Public Health Training Centers' Support for Community Health Workers: Case Studies of Needs Assessment, Training, and Student Field Placement Initiatives

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ABSTRACT

Context: Community health workers (CHWs) are vital frontline public health workers. Given their trusted roles and connection to and understanding of the communities they serve, CHWs are able to link underserved communities to resources and public health agencies. With CHWs' increased prominence in the public health workforce, calls have been made for expanding and supporting CHW training and career development opportunities.

Program: Public health training centers (PHTCs) are mandated to assess public health workforce needs, provide evidence-based professional development trainings, and increase students' aptitude for working with underserved and underresourced communities through applied practice experiences. Public health training centers can support CHWs in each of these areas.

Design: Case studies from 3 PHTCs are provided to exemplify how PHTCs are well positioned to support the critical CHW workforce via assessment, training, and student field placements.

Implementation: A regional needs assessment survey with a designated section for CHWs, the provision of accessible and relevant CHW training, and CHW-focused student field placements were implemented in PHTC Regions 6/South Central, 1/New England, and 5/Great Lakes, respectively.

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Evaluation: The Region 6 needs assessment found that CHWs in Oklahoma had multiple core roles and training interests. A crosswalk of needs and available training in the region guided the creation of tailored CHW trainings. Across 35 CHW-targeted trainings in Region 1, 88.5% of trainees were satisfied with the trainings and identified actions they could take to apply information they learned to their work. Significant improvements ($P < .001$) in knowledge occurred across the 13 trainings that had pre-/posttests. In Region 5, students engaged with CHW-based organizations in Wisconsin to inform statewide CHW priority action items and deliverables and found the field placements meaningful for their academic experience.

Discussion: Public health training centers' strengths in workforce development can complement and extend existing efforts to support the CHW workforce.

KEY WORDS: community health workers, evaluation, needs assessment, public health training centers, student field placements, training

Community health workers (CHWs), also called outreach workers, patient navigators, and promotoras de salud, among other job titles, are critical members of the public health workforce.[1] Community health workers are frontline public health workers who primarily work in underserved communities and act as a trusted bridge between the communities they serve and health care and public health systems to address the social determinants of health, provide culturally and linguistically relevant health education, and advance care coordination, health equity, and population health.[2-4] There is growing evidence that CHWs can improve their clients' health behaviors and health outcomes, particularly within vulnerable communities,[5-8] and that integrating CHWs into clinical care teams is a cost-effective practice.[9,10] The CHW workforce has grown rapidly over the past several years, with projections for continued growth,[11] especially in the era of COVID-19.[12-14] According to the CHW Core Consensus (C3) Project, a national CHW study, CHWs have 10 core roles, a scope of practice comprising 11 core skills, and several fundamental qualities, including connections to the community and shared life experiences.[15] Multiple entities have called for increased recognition, career development, training, and support for CHWs so that they have the platform and resources needed to serve their communities.[3-5,15,16]

There is not a standardized CHW core curriculum at the national level; consequently, many states have or are in the process of developing core competency trainings based on unique state-specific needs.[17,18] The network of public health training centers (PHTCs), representing the 10 US Department of Health & Human Services regions across the United States,[19] can be a valuable partner to existing CHW organizations and employers in this process. Public health training centers are charged with preparing the current and future public health workforce by conducting local health needs assessments to identify regional priorities; creating, implementing, and evaluating tailored workforce development trainings; and coordinating student field placements with organizations in medically underserved communities.[20] This article provides illustrative case studies to demonstrate how PHTCs, in collaboration with community-based training partners (CBTs), support the CHW workforce through needs assessment (Region 6), training provision (Region 1), and student field placements (Region 5). The case studies exemplify PHTCs' broader efforts nationally to serve CHWs. We aim to showcase PHTCs' recent CHW initiatives while sharing lessons learned that may be helpful for other organizations interested in strengthening CHW partnerships.

Case Study 1: Using Needs Assessment Data to Identify CHW Training Priorities

Overview

The Region 6 South Central PHTC (R6-SCPHTC) at the Tulane University School of Public Health & Tropical Medicine serves Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, and works closely with 10 CBTs. This case study illustrates how 3 CBTs in Oklahoma—Oklahoma Public Health Training Center (OPHTC), Southern Plains Tribal Health Board, and Oklahoma Public Health Association—collaborated to use regional needs assessment data to better understand and address local CHW training needs.

