

Research Article

Pilot Projects Advance Community Health Workers in Chicago Underserved Communities

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Abstract

A strategic goal of the Institute of Medicine of Chicago (IOMC) is to advance the health of the underserved. In pursuit of that goal, in partnership with Blue Cross and Blue Shield of Illinois and others, IOMC raised funds for one-year pilot projects for the training of Community Health Workers (CHWs). The four grantees were varied: a community college, a community organization, a non-profit health advocacy organization and a network organization of CHWs. The training programs drew CHWs from underserved communities and addressed 1) public policy advocacy, 2) mental health first aid, 3) pelvic health, and 4) broad training covering leadership, research, and case management. The four pilot programs combined provided six training modules, received funding of \$79,000 and trained 189 unique CHWs in 200 training module episodes with a total of 1836 training hours for a cost of approximately \$395 per module episode and \$43 per training hour. These costs include curriculum development and design and, therefore, replication of these programs would be less expensive. Pre-post tests and other evaluation documented knowledge and skills obtained. Based on a survey, it is estimated the CHWs impacted over 4700 members of their target communities during the first 3 months after the programs for a cost of about \$17 per community member. These pilot projects show that CHWs can acquire complex knowledge and skills important to furthering community health, particularly in underserved communities. Further work by IOMC will address how to strengthen the interactive relationship between communities, trainers, and employers to further advance CHWs.

Keywords: Advocacy; Case Management; Community Health Worker; Mental Health First Aid; Pelvic Health Research; Pilot Projects; Underserved Communities

Abbreviations

CHW	:	Community Health Worker	BCBSIL	:	Blue Cross and Blue Shield of Illinois
IOMC	:	Institute of Medicine of Chicago,	LV	:	Little Village
APHA	:	American Public Health Association	ECHWLA	:	Enlace CHW Leadership Academy
ILCHWAB	:	Illinois Community Health Worker	ICIRR	:	Illinois Coalition for Immigrant and
Advisory Board	:		Refugee Rights	:	
HFS	:	Illinois Department of Healthcare and	SSC	:	South Suburban College
Family Services	:		CHWLI	:	CHW Leadership Institute
			ECEC	:	Educational Competency Evaluation
			Credit	:	
			WHF	:	Women's Health Foundation
			PHCI	:	Pelvic Health Community Initiatives

MHFA : Mental Health First Aid
FQHC : Federally Qualified Health Centers

Introduction and Review of Literature

Rosenthal and colleagues pointed out that Community Health Workers (CHWs) are in a position to decrease barriers to receiving care, decrease health care costs and improve outcomes of a variety of diseases in which self-management is a crucial element of treatment [1]. CHWs are an important workforce tactic to overcome the disparities in health outcomes found in underserved communities. For these reasons, in pursuit of its strategic goal to advance the health of the underserved, the Institute of Medicine of Chicago (IOMC) in partnership with Blue Cross and Blue Shield of Illinois¹ and others raised funds for one-year pilot projects to advance the training and deployment of Community Health Workers (CHWs). The American Public Health Association (APHA) describes a Community Health Worker (CHW) 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 and 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.” Precise levels of education or training as prerequisites for CHWs are not specified because the ability to communicate and develop trust with members of the targeted population are, instead, the critical components of a CHW’s future success.

Despite these benefits, barriers to training were identified by IOMC and others as key hurdles for CHWs and their effectiveness in the community. For this reason, the selected grantees demonstrated innovative training strategies which could lead rapidly to interventions with underserved communities. IOMC funded four grants focused on CHWs that ran from the fall of 2015 to the fall of 2016. The total amount provided for these four grants was \$79,000. This paper addresses the methods, results, and lessons learned from these four CHW pilot programs.

Since the 1960’s, Community Health Workers (CHWs) throughout the world have been characterized as community leaders who share the language, socioeconomic status, and life experiences of the community members they serve [2]. Efforts in Illinois to institutionalize the role of CHWs has progressed. Specifically, the Illinois CHW Association, formerly the Chicago CHW Local Network, has worked to obtain state recognition for CHWs, build consensus around training and certification and support the growth and development of the workforce in Chicago and across the state of Illinois. With the leadership of The

Illinois CHW Association and others, a coalition of CHWs, allies, stakeholders, and local and state government leaders spearheaded the first ever state recognition for Community Health Workers in Illinois in 2014. Public Act 098-0796, the CHW Advisory Board Act as it is commonly known, defined CHWs by adopting the American Public Health Association’s (APHA) CHW sections definition of CHW for the state, identified some core competencies/skills and established the Illinois Community Health Worker Advisory Board (ILCHWAB). The ILCHWAB committed a year to draft recommendations to help support, grow and sustain the CHW workforce in Illinois.

Community Health Workers are diverse culturally, in age, geographic locations and educational backgrounds. “CHWs provide health education, serve as role models and community advocates, increase access to healthcare resources, and collect data for research purposes” [3]. The Community Health Worker National Workforce Study grouped CHW roles into the following five categories: (1) member of care delivery team; (2) navigator; (3) screening and health education provider; (4) outreach-enrolling-informing agent; and (5) organizer. Similarly, the health targets for CHW programs are diverse including “cardiovascular disease, diabetes, asthma, maternal/child health, cancer screening, and general health promotion” [4]. In Chicago, the Asthma Initiative at Mount Sinai Hospital utilized a CHW model to help reduce urgent health care utilization by 75% for African-American children with uncontrolled asthma and saved \$5.58 for every dollar spent [5]. Health Connect One, a leader in maternal/child health, promotes and trains community-based doulas and breast-feeding peer counselors across the country. The most compelling data findings were significantly higher breastfeeding rates and low C-section rates for mothers supported by a community-based doula and breast-feeding peer counselors [6].

In most CHW programs a high school diploma or degree is not a requirement to becoming a CHW. The most important qualification is that CHWs are trusted members of and/or have an unusually close understanding of the community they serve [7].

