

UC Office of the President

Research Grants Program Office (RGPO) Funded Publications

Title

An Exploration of Rural Housing Insecurity as a Public Health Problem in California's Rural Northern Counties

Permalink

<https://escholarship.org/uc/item/20d2h5hq>

Journal

Journal of Community Health, 49(4)

ISSN

0094-5145

Authors

Antin, Tamar MJ

Sanders, Emile

Lipperman-Kreda, Sharon

et al.

Publication Date

2024-08-01

DOI

10.1007/s10900-024-01330-z

Peer reviewed



HHS Public Access

Author manuscript

J Community Health. Author manuscript; available in PMC 2024 August 08.

Published in final edited form as:

J Community Health. 2024 August ; 49(4): 644–655. doi:10.1007/s10900-024-01330-z.

An Exploration of Rural Housing Insecurity As A Public Health Problem in California’s Rural Northern Counties

Tamar MJ Antin¹, Emile Sanders¹, Sharon Lipperman-Kreda¹, Geoffrey Hunt¹, Rachelle Annechino¹

¹Center for Critical Public Health, @ the Institute for Scientific Analysis, 1150 Ballena Blvd, Suite 211, Alameda, CA 94501

Abstract

Purpose: Although widely acknowledged as an important social determinant of health, until recently researchers and policymakers have primarily approached housing insecurity as an urban issue, obscuring the visibility of its impacts in rural contexts, including the ways in which housing insecurity intersects with other health and structural inequities facing rural populations. Working to address this gap in the existing literature, this paper explores the experiences of housing insecurity in a rural context by reporting on an analysis of 210 in-depth interviews with 153 adults between the ages of 18–35, living in California’s rural North State, a relatively overlooked far northern region of the state comprised of 12 north central and north eastern counties.

Methods: Using in-depth qualitative interview data, we conducted an exploratory pattern-level analysis of participants’ narratives structured by four dimensions of housing insecurity defined in the literature (housing affordability, housing stability, housing conditions, and neighborhood context).

Findings: Drawing attention to the pervasiveness of rural housing insecurity within our sample, this analysis highlights the unique ways in which rurality creates distinct experiences not currently captured in the existing literature.

Conclusions: Further research is needed across different types of rural communities to better understand the various ways that housing insecurity affects the everyday lives and health of rural residents. By grounding research within the experiences of rural residents, we are better able to respond to the crisis of rural housing insecurity and develop solutions that are tailored to rural residents’ unique needs.

Introduction

“[H]ealth and health equity could be improved in important ways through actions that target housing-related issues, particularly for low-income people.”[1]

In the United States, housing insecurity has long been acknowledged as an important social determinant of health[1–4] and generally refers to “the loss of, threat to, or uncertainty of a safe, stable, and affordable home environment.”[5] Research suggests that housing

Conflict of Interest: The authors have no known conflicts of interest to report.

insecurity limits access to health care, reduces employment opportunities, introduces obstacles that threaten job loss, endangers overall health, strains mental health, and relates to disparities in substance use, including alcohol-related problems, drug dependency, and smoking.[1, 3] Children may be especially vulnerable to housing insecurity, including developmental delays, poorer physical and mental health, academic problems, and increased risk of substance use and adolescent pregnancy.[1, 6–8] Importantly, housing insecurity is also not equitably distributed across populations. People in marginalized social positions related to social class, gender, sexuality, geography, race and ethnicity, among others, are more likely to experience housing insecurity, which presents significant further barriers to achieving health equity.

While the definitions and measurement of housing insecurity are inconsistent across studies, [9] it is typically characterized by four domains: (1) the affordability of a home, (2) the long-term stability of a home, (3) the conditions within the home, and (4) the community context that surrounds the home.[3, 4, 10] Compared to other terms such as homelessness, this broad conceptualization of housing insecurity highlights the complexities of “housing hardship and housing risk as a continuum that affects a wider swath of the population.”[3] Much of the research on housing insecurity focuses on the affordability dimension, which is not surprising given the scarcity of affordable homes in the United States. A home is generally considered affordable only when a household spends 30% or less of their income on housing.[1] For example, California has more than 1.3 million extremely low-income (ELI) households but only 24 affordable and available rental homes for every 100 ELI households. Seventy-eight percent of ELI households who rent in California are severely cost burdened, meaning that they spend more than 50% of their monthly incomes on rent. [11] Such a tremendous financial burden has cascading effects for households as tradeoffs must be made, threatening other basic needs like food and health care.[1]

The remaining three domains of housing insecurity are also crucially important pieces in understanding the precariousness of housing and its potential consequences for mental and physical health. An extensive body of research has documented the ways in which inability to attain and maintain a stable home, increased risk of injuries or toxic exposures due to substandard housing conditions, and consequences associated with housing in resource poor communities compromise health and well-being immediately and over time.[1–4] However, this growing body of literature on housing and health has largely focused on urban areas, rendering rural housing insecurity a relatively invisible social problem.[4, 5, 12–14] A few notable qualitative studies from the US and UK have drawn attention to some of the defining features of rural housing insecurity, emphasizing vehicle living, a lack of social capital contributing to homelessness, doubling up with friends or family, and the shortage of available housing.[15–17] Despite these few contributions, the unique experiences of rural housing insecurity have not yet been incorporated sufficiently into discussions of housing insecurity as a public health problem.

Consequently, there remains a need to investigate the distinguishing features of rural housing insecurity to develop a more comprehensive and inclusive understanding of housing as a social determinant of health. Drawing on 210 in-depth interviews with 153 participants in 12 of California’s most northern counties, commonly referred to as the ‘North State’, we

explored participants' narratives about their experiences with and beliefs about housing insecurity within their communities. Using the four dimensions of housing insecurity identified in the existing literature, we highlight the distinct ways in which housing affordability, stability, conditions, and community context surface in the lives of rural residents.

