between supervisor and CHWs has not been as influential of a factor as the supervisor's personal experience with the focus population and in working with CHWs. Including CHWs as equal members of the team—actively involved in decision making has also been a critical element in successfully supervising a well-functioning CHW team.

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Section 4: CHW Integration into Health Care Systems

In this section, we first offer recommendations on how to integrate CHWs into health care systems. The section is then broken up into findings on three distinct CHW integration subsections which correspond with a recommendation or set of recommendations.

The CHW integration into health care systems section is divided into the following subsections:

4.1 The CHW Role and Role Confusion
4.2 Stakeholder Perspective on CHW Integration
4.3 Facilitating Positive Integration of CHWs

Based on the available evidence, each of the three subsections provides:

- An extensive review of available published literature concerning CHW integration;
- National findings from the 2007 *Community Health Worker National Workforce Study;*[1] and
- Data derived from a local Chicago-based survey of CHWs and administrators of CHW programs in health care settings.

Articles considered to have substantial reporting concerning CHW integration are included within this section.

While every organization is different, these guidelines regarding CHW integration into health care systems will assist in preparing sound practices and avoiding pitfalls that will likely impact the success of your CHW program and its impact on patient health and outcomes.

Recommendations for CHW Integration into Health Care Systems

With the passage of the Affordable Care Act,[2] researchers, health care administrators, and policymakers[3-10] are discussing further expansion of the CHW role in health care. The following recommendations for CHW integration into health care systems are based on available professional literature and CHW practice experience.

4.1 The CHW Role and Role Confusion.

a. **Assign appropriate roles and duties to CHWs.** CHWs may perform any number of duties in the health care setting, including patient navigation, health education, outreach, and advocacy. CHWs may be members of a care delivery team or act in various capacities as researchers. They can be vital in facilitating communication, especially in non-English speaking populations, through cultural mediation and translation.

   Section 4.1 outlines duties commonly performed by CHWs. Managers should determine and assign appropriate duties based on the CHW's level of training and skill and be cautious neither to underutilize CHWs nor push them beyond their scope of expertise. A summary of the evidence supporting recommendations 4.1a and b can be found starting on page 79.

b. **Avoid role confusion by defining the CHW's scope of practice and clearly communicating the information to other health care staff working with the CHW.** Ensuring there is no confusion among staff about CHW roles and responsibilities will help promote successful integration of CHWs. When CHWs perform duties outside of their job description or focus too much on patients outside of the intended population, it may create problems which can potentially limit the success of the intervention. To decrease role confusion and promote well-coordinated service delivery, studies recommend that programs develop strictly enforced intervention protocols.

4.2 Stakeholder Perspective on CHW Integration: CHW programs must work to achieve staff buy-in of the intervention. While many health care providers and staff express value in CHW integration, others are more hesitant to accept a new position on the health care delivery team. Program administrators should facilitate clear understanding of the CHW model and the intervention and consider including key staff in program development to promote staff buy-in of CHW integration. For example, including medical professionals in the development of CHW trainings and in decisions involving professional boundaries may foster staff trust in the CHW model. A summary of the evidence supporting this recommendation can be found starting on page 85.

4.3 Facilitate Positive Integration of CHWs.

a. Create a welcoming and structured environment for their work. CHWs should be greeted with staff support, proper space, and supplies. This not only facilitates productivity, but also communicates the CHW's standing as an important member of the team. Promoting an atmosphere of teamwork and appreciation for each role on the delivery team can foster positive group dynamics. A summary of the evidence supporting recommendations 4.3a and b can be found starting on page 88.

b. Promote frequent staff communication and address any workflow issues. As discussed in Supervision Recommendation 3.1b, supervisors should meet with CHWs regularly. CHWs should also have frequent and direct communication and case discussion with others on the intervention team, including medical staff. Communication can be verbal, such as team meetings and informal conversation, or it can be written, such as documented case notes included in the patient's chart or electronic medical record.

Through communication, workflow issues such as the timing of visits and patient handoffs can be addressed. Strong communication within the health care delivery team helps to keep everyone informed and helps improve patient outcomes – the ultimate goal of the health care center.

Section 4.1: The CHW Role and Role Confusion

There are at least seven CHW models, primarily classified by the CHW's role in the intervention. A detailed explanation of each of these models can be found in Appendix A. To facilitate successful program outcomes, it is important that the role(s) of the CHW be made clear by management.

CHWs commonly provide social support and informal counseling, health education, system navigation, patient self-management support and follow-up, home visits, and perform outreach, administrative tasks such as scheduling and appointment reminders, and a host of communication-related duties, including translation, interpretation, and cultural mediation. ***Recommendation 4.1a - To best utilize CHWs, managers should assign appropriate duties based on the CHW's level of training and skill and be thoughtful neither to underutilize CHWs nor push them beyond their scope of expertise.***

Health care environments are busy settings. Some studies have found that staff may pull CHWs into tasks outside their job description, such as receptionist or data entry duties. Some interventions with enrollment requirements have found that well-meaning health care workers may ask CHWs to take on patients who do not qualify for services in an effort to secure the best care for their patients.

For interventions to be most effective in reaching their intended goals, CHWs should focus their work on the duties they have been trained to perform and the population they were intended to serve. ***Recommendation 4.1b - Administrators can help avoid role confusion by developing strict intervention protocols and clear referral processes.*** This can help to ensure that CHWs stay within their scope of practice and professional boundaries.

Summary of Evidence

Evidence from the professional literature. In this section we will discuss CHW roles, duties, and role confusion in health care settings.

General CHW Roles. Several CHW models exist and they are defined by the role(s) performed by the CHW. A general snapshot of the models and their associated duties are provided in Table 4.1. CHW models are not mutually exclusive, as many programs are a blend of more than one model. For example, a hospital may employ a Promotor(a) de Salud to act as a Member of a Care Delivery Team.

The "Member of Care Delivery Team" model is found in health care, whereas the other six models could either be in health care or community-based settings. The Promotor(a) de Salud model primarily serves Spanish-speaking populations.

Table 4.1. CHW Models and Associated Duties

CHW Models	Sample Duties*
Navigator/ Care Coordinator	Cultural mediation, identifying resources, connecting people with needed health and social services,[11] coordinate care, provide patient follow-up, develop care management plans[12]
Lay Health Educator	Cultural mediation, health education, screenings, providing informal counseling and social support[11]
Outreach/ Enrollment Agent	Cultural mediation, identifying resources, connecting people with needed health and social services,[11] social support[12]
Community Organizer/ Advocate	Connecting people with needed health and social services, helping patients understand and insist on their rights, advocating for community or system change[11]
Member of Care Delivery Team	Cultural mediation, health education, informal counseling and social support, identifying resources, connecting people with needed health and social services, providing limited direct health care services,[11] (e.g., blood pressure or other screening, first aid, or medication counseling[12]
Researcher	Obtaining consent, surveying/interviewing, documentation,[13] (a stand-alone position, but often used in combination with other models)
Promotor(a) de Salud**	Cultural mediation, translation,[14] patient advocacy, health education, mentoring/social support, outreach, connecting people with needed health and social services;[12]

*May vary by intervention. **Primarily serves Spanish-speaking populations

CHW Core Duties in Health Care Centers. We reviewed 28 studies to better understand what duties CHWs perform specifically in health care settings. The duties most often mentioned include:

1. Outreach,[15-20] including case finding or program recruitment;[15, 16, 18, 21, 22]
2. Social support[15, 16, 23-28] through individual counseling or support groups;[25, 26, 29-31]
3. Education in the individual or group setting;[15, 16, 18, 19, 21, 23, 24, 26-29, 31-35]
4. Health and social system navigation;[15, 16, 19, 21-24, 27, 28, 30-34, 36-38]
5. Patient self-management support;[15, 16, 22-24, 26-28, 30-34, 38-41]
6. Follow-up and answering patient questions;[19, 22, 23, 28, 31, 32, 36, 38, 39]
7. Home visits;[19, 23, 25, 27, 28, 32, 34]
8. Administrative duties such as scheduling,[21, 24, 26-28, 30, 37, 41] appointment reminders,[31] or registration;[18, 27]
9. Relaying relevant patient information back to appropriate medical staff;[17, 22, 27, 38, 39, 41] and
10. Communication-related duties, including translation,[19, 24] interpretation,[28] cultural mediation,[24, 28, 29, 37] assisting doctor-patient communication[37] and attending doctor visits with patients.[25, 28]

Some examples of how these core duties may be performed by CHWs are described below.

Patient self-management. CHWs help patients manage chronic disease by problem-solving barriers to treatment or patient self-care;[24, 26, 31, 34, 39, 40] setting goals with patients;[31-33, 38, 39] and creating or reviewing behavior change [15, 16, 23, 28, 39] or treatment plans.[22] CHWs may review medications and reinforce education given by medical staff regarding medication adherence[23, 26, 40-42] and tools for compliance, such as using pill organizers and having alarm clocks to serve as medication reminders.[40] For example, in a clinic-based diabetes intervention, CHWs taught diabetes education and self-management skills related to glucose monitoring, foot checks, healthy meal planning, medication management, and stress management. They also assisted patients in setting physical activity and weight loss goals.[43] CHWs often perform their duties in a hands-on way to facilitate patient learning. For example, CHWs in a hypertension program performed live cooking demonstrations to teach patients how to prepare healthy foods.[32]

Social support. CHWs may provide social support by hosting walking groups,[29] breakfast and snack clubs,[25] or disease-specific support groups,[29] establishing rapport with patients in the clinic,[33] following-up with patients between visits either by phone or home visit,[23, 29, 33] and visiting patients when they are hospitalized.[27] Social support can improve continuity of care by engaging patients in care.[25, 33]

Other duties. Less commonly reported, CHWs develop health education curriculum;[24] organize and maintain databases;[22, 41] perform health advocacy work;[28] network with community partners;[24] review test results with patients;[23, 27] perform chart review[27, 36] write case notes[23, 36] and perform medical screenings;[22, 36] direct care or preventative services such as diabetes foot checks, blood glucose screenings, and taking blood pressure.[19, 27, 32, 35, 41] One study reported CHWs sometimes assisting with non-invasive medical testing, such as prenatal non-stress tests and 3-hour glucose tolerance tests.[27] To best utilize CHWs, it is recommended that management assigns CHWs duties that match their level of training and skill. Interventions should be cautious neither to underutilize CHWs nor push them beyond their scope of expertise.[44]

Role Confusion in Health Care Settings. Eight articles[17, 22, 27, 36, 44-47] provided discussion and lessons learned concerning role confusion. Commonly, role confusion occurs when managers or health care staff ask CHWs to: 1) perform duties outside their planned role, or 2) accept patients outside their intended population. Both examples of these occurrences are described below.

Deviation of the CHW's work time away from planned duties. Some studies describe CHWs being trained for their positions but then being asked to perform other unrelated tasks at the expense of their duties. In a study of six community health centers, CHWs were trained to work with patients in diabetes self-management, but instead some sites assigned them to perform chart abstraction and data entry.[46] CHWs were employed part-time as CHWs but also held part-time positions as certified interpreters or medical assistants at the same facility.[45, 46] It was intended that CHWs

spend 20 hours weekly in the CHW role but some were spending less than 5 hours, with the remaining time focused on other clinic duties.[45] It could be expected that such a deviation of assigned duties would have a clear effect on the CHWs' ability to treat patients with diabetes and improve their care. As health care settings are busy environments which often experience staffing shortages, the article advises against employing CHWs in two part-time jobs within the same clinic, warning that CHWs may get pulled into tasks and have trouble negotiating their duties at the expense of the CHW role.[46] We suggest that CHWs should only hold one position within an organization and that any additional duties should be CHW-related.

