

What Makes a Research Question or Research Project “Rural”?

The RTT Collaborative Annual Scholarly Intensive for Rural Programs
January 21, 2022

Davis Patterson, PhD

WWAMI Rural Health Research Center

Collaborative for Rural Primary care Research, Education, and Practice (Rural PREP)

University of Washington School of Medicine

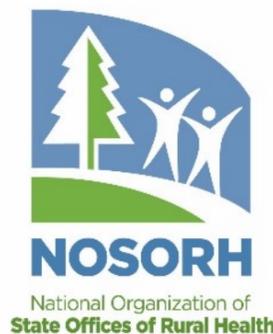


WWAMI Rural Health Research Center

- Mission: Improve and sustain rural health through research that engages policymakers, planners, and practitioners advancing equity in rural access to care.
- Focus areas: rural health workforce, access to high quality care
 - Primary care
 - Rurally relevant specialties
 - Behavioral health
 - Home health
 - Out-of-hospital emergency care
 - Cancer
 - OB care
 - Other topics



Collaborative for Rural Primary care Research, Education, and Practice



Preparing for rural practice



Advancing Health in America

...to improve and sustain rural health through community engagement and research in rural primary care health professions education.



Roadmap

- What makes a health research project “rural”?
- What is “rural”?
- Resources

Health research

Population health	
Public health	
Health services delivery	

Health research

Population health	Environment, systemic/structural factors, behaviors, resources – e.g., <ul style="list-style-type: none">• policies• finances• physical infrastructure• human resources for health (workforce)• organizational behavior• attitudes
Public health	
Health services delivery	

An aerial photograph of a vast, rolling landscape. The foreground and middle ground are dominated by vibrant yellow fields, likely rapeseed, interspersed with patches of green grass and clusters of dark evergreen trees. The terrain is undulating, with gentle slopes and valleys. In the distance, the landscape fades into a hazy blue horizon under a clear sky with a few wispy clouds. A pine branch is visible in the bottom right corner, partially obscuring the view.

**What elements are necessary to make a
health research question or project
“rural”?**

Potential “rural” research criteria

Is it...	Necessary?	Sufficient?
Who does the research?		
Population studied?		
Topic of study?		
Appropriate methods ?		

Who does the research?



Menu



Research Spotlights

INVESTIGATE • INNOVATE • EDUCATE

Can AI Ensure Patients Get Reliable Medical Information?

Dartmouth Institute student-researchers are developing a machine-learning model to evaluate and improve patient education materials

MORE ONGOING WORK



Evaluating the

Leadership



Davis Patterson, PhD Research Associate Professor, Family Medicine Director – WWAMI Rural Health Res Collaborative for Rural Primary care Research, Education, and Practice (Rural PREP) [Profile](#)



Holly Andrilla, MS Research Scientist Deputy Director – WWAMI Rural Health Research Center, Investigat Primary care Research, Education, and Practice (Rural PREP) [Profile](#)

Research Team

Faculty



David Evans, MD Associate Professor and Rosenblatt Family Endowed Professor in Rural Health, Director Investigator – WWAMI Rural Health Research Center [Profile](#)



Eric H. Larson, PhD Research Professor, Investigator – WWAMI Rural Health Research Center [Profile](#)



Tracy Mroz, PhD, OTR/L Assistant Professor – Rehabilitation Medicine, Investigator – WWAMI Rural Health

Population studied?



“Can’t see the forest”



“Add rural and stir...”

Is it the topic?

Almost Rural

- Research topics students/residents proposed for Rural PREP/RTT Collaborative microresearch projects:
 - Point of care lead level testing – effect on patient outcomes
 - Cooking / healthy lifestyles / social and emotional learning curricula – impact on participants
 - Perceptions of barriers to care among patients from racial and ethnic minority backgrounds
 - Effect of COVID on patients with diabetes
- Need to conceptualize and specify the topic's rural angle.

Is it the method?

Rural methodological considerations

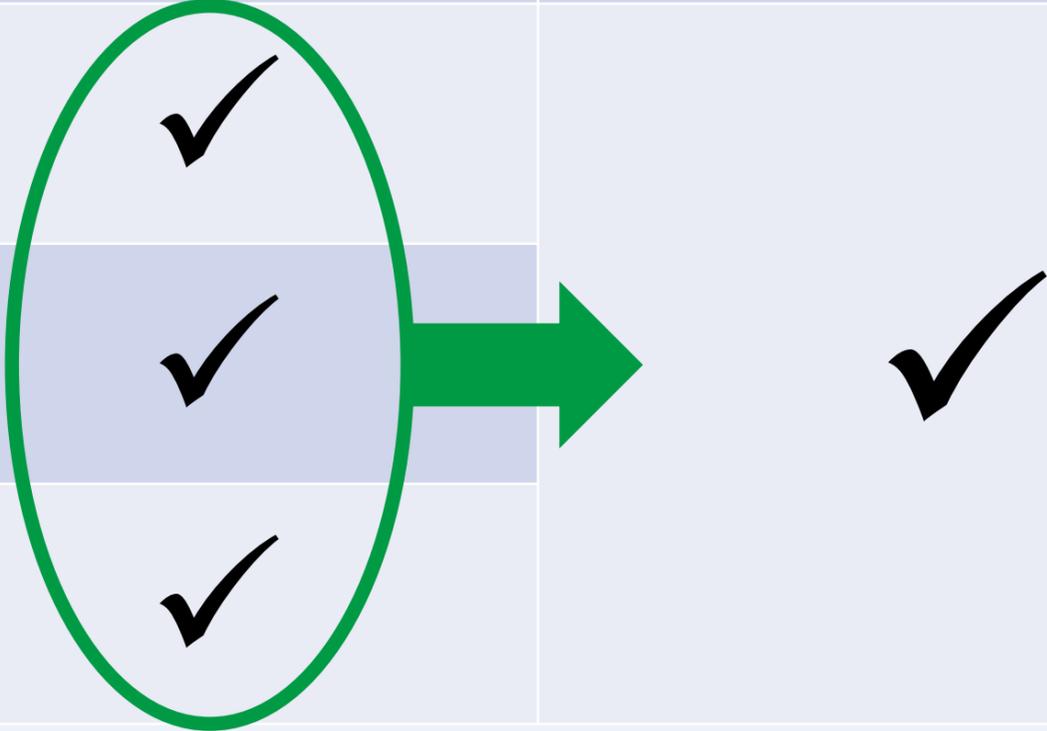
- Defining “rural”
- Urban comparison (implied or actual) and/or within rural comparisons
- Sample size, representativeness, and variability
- Culturally/technologically appropriate approaches
- Research “on” versus “in” and “with”
- Protecting privacy / confidentiality of individuals and communities
- Generalizability to other rural populations

