

# 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
<b>Large central</b> (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
<b>Large Fringe</b> (suburban)	Counties in MSAs with a population of at least 1 million residents
<b>Small Metro</b>	Counties in MSAs with a population of less than 1 million residents
<b>Micropolitan</b> (large rural)	Counties with populations of 10,000 to 49,999 residents
<b>Non-core</b> (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:**

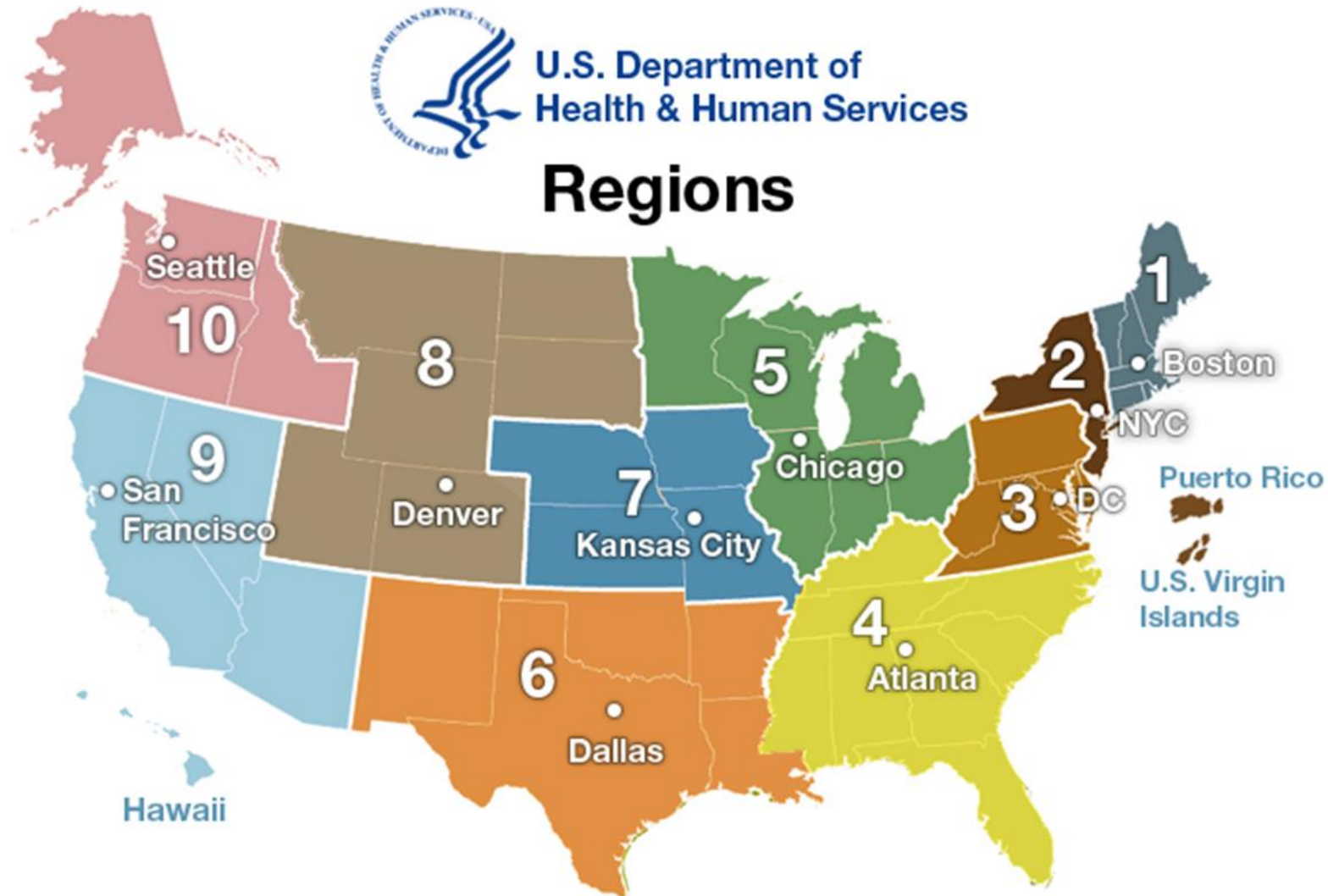
Exploring Rural and Urban Mortality Differences by HHS Region may be accessed from the Rural Health Research Gateway website at:

<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](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

## Table of Contents

- [Introduction](#)
- [Infant Mortality Maps](#)
- [Children Mortality Maps](#)
- [Adolescent and Young Adult Mortality Maps](#)
- [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 Death<sup>1</sup>:

- [Figure 2: Congenital malformations](#)
- [Figure 3: Short gestation and low birth weight](#)
- [Figure 4: Sudden infant death syndrome](#)
- [Figure 5: Maternal complications of pregnancy](#)
- [Figure 6: Unintentional injuries](#)
- [Figure 7: Placenta, cord, and membrane complications](#)
- [Figure 8: Bacterial sepsis](#)
- [Figure 9: Respiratory distress](#)
- [Figure 10: Circulatory system diseases](#)
- [Figure 11: Neonatal hemorrhage](#)

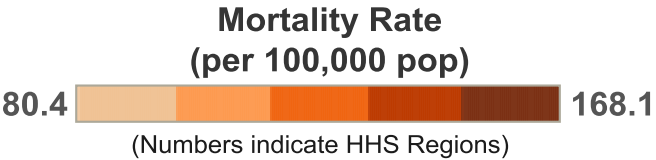
<sup>1</sup>Cause of death of top 10 rankable causes of death in order from leading cause of death to 10<sup>th</sup> leading cause of death for this age group. Source: [http://webappa.cdc.gov/sasweb/ncipc/leadcaus10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/leadcaus10_us.html)

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

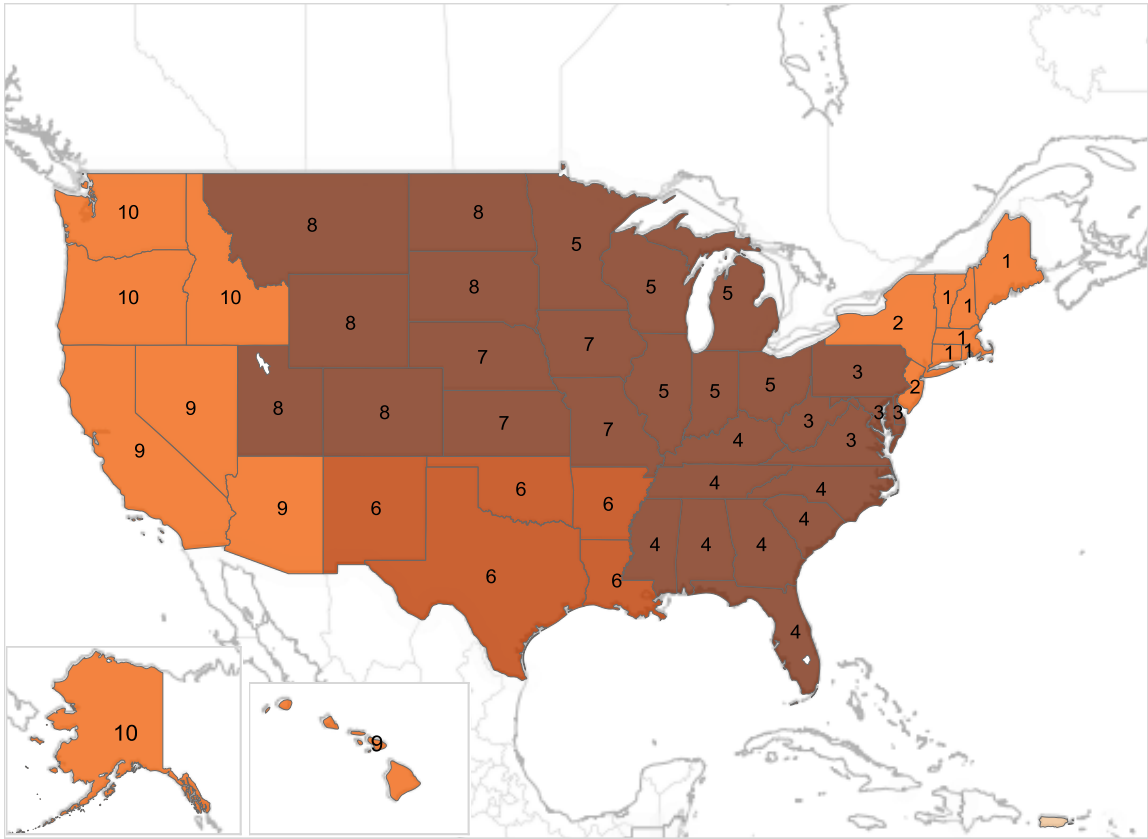
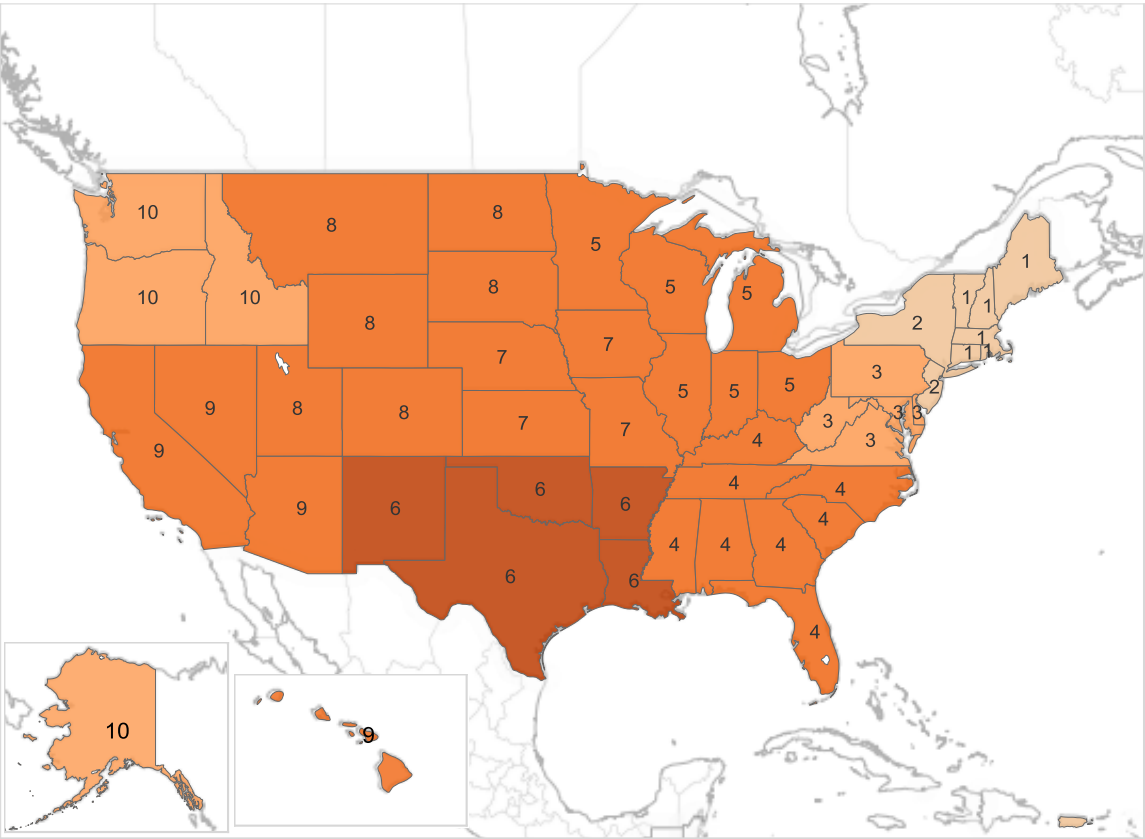
Age  
Under 1

Cause of Death  
Congenital malformations



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

RURAL (Micropolitan, Non-Core)



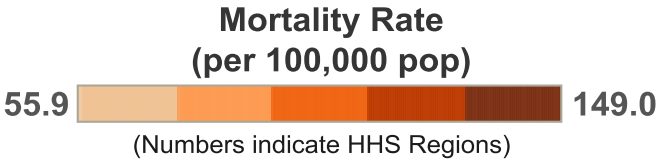
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

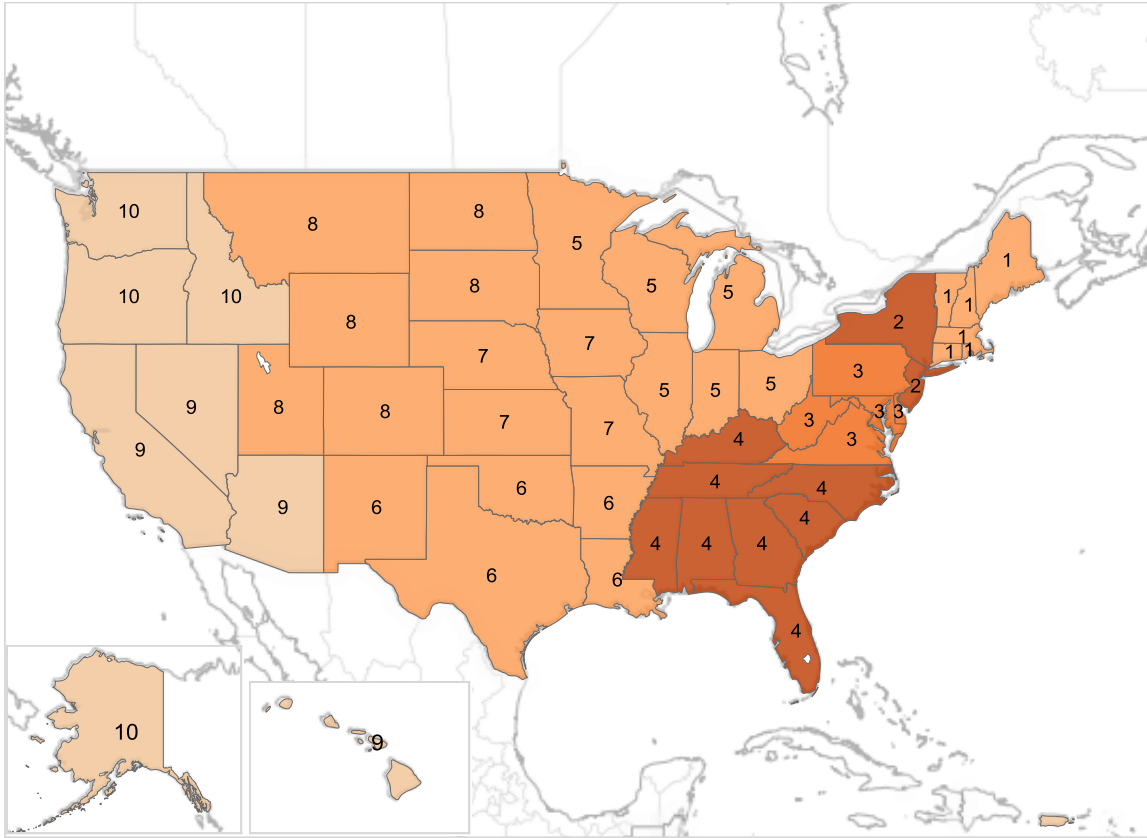
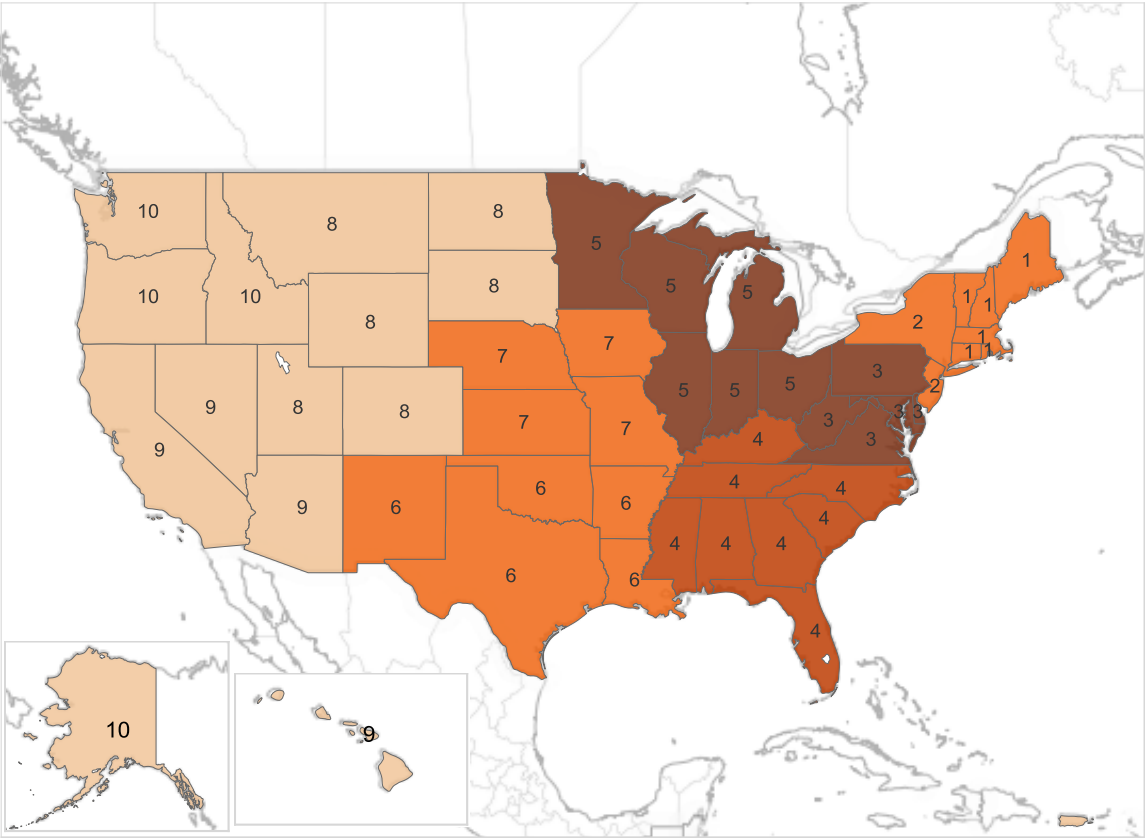
Age  
Under 1

Cause of Death  
Short gestation and low birth weight



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

RURAL (Micropolitan, Non-Core)



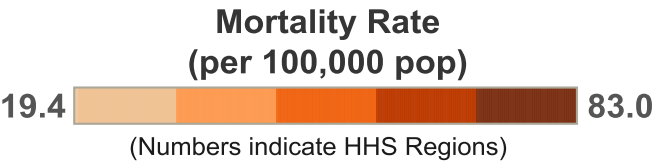
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

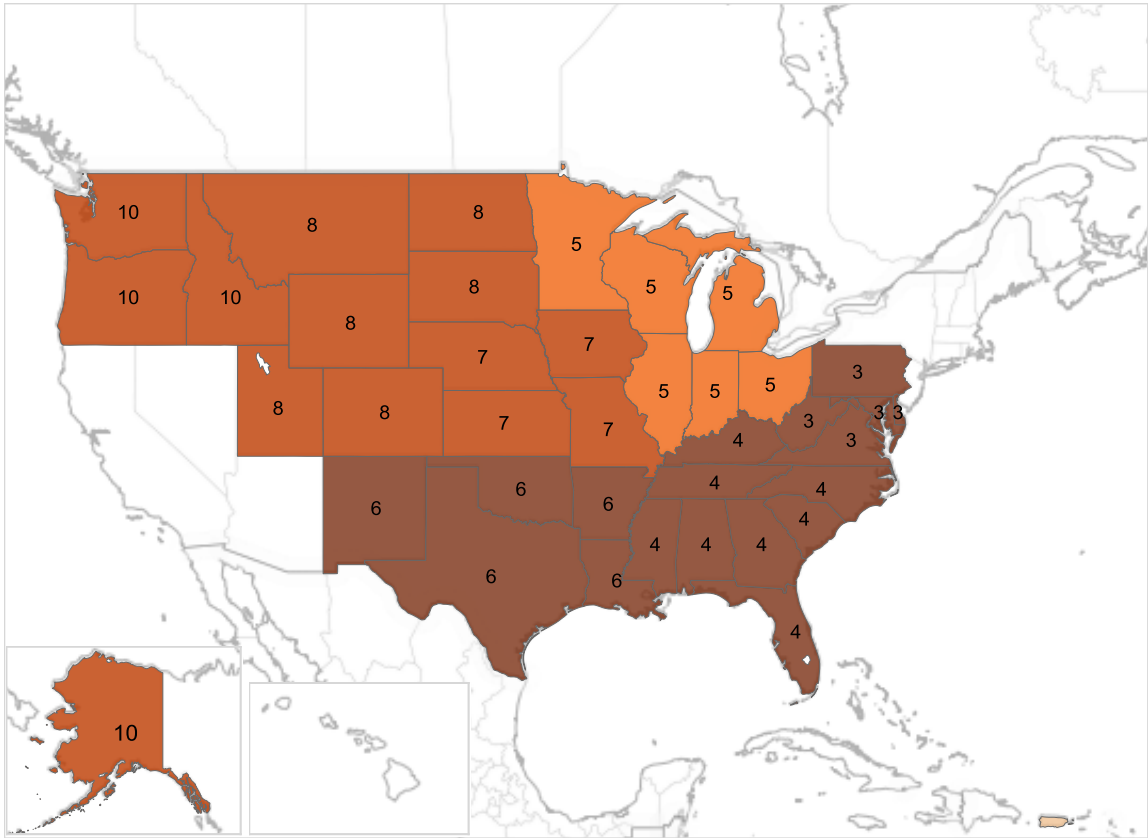
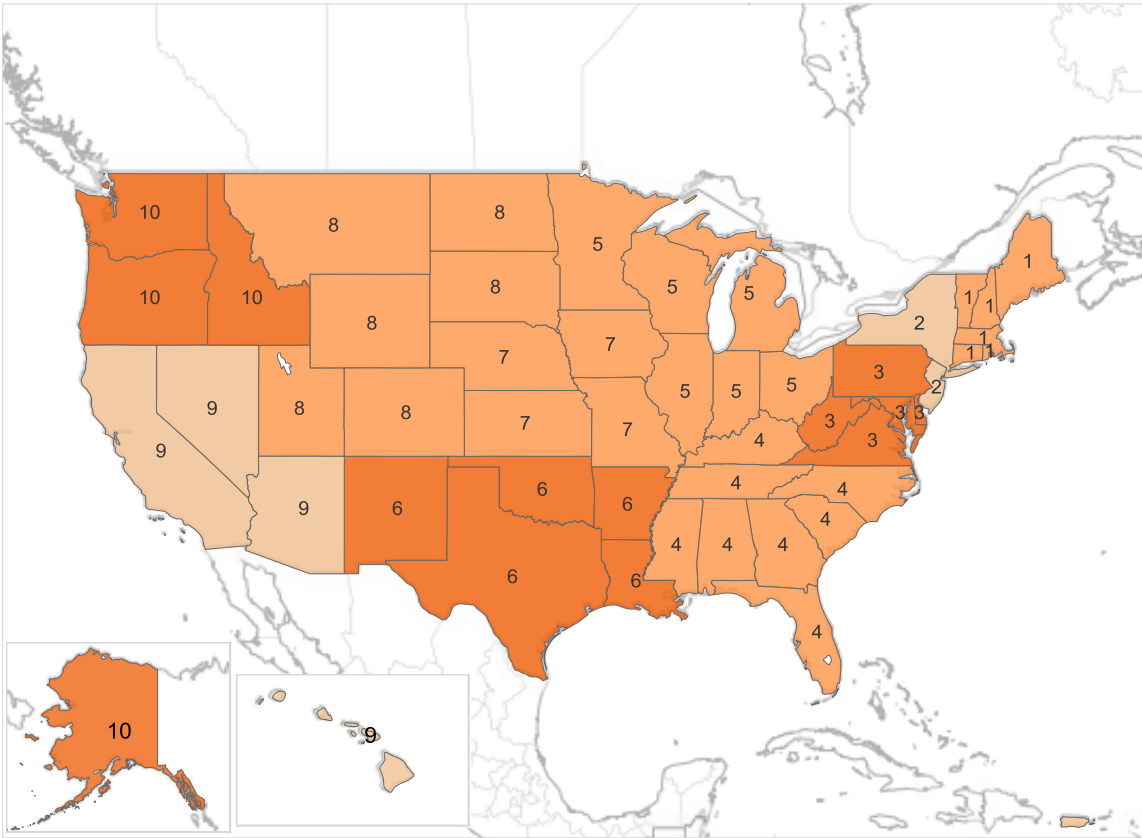
Age  
Under 1

Cause of Death  
Sudden infant death syndrome



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

RURAL (Micropolitan, Non-Core)



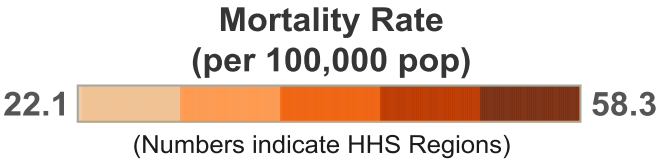
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

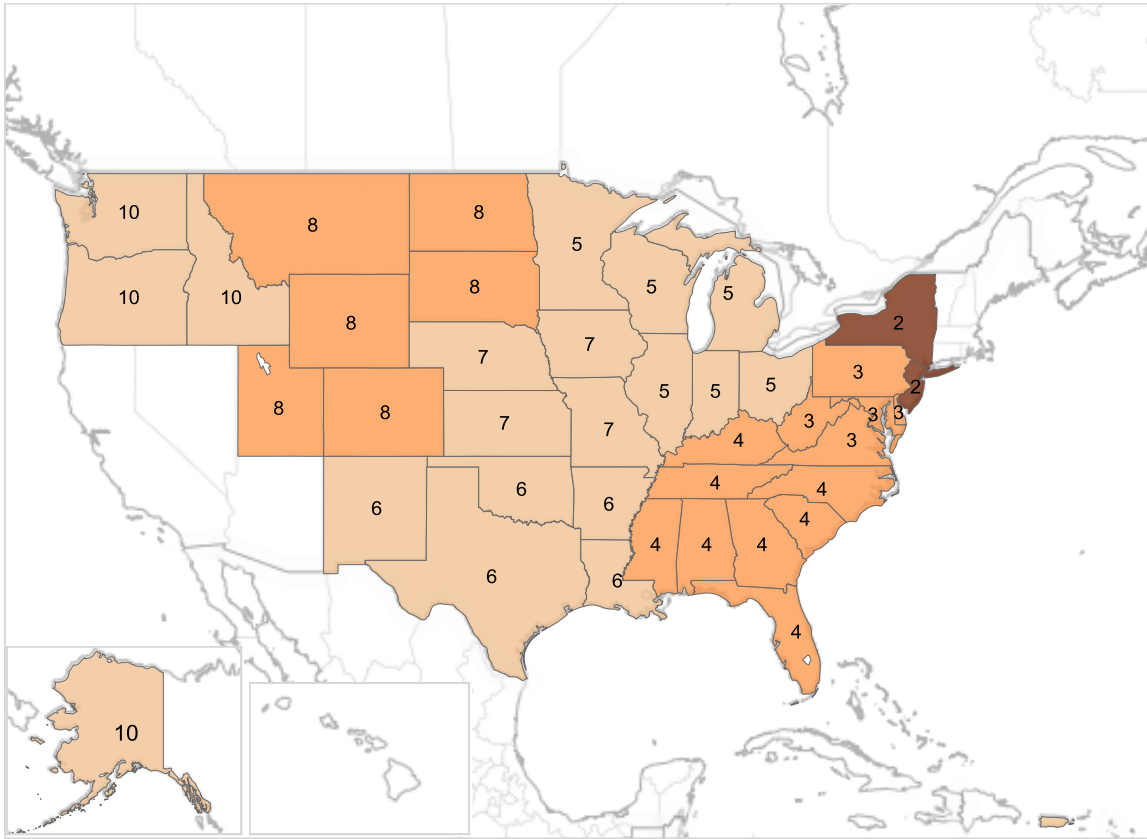
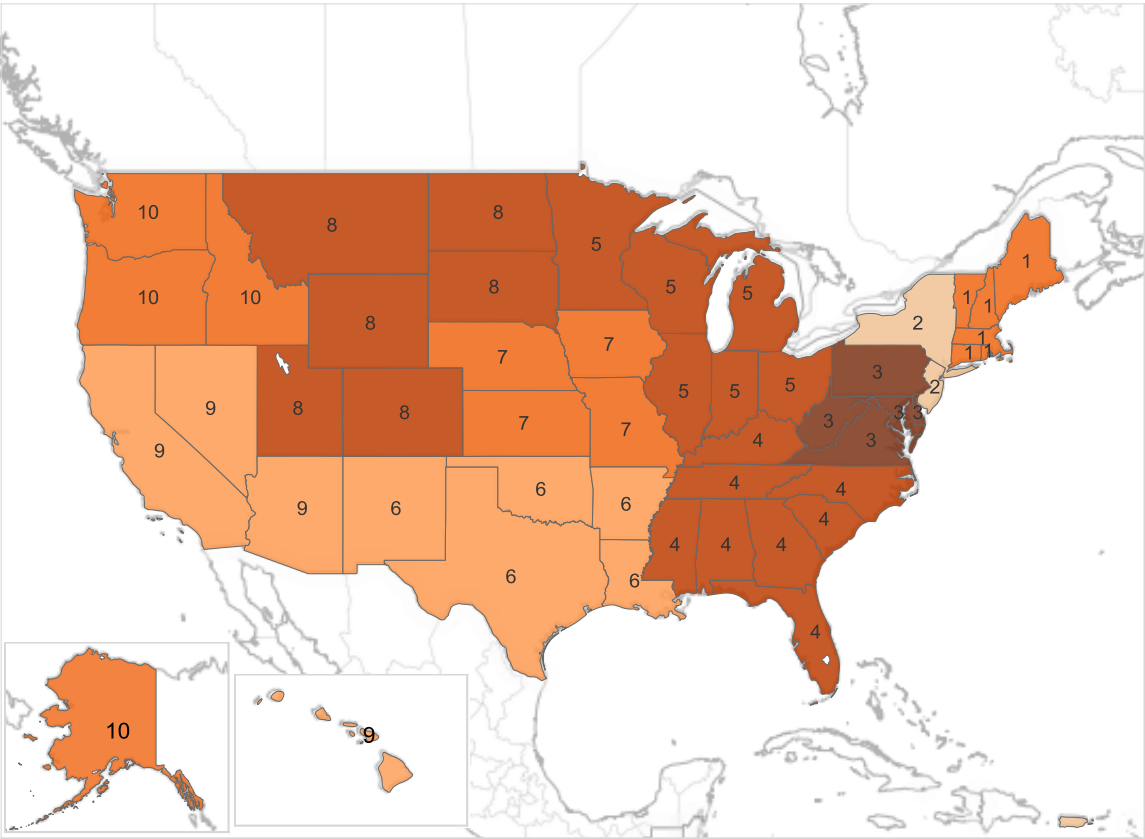
Age  
Under 1

Cause of Death  
Maternal complications of pregnancy



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

RURAL (Micropolitan, Non-Core)



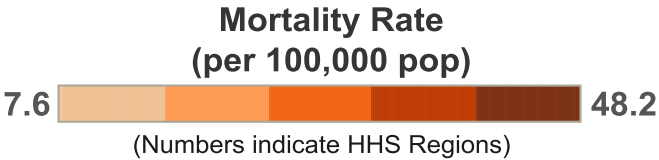
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

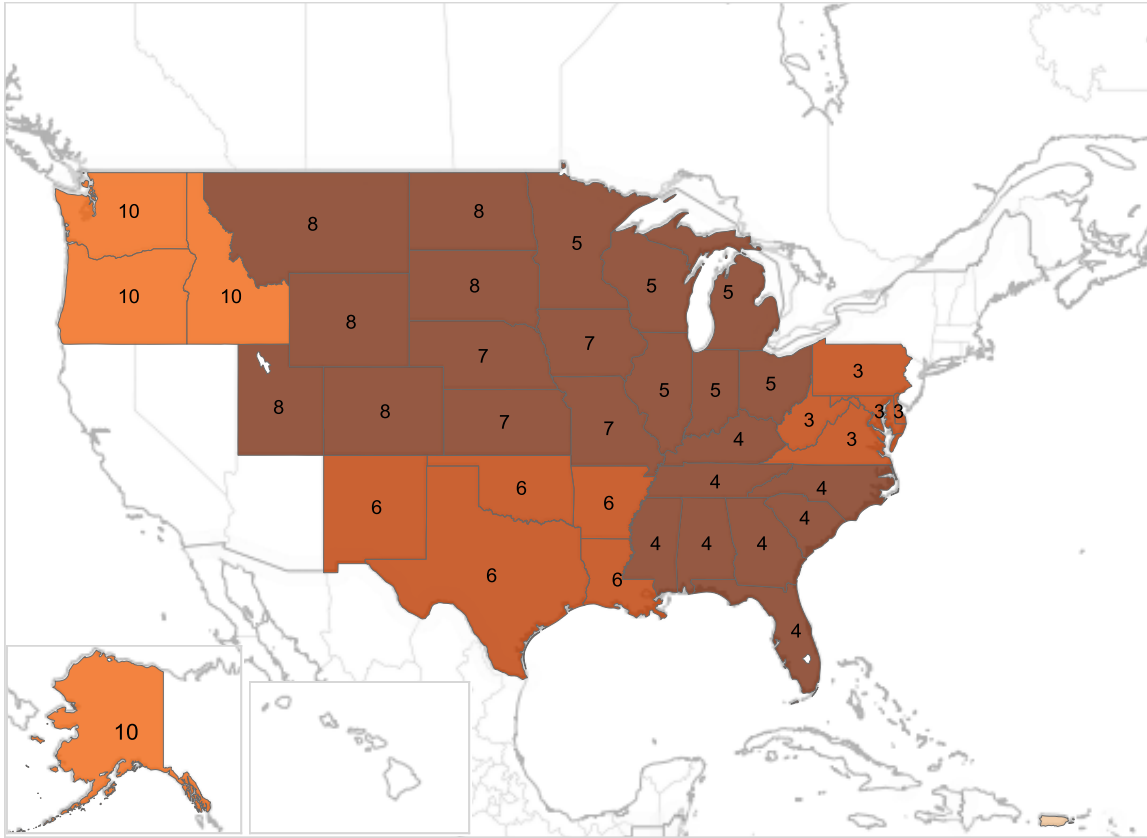
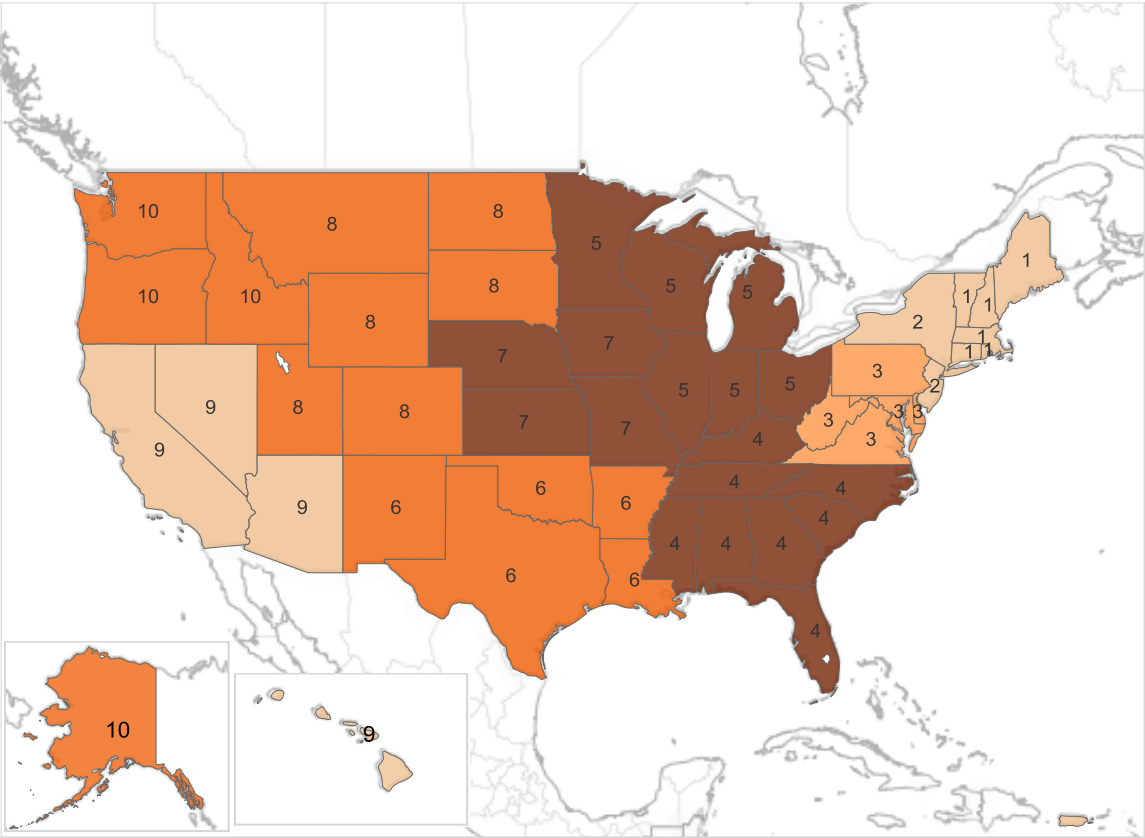
Age  
Under 1

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.

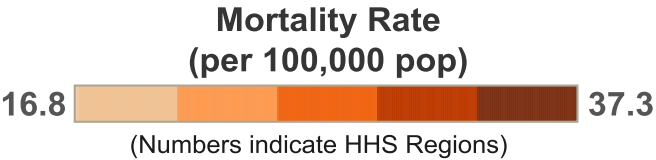


Figure 7

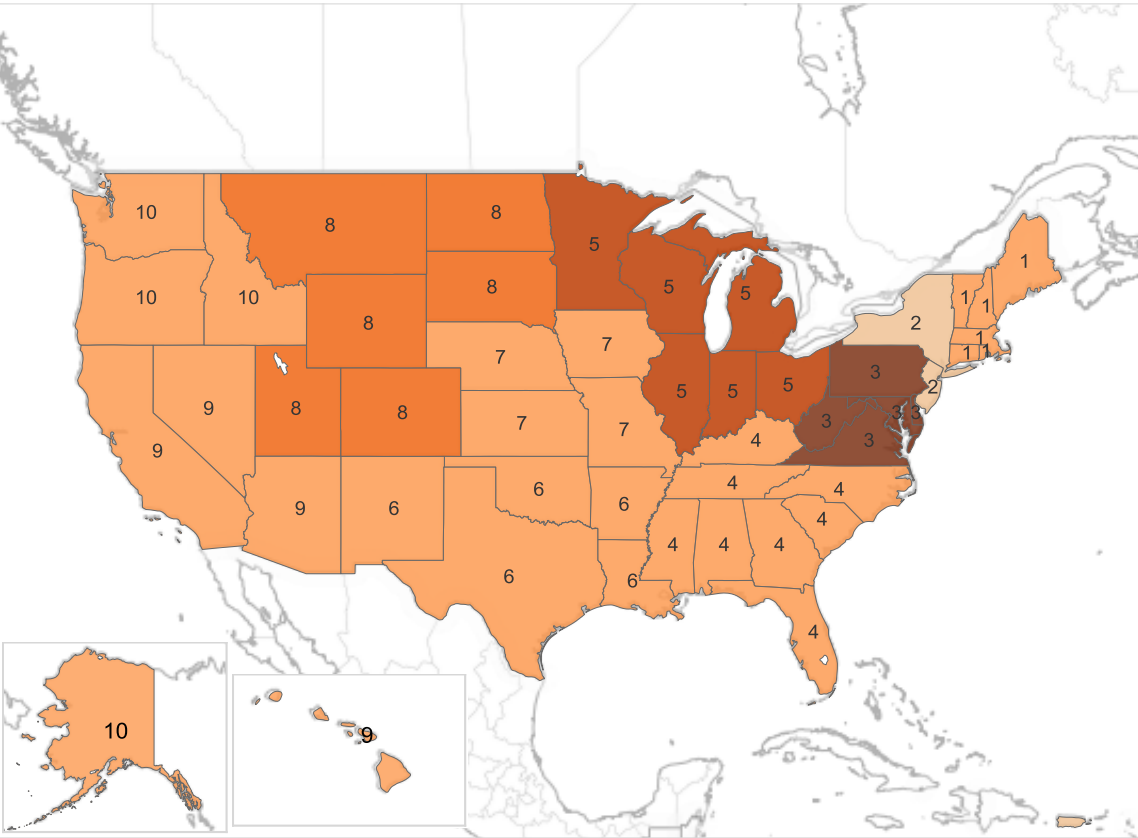
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: Under 1; Cause of Death: Placenta, cord and membrane complications; Sex: Combined Sexes

Age  
Under 1

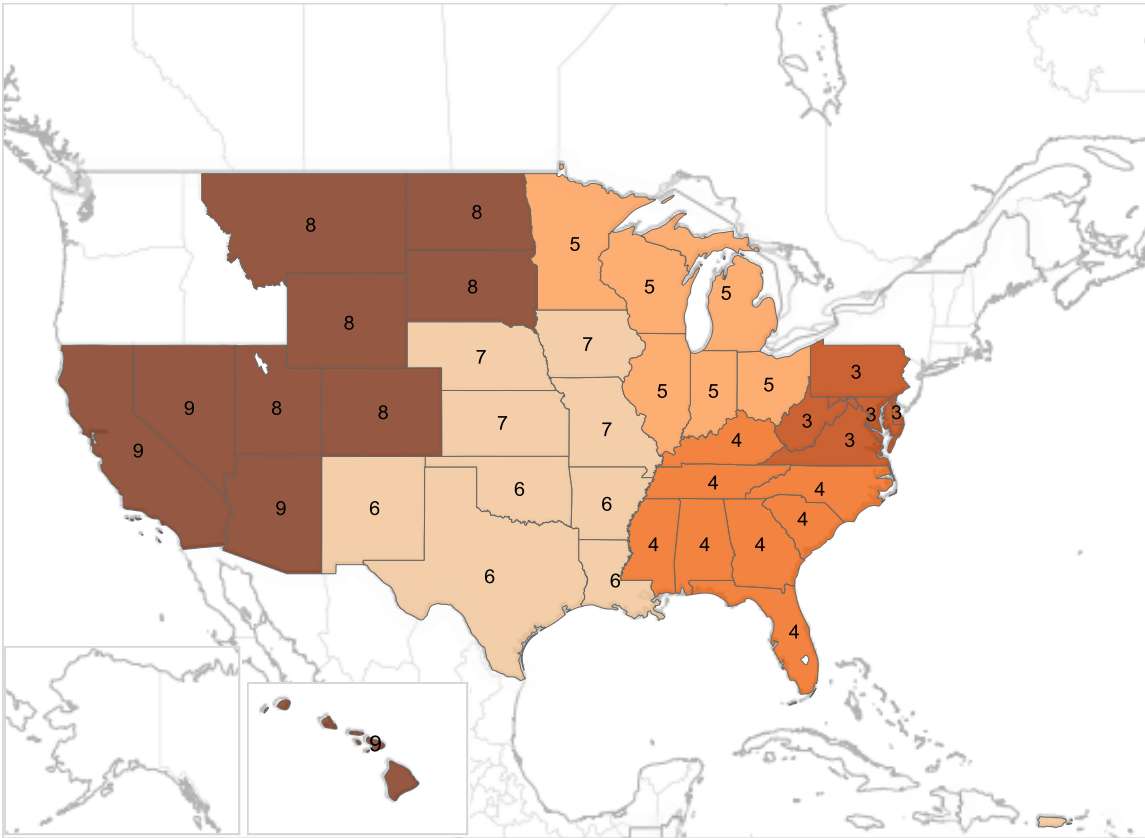
Cause of Death  
Placenta, cord and membrane complications



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.

