Rural Health Reform Policy
RESEARCH CENTER

The 2014 Update of the Rural-Urban Chartbook

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The North Dakota and NORC Rural Health Reform Policy Research Center (RHRPRC) is a consortium that combines the resources of the University of North Dakota Center for Rural Health and NORC Walsh Center for Rural Health Analysis.

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The Rural Health Reform Policy Research Center

The Rural Health Reform Policy Research Center (RHRPRC), established in 2012 through a partnership between the University of North Dakota Center for Rural Health and the NORC Walsh Center for Rural Health Analysis, measures and projects the impact of health reform policies on rural and frontier communities and develops recommendations and strategies for policy makers and rural stakeholders to leverage opportunities to improve access to health care services and the health status of rural residents.

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

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

The goal of the RHRPRC is to produce high-quality, actionable rural health research and analysis to guide Federal, state and local decision-makers through the implementation of health reform policies and provisions.

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Electronic Access

The 2014 Update of the Rural-Urban Chartbook may be accessed from the Rural Health Research Gateway website at http://www.ruralhealthresearch.org/.

Each of the 36 individual data tables are available in an Excel file that can be accessed through the Rural Health Research Gateway website at http://www.ruralhealthresearch.org and the Rural Health Reform Policy Research Center website at http://ruralhealth.und.edu/projects/health-reform-policy-research-center.

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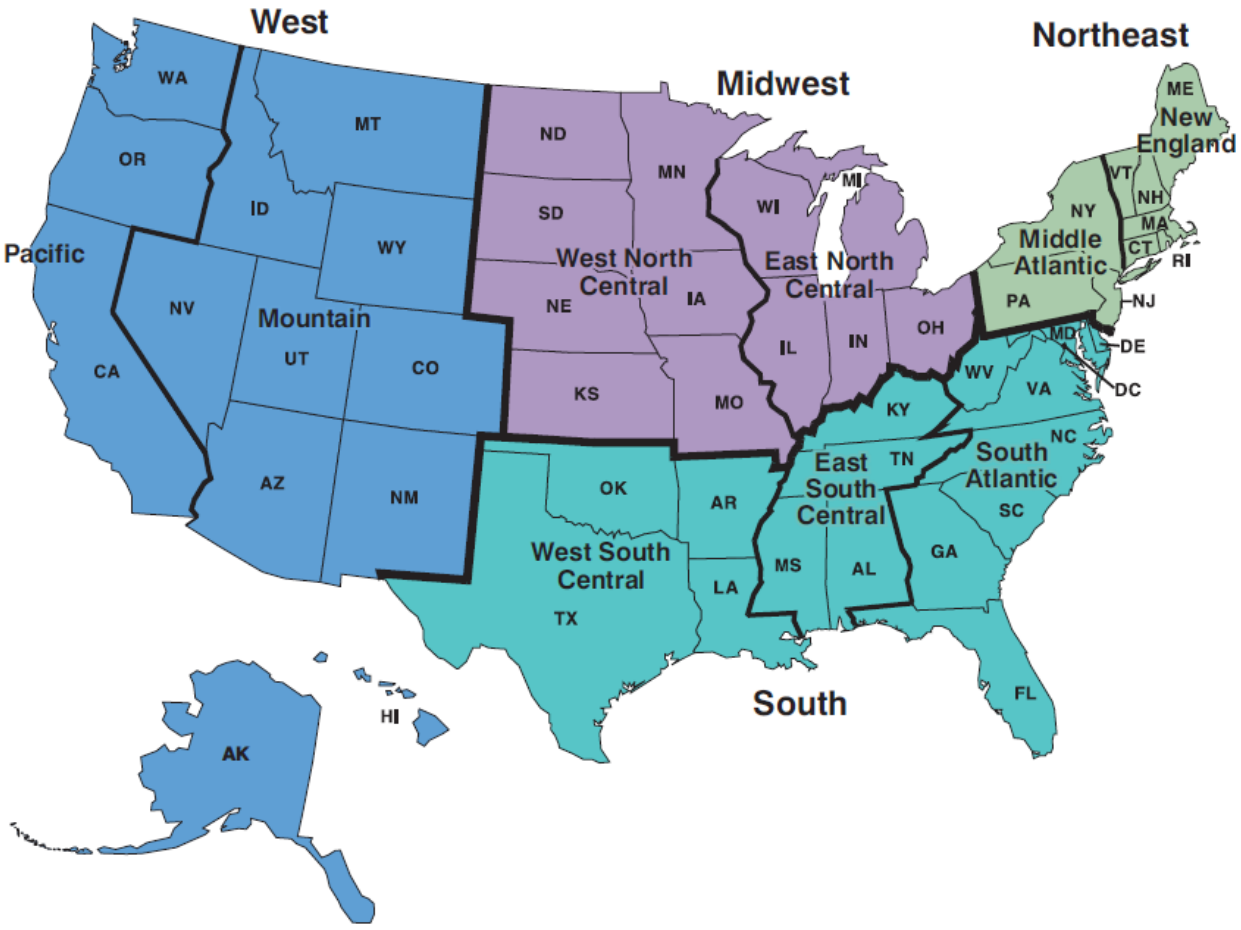

Source: Centers for Disease Control and Prevention. National Center for Health Statistics. *Health, United States, 2001 with Urban and Rural Health Chartbook.* DHHS Publication No. (PHS) 01-1232. Washington, DC: U.S. Government Printing Office, 2001. Available at http://www.cdc.gov/nchs/data/hus/hus01cht.pdf.

Highlights

In 2001, the U.S. Department of Health and Human Services (HHS) released its 25th report on the health of the nation titled *Health, United States, 2001: With Urban and Rural Health Chartbook*.[1] The chartbook, compiled by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC), illustrated trends and highlighted various priorities in urban and rural health.

For this version of the Urban and Rural Health Chartbook, the Rural Health Reform Policy Research Center (RHRPRC) replicated the analyses conducted in 2001 using the most recent data available (2006-2011). Additional information on the methodology and data sources can be found in the Technical Notes and Appendix I.

This chartbook presents information on population demographics, health risk factors, age-specific and cause-specific mortality, access to care, health insurance coverage, mental health, and other health-related topics for U.S. residents across urbanization levels (defined below). To examine regional variation in health patterns by urbanization level, this chartbook also includes data tables and charts that display data for each of the four geographic regions of the U.S.—Northeast, Midwest, South, and West, as defined by the U.S. Bureau of the Census (see Appendix II, Geographic region). Many findings are also presented separately for men and women. Age groups examined vary by outcome measure; most estimates are age-adjusted to the year 2000 standard population (see Technical Notes). Some measures are presented by family income expressed as a percent of the Federal poverty level.

The data presented in this report was collected prior to implementation of the Patient Protection and Affordable Care Act (ACA). Thus, this chartbook provides baseline measurements for key aspects of health. It will prove a valuable resource over the coming years as researchers, policymakers, and stakeholders evaluate the effectiveness of the ACA and its impact on the health of Americans nationwide, regionally, and by urbanization level.

Urbanization Levels Defined

Counties are classified into five urbanization levels — three for metropolitan (metro) counties and two for nonmetropolitan (nonmetro) counties. From most urban to most rural, the urbanization levels are:

Metropolitan (urban) counties:

Large central (inner cities) - counties in metropolitan statistical areas (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) - remaining 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

Nonmetropolitan (rural) counties:

Micropolitan (large rural) – counties in micropolitan statistical areas (population of 10,000 to 49,999)

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

Counties are grouped into the five aforementioned urbanization levels to reflect their position on a scale ranging from most urban to most rural (see Technical Notes for detailed definitions of urbanization levels). This five-level classification system is based on the U. S. Department of Agriculture's Urban Influence Codes (see Technical Notes). Use of a multi-level system permits description of urbanization in a more continuous fashion than the dichotomous metropolitan-nonmetropolitan classification. Use of a county-based system ensures availability of a wide variety of health data.

Throughout this chartbook we refer to this scale as both the level of *urbanization* and *rurality*.

1. Urban-Rural Population

Communities at different urbanization levels differ in their demographic, environmental, economic, and social characteristics. These characteristics influence the magnitude and types of health problems communities face. In addition, more urban counties tend to have a greater supply of health care providers per capita and residents of more rural counties often live farther from health care resources.

- The number and characteristics of counties at different urbanization levels varied by **region**. In the Northeast over one-half of all counties were in metro areas compared with only one in four in the Midwest. Counties in the West generally had larger land areas than counties in other regions, increasing the likelihood that even metro county residents may be far from an urban center (Figure 1).
- Most of the U.S. **population** lived in metropolitan areas. Over half of all Americans lived in large metro areas. The 65 percent of U.S. counties classified as nonmetro were home to 17 percent of the population (Figure 2).
- The **age** of the population tended to get older as urbanization decreased. This trend was present in all regions, but was most pronounced in the Midwest and South (Figure 3).

- **Racial and ethnic** composition varied substantially by urbanization level and region. Central counties of large metro areas were more racially and ethnically diverse than counties at other urbanization levels. For the United States as a whole, 45 percent of the population of central counties was non-Hispanic White compared with 69-82 percent at all other urbanization levels. Non-Hispanic Black Americans constituted 1-2 percent of nonmetro county residents in each region except the South, where they made up nearly 17 percent of the population. Hispanic persons constituted 3-8 percent of the population of nonmetro counties except in the West where they comprised almost 16 percent of the population. Also, in the West, the proportion of the nonmetro population that was American Indian or Alaska Native was higher than in all other regions (Figure 4).
- In all regions of the United States, fringe counties of large metro areas had the lowest levels of **poverty** (9-13 percent). Compared with fringe counties, poverty levels were about twice as high in central counties of the Northeast and Midwest and in the most rural counties of the South and West. Poverty in small metro counties was higher in the South and West than in other regions (Figure 5).

2. Urban-Rural Health-Related Behaviors and Risk Factors

Improving health behaviors to reduce the risk of disease and disability poses distinct challenges for central counties of large metro areas given their ethnically-diverse and economically-disadvantaged populations. Equally difficult but different challenges confront the most rural counties, which have more dispersed and older populations.

- Nationally, **adolescents** living in the most rural counties were the most likely to **smoke** and those living in central counties of large metro areas were the least likely to smoke. In 2010-2011, for the United States as a whole, 11 percent of adolescents in the most rural counties smoked compared with 5 percent in central counties (Figure 6).
- Nationally, **adults** living in nonmetro counties were most likely to **smoke** and those living in central counties were least likely to smoke (25 compared with 13 percent of women and 29 compared with 19 percent of men, in 2010-2011). Regionally, the largest urban-rural increases in smoking were seen in the South. Across all urbanization levels, smoking rates were generally lower in the West than in other regions (Figure 7).
- Nationally, men were twice as likely as women to have consumed five or more drinks in one day in the last year. In all regions except the South, men and women living in central counties of large metro areas were least likely to report this level of **alcohol consumption** as compared to those living in counties at other urbanization levels. The West is the only region where men and women living in nonmetro counties were most likely to report having consumed five or more drinks in one day in the last year compared to other urbanization levels (Figure 8).
- Self-reported **obesity** varied by urbanization level and increased with increasing levels of rurality. In 2010-2011, women living in central counties of large metro areas nationwide had the lowest age-adjusted prevalence of obesity, while women in the most rural counties the highest. The pattern for men was the same as for women; self-reported obesity rates were higher in more rural areas (Figure 9).
- **Physical inactivity** during leisure time varies with level of urbanization but the patterns differ by region. Nationwide, inactivity during leisure time was most common for men and women in the most rural counties (41 percent for both sexes in 2010-2011). Leisure time inactivity was highest in nonmetro counties for residents of all regions, except for the Northeast and women in the West (Figure 10).

3. Urban-Rural Mortality

Differences in urban and rural mortality rates are seen across the life span, with the lowest rates in fringe counties of large metro areas, and the highest rates in the most rural counties. The only exception is mortality among seniors, which is lowest in central urban counties and highest in the most rural counties.

- For the United States as a whole and within each region, **infant mortality** rates were lowest in fringe counties of large metro areas. In the Northeast and Midwest, central counties of large metro areas had the highest infant mortality rates in 2008-2010 while, in the South and West, nonmetro counties had the highest rates (Figure 11).
- For the United States as a whole, death rates for **children and young adults** (ages 1–24 years) were lowest in fringe counties of large metro areas and highest in the most rural counties. In all regions, 2008-2010 death rates in the most rural counties were over 40 percent higher than rates in fringe counties. The largest difference was in the West, where death rates in the most rural counties were over twice as high as those in large central and large fringe counties (Figure 12).
- Nationally and within each region, death rates for **working-age adults** (age 25–64 years) were lowest in fringe counties of large metro areas. In the Northeast and Midwest, 2008-2010 death rates were highest in central counties of large metro areas (26–40 percent higher than in fringe counties). In the South and West, death rates were highest in nonmetro counties (26–61 percent higher than in fringe counties) (Figure 13).
- Nationally, death rates among **seniors** (age 65 years and over) were lower in large metro (central and fringe) counties than in nonmetro counties. Urbanization patterns of mortality among seniors were

similar for men and women within regions, but vary across regions (Figure 14).

- For adults 20 years and over, urbanization patterns in **ischemic heart disease** (IHD) death rates differed by region. In the South, 2008-2010 IHD death rates were lowest in fringe counties of large metro areas and over 25 percent higher in the most rural counties. In the Midwest, IHD death rates were highest in the most rural counties (Figure 15).
- For men 20 years and over, death rates for **chronic obstructive pulmonary diseases** (COPD) were lowest in large metro (central and fringe) counties and highest in nonmetro counties. For the nation as a whole, COPD rates among men were 53 percent higher in nonmetro counties than in large metro counties in 2008-2010. Regionally, the urban-rural increase for men is largest in the Northeast, followed by the South. For women, COPD death rates show an urban-rural increase in the South (Figure 16).
- Nationally, the age-adjusted **unintentional injury** death rates were highest in micropolitan counties in 2008-2010. Death rates for unintentional injuries were lowest in large metro areas (central and fringe counties). Nationwide and regionally, the age-adjusted rate for **motor vehicle traffic-related deaths** in micropolitan counties is more than twice the rate in central counties of large metro (Figure 17).
- For the United States as a whole and within each region, the highest **homicide** rates were found in central counties of large metro areas. In the Midwest, 2008-2010 homicide rates for males in central counties were about seven times as high as those in nonmetro counties, where rates were lowest. In the South and West, the lowest homicide rates were found in central counties of large metro areas and the highest were found in the most rural counties (Figure 18).
- Nationally and within each region, **suicide** rates for males 15 years and over were lowest in large metro (central and fringe) counties and increased steadily as counties become more rural. In 2008-2010 the urban-rural increase in male suicide was steepest in the West, where the rate for the most rural counties was over two times higher than the rate in large metro counties (Figure 19).

4. Other Urban-Rural Health Measures

Other important health indicators where differences were observed between urban and rural populations include adolescent childbearing, health-related activity limitations, and total tooth loss.

- The **birth rates for adolescents** 15–19 years of age are lowest in fringe counties of large metro areas. In the Northeast and Midwest, adolescent birth rates are substantially higher in central counties of large metro areas than in other urbanization levels. In the South and West, adolescent birth rates were highest in the most rural counties (Figure 20).
- For the United States as a whole, **limitation in activity due to chronic health conditions** among adults is more common in nonmetro counties than in large metro counties. In all regions except the Midwest, the rate of activity limitation due to chronic health conditions generally increases as rurality increases for both men and women (Figure 21).
- For the United States as a whole, **total tooth loss (edentulism)** among seniors generally increases as urbanization declines. Total tooth loss was more common among low-income seniors – those whose household incomes were less than 200 percent of the Federal poverty level – than among seniors with higher incomes. In 2010-2011, over 40 percent of low-income seniors – those with incomes that were less than 200 percent of the Federal poverty level – living in nonmetro counties had lost all of their natural teeth (Figure 22).

5. Urban-Rural Health Care Access and Use

A community's health depends not only on the socio-demographic characteristics and risk factors of its residents, but its access to and use of health care services. Factors affecting access include health insurance coverage and provider supply. It is important to note that the data represent health care access and use between 2007 and 2011, prior to implementation of the Patient Protection and Affordable Care Act (ACA).

- In 2010-2011, **lack of health insurance** among nonelderly Americans was least common in fringe counties of large metro areas and most common in the most rural counties. Nonelderly persons with incomes below 200 percent of the Federal poverty level were more than twice as likely to be uninsured compared to higher income persons across all urbanization levels (Figure 23).
- Nationally, the population less than 65 years of age covered by **Medicaid** differed by region and urbanization level. In the Northeast and Midwest, enrollment in Medicaid was more common in central counties of large metro areas whereas in the South and West there were a greater proportion of Medicaid enrollees in nonmetro counties (Figure 24).
- A large majority of insured persons less than 65 years of age were covered by **private insurance**, which includes employer-sponsored group coverage as well as health plans purchased in the individual market. However, private insurance was much more common among adults less than 65 years of age with higher incomes compared to their lower-income counterparts (i.e., those with incomes less than 200 percent of the Federal poverty level) (Figure 25).
- Trends **in employer-sponsored coverage** were similar to trends in private insurance coverage.

Across all income levels, the prevalence of employer-sponsored insurance was highest in fringe counties of large metro areas and lowest in the most rural counties (Figure 26).

- The urbanization pattern for **physician supply** depended on physician specialty. However, physician supply generally decreased steadily as rurality increased both nationally as well as regionally. The most dramatic disparity in physician supply by urbanization level was seen among "other specialists," which includes specialties such as neurology, anesthesiology, and psychiatry. There is less demand for specialists than for primary care, and thus they require a larger population to build a sustainable practice. The supply of family and general practice physicians, who can practice more effectively with a smaller population base than specialists or other types of primary care providers (e.g., pediatricians, internists, obstetricians and gynecologists), was slightly larger in nonmetro counties compared to metro counties (Figure 27).
- Nationally and in each region, **dentist supply** decreased markedly as urbanization decreased. Compared with other regions, the South had the fewest dentists per 100,000 population in 2007 at each level of urbanization (Figure 28).
- The urbanization pattern for **dental care use** is similar to that for dentist supply. Nationwide, in 2010-2011, the urbanization level with the highest reported rate of dental visits in the past year among adults aged 18-64 years was fringe counties of large metro areas while the lowest reported rates came from the most rural counties. Residents of nonmetro counties in the South were less likely to have had a dental visit in the past year than nonmetro residents of other regions (Figure 29).
- **Inpatient hospital discharge** rates among adults (ages 18–64 years) were higher in small metro counties than in metro and nonmetro counties. The **average length of stay** was highest in central counties of large metro areas (Figure 30).
- Admission rates to **substance abuse treatment** programs vary by primary substance of abuse and urbanization level of the county where the program is located. Nationally, admission rates for alcohol, marijuana, and stimulants were higher in micropolitan counties and small metro counties than other urbanization levels. The admission rate for cocaine use was highest in the central counties of large metro areas and lowest in the most rural counties. Admission rates for opiates generally decreased with increasing levels of rurality (Figure 31).

6. Urban-Rural Mental Health Measures

Additional health indicators relate to the prevalence of mental illness, including any mental illness, serious mental illness, major depressive episode, and serious psychological distress.

- The proportion of adults who reported having **any mental illness (AMI)** in the past year differed by sex and urbanization level. Differences across urbanization levels were more profound among women than men. Across all regions and urbanization levels, micropolitan counties in the West had the highest percentage of men and women who reported having AMI in the past year (Figure 32).
- Nationally, the percentage of adult men and women who reported having a **serious mental illness (SMI)** in the past year increased with increasing rurality. Across all regions, the largest urban-rural disparity – measured by percentage difference – was found in the West for men and in the Northeast for women (Figure 33).
- The highest percentages of **adult major depressive episode (MDE)** were found in the middle segments of the urban-rural continuum. For both sexes, the largest percentage of MDE was reported in micropolitan counties. Across all regions, the largest percentages of men and women who reported MDE in the past year were found in micropolitan counties in the West (Figure 34).
- **Adolescent major depressive episode (MDE)** in the past year ranged from 4-5 percent across urbanization levels for males and 11-13 percent among females. The highest percentages were found in nonmetro counties. Across all regions, the largest percentage of adolescent males reporting MDE in the past year resided in nonmetro counties with a city, while the largest percentage of females were located in the most rural counties in the West (Figure 35).
- Nationwide, the percentage of adults with **serious psychological distress (SPD)** in the past 30 days was lowest in fringe counties of large metro areas and highest in nonmetro counties. Regionally, no clear patterns emerged by urbanization level except in the South, where the percentage of adults who had SPD was higher in nonmetro counties than in metro counties. The highest percentage of men and women who had SPD within the past 30 days was found in the most rural counties of the South (Figure 36).

Data Gaps and Limitations

Data sources were used only if they included county identifiers as well as data from a sufficient number of counties at each urbanization level to yield reliable estimates. Some health surveys collect information in fewer than 5 percent of U.S. counties. Many health surveys include only a limited number of nonmetro counties in their samples because of the high cost of collecting data in sparsely populated areas. Some surveys collect data for such a limited number of nonmetro counties that they cannot provide reliable estimates for nonmetro counties even when taken as a whole. Many other surveys sample a sufficient number of nonmetro counties to calculate reliable estimates for nonmetro counties as a whole but not for nonmetro subcategories.

Reliable estimates for racial and ethnic subgroups within regions and across urbanization levels can only be calculated in some cases. Most data sources do not have a sufficient number of observations from nonmetro counties to permit calculation of reliable estimates for racial and ethnic subgroups. Even the most comprehensive data systems, such as the National Vital Statistics System, do not yield reliable estimates for all racial and ethnic subgroups by region and urbanization level because of the uneven distribution of these subgroups across the country. For example, non-Hispanic Black persons constitute less than 1 percent of the population living in nonmetro counties in the West, reporting only 49 deaths from all causes between 2008 and 2010 for males and females ages 1–24 years. Estimates based on small numbers like this may not accurately reflect the true mortality experience of this group over time.

Another limitation is that some data sources do not report county of residence. This may occur because address or county of residence is not collected due to constraints such as cost or confidentiality. This limitation is frequently the case for data systems based on administrative records.

Even when county-level data are available, there are challenges to consider. First, a county of residence may not provide an accurate reflection of the level of rurality for all residents within that county. It has long been recognized that, because of its geographic size, a metropolitan county often includes territory not functionally integrated with a specific urban core. This is especially true for large counties, which often contain many small cities and sparsely-populated territories located at a considerable distance from the primary urban core. Second, classifying territory in the United States by county unit is complicated by the fact that counties differ by region and state. In general, the more western the state, the more territory its counties encompass. The need for a classification system that uses subcounty building blocks has become increasingly important as U.S. settlement patterns have become more complex: large urban cores dominate increasingly large areas that surround them; employment and residential nodes have grown in suburban areas; and, commuting between more rural territories, suburban nodes, and urban cores has increased. While subcounty units would provide greater precision when classifying areas, few health data systems report subcounty-level data.

A final limitation is the use of self-reported data in Figures 6-10, 21, 29, and 32-36. Self-reported data pose a limitation because the information is subject to inaccuracy and bias. For example, a respondent might exaggerate, withhold information, or respond to a question in a manner that perceived as favorable to the interviewer or others (i.e. social desirability bias).

Conclusions

Nationally and regionally many measures of health, health care use, and health care resources vary by urbanization level.

The Americans who generally fare best on the health indicators examined here are residents of fringe counties of large metro areas, that is, suburban residents. The consistency of this pattern is striking, even though, for some indicators, differences across urbanization levels are not large. Nationally people living in fringe counties have the lowest levels of premature mortality. Teens in fringe counties have the lowest levels of teenage childbearing. The percent of the population with no health insurance and no dental visit in the past year also is lowest in fringe counties. For many of the health measures examined, this pattern is also apparent within each region.

In contrast, the level of urbanization associated with adverse health behaviors, health outcomes, and health care use and access measures is less consistent. Nationally residents of the nonmetro counties have the highest death rates for children and young adults, unintentional and motor vehicle traffic-related injuries, chronic obstructive pulmonary disease, and suicide. Residents of the nonmetro counties also have the highest levels of adolescent and adult smoking, as well as obesity and physical inactivity during leisure time. Residents of the most rural counties are least likely to have a dental visit during the past year and there are fewest specialist physicians and dentists per capita in the most rural counties. Residents of central counties of large metro areas and nonmetro counties have similarly high percentages of residents with no health insurance. In general, central counties of large metro areas often have the most adverse health measures in the Northeast and Midwest, while in the South and West nonmetro counties tend to fare the worst.

Introduction

In 2001, the U.S. Department of Health and Human Services (HHS) released its 25th report on the health of the nation titled *Health, United States, 2001: With Urban and Rural Health Chartbook*.[2] The chartbook, compiled by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC), illustrated trends and highlighted various priorities in urban and rural health.

For *The 2014 Update of the Rural-Urban Chartbook*, the Rural Health Reform Policy Research Center (RHRPRC) replicated the analyses conducted in 2001 using the most recent data available (2006-2011). Additional information on methodology and data sources can be found toward the end of this chartbook in Technical Notes and Appendix I.

This chartbook presents information on population demographics, health risk factors, age-specific and cause-specific mortality, access to care, health insurance coverage, mental health, and other health-related topics for U.S. residents across urbanization levels (defined below). Some of the measures presented in this chartbook have been identified as Leading Health Indicators in Healthy People 2020, including: adolescent smoking (Figure 6); adult smoking (Figure 7); adult obesity (Figure 9); infant deaths (Figure 11); fatal injuries (Figure 17); suicides (Figure 19); persons with medical insurance (Figures 23-26); and adolescents who experience major depressive episodes (Figure 35).[3]

The data presented in this report were collected prior to implementation of the Patient Protection and Affordable Care Act (ACA). Thus, this chartbook provides baseline measurements for key aspects of health. It will prove a valuable resource over the coming years as researchers, policymakers, and stakeholders evaluate the effectiveness of the ACA and its impact on the health of Americans nationwide, regionally, and by urbanization level.

Urbanization Levels Defined

Counties are classified into five urbanization levels — three for metropolitan (metro) counties and two for nonmetropolitan (nonmetro) counties. From most urban to most rural, the urbanization levels are:

Metropolitan (urban) counties:

A. Large central (inner cities) - counties in metropolitan statistical areas (MSA) of 1 million or more population that:

   a. Contain the entire population of the largest principal city of the MSA;

   b. Are completely contained in the largest principal city of the MSA; or

   c. Contain at least 250,000 residents of any principal city of the MSA.

B. Large fringe (suburban) - remaining counties in MSAs with a population of at least 1 million residents

C. Small Metro - counties in MSAs with a population of less than 1 million residents

Nonmetropolitan (rural) counties:

D. Micropolitan (large rural) – counties in micropolitan statistical areas (population of 10,000 to 49,999)

E. Non-core (small rural) – remaining nonmetropolitan counties that are not in a micropolitan statistical area

Counties are grouped into the five aforementioned urbanization levels to reflect their position on a scale ranging from most urban to most rural (see Technical Notes for detailed definitions of urbanization levels). Please note that D and E refer to two levels of rurality (micropolitan and non-core). These may be referred to as separate data points [D, E] or as one aggregated data point [D+E]. This five-level classification system reflects the 2006 NCHS Urban-Rural Classification Scheme for Counties, which is based on the OMB's December 2005 delineation of MSAs and micropolitan statistical areas. (See Technical Notes) Use of a multi-level system permits description of urbanization in a more continuous fashion than the dichotomous metropolitan-nonmetropolitan classification. Use of a county-based system ensures availability of a wide variety of health data.

Throughout this chartbook we refer to this scale as both the level of *urbanization* (for which higher levels are associated with larger populations) and *rurality* (for which higher levels are associated with smaller populations).

Organization of the Chartbook

The 2014 Update of the Rural-Urban Chartbook presents charts and data tables on population characteristics, health behaviors and risk factors, mortality, other health status measures, health care access, and mental health status for residents of U.S. counties grouped by **urbanization level**. In most of the charts, estimates by urbanization level are presented graphically as dots connected by lines. This style of graphical presentation emphasizes the ordering of the urbanization levels from most urban to most rural. It also facilitates the comparison of urbanization patterns by region and sex. The four U.S. **geographic regions**, as defined by the U.S. Census Bureau, are the Northeast, Midwest, South, and West. (For details, see Appendix I, Geographic region.) Analyses by **sex** use the categories of Men and Women (particularly when presenting data on adults at least 18

years of age) or Male and Female (particularly when presenting data on children and adults combined).

Age groups examined vary by figure; most estimates are age adjusted to the year 2000 standard population (see Technical Notes). Some measures are presented by **family income**, which is expressed as a percent of the Federal poverty level. Throughout this chartbook, low income is defined as less than 200 percent of the Federal poverty level. Analyses of poverty, however, rely on a different definition. For more information, see *Family income* and *Poverty level* in Appendix II.

The charts and accompanying text are followed by Technical Notes and a data table corresponding to each chart. The Technical Notes provide information about data sources and methods used that are not covered in Appendices I and II. All data tables include the points graphed in the relevant chart; certain tables also include related data not included in the chart, as well as standard errors of estimates.

1. Population Characteristics

The first section of the chartbook describes selected demographic characteristics of the U.S. population by urbanization level and geographic region. Selected demographic characteristics include regional rurality (Figure 1), population size (Figure 2), age (Figure 3), race and ethnicity (Figure 4), and poverty status (Figure 5).

2. Health-Related Behaviors and Risk Factors

The second section of the chartbook presents findings for selected measures of health-related behaviors and other risk factors. These selected measures include, adolescent smoking (Figure 6), adult smoking (Figure 7), alcohol consumption (Figure 8), obesity (Figure 9), and physical inactivity (Figure 10).

3. Mortality

The third section of the chartbook shows urban and rural patterns in death rates at specific ages and for selected causes. Age-specific mortality is included for infants (Figure 11), children and young adults (Figure 12), working-age adults (Figure 13), and seniors (Figure 14). Cause-specific mortality was determined for ischemic heart disease (Figure 15), chronic obstructive pulmonary diseases (Figure 16), unintentional injuries and motor-vehicle traffic-related injuries (Figure 17), homicide (Figure 18), and suicide (Figure 19).

4. Other Health Status Measures

The fourth section of the chartbook shows urban and rural patterns for other measures of health status, including: birth rates among adolescents (Figure 20); limitation of activity caused by chronic health conditions (Figure 21); and total tooth loss (figure 22).

5. Health Care Access and Use

The fifth section of the chartbook focuses on health care access and use. Specific measures include: no health insurance coverage (Figure 23); Medicaid coverage (Figure 24); private insurance coverage (Figure 25); employer-sponsored private insurance coverage (Figure 26); physician supply (Figure 27); Dentist supply (Figure 28); dental visits (Figure 29); inpatient hospital use (Figure 30); and substance abuse treatment (Figure 31).

6. Other Mental Health Measures

The last section of the chartbook shows urban and rural patterns for measures of mental health status. These measures include: any mental illness (Figure 32); serious mental illness (Figure 33); adult major depressive episode (Figure 34); adolescent major depressive episode (Figure 35); and serious psychological distress (Figure 36).

Chartbook Data Sources

The data presented in this chartbook come from several data sources. These sources are described in the Technical Notes and Appendix I.

Data Gaps and Limitations

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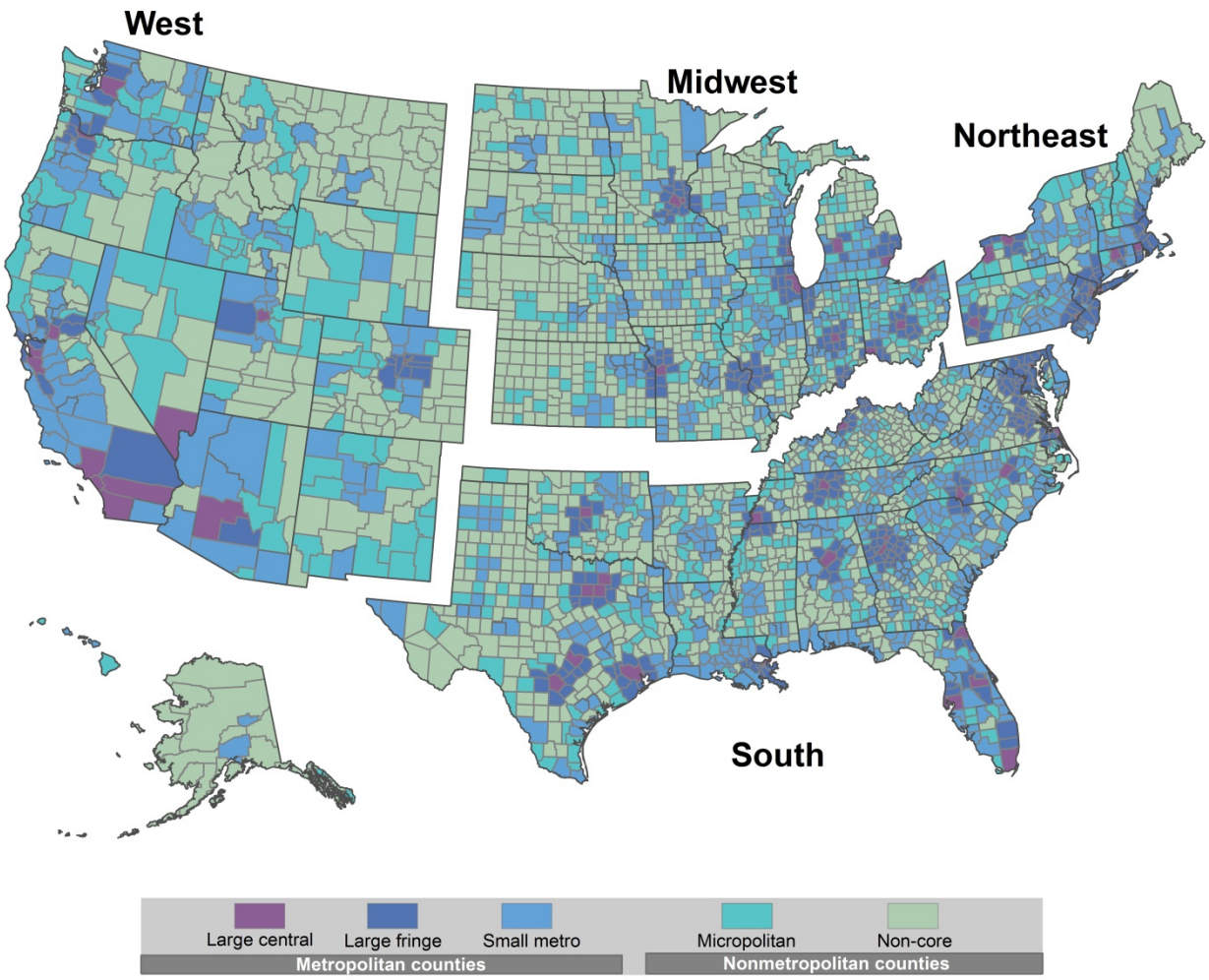
1. Population

Region and Urbanization

Classifying counties by urbanization level can be useful when considering their populations' health status and health care needs. More urban counties tend to have a greater supply of health care providers per capita. More rural counties have fewer residents, who often live farther from health care resources than their more urban counterparts. Figure 1 identifies the urbanization levels of the 3,147 counties in the United States as defined in the introduction.

- Within the United States, the number and characteristics of counties at different urbanization levels vary by region.
- In the Northeast, over one-half of all counties are in metro areas compared to only one-in-four counties in the Midwest.
- Counties in the West generally have larger land areas than counties in other regions.
- It is important to note that any single urbanization level can be inadequate to describe counties covering large areas. For example, designation as a central or fringe county in a large metro area does not recognize that much of the area within the county may be far from any urban center.

Figure 1. United States counties by region and urbanization level, 2006



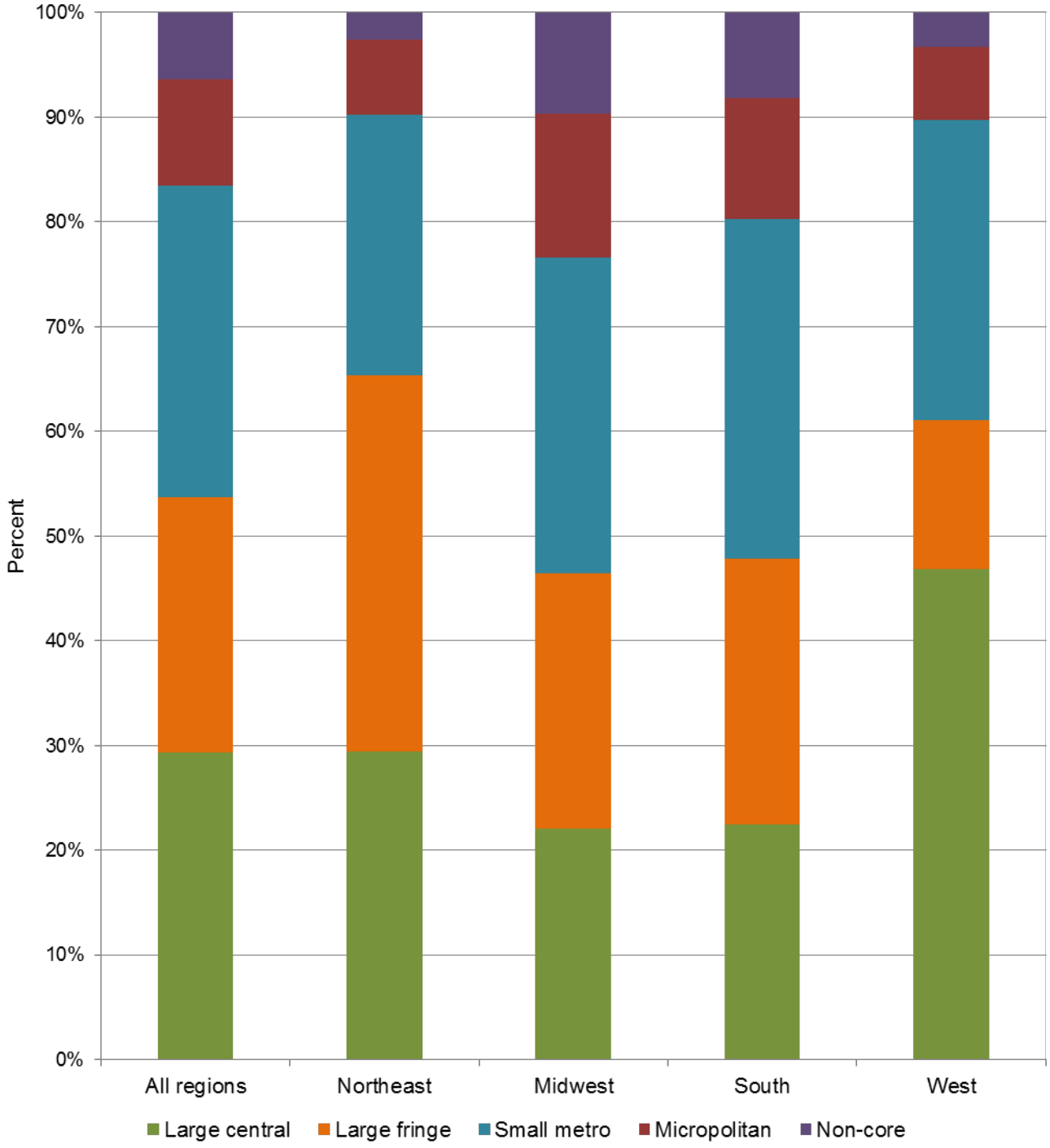
NOTE: See Technical Notes for a description of data source and urbanization levels.

Population and Urbanization

Although most U.S. counties are classified as nonmetropolitan, most Americans live in metropolitan counties. In 2010, the 65 percent of U.S. counties classified as nonmetro (Figure 1) were home to 17 percent of the population.

- Over half of the 309 million persons living in the United States in 2011 lived in counties within large metro areas that had at least one million inhabitants—29 percent of the total U.S. population lived in central counties and 24 percent in fringe counties. Another 30 percent lived in small metro counties.
- The Northeast contained 18 percent of the U.S. population. Sixty-five (65) percent of these residents lived in large metro areas, about evenly divided between central and fringe counties; another 25 percent lived in small metro counties, and 10 percent lived in nonmetro counties.
- The West contained 23 percent of the U.S. population. The West was similar to the Northeast in that 61 percent of its inhabitants lived in large metro counties, although different in that three-fourths of these urban residents lived in central counties. Similar to the Northeast, 10 percent of residents lived in nonmetro counties.
- The Midwest contained 22 percent of the U.S. population. Less than half (46 percent) of the region's population lived in large metro counties. Twenty-three (23) percent of residents lived in nonmetro counties; 10 percent of those residents lived in the most rural counties.
- The South contained slightly over one-third (37 percent) of the total U.S. population. Similar to other regions, the largest proportion of the South's population lived in large metro counties (48 percent) and about the same percent as the Midwest in nonmetro counties (20 percent).

Figure 2. Population by region and urbanization level: United States, 2010



NOTES: See Technical Notes for description of urbanization levels. See Data Table 2 for data points graphed.

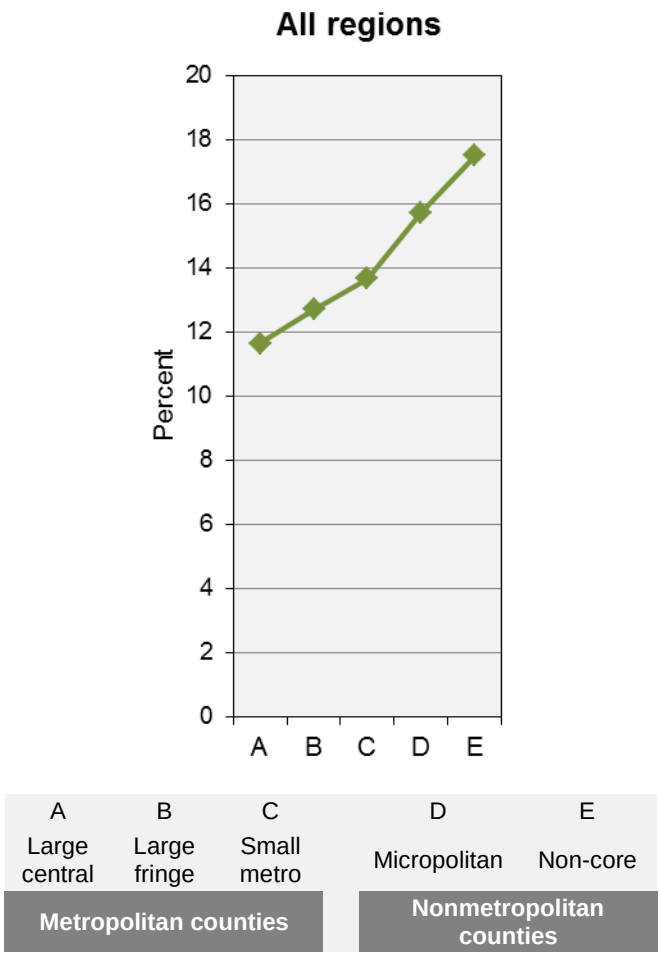
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Age

The age distribution within a county greatly influences the health status and health care needs of its population. The risk of serious illness and death is greater for infants and for elderly persons (age 65 and older) than for other age groups.[4] The elderly also use a disproportionate share of health care resources. In 2002, only 13 percent of the U.S. population was elderly, but seniors were responsible for 36 percent of total personal expenditures for health care.[5] In 2010, Medicare—the Federal health insurance entitlement program for the elderly—was the payment source for almost one-third of all hospital care expenditures.[6]

- The age distribution of the population tended to get older as rurality increased. Infants and children ages 1–4 years constituted a slightly larger percentage of the population in central counties of large metro areas [A] than in nonmetro counties [D, E] in all regions. The proportion of the population that is elderly was higher in the more rural counties (12 percent in central counties [A] in 2011 compared to 18 percent in the most rural counties [E]).
- The urban-rural upward gradient in the proportion of the population that is elderly was present in all geographic regions but was steepest in the Midwest and South. The gradient was least pronounced in the Northeast, which had the highest proportion of elderly at all urbanization levels except for the most rural counties [E]. The West had the smallest proportion of elderly at nearly all urbanization levels. There was one exception—central counties of large metro areas [A], in which the South had the lowest proportion of elderly residents.
- Differences in the age distribution by region and urbanization level were due to several factors. From 2000-2010, the population in the South and the West grew at a faster rate (14.3 and 13.8 percent, respectively) than the Midwest (3.9 percent) and the Northeast (3.2 percent).[7] Population subgroups with higher birth rates, such as Black persons and persons of Hispanic origin,[8] were also disproportionately located in large urban areas and in the West and South (Figure 4(b)).

