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# Perspectives on certification of community health workers: A statewide mixed-methods assessment in Nebraska

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## Abstract

**Objectives:** While the Community Health Worker (CHW) workforce in the United States has been growing, so far only 19 states certify CHWs. This study sought to identify perspectives on CHW certification among stakeholders in Nebraska, a state that has not established official certification for CHWs yet.

**Design:** A concurrent triangulation mixed methods design.

**Sample:** Study data came from a survey of 142 CHWs in Nebraska and interviews with 8 key informants employing CHWs conducted in 2019.

**Methods:** Logistic regression was used to identify significant factors associated with favoring CHW certification, supplemented by thematic analysis of qualitative data from CHWs and key informants.

**Results:** The majority (84%) of CHWs were in favor of a statewide CHW certification in Nebraska, citing community benefits, workforce validation, and standardization of knowledge as the main reasons. Participant characteristics associated with favoring CHW certification included younger age, racial minority, foreign born, education lower than bachelor's degree, volunteering as a CHW, and employed for less than 5 years as a CHW. Key informants employing CHWs were divided in whether Nebraska should develop a state certification program.

**Conclusions:** While most CHWs in Nebraska wanted to have a statewide certification program, employers of CHWs were less sure of the need for certification.

## KEYWORDS

certification, community health, community health workers, health workforce

## 1 | INTRODUCTION

Community Health Workers (CHWs) are individuals from the community who have been trained to help fellow community members improve their access to health services, change health behaviors, and reduce health disparities (Katigbak et al., 2015; Sabo et al., 2013). According to the U.S. Bureau of Labor Statistics (BLS) (2022), there

have been as many as 120,000 CHWs working in the United States, with 54,000 formally employed and approximately 660 CHWs in Nebraska. The actual numbers of CHWs might have been underestimated due to various definitions of CHWs that emerge outside of specific BLS occupational codes, and a large portion of the workforce working as unpaid volunteers. As the workforce continues to grow, there have been discussions at the national level to standardize the

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roles and responsibilities of CHWs, especially considering the lack of workplace validation, accountability, and reimbursement for the services provided by CHWs (Anabui et al., 2021; CDC, 2019; Ibe et al., 2020; Jones et al., 2021; Kissinger et al., 2022).

There are opposing views regarding the need for standardized training and/or certification of CHWs (CDC, 2019; RHHub, 2021). Proponents of CHW certification identify significant benefits including career advancement, workforce organization, legitimization of the workforce, consistency in the quality of services provided, and improvement in employment stability (Agency for Healthcare Research & Quality (AHRQ), 2020; Brooks et al., 2014). On the other hand, opponents of certification believe that the act of certification will hamper the growth of the workforce, as the financial, educational, and time barriers associated with certification may limit individuals with the ability to become CHWs (Farrar et al., 2011). Moreover, members of marginalized populations may see formally trained CHWs like professional healthcare workers, leading to the potential loss of community trust or approachability (APHA, 2009; Ingram et al., 2015). There is also a lack of evidence if community members assign any value to CHWs being certified (AHRQ, 2020; Arvey & Fernandez, 2012).

Closely related to the opposing attitudes toward CHW certification is the lack of evidence on the impact of CHW certification on the performance of CHWs and the clinical outcomes of the patients they serve. In 2020, AHRQ released a report documenting the impact of CHW Certification on workforce and service delivery for chronic diseases (Ibe et al., 2020). The authors in this study reported that they did not find any studies that evaluated the effect of CHW certification on the health outcomes or the quality or consistency of care that CHWs provided to patients. An important recommendation from this report is for future research to evaluate the effect of CHW certification on patients' outcomes, care team members' perspectives on the usefulness and desirability of CHW certification, best practices for establishing certification programs, and CHWs' beliefs about certification.

