Flipping The Script: Re-Identifying Rural Values as Opportunities to Prevent Suicide
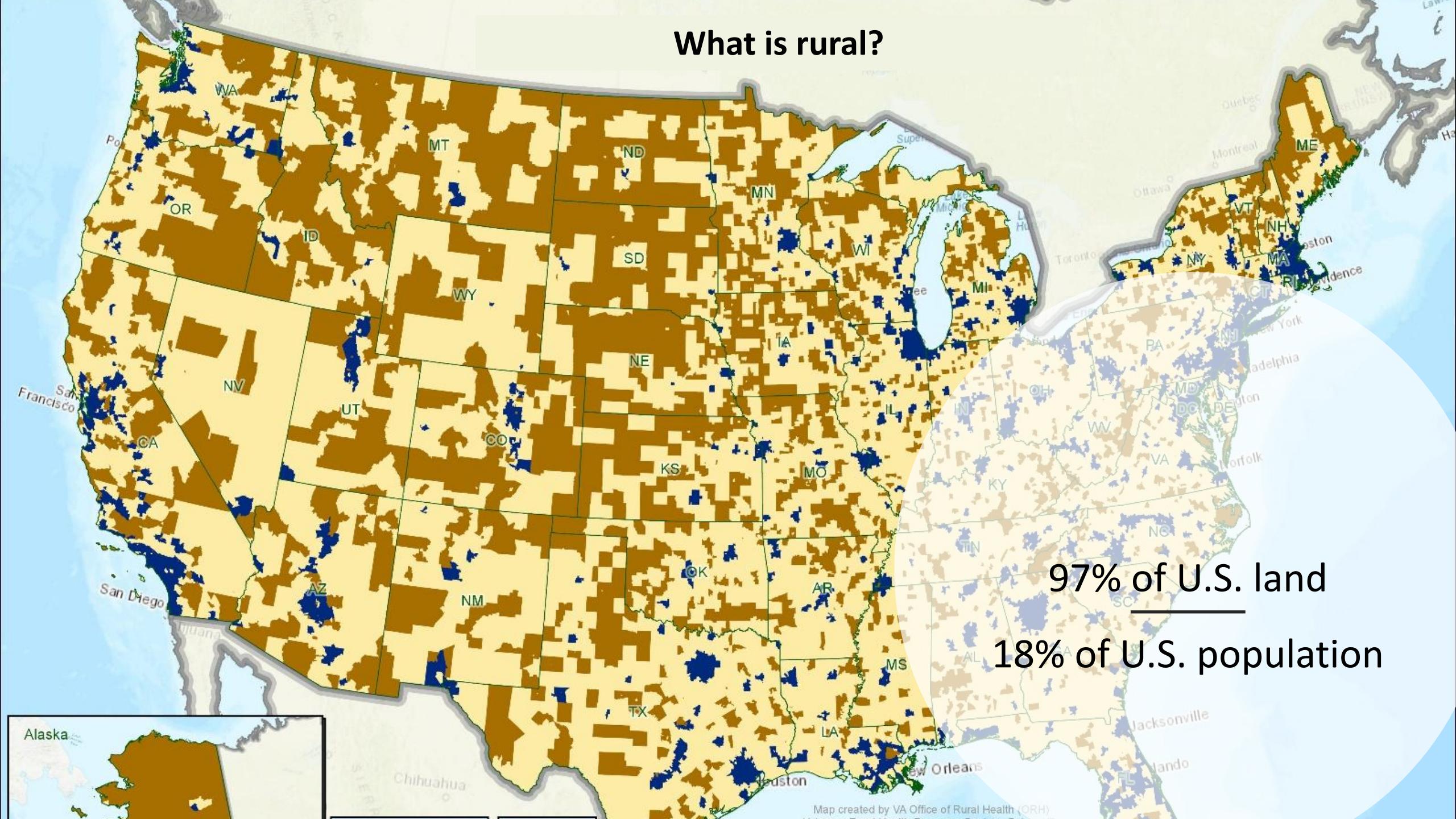
Nathaniel Mohatt, PhD

Assistant Professor, Physical Medicine and Rehabilitation

University of Colorado Anschutz Medical Campus, Aurora, CO

March 2, 2022

What is rural?