Potential “rural” research criteria

Is it...	Necessary?	Sufficient?
Who does the research?	No	No
Population studied?	Yes	No
Topic of study?	Yes	No
Appropriate methods ?	Yes	No

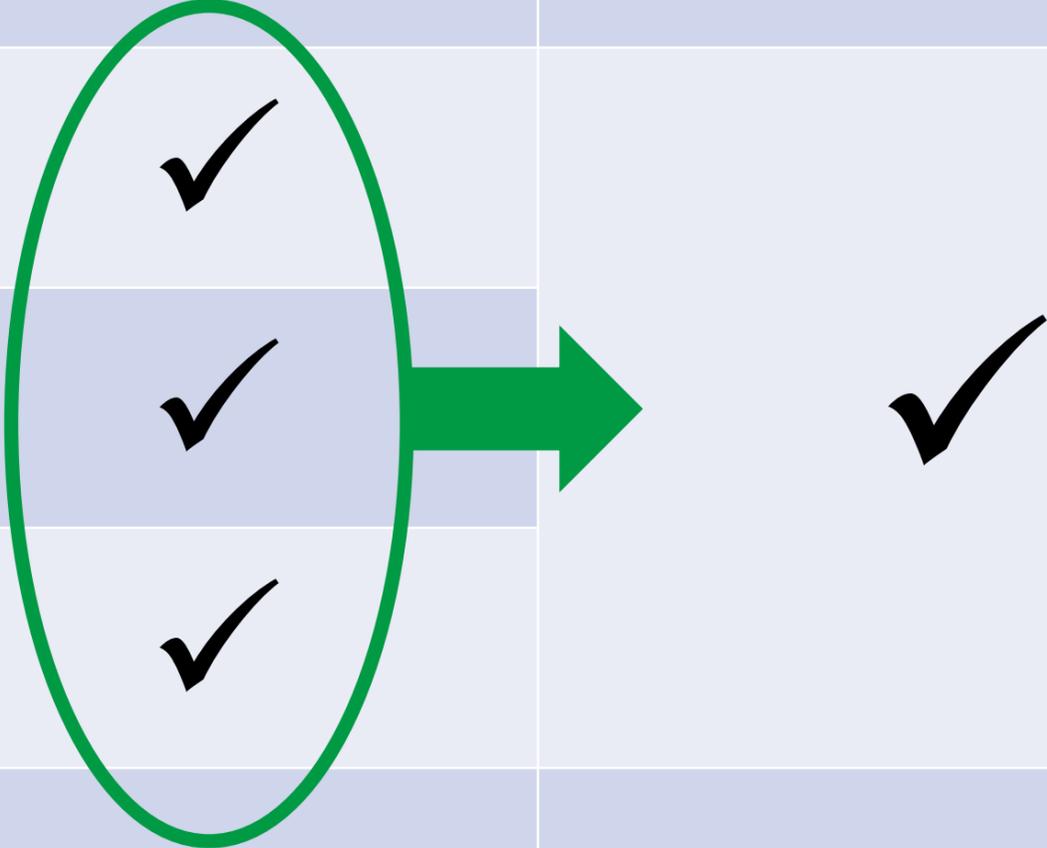
Potential “rural” research criteria

Is it...	Necessary?	Sufficient?
Who does the research?	No	No
Population studied?	✓	
Topic of study?	✓	✓
Appropriate methods?	✓	

