

# Hand on the plow:

## *Unaddressed disparities among rural minority populations*

**Jan Probst, PhD**

**Director**

**South Carolina Rural Health Research Center**

**May 8, 2018**



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# Overview

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- Modest progress in some areas
- Social determinants do not suggest improvement will continue
- Research and advocacy both needed

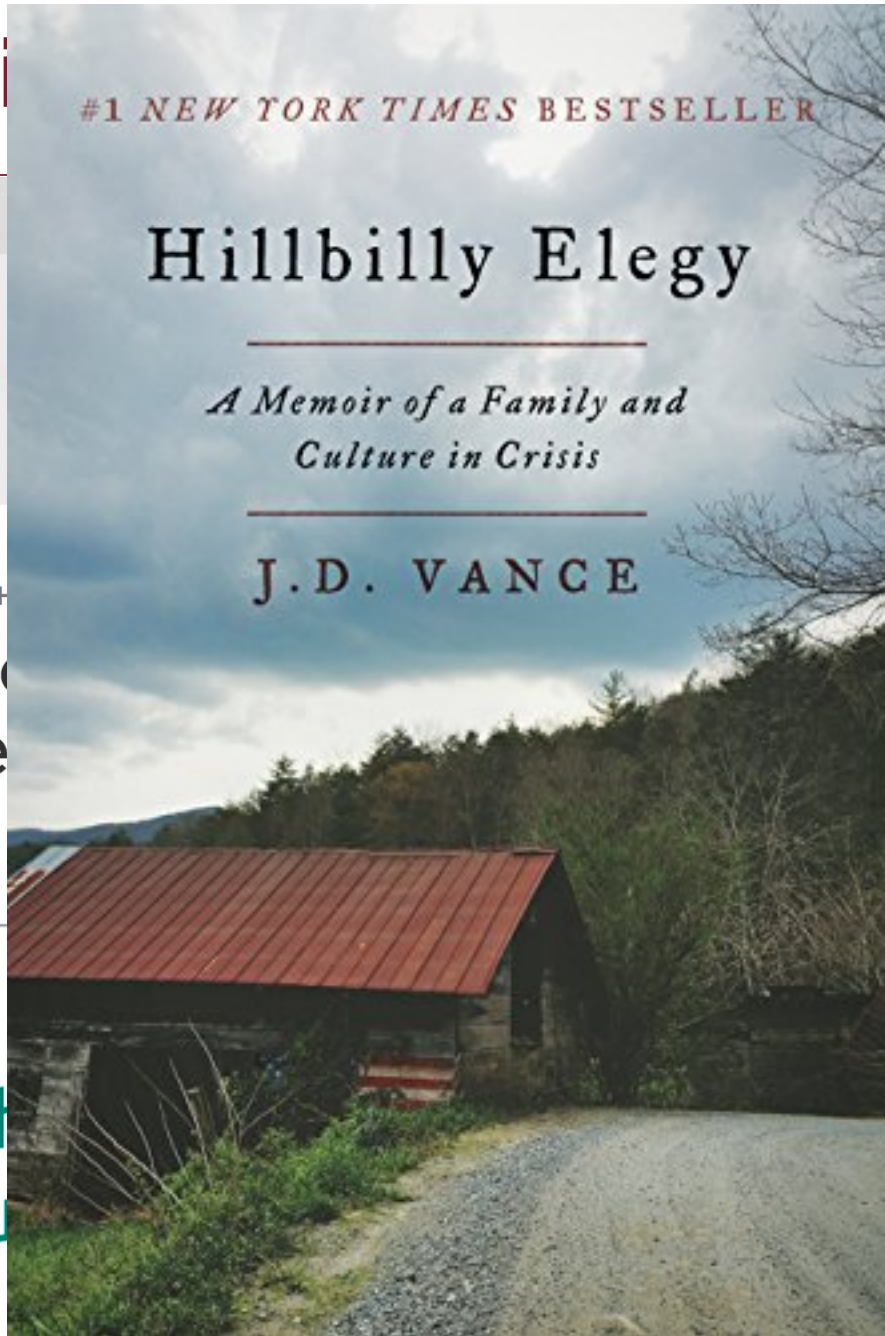
# SOAP Notes

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- Subjective
- Objective
- Assessment
- Plan

Subject

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something to do with the 2016 presidential election, at least with many of us trying to understand why the vote went the way that it did. How many of



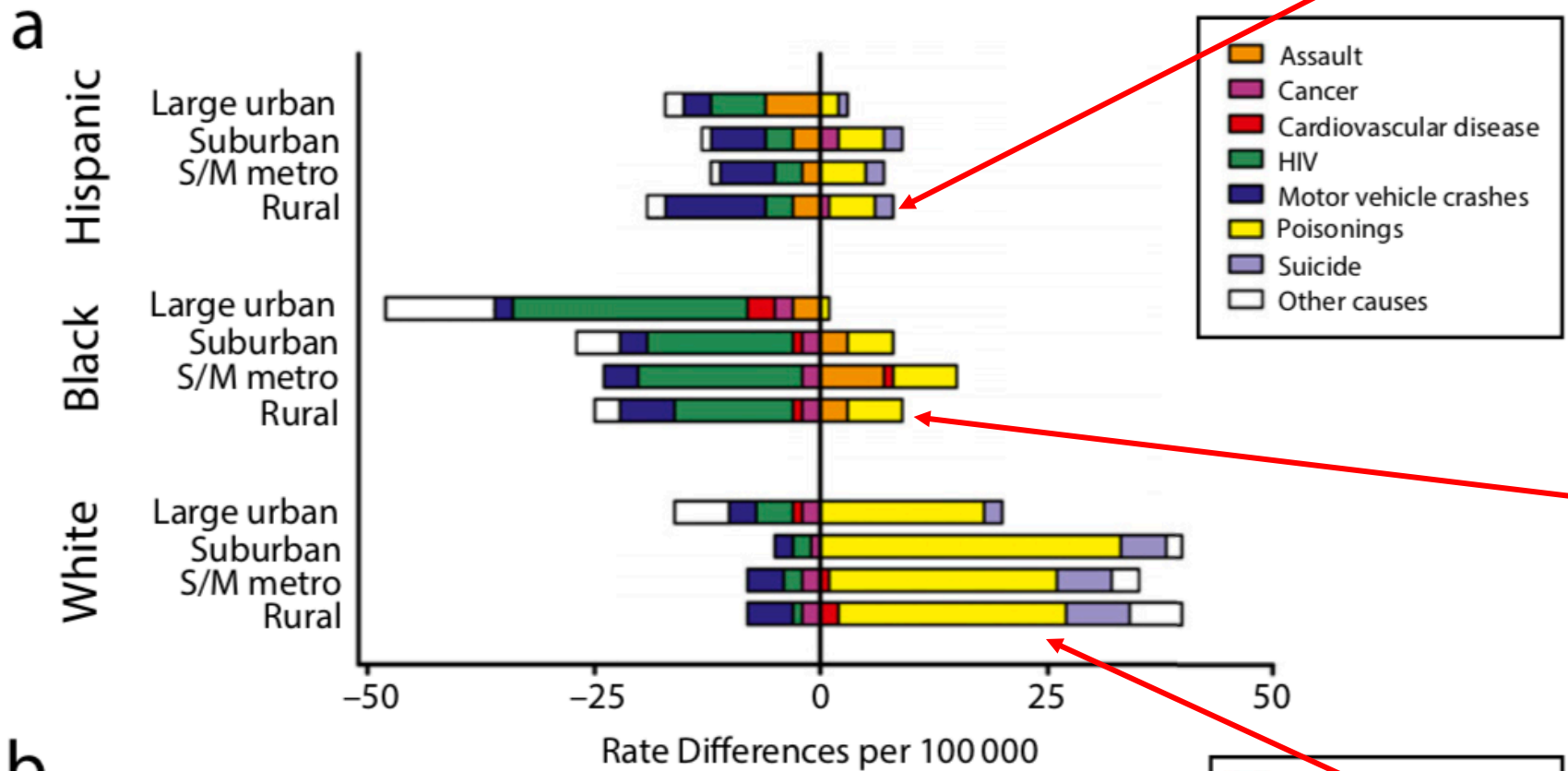
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# “Epidemic of Despair...”

Change in Causes of Death, 1999-2001 to 2013-2015, Ages 25-34



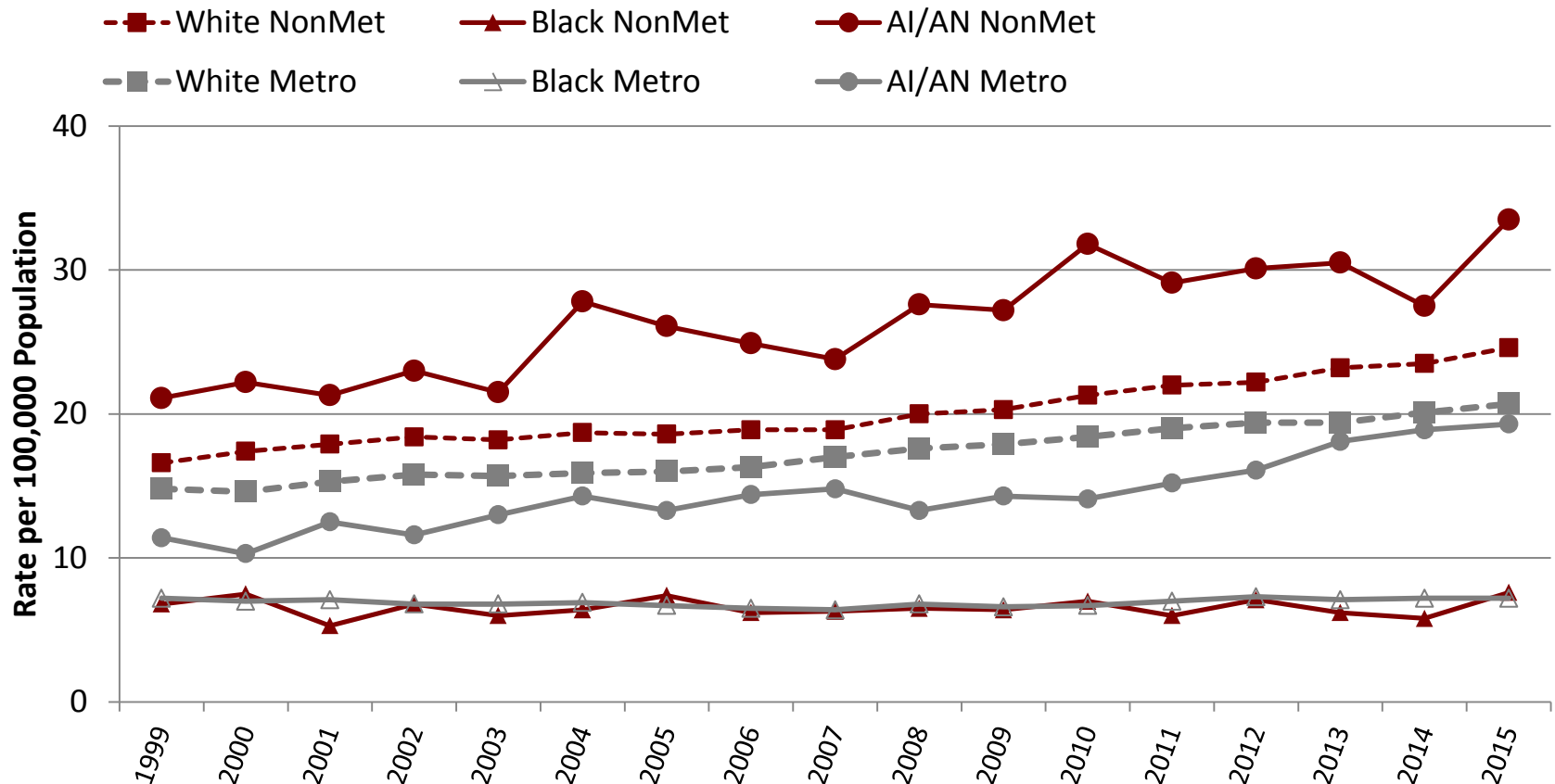
# Objective

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- “Despair” may be the diagnosis *du jour*...
- The data illustrate *consistent* disparities experienced by rural and minority populations
  - ◆ Death rates
  - ◆ Adverse health conditions

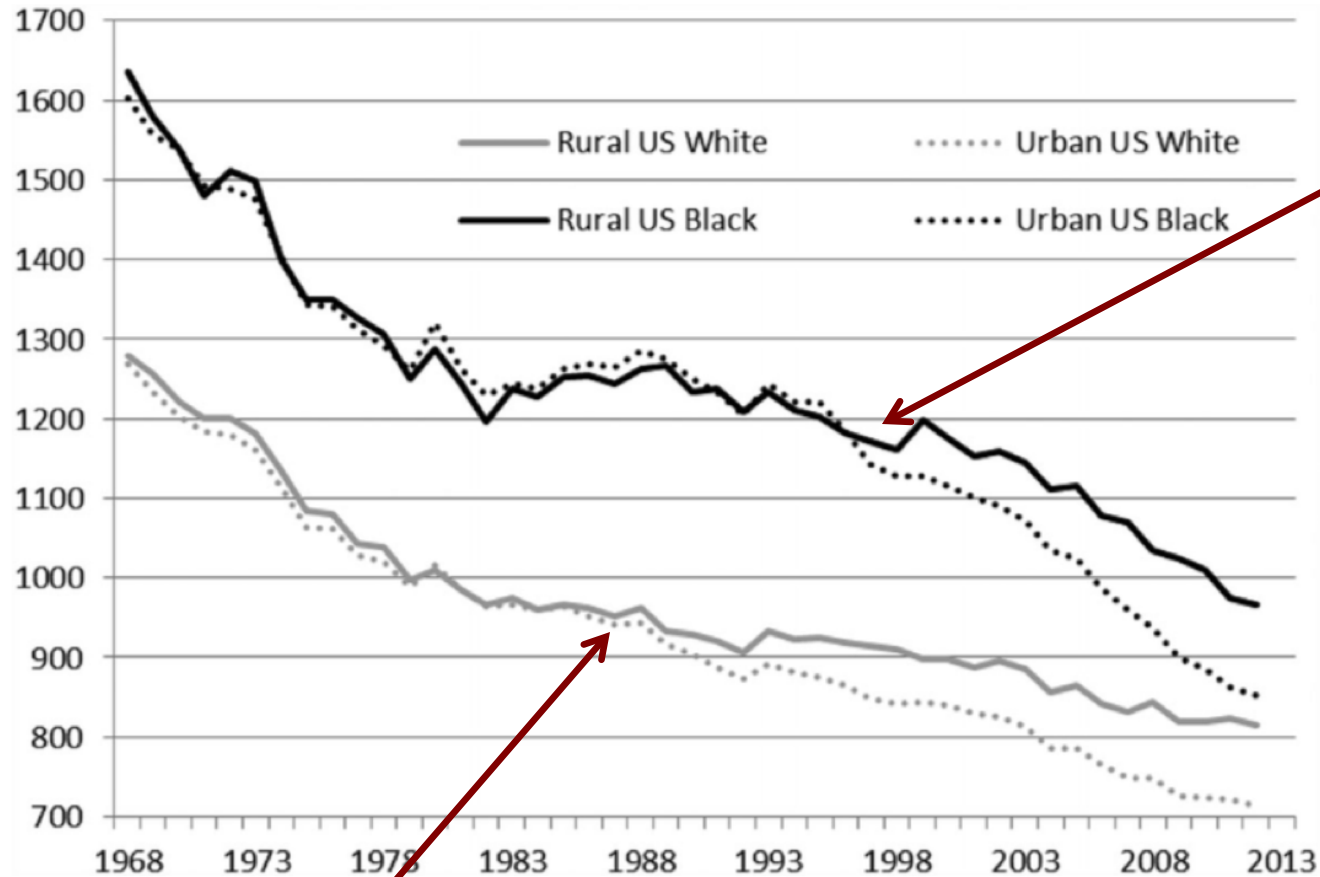
# AI/AN suicide disparities are longstanding

