Discover Public Health

RESEARCH

Open Access

The role of childhood experiences in shaping career choices as a Community Health Worker serving agricultural workers in rural Texas

Susana Zavala[1] and Anabel Rodriguez[1*]

*Correspondence:
Anabel Rodriguez
Anabelr@tamu.edu
[1]School of Public Health College Station, Environmental and Occupational Health, Texas A&M University, 212 Adriance Lab Road, 1266 TAMU, 77843 College Station, TX, USA

Abstract

Background Community Health Workers (CHWs) have historically bridged gaps between public health systems and rural, hard-to-reach communities. Many CHWs have personal connections to the communities and populations they serve. Yet, there is limited understanding of how these formative experiences influence CHWs' career decisions, particularly those who serve agricultural workers.

Methods A cross-sectional study was conducted among CHWs ($n = 15$) who provide outreach services to Texas agricultural workers. Data was collected through structured phone interviews using standardized survey tools: Adverse Childhood Experiences (ACEs), acculturation and language use (SASH), anxiety (GAD-7), depression (PHQ-9), and open-ended questions focused on professional and lived experiences. Descriptive statistics and thematic analysis were conducted.

Results Participants were predominantly bilingual Hispanic females (87.0%). Mean ACEs score was 2.3, reflecting moderate exposure to adversity, and mean SASH score was 2.6 suggesting bicultural tendencies. Participants reported low levels of anxiety and depression. Many shared that their parents had worked in agriculture and recalled that their own experiences mirrored systemic barriers faced by agricultural workers, including lack of transportation (48.7%), health insurance (40.0%), and health access (28.7%). Thematic analysis revealed that CHWs expressed a deep emotional connection to agricultural workers, rooted in their shared personal experiences.

Discussion There is a need to invest in CHW programs to ensure their lived and field experiences inform public health strategies. Future work should develop comprehensive, ongoing training for evolving issues, and establish a statewide network for CHWs to share field experiences, resources, connect with peers, access trainings, and alert public health agencies on emerging issues.

Keywords Adverse childhood experiences (ACEs), Acculturation, Community health outreach, Workforce recruitment and retention, Systemic barriers to health

© The Author(s) 2026. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc-nd/4.0/.

1 Introduction

Community Health Workers (CHWs) have historically bridged critical gaps between public health and hard-to-reach marginalized communities. CHWs are crucial liaisons who interpret and deliver vital and diverse services, including health education and promotion, outreach, health advocacy, and social support. In rural areas, their presence and outreach are imperative, specifically in agricultural communities, who often experience limited access to health care services often due to systemic barriers like geographic isolation, transportation, knowledge of health center locations, conflicting work schedules, language differences, immigration status, and socioeconomic constraints [1–3].

Previous work recognizes the valuable contributions CHWs make to communities and public health, yet there is a lack of understanding of who these individuals are—their personal histories and formative life events that shaped their calling to community health and advocacy work [4]. Developing improved career pathways and substantial career opportunities for CHWs is critically important to ensure sustainable community health outreach [5]. While training and certifications for CHWs continue to evolve, gaps remain in understanding drivers for choosing careers focused on serving and investing in their community's future and well-being [6].

Career paths into health service-based occupations may be influenced by personal lived experiences and formative events, including Adverse Childhood Experiences (ACEs) [7]. ACEs capture traumatic childhood events such as abuse, neglect, family dysfunction, or exposure to violence. Studies have extensively shown that these experiences have an association with adverse health outcomes, but studies also indicate that they may cultivate enhanced empathy, resilience, and motivation toward service-oriented careers, traits seen among CHWs [8]. Acculturation, including language adaptation, cultural identity, and connections to country of origin, is a process that may influence career motivations and professional identity.

There is limited understanding of how ACEs, acculturation, and similar formative experiences influence CHWs' career decisions, particularly those who serve agricultural workers. CHWs who primarily serve agricultural workers must navigate complex professional demands, while also navigating their own precipitated emotions, reactions, and mental health status. Understanding dynamics between lived experiences and professional motivation among CHWs could inform evidence-based approaches to trauma informed recruitment, workforce development, and retention strategies. This exploratory, descriptive pilot study examines the association between childhood experiences, acculturation, mental health, and career motivations among CHWs serving agricultural workers in Texas.