97% of U.S. land
―――――
18% of U.S. population

The Rural U.S. is Diverse

Rural Stereotypes[1]

- Open country

- Agriculture economy (or other extraction industry, e.g., mining, fishing, logging)

- White

- Uneducated

Rural Realities[1]

- Range of rurality from frontier to large towns.

- Agriculture accounts for less than 1% of rural jobs today
  - Other large sectors: retail, tourism and outdoor recreation, healthcare, education
- Cultural diversity of the rural U.S. is growing

Socio-Economic

- Higher percentage of individuals living below the poverty line

- Lower college graduation rates

- Higher rates of combined social and economic disadvantage

- Majority of wealth generated by rural economic activity goes to benefit urban areas and residents

Rural Life: The Challenges

- Workforce shortages in health care and behavioral health

- Rural primary care providers report being less prepared to manage suicidal patients

- Rural residents in need are less likely to receive mental health or substance use treatment

- Rural residents are less likely to have health insurance

- National and state policies and programs are largely designed for urban settings

Rural Life: The Challenges

Rural Life: The Challenges

Health

- Rural residents are more likely to report fair to poor health

- Higher rates of significant health issues

- Greater rates of isolation

Rural Suicide in the U.S.[12]

- Rural suicide increased 48% from 2000-2018

- Rural suicide rates are higher than urban (19.4 vs. 13.4 per 100,000 in 2018)

- Firearms suicide deaths are more prevalent in rural vs urban areas.

Figure 1. Age-adjusted suicide rates, by urban–rural status: United States, 2000–2018
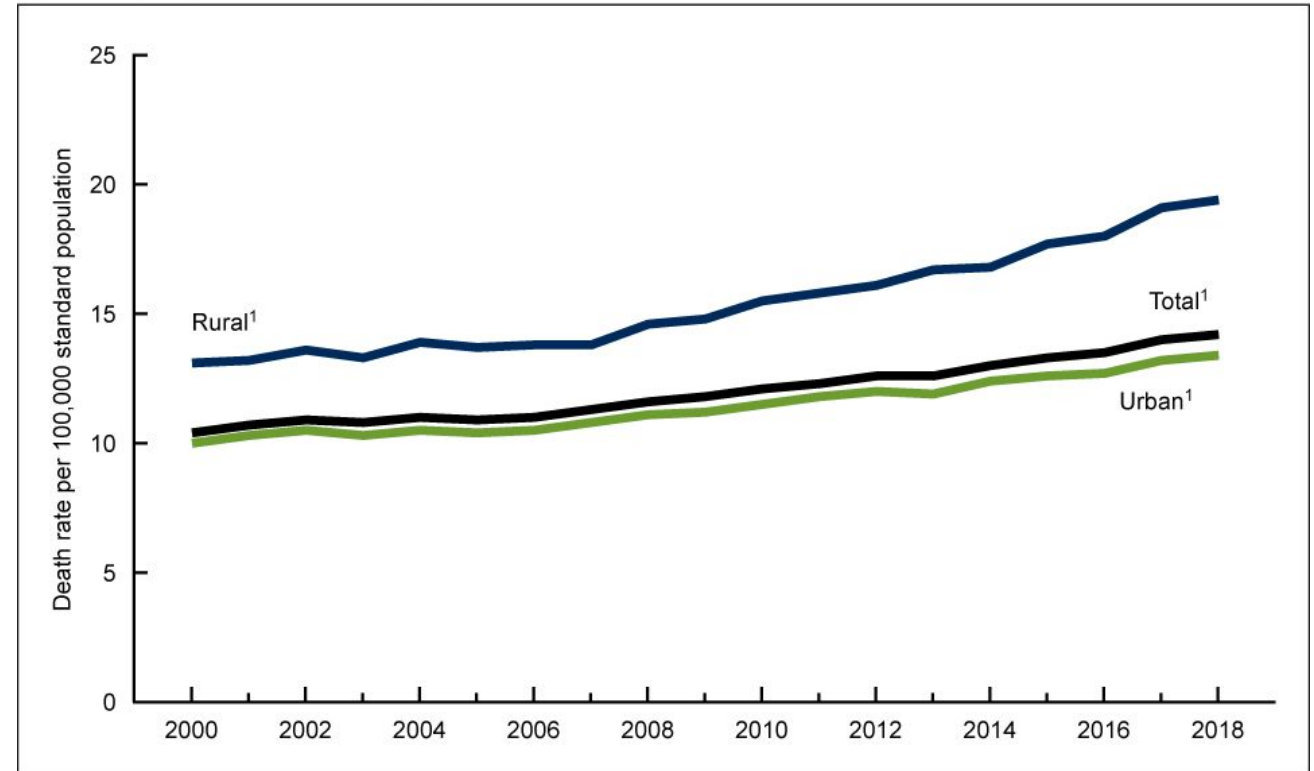
[1]Significant increasing trend from 2000 through 2018, with different rates of change over time; $p < 0.05$.
NOTES: Suicides in all ages are identified using the *International Classification of Diseases, 10th Revision* underlying cause-of-death codes U03, X60–X84, and Y87.0. Age-adjusted death rates are calculated using the direct method and the 2000 U.S. standard population. Classification of the decedent's county of residence is based on the 2013 NCHS Urban–Rural Classification Scheme for Counties, available from: https://www.cdc.gov/nchs/data/series/sr_02/sr02_166.pdf. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db373-tables-508.pdf#1.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Rural Suicide Risk Factors Around the World[3]