Rationale and methods

Oklahoma has disproportionately poor health outcomes, ranking 46th among US states for poor health,[21] and CHWs have the potential to reduce these health disparities.[22] In 2019, R6-SCPHTC and CBTs conducted a regional workforce training needs assessment survey that included a section for CHWs to better understand workforce characteristics and training needs. The section's 5 questions aligned with national CHW surveys and priorities.[15,20,23] Oklahoma CBTs distributed the survey to their professional contacts

within the state. More information on the needs assessment methodology and in-depth results is available elsewhere.[24,25] The Tulane R6-SCPHTC central office supplied Oklahoma-specific needs assessment data from self-identified CHWs to OPHTC. Descriptive analyses were conducted using Microsoft Excel and SAS Software, Version 9.4. Identified training needs were compared with known available trainings in Oklahoma and through the R6-SCPHTC learning management system.[26]

Key findings

Key findings from the Oklahoma CHW survey respondents (n = 51) are presented. Community health workers had a broad spectrum of roles and skills. Of the 10 C3-Project CHW core roles,[15] those used most frequently were providing culturally appropriate health education and information (74.5%), conducting outreach (64.7%), and care coordination, case management, and system navigation (58.8%). For the 11 C3-Project skills,[15] all (100%) utilized communication skills, closely followed by professionalism and professional conduct (98.0%). To address the C3 "knowledge base" skills,[15] participants were asked to select the 3 top health issues addressed by their organization from 20 options. The top choices were diabetes (58.8%), elder health (29.4%), and chronic disease prevention (23.5%), followed by maternal and child health (21.6%), mental health (19.6%), and alcohol/substance/tobacco use (19.6%).

The most common required trainings by CHWs' employers included workshops (68.6%), on-the-job trainings (62.7%), and organization-based trainings (56.9%). As shown in Table 1, most respondents expressed interest in trainings on all topics. Of

TABLE 1
R6-SCPHTC Oklahoma Community Health Worker Needs Assessment Results (N = 51)

Type of Training	Expressed Interest n (%)	Available From Oklahoma CBT Partners	Available From Tulane LMS[26]
HRSA priorities			
Persuasive communication	36 (70.6)	No	Yes
Resource management	33 (64.7)	No	Yes
Problem solving	32 (62.7)	No	No
Policy engagement	32 (62.7)	No	No
Systems thinking	31 (60.8)	No	Yes
Diversity and inclusion	31 (60.8)	No	Yes
Change management	29 (56.9)	No	No
Data analytics	29 (56.9)	No	No
Specific public health topic trainings			
Health education	35 (68.6)	No	No
Chronic disease	32 (62.7)	Yes	No
Mental health	32 (62.7)	Yes	Yes
Other substance abuse	32 (62.7)	No	Yes
Opioid abuse	31 (60.8)	No	Yes
Childhood obesity	30 (58.8)	No	No
Communicable disease control	30 (58.8)	No	No
Injury prevention	29 (56.9)	No	No
MCH and family health	29 (56.9)	No	Yes
Environmental public health	28 (54.9)	No	Yes
Epidemiology	28 (54.9)	No	Yes
Other training topics of interest			
Professional skills		Yes	Yes
Meeting resource needs		No	No
Women, infants, and children		No	No
Senior or elder health		Yes	No
Violence prevention/care		No	Yes

Abbreviations: CBT, community-based training; HRSA, Health Resources & Services Administration; LMS, learning management system; MCH, maternal and child health.

the 8 Health Resources & Services Administration (HRSA) priority activities and public health skills,[20] Oklahoma CHWs were most interested in persuasive communication (70.6%), resource management (64.7%), problem solving (62.7%), and policy engagement (62.7%). Of the 11 specific public health topic trainings, including HRSA clinical priorities,[20] respondents most frequently selected health education (68.6%), chronic disease (62.7%), mental health (62.7%), other substance abuse (62.7%), and opioid abuse (60.8%). In response to an open-ended question, 16 respondents listed other training topics of interest including professional skills; meeting resource needs; women, infants, and children; senior or elder health; and violence prevention/care.

Most respondents expressed strong interest in trainings delivered in multiple formats, including in-person classes (78.1%), online on-demand classes (78.1%), blended learning (online-on-demand and real-time learning) (75.6%), and live webinars (69.0%). The top facilitator for public health professional workforce development was access to free courses (66.7%).

Utilization of findings

Needs assessment data were used to develop a descriptive snapshot of Oklahoma CHWs' workforce development resources and needs, including required trainings and expressed training priorities, and served as a starting point to better understand and support CHWs in Oklahoma. Information on how findings aligned with national CHW survey results is available elsewhere.[25] Community health workers reported a wide range of roles and skills aligning with the C3 Project,[15] and current trainings were geared toward employing organizations' needs. In addition to organization-based trainings, CHWs should have opportunities to build the broad spectrum of their roles and skills following C3 Project recommendations.[15] Since each CHW skill applies to multiple roles, training CHWs on a wide-ranging spectrum increases their employability. Thus, OPHTC is working with public health and CHW partners to codevelop a C3-Project skill-based foundational training for Oklahoma's CHWs as well as other training to meet identified gaps as shown in Table 1.

