

Mapping Rural and Urban Mortality Differences by HHS Region

A Consortium of







Rural Health Reform Policy Research Center

RHRPRC is a consortium that combines the resources of two premier institutions:

- The University of North Dakota Center for Rural Health
- NORC Walsh Center for Rural Health Analysis

Research conducted by the RHRPRC informs policy makers and rural providers to:

- Increase access to health care services
- Improve overall health status of rural residents
- Assist rural communities in securing adequate, affordable, high-quality health care services



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Where you live should not determine whether you live, or whether you die

— Bono



Introduction

- Cause-specific mortality is often higher in rural counties than urban counties
- Risk factors contribute to high mortality rates in rural areas
 - Smoking
 - Obesity
 - Physical inactivity
- High mortality rates and risk factors are a reflection of the physical and social environment in which people live and work



Study Purpose

• To examine the impact of rurality on mortality and to explore the regional differences in causes of death



Research Question

• What are the geographical differences in rural and urban mortality rates?



Methods

Source of Mortality data:

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



2013 NCHS Urban-Rural Classification Scheme for Counties

2013 NCHS Urban-Rural Classification	Definition
Large central (inner cities)	Counties in MSA of 1 million or more population that: Contain the entire population of the largest principal city of the MSA; Are completely contained in the largest principal city of the MSA; or Contain at least 250,000 residents of any principal city of the MSA
Large Fringe (suburban)	Counties in MSAs with a population of at least 1 million residents
Small Metro	Counties in MSAs with a population of less than 1 million residents
Micropolitan (large rural)	Counties with populations of 10,000 to 49,999
Non-core (small rural)	Remaining nonmetropolitan counties that are not in a micropolitan statistical area



The HHS regions are as follows:

Region 1: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region 2: New York, New Jersey

Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region 7: Iowa, Kansas, Missouri, Nebraska

Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Region 9: Arizona, California, Hawaii, Nevada

Region 10: Alaska, Idaho, Oregon, Washington



- Rates are age-adjusted for the children, working-age adult, and senior age groups.
- Data Tables and Technical Notes are available via electronic access with explicit details including mortality rates, explanation of mortality index, age-adjustment, cause of death, etc.
- Rates represent deaths per 100,000 population.



- Each set of maps has a legend. The legend is divided into five uniform color bins. For example, if you had a range of values from 0 to 100, the color range would represent every 20 units. That means that all points between 0 and 20 would have the lightest color, all points between 21 and 40 would be a shade darker, and so on and so forth.
- Any rate that falls within the range for the bin color will display as the same color, even though the two values may not be identical.
- Suppressed and unreliable rates are not shown within each map and display as a white regions.
- Mortality rates for those under 25 years of age are lower thus, more suppressed and unreliable rates exist, limiting the visuals for all but the top causes of death.



- Light to dark colors represent lower to higher mortality rates.
- Although large differences may be present between one HHS region's mortality rate and another region's mortality rate, presentation of color variations does not imply that the differences in rates are statistically significant.
- Rates are colored by HHS region (not by individual state).
- The numbers on each state represent their corresponding HHS region.
- Maps are available for up to 10 causes of death for each age, sex, and region grouping.



Deaths of nonresidents are excluded, as are residents of:

- American Samoa
- Commonwealth of the Northern Mariana Islands
- Federated States of Micronesia
- Guam
- Marshall Islands
- Puerto Rico
- Republic of Palau
- U.S. Virgin Islands



- The graphs and accompanying text are part of a group of available information including Technical Notes and data tables corresponding to the graphed data. The Technical Notes provide information about data sources and methods.
- All data tables include the mortality rates underlying the graphics. The tables also include related data not included in the chart, as well as standard errors of estimates and results of statistical comparisons.

Electronic access:

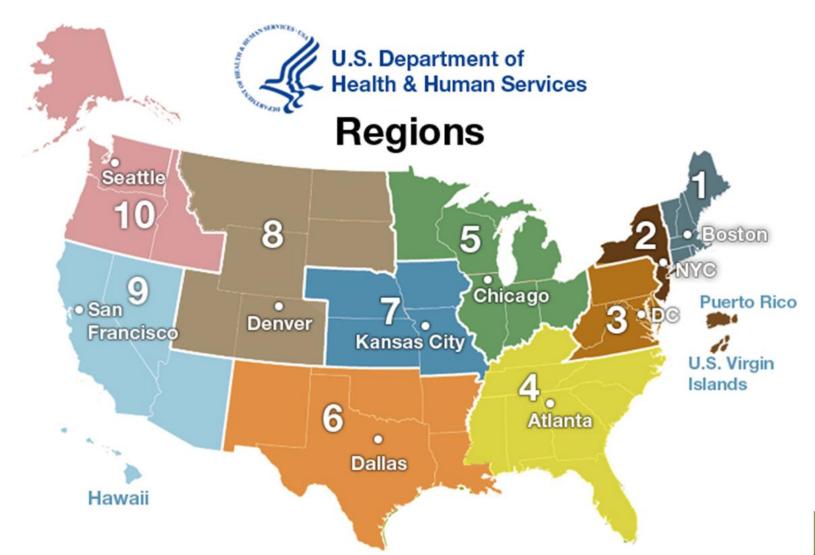
Exploring Rural and Urban Mortality Differences by HHS Region may be accessed from the Rural Health Research Gateway website at:

http://www.ruralhealthresearch.org/.

The graphs from this presentation may be accessed at: https://viz.norc.org/views/On-LineToolMortalityRates/Introduction?:embed=y&:display_count=no

Geographic Definitions

HHS Regions





Rural Health Reform Policy
RESEARCH CENTER

Source: U.S. Department of Health & Human Services



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Infants

Under 1 Year Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013; Age: Under 1 Year

Cause of Death¹:

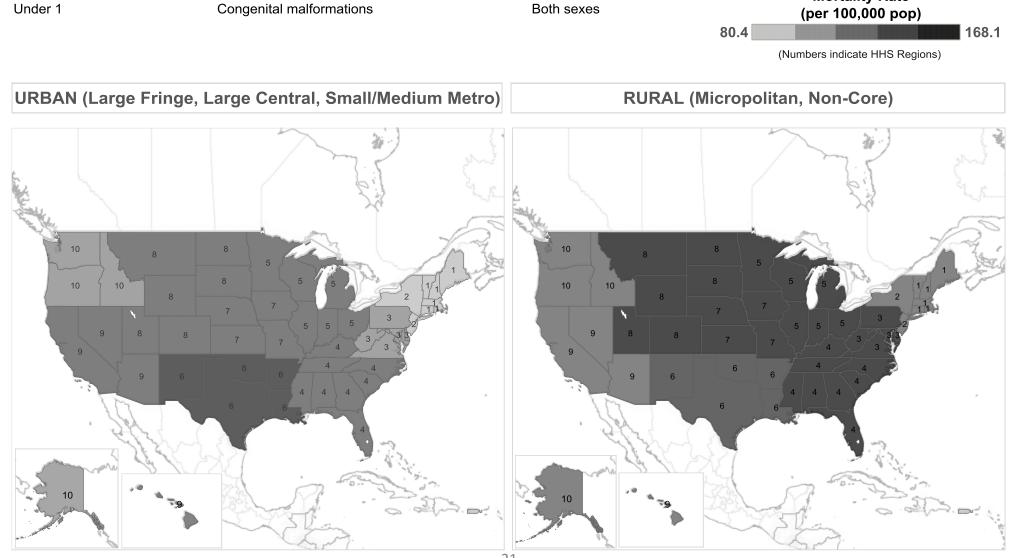
- Figure 2: Congenital malformations, Both Sexes
- Figure 3: Short gestation and low birth weight, Both Sexes
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- Figure 8: Bacterial sepsis, Both Sexes
- Figure 9: Respiratory distress, Both Sexes
- Figure 10: Circulatory system diseases, Both Sexes
- Figure 11: Neonatal hemorrhage, Both Sexes

¹Cause of death of top 10 rankable causes of death in order from leading cause of death to 10th leading cause of death for this age group. Source: http://webappa.cdc.gov/sasweb/ncipc/leadcaus10_us.html

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Congenital malformations; Sex: Both sexes

Cause of Death



Sex

Mortality Rate

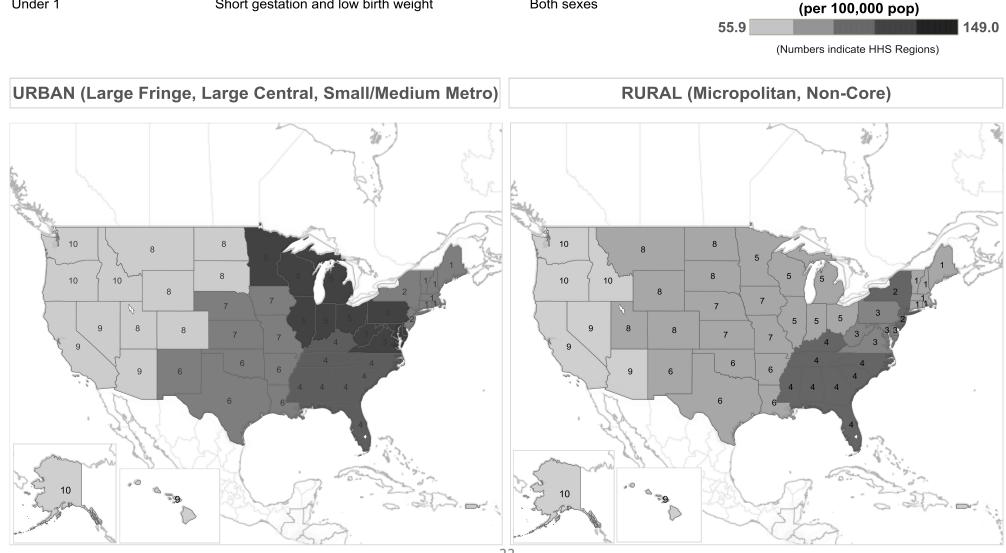
Age

Under 1

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Short gestation and low birth weight; Sex: Both sexes

Short gestation and low birth weight

Cause of Death



Sex

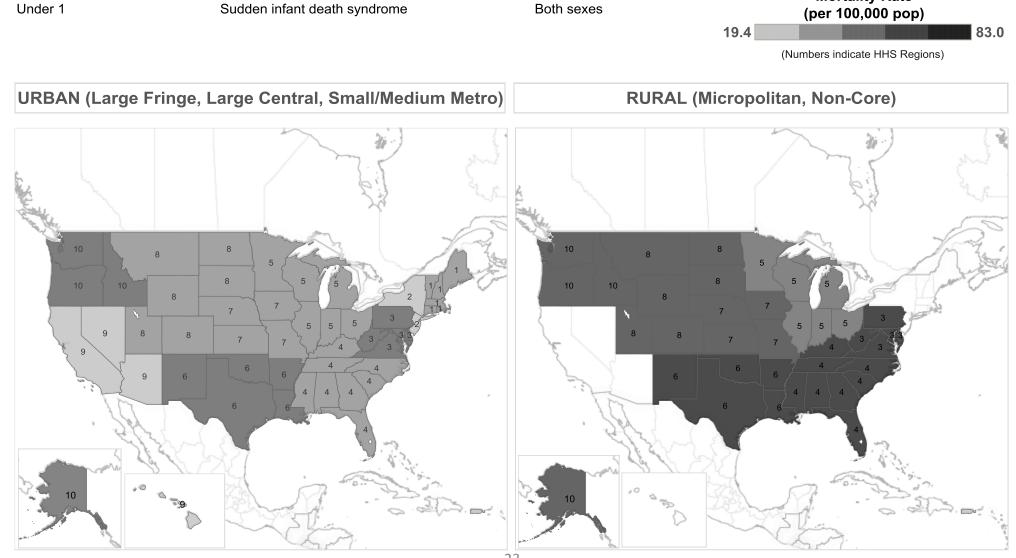
Both sexes

Mortality Rate

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Sudden infant death syndrome; Sex: Both sexes

Cause of Death



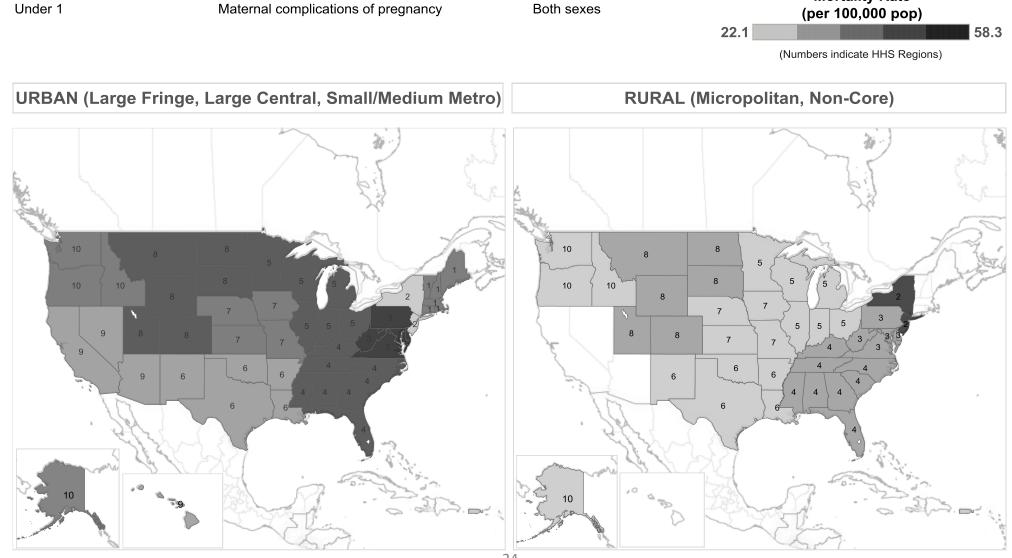
Sex

Mortality Rate

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Maternal complications of pregnancy; Sex: Both sexes

Cause of Death



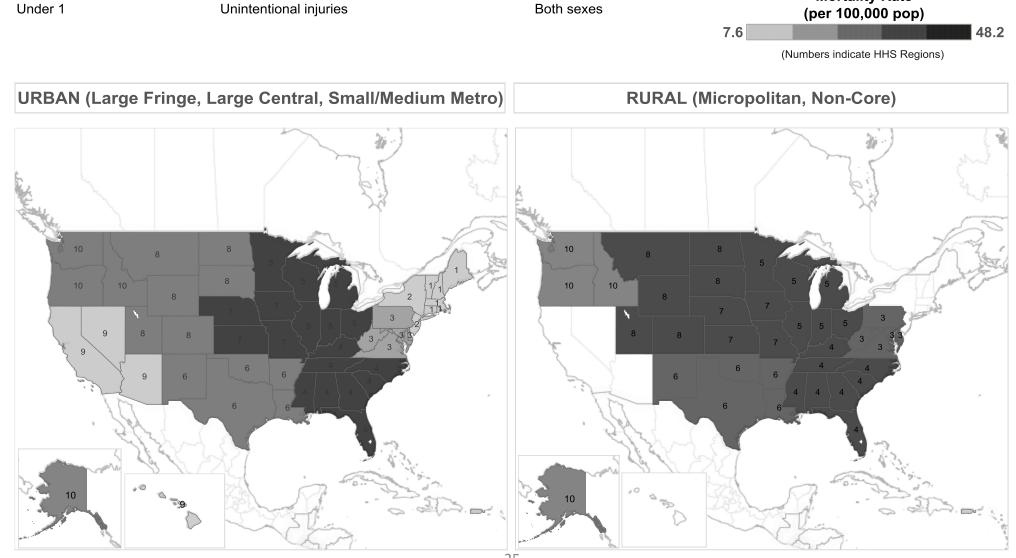
Sex

Mortality Rate

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Unintentional injuries; Sex: Both sexes

Cause of Death



Sex

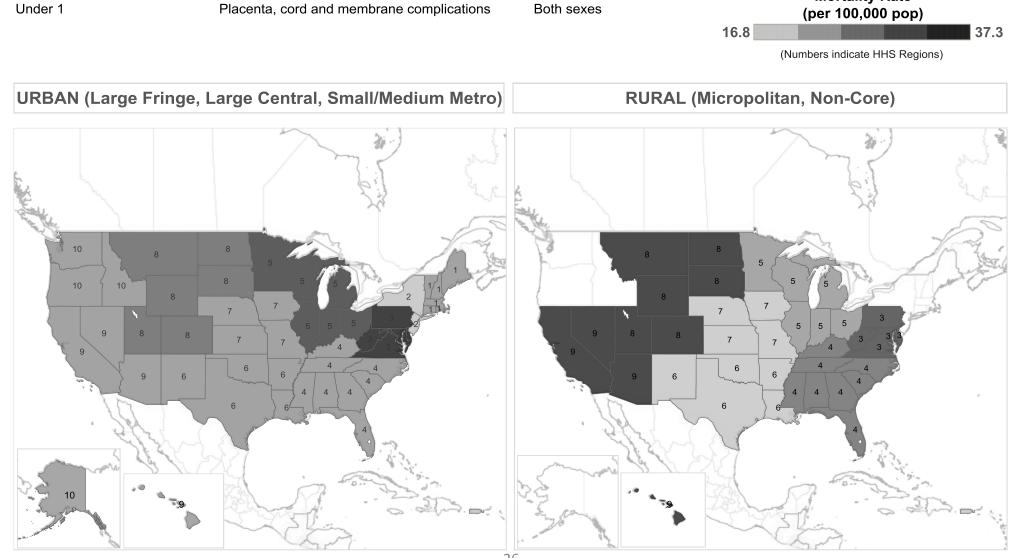
Mortality Rate

Figure 7

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Placenta, cord and membrane complications; Sex: Both sexes

Cause of Death



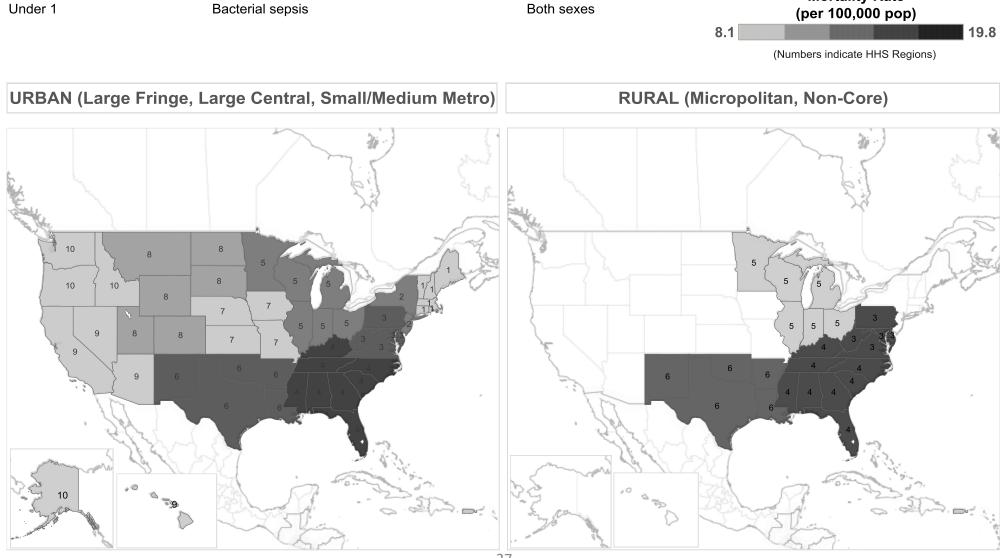
Sex

Mortality Rate

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Bacterial sepsis; Sex: Both sexes