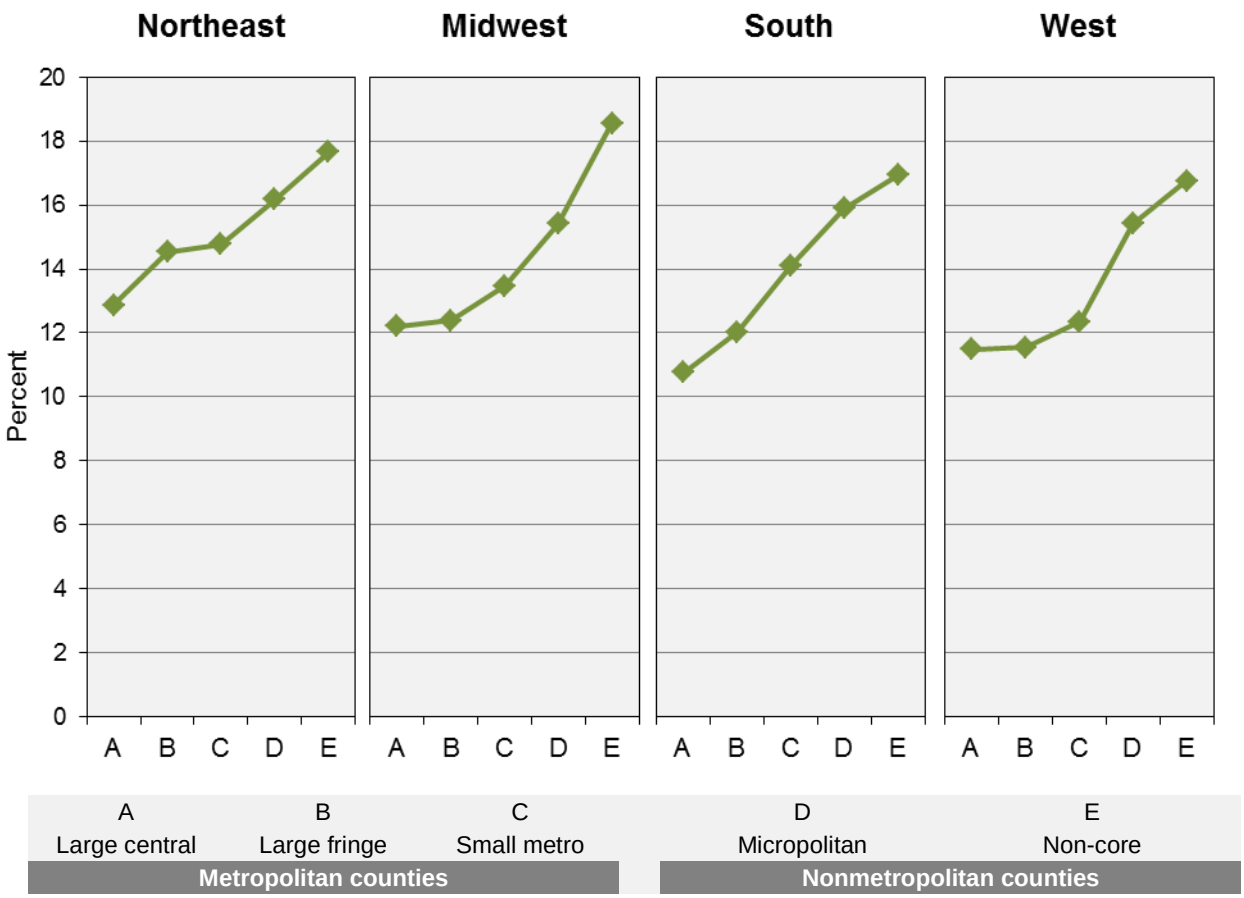
Figure 3(a). Population 65 years of age and older by urbanization level: United States 2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 3 for data points graphed.

SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Figure 3(b). Population 65 years of age and older by region and urbanization level: United States, 2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 3 for data points graphed.

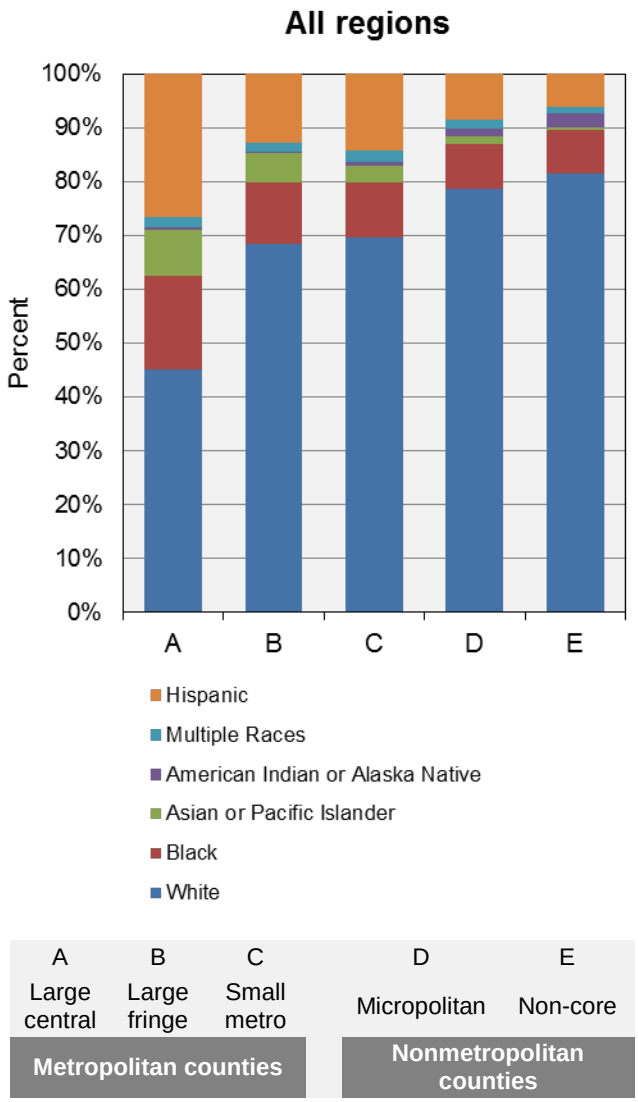
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Race and Ethnicity

In the United States, racial and ethnic disparities exist for most measures of health.[9] The concentration of racial and ethnic subgroups tends to be higher in certain geographic areas. These concentration patterns, in turn, influence geographic patterns of health status and other health-related measures.[10] It is important to consider differences in the racial and ethnic composition of populations when interpreting health-related information.

- In 2010, non-Hispanic White persons represented over half of the population nationwide in fringe counties of large metro areas [B] (69 percent), small metro counties [C] (70 percent), and nonmetro counties [D, E] (79–82 percent), but only 45 percent in central counties of large metro areas [A].
- The greatest racial and ethnic diversity was found in central counties of large metro areas [A]. In 2010, the population of central counties nationwide was 27 percent Hispanic, 17 percent non-Hispanic Black, 9 percent non-Hispanic Asian or Pacific Islander, 2 percent persons identifying with multiple races, and less than 1 percent non-Hispanic American Indian or Alaska Native (AI/AN). All of these groups except AI/ANs were less likely to live in nonmetro counties than in central counties.
- Differences in racial and ethnic composition across regions are striking. In 2010, the Midwest was the most homogeneous, with non-Hispanic White persons representing 78 percent of its population. In the South, non-Hispanic Black persons constituted a larger proportion of the population (19 percent) than in any other region. The West had the most racial and ethnic diversity with the highest concentration of residents in the region being Hispanic (29 percent), Asian or Pacific Islander (10 percent), multi-racial (3 percent), or AI/AN (1 percent). The only non-White racial or ethnic group that did not reside predominantly in the West was non-Hispanic Black persons, who are disproportionately concentrated in the South (19 percent).
- The racial and ethnic composition at different urbanization levels also varies considerably by region. In 2010, persons of Hispanic origin constituted 16 percent of nonmetro county [D, E] residents in the West, while they accounted for only 3-8 percent of the nonmetro county population in the other regions. In the South, non-Hispanic Black Americans constituted over 16 percent of the population in nonmetro counties [D, E] compared to less than 3 percent in the other regions. In the West, 10 percent of the population in the most rural counties [E] was AI/AN and another 12 percent was Hispanic, compared to less than 8 percent for both groups combined in all other regions.

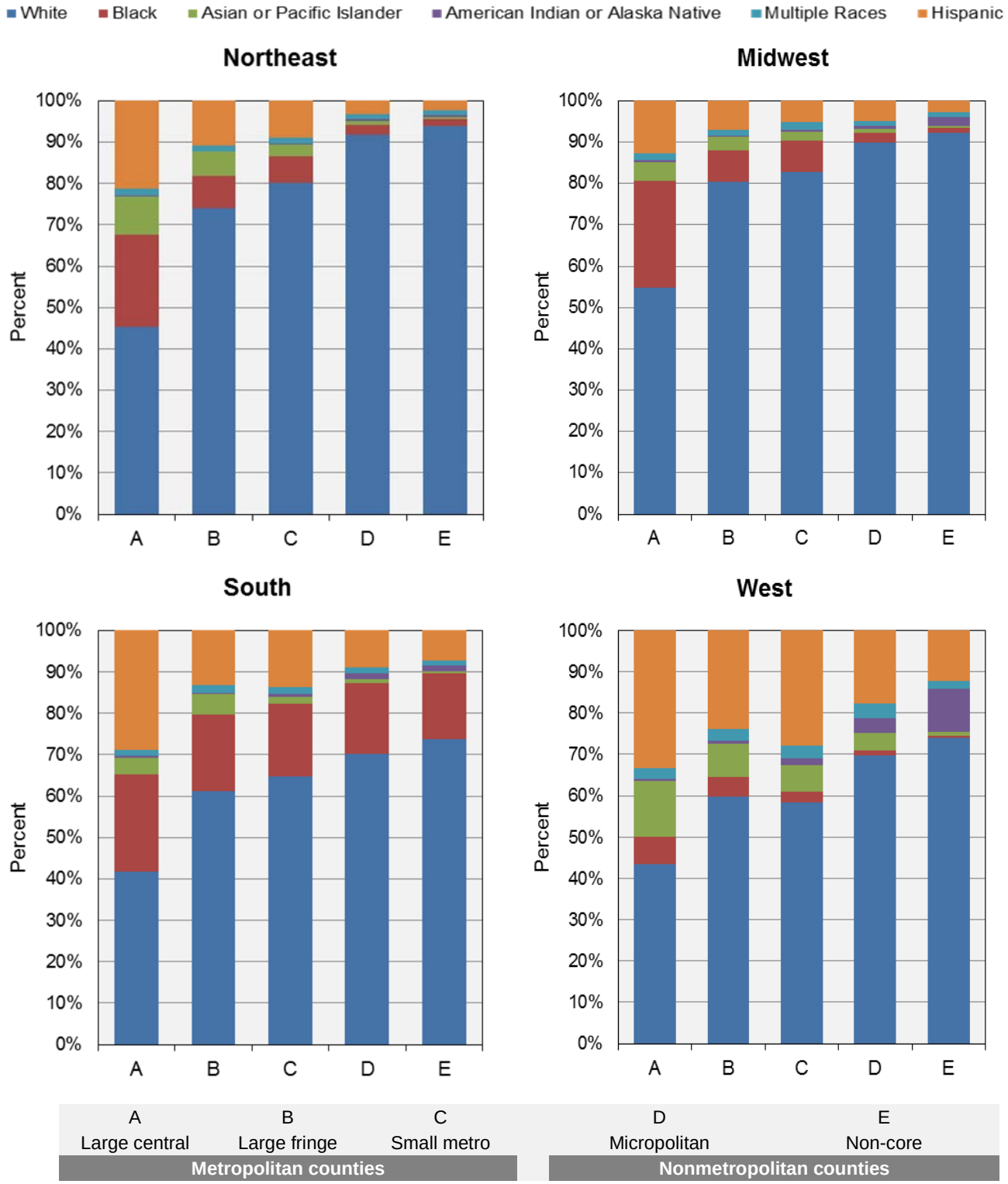
Figure 4(a). Population in selected race and Hispanic origin groups by urbanization level: United States, 2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 4 for data points graphed.

SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Figure 4(b). Population in selected race and Hispanic origin groups by region and urbanization level: United States, 2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 4 for data points graphed.

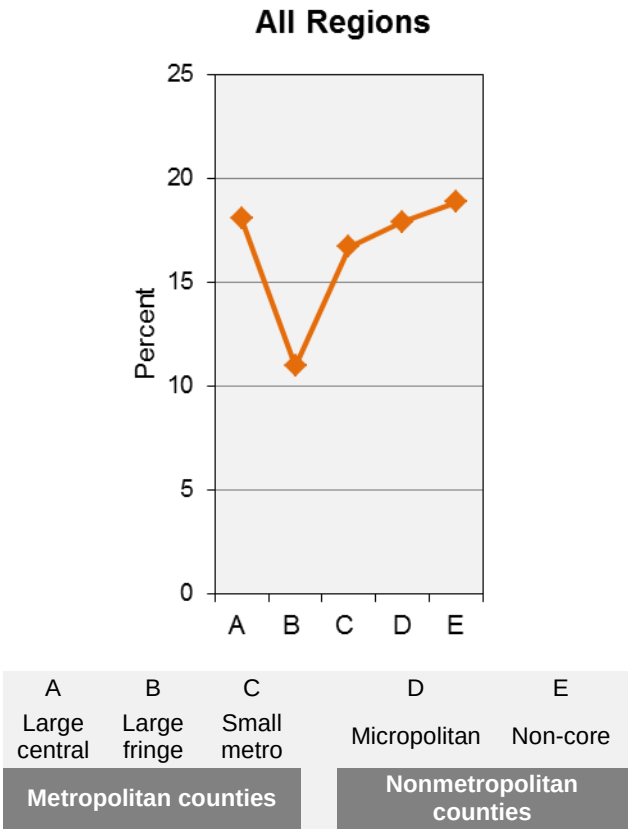
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Poverty

Personal or family income is strongly related to most indicators of health status, health care access and use, and health-related behaviors.[11] A county's economic well-being generally, and the share of its population living below the poverty threshold in particular, greatly influence the health and health care needs of its residents.

- In 2011, 15 percent of Americans lived with incomes below the poverty threshold.[12] The proportion of persons who were poor varied across regions, from a low of 9 percent in fringe counties of large metro areas [B] of the Northeast to a high of 22 percent in the most rural counties [E] in the South.
- Across all regions, fringe counties of large metro areas [B] had the lowest concentration of persons living in poverty in 2011 (9–13 percent). For all other urbanization levels, the proportion of the population living in poverty was comparable.
- When looking at poverty by region and urbanization level, additional features emerged. The highest levels of poverty in the Midwest and Northeast (19 and 20 percent, respectively) were in central counties of large metro areas [A]. In the South and the West, the most rural counties [E] had the highest poverty rates (22 and 18 percent, respectively).
- The West had the least variation in poverty across urbanization levels (5 percentage points, 13-18 percent). The Northeast had the greatest variation in poverty level across urbanization levels (11 percentage points, 9-20 percent).

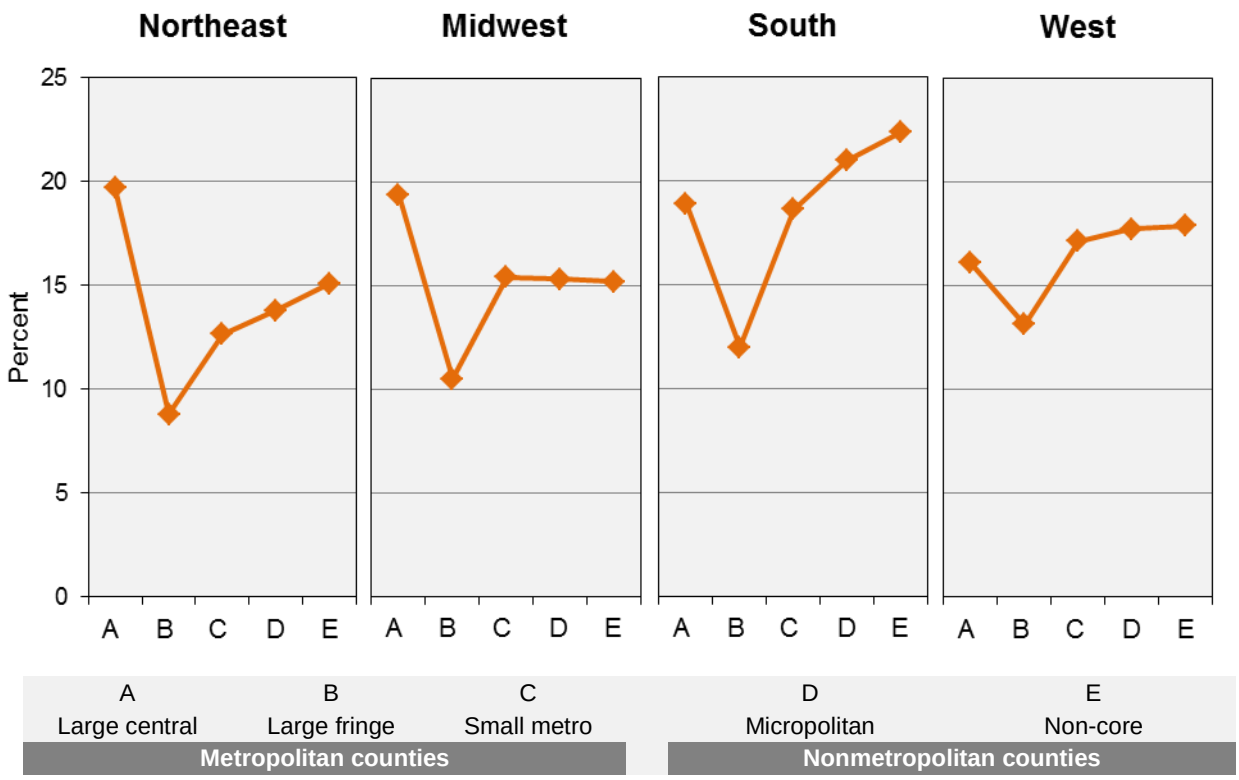
Figure 5(a). Population in poverty by urbanization level: United States, 2011



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 5 for data points graphed.

SOURCE: United States Census Bureau, Estimates of the Population of Counties by Age, Sex, Race, and Hispanic Origin: 2011.

Figure 5(b). Population in poverty by region and urbanization level: United States, 2011



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 5 for data points graphed.

SOURCE: United States Census Bureau, Estimates of the Population of Counties by Age, Sex, Race, and Hispanic Origin: 2011.

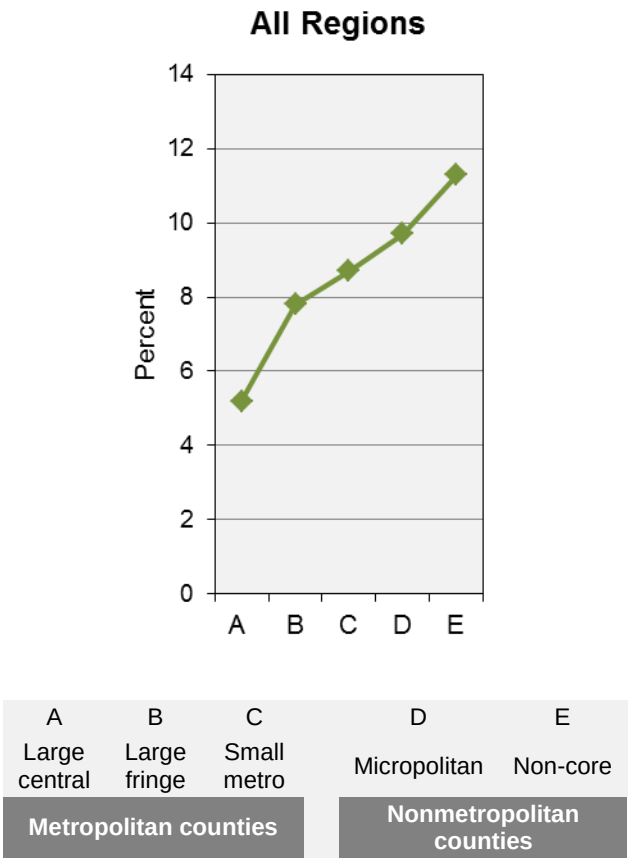
2. Health-Related Behaviors and Risk Factors

Adolescent Smoking

Smoking is the single most preventable cause of disease and death in the United States.[13] Between 1991 and 2011, smoking among high school students decreased from 28 percent to 18 percent.[14] This trend is critical to improving the public's health since over 85 percent of adults who are addicted to tobacco began smoking as adolescents.[15]

- Current cigarette use (smoking 1 or more days in the past month) among adolescents 12–17 years of age differs by urbanization level. In 2010-2011, adolescents living in central counties of large metro areas [A] had the lowest rates of cigarette use (5 percent) and those living in the most rural counties [E] had the highest (11 percent).
- In all regions, the smoking rate among adolescents was directly related to rurality. Smoking was more common among adolescents living in nonmetro counties [D, E] than among those living in central counties of large metro areas [A].
- Across all regions and urbanization levels, the lowest rate of adolescent smoking was found in central counties of large metro areas [A] in the South (5 percent), while the highest rate was seen in the most rural counties of the Midwest [E] (13 percent).
- In all regions except the West, adolescents residing in the most rural counties [E] were more likely to smoke (11 percent in the South, 12 percent in the Northeast, and 13 percent in the Midwest) than adolescents residing in other regions. In the West, adolescents residing in fringe counties of metro areas [B] were most likely to smoke (9 percent).

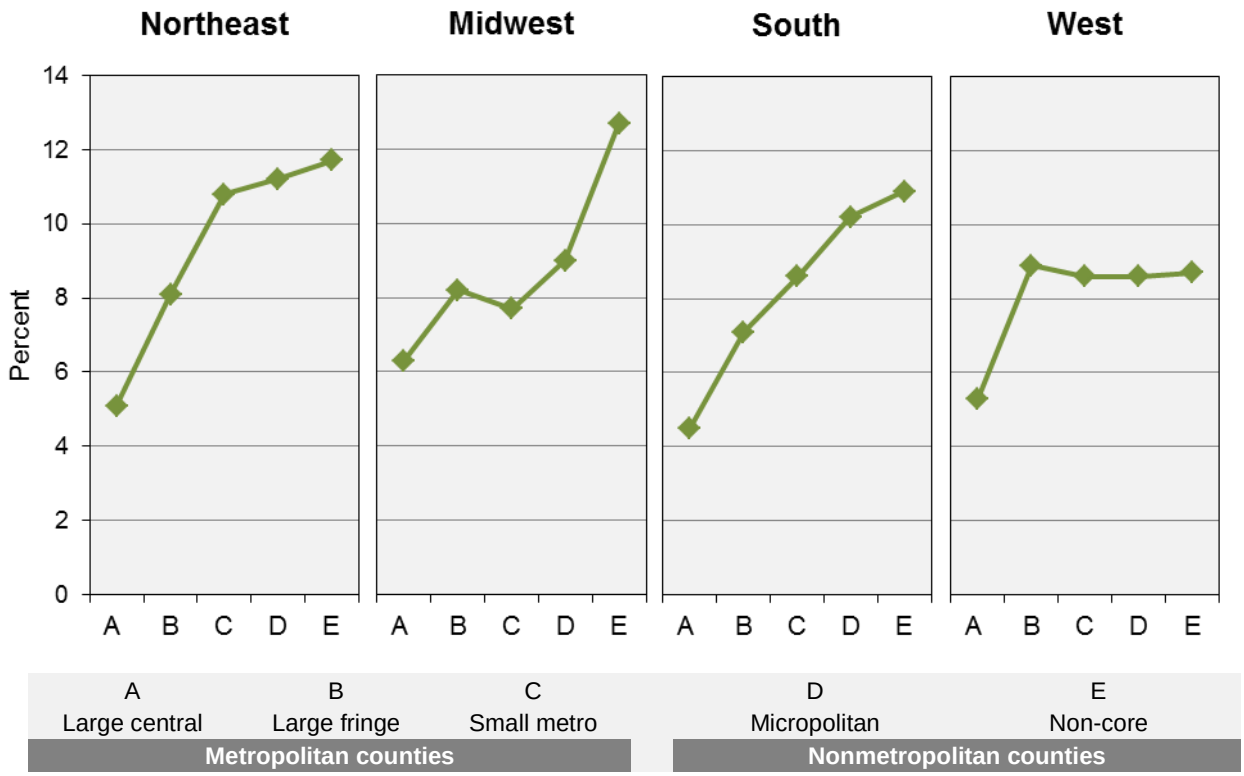
Figure 6(a). Cigarette smoking in the past month among adolescents 12-17 years of age by urbanization level: United States, 2010-2011



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 6 for data points graphed.

SOURCE: Substance Abuse and Mental Health Services Administration, National Household Survey on Drug Abuse.

Figure 6(b). Cigarette smoking in the past month among adolescents 12-17 years of age by region and urbanization level: United States, 2010-2011



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 6 for data points graphed.

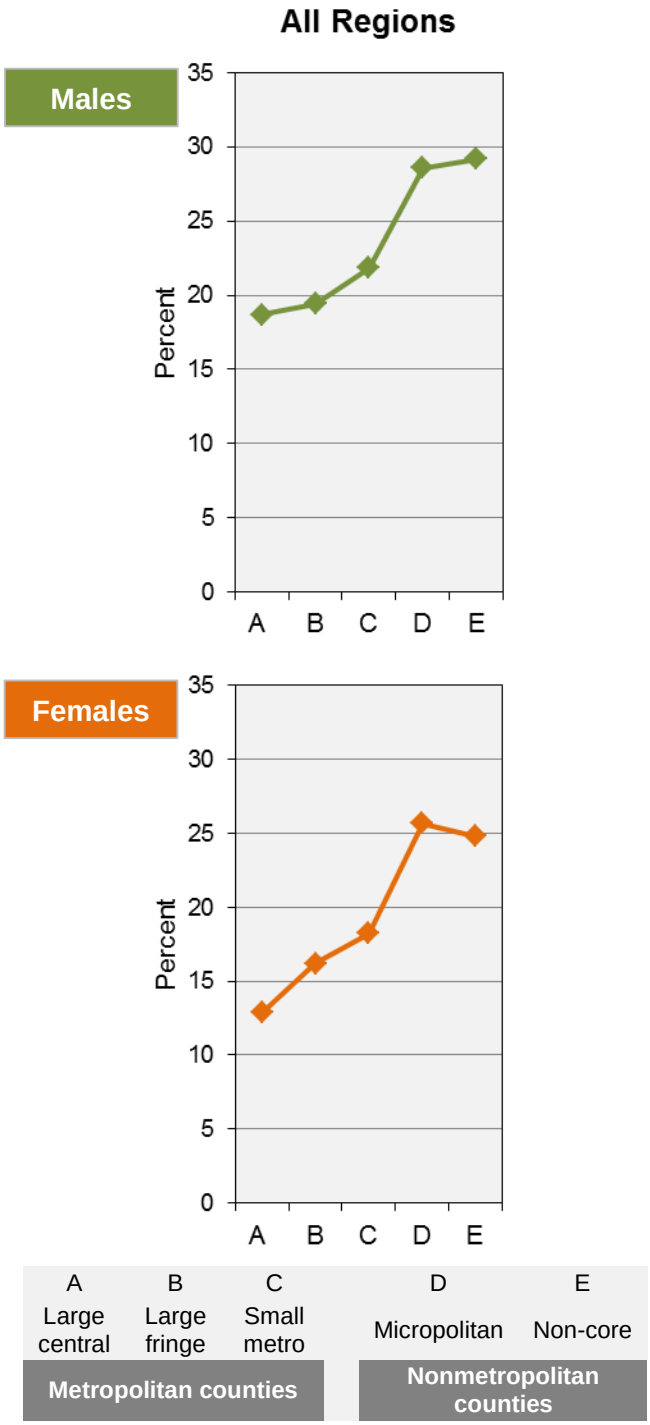
SOURCE: Substance Abuse and Mental Health Services Administration, National Household Survey on Drug Abuse.

Adult Smoking

After dramatic declines in cigarette smoking among adults following the first Surgeon General's Report in 1964, the decline among adults stalled.[16] The percent of adults smoking declined from 42 to 25 percent between 1965 and 1990. By 2011, smoking prevalence decreased to 19 percent.[17] Understanding where smoking prevalence remains high may assist in planning population-specific campaigns to reduce smoking.

- From 2010-2011, adults living in nonmetro counties [D, E] were significantly more likely to smoke than adults in metro counties [A, B, C] nationwide (25 percent of women and 29 percent of men in in nonmetro counties [D, E] compared to 13 percent of women and 19 percent of men in central counties of large metro areas [A]).
- Regionally, smoking rates were also highest in nonmetro counties [D+E]. The largest urban-rural disparity in smoking rates was seen in the South, where smoking rates for men rose from 20 percent in fringe counties [B] to 33 percent in nonmetro counties [D+E] and for women rose from 14 percent in central counties [A] to 27 percent in nonmetro counties [D+E].
- Across all urbanization levels, smoking rates for men and women were generally lower in the West than in other regions.

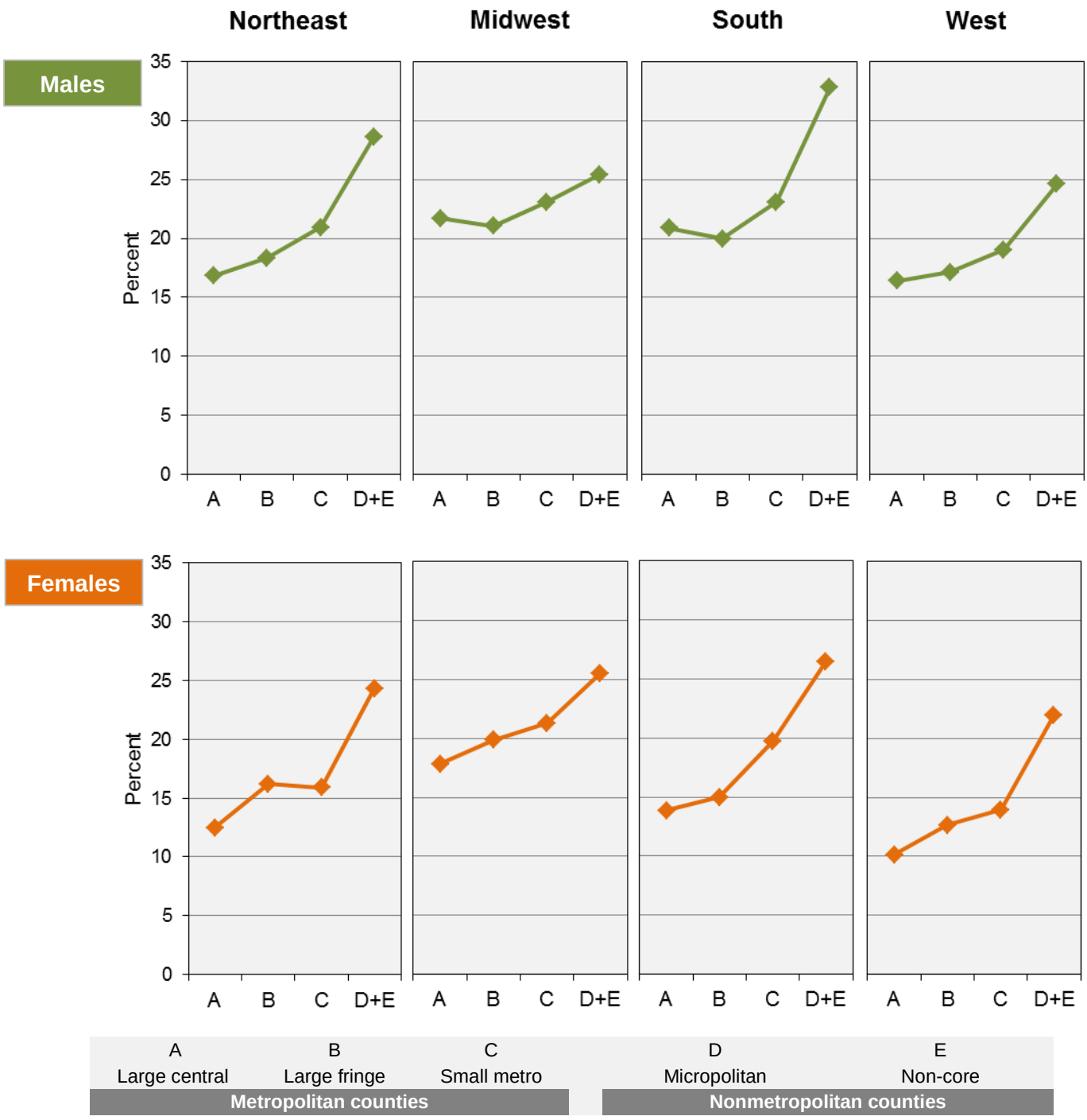
Figure 7(a). Cigarette smoking among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 7 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 7(b). Cigarette smoking among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 7 for data points graphed.

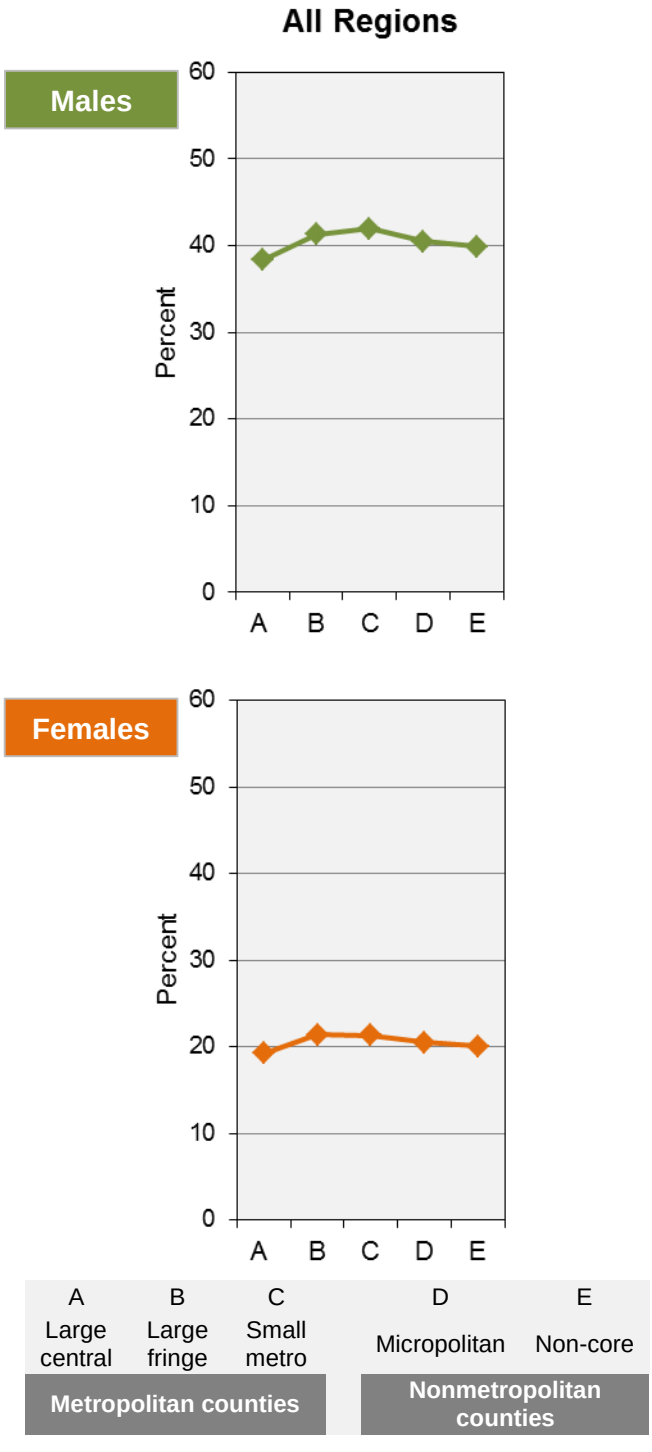
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Alcohol Consumption

Consuming five or more alcoholic drinks in one day in the last year is one indicator of heavy alcohol consumption. Infrequent consumption of alcoholic beverages at this level does not necessarily indicate alcohol abuse or alcoholism. However, persons who consume this quantity of alcohol are at increased risk for alcohol-related disorders compared to those who do not. Immediate health risks of excessive alcohol use include unintentional injuries (e.g., injuries resulting from traffic accidents), domestic violence, risky sexual behaviors, and alcohol poisoning. Long-term health risks include neurological problems, cardiovascular problems, psychiatric problems, social problems (e.g., unemployment), increased cancer risk, and liver diseases.[18] Because alcohol use declines markedly with age, this section focuses on the highest risk group — adults ages 18-49 years.

- Nationally, men were twice as likely as women to have consumed five or more drinks in one day in the last year (40 percent compared with 20 percent).
- Nationwide, the proportion of adults 18-49 years of age who consumed five or more alcoholic drinks in one day in the last year varied little by urbanization level, though slightly higher rates were observed in the middle of the urban-rural continuum for both sexes.
- In all regions except the South, men and women living in central counties of large metro areas [A] were least likely to have reported consuming five or more drinks in one day in the last year.
- Conversely, reported alcohol consumption in the South decreased as rurality increased. Men and women living in nonmetro counties [D+E] of the South were least likely to report consumption of five or more drinks in one day in the last year compared to those living in other urbanization levels.
- The West was the only region where men and women living in nonmetro counties [D+E] were most likely to report this level of alcohol consumption in the last year compared to other urbanization levels.

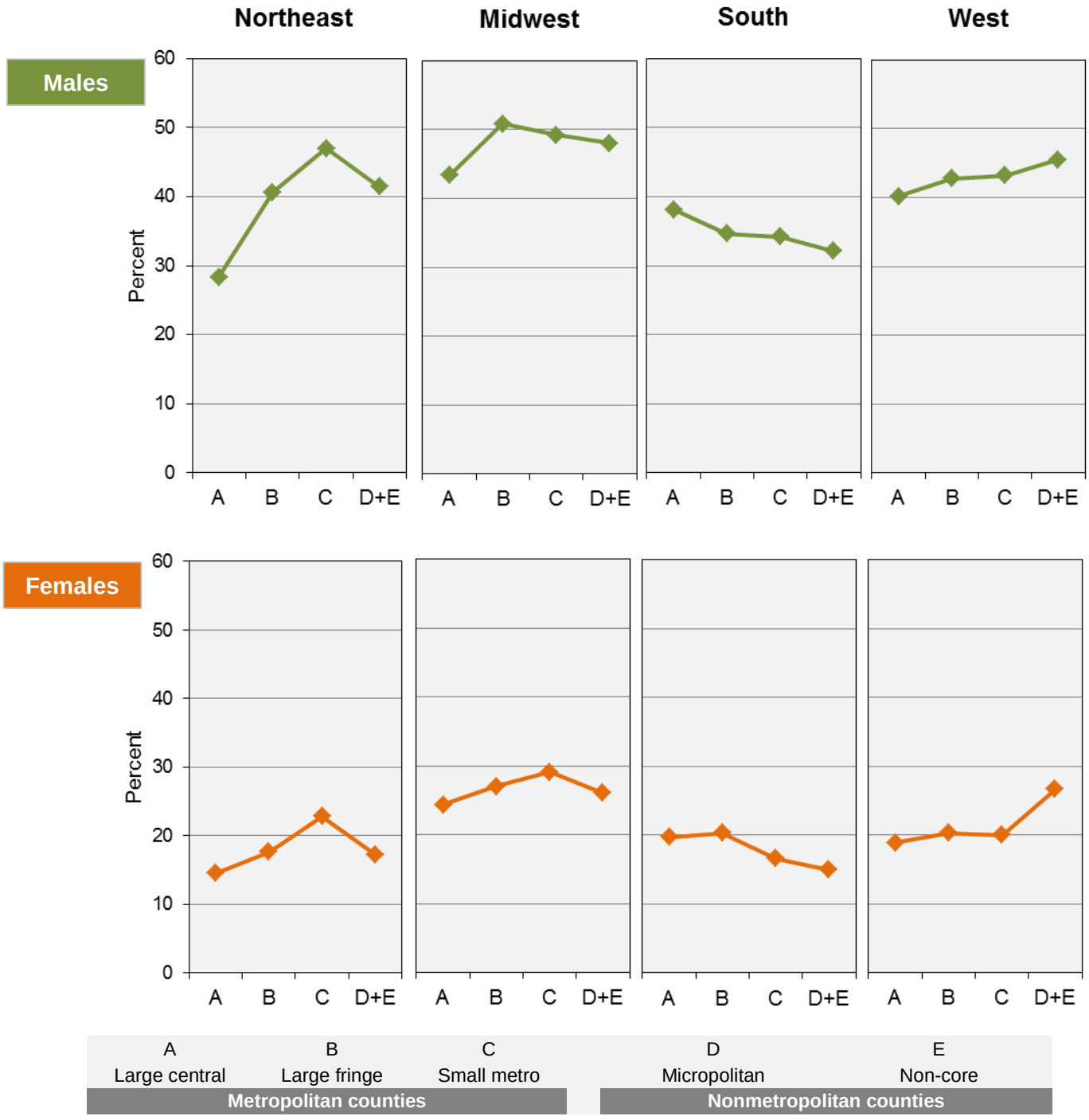
Figure 8(a). Consumption of five or more alcoholic drinks in one day in the last year among persons 18-49 years of age by sex and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 8 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 8(b). Consumption of five or more alcoholic drinks in one day in the last year among persons 18-49 years of age by sex, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 8 for data points graphed.

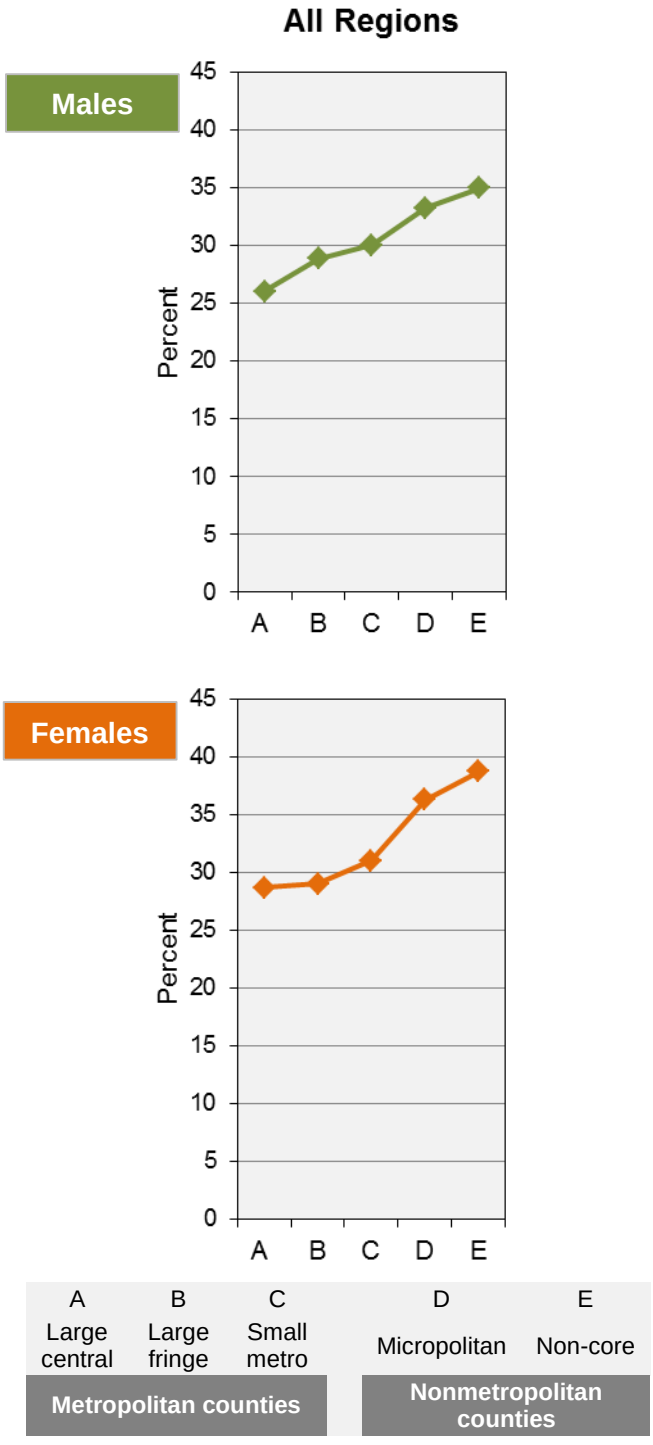
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Obesity

Obesity—defined as a ratio of body weight to height—has been linked to a variety of serious chronic illnesses, including diabetes, heart disease, cancer, and arthritis. Between 1960 and 2010, the proportion of adults in the United States who are overweight or obese increased from 45 percent to 69 percent,[19] making it a rising public health concern.

- Self-reported obesity varied by urbanization level and increased with increasing levels of rurality. In 2010-2011, women living in central counties of large metro areas [A] nationwide had the lowest age-adjusted prevalence of obesity (29 percent) while women in the most rural counties the highest [E] (40 percent). The pattern for men was the same as for women; self-reported obesity rates were higher in more rural areas [E]. The lowest rates were seen in central counties of large metro areas [A] (26 percent) while the highest rates were observed in the most rural counties [E] (35 percent).
- The correlation between self-reported obesity and rurality was also present at the regional level. Among women, obesity prevalence was lowest in fringe counties of large metro areas [B] in each region except in the West, where it was lowest in central counties [A]. Among men, the only difference was observed in the Midwest, where there was little variation in obesity rates across urbanization levels.
- Across regions, the highest self-reported obesity rate among men was in nonmetro counties [D+E] in the West (36 percent) while, among women, the highest self-reported obesity rate was in nonmetro counties in the South [D+E] (40 percent).