## Suicide rate per 100,000 population, by race/ethnicity and residence, age 15 and over, 1999-2015



# Rural mortality disparities date to the 1980's

Age-adjusted mortality, by race and residence, 1968-2012





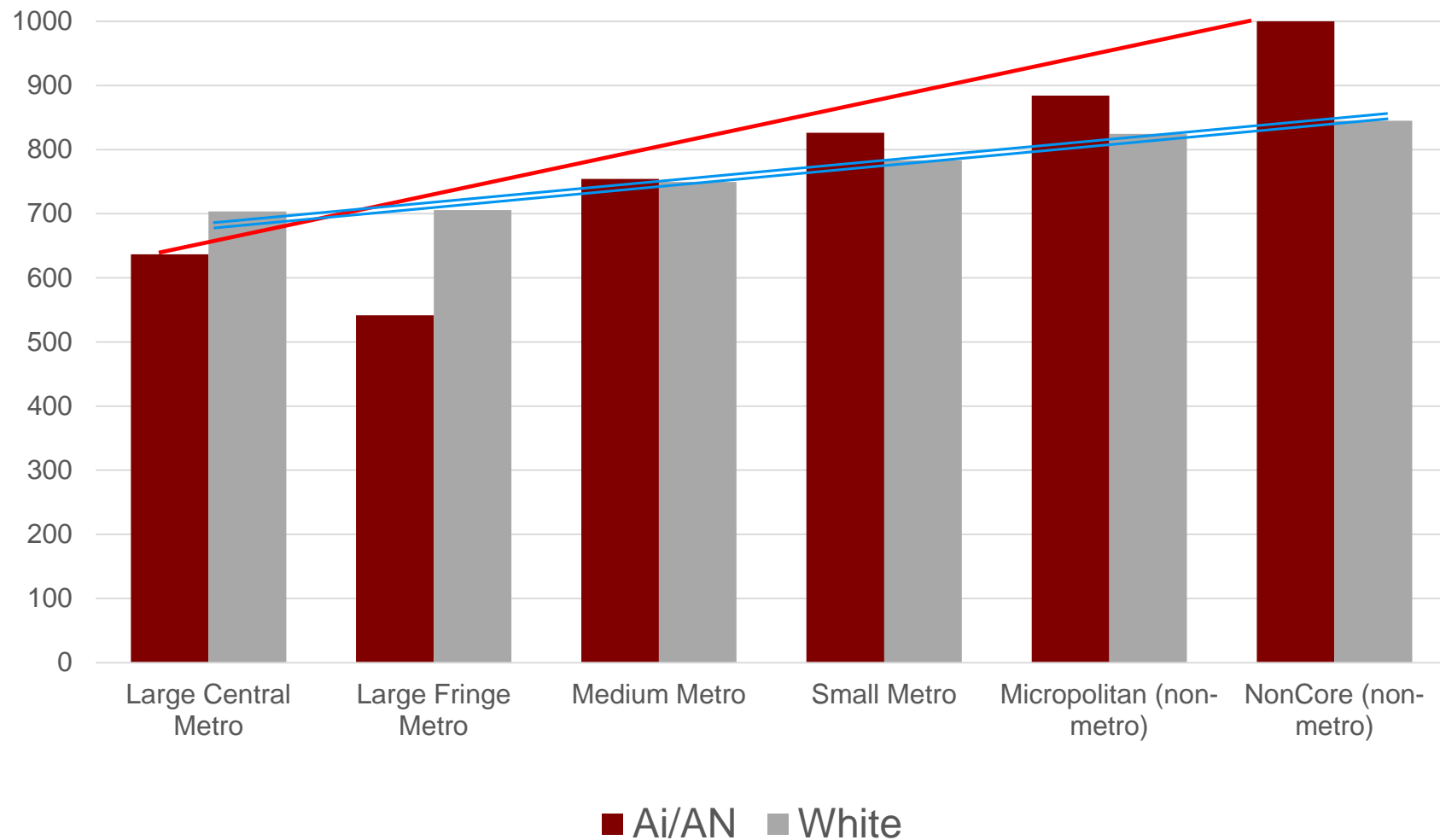
# Current death rate disparities vary

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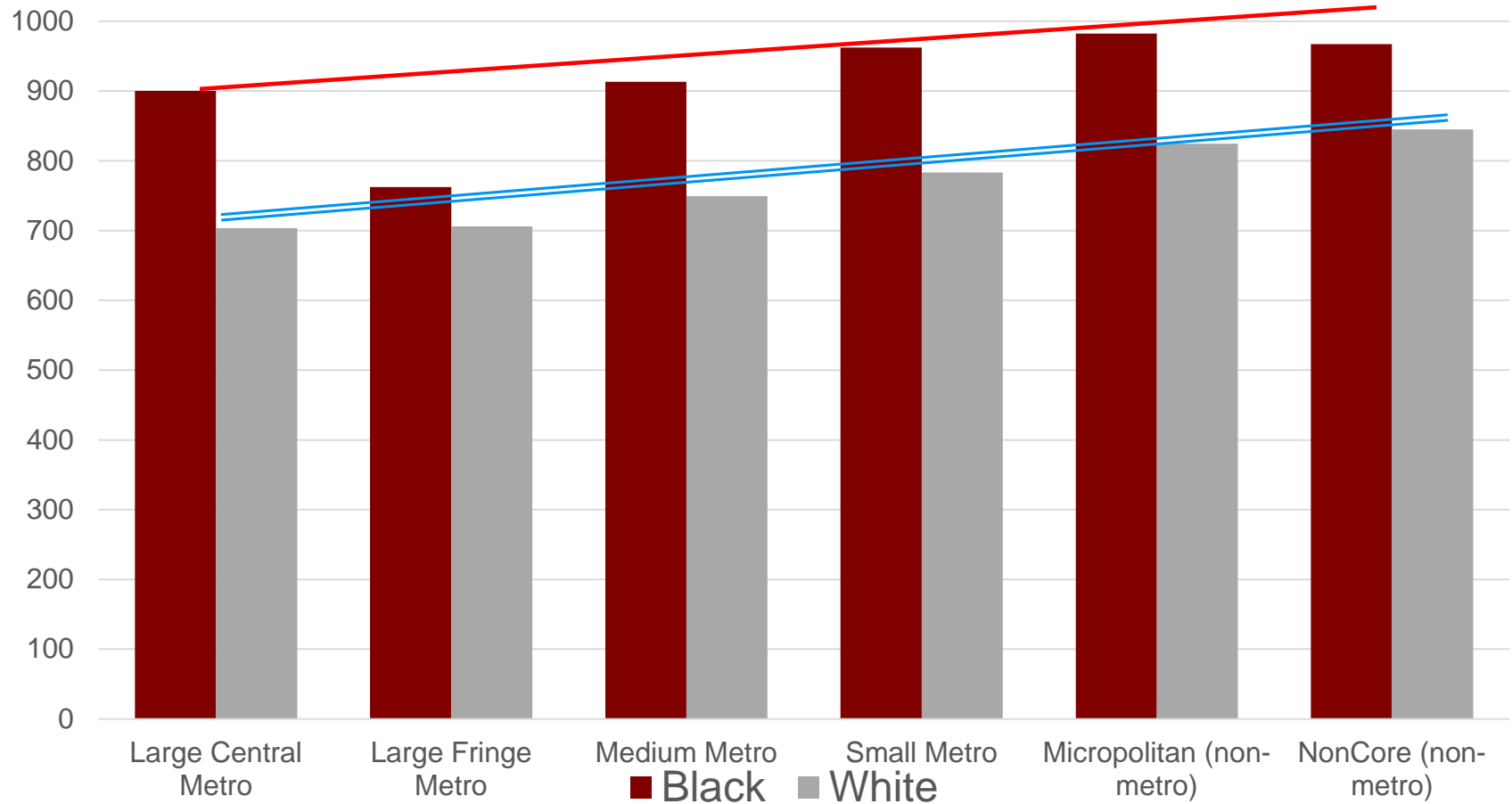
- For American Indian/Alaska Native, African American, and White populations, death rates increase with rurality
- For Asian/Pacific Islander and Hispanic populations, the patterns are not clear



# Death rates, AI/AN and White

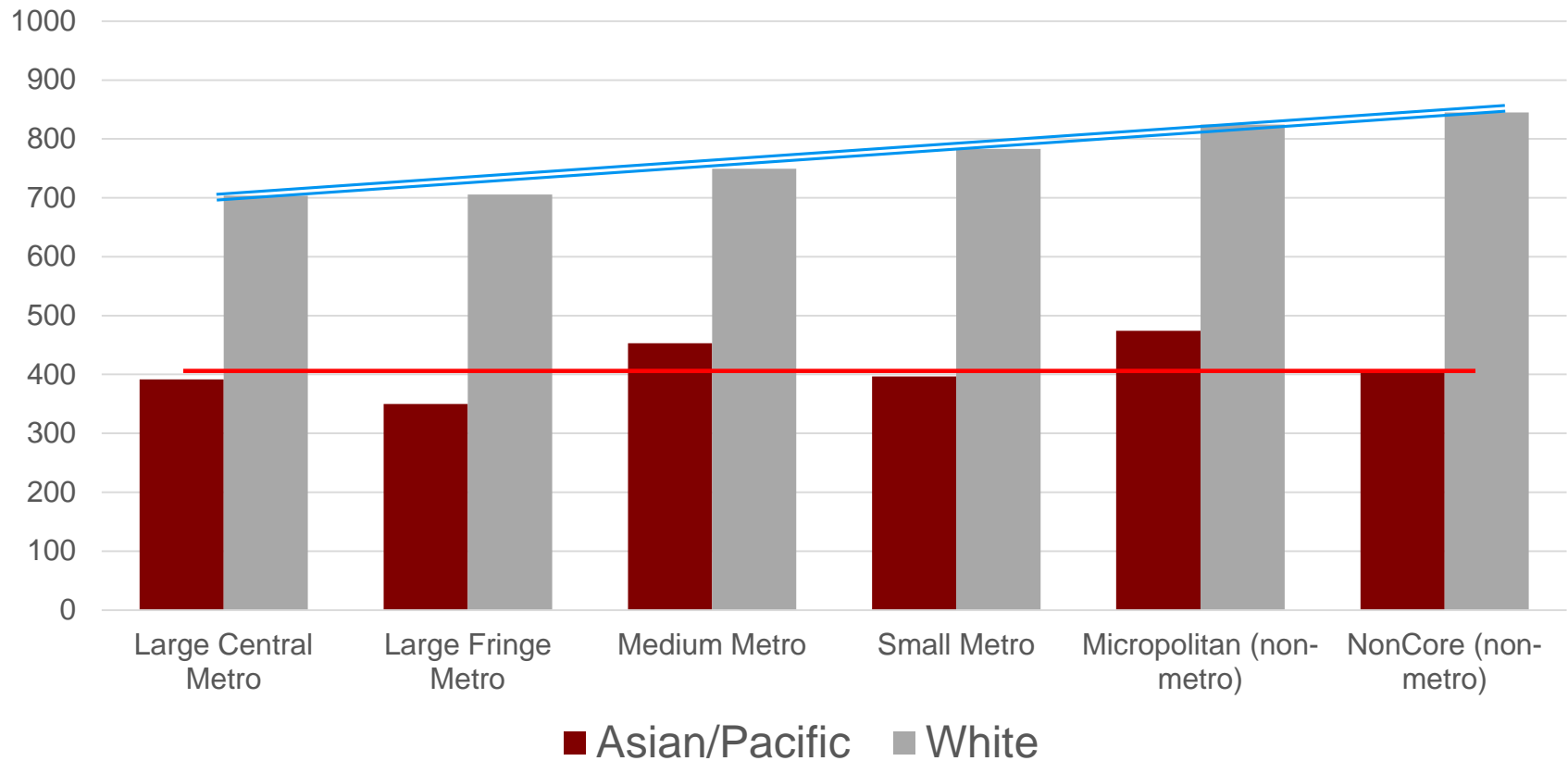


# Death rates, African American and White



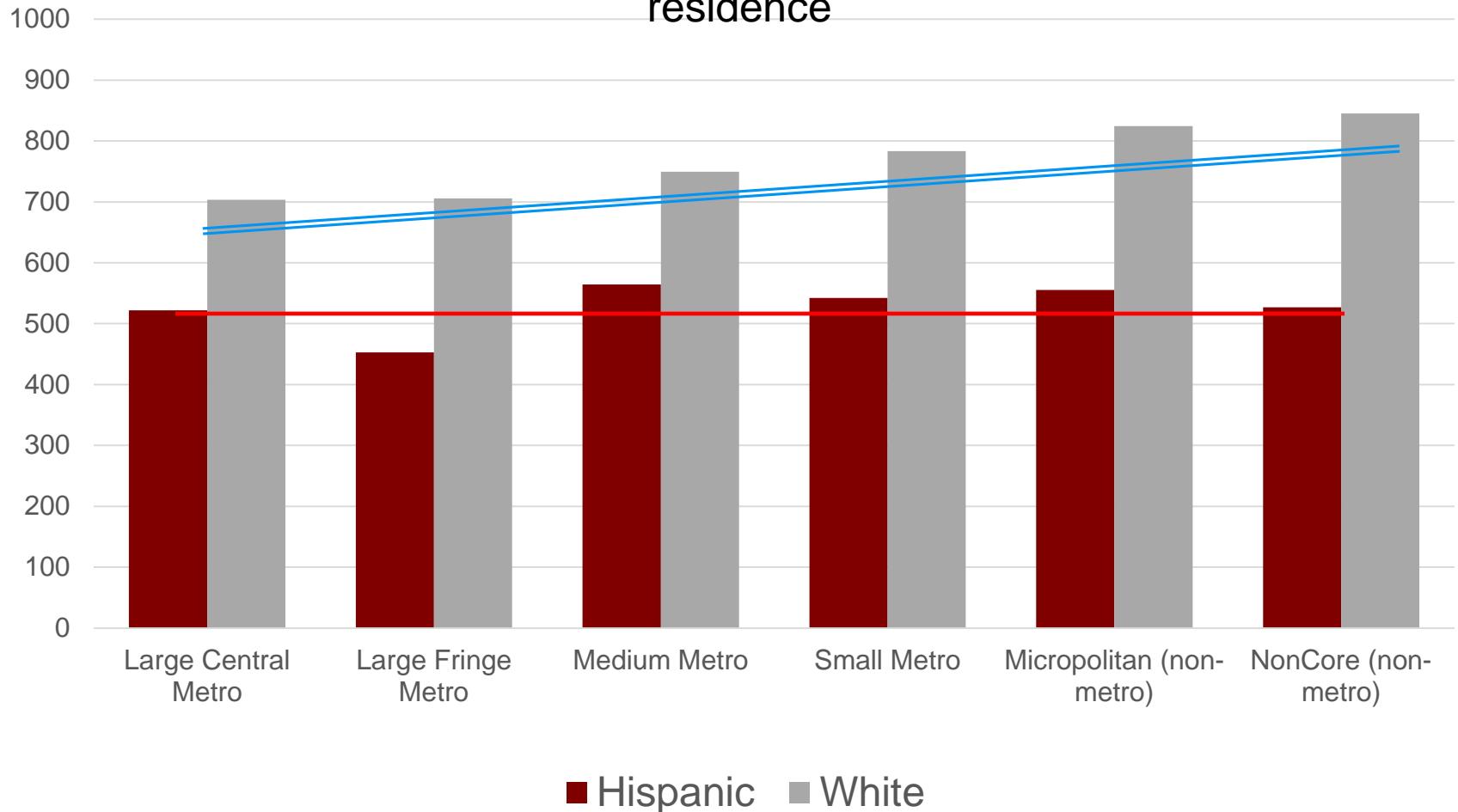
# Death rates, Asian/Pacific Is. and white

## Age adjusted death rates, 2016, by race/ethnicity and residence



# Death rates, Hispanic and White

Age adjusted death rates, 2016, by race/ethnicity and residence

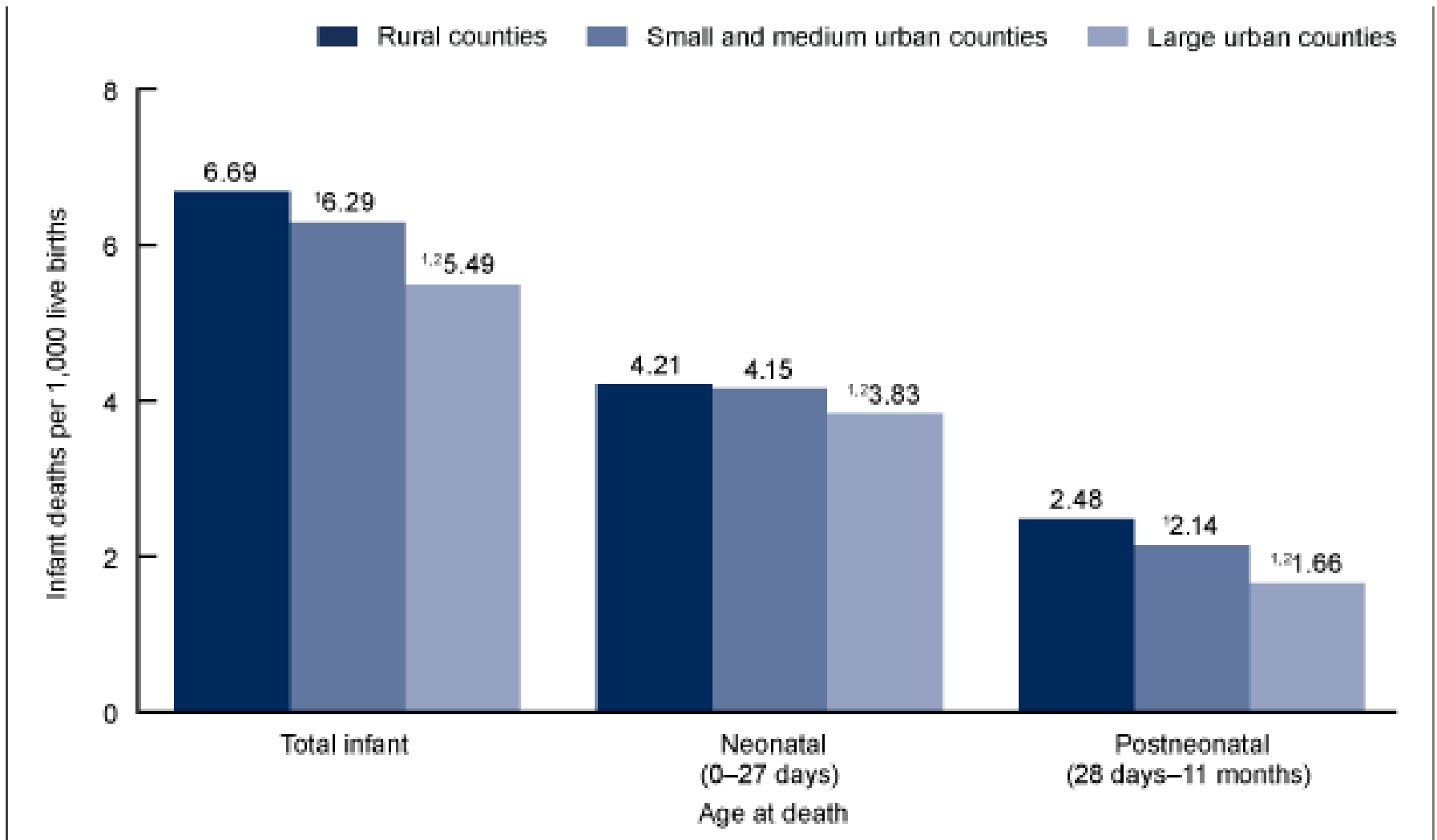




- Which disorders/diseases contribute to higher rural death rates for white, black and American Indian/Alaska Native populations?

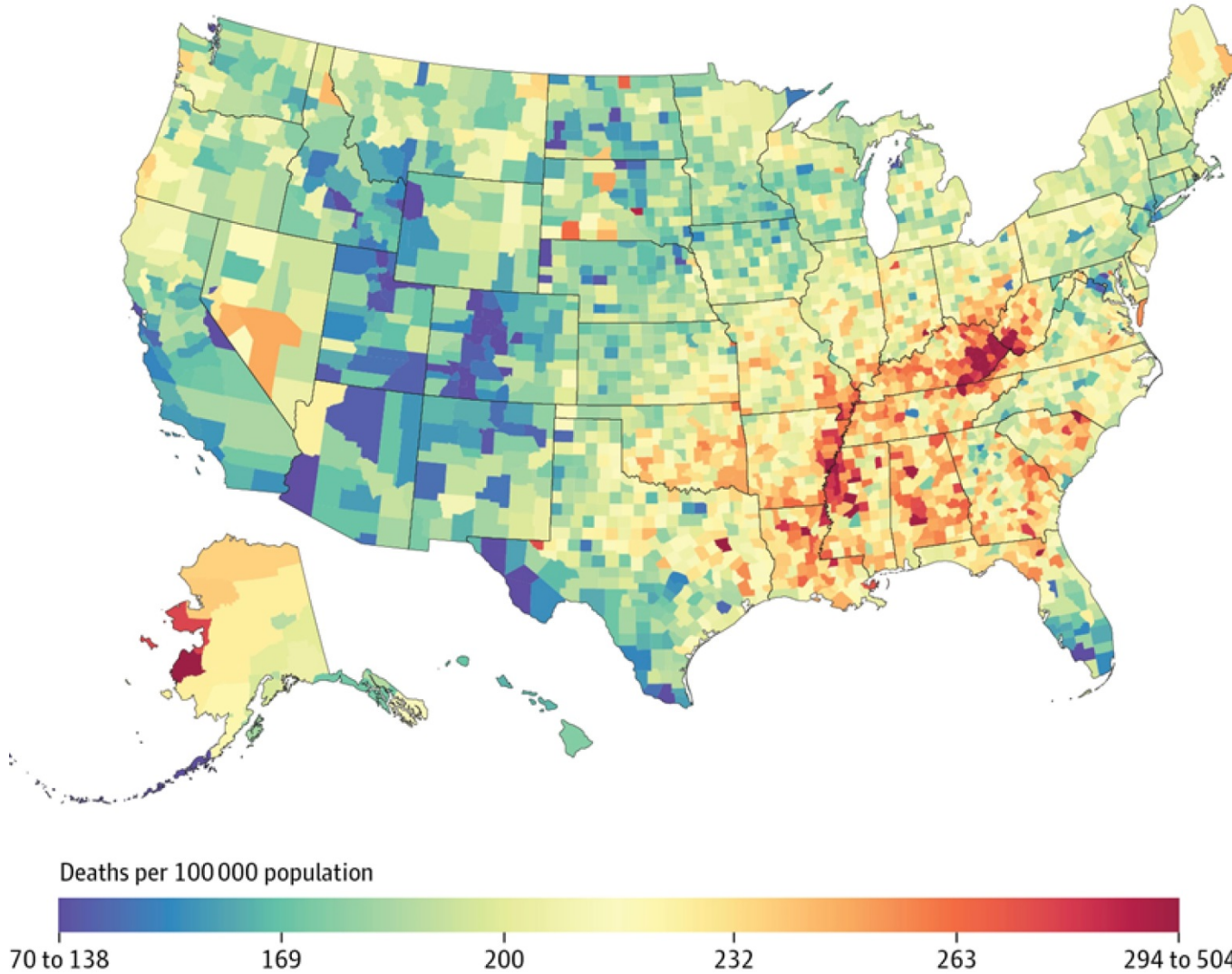


# Infant mortality, 2013-2015



# Cancer is part of the problem....

A | Age-standardized mortality rate from neoplasms, both sexes, 2014



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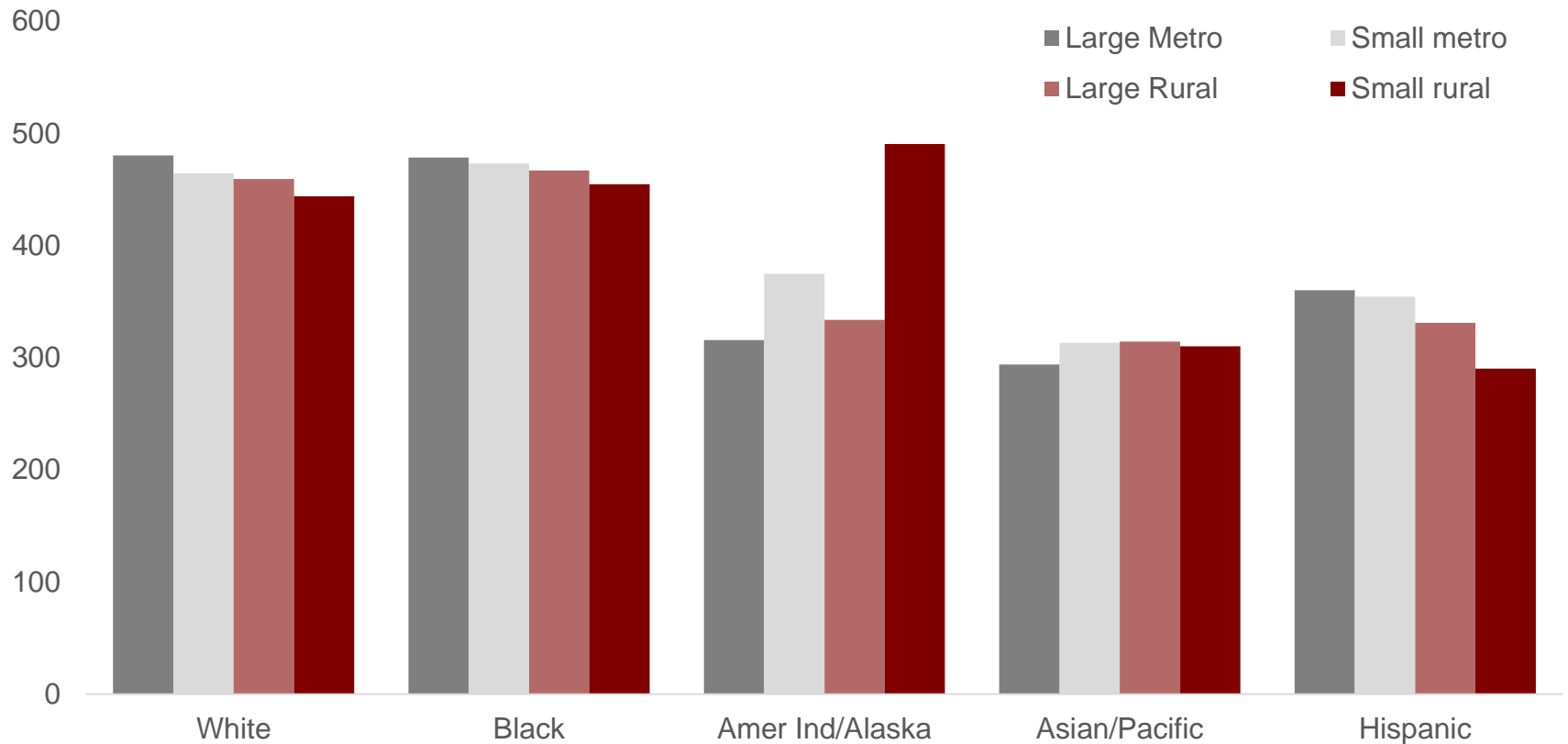