Lessons learned

Unlike previous national surveys that could not reach Oklahoma's CHWs,[23] in-state organizations can generate survey responses useful for descriptive analysis. Reaching CHWs to share information about their current roles and training interests is important as including CHW voices in workforce development decisions aligns with national CHW organizations' stated values of self-determination[27] and leadership for workforce standards and credentialing.[28] Community health worker leaders should be further engaged in developing and distributing future needs assessments to increase buy-in and response rates.

Case Study 2: Developing and Evaluating CHW Training Programs

Overview

The Region 1 New England PHTC (R1-NEPHTC) at the Boston University School of Public Health serves Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, and includes training partners in each state. This case study showcases how R1-NEPHTC supports CHWs and CHW trainers' needs in Region 1 and provides evaluation findings.

Training development approach

In 2016, R1-NEPHTC conducted an environmental scan to understand the evolving CHW workforce model in each New England state and identify potential roles for R1-NEPTHC in CHW workforce development.[29] It revealed that formal and informal advocacy networks for CHWs exist in each state and momentum for CHW credentialing was gathering strength, with 4 states establishing credentialing systems. Findings suggested that R1-NEPHTC should work with CHW allies to improve training infrastructure, including continuing education programs[29] and shift from supporting classroom-based core competency training, which reached relatively few participants, to continuing education that would complement the wide range of existing CHW training, thus supporting more CHWs and CHW trainers across the region.

R1-NEPHTC, in partnership with CHW supporting organizations, identifies training needs related to current community challenges and relevant subject matter experts and designs, develops, and markets programs based on learning quality standards. Community health workers often serve as coinstructors and contribute to content development. R1-NEPHTC's advisory committee includes 2 CHW leaders and a director of a CHW state health department office. R1-NEPHTC respects each state's unique approach to their CHW workforce; by partnering with existing CHW networks and providing educational technology and evaluation to support training, R1-NEPHTC has been able to serve CHWs and CHW-supporting organizations in the region.

Trainings developed

Since 2016, R1-NEPHTC has partnered with state and local CHW allies to deliver more than 35 programs prioritizing CHWs in the region. The delivery formats of evaluated trainings include webinars (17), self-paced programs (13), and online workshops (5). While R1-NEPHTC funds some classroom training, its online learning formats offer sophisticated educational systems for the practice community, which may not exist in community-based training organizations. The PHTCs are skilled in training development and delivery in all modalities; have deep experience and capacity in virtual hosting, instructional design, learning management systems, evaluation, and quality improvement; and have the ability to reach and engage CHWs as a key segment of the public health workforce.

Evaluation methodology and findings

R1-NEPHTC evaluates its trainings based upon the first 2 levels of the Kirkpatrick Training Evaluation Model, which focus on clarity of information and overall satisfaction (level 1) and knowledge improvement and intention to apply learning (level 2).[30] When possible, pre- and posttests are used to assess knowledge at baseline and immediately after training to evaluate knowledge accuracy, with scores ranging from 0% to 100% correct. Paired samples *t* tests were conducted to determine whether there were statistically significant differences from pre- to posttest with significance set a priori at $P < .05$.

Participant reactions to R1-NEPHTC's set of 35 trainings developed or curated for CHWs are shown in Table 2. In all, 3502 participants completed an evaluation since 2016. Across all trainings, the mean for those who agreed or strongly agreed that the training information was presented in ways they could clearly understand was 91.1% (range: 84.2%-100%). The mean for those who agreed or strongly agreed that they were satisfied with the training overall was 88.4% (range: 78.4%-100%). The mean for those who agreed or strongly agreed that they identified actions to apply what they learned in the training to their work was 88.4% (range: 78.7%-100%), and the mean for those who agreed or strongly agreed that their understanding of the training subject matter improved as a result of the training was 88.5% (range: 73.5%-100%).

R1-NEPHTC conducted pre- and posttest assessments for 14 self-paced CHW trainings; 13 of these had more than 30 matched pre- and posttests, the minimum number R1-NEPHTC considers appropriate to conduct statistical analysis (Table 3). For all 13 trainings, there were statistically significant increases in knowledge scores at posttest compared with pretest (P values $< .001$).

Lessons learned

Participants provided very positive feedback about the trainings. An important lesson gleaned was that partnering with CHW allies is an effective means to develop and promote CHW trainings and to support CHWs across a region with an evolving CHW infrastructure. Based upon the success of the trainings and R1-NEPHTC and CHW partnerships, CHW trainers may find it helpful to work with PHTCs as collaboration can provide access to educational assets such as learning management systems, experience with self-paced training development, and access to additional public health training resources.