In this study we seek to fill one of the vacuum research areas mentioned in the AHRQ report, that is, to assess attitudes toward CHW certification among CHWs working in Nebraska and their employers. Such an investigation is important for future CHW workforce development in several aspects. For example, if both CHWs and their employers strongly sense the need for CHW certification, they can collaborate to jointly make the case to other stakeholders including policy makers. On the contrary, if both groups do not see the need for or benefits of certification, then it would not make sense for the state to initiate this change. It is also likely that while one of two groups wants to have CHW certification, the other group do not see the need or benefit. This could potentially impact the morale of CHWs and the level of support they might receive from their employers. One assessment of the CHW workforce in Nebraska revealed common desire to hire and employ CHWs among healthcare organizations; however, there is a lack of grassroots evaluation to determine the need for formalized certification of CHWs (Chaidez et al., 2018).

## 2 | METHODS

### 2.1 | Participant recruitment and data collection

The data used in this study came from two sources: (1) an online survey involving 142 self-identified CHWs working in Nebraska and (2) interviews with eight non-CHW key informants employing CHWs during the same period. Both lines of data collection were conducted in English and completed in 2019. The study protocol was reviewed and approved by the Institutional Review Board of the corresponding author's institution.

The study team worked with Nebraska Department of Health and Human Services and local health departments across the state to recruit CHWs and key informants representing different regions in Nebraska. Participant recruitment was conducted through known CHW channels, such as extant CHW training program alumni listservs, public health departments, and CHW associations across Nebraska, for the statewide survey and key informant interviews. For the CHWs Statewide Survey, a recruitment flyer with the eligibility requirements, information on the assessment, and a direct link was emailed to identified organizations and individuals throughout Nebraska that worked with or were familiar with CHWs. Eighty-seven community organizations, eight health systems, and all the health departments were contacted to distribute the survey, including the two widely known CHW training program alumni listservs. CHWs were asked to share the survey among each other as well. In September 2019, information regarding the survey was released to the media to increase statewide awareness.

A suggested list of key informants was developed in August 2019 to include individuals that worked at an organization that employed CHWs (either presently or in the past). Individual invitations were sent to each member in the list for participation. Convenience sampling was used to identify additional individuals.

The CHWs Statewide Survey was delivered online through REDCap (Research Electronic Data Capture) (Harris et al., 2009, 2019; REDCap, 2022). Survey questions captured CHW demographics, training experience, primary services provided, work setting, and attitudes toward CHW certification. A pilot test of the survey was developed by the study team, which included researchers from UNMC, Nebraska Department of Health and Human Services (DHHS) representatives that were partnering on the project and worked closely with CHWs, and two CHWs identified by the DHHS partners. The pilot study was administered to 25 self-identified CHWs at a statewide conference designated for CHWs. Informed consent was provided at the beginning of the online survey, which explained the purpose of the study and ability to leave the survey at any time. Respondents were compensated with a \$20 gift card after completion of the survey.

Recruited key informants were invited to participate in a semi-structured, Zoom (videoconferencing platform) interview to share their perspectives on training and support for CHWs. Interviews were recorded with participant permission and transcribed verbatim.

Transcripts were checked for accuracy before they were analyzed. Key informants were compensated with a \$50 gift card for participation.

Recruitment continued until October 2019 for the CHWs Statewide Survey and key informant interviews, at which theoretical saturation was achieved (Charmaz & Belgrave, 2015). While there is a lack of confirmed conformation of the level of theoretical saturation in qualitative data collection in terms of sample size, the goal was to conduct 20 key informant interviews by the deadline (Aldiabat & Le Navenec, 2018; Saunders et al., 2018).

## 2.2 | Measures

The primary outcome of interest was the preference for developing a certification program in Nebraska for CHWs. In the online survey CHWs were asked the following question: "Do you think Nebraska should have a statewide certification program for CHWs as some other states do?" (Yes or No). Additionally, respondents were asked to justify their yes or no answer qualitatively. Non-CHW key informants were asked the following in the Zoom interview: "To date 15 states in the U.S have developed certification programs for CHWs. Nebraska is not one of them. Do you think Nebraska should have its own certification program for community health workers?" (Yes or No). Interviewees were also asked to justify their answers.

Other variables used in the analysis included demographics of CHWs including age (younger than 40 years, 40 years or older), gender (male or female), ethnicity (Non-Hispanic/Latino or Hispanic/Latino), race (White/Caucasian or racial minority), geographic location (urban or rural), nativity (born in the US or foreign-born), marital status (married or not married), and educational attainment (lower than a bachelor's degree, bachelor's degree or higher).