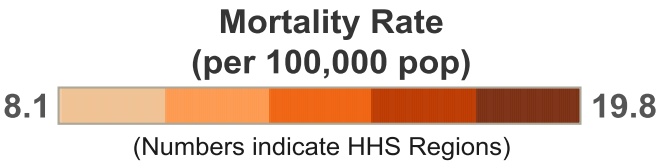


Figure 8

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

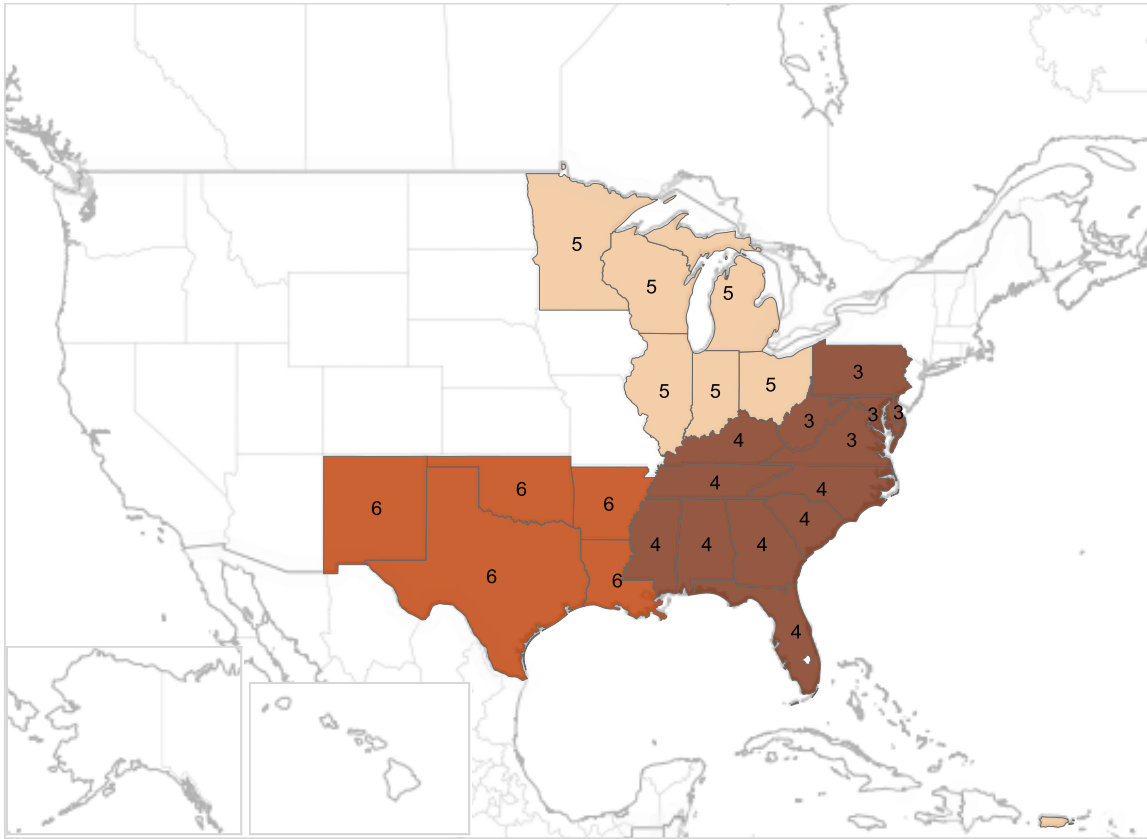
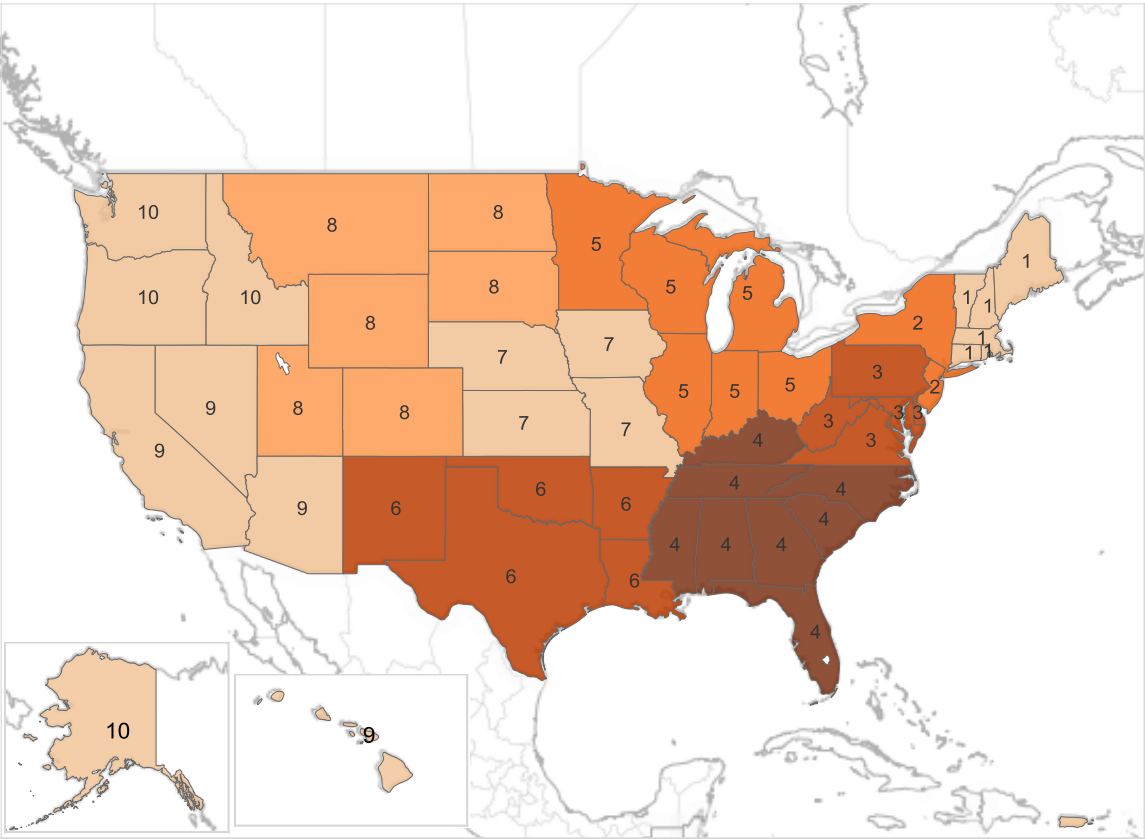
Age  
Under 1

Cause of Death  
Bacterial sepsis



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

RURAL (Micropolitan, Non-Core)



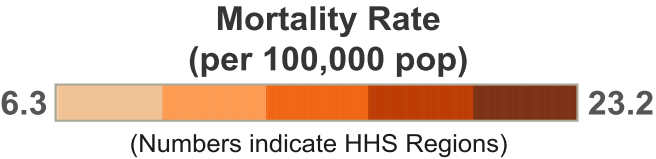
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

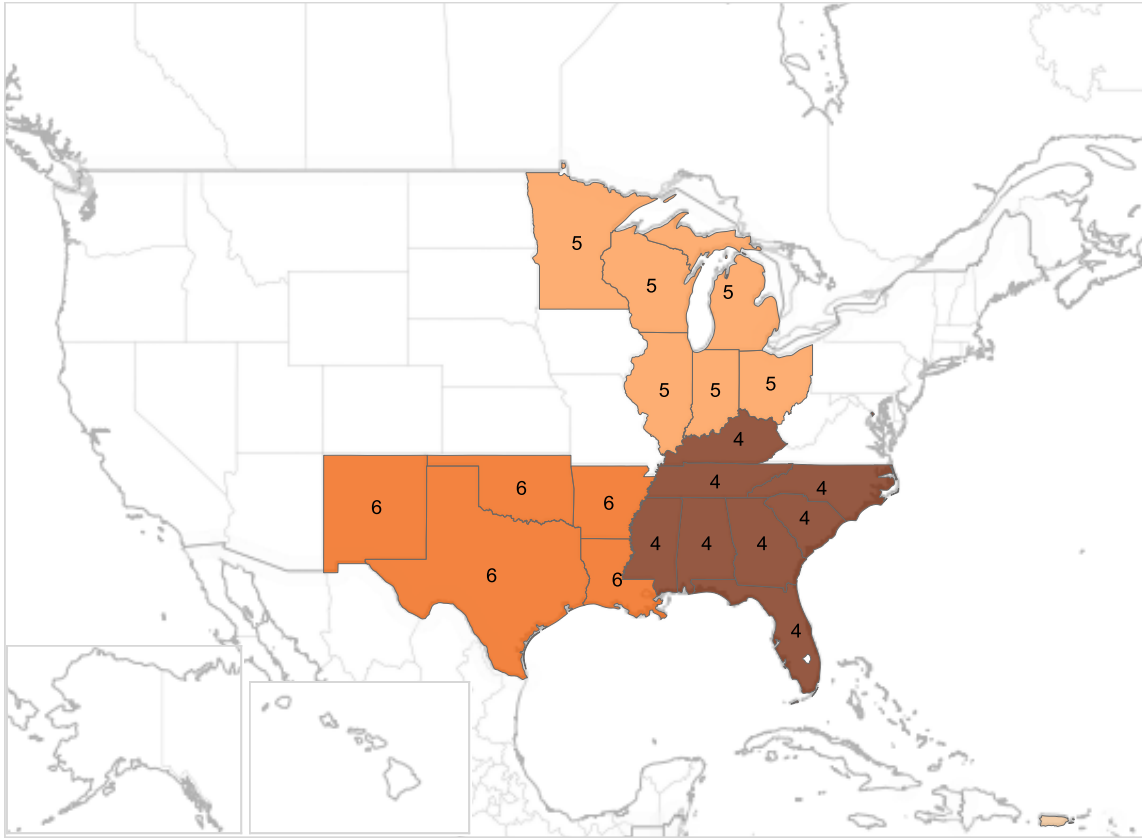
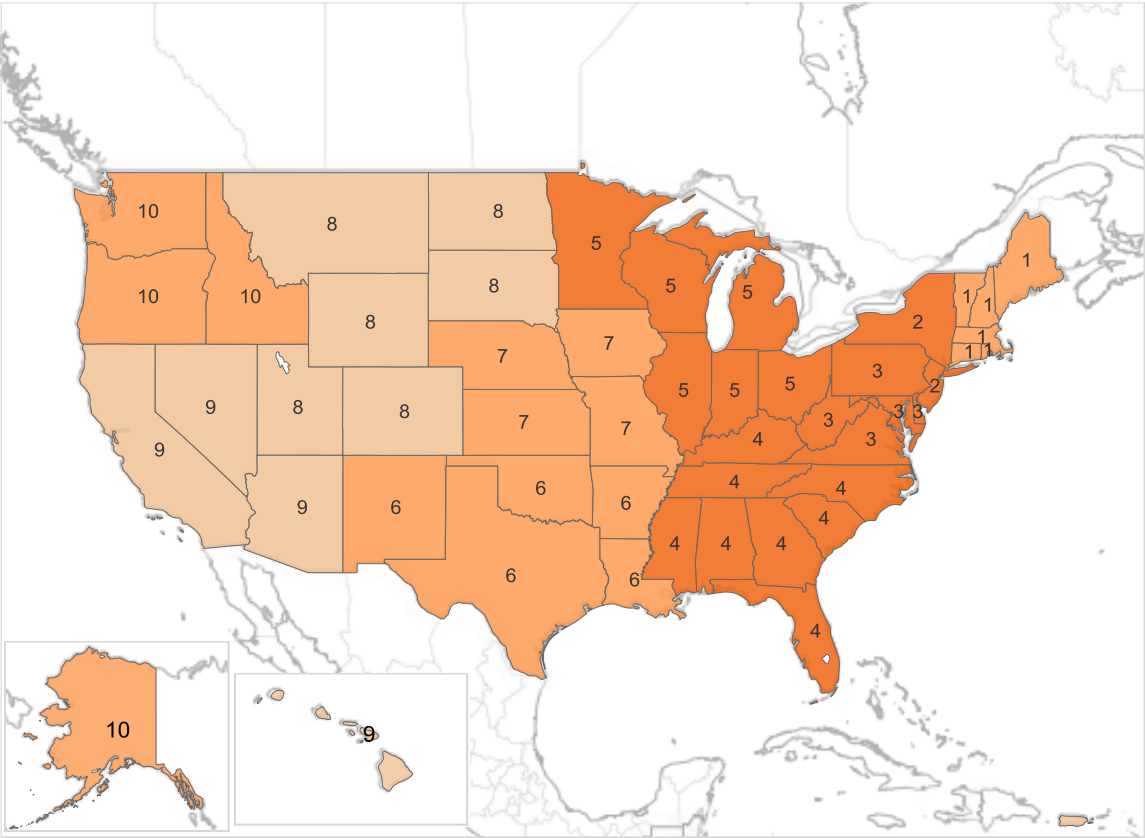
Age  
Under 1

Cause of Death  
Respiratory distress



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

RURAL (Micropolitan, Non-Core)



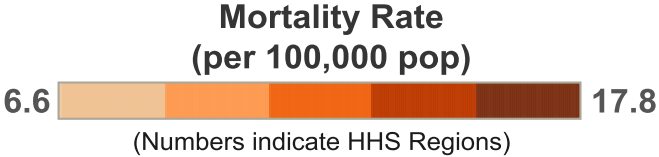
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

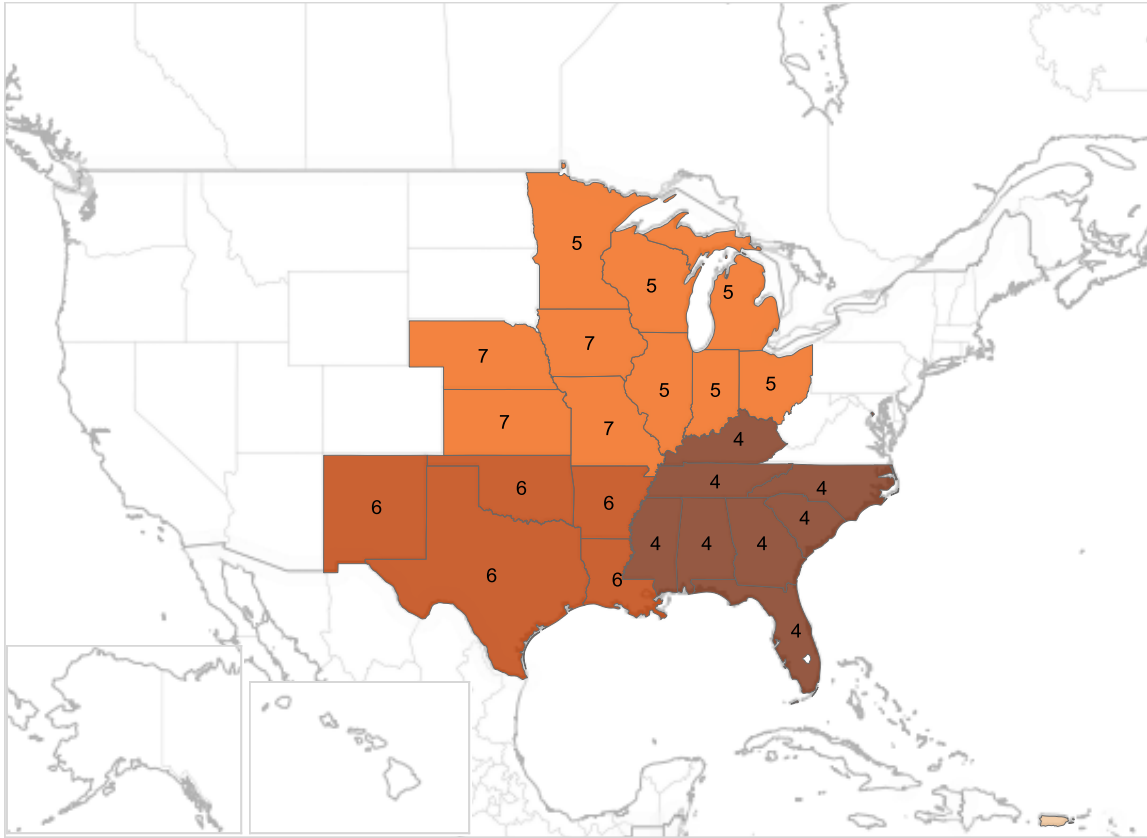
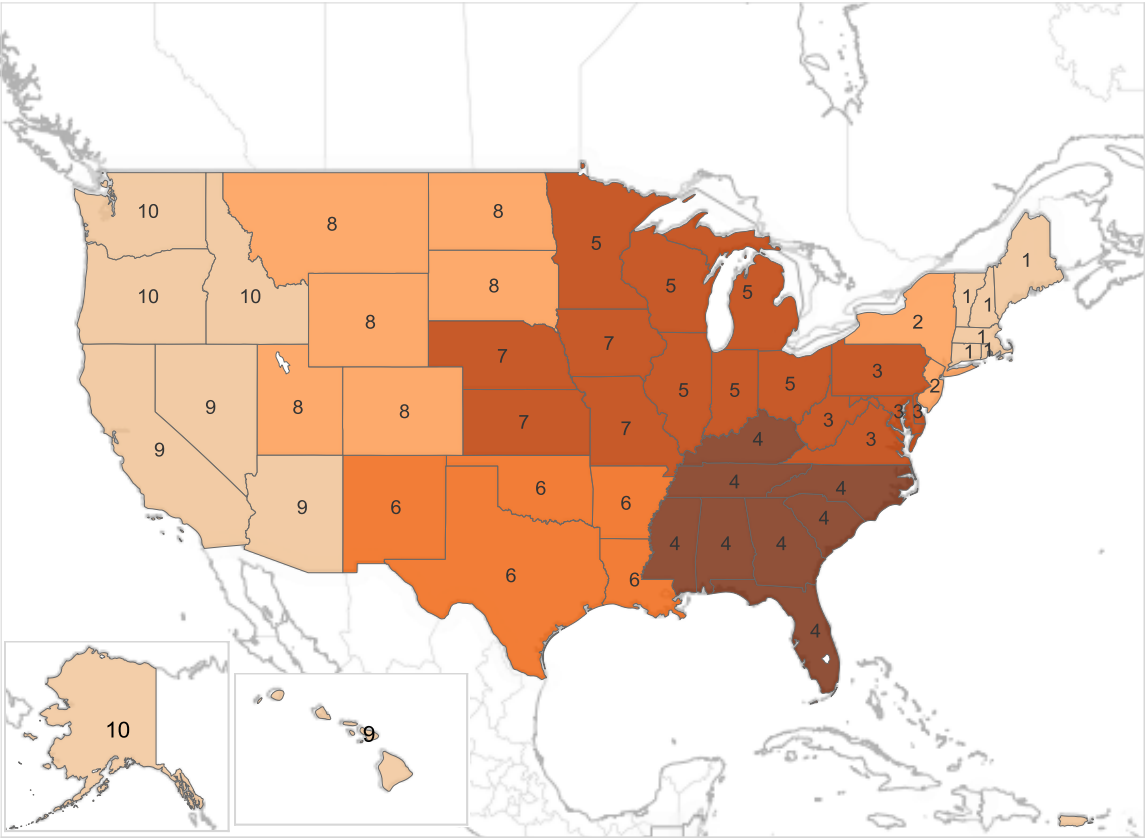
Age  
Under 1

Cause of Death  
Circulatory system diseases



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

RURAL (Micropolitan, Non-Core)



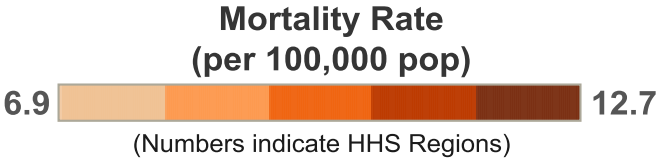
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

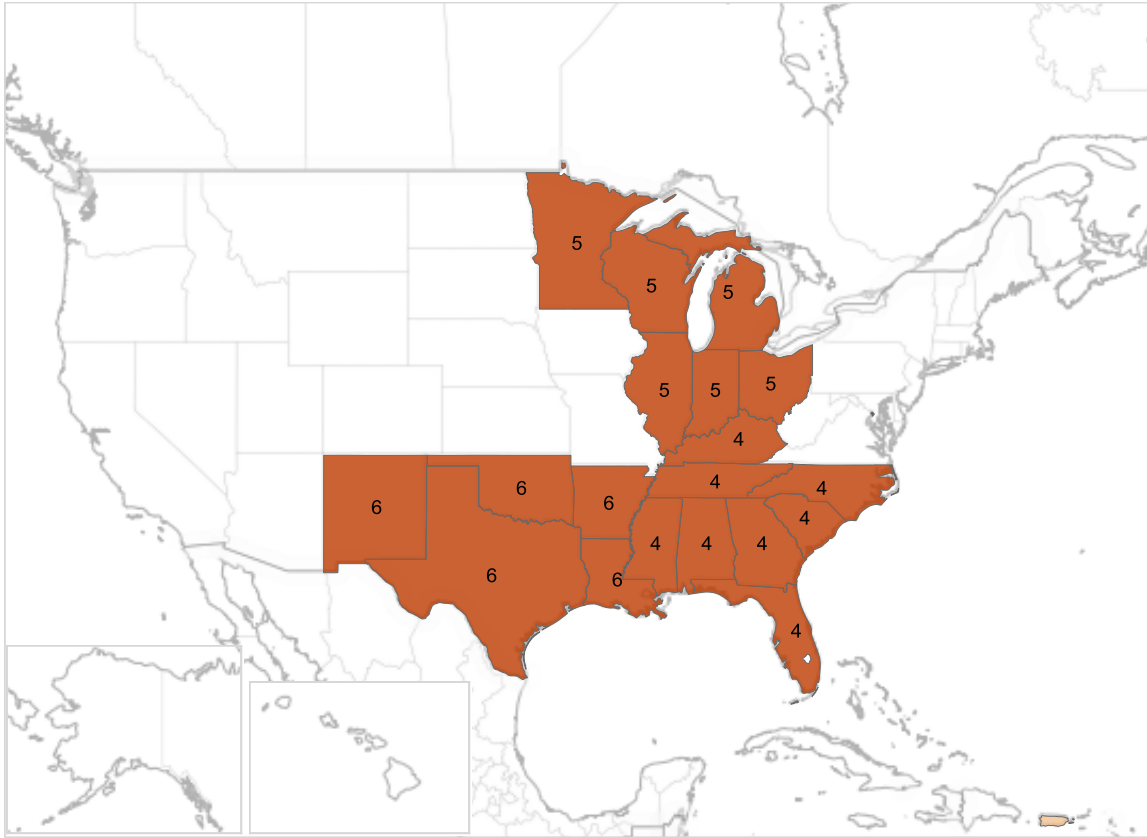
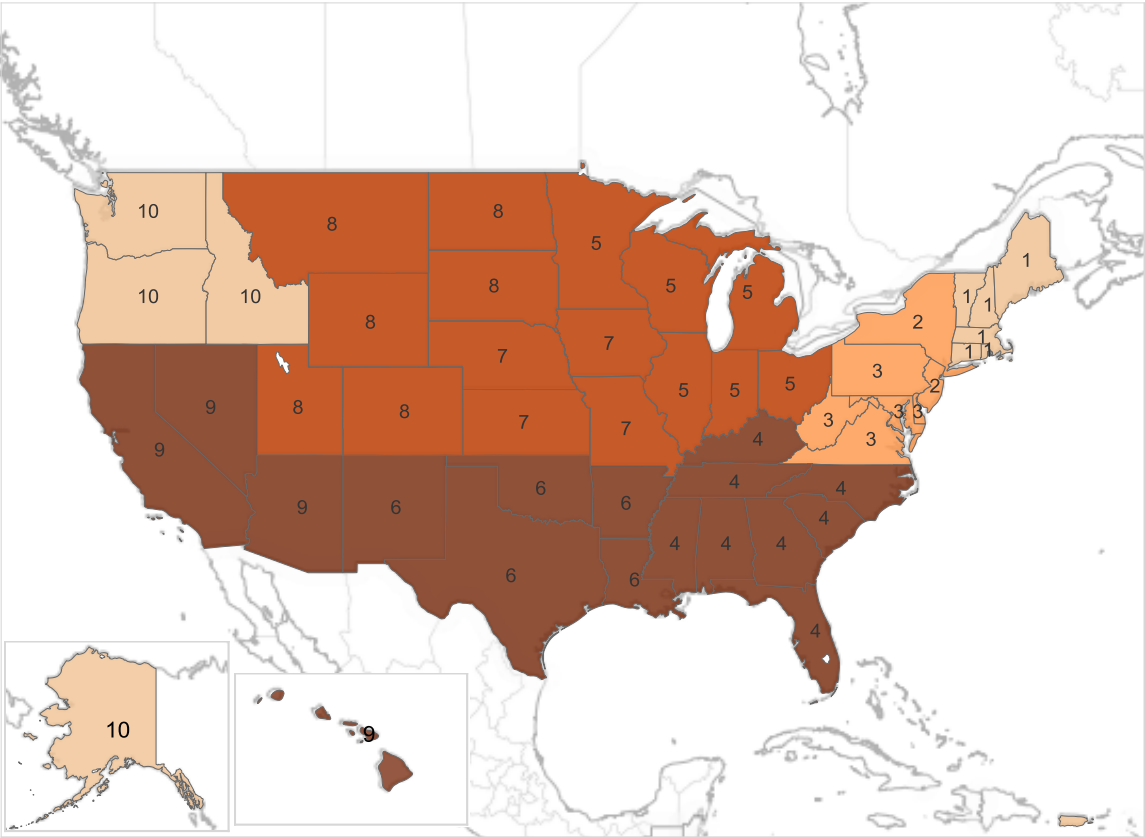
Age  
Under 1

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 Death<sup>2</sup>:

- [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](#)

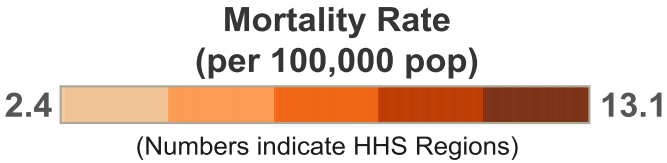
<sup>2</sup>Cause of death of top 10 rankable causes of death in order from leading cause of death to 10<sup>th</sup> leading cause of death for this age group. Source: [http://webappa.cdc.gov/sasweb/ncipc/leadcaus10\\_us.html](http://webappa.cdc.gov/sasweb/ncipc/leadcaus10_us.html)

Figure 12

# 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

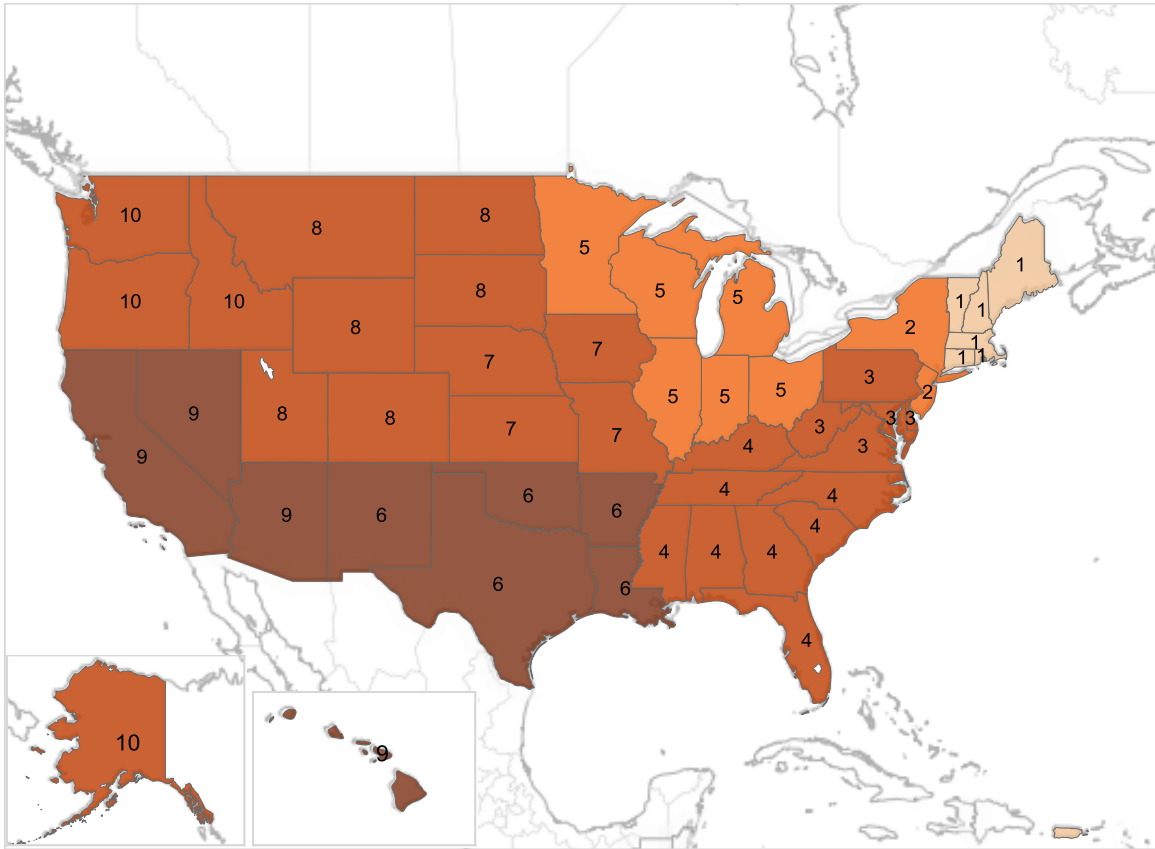
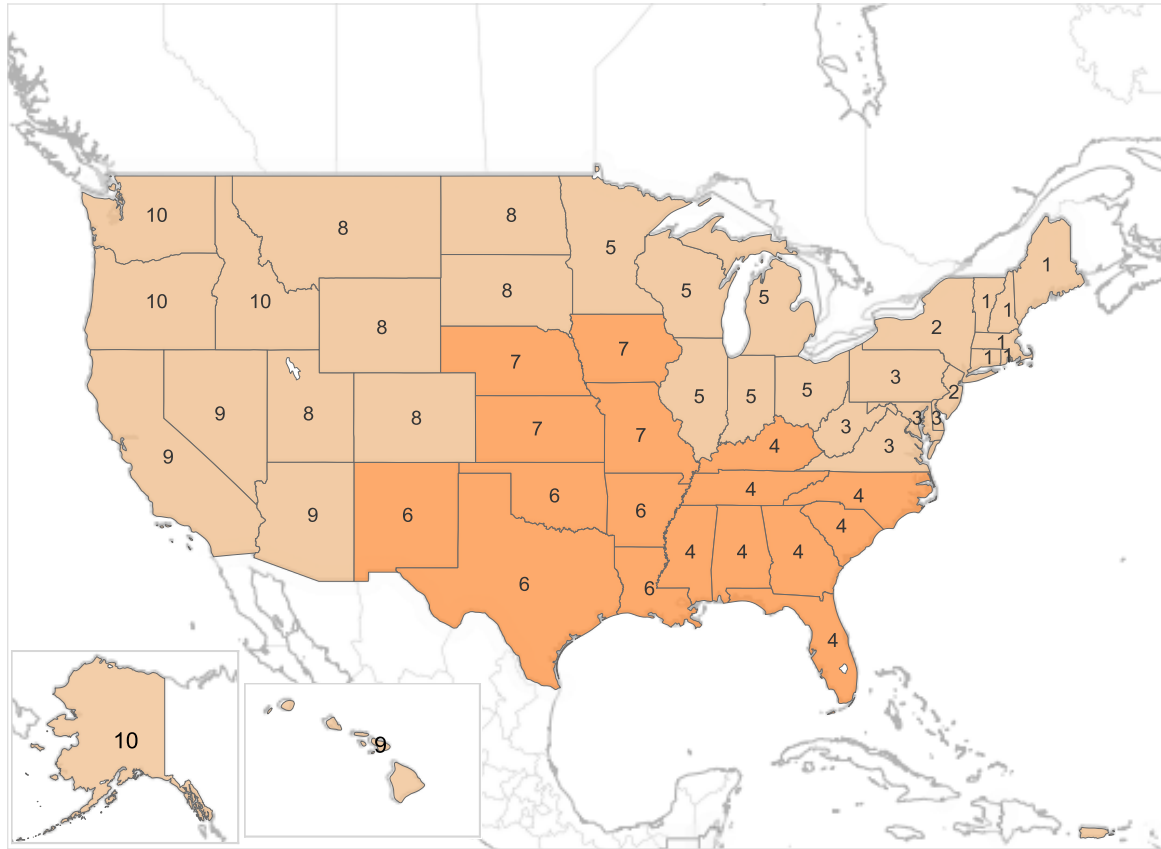
Age  
1 to 14

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.

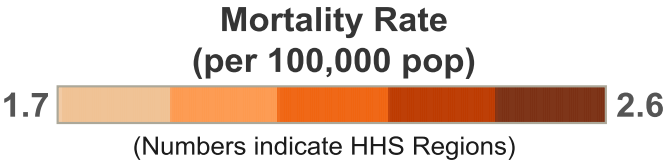


Figure 13

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

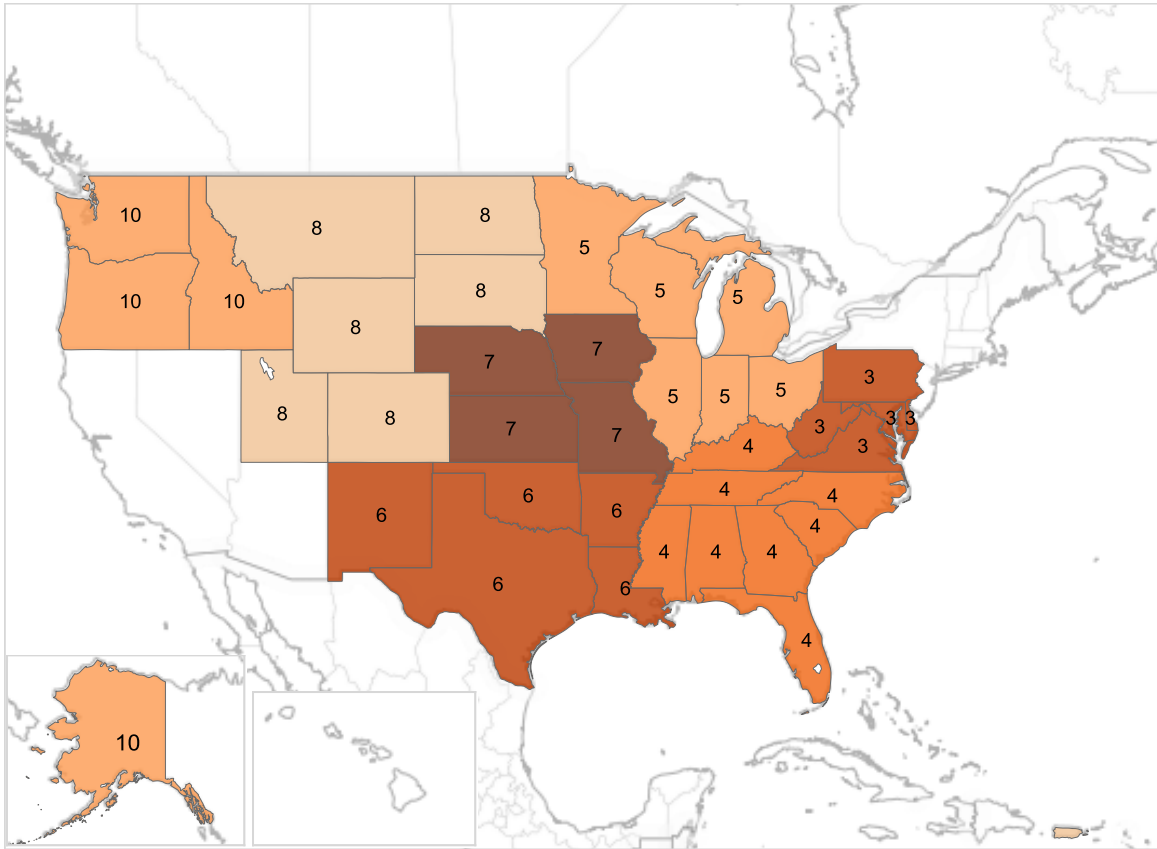
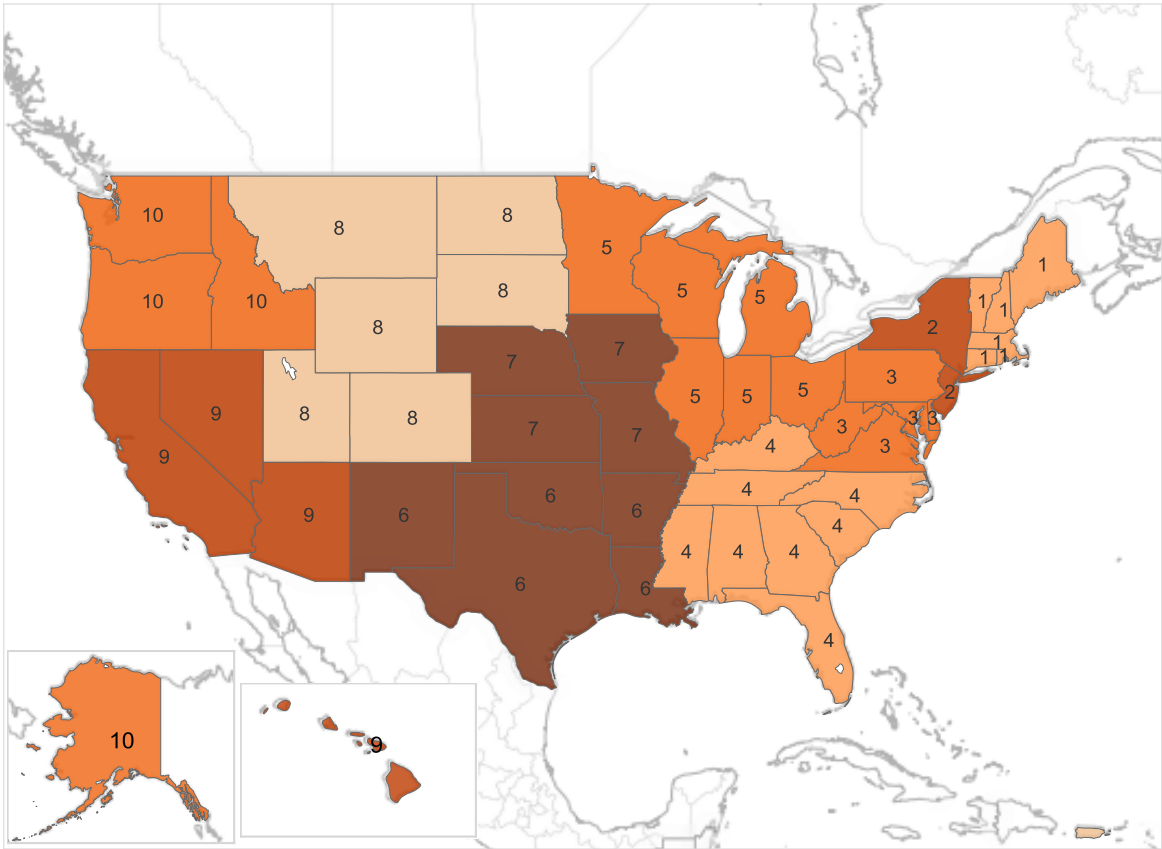
Age  
1 to 14

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

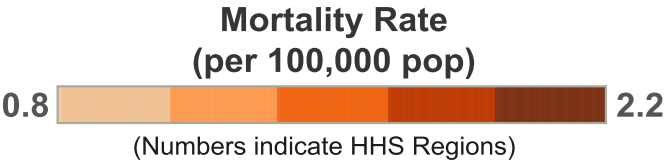


Figure 14

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

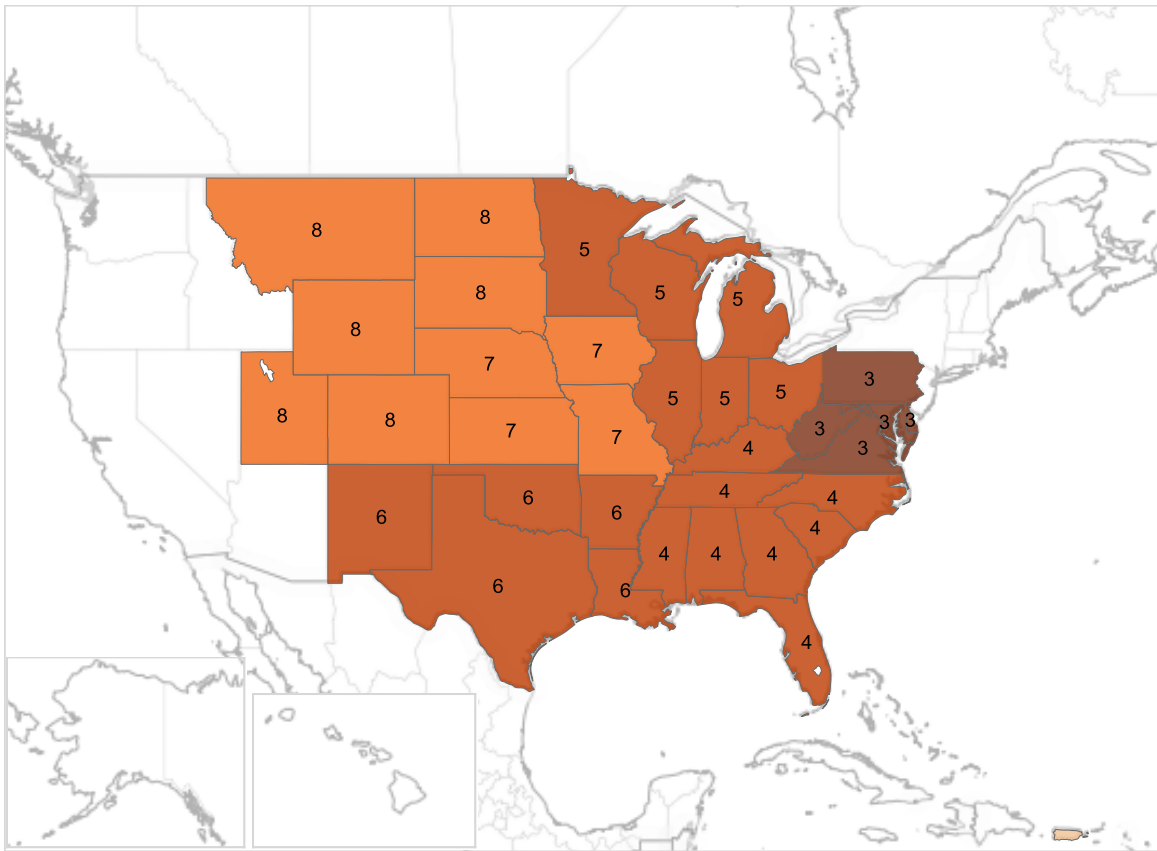
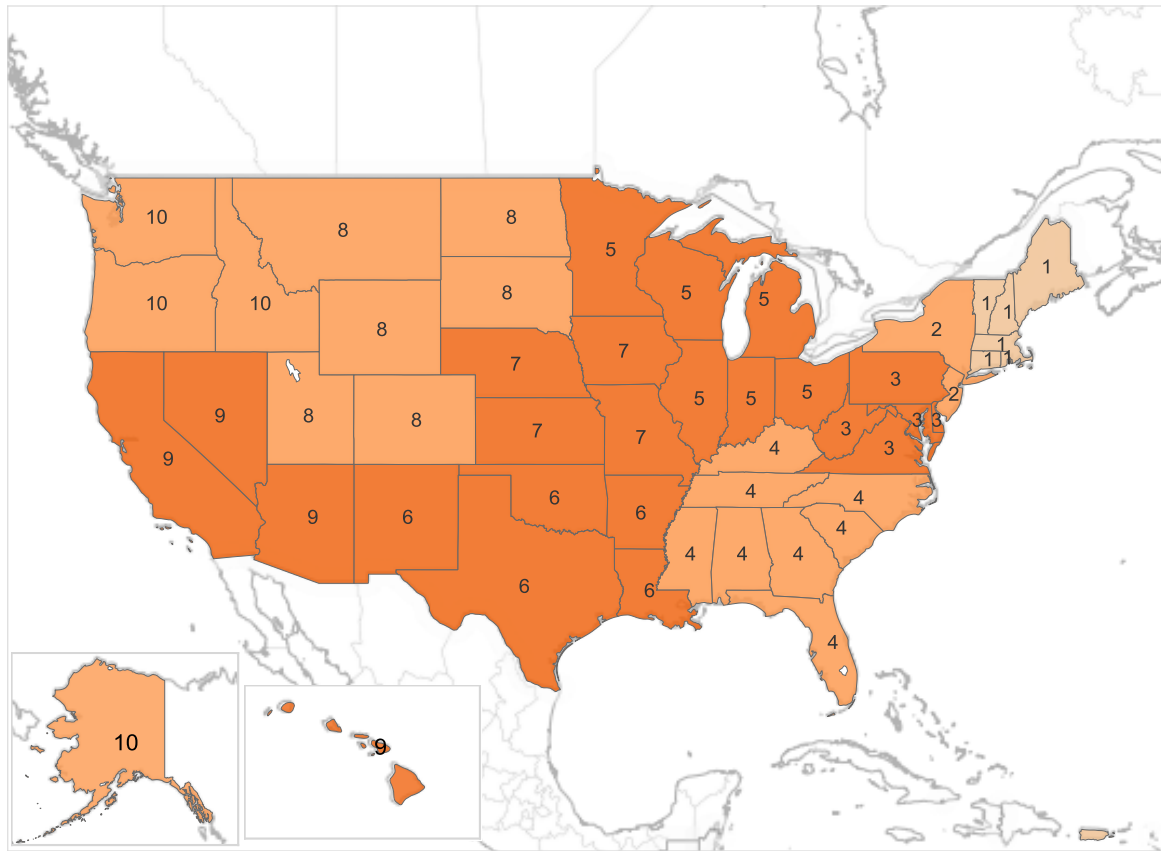
Age  
1 to 14

Cause of Death  
Congenital malformations



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

RURAL (Micropolitan, Non-Core)



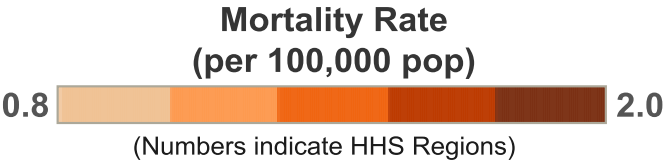
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 15

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

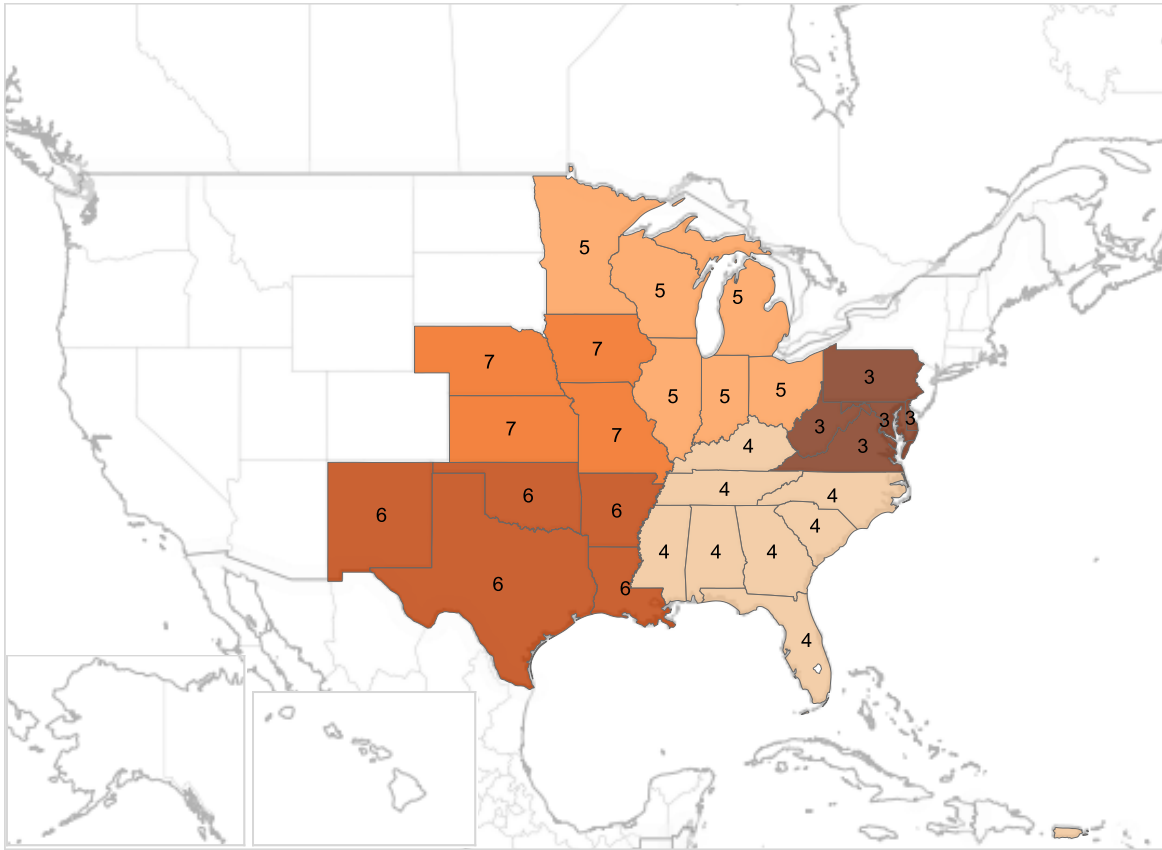
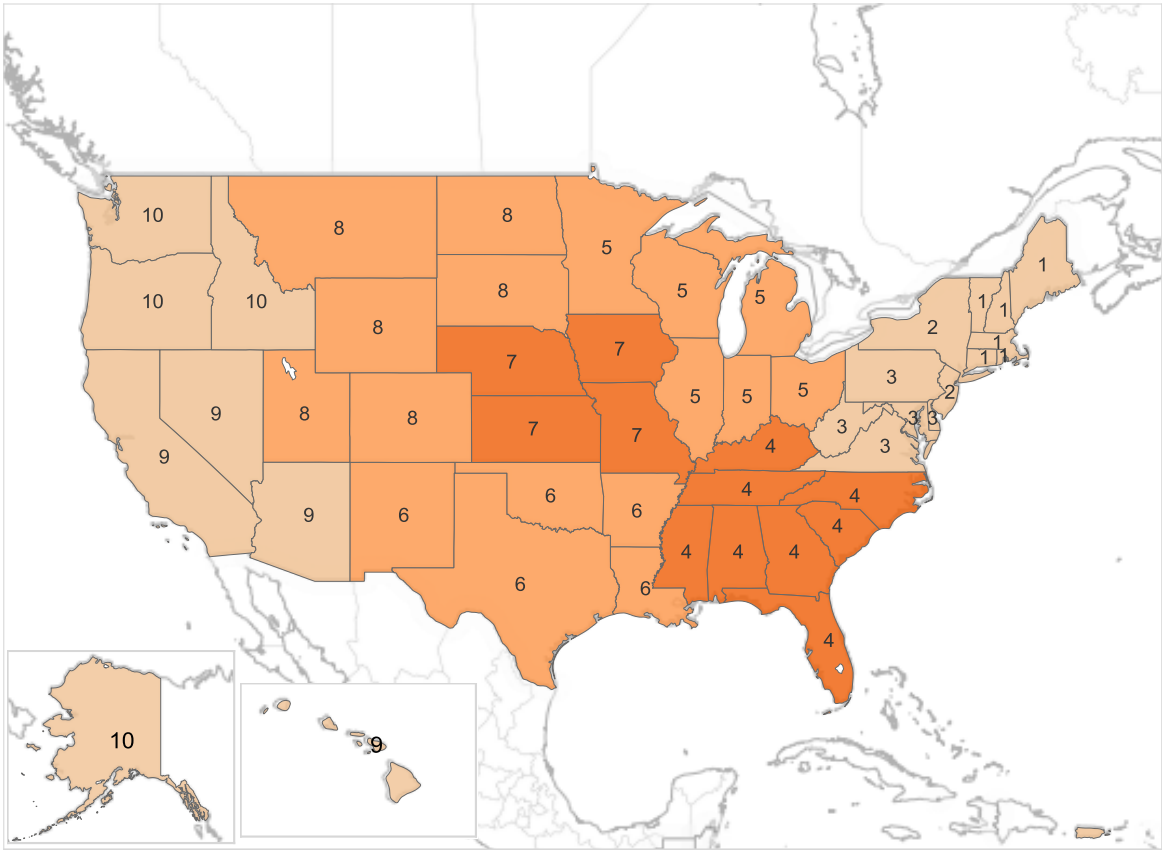
Age  
1 to 14

Cause of Death  
Homicide



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

RURAL (Micropolitan, Non-Core)



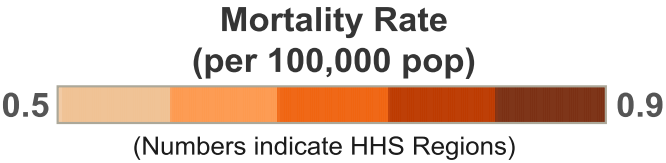
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 16