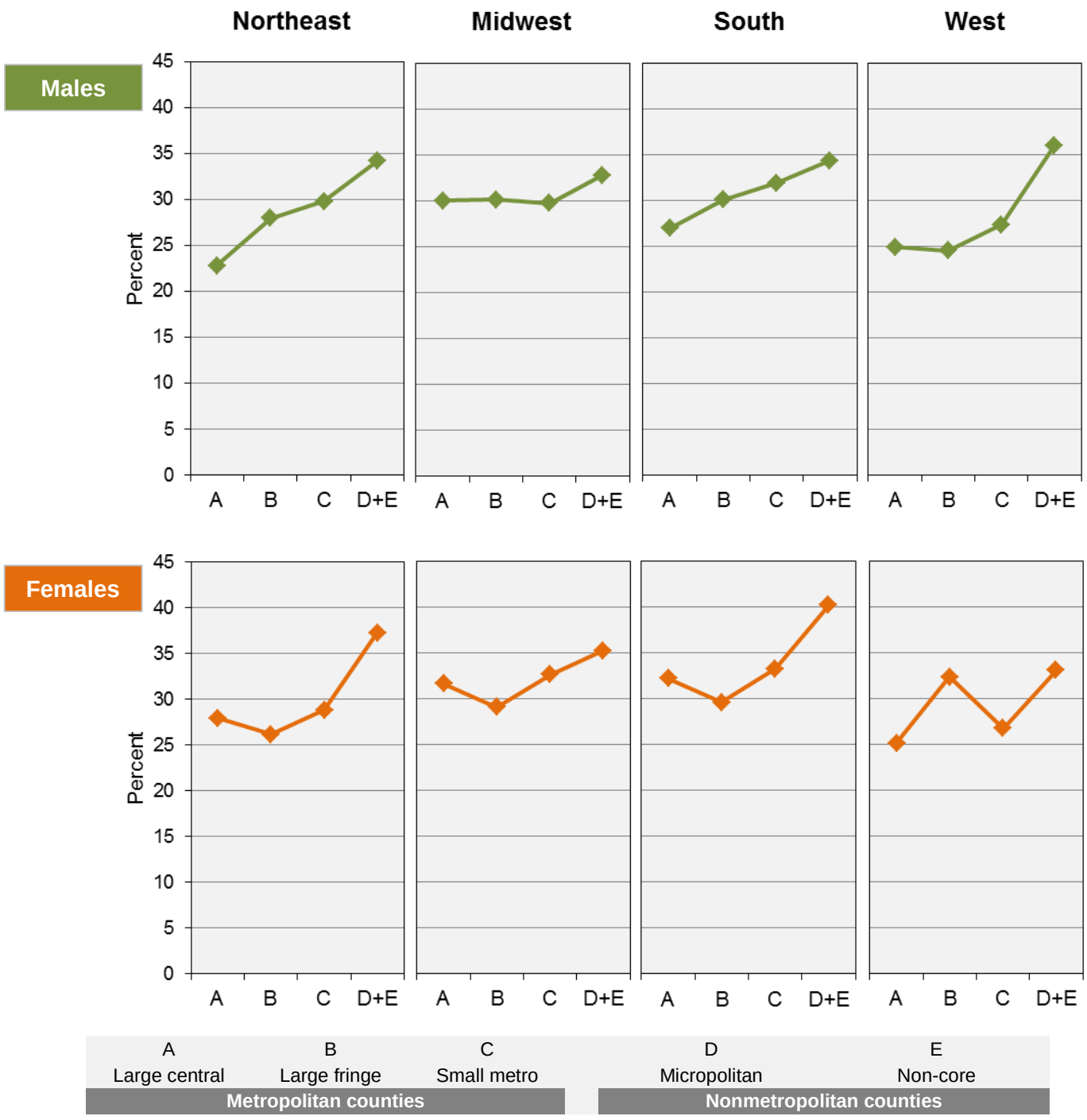
Figure 9(a). Obesity among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Obesity is defined as body mass index ≥ 30 based on self-reported height and weight. Percentages are age adjusted. See Technical Notes for a description of age-adjustment method, urbanization levels, and obesity data. See Data Table 9 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 9(b). Obesity among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Obesity is defined as body mass index ≥ 30 based on self-reported height and weight. Percentages are age adjusted. See Technical Notes for a description of age-adjustment method, urbanization levels, and obesity data. See Data Table 9 for data points graphed.

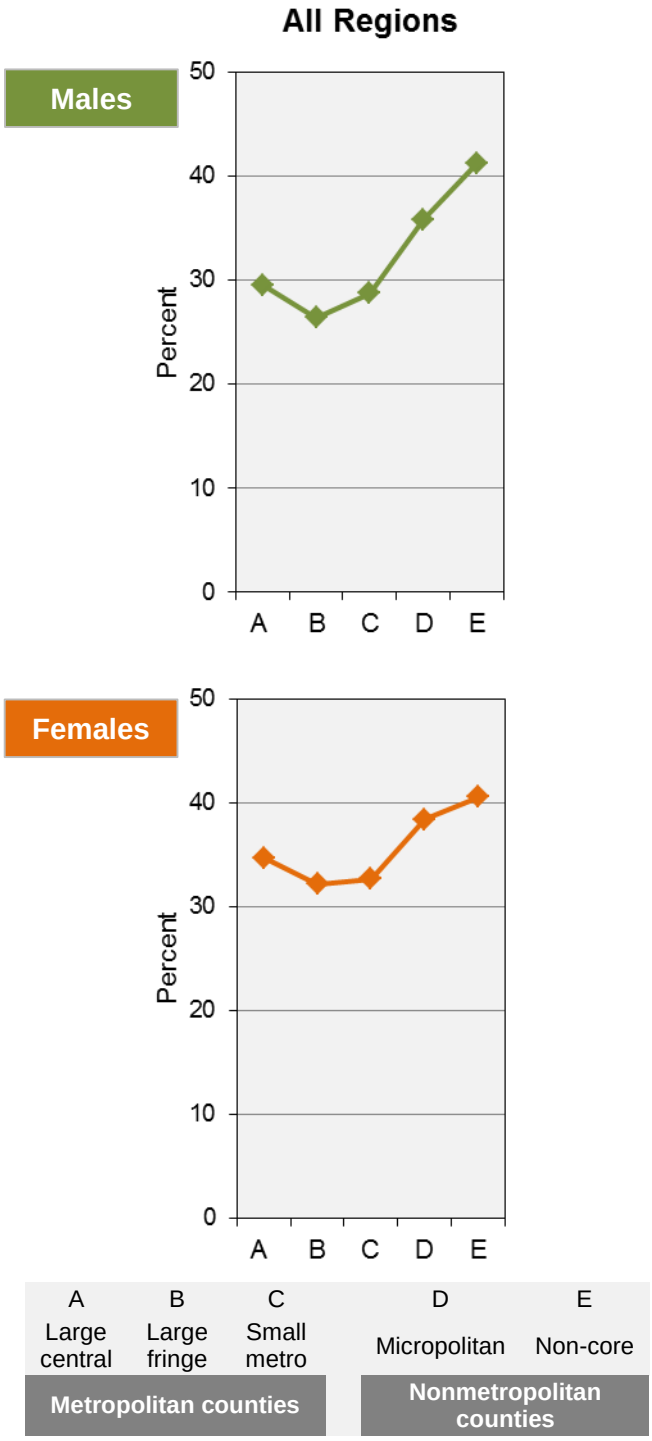
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Physical Inactivity

Regular physical activity and improved physical fitness offer numerous health benefits, including reduced risk for cardiovascular disease, diabetes, obesity, some cancers, and musculoskeletal conditions.[20] In the data below, the definition of physical activity is limited to ‘‘exercise, sports, or physically active hobbies’’ pursued during a person’s leisure time. The data are presented as rates of inactivity.

- Nationwide, inactivity during leisure time was least common for residents of fringe counties of large metro areas [B] (26 percent for men and 32 percent for women in 2010-2011). It was most common for men and women in the most rural counties [E] (41 percent for both sexes in 2010-2011).
- Patterns in leisure time inactivity across urbanization level differed substantially by region. Within each region, however, the trends for men and women across urbanization levels tended to be similar, with the exception of the West. In the West, inactivity rates among men were highest in nonmetro counties [D+E] (28 percent) whereas they were highest in central counties of large metro areas [A] among women (29 percent).
- In the Northeast, leisure time inactivity rates were higher in central counties of large metro areas [A] (42 percent of men and 48 percent of women) than other urbanization levels (25-34 percent of men and 28-40 percent of women).
- In the Midwest and South, Inactivity during leisure time was highest in nonmetro counties [D+E]. In the Midwest, the rate was 38 percent for men and women while, in the South, the rates were 44 percent for men and 46 percent for women.

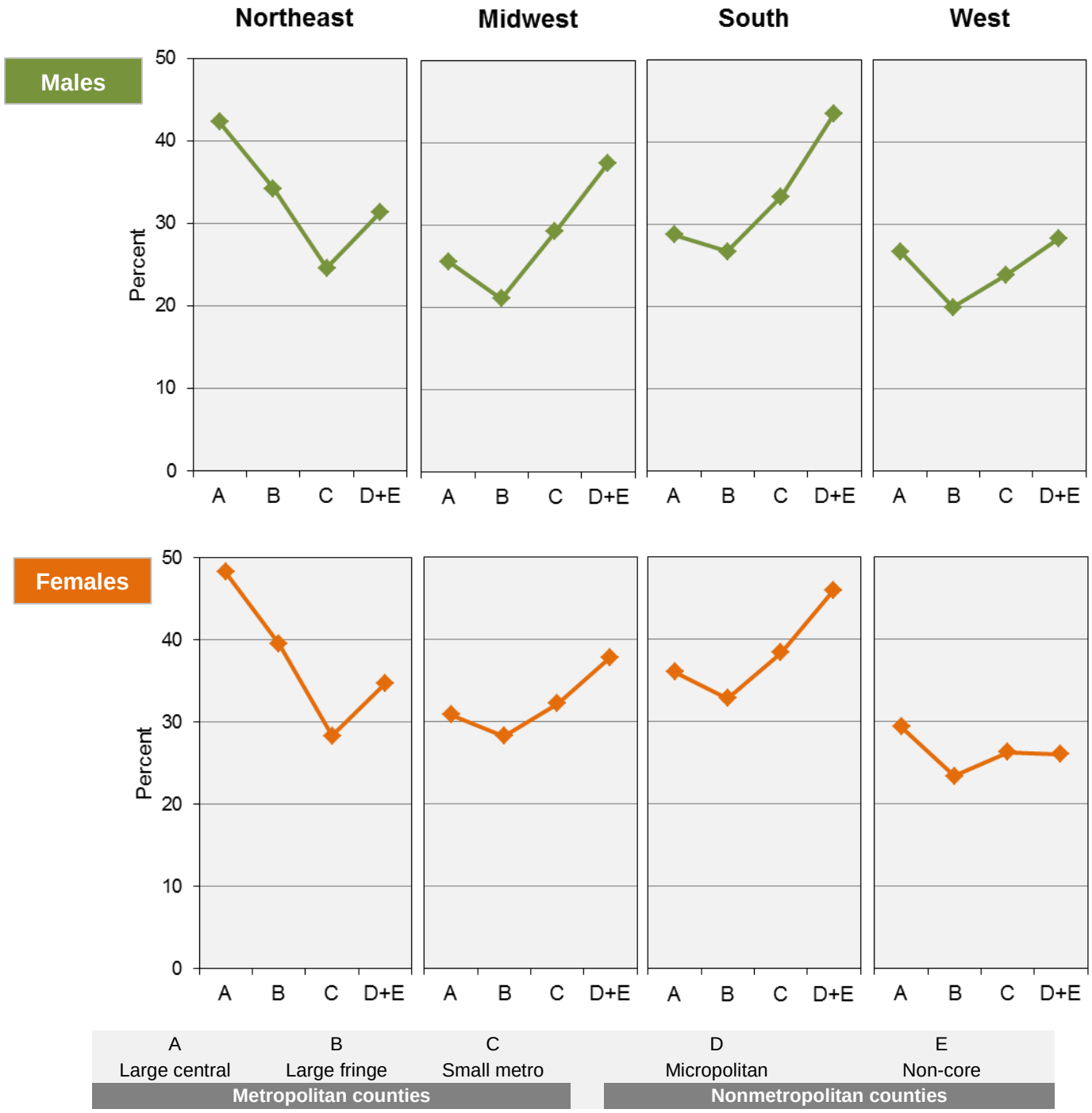
Figure 10(a).Physical inactivity during leisure time among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 10 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 10(b). Physical inactivity during leisure time among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels. See Data Table 10 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

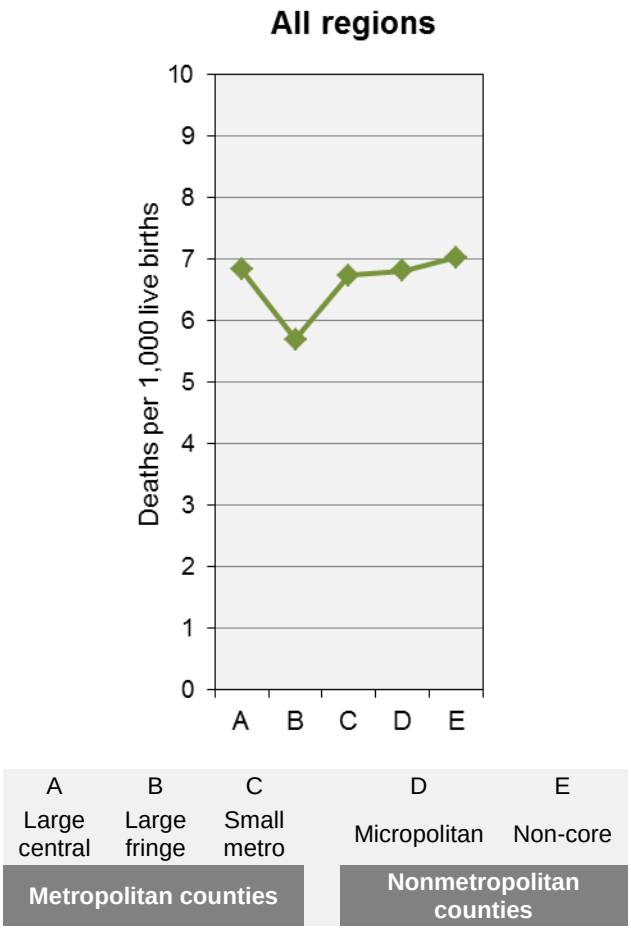
3. Mortality

Infants

Infant mortality, defined as death of a child before one year of age, is related to the underlying health of the mother and to the availability and use of prenatal and perinatal services. This makes infant mortality a useful indicator of health problems within and across communities.[21]

- Nationally, infant mortality rates were lowest in fringe counties of large metro areas [B] (5.7 deaths per 1,000 live births in 2008-2010).
- Urbanization levels with the highest infant mortality differed by region. In the Northeast and Midwest, infants living in central counties of large metro areas [A] were at the highest risk of death. In the South, infant mortality was highest in micropolitan counties [D], although central counties [A] were a close second. In the West, infants in the most rural counties [E] were at the highest risk.

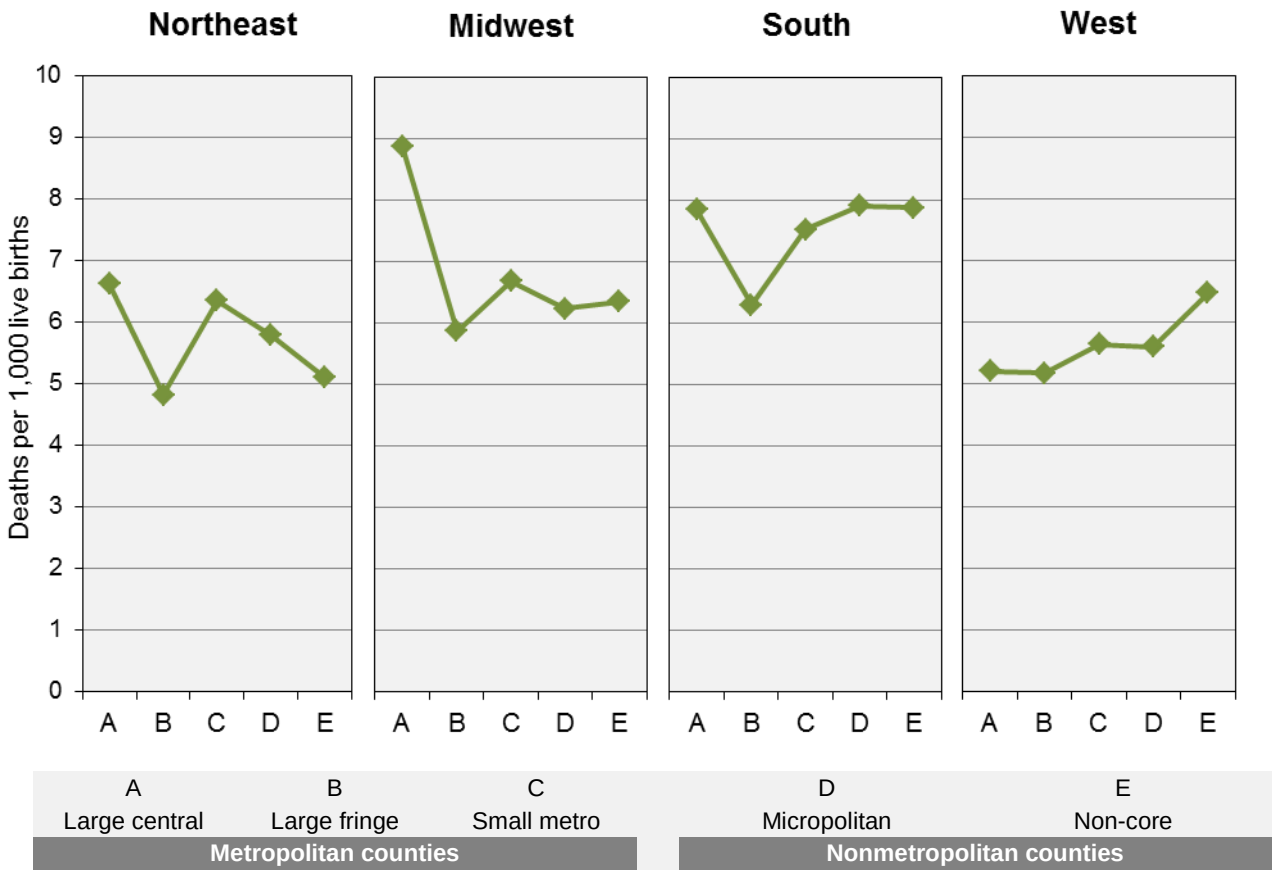
Figure 11(a).Infant mortality rates by urbanization level: United States, 2008-2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 11 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked Files of Live Births and Infant Deaths.

Figure 11(b). Infant mortality rates by region and urbanization level: United States, 2008-2010



NOTES: See Technical Notes for a description of urbanization levels. See Data Table 11 for data points graphed.

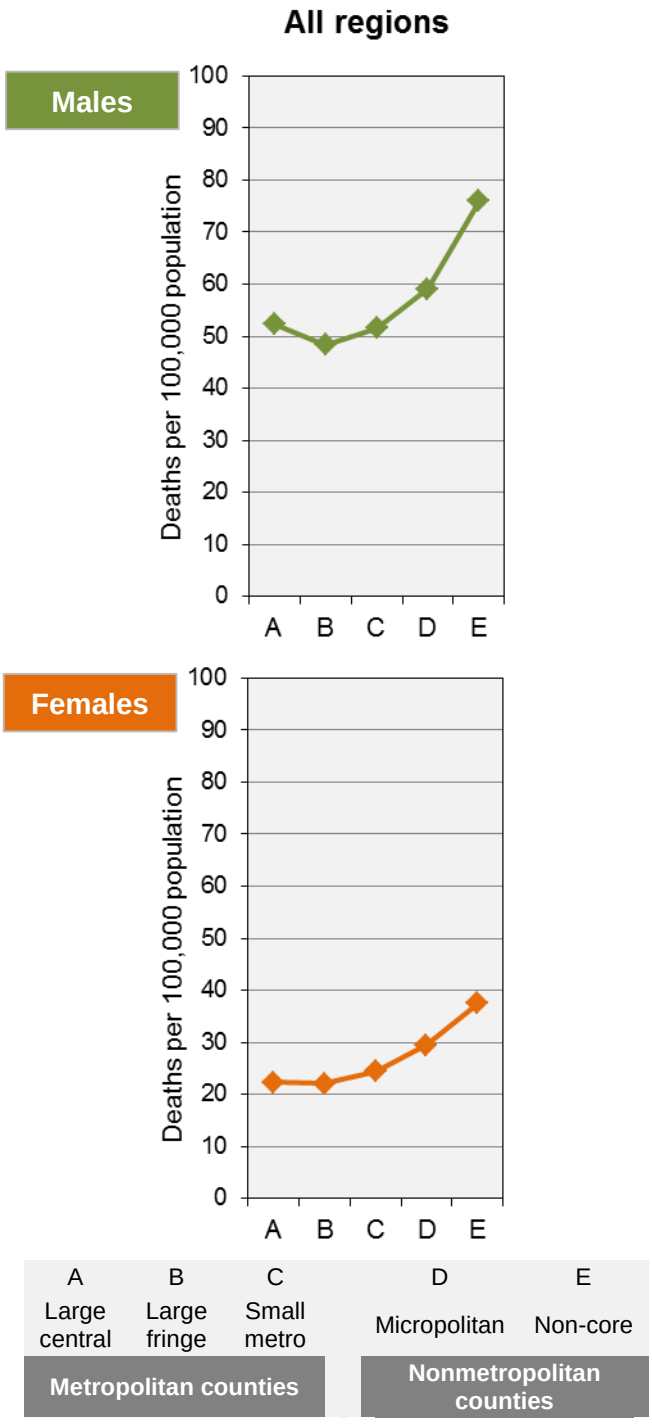
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked Files of Live Births and Infant Deaths.

Children and Young Adults

Deaths among children and young adults (ages 1-24 years) are largely preventable. Over 60 percent of the deaths in this young age group are due to injuries, both unintentional and intentional.[22] The proportion of deaths due to injury increases with age from 41 percent for children 1–4 years old to 73 percent for young persons 15–24 years old.[23,24]

- The death rate of boys and young adult males (ages 1-24 years) was much higher than that of their female counterparts. From 2008-2010, the death rate among males in this age group ranged from 48-76 per 100,000 compared to 22-38 deaths per 100,000 females.
- Nationally, the age-adjusted death rate for children and young adults increased steadily from fringe counties of large metro areas [B] to the most rural counties [E] (48 to 76 per 100,000 males, 22 to 38 per 100,000 females from 2008-2010).
- Death rates for both males and females in all regions were lower in central counties of large metro areas [A] (44-63 per 100,000 males and 19-27 per 100,000 females) than in the most rural counties [E] (58-96 per 100,000 males and 28-43 per 100,000 females).
- From 2008-2010, the greatest differential in the male mortality rate was between fringe counties of large metro areas [B] in the Northeast (approximately 40 deaths per 100,000) and the most rural counties [E] in the South (about 80 deaths per 100,000).

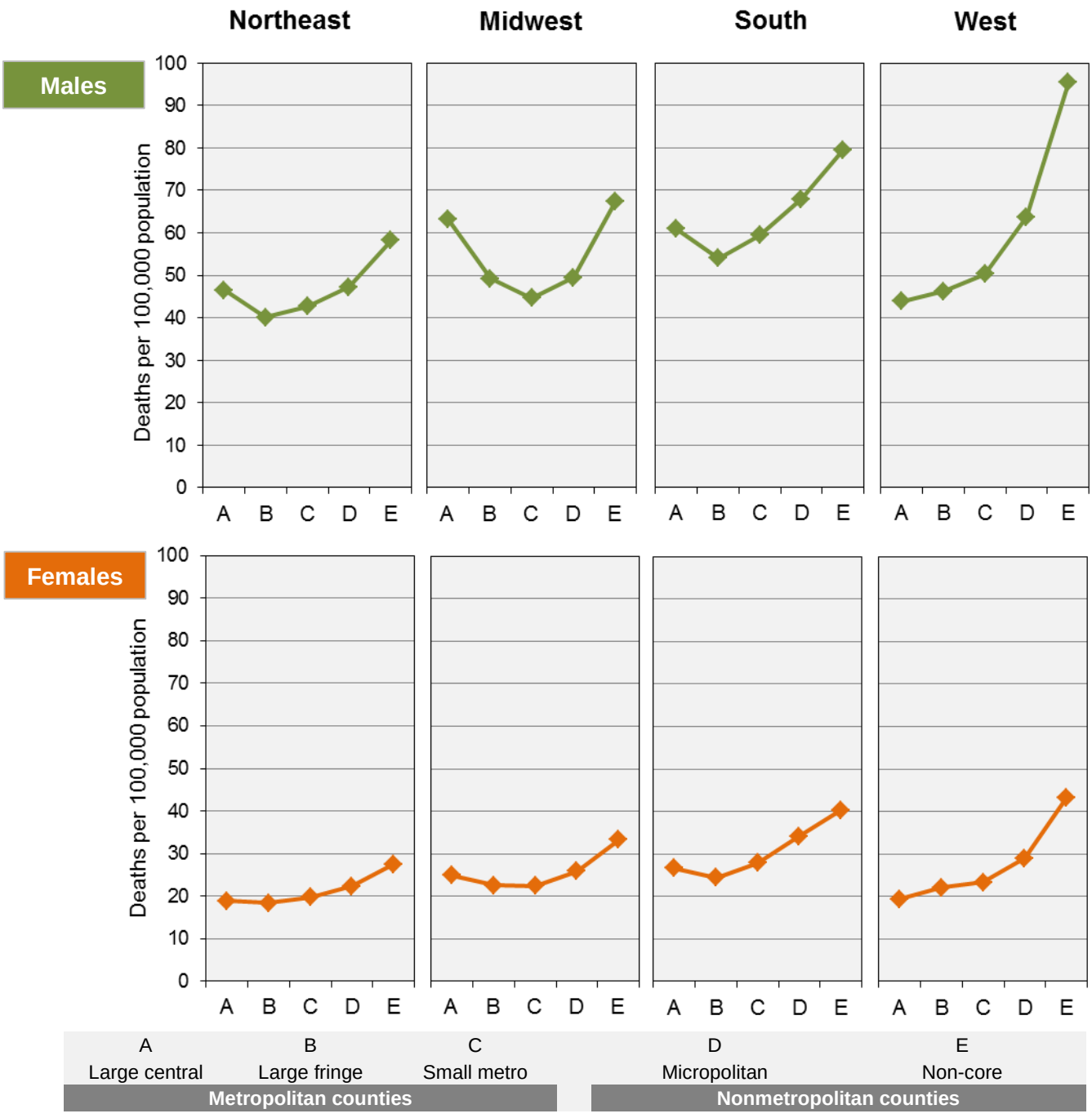
Figure 12(a). Death rates for all causes among persons 1-24 years of age by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 12 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 12(b). Death rates for all causes among persons 1-24 years of age by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 12 for data points graphed.

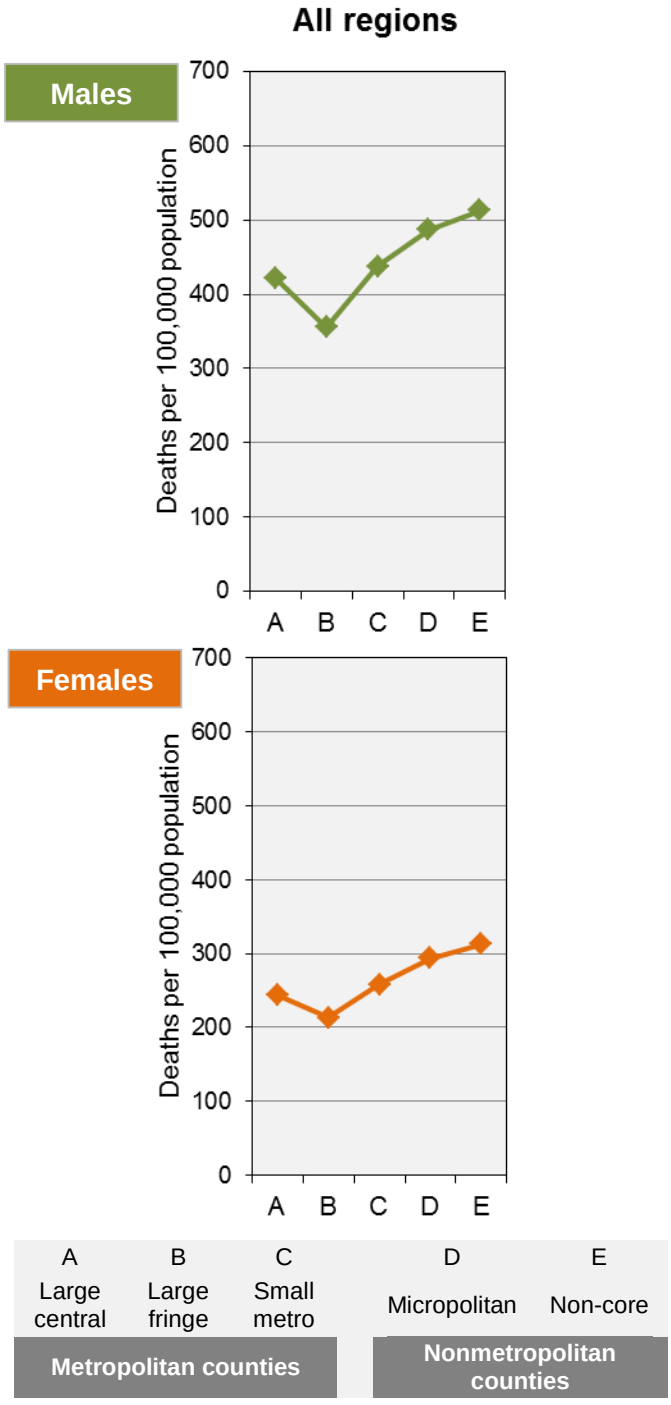
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Working-Age Adults

Deaths among persons 25–64 years of age accounted for 24 percent of all deaths in the United States in 2010.[25] The three leading causes of death for working-age adults were cancer, heart disease, and unintentional injuries; lung cancer was the leading cause of cancer mortality.[26,27]

- Nationwide age-adjusted death rates for working-age adults were lowest in fringe counties of large metro areas [B] (356 per 100,000 men and 213 per 100,000 women from 2008-2010).
- While the death rate of males was considerably higher than females for each urbanization level, the rates among working-age adults of both sexes followed the same pattern across urbanization levels. The lowest death rates occurred in fringe counties [B] followed by central counties [A], small metro counties [C], micropolitan counties [D], and the most rural counties [E], which had the highest mortality rate for this age group.
- In all regions, the lowest death rates for working-age adults occurred in fringe counties of large metro areas [B]. In the Northeast and Midwest, the death rates were highest in central counties [A] (28–37 percent higher than in fringe counties of the same region). In the South and West, death rates were highest in nonmetro counties (30–60 percent higher than in fringe counties).

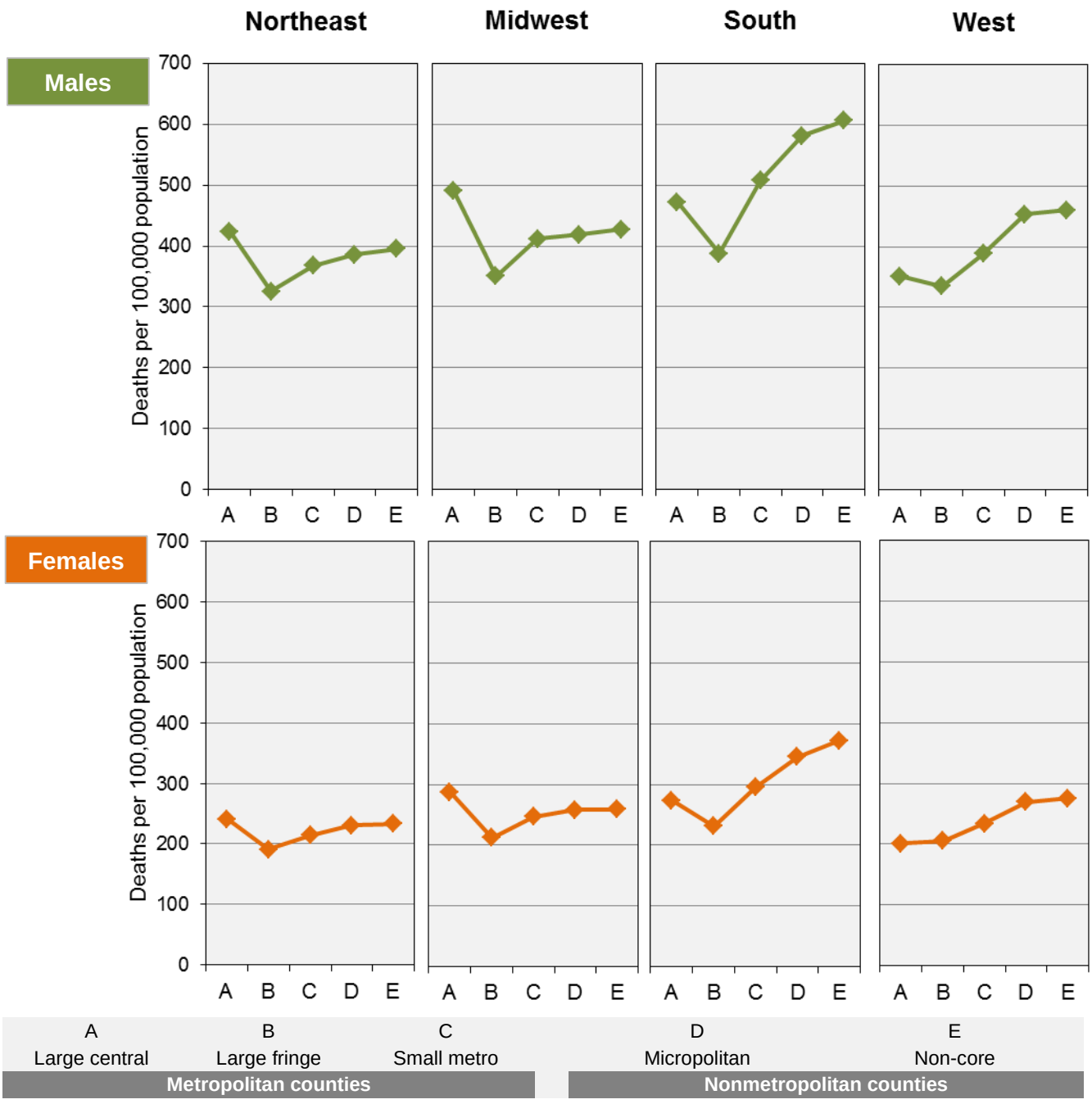
Figure 13(a). Death rates for all causes among persons 25-64 years of age by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 13 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 13(b). Death rates for all causes among parsons 25-64 years of age by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 13 for data points graphed.

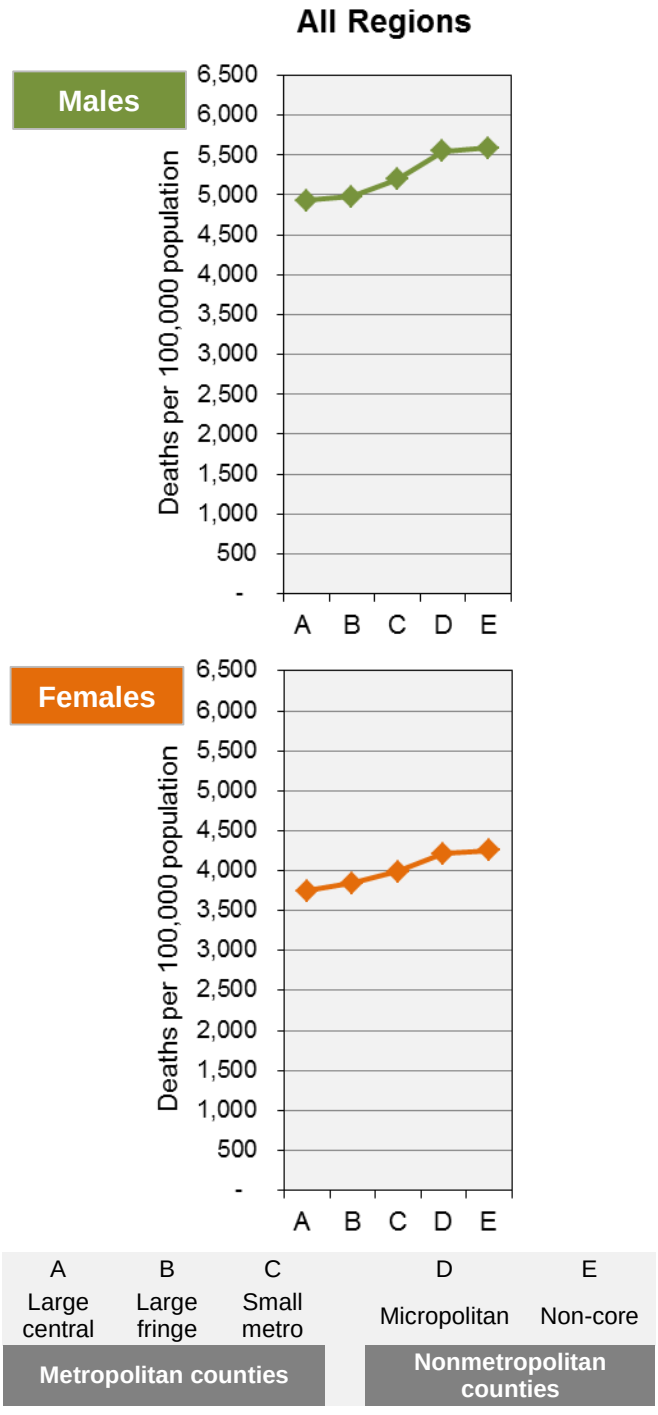
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Seniors

Almost three-quarters of all deaths in the United States occur among persons age 65 and older.[28] The top five causes of death for elderly Americans are heart disease, cancer, chronic obstructive pulmonary disease, stroke, and Alzheimer's disease.[29] The provision of appropriate and timely health services can help seniors prevent, treat, and manage chronic illnesses, and thus enhance the quality of life and prevent premature death.

- The national age-adjusted death rate for elderly men was lowest in large metro (central [A] and fringe [B]) counties and highest in nonmetro counties [D, E] (about 4,900 compared with about 5,600 per 100,000 in 2008-2010).
- The same pattern was seen among elderly men as among elderly women. As rurality increases, the death rate for both sexes rises. The death rate for both sexes was lowest in central counties of large metro areas [A] (3,744 per 100,000 for elderly women; 4,929 per 100,000 for elderly men) and highest in nonmetro counties [D, E] (4,200 per 100,000 for elderly women; 5,591 per 100,000 for elderly men).
- The urban-rural upward gradient for seniors (13 percent for men and 14 percent for women) was less steep than for younger persons.
- While mortality patterns among seniors were similar for men and women within regions, they varied across regions. In all regions except the Midwest, mortality among seniors was lowest in large metro (central and fringe) counties [A, B] and highest in nonmetro counties [D, E]. This pattern differs only in the Midwest, where mortality among elderly women was lowest in the most rural counties [E]. However, the differential between the highest and lowest death rates for elderly women in the region was only 113 per 100,000 (4,087 per 100,000 compared to 3,974 per 100,000).

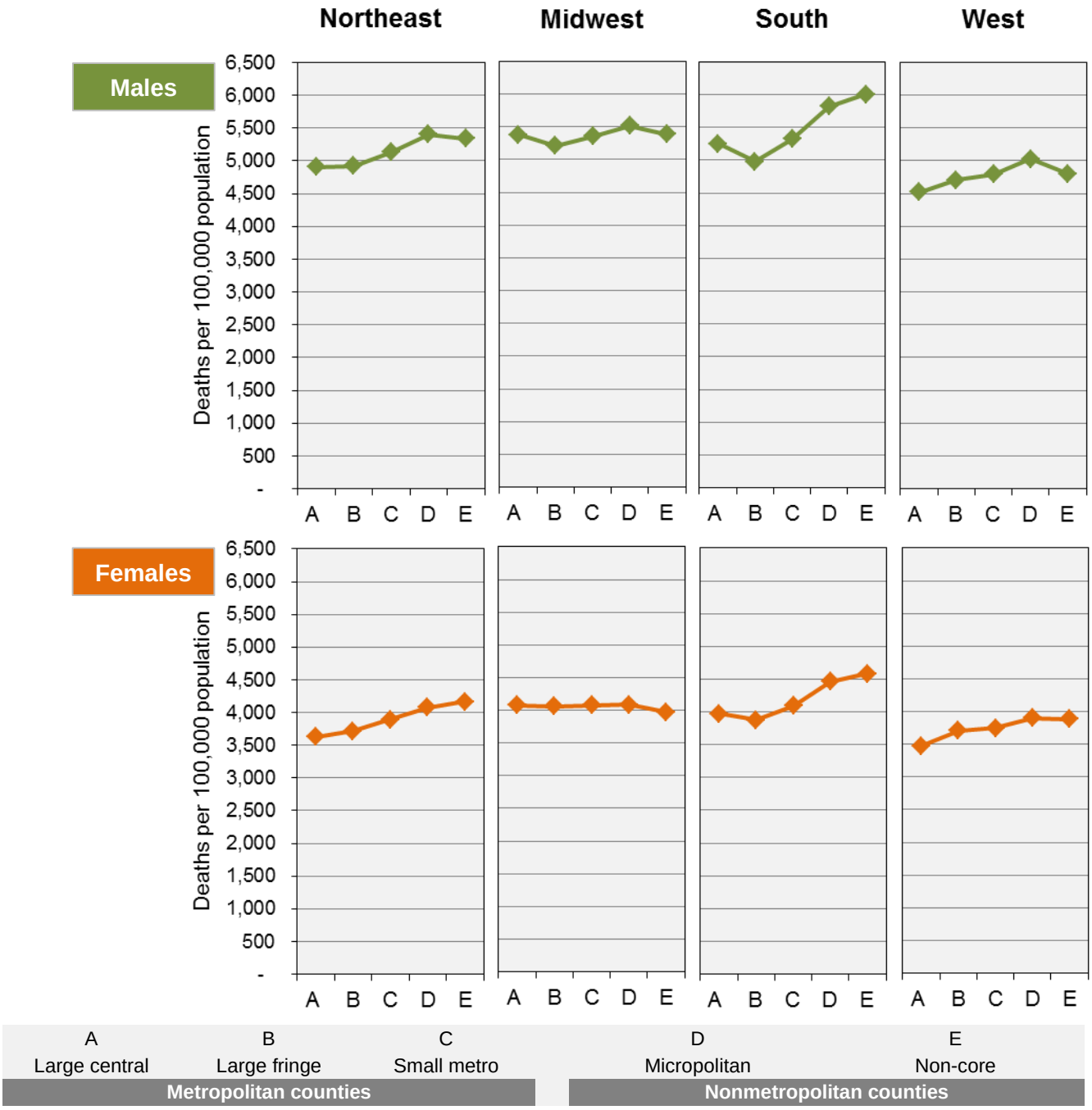
Figure 14(a). Death rates for all causes among persons 65 years of age and older by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 14 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 14(b). Death rates for all causes among persons 65 years of age and older by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 14 for data points graphed.