Geography
- Access to services, transportation, geographic Isolation

Cultural factors
- Stigma, Stoicism/Self-reliance

Economic
- Farm stress, poverty, area deprivation

Environmental
- Lethal means access, esp. firearms and pesticides

Interpersonal factors
- Social isolation -> Thwarted Belongingness

Physical and Mental Health
- Chronic health disparities, mental health disease burden

Suicide Risk Factors for Adults Living in the Rural U.S.

Use of firearms account for most of the rural-urban suicide disparity in the U.S.

Substance use, especially alcohol, is more often cooccurring with rural suicides.

Access to and quality of care disparities are persistent in the rural U.S.

Financial and economic factors contribute to suicide risk, but may not contribute significantly the rural disparity.

Fewer studies and lower evidence quality for factors at the outer levels of social ecology.

Some existing promising practices have shown positive effects on suicide outcomes in rural communities

- Suicide Prevention Toolkit for Rural Primary Care Practices[10]

- Gatekeeper Training (e.g., QPR,[11,12] MHFA[13,14])

- Sources of Strength[15,16]

- Suicide prevention in rural Native American communities (e.g., White Mountain Apache, Quungasvik, PC CARES, Zuni Life Skills)

Most best practices have not been examined relative to rural needs

How do you reduce the role of firearms in rural suicide?

How do you effectively overcome cultural and systemic barriers to care?