Case Study 3: Student Field Placements Contributing to Statewide CHW Advancement

Overview

The Region 5 PHTC (R5-RVPHTC) at the University of Michigan School of Public Health serves Illinois, Indiana, Ohio, Michigan, Minnesota, and Wisconsin, and includes a network of 9 CBTs and 3 technical assistance providers. The R5-RVPHTC offers health professions graduate and undergraduate students paid, competency-based field placements with public health organizations that are located in and/or prioritize a medically underserved community. This case study illustrates how a CBT, the University of Wisconsin Population Health Institute's Mobilizing Action Toward Community Health (MATCH) Group, hosted 3 student placements to work in partnership with the state health department to contribute to statewide efforts supporting Wisconsin's CHW workforce. R5-RVPHTC evaluation findings, which focused on student growth, indicate how the placements brought the voices and role of CHWs into the academic experience of early-career public health professionals.

Student field placement context, implementation, and evaluation

In its various public health workforce development activities, MATCH centers community voice and builds upon existing statewide alignment of organizations that are working to elevate, recruit, and train CHWs.[31] Grassroots and community organizations have been working to strengthen the statewide

TABLE 2

R1-NEPHTC Community Health Worker Training Evaluation Results[a]

Modality	Start Date	Course Title	N[b]	Knowledge[c]	Application[d]	Clarity[e]	Satisfaction[f]
Self-paced	July 27, 2016	Introduction to Outreach Methods and Strategies	367	90.2	89.6	89.9	88.6
Webinar	June 1, 2017	Numbers in Health: Make the Meaning Clear	64	92.2	89.1	90.6	84.4
Self-paced	July 21, 2017	Foundations of Infection Prevention in the Ambulatory Care Setting	91	86.8	85.7	92.3	90.1
Self-paced	July 21, 2017	Standard Precautions in the Ambulatory Care Setting: Personal Protective Equipment and Safe Surfaces	145	73.8	79.3	86.9	80.7
Self-paced	July 21, 2017	Standard Precautions in the Ambulatory Care Setting: The Basics of Hand Hygiene	268	73.5	81.7	88.8	78.4
Self-paced	July 21, 2017	Standard Precautions in the Ambulatory Care Setting: Safe Cough Practices	74	85.1	86.5	87.8	86.5
Self-paced	July 21, 2017	Transmission-Based Precautions in the Ambulatory Care Setting	66	87.9	89.4	92.4	90.9
Self-paced	September 27, 2017	Use of Public Health Concepts and Approaches	236	90.3	90.3	91.1	91.1
Webinar	October 17, 2017	Integration of Community Health Workers Into a Community Health Center Pharmacy	20	90.0	95.0	95.0	90.0
Webinar	December 13, 2017	Community Health Workers Learn Teach Back	95	87.4	86.3	89.5	90.5
Webinar	January 25, 2018	Role of Community Health Workers in the Prevention of Diabetes Part 1	47	95.7	97.9	93.6	89.4
Webinar	February 2, 2018	Role of Community Health Workers in the Prevention of Diabetes Part 2	42	95.2	92.9	95.2	95.2
Self-paced	July 16, 2018	Creating Public Health Messages & Materials Using Plain Language	120	88.3	88.3	87.5	80.0
Webinar	November 20, 2018	The Essential Role of Community Health Workers in Addressing the Opioid Epidemic Webinar 1	142	92.3	93.0	90.8	90.8
Webinar	December 4, 2018	The Essential Role of Community Health Workers in Addressing the Opioid Epidemic Webinar 2	121	93.4	93.4	90.9	90.9
Webinar	January 31, 2019	Umatter Suicide Prevention for Public Health Professionals	101	94.1	95.0	94.1	93.1
Webinar	April 16, 2019	Part One: Trauma Informed Care to Support Health and Well-Being	96	91.7	91.7	94.8	92.7
Webinar	April 23, 2019	Part Two: Trauma Informed Care to Support Health and Well-Being	86	91.9	91.9	91.9	93.0
Webinar	October 15, 2019	Practical Strategies to Increase Your Personal Safety While Doing Fieldwork	58	93.1	96.6	89.7	93.1

(*continues*)

TABLE 2

R1-NEPHTC Community Health Worker Training Evaluation Results[a] (*Continued*)