2 Methods

2.1 Study design

An exploratory cross-sectional study was conducted among CHWs (n = 15) who provide outreach services to agricultural workers in Texas. Data collection was conducted over the phone in July 2025. Existing literature shows that saturation in interviews can be reached with 9–17 interviews [9]. This study was reviewed and approved by the Texas A&M University Institutional Review Board (IRB) (STUDY2025-0621). All procedures were conducted in accordance with ethical standards for human subjects' research.

2.2 Recruitment and informed consent

Participants were recruited from an existing contact list of active CHWs who served agricultural workers on various research, outreach, and training activities across different organizations and academic institutions in El Paso, Texas Panhandle, and Rio Grande Valley. A total of twenty-two CHWs were initially contacted via email and text message by trained bilingual (English/Spanish) research personnel. Prior to survey administration, research personnel read and explained the informed consent, and willing participants provided their informed consent to understanding study's purpose, risks, and benefits.

2.3 Study instruments

The survey administered had a total of 46 quantitative and qualitative questions and was organized into five sections.

(1) The first section of the survey included adapted questions on sociodemographic characteristics, family and social influences, personal motivation, barriers to training and resources, and connection to the agricultural working community [10, 11].

(2) Acculturation was measured using the Short Acculturation Scale for Hispanics (SASH) questionnaire. The SASH acculturation uses subscales to capture two key measurements of acculturation: language use and ethnic social relations. Each item is scored on a 1–5 scale, with lower scores reflecting a stronger orientation toward Hispanic culture and higher scores reflecting a stronger orientation toward mainstream U.S. culture [12].

(3) Generalized Anxiety Disorder-7 (GAD-7) was used to assess seven anxiety symptoms over the past two weeks. Seven items are scored from 0 to 3, where a score range of 0–4 is defined as minimal depression, 5–9 as mild anxiety, 10–14 as moderate anxiety, and 15–21 as severe anxiety [13].

(4) Patient Health Questionnaire-9 (PHQ-9) was used to measure the severity of depression over the past two weeks. Nine items are scored from 0 to 3, where a score range of 0–4 is defined as minimal anxiety, 5–9 as mild depression, 10–14 as moderate depression, 15–19 as moderately severe depression, 20–27 as severe depression [14].

(5) Adverse Childhood Experiences (ACEs), a standardized questionnaire, was administered to assess experiences of abuse, neglect, and household dysfunction occurring before the age of 18. The ACEs score represents the total number of adverse experiences reported in childhood, ranging from 0 to 10. A score of 0 indicates no reported adverse experiences, 1–3 indicates some exposure, and a score of 4 or higher is commonly used as a threshold indicating increased likelihood of negative health outcomes in adulthood [7].

2.4 Data collection

Structured interviews were conducted via telephone by trained bilingual research personnel. Surveys were conducted in the participants' preferred language and took approximately 30 min to complete. Research personnel took detailed notes during all interviews and ensured comfort with participants. Participants received $50 USD cash for their time and participation in the survey. Mental health resources were provided to

all participants at the end of the survey. Survey data was collected and managed using REDCap [15].

2.5 Data management and analysis

Interviews were conducted in English or Spanish according to participant preference. The survey (interview guide) was translated by two certified native speakers into Spanish prior to data collection. Due to the sensitive nature of questions and respect for participant anonymity, interviews were not recorded [16]. All Spanish responses were translated into English and then back-translated by a second bilingual team member to ensure accuracy and conceptual equivalence. Short answer, open-ended survey responses were analyzed by a thematic analysis to identify recurring patterns, key themes, and shared narratives related to participants' motivations for becoming CHWs and their experiences serving agricultural workers. The analysis had initial coding, theme development, and verification of findings across the research team. Descriptive statistics were calculated for all sociodemographic characteristics, ACEs scores, mental health screening results, and acculturation measures. All statistical analyses were performed using Stata/SE 18.0 [17].