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

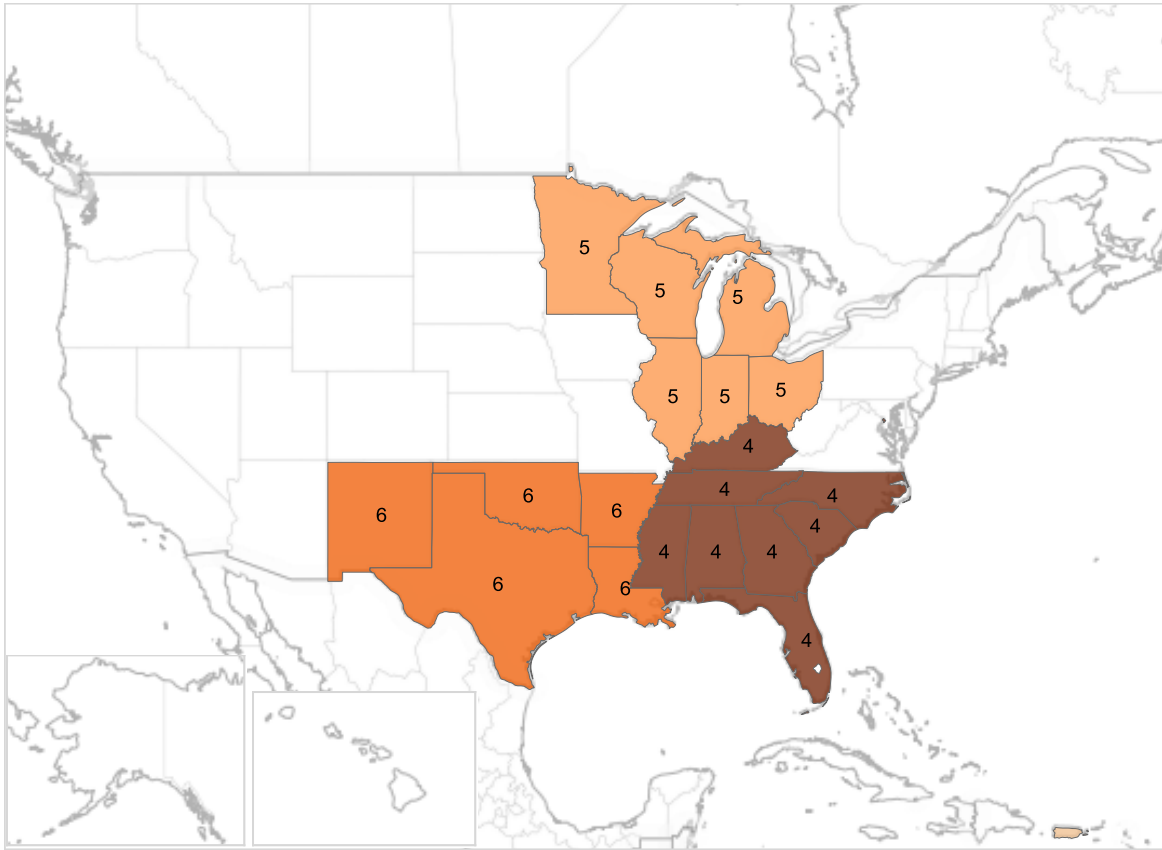
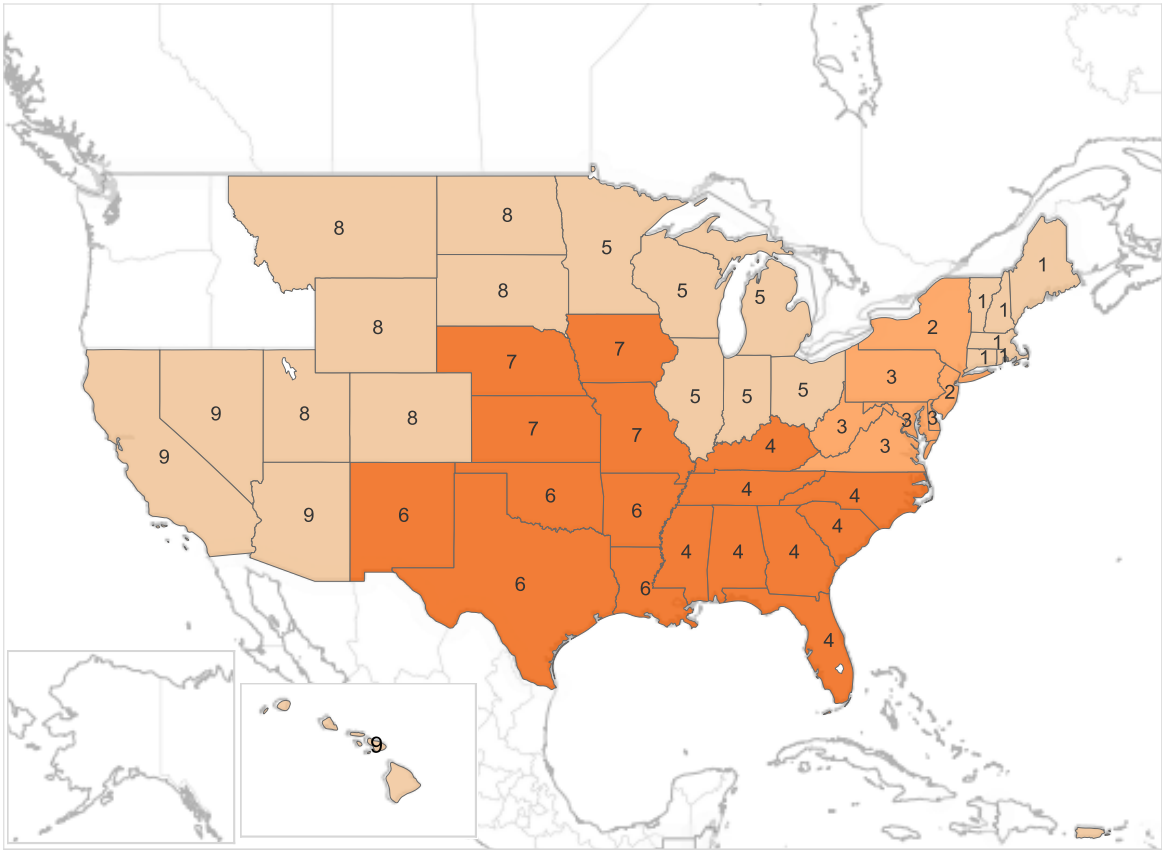
Age  
1 to 14

Cause of Death  
Heart disease



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

RURAL (Micropolitan, Non-Core)



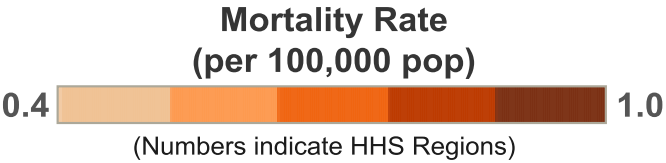
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 17

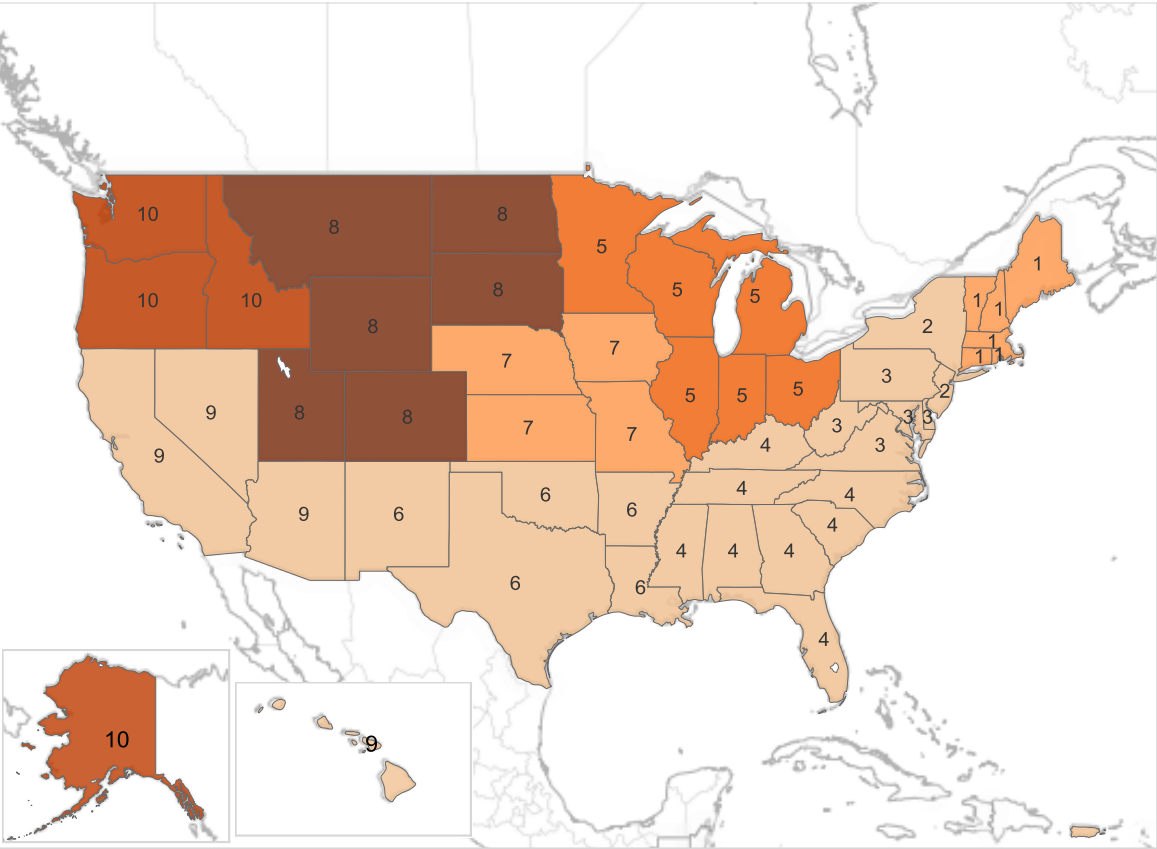
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Suicide; Sex: Combined Sexes

Age  
1 to 14

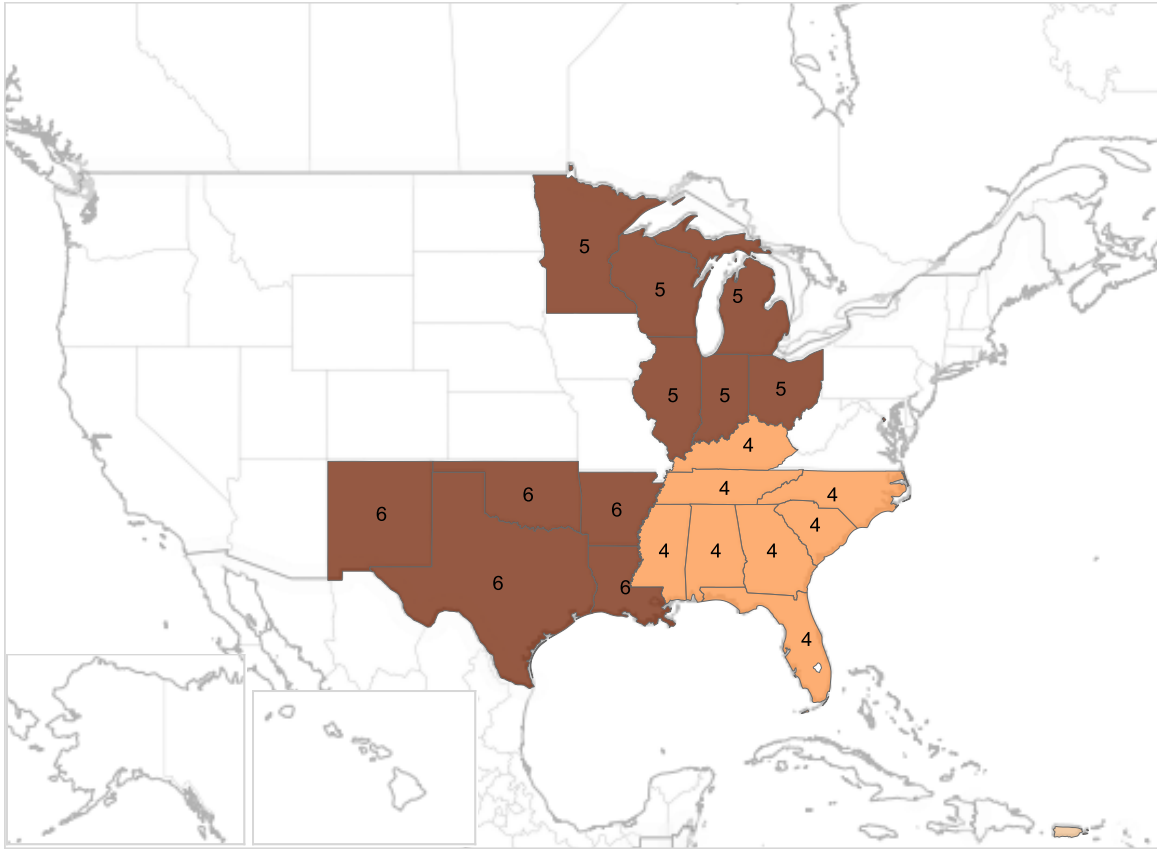
Cause of Death  
Suicide



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



RURAL (Micropolitan, Non-Core)



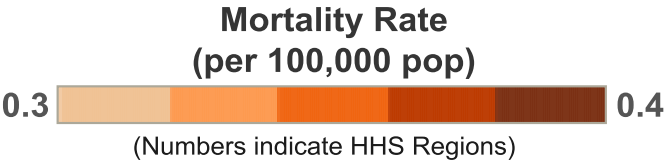
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 18

# 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

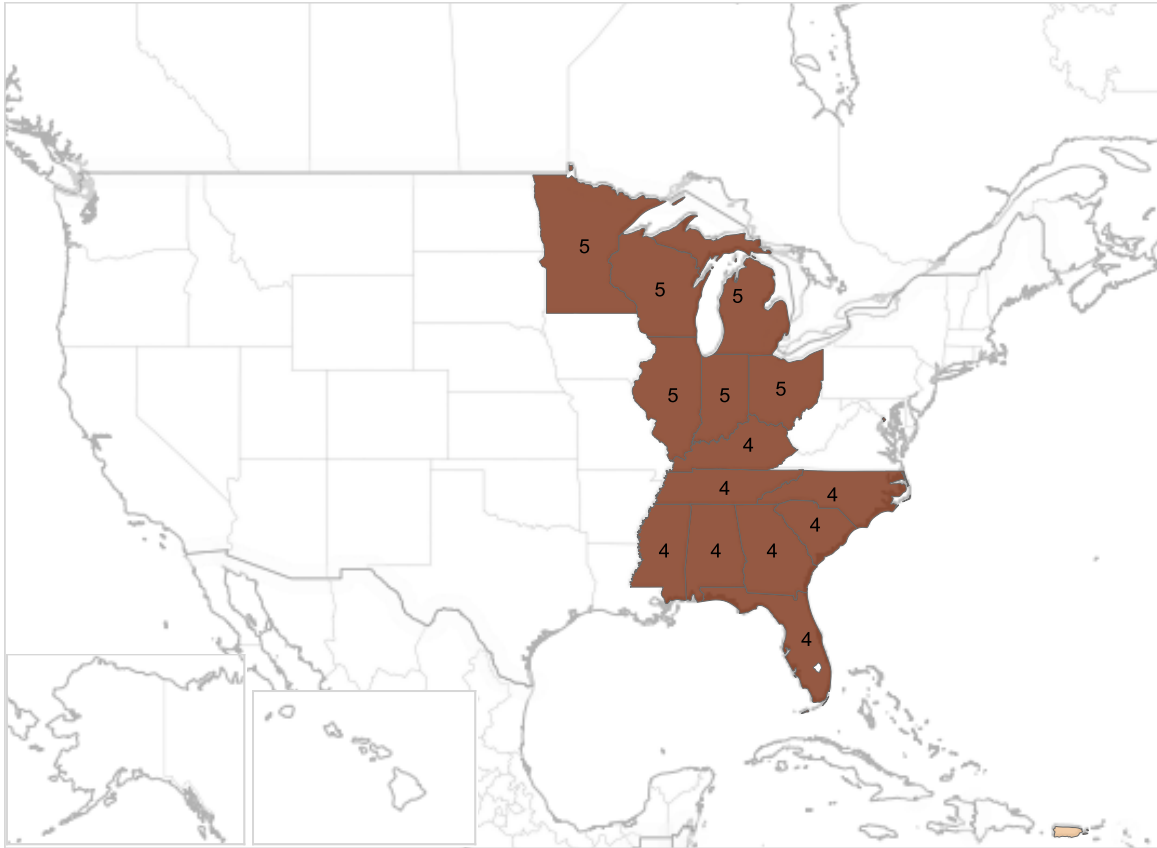
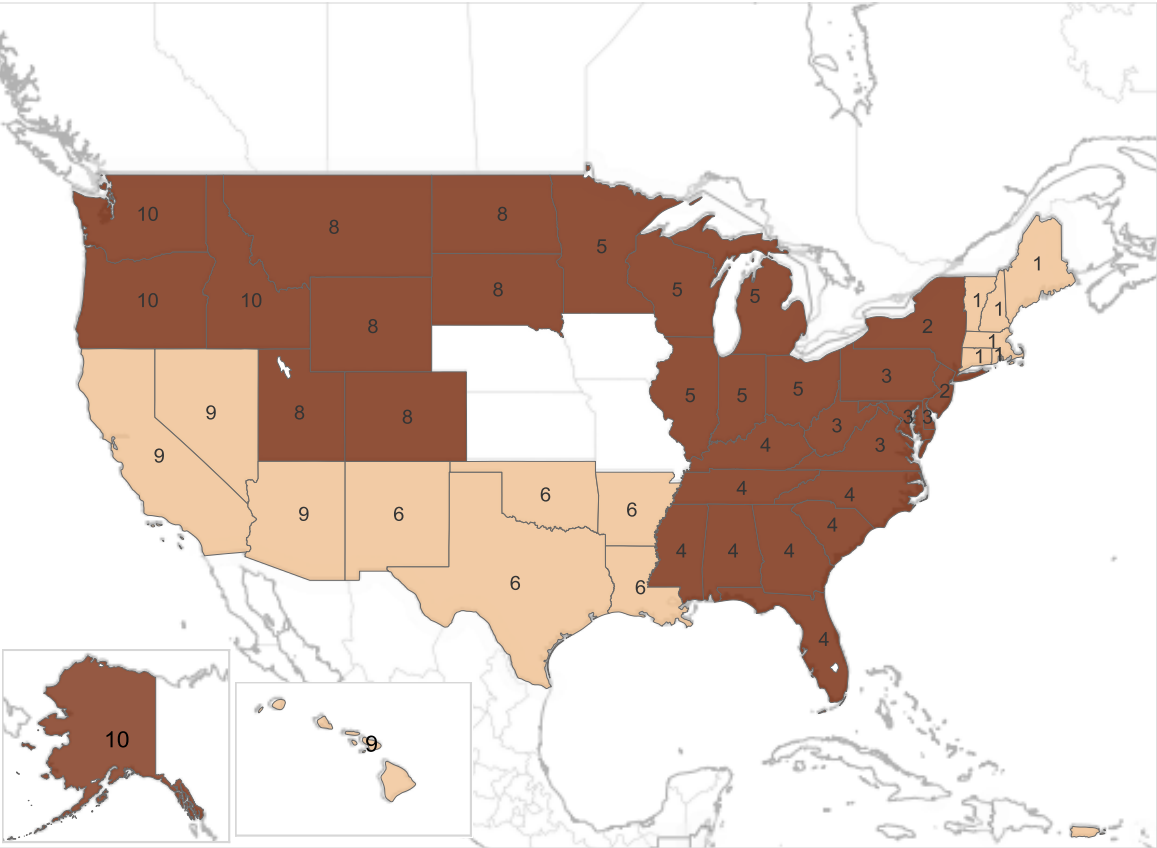
Age  
1 to 14

Cause of Death  
Flu & pneumonia



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

RURAL (Micropolitan, Non-Core)



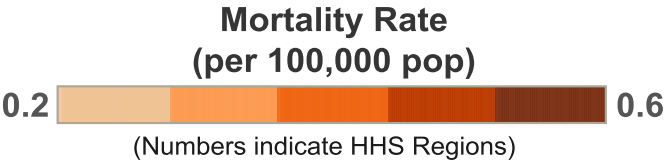
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 19

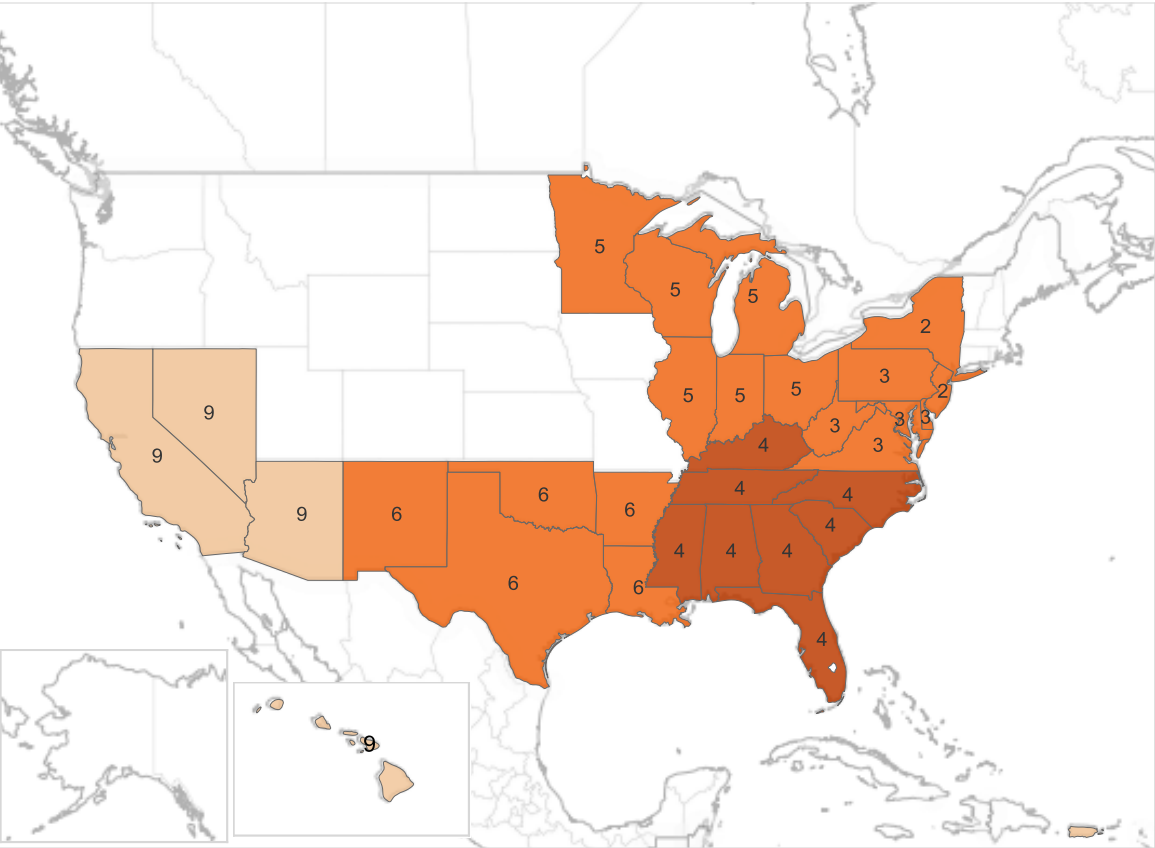
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 1 to 14; Cause of Death: Lower respiratory; Sex: Combined Sexes

Age  
1 to 14

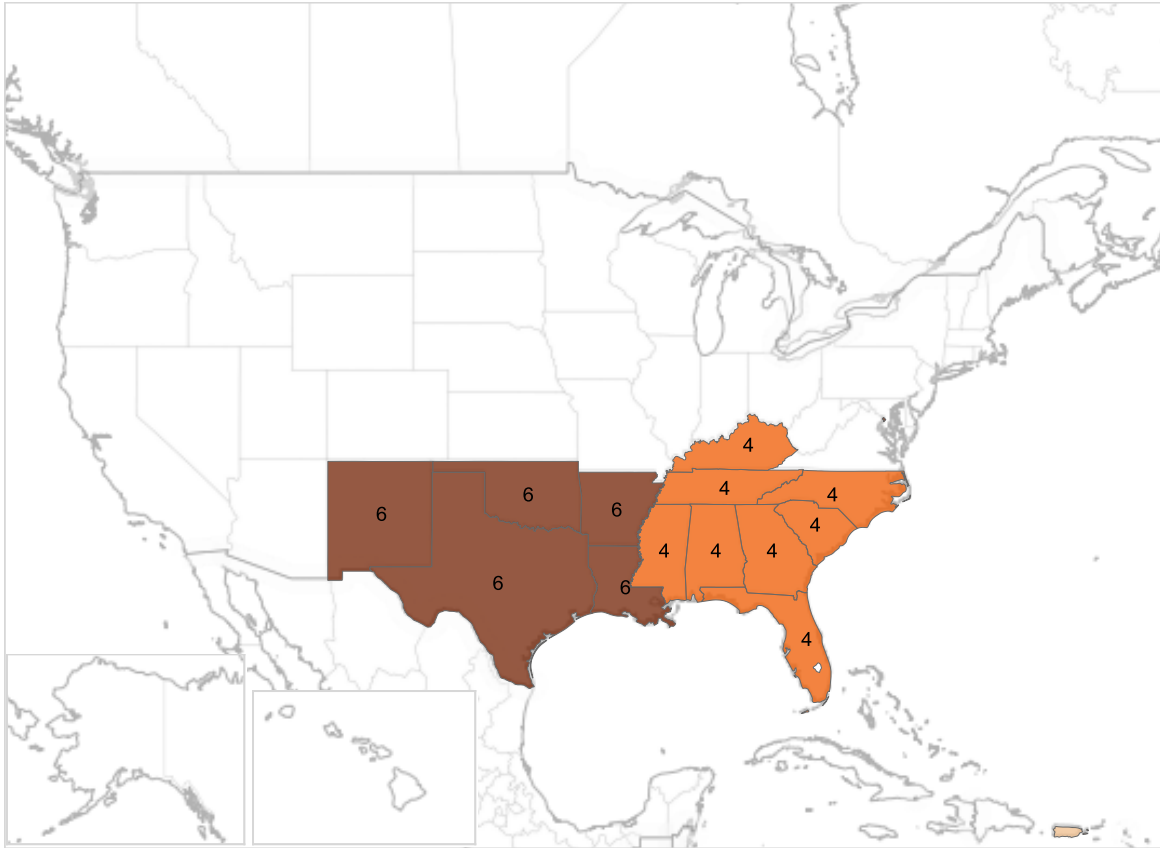
Cause of Death  
Lower respiratory



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.

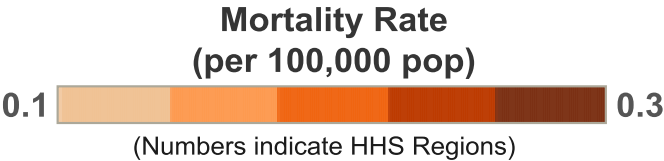


Figure 20

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

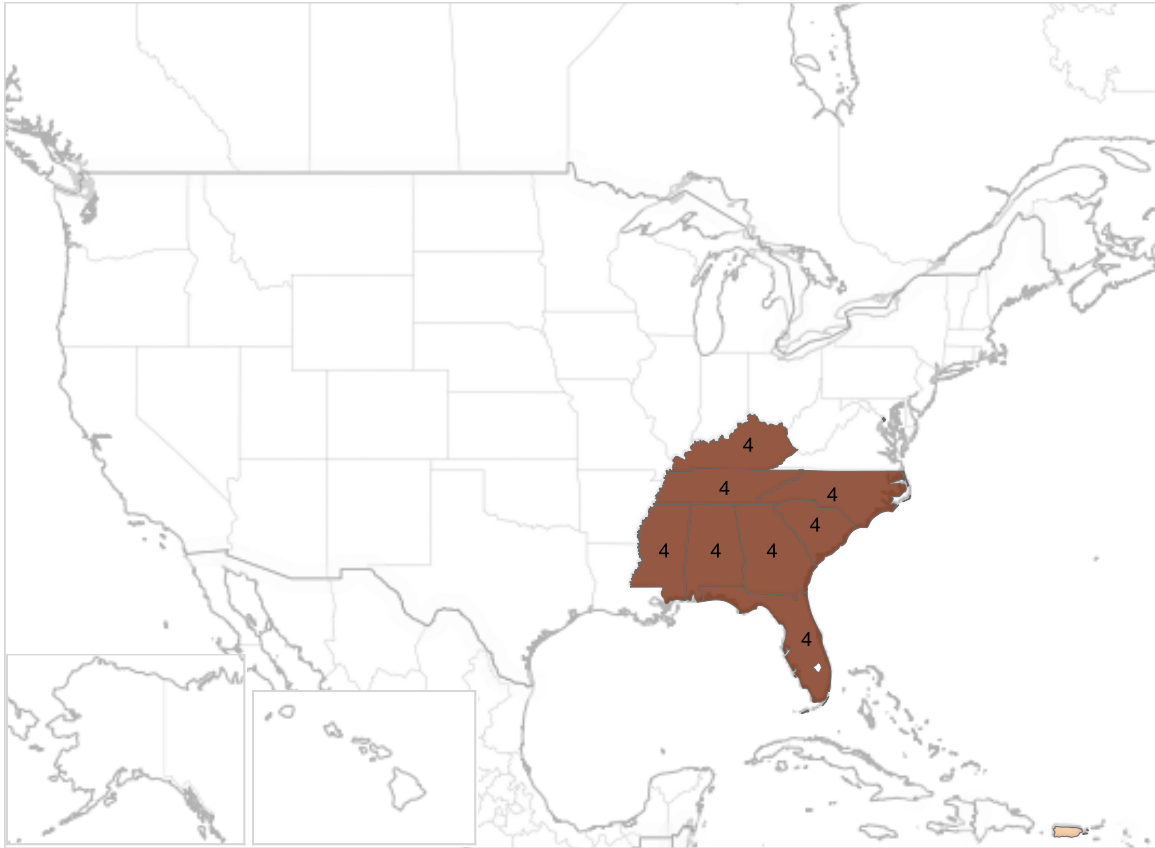
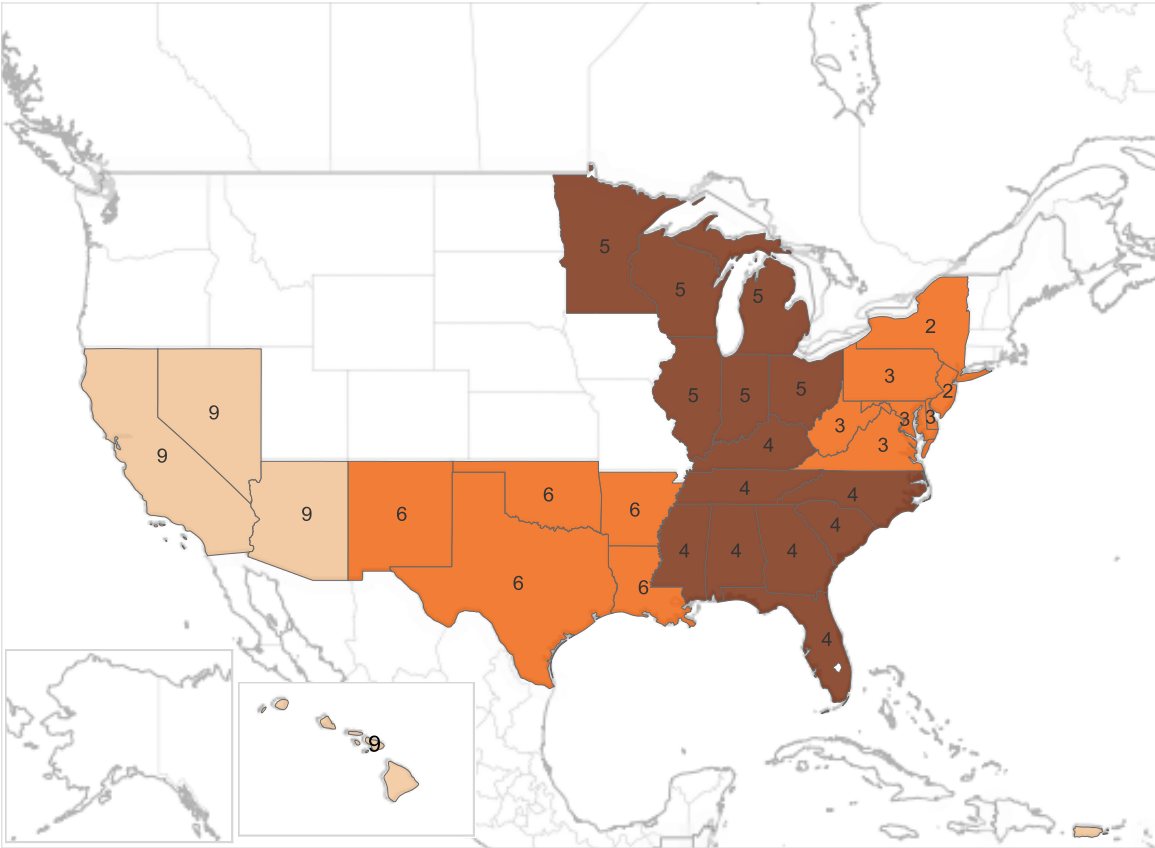
Age  
1 to 14

Cause of Death  
Benign neoplasms



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

RURAL (Micropolitan, Non-Core)



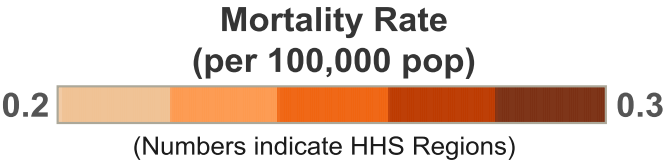
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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: Combined Sexes

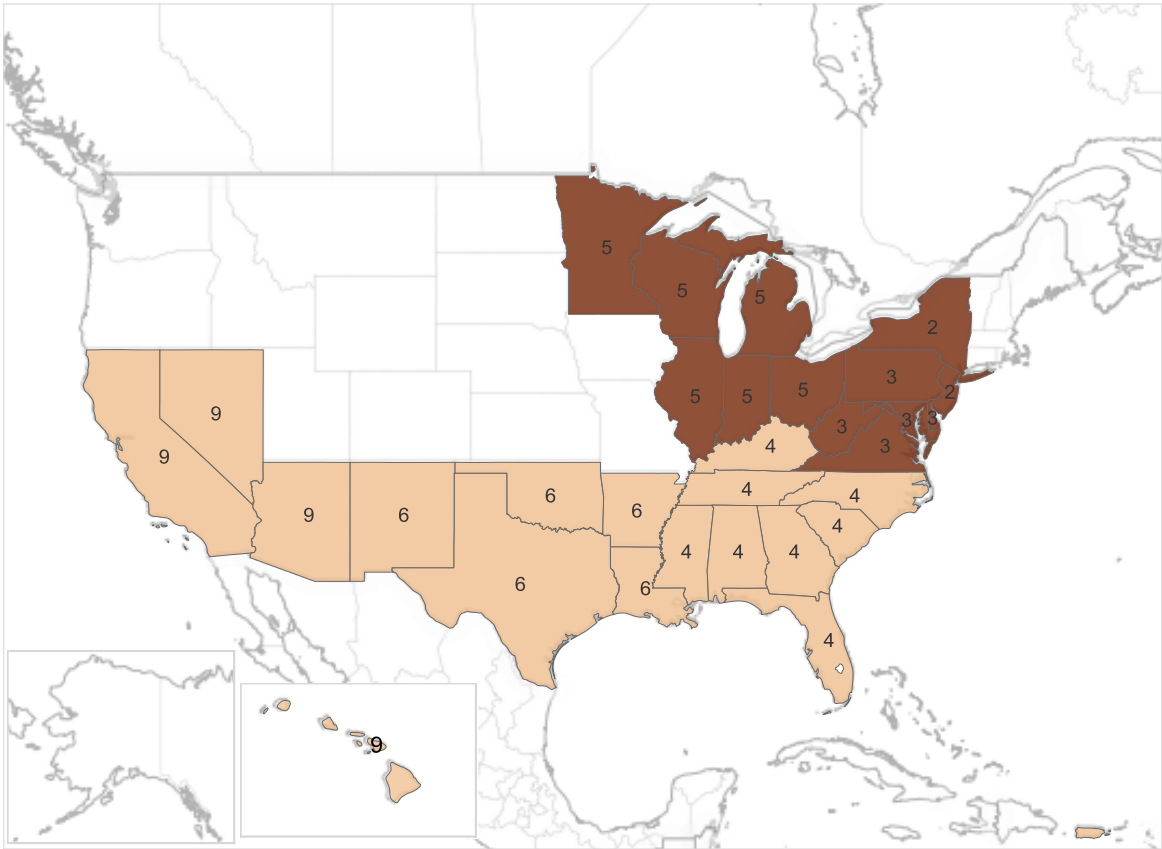
Age  
1 to 14

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:

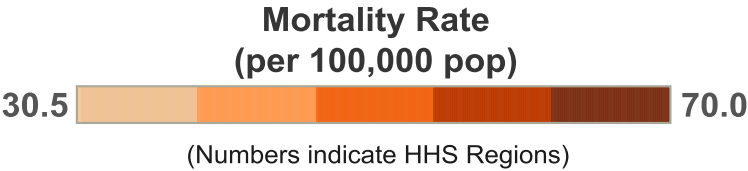
- [Figure 22: Unintentional injury, Male](#)
- [Figure 23: Unintentional injury, Female](#)
- [Figure 24: Suicide, Male](#)
- [Figure 25: Suicide, Female](#)
- [Figure 26: Homicide, Male](#)
- [Figure 27: Homicide, Female](#)
- [Figure 28: Malignant neoplasms, Male](#)
- [Figure 29: Malignant neoplasms, 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](#)

Figure 22

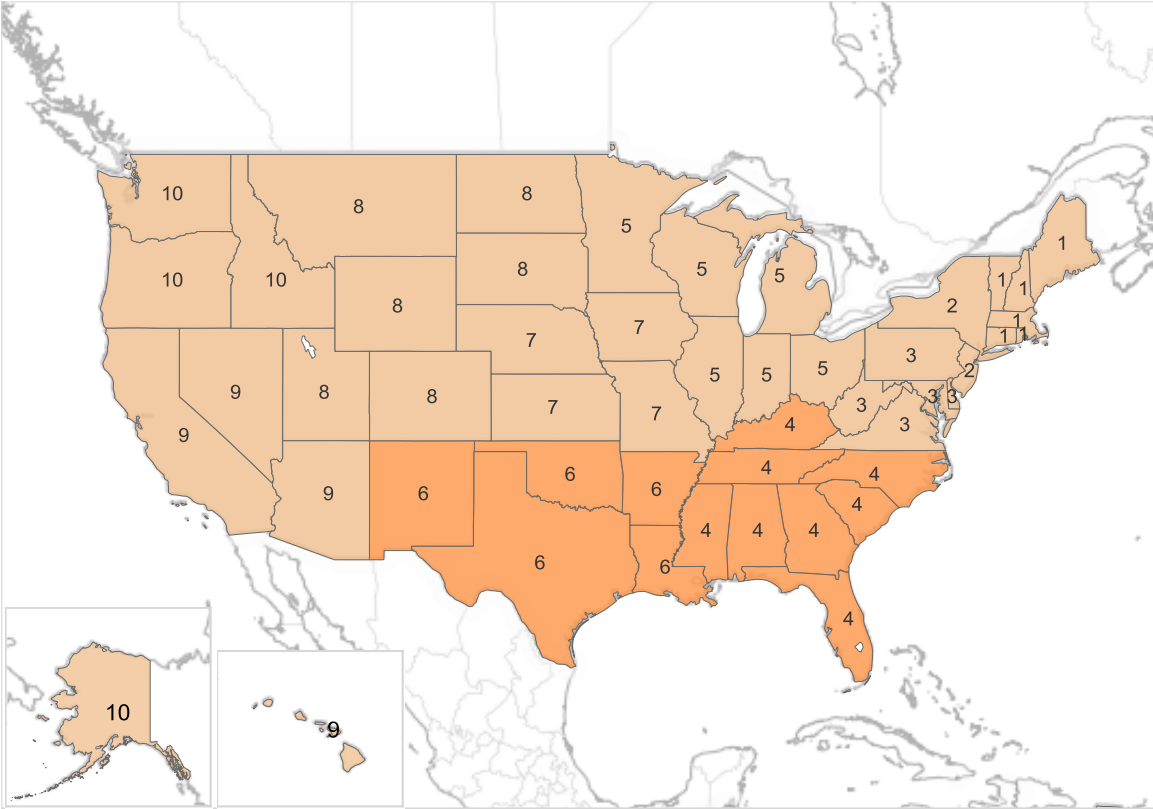
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Unintentional injuries; Sex: Male

Sex  
Male

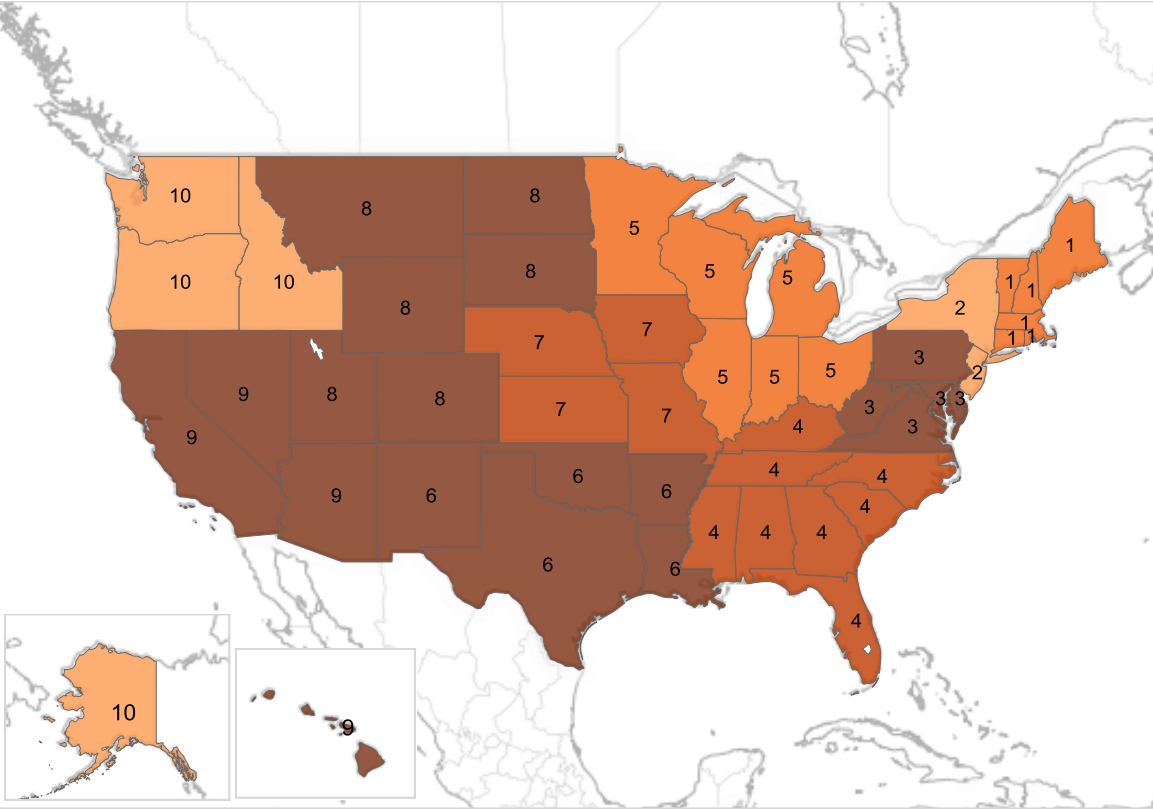
Cause of Death  
Unintentional injuries



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



RURAL (Micropolitan, Non-Core)



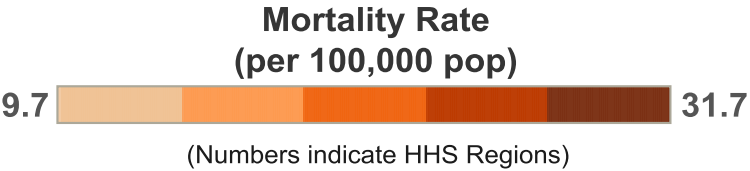
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

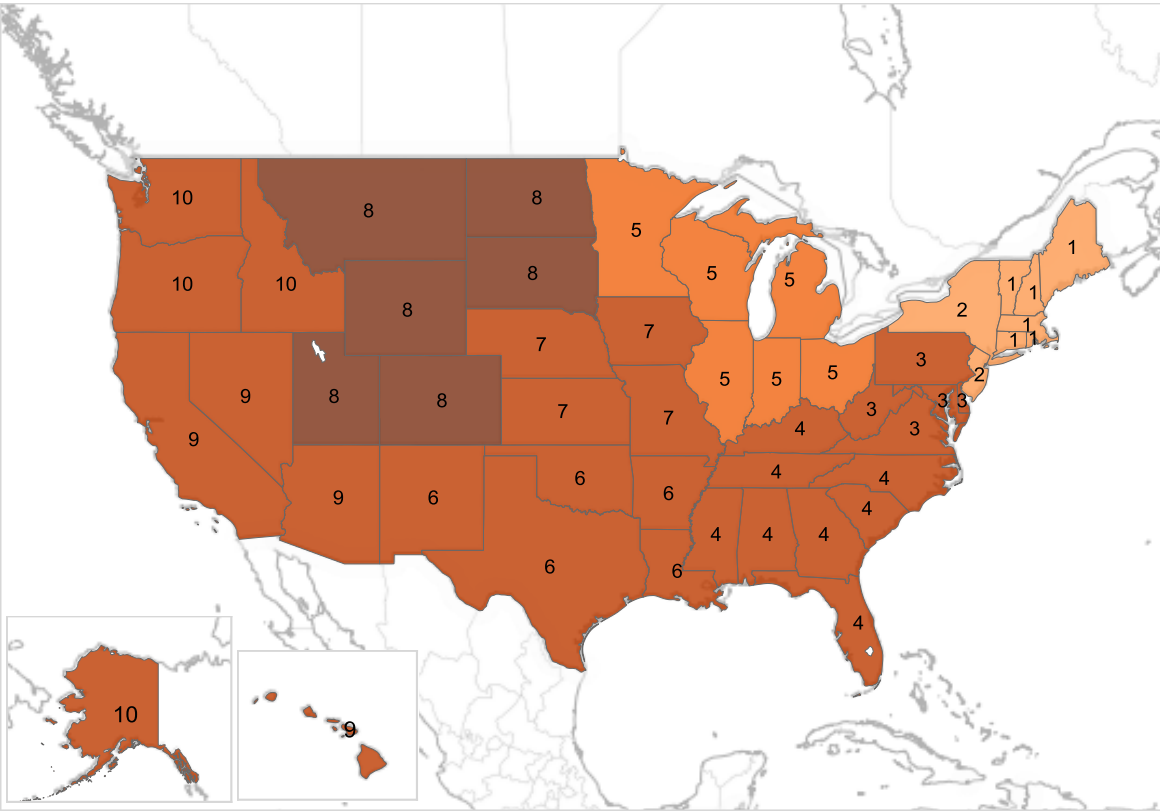
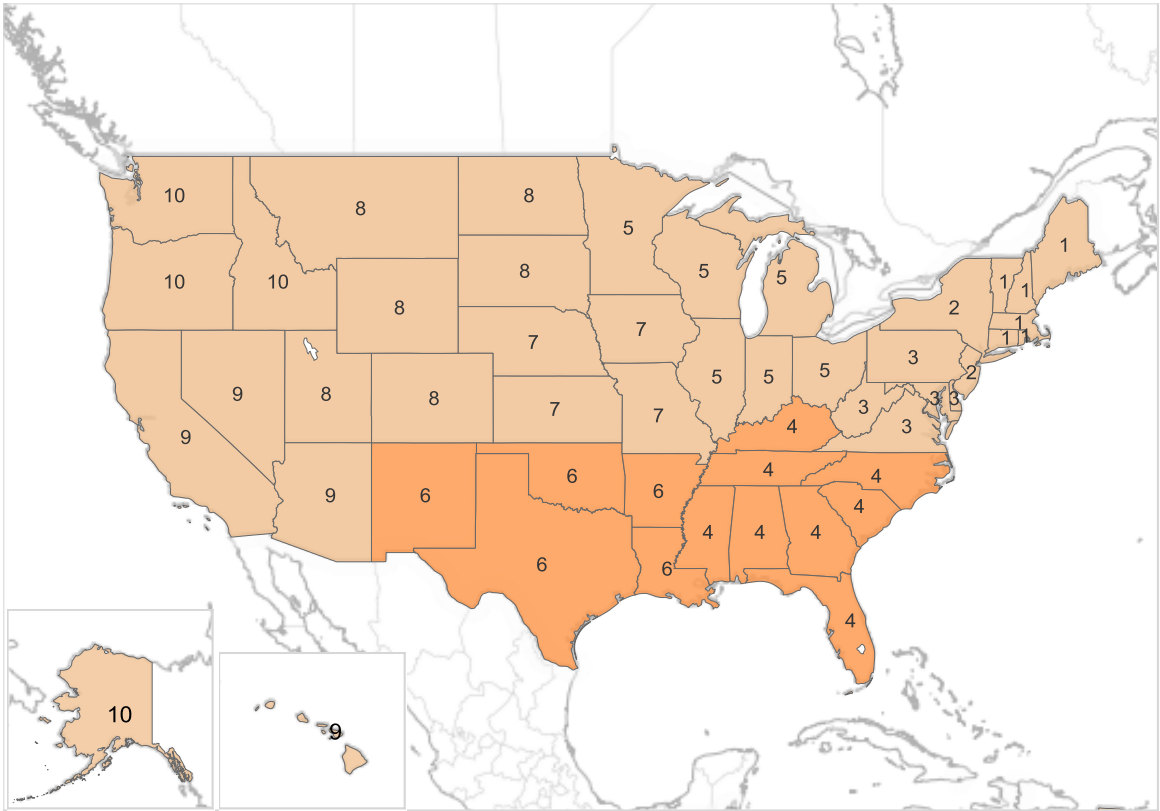
Sex  
Female

Cause of Death  
Unintentional injuries



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

RURAL (Micropolitan, Non-Core)



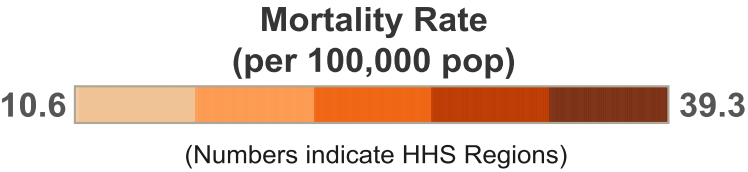
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 24

