NC Community Health Worker Standardized Core Competency Training Evaluation Final Report
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The University of North Carolina at Pembroke
College of Health Sciences

The University of North Carolina at Pembroke
Community Health Worker SCCT Evaluation
Final Report

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Background: CHWs in North Carolina

The North Carolina Community Health Worker initiative emphasizes the role of Community Health Workers (CHWs) in improving health outcomes for individuals throughout the state, particularly those from marginalized communities (NCDHHS, 2022a). North Carolinian partners collaborated on building infrastructure to support the CHW workforce, including the development of core competencies (NCDHHS, 2022a) and the implementation of a community college curriculum (NCDHHS, 2022b) leading to a pathway to state certification overseen by the North Carolina Community Health Worker Association to standardize the profession (NCCHWA, 2022).

CHWs support the needs of rural populations by addressing health disparities impacting migrant laborers (Harwell et al., 2022; LePrevost et al., 2022). CHWs search online resources to locate health information for farmhands from rural North Carolina communities (LePrevost et al., 2022). These frontline staff screen patients for needs associated with social determinants of health (SDOH) (NCDHHS, 2021b). As medical professionals have not consistently screened for SDOH, this work plays a critical role in improving health outcomes for vulnerable populations (Wortman et al., 2020). CHWs also support refugees moving to the state; research has found that these CHWs credit their lived experience as members of this community with impacting their decision to pursue their career (Eluka et al., 2021). Additionally, CHWs provide community-centered support to geographically diverse locations, including Winston-Salem, by focusing their efforts within community micro-geographies to target distressed census tracts and specific zip codes (Gunderson et al., 2021).

At the height of the COVID-19 pandemic, CHWs supported North Carolinians through screening patients regarding their quarantine needs (NCDHHS, 2021). In addition, 350 CHWs utilized by seven vendors provided targeted support to 55 North Carolina counties facing high levels of COVID-19 within their communities (NC Department of Health and Human Services, 2021a). State infrastructure coordination supported CHW efforts to address health inequity needs exemplified during the pandemic (Grier-McEachin, 2021). North Carolina Department of Health and Human Services (NCDHHS) addressed the disproportionate impact of COVID-19 on minority populations by prioritizing efforts to increase Spanish-speaking services (NCDDHS, 2021). CHWs frequently promote NCCARE360, North Carolina's online platform connecting whole-person healthcare referrals to improve patient outcomes, to address health needs throughout the state (NCDHHS, 2021; Wortman et al., 2020). Post-COVID, CHWs continue to work with communities to promote healthy living.

Progress and Updates

The UNCP research study team participated in CHW initiatives. Through communication with the NC CHW Advisory Board, UNCP research study team members gained insight into state-directed initiatives. The team continued to prioritize communication with SCCT instructors to emphasize project goals and recruit study participants under version two of the study. The incentive for student participation remained the same, with participants receiving a $35 e-gift card for completion of part one of the study and another $35 e-gift card for completing part two.

190 participants from eight community colleges participated in the study from July 15, 2021, through July 15, 2023.

The UNCP CHW research study team also generated version two of the study in Spanish within REDCap to encourage the recruitment of Spanish-speaking community health workers. Participation of Spanish-speaking populations in UNCP's CHW research study can provide the North Carolina Department of Health and Human Services and key Community Health Worker partners a new perspective of the SCCT. All study components continue to be stored in the REDCap database.

Study Purpose and Methods

Overview
The University of North Carolina at Pembroke (UNCP), in partnership with the North Carolina Department of Health and Human Services – Office of Rural Health (NCDHHS-ORH), evaluated the standardized core competency training (SCCT) for North Carolina Community Health Workers (CHWs). The UNCP Community Health Worker (CHW) study team collected, analyzed, and reported data to assist the NCDHHS-ORH and interested parties in understanding the effect of SCCT. Evaluation goals will determine findings to inform future iterations of the SCCT, including curriculum, training design and assessment, study instruments, and methods, resulting in a highly effective educational resource grounded in core competencies available to North Carolina's CHW students. Moreover, UNCP plans to establish an online statewide data repository from this study which provides a body of North Carolina CHW-related data to strengthen CHW education and preparedness.

Evaluation Goal and Objectives
The overall goal of this evaluation is to determine the effectiveness of the NC CHW SCCT.

The objectives of this evaluation are:

1. Participate in statewide CHWI evaluation, SCCT Train-the-Trainer, and SCCT evaluation workgroups to communicate changes and receive feedback
2. Recruit participants for SCCT evaluation
3. Administer measurement tools, enter data in the REDCap (Research Electronic Data Capture) system, and conduct quality checks
4. Conduct key informant interviews with SCCT instructors and students to gather qualitative feedback regarding their experiences.
5. Complete qualitative and quantitative analysis of data.
6. Create an annual cumulative report to disseminate findings
7. Conduct presentations of findings for CHW statewide workgroups, SCCT Train-the-Trainer attendees, and at state CHW and professional conferences to disseminate findings and inform changes to SCCT curriculum and delivery
8. House data and reports on the UNCP CHW data repository and dashboard website

Evaluation questions include:

1. To what extent did the curriculum increase the knowledge, skills, and capacity of CHWs?

2. What training needs exist for CHWs? What is the perspective of CHWs, vendors, and others on the CHW program?
3. What are the types of themes, concepts, and thoughts identified and used in revisions to SCCT?
4. How many partners have been engaged in providing SCCT feedback?
5. How many participants agreed to participate in SCCT evaluation studies?

Participants
During the review period of July 15, 2022, through July 15, 2023, 190 participants from eight community colleges participated in the study. The following community colleges contributed during this period: Asheville-Buncombe, Beaufort County, Catawba, Durham, Edgecombe, Pamlico, Robeson, and Sandhills. As classes were offered virtually, students were eligible to participate from across the state; many participants lived in a different county than the county where their community college was located. Not all eligible students consented to participate in the study; the number of participants represents a portion of students overall participating in the SCCT.

Key Informant Interview Methods
The University of North Carolina at Pembroke (UNCP's) Institutional Review Board, also known as the IRB, approved both portions of this evaluation study.

The UNCP study team recruited SCCT instructor participants by sending email invitations to eligible instructors. SCCT instructors were eligible to participate in the qualitative study if they taught the SCCT course at any period from July 2022 through July 2023. Instructors were eligible for the KII process even if there were no students involved from their community college in the research study. SCCT student participants also underwent the same recruiting process and were eligible to participate in the qualitative study if they participated in the SCCT course during any period from July 2022 through July 2023. Before agreeing to participate, all individuals received a description of the interview process, including incentive eligibility, as well as a list of questions and corresponding prompts. All individuals completed an informed consent before the interview. All instructors and students participated in individual interviews that were scheduled for one hour in length via Zoom. All participating instructors and students received one $50.00 e-gift card as an incentive. The UNCP research study team interviewed 11 instructors from seven community colleges and 10 students.

Before agreeing to participate, individuals received a description of the interview process, including incentive eligibility, as well as a list of questions and corresponding prompts. All individuals completed an informed consent via REDCap before the interview. All participants completed individual interviews that were scheduled for one hour in length. Interviews were recorded and transcribed. Interviewees were assigned a study ID number known as a SID. All data were identified using only the SID. Only the UNCP CHW research study team accessed the identifying information. The UNCP's study database, known as REDCap, securely stored the transcribed data. Recordings, transcripts, and interviewer notes were kept confidential. Participants received a $50 gift card for their involvement in the one-hour Key Informant interview administered through the online platform Zoom. The UNCP research study team reviewed data to identify themes through qualitative analysis. The identities of all research participants remained anonymous throughout the communication of themes with partners.

Thematic analysis was used to analyze Key Informant Interview data. First, initial codes were created based on student and instructor interview transcripts. Codes were reviewed by the PI. Codes were consolidated and then categorized. Themes were devised from categories. The themes are represented below.

SCCT Evaluation Methods
The UNCP research study team recruited eligible students to participate in the study through communication with eligible course instructors and by providing study introductions to eligible classes. This study received reapproval from the IRB in June 2022. Initially, NCDHHS-ORH developed evaluation instruments that were entered into the Research Electronic Data Capture (REDCap) platform, securely stored on UNCP servers, to create a data repository of information collected from study participants. UNCP later became responsible for overall data collection. This database is still used to collect information via participant-entered electronic surveys. Once consent is obtained, study participants complete online surveys within the secure REDCap platform. The UNCP research study team exported de-identified response info for analysis and reporting. Part 1 of the research includes the following pre-test and surveys which were completed during the introductory weeks of the CHW course. Part 2 of the study is submitted after the SCCT course, as well as additional Career Impact Surveys which are administered at set intervals in the months following the completion of their course. Participants received a $35 e-gift card for completion of part one of the study and another $35 e-gift card for completing part two.

Part 1 (pre-test/surveys)
'Consent and Identifiers' (contact information – name, address, email, phone)
'Demographic Information Form' (participants may abstain from entering their information)
'Career Impact Survey' (administered at the beginning of the SCCT course)
'Comfort Level Survey' (measures self-assessed knowledge and attitudes towards SCCT)
'Pre-Test' (administered to measure the educational suitability of the SCCT course)

Part 2 (post-test/surveys)
'Post-Test' (administered to measure the educational suitability of the SCCT course; repeated at the end of class)
'Training Quality Survey' (administered at the end of the course to elicit modification recommendations)
'Comfort Level Survey' (measures self-assessed knowledge and attitudes towards SCCT; repeated at the end of class and 3-month, 6-month, and 1-year intervals post course completion)
'Career Impact Survey' (repeated at the end of class and 3-month, 6-month, and 1-year intervals post-course completion)
'Final SCCT Score' (pass/fail outcome obtained from course instructors)

Reporting
The UNCP study team provided quarterly reports to Partners in Health. These reports outlined project progress and milestones accomplished during set intervals throughout the project. This comprehensive final evaluation report includes quantitative and qualitative data from July 15, 2022, through July 15, 2023, and recommendations to improve the CHW training process throughout the state. Study results may be published or presented at professional meetings.

Key Informant Interview (KII) Results

Instructor Key Informant Interview Themes
All SCCT instructors who taught the course between July 2022 and July 2023 were invited to participate in the KII instructor process. All participants completed an informed consent before providing feedback through one-hour individual interviews conducted on Zoom. Eleven individuals participated in this process. Responses were de-identified, and the information shared remained anonymous. Thematic analysis was used to derive themes from interview transcripts. Themes include student engagement and achievement, CHW student capacity, interactive online content, instructor background and experience, instructor support, and curriculum strengths and limitations.

Student Engagement and Achievement
Instructors report success of the SCCT is primarily reflected in the success of their CHW students. They define success as CHWs passing the course, demonstrating significant learning and application of course materials as well as high levels of engagement with the material. Instructors see CHWs who are empowered to advocate for their clients and communities. They note the passion they see in their CHW students. One instructor commented, *"I don't think it should be about the quantity of CHWs…. It should be about the quality"*.

In addition, instructors consider the first Spanish-language course and the statewide reach of their courses to be successes. An instructor emphasized the SCCT's connection to the community, *"It's important to have that, you know, that positive relationship with the community, other health care fields because we always have to work so closely together"*.

