

BRIEF REPORT

Pre- and During COVID-19 Access to Rural Mental Health Care
Among Agriculture Communities in the Rocky Mountain RegionAnnie J. Keeney^{1, 2}, Savannah S. Ingold¹, Anita A. Pena^{2, 3, 4},
Dianne Ciro¹, and Anabel Rodriguez^{5, 6, 7}¹ School of Social Work, College of Health and Human Services, San Diego State University² High Plains Intermountain Center for Agricultural Health and Safety, College of Veterinary Medicine
and Biomedical Sciences, Colorado State University³ Department of Economics, Colorado State University⁴ Colorado School of Public Health, Colorado State University⁵ Department of Epidemiology, Human Genetics, and Environmental Sciences, School of Public Health,
University of Texas Health Science Center at Houston⁶ Southwest Center for Occupational and Environmental Health, School of Public Health,
The University of Texas Health Science Center at Houston⁷ Texas Epidemic Public Health Institute, The University of Texas Health Science Center at Houston

Death by suicide is the second leading cause of intentional injury incurred by foreign-born workers in the United States. Hispanic/Latino farmworkers are systematically excluded from important safety net programs. Drawing on interviews with 16 individuals representing various community organizations serving rural, agriculture-dependent regions in Colorado ($n = 9$) and Utah ($n = 7$), we describe Hispanic/Latino farmworkers' access to the mental health safety net in the Rocky Mountain Region during/post-COVID-19 pandemic. Findings inform the need for expanded safety net infrastructure and community collaborations to support farmworkers effectively now and in the case of future pandemics.

Public Health Significance Statement

The mental health of Hispanic/Latino farmworkers residing in rural regions in the United States is significant and was exacerbated by the COVID-19 pandemic. This brief report considers the barriers to mental health care access among this disproportionality underserved population and argues that immigration status is a social determinant of health in the United States. Community collaborations to raise awareness and reduce the stigma are necessary to effectively support farmworkers' vast mental health needs in agricultural-dependent, rural communities.

Keywords: farmworkers, safety net programs, workplace health and well-being, Hispanic/Latino, barriers to health care

This article was published Online First December 7, 2023.
Annie J. Keeney  <https://orcid.org/0000-0002-0318-9772>

This work was supported by the High Plains Intermountain Center for Agriculture Health and Safety under the Centers for Disease Control and Prevention/National Institute for Occupational Safety and Health Cooperative Agreement (Grant U54OH008085) to Annie J. Keeney. This content is solely the responsibility of the authors and does not necessarily

represent the official views of Centers for Disease Control and Prevention/National Institute for Occupational Safety and Health or High Plains Intermountain Center for Agriculture Health and Safety.

Annie J. Keeney played a lead role in conceptualization, funding acquisition, project administration, supervision, and writing—original draft, a supporting role in investigation, and an equal role in formal analysis and methodology. Savannah S. Ingold played a lead role in data collection, a supporting role in

continued

Death by suicide is the second leading cause of intentional injury incurred by foreign-born workers, with workers from Mexico accounting for approximately 40% of those fatalities (Bureau of Labor Statistics, U.S. Department of Labor, 2018). Further, Colorado and Utah have some of the highest rates of fatal occupational injuries among Hispanic/Latino foreign-born workers in the Rocky Mountain region (Bureau of Labor Statistics, U.S. Department of Labor, 2018). Research has established that foreign-born, Hispanic/Latino farmworkers experience higher rates of poor mental health outcomes, such as depression and anxiety, than workers in other labor-intensive occupations (Grzywacz, 2009). Depression and anxiety are also associated with increased risks of suicide.

COVID-19 disproportionately affected Hispanic/Latino farmworkers, particularly by exacerbating mental health challenges and stress associated with the loss of family members, reduction of income and work, lack of personal protective equipment, and excess mortality (California Institute for Rural Studies, 2020; Chen et al., 2021). Rural parts of the United States experienced a higher death rate from COVID-19 than urban areas after September 2020, partly due to a lack of accessibility to health care, lack of insurance, underlying medical conditions, and an older population (United States Department of Agriculture, 2021). The COVID-19 pandemic worsened existing poor health outcomes and social determinants of health among farmworkers living and working in rural health care deserts.

