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

• CDC published Health United States, 2001 With Urban and Rural Health Chartbook
  • No urban/rural data update since 2001

• Purpose of this study:
  • Update of rural health status ten years later to understand trends
  • Provide baseline of rural/urban differences in health status and access to care prior to ACA implementation
Methods

• Replicated analyses conducted in 2001 using most recent data available (2006-2011)

• Used same data source, when possible:
  • National Vital Statistics System
  • Area Resource File (HRSA)
  • U.S. Census Bureau
  • National Health Interview Survey (NCHS)
  • National Hospital Discharge Survey (NCHS)
  • National Survey on Drug Use and Health (SAMHSA)
  • Treatment Episode Data Set (SAMHSA)

• Applied same geographic definitions, although classifications may have changed since 2001:
  • Metropolitan Counties: Large central, Large fringe, Small metro
  • Nonmetropolitan Counties: Micropolitan, Non-core

Counties by Region and Rurality (2013)
Overview of Presentation

- Demographics
- Mortality
- Risk factors
- Access issues
- Resources

Population: Age

Population 65 years of age and over by rurality
Population: Race and Ethnicity

- Non-Hispanic white persons represent over half of the population in fringe counties of large metro areas, small metro counties, and nonmetro counties, but only 45% in central counties.
- In the Midwest, white persons represented 81% of its population. The Northeast had a larger proportion of residents of Hispanic and Asian or Pacific Island origin compared with the Midwest.
- In the South, non-Hispanic black persons constituted a larger proportion of the population than in any other region.
- The West had a disproportionately high concentration of persons of Hispanic origin.

Population: Poverty

Population in poverty by rurality
Population: Poverty

Population in poverty by region and rurality, 2011

Mortality: Infants

Infant mortality by rurality
Mortality: Children and Young Adults

Death rates for all causes among persons 1–24 years of age by rurality

Deaths per 100,000 population

Large central  Large fringe  Small metro  Micropolitan  Non-core

Death rates for all causes among persons 1–24 years of age by region and rurality, 2008-2010

Deaths per 100,000 population

All Regions  Northeast  Midwest  South  West
Mortality: Working-Age Adults

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

Deaths per 100,000 population

<table>
<thead>
<tr>
<th>Region</th>
<th>1996-1998</th>
<th>2008-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large central</td>
<td>419.6</td>
<td>421.5</td>
</tr>
<tr>
<td>Large fringe</td>
<td>329.8</td>
<td>414.1</td>
</tr>
<tr>
<td>Small metro</td>
<td>262.5</td>
<td>346.5</td>
</tr>
<tr>
<td>Micropolitan</td>
<td>384.9</td>
<td>390.1</td>
</tr>
<tr>
<td>Non-core</td>
<td>319.1</td>
<td>399.8</td>
</tr>
</tbody>
</table>

Mortality: Working-Age Adults

Death rates for all causes among persons 25-64 years of age by region and rurality, 2008-2010

Deaths per 100,000 population

<table>
<thead>
<tr>
<th>Region</th>
<th>Large central</th>
<th>Large fringe</th>
<th>Small metro</th>
<th>Micropolitan</th>
<th>Non-core</th>
</tr>
</thead>
<tbody>
<tr>
<td>All regions</td>
<td>404</td>
<td>384</td>
<td>361</td>
<td>390</td>
<td>421</td>
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<tr>
<td>Northeast</td>
<td>346</td>
<td>361</td>
<td>390</td>
<td>421</td>
<td>450</td>
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<tr>
<td>Midwest</td>
<td>346</td>
<td>390</td>
<td>421</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>South</td>
<td>390</td>
<td>421</td>
<td>450</td>
<td>500</td>
<td>550</td>
</tr>
<tr>
<td>West</td>
<td>421</td>
<td>450</td>
<td>500</td>
<td>550</td>
<td>600</td>
</tr>
</tbody>
</table>
Mortality: Seniors

Death rates for all causes among persons 65 years of age and over by rurality

Mortality: Heart Disease

Death rates for ischemic heart disease among persons 20 years of age and over by rurality
Mortality: Chronic Obstructive Pulmonary Diseases

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

Mortality: Chronic Obstructive Pulmonary Diseases

Death rates for chronic obstructive pulmonary diseases among persons 20 years of age and over by sex and rurality
Mortality: Unintentional Injuries

Death rates for unintentional injuries by rurality

- Large central
- Large fringe
- Small metro
- Micropolitan
- Non-core

Death rates for unintentional injuries by region and rurality, 2008-2010

- All Regions
- Northeast
- Midwest
- South
- West

Deaths per 100,000 population
Mortality: Motor Vehicle Injuries

Death rates for motor vehicle traffic-related injuries by rurality

![Graph showing death rates for motor vehicle traffic-related injuries by rurality for 1996-1998 and 2008-2010.]

