

Exploring Rural and Urban Mortality Differences by HHS Region

A Consortium of







Rural Health Reform Policy Research Center

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

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

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

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



Contact Information:

For answers to questions about this report, contact:

Alana Knudson, PhD

Deputy Director, Rural Health Reform Policy Research Center

Co-Director, Walsh Center for Rural Health Analysis

NORC at the University of Chicago

4350 East-West Highway, Suite 800

Bethesda, MD 20814

Phone: 301-634-9326

Email: Knudson-Alana@norc.org



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

— Bono



Introduction

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



Study Purpose

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



Research Question

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



Methods

Source of Mortality data:

National Vital Statistics System (NVSS)

Years 2011-2013

Data are grouped by:

- 2013 NCHS Urban-Rural Classification Scheme for Counties
 - (Large Central, Large Fringe, Small/Medium Metro, Micropolitan, Non-core)
- HHS Regions
- Age
- Gender
- Cause of Death
 - Top 10 Nation-wide causes of death for each age group



2013 NCHS Urban-Rural Classification Scheme for Counties

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



- Estimates for the top ten causes of death are shown.
- A missing dot indicates either 1) a suppressed rate or 2) identical values between an urban and rural estimate (where more urban cases cover the more rural cases). See Appendix A for list of such cases.
- Suppressed data points occur when there are fewer than 10 deaths within that population sub-group (age, sex, rural-urban status, region). Since mortality rates for individuals under the age of 25 years are lower, more suppressed and unreliable rates exist thus limiting the visuals for almost all but the top causes of death for a specific region.
- If a cause is not listed on the graph, then all data points for that cause are suppressed. A graph with fewer than 10 causes of death indicates that all points are suppressed for the missing cause(s).
- Light to dark shades represent urban to rural areas.



- 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 are age-adjusted for ages 1-14 Years, 25-64 Years, and 65 Years and Over, and represent deaths per 100,000 population.
- Index is calculated as: (local mortality rate / national mortality rate)*100 where the national mortality rate is calculated using age-specific and sex-specific (over 15 years) death rates.
- Although large differences may be present between the national mortality rate (index = 100) and the subpopulation mortality rate (if index is not equal to 100), presentation of the index does not imply that the rates are statistically significant. Please see Excel Workbook Tables: Mortality Rates among Persons by Cause of Death, Age, Region, and Rural-Urban Status: United States, 2011-2013 for complete details on statistical comparisons provided through data tables.



Deaths of nonresidents are excluded, as are residents of:

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



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

Electronic access:

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

http://www.ruralhealthresearch.org/.

The graphs from this presentation may be accessed at:

https://viz.norc.org/views/On-

<u>LineToolIndexforMortalityRates/Introduction?:embed=y&:display_count=no</u>

Geographic Definitions

HHS Regions

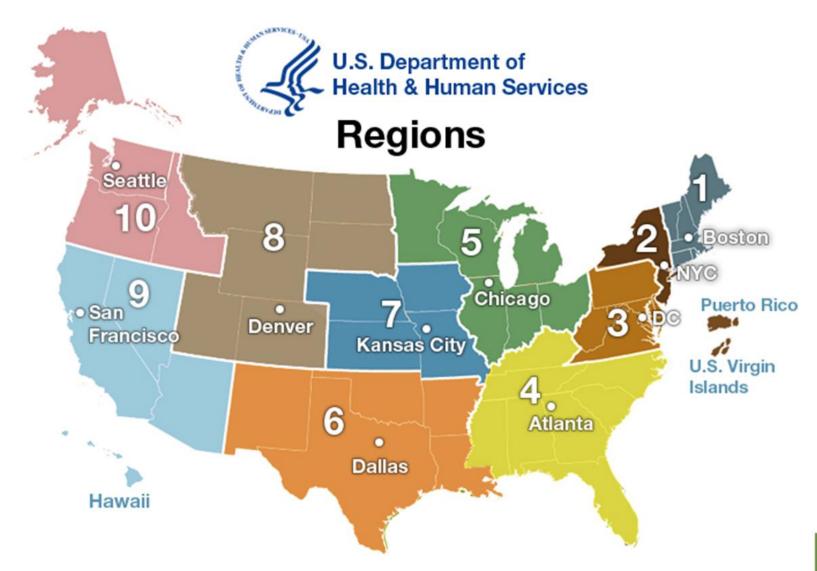


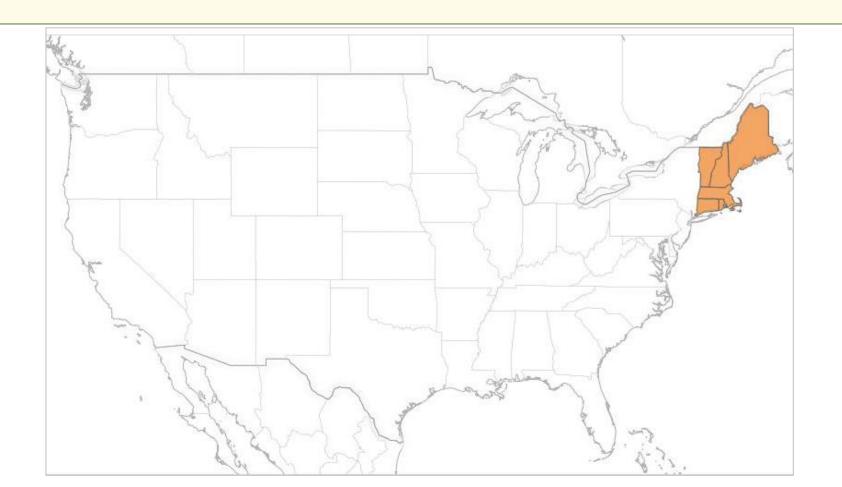


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- HHS Region 9
- HHS Region 10

HHS Region 1

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont





Index for Regional Mortality Rates of Region 1, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 2: Age Under 1 Years, Both Sexes
- Figure 3: Age 1 to 14 Years, Both Sexes
- Figure 4: Age 15 to 24 Years, Males
- Figure 5: Age 15 to 24 Years, Female
- Figure 6: Age 25 to 64 Years, Male
- Figure 7: Age 25 to 64 Years, Female
- Figure 8: Age ≥65 Years, Male
- Figure 9: Age ≥65 Years, Female

Please select:

Under 1

Age

Under 1

Rural-Urban Status

□ Urban

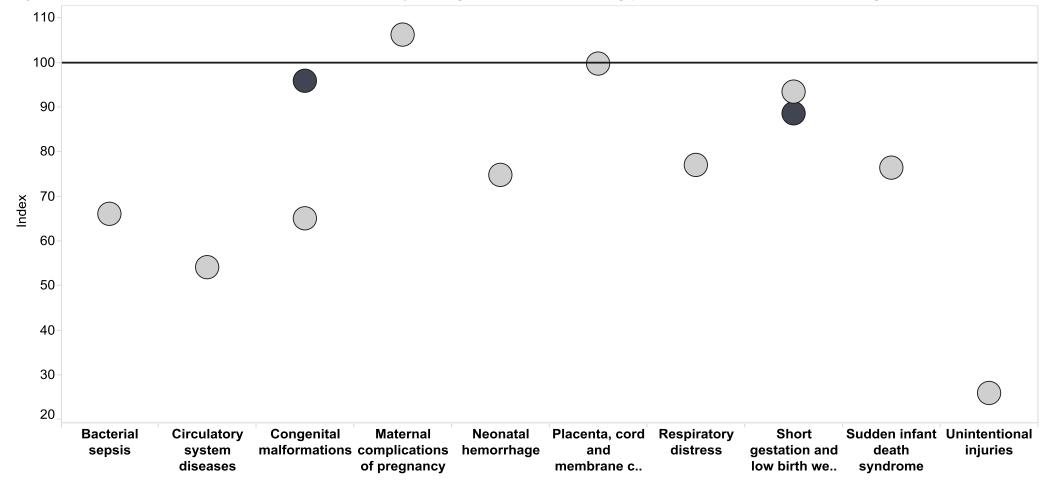
Rural

Region #1 CT, ME, MA, NH, RI, VT

Both sexes

Sex

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



Rural-Urban Status

☐ Urban ☐ Rural

Age

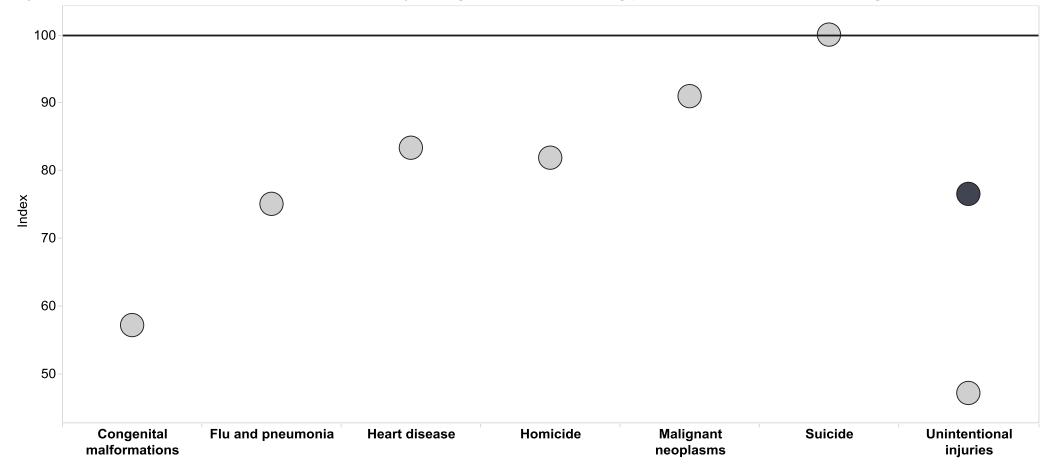
1 to 14

Please select:

Sex Both sexes

Region HHS Region #1 CT, ME, MA, NH, RI, VT

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #1 CT, ME, MA, NH, RI, VT, by Rural-Urban Status: United States, 2011-2013



Rural-Urban Status

☐ Urban ☐ Rural

Age

Please select:

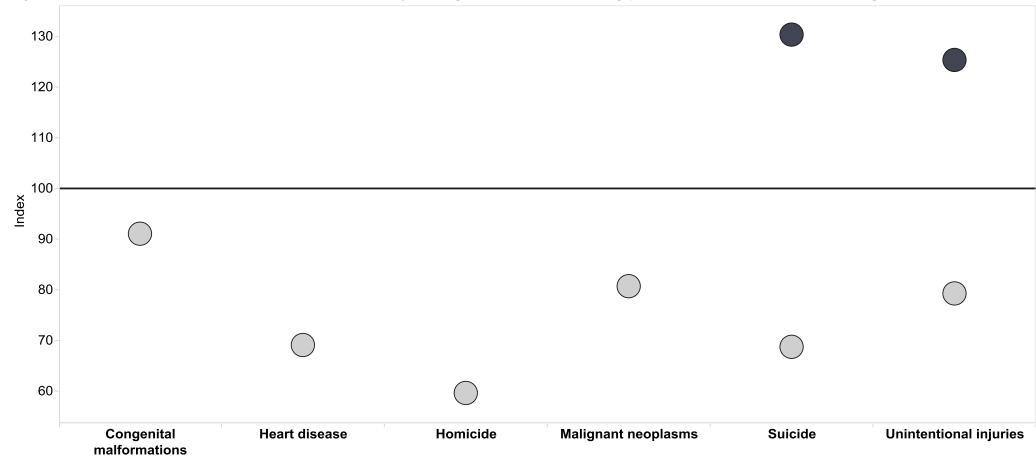
15 to 24

Male

Sex

Region #1 CT, ME, MA, NH, RI, VT

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #1 CT, ME, MA, NH, RI, VT, by Rural-Urban Status: United States, 2011-2013



Please select:

Rural-Urban Status

□ Urban

Female

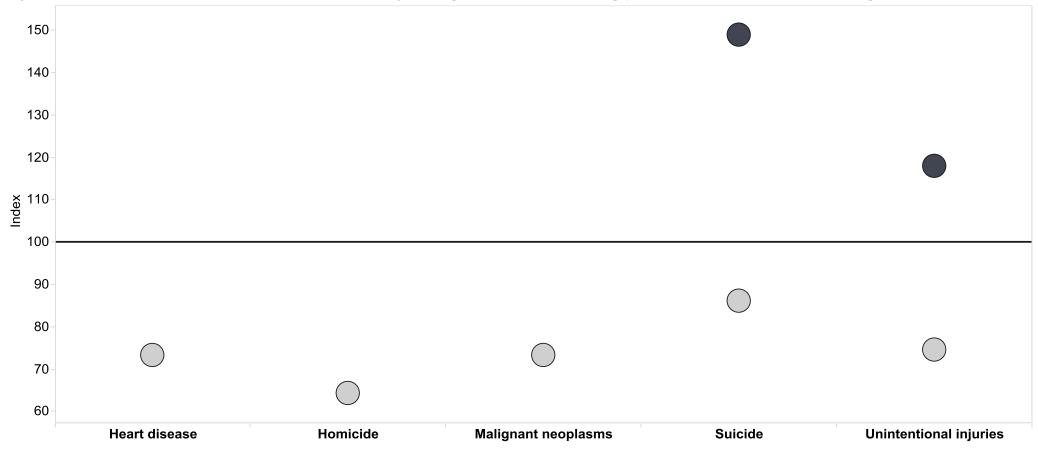
Age

Sex

Region HHS Region #1 CT, ME, MA, NH, RI, VT

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #1 CT, ME, MA, NH, RI, VT, by Rural-Urban Status: United States, 2011-2013

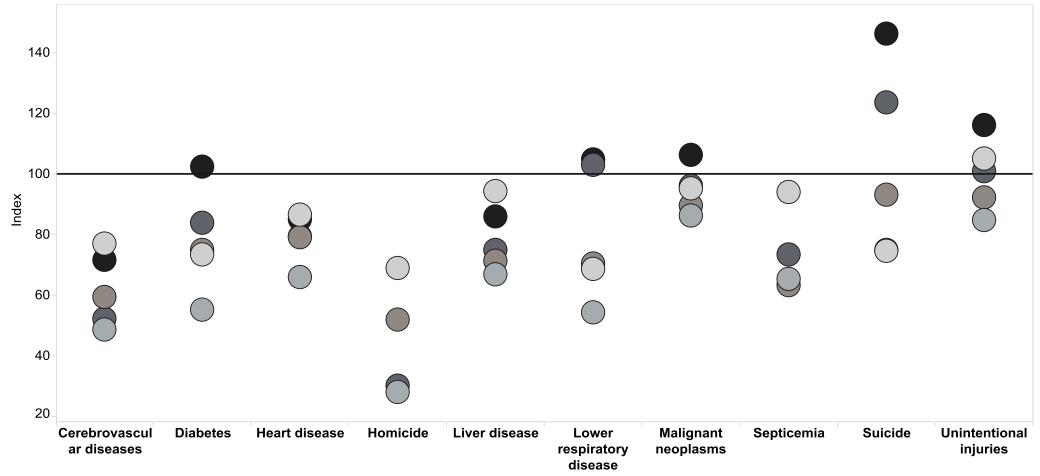
Rural



Please select: Rural-Urban Status Age 25 to 64 Large Central Bear Large Fringe Medium/Small Metro Micropolitan Micropolitan Region HHS Region #1 CT, ME, MA, NH, RI, VT Non-core

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

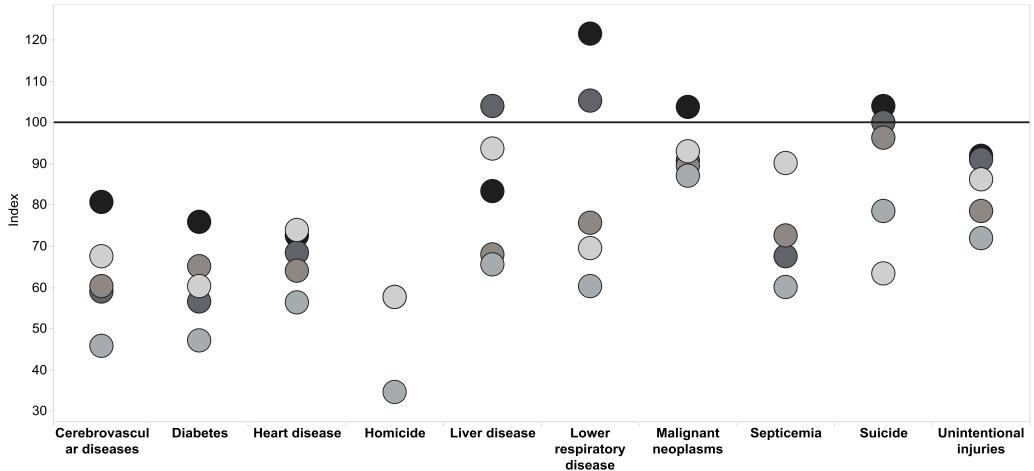
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





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

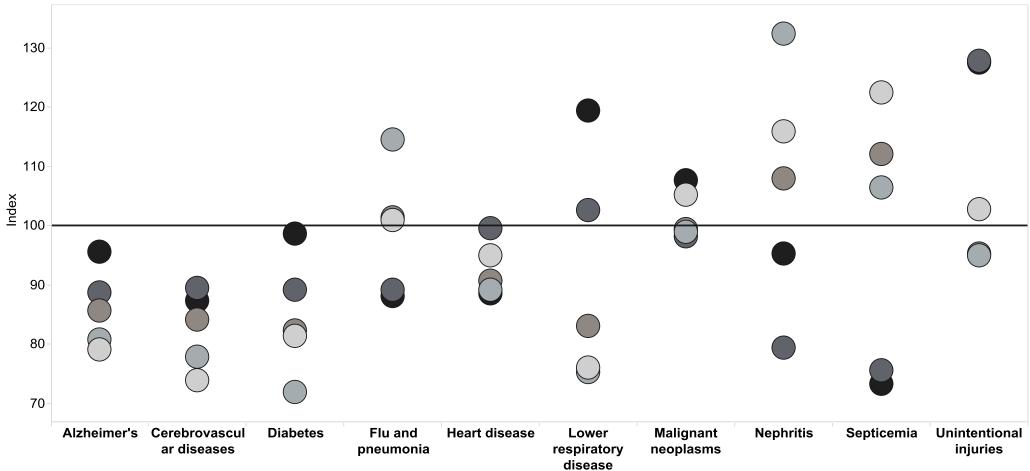
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select: Rural-Urban Status Age 65 and older □ Large Central □ Large Fringe Sex Male □ Medium/Small Metro □ Micropolitan Region HHS Region #1 CT, ME, MA, NH, RI, VT ■ Non-core

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

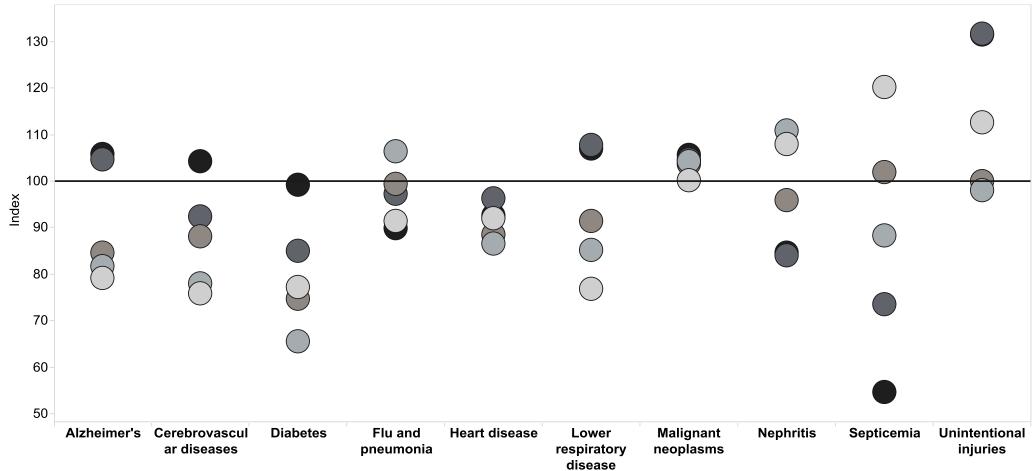
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select: Rural-Urban Status Age 65 and older Large Central Sex Female Medium/Small Metro Region HHS Region #1 CT, ME, MA, NH, RI, VT Micropolitan Non-core

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

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



HHS Region 2¹

New York and New Jersey



¹Note: Deaths of nonresidents including those in Puerto Rico and the U.S. Virgin Islands are excluded http://www.hhs.gov/iea/regional/ http://wonder.cdc.gov/wonder/help/mcd.html



Index for Regional Mortality Rates of Region 2, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 10: Age Under 1 Years, Both Sexes
- Figure 11: Age 1 to 14 Years, Both Sexes
- Figure 12: Age 15 to 24 Years, Males
- Figure 13: Age 15 to 24 Years, Female
- Figure 14: Age 25 to 64 Years, Male
- Figure 15: Age 25 to 64 Years, Female
- Figure 16: Age ≥65 Years, Male
- Figure 17: Age ≥65 Years, Female