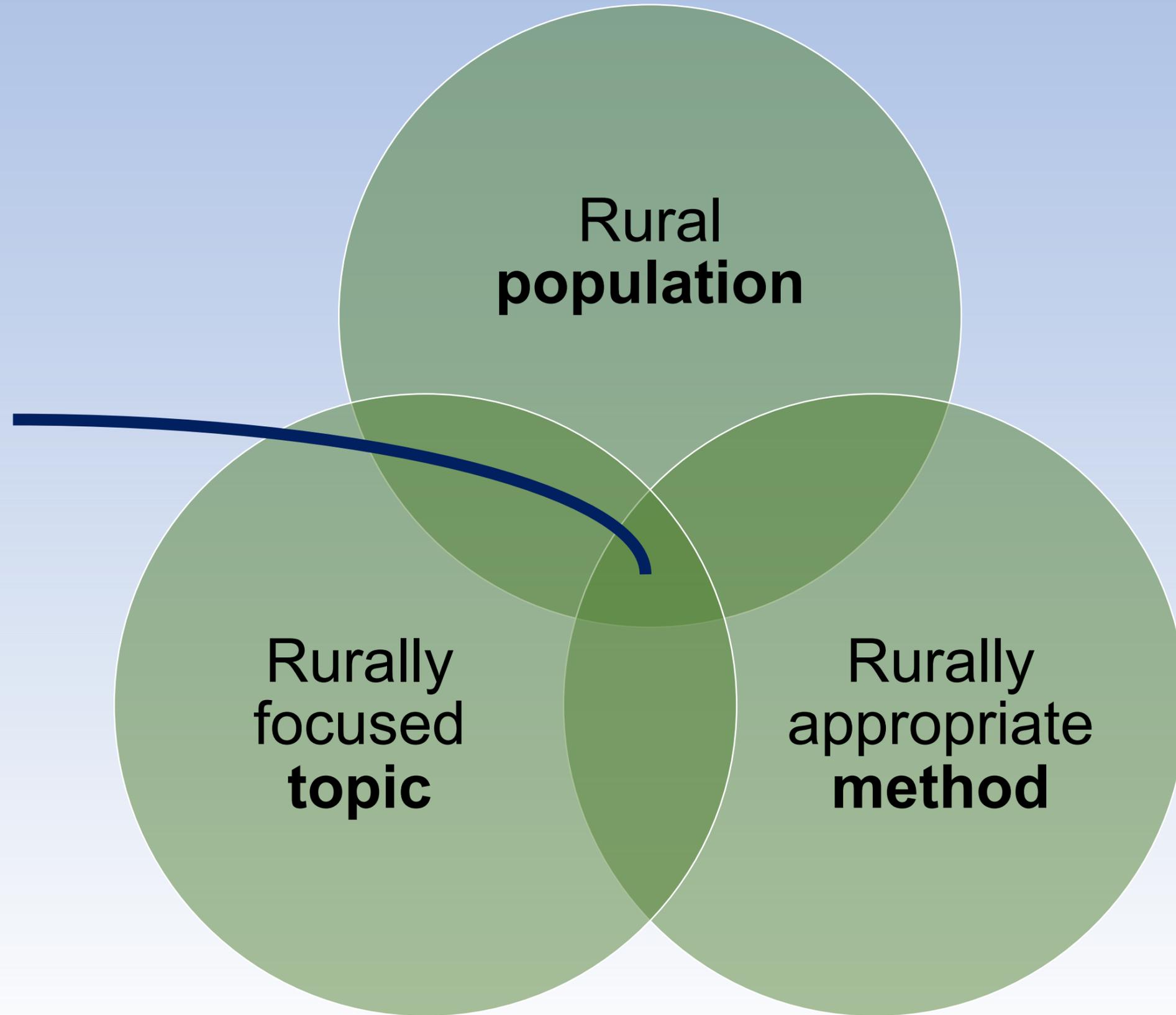


Potential “rural” research criteria

Is it...	Necessary?	Sufficient?
Who does the research?	No	No
Population studied?	✓	
Topic of study?	✓	✓
Appropriate methods?	✓	
Other?		



Rural
research



What is “rural”?



How to define “rural”?

- There is no one “right” definition. It depends on the research question.
- Whichever definition you choose can either over- or under-bound rural in some way.
- That choice will most certainly affect your findings.

Perception/identity-based measures

What best describes the type of place where you grew up?

Rural Suburban Urban

What is the population of the community where you reside?

... your EMS agency service area?

0-50,000 50,001-100,000 100,001-250,000 etc.

Do you consider yourself a “country” person? ...a “city” person?

Not a lot A little A great deal Absolutely

Rural identity predicts rural practice intent

Self-declared rural origin predicts medical students' intent to practice in a small city / town / rural area (as does rural high school county).

Defining Rural: The Predictive Value of Medical School Applicants' Rural Characteristics on Intent to Practice in a Rural Community

Andrea L. Wendling, MD, Scott A. Shipman, MD, MPH, Karen Jones, MAppStat, Iris Kovar-Gough, MA, MLIS, and Julie Phillips, MD, MPH

Abstract

Purpose

To understand the predictive value of medical student application characteristics on rural practice intent.

Method

The authors constructed a linked database of 2012–2017 medical school

MSQ and GQ intent to practice rurally. Rural practice intent from matriculation to graduation was compared using the McNemar test for paired nominal data.

Results

The number of students meeting inclusion criteria was 115,027.