Moreover, Hispanic/Latino farmworkers living in rural communities also experience increased social isolation, increased risk for substance use, occupational stress, increased risk for injury, and financial stress (Beltzer, 2009; Negi et al., 2021; Pena, 2010). Colorado dairy workers lack awareness and knowledge regarding available mental health resources (Román-Muñiz et al., 2021). Lack of health care access and understanding, specifically regarding mental health, is especially alarming because death by suicide among foreign-born workers almost doubled from 2017 to 2018 in a nonpandemic year (Bureau of Labor Statistics, U.S. Department of Labor, 2018).

Inaccessible mental health care can significantly impact health outcomes when Hispanic/Latino farmworkers are already vulnerable to poor mental health and work-related fatality and nonfatality outcomes. For example, agriculture work is an integrated system of many different tasks with inherent health and safety hazards. When workers often have limited English proficiency, limited formal education, and live at or below the poverty level, these factors can result in workers' refusal to speak out about unsafe working and living conditions and take more significant risks without necessary safety equipment (Harrison & Lloyd, 2011). Further, work conditions and activities can heighten the stress experienced by Hispanic/Latino farmworkers due to long work hours, no sick time off, no personal time off, lack of health insurance, and limited or no transportation to and from clinics (Rodriguez et al., 2023). High-stress levels can lead to poor mental and physical health outcomes among Hispanic/Latino agriculture workers (Grzywacz, 2009).

Given the inherent mental health risks associated with agricultural work and the lack of access to health care providers, Hispanic/Latino farmworkers in Colorado and Utah may be especially vulnerable to experiencing severe adverse outcomes during/post-COVID-19 pandemic. Little is known, however, about how the current safety net perceives, manages, and supports this underserved and vulnerable working population. Our study aimed to identify the safety net's strengths and gaps in rural, agriculture-dependent counties in Colorado and Utah in meeting Hispanic/Latino farmworkers' mental health needs before and during the COVID-19 pandemic.

Method

Using qualitative inquiry, this brief report describes how rural, agriculture-dependent communities support the mental health needs of agriculture workers before and during COVID-19. We interviewed 16 individuals representing various community organizations serving agricultural communities

writing—original draft, and an equal role in formal analysis. Anita A. Pena played a supporting role in funding acquisition and investigation and an equal role in formal analysis, methodology, and writing—review and editing. Dianne Ciro played a supporting role in formal analysis, writing—original draft, and writing—review and editing. Anabel Rodriguez played a supporting role in formal

analysis, writing—original draft, and writing—review and editing.

Correspondence concerning this article should be addressed to Annie J. Keeney, School of Social Work, College of Health and Human Services, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-4119, United States. Email: akeeney@sdsu.edu

in Colorado and Utah to help guide future efforts in providing services, reducing barriers, and meeting workers where they are. The institutional review board at Colorado State University approved this study (Protocol Number: 1722).

Community-Based Organization Interviews

We conducted exploratory qualitative interviews to assess the safety net of Hispanic/Latino farmworkers in the Rocky Mountain Region. A purposeful sample of 52 participants across 14 rural Colorado and Utah counties were approached via phone or email for the study. A snowball method was utilized; nine participants were additionally recruited for a total of 61 possible participants. Potential interview participants had to be 18 or older and represent a community-based organization (CBO) that actively provides services to the agricultural community. Therefore, study participants may have served farmers and farmworkers directly (e.g., behavioral health providers) or by proxy via their CBOs. Of the 61 identified participants, 16 (26.2%) met the criteria and agreed to be interviewed.