Due to the CHWs' close relationship with patients, health care staff in one clinic-based depression intervention[22] requested that CHWs counsel patients who were under psychological duress in instances when no psychiatrists or counselors were available. These requests increased the CHW's workload and decreased their ability to see other patients that day. Most importantly, CHWs felt like they were put in an awkward and stressful position as they were not trained to handle such emergencies. Primary care providers had mixed opinions regarding the degree to which CHWs can provide counseling.[22] Situations such as these emphasize the need to establish strong professional boundaries so that CHWs are not pushed beyond their level of comfort and ability. Managers should evaluate CHW training and skills, make clear decisions regarding the CHW's scope of services, establish strict professional boundaries, and communicate expectations to all staff.

Working with non-intervention patients. Some CHW interventions may have enrollment criteria that patients must meet in order to qualify for services. A few studies with this requirement have observed that staff sometimes or frequently asks CHWs to work with patients outside their assigned population.[22, 36, 46] An example may be a CHW working in pediatric asthma who is asked to help an adult patient. Such requests may be indicative of the value that staff place in the CHW role.[46] However, requests to work with patients outside of the assigned population should be balanced with the CHW's workload. Also, it is important for the CHW to track such work and include it in the evaluation of the intervention. Fully documenting CHW work provides a clearer picture of the CHW's contribution to care.

Problems Resulting from Role Confusion. Misunderstanding can occur when staff are unaware of the scope of CHW activities[27] or do not fully understand the CHW's contribution to care.[17] Some studies describe staff with "unrealistic expectations"[45] of CHW work, which may in part stem from confusion over the boundaries of the CHW role.

There are at least three reasons why it may be unfavorable for CHWs to perform duties outside of their job description or work too much with patients outside the intended population. First, both situations cause an increase in the CHW workload and limit the CHW's time to complete their assigned tasks.[22] Second, it distracts from the planned intervention. When CHWs spend time away from assigned duties and patients, the intervention's effectiveness may be compromised.[45, 46] Lastly, misunderstandings about the CHW role can cause confusion and frustration for both CHWs and other staff

and can lead to friction between staff on the health care delivery team.[22, 47] One study explains, "...when the promotoras [CHWs] needed to turn down their co-workers' well-intentioned referrals, this action put strain on the relationship."[22] To decrease role confusion and promote a well-coordinated service delivery team, studies suggest a need for strict intervention protocols[45] and clear referral policies.[44, 48]

Evidence from the CHW National Workforce Study (2007)[1]. The CHW National Workforce Study data is not specific to CHW roles in health care settings.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We asked administrators of CHW programs in health care settings what duties their CHWs perform (see Table 4.2). Most commonly CHWs refer patients to health and social services (81%), provide informal counseling and social support (76%), perform outreach/recruitment (76%), perform culturally appropriate health education in the community (76%) or clinic (67%), and teach patient self-management techniques (67%). Least frequently reported were CHWs discussing lab results with patients (14%), and providing transportation (19%) or social work case management (19%).

We did not specifically ask about role confusion. However, we did ask administrators what problems they had in implementing their CHW program. Nearly half (45%) reported lack of understanding of the CHW role by other health professionals and 30% reported lack of understanding about the CHW's contribution to care. Twenty-five percent of administrators reported CHWs going above and beyond to help patients and then falling behind on other assignments.

Summary. There is potential for CHWs to play various roles within health care. Thus, it is important for managers to clarify what role(s) CHWs will play both in the intervention and in the wider health care system. To avoid any role confusion that may arise among staff, administrators should develop strict intervention protocols and clear referral processes for the CHW program.

In assigning duties, managers should fully take into account and utilize the CHW's unique skills, training, and perspective. Additionally, managers can help ensure that CHWs stay within their scope of practice and professional boundaries by focusing their work on duties for which they are trained and assigned to perform and with the intended population. This also helps to ensure the intervention remains focused on achieving the progress and goals set forth in its evaluation plan.

Table 4.2. CHW Duties Performed in Health Care Settings

Admin Response (N=21)	
Clinical Procedures:	
Perform health screenings	48%
Provide direct health services	33%
Recall System:	
Schedule or reschedule appointments	62%
Appointment reminders	52%
Chart review	38%
System Navigation/Social Support:	
Refer population to other health/social services	81%
Informal counseling/ General social support/ Mentoring	76%
Coordinate patient care between multiple service providers	57%
Cultural translation	38%
Help patients with medical forms	38%
Provide language interpretation or translation services	33%
Attend patient appointments	33%
Provide social support during patient hospitalization	33%
Facilitate medication refill requests	24%
Provide social work case management	19%
Provide transportation	19%
Education:	
Provide culturally appropriate patient education in the community	76%
Provide culturally appropriate patient education in clinic	67%
Teaching patient self-management techniques	67%
Respond to patient questions in clinic	62%
Outreach and Other Support Services:	
Outreach/recruitment	76%
Building individual capacity (Empowerment)	52%
Risk identification	38%
Assess medication adherence	38%
Create individualized care plans for patients	38%
Building community capacity	33%
Conduct home visits	29%
Enroll population into health insurance programs	29%
Conduct surveys of target population	24%
Discuss lab results with patients	14%
Activity Totals:	
0-5 different activities	3
6-10 different activities	4
11-15 different activities	7
16- 20 different activities	4
21 or more different activities	3

Section 4.2: Stakeholder Perspective on CHW Integration

The CHW model is still unfamiliar to many outside the CHW field. Stakeholders' opinions regarding CHW integration into delivery teams vary widely. While patients', CHWs', and administrators' reports are overwhelmingly positive, health care providers and staff tend to express more mixed feelings. For instance, some credit CHW services with improved quality of care, patient outcomes and clinic operations, while others are hesitant to accept or are completely against the CHW role and presence on the team.

Recommendation 4.2 - CHWs programs should work to achieve staff buy-in of the intervention. Discussed further in Section 4.3, teamwork and staff support can have a positive impact on CHW performance and facilitate intervention success.

Summary of Evidence

Evidence from the professional literature. Thirteen articles reviewed provide stakeholder feedback regarding CHW integration into service delivery teams. The following commentary is from patients, CHWs, and key intervention staff, such as physicians, administrators, and other medical personnel.

Patient Perspective. Four studies[32, 36, 38, 48] explored patient perception of CHW services, all of which reported high satisfaction. Patients reported that they could easily understand the CHW role[38] and described CHWs as polite, respectful, and easy to understand as teachers.[48] Patients also valued that CHWs were able to give them more time than providers,[36, 48] listened actively, and did well with establishing rapport[36] and trust.[48]

CHW Perspective. CHW feedback was provided by one study.[27] CHWs describe their trust and rapport with patients, the personal care and attention they provide, and their ability to get patients to maintain regular appointments and bring their medication lists to the clinic. One CHW attributed value to the preparatory work completed by CHWs before doctor appointments where CHWs meet with the patient first and then update the doctor with patient information and barriers to care. The CHWs felt that this helped the doctor better understand what was happening with the patient when the doctor conducted his/her office visit.[27]

Provider, Administrator, and Medical Staff Perspective. Stakeholders gave mixed responses regarding CHW integration. While some expressed hesitation to support the CHW model, others stated that they valued and appreciated the CHWs' role and contribution to care. Some health care providers and staff have given negative feedback regarding the use of CHWs in the health care setting. Following is a discussion of staff competition and lack of buy-in for the CHW model.

Staff Competition. A few studies described medical staff who either expressed resentment about[47] or felt threatened by the presence of the CHW on the team.[36, 39, 47, 49] Case examples are provided in Appendix E. Situations such as these can leave CHWs feeling marginalized.[50] In one program,[22, 36] to gain the esteem of staff, CHWs performed job favors such as appointment scheduling, patient registration, acting as receptionist, bringing patients to exam rooms, and retrieving medical charts. These duties were outside of their job description, diverting time away from their planned activities, and threatening intervention effectiveness. One study[49] commented that when all workers feel secure in their positions, competition between staff lessens. Therefore, to avoid tensions between staff, programs should foster teamwork and emphasize the CHW role as a *supplemental* role and not a replacement of other staff.

Lack of buy-in for the CHW role or intervention. Two studies reported physicians and staff expressing difficulty in trusting or accepting the CHW role due to its paraprofessional status.[39, 50] Some health care professionals are hesitant to give approval for CHW utilization without some assurance regarding training standards. To foster trust, one study suggested including key medical staff in the training process and the development of training standards[39] (Refer to Training Recommendation 2.2 on pages 42 & 50), which suggests employing a multidisciplinary, team-based approach to CHW training.

Staff buy-in is vital to CHW integration. One study[51] explored integrating communication between primary care doctors in a pediatric medical home and CHWs in a Healthy Start home visit program. While providers could foresee positive benefits to integration, they were hesitant to move forward without a better understanding of the CHW program and CHW role. Some providers expressed concern regarding CHW training or worried that CHWs might report issues to them that they would be unprepared to address (like parental substance abuse, for example). Both the CHW and provider wondered if communication would be disruptive, difficult due to their busy schedules, or worth the time.[51] This study provides a good illustration that before buy-in can occur, staff must fully understand the CHW model, the CHW role and its boundaries, referral structures, and have confidence in CHW training.

Health care providers, staff, and administrators have also provided positive feedback on the CHW model in health care settings. Following is a discussion on CHW impact on quality of care, patient outcomes, and clinic operations.

Providers on Quality of Care. Providers reported that CHWs enhanced patient care in various capacities. Most often discussed was their role in facilitating doctor-patient communication.[36, 48, 52] CHWs attended patient appointments or updated providers about patients outside of office visits. Providers expressed value in CHW feedback about the patient's health and barriers to care or self-management.[38, 48, 52] In one inner-city primary care clinic, providers noted that CHWs stayed within their professional boundaries and some resident doctors expressed that they preferred working with CHWs in a team over the traditional medical staff.[38]

Providers reported that CHWs improved access to culturally-appropriate services in the patient's language[36] and took into account patient literacy level, family situations, and other relevant factors.[48] They made sure the patient's perspective was heard,[52] and providers believed that patients' ease in discussing difficult topics was increased.[36]

Providers appreciated that CHWs had more time to spend with patients[36] and were able to help with self-management.[52] They also placed value in delegating to CHWs tasks which they themselves did not have time to perform or could not perform thoroughly,[23] such as supplementing patient education,[48] registration, or basic testing.[27] Physicians noted that CHW education was comprehensive and that patients were able to learn what was being taught quicker.[48] CHWs also reinforced the advice and self-care instruction provided by doctors during office visits.[51] Lastly, providers believed that CHWs were able to keep in touch with difficult patients between health care visits and that fewer patients were lost to care when CHWs were involved. [27]

Providers on Patient Outcomes. In one clinic-based CHW diabetes intervention, providers reported that patients tended to get sick less, had fewer unnecessary hospital and emergency department visits, and seemed better able to manage their medicine.[48]

Providers and Administrators on Clinic Operations. Providers in a federally qualified community and migrant health center reported that CHWs helped them work more efficiently and helped keep patients connected to care. The study confirmed through chart review and appointment scheduling that show rates to appointments improved within the clinic.[27] One administrator of a community health center valued the work of CHWs in a clinic-based mental health intervention so highly that funding was secured for third-party reimbursement of CHWs services and the expansion of the CHW intervention to additional clinics.[36] In one inner-city primary care clinic, administrators appreciated the CHW intervention involving chronic disease management for its cost-effectiveness and uptake of the model went smoothly without disrupting clinic operations.[38]

Evidence from the CHW National Workforce Study (2007)[1]. Not reported.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). Not reported.

