# Understanding Housing as a Social Driver of Health for Rural Residents

May 29, 2024

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# Understanding Housing as a Social Driver of Health for Rural Residents

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Rural Health Research Gateway Webinar May 29, 2024



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University of Minnesota

### Acknowledgements

- Collaborators: Carrie Henning-Smith, PhD, MPH, MSW; Megan Lahr, MPH; Jonathan Schroeder, PhD; Alexis Swendener, PhD; Hawking Yam, MS
- **Funders:** Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under PHS Grant #5U1CRH03717. The information, conclusions and opinions expressed are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.



## Agenda

- Background
- Quantitative Work
  - National Health Interview Survey
  - American Community Survey
  - American Housing Survey
- Qualitative Work
  - Key Informant Interviews
  - Case Studies
- Key Findings & Policy Implications
- Q&A





### Housing as a Social Driver of Health

### Instability

 Housing instability can lead to poor physical and mental health outcomes

### Safety and Quality

 Physical home environment can lead to poor health outcomes (e.g., air quality, lead paint, pest exposures, accessibility)

### Affordability

 Expensive housing costs can lead to individuals forgoing medical care, medications, healthy food, etc.



## Housing + Health + Rural

- Older housing stock (e.g. repairs, lead paint)
- Air quality
- Access to clean water
- Overcrowded housing
- Access to care (e.g. transportation, internet for telemedicine)





### Policy has shaped today's housing landscape

- 1934: National Housing Act
  - Redlining
- 1944: GI Bill
  - Black veterans excluded from benefits
- 1956: Federal Highway Act
  - Displacement of low-income communities
- 1968: Fair Housing Act
- 1974: Introduction of Section 8 housing
  - Stigma against those utilizing Section 8 housing vouchers



### National Health Interview Survey (NHIS)

- Annually, nationally representative survey of U.S. civilian population
- Data from 2021
- Included all adults with complete information housing and health (n=28,254)
- Outcomes:
  - Residential stability
  - Use of governmental rental assistance

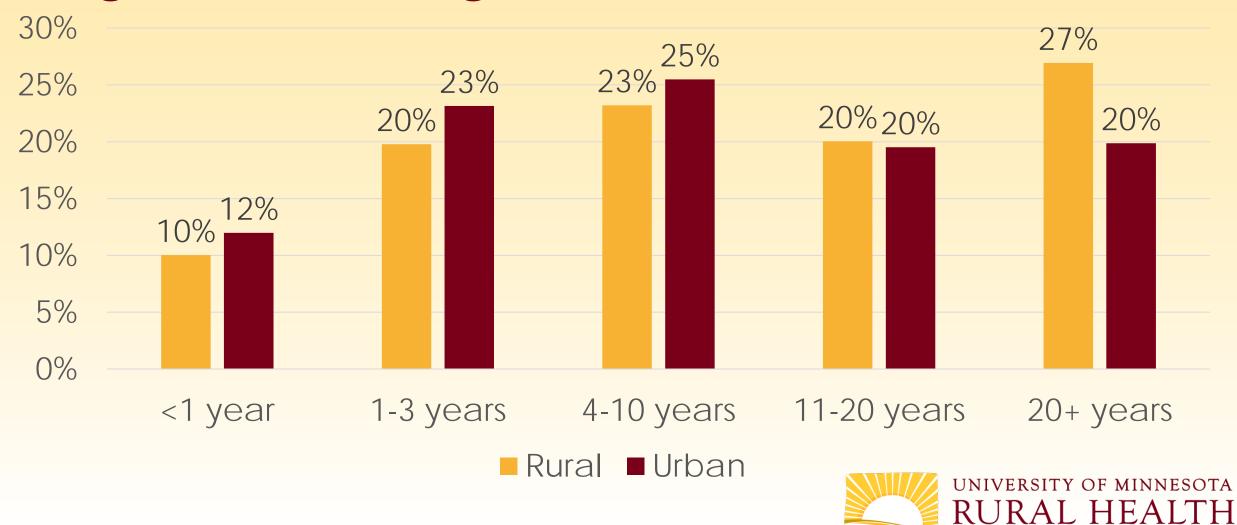


### **NHIS: Residential Stability**

- Residential stability (remaining in one's home and community) is important for:
  - Social cohesion, place attachment, and sense of community
  - Aging in place
  - Promoting good health outcomes
- May also indicate fewer options for relocation if desired

