

Mapping Rural and Urban Mortality Differences by HHS Region

A Consortium of



Center *for*
Rural Health

The University of North Dakota
School of Medicine & Health Sciences

The Walsh Center 
for Rural Health Analysis

NORC AT THE UNIVERSITY OF CHICAGO

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 residents
Non-core (small rural)	Remaining nonmetropolitan counties that are not in a micropolitan statistical area

Additional Notes on Maps

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

Additional Notes on the Maps

- 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.

Additional Notes on the Maps

- 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.

Additional Notes on the Maps

- 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.

Additional Notes on the Maps

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

Additional Notes on the Maps

- 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:

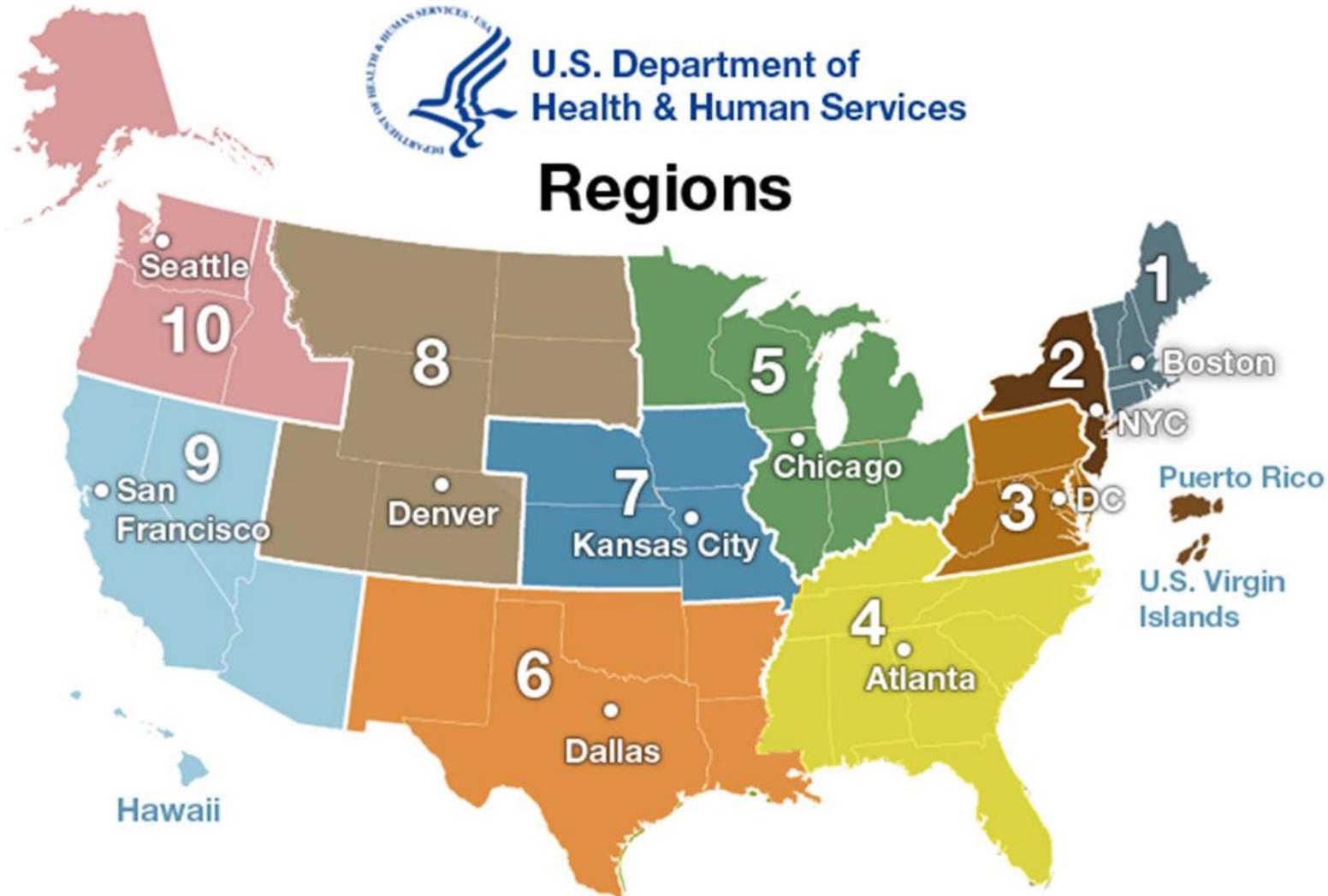
Exploring Rural and Urban Mortality Differences by HHS Region may be accessed from the Rural Health Research Gateway website at:

<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



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

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- [Working Age Adult Mortality Maps](#)
- [Senior Mortality Maps](#)

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](#)
- [Figure 3: Short gestation and low birth weight](#)
- [Figure 4: Sudden infant death syndrome](#)
- [Figure 5: Maternal complications of pregnancy](#)
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- [Figure 10: Circulatory system diseases](#)
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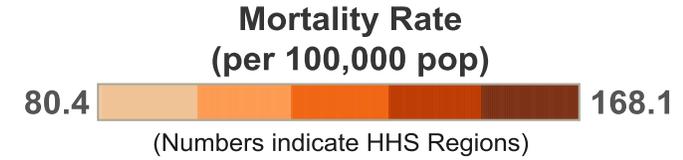
¹Cause of death of top 10 rankable causes of death in order from leading cause of death to 10th leading cause of death for this age group. Source: http://webappa.cdc.gov/sasweb/ncipc/leadcaus10_us.html

Figure 2

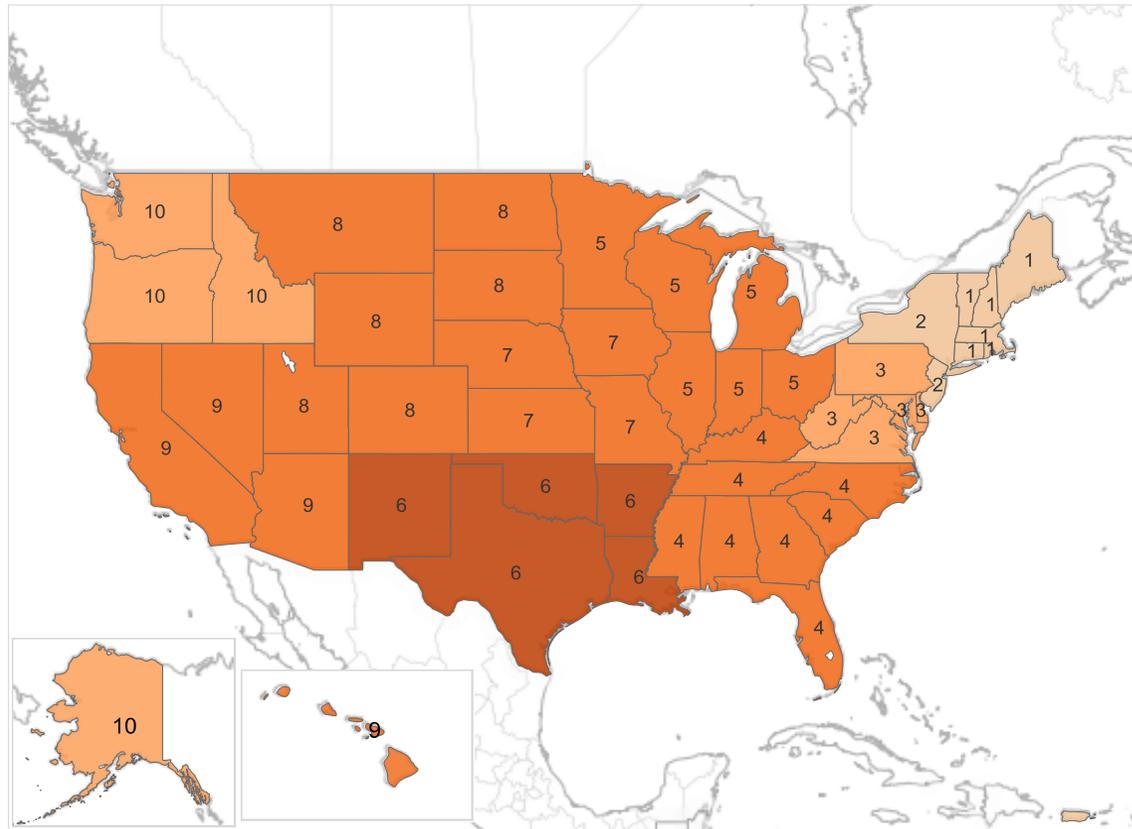
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Congenital malformations; Sex: Combined Sexes

Age
Under 1

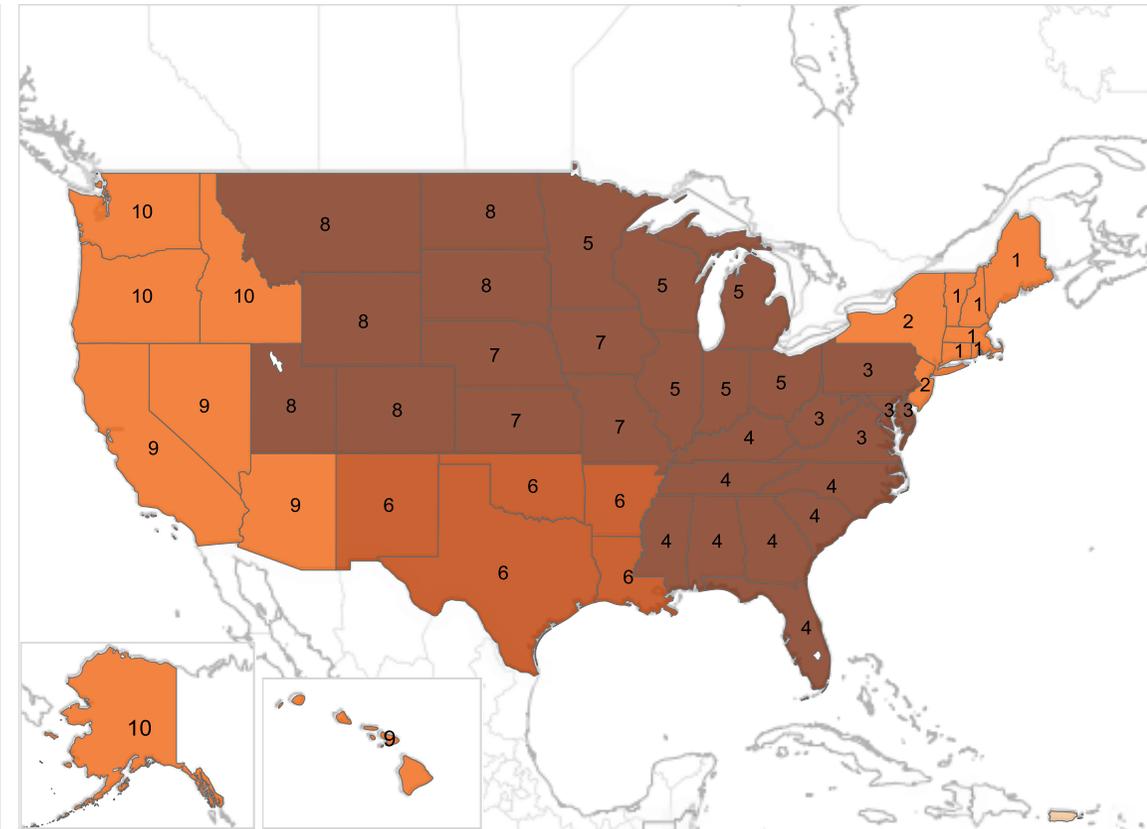
Cause of Death
Congenital malformations



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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 3

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: Combined Sexes

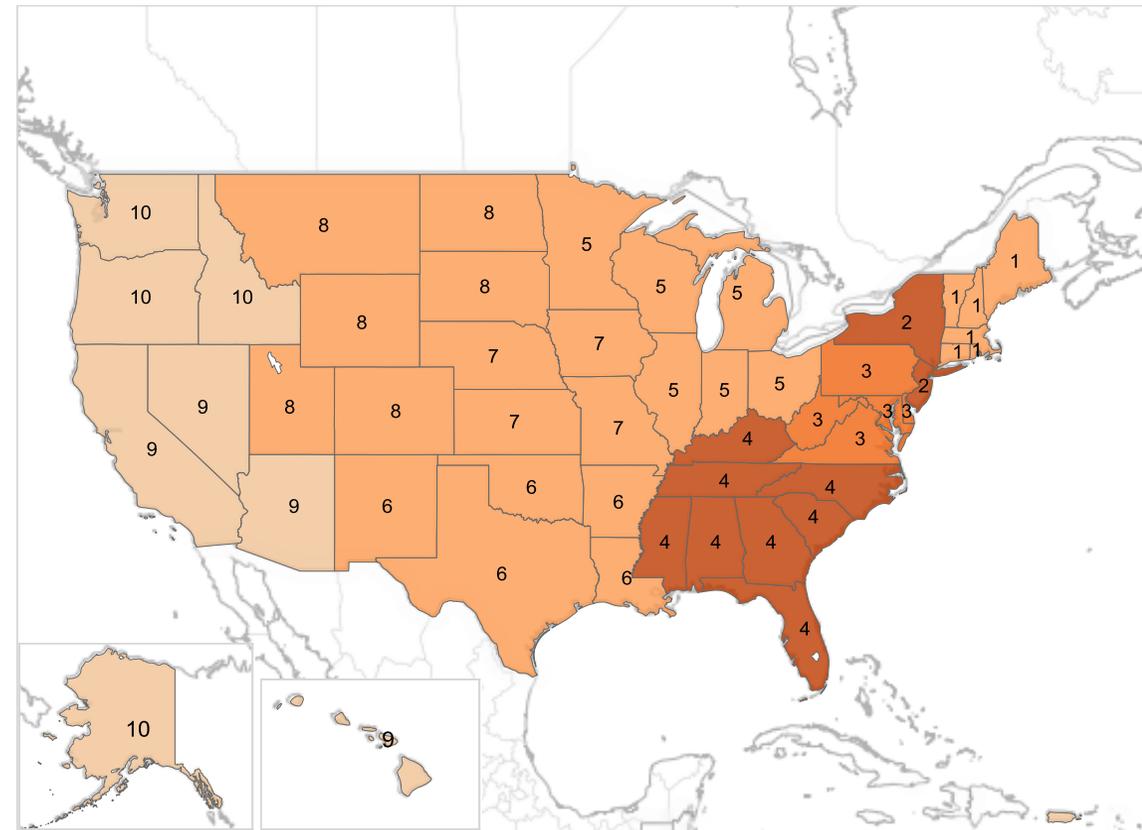
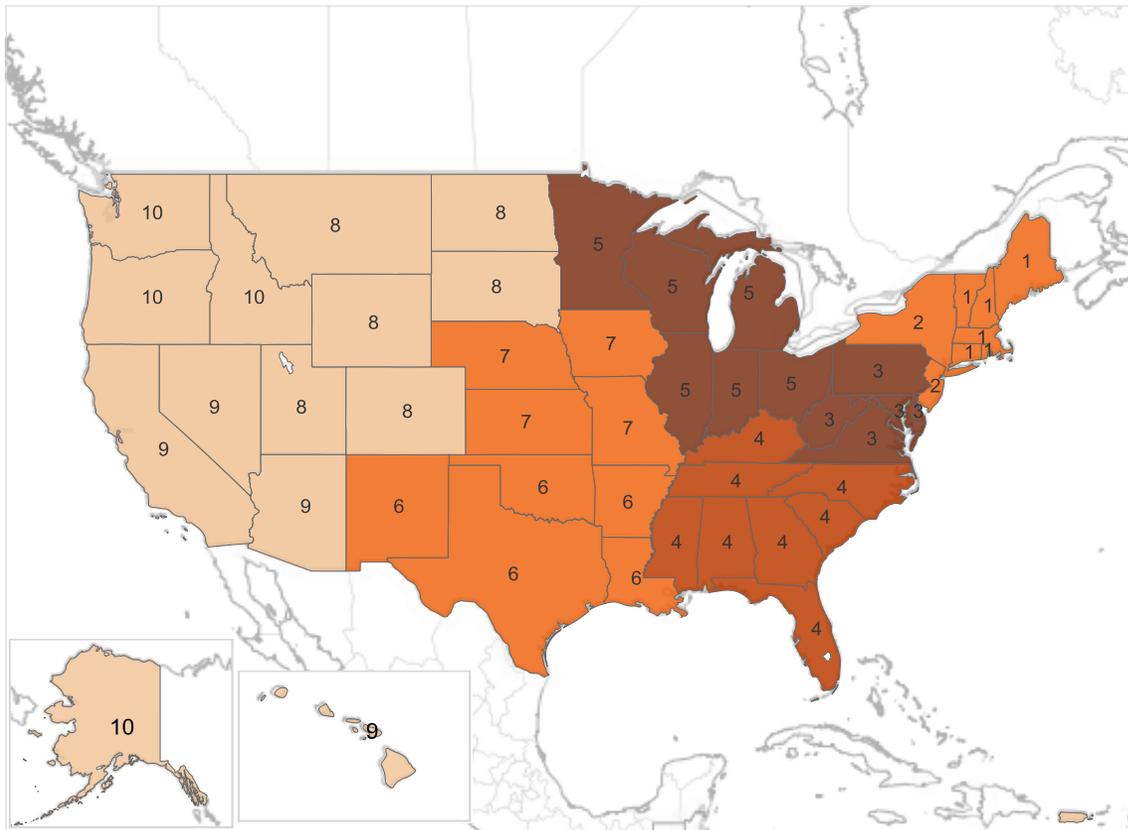
Age
Under 1

Cause of Death
Short gestation and low birth weight



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

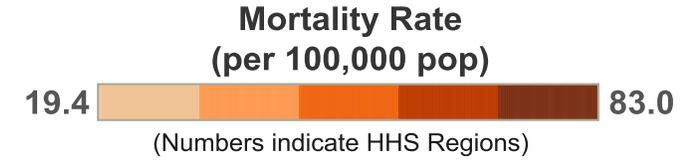
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 4

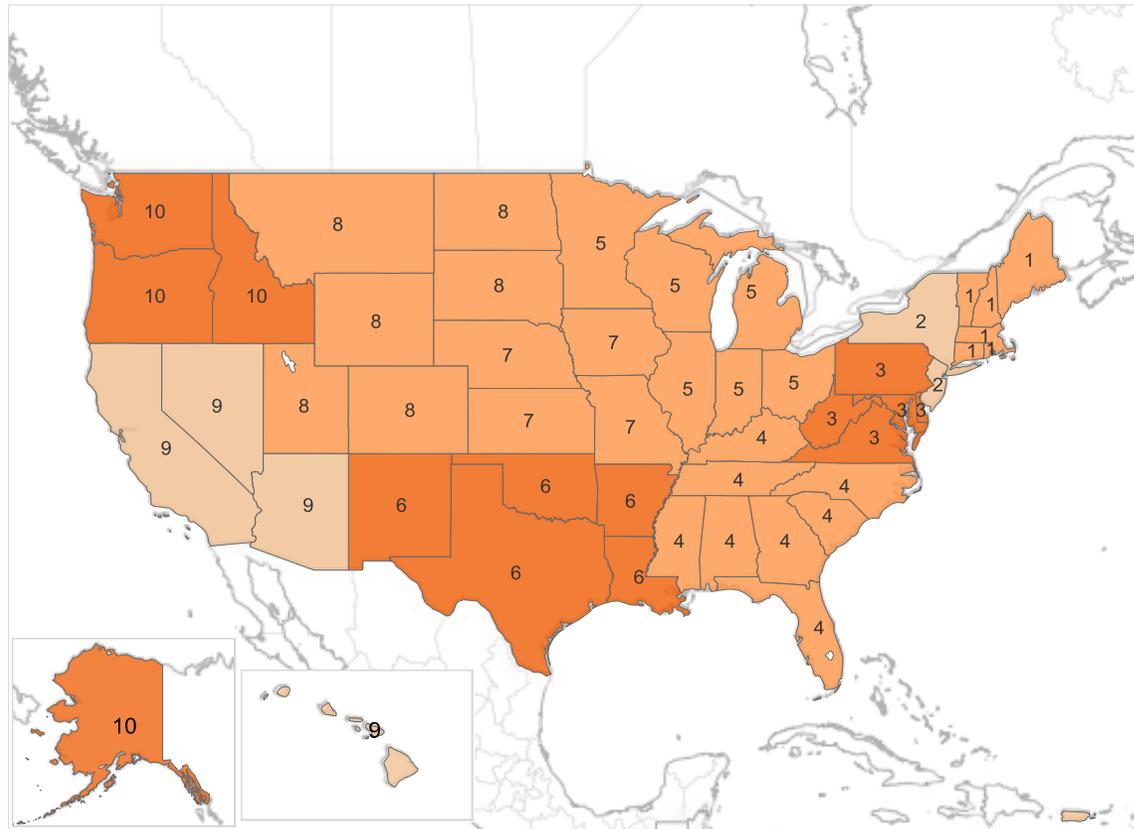
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Sudden infant death syndrome; Sex: Combined Sexes

Age
Under 1

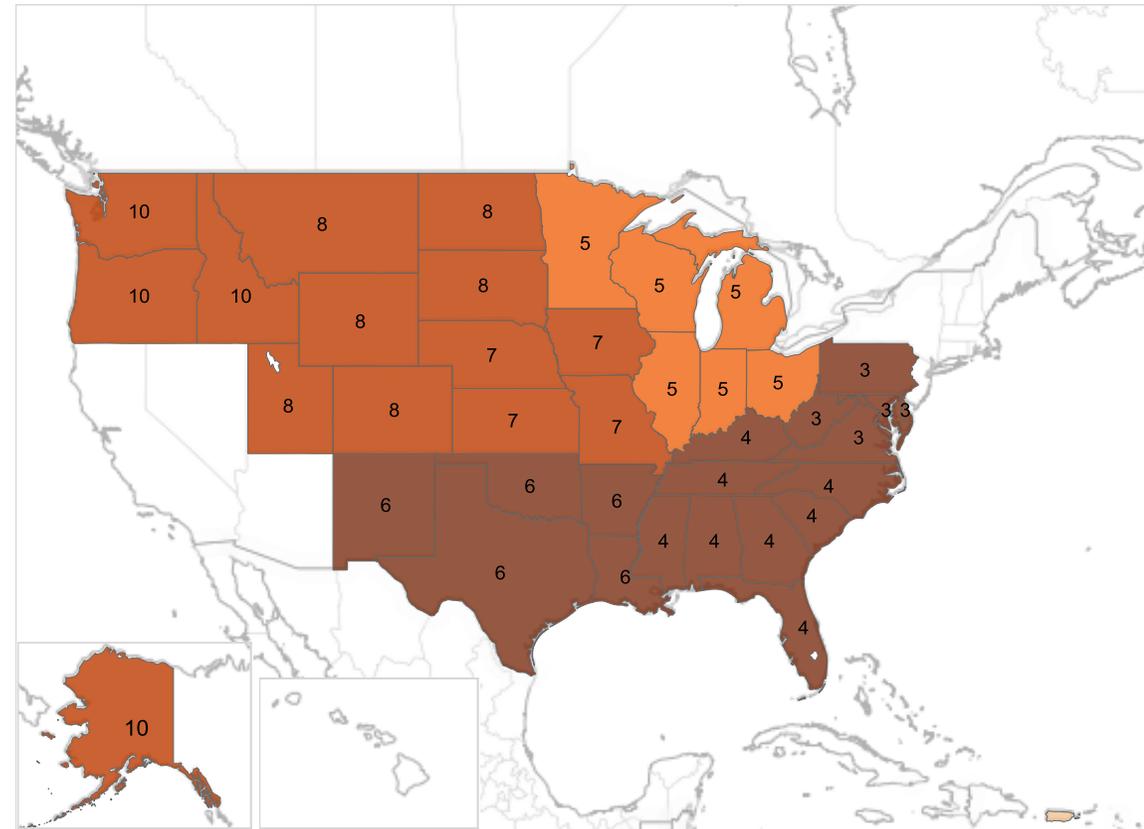
Cause of Death
Sudden infant death syndrome



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

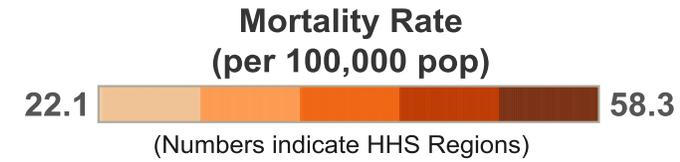
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Figure 5

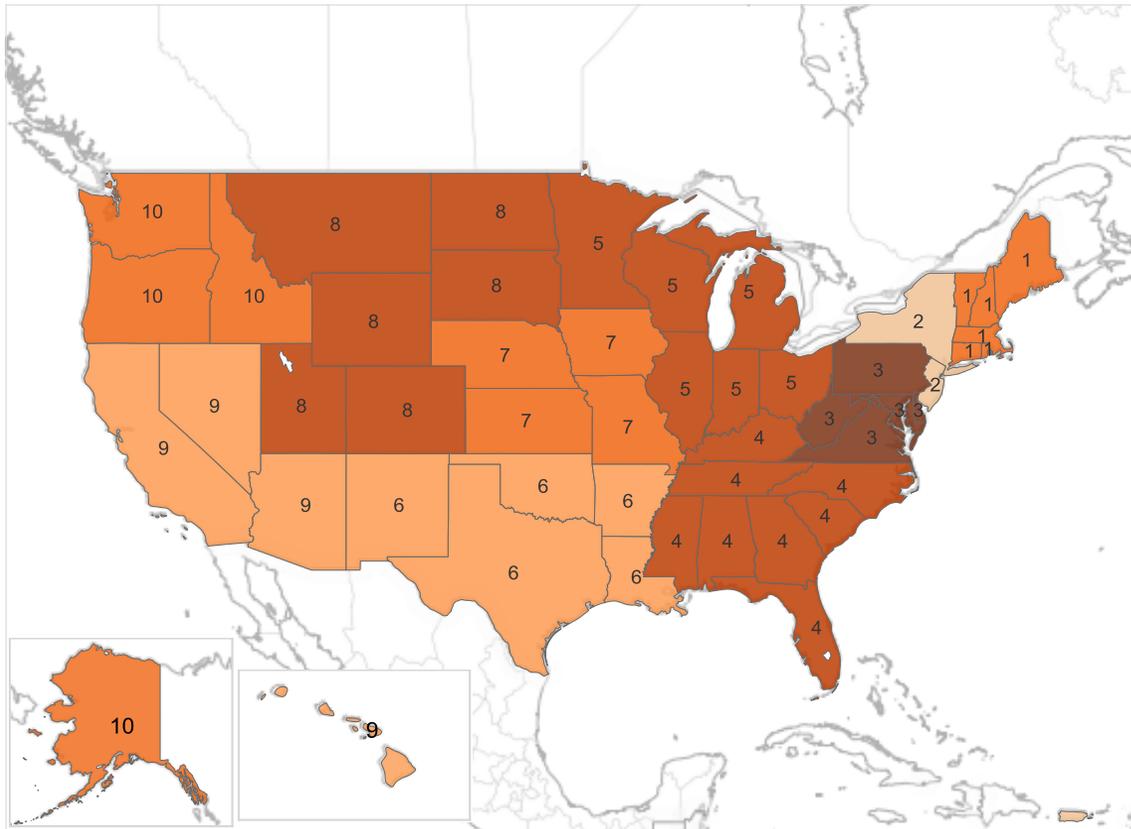
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Maternal complications of pregnancy; Sex: Combined Sexes

Age
Under 1

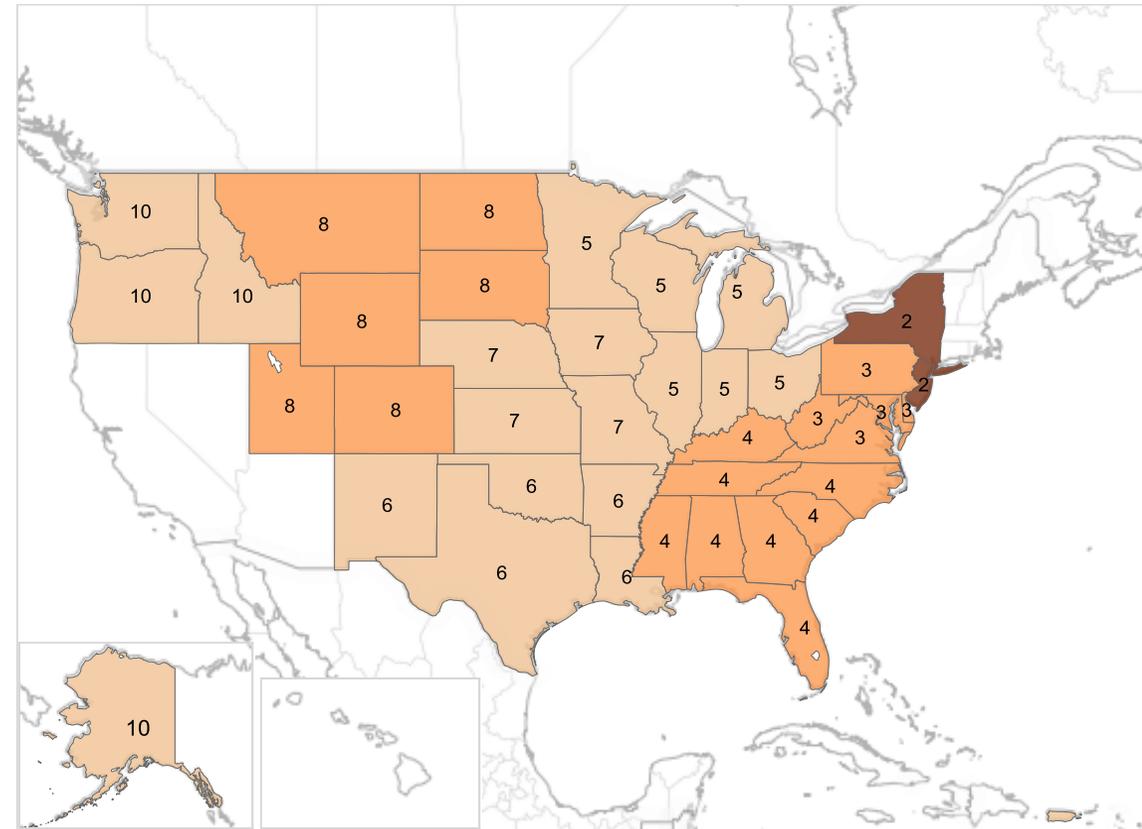
Cause of Death
Maternal complications of pregnancy



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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 6

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

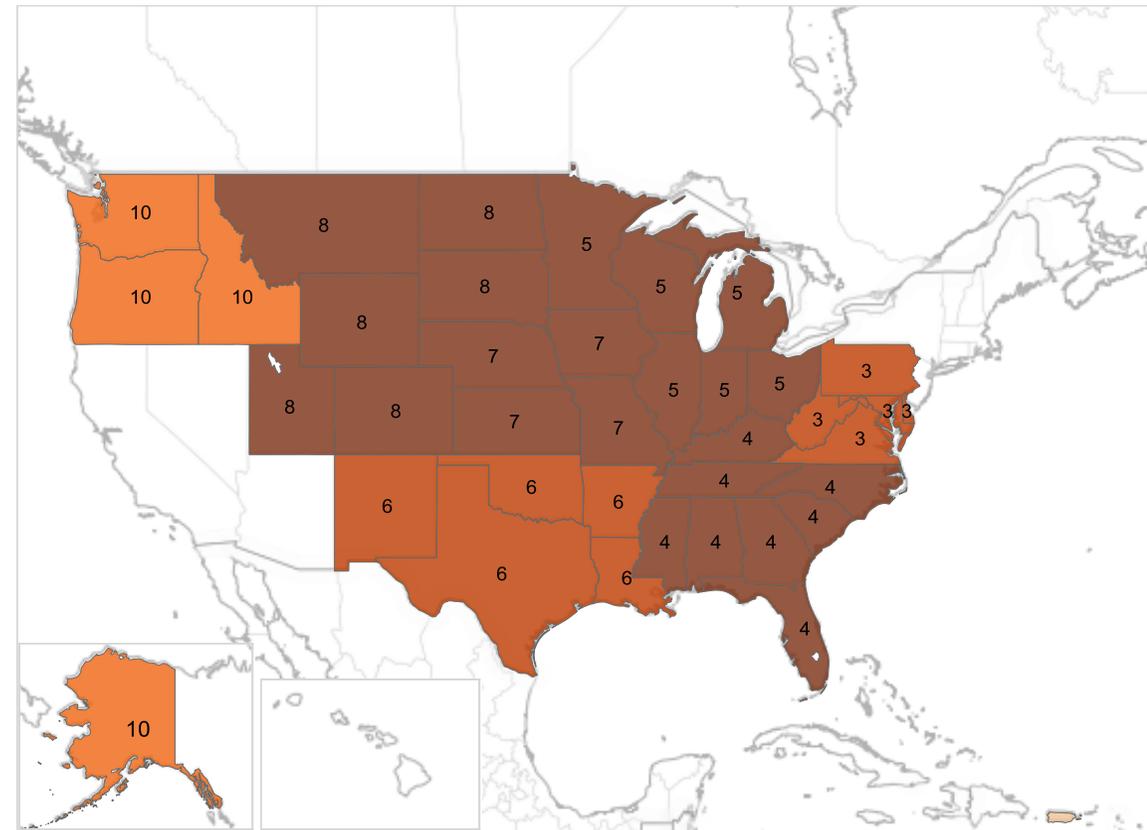
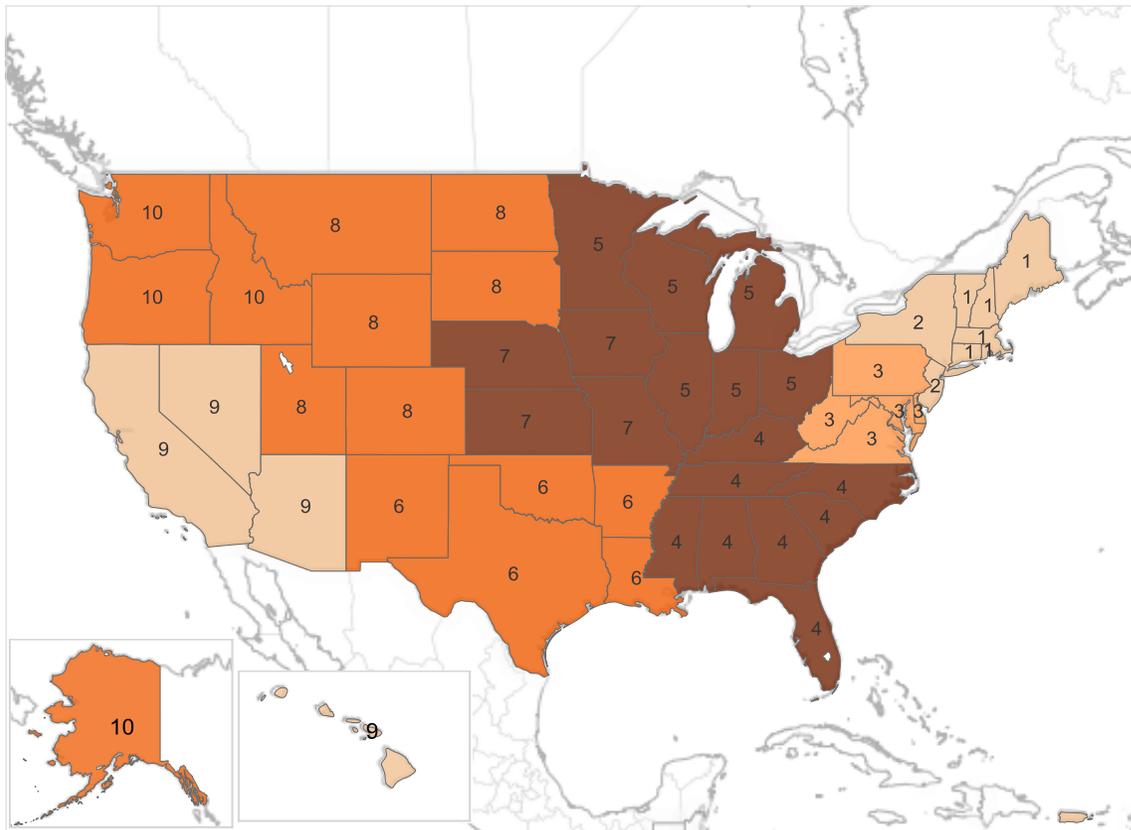
Age
Under 1

Cause of Death
Unintentional injuries



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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 7

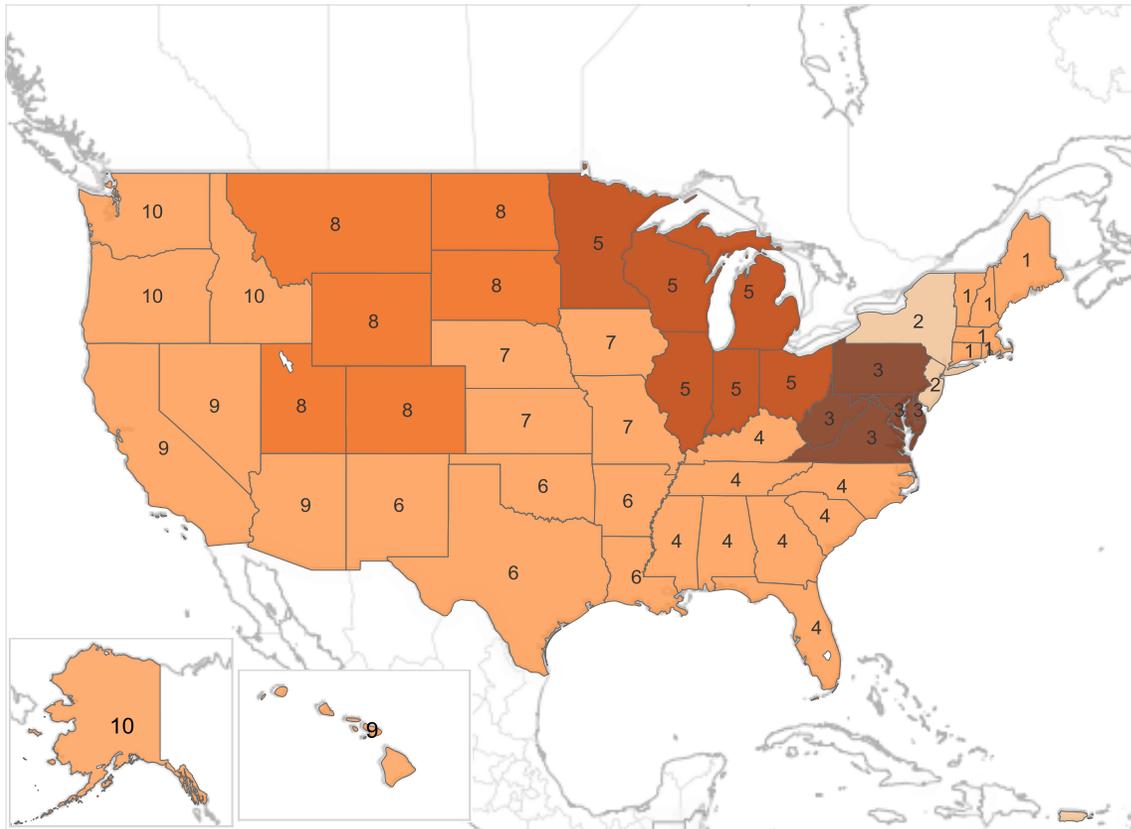
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Placenta, cord and membrane complications; Sex: Combined Sexes

Age
Under 1

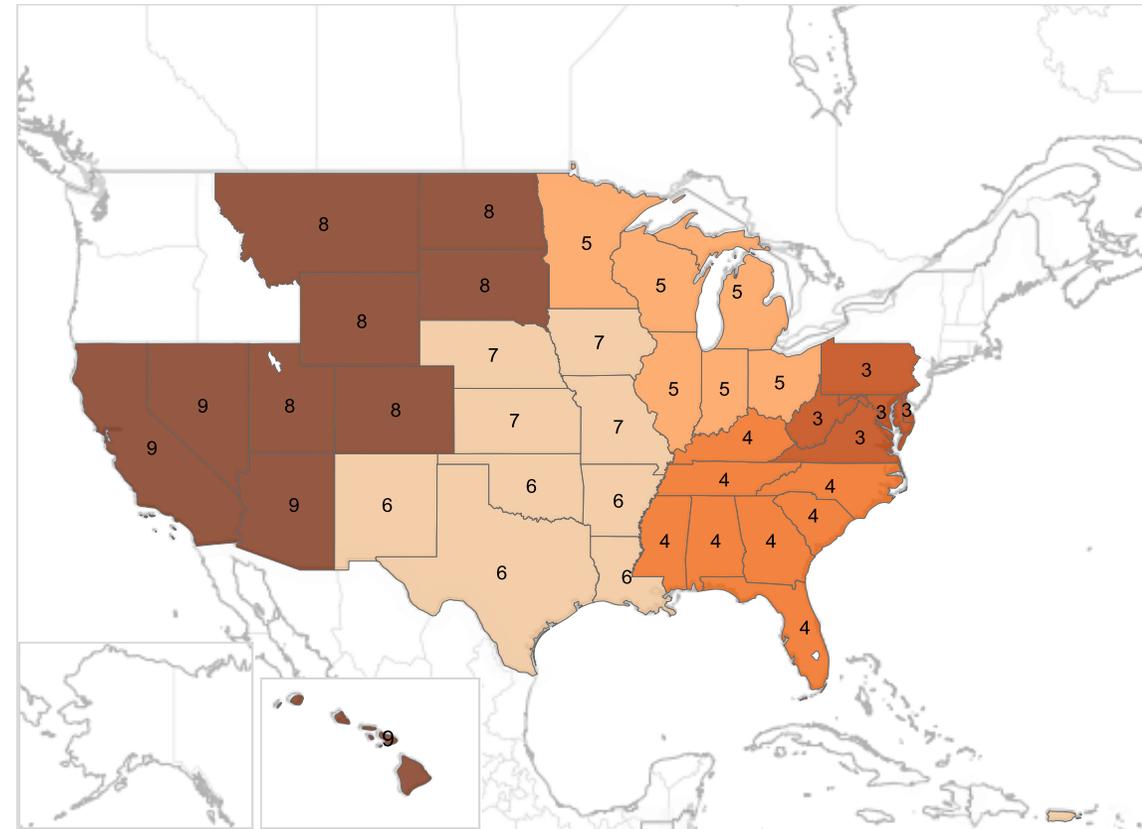
Cause of Death
Placenta, cord and membrane complications



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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 8

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

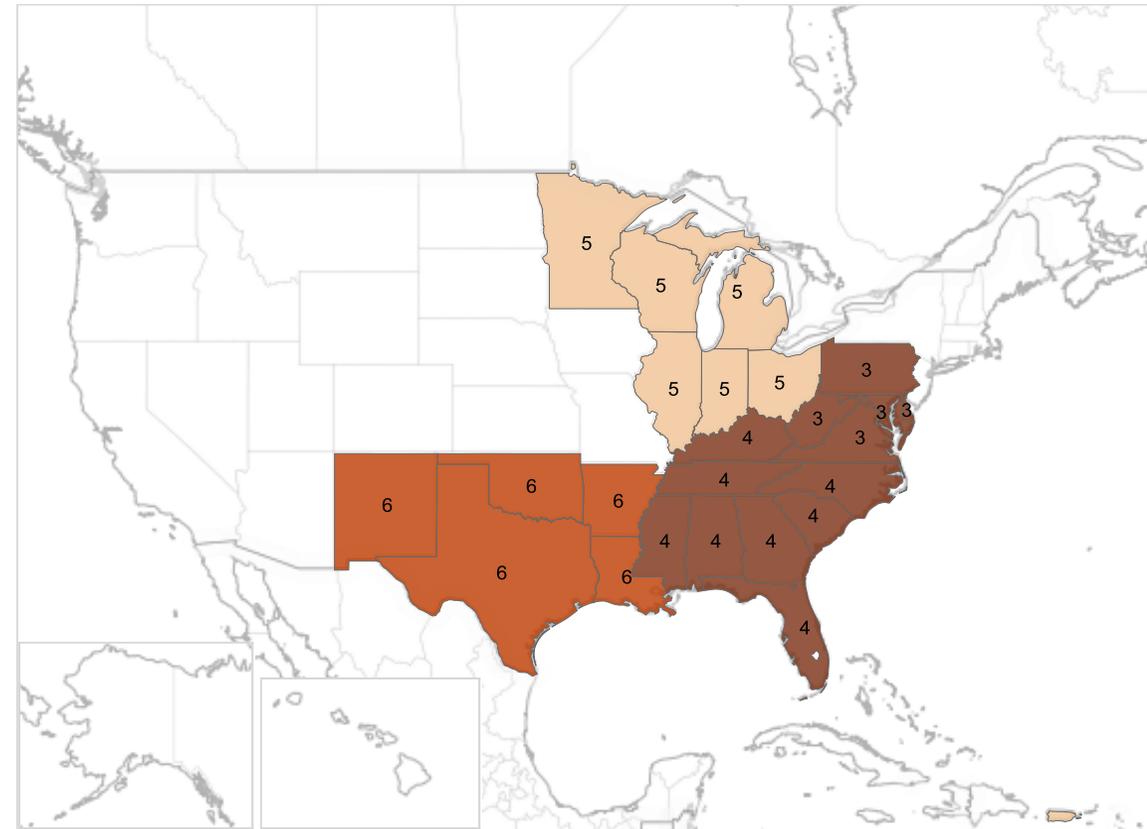
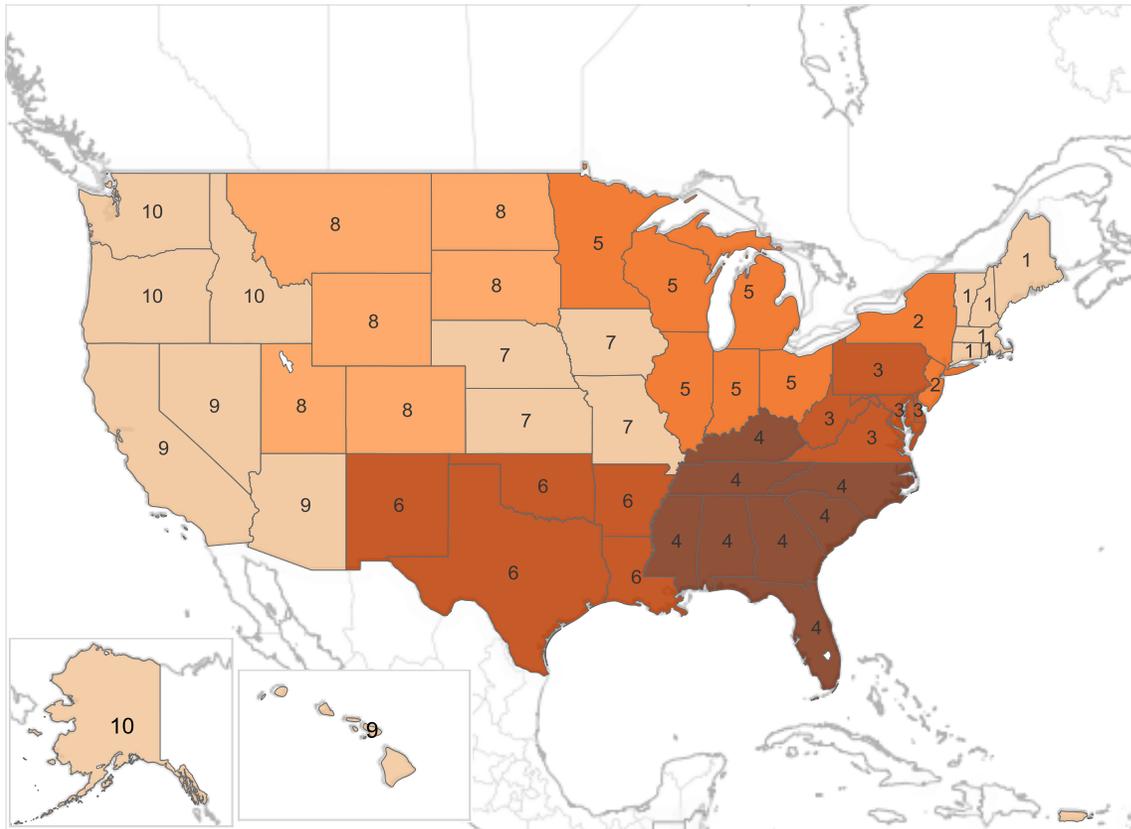
Age
Under 1