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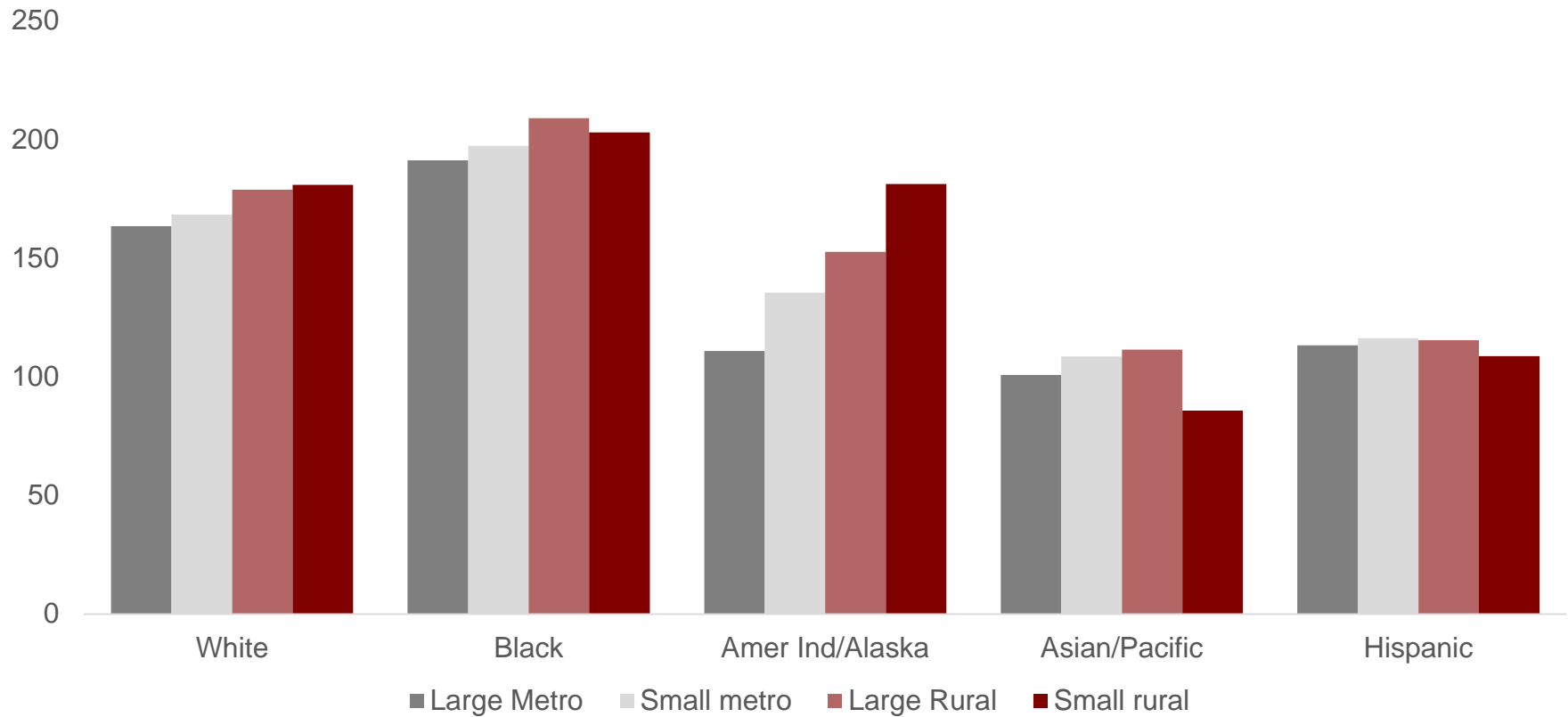
# Cancer incidence lower in rural

## Cancer incidence rates, 2009-2013, by race/ethnicity and residence



# But death rates are higher in rural

## Cancer Death Rates, 2011-2015, by race/ethnicity and residence



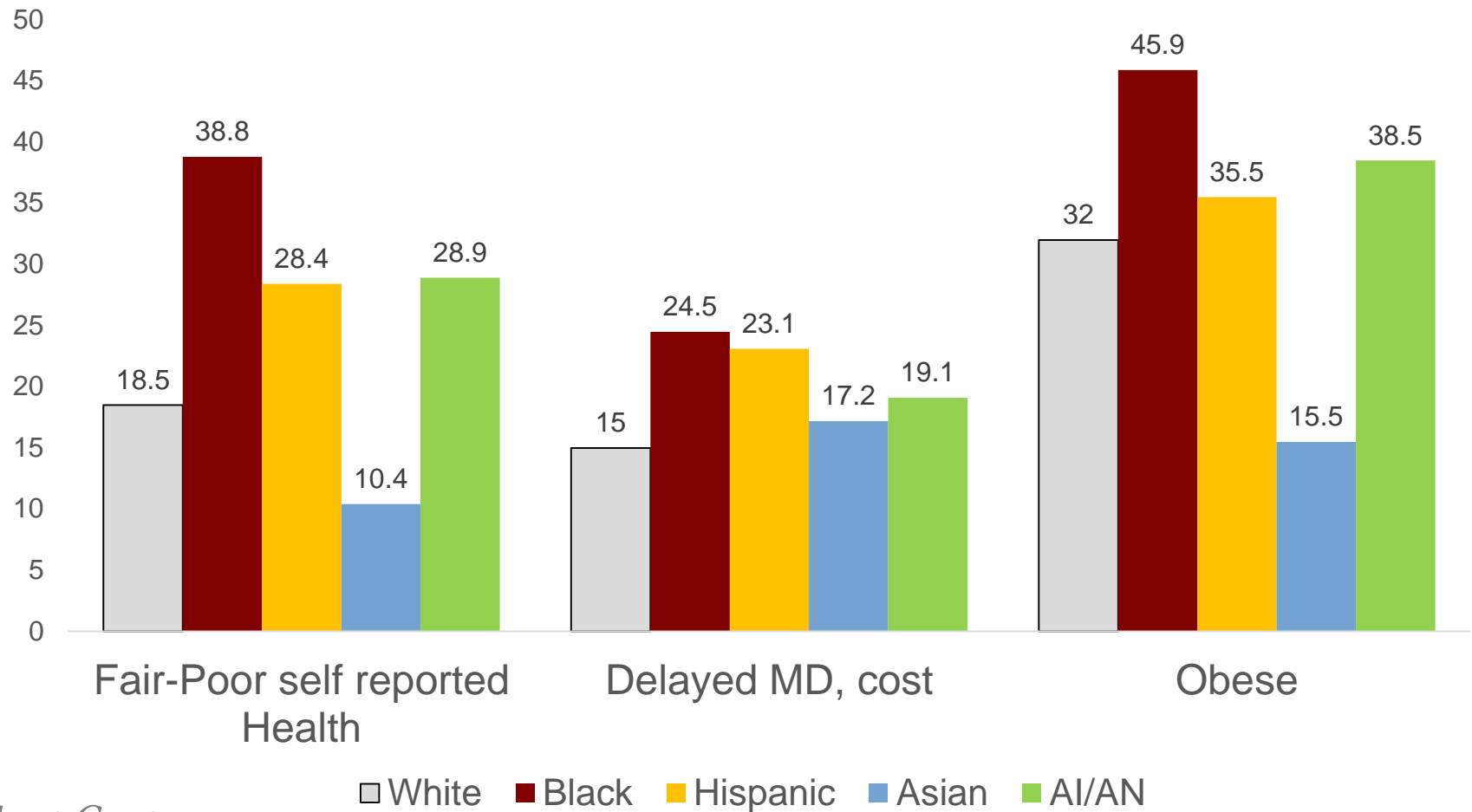
# Assessment

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- Proximate causes of excess mortality:
  - ◆ Poor health
  - ◆ Adverse behavior patterns
  - ◆ Lack of access to care
- Underlying causes of disparity:
  - ◆ Poverty of education and resources

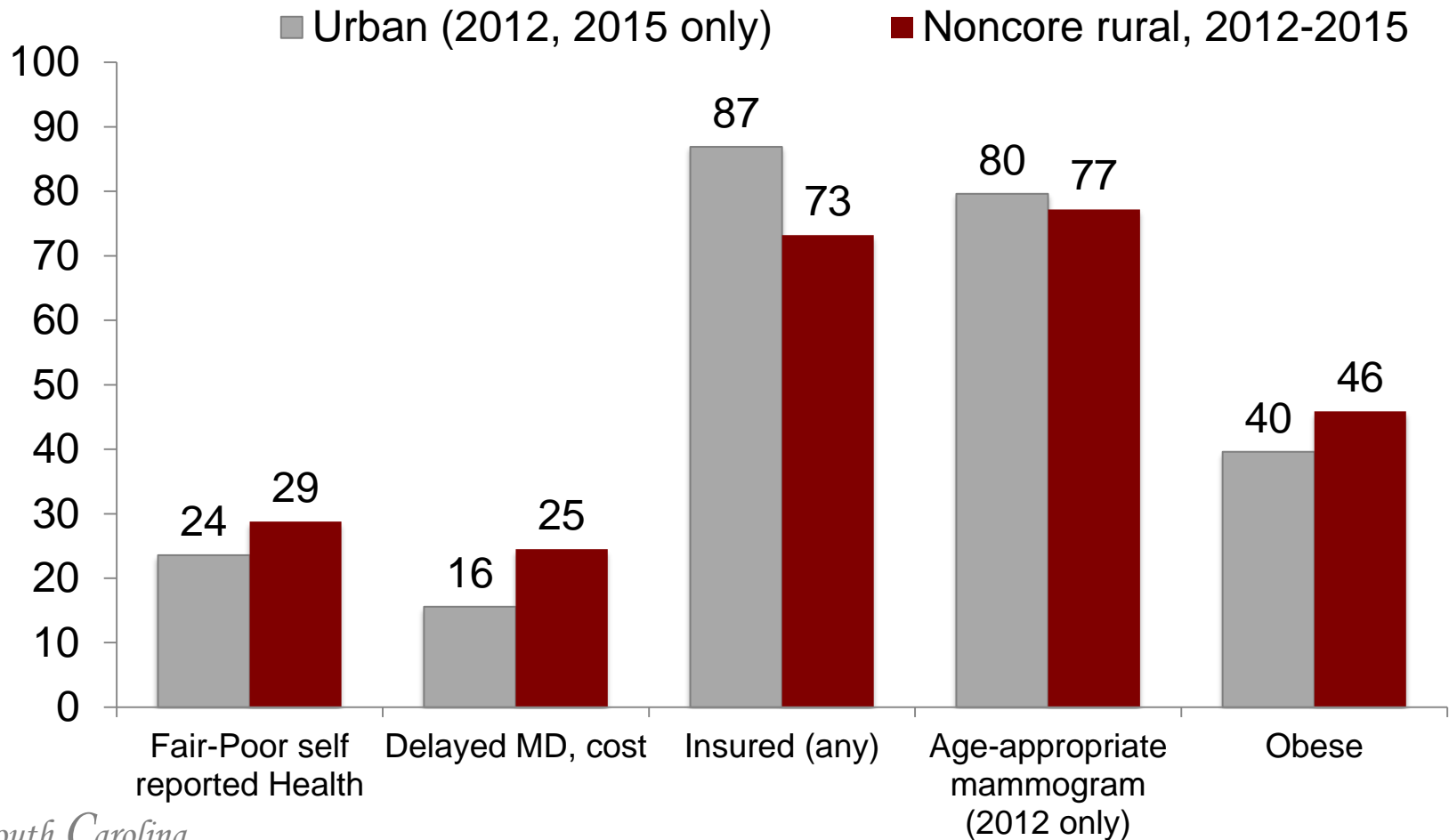
# Proximate causes

**Selected health indices, non-core rural counties only,  
by race/ethnicity, 2012-2015**



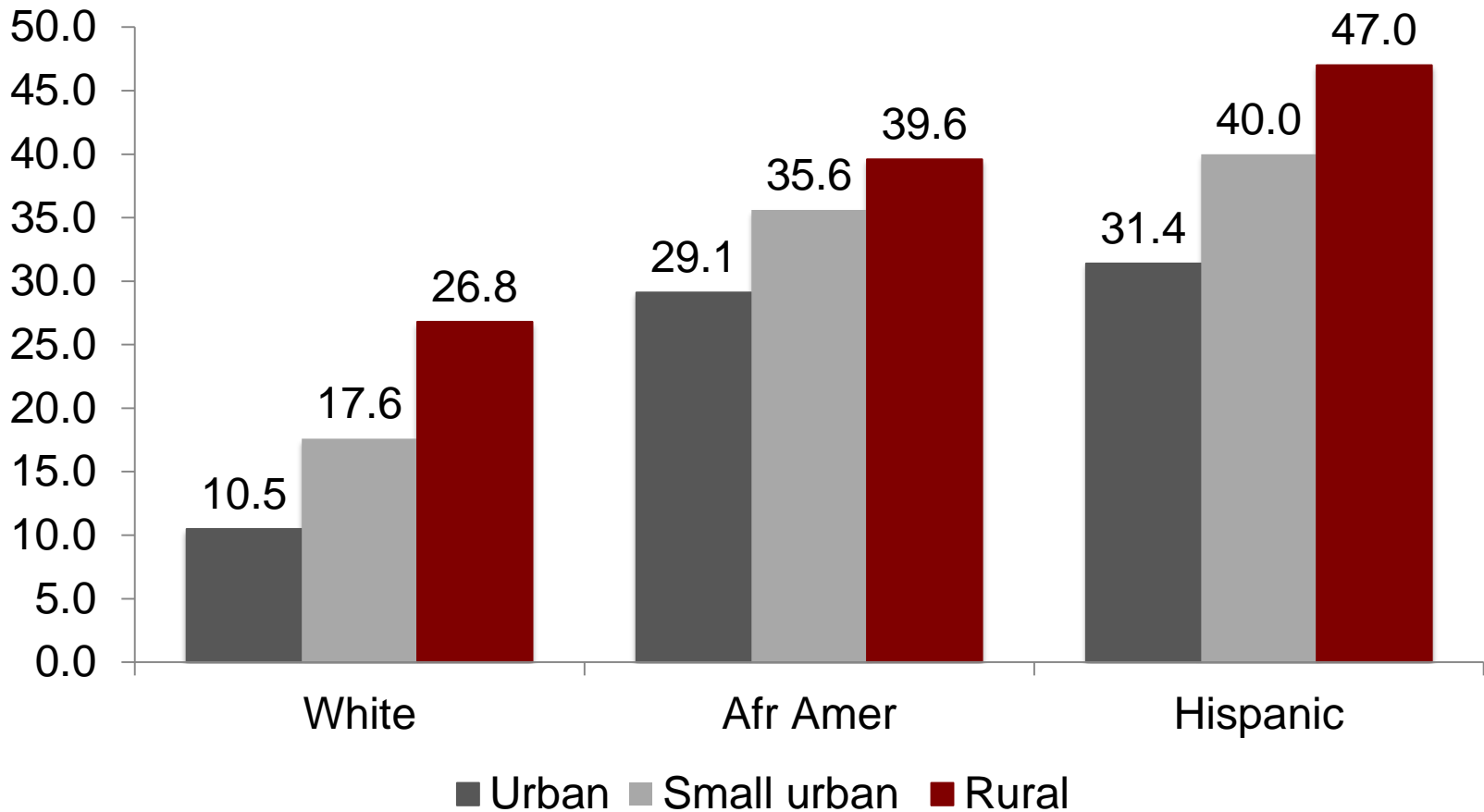
# Proximate causes: compared to urban

Selected self-reported variables, black only, Metro counties compared to Noncore rural counties, BRFSS, selected years



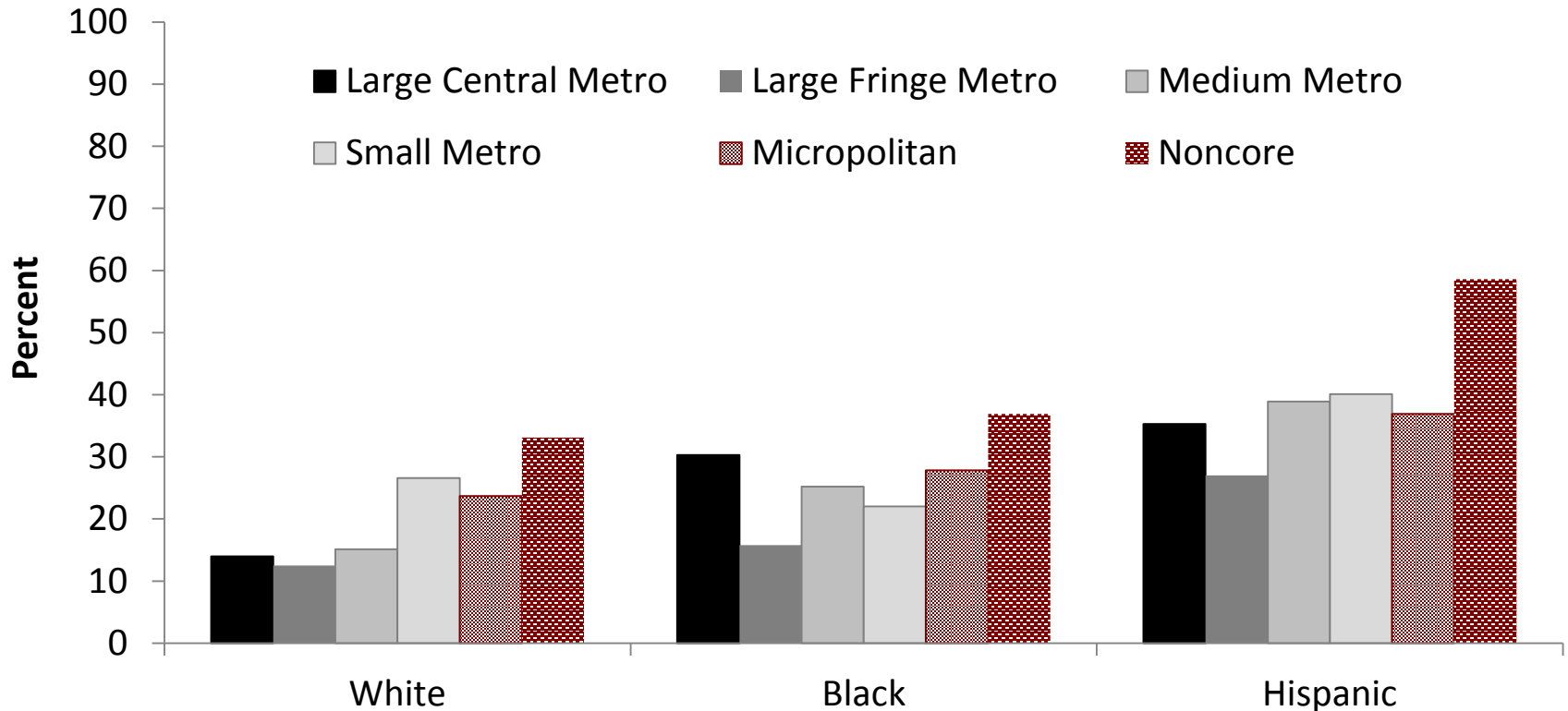
# Not Mayberry: teen births

Birth rates among women ages 15-19, by race/ethnicity and residence, 2015



# Poorer access to consistent care

People who identified a hospital, emergency room, or clinic as a source of ongoing care, by residence and race/ethnicity, 2014



Drawn from AHRQ Rural Health Disparities Chartbook, 2017

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey, 2014.