Cause of Death



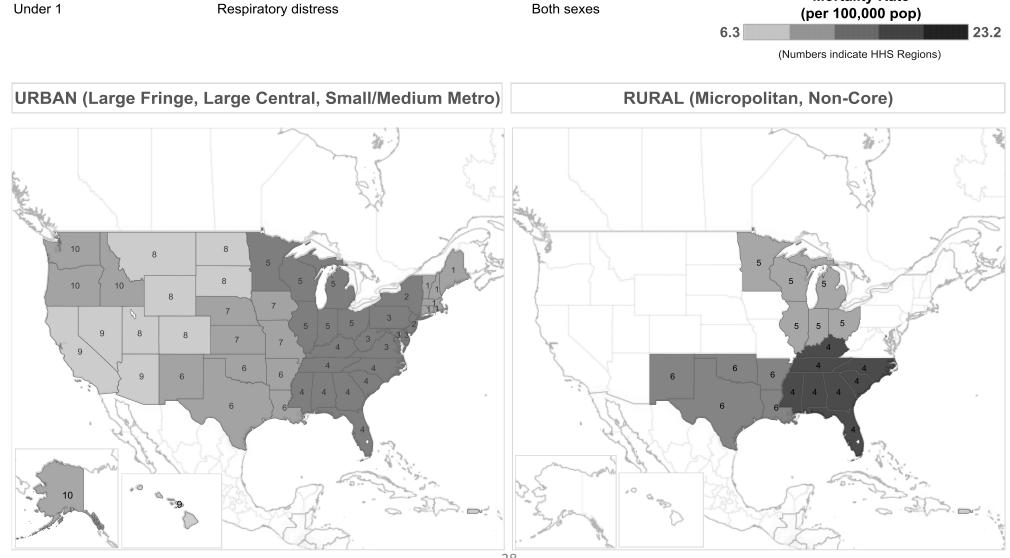
Sex

Mortality Rate

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Respiratory distress; Sex: Both sexes

Cause of Death



Sex

Mortality Rate

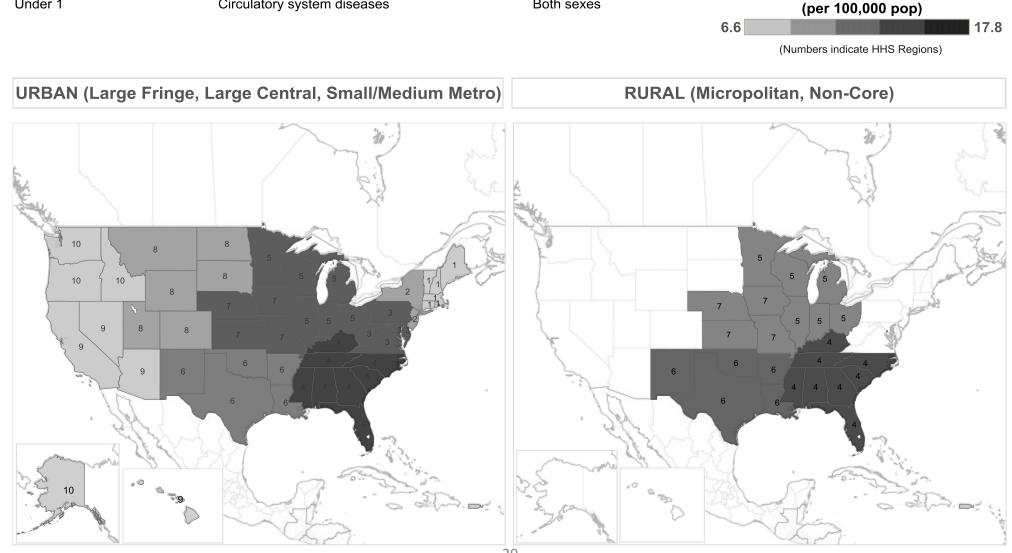
Age

Under 1

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Circulatory system diseases; Sex: Both sexes

Cause of Death

Circulatory system diseases

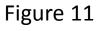


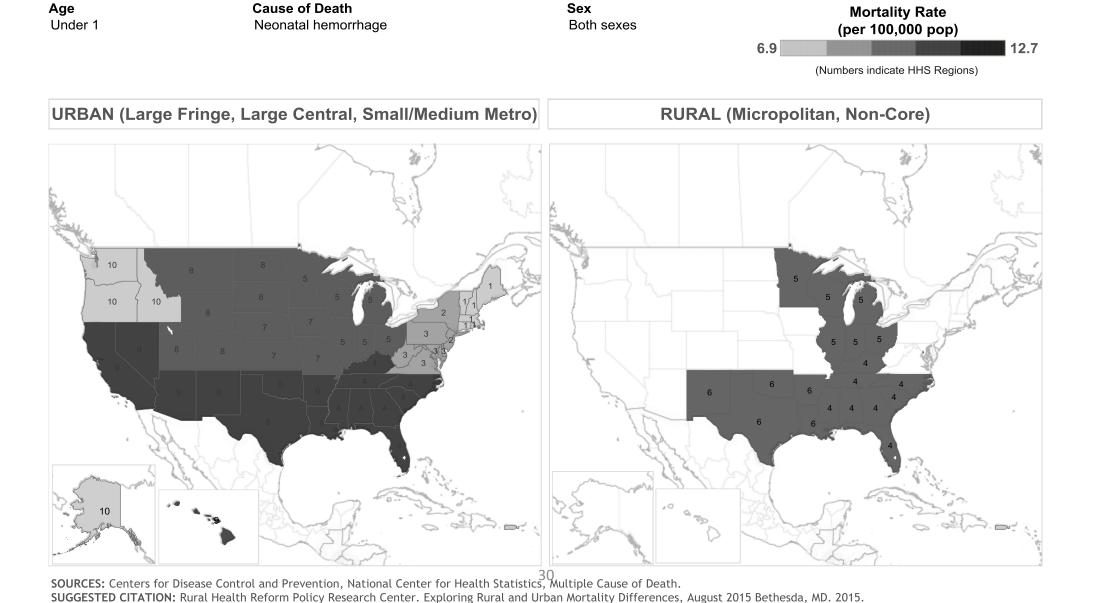
Sex

Both sexes

Mortality Rate

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Neonatal hemorrhage; Sex: Both sexes





Children

Ages 1 to 14 Years Mortality Rates by HHS Region and Urban-Rural Status United States, 2011- 2013;

Cause of Death²:

- Figure 12: Unintentional injuries, Both Sexes
- Figure 13: Malignant Neoplasms, Both Sexes
- Figure 14: Congenital Malformations, Both Sexes
- Figure 15: Homicide, Both Sexes
- Figure 16: Heart Disease, Both Sexes
- Figure 17: Suicide, Both Sexes
- Figure 18: Flu & Pneumonia, Both Sexes
- Figure 19: Lower Respiratory Disease, Both Sexes
- Figure 20: Benign neoplasms, Both Sexes
- Figure 21: Cerebrovascular Disease, Both Sexes

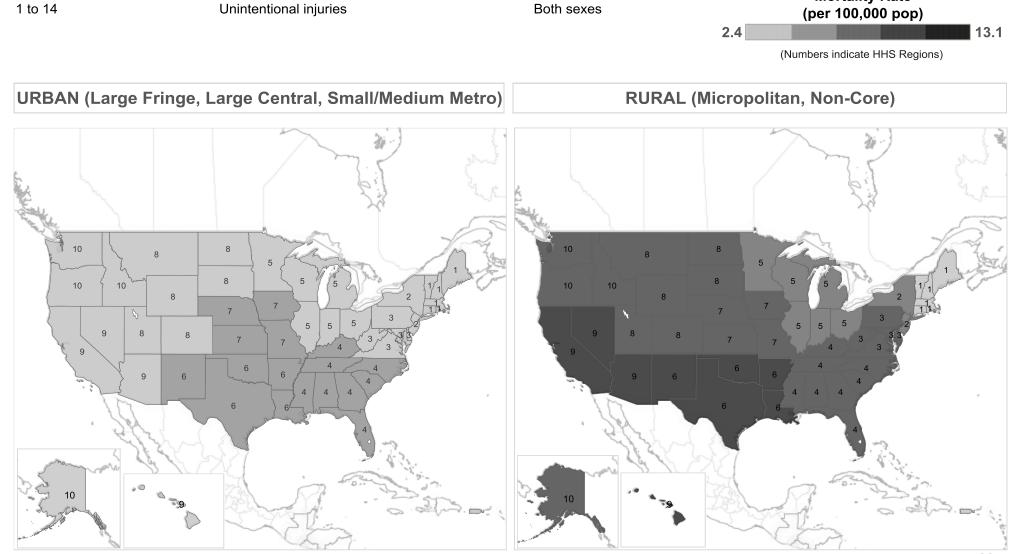
²Cause of death of top 10 rankable causes of death in order from leading cause of death to 10th leading cause of death for this age group. Source: http://webappa.cdc.gov/sasweb/ncipc/leadcaus10_us.html

Figure 12

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Unintentional injuries; Sex: Both sexes

Cause of Death



Sex

Mortality Rate

Figure 13

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Malignant neoplasms; Sex: Both sexes

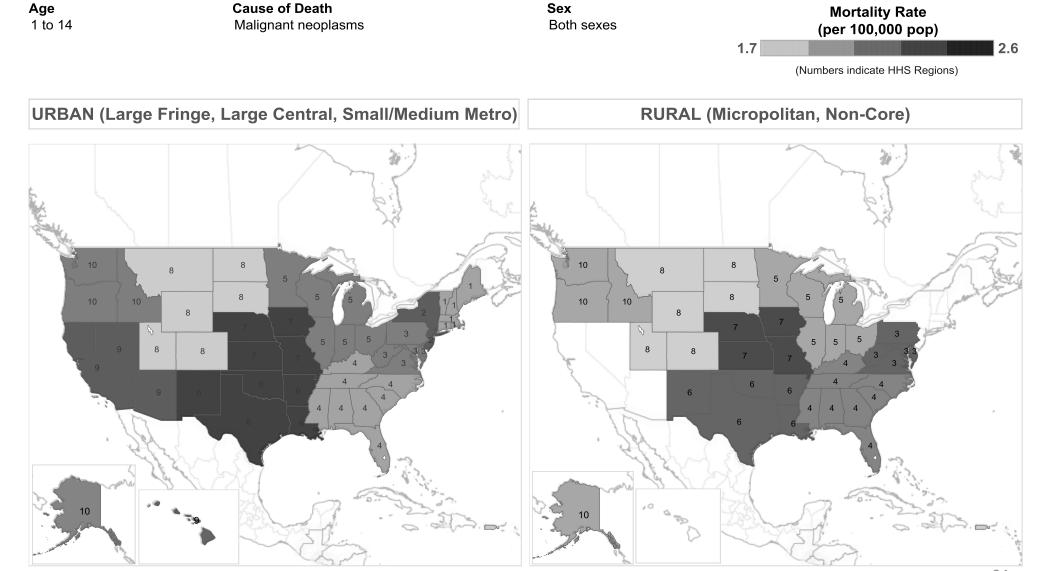
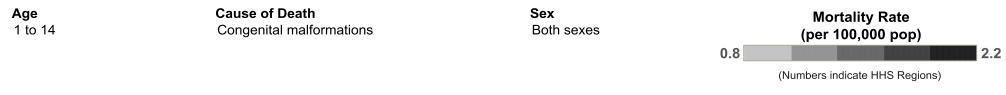
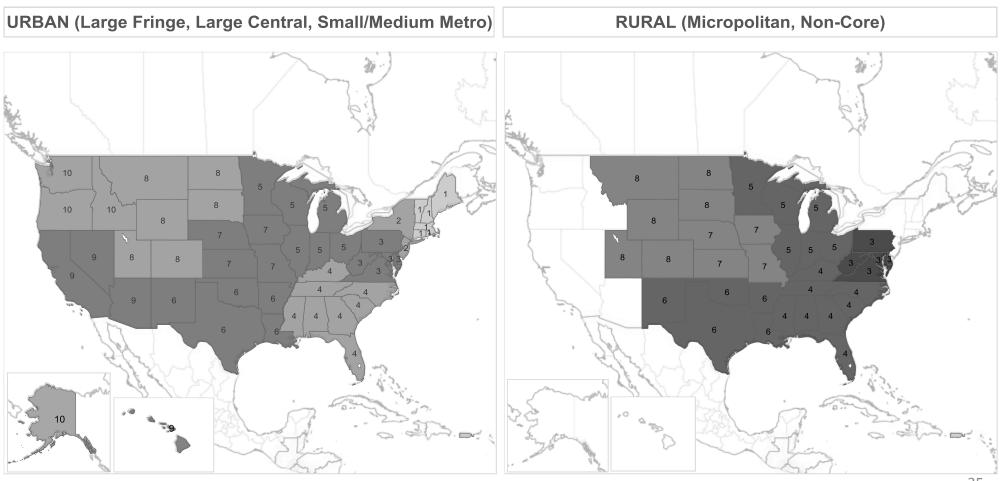


Figure 14

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Congenital malformations; Sex: Both sexes

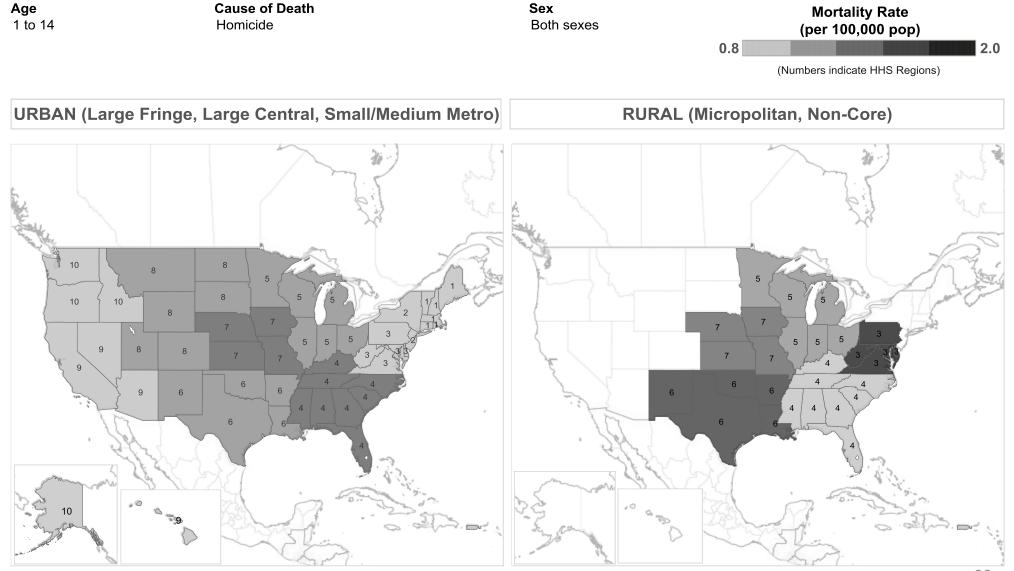




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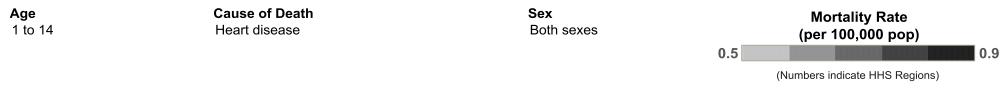
Figure 15

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Homicide; Sex: Both sexes



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Heart disease;

Sex: Both sexes



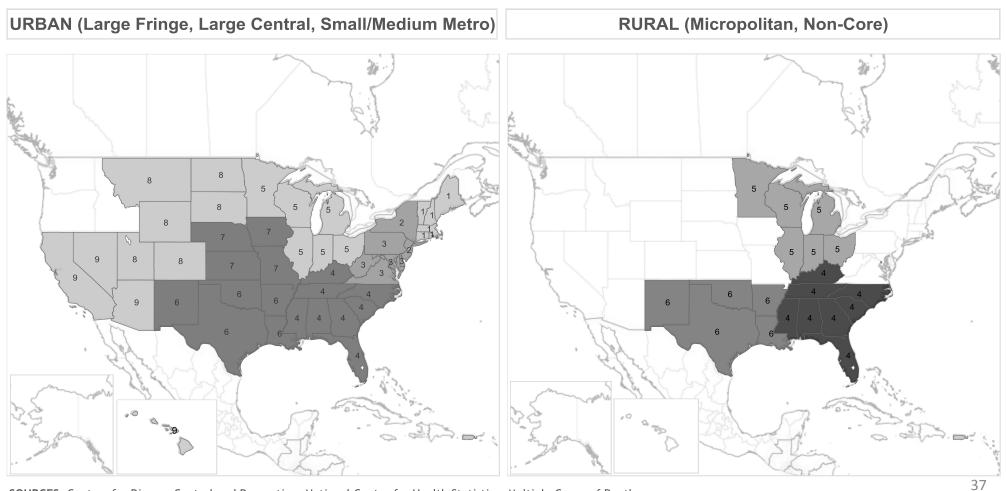
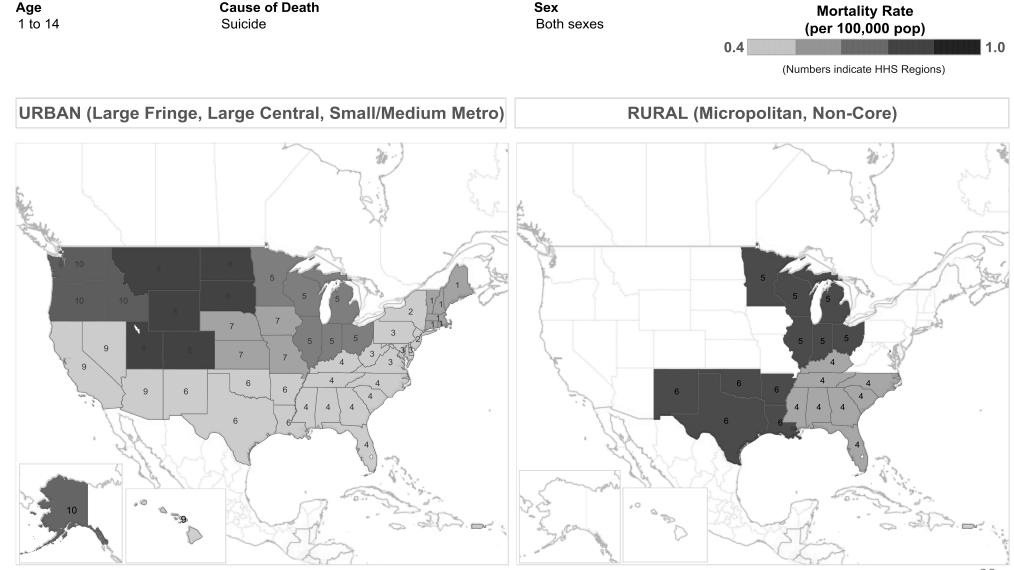


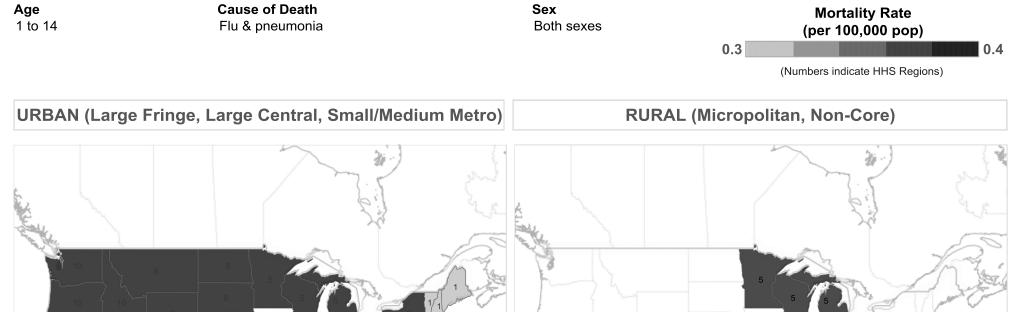
Figure 17

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Suicide; Sex: Both sexes

Cause of Death



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Flu & pneumonia; Sex: Both sexes