Mortality: Motor Vehicle Injuries

Death rates for motor vehicle traffic-related injuries by region and rurality, 2008-2010

![Bar chart showing death rates per 100,000 population for different regions and types of metropolitan areas.]

Large central
Large fringe
Small metro
Micropolitan
Non-core
Mortality: Homicide

Homicide rates by rurality

Deaths per 100,000 population

- 1996-1998
- 2008-2010

Large central  Large fringe  Small metro  Micropolitan  Non-core

Mortality: Homicide

Homicide rates by region and rurality, 2008-2010

Deaths per 100,000 population

- Large central
- Large fringe
- Small metro
- Micropolitan
- Non-core

All Regions  Northeast  Midwest  South  West
Mortality: Suicide

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

<table>
<thead>
<tr>
<th>Rurality</th>
<th>1996-1998</th>
<th>2008-2010</th>
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<tbody>
<tr>
<td>Large central</td>
<td>12.8</td>
<td>18.0</td>
</tr>
<tr>
<td>Large fringe</td>
<td>13.2</td>
<td>18.2</td>
</tr>
<tr>
<td>Small metro</td>
<td>12.6</td>
<td>16.5</td>
</tr>
<tr>
<td>Micropolitan</td>
<td>15.2</td>
<td>16.1</td>
</tr>
<tr>
<td>Non-core</td>
<td>18.0</td>
<td>20.0</td>
</tr>
</tbody>
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Mortality: Suicide

Suicide rates among persons 15 years of age and over by region and rurality, 2008-2010

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<tbody>
<tr>
<td>All Regions</td>
<td>12.8</td>
<td>13.2</td>
<td>12.6</td>
<td>15.2</td>
<td>18.0</td>
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<td>Northeast</td>
<td>12.8</td>
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<td>12.6</td>
<td>15.2</td>
<td>18.0</td>
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<tr>
<td>Midwest</td>
<td>13.2</td>
<td>15.2</td>
<td>18.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
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<td>15.2</td>
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Risk Factors: Adolescent Smoking

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

Risk Factors: Adolescent Smoking

Cigarette smoking in the past month among adolescents 12-17 years of age by region and rurality, 2010-2011
Risk Factors: Adult Smoking

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

Cigarette smoking among persons 18 years of age and older by region and rurality, 2010-2011
Risk Factors: Alcohol Consumption

Consumption of five or more alcoholic drinks in one day in the last year among persons 18-49 years of age by rurality.

Risk Factors: Alcohol Consumption

Consumption of five or more alcoholic drinks in one day in the last year among persons 18-49 years of age by region and rurality, 2010-2011.

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Risk Factors: Obesity

Obesity among persons 18 years of age and older by rurality, 2010-2011

Risk Factors: Obesity

Obesity among persons 18 years of age and older by region and rurality, 2010-2011
Risk Factors: Physical Inactivity

Physical inactivity among persons 18 years of age and older by rurality

Physical inactivity among persons 18 years of age and older by region and rurality, 2010-2011
Other Health Status: Adolescent Births

Birth rates among adolescents 15-19 years of age by rurality

Birth rates per 1,000 female adolescents:
- Large central: 59.6
- Large fringe: 36.1
- Small metro: 53.6
- Micropolitan: 54.6
- Non-core: 57.9

Birth rates among adolescents 15-19 years of age by region and rurality, 2008-2010

Births per 1,000 female adolescents:
- Large central
- Large fringe
- Small metro
- Micropolitan
- Non-core
Other Health Status: Activity Limitation

Limitation of activity caused by chronic health conditions among persons 18 years of age and older by rurality

<table>
<thead>
<tr>
<th>Region</th>
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<td>17.1</td>
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<tr>
<td>Small metro</td>
<td>14.7</td>
<td>18.8</td>
</tr>
<tr>
<td>Micropolitan counties</td>
<td>17.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Non-core</td>
<td>12.9</td>
<td>11.9</td>
</tr>
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Other Health Status: Activity Limitation

