

Closing the Health Equity Gap: Strategies for Addressing Health Disparities in Rural Communities

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Disclosures

I have no financial disclosures to declare.

Objectives

1

Define health equity, health disparities and health determinants

2

Describe rural health disparities

3

Explain drivers of rural health disparities

4

Identify strategies for improving rural health equity



My Friends & Teachers

Ghana (2000-2002)

Zimbabwe (2008-2010)

Haiti (2012-Present)

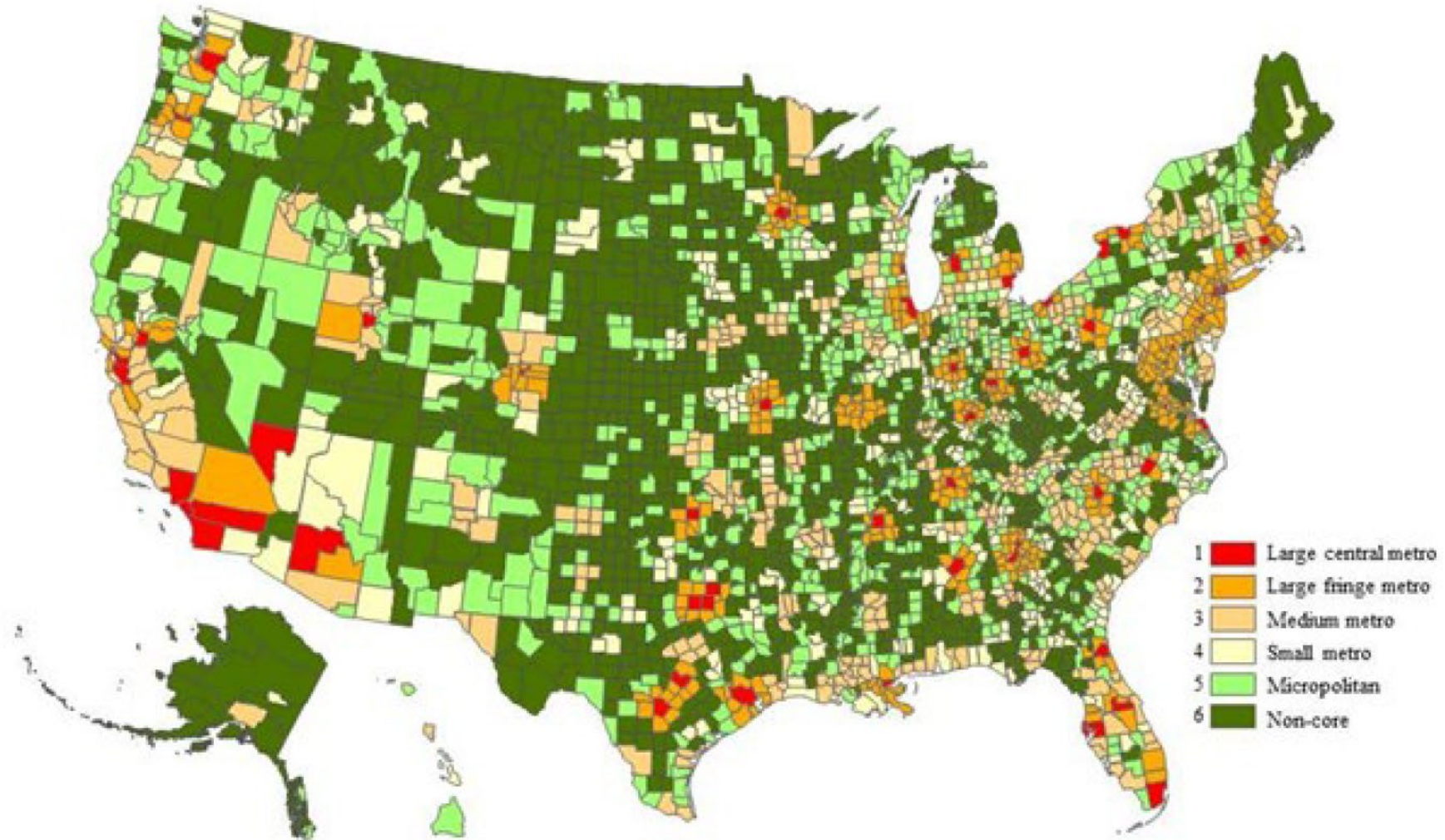
Burkina Faso (2014-Present)

South Texas (2017-Present)



Part I-Definitions & Common Language

Map Applying NCHS Urban-Rural Classification Scheme



Centers for Disease Control and Prevention. NCHS Urban-Rural Classification Scheme for Counties.

https://www.cdc.gov/nchs/data_access/urban_rural.htm#2013_Urban-Rural_Classification_Scheme_for_Counties.

Accessed November 24, 2021.

Health Disparity

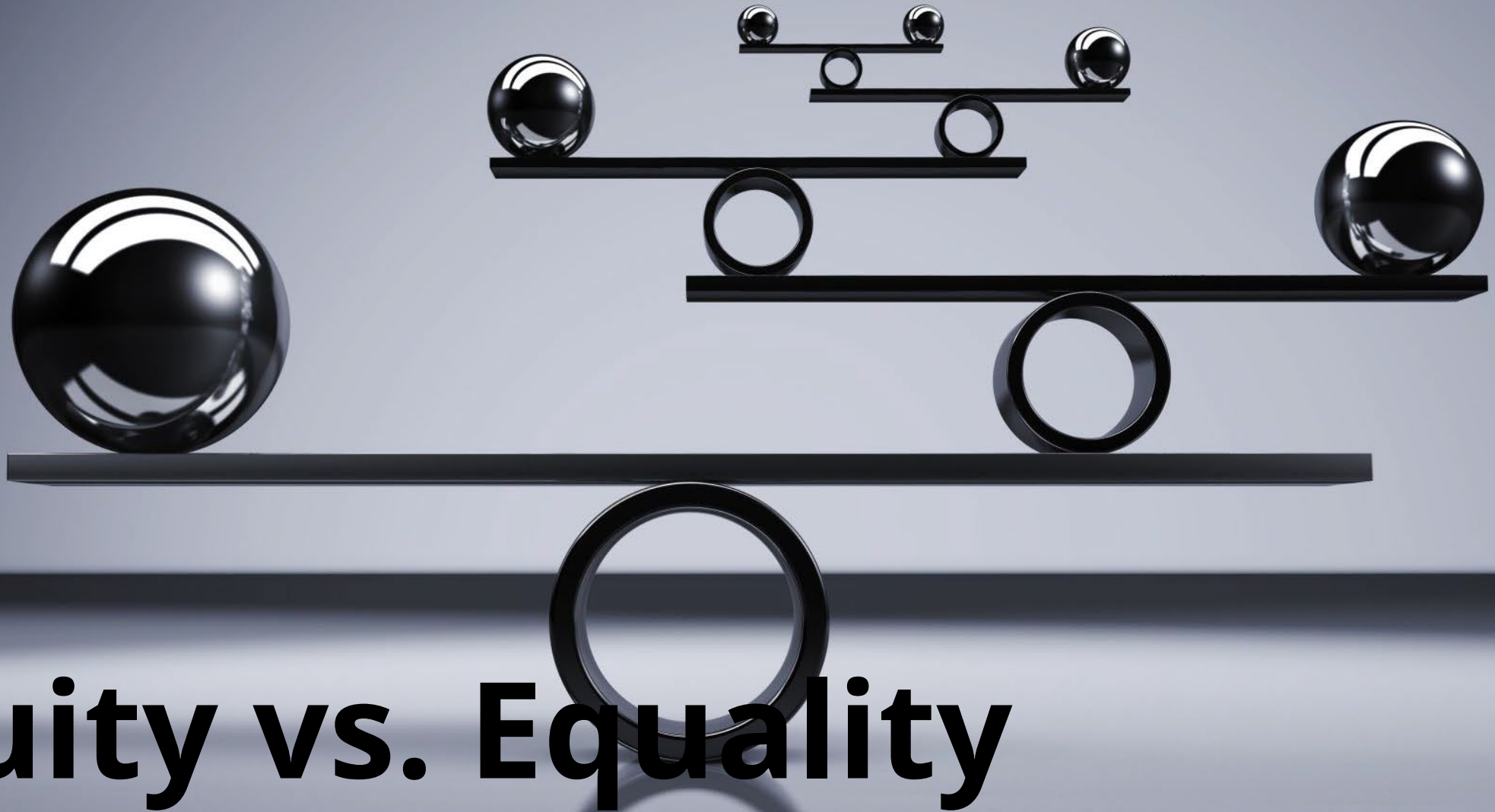
Preventable differences in the burden, disease, injury, violence, or in opportunities to achieve optimal health experience by socially disadvantaged racial, ethnic and other population groups and communities.

-Centers for Disease Control & Prevention (CDC)

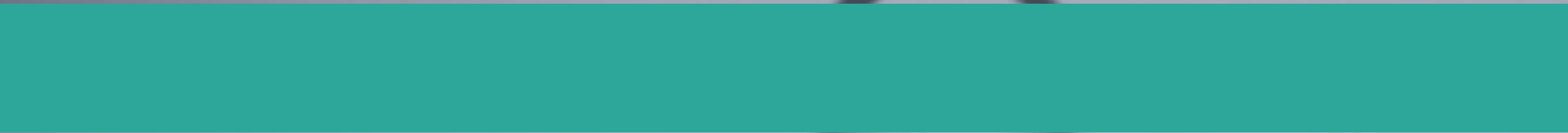
Health Inequity

Systematic differences in the opportunities groups have to achieve optimal health, leading to unfair and avoidable differences in health outcomes

-Braveman, 2006; WHO, 2011



Equity vs. Equality



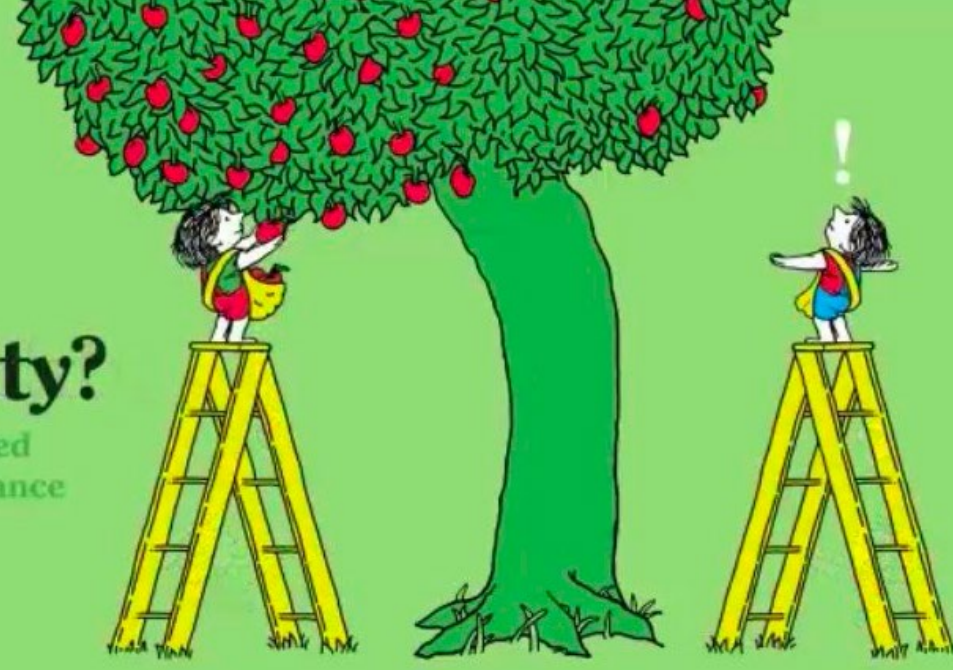
Inequality

Unequal access to opportunities



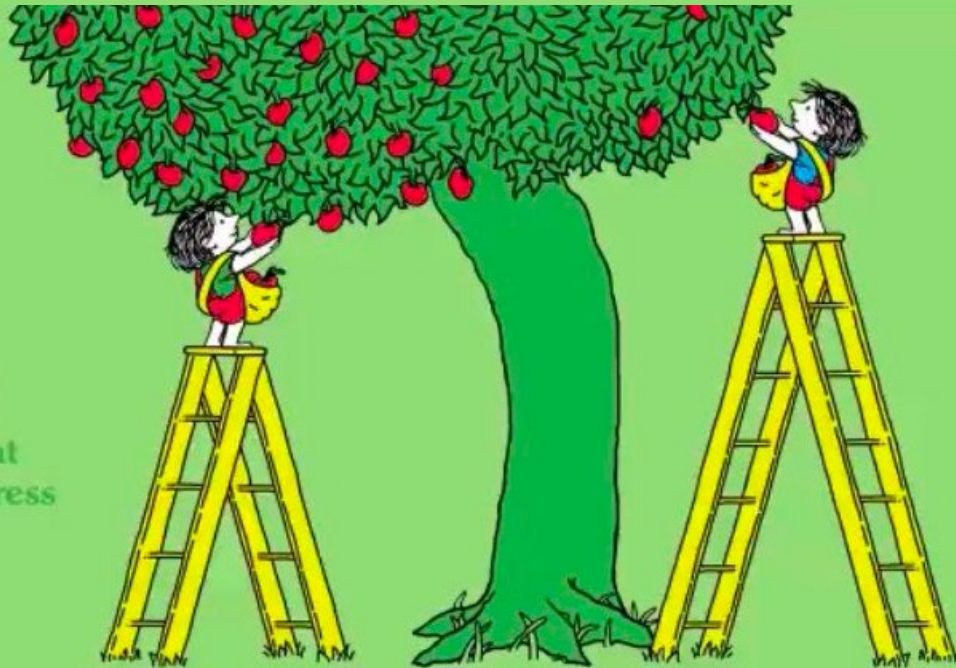
Equality?