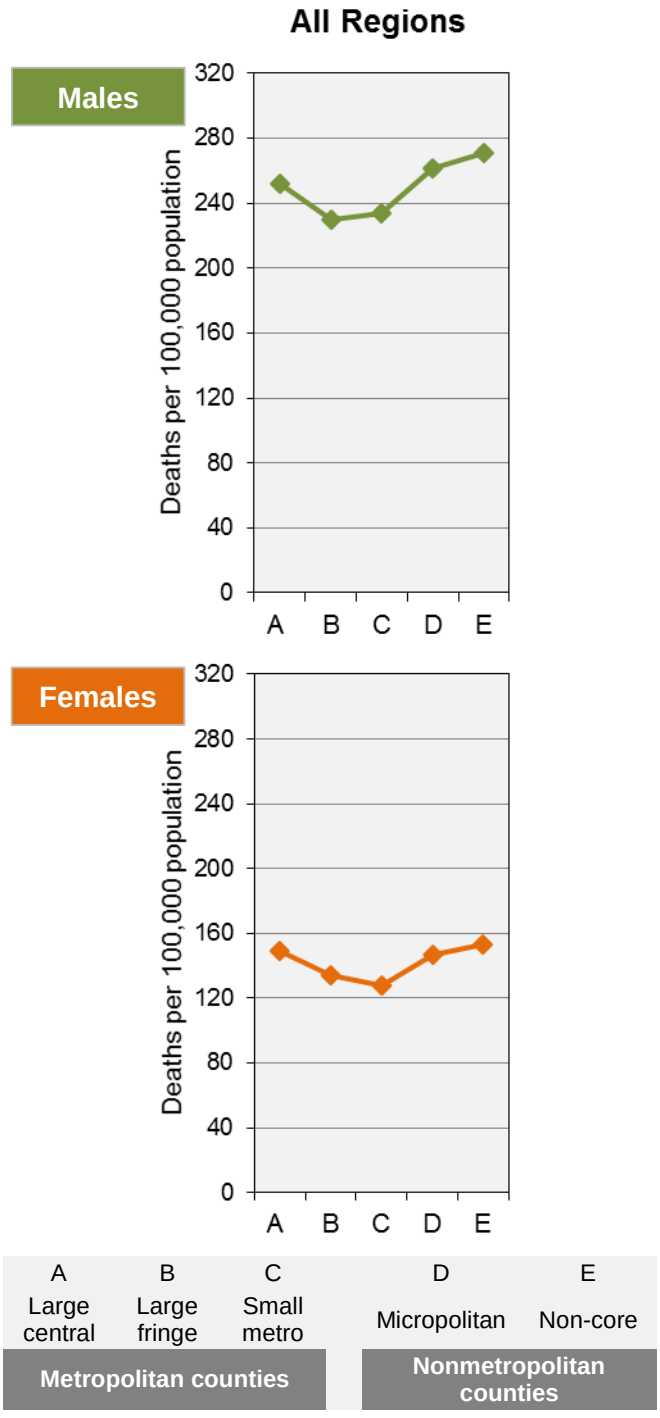
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Heart Disease

Heart disease is the leading cause of death in the United States. Ischemic heart disease accounts for more than 60 percent of heart disease deaths.[30]

- Nationwide, ischemic heart disease death rates for both men and women at least 20 years old were highest in the most rural counties [E]. For men, the rate was 271 deaths per 100,000, which is about 18 percent higher than in large fringe counties [B], where the rate was lowest. For women the death rate in the most rural counties was 153 per 100,000, which is about 20 percent higher than in small metro counties [C], where the rate was lowest.
- Among adults 20 years of age and older, urbanization patterns of ischemic heart disease death rates vary by region. In the Northeast and the West, the death rate was highest in central counties of large metro areas [A]. In the Midwest and the South, the death rate was highest in the most rural counties [E]. In the Northeast and Midwest, the ischemic heart disease death rate was lowest in small metro counties [C]. In the South, the death rate was lowest in fringe counties of large metro areas [B]. In the West, the death rate was lowest in the most rural counties [E].

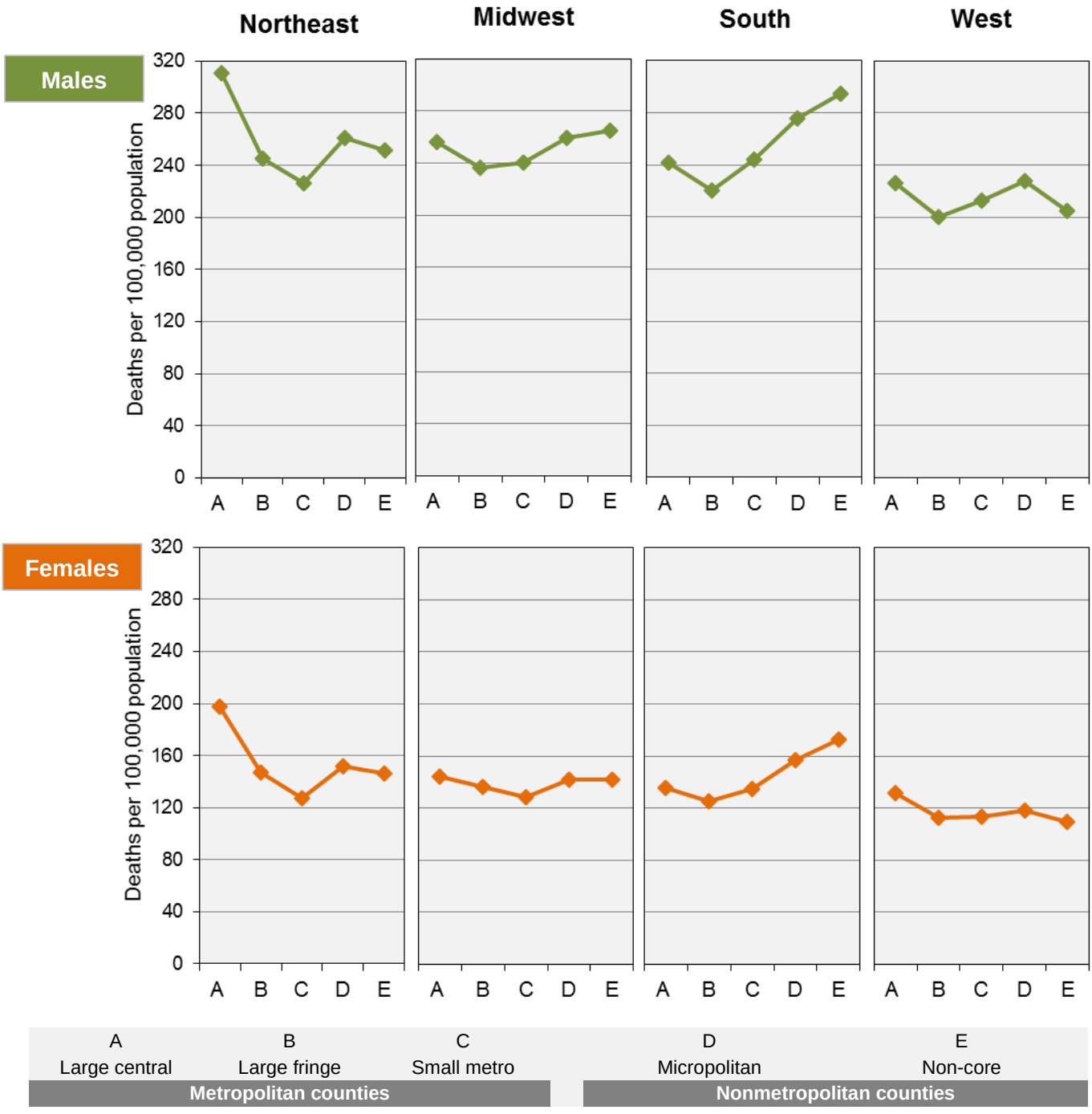
Figure 15(a). Death rates for ischemic heart disease among persons 20 years of age and older by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 15 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 15(b). Death rates for ischemic heart disease among persons 20 years of age and older by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 15 for data points graphed.

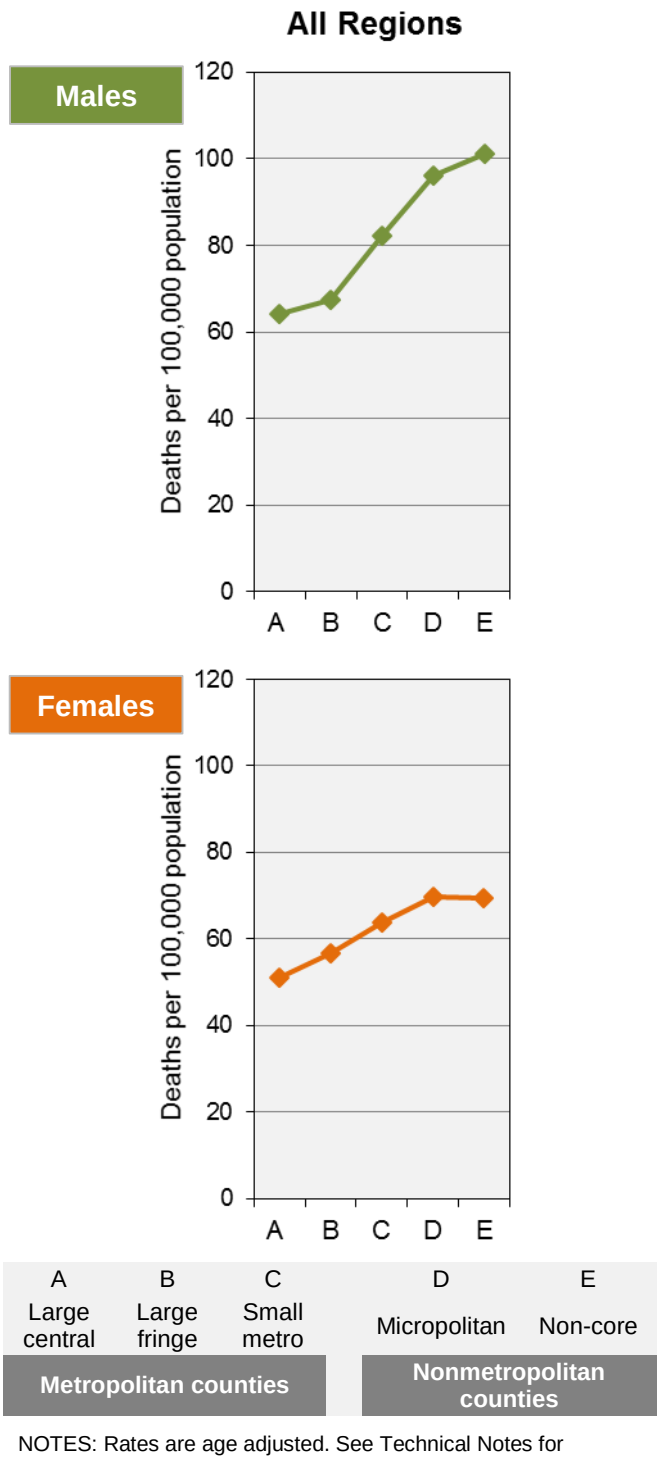
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Chronic Obstructive Pulmonary Diseases

Chronic obstructive pulmonary diseases and allied conditions (COPD) are diseases characterized by obstruction of airflow, such as chronic bronchitis, emphysema, and asthma. COPD is the third leading cause of death in the United States; it claimed over 138,000 lives in 2010.[31] Cigarette smoking is the most important risk factor for COPD. Occupational exposure to airborne pollutants, such as solvents and dusts, also contributes to COPD.[32]

- Nationwide, the age-adjusted COPD death rate for men 20 years and older from 2008-2010 increased as urbanization decreased (from 64 deaths per 100,000 population in central counties of large metro areas [A] to 101 deaths per 100,000 in the most rural counties [E]). A similar pattern held true for women (from 51 deaths per 100,000 population in central counties of large metro areas [A] to 70 deaths per 100,000 in nonmetro counties [D, E]).
- Among men, the regional patterns of COPD deaths from 2008-2010 generally followed the national pattern. Men in the Northeast had the largest disparity between urban and rural COPD mortality (51 deaths per 100,000 in central counties of large metro areas [A] compared to 90 deaths per 100,000 in the most rural counties [E]), followed by men in the South (69 deaths per 100,000 in fringe counties of large metro areas [B] to 110 deaths per 100,000 in the most rural counties [E]).
- Although COPD mortality rates among women also increased with rurality, the differences by urbanization level were not as pronounced among women as among men. Similar to the pattern seen among men, urban-rural disparities in COPD death rates among women were largest in the Northeast (39 deaths per 100,000 in central counties of large metro areas [A] compared to 66 deaths per 100,000 in nonmetro counties [D, E]), followed by the South (55 deaths per 100,000 in central counties of large metro areas [A] compared to 75 deaths per 100,000 in the most rural counties [E]).

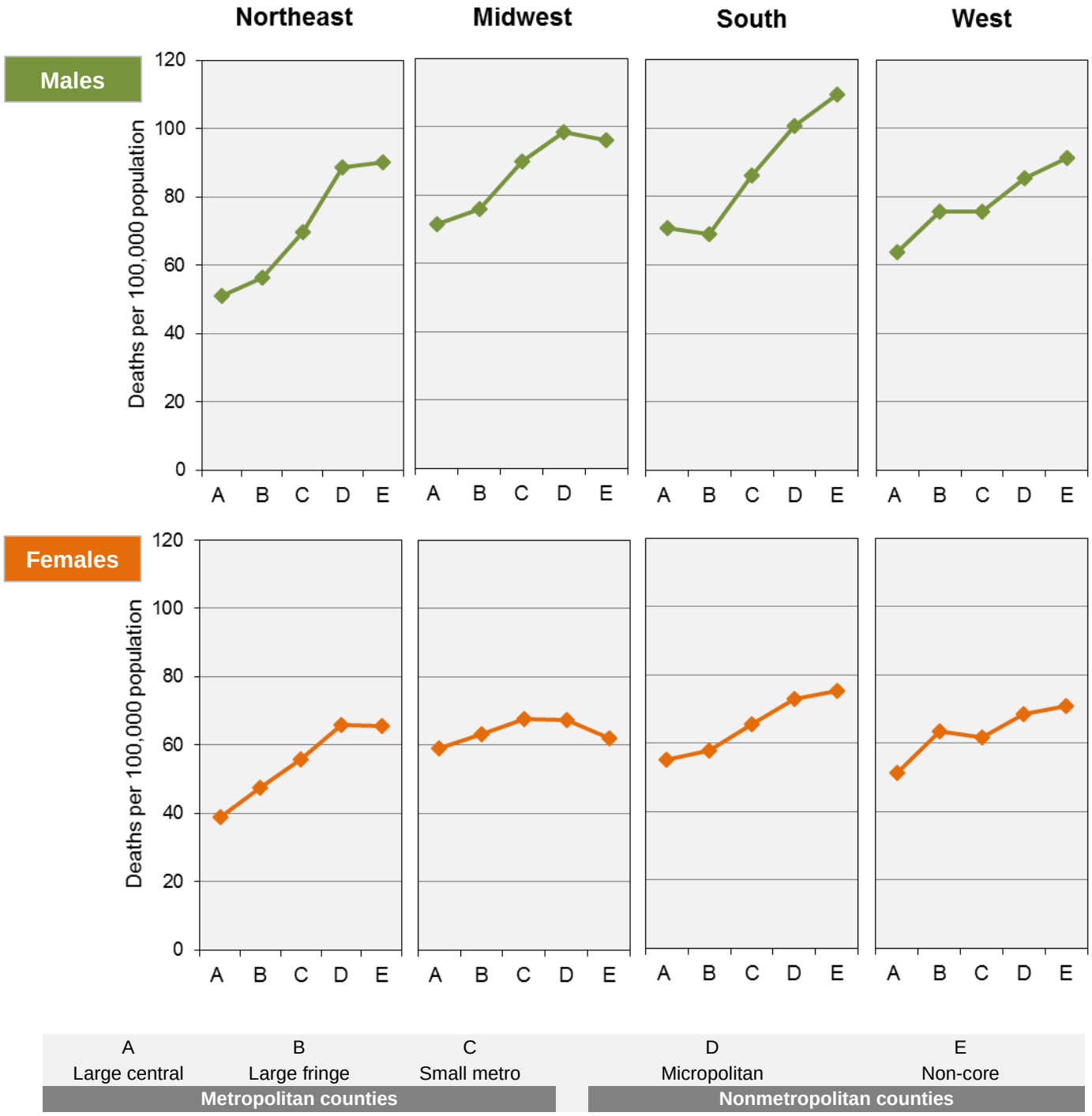
Figure 16(a). Death rates for chronic obstructive pulmonary diseases among persons 20 years of age and older by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 16 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 16(b). Death rates for chronic obstructive pulmonary diseases among persons 20 years of age and older by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 16 for data points graphed.

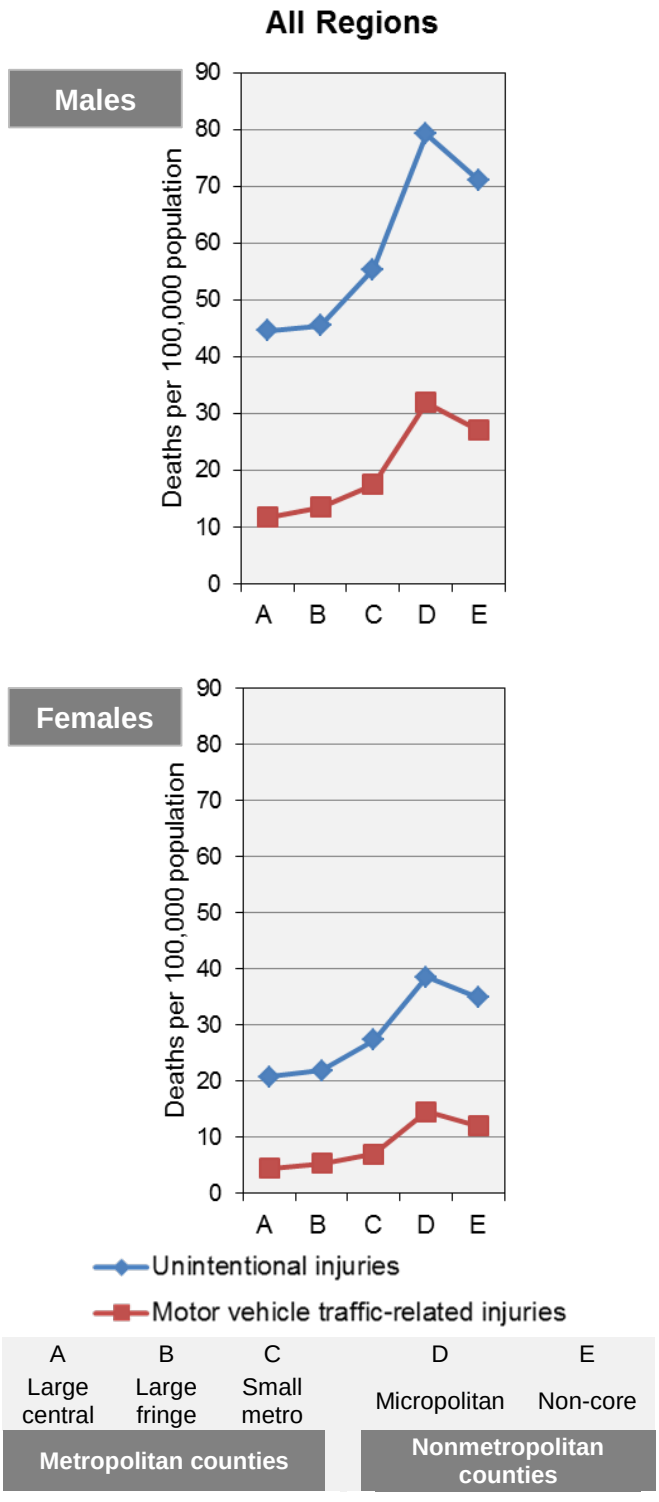
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Unintentional Injuries and Motor Vehicle Traffic-Related Injuries

From 2008-2010, deaths from unintentional injuries included deaths from poisoning (24 percent), motor vehicle traffic-related injuries (19 percent), firearms (18 percent), falls (14 percent), suffocation (9 percent) and others. Unintentional injuries are the fifth leading cause of death overall and the leading cause of death for persons ages 1–42 years.[33]

- Among males, the death rate was 78 percent higher in micropolitan counties [D] than in central counties of large metro areas [A]. Among females, the unintentional injury death rate was about 86 percent higher in micropolitan counties [D] than in central counties of large metro areas [A].
- Generally, the nationwide pattern was replicated in each region. A key difference was observed in the Midwest (among males) and South (among males and females), where the unintentional injury death rates were slightly lower in fringe counties [B] than in central counties of large metro areas [A]. Unintentional injury death rates were especially high in micropolitan counties [D] in the South (87 and 43 per 100,000population for males and females, respectively) and West (68 and 33 per 100,000 population for males and females, respectively).
- Nationwide and regionally, the age-adjusted rate for motor vehicle traffic-related deaths – a subset of all deaths caused by unintentional injuries – in micropolitan counties [D] was more than twice the rate in central counties of large metro areas [A]. The pattern of deaths resulting from motor vehicle injuries by level of rurality is similar to that of all unintentional injuries in each region, except in the Midwest and South, where the motor vehicle death rates in fringe counties [B] tended to be higher than the rates in central counties.

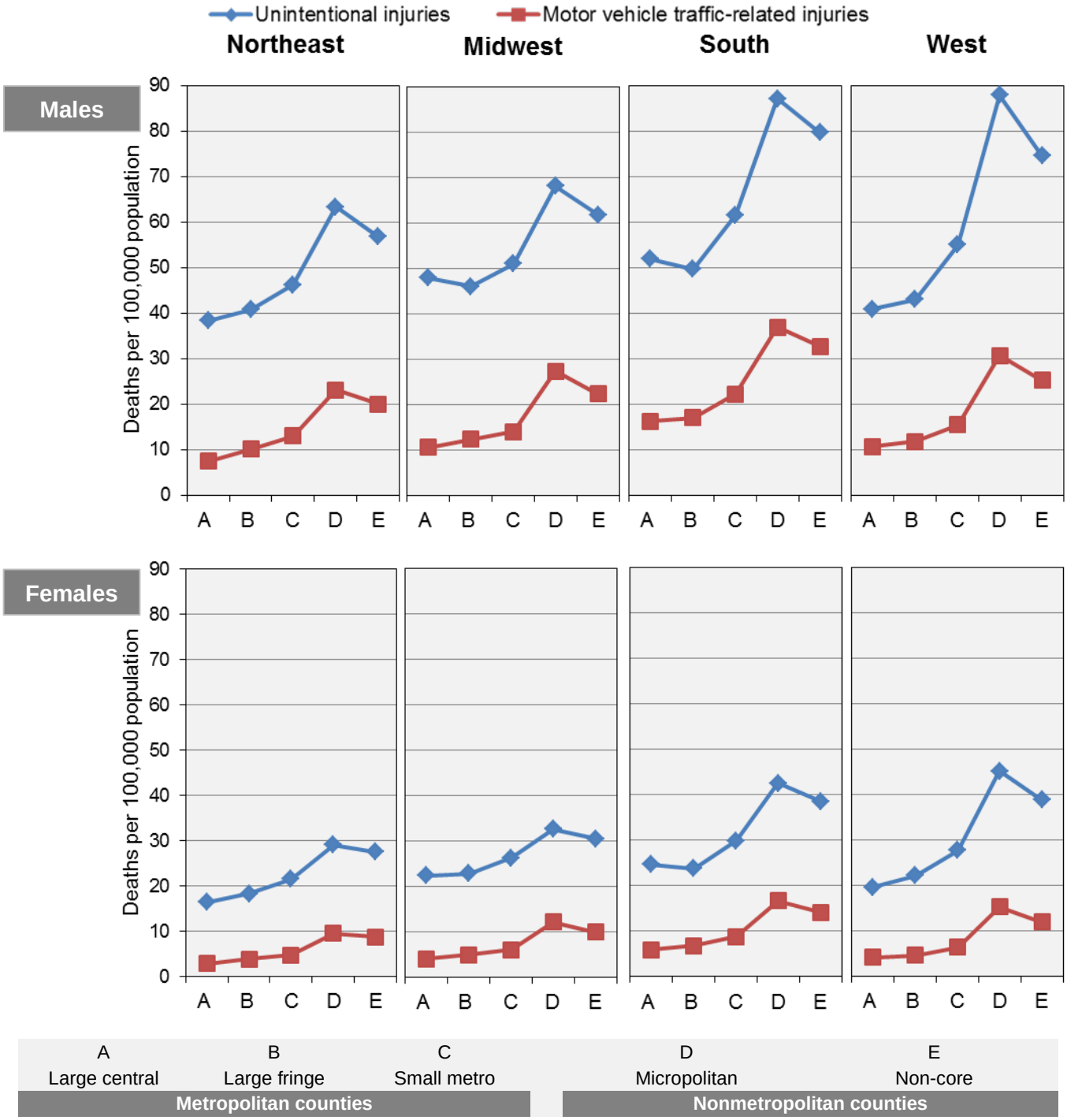
Figure 17(a). Death rates for all unintentional injuries and motor vehicle traffic-related injuries by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 17 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 17(b). Death rates for all unintentional injuries and motor vehicle traffic-related injuries by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 17 for data points graphed.

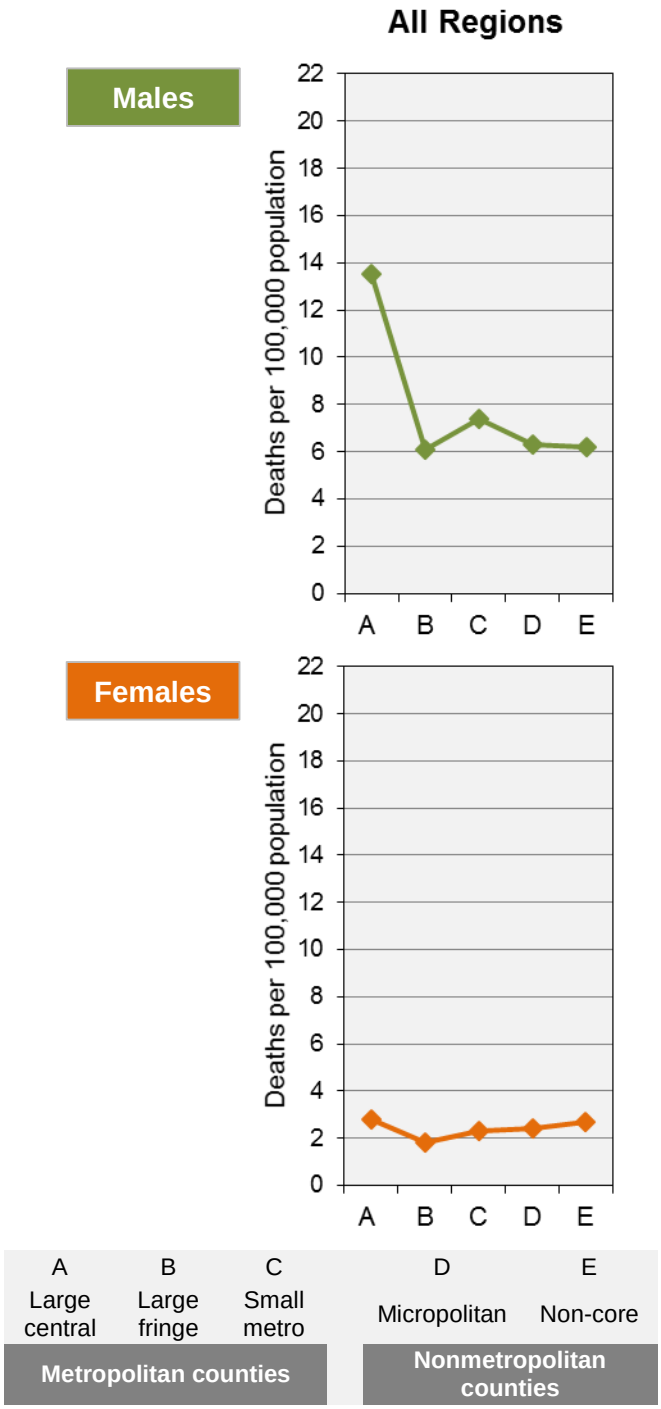
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Homicide

After a sharp increase in the national homicide rate during the late 1980's and early 1990's, by 2008 the rate dropped to its lowest level in over 40 years.[34] Still, homicide is the second leading cause of death for 15–24 year-olds (10.7 deaths per 100,000 population) and the fifth leading cause of death for 25–44 year-olds (8.2 deaths per 100,000 population).[35]

- Nationwide, age-adjusted homicide rates from 2008-2010 were highest in central counties of large metro areas [A] and lowest in fringe counties [B]. Homicide rates in small metro [C] and nonmetro counties [D, E] were marginally higher than in fringe counties [B]. This pattern held for both sexes, although homicide rates are almost five times as high for males as for females in central counties [A] (14 compared with 3 per 100,000 population) and twice as high at other urbanization levels (6–7 compared with 2–3 per 100,000 population).
- The pattern for homicide rates by urbanization level varied by region. In the Northeast and Midwest, the lowest rates for males were found in nonmetro counties [D, E]. In the South, the lowest rate for both sexes was seen in fringe counties [B]. In the West, the lowest rate for males occurred in nonmetro counties [D, E], but in metro counties for females [A, B, C]. The Midwest had the largest urban-rural disparity in homicide rate. The South generally had the highest homicide rates at all urbanization levels (with the exception of males in central counties [A]).
- Firearm homicides accounted for 73 percent of homicides among males and 50 percent of homicides among females in 2010.[36]
- High homicide rates in central counties are primarily attributable to high rates among Black and Hispanic men[37]. High homicide rates in nonmetro counties in the South are primarily due to high rates of homicide among Black men, American Indian men, and Hispanic men.[38]

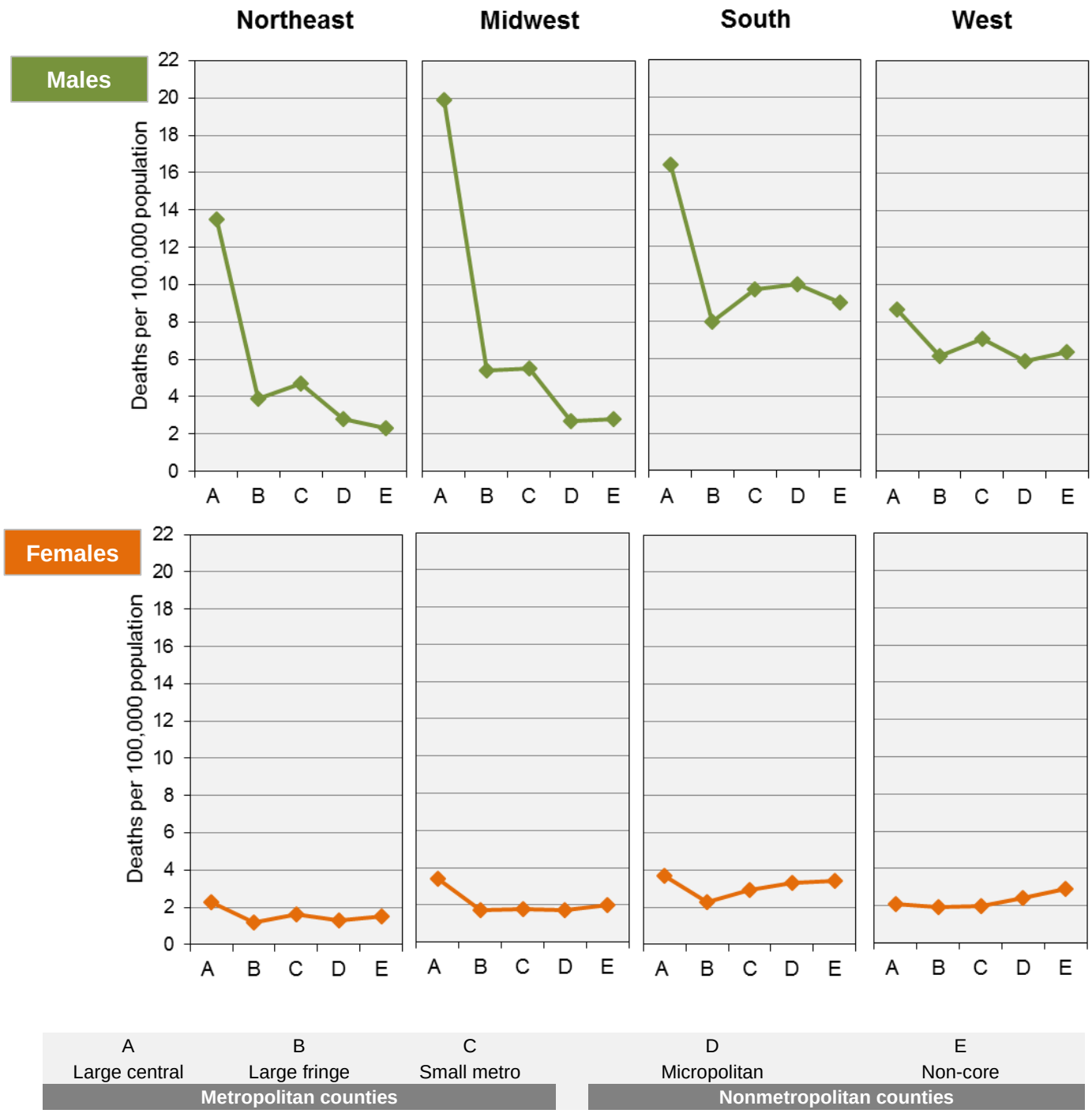
Figure 18(a). Homicide rates by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 18 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 18(b). Homicide rates by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 18 for data points graphed.

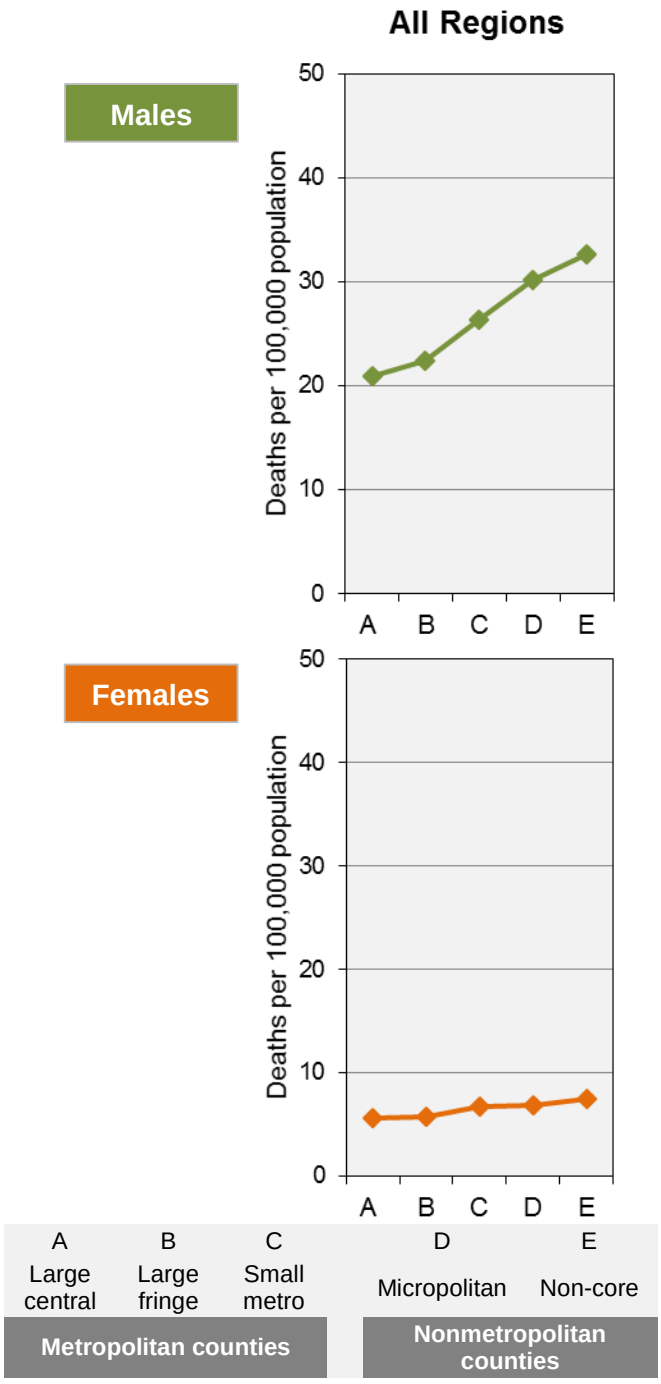
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Suicide

Suicide is the tenth leading cause of death in the United States and the third leading cause of death for boys and men 15–24 years old.[39] Non-Hispanic White persons have the highest age-adjusted suicide rates in the United States followed by persons of American Indian heritage; the suicide rates among Asian, Black, and Hispanic persons are about one-half those of the other two groups.[40]

- From 2008-2010, the suicide rates for both sexes nationwide increased with increasing levels of rurality. While the pattern was similar between males and females, the suicide rate among males was notably higher. Among males 15 years of age and older, the suicide rates by urbanization level were 3-5 times as high as those for females. The divergence increased as level of rurality increased.
- The age-adjusted suicide rates for males 15 years and older were 21–22 per 100,000 population in the large metro counties [A, B] and 33 per 100,000 population in the most rural counties [E]. The age-adjusted suicide rates for females 15 years and older were 6 per 100,000 population in large metro counties [A, B] and 7 per 100,000 population in the most rural counties [E].
- Among males, the pattern of suicide by urbanization level within each region followed the national pattern. The steepest urban-rural gradient was in the West (22 deaths per 100,000 population in central counties of large metro areas [A] compared to 49 deaths per 100,000 population in the most rural counties [E]). Among females, the only region with a clear urban-rural upward gradient was the West (6 per 100,000 in central counties of large metro areas [A] compared to 11 per 100,000 in the most rural counties [E]). For both sexes, the suicide rates in the nonmetro counties of the West were higher than those in any other region.
- Females were more likely than males to have had suicidal thoughts in the past year but not more likely to have made suicide plans or attempted suicide.[41] Among males, firearms were the most commonly used method of suicide and accounted for 56 percent of suicides. Among females, poisoning was the most commonly used method of suicide and accounted for 37 percent of suicides.[42]

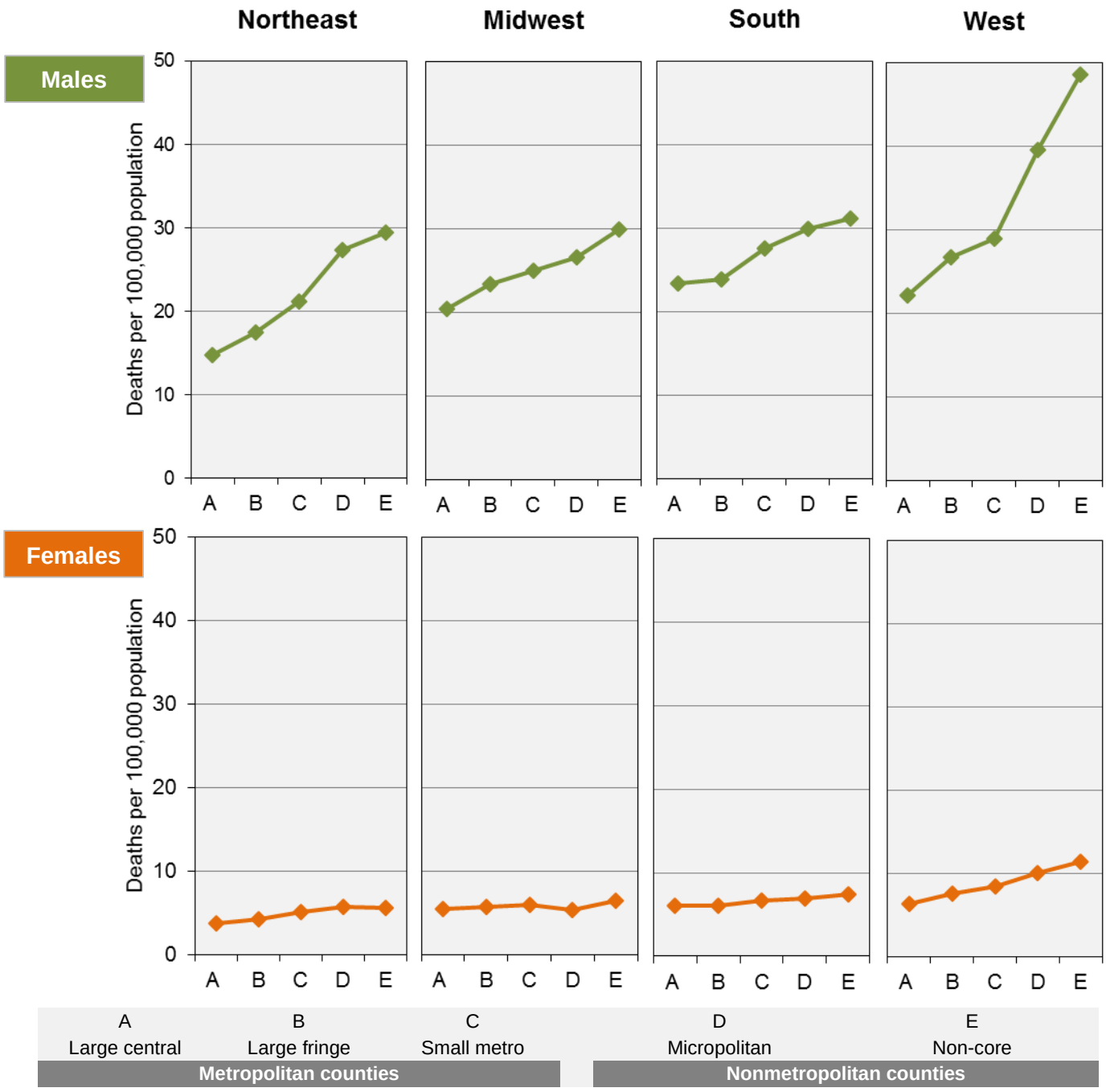
Figure 19(a). Suicide rates among persons 15 years of age and older by sex and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 19 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 19(b). Suicide rates among persons 15 years of age and older by sex, region, and urbanization level: United States, 2008-2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 19 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

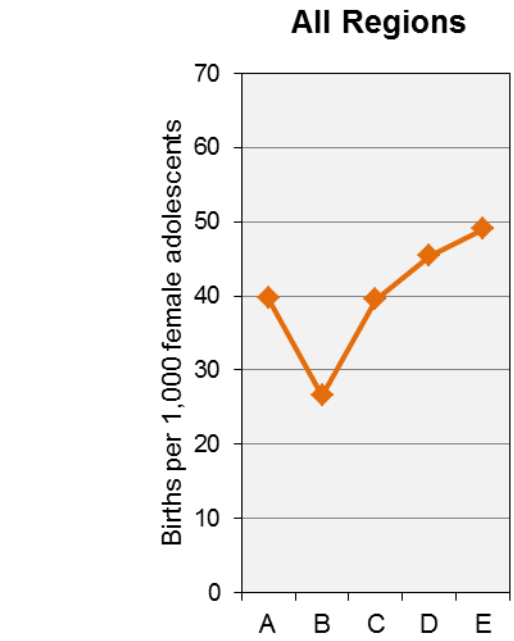
4. Other Health Status Measures

Adolescent Births

From 2000 to 2010, the adolescent birth rate in the United States declined among all racial and ethnic groups.[43] In 2011, a total of 329,797 babies were born to women and girls ages 15–19 years.

- Nationwide, from 2008-2010 the birth rate for adolescent females living in fringe counties of large metro areas was much lower than in other urbanization levels (27 births compared to 40-49 births per 1,000 female adolescents).
- Adolescent birth rates by urbanization level differ across regions. The South closely mirrored the national pattern, for which the adolescent birth rate was highest in the most rural counties [E] (61 per 1,000 female adolescents) and lowest in fringe counties of large metro areas [B] (32 per 1,000 female adolescents). The West followed this general pattern as well, although it differed in central counties of large metro areas [A] where adolescent birth rates were nearly as low as in fringe counties [B] (34 compared to 31 per 1,000 female adolescents). The trends in the Northeast and Midwest were markedly different; adolescent birth rates were highest in central counties of large metro areas [A] (32 and 44 per 1,000 female adolescents, respectively) and lowest in the most rural counties [E] (26 and 38 per 1,000 female adolescents, respectively).
- Adolescent birth rates were lowest in the Northeast and highest in the South, reflecting, among other things, differences in the racial and ethnic composition of the adolescent population (Figure 4(b)). Non-Hispanic Black and Hispanic adolescents have higher birth rates than non-Hispanic White adolescents.[44]

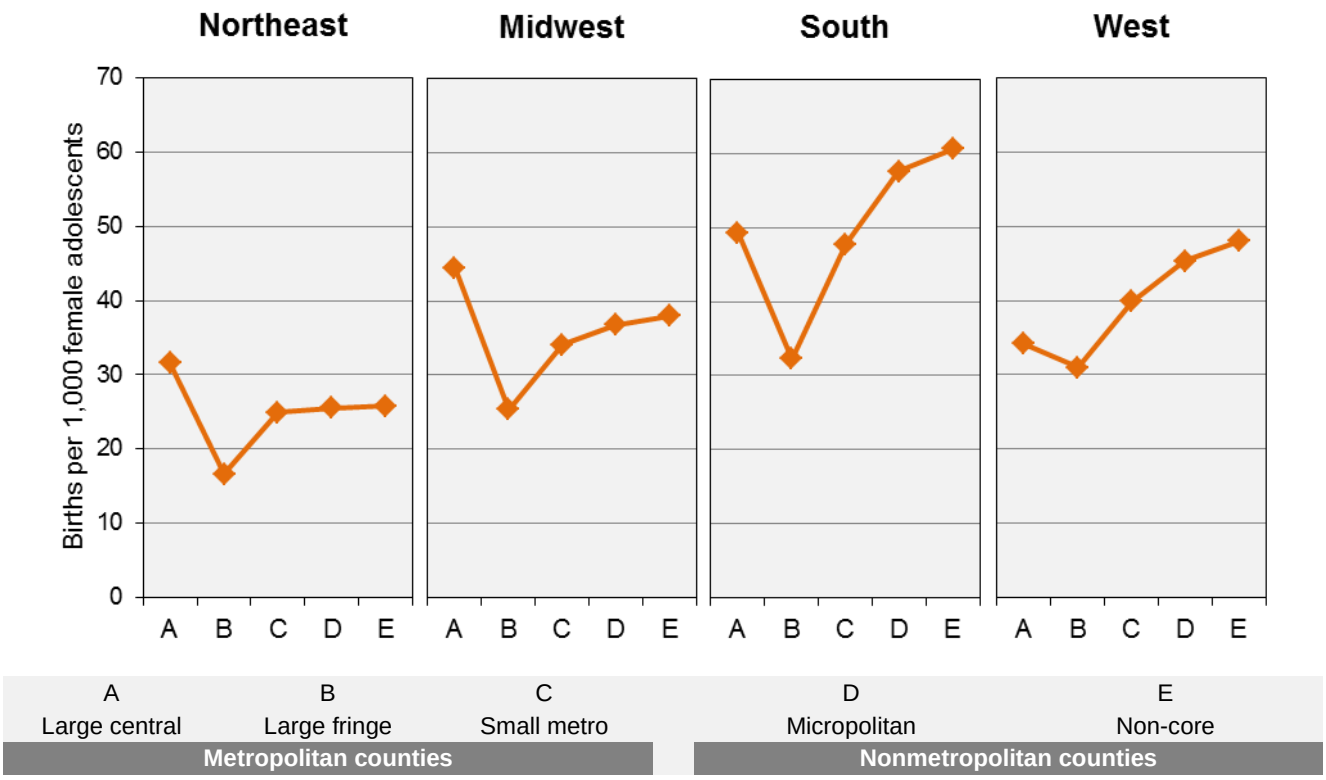
Figure 20(a). Birth rates among adolescents 15-19 years of age by region and urbanization level: United States, 2008-2010



NOTES: See Technical Notes for description of urbanization levels. See Data Table 20 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Figure 20(b). Birth rates among adolescents 15-19 years of age by region and urbanization level: United States, 2008-2010



NOTES: See Technical Notes for description of urbanization levels. See Data Table 20 for data points graphed.