THE NORTH STATE

When people refer to Northern California, they often think of the wine country or the San Francisco Bay Area, overlooking a vast geographic area further north. One third of California's land mass exists north of the San Francisco Bay Area, a region defined not by liberal cities or as the hub of the technology industry, but instead by its immense natural amenities tucked throughout verdant valleys and montane forests. One specific region in California's far north is the 'North State', an area that refers to California's north central and northeastern counties and includes 12 rural counties: Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, and Yuba. The cultural identity of residents in this area resembles other conservative rural areas throughout the United States where state governments are accused of insufficiently addressing or entirely ignoring rural concerns as well as imposing top-down policies that are not responsive to the unique conditions that define rural communities.[18–21] North State counties rank among the lowest in California on multiple measures of county-level health. For example, data from 2019–2021 suggest that the region's age adjusted rate of deaths from all causes, an overall health indicator, was 818.53 deaths per 100,000 people, considerably higher than California's rate (657.1).[22] Low socioeconomic status (SES), long implicated in health inequities, may explain the inequities experienced by North State residents.[23] Data from the 2020 US Census suggests that North State residents are more likely to experience poverty compared to the CA general population,[24] and tied to issues of poverty are high rates of unemployment in rural areas.[25] In regions like the North State, with many residents facing significant socioeconomic challenges, housing insecurity can further compound disadvantage.

METHODS

This analysis uses data derived from two federally and state funded qualitative studies with overlapping aims conducted contemporaneously from April 2021-March 2023 by the same research team. We conducted 210 interviews with 153 unique participants across both studies (n=57 participants completed two interviews, one for each study). Our studies sought to explore the social and structural conditions related to various forms of substance use in the lives of young adults in California's rural "North State." The North State of California is comprised of 12 north central and north eastern counties, all defined as rural by the Rural County Representatives of CA.[26] Though a standard definition of rural has yet to be agreed upon[27], all but three counties in our study area are considered noncore, the most rural designation available by the National Center for Health Statistics. The remaining three counties, which are primarily rural, are nevertheless considered small metro due to a single urbanized region with a population of at least 50,000 people.[28] We did not include participants from those counties if they lived in a urbanized region that was considered

by local community advisors to be significantly culturally different from the rest of the county. Participation in each study involved completing a 30-minute online survey with a \$20 honorarium, followed by an online in-depth qualitative interview lasting up to two hours with a \$50 honorarium.

We recruited participants using a multi-tiered strategy involving online and radio advertising, outreach to local organizations, ‘on the street’ recruitment efforts, and referrals. Referrals from each participant were limited to three to reduce sampling bias. Interested volunteers were screened online or in-person to determine eligibility. Eligibility criteria included being between 18–35 years old and either currently living in the study area or having previously lived there for multiple years and only moved within the past year. Participants received a unique link to complete the study consent form and confidential online survey in advance of their interview. The survey instruments for both studies included the same demographic, community, and basic nicotine, tobacco, and alcohol use measures but differed in the more specific substance use questions they contained. Upon completing their survey, participants were then scheduled for an online interview conducted via Zoom. For participants who could not access Zoom, we conducted the interview by phone. The interview instruments for both studies were designed in tandem and, like the survey instruments, contained many of the same questions though diverged in their more in-depth inquiries about the respective substances of interest. Interview questions about the participant’s background, local area, community, conceptualizations of rurality, identities, and perceptions of pressing issues in the local area were consistent across both studies. Interviewers wrote up field notes immediately following each interview to summarize the participant’s background, interview content related to study aims, and preliminary analytical ideas about the data. All interviews were audio recorded and professionally transcribed, before being reviewed by interviewers for accuracy. Study procedures were approved by our organization’s Institutional Review Board.

Transcripts were coded in ATLAS.ti using a codebook created by the research team reflecting general topical categories (e.g., Participant Background, Health/Illness), concepts important in the literature informing study aims (e.g., Class/SES, Age, Isolation, Rurality, Context of Substance Use), and salient themes and topics that we identified throughout data collection (e.g., Housing Insecurity, Fires/Climate Crisis, Work/Careers). To identify discussions of housing, we created quotation reports to analyze all narrative data associated with the codes ‘Class/SES’, ‘Housing Insecurity’, ‘Structural Issues’, or ‘Fires/Climate Crisis’. We also conducted explicit text searches across all transcripts for certain words and phrases (e.g. housing, afford, rent, deposit, stay with, live with, property, landlord, expensive, kicked out, Airbnb, and homeless) that would likely contain discussions related to housing insecurity. The research team then conducted a pattern-level analysis of narrative data, structured by the four dimensions of housing insecurity described above, to explore the unique patterns of rural housing insecurity among study participants. Patterns were identified in multiple ways, including through the frequency with which they are discussed, the explicit declaration from participants that they exist, or through their congruence or divergence with prior research or theory.[29] Narrative data and patterns were discussed with the entire research team as analysis progressed to minimize the bias associated with a single analyst. Patterns related to the four domains of housing security identified in

the literature, and described above, are introduced below and supported with quotations from interviews. Notably, narrative data is hard to disentangle into discrete categories, but this process nevertheless supports the exploration of under-explored topics and facilitates scientific understanding. All quotations are identified with pseudonyms, selected by the participants, to ensure confidentiality.