CHW Student Capacity
While technology has allowed the SCCT to be offered statewide, there are challenges associated with technology use. Instructors report issues with sufficient broadband Internet access in rural areas. They see a lack of proficiency with technology among CHW students. Instructors report experiences with students who do not have adequate time to dedicate to the SCCT. They observe students who are not confident in their abilities (low self-efficacy). When describing students building confidence, one instructor stated, *"That's why I constantly keep reminding people that they are experts in the community"*.

Interactive Online Content
Instructors describe the following tools as useful in the online learning environment: videos, games, chat box, guest speakers, polls, websites, PowerPoint, models, breakout rooms, jamboards/whiteboards, class discussions, and online tutorials. Instructors indicate the importance of including a variety of interactive course components for online learning. They note that some students and instructors have difficulty with the learning management system.

Instructor Background and Experience
Overall, instructors see their role as an SCCT instructor as valuable and something they enjoy. They see the impact on the community. When reflecting on teaching the SCCT, an instructor remarked, *"I think just this experience has helped me grow as a person, as, as a teacher, and as an advocate for the work"* and *"I feel honored to be able to teach this class"*. Instructor

identification as a CHW varies. Instructors who do not identify as a CHW report their health education, counseling or other hands-on experience provides the background needed to teach the course. One CHW instructor describes how they view their role as a CHW, *"I do identify as a CHW. Not just because of my health ed background, but because I have been boots on the ground doing CHW work since before I had a degree."*

Instructor Support

Instructors see value in continuing education for themselves to increase their teaching and technology skills. They cite the train-the-trainer and public health training to be particularly helpful. Some note a need to revise the train-the-trainer. Instructors would like increased opportunities for collaboration among instructors, the NC CHW Association, and community colleges. One instructor made the following vision, *"being in a place where we can at least have a platform or a portal where we can share stuff would be amazing".* In addition, they see a need for more funding and compensation for their time.

The NC CHW Association is viewed as a source of support and advocacy for the SCCT. Instructors report they have been provided with opportunities to provide feedback through the NC CHW Association review committee. When asked about opportunities to provide feedback, one instructor responded, *"That's one thing I love about this course, that we can include our influence on the curriculum".* Overall, instructors would like continued opportunities for communication and connection.

Curriculum Strengths and Limitations

Instructors described a series of strengths and limitations regarding the SCCT curriculum.

Strengths include: detailed and comprehensive, based on core competencies, includes community partnerships, lists clear objectives, and the textbook.

Limitations include: outdated information, too much instructor variation, lack of supplemental resources, lack of representation from all cultural groups, low level of difficulty, exam questions not valid, missing self-care, LGBT+, and human trafficking content, and adult learners do not have time to read text, language barriers, accessibility needs, sustainability of and credibility of the curriculum.

Strengths and limitations of the curriculum are illustrated by one instructor's comment, *"strengths are the core competencies, definitely, but areas of improvement, I think, would be more supplemental materials to make sure that it is more standardized, because right now I feel like it's more of a framework, but it needs a little bit more meat".* While some instructors cited instructor variation/autonomy in teaching the course as a limitation others view variation and autonomy as a positive. One instructor highly values a standardized curriculum, *"That is powerful to know that all of our CHWs are receiving a very similar education".* In addition, instructors note the importance of being familiar with all course content through the train-the-trainer or other mechanism. Adding an internship component to the course was discussed as a positive.

Summary

Successes of the course include the CHW students' engagement with course materials and their ability to pass the course. Instructors view teaching the course as an honor and privilege,

acknowledging the reach of the course into the community. In addition, some instructors emphasize a lack of familiarity with all course content. The role of technology was referenced in terms of its value and the challenges that occur in an online teaching environment. Responses were mixed regarding whether instructors self-identify as Community Health Workers, while the instructors recognize the importance of the question. Various barriers include unreliable technology access, students' lack of time, and language barriers. The role of the NC CHW Association was referenced as a positive support for education and advocacy. There is an increased need for opportunities for continued collaboration among instructors.

Student Key Informant Interview Themes
All SCCT students who taught the course between July 2022 and July 2023 were invited to participate in the KII student process. All participants completed an informed consent before providing feedback through one-hour individual interviews conducted on Zoom. Ten individuals participated in this process. Responses were de-identified, and the information shared remained anonymous. The themes that emerged because of student key informant interviews include program benefits and challenges in the following areas: course content, materials, and accessibility, course impact and instructor support, and limitations and suggestions for enhancing learning.

<u>*Course Content, Materials, and Accessibility*</u>
The role of the CHW is diverse, requiring a range of content on various topics. The SCCT varied in length and was noted to be self-driven and designed for "fast learning." Some students remarked that the curriculum was easy to keep up with, while others expressed difficulties with the amount of work required outside of class time. Several students noted experiencing gaps in the implementation of the concepts discussed in class. Transitioning from other career paths to working as a CHW was challenging for some students who are new to the field.
Students remarked on having difficulties accessing the course. However, the online platform made it more accessible for people to participate in the course throughout the state. Class recordings also made the SCCT more accessible for individuals who were unable to attend the live class. Students acknowledged various challenges around the online platform, including challenges remaining self-motivated, difficulty with accessing the class link and navigating the various online platforms, and lack of face-to-face interactions or practicum experiences.
Course materials included materials such as the textbook, PowerPoint slides, and videos. While the wide range of materials was seen as a strength, materials were noted to be outdated at times. Outdated material included class links, statistics, and the textbook. Students noted several links being completely inaccessible and not using the textbook at all.

<u>*Course Impact and Instructor Support*</u>
The course was recognized as a "positive experience" and "a breath of fresh air." Students remarked that the training was a foundational piece that helped equip them for the CHW field. The delivery method and instructor support facilitated student's learning. Peer support and influence played a major role in student learning and contributed to networking opportunities. The SCCT equipped students with the resources and skills to serve the community and "inspired" individuals to advocate for the populations they serve.

Participants noted feeling well informed regarding various subject topics and the needs of specific populations. The knowledge, tools, and resources in the SCCT were key factors in their work in the CHW field. The materials covered a wide scope of information, giving students clarity on their role as a community health worker and empowering individuals by increasing awareness of the needs of the community and specific populations. Students remarked that the SCCT was "illuminating," and the broadness of the course equipped students to serve in their communities.

Often instructors were identified as strengths as they provided support and understanding for students. Instructors were knowledgeable, thorough, organized, prepared, and flexible which supported a safe learning environment for students. Instructor engagement supported student learning even in an online platform.

Limitations and Suggestions for Enhancing Learning
Although students acknowledge the benefits of an online platform, there was an overwhelming response to incorporate an in-person component into the course. Students suggested convening in person occasionally for class time, having a convention or in-person graduation, and integrating a practicum component to allow for in the field experience and practical implementation of the skills discussed in class. Additionally, participants recommended requiring all students to keep their cameras on to engage the class further and utilizing simplified online tools to allow for easier navigation of the course.

Students also suggested making the SCCT longer to dive deeper into certain topics. Updating materials and information to ensure everything is current was a major concern for students as well. Including more hands-on tools and aids would also contribute to student learning. Furthermore, students voiced concerns regarding obtaining and maintaining employment. They would like more guidance on understanding the landscape of employment for CHWs, more opportunities to network, and a tangible guide that includes materials, documents, templates, etc. to access upon completion of the course.

SCCT Evaluation Results

Participant Demographics

Number of Community College Participants Represented
N=190

A-B Technical CC	9
Beaufort CC	2
Catawba Valley CC	21
Durham Tech	24
Edgecombe CC	30
Pamlico CC	2
Robeson CC	91
Sandhills CC	11
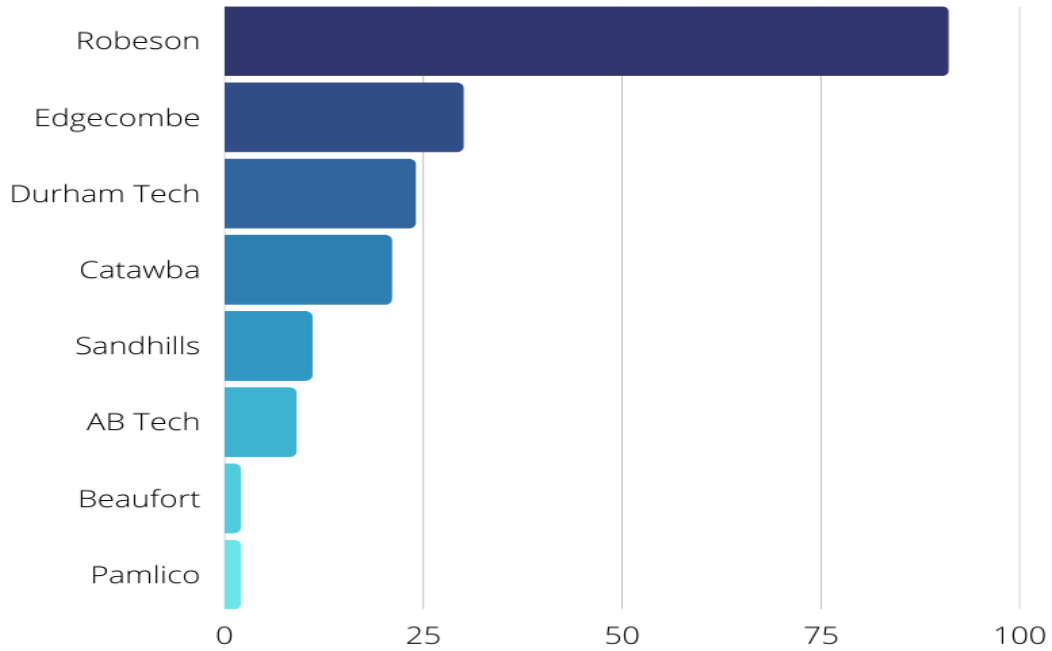
Participant Home County

Beaufort	3	Edgecombe	3	Mecklenburg	12	Robeson	8
Bertie	1	Forsyth	4	Mitchell	2	Rutherford	1
Brunswick	6	Guilford	5	Moore	4	Sampson	1
Buncombe	23	Halifax	5	Nash	3	Scotland	3

Burke	1	Haywood	2	New Hanover	17	Stokes	1
Cabarrus	3	Henderson	1	Northampton	1	Transylvania	1
Caldwell	1	Hoke	3	Onslow	3	Union	1
Catawba	2	Jackson	1	Orange	2	Wake	8
Clay	1	Johnston	1	Pender	2	Washington	2
Craven	5	Lenoir	2	Person	1	Wayne	2
Cumberland	9	Lincoln	1	Pitt	9	Wilkes	3
Davidson	1	Madison	2	Randolph	1	Yancey	1
Durham	10	McDowell	1	Richland	1		

Participants in a state other than North Carolina:
➤ Atlanta, Georgia
➤ Clayton, Maryland
➤ Hopkins, South Carolina
➤ Inman, South Carolina

How did you hear about the Standardized Core Competency Training (SCCT)? n=192, 101%

Brochure/flier on campus	8
Brochure/flier off campus	3
Instructor	72
Employer	51
Word of mouth	28
Other	29
Prefer not to reply	1

Participants reported hearing about the SCCT from a variety of sources. The data illustrates that most individuals heard about the SCCT via instructors, employers, or other source(s). Written responses are listed by type in the table below.