The goal was to incorporate the perspective of CHWs in Nebraska, to include those who work in paid and unpaid positions; therefore, we wanted to make sure to gather responses that reflected the CHW workforce accurately. Employment status as a CHW had three categories including full-time, part-time, or volunteer. Respondents were also asked if they received any training before becoming a CHW (yes, no), organizational setting of work (clinic-based or community-based), and length of time working as a CHW (5 years or less, 6–10 years, 11, or more years).

## 2.3 | Analytic strategy

Statistical analysis in this study starts with a comparison between the CHWs who were in favor of certification of CHWs in Nebraska and those otherwise in terms of demographics, socioeconomic status, training experience, organizational setting of work, and length of time working as a CHW. *p* values based on Chi-square tests were estimated to indicate if the bivariate associations were statistically significant ( $p < .05$ ). This was followed by logistic regression analysis to examine the association between selected factors and opinions about CHW certification. The statistical analysis was conducted using

the Statistical Package for the Social Sciences (IBM Corp., released 2021).

For the qualitative data collected from the statewide assessment and the non-CHW key informant interviews, transcripts were organized and coded using NVivo Qualitative Data Analysis Software (QSR International, released March 2020). Sample quotes were selected to highlight contrasting views regarding CHW certification. Qualitative and quantitative data were triangulated to better understand study outcomes among CHWs. The purpose of triangulation was to validate and compare the findings generated by each method through evidence produced by the other. Results of qualitative and quantitative data analysis were compared and integrated, and both data forms were used to interpret results (Creswell et al., 2003; Greene & McClintock, 1985).

## 3 | RESULTS

The majority of the 142 CHWs in the online survey were female (92.3%), between the ages of 40 and 59 years old (45.1%), White (54.9%), not of Hispanic or Latino origin (60.0%) and resided in urban areas (78.2%). All eight key informants were female, out of which seven were non-Hispanic Whites. Seven of the key informants had a master's degree. Half of the key informants were employed by a local health department, followed by a hospital system, which served several urban and rural areas throughout Nebraska.

When asked about whether they thought Nebraska should have a statewide certification program for CHWs, 84% of the CHWs in the online survey gave a positive answer. A comparison between CHWs who were in favor of CHW certification and those otherwise (Table 1), suggests CHWs who were younger, racial minority, born in a foreign country, having education lower than Bachelor's, and working as a CHW for 5 years or less were more likely to be in favor of CHW certification ( $p < .05$  in all cases).

The significant bivariate associations between opinions on CHW certification and selected variables, as revealed in Table 1, were confirmed in the logistic regression analysis (Table 2). For example, relative to CHWs who were younger than 40 years old, the odds for CHWs who were 40 years or older to be in favor of CHW certification were 33% as much (AOR = 0.33, 95% CI 0.12, 0.90). Compared with White CHWs, the odds for minority CHWs to be in favor of CHW certification became five times more likely (AOR = 5.48, 95% CI 1.53, 19.57). CHWs who were born in a foreign country were much more likely than their US-born counterparts to be in favor of CHW certification (AOR = 5.26, 95% CI 1.17, 23.66). In terms of differences by education, CHWs with a bachelor's or higher degree were less likely to be in favor of CHW certification than those with an education lower than bachelor's (AOR = 0.22, 95% CI 0.07, 0.69). Relative to CHWs who were working full time, CHWs who were working as a volunteer were more likely to be in favor of CHW certification (AOR = 2.10, 95% CI 1.06, 63.73). The results also revealed a patterned association between length of time working as a CHW and opinions on CHW certification: the longer time CHWs worked, the less likely it became for them to support CHW certification. CHWs who had worked for 11 years or more

**TABLE 1** A comparison between the CHWs in Nebraska who were in favor of CHW certification ( $N = 119$ ) and those otherwise ( $N = 23$ ) in 2019.