Cause of Death
Bacterial sepsis



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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 9

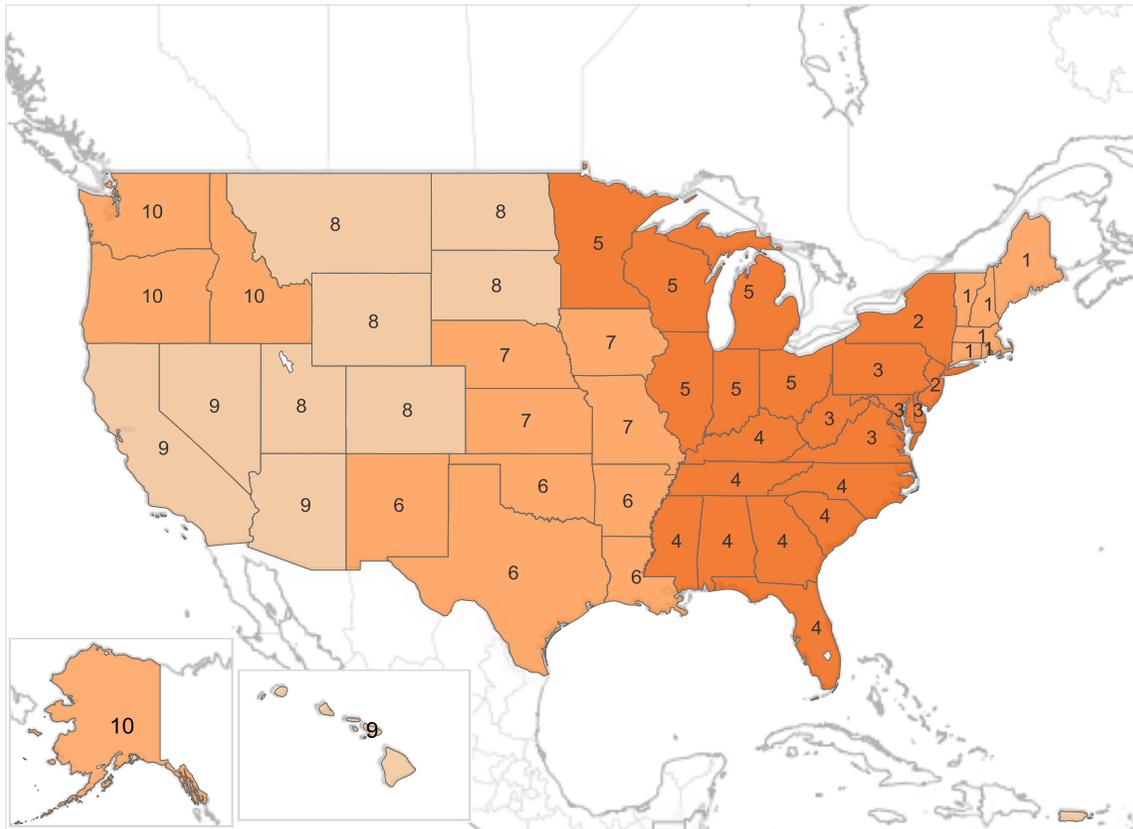
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Respiratory distress; Sex: Combined Sexes

Age
Under 1

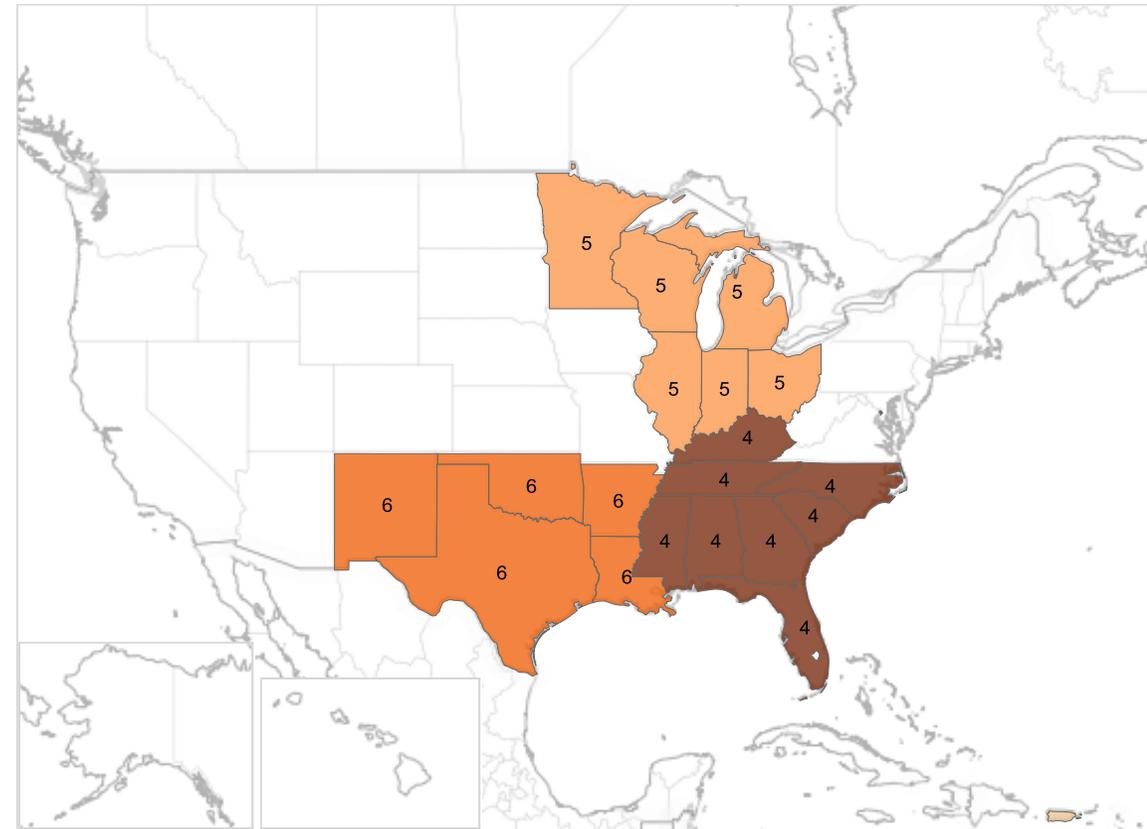
Cause of Death
Respiratory distress



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

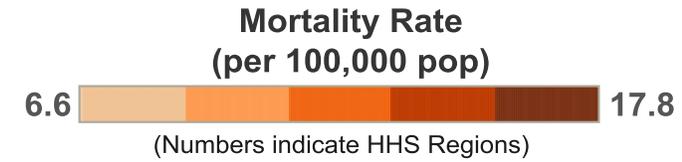
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 10

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

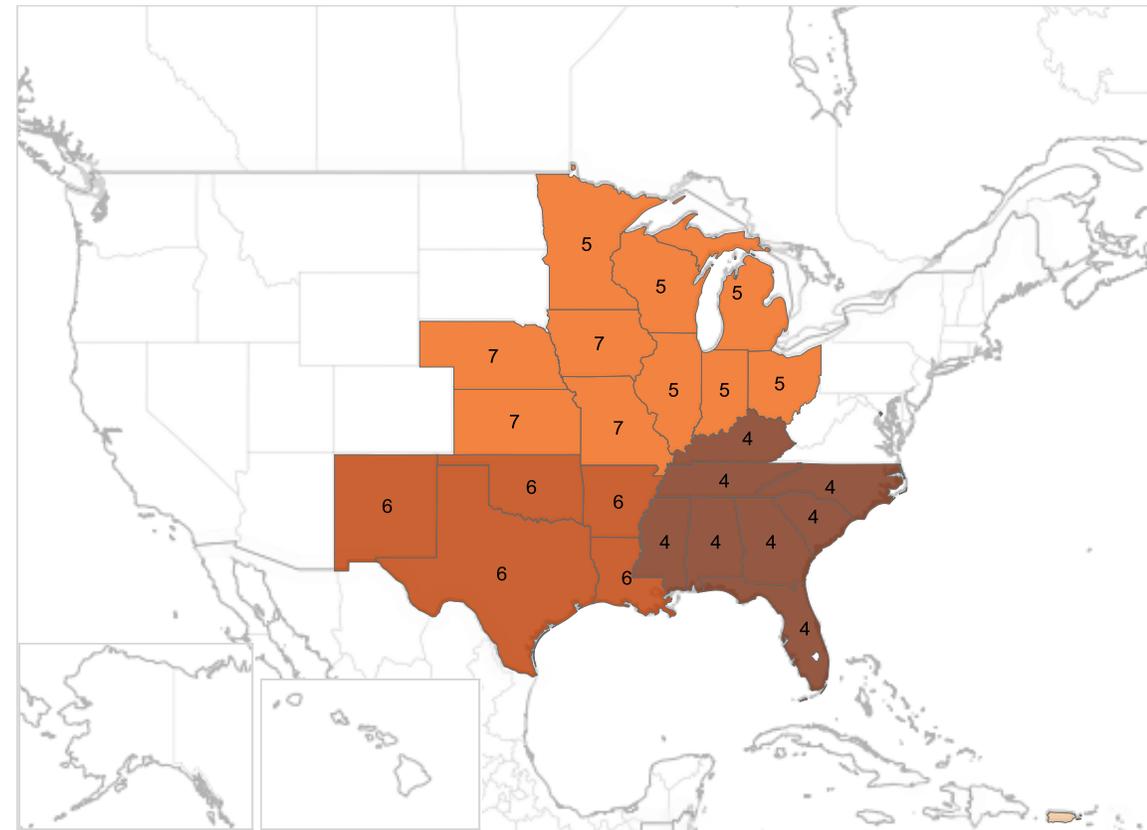
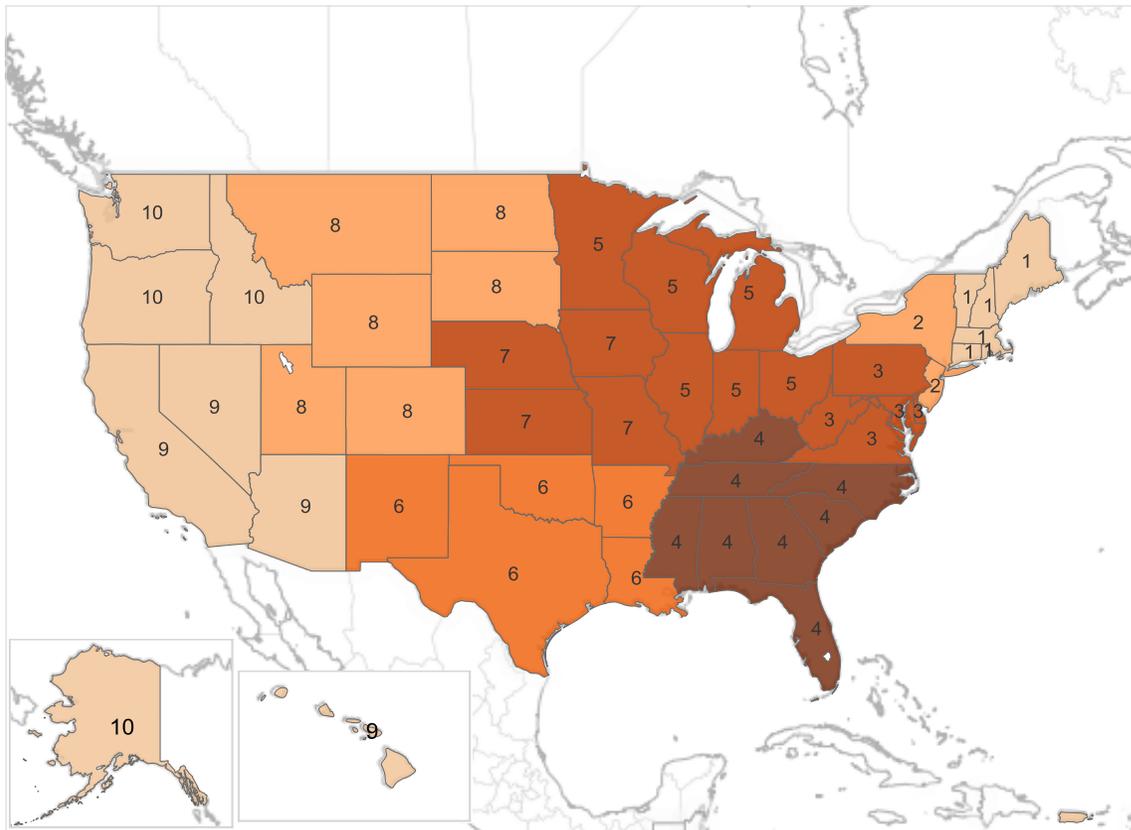
Age
Under 1

Cause of Death
Circulatory system diseases



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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 11

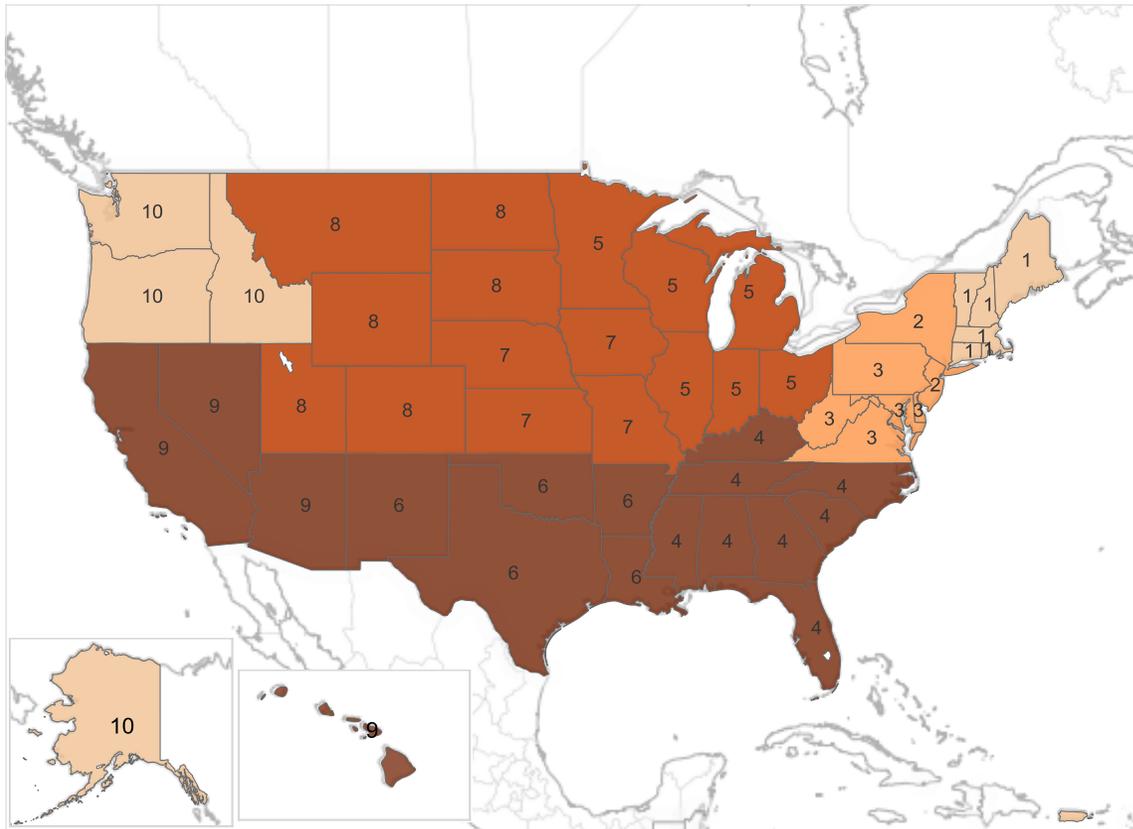
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Neonatal hemorrhage; Sex: Combined Sexes

Age
Under 1

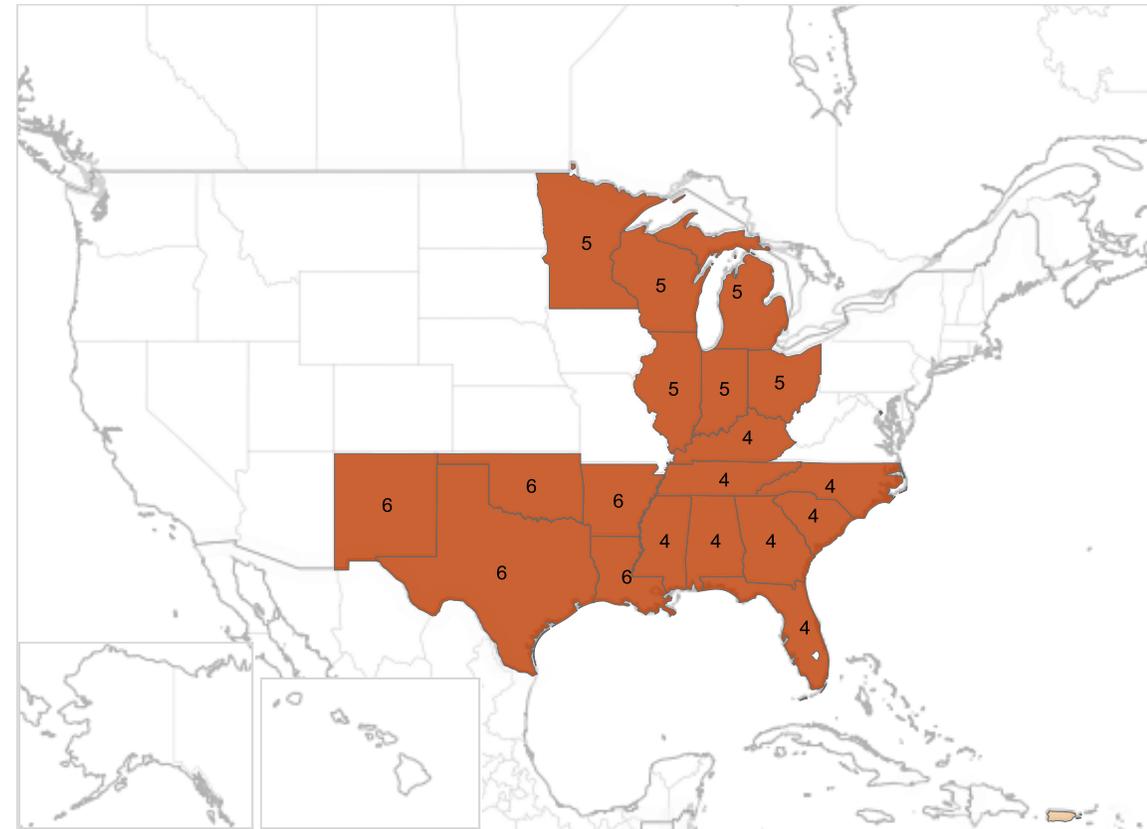
Cause of Death
Neonatal hemorrhage



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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.

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

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

Figure 12

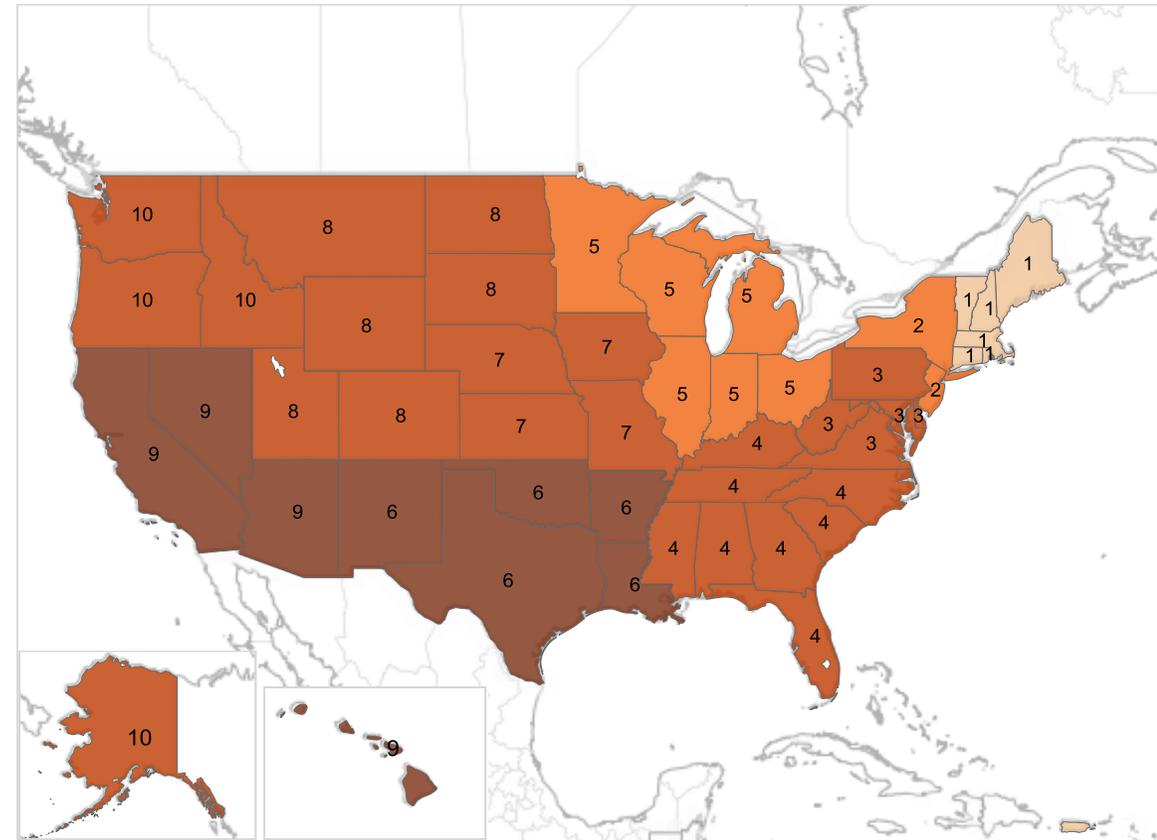
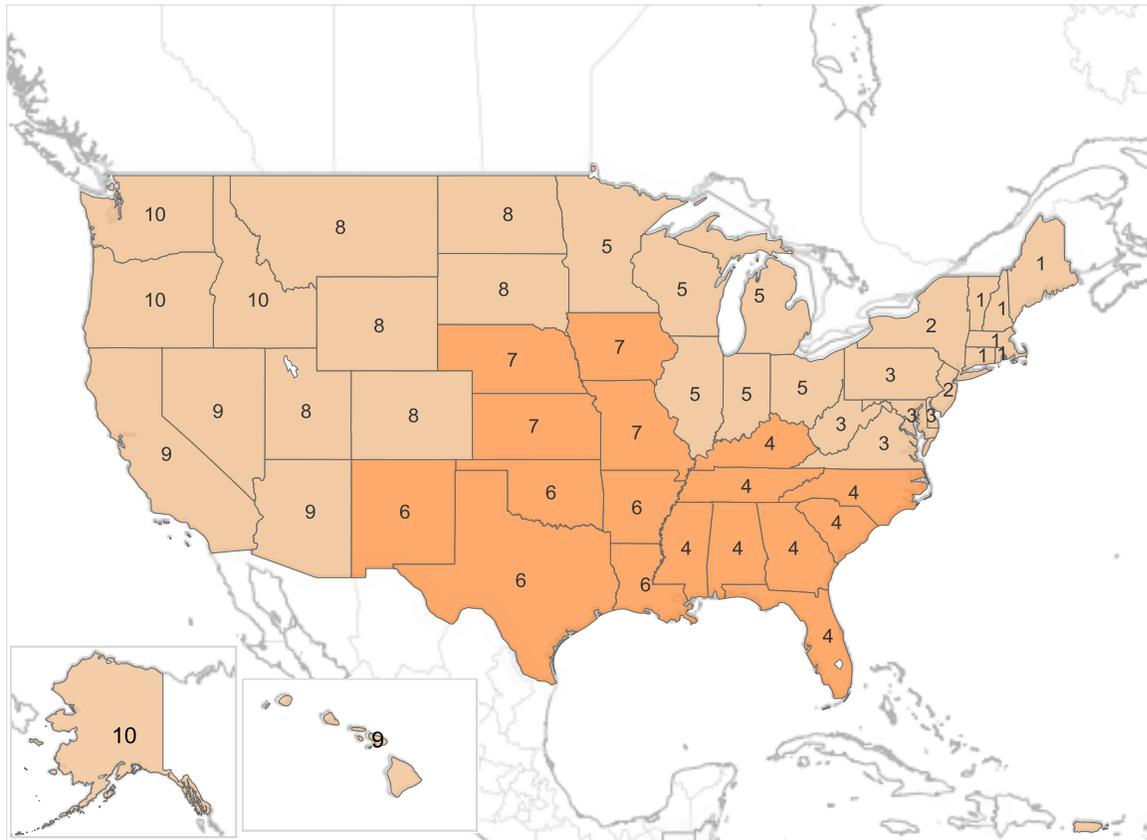
Age
1 to 14

Cause of Death
Unintentional injuries



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

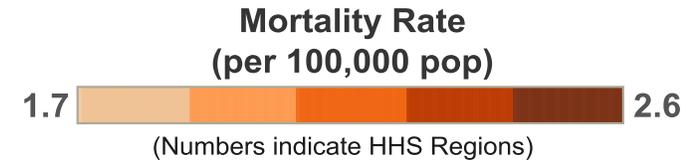
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 13

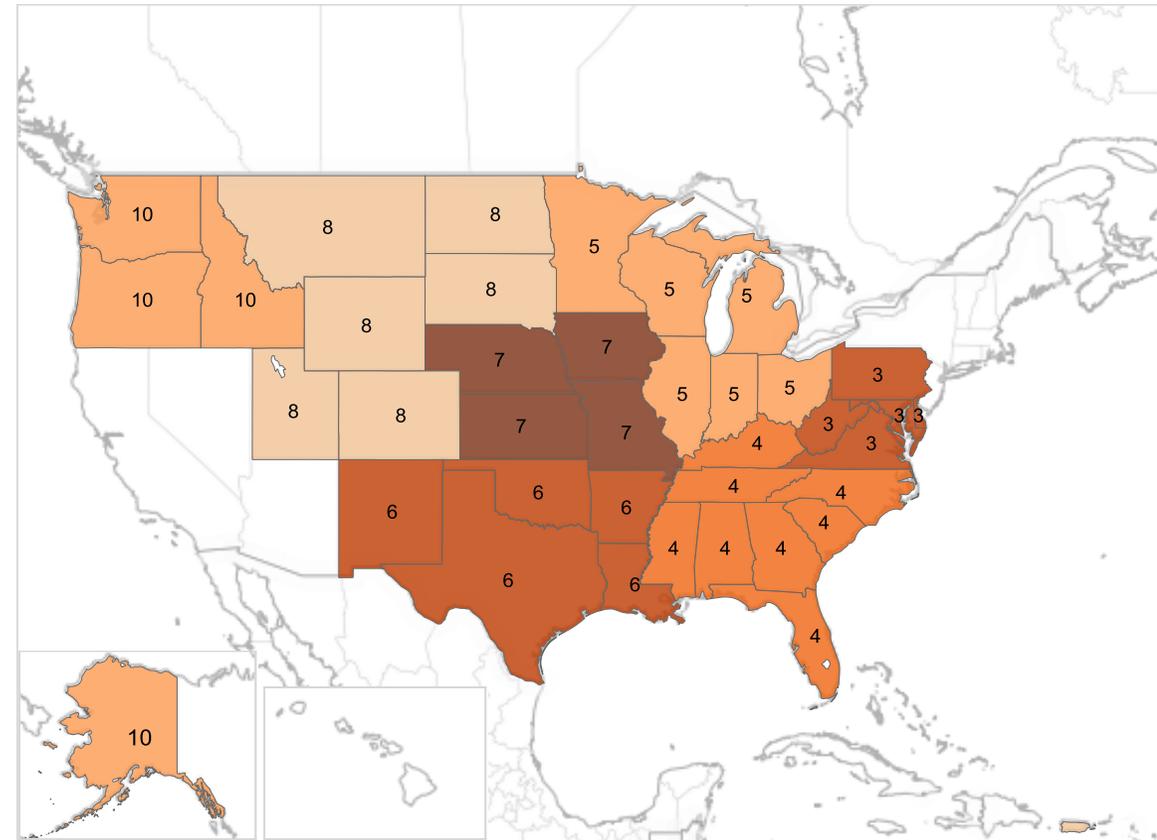
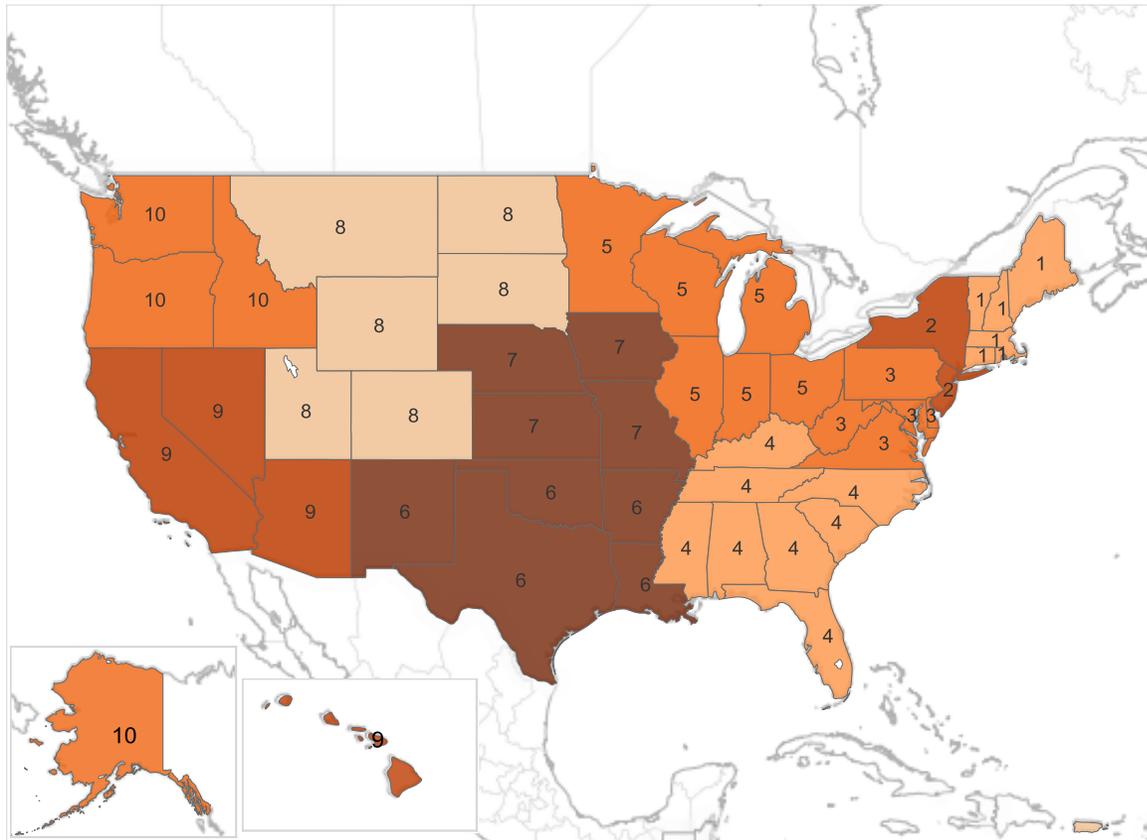
Age
1 to 14

Cause of Death
Malignant neoplasms



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

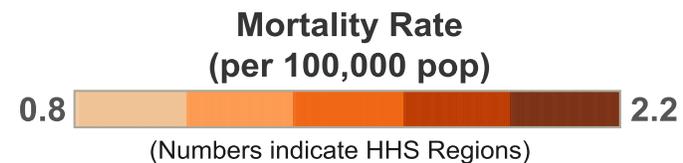
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Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Congenital malformations; Sex: Combined Sexes

Figure 14

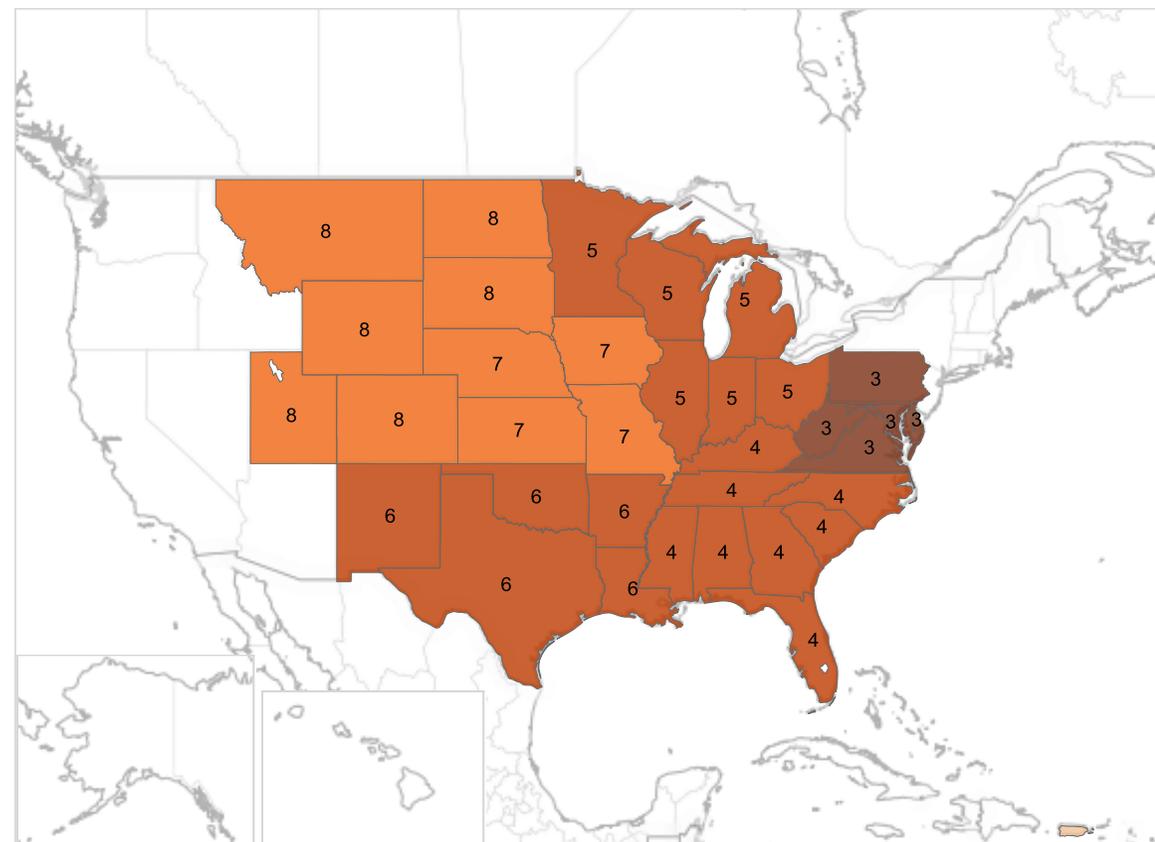
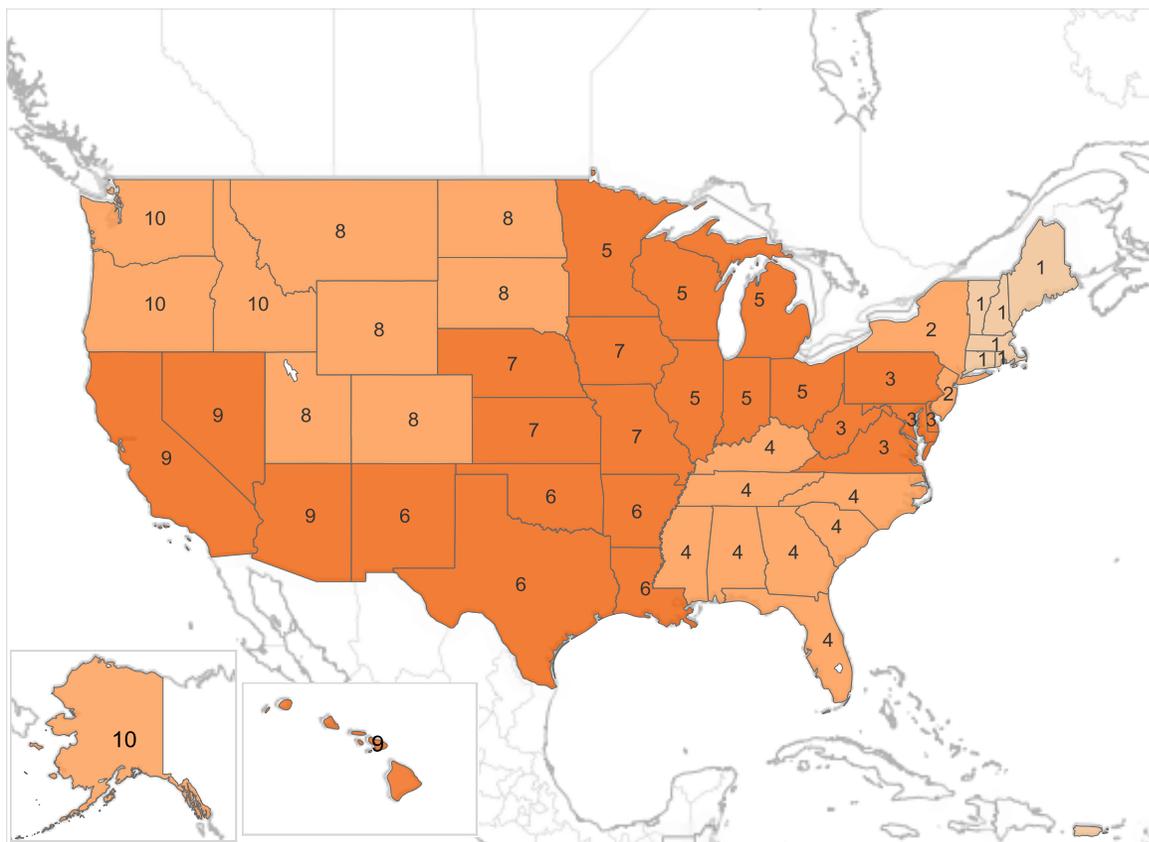
Age
1 to 14

Cause of Death
Congenital malformations



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

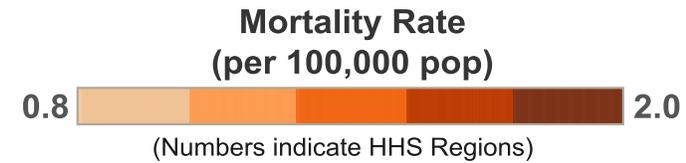
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Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Homicide; Sex: Combined Sexes

Figure 15

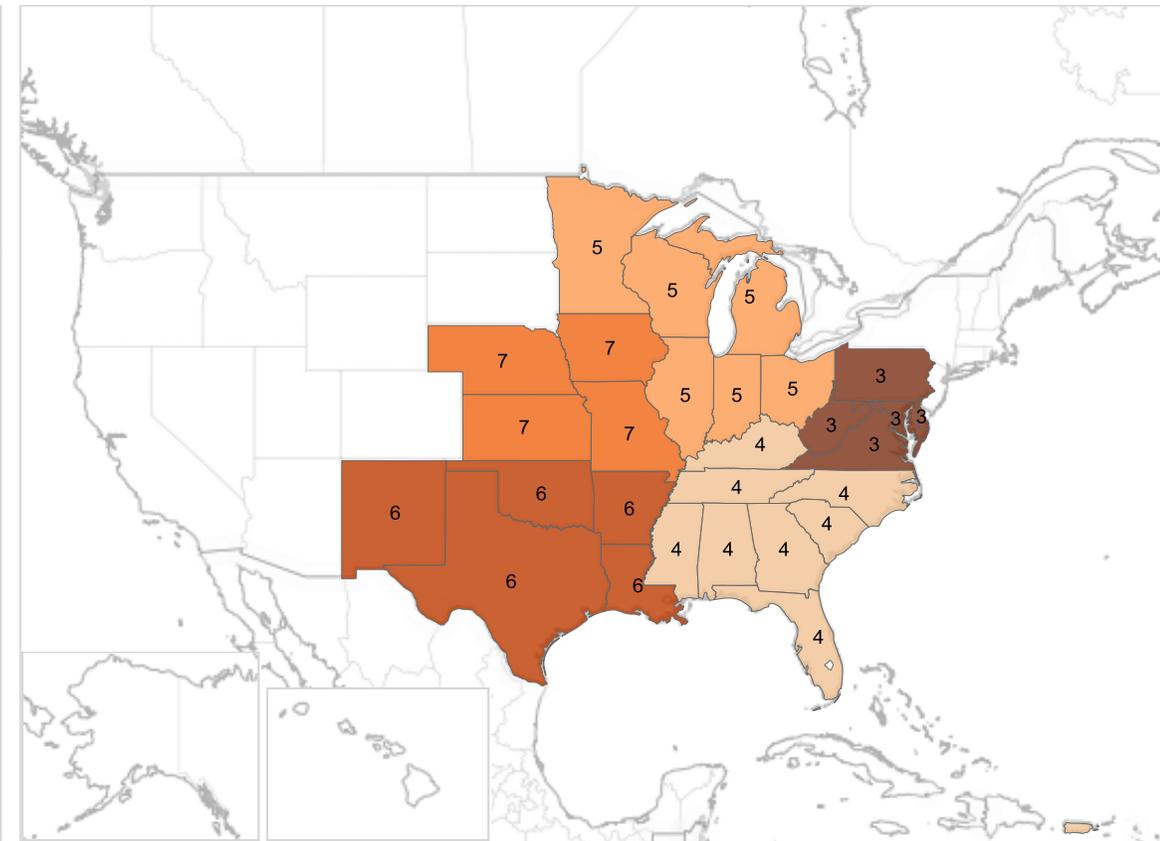
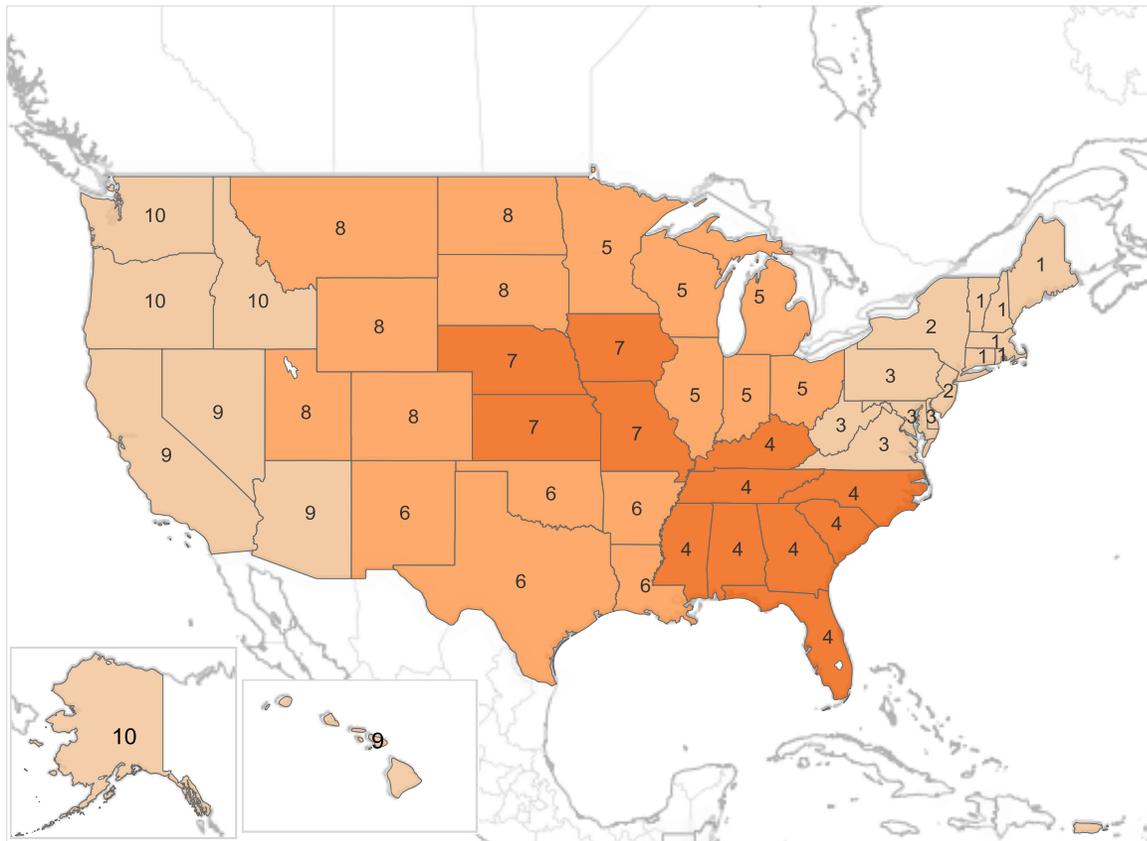
Age
1 to 14

Cause of Death
Homicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



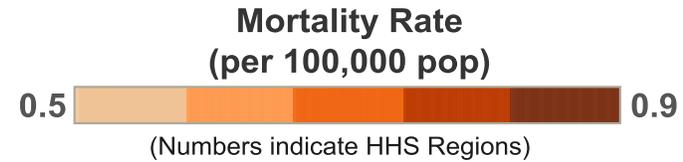
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.