3 Results

3.1 Demographics

Participating CHWs ($n = 15$) were predominantly Hispanic (100.0%) females (87.0%), approximately 46.4 (SD 11.4) years of age, ranging from 31 to 65 years of age. While all CHWs were bilingual, 53.0% preferred speaking English and 47.0% preferred speaking Spanish. The majority (87.0%) reported having completed college or higher education. Only two of 12 participants reported Community Health Work as their full-time job. (Table 1).

3.2 Parental occupations and community influence

Participants reported parents' occupations held during their childhoods. For mothers, nearly half were homemakers (47.0%), followed by agricultural workers (20.0%). Notably, 20% of participants did not report growing up with a father or reported deceased fathers. For those who reported growing up with fathers, their most common occupation was agricultural work (33.0%), followed by mechanical work (27.0%). Regarding community engagement, participants reported that only 33.0% of parents were involved in community activities during their free time, but 47.0% of participants reported that their parents viewed community service as "very important" (Table 1).

3.3 Acculturation and language use (SASH)

Across all six language-use questions, most participants (67.0%) reported using both English and Spanish equally. Spanish was more commonly used in childhood (60.0%), while English was more dominant in internal thoughts (40.0%). For ethnic social relations, most participants indicated interaction with both Hispanic/Latino and non-Hispanic/non-Latino individuals. Specifically, 53.0% of participants reported that most of their close friends were Hispanic/Latino, while 100.0% reported their children's friends came from both ethnic backgrounds. The mean SASH language score was 2.8 (SD = 1.0),

Table 1 Sociodemographic characteristics of Community Health Workers ($n = 15$)

Characteristics	All (n = 15) Mean (SD) or n (%)
Age (Range 31–65)	46.4 (11.6)
Female	13 (86.7)
Hispanic	15 (100.0)
Primary language	
English	8 (53.3)
Spanish	7 (46.7)
Education	
At most high school	2 (13.3)
At least college	13 (86.7)
Employment status	
Full-time CHW	2 (13.3)
Other full-time position	10 (66.7)
Other part-time position	2 (13.3)
Self-employed	1 (6.7)
Mother's occupation during childhood	
Agricultural worker	3 (20.0)
Other*	12 (80.0)
Father's occupation during childhood	
Agricultural worker	5 (33.3)
Other**	7 (46.7)
Not reported***/Deceased	3 (20.0)
Parents' participation in community	5 (33.3)
Parents' view on community service	
Very important	7 (46.7)
Somewhat important	4 (26.7)
Neutral	4 (26.7)

*Other occupations for mothers include: homemaker (7/15), house cleaner (2/15), service industry (2/15), clerical (1/15)

**Other occupations for fathers include: construction (2/15), mechanic (4/15), service industry (1/15)

***Not reported means that participants indicated they did not grow up with a father during their childhood years.

Table 2 Mental health, childhood experiences, and acculturation measures ($n = 15$)

Characteristics	All ($n = 15$) Mean (SD) or n (%)	Skewness	Kurtosis
Generalized anxiety disorder (GAD-7)	3.6 (4.0)	1.0	0.3
Patient health questionnaire-9 (PHQ-9)	2.4 (3.5)	2.3	6.0
Adverse childhood experiences (ACEs)	2.3 (2.2)	2.2	5.8
Acculturation scale (SASH)			
Language	2.8 (2.6)	-	-
Ethnic social relations	2.6 (0.7)	-	-

and the mean ethnic social relations score was 2.6 (SD = 0.7), suggesting overall bicultural tendencies (Table 2).

3.4 Adverse childhood experiences (ACEs)

Most reported ACEs were losing a parent and living with someone who was an alcoholic or drug user. The mean number of ACEs reported was 2.3 (SD = 2.2). Distribution was positively skewed (skewness = 2.2), and moderately leptokurtic (kurtosis = 5.8), indicating a small number of participants reported high numbers of ACEs (Table 2).