| Characteristic                 | In favor of CHW Certification, N (%) | Not in favor of CHW Certification, N (%) | p-value |
|--------------------------------|--------------------------------------|--|---------|
| Age                            |                                      |  | .024    |
| <40 years                      | 61 (91.0)                            | 6 (9.0)                                  |         |
| 40 years or older              | 57 (77.0)                            | 17 (23.0)                                |         |
| Gender                         |                                      |  | .691    |
| Male                           | 8 (80.0)                             | 2 (20.0)                                 |         |
| Female                         | 111 (84.7)                           | 20 (15.3)                                |         |
| Race                           |                                      |  | .004    |
| Caucasian/White                | 59 (75.6)                            | 19 (24.4)                                |         |
| Racial minority                | 51 (94.4)                            | 3 (5.6)                                  |         |
| Ethnicity                      |                                      |  | .059    |
| Non-Hispanic or Latino         | 67 (78.8)                            | 18 (21.2)                                |         |
| Hispanic or Latino             | 50 (90.9)                            | 5 (9.1)                                  |         |
| Geographic location            |                                      |  | .487    |
| Urban                          | 94 (84.7)                            | 17 (15.3)                                |         |
| Rural                          | 23 (79.3)                            | 6 (20.7)                                 |         |
| Nativity                       |                                      |  | .018    |
| Born in the US                 | 76 (79.2)                            | 20 (20.8)                                |         |
| Born outside of the US         | 40 (95.2)                            | 2 (4.8)                                  |         |
| Marital status                 |                                      |  | .054    |
| Married                        | 62 (78.5)                            | 17 (21.5)                                |         |
| Unmarried                      | 56 (90.3)                            | 6 (9.7)                                  |         |
| Education                      |                                      |  | .004    |
| Lower than Bachelor's          | 57 (93.4)                            | 4 (6.6)                                  |         |
| Bachelor's or higher           | 60 (75.9)                            | 19 (24.1)                                |         |
| Employment status as CHW       |                                      |  | .050    |
| Full-time                      | 71 (78.0)                            | 20 (22.0)                                |         |
| Part-time                      | 15 (88.2)                            | 2 (11.8)                                 |         |
| Volunteer                      | 29 (96.7)                            | 1 (3.3)                                  |         |
| Previous training experience   |                                      |  | .753    |
| Yes                            | 63 (82.9)                            | 13 (17.1)                                |         |
| No                             | 56 (84.8)                            | 10 (15.2)                                |         |
| Organizational setting of work |                                      |  | .193    |
| Clinical-based                 | 95 (81.9)                            | 21 (18.1)                                |         |
| Community-based                | 24 (92.3)                            | 2 (7.7)                                  |         |
| Length of time working as CHW  |                                      |  | <.001   |
| 5 years or less                | 92 (91.1)                            | 9 (8.9)                                  |         |
| 6–10 years                     | 13 (81.3)                            | 3 (18.8)                                 |         |
| 11 or more years               | 13 (54.2)                            | 11 (45.8)                                |         |

**TABLE 2** Logistic regression on the odds of being in favor of CHW certification in Nebraska in 2019 among 141 CHWs.

| Variables                      | Odds ratio | 95% CI        |
|--------------------------------|------------|---------------|
| Age                            |            |               |
| <40 years                      | Reference  |               |
| 40 years or older              | .33*       | (0.12, 0.90)  |
| Gender                         |            |               |
| Male                           | Reference  |               |
| Female                         | 1.39       | (0.27, 7.02)  |
| Ethnicity                      |            |               |
| Non-Hispanic or Latino         | Reference  |               |
| Hispanic or Latino             | 2.69       | (0.93, 7.73)  |
| Race                           |            |               |
| White/Caucasian                | Reference  |               |
| Non-White/Caucasian            | 5.48**     | (1.53, 19.57) |
| Geographic location            |            |               |
| Urban                          | Reference  |               |
| Rural                          | .69        | (0.25, 1.95)  |
| Nativity                       |            |               |
| Born in the US                 | Reference  |               |
| Born outside of the US         | 5.26*      | (1.17, 23.66) |
| Marital status                 |            |               |
| Married                        | Reference  |               |
| Not married                    | .94        | (0.94, 6.95)  |
| Education                      |            |               |
| Lower than bachelor's          | Reference  |               |
| Bachelor's or higher           | .22**      | (0.07, 0.69)  |
| Employment status              |            |               |
| Full-time                      | Reference  |               |
| Part-time                      | .81        | (0.48, 10.63) |
| Volunteer                      | 2.10*      | (1.05, 63.73) |
| Previous training experience   |            |               |
| Yes                            | Reference  |               |
| No                             | 1.16       | (0.47, 2.84)  |
| Organizational setting of work |            |               |
| Clinical-based                 | Reference  |               |
| Community-based                | 1.77       | (0.76, 4.09)  |
| Length of time working as CHW  |            |               |
| 5 years or less                | Reference  |               |
| 6–10 years                     | .24        | (0.10, 1.77)  |
| 11 or more years               | .12***     | (0.04, 0.33)  |