Evenly distributed tools and assistance



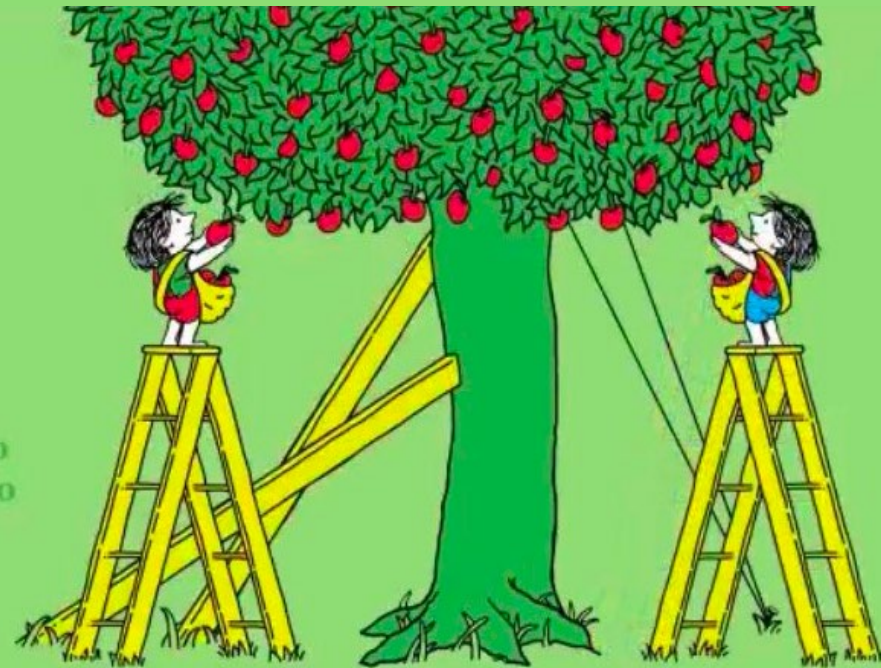
Equity

Custom tools that identify and address inequality

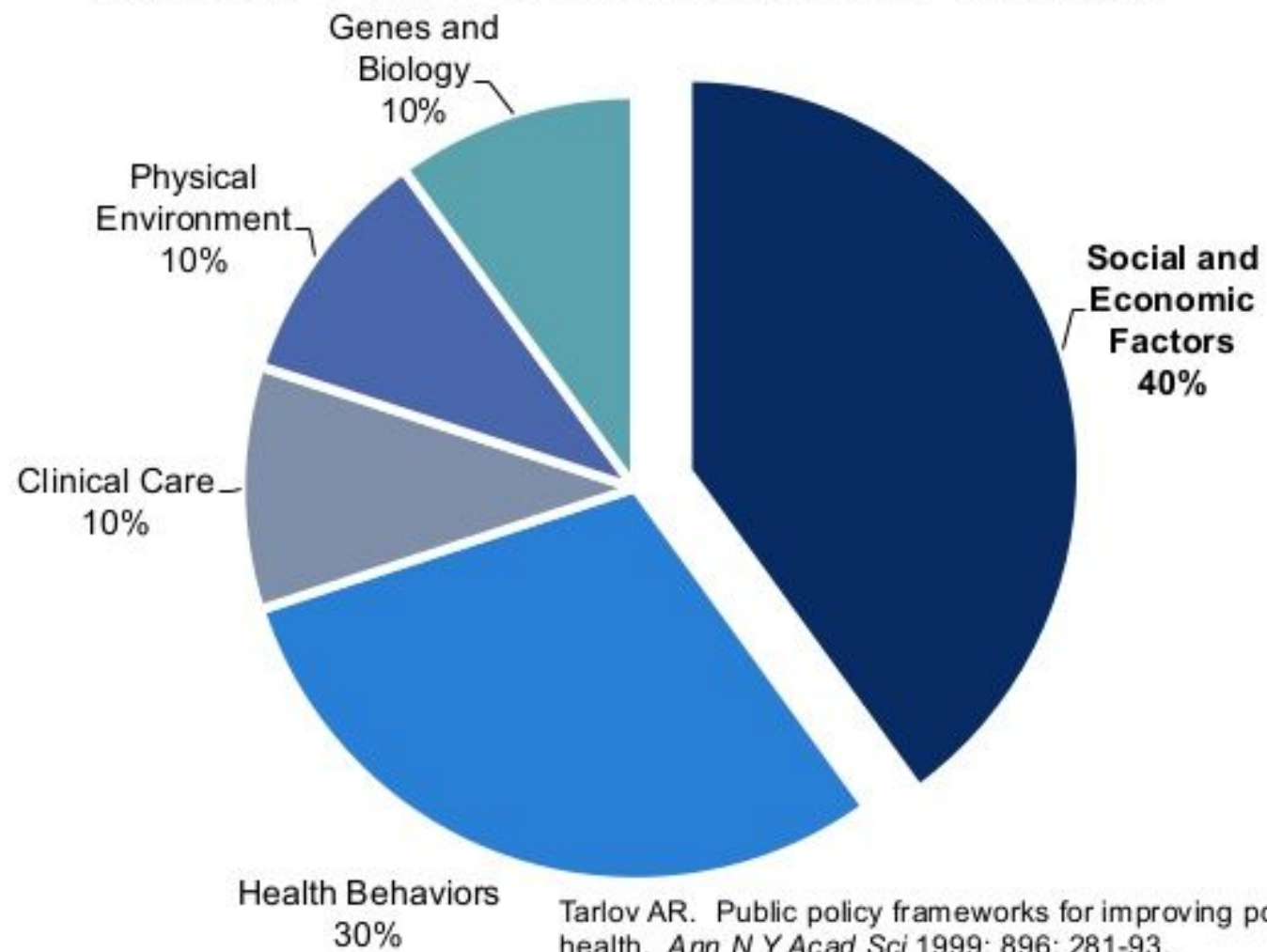


Justice

Fixing the system to offer equal access to both tools and opportunities

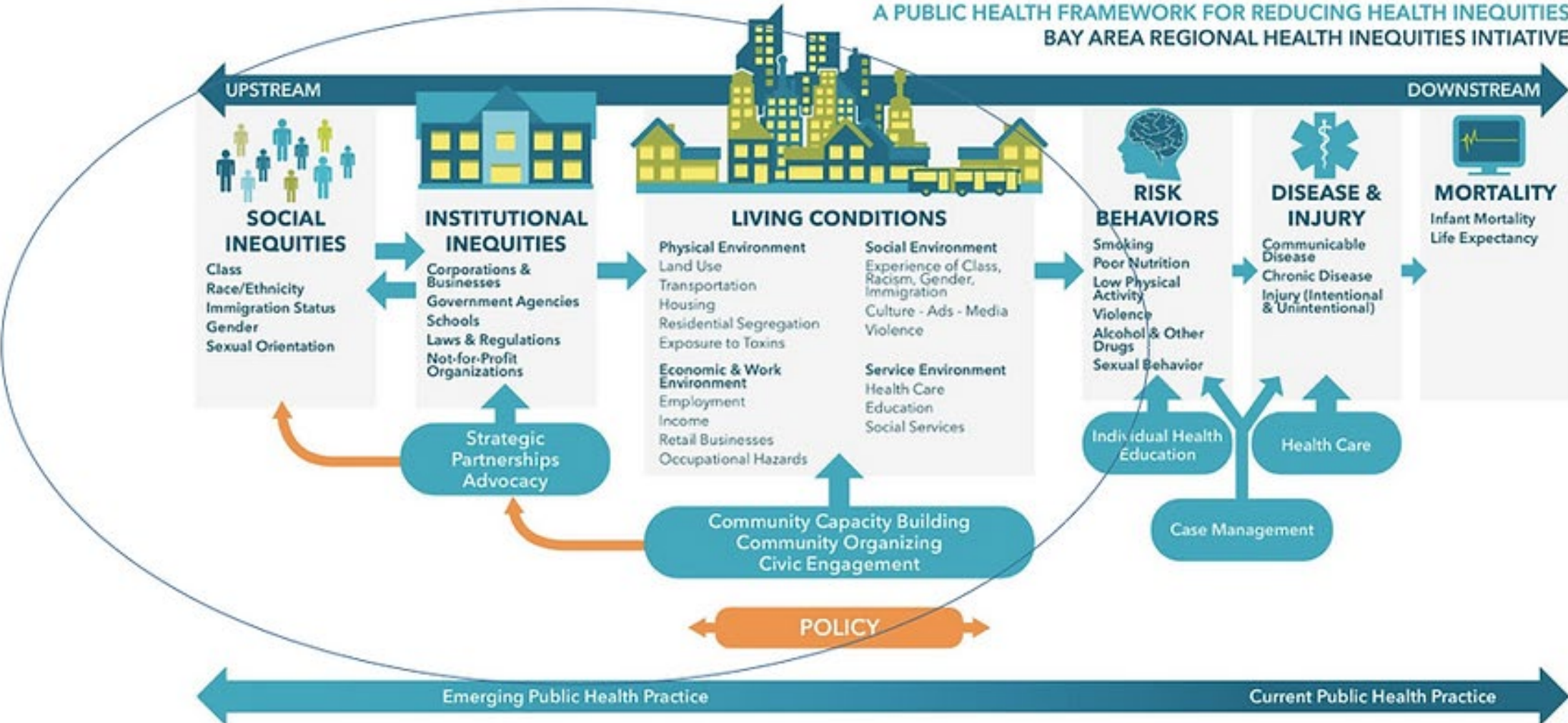


What Creates Health? What are the Determinants of Health?