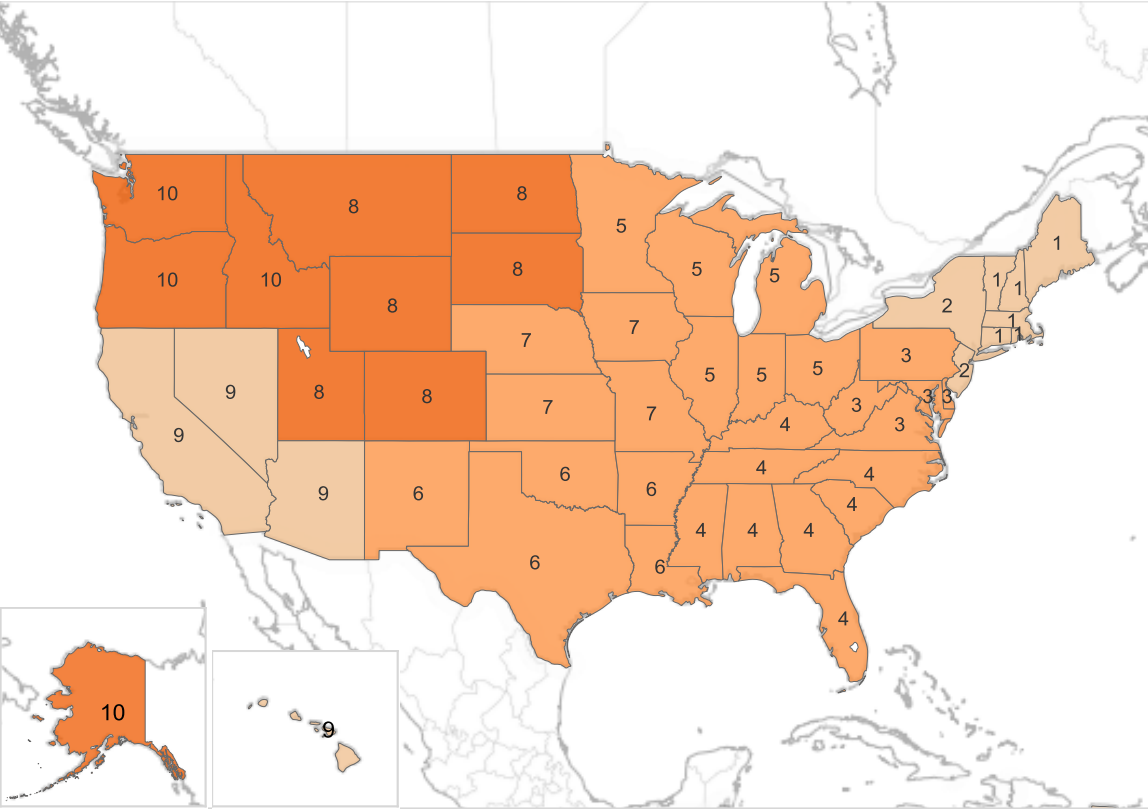
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Suicide; Sex: Male

Sex  
Male

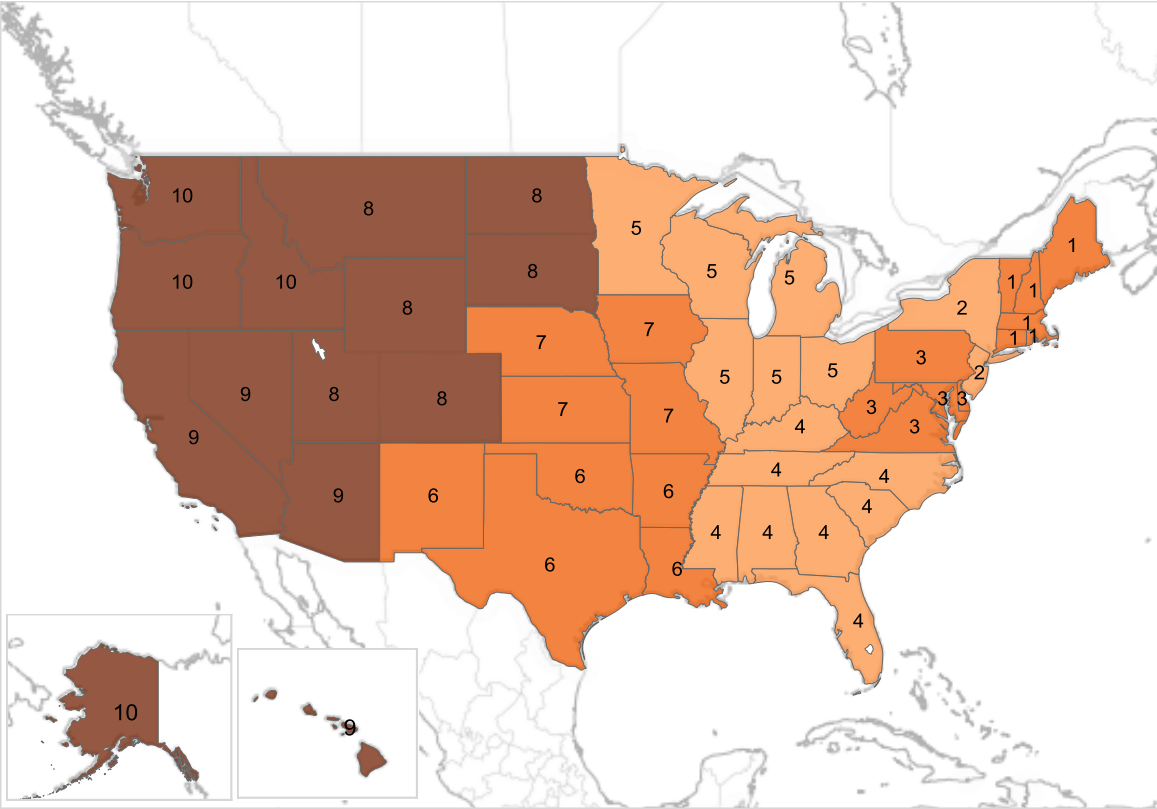
Cause of Death  
Suicide



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



RURAL (Micropolitan, Non-Core)



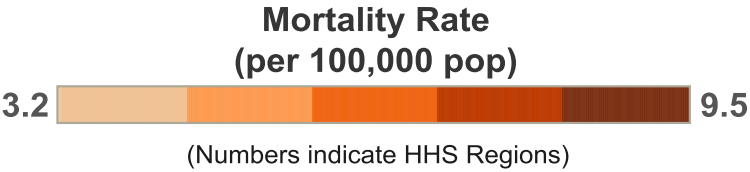
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 25

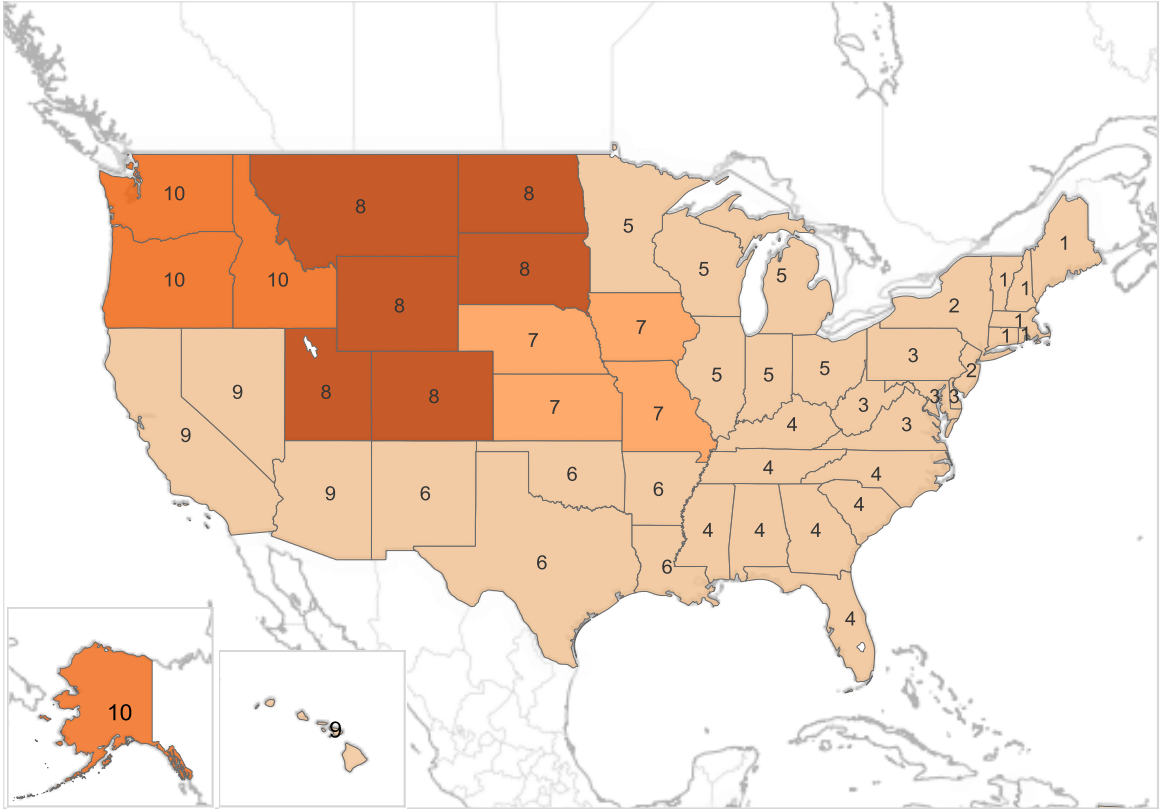
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Suicide; Sex: Female

Sex  
Female

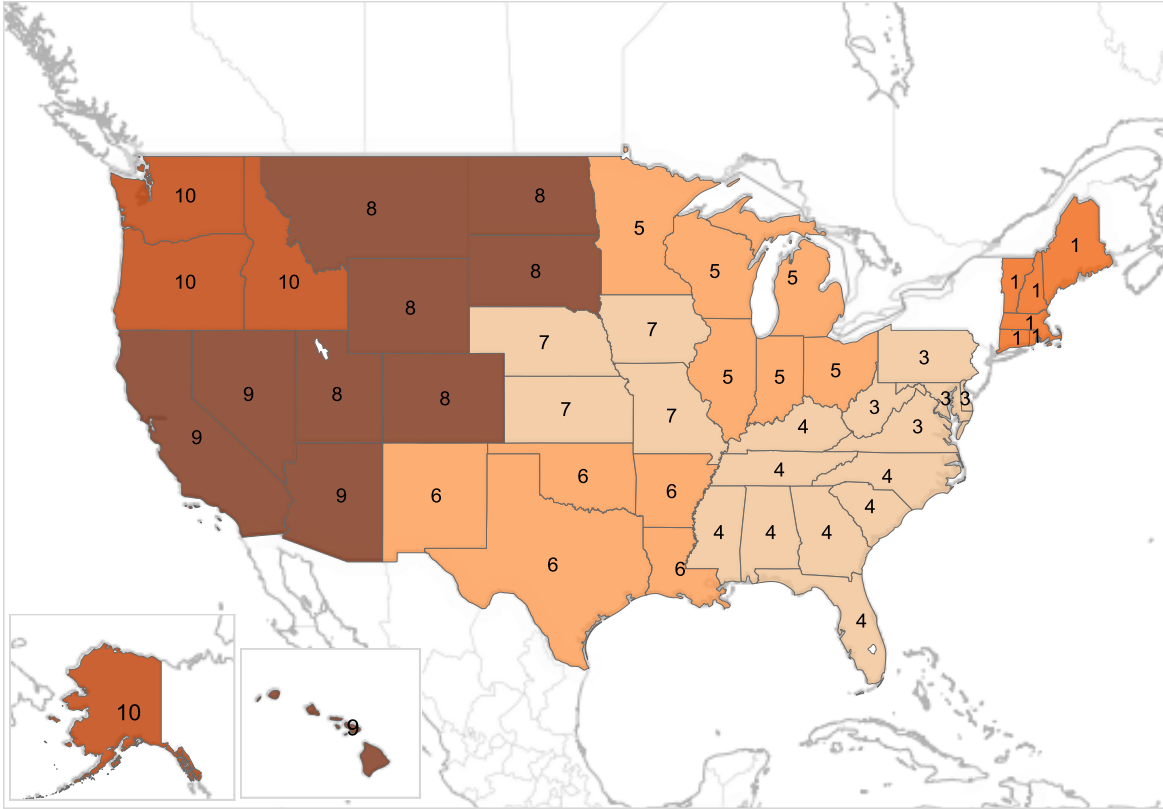
Cause of Death  
Suicide



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



RURAL (Micropolitan, Non-Core)



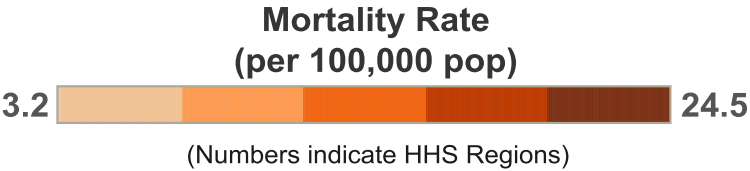
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 26

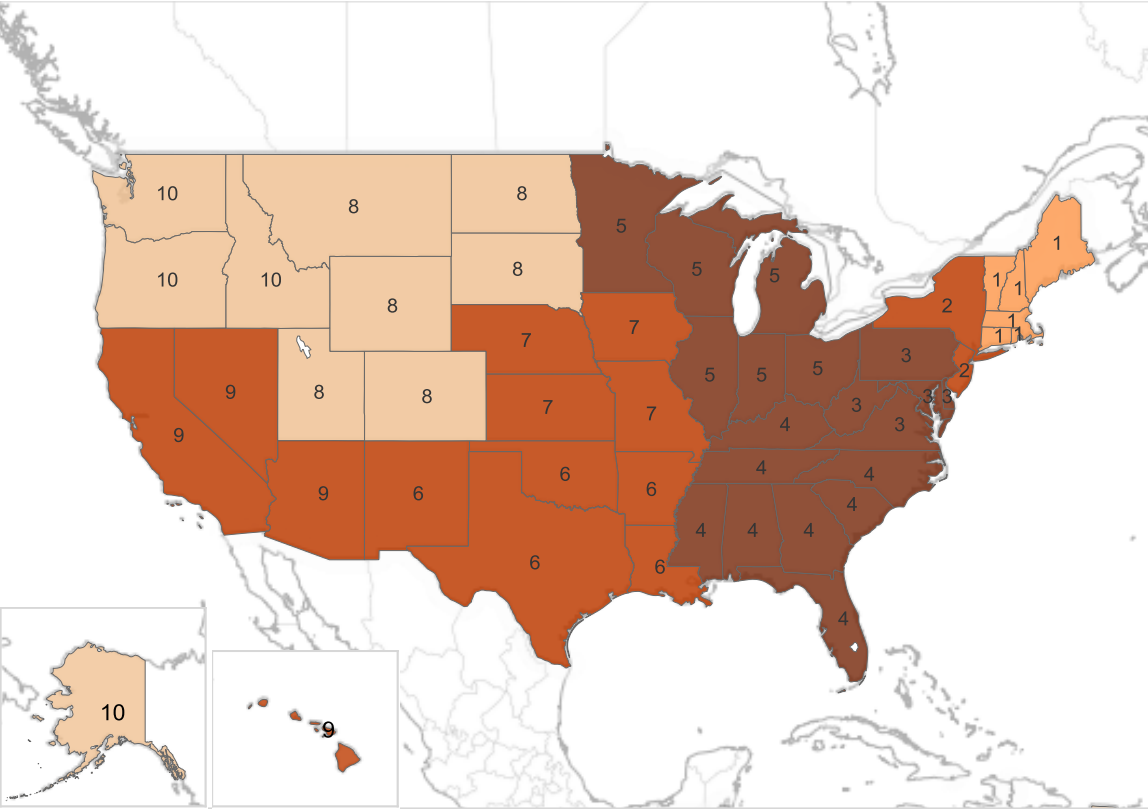
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Homicide; Sex: Male

Sex  
Male

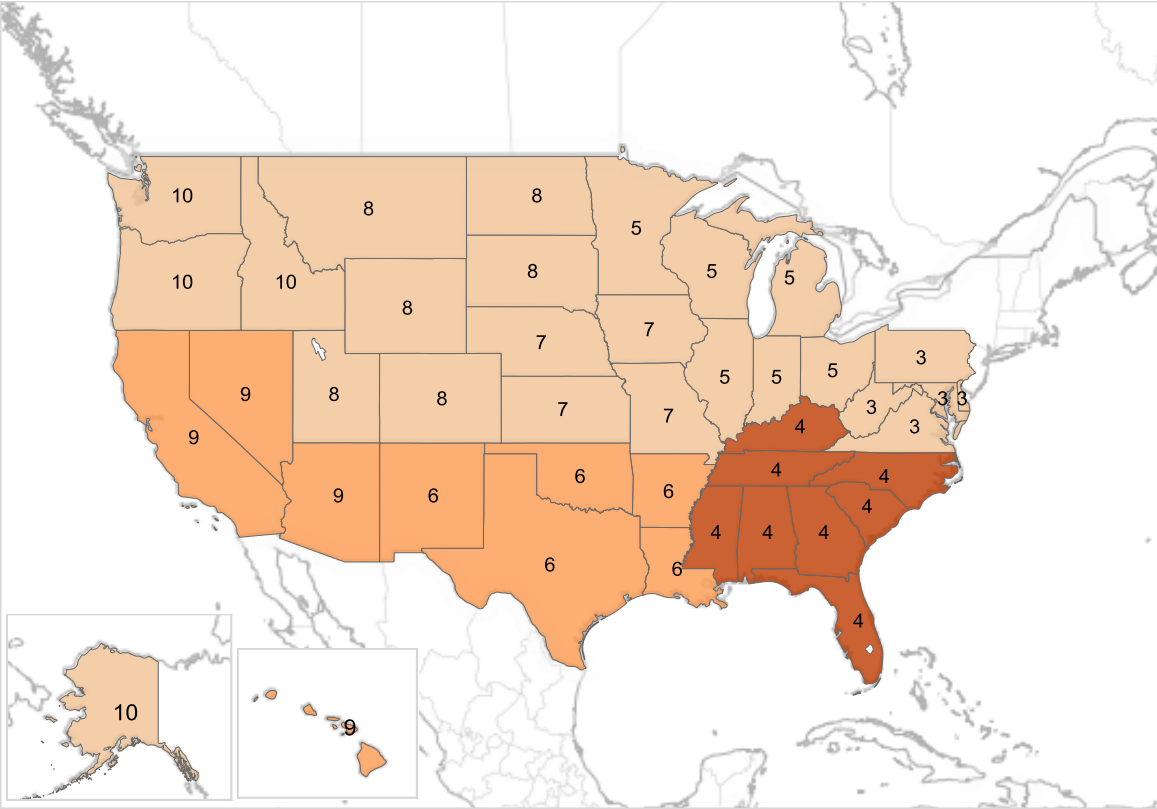
Cause of Death  
Homicide



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.

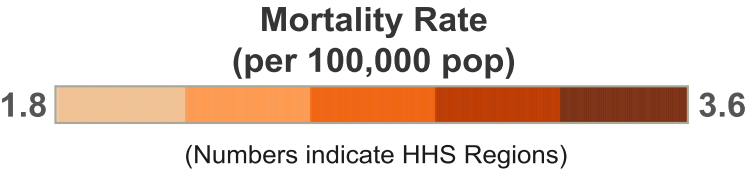


Figure 27

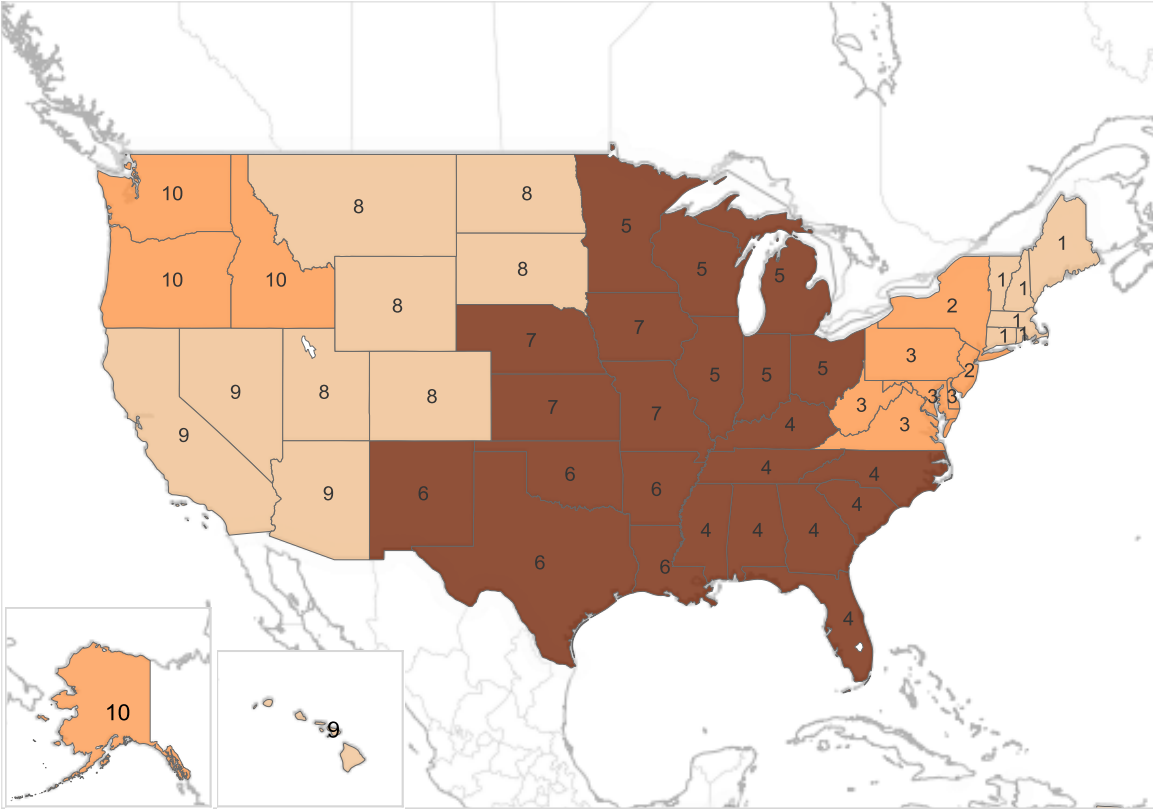
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Homicide; Sex: Female

Sex  
Female

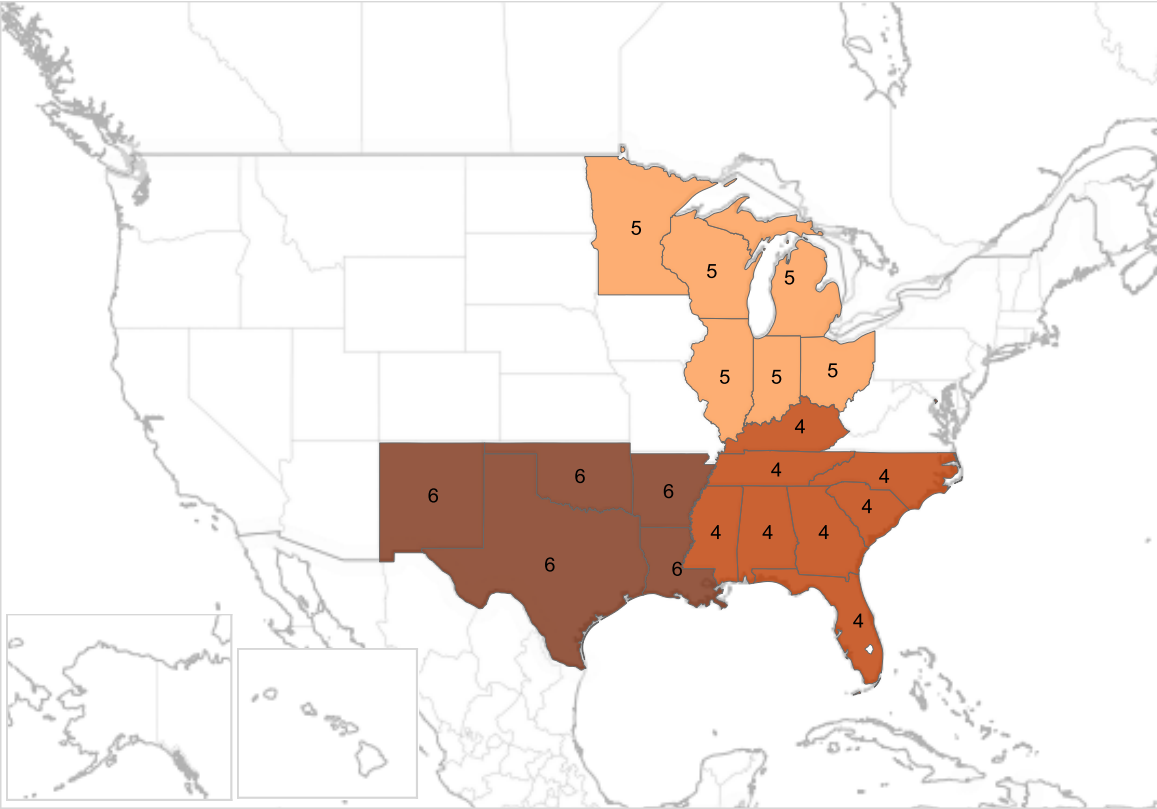
Cause of Death  
Homicide



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.

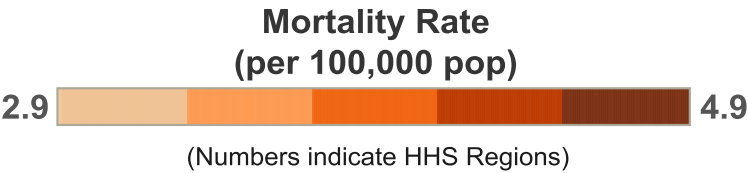


Figure 28

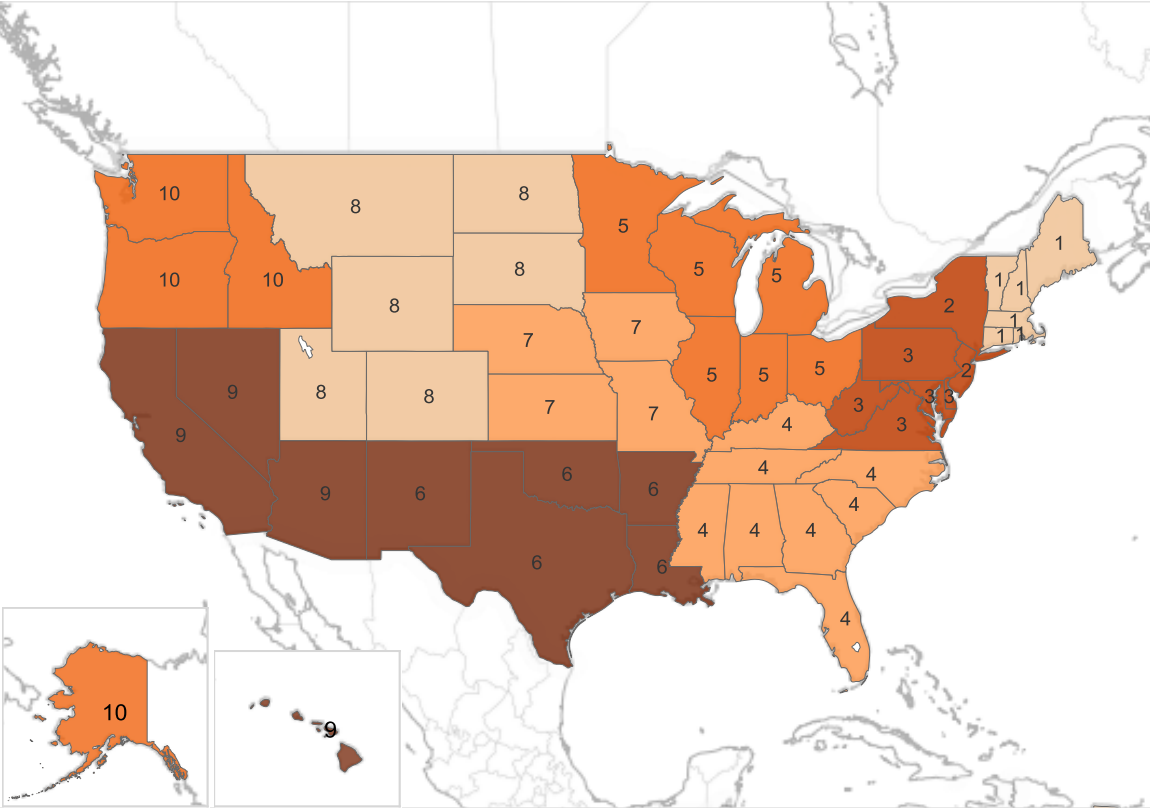
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Malignant neoplasms; Sex: Male

Sex  
Male

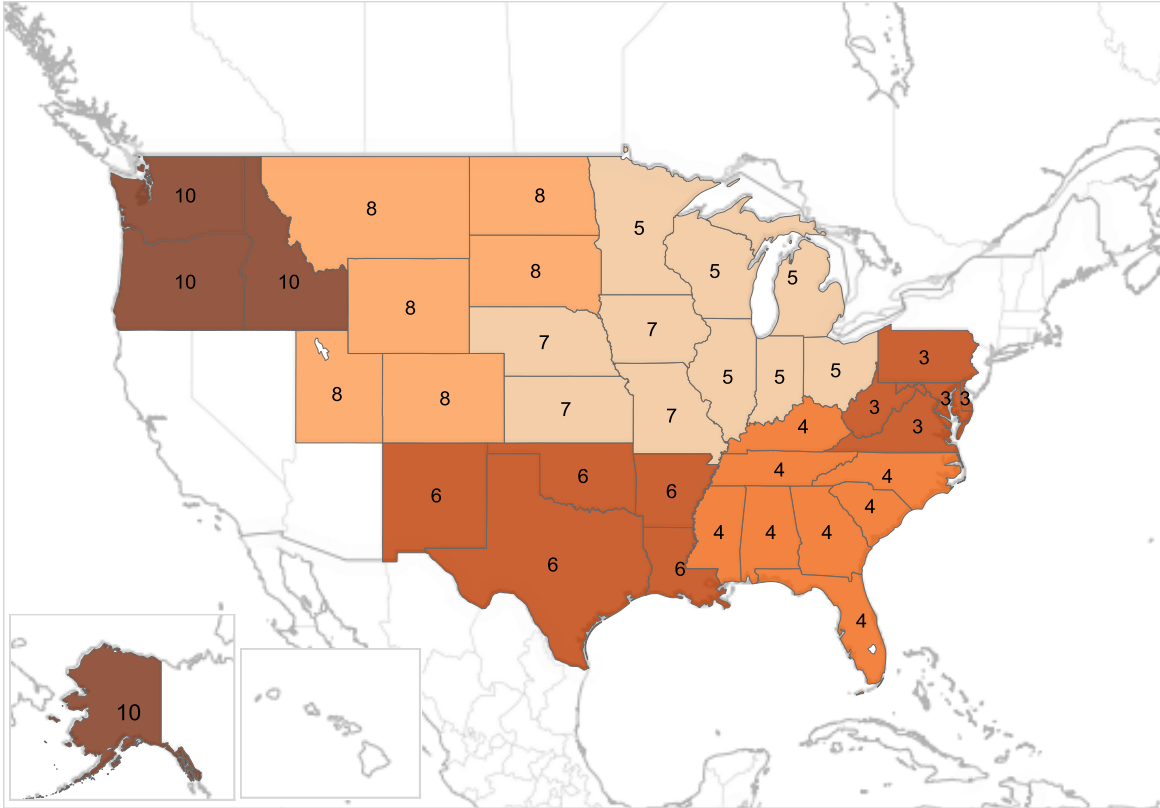
Cause of Death  
Malignant neoplasms



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



## RURAL (Micropolitan, Non-Core)



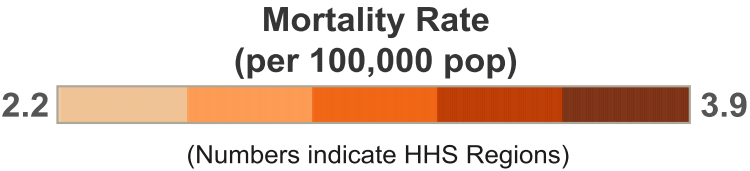
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 29

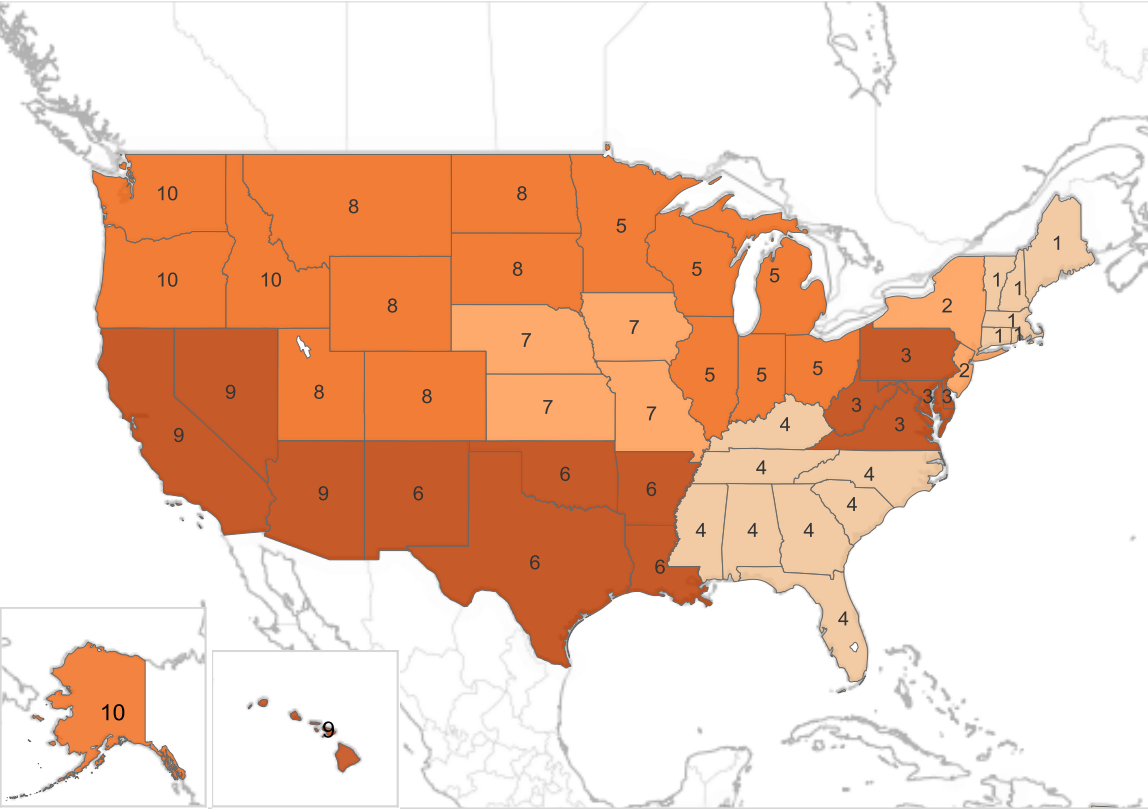
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Malignant neoplasms; Sex: Female

Sex  
Female

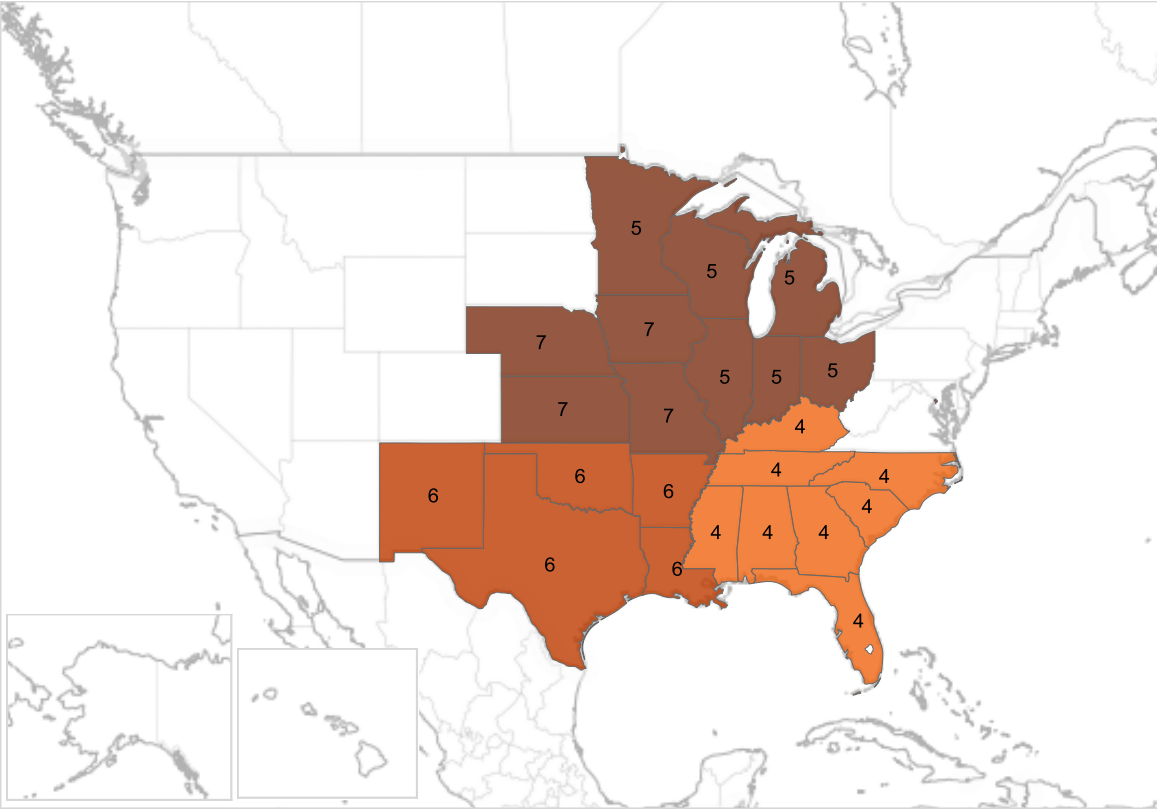
Cause of Death  
Malignant neoplasms



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



RURAL (Micropolitan, Non-Core)



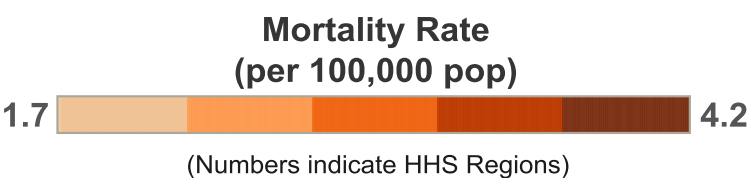
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 30

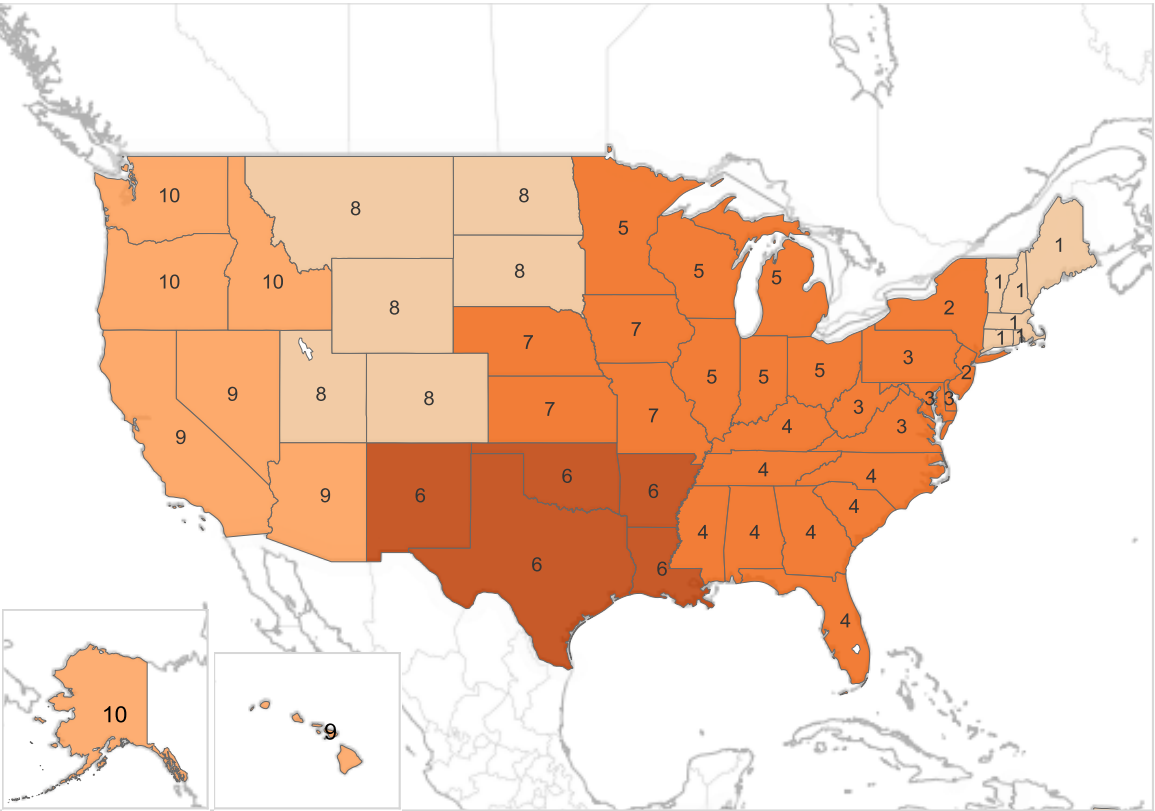
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Heart disease; Sex: Male

Sex  
Male

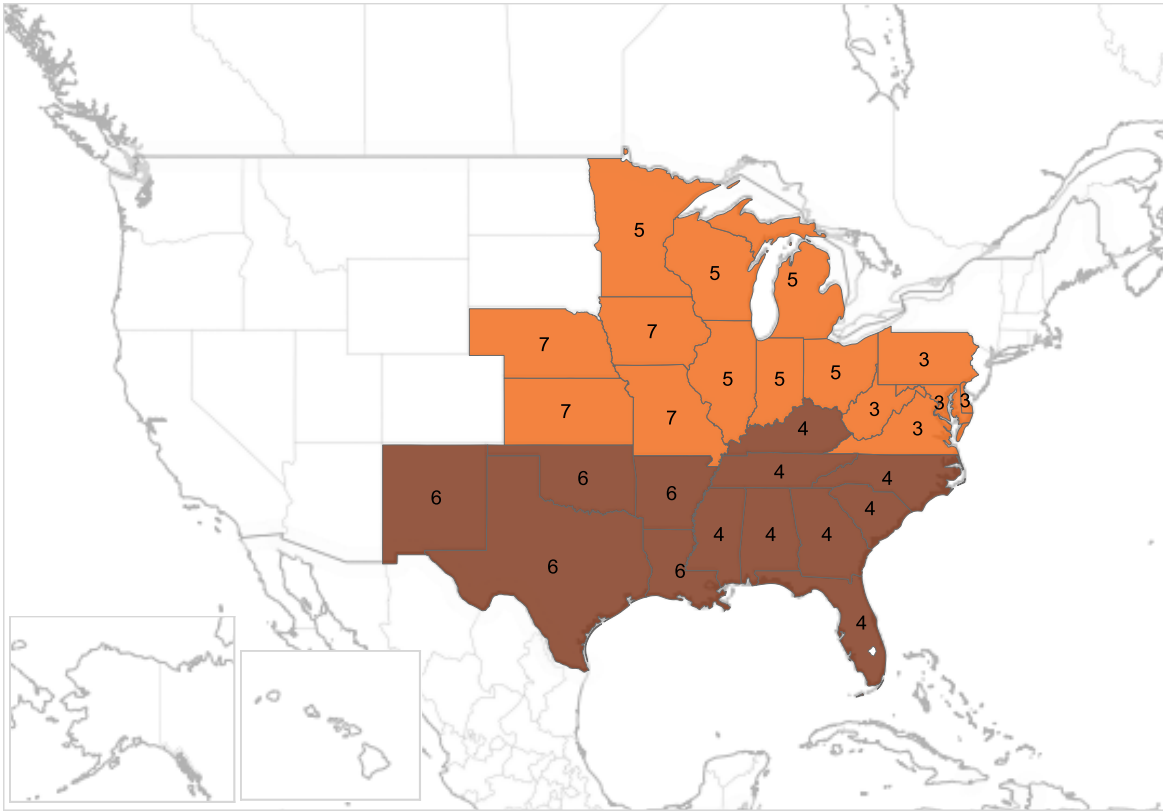
Cause of Death  
Heart disease



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



RURAL (Micropolitan, Non-Core)



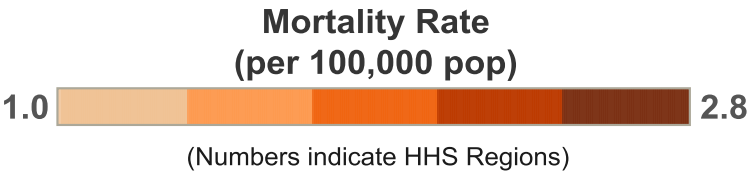
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 31

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

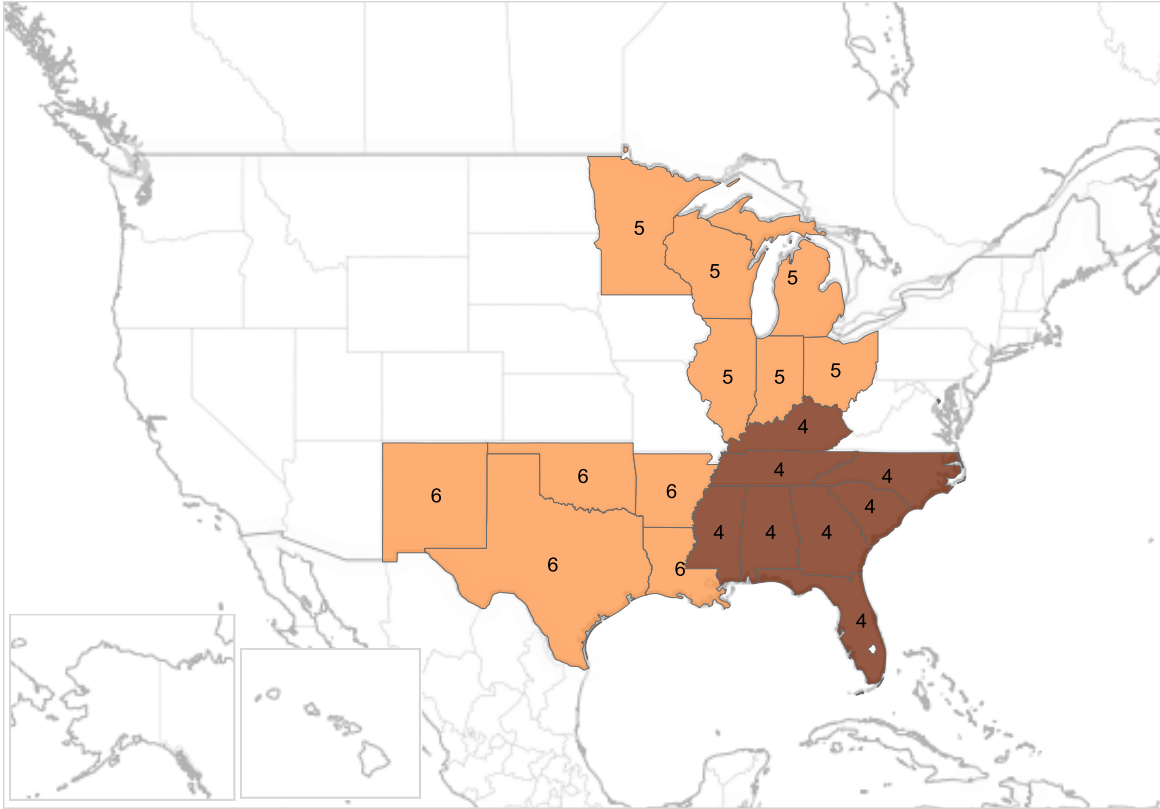
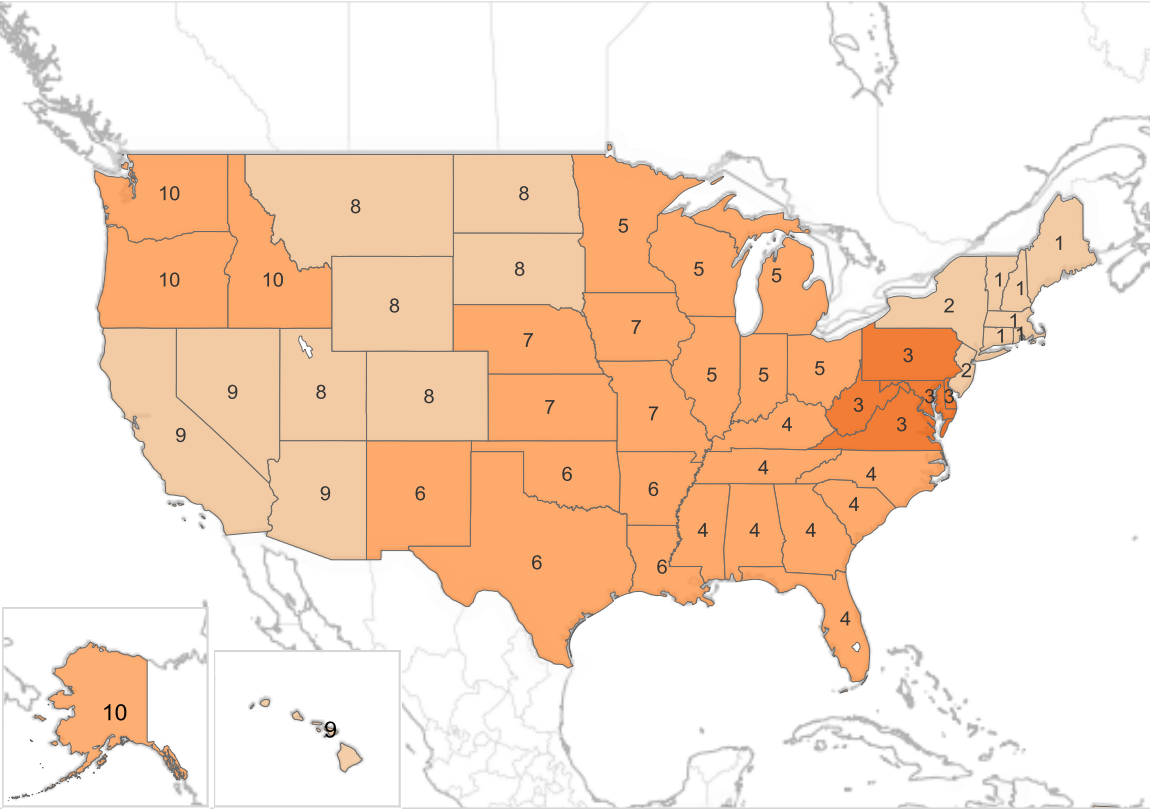
Sex  
Female