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**TABLE 3** Sample reasons quoted from CHWs who were in favor of or against CHW certification in Nebraska.

| Being in favor CHW certification  | Being against CHW certification   |
|---|---|
| <i>"Certification can help to ensure appropriate training and skills that are universal throughout the state and communities."</i>  | <i>"I feel that skills necessary to do Community Health Work are typically learned on the job and from experience out working with families in the community."</i>  |
| <i>"A state-wide certification program would ensure that community health workers had an adequate amount of knowledge to help seek out health services for the people they support."</i>  | <i>"Not necessarily if someone has a degree related to the work of a community health work, such as a degree in Public Health and so on."</i>   |
| <i>"I believe Nebraska should have a certification program to ensure the understanding of the industry. Also, to work in health care as a CHW you are allowed to perform certain activities such as vitals or medication administration that requires a certification."</i> | <i>"Training can be individualized for specific job requirements without unnecessary topics... this allows for individualized training specifically for the job without wasting time with topics that don't apply."</i>   |
| <i>"It would provide more community awareness of what services can be provided. It can help with continuity of care. The individual would be seen more as a professional and valued by medical providers."</i>  | <i>"There is no evidence that a CHW with certification perform better in a job. The relationship and trust-building involve skills and traits that are not easily taught."</i>  |
| <i>"Because this would demonstrate to providers that whoever holds that certification has the core competencies to perform their job. I feel like we are often not seen as professionals in this field and that can hurt gaining buy in from providers."</i>                | <i>"Because 'Community Health Worker' is an extremely broad term, that covers nurses, interpreters, breastfeeding counselors, housing specialists, legal aid, etc. It would be hard to identify who actually needed to attend the certification program."</i>   |
| <i>"Great opportunity to help people who wish to help their community gain respect and support in the Community Health Worker profession."</i>  | <i>"I believe a community health worker lives and works in the community with experience to help others connect to resources. They are not paid professions with degrees. They are passionate persons who want to help others in their community, are respected in their communities and do this work because they see it is making a difference not because of pay."</i> |

experience a reduction of 88% in the odds of being in favor of CHW certification compared to CHWs who had worked for 5 years or less (AOR = 0.12, 95% CI 0.04, 0.33).

Qualitative data from the online survey of CHWs provided insights on how CHWs perceived the need for CHW certification in Nebraska, as illustrated by select sample quotes (Table 3). Of the 113 CHWs who were in favor of certification and offered explanations, 36.3% identified standardization of knowledge, 32.7% identified validation of the workforce, and 24.8% mentioned community benefits as the primary explanation for their preference. CHWs stated that standardized knowledge and skills were key to help them conduct their primary tasks and benefit the community overall, while also validating their role and increasing their visibility in the healthcare system.

While the majority of CHWs agreed certification would be beneficial, there were several concerns raised among the 23 CHWs (16% of the sample) who did not believe that Nebraska should launch a statewide certification program. One major argument was that the knowledge acquired by a CHW was inherent with the individual's working experience in the community, and not learned in a formal training. Other stated reasons against CHW certification included additional training or job-specific certifications being redundant, the cost of the certification program, and other logistical issues, such as time commitments, language barriers, and literacy levels among certain groups of CHWs. Another major concern that emerged was the effect certification on the "true" role or definition of CHWs in the community. Participants stated that the requirement of a certification would formalize the workforce, while unintentionally compromising the community connection that defines a CHW.

Key informants were also divided in their attitudes toward CHW certification, as suggested by the sample quotes presented in Table 4.