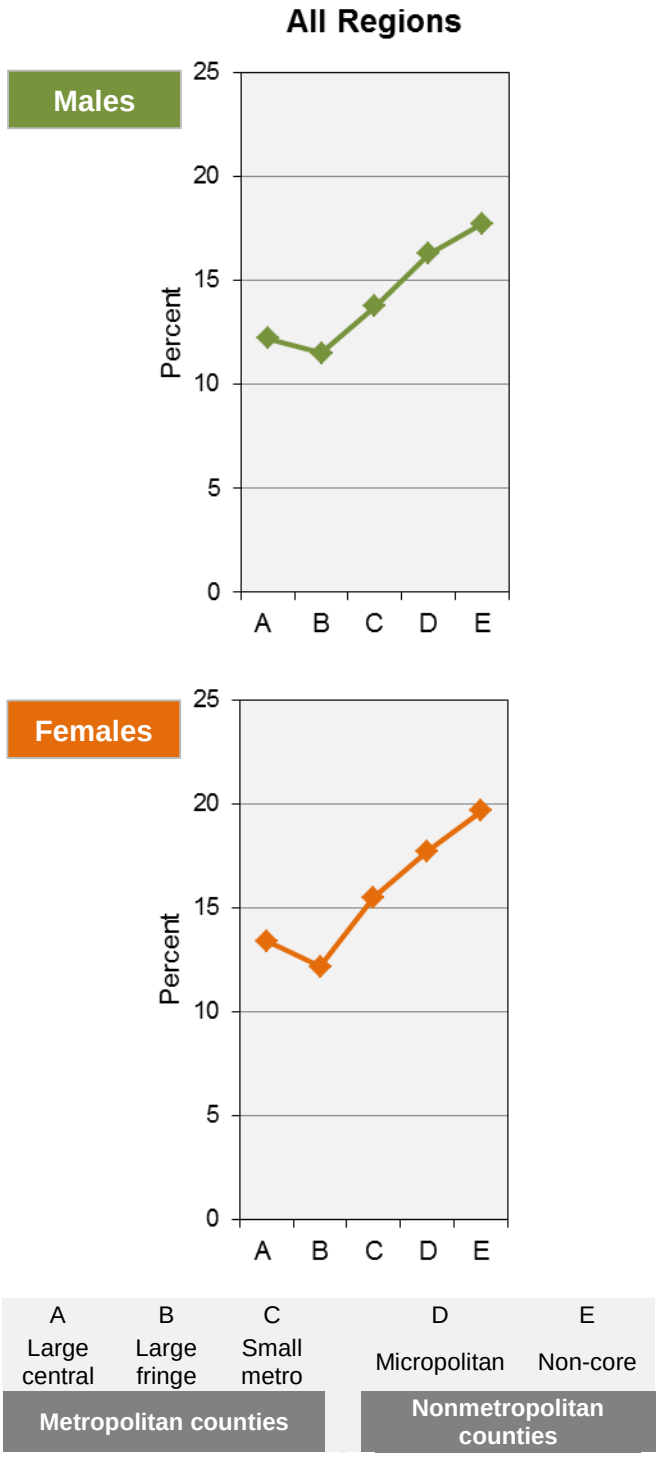
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Limitation of Activity

A limitation of activities due to a chronic health condition is measured by one's ability to—among other tasks— work, independently perform routine tasks such as household chores or shopping, and independently perform personal care activities such as bathing or eating (see Appendix II, Limitation of activity). The prevalence of activity limitation increases with age, with limitation increasing three times between the age ranges of 65–74 and 75 or older.[45]

- For the nation as a whole, age-adjusted activity limitation rates from 2010-2011 were lowest in fringe counties of large metro areas [B] and highest in the most rural counties [E] (12 percent compared to 18 percent for men; 12 percent compared to 20 percent for women).
- In all regions except the Midwest, the rate of activity limitation due to chronic health conditions generally increased as rurality increased for both men and women (from 10–14 percent of adults in large metro areas to 16-17 percent in nonmetro counties).
- Activity limitation levels in nonmetro counties [D+E] of the Midwest were lower than that of all other regions.
- Nonmetro counties [D+E] in the South had the highest rate of activity limitation for both men and women compared to nonmetro counties [D+E] in all other regions.
- In the Midwest, the rate of activity limitation was highest in central counties of large metro areas [A] for men and highest in nonmetro counties [D+E] for women. A larger percentage of the population in central counties [A] of the Midwest had activity limitations compared to central counties [A] of other regions.

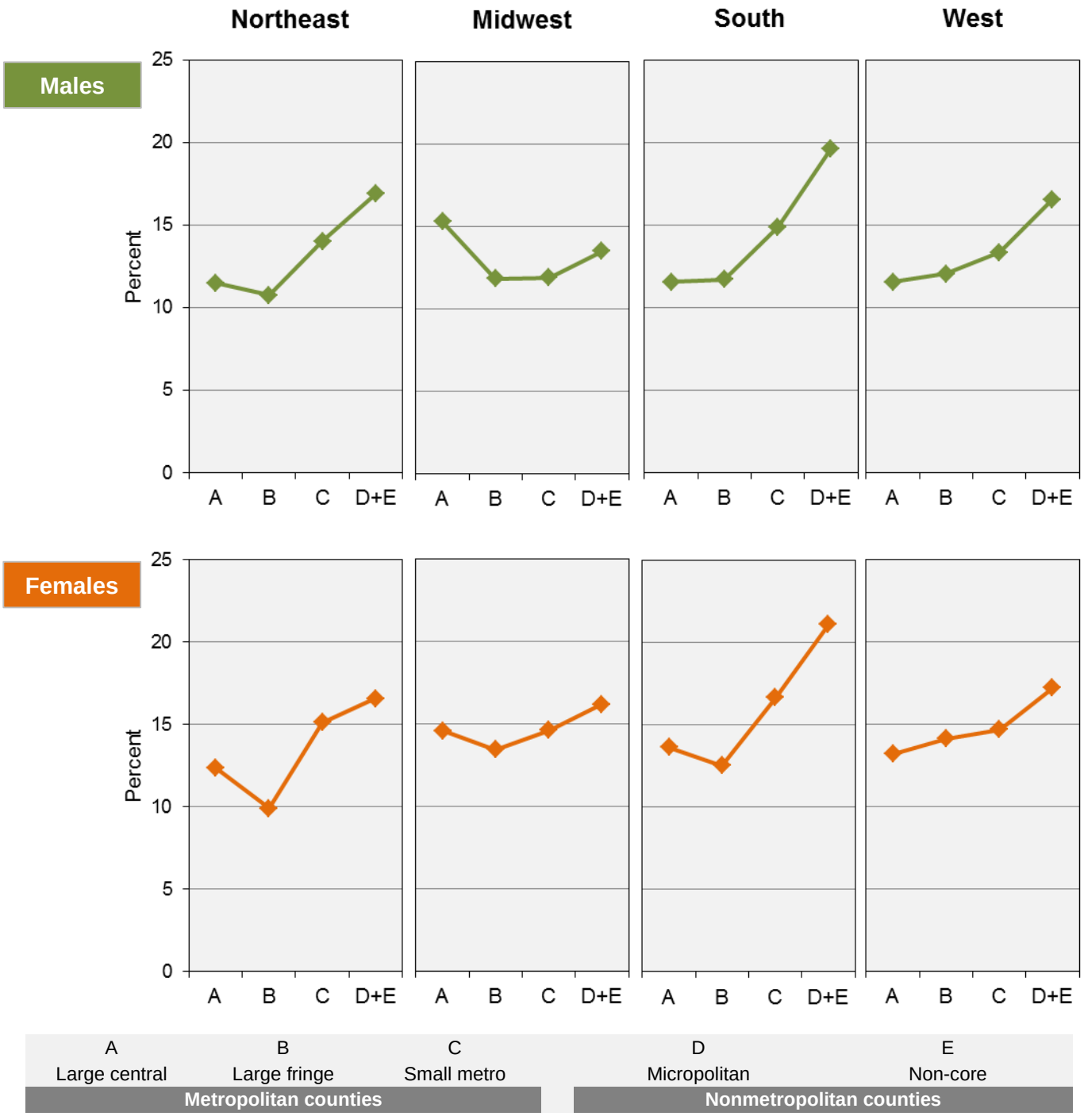
Figure 21(a). Limitation of activity caused by chronic health conditions among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 21 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 21(b). Limitation of activity caused by chronic health conditions among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 21 for data points graphed.

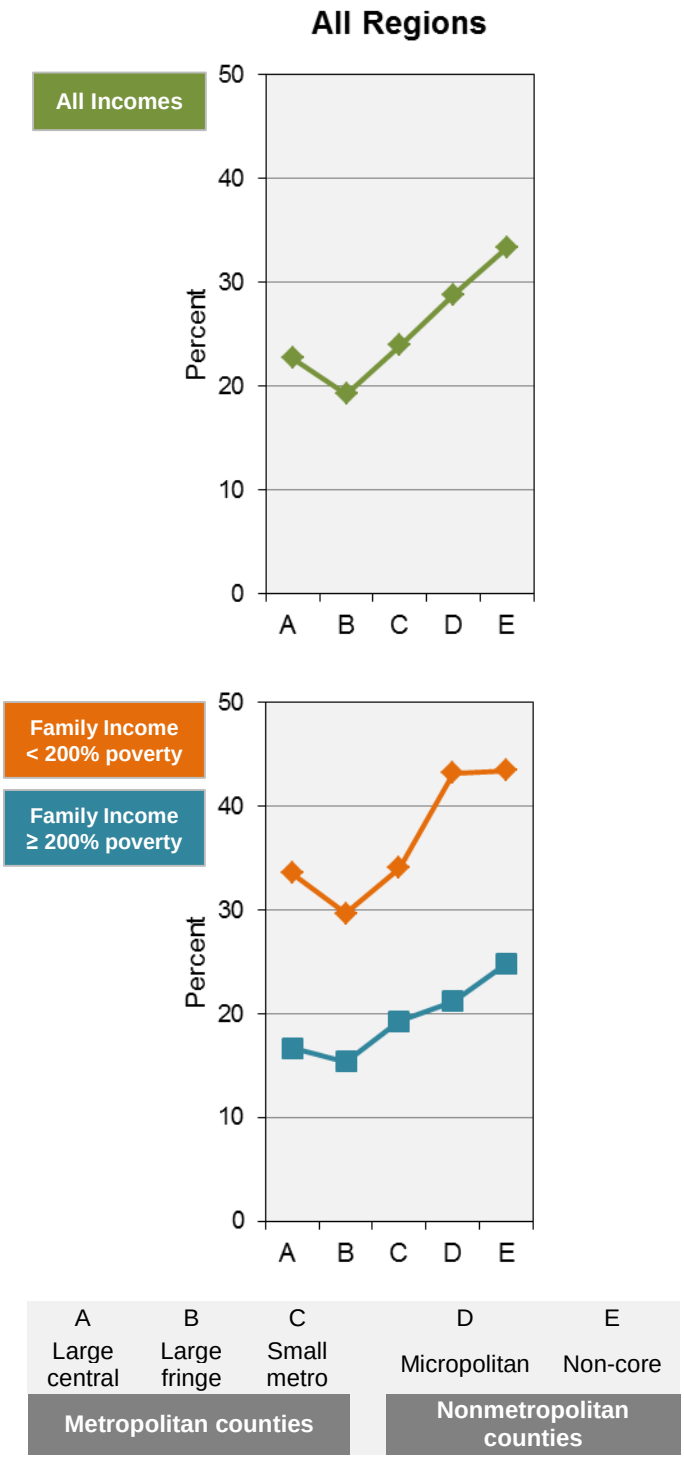
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Total Tooth Loss

The loss of all natural teeth—edentulism—can diminish a person's quality of life because of its negative psychological, social, and physical effects, as well as its impact on self-esteem and communication. Most tooth loss is the result of dental caries (i.e. tooth decay) and periodontal disease, although there are other causes, such as traumatic injury. Edentulism is associated with smoking, inadequate oral hygiene, diabetes, hypertension, rheumatoid arthritis, depression, anxiety, obesity, and other risk factors including poor nutrition, high alcohol consumption, low socioeconomic status, lack of water fluoridation, and stress.[46]

- Nationwide, the age-adjusted edentulism prevalence among seniors from 2010-2011 generally increased as rurality increased, and the lowest percentage of seniors with edentulism lived in fringe counties of large metro areas [B].
- Edentulism was more common among low-income seniors (i.e., below 200 percent of the Federal poverty level) than among seniors with higher incomes. In 2010-2011, the highest rates of edentulism were found in nonmetro counties [D, E], where 43-44 percent of low-income seniors had total tooth loss compared to 21-25 percent of seniors with higher incomes.
- In the Northeast, the percentage of seniors with total tooth loss was highest in central counties of large metro areas [A] and nonmetro counties [D+E] (29-30 percent). The percentage of seniors with total tooth loss was lowest in fringe counties of large metro areas [B] and small metro counties [C] (19-20 percent).
- The Midwest and South showed a generally upward urban-rural gradient, with the lowest percentage of edentulism among seniors living in fringe counties of large metro [B] areas (20-21 percent) and the highest percentage in nonmetro counties [D+E] (30-35 percent).
- In the West, the percentage of seniors with total tooth loss was highest in central counties of large metro areas [A], small metro counties [C], and nonmetro counties [D+E] (19-21 percent). The edentulism rate among seniors was lowest in fringe counties of large metro areas [B] (13 percent).
- Edentulism rates were higher for low-income seniors than for their higher-income counterparts in all regions and at all urbanization levels, but generally followed the same trend of increasing with increased rurality. In the Midwest, though, the edentulism rate was considerably lower among low-income seniors in fringe counties of large metro areas [B] compared to other urbanization levels and higher-income seniors in the same region. In the South, edentulism rates among low-income seniors were considerably higher than for their higher-income counterparts in nonmetro counties [D+E].

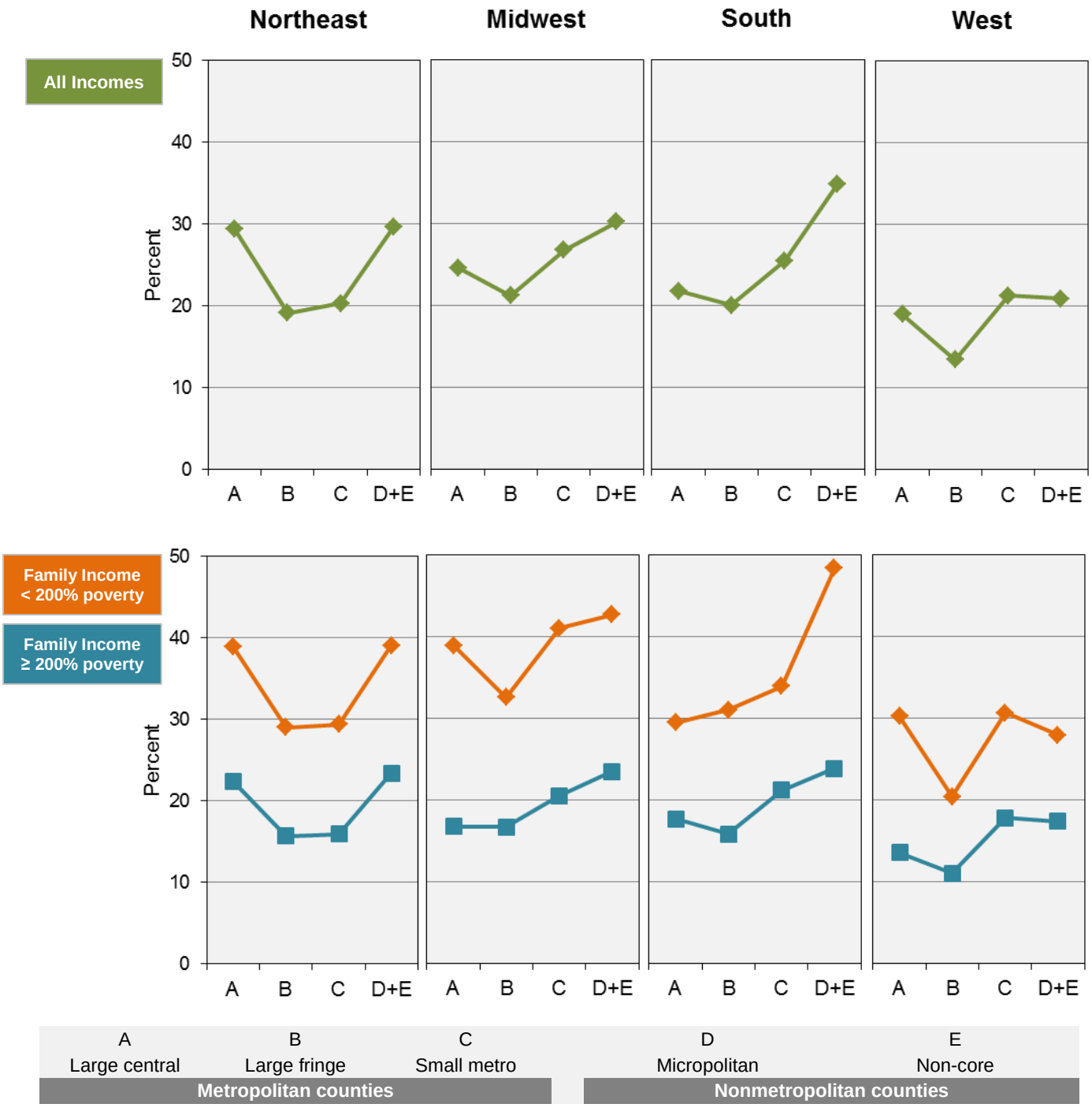
Figure 22(a). Edentulism (total tooth loss) among persons 65 years of age and older by poverty status and urbanization level: United States, 2010-2011



NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Table 22 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 22(b). Edentulism (total tooth loss) among persons 65 years of age and older by poverty status, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Table 22 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

5. Health Care Access and Use

Health Insurance

Health insurance coverage is an important determinant of access to health care. While most seniors are covered by Medicare, 18 percent of persons less than 65 years of age lack coverage. The primary source of coverage for nonelderly persons is employer-sponsored group health insurance. A smaller proportion of the nonelderly population purchase health insurance on the individual market. Military and veterans' programs provide care for active duty personnel, their dependents, and veterans. Joint Federal/state programs, such as Medicaid, provide coverage for some low-income persons. The data presented provide a baseline prior to the implementation of many provisions of the Patient Protection and Affordable Care Act of 2010.

No Insurance

- Nationally, the age-adjusted percentage of the nonelderly population without health insurance varies by urbanization level. Residents of fringe counties of large metro areas [B] were least likely to lack coverage (19 percent in 2010-2011) while residents of the most rural counties [E] were most likely to be uninsured (23 percent).
- Nonelderly persons with incomes below 200 percent of the Federal poverty level were more than twice as likely to be uninsured compared to higher income persons in 2010-2011, across all urbanization levels.
- Regionally, uninsured rates were higher in the South and West than in the Northeast and Midwest overall and for both income groups.

Medicaid

- Nationally, the population less than 65 years of age covered by Medicaid differed by region and urbanization level. In the Northeast and Midwest, enrollment in Medicaid was more common in central counties of large metro areas [A] whereas in the South and West there were a greater proportion of Medicaid enrollees in nonmetro counties [D+E].

Figure 23(a).No health insurance coverage among persons less than 65 years of age by poverty status and urbanization level: United States, 2010-2011

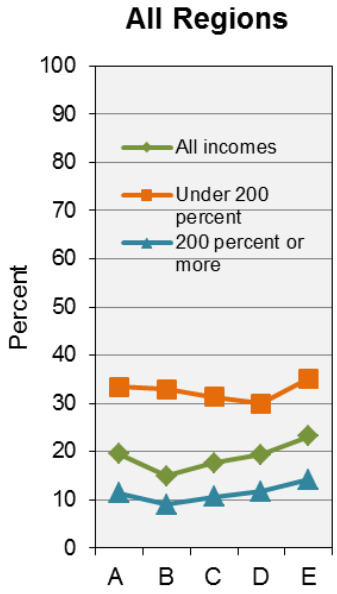
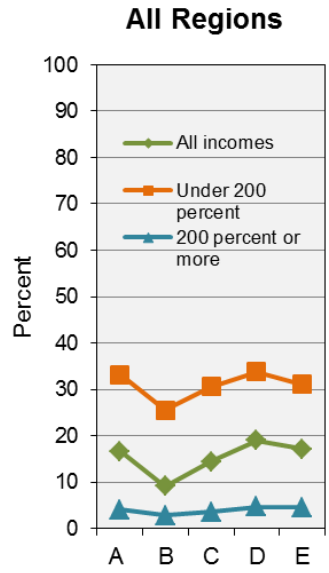


Figure 24(a). Medicaid coverage among persons less than 65 years of age by poverty status and urbanization level: United States, 2010-2011



A	B	C	D	E
Large central	Large fringe	Small metro	Micropolitan	Non-core
Metropolitan counties			Nonmetropolitan counties	

NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Tables 23 and 24 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 23(b). No health insurance coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

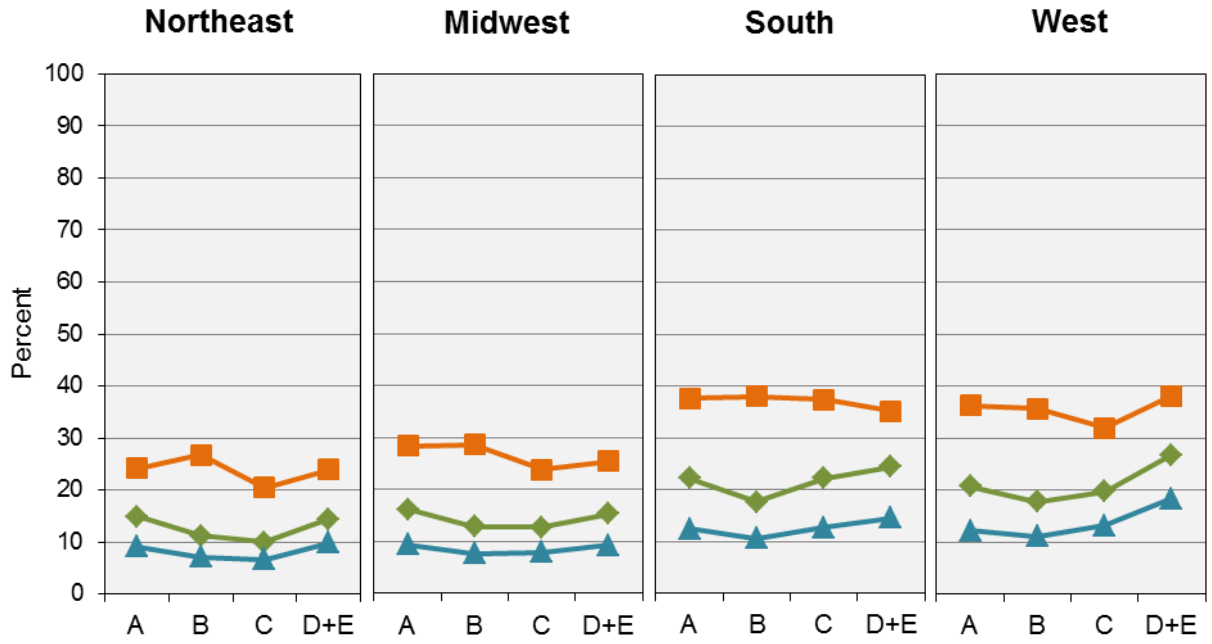
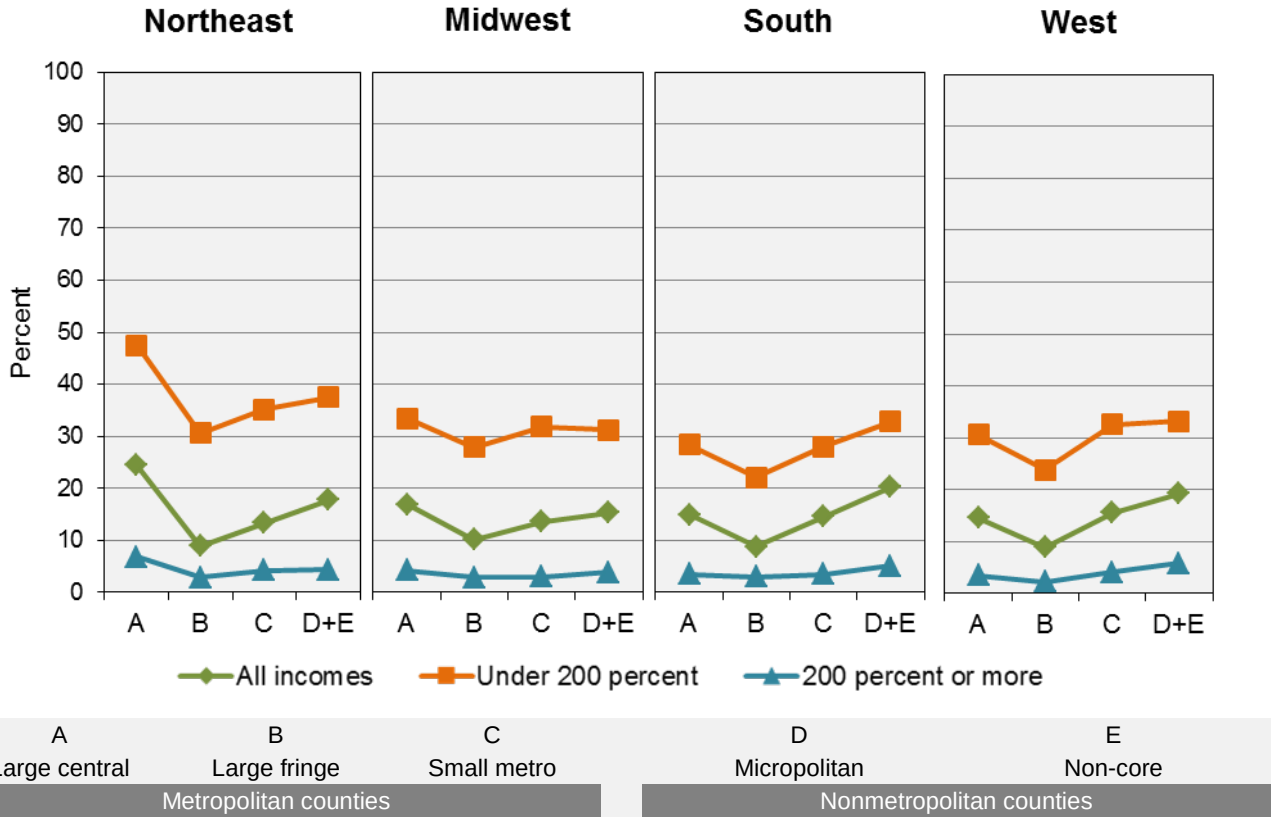


Figure 24(b). Medicaid coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011



NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Tables 23 and 24 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Private Insurance

- A large majority of insured persons less than 65 years of age were covered by private insurance, which includes employer-sponsored group coverage as well as health plans purchased in the individual market. However, private insurance was much more common among persons less than 65 years of age with higher incomes (77-85 percent across urbanization levels) compared to persons with incomes below 200 percent of the Federal poverty level (23-30 percent across urbanization levels).
- The prevalence of private coverage was greater in the Northeast and Midwest than in the South and West.
- Including all income levels, fringe counties of large metro areas [B] had the largest proportion of privately-insured individuals less than 65 years of age in each of the four regions. In the South and West, the rates of privately-insured persons were lowest in nonmetro counties [D+E] (48 percent and 46 percent, respectively). In the Northeast and Midwest, the lowest rates were found in central counties of large metro areas [A] (54 percent and 62 percent, respectively), followed by nonmetro counties [D+E] (59 percent and 63 percent, respectively).

Employer-Sponsored Private Insurance

- Among those with private insurance, the vast majority have group plans obtained through their employer. Thus, the trends in employer-sponsored coverage were similar to trends in private insurance coverage.
- Across all income levels, the prevalence of employer-sponsored insurance was highest in fringe counties of large metro areas [B] (66 percent) and lowest in the most rural counties [E] (46 percent).
- Among those with family incomes below 200 percent of the Federal poverty level, rates of employer-sponsored insurance were highest in the middle of the urbanization level spectrum [B, C] in all regions.

Figure 25(a). Private insurance coverage among persons less than 65 years of age by poverty status and urbanization level: United States, 2010-2011

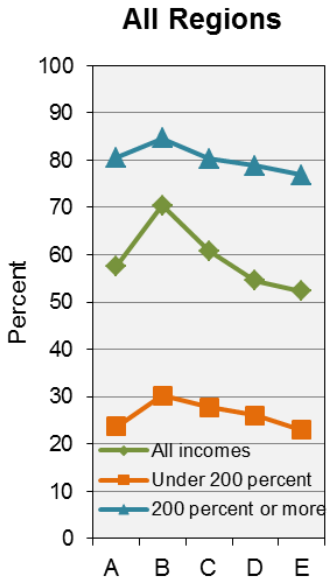
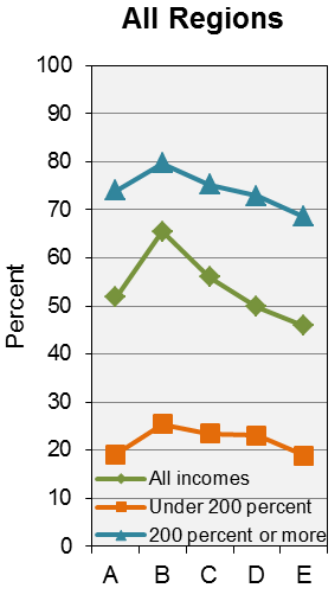


Figure 26(a). Employer-sponsored private insurance among persons less than 65 years of age by poverty status and urbanization level: United States, 2010-2011



A	B	C	D	E
Large central	Large fringe	Small metro	Micropolitan	Non-core
Metropolitan counties			Nonmetropolitan counties	

NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Tables 25 and 26 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 25(b). Private insurance coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

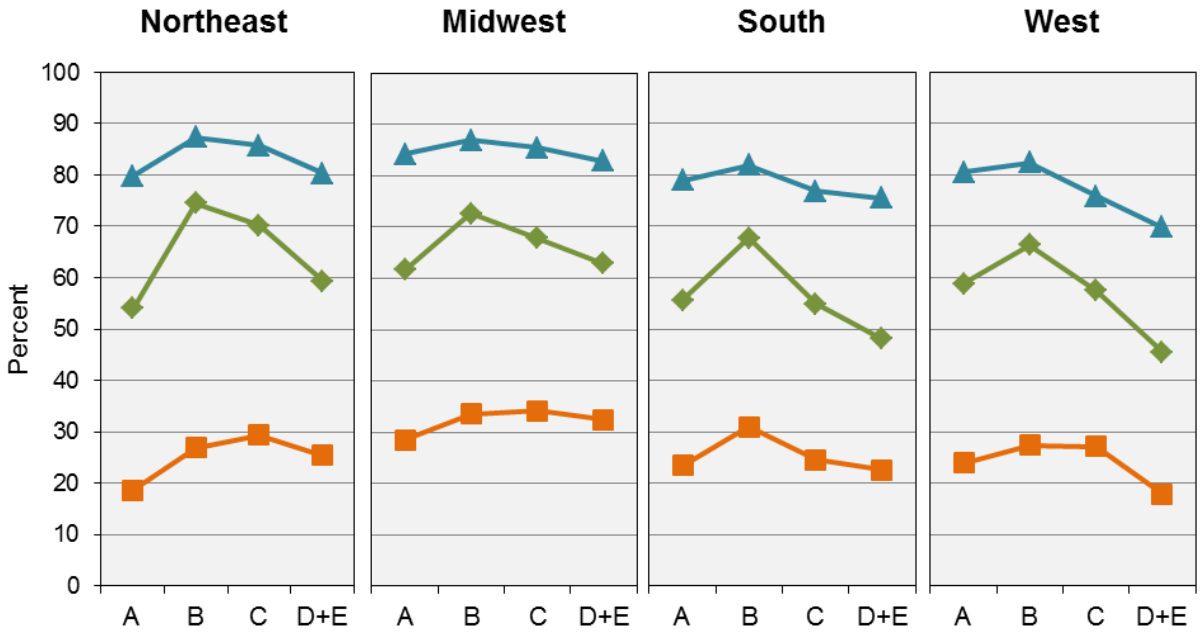
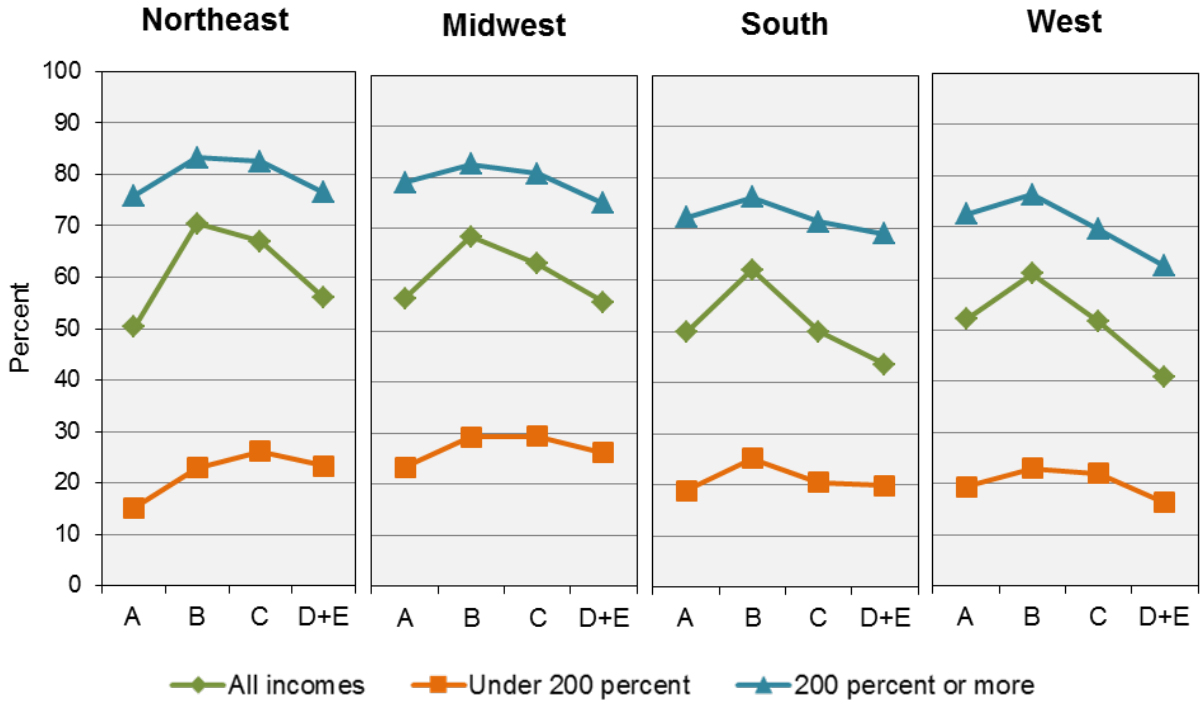


Figure 26(b). Employer-sponsored private insurance among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011



A	B	C	D	E
Large central	Large fringe	Small metro	Micropolitan	Non-core
Metropolitan counties			Nonmetropolitan counties	

NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels. See Data Tables 25 and 26 for data points graphed.

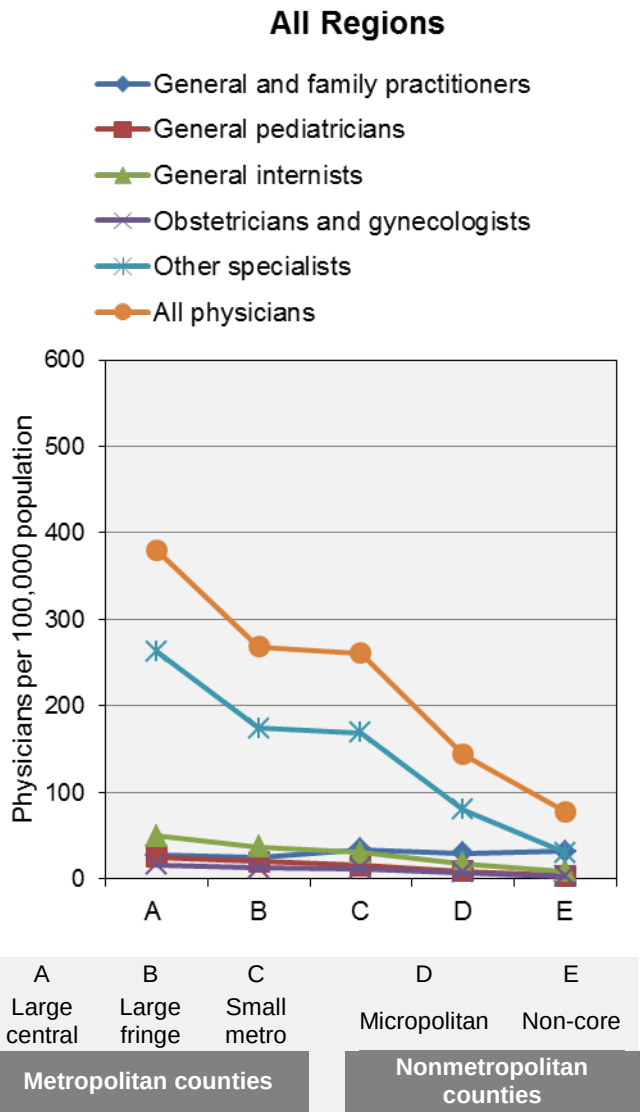
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Physician Supply

Physician supply has a direct impact on access to health care, forcing persons living in areas with a shortage of physicians to travel farther to obtain needed services. Although physician supply has risen since the 1970s, a smaller proportion of physicians choose to practice in rural areas.[47,48]

- In 2010, the most dramatic disparity in physician supply by urbanization level was seen among "other specialists," which includes specialties such as neurology, anesthesiology, and psychiatry. In central counties of large metro areas [A] there were 263 specialists per 100,000 population compared to only 30 per 100,000 in the most rural counties [E].
- The supply of general pediatricians, general internists, and obstetricians and gynecologists also decreased steadily as rurality increased. There were approximately six times as many general pediatricians and general internists per 100,000 population in central counties of large metro areas [A] as in the most rural counties [E] (25 compared with 4 per 100,000 and 50 compared with 9 per 100,000, respectively). The urbanization gradient for obstetricians and gynecologists (OB/GYN) followed a similar pattern (16 OB/GYNs per 100,000 population in central counties of large metro areas [A] compared to only 3 per 100,000 in the most rural counties [E].
- In contrast to other physician groups, the supply of family and general practice physicians per 100,000 population was slightly larger in nonmetro counties [D, E] than in metropolitan counties [A,B,C]. This pattern was seen because general and family practice physicians can practice more effectively with a smaller population base than specialists because there continues to be sufficient demand for primary care; in comparison, there is less demand for specialists who thus require a larger population to build a sustainable practice.

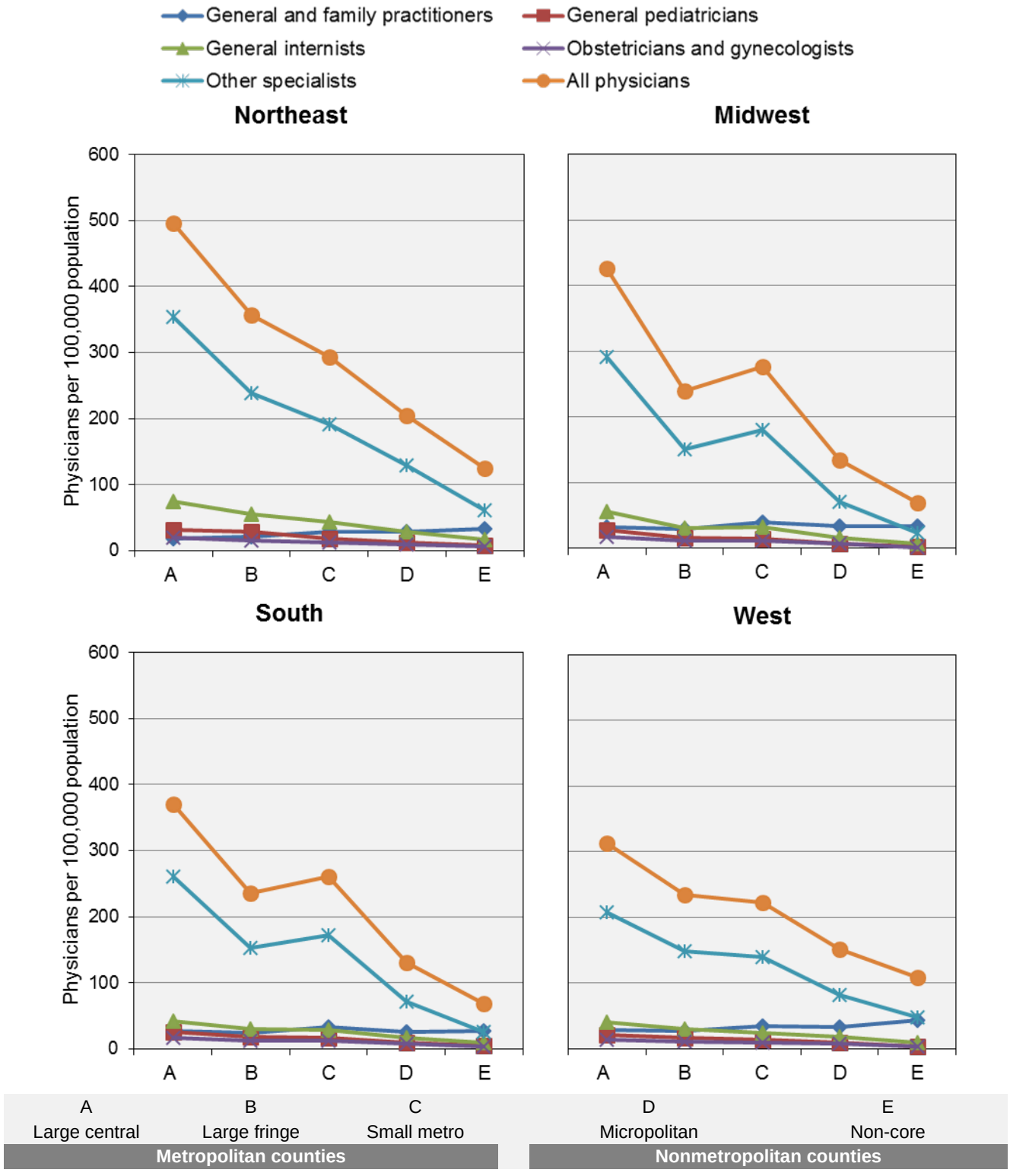
Figure 27(a). Active physicians per 100,000 population by physician specialty and urbanization level: United States, 2010



NOTES: Includes all Federal and non-Federal patient care doctors of medicine. See Technical Notes for description of physician specialties and urbanization levels. See Data Table 27 for data points graphed.

SOURCE: Health Resources and Services Administration, Area Resource File.

Figure 27(b). Active physicians per 100,000 population by physician specialty, region, and urbanization level: United States, 2010



NOTES: Includes all Federal and non-Federal patient care doctors of medicine. See Technical Notes for description of physician specialties and urbanization levels. See Data Table 27 for data points graphed.

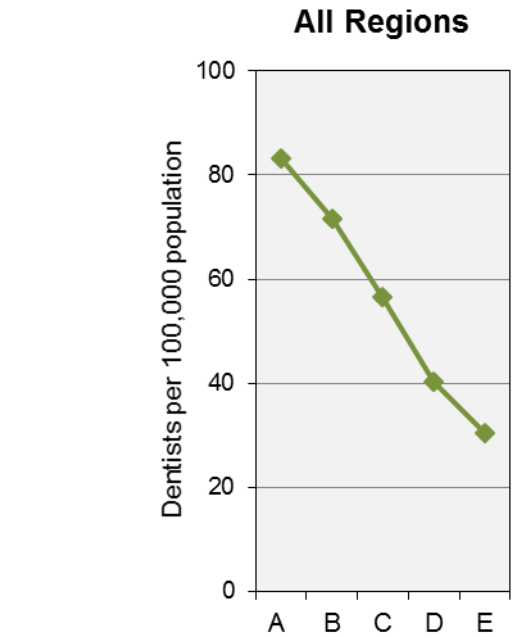
SOURCE: Health Resources and Services Administration, Area Resource File.