Self-d
associ
intent
6.5–7
Rural
group

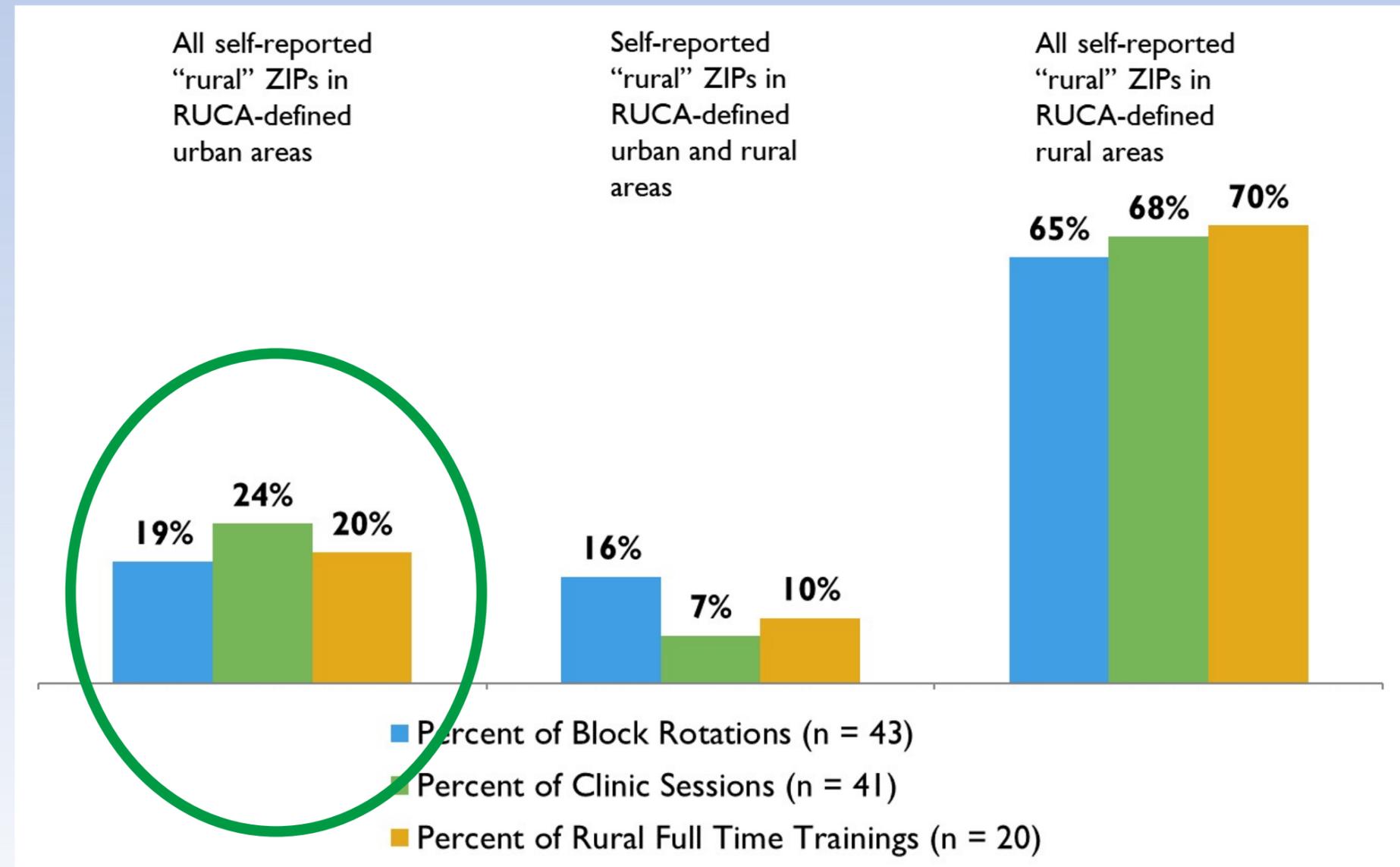
Conc

FM residencies' reported "rural" training locations

Do Residencies That Aim to Produce Rural Family Physicians Offer Relevant Training?

David V. Evans, MD; Davis G. Patterson, PhD; C. Holly A. Andrilla, MS; David Schmitz, MD; Randall Longenecker, MD

19%-24% of programs with a rural mission reported only **urban** ZIP codes (according to RUCAs) as "**rural**."





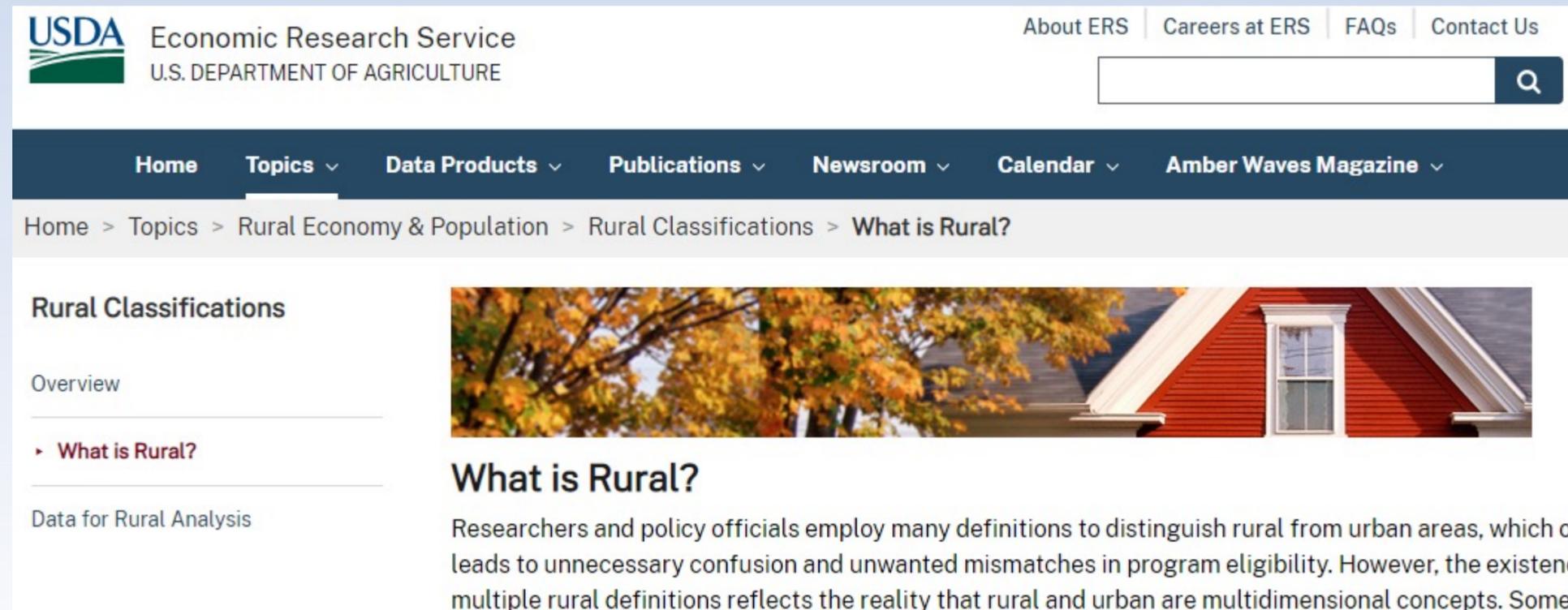
Health geography resources

Commonly-used standard geographic definitions

- Based on population size, density, geographic isolation and interdependence/functional relationships with other communities
- Commonly used federal definitions:
 - **UICs**: Urban Influence Codes (county-based)
 - **RUCCs**: Rural-Urban Continuum Codes (county-based)
 - CDC National Center for Health Statistics Urban-Rural Classification Scheme for Counties (county-based)
 - **RUCAs**: Rural-Urban Commuting Area codes (Census-tract-based; ZIP code approximation available)
 - **FORHP**: Federal Office of Rural Health Policy Definition (county and RUCA-based)
 - **FAR**: Frontier and Remote Codes (ZIP code approximation)

Resources

- USDA Economic Research Service
 - “What is Rural?” <https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural/>
 - Data for rural analysis: <https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/data-for-rural-analysis/>