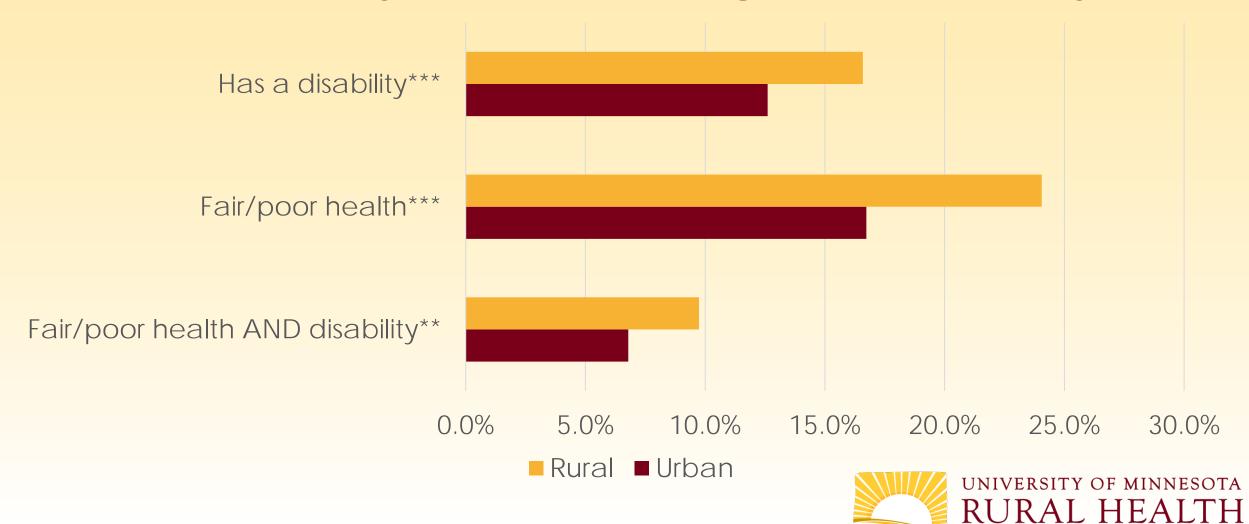


# NHIS: Residential Stability Length of time living in current home



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# NHIS: Residential Stability Health/disability for those living in home 20+ years



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### NHIS: Governmental Rental Assistance



Publication Date: October 11th, 2023 Publication Type(s): Peer-reviewed Journal Publications Topic(s): Health Disparities and Health Equity, Social Determinants of Health

Author(s): Henning-Smith C, Swendener A, Rydberg K, Lahr M, and Yam H

Housing is a vital component of health, and governmental rental assistance is one avenue of increasing access to affordability. In this paper, our research team examined rural/urban and within-rural differences in receipt of governmental rental assistance, with a focus on differences by health and disability

Published in: The Journal of Rural Health

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### Related Projects

. Housing as a Social Determinant of Rural Health

DOI: 10.1111/irh.12800

ORIGINAL ARTICLE



### Rural/urban differences in receipt of governmental rental assistance: Relationship to health and disability

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### Funding information

Federal Office of Rural Health Policy. Grant/Award Number: 5U1CRH03717: Health Resources and Services Administration; US Department of Health and Human Services: National Center for Advancing Translational Sciences, Grant/Award Number. UL1TR002494

### Abstract

Purpose: Housing is essential to health. Governmental rental assistance is one way to increase access to affordable housing, but little is known about how it varies by rural/urban location. This paper seeks to address that gap by examining rural/urban and within-rural differences in receipt of rental assistance, with particular attention differences by health and disability

Methods: We used data from the 2021 National Health Interview Survey (n = 28,254) to conduct bivariate analyses to identify significant differences in receipt of rental assistance by rural/urban location. We then conducted logistic regression analyses to generate odds ratios of receiving rental assistance, adjusting for self-rated health, disability, sociodemographic characteristics, and the US Census region.

Findings: When limiting the sample to those who rent (20.6% of rural residents and 29.6% of urban residents), rural residents were nearly 5 percentage points more likely to receive rental assistance (13.1% vs 8.2%, P<.001). Rural recipients of rental assistance were more likely to have a disability than urban residents (27.9% vs 20.3%, P<.05) and were more likely to report fair/poor health (41.6% vs 31.4%, P<.05).

Conclusions: Rural residents are less likely to rent their homes, but, among those who rent, they are more likely to receive governmental rental assistance. This may be reflective of the greater need for rental assistance among rural residents, who were in poorer health and of lower socioeconomic status than urban renters. As housing is essential to good health, policy attention must prioritize addressing a persistent and growing need for affordable housing in rural and urban areas alike.

disability, housing, policy, structural drivers of health

Housing is essential to health.<sup>1-4</sup> Housing is associated with one's social environment, environmental exposures, and financial stability, all of which can be directly linked to specific health outcomes. Affordability is one important aspect of housing.4 Yet, affordable housing is out of reach for many people in the United States, which became

mortality rates increased in states where eviction moratoriums had

Housing affordability issues long predate the COVID-19 pandemic. however and still persist 3 years after the pandemic's onset 7-9 High housing cost burden is associated with poorer health, and may cause especially apparent during the COVID-19 pandemic as policies were individuals to choose between paying for housing and paying for other enacted to prevent evictions. 5.6 In fact, COVID-19 incidence and necessities, such as food and medical care. 10.11 For some lower-income