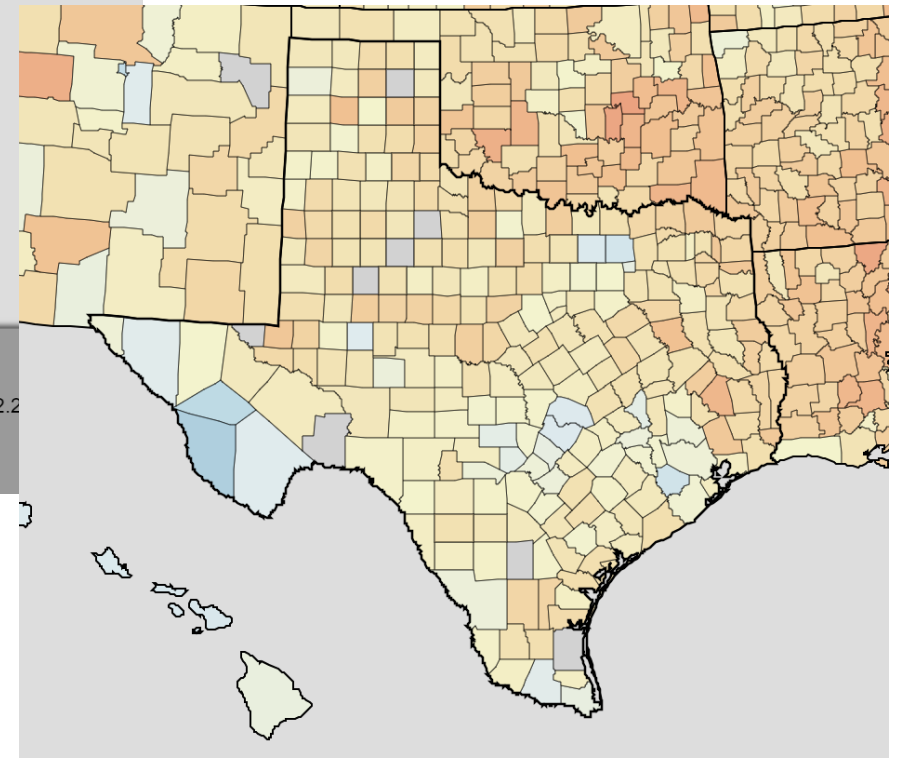
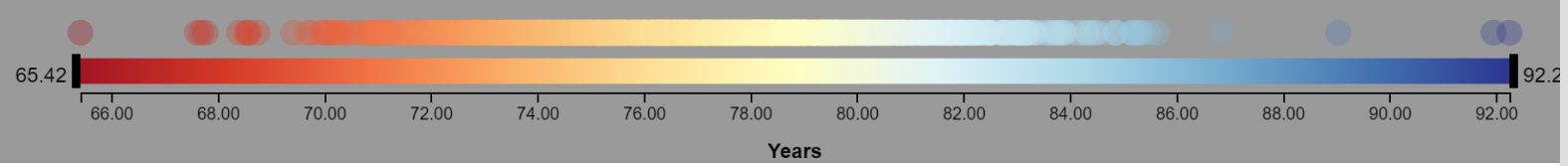
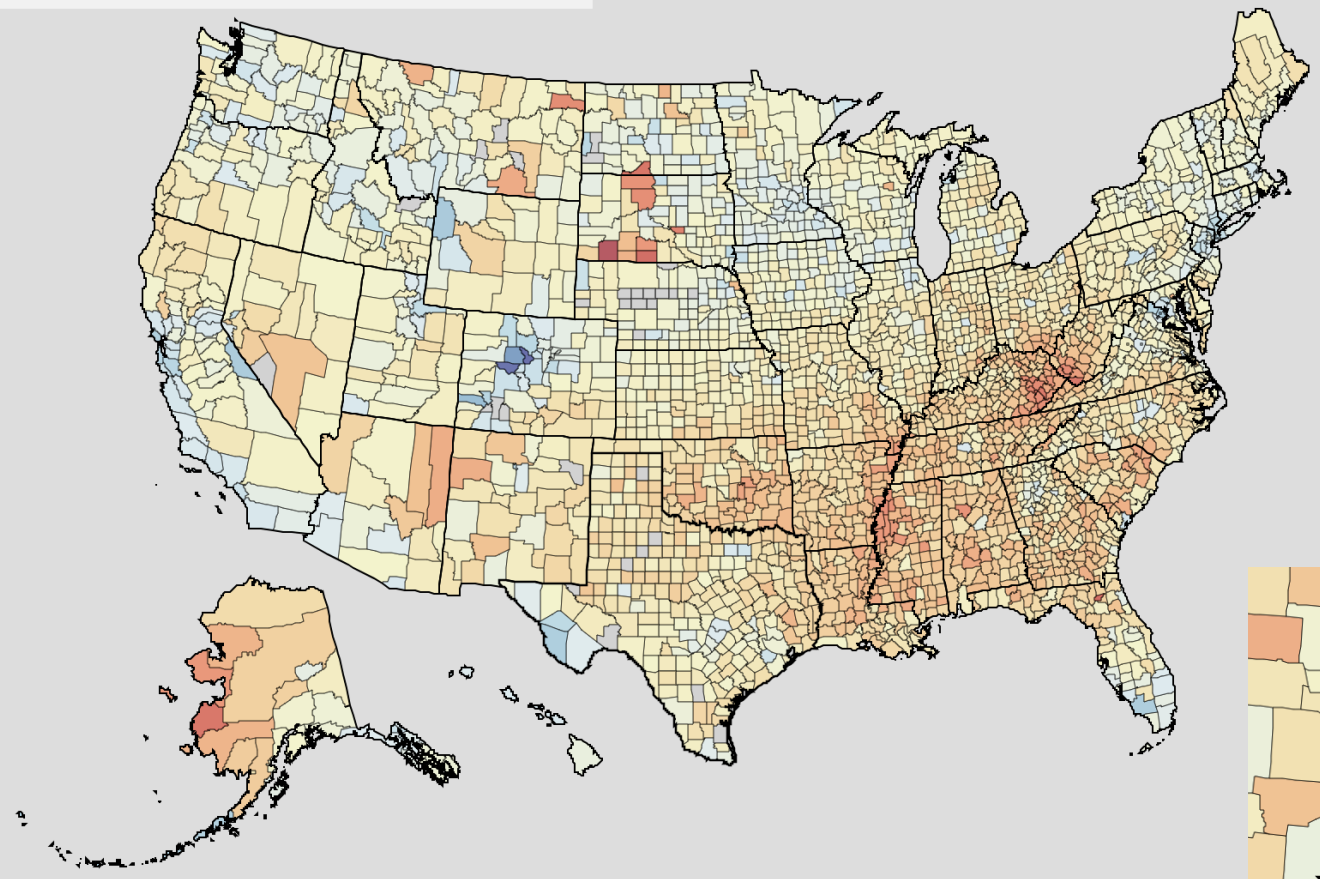
Tarlov AR. Public policy frameworks for improving population health. *Ann N Y Acad Sci* 1999; 896: 281-93.

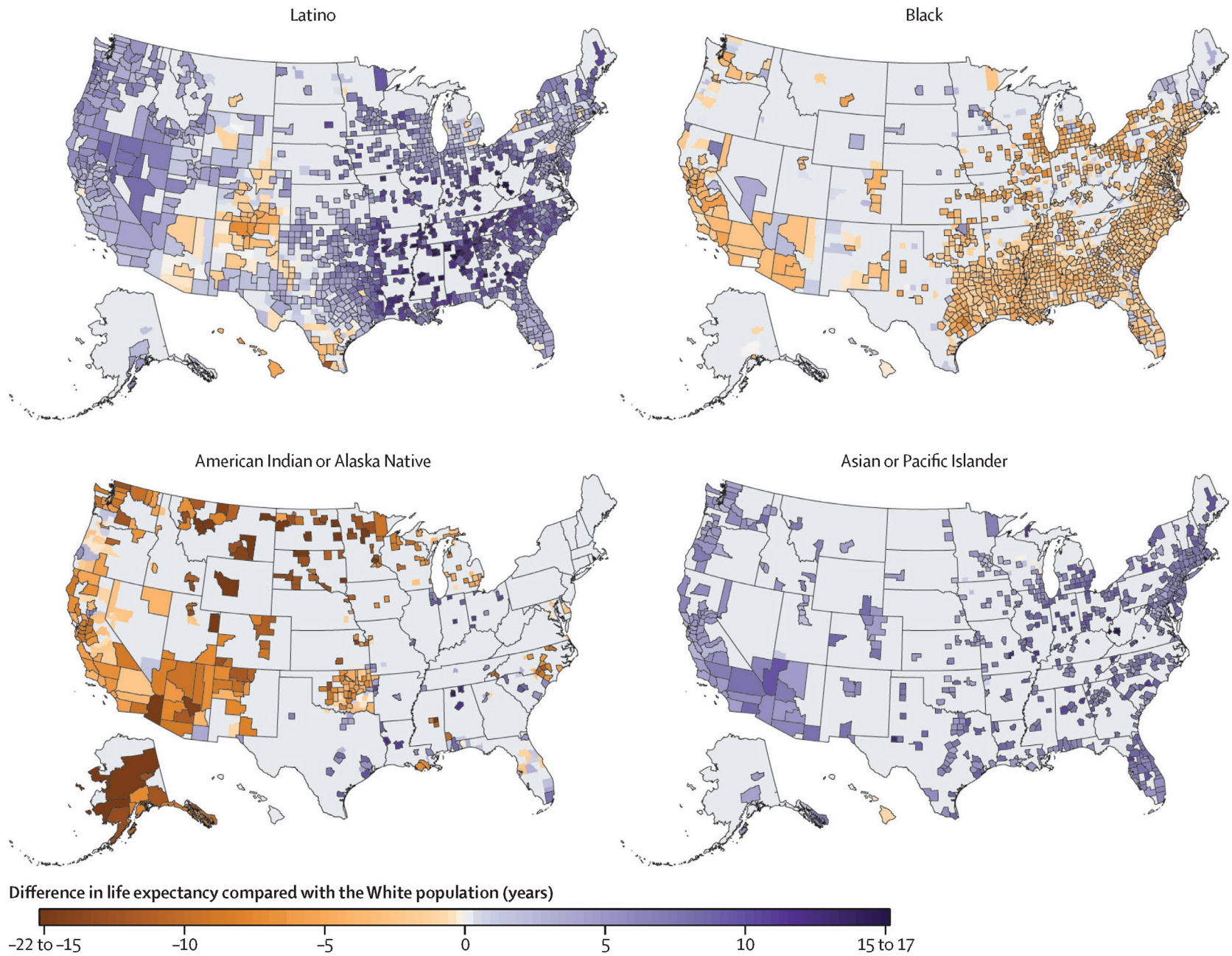
Upstream vs. Downstream



Part II-Rural Health Disparities

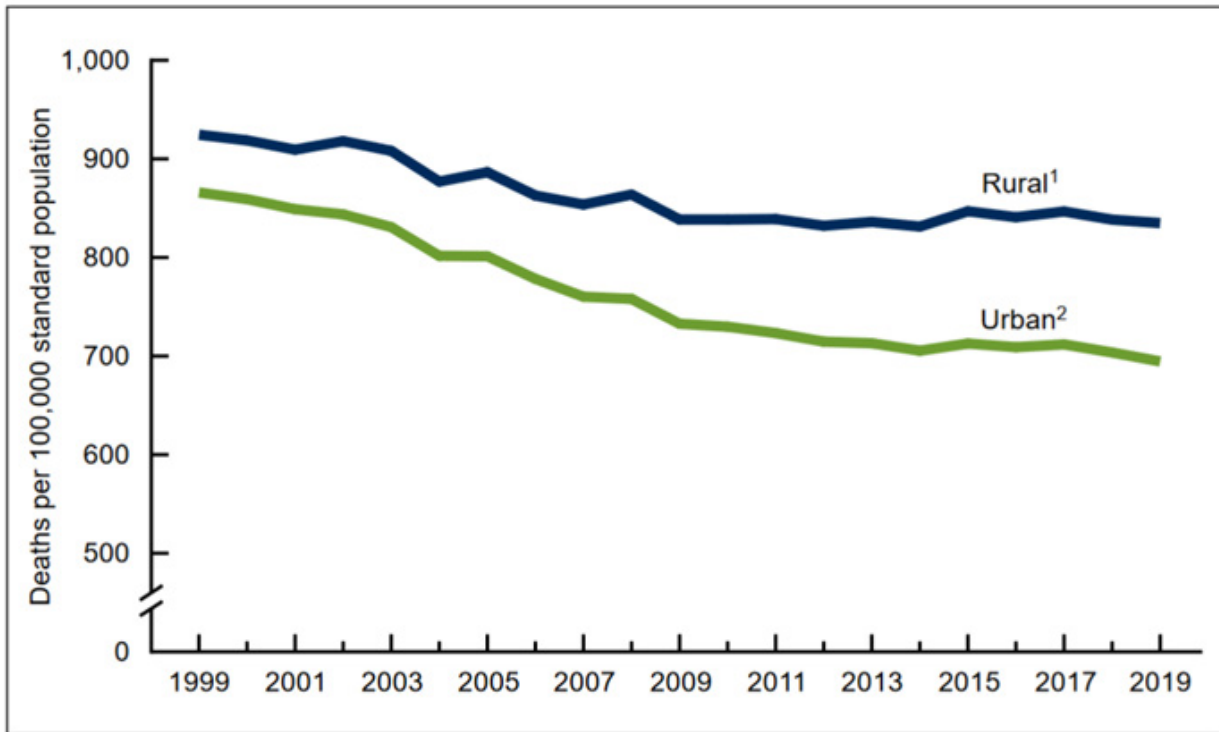
Life expectancy at birth; Both sexes; All racial and ethnic groups; 2019





