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A Dialogue on Rural Social Determinants and the Effect on Health

**North Country Health Consortium
Whitefield, NH ~ November 13, 2015**

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The University of North Dakota
School of Medicine & Health Sciences

A Consortium of

The Walsh Center
for Rural Health Analysis
NORC AT THE UNIVERSITY OF CHICAGO



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Social Determinants

World Health Organization definition:

"the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."

Social Determinants of Health

- 1) Economic stability
 - Poverty, employment, food security, housing stability
- 2) Education
 - High school graduation, enrollment in higher education, language and literacy, early childhood education and development
- 3) Social and community context
 - Social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization
- 4) Health and health care
 - Access to health care, access to primary care, health literacy
- 5) Neighborhood and built environment
 - Access to healthy foods, quality of housing, crime and violence, environmental conditions

Healthy People 2020 Framework. <http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health>

Social Determinants of Rural Health

- Rural residents tend to be poorer than urban residents
 - Average median household income is \$42,628 for rural counties (\$52,204 for urban counties) (2013)
 - The average percentage of children living (ages 0-17) living in poverty is 26% in rural counties (21% urban) (2013)
- Rural residents' educational attainment (2009-2013) - Averaged across counties
 - 16.5% have < high school education (14.7% urban)
 - 36.3% have only a high school diploma (31.9% urban)
 - 17.4% have a Bachelor's degree or higher (24% urban)

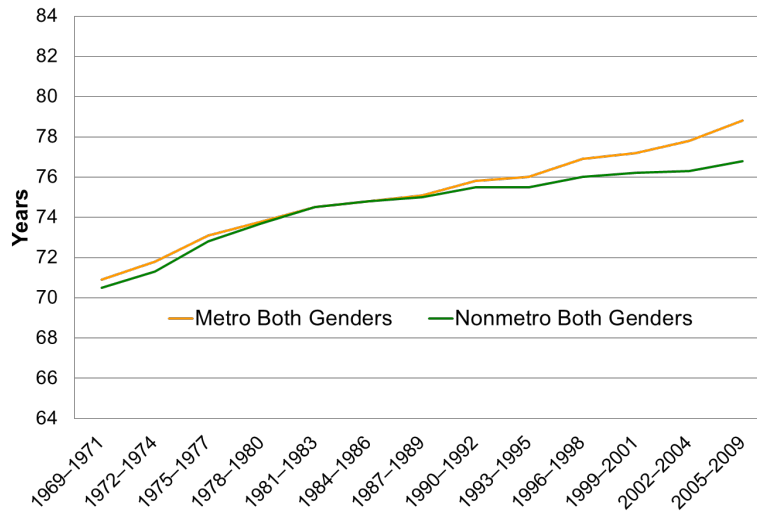
Social Determinants Impact on Access to Health Care

- Poverty, income, and employment status contribute to:
 - Health insurance coverage
 - The ability to pay out-of-pocket costs such as co-pays and prescription drug costs
 - Time off work to go to an appointment
 - A means of transportation to visit a healthcare provider
- The skills to effectively communicate with healthcare providers
- An expectation that they will receive quality care, whatever their race/ethnicity or income level.

Who are you serving in rural New Hampshire?



Life Expectancy at Birth in Metro and Nonmetro Areas, 1969-2009



Source: Singh and Siahpush, Widening Rural-Urban Disparities in Life Expectancy, U.S., 1969-2009. American Journal of Preventive Medicine, 2014; 46(2):e19-e29.

Examination of Trends in Rural and Urban Health: Establishing a Baseline for Health Reform

- CDC published *Health United States, 2001 With Urban and Rural Health Chartbook*
 - No urban/rural data update since 2001
- Purpose of this study:
 - Update of rural health status ten years later to understand trends
 - Provide baseline of rural/urban differences in health status and access to care prior to ACA implementation

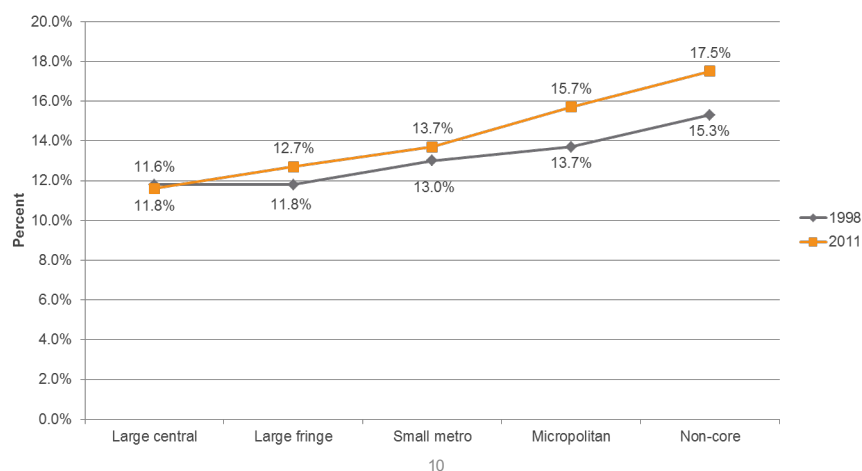
Methods

- Replicated analyses conducted in 2001 using most recent data available (2006-2011)
- Used same data source, when possible:
 - National Vital Statistics System
 - Area Resource File (HRSA)
 - U.S. Census Bureau
 - National Health Interview Survey (NCHS)
 - National Hospital Discharge Survey (NCHS)
 - National Survey on Drug Use and Health (SAMHSA)
 - Treatment Episode Data Set (SAMHSA)
- Applied same geographic definitions, although classifications may have changed since 2001:
 - **Metropolitan Counties:** large central, large fringe, small
 - **Nonmetropolitan Counties:** with a city $\geq 10,000$ population, without a city $\geq 10,000$ population

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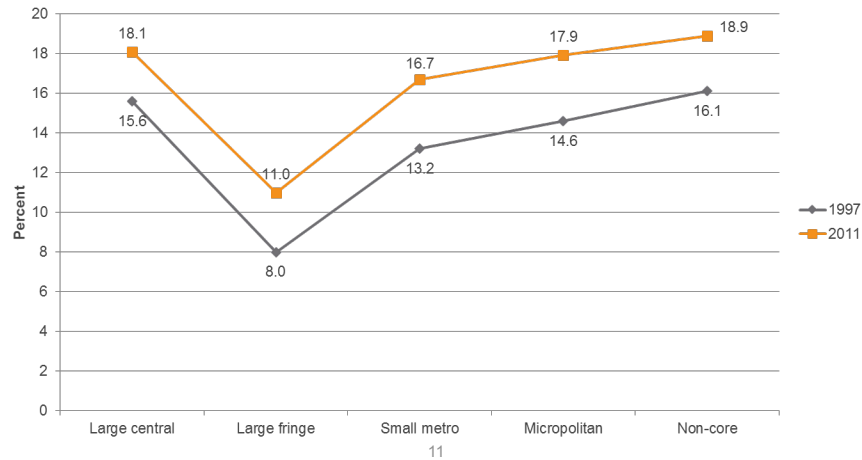
Population: Age

Population 65 years of age and over by rurality



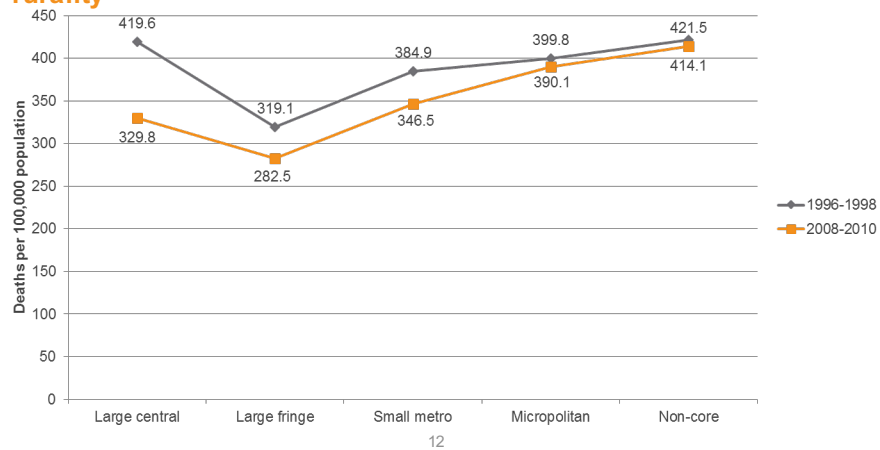
Population: Poverty

Population in poverty by rurality



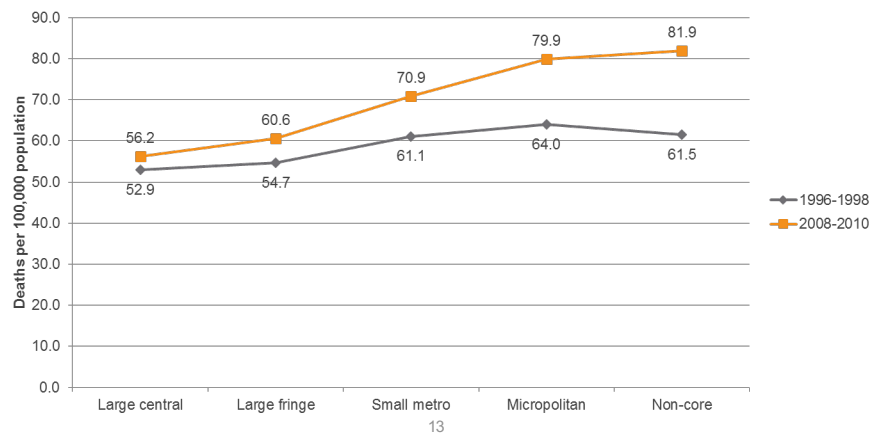
Mortality: Working-Age Adults

Death rates for all causes among persons 25-64 years of age by rurality



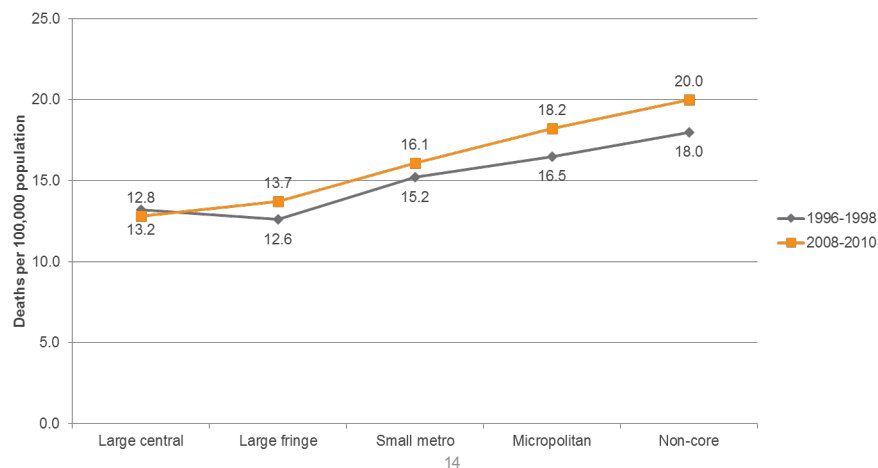
Mortality: Chronic Obstructive Pulmonary Diseases

Death rates for chronic obstructive pulmonary diseases among persons 20 years of age and over by rurality



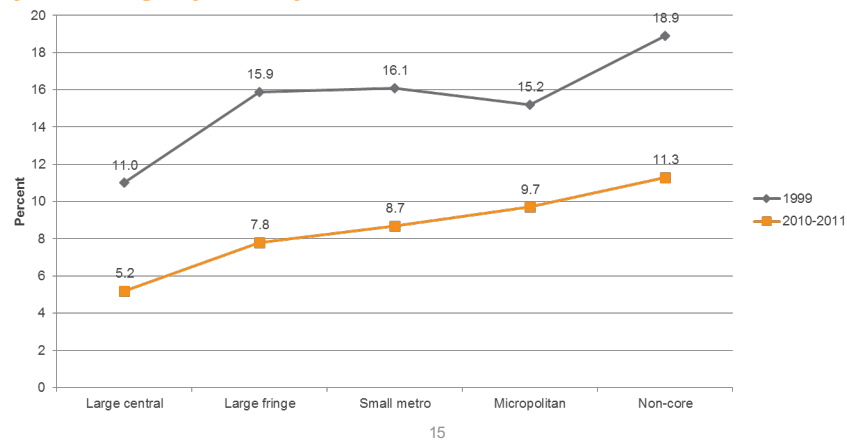
Mortality: Suicide

Suicide rates among persons 15 years of age and over by rurality



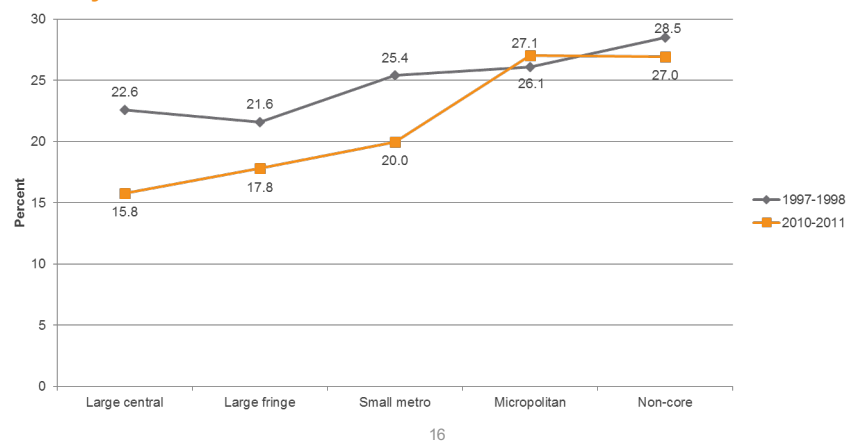
Risk Factors: Adolescent Smoking

Cigarette smoking in the past month among adolescents 12-17 years of age by rurality



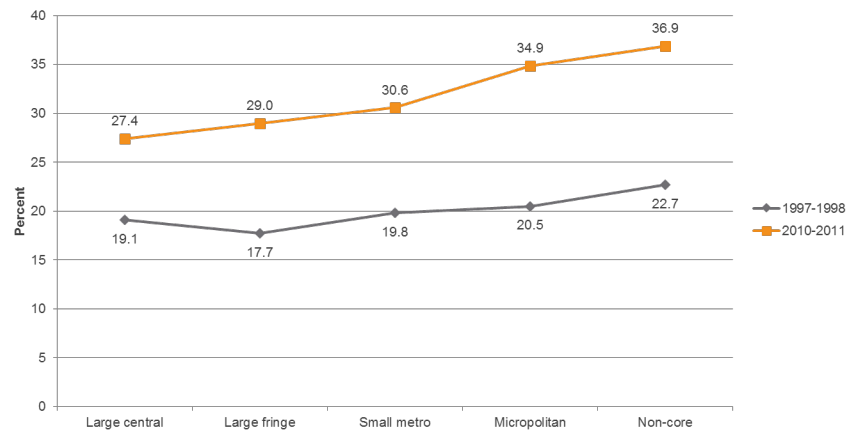
Risk Factors: Adult Smoking

Cigarette smoking among persons 18 years of age and older by rurality



Risk Factors: Obesity

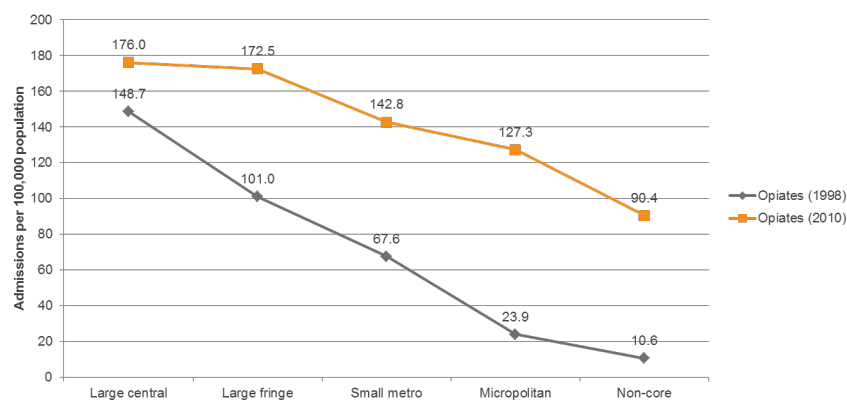
Obesity among persons 18 years of age and older by rurality



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Health Care Access and Use: Substance Abuse Treatment

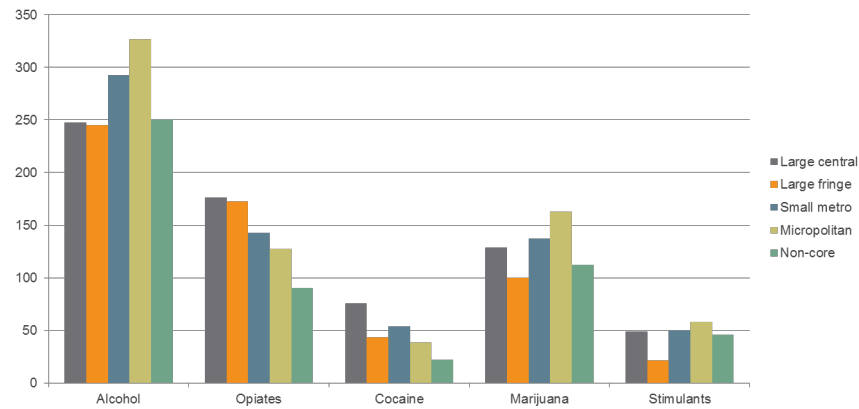
Substance abuse treatment admission rates for opiates by rurality



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Health Care Access and Use: Substance Abuse Treatment

Substance abuse treatment admission rates by primary substance and rurality, 2010



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Regional Mortality Study

- Purpose: To examine the impact of rurality on mortality and to explore the regional differences in the primary and underlying causes of death.

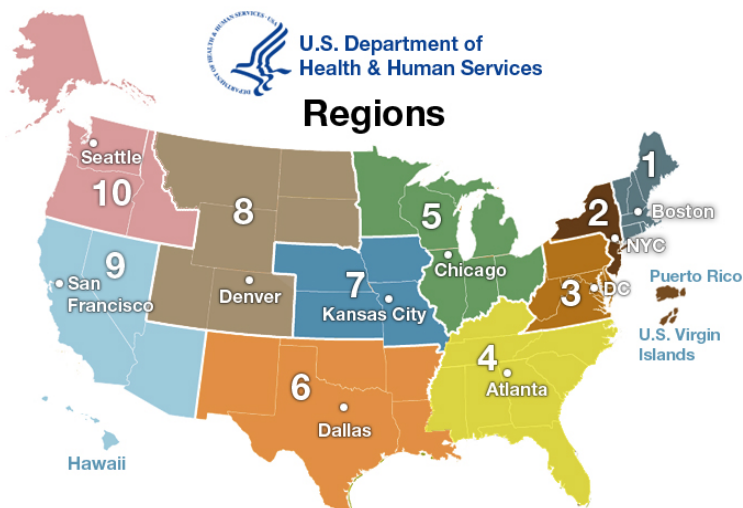
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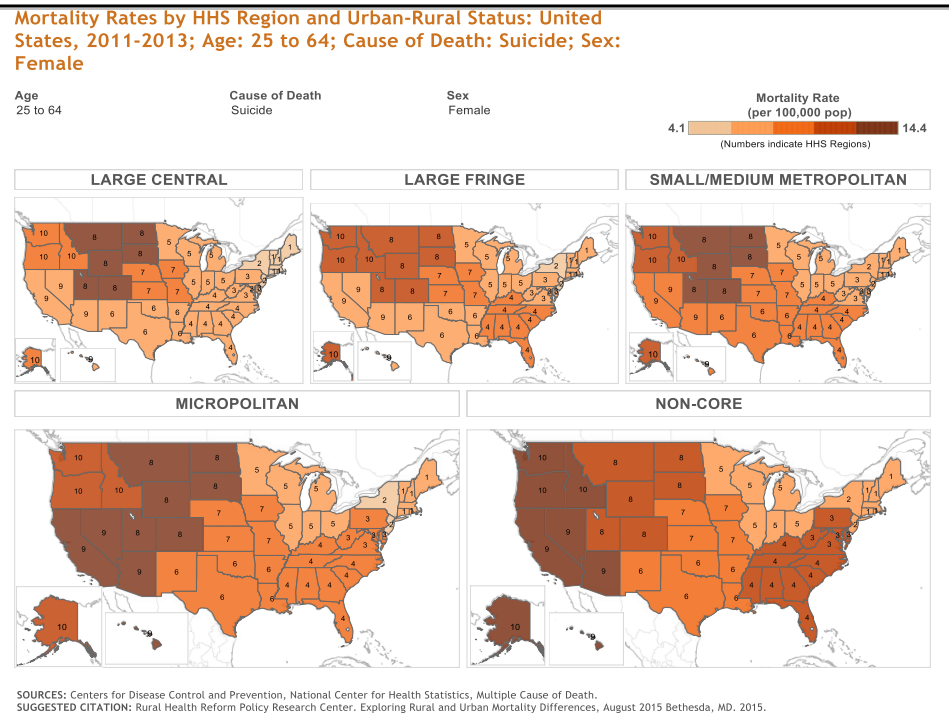
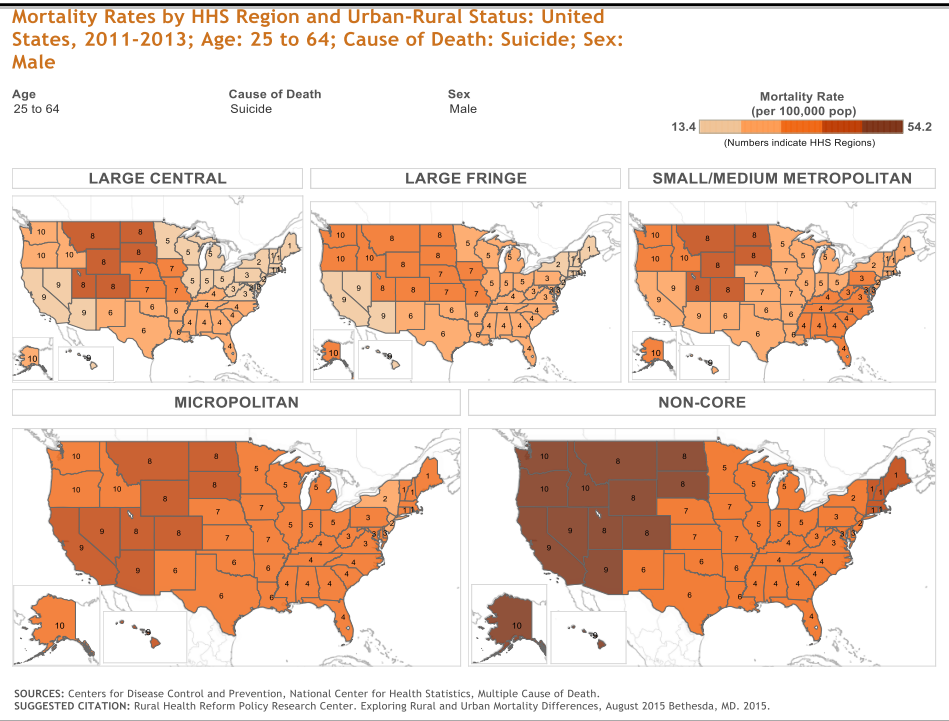
Methods

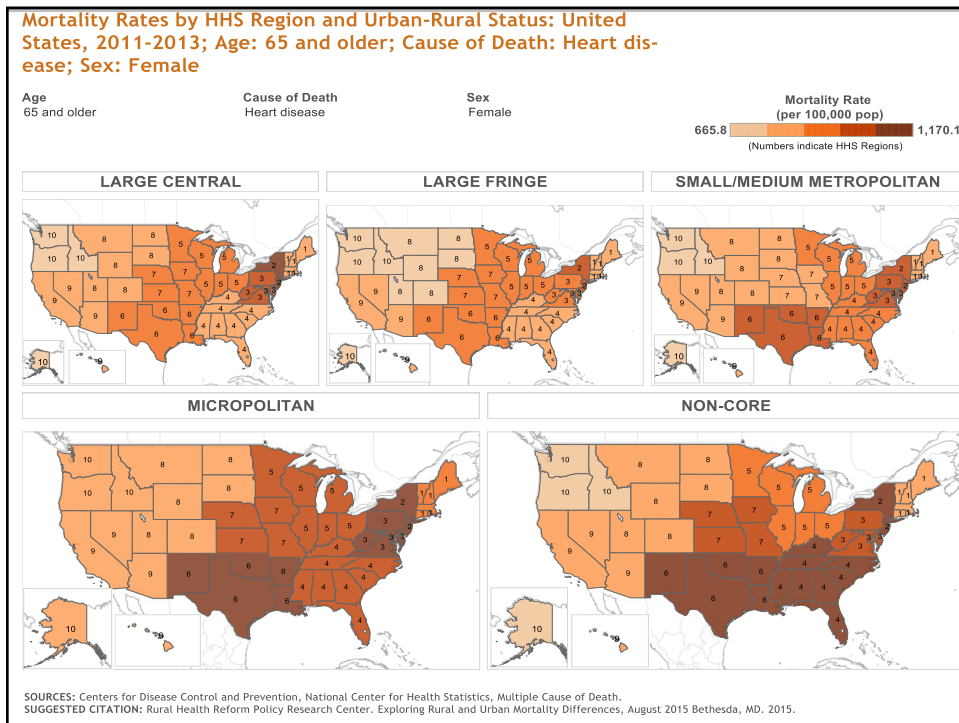
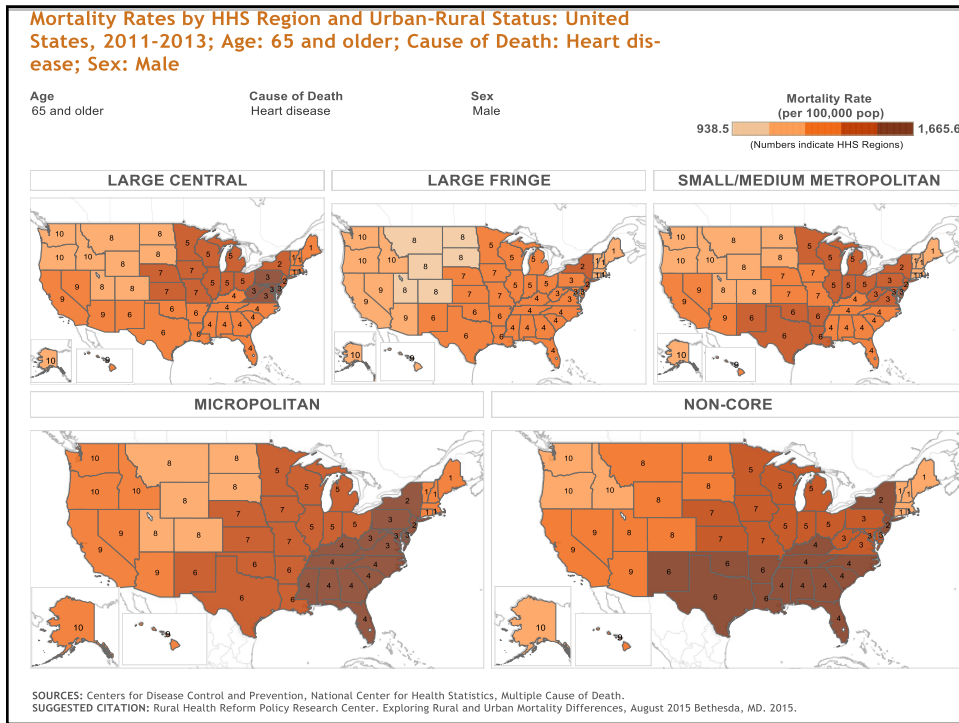
- Mortality data pulled from National Vital Statistics System (NVSS)
 - Years 2011-2013
- Data are Grouped by:
 - 2013 NCHS Urban-Rural Classification Scheme for Counties
 - (Large Central, Large Fringe, Small/Medium Metro, Micropolitan, Non-core)
 - HHS Regions
 - Age
 - Gender
 - Cause of Death
 - Top 10 Nation-wide causes of death for each age group

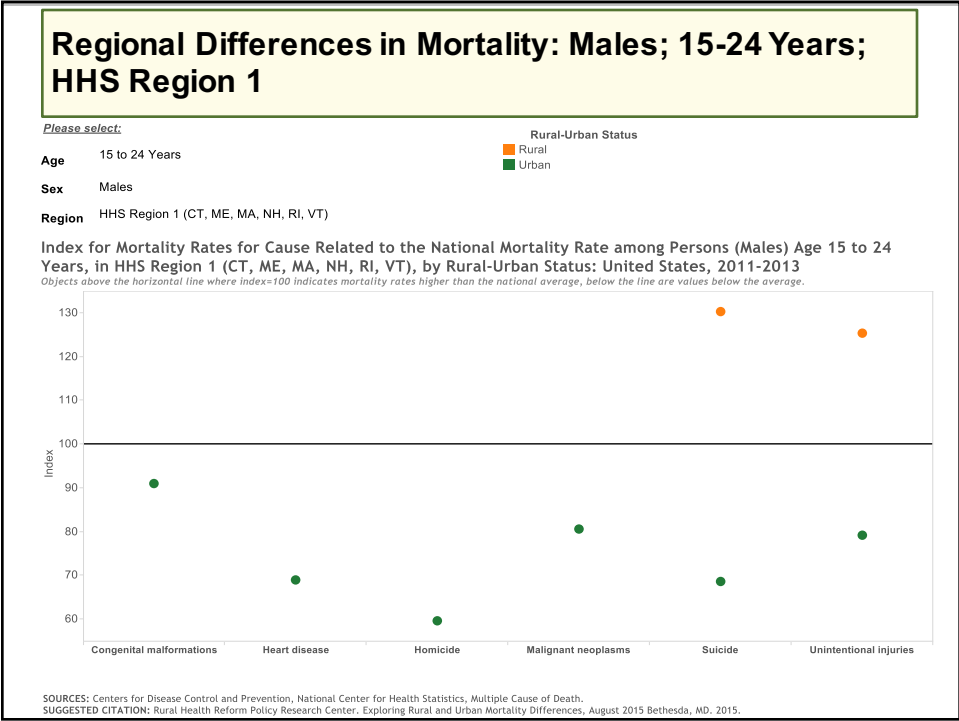
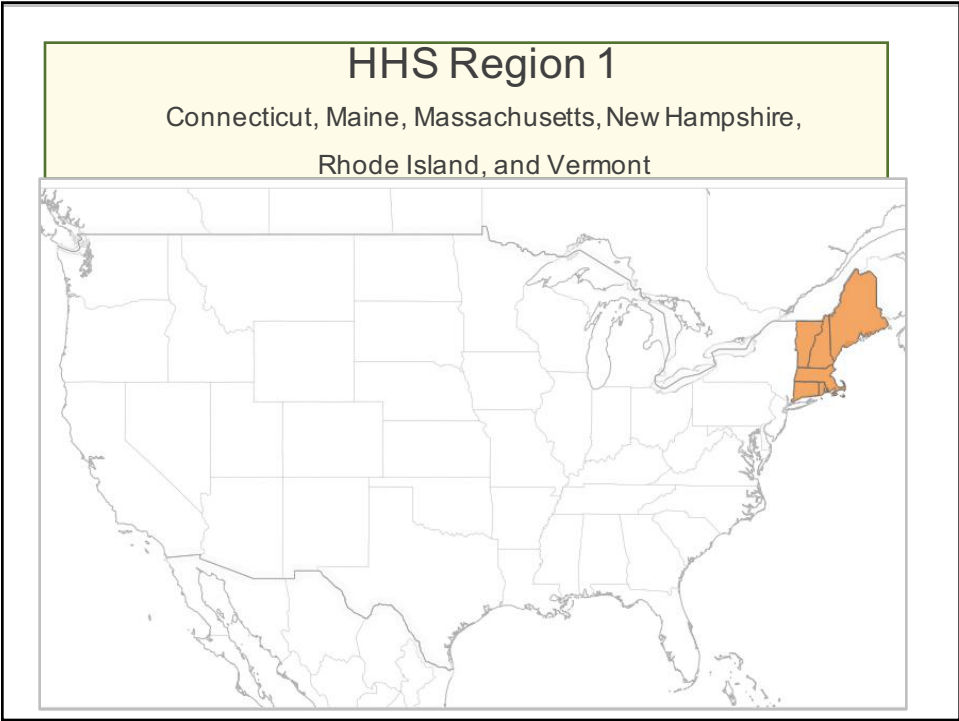
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HHS Regions









Regional Differences in Mortality: Females; 15-24 Years; HHS Region 1

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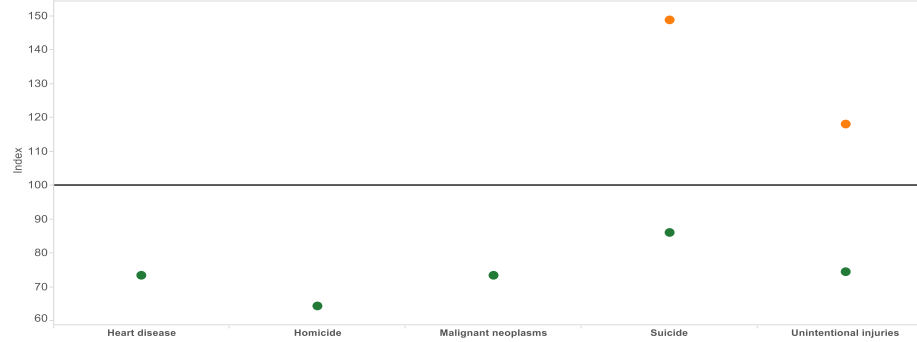
Age 15 to 24 Years

Sex Females

Region HHS Region 1 (CT, ME, MA, NH, RI, VT)

Rural-Urban Status
■ Rural
■ Urban

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Females) Age 15 to 24 Years, in HHS Region 1 (CT, ME, MA, NH, RI, VT), by Rural-Urban Status: United States, 2011-2013
 Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.
 SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD, 2015.

Regional Differences in Mortality: Males; 25-64 Years; HHS Region 1

Please select:

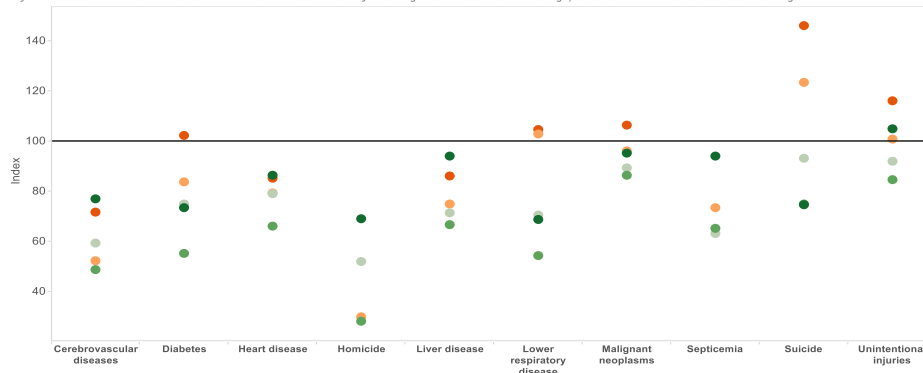
Age 25 to 64 Years

Sex Males

Region HHS Region 1 (CT, ME, MA, NH, RI, VT)

Rural-Urban Status
■ Large Central
■ Large Fringe
■ Medium/Small Metro
■ Micropolitan
■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Males) Age 25 to 64 Years, in HHS Region 1 (CT, ME, MA, NH, RI, VT), by Rural-Urban Status: United States, 2011-2013
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Regional Differences in Mortality: Females; 25-64 Years; HHS Region 1

Please select:

Age 25 to 64 Years

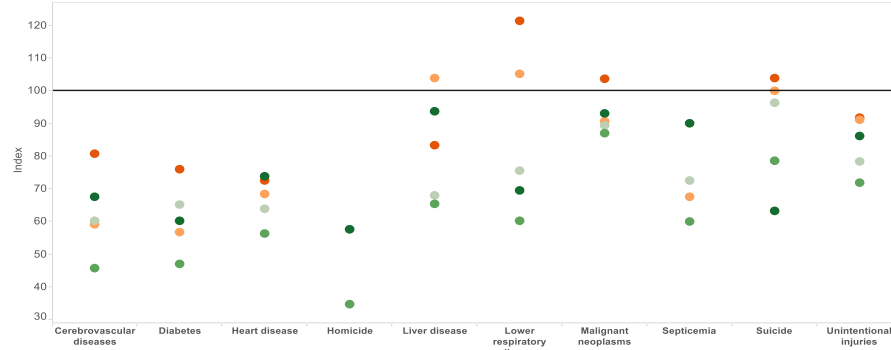
Sex Females

Region HHS Region 1 (CT, ME, MA, NH, RI, VT)

Rural-Urban Status
 Large Central
 Large Fringe
 Medium/Small Metro
 Micropolitan
 Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Females) Age 25 to 64 Years, in HHS Region 1 (CT, ME, MA, NH, RI, VT), by Rural-Urban Status: United States, 2011-2013

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Regional Differences in Mortality: Males; 65 Years and Over; HHS Region 1

Please select:

Age 65 Years and Older

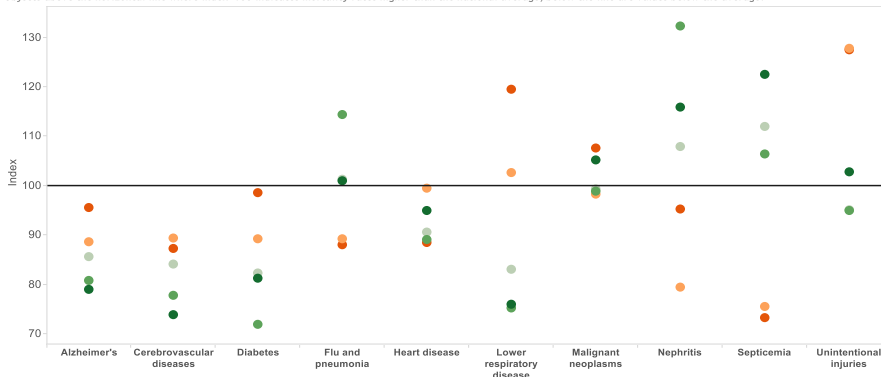
Sex Males

Region HHS Region 1 (CT, ME, MA, NH, RI, VT)

Rural-Urban Status
 Large Central
 Large Fringe
 Medium/Small Metro
 Micropolitan
 Non-core

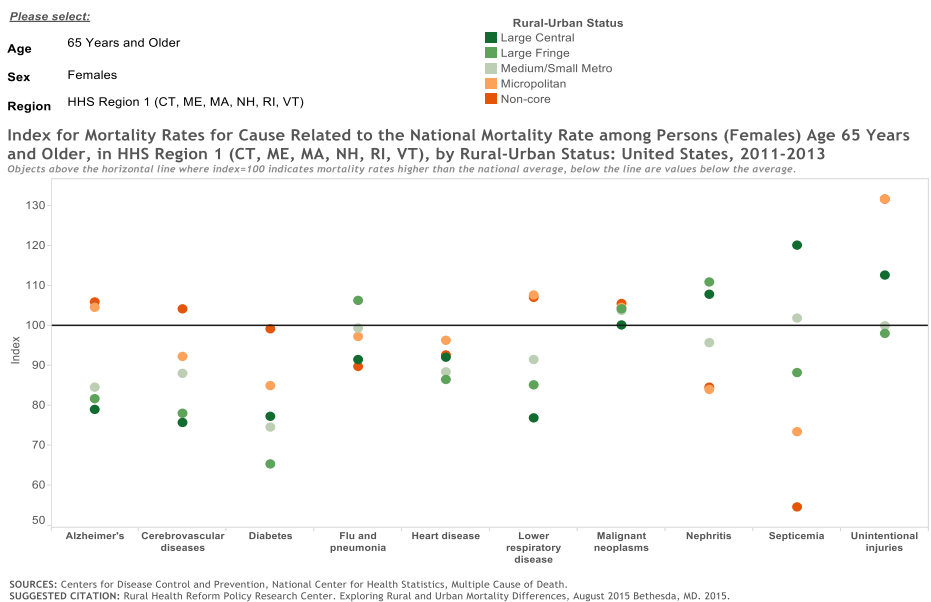
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Males) Age 65 Years and Older, in HHS Region 1 (CT, ME, MA, NH, RI, VT), by Rural-Urban Status: United States, 2011-2013

Objects above the horizontal line where Index=100 indicates mortality rates higher than the national average, below the line are values below the average.

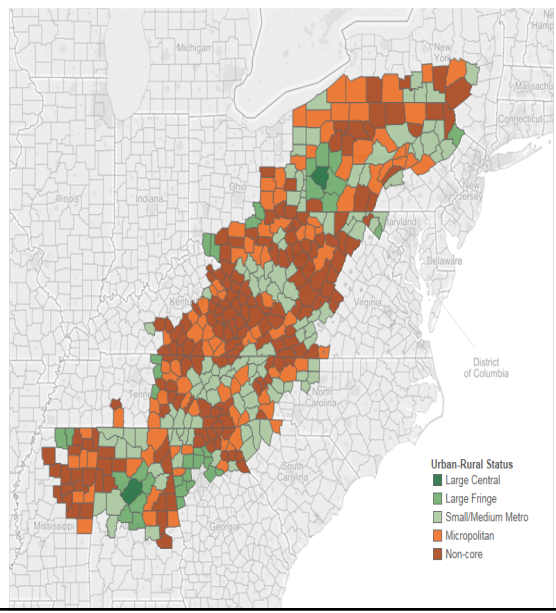


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.
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Regional Differences in Mortality: Females; 65 Years and Over; HHS Region 1



Appalachian Region





Summary

- Place matters
 - Cause-specific mortality varies by region
 - Regional differences that may impact mortality include:
 - Culture
 - Demographics
 - Health behaviors
 - Morbidity
- Sparsely populated areas have high mortality rates

Rural Resources to Improve Health

- RAC's Community Health Gateway
 - Conducted on behalf of the Health Resources and Services Administration (HRSA) Federal Office of Rural Health Policy (ORHP)
 - A compilation of evidence-based practices and resources that can strengthen rural health programs
 - New toolkits each year on different topics that target ORHP grantees, future applicants, and rural communities
 - Rural Health Models and Innovations Hub
 - <https://www.raconline.org>
- Rural Health Research Gateway
 - <https://www.ruralhealthresearch.org/>



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Rural Community Health Gateway

Build What Works

The Rural Community Health Gateway can help you build effective community health programs and improve services you offer. Resources and examples in this Gateway are chosen for effectiveness and adaptability and drawn from programs with a strong history of service and community success. By starting from approaches that are known to be effective, you can make the best use of limited funding and resources.

Evidence-Based Toolkits

- [Care Coordination Toolkit](#)
Resources and best practices to help you identify and implement a care coordination program.
- [Community Health Workers Toolkit](#)
Resources to help you develop a community health worker (CHW) program to reach underserved populations, using evidence-based approaches from other rural communities.
- [Health Promotion and Disease Prevention Toolkit](#)
Resources and best practices to help you identify and implement a health promotion program in your community.
- [Mental Health and Substance Abuse Toolkit](#)
Resources to develop and implement programs to improve community mental health using proven approaches and strategies.
- [Obesity Prevention Toolkit](#)
Resources to help you develop an obesity prevention program, building on best practices of successful obesity prevention programs.
- [Oral Health Toolkit](#)
Resources and best practices to help you develop and implement a program to address oral health disparities in your community.

ABOUT THE RURAL COMMUNITY HEALTH GATEWAY

The Rural Community Health Gateway showcases program approaches that you can adapt to fit your community and the people you serve, allowing you to:

- Research approaches to featured community health programs
- Discover what works and why
- Learn about common obstacles
- Connect with program experts
- Evaluate your program to show impact



Gateway resources are made available through the NORC Walsh Center for Rural Health Analysis and the University of Minnesota Rural Health Research Center in collaboration with the Rural Assistance Center. Funding is provided by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration.

MORE USEFUL TOOLS

[Economic Impact Analysis](#)
Show how your program's grant funding affects your community's economic well-being and share this information with sponsors, funders and your community

[Planning for Sustainability](#)

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Rural Health Models and Innovations Hub

Browse Rural Project Examples

- [Browse by Level of Evidence](#)
- [Browse by Topic](#)
- [Browse by State](#)
- [Browse by Source](#)

Recently Added

- [Albert Lea Walking and Biking Movement](#)
- [HEALTH-COP Obesity Prevention](#)
- [Finger Lakes Community Health Telehealth Network](#)

More Resources

Many organizations, including federal agencies and national organizations, curate lists of effective programs. Some may have sections specific to rural and many have approaches that could be adapted to rural:

- [Other Collections of Program Examples](#)



Share Your Story

RAC is looking for project examples to share with rural service providers. Tell us about:

- Your program's successes
- Program results demonstrated in formal program evaluations or research studies

ABOUT THE RURAL HEALTH MODELS AND INNOVATIONS HUB

The Rural Assistance Center collects and shares stories about rural health programs and interventions. This collection includes approaches that have demonstrated success in research studies and program evaluations, as well as anecdotal accounts.


Read about the [criteria and evidence-base](#) for programs included in the *Rural Health Models and Innovations Hub*.

USING AND ADAPTING PROGRAM EXAMPLES

Each rural community should consider whether a particular project or approach is a good match for their community's needs and capacity. While it is sometimes possible to adapt program components to match your resources, keep in mind that changes to the program design may impact results. Programs listed in this section are not endorsed by the Rural Assistance Center or the Federal Office of Rural Health Policy.

MORE USEFUL TOOLS

[Rural Community Health Gateway](#) - Features evidence-based approaches that can be adapted to fit your community.





ruralhealth.und.edu/research

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