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HEALTH

### **Mobile and Manufactured Homes**

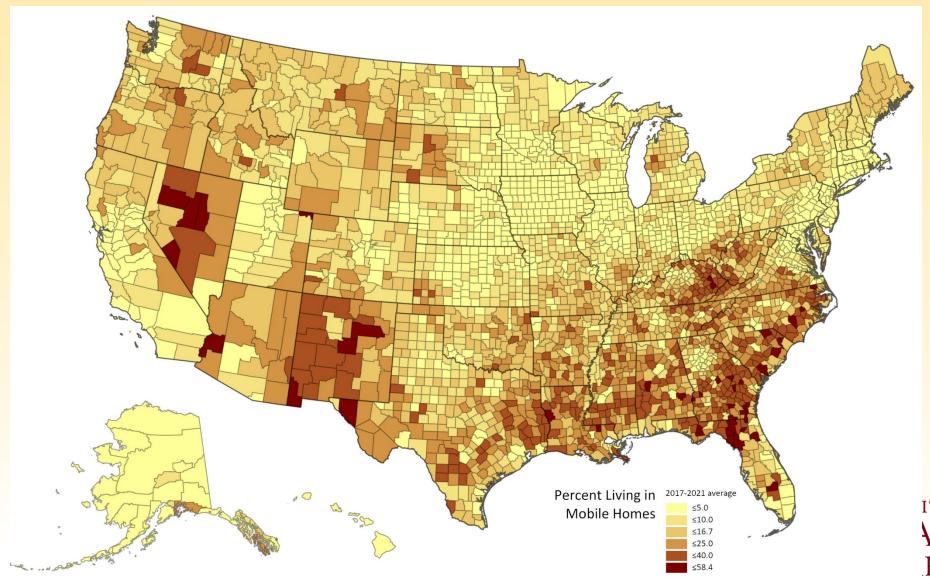
- Can provide affordability and flexibility
- Associated with poorer health outcomes, including:
  - Greater respiratory health issues
  - More vulnerability to extreme weather and climate change
- Associated with financial vulnerability
  - Home loses value after it is purchased (different than other housing types)

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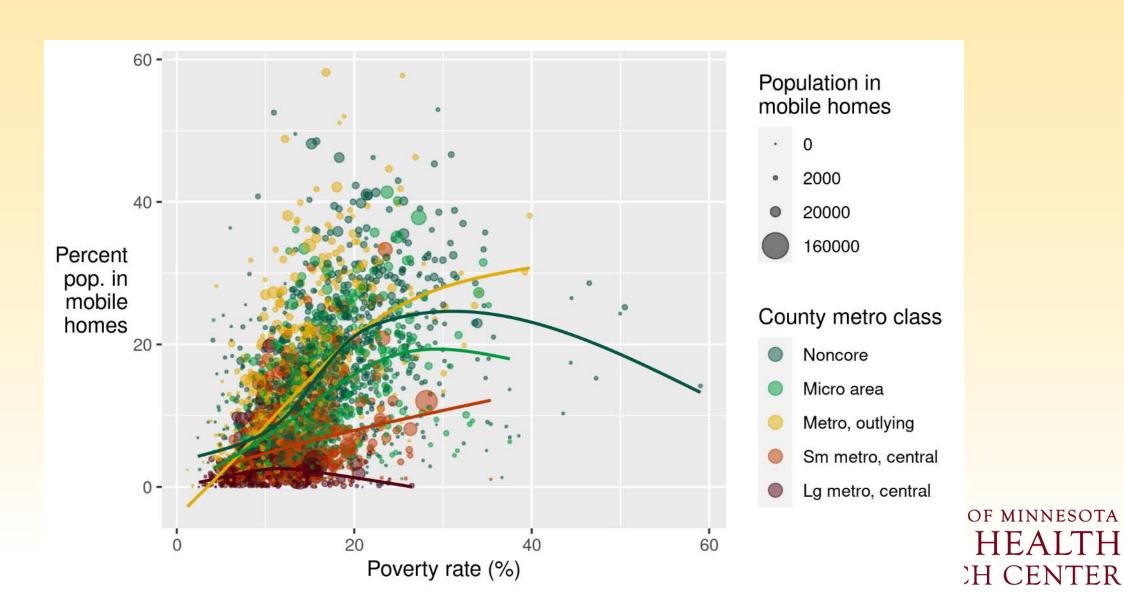
 Analysis using 2017-2021 5-year American Community Survey file

# Percent Living in Mobile Homes by Region



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### **Percent in Mobile Homes by Rurality and Poverty Status**



## **ACS: Housing Quality and Affordability**

 How do housing quality and affordability differ by rural-urban location, as well as race/ethnicity and disability status?

Housing cost burden

Crowded housing

Incomplete kitchen

Incomplete plumbing



### **ACS: Housing Quality and Affordability**

- Data from the 2015-2019 ACS Public Use Microdata Sample (PUMS)
- N=11,962,082 (adults living in households)
- Variable Definitions:
  - Urban/Rural location: dichotomous rural/urban location based on Public Use Microdata Area (PUMA) population
  - Race/ethnicity: Hispanic/Latino, non-Hispanic White, non-Hispanic Black,
     American Indian/Alaskan Native, Asian American/Pacific Islander, Other racial identity, or Two or more racial identities

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Disability status: Any of the following: hearing difficulty, vision difficulty,
cognitive difficulty, ambulatory difficulty, self-care/activities of daily living
difficulty, or independent living difficulty

## **ACS: Housing Cost Burden**

 % of the household's monthly income that goes toward housing-related costs (e.g., rent/mortgage, utilities, fees/taxes)