Note: ¹The Institute of Medicine of Chicago wishes to thank the foundation of Blue Cross and Blue Shield of Illinois for its major contribution towards the Community Health Worker grants and its technical expertise in selecting and advising grantees.

In 1989 the World Health Organization (WHO) supported the idea of CHWs having shorter training than professional workers [8]. Community Health Workers are non-clinical professionals who possess the ability to empower and educate their communities, while empathizing with their struggles and obstacles to achieving better health and ultimately a better life. However, diplomas and degrees from traditional education institutions look good on a resume and, therefore, most CHWs do need a high school diploma or equivalent to work as a CHW. In a review of selection

and training processes for the role development of CHWs, the authors found that across 44 studies, nine percent of the studies “Mentioned Chews Who Possessed a High School Diploma or Its Equivalent as A Selection Criterion, 21% Of CHW Program Directors Required a High School Diploma for Employment, and 32% Required A Bachelor’s Degree” [3]. Foundational to the work of a CHW are empathy, compassion, connection to the community and ability to learn on the job. These abilities are much more important than credentials and degrees for the success of a CHW. On the one hand, specific educational requirements are often not required for a CHW position which provides important flexibility when hiring CHWs. On the other hand, the absence of educational requirements for many CHW positions often means that CHWs are not recognized by others for their contributions. Perhaps even more important for the future of CHWs, compensation levels do not reflect these contributions since compensation in most health systems is commonly pegged to educational level. In addition, payers and foundations may be less likely to fund staff that lack specific education or certification.

Community health workers fill a variety of nonclinical roles and support their communities by providing culturally responsive health coaching, social support and connection to community resources [9]. CHWs build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, informal counseling, and advocacy. Their roles are mostly supported by unsustainable funding sources, like grants and foundations. Few states have adopted strategies to fully support and sustain the role of CHWs. In a report by the Illinois CHW Advisory Board, the Finance and Reimbursement committee put forth recommendations that would support and sustain the CHW workforce in Illinois. One recommendation suggested that the Illinois Department of Healthcare and Family Services (HFS) submit a state plan amendment which would allow CHW services to be reimbursed by Medicaid [5]. Supporting, growing and sustaining the CHW workforce in Illinois will require multi-sectorial support and collaboration to advance the recommendations put forth by the Illinois CHW Advisory Board.

Request for Proposals and Grantee Selection

In order to solicit and select grantees, IOMC used the following process. IOMC compiled a list of potential grantees including community organizations, educational institutions that had sponsored programs for CHWs, and employers of CHWs, both public and private. The list came from IOMC’s own contacts, those of the Blue Cross and Blue Shield of Illinois (BCBSIL) foundation and other organizations. A request for proposal that included the expected range for the amount of each grant was sent to all of the organizations on the combined list and all IOMC Fellows and was posted on the IOMC website.

IOMC assembled a review committee composed of IOMC Fellows from academia, health providers, the public sector, payers and added outside reviewers including a BCBSIL foundation leader. The committee included members with expertise on the training and deployment of CHWs as well as expertise on formal grant review. Two reviewers were assigned to each grant application by the committee chair for detailed review to be presented to the committee and all grant applications were available to all committee members. IOMC has considerable experience in grant review and oversight and used a modified version of its grant review scoring sheet for this process. The key scoring criteria were: technical merit, curriculum and evaluation, letters of support including those from partnering organizations, budget, and strength of proposal to expand the capacity of CHWs to overcome disparities of care in underserved communities. Each committee member was given a written narrative summary of each grant review along with the scoring sheet from each reviewer prior to the selection meeting.

Ten grant applications were received and all were reviewed by the committee during its selection meeting. Four grantees were chosen and the total amount awarded was \$79,000.

For each grantee, IOMC assembled a grant advisory committee composed of one member from the selection committee and several other IOMC Fellows. The committee met by phone or in person with each grantee organization during the 12 month grant period and provided advice on the six-month interim report and the final report from each grantee.

Grantees

The grantees all had prior experience educating health care workers and, usually, community health workers. The target training population for each pilot grant was community health workers from one or more communities that demonstrated health outcomes lagging the rest of the Chicago metropolitan area. The four grantee organizations were varied: a community college, a community organization, a non-profit health advocacy organization and a network organization of CHWs (see appendices for detail).

Targeted Community Health Workers

The CHWs targeted in these four pilot projects worked for a variety of employers: academic medical centers, community hospitals, Federally Qualified Health Centers and other community clinics, major non-profit organizations, community organizations and small local organizations. Although the educational level for the targeted CHWs was not given in the evaluation reports, verbal communication indicated that educational level varied from some high school credit to graduate degrees. All had had some CHW training prior to enrollment in the pilot projects and many had over two years of work experience as a CHW. One project noted that of the fifteen participants who completed the post-training

survey, fourteen participants were female with the average age of 38 years (range: 27-55 years old) with twelve living in Little Village, a low-income primarily Mexican and Mexican-American community. The remaining CHWs in that project lived in other neighborhoods in the Chicagoland area with large percentages of Latino immigrants. These CHWs had work experience in wellness education, health education, public benefits and health insurance enrollment, resource connection, public health research and community outreach, community navigation/patient navigation and/or case management.

Targeted Communities

The four pilot projects drew CHWs from communities demonstrating health disparities. The profile from one grantee provides an example of the type of community targeted. Little Village (LV) is a predominantly working-class, Mexican and Mexican-American community. The population in LV is 84 percent Latino, and 44 percent of residents are foreign born. Thirty-one percent are non-citizens, with a large portion being undocumented. Youth under 20 years of age make up 33 percent of the neighborhood population. Thirty-one percent of LV households fall below the poverty line, and 54.8 percent of adults 25 and older do not have a high school diploma. LV is extremely dense, with a high rate of overcrowded housing and the smallest amount of green space per resident of any community area in Chicago. With respect to access to healthcare, 35 percent of LV residents are uninsured compared to 19 percent in Chicago overall (US Census, American Community Survey, 2010-2014 5-year Estimate). However, lack of insurance is not the only barrier to care in LV. The healthcare system can be confusing and intimidating to LV residents due to language barriers, health literacy levels and immigration status. These barriers prevent residents from accessing and using health insurance and seeking healthcare. Furthermore, in 2013, Roots to Wellness, a mental health collaborative, conducted a mental health needs assessment and found only one in three LV residents in need of mental health services was receiving services.