Online/email	7
Colleague/Friend	5
Community college website	4
Employer	5
CHW class	3
NCAHEC	2
NCCHWA	1
SCCT guest speaker representative	1

What is your race or ethnic background? Mark all that apply.
n=209, 110%

American Indian	10
Asian	0
Black/African American	101
Hispanic or Latino/a	17
Native Hawaiian	0
White	64
Two or More	7
Other	3
Prefer not to reply	7

> ➢ Latino
> ➢ Mixed
> ➢ Dominican

What gender do you identify as?
n=190, 100%

Female	156
Male	21
Non-binary	4
Prefer not to reply	3
No Information/no answer	6
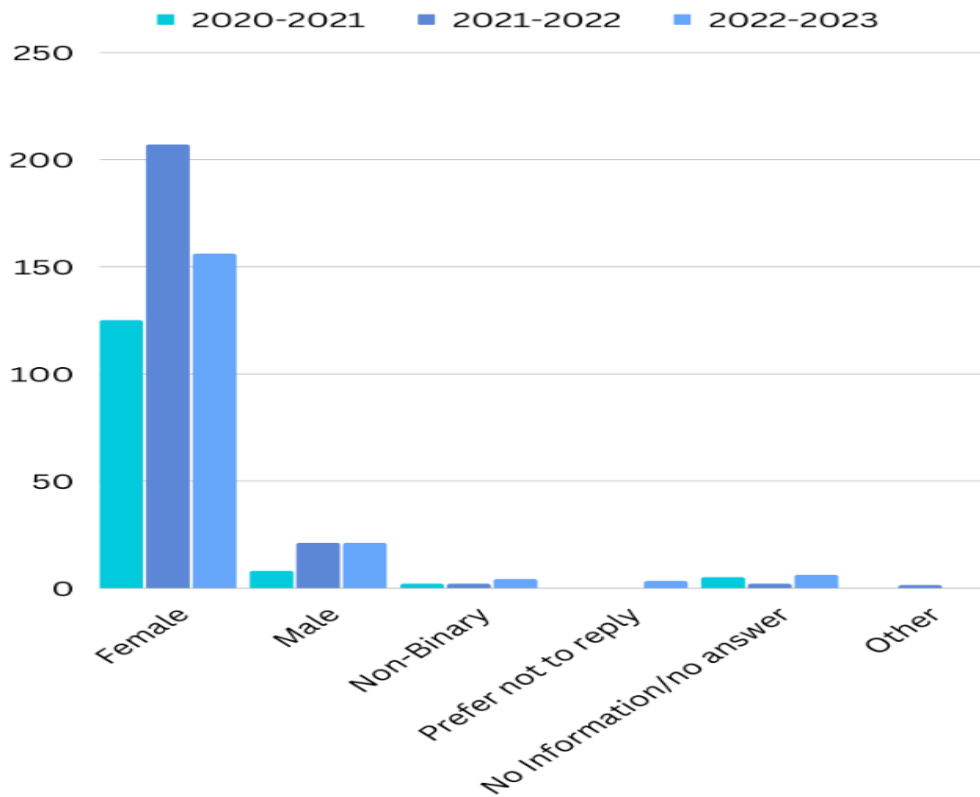
Approximately 82% of participants reported their gender as female. Data from previous years also reflected that most study participants reported their gender as female (90% or higher).

What sexual orientation do you identify as?
n=194, 102.1%

Bisexual	11
Gay	1
Lesbian	5
Pansexual	3
Queer	7
Straight	157
Other	3
Prefer not to reply	7
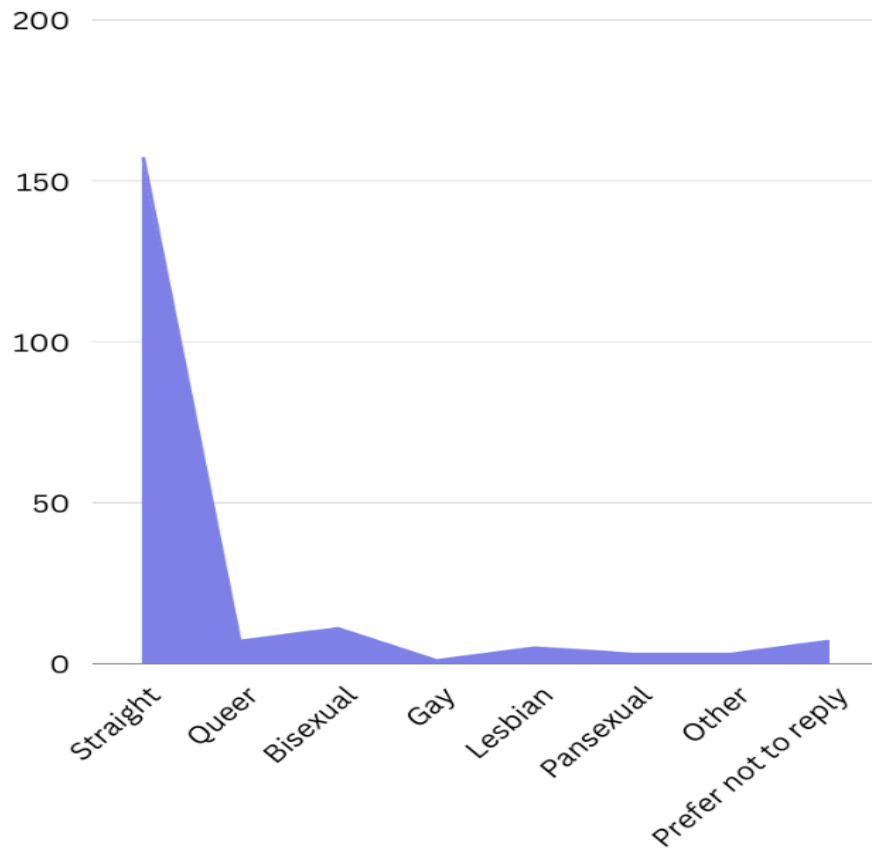
What languages are you fluent in? Mark all that apply. n=209, 110%

English	182	Arabic	1
Spanish	17	Korean	1
French	2	Polish	1
German	2	Russian	1
Prefer not to reply	2		
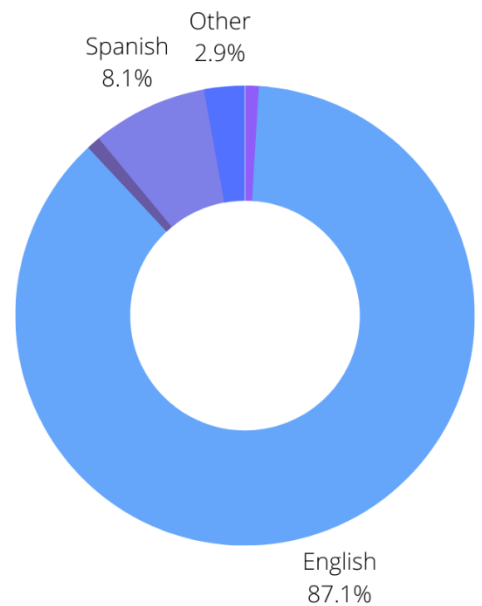
Roughly 13% of participants reported speaking a language other than English fluently. Spanish was the second most spoken language after English.

Career Impact Survey
Participants were asked to complete the following data from the Career Impact Survey upon starting and at the end of the course. Follow-up surveys are sent 3-months, 6-months, and 1-year after course completion. The tables differentiate pre-survey, post-survey, and follow-up data.

When it comes to work as a CHW, I am currently:

	Pre-n=190, 100%	Post-n=126, 66.3%	3-month n=35,18.4%	6-month n=16, 8.4%
Volunteer - Full time	2	4	0	0
Volunteer - Part time	10	5	1	0
Employed - Full time	69	50	19	8
Employed - Part time	9	6	1	1
Employed - Looking for a new job	10	8	1	1
Not working - Looking for work as a CHW	9	9	4	0
Not working as a CHW	74	38	8	5
Not working - not looking for work	3	2	0	0
Prefer not to reply	4	4	1	1

Responses were written regarding the question, if not working as a CHW, what is your title, are tabulated in the table below.

Other	25	Project Coordinator	4
Case manager/coordinator	20	Care worker	2
Director/manager/supervisor/team lead	19	CHW	2
Healthcare professional	13	Housing Specialist	2
Support Specialist	12	Educator	1
Not applicable	4	Outreach	1
Peer Specialist	4		

Study participants were asked to report the organization they work or volunteer with. Responses are recorded in the table below. Responses listed under 'Other' include written responses like McDonald's, locksmith, and Food Lion.

LME/MCO	34	Land of Sky Regional Council	2	Sunrise Community for Recovery and Wellness	1
Healthcare agency/Health related entity	29	Religion affiliated entities	3	Symmetry	1

Community-Based	12	AM LLC CO	1	Tai Connects, LLC	1
OIC	6	Cada Headstart at HCC	1	The Family Place	1
Housing Authority	5	Every Baby Guilford Program	1	The Guiding Project	1
Hopscotch Health	5	First Health of the Carolinas	1	The SHARE Project	1
Government Entity (including public schools, county and state government agencies, etc.)	6	Gang Free	1	The Steady Collective	1
Kepro	4	Goodwill NWNC	1	Unete	1
Let's Start Over, Inc	4	Healthy Start Robeson	1	United Way of Rutherford County	1
Generation 2 Generation-My Daddy Taught Me That	3	Home Place of New Bern	1	Village Heartbeat	1
Health Department	3	JCMC	1	Wilkes recovery revolution	1
Leading Into New Communities, Inc.	3	Mcdowell Impact	1	WNC Healing Collaborative	1
Mental Health Facility	5	Narcotics Anonymous	1	Worldwide Protective Products	1
NC Field	3	NH/NHRMC	1	Other	5
Novant Health	3	Non-profit	1	Not applicable	18
Rural Health Group	3	Piedmont Triad Regional Council	1		

Regarding the question, what is your current or desired job title, written responses collected are outlined in the table below. Written responses under 'Other' include titles like medical billing, BCBA, claims specialist, advocacy specialist, international consultant, and personal trainer.

CHW or CHW specialist	65	In reach extender	3
Program/Care/Case coordinator/manager	27	Support Specialist	3
Other	23	CPSS	2
Administration/management	18	COVID support	2
Healthcare professional	13	Educator	2
Community support/outreach	8	Not applicable	2
Peer support/coach	8	Patient Service Representative	1
Housing specialist/manager	7	Social Worker	1

I am working, volunteering, or looking for work with:

	Pre- n=212, 111.6%	Post- n=202, 106.3%	3-month n=49,25.8%	6-month n=12, 6.3%
Health clinic/hospital	41	28	10	3
Private practice	14	18	2	1
Pharmacy	2	3	1	0
Educational institution	12	21	2	0
Community-based organization	56	43	12	7
Faith-based organization	16	12	2	1
Local government/organization	31	32	10	0
State government/organization	25	34	5	0
Tribal government/organization	4	4	1	0
Other	3	4	4	0
Prefer not to reply	8	3	0	0

Additional comments that were written are as follows:

LME/MCO	4	Assisted Living Facility	1
Current employer	2	Clinic	1
Non-profit	2	Interpreter	1
Other	2	Self-employed	1

What are the most common settings where you interact with your clients/participants?