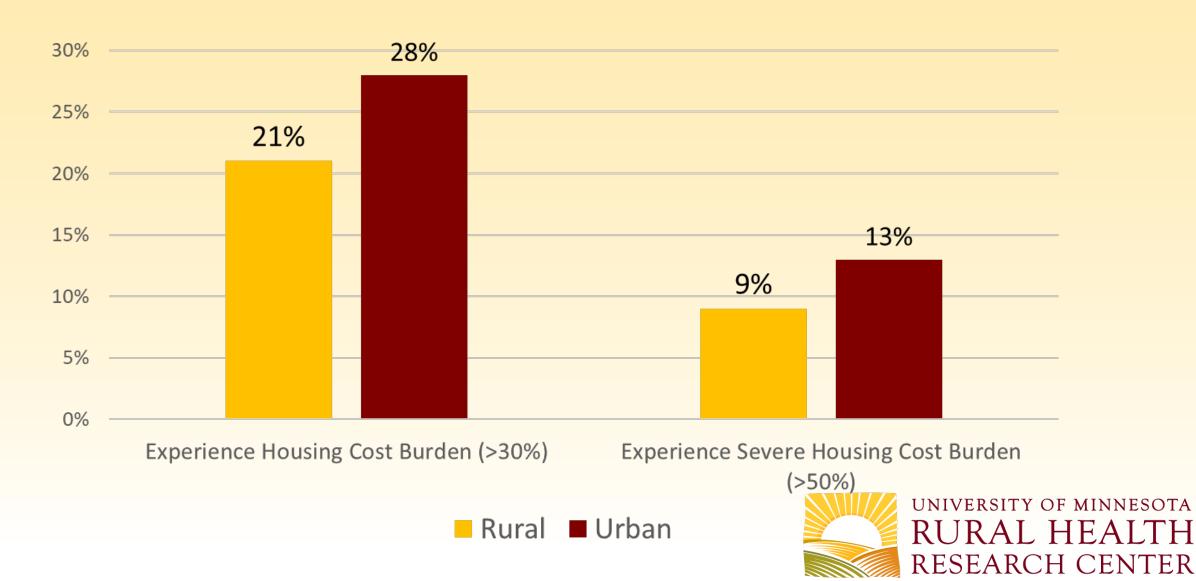


RAL HEALTH

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- Housing cost burden:
  - more than 30% of income being used for housing
- Severe housing cost burden
  - more than 50% of income being used for housing

### **ACS: Housing Cost Burden by Rurality**



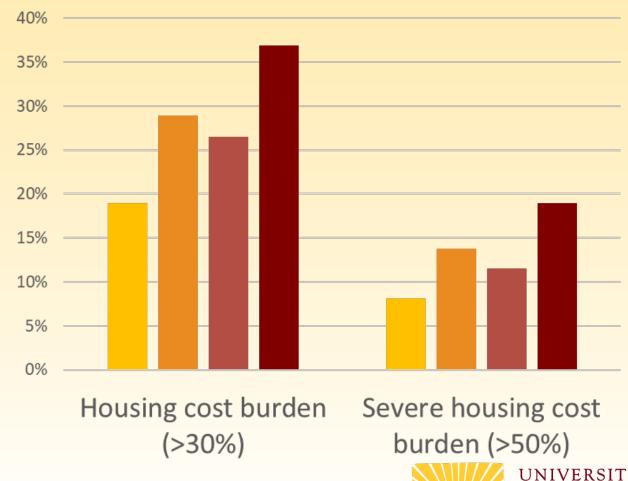
# ACS: Housing Cost Burden by Rurality & Disability Status