Interventions by the Four Pilot Programs

One of the grantees, Enlace, a community organization in Little Village, implemented a program that enhanced the advocacy skills of CHWs. The organization built upon its established “Enlace Leadership Academy” and constructed two modules to deploy its Enlace CHW Leadership Academy (ECHWLA), a two-day training program tailored to address the needs of CHWs to develop their capacity to organize and advocate for health system policy change. Enlace was able to build upon its long experience with its program, “Enlace Leadership Academy,” which it has used to develop the capacity of staff and volunteers to act as advocates for policy change. The course content includes the concept of inequity and Enlace’s five organizing principles: 1) Little Village and Enlace’s

history, 2) how to identify one’s self-interest through one-on-one meetings, 3) the concept of power, 4) how to conduct a power analysis, and 5) the elements of an advocacy campaign. Enlace modified this long-standing program to emphasize advancement of health and the role of community health workers in advocacy.

To accomplish this, Enlace requested relevant information from the Sargent Shriver National Center on Poverty Law, the Illinois Coalition for Immigrant and Refugee Rights (ICIRR), the University of Illinois at Chicago (UIC) School of Public Health, and St. Anthony Hospital to design the health-focused content to incorporate into the revised program. Once Enlace received the materials from these partners, the Enlace team worked with a contractor to compile the materials into the health module of ECHWLA with a focus on the health of Little Village and introduction of the concept of the social determinants of health. The initial module for deployment of ECHWLA was the “Train the Trainer” program which was designed to assist trainers to teach portions of the ECHWLA. The Trainers were selected from a group of CHWs who had already completed the long-standing Enlace Leadership Academy. The “Train the Trainer” program took place over two weekends and included 22 hours of instruction. The second module was the ECHWLA program itself taught to a group of CHWs over two days.

Another grantee, South Suburban College (SSC), built and implemented the CHW Leadership Institute (CHWLI), a continuing education (non-credit) alternative to the existing for-credit community health workers program offered at the college that featured a broad range of skills, specifically, research, case management, and leadership. One of the benefits to individuals enrolling in the CHWLI is the opportunity to apply for and have their completed course work evaluated by SSC for “Educational Competency Evaluation Credit (ECEC).” The targeted sources for recruiting CHWs for the CHWLI were organizations that currently employed or were planning on utilizing CHWs in any of the various CHW roles. Organizations whose management wanted to make sure their CHWs had the basic concepts, knowledge and skills to function in a case management, leadership or research role were encouraged to identify and enroll their employees. The CHWLI was proposed as a possible solution to the problem of the length of time it takes an individual to complete the SSC credit program, while making sure that the essentials of that program were covered. The primary textbook used at SSC for this program is the Foundations for Community Health Worker, 2nd edition [10]. There was no charge to the CHWs participating in this program. Its curriculum was modeled after the for-credit course with the “essentials of the curriculum” extracted for CHWLI. The eleven enrollees were employees of three local employers. The program was structured to accommodate the schedules of CHWs and employers and was taught over 4 consecutive weeks. For the first three weeks, there

were two three-hour class room sessions on separate days with an additional three hour assigned independent study each week. In the fourth week, the enrollees were divided into three work groups and each group was required to develop a final project utilizing the information obtained through the classes.

A third grantee, Women’s Health Foundation (WHF), built upon its Pelvic Health Community Initiatives (PHCI) program to train CHWs to disseminate pelvic health information, resources, and healthy behaviors to women in underserved communities. Called the Advanced Pelvic Health Education Project, it trained 50 Community Health Workers from three partner agencies (Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute) in Advanced Pelvic Health using materials previously developed by WHF. This material provides a detailed review of pelvic health, which includes bladder, bowel, uterine, and vaginal health. In addition, twelve “extremely eager” CHWs who participated in the Advanced Pelvic Health Education Project underwent further training to become CHW Master Pelvic Health Trainers. They completed pelvic health educator training that included pelvic function, recognition and treatment of common symptoms, behavioral approaches and exercises to prevent and alleviate symptoms, and guidance on which medical providers treat such symptoms. In addition, WHF also provided a physical therapist, as requested by the CHWs, to further explain muscles, anatomic structures and patient perspective.

The final grantee, Chicago CHW Local Network, taught 105 employed CHWs Mental Health First Aid (MHFA), a formal program developed in Australia as an early intervention for people experiencing mental illness. The course teaches the symptoms, causes, and evidence-based treatments for depression, anxiety, psychosis and substance abuse disorders and presents an action plan for possible crisis situations, including suicidal ideation, panic attack and drug overdose. This program was called Creating Training and Leadership Opportunities for CHWs in Behavioral Health. The course was offered in one eight-hour class utilizing two instructors. Multiple sessions were offered and two were held in Spanish.

Evaluation Tools

IOMC required an evaluation format (see Appendix 1) that

was flexible but required answers to the following: statement of problem, target population (CHWs and patients to be served), methods, results, discussion, challenges and lessons learned, and future plans. Within this format, the grantees used a variety of evaluation tools and techniques.

Typically, grantees used a pre- and post-survey to assess knowledge and behavior changes. This survey was designed by instructors based on the curriculum, quizzes, and instructor experience with similar courses. In addition, several pilot projects had participant interviews conducted 2-6 months after the completion of the course, often by an outside evaluator (with respondent identity blinded). In addition, one grantee evaluated a final group project undertaken by three groups of the participants. One grantee used a survey performed by text message two months after the conclusion of the training. Some grantees included a course evaluation by participants at the end of the training session. Furthermore, one grantee included a survey regarding motivation for taking the class and interest in pursuing the class subject as a practice area.