Note: For this measure, lower rates are better. White and Black are non-Hispanic. Hispanic includes all races.



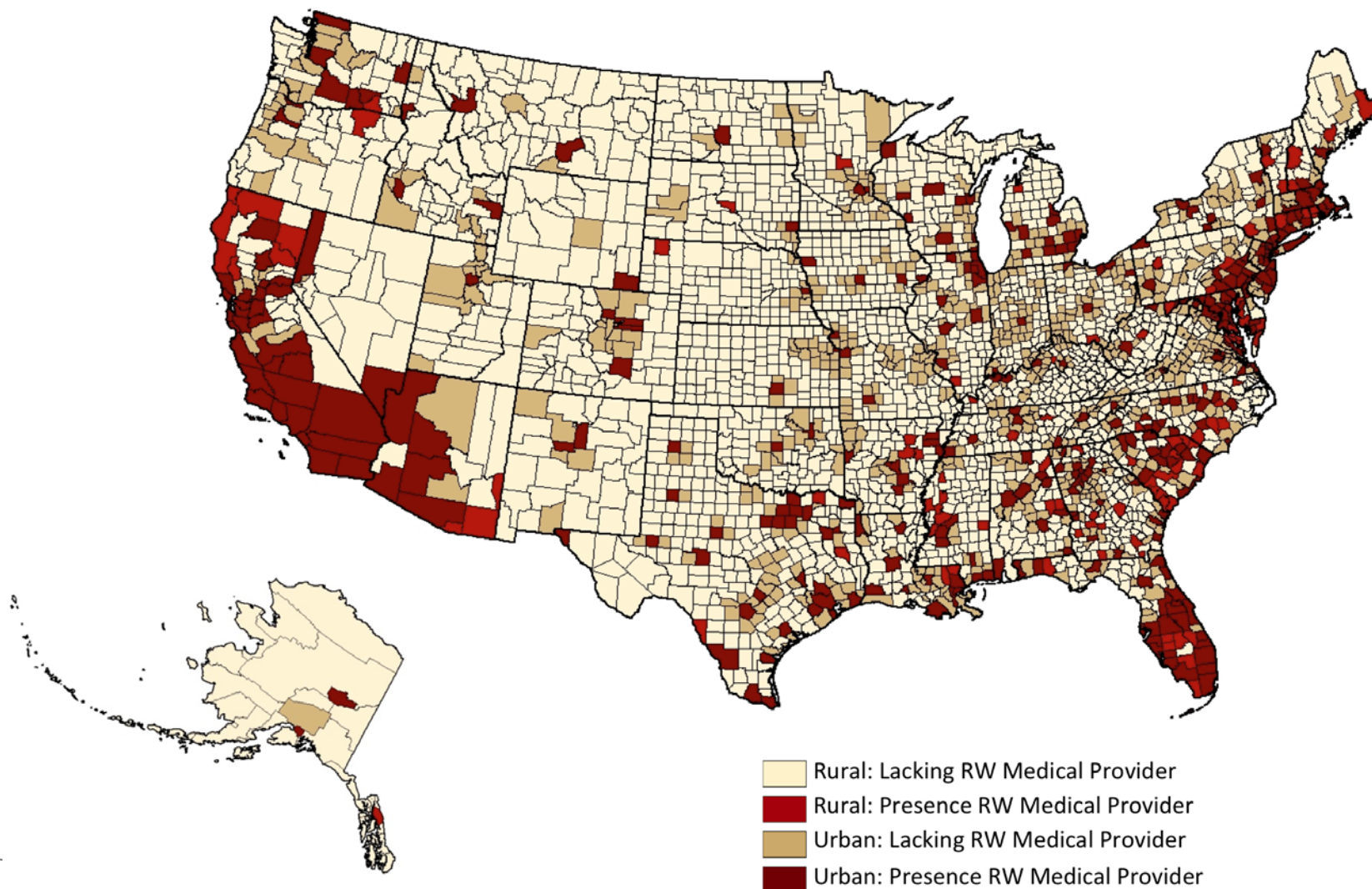
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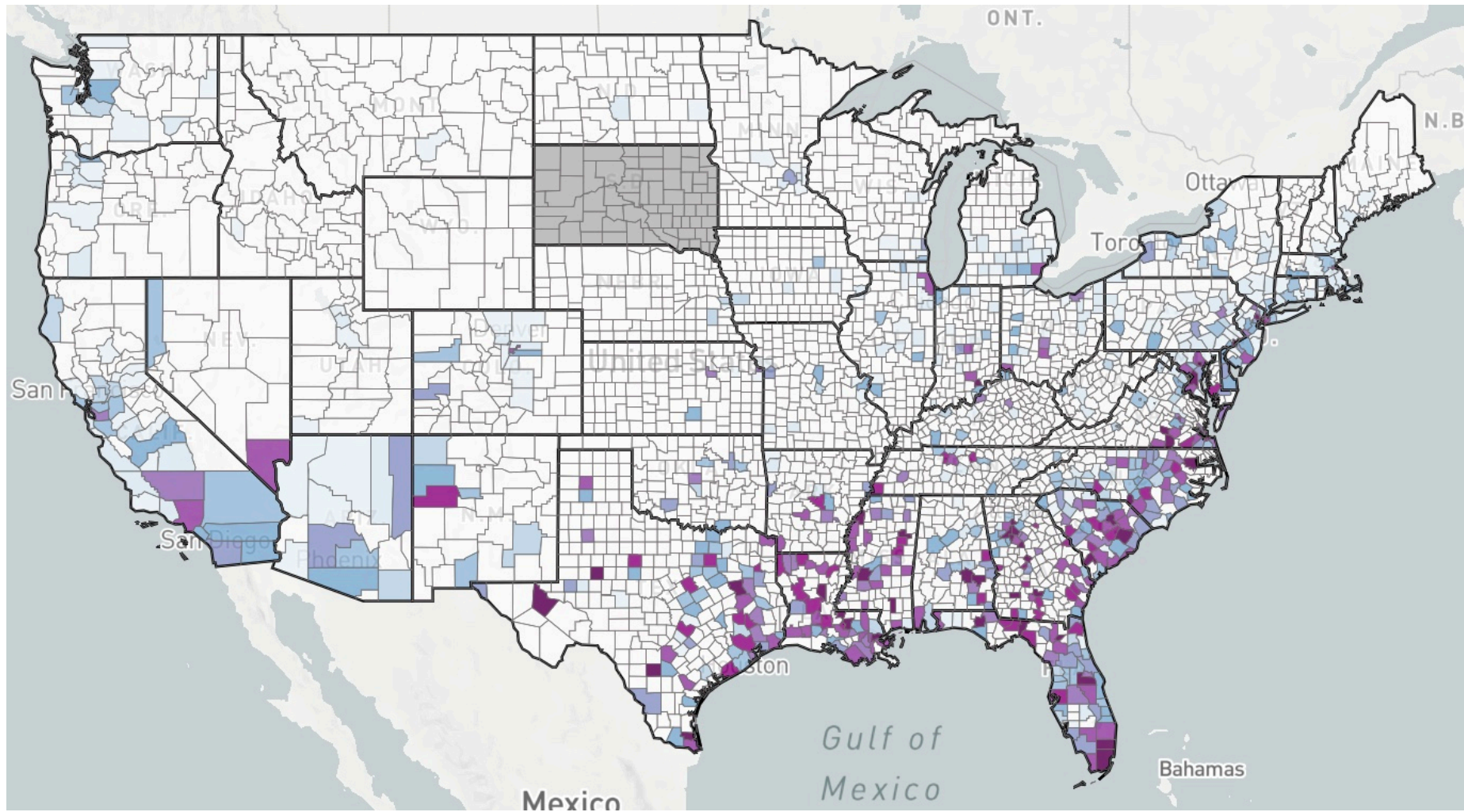
# Distance as barrier to care & prevention

Ryan White providers, 50 states, 2008





# HIV incidence: failure of prevention



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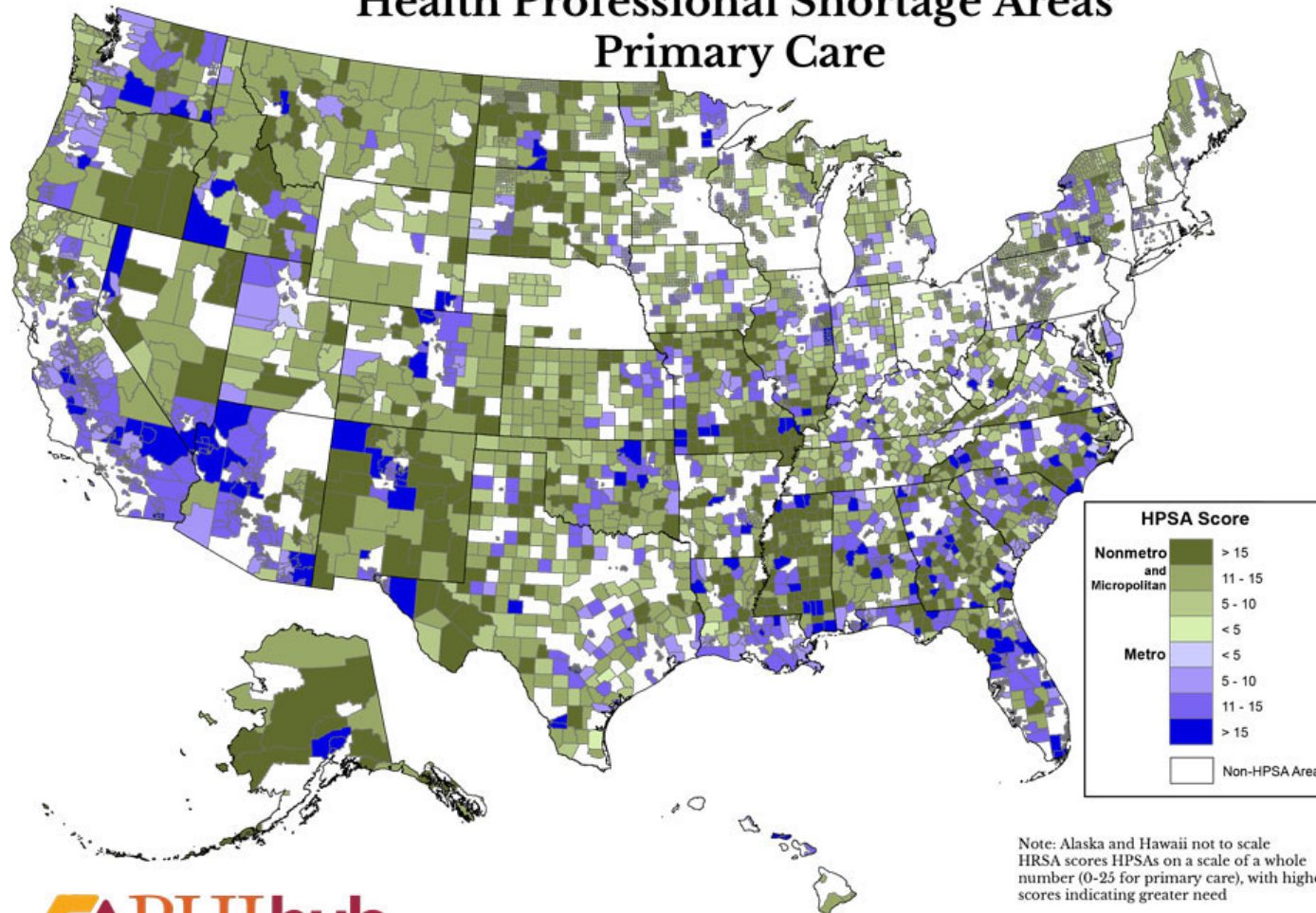
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Source: AIDS.VU.org



# Shortages of health professionals

## Health Professional Shortage Areas Primary Care



Note: Alaska and Hawaii not to scale  
HPSA scores HPSAs on a scale of a whole number (0-25 for primary care), with higher scores indicating greater need

Source(s): HRSA Data Warehouse, U.S. Department of Health and Human Services, November 2016



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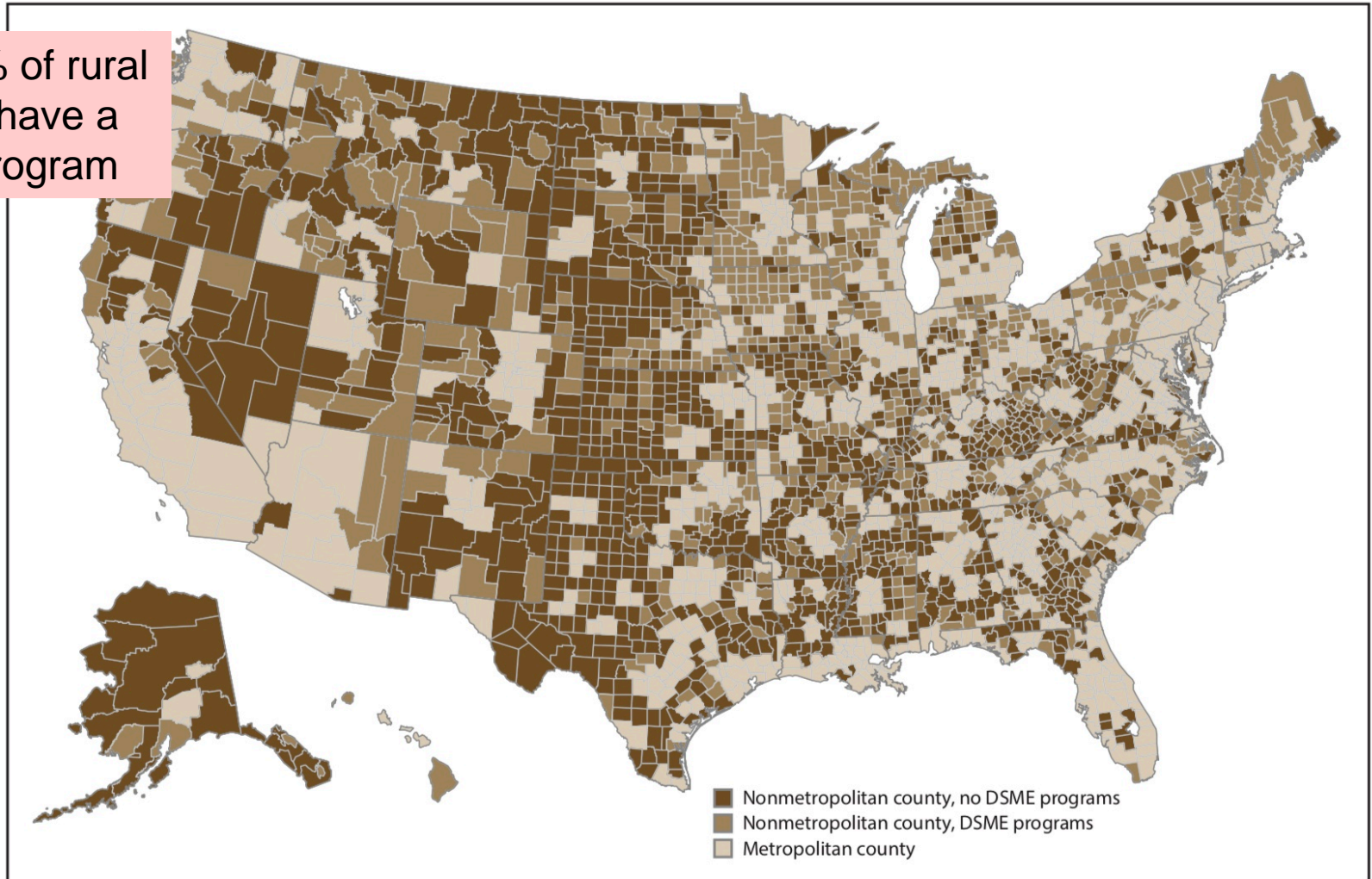




# Diabetes Self Management Education Programs

FIGURE. Diabetes self-management education programs in nonmetropolitan counties — United States, 2016

Only 38% of rural counties have a DSME Program



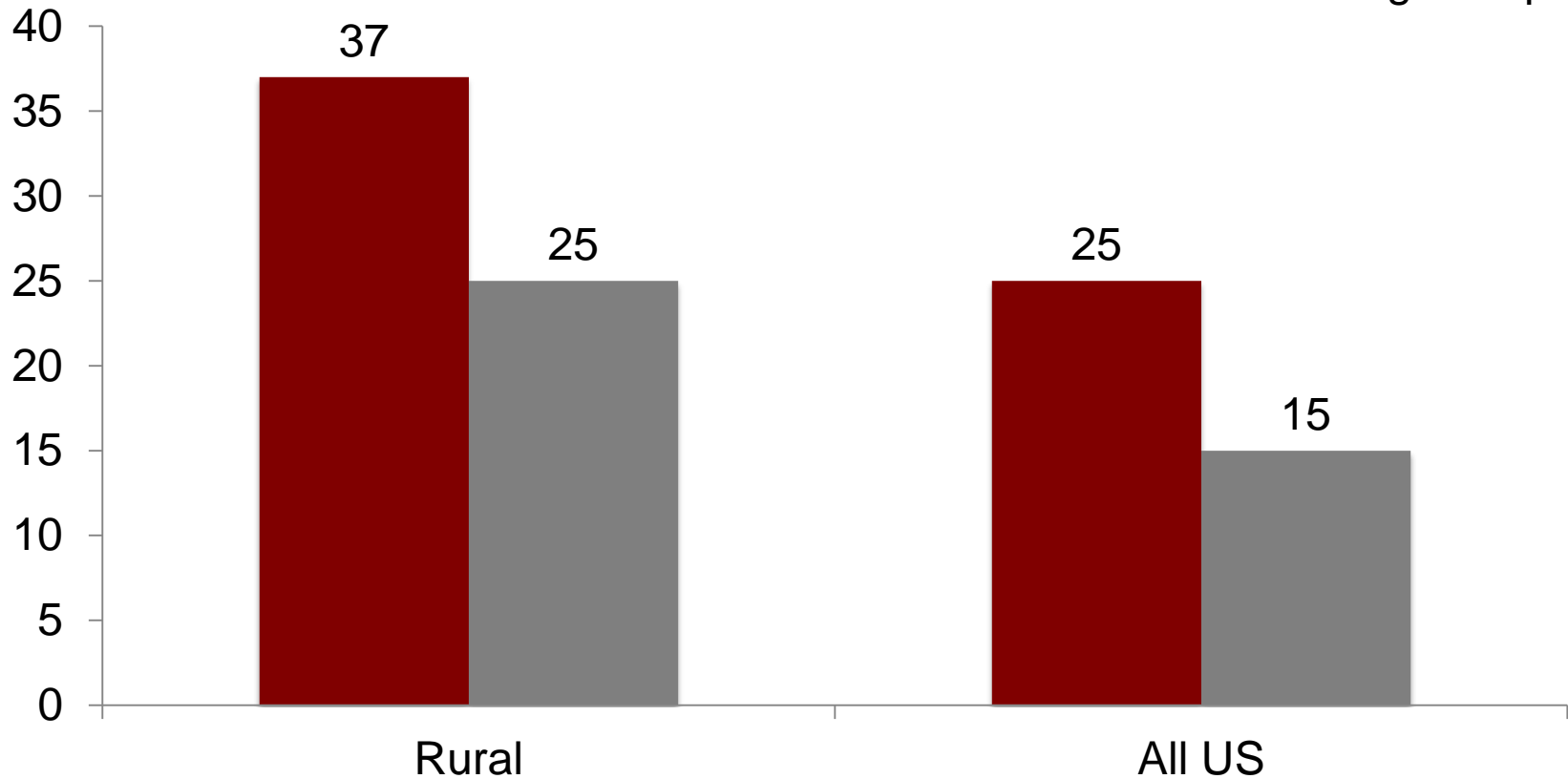
# Rural counties with DSME

- Are **larger** (35K versus 16K population)
- Have **lower** diabetes prevalence (11.1% v 11.8%)
- Are **whiter**: DSME versus other rural:
  - ◆ 5.6% black, versus 8.8%
  - ◆ 5.6% Hispanic, versus 9.3%
  - ◆ Asian Americans: 0.7% versus 0.5%
  - ◆ No difference for American Indian/Alaska Native
- In general, high need areas lack programs

# Rural residents see these gaps

Percent answering “no” to the question “do you think your community has enough...”