Cause of Death  
Heart disease



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

RURAL (Micropolitan, Non-Core)



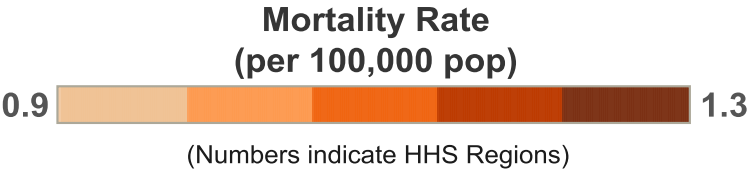
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 32

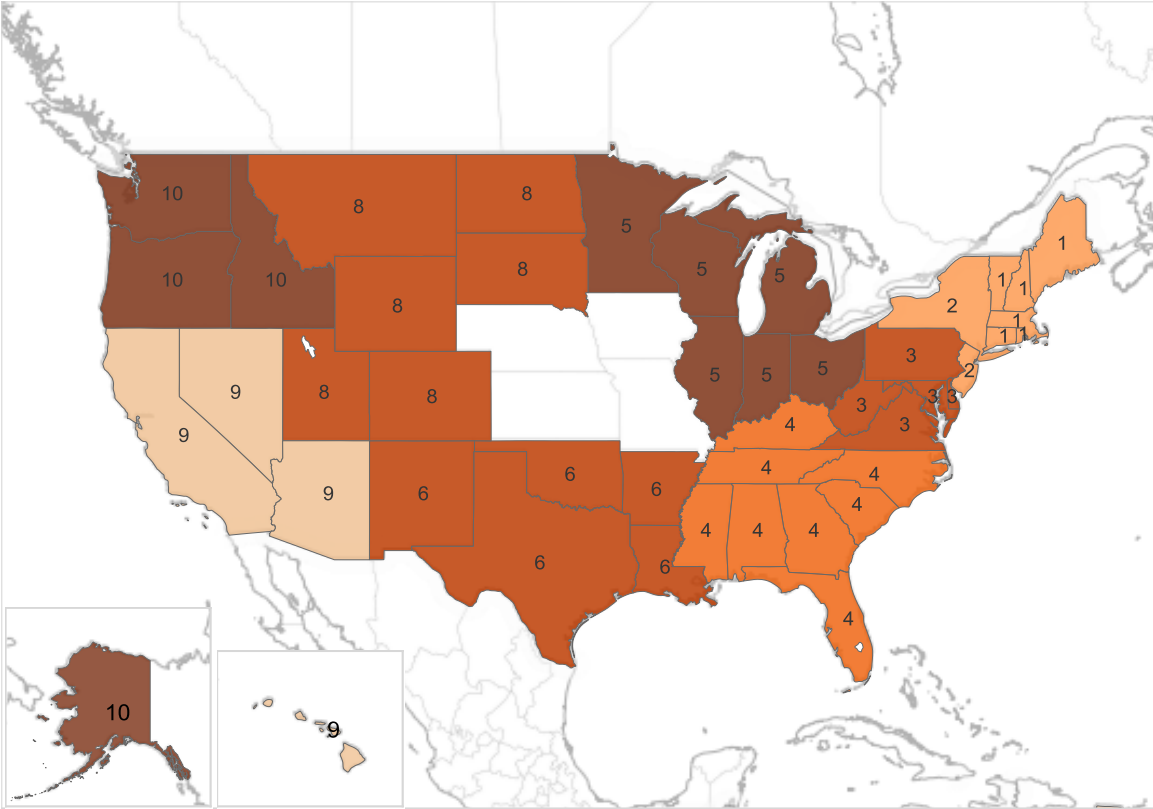
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Congenital malformations; Sex: Male

Sex  
Male

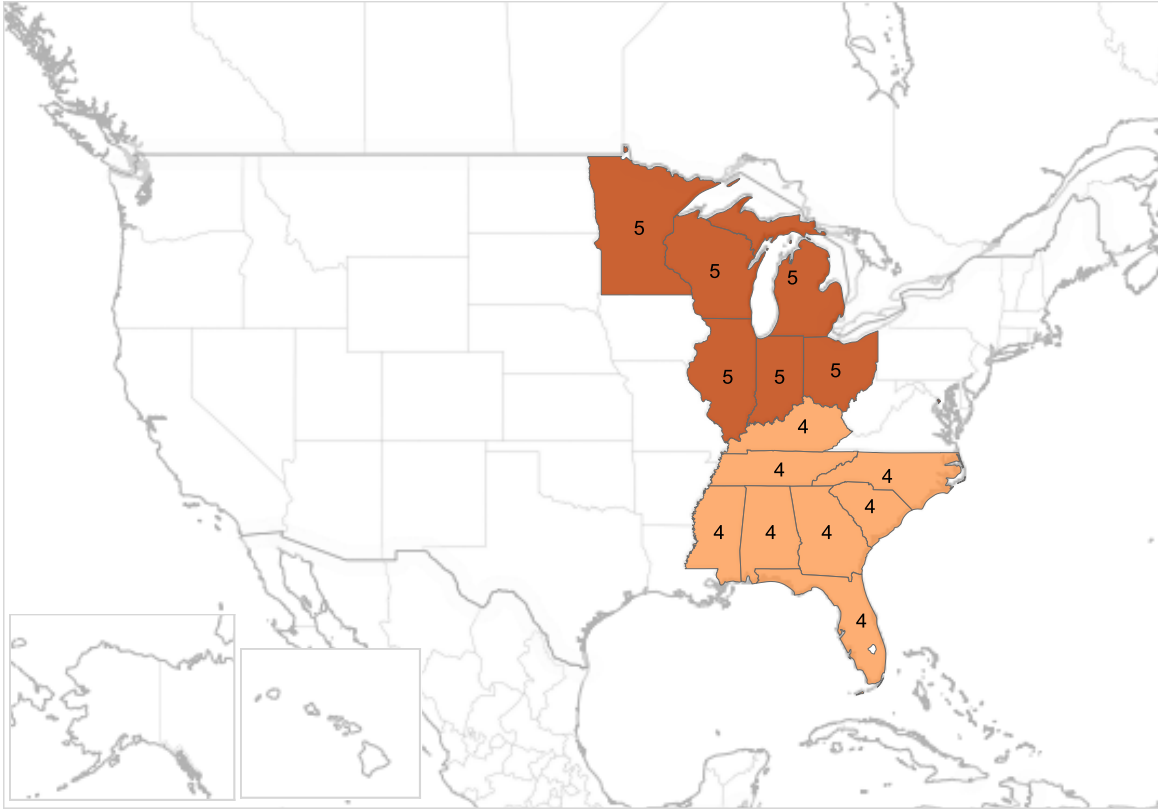
Cause of Death  
Congenital malformations



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



RURAL (Micropolitan, Non-Core)



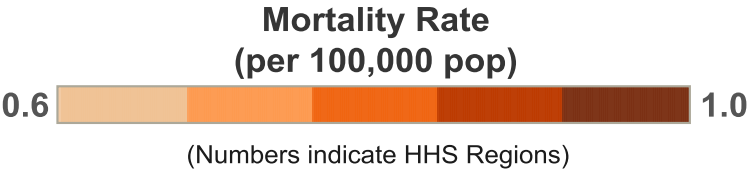
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 33

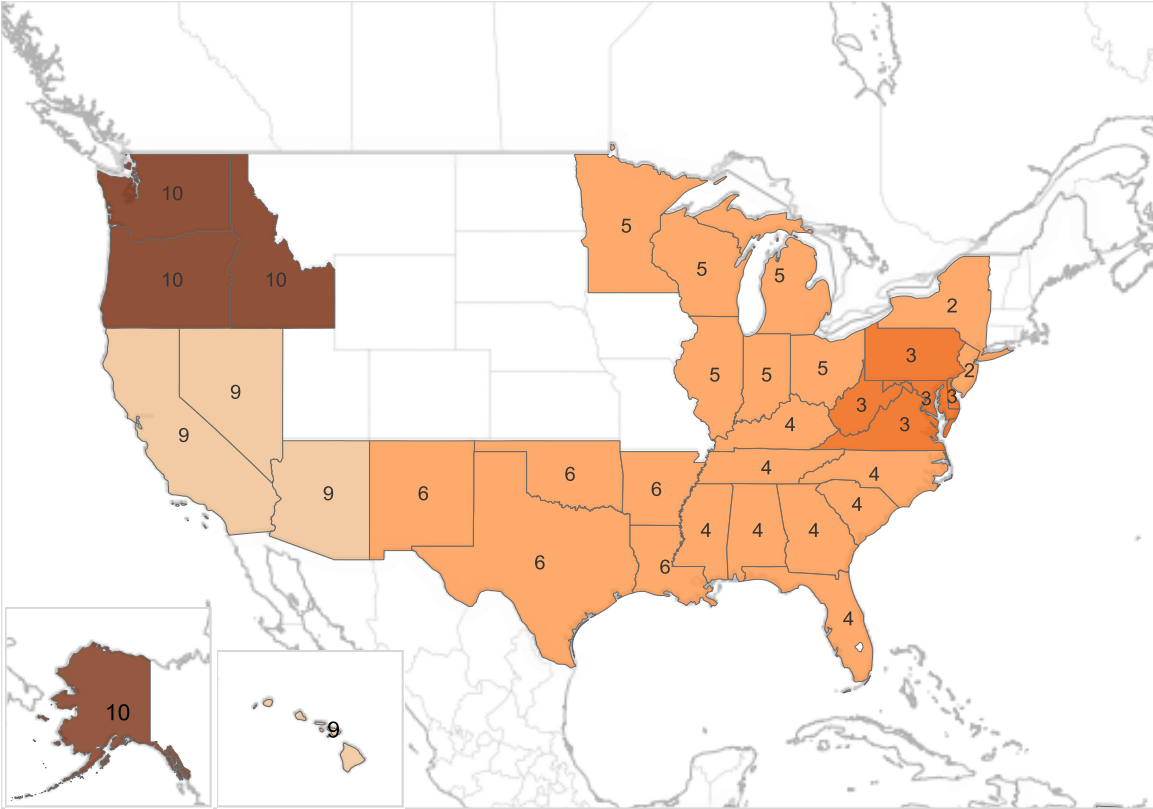
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Congenital malformations; Sex: Female

Sex  
Female

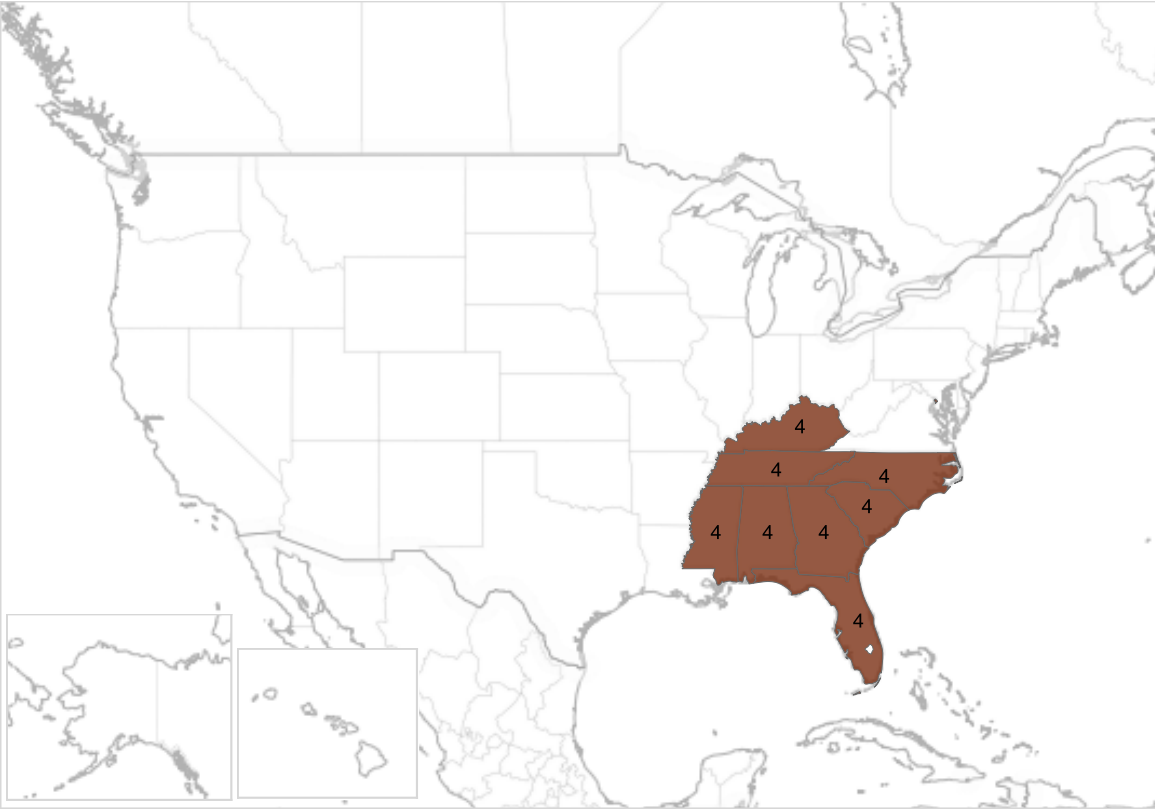
Cause of Death  
Congenital malformations



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.

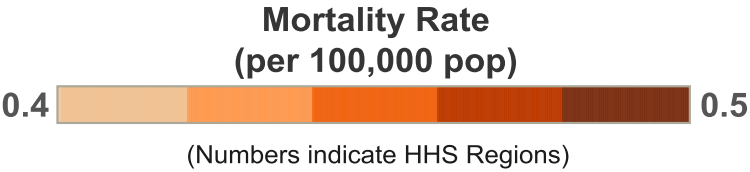


Figure 34

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

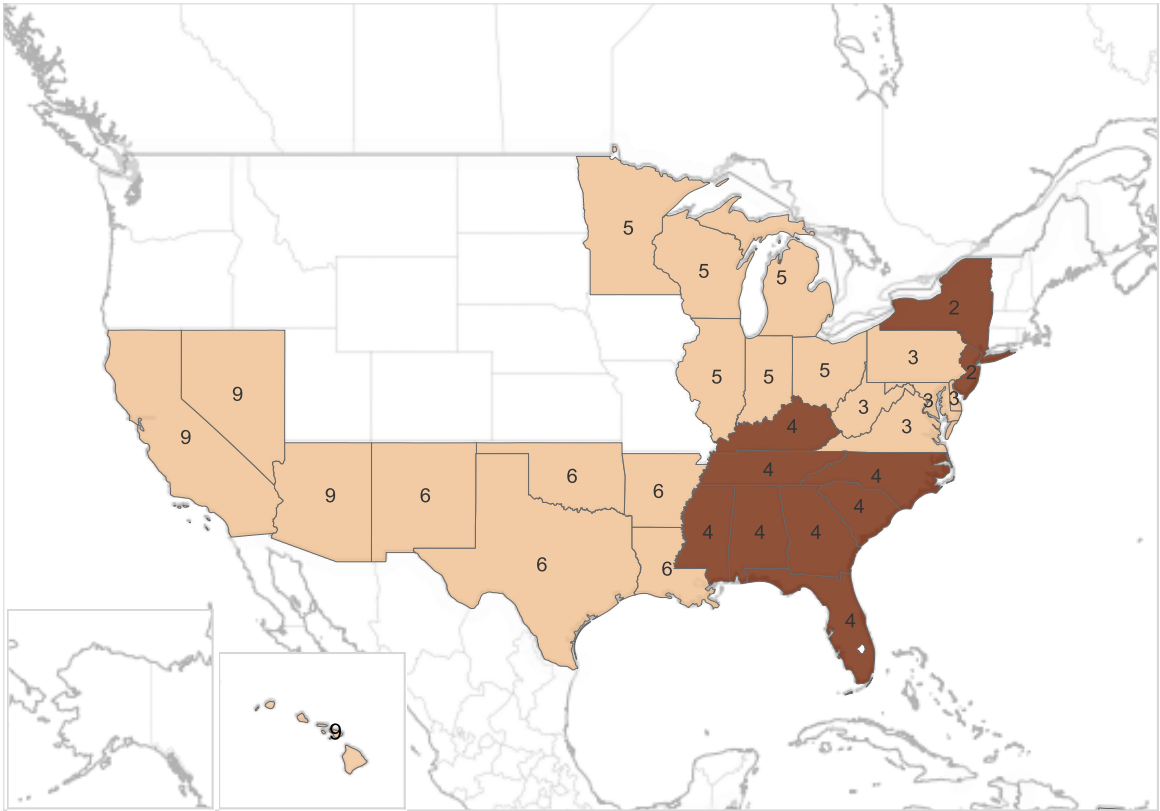
Sex  
Male

Cause of Death  
Diabetes



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

RURAL (Micropolitan, Non-Core)



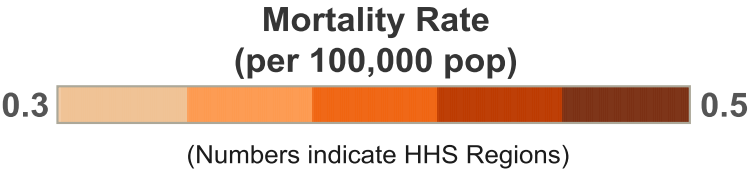
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 35

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

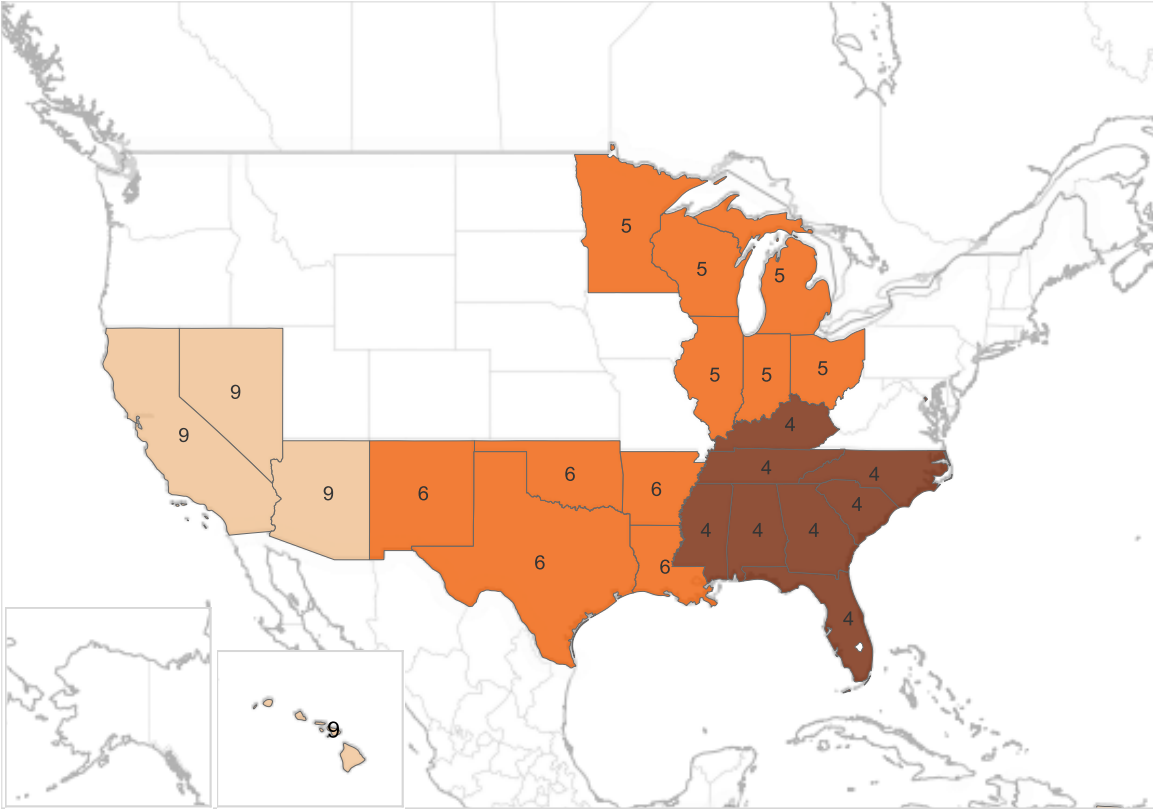
Sex  
Female

Cause of Death  
Diabetes



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.

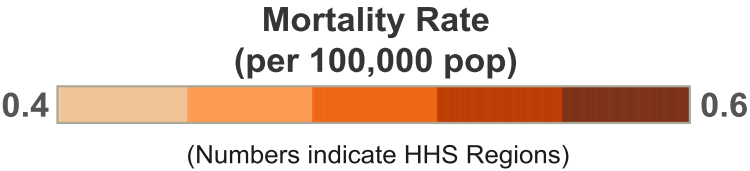


Figure 36

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

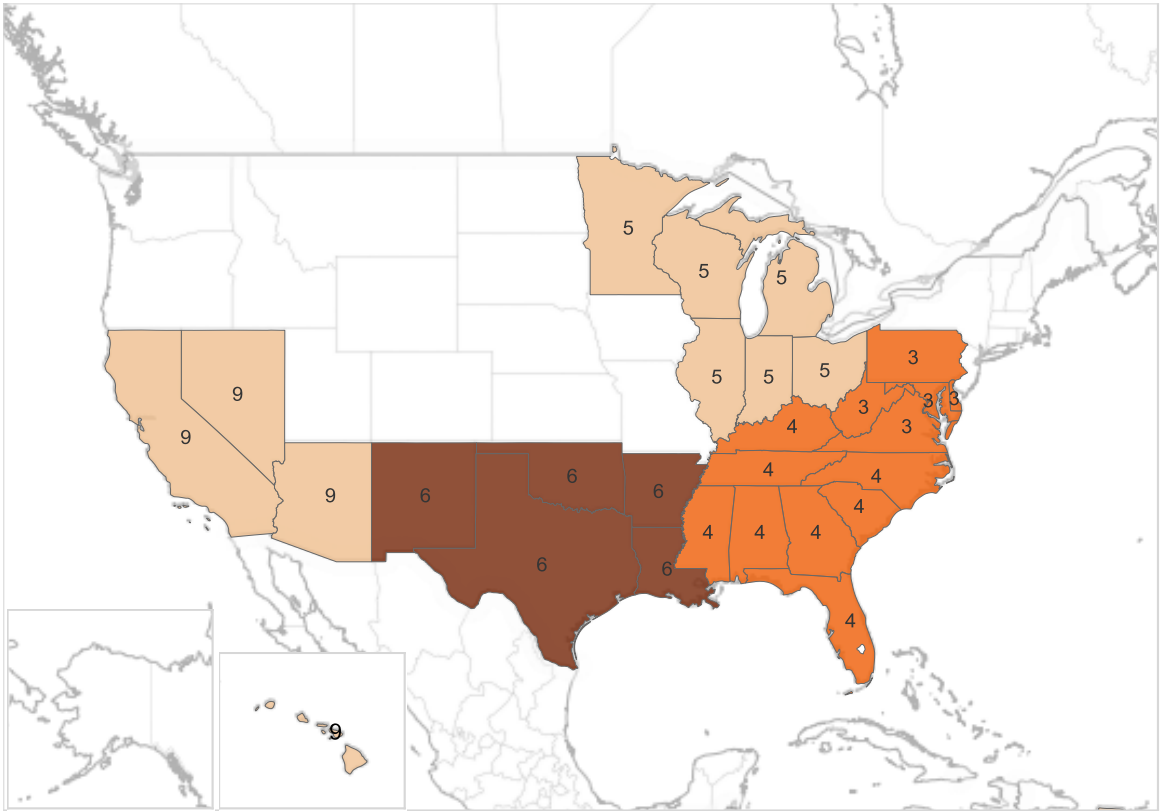
Sex  
Male

Cause of Death  
Cerebrovascular diseases



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

RURAL (Micropolitan, Non-Core)



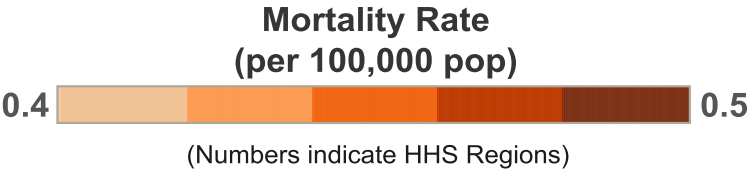
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 37

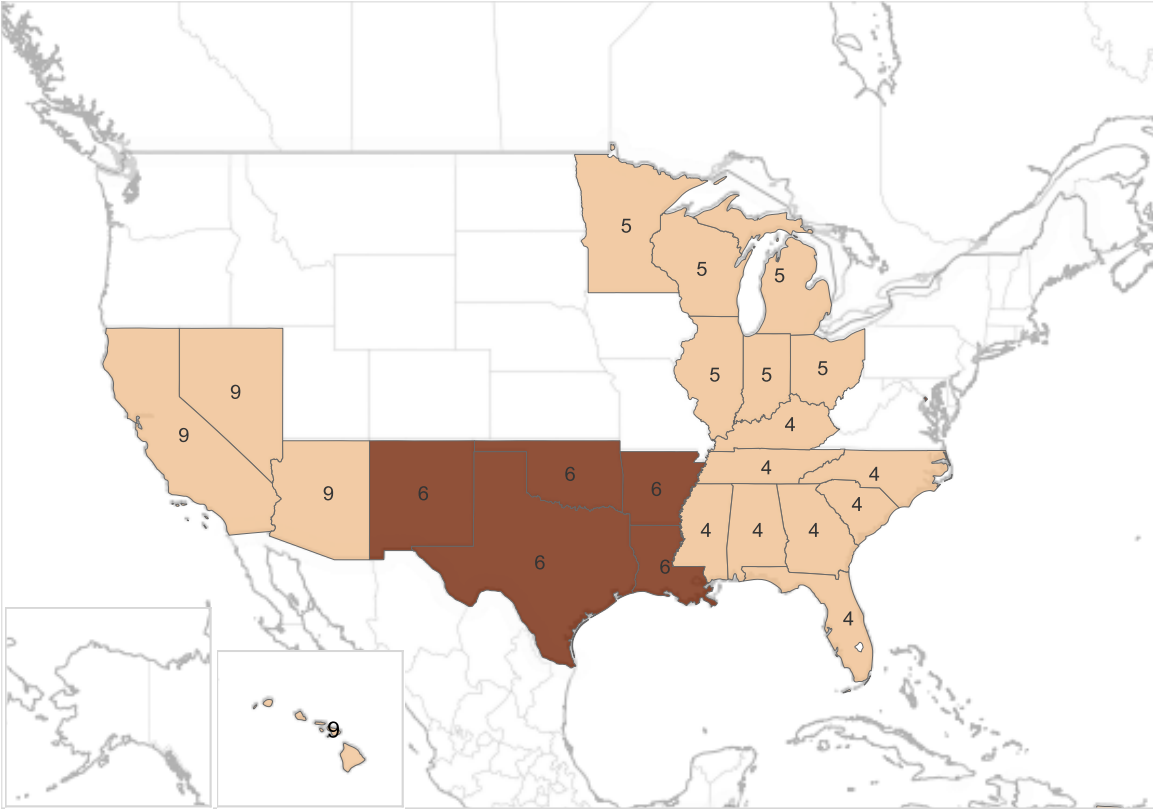
# Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Cerebrovascular diseases; Sex: Female

Sex  
Female

Cause of Death  
Cerebrovascular diseases



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



RURAL (Micropolitan, Non-Core)



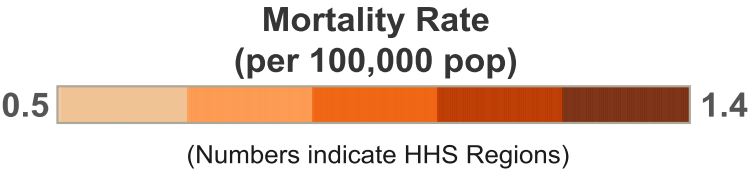
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

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

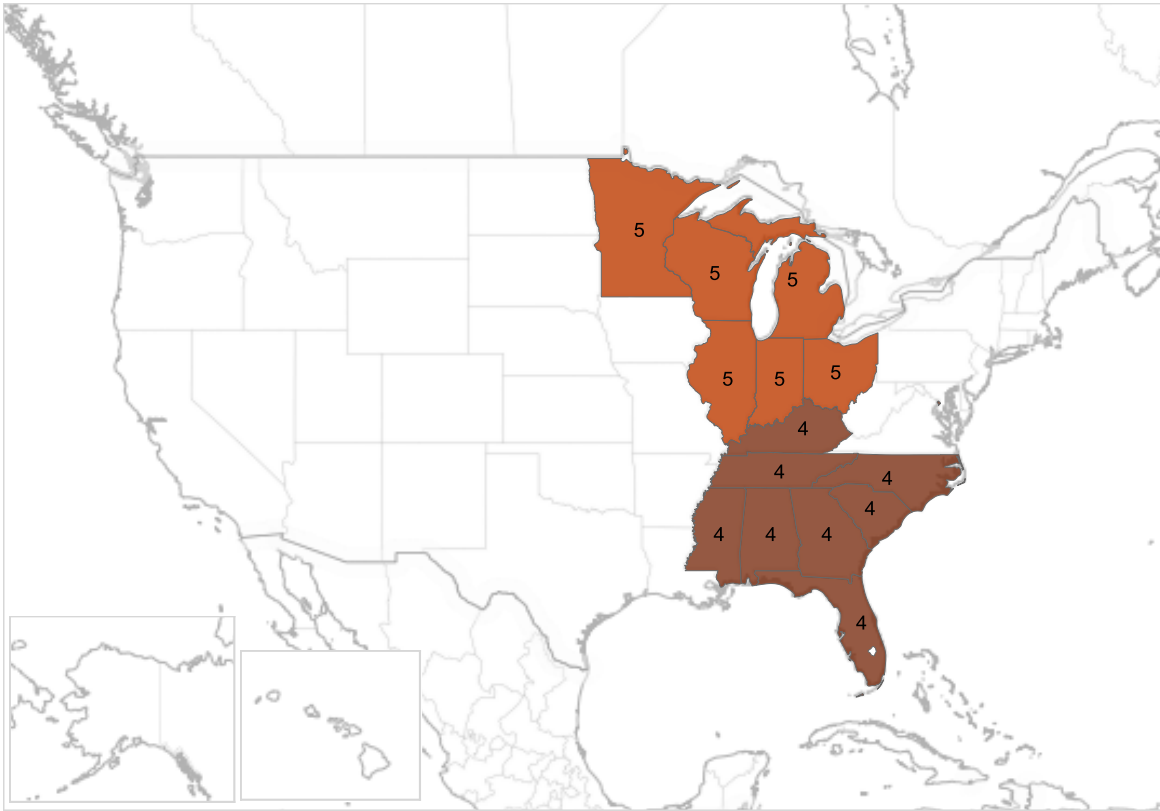
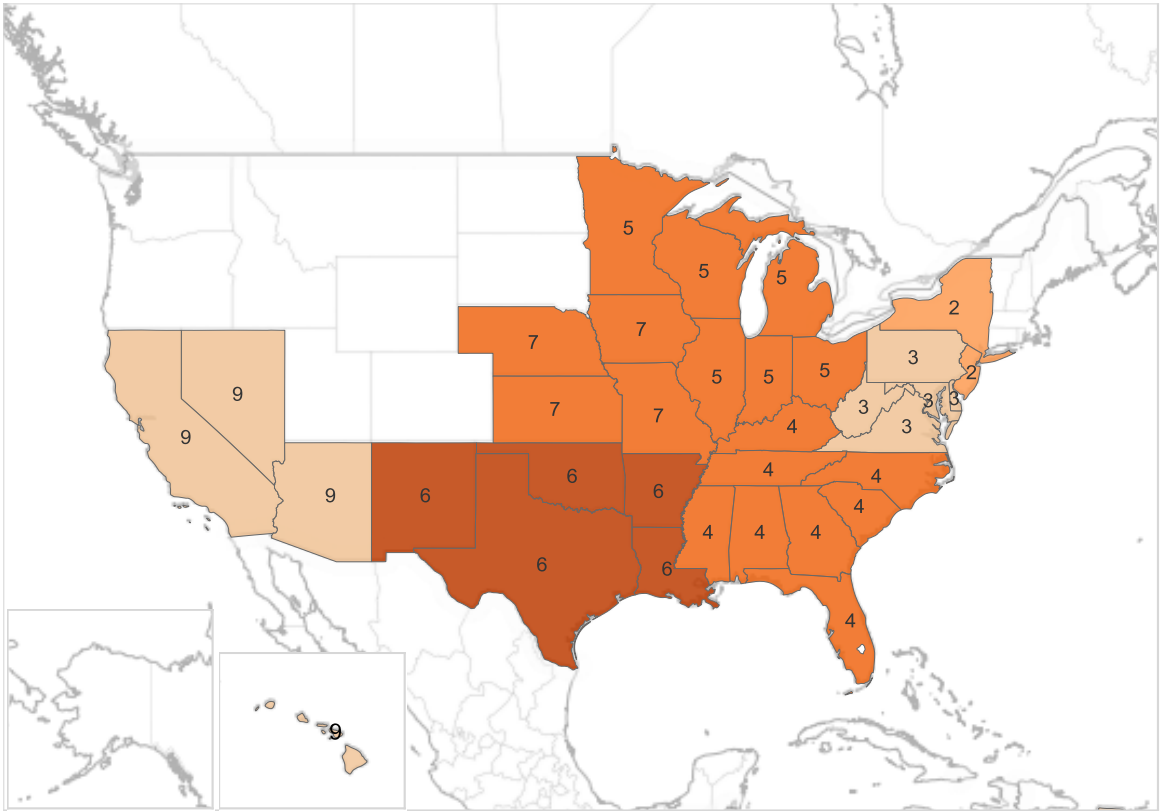
Sex  
Female

Cause of Death  
Pregnancy or childbirth



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

RURAL (Micropolitan, Non-Core)



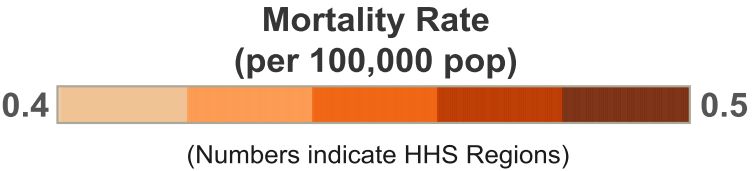
SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.

Figure 39

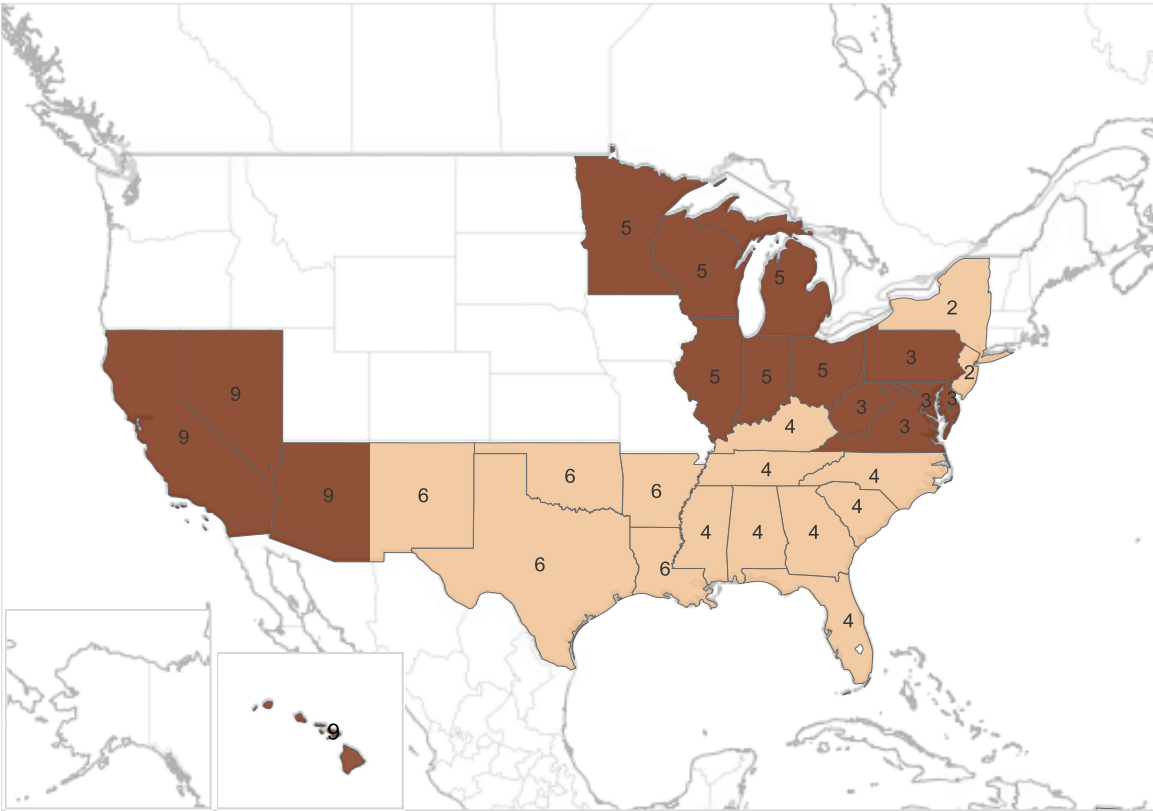
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 15 to 24; Cause of Death: Flu & pneumonia; Sex: Male

Sex  
Male

Cause of Death  
Flu & pneumonia



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



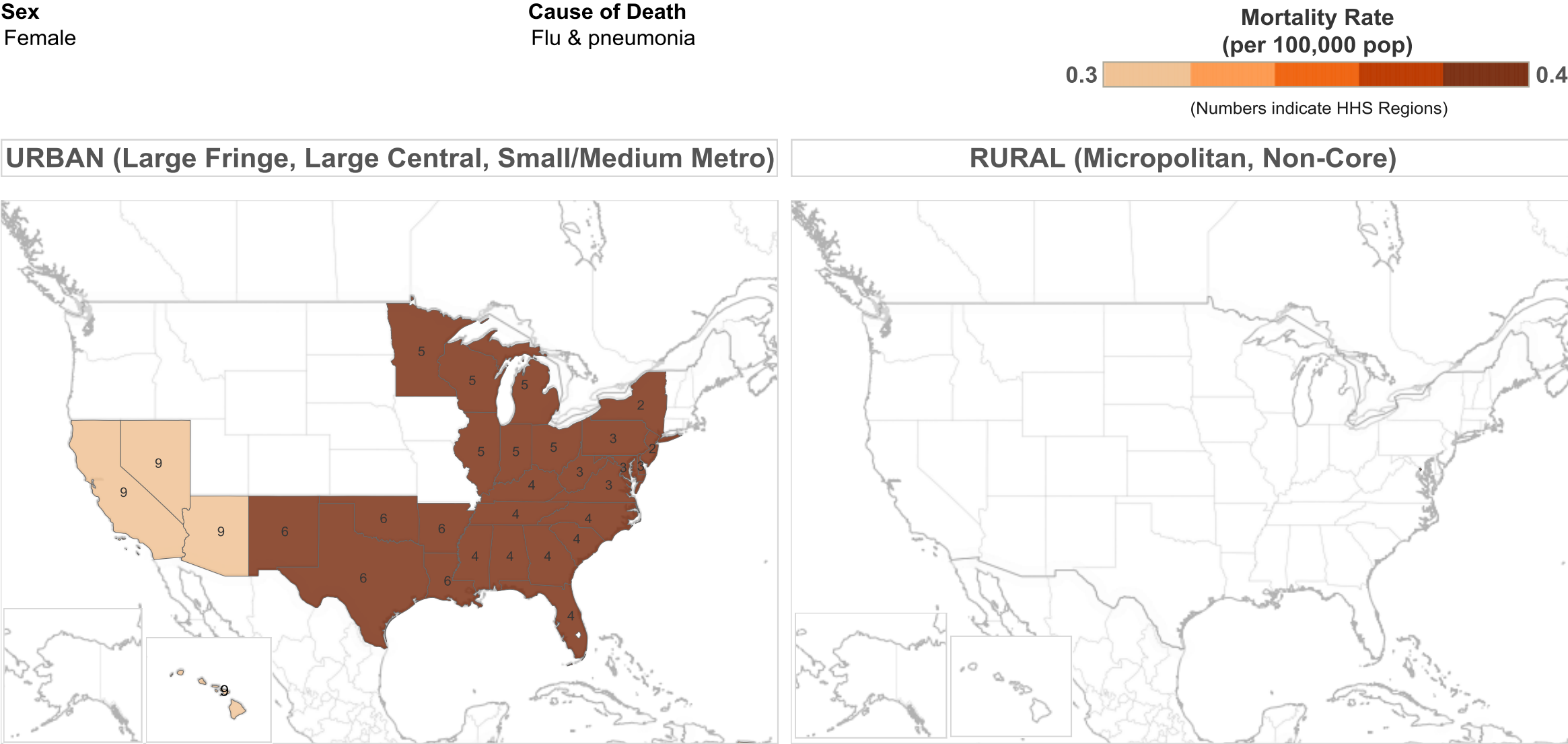
RURAL (Micropolitan, Non-Core)



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



**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

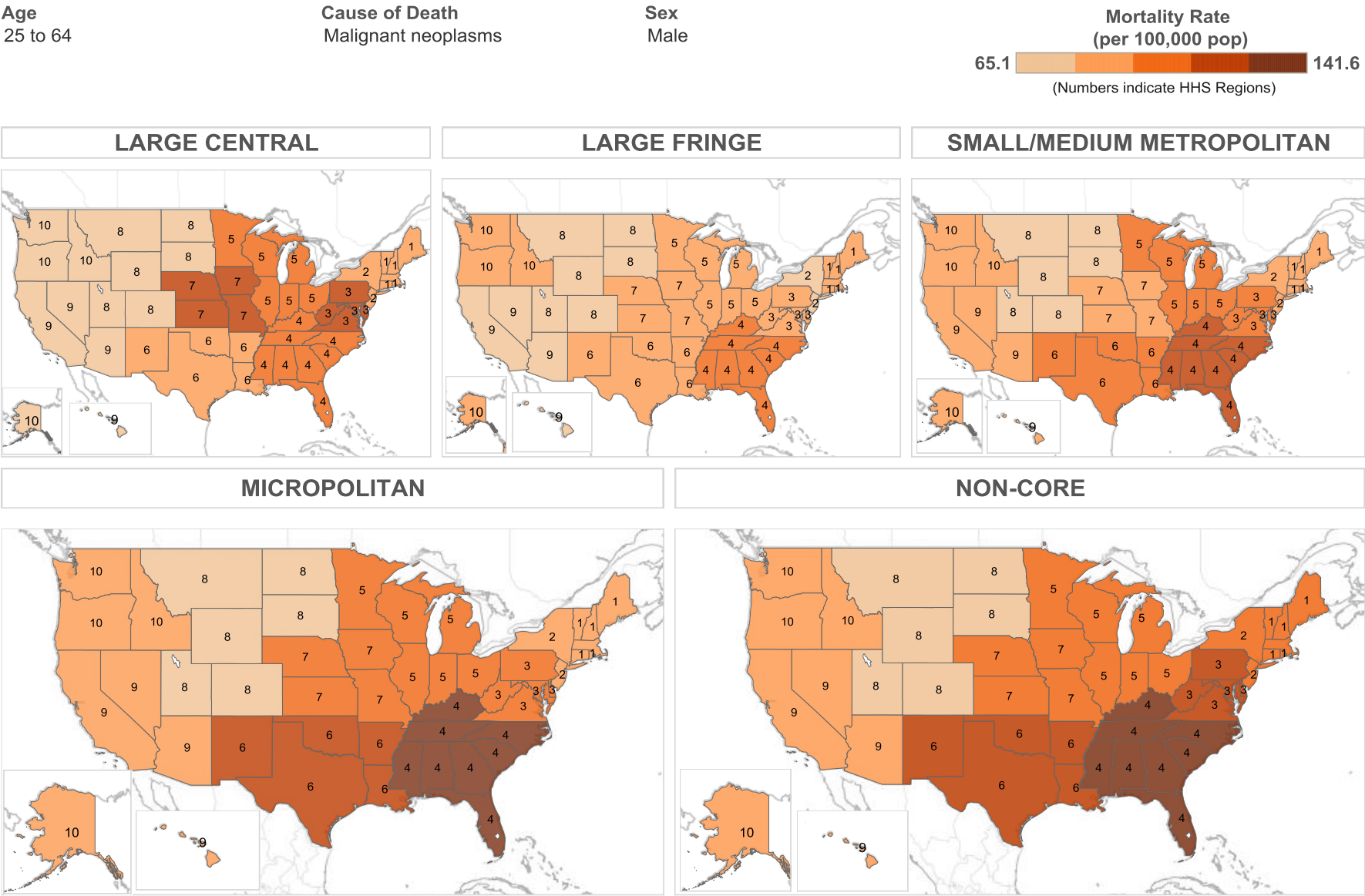
## Cause of Death:

- [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](#)



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

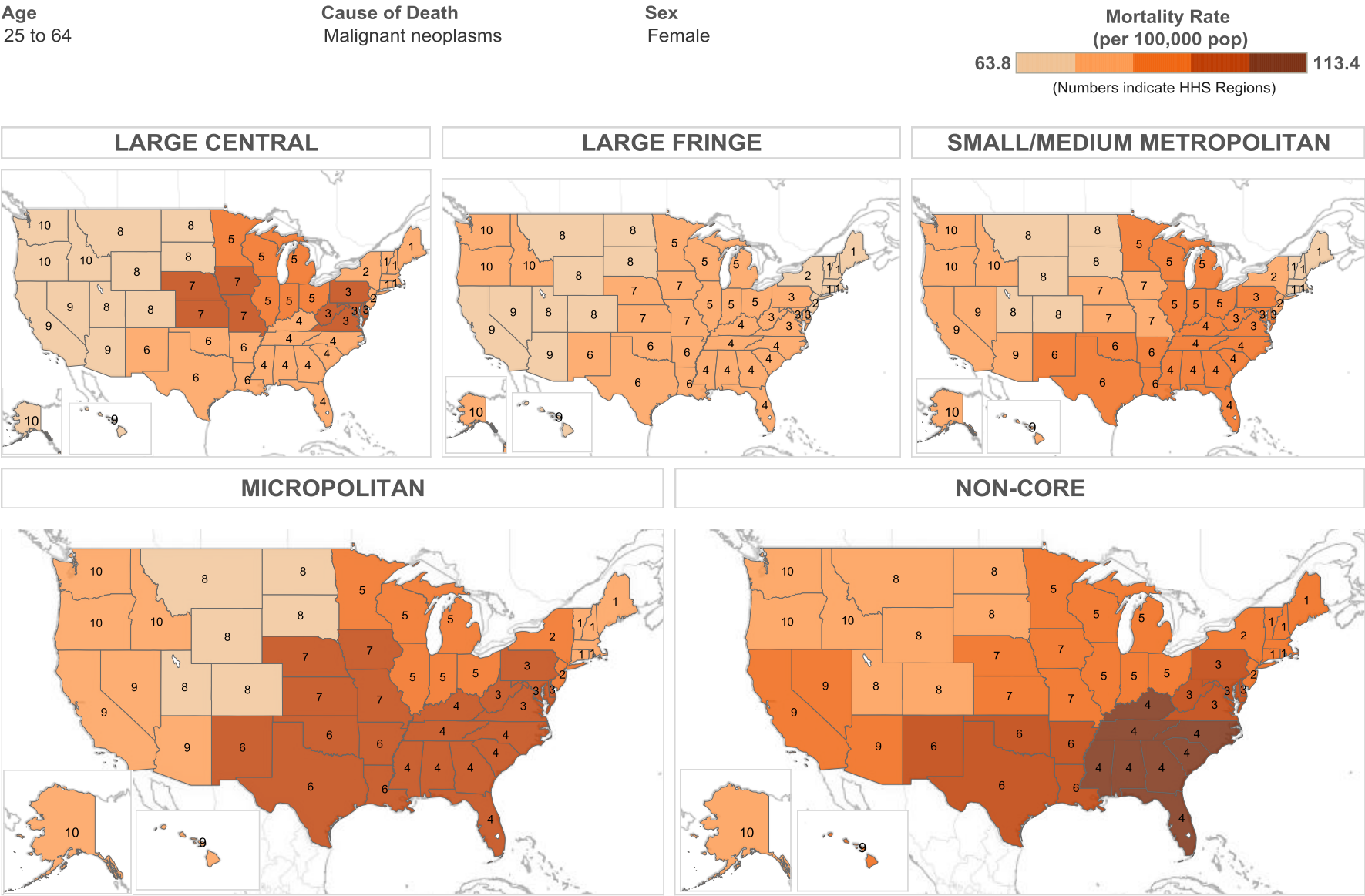


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 42

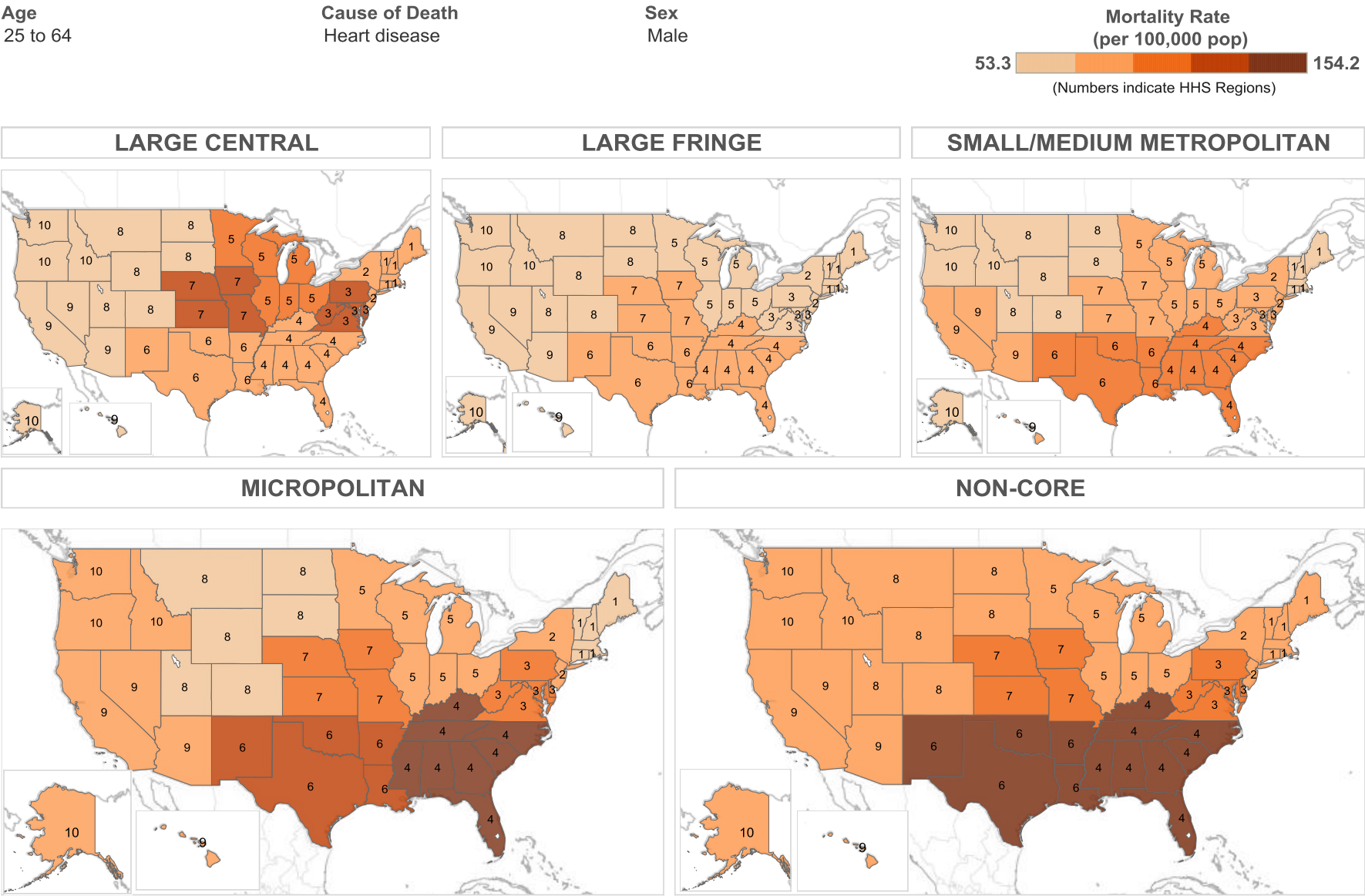
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Malignant neoplasms; Sex: Female