3.5 Mental health screenings (GAD-7 and PHQ-9)

3.5.1 Anxiety

The mean GAD-7 score was 3.6 (SD = 4.0), suggesting a mild level of anxiety symptoms overall. By clinical severity: 60.0% (9/15) had minimal anxiety, 33.0% (5/15) had mild anxiety, 7.0% (1/15) had moderate anxiety. The most reported anxiety symptoms experienced by participants were "feeling nervous/on edge" (mean = 0.8) and "worrying about different things" (mean = 0.7) (Table 2).

3.5.2 Depression

The mean PHQ-9 score was 2.4 (SD = 3.5). Most participants reported minimal symptoms, 87.0% (13/15), while the remaining participants (2/15) had mild to moderate depression. The most reported symptoms were "feeling tired" (mean = 0.3) and "poor appetite or overeating" (mean = 0.3). The item "better off dead or hurting yourself" had a mean of 0.7, and the highest kurtosis (15.0), suggesting that while most participants did not experience this, a few did report it (Table 2).

3.6 Connection to agricultural workers

Out of 15 participants, 14 reported having familial experience with agricultural work. Many described having deep emotional ties to the agricultural community and a strong understanding of the hardships faced by agricultural workers and their families.

Translated to English from Spanish: "What I know about agricultural workers here is that they are very abandoned and unprotected. To me, it's a very hard life because they leave [the center] at 6 PM [to go home] and return [to the center] at 3 AM [to go back to work]. We have a center here dedicated to workers, and they're not even there, they're sleeping on the streets waiting to be picked up. They don't have time to get medical services. And they don't have money." (female, age 65 years).

From her outreach interactions, female, age 65 years, recalled what workers frequently say to her:

> *Si no trabajamos, no tenemos dinero; si trabajamos, no tenemos tiempo.*

English Translation: "If we don't work, we have no money; if we work, we don't have time."

This sentiment was also echoed by other participants who expressed frustration and sadness over the invisibility and systemic neglect experienced by the population they serve.

With their lived experiences and shared cultural backgrounds, participants reported they can easily gain trust and connect with workers, allowing them to understand their struggles and needs.

"*[My shared experiences and cultural background] allows me to have empathy and to speak to them in terms that they understand, connecting with them with injustices and inequalities that they have experienced.*" (female, age 44 years).

Some participants shared that they had worked in the fields themselves during childhood, alongside family members. These early experiences left lasting impressions, becoming formative memories and influencing their relationships with agricultural workers.

"*It makes me be more respectful and more compassionate because even as a younger child working in ag, I was one of the only children doing, I did not feel understood and*

did not have anyone to relate to. When I see kids working, I approach them with a lot of respect and humility." (female, age 38 years).

3.7 Childhood health disparities

Participants were asked to report any health disparities they experienced during their childhood. Most reported lack of health insurance (73.0%), food insecurity (26.7%), lack of access to clinics (26.7%), and lack of transportation (20.0%).

These health disparities often intersect, such as having insurance, but lacking transportation needed to access care.

"My sister always had respiratory issues, and we had to always take her to the doctor, and we were lacking transportation to get to a clinic that would be able to treat her. We did have Medicaid, but it was hard to take her where she needed to go." (female, age 47 years).

3.8 Perceived impact as CHWs

All participants expressed that their work as CHWs has made a meaningful difference in the communities they serve. They reported a perceived positive impact they have on agricultural workers by providing health education, promoting awareness of services, and acting as bridges between workers and the resources available to them.

Participants reported that their presence alone can help build trust and make it easier for individuals to seek help.

Translated to English from Spanish: *"I believe we are very important because we are the link between them and community services. I've worked in the field for about five years, and even when going to the same places, the same challenges remain. When you're there, they rely on you, and it's easier for them to access services. People trust us. In places where there are no promotoras, people are more unprotected."* (female, age 65 years).

When asked about the most rewarding aspect of being a CHW, participants consistently mentioned the small yet meaningful moments, such as a smile, a "thank you," or a worker finally receiving the services they need. Many said it was simply "being there" with workers, talking to them, and building trust that meant the most.

"To see that you have helped them and give them information. And then see that they used that information to better their lives or the lives of their children." (female, age 47 years).