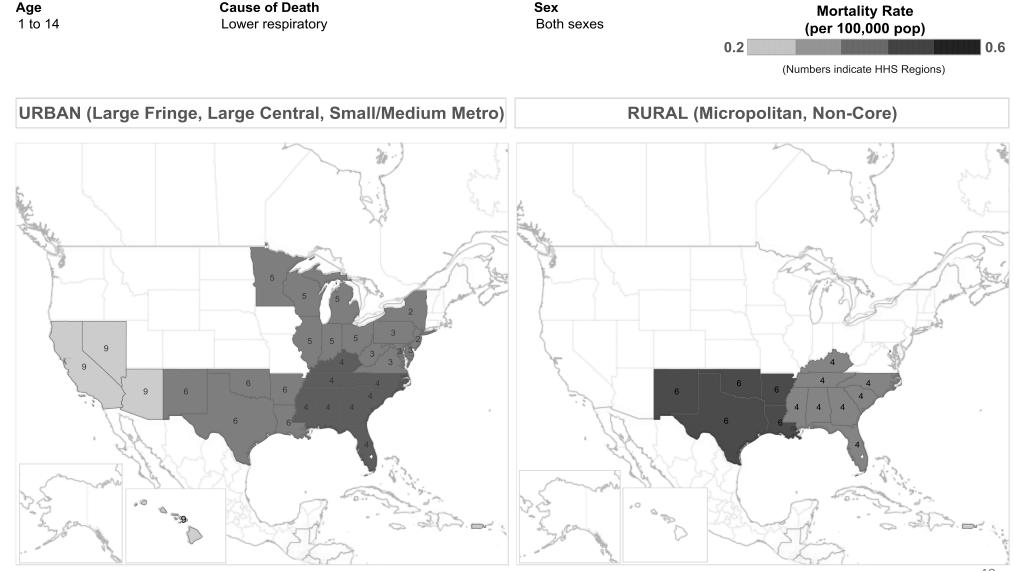




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Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Lower respiratory; Sex: Both sexes

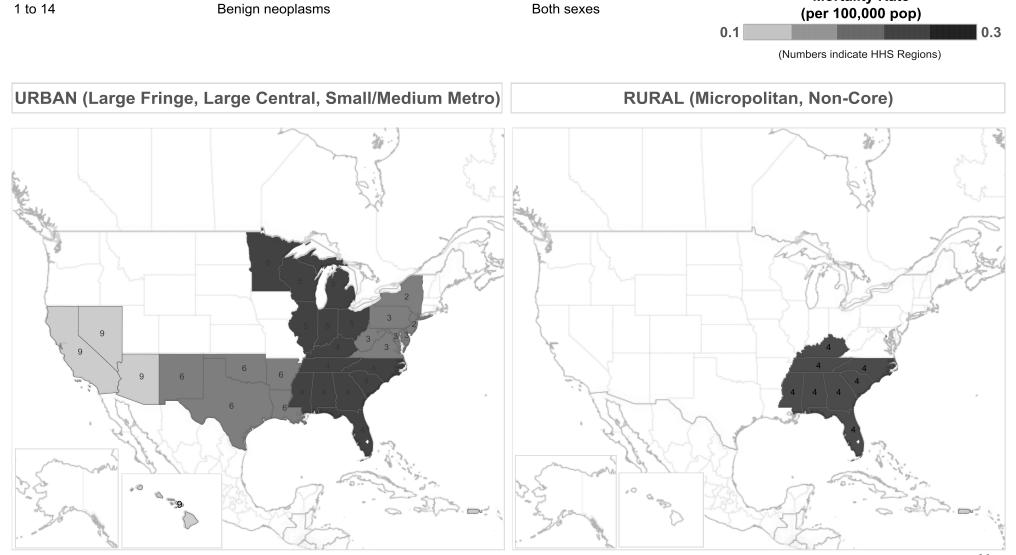
Cause of Death



Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Benign neoplasms; Sex: Both sexes

Cause of Death

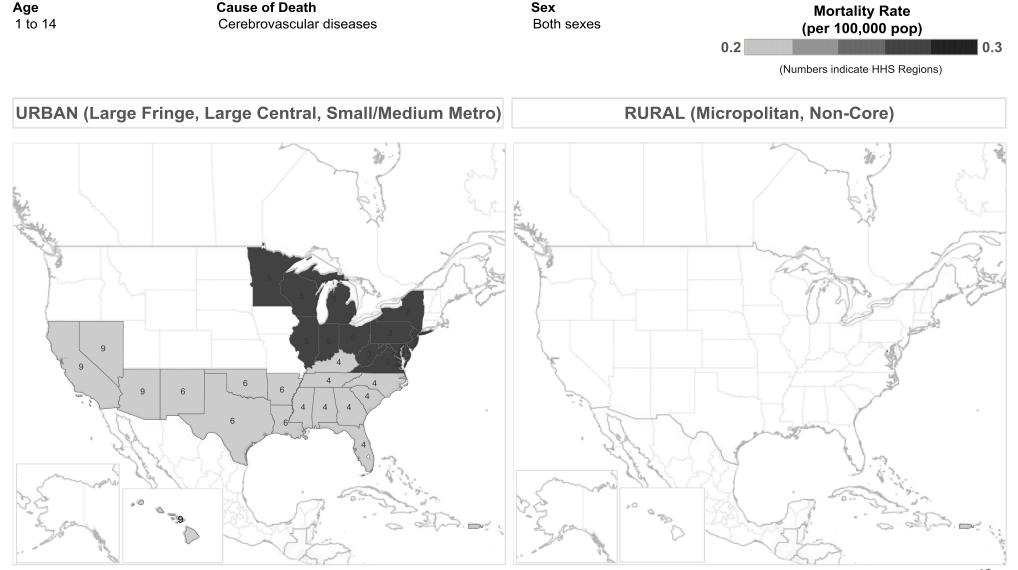


Sex

Figure 21

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Cerebrovascular diseases; Sex: Both sexes

Cause of Death



Adolescents and Young Adults

Ages 15 to 24 Years Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013; Age: 15 to 24

Cause of Death:

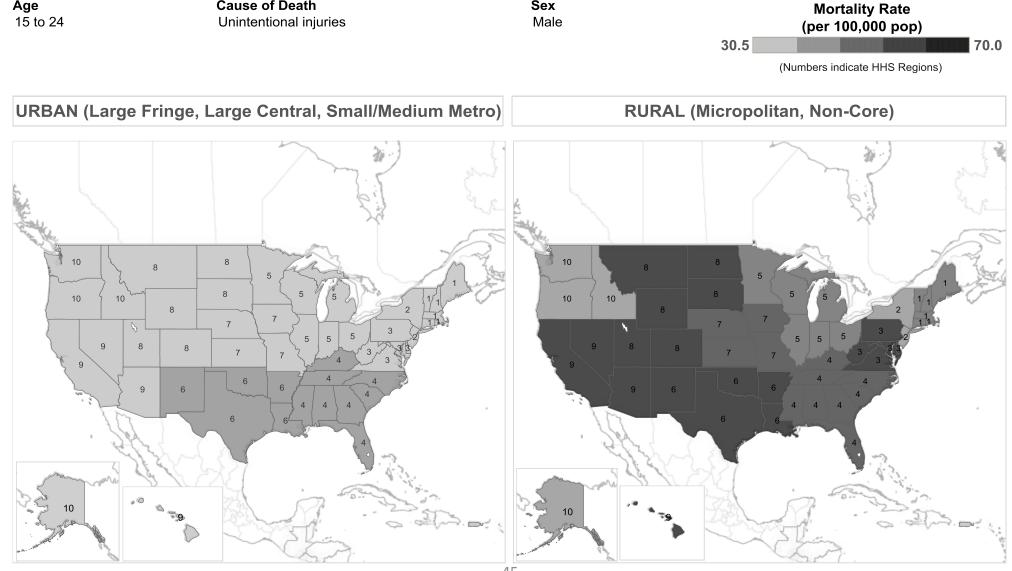
- Figure 22: Unintentional injury, Male
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Figure 22

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Unintentional injuries; Sex: Male

Cause of Death

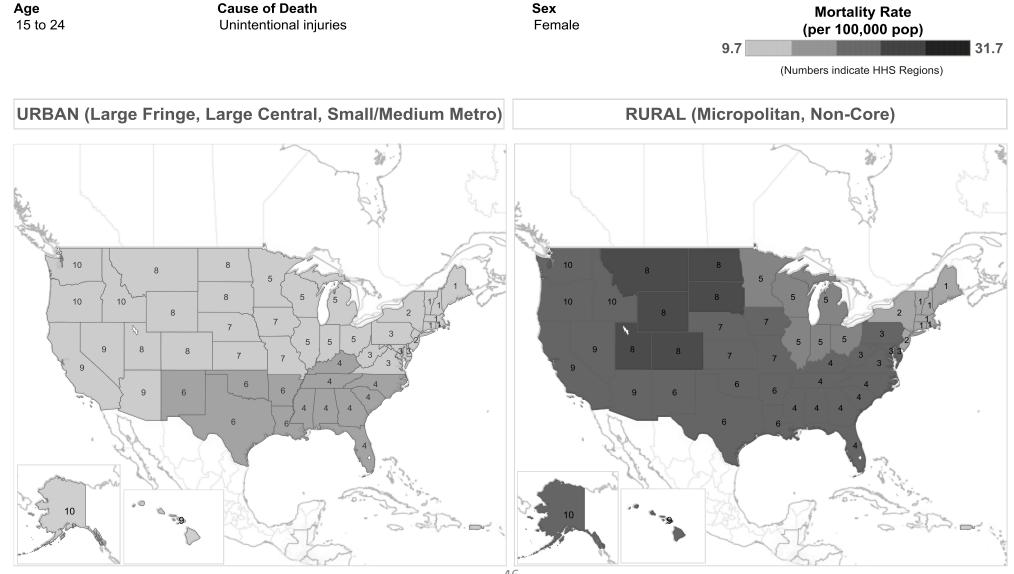


Sex

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.

Figure 23

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Unintentional injuries; Sex: Female



SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.

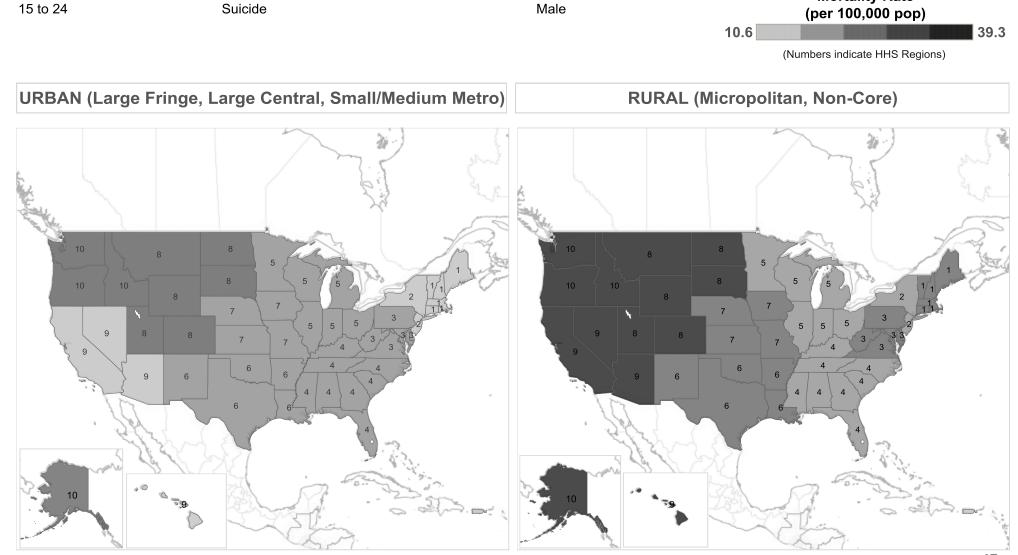
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 24

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Suicide; Sex: Male

Cause of Death



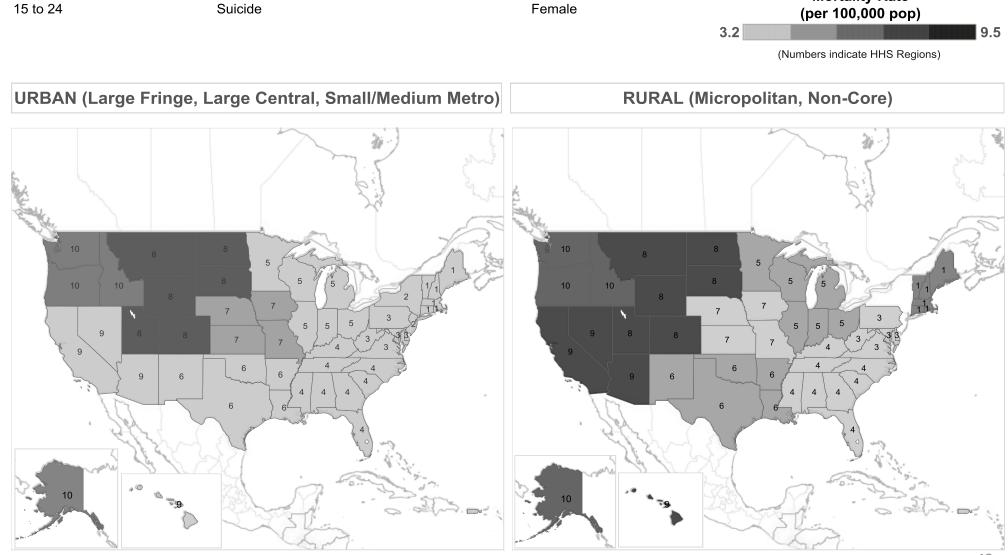
Sex

Figure 25

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Suicide; Sex: Female

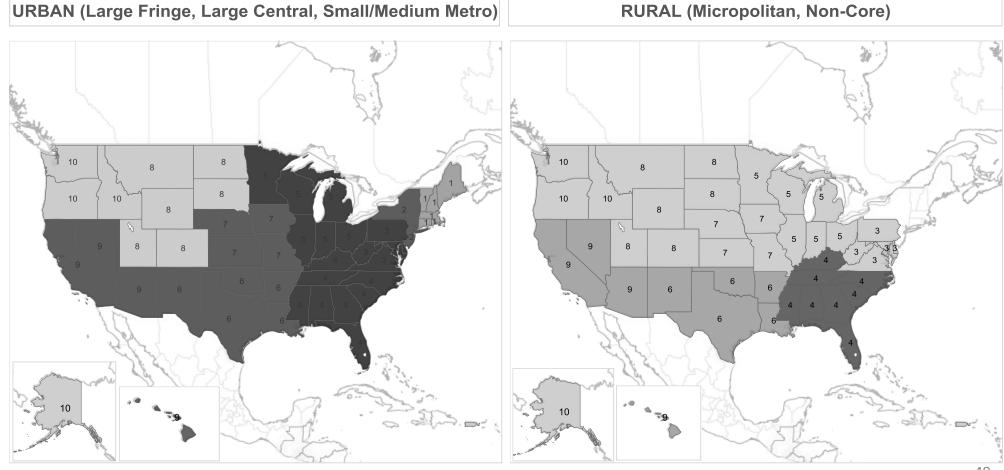
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Homicide; Sex: Male



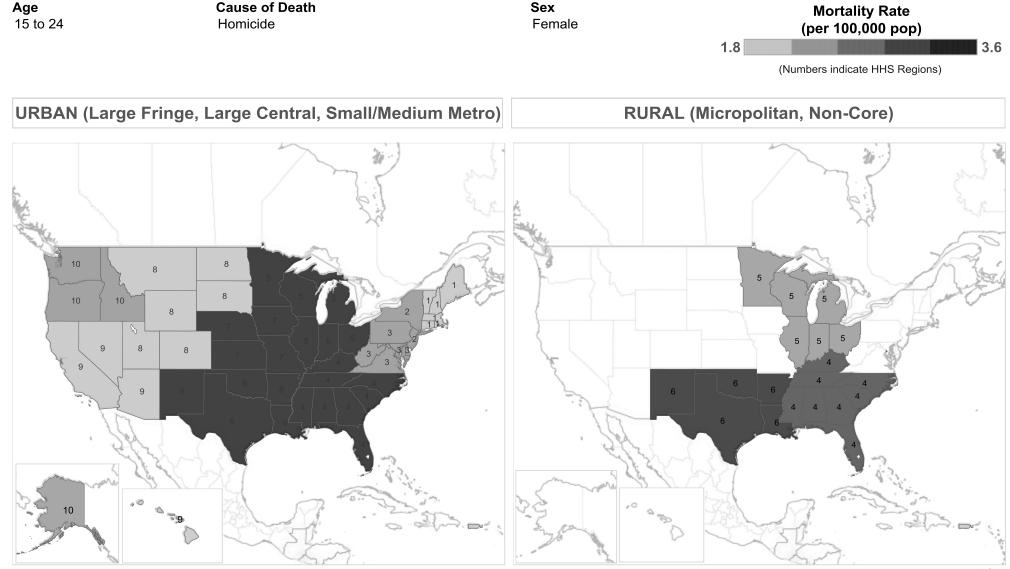


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Figure 27

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Homicide; Sex: **Female**

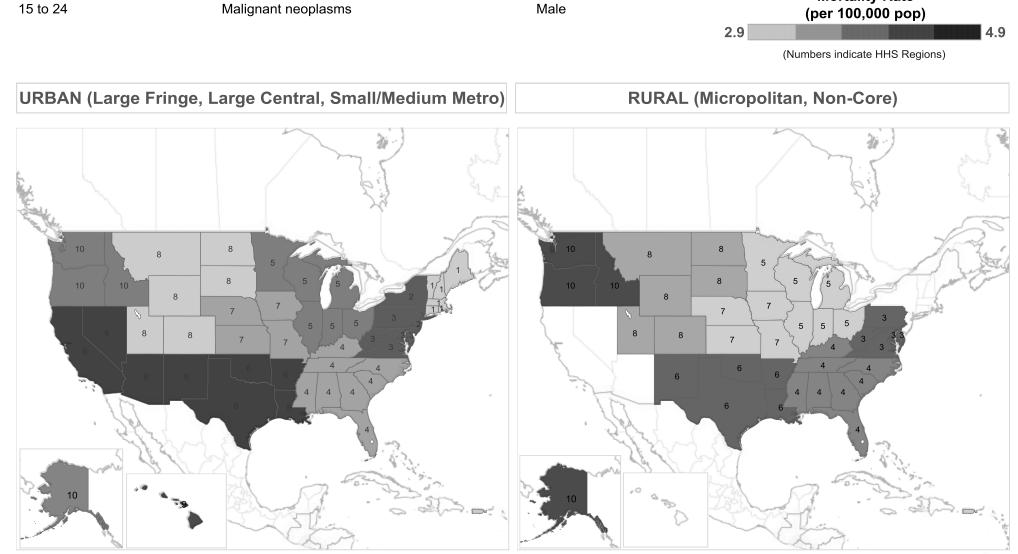
Cause of Death



Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Malignant neoplasms; Sex: Male