Rural, no disability

Rural, with disability

■ Urban, no disability

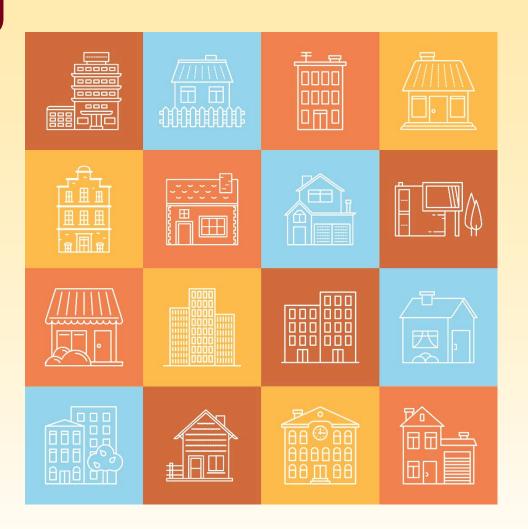
■ Urban, with disability





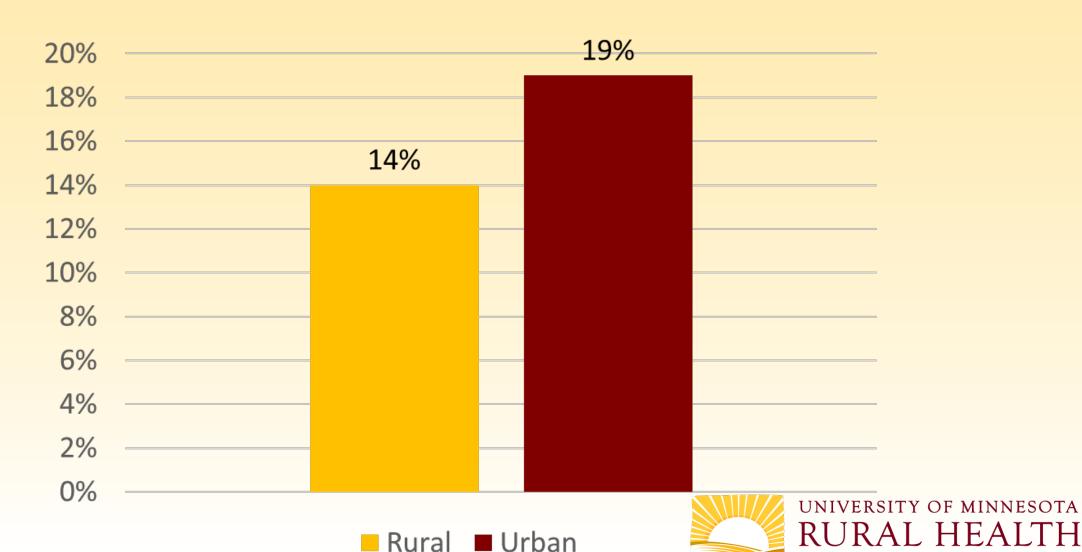
### **ACS: Crowded Housing**

- More than 1 person per bedroom
  - Exception: Couples
     needing only 1 bedroom



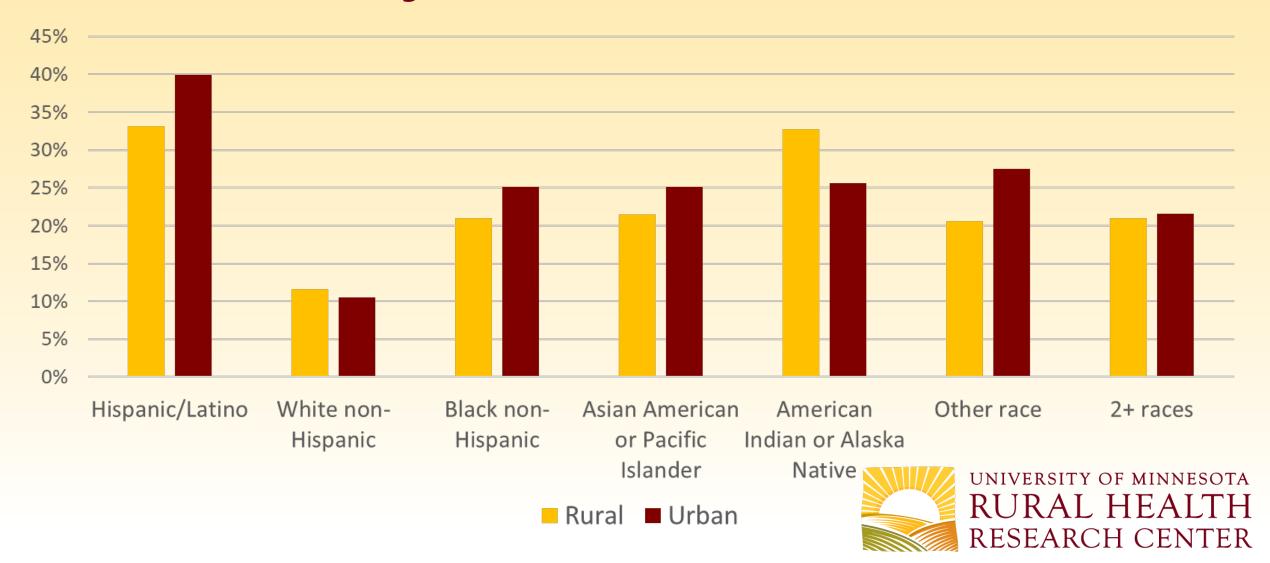


## **ACS: Crowded Housing by Rurality**



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# ACS: Crowded Housing by Rurality & Race/Ethnicity



## **ACS: Incomplete Kitchen & Plumbing**

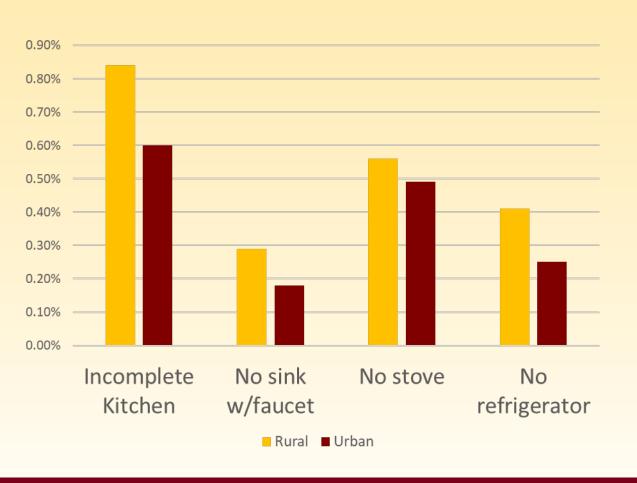
- Incomplete Kitchen
  - Lacks stove/range, refrigerator, or sink with a faucet