The screenshot shows the USDA Economic Research Service website. The header includes the USDA logo, the text 'Economic Research Service U.S. DEPARTMENT OF AGRICULTURE', and navigation links for 'About ERS', 'Careers at ERS', 'FAQs', and 'Contact Us'. A search bar is located to the right of the header. Below the header is a dark blue navigation bar with links for 'Home', 'Topics', 'Data Products', 'Publications', 'Newsroom', 'Calendar', and 'Amber Waves Magazine'. The breadcrumb trail reads 'Home > Topics > Rural Economy & Population > Rural Classifications > What is Rural?'. The main content area is titled 'Rural Classifications' and includes a sidebar with 'Overview' and 'Data for Rural Analysis'. The 'What is Rural?' link is highlighted in red. The main article features a photograph of a red house with a white window and yellow autumn trees. The text of the article begins with 'Researchers and policy officials employ many definitions to distinguish rural from urban areas, which oft leads to unnecessary confusion and unwanted mismatches in program eligibility. However, the existence multiple rural definitions reflects the reality that rural and urban are multidimensional concepts. Someti

Rural Health Information Hub: “What is Rural?”

<https://www.ruralhealthinfo.org/topics/what-is-rural>

The screenshot shows the Rural Health Information Hub (RHIfhub) website. At the top left is the logo for RHIfhub, Rural Health Information Hub. To the right of the logo are links for 'Updates & Alerts', 'About RHIfhub', and 'Contact Us', along with social media icons for Facebook, LinkedIn, Twitter, and YouTube. Below the logo is a search bar with the text 'Search' and a 'Search' button. A navigation menu below the search bar includes 'Online Library', 'Topics & States', 'Rural Data Visualizations', 'Case Studies & Conversations', and 'Tools for Success'. The main content area shows the breadcrumb 'Rural Health > Topics & States > Topics' and the title 'What is Rural?'. Below the title are two columns of links: 'On This Page' with 'Overview' and 'FAQs', and 'More in This Topic Guide' with 'Resources', 'Organizations', and 'About This Guide'. A paragraph below the links begins with 'Rural is an inexact term that can mean different things to different people, organizations, and governments. Trying to define "rural" is a challenging task in a nation of diverse...'. On the right side of the page is a 'RHIfhub This Week' newsletter sign-up box with an email input field and a 'Subscribe' button. Below the sign-up box is the text 'Custom alerts also available'.

American Journal of Public Health, 2005

Rural Definitions for Health Policy and Research

The term "rural" suggests many things to many people, such as agricultural landscapes, isolation, small towns, and low population density.

However, defining "rural" for health policy and research purposes requires researchers and policy analysts to specify which aspects of rurality are most relevant to the topic at hand and then select an appropriate definition. Rural and urban taxonomies often do not discuss important demographic, cultural,

| L. Gary Hart, PhD, Eric H. Larson, PhD, and Denise M. Lishner, MSW

THE UNITED STATES HAS

evolved from a rural agricultural society to a society dominated by its urban population. Depending on which definition is used, roughly 20% of the US population resides within rural areas. Approximately three fourths of the nation's counties are rural, as is 75% of its landmass. While the rural population is in the minority, it is the size of France's total

periences. The term suggests pastoral landscapes, unique demographic structures and settlement patterns, isolation, low population density, extractive economic activities, and distinct sociocultural milieus. But these aspects of rurality fail to completely define "rural." For example, rural cultures can exist in urban places.¹ Only a small fraction of the rural population is involved in farm-

ately to the situation at hand can we discern differences in health care concerns and outcomes across rural areas and between rural and urban locales. The definition of rurality used for one purpose may be inappropriate or inadequate for another.¹

WHEN IS RURAL NOT SO RURAL?

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1449333/>

Journal of Environmental and Public Health, 2013

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697777/>

Research Article

The Utility of Rural and Underserved Designations in Geospatial Assessments of Distance Traveled to Healthcare Services: Implications for Public Health Research and Practice

Matthew Lee Smith,^{1,2} Justin B. Dickerson,³ Monica L. Wendel,⁴ SangNam Ahn,⁵ Jairus C. Pulczynski,² Kelly N. Drake,⁶ and Marcia G. Ory²

Rural Policy Research Institute (RUPRI), 2020

<https://rupri.public-health.uiowa.edu/publications/policypapers/Considerations%20For%20Defining%20Rural%20Places.pdf>

CONSIDERATIONS FOR DEFINING RURAL PLACES IN HEALTH POLICIES AND PROGRAMS

*Prepared by the
RUPRI Health Panel -*

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May 2020

Medical Care, 2021

Comparison of 8 federal definitions

ORIGINAL ARTICLE

OPEN

Which Definition of Rurality Should I Use?

The Relative Performance of 8 Federal Rural Definitions in Identifying Rural-Urban Disparities