	Pre- n=171, 90%	Post- n=137, 72.1%	3-month n=50, 26.3%	6-month n=17, 8.9%
Clinical settings (Clinic, hospital, private practice, etc.)	42	36	12	4
Community settings (Libraries, school, parks, Senior Centers, etc.)	49	44	14	4
Worksite setting (Farm, factory floor, etc.)	12	5	3	1
Housing unit (Client's home, shelters, homeless, migrant camp)	46	35	14	8
Other	7	14	7	0
Prefer not to reply	15	3	0	0

The answers that were written in are summarized in the table below.

	Pre-	Post-	3-month
Remotely/Virtual/Phone (including call centers, work from home, etc.)	7	4	4
In Community/Community Events/Public	3	1	0
Other	2	3	2
Private and government entities (including jails/prisons)	2	1	0
Not applicable	1	0	0

What is your overall role in the health care team? Mark all that apply.

	Pre- n=257, 135.3%	Post- n=196, 103.2%	3-month n=67, 35.3%	6-month n=29, 15.3%
Facilitate access to care/services (escort to services, care navigation, translation, appointment reminders, etc.)	53	48	14	6
Provide referrals and follow-up	55	41	15	6
Direct care services (Blood sugar monitoring, blood pressure monitoring, mental health assessment, etc.)	26	16	7	5
Primary prevention (Disease prevention)	17	16	7	4
Secondary prevention (Halt/slow progression of disease, prevent disease-related complications)	17	13	5	3
Community development/empowerment/advocacy	67	49	15	5
Other	7	12	4	0
Prefer not to reply	15	1	0	0

Written statements regarding this question are compiled as follows:

Outreach	5	Healthcare worker/Patient care	3
Housing	4	Not applicable	3
Medical administration	4	Administration	2
Other	4	Management	1
Case management/resource coordination	3	Peer support	1

What specific ethnic/racial populations are you currently/formerly/expecting to work with?

	Pre- n=261, 137.4%	Post- n=191, 100.5%	3-month n=42, 22.1%	6-month n=28, 14.7%
American Indian/Alaska Native	23	16	3	2
Asian American	17	16	2	2
Black or African-American	59	51	15	7
Caucasian	49	37	6	7
Hispanic or Latino	47	36	6	6
Native Hawaiian or other Pacific Islander	17	11	1	1
Other	5	4	0	0
No Specific Race/Ethnicity	41	18	7	3
Prefer not to reply	3	2	2	0

Written statements regarding this question are compiled as follows:

All of the above	3
Multi-race	1
Romani	1
Transgender	1
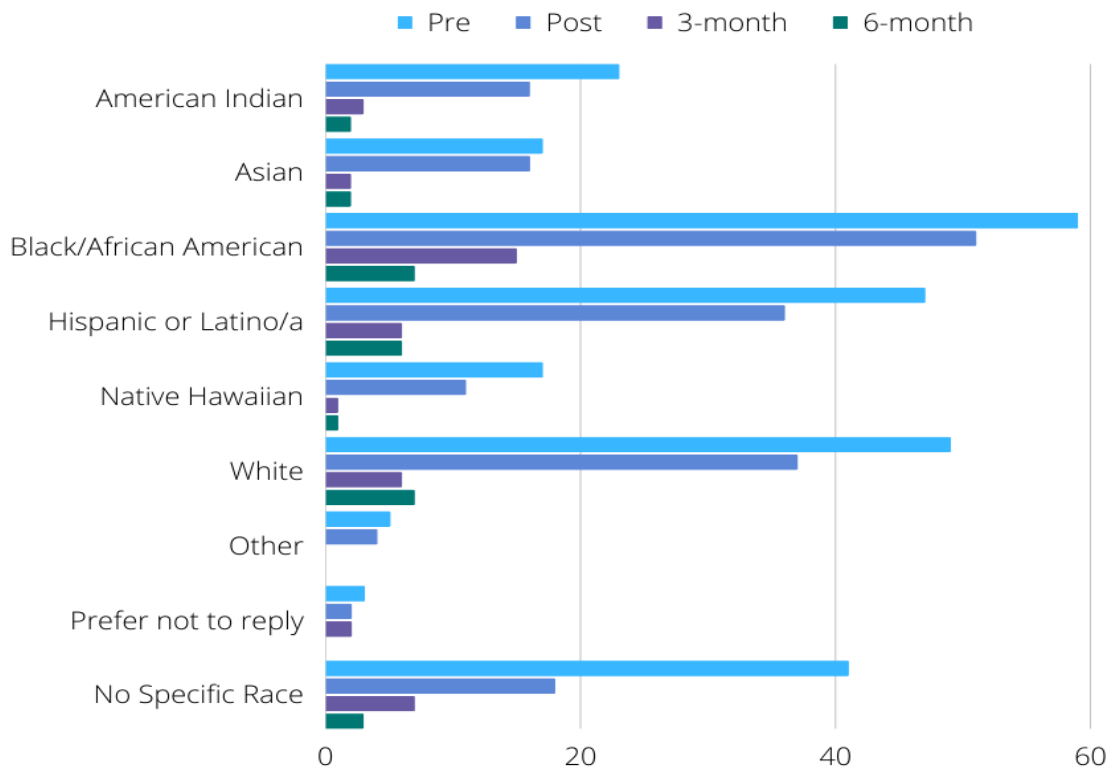
Apart from English, do you speak the language of the population you currently/formerly/expect to serve?

	Pre- n=101, 53.2%	**Post- n=75, 39.5%**	**3-month n=27, 14.2%**	**6-month n=10, 5.26%**
Yes	28	16	3	4
No	68	55	22	6
Prefer not to reply	5	4	2	0

Participants were asked, 'What languages do you speak (not including English)?' Participant responses are as follows.

	Pre-	Post-	3-month	6-month
Arabic	1	0	0	0
Creole	1	0	0	0
French	1	0	0	0
Sign Language	1	0	0	0
Spanish	14	9	3	2
Italian	0	1	0	0

The following question relates to the specific populations you are currently/formerly/expecting to work with. Age groups:

	Pre- n=189, 99.5%	**Post- n=155, 81.6%**	**3-month n=44, 23.2%**	**6-month n=12, 6.3%**
0-10 years	17	18	4	0
11-18 years	31	20	6	1
19-64 years	65	53	15	4
65+ years	43	35	10	1
No specific age	33	29	9	6
Prefer not to reply	0	0	0	0

Participants reported currently/formerly/expecting to work with individuals between 19 and 64 years of age as the most frequent in almost all survey responses.

The following question relates to the specific populations you are currently/formerly/expecting to work with. Other population groups:

	Pre- n=853, 448.9%	Post- n=654, 344.2%	3-month n=218, 114.7%	6-month n=40, 21%
Pregnant women	38	32	11	1
Men	60	47	16	4
Women	66	51	19	4
Gay, Lesbian, Bisexual, and/or Transgender	52	42	11	2
Families	54	44	14	3
Children	39	34	10	2
Immigrants/Refugees	36	21	6	0
Low Income	65	49	16	4
Rural populations	43	41	13	3
People with disabilities	51	42	13	1
People with mental health needs	59	47	14	2
People with substance use disorders	54	43	13	3
People for whom English is not their first language	37	24	9	0
Farmworkers and families	23	14	7	1
Individuals experiencing homelessness	51	35	11	2
Uninsured	44	33	14	1
Veterans	33	27	10	0
First Peoples	13	5	3	0
Others	29	0	0	0
No Specific population groups	0	23	8	7
Prefer not to apply	6	0	0	0

Answers that are written in are summarized in the chart below.

Formerly Incarcerated/Reentry	2
Dialysis Population	1

The following question relates to the specific populations you are currently/formerly/expecting to work with. Chronic illnesses:

	Pre- n=370, 194.7%	Post- n=290, 152.6%	3-month n=89, 46.8%	6-month n=33, 17.4%
Asthma	53	46	16	5
Diabetes	71	57	17	8

Chronic obstructive pulmonary disease (COPD)	55	45	13	4
Cancer	50	42	11	4
Cardiovascular Disease	57	43	13	6
HIV/AIDS	50	37	12	4
Other	15	13	4	1
Prefer not to reply	19	7	3	1

The answers that were written in are summarized in the chart below. COVID-19 is the most common health answer provided.

Mental Health/Substance Misuse	7	Maternal/Child Health	2
All health conditions	3	Obesity	2
COVID-19	3	Dialysis	1
No Specific Population	3	Elderly Care	1
Other	3	Heart Failure	1
Various health conditions	3	Intellectual Disabilities	1
Child Support/Wellness	2		

The following question relates to the specific populations you are currently/formerly/expecting to work with. Health topics/issues groups:

	Pre- n=890, 468.4%	Post- n=685, 360.5%	3- month n=212, 111.6%	6-month n=92, 48.4%
Alcohol/substance use prevention or treatment (With young adults)	51	41	11	6
Alcohol/substance use prevention or treatment (With adults)	62	47	15	9
Physical or developmental disability	48	34	10	7
Medication education/monitoring/adherence	53	37	13	5
Compliance with medical appointment	56	36	13	6
Oral Health	32	25	7	2
Older adult health (Alzheimer's, osteoporosis, fall prevention, arthritis, etc.)	39	29	10	3
Environmental Health	45	28	9	4
Physical activity	51	36	11	5
Nutrition/Weight loss	54	43	13	5
Tobacco cessation (With young adults)	33	27	7	3
Tobacco cessation (With adults)	39	31	7	3
HIV/AIDS prevention	35	28	9	3

Immunizations	31	26	9	3
Injury prevention or control	28	21	8	3
Maternal and child health	33	25	3	4
Mental health issues (With young adults)	42	39	13	5
Mental health issues (With adults)	55	45	17	7
Occupational health	24	19	6	2
Sexual/reproductive health (Sexually Transmitted Infection (STI) prevention/education, family planning, etc.) (With young adults)	31	30	8	3
Sexual/reproductive health (STI prevention/education, family planning, etc.) (With adults)	32	30	11	4
Other	8	1	1	0
Prefer not to reply	8	7	1	0

Answers that are written include COVID-19, blind and visually impaired, drug use, and anyone needing resources.

The following question relates to your continued work as a Community Health Worker (CHW). In the past year, have you received any promotions that have not yet been reported on this survey?

	Pre- n=100, 52.6%	Post- n=75, 39.5%	3-month n=25, 13.2%	6-month n=10, 5.26%
Yes	94	68	1	1
No	1	3	24	9
Prefer not to reply	5	4	0	0

Participants were asked to list their new role or title. Answers that are written include Coordinator, Healthy Opportunities Pilot Project Manager (former Baby Steps Program Coordinator), Director of Social Services, and practice manager.

The following question relates to your continued work as a Community Health Worker (CHW). In the past year, have you received any work incentive that was not previously reported in this survey?

	Pre- n=102, 53.7%	Post- n=77, 40.5%	3-month n=27, 14.2%	6-month n=10, 5.26%
Yes, pay/wage increase	3	6	4	0

Yes, bonus	5	5	3	1
Yes, other	0	1	0	0
No	79	58	20	8
Don't know	8	1	0	0
Prefer not to reply	7	6	0	1

The answers that were written are summarized in the table below:

	Page/Wage Increase	Bonus	Other Work Incentive
Pre	➢ Yet to be determined ➢ After getting CHW certification. ➢ Hours increased (20 to 30) equal a $10,000 increase in annual wages ➢ $3.00	➢ $500 before taxes ➢ $300 ➢ 250 ➢ $2,000	
Post	➢ 58,000 ➢ 41,180 ➢ 2 ➢ $2.00 / hr ➢ 3 ➢ Promotion with an increase of $6,000 to annual salary	➢ 250 ➢ $1,500 after taxes ➢ 1,500 ➢ $2,000	➢ 100
3-month	➢ 2 ➢ 34,200 ➢ 1.07	➢ 1,000 ➢ 1,000	

The following question relates to your continued work as a Community Health Worker (CHW). Please estimate how much money you earn in a year for work as a CHW. Include gas/mileage, meals, etc. Mark only one.