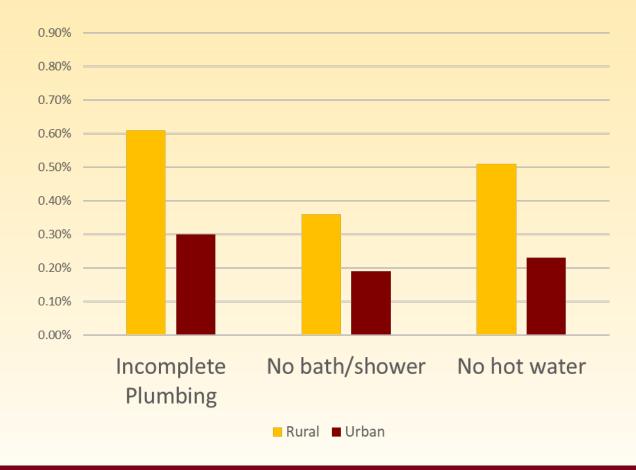


- Incomplete Plumbing
  - Lacks hot and cold running water or bathtub/shower



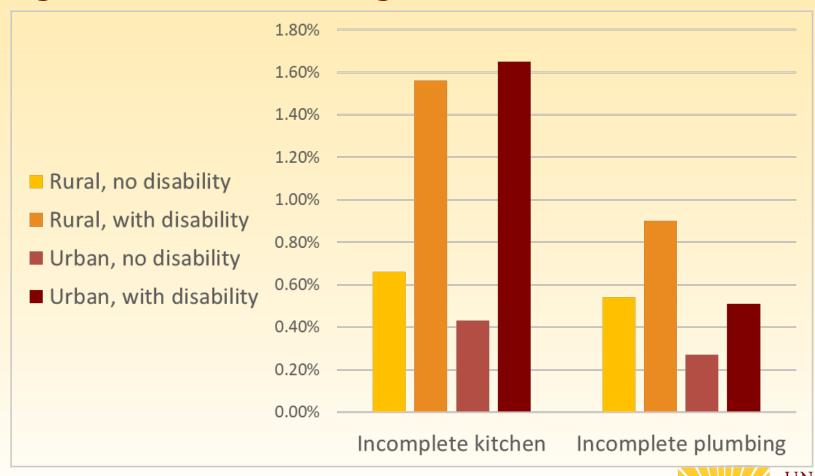
### **ACS: Incomplete Kitchen & Plumbing**





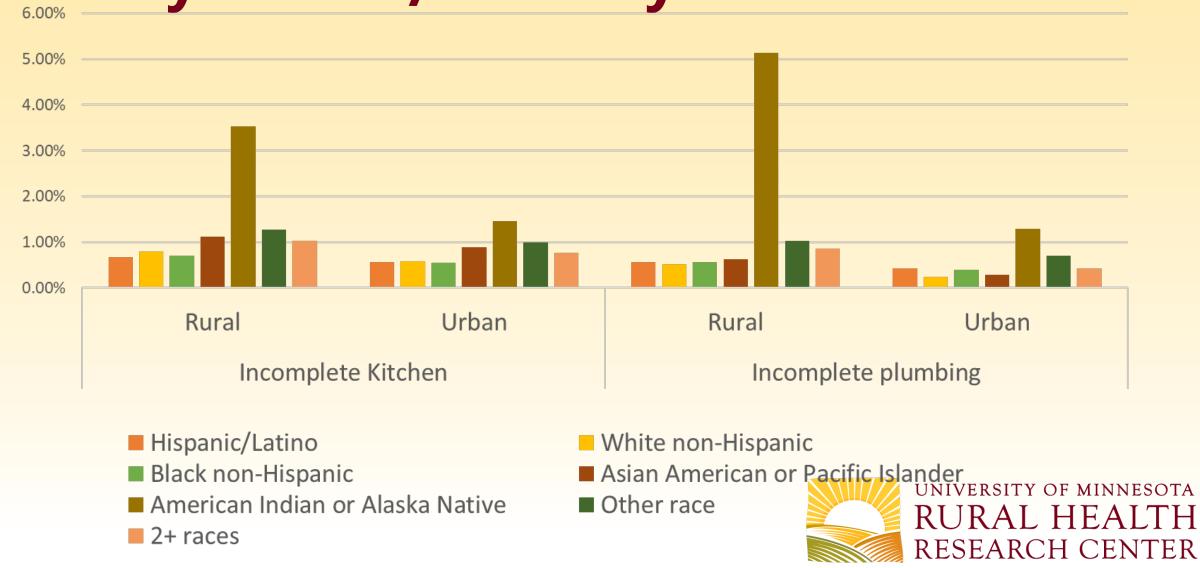
368,000 rural & 1.5 million urban residents with substandard facilities

# ACS: Incomplete Kitchen/Plumbing by Rurality & Disability





# ACS: Incomplete Kitchen/Plumbing by Rurality & Race/Ethnicity



## **American Housing Survey (AHS): Quality**

 How do specific housing quality characteristics differ by rural-urban location?

