

Mini Review

# Designing a Community Health Worker (CHW) Certificate Training that Centers Marginalized Youth's Health and Wellness

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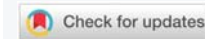
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## Abstract

The genesis of the youth Community Health Worker (CHW) and Citizen/Community Science (CS) training is rooted in interdisciplinary research and the lived experiences of families in Chicago and Urbana-Champaign. Dr. Mendenhall and colleagues' (Drs. Robinson, Roberts and Rodriguez-Zas) South Chicago's Black Mothers' Resiliency Project provide insights into Black women's experiences with genomics, trauma, and community science. Black women's testimonies highlighted the health impacts of living in neighborhoods with high levels of gun violence and the resilience strategies they employ. This led to the development of a youth-centered CHW and CS training program, aimed at addressing health disparities. The program trained high school students and young adults (up to age 24) as CHWs and CSs, focusing on the objectives of (1) embedding culturally competent health workers in marginalized communities; (2) amplifying community voices; (3) collecting, analyzing, and quantifying observational data to inform policy decision-making; (4) amplifying community voices in healthcare discussions and (5) creating community health care worker training certification for youth. Over three years, the program trained over 50 participants, incorporating elements of wellness, art, and entrepreneurship. Based on ethnographic notes participants reported increases in wellness such as reduced anxiety and increased empowerment. The program's long-term goals include creating employment opportunities for graduates and contributing to improved community health outcomes. This initiative represents a step towards addressing racial trauma and promoting community healing through youth-led innovation and empowerment.

## Introduction

The youth Community Health Worker (CHW) and Citizen/Community Science (CS) training is based on over a decade of interdisciplinary social, genomic, and neuroscience research and the everyday experiences of families living in Chicago and Urbana-Champaign. For example, Dr. Mendenhall and colleagues (Drs. Robinson, Roberts and Rodriguez-Zas) conducted South Chicago's Black Mothers' Resiliency Project, which published new scientific knowledge about Black women and genomics, trauma over the life course, and Black women as citizen/community scientists [1-4]. When Black women in Chicago talked about living in neighborhoods with high levels of gun violence, they described headaches, backaches, loss of hair, and sleepless nights due to the stress of their environments (exposomes) [2,5-7]. The women

also described rich cultural resources used to cope with difficult situations and to maintain their well-being (e.g., meditation, spirituality, forming communities, mutual aid, etc.). However, they stated that the lack of access to wellness resources limited their ability and the ability of their children to thrive, which was the impetus for the development of this youth-centered CHW and CS training. This interdisciplinary, intergenerational, intergovernmental (city and state), multi-site, and multi-racial project trained high school students and young adults (up to age 24) to be Community Health Workers and Citizen Scientists. This study has four main objectives. (1) To embed culturally competent health workers in marginalized communities and uncover concerns about trust and health equities not previously at the forefront. (2) To collect, analyze, and quantify observational data from these communities and design trustworthy decision-making



models that inform policy. (3) To amplify community voices in health care discussions and policy processes in an effort to expand access to equitable health practices within at-risk communities. (4) To create community health care worker certification curriculum and training for youth.

Our project sought to create a culture of innovation that centers the health and wellness of Black and Latinx high school students and young adults (up to age 24) living in Urbana-Champaign and Chicago. This included working with youth to co-create a Community Health Worker (CHW) training program that assisted young people in addressing and healing from racial trauma such as police killings, gun violence, and higher rates of COVID-19 deaths due to health disparities. COVID-19 was devastating to Black health [8,9]. In April 2020, the Black community experienced the largest toll of COVID-19 deaths (at a rate of 39.17 per 100,000), followed by the Asian community (at a rate of 17.62) and Hispanic/Latinx (at a rate of 17.61) communities [10].

A CHW is anyone who undergoes a training that generally covers public health, behavioral health, cultural competency, health systems, basic diseases, etc. This training, along with their thorough comprehension of the community's culture, allows them to serve the community through health services that incorporate cultural competency [11] CHWs are emerging in community health and wellness models [12]. In addition to being trained as CHWs, the youth were also trained as citizen/community scientists. We introduced the word "community" to the concept of citizen scientist [15] to specify that anyone living in the community, independent of legal status or country of origin, can operate as a citizen/community scientist. A citizen scientist has been defined as a collaborator amongst professional researchers who aids in the production of novel discoveries [14]. There are no guidelines for how involved the citizen scientists should be. In some cases, they may be used for a single portion of a study, in other cases they may contribute to multiple tasks, including co-authoring peer-reviewed articles [16]. Our citizen/community scientists work with social, behavioral, and life scientists to produce new knowledge about health, disease, and resiliency that is human-centered, community-based, and interdisciplinary.