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: 1 to 14; Cause of Death: Heart disease; Sex: Combined Sexes

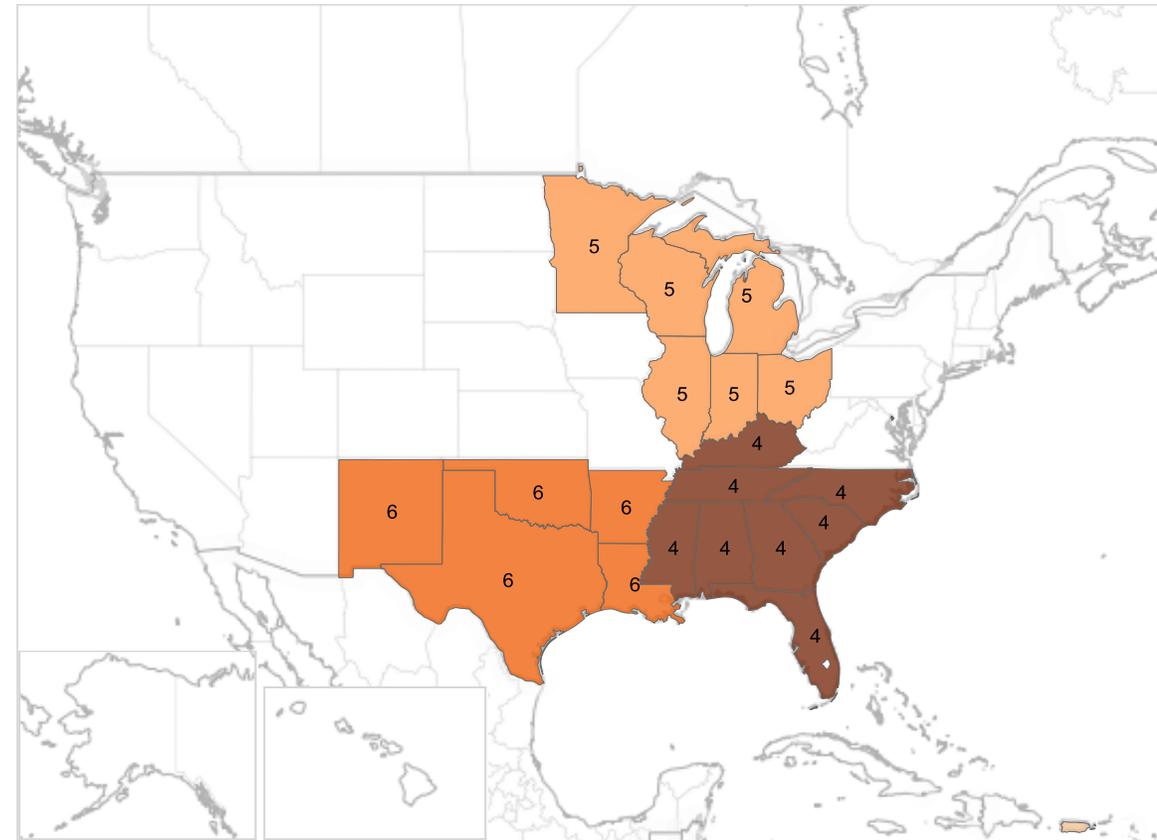
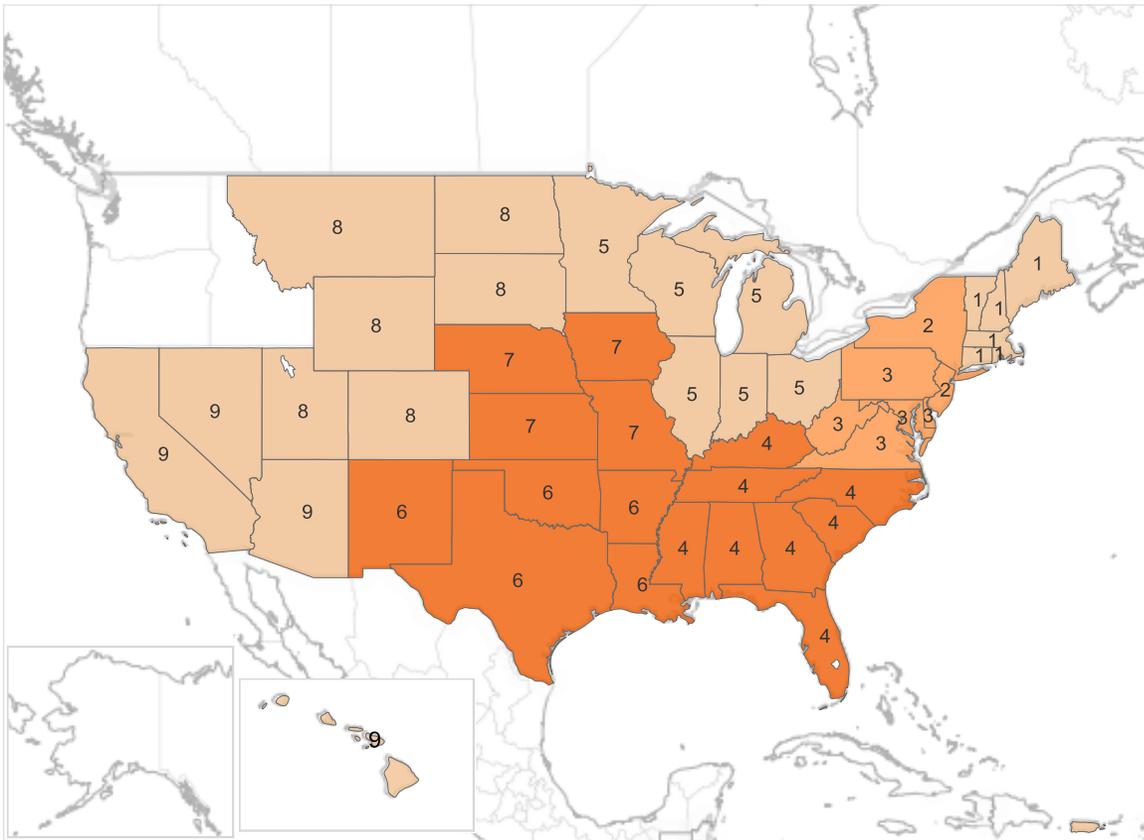
Age
1 to 14

Cause of Death
Heart disease



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

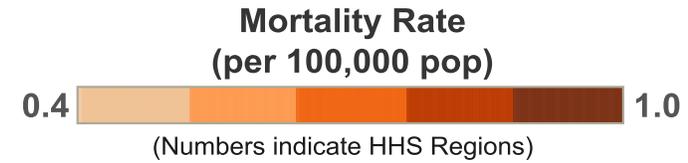
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 17

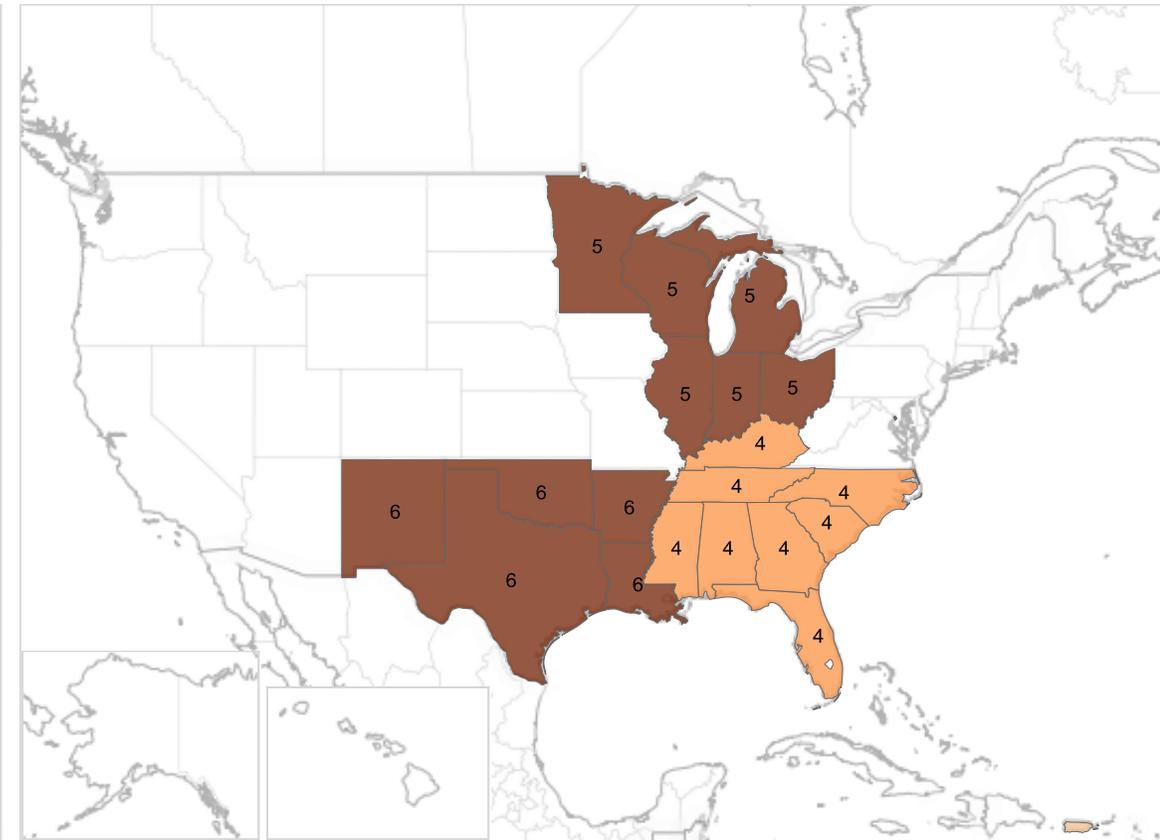
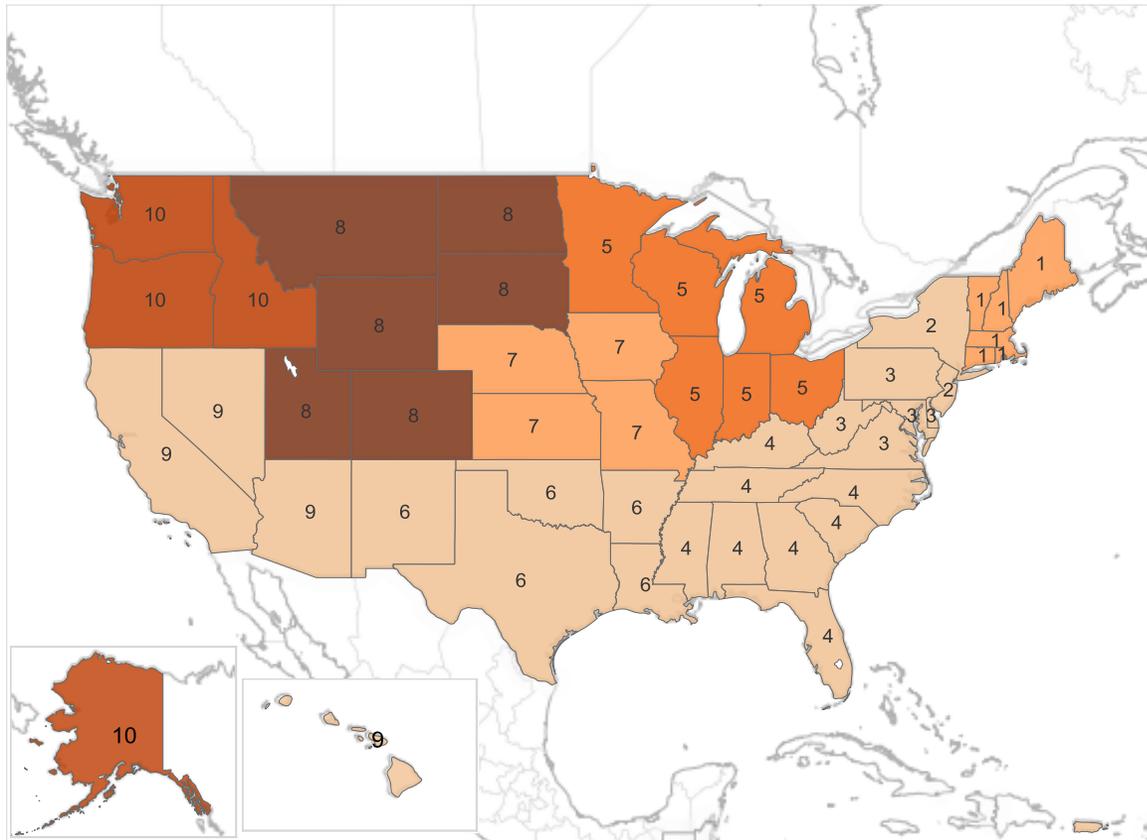
Age
1 to 14

Cause of Death
Suicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

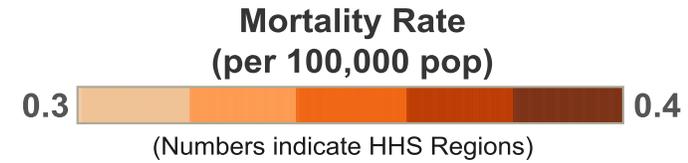
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 18

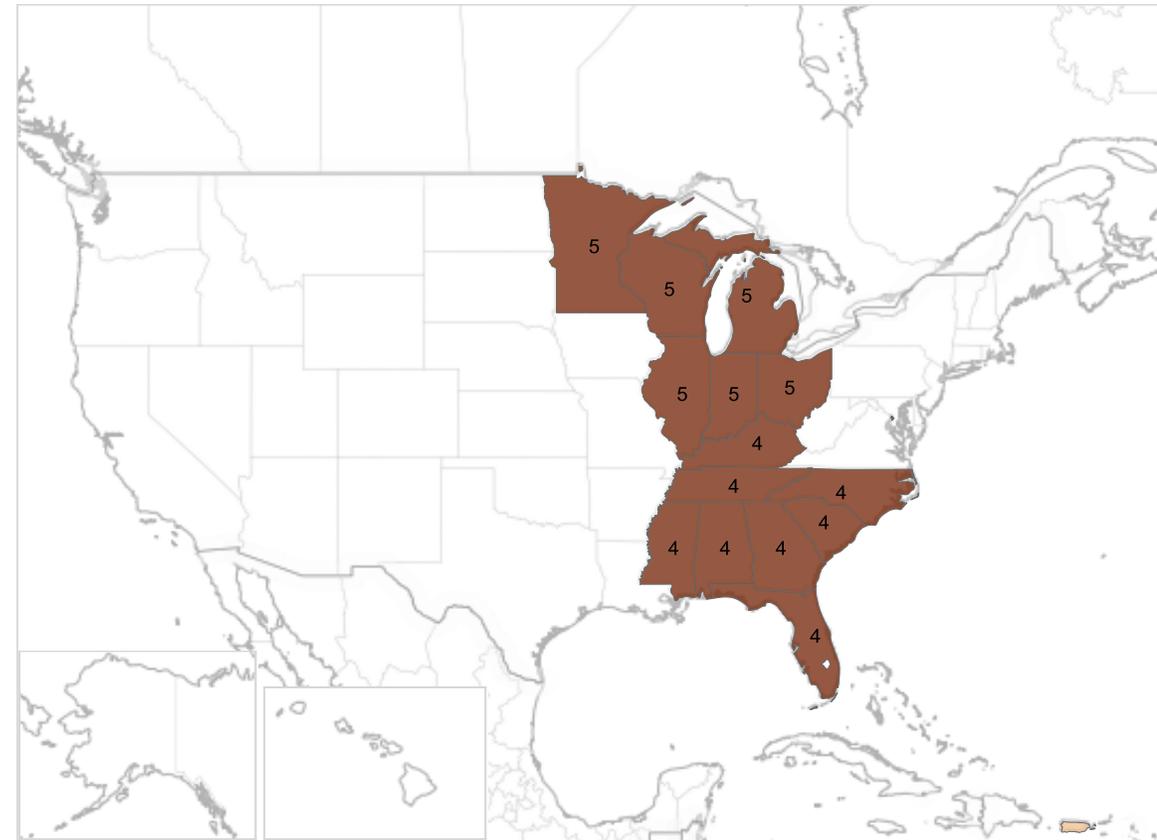
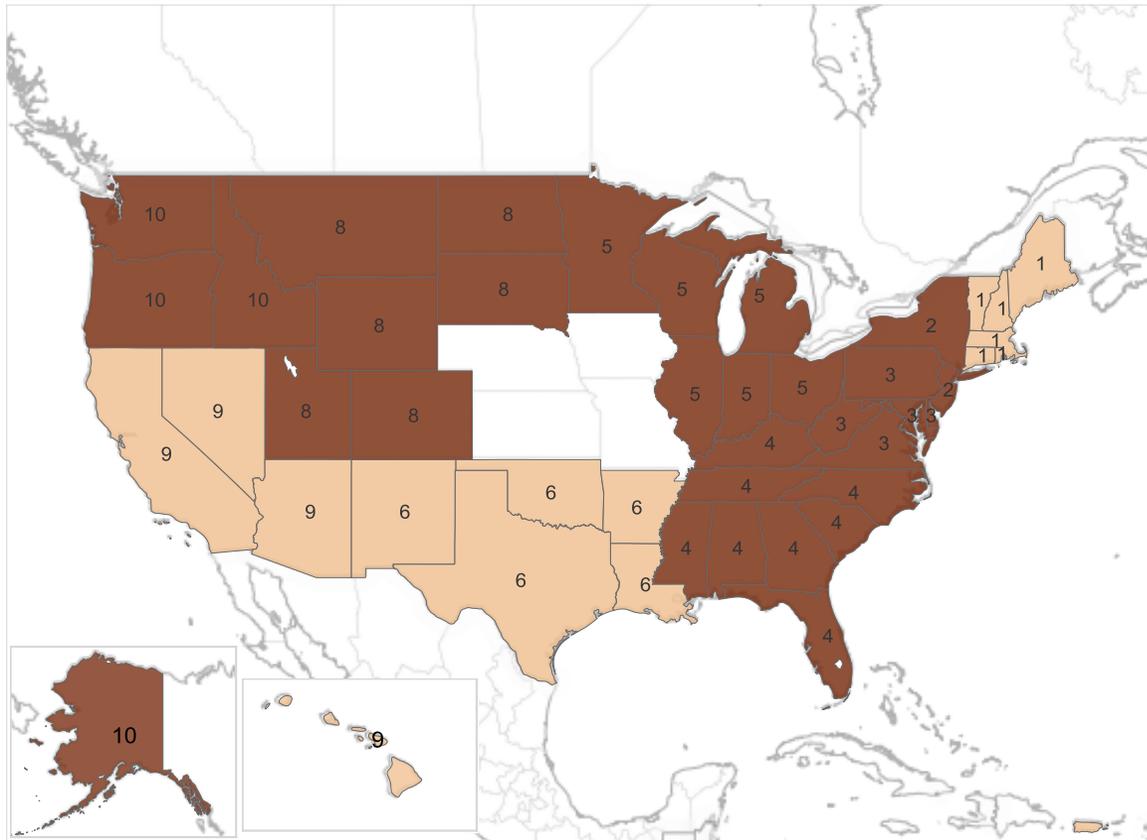
Age
1 to 14

Cause of Death
Flu & pneumonia



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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: 1 to 14; Cause of Death: Lower respiratory; Sex: Combined Sexes

Figure 19

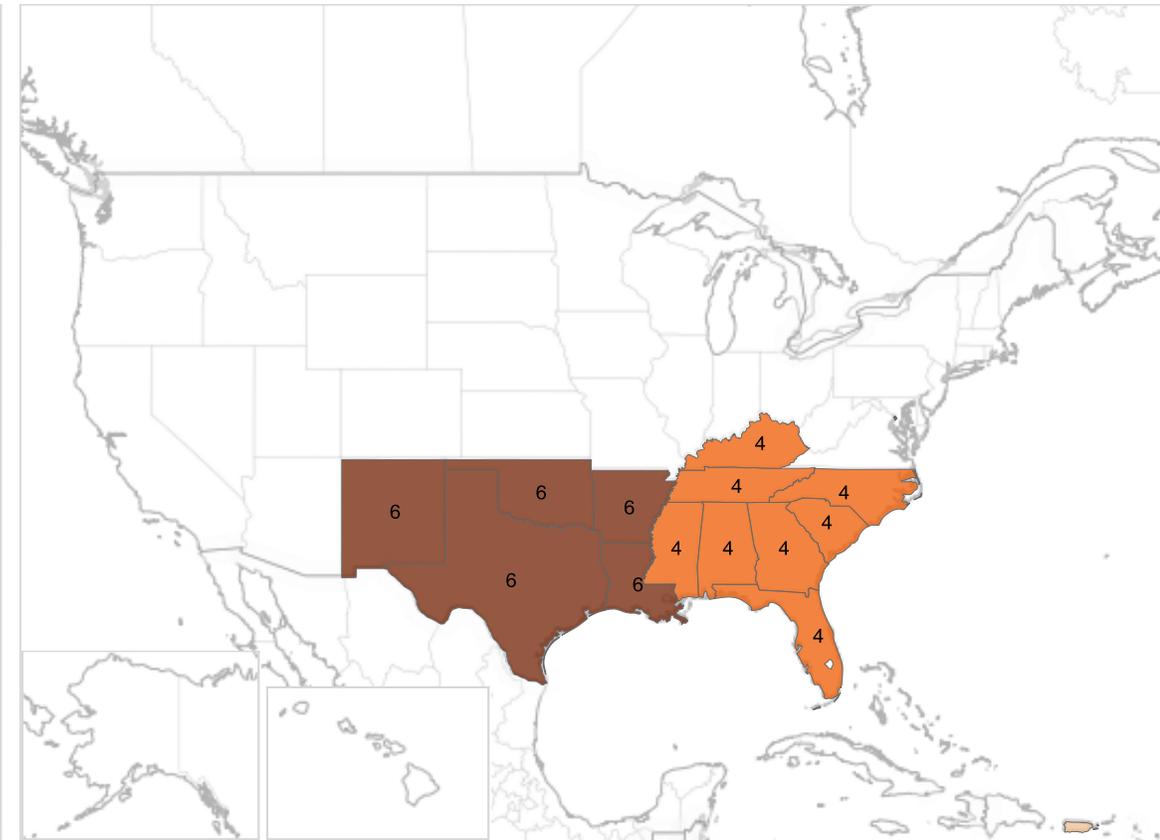
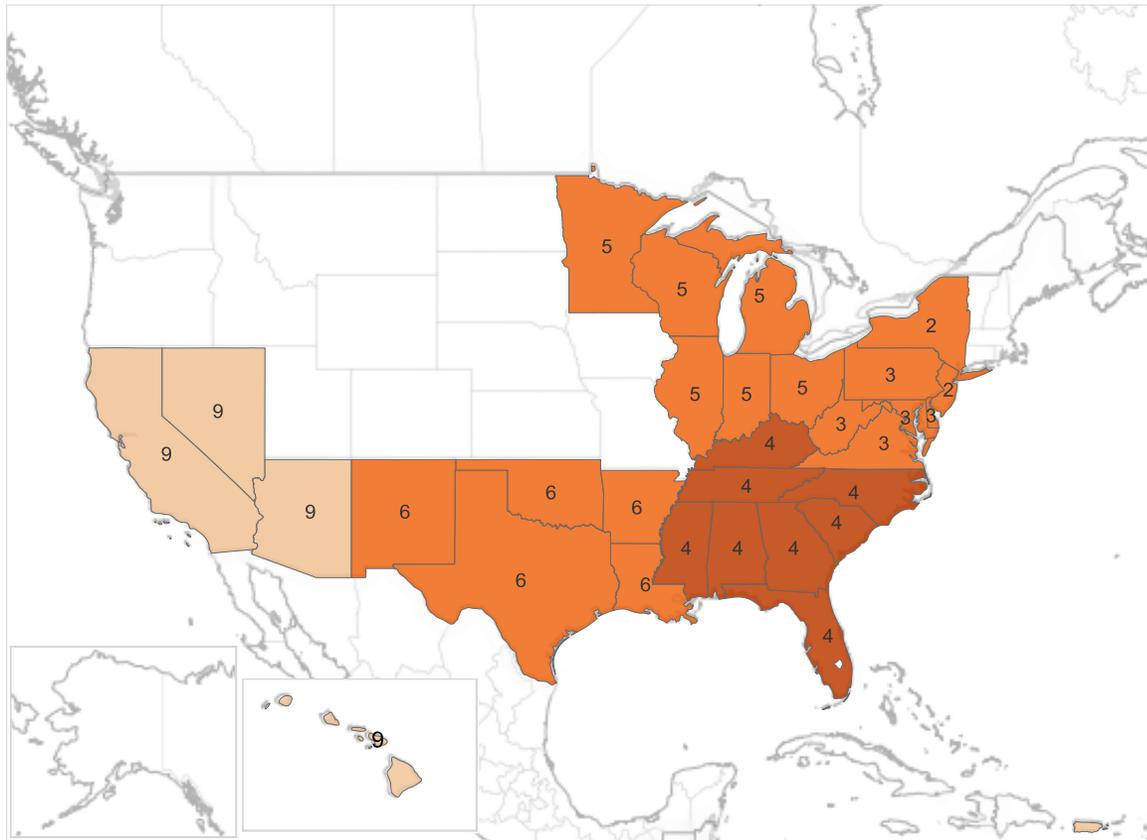
Age
1 to 14

Cause of Death
Lower respiratory



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

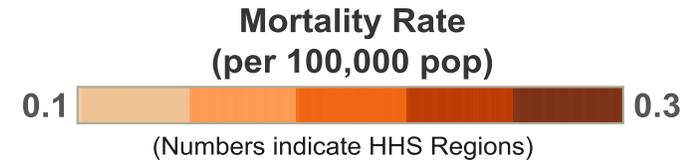
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 20

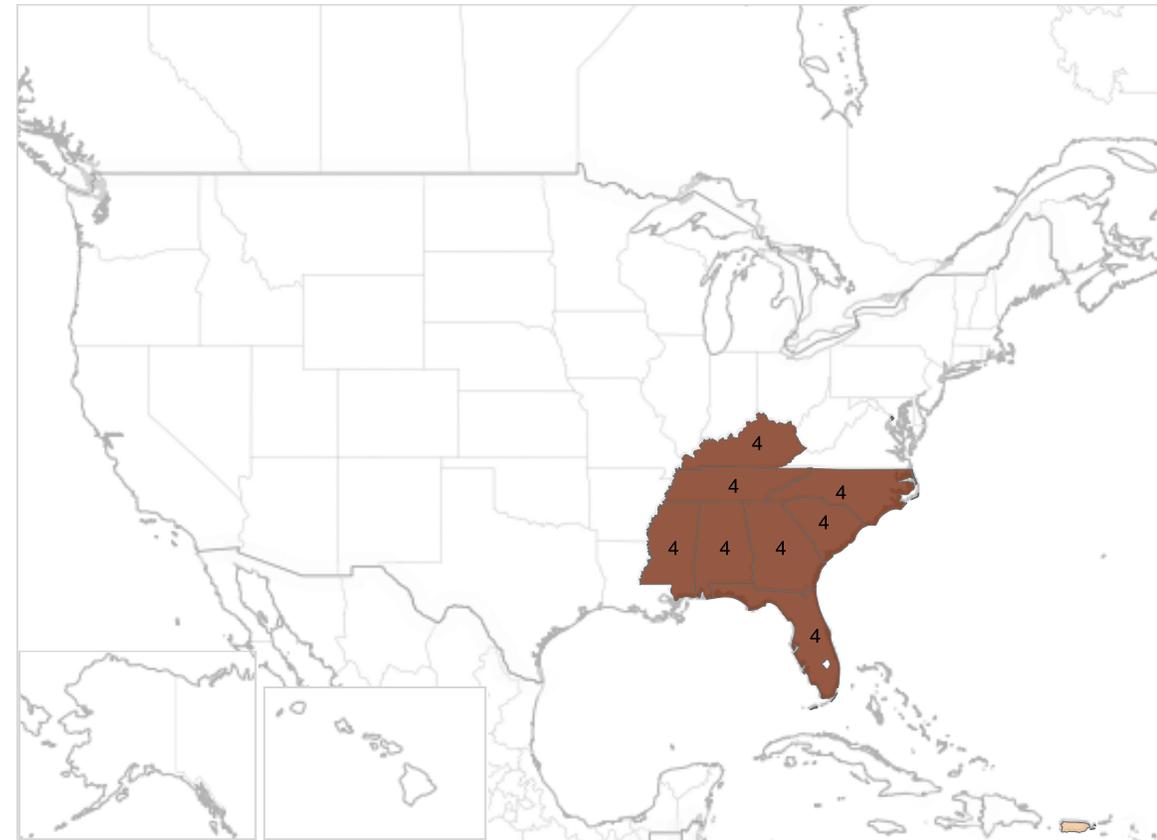
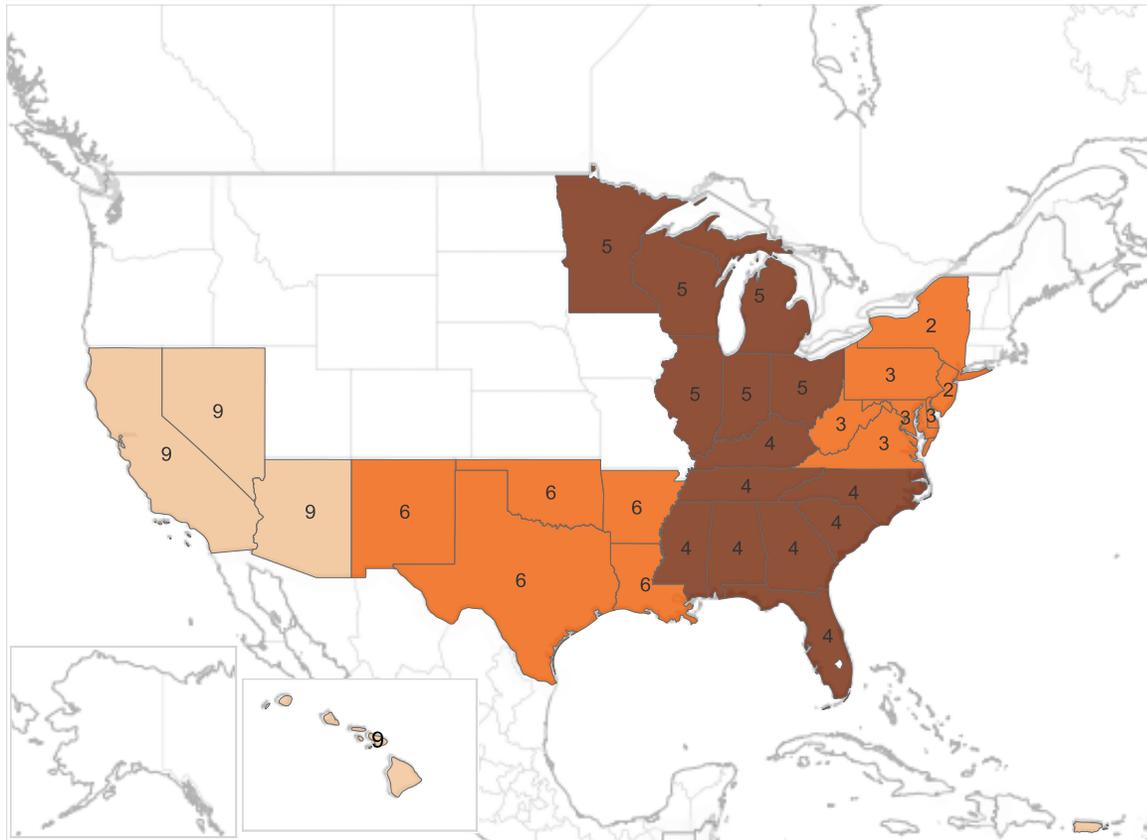
Age
1 to 14

Cause of Death
Benign neoplasms



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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: 1 to 14; Cause of Death: Cerebrovascular diseases; Sex: Combined Sexes

Figure 21

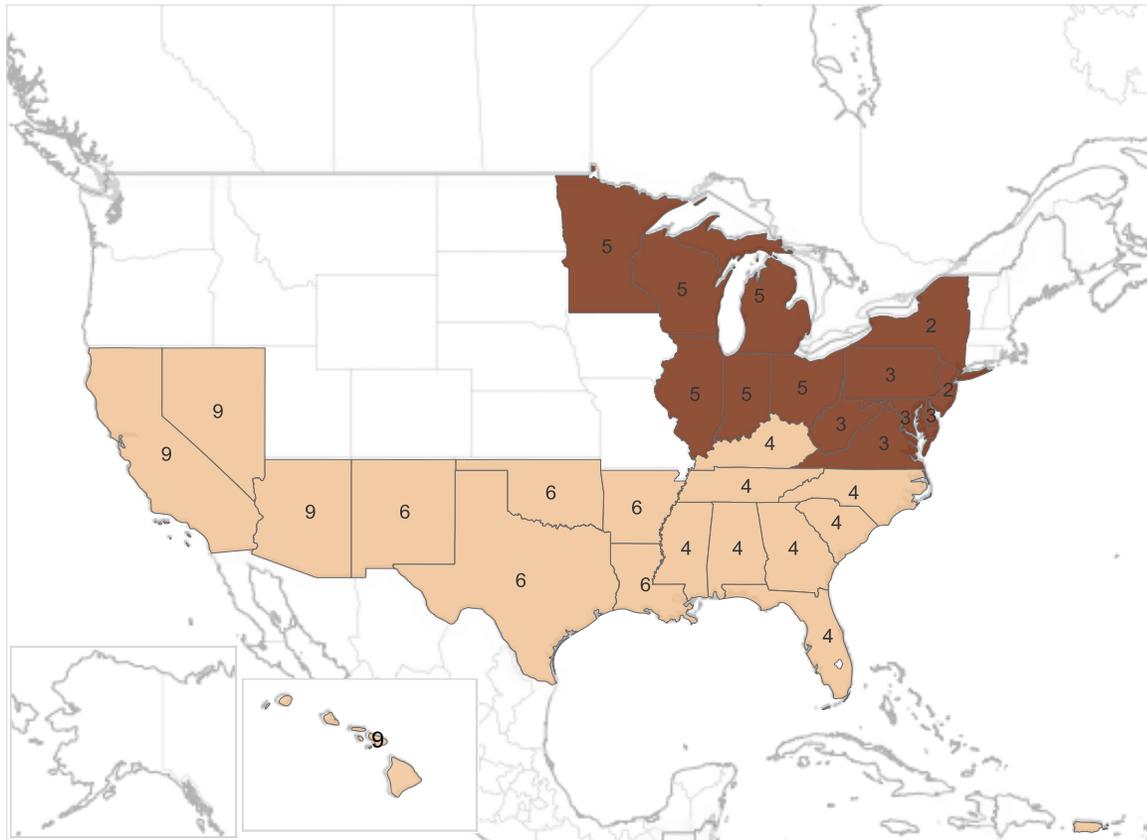
Age
1 to 14

Cause of Death
Cerebrovascular diseases



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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.

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:

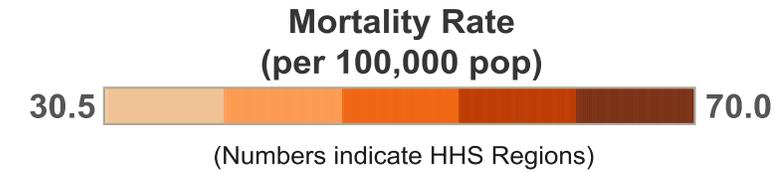
- [Figure 22: Unintentional injury, Male](#)
- [Figure 23: Unintentional injury, Female](#)
- [Figure 24: Suicide, Male](#)
- [Figure 25: Suicide, Female](#)
- [Figure 26: Homicide, Male](#)
- [Figure 27: Homicide, Female](#)
- [Figure 28: Malignant neoplasms, Male](#)
- [Figure 29: Malignant neoplasms, Female](#)
- [Figure 30: Heart disease, Male](#)
- [Figure 31: Heart disease, Female](#)
- [Figure 32: Congenital malformations, Male](#)
- [Figure 33: Congenital malformations, Female](#)
- [Figure 34: Diabetes, Male](#)
- [Figure 35: Diabetes, Female](#)
- [Figure 36: Cerebrovascular diseases, Male](#)
- [Figure 37: Cerebrovascular diseases, Female](#)
- [Figure 38: Pregnancy or childbirth, Female](#)
- [Figure 39: Flu & Pneumonia, Male](#)
- [Figure 40: Flu &Pneumonia, Female](#)

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

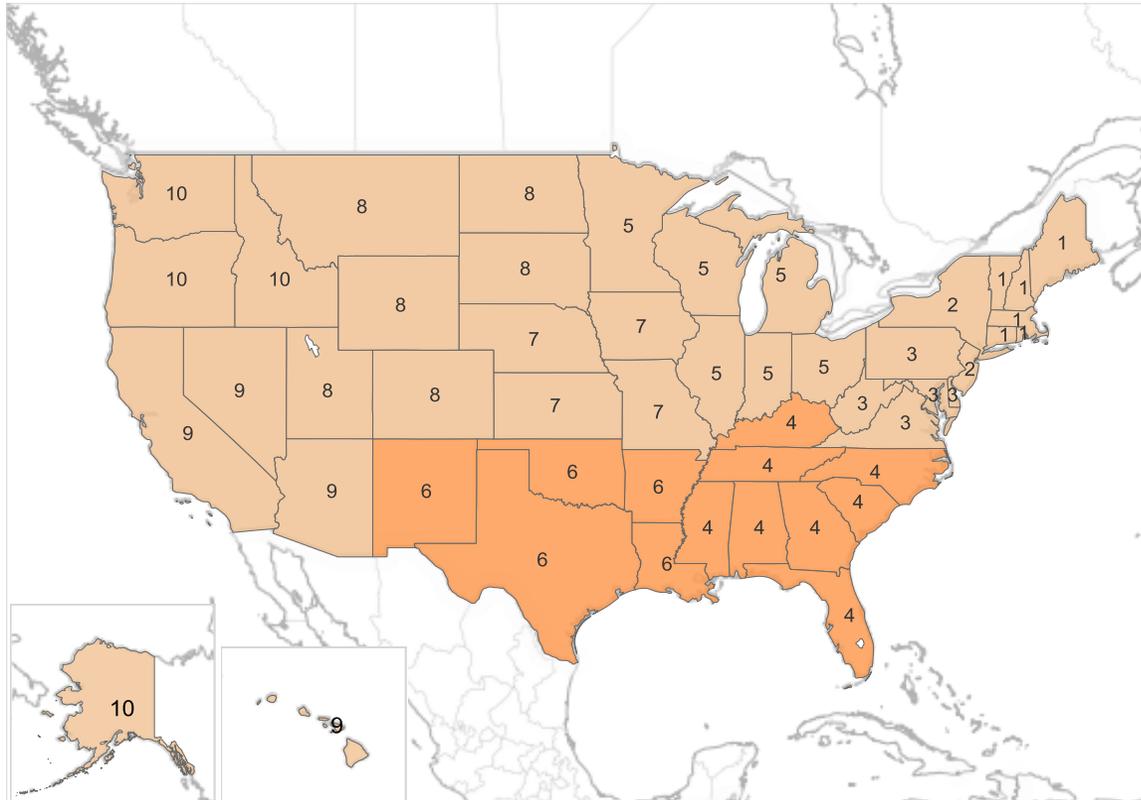
Figure 22

Sex
Male

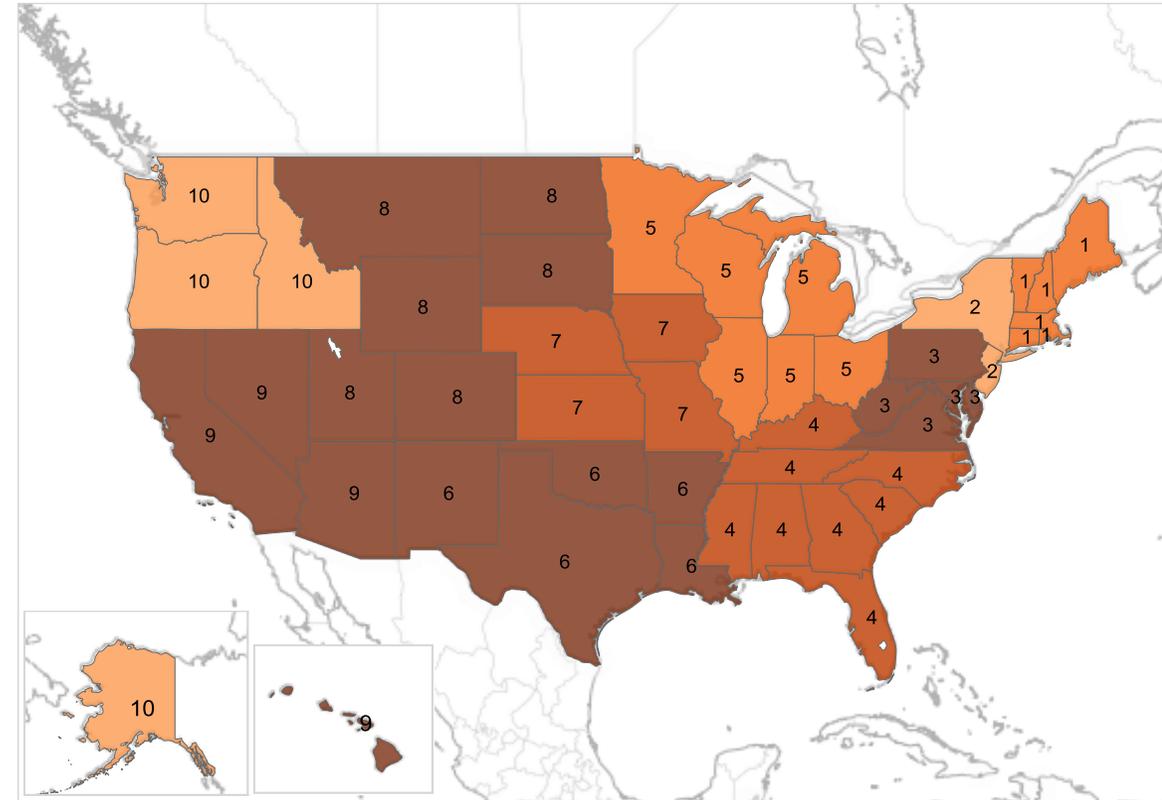
Cause of Death
Unintentional injuries



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

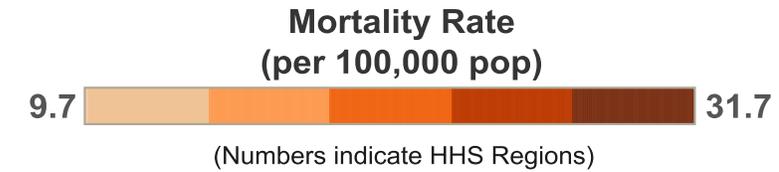
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

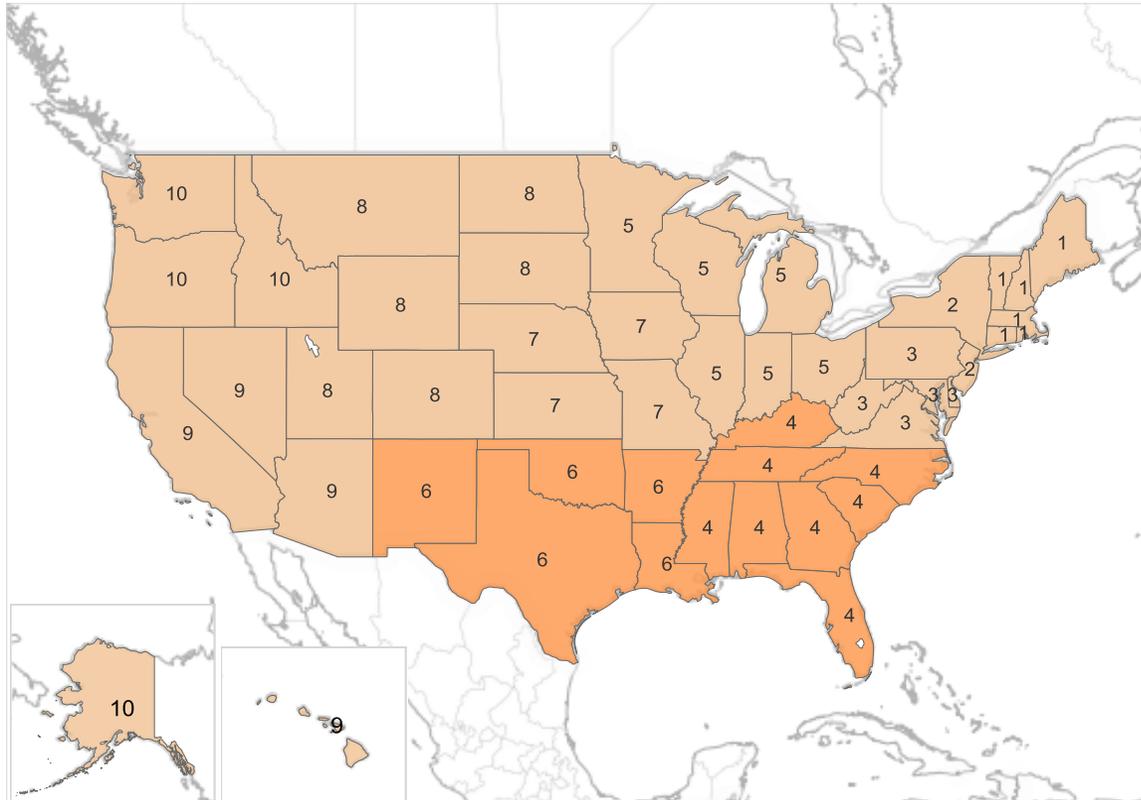
Figure 23

Sex
Female

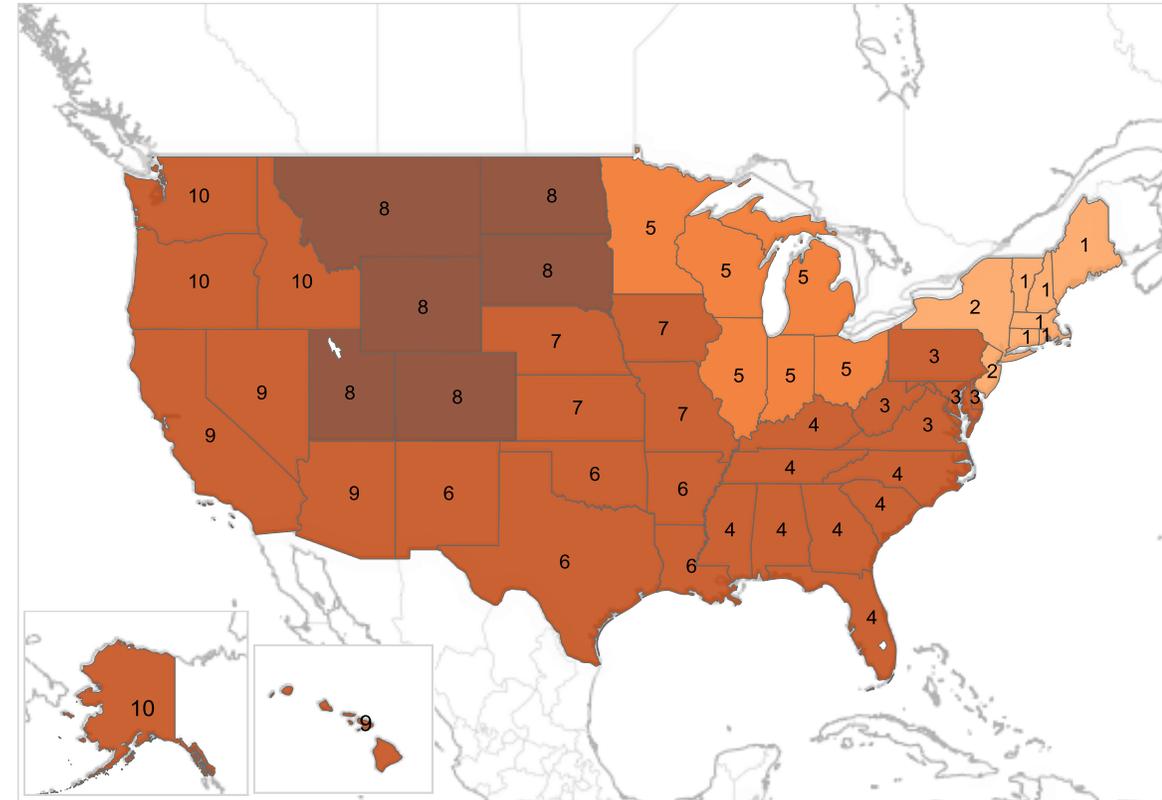
Cause of Death
Unintentional injuries



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

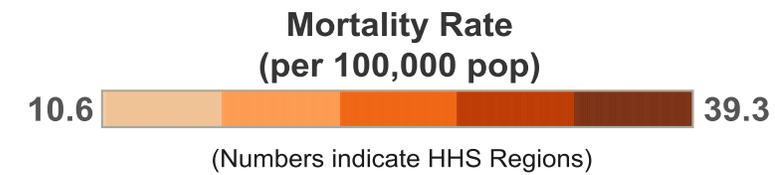
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 24