Inadequate Upkeep Inadequate Heating Inadequate Plumbing Inadequate Wiring



### **American Housing Survey**

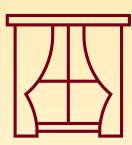
- Data from the 2019 AHS by U.S. Census Bureau
- N=124,135,000 (housing units)
- Rural/Urban location:
  - whether the housing unit locates in a 2013 metropolitan area, and assign corresponding rural or urban status to all housing units in the AHS



## **AHS: Inadequate Upkeep or Heating**

- Inadequate Upkeep:
  - Signs of mice or rats last 12 months
  - Open cracks or holes
  - Leakage from outside structure
  - Broken windows
- Inadequate heating
  - Lacks heating equipment last winter

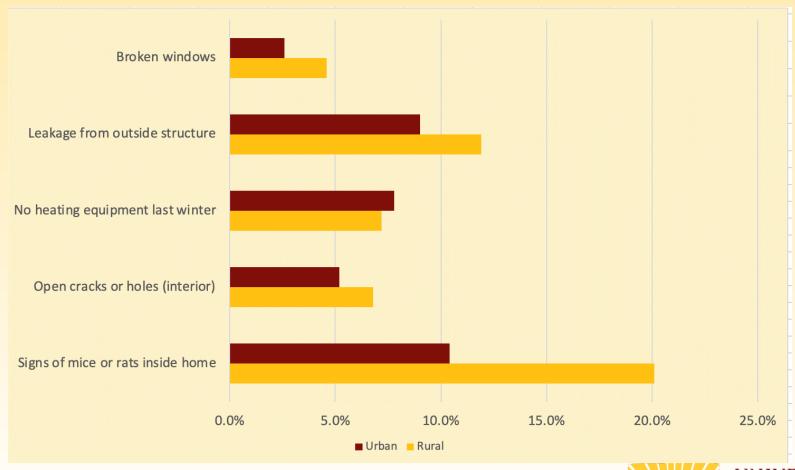








## **AHS: Inadequate Upkeep & Heating**





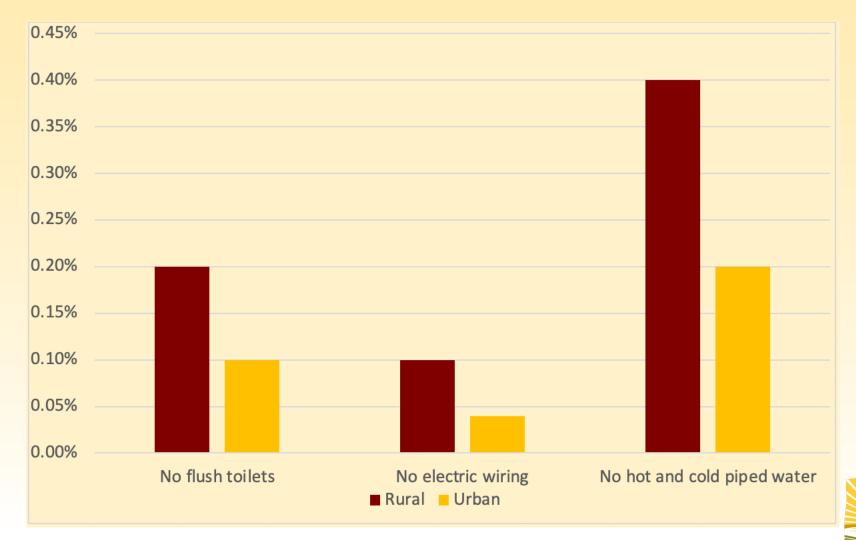
# **AHS: Inadequate Plumbing & Wiring**

- Inadequate Plumbing
  - Lacks hot and cold piped water
     last 3 months
  - Lacks flush toilets last 3 months
- Inadequate Wiring
  - Lacks electric wiring





## **AHS: Inadequate Plumbing & Wiring**





### **Key Informant Interviews - Methods**

- Interviewed representatives from 27 organizations that work in housing
- All were national in scope, some with a specific focus on rural housing
- Participants were asked about barriers to housing in rural areas, how these connect to health, and potential policy solutions



### **Key Informant Interviews – Barriers**



















### **Key Informant Interviews – Barriers**

"We do recognize that for patients and for care providers, housing is a really big issue and we want to be able to do as much as we can. And some of those care providers wouldn't qualify for our direct housing funding, because it's for very low income folks. If you're a doctor in a very small town you probably aren't in the lower tier of income for that area, but that doesn't mean that that makes housing magically appear.

### **Key Informant Interviews – Health**













### **Key Informant Interviews – Health**

"So when a home is not well maintained, is not well-insulated, well heated, well ventilated, where it has had some type of damage, fire or water or infestation, that hasn't been repaired, there can be a direct correlation between that and their resident. If the resident doesn't have the financial means to address those deficiencies and/or there isn't a local resource or labor pool which is also a big challenge sometimes, then that housing just continues to become increasingly substandard."



## **Key Informant Interviews – Policies**

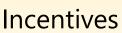














Zoning/Code



Services/Providers



### **Key Informant Interviews – Policies**

"The aging sector and the housing sector, there are partnerships, but there needs to be a lot more. And that's where I think a lot of innovation we see when states adopt policies and programs to really further those partnerships...that does so much to spur those connections at the community level where that really needs to happen."