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 43

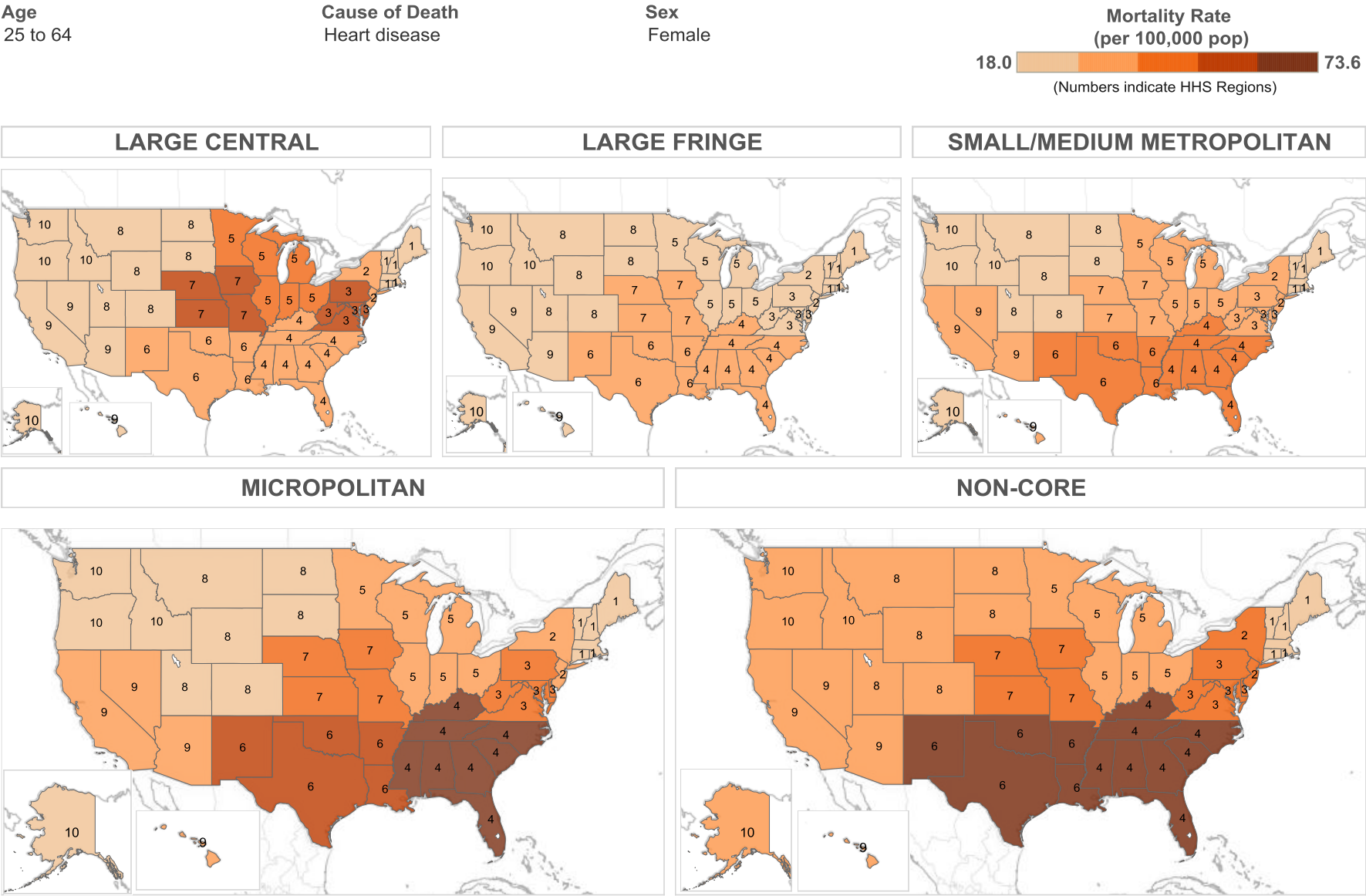
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Heart disease; Sex: Male



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.

Figure 44

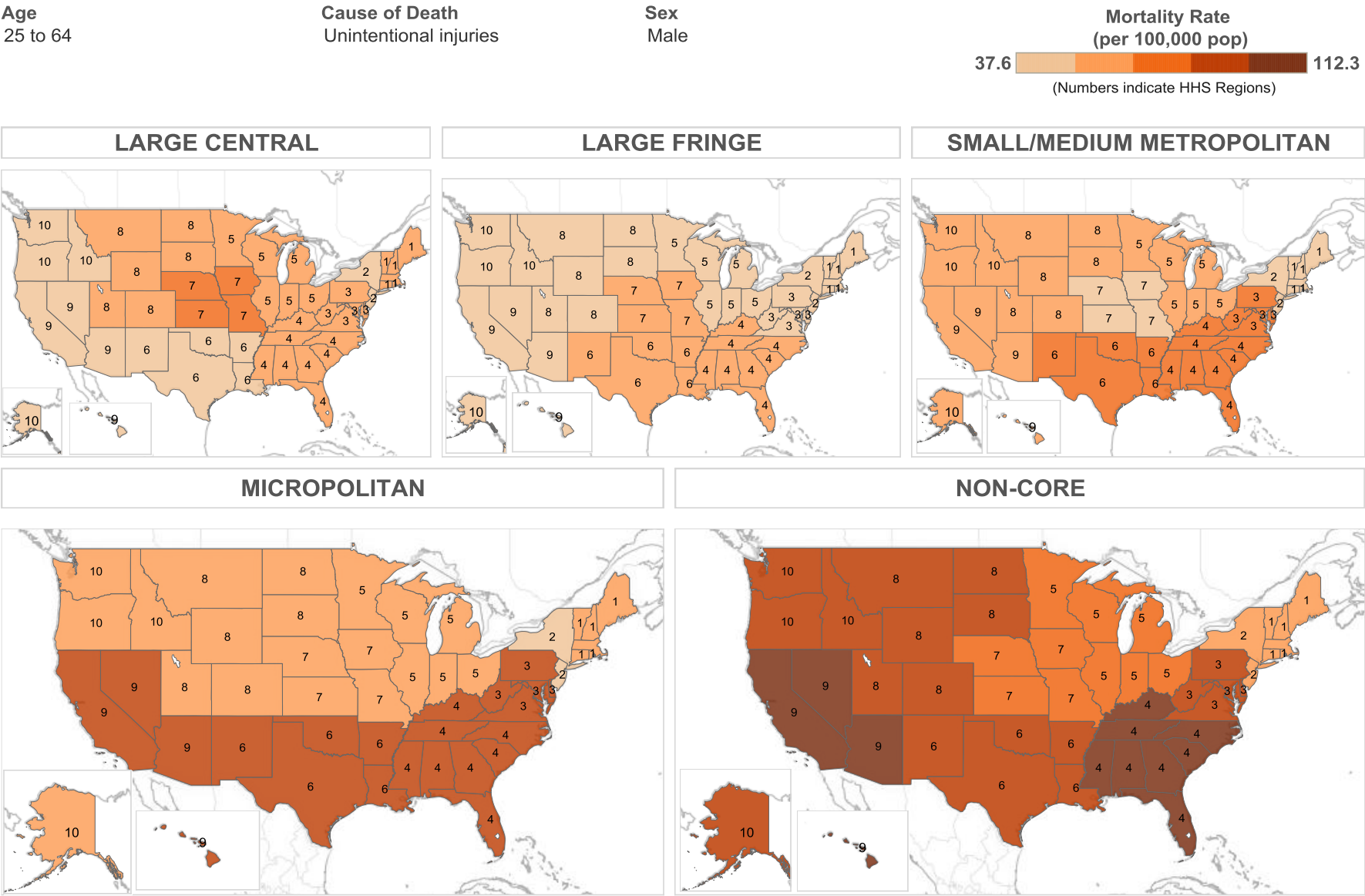
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Heart disease; Sex: Female



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 45

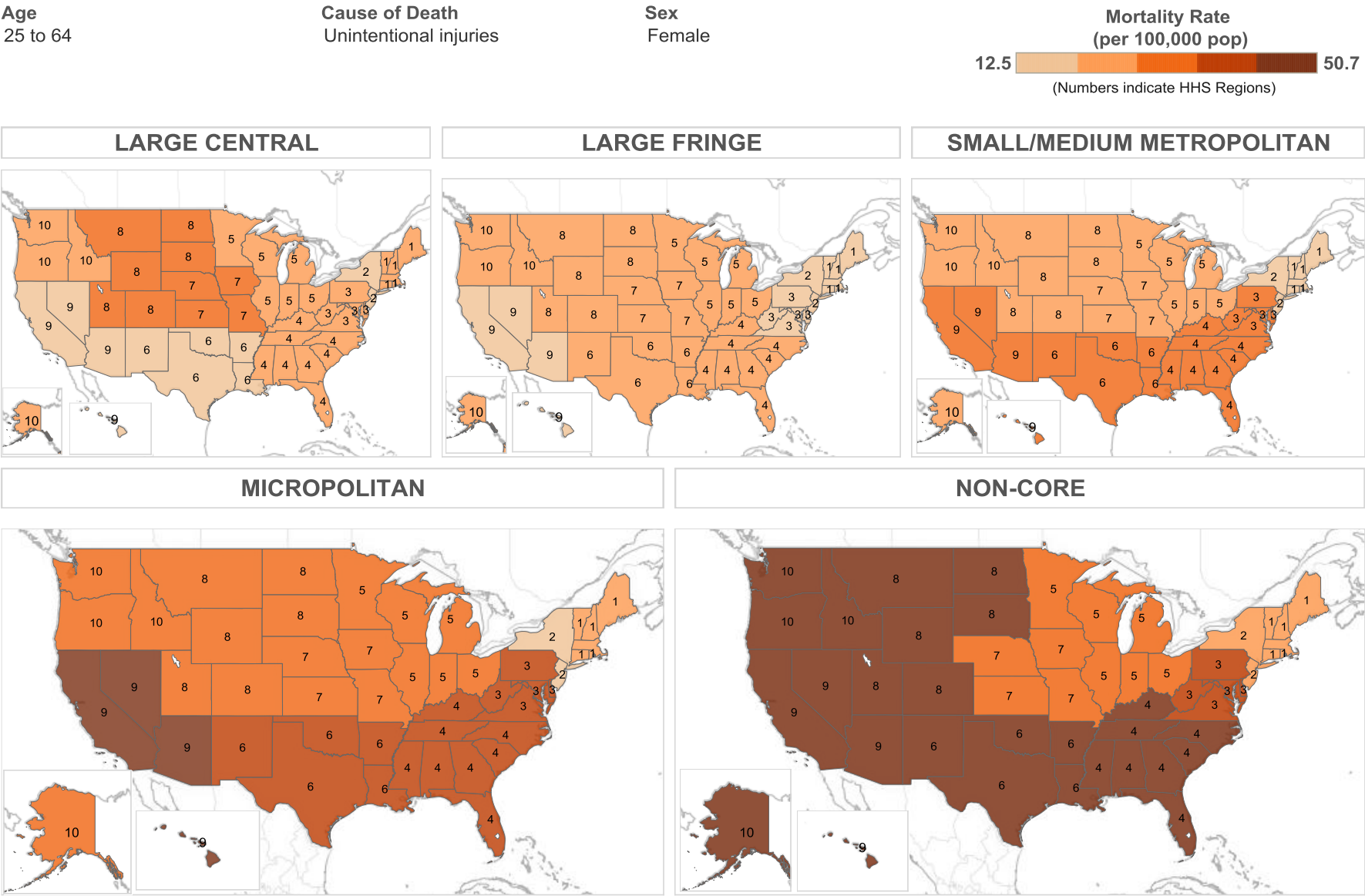
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Unintentional injuries; Sex: Male



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.

Figure 46

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

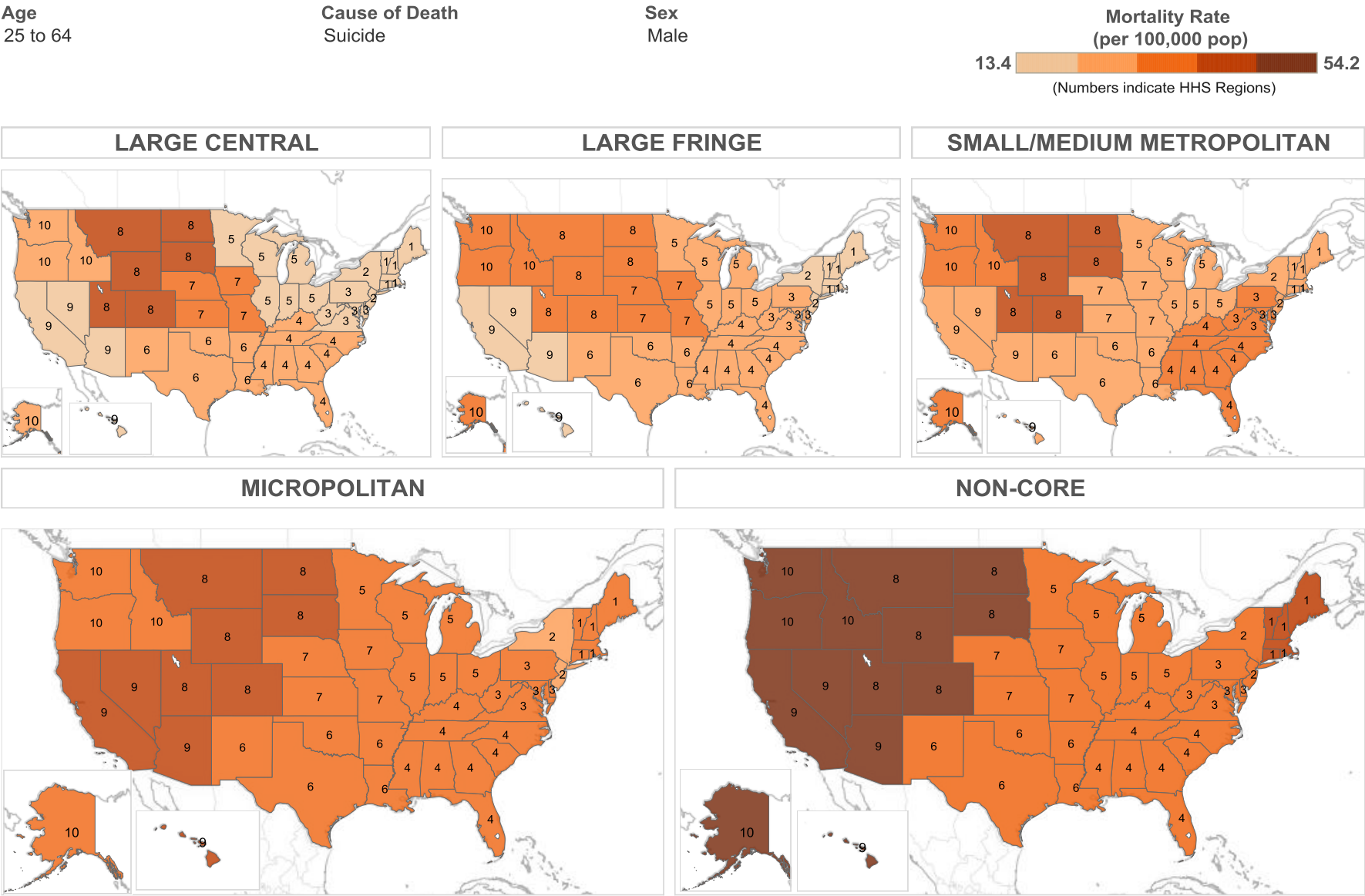


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 47

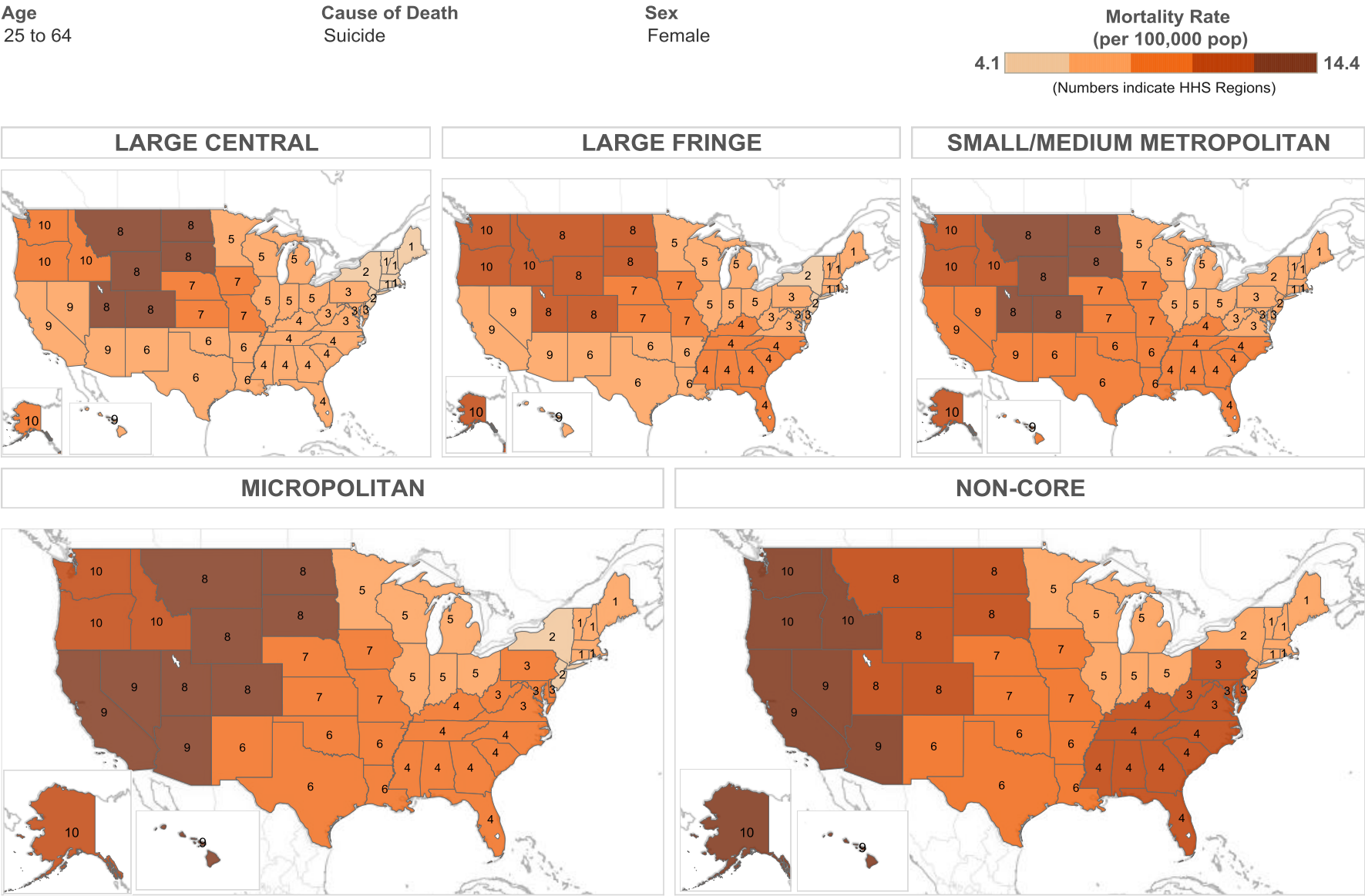
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Suicide; Sex: Male



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.

Figure 48

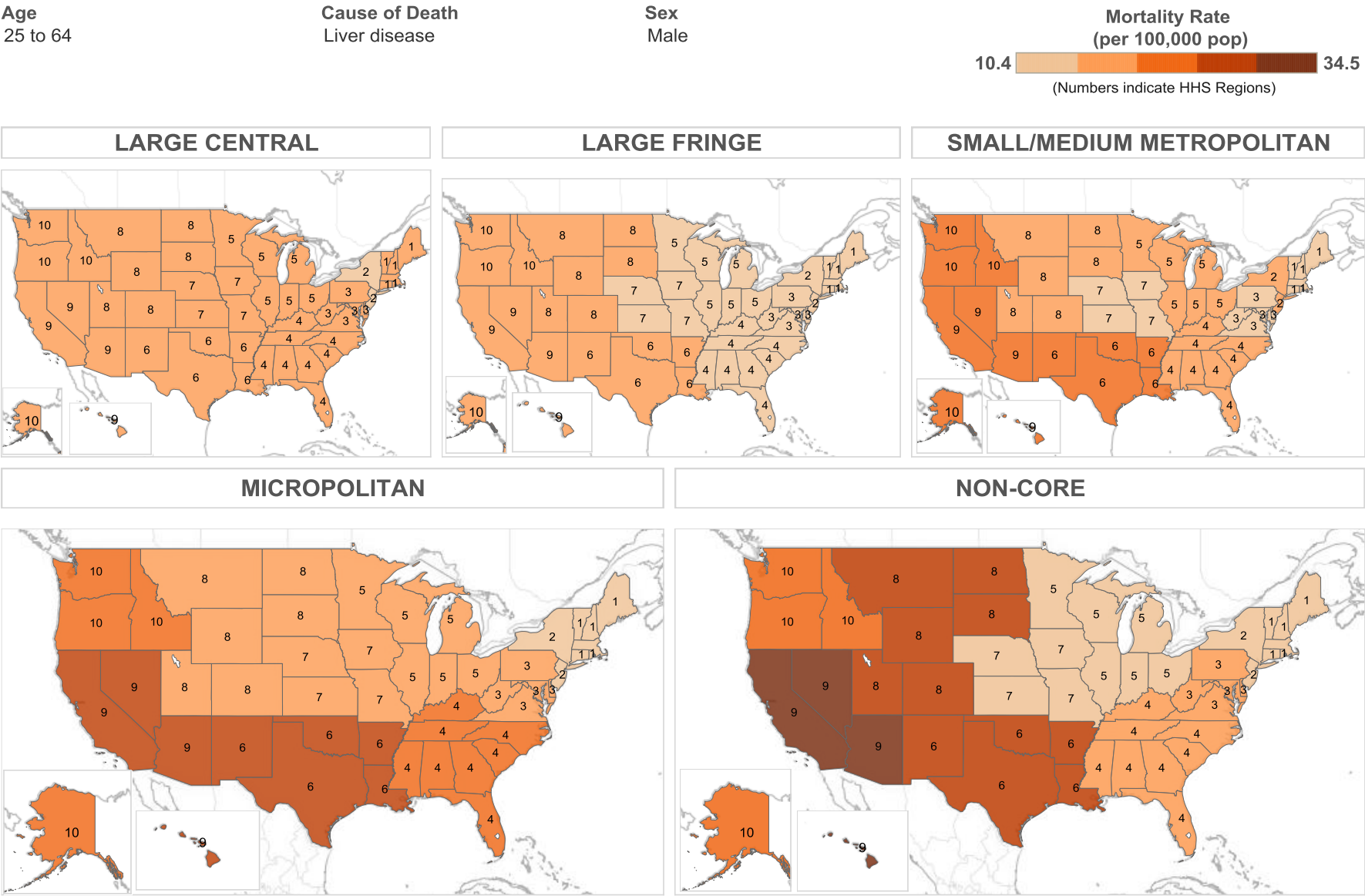
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Suicide; Sex: Female



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 49

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

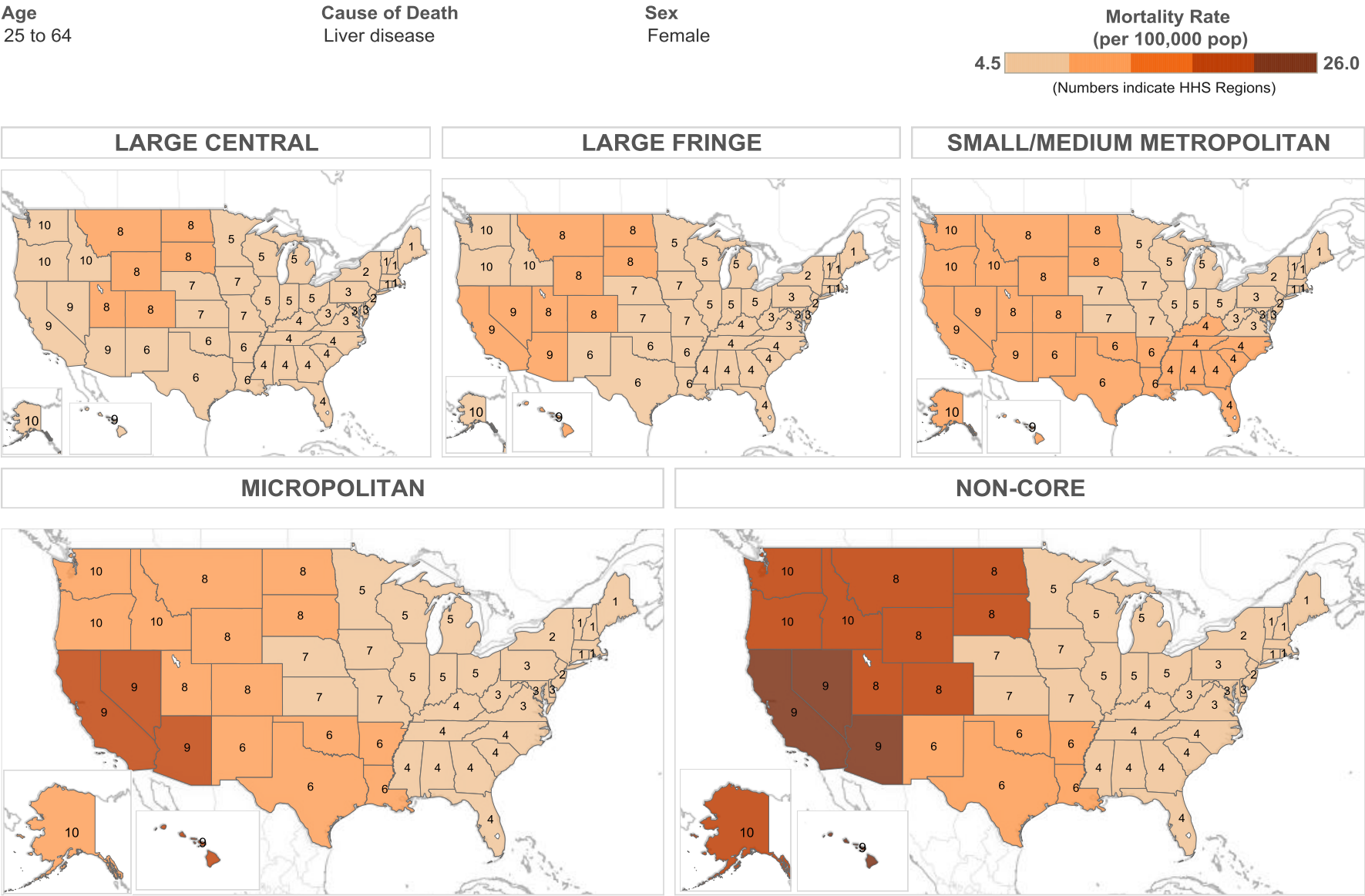


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 50

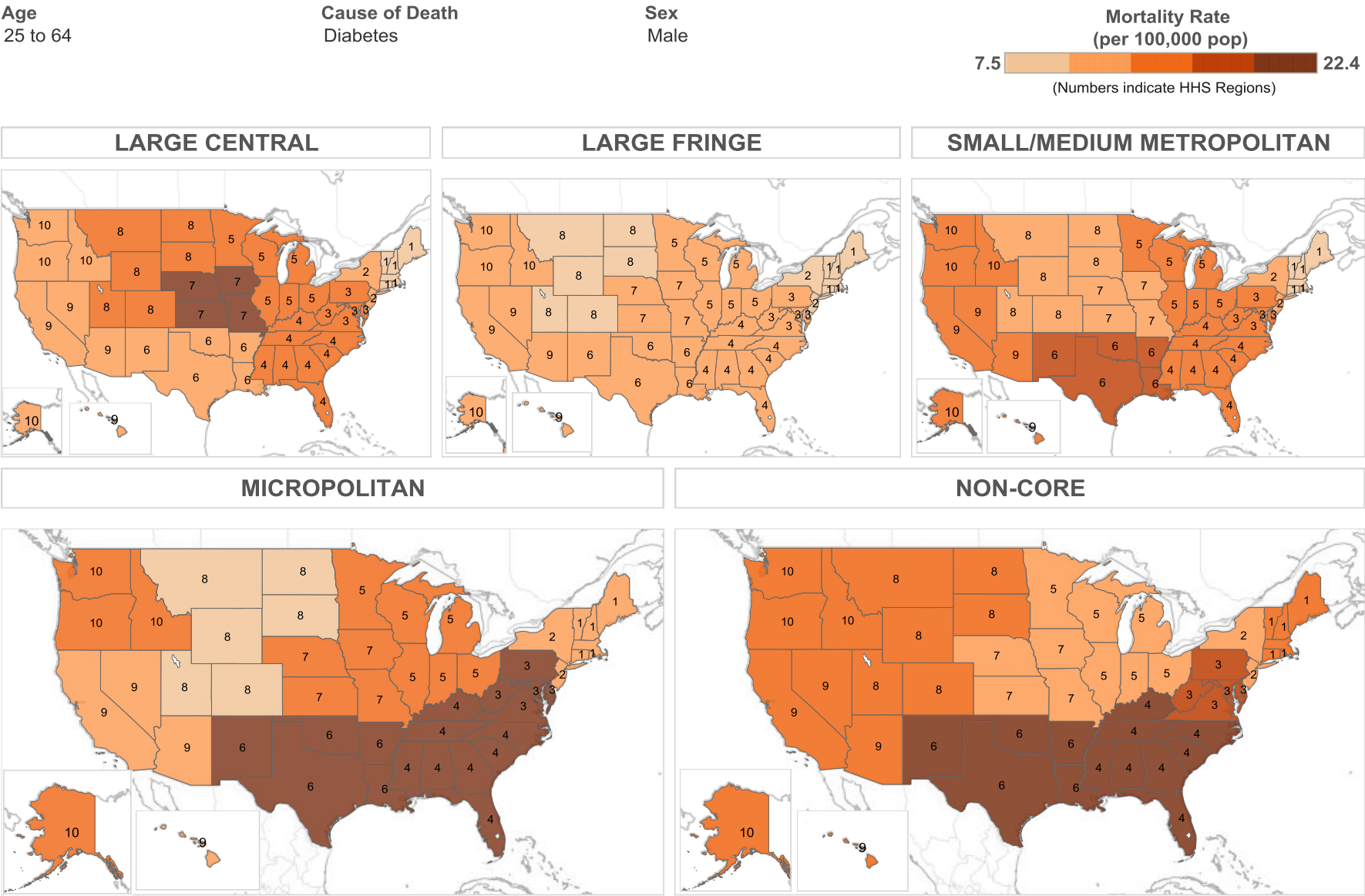
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Liver disease; Sex: Female



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 51

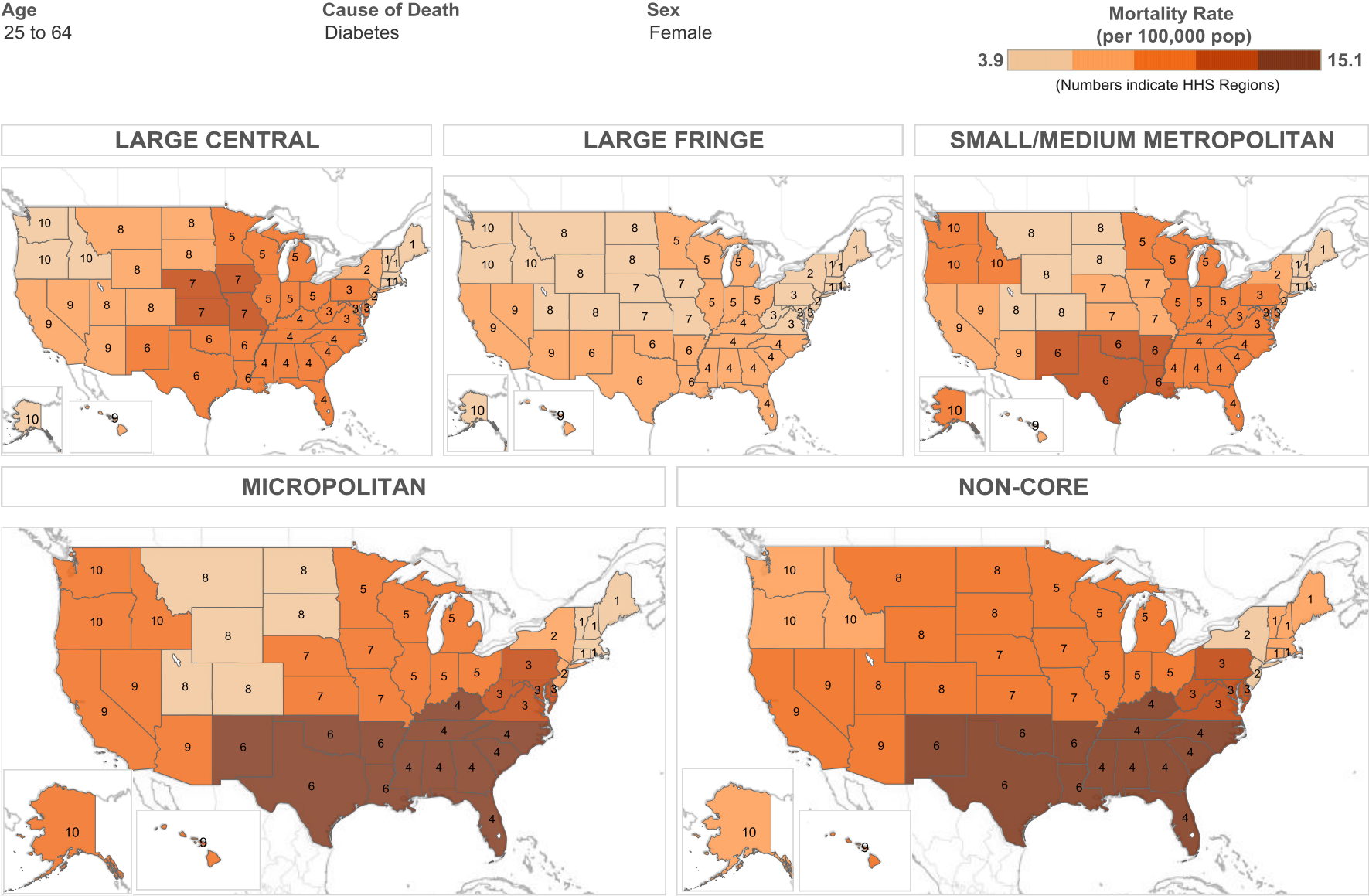
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Diabetes; Sex: Male



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.

Figure 52

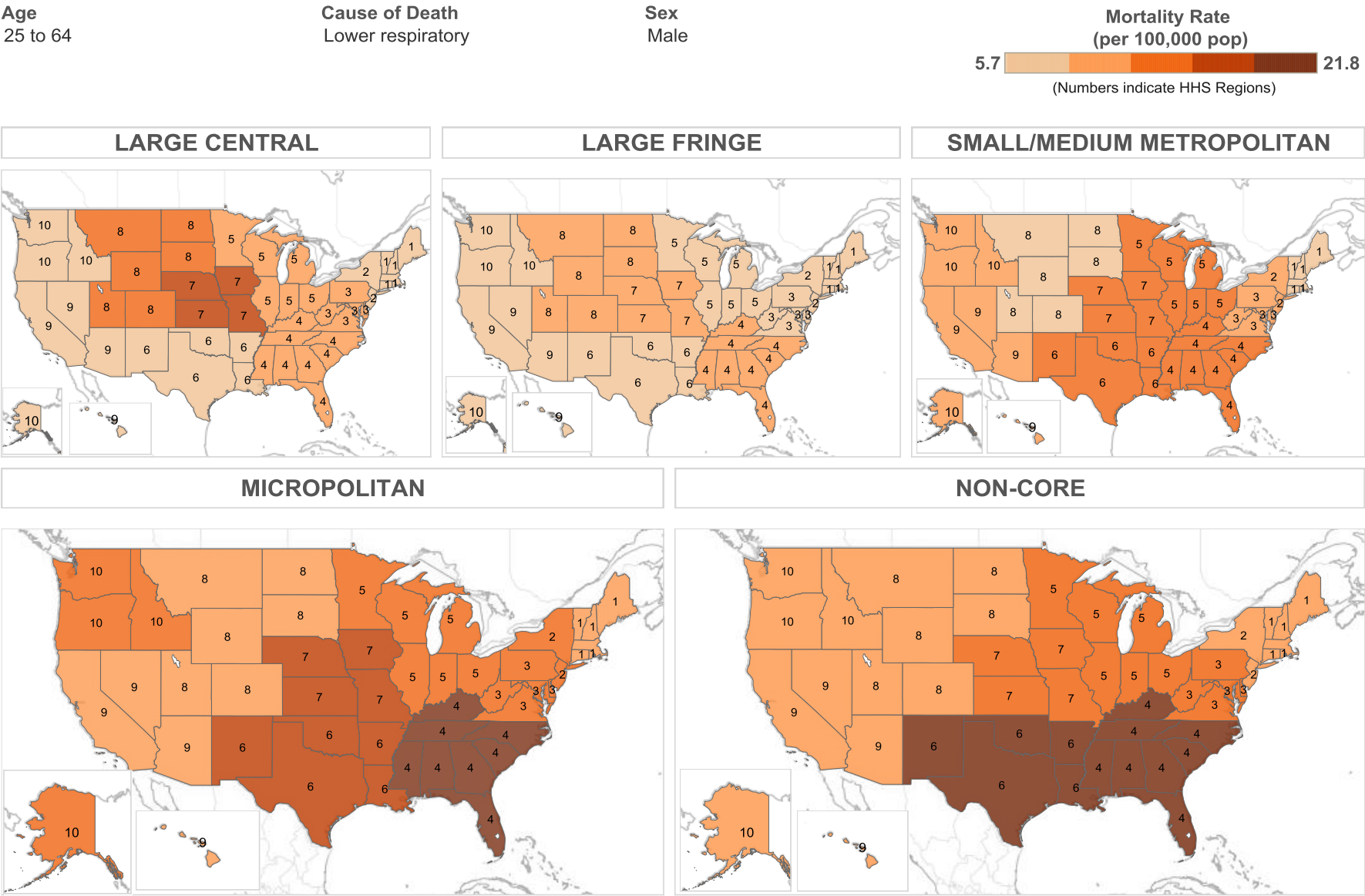
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Diabetes; Sex: Female



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 53

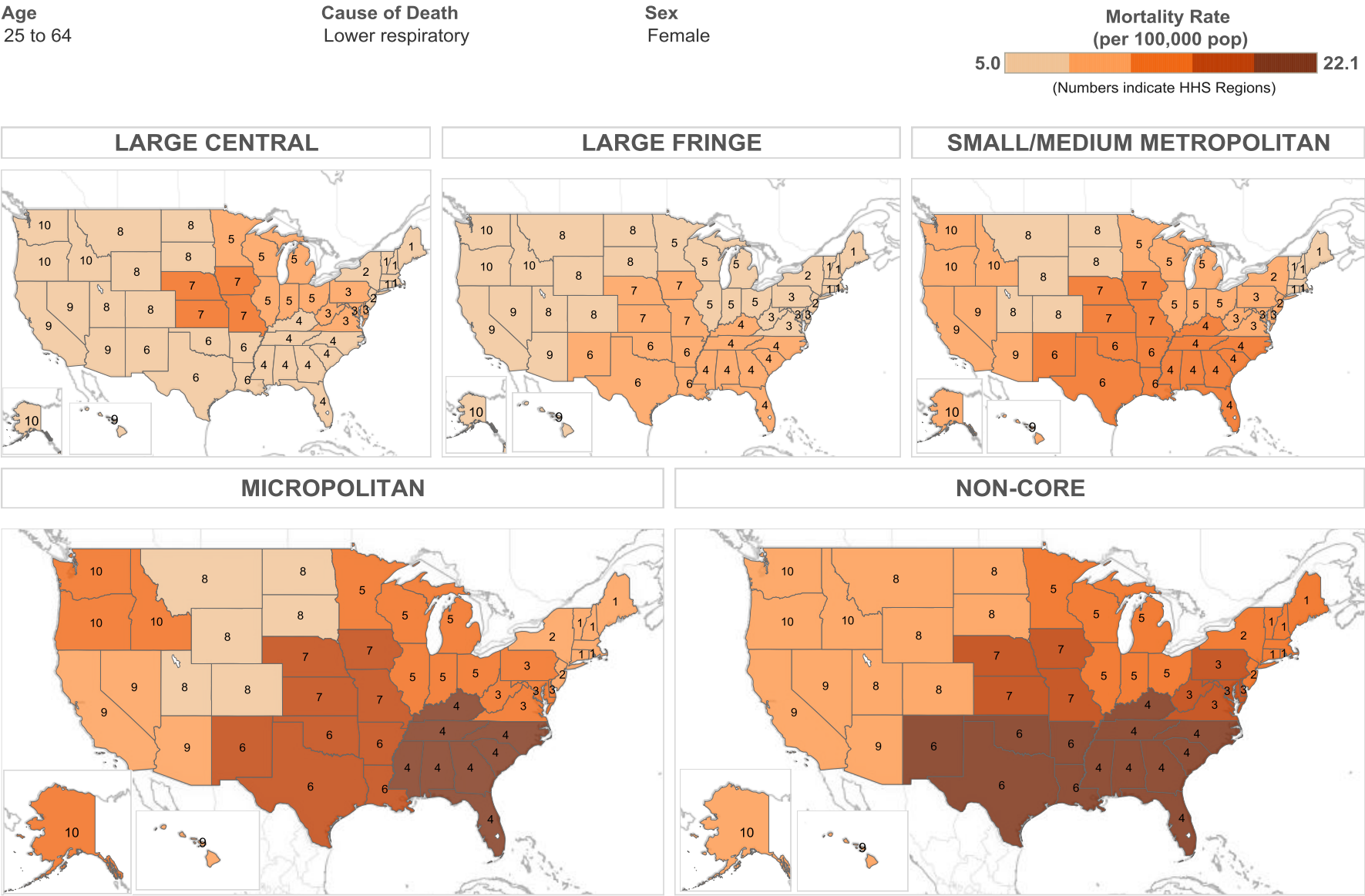
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Lower respiratory; Sex: Male



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.