Dentist Supply

Oral health is a critical component of overall health and well-being.[49] However, there are significant disparities in oral health between urban and rural communities. These disparities are related to access, utilization, and health outcomes.[50] Over the last 20 years, the supply of dentists per capita has declined slightly.[51]

- In 2007, the supply of dentists nationally as well regionally generally decreased as urbanization decreased. The supply of dentists ranged from 83 dentists per 100,000 population in central counties of large metro areas [A] to 30 in the most rural counties [E].
- Regionally, the supply of dentists in central counties [A] was highest in the Northeast (98 per 100,000) and lowest in the South (71 per 100,000). In the most rural counties [E], the supply of dentists was highest in the West (43 per 100,000) and lowest, again, in the South (25 per 100,000).

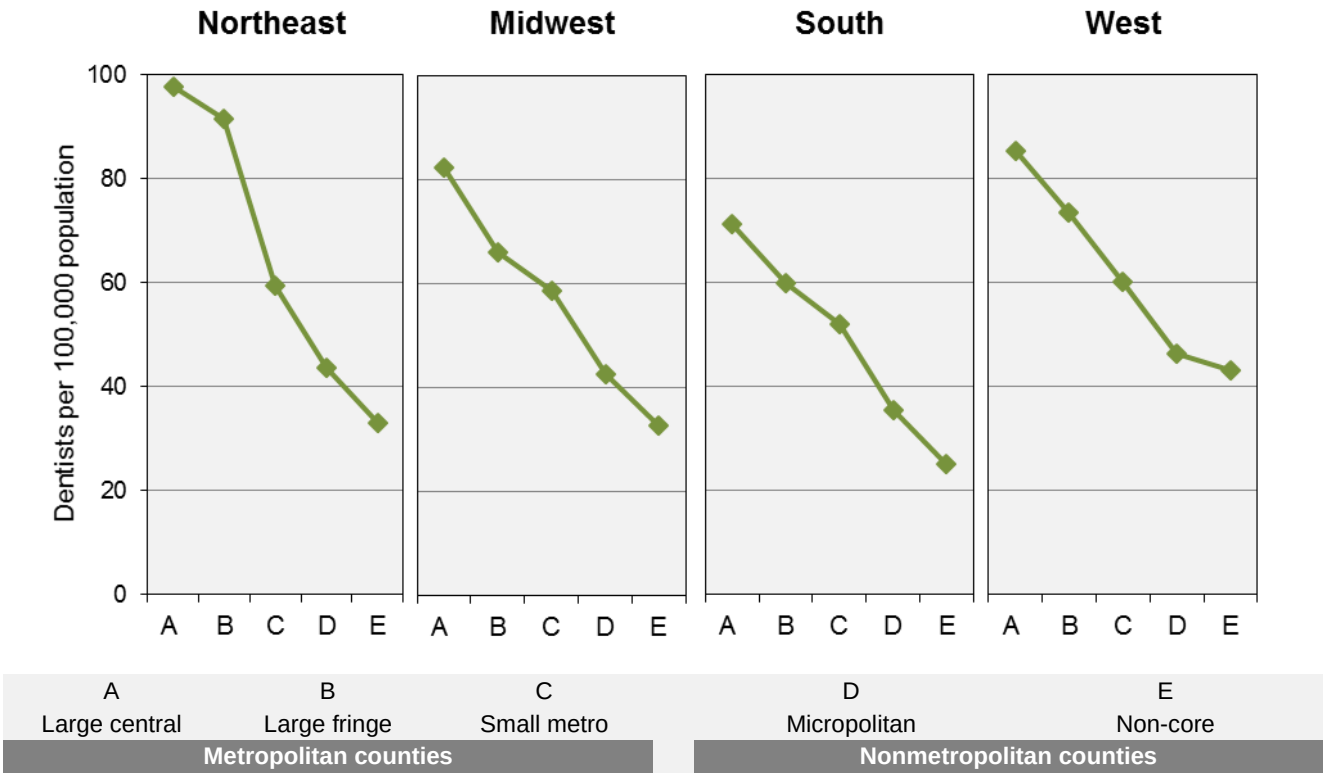
Figure 28(a). Dentists per 100,000 population by urbanization level: United States, 2007



NOTES: Includes all professionally active Federal and non-Federal dentists. See Technical Notes for description of urbanization levels. See Data Table 28 for data points graphed.

SOURCE: Health Resources and Services Administration, Area Resource File.

Figure 28(b). Dentists per 100,000 population by region and urbanization level: United States, 2007



NOTES: Includes all professionally active Federal and non-Federal dentists. See Technical Notes for description of urbanization levels. See Data Table 28 for data points graphed.

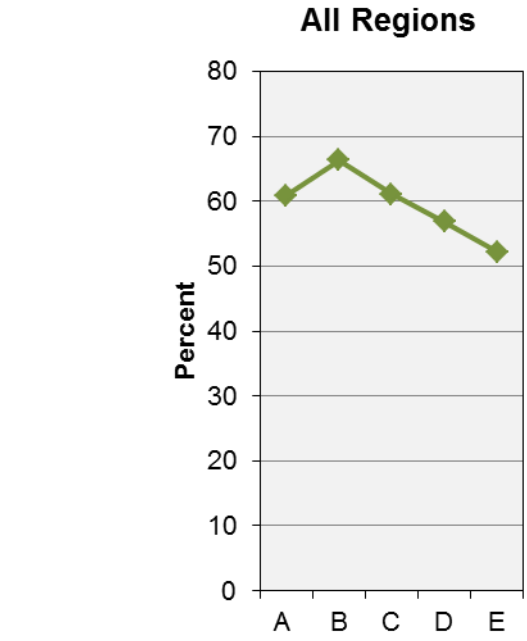
SOURCE: Health Resources and Services Administration, Area Resource File.

Dental Visits

Professional care received during dental visits, in combination with individual care and preventive measures taken at the community level, is essential for maintaining good oral health.

- Nationwide, in 2010-2011, the urbanization level with the highest reported rate of at least one dental visit in the past year among adults aged 18-64 years was fringe counties of large metro areas [B] (66 percent) while the lowest reported rates came from the most rural counties [E] (52 percent).
- The same urban-rural disparity in utilization of dental care appeared regionally. The highest rates were observed in fringe counties of large metro areas [B] (63-71 percent) while the lowest rates were seen in the most rural counties [E] (50-61 percent).
- In 2010-2011, residents of the South were least likely to have seen a dentist in the past year. Among them, nonmetro county [D, E] residents were the least likely to have seen a dentist in the past year (50 percent). This is consistent with the regional pattern of lower dentist supply in the South (Figure 25(b)).

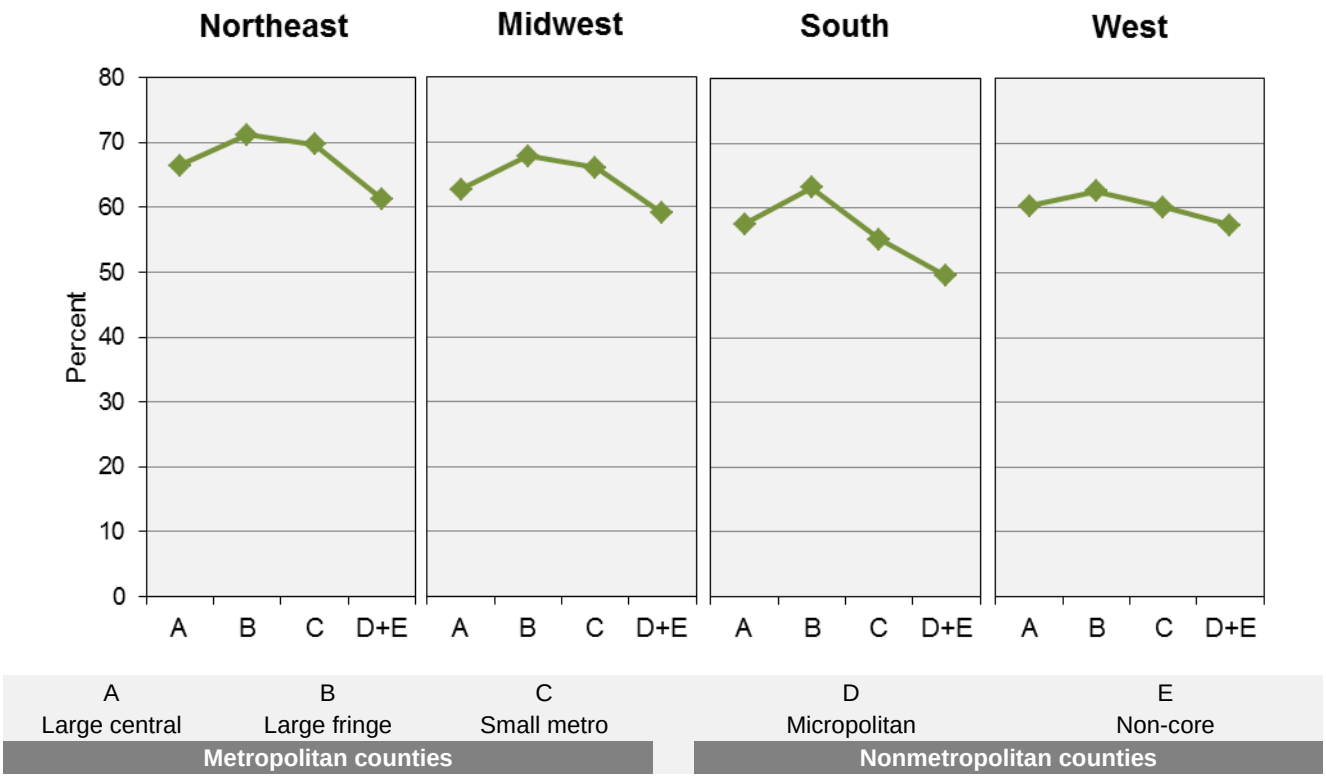
Figure 29(a). Dental visit within the past year among persons 18-64 years of age by region and urbanization level: United states, 2010-2011



NOTES: See Technical Notes for description of urbanization levels. See Data Table 29 for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Figure 29(b). Dental visit within the past year among persons 18-64 years of age by region and urbanization level: United states, 2010-2011



NOTES: See Technical Notes for description of urbanization levels. See Data Table 29 for data points graphed.

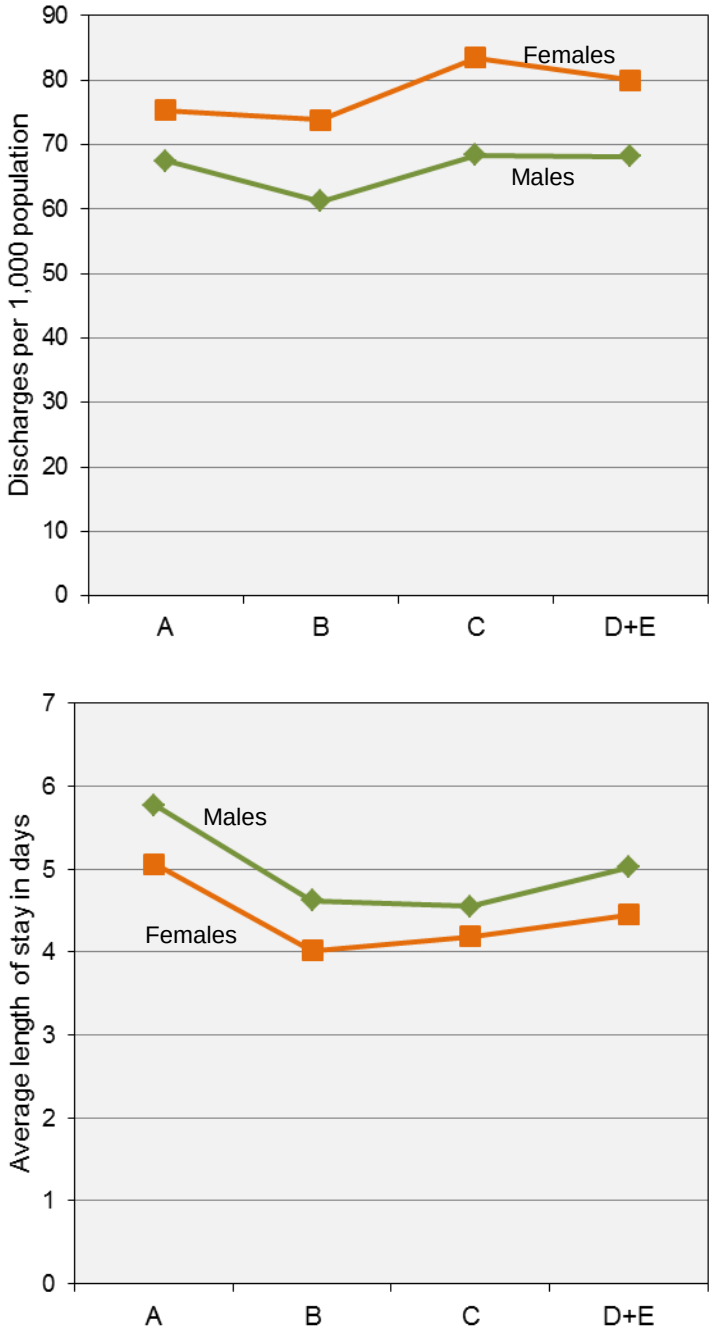
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Inpatient Hospital Use

Inpatient hospital use depends on both underlying medical conditions and factors that affect access to care, including hospital access, health insurance coverage, and physician supply. Discharge rates and average length of stay in non-Federal short-stay hospitals among adults have decreased since the early 1980s (from 1,745 to 1,125 discharges per 10,000 population and 7.5 to 4.8 days, respectively).[52]

- Among men and women ages 18–64 years, nationwide age-adjusted hospital discharge rates—excluding maternity cases--were higher among those living in small metro areas [C] and nonmetro counties [D+E] than in large metro areas [A,B] in 2010-2011.
- Age-adjusted average lengths of stay were longer among residents of central counties in large metro areas [A] than among residents in nonmetro counties. However, nationally, the ranges of average length of stay were small; the difference between the shortest and longest lengths of stay was 1.5 days for men and 1 day for women.

Figure 30. Hospital discharge rates and average length of stay among persons 18-64 years of age by sex and urbanization level: United States, 2010



A	B	C	D	E
Large central	Large fringe	Small metro	Micropolitan	Non-core
Metropolitan counties			Nonmetropolitan counties	

NOTES: Rates are age adjusted. Data are for non-Federal short stay hospitals and exclude obstetrical deliveries. Population estimates for rate calculations are for the civilian population corrected for net under-enumeration. Urbanization levels are for patient's place of residence. See Technical Notes for description of urbanization levels. See Data Table 30 for data points graphed.

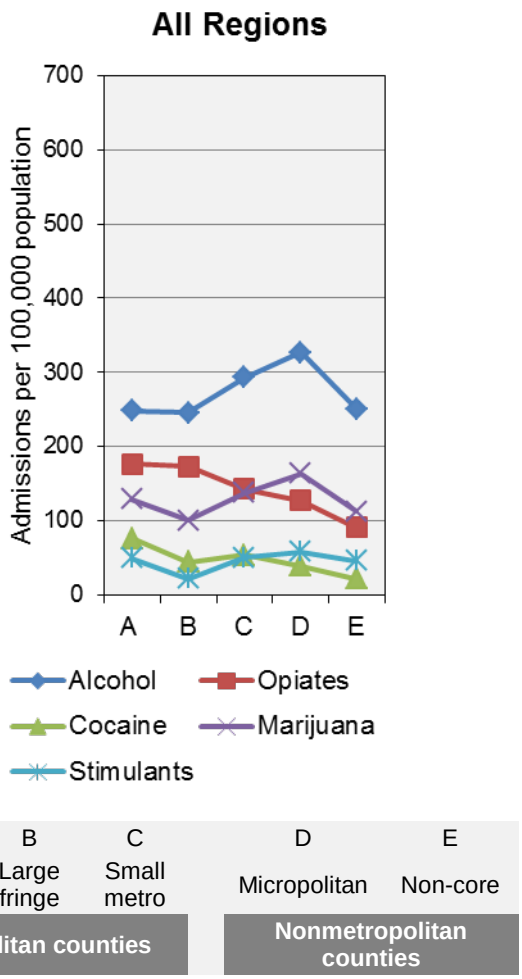
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

Substance Abuse Treatment

In 2012, 23.1 million persons aged 12 or older needed treatment for an illicit drug or alcohol use problem. Of these, 2.5 million (nearly 11 percent of those who needed treatment) received treatment at a specialty facility (hospital inpatient, drug or alcohol rehabilitation, or mental health centers).[53] Comparing treatment admission rates by urbanization level requires caution because the rates are influenced by several factors, including substance abuse rates, repeat admissions, treatment availability, willingness to seek treatment, and public funding levels.[54]

- Superset age-adjusted admission rates (e.g., overall US or regional age-adjusted admission rates) are constructed from subset components only. Thus, for example, the overall age adjusted rate for the Midwest is built only from admissions that could be assigned to a specific county and its urbanization level. An examination of the data shows that there are some systematic gaps in this respect; for example, no Wisconsin admissions are assigned to a specific county (all have county FIPS code "000"). This ultimately means that no Midwest results, including the overall regional rates, reflect Wisconsin substance abuse admissions. A total of 162,000 admissions out of 1.8 million (about 9%) had this problem. States with significant percentages of admissions that could not be assigned to a county or an urbanization level included: Alabama (47%); Arizona (100%); Florida (28%); Indiana (93%); Pennsylvania (25%); and Wisconsin (100%).
- Nationally, admission rates for alcohol, marijuana, and stimulants were higher in micropolitan counties [D] and small metro counties [C] than other urbanization levels.
- The admission rate for cocaine use was highest in the central counties of large metro areas [A] and lowest in the most rural counties [E]. Similarly, admission rates for opiates generally decreased with increasing levels of rurality.
- Regionally, admission rates for alcohol abuse were highest in central counties of large metro areas [A] in the Northeast, micropolitan counties [D] in the Midwest and South, and the most rural counties [E] in the West. The admission rate for alcohol abuse was lower in the South than in the other three regions. The admission rate for opiate abuse was highest in small counties of large metro areas [C] in the Northeast. Admission rates for cocaine and marijuana abuse were highest in central counties of large metro areas [A] in the Northeast. The admission rate for stimulants was highest in micropolitan counties [D] in the West.

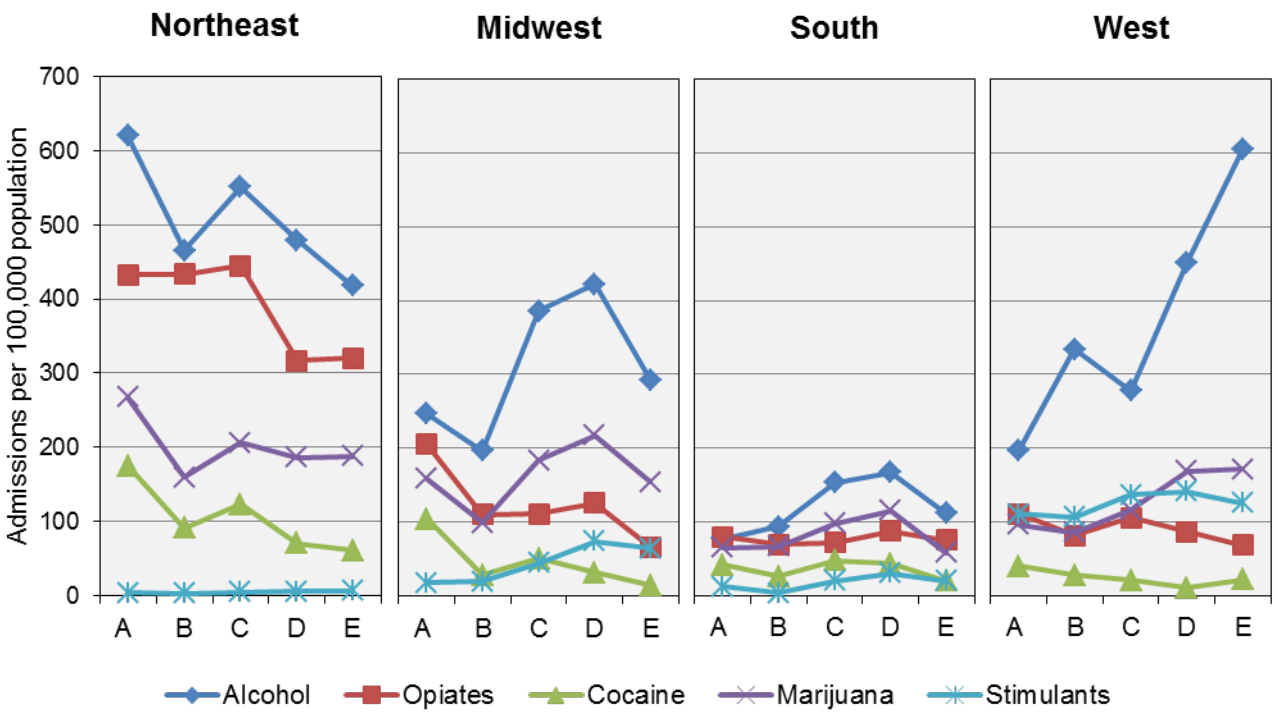
Figure 31(a). Substance abuse treatment admission rates by primary substance and urbanization level: United States, 2010



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 31 for data points graphed. Wisconsin and Arizona did not report facility location and are excluded from calculations by urbanization level. In addition, select states provided partial facility location information and thus a portion of each state's records are excluded from calculations by urbanization level including: Alabama (47% excluded), Indiana (93%), Florida (28%), and Pennsylvania (25%).

SOURCE: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS).

Figure 31(b). Substance abuse treatment admission rates by primary substance, region and urbanization level: United States, 2010



A	B	C	D	E
Large central	Large fringe	Small metro	Micropolitan	Non-core
Metropolitan counties			Nonmetropolitan counties	

NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 31 for data points graphed. Wisconsin and Arizona did not report facility location and are excluded from calculations by urbanization level. In addition, select states provided partial facility location information and thus a portion of each state's records are excluded from calculations by urbanization level including: Alabama (47% excluded), Indiana (93%), Florida (28%), and Pennsylvania (25%).

SOURCE: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS).

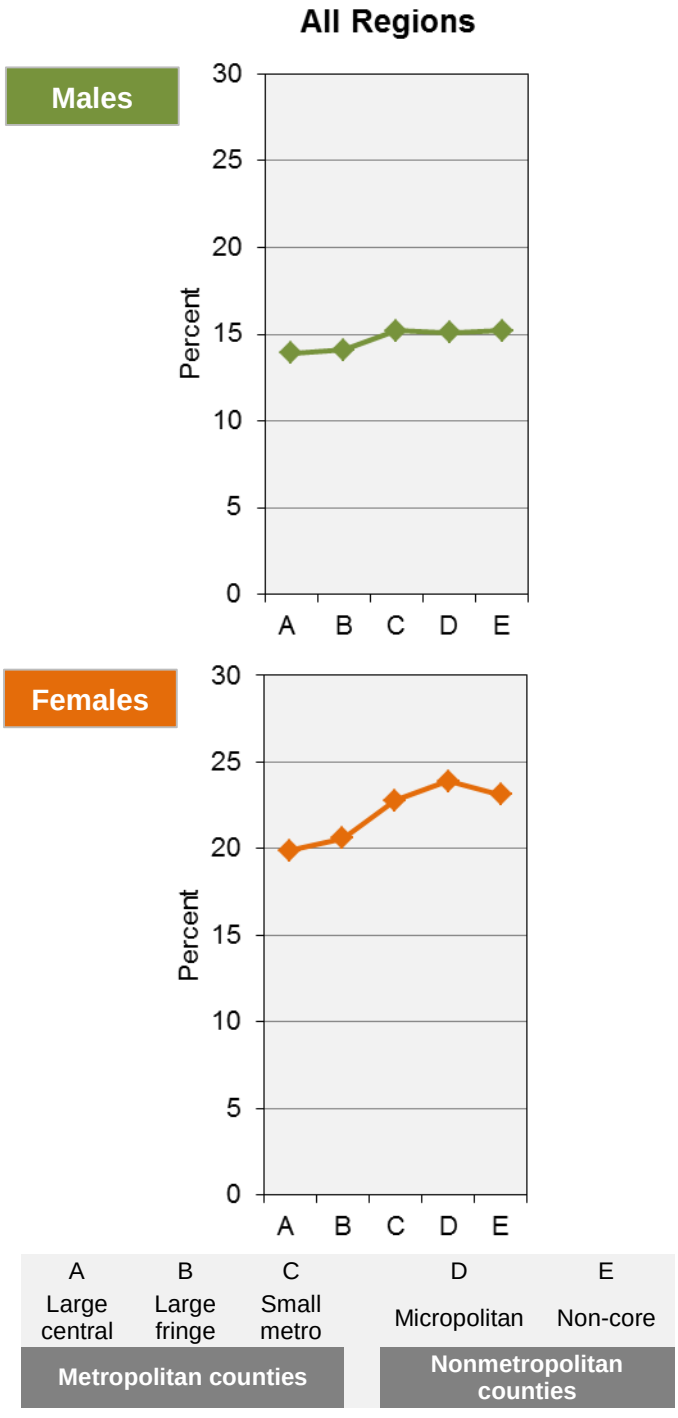
6. Other Mental Health Measures

Any Mental Illness

The National Surveys on Drug Use and Health (NSDUH) defines any mental illness (AMI) as any diagnosable mental, behavioral, or emotional disorder other than a substance use disorder.[55] In 2011, there were approximately 45.6 million adults aged 18 or older (nearly 20 percent of the adult population) in the United States with AMI in the past year.[56]

- Based on data collected nationally from 2010-2011, there were differences in the proportion of adults who reported having AMI in the past year by sex and urbanization level. Differences across urbanization levels were slightly larger among women than men. Among women in central counties of large metro areas [A], 20 percent reported having AMI in the past year compared to 24 percent in nonmetro counties [D, E]. Among men, the urban-rural gap was hardly discernable; 14 percent of men in central counties of large metro areas [A] reported having AMI in the past year compared to 15 percent in nonmetro areas [D, E].
- There are also regional differences across urbanization levels in the proportion of adults who reported having AMI in the past year. Across all regions and urbanization levels, micropolitan counties [D] in the West had the highest percentage of men and women who reported having AMI in the past year and central counties of large metro areas [A] in the South had the lowest.

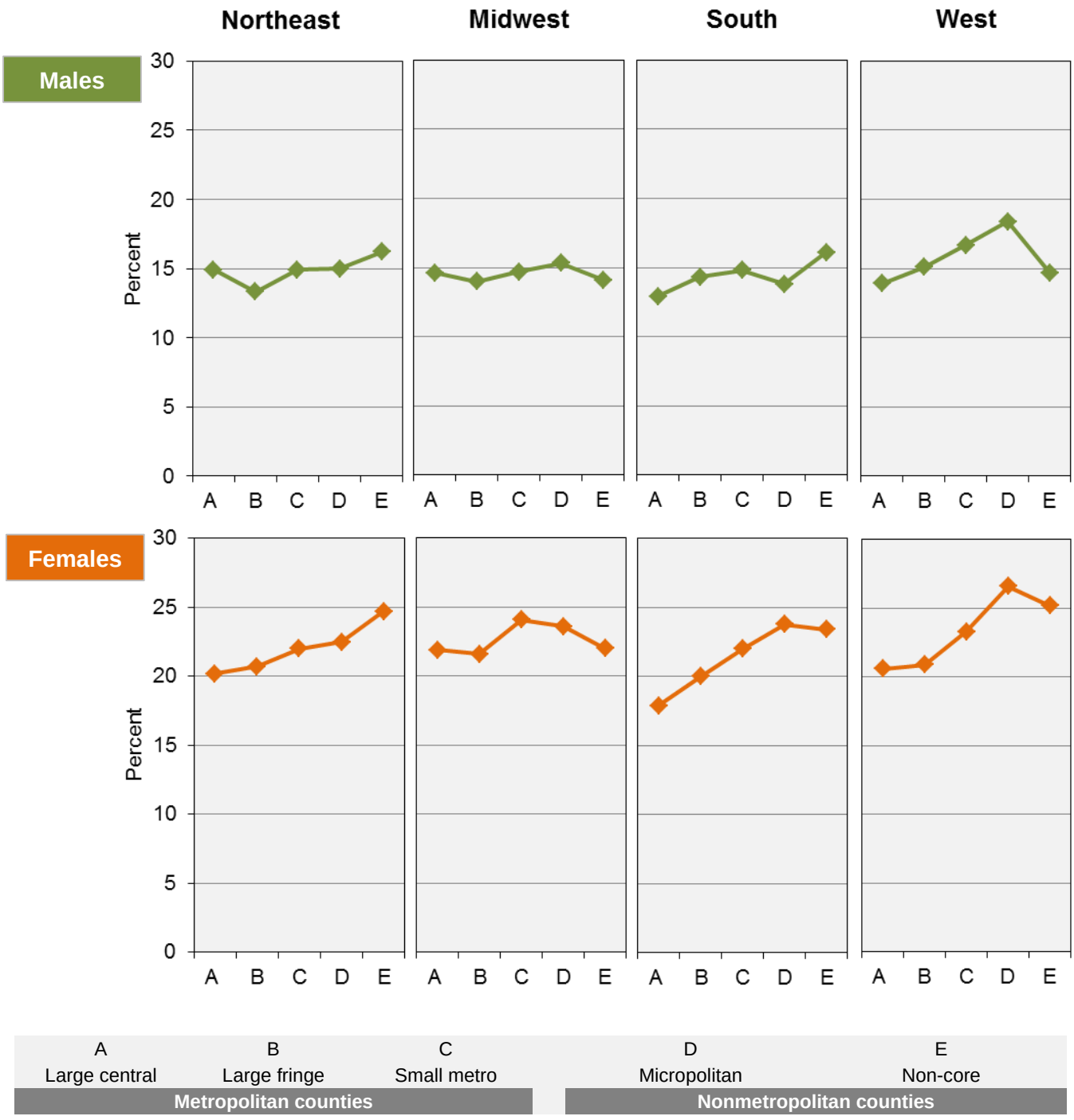
Figure 32(a). Past year any mental illness (AMI) among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 32 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Figure 32(b). Past year any mental illness (AMI) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 32 for data points graphed.

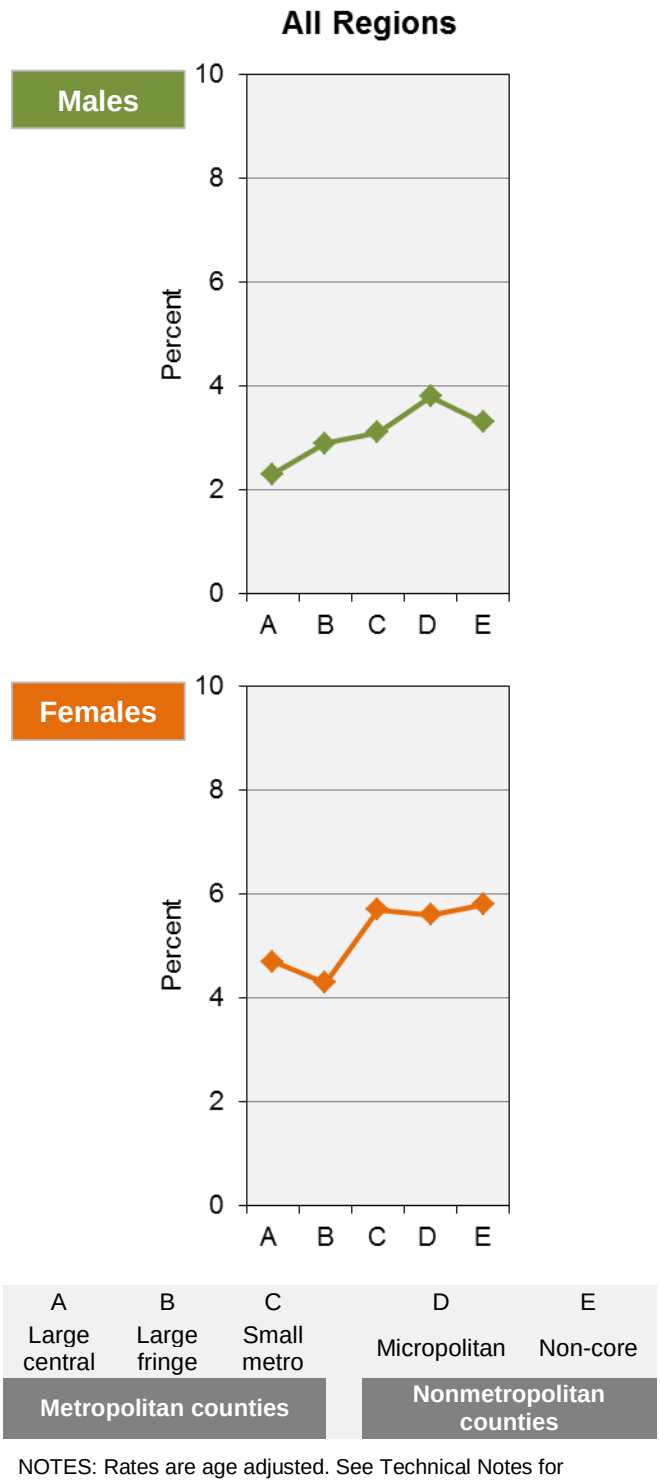
SOURCE: National Survey on Drug Use and Health (NSDUH).

Serious Mental Illness

The National Surveys on Drug Use and Health (NSDUH) has included measures for serious mental illness (SMI) since 2008. SMI is defined as having a diagnosable mental, behavioral, or emotional disorder in the past year that resulted in serious functional impairment and substantially interfered with one's ability to carry out major life activities at home, at work, or in the community.[57]

- Nationally, the percentage of adult men and women who reported having SMI in the past year increased with increasing rurality. Among men, reports of SMI in the past year ranged from 2-4 percent across urbanization levels and 4-6 percent among women. For both sexes, the percentage of adults who reported SMI in the past year was highest in nonmetro counties [D, E] (3-4 percent among men and 6 percent among women).
- There are also regional differences in the reported incidence of SMI between sexes and across urbanization levels. Across all regions, the largest urban-rural SMI disparity for men was found in the West (2 percent in central counties of large metro areas [A] compared to 6 percent in micropolitan counties [D]). For women, the largest urban-rural SMI disparity was seen in the Northeast (4 percent in central counties [A] compared to 7 percent in the most rural counties [E]).
- Notably, women in the Midwest were the only segment of the population that showed an inverse relationship between reports of SMI and rurality. With the exception of fringe counties of large metro areas [B], greater levels of rurality were associated with lower percentages of reported SMI in 2010-2011.

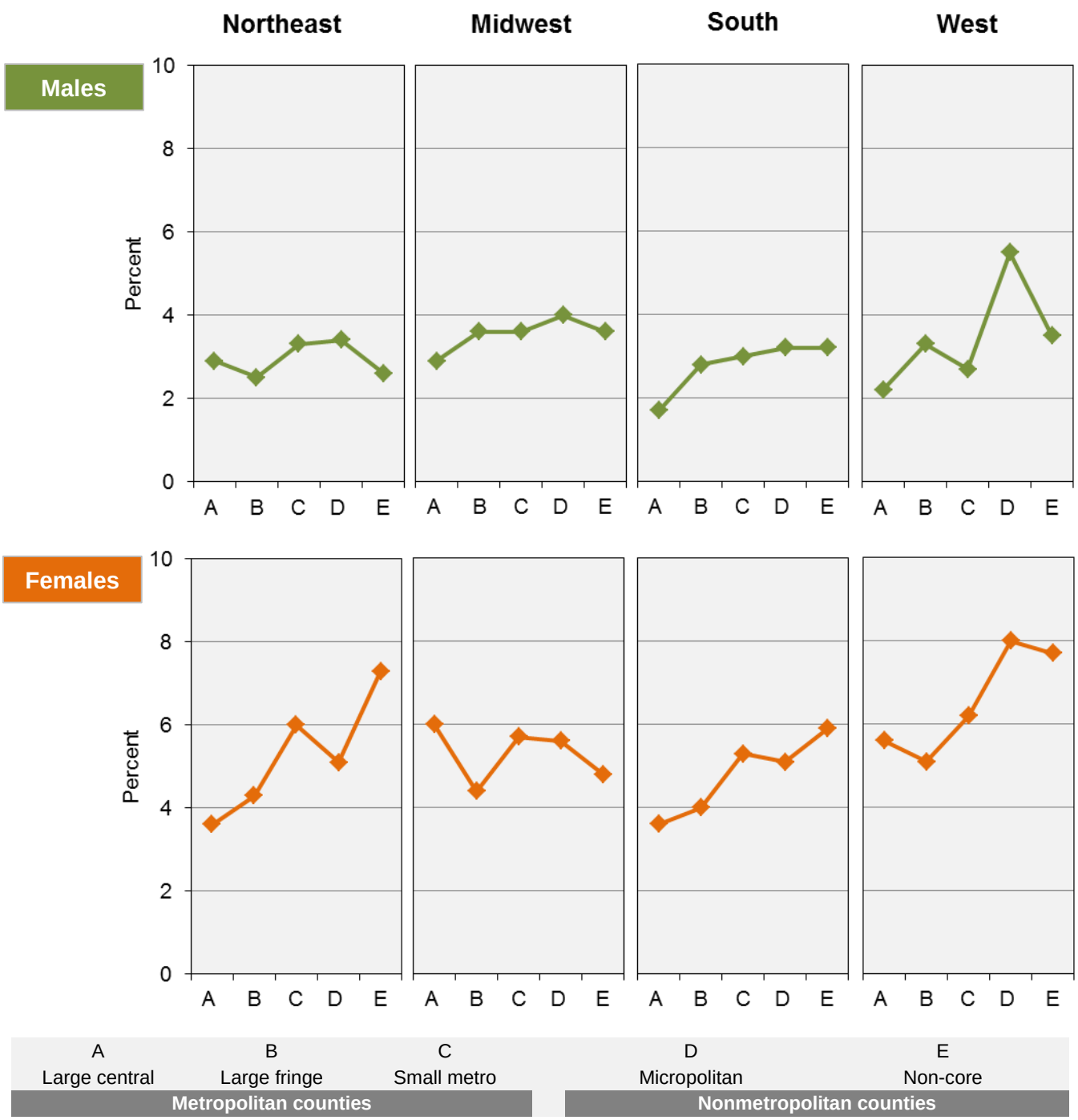
Figure 33(a). Past year serious mental illness (SMI) among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 33 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Figure 33(b). Past year serious mental illness (SMI) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 33 for data points graphed.

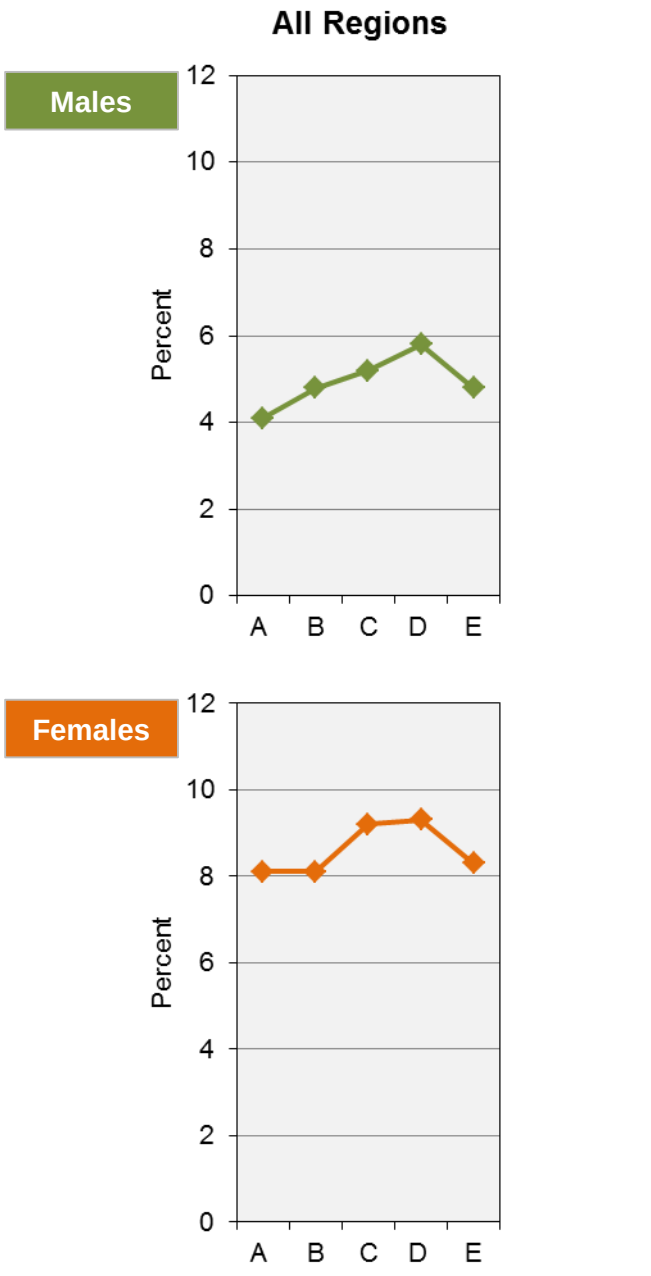
SOURCE: National Survey on Drug Use and Health (NSDUH).

Adult Major Depressive Episode

The National Surveys on Drug Use and Health (NSDUH) defines a major depressive episode (MDE) as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.[58]

- Based on data collected nationwide from 2010-2011, the largest percentages of men and women who reported having MDE in the past year were found in the middle segments of the urban-rural continuum. For both sexes, the largest percentage of MDE was reported in micropolitan counties [D] (6 percent for men and nearly 9 percent for women) followed by small metro counties [C] (5 percent for men and 9 percent for women). Among men, the lowest percentages reporting MDE in the past year was found in central counties of large metro areas [A] (4 percent); among women, the lowest percentages were also found in central counties [A] as well as fringe counties of large metro areas [B] (8 percent).
- There are regional differences in the reported incidence of MDE between sexes and among urbanization levels. Across all regions, the largest percentages of men and women who reported MDE in the past year were found in micropolitan counties [D] in the West (9 percent for men, 11 percent for women). Among men, the largest range was in the West (3-9 percent). Among women, the largest range was in the Midwest (7-10 percent).

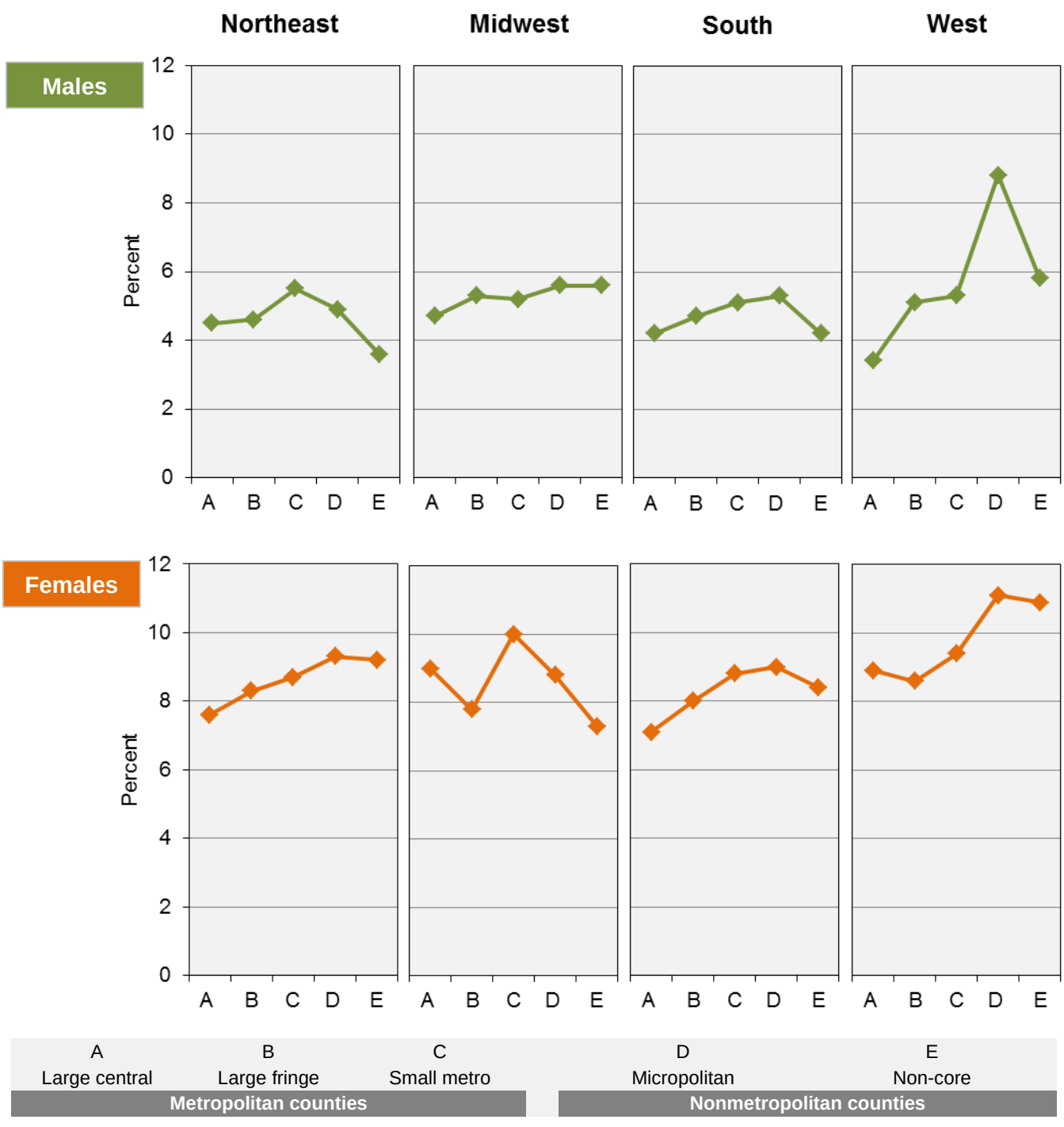
Figure 34(a). Past year major depressive episode (MDE) among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 34 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Figure 34(b). Past year major depressive episode (MDE) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 34 for data points graphed.