Out of the eight key informants, three were in favor of certification, three were against it, and two were undecided on the benefits of certification. Key informants who were in favor of certification mentioned benefits such as the ability to grow professionally, accountability as a profession, employment security, and the development of a peer-to-peer support system available to CHWs. By contrast, key informants opposing certification were concerned with inadequate infrastructure in place, such as the ability to employ certified CHWs, the development of core competencies, and other barriers for CHW certification. Several key informants stated that there were not enough jobs or a sustainable model in place to support CHWs in Nebraska at this time. Without this infrastructure, there is no need for a certification program. Finally, a key informant identified concern as to what core knowledge would be included in the certification, since many CHW responsibilities are job-related, and it may be challenging to develop a streamlined and effective training program to cover all responsibilities.

## 4 | DISCUSSION

State level assessments examining work and certification preferences of CHWs is a crucial step for the future growth of this workforce (CDC, 2019). A recent systematic literature review reported that 26 states have attempted to complete statewide assessments of their CHW workforce (Barbero et al., 2021); however there has been little research on the perspectives of CHWs concerning CHW certification, factors associated with certification preference, and qualitative feedback to substantiate these perspectives. In this study, CHWs from Nebraska overwhelmingly supported CHW certification (84% vs. 16%),



**TABLE 4** Sample reasons quoted from Key Informants who were in favor of or against CHW certification in Nebraska.

| Being in favor of CHW certification   | Being against CHW certification   |
|---|---|
| <i>"I like the idea of the certification because it does provide some accountability for those people that are working as a community health worker and some continuity in what they're, they're learning and what they know."</i>  | <i>"I don't think this certification program should require of all CHW, since it will most likely only be available in English."</i>  |
| <i>"The call to public health and the nuance skillset that it has, that goes into this kind of work... it's ever changing. That's like the one thing you can count on is like trends and advances and things like that. So, it only makes sense to have, um, a certification process. A formalized road for education and ongoing education. So, I would support those hands down."</i> | <i>"I would want to be careful that we make sure that we keep our perspective of community health workers really broad, because then you train them based on what you want them to do within your entity."</i>  |
| <i>"I think if there was sort of an accrediting body, you have been trained, you are a certified community health train or a health worker that that may decrease some other barriers that organizations are facing."</i>   | <i>"We don't need a certification when the organizations throughout the state that should be leveraging them aren't prepared to sustain them."</i>  |
| <i>"I've also said to entities as you hired my health workers, if they have that foundational training, then you can train them based on what you want them to do."</i>   | <i>"When you talk to the community health workers themselves, they say that it will be a deterrent for many because unless they really see this as a steppingstone within maybe a healthcare profession or a path forward, they see that as almost a barrier for them to rate really actually doing this work."</i> |

which is similar to the few states that examined the certification preferences among CHWs, including Arizona in 2015 (Ingram et al., 2020).

The key factors associated with preference for certification include CHWs who are younger than 40 years old, from a minority race, born outside of the United States, with less than a bachelor's degree, working as a volunteer CHW, and working as a CHW for 5 years or less. These groups are often identified as vulnerable workers in the workforce, which may explain their preference for certification as an avenue to job stability and professional advancement (Brookings Institute, 2020). Since this study was conducted before the COVID-19 pandemic, we must note that these vulnerable populations were more greatly impacted by the pandemic and there is a need for additional examination to determine if the certification preferences in CHWs is tied directly to job security. This sentiment is further supported by the representative quotes provided by CHWs and non-CHW stakeholders, in which career advancement and job security were identified as reasons for certification.

The predominant reason provided for the preference for certification was the standardization of knowledge. One of the major sub-themes associated with this was the development of a key skillset that would help with professional advancement and employment changes anywhere throughout the state. This might be due to the impermanency of grant-funded CHW positions or concerns with job security if there was any physical mobility within or outside of the state (Visker et al., 2017). Certification might facilitate CHWs to seek employment across multiple settings (clinical- or community-based), and potentially transfer to different states. This would also allow CHWs to seek standardized wages and employers to develop insurance reimbursement infrastructure. This is further supported by other CHW assessments, including an assessment in California, where CHWs identified that certification may provide enhanced professional recognition, upward mobility, and higher compensation (Anabui et al., 2021; Ibe et al., 2020; Kissinger et al., 2022).