Rural-Urban Status

☐ Urban ☐ Rural

Age

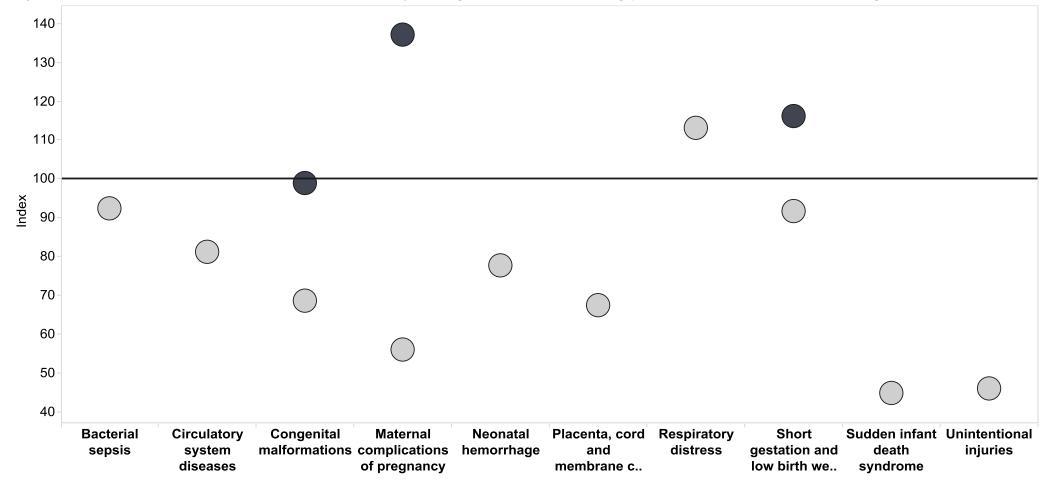
Please select:

Sex Both sexes

Region #2 NJ, NY

Under 1

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013



Rural-Urban Status

☐ Urban **☐** Rural

Both sexes

Please select:

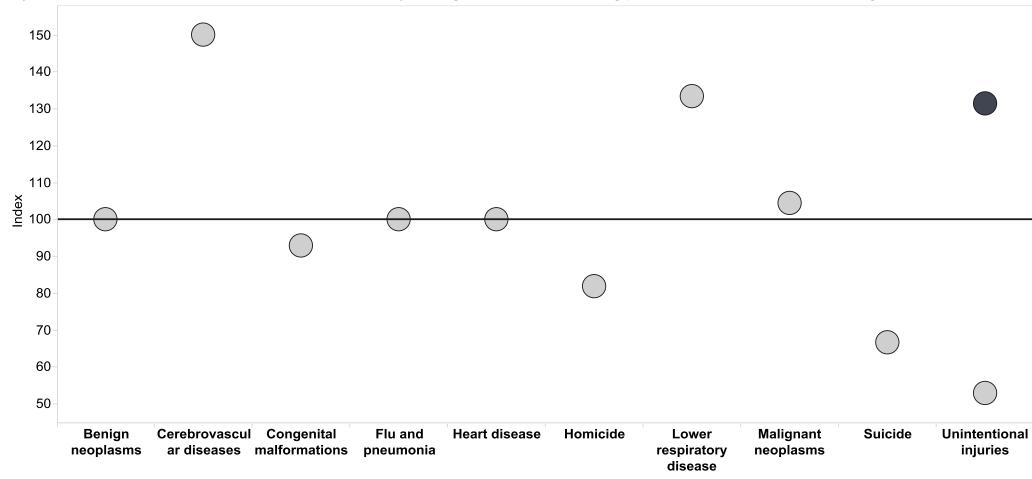
Age

Sex

Region HHS Region #2 NJ, NY

1 to 14

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013



Please select:

Rural-Urban Status

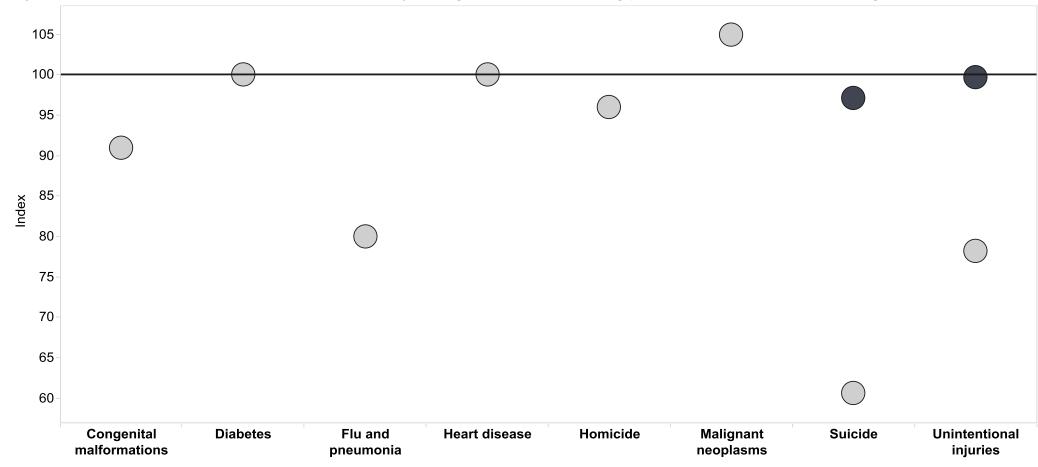
□ Urban

Age

Sex Male

Region HHS Region #2 NJ, NY

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013



Rural-Urban Status

☐ Urban☐ Rural

Age

Please select:

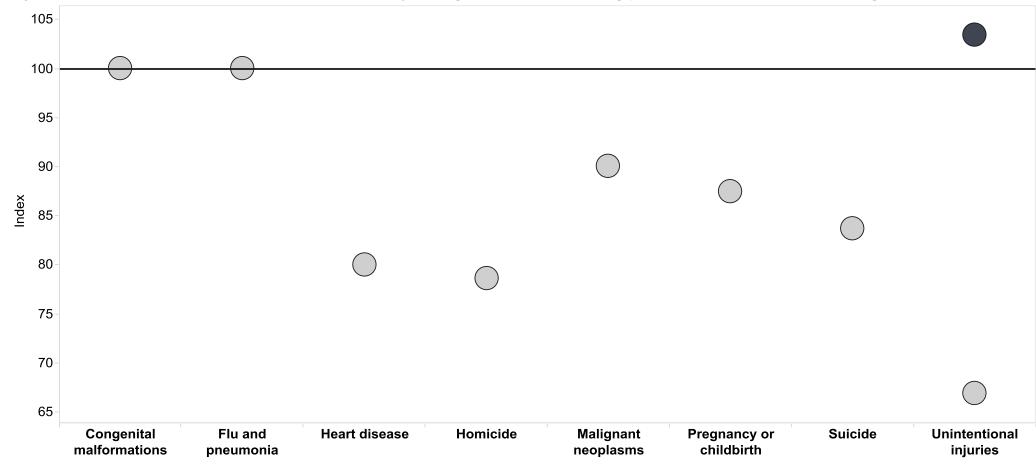
Sex

Region HHS Region #2 NJ, NY

15 to 24

Female

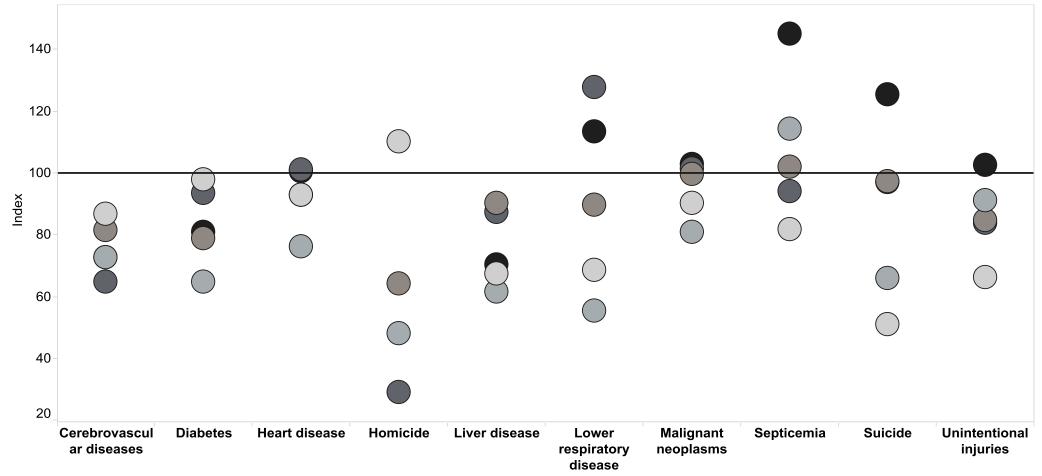
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013



Please select:Age25 to 64Large CentralSexMaleMedium/Small MetroRegionHHS Region #2 NJ, NYNon-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013

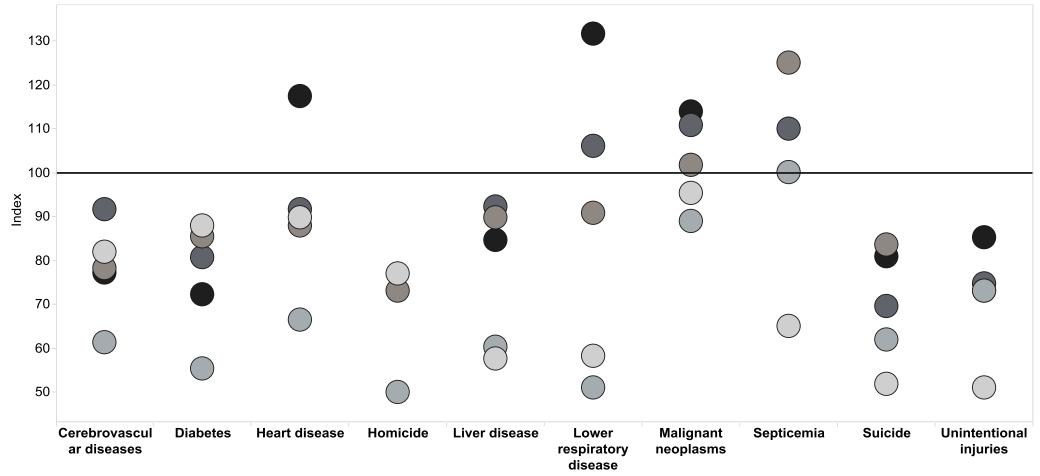
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:Age25 to 64Large CentralSexFemaleMedium/Small MetroRegionHHS Region #2 NJ, NYNon-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013

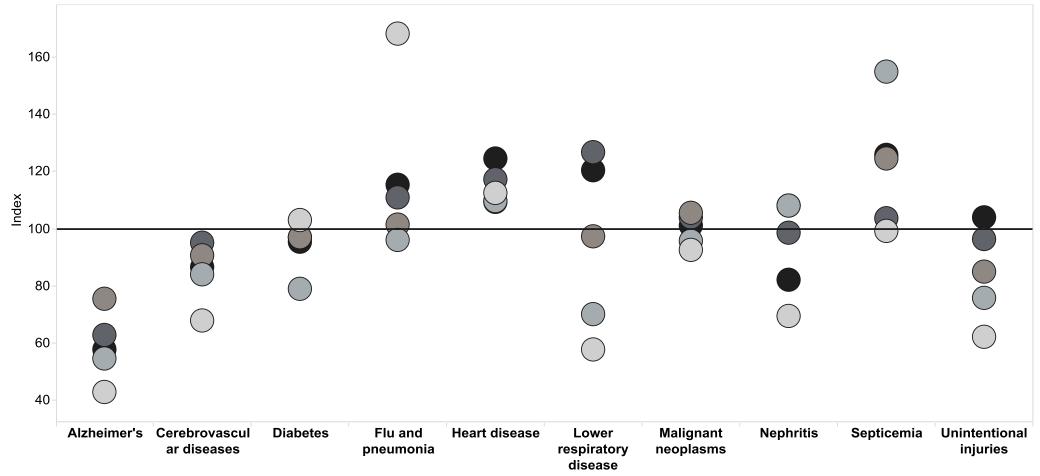
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013

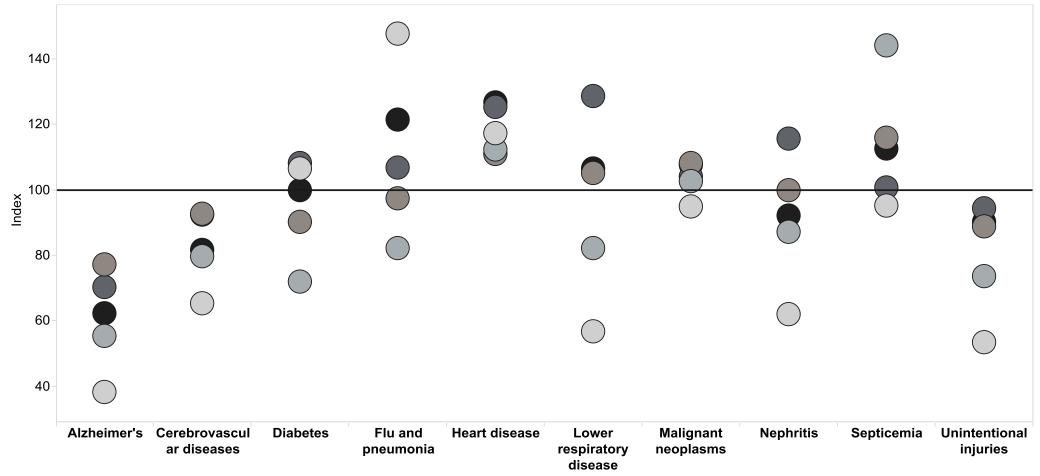
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select: Rural-Urban Status Age 65 and older Large Central Sex Female Medium/Small Metro Region HHS Region #2 NJ, NY Micropolitan Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #2 NJ, NY, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 3

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia





Index for Regional Mortality Rates of Region 3, by Rural-Urban Status: United States, 2011-2013

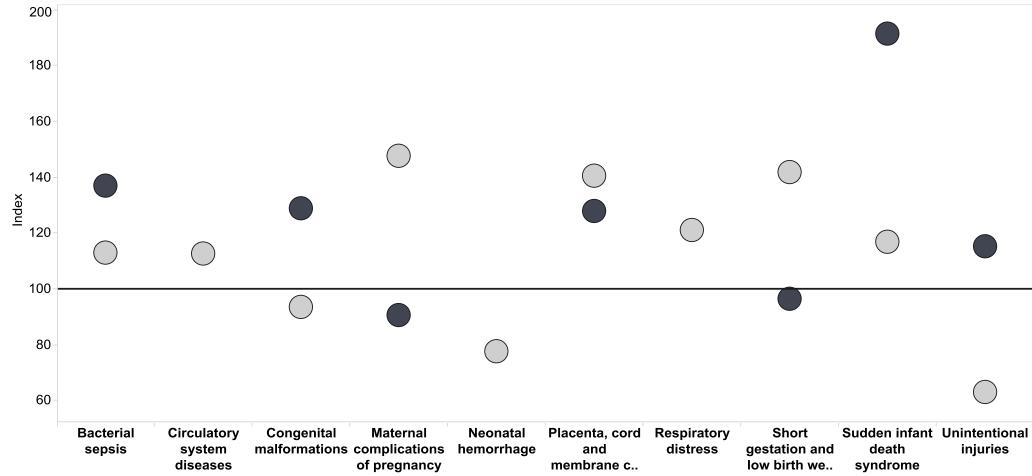
Persons:

- Figure 18: Age Under 1 Years, Both Sexes
- Figure 19: Age 1 to 14 Years, Both Sexes
- Figure 20: Age 15 to 24 Years, Males
- Figure 21: Age 15 to 24 Years, Female
- Figure 22: Age 25 to 64 Years, Male
- Figure 23: Age 25 to 64 Years, Female
- Figure 24: Age ≥65 Years, Male
- Figure 25: Age ≥65 Years, Female

Region

Please select: **Rural-Urban Status** Urban Under 1 Rural Both sexes Sex HHS Region #3 DE, DC, MD, PA, VA, WV

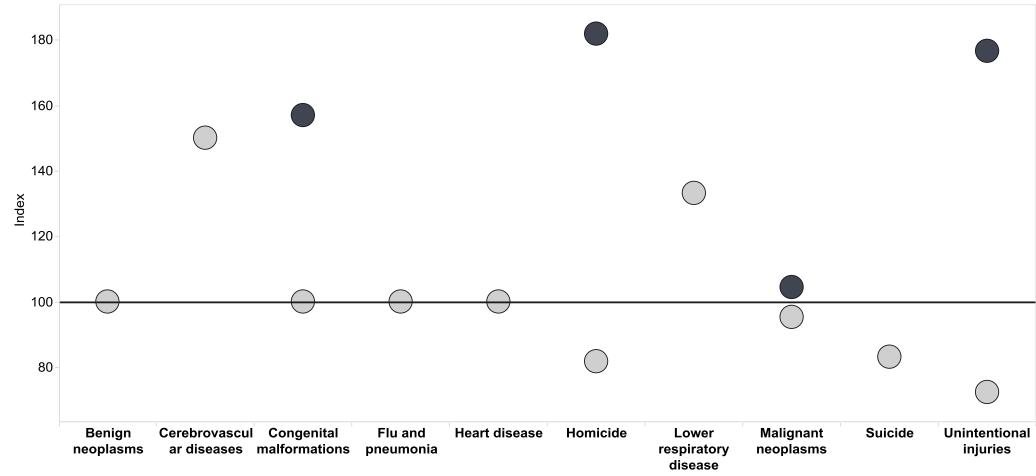
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013



Region

Please select: **Rural-Urban Status** Urban 1 to 14 Rural Both sexes Sex HHS Region #3 DE, DC, MD, PA, VA, WV

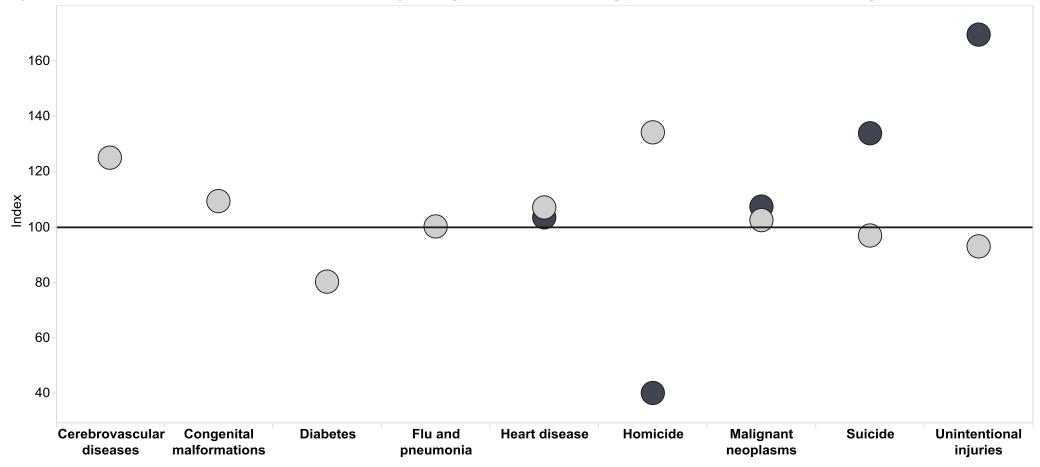
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013



Region

Please select: **Rural-Urban Status** Urban 15 to 24 Rural Male Sex HHS Region #3 DE, DC, MD, PA, VA, WV

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

Age

15 to 24

Sex

Rural-Urban Status

□ Urban

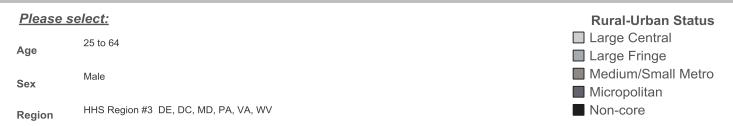
Rural

Rural

HHS Region #3 DE, DC, MD, PA, VA, WV

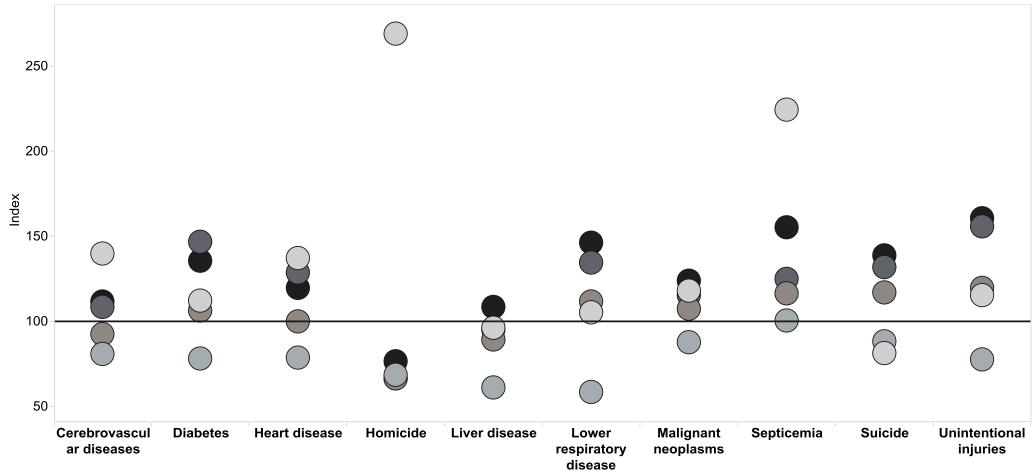
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013

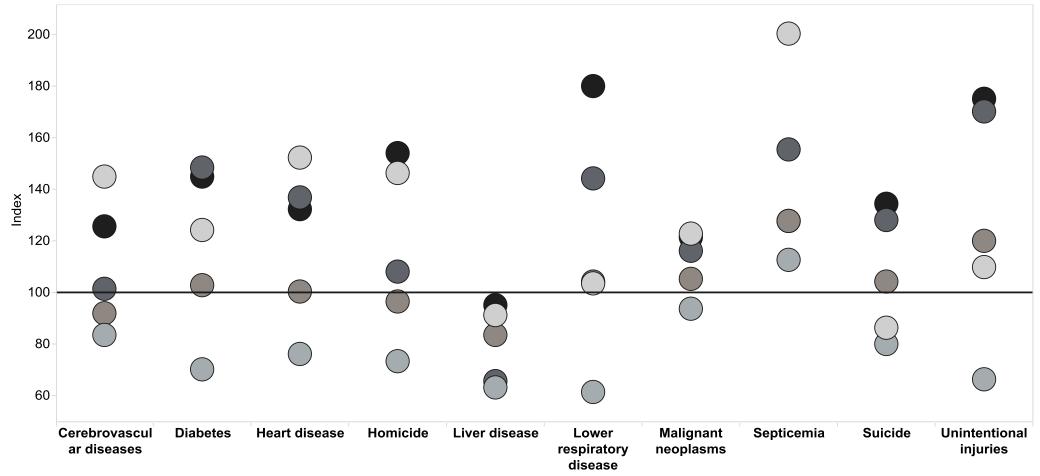
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.