	Pre- n=100, 52.6%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=9, 4.74%
Zero	31	15	4	3
Some money earned	22	15	9	4
Don't know	26	18	4	1
Prefer not to reply	21	27	7	1

Please enter a dollar amount for your earnings in a year as a CHW:

	Pre-	Post-	3-month	6-month
Less than $15,000	1	2	1	1

$15,000 - $20,000	0	0	0	0
$21,000 - $25,000	0	0	0	0
$26,000 - $29,000	2	2	0	1
$30,000 - $35,000	4	0	1	0
$36,000 - $40,000	4	0	1	0
$41,000 - $45,000	4	3	1	1
$46,000 - $50,000	1	2	0	0
$51,000 - $55,000	1	1	1	0
$56,000 - $60,000	0	1	1	0
Hourly Pay	0	0	1	0
Over $60,000	2	1	0	0
N/A	0	1	0	0
Other	1	0	0	0
Unsure	1	0	0	0

The following question relates to your continued work as a Community Health Worker (CHW). How is your position funded? Mark all that apply.

	Pre- n=127, 66.8%	Post- n=98, 51.6%	3-month n=30, 15.8%	6-month n=15, 7.9%
Not funded, I volunteer	13	8	1	0
Not funded, but organization provides meals	1	0	0	0
Not funded, but organization provides travel assistance	3	1	0	0
Not funded, but organization provides a stipend/gift cards	2	1	0	0
Government funding	20	19	6	1
Employers general budget	17	12	4	6
Grants	23	16	7	4
Third-party reimbursement (Medicare)	4	4	0	2
Third-party reimbursement (Medicaid)	5	5	3	1
Third-party reimbursement (Private insurance)	2	2	0	1
Other	7	7	2	0
Don't know	17	12	7	0
Prefer not to reply	13	11	0	0

The answers that are written in are summarized in the table below. Not currently working as a CHW is the most common health answer provided.

	Pre-	Post-	3-month
Currently not working as a CHW	2	2	0
N/A	2	1	0
No funding	1	0	0
Donations	0	1	0
Government Entity	0	1	0
Not working	0	0	1
Other (direct pay, grants)	0	2	0

The following question relates to your continued work as a Community Health Worker (CHW). What is the estimated number of unduplicated clients that you serve in a year? Mark only one.

	Pre- n=98, 51.6%	Post- n=75, 39.5%	3-month n=23, 12.1%	6-month n=10, 5.26%
0-100	32	29	6	4
101-500	16	13	6	4
501-1000	7	2	2	1
1,001+	5	2	3	0
Don't Know	24	21	6	0
Prefer not to reply	14	8	0	1

The following question relates to your continued work as a Community Health Worker (CHW). How many hours of supervision do you receive every week, on average?

	Pre- n=98, 51.6%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=10, 5.26%
Zero	37	23	10	3
More than Zero	36	31	9	6
Prefer not to reply	25	21	5	1

Participants were asked to write in the number of hours of supervision they received every week. The answers that were written in are summarized in the chart below. For example, responses under 'Other' in the chart below include answers like PRN, as needed, I don't know the exact amount, unsure, online, and zero to various.

Hours of supervision per week	Pre-	Post-	3-month	6-month
1-9 hours	20	18	3	5
10-19 hours	3	0	0	1
20+ hours	6	2	1	0
Other	6	4	1	0

Do you feel this amount of supervision to be adequate for your needs?

	Pre- n=98, 51.6%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=10, 5.26%
Yes	61	43	16	7
No	5	10	5	2
Prefer not to reply	32	22	3	1

Approximately 62% of respondents report they receive adequate supervision to meet their needs in the pre-Career Impact Survey. In comparison, almost 57% of participants report they receive adequate supervision to meet their needs in the post-Career Impact Survey. Two-thirds of respondents indicated receiving adequate supervision to meet their needs in the 3-month follow-up survey, and 70% of participants indicated receiving adequate supervision to meet their needs in the 6-month follow-up survey.

How do you feel about your work, your employers, and your supervisors?   What makes you feel supported?   What would be most helpful to you?

The experience of CHWs varies in terms of management support. Many participants commented that they felt very supported and appreciated by their employers, supervisors, and peers. Participants expressed appreciation for the opportunity to receive continuous training to enhance their job performance. Participants commented on feeling that their supervisors are knowledgeable, and adequately equip them with tools and resources to perform their job. For workplace efficiency, a sense of comradery within the work environment is important.

While many comments reflected the supportive nature of managers, other supervisors demonstrated a critical and ineffective leadership style. A lack of communication between departments and upper management confuses job expectations and functions. Some participants feel they have received ample training to perform their job duties, while others commented on needing additional guidance, resources, and supervision in their positions. Several participants mentioned enjoying their work as a CHW but continued to look for employment elsewhere due to feeling undervalued by employers.

The lack of job security due to consistent funding was noted by several participants, along with concerns regarding making a living wage. Although employers acknowledge the importance of the CHW role, participants mention feeling undervalued by other team members. Furthermore, participants noted that while they can obtain and maintain employment, there remain difficulties around fully establishing the CHW role within organizations bringing to question job security.

Participants highlighted having a desire to serve the community and a shared vision with their employers. Participants would like to advocate for the populations they serve in the community and expressed the need to collaborate more closely with organizations and resources within the community. Advocacy for both the clients and the CHWs themselves supports this necessary work.

The following question relates to your continued work as a Community Health Worker (CHW). Who supervises your work as a CHW? Mark all that apply.

	Pre- n=121, 63.7%	Post- n=98, 51.6%	3-month n=29, 15.26%	6-month n=17, 8.9%
A senior CHW	14	9	4	3
Volunteer Coordinator	6	6	0	1
Administrator	19	23	4	5
Medical Director	4	6	2	1
Physician	5	2	1	1
Nurse	8	4	4	2
Social Worker	11	9	3	1
Other medical/social provider	1	4	1	1
Other	26	13	7	0
Prefer not to reply	27	22	3	2

Participants were asked to identify 'Other' medical/social provider or supervisor supervising their work as a CHW. Answers that are written in are summarized in the tables below.

'Other' medical/social provider	Pre-	Post-	3-month
Lay Health Supervisor	0	1	1
Other	1	2	0

'Other' supervisor:	Pre-	Post-	3-month
Director/Manager/Supervisor	10	3	1
Currently not employed as a CHW	4	2	1
Mental Health Clinician/Social Worker	3	2	0
Other	3	4	2
N/A	3	0	0
Care Coordinator/Coordinator	1	1	0
Unemployed	0	0	1

The following question relates to your continued work as a Community Health Worker (CHW). How is supervision performed? Mark all that apply.

	Pre- n=195, 102.6%	Post- n=136, 71.6%	3-month n=42, 22.1%	6-month n=20, 10.5%
Face-to-face interview/chat	43	41	8	7
Telephone interview/chat	34	26	8	4
Submitting paper records (schedules, written reports, timesheets, chart notes, etc.)	26	15	5	2
Submitting electronic records (schedules, written reports, timesheets, chart notes, etc.)	28	19	7	3
Chart reviews of your clients	25	12	6	2
Other	16	4	5	0
Prefer not to reply	23	19	3	2

Written responses regarding this topic are summarized in the chart below. Responses under 'Other' include responses such as working towards becoming a full-time CHW, event reports, or respondents identifying a specific title they work as.

Not currently employed as CHW	9
Other	9
Not applicable/None/Not sure	6
Video/audio/online chat	4
Starting a CHW Program	3
Support Specialist	3
In-person meetings/site visits	2
Care Worker	1
Not working	1
Student	1

The following question relates to your continued work as a Community Health Worker (CHW). How is your job performance tracked/evaluated? Mark all that apply.

	Pre- n=173, 91%	Post- n=121, 63.7%	3-month n=43, 22.6%	6-month n=25, 13.2%
Summarizing, analyzing, and reporting on clinical impacts or outcomes (client blood pressure levels, A1C levels, cholesterol levels, etc.)	21	10	5	3
Tracking non-clinical impacts or outcomes (tracking referrals, appointment compliance, medication adherence, etc.)	25	15	6	5
Performance evaluation	34	34	14	7

Satisfaction survey/assessment from yourself	12	9	4	3
Satisfaction survey/assessment from clients	9	11	3	3
Number and category of clients served	24	12	3	2
Cost savings	5	2	1	0
Other	8	3	3	0
Don't know	17	7	2	2
Prefer not to reply	18	18	2	0

The answers that were written in are summarized in the table below.

N/A	4
Currently not working as a CHW	3
Various methods	3
Supervisor evaluation	2
Unemployed	1

Responses varied across pre-, post-, and follow-up surveys. However, performance evaluations were reported as the most reported method to evaluate job performance and cost savings were the least reported way to evaluate job performance across pre-, post-, and follow-up surveys.

How do you currently rate your job satisfaction? Mark only one.

	Pre- n=97, 51.05%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=10, 5.26%
I am very satisfied	38	26	8	3
I am satisfied	31	34	14	4
I am not satisfied	4	3	0	1
I am not at all satisfied	1	2	0	0
I am somewhat satisfied	8	4	1	2
Prefer not to reply	15	6	1	0
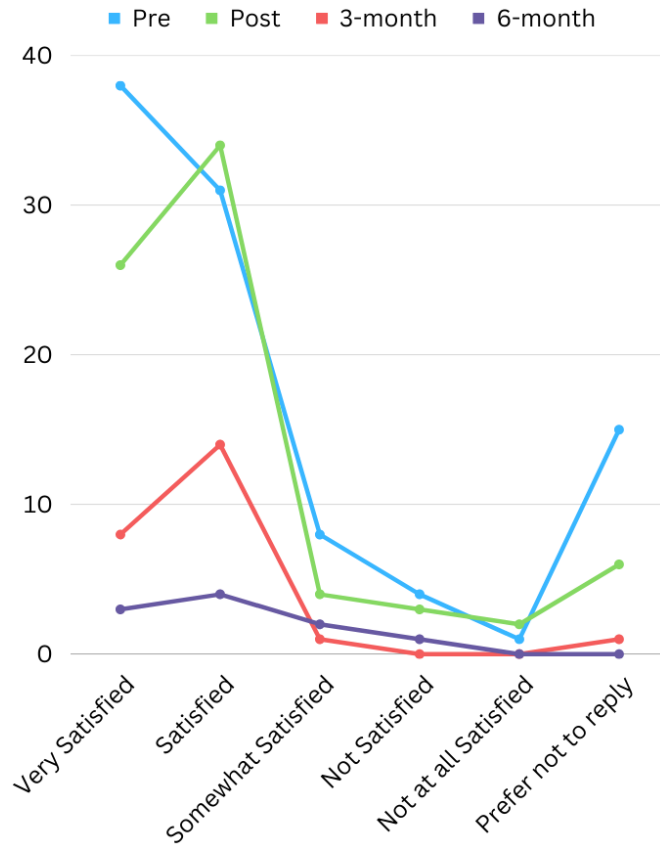
In pre-, post-, and follow-up surveys, most participants indicated being satisfied with their job.