Summary. Integrating CHWs into service delivery teams is a fairly new concept. Although some health care providers and staff express hesitation or distrust in adopting the CHW model, a majority of stakeholders report positive feedback regarding CHW integration and have credited the CHW role with improved quality of care, patient outcomes, and clinic operations. Programs should take into account stakeholder perspectives on CHW integration as the success of an intervention is at least in-part dependent on the level of staff buy-in.

Section 4.3: Facilitating Positive Integration of CHWs

Recommendation 4.3a - Intervention staff should create a welcome and structured work environment for CHWs. CHWs should be provided with proper space and the supplies needed for them to do their work. This, along with staff support and teamwork, facilitates CHW productivity and communicates the CHW's standing as a legitimate member of the service delivery team.

Recommendation 4.3b - Managers should promote frequent communication between CHWs, medical staff, and others on the delivery team and also address any workflow issues. Communication can occur in various forms: formal meetings, informal discussion, and written case notes included in patient charts or the electronic medical record. Workflow issues, such as the timing of visits, can be resolved through communication to ensure the intervention runs most smoothly.

Summary of Evidence

Evidence from the professional literature. Eleven articles discuss how organizations can help facilitate smooth integration of CHWs into medical environments. Often discussed is the need to create a welcome and structured environment, address workflow issues, and promote teamwork and frequent communication. Each of these topic areas will be discussed below.

Create a Welcoming and Structured Environment. Studies[22, 36] noted that positive staff morale could facilitate CHW integration as CHWs were more likely to interpret staff as friendly and helpful.[22] Too much staff turnover, on the other hand, could be very disruptive[36] and set back progress in an intervention. For example, if a physician leaves and is replaced by a new physician who was not present for the development of the intervention, it is imperative that the new physician be brought up-to-speed on the CHW model and relevant program information to ensure the intervention moves forward smoothly.

Studies describe teamwork,[28, 53] staff support,[9, 28, 44, 53] and team-endorsement of the CHW role[28, 43] as important to CHW success. For example, referrals made by CHWs may not be respected without the support of providers and staff.[28, 53] One study[28] attributed positive group dynamics to a value of respect and equality which is mirrored by senior management and continued throughout the organization. The study described how providers and CHWs understood that they were not as effective when working alone.[28]

Organizations can also convey a welcoming environment by providing CHWs with proper space and supplies.[22, 36, 53] This facilitates the productivity of the CHW but also conveys to the rest of the staff that CHWs are a legitimate member of the service delivery team.[22] In a clinic-based depression intervention,[22] CHWs at one site did not

have an office and had difficulty finding space to meet with patients. The study noted that these conditions affected both their socialization and their integration into the clinic setting. Lastly, as discussed in Section 3 CHW Supervision, CHWs should also be provided a structured work environment (i.e., intervention protocols, formal training, adequate supervision, etc). CHWs should feel there is a purpose and plan for their work and receive some feedback or guidelines in how to carry out their duties.

Promote Frequent Staff Communication and address workflow issues. Frequent communication and case discussion between CHWs, medical staff, and others on the delivery team was emphasized by several studies as vital to program success.[16, 23, 29, 36, 44, 54] Communication came in the form of verbal and/or written updates included in the patient's chart or medical record.[22, 28, 39, 47]

When CHWs meet with patients before or after clinic visits, the timing of workflow is important. CHWs should not be overbooked in their office visits, nor should their sessions delay the work of the physician.[23] Teamwork and communication can help ensure that patient handoffs go smoothly. One residency teaching clinic[23] described coordinating CHW services based on availability of exam rooms and the pace of physician visits.

Evidence from the CHW National Workforce Study (2007)[1]. Not reported.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). We conducted a survey of Chicago-area employers of CHWs in health care settings. We did not ask employers how they have facilitated positive integration of CHWs into their organizations and service delivery team. However, we did ask employers what were some of the barriers and obstacles that they encountered in implementing their CHW program (see Table 4.3). Efforts to address some of these common barriers can help ensure intervention success.

Table 4.3. Barriers/Obstacles to Implementing CHW Program

Employer Response (N=20)	
Lack of stable funding	62%
Lack of understanding of CHW role by other health professionals	45%
Lack of understanding about CHWs' contributions to community/ organization	30%
CHWs go beyond the duties and fall behind on other assignments	25%
Lack of training resources	25%
CHW services not reimbursable	25%
Shortage of qualified applicants	25%
Inadequate skill/experience in supervising CHWs	10%
Turnover due to low wages	5%
Hostility/competition from other health care workers	5%
No problems encountered	10%

Summary. Organizations can facilitate positive integration of CHWs by fostering staff support and teamwork, ensuring that CHWs have proper space and supplies for their work, promoting frequent staff communication, and addressing any workflow issues. In a local survey, health care agencies describe common barriers to CHW integration being lack of stable funding, lack of understanding of the CHW role by health care professionals, and lack of understanding about the CHW's contribution to care. Efforts to address some of these common barriers can help ensure intervention success.

Alan Channing, CEO and President of the Sinai Health System, provides a case story on integrating CHWs into the health care system on page 94.

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Integrating Community Health Workers into the Health Care System:
The Case for Pre-Primary Care©

Who We Are

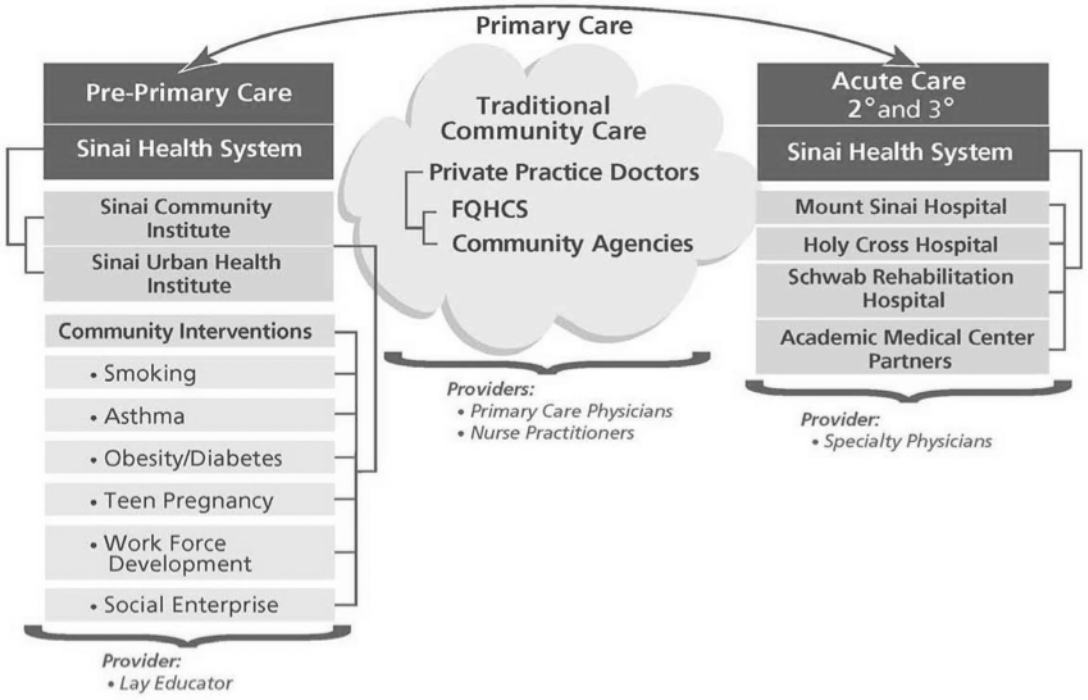
For almost 100 years, the Sinai Health System (SHS), through Mount Sinai Hospital, has cared for a large portion of the economically burdened neighborhoods on the west side of Chicago. This history began in 1919 when the SHS was founded to serve Eastern European immigrants who had moved to the area in search of jobs and housing. As the populations transitioned, Sinai continued to serve the newly arriving immigrants – the next wave consisting of African Americans moving from the South around the time of World War II and, most recently, immigrants arriving from Mexico and Central America. These were/are populations with significant health needs and few resources with which to pay for them.

Today the SHS is made up of Mount Sinai Hospital, Sinai Children's Hospital, Schwab Rehabilitation Hospital, Holy Cross Hospital, Sinai Medical Group, Sinai Community Institute, and Sinai Urban Health Institute. Combined, the Health System represents 4,000 caregivers serving a population base of approximately 1.5 million people and operating with net revenue of $500 million. Sinai is a major teaching institution with eight graduate medical education programs, along with training in a wide variety of healthcare specialties. Through its community engagement Sinai has distinguished itself focusing on its mission of "caring for individuals and the community" and its adopted vision statement to "be the national model for the delivery of urban health care."

CHWs and Sinai's Pre-Primary Care© Model

As part of our effort to become the national model, Sinai has sought to go beyond traditional health care to understand all the factors that influence the health of a community. Thus after analyzing the specific needs and challenges of the community, Sinai began developing creative and innovative methods of care delivery. These methods and strategies evolved into a concept we call Pre-Primary Care©, shown in Figure 4.1 below. Traditional hospital care includes both Primary Care, which is represented by the cloud in the center, and Acute Care, which is provided by the institutions at the right. However, what makes the SHS truly unique are the activities and institutions shown in the left-most column. These Pre-Primary Care components of the SHS speak most directly to the health of the communities we serve.

Figure 4.1. Pre-Primary Care©: Sinai's Vision of Community-Based Health Care



One of the most significant elements of the Pre-Primary Care© Model is the implementation of the Community Health Worker (CHW)/Lay Educator Model as a way to support and provide healthcare to individuals and families within this challenged community. It is important to understand that the healthcare we are talking about is not the traditional medical model. Rather, we are describing a series of approaches that encompass education, housing, nutrition, employment, and connectivity to the medical community.

<u>Why Our Model Works</u>

What do our CHWs do that makes this model so unique and successful? CHWs work with individuals/families within their communities and, through the training and support of the Sinai Health System, provide need-based assistance to help improve the health of the community one person at a time. The CHWs are neighbors caring for neighbors, making them trusted connectors to the health system. The most successful CHWs are the ones who are seen every day in the neighborhood. When they walk down the street, the children recognize them as the "asthma lady" or the "blood sugar man." They are not strangers running into and out of communities of color trying to understand an environment in which they have had no life experience.

Sinai began utilizing CHWs nearly ten years ago to implement a home-based asthma intervention. The asthma work has been met with tremendous success and has been widely replicated.

Not long after the asthma intervention started, Sinai expanded the CHW model to include breast cancer navigation. Our research had demonstrated a two-fold disparity

in the breast cancer mortality rate between White and Black women, likely stemming from differential access to early detection and treatment. CHWs now connect women from the community with screening services and, if identified as having breast cancer, help navigate them through the medical system every step of the way.

Most recently, the CHW program has been expanded to implement community-based interventions for obesity and diabetes. The program includes a Care Management component so that patients can be identified anywhere in the Sinai Health System. Early data indicate a statistically significant reduction in HbA1c values.

Sinai has been utilizing CHWs in one capacity or another for almost ten years and the results have been very encouraging. For every dollar invested in a CHW to implement a home-based asthma intervention, an average of $5 of acute care spending has been avoided. In addition, the patient has been connected to a medical home.