Figure 54

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

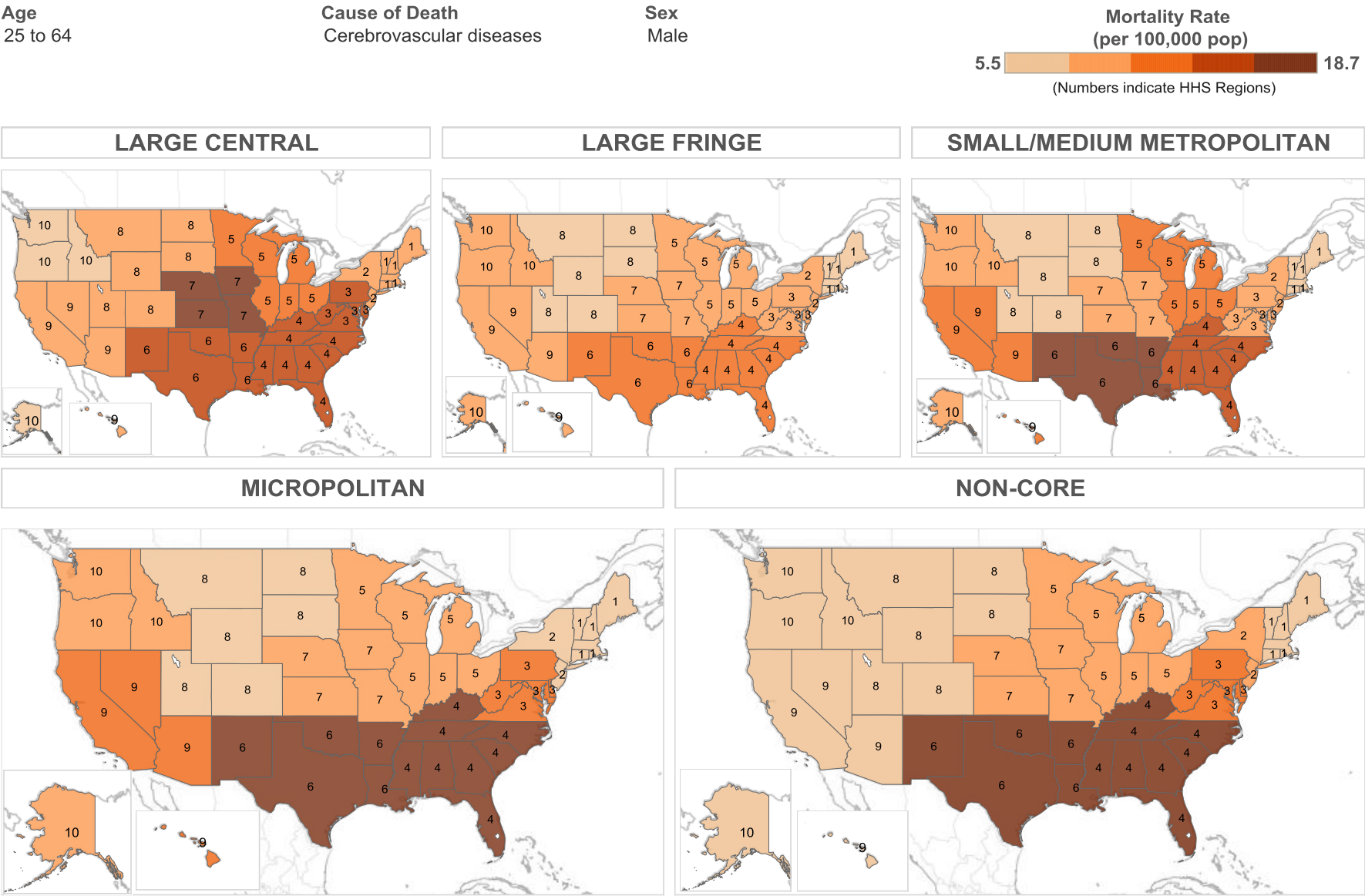


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 55

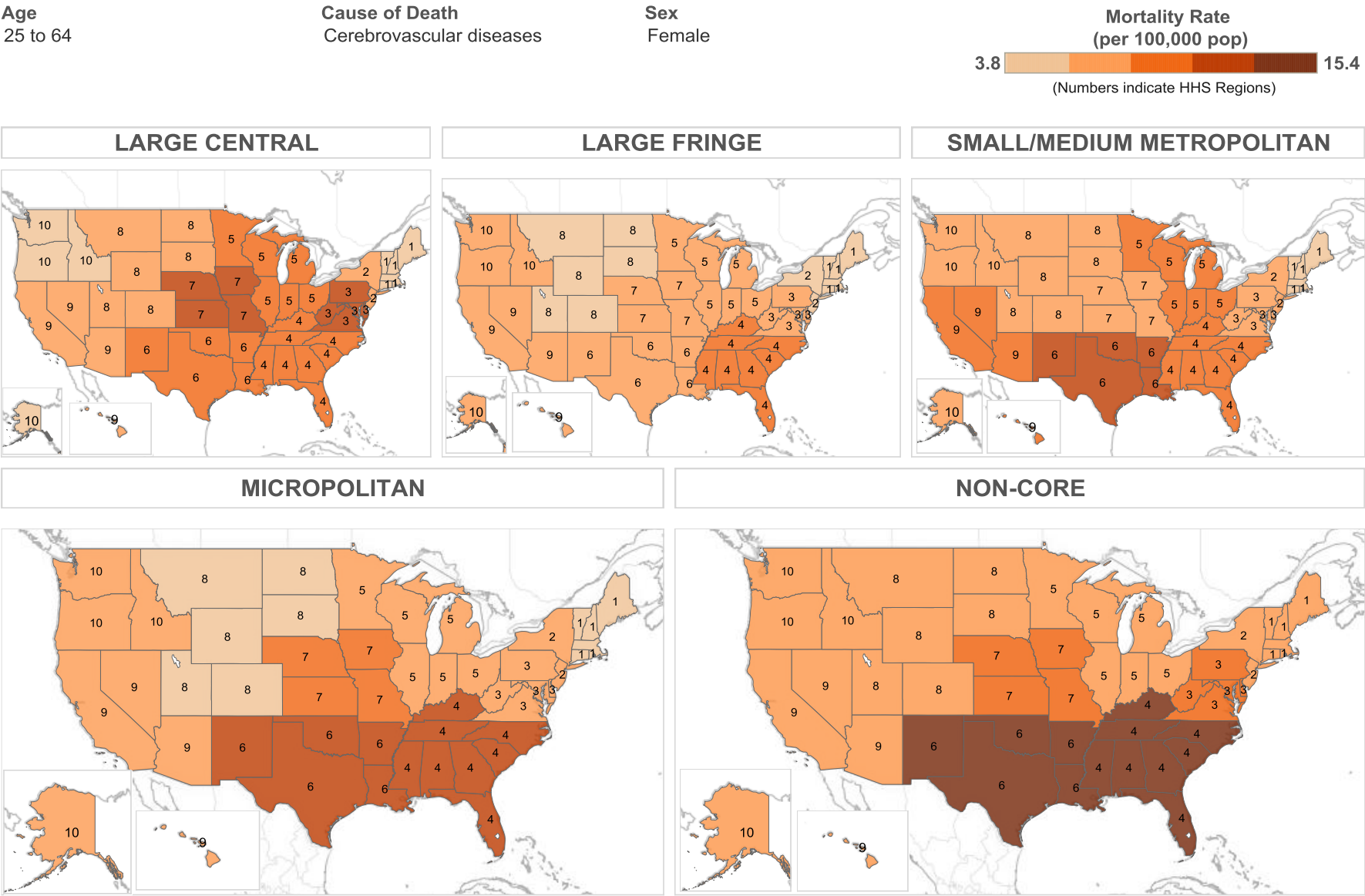
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Cerebrovascular diseases; Sex: Male



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.

Figure 56

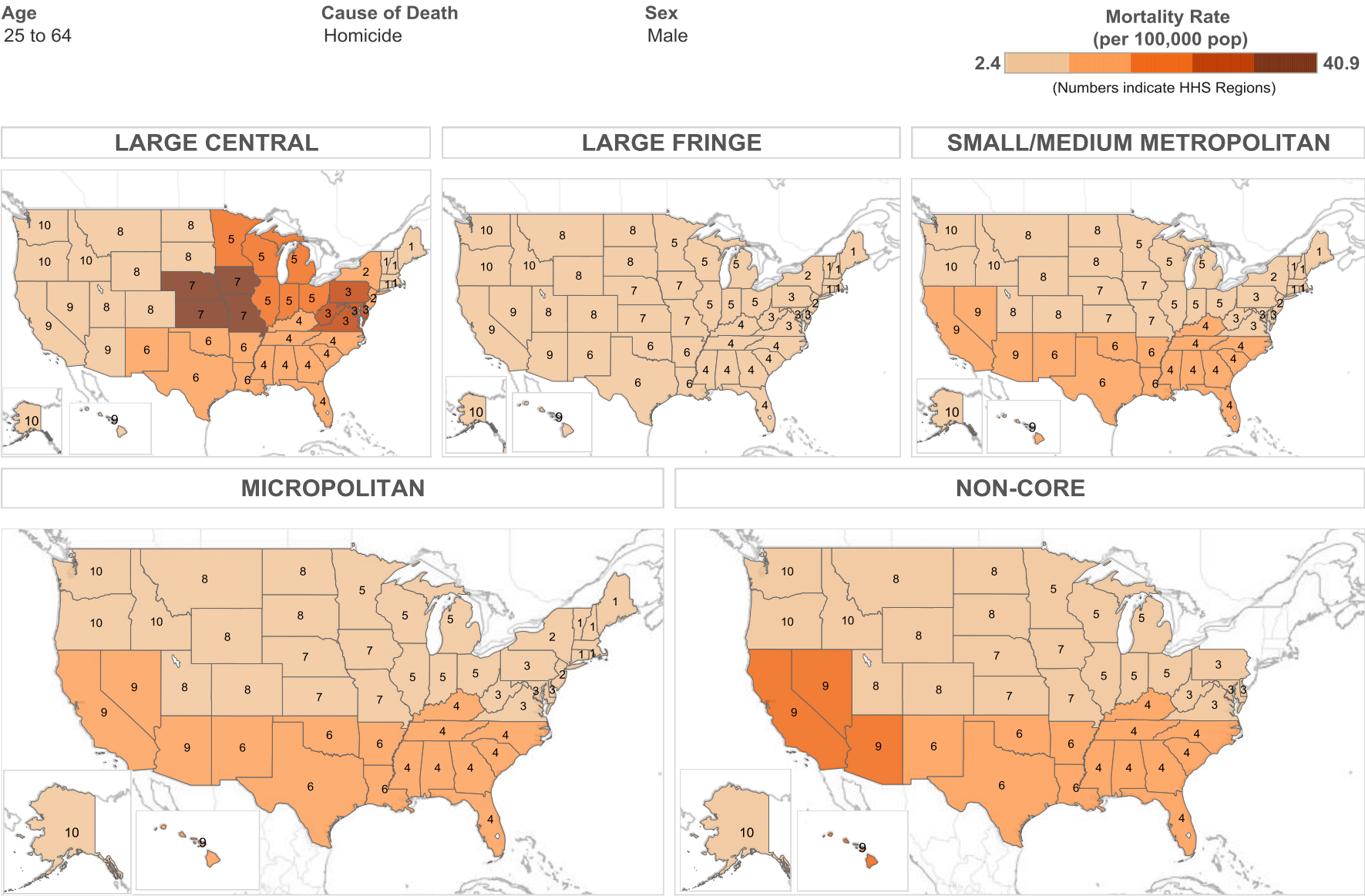
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Cerebrovascular diseases; Sex: Female



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 57

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

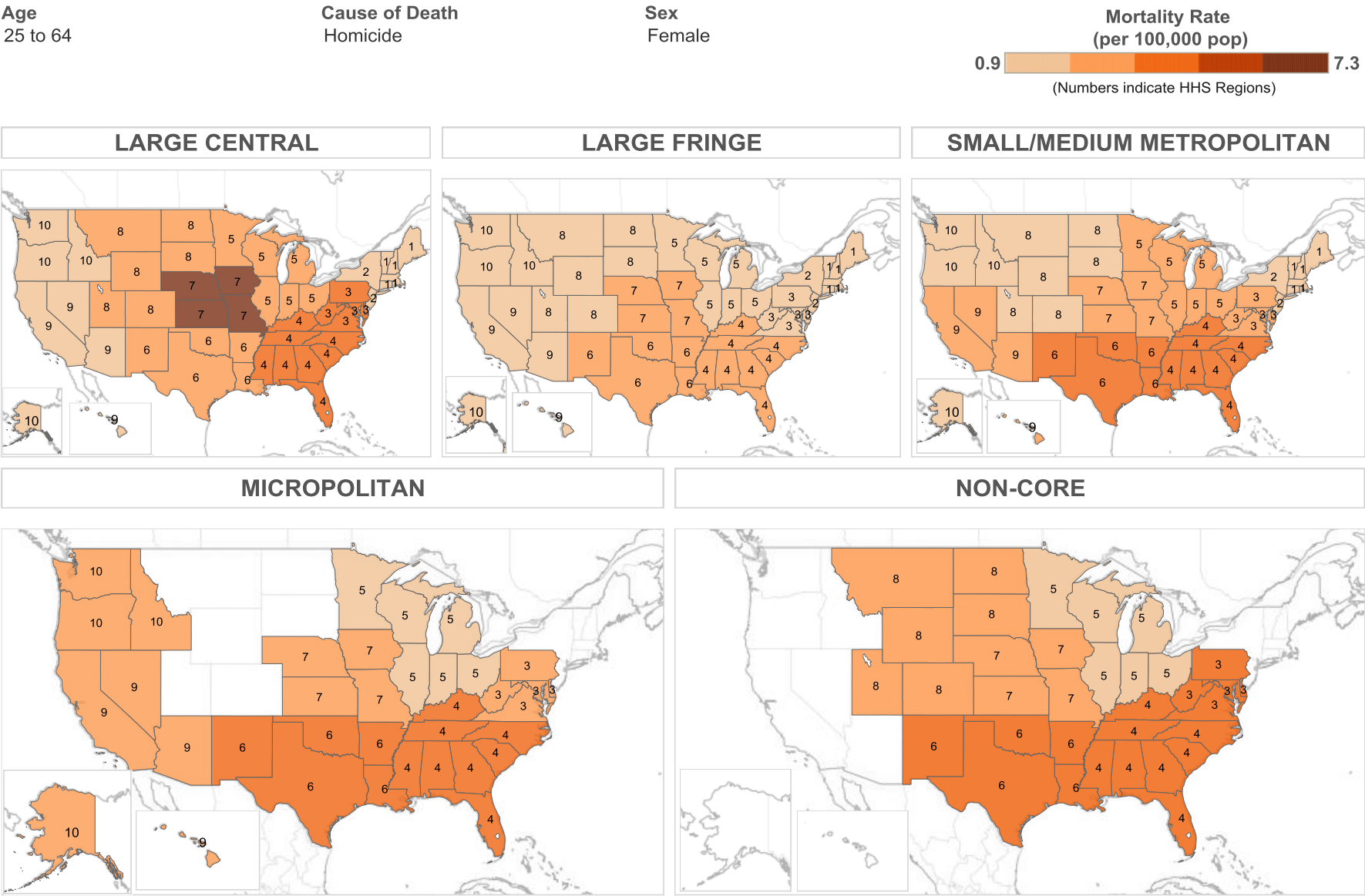


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 58

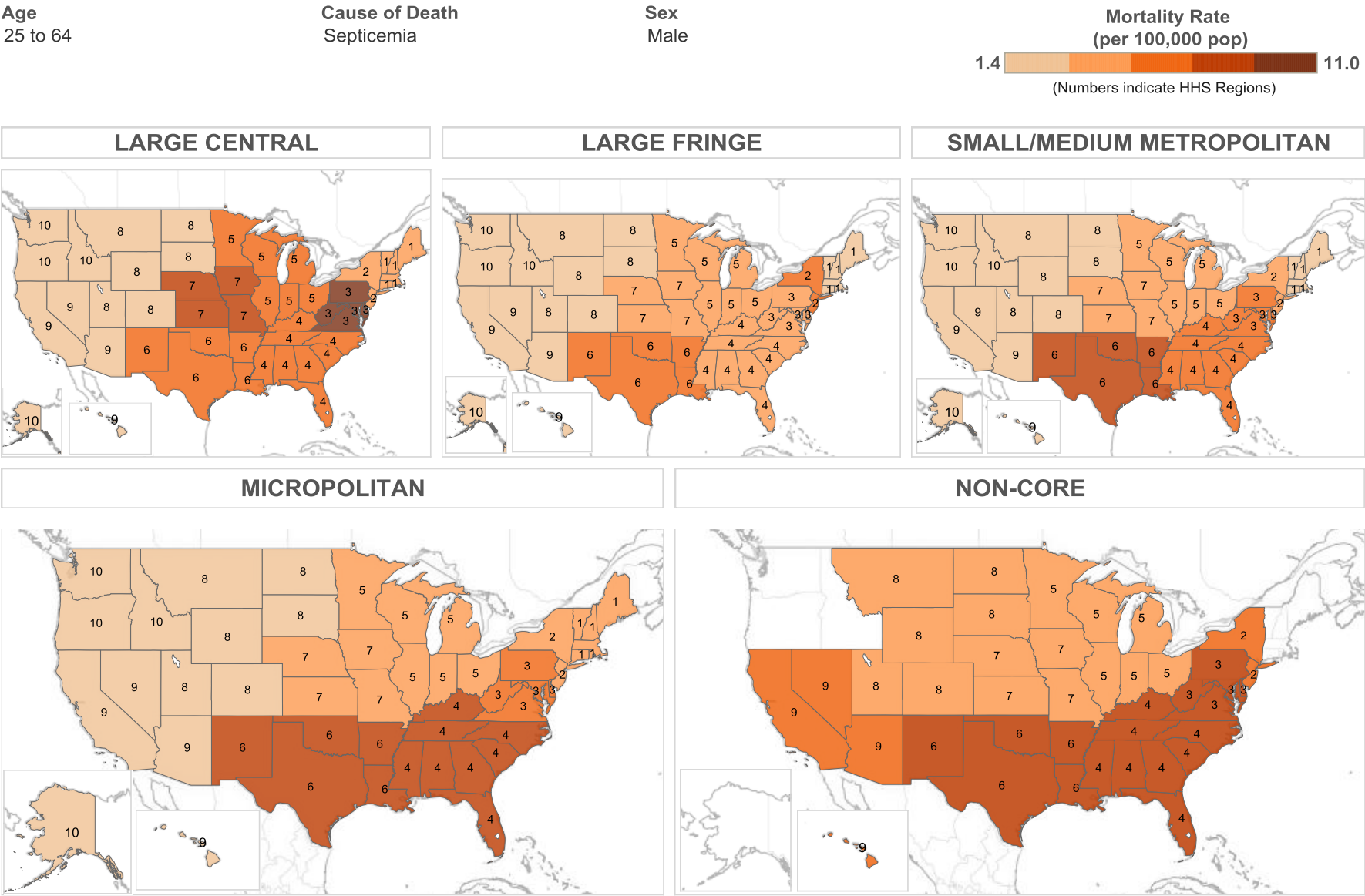
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Homicide; Sex: Female



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 59

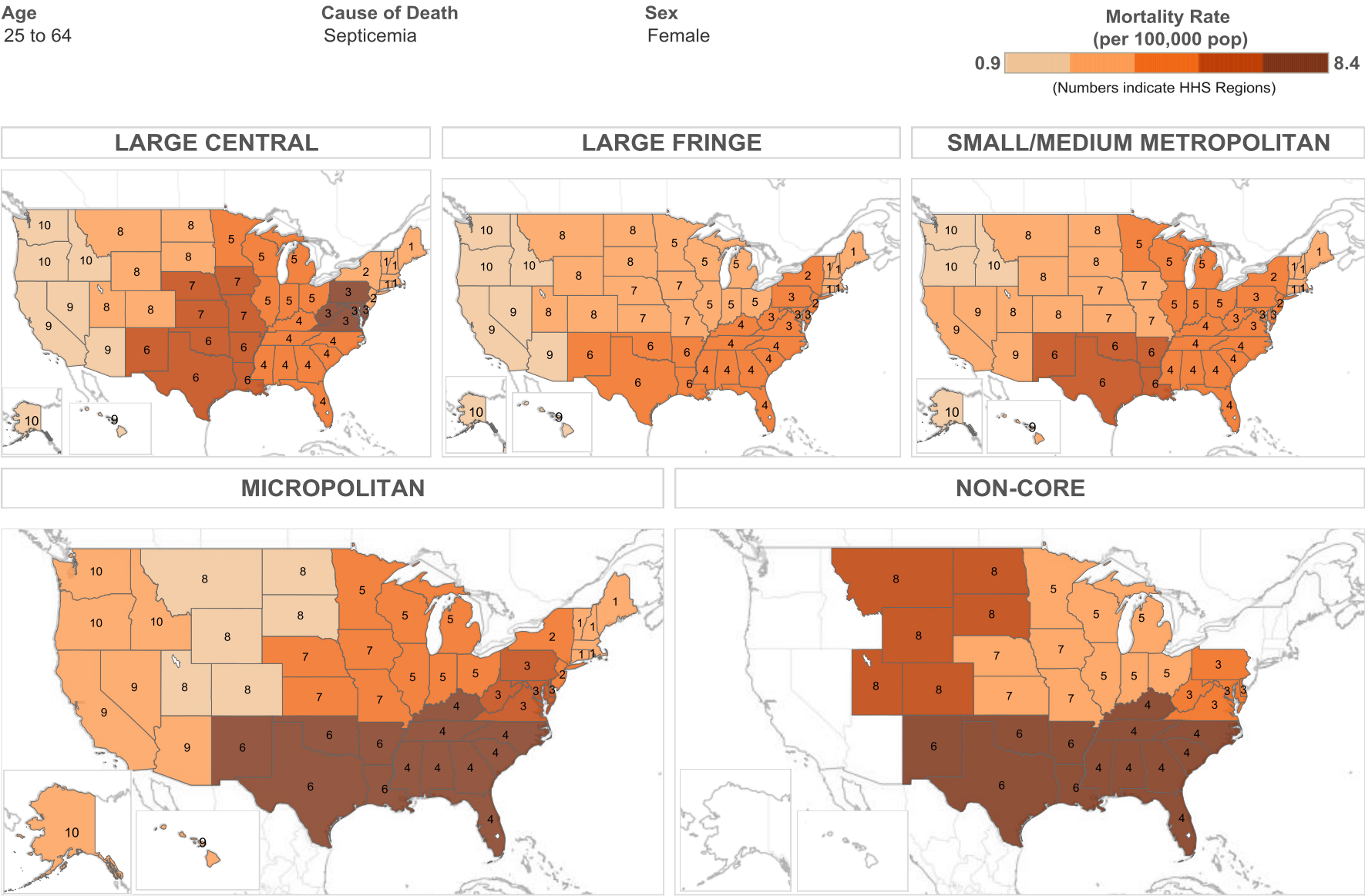
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 25 to 64; Cause of Death: Septicemia; Sex: Male



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.

Figure 60

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

**Seniors**

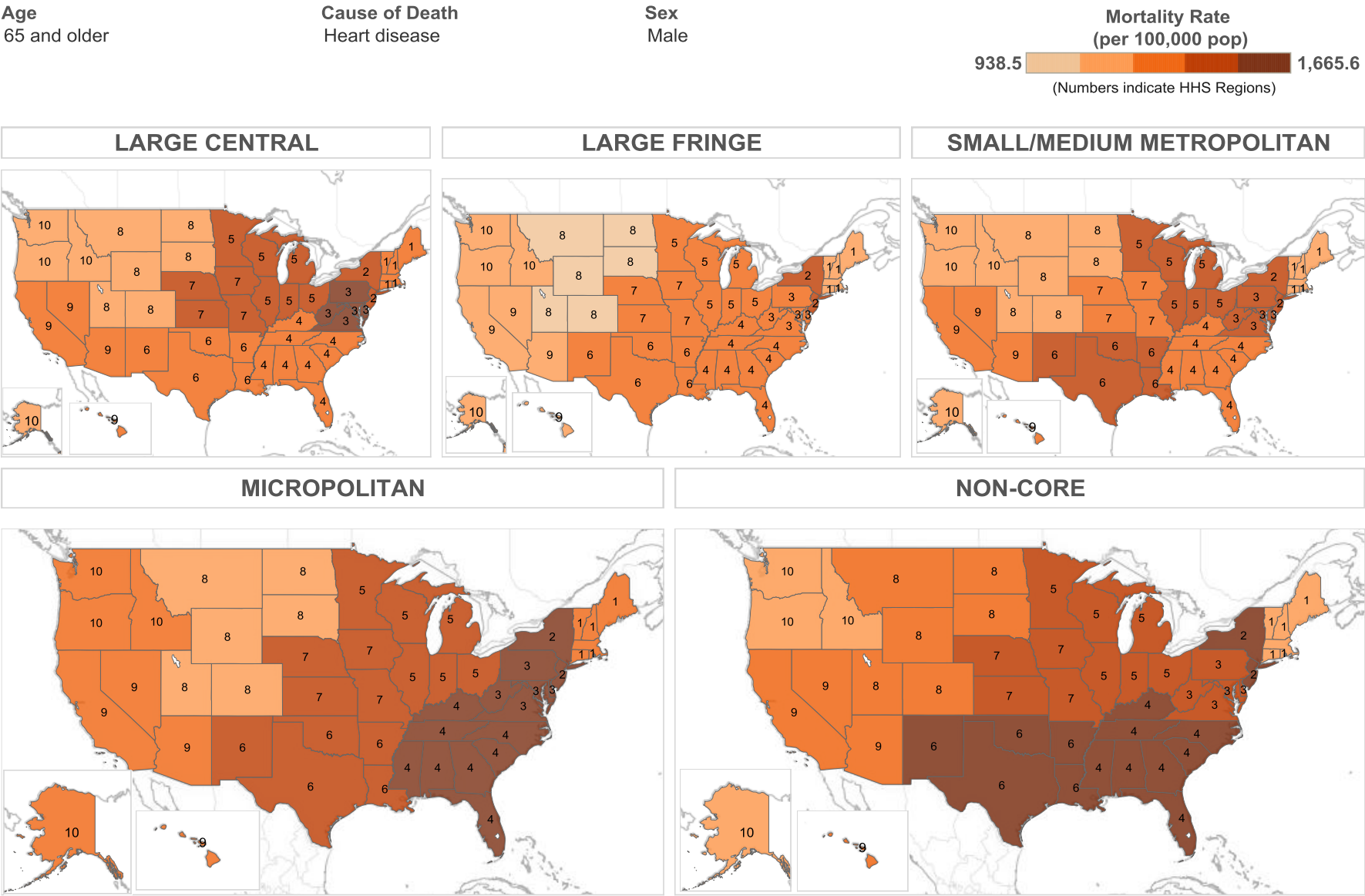
# Ages 65 Years and Older Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011- 2013

## 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](#)

Figure 61

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

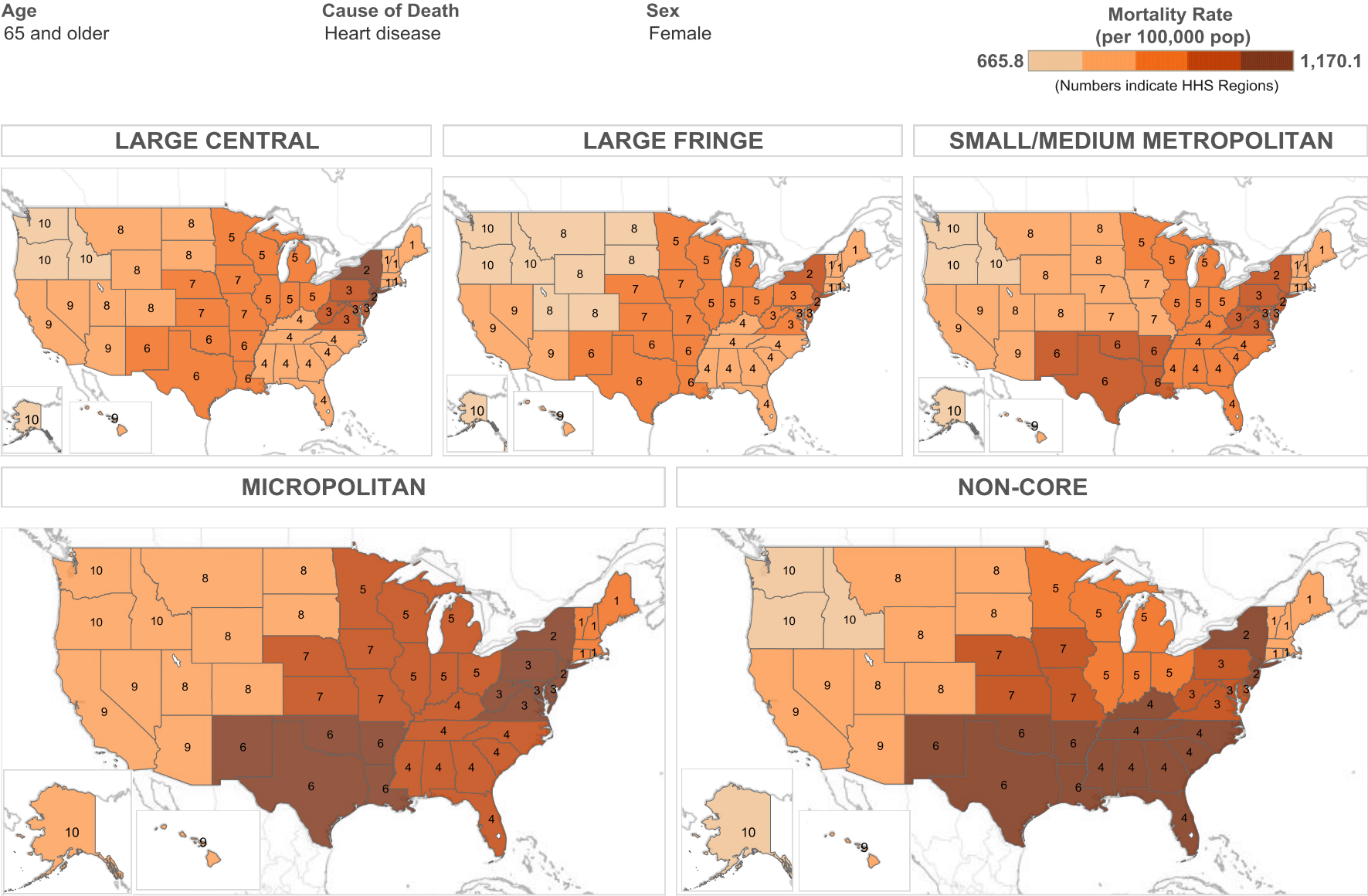


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 62

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

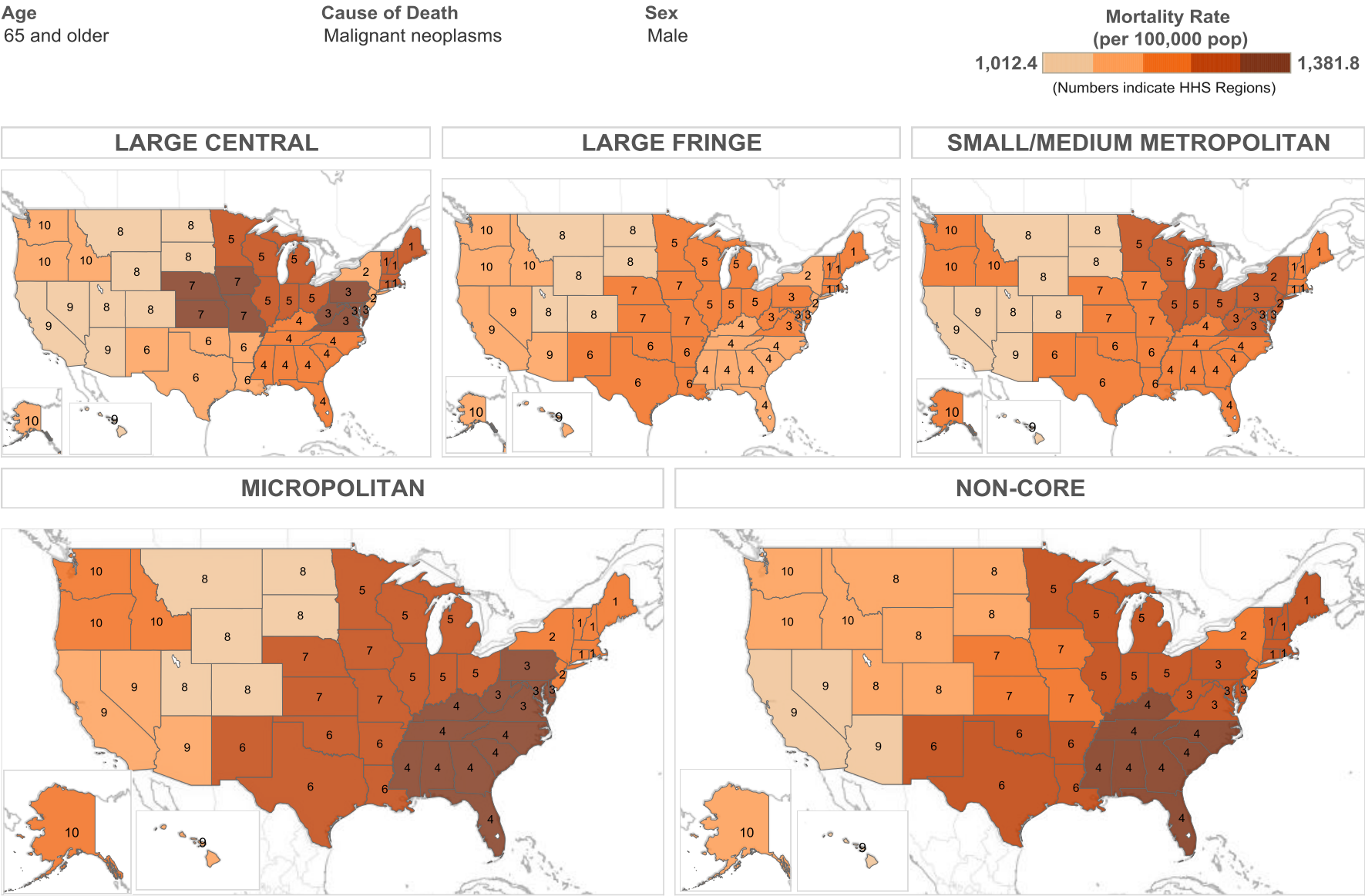


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 63

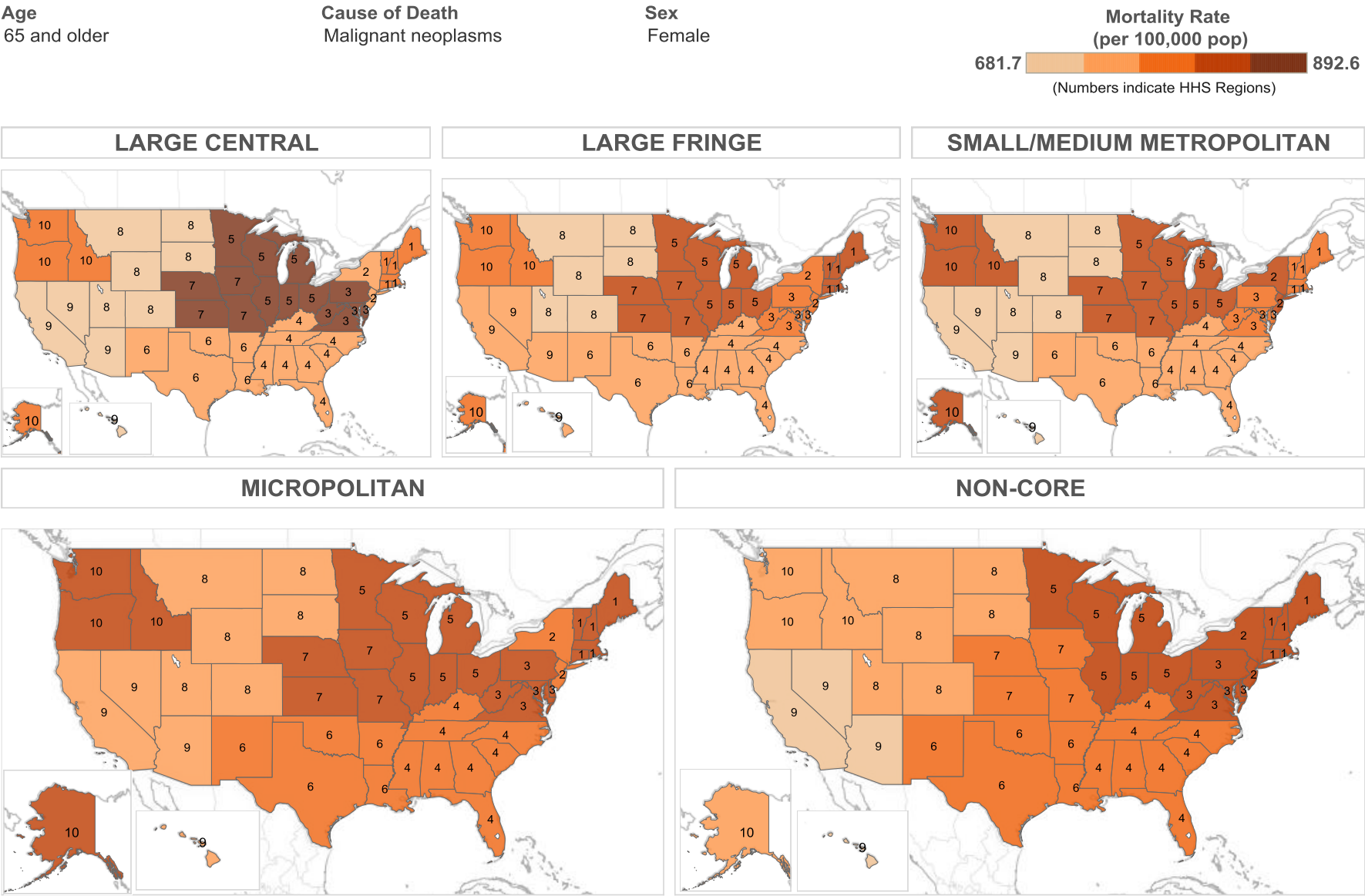
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Malignant neoplasms; Sex: Male



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.

Figure 64

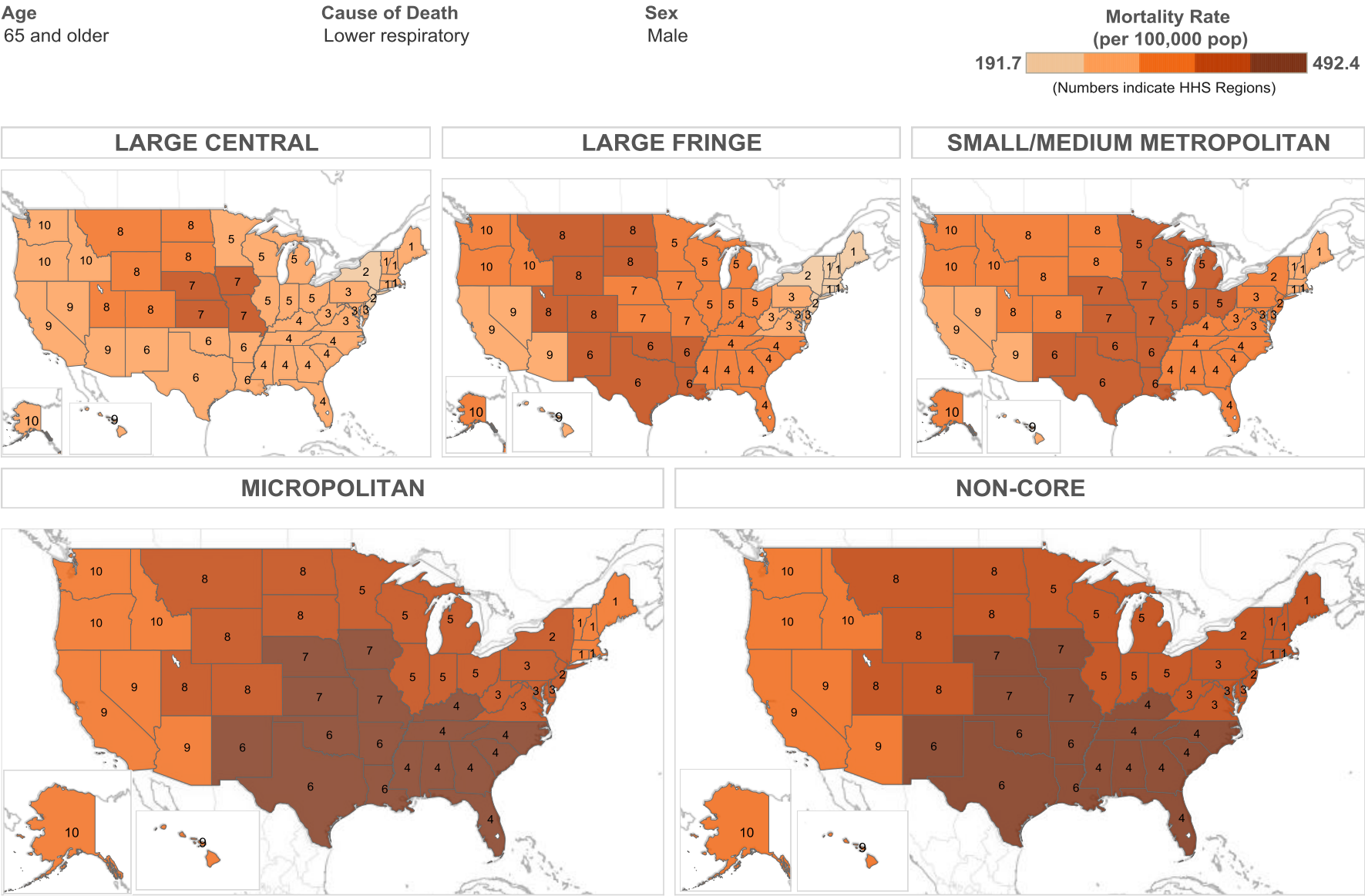
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Malignant neoplasms; Sex: Female



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 65

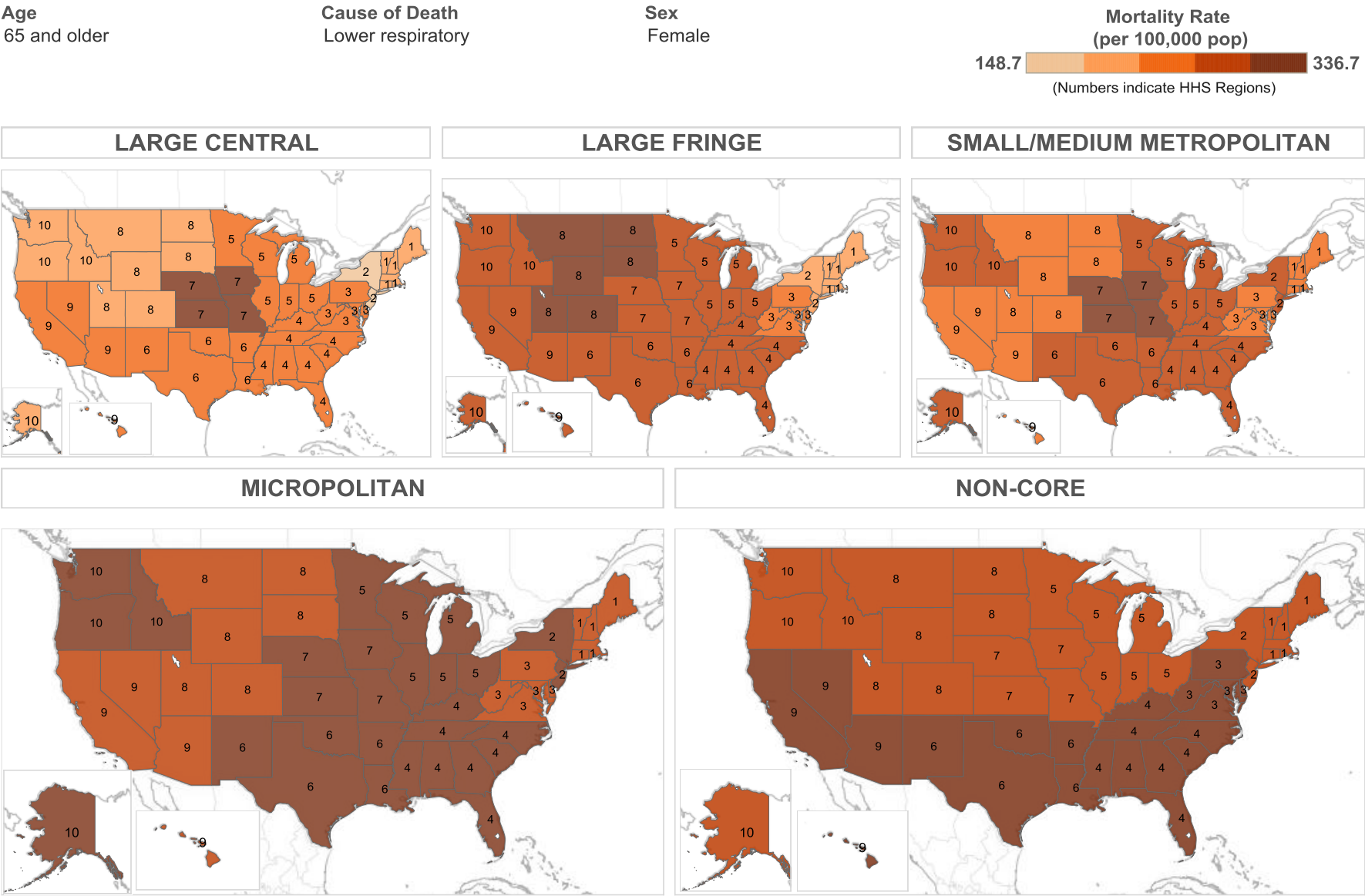
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Lower respiratory; Sex: Male



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.

Figure 66

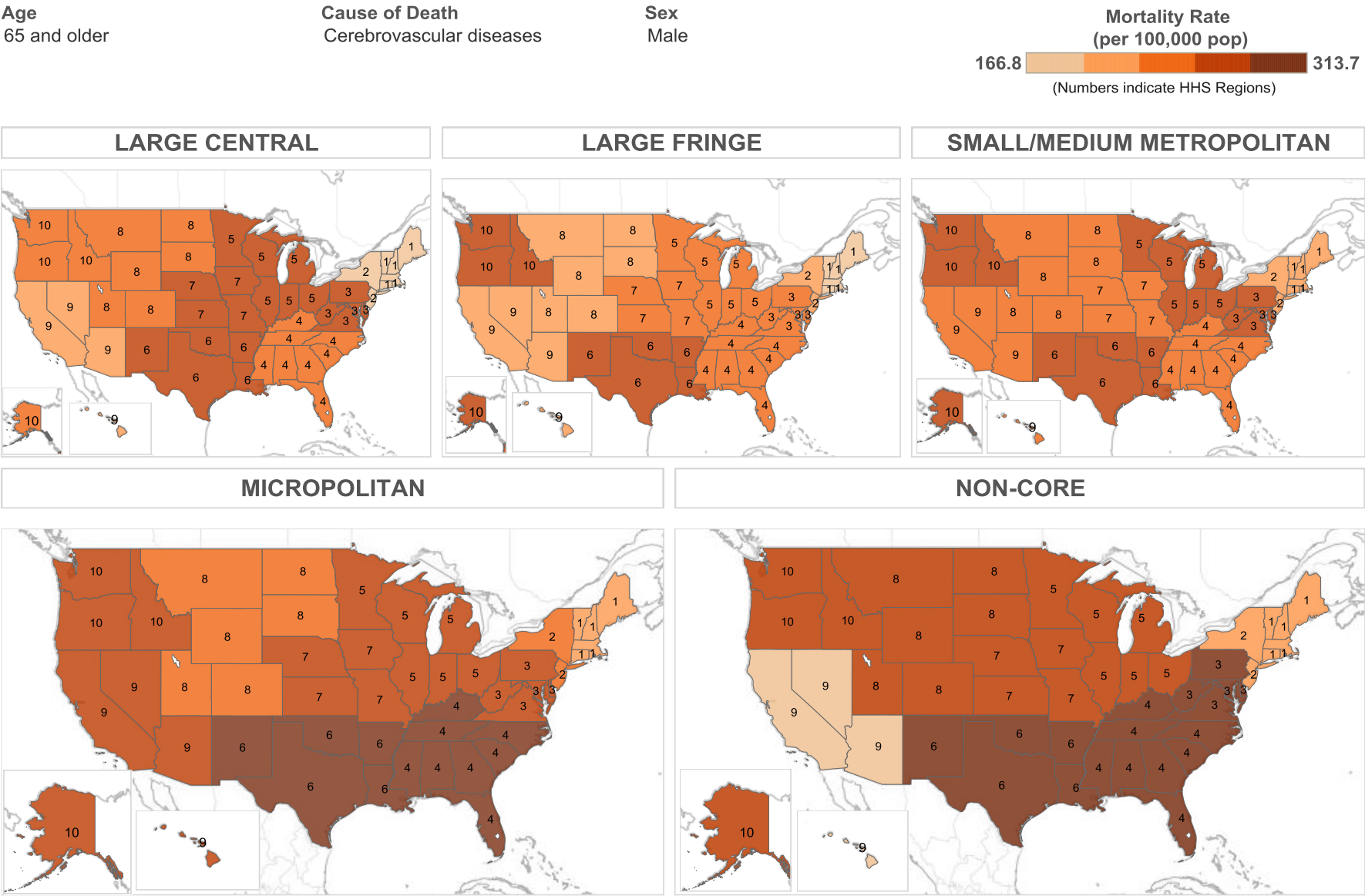
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Lower respiratory; Sex: Female



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.