Swyer-Lindgren et al. (2022). Life expectancy by county, race, and ethnicity in the USA, 2000–19: a systematic analysis of health disparities. *The Lancet*, 400 (10345).DOI: (10.1016/S0140-6736(22)00876-5)

Figure 1. Age-adjusted death rates, by urban-rural classification: United States, 1999–2019



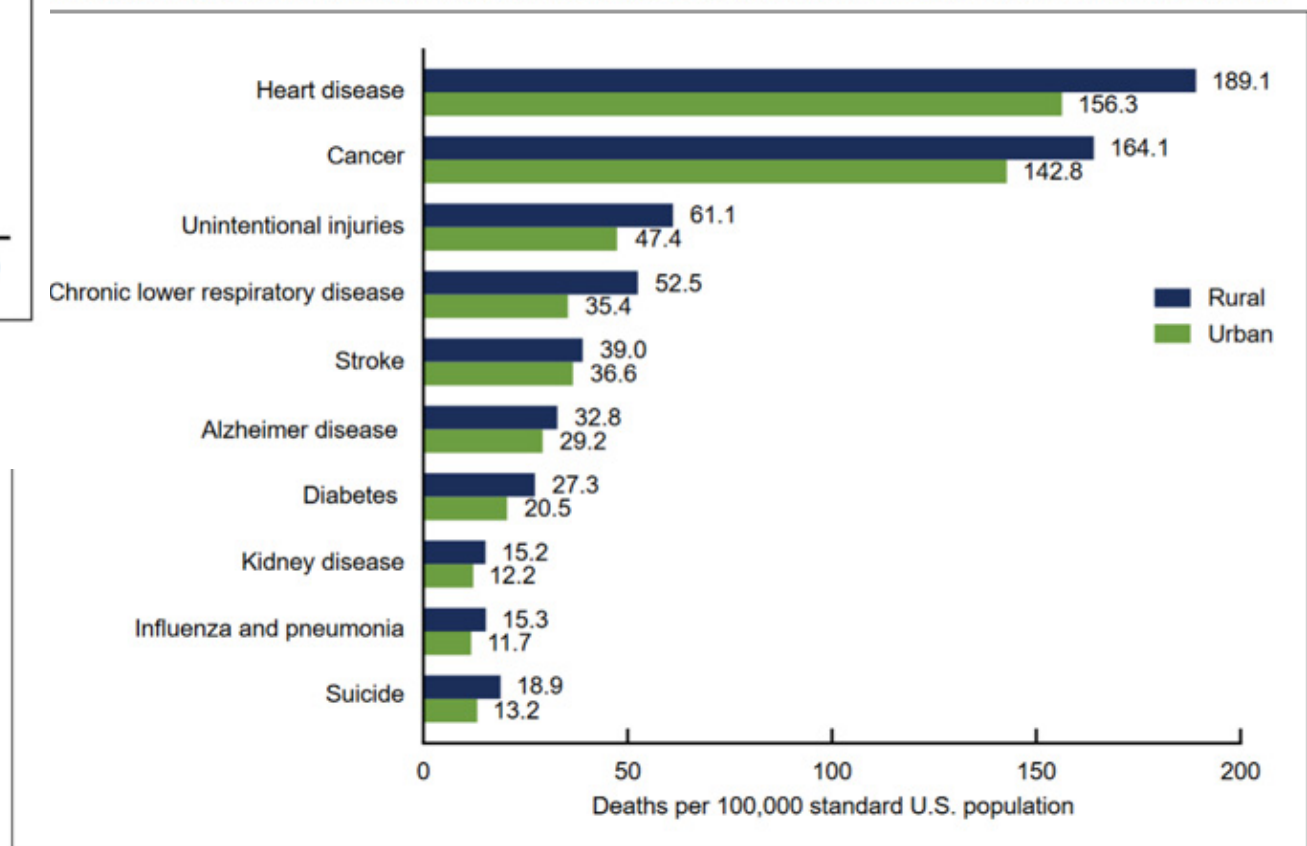
¹Significant decreasing trend from 1999 through 2010; stable trend from 2010 through 2019 ($p < 0.05$).

²Significant decreasing trend from 1999 through 2019, with different rates of change over time ($p < 0.05$).

NOTES: Urbanicity of county of residence is based on the 2013 NCHS Urban-Rural Classification Scheme for Counties; see Data source and methods. Access data table for Figure 1 at: <https://www.cdc.gov/nchs/data/databriefs/db417-tables.pdf#1>.

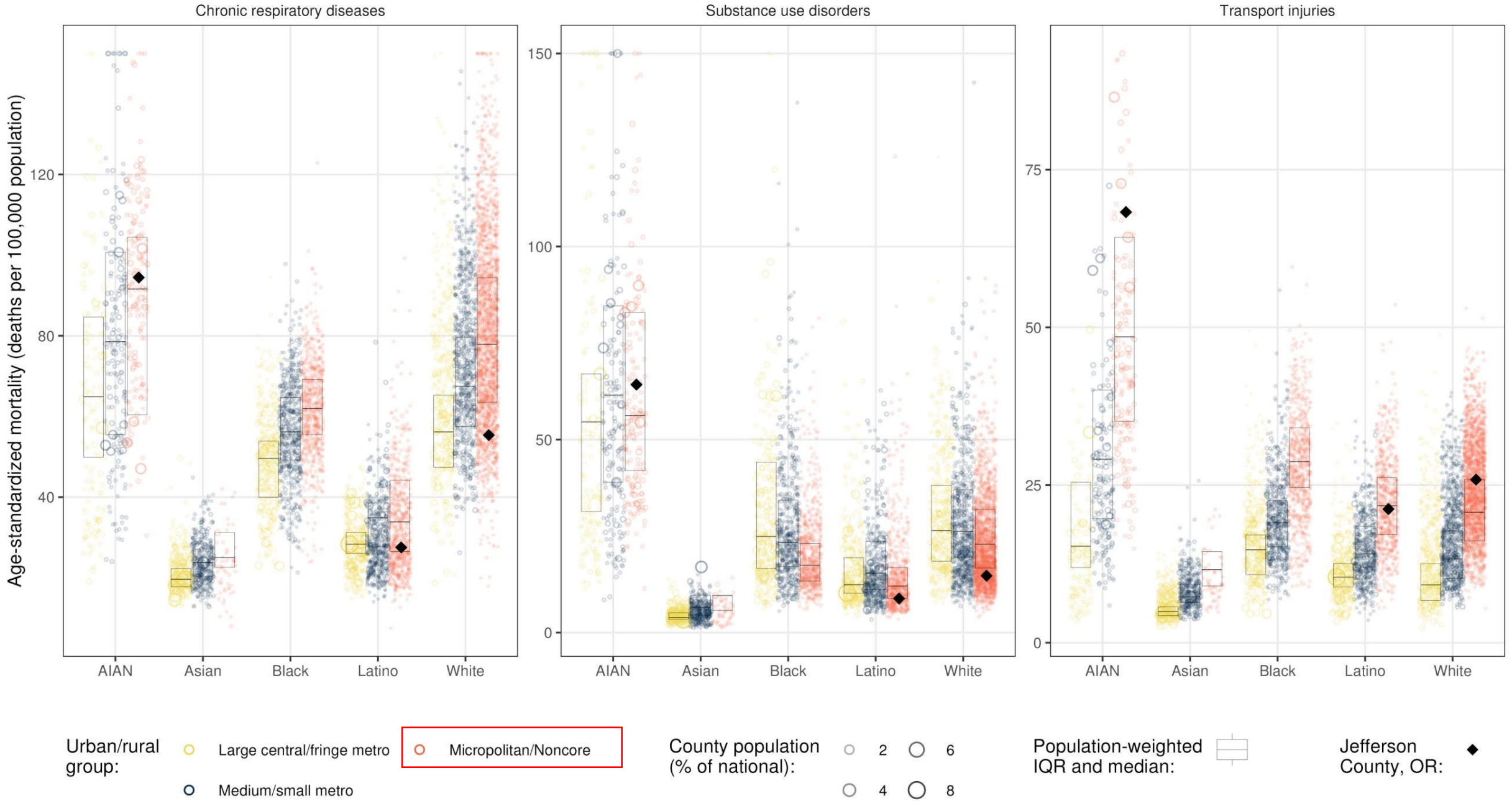
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

Figure 3. Age-adjusted death rates for the 10 leading causes of death, by urban-rural classification: United States, 2019



NOTES: Urbanicity of county of residence is based on the 2013 NCHS Urban-Rural Classification Scheme for Counties; see Data source and methods. Causes of death are ranked according to the number of deaths for the total population. Rates for all causes in rural areas were significantly higher than rates in urban areas ($p < 0.05$). Access data table for Figure 3 at: <https://www.cdc.gov/nchs/data/databriefs/db417-tables.pdf#3>.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.



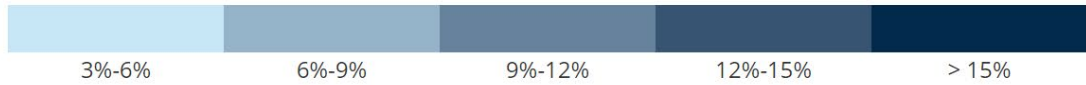
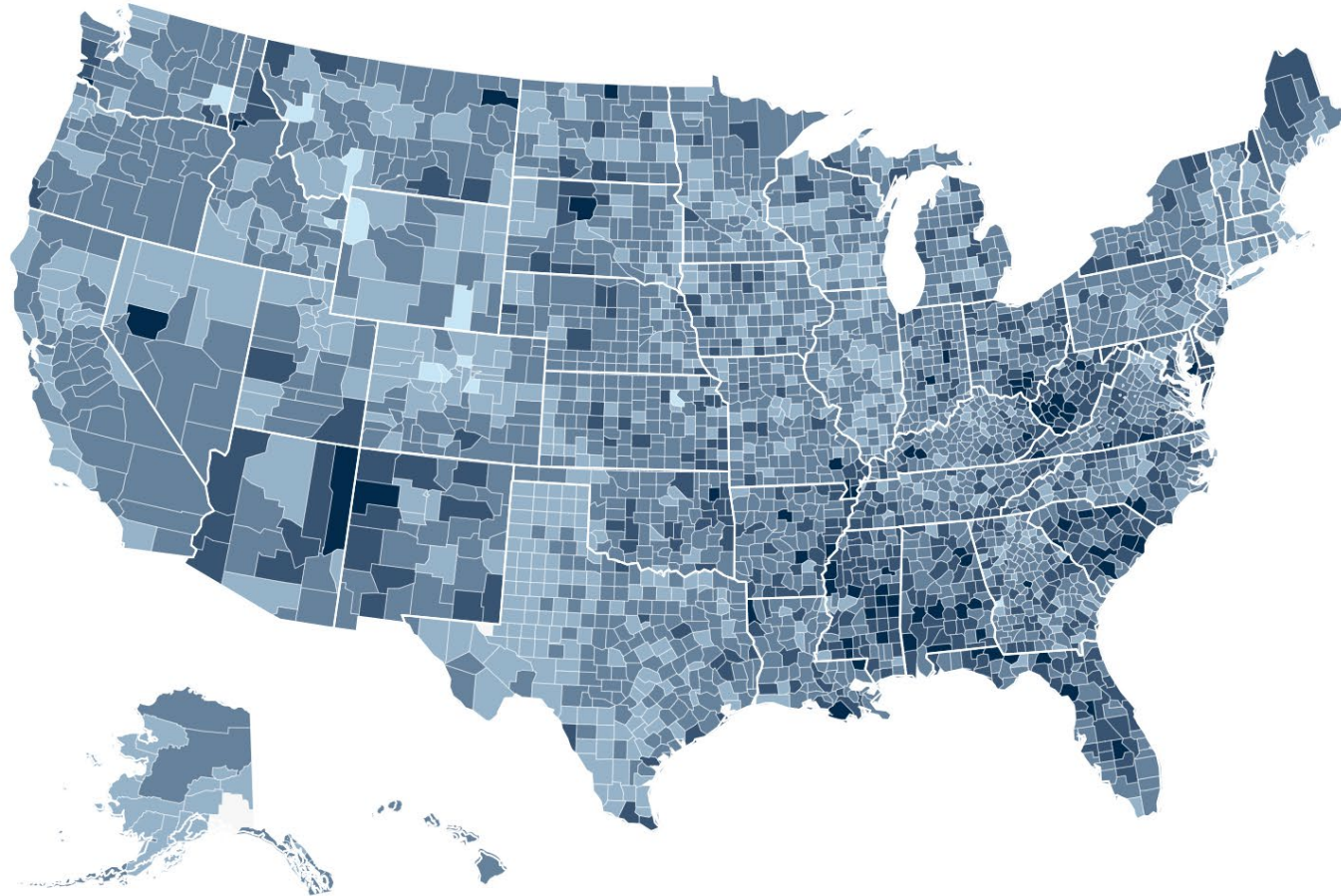
GBD US Health Disparities Collaborators. Cause-specific mortality by county, race, and ethnicity in the USA, 2000-19: a systematic analysis of health disparities. *Lancet*. 2023 Sep 23;402(10407):1065-1082. doi: 10.1016/S0140-6736(23)01088-7. Epub 2023 Aug 3. PMID: 37544309; PMCID: PMC10528747. AND <https://www.thinkglobalhealth.org/article/examining-diversity-rural-united-states>