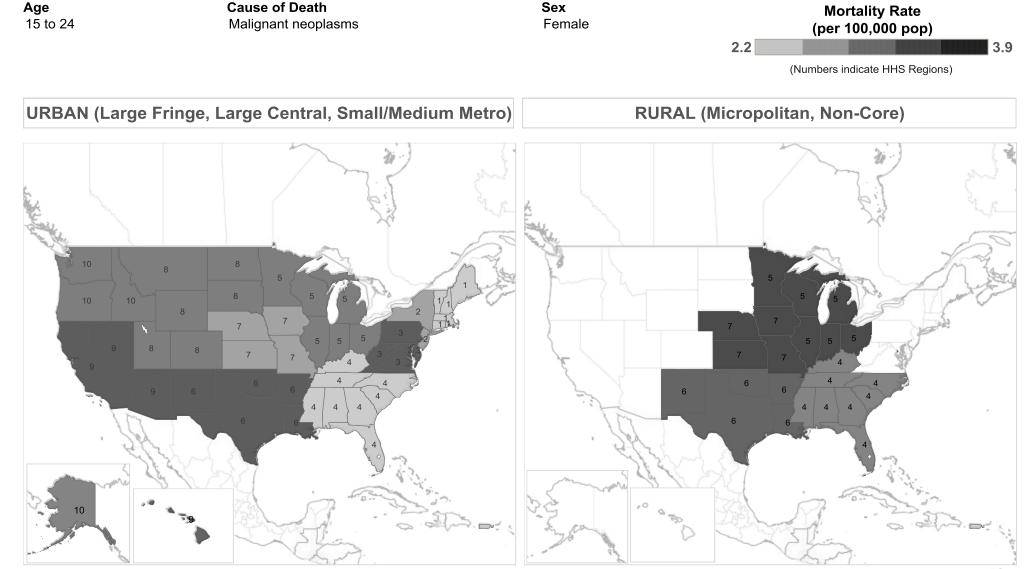
Cause of Death



Sex

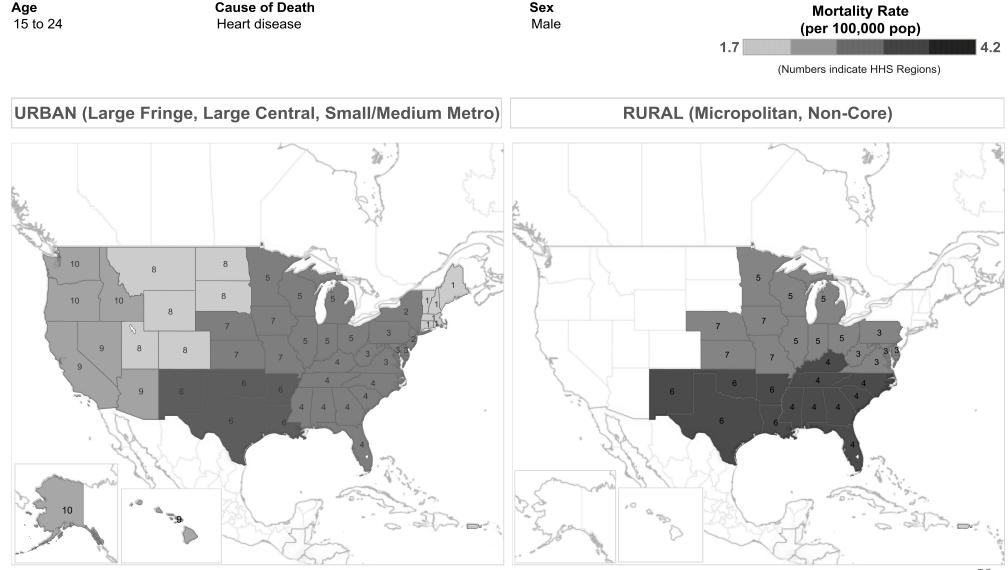
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Malignant neoplasms; Sex: Female

Cause of Death



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Heart disease; Sex: Male

Cause of Death



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Heart disease; Figure 31

Sex: Female

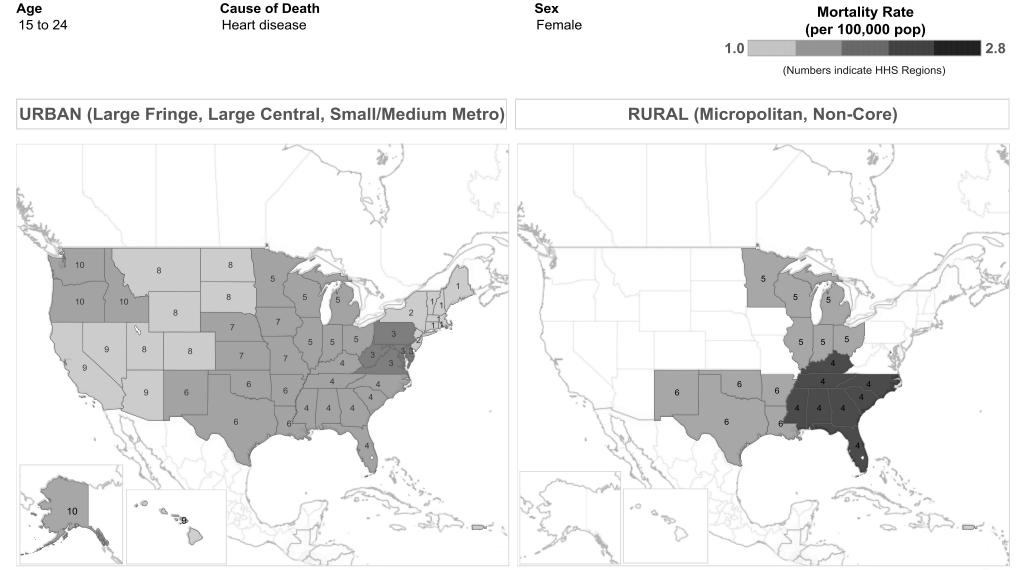
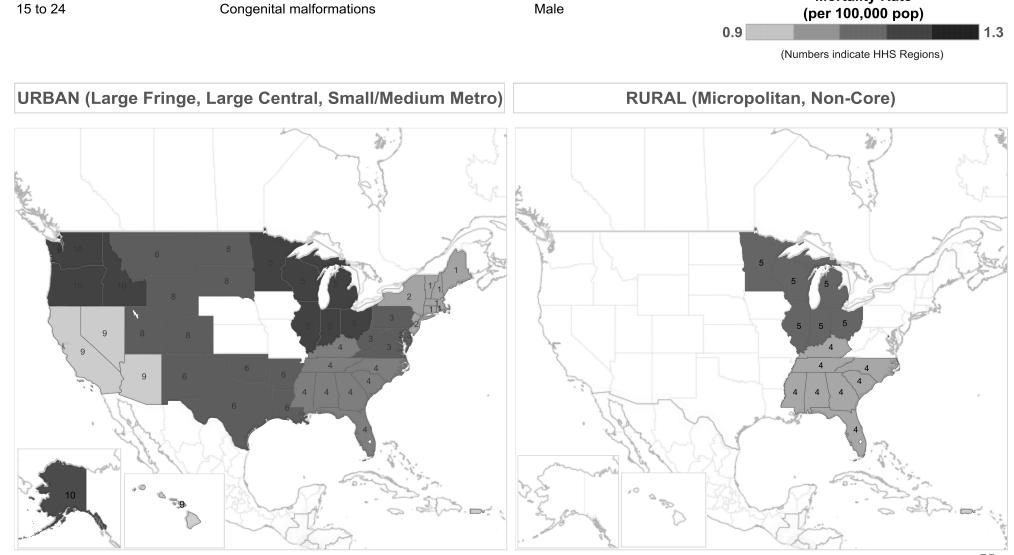


Figure 32

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Congenital malformations; Sex: Male

Cause of Death



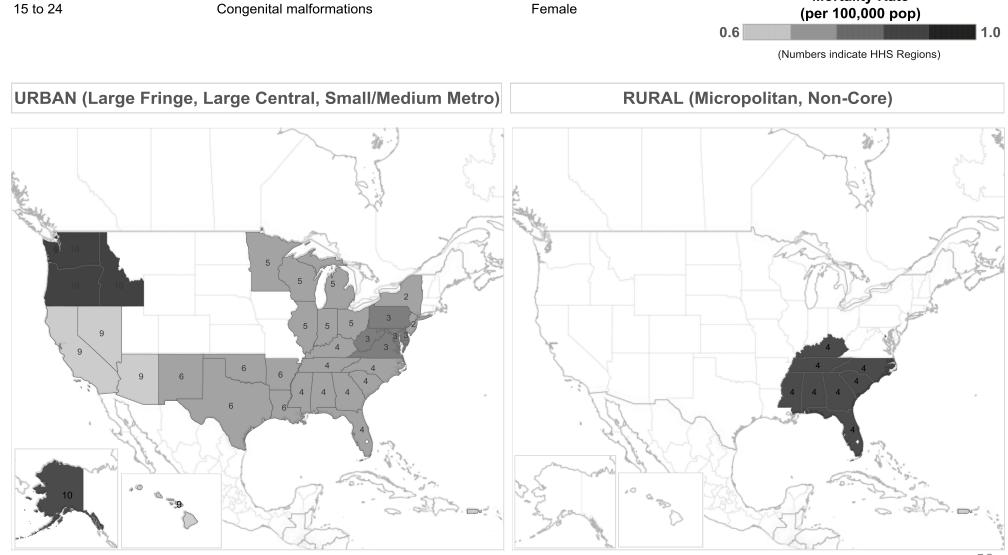
Sex

Figure 33

Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Congenital malformations; Sex: Female

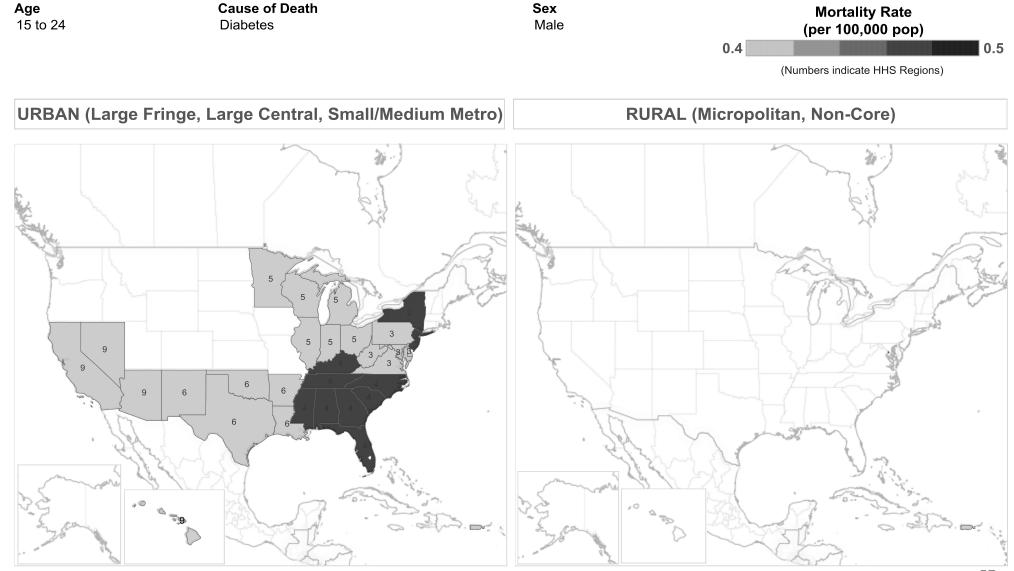
Cause of Death



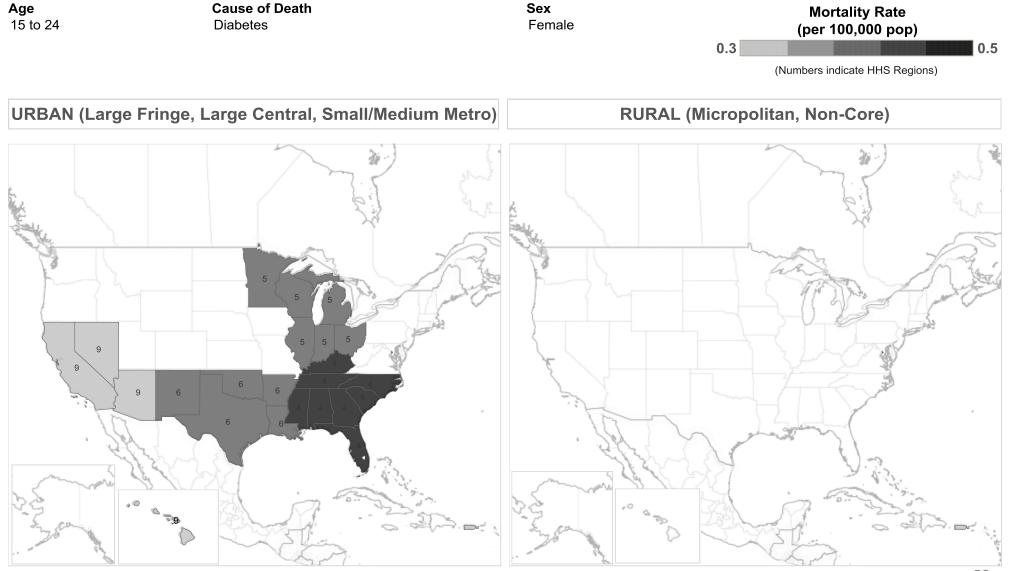
Sex

Figure 34

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Diabetes; Sex: Male



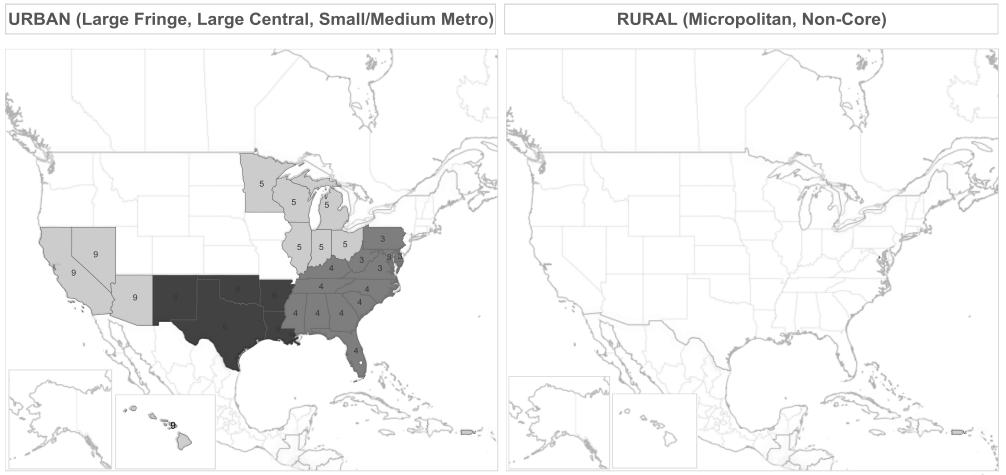
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Diabetes; Sex: Female



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Cerebrovascu-

lar diseases; Sex: Male

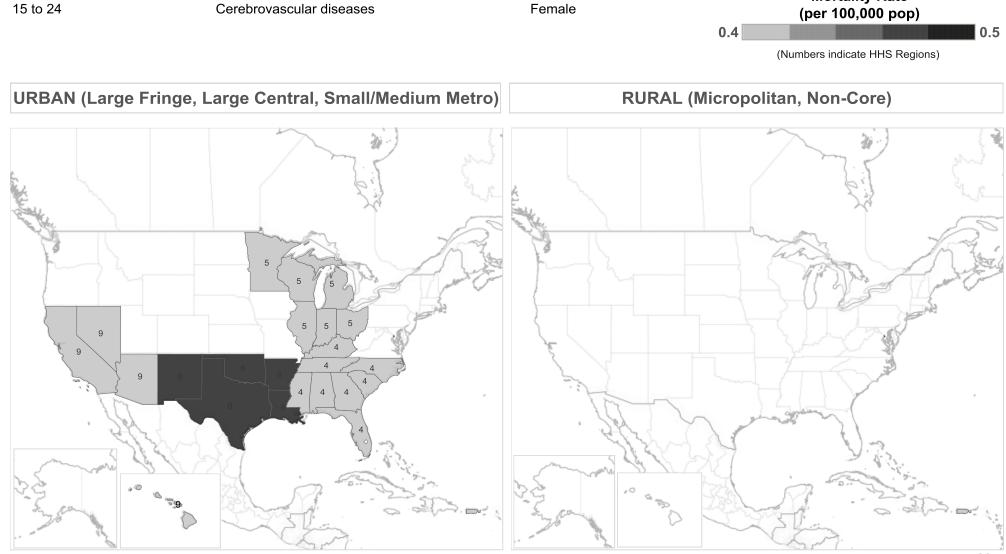




Age

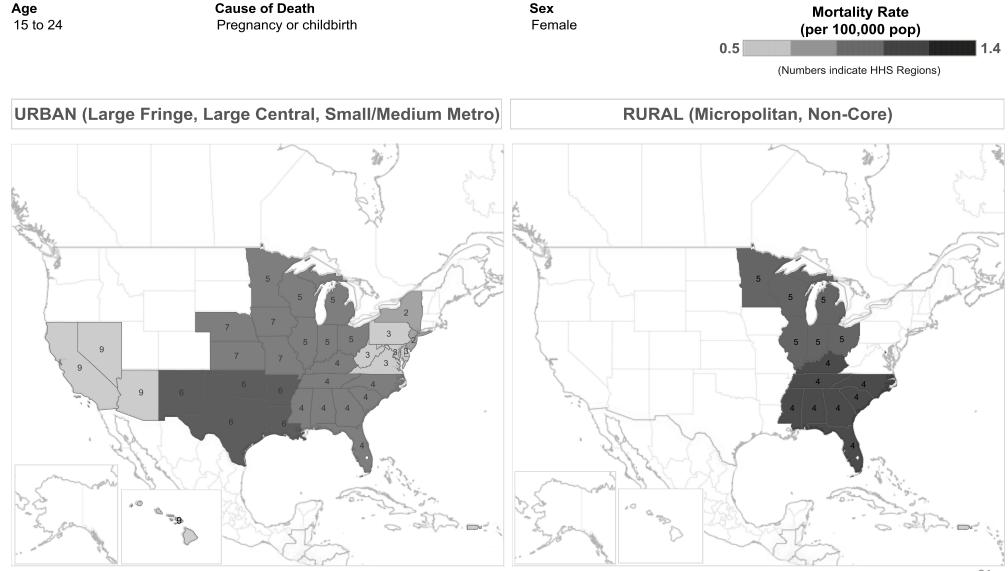
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Cerebrovascular diseases; Sex: Female

Cause of Death



Sex

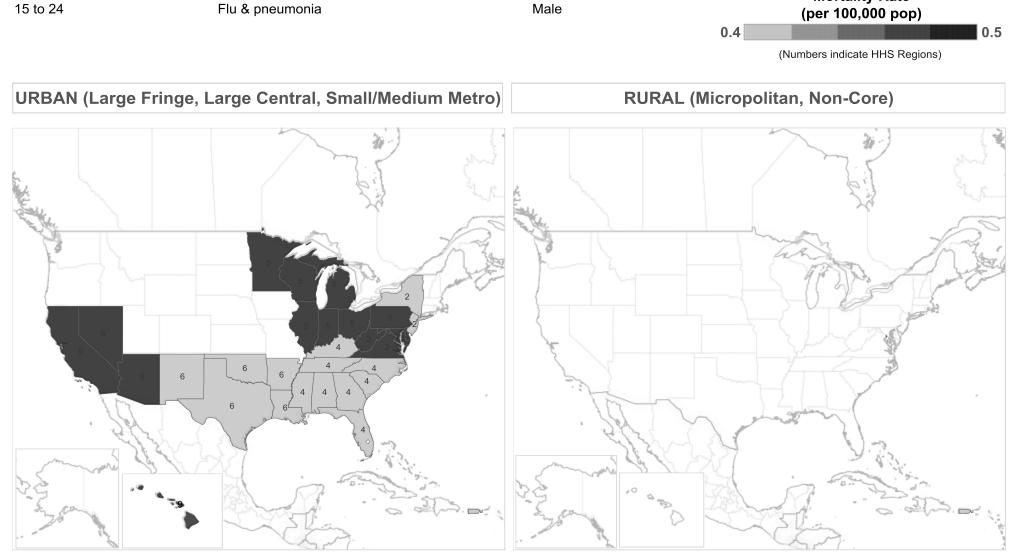
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Pregnancy or childbirth; Sex: Female