There is no question that the clinical intervention offered in an emergency room or in an inpatient bed can be life-saving for a patient in an acute health crisis. But the CHW model as part of Pre-Primary Care© begins to deal with chronic diseases at their earliest stages--before they require life-saving measures or disrupt the daily activities of life, like going to work versus spending the night with a child with asthma in the ER.

The concept of the Pre-Primary Care© Model is that everyone, as called for in the Affordable Care Act, should have a primary care physician and a medical home. What Sinai has discovered is that the real impact of cost savings comes from what is done in individuals' homes and neighborhoods. Ironically, even though the services provided by CHWs save money, securing funding for them is a constant struggle.

What Sinai Can Share

What has Sinai learned by developing and utilizing the CHW model in its communities? First, if we continue to use the traditional medical model of care delivery, we will not significantly impact the cost curve no matter how efficient we become at delivering care. Second, if we do not engage the community in a collaborative manner, we, as the health care provider for the community, will have a decreased capacity to reach the goals of the Triple Aim (IHI): enhancing the patient experience, improving population health, and reducing health care costs. Third, improving the health of a community goes beyond simply providing a health care venue. We need to encompass the economic health of the community also. To date, Sinai has added over 115 person years of employment to our community with the hiring of CHWs. Creating entry-level, full-time jobs with a living wage and benefits has improved the lives of the CHWs and their families. This economic investment, albeit small, begins to have a multiplier effect in the community as it adds new dollars to the local economy.

There are two other lessons Sinai has learned in developing this model. Design the implementation process carefully enough so that it can be measured, evaluated, and improved, while clearly documenting its success. As more population health management is driven by managed care organizations under any ownership model, the ability to quantify success will be critically important. Lastly, no matter how successful

Sinai has been with this model, including selling it to two managed care companies, integrating the CHWs and Pre-Primary Care© into a traditional medical model environment will take senior management's leadership and encouragement.

If you would like to know more, Sinai has the expertise to help you and your health system link to the community with CHWs who are from the community and committed to both your organization's success and improvement of health in their neighborhood. For consultation or formal workshop, please contact Steve Whitman, PhD, Director of Sinai Urban Health Institute at suhi@sinai.org.

Alan H. Channing, MS, FACHE
President and CEO of Sinai Health Systems

Section 5: Evaluating CHW Programs and Interventions

In this section, we offer recommendations on CHW program evaluation to health care organizations interested in the uptake of the CHW model and to those revising their current evaluation practices. The section features three distinct subsections, two of which include a corresponding set of recommendations, and one of which provides a recommendation among some concluding remarks. The evaluating CHW programs and interventions section is divided into the following subsections:

5.1 Considerations in CHW Evaluation
5.2 Key Factors in Implementing a CHW Program or Intervention Evaluation Plan
5.3 The Importance of CHW Systems and Structures to Intervention Outcomes

This section is structured somewhat differently than the previous four sections. While it retains the structure of subsections with recommendations, each subsection is arranged in a different manner. The reasons for this are discussed below.

First, while an abundance of literature exists regarding CHW interventions and their effectiveness for a variety of health topics, the literature does not provide clear recommendations for structuring a CHW evaluation plan. Therefore, this section draws on the available professional literature, but also profits from over ten years of the Sinai Urban Health Institute's (SUHI's) experience in evaluating CHW interventions. These experiences have included both successes and failures, but have always stressed rigorous evaluation through documentation of processes and outcomes.

Second, despite the fact that the 2007 *Community Health Worker National Workforce Study (CHW-NWS)*[1] included several questions on CHW effectiveness (evaluation), to our knowledge the results from these questions are not available, and therefore findings from the *CHW-NWS* are not included in this section. (Questions asked included: "Does your program conduct a formal evaluation" and "What do you collect data on").

Each subsection is therefore informed by the following three elements:

- A general review of available published literature concerning CHW evaluation;
- SUHI's experience in evaluating CHW interventions; and
- Data derived from a local Chicago-based survey of CHWs and administrators of CHW programs in health care settings.

Every organization is different, but these guidelines regarding CHW program evaluation are intended to assist in preparing sound evaluation practices that will allow your CHW program to discover what aspects are effective and the overall impact on patient health outcomes.

Recommendations for Evaluating CHW Programs and Interventions

Implementing a rigorous evaluation plan is imperative to the long-term success of CHW programs and interventions. Many CHW interventions lack a sound evaluation plan that documents both intervention processes and outcomes. Both must be tracked and evaluated to show meaningful outcomes such as improved patient health. In order to successfully document intervention outcomes, staff should develop a standardized process for collecting and analyzing data. The following recommendations for evaluating CHW interventions are based on available professional literature, SUHI's experience, survey data, and CHW practice experience.

5.1 Considerations in CHW Evaluation.

a. **Mixed evidence regarding the success of the CHW model may be more a result of poor evaluation than a lack of achievement of the CHW model.** The literature examining the effectiveness of CHW programs, which includes several meta-analyses and systematic literature reviews, presents mixed outcomes on whether or not the CHW model is effective. This is likely because most CHW interventions do not conduct rigorous evaluations and because there are no common metrics used across CHW studies to compare outcomes. A summary of the evidence supporting recommendations 5.1a, b, and c can be found starting on page 101.

b. **CHW programs and interventions should evaluate program processes, outcomes, and cost effectiveness whenever possible.** Most CHW programs only collect process measures, such as the number of people assisted, the number of presentations made, or the number of blood pressure screenings conducted for example. In order for a health care organization to produce concrete evidence that their CHW intervention is improving health, reducing hospital readmissions, and/or meeting other goals, it is crucial that programs evaluate outcome measures associated with health. While few CHW interventions conduct outcome evaluations, even fewer evaluate the cost effectiveness of the intervention. Cost analysis studies are important for long-term sustainability of CHW interventions. The findings from both outcome and cost analyses will be highly valued by health care administrators, funding agencies, and policymakers.

c. **CHW programs and interventions should remain community-based, even in the health care setting.** The CHW model is historically a grassroots, community-based movement. In order for the model to be successful it is important for CHW programs to remain community-focused. On page 116, we present a case story discussing the importance of this issue even as the programs become more integrated into health care systems.

5.2 Key Factors in Implementing a CHW Program or Intervention Evaluation Plan.

a. **Capture the added value of CHW work.** The services provided by CHWs need to be documented through evaluation procedures in order for health care agencies to be able to attribute improved health outcomes to the addition of CHWs to health care delivery teams. CHWs often provide enabling services which assist patients in achieving better health outcomes. The evaluation tool in Appendix F should be used as a guide to evaluate your CHW intervention. A summary of the evidence supporting recommendations 5.2a-d can be found starting on page 107.

b. **Inform CHWs and staff about the importance of evaluation.** Staff should understand the evaluation process and how it can help improve the overall intervention. CHWs should be involved in the research design and evaluation planning. Data should be reviewed by all staff at various time points throughout the intervention to ensure its accuracy, but also to provide feedback about the intervention.

c. **Standardize data collection procedures.** Data collection procedures are crucial to program evaluation. It is imperative that data be collected the same way for each patient. CHWs should be trained in data collection initially and be provided on-going training to ensure accuracy. To minimize the burden of paperwork and protect valuable CHW time, collect only what needs to be collected.

d. **Connect CHW intervention data to pre-existing sources of data**. Programs should consider using existing sources of data, such as electronic medical records. Patients should have the same unique identifier across the health care organization, for example patient medical records and CHW intervention measures should share the same unique identifier. This is crucial to demonstrating long term health outcomes and conducting cost analyses.

5.3 The Importance of CHW Systems and Structures to Intervention Outcomes: No matter how well-designed the intervention, it will struggle to find success if sound CHW systems and structures are not in place. The previous sections of this *CHW Best Practice Guidelines* offer recommendations on CHW hiring, training, supervision, and integrating CHWs into health care systems. These aspects of a CHW intervention are known as the CHW systems and structures. This section, Section 5, discusses the importance of having a sound evaluation plan. What we aim to convey to anyone reading this document is that it is vital for each of these components – CHW systems and structures *and* a sound intervention and evaluation plan – to be in place in order to achieve improvements in health and reductions in cost. A summary of the evidence supporting this recommendation can be found starting on page 112.

Section 5.1: Considerations in CHW Evaluation

Thoroughly evaluating CHW interventions is essential to demonstrating the effectiveness of the intervention at improving the health of patients, the ultimate goal of health care organizations. Often CHW interventions are not rigorously evaluated, only documenting program processes and anecdotal evidence of success. ***Recommendation 5.1a – In order for a health care organization to produce concrete evidence that their CHW intervention is improving the quality of health care, improving patient health, and reducing costs, interventions must evaluate outcome measures associated with health.*** The mixed evidence of the success of the CHW model found in some systematic literature reviews is more a result of poor evaluation than a lack of accomplishment of the CHW model. ***Recommendation 5.1b – CHW programs and interventions should evaluate program processes, outcomes, and cost effectiveness whenever possible.***

One of the main reasons for implementing a CHW model in a health care setting is that CHWs have a close connection to the community being served. This is something health care professionals imbedded in the health care setting often lack. ***Recommendation 5.1c – As CHWs become integrated into the health care setting, CHW interventions should remain community-based.*** This will aid in the intervention's success at meeting the health needs of the community and ultimately improving health.

Summary of Evidence

Evidence from the professional literature. Several literature reviews have been conducted on the effectiveness of CHW interventions. They offer recommendations on how to improve evaluation of CHW interventions.

Mixed evidence in the literature on CHW program and intervention effectiveness. The number of published studies focusing on the work of CHWs has grown exponentially over the last two decades. As we presented in Section 1, CHW Hiring, there is documented and published evidence of CHWs' impact on health outcomes, cost, and system navigation. CHWs have demonstrated effectiveness in improving health outcomes[2-4] and participant knowledge and behavior;[5] increasing access to care;[6] reducing health care costs;[7-12] as well as improving quality of care by providing cultural mediation, facilitating improved doctor-patient communication, and providing linkages to health and social services.[13, 14]

However, the quality and scope of CHW intervention research varies greatly, leading several meta-analyses and literature reviews to conclude that the evidence in support of the CHW model is inconclusive.[3, 4, 6, 15-17] Few studies contain rigorous evaluations, lacking in the collection of clinical and health outcomes.[4, 6, 18] Other studies are simply descriptive studies, containing only anecdotal evidence. While others fall

somewhere in the middle, evaluating intervention processes and outcomes such as awareness, attitudes, and knowledge.[4, 6, 18] This results in a lack of published studies with health outcomes to definitively build a case in favor of the CHW model. Another issue with performing meta-analyses or comparing CHW studies is that there are no common measures with which CHW interventions are evaluated. Without common evaluation metrics and/or reporting schemes, the diversity of CHW interventions (demographics, settings, services provided, health condition, etc.) makes it difficult for the outcomes and cost-effectiveness of such vastly different programs to be compared.

The systematic literature reviews examining CHW effectiveness also point out several issues with the published findings, including the lack of description of the role of the CHW, the structure of the intervention, and strength of study design.[3, 4, 6, 18] CHW studies do not always clearly define the role of the CHW in the intervention and often suffer from small sample sizes, no control groups, and poor research designs.[3, 4] The majority of studies included in several of the literature reviews examined secondary outcomes such as change in knowledge, attitudes, beliefs, and access to care, but did not examine health and clinical outcomes or cost effectiveness.[5, 16, 18, 19] Though improvements in knowledge and changes in beliefs are important measures, they do not demonstrate improved health or reductions in unscheduled medical care. Finally, the results of many CHW interventions often go unpublished, further lessening the availability of evidence on the CHW model.