In retrospect, it would be helpful to include in an evaluation the type and level of education and job experience of the participating CHWs or CHW candidates to allow better generalization of results. One of the grantees included information on community contacts and other interface with the community after the conclusion of the course by the trained CHWs.

Major Results

The four pilot programs combined provided 6 training modules, received funding of \$79,000 and trained 189 unique CHWs in 200 training module episodes with a total of 1836 training hours for a cost of approximately \$395 per module episode and \$43 per training hour. Since these were pilot programs, the costs of curriculum development and design are included in the costs per module and per training hour. Therefore, replication of these programs would be less expensive. Using the ratio described in one of the pilot projects (25 community members reached concerning the content of the pilot project by each trained CHW over 3 months), it is estimated the 189 trained CHWs impacted over 4700 members of the target communities during the first 3 months after the programs for a cost of about \$17 per community member. (Table 1).

Program Sponsor	Hours Per Module	Number of CHWs per Module	Total Hours of Instruction Provided
Enlace, Module 1	22	7	154
Enlace, Module 2	14*	15	210
SS College	36	11	396

Women’s Health Foundation, Module 1	4	50	200
Women’s Health Foundation, Module 2	3	12	36
Chicago CHW Local Network	8	105	840
TOTALS	73	200	1836
*This is an estimate, hours not given, described as “2 day” training			

Table 1: Training Hours for Each Program. Abbreviations: South Suburban (SS), Community Health Worker (CHW).

CHWs showed marked improvement in knowledge about a variety of challenging topics such as mental health first aid, pelvic health, leadership, community organizing, case management, and research. This improvement was demonstrated in all pilot projects and across various training techniques. For example, in pre- to post- tests in one pilot project, there was 68 absolute percent improvement in the 5 questions on case management and 27 absolute percent improvement in 5 questions on research understanding. See figure below. (Table2).

Pre Test	Post Test	Pre Test	Post Test	Pre Test	Post Test
1	1	1. 50%	1. 90%	1. 64%	1. 91%
2	2	2. 0%	2. 95%	2. 55%	2. 91%
3	3	3. 20%	3. 85%	3. 64%	3. 91%
4	4	4. 10%	4. 100%	4. 55%	4. 73%
5	5	5. 0%	5. 50%	5. 64%	5. 91%
All...posttest able to identify their leadership style		Average overall knowledge gain = 68%		Average overall knowledge gain = 27%	

Table 2: From the South Suburban College Community Health Workers Leadership Institute Final Report to IOMC, 2016. Example of Pre and Post Test Results.

Another project showed 66% of the Master trainers (CHWs trained to train other CHWs) expressed high confidence in delivering pelvic health information to other community health workers. In another, all course completers (109 of 110 who started the course, 105 of these were CHWs) passed the Mental Health First Aid post-test (internationally recognized program and test) and received their 3 year certificates.

CHWs across the pilot projects appeared to be pleased with the content and teaching style of the training programs. For example, in one project the overall program was rated by eight of eleven participants as excellent and three rated it as good. Presentation of content was rated excellent by nine of eleven participants and good by two of eleven.

An example of the type of outreach and community contact by the CHWs was stated by the Pelvic Health program. The CHWs communicated the material from the program “Mainly to Women in Their Church, Children’s School, And Friends of Friends”. This highlights the importance of close community connections by the CHWs. Communication of key health topics is performed in informal as well as formal settings. School, church, and parks are key settings for CHWs to reach peers. These types of communications

are not typically available to other health workers.

One of the grantees, Enlace, reported continuing impact of the pilot program. Over the 21 months following the IOMC grant conclusion, 14 of the 16 participants who completed the Enlace CHW Leadership Academy training funded by the grant have been engaged with one or more programs at Enlace. Furthermore, IOMC funding assisted with expansion of CHW use at Enlace. Enlace’s team of CHWs grew from 2 full-time CHWs at the start of the grant to a team of three full-time CHWs and two part-time CHWs (15-20 hours per week) 33 months later [11].

Limitations of evaluations

Comparison of the interim (6 month) progress report from each grantee to the final report reveals that some components of evaluation were not able to be completed by some grantees. This seemed to be due to staff limitations or turnover in small agencies.

Portions of CHWs did not complete some of the evaluation instruments so it is difficult to extrapolate results to the total population trained in a specific program. The CHWs participating in the training programs were not a random sample of all CHWs in

the Chicago metropolitan area so it is difficult to generalize from the success and challenges of these pilot programs. The largest limitation of the evaluations is measurement of impact on the population served by trained CHWs. Ideally, metrics of population health would be used to evaluate such training programs but the limitations of resources and time did not make this possible.

Discussion and Lessons Learned

The CHWs involved brought varied backgrounds to the pilot projects. All had work experience that varied from wellness education, health education, public benefits and health insurance enrollment, resource connection, public health research and community outreach, community navigation/patient navigation and/or case management. They worked for a variety of employers: academic medical centers, community hospitals, FQHCs (Federally Qualified Health Centers) and other community clinics, major non-profit organizations, community organizations and small local organizations.

Consistent with the literature, CHWs in the pilot projects demonstrated that they can gain and use skills that are helpful in

the advancement of the health of underserved communities. CHWs demonstrated advancement of knowledge and often mastery of a variety of challenging topics such as mental health first aid, pelvic health, leadership, community organizing, case management, and research. This advancement was demonstrated across all pilot projects.