Age

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Flu & pneumonia; Sex: Male

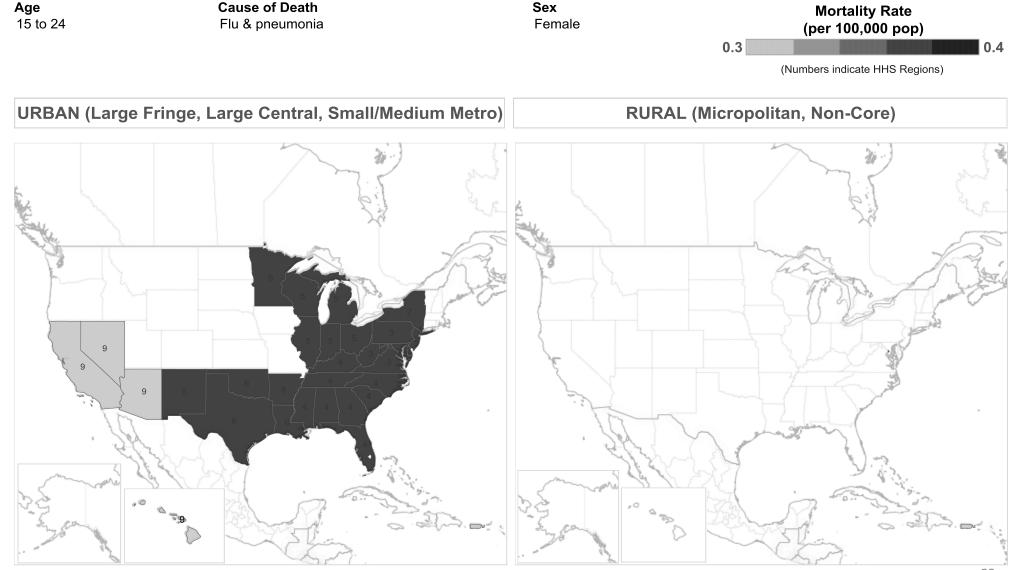
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Flu & pneumonia; Sex: Female

Cause of Death



Working-Age Adults

Age 25 to 64 Years Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013

Cause of Death:

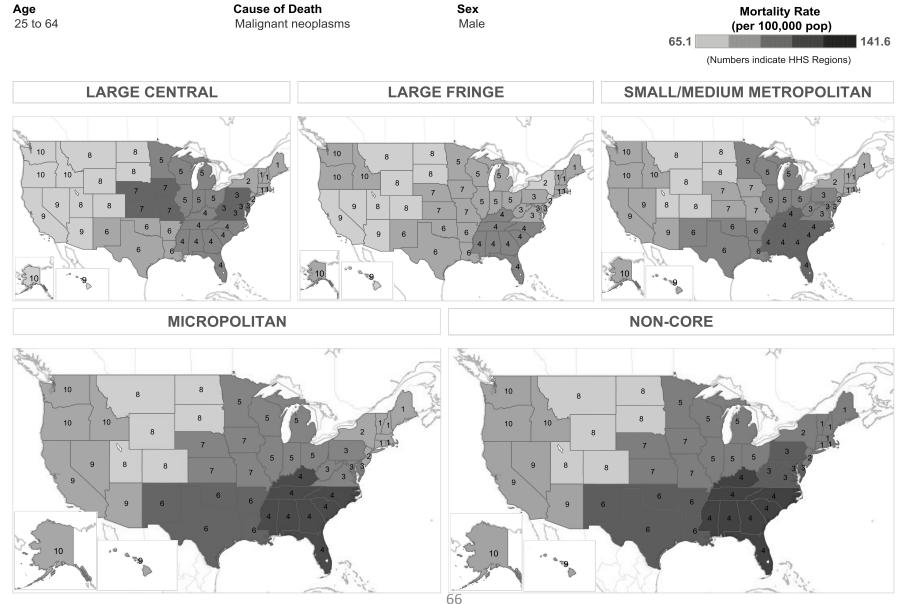
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Figure 41

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Malignant neoplasms; Sex: Male

Cause of Death

Malignant neoplasms



Sex

Male

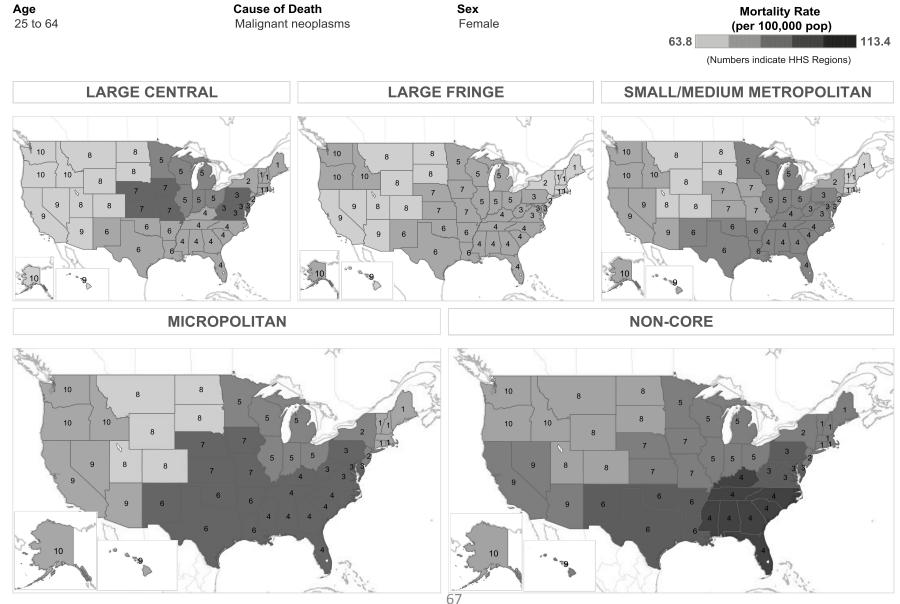
Mortality Rate

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...

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Malignant neoplasms; Sex: Female

Cause of Death

Malignant neoplasms



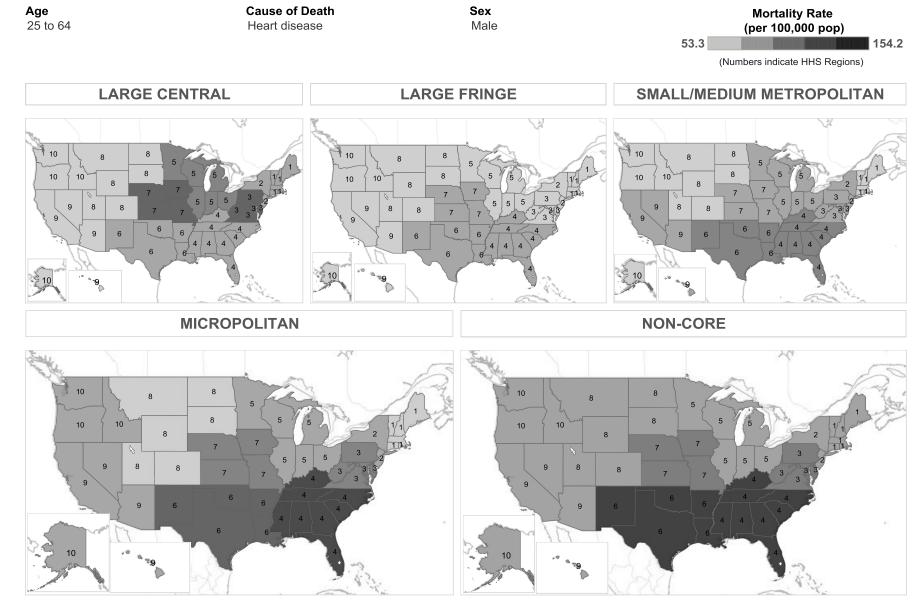
Sex

Female

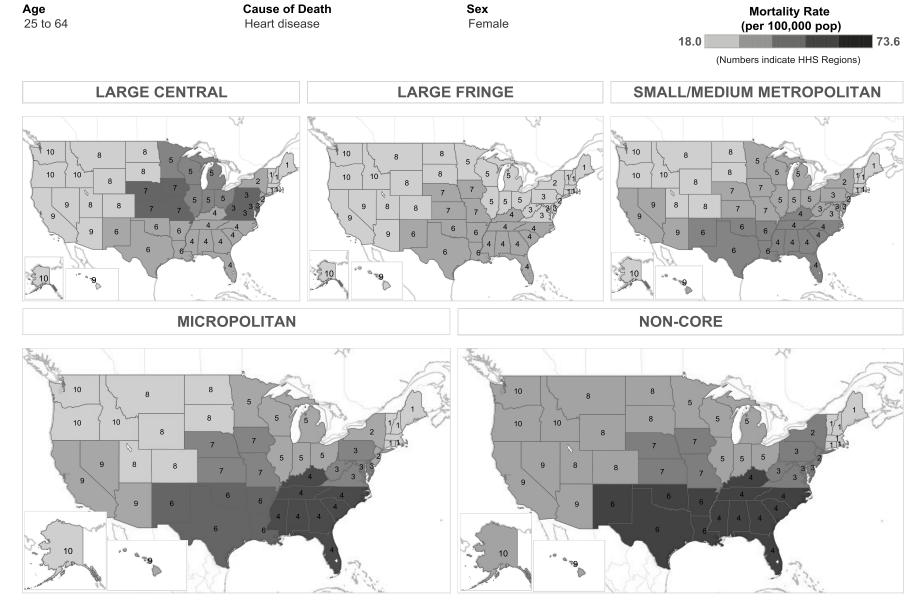
Mortality Rate

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...

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Heart disease; Sex: Male

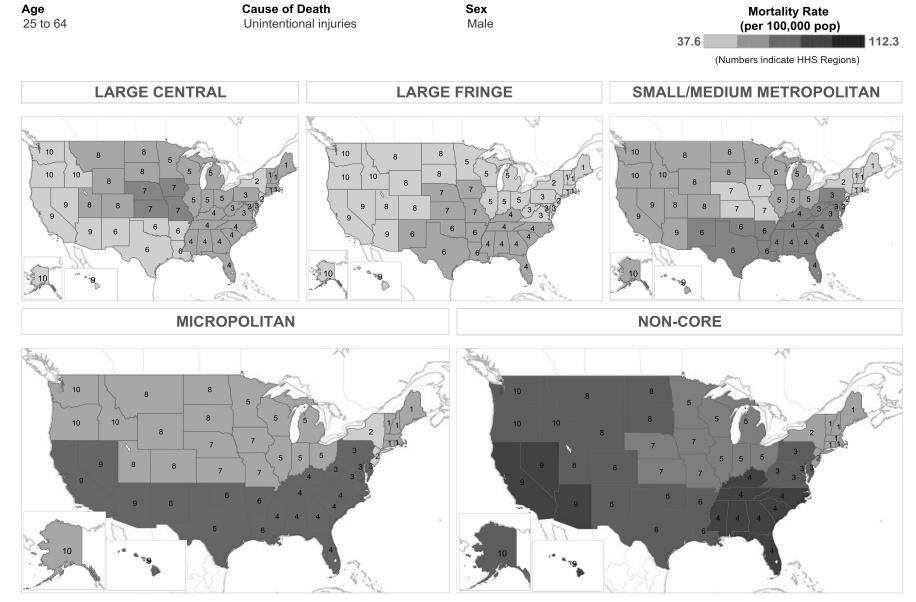


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Heart disease; Sex: Female

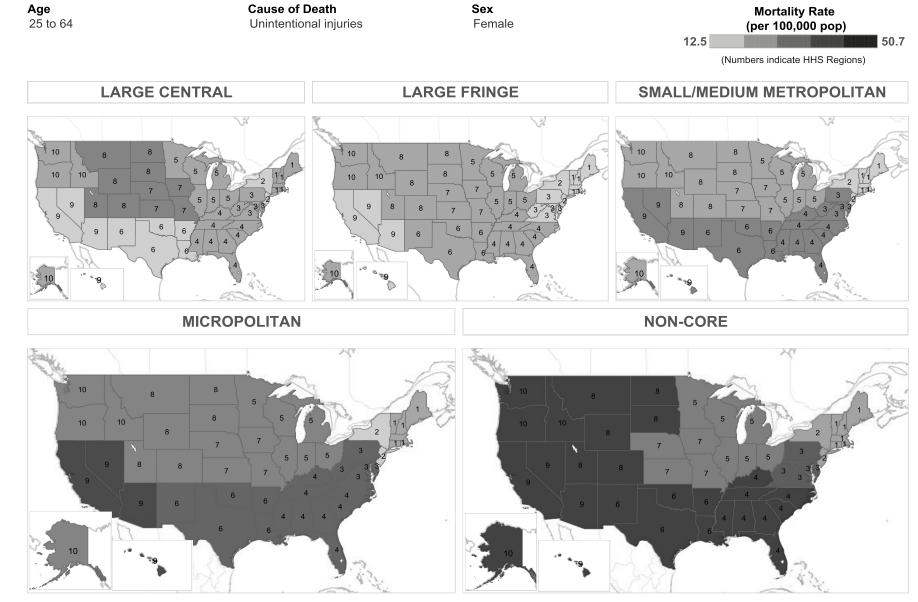


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Unintentional injuries; Sex: Male

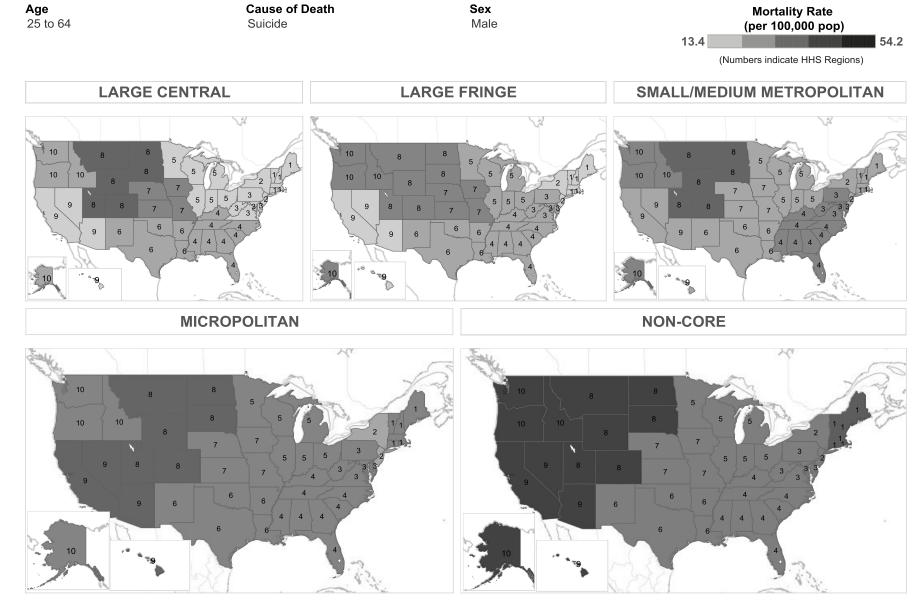
Cause of Death



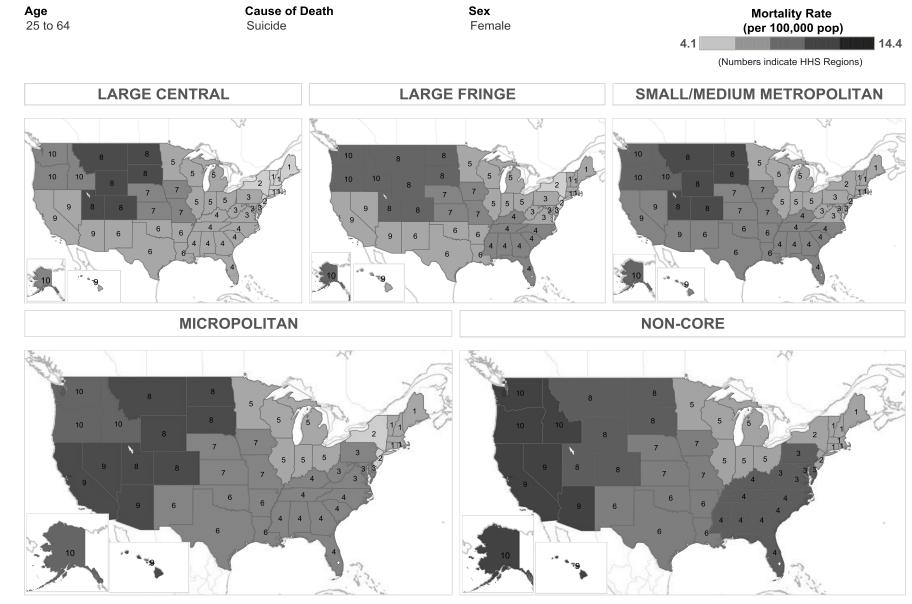
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Unintentional injuries; Sex: Female



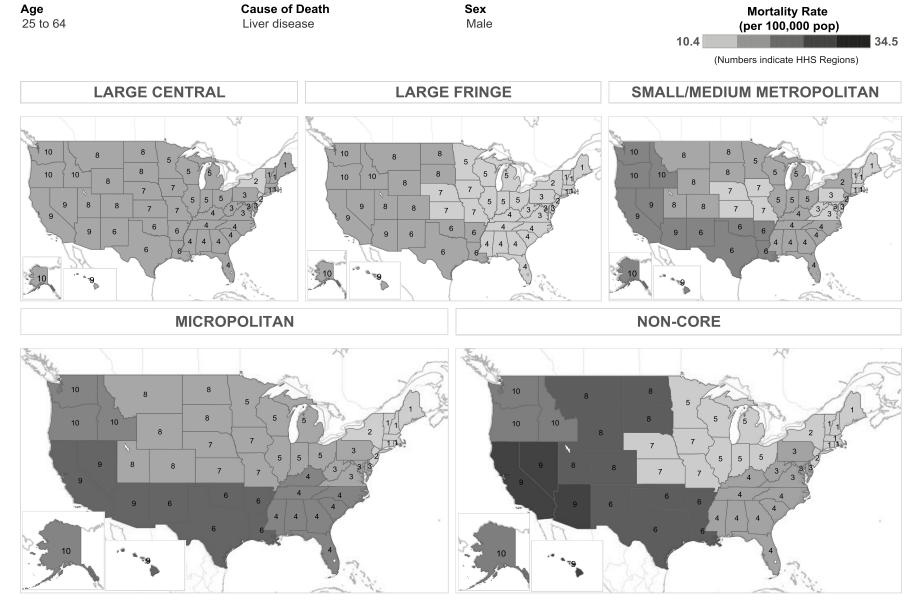
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Suicide; Sex: Male



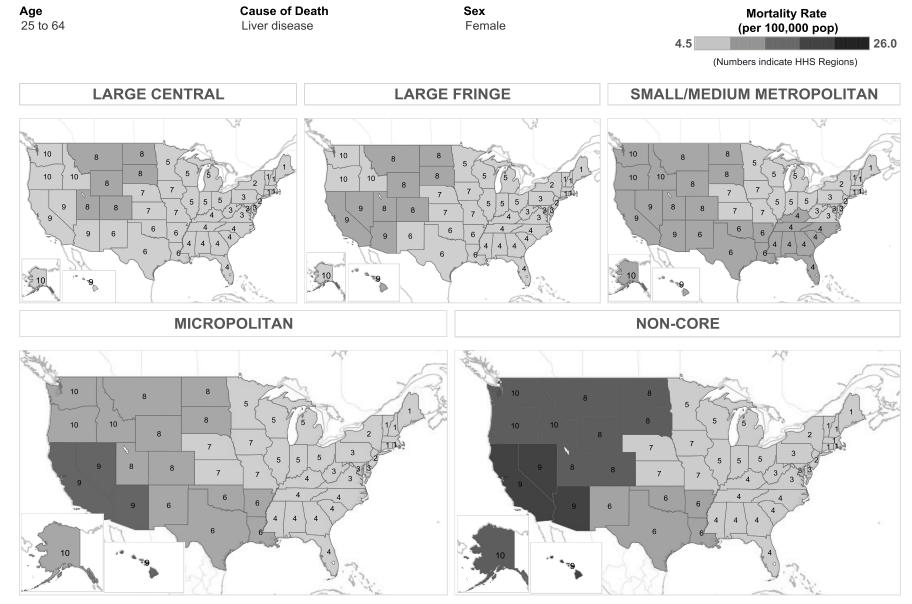
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Suicide; Sex: Female