FINDINGS

Sample

This analysis is based on narrative data collected in 210 in-depth interviews with 153 unique participants across both studies. Participants were 18–35 years old, with a mean of 25.4 years. The sample was predominantly white (69.9%), and more women (56.2%) than men (42.5%) participated. About fifteen percent of the sample (15.0%) reported their race/ethnicity as Latinx, and 10.5% of the sample reported more than one racial or ethnic identity. About four percent of participants (3.9%) had not completed high school education, 26.1% had a GED or high school diploma but no college, 41.8% had completed some college but not a degree, and 15.0% had attained a Bachelor's degree or higher. Unemployment, material disadvantage, and housing insecurity were widespread in the sample. For example, 32.0% of participants were not currently working, while only 26.8% reported working full-time. Compared to other people in California, 62.8% of participants perceived their socio-economic status to be below average. Most participants reported having Medi-Cal coverage or no health insurance (67.3%), and 24.2% reported delaying medical care in the past year due to financial reasons. Housing insecurity was an especially important issue facing our North State participants. Almost 51.0% of the sample reported experiencing some form of housing insecurity in their lifetime (such as staying in a shelter, temporary housing program, on the street/outside, couch surfing, or squatting), including 16.3% who had been in jail or prison and/or 13.1% who had been in a foster care placement. In the past year, 36.6% of participants experienced housing insecurity, and 19.0% reported housing insecurity in the past month. Additionally, 23.5% of the sample reported sometimes or often not having enough food, and 34.6% reported indicators of past year insecure household income such as problems paying their housing and/or utility bills.

Housing Insecurity: Affordability & Availability

Affordability was among the most important housing issues facing North State participants. As DeLuca and Rosen (2022) explain, over the past few decades “the cost of housing has increased, the supply of affordable housing has shrunk, renters’ incomes have stagnated, and federal spending for housing assistance has remained inadequate.”[5] These issues combine to create a crisis in the affordability and availability of housing. Specifically in the North State, the logging and mining industries that supported communities in the early and mid-twentieth century were transformed by rapid deindustrialization in the latter part of the twentieth century which resulted in an economy largely reliant on “nature-based amenities.”[16] While many rural communities can and do thrive as a result of this transition to an amenity-based economy, some negative consequences may also emerge which fundamentally threaten access to housing for the people who keep amenity-based economies flourishing. While in-migration both in terms of tourists seeking vacation rentals

as well as urban migrants relocating to rural areas can result in economic benefits for rural communities, it also has unintended consequences including straining the housing supply and increasing the value of properties, making homes unaffordable for the local community. [30]

Ava from Siskiyou County perceived housing affordability to be the biggest challenge facing her community and felt that not only residents but also business owners were suffering as a result:

“Housing is... really expensive... which is kind of weird, because it is a small town, but we have...a bunch of out-of-towners...you know, they’ve got a ton of money, so they can just basically offer homeowners ... more money than their house is worth. And then they turn it into an Airbnb. Right where I live... there’s probably five or six surrounding homes that have all been turned into Airbnbs... most people my age...don’t have enough money for a down payment, so they have to rent, but then they can’t afford the rent because people know that they’ll be able to make more money by turning it into an Airbnb, rather than just a regular home rental. ...But I think people haven’t really thought about that, because now they’re running into the problem where they don’t have enough people to work, and like, do all of the touristy things, like at the ski park. ... or enough people to serve in the restaurants or the shops, or whatever... so they can’t cater to the tourists, which is what all the Airbnbs are for... For the most part, it is a really great place. It’s just a matter of like, people being able to stay here and make a living. Because there’s not a lack of jobs, it’s just a lack of housing and then sometimes, you know, the jobs don’t always pay that well, or like, well enough for people to afford the housing that is here.”

Ava summarizes two patterns related to *affordability* which emerged across participants’ interviews in this study. First, the lack of sufficient livable wage jobs affects one’s ability to cover increasingly high rents. As McKee and colleagues [17] have noted, housing insecurity is not just about shifts in the rural housing market but also about features of work, specifically the precarity of employment[31] due to seasonal, part-time, and low wage work that have an impact on insecurity in housing. For instance, Maggie, who has been “bouncing around” various unstable housing situations since being displaced by a wildfire, explained that the wages she earned as an educator were not enough to live on, making this vocation unviable: *“I would like to be a teacher again. ... [T]he fulfillment that comes with the job is super worth it, but the pay grade and having to raise a kid on my own is not worth it at all.”* Although not unique to rural areas, the inability to retain educators due to housing affordability likely has substantial downstream impacts for the health of communities, given the importance of teachers in “facilitating the growth of individuals and the formation of a good community.”[32, 33]

Shelly takes an historical approach to explain how employment precarity can threaten entire livelihoods, ultimately determining whether or not housing may be afforded.

“...a lot of rural communities...have been established on logging. Especially in the Northern California, western areas. And now, because there’s a lot more regulation

on logging...a lot of those communities are dying or dead...because they don't have those jobs anymore. So there is kind of this disconnect between the past and the future of rural towns ... There's that disconnect between 'okay, what do these rural towns do now?' Because right now they're doing nothing and ...these youths are...getting out or they are getting caught in that cycle of getting these not very sustaining jobs and not living fulfilling lives for themselves.”

The second pattern raised by Ava, above, was her astute discussion about how in-migration and vacation rentals both drive up the cost of housing and reduce the available units in the market. Availability and affordability are clearly related, but they are not equivalent. Even participants in more isolated regions where affordability was less of an issue or where they were less affected by tourism and in-migration expressed concerns about the availability of housing. For example, Lana explained that:

“[H]ousing is not super expensive, but it's hard to find housing...Since there is not that many people here, not that many houses on the market for rent and stuff like that. That's why we're staying in a hotel right now. We couldn't really find anywhere to live...”

Another participant, Rebecca, who works as a property manager in the study area, shared her own experience about the need for available housing in the North State.

“I would like to see more solutions to both homelessness and just the people who are maybe like, in housing but in overcrowded housing or living not in ideal circumstances - like, more availability of housing. And I know that that's kind of like a double-edged sword because then you're, you know, changing a lot about the city as well. But there's just so much demand ... Maybe my perception is skewed because I work in property management but there are a lot more people looking for housing ... than there are available housing units.”