- Enough doctors?
- Enough hospitals



# Assessment: Underlying causes

- South Carolina Rural Health Action Plan: Year long effort, listening sessions around the state followed by response sessions
- Rural view of the key issues for health:
  - ◆ Can we bring **jobs** to rural areas?
  - ◆ Can we address **broken school systems?**
  - ◆ Can we address **gaps in low-income housing?**

# Refresher:

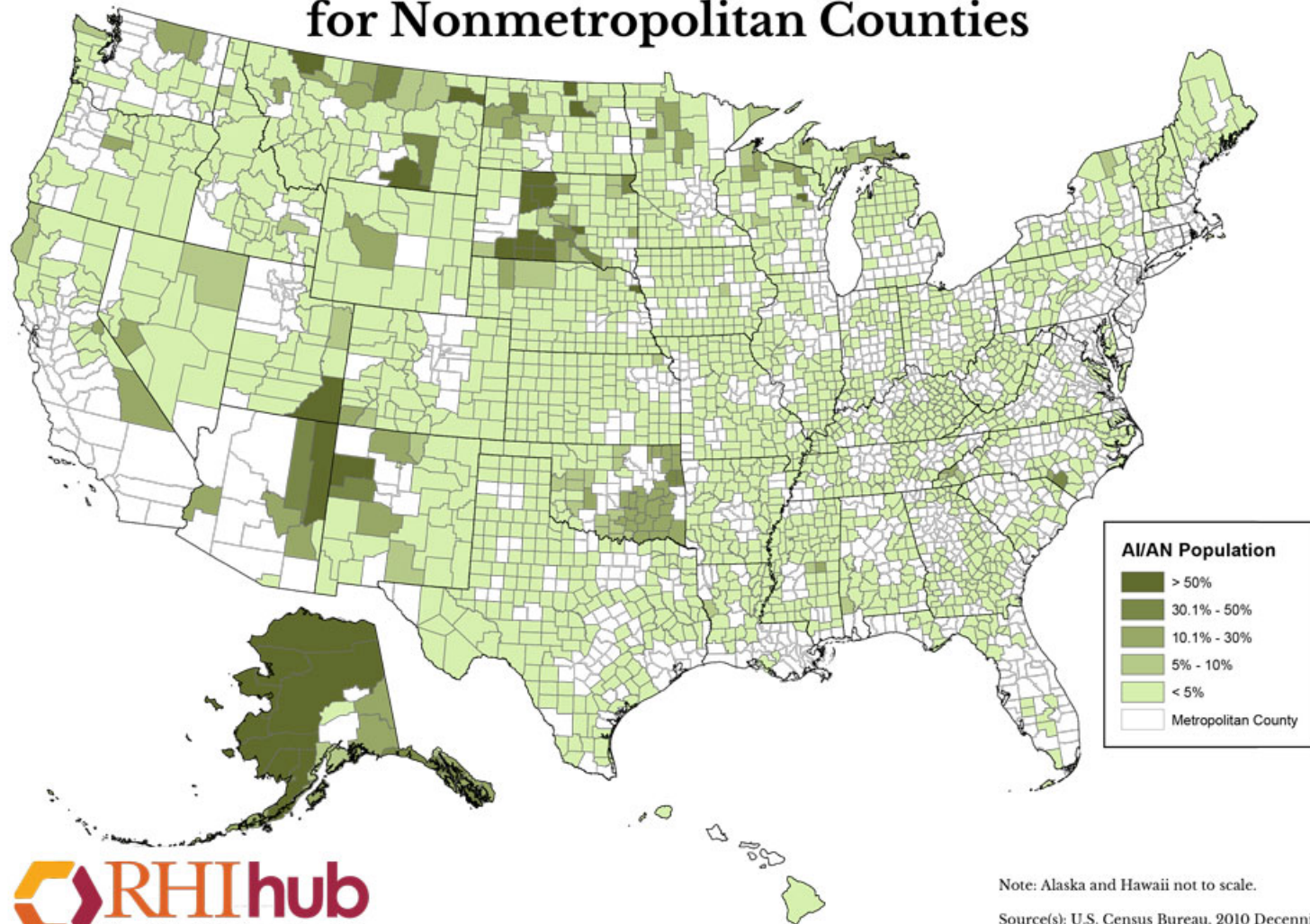
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- Rural minority populations tend to be concentrated:
  - ◆ AI/AN in the West, Northwest
  - ◆ Hispanic in the South, West
  - ◆ African American in the historic South
  - ◆ Asian more highly dispersed
- Quick look at social determinants of health will use maps



# Recalling geography

## American Indian and Alaskan Native Population for Nonmetropolitan Counties



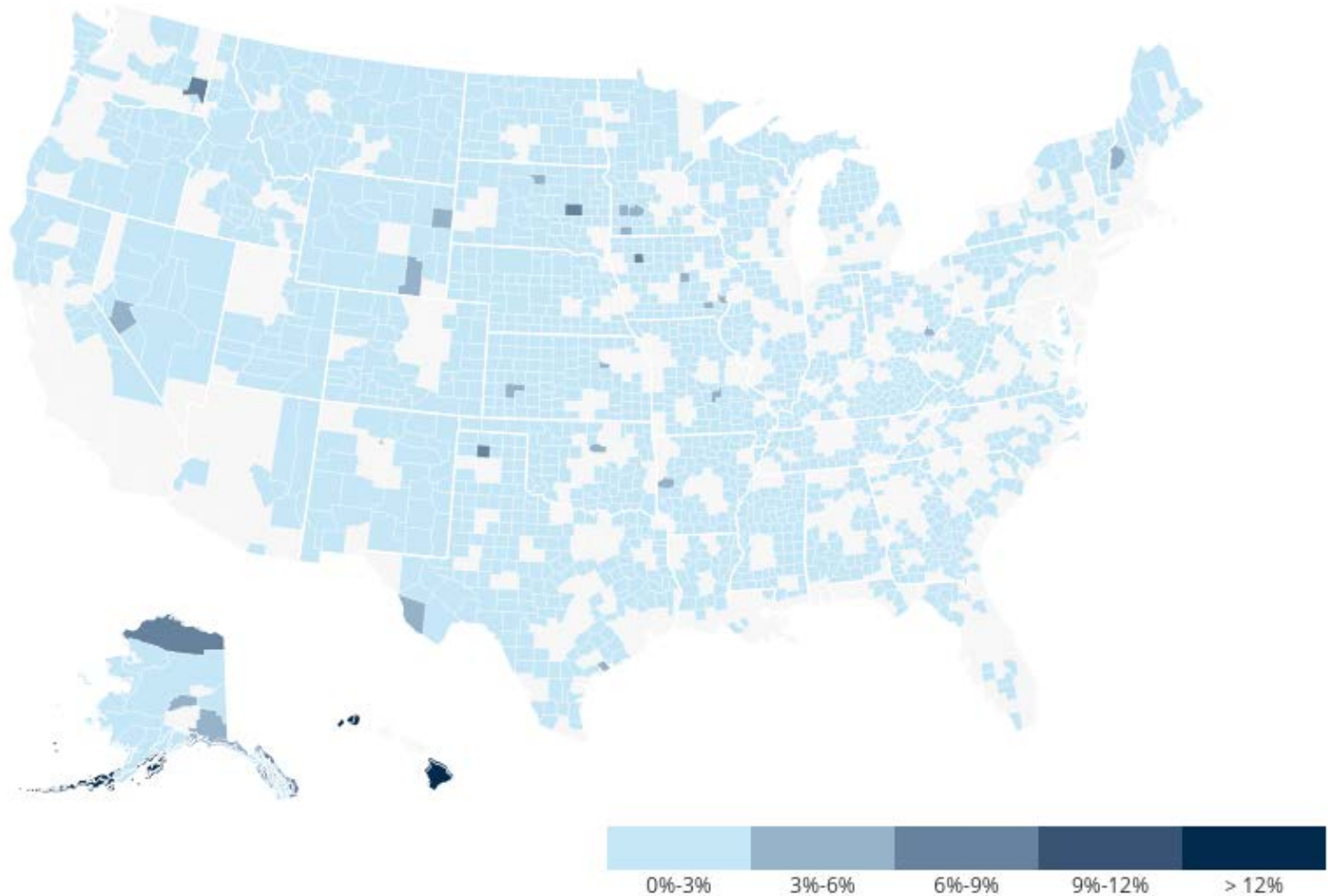
Note: Alaska and Hawaii not to scale.

Source(s): U.S. Census Bureau, 2010 Decennial Census, Summary File 1



# Recalling geography

Asian Population - Nonmetropolitan 2016



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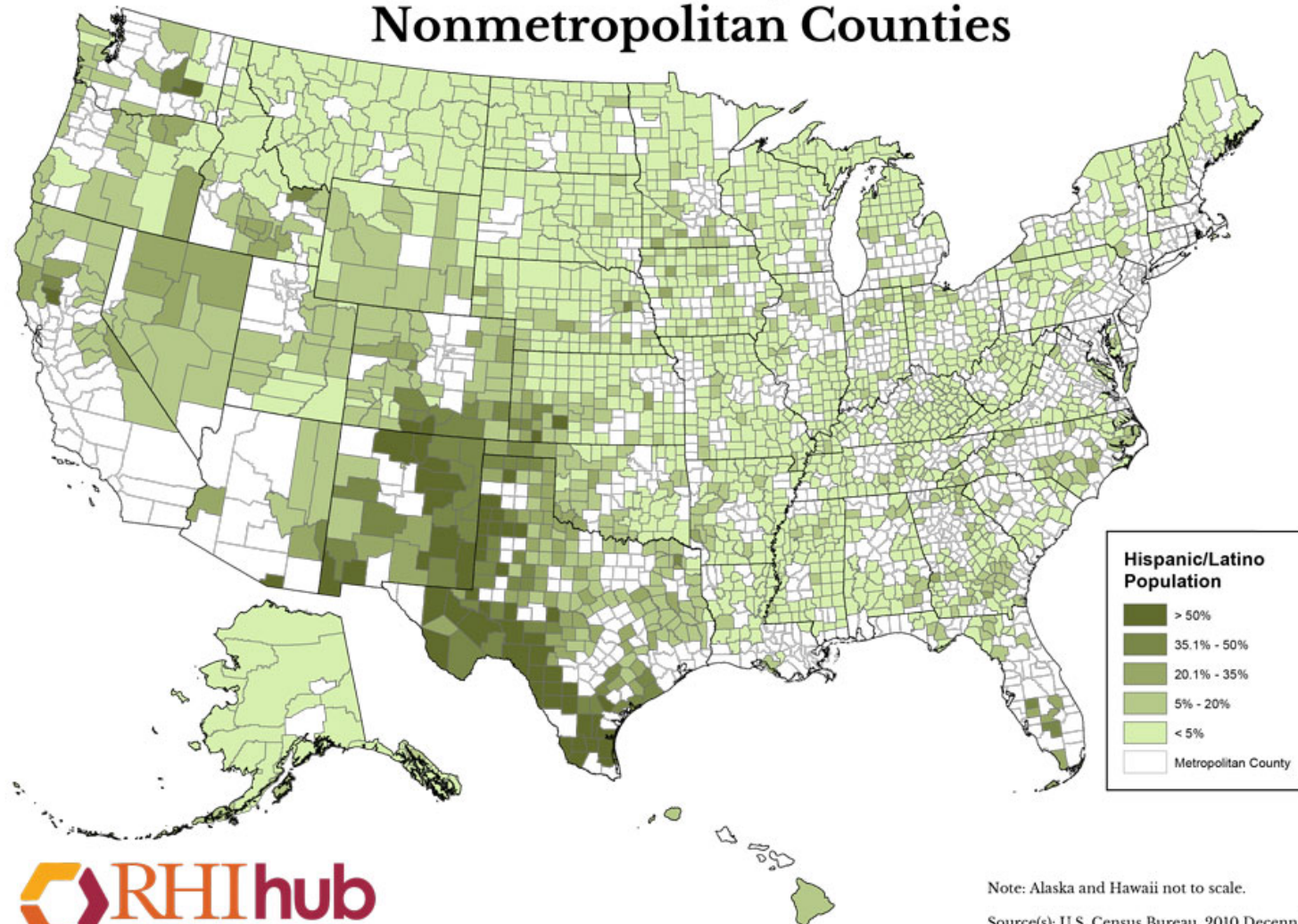


Note: Racial groups may include people of Hispanic origin.  
Source: [US Census ACS, 2010 and 2016 5-year estimates.](#)



# Recalling geography

## Hispanic/Latino Population for Nonmetropolitan Counties



Note: Alaska and Hawaii not to scale.

Source(s): U.S. Census Bureau, 2010 Decennial Census, Summary File 1



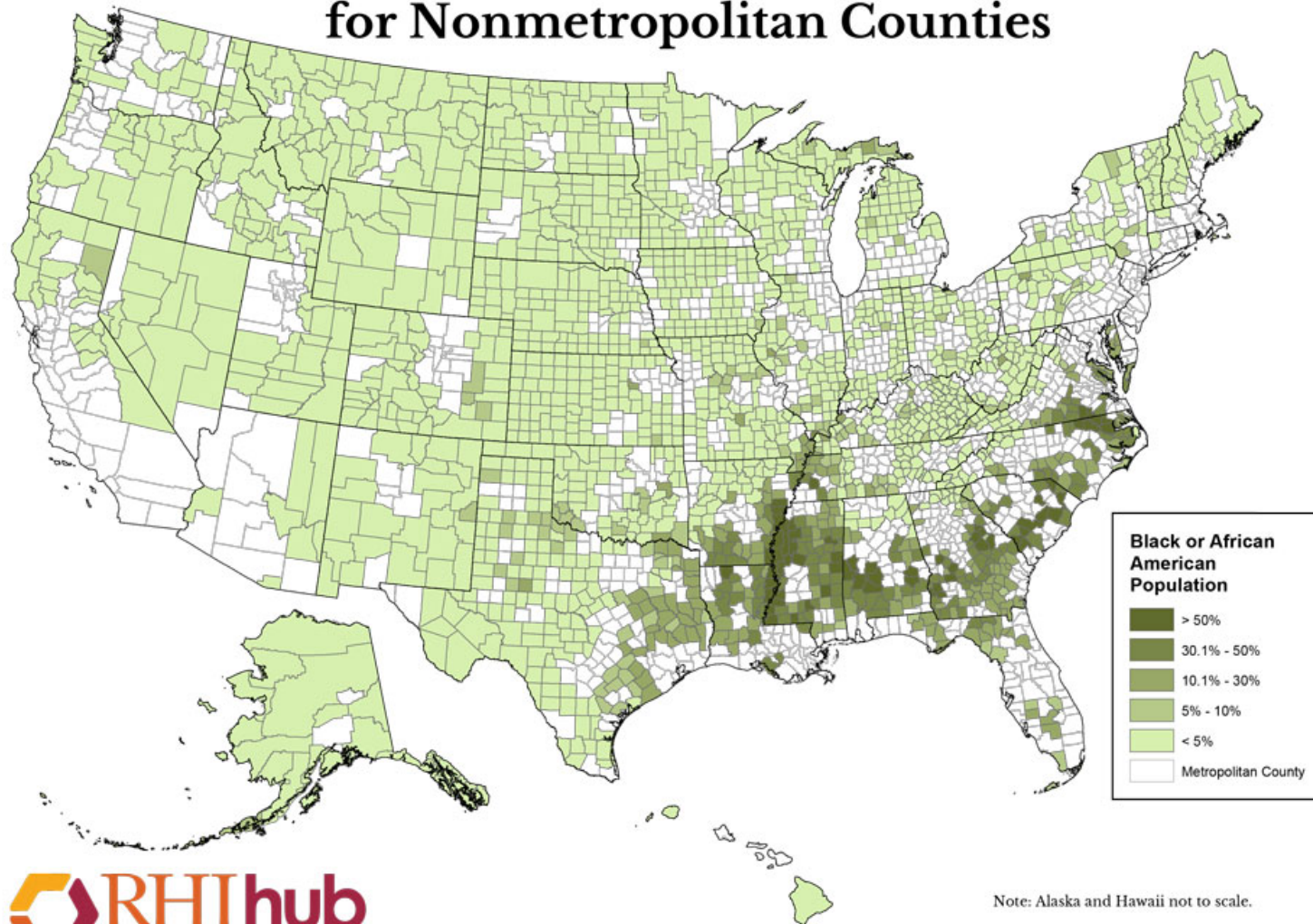
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# Recalling geography

## Black or African American Population for Nonmetropolitan Counties



Note: Alaska and Hawaii not to scale.