Diagnosed Diabetes Prevalence

National

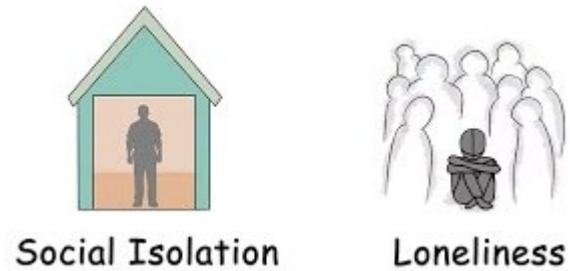
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Nonmetro Metro All



Source: [CDC Diabetes County Data Indicators, 2018-2020.](#)

Social Well-Being



Social Isolation: diminished physical interaction with others, characterized as living alone, having few social network ties, and having infrequent social contact (Holt-Lunstad et al, 2015)

Loneliness: the perception of social isolation, or the subjective experience of being lonely (Cacioppo et al, 2015)

Loneliness and social isolation are associated with...

- Poor health behaviors including smoking, physical inactivity, and poorer sleep (Cacioppo et al., 2002; Hawkey, Thisted, & Cacioppo, 2009; Theeke, 2010).

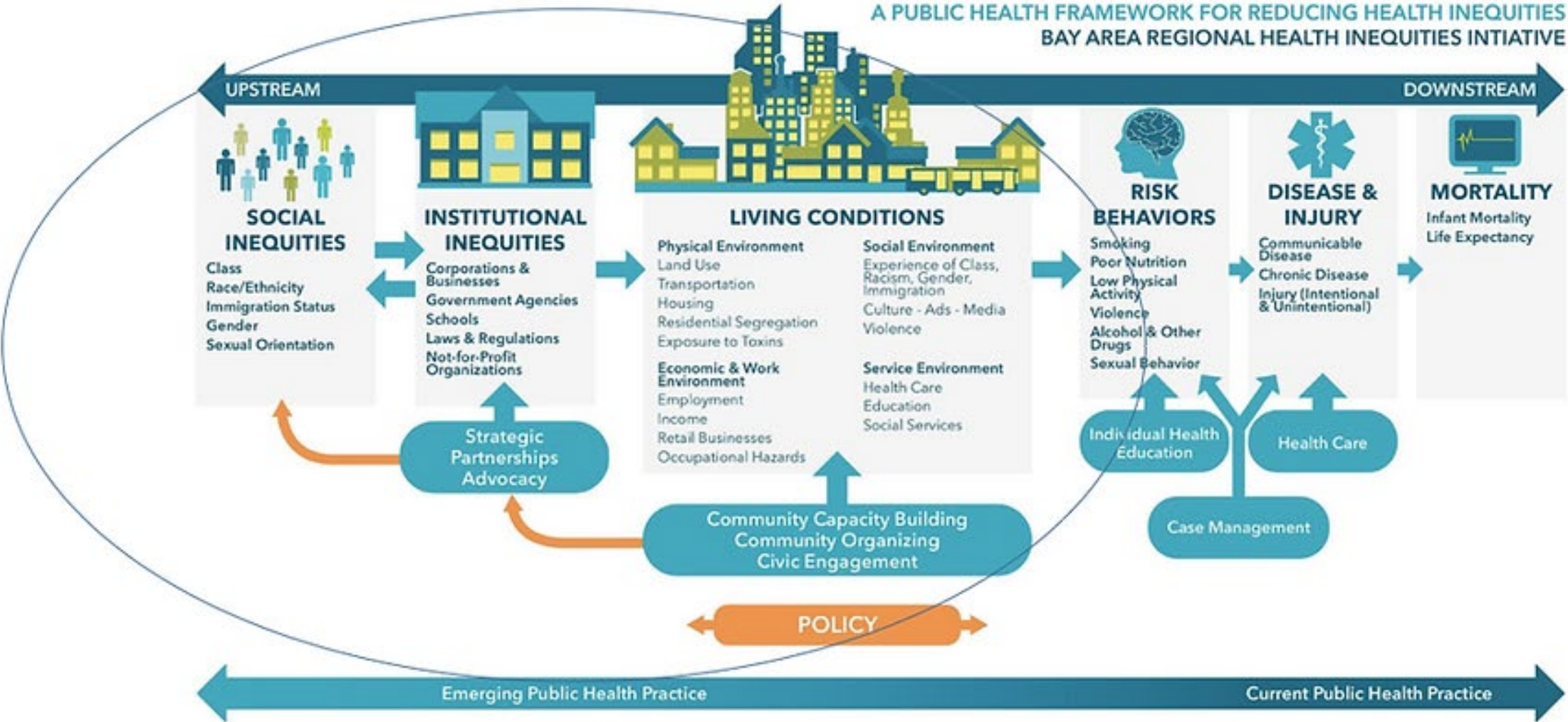
Loneliness is linked to and a risk factor for...

- Depression, alcoholism, suicidal ideation, social anxiety.
- Cognitive decline, Alzheimer's disease, recurrent stroke, heart disease, diabetes and obesity (Cacioppo et al., 2015)

Social isolation is the source of \$6.7 billion in additional health care costs annually (Flowers et al., 2017)

Part III: Drivers of Rural Health Disparities (Inequities)

Upstream vs. Downstream

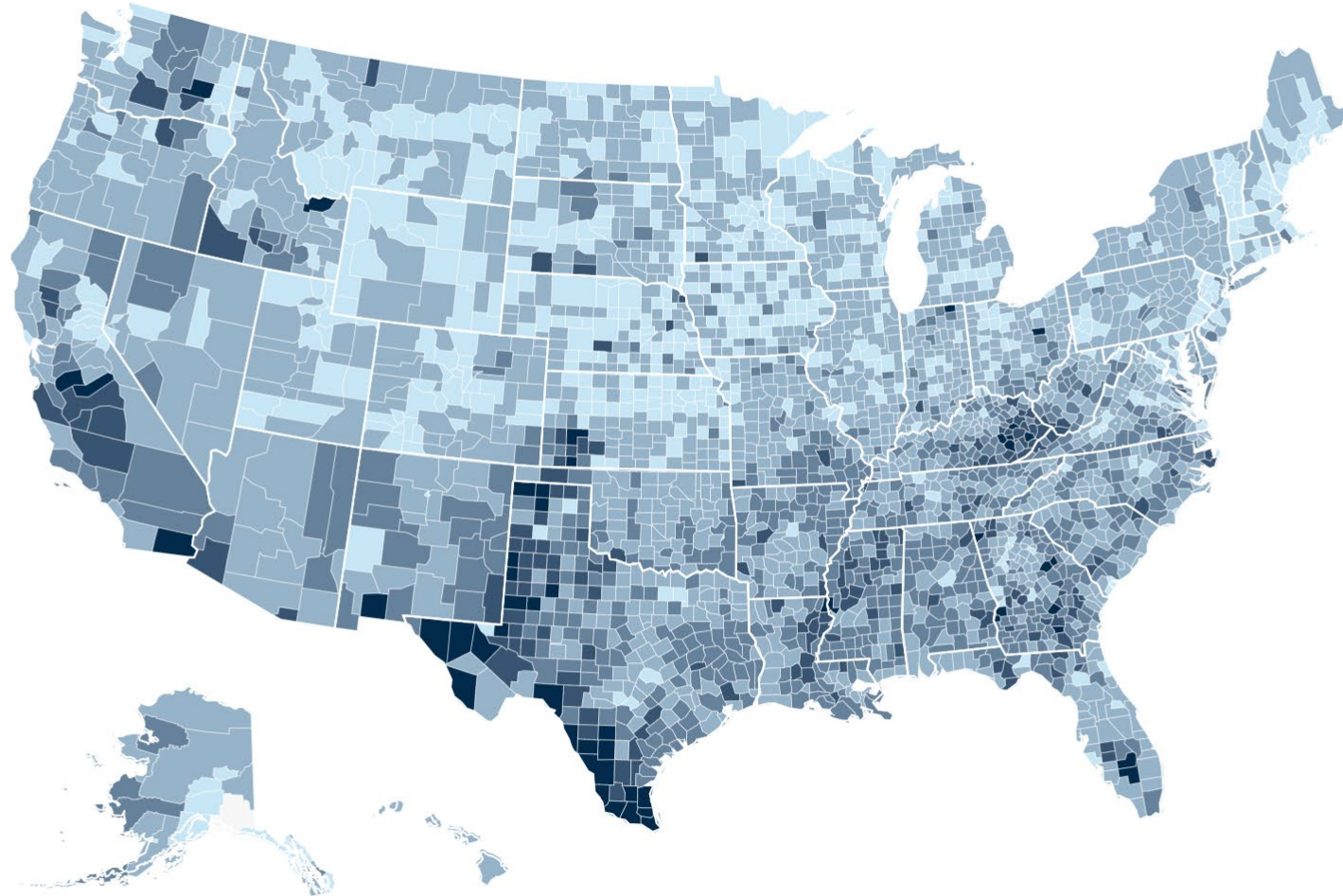


Population Without a High School Diploma

National

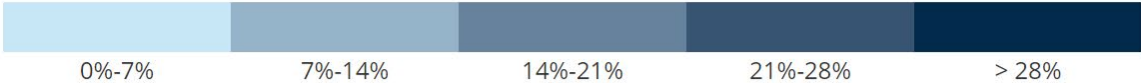
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Nonmetro Metro All



INSTITUTIONAL INEQUITIES

- Corporations & Businesses
- Government Agencies
- Schools
- Laws & Regulations
- Not-for-Profit Organizations