While the existing evidence may be mixed, some studies have shown improvements in health outcomes, cost savings, and improved access to care. CHW studies have become more scientific, critically looking at systems and practices that shape a CHW intervention, designing scientifically sound studies, and implementing rigorous outcome and cost evaluations.

Evaluating CHW intervention outcomes and cost effectiveness. The lack of rigorous evaluation procedures, outcome measures, and cost effectiveness often stems from difficulty evaluating interventions or an unfamiliarity with evaluation procedures. Many programs do not have the time, money, or expertise to perform sophisticated and on-going evaluation. For most CHW interventions, producing outcome data is difficult since the majority of CHW programs only collect process measures, such as the number of people assisted, the number of presentations made, or the number of blood pressure screenings conducted.[4, 14, 19] This is often because these are the only measures they are required (e.g., by funders) to collect. Too frequently little attention is paid to providing outcome data that show health and/or clinical outcomes such as reductions in emergency department visits, lowered HbA1C levels, or reduced cholesterol, as examples.[4, 14, 19]

In order for a health care organization to show evidence of improved health or reduced hospital readmissions, for example, it is crucial for programs to evaluate actual health outcomes that occur as a direct result of the work of CHWs. This can prove difficult because often CHWs only provide value-added services, such as making referrals, assisting in following up with patients after a medical visit, and providing case management assistance. However, these services should be linked to health outcomes

whenever possible. Section 5.2 discusses linking value-added services with health outcomes. *If a health care agency is going to implement a CHW intervention, it is vital that the agency invest in initial program development and ongoing evaluation in order to give their program a strong start and to have concrete evidence of their program's successes and challenges.*

While few CHW programs conduct outcome evaluations, even fewer conduct cost-savings or cost-benefit analyses.[1, 16, 18, 20, 21] The cost effectiveness of a CHW intervention should be evaluated whenever possible. This adds important information that demonstrates the economic and clinical value of the intervention. Though making improvement in the health of communities is important, it is also important to funding agencies and policymakers that adding a CHW to a health care delivery team is cost-effective. Having cost data is also necessary for health care organizations to make informed decisions about whether or not the CHW intervention is meeting the organization's goals and bottom line.[22] Therefore, it is necessary for CHW interventions to demonstrate their cost effectiveness.

Remaining community focused. Even when CHW programs are based in health care centers they should maintain a community focus. As the CHW model becomes more medically focused, it is important for health care agencies to remember that the CHW model is historically a grassroots, community-based movement and must be implemented in a way that facilitates close alignment with the community served.[23] Hiring CHWs from the community, focusing interventions in both the community and health care setting, involving the community and CHWs in all aspects of the intervention (not just as patients, but as partners) are a few examples of how to maintain the focus on the community throughout the intervention. On page 116, we present a case story discussing the importance of CHW programs remaining community-focused even as they become more integrated into health care systems.

Evidence from the CHW in Chicago Health Care Setting Survey (2011). In preparation for this report we conducted a survey of Chicago-area employers of CHWs in health care settings. We asked only program administrators questions about their CHW intervention evaluation procedures. Following are several tables displaying the findings from twenty-one survey respondents.

When program administrators were asked whether or not a formal evaluation was conducted 90% responded yes. Of those that conducted a formal evaluation only 67% were required to do so by their funding agency.

Table 5.1 shows what types of evaluations CHW programs conducted. The most frequently reported type of evaluations conducted were process and outcome evaluations (81% and 76%, respectively). Less often reported were the use of anecdotal evidence and medical record review (38% each). While the majority of organizations collected process measures (81%), only 14% performed cost analysis of their CHW intervention.

Table 5.1. Type of Evaluation Conducted

Employer Response (N=21)	
Process evaluations	81%
Outcome evaluations	76%
Anecdotal evidence	38%
Medical record review	38%
Cost analysis (increased revenue)	14%

Health care agencies that participated in the survey collected a host of process measures including the number of screenings conducted (86%), the number of clients served (86%), patient demographics (76%), and the number of outreach efforts (76%). Table 5.2 displays all of the process measures reported. A few agencies collected measures on clinic operations such as show rate (how many appointments are kept) (24%) and clinic volume (24%).

Table 5.2. Process Measures Collected by CHW Programs

Employer Response (N=21)	
Number of screening/services provided	86%
Number of patient/clients served	86%
Client/patient demographics	76%
Number of outreach efforts (health fairs, workshops, classes held, etc)	76%
Lost to follow-up	62%
Number of program/organization referrals	57%
Client/patient satisfaction	48%
Staff professional development (Number of attended conferences, trainings, etc)	48%
Change in behavior/self-care	43%
Number of promotional materials distributed (flyers, brochures, pamphlets, etc)	38%
Percent of clients/patients receiving services in their first language	33%
System navigation (referrals to social or medical services, issues resolved)	33%
Percent follow-up visits kept	38%
Clinic volume	24%
Show rate	24%
Percent of patients who regularly see doctor	19%
Timeliness of services	14%

Table 5.3 displays the outcome measures collected by those health care agency representatives stating that they conducted an outcome evaluation. While 90% of respondents reported that they conducted an outcome evaluation, the majority of

outcome measures collected are not directly related to health outcomes and are considered secondary outcomes such as knowledge, attitudes, and beliefs. For example the majority of CHW interventions in the survey evaluation reported improved knowledge (71%), social support (38%), and self-efficacy (29%). Few collected measures that are related to actual improved health: medication and treatment adherence (29%), emergency department usage (14%), hospital admissions (14%), urgent care usage (10%), and hospital readmission rate (10%).

Table 5.3. Outcome Measures Collected by CHW Programs

Employer Response (N=16)	
Improvement in knowledge	71%
Medical record documentation	43%
Quality of life	43%
Self-rated health measures	33%
Social support	38%
Self-efficacy	29%
Medication/Treatment adherence	29%
Emergency department usage	14%
Hospital admissions	14%
Urgent care usage	10%
Hospital readmission rate	10%

We asked survey respondents how they determine if their CHWs are effective. The majority said they did this through patient success stories (71%) and through CHW anecdotal evidence (67%). Table 5.4 displays a full list. It is interesting to note that while 90% of administrators reported collecting outcomes, when asked how they know CHWs are effective, the majority report knowing through anecdotal evidence (Table 5.4). This shortcoming may stem from a lack of understanding, time, or money devoted to evaluation.

Table 5.4. Ways in which Organizations know CHWs are Effective

Employer Response (N=21)	
Patient success stories	71%
CHW anecdotal evidence	67%
Health care practitioners report improved compliance	52%
Patient anecdotal evidence	48%
Organization administrator recognizes improvements	48%
Social service representatives report improved compliance	43%
None	10%

Summary. CHW interventions have been shown to be effective at improving health, lowering costs, and improving quality in health care. While the literature is inconclusive regarding the overall effectiveness of CHW interventions, the major dilemma stems from the fact that most CHW programs and interventions do not employ rigorous evaluations. Few CHW interventions evaluate health outcomes and cost effectiveness. Many organizations employing CHWs may be unfamiliar with evaluation procedures. These are the same dynamics that affect evaluations of many other programs and are not unique to the CHW evaluation field.[8, 24] Strengthening these aspects of the intervention will greatly improve our ability to truly understand the strengths and weaknesses of CHW utilization and the chances for renewed and/or future funding. We now turn to the question of how to implement a successful evaluation in the next section.

Section 5.2: Key Factors in Implementing a CHW Program or Intervention Evaluation Plan

In the previous section we discussed three important elements for a solid evaluation: process measures, outcome data, and cost analyses. Unfortunately, many health care agencies are not familiar with evaluation procedures and may struggle to implement an evaluation plan that captures meaningful outcomes and is able to attribute such outcomes to the addition of the CHW to the health care delivery team. Only by documenting CHW services, processes, and outcomes can health care organizations provide evidence of improved patient health, meeting the requirements of the Affordable Care Act. Data collection should be evidence based and reflect the aims of the CHW intervention. Section 5.2 presents strategies for implementing a CHW intervention evaluation plan. The strategies are based upon SUHI's experience in evaluating CHW interventions and professional literature when available.

Recommendation 5.2a - In order to demonstrate the health outcomes attributable to the CHW intervention, health care agencies must capture the added value of the work of CHWs. CHWs often perform non-clinical services that support the delivery of health care and access to care, also known as enabling services. While these services may not directly improve the health of the patient, they assist patients or are on the pathway to improving their health. In order to capture the added value of the work of CHWs, CHW interventions must have a well thought out evaluation plan in place.

Recommendation 5.2b - CHWs and staff should be informed about the importance of evaluation and should be involved in the process. Ensuring that CHWs and other staff understand and are involved in the evaluation plan will help secure buy-in for performing data collection procedures.

Recommendation 5.2c - Data collection procedures should be standardized. It is imperative that data be collected the same way for each patient. CHWs should be trained in data collection initially and be provided on-going training to ensure accuracy. ***Recommendation 5.2d - Data collected through CHW interventions should be connected to pre-existing sources whenever possible.*** By connecting CHW intervention data with pre-existing data sources, health care organizations will be better able to demonstrate the value of the work of CHWs and improved health outcomes of their patients.

Summary of Evidence

Evidence from the professional literature and SUHI's experience in evaluating CHW interventions. The information presented in this section comes from SUHI's experience in evaluating CHW interventions and the professional literature when available. We offer here guidance on how health care agencies can effectively evaluate their CHW interventions to demonstrate successes and challenges.

How should we evaluate the effectiveness of CHW interventions? Presently, there are no standard measures to evaluate CHW interventions. This is unfortunate as standardized evaluation metrics could provide assistance and structure to aid programs wanting to more critically examine the outcomes and cost-benefits associated with their CHW interventions. Several researchers have called for common measures to be used related to CHWs. A report entitled *Building a National Research Agenda for the Community Health Worker Field* stated that, "Standard methods and metrics should be developed for CHW studies to allow comparisons between studies pooling data."[25] Rosenthal et al. recommend that "guidelines for common measures be used in research and evaluation related to CHWs."[26]

Recently, the patient navigator CHW model has begun to address these issues by building consensus on outcomes for navigation programs with the goal of developing a set of standard core outcome measures. This initiative aims to encourage the evaluation of cost and other outcome metrics, as well as to standardize the collection and reporting of measures to strengthen the evidence-base for patient navigation and facilitate comparison of programs across agencies and sites.[27] This work is still new and likely the resulting product cannot be universally applied to all CHW models.

Several evaluation toolkits have been developed that can provide guidance for CHW interventions,[28-32] but there has been no movement by the CHW field to establish common evaluation metrics. However, fulfilling the recommendation to create and implement a set of standardized evaluation measures to be used in the CHW field is difficult, given the diversity of roles and health conditions for which the CHW model is used. And more importantly, the specific goals of CHW interventions should be considered when determining their evaluation measures.

Capturing the added value of CHW work. For policy and funding purposes, it may be especially useful to be able to extract and quantify the additional value that CHWs bring to health care settings. However, this may be tricky, especially for interventions which utilize a team-based approach. Some professions, such as nursing, have attempted to tease out which aspects of care are directly attributable to nurses' work. For instance, nurse-sensitive indicators are designed to represent nurses' contributions to patient care. No such indicators exist for CHW programs, and, in general, common evaluation measures have not been set forth for the profession.

Enabling services (such as outreach, case management, discharge planning, follow-up phone calls, etc.) play a critical role in improving the health of vulnerable populations and these are often the services CHWs provide as part of their role on health care teams. Despite the difficulty associated with demonstrating a direct

correlation between the CHW's provision of these services and improved patient health outcomes, a strong evaluation plan must strive to capture the work performed by the CHW and show how improved outcomes can be attributed to it.