Interviews were conducted by a trained research assistant using an interview guide via an online platform between March 2022 and June 2022. Questions were open ended. Participants were asked to share their knowledge of the community they served, their perception of risk and protective factors present in the community, and systemic barriers to care. Participants were also asked to share the strengths they saw in the communities they served and to provide suggestions for addressing barriers to care specific to farming populations. Qualitative data were generated from the key informant interviews. We used NVivo V. 13 to conduct an inductive thematic analysis as outlined by Nowell et al. (2017). We read each transcribed interview while documenting any thoughts or possible codes. Once familiar with the data, initial codes were developed from which themes were identified and defined. The data were then reread and coded according to the major themes identified. Guest et al. (2020) found that data saturation of $\leq 5\%$ new information threshold in qualitative studies is typically reached after—six to seven interviews. For example, in 30 interviews, 70% of themes and ideas generated from the interviews were discovered in the first six interviews (Guest et al., 2006). Therefore, a small sample size is appropriate and adequate to uncover

most themes and topics relevant to our research focus (Guest et al., 2006, 2020).

Results

CBO Interviews ($N = 16$)

CBOs were selected due to their work within Colorado and Utah's mental health safety net. There were five categories of employment represented across participants: extension agents (43.8%), mental health providers (31.3%), community resource center employees (12.5%), government employees (6.3%), and community providers (6.3%). Slightly more participants were from Colorado (56%, $n = 9$) than Utah (44%, $n = 7$), and most participants were female (62%, $n = 10$).

The qualitative results highlight six overarching themes related to community-based organizations' strengths and challenges in serving rural, agricultural-dependent communities. Three identified themes are known and established barriers to rural mental health service delivery and are related to the acceptability, availability, and accessibility of mental health services and support. Additionally, three less nuanced themes also emerged related to participant's perceptions of community protective factors and opportunities to address barriers to mental health care.

Rural Mental Health Service Delivery Barriers

Acceptability. Stigma, confidentiality, and the lack of culturally responsive services were identified as significant barriers to the acceptability of mental health services in our sample. Sixty-nine percent of participants expressed concern that stigma and self-reliant attitudes discouraged people from seeking help in the agricultural community. This was illustrated by a government employee from Utah:

It's hard for me to even say I've been able to reach them. There is a stigma where they don't talk about their feelings and any issues that they're facing either, they take it up with their God or keep it to themselves.

Several participants expressed that agricultural workers are often concerned about parking a car or truck in front of a mental health center for fear of being labeled, pointing toward barriers of stigma and confidentiality. A community resource provider from Colorado shared, "You often hear people [say] I don't want to park my truck anywhere near the clinic for fear of being branded that way."

Lack of cultural responsiveness to worker and agricultural identities was also found as a barrier to the acceptability of services. There was an identified need for bilingual (specifically [Spanish and Indigenous languages] services and resources for farmworkers. A mental health provider from Colorado shared:

We lack that bilingual capacity to do effective outreach, because I think if you look at whole health that is a huge need period, and not having that capacity really to serve those individuals, just continues to lead to isolation.

An extension agent from Utah shared:

The biggest barrier would be language. In the Four H after-school program, we [have] a lot of the youth and the children of these individuals come into the program, and they're the interpreter for the parents. And the parents speak little to no English, and these kids are pretty fluent. So I'd say that's the biggest barrier, I think. Once we can overcome that, we can connect them with the right resources and provide for them as much as we can.

There was consensus among respondents that mental health providers, as well as outreach efforts, should be culturally representative and responsive to the multiple identities represented in the agriculture workforce. One participant that has a large native population in their community shared that there is a lack of evidence-based practices that align with cultural values, which can create barriers for mental health agencies whose funding requires evidence-based practices. A mental health provider from Utah shared:

We try and have a lot of trainings in house and with our community partners. We have a few quite a few native speakers that work here, a couple of which are therapists, and we're trying to constantly educate and demystify [services]. Our native speakers compiled community resources and the native health system is good about providing services, but the big issue is getting them access [transportation] to utilize services.

Further, using and understanding agricultural-specific language was also identified as a barrier, as agricultural communities have a distinct set of customs and social norms.

Availability. Workforce challenges were identified as a major barrier to serving the mental health needs of the agricultural population and were further strained because of the COVID-19 pandemic. Availability typically refers to the number of existing services to meet client needs. It refers to the availability of critical professionals and resources, such as mental health professionals. Participants discussed the mismatch between

indicators of demand such as the number of clients in need and the timely supply of services as a major barrier. An extension agent participant from Utah stated:

There's only so much that certain individuals can do, and you know when you hear your loved one say, I'm thinking about killing myself, and you start making phone calls and they're saying, well, you know we can get him [an appointment] in about three months, and I mean that's the reality.