Modality	Start Date	Course Title	N[b]	Knowledge[c]	Application[d]	Clarity[e]	Satisfaction[f]
Self-paced	January 29, 2020	Storytelling for Public Health	280	88.2	86.1	90.4	85.7
Webinar	February 5, 2020	Conversations Around Chronic Care: Introduction to Motivational Interviewing	94	96.8	93.6	96.8	96.8
Webinar	March 11, 2020	Park Rx: Exploring an Innovative Prescription Program	38	100.0	89.5	94.7	94.7
Webinar	June 23, 2020	CHW Webinar: Trauma Informed Self Care and Community Care During a Pandemic	105	91.4	89.5	89.5	87.6
Workshop	June 24, 2020	Harm Reduction During the COVID 19 Pandemic Through an Anti-Racist Lens	29	96.6	100.0	100.0	100.0
Webinar	July 22, 2020	Health Literacy Response to COVID-19	167	94.0	89.2	93.4	91.6
Self-paced	October 1, 2020	Introduction to Ethics for CHWs	117	83.8	87.2	90.6	86.3
Workshop	November 5, 2020	MACHW Workshops: Housing Rights and Advocacy Resources for CHWs	19	89.5	89.5	84.2	89.5
Self-paced	January 6, 2021	An Introduction to One Health	183	89.6	78.7	91.8	88.5
Workshop	January 7, 2021	MACHW Workshops: ABCs of Immigration & Know Your Rights	34	82.4	79.4	88.2	85.3
Self-paced	February 4, 2021	Introduction to HIPAA for CHWs	91	87.9	92.3	94.5	91.2
Workshop	March 4, 2021	MACHW Workshops: Exploring Mental Health Strategies to Cope With Everyday Stress	25	88.0	88.0	88.0	80.0
Webinar	April 14, 2021	The Sisyphus Curse: The relentless Work of public health: How to Survive and Thrive	30	90.0	96.7	100.0	100.0
Self-paced	April 30, 2021	Trauma-Informed Conversations	34	88.2	91.2	94.1	97.1
Workshop	May 6, 2021	MACHW Workshops: Self Care, Caring for Ourselves and Others	10	100.0	100.0	100.0	90.0
Workshop	July 8, 2021	MACHW Workshops: Amplifying Voice, Equity & Well-Being for Community Health Workers	7	100.0	85.7	100.0	100.0
Total			3502	$\bar{x} = 88.5$ Range: 73.5-100	$\bar{x} = 88.4$ Range: 78.7-100	$\bar{x} = 91.1$ Range: 84.2-100	$\bar{x} = 88.4$ Range: 78.4-100

Abbreviations: CHWs, community health workers; HIPAA, Health Insurance Portability and Accountability Act.

[a] *Trainees used a 5-point Likert scale (1 = strongly agree to 5 = strongly disagree) to indicate their level of agreement with the statements. Numbers presented for the 4 evaluated statements represent the percentage of participants who agreed or strongly agreed.*

[b] *N is the number of trainees who completed an evaluation.*

[c] *Knowledge: My understanding of the subject matter improved as a result of having participated in the training (level 2).*

[d] *Application: I have identified actions I will take to apply information I learned from this training to my work (level 2).*

[e] *Clarity: The information was presented in a way I could clearly understand (level 1).*

[f] *Satisfaction: I was satisfied with this training overall (level 1).*

TABLE 3
R1-NEPHTC Community Health Worker Training Pre- and Posttest Evaluation Results

Training Title	N	Pretest x̄ (SD)	Posttest x̄ (SD)	*P*
Foundations of Infection Prevention in the Ambulatory Care Setting	96	89.9 (15.4)	98.1 (10.4)	<.001
Introduction to HIPAA for CHWs	132	73.2 (17.7)	97.6 (7.9)	<.001
Introduction Ethics for CHWs	128	82.4 (18.0)	94.2 (12.0)	<.001
Numbers in Health: Make the Meaning Clear	76	77.9 (14.4)	91.8 (9.7)	<.001
An Introduction to One Health	142	72.2 (17.0)	94.8 (9.4)	<.001
Standard Precautions in the Ambulatory Care Setting—Safe Cough Practices	80	84.8 (15.0)	97.6 (10.2)	<.001
Standard Precautions in the Ambulatory Care Setting—PPE and Safe Surfaces	165	90.2 (16.0)	98.6 (6.3)	<.001
Introduction to Outreach Methods and Strategies	384	58.0 (23.1)	90.9 (18.3)	<.001
Standard Precautions in the Ambulatory Care Setting—Basics of Hand Hygiene	285	80.0 (11.2)	98.2 (6.0)	<.001
Storytelling for Public Health	307	56.1 (21.4)	94.7 (12.0)	<.001
Trauma-Informed Conversations	36	84.9 (11.7)	93.5 (8.8)	<.001
Transmission-Based Precautions in the Ambulatory Care Setting	75	93.6 (10.4)	97.3 (8.2)	<.001
Use of Public Health Concepts and Approaches	245	67.0 (20.3)	91.7 (12.8)	<.001

Abbreviations: CHWs, community health workers; HIPAA, Health Insurance Portability and Accountability Act; PPE, personal protective equipment.
N is the number of trainees who completed an evaluation. Pre- and posttest scores range from 0%-100% accuracy.

CHW infrastructure and unify their efforts for many years. This essential groundwork and advocacy are further facilitated by the Wisconsin Department of Health Services Chronic Disease Prevention Program (WI DSH CDPP), which is funded by the Centers for Disease Control and Prevention to strengthen a sustainable statewide CHW workforce and infrastructure. Since 2018, MATCH has collaborated with WI DHS CDPP and community partners to support the Wisconsin CHW workforce.