Calls for help regarding this issue were not unique to Rebecca. When asked what could be done to better support his community, Chris emphasized the need for more access to low-income housing:

“I'd like to see more help for people that are struggling, because it seems like when people are going through a tough time, there aren't many resources to help them. There's a couple of things, but all of those things have such long...waiting lists, ...for example, the income-based apartments that charge you rent based on what you make per month ... anytime I've tried to apply for one, have had a waiting list that goes back like, months or years, like people that have been waiting for a really long time.”

Like Chris and Rebecca, many participants identified the availability of affordable housing as the most pressing issue facing their communities, whether or not they themselves were securely housed. In other words, when housing as a fundamental need is met, it can serve as a powerful upstream determinant of health not just for an individual but for the broader community.[1]

A final aspect of housing affordability and availability described by some participants was the heightened pressure on the housing supply caused by the displacement of residents following recent wildfires.

“The fires have an effect. Huge. The housing market changed completely. There is a huge demand for housing and people are displaced.” Bitsy

“[T]here was a big fire last year in the foothills, and so, a lot more people moving to town.... Yeah, there’s no housing available to rent. (scoffing)...Since the big fires, there’s just not enough houses.” Piper

It is critical that we better “understand the full scope of the impact of wildfires on human health and well-being,” particularly for rural residents who are among the most at risk.[34] As climate extremes intensify, the risk of fires in California’s North State increases, further threatening the housing supply as well as the health of North State residents. Not only do wildfires affect the affordability and availability of housing in adjacent towns, but they also affect another dimension of housing insecurity—the stability of a person’s home.

Housing Insecurity: Stability

Swope and Hernandez [3] define stability in housing as “residents’ capacity to willingly remain in their homes free from harassment or dispossession” (pg 6). Circumstances such as getting behind on rent or mortgage payments, eviction or getting ‘kicked out,’ foreclosure, restrictions on access to supportive housing, or natural disasters can create instability in housing, which may entail multiple involuntary moves, doubling up, or experiencing homelessness.[1, 3, 10] As Isaiah emphasized:

“Well, [I was] in permanent guardianship... Then I moved away from them because they were abusive... I was treated like shit. When I was 14 I moved out of there... Then I bounced around from foster home to foster home and then -- homeless every once in a while. Like, a few nights sleeping on the streets, and then group homes that sucked really badly. Then into my own housing program... once I aged out of the program, I stayed in the apartment that I was in, but I really, really didn’t like it, because I had just recently moved there because the bank had foreclosed on the other house -- or the owner sold it to the bank, and then the bank told me to leave.”

Isaiah touched on a number of facets of instability in housing, chiefly getting kicked out of his foster homes, experiencing homelessness while seeking temporary solutions, foreclosure, and government programs that aged him out of housing assistance. Studies have long documented the mental and physical health consequences of housing instability, which include poor self-reported physical and mental health, depression, anxiety, substance abuse, and suicide.[1, 3, 35] The effects on children and adolescents may be especially damaging, with housing instability implicated in “emotional, behavioral, and academic problems” and earlier initiation of drug use.[1, 8, 36]

A substantial number of participants described a lack of stability in their housing over time, noting especially how social, moral, or financial capital could adversely affect their ability to attain and maintain stable housing.^(see also[16]) Some participants commented that accessing housing was often dependent on who you knew, which could help facilitate housing in a

region with few affordable housing options. For example, many participants described the ways in which their local family protected them from experiencing housing instability. As Shelly described:

“For me, living with my parents, it’s quite easy to live [here]. However, people who are moving here as a young adult... It’s harder to find apartments and places to rent. Whether it’s expensive, or there’s literally nothing to access.”

Other participants emphasized moral capital by explaining how a person’s reputation could influence their ability to secure a stable home. Many participants shared that, especially in smaller towns, an individual’s reputation was particularly relevant to the economic resources they had access to because, as Scarlett explained,

“if you’re not liked by the community, it’s virtually impossible to find a job, because everyone is connected. ... You do something bad; everyone knows about it.”

In small communities, many people not only know each other but this knowledge often extends throughout a person’s lifetime and across generations of their family. Power and resources, such as property or business ownership, may be concentrated among just a few individuals or families.[16, 37] In this way, being perceived as someone who is undesirable or irresponsible by those in positions of power can foreclose opportunities to secure stable housing. This may be especially true for renters who are marginalized, and who may experience the effects of stigmatization, and as a result, discrimination in housing.[3]

Financial capital, though obviously related to housing affordability, is also connected to one’s ability to obtain a stable house, as Christine, who currently lives with her grandma, emphasized. When asked what the housing search was like in her area, Christine responded by saying:

“[I]t’s terrible. The credit requirements here in California, they’re insane. They want you to make three times the rent. They want you to have a 650-credit score. And it’s like, are you kidding me? If my credit score was that high, I would not be trying to rent from you. I would be trying to buy. I don’t know any single person that makes three times the rent unless they’re making \$25 or more an hour. It’s unreal what they want you to make to get a place around here.... It’s discouraging at times because when you apply and you’re like, oh, this looks like a nice spot, like, you think you qualify, but then you get denied, and you’ve been denied so many times, like, almost like a broken record playing over again.”

Given this situation, residents earning the lower wages that are far more common in rural areas struggle to secure stable housing. While some notable resources do exist in rural communities to assist renters with low incomes, such as rental assistance programs, the system is far from perfect, as Cait, who is currently living in her van, suggested:

“I was originally supposed to be eligible for apartment housing, but that recently got shut down. The waitlist was put on indefinite hold... it’s pretty common around there too, because again, it’s one of those retirement areas, so even if there are apartments, they are instantly taken. The waiting lists are sometimes years long.”