Limitation of activity caused by chronic health conditions among persons 18 years of age and older by region and rurality, 2010-2011

- All Regions
- Northeast
- Midwest
- South
- West
Health Care Access and Use: Uninsured

No health insurance coverage among persons less than 65 years of age by poverty status and rurality

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Health Care Access and Use: Uninsured

No health insurance coverage among persons less than 65 years of age by region and rurality, 2010-2011
Health Care Access and Use: Medicaid

Medicaid coverage among persons less than 65 years of age by poverty status and rurality

Health Care Access and Use: Medicaid

Medicaid coverage among persons less than 65 years of age by region and rurality, 2010-2011
Health Care Access and Use: Private Insurance

Private insurance coverage among persons less than 65 years of age by poverty status and rurality

Health Care Access and Use: Employer-Sponsored Health Insurance

Employer-sponsored insurance coverage among persons less than 65 years of age by poverty status and rurality
Health Care Access and Use: Employer-Sponsored Health Insurance

Employer-sponsored insurance coverage among persons less than 65 years of age by region and rurality, 2010-2011

Health Care Access and Use: Physician Supply

Patient care physicians per 100,000 population by rurality
Health Care Access and Use: Physician Supply

Primary care physicians per 100,000 population by rurality, 2010

Health Care Access and Use: Dentist Supply

Dentists per 100,000 population by rurality
Health Care Access and Use: Dental Visits

Dental visit within the past year among persons 18-64 years of age by rurality

Health Care Access and Use: Inpatient Hospital Use

Hospital discharge rates among persons 18-64 years of age by rurality
Health Care Access and Use: Substance Abuse Treatment

Substance abuse treatment admission rates for alcohol by rurality

Substance abuse treatment admission rates for opiates by rurality
Health Care Access and Use: Substance Abuse Treatment

Substance abuse treatment admission rates for marijuana by rurality

Substance abuse treatment admission rates for stimulants by rurality
Health Care Access and Use: Substance Abuse Treatment

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

Other Mental Health Measures: Serious Psychological Distress

Past 30-day serious psychological distress (SPD) among persons 18 years of age and older by region and rurality, 2010-2011
Resources

• Rural Health Research Gateway
  http://www.ruralhealthresearch.org/

• Rural Assistance Center
  Tools for Success
  http://www.raconline.org/success

Community Health Gateway
http://www.raconline.org/communityhealth
Rural Community Health Gateway

Build What Works

The Rural Community Health Gateway can help you build effective community health programs and improve services you offer. Resources and examples in this Gateway are chosen for effectiveness and adaptability and drawn from programs with a strong history of service and community success. The Gateway is designed to provide you with an overview of the types of approaches that are known to be effective, so you can select the best options for your community and services. You will find resources for:

- Care Coordination Toolkit
- Community Health Workers Toolkit
- Mentors and September
- Violence Prevention Toolkit
- Oral Health Toolkit
- Evidence-Based Program Examples

Evidence-Based Toolkits

- Care Coordination Toolkit
  Resources and best practices to help you identify and implement a care coordination program.
- Community Health Workers Toolkit
  Resources to help you develop a community health worker (CHW) program to reach underserved populations, using evidence-based approach from other rural communities.
- Mentors and September
  Resources to develop and implement programs to improve community mental health using proven approaches and strategies.
- Violence Prevention Toolkit
  Resources to help you develop an violence prevention program, building on best practices of successful violence prevention programs.
- Oral Health Toolkit
  Resources and best practices to help you develop and implement a program to address oral health disparities in your community.

Evidence-Based Program Examples

The Rural Health Models and Innovations Hub provides access to program models that have been shown to be effective:

- Review for programs by level of evidence
- Learn about the models and evidence base for included programs
- You may also be interested in our collections of program examples from reputable sources, each of which use their own criteria for what types of programs are included.

Useful Tools

- Economic Impact Analysis
  Show how your program’s grant funding affects your community’s economic well-being and share this information with sponsors, funders and your community
- Planning for Sustainability
  Tools to help you plan and position your grant-funded projects so that services can be sustained over the long term.
- Rural Health Models and Innovations Hub
  Find examples of approaches you can adapt for your program, including models shown to be effective, as well as new and emerging ideas.