Further, one participant spoke about the difficulties a family member faced when needing crisis mental health services, and another mentioned the exorbitant wait times for the nearest psychiatric hospital. An extension agent participant from Utah stated,

We don't have enough easily accessible professionals; we need to find ways that we can get [agriculture workers] to professionals in a timely and affordable manner to be able to get them the help that they need.

In addition to the high demand for mental health services and the lengthy wait times, 56% of participants cited a lack of providers and staffing shortages as barriers to receiving mental health care. Many rural communities are typically mental health staffing shortage areas, and several participants mentioned that the COVID-19 pandemic had a detrimental effect on staffing levels. A mental health provider from Utah stated, "I think, as far as staffing-wise, COVID has taken away a lot of our staffing. So, we're never kind of fully staffed."

Accessibility. Time, transportation, and technology were identified barriers for individuals residing in rural, agriculture-dependent communities. Accessibility typically refers to one's ability to receive services (e.g., transportation, appointment availability, cost). A mental health provider from Utah stated, "... even before COVID-19 we had transportation and distance issues ... our counties are so big that it's hard for people to get to places they need to go and get services when they need them." Further, several participants discussed how many mental health centers and providers' hours of operation make it difficult for farming families and workers to access these services, given the nature and time demands of farming occupations. This was illustrated by a government employee stating:

We know that depression isn't a 9-5 disability ... so to get these [workers] when the sun has gone down, nobody's in their office, so not having access to mental health professionals after hours, is definitely a barrier to their safety.

Though COVID-19 streamlined the acceptance and availability of telehealth services nationally, several participants shared that accessible technology was a barrier to receiving telehealth services in rural communities. This was further explained by a lack of access to broadband connectivity and the need for individuals to have some level of technology literacy and comfort to shift to virtual services. As a community resource provider in Colorado shared, “[What] we are trying to build is very personal, real-time interaction, and a lot of folks don’t feel comfortable in front of a screen talking about their feelings.” At the same time, telehealth also provides a level of anonymity that may increase the acceptability of seeking mental health services, particularly for those workers wanting to protect their privacy. As such, expanding internet access to address mental health issues is warranted. “If you don’t have the infrastructure, how you will even access the service or a resource that is available?” Rural counties’ lack of broadband infrastructure was a barrier to helping workers increase familiarity and access to telehealth services.

Protective Factors and Recommendations

Collaborations. The importance of collaboration in providing services in rural communities was discussed by almost all participants (94%). An extension agent from Utah shared,

We try to collaborate wherever we can. We found that teaching classes and getting our information out there is most effectively received when we collaborate with others, as most things are.

These collaborations varied depending on the community. However, participants mostly identified partnerships with suicide prevention coalitions, schools, law enforcement, tribal communities, universities, independent providers, mobile crisis outreach teams, and extension/safety training programs. A vital collaborator identified was local religious centers, which often provided complementary services, such as pastoral counseling and basic needs. Eighty-one percent of respondents brought up the significance of religion or, more specifically, local churches. Almost all participants discussed the role of religion as a protective factor in coping with mental health challenges. A government employee from Utah shared, “I do feel that the religions in and of themselves are protective factors.” Further, participants identified that churches

are often perceived as less stigmatizing and provide acceptable and accessible resources for essential basic needs and services, which are frequently more challenging to find in rural communities. A mental health provider from Colorado shared:

The community rallies together, and I think part of it is when you think of rural communities that people’s faiths are important. ... where I live, we’re about 2000 people, [and] I counted 10 different churches.

Collaboration with nontraditional areas for outreach and education that are already part of the rural social fabric was a significant recommendation in 81% of the interviews. This includes partnering with trusted companies and posting advertisements in markets and post offices to help spread awareness and reduce the stigma associated with mental health. Another mental health provider from Utah shared:

A lot of agricultural communities are not really based in town, they’re kind of ... 20–30 miles outside of town. ... A good area [to get the word out to them] would be the post office, you know, [and] in the churches.