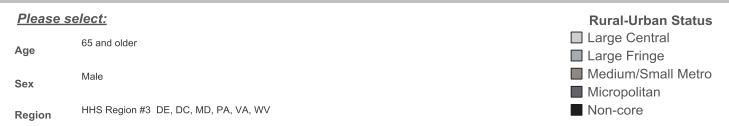


Please se	elect:	Rural-Urban Status
Age	25 to 64	■ Large Central
		Large Fringe
Sex	Female	■ Medium/Small Metro
		Micropolitan
Region	HHS Region #3 DE, DC, MD, PA, VA, WV	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013

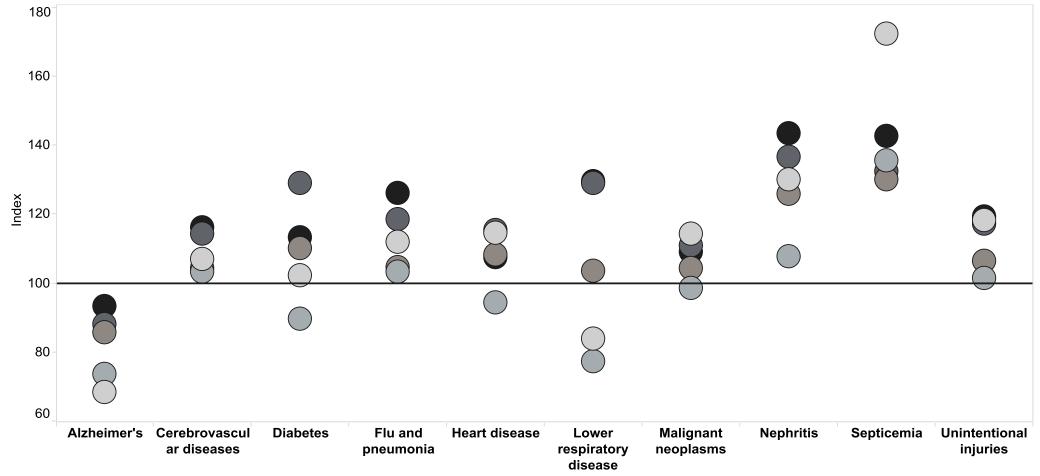
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013

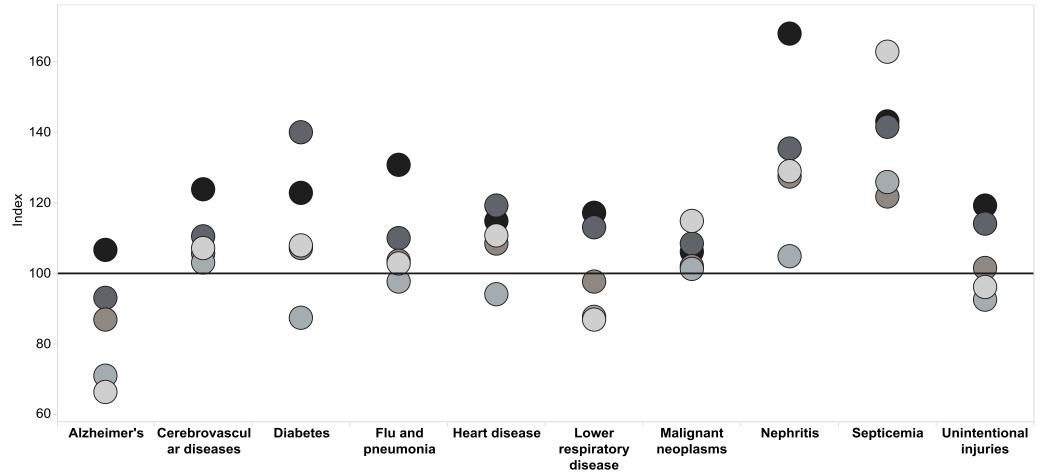
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please se	<u>elect:</u>	Rural-Urban Status
Age	65 and older	Large Central
		Large Fringe
Sex	Female	Medium/Small Metro
		Micropolitan
Region	HHS Region #3 DE, DC, MD, PA, VA, WV	Non-core

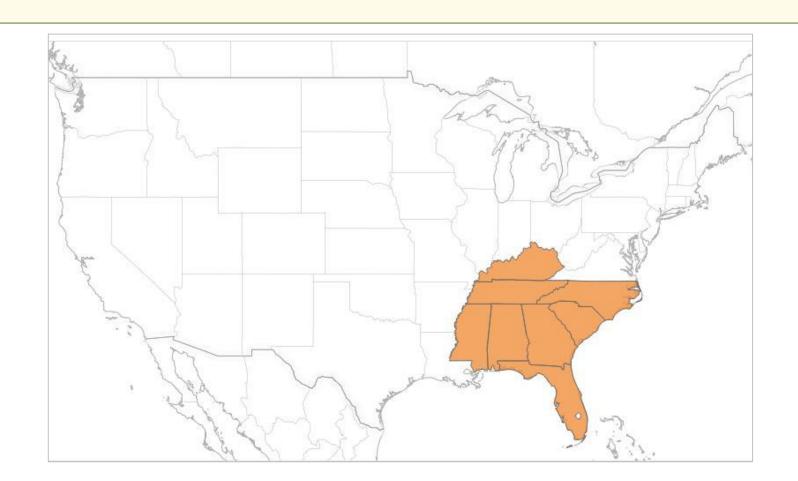
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #3 DE, DC, MD, PA, VA, WV, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 4

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee





Index for Regional Mortality Rates of Region 4, by Rural-Urban Status: United States, 2011-2013

Persons:

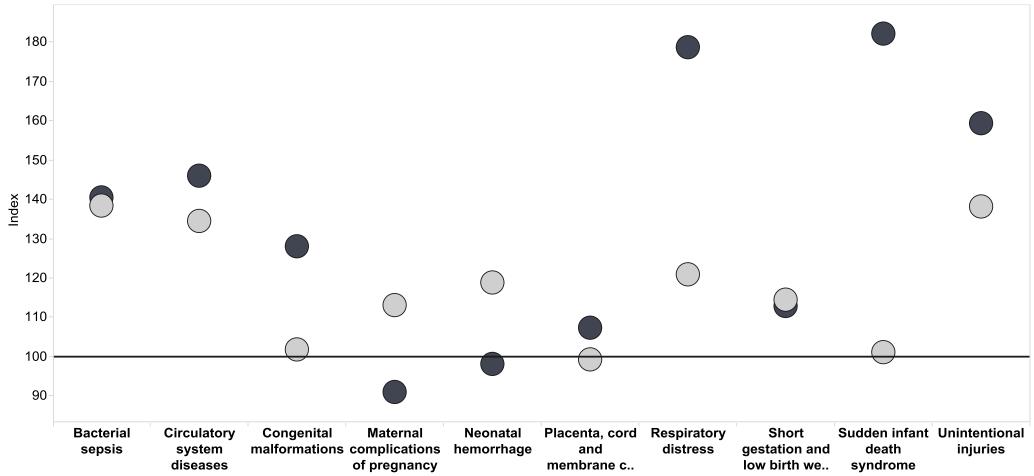
- Figure 26: Age Under 1 Years, Both Sexes
- Figure 27: Age 1 to 14 Years, Both Sexes
- Figure 28: Age 15 to 24 Years, Males
- Figure 29: Age 15 to 24 Years, Female
- Figure 30: Age 25 to 64 Years, Male
- Figure 31: Age 25 to 64 Years, Female
- Figure 32: Age ≥65 Years, Male
- Figure 33: Age ≥65 Years, Female

Region

Please select: **Rural-Urban Status** Urban Under 1 Rural Both sexes Sex HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

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



Please select:

Age

1 to 14

Urban

Rural-Urban Status

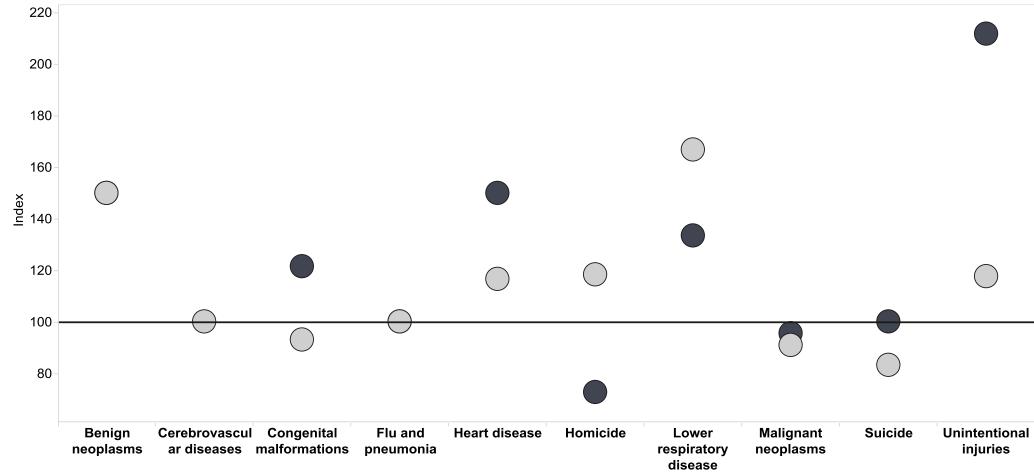
Urban

Rural

Rural

Region #4 AL, FL, GA, KY, MS, NC, SC, TN

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

Age

15 to 24

Sex

Male

Rural-Urban Status

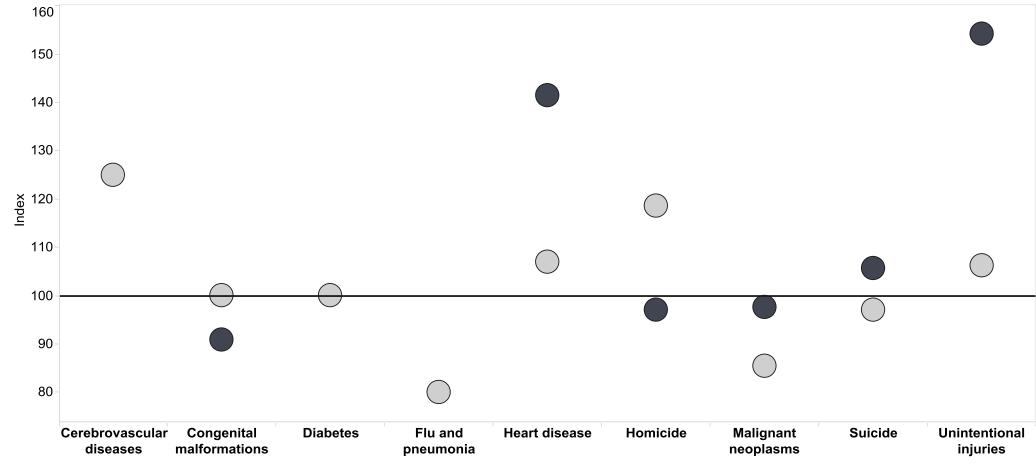
Urban

Rural

Rural

HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

Age

15 to 24

Sex

Rural-Urban Status

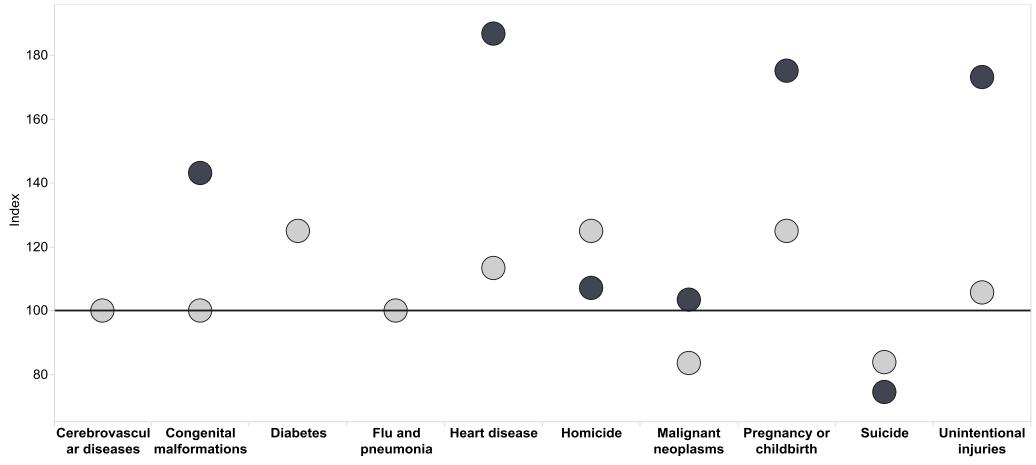
□ Urban

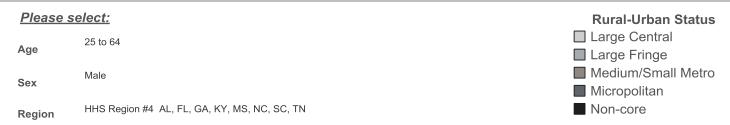
Rural

Rural

HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN

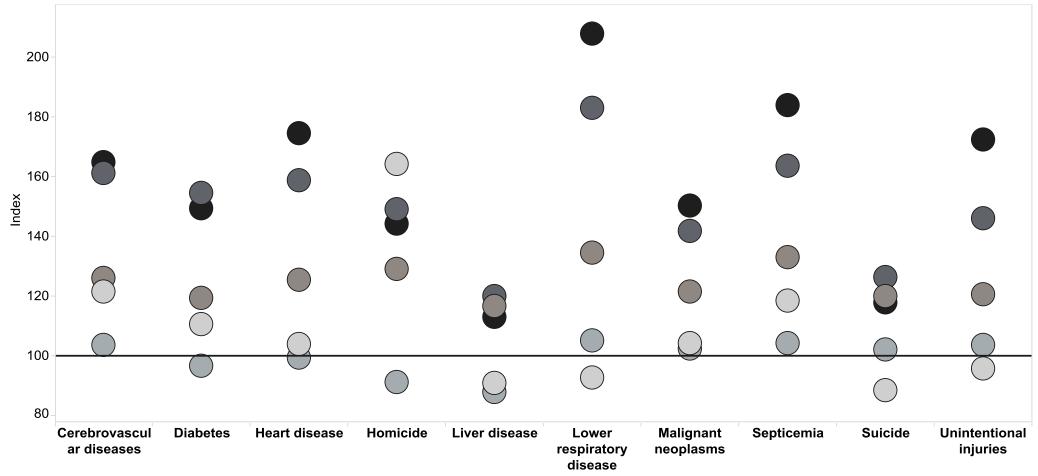
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

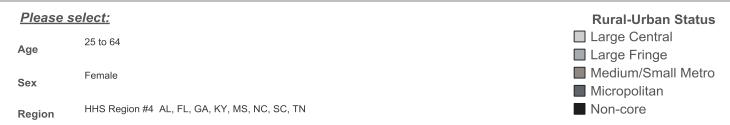




Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

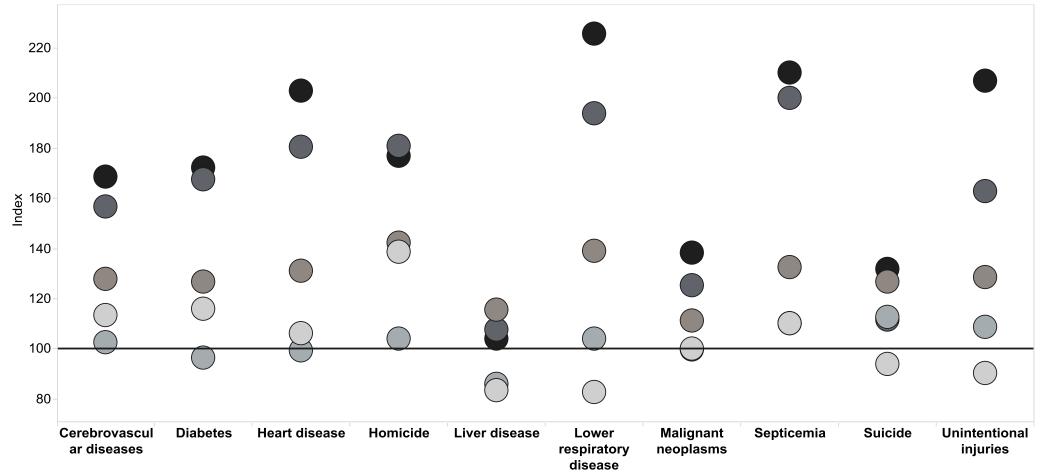
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

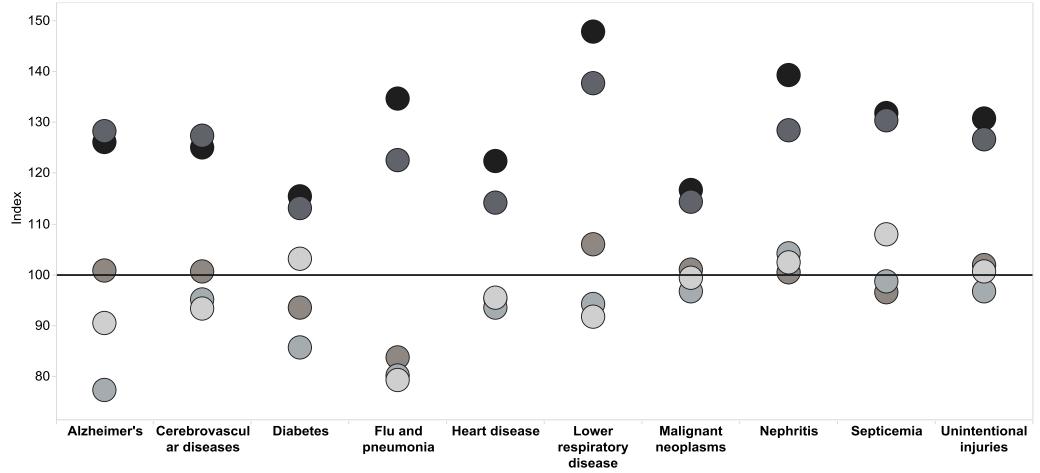
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

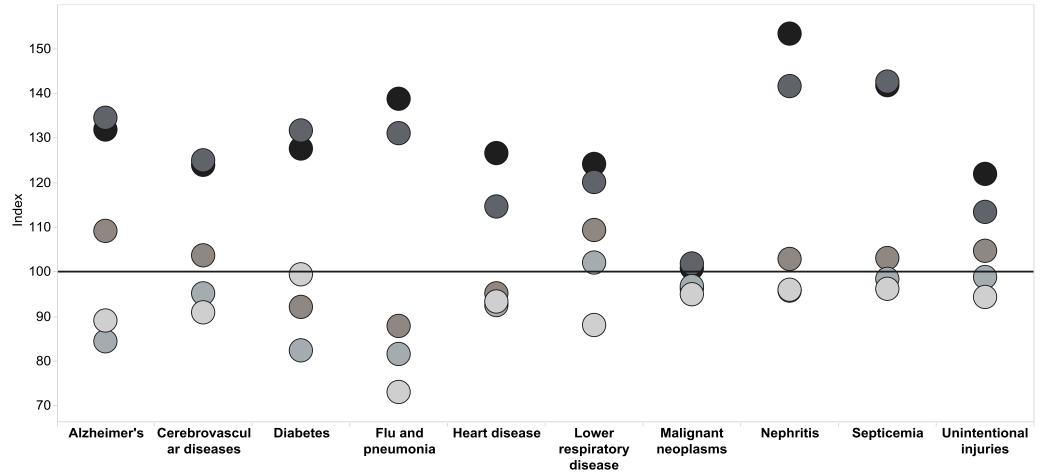
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





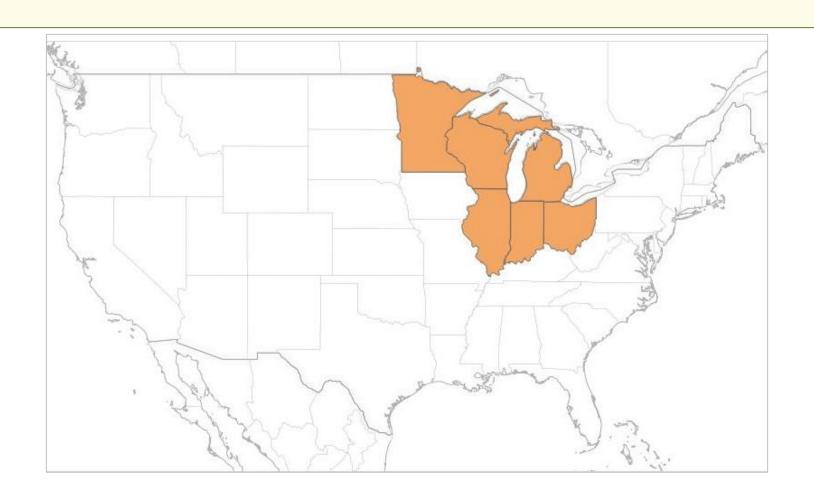
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #4 AL, FL, GA, KY, MS, NC, SC, TN, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 5

Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin





Index for Regional Mortality Rates of Region 5, by Rural-Urban Status: United States, 2011-2013

Persons:

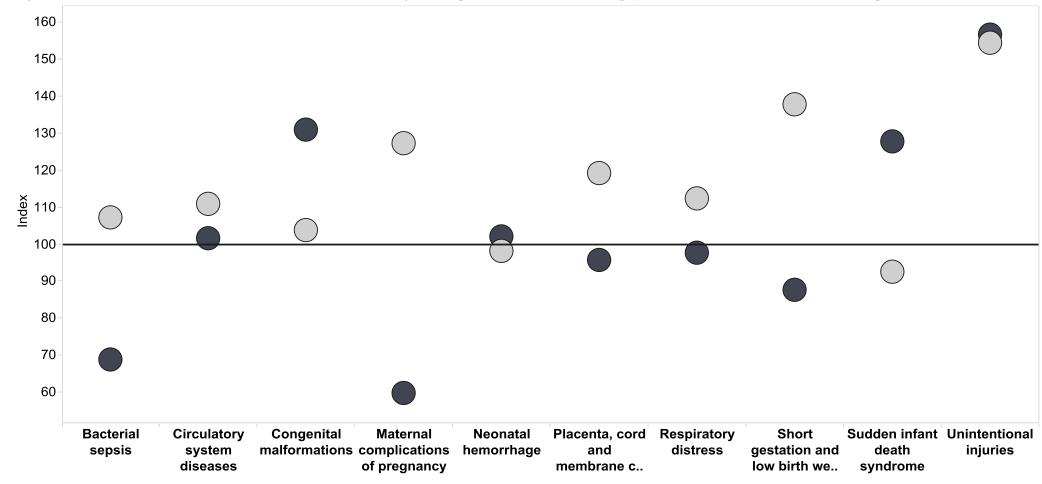
- Figure 34: Age Under 1 Years, Both Sexes
- Figure 35: Age 1 to 14 Years, Both Sexes
- Figure 36: Age 15 to 24 Years, Males
- Figure 37: Age 15 to 24 Years, Female
- Figure 38: Age 25 to 64 Years, Male
- Figure 39: Age 25 to 64 Years, Female
- Figure 40: Age ≥65 Years, Male
- Figure 41: Age ≥65 Years, Female

Region

Please select: **Rural-Urban Status** Urban Under 1 Rural Both sexes Sex HHS Region #5 IL, IN, MI, MN, OH, WI

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013

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



Region

Please select:

Age

1 to 14

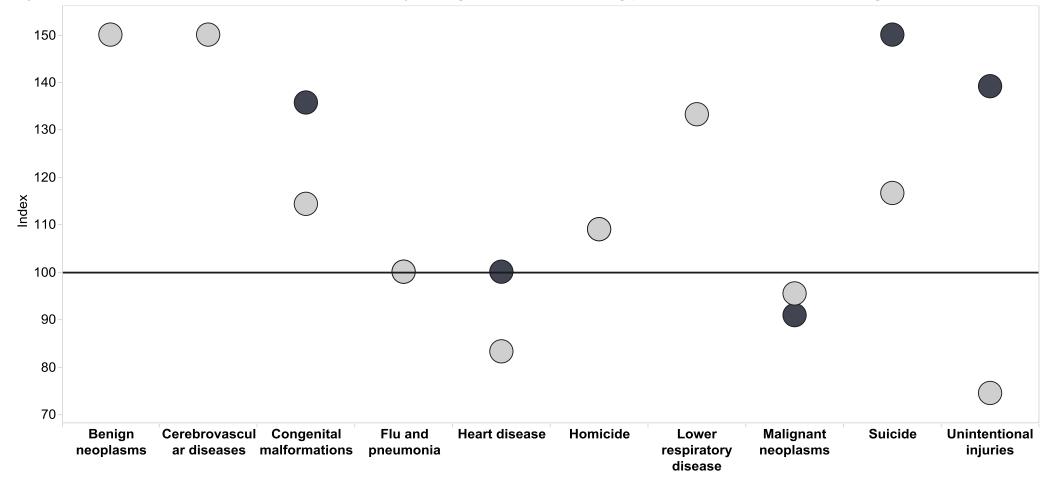
Both sexes

Both sexes

HHS Region #5 IL, IN, MI, MN, OH, WI

Rural-Urban Status
Urban
Rural
Rural

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

Age

15 to 24

Age

Male

Rural-Urban Status

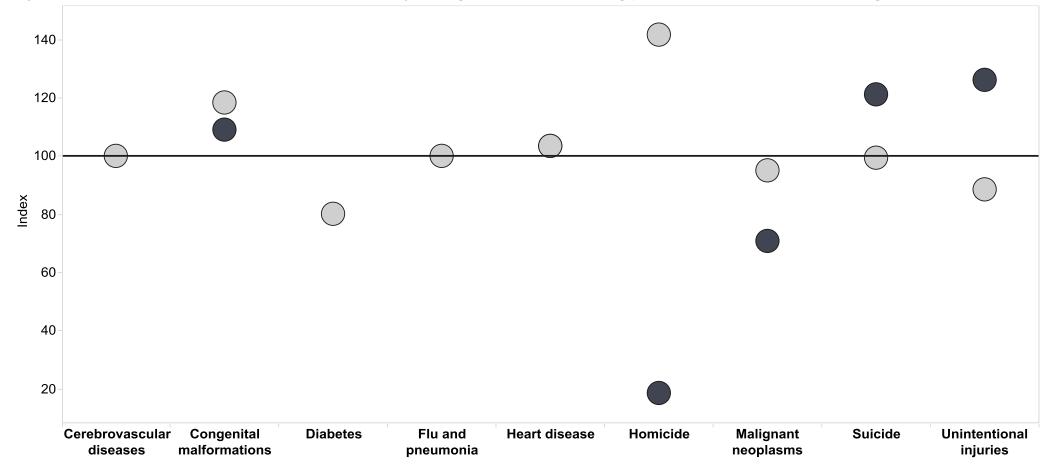
□ Urban

Rural

Rural

HHS Region #5 IL, IN, MI, MN, OH, WI

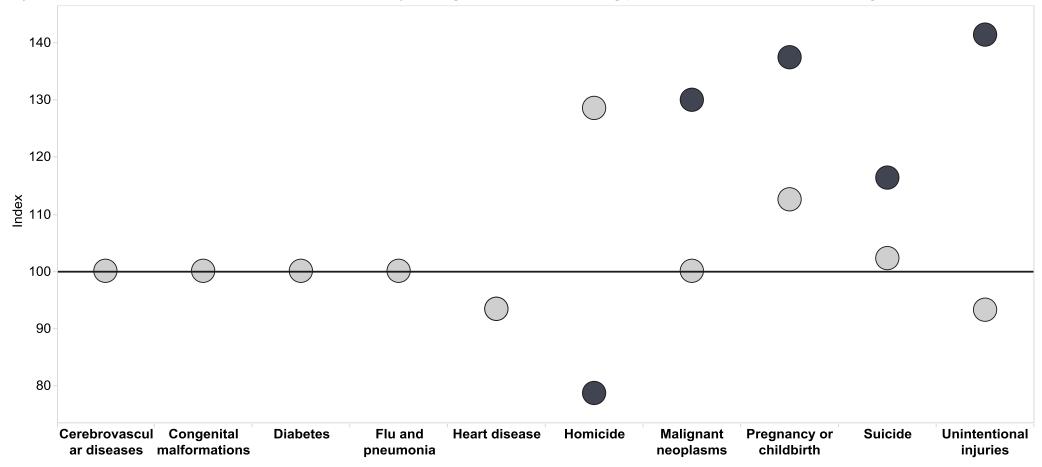
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013



Region

Please select: **Rural-Urban Status** Urban 15 to 24 Rural Female Sex HHS Region #5 IL, IN, MI, MN, OH, WI

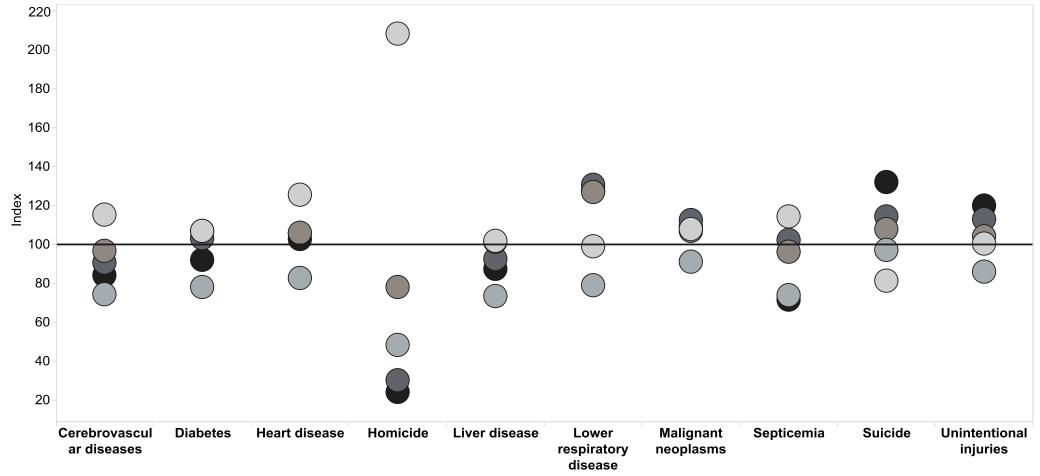
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013



<u>Please s</u>	elect:	Rural-Urban Status
Age	25 to 64	□ Large Central
		Large Fringe
Sex	Male	■ Medium/Small Metro
		Micropolitan
Region	HHS Region #5 IL, IN, MI, MN, OH, WI	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013

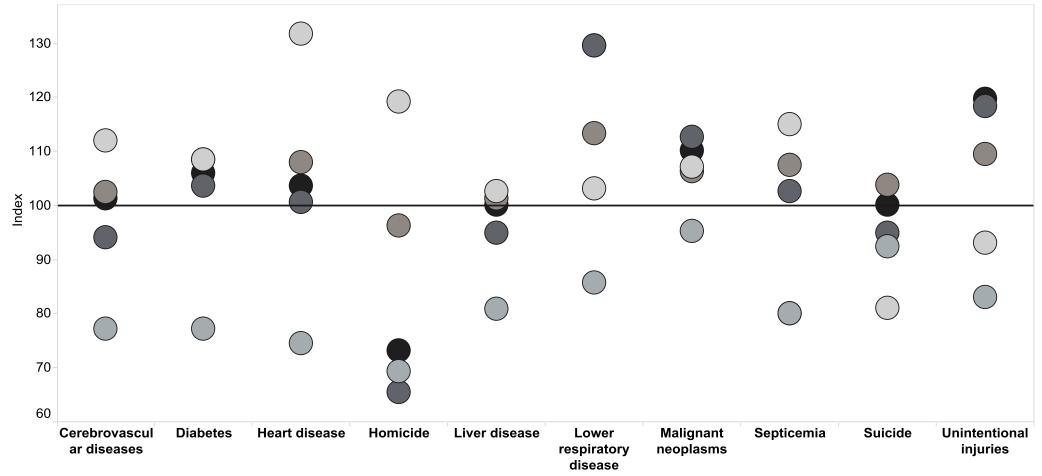
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013

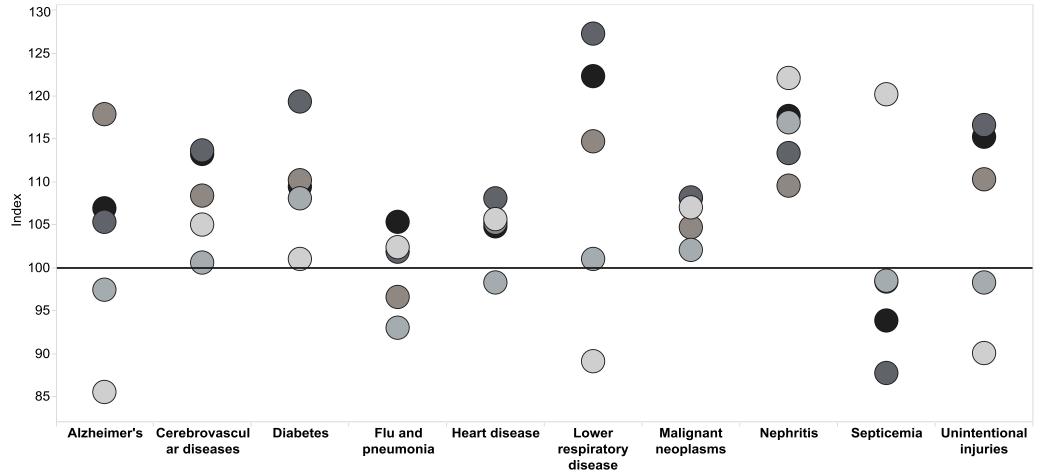
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013

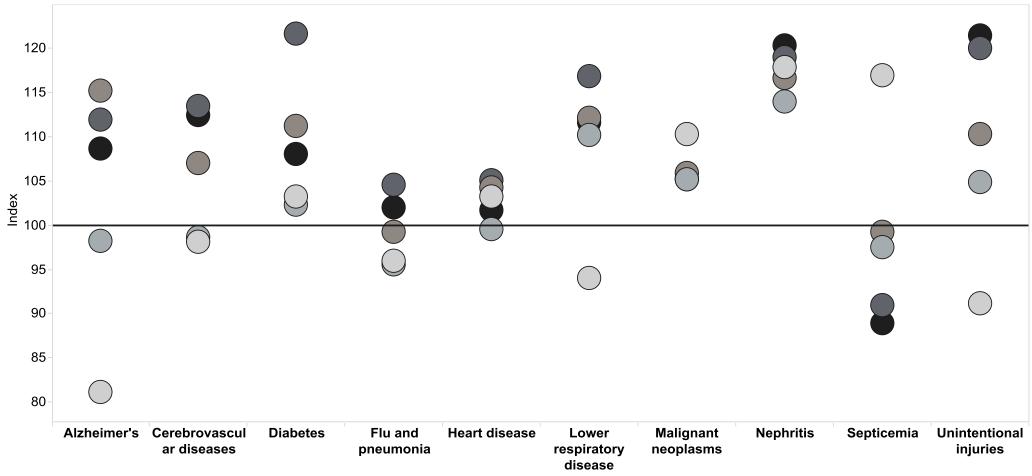
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





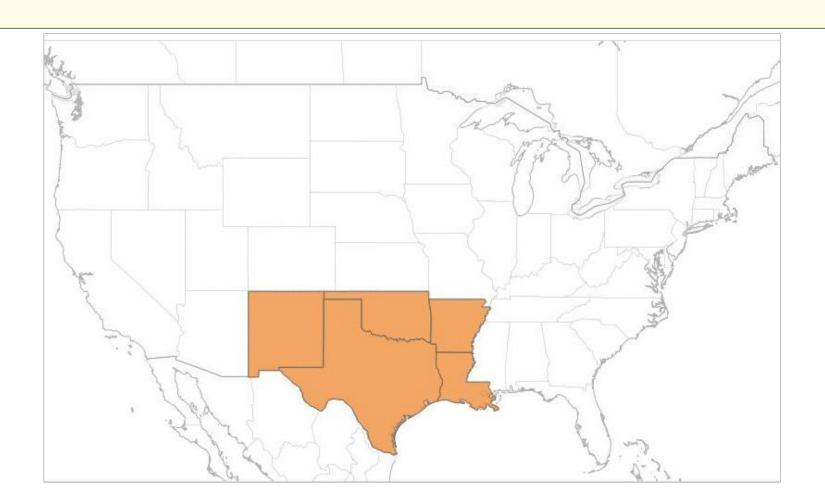
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #5 IL, IN, MI, MN, OH, WI, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 6

Arkansas, Louisiana, New Mexico, Oklahoma, and Texas





Index for Regional Mortality Rates of Region 6, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 42: Age Under 1 Years, Both Sexes
- Figure 43: Age 1 to 14 Years, Both Sexes
- Figure 44: Age 15 to 24 Years, Males
- Figure 45: Age 15 to 24 Years, Female
- Figure 46: Age 25 to 64 Years, Male
- Figure 47: Age 25 to 64 Years, Female
- Figure 48: Age ≥65 Years, Male
- Figure 49: Age ≥65 Years, Female

Please select:

Age

Under 1

Both sexes

Both sexes

Rural-Urban Status

□ Urban

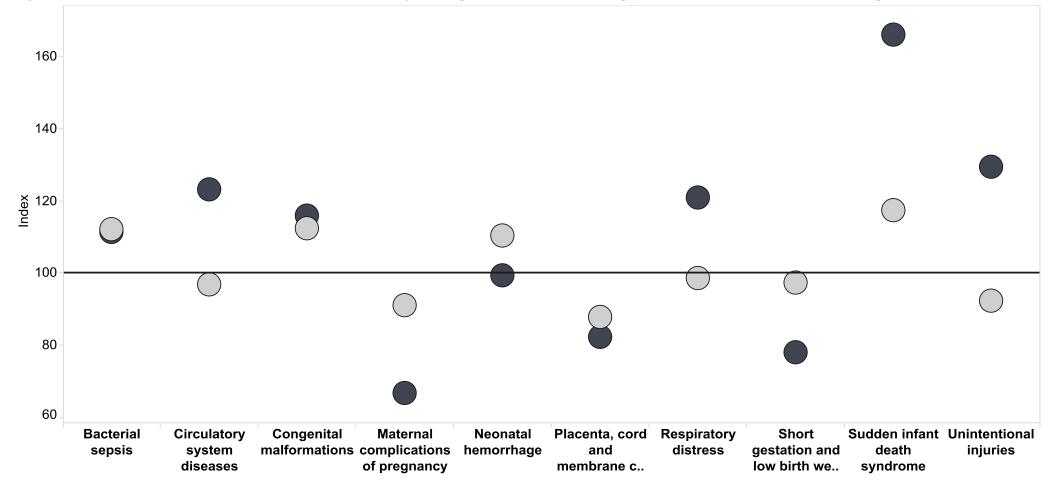
□ Rural

HHS Region #6 AR, LA, NM, OK, TX

Region

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013

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



Please select:

Age

1 to 14

Urban

Rural-Urban Status

Urban

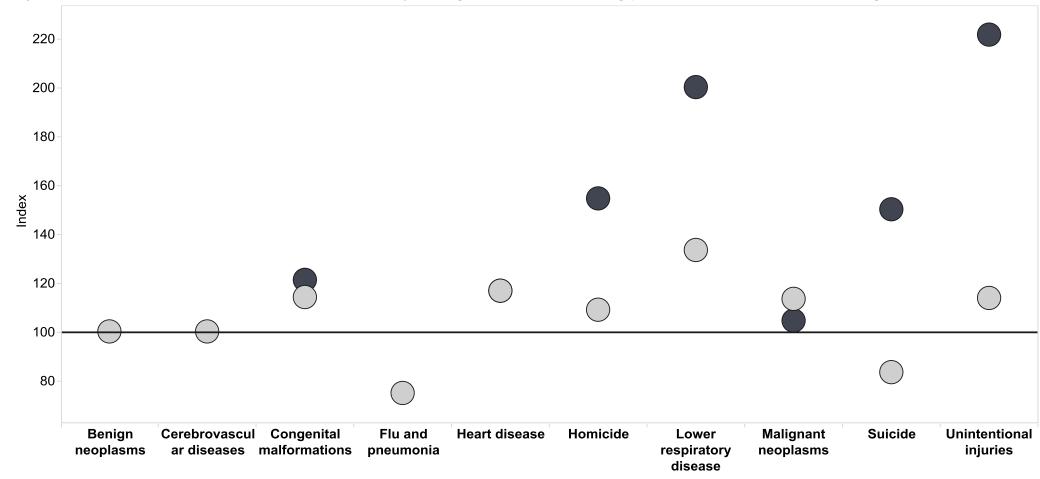
Rural

Rural

HHS Region #6 AR, LA, NM, OK, TX

Region

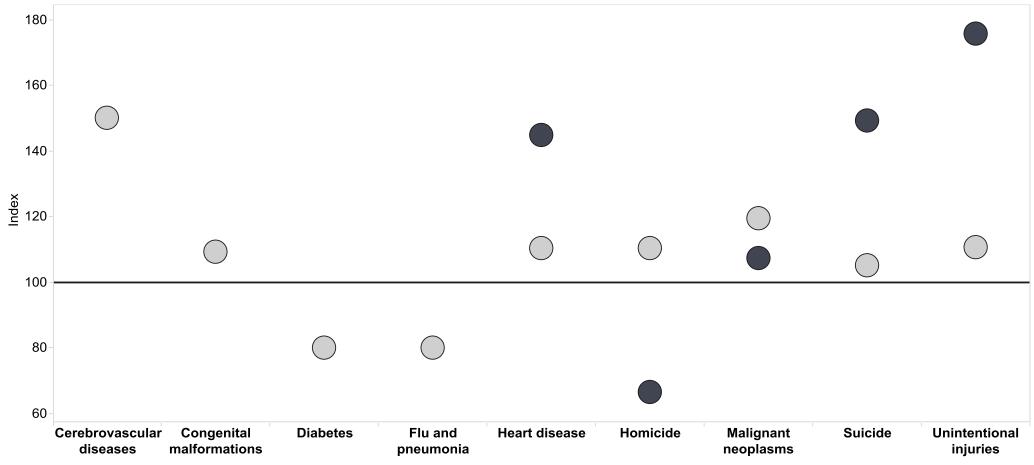
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013



Region

Please select: **Rural-Urban Status** Urban 15 to 24 Rural Male Sex HHS Region #6 AR, LA, NM, OK, TX

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013



Please select:

Age

15 to 24

Sex

Female

Rural-Urban Status

Urban

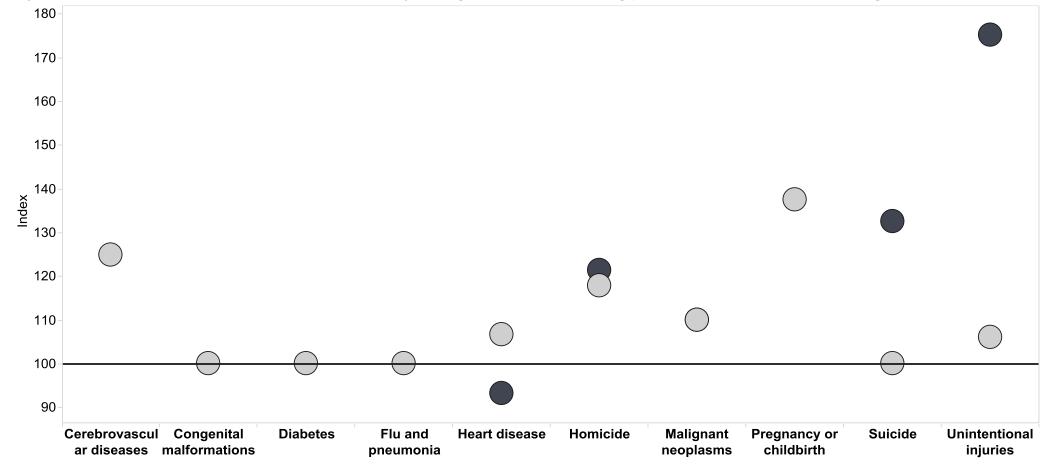
Rural

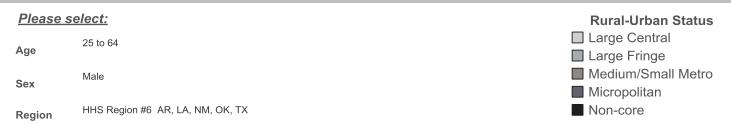
Rural

HHS Region #6 AR, LA, NM, OK, TX

Region

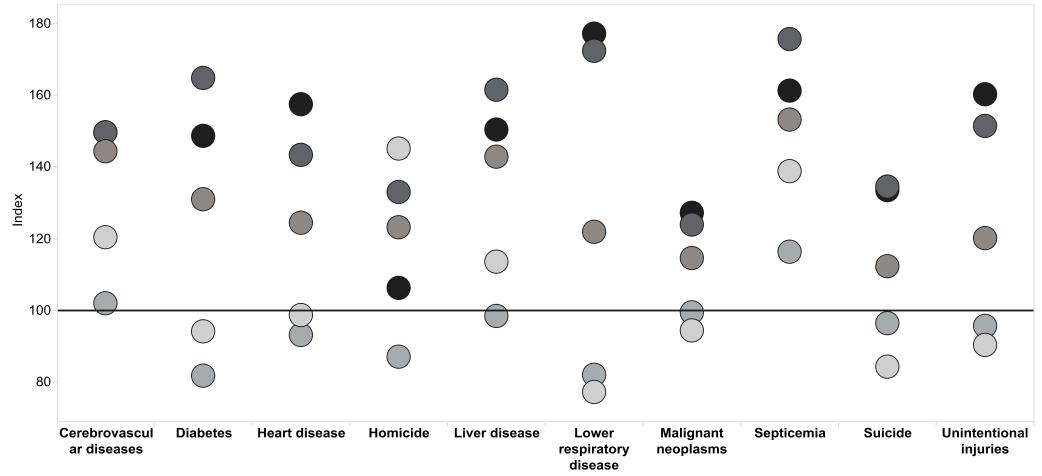
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013

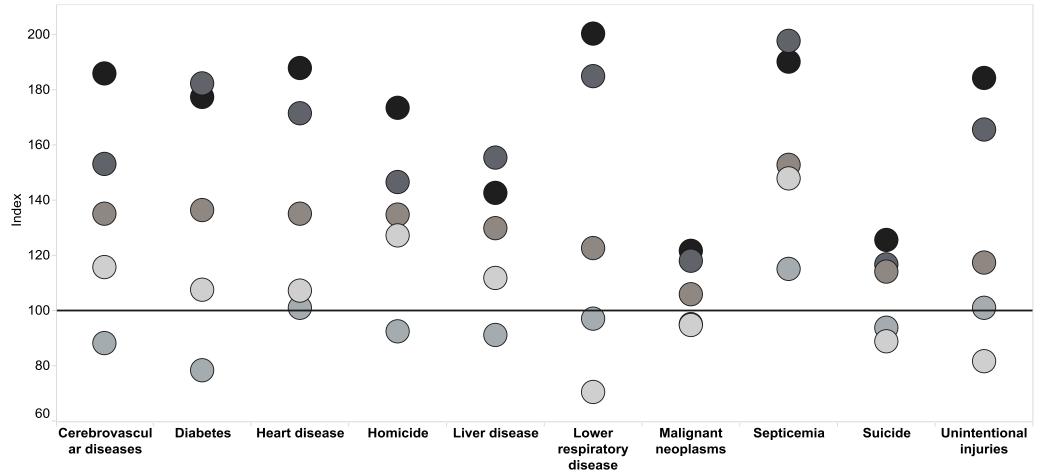
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please se	elect:	Rural-Urban Status
	25 to 64	■ Large Central
Age		■ Large Fringe
Sex	Female	■ Medium/Small Metro
		Micropolitan
Region	HHS Region #6 AR, LA, NM, OK, TX	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013

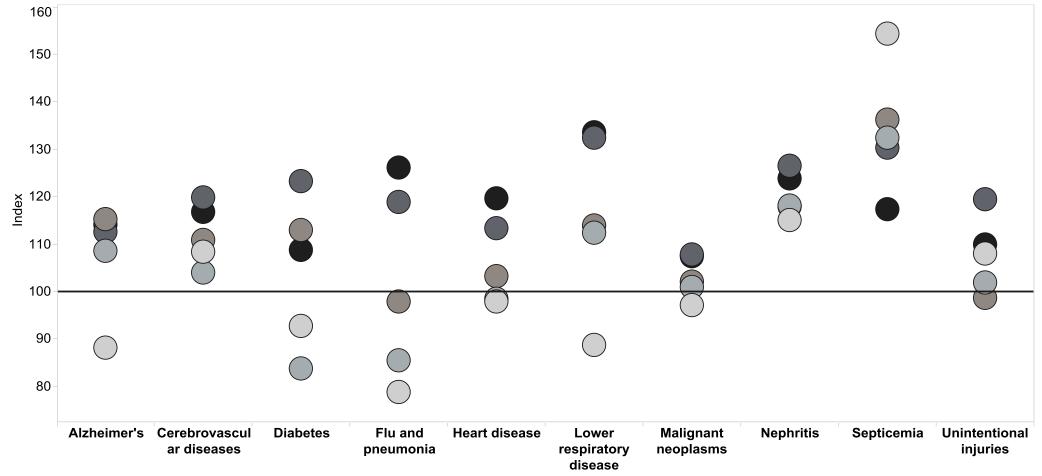
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	65 and older	☐ Large Central
Age		☐ Large Fringe
Sex	Male	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #6 AR, LA, NM, OK, TX	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013

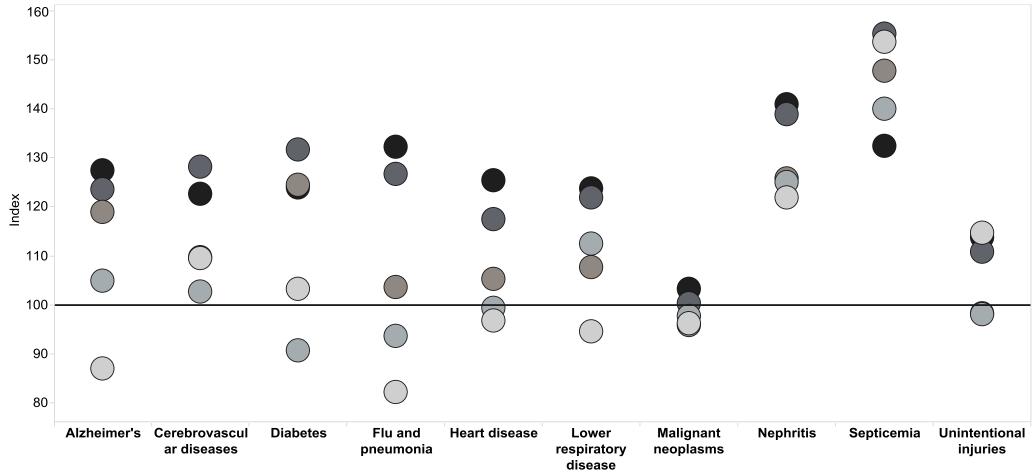
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	65 and older	☐ Large Central
Age .		☐ Large Fringe
Sex	Female	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #6 AR, LA, NM, OK, TX	■ Non-core
Region	HHS Region #6 AR, LA, NM, OK, TX	■ Non-core

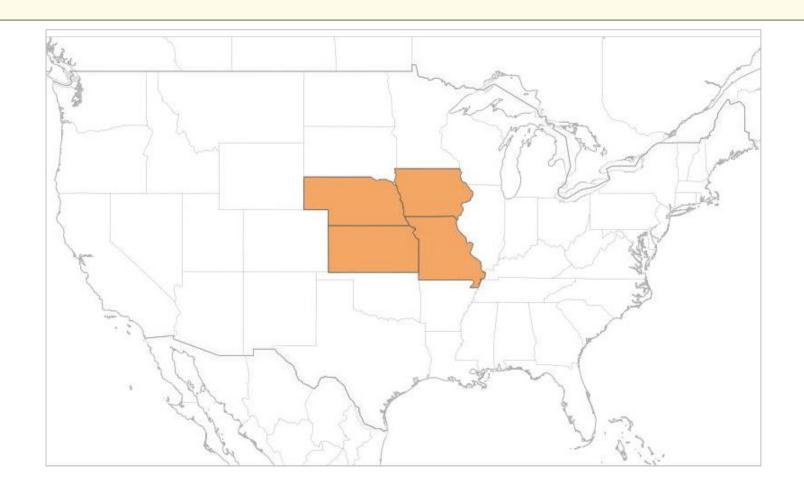
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #6 AR, LA, NM, OK, TX, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 7

Iowa, Kansas, Missouri, and Nebraska





Index for Regional Mortality Rates of Region 7, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 50: Age Under 1 Years, Both Sexes
- Figure 51: Age 1 to 14 Years, Both Sexes
- Figure 52: Age 15 to 24 Years, Males
- Figure 53: Age 15 to 24 Years, Female
- Figure 54: Age 25 to 64 Years, Male
- Figure 55: Age 25 to 64 Years, Female
- Figure 56: Age ≥65 Years, Male
- Figure 57: Age ≥65 Years, Female

Please select:

Age

Under 1

Urban
Rural
Rural

Sex

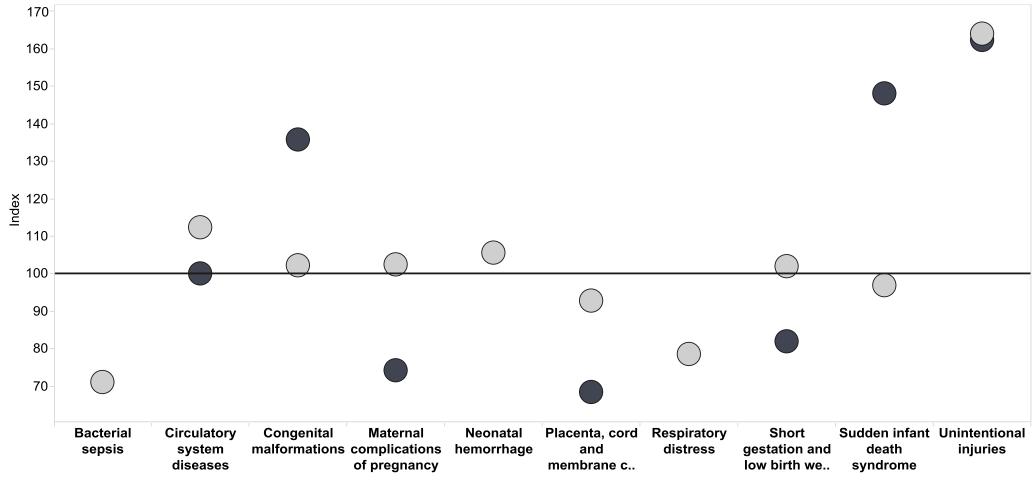
Both sexes

HHS Region #7 IA, KS, MO, NE

Region

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013

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



Please select:

Age

1 to 14

Both sexes

Both sexes

Rural-Urban Status

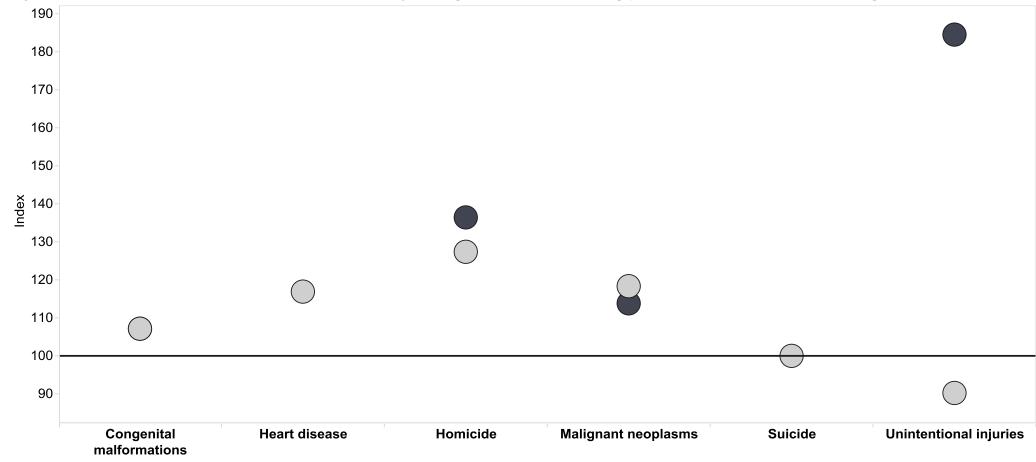
Urban

Rural

Rural

Region HHS Region #7 IA, KS, MO, NE

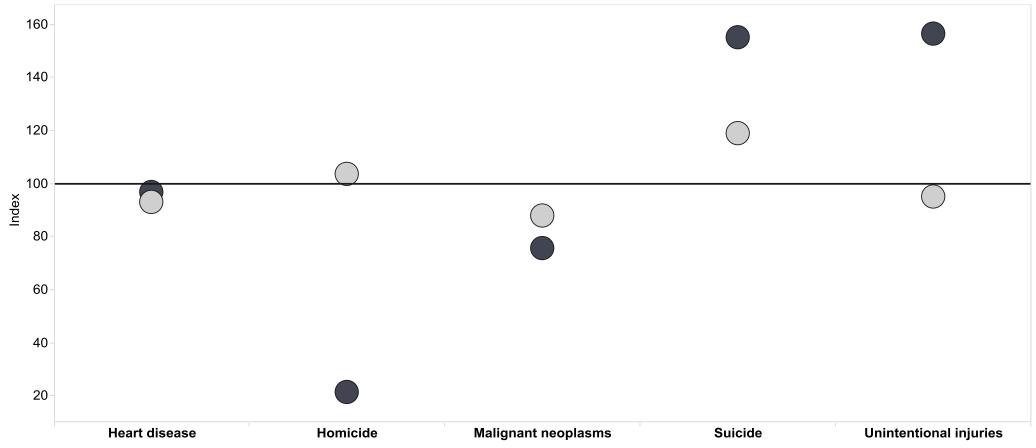
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013



Region

Please select:		Rural-Urban Status
A	15 to 24	☐ Urban
Age		Rural
Sex	Male	
Posion	HHS Region #7 IA, KS, MO, NE	

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013



Please select:

Age

15 to 24

Sex

Rural-Urban Status

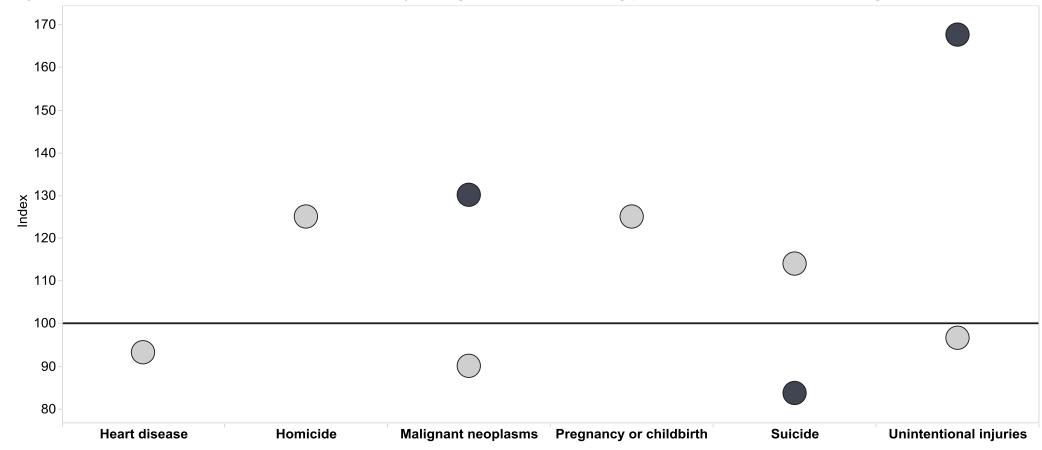
□ Urban
Rural

Rural

HHS Region #7 IA, KS, MO, NE

Region

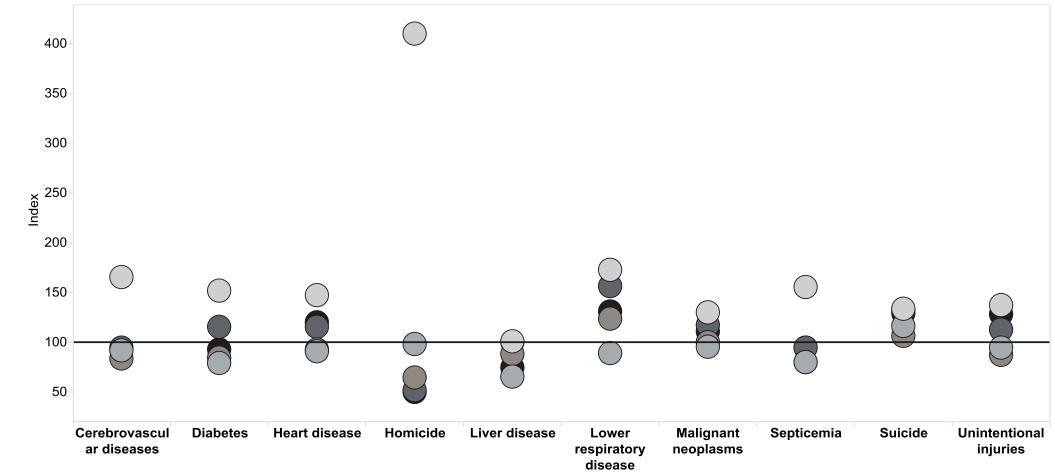
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013



Please select:		Rural-Urban Status
	25 to 64	☐ Large Central
Age		☐ Large Fringe
Sex	Male	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #7 IA, KS, MO, NE	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013

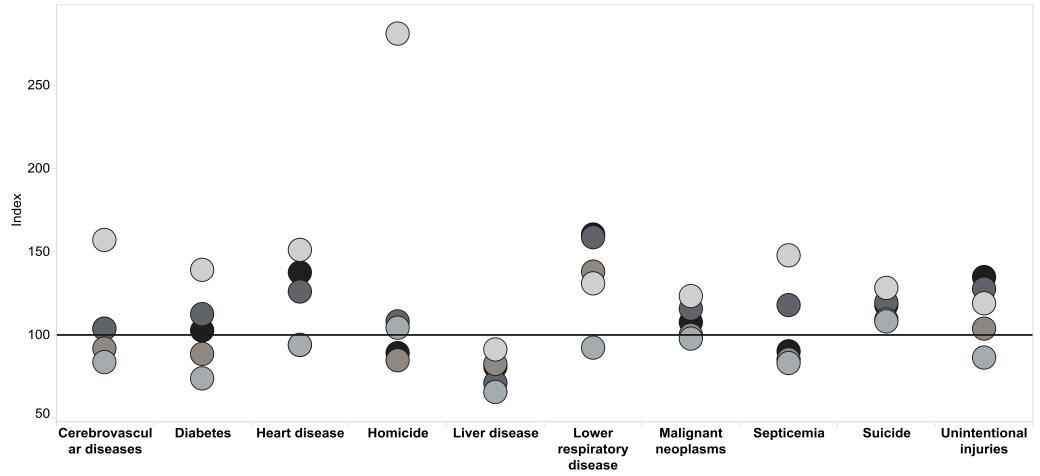
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



<u>Please s</u>	elect:	Rural-Urban Status
	25 to 64	☐ Large Central
Age		☐ Large Fringe
Sex	Female	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #7 IA, KS, MO, NE	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013

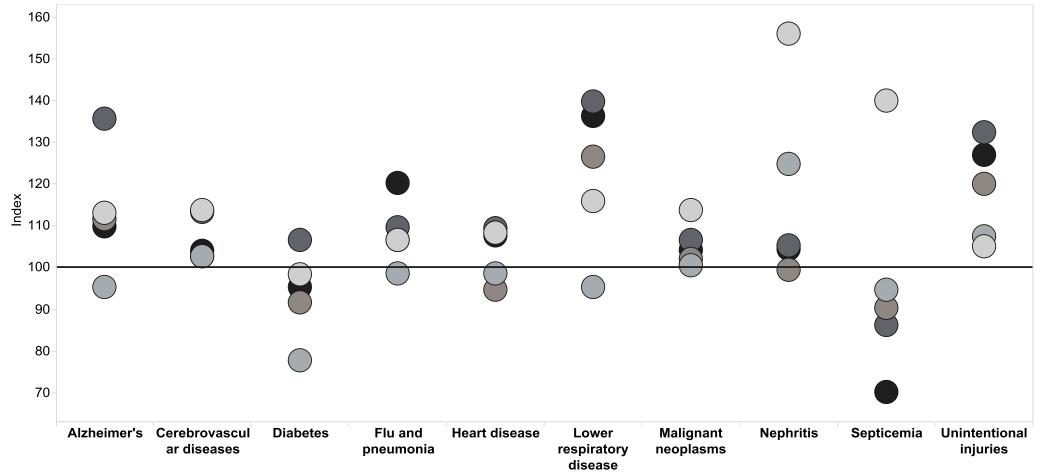
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please se	elect:	Rural-Urban Status
65 ar	5 and older	☐ Large Central
Age		☐ Large Fringe
Sex	Male	■ Medium/Small Metro
		Micropolitan
Region	HHS Region #7 IA, KS, MO, NE	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013