Despite the meaningful nature of their work, many CHWs expressed that one of the most common challenges is not being able to help everyone. They spoke of cases where no referral options were available, when policies or lack of funding limited services, or when people were too afraid to accept help.

"Sometimes we want to give everything, but it's impossible. Finding resources for them can sometimes be challenging." (female, age 31 year).

"[Most common challenge is the] lack of funding and short projects. You provide the service for short term, but what's next? Once the data is met, the project is over, and no more help is given to that population." (female, age 31 years).

These reflections highlight the psychological impact that resource and funding scarcity, as well as unmet needs, have on CHWs. Their desire to do more is often constrained by bureaucracy outside of their control, yet their commitment to helping their community is unwavering.

4 Discussion

This study explored the childhood experiences, acculturation, and professional motivations, among Community Health Workers (CHWs) serving immigrant agricultural working populations. Our findings revealed a complex and deeply personal connection between childhood background, community commitment, and the ongoing struggles of agricultural communities. Many participants had personal ties to agricultural labor and rural life. These early experiences appear to foster empathy, cultural humility, and a sense of duty, which help CHWs build rapport and trusting relationships with agricultural workers. Several quotes illustrate how participants see themselves and their families in the workers they serve.

While few published studies evaluate CHWs using both ACEs and acculturation measures, related literature supports our approach. For example, in a broader health setting, Maunder et al. (2010) reported that adverse childhood experiences are common among healthcare professionals, suggesting relevance for service-based occupations like CHW [18]. Findings from the SASH acculturation scale suggested that participants have bicultural tendencies. This is a unique asset that allows CHWs to navigate between cultures and serve diverse populations. Ochoa et al. (2023) validated SASH in recent years and found associations between bicultural tendencies and health behaviors [19].

Our findings underscore needs among agricultural workers that extend beyond basic access to healthcare. Many CHWs shared that systemic barriers faced today by agricultural workers and their families mirrored the barriers they themselves experienced during their own childhoods. For example, in this study, 73.0% of participants reported growing up without health insurance and 26.7% experienced food insecurity. This aligns with findings from Soto et al. (2022), who reported that only 33.8% of agricultural workers in the Southwest region (Texas, Arizona, New Mexico, and Oklahoma) had health insurance coverage [20]. The persistence of these conditions suggests there is a need to address root causes of lack of health insurance coverage.

Our findings suggest a need for comprehensive, ongoing training and resource identification for CHWs addressing: (1) unique health needs and systemic barriers faced by agricultural workers, (2) mental health support and navigation of childhood adverse events, (3) efficient and effective bicultural communication strategies and advocacy, (4) navigation of resources and services available to agricultural workers in rural 'medical deserts' in Texas. Future work should also focus on establishing a statewide network or support system for CHWs, where CHWs can share field experiences, resources, connect with peers across the state, access bilingual trainings, and alert public health agencies on emerging issues. Efforts should also focus on developing, delivering, and evaluating a standardized curriculum addressing the most relevant and pressing issues in rural agricultural communities, to support and strengthen their effectiveness in the field. Topics can include infectious diseases (e.g., highly pathogenic avian influenza H5N1, *Mycobacterium tuberculosis* complex infections, New World screwworm, tetanus, hepatitis A/B, hantavirus, etc.), occupational health, safety, and well-being, chronic condition care and management, mental health, and healthcare navigation.

CHWs are essential intermediaries in delivering public health messaging and outreach to hard-to-reach agricultural workers. Public health messaging can be viewed as a hierarchy of communication: at the base are agricultural workers, followed by CHWs and farm labor contractors (FLCs), academic public health researchers, and public health