With this in mind, Appendix F offers an evaluation tool to assist health care agencies in documenting the services provided by CHWs that may be important for demonstrating the added value of the work of CHWs. This is an example and should be modified to fit your program or intervention's needs.

There are three main concepts that should be tracked to effectively evaluate CHW interventions.[34]

1. The process: What activities occurred?
2. The impact: Were actions taken or was a situation resolved?
3. The outcome: Was there an improvement in the patient's health?

The evaluation tool presented in Appendix F attempts to capture both process and impact. In order to document health outcomes, CHW programs and interventions must either collect health data separately or use the health system's existing data sources, which is highly advised. The health outcomes will be specific to the intervention and/or the patient and should be tailored accordingly. Organizations can sum health improvements, preventative services accessed, and other clinical outcomes over time and across patients. Appendix G shows one method for tracking improvements in patient health outcomes from various health conditions over the course of a year or given time period.

Involving CHWs and staff in the evaluation process. CHWs and staff should be informed about the importance of evaluation and be involved in the process. Considerable time should be spent orienting CHWs and other program staff to the importance of evaluation (Brown 2011).[33] When informed about the importance of tracking program processes and outcomes, CHWs are typically more willing to put in the time and detail to the data collection process. It is helpful to regularly review process and outcome data with CHWs and staff to show them the successes of their hard work and to lift up opportunities for improvement.

CHWs should be involved in the research design and evaluation planning. One of the reasons CHWs are valued is for their close connection to the community they are serving. This close connection is not only important to their outreach, education, and case management work, but also is an asset that should be considered in the evaluation process.[34] CHWs should be a part of the team that develops the evaluation plan. This will create buy-in to collecting the data, but also provides valuable insight into what measures are important to the community and are appropriate to collect.[35] This is often called patient-centered research. It is important for staff to regularly meet with CHWs to discuss the data collection process and the evaluation measures as they may be aware of errors in the tools and/or recognize when something is not working and have suggestions for how it can be improved. This information can only come from those either collecting the data or performing the duties on which the data are being collected, such as patient education or case management.

Standardizing the data collection process and using existing data sources. Data collection procedures are crucial to program evaluation. It is imperative that they are standardized and CHW intervention data are linked with existing data sources whenever possible. This will provide more accurate and meaningful data.

It is critical that data be collected the same way for each patient. Program managers or an evaluator working on the intervention should design a data collection protocol and requisite training. CHWs should be trained on data collection protocols initially and be provided on-going training to ensure accuracy. Involving CHWs in the development of the protocols will provide an in-the-field perspective. This will help to reveal issues with the data collection process and evaluation tools prior to rolling out the intervention. All data collection measures should include a patient identifier. This should be the same on each record. Other standard items that should be included on any data collection form include the date of service and the person collecting the information.

When collecting data CHW interventions should try minimize the burden of paperwork, collecting only what needs to be collected, and protecting valuable CHW time. As discussed in Section 3, CHW Supervision, CHWs report at times feeling generally overwhelmed by the workload, including the burden of paperwork. Managers may encounter resistance to paperwork from CHWs who say they would rather spend their time helping their patients, the job they have been hired for.[14] While CHWs may feel burdened by the time needed to document case notes and track processes and outcomes, they may feel less burdened if they are involved in the process and if their load can be lightened when possible. CHW supervisors need to make sure they allow administrative time and that the work load is reasonable for all data collection procedures.[36]

CHW Interventions should consider using existing sources of data, such as electronic medical records, whenever possible.[30] While these interventions may still need to track program processes and outcomes using individual encounter forms, patient education forms, clinic reports, and case management reports, they should be connected back to other patient records whenever possible. In the clinic- or hospital-based setting, electronic medical records could prove a useful tool to extract data for program evaluation and/or quality assurance purposes. Institutions which have switched over from paper to digital patient records may find easier access to data, such as demographics, health status, and screening, treatment, or prescription information, for patients who participate in their health interventions. Patients should have the same unique identifier across the health care organization, for example patient medical records and CHW intervention measures should share the same unique identifier. This is crucial to demonstrating long-term health outcomes and conducting cost analyses.

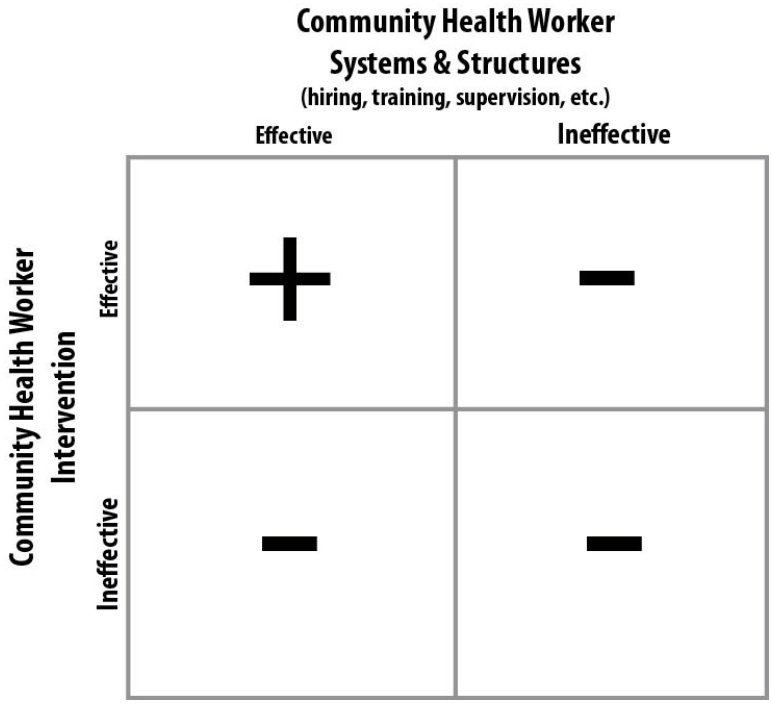
Summary. Having a sound evaluation plan that is structured and standardized will assist in being able to document intervention outcomes and attribute improved health to the work of CHWs when possible. It is important to involve CHWs in the evaluation process. Utilizing existing data sources and linking new CHW intervention evaluation measures to patient heath records will ease the burden of data collection, but also

produce more meaningful outcomes. In the next section we conclude by tying together all aspects of the CHW model - CHW systems and structures (CHW hiring, training, and supervision) along with a sound intervention and evaluation plan.

Section 5.3: The Importance of CHW Systems and Structures to Intervention Outcomes

Stepping back for a moment, we remind the reader that this document has outlined how to successfully hire, train, supervise, and integrate CHWs into health care delivery teams. What cannot be over-emphasized is the importance of these CHW systems and structures to the success of the intervention. ***Recommendation 5.3 - No matter how well-designed the intervention, it will struggle to find success if these CHW systems and structures are not in place.*** This section, Evaluating CHW Programs and Interventions, discusses the importance of evaluating not just intervention processes, but also outcomes and costs, as key factors to implementing a successful evaluation plan. *In order for health care organizations to achieve the desired outcomes of their CHW interventions, they need to have a well-designed intervention that is methodologically sound and rigorously evaluated, and they must also put in the time upfront to create effective organizational systems and structures that support its program and support CHWs.* An illustrative example of this concept is provided in Figure 5.1, *CHW Model Quadrant*. As can be seen, only when both (1) CHW systems and structures and (2) the CHW intervention are effective can desired outcomes be achieved. This is represented by the plus sign in quadrant two.

Figure 5.1. CHW Model Quadrant



Investing the time to create systems and structures that support the work of CHWs is critical to achieving the health outcomes and goals set forth by the CHW intervention. Organizations need to invest in all parts of the CHW model from developing sound CHW hiring, training, and supervising practices and integrating CHWs into the health care delivery team to developing scientifically sound interventions and evaluation plans to track the successes and challenges of the CHW intervention.

Moving forward, the CHW field has great potential to help our nation solve its health care issues. Throughout the country CHW associations are working towards creating policies that support the work of CHWs. In Illinois the Chicago Community Health Worker Local Network has been the voice of CHWs for over ten years and provides a perspective piece on the future of CHWs in Illinois on page 118.

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Perspectives on the Evaluation of the CHW Model

Notes from a CHW Researcher

My original work with CHWs began in 1983 at the College of Nursing of the University of Illinois at Chicago. A group of faculty, working with a feminist and Freirean research methodology and pedagogy, developed a proposal based on several concepts:

1. The importance of working with people within the context of their lives;
2. The significance of addressing the social determinants of health;
3. Developing ways to collaborate *with* communities and empower them to take control over their health and their lives; and
4. The importance of addressing issues of social injustice when working to improve community health.

The proposal was accepted and our faculty group set out to train teens in developing skills to work with their respective communities on health improvement. Later, with support from a local foundation, the Chicago Community Trust, we expanded this concept and trained CHWs to work in a team with Public Health Nurses (PHNs), focusing their efforts on two underserved, inner city Chicago communities. The process and outcome of this work confirmed to us the mutual value of health care professionals collaborating *with* communities to facilitate health improvement-we all learned from each other.

Indeed, we learned so much from the CHWs in their role as community collaborators, that it forever impacted our practice, our idea of patient compliance, and views concerning the role of the health care system in population health improvement. The project, however, was a learning experience on all sides. Our evaluation methods were in the process of refinement and sometimes lacked scholarly rigor. We attempted to capture what we were learning via videos and interviews and to document the efforts of each PHN-CHW team as they addressed health issues of most concern to their community. We tracked community encounters and the purpose behind them in a descriptive manner to document the process of collaboration between health care providers and communities.

<u>Connecting Practice with Evidence</u>

Moving forward in this work, we were strongly encouraged by funders to identify specific outcome measures for the CHW team. This was challenging because such measures needed to be developed collaboratively with the community. In the ensuing years, I worked with colleagues at Rush University to document CHW effectiveness; however, to measure effectiveness in traditional research terms required a narrowing of the CHW role, usually to center on a specific disease. This was often a challenge for the CHWs in practice, as their approach to community health was to embrace all the social determinants of health for their neighbors and community.

During the past 15 years, a variety of researchers have investigated CHW effectiveness in specific interventions and contexts, such as helping individuals keep medical

appointments, teaching specific populations how to self-manage their disease, and engaging individuals in screening for diseases, etc. These studies have gradually amassed a set of data on intervention effectiveness; however, the data is across a variety of CHW roles, disease states, and target populations. In 2002, I documented that the existing published literature did not provide much generalizable data to support CHW effectiveness. The Cochrane Collaborative in 2005 used a more extensive literature review to draw similar conclusions.

Despite these evaluation challenges, what is clear, however, is a that wide variety of health care professionals have become committed to working with CHWs and praise the value which they add to the health care system. And a growing group of CHWs have become active in defining their roles and training and are involved in measuring the outcomes of their work. Questions do remain, such as which CHW role (e.g. outreach, health education, behavior change, community empowerment, etc.) is most effective at promoting health? And when effectiveness has been demonstrated, is it the CHW or the intervention that has been proven effective? If the former, what are the characteristics of these effective CHWs? If the latter, are CHWs the best group to deliver the intervention, and if so, why? Do we know enough to be able to design effective CHW interventions?

CHWs as Members of the Health Care Team

Despite these questions, there has never been a better time to look at the role of the CHW in health care. As we move towards outcomes-based reimbursement, we increasingly recognize that it takes much more than medical care to help people improve their health. The health care system needs workers who can effectively reach out to socially high-risk patients and help them manage their health care within the context of their lives. The research and practice agenda thus remain clear: develop and demonstrate effectiveness of CHWs with interventions aimed at care coordination and improvement of population health.