Table 4 describes the goals, activities, and outcomes of the projects completed by 3 students supporting MATCH-WI DSH CDPP collaborative efforts between 2018 and 2021. The students worked to collect quantitative and qualitative data, review literature, and contribute to writing related to coalition building, curriculum development, and advocacy. Outcomes indicate how these projects contributed to the broader work of the MATCH-WI DHS CDPP collaboration and Wisconsin CHW Network.

R5-RVPHTC student field placement evaluation focuses largely on students' professional development experience as future public health practitioners. In baseline and postproject surveys, students are asked to identify foundational public health competencies[32] relevant to their project and their level of confidence to apply those skills. The 3 students varied in their application of and self-reported growth in competencies, depending on the focus of their project, their understanding of their projects over time, and perceived level of experience at baseline. Based on feedback in their postsurveys, all 3 students reported applying skills related to selecting data collection methods and communicating audience-appropriate public health content.

Open-ended feedback from postproject surveys provides additional insight on how the placements impacted student learning. For example, as one student described, the placement was an opportunity for them to learn about CHWs as a profession:

> Before this project, I didn't really understand what [CHWs] were, but after this project, I feel it is part of my duty as a public health professional, to bring this experience with me and promote the use of these critical frontline workers in all spaces.

TABLE 4
R5-RVPHTC and MATCH-WI DHS CDPP Student Field Placement Community Health Worker Projects

Project Goals	Project Activities	Project Outcomes
Inform the structure of the statewide CHW leadership advisory body and infrastructure.	Qualitative and quantitative data collection and analysis, as well as a literature review to examine best practices, benefits, and challenges to sustaining CHW coalitions.	• Proposal was drafted in collaboration with the WI CHW Network Advisory Committee to inform their structure and coalition building process. • Qualitative data for the WI CHW Community Conversations were presented during the 2019 WI CHW Network Kick Off Summit to engage CHW perspectives and inform statewide CHW priority areas.
Provide the Wisconsin CHW Network Curriculum and Training Committee with best practices, national examples, and recommendations about CHW certification and credentialing.	Complete a literature review of CHW credentialing and certification models, referencing resources and examples from national CHW associations, and make recommendations.	• Paper was sent to the Wisconsin CHW Network Curriculum and Training Committee cochairs to inform decisions on CHW certification and credentialing to advance the workforce.
Promote the role of CHWs during COVID-19 to elevate ways to support their sustainability.	With mentorship from MATCH staff, gather literature and support the writing of a brief focused on the role of CHWs during COVID-19 and opportunities to support their sustainability. The student focused on making updates to COVID-19 guidance, researching the impact of CHWs in COVID-19 response, and creating an infographic to promote the understanding of CHWs.	• This work is part of a larger initiative started by the Community Response and Resilience Taskforce to ensure health equity alignment across COVID-19 response efforts, which includes elevating the role of CHWs and the urgent need for sustainability. • The brief is intended to inform stakeholders, CHWs, advocates, policy makers, and allies about CHWs, and avenues to support sustainability of the workforce.

Abbreviation: CHW, community health worker.

Another student described how their project emphasized CHW voices when exploring advancement of the profession:

> I also had the opportunity to hear from [CHWs] themselves about the priorities of advancing their workforce in [Wisconsin], gained knowledge about the some of the steps involved in workforce development, and was able to provide a written review of CHW training and credentialing models in states across the U.S.

Students also described ways in which the structure of the R5-RVPHTC and MATCH field placement programs contributed to their overall professional preparation and ability to apply classroom learning.

Lessons learned

An important outcome of these placements was that students were able to increase their knowledge about CHWs and health equity and connect their experiences inside and outside the classroom. As students progressed in their projects and building relationships, it was crucial for them to engage in a respectful manner with community partners that allowed for patience, aimed to negate harm and extraction from partners, and that centered the voices of CHWs. Central to this process were various student mentorship opportunities that allowed dedicated time for ongoing reflection, critical analysis, and constructive feedback, as well as clear communication around expectations for both the student and the preceptor.

The 3 student field placements were intentionally focused on the CHW workforce and strategically provided much needed capacity for the projects and partners while advancing students' learning and professional growth. Engaging early career professionals in discourse and advocacy efforts helps bring the CHW workforce to the forefront of public health modernization as an essential extension of public health services. Importantly, these student projects demonstrate how support from PHTCs can contribute to the bigger picture of a CBTs' work, in this case MATCH's broader CHW advancement efforts.