Aside from various forms of capital that may inhibit or enable one's ability to attain and maintain stable housing, other environmental conditions that threaten long-term stability in housing were also noted by our participants. A number of participants noted that fires not only reduce the availability of homes in the North State, as described above, but they also threaten the stability of their living situations. Some participants were evacuees during the time of data collection, as many interviews took place during California's fire season. For those participants, the future of their housing was uncertain, a liminal status in and of itself, that can threaten health and wellbeing. Other participants had already lost their homes to fires. For example, Jake explained:

"I drove up to my house with it being basically in ruins... and there was kind of this moment of, like, we lost our dogs in the fire. We lost everything. There wasn't anything there. It was really difficult for me to go through... My sister just bought a house. ... So she's like, well, ... you are homeless. There's not much of a place to stay ... so she's like, well, I have a house in [city] now, so just come move in with me and you can go to [college name]. And we'll figure it out. So it all worked out in the end. But it was pretty awful during that process."

While this event resulted in devastating loss for Jake, he was fortunate to have the support of his family to help pick up the pieces. Wildfires in California are becoming increasingly severe due to a warming climate, and the fear of losing one's home is especially palpable in North State communities, as Hally emphasized:

"The thing that has come up now is the wildfire issue ... I'm very uneasy... this year it was through the neighborhoods, and it just decimated parts of the neighborhoods. ... it's horrible to see. ... And the way it spread out here was horrible too. And it was fast. So I was taking a nap with the baby, my husband was working, and my daughter was doing her schoolwork. And I woke up and I think it must have happened right when the baby and I went to take a nap, because I woke up and saw my phone. And I had all of these alerts. I had my landlord calling me, like, you guys need to go. And I just opened the curtains and I just see the fire, like, the smoke column was right there. ... We can see the burn from here, like this whole hill is just totally burnt ... I think now I'm hyper aware of when the helicopters are going over our place, because that was the only thing ... we could hear the helicopters. And so now every time I hear one, I look out the window just to make sure everything is fine."

Housing Insecurity: Conditions

Insecure housing also concerns the condition of a person's home. Homes serving residents who are low-income tend to have "higher rates of housing condition inadequacies,"^[3] and those in rural areas are no exception. Our participants' narratives suggested a number of insufficiencies in the quality and facilities within their housing situations which are important to consider. Access to water emerged as one especially important issue that has the potential to affect rural residents across social class. The drought in California has long affected California's rural communities and has especially severe implications for rural residents in the North State, as Jenette explained:

“Most of the people up here live off of wells. So people are struggling with the drought more. ... I think the wells -- well, you obviously need water to survive. It's a lot harder. Some people will have wells that are dried up. They don't even have the ability to shower and have tap water -- [so they have to get] bottles delivered to them.”

Likewise, Sarah emphasized the ways in which water not only resulted in the loss of a family home but also the loss of family cohesiveness.

“...one of the disadvantages about living out there though, is there's no water. You know? Living in a lot of these rural places are coming up to be no water, and they have to dig for these wells, and digging for a well cost thousands of dollars. And if you're lucky, you'll find water...So I grew up a lot out in [that town]... So we would run amok up and down the creek, go to the park, and it was just my family out there...I loved it. ...I had a very close family, but after my grandparents passed away, now we don't talk, none of us talk. ...there's been animosity ever since my family had to sell the property out of [that town]. There was no water, so we couldn't keep the property.”

Jenette and Sarah's experiences demonstrate that the conditions of one's home, in this case the lack of availability of water, can have complex and multi-scalar influences on health, not only directly through daily needs like hygiene and access to clean drinking water, but also through outsized economic burdens, such as costs associated with digging a new well, the loss of a family home, or the need to have water delivered. Periods of extreme drought are expected to become more common over time—a threat which will further intensify rural residents' vulnerability to a number of health hazards, including through the lack of available water as well as waterborne diseases, which proliferate during water shortages.[38]

For participants on extremely low incomes, the expense of utilities, especially during a time of historic inflation, and the inability to secure fundamental infrastructure within the home could be acutely challenging. For example, Mary Jane, who lived with her husband on a family friend's land in an especially isolated region in the North State explained:

“Literally last week we just got some gas for like, \$4.89 and then within a week it went up by almost a dollar... we are pretty damn broke, so we try to go to town as little as possible and it ends up being twice a week though because we don't have a fridge, so we need to get ice to keep our food good and we also use a generator, so we have to regularly go get gas. So yeah, we'll try to go to town like twice a week and on those days we try to get everything done and then the days we are home, we are gardening, food prepping, processing....”

Lacking basic infrastructure combined with the high cost of living can ultimately lead to homelessness, as Tim succinctly described:

“Right now I'm actually just out of my car. I moved out of my place like a month ago or so, just because of water issues kind of on the property. And my landlord raising the rent. So I just kind of decided, since it's nice out, I'm just going to camp for a while and save money.”

Vehicle residency is becoming an increasingly common form of homelessness in the US[39] and was not unusual among our participants. Though losing one's home and often also one's job forced a number of participants into vehicle residency, as Tim's quote suggests, not all participants felt that this living arrangement was entirely problematic. Nevertheless, substandard conditions surround vehicle residency and raise important questions about how we might best support people living in these circumstances. For example, participants who were unhoused or living in their vehicles noted how the lack of access to essential facilities, such as restrooms or electricity, contributed to a precarious existence. Scott, who described himself as a "nomad" who "live(s) on the road" and "reside(s) in the woods most of my time," alluded to the realities of managing the "cold weather, especially if you don't have a heater." These substandard conditions draw attention to the unique needs of rural vehicle residents and 'traveler' communities who are largely hidden in discussions of housing insecurity yet are the fastest growing subpopulation of people who are housing insecure.[39]

Housing Insecurity: Neighborhood Context

Housing insecurity is also shaped by the neighborhood context, especially one's ability to access essential services (e.g. health care) and to participate in their community (e.g., job access). If housing does not permit a person to support themselves and their family, the home is not sustainable.[10] Access to jobs was an especially prominent issue mentioned by participants. When asked about some of the advantages available in an urban area compared to a rural one, Sherly said:

"Having, honestly, like, job opportunities and, you know, different things like that. Like, here, we don't have many job opportunities and new people to meet in order to get those things. More options to go to school too. Things like that, you know?"