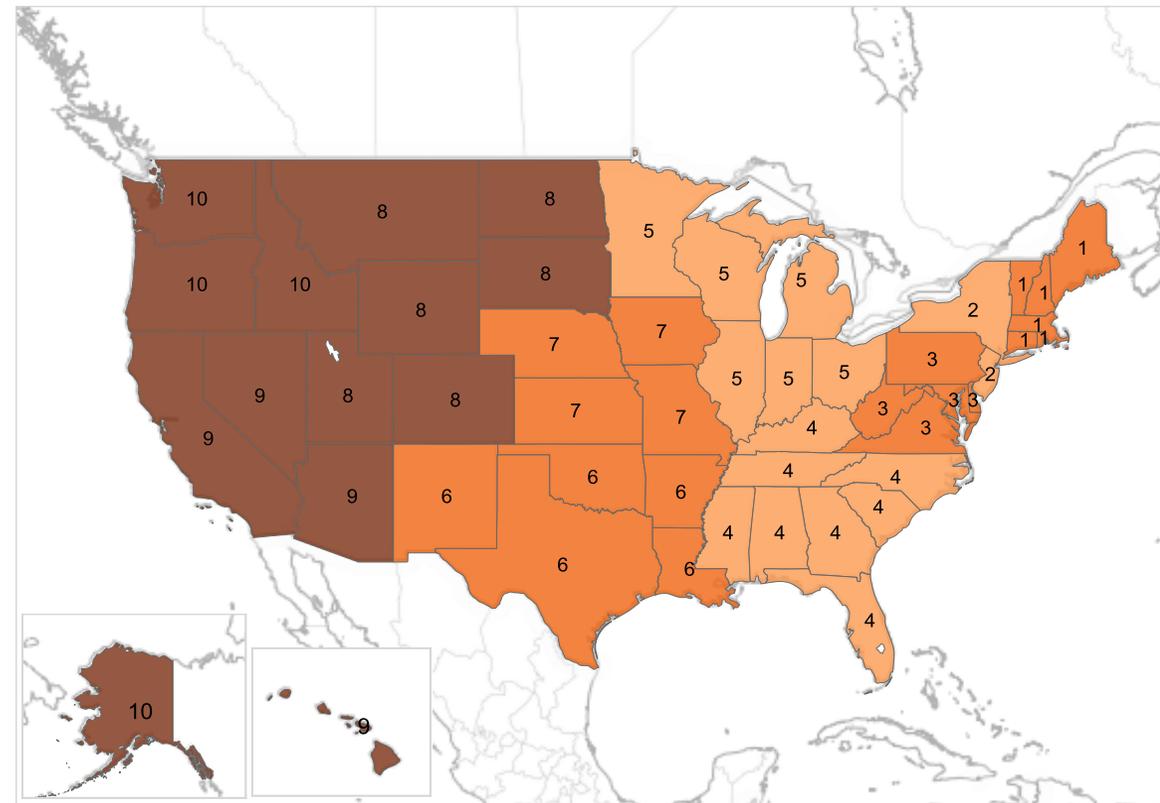
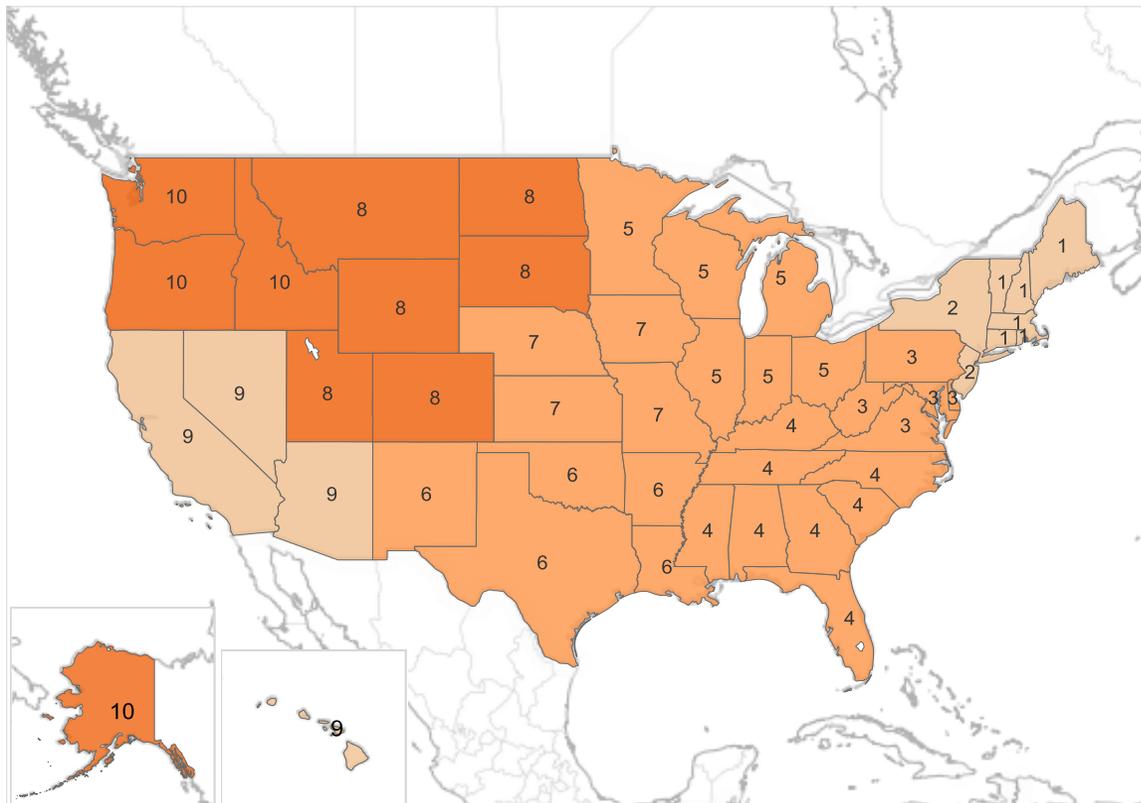
Sex
Male

Cause of Death
Suicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

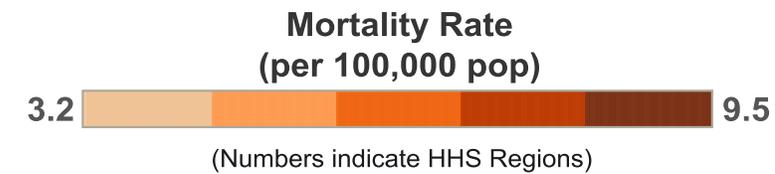
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 25

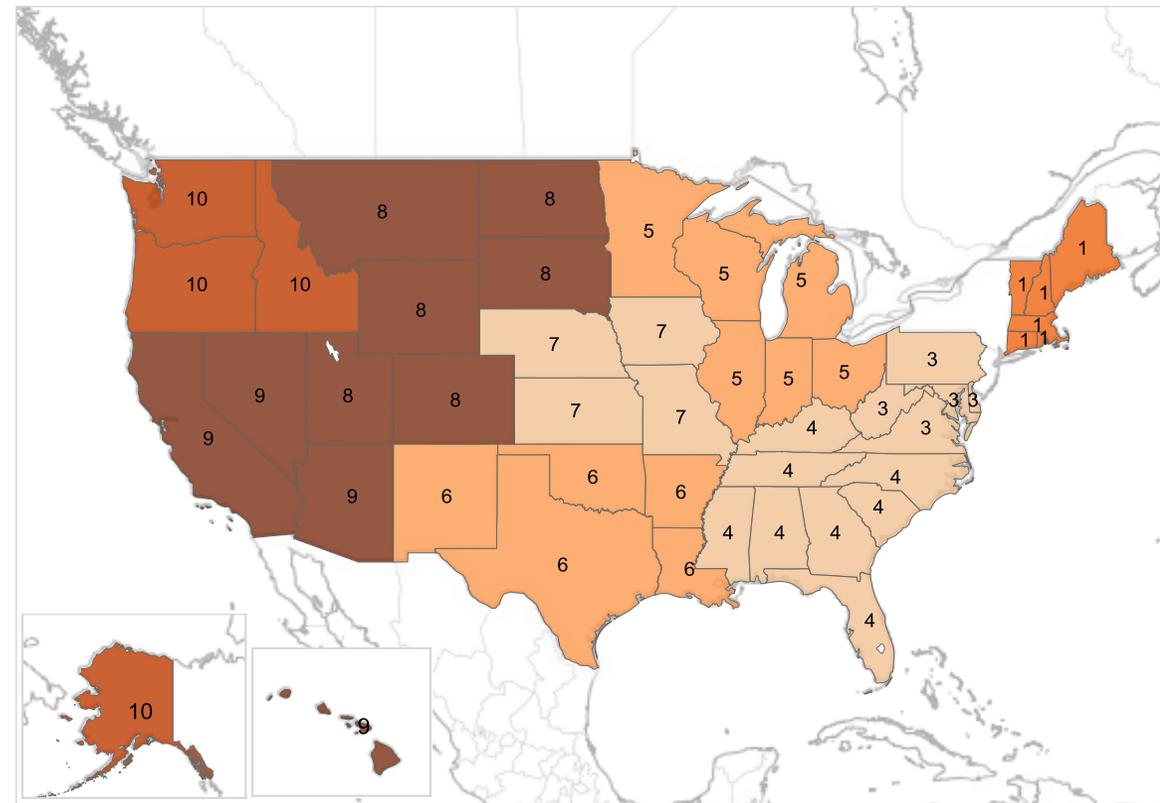
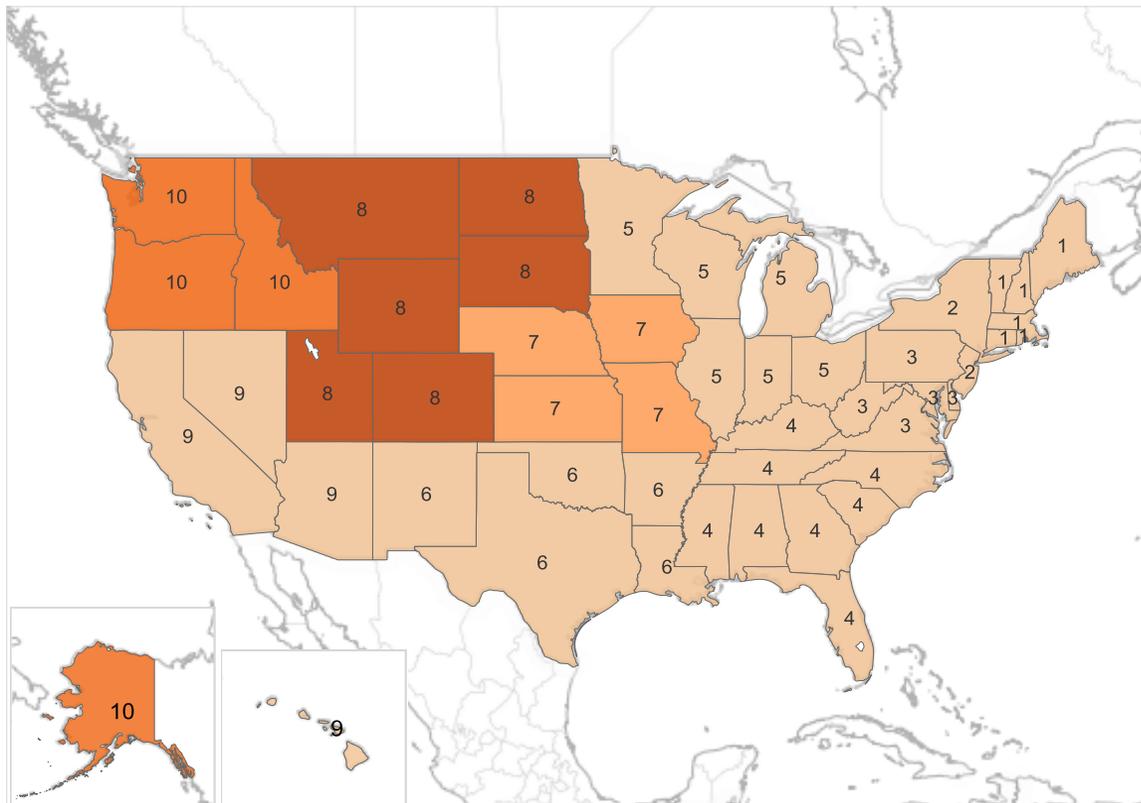
Sex
Female

Cause of Death
Suicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

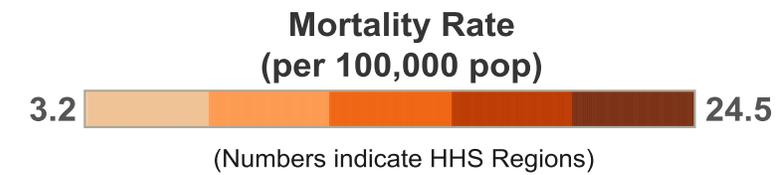
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

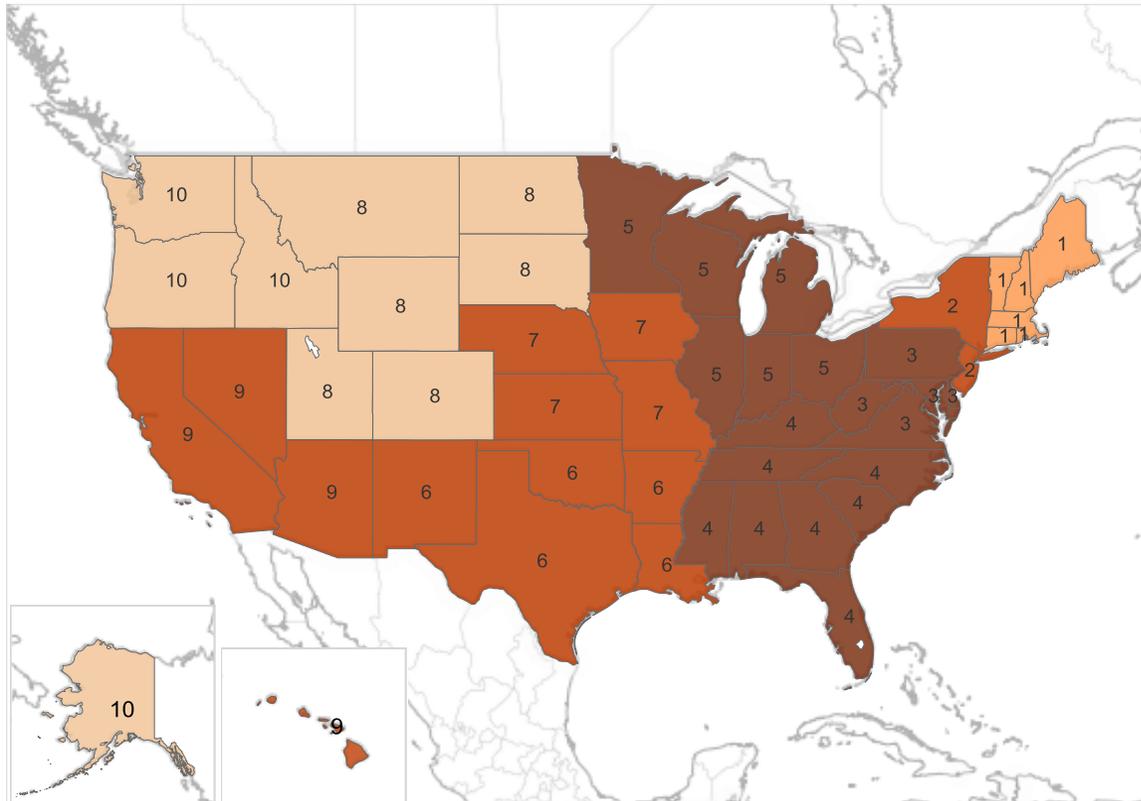
Figure 26

Sex
Male

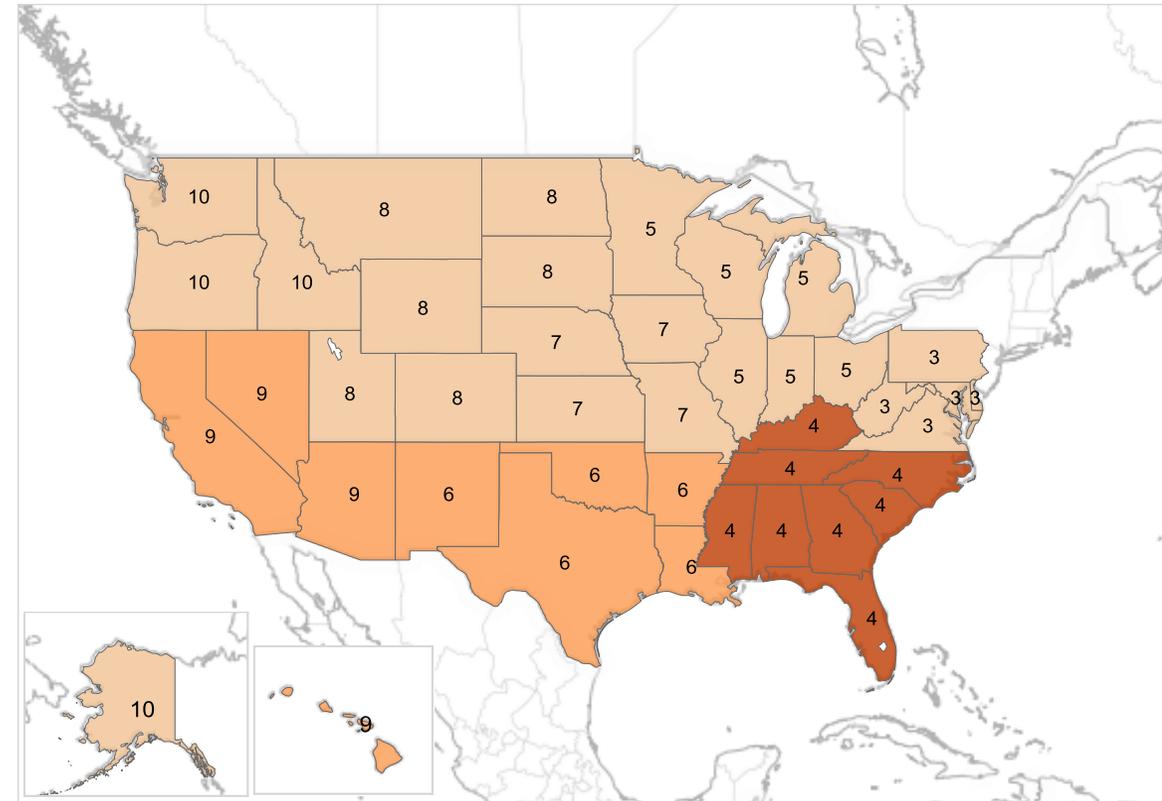
Cause of Death
Homicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

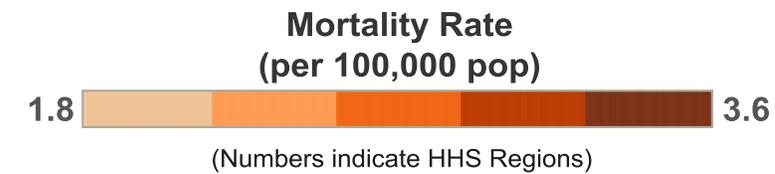
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 27

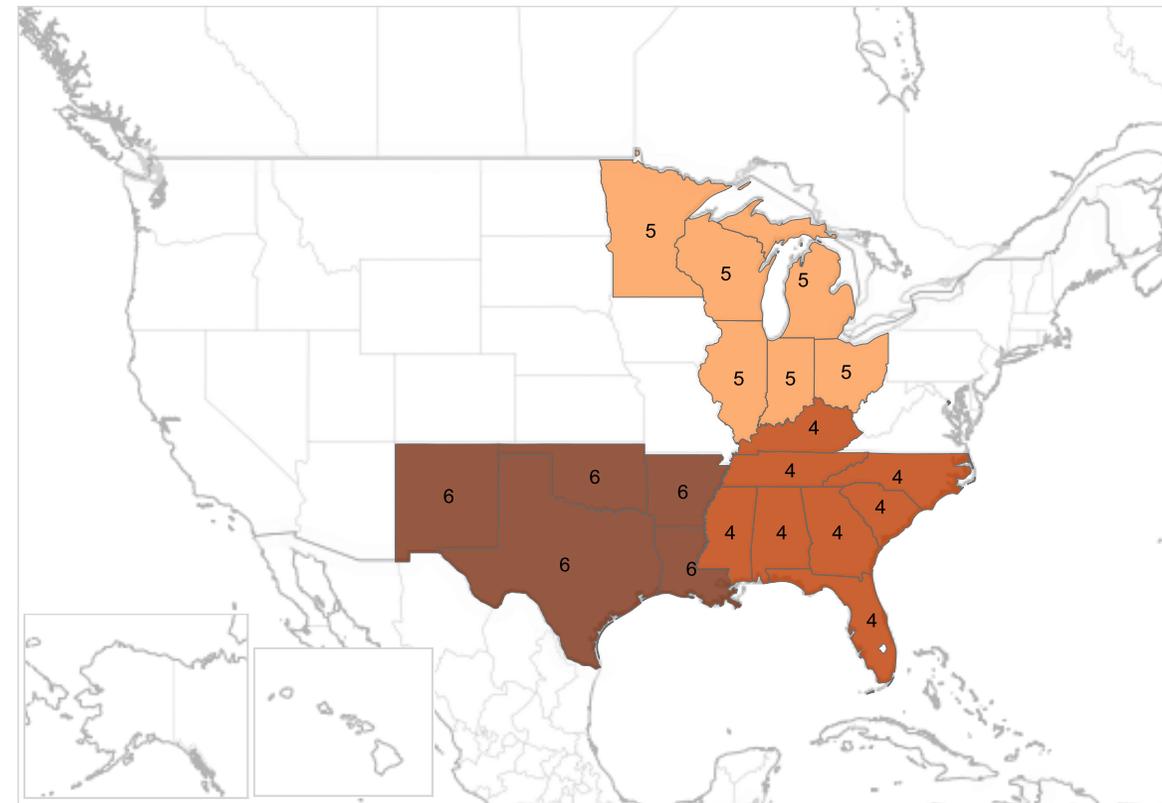
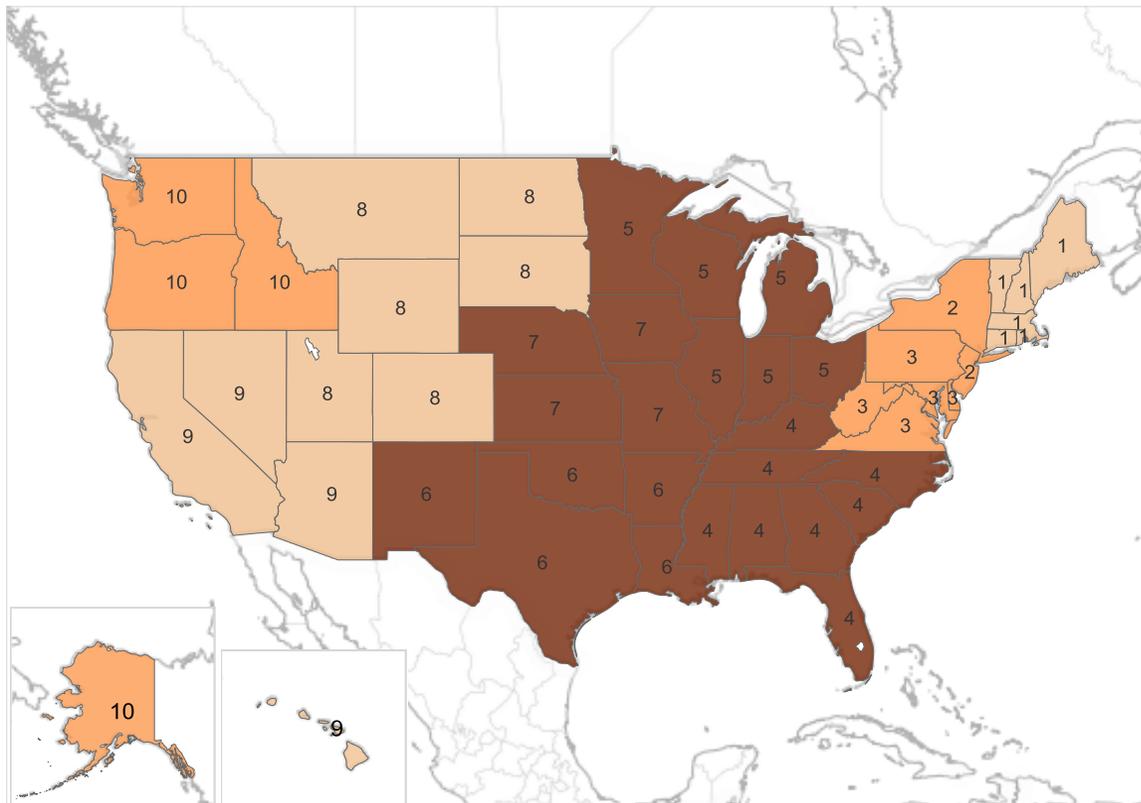
Sex
Female

Cause of Death
Homicide



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

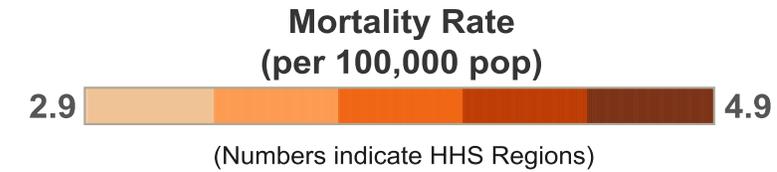
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

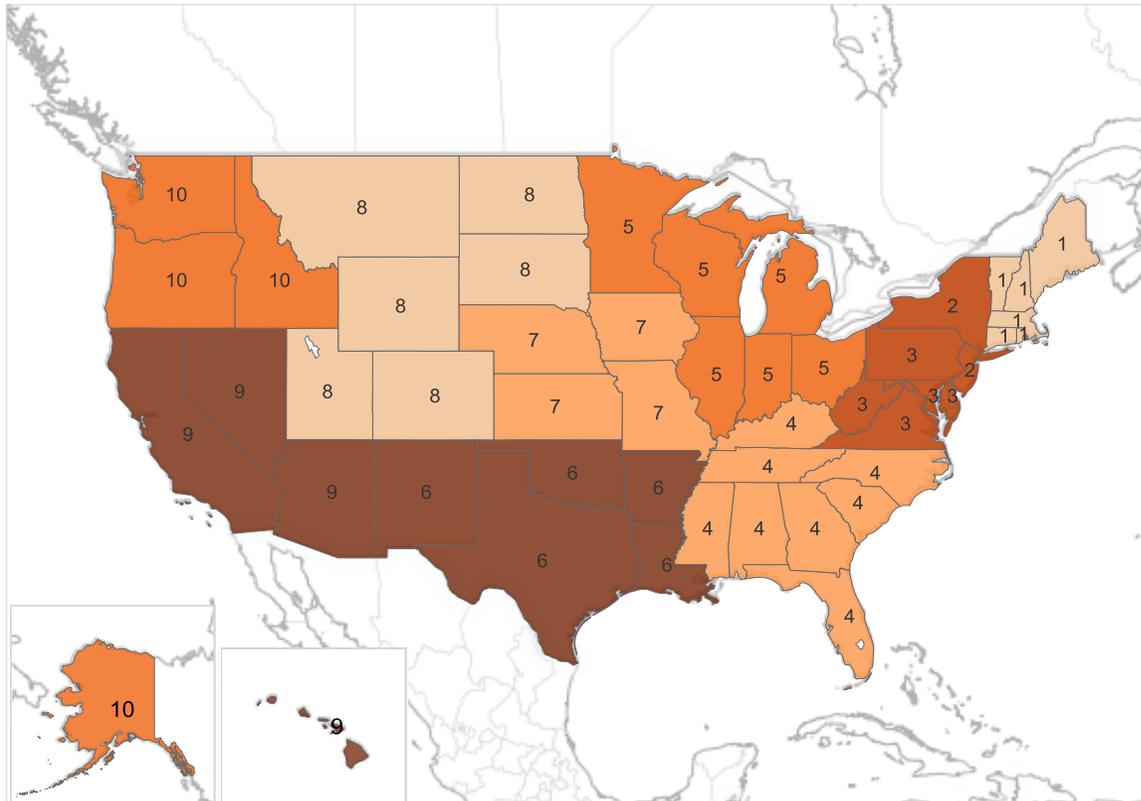
Figure 28

Sex
Male

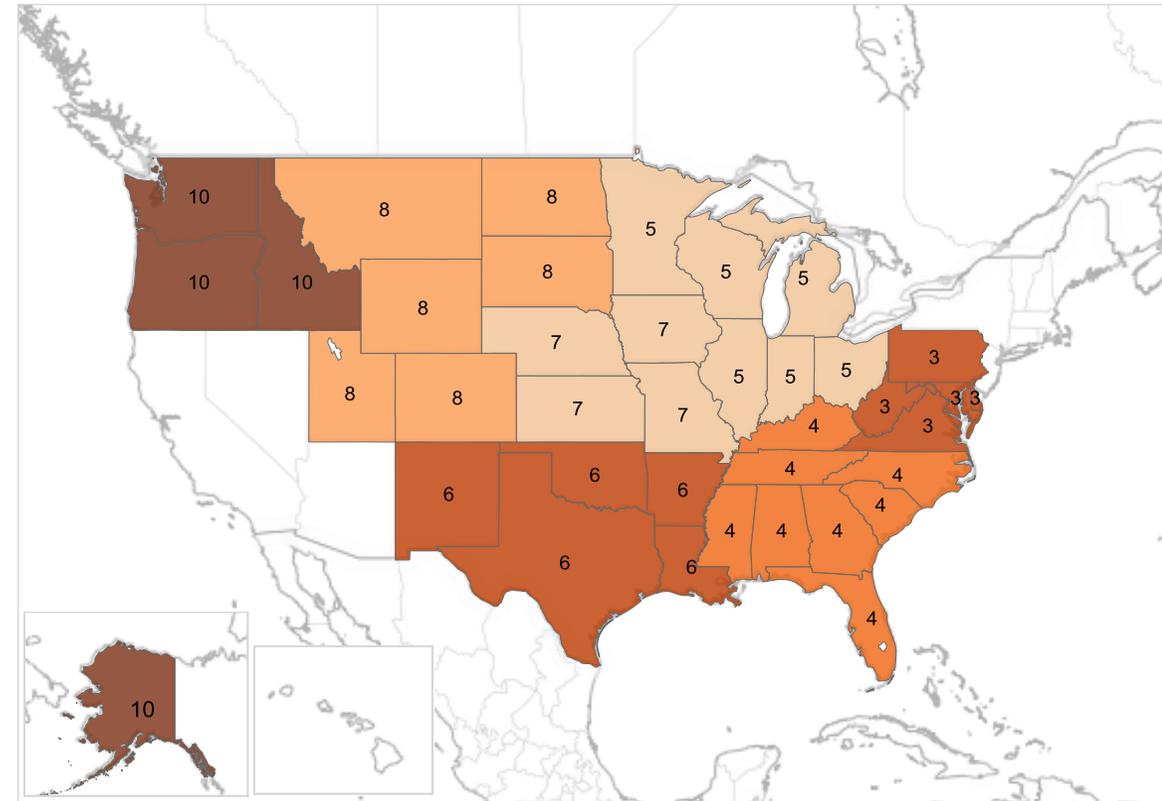
Cause of Death
Malignant neoplasms



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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: 15 to 24; Cause of Death: Malignant neoplasms; Sex: Female

Figure 29

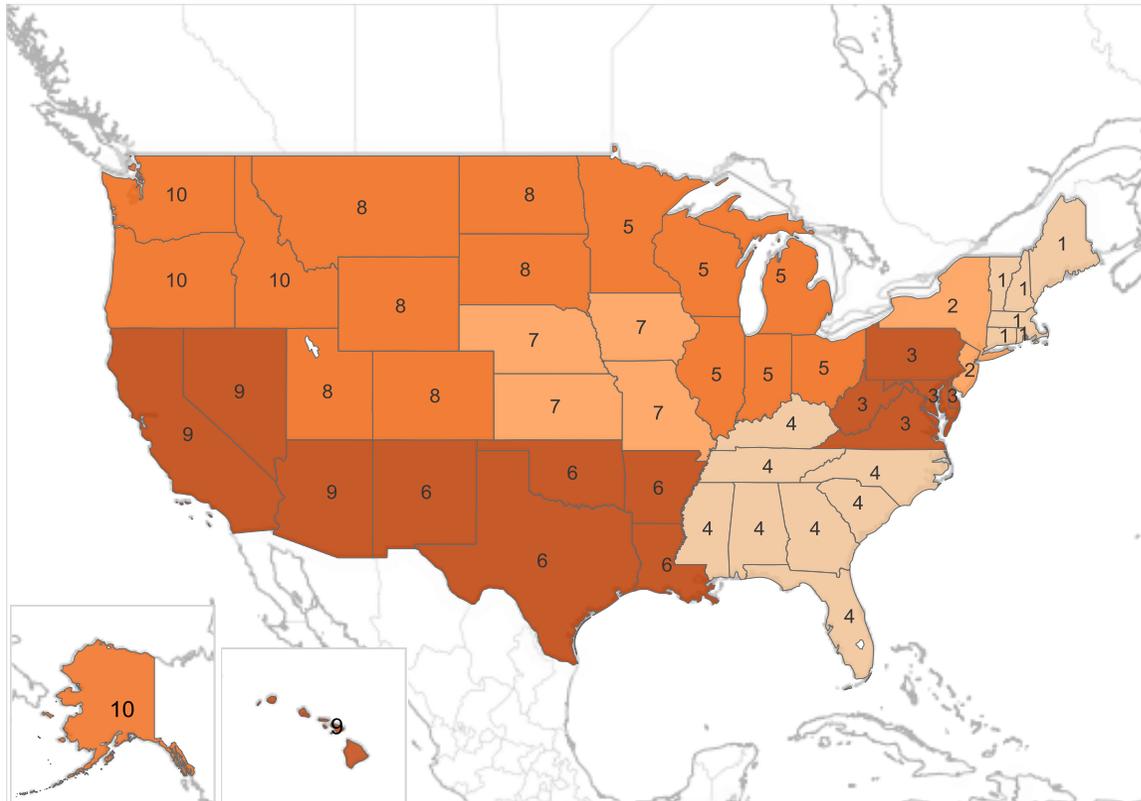
Sex
Female

Cause of Death
Malignant neoplasms

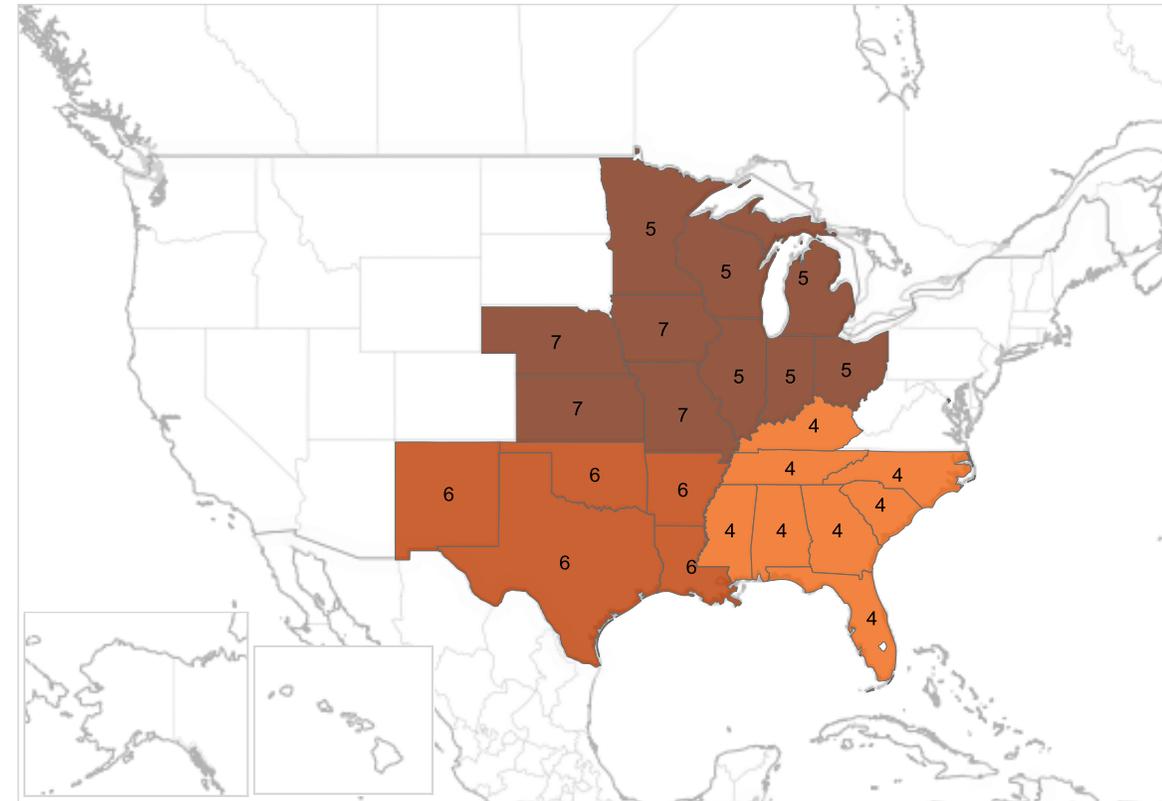
Mortality Rate
(per 100,000 pop)



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

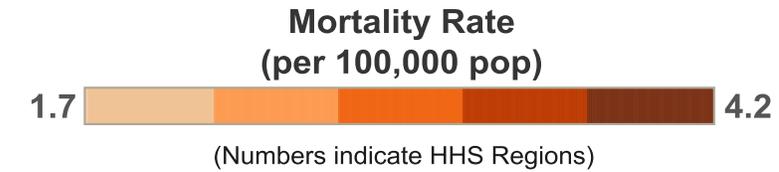
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

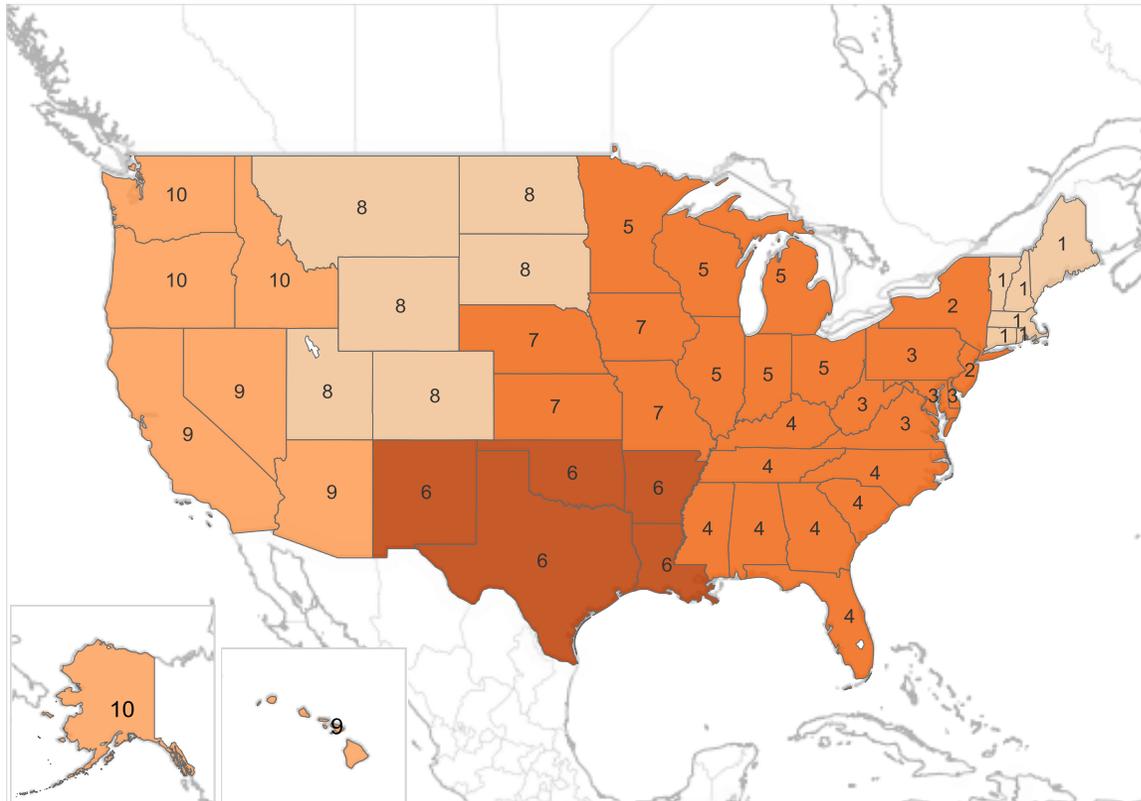
Figure 30

Sex
Male

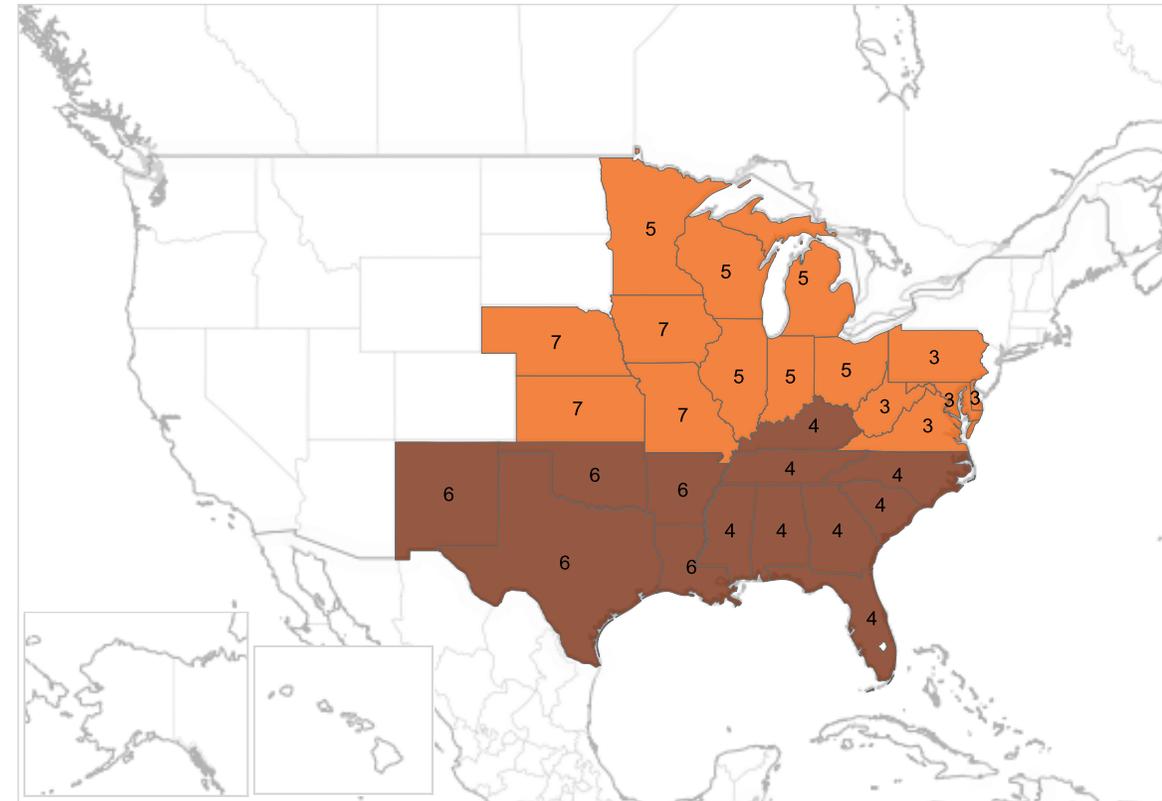
Cause of Death
Heart disease



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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: 15 to 24; Cause of Death: Heart disease; Sex: Female

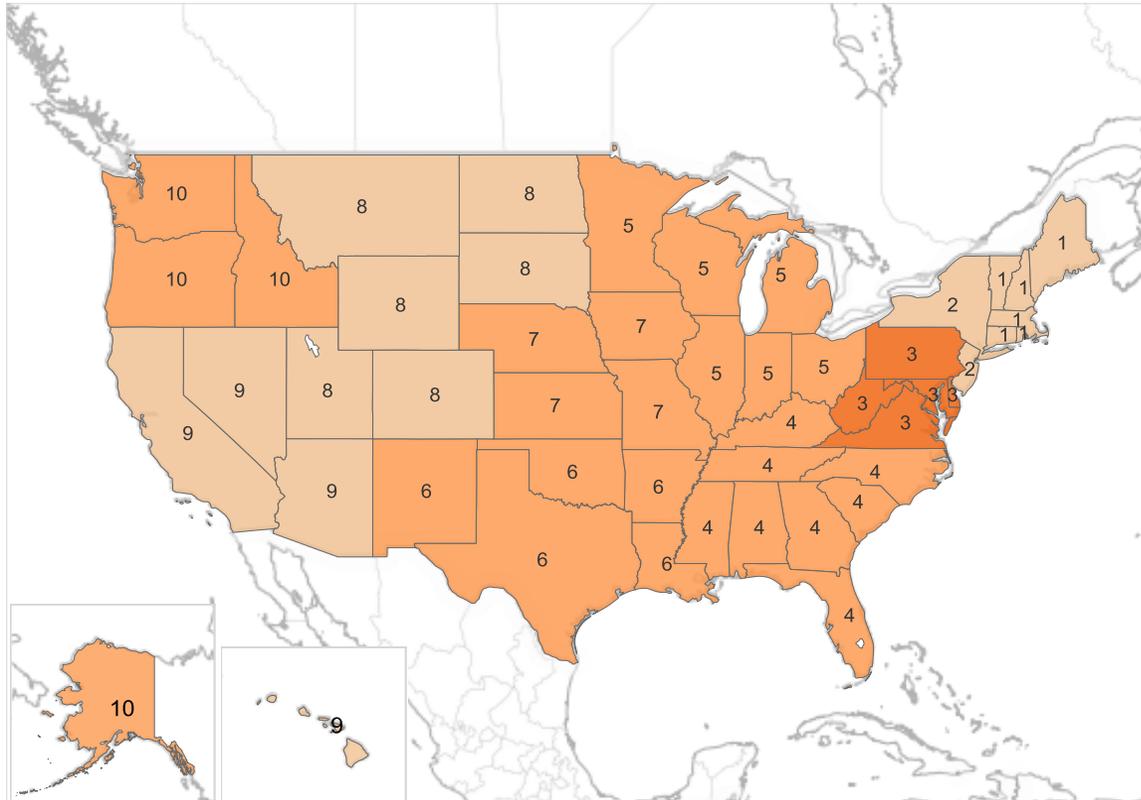
Figure 31

Sex
Female

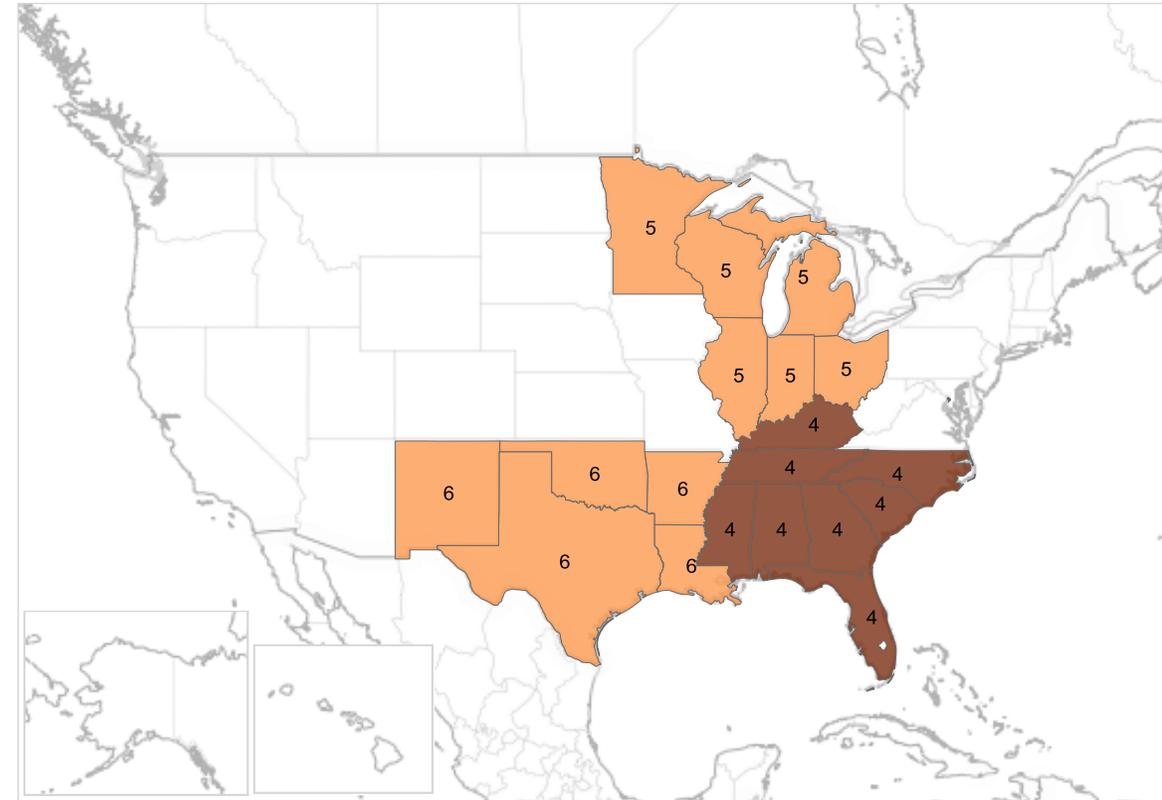
Cause of Death
Heart disease



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

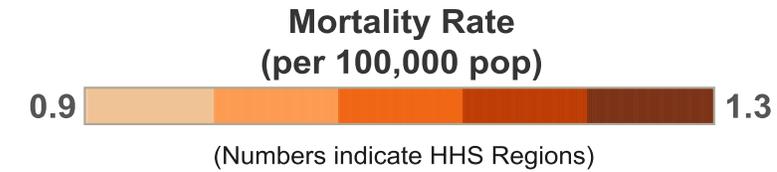
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 32