Most participants also shared that collaborations with agricultural-specific partners such as farm bureaus or well-known companies and extension offices were particularly essential to help overcome the stigma associated with mental health services. A community provider from Colorado shared:

There are already organizations that are meant to help that may not be specifically tied to behavioral health yet, partnering with them tends to be a nice way of being able to package [mental health support] in a way that says we value who you are, what your contributions are, and we also want to offer this one specific area as well.

Upstream Initiatives. Another recommendation discussed by 56% of participants was engaging youth in suicide prevention and outreach efforts since it is common for farmworker children to become involved in agriculture activities. A government employee from Utah shared: “... working with our 4-H groups ... and instilling [mental health dialogue] as early as possible is as upstream as[we] can get.” The most common way participants identified implementing youth mental health outreach strategies was by modifying or adding mental health safety content in already established education and training curricula. For example, an extension agent from Utah shared incorporating suicide prevention material and supplies in a trap shooting class:

We worked with a Suicide Prevention group and had a great turnout. We had a bunch of signage and posters, we had the Suicide Prevention group on hand, we had

some of our professionals on hand, and we talked ... it wasn't just a trap shoot, it was a trap shoot in the name of Suicide Prevention. The local police group gave out like free gun locks. It was a really harmonious event where they were able to talk about the reasons why you should have gun locks, there's many but, you know that accessibility to firearms for people with mental illness can be the causation of the completion of suicide.

Overall, participants expressed that “normalizing” (i.e., destigmatizing) mental health in agricultural spaces with youth would serve not only as a protective factor for the youth but also as an opportunity for that youth to share resources with family members working within the agriculture sector.

Mental Health as a Safety Initiative. Several participants recommended using existing safety education training to raise mental health awareness and reduce stigma. Some interviewees had already successfully implemented mental health training, such as learning the signs of depression and suicide, in applicator safety training. An extension agent from Utah shared,

We talk about mental health as a safety for pesticide applicators. We have tried to make these kinds of short snippets that you can tack on to like a beef school or crop school.

These efforts could help combat the stigma mentioned earlier by normalizing conversations and symptoms. Moreover, one extension agent from Utah discussed how having these conversations through a podcast created specifically for the agricultural community can help to normalize and, in turn, reduce the stigma associated with these types of conversations.

We have a podcast where we are sharing stories and lived experiences ... talking about what mental health looks like, talking about the unique stressors of working in the agricultural field.

One extension agent from Utah explained that having these types of discussions in safety trainings is beneficial because it allows individuals to discuss how mental health challenges have affected their own lives.

But what's really interesting is when you break the ice and you start talking to people about it, well now all of a sudden, they're bringing up, oh, I know so and so [and] I know so and so that's had these struggles you know, we've had issues in our own family.

Discussion

This brief report explores the pre- and during COVID-19 mental health safety net among rural

communities in the Rocky Mountain Region. We sought to understand Colorado and Utah CBOs' strengths and gaps in serving the mental health needs of agricultural working populations. Our results complement and extend the research on systemic barriers related to the acceptability, availability, and accessibility of mental health services in rural areas. Further, our novel findings demonstrate how rural mental health care was incorporated in agriculture spaces during/post-COVID-19. Collaboration with nontraditional areas for outreach and education that are already part of the rural social fabric could be notably impactful. Below, we share several practice implications that could aid in building trust and creating safe and stigma-free spaces for agricultural workers and their families to seek mental health support and services in rural communities.