Source(s): U.S. Census Bureau, 2010 Decennial Census, Summary File 1



Southern

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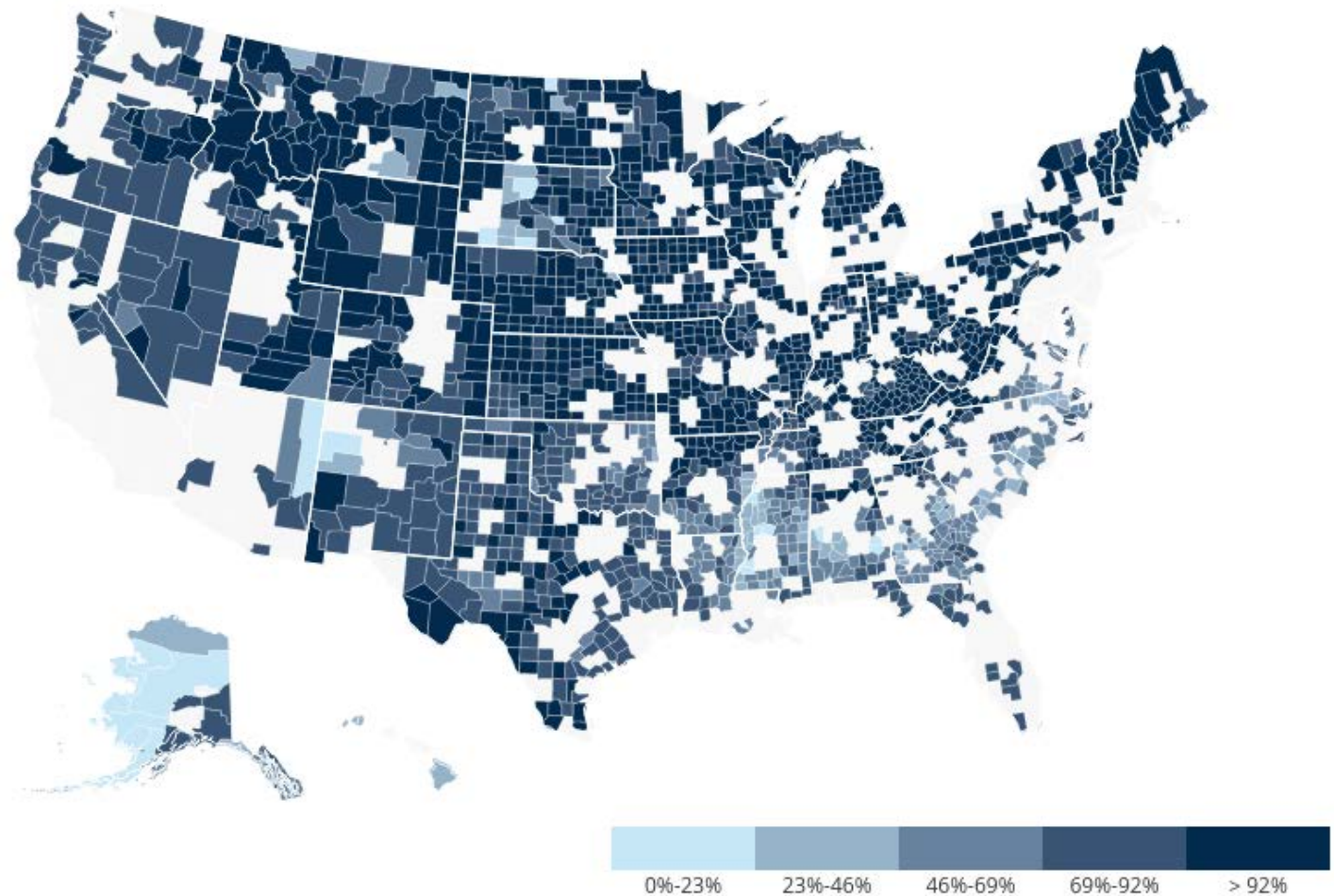
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# Recalling geography

White Population - Nonmetropolitan 2016



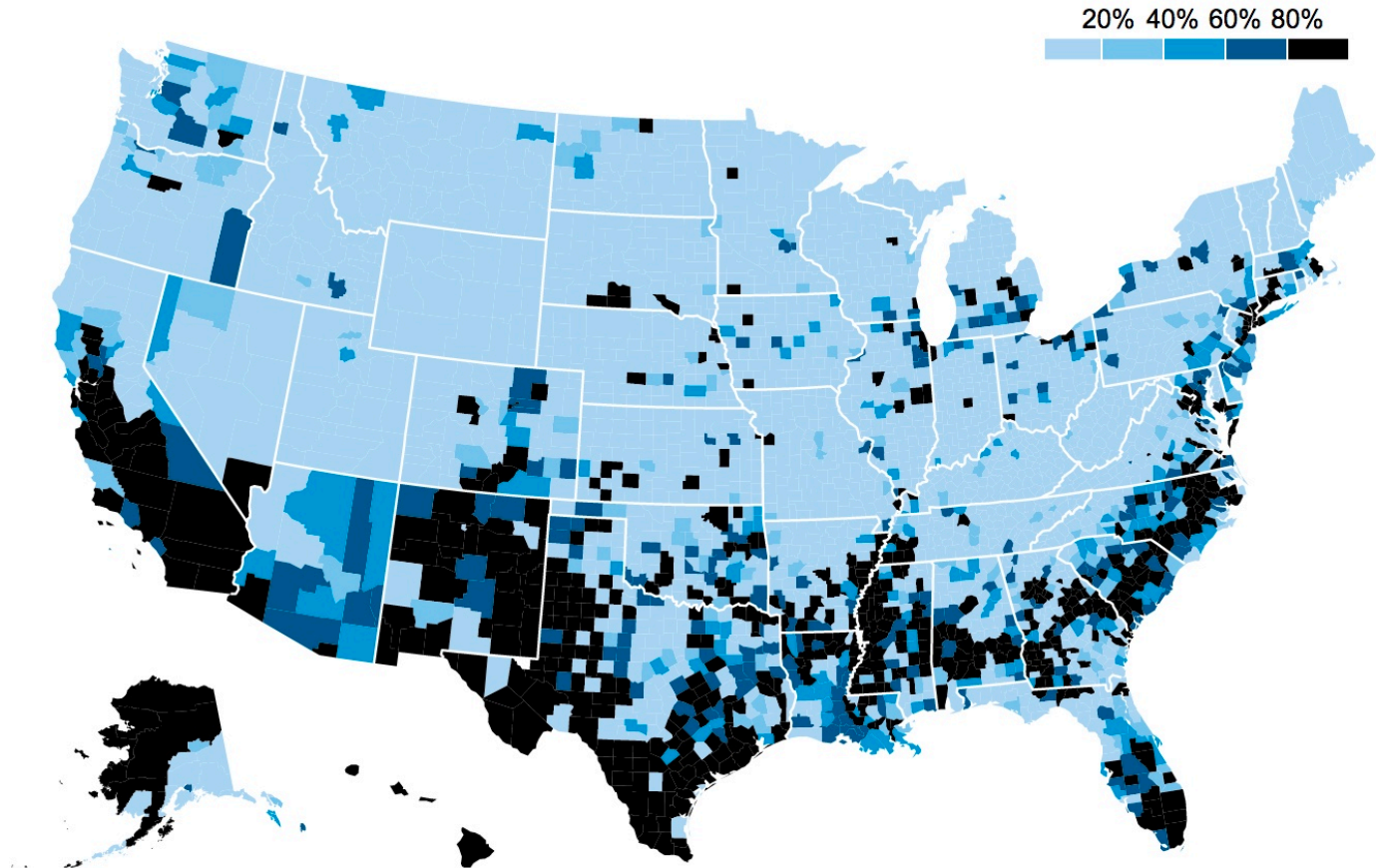
# Ultimate causes

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- Education
- Poverty
- Culture

# Segregated public schools

Share of black kids attending majority-nonwhite schools  
(2011-12)



Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data, 2011-12.

Notes: Race shares do not add to 100%.



Embed this map (Click the box, Ctrl+C to Copy):

<https://www.urban.org/urban-wire/americas-public-schools-remain-highly-segregated>

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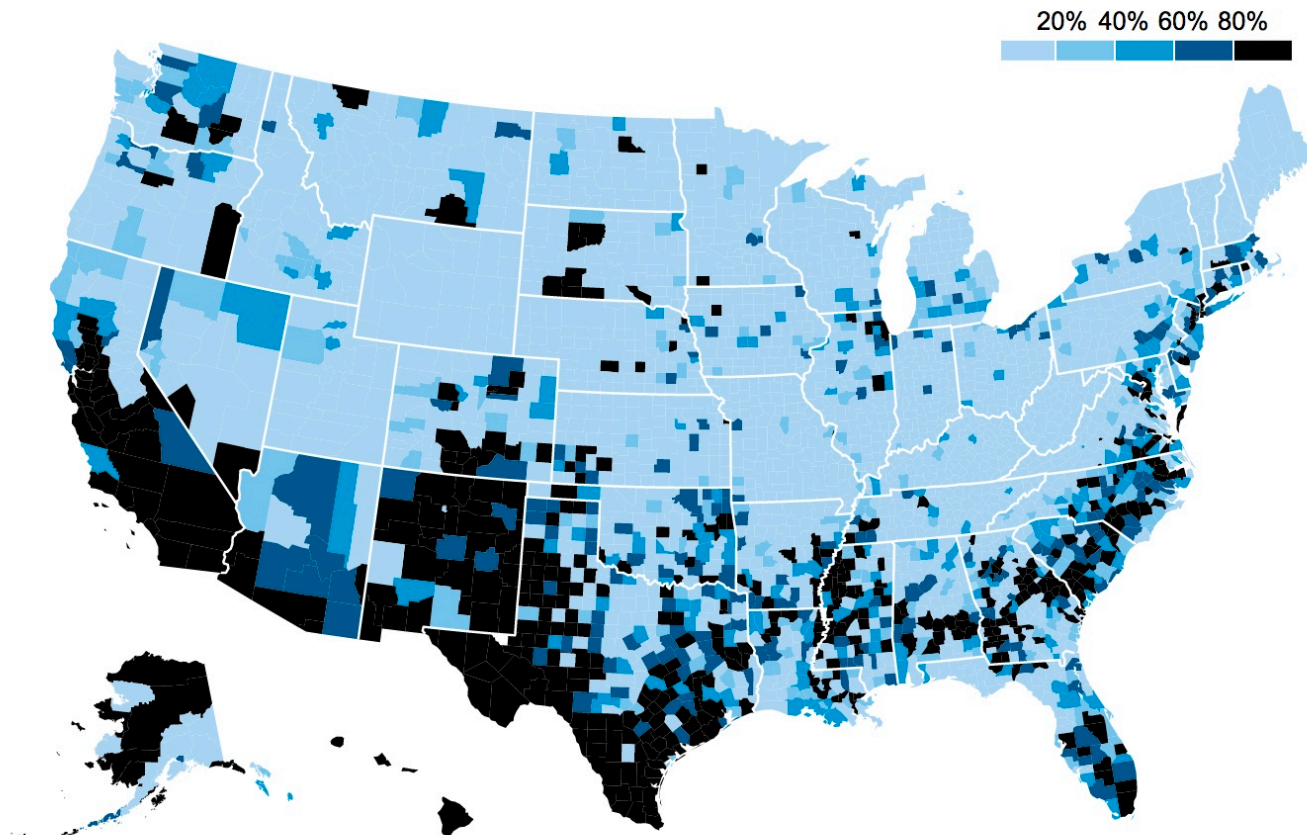


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# Segregated public schools

Share of Latino kids attending majority-nonwhite schools  
(2011-12)

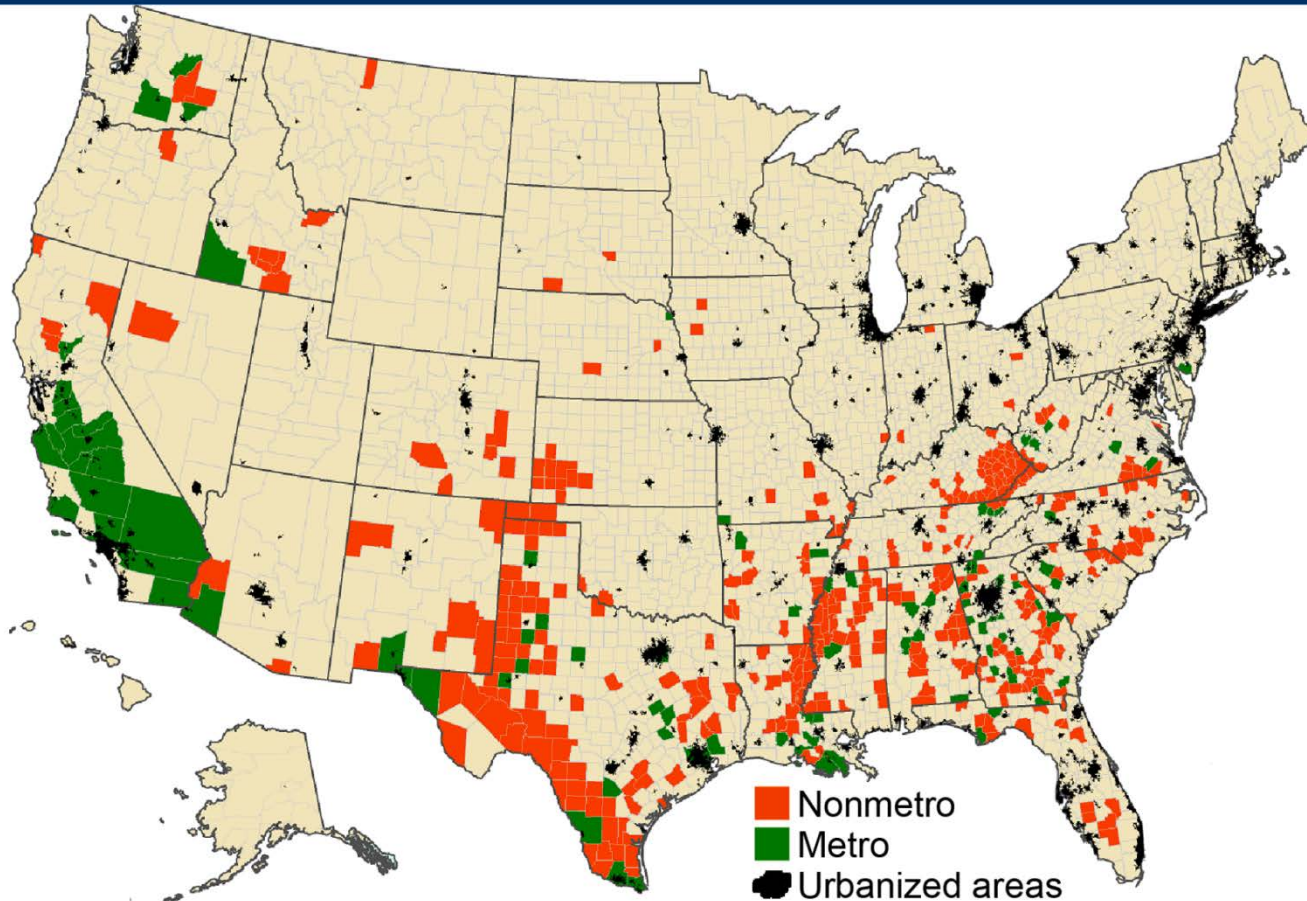


Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data, 2011-12.  
Notes: Race shares do not add to 100%.



# Educational disparities affect health literacy

Counties where 20 percent or more of adults 25-64 do not have a high school diploma/equivalent, 2008-12



Note: Metro/nonmetro status determined by Office of Management and Budget's 2013 metropolitan area definitions.

Source: USDA, Economic Research Service using data from the U.S. Census Bureau's American Community Survey 5-year average, 2008-12.



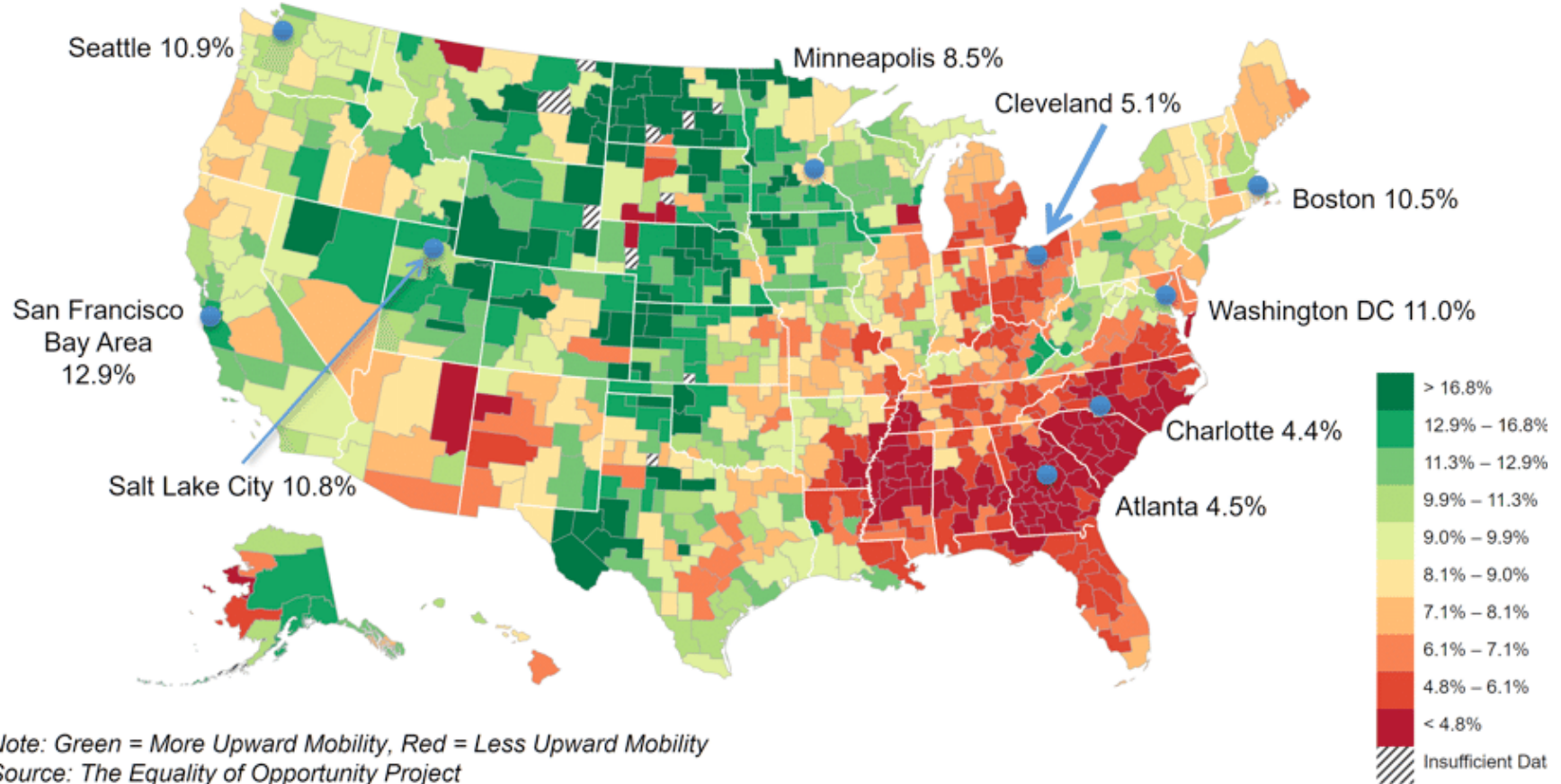
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# Restricted upward mobility

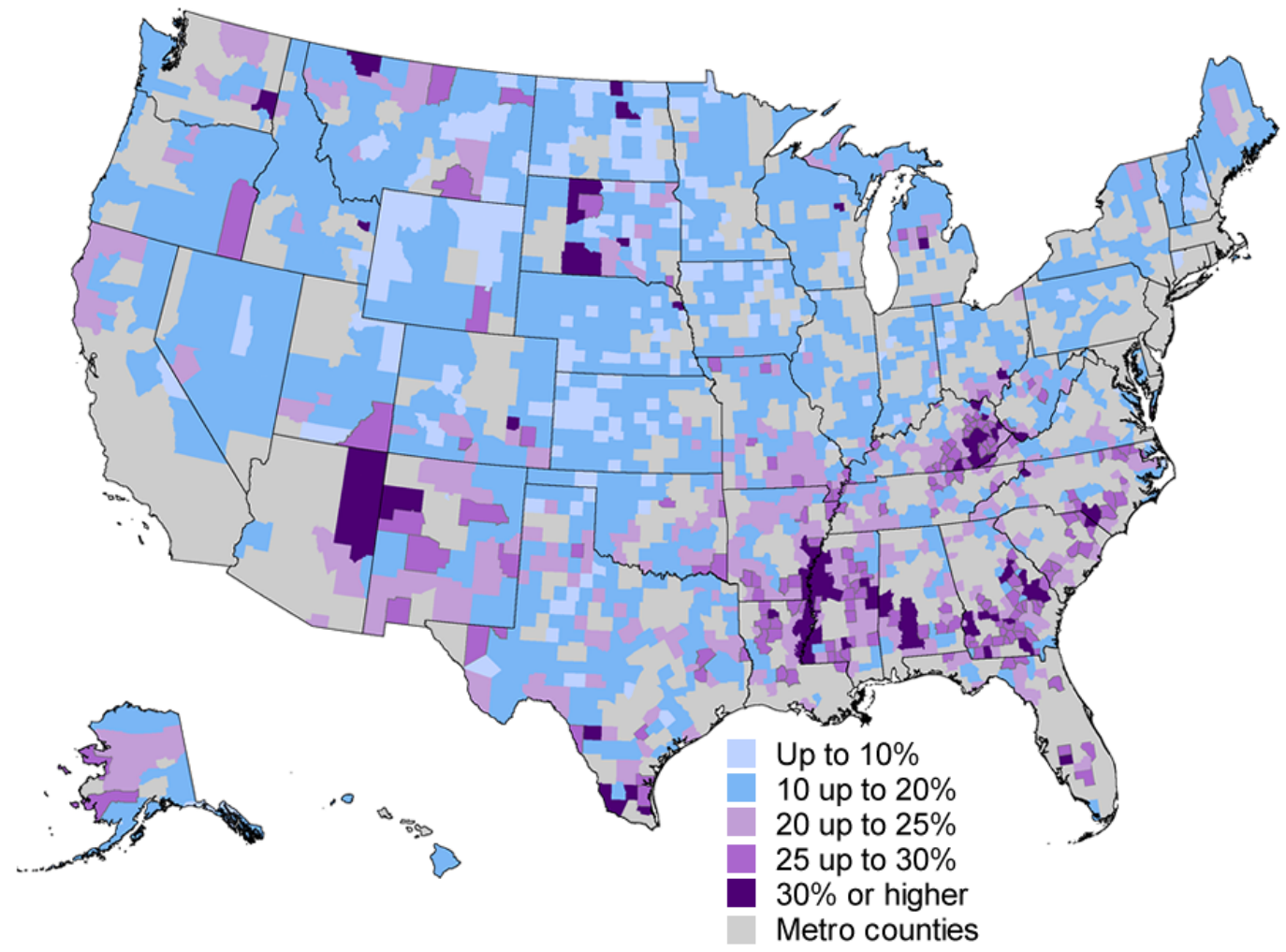
## The Geography of Upward Mobility in the United States