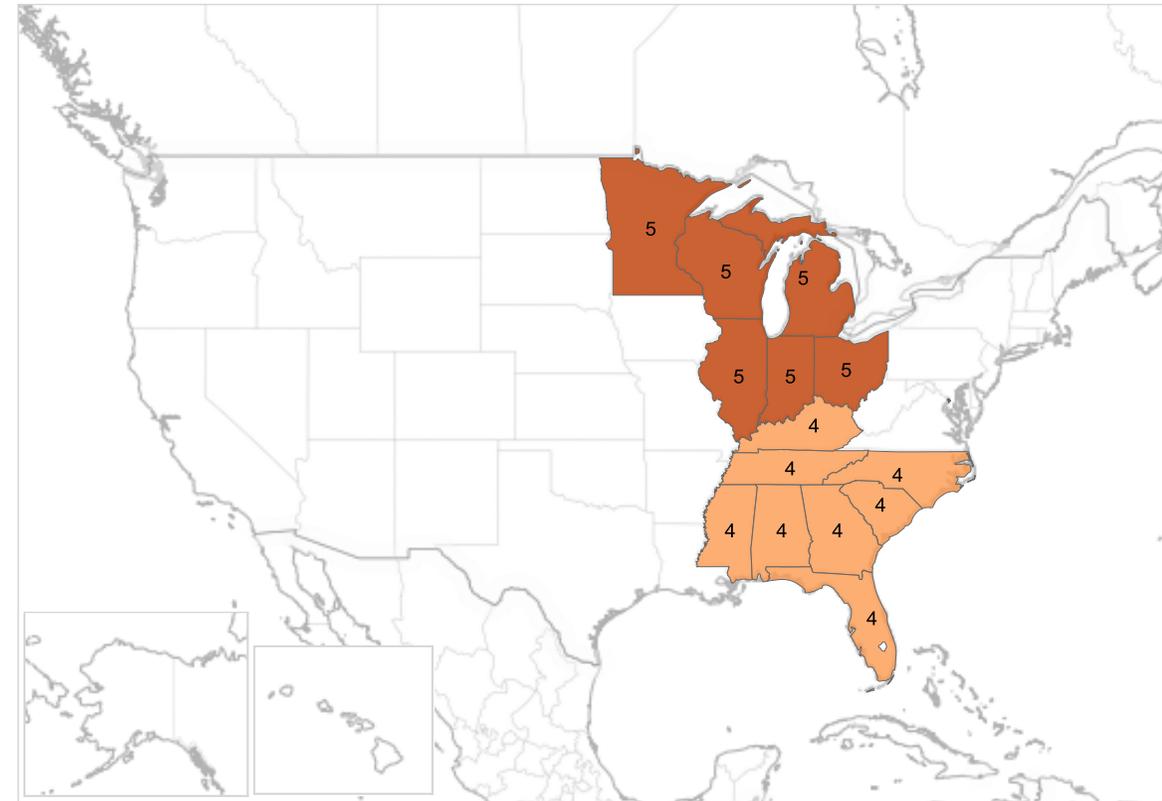
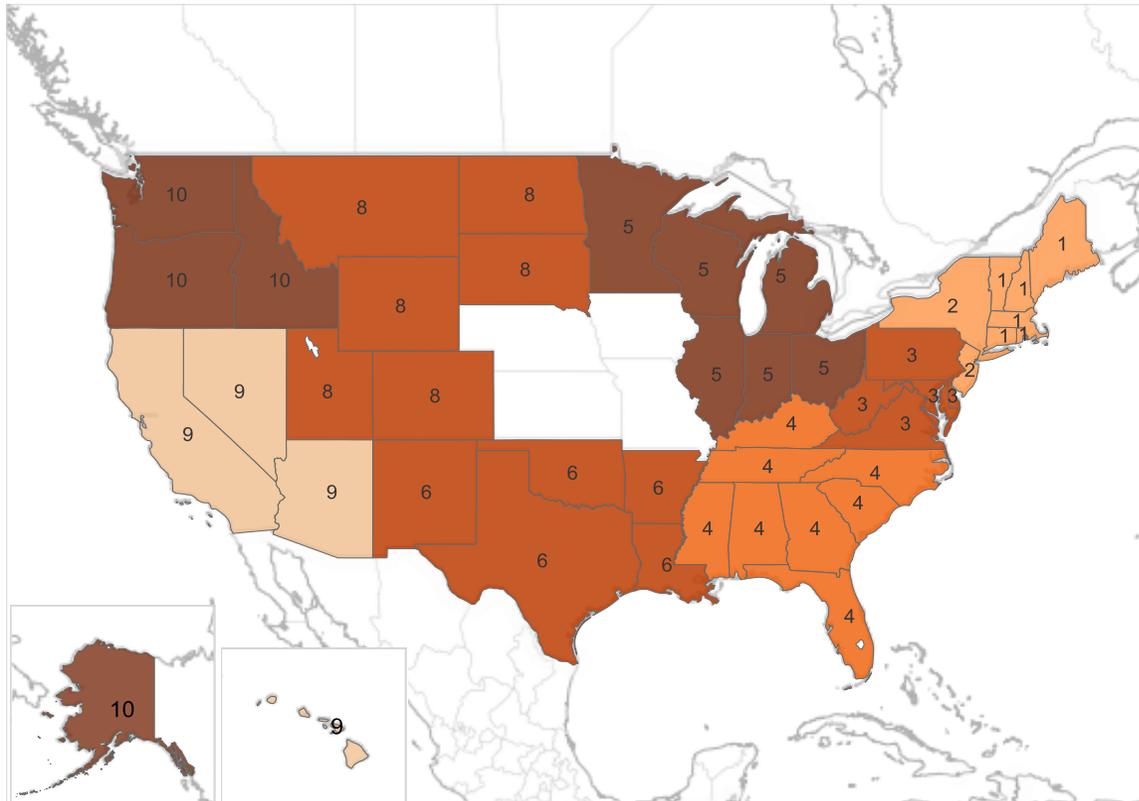
Sex
Male

Cause of Death
Congenital malformations



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

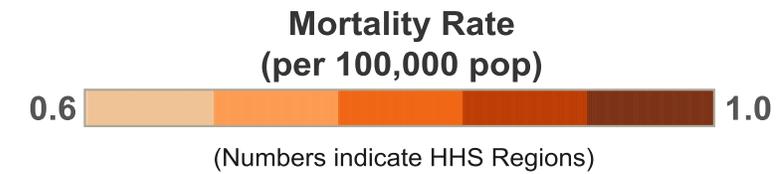
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

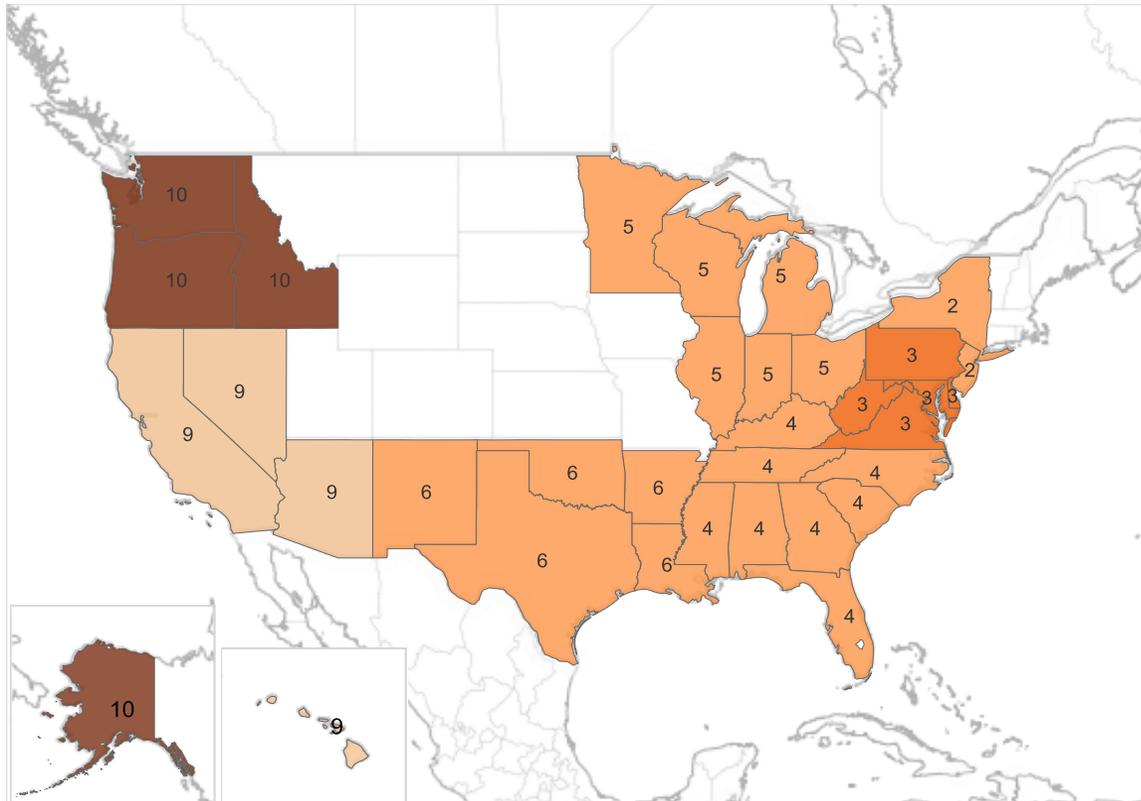
Figure 33

Sex
Female

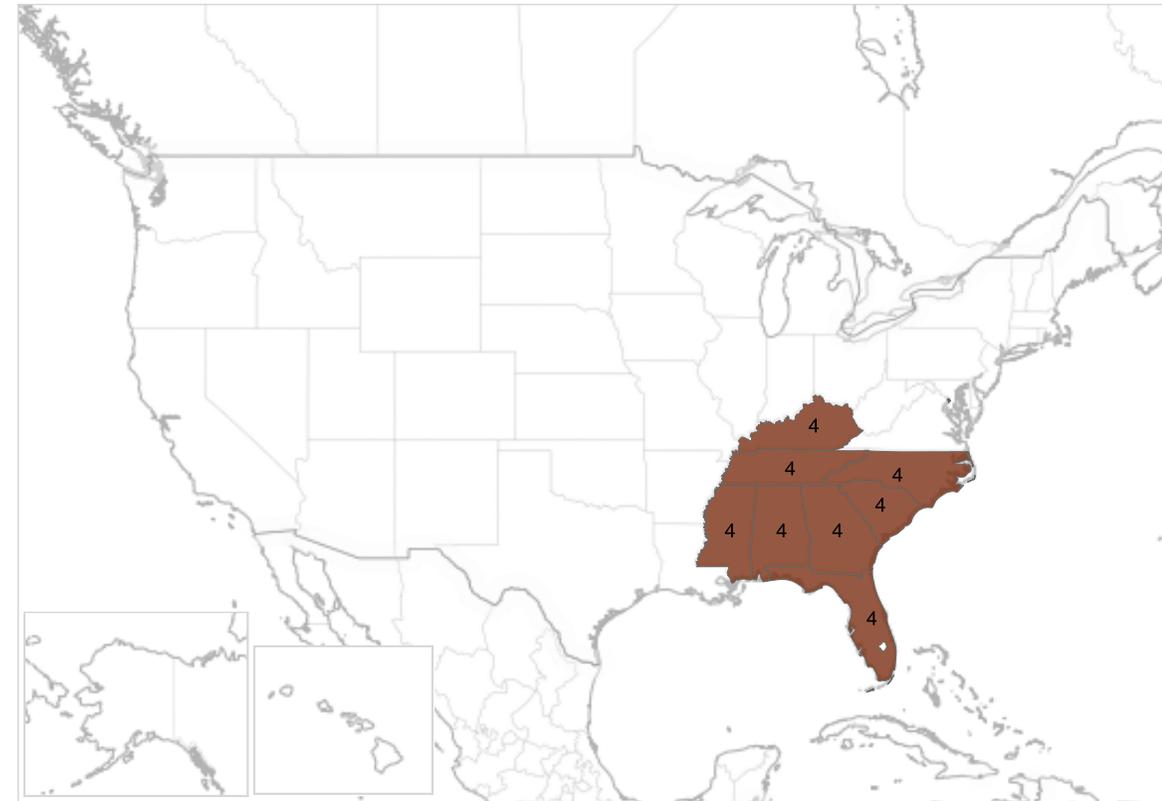
Cause of Death
Congenital malformations



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



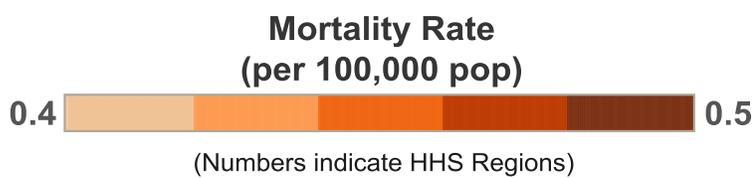
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.

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: 15 to 24; Cause of Death: Diabetes; Sex: Male

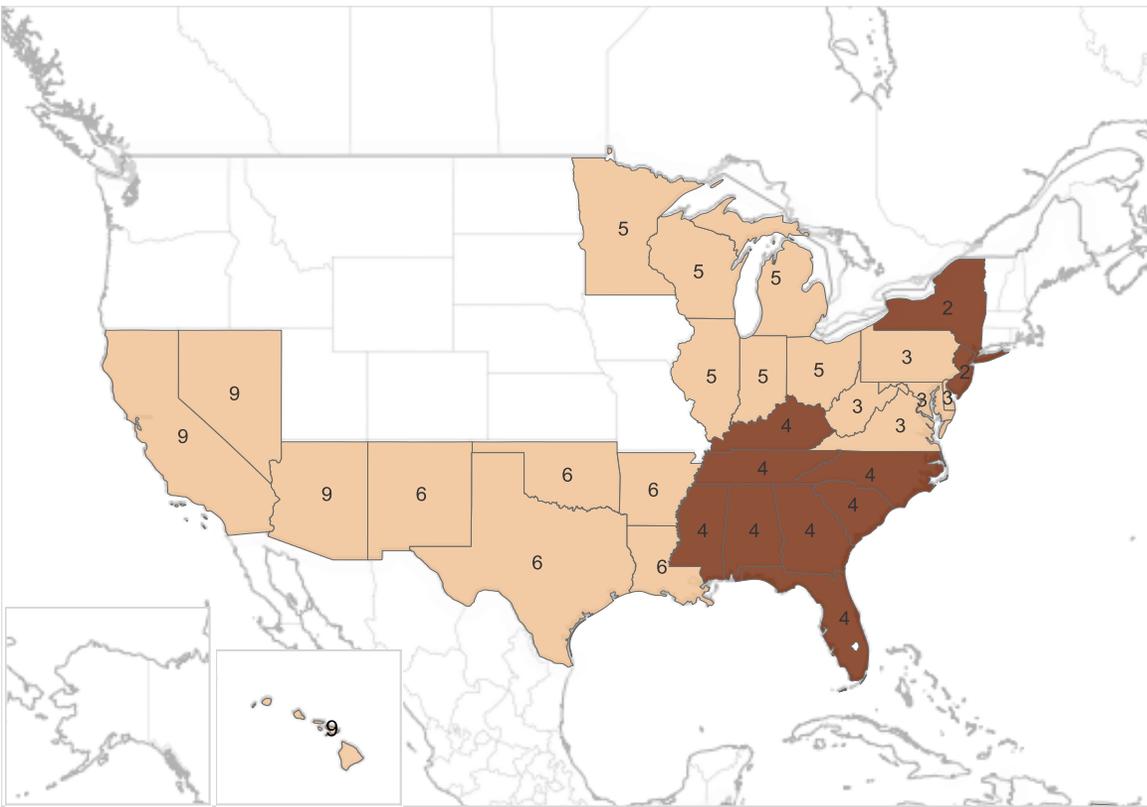
Sex
Male

Cause of Death
Diabetes



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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: 15 to 24; Cause of Death: Diabetes; Sex: Female

Sex
Female

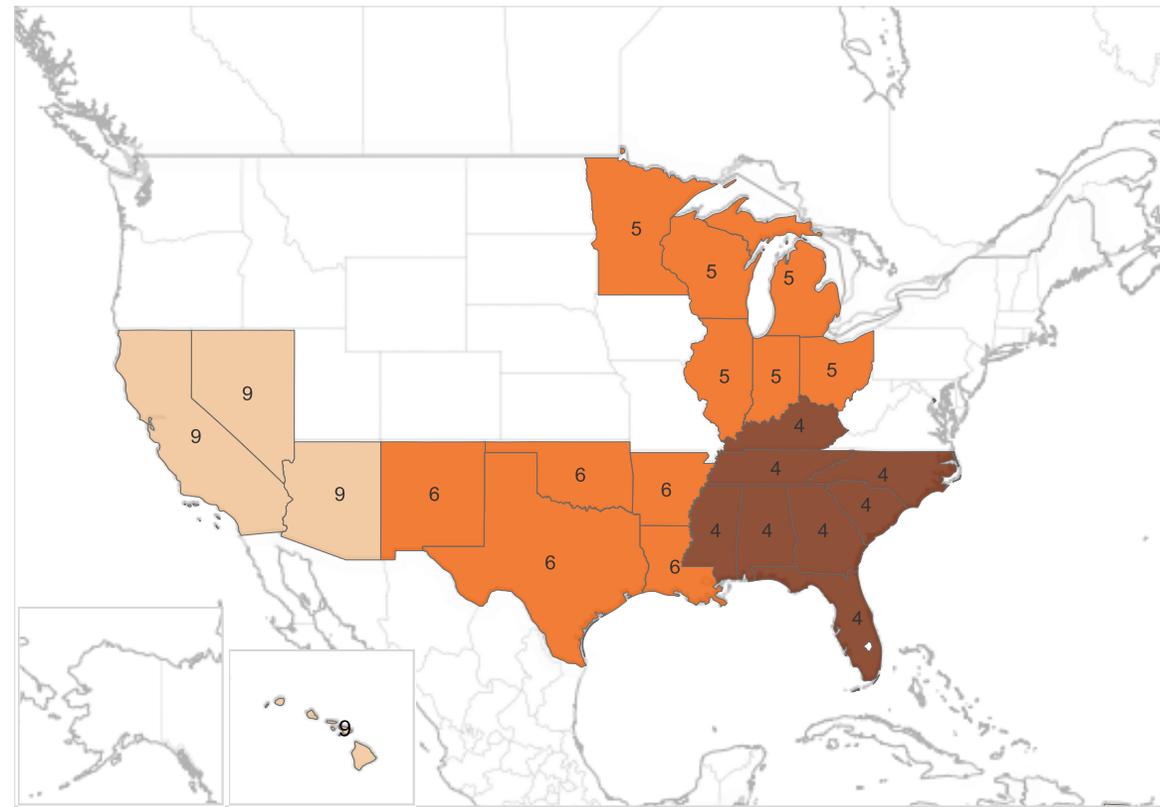
Cause of Death
Diabetes

Mortality Rate
(per 100,000 pop)



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



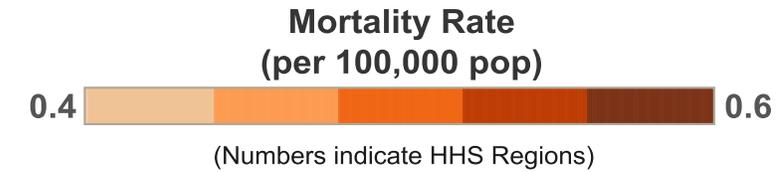
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 36

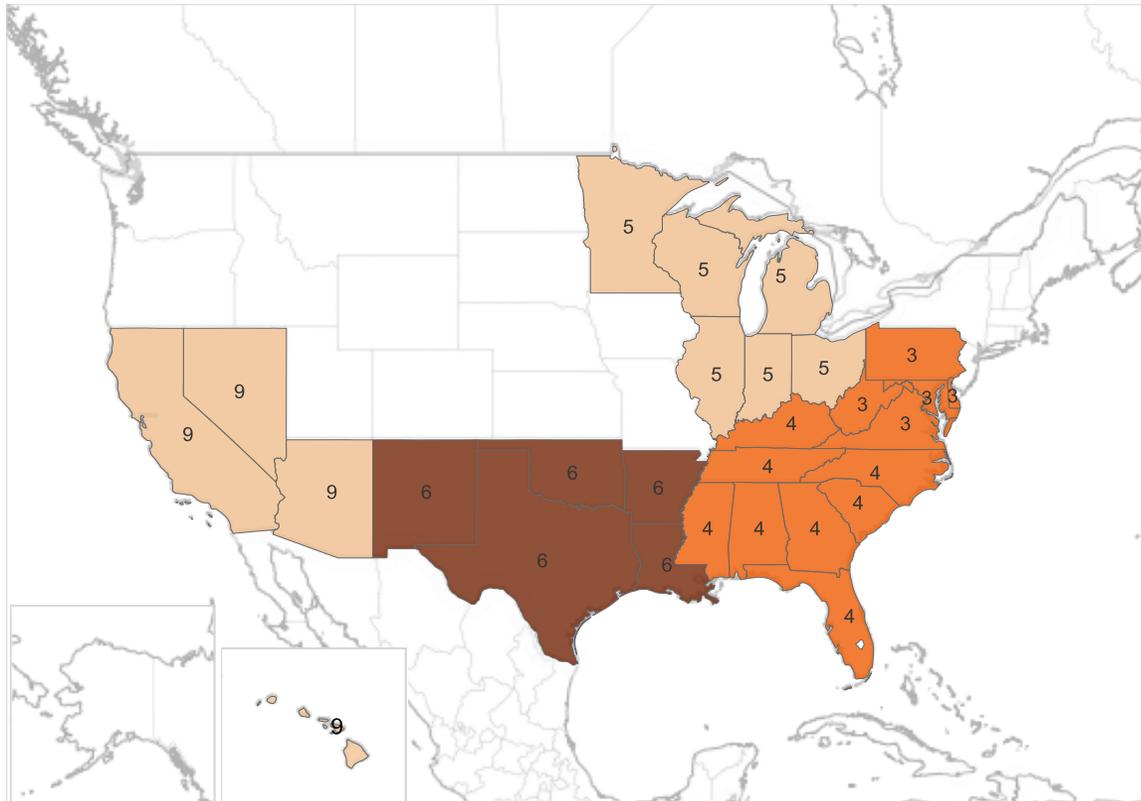
Sex
Male

Cause of Death
Cerebrovascular diseases



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

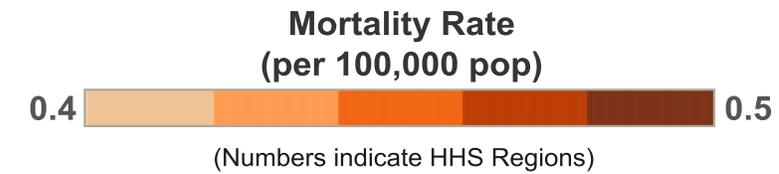
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 37

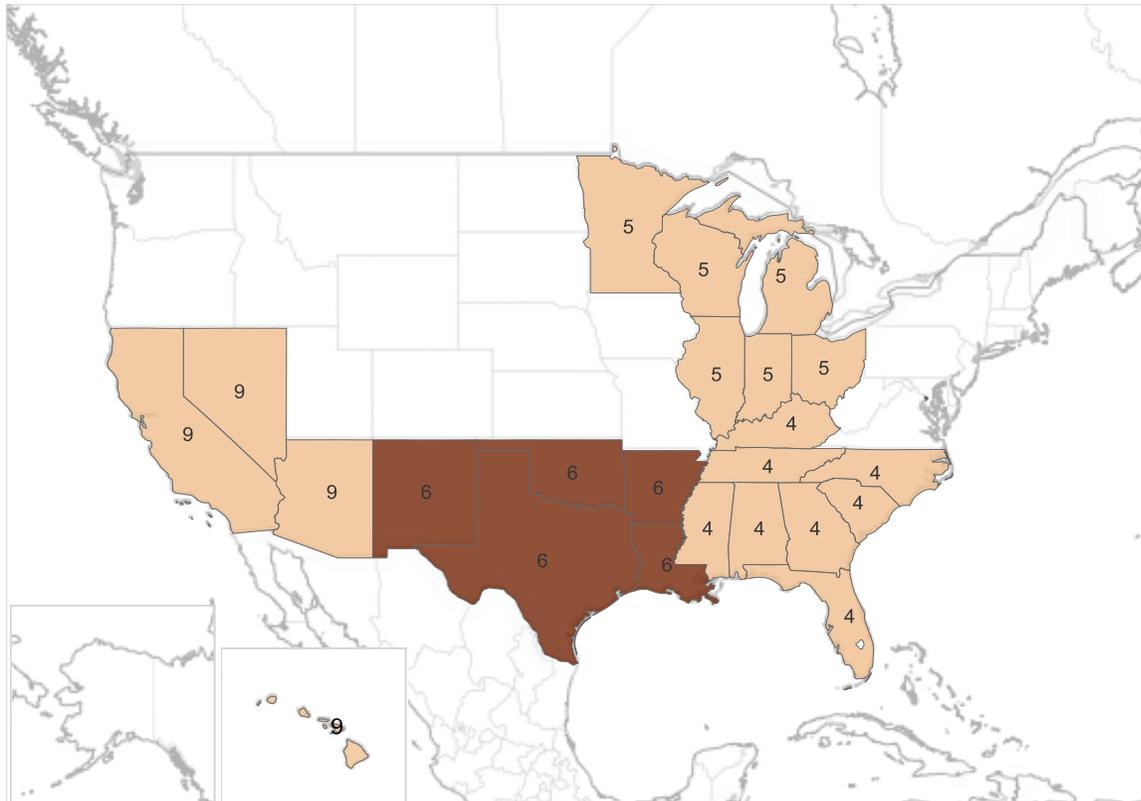
Sex
Female

Cause of Death
Cerebrovascular diseases



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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

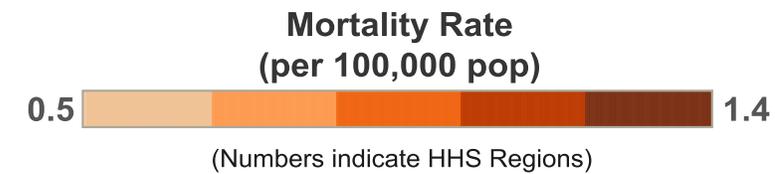
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 38

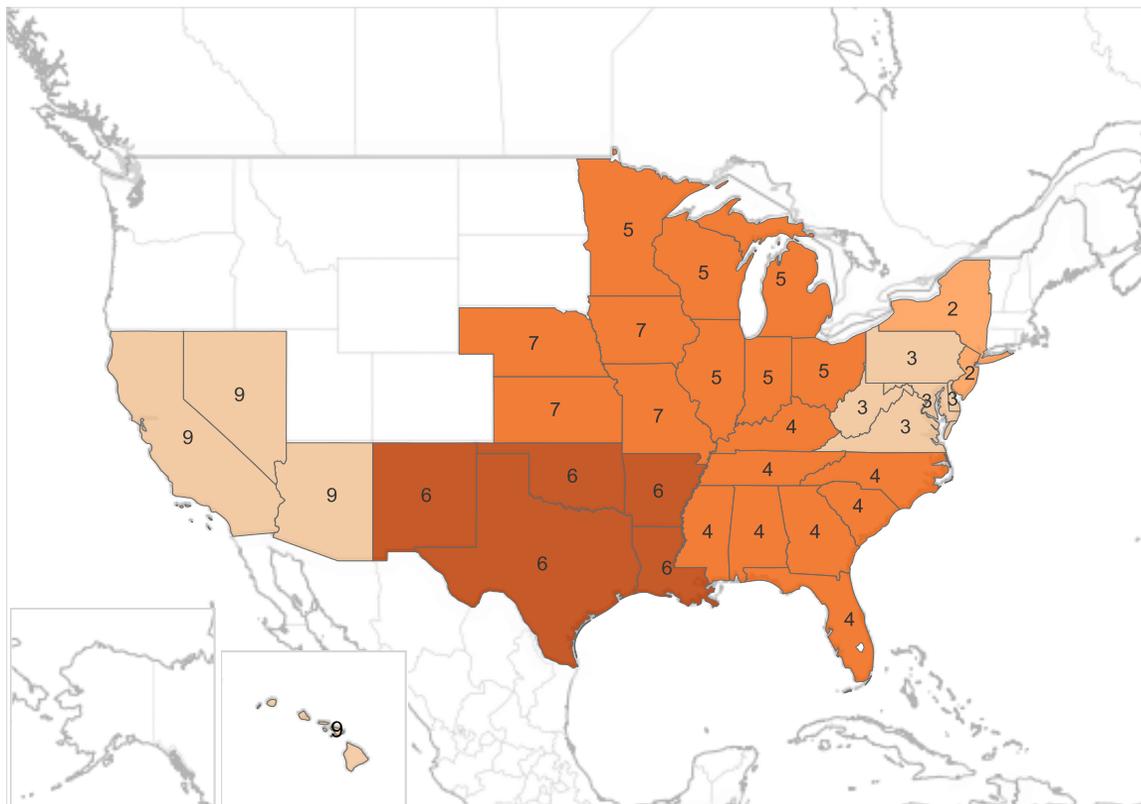
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Pregnancy or childbirth; Sex: Female

Sex
Female

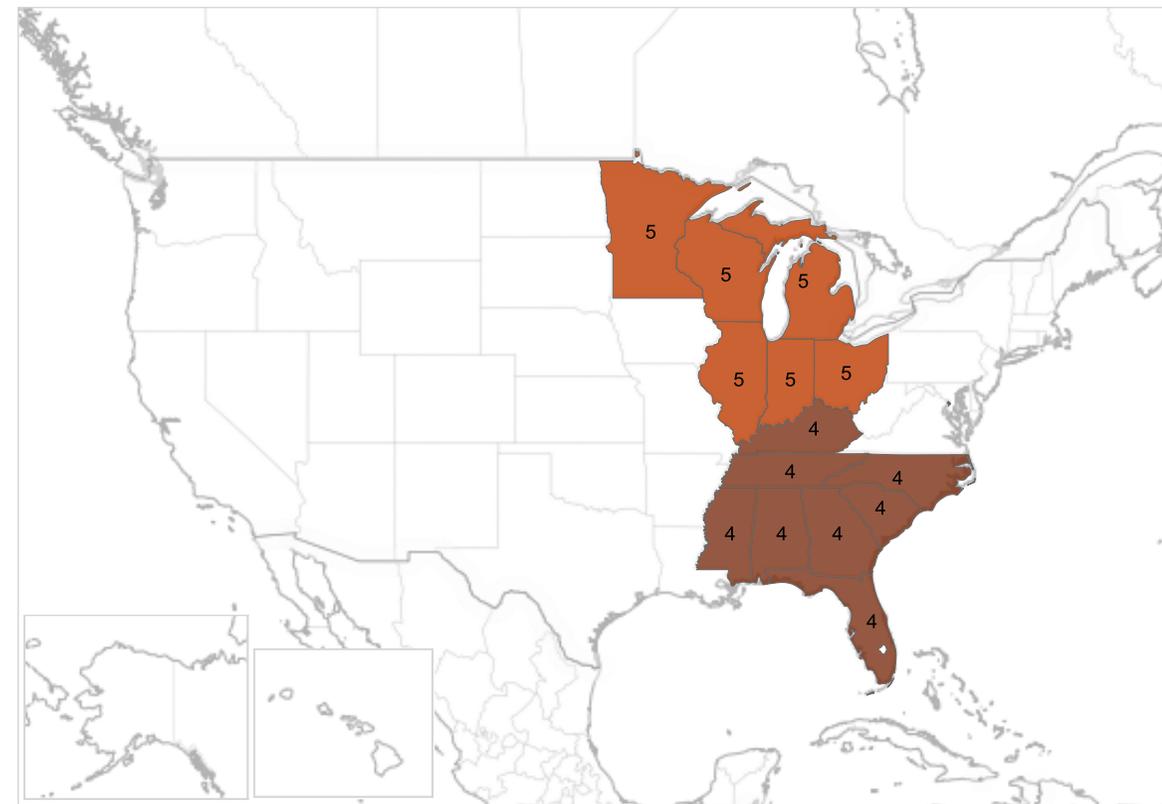
Cause of Death
Pregnancy or childbirth



URBAN (Large Fringe, Large Central, Small/Medium Metro)



RURAL (Micropolitan, Non-Core)



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

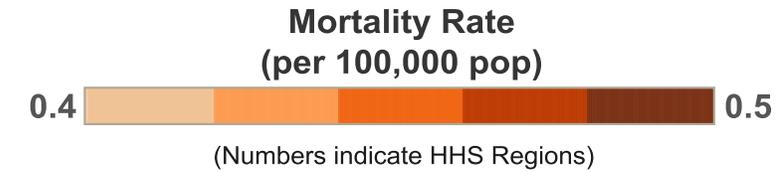
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 39

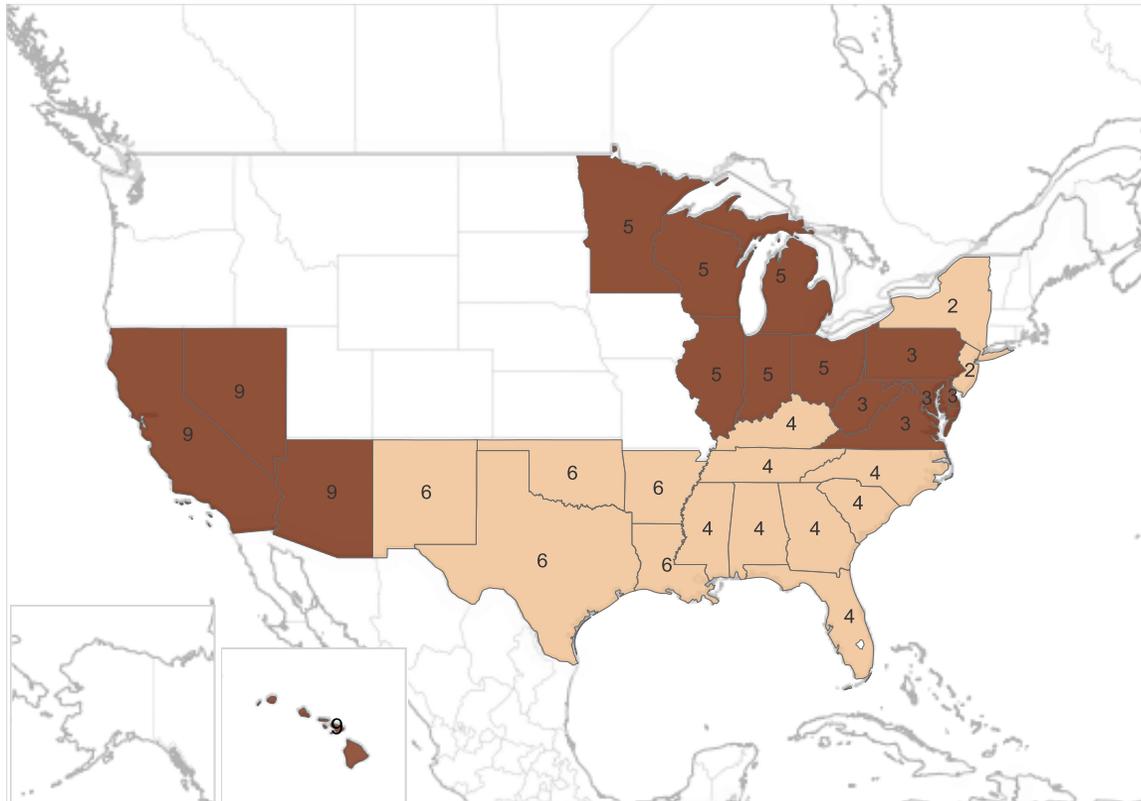
Sex
Male

Cause of Death
Flu & pneumonia



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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: 15 to 24; Cause of Death: Flu & pneumonia; Sex: Female

Figure 40

Sex
Female

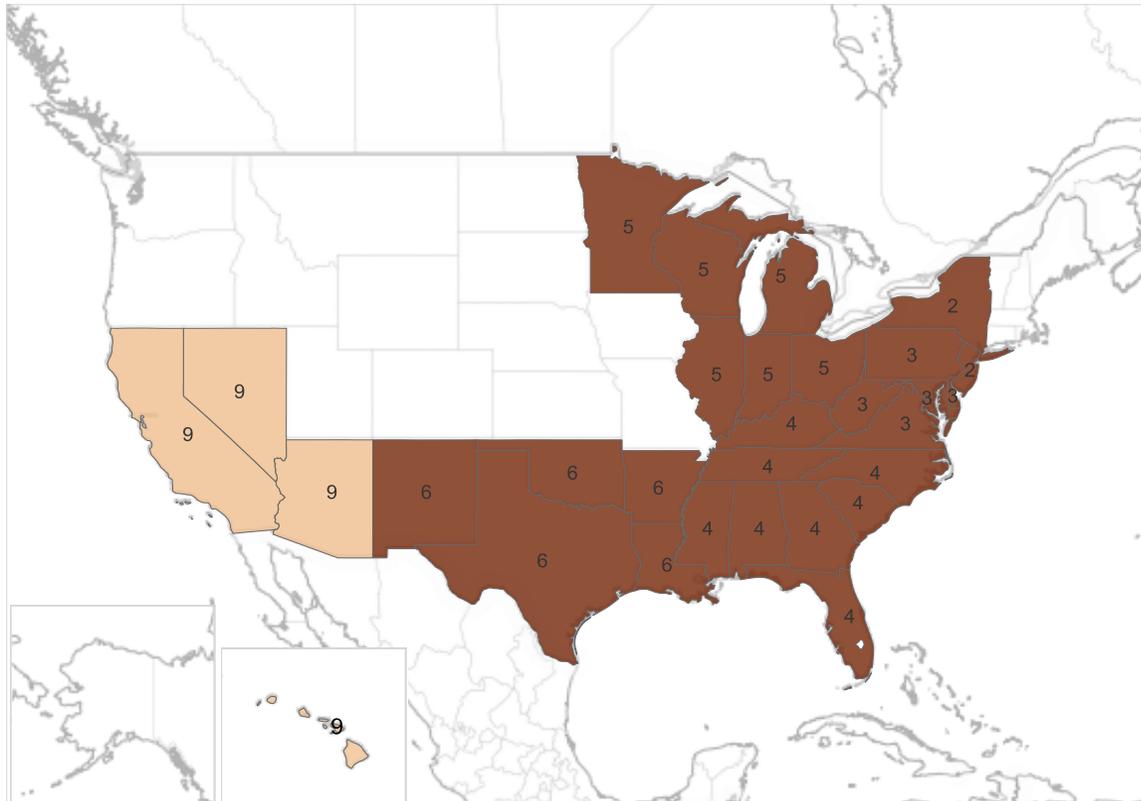
Cause of Death
Flu & pneumonia

Mortality Rate
(per 100,000 pop)



URBAN (Large Fringe, Large Central, Small/Medium Metro)

RURAL (Micropolitan, Non-Core)



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.