It is remarkable that successful training was demonstrated across varied sponsoring organizations, types of curriculum and content. This is an important concept for furthering the impact of CHWs and assisting in their professional development. This is especially important because CHWs have limited financial resources and are pressed for time for advancing their career because of family and community demands. It appears that there is a need for a continuum of training opportunities that would include on-the-job training, on-line training, classroom education, focused continuing education with and without certification, basic and advanced education with certification, and college credit courses. See diagram below for one schematic suggested by a grantee. These four pilot programs demonstrate the feasibility of many aspects of such a continuum. (Figure 1) Continuum of Educational Offerings

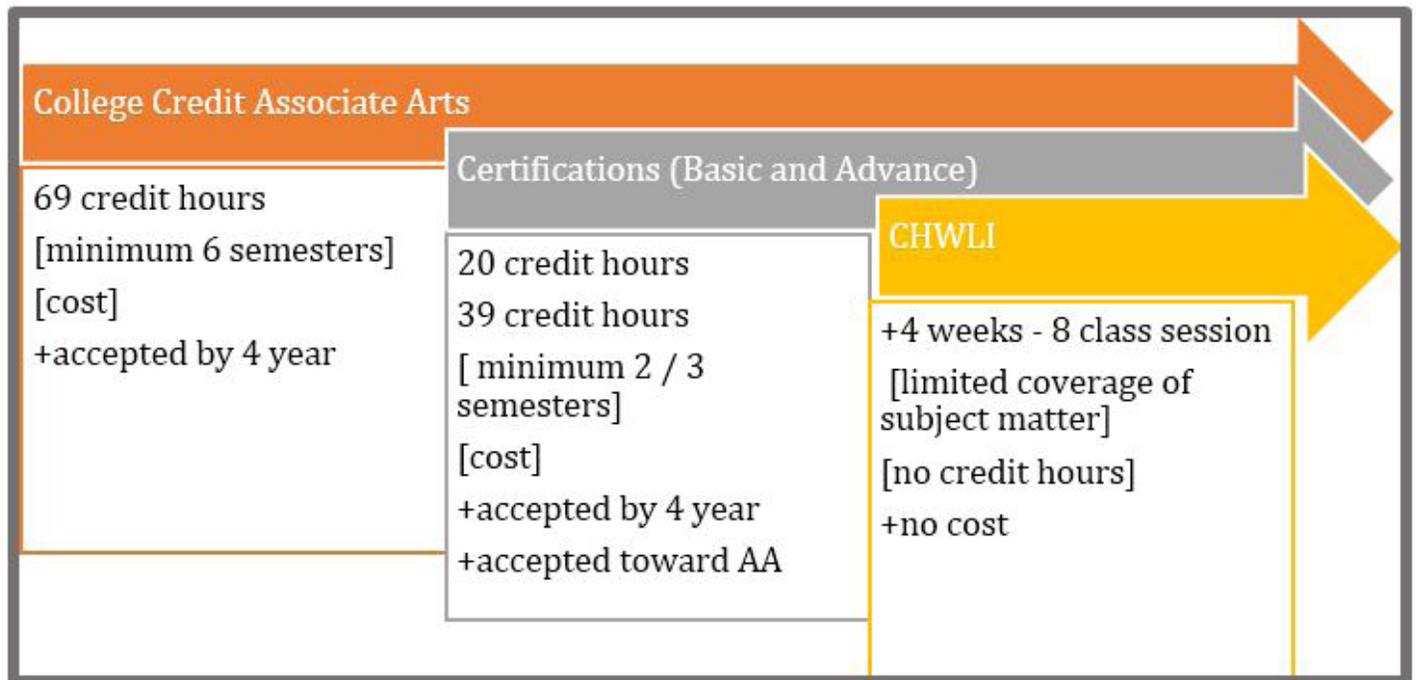


Figure 1: Continuum of Educational Offerings. From the South Suburban College, Community Health Workers Leadership Institute (CHWLI) Final Report to IOMC, 2016.

Financial considerations are important when considering the advancement of CHWs. As the South Suburban College final report noted: "... there was no charge for participation in the institute as compared to costs that can range from \$2,400 to \$7,460 to obtain a basic certificate, \$4,680 to \$14,547 to obtain an advance certificate and \$8,280 to \$25,737 to obtain an Associate of Arts degree".

Formal feedback from the CHW participants illustrate the difficulty for CHWs to plan professional development given uncertainty in the job market, unclear career development pathways, and the hurdles created by long-standing certification requirements by the State of Illinois. For example, although the CHWs who were trained in Mental Health First Aid (MHFA) felt it would assist them in their current activities and they supported integration of mental and physical health services, they did not express interest in more behavioral health training apparently because they could not see how this would assist with a career path.

A common criticism was that there wasn't "enough time to practice the skills learned." For example, this occurred in the MHFA program. Sponsors noted that 8 hour sessions were used, not the 12 hour sessions in the classic MHFA program. This argues for the classic format. However, it is challenging to accomplish this with CHWs, typically low-income individuals, given their personal challenges of family and work. It should be noted that participants attended this training outside of work hours. Participants also noted that certain important topics were not covered in MHFA including eating disorders and policy change.

All four grantees acknowledged challenges in linking health care organizations, training institutions, underserved communities and CHWs (or candidates). For example, the community college noted that "closer attention must be made regarding establishing a close and positive relationship with organizations to ensure successful recruitment from employers." In another example, the Women's Health Foundation needed assistance in the early phases of its grant to make contact with an adequate number of community organizations that use CHWs to fill its training ranks. To further highlight the need for better connections, the CHW Network acknowledged that it frequently receives requests from health care systems to identify CHWs for positions while the health systems overlook CHWs already working in other positions in the health system. This may also reflect the difficulty human resources departments in health system have in categorizing community health workers and documenting their skills for this new professional category. This triangular, mutually dependent relationship between underserved communities that can be a major source of CHWs, training programs for CHWs, and employers of CHWs, especially those serving underserved communities, is reflected in the diagram below. The referrals move in both directions between communities and employers, between communities and training programs, and between employers and training programs (Figure 2).