### **Case Studies**

CASE SERIES May 2024



### Housing for Rural Residents Recovering from Substance Use Disorders

Katie Rydberg, MPH

Ingrid Jacobson, MPH

Mariana Tuttle, MPH

Megan Lahr, MPH

Carrie Henning-Smith, PhD, MPH, MSW

### **Key Findings**

- Stable, affordable, and supportive housing is critical for individuals in recovery from substance use disorders, but there are unique challenges to accessing such housing in rural areas. This case series highlights three examples of rural housing programs for people in recovery.
- Solace Apartments in St. Peter, Minnesota is an example of a "Housing First" approach to provide supportive housing for individuals in recovery and their families.
- The Sober Transitional Housing Program at the Yellowhawk Tribal Health Center in Pendleton, Oregon offers a culturally-responsive approach to providing housing and recovery resources to American Indian and Alaska Native populations.
- Hope House Ministries in Ravenswood, West Virginia is an example of a faithbased approach to providing housing and support to women in recovery.

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### Purpose

The purpose of this case series is to highlight organizations providing housing for individuals in recovery from substance use disorders in rural communities. These may serve as examples to others considering this work.

### **Background and Policy Context**

Housing is a well-documented social determinant of health.<sup>1</sup> For individuals experiencing challenges with substance use, stable and supportive housing is a critical element of their health and recovery journey.<sup>2</sup> The stress of not having safe or affordable housing may increase the risk of substance use and relapse.<sup>3</sup> There can be many barriers to housing for individuals in recovery, however. For example, many landlords do not rent housing to individuals with felony convictions, such as convictions related to substance use. Additionally, some shelters or housing programs might not allow people who are actively using substances or who are in recovery from substance use to stay in their housing.<sup>45</sup>

Rural residents in recovery from substance use disorder (SUD) may experience greater difficulty in accessing housing. There tends to be lower availability of high quality housing stock in rural areas and many rural residents struggle with housing costs. On top of this, because of the reduced anonymity in small rural communities, some individuals may not seek recovery or housing services due to the stigma associated with SUD. There is also limited availability of SUD treatment options in rural areas, which may present additional barriers to helping coordinate housing for individuals in recovery once they have completed a treatment program.<sup>4-9</sup>

There are a number of program models and resources dedicated to increasing housing opportunities for individuals in recovery in rural communities. <sup>10</sup> For example, "Sober Living Houses" are residences where individuals abstain from substance use while receiving outpatient recovery supports. <sup>11</sup> Another model is that of "Housing First," in which an individual secures housing that is not conditional on their sobriety. <sup>12</sup> By meeting the basic need of housing, this model allows the individual to focus on the supports and resources that will benefit



### **Key Findings and Policy Implications**

- Complex variations in housing quality and affordability by different intersections of race, ethnicity, disability status, and rural-urban location
- Housing policies need to reflect the needs of quality housing among rural residents as well as reflect both quality and accessibility needs for residents with disabilities in all locations



### **Additional Policy Implications**

- Rural housing policy should be tailored to the needs of systematically marginalized groups, many of whom are at greater risk of living in substandard housing
- Policy improvements for housing can be flexible and involve collaboration across agencies and sectors
- Improving housing quality and affordability is an important way to address the social determinants of health and promote health equity

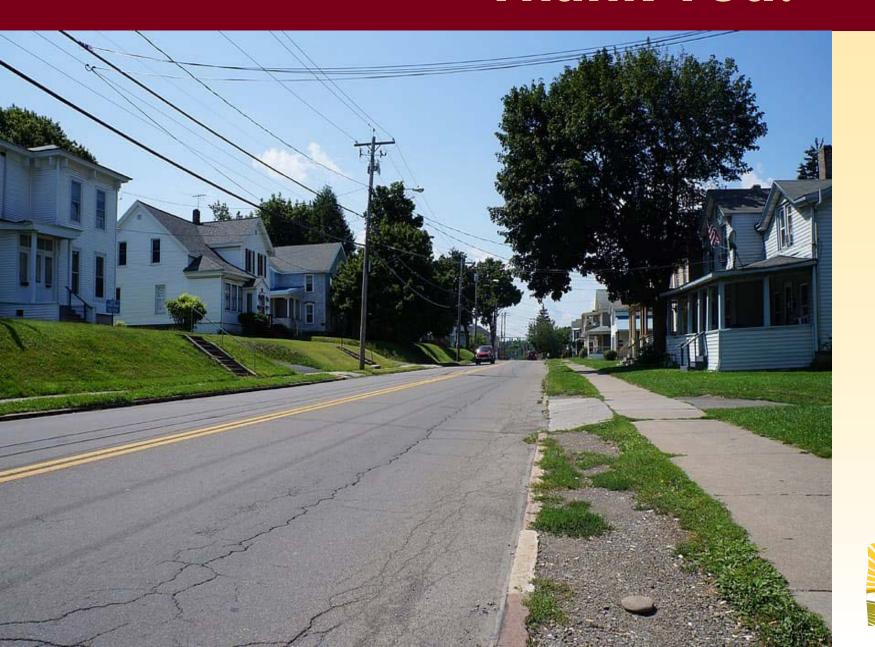


# Questions?





### **Thank You!**



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