Another key component for preference toward certification was job validation. Many CHWs in the survey expressed concerns about how other health care professionals viewed their role. There was evidence that the lack of a clear definition of the scope of CHW practices and related lack of knowledge of CHW practices by other health care providers, often alienate CHWs in interprofessional groups (Visker et al., 2017). Most existing statewide assessments examine the utilization of CHWs in healthcare delivery, such as Rhode Island and Oregon (CDC, 2019), while failing to examine the viewpoint of other healthcare professionals toward CHWs. It is important to examine how other health professionals view CHWs in their organization and if certification changes these perceptions.

While the vast majority of CHWs in Nebraska prefer a statewide certification of CHWs, some CHWs and non-CHW key informants were less enthusiastic (Table 3). The most cited reason for opposing CHW certification involved the various barriers CHWs would have to overcome, such as the time commitment, cost, language, and literacy levels. Other reasons include the loss of CHW identity and job-specific training requirements. This has been substantiated in the literature, where there is concern that certification will prevent CHWs from obtaining employment or accessing minority populations (CDC, 2019; Clary, 2015; Ibe et al., 2020; Kissinger et al., 2022).

#### 4.1 | Strengths and limitations

This study represents the first statewide assessment of the CHW workforce in Nebraska and one of the first statewide assessments of CHW certification preferences based on comprehensive data collection from CHWs and non-CHW stakeholders. Among strengths of this study was its ability to identify and gather perspectives of CHWs across the state regarding CHW certification. Furthermore, triangulating data from multiple sources provides us with a greater appreciation of the

complexity involved in moving forward with decisions regarding CHW workforce development in Nebraska. While the quantitative data from CHWs based on the online survey revealed the level of support for CHW certification and its related predictors, the qualitative data from CHWs in the survey provided specific reasons for supporting or not supporting CHW certification. For example, an important finding from the quantitative data was that overall CHWs who were less established in the field or who were from a minority or immigrant background were more likely to be in favor of CHW certification. This was corroborated and reinforced by related findings from the qualitative data whereby CHWs cited lack of appreciation of their profession and job security as important barriers and why they thought certification might be part of the remedies. Some of these perceptions were also echoed by the perspectives from key informants employing CHWs.

There are several study limitations to acknowledge. First, the CHW sample provided voluntary perspectives that do not necessarily represent or provide a complete picture of the training and training gaps experienced by CHWs in Nebraska; therefore, results of this study may not be generalized to all CHWs. We estimated at the time of the study that there were 660 CHWs in Nebraska but were only able to include 142 CHWs in the survey. Secondly, the information gathered relied on self-reports from respondents, which may be subject to recall biases, a limitation very common in cross-sectional surveys collecting self-report data. Thirdly, CHWs were only offered two options when asked about their opinion of CHW certification; this may misrepresent individuals who were unsure or did not have a firm opinion. Additionally, the survey was only offered in English and may not include individuals who do not speak or read English proficiently. Also, given the large number of agencies employing CHWs in Nebraska, our findings based on interviews with eight key informants do not capture all perspectives from various stakeholder agencies, which limits the generalized use of the findings. Finally, it is important to acknowledge the need to continue to assess the grassroots perspective of CHWs in the workforce, especially in light of the expansion of the CHW workforce during and after the COVID-19 pandemic. Despite these limitations, this study represents a rare effort in systematically assessing perspectives on CHW certification based on data collected from both CHWs and their employers.

## 5 | CONCLUSIONS

This study was one of the first assessments of perspectives on CHW certification at the state level, which empowered CHWs to have their voices heard in the ongoing debate regarding CHW certification. There was an overwhelming desire of CHWs in Nebraska for having a statewide certification program to enhance their work in the community and to better validate their role in the healthcare system. This, however, did not receive unanimous support from the key informants employing CHWs. Deliberate efforts are needed by states to better support a growing CHW workforce in the post-COVID-19 era, including making informed decisions on CHW certification based on perspectives from key stakeholders including CHWs.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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