Working-Age Adults

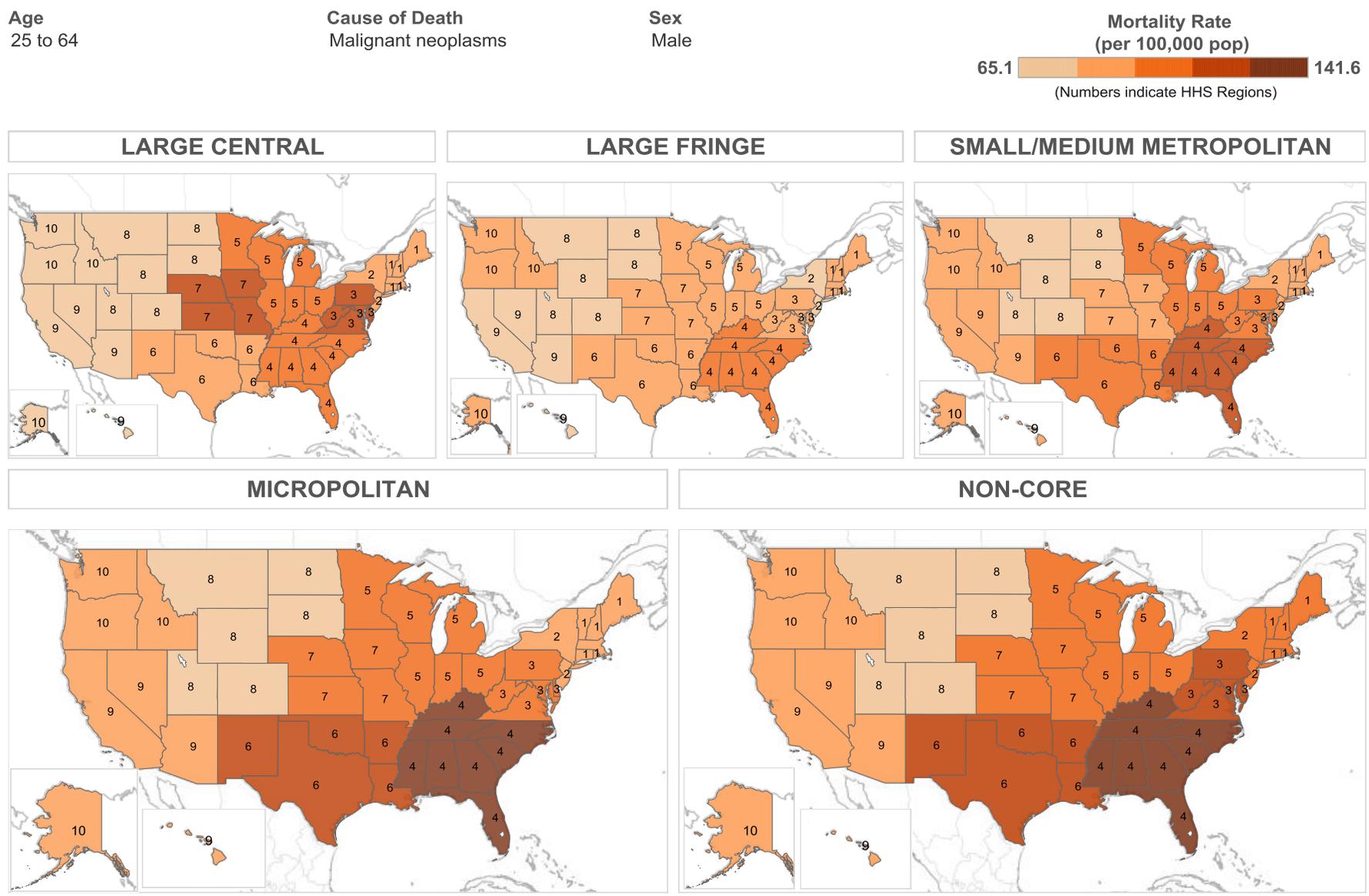
Age 25 to 64 Years Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013

Cause of Death:

- [Figure 41: Malignant neoplasms, Male](#)
- [Figure 42: Malignant neoplasms, Female](#)
- [Figure 43: Heart disease, Males](#)
- [Figure 44: Heart disease, Females](#)
- [Figure 45: Unintentional injuries, Males](#)
- [Figure 46: Unintentional injuries, Females](#)
- [Figure 47: Suicide, Male](#)
- [Figure 48: Suicide, Female](#)
- [Figure 49: Liver disease, Male](#)
- [Figure 50: Liver disease, Female](#)
- [Figure 51: Diabetes, Male](#)
- [Figure 52: Diabetes, Female](#)
- [Figure 53: Lower respiratory, Male](#)
- [Figure 54: Lower respiratory, Female](#)
- [Figure 55: Cerebrovascular diseases, Male](#)
- [Figure 56: Cerebrovascular diseases, Female](#)
- [Figure 57: Homicide, Male](#)
- [Figure 58: Homicide, Female](#)
- [Figure 59: Septicemia, Male](#)
- [Figure 60: Septicemia, Female](#)

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

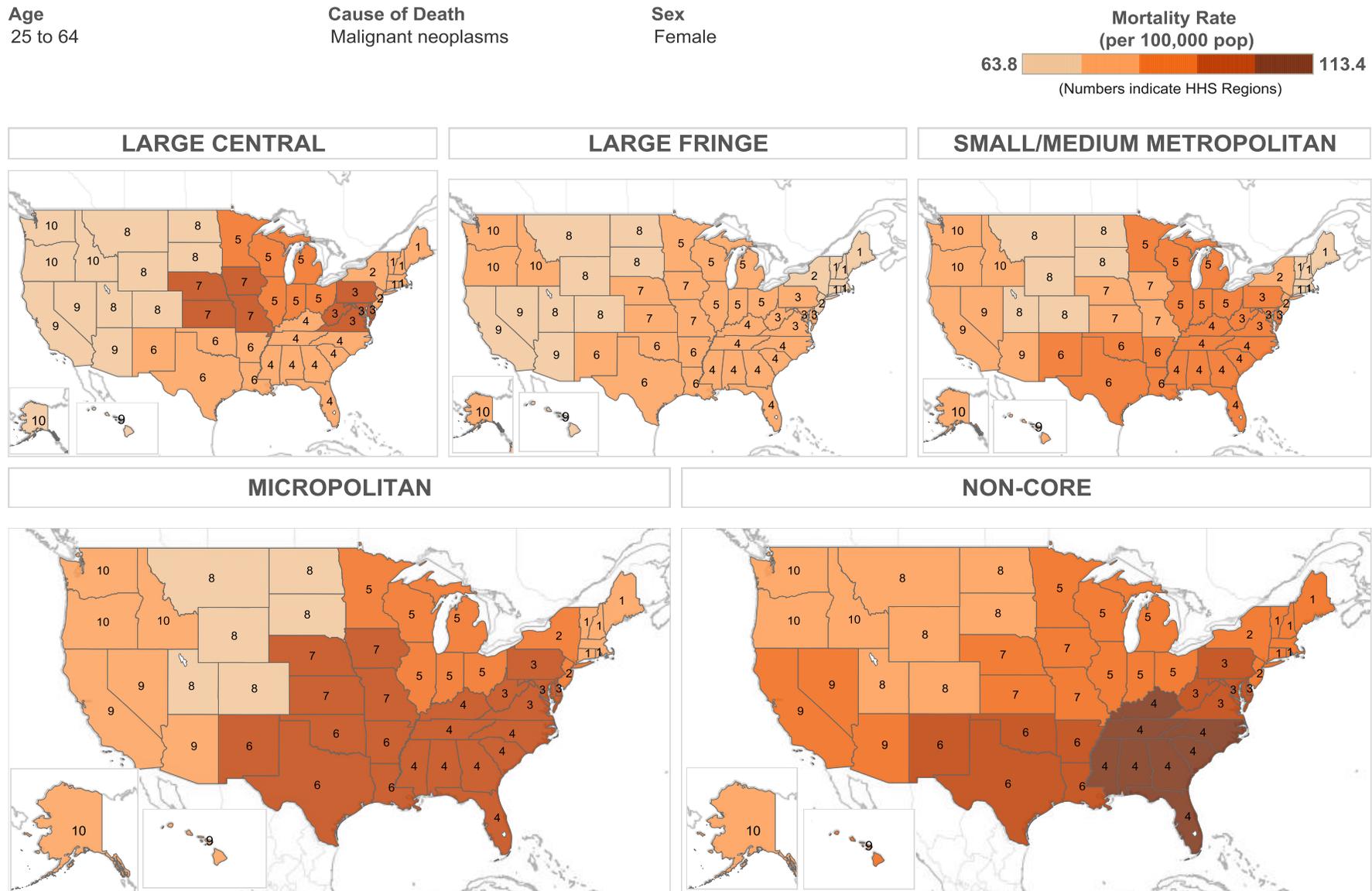
Figure 41



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

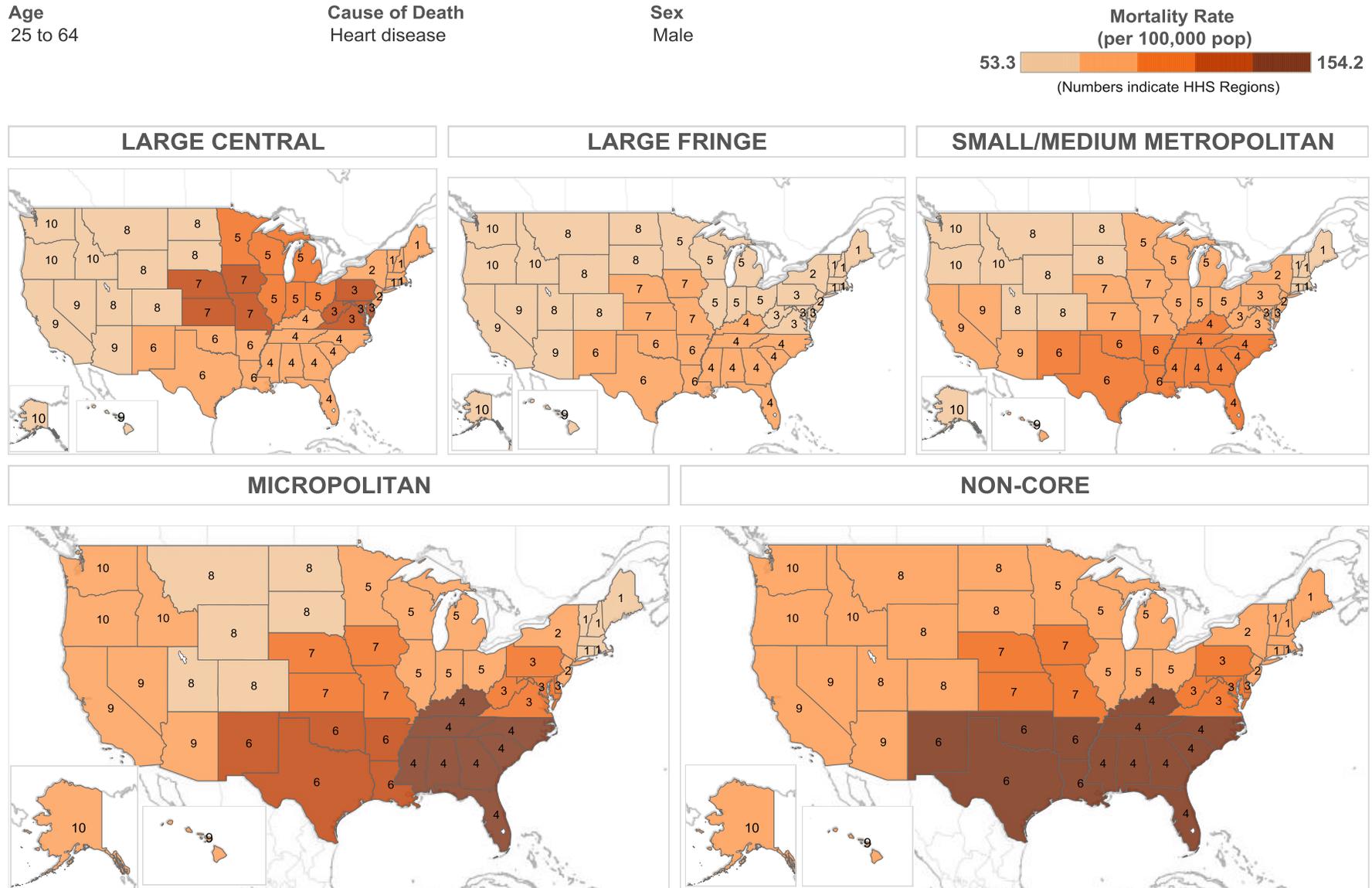
Figure 42



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

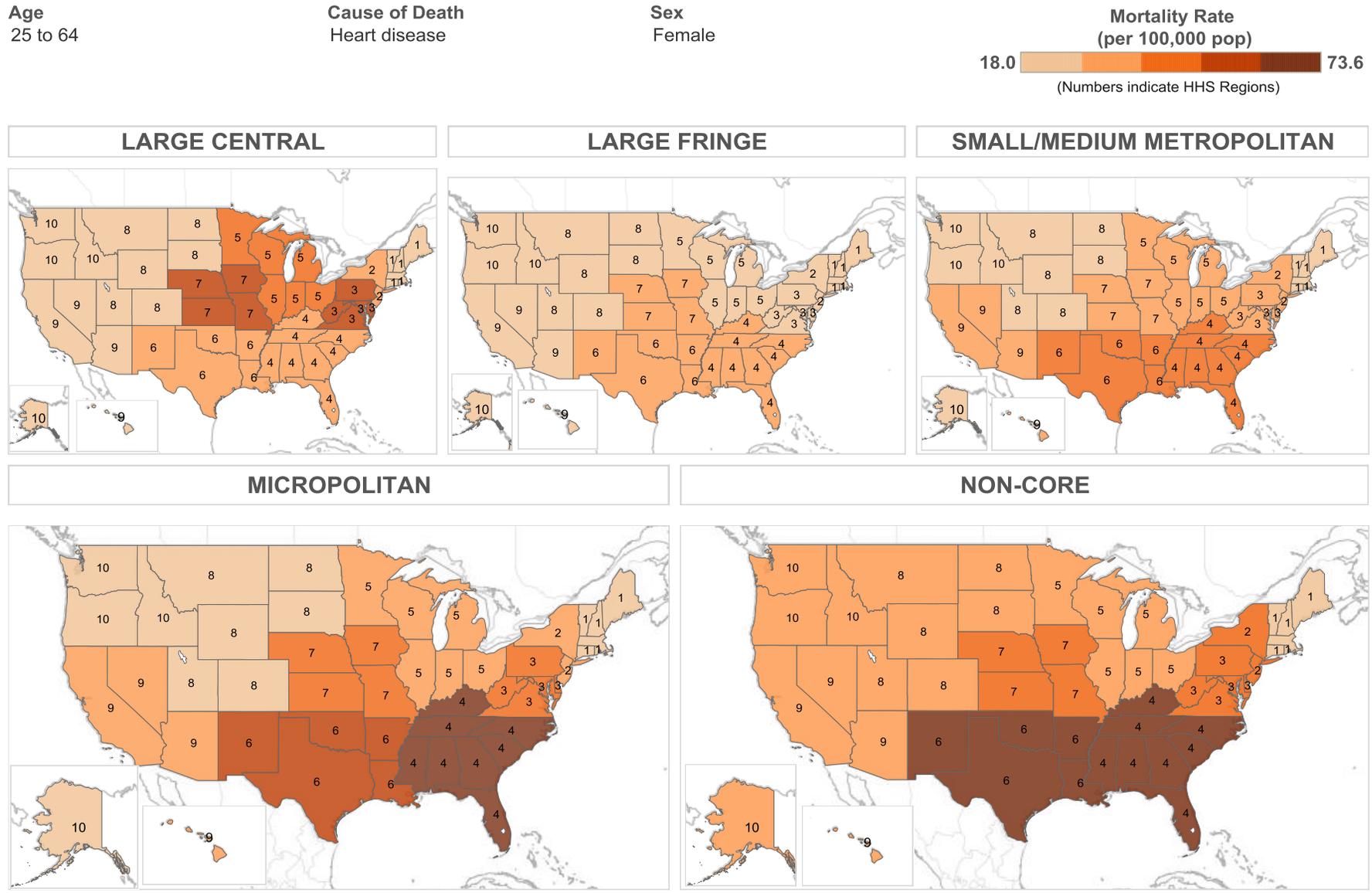
Figure 43



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: Female

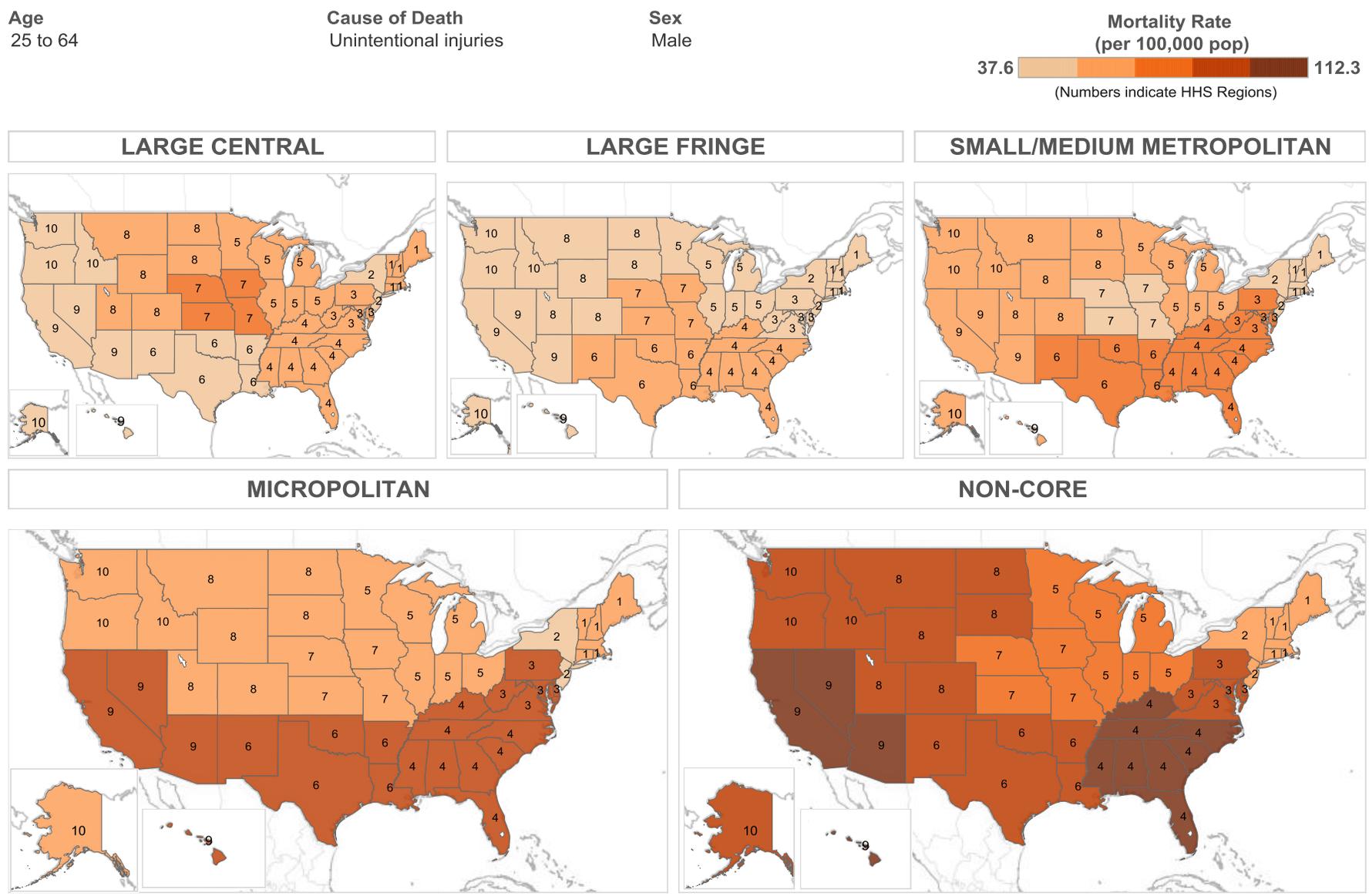
Figure 44



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: Unintentional injuries; Sex: Male

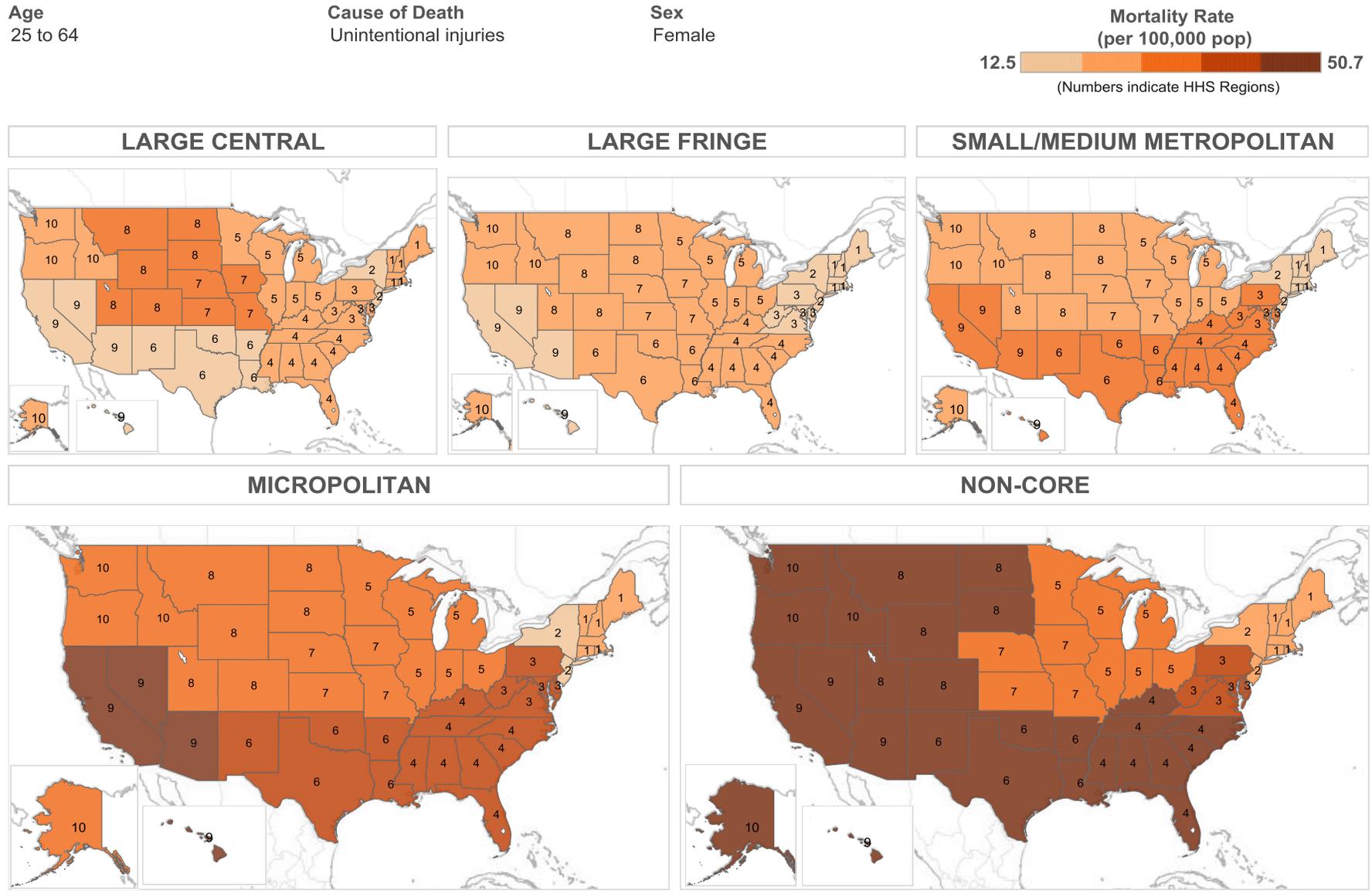
Figure 45



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: Unintentional injuries; Sex: Female

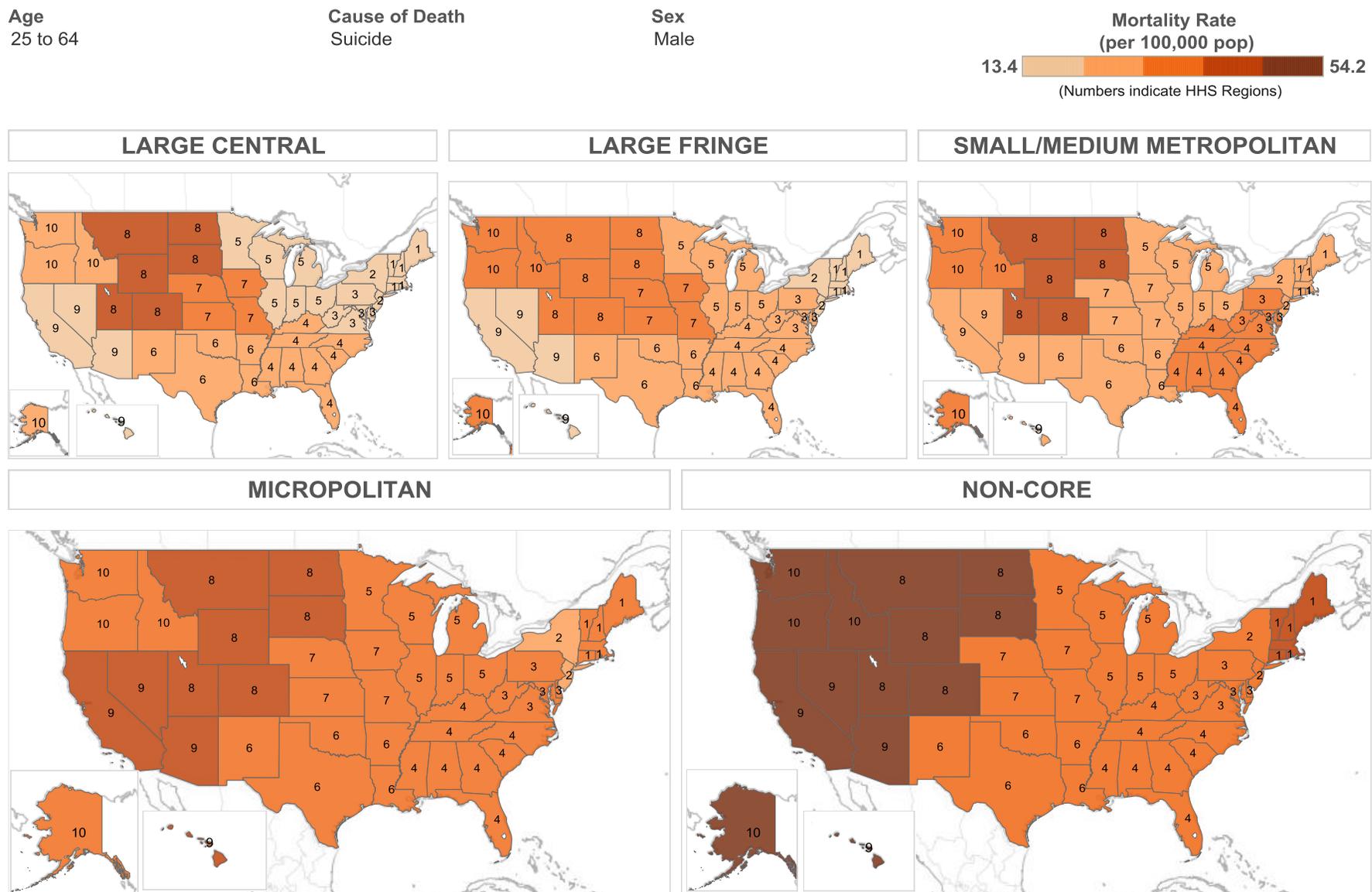
Figure 46



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: Suicide; Sex: Male

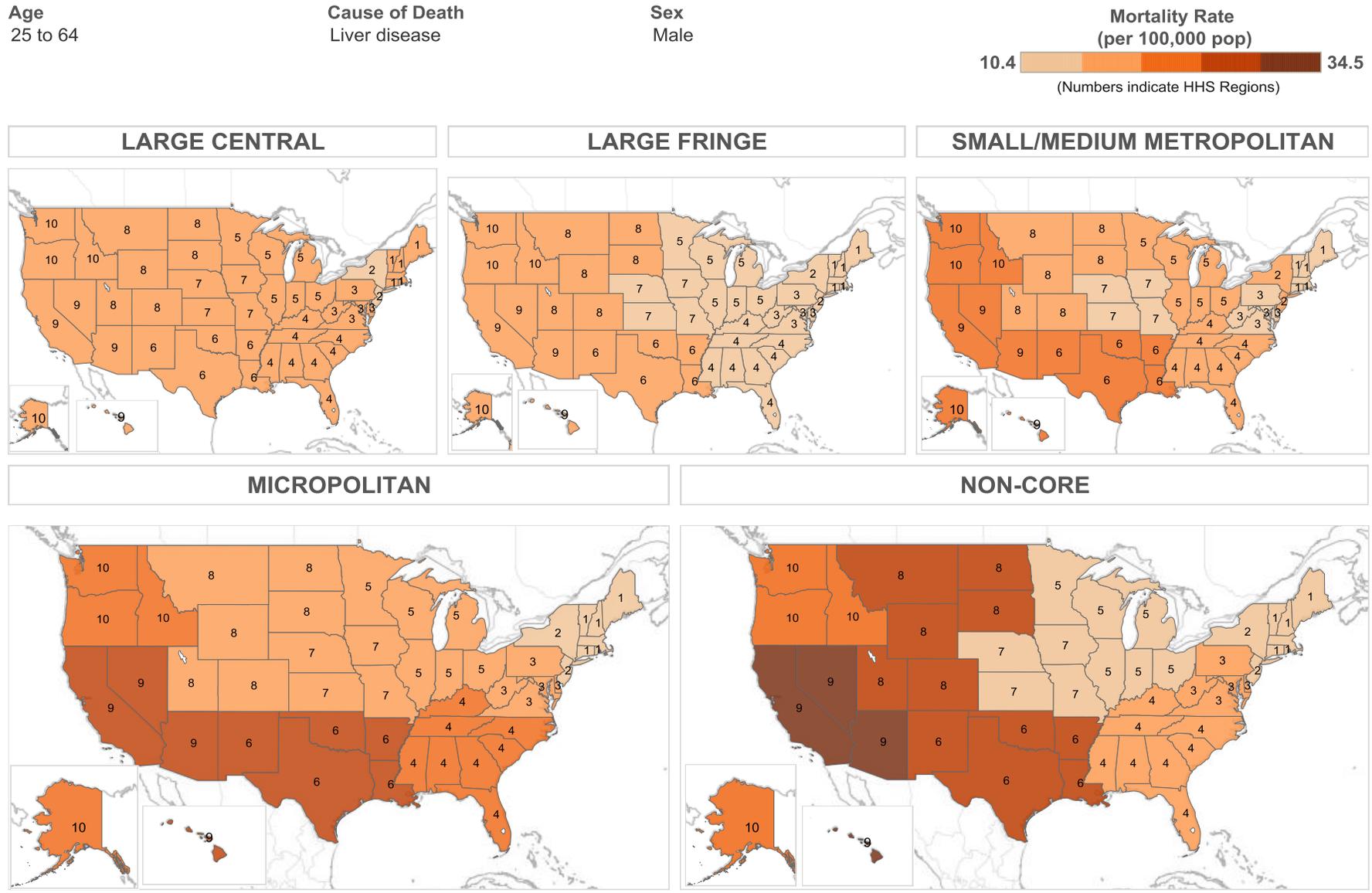
Figure 47



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: Liver disease; Sex: Male

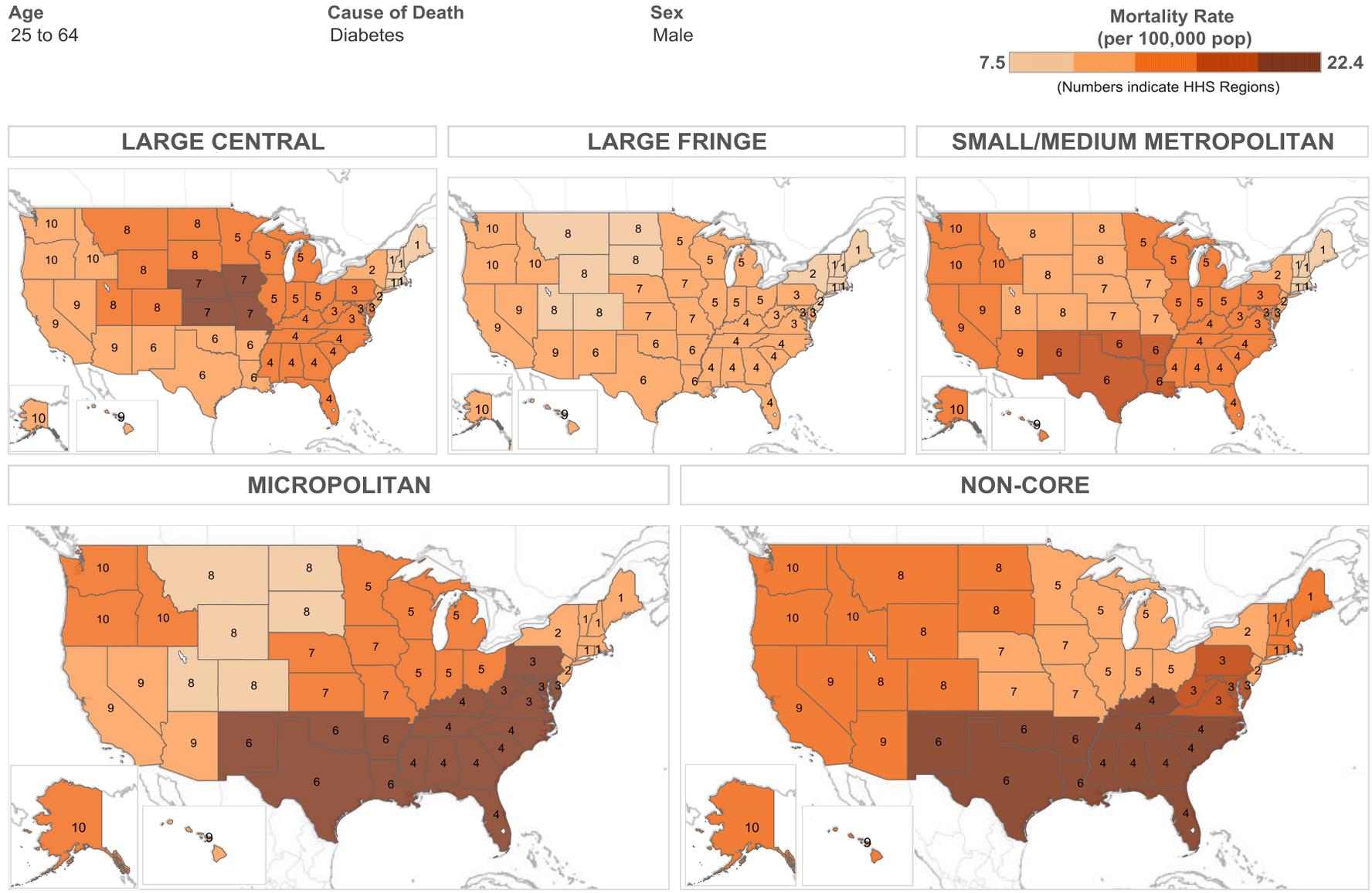
Figure 49



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: Diabetes; Sex: Male

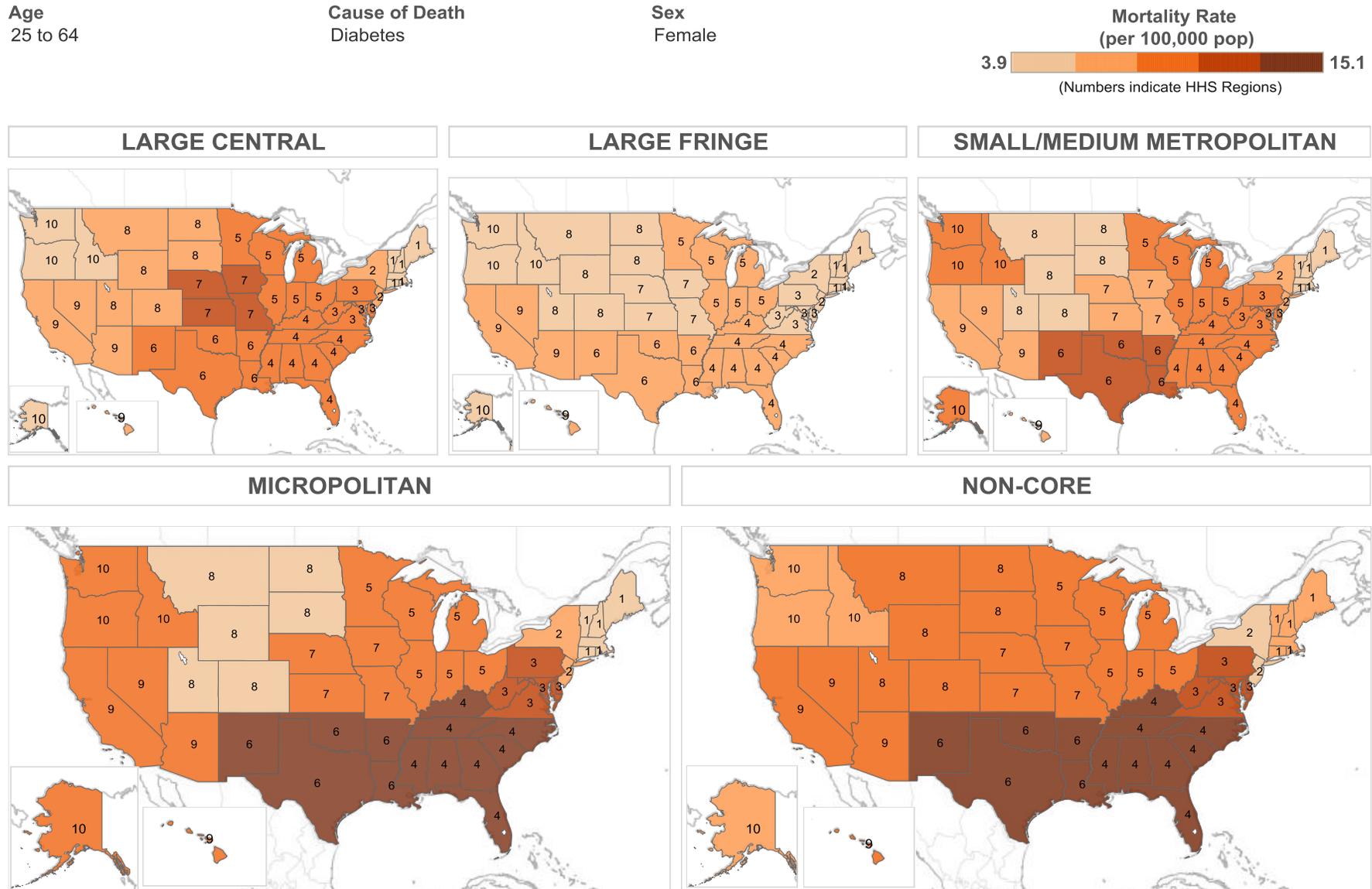
Figure 51



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: Diabetes; Sex: Female

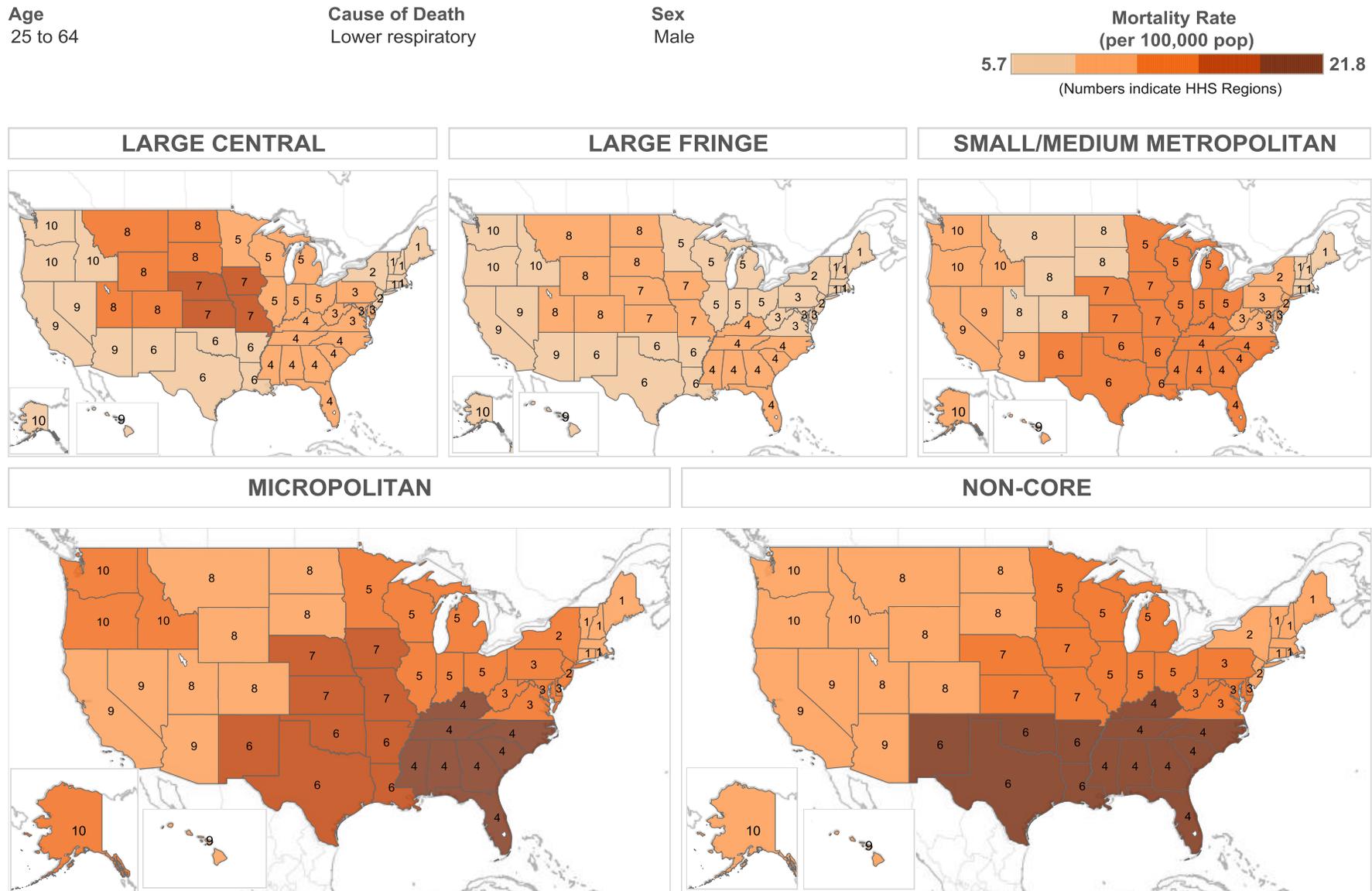
Figure 52



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: Lower respiratory; Sex: Male

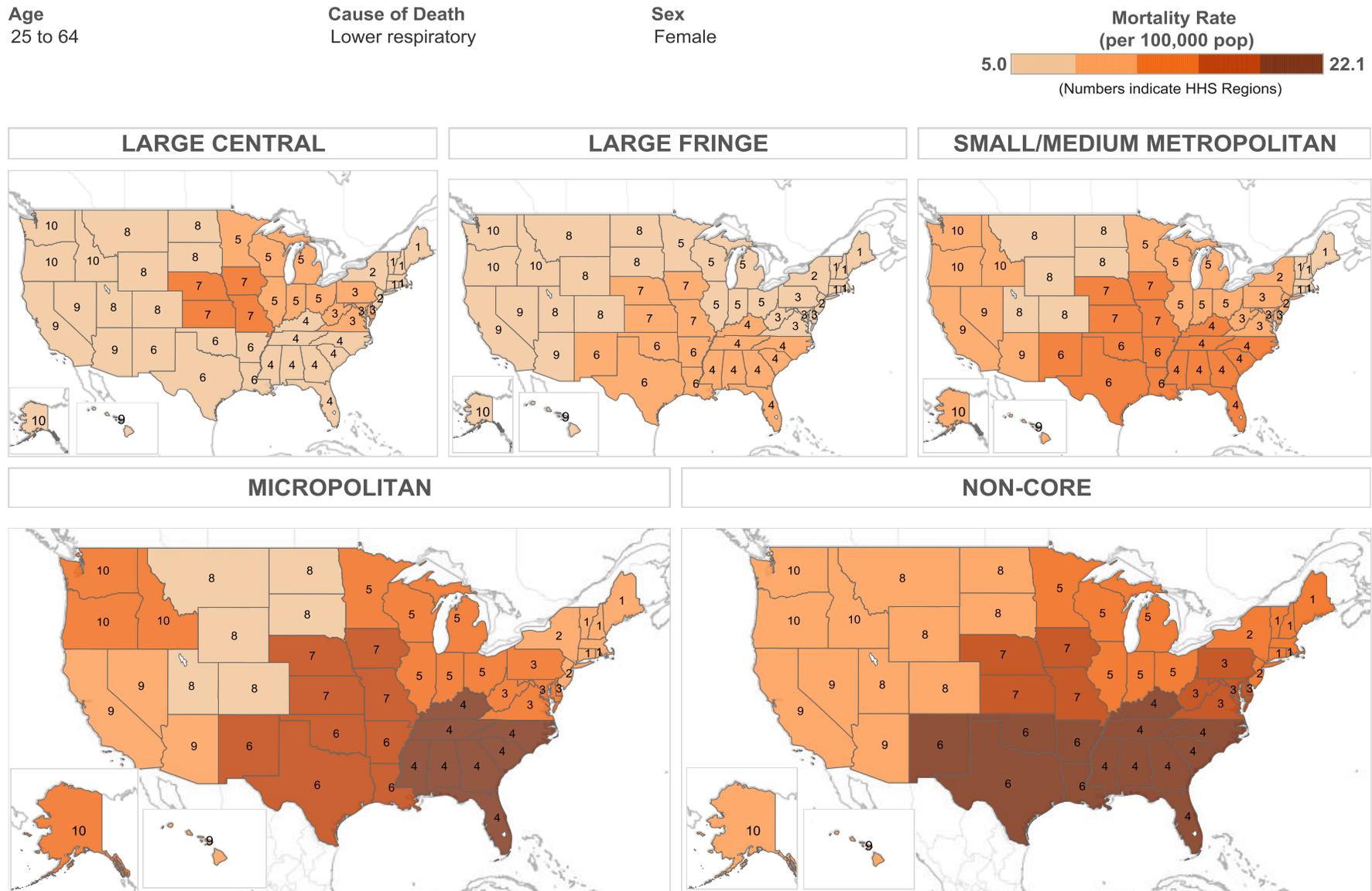
Figure 53



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: Lower respiratory; Sex: Female

Figure 54



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.

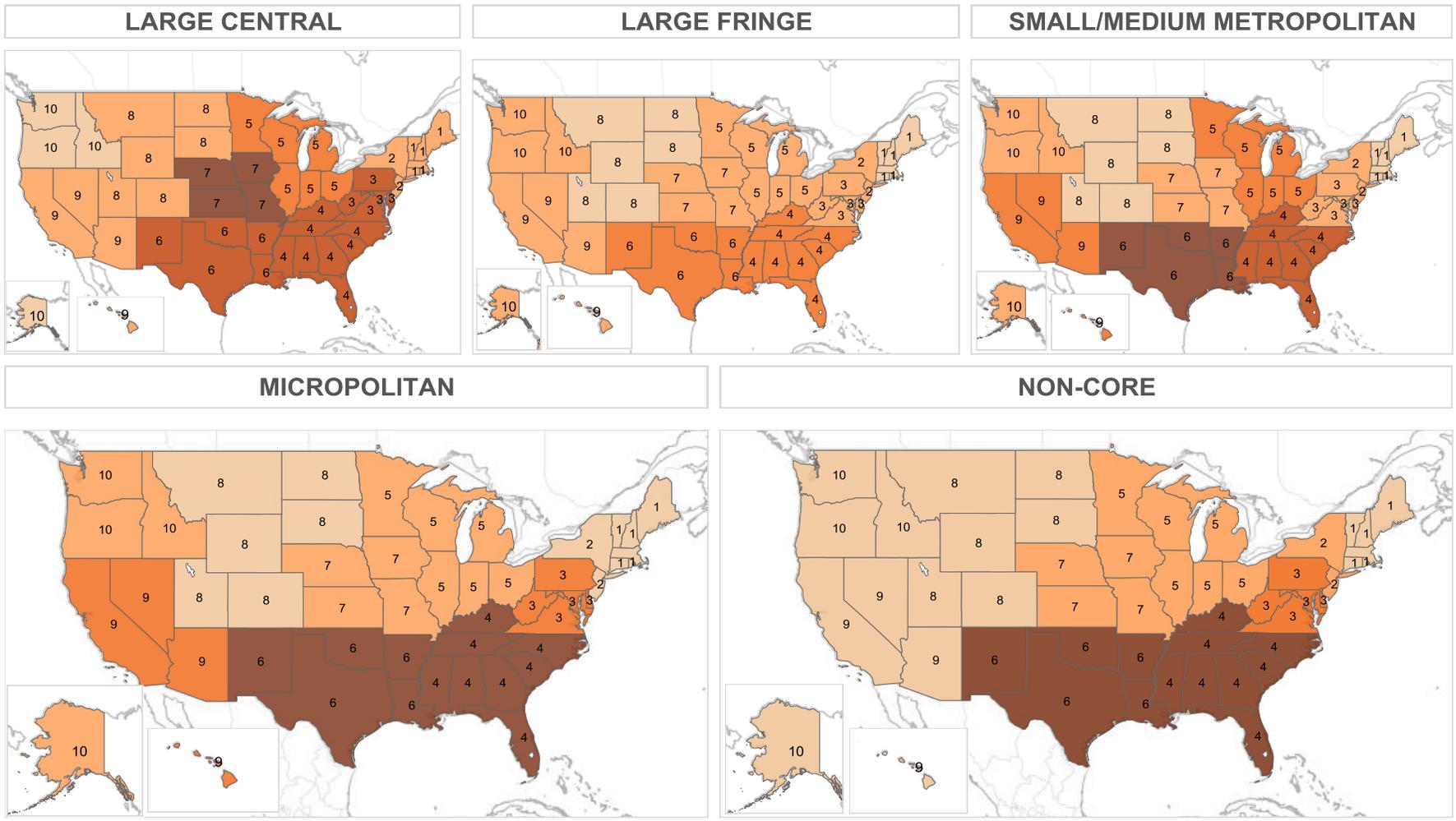
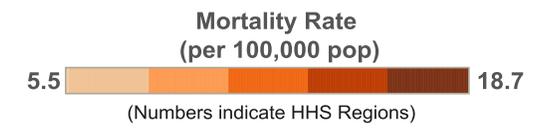
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Cerebrovascular diseases; Sex: Male