Do you feel you are helping your clients achieve their health goals? Mark only one.

	Pre- n=97, 51.05%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=10, 5.26%
Yes	40	36	10	2
Mostly Yes	28	20	9	6
Mostly No	1	0	1	0
No	2	1	1	0
Somewhat	12	8	2	2
Prefer not to reply	14	10	1	0

Do you feel that you are an important part of the medical team at your place of work? Mark only one.

	Pre- n=97, 51.05%	Post- n=75, 39.5%	3-month n=24, 12.6%	6-month n=10, 5.26%
Yes	39	41	11	4
Mostly Yes	19	12	5	2
Somewhat	12	10	2	3
Mostly No	1	0	1	0
No	12	2	1	0
Prefer not to reply	14	10	4	1

How do you feel about your work, your employers, and your supervisors? What makes you feel supported? What would be most helpful to you?

For participants' written comments, results were tabulated as follows:

Very Supportive Team/Supervisor	64
Enjoy Work	23
Not Working as CHW	10
Organization/Upper Management Not Supportive	6
Secure Sources of Funding	5
Clinical Staff Do Not Understand or Respect Role	5
Have Needed Resources	2

Most responses indicate a supportive work environment, team, and/or supervisor. CHWs also report they enjoy their work and find it meaningful.

What is the highest degree or level of school you have completed? (If currently enrolled mark the highest degree already received). Mark only one.

	Pre- n=81, 42.6%	Post- n=43, 22.6%	3-month n=9, 4.7%	6-month n=5, 2.6%
No high school diploma	0	0	0	0
High school diploma, GED, or equivalent	10	6	0	0
Some college credit, no degree	18	6	1	2
Trade/technical/vocational training	5	4	3	1
Associate's Degree	16	8	2	0

Bachelor's degree	17	10	1	0
Other	14	6	2	2
Prefer not to reply	1	3	0	0

For participants' written comments, the results are as follows:

Master's Degree	17
Other	2
Diploma Licensed Practical Nurse	1
Other	1

In the pre-survey, eleven participants reported having a master's degree, while four participants reported having a master's degree in the post-survey. In both the 3-month and 6-month surveys, one participant indicated having a master's degree. Only participants that selected "Not working as a CHW," "Not working – not looking for work," or "Prefer not to reply" for the first question in the Career Impact Survey answered this question (automatically populated when these responses are selected).

Do you currently hold any health-related degree, license, or certificate?

	Pre- n=170, 89.5%	Post- n=111, 58.4%	3-month n=33, 17.4%	6-month n=16, 8.4%
Yes	79	54	18	11
No	84	52	15	4
Prefer not to reply	7	5	0	1

For participants' written comments, results were tabulated as follows:

Healthcare/other medical professionals	40	Certification	5
BA/BS degree	16	Master's degree	4
Multiple degrees/licenses/certificates	14	Other	4
Social work/counseling/addictions	13	Psychology	4
CHW	8	Trauma Resiliency	4
CPR/First Aid	6	Respiratory Therapy	3
Peer support	6	CMA	2
Associate degree	5	Educator	2
Medical assistant	5	Recreational Therapist	2
Phlebotomy	5	Registered Health Information Technician (RHIT)	2

In both the pre-and post-surveys, more than 45% of participants indicated they currently hold a health-related degree, license, or certificate with various health-related degrees/licenses/certificates reported. Furthermore, over 50% of respondents reported they

currently hold a health-related degree, license, or certificate. Only participants that selected "Not working as a CHW," "Not working – not looking for work," or "Prefer not to reply" for the first question in the Career Impact Survey answered this question (automatically populated when these responses are selected).

In the past year, have you attended any continuing education class, training, or any other educational opportunities (including the SCCT), that you have not yet reported in this survey?

	Pre- n=169, 88.9%	Post- n=111, 58.4%	3-month n=32, 16.8%	6-month n=16, 8.4%
Yes	76	61	16	8
No	86	44	16	8
Prefer not to reply	7	6	0	0

Approximately 50% of participants in the pre-survey indicated they had not attended any continuing education class, training, or any other educational opportunities, while about 40% of participants in the post-survey indicated they had not attended any continuing education class, training, or any other educational opportunities. Likewise, 50% of participants in both the 3-month and 6-month surveys reported they had not attended any continuing education class, training, or any other educational opportunities.

In the past year, how much time have you spent on training/education that has not yet been reported in this survey?

	Pre- n=170, 89.5%	Post- n=111, 58.4%	3-month n=32, 16.8%	6-month n=16, 8.4%
Zero	41	18	2	4
1 - 8 hours	17	13	10	5
2 - 3 days	16	11	5	2
More than 3 days	81	53	13	5
Attended the SCCT only	1	4	2	0
Prefer not to reply	14	12	0	0
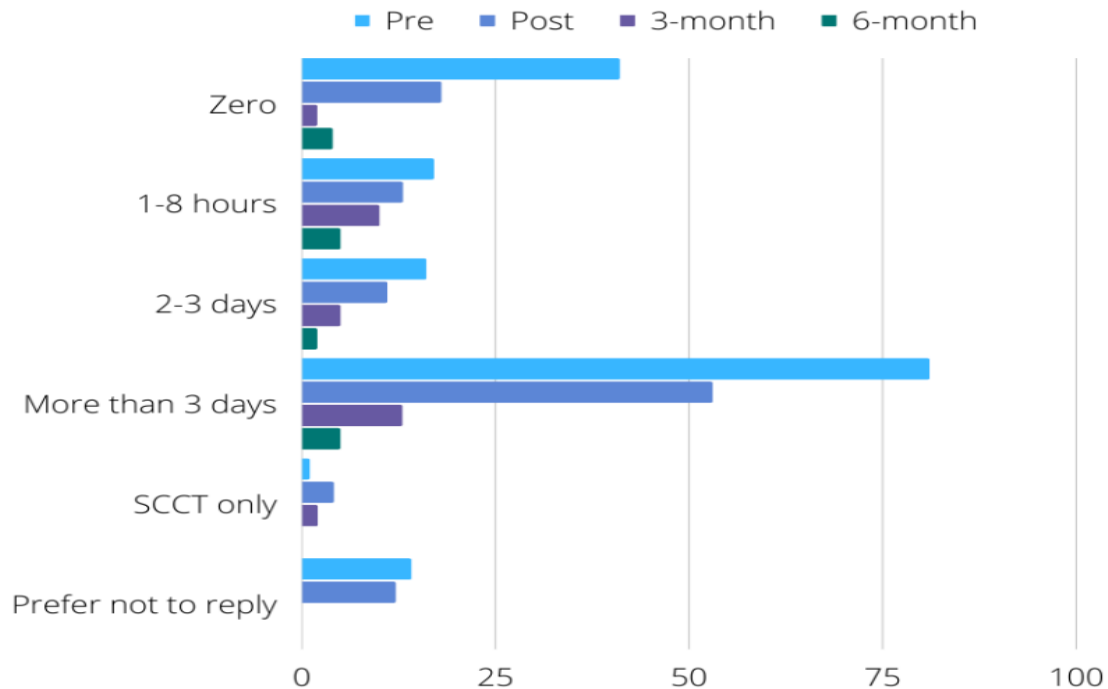
Almost half of all pre-and post-surveys participants indicate spending time on training/education that was not yet reported in this survey within the last year.

What best describes the training you received? Mark all that apply.

	Pre- n=326, 171.6%	Post- n=271, 142.6%	3-month n=72, 37.9%	6-month n=32, 16.8%
Classroom lecture	55	44	16	7
Hands-on demonstration	37	35	11	4
Web-based class	90	85	24	6
Live web-based seminar	56	54	11	7
Conference/meeting	53	44	6	6
Other	5	2	2	0
Prefer not to reply	30	7	2	2

Please specify the training names or topics.

Active shooter training	1	EMT Training/CEUs	1	NC In Reach Collaborative	1
Advocacy	2	End of Life/Grief Care	1	NCCARES	1
AHEC/MAHEC courses	8	Ethics	1	NCCHWA Training	1
Bachelor's Degree Courses	2	Gambling Recovery Coach	2	Nursing Certification/CEU	3

Bloodborne Pathogens	3	Guardianship	1	Other	10
BLS/CPR/First Aid/ACLS	12	Harm Reduction	3	Patient Care/Rights	3
Business Administration	1	Health and Wellness	3	Peer Support Specialist	11
Canine Cognition	1	Health and Wellness Coach	3	Personal Trainer	1
Care Management Academy	1	Health Disparities	1	Phlebotomy	2
Case Notes/Documentation Training	2	Health Literacy	1	Police Policy/ Management	1
Catch my Breath	1	Healthcare Billing and Coding	1	Poverty Simulation	1
CCAR Recovery Coach Training	1	Healthcare Policy/Management	3	Public Health Competency	1
Certified Medical Administrative Assistant	1	HIPAA	3	Restorative Care	2
Certified Nursing Assistant Training/CEUs	6	Housing Related Training	5	SCCT	12
Chronic care management	5	Human Resources	1	Security training	1
CHW Conference	1	Insurance	1	Sexual Assault Prevention	1
CHW Trainings	6	Life Coach	1	Sidewalk Project	1
Classroom Training	6	Management Training	2	Social Justice Training	1
Communication Courses	1	Maternal Health/Parenting	4	Social Determinants of Health	1
Community Inclusion	2	Medical/Medical Equipment	4	Stewards of Children	1
Conflict Training	1	Medical Interpreting	1	STIs and HIV/AIDS	3
Conflict Transformation	1	Medication Aide/Medication training	2	Street Medic Training	1
COVID-19	5	Mental Health and Substance Abuse Training/CEUs	14	Suicide Prevention/ Awareness	3
CPI Training	2	Mental Health First Aide	8	Tailored Plan Training	10
CPSS	1	Mental Health Tech	3	TCL Program	1
Cultural Competency	1	Mindfulness Certification	1	The Marshall Project	1
Cultural Diversity and Humility	2	Motivational Interviewing	3	Trauma-Informed Care	5
Domestic Violence Prevention	1	Movement Class	1	Vet & Health Office Management	1
Early Childhood training	1	Multiple, Varied Trainings	8	Work Training/Meetings	10
ECHO Trainings	1	N/A	8	WRAP Training	1

Emotional CPR	1	Narcan Training	2	Yoga Training	1
EMR/EHR	1	National FSS Conference	1		

How was the training funded? Mark all that apply.

	Pre- n=220, 115.8%	Post- n=156, 82.1%	3-month n=40, 21%	6-month n=21, 11%
Employer-provided	68	49	9	6
Paid for by the employer	32	31	7	4
Paid for by you	23	26	9	3
Government-provided (free of charge)	30	18	5	2
Privately provided (free of charge)	26	13	7	3
Other	12	11	2	1
Prefer not to reply	29	8	1	2

The answers that were written in are summarized in the table below.

|	
Grant Funded	6
Various Organizations	5
Other	3
N/A or Not Sure	2
Scholarship/Financial Aid	2
Self-pay	2
Webinars	1

Almost 90% of participants in the pre-survey reported they did not pay for training themselves; instead, training was either provided by the employer or paid for by the employer, private entity, or government. Approximately 83% of participants in the post-survey who answered this question reported that employer-provided training or training was paid for by the employer, private entity, or government. In both the 3-month and 6-month surveys, over 75% of participants in the post-survey who answered this question reported an employer-provided training or training was paid for by the employer, private entity, or government. Responses are somewhat varied across all surveys.