Chances of Reaching the Top Fifth Starting from the Bottom Fifth by Metro Area



# Rural poverty

Nonmetro county poverty rates, 2011-2015 average

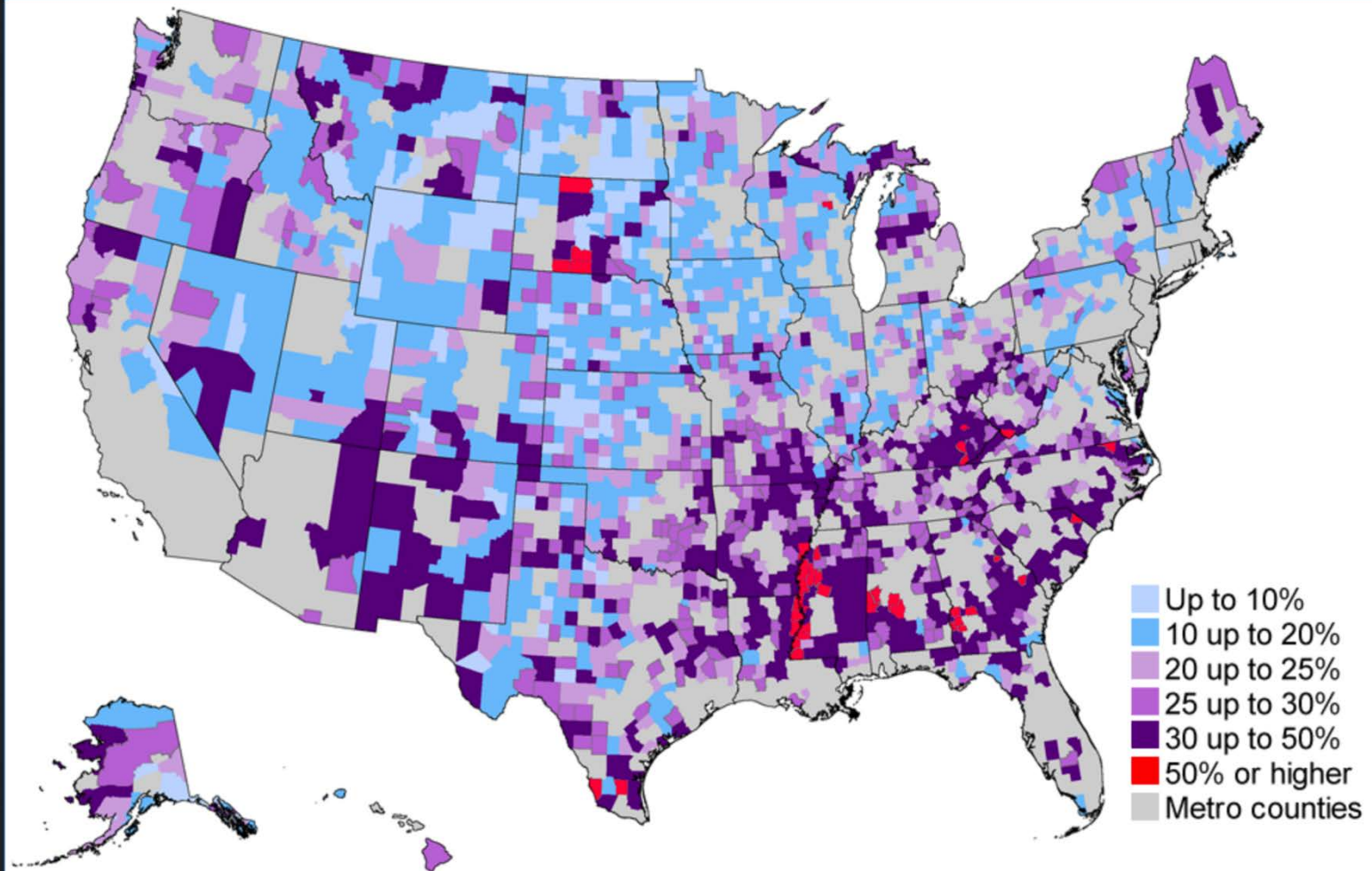


Source: USDA, Economic Research Service using data from U.S. Census Bureau, 2011-2015 American Community Survey, and 2013 Office of Management and Budget nonmetro/metro county designations.



# Rural child poverty

Nonmetro related child poverty rates by county, 2011-2015 average



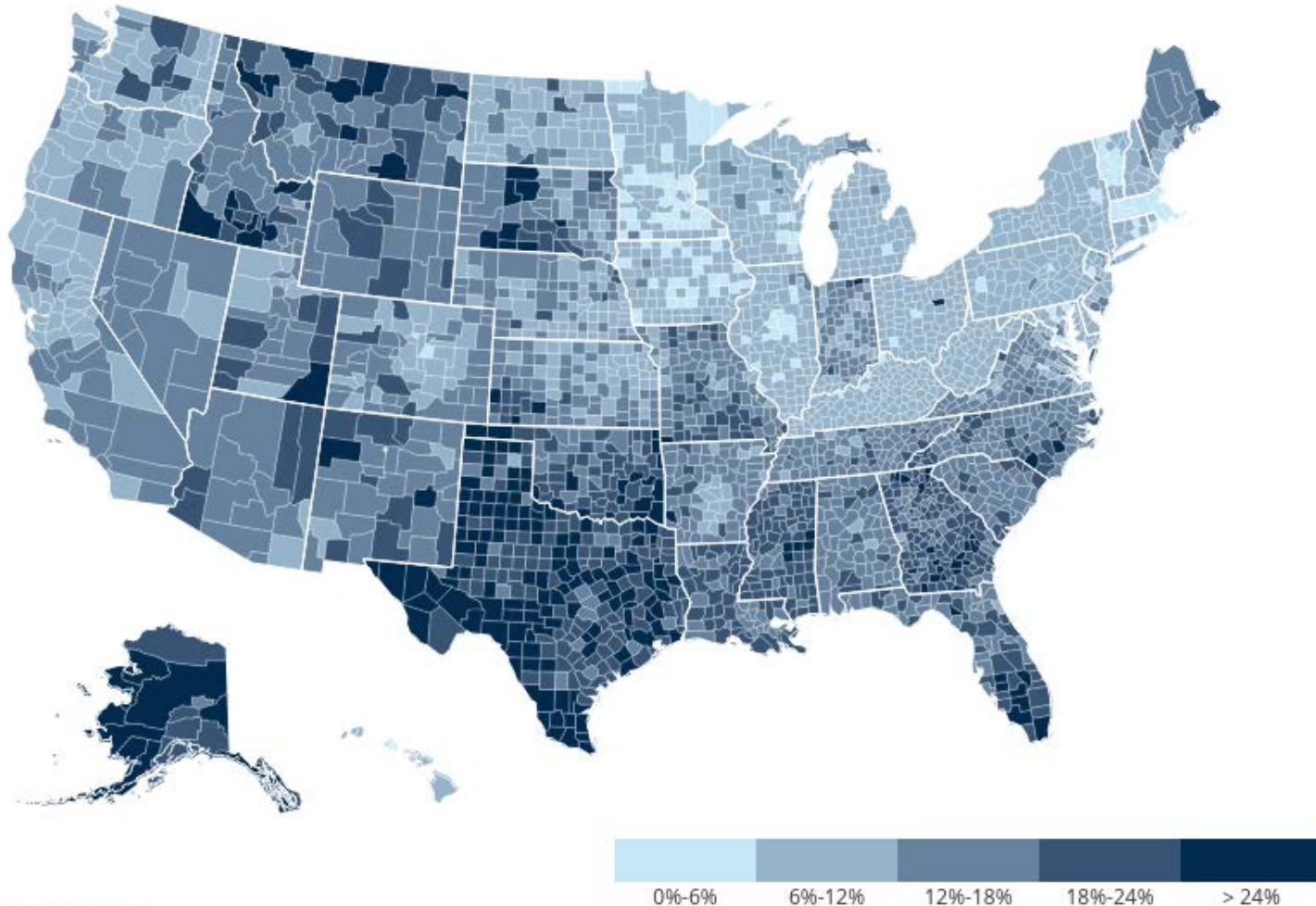
Note: Related children are defined as any child under 18 years old who is related to the householder by birth, marriage, or adoption.

Source: USDA, Economic Research Service using data from U.S. Census Bureau, 2010-2015 American Community Survey, and 2013 Office of Management and Budget metro/nonmetro designations.



# Lack of health insurance

Uninsured, 18 to 64 - 2015

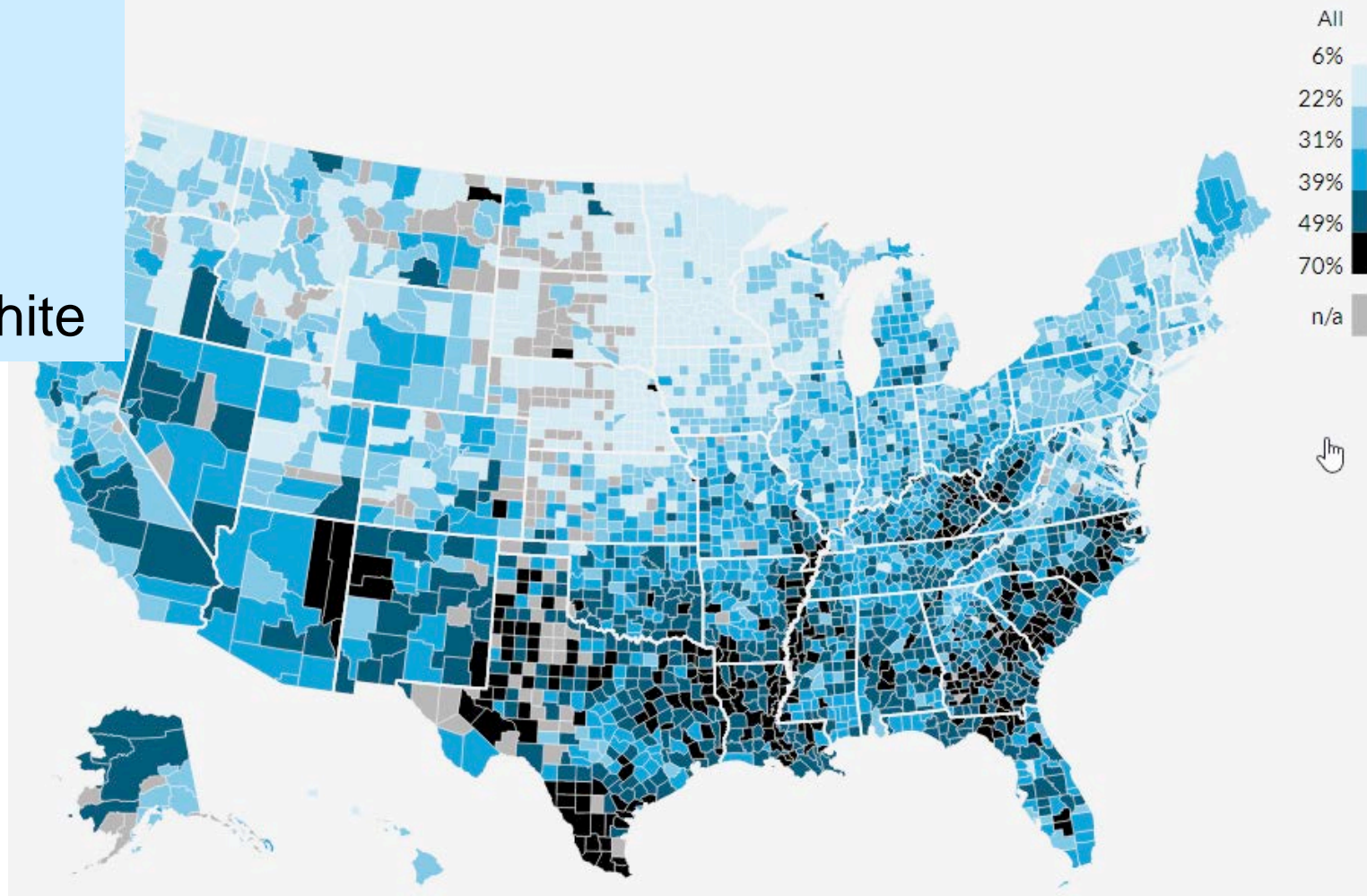


# Households with debt in collections

Any debt:

27% white

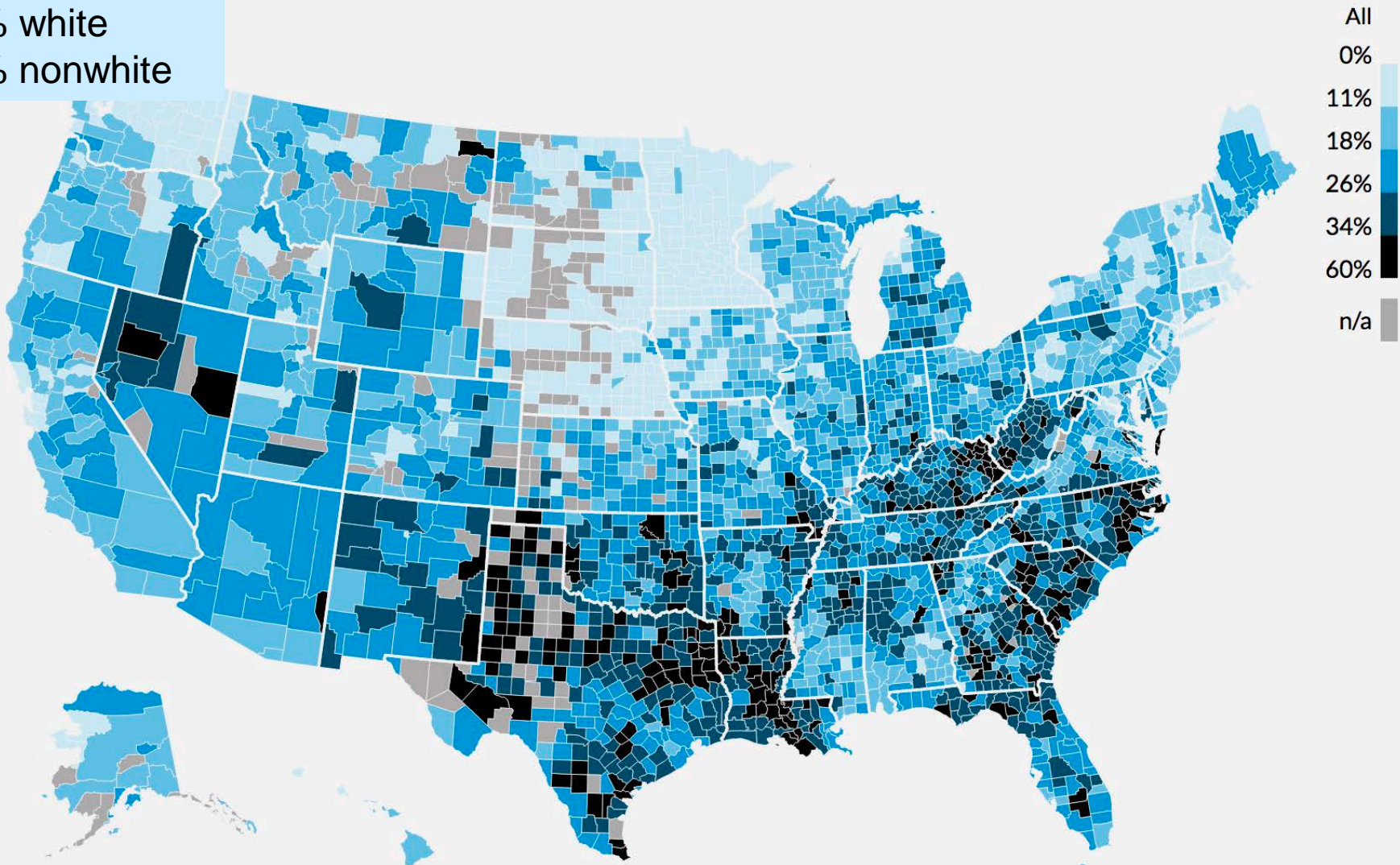
45% nonwhite





# Households with medical debt

Nationally:  
16% white  
21% nonwhite





# Reflecting on resources

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- Poor education → poor health literacy
- Low income → reduced ability to seek care, afford medications
- Fewer practitioners →
  - ◆ Difficulty getting into services
  - ◆ Crowded visit schedules
  - ◆ Little time for assessment, counseling

# Assessment: back to culture

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- To be culturally sensitive, we must listen and explore beliefs. But...
- Listening can be alarming: deeply divided communities
  - ◆ In South Carolina, the division is race
  - ◆ In other regions, the division may be economic class
- Communities where some groups of persons are perceived to have inferior cultures
- And culture has a very long shelf life



# WWII rejection rates parallel current health disparities

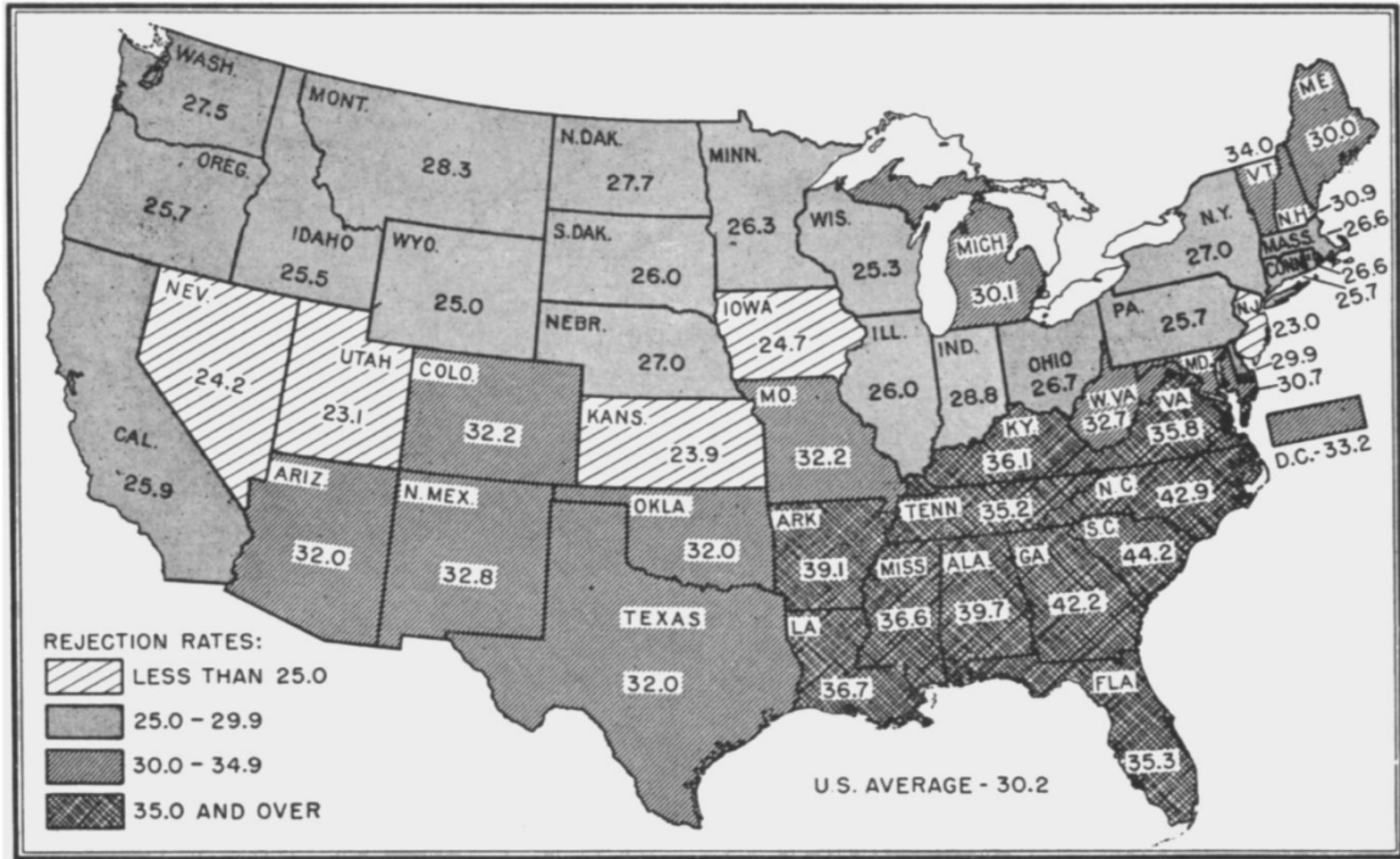


Figure 1. Percent of Selective Service registrants 18–37 years old rejected for physical or mental defects as of August 1, 1945, by State (3, p. 360).