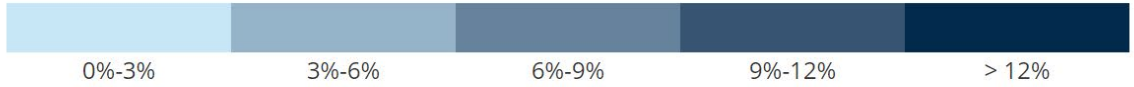
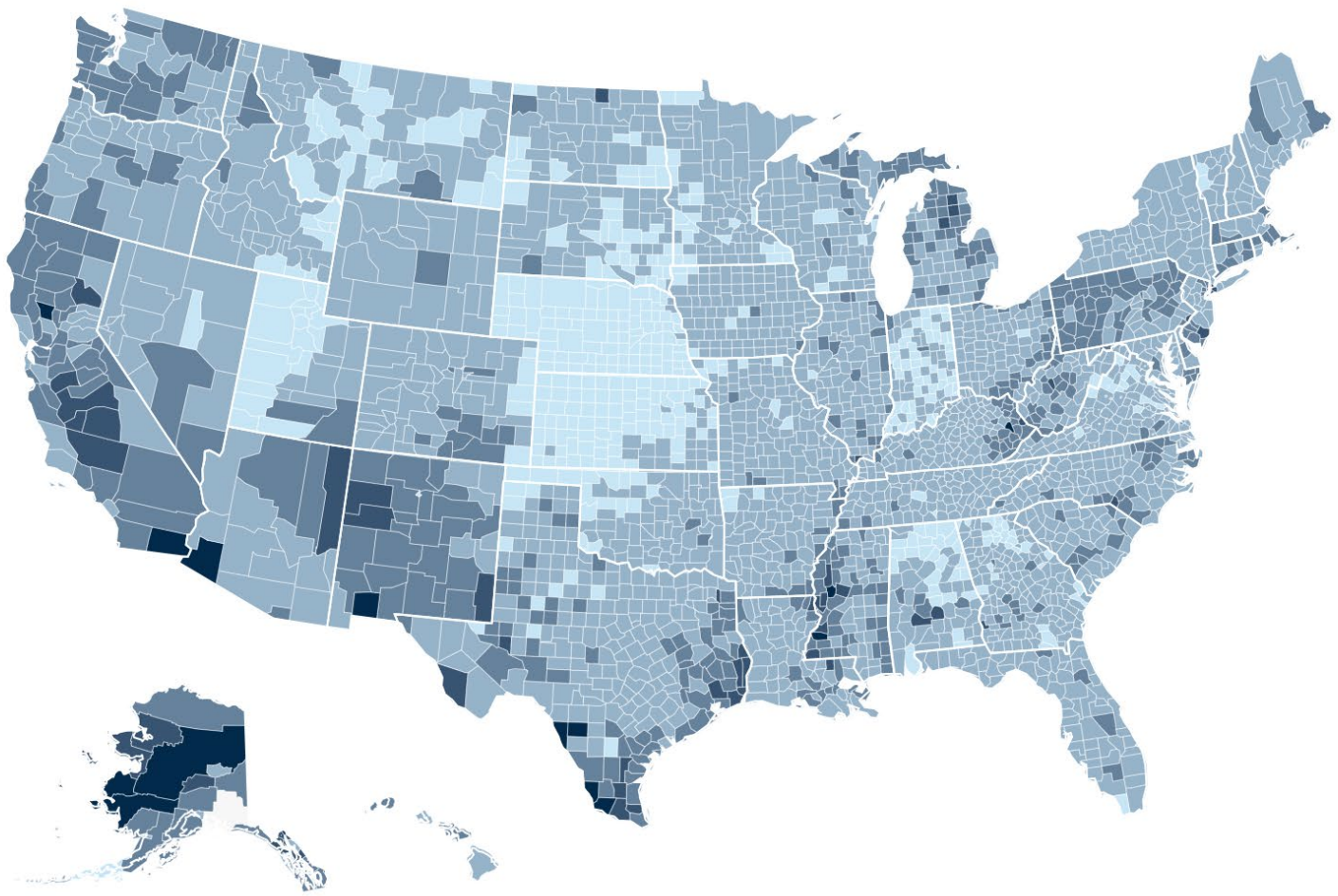
Source: [U.S. Census ACS, 2011, 2016, and 2021 5-year estimates.](#)

Unemployment Rate

National

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Nonmetro Metro All



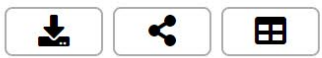
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A PUBLIC HEALTH

LIVING CONDITIONS

Physical Environment	Social Environment
Land Use	Experience of Class, Racism, Gender, Immigration
Transportation	Culture - Ads - Media
Housing	Violence
Residential Segregation	
Exposure to Toxins	
Economic & Work Environment	Service Environment
Employment	Health Care
Income	Education
Retail Businesses	Social Services
Occupational Hazards	



Source: [USDA Economic Research Service, 2007-2021.](#)

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Nonmetro Metro All



INSTITUTIONAL INEQUITIES

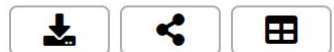
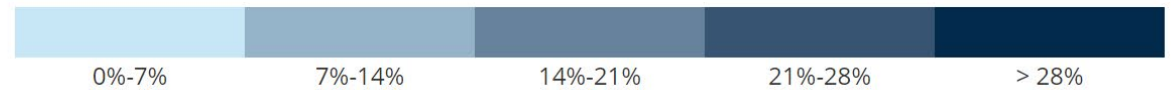
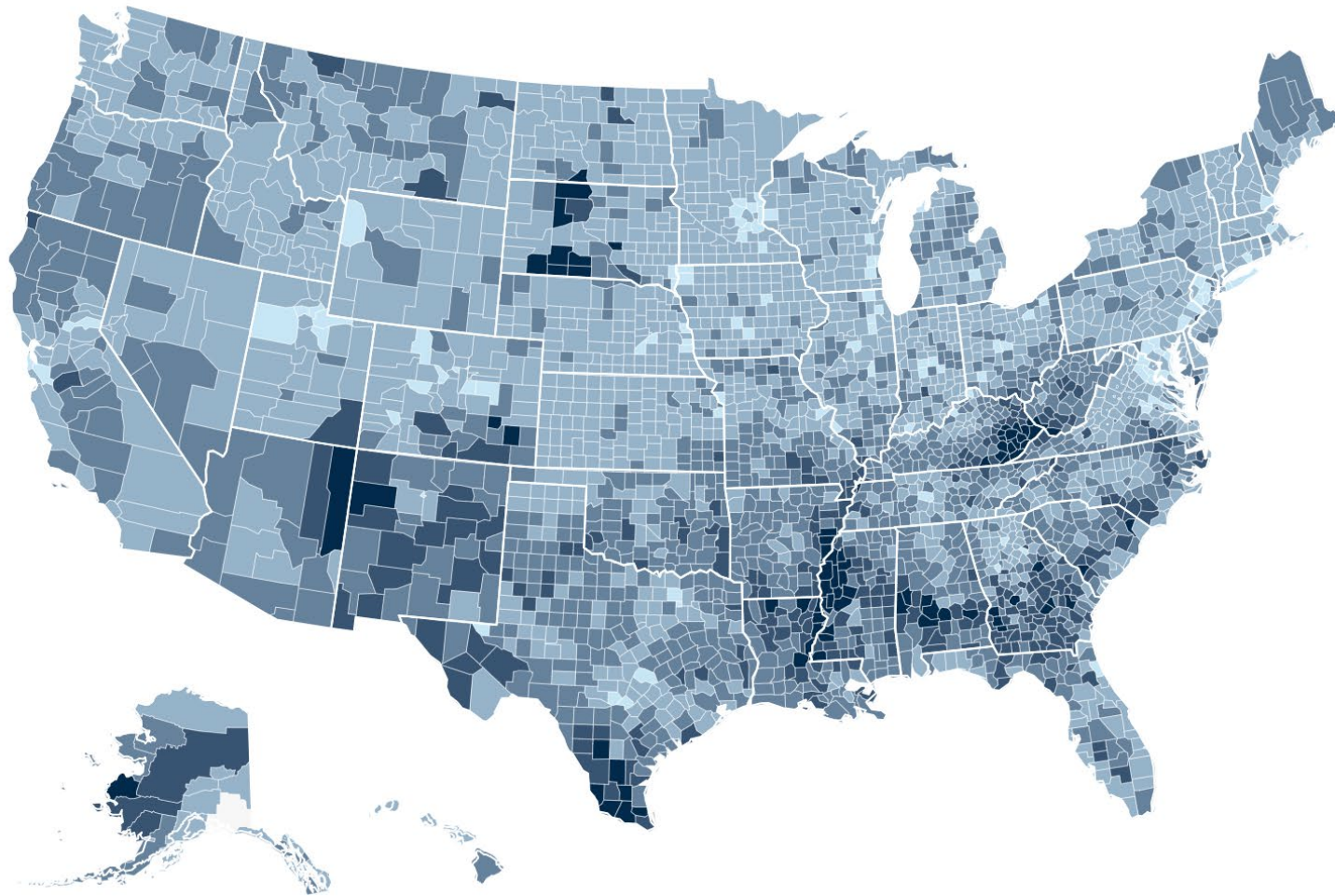
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A PUBLIC HEALTH

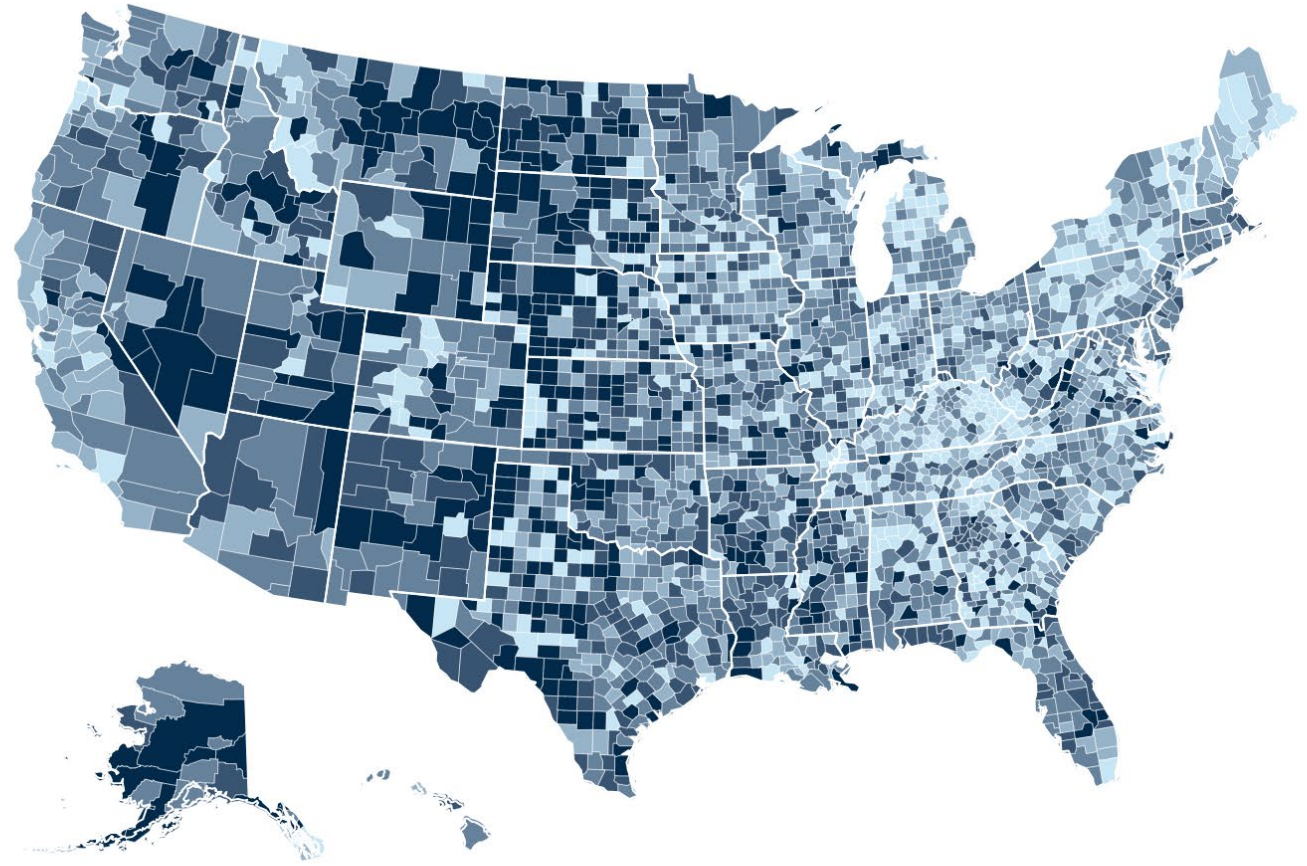
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Note: Low-access areas are Census tracts with at least 500 people, or 33 percent of the population, living more than 1 mile (urban areas) or 10 miles (rural areas) from the nearest supermarket.
 Source: [USDA Economic Research Service, 2019](#)