What combination of strategies are needed for rural communities to population-level reduce suicide rates?
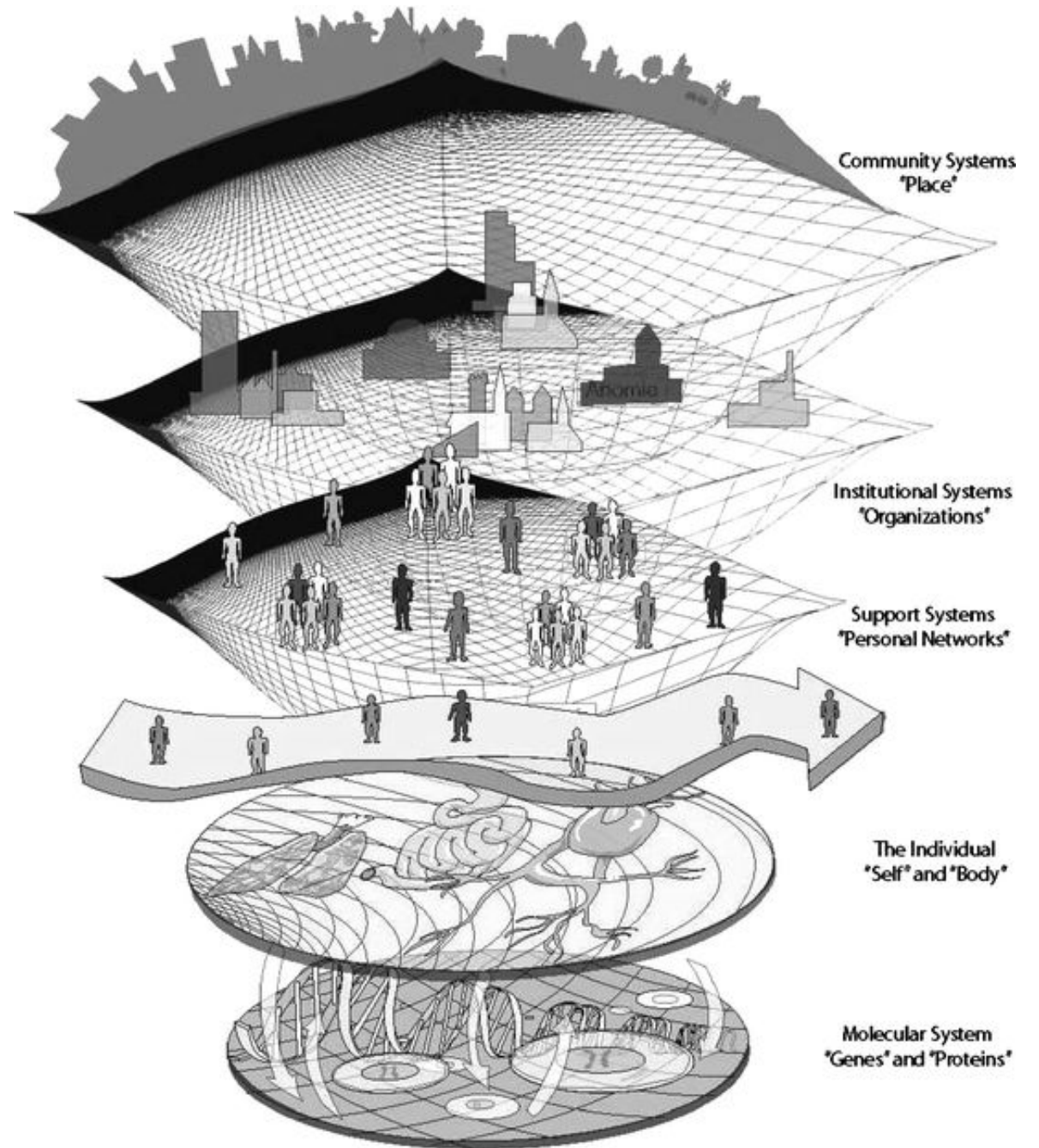
So, what can we do?

Health behaviors (e.g., help-seeking, peer intervention, safe firearms storage) occur in relation to both social <u>and</u> community systems.

Singer, M. K., Dressler, W., George, S., Baquet, C. R., Bell, R. A., Burhansstipanov, L., ... & Gravlee, C. C. (2016). Culture: The missing link in health research. *Social science & medicine*, *170*, 237-246.

Pescosolido, B. A. (2011). Social network influence in mental health and illness, service use and settings, and treatment outcomes. The Sage handbook of mental health and illness, 512-536.

Community Systems
"Place"

Institutional Systems
"Organizations"

Support Systems
"Personal Networks"

The Individual
"Self" and "Body"

Molecular System
"Genes" and "Proteins"

[Somewhat Ridiculous] Examples of Rural Risk Reduction Approaches to Suicide Prevention

Rural Social System

Risk Factor
- **Social norms** of self-reliance and toughness

How do we "fix" norms?
- Do we reduce peoples' independence and self-reliance?

Rural Institutional System

Risk Factors
- Health care **workforce** shortages

How do we "fix" the workforce?
- Can we pay rural providers more than urban?

Rural Community (Place)

Risk Factors
- Geographic **isolation** increases social isolation

How to we "fix" isolation?
- Do we create moving incentives to live in town?