Thus, researchers need to focus on looking at the CHW role in the context of population health needs. What is the CHW role exactly and how will they interface with the rest of the team? How can we document the CHW intervention to make it replicable? How do we train CHWs and the rest of the health care team to work effectively together? What is the added value of having a CHW on the team?

As we move forward with integration of CHWs into the health care system, one question remains for me. What will happen to the original CHW role as an agent of social change? What is gained and what is lost by incorporating CHWs into the current health care system? In the health care system, CHWs work primarily with individuals and not communities and populations. If the US is to get serious about addressing the social determinants of health at the population level, we need both effective and coordinated health care provision at an individual, clinic level, *and* effective agents of social changes from within communities themselves.

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The Future of CHWs in Illinois

Notes from the Chicago CHW Local Network

The work of Community Health Workers (CHWs) in the United States dates back to deliberate strategies in the 1950s to increase access to healthcare and deliver effective and culturally sensitive care to the underserved.[1] Today, CHWs are recognized as trusted members of the community who have proven themselves to be effective and beneficial members of the healthcare delivery team.

CHWs in Chicago and Illinois

The Chicago Community Health Worker Local Network (CCHWLN), established in 2003 under the fiscal management of the Chicago non-profit HealthConnect One, is a body committed to supporting and facilitating the progress of CHWs/Promotores de Salud and the diverse communities they serve through group education, provision of information and resources, health promotion and disease prevention so that united we can affect positive change, growth, and understanding in our communities. To bring this mission to fruition, the CCHWLN continually strives to be the voice of CHWs in Illinois through various policy, advocacy, training and education initiatives. Please visit, http://chwnetwork.wordpress.com/, for more information on history and current work.

Initiatives of the Network

The Affordable Care Act is an impetus for change in the health care industry, and while CHWs are uniquely poised to play a vital role in this process, the chasm in the understanding of what a CHW is and does amongst industry stakeholders remains. At the CCHWLN, we believe the development and passage of legislation concerning CHWs in Illinois is a critical move at this juncture in time.

To work towards this effort, the CCHWLN has taken the three actions outlined below:

1. In 2011, by use of various focus groups and online surveys, the CCHWLN collected data from CHWs and CHW employers regarding their assessment of the current definition of CHWs and their thoughts and expectations on CHW training and certification.

   The survey identified the benefits and challenges to defining the CHW role and decisions on certification and governance. The majority of survey respondents recommend that training and certification of CHWs in Illinois should be governed by an advisory board composed of 51% CHWs, with remaining members (e.g. professionals from diverse fields) elected by CHWs. Recognized state-wide, the board's functions would include strategic policy planning, certification of individuals and training organizations, approval of curricula, ethics and disciplinary actions.

2. Birthed out of the survey, CCHWLN and its partners drafted a legislative bill which is currently being considered by the Illinois legislature. The bill contains a standard definition of CHWs in Illinois and their scope of practice, describes

provisions for certification and reimbursement of CHWs, and advocates the establishment of an advisory board to oversee all processes. Through this bill, the CCHWLN hopes to standardize the definition and scope of practice of CHWs in Illinois to promote a uniform view of this critical position.

3. Concurrently, for the past few years, the CCHWLN and its partners have developed CHW core curriculum and submitted it to South Suburban College Board of Trustees, which approved it for implementation in spring 2014 pending approval by the Illinois Community College Board. Approval and implementation of the CHW core curriculum would give credence to CHWs' professional abilities, skills, and qualifications.

In sum, at the CCHWLN we believe that legal efforts to clarify the status and role of the Community Health Worker and to define standards for training and certification are necessary in our communal efforts to move forward in the world of health care. It is our vision to support and facilitate the progress of Community Health Workers so that united we can affect positive change and transform the health of the communities we serve.

I would like to offer acknowledgements to the following CHW Local Network Policy Workgroup members for their efforts in pushing forward the CHW policy agenda in Illinois: Maxamillia Moroni, Jose Arrom, Tameka Boswell, Alfredo Lopez, Talibah Johnson, Maria Lopez, Susan Bucio, Juana Ballesteros, Wesley Epplin, and Lorraine Hitchcock.

Leticia Boughton, Coordinator, Chicago CHW Local Network
The CHW Local Network Policy Workgroup Members

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Conclusion

Community Health Workers (CHWs) have always existed under a myriad of titles. Before they were named and before they were paid, they worked in large part in marginalized communities to help when help was needed. What is new now is two-fold: a) that there is widespread appreciation of the importance of CHWs even beyond marginalized communities; and b) that, by uneven turn after uneven turn down a bumpy road, a field (a "profession," a "specialty") is gradually emerging to define who and what CHWs are, how they do work and should work, how they should be paid, etc. We think that it is inescapably true that this evolving field is one of the most exciting dynamics in the pursuit of the health of the public to appear in a long time. That all of this is emerging in the context of the Affordable Care Act simply intensifies its importance. If we are serious about "population health" then it is becoming clear that we can make the most effective progress by working with CHWs.

No phenomenon this new and this exciting could develop without different perspectives about it, different priorities for it, and different calibrations of it. Rather than finding these differences troublesome we should understand that they are opportunities for examination, resolution, and then implementation. It is up to us to learn from these differences and to build a dialog and then a path to the next steps.

As we in the Sinai Urban Health Institute (SUHI) have employed more and more CHWs - in fields as diverse as diabetes, asthma, smoking cessation and breast health - we have come to understand the divergent views that the larger health care community holds about this field. Multiple conversations intensified this understanding until we decided that only a comprehensive collection of information about the field and a rational, coherent analysis of that information could allow us to assess the status of the field and thus suggest some possible next steps. We thought that information would best come from a review of the existing extensive literature,[i] a review of a national survey about CHW utilization,[1] and a much needed survey on this topic which we wanted to conduct in Chicago. Fortunately, Soo Na, Senior Program Officer for Health at the Lloyd A. Fry Foundation, agreed and the Foundation was able to provide funding to bring this all to fruition, including the publication you are now reading. Although this collection of information is very difficult to summarize, we have tried to do just this in the previous 120 or so pages.

The *CHW Best Practice Guidelines* intended to provide a resource to answer the host of questions that have emerged throughout the CHW field. These questions stem from the fact that CHWs are comparatively new to our field and that they occupy a unique position. In fact, some good number of CHWs will not have worked in any formal setting before. Thus, some of the questions that emerge, and to which we must develop answers, form the structure of this report. What are the major considerations in hiring

[i] Well over 100 articles have been cited in this report and at least another hundred articles have been reviewed by way of preparation.

CHWs? (Section 1) What are the best ways to structure CHW training? (Section2) What are the optimal forms of supervision for CHWs? (Section3) How can we best integrate CHWs into already existing service delivery teams? (Section 4) How do we most effectively evaluate CHW programs? (Section 5)

By way of conclusion to this report we add five observations which are not explicit in this report but which are essential.

1. **CHWs play a role in reducing health disparities.** There exist substantial health disparities in the U.S. and in Chicago in particular. Much has been written about this nationally[2-4] and SUHI has published a book and a series of articles in peer-reviewed journals focusing on the very sobering disparities situation in Chicago.[5-8] If we are going to make progress in reducing disparities, in particular race/ethnicity and socioeconomic disparities, then it has also become clear that we have to improve our work in vulnerable communities. And if we are going to do this, it is also clear that we have to depend a great deal on health workers from these communities, that is, Community Health Workers. While providing a complete review of the evidence demonstrating the effectiveness of the CHW model in reducing health disparities is beyond the scope of this report, briefly CHWs have been effective at improving cancer screening outcomes[9] and in managing chronic conditions, such as asthma, diabetes, and hypertension[10-16], to simply name a few. The research in this area is extensive and positive evidence is continually emerging.

2. **Hiring CHWs strengthens communities by providing jobs.** As a corollary of the previous observation, but independent of it, hiring community health workers is a good in and of itself, a good that helps strengthen the community and thus, at least indirectly, that helps improve its health. When we hire CHWs, we provide them with job training, job stability, and benefits, including health insurance. More than once people have told those of us in SUHI that we were being cost inefficient by hiring CHWs full-time rather than hourly since then we had to pay them benefits and a higher salary rate. We always respond that this is what we want to do – to provide them with benefits for themselves and their families, to put money into the community, to provide stability, etc. As of this writing SUHI, for example, has employed CHWs for 115 full-time equivalent years. Chicago is a very large city, of course, and this can only begin to dent the unemployment situation in vulnerable communities, but just imagine what could happen if this model were expanded throughout the city and even the country.

3. **CHWs are a community resource.** Additionally, CHWs become resources for the community. Any number of times CHWs who work at SUHI have reported that they are approached on the streets of their community or in stores or at church and asked questions that begin with “Aren’t you that asthma lady?” or “Can I really cook greens that taste ok without salt or pork” or “Won’t a mammogram hurt?” Such advice, given on the streets and, as always, free of

charge, is literally invaluable in communities in which it is hard if not impossible to find such advice and counsel.

4. **Evaluation of CHW interventions is key.** Since CHWs are a relatively new development in the field, it is relevant to evaluate their work. How we go about doing this is central to making progress. The success of the evaluation will depend upon asking important questions and acquiring the data needed to answer them (Section 5). Of course, one can't do this in the abstract. How we evaluate work in breast cancer, asthma, smoking cessation or diabetes will all vary - although there may be some cross-cutting measures. Additionally, we will have to ask just what it means to evaluate CHW work. For example, in diabetes are we concerned with the number of presentations made, the number of people who attended these presentations, the number of people who learned things, the number of people who we navigated in care, etc? Note that these are all crucial but all process measures. Or, are we interested in outcome measures like improvements in blood pressure, hemoglobin A1c, etc? In many ways these are obvious points to make, but they are also frequently neglected in the more general questions put forward about how we go about evaluating CHWs.

5. **CHWs must be part of the process and are integral to the conversation.** Finally and perhaps most importantly, one thing is clear, in order for the CHW field to continue to grow and assist us in achieving health equity, CHWs must be a part of the conversation - in all of the aspects of their work. Including CHWs' perspectives on hiring, training, supervision, research, program development, and the CHW profession in general is essential to its success. There are national, state, and local CHW organizations across the country. Some are well established and others are just emerging. The CHW group of the American Public Health Association has existed in various forms since 1970 and is the national voice of CHWs and other public health professionals working to promote the CHW field on the national level.[17] State CHW groups are consistently emerging and are working to promote the CHW field at the state and local level through policies. It is highly recommended that CHWs be included in the conversation and that they are part of the decision making process. Reach out to your local or national CHW organization to ask for their assistance in promoting the CHW model in your organization. We have included a case story from the Chicago CHW Local Network that discusses their work, perspective, and role in the CHW field. The story can be found on page 118 in this report.

There are very substantial questions for us to try to answer about CHWs. We hope this report has answered some of these and has also suggested some steps we can take to answer others. We are excited about these possibilities. Indeed, the future holds promise, great promise, if we can proceed intelligently and effectively.

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APPENDICES

Appendix A

Defining CHW Models

Community Health Worker (CHW) models are not mutually exclusive. While each model can stand alone, programs are often a blend of more than one model.[1] Any combination of the various CHW models is possible. One example is a clinic which employs a CHW to be both a Navigator and Researcher. Following is a description of seven CHW models found in the literature.