As described earlier, political and economic features of rural communities, including deindustrialization, have contributed to the lack of job opportunities in North State communities. As suggested by Scarlett earlier, some participants' narratives also emphasized the social capital necessary for accessing the few available jobs. Another participant, Fabio, explained:

"We don't have that many job opportunities here. ... Like, everyone goes off to college, and they want to move back home, but there are no jobs here for them in their specific degree. ... we have, a community college, we have a mill, and then like, that's all we got going for us here. There's a ton of jobs right now, don't get me wrong, at least in [my] County, but [my town] specifically, there's nothing to come back to, unless you know people and have ins."

In addition to a lack of employment access, participants also described concerns about the social safety net, especially in terms of accessing medical care. For example, when asked about the disadvantages of living in a rural area, Grace explained:

"Medical stuff. Anything that has to do with an emergency. There was a few instances where people would get injured and be very difficult to find help or it'd be too foggy to get the helicopters in or stuff like that. So I guess that would be a challenge. Again, anything like, convenience wise, like, electricity was always kind of complicated. Wi-Fi was always complicated."

Similarly, Enrique stressed how:

“[T]he response time for emergencies ... is worse out here, which is weird because it’s smaller, so you think that they would respond to things a lot quicker, but they don’t. The response time, whether it be for like cops or ambulance, firefighters and all that, it’s just not there. It’s weird, you know what I mean? It’s a small town. Why isn’t there somebody on top of things, you know what I mean? So that’s kind of a disadvantage.”

Not just access to medical care but other support services may be especially challenging in rural areas with few resources. Denny, a mental health professional in a small rural community in the North State, sees firsthand how few resources exist for residents.

“[J]ust in my field, I know a lot of people can’t access mental health services because there are either not enough therapists in this area, or people don’t know how to access them. Or barriers like insurance and finances take place, and I think that’s true for a lot of different types of resources in the community. So I think that’s a big disadvantage for a lot of people.”

In addition to the social safety net, narratives also suggested that the relative remoteness of some rural communities required residents to be well prepared with supplies, emphasizing the importance of anticipating events that could lead a person into a vulnerable situation.

“It’s just, having supplies and having needs. You’re going to have to go 45 minutes into town just to go anywhere or do anything. I’ve lived all the way out in [community name] before, and it was, you know, a 45-minute commute to get to town and get to work, pretty much to do anything. (uneasy chuckle)... You have to be well prepared if you’re going to live in a rural area out here.” Jenna

Preparation here is described as a necessary precondition for surviving in a rural context. In this context, there is a heightened need to be able to “stock up” on supplies in advance and store them for extended periods of time.

“[I]t’s cheaper to live in a rural area, but it’s expensive in the sense that you have to give a lot more of your time and energy to do things. Like I said, if I need to go to something that’s -- like, Costco for example. Costco is where my family does 90 percent of our shopping, is up in Redding. So you have to plan a whole day of going to Costco. My mom has to give up at least an hour every day just to drive back and forth to work, so that’s probably the biggest disadvantage. Just because it’s so spread out. It’s not concentrated at all.” Barry

A lack of access to essential services in remote rural contexts requires rural residents to allocate substantial *time and energy* as well as financial investment to ensure that their housing situation supports their ability to meet their basic needs. But these preconditions are not necessarily within everyone’s reach and, thus, become important considerations for broadly understanding rural housing insecurity.

CONCLUSION

This research should be considered in light of some limitations, including the relatively small sample size and unique geography in which the study was conducted. Also, as a qualitative study, our findings should be interpreted as a contribution to theory, which can shape future research that is desperately needed on rural housing insecurity. Despite these limitations, by examining rural participants' narratives related to housing, we are able to present a snapshot of rural housing insecurity, drawing attention to the unique ways that it manifests in the North State of California. While some patterns mirror those in urban areas, others draw attention to specific experiences associated with rurality; yet all point to the pervasiveness of rural housing insecurity and the critical need for solutions that are grounded in and responsive to the experiences of people who live in rural communities.

Research on housing theorizes that housing can be protective of health through its potential to offer 'ontological security', which is defined as "a sense of feeling at ease, or at home in a world which can appear external and threatening." [40–42] But when housing is not affordable, available, stable, safe, or sufficient, the possibility of ontological security is compromised, which can have significant consequences for mental and physical health. Drawing attention to the growing housing crisis in rural areas, identifying the unique dimensions of housing insecurity across different types of rural communities - whether they be "amenity-based", like the North State, "chronically poor", or "declining" [43] - and identifying responsive and place-based solutions for intervention are crucial for improving the everyday lives and health of rural residents. Though the romantic myth of the "rural idyll" [44, 45] obscures from view important social and health problems that deserve attention from local, state, and federal governments, it is nevertheless an important goal to keep in our mind's eye. Solving our rural housing crisis is one important step.

Acknowledgements:

Sincere appreciation is due to the 153 participants who volunteered their time and stories to us. Without them, this research would not have been possible. We would also like to thank Shelly Brantley and her many colleagues at RISE, the Rural Initiatives Strengthening Equity project of the California Health Collaborative. We are so grateful for their support and guidance throughout the study.

Funding:

This research is supported by funds from the Tobacco-Related Disease Research Program (TRDRP), grant number T31IR1513 (Tamar Antin, PI), and the National Institute on Alcohol Abuse and Alcoholism of the National Institutes of Health (NIH), grant number 1R01AA027992-01A1 (Geoffrey Hunt, PI). The content provided here is solely the responsibility of the authors and does not necessarily reflect the opinions of TRDRP or the NIH.