Health Behaviors

Only 1 in 4 rural adults practice at least 4 of 5 health-related behaviors:

Not smoking

Maintaining normal body weight

Being active

Non-drinking or moderate drinking

Sufficient sleep



Uninsured, 18 to 64

National

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

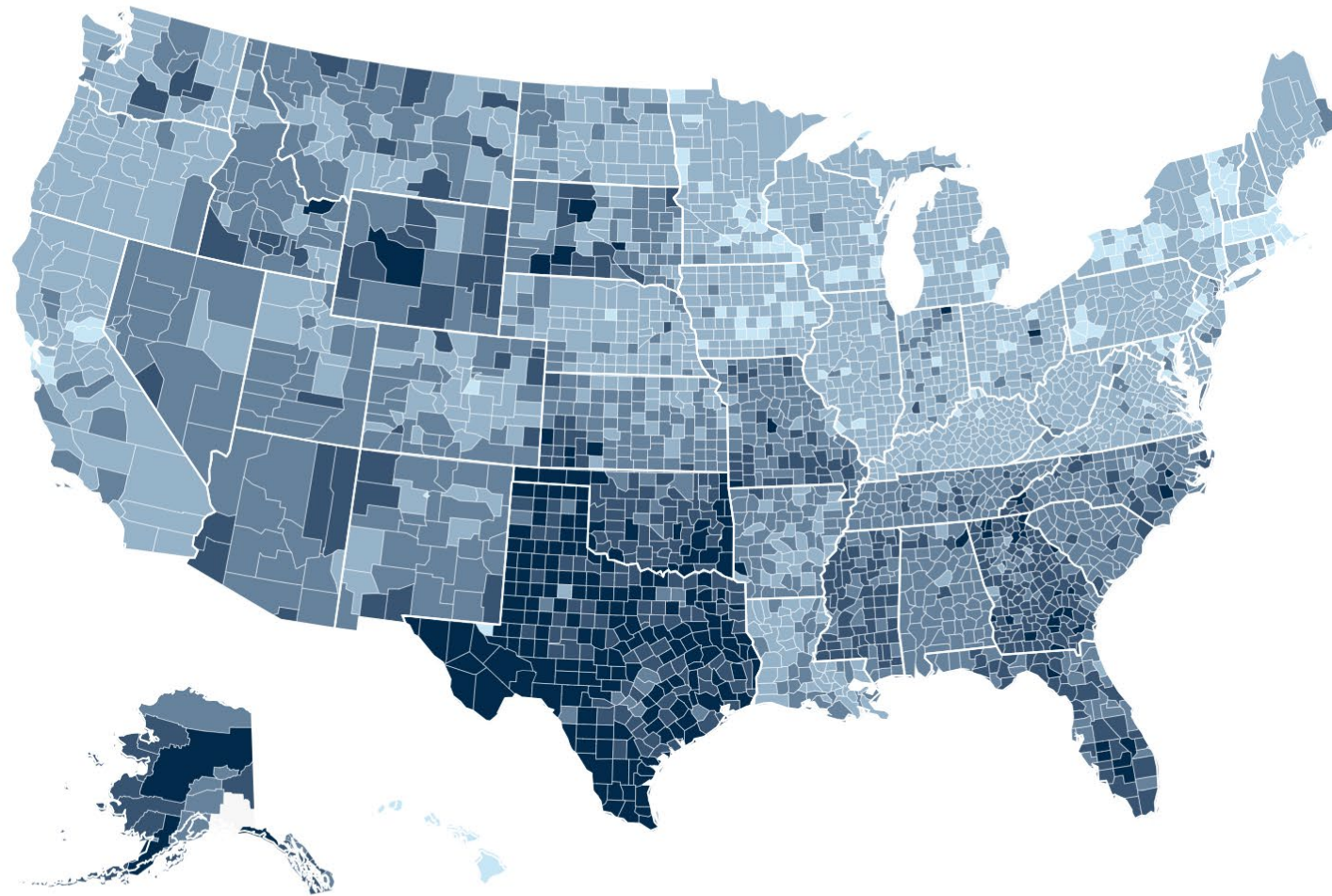
2020

2021

Nonmetro

Metro

All



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DISEASE & INJURY

- Communicable Disease
- Chronic Disease
- Injury (Intentional & Unintentional)

MORTALITY

- Infant Mortality
- Life Expectancy



0%-6%

6%-12%

12%-18%

18%-24%

> 24%



Source: [US Census Small Area Health Insurance Estimates, 2008-2021.](#)

Health Professional Shortage Areas: Primary Care, by County

National

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

2021

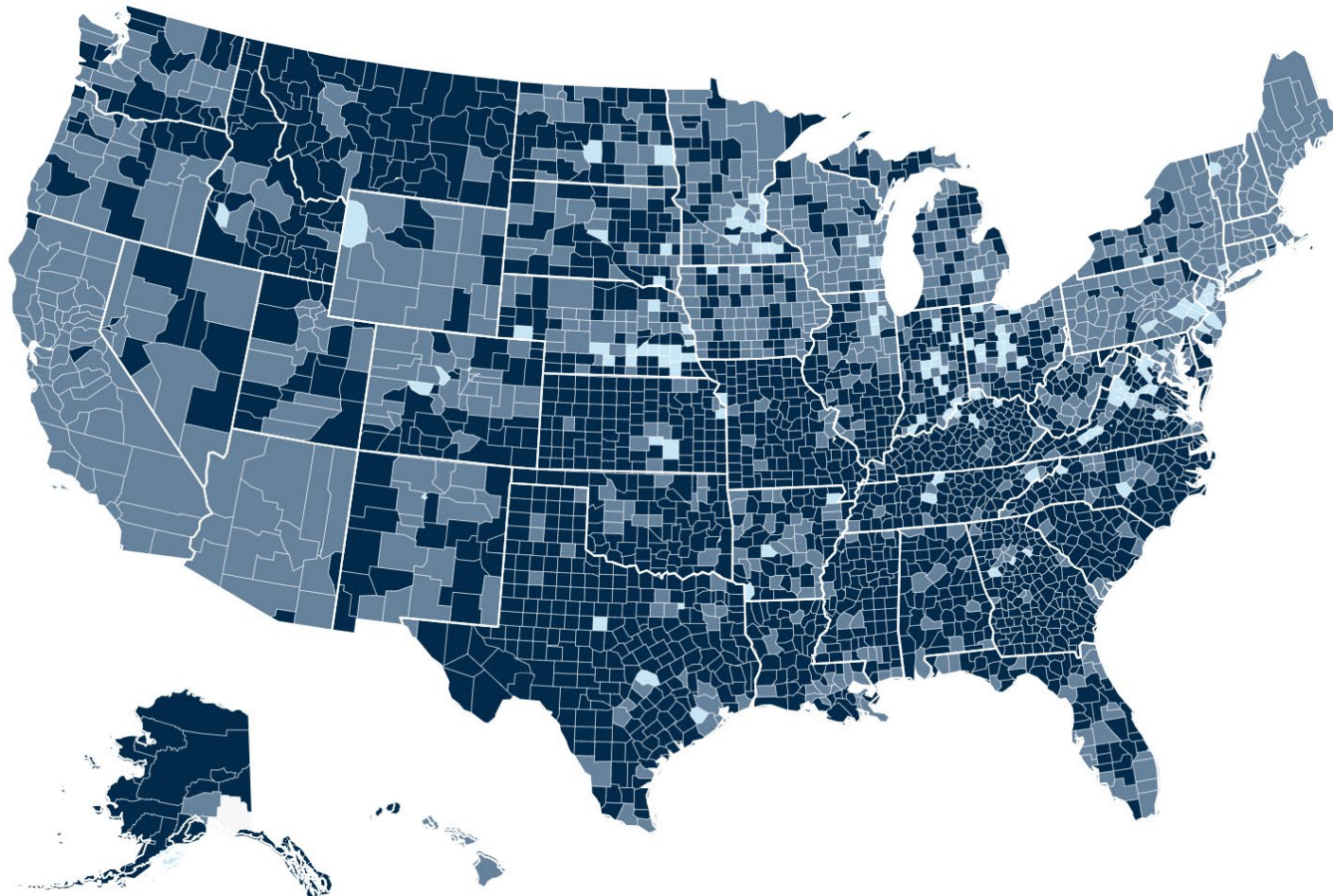
2022

2023

Nonmetro

Metro

All



INSTITUTIONAL INEQUITIES

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LIVING CONDITIONS

Physical Environment <ul style="list-style-type: none">Land UseTransportationHousingResidential SegregationExposure to Toxins	Social Environment <ul style="list-style-type: none">Experience of Class, Racism, Gender, ImmigrationCulture - Ads - MediaViolence
Economic & Work Environment <ul style="list-style-type: none">EmploymentIncomeRetail BusinessesOccupational Hazards	Service Environment <ul style="list-style-type: none">Health CareEducationSocial Services



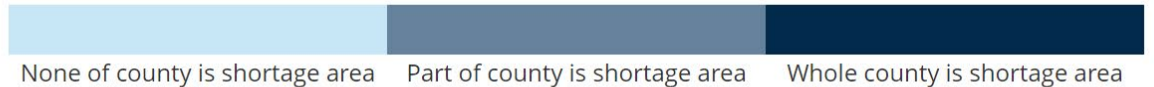
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- Communicable Disease
- Chronic Disease
- Injury (Intentional & Unintentional)



MORTALITY

- Infant Mortality
- Life Expectancy



Source: data.HRSA.gov, May 2023.

Part IV: Strategies



Workforce & Technology

Community Health Workers

CHW Evidence

- Chronic Diseases

- Hypertension: improved control of blood pressure, keeping appointments, compliance with prescriptions, risk reduction and mortality
- Diabetes: declines in A1C, cholesterol and blood pressure; improved knowledge and life-style management behaviors; decreased utilization of emergency department
- Cancer: moderate benefit in improving timely care for breast, cervical, colorectal and prostate cancers; increased life expectancy; increased knowledge about cancer screening and improved screening outcomes
- Asthma: 35% reduced symptom frequency among adolescents

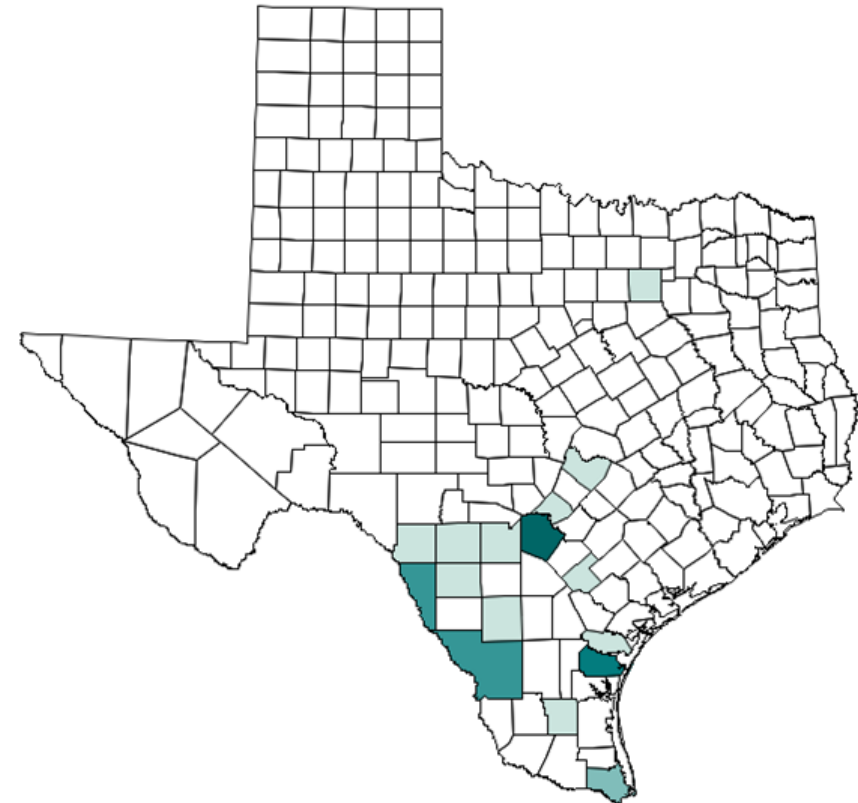
- Infectious Diseases

- HIV: improved adherence to ART among low-income minorities and statistically significant reductions in viral loads and increased CD4 counts
 - Dose response relationship observed

(CDC 2015; Perry, Zulliger, & Rogers, 2014)

South Texas CHW Workforce Preparedness Collaborative

Mission: increase the CHW workforce by recruiting ethnically and culturally similar community advocates for comprehensive training and professional development to serve medically underserved urban and rural populations living in 38 South Texas counties.