Navigator/ Care Coordinator. CHWs may be called patient navigators,[2] care coordinators or care managers.[1] When serving in this capacity, CHWs navigate health and social services to help patients overcome barriers to care, in an effort to improve continuity of care and decrease health disparities. Patient navigation is often used in breast,[3, 4] cervical,[5, 6] colorectal,[7-9] and prostate cancer interventions.[10, 11] To some degree, the model has also been utilized in chronic disease management,[12] psychiatric care,[13] hospice or palliative care,[14] childhood immunizations,[15] smoking cessation,[16] and in connecting Emergency Department patients to more appropriate care.[17]

CHWs may help patients with insurance, financial, or literacy issues;[18] provide health education from screening through treatment;[19] offer psychosocial support;[19] develop care management plans;[1, 20] discuss patient misunderstandings about their diagnosis or care;[18] problem-solve logistical issues such as child or elder care, transportation, and appointment scheduling or rescheduling;[18] coordinate care between multiple providers;[19] help patients complete medical paperwork;[19] attend appointments; and facilitate communication between patients and their providers.[19]

Health Educator. In this role, CHWs provide health education on disease prevention, healthy behavior,[1] and self-care management.[20] Education may be delivered in an individual or group setting. CHWs may also administer health screenings[1, 20] and take vital signs.[20] While health educators are generally referred to by a plethora of titles, those in substance abuse,[21] sexual health,[21-24] and youth-focused interventions,[22, 24, 25] are most often distinguished as “peer educators.”

Outreach and Enrollment Agent. CHWs who are Outreach and Enrollment Agents act as health educators, while also having outreach and enrollment duties. CHWs provide outreach to hard-to-reach populations to promote health, provide psychosocial support, deliver health education, make referrals to care, and enroll individuals into state or federal programs[1] and other services.[20]

Community Organizer/ Advocate/ Capacity-builder Model. Most often CHWs in this model are volunteers rather than paid staff.[20] CHWs advocate for policy, social change,[1] and community development.[20] They build relationships with stakeholders interested in a specific issue and promote community action.[1] CHWs with broad knowledge of the health care system and community resources and those skilled at networking and speaking in front of large audiences may excel most in this model.[1]

Researcher. CHWs have long been partners in community-based research,[26] mainly through study recruitment, data collection, and the provision of services. Some researchers call for this role to be expanded[27-29] and advocate that CHWs should have the opportunity to act as co-researchers who participate in all phases of the research project. This includes defining research priorities; developing research questions; designing intervention approaches; developing research and data collection methodologies; collecting, analyzing and interpreting data; and disseminating findings.[26] Rhodes and colleagues (2007) have noted several studies in which CHWs are already playing this role.[26]

Promotora de Salud/Lay Health Worker Model. CHWs who are Promotores(as) often serve Spanish-speaking populations. Promotores(as) may provide culturally appropriate education and services, advocacy, mentoring, translation, and outreach.[1] In rural communities, they may work to improve the health of migrant or seasonal farm workers. To be most effective, some recommend that Promotores(as) not only share language or some traits but that they should be a member of the community they serve.[1]

Member of Care Delivery Team. This model is commonly found in interventions targeting chronic illnesses such as diabetes,[30-32] asthma,[33] hypertension,[34, 35] and cardiovascular disease.[36] CHWs collaborate with medical professionals and may work in an integrated team-based approach.[1] CHWs may provide first aid, take vital signs, provide medication counseling, perform health screenings, or other basic health services. Some deliver patient education or basic screening services during the medical exam.[1]

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Appendix B

Examples of CHWs' Connection to the Community (Selected Studies)

Description of CHWs' Connection to the Population Served	Main Themes (Summary)	Intervention Type	Study
Many Promotoras had diabetes themselves; All Promotoras had some familiarity with the disease from family, friends, or prior community projects.	CHWs shared disease status or connected with the disease; possibly shared language or culture with community	Diabetes Self-Management	Swider et al. 2010[1]
The interventions focused on mothers of young children, so recruiting from the city's welfare employment program brought in young women to mirror patients/clients.	CHWs shared gender; age; experience of parenting (possibly single-parenting) with community	Health Insurance Enrollment, Immunization Program	Perez et al. 2006[2]
The project recruited individuals with diabetes who exemplified the traits of a "natural leader"; CHWs were recruited from the clinic's patient population.	CHWs were likely leaders in the community; likely mirrored demographics and possibly shared experiences.	Diabetes Peer Education	Philis-Tsimikas et al. 2004[3]
Most CHWs were long-term residents well-known in the community. Many CHWs served as role models for fellow community members. CHWs were racially and ethnically reflective of the communities they served and/or shared similar identifying life experiences.	Resident of the community; likely a leader or role model; shared race, ethnicity, and/or identifying life experiences	Various CHW Roles at Health Centers	Zuvekas et al. 1999[4]

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Appendix C

CHW Traits Desired by Employers
(CHW Studies Covering Multiple Sites)

Description	Desired CHW Traits Reported by Employers	Study
Review of CHW Intervention Studies	Compassion, willingness to learn, interest in subject material, leadership qualities or leadership experience in community	O'Brien et al. 2009[1]
Structured-Interviews with Eight Diabetes Management Studies	Hard worker, ability to connect with clients, passion for the work, strong commitment to community	Cherrington et al. 2008[2]
CHW Programs at Seven Health Care Sites; All Programs Receive Federal Funding	Open personality, an ability to listen while being compassionate and respectful, strong communication skills, determination, pragmatism, logic, and compassion	Zuvekas et al. 1999[3]
Allies Against Asthma Coalition of Community-based Asthma Programs (7 Sites)	Having a clear respect for other people, warmth, dedication, reliability, persistence, the ability to earn and maintain trust, discretion (because of confidentiality), and resilience	Friedman et al. 2006[4]

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Appendix D

Length of CHW Training
(CHW Studies Covering Multiple Sites)

Article description	Length of Initial Training (hours)	Description of Ongoing Training	Adequacy of Training	Study
Study of six Community Health Centers in Massachusetts employing CHWs in Diabetes Care Teams	48-hour curriculum	1-hour training via conference call every 6 weeks; 3 workshops over 1 year span	CHWs stated they would have benefited from more ongoing training after the initial training	Ferguson WJ, *et al.* (2011)[1]
Review of 87 articles regarding recruitment and training of African American CHW Programs, specifically "Lay Health Advisors"	20 hrs or less (25%); 21-40 hrs (17%); 80+ hrs (16%)	Reported hours per month(N=52): 1-5 hrs (65%); 6-10 hrs (21%); >10 hrs (13%)	N/A	Jackson E & Parks C. (1997)[2]
Review of CHW, specifically "Lay Health Advisor," interventions among Latinos	Based on 22 studies, length ranged from 6 to 160 hours	Details not frequently reported by studies reviewed	N/A	Rhodes S, *et al.* (2007)[3]
Study of Latino CHW programs, specifically "Lay Health Promoters," in Maryland	Of 6 programs, training ranged from 12 to 44 hours; Median length was 32 hours	1-3 hours via monthly meetings	N/A	Carter-Pokras O, *et al.* (2011)[4]
Review of 16 diabetes programs implementing the CHW model	Training ranged from 8 hours, plus field work, to over 240 hours	N/A	N/A	Cherrington A, *et al* (2008)[5]
Various CHW programs in New York City involving health insurance enrollment, childhood immunizations, and asthma management	Length (in hours) is not provided; Curriculum taught over a 2-3 month period	Monthly coalition meeting	97% of CHWs felt the training prepared them to do their work	Perez M, *et al.* (2006)[6]

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Appendix E

CHW Integration: Case Examples Involving Staff Competition and Lack of Buy-in for the CHW Model

While many stakeholders provide positive feedback about the integration of CHWs into their systems of care, in a few instances, studies have reported staff that either rejected the CHW role or tried to compete with or undermine the CHW's position on the team. Below are a few case examples of these occurrences.

1. One clinic-based mental health intervention describes the competition which arose between CHWs and medical assistants on the health care delivery team, reporting:
   "*Medical assistants (MAs) unexpectedly became key players in the intervention. The MAs functioned as gatekeepers because they controlled the promotoras' [CHWs] access to medical files, exam rooms, and patients.* ***Low-grade "turf wars" ensued in the initial phases at the experimental CHC [community health center] site, where some MAs felt threatened by the promotoras [CHWs]****. Due to this tension, the promotoras [CHWs] spent considerable time doing favors for the MAs, such as bringing patients into exam rooms, translating, or retrieving charts.*"[1]

2. Staff unfamiliar with the CHW model may misunderstand the CHW role or interpret aspects of the CHW position (e.g., on the job training) as special treatment. For example, one study reports, "…***when CHWs left the supervisors' departments to work in the community, both supervisors and non-CHW employees did not understand and expressed resentment of the CHWs' varied tasks and opportunities for training***."[2]

3. Staff may not accept or trust the CHW role. One CHW-led diabetes self-management program reported, "*The nurses and providers saw themselves as the primary educators about disease management, and* ***there was little respect or tolerance for the use of allied educators, especially those with no health care professional background or training***."[3]

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Appendix F: CHW Patient Encounter Form

Patient ID (used in system whenever possible):_____	**Encounter Date: _____**
Patient DOB: ___/___/____	**Patient Zip Code: _____**
Location of Service Provided: ☐ Health Center ☐ Client's home ☐ Community	**Encounter Type:** ☐ Face to Face ☐ Telephone

Type of Service CHW Performed for Client	**Time Spent Performing Activity**
Health Procedures	**Time in Minutes**
Perform health screenings	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Discuss lab results with patients	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Attend Patient Appointment	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Assist with obtaining medication and refills	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Create individualized care plans for patients	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Asses medication adherence	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
System Navigation	
Coordinate patient care between multiple service providers	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Patient navigation during treatment	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Follow-up with patient after health care utilization incident	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Education	
Provide culturally appropriate patient education in the community	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Provide culturally appropriate patient education in clinic	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Teaching patient self-management techniques	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Respond to patient questions in clinic	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121

Type of Service CHW Performed for Client	Time Spent Performing Activity
Case Management	
Assessment of need of case management services	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Referral to social service agency	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Referral to health agency	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Financial counseling / eligibility assistance	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Provide social work case management	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Social Support	
Supportive counseling	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Social Support during patient urgent care visit (e.g., hospitalization)	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Recall System	
Schedule or reschedule appointments	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Make appointment reminder	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Other	
Transportation	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Interpretation services	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Cultural translation	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Outreach in the community	__5-10 __11-20 __21-30 __31-40 __41-50 __51 - 60 __ 61-90 __91-120 __ > 121
Case Notes:	

Appendix G

Example Health Care System Patient Outcome Goal Tracker

	System Goal (e.g., 50% of patients)	Baseline level	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total
			% improved for quarter	% improved for year	% improved for quarter	% improved for year	% improved for quarter	% improved for year	% improved for quarter	% improved for year	% of patients meeting health goal
Health Condition and Outcome Measure (%)	*examples provided*										
Diabetes - HA1c levels *[EXAMPLE]*	30% improvement	10% of diabetes patients with acceptable HA1c	5%	5%	5%	10%	2%	12%	4%	16%	26%
Asthma - Asthma Control Test											
Asthma - Spirometry Reading											
Hypertension - Blood Pressure											
Cholesterol Level											
Recall System	*examples provided*										
Actual Kept Appointment (count)											
No-show (count)											
Cancelled (count)											
Cancelled and Rescheduled (count)											
Preventative Health Services (%)	*examples provided*										
Cervical Cancer Screen											
Breast Cancer Screen											
Prostate Cancer Screen											
Childhood Immunizations											