References

1. Braveman P (2023). Housing, Health, and Health Disparities. In Braveman P (Ed.), *The Social Determinants of Health and Health Disparities* (p. 0). Oxford University Press. 10.1093/oso/9780190624118.003.0008
2. Krieger J, & Higgins DL (2002). Housing and Health: Time Again for Public Health Action. *American Journal of Public Health*, 92(5), 758–768. 10.2105/AJPH.92.5.758 [PubMed: 11988443]
3. Swope CB, & Hernández D (2019). Housing as a determinant of health equity: A conceptual model. *Social Science & Medicine*, 243, 112571. 10.1016/j.socscimed.2019.112571 [PubMed: 31675514]

4. Taylor L (2018). Housing And Health: An Overview Of The Literature | Health Affairs Brief. Health Affairs Health Policy Brief. Retrieved from <https://www.healthaffairs.org/doi/10.1377/hpb20180313.396577/full/>
5. DeLuca S, & Rosen E (2022). Housing Insecurity Among the Poor Today. *Annual Review of Sociology*, 48(1), 343–371. 10.1146/annurev-soc-090921-040646
6. Cutts DB, Meyers AF, Black MM, Casey PH, Chilton M, Cook JT, ... Frank DA (2011). US Housing Insecurity and the Health of Very Young Children. *American Journal of Public Health*, 101(8), 1508–1514. 10.2105/AJPH.2011.300139 [PubMed: 21680929]
7. Fowler PJ, Henry DB, & Marcal KE (2015). Family and housing instability: Longitudinal impact on adolescent emotional and behavioral well-being. *Social science research*, 53, 364. 10.1016/j.ssresearch.2015.06.012 [PubMed: 26188460]
8. Cutuli JJ, Ahumada SM, Herbers JE, Lafavor TL, Masten AS, & Oberg CN (2017). Adversity and children experiencing family homelessness: implications for health. *Journal of Children and Poverty*, 23(1), 41–55. 10.1080/10796126.2016.1198753 [PubMed: 30294200]
9. Cox R, Henwood B, Rodnyansky S, Rice E, & Wenzel S (2019). Road Map to a Unified Measure of Housing Insecurity. *Cityscape*, 21(2), 93–128.
10. Clair A, Reeves A, McKee M, & Stuckler D (2019). Constructing a housing precariousness measure for Europe. *Journal of European Social Policy*, 29(1), 13–28. 10.1177/0958928718768334
11. Aurand A, Emmanuel D, Foley E, Clarke M, Rafi I, & Yentel D (2023). *The Gap: A Shortage of Affordable Rental Homes*. Washington, D.C.: National Low Income Housing Coalition.
12. Farero A, Sullivan CM, López-Zerón G, Bowles RP, Sprecher M, Chiaramonte D, & Engleton J (2022). Development and validation of the housing instability scale. *Journal of Social Distress and Homelessness*, 0(0), 1–10. 10.1080/10530789.2022.2127852
13. Gleason KD, Dube M, Bernier E, & Martin J (2022). Using geographic information systems to assess community-level vulnerability to housing insecurity in rural areas. *Journal of Community Psychology*, 50(4), 1993–2012. 10.1002/jcop.22589 [PubMed: 33969506]
14. Yousey A, & Samudra R (2018). Defining Homelessness in the Rural United States. *Online Journal of Rural Research & Policy*, 13(4). 10.4148/1936-0487.1094
15. Fitchen JM (1992). On the Edge of Homelessness: Rural Poverty and Housing Insecurity. *Rural Sociology*, 57(2), 173–193. 10.1111/j.1549-0831.1992.tb00462.x
16. Sherman J (2021). “Please Don’t Take This”: Rural Gentrification, Symbolic Capital, and Housing Insecurity. *Social Problems*, spab041. 10.1093/socpro/spab041
17. McKee K, Hoolachan JE, & Moore T (2017). The Precarity of Young People’s Housing Experiences in a Rural Context. *Scottish Geographical Journal*, 133(2), 115–129. 10.1080/14702541.2017.1321136
18. Laufer P (2014). All We Ask Is To Be Left Alone. *Humboldt Journal of Social Relations*, 36, 17–33.
19. Davis WN (1952). State of Jefferson. *California Historical Society Quarterly*, 31(2), 125–138. 10.2307/25156352
20. Tickner B, & Fiorini-Jenner G (2006). *The State of Jefferson*. Charleston, SC: Arcadia Publishing.
21. Potts M (2019, October 4). In the Land of Self-Defeat. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/10/04/opinion/sunday/trump-arkansas.html>
22. California Health and Human Services Open Data Portal. (2023). *County Health Status Profiles*. Retrieved from <https://data.chhs.ca.gov/dataset/county-health-status-profiles>
23. Seabrook JA, & Avison WR (2012). Socioeconomic Status and Cumulative Disadvantage Processes across the Life Course: Implications for Health Outcomes. *Canadian Review of Sociology/Revue canadienne de sociologie*, 49(1), 50–68. 10.1111/j.1755-618X.2011.01280.x [PubMed: 22586837]
24. US Census Bureau. (2020). *Explore Census Data*. Retrieved from data.census.gov
25. Albrecht DE, & Albrecht SL (2000). Poverty in Nonmetropolitan America: Impacts of Industrial, Employment, and Family Structure Variables. *Rural Sociology*, 65(1), 87–103. 10.1111/j.1549-0831.2000.tb00344.x