[More Acceptable, but Still Insufficient] Rural Risk Reduction Approaches to Suicide Prevention

Rural Social System

Risk Factor
- **Social norms** of self-reliance and toughness

How do we "fix" norms?
- Conduct public awareness campaigns to convince people to seek help for mental health challenges.

Rural Institutional System

Risk Factors
- Health care **workforce** shortages

How do we "fix" the workforce?
- Provide training to health care providers on screening for suicide.

Rural Community (Place)

Risk Factors
- Geographic **isolation** increases social isolation

How to we "fix" isolation?
- Provide free first-come first-serve transportation to weekly events

What if our science of risk has gotten rural people and communities all wrong?

Two challenges posed by attending only to risks:

1. Many realistic solutions are only partial because many community-level factors are not malleable and potentially unethical for an intervention to try to change. For example:
   - You cannot change a region's geography
   - Changing cultural values will likely be viewed as unethical and offensive.
2. Increasing protective factors has bee shown to have larger effects on reducing suicide rates in the population.

Qualitative research to identify rural strengths and protective factors

|	Frequency	Participants	Method	Analysis
SWOT	1x at program start	20-30 Community Partners	Facilitated meeting	Content Analysis
Community Readiness	3x (start, middle, end)	4-6 community leaders from different sectors	Focus Group	Content Analysis Narrative Inquiry
Key Informant Interviews	3x (start, middle, end)	3-5 community TWV leaders	Interview	Content Analysis Narrative Inquiry
Post-Implementation Site Debrief	1x approximately 6 months after program end	Local TWV Steering Committee	~3 virtual meetings and 1 site visit	Content Analysis Narrative Inquiry

Strengths In Rural Communities

Land
- Resources
- Recreation
- Peace/Quiet

People
- Resilience
- Social capital
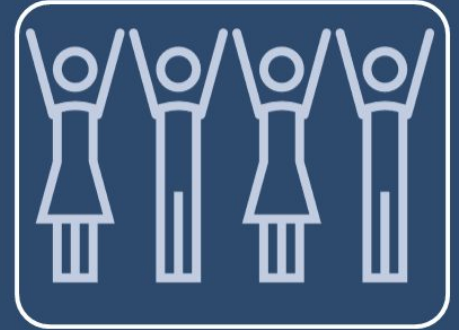
Culture
- Adaptive
- Collective agency

Land

- Peace and solitude
- Recreation

Peace & Solitude

"You move here because of the peace and solitude. I'm not much of a churchgoer, but I have my times. I have a spot that I park my pickup truck and I take the logging road into the mountain and I have a spot I go up there and I just sit. And there's a solitude that sets in that I can't explain. I'm not going to sit here and tell you that there is or is not a God, but there is some higher being to life."

Outdoor Recreation

"we're close to tourism, outdoor recreation, a national park. And at the same time, we have … large wildernesses that people can go hide in."

"You just get 10 miles outside of town, you're in it."

People

- Social capital
- Resilience

Social Capital - Interconnectedness

"And, you know, you develop friendships that last and you work in one of these places right out of high school and retired and he's 65. And, you know, those are bonds that short of death can't break. And there's so much of that in the area."

Social Capital – Access and Influence

"These are big cultural, conceptual issues that we're facing, not just one, not happening like in a microcosm of one person. I know it's really hard to… how do you change the culture in a community where the whole community has a vested interest to help this person? But it's really hard work. I think it happens slowly by raising awareness, [people] opening up, sharing their story with the community, having community buy-in. But this stuff takes time. I think it's easier to be in a rural community like this than a city. Just different. **I think with the local media and having not that much news they always, if we ask or say something going on, they're always there. So, that opportunity is always there too.**"

Resilience

"We're self-reliant, we don't like big government. We're distrusting of anybody from either Coast, especially California and New York and New Jersey... Because it's just the nature of the beast, only the strong survive in the wilderness and that's basically what we have going on here."