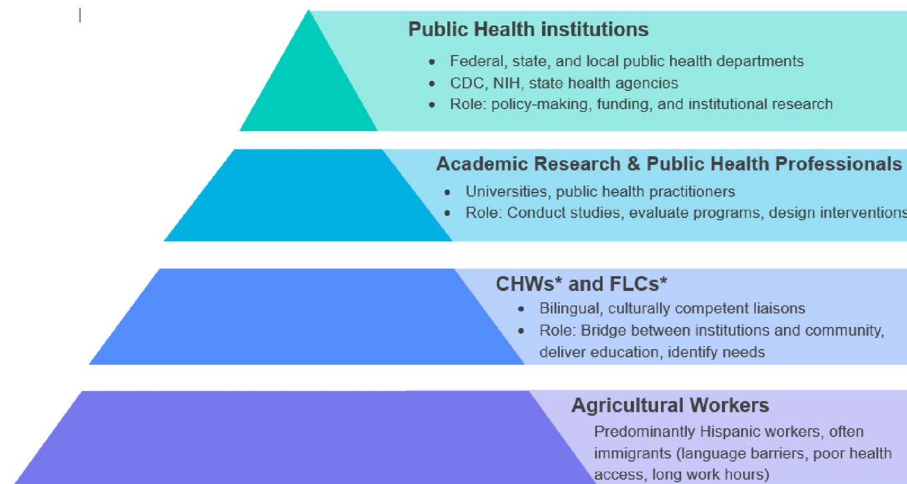

Fig. 1 This illustration shows the communication flow within agricultural health systems, starting with agricultural workers and progressing upward through trusted intermediaries (CHWs and FLCs) to academic researchers and public health institutions. CHWs, Community Health Workers; FLC, Farm Labor Contractors

officials, which include federal, state, and local public health departments (Fig. 1). CHWs are liaisons who help agricultural workers become active participants in public health efforts and decisions. There is a need to invest in CHW programs to ensure their lived and field experiences inform public health strategies at every level.

4.1 Strengths and limitations

Our study had a limited sample size ($n = 15$), influencing generalizability results. Individuals with a strong emotional connection to agricultural work may have been more inclined to participate, potentially leading to self-selection bias. Participants were recruited from a contact list of CHWs who served on previous projects and were more inclined to participate. However, participating CHWs represented different regions across Texas and some of the few identified CHWs focused on agricultural worker health and well-being. Asking participants to remember childhood experiences could have introduced recall bias. In addition, asking participants to recall sensitive or undesirable memories could have led to suppression of information, introducing reporting bias and potentially underreporting of adverse childhood events (ACEs) experienced. However, methods and execution of data collection for this exploratory, descriptive study were closely and regularly monitored for consistency and reliability.

5 Conclusion

CHWs bridge critical gaps between public health and hard-to-reach agricultural workers. Their deep sense of understanding, shaped by personal experiences and shared life experiences with agricultural workers, helps them build trust and connections with these communities. This unique access and connection facilitate public health messaging credibility and impact. However, CHWs need access to continuing education, community resources, and a support network of peers and public health practitioners. Without CHWs in the field, many agricultural workers would remain disconnected from

critical public health messaging, including research, outreach, and training interventions. Strengthening CHW support systems can help address historical health disparities and inequities among agricultural communities.

Acknowledgements
This manuscript was supported by internal funds from Texas A&M University. Its content is solely the responsibility of the authors and does not necessarily represent the official views of Texas A&M University.

Author contributions
S.Z. collected data. S.Z. and A.R. developed study materials, analyzed data, prepared tables and figures, wrote and edited the main manuscript text. All authors reviewed the manuscript.

Funding
This manuscript was supported by internal funds from Texas A&M University. Its content is solely the responsibility of the authors and does not necessarily represent the official views of Texas A&M University.

Data availability
The datasets generated and/or analyzed during the current study are not publicly available due to data (primary data collection) currently being analyzed for subsequent funding and manuscript but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
This is a primary data analysis of survey interviews conducted with Community Health Workers who serve agricultural workers in Texas. Prior to survey administration, research personnel read and explained the informed consent, and willing participants provided their informed consent to understanding study's purpose, risks, and benefits. Data collection was conducted over the phone in July 2025. This study was reviewed and approved by the Texas A&M University Institutional Review Board (IRB) (STUDY2025-0621). All procedures were conducted in accordance with ethical standards for human subjects' research.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Received: 28 October 2025 / Accepted: 16 February 2026