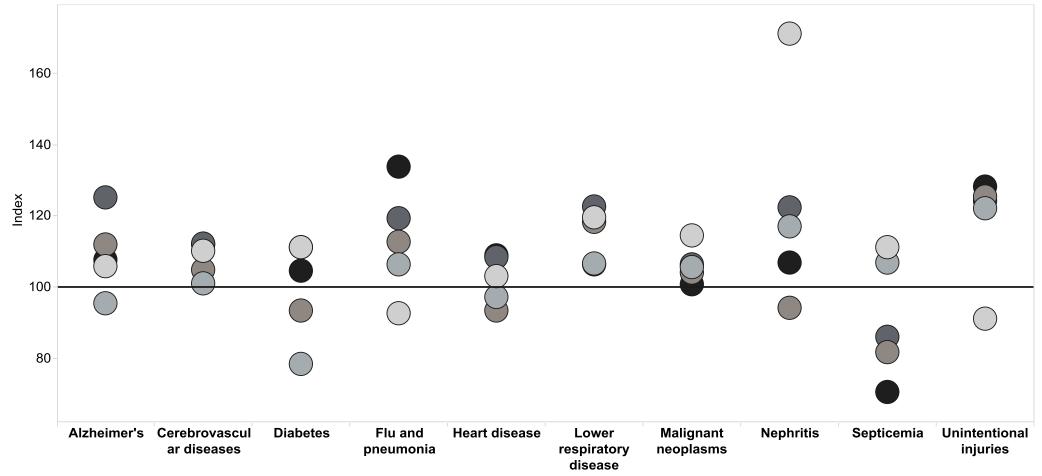
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please se	elect:	Rural-Urban Status
	65 and older	Large Central
Age		Large Fringe
Sex	Female	Medium/Small Metro
		Micropolitan
Region	HHS Region #7 IA, KS, MO, NE	Non-core

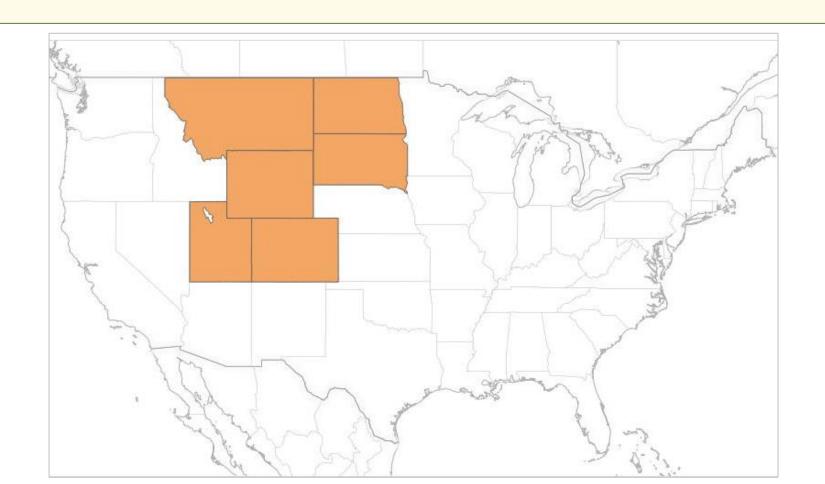
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #7 IA, KS, MO, NE, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 8

Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming





Index for Regional Mortality Rates of Region 8, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 58: Age Under 1 Years, Both Sexes
- Figure 59: Age 1 to 14 Years, Both Sexes
- Figure 60: Age 15 to 24 Years, Males
- Figure 61: Age 15 to 24 Years, Female
- Figure 62: Age 25 to 64 Years, Male
- Figure 63: Age 25 to 64 Years, Female
- Figure 64: Age ≥65 Years, Male
- Figure 65: Age ≥65 Years, Female

Please select:

Age

Under 1

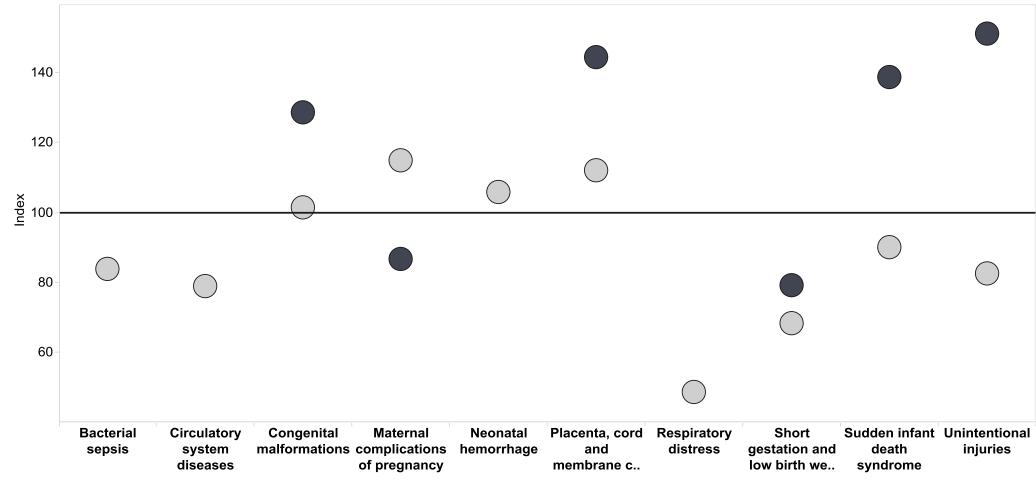
Urban
Rural

Rural

Both sexes

Region #8 CO, MT, ND, SD, UT, WY

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

Age

1 to 14

Both sexes

Bural-Urban Status

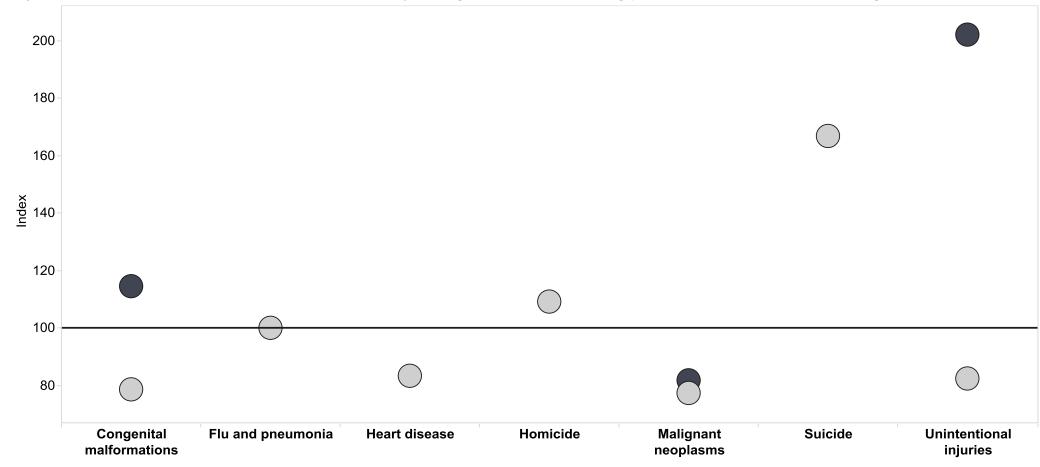
□ Urban

Rural

Rural

HHS Region #8 CO, MT, ND, SD, UT, WY

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013





Region

Please select:

Age

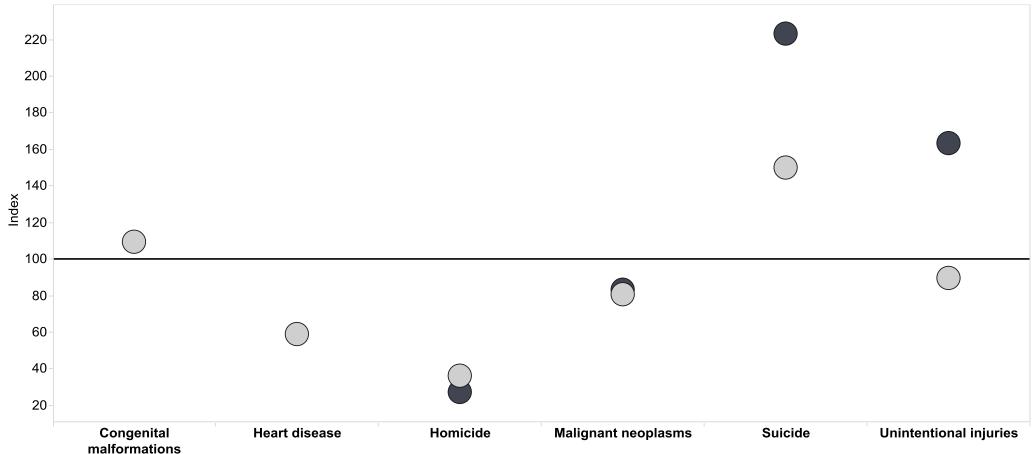
15 to 24

Sex

Rural-Urban Status
Urban
Rural
Rural

HHS Region #8 CO, MT, ND, SD, UT, WY

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013



Region

Please select:

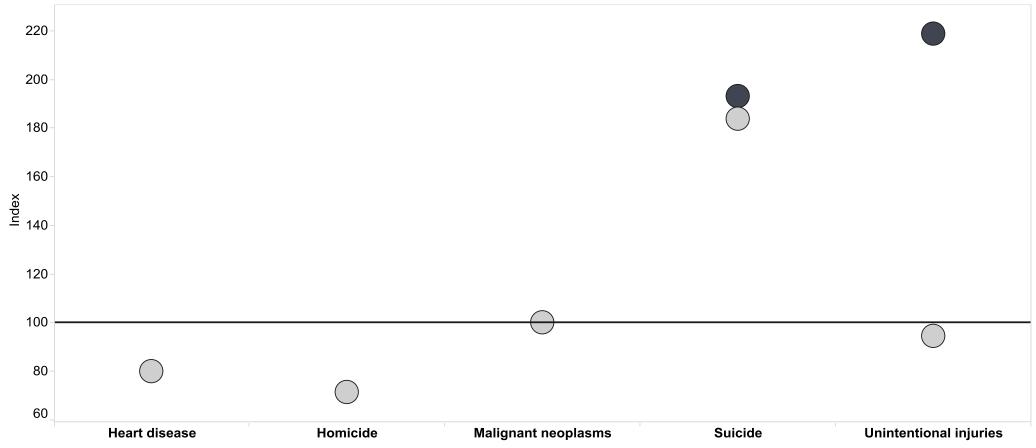
Age

15 to 24

Control

HHS Region #8 CO, MT, ND, SD, UT, WY

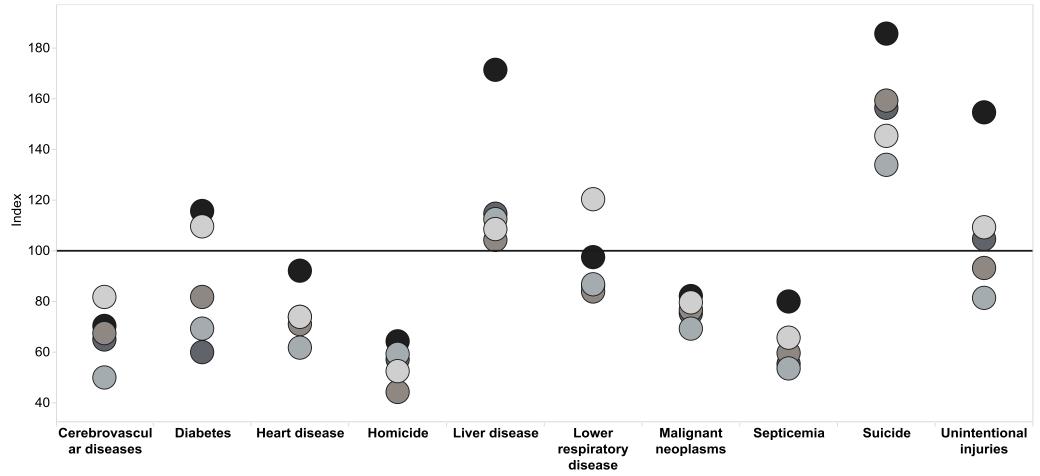
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013



Please select:		Rural-Urban Status	
	25 to 64	☐ Large Central	
Age		Large Fringe	
Sex	Male	■ Medium/Small Metro	
		Micropolitan	
Region	HHS Region #8 CO, MT, ND, SD, UT, WY	■ Non-core	

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013

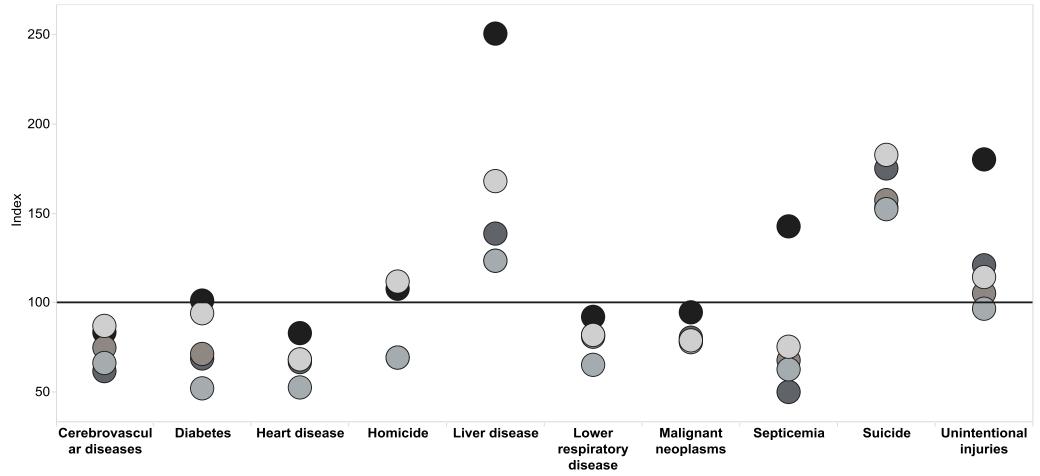
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please s	select:	Rural-Urban Status
	25 to 64	☐ Large Central
Age		■ Large Fringe
Sex	Female	■ Medium/Small Metro
		Micropolitan
Region	HHS Region #8 CO, MT, ND, SD, UT, WY	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013

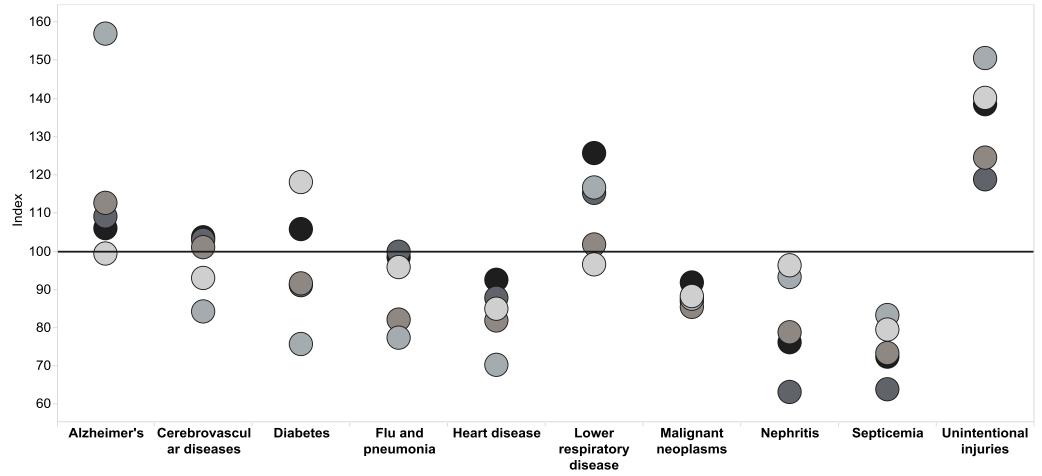
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013

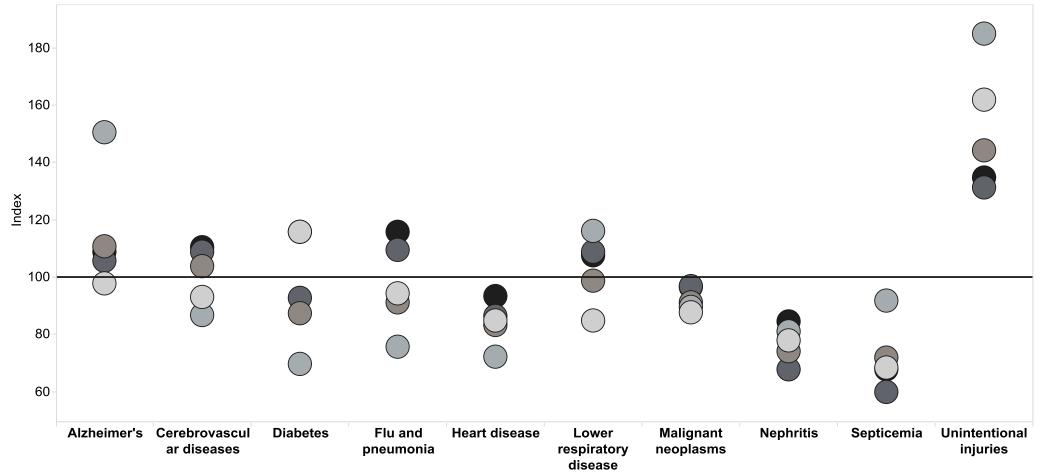
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.





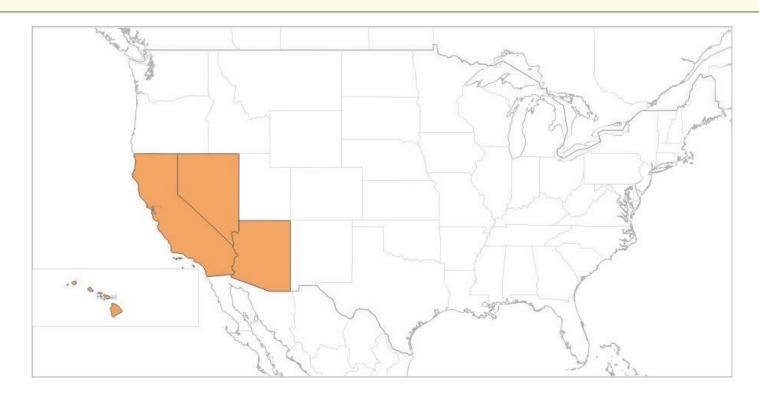
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #8 CO, MT, ND, SD, UT, WY, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 9²

Arizona, California, Hawaii, and Nevada



²Note: Deaths of nonresidents including those in American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau are excluded.

http://www.hhs.gov/iea/regional/, http://wonder.cdc.gov/wonder/help/mcd.html



Index for Regional Mortality Rates of Region 9, by Rural-Urban Status: United States, 2011-2013

Persons:

- Figure 66: Age Under 1 Years, Both Sexes
- Figure 67: Age 1 to 14 Years, Both Sexes
- Figure 68: Age 15 to 24 Years, Males
- Figure 69: Age 15 to 24 Years, Female
- Figure 70: Age 25 to 64 Years, Male
- Figure 71: Age 25 to 64 Years, Female
- Figure 72: Age ≥65 Years, Male
- Figure 73: Age ≥65 Years, Female

Please select:

Age

Under 1

Both sexes

Rural-Urban Status

Urban

Rural

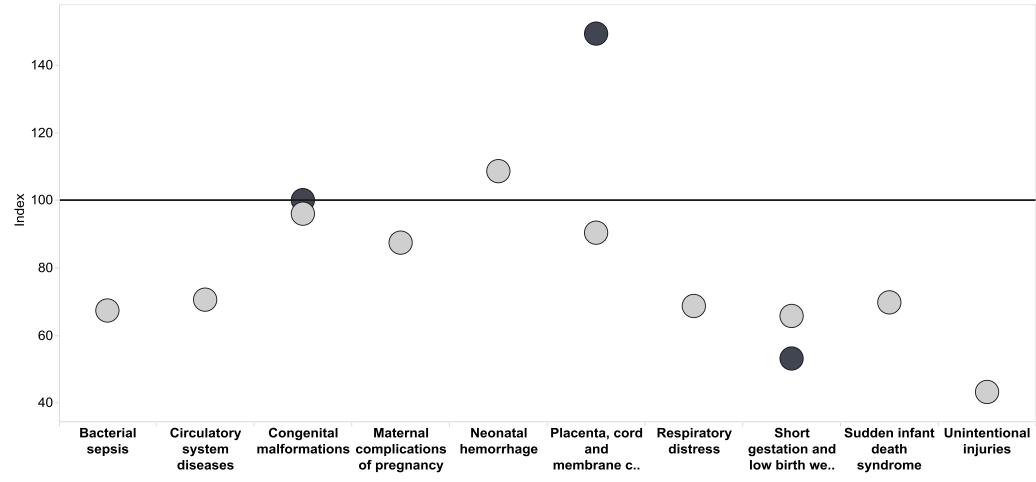
Rural

HHS Region #9 AZ, CA, HI, NV

Region

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013

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





Please select:

Age

1 to 14

Urban

Rural-Urban Status

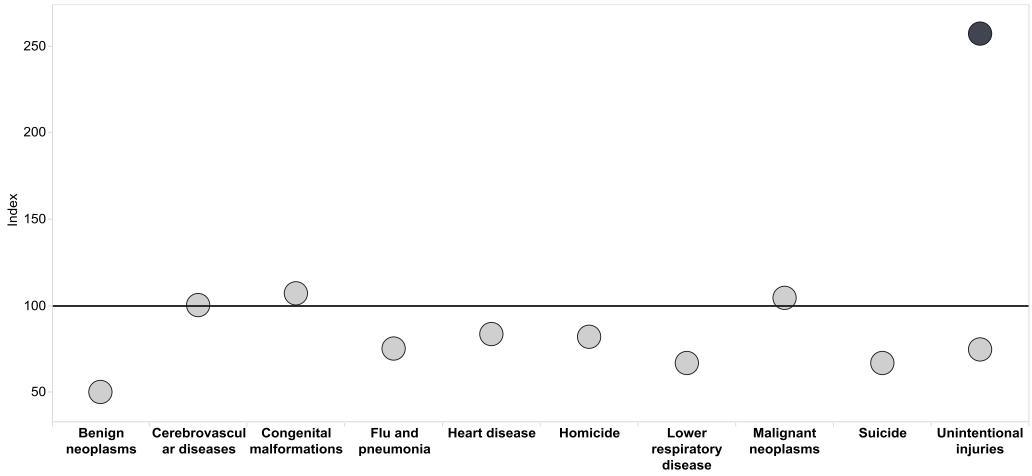
Urban

Rural

Rural

Region HHS Region #9 AZ, CA, HI, NV

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013





Please select:

Sural-Urban Status

Urban

Age

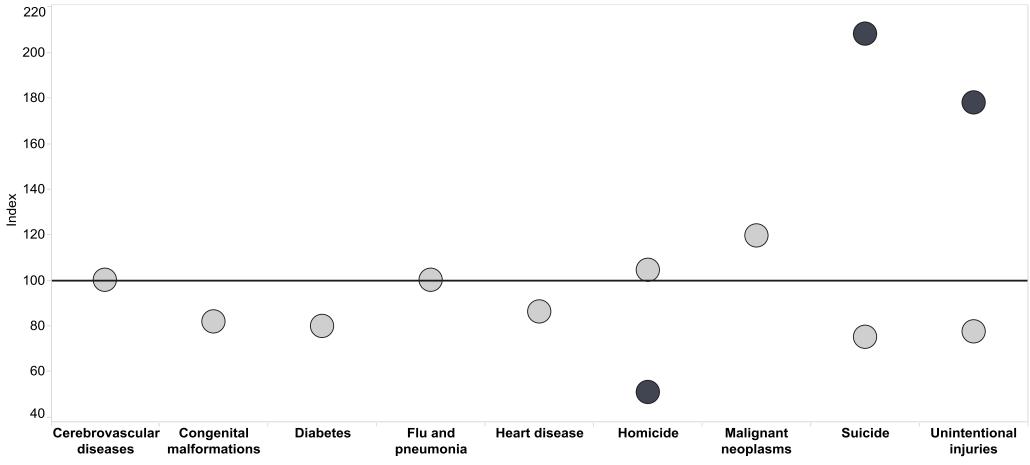
Rural

Rural

Sex Male

Region HHS Region #9 AZ, CA, HI, NV

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013





Please select:

Age

15 to 24

Sex

Rural-Urban Status

Urban

Rural

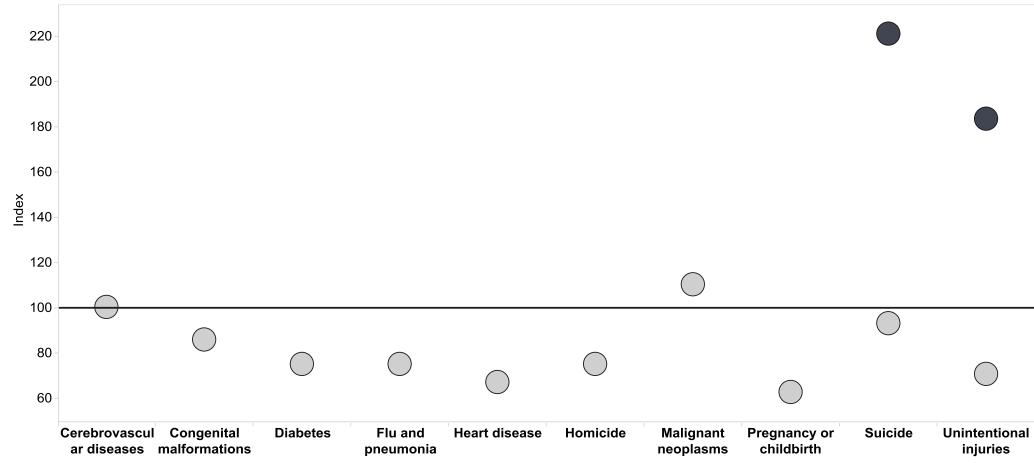
Rural

Rural

HHS Region #9 AZ, CA, HI, NV

Region

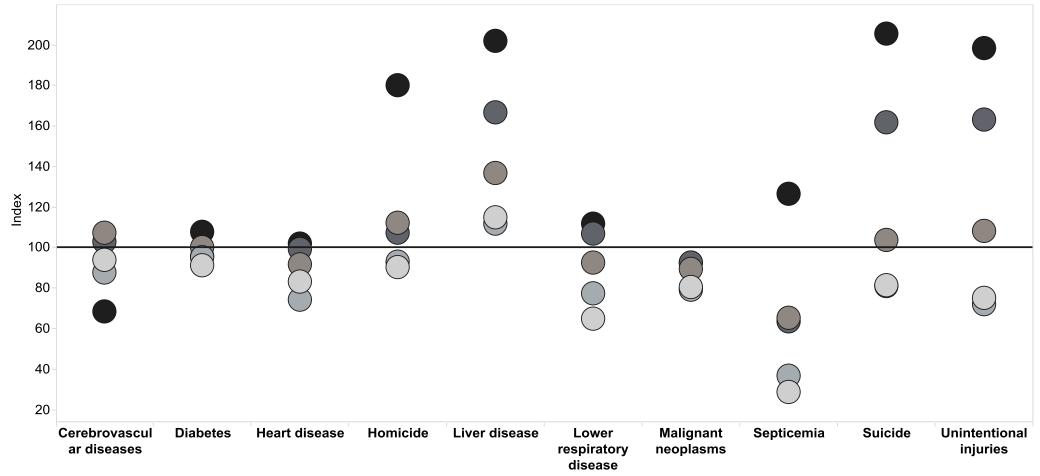
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013





Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013

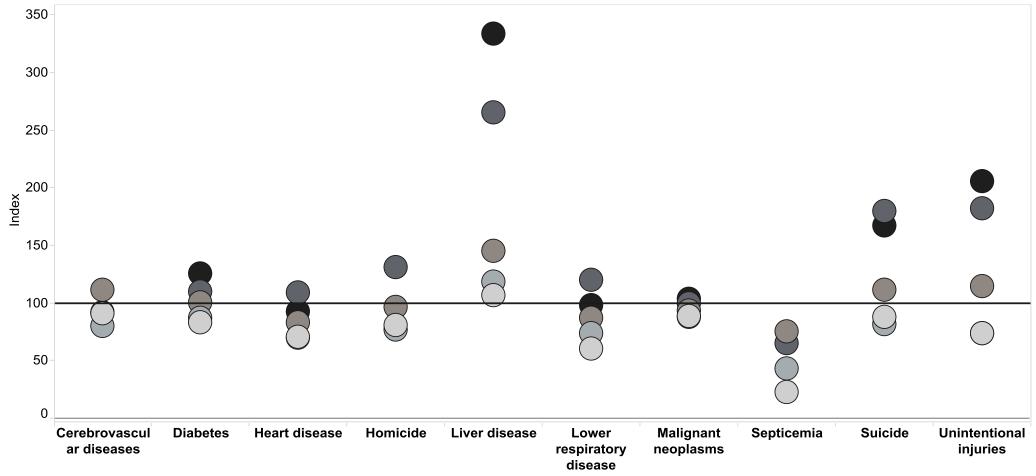
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please s	select:	Rural-Urban Status
	25 to 64	☐ Large Central
Age		■ Large Fringe
Sex	Female	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #9 AZ, CA, HI, NV	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013

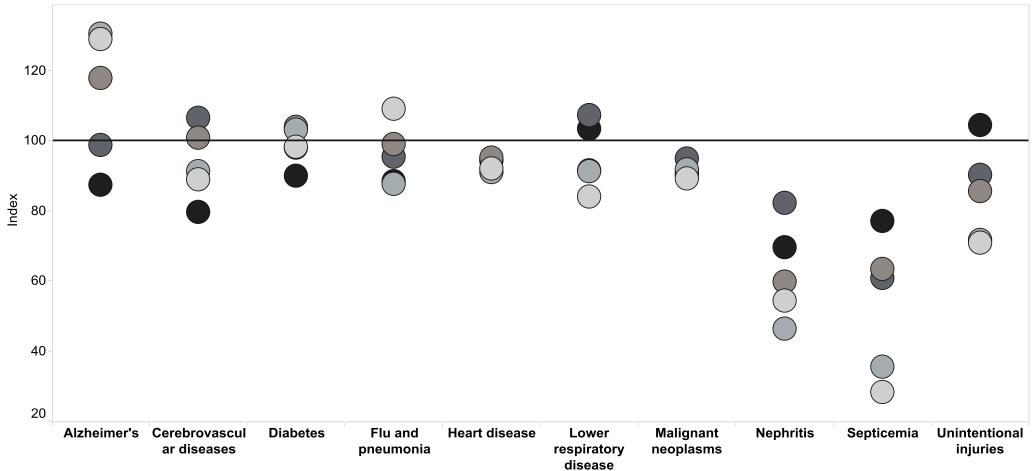
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



<u>Please se</u>	elect:	Rural-Urban Status
	65 and older	☐ Large Central
Age		☐ Large Fringe
Sex	Male	■ Medium/Small Metro
		■ Micropolitan
Region	HHS Region #9 AZ, CA, HI, NV	■ Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013

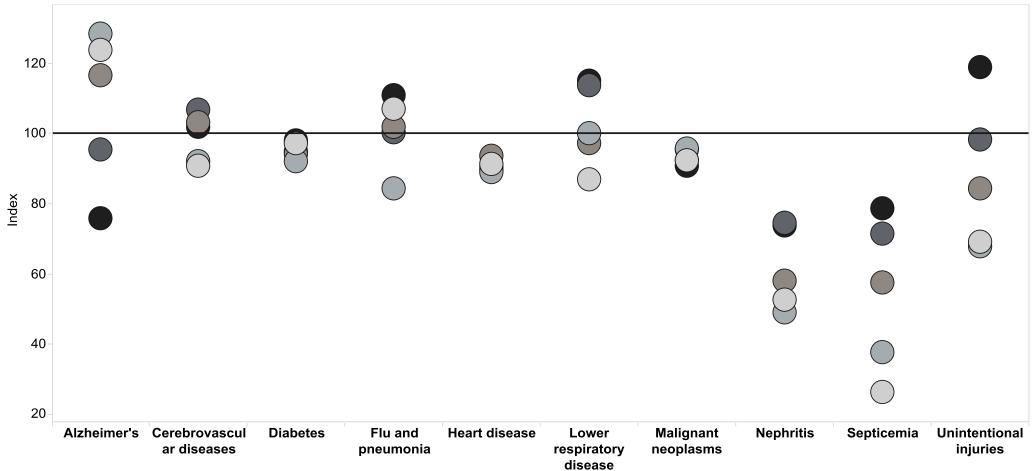
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
Age	65 and older	☐ Large Central
		Large Fringe
Sex	Female	Medium/Small Metro
		Micropolitan
Region	HHS Region #9 AZ, CA, HI, NV	Non-core

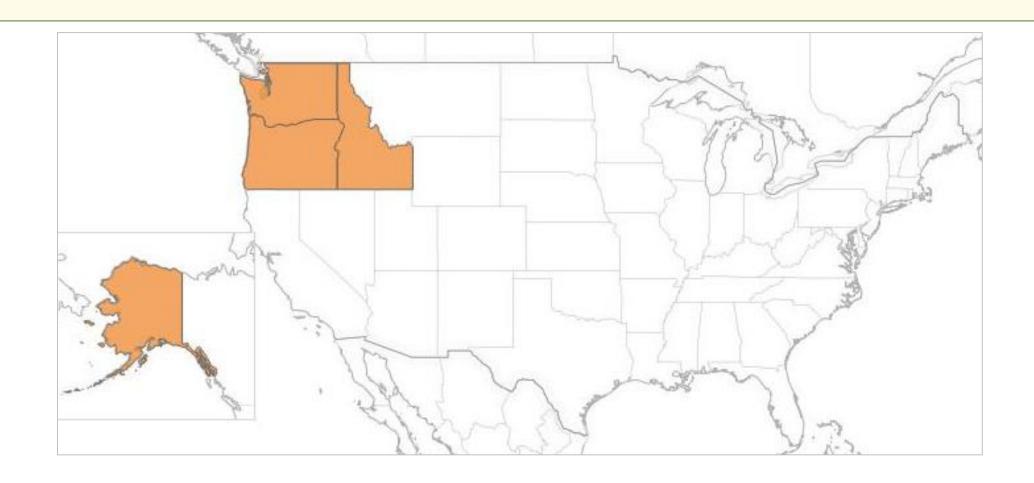
Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #9 AZ, CA, HI, NV, by Rural-Urban Status: United States, 2011-2013

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



HHS Region 10

Alaska, Idaho, Oregon, and Washington





Index for Regional Mortality Rates of Region 10, by Rural-Urban Status: United States, 2011-2013

Persons:

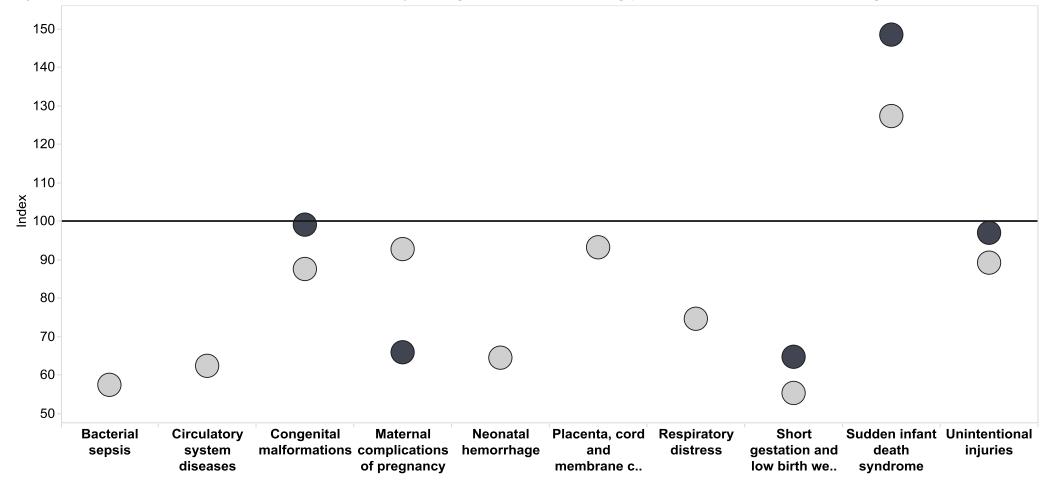
- Figure 74: Age Under 1 Years, Both Sexes
- Figure 75: Age 1 to 14 Years, Both Sexes
- Figure 76: Age 15 to 24 Years, Males
- Figure 77: Age 15 to 24 Years, Female
- Figure 78: Age 25 to 64 Years, Male
- Figure 79: Age 25 to 64 Years, Female
- Figure 80: Age ≥65 Years, Male
- Figure 81: Age ≥65 Years, Female

Region

Please select: **Rural-Urban Status** Urban Under 1 Rural Both sexes Sex HHS Region #10 AK, ID, OR, WA

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age Under 1, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

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



Please select:

Age

1 to 14

Both sexes

Both sexes

Rural-Urban Status

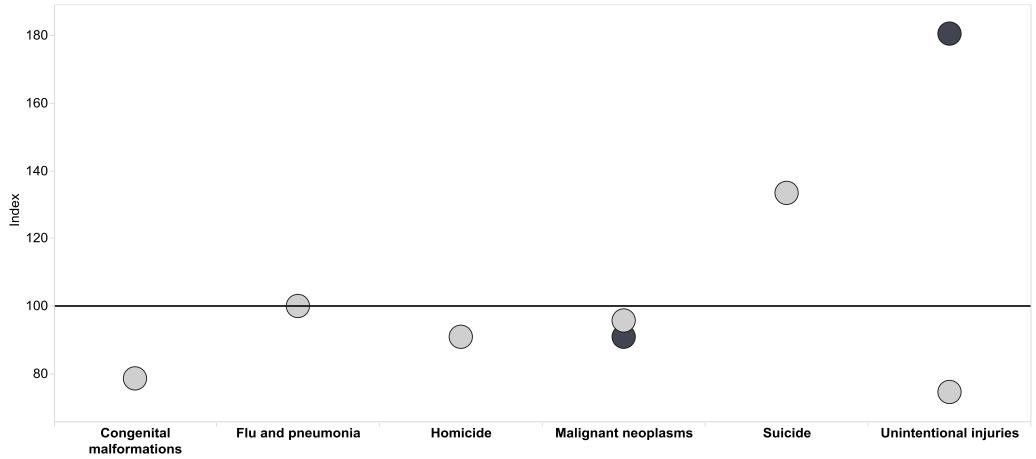
Urban

Rural

Region HHS Region #10 AK, ID, OR, WA

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Both sexes) Age 1 to 14, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

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





Please select:

Age

15 to 24

Age

Male

Rural-Urban Status

Urban

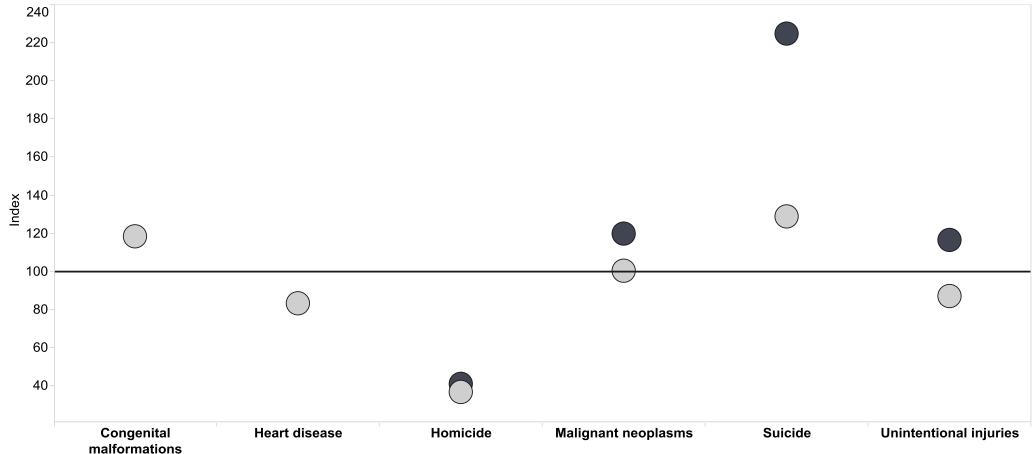
Rural

Rural

Region HHS Region #10 AK, ID, OR, WA

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 15 to 24, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

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



Please select:

Age

15 to 24

Sex

Rural-Urban Status

Urban

Rural

Rural

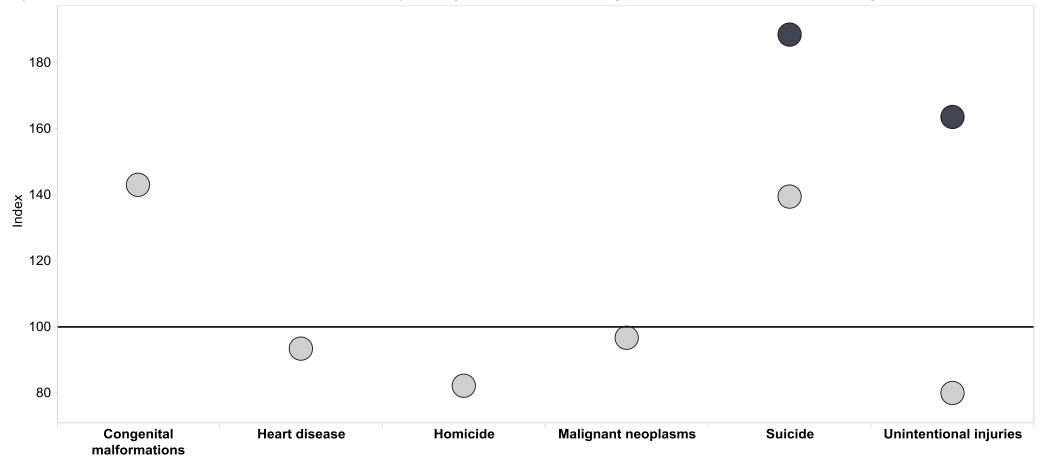
Rural

HHS Region #10 AK, ID, OR, WA

Region

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 15 to 24, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