Conclusion

The preceding 3 case studies are exemplars of how PHTCs recognize and elevate the powerful role of the CHW workforce and are well positioned to partner with CHW organizations to assess CHW training needs, develop effective trainings, and establish student field placements to enrich students' learning experiences and the potential for future CHW allies while increasing CHW organizational capacity. As states develop their own CHW core trainings or curricula[17,18] and CHW certification becomes more commonplace,[4,33,34] PHTCs can help ease the burden of training development by offering trainings or training support on CHW C3 knowledge base skills,[15] HRSA priority areas,[20] and other public health topics relevant within their regions. There are numerous established efforts led by entities with long-standing commitments to CHWs (eg, National Association of CHWs and the American Public Health Association CHW section); PHTCs complement and do not replace this critical work. Given challenging historical power dynamics between academic institutions and communities, it would behoove PHTCs and others interested in supporting CHW training infrastructure to first devote time to building relationships with CHW organizations and employers in their state and region.

Public health training centers and other stakeholders should also make a concerted effort to become knowledgeable about the prevailing issues and challenges affecting the CHW workforce to become more effective allies. Despite increasing awareness of the role and benefit of CHWs, the CHW workforce remains largely undervalued by the medical and public health professions.[4,5,16] Furthermore, as CHWs take care of the needs of the communities they serve, they are navigating the same inequities themselves—highlighting the dual burden of being caretakers while also being immersed in the same environment.[2] Efforts, including trainings and advocacy, must be made to support CHWs' physical and mental health and to prevent burnout.[5,14] Public health training centers and other organizations invested in workforce development can intentionally and strategically elevate the CHW workforce, which also fosters PHTCs' objective to prioritize health equity. Doing so will help ensure a strong and sustained CHW workforce, thereby improving community health outcomes.

Implications for Policy & Practice

- Community health workers (CHWs) are crucial frontline public health workers who improve community health outcomes.
- Public health training centers (PHTCs) can support and advocate for the CHW workforce while also fulfilling the PHTC program mandated scope of work through assessing CHW workforce training needs, developing trainings for CHWs, and coordinating student field placements with CHW-serving organizations.
- PHTCs and other organizations interested in supporting the CHW training infrastructure should invest time in getting to know and becoming involved with CHW organizations and employers in their state and region. Doing so will enable these groups to become better allies and partners.