Published online: 01 April 2026

References

1. Javanparast S, Baum F, Labonte R, Sanders D. Community health workers' perspectives on their contribution to rural health and well-being in Iran. Am J Public Health. 2011;101(12):2287–92.
2. Ekren E, Maleki S, Curran C, Watkins C, Villagran MM. Health differences between rural and non-rural Texas counties based on 2023 County Health Rankings. BMC Health Serv Res. 2025. https://doi.org/10.1186/s12913-024-12109-2.
3. Rodriguez A, Lopez S, Douphrate D. On-farm health screening needs of immigrant dairy workers in the Texas Panhandle and South Plains. J Agromedicine. 2023. https://doi.org/10.1080/1059924X.2023.2200418.
4. Rodriguez NM, Ruiz Y, Meredith AH, Kimiecik C, Adeoye-Olatunde OA, Kimera LF, et al. Indiana community health workers: challenges and opportunities for workforce development. BMC Health Serv Res. 2022. https://doi.org/10.1186/s12913-022-07469-6.
5. Dunn M, Johnson EP, Smith B, Cooper M, Bhakta N. Perspectives on workforce development needs for community health workers (CHWs): results from a statewide survey of CHW employers. J Community Health. 2021;46(5):1020–8.
6. Smithwick J, Nance J, Covington-Kolb S, Rodriguez A, Young M. Community health workers bring value and deserve to be valued too:" key considerations in improving CHW career advancement opportunities. Front Public Health. 2023. https://doi.org/10.3389/fpubh.2023.1036481.
7. Webster EM. The impact of adverse childhood experiences on health and development in young children. Glob Pediatr Health. 2022. https://doi.org/10.1177/2333794X221078708.
8. Yang P, Robles-Ramamurthy B, Plastino KA. Associations between adverse childhood experiences and medical students' interest in careers: a single-setting study. Front Psychiatry. 2025. https://doi.org/10.3389/fpsyt.2025.1483871.
9. Hennink M, Kaiser BN. Sample sizes for saturation in qualitative research: a systematic review of empirical tests. Soc Sci Med. 2022. https://doi.org/10.1016/j.socscimed.2021.114523.
10. Bibhakar P, Sinha M. Exploring the motivations and barriers affecting community health workers' performance in the Noida-Greater Noida Region. Discov Public Health. 2025. https://doi.org/10.1186/s12982-025-00931-w.
11. Sarriot E, Davis T, Morrow M, Kabore T, Perry H. Motivation and performance of community health workers: nothing new under the sun, and yet ... Glob Health Sci Pract. 2021;9(4):716–24.
12. Ellison J, Jandorf L, Duhamel K. Assessment of the short acculturation scale for Hispanics (SASH) among low-income, immigrant Hispanics. J Cancer Educ. 2011;26(3):478–83.
13. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder -: the GAD-7. Arch Intern Med. 2006;166(10):1092–7.

14. Kroenke K, Spitzer R, Williams J. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001;16:606–13.
15. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)-a metadata-driven methodology and workflow process for providing translational research informatics support. J Biomed Inform. 2009;42(2):377–81.
16. Rutakumwa RMJ, Bernays S, Kabunga E, Tumwekwase M, Seeley J. Conducting in-depth interviews with or without voice recorders: a comparative analysis. Qualitative Res. 2020;20(5):565–81.
17. StataCorp. Stata Statistical Software: Release 18. StataCorp LP. College Station; 2025.
18. Maunder RG, Peladeau N, Savage D, Lancee WJ. The prevalence of childhood adversity among healthcare workers and its relationship to adult life events, distress and impairment. Child Abuse Negl. 2010;34(2):114–23.
19. Quezada Ochoa A-S. Examining the association between acculturation indicators and metabolic syndrome among Hispanic adults. J Health Educ Teach. 2023;14(1):12–28.
20. Soto S, Yoder AM, Aceves B, Nuño T, Sepulveda R, Rosales CB. Determining regional differences in barriers to accessing health care among farmworkers using the National Agricultural Workers Survey. J Immigr Minor Health. 2023;25(2):324–30.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.