Figure 55

Age
25 to 64

Cause of Death
Cerebrovascular diseases

Sex
Male

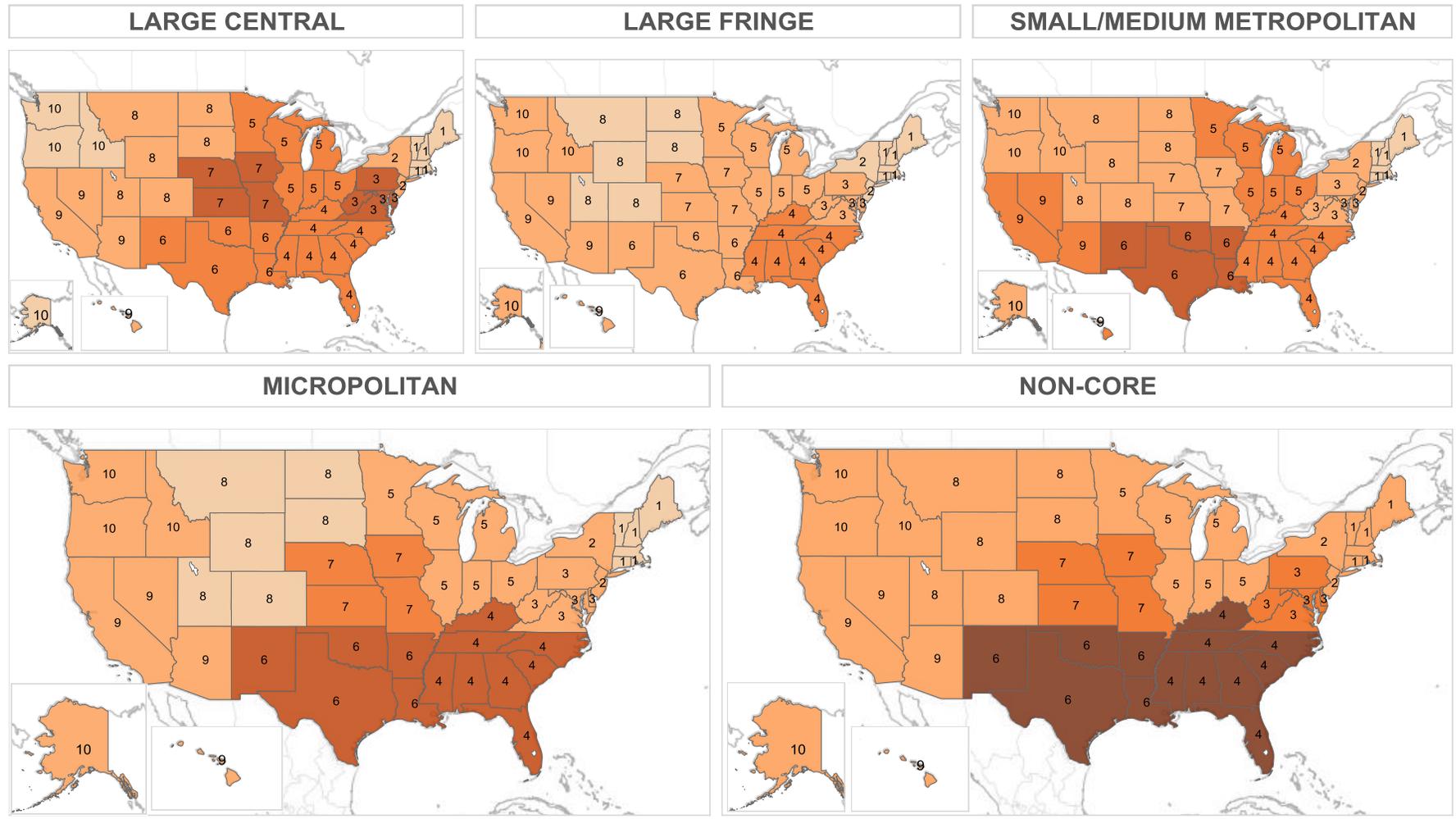


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

Figure 56

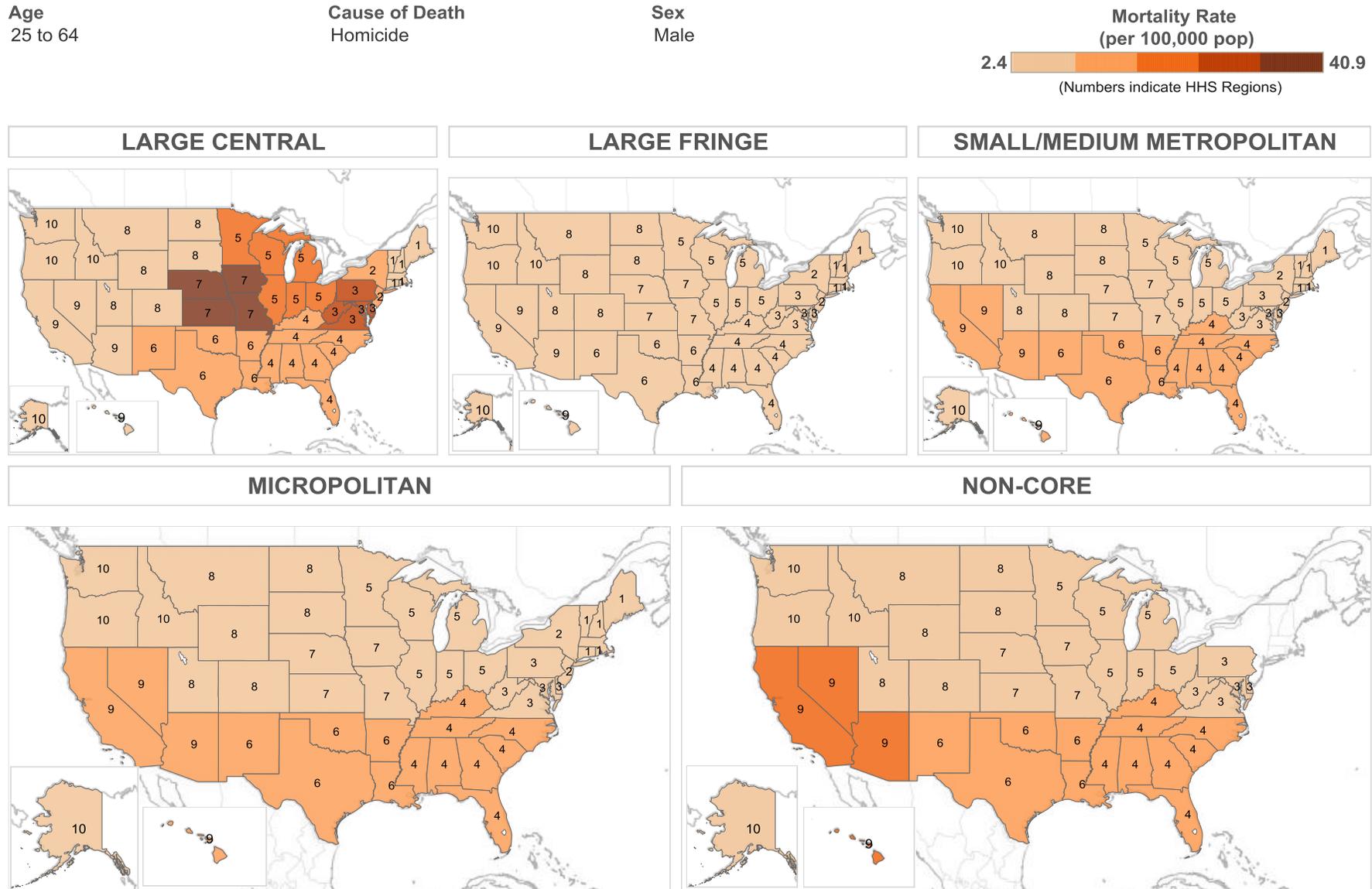
Age: 25 to 64
 Cause of Death: Cerebrovascular diseases
 Sex: Female
 Mortality Rate (per 100,000 pop): 3.8 to 15.4
 (Numbers indicate HHS Regions)



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: Homicide; Sex: Male

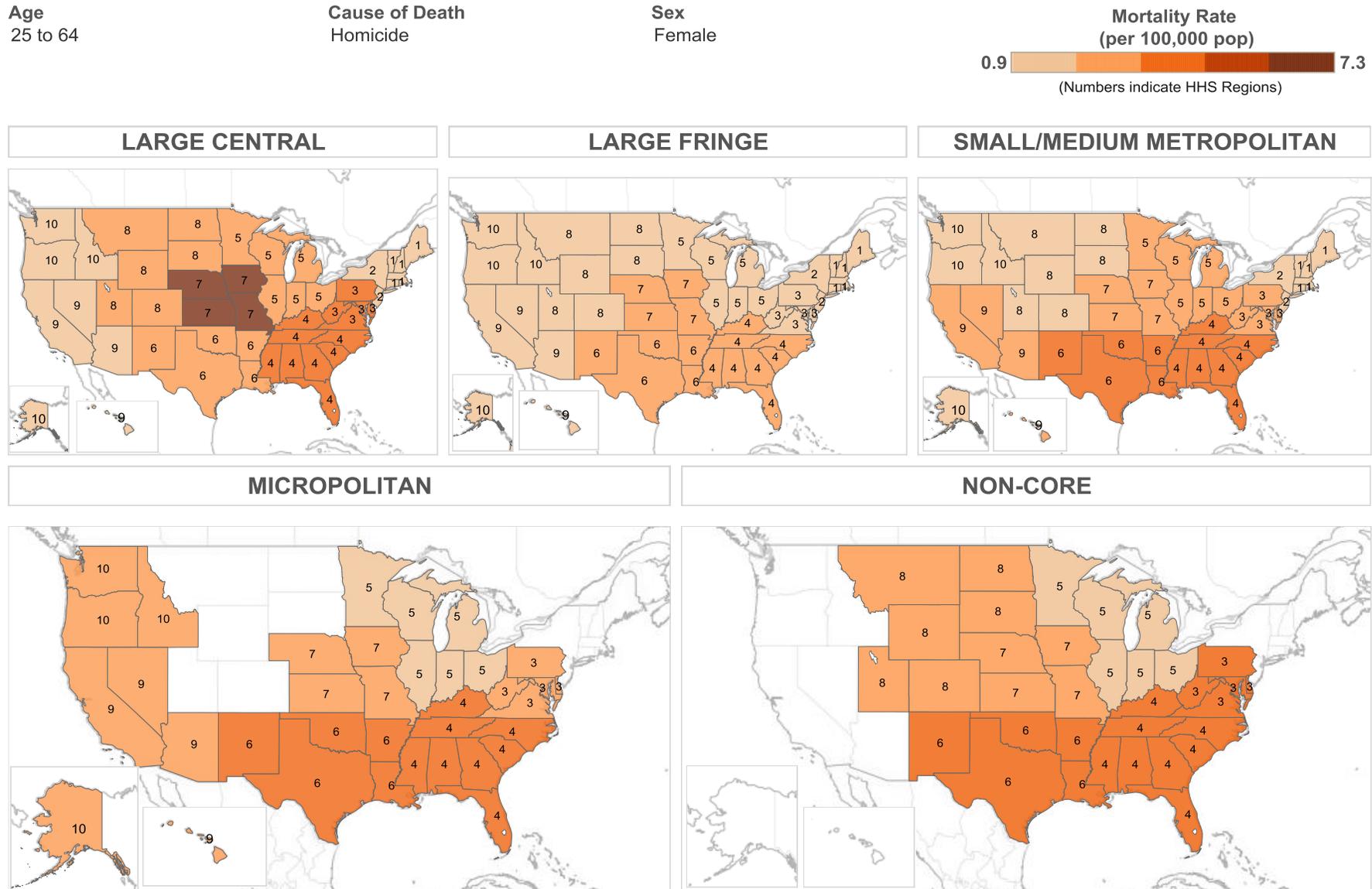
Figure 57



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: Homicide; Sex: Female

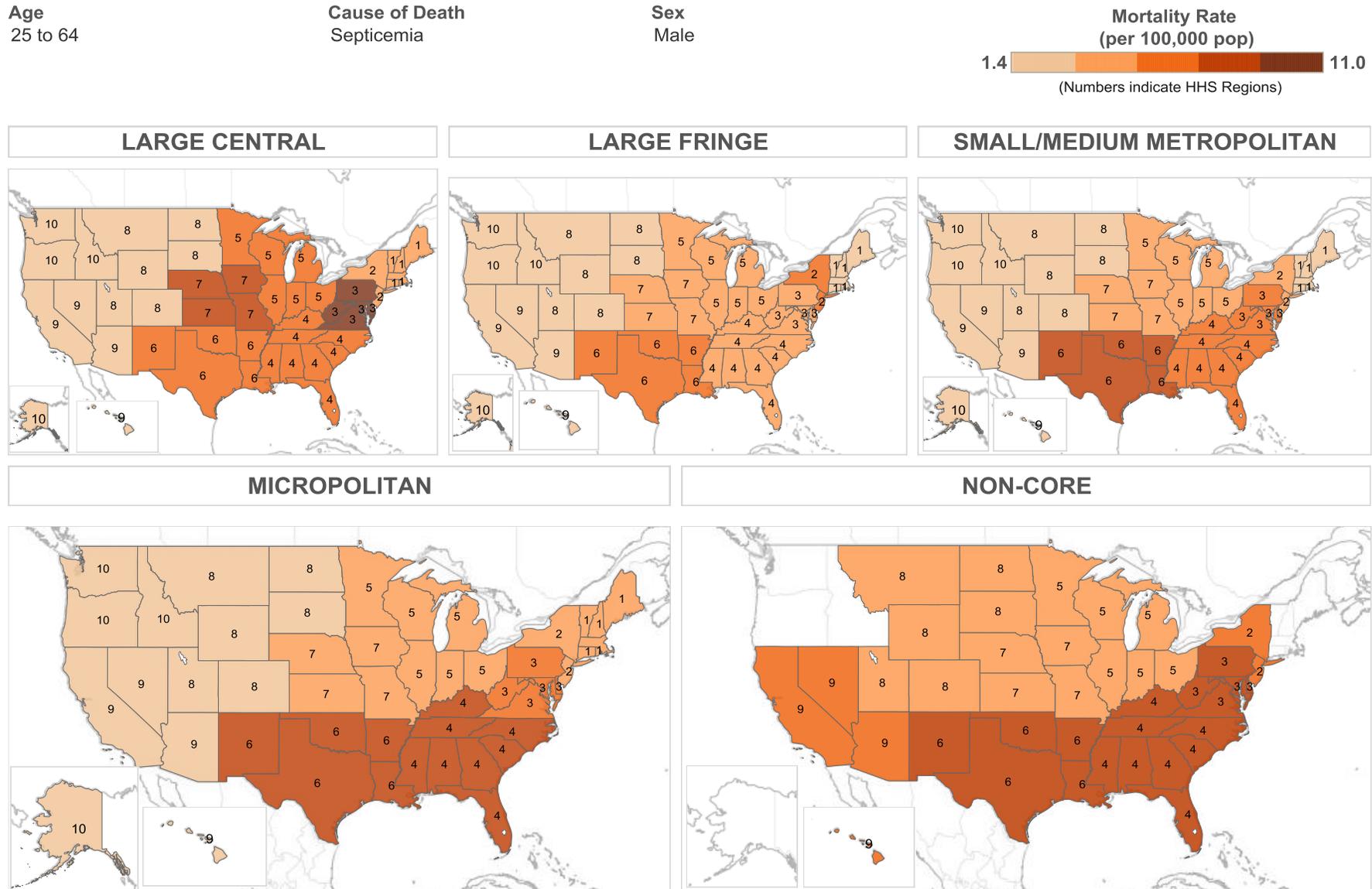
Figure 58



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: Septicemia; Sex: Male

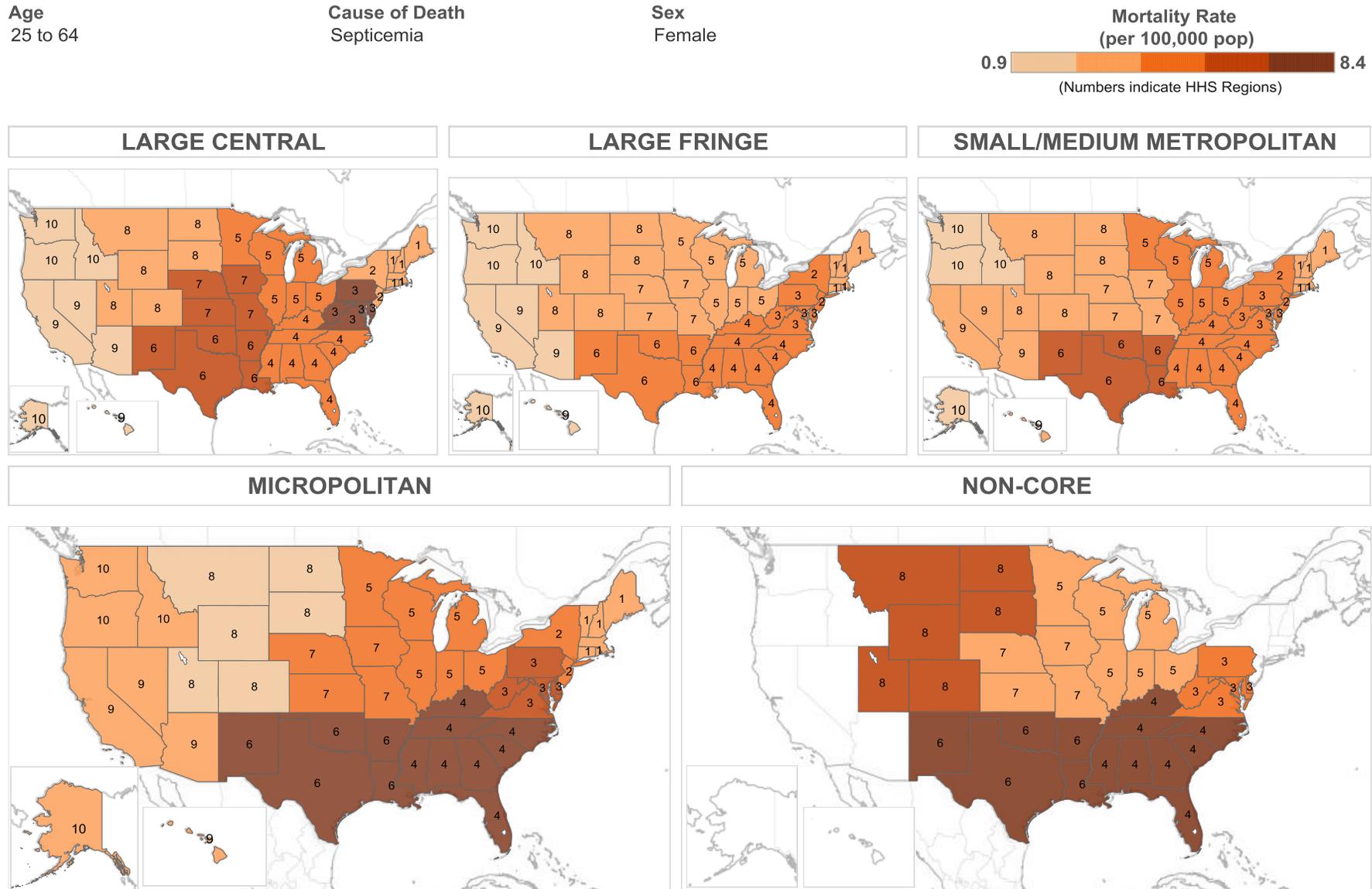
Figure 59



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: Septicemia; Sex: Female

Figure 60



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.

Seniors

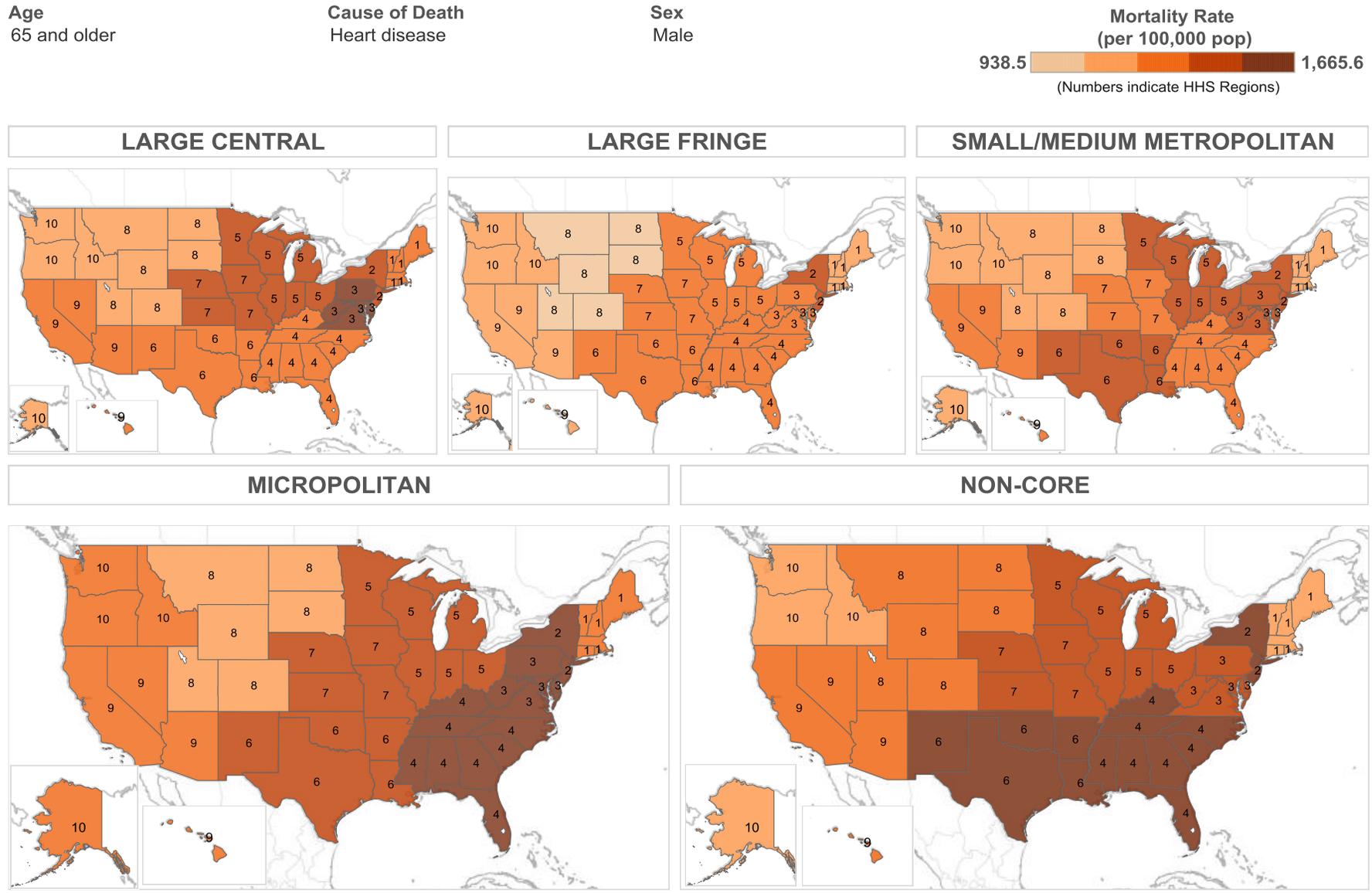
Ages 65 Years and Older Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013

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](#)

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

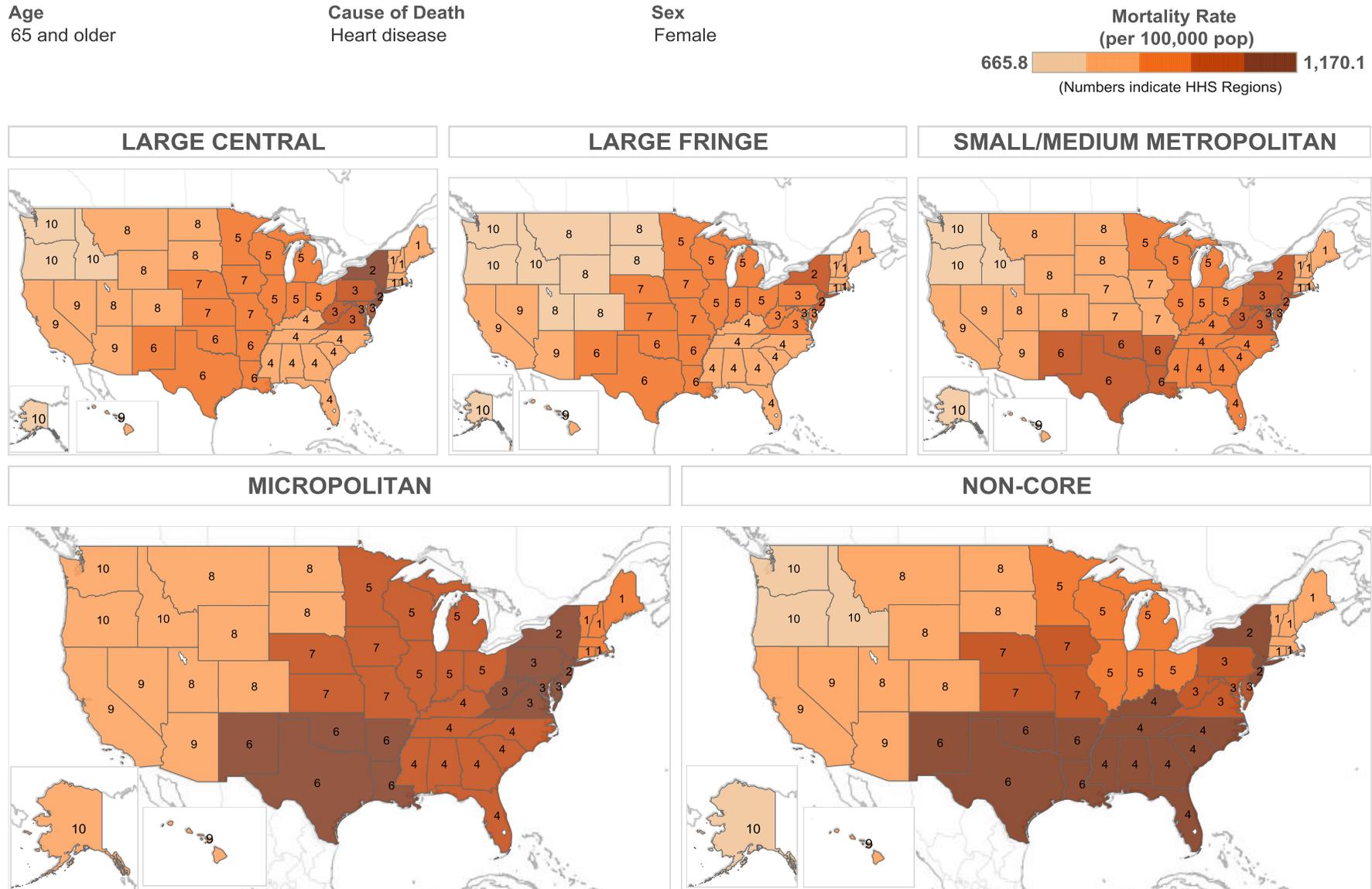
Figure 61



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

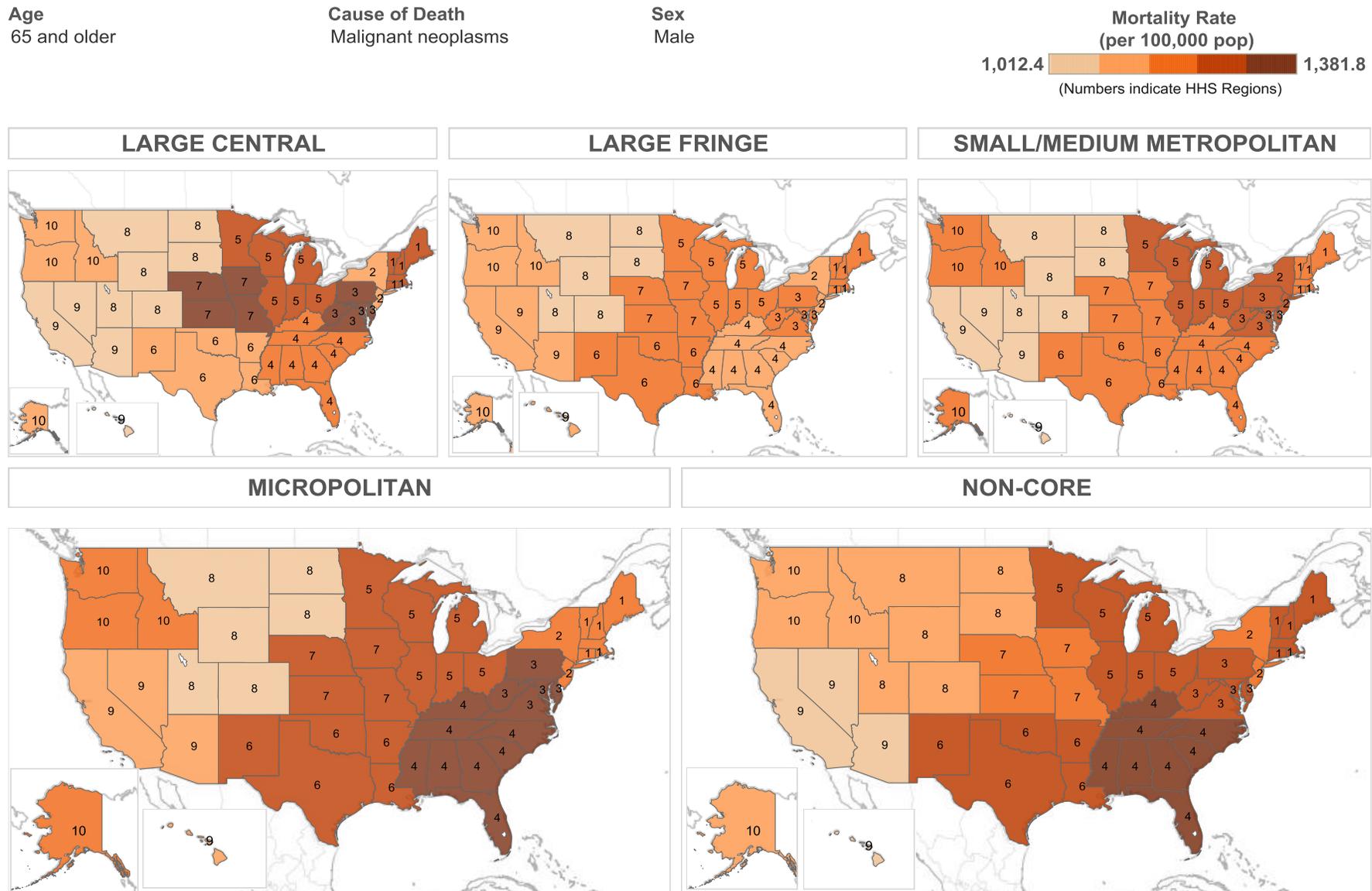
Figure 62



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

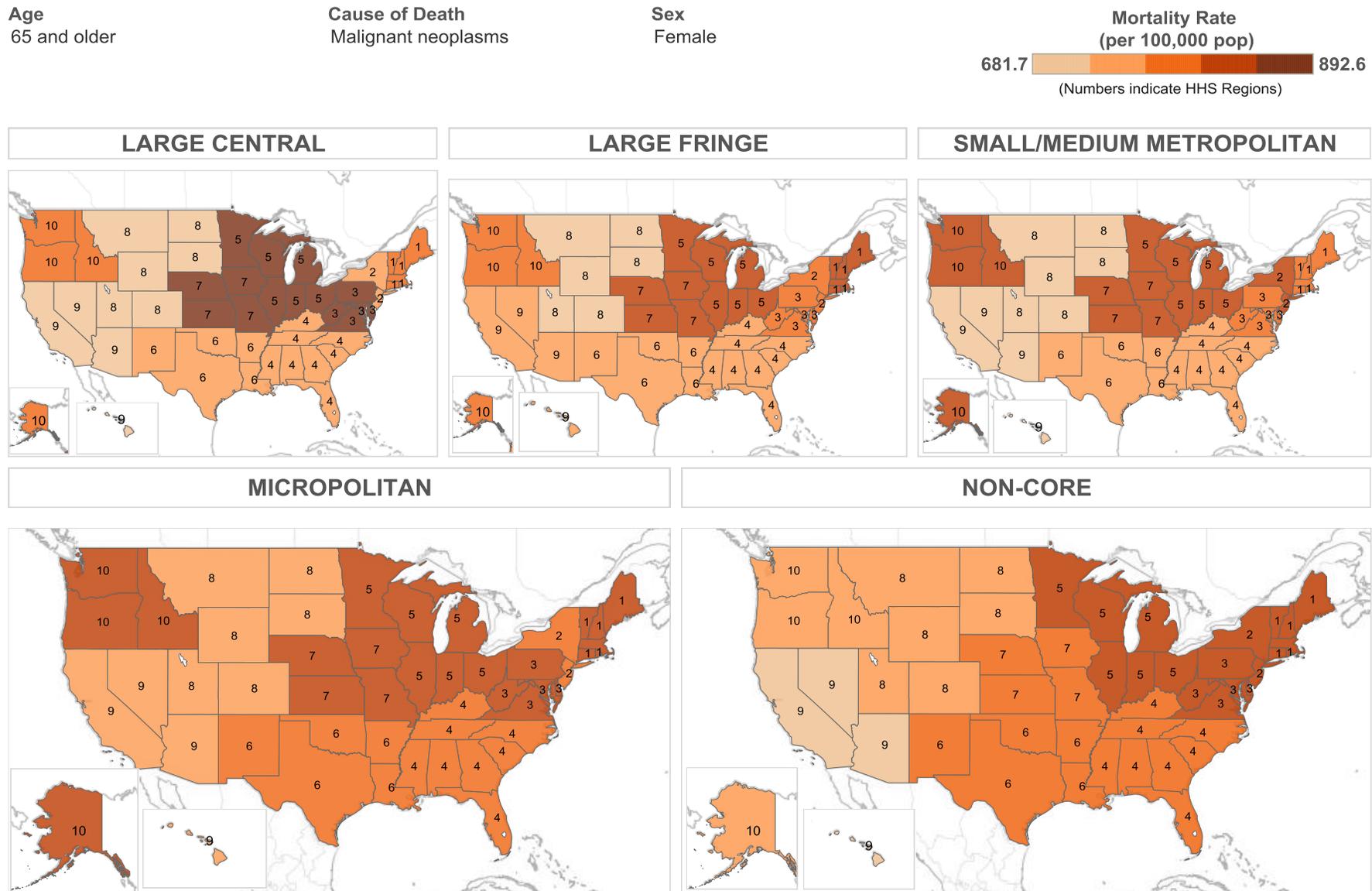
Figure 63



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: Female

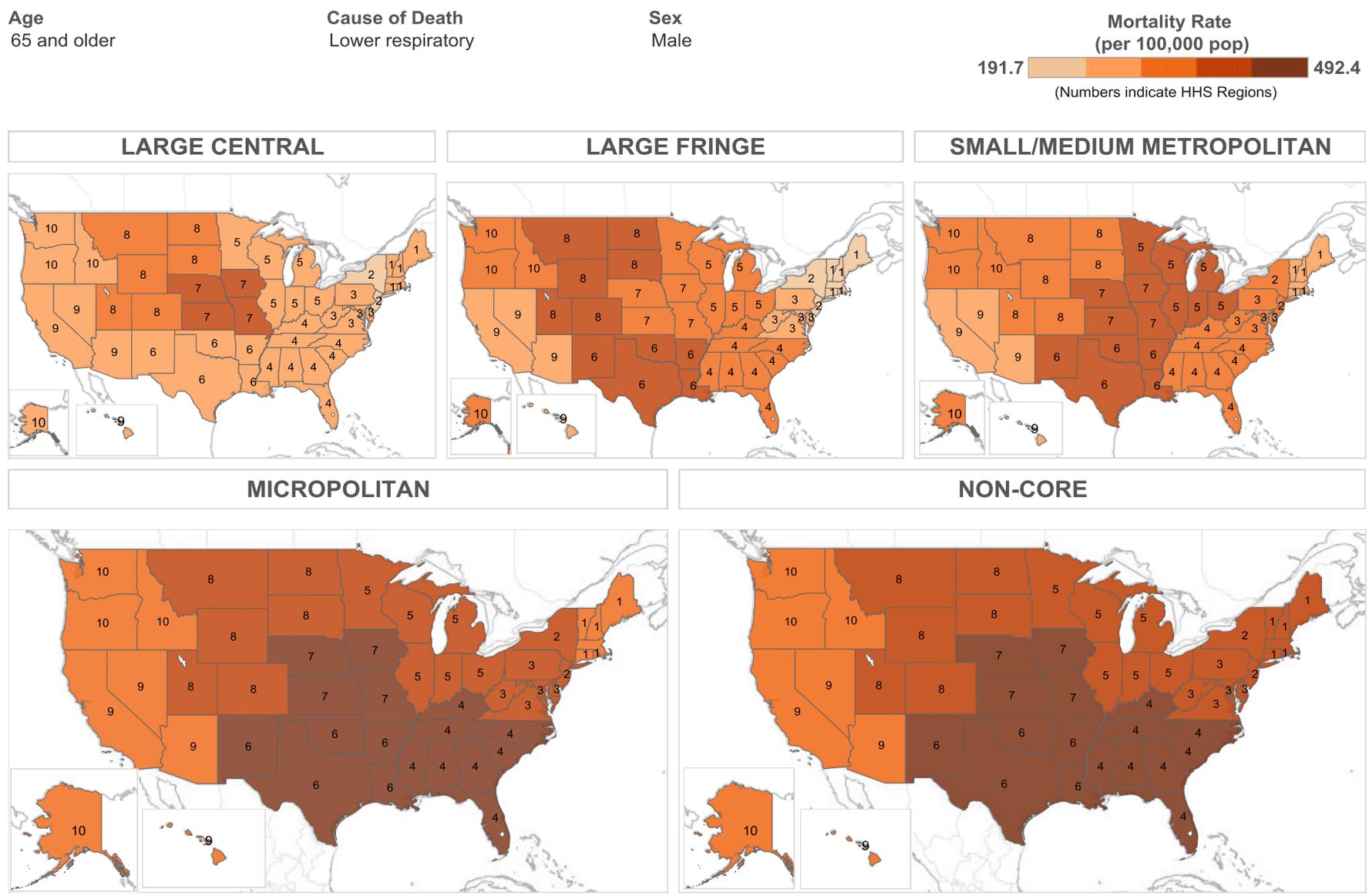
Figure 64



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: Lower respiratory; Sex: Male

Figure 65



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.

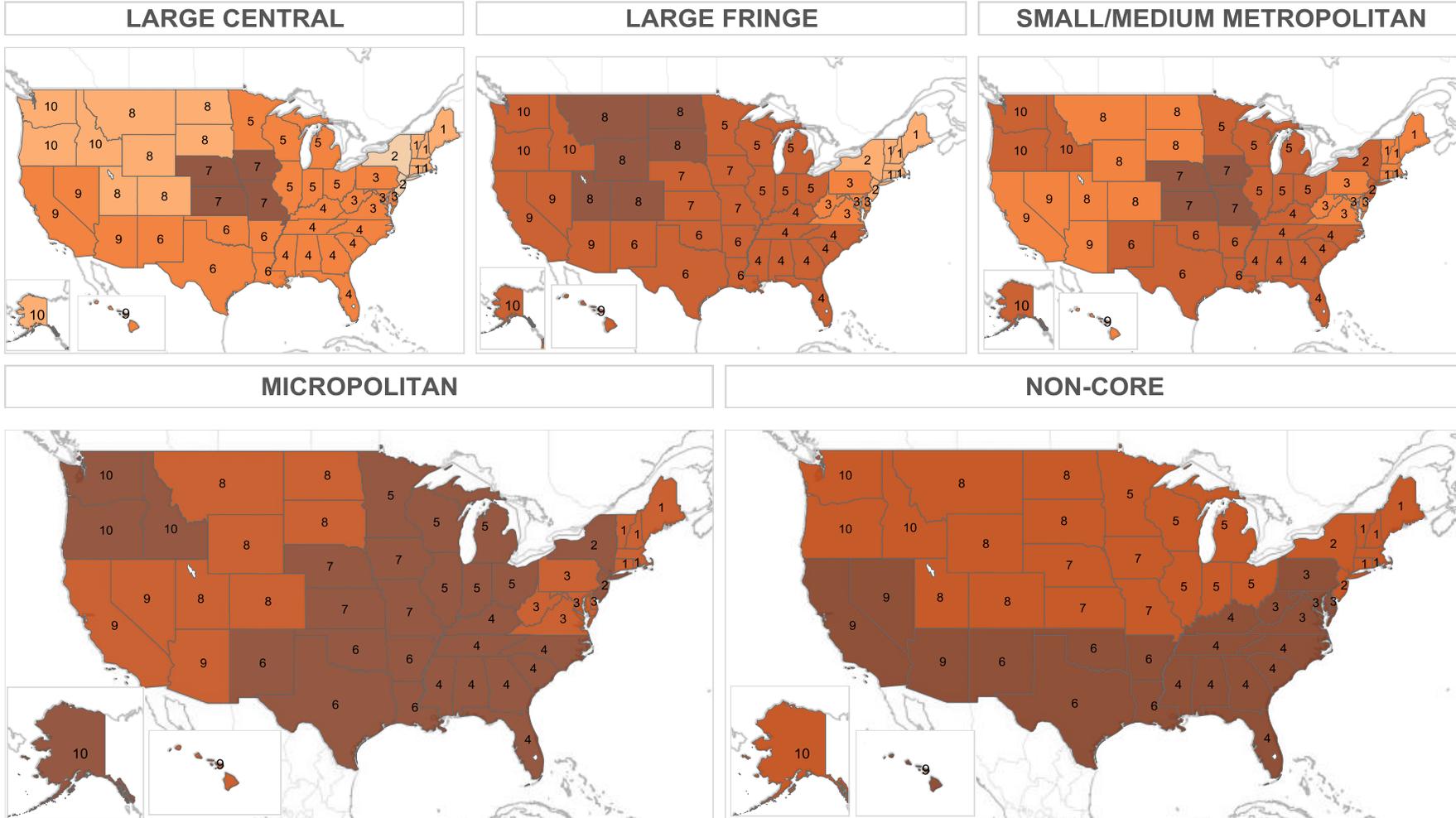
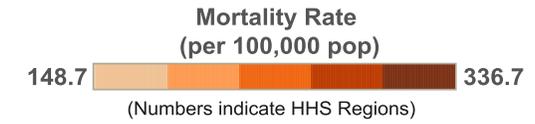
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Lower respiratory; Sex: Female

Figure 66

Age
65 and older

Cause of Death
Lower respiratory

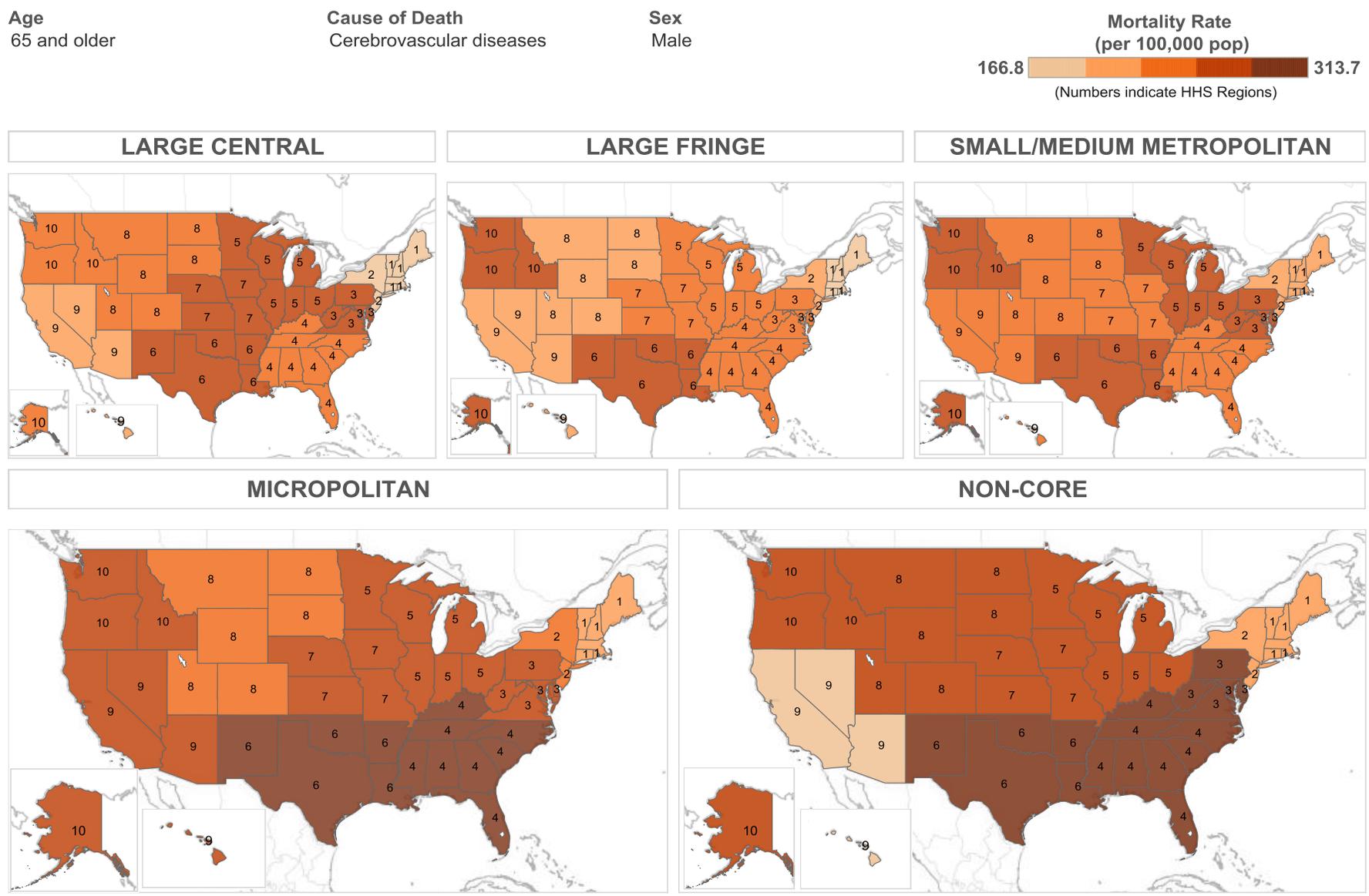
Sex
Female



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.