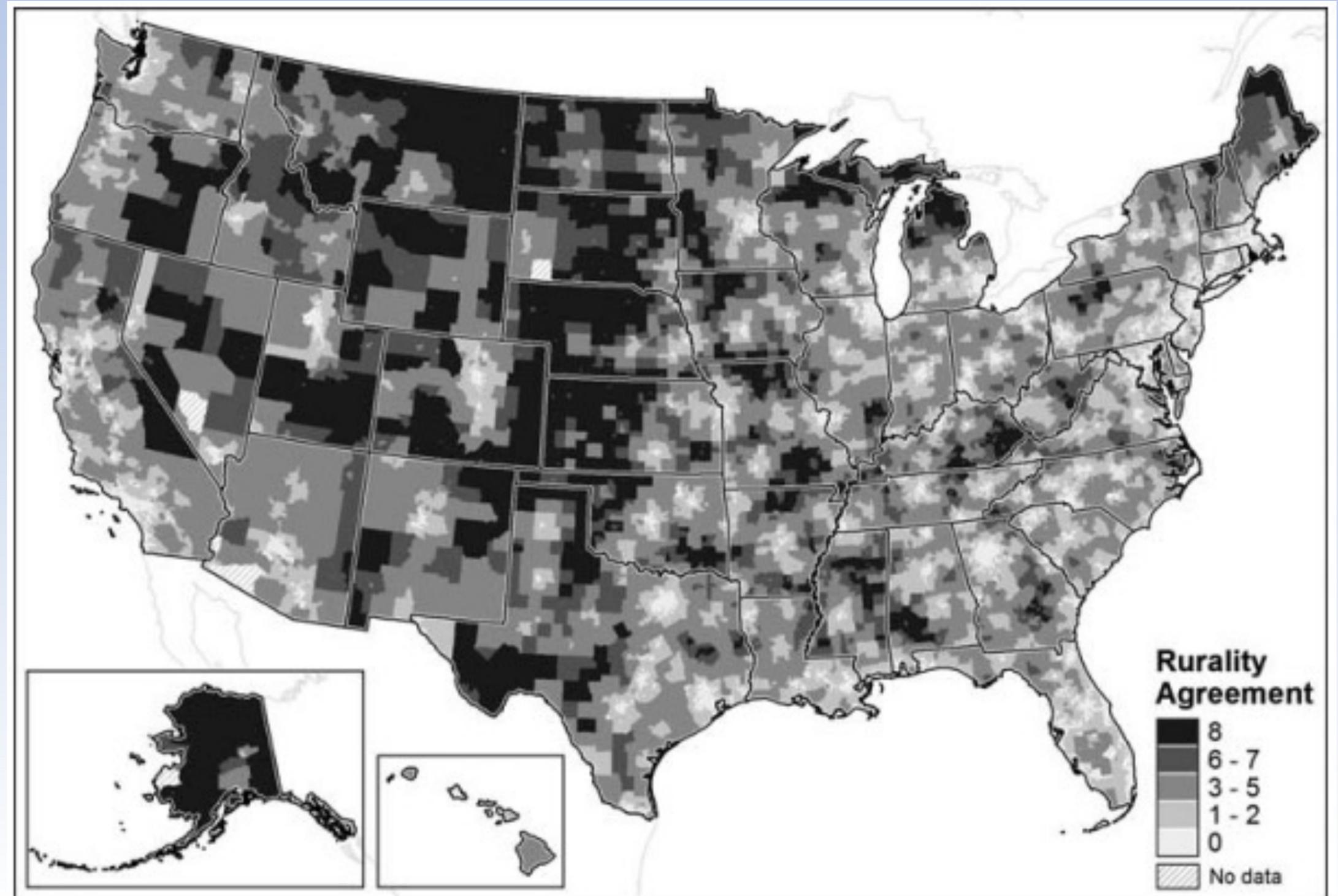
Julianna C. Long, BSPH,† Paul L. Delamater, PhD,†‡ and George M. Holmes, PhD*†*

- Article: https://journals.lww.com/lww-medicalcare/fulltext/2021/10001/which_definition_of_rurality_should_i_use_the.4.aspx
- Webinar: “Which Rurality Definition?...”: <https://www.healthworkforceta.org/media-library/which-rurality-definition-the-relative-performance-of-8-federal-rural-definitions-in-identifying-rural-urban-disparities/>

Rurality agreement among 8 federal definitions

Rural population ranges from ~10 million to ~75 million, depending on definition!

Long et al. 2021.
Which definition of rurality should I use....



Challenge:

Measuring rurality of health care organizations

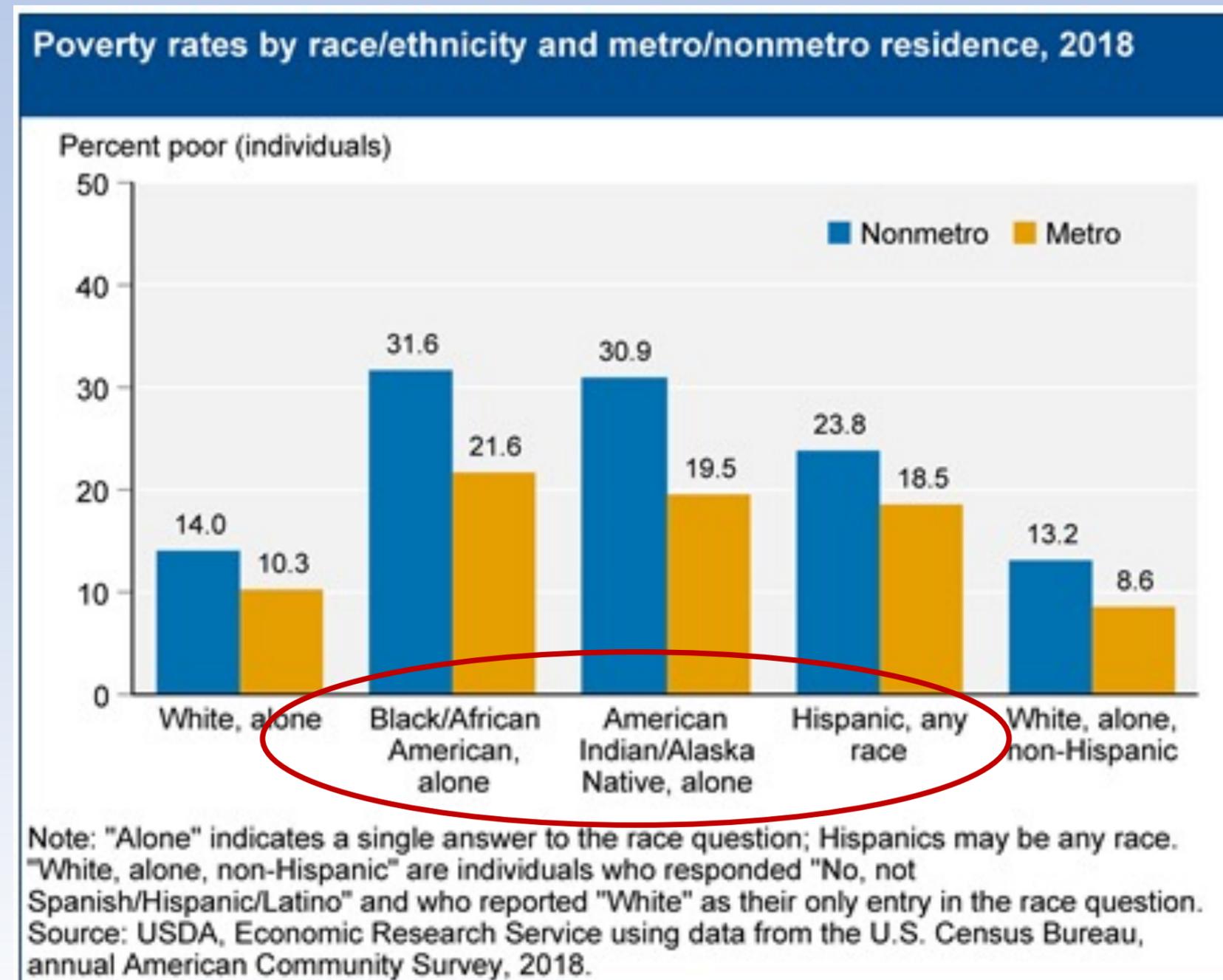
- Even if we use standard definitions, we have to decide **how** to use them.
- Example: In organizational research (where the organization is the unit of analysis), how to classify rurality of service or catchment areas?
 - Mobile health care: EMS and home health agencies
 - Large multi-site systems
- “Rural-serving” is sometimes the best way to describe.