Several practice implications emerge from these findings:

1. Agricultural-specific partners and community mental health providers should partner with local community-based organizations and programs (e.g., schools, churches, agriculture producers) to raise awareness, build trust, and reduce the stigma associated with mental health. For example, collaborating with migrant education programs to implement research-informed interventions like Conversation Cafes with migrant farmworker parents could help build social support and reduce stress among those workers and families dependent on agriculture occupations. Another example could be agricultural producers collaborating with their faith-based institutions to create in-person or online trainings and support groups.
2. Given the language barriers CBOs identified in serving farmworkers' mental health needs, we encourage organizations to hire and train more Hispanic/Latino and Indigenous community health workers to assist in coordinated efforts to expand the mental health safety net. By discussing the elements of stigma with those in the Hispanic/Latino and Tribal and Indigenous communities, local CBOs would better understand the cultural aspects to ensure tailored outreach and services are appropriate and effective.
3. Moreover, we suggest local CBOs can help reduce the stigma associated with using/

receiving mental health services by developing targeted campaigns or offering educational workshops focused on “know your health care rights.” There is often medical mistrust or fear associated with deportation when using services, so educating individuals and families on how their health information is protected may help ease some anxiety or hesitation toward help-seeking.

4. Rural mental health providers must be culturally, literacy, and linguistically capable of effectively working with Hispanic/Latino, Indigenous, immigrant, and foreign-born farmworkers, including understanding the nuances and social norms of agricultural work.
5. Intentional efforts are needed to increase funding to support existing mental health providers by hiring more rural mental health providers. Increasing staff will reduce demand and wait times and allow for service expansion (e.g., telehealth or in-person appointments to be offered during nonfarm working hours).
6. Similarly, rural communities should invest in increasing broadband in all or nearly all rural areas to increase familiarity with and access to telehealth services among rural residents. These efforts could immediately address transportation, time commitment, and stigma-related barriers (e.g., confidentiality concerns) the farming community frequently experiences.
7. Pairing mental health training with currently mandated agriculture health and safety trainings, such as pesticide applicator licenses or beef production trainings, is recommended to help “normalize” the conversation around mental health and address known barriers regarding participation in mental health-specific trainings. For example, an 8-hr certification course like Mental Health First Aid may not be realistic, given the workload demands of producers and workers.

For agriculture workers, particularly farmers and farmworkers residing in rural areas and regions, the COVID-19 pandemic magnified the stress of an already well-established stressful occupation. Our findings can help rural agriculture-dependent communities prepare for future pandemics and other public health, environmental, or economic shocks. Rural CBOs must begin developing

partnerships to collaborate and coordinate information dissemination, education, and outreach efforts related to mental health and wellness toward farming populations. Trusted community collaborations have been found to play a pivotal role in registering Hispanic/Latino farmworkers for the COVID-19 vaccine (Keeney et al., 2022). Establishing and maintaining these collaborations could effectively disseminate vital public health information to a vulnerable and underserved population, often with high medical mistrust.

Furthermore, we encourage rural communities to consider developing specific disaster preparedness plans that include tailored strategies to engage farming communities. This could look like agricultural-specific partners, community mental health providers, and community-based organizations coming together to complete a tabletop exercise. Tabletop exercises are discussion-based sessions where team members discuss their roles during an emergency and their responses to a particular crisis (U.S. Department of Homeland Security, 2023). One aspect of the developed emergency preparedness plan could be determining the best CBO(s) to offer and provide debriefing sessions with farmworkers and farmers immediately following a public health emergency.

Limitations

Our sample size in interviewing individuals from CBOs was reasonably small. However, this was intentional, as our focus was on depth of understanding rather than breadth. As such, our results only cover part of the breadth of experiences that likely exist among CBOs serving agriculture communities in Colorado and Utah. Also, some interviewees served more farmers or owners/operators than the farmworker community. Some responses were more generic to the agriculture community rather than specific to Hispanic/Latino farming communities. Though these limit the generalizability of the findings, our findings can help inform how to enhance mental health awareness, availability, and accessibility for rural farming communities with diverse populations.

Conclusion

We want to recognize that historically and currently, farmworkers are systematically excluded from important safety net programs. Hispanic/Latinos are disproportionately underserved and

burdened with poor health and safety outcomes. In the United States, immigration status is a social determinant of health. Given the contentious views on immigration and entitlement programs in the United States, we feel it is unlikely that formalized safety net programs will expand eligibility and services to adequately address the needs of Hispanic/Latino farmworkers. Further, self-reliant attitudes built on stigma and cultural beliefs among individuals to seek health care may continue to create barriers for farmworkers to access vital mental health resources and support. Trusted community collaborations and intentionality toward the development of peer support specialists/community health workers within the farming community with a focus on mental health may allow farmworkers the space and sense of safety to engage with a system in which they have been historically marginalized, assisting them in utilizing crucial safety net programs while simultaneously removing identified barriers.