Enrolled Count 1 - 5 6 - 10 11 - 15 16 - 20 More than 30

Rural Telementoring & Training Center (RTTC)

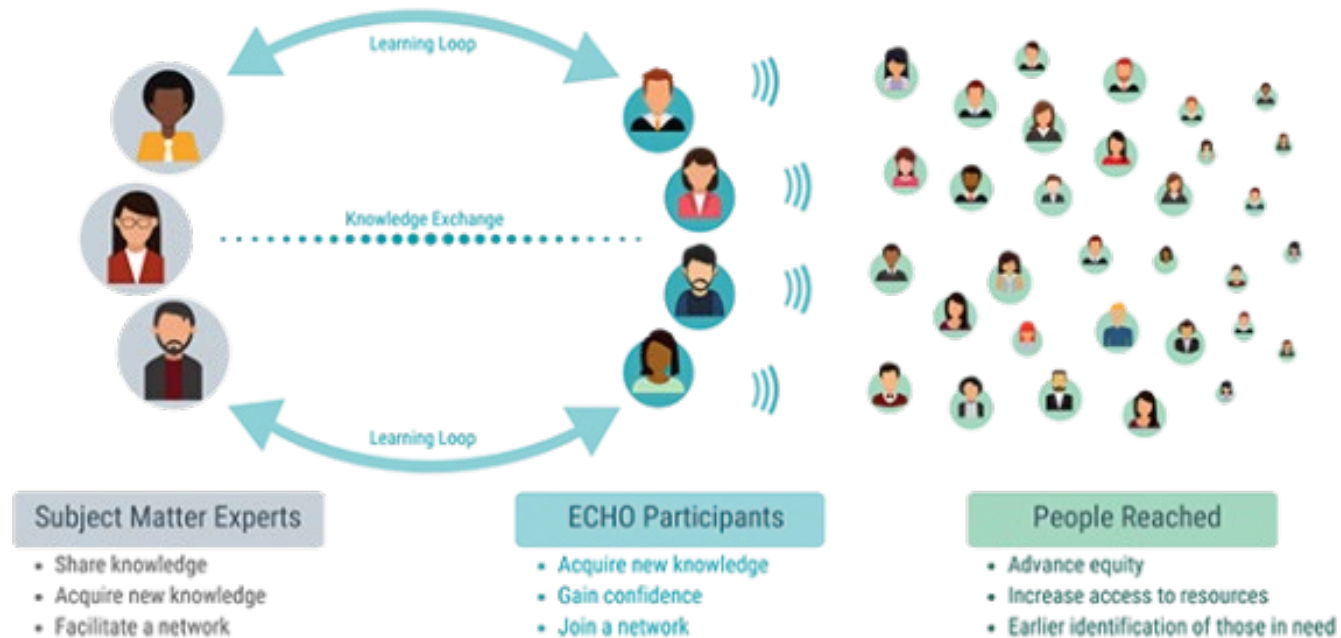


Sharing Resources, Information, Support, and Education

RISE for Rural Telementoring

Project ECHO

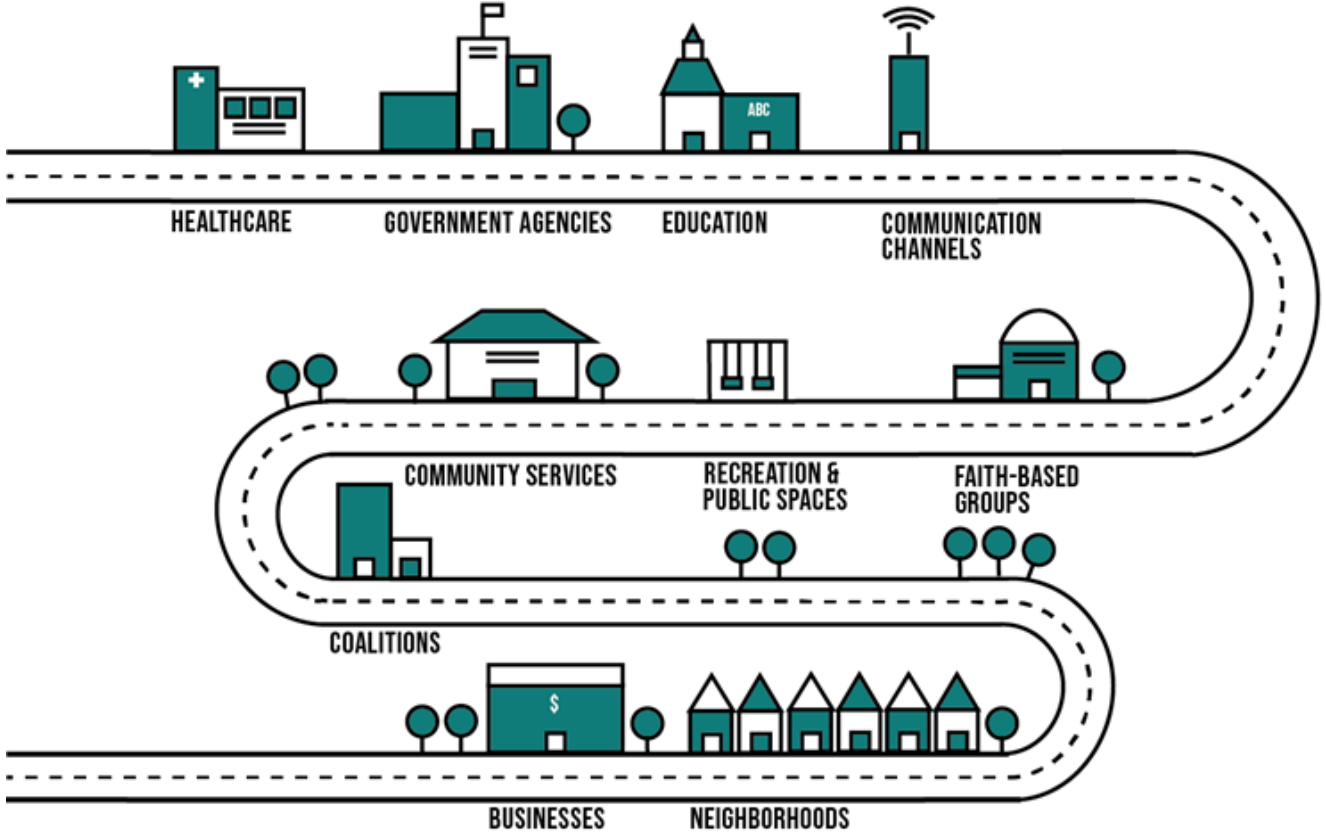
MOVING KNOWLEDGE, NOT PEOPLE



Home Health/Telehealth



Expand Public Health Umbrella



dreamstime.com ID 29863374 © Mhazapa

Schools and Community Centers



<https://nap.nationalacademies.org/catalog/27146/engaging-community-health-workersyouth-ambassadors-to-improve-health-literacy-proceedings>

Health Literacy & Community Building



Community



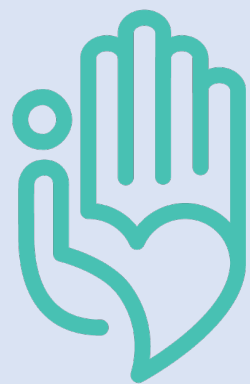
Health &
Compassion



Trust &
Helping Hand



**HEALTH
CONFIANZA**



HEALTH
CONFIANZA



Confianza
ECHO Training



Confianza
Clubs



Confianza
Ambassadors



Confianza
Pledge
Program



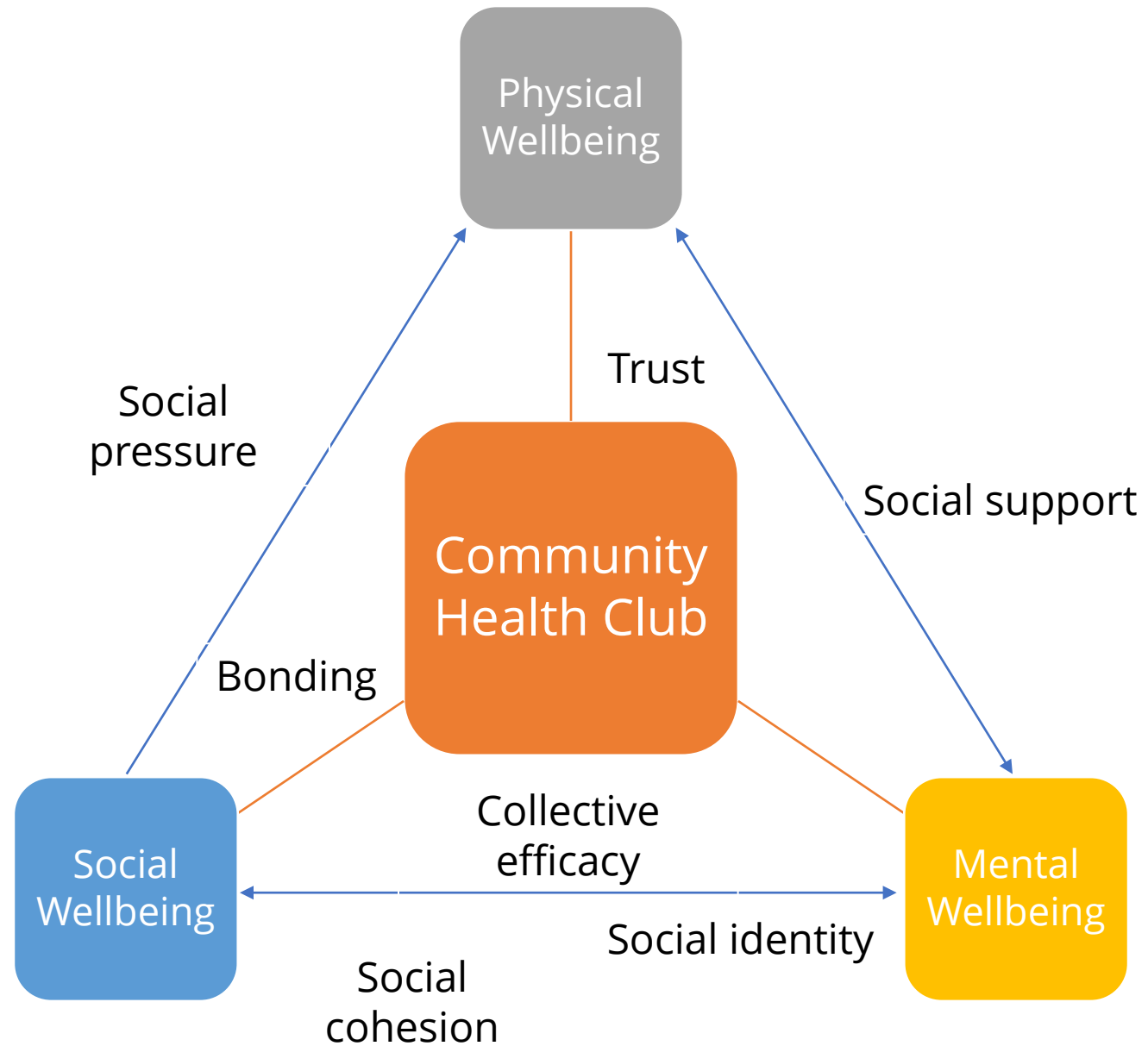


COMMUNITY HEALTH CLUBS



Community Health Clubs





Contact information

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Thank you!