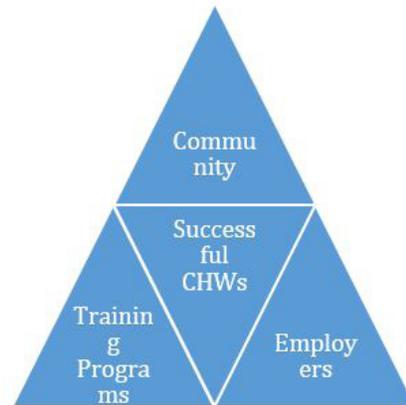


Figure 2: Interdependence of Community, Training, and Employment for CHW Success.

Multiple opportunities exist to further the use of community health workers in advancing the health of underserved communities. To accomplish this, employers will need to shape human resources procedures to look for variable training backgrounds such as those highlighted in this paper. Formal educational background as a "minimum" requirement should be less important than ties to the community combined with communication skills and a willingness to learn. CHWs need to be coached in building their resumes to include all learning, certified and other, when seeking career advancement. Developing capabilities within communities to identify and foster CHW candidates will be essential to assure the supply and effectiveness of CHWs.

Conclusion

These pilot projects reinforce the literature that shows that CHWs can acquire complex knowledge and skills important to furthering community health, particularly in underserved communities. Enhancement of knowledge and skills was done through varied teaching techniques. In addition, these projects highlight ways IOMC and partnering organizations may expand the use of CHWs across the Chicago metro area. Particularly, these four pilot projects have documented weaknesses in the triangular relationship described above between communities, trainers, and employers. IOMC will explore opportunities to strengthen those relationships through its extensive network of community and health care partners. In addition, IOMC will consider partnerships to reach out to communities lagging in health outcomes to develop a process for identification of potential CHWs and those CHWs interested in further development and employment opportunities. An important goal of these partnerships should be to build strong, long-lasting, and self-sustaining connections between communities, CHWs, training programs and potential employers.

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Conflict of Interest

One of the authors, Leticia Boughton Price, CHW, MSW, was and is the Network Coordinator of the Illinois CHW Association (formerly Chicago Community Health Worker Local Network) which was one of the organizations receiving a grant discussed in this paper. Otherwise there are no conflicts of interest by her or other authors.

Appendices

(Appendix 1):

Outline for Final Report for CHW Projects

Introduction

(Appendix 2):

Grantee	Enlace, Module 1	Enlace, Module 2
Date	2015-16	
Grant Amount	\$19,350	
Title of Project	“Train the Trainer” for CHW facilitators of the Enlace Community Health Worker Leadership Academy	Enlace Community Health Worker Leadership Academy (ECHWLA)
Intervention	Facilitator training: 22 hours spread over 2 weekends (4 days) using a tailored version of Enlace Leadership Academy designed for the needs of local CHWs in order to develop their capacity to organize and advocate for health system policy change. The course content includes the concept of inequity and is structured around Enlace’s five organizing principles, Little Village and Enlace’s history, how to identify one’s self-interest through one-on-one meetings, the concept of power and how to conduct a power analysis, and the elements of an advocacy campaign.	Enlace CHW Leadership Academy: 2-day training using a tailored version of Enlace Leadership Academy designed for the needs of local CHWs in order to develop their capacity to organize and advocate for health system policy change. The course content includes the concept of inequity, Enlace’s five organizing principles: Little Village and Enlace’s history, how to identify one’s self-interest through one-on-one meetings, the concept of power and how to conduct a power analysis, and the elements of an advocacy campaign.
Target Population to Be Served by CHWs	Little Village, a predominantly Mexican and Mexican-American neighborhood, and other low-income predominantly hispanic communities	

Brief review of literature explaining the roles of CHWs in general in the health care system

Statement of Problem

What specific issue was the expansion/training of CHWs designed to address

Target Population

Discuss the population that would benefit from the newly trained CHW

Methods

Discuss the mechanism for enrolling eligible individuals for CHW training, the course curriculum specifically designed to address the problem and reach the target audience, and how CHWs were evaluated to assure competency

Results

Discussion

Challenges/Barriers/Lessons Learned

Future Plans

Description of Focus CHWs	7 of 10 CHWs, most from Little Village, previously trained in Leadership Academy who volunteered for the intervention and were able to complete the training,	16 CHWs who volunteered to attend ECHWLA, most from Little Village
Participant CHW Work Experience	Wellness education, public benefits and health insurance enrollment, resource connection, public health research and community outreach	
Evaluation Tool(s)	outside evaluator conducted follow-up telephone interviews with a sample of facilitators with mixture of open-ended questions and questions using a Likert-type scale, interviewee identity blinded	Pre and Post ECHWLA survey, Participant evaluation form at end of ECHWLA , interviews of sample of participants by outside evaluator 2-3 months post ECHWLA (interviewee identity blinded)
Outcome		Participant evaluation form: 14/14 completing form were satisfied with the training; all agreed the level of instruction and the length of the training was appropriate
Outcome		Pre-Post survey: improvements in collective efficacy and perceived control as it relates to making positive changes in the neighborhood; overall decreases when rating their leadership abilities with working with partners outside of their field and with connecting and collaborating with other organizations/movements with shared goals
Outcome	Out of the four facilitators interviewed, only one felt very well prepared. The other three felt adequately or somewhat prepared to facilitate the training. All interview respondents felt that their leadership skills were increased in some capacity and reported learning about social factors that impact health. Facilitators felt that materials were thorough enough for them to have a solid understanding of the subject matter.	All interview respondents felt that their leadership skills were increased in some capacity and reported learning about social factors that impact health.
Outcome	The two most salient themes that emerged from the outcome evaluation questions asked during the interviews were the following: the ECHWLA can be a catalyst to mobilize community leaders with the interest to create positive community change; there are barriers that exist to leadership and to participating in campaigns, such as competing needs, fear, and language barriers.	
Outcome	The three most salient themes that emerged from the process evaluation questions asked during the interviews were the following: participants and facilitators felt the ECHWLA created a sense of solidarity and support among the CHWs; concepts of the ECHWLA are complex and can take time to digest; facilitators felt they were well prepared and had the opportunity to input their own experiences into the curriculum.	
Limitations of Evaluation	Small sample size precludes statistical analysis. Responder bias since not all CHWs responded. Time delay of survey led to some recall challenges. All participants were volunteers which makes extrapolation to general population of CHWs difficult.	
Project Continuation	ECHWLA to be repeated every 2 years	
Lesson Learned	Present material in less concentrated manner by spreading over several days	
Lesson Learned	Design program in the context of the local community with history of the community and examples taken from the community	
Lesson Learned	Develop dictionary of terms used in the training to clarify terms from health care, community organizing, and leadership	