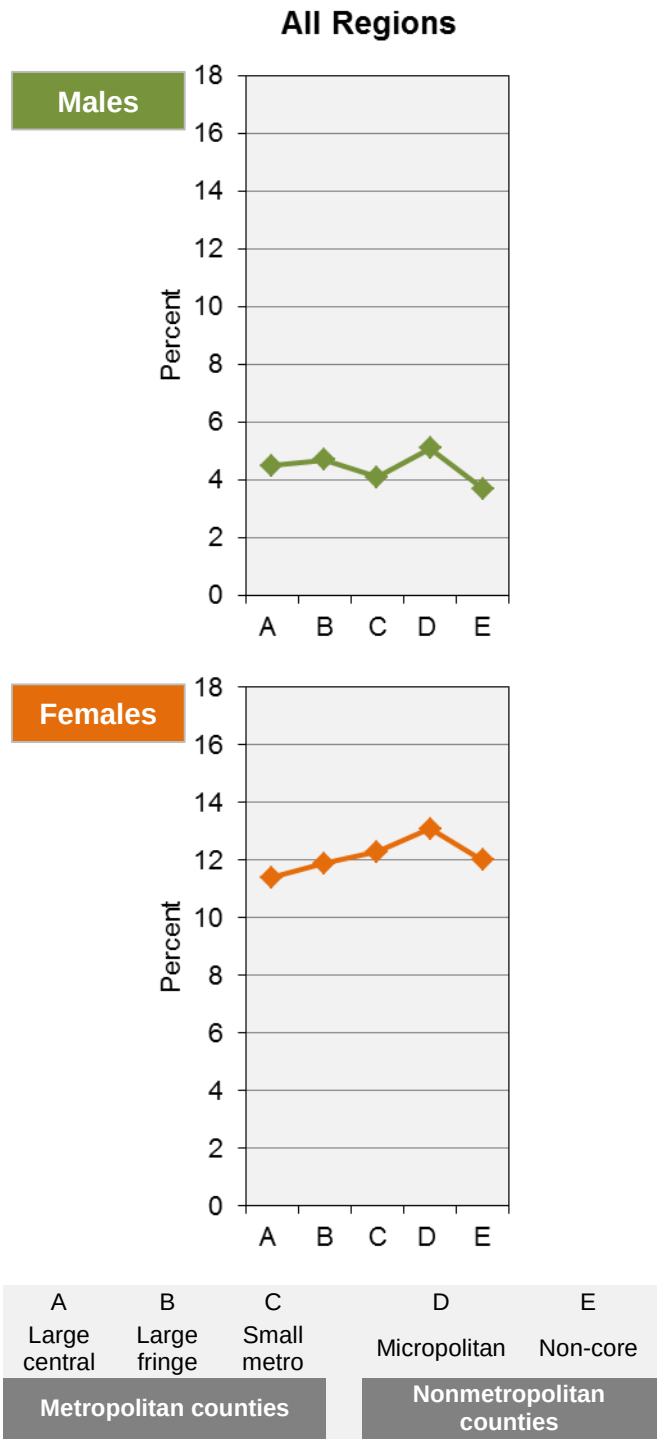
SOURCE: National Survey on Drug Use and Health (NSDUH).

Adolescent Major Depressive Episode

The National Surveys on Drug Use and Health (NSDUH) defines a major depressive episode (MDE) as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.[59]

- Nationally, the percentage of adolescents who reported MDE in the past year ranged from 4-5 percent across urbanization levels for males and 11-13 percent among females. The highest and lowest percentages among adolescent males were found in nonmetro counties [D, E]. For adolescent females, the highest percentage was found in micropolitan counties [D] while the lowest was found in the most urban counties [A].
- There are regional differences in the reported incidence of MDE between adolescent males and females and across urbanization levels. Across all regions, micropolitan counties [D] in the South had the largest percentage of adolescent males reporting MDE in the past year (6 percent). The largest percentage of adolescent females reporting MDE in the past year was found in the most rural counties in the West [E] (16 percent). For male adolescents, the greatest range of reported MDE was found in the West (2-6 percent). For female adolescents, the greatest range was found in the Northeast (10-13 percent).

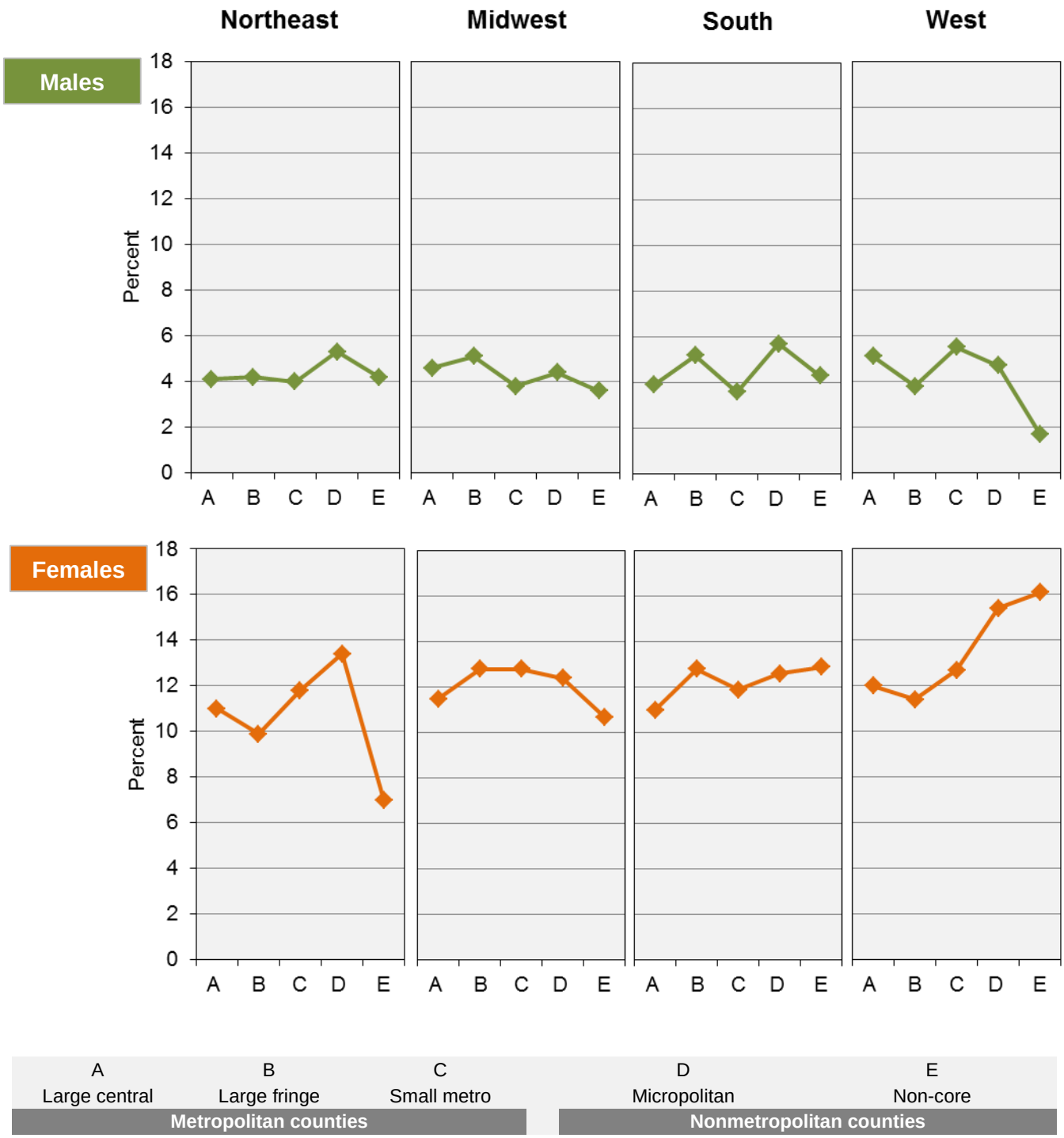
Figure 35(a). Past year major depressive episode (MDE) among persons 12-17 years of age by sex and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 35 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Figure 35(b). Past year major depressive episode (MDE) among persons 12-17 years of age by sex, region, and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 35 for data points graphed.

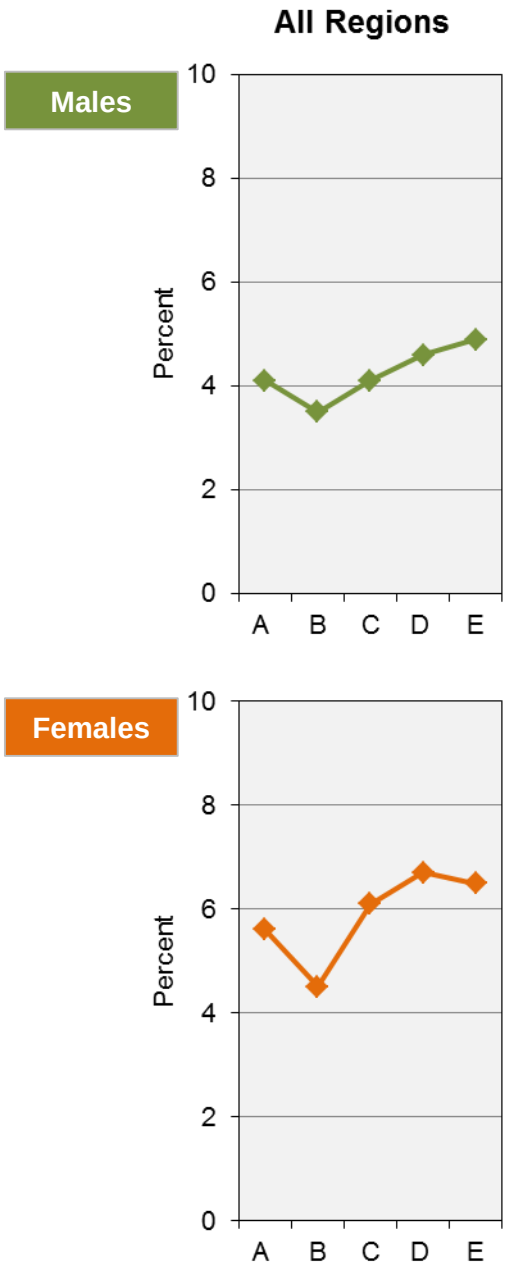
SOURCE: National Survey on Drug Use and Health (NSDUH).

Serious Psychological Distress

The National Surveys on Drug Use and Health (NSDUH) includes six questions to assess the presence of serious psychological distress (SPD) in the past 30 days. These questions elicit information on how frequently respondents experienced symptoms of psychological distress.[60]

- From 2010-2011, the percentage of men who had SPD within the past 30 days ranged from 4-5 percent across urbanization levels nationwide. The rate was highest in the most rural counties [E] and lowest in fringe counties of large metro areas [B]. The percentage of women who had MDE within the past 30 days ranged from 5-7 percent. The rate was highest in micropolitan counties [D] and lowest in fringe counties of large metro areas [B].
- Regionally, no clear patterns emerged by urbanization level except in the South, where the percentage of adults who had SPD was higher in nonmetro counties [D, E] than in metro counties [A, B, C]. The highest percentage of men and women who had SPD within the past 30 days was found in the most rural counties [E] of the South (7 percent and 8 percent, respectively). Among men, the largest range across levels of rurality in a region was in the South (3-7 percent). Among women, the largest range was in the West (4-8 percent).

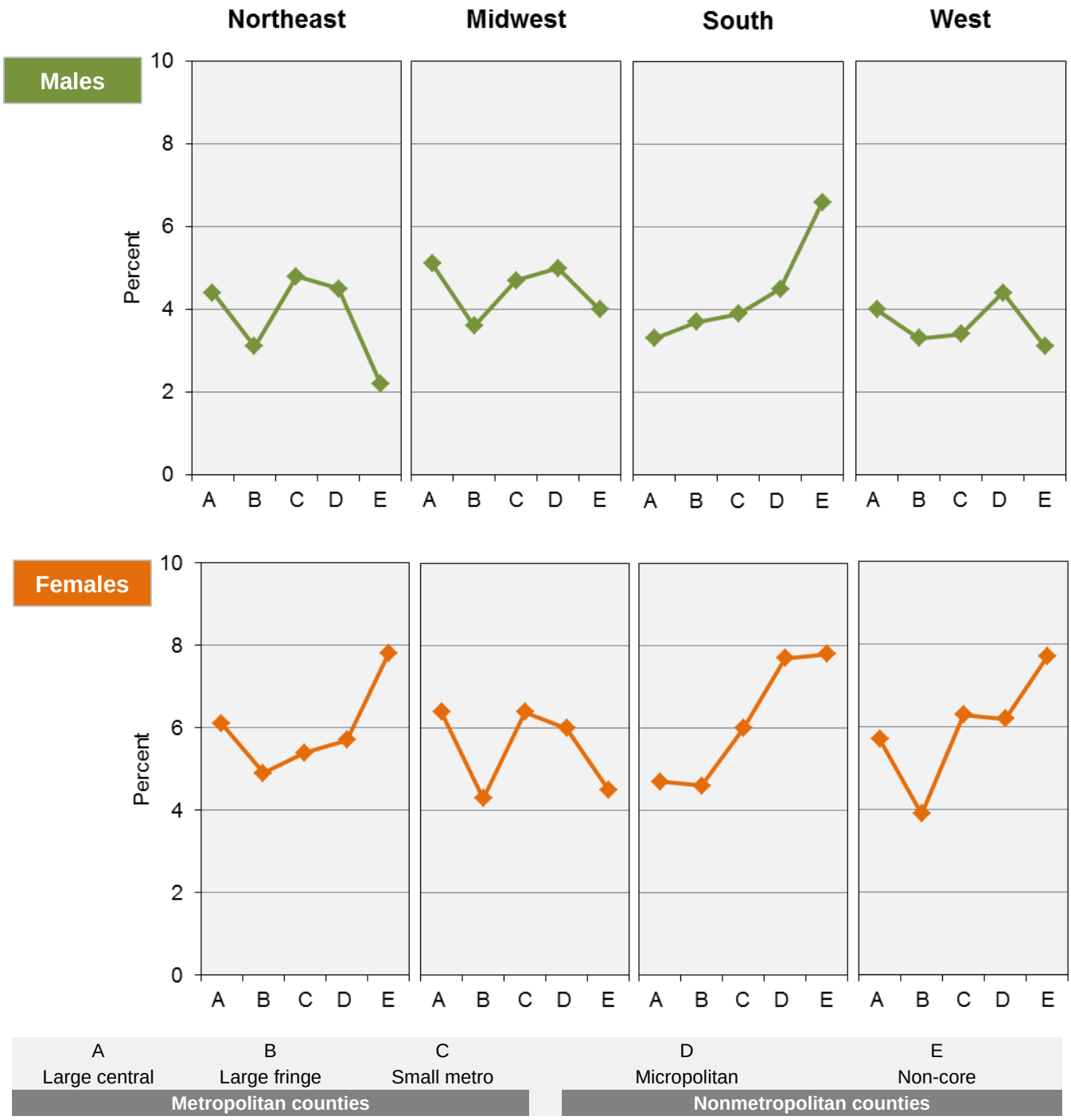
Figure 36(a). Past 30-day serious psychological distress (SPD) among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 36 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Figure 36(b). Past 30-day serious psychological distress (SPD) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011



NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. See Data Table 36 for data points graphed.

SOURCE: National Survey on Drug Use and Health (NSDUH).

Technical Notes

Definition of County Urbanization Levels

This Chartbook categorized counties into five urbanization levels using the 2006 National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties, which is based on the Office of Management and Budget's (OMB) 2000 standards for defining metropolitan and micropolitan statistical areas (see below), the December 2005 delineation of these areas, and Vintage 2004 postcensal estimates of the resident U.S. population. There are three urbanization levels for metropolitan counties and two for nonmetropolitan counties. All 3,147 U.S. counties and county equivalents were assigned to one of the five levels.

The three levels for metropolitan (metro) counties are:

A. Large central (inner cities) - counties in metropolitan statistical areas (MSA) of 1 million or more population that:
    a. Contain the entire population of the largest principal city of the MSA;
    b. Are completely contained in the largest principal city of the MSA; or
    c. Contain at least 250,000 residents of any principal city of the MSA.
B. Large fringe (suburban) - remaining counties in MSAs with a population of at least 1 million residents
C. Small Metro - counties in MSAs with a population of less than 1 million residents

The two levels of nonmetropolitan (nonmetro) counties are:

D. Micropolitan (large rural) – counties in micropolitan statistical areas (population of 10,000 to 49,999)
E. Non-core (small rural) – remaining nonmetropolitan counties that are not in a micropolitan statistical area

For Figures 2–26, 29, 30, and 32-35, urbanization level is for the county of residence of persons. For Figures 27-28, urbanization level is for the county of the health care provider's office. If the office location was missing, the preferred mailing address was used.. For Figure 31, urbanization level is for the county of the substance abuse treatment facility.

Metropolitan and Micropolitan Statistical Areas

The OMB defines metropolitan and micropolitan areas according to published standards that are applied to Census Bureau data. Standard definitions for metropolitan areas were first issued in 1949 and were modified in 1958, 1971, 1975, 1980, 1990, 2000, and 2010. The most currently defined urbanization levels are based on application of the 2000 standards. In the 2000 standards, a metropolitan statistical area is a county, or group of contiguous counties, that contains at least one urbanized area of 50,000 or more population. In addition to the county or counties that contain all or part of the urbanized area, a metropolitan statistical area may contain other counties if there are strong economic ties with the central county or counties, as measured by commuting.[1]

Micropolitan statistical areas contain an urban core of at least 10,000 population but no more than 49,999 population. In the NCHS Urban-Rural Classification Scheme, the nonmetropolitan classification includes counties that contain micropolitan statistical areas and a second category that contains counties with cities that have less than 10,000 population.

For more information see the U.S. Census website at: http://www.census.gov/population/metro/.

Definition of Regions

For chartbook comparisons across geographic locations, the United States was divided into four regions: Northeast, Midwest, South, and West. These regions correspond to those defined by the U.S. Bureau of the Census (see Appendix II, Geographic region).

Composition of County Urbanization Levels by Region

The geographic composition of the five urbanization levels is described below. Table A describes the composition of the central and fringe categories in large metro areas by region. It lists the number of counties included in each urbanization category by State and the percent of the category's population from each State.

Table B describes the composition of the small metro category by region. It lists the number of counties included in each urbanization category by State and the percent of the category's population from each State.

Table C describes the composition of the nonmetro categories by region. It lists the number of counties included in each urbanization category by State and the percent of the category's population from each State.

[1] Office of Management and Budget. "2010 Standards for Delineating Metropolitan and Micropolitan Statistical Areas." *Federal Register* 75:123 (28 June 2010). Available at http://www.whitehouse.gov/sites/default/files/omb/assets/fedreg_2010/06282010_metro_standards-Complete.pdf.

Northeast

The 217 counties in the Northeast are distributed among the 5 urbanization levels as follows: 14 large central, 48 large fringe, 61 small metro, 53 micropolitan, and 41 non-core.

Midwest

The 1,055 Midwestern counties are distributed among the five urbanization levels as follows: 11 large central, 92 large fringe, 182 small metro, 241 micropolitan, and non-core.

South

Of the 1,423 counties in the South, 24 are large central, 186 are large fringe, 341 are small metro, 298 are micropolitan, and 574 are non-core.

West

The West's 448 counties are distributed across the 5 urbanization levels as follows: 14 large central, 28 large fringe, 89 small metro, 102 micropolitan, 215 non-core.

Race and Hispanic Origin

Figure 4 presents the distribution of selected race and Hispanic origin groups by region and urbanization level. As shown in Figure 4, the distribution of racial and Hispanic origin groups by region and urbanization level is so uneven that the most extensive data sources often do not yield reliable estimates at that level of disaggregation. For this reason, none of the other charts presents estimates by race and Hispanic origin. Race and Hispanic origin-specific differences in estimates are discussed in the text when there are sufficient numbers of observations to obtain reliable estimates. (See Appendix I, Data Sources, U.S. Census Bureau, and Appendix II, Race for categories of race and Hispanic origin.)

Age Adjustment

Estimates in most charts are age adjusted in order to eliminate differences in observed estimates that result from differences in the age distribution of the population among urbanization levels and regions (see Figure 3). The projected 2000 U.S. population was used as the standard population (see Appendix II, Age adjustment).[2] The specific age groups used for age adjustment are as follows:

- Figures 7, 9,10, and 21: 18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85 years and older;
- Figure 8: 18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49;
- Figure 12: 1–4, 5–14, 15–19, and 20–24 years;
- Figure 13: 25–34, 35–44, 45–54, and 55–64 years;
- Figure 14: 65–74, 75–84, 85 years and older;
- Figures 15 and 16: 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 years and older;
- Figures 17 and 18: less than 1, 1–4, 5–14, 15–24, 25–34, 35–44, 45–54, 55–64, 75–84, and 85 years and older;
- Figure 19: 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 years and older;
- Figure 22: 65-69, 70-74, 75-79, 80-84, 85 years and older;
- Figure 23: less than 1, 1, 2-4, 5, 6-8, 9,10-11, 12-14, 15-17, 18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64;
- Figure 27: 18–44, 45–54, and 55–64 years;
- Figure 28: 12-17, 18-44, 45-54, 55-64, 65-74, 75 years and older.

Population Estimates (Figures 2–4)

Population estimates were obtained from the 2010 U.S. Census Bureau. They are the April 1, 2010 resident population of counties in the United States, by age, sex, race, and Hispanic origin.

Population in Poverty (Figure 5)

Estimates of the percent of persons in poverty are based on the official definition of poverty.[3] They were calculated from model-based county level estimates of the number of poor persons in 2011 produced by the U.S. Census Bureau (Small Area Income & Poverty Estimates (SAIPE, http://www.census.gov/hhes/www/saipe.html). These estimates combine data from administrative records, postcensal population estimates, and the decennial census with direct estimates from the American Community Survey to provide consistent and reliable single-year estimates. (For poverty level definition, see Appendix II, Poverty level.)

[2] Centers for Disease Control and Prevention. *Age adjustment using the 2000 projected U.S. population.* By Richard J. Klein and Charlotte A. Schoenborn. Healthy People Statistical Notes, No. 20. Hyattsville, MD: National Center for Health Statistics, 2001.

[3] Office of Management and Budget. *Definition of poverty for statistical purposes, 1978.* Statistical Policy Directive No. 14 (14 May 2001). Available at http://www.census.gov/hhes/poverty/povmeas/ombdir14.html.

Cigarette Smoking (Figures 6 and 7)

Cigarette smoking data originated from two sources. For persons ages 12–17 years (Figure 6), the data originated from the 2011 National Survey on Drug Use and Health (NSDUH) (see Appendix I). In the NSDUH, current smoking was defined as smoking part or all of a cigarette during the past 30 days.

For those 18 years of age and older (Figure 7), the data originated from the 2010 and 2011 National Health Interview Survey (NHIS), sample adult questionnaire (see Appendix I). In the NHIS, current smokers are persons who have smoked at least 100 cigarettes in their lifetime and now smoke cigarettes every day or some days.

Alcohol Consumption (Figure 8)

The measure of alcohol consumption used in Figure 8 is self-reported consumption of five or more drinks in one day in the last year. This measure is one indicator of heavy alcohol consumption. The data are from the sample adult questionnaire of the 2010 and 2011 National Health Interview Survey (NHIS) (see Appendix I). See Appendix II, Current drinker for a description of the NHIS questions on alcohol consumption.

Obesity (Figure 9)

Obesity was defined as having a body mass index (BMI) greater than or equal to 30 kg/m2 (see Appendix II, Body mass index). Data are from the 2010 and 2011 NHIS, sample adult questionnaire (see Appendix I). The NHIS obtained this information by asking respondents 18 years of age and older to report their own height and weight without shoes.

Physical Inactivity (Figure 10)

Physical inactivity during leisure time is based on two questions in the 2010 and 2011 National Health Interview Survey (NHIS), sample adult questionnaire (see Appendix I). Respondents were considered to be physically inactive during leisure time if they responded never or unable to do this to both of the following:

- How often do you do vigorous leisure-time physical activities for at least 10 minutes that cause heavy sweating or large increases in breathing or heart rate?
- How often do you do light or moderate leisure-time physical activities for at least 10 minutes that cause only light sweating or a slight to moderate increase in breathing or heart rate?

Mortality (Figures 11–19)

See Appendix I, National Center for Health Statistics, National Vital Statistics System for a description of the source for mortality data. Data for the 3 years 2008-2010 were combined to increase reliability of estimates. Cause of death coding is for underlying cause of death based on the International Classification of Diseases, Tenth Revision (ICD-10) (see Appendix II, Cause of death). ICD–10 codes used for ischemic heart disease are I20-I25. ICD–10 codes used for chronic obstructive pulmonary diseases are J40-J47. The ICD-10 codes used to define external causes of injury in the chartbook are:

Unintentional injuries	V01-X59, Y85-Y86
Motor vehicle traffic-related	V02-V04,V09.0, V09.2, V12–V14, V19.0–V19.2, V19.4–V19.6, V20–V79, V80.3–V80.5, V81.0–V81.1, V82.0–V82.1, V83–V86, V87.0–V87.8, V88.0-V88.8, V89.0, V89.2
Homicide	X85-Y09, Y87.1
Suicide	X60-X84, Y87.0

Population estimates are the July 1 intercensal estimates of resident populations for years 2008-2009 and the April 1 modified census counts for year 2010.

Teen Birth Rates (Figure 20)

Birth rates were calculated for females 15–19 years of age. The birth data are complete counts of all live births occurring in the United States and are based on the National Vital Statistics System (see Appendix I). Data for the 3 years 2008-2010 were combined to increase reliability of the estimates. Births occurring in the United States to foreign residents were excluded from the data. Population estimates of females 15-19 of age were based on the 2010 U.S. Decennial Census.

Limitation of Activity (Figure 21)

Data on limitation of activity due to chronic health conditions were obtained from the 2010 and 2011 National Health Interview Survey, person questionnaire (See Appendix I). Limitation of activity refers to a long-term reduction in a person's capacity to perform the usual kind or amount of activities associated with his or her age group due to one or more chronic health conditions. For persons 18 years of age and older, these activities include, but are not limited to: (a) working; (b) independently handling routine needs such as household chores and shopping; and (c) independently performing personal care such as bathing, dressing, eating and getting around inside the home. Limitation of activity is assessed by asking respondents a series of questions about their need for help or other limitations in their ability to perform usual activities because of a physical, mental, or emotional problem. Respondents are also asked these questions about family members who are not present during the interview. (See Appendix II, Limitation of activity.)

Edentulism and Dental Visits (Figures 22 and 29)

Estimates of the prevalence of edentulism (total tooth loss) among the elderly (65 years of age and older) and the proportion of adults who had a dental visit in the year prior to interview are based on data from the 2010 and 2011 NHIS sample adult questionnaire (see Appendix I). To assess tooth loss, respondents were asked, ''Have you lost all of your upper natural teeth and lower natural (permanent) teeth?'' Information on dental visits within the past year was based on the question, "About how long has it been since you last saw a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists."

Health Insurance Coverage (Figures 23-26)

Estimates of the percent uninsured were obtained from the 2010 and 2011 NHIS person questionnaire (see Appendix I). The data were collected prior to implementation of the Patient Protection and Affordable Care Act (ACA). For a definition of uninsured, see Appendix II, Health insurance coverage. Estimates are presented for the population less than 65 years of age because almost all persons 65 years of age and older are covered by Medicare.

Physicians (Figure 27)

Physician-to-population ratios for 2010 were based on estimates of the number of professionally active medical doctors based on data collected by the American Medical Association (AMA) and provided to the Area Health Resource File (AHRF). For a definition of professionally active physician, see Appendix II, Physician. Medical doctors included Federal and non-Federal patient care doctors in office-based and hospital-based practices. Physician specialty data were based on self-reported primary area of specialty. Primary care physicians include physicians practicing in the general fields of family and general practice, general internal medicine, and general pediatrics. Physician data were classified by the location of the physician's office. If the office location was missing, the physician's preferred mailing address was used.

Population estimates are for the resident population and were based on the 2010 U.S. Decennial Census. Additionally, physician-to-population estimates for specialists do not reflect the fact that specialty physician services may be imported into an area, for example, specialists from urban areas serving rural areas on a part-time basis.[4]

Dentists (Figure 28)

Dentist-to-population ratios are estimates of the number of professionally active dentists collected by the American Dental Association (ADA) and provided to the AHRF. Professionally active dentists included Federal and non-Federal dentists working full- or part-time in all practice settings. Dentists were classified by the county of their primary office. Population estimates are for the resident population based on the 2010 U.S. Decennial Census.

Hospital Discharge Rates and Average Length of Stay (Figure 30)

The National Hospital Discharge Survey (NHDS) provides data to estimate total hospital discharge rates and average length of stay (see Appendix I). This survey includes a national sample of hospitals with an average length of stay of fewer than 30 days for all patients, general hospitals, or children's general hospitals. Federal, military, and Department of Veterans Affairs hospitals, as well as hospital units of nonhealth institutions (such as prison hospitals) and hospitals with fewer than six beds staffed for patient use, are excluded. County of residence of the patient was not available, but was assigned based on the ZIP Code where the patient lived as recorded in the hospital record.

Substance Abuse Treatment Admissions (Figure 31)

Data on substance abuse treatment admissions were obtained from the 2010 Treatment Episode Data Set-Admissions (TEDS-A) (see Appendix I) maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA).

Data are displayed according to primary substance (that is, the substance listed at admission as the primary substance abuse problem for which treatment is sought). Data were not included from Arizona and Wisconsin because admissions from these states could not be assigned a county and therefore could not be assigned an urbanization level. Likewise, a portion of the admissions in the following states could not be assigned a county or urbanization level: Alabama (47%), Florida (28%), Pennsylvania (25%), and Indiana (93%).

[4] Wakefield, Douglas S. and Roger Tracy. "Adjusting measures of physician availability to reflect importation of physician services into rural areas." *The Journal of Rural Health* 12, no. 1 (1996):39–44.

Mental Illness, Depression, and Serious Psychological Distress (Figures 32-36)

Data on mental illness and depression were obtained from the 2010-2011 National Survey on Drug Use and Health (NSDUH) and data on severe psychological distress were obtained from the 2010-2011 National Health Interview Survey (NHIS). All data were self-reported. Serious mental illness among adults (Figure 33) is defined as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder and resulting in substantial impairment in carrying out major life activities. Serious mental illness is a subset of any mental illness (Figure 32), which is defined as a diagnosable mental, behavioral, or emotional disorder, regardless of the level of impairment in carrying out major life activities. Major depressive episode (Figures 34-35) is defined as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. Serious psychological distress (Figure 36) is defined as the presence of mental health symptoms in the past month that may negatively affect a person's ability to participate in family, community, and work life. The Six psychological distress questions are included in the NHIS sample adult questionnaire. These questions ask how often a respondent experienced certain symptoms of psychological distress during the past 30 days. The response codes (0 to 4) of the six items for each person are summed to yield a scale ranging from 0 to 24. A value of 13 or more for this scale is used here to define serious psychological distress.

Data Tables on Urban and Rural Health

Data Table 1(a). Metropolitan areas included in large central and large fringe metropolitan urbanization categories by region, 2010

Region and State	Large Central		Region and State	Large Fringe	
	Number of Counties	Percent of category's population		Number of Counties	Percent of category's population
Northeast	14	100.0	Northeast	48	100.0
New York	7	60.5	New Jersey	14	32.0
Pennsylvania	2	16.9	New York	10	23.7
New Jersey	2	8.7	Massachusetts	5	19.9
Connecticut	1	5.5	Pennsylvania	11	18.5
Massachusetts	1	4.4	Rhode Island	4	2.1
Rhode Island	1	3.9	New Hampshire	2	2.1
Maine	0	0.0	Connecticut	2	1.6
New Hampshire	0	0.0	Maine	0	0.0
Vermont	0	0.0	Vermont	0	0.0
Midwest	11	100.0	Midwest	92	100.0
Illinois	1	35.2	Illinois	16	25.1
Ohio	3	22.0	Michigan	5	15.2
Michigan	1	12.3	Missouri	15	14.1
Minnesota	2	11.2	Ohio	15	14.1
Missouri	2	6.7	Indiana	20	11.6
Wisconsin	1	6.4	Minnesota	9	9.2
Indiana	1	6.1	Wisconsin	6	5.5
Iowa	0	0.0	Kansas	6	5.2
Kansas	0	0.0	Iowa	0	0.0
Nebraska	0	0.0	Nebraska	0	0.0
North Dakota	0	0.0	North Dakota	0	0.0
South Dakota	0	0.0	South Dakota	0	0.0
South	24	100.0	South	186	100
Texas	5	42.7	Florida	11	17.8
Florida	5	25.8	Texas	30	17.8
Tennessee	2	6.0	Virginia	46	15.5
Virginia	4	4.0	Maryland	12	15.5
Georgia	1	3.6	Georgia	27	15.0
North Carolina	1	3.6	Tennessee	14	3.7
Kentucky	1	2.9	Louisiana	6	2.8
Oklahoma	1	2.8	Kentucky	15	2.5
Alabama	1	2.6	North Carolina	5	2.2
Maryland	1	2.4	Delaware	1	1.9
District of Columbia	1	2.3	Oklahoma	6	1.8
Louisiana	1	1.3	Alabama	6	1.6
Arkansas	0	0.0	Mississippi	4	0.8
Delaware	0	0.0	South Carolina	1	0.8
Mississippi	0	0.0	West Virginia	1	0.2
South Carolina	0	0.0	Arkansas	1	0.2
West Virginia	0	0.0	District of Columbia	0	0.0
West	14	100.0	West	28	100
California	8	70.1	California	8	47.2
Arizona	1	11.3	Washington	4	19.0
Nevada	1	5.8	Colorado	9	19.0
Washington	1	5.7	Oregon	4	10.3
Utah	1	3.1	Arizona	1	3.7
Oregon	1	2.2	Utah	2	0.9
Colorado	1	1.8	Alaska	0	0.0
Alaska	0	0.0	Hawaii	0	0.0
Hawaii	0	0.0	Idaho	0	0.0
Idaho	0	0.0	Montana	0	0.0
Montana	0	0.0	Nevada	0	0.0
New Mexico	0	0.0	New Mexico	0	0.0
Wyoming	0	0.0	Wyoming	0	0.0

Data Table 1(b). States included in small metropolitan urbanization categories by region, 2010

Region and State	Small Metro	
	Number of Counties	Percent of category's population
Northeast	61	100.0
Pennsylvania	19	30.9
New York	19	23.6
Connecticut	3	14.9
Massachusetts	6	13.3
New Jersey	5	7.3
Maine	5	5.6
New Hampshire	1	2.9
Vermont	3	1.5
Rhode Island	0	0.0
Midwest	182	100.0
Ohio	22	18.6
Michigan	20	18.5
Wisconsin	18	11.4
Indiana	25	11.3
Illinois	19	9.2
Iowa	20	8.5
Missouri	17	5.3
Nebraska	9	5.3
Kansas	11	4.8
Minnesota	10	3.6
South Dakota	7	1.8
North Dakota	4	1.6
South	341	100.0
Texas	42	15.9
Florida	22	15.5
North Carolina	34	13.9
South Carolina	20	8.9
Georgia	42	6.9
Alabama	21	6.2
Louisiana	22	6.0
Tennessee	22	5.5
Arkansas	19	4.6
Virginia	30	3.7
Oklahoma	10	3.1
Mississippi	13	2.9
Kentucky	19	2.9
West Virginia	20	2.6
Maryland	4	0.9
Delaware	1	0.4
District of Columbia	0	0.0
West	89	100.0
California	21	38.5
Washington	12	9.8
Colorado	7	8.7
Arizona	4	7.4
New Mexico	7	6.6
Utah	7	6.4
Oregon	6	5.8
Idaho	12	5.0
Hawaii	1	4.6
Nevada	3	2.3
Alaska	3	2.3
Montana	4	1.7
Wyoming	2	0.8

Data Table 1(c). States included in nonmetropolitan urbanization categories by region, 2010

Micropolitan			Non-core		
Region and State	Number of Counties	Percent of category's population	Region and State	Number of Counties	Percent of category's population
Northeast	53	100.0	Northeast	41	100.0
Pennsylvania	22	41.4	New York	11	29.8
New York	15	28.8	Maine	9	27.0
New Hampshire	6	11.4	Pennsylvania	13	26.8
Connecticut	2	7.8	Vermont	5	11.3
Vermont	6	6.4	New Hampshire	1	3.3
Maine	2	4.1	Massachusetts	2	1.8
Massachusetts	0	0.0	Connecticut	0	0.0
New Jersey	0	0.0	New Jersey	0	0.0
Rhode Island	0	0.0	Rhode Island	0	0.0
Midwest	241	100	Midwest	529	100.0
Ohio	29	18.8	Missouri	57	12.5
Michigan	23	11.8	Iowa	62	12.4
Illinois	29	11.7	Wisconsin	34	12.0
Indiana	26	11.3	Michigan	34	11.9
Missouri	24	8.8	Minnesota	46	10.1
Minnesota	20	8.4	Illinois	37	9.4
Wisconsin	13	8.4	Ohio	19	7.9
Kansas	19	6.7	Kansas	69	6.4
Iowa	17	5.6	Indiana	20	5.7
Nebraska	20	4.4	Nebraska	64	5.4
South Dakota	13	2.5	South Dakota	46	3.4
North Dakota	8	1.7	North Dakota	41	3.0
South	298	100.0	South	574	100.0
North Carolina	31	15.6	Texas	132	15.3
Texas	45	12.2	Kentucky	59	10.8
Tennessee	24	7.9	Georgia	58	9.3
Mississippi	27	7.5	Virginia	47	8.9
Georgia	31	7.3	North Carolina	29	8.1
Alabama	15	6.6	Tennessee	33	6.8
Louisiana	18	6.4	Mississippi	38	6.8
South Carolina	14	6.1	Arkansas	37	6.2
Kentucky	26	6.1	Oklahoma	42	6.1
Florida	11	5.9	Alabama	24	5.2
Oklahoma	18	5.8	West Virginia	26	4.9
Arkansas	18	4.3	Florida	18	4.5
West Virginia	8	2.8	Louisiana	17	3.3
Virginia	7	2.1	South Carolina	11	2.9
Maryland	4	1.7	Maryland	3	0.9
Delaware	1	1.5	Delaware	0	0.0
District of Columbia	0	0.0	District of Columbia	0	0.0
West	102	100.0	West	215	100.0
Oregon	14	14.2	Colorado	39	17.2
New Mexico	15	12.2	Montana	46	14.1
Washington	9	11.9	California	12	10.8
California	9	11.8	Washington	13	9.7
Arizona	6	9.6	Idaho	21	8.5
Hawaii	3	8.2	Arizona	3	8.4
Idaho	11	6.7	Alaska	23	7.3
Montana	6	6.1	Wyoming	14	6.7
Colorado	8	5.6	Oregon	11	6.0
Wyoming	7	4.8	Utah	14	5.9
Nevada	6	4.4	New Mexico	11	3.3
Utah	5	3.5	Nevada	7	2.1
Alaska	3	1.2	Hawaii	1	0.0

NOTE: See Technical Notes for a description of data source and urbanization levels.

Data Table 2. Population by region and urbanization level: United States, 2011

Urbanization level	All regions	Northeast	Midwest	South	West
			Percent		
Total	100.0	100.0	100.0	100.0	100.0
Metropolitan counties:					
Large central……..	29.3	29.4	22.1	22.5	46.8
Large fringe……	24.4	35.9	24.4	25.4	14.3
Small metro……	29.7	25.0	30.2	32.4	28.7
Nonmetropolitan counties:					
Micropolitan……	10.2	7.1	13.7	11.6	6.9
Non-core……	6.4	2.6	9.7	8.2	3.3

≥ Greater than or equal to.
NOTES: See Technical Notes for description of urbanization levels.
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Data Table 3. Population by age, region, and urbanization level: United States, 2011

Region and Urbanization Level	All ages	Under 5 years	5-17 years	18-64 years	65 years and older
			Percent		
All regions……..	100.0	6.5	17.5	62.9	13.0
Metropolitan counties:					
Large central……..	100.0	6.8	17.1	64.6	11.5
Large fringe…….	100.0	6.4	18.3	62.8	12.4
Small metro…….	100.0	6.6	17.5	62.5	13.4
Nonmetropolitan counties:	100.0	6.2	16.9	60.8	16.1
Micropolitan…….	100.0	6.3	16.9	61.4	15.4
Non-core……	100.0	6.1	16.9	59.9	17.2
Northeast:					
Metropolitan counties:					
Large central……..	100.0	6.1	15.5	65.6	12.8
Large fringe…….	100.0	5.8	17.3	62.6	14.3
Small metro…….	100.0	5.7	16.6	63.1	14.5
Nonmetropolitan counties:	100.0	5.3	15.8	62.6	16.3
Micropolitan…….	100.0	5.4	15.9	62.8	15.9
Non-core……	100.0	5.1	15.5	62.1	17.3
Midwest:					
Metropolitan counties:					
Large central……..	100.0	6.7	17.2	64.0	12.1
Large fringe…….	100.0	6.5	19.0	62.4	12.1
Small metro…….	100.0	6.5	17.2	63.1	13.2
Nonmetropolitan counties:	100.0	6.2	17.1	60.2	16.5
Micropolitan…….	100.0	6.3	17.0	61.5	15.2
Non-core……	100.0	6.1	17.1	58.4	18.4
South:					
Metropolitan counties:					
Large central……..	100.0	7.1	17.6	64.7	10.6
Large fringe…….	100.0	6.7	18.5	63.2	11.7
Small metro…….	100.0	6.6	17.3	62.3	13.8
Nonmetropolitan counties:	100.0	6.3	16.9	60.8	16.0
Micropolitan…….	100.0	6.5	17.0	60.9	15.6
Non-core……	100.0	6.1	16.8	60.5	16.6
West:					
Metropolitan counties:					
Large central……..	100.0	6.8	17.6	64.4	11.2
Large fringe…….	100.0	6.9	18.8	63.1	11.2
Small metro…….	100.0	7.2	18.6	62.1	12.0
Nonmetropolitan counties:	100.0	6.5	17.1	60.9	15.4
Micropolitan…….	100.0	6.6	17.0	61.4	15.0
Non-core……	100.0	6.4	17.3	60.0	16.3

≥ Greater than or equal to.
NOTES: See Technical Notes for a description of urbanization levels.
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Data Table 4. Population in selected race and Hispanic origin groups by region and urbanization level: United States, 2011

Region and Urbanization Level	Non-Hispanic					Hispanic
	White	Black	Asian or Pacific Islander	American Indian or Alaska Native	Multiple Races	
	Percent					
All regions	63.9	12.3	4.9	0.7	1.8	16.3
Metropolitan counties:						
Large central	45.3	17.3	8.6	0.4	1.9	26.5
Large fringe	68.6	11.4	5.3	0.3	1.7	12.7
Small metro	69.6	10.3	3.1	0.8	2.0	14.3
Nonmetropolitan counties:	79.7	8.3	1.1	1.9	1.6	7.5
Micropolitan	78.6	8.4	1.4	1.4	1.7	8.4
Non-core	81.5	8.1	0.5	2.7	1.3	6.0
Northeast	69.0	11.1	5.6	0.2	1.4	12.6
Metropolitan counties:						
Large central	45.4	22.3	9.2	0.2	1.5	21.3
Large fringe	74.2	7.6	6.0	0.1	1.3	10.8
Small metro	80.1	6.4	2.9	0.2	1.5	8.8
Nonmetropolitan counties:	92.4	2.2	0.9	0.4	1.2	3.0
Micropolitan	91.8	2.4	0.9	0.4	1.2	3.2
Non-core	93.9	1.7	0.6	0.4	1.1	2.3
Midwest	77.9	10.3	2.6	0.6	1.6	7.0
Metropolitan counties:						
Large central	54.8	25.9	4.6	0.3	1.8	12.7
Large fringe	80.4	7.5	3.3	0.2	1.5	7.0
Small metro	82.8	7.6	2.2	0.5	1.9	5.1
Nonmetropolitan counties:	90.9	1.8	0.7	1.3	1.2	4.0
Micropolitan	89.9	2.3	0.9	0.7	1.3	4.8
Non-core	92.4	1.1	0.4	2.2	1.1	2.8
South	60.1	18.9	2.9	0.6	1.5	15.9
Metropolitan counties:						
Large central	41.9	23.4	4.1	0.3	1.5	28.8
Large fringe	61.3	18.5	4.9	0.4	1.8	13.2
Small metro	64.8	17.5	1.8	0.6	1.6	13.7
Nonmetropolitan counties:	71.7	16.6	0.7	1.4	1.4	8.2
Micropolitan	70.1	17.2	0.8	1.4	1.4	9.0
Non-core	73.9	15.8	0.4	1.4	1.3	7.2
West	53.0	4.5	9.7	1.4	2.7	28.6
Metropolitan counties:						
Large central	43.6	6.4	13.6	0.5	2.5	33.4
Large fringe	59.8	4.8	8.2	0.7	2.8	23.7
Small metro	58.5	2.5	6.5	1.6	3.0	27.8
Nonmetropolitan counties:	71.2	0.9	3.2	5.8	3.1	15.8
Micropolitan	69.9	1.0	4.2	3.7	3.6	17.6
Non-core	73.9	0.6	0.9	10.4	2.0	12.2

≥ Greater than or equal to.
NOTES: See Technical Notes for a description of urbanization levels.
SOURCE: Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: 2010.