## Our experience

The youth and young adult community health training was conducted in 2021, 2022, and 2023 with funding from the National Science Foundation and the MacArthur Foundation. Over the three years, we trained over 50 participants, mostly aged 16 to 24 (Table 1 for participant demographics). The 2023 six-week program employed a hybrid approach, with students receiving two days of in-person instruction at the campus of Northeastern University's Carruthers Center for Inner City Studies in the historic Chicago community of Bronzeville and two days of online learning per week. The training was part of the One Summer Chicago youth

employment program and we worked with several partner organizations who helped to recruit high school students and young adults (up to age 24) residing in marginalized communities in Chicago and surrounding areas to participate in and co-create a pioneering CHW curriculum. We also recruited individuals through community events, passing

**Table 1:** Demographic of Sample.

Variables	Mean/ Percent	SD	Range
Male	36%	0.5	0 to 1
Female	62%	0.5	0 to 1
Gender non-conforming	2%	0.16	0 to 1
<b>Race and Ethnicity</b>			
Black	51%	0.51	0 to 1
White/non-Hispanic	5%	0.22	0 to 1
Hispanic (ethnicity)	26%	0.44	0 to 1
Asian	15%	0.37	0 to 1
Native American	2%	0.16	0 to 1
<b>Grade Level</b>			
Ninth Grade/ Freshman	13%	0.34	0 to 1
Tenth Grade/ Sophomore	0%	0	0 to 0
Eleventh Grade/ Junior	15%	0.37	0 to 1
Twelfth Grade / Senior	72%	0.46	0 to 1

out flyers on the street, libraries, and media announcements. For the summer 2023 cohort of CHWs and CSs, we worked with One Summer Chicago (Chicago's summer job program), Phalanx Family Services, and Community Television Network.

During the training, researchers engaged in participant observation and took ethnographic field notes [17- 20]. Focus groups were also conducted to collect data about the participants' lived experiences in their communities. The participants completed the Samaritan Family Wellness Teen Assessment (under 18 years of age) [21] and Adult Wellness Assessment (18 -21 years of age) [22] to understand how they were doing in areas of wellness (on a scale of 0 -100): body, mind, spirit, community, environment, finances, emotions, and work. After conducting focus groups and Samaritan wellness self-assessments, it became evident that many students had encountered trauma associated with gun violence. Thus, much of the focus and the wellness tools centered around stress related to gun violence. To support the youth and address any mental health needs (e.g., trauma), the youth were provided the cell phone number of a licensed therapist. They were encouraged to let other family members know that the therapist would be able to talk to them if they wanted a session with her. She also attended focus groups to support students as they discussed their lived experiences.

Throughout the program, researchers worked closely with the youth Wellness Scholars (in training to become CHWs and CSs). Social, behavioral, and life science researchers prepared the youth Community Health Workers as Citizen Scientists to collect observational field data (via electronic journaling) [23]. YCHWs learned to observe and consider issues affecting health and wellness in their communities and explored the real-world policy implications of what they witnessed. The youth



were encouraged to provide direct observations and reflect on their own experiences of how trust and communication issues develop from health inequities, unjust policies, goodhearted but flawed initiatives, and a lack of sovereignty over their own health.

They helped to produce new knowledge and insights into the design of innovative solutions about health justice and bioethics (particularly mental health), disease, and resiliency that are human-centered, community-based, and interdisciplinary. This knowledge will help us better understand to what extent science education programs and community health workers affect youth of color's holistic wellness and resilience. Participants were eligible to receive up to \$600 based on completion of various program components (e.g., participating in focus groups, submitting short journal articles, completing the development of wellness tools, etc.).

The foundation of the curriculum was developed using the book, *Foundation for Community Health Worker* [24] and addressed the Samaritan Health Plan's eight dimensions of wellness: body, rest and play, work, spirit, stress resilience, community, emotions, and relationships. (Table 2 for eight dimensions of wellness mean scores for our participants) One of the key partners in the development of the curriculum was the Illinois Community Health Workers Association. Subjects in the curriculum included topics such as CHW Introduction,

Sick and Tired Wellness Fair. At this event, community organizations, policymakers, and stakeholders gathered to see the youth showcase their projects and receive their Community Health Worker certifications. Throughout the training, expert guest lecturers, including medical students, health policymakers, and designers such as the Director of the University of Illinois Siebel Center for Design were brought in to educate the Wellness Scholars on various dimensions of wellness and the human-centered design process for prototyping wellness tools. Each week, challenges to designing wellness tools based on a need they observed as CSs were presented to the Wellness Scholars, igniting their enthusiasm to apply their creativity. Utilizing a variety of crafting and other prototyping materials, they eagerly worked on their projects. Students created artistic projects to develop their hopes, dreams, and positive thinking such as vision boards using magazine clippings, created ideas for addressing health and knowledge disparities as well as proposed innovative solutions to tackle food insecurity and improve nutrition. Team members engaged in ethnographic research observed lots of smiles, deep engagement in their work, and pride in sharing their work with other Wellness Scholars.