26. Rural County Representatives of California. (2014). Counties | Rural Counties. Rural County Representatives of California. Retrieved January 21, 2019, from <http://rcrcnet.org/counties>
27. Ratcliffe M, Burd C, Holder K, & Fields A (2016). Defining Rural at the U.S. Census Bureau (No. 1). Washington, D.C.: U.S. Census Bureau. Retrieved from <https://www.census.gov/library/publications/2016/acs/acsgeo-1.html>
28. National Center for Health Statistics. (2017). Urban Rural Classification Scheme for Counties. Retrieved July 21, 2023, from https://www.cdc.gov/nchs/data_access/urban_rural.htm
29. LeCompte MD, & Schensul JJ (2013). Analysis and Interpretation of Ethnographic Data: A Mixed Methods Approach (2nd ed., Vols. 1–7, Vol. 5). Plymouth, UK: AltaMira Press.
30. Marcouiller ML, David. (2016). Rural Housing, Exurbanization, and Amenity-Driven Development: Contrasting the “Haves” and the “Have Nots.” London: Routledge. 10.4324/9781315607160
31. Han C (2018). Precarity, Precariousness, and Vulnerability. *Annual Review of Anthropology*, 47(1), 331–343. 10.1146/annurev-anthro-102116-041644
32. Shim SH (2008). A philosophical investigation of the role of teachers: A synthesis of Plato, Confucius, Buber, and Freire. *Teaching and Teacher Education*, 24(3), 515–535. 10.1016/j.tate.2007.09.014
33. Ayers W (1995). *To become a teacher : making a difference in children’s lives*. New York: Teachers College Press. Retrieved from <https://cir.nii.ac.jp/crid/1130282272425501568>
34. Rosenthal A, Stover E, & Haar RJ (2021). Health and social impacts of California wildfires and the deficiencies in current recovery resources: An exploratory qualitative study of systems-level issues. *PloS One*, 16(3), e0248617. 10.1371/journal.pone.0248617 [PubMed: 33770088]
35. Tsai AC (2015). Home Foreclosure, Health, and Mental Health: A Systematic Review of Individual, Aggregate, and Contextual Associations. *PLoS ONE*, 10(4), e0123182. 10.1371/journal.pone.0123182 [PubMed: 25849962]
36. Ziol-Guest KM, & McKenna CC (2014). Early Childhood Housing Instability and School Readiness. *Child Development*, 85(1), 103–113. 10.1111/cdev.12105 [PubMed: 23534607]
37. Sherman J (2006). Coping with Rural Poverty: Economic Survival and Moral Capital in Rural America. *Social Forces*, 85(2), 891–913. 10.1353/sof.2007.0026
38. Salvador C, Nieto R, Vicente-Serrano SM, García-Herrera R, Gimeno L, & Vicedo-Cabrera AM (2023). Public Health Implications of Drought in a Climate Change Context: A Critical Review. *Annual Review of Public Health*, 44(1), 213–232. 10.1146/annurev-publhealth-071421-051636
39. Schmid T (2021, November 11). Vehicle Residency: Homelessness We Struggle to Talk About. Retrieved from <https://www.thenation.com/article/society/homelessness-vehicle-residency-housing/>
40. Rosenberg A, Keene DE, Schlesinger P, Groves AK, & Blankenship KM (2021). “I don’t know what home feels like anymore”: Residential spaces and the absence of ontological security for people returning from incarceration. *Social Science & Medicine*, 272, 113734. 10.1016/j.socscimed.2021.113734 [PubMed: 33601251]
41. Henwood BF, Redline B, Semborski S, Rhoades H, Rice E, & Wenzel SL (2018). What’s next? A grounded theory of the relationship between ontological security, mental health, social relationships, and identity formation for young adults in supportive housing. *Citiescape* (Washington, D.C.), 20(3), 87–100. [PubMed: 33163141]
42. Dupuis A, & Thorns DC (1998). Home, Home Ownership and the Search for Ontological Security. *The Sociological Review*, 46(1), 24–47. 10.1111/1467-954X.00088
43. Ward SK (2016). Chronic Poverty, Community Decline, and Amenity-Rich Growth in Rural America. In Marcouiller D, Lapping M, & Furuseth O (Eds.), *Rural Housing, Exurbanization, and Amenity-Driven Development: Contrasting the “Haves” and the “Have Nots”* (pp. 157–173). New York: Routledge.
44. Bunce M (1994). *The Countryside Ideal: Anglo-American Images of Landscape*. London: Routledge. Retrieved from <https://www.routledge.com/The-Countryside-Ideal-Anglo-American-Images-of-Landscape/Bunce/p/book/97804151104357>

45. Matthews H, Taylor M, Sherwood K, Tucker F, & Melanie Limb. (2000). Growing-up in the countryside: children and the rural idyll. *Journal of Rural Studies*, 16(2), 141–153. 10.1016/S0743-0167(99)00059-5

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 1.

Summary of Qualitative Findings

Dimensions of Housing Insecurity	Perceived causes	Perceived outcomes
Housing Affordability	Amenity-based economies reliant on tourists	Fewer available homes combined with high rents
	Declining industries (e.g., logging, mining)	Lack of livable wage employment opportunities to help afford housing
	Features of the workforce	Mostly seasonal part-time employment available to young adults which can sustain the cost of housing
	Wildfires which displace residents	Puts pressure on the housing supply in adjacent communities, further driving up the cost of housing
Housing Stability	Foster care	Getting kicked out or aging out of the system which forecloses access to affordable housing
	Intergenerational support	Lack of family support can threaten ability to secure and sustain housing over time
	Power and resources are concentrated among just a few individuals or families in rural communities	Lack of social capital can threaten ability to secure and sustain housing over time
	Reputation systems are important in rural communities	Lack of moral capital can threaten ability to secure and sustain housing over time
	Financial requirements (e.g., first + last month's rent, or credit score requirements)	Lack of financial capital threatens ability to secure a stable home
	Natural disasters (e.g., wildfires)	Loss of home, displacement
Housing Conditions	Drought in rural communities	Lack of access to potable water, displacement
	Inflation	Rising utility costs threaten ability to maintain livable housing conditions as well as ability to pay rent
	Vehicle residency	Lack of access to essential facilities, like toilets or electricity, contribute to substandard living conditions
Neighborhood Context	Deindustrialization	Lack of access to livable wage jobs near where you live
	Limited social safety net	Insufficient emergency and medical services, lack of mental health care
	Relative rural remoteness requires preparation as a precondition for survival	"Stocking up" can create financial vulnerability or may not be possible at all due to upfront costs