Figure 67

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

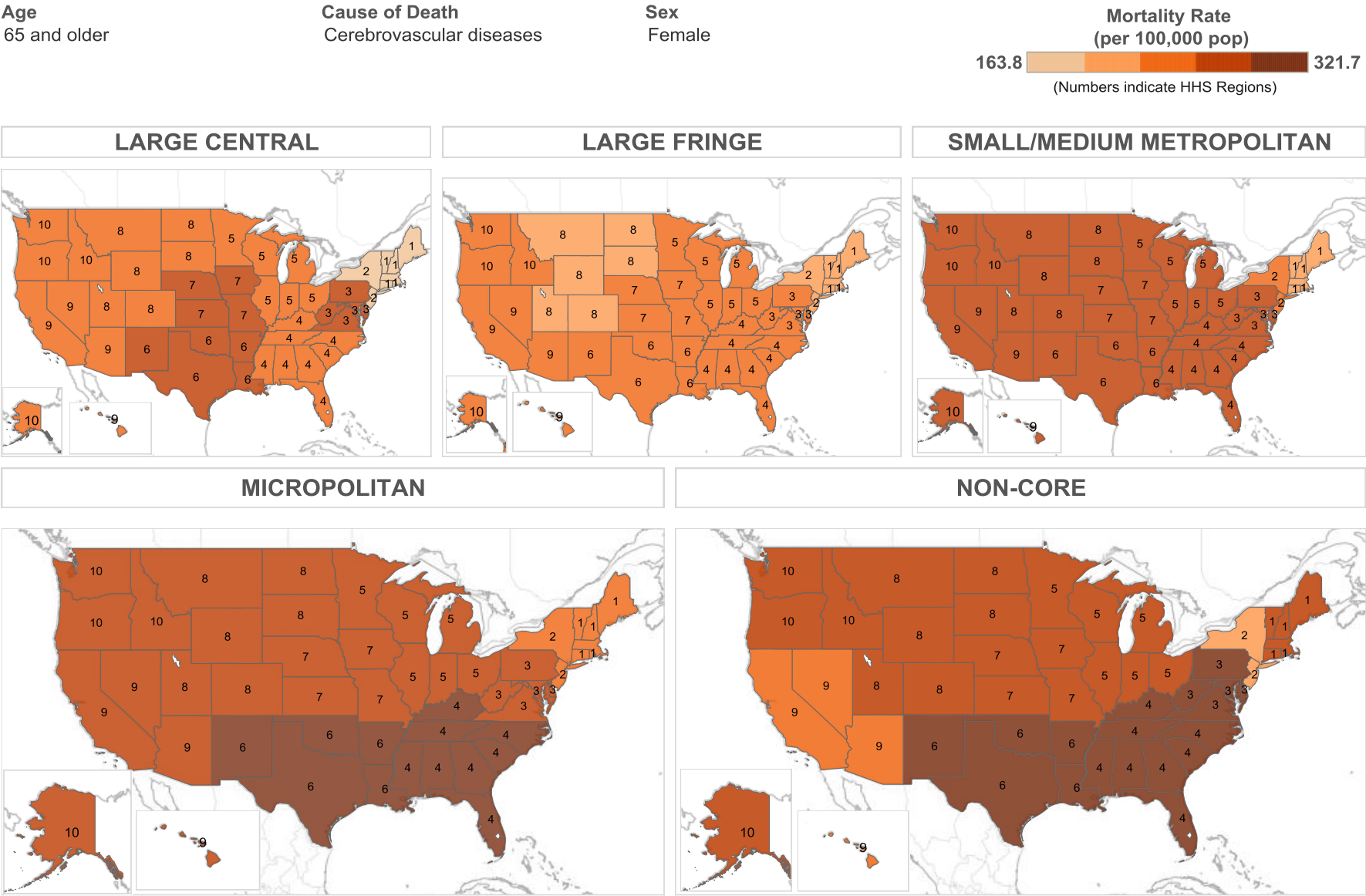


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 68

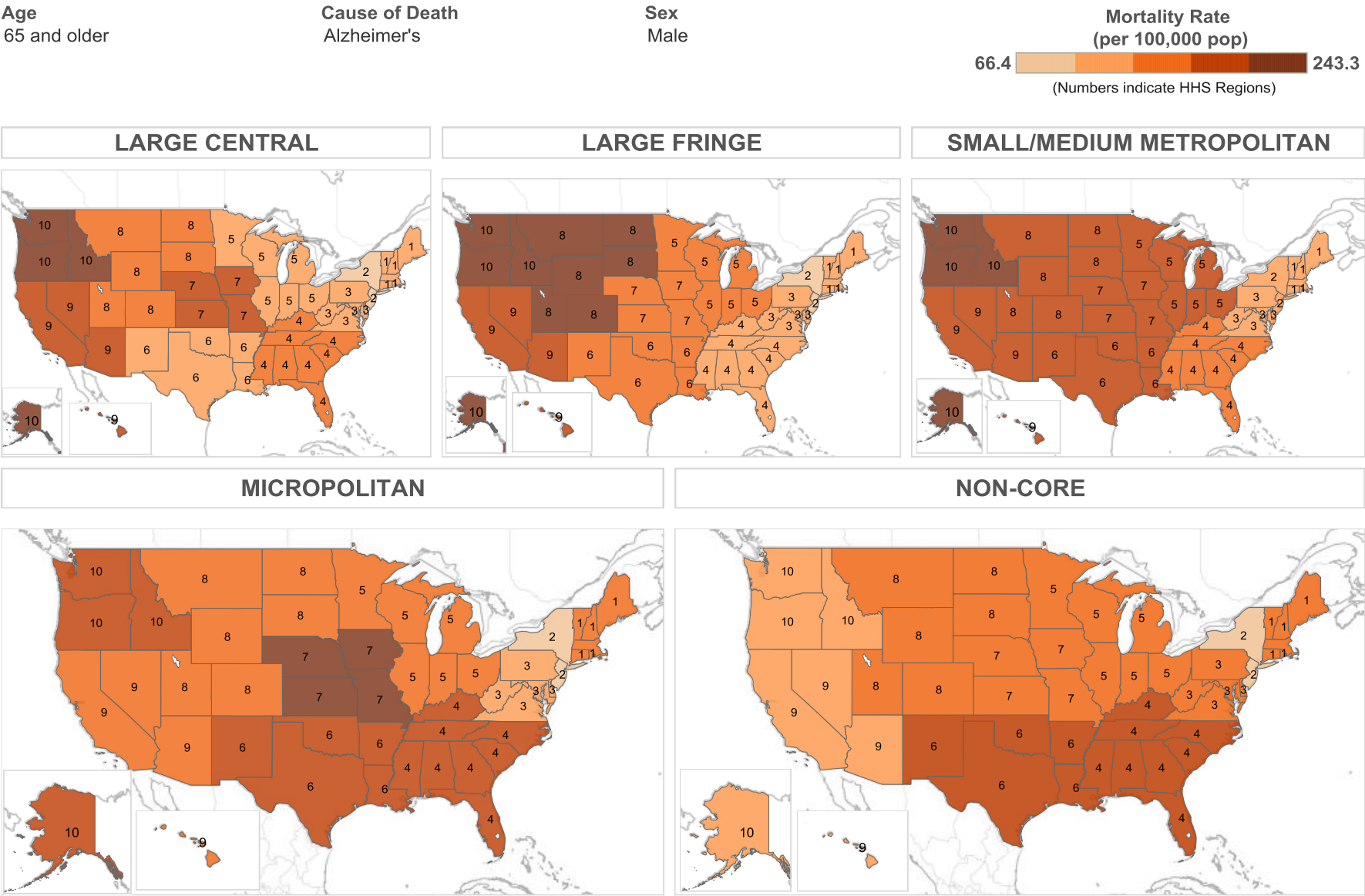
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Cerebrovascular diseases; Sex: Female



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 69

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

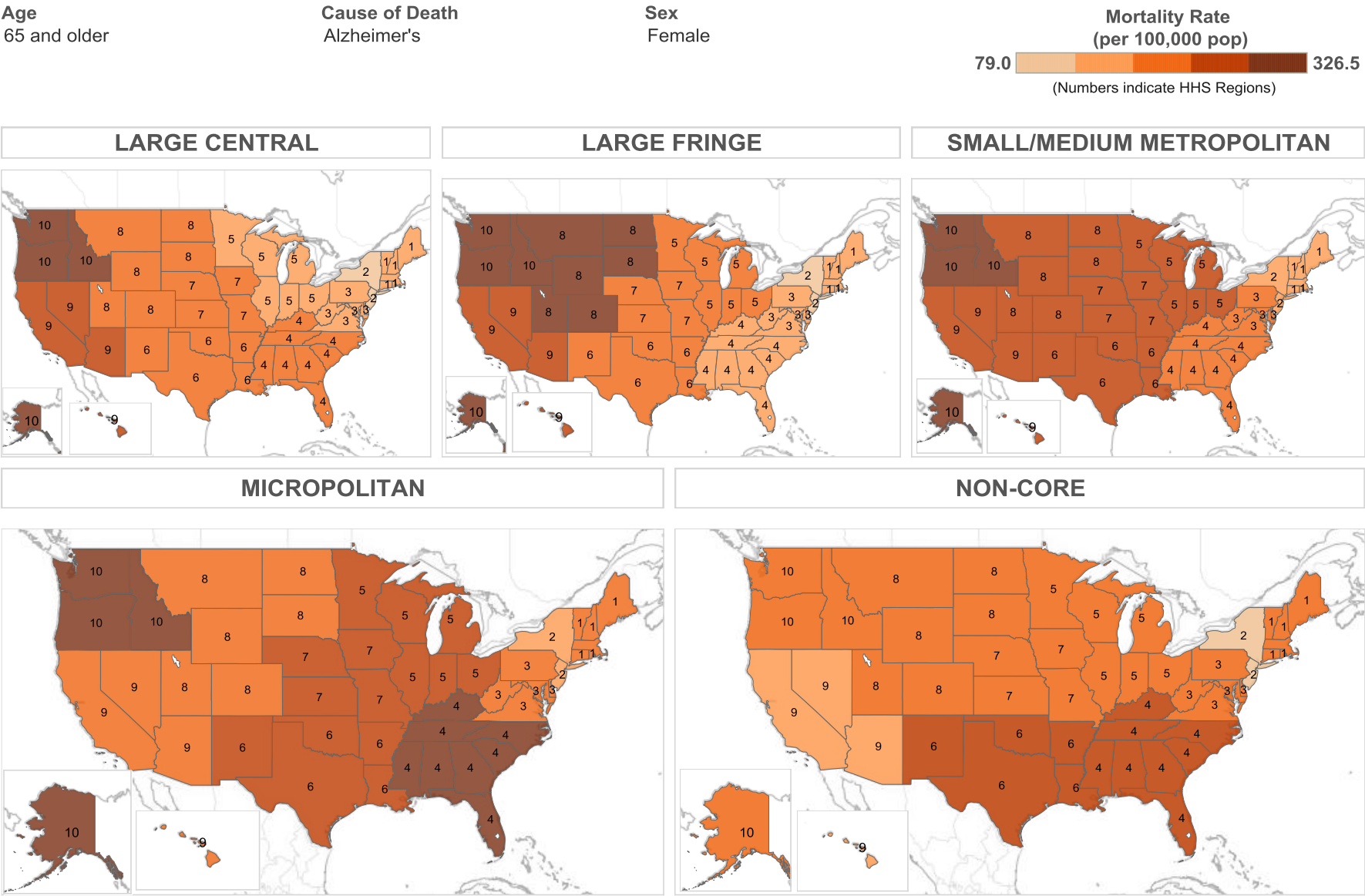


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 70

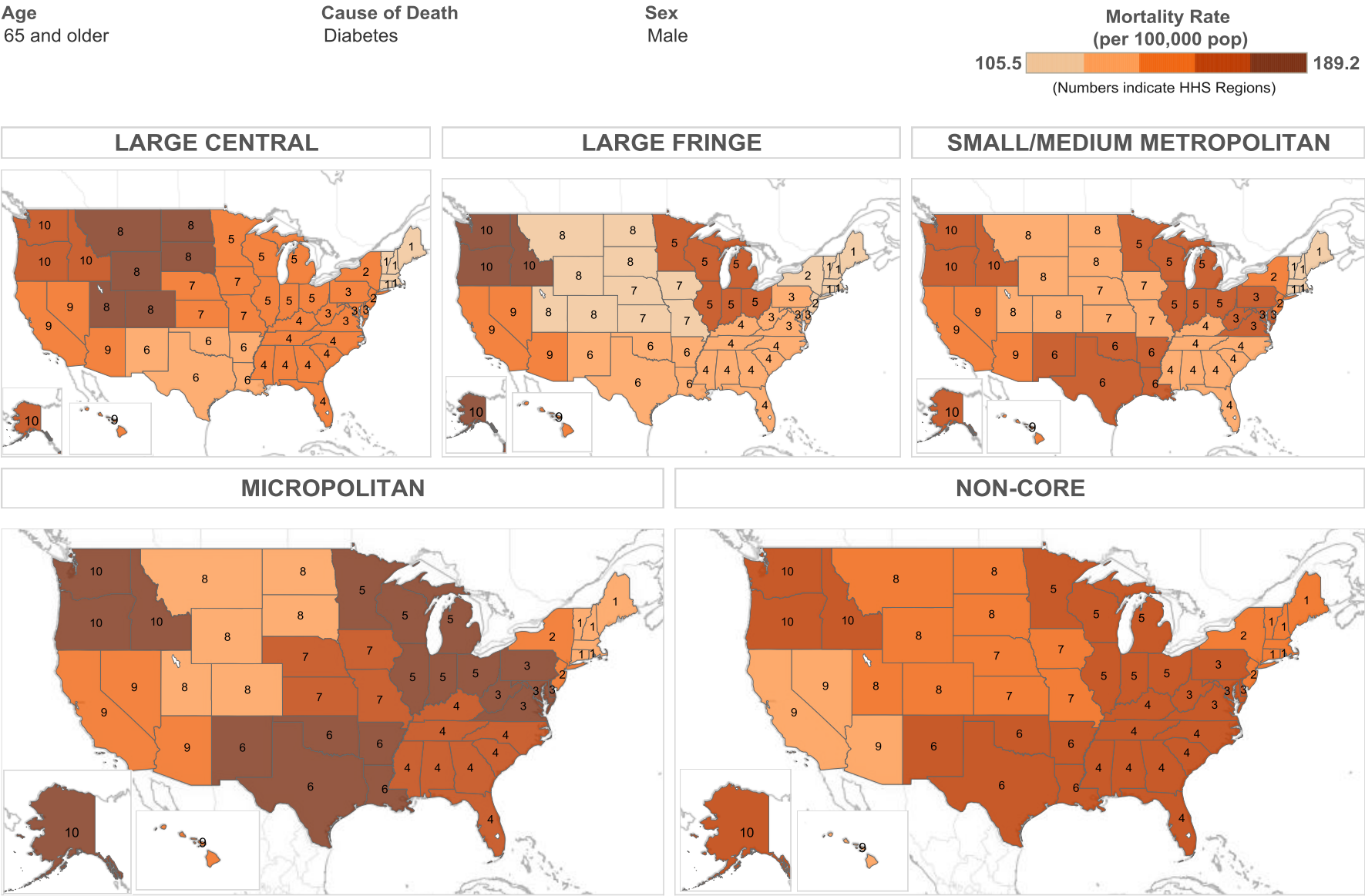
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Alzheimer's; Sex: Female



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 71

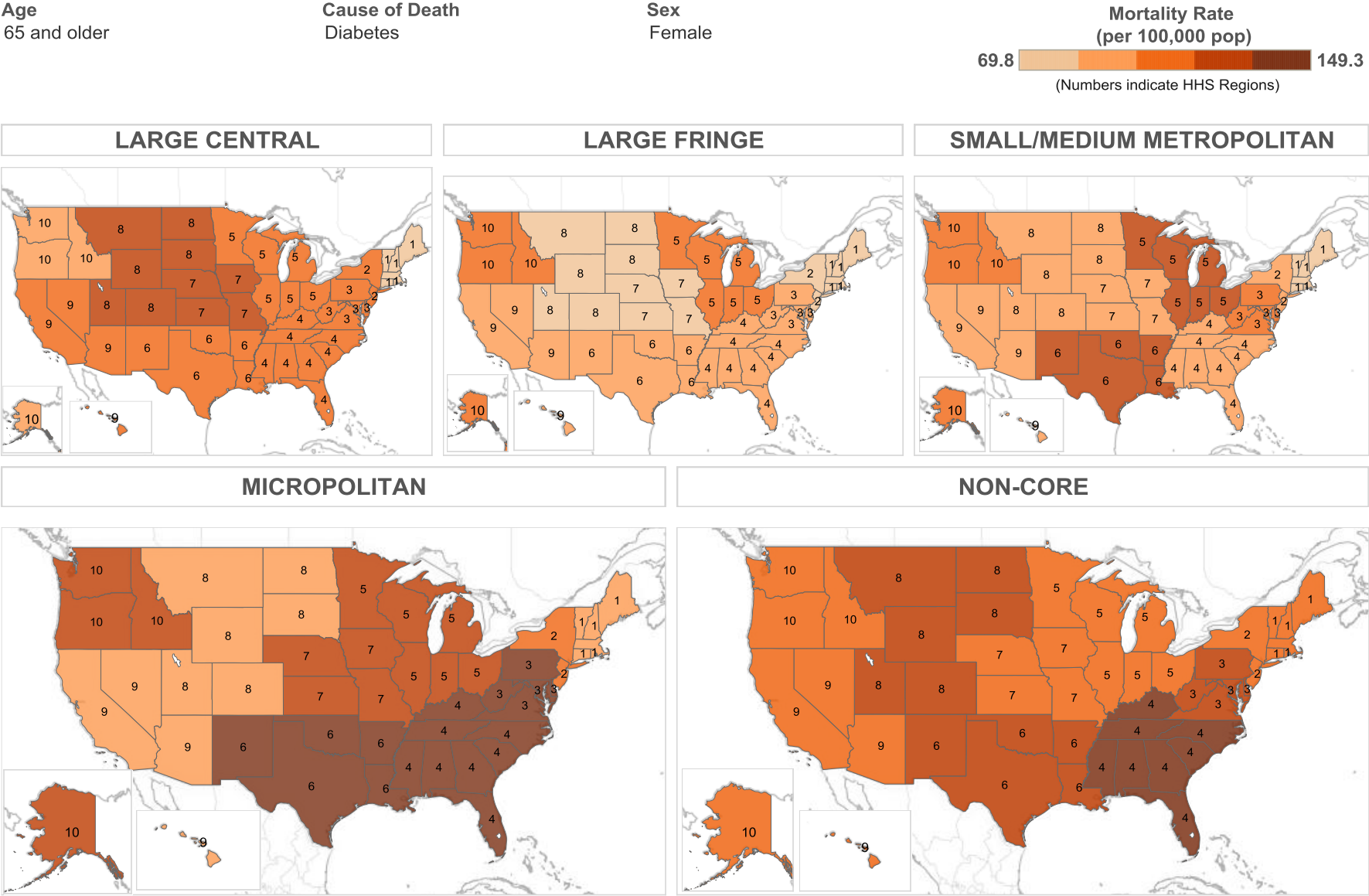
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Diabetes; Sex: Male



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.

Figure 72

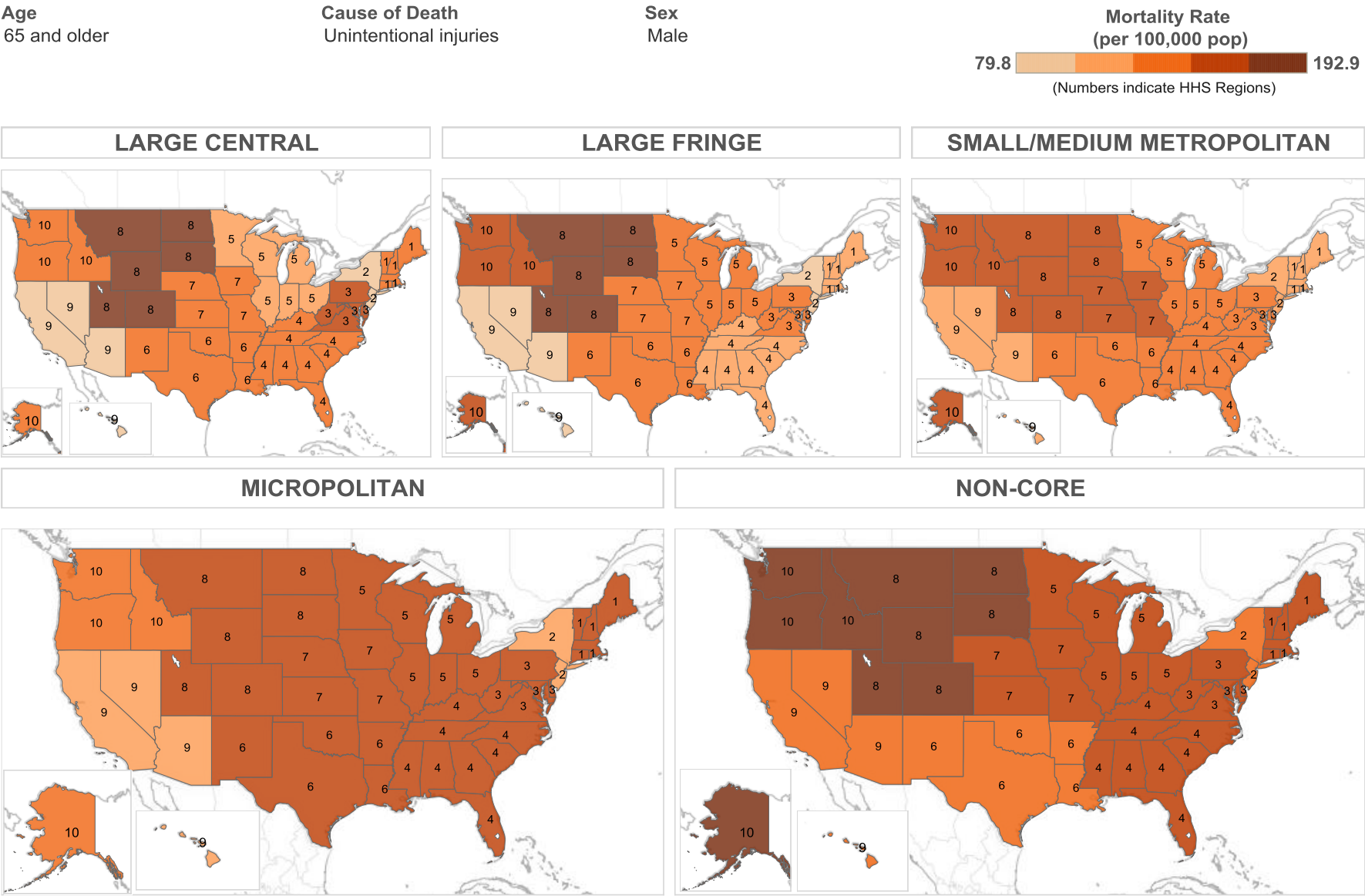
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Diabetes; Sex: Female



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 73

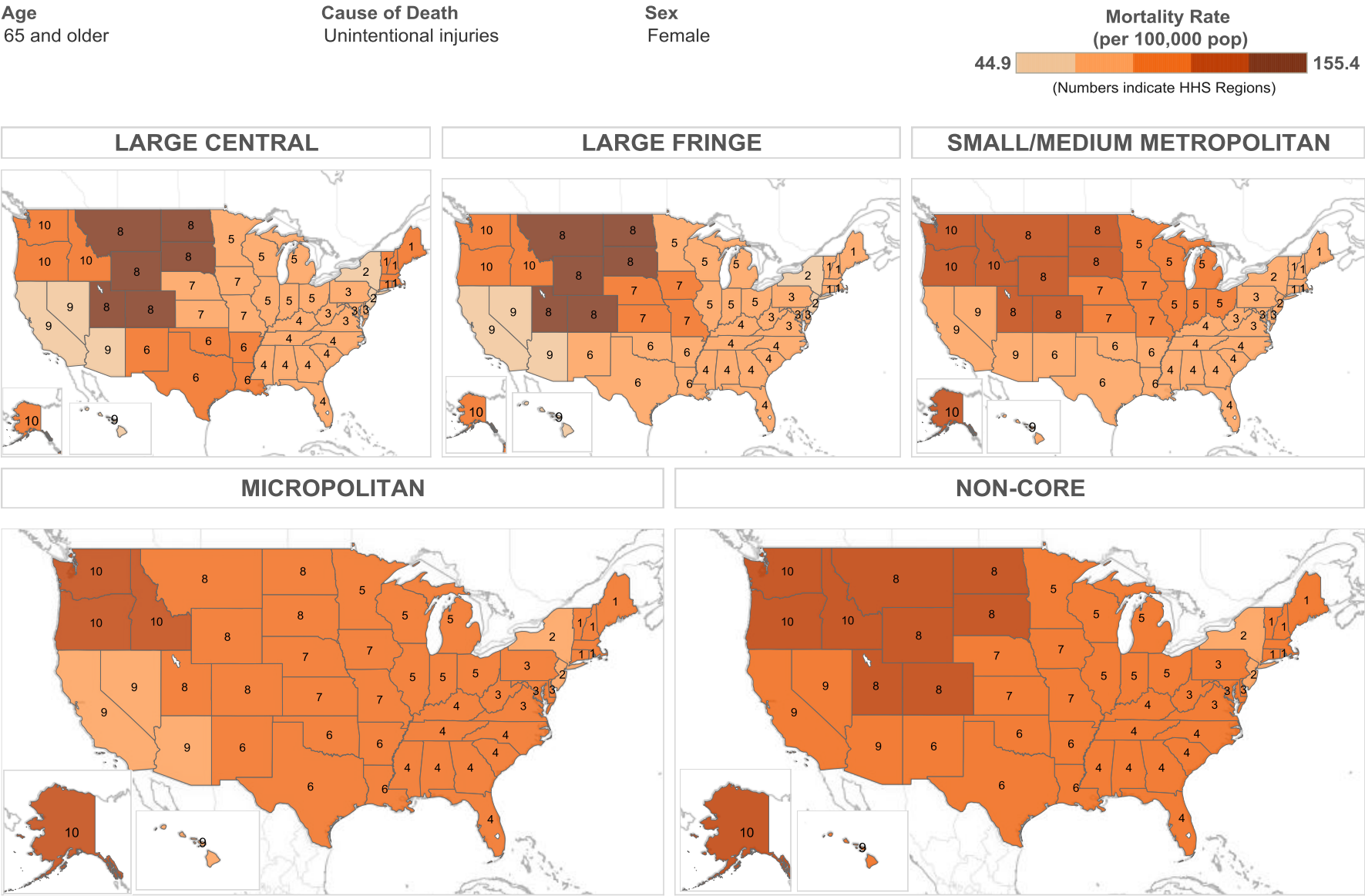
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Unintentional injuries; Sex: Male



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.

Figure 74

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

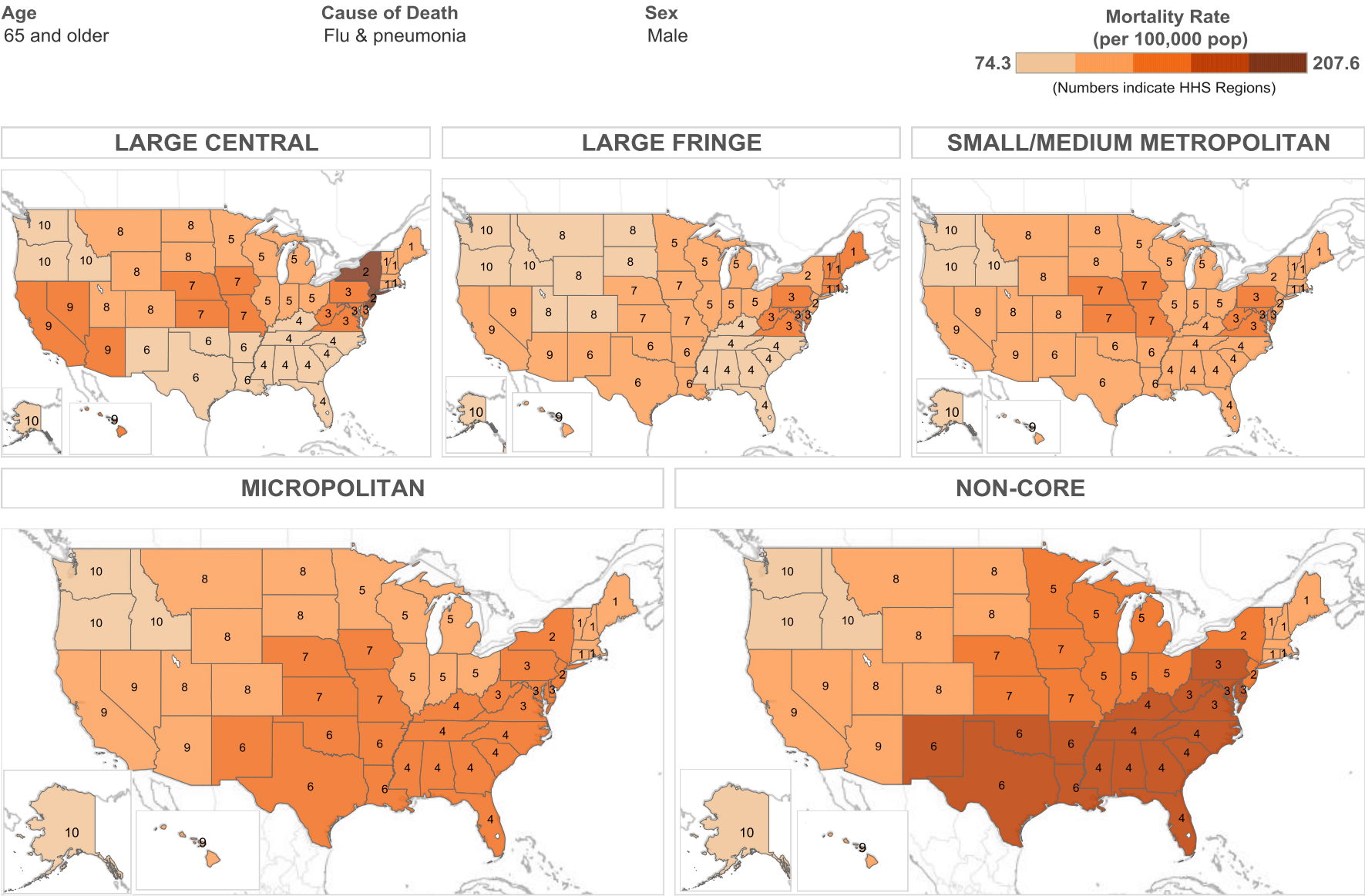


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 75

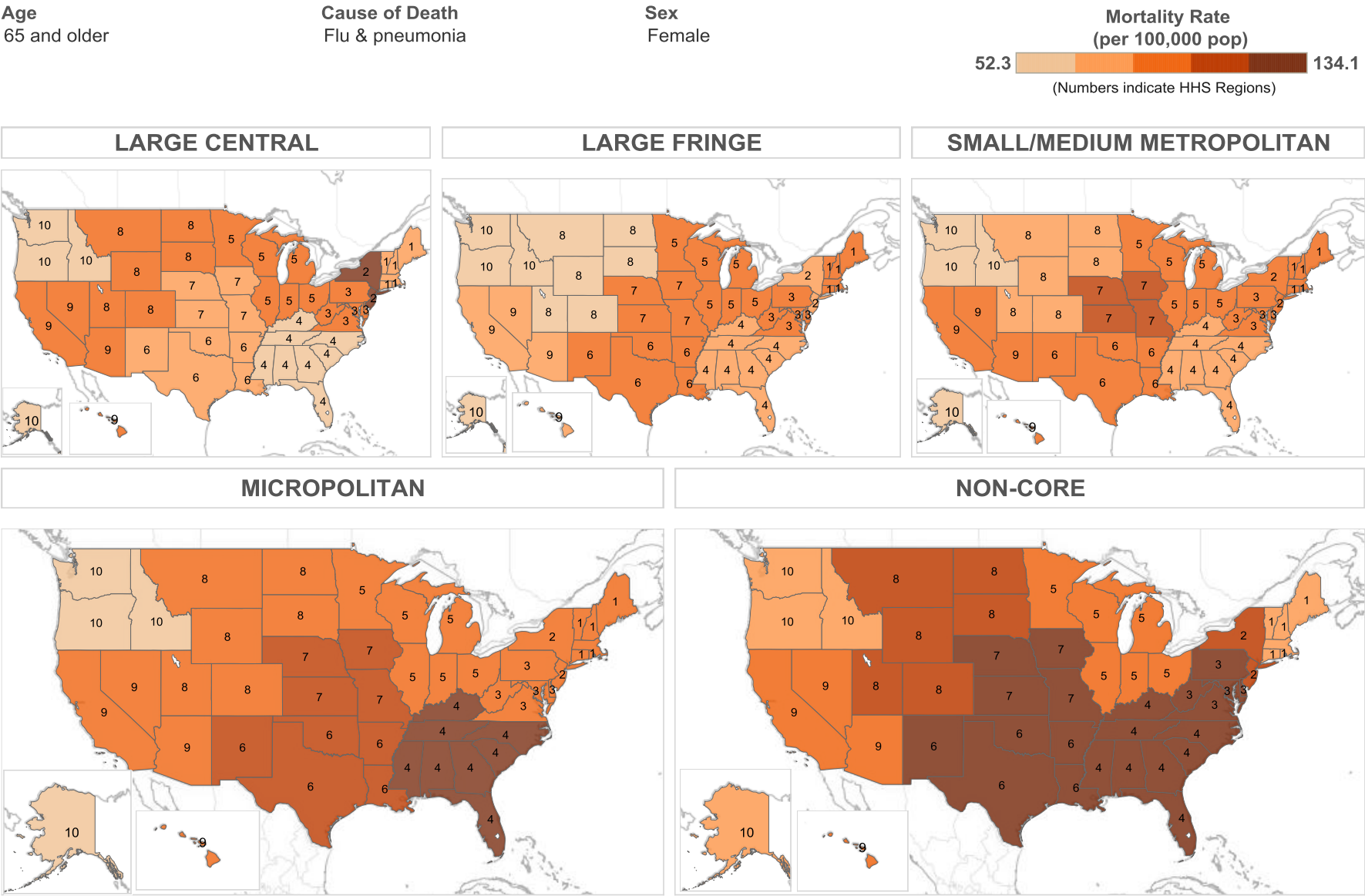
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Flu & pneumonia; Sex: Male



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.

Figure 76

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

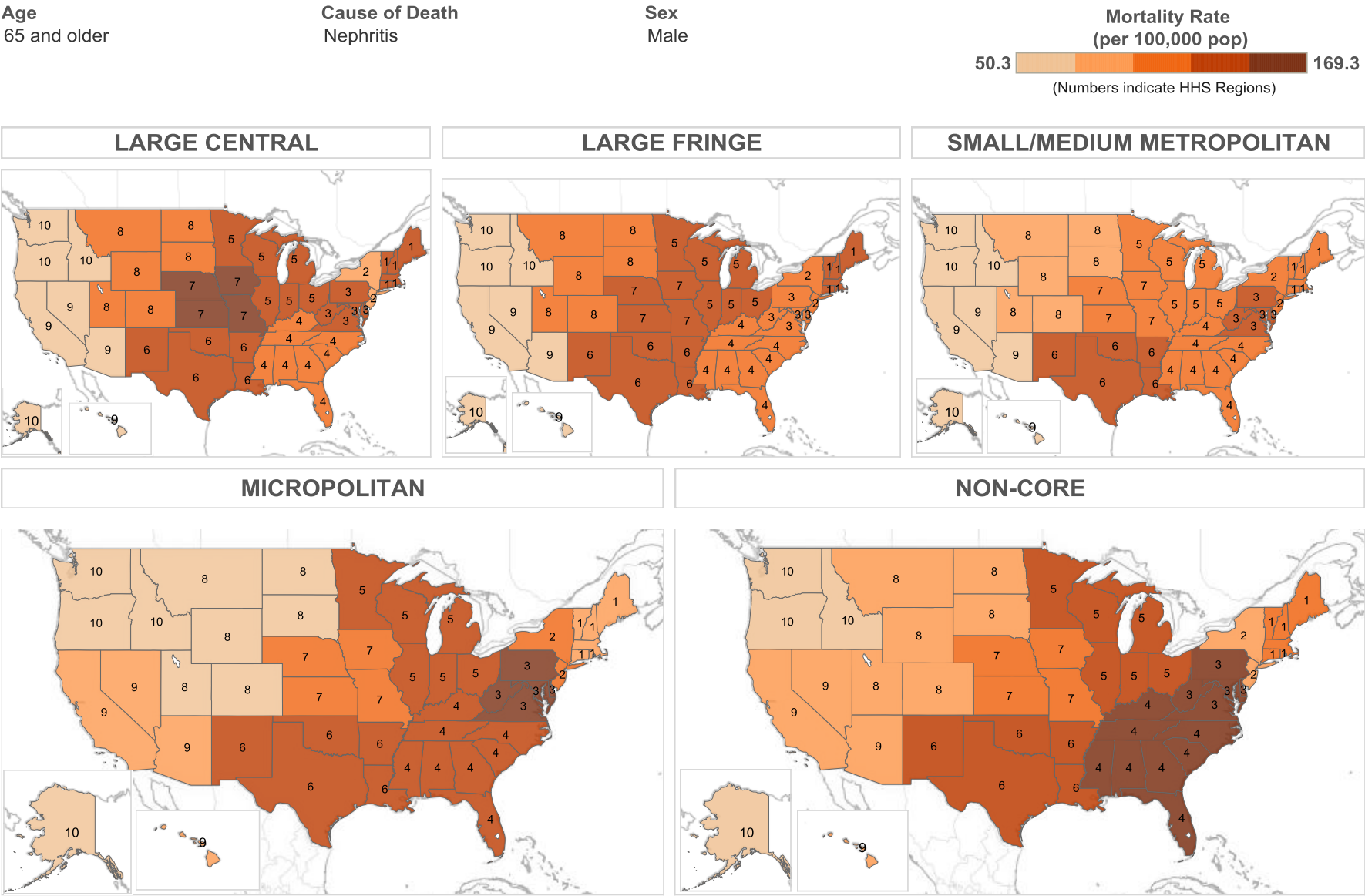


SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death.  
SUGGESTED CITATION: Rural Health Reform Policy Research Center. Exploring Rural and Urban Mortality Differences, August 2015 Bethesda, MD. 2015.



Figure 77

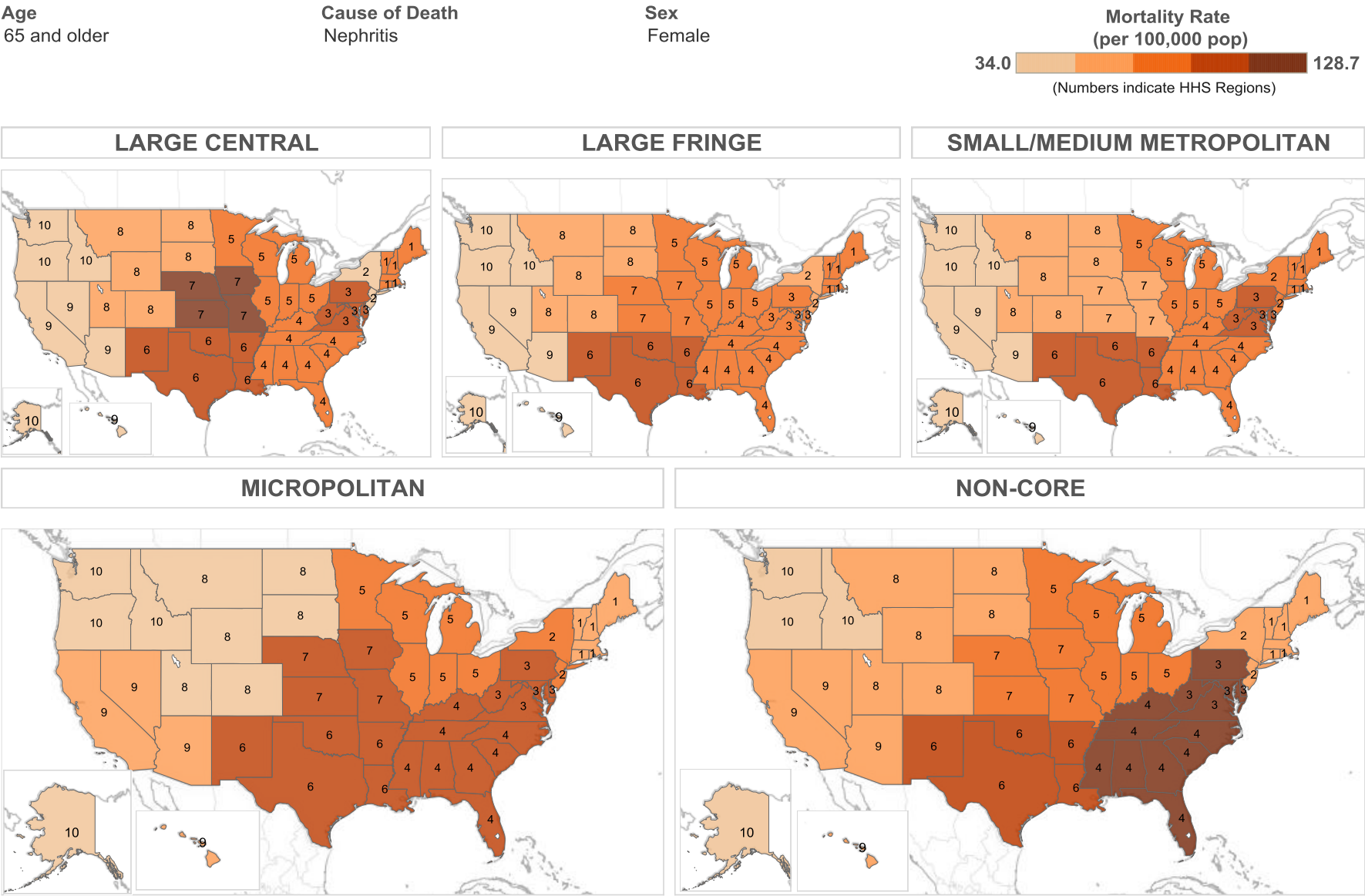
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Nephritis; Sex: Male



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.

Figure 78

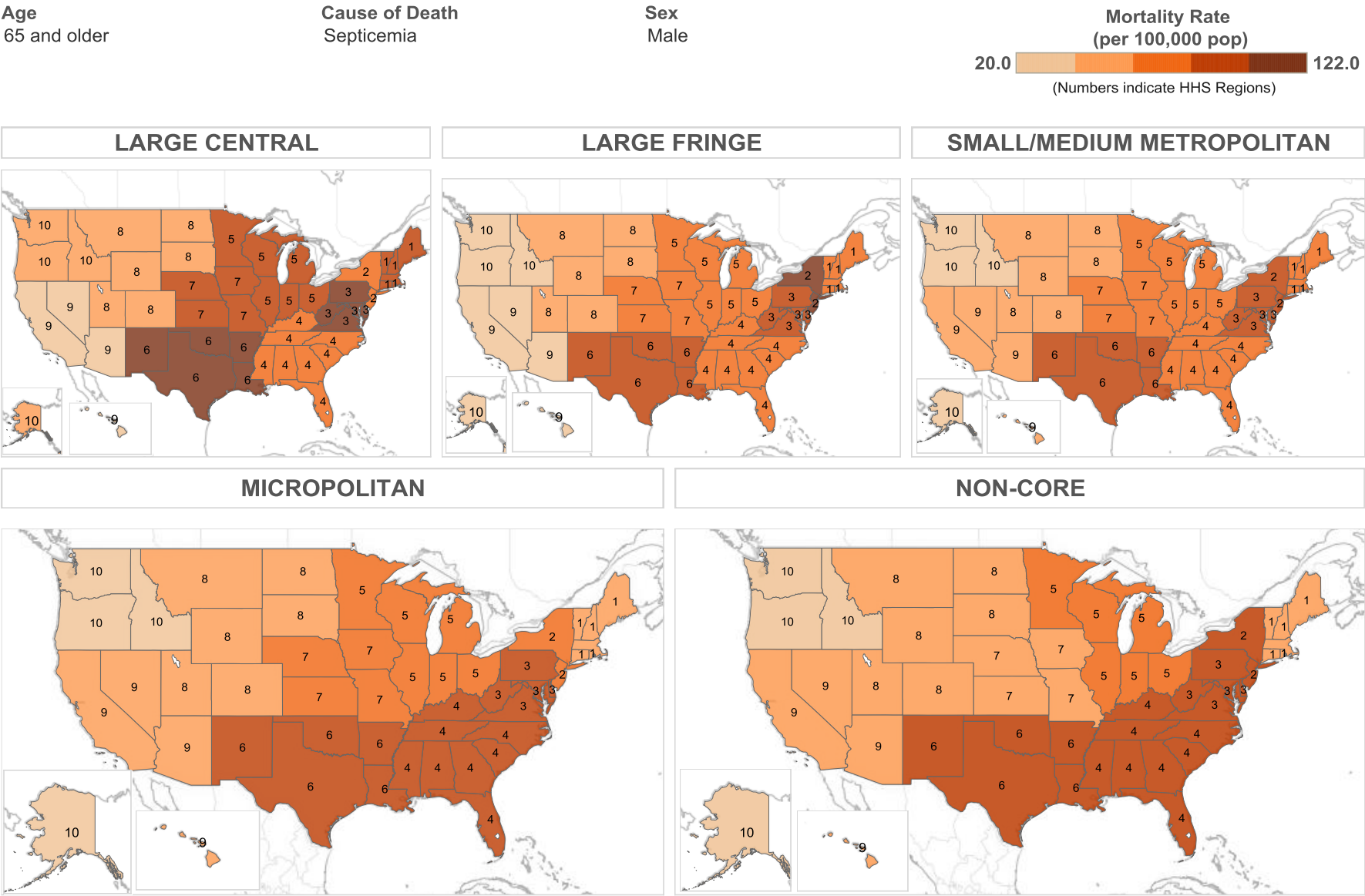
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Nephritis; Sex: Female



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 79

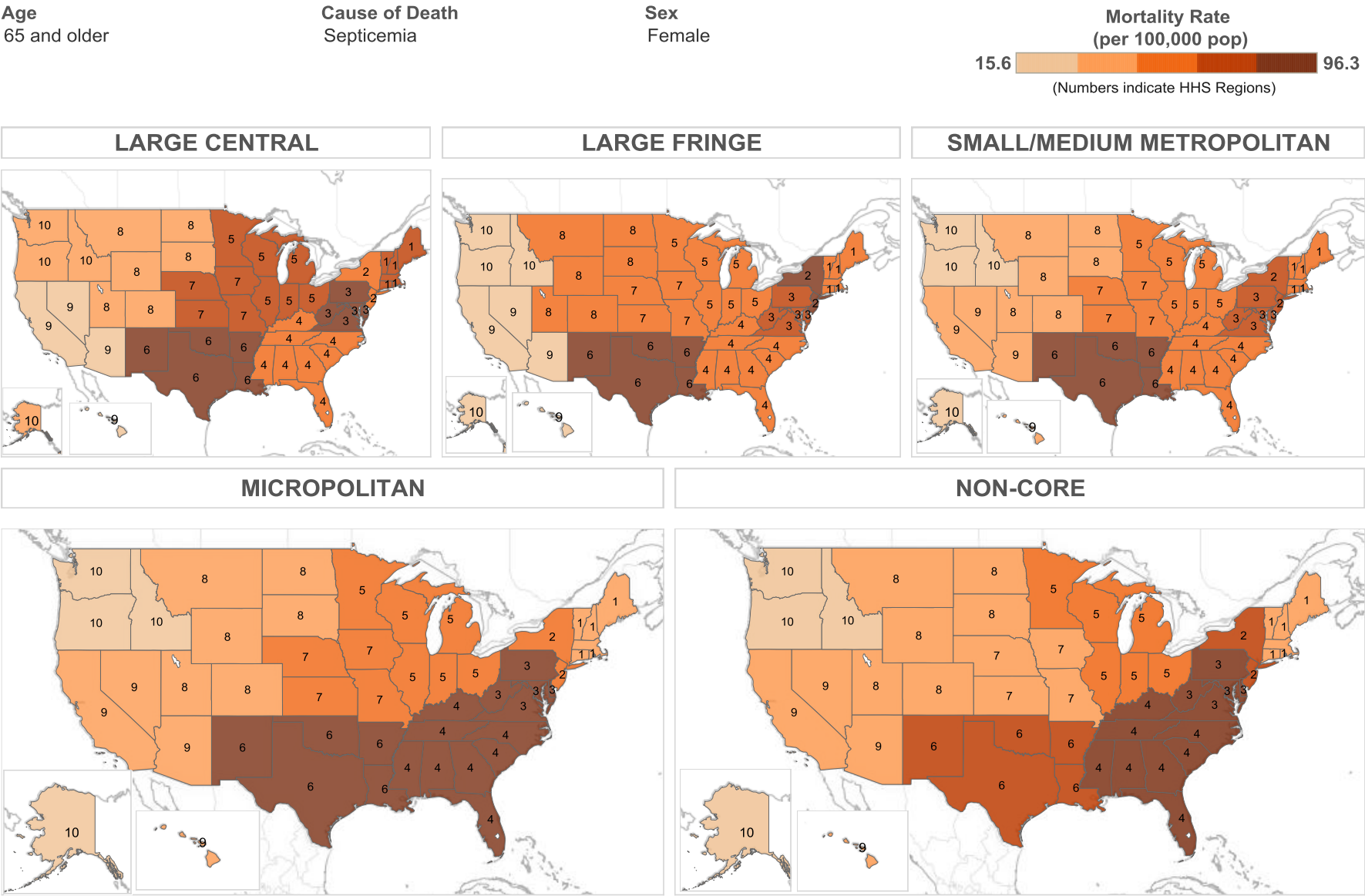
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Septicemia; Sex: Male



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.

Figure 80

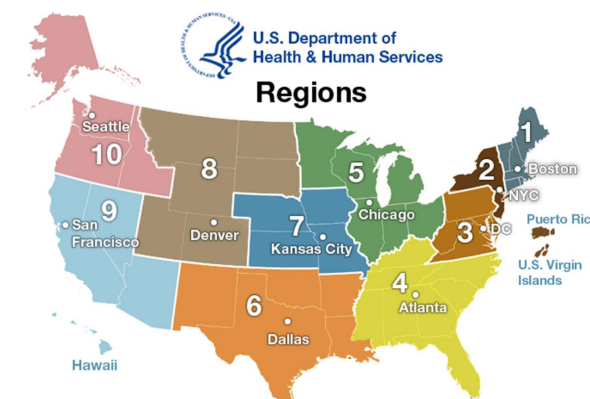
Mortality Rates by HHS Region and Urban-Rural Status: United States, 2011-2013; Age: 65 and older; Cause of Death: Septicemia; Sex: Female



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.

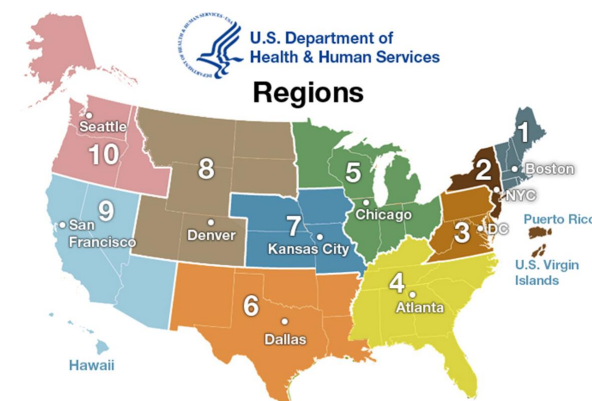
## Summary: Infants

- 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)

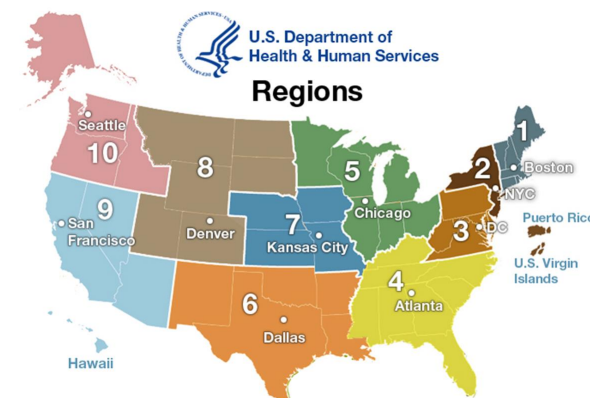
- Cause-specific, rural mortality rates worse than the nation in:
  - Unintentional injuries, Regions 2, 3, 4, 5 6, 7, 8, 9, 10 (New England, Mid-Atlantic, Midwest, South, Plains, Rockies, and the West)
  - Congenital malformation, Region 3
  - Homicide, Region 3, 6
  - Heart disease, Region 4
  - Lower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