References

1. National Center for Chronic Disease Prevention Health Promotion. Collaborating with community health workers to enhance the coordination of care and advance health equity. Division of Community Health. https://stacks.cdc.gov/view/cdc/40470. Published May 10, 2016. Accessed November 10, 2021.
2. Landers SJ, Stover GN. Community health workers—practice and promise. *Am J Public Health*. 2011;101(12):2198-2198.
3. Peretz PJ, Islam N, Matiz LA. Community health workers and Covid-19—addressing social determinants of health in times of crisis and beyond. *N Engl J Med*. 2020;383(19):e108.
4. Bekemier B, Dang W, Hetzler R, et al. Role and future directions of community health workers in the public health workforce. National Coordinating Center for Public Health Training. https://nnphi.org/wp-content/uploads/2021/05/NCCPHT-CHW-Report-Final.pdf. Published 2021. Accessed November 10, 2021.
5. Pinto D, Carroll-Scott A, Christmas T, Heidig M, Turchi R. Community health workers: improving population health through integration into healthcare systems. *Curr Opin Pediatr*. 2020;32(5):674-682.
6. The Community Preventive Services Task Force. Interventions engaging community health workers. https://www.cdc.gov/dhdsp/pubs/docs/cpstf-interventions-engaging-chws.pdf. Published 2015. Accessed November 10, 2021.
7. Kim K, Choi JS, Choi E, et al. Effects of community-based health worker interventions to improve chronic disease management and care among vulnerable populations: a systematic review. *Am J Public Health*. 2016;106(4):e3-e28.
8. Roland KB, Milliken EL, Rohan EA, et al. Use of community health workers and patient navigators to improve cancer outcomes among patients served by federally qualified health centers: a systematic literature review. *Health Equity*. 2017;1(1):61-76.
9. Kangovi S, Mitra N, Grande D, Long JA, Asch DA. Evidence-based community health worker program addresses unmet social needs and generates positive return on investment. *Health Aff*. 2020;39(2):207-213.
10. Jacob V, Chattopadhyay SJ, Hopkins DP, et al. Economics of community health workers for chronic disease: findings from community guide systematic reviews. *Am J Prev Med*. 2019;56(3):e95-e106.
11. US Department of Labor. Occupational outlook handbook, health educators and community health workers. https://www.bls.gov/ooh/community-and-social-service/health-educators.htm. Updated April 18, 2022. Accessed May 19, 2022.
12. US Department of Health & Human Services. HHS awards $125 million in workforce grants for community-based efforts to bolster COVID-19 vaccinations in underserved communities. https://www.hhs.gov/about/news/2021/06/14/hhs-awards-125-million-in-workforce-grants-to-bolster-covid-19-vaccinations-in-underserved-communities.html. Published June 14, 2021. Accessed November 10, 2021.
13. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion. Community health workers for Covid response and resilient communities (CCR) CDC-RFA-DP21-2109. https://www.cdc.gov/chronicdisease/programs-impact/nofo/covid-response.htm. Updated April 28, 2021. Accessed November 10, 2021.
14. Smith DO, Wennerstrom A. To strengthen the public health response to COVID-19, we need community health workers. https://www.healthaffairs.org/do/10.1377/hblog20200504.336184/full/. Published May 6, 2020. Accessed November 10, 2021.
15. Rosenthal EL, Menking P, John JS. The community health worker core consensus (C3) project: a report of the C3 project phase 1 and 2. Texas Tech University Health Sciences Center. https://0d6c00fe-eae1-492b-8e7d-80acecb5a3c8.filesusr.com/ugd/7ec423_2b0893bcc93a422396c744be8c1d54d1.pdf. Published 2018. Accessed November 10, 2021.
16. Balcazar H, Rosenthal EL, Brownstein JN, Rush CH, Matos S, Hernandez L. Community health workers can be a public health force for change in the United States: three actions for a new paradigm. *Am J Public Health*. 2011;101(12):2199-2203.
17. Mason TH, Rush CH, Sugarman MK. Statewide training approaches for community health workers. https://nachw.org/wp-content/uploads/2021/09/8.25.21StatewideTraining.pdf. Published August 2021. Accessed February 5, 2022.
18. Association of State and Territorial Health Officials. A patchwork quilt of state approaches to CHW training. https://www.astho.org/StatePublicHealth/A-Patchwork-Quilt-of-State-Approaches-to-CHW-Training/05-30-19/. Accessed February 5, 2022.
19. National Network of Public Health Institutes. Regional public health training centers. https://nnphi.org/regional-public-health-training-centers/. Accessed November 10, 2021.
20. Health Resources and Service Administration. Regional public health training centers (PHTC) program. https://www.hrsa.gov/grants/find-funding/HRSA-18-017. Accessed November 10, 2021.
21. United Health Foundation. Oklahoma: 2019 Annual Report. 2019. https://www.americashealthrankings.org/api/v1/render/pdf/%2Fcharts%2Fstate-page-extended%2Freport%2F2019-annual-report%2Fstate%2FOK/as/AHR-2019-annual-report-OK-full.pdf?params=mode%3Dfull. Published 2019. Accessed November 10, 2021.
22. Oklahoma State Department of Health. Community health workers. White Paper. Oklahoma City, OK; April 24, 2017.
23. Sabo S, Wennerstrom A, Phillips D, et al. Community health worker professional advocacy: voices of action from the 2014 National Community Health Worker Advocacy Survey. *J Ambul Care Manage*. 2015;38(3):225-235.
24. Region 6 South Central Public Health Training Center. 2019 Needs Assessment Report. https://r6phtc.sph.tulane.edu/news/. Accessed May 9, 2022.
25. Reinschmidt KM, Dudubo O, Shorter CF, et al. A snapshot of Oklahoma's CHR/CHW workforce: results from the Region 6 training needs assessment survey, 2019. *J Okla State Med Assoc*. 2021;114(4):173-182.
26. Region 6 South Central Public Health Training Center. Online courses. https://r6phtc.sph.tulane.edu/online-courses/. Accessed November 10, 2021.
27. National Association of Community Health Workers. Our values. https://nachw.org/. Accessed November 10, 2021.
28. American Public Health Association. Support for community health worker leadership in determining workforce standards for training and credentialing, policy number 201414. https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/01/28/14/15/support-for-community-health-worker-leadership. Published November 18, 2014. Accessed January 22, 2022.
29. New England Public Health Training Center. New England Region community health worker (CHW) models group interviews of stakeholders by state and environmental scan: summary of findings. https://sites.bu.edu/nephtc/files/2021/10/NEPHTC_CHW-Environmental-Scan_2016.pdf. Published August 2016. Accessed November 10, 2021.
30. Kirkpatrick JO, Kirkpatrick WK. *Kirkpatrick's Four Levels of Training Evaluation*. Alexandria, VA: ATD Press; 2016.
31. Population Health Institute. Mobilizing action toward community health (MATCH). https://uwphi.pophealth.wisc.edu/match/. Accessed November 10, 2021.
32. Council on Education for Public Health. Accreditation criteria: schools of public health & public health programs. https://media.ceph.org/wp_assets/2016.Criteria.pdf. Published October 2016. Accessed November 10, 2021.
33. Association of State and Territorial Health Officials. Community health worker certification and financing. https://www.astho.org/Community-Health-Workers/CHW-Certification-Financing/. Published 2016. Accessed November 10, 2021.
34. Wennerstrom A, Sugarman M, Rush C, et al. "Nothing about us without us": insights from state-level efforts to implement community health worker certification. *J Health Care Poor Underserved*. 2021;32(2):892-909.