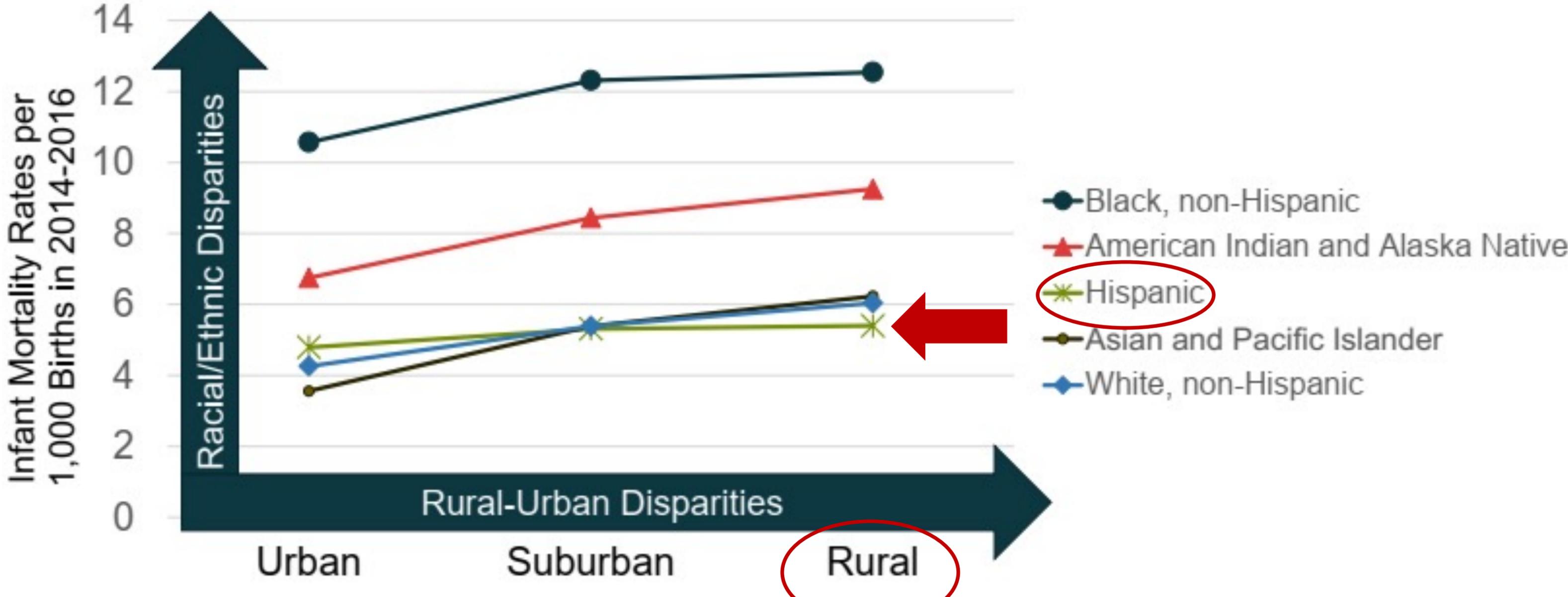
Rural diversity, intersectionality, and health equity

- Health equity requires us to think about different types of rural places and different populations within rural places.
- Do both a rural/urban comparison and intra-rural comparisons if possible.
- Incorporate intersectionality at all stages of a project:
 - rural subpopulations: race, ethnicity, gender identity, region, sexual orientation, age, ability, religion, education, income...
- Go beyond documenting disparities from a deficit perspective to include solutions, strengths, resilience, lessons rural can offer to other communities.

Higher rural poverty – especially for Black, Indigenous, and Hispanic populations



RACE/ETHNICITY AND LOCATION BOTH MATTER FOR INFANT MORTALITY RATES



Womack LS, Rossen LM, Hirai AH. Urban-Rural Infant Mortality Disparities by Race and Ethnicity and Cause of Death. Am J Prev Med. 2020 Feb;58(2):254-260. doi: 10.1016/j.amepre.2019.09.010. Epub 2019 Nov 15. PMID: 31735480; PMCID: PMC6980981.