Materials Developed	Health Module Facilitator Guide, Participant Handout and Health Module Appendix; Pre- and Post- Training Survey; Facilitator Evaluation Tool; ECHWLA Agenda; ECHWLA Evaluation; Interview Guides
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(Appendix 3):

Grantee	South Suburban College
Date	10/1/15-10/30/16
Grant Amount	\$20,000
Title of Project	Community Health Worker Leadership Institute
Intervention	To build and implement a continuing education (non-credit) alternative to the existing for-credit Community Health Workers program offered at South Suburban College (SSC)
Target Population to Be Served by CHWs	People served by the three employers that already employ CHWs
Description of Focus ChHWs	11 CHW referred by three employers (an additional Spanish only speaker was referred to another curriculum taught in Spanish)
Participant CHW Work Experience	Number of participants that reported experience in the following roles: case manager (1), community health outreach worker (2), community outreach worker (4)
Evaluation Tool(s)	1)5 Question Pre and Post Test designed by Instructors with questions from their quizzes, tests, and or assignments, previously given during course at SSC. 2)Final Group Project for each of 3 groups
Outcome	All participants were able to identify their leadership style in the post-test.
Outcome	68% improvement pre to post test in the 5 questions on case management
Outcome	27% improvement in pre to post test on research understanding
Outcome	Overall program rated excellent (8) and good (3). Presentation content rated excellent (9), good (2).
Outcome	Leadership project outcomes: a) each team was able to apply leadership styles to their collaborative team work for their group project. Moreover, they were able to see the connection between individual leadership styles and application to the CHW work. Leadership and CHW were well aligned in the minds of participants by the end of the course b)each team utilized the basic components of case management in their presentations giving real life examples and outcomes c)each team brought to its presentation research skills of statistical concepts, the ability to analyze results from literature and other data sources
Limitations of Evaluation	Limitations of pre/posttest such as learning from pre-test
Project Continuation	Will seek approval of SSC Community Health Workers Advisory Committee; then develop a plan to garner internal and external support for the CHWLI becoming one of the approaches offering CHW education through SSC; develop a sustainability plan which will include securing funding to offer the CHWLI on a quarterly basis; agreements with organizations to provide on- going training to their employees
Lesson Learned	This program of continuing education without degree credit is feasible and can be part of a continuum of continuing education, certification (basic and advanced), and college credit Associate Arts.
Lesson Learned	Program has shown that classroom based trainings is necessary and desirable – it is the aspects of interaction between students and between students and instructor that provides an extremely rewarding learning experience. This goes beyond on-line only courses such as HRSA “Health Start On-line CHW Courses”.
Lesson Learned	Closer attention must be made regarding establishing a close and positive relationship with organizations to ensure successful recruitment from employers.
Materials Developed	Syllabus, introduction letter to employers about the program, application, personal information form, pre and post test questions, orientation agenda, program evaluation

(Appendix 4):

Grantee	Women’s Health Foundation,	Women’s Health Foundation,
	Module 1	Module 2
Date	Fall, 2015 to Fall, 2016	
Grant Amount	\$20,000	
Title of Project	CHW Advanced Pelvic Health Education Project	
Intervention	Building upon the Women’s Health Foundation’s (WHF) Pelvic Health Community Initiatives (PHCI) program that partnered with local organizations to train community health workers (CHWs) to disseminate pelvic health information, resources, and healthy behaviors to women in underserved communities, the Advanced Pelvic Health Education Project will: train 50 Community Health Workers with 3 partner agencies (Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute) in Advanced Pelvic Health using materials previously developed by WHF. This material provides a detailed review of pelvic health, which includes bladder, bowel, uterine, and vaginal health.	12 extremely eager CHWs who participated in the module 1 CHW pelvic health training were recruited as CHW Master Pelvic Health Trainers. They completed one pelvic health educator training, at the conclusion of which they reported an increased knowledge of the WHF CHW curriculum content and delivery, including pelvic function, recognition and treatment of common symptoms, behavioral approaches and exercises to prevent and alleviate symptoms, and which medical providers treat such symptoms. In addition, WHF also provided a physical therapist as requested by CHWs to further explain muscles and structures and patient perspective.
Target Population to Be Served by CHWs	Clients served by three community and health institutions in the Chicago inner city serving Hispanic populations: Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute.	
Description of Focus ChHWs	50 Community Health Workers with 3 partner agencies (Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute).	12 extremely eager CHWs who participated in the above CHW pelvic health training,
Participant CHW Work Experience	Community Health Workers were employed by one of 3 partner agencies (Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute).	Community Health Workers were employed by one of 3 partner agencies (Alivio Medical Center, Enlace Chicago, and Sinai Urban Health Institute).
Evaluation Tool(s)	WHF measured pre- and post- intervention knowledge and behavior of participating CHWs and the women they serve through pre-validated surveys adapted to the age, language, and literacy of program participants. The content of survey instruments was tied to the outcomes. CHWs participated in the project pelvic health trainings completed an assessment before the training and immediately following training, and via text survey two months later. CHWs participating in Master Pelvic Health Trainer sessions completed an assessment at the conclusion of their training and will receive an assessment after six months from training.	Text Survey; phone call follow-up
Outcome	42% of the 50 Community Health Workers trained responded to feedback text survey. CHW’s reported reaching 541 women in their communities, an average of 25 women per CHW that responded to the text survey.	66% of the Master trainers expressed high confidence in delivering pelvic health information to other community health workers.