"And it's just sort of this rugged individualism and outdoor ethos, and sort of, you know, I can do this myself, I can take care of myself. People take pride in that a lot…"
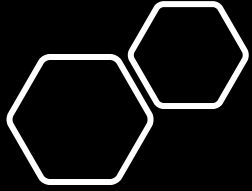
Complexity – Protection and Risk

"But I think that term, wild ass place, that applies to people too. The people that live here like to ride their snowmobile 20 miles into the wilderness and backcountry ski and mountain climb. And it's just sort of this rugged individualism and outdoor ethos, and sort of, you know, I can do this myself, I can take care of myself. People take pride in that a lot. And that's what makes the community great too, **it's a double-edged sword. But I think that also means that I can take care of my mental illness or I don't have a mental illness I'm just depressed or I'm just blue and I'll get over it. And then people don't seek out treatment** and they have easy access to firearms. Like easy access to firearms is going to be a big hurdle. "

Culture

- Collective agency
- Firearms

Collective agency – People help each other

"The population here is very generous. Everybody here that lives in this valley is at least volunteering for one thing or another, so it's a very high volunteer rate here. The bad part is, is that there's only so many people to go around."

"I know that the community is good about coming out and kind of helping people, usually solicited by an agency or some kind of effort."

Firearms

"We encourage people to reduce their access to firearms. The bigger key I found to start working with me is not addressing, you know, oh lock up your guns. It's hey, if you're going to go out and you're going to drink, lock your firearms up. Because you know, there's a higher … propensity for you to make poor decisions on alcohol and when you slow down your process to do that. I mean when you're drunk, that drunk, you don't have the capability to unlock a gun safe or find your key or whatever.

So to reduce that process. To stop somebody else from utilizing a firearm, you know, that drinking with or whatever. Just take it away from yourself and take that out of the possibility realm. And people are a lot more open to that.

When you address, hey when you're drinking and not let's take your guns and just lock 'em up completely. It's, do you carry a concealed weapon? Sweet. Awesome. Who doesn't? Who doesn't want to, you know? We encourage people to be able to do what they want to do if they want to do that. But when you are going to go drink, lock that gun up.

You can unlock it the next morning and carry it again. But it doesn't need to be next to you while you're drinking."

Flipping the Script for Rural Suicide Prevention

Rural Risk Factors

Rural Social System

Risk Factors
- Self-reliance
- Stigma
- Social isolation / loneliness

Rural Institutional System

Risk Factors
- Healthcare workforce shortages
- Less prepared healthcare workforce
- Economic distress

Rural Community (place/environment)

Risk Factors
- Geographic isolation
- Limited transportation
- Access to firearms
- Poverty

Rural Protective Factors

Rural Social System	Rural Institutional System	Rural Community (place/environment)
Protective Factors	**Protective Factors**	**Risk Factors**
• Self-reliance -> **resilience** • Self-reliance -> **collective agency** • Social connections -> **social capital**	• Collective agency -> **volunteerism** • Social capital -> **access to influence systems**	• Geography -> **Peace and quiet** • Geography -> **Outdoor recreation**

Rural Protective Factor-Based Prevention

Rural Social System

Prevention Ideas
- Identify the positive/protective components of rural resilience and teach them to rural youth (See Quungasvik)
- Identify isolated people through people's social networks and conduct check-ins (See Buddy Checks systems by Veterans)

Rural Institutional System

Protective Factors
- Train lay people to be effective advocates for policy and systems changes (See Communities Mobilizing for Change on Alcohol)
- Train lay people as trainers in suicide prevention for health care systems (See Veterans Coalition of Northwest Montana's work with healthcare)

Rural Community (place/environment)

Risk Factors
- Expand local recreation opportunities with a focus on identifying and recruiting socially isolated individuals to participate in group outdoors pursuits

Protective Factors Prevention Example: Veterans, peer networks, trust, and firearms

There are many veterans in northwest Montana, and research suggests that Veterans are one of the most trusted messenger groups for talking about firearms safety. Additionally, rural communities have strong social networks and a culture of self reliance.

Therefore, firearms safety messages for suicide prevention can be effectively delivered through rural Veteran networks. And the content of the message may be most effective if it supports individual agency, that is, taking care of oneself.

Questions?

nathaniel.mohatt@cuanschutz.edu