Rural Health Information Hub

<https://www.ruralhealthinfo.org/>

The screenshot shows the Rural Health Information Hub website. At the top left is the RHIhub logo with the text "Rural Health Information Hub". To the right are links for "Updates & Alerts", "About RHIhub", and "Contact Us", along with social media icons for Facebook, LinkedIn, Twitter, and YouTube. Below this is a search bar with the text "Search" and a "Search" button. A dark red navigation bar contains the following menu items: "Online Library", "Topics & States", "Rural Data Visualizations", "Case Studies & Conversations", and "Tools for Success".

The main content area shows a breadcrumb trail: "Rural Health > Topics & States > Topics". The article title is "Conducting Rural Health Research, Needs Assessment, and Program Evaluation".

On This Page

- [Overview](#)
- [FAQs](#)

More in This Topic Guide

- [Resources](#)
- [Organizations](#)
- [Funding & Opportunities](#)
- [News](#)
- [Events](#)
- [About This Guide](#)

Rural communities and healthcare facilities have limited resources to address many health-related needs. Research and needs assessments can help determine where and how resources may best be targeted, and program evaluations can indicate whether a particular intervention or approach works well in a rural context.

Rural stakeholders who understand the purposes of conducting research, needs assessments, and program evaluations, and who have the tools to undertake such activities, will be better positioned to focus their efforts where they will have the best result. Likewise, policymakers and funders who understand how to help rural communities by supporting rural health research, assessments, and evaluations can help build our nation's understanding of rural health needs and effective interventions to

RHIhub This Week

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FEATURED RESOURCE

Development of a Culturally Anchored Qualitative Approach to Conduct and Analyze Focus Group Narratives Collected in Diné (Navajo) Communities to Understand the Impacts of the Gold King Mine Spill of 2015

[view details](#)

For more than 30 years, the Rural Health Research Centers have been conducting policy-relevant research on healthcare in rural areas and *providing a voice for rural communities in the policy process.*



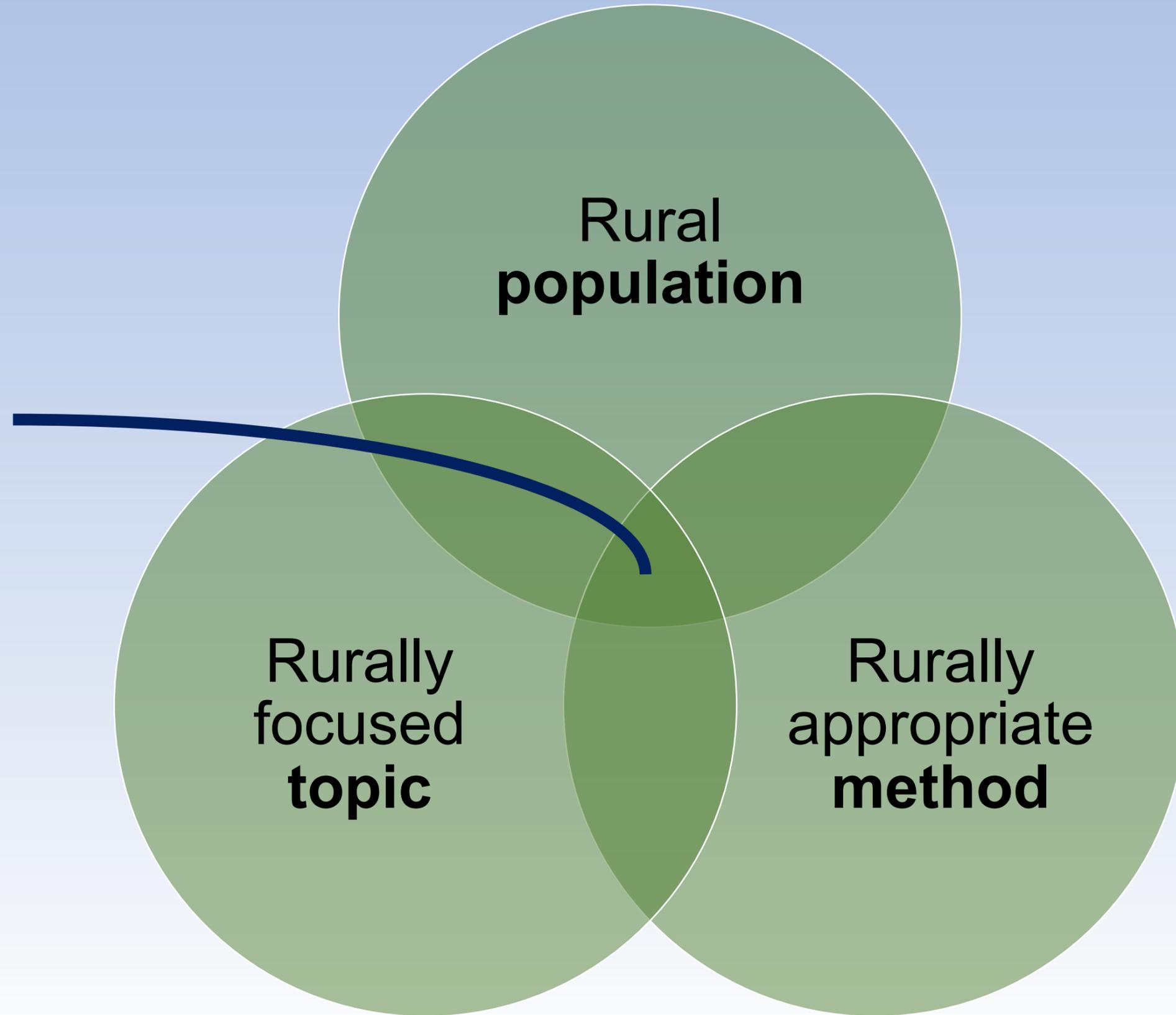
The Rural Health Research Gateway ensures this research lands in the hands of our rural leaders.

ruralhealthresearch.org

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Rural
research



Rural
population

Rurally
focused
topic

Rurally
appropriate
method

Connect

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WWAMI Rural Health Research Center

<http://depts.washington.edu/uwrhrc>

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UW Center for Health Workforce Studies

<https://familymedicine.uw.edu/chws/>

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