Participants offered additional comments reflecting how improvements can be made to the Standardized Core Competency Training (SCCT), to this study, or in the lives and careers of Community Health Workers in North Carolina. Participants expressed interest in additional CHW opportunities including specialized training, options for continuing education, and opportunities to network to increase chances of employment. Participants reflected on the need to increase the accessibility of the course, such as offering the course at varied times to avoid work conflicts. In addition to the focus on training, several participants expressed concerns regarding compensation once working in the CHW field. While several participants commented on the

excellent quality of the course, other participants wrote that the current content of the SCCT is outdated and lacks practical, hands-on experience.
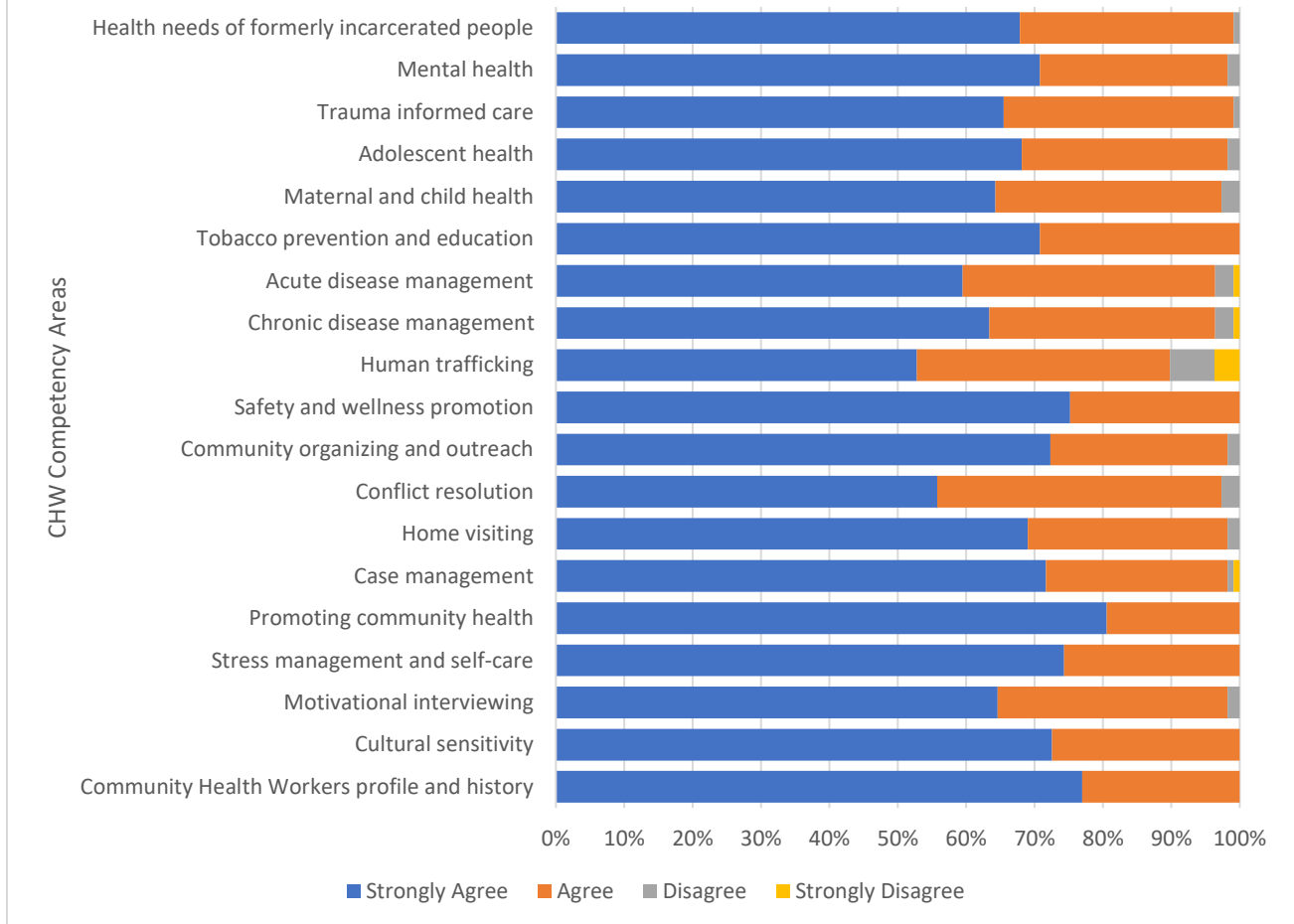
Comfort Level Survey
The comfort level survey measures self-efficacy related to knowledge and skills commonly associated with CHW roles. The survey contains 19 items using a Likert rating scale. Participants rate their confidence with skills such as motivational interviewing, conducting home visits, and promoting wellness. Participants are also asked to rate their confidence with knowledge of topics such as the health needs of formally incarcerated people, chronic disease management, and material health. The following charts represent pre and post survey results. The "strongly agree" response indicates a high degree of confidence.

Comfort Level Survey Administered Pre Course
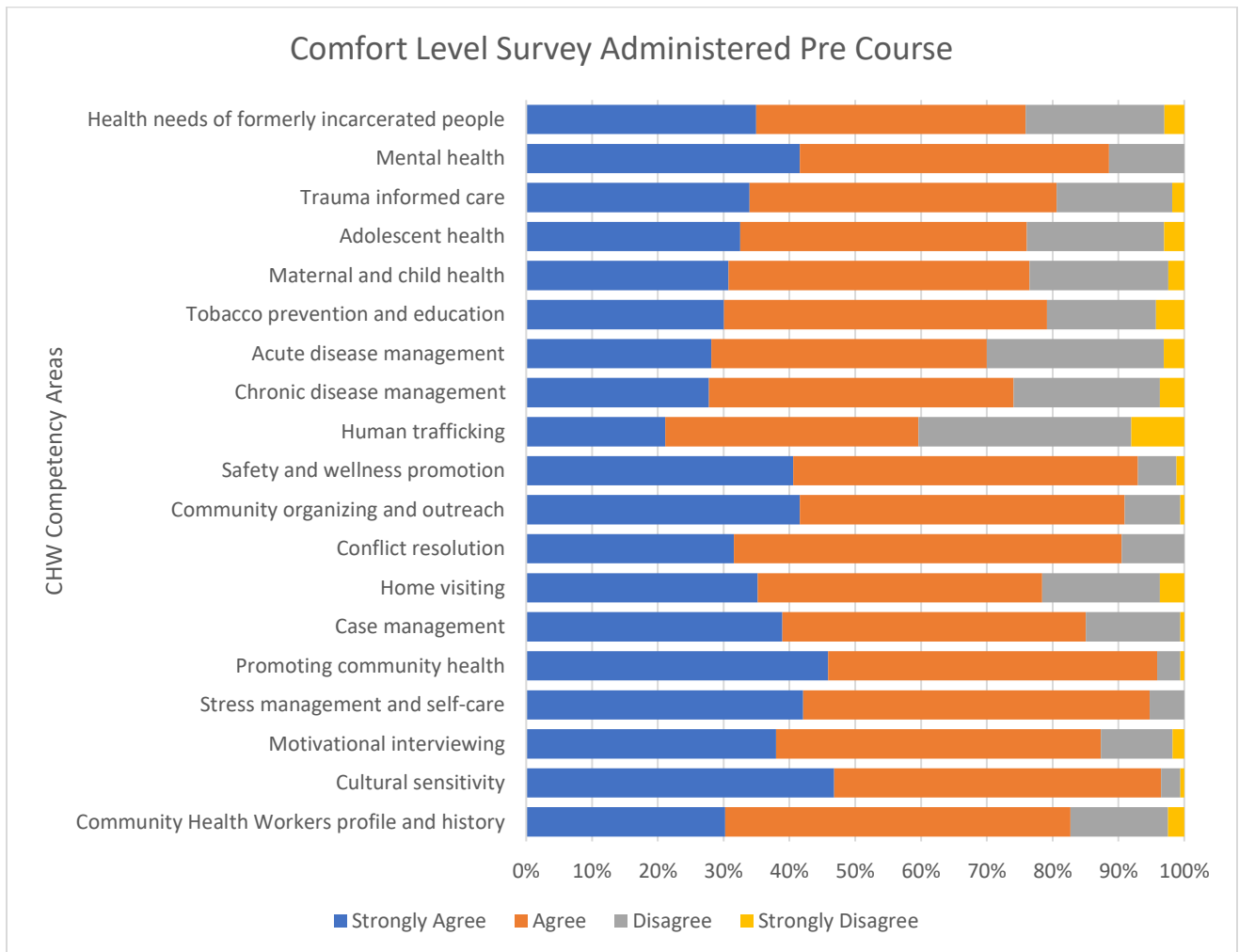
Comfort Level Survey Administered Post Course

The following table compares responses from the Comfort Level Survey administered at the start of each CHW class and again at the end of each class. This tool measures self-efficacy related to CHW knowledge and skills The average pre- score is 49.15 out of a positive 95 with lower scores indicating a greater degree of confidence (1, strongly agree; 2, agree; 3, disagree; 4, strongly disagree; 5, not sure). The average post- score is 26.00 out of 95. Participants' paired scores indicate a 47.01% decrease in scores which represents a significant increase in confidence/self-efficacy at the end of the SCCT course. A paired t-test was conducted to determine the significance of the difference between the two means. The two-tailed P value is less than 0.0001. The null hypothesis was rejected, indicating a statistically significant difference in the pre and post-responses.

Pre- and post- comfort level survey paired t-test results

	Pre	Post
Mean	49.15	26.00
Observations	104	104
Standard Deviation	16.21	7.94
df	103	

Training Quality Survey
Participants are asked to complete the Training Quality Survey after completing the course. This survey provides direct feedback from students on their experience in the class and their satisfaction.

Did the instructors do a good job overall?
n=113, 59.5%

Yes	90
Mostly yes	17
Somewhat	5
Mostly No	1
No	0
Prefer not to reply	0

Roughly 95% of participants indicated that the SCCT was delivered well by instructors. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Written responses regarding instructor experience are outlined in the table below.

Excellent overall	11	The instructor offered limited support	2
Knowledgeable	8	Responsive	2
Interactive	6	Technology issues	2
Class well organized/positive facilitation skills	3	Passionate about subject content	1
Supportive	3	Resources provided	1
Unclear instructions/unorganized	3	Respectful/professional	1
Clear instructions provided	2	Unengaging	1
Fair	2	Not applicable	7

Are you satisfied with what you have learned?
n=113, 59.5%

Yes	92
Mostly yes	13
Somewhat	7
Mostly No	0
No	1
Prefer not to reply	0

Most participants indicated being satisfied with what they have learned, while 7% of participants indicated they were somewhat satisfied or not satisfied at all with what they have learned. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Participant comments are as follows:

Satisfied	16
Unsatisfied due to content being taught	4
Instructor supported learning	2
Unsatisfied due to lack of depth	2
Additional discussion and the use of learning aids needed	2
Information outdated	1
Unsatisfied with the certification process	1
Not applicable	8

Was the training easy to follow?
n=113, 59.5%

Yes	90
Mostly yes	18
Somewhat	3
Mostly No	2
No	0
Prefer not to reply	0

A review of written responses is listed in the table below.