References

- Beltzer, K. (2009). Modulation of drug use in southern farming communities: Social origins of poly-use. *Human Organization*, 68(3), 340–349. <https://doi.org/10.17730/humo.68.3.84307210k41r0p1q>
- Bureau of Labor Statistics, U.S. Department of Labor. (2018). *The Economics Daily: Fatal occupational injuries to foreign-born workers*. <https://www.bls.gov/opub/ted/2018/fatal-occupational-injuries-to-foreign-born-workers.htm>
- California Institute for Rural Studies. (2020). *COVID-19 farmworker study*. <https://covid19farmworkerstudy.org/>
- Chen, Y.-H., Glymour, M., Riley, A., Balmes, J., Duchowny, K., Harrison, R., Matthay, E., & Bibbins-Domingo, K. (2021). Excess mortality associated with the COVID-19 Pandemic among Californians 18–65 years of age, by occupational sector and occupation: March through November 2020. *PLOS ONE*, 16, Article e0252454. <https://doi.org/10.1371/journal.pone.0252454>
- Grzywacz, J. (2009). Mental health among farmworkers in the eastern United States. In T. A. Arcury & S. A. Quandt (Eds.), *Latino farmworkers in the Eastern United States* (pp. 153–172). Springer. https://doi.org/10.1007/978-0-387-88347-2_7
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, 15(5), Article e0232076. <https://doi.org/10.1371/journal.pone.0232076>
- Harrison, J. L., & Lloyd, S. E. (2011). Illegality at work: Deportability and the productive new era of immigration enforcement. *Antipode*, 44(2), 365–385. <https://doi.org/10.1111/j.1467-8330.2010.00841.x>
- Keeney, A. J., Quandt, A., Villaseñor, M. D., Flores, D., & Flores, L., Jr. (2022). Occupational stressors and access to COVID-19 resources among commuting and residential Hispanic/Latino farmworkers in a US–Mexico border region. *International Journal of Environmental Research and Public Health*, 19(2), Article 763. <https://doi.org/10.3390/ijerph19020763>
- Negi, N. J., Siegel, J. L., Sharma, P. B., & Fiallos, G. (2021). “The solitude absorbs and it oppresses”: ‘Illegality’ and its implications on Latino immigrant day laborers’ social isolation, loneliness and health. *Social Science & Medicine*, 273, Article 113737. <https://doi.org/10.1016/j.socscimed.2021.113737>
- Nowell, L. S., Norris, J. M., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13. <https://doi.org/10.1177/1609406917733847>
- Pena, A. A. (2010). Poverty, legal status, and pay basis: The case of US agriculture. *Industrial Relations*, 49(3), 429–456. <https://doi.org/10.1111/j.1468-232X.2010.00608.x>
- Rodriguez, A., Lopez, S. N., & Douphrate, D. I. (2023). On-farm health screening needs of immigrant dairy workers in the Texas panhandle and south plains. *Journal of Agromedicine*, 28(4), 665–675. <https://doi.org/10.1080/1059924X.2023.2200418>
- Román-Muñiz, I. N., Cramer, M. C., Edwards-Callaway, L. N., Stallones, L., Kim, E., Thompson, S., Simpson, H., & Mijares, S. (2021). Dairy caretaker perspectives on performing euthanasia as an essential component of their job. *Animals*, 11(2), Article 289. <https://doi.org/10.3390/ani11020289>
- United States Department of Agriculture. (2021). *Rural death rates from COVID-19 surpassed urban death rates in early September 2020*. Economic Research Service. <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=100740>
- U.S. Department of Homeland Security. (2023). *Exercises*. <https://www.ready.gov/exercises#:~:text=Tabletop%20exercises%20are%20discussion2Dbased,of%20one%20or%20more%20scenarios>

Received May 18, 2023

Revision received September 30, 2023

Accepted October 20, 2023 ■