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

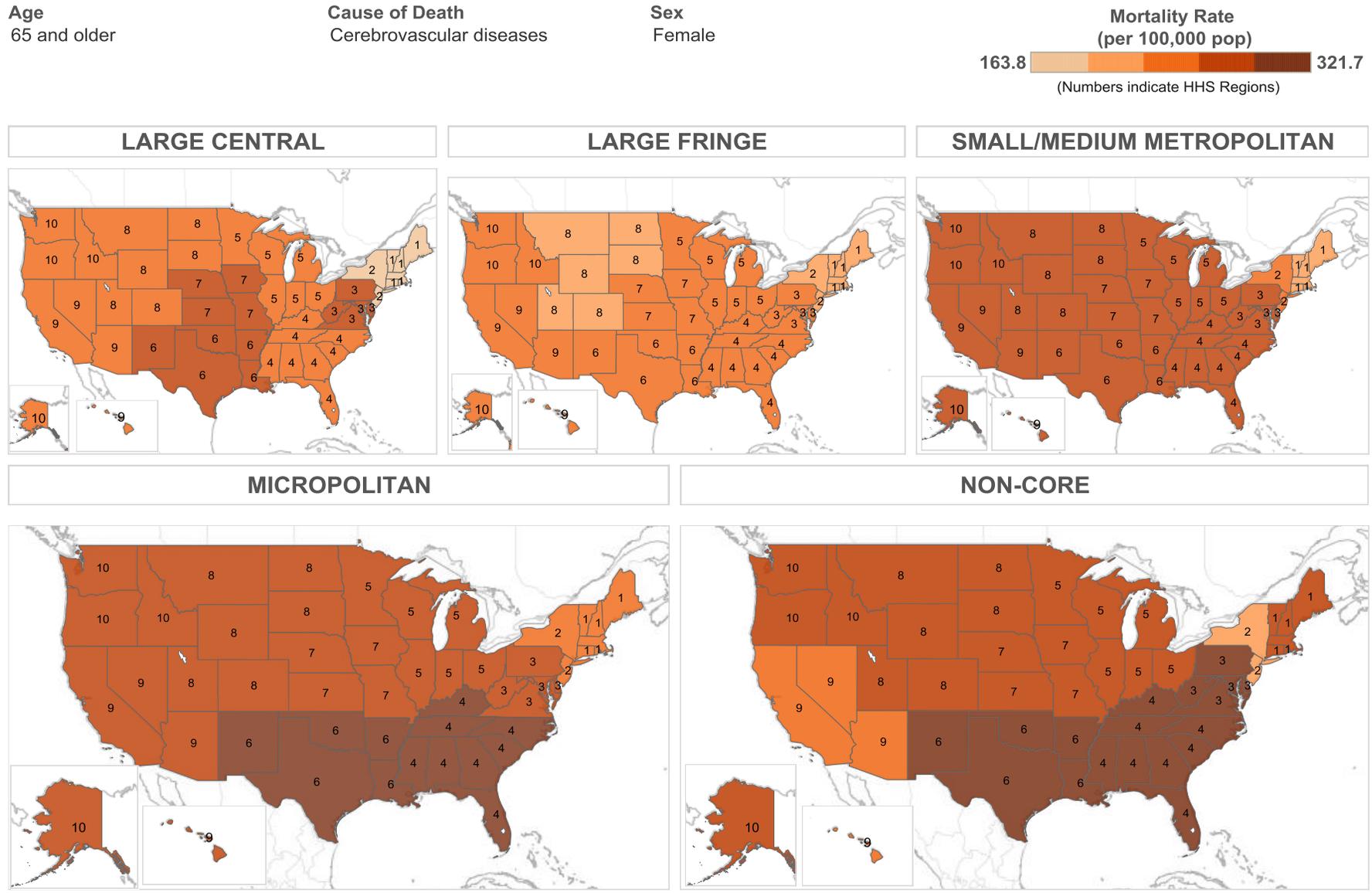
Figure 67



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: Cerebrovascular diseases; Sex: Female

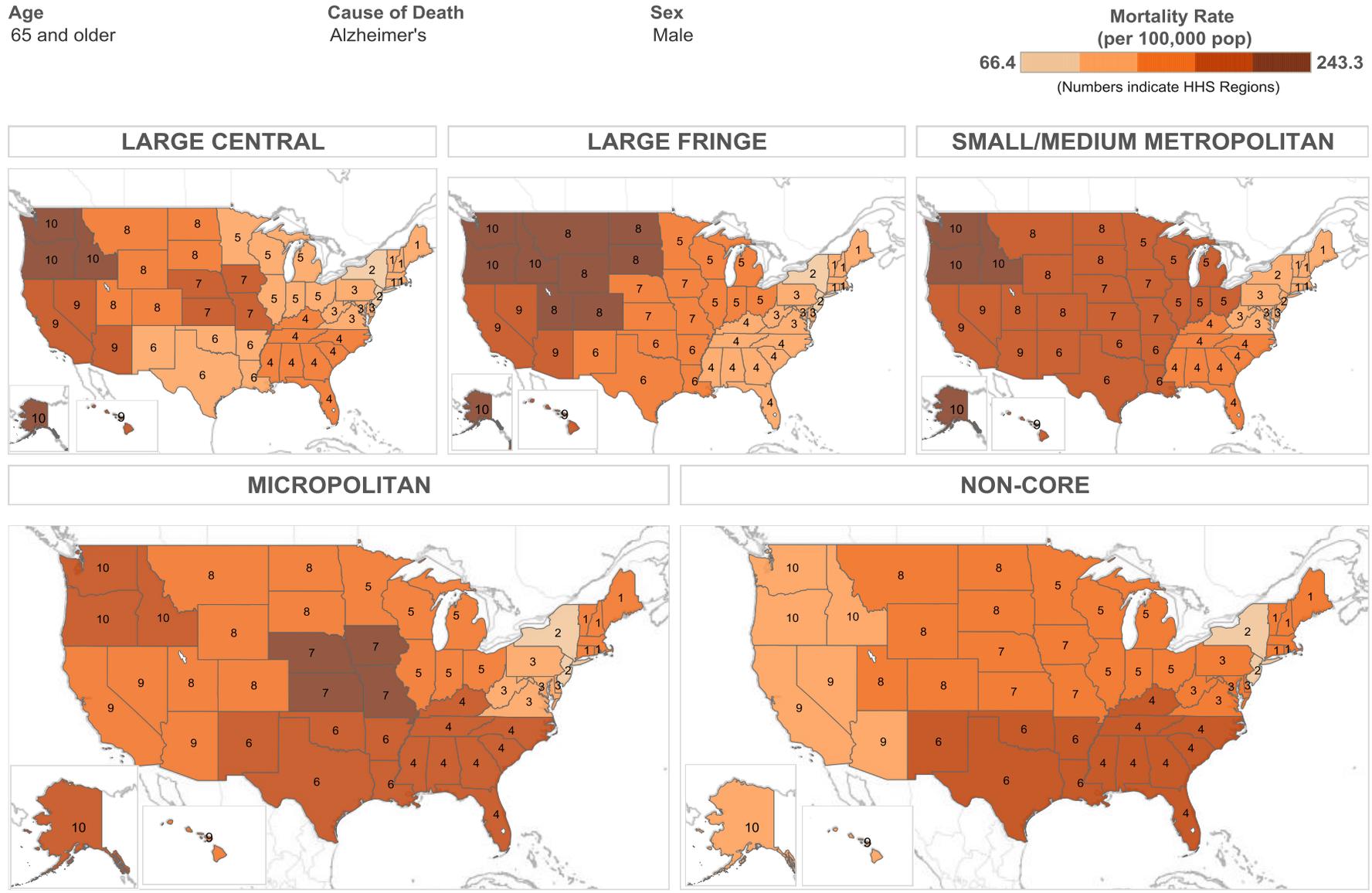
Figure 68



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: Alzheimer's; Sex: Male

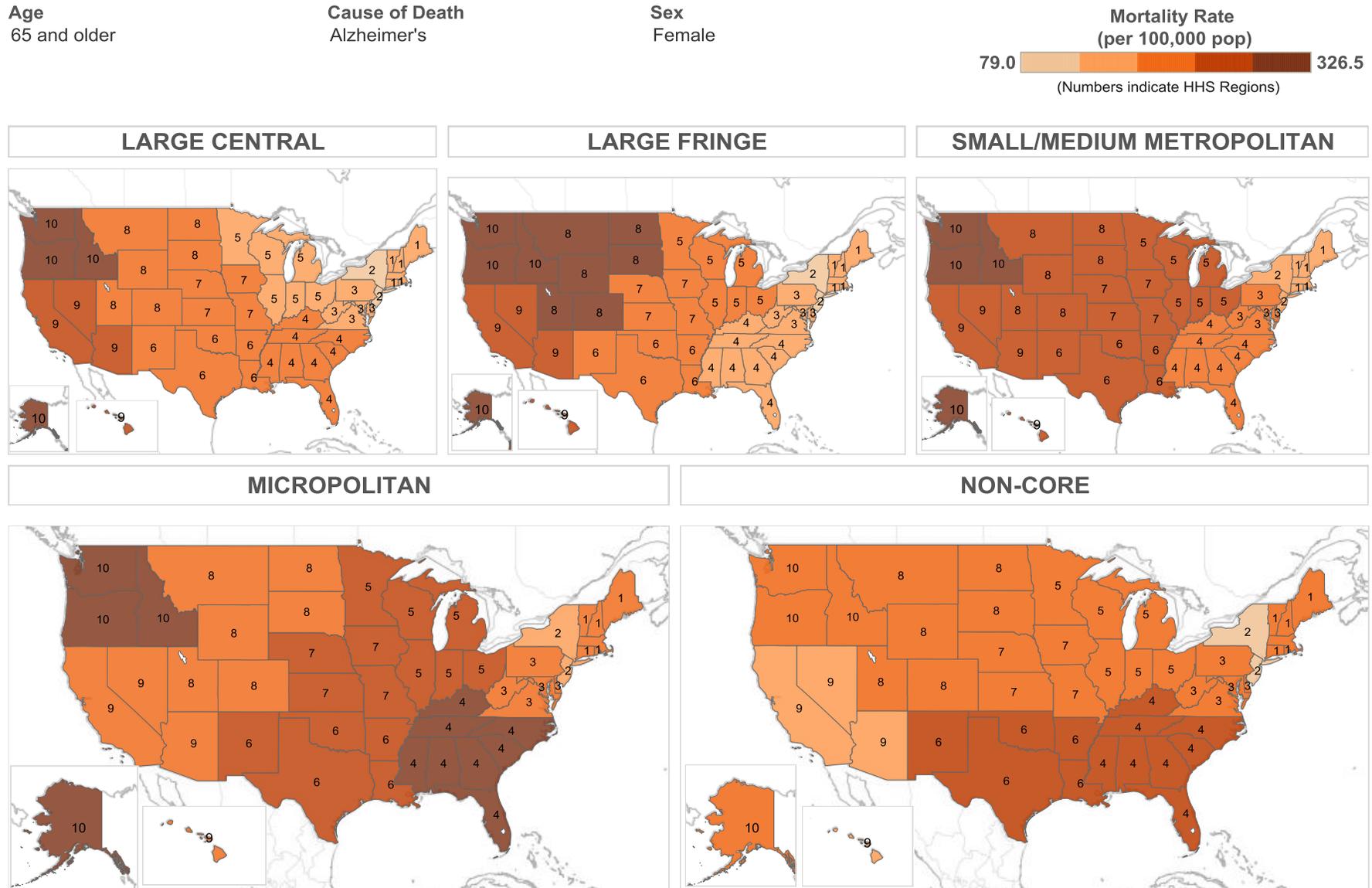
Figure 69



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: Alzheimer's; Sex: Female

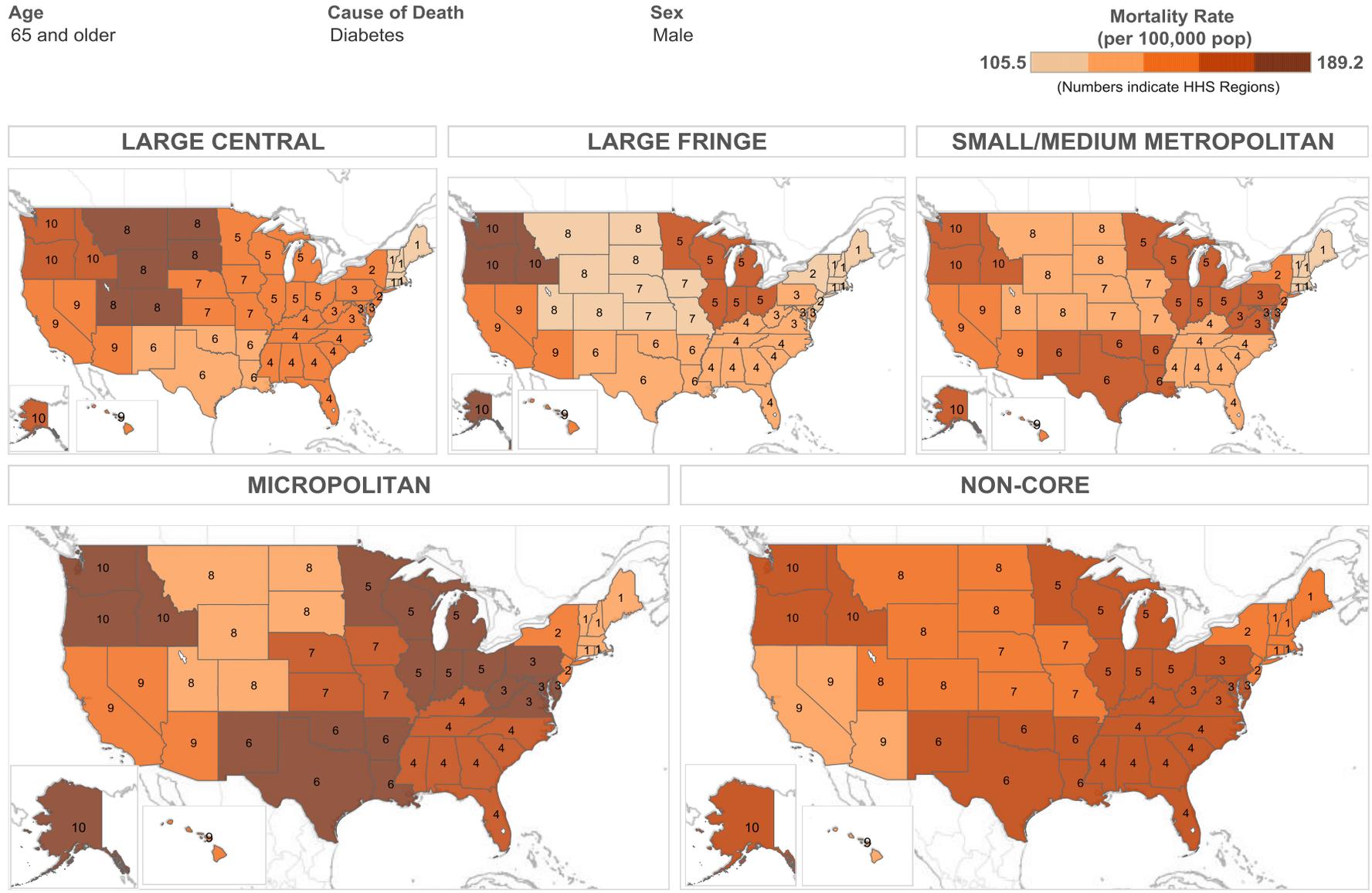
Figure 70



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: Diabetes; Sex: Male

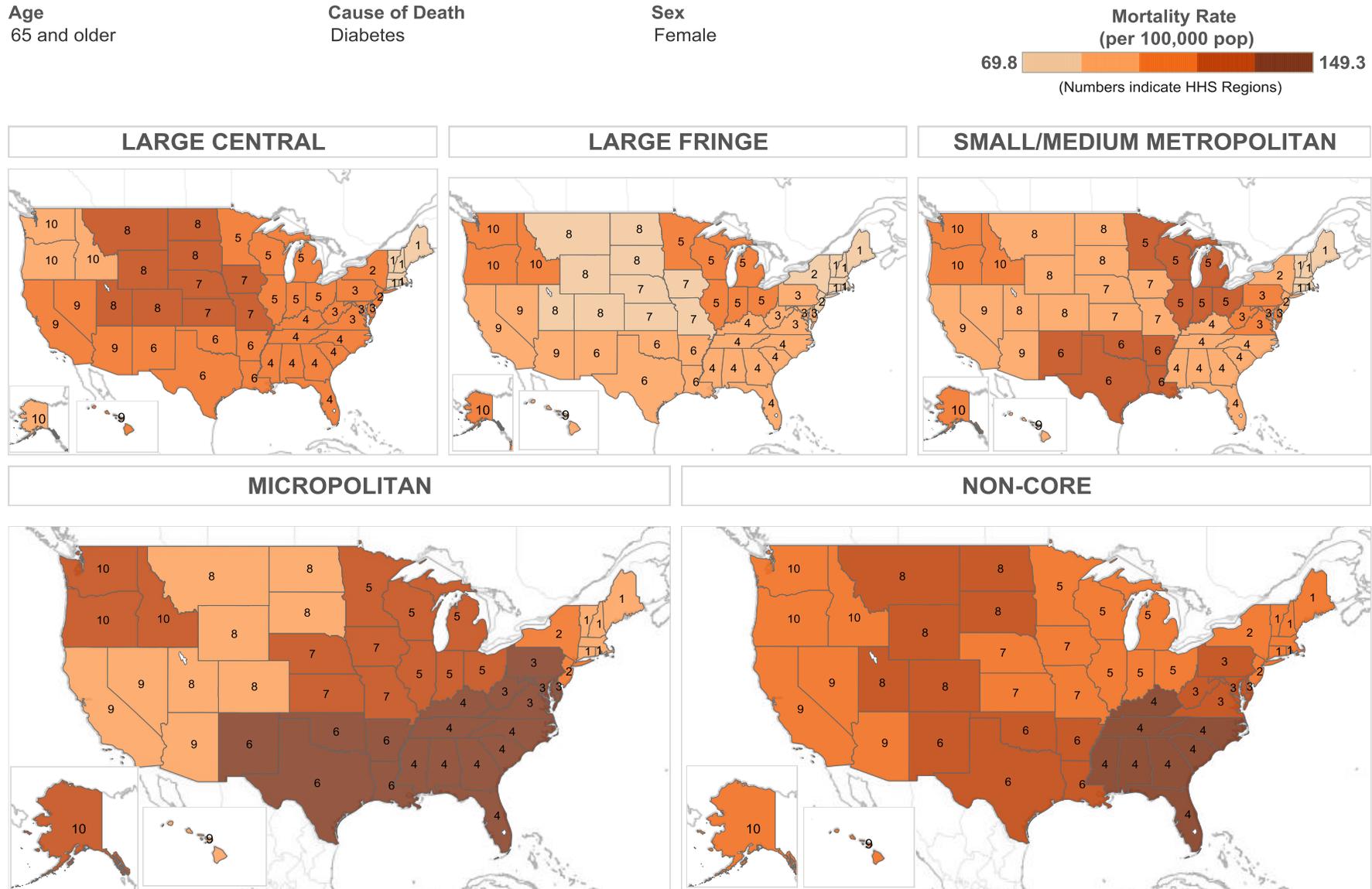
Figure 71



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: Diabetes; Sex: Female

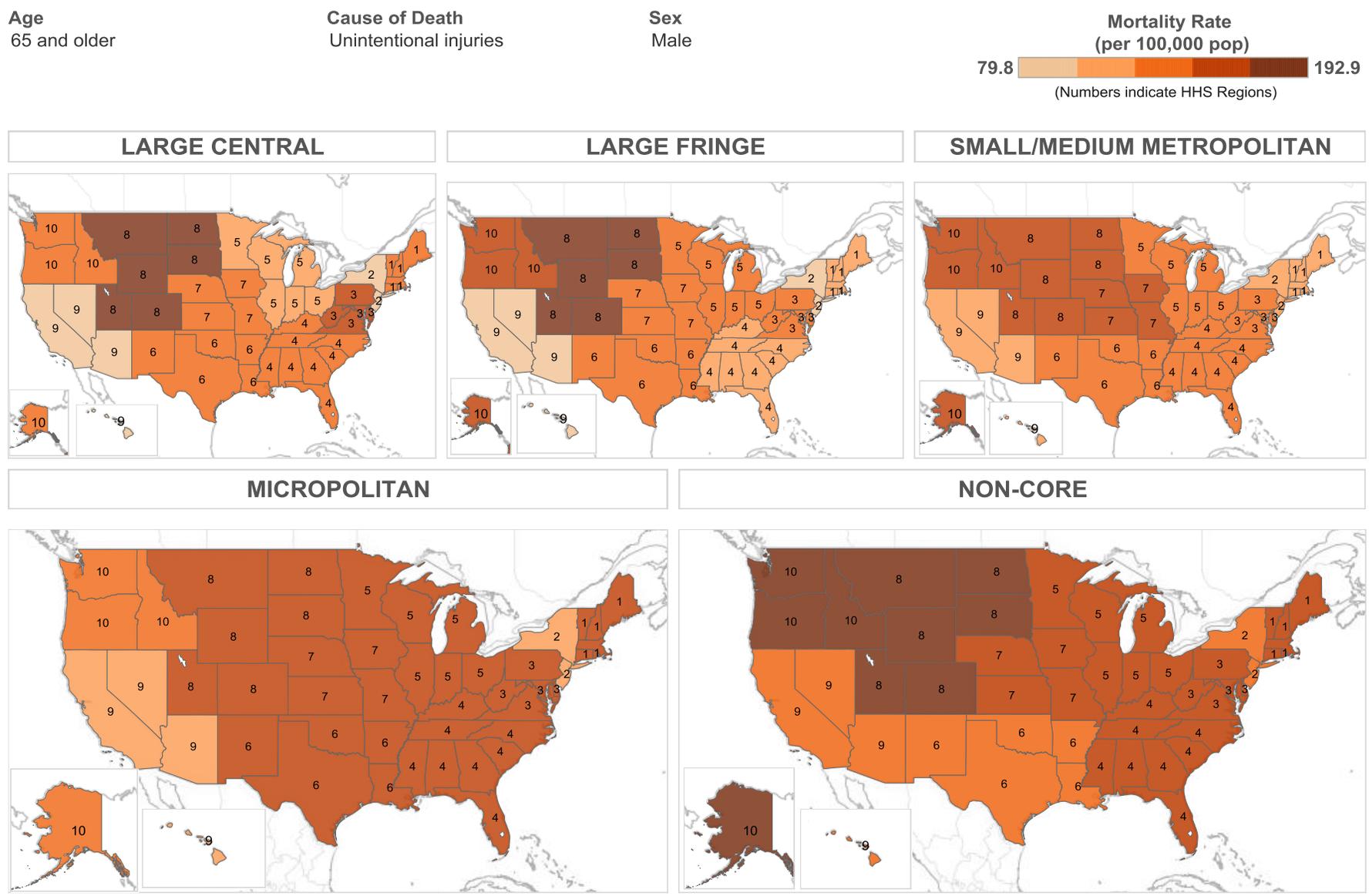
Figure 72



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: Unintentional injuries; Sex: Male

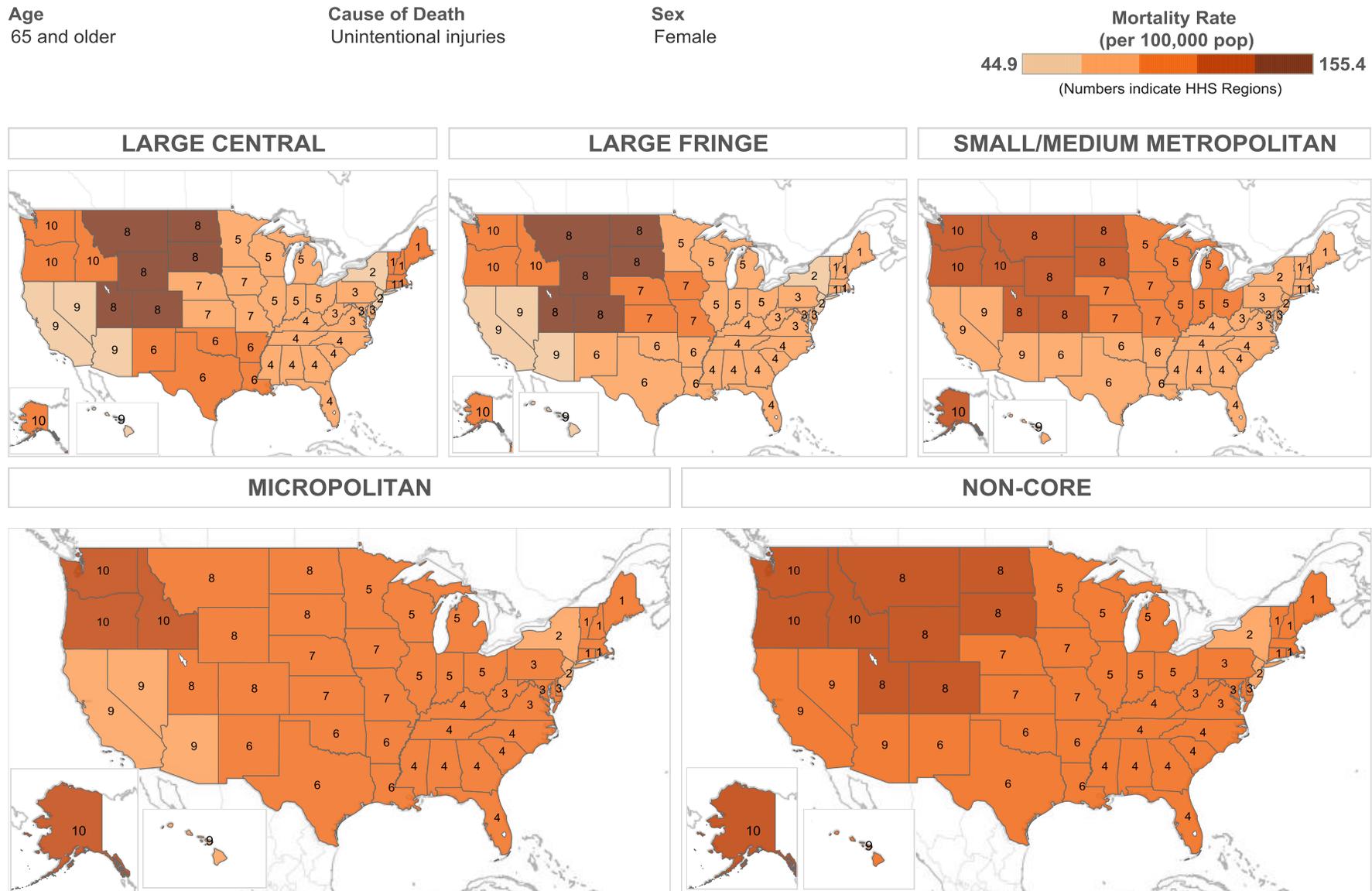
Figure 73



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: Unintentional injuries; Sex: Female

Figure 74



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.

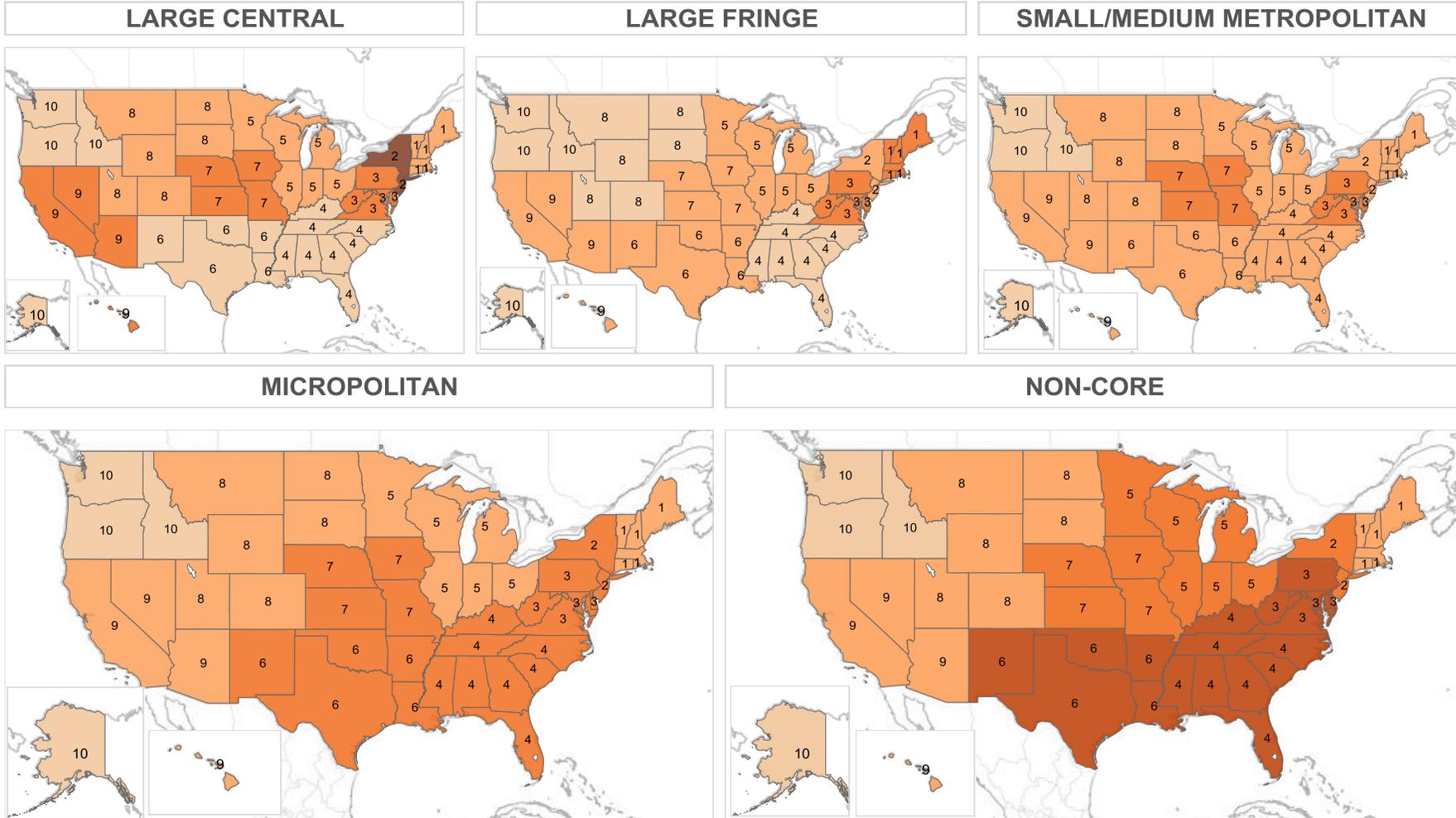
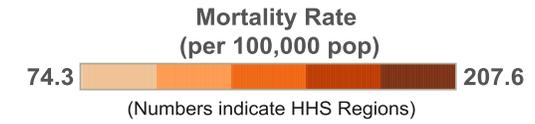
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Flu & pneumonia; Sex: Male

Figure 75

Age
65 and older

Cause of Death
Flu & pneumonia

Sex
Male



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.

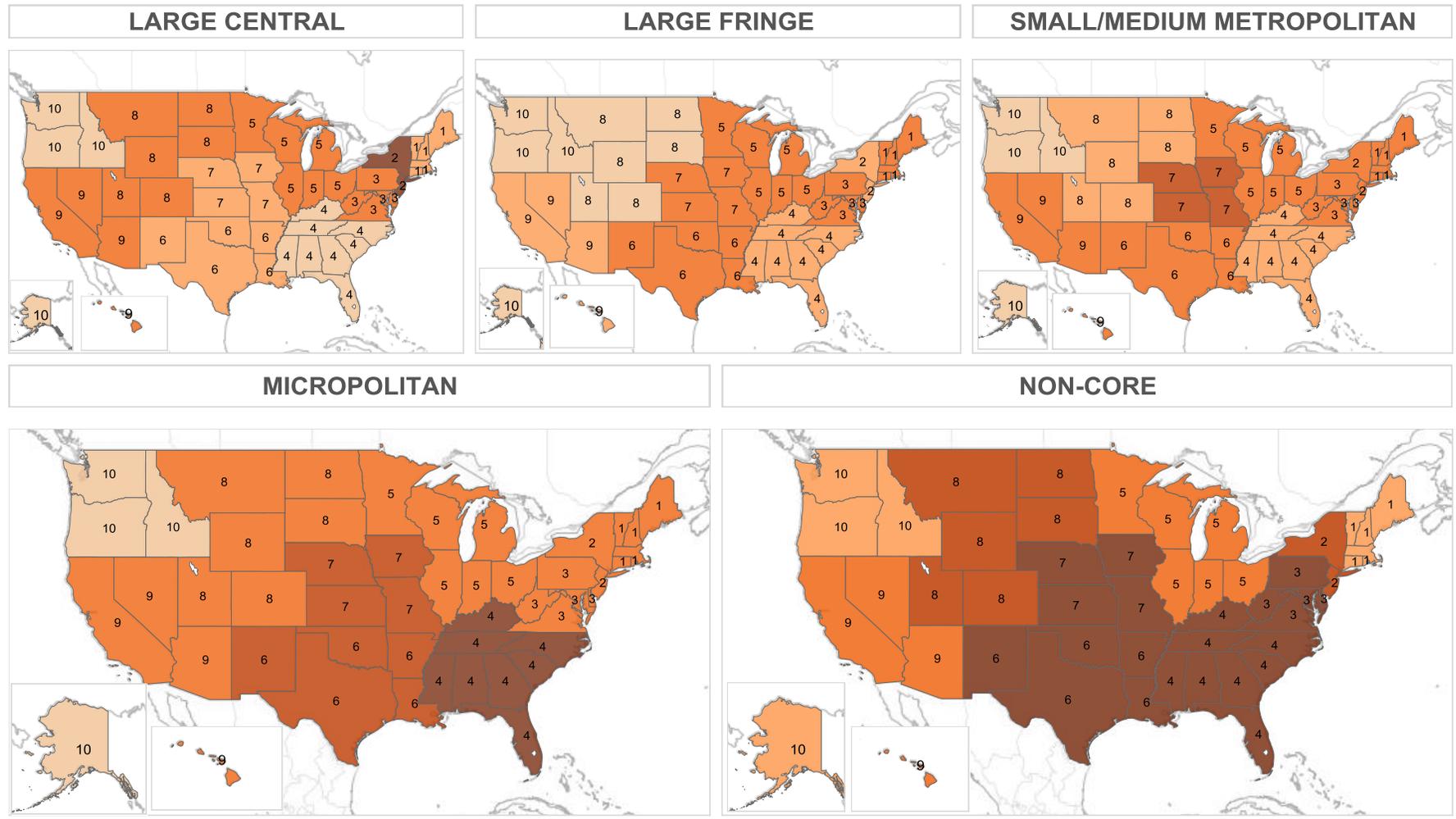
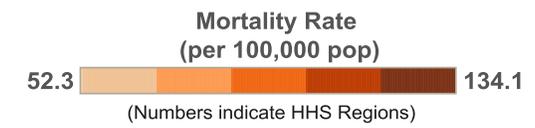
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Flu & pneumonia; Sex: Female

Figure 76

Age
65 and older

Cause of Death
Flu & pneumonia

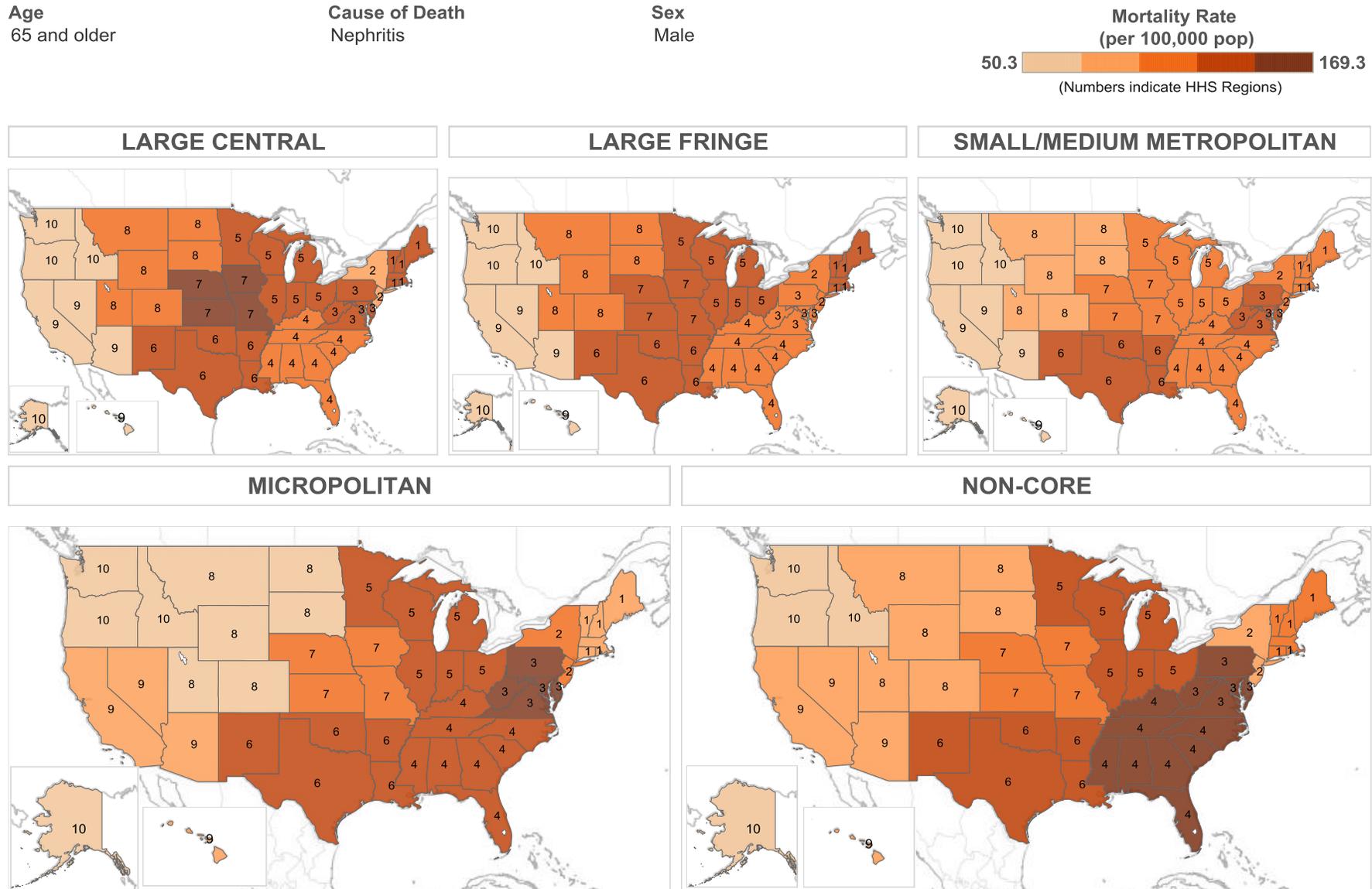
Sex
Female



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.

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

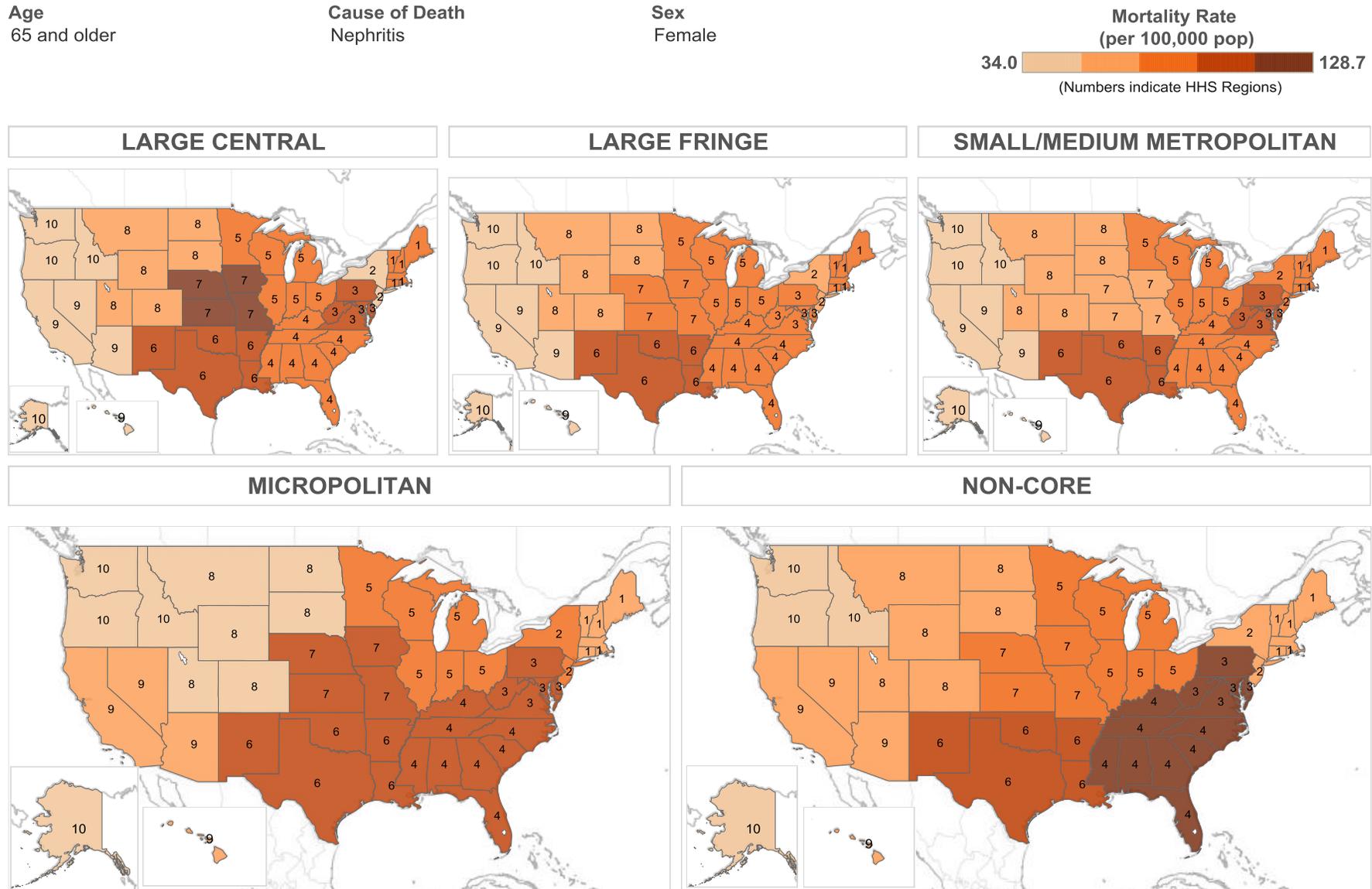
Figure 77



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: Nephritis; Sex: Female

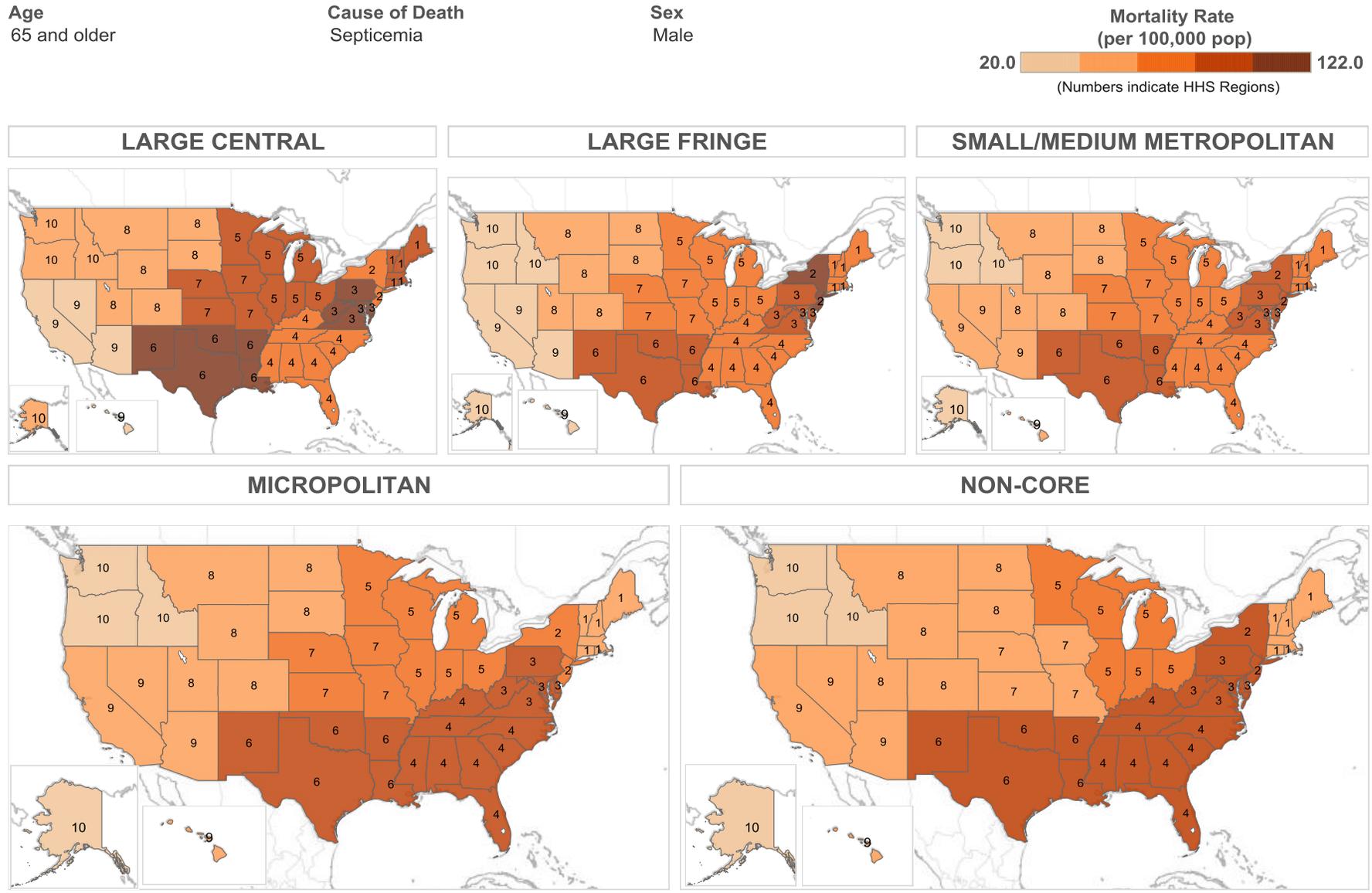
Figure 78



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: Septicemia; Sex: Male

Figure 79



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.

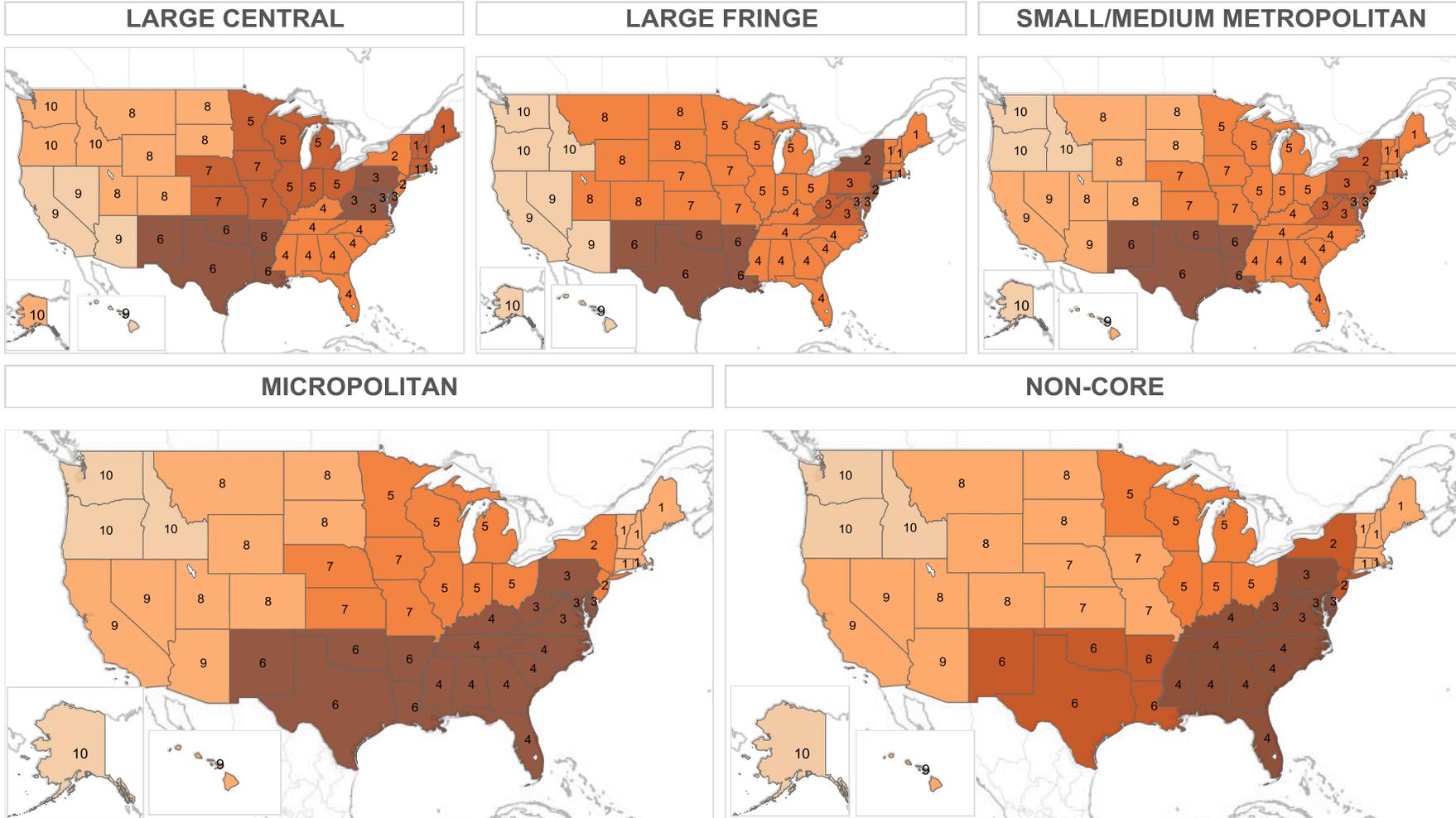
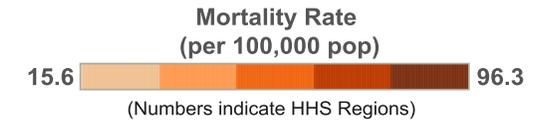
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Septicemia; Sex: Female

Figure 80

Age
65 and older

Cause of Death
Septicemia

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.

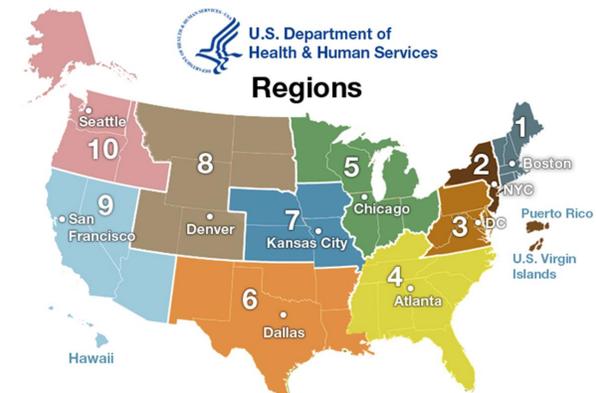
Summary: Infants

- 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



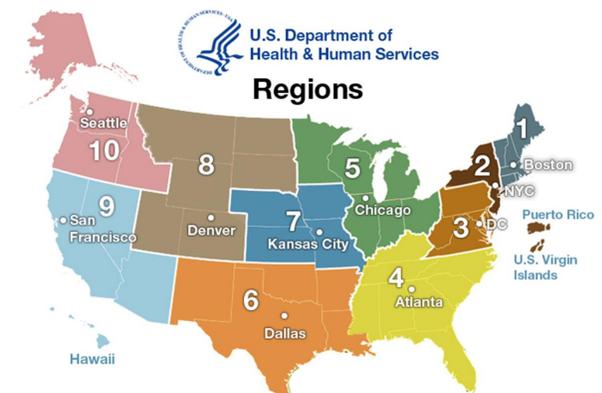
Summary: Children (Age 1 to 14)

- 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.