Training is easy to follow and accessible	10
Informational PowerPoints/online content	3
Instructor supported learning	3
Lack of clarity and preparation from instructors	3

Deviating from the syllabus made it difficult to follow	2
Unprepared for the amount of work the course required outside of the class meeting time	1
Not applicable	8

Most participants (96%) indicated the training was easy to follow. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Was the wording of the materials clear?
n=113, 59.5%

Yes	91
Mostly yes	18
Somewhat	4
Mostly No	0
No	0
Prefer not to reply	0

Almost all the participants indicated the wording of the materials was clear. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Written responses regarding the wording of the materials are listed in the table below.

Clear information	9	Materials not in-depth	1
Presentation errors	2	Outdated materials	1
Beneficial aids (i.e. PowerPoint, Textbook)	1	Not applicable	7
Instructor presentation was unclear	1		

Did the training keep you engaged?
n=113, 59.5%

Yes	82
Mostly yes	19
Somewhat	10
Mostly No	0
No	2
Prefer not to reply	0

Approximately 90% of participants noted that the training kept them engaged. About 10% of participants indicated they were somewhat engaged or not engaged at all. However, about 60%

of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Written comments are compiled below:

Excellent quality	15
Not engaging due to technology limitations	2
Not engaging	1
Redundancy	1
Required updated information	1
Not applicable	7

Was the quality of the content consistent throughout the course?
n=113, 59.5%

Yes	93
Mostly yes	12
Somewhat	7
Mostly No	1
No	0
Prefer not to reply	0

Almost all participants (93%) indicated that the quality of the content was consistent throughout the course. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Participant comments are as follows:

Consistent	4
Engaging/Informative content	3
Detailed/Organized	2
Outdated	2
Not Applicable	7

Was the content in-depth enough?
n=113, 59.5%

Yes	78
Mostly yes	18
Somewhat	11
Mostly No	3
No	3
Prefer not to reply	0

Roughly 85% of participants indicated that the content was in-depth enough, while 15% of participants noted that the content was not in-depth enough. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Individuals' written comments are grouped in the table below.

In-depth content provided	9
Time limitations prevent the addition of more information, but more depth would be helpful.	4
Amount of depth varied	1
Not applicable	7

Were your training expectations fulfilled?
n=113, 59.5%

Yes	85
Mostly yes	17
Somewhat	8
Mostly No	1
No	2
Prefer not to reply	0

Most participants indicated that the training expectations were fulfilled. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Written responses regarding training expectations being fulfilled are outlined in the table below.

Training expectations fulfilled	8
Does not feel prepared to be a CHW	1
Feels prepared to be a CHW	1
Gained better understanding	1
Due to the length of the course, depth of training is limited	1
Not applicable	7

Would you recommend this training to a colleague or friend?
n=113, 59.5%

Yes	91
Mostly yes	14
Somewhat	3

Mostly No	3
No	2
Prefer not to reply	0

Additional written comments are listed below.

Recommend the training	13
Yes, only for individuals with no CHW experienced	2
No, despite positive atmosphere	1
Not applicable	7

93% of participants reported they would recommend this training to a colleague or friend or mostly indicated they would recommend it to a colleague or friend. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

Will this training help you better deliver services to your clients?
n=113, 59.5%

Yes	87
Mostly yes	13
Somewhat	9
Mostly No	3
No	1
Prefer not to reply	0

Most participants indicate that this training will help them deliver client services better. However, about 60% of the total participants responded to this question. Therefore, this is not a complete picture of participants' opinions of instructors' performance.

When asked to provide additional comments, respondents focused on knowledge and skills gained including communication and listening, skills learned to work with all age groups, and a deeper understanding of the CHW role. Another comment focused on increasing opportunities to engage in the community while taking the course.

Additional Comments

➢ She was a good teacher that made sure we were following along. She made sure she was open for communication and helped out if we needed, so it made it a pretty smooth class!
➢ This course was very informative & interactive.
➢ I enjoyed the course. I liked the addition of hands-on creative activities.
➢ I truly enjoyed the class and I am happy to have had the opportunity for this education!

- The CHW training was excellent as well as the instructor. The format used was great.
- Could of used another day instead of just one day a week. Two would have been much more needed.
- Keep this training accessible - we stand a really good chance at not just creating better health outcomes overall but also in influencing social dynamics within communities that desperately need these positive equitable bonds!
- I appreciate the course content, how it was delivered, and the NC focused resources.
- Thank you.
- Thank you for this opportunity!
- (Instructor name omitted) was very engaging. There was a lot of valuable information provided in the course   Thank you for all that you do. Your hard work doesn't go unnoticed. You're appreciated! THANK YOU, (instructor name omitted).
- Great training and very informative.
- I know this is a harsh review of the class and I'm really sorry. But the class was lack luster at least. Real training that is needed for on the job was not present. You need more role playing involved, maybe that would help teach. The instructor was nice but just so bland and monotone.
- I feel as if the class could be shorter and still get the same information across. There were too many guidelines on the photo voice project.
- I really enjoyed the class.
- The course was excellent. (Instructor name omitted) kept everyone engaged and the classmates were very supportive.
- Great class! So glad I participated.
- This is an excellent course for anyone who deals with clients, not only in the medical field but I feel in any profession. It brought out some key points that take place in everyday life.
- Awesome class! Loved it! Will recommend.
- Thanks
- She did absolutely amazing!
- This was one of my best trainings that I've taken. I'm confident as a CHW I can enhance my career further in serving and supporting individuals in the community.
- Enjoyed the course.
- The professor conducted a professional outline and correlated with the lesson.
- This course was a wonderful educational experience.
- (Instructor name omitted) brings a genuineness to the course. It was apparent that she cares about social disparities and that she is committed to making the public aware of the issues and taking action to eliminate the disparities. She is an extraordinary instructor.
- My instructor (instructor name omitted) did an amazing job!!
- Enjoyed the course and (instructor name omitted). I struggled with the lack of camera participation even though (instructor name omitted) requested all cameras on. Not sure what the resolution to this issue would be.
- Very much enjoyed this class.

Pre- and Post- Tests

Pre- and post- tests are designed to measure knowledge outcomes. The pre-test is administered within two weeks of the start of each SCCT class, and the post-test is administered within two weeks of the end of each class. The pre- and post-test include 56 questions that were written based on SCCT course content. This tool measures knowledge using a series of multiple-choice and true-false questions. The items are the same on the pre and post-tests. Only participants who completed both the pre and the post-test are included in the results below.

The average pre-test score is 46.91 out of 56 and the average post-test score is 49.65 out of 56. Participants' paired scores indicate a 5.84% increase in scores. A paired t-test was conducted to determine the significance of the difference between the two means. The two-tailed P value is less than 0.0001. The null hypothesis was rejected, indicating a statistically significant difference in the pre and post-responses.

Pre- and post- test paired t-test results

	Pre	*Post*
Mean	46.91	49.65
Observations	113	113
Standard Deviation	4.84	4.30
df	112	
t-score	6.9507	

Correct responses by pre/post-test questions are listed in the table below.

Question	n (pre)	# of participants with correct answers (pre)	n (post)	# of participants with correct answers (post)
1	150	48	108	23
2	150	145	108	105
3	150	137	108	103
4	150	122	108	93
5	150	99	108	82
6	150	107	108	94
7	150	140	108	104
8	150	87	108	95
9	149	97	108	91
10	150	144	108	105
11	149	92	108	94
12	149	111	108	106

13	149	134	108	105
14	148	103	108	94
15	148	119	108	104
16	148	117	108	94
17	148	133	108	101
18	148	100	108	91
19	148	139	108	107
20	148	133	108	99
21	148	138	108	105
22	148	144	108	107
23	148	126	108	99
24	148	98	108	76
25	148	141	108	107
26	148	130	108	101
27	148	141	108	108
28	148	145	108	108
29	148	145	108	106
30	147	145	108	107
31	148	140	108	105
32	147	132	108	100
33	147	134	108	92
34	147	76	108	69
35	146	129	108	100
36	147	139	108	101
37	147	135	108	100
38	147	142	108	106
39	147	142	108	104
40	147	139	108	102
41	147	144	108	106
42	147	126	108	105
43	147	135	108	101
44	147	136	108	105
45	147	139	108	106
46	147	143	108	106
47	147	121	108	100
48	147	118	108	104
49	147	144	108	108
50	147	1	108	8
51	147	136	108	105
52	147	66	108	61
53	147	135	108	103

54	147	82	108	60
55	147	123	108	94
56	147	128	108	98

Final SCCT Course Grades

Pass	104	94.54%
Fail	2	1.81%
Prefer not to reply	4	3.63%

The overwhelming majority of CHWs earned a passing grade in the SCCT course.

Evaluation Study Limitations

Not all CHW SCCT participants opted to be part of this study; participants who have opted to take part in this study are a subset of all CHW SCCT participants. Many participants did not complete all the measures. There was a low return rate for posttests resulting in a lower sample of pre-post pairs.

Summary of Findings

Overall, the SCCT course is viewed as valuable and impactful among CHW students and instructors. Most students report a high level of satisfaction and impact on their employment and skill level. CHW students enrolled in the course represent diverse geographical locations and racial and ethnic groups that are mostly reflective of the communities they serve. However, gender identity, sexual orientation, and languages spoken represent less diversity, not reflecting the overall population of most NC communities.

CHWs continue to serve diverse populations including those who are uninsured, justice-involved, families, people with low incomes, the unhoused, immigrants, and individuals with mental illness and chronic illness. CHWs enrolled in the SCCT report their primary roles are advocacy, coordination, and linkage of services, and providing health education.

Compared to the start of the class, CHW students demonstrated an increase in confidence/self-efficacy across 19 CHW competencies. The overwhelming majority of CHWs taking the SCCT report they are satisfied with their work, and they are supported by their team and supervisor.

Among participants who completed both the pre- and post- tests measuring knowledge outcomes, an increase in knowledge was present. The increase in knowledge outcomes is lower than in prior years. This change may be accounted for by the fact that more CHWs taking the course over the prior year have prior CHW experience as compared to 2020 and 2021. Most SCCT students in those years were taking the SCCT course as a requirement to provide COVID-19 response services with little to no prior CHW experience. Almost all CHW students earned a passing score for the SCCT which makes them eligible for certification by the NC CHW

Association. CHW students and instructors have found online course delivery methods to be effective and convenient. However, there are some barriers to technology access including insufficient broadband in rural areas.

Dissemination and Future Research

The team may present study findings at research conferences and will continue to communicate plans for research dissemination with partners. UNCP will conduct virtual presentations on the evaluation process and study findings to North Carolina partners, including NCDHHS-ORH and community college administration. The final report will be emailed to all study participants, as promised in the study consent. The NC CHW data repository website will visually represent research findings. As part of the Centers for Disease Control and Prevention's Community Health Workers for COVID Response and Resilient Communities grant, the UNCP CHW project team will continue the evaluation of the SCCT into 2024.

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