The training not only served as an educational experience but also appeared to have positive effects on the participants' wellness, addressing many of the issues they sought to tackle such as anxiety and substance use. Incorporating artistic elements into the training, such as crafting and music creation, tapped into the well-documented mental health benefits of art. One particularly impactful session involved a guest lecturer from Simba P., a recording artist who guided students in creating healing songs.

During one of Simba P's in-person sessions, students expressed their affinity for various elements of Hip Hop, linking them to their personal interests. The training aimed to model self-expression while increasing awareness of public health concerns. Other activities such as meditation and vision board creation encouraged introspection and goal setting, fostering a deep sense of empowerment among the students.

The Wellness Scholars expressed a high level of enjoyment when participating in hands-on activities. These activities lead to increased interaction and camaraderie among the participants. Despite initial skepticism from some participants about whether they would enjoy the program, their participation evolved into a source of enjoyment and inspiration. One student, initially hesitant, later expressed interest in continuing to work on projects aimed at enhancing community well-being. The staff member assisting the participant in developing a playlist as a solution to promote joy, happiness, and hope, witnessed her artistic talents flourish. At the program's culmination, she proudly presented her visually appealing play-list project, showcasing her newfound confidence and creativity.

**Table 2:** Wellness Assessment Scores Totals (0-100)

Variables	Mean	SD	Range
Healthy Relationships	79.96	10.33	68-98
Handling Emotions	77.42	11.64	51-100
Spirituality	76.79	12.83	51-100
Rest and Play	75.69	12.17	55-95
Stress Resilience	72.17	11.73	45-97
Care for the Body	73.48	20.44	10-100
Community	72.52	14.4	34-93
Vocation	78.1	13.51	63-100

Public Health, Behavioral Health, Client interviewing, Home-based care, and Delivering Services, Psychological First Aid & Skills for Psychological Recovery, Verbal Aid, Peer Support (support their peers), entrepreneurship, taking vitals, etc. Participants also attended Policy Clinics with Illinois lawmakers to learn about the policy process and identify specific policies aimed at decreasing health disparities in communities of color.

Through an interdisciplinary collaboration with the University of Illinois Siebel Center of Design, the Youth Wellness Scholars each received boxes of curricular materials including a workbook created to outline the process of human-centered design to ideate and prototype wellness tools. The CS training involved identifying community problems, testing solutions, designing interventions, and presenting their innovative ideas to the larger community at a culminating event called, the Fannie Lou Hamer Sick and Tired of Being



## Discussion

The goals of this program were twofold. First to create a culture where Black and Latinx youth co-created wellness tools, including art, to foster healing from racial trauma such as police killings, gun violence, and higher rates of COVID-19 deaths. The overarching intention is to have this culture so embedded in the young people's lives that it permeates all areas of their health and well-being and fosters community healing [25]. The second goal is to address trauma within the Black and brown communities. We strive to prevent racial trauma by developing a holistic and trauma-informed ecosystem for youth that supports a Third Reconstruction (social justice policies and implementation) and Chicago Renaissance (intense artistic and intellectual activities). In the area of social justice, we aim to radically transform institutions serving children such as schools, churches, etc. by having them offer new ways to support youth, for instance, through developing Wellness Stores in schools and starting a #JoyHappyHope campaign. The Renaissance will involve young people using art (e.g., songs, poetry, comics, documentaries, etc.) to inform other youth and adults about how stress and trauma negatively affect health and how to prevent certain forms of illness.

### What's next

We are empowering Black and brown CHWs and CSs with the necessary skills to address community health challenges. The immediate outcomes are a completed CHW and CS certificate training, a manual to train the trainers, and a Youth DREAM Incubator™ entrepreneurship workbook. One of our longer-term goals is to create a dual credit class where high school students also get college credit while learning how to be CHWs and CSs. Long-term success will be achieved when our graduates are employed as CHWs and CSs in a variety of settings (e.g., healthcare, research teams, daycare centers, churches, etc.) and contribute to improved community health outcomes.

## Conclusion

The Youth Wellness Project endeavored to create a culture of innovation where Black and Latinx youth co-created therapeutic wellness tools to address trauma within marginalized communities. By embedding culturally competent health workers in these communities, we can uncover concerns about trust and health equities not previously at the forefront of prevention and treatment efforts. These goals are also advanced by collecting data from these communities, amplifying community voices in policy health equity processes, and creating a community health care worker certification training. Community health workers are a critical component of community health and wellness, and we aim to build upon the gifts and genius of these youth healers by providing unprecedented support and resources. The youth and young adults in Chicago are experiencing extreme stress

and trauma related to community gun violence. As a society, we must invest in these youth because they are the healers that are needed in their schools, homes, and communities.

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