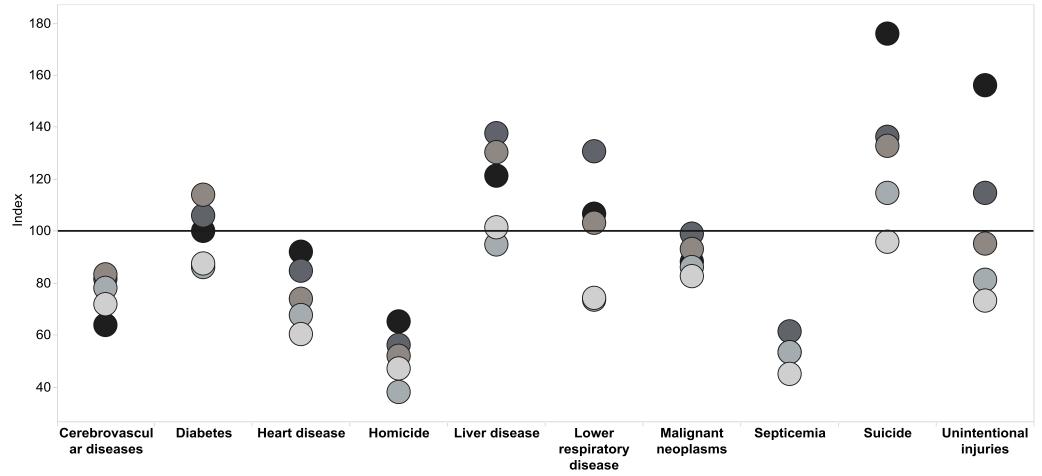
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	25 to 64	■ Large Central
Age		Large Fringe
_	Male	■ Medium/Small Metro
Sex		Micropolitan
Region	HHS Region #10 AK, ID, OR, WA	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 25 to 64, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

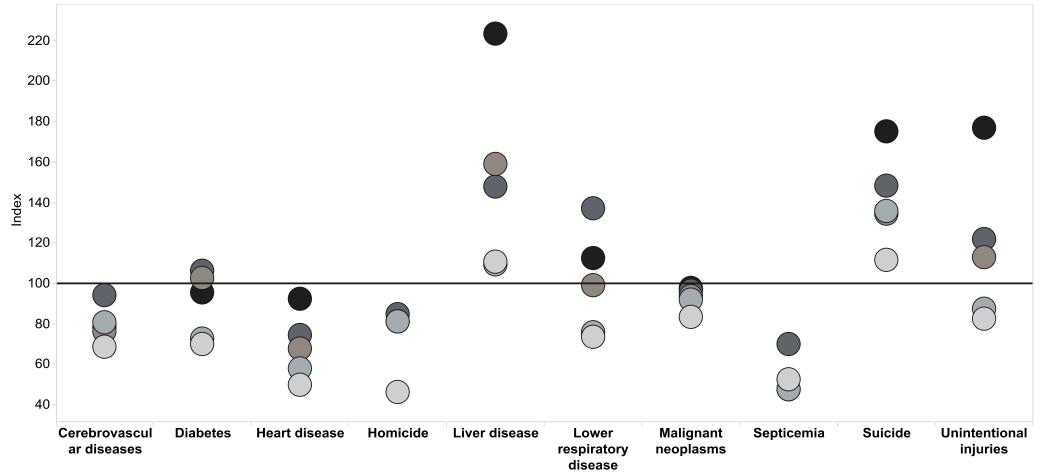
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	25 to 64	Large Central
Age		Large Fringe
_	Female	■ Medium/Small Metro
Sex		Micropolitan
Region	HHS Region #10 AK, ID, OR, WA	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 25 to 64, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

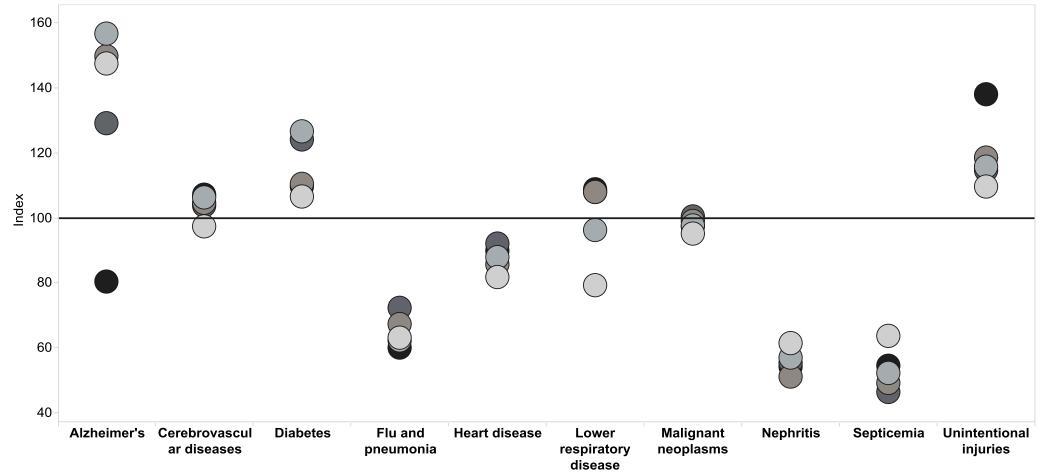
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	65 and older	■ Large Central
Age		Large Fringe
2	Male	■ Medium/Small Metro
Sex		Micropolitan
Region	HHS Region #10 AK, ID, OR, WA	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Male) Age 65 and older, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

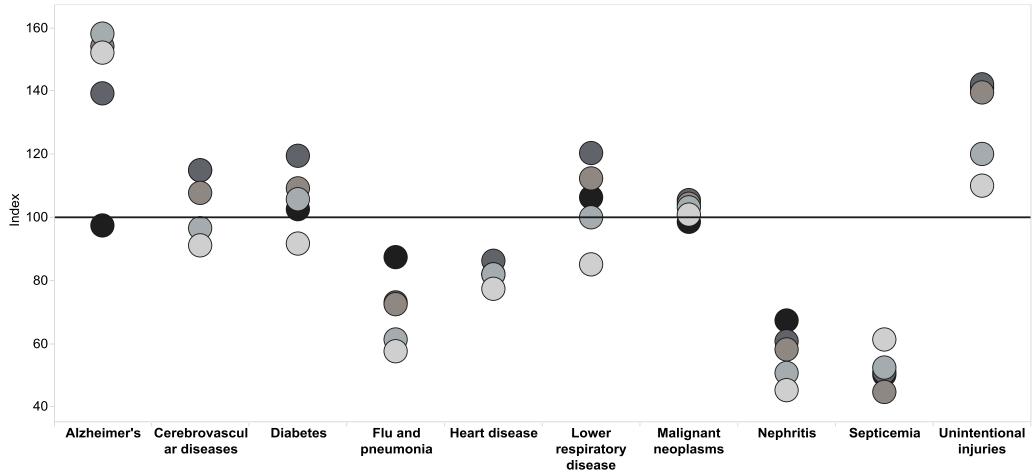
Objects above the horizontal line where index=100 indicates mortality rates higher than the national average, below the line are values below the average.



Please select:		Rural-Urban Status
	65 and older	■ Large Central
Age		■ Large Fringe
_	Female	■ Medium/Small Metro
Sex		Micropolitan
Region	HHS Region #10 AK, ID, OR, WA	Non-core

Index for Mortality Rates for Cause Related to the National Mortality Rate among Persons (Female) Age 65 and older, in HHS Region #10 AK, ID, OR, WA, by Rural-Urban Status: United States, 2011-2013

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





Summary: New England and the Mid-Atlantic States

- Cause-specific, rural mortality rates worse than the nation in:
 - Region 1, CT, ME, MA, NH, RI, VT
 - Unintentional injuries, suicide, 15-24 years of age, males.
 - Region 2, NY, NJ
 - Unintentional Injuries, 1 to 14 years.
 - Lower respiratory disease, 25 to 64 years of age, males.
 - Region 3, DE, DC, MD, PA, VA, WV
 - Congenital malformations, Sudden infant death syndrome, <1 year of age.
 - Congenital malformations, homicide, 1 to 14 years of age.
 - Unintentional injuries, 1 to 14 and 15 to 24 years of age.
 - Malignant neoplasms, heart disease, unintentional injuries, suicide, diabetes, lower respiratory, 25 to 64 years of age.







Summary: The South

- Cause-specific, rural mortality rates worse than the nation in:
 - All top-ten causes of death, 25 to 64 years and 65 or more years of age (region 4 & 6).
 - Region 4, AL, FL, GA, KY, MS, NC, SC, TN
 - Congenital malformations, sudden infant death syndrome, and respiratory distress
 year of age.
 - Unintentional injuries, heart disease, 1 to 14 years and 15 to 24 years of age.
 - Region 6, AR, LA, NM, OK, TX
 - Congenital malformations, sudden infant death syndrome, <1 year of age.
 - Unintentional injuries, homicide, lower respiratory, 1 to 14 years of age.
 - Unintentional injuries, suicide, 15 to 24 years of age.



Summary: The Midwest

- Cause-specific, rural mortality rates worse than the nation in:
 - Region 5, IL, IN, MI, MN, OH, WI
 - Unintentional injuries, <1 year of age, 1 to 14 and 15 to 24 years of age.
 - Malignant neoplasm, unintentional injuries, lower respiratory, 25 to 64 years of age.







Summary: The Plains, and Rockies

- Cause-specific, rural mortality rates worse than the nation in:
 - Unintentional injuries, all ages (region 7 & 8).
 - Congenital malformation, sudden infant death, <1 year of age (region 7 & 8).
 - Suicide, 15 to 24 years of age, males (region 7 & 8), females (region 8).
 - Region 7, IA, KS, MO, NE
 - Malignant neoplasms, heart disease, suicide, lower respiratory, 25 to 64 years of age.
 - Heart disease, malignant neoplasms, lower respiratory, cerebrovascular diseases,
 Alzheimer's, flu & pneumonia, nephritis, 65 years or more.
 - Region 8, CO, MT, ND, SD, UT, WY
 - Suicide, liver disease, 25 to 64 years of age.
 - Lower respiratory, cerebrovascular diseases, Alzheimer's, 65 years of age or more.



Summary: The West Coast

- Cause-specific, rural mortality rates worse than the nation in:
 - Suicide, 15 to 24, 25 to 64 years of age (region 9 & 10).
 - Lower respiratory, 65 years or more of age (region 9 & 10).
 - Region 9, AZ, CA, HI, NV
 - Unintentional injuries, 1 to 14, 15 to 24, and 25 to 64 years of age.
 - Liver disease, 25 to 64 years of age.
 - Region 10, AK, ID, OR, WA
 - Sudden infant death syndrome, <1 year of age.
 - Unintentional injuries, age 1 or more.
 - Liver disease, lower respiratory, 25 to 64 years of age.
 - Cerebrovascular diseases, Alzheimer's, 65 years or more of age.





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



Appendix A: Overlapping Point

- Graphs with less than two (0 to 24 years of age) or five points (25+ years of age) indicate either 1) overlapping data or 2) suppressed or unreliable data.
- Appendix A lists all overlapping points allowing users to ascertain the suppressed and unreliable estimates.
- Overlapping points do not imply equality between two mortality rates. Please see the data tables for exact rates.
- Numbers are used to indicate overlap as more than one overlap may be present within an Age, Sex, Region, Disease combination.



Appendix A: Overlapping Points by Region and Disease, Under 1 Year of Age

		Rural-Urban Status				
Region	Disease	Urban	Rural			
HHS 6	Bacteria Septicemia	1	1			

Bacterial Septicemia, Age <1, Region 6 values are relatively close and almost appear to overlap. As such, we indicate the overlap with a value of 1 across the row.



Appendix A: Overlapping Points by Region and Disease, 1 to 14 Years of Age

		Rural-Urban Status			
Region	Disease	Urban	Rural		
HHS 4	Benign Neoplasms	1	1		
HHS 4	Flu and Pneumonia	1	1		
HHS 5	Homicide	1	1		
HHS 5	Flu and Pneumonia	1	1		
HHS 6	Heart Disease	1	1		
HHS 7	Congenital Malformations	1	1		

Overlapping points are represented across the rows, not the columns. For example, Region 4 has an overlapping point at Benign Neoplasms.



Appendix A: Overlapping Points by Region, Sex, Disease, 15 to 24 Years of Age

			Rural-Urban Status		
Region	Sex	Disease	Urban	Rural	
HHS 5	Males	Heart Disease	1	1	
HHS 5	Females	Heart Disease	1	1	
HHS 6	Females	Malignant Neoplasms	1	1	

Overlapping points are represented across the rows, not the columns. For example, Region 5, Males has an overlapping point at Heart Disease.



Appendix A: Overlapping Points by Region, Sex, Disease, 25 to 64 years of age, Region 1 to 5

	Rural-Urban Status						
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 1	Males	Heart Disease			1	1	
HHS 1	Males	Suicide	1	1			
HHS 1	Females	Homicide	1		1		
HHS 2	Males	Cerebrovascular diseases		1			1
HHS 2	Males	Heart Disease	1		1		
HHS 2	Males	Suicide			1	1	
HHS 2	Females	Unintentional injuries		1	1		
HHS 3	Males	Homicide		1	1	1	
HHS 3	Males	Liver disease	1		1	1	
HHS 3	Females	Lower respiratory disease	1		1		
HHS 3	Females	Septicemia			1		1
HHS 4	Females	Malignant Neoplasms	1	1			
HHS 4	Females	Septicemia	1	1			
HHS 5	Males	Diabetes	1		1		
HHS 5	Males	Heart Disease			1	1	
HHS 5	Males	Liver disease	1		1		
HHS 5	Males	Lower respiratory disease				1	1
HHS 5	Males	Malignant Neoplasms	1		1	1	
HHS 5	Females	Diabetes	1		1		
HHS 5	Females	Lower respiratory disease				1	1
HHS 5	Females	Septicemia	197	1			1

Overlapping points are represented across the rows, not the columns. For example, Region 1, Males has an overlapping point at Heart Disease.



Appendix A: Overlapping Points by Region, Sex, Disease, 25 to 64 years of age, Region 6 to 7

			Rural-Urban Status				
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 6	Males	Cerebrovascular diseases				1	1
HHS 6	Females	Malignant Neoplasms	1	1			
HHS 7	Males	Cerebrovascular diseases		1	1	1	1
HHS 7	Males	Heart Disease		1	1		
HHS 7	Males	Homicide				1	1
HHS 7	Males	Liver disease	1			1	
HHS 7	Males	Septicemia		1	1	2	2
HHS 7	Males	Suicide	1			1	1
HHS 7	Females	Cerebrovascular diseases				1	1
HHS 7	Females	Heart Disease					
HHS 7	Females	Malignant Neoplasms		1	1		
HHS 7	Females	Suicide		1	1	2	2

Overlapping points are represented across the rows, not the columns. For example, Region 6, Males has an overlapping point at Cerebrovascular diseases. Numbers are used to indicate overlap as more than one overlap may be present within an Age, Sex, Region, Disease combination.



Appendix A: Overlapping Points by Region, Sex, Disease, 25 to 64 years of age, Region 8 to 10

			Rural-Urban Status				
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 8	Males	Heart Disease	1			1	
HHS 8	Males	Lower respiratory disease		1	1	1	
HHS 8	Females	Heart Disease	1		1	1	
HHS 8	Females	Homicide		1	1		
HHS 8	Females	Liver disease		1	1		
HHS 8	Females	Lower respiratory disease	1		1	1	
HHS 8	Females	Malignant Neoplasms	1	1	1		
HHS 8	Females	Suicide		1	1		1
HHS 9	Males	Diabetes		1		1	
HHS 9	Males	Malignant Neoplasms	2	2		1	1
HHS 9	Males	Suicide	1	1			
HHS 9	Females	Cerebrovascular diseases	1			1	1
HHS 9	Females	Heart Disease	1	1			
HHS 9	Females	Malignant Neoplasms	1	1			
HHS 9	Females	Unintentional injuries	1	1			
HHS 10	Males	Diabetes	1	1			
HHS 10	Males	Lower respiratory disease	1	1			
HHS 10	Males	Septicemia		1	1		
HHS 10	Females	Cerebrovascular diseases		1	1		1
HHS 10	Females	Homicide		1	1		
HHS 10	Females	Liver disease	1	1			
HHS 10	Females	Septicemia		1	1		
HHS 10	Females	Suicide		1	1		



Appendix A: Overlapping Points by Region, Sex, Disease, 65+ years of age, Region 1 to 3

	Sex	Disease	Rural-Urban Status					
Region			Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core	
HHS 1	Males	Flu and Pneumonia	1		1			
HHS 1	Males	Malignant Neoplasms		1	1			
HHS 1	Males	Unintentional injuries		2	2	1	1	
HHS 1	Females	Heart Disease		1			1	
HHS 1	Females	Lower respiratory disease				1	1	
HHS 1	Females	Malignant Neoplasms		1	1	1		
HHS 1	Females	Nephritis				1	1	
HHS 2	Males	Diabetes			1	1		
HHS 2	Males	Heart Disease		1	1			
HHS 2	Males	Nephritis		1	1			
HHS 2	Females	Cerebrovascular diseases			1	1		
HHS 2	Females	Malignant Neoplasms			1		1	
HHS 3	Males	Cerebrovascular diseases		1	1			
HHS 3	Males	Flu and Pneumonia		1	1			
HHS 3	Males	Heart Disease	2		1	2	1	
HHS 3	Males	Lower respiratory disease				1	1	
HHS 3	Males	Unintentional injuries	1			1	1	
HHS 3	Females	Cerebrovascular diseases	1		1			
HHS 3	Females	Diabetes	1		1			
HHS 3	Females	Flu and Pneumonia	1		1			
HHS 3	Females	Lower respiratory disease	1	1				
HHS 3	Females	Malignant Neoplasms		1	1			

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Appendix A: Overlapping Points by Region, Sex, Disease, 65+ years of age, Region 4 to 6

			Rural-Urban Status				
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 4	Males	Heart Disease	1		1		
HHS 4	Females	Heart Disease	1	1			
HHS 4	Females	Malignant Neoplasms		1	1	2	2
HHS 4	Females	Nephritis	1	1			
HHS 5	Males	Heart Disease	1		1		1
HHS 5	Males	Malignant Neoplasms				1	1
HHS 5	Males	Septicemia		1	1		
HHS 5	Females	Cerebrovascular diseases	1	1			
HHS 5	Females	Flu and Pneumonia	1	1			
HHS 5	Females	Malignant Neoplasms		1		1	1
HHS 6	Males	Heart Disease	1	1			
HHS 6	Males	Malignant Neoplasms				1	1
HHS 6	Males	Nephritis		1	1		
HHS 6	Females	Cerebrovascular diseases	1		1		
HHS 6	Females	Diabetes			1		1
HHS 6	Females	Malignant Neoplasms	1		1		
HHS 6	Females	Nephritis	1		1		

Overlapping points are represented across the rows, not the columns. For example, Region 4, Males has an overlapping point at Heart Disease. Numbers are used to indicate overlap as more than one overlap may be present within an Age, Sex, Region, Disease combination.



Appendix A: Overlapping Points by Region, Sex, Disease, 65+ years of age, Region 7 to 8

			Rural-Urban Status				
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 7	Males	Cerebrovascular diseases	2	1	1	2	
HHS 7	Males	Flu and Pneumonia	1		1		
HHS 7	Males	Heart Disease	1			1	1
HHS 7	Males	Nephritis				1	1
HHS 7	Females	Cerebrovascular diseases	1				1
HHS 7	Females	Diabetes	1			1	
HHS 7	Females	Heart Disease				1	1
HHS 7	Females	Lower respiratory disease		1			1
HHS 7	Females	Lower respiratory disease	1		1		
HHS 7	Females	Malignant Neoplasms		1	1	1	
HHS 7	Females	Unintentional injuries		1	1	1	
HHS 8	Males	Cerebrovascular diseases				1	1
HHS 8	Males	Diabetes			1	1	
HHS 8	Males	Malignant Neoplasms	1	1	1	1	
HHS 8	Females	Diabetes	1				1
HHS 8	Females	Malignant Neoplasms				1	1
HHS 8	Females	Septicemia	1				1

Overlapping points are represented across the rows, not the columns. For example, Region 7, Males has an overlapping point at Cerebrovascular diseases (Large Fringe and Medium/Small Metro). Numbers are used to indicate overlap as more than one overlap may be present within an Age, Sex, Region, Disease combination.



Appendix A: Overlapping Points by Region, Sex, Disease, 65+ years of age, Region 9 to 10

			Rural-Urban Status				
Region	Sex	Disease	Large Central	Large Fringe	Medium/Small Metro	Micropolitan	Non-core
HHS 9	Males	Diabetes	2	1	1	2	
HHS 9	Males	Flu and Pneumonia		1			1
HHS 9	Males	Heart Disease			1	1	1
HHS 9	Males	Lower respiratory disease		1	1		
HHS 9	Males	Malignant Neoplasms	1	1	1		1
HHS 9	Males	Unintentional injuries	1	1			
HHS 9	Females	Cerebrovascular diseases	1	1			
HHS 9	Females	Diabetes	2		1	1	2
HHS 9	Females	Heart Disease	1	1		1	1
HHS 9	Females	Malignant Neoplasms	1	2	1	2	
HHS 9	Females	Nephritis				1	1
HHS 10	Males	Diabetes			1		1
HHS 10	Males	Flu and Pneumonia	1	1			
HHS 10	Males	Lower respiratory disease			1	1	1
HHS 10	Males	Malignant Neoplasms		1	1		1
HHS 10	Females	Cerebrovascular diseases				1	1
HHS 10	Females	Flu and Pneumonia			1	1	
HHS 10	Females	Heart Disease		1	1		1
HHS 10	Females	Malignant Neoplasms		1	1	1	
HHS 10	Females	Unintentional injuries			1	1	1

Overlapping points are represented across the rows, not the columns. For example, Region 9, Males has an overlapping point at Diabetes(Large Fringe and Medium/Small Metro). Numbers are used to indicate overlap as more than one overlap may be present within an Age, Sex, Region, Disease combination.



For More Information

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