Data Table 5. Population in poverty by region and urbanization level: United States, 2011

Urbanization level	All Regions	Northeast	Midwest	South	West
			Percent		
Metropolitan counties:					
Large central……....	18.1	19.7	19.4	18.9	16.1
Large fringe……....	11.0	8.8	10.5	12.0	13.1
Small metro……..	16.7	12.7	15.4	18.6	17.2
Nonmetropolitan counties:	18.3	14.1	15.3	21.5	17.8
Micropolitan……..	17.9	13.8	15.3	21.0	17.7
Non-core……..	18.9	15.1	15.2	22.3	17.9

≥ Greater than or equal to.
NOTES: See Technical Notes for a description of urbanization levels. See Appendix II, for definition of poverty level.
SOURCE: United States Census Bureau, Estimates of the Population of Counties by Age, Sex, Race, and Hispanic Origin: 2011.

Data Table 6. Cigarette smoking in the past month among adolescents 12–17 years of age by region and urbanization level: United States, 2010-2011

Region and Urbanization Level	Percent	SE
All regions……..	7.8	0.2
Metropolitan counties:	7.3	0.3
Large central……..	5.2	0.4
Large fringe…….	7.8	0.5
Small metro…….	8.7	0.4
Nonmetropolitan counties:	10.3	0.6
Micropolitan…….	9.7	0.7
Non-core……..	11.3	1.1
Northeast:	8.4	0.6
Metropolitan counties:	8.1	0.6
Large central……..	5.1	1.0
Large fringe…….	8.1	1.1
Small metro…….	10.8	1.1
Nonmetropolitan counties:	11.3	2.0
Micropolitan…….	11.2	2.5
Non-core……..	11.7	2.6
Midwest:	8.2	0.5
Metropolitan counties:	7.5	0.5
Large central……..	6.3	0.9
Large fringe…….	8.2	1.1
Small metro…….	7.7	0.7
Nonmetropolitan counties:	10.7	1.1
Micropolitan…….	9.0	1.2
Non-core……..	12.7	1.7
South:	7.6	0.4
Metropolitan counties:	7.0	0.4
Large central……..	4.5	0.6
Large fringe…….	7.1	0.7
Small metro…….	8.6	0.7
Nonmetropolitan counties:	10.4	1.0
Micropolitan…….	10.2	1.1
Non-core……..	10.9	2.0
West:	7.1	0.5
Metropolitan counties:	7.0	0.5
Large central……..	5.3	0.7
Large fringe…….	8.9	1.6
Small metro…….	8.6	0.9
Nonmetropolitan counties:	8.7	1.3
Micropolitan…….	8.6	1.8
Non-core……..	8.7	2.0

≥ Greater than or equal to.
SE standard error.
NOTES: See Technical Notes for a description of urbanization levels.
SOURCE: Substance Abuse and Mental Health Services Administration, National Household Survey on Drug Abuse.

Data Table 7. Cigarette smoking among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Males		Females	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	19.2	0.2	21.3	0.3	17.2	0.3
Metropolitan counties:						
Large central……..	15.8	0.4	18.7	0.5	12.9	0.4
Large fringe……	17.8	0.5	19.4	0.7	16.2	0.6
Small metro……	20.0	0.5	21.8	0.6	18.2	0.6
Nonmetropolitan counties……	27.0	0.7	28.8	0.9	25.3	0.8
Micropolitan……	27.1	0.7	28.6	1.1	25.7	0.9
Non-core……	27.0	1.2	29.2	1.6	24.8	1.4
Northeast:						
Metropolitan counties:						
Large central……..	14.5	0.9	16.8	1.4	12.5	0.9
Large fringe……	17.2	1.0	18.3	1.4	16.2	1.2
Small metro……	18.4	0.9	20.9	1.2	15.9	1.6
Nonmetropolitan counties……	26.3	2.0	28.6	2.5	24.3	2.2
Midwest:						
Metropolitan counties:						
Large central……..	19.9	1.0	21.7	1.4	17.8	1.4
Large fringe……	20.4	1.0	21.1	1.4	19.9	1.3
Small metro……	22.1	1.2	23.1	1.5	21.3	1.2
Nonmetropolitan counties……	25.5	1.4	25.4	1.9	25.5	1.5
South:						
Metropolitan counties:						
Large central……..	17.4	0.8	20.9	1.1	13.9	0.9
Large fringe……	17.5	0.9	20.0	1.1	15.0	1.0
Small metro……	21.3	0.8	23.1	1.0	19.8	1.1
Nonmetropolitan counties……	29.6	0.9	32.8	1.1	26.5	1.2
West:						
Metropolitan counties:						
Large central……..	13.3	0.6	16.4	0.8	10.1	0.6
Large fringe……	15.0	1.1	17.1	1.8	12.7	1.4
Small metro……	16.6	0.9	19.1	1.2	13.9	1.0
Nonmetropolitan counties……	23.2	1.8	24.6	2.4	22.0	2.1

≥ Greater than or equal to.
SE standard error.
NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 8. Consumption of five or more alcoholic drinks in one day in the last year among persons 18-49 years of age by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Males		Females	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	30.4	0.4	40.4	0.6	20.6	0.4
Metropolitan counties:						
Large central……..	29.0	0.7	38.4	0.9	19.3	0.7
Large fringe……	31.2	0.8	41.3	1.1	21.4	0.9
Small metro……	31.3	0.8	41.9	1.1	21.3	0.8
Nonmetropolitan counties……	30.0	1.2	40.2	1.7	20.4	1.1
Micropolitan……	30.1	1.6	40.4	2.2	20.5	1.7
Non-core……..	29.9	2.0	39.9	2.9	20.1	1.6
Northeast:						
Metropolitan counties:						
Large central……..	21.3	1.3	28.4	2.0	14.5	1.8
Large fringe……	29.1	1.8	40.6	2.8	17.6	1.5
Small……	35.0	1.9	47.0	2.5	22.8	1.6
Nonmetropolitan counties……	29.0	2.0	41.5	2.8	17.3	3.4
Midwest:						
Metropolitan counties:						
Large central……..	34.2	1.4	43.3	2.0	24.3	1.8
Large fringe……	38.7	1.5	50.8	2.2	27.1	2.1
Small metro……	38.7	1.1	49.2	1.9	29.1	1.5
Nonmetropolitan counties……	36.9	2.5	48.1	3.3	26.1	2.4
South:						
Metropolitan counties:						
Large central……..	28.9	1.5	38.1	2.2	19.7	1.5
Large fringe……	27.4	1.3	34.6	1.8	20.3	1.6
Small metro……	24.8	1.4	34.2	1.9	16.6	1.3
Nonmetropolitan counties……	23.2	1.4	32.1	2.3	14.9	1.1
West:						
Metropolitan counties:						
Large central……..	29.9	1.0	40.2	1.3	18.9	1.1
Large fringe……	31.6	1.6	42.8	2.0	20.3	2.3
Small metro……	31.7	1.7	43.2	2.1	20.0	1.6
Nonmetropolitan counties……	35.8	2.1	45.5	2.5	26.6	2.9

≥ Greater than or equal to.
SE standard error.
NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 9. Obesity among persons 18 years of age and older by sex, region, urbanization level: United States, 2010-2011

Region and urbanization level	Total		Males		Females	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	30.0	0.3	29.1	0.3	30.8	0.3
Metropolitan counties:						
Large central……..	27.4	0.4	26.0	0.6	28.7	0.6
Large fringe……	29.0	0.5	28.9	0.8	29.1	0.8
Small metro……	30.6	0.5	30.0	0.6	31.1	0.6
Nonmetropolitan counties……	35.7	0.5	34.0	0.7	37.3	0.8
Micropolitan……	34.9	0.8	33.3	1.1	36.3	1.2
Non-core……..	36.9	0.9	35.0	1.0	38.8	1.4
Northeast:						
Metropolitan counties:						
Large central……..	25.5	1.1	22.8	1.5	27.9	1.4
Large fringe……	27.1	1.1	27.9	1.6	26.1	1.4
Small metro……	29.3	1.3	29.8	1.6	28.9	1.8
Nonmetropolitan counties……	35.6	1.7	34.2	1.8	37.3	3.0
Midwest:						
Metropolitan counties:						
Large central……..	30.8	1.2	30.0	1.4	31.7	1.6
Large fringe……	29.6	1.2	30.2	1.6	29.1	1.7
Small metro……	31.3	1.1	29.8	1.1	32.7	1.5
Nonmetropolitan counties……	34.1	0.9	32.8	1.4	35.3	1.3
South:						
Metropolitan counties:						
Large central……..	29.6	0.8	27.0	1.1	32.2	1.1
Large fringe……	29.8	0.8	30.1	1.2	29.6	1.2
Small metro……	32.7	0.8	31.9	1.0	33.3	1.0
Nonmetropolitan counties……	37.4	0.8	34.3	1.1	40.2	1.3
West:						
Metropolitan counties:						
Large central……..	25.0	0.6	24.9	1.0	25.1	1.1
Large fringe……	28.6	1.6	24.5	1.9	32.4	1.7
Small metro……	27.1	0.8	27.4	1.1	26.8	1.0
Nonmetropolitan counties……	34.7	1.6	36.0	1.6	33.1	2.1

≥ Greater than or equal to.
SE standard error.
NOTES: Obesity is defined as body mass index ≥ 30 based on self-reported height and weight. Percentages are age adjusted. See Technical Notes for a description of age-adjustment method, urbanization levels, and obesity data.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 10. Physical inactivity during leisure time among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Males		Females	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	32.2	0.4	29.9	0.5	34.2	0.4
Metropolitan counties:						
Large central……..	32.3	0.5	29.6	0.7	34.7	0.6
Large fringe……	29.5	0.6	26.4	0.8	32.2	0.8
Small metro……	30.9	0.8	28.8	0.9	32.7	1.0
Nonmetropolitan counties……	38.8	1.2	38.1	1.4	39.4	1.3
Micropolitan……	37.2	1.6	35.8	1.9	38.4	1.8
Non-core……..	41.0	2.2	41.2	2.4	40.6	2.4
Northeast:						
Metropolitan counties:						
Large central……..	45.5	1.3	42.3	1.7	48.3	1.7
Large fringe……	37.0	1.3	34.2	1.3	39.5	2.1
Small metro……	26.7	1.7	24.6	2.2	28.3	1.9
Nonmetropolitan counties……	33.0	2.3	31.3	4.4	34.7	2.6
Midwest:						
Metropolitan counties:						
Large central……..	28.3	1.1	25.6	1.8	30.9	1.3
Large fringe……	24.9	1.5	21.1	1.8	28.3	1.6
Small metro……	30.9	1.6	29.2	1.5	32.2	2.0
Nonmetropolitan counties……	37.7	2.2	37.5	2.4	37.8	2.5
South:						
Metropolitan counties:						
Large central……..	32.6	0.9	28.7	1.0	36.1	1.1
Large fringe……	29.9	1.0	26.7	1.5	32.9	1.2
Small metro……	36.1	1.2	33.3	1.5	38.4	1.4
Nonmetropolitan counties……	44.9	1.9	43.5	2.4	46.0	2.0
West:						
Metropolitan counties:						
Large central……..	28.1	0.8	26.7	1.1	29.4	1.0
Large fringe……	21.7	1.6	19.9	1.7	23.4	1.9
Small metro……	25.0	2.0	23.8	2.0	26.3	2.2
Nonmetropolitan counties……	27.1	3.1	28.3	3.2	26.0	3.5

≥ Greater than or equal to.
SE standard error.
NOTES: Percentages are age adjusted. See Technical Notes for a description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 11. Infant mortality rates by region and urbanization level: United States, 2008-2010

Urbanization Level	All regions		Northeast		Midwest		South		West	
	Rate	SE	Rate	SE	Rate	SE	Rate	SE	Rate	SE
	Infant deaths per 1,000 live births									
Total……	6.5	0.02	5.9	0.06	6.9	0.05	7.4	0.04	5.4	0.04
Metropolitan counties:										
Large central……	6.8	0.04	6.6	0.10	8.9	0.12	7.9	0.08	5.2	0.06
Large fringe……	5.7	0.04	4.8	0.09	5.9	0.10	6.3	0.07	5.2	0.11
Small metro……	6.7	0.04	6.4	0.12	6.7	0.09	7.5	0.07	5.6	0.08
Nonmetropolitan counties……..	6.9	0.06	5.6	0.18	6.3	0.10	7.9	0.10	5.9	0.14
Micropolitan……	6.8	0.08	5.8	0.21	6.2	0.13	7.9	0.12	5.6	0.17
Non-core…….....	7.0	0.10	5.1	0.34	6.4	0.16	7.9	0.15	6.5	0.27

≥ Greater than or equal to.
SE Standard error.
NOTES: See Technical Notes for a description of urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked Files of Live Births and Infant Deaths.

Data Table 12. Death rates for all causes among persons 1–24 years of age by sex, region, and urbanization level: United States, 2008-2010

Region and urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	39.1	0.1	53.2	0.2	24.4	0.1
Metropolitan counties:						
Large central	37.5	0.2	52.3	0.3	22.3	0.2
Large fringe	35.6	0.2	48.3	0.4	22.1	0.3
Small metro	38.3	0.2	51.6	0.3	24.4	0.2
Nonmetropolitan counties	49.4	0.3	65.2	0.5	32.3	0.4
Micropolitan	44.8	0.4	59.1	0.6	29.4	0.4
Non-core	57.7	0.6	76.0	0.9	37.5	0.7
Northeast:						
Metropolitan counties:						
Large central	32.7	0.4	46.5	0.7	18.9	0.5
Large fringe	29.5	0.4	40.1	0.6	18.3	0.5
Small metro	31.4	0.5	42.6	0.8	19.7	0.5
Nonmetropolitan counties	37.3	0.9	50.0	1.4	23.6	1.0
Micropolitan	35.2	1.0	47.2	1.5	22.3	1.1
Non-core	43.5	1.8	58.2	2.9	27.5	2.1
Midwest:						
Metropolitan counties:						
Large central	44.1	0.5	63.1	0.9	24.9	0.6
Large fringe	36.2	0.5	49.2	0.8	22.5	0.5
Small metro	33.7	0.4	44.6	0.6	22.4	0.5
Nonmetropolitan counties	42.9	0.5	56.1	0.8	28.6	0.6
Micropolitan	38.1	0.6	49.4	1.0	25.9	0.8
Non-core	51.2	0.9	67.5	1.5	33.3	1.1
South:						
Metropolitan counties:						
Large central	43.9	0.4	60.9	0.7	26.6	0.5
Large fringe	39.6	0.4	54	0.6	24.4	0.4
Small metro	43.9	0.3	59.5	0.5	27.9	0.4
Nonmetropolitan counties	55.3	0.5	72.6	0.8	36.6	0.6
Micropolitan	51.6	0.6	68.0	1.0	34.2	0.7
Non-core	60.9	0.8	79.5	1.3	40.3	1.0
West:						
Metropolitan counties:						
Large central	32.0	0.3	43.9	0.5	19.3	0.3
Large fringe	34.6	0.6	46.2	0.9	22.1	0.7
Small metro	37.3	0.4	50.3	0.7	23.3	0.5
Nonmetropolitan counties	54.3	0.9	73.3	1.4	33.3	1.0
Micropolitan	47.2	1.0	63.8	1.6	29.0	1.1
Non-core	71.0	1.8	95.5	2.9	43.3	2.1

≥ Greater than or equal to.
SE Standard error.
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 13. Death rates for all causes among persons 25-64 years of age by sex, region, and urbanization level: United States, 2008-2010

Region and urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	334.0	0.3	422.1	0.4	249.3	0.3
Metropolitan counties:						
Large central	329.8	0.5	421.3	0.8	243.7	0.6
Large fringe	282.5	0.5	355.7	0.7	213.0	0.6
Small metro	346.5	0.5	437.9	0.8	258.5	0.6
Nonmetropolitan counties	399.4	0.7	497.0	1.1	300.9	0.8
Micropolitan	390.1	0.9	487.1	1.4	293.5	1.0
Non-core	414.1	1.1	512.5	1.7	312.8	1.4
Northeast:						
Metropolitan counties:						
Large central	327.7	1.1	424.3	1.8	241.1	1.3
Large fringe	256.5	0.8	325.6	1.4	191.1	1.0
Small metro	289.9	1.1	368.1	1.8	214.2	1.3
Nonmetropolitan counties	310.7	1.8	388.8	2.8	231.4	2.2
Micropolitan	309.0	2.1	386.3	3.3	230.6	2.6
Non-core	315.4	3.5	395.6	5.5	233.3	4.2
Midwest:						
Metropolitan counties:						
Large central	385.4	1.2	490.7	2.0	287.5	1.5
Large fringe	280.5	1.0	350.7	1.6	212.7	1.2
Small metro	328.4	1.0	411.7	1.6	246.9	1.2
Nonmetropolitan counties	341.4	1.1	422.1	1.8	258.5	1.4
Micropolitan	339.1	1.5	418.6	2.3	258.3	1.8
Non-core	345.0	1.8	427.7	2.8	259.2	2.2
South:						
Metropolitan counties:						
Large central	369.9	0.9	472.2	1.5	274.1	1.1
Large fringe	306.9	0.8	387.7	1.3	231.1	0.9
Small metro	398.3	0.8	508.1	1.3	295.2	1.0
Nonmetropolitan counties	473.6	1.1	592.0	1.8	356.8	1.4
Micropolitan	461.8	1.4	581.5	2.3	346.0	1.8
Non-core	489.8	1.7	606.0	2.7	372.1	2.2
West:						
Metropolitan counties:						
Large central	275.5	0.7	351.6	1.1	201.6	0.8
Large fringe	269.5	1.2	335.2	2.0	205.8	1.5
Small metro	310.8	1.0	388.8	1.5	233.8	1.2
Nonmetropolitan counties	364.5	1.7	454.7	2.7	271.2	2.1
Micropolitan	362.4	2.1	453.6	3.3	269.4	2.6
Non-core	370.6	3.1	460.0	4.7	276.0	3.8

≥ Greater than or equal to.
SE Standard error.
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 14. Death rates for all causes among persons 65 years of age and older by sex, region, and urbanization level: United States, 2008-2010

Region and urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	4,438.3	1.9	5,152.6	3.3	3,937.7	2.3
Metropolitan counties:						
Large central	4,221.8	3.7	4,928.9	6.4	3,744.3	4.4
Large fringe	4,307.4	3.9	4,979.5	6.8	3,844.0	4.8
Small metro	4,486.3	3.5	5,192.6	6.0	3,987.1	4.2
Nonmetropolitan counties	4,798.0	4.5	5,567.9	7.7	4,231.8	5.4
Micropolitan	4,775.8	5.8	5,551.8	10.0	4,215.0	7.0
Non-core	4,829.7	7.0	5,590.5	11.9	4,256.0	8.5
Northeast:						
Metropolitan counties:						
Large central	4,120.7	8.0	4,907.9	14.4	3,623.9	9.4
Large fringe	4,195.5	6.8	4,918.9	12.0	3,717.5	8.2
Small metro	4,391.4	8.3	5,130.2	14.6	3,895.1	10.0
Nonmetropolitan counties	4,638.8	13.2	5,385.9	22.7	4,101.7	16.1
Micropolitan	4,626.5	15.5	5,405.1	26.9	4,079.8	18.8
Non-core	4,675.2	25.3	5,339.6	42.6	4,165.4	31.1
Midwest:						
Metropolitan counties:						
Large central	4,585.7	9.0	5,377.4	16.1	4,077.0	10.8
Large fringe	4,526.1	8.8	5,213.7	15.4	4,058.7	10.7
Small metro	4,591.8	7.5	5,357.3	13.1	4,074.2	9.0
Nonmetropolitan counties	4,628.5	7.6	5,454.5	13.1	4,035.9	9.2
Micropolitan	4,671.5	10.4	5,514.5	18.1	4,087.3	12.5
Non-core	4,578.5	11.1	5,387.1	19.0	3,974.2	13.4
South:						
Metropolitan counties:						
Large central	4,487.3	7.5	5,251.2	13.2	3,975.7	9.0
Large fringe	4,335.8	6.7	4,981.0	11.5	3,876.3	8.1
Small metro	4,607.1	5.6	5,322.1	9.6	4,092.1	6.8
Nonmetropolitan counties	5,098.4	7.1	5,903.0	12.3	4,512.7	8.6
Micropolitan	5,033.6	9.3	5,822.6	16.1	4,461.3	11.3
Non-core	5,184.2	10.9	6,009.4	18.9	4,581.2	13.2
West:						
Metropolitan counties:						
Large central	3,913.5	5.9	4,517.8	10.0	3,477.1	7.2
Large fringe	4,124.6	11.2	4,708.9	19.0	3,704.6	13.7
Small metro	4,196.2	7.6	4,796.5	12.7	3,749.5	9.3
Nonmetropolitan counties	4,373.2	11.7	4,952.8	19.1	3,897.3	14.7
Micropolitan	4,403.4	14.4	5,029.1	23.7	3,903.5	18.0
Non-core	4,314.8	20.2	4,805.7	32.5	3,886.3	25.7

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 15. Death rates for ischemic heart disease among persons 20 years of age and older by sex, region, and urbanization level: United States, 2008-2010

Region and urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	184.1	0.2	243.4	0.3	138.8	0.2
Metropolitan counties:						
Large central	192.9	0.3	251.9	0.6	149.0	0.4
Large fringe	174.9	0.3	229.7	0.6	133.9	0.4
Small metro	173.8	0.3	233.7	0.6	127.9	0.3
Nonmetropolitan counties	200.9	0.4	265.2	0.7	149.2	0.5
Micropolitan	197.2	0.5	261.6	0.9	146.4	0.6
Non-core	206.5	0.6	270.5	1.1	153.3	0.7
Northeast:						
Metropolitan counties:						
Large central	244.2	0.8	310.8	1.6	197.6	1.0
Large fringe	188.5	0.6	245.5	1.2	147.2	0.7
Small metro	169.3	0.7	226.4	1.3	127.0	0.8
Nonmetropolitan counties	197.9	1.2	258.5	2.2	150.1	1.4
Micropolitan	199.5	1.4	261.2	2.6	151.5	1.6
Non-core	194.1	2.3	251.6	4.0	146.4	2.6
Midwest:						
Metropolitan counties:						
Large central	190.9	0.8	255.9	1.5	143.9	0.9
Large fringe	179.6	0.8	236.6	1.4	136.7	0.9
Small metro	176.5	0.6	240.3	1.2	128.7	0.7
Nonmetropolitan counties	195.1	0.7	261.9	1.3	141.9	0.8
Micropolitan	193.1	0.9	259.7	1.7	142.0	1.0
Non-core	197.6	1.0	264.9	1.9	141.9	1.1
South:						
Metropolitan counties:						
Large central	180.4	0.6	241.8	1.2	135.5	0.7
Large fringe	166.3	0.6	220.3	1.0	125.3	0.6
Small metro	182.1	0.5	244.1	0.9	134.4	0.5
Nonmetropolitan counties	217.0	0.6	283.8	1.2	163.7	0.7
Micropolitan	209.2	0.8	275.4	1.5	156.9	0.9
Non-core	227.5	1.0	294.8	1.8	172.9	1.2
West:						
Metropolitan counties:						
Large central	173.2	0.5	225.8	1.0	131.9	0.6
Large fringe	150.8	0.9	200.2	1.7	112.9	1.0
Small metro	157.3	0.6	212.4	1.1	113.7	0.7
Nonmetropolitan counties	164.1	1.0	220.2	1.7	115.6	1.1
Micropolitan	168.8	1.2	228.0	2.2	118.6	1.4
Non-core	154.8	1.7	204.9	2.9	109.5	1.9

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 16. Death rates for chronic obstructive pulmonary diseases among persons 20 years of age and older by sex, region, and urbanization level: United States, 2008-2010

Region and Urbanization Level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	66.5	0.1	77.3	0.2	59.7	0.1
Metropolitan counties:						
Large central	56.2	0.2	64.3	0.3	51.0	0.2
Large fringe	60.6	0.2	67.3	0.3	56.6	0.3
Small metro	70.9	0.2	82.1	0.3	63.7	0.2
Nonmetropolitan counties	80.7	0.3	98.1	0.4	69.5	0.3
Micropolitan	79.9	0.3	96.0	0.6	69.7	0.4
Non-core	81.9	0.4	101.1	0.7	69.3	0.5
Northeast:						
Metropolitan counties:						
Large central	43.4	0.4	50.9	0.6	38.9	0.4
Large fringe	50.9	0.3	56.4	0.6	47.6	0.4
Small metro	61.1	0.4	69.7	0.7	55.8	0.5
Nonmetropolitan counties	74.8	0.7	89.0	1.3	65.9	0.9
Micropolitan	74.6	0.9	88.5	1.5	66.0	1.1
Non-core	75.5	1.4	90.1	2.4	65.6	1.8
Midwest:						
Metropolitan counties:						
Large central	63.5	0.5	71.5	0.8	58.9	0.6
Large fringe	68.0	0.5	75.9	0.8	63.3	0.6
Small metro	76.0	0.4	89.7	0.7	67.6	0.5
Nonmetropolitan counties	77.5	0.4	97.3	0.8	64.9	0.5
Micropolitan	79.1	0.6	98.3	1.1	67.3	0.7
Non-core	75.7	0.6	96.1	1.1	62.1	0.8
South:						
Metropolitan counties:						
Large central	61.3	0.4	70.9	0.7	55.2	0.5
Large fringe	62.2	0.4	68.9	0.6	58.0	0.4
Small metro	73.8	0.3	86.2	0.5	65.7	0.4
Nonmetropolitan counties	85.9	0.4	104.6	0.7	74.0	0.5
Micropolitan	83.8	0.5	100.7	0.9	73.1	0.7
Non-core	88.6	0.6	109.8	1.1	75.3	0.8
West:						
Metropolitan counties:						
Large central	56.2	0.3	63.6	0.5	51.2	0.4
Large fringe	68.0	0.6	75.5	1.0	63.5	0.8
Small metro	67.4	0.4	75.7	0.7	61.8	0.5
Nonmetropolitan counties	76.8	0.7	87.2	1.1	69.4	0.9
Micropolitan	75.6	0.8	85.3	1.3	68.6	1.1
Non-core	79.4	1.2	91.2	1.9	71.0	1.6

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 17. Death rates for all unintentional injuries and motor vehicle traffic-related injuries by sex, region, and urbanization level: United States, 2008-2010

	Unintentional injuries						Motor vehicle traffic-related injuries					
	Total		Males		Females		Total		Males		Females	
Region and urbanization level	Rate	SE	Rate	SE	Rate	SE	Rate	SE	Rate	SE	Rate	SE
All regions……	38.2	0.1	52.4	0.1	25.3	0.1	11.4	0.0	16.4	0.1	6.6	0.0
Metropolitan counties:												
Large central……	32.1	0.1	44.6	0.2	20.8	0.1	7.9	0.1	11.7	0.1	4.4	0.1
Large fringe……	33.1	0.1	45.5	0.2	21.9	0.1	9.3	0.1	13.5	0.1	5.3	0.1
Small metro……	40.8	0.1	55.4	0.2	27.3	0.1	12.1	0.1	17.5	0.1	7.0	0.1
Nonmetropolitan counties……	48.9	0.2	65.9	0.4	32.7	0.3	17.2	0.1	24.1	0.2	10.5	0.2
Micropolitan……	58.9	0.3	79.3	0.5	38.6	0.4	23.3	0.2	32.0	0.3	14.5	0.2
Non-core……	52.7	0.2	71.0	0.3	34.9	0.2	19.5	0.1	27.1	0.2	12.0	0.1
Northeast:												
Metropolitan counties:												
Large central……	26.5	0.2	38.4	0.4	16.4	0.2	5.1	0.1	7.5	0.2	2.9	0.1
Large fringe……	29.0	0.2	40.8	0.4	18.3	0.2	7.0	0.1	10.2	0.2	3.9	0.1
Small metro……	33.3	0.3	46.3	0.5	21.5	0.3	8.8	0.1	13.1	0.3	4.8	0.1
Nonmetropolitan counties……	40.4	0.6	54.5	1.0	27.0	0.6	13.7	0.3	19.0	0.6	8.4	0.4
Micropolitan……	46.2	1.0	63.4	1.7	29.1	1.1	16.4	0.6	23.2	1.1	9.5	0.7
Non-core……	41.9	0.5	56.8	0.8	27.5	0.6	14.4	0.3	20.1	0.5	8.7	0.3
Midwest:												
Metropolitan counties:												
Large central……	34.3	0.3	47.9	0.5	22.4	0.3	7.2	0.1	10.6	0.2	4.1	0.1
Large fringe……	34.0	0.3	46.1	0.5	22.9	0.3	8.6	0.1	12.4	0.2	5.0	0.1
Small metro……	38.1	0.2	51.1	0.4	26.3	0.3	10.0	0.1	14.1	0.2	6.1	0.1
Nonmetropolitan counties……	42.9	0.4	57.6	0.7	29.0	0.4	13.9	0.2	19.2	0.4	8.6	0.3
Micropolitan……	50.3	0.5	68.2	0.8	32.7	0.6	19.8	0.3	27.4	0.5	12.2	0.4
Non-core……	45.8	0.3	61.8	0.5	30.5	0.3	16.2	0.2	22.4	0.3	10.0	0.2
South:												
Metropolitan counties:												
Large central……	37.5	0.2	52.0	0.4	24.6	0.2	10.9	0.1	16.3	0.2	5.9	0.1
Large fringe……	36.1	0.2	49.7	0.4	23.8	0.2	11.7	0.1	17.1	0.2	6.7	0.1
Small metro……	45.1	0.2	61.6	0.3	29.9	0.2	15.3	0.1	22.3	0.2	8.7	0.1
Nonmetropolitan counties……	54.5	0.4	74.4	0.6	35.7	0.4	20.9	0.2	29.7	0.4	12.4	0.3
Micropolitan……	64.7	0.5	87.2	0.8	42.6	0.5	26.8	0.3	36.9	0.5	16.6	0.4
Non-core……	58.7	0.3	79.7	0.5	38.6	0.3	23.3	0.2	32.7	0.3	14.1	0.2
West:												
Metropolitan counties:												
Large central……	29.9	0.2	40.9	0.3	19.6	0.2	7.4	0.1	10.7	0.1	4.2	0.1
Large fringe……	32.2	0.3	43.1	0.6	22.2	0.4	8.2	0.2	11.9	0.3	4.6	0.2
Small metro……	41.1	0.3	55.0	0.4	27.8	0.3	10.9	0.1	15.5	0.2	6.4	0.1
Nonmetropolitan counties……	52.2	0.6	68.4	1.0	36.0	0.7	16.7	0.3	22.8	0.6	10.5	0.4
Micropolitan……	67.2	1.0	87.9	1.6	45.2	1.1	23.2	0.6	30.7	1.0	15.3	0.7
Non-core……	56.9	0.5	74.6	0.8	38.9	0.6	18.7	0.3	25.3	0.5	12.0	0.3

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 18. Homicide rates by sex, region, and urbanization level: United States, 2008-2010

Region and Urbanization Level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	5.6	0.0	8.8	0.0	2.4	0.0
Metropolitan counties:						
Large central	8.1	0.1	13.5	0.1	2.8	0.0
Large fringe	4.0	0.0	6.1	0.1	1.8	0.0
Small metro	4.9	0.0	7.4	0.1	2.3	0.0
Nonmetropolitan counties	4.4	0.1	6.3	0.1	2.5	0.1
Micropolitan	4.4	0.1	6.3	0.1	2.4	0.1
Non-core	4.5	0.1	6.2	0.2	2.7	0.1
Northeast:						
Metropolitan counties:						
Large central	7.8	0.1	13.5	0.2	2.3	0.1
Large fringe	2.5	0.1	3.9	0.1	1.2	0.1
Small metro	3.1	0.1	4.7	0.2	1.6	0.1
Nonmetropolitan counties	2.0	0.1	2.7	0.2	1.3	0.1
Micropolitan	2.1	0.1	2.8	0.2	1.3	0.2
Non-core	1.9	0.2	2.3	0.3	1.5	0.3
Midwest:						
Metropolitan counties:						
Large central	11.5	0.2	19.9	0.3	3.4	0.1
Large fringe	3.6	0.1	5.4	0.2	1.7	0.1
Small metro	3.7	0.1	5.5	0.1	1.8	0.1
Nonmetropolitan counties	2.3	0.1	2.7	0.1	1.8	0.1
Micropolitan	2.2	0.1	2.7	0.1	1.7	0.1
Non-core	2.4	0.1	2.8	0.2	2.0	0.2
South:						
Metropolitan counties:						
Large central	10.0	0.1	16.4	0.2	3.7	0.1
Large fringe	5.1	0.1	8.0	0.1	2.3	0.1
Small metro	6.3	0.1	9.7	0.1	2.9	0.1
Nonmetropolitan counties	6.5	0.1	9.6	0.2	3.3	0.1
Micropolitan	6.6	0.1	10.0	0.2	3.3	0.1
Non-core	6.3	0.2	9.0	0.3	3.4	0.2
West:						
Metropolitan counties:						
Large central	5.4	0.1	8.7	0.1	2.1	0.1
Large fringe	4.1	0.1	6.2	0.2	1.9	0.1
Small metro	4.6	0.1	7.1	0.2	2.0	0.1
Nonmetropolitan counties	4.4	0.1	6.1	0.2	2.5	0.2
Micropolitan	4.2	0.2	5.9	0.3	2.4	0.2
Non-core	4.7	0.3	6.4	0.4	2.9	0.3

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 19. Suicide rates among persons 15 years of age and older by sex, region, and urbanization level: United States, 2008-2010

Region and urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Deaths per 100,000 population					
All regions	14.9	0.0	24.5	0.1	6.1	0.0
Metropolitan counties:						
Large central	12.8	0.1	20.9	0.1	5.6	0.1
Large fringe	13.7	0.1	22.4	0.2	5.7	0.1
Small metro	16.1	0.1	26.3	0.2	6.7	0.1
Nonmetropolitan counties	18.9	0.1	31.1	0.2	7.0	0.1
Micropolitan	18.2	0.2	30.2	0.3	6.8	0.1
Non-core	20.0	0.2	32.6	0.4	7.4	0.2
Northeast:						
Metropolitan counties:						
Large central	8.9	0.2	14.8	0.3	3.7	0.1
Large fringe	10.6	0.1	17.5	0.3	4.3	0.1
Small metro	12.9	0.2	21.2	0.4	5.1	0.2
Nonmetropolitan counties	16.6	0.4	27.9	0.7	5.7	0.3
Micropolitan	16.4	0.4	27.3	0.8	5.7	0.4
Non-core	17.4	0.7	29.4	1.3	5.6	0.6
Midwest:						
Metropolitan counties:						
Large central	12.6	0.2	20.5	0.4	5.5	0.2
Large fringe	14.2	0.2	23.4	0.4	5.7	0.2
Small metro	15.2	0.2	25.0	0.3	6.0	0.2
Nonmetropolitan counties	16.8	0.2	27.9	0.4	5.8	0.2
Micropolitan	15.9	0.3	26.6	0.5	5.4	0.2
Non-core	18.3	0.4	30.0	0.6	6.5	0.3
South:						
Metropolitan counties:						
Large central	14.1	0.2	23.3	0.3	6.0	0.1
Large fringe	14.5	0.1	23.9	0.3	6.0	0.1
Small metro	16.6	0.1	27.5	0.3	6.7	0.1
Nonmetropolitan counties	18.4	0.2	30.4	0.3	7.1	0.2
Micropolitan	18.0	0.2	29.9	0.4	6.9	0.2
Non-core	19.1	0.3	31.1	0.5	7.4	0.3
West:						
Metropolitan counties:						
Large central	14.0	0.1	22.2	0.2	6.4	0.1
Large fringe	16.8	0.3	26.7	0.5	7.6	0.3
Small metro	18.4	0.2	28.9	0.4	8.5	0.2
Nonmetropolitan counties	26.4	0.4	42.4	0.7	10.4	0.4
Micropolitan	24.8	0.5	39.6	0.8	10.0	0.4
Non-core	30.3	0.8	48.6	1.3	11.4	0.7

≥ Greater than or equal to.
SE Standard Error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 20. Birth rates among adolescents 15-19 years of age by region and urbanization level: United States, 2008-2010

Urbanization level	All regions	Northeast	Midwest	South	West
	Births per 100,000 female adolescents				
Total	37.6	24.0	35.0	46.4	36.6
Metropolitan counties:					
Large central……..	39.7	31.6	44.4	49.3	34.2
Large fringe……	26.6	16.7	25.4	32.3	31.0
Small metro……	39.5	24.9	34.1	47.8	39.9
Nonmetropolitan counties……	46.7	25.6	37.2	58.8	46.2
Micropolitan…….....	45.4	25.5	36.7	57.6	45.3
Non-core……..	49.1	25.8	38.0	60.6	48.0

≥ Greater than or equal to.
NOTES: See Technical Notes for description of urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Data Table 21. Limitation of activity caused by chronic health conditions among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Males		Females	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	14.0	0.2	13.2	0.2	14.6	0.2
Metropolitan counties:						
Large central……..	12.9	0.2	12.2	0.3	13.4	0.3
Large fringe……	11.9	0.3	11.5	0.4	12.2	0.4
Small metro……	14.7	0.3	13.7	0.3	15.5	0.4
Nonmetropolitan counties……	17.8	0.5	16.9	0.5	18.6	0.6
Micropolitan……	17.1	0.6	16.3	0.7	17.8	0.7
Non-core……..	18.8	1.0	17.7	1.1	19.7	1.1
Northeast:						
Metropolitan counties:						
Large central……..	12.0	0.6	11.5	0.8	12.4	0.6
Large fringe……	10.3	0.5	10.7	0.7	9.9	0.6
Small metro……	14.5	0.6	14.0	0.6	15.1	0.8
Nonmetropolitan counties……	16.8	1.0	16.9	1.7	16.6	1.4
Midwest:						
Metropolitan counties:						
Large central……..	15.0	0.5	15.3	0.7	14.6	0.6
Large fringe……	12.7	0.8	11.8	0.9	13.5	0.8
Small metro……	13.4	0.7	11.9	0.6	14.6	0.9
Nonmetropolitan counties……	14.9	0.9	13.5	0.8	16.2	1.1
South:						
Metropolitan counties:						
Large central……..	12.7	0.5	11.6	0.6	13.7	0.6
Large fringe……	12.2	0.5	11.7	0.6	12.5	0.5
Small metro……	15.9	0.6	14.9	0.6	16.7	0.7
Nonmetropolitan counties……	20.5	0.7	19.6	0.8	21.1	0.8
West:						
Metropolitan counties:						
Large central……..	12.5	0.3	11.6	0.4	13.2	0.4
Large fringe……	13.1	0.9	12.1	1.2	14.1	1.1
Small metro……	14.1	0.6	13.4	0.6	14.7	0.7
Nonmetropolitan counties……	16.9	1.3	16.6	1.4	17.2	1.4

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 22. Edentulism (total tooth loss) among persons 65 years of age and older by poverty status, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Family income as a percent of poverty level					
	All income		Under 200 percent		200 percent or more	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	23.9	0.5	35.5	0.9	18.3	0.6
Metropolitan counties:						
Large central……..	22.7	1.0	33.6	1.6	16.7	1.1
Large fringe…….	19.2	1.0	29.7	1.9	15.4	1.1
Small metro…….	23.9	0.9	34.1	1.6	19.3	1.0
Nonmetropolitan counties……	30.8	1.2	43.4	1.5	22.7	1.4
Micropolitan……	28.8	1.4	43.2	2.3	21.2	1.6
Non-core……..	33.3	2.1	43.5	2.5	24.9	2.2
Northeast:						
Metropolitan counties:						
Large central……..	29.4	2.8	38.9	3.6	22.4	3.7
Large fringe…….	19.1	1.8	29.0	3.2	15.7	1.6
Small metro…….	20.3	2.4	29.4	3.7	15.9	2.8
Nonmetropolitan counties…….	29.6	4.1	39.1	6.0	23.4	5.5
Midwest:						
Metropolitan counties:						
Large central……..	24.6	2.3	38.9	3.9	16.8	2.5
Large fringe…….	21.2	2.6	32.6	4.3	16.7	3.0
Small metro…….	26.8	1.9	41.1	4.1	20.6	1.6
Nonmetropolitan counties…….	30.2	2.0	42.7	2.7	23.5	3.0
South:						
Metropolitan counties:						
Large central……..	21.7	1.8	29.5	2.8	17.7	2.1
Large fringe…….	20.0	1.6	31.1	2.8	15.9	1.8
Small metro…….	25.5	1.5	34.0	2.1	21.2	1.6
Nonmetropolitan counties…….	34.9	1.9	48.4	2.3	23.9	1.8
West:						
Metropolitan counties:						
Large central……..	19.0	1.4	30.2	2.8	13.6	1.3
Large fringe…….	13.4	2.2	20.4	6.7	11.1	2.5
Small metro…….	21.3	1.6	30.7	3.7	17.8	2.0
Nonmetropolitan counties…….	20.9	2.3	28.0	2.9	17.4	2.4

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 23. No health insurance coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Family income as a percent of poverty level					
	All income		Under 200 percent		200 percent or more	
	Percent	SE	Percent	SE	Percent	SE
	Uninsured					
All regions	18.0	0.2	32.3	0.4	10.6	0.2
Metropolitan counties:						
Large central	19.5	0.4	33.4	0.5	11.3	0.3
Large fringe	14.9	0.4	32.9	0.8	9.0	0.3
Small metro	17.6	0.5	31.3	0.8	10.6	0.4
Nonmetropolitan counties	20.8	0.6	32.0	0.8	12.6	0.5
Micropolitan	19.3	0.7	30.0	1.1	11.6	0.6
Non-core	23.1	1.3	35.2	1.5	14.1	1.2
Northeast:						
Metropolitan counties:						
Large central	14.9	0.6	24.2	0.9	9.1	0.6
Large fringe	11.2	0.7	26.7	1.9	7.2	0.6
Small metro	9.9	0.5	20.5	1.4	6.7	0.6
Nonmetropolitan counties	14.4	1.1	23.9	2.2	9.8	1.2
Midwest:						
Metropolitan counties:						
Large central	16.2	0.8	28.4	1.5	9.3	0.6
Large fringe	12.8	0.9	28.6	1.6	7.6	0.5
Small metro	12.7	0.8	23.8	1.5	7.8	0.6
Nonmetropolitan counties	15.2	1.1	25.4	1.7	9.2	0.8
South:						
Metropolitan counties:						
Large central	22.1	0.8	37.6	0.9	12.4	0.6
Large fringe	17.6	0.6	37.9	1.3	10.5	0.5
Small metro	22.2	0.7	37.3	1.2	12.7	0.6
Nonmetropolitan counties	24.5	0.6	35.1	0.9	14.5	0.6
West:						
Metropolitan counties:						
Large central	20.7	0.6	36.3	0.9	12.2	0.5
Large fringe	17.7	1.5	35.6	1.7	11.0	1.1
Small metro	19.6	1.1	31.9	2.3	13.2	0.9
Nonmetropolitan counties	26.8	2.0	38.1	2.6	18.4	2.3

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 24. Medicaid coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Family income as a percent of poverty level					
	All income		Under 200 percent		200 percent or more	
	Percent	SE	Percent	SE	Percent	SE
	Medicaid					
All regions	14.3	0.2	30.9	0.4	3.6	0.1
Metropolitan counties:						
Large central	16.6	0.4	33.2	0.6	4.0	0.2
Large fringe	9.1	0.4	25.6	0.8	2.7	0.2
Small metro	14.4	0.5	30.6	0.8	3.6	0.2
Nonmetropolitan counties	18.2	0.7	32.7	