Outcome	During follow up calls, many recalled Tips for a Healthy Bladder information flyer, and said it came in handy as an opening tool to discussing pelvic health with women in their community. They mainly served women in their church, children's school, and friends of friends.	They completed one pelvic health educator training, at the conclusion of which they reported an increased knowledge of the WHF CHW curriculum content and delivery, including pelvic function, recognition and treatment of common symptoms, behavioral approaches and exercises to prevent and alleviate symptoms, and which medical providers treat such symptoms.
Limitations of Evaluation	Only 42% response rate to text survey	No measure of Master trainer ability to teach other CHWs was provided
Project Continuation	WHF has shifted its focus to adolescent girls and targeting peer educators to disseminate basic pelvic health information so this program no longer fits with their strategic focus.	
Lesson Learned	Breaking the pelvic health taboo with the elderly in their communities was major challenge for CHWs.	
Lesson Learned	Many Community Health Workers told us that access to health care is still an issue for many undocumented women, but if a woman did have access, they highly advise making an appointment with a doctor, nurse, or PT.	
Materials Developed	Pelvic health training materials	Pelvic health educator training materials

(Appendix 5)

Grantee	Chicago CHW Local Network
Date	Fall, 2015 to Fall, 2016
Grant Amount	\$20,000
Title of Project	Creating Training and Leadership Opportunities for CHWs in Behavioral Health
Intervention	Mental Health First Aid (MHFA), a formal program developed in Australia as an early intervention for people experiencing mental illness. The course teaches the symptoms, causes, and evidence-based treatments for depression, anxiety, psychosis and substance abuse disorders and presents an action plan for possible crisis situations, including suicidal ideation, panic attack and drug overdose. One hundred and five of the students were employed CHWs. The course was offered in one eight-hour class utilizing two instructors. Multiple sessions were offered and two were held in Spanish.
Target Population to Be Served by CHWs	At the time of the course, all CHWs were employed in settings that serve at-risk populations in underserved areas, many of which have documented shortages in behavioral health services.
Description of Focus CHWs	110 people participated in the training, 105 identified as employed CHWs and five identified as non-CHWs.
Participant CHW Work Experience	Most participants had more than two years of experience as a CHW. They worked for a variety of employers: academic medical centers, community hospitals, FQHCs and other community clinics, major non-profit organizations and small local organizations. [1] Many were health educators; others were outreach workers or community navigators/patient navigators. Most reported they spent the majority of their time in the community.
Evaluation Tool(s)	Post-test; course evaluation at the end of the training session; a survey regarding motivation for taking the class and interest in pursuing behavioral health as a practice area; six month follow-up phone call to explore changes in practice and interest in further training
Outcome	CHW satisfaction was high. Participants reported that the instructors were well prepared.
Outcome	The most common criticism was that there wasn't 'enough time to practice the skills learned.' (note: 8 hour sessions were used, not the 12 hour sessions in the classic MHFA program.) Participants also noted that certain important topics were not covered including eating disorders and policy change.
Outcome	All course completers (109 of 110) passed the MHFA post-test and received their 3 year certificates.

Outcome	Many CHWs reported that they feel more prepared to deal with individual clients and family situations than before the course.
Outcome	Further behavioral health training did not emerge as a priority in follow up CHW phone interviews.
Limitations of Evaluation	Phone survey 6 months after completion of course not completed. Evaluation instruments were not translated into Spanish prior to the first training session held in Spanish; this was done in time for the second Spanish language session.
Project Continuation	Hold a behavioral health summit with local employers who have a track record of employing CHWs to explore the acceptability of CHWs working in behavioral health with employers and to make the case for the CHW contribution to integrated care models. Chicago CHW Local Network to secure funds to train CHWs.
Lesson Learned	CHWs in study are generally oriented towards a holistic view of health and assume that an integrated approach to physical and mental health is required for positive outcomes. As the health care field moves toward integrated care, CHWs can play a critical role.
Lesson Learned	There is no clear path for CHWs to join the behavioral health workforce. The behavioral health certification process is fragmented and disjointed; there are contradictory rules regarding formal education and many requirements are embedded in state regulations that have morphed over the years without any indication of coherent planning.
Materials Developed	Survey to identify participant career goals

References

- Rosenthal EL, Brownstein JN, Rush CH, Hirsch GR, Willaert AM, et al. (2010) Community Health Workers: Part of the Solution. *Health Affairs (Health Affairs)* 29: 1338-1342.
- Rosenthal L, Wiggins N, Ingram M, Mayfield Johnson S, Zapien J (2011) Community health workers then and now: An overview of national studies aimed at defining the field. *Journal of Ambulatory Care* 34: 247-259.
- O'Brien MJ, Squire AP, Bixby RA, Larson SC (2009) Role development of community health workers: An Examination of selection and training processes in the intervention literature. *American Journal of Preventive Medicine* 37: 262-269.
- HRSA (2007) Community health worker national workforce study. Bureau of Health Professions, HRSA, US Department of Health and Human Services.
- Board, Illinois CHW Advisory (2016) Community Health Workers in Illinois: A Value-driven solution for population health. Illinois Department of Public Health.
- Health Connect One 2014. Perinatal Revolution: New research supports the critical role Community-Based Doula Programs can play in improving maternal and child health in underserved birthing populations.
- APHA. n.d. Community Health Worker Section.
- Lehmann U, Sanders D (2007) Community health workers: What do we know about them? Geneva, Switzerland: World Health Organization.
- Wennerstrom A, Hargrove L, Minor S, Kirkland AL, Shelton SR (2015) Integrating community health workers into primary care to support behavioral health service delivery: A pilot study. *Journal Ambulatory Care Management* 38: 263-272.
- Berthold T (Edtr.) (2016) Foundations for Community Health Workers, 2nd edition. John Wiley & Sons, Inc.
- Benitez A. Interview by Mark Shields. 2018. Late Results for Enlace (June 26).