# Historical culture can be problematic



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Photo credit: Samuel Corum/Anadolu Agency via Getty Images



# Age-adjusted mortality, 2010 – 2014, by lynching rate category

## Five-year age adjusted mortality rates for:

| Lynch rate category: | Overall (N=1,221) | White             | Black           | White             | Black           |
|----------------------|-------------------|-------------------|-----------------|-------------------|-----------------|
|                      |                   | Males (N = 1,217) | Males (N=888)   | Females (N=1,217) | Females (N=873) |
| Category 1:          | 863               | 1,014             | 1,138           | 739               | 784             |
| Category 2:          | <b>889**</b>      | 1,032             | <b>1,202**</b>  | <b>747*</b>       | <b>817***</b>   |
| Category 3:          | <b>905***</b>     | <b>1,041*</b>     | <b>1,218***</b> | 761               | <b>835*</b>     |
| Category 4:          | <b>910***</b>     | <b>1,042*</b>     | <b>1,220***</b> | 756               | <b>827**</b>    |

P values indicate differences between the starred value and the value for Category 1.

\*  $p \leq 0.05$

\*\*  $p \leq 0.01$

\*\*\*  $p \leq 0.001$

Category definitions:

- 1: No lynchings on record
- 2: Any lynchings through 0.934/10,000 residents
- 3: More than 0.934 to 2.508/10,000 residents
- 4: Greater than 2.508 /10,000 residents

DRAFT not  
for public  
release



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# *Their Ancestors Were on Opposite Sides of a Lynching. Now, They're Friends.*

By JOHN ELIGON MAY 4, 2018

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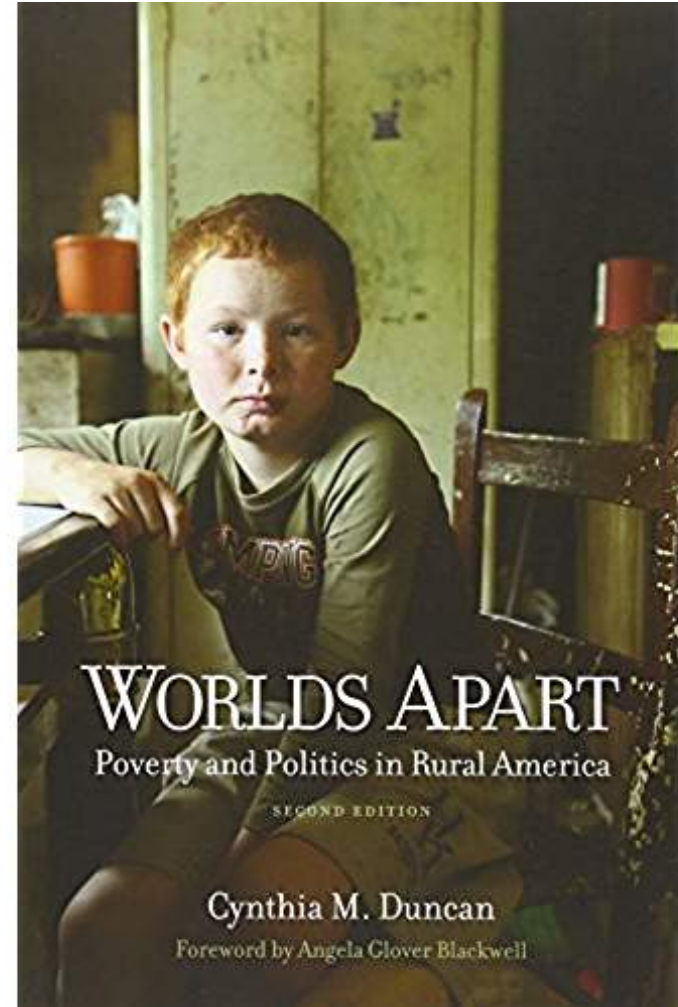
# Plan

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- Can rural disparities be addressed?
- Resource disparities could be addressed with political will
- Cultural disparities are more subtle

# Two views on culture

- Vance: those hillbillies have a horrible culture
- Duncan: divided societies do not equip lower class residents with the tools needed to navigate successfully in a world structured around upper class needs and tastes.



# Duncan: “cultural toolkit”

- Duncan focuses on schools as vehicles for perpetuating either community or disparity
  - ◆ In a community where students of all social classes attended a single school system, individual social mobility occurred
  - ◆ In two communities with divided school systems, stagnation
- Schools also identified in South Carolina’s Rural Health Action Plan

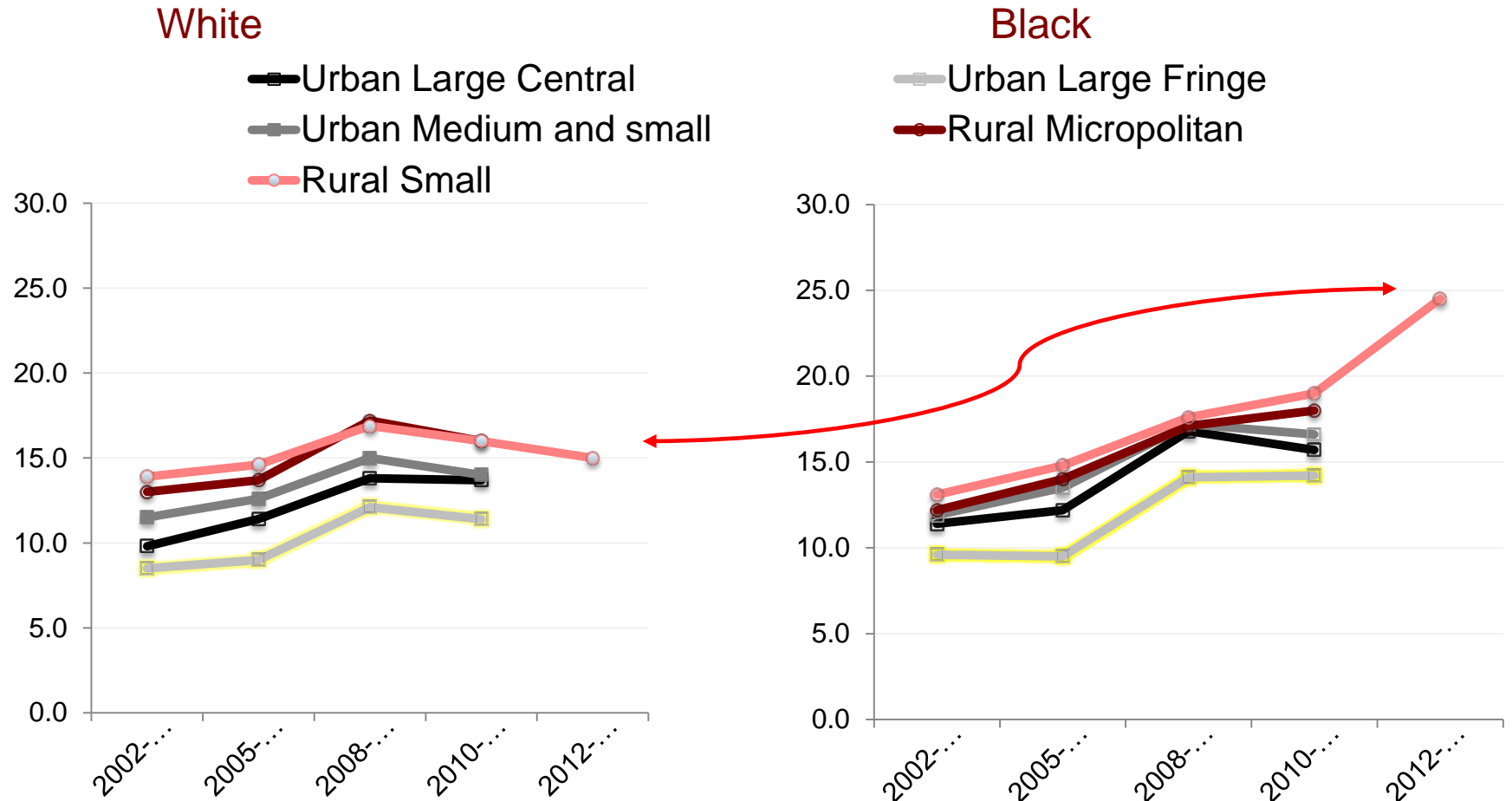
# Expand surveillance and set goals

- Rural minority “double disparities” will not be addressed if they are not seen
- CDC’s 11-report rural series is a good beginning, but
  - ◆ 2 reports examined racial disparities only within a subset of rural counties (no urban) and
  - ◆ 3 did not include race/residence tables



# Health US series only periodically examines race & residence

## Percent of working age adults delaying care, by race & residence



# Set goals

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- Include rural, rural minority, and rural LGBTQ populations in HP2030 goal-setting
- Include rural, rural minority, and rural LGBTQ populations in AHRQ's Health Disparity series



# Address disparities in health care resources

- At a minimum, protect existing infrastructure:
  - ◆ Critical access hospitals
  - ◆ Rural health clinics
  - ◆ Federally qualified health centers
  - ◆ Other CMS and state rural funding categories
- A newer, better Hill-Burton program?
  - ◆ Re-examining the concept of “minimum necessary facilities”
  - ◆ Changing the way care is funded
  - ◆ Changing the way care is delivered



# More on funding

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- Expand Medicaid?
  - ◆ Of course, it's better than nothing
- Change the game?
  - ◆ Global budgeting for hospitals as a model for “health care services as a utility”

# And most importantly....

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- Keep your hand on the plough
- Think how much worse things *might* be...
- Hold on

# Thanks!

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- Our web site:
  - ◆ [rhr.sph.sc.edu](http://rhr.sph.sc.edu)
- Core funding from:
  - ◆ Federal Office of Rural Health Policy, Health Resources & Services Administration, USDHHS
- Contact:
  - ◆ [jprobst@sc.edu](mailto:jprobst@sc.edu)



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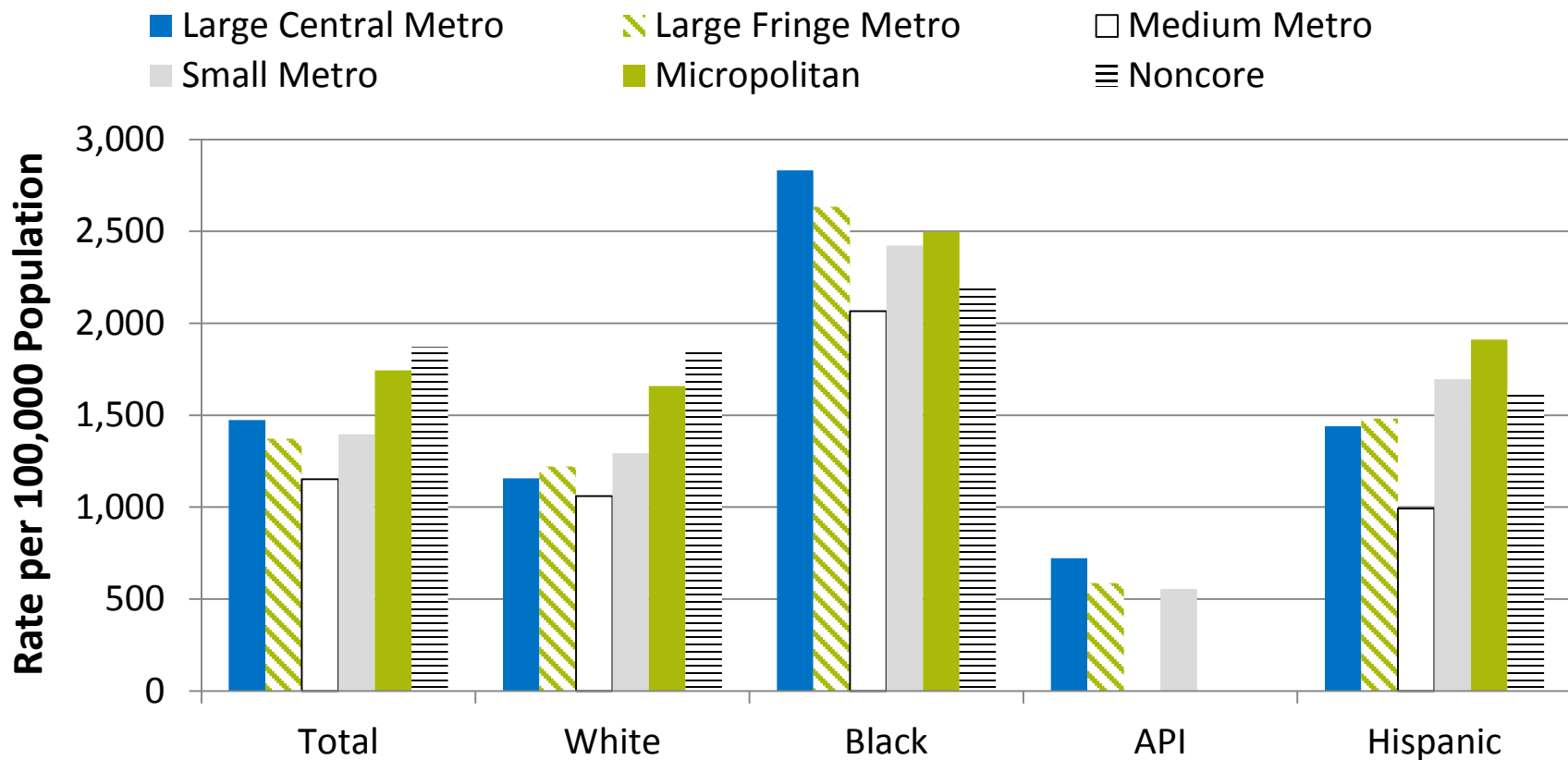
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University of North Dakota  
501 N. Columbia Road Stop 9037  
Grand Forks, ND 58202



# Potentially avoidable hospitalizations for all conditions per 100,000 population, by residence location, stratified by race/ethnicity, 2014



**Key:** API = Asian or Pacific Islander.

**Source:** Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project, 2014 State Inpatient Databases disparities analysis file, and AHRQ Quality Indicators, version 4.4.

**Note:** For this measure, lower rates are better. White, Black, and API are non-Hispanic. Hispanic includes all races. Data for medium metropolitan, micropolitan, and noncore areas for APIs are not included because these populations did not meet criteria for statistical reliability.

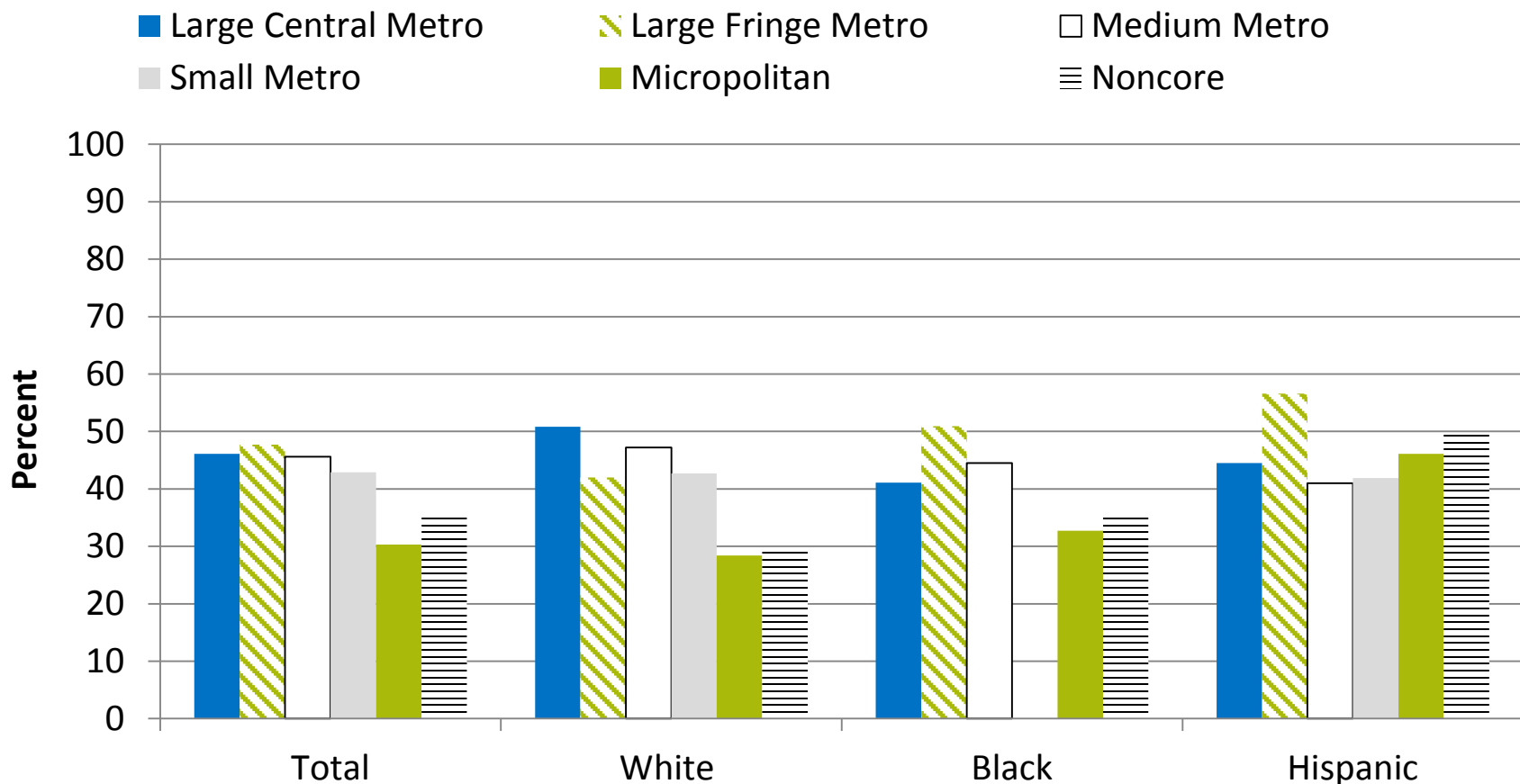
Rates are adjusted by age and gender using the total U.S. resident population for 2010 as the standard population.







# Children ages 2-17 for whom a health provider gave advice within the past 2 years about the amount and kind of exercise, sports, or physically active hobbies they should have, by residence location, stratified by race/ethnicity, 2014



**Source:** Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2014.

**Note:** Data unavailable for Blacks in small metropolitan areas. White and Black are non-Hispanic. Hispanic includes all races.