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Liver disease; Sex: Male

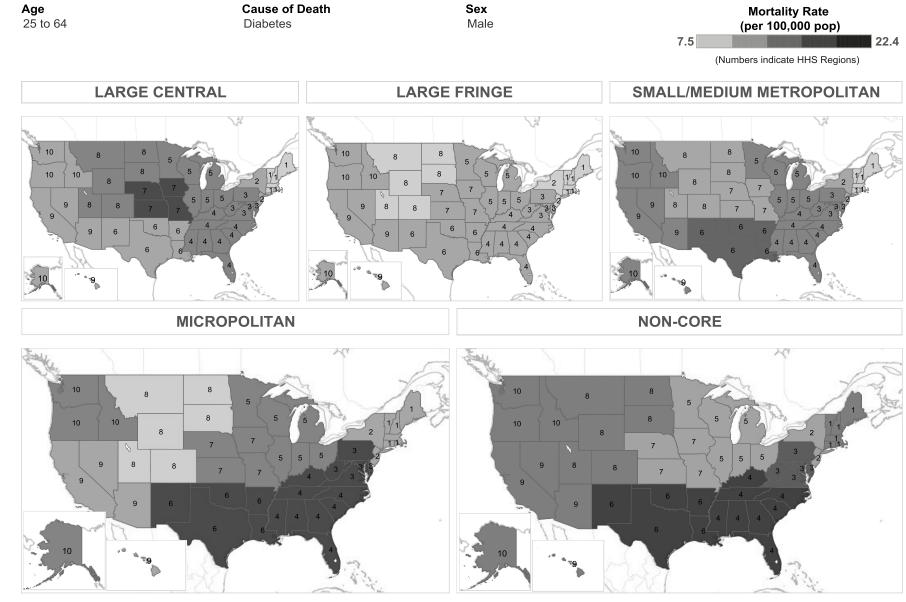


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Liver disease; Sex: Female

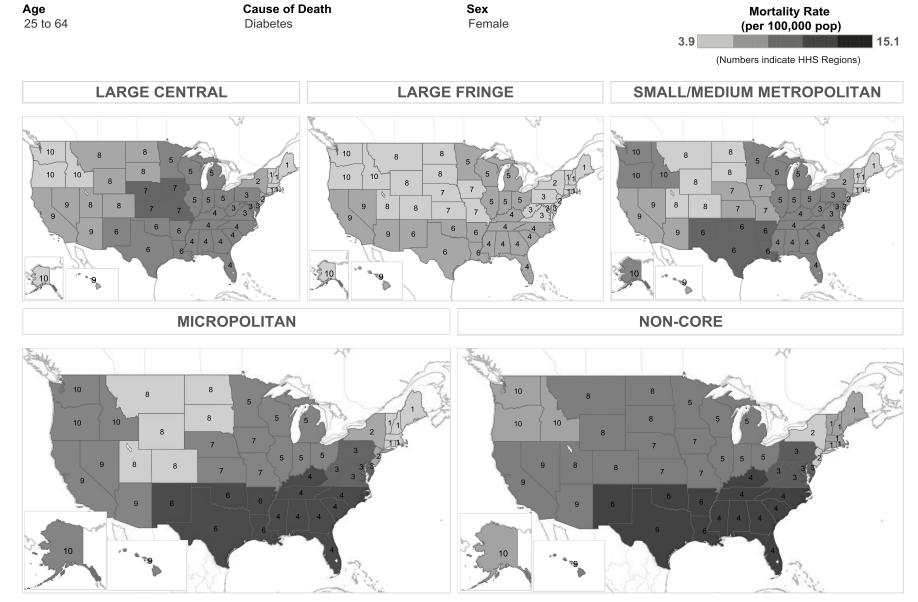


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Diabetes; Sex: Male

Cause of Death

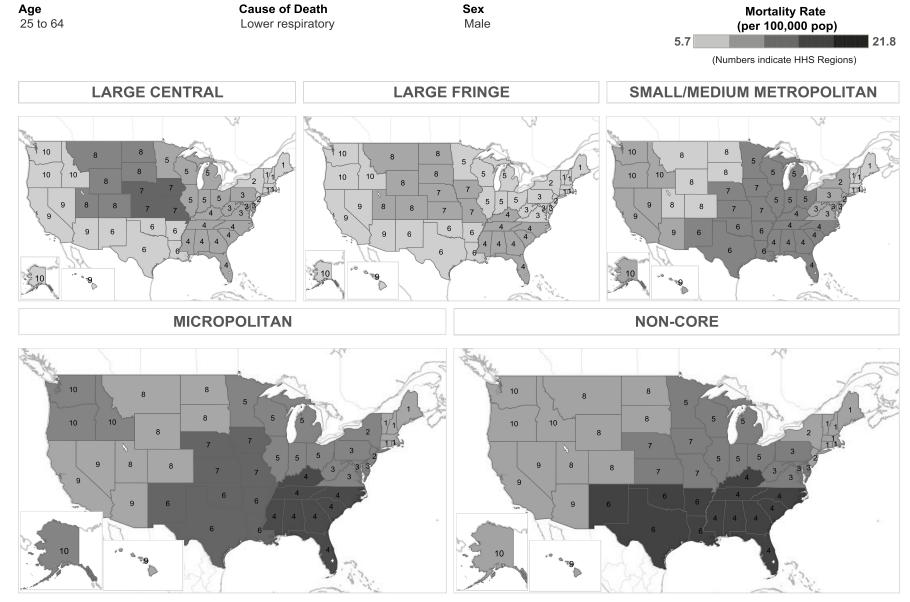


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Diabetes; Sex: Female

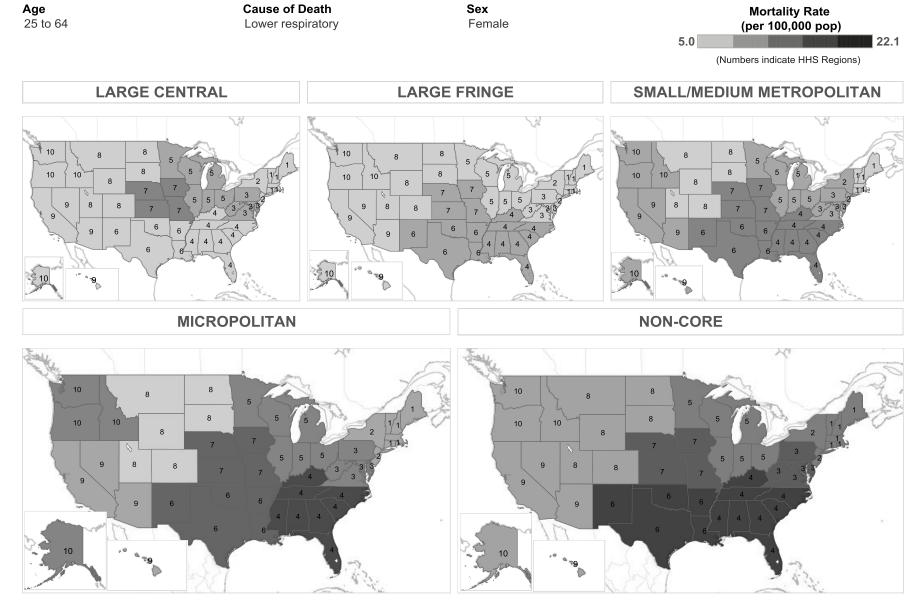


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Lower respiratory; Sex: Male

Cause of Death

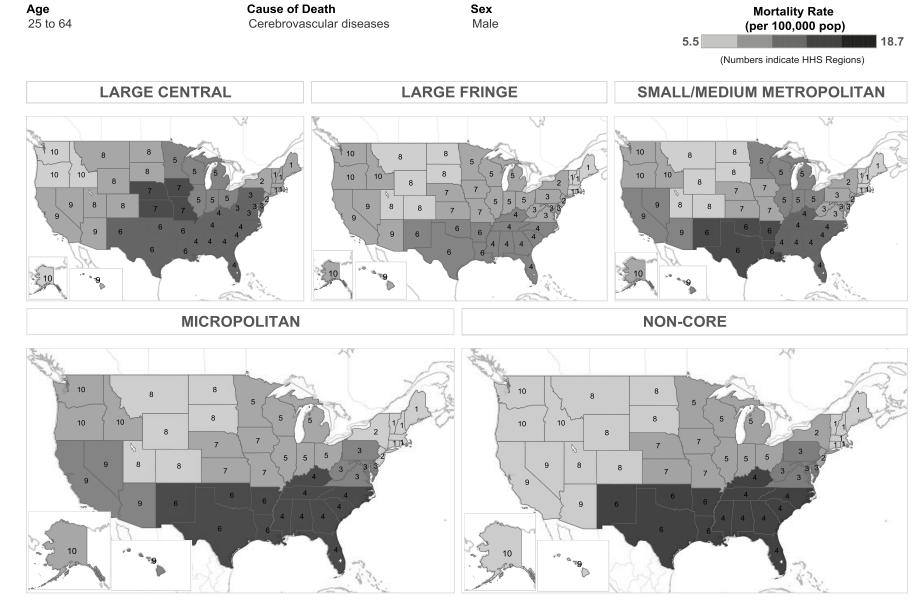


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Lower respiratory; Sex: Female

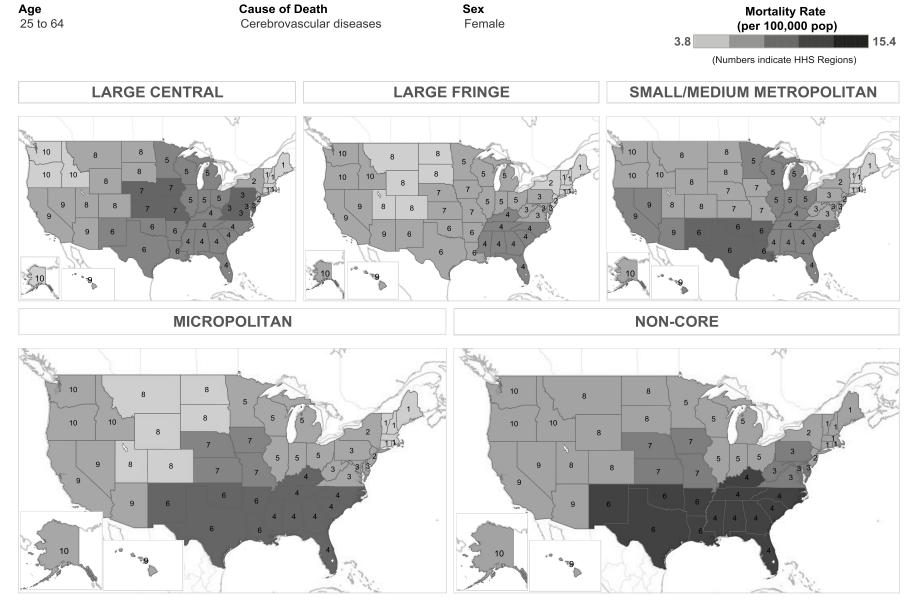


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Cerebrovascular diseases; Sex: Male

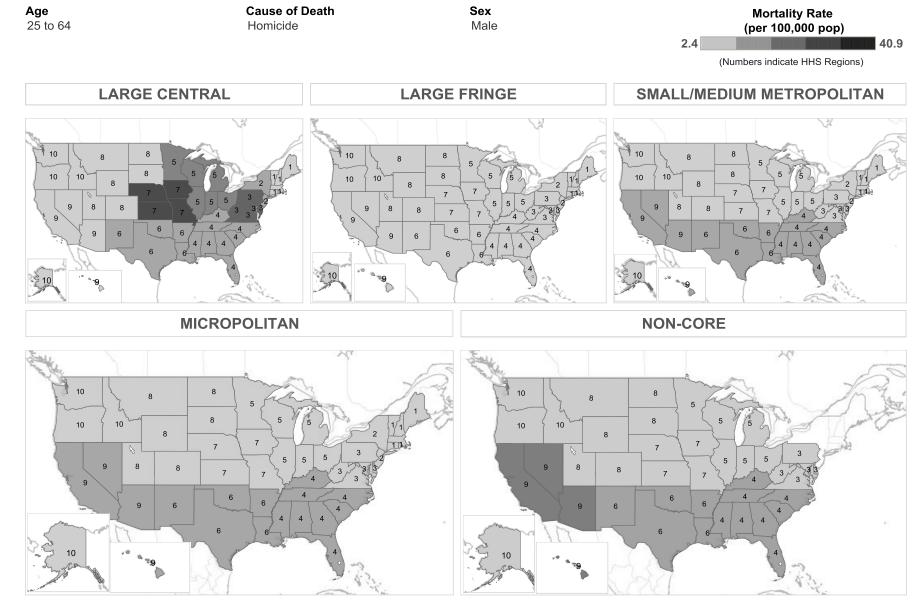
Cause of Death



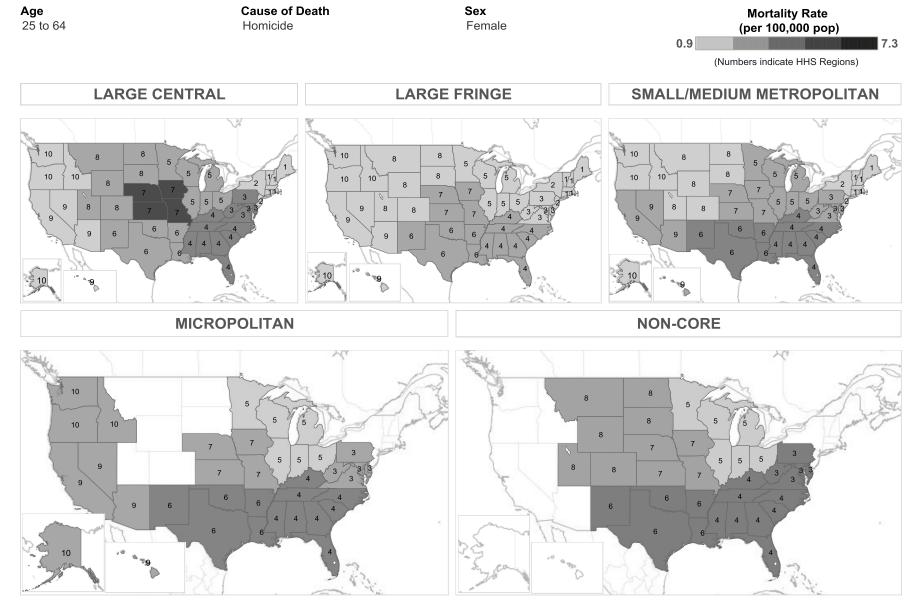
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Cerebrovas-cular diseases; Sex: Female



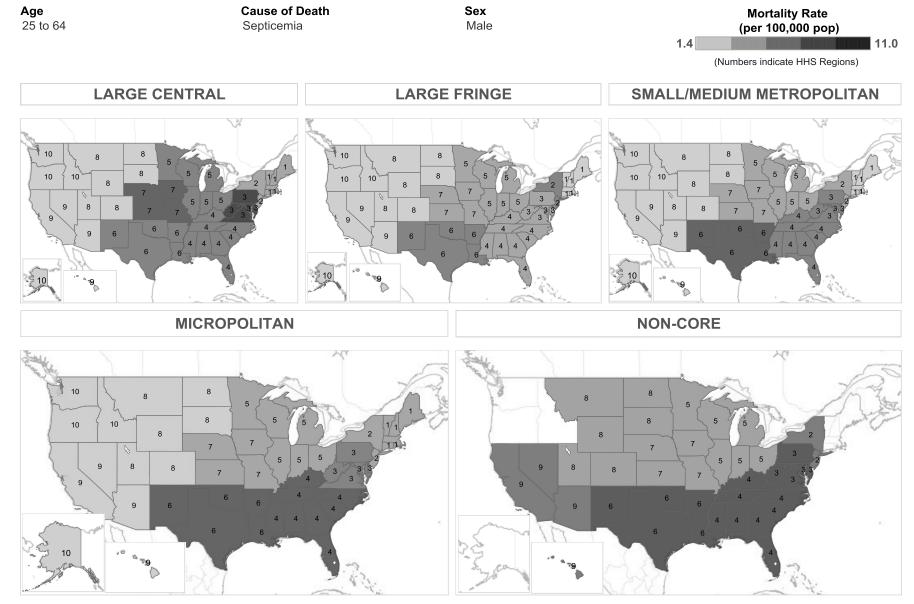
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Homicide; Sex: Male



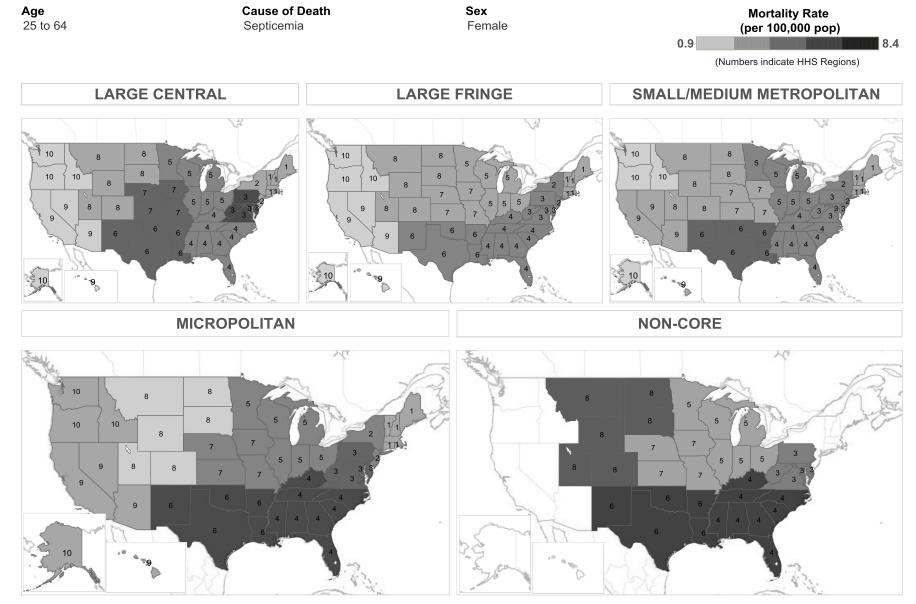
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Homicide; Sex: Female



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Septicemia; Sex: Male



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Septicemia; Sex: Female



Seniors

Ages 65 Years and Older Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013

Cause of Death:

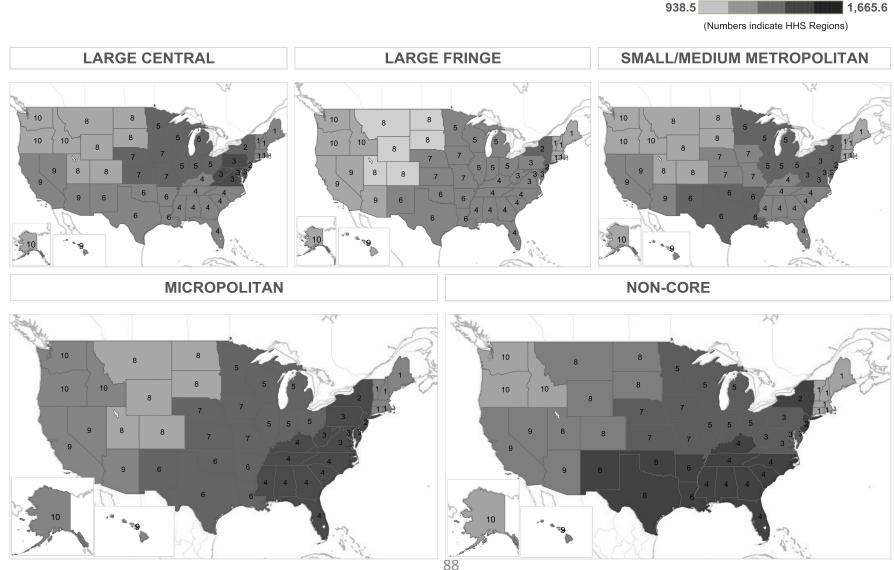
- Figure 61: Heart disease, Male
- Figure 62: Heart disease, Female
- Figure 63: Malignant neoplasms, Male
- Figure 64: Malignant neoplasms, Female
- Figure 65: Lower respiratory, Male
- Figure 66: Lower respiratory, Female
- Figure 67: Cerebrovascular diseases, Male
- Figure 68: Cerebrovascular diseases, Female
- Figure 69: Alzheimer's, Male
- Figure 70: Alzheimer's, Female
- Figure 71: Diabetes, Male
- Figure 72: Diabetes, Female
- Figure 73: Unintentional injuries, Male
- Figure 74: Unintentional injuries, Female
- Figure 75: Flu & pneumonia, Male
- Figure 76: Flu & pneumonia, Female
- Figure 77: Nephritis, Male
- Figure 78: Nephritis, Female
- Figure 79: Septicemia, Male
- Figure 80: Septicemia, Female

Age 65 and older

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Heart disease; Sex: Male

Cause of Death

Heart disease



Sex

Male

Mortality Rate

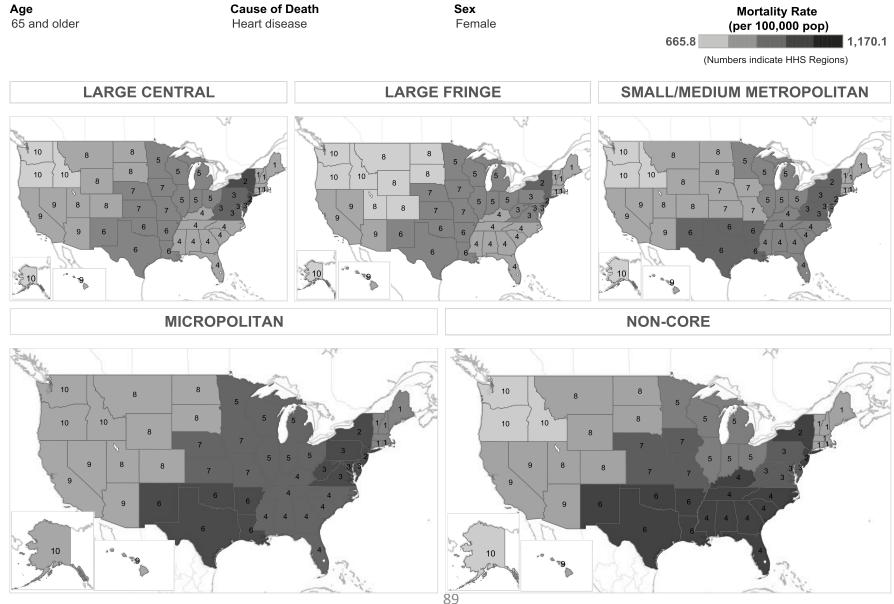
(per 100,000 pop)

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. . .

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Heart disease; Sex: Female

Cause of Death



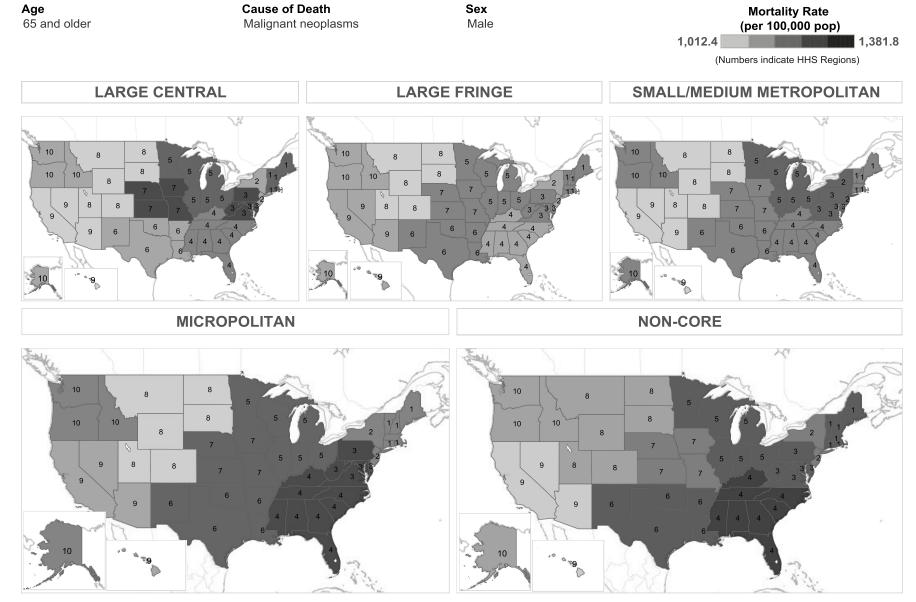
Sex

Mortality Rate

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...

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Malignant neoplasms; Sex: Male

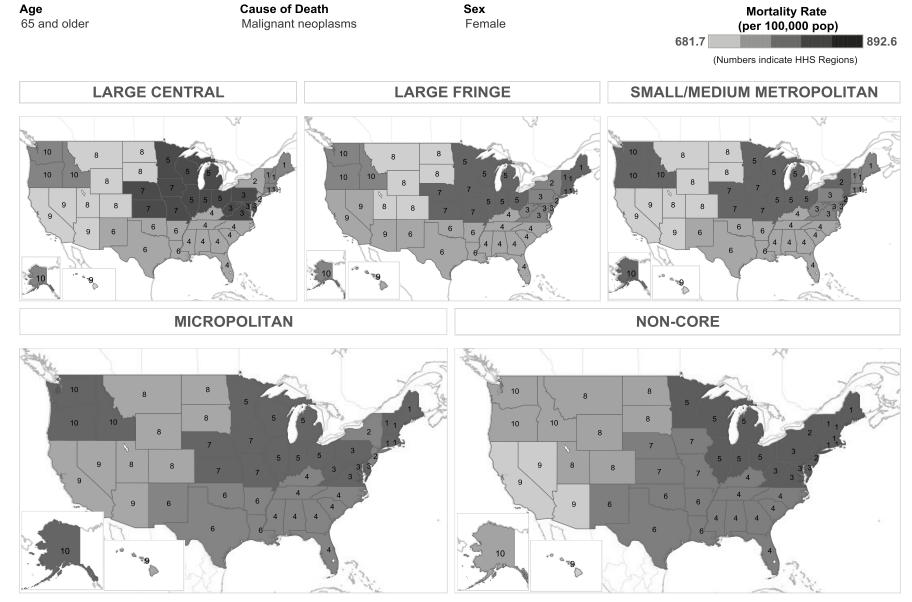
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Malignant neoplasms; Sex: Female

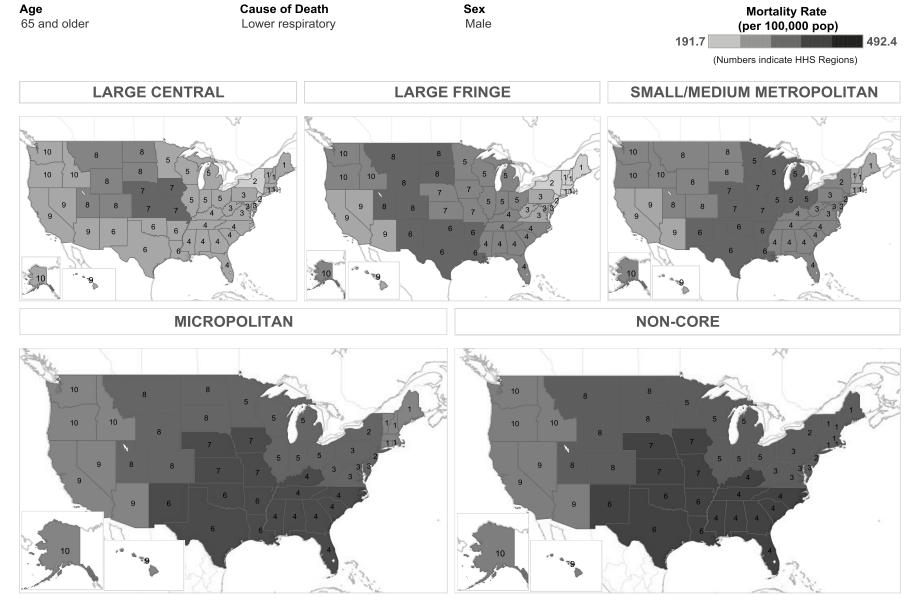
Cause of Death



Sex

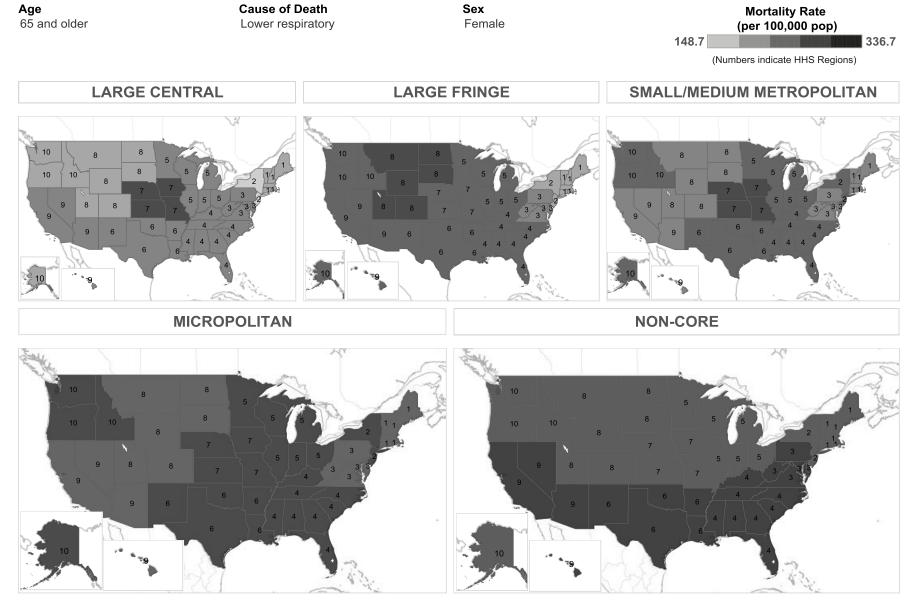
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Lower respiratory; Sex: Male

Cause of Death



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Lower respiratory; Sex: Female

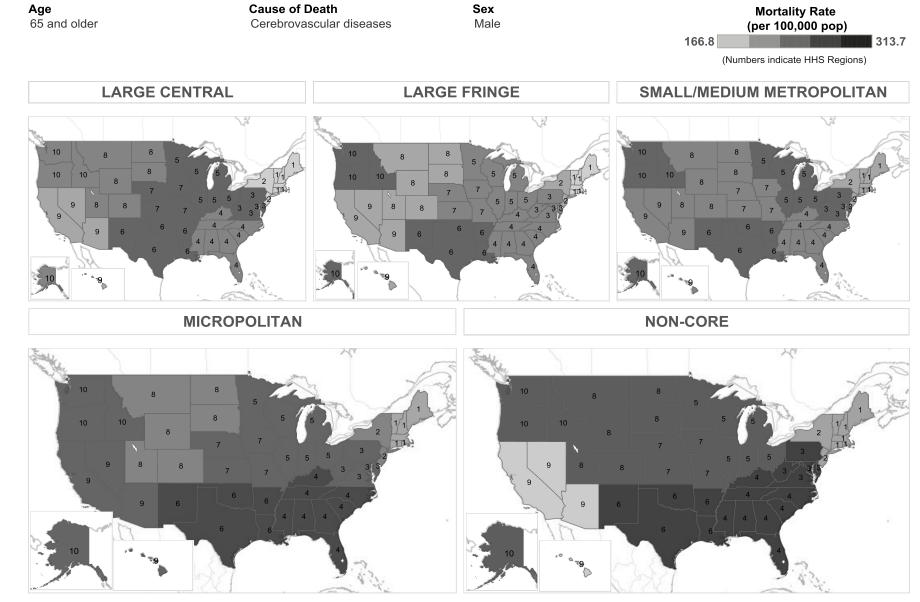
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Cerebrovascular diseases; Sex: Male

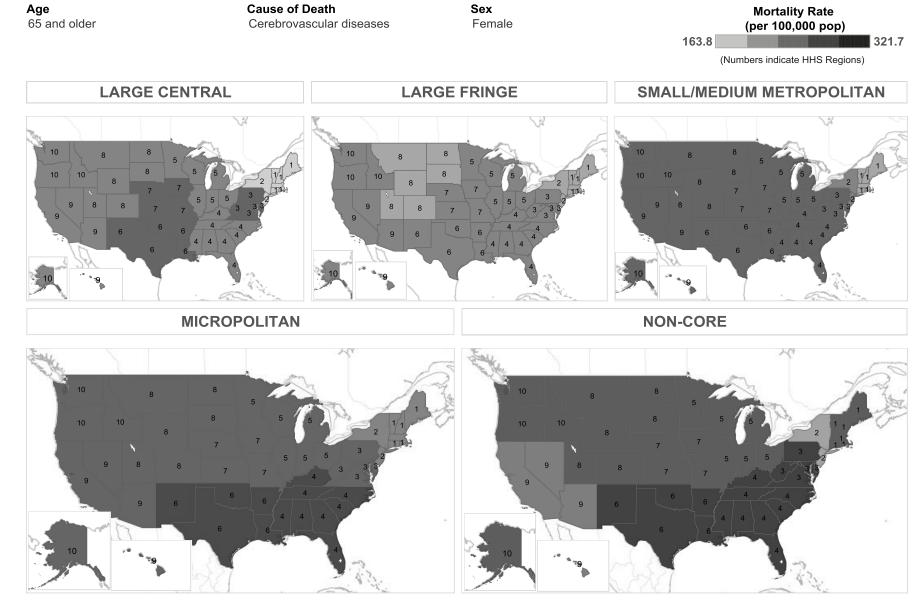
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Cerebrovascular diseases; Sex: Female

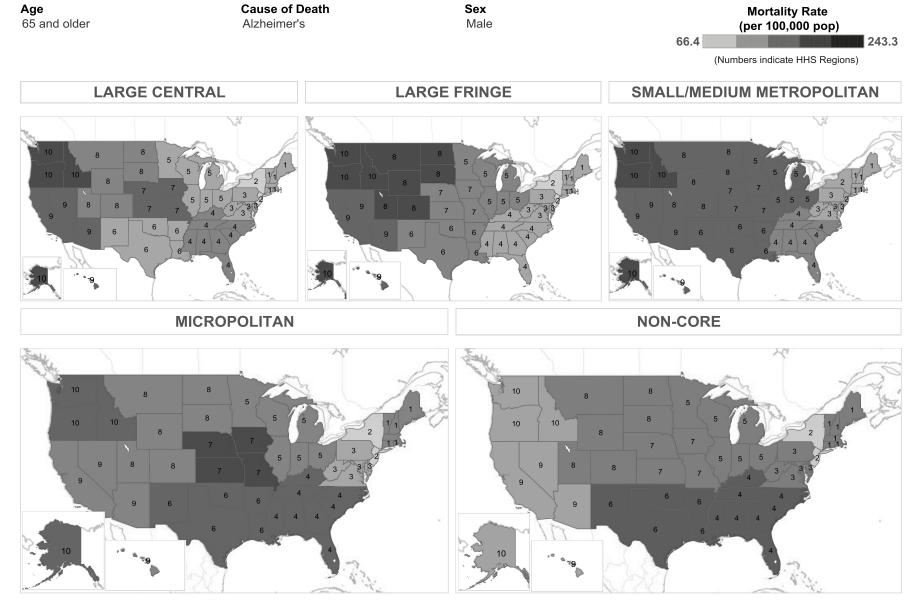
Cause of Death



Sex

Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Alzheimer's; Sex: Male

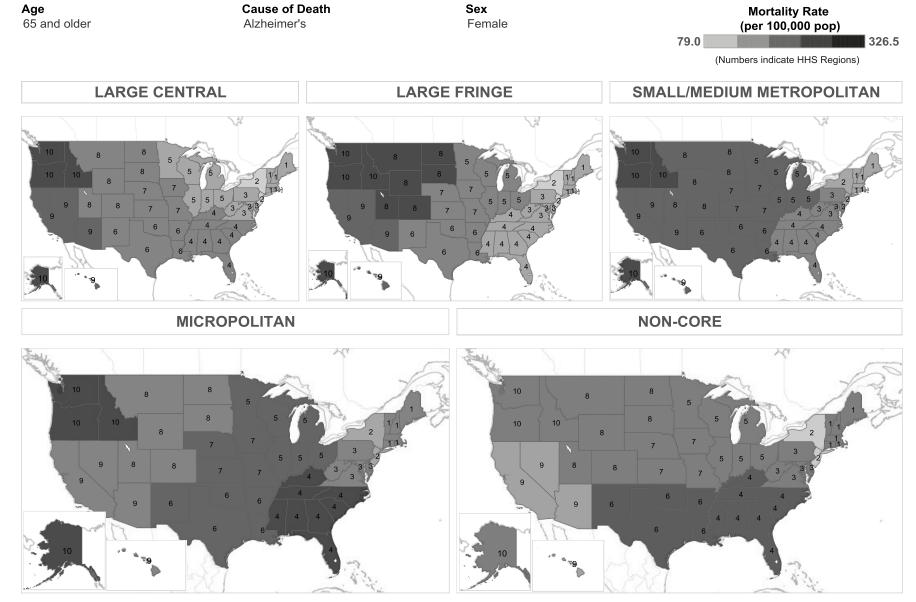
Cause of Death



Sex

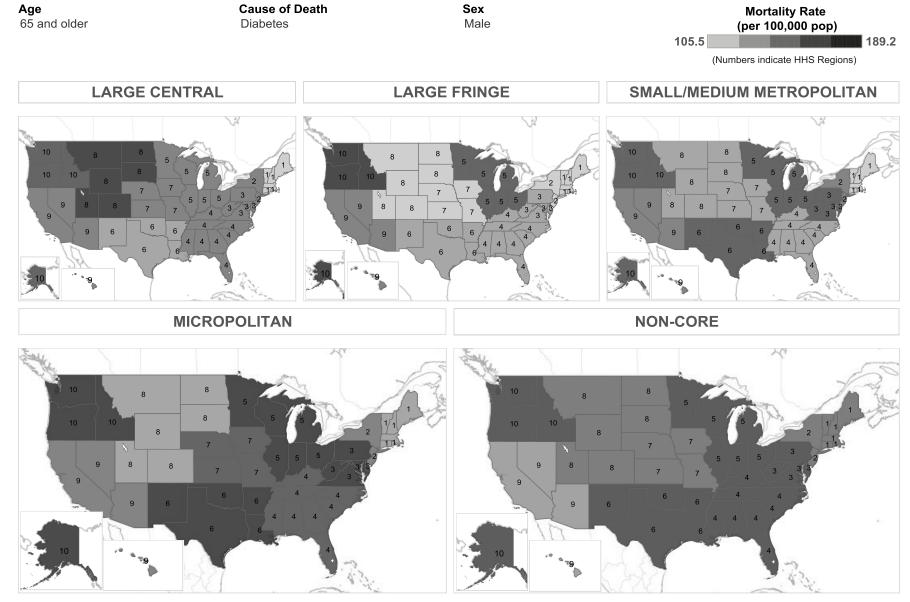
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Alzheimer's; Sex: Female

Cause of Death

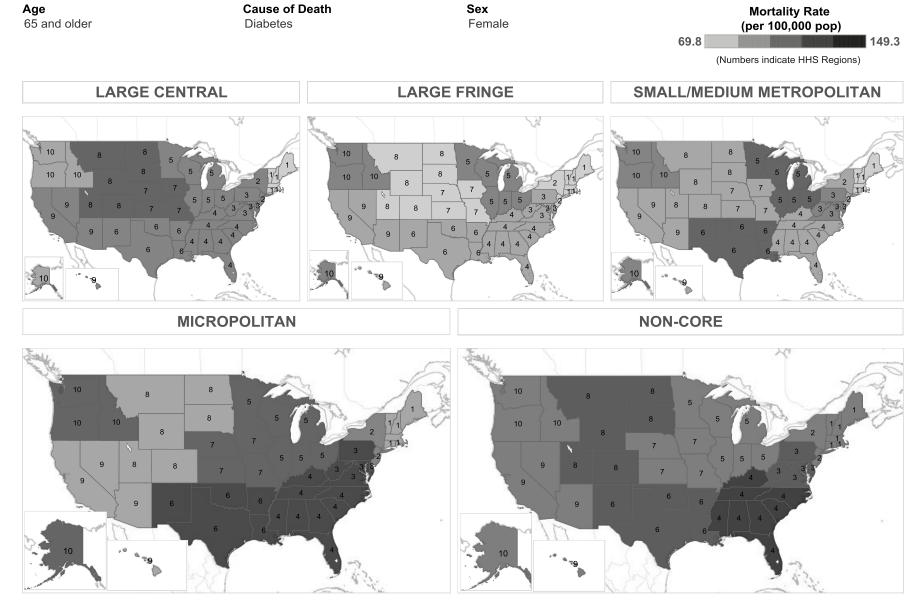


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Diabetes; Sex: Male

Cause of Death

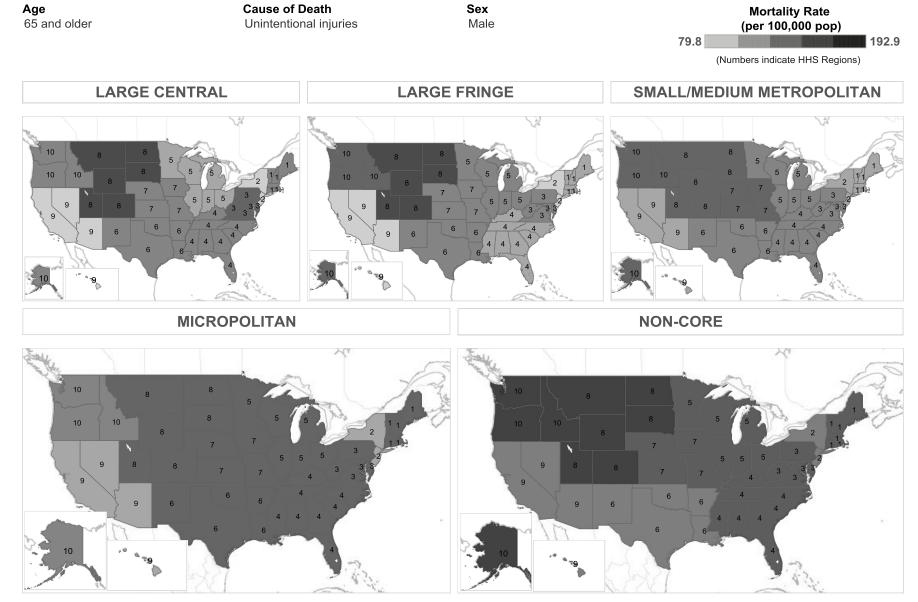


Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Diabetes; Sex: Female



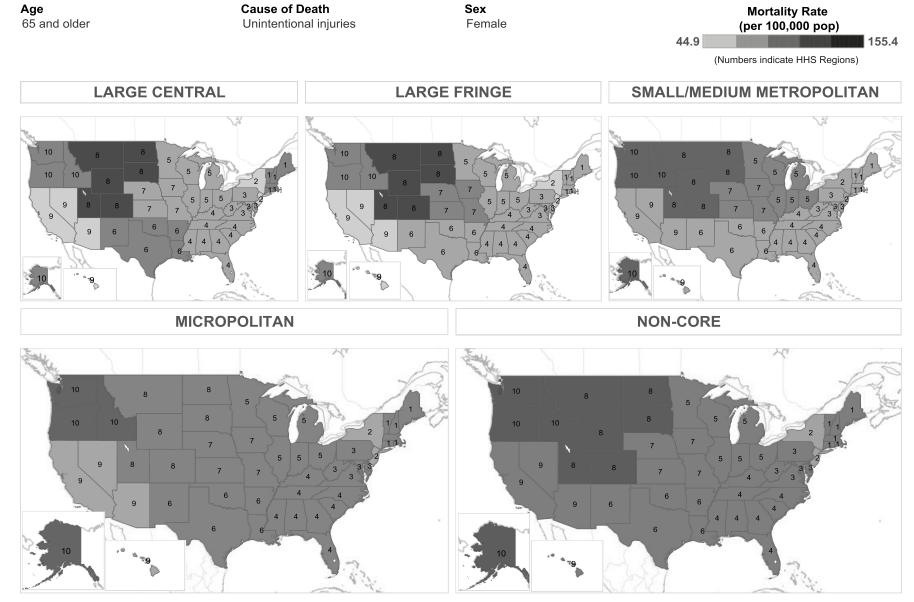
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Unintentional injuries; Sex: Male

Cause of Death



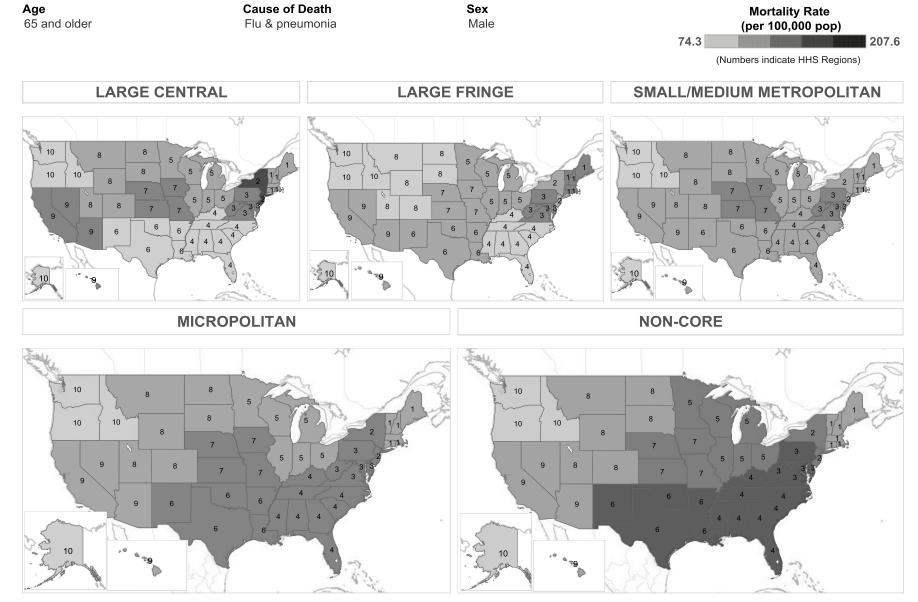
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Unintentional injuries; Sex: Female

Cause of Death

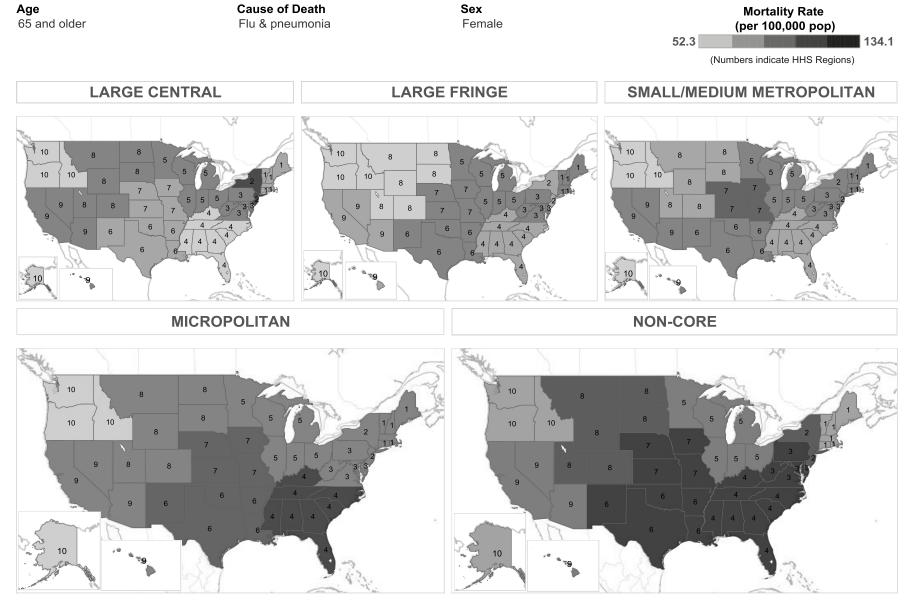


Sex

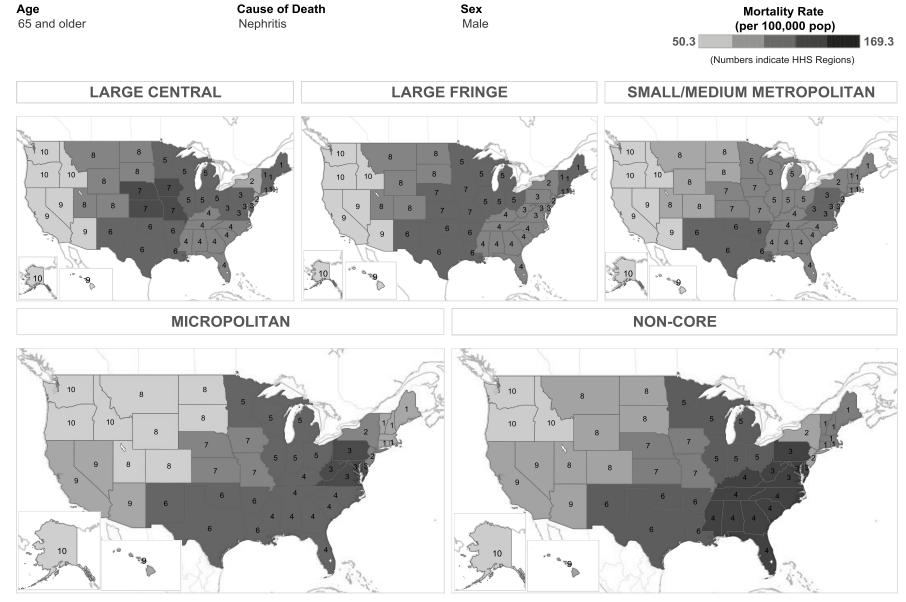
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Flu & pneumonia; Sex: Male



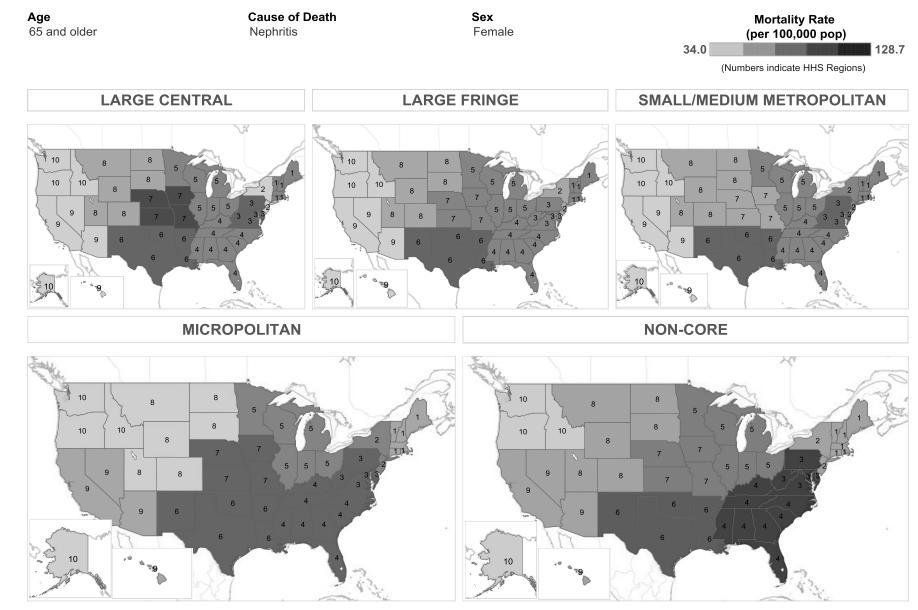
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Flu & pneumonia; Sex: Female



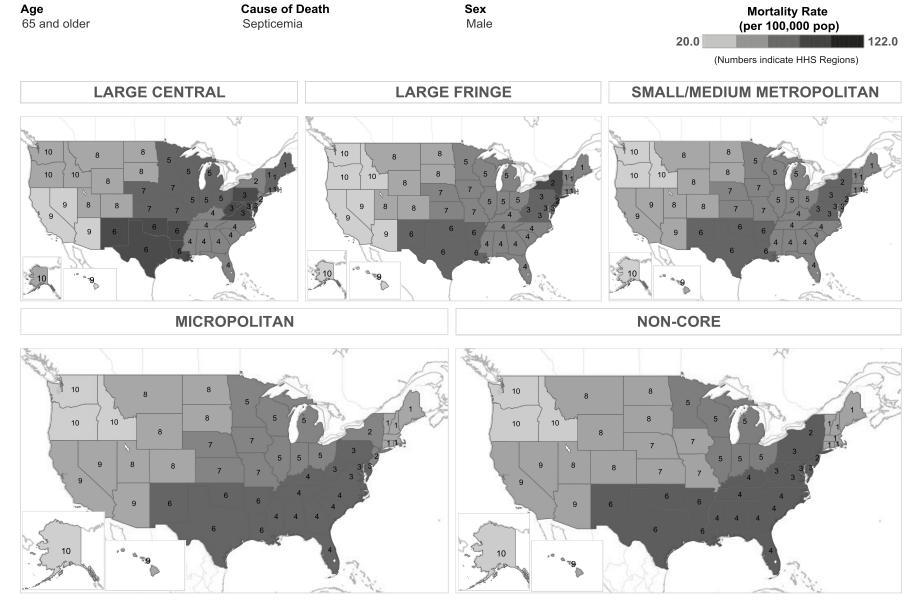
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Nephritis; Sex: Male



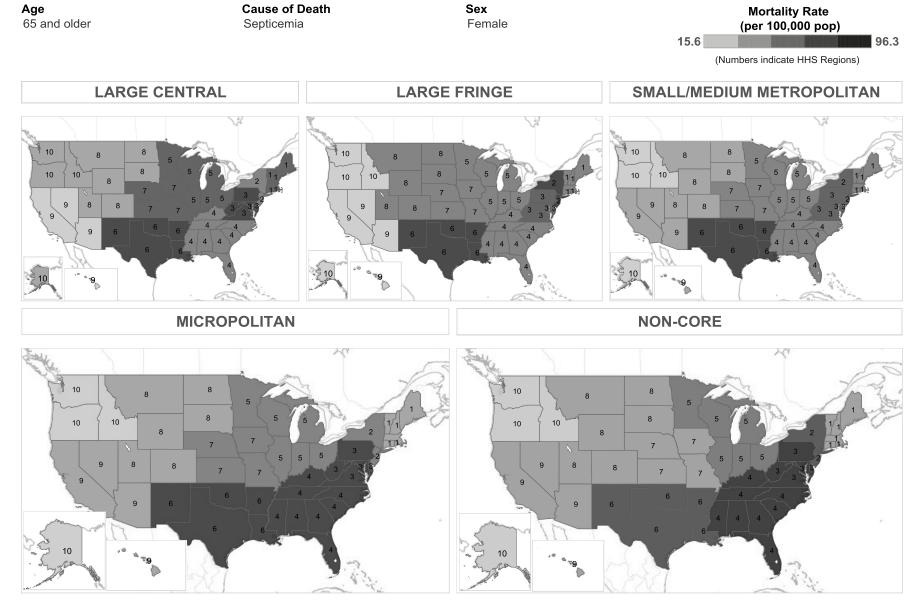
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Nephritis; Sex: Female



Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Septicemia; Sex: Male



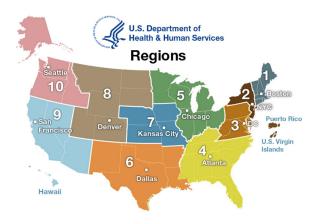
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Septicemia; Sex: Female





Summary: Infants

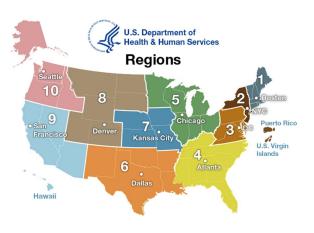
- Cause-specific, rural mortality rates worse than the nation in:
 - Congenital malformations, Regions 3, 4, 6, 7, 8 (Mid-Atlantic, South, Plains, and Rockies)
 - Sudden infant death syndrome, Regions 3, 4, 6, 7, 8, 10 (Mid-Atlantic, South, Plains, Rockies, and Northwest)
 - Unintentional Injuries, Region 5, 7, 8 (Midwest, Plains, and Rockies)
 - Respiratory distress, Region 4





Summary: Children (Age 1 to 14)

- Cause-specific, rural mortality rates worse than the nation in:
 - Unintentional injuries, Regions 2, 3, 4, 5 6, 7, 8, 9, 10 (New England, Mid-Atlantic, Midwest, South, Plains, Rockies, and the West)
 - Congenital malformation, Region 3
 - Homicide, Region 3, 6
 - Heart disease, Region 4
 - Lower respiratory, Region 6





Summary: Children (Age 15 to 24)

- Cause-specific, rural mortality rates worse than the nation in:
 - Unintentional injuries, Region 3, 4, 5, 6, 7, 8, 9, 10
 - Suicide, Region 6, 8, 9, 10
 - Heart disease, Region 4





Summary: Working Adults (Age 25 to 64)

- Cause-specific, rural mortality rates worse than the nation in:
 - All top-ten causes of death, Region 4, 6 (the South)
 - Malignant neoplasms, Region 3, 4, 5, 6 7 (Mid-Atlantic, South, Mid-west, Plains)
 - Heart disease, Region 3, 4, 6, 7 (Mid-Atlantic, South, Plains)
 - Unintentional injuries, Region 3, 4, 5, 6, 7, 8, 9 (Mid-Atlantic, South, Midwest, Plains, Rockies, Southwest)
 - Suicide, Region 3, 4, 6, 7, 8, 9, 10 (Mid-Atlantic, South, Plains, Rockies, West)
 - Liver disease, Region 4, 6, 8, 9, 10 (South, Rockies, West)
 - Diabetes, Region 3, 4, 6 (Mid-Atlantic, South)
 - Lower respiratory disease, Region 2, 3, 4, 5, 6, 7, 10 (New England, Mid-Atlantic,
 South, Midwest, Plains, Northwest)



Summary: Seniors (Age 65+)

- Cause-specific, rural mortality rates worse than the nation in:
 - All top-ten causes of death, Region 4, 6 (the South)
 - Heart disease, Region 4, 6, 7 (South, Plains)
 - Malignant neoplasms, Region 4, 6, 7 (South, Plains)
 - Lower respiratory, Region 4, 6, 7, 8, 9, 10 (South, Plains, Rockies, West)
 - Cerebrovascular disease & Alzheimer's, Region 4, 6, 7, 8, 10 (South, Plains, Rockies, Northwest)
 - Flu & pneumonia, Region 4, 6, 7 (South, Plains)
 - Unintentional injuries, Region 4, 6, 7, 8 (South, Plains, Rockies)
 - Nephritis, Region 4, 6, 7 (South, Plains)



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



For More Information

For state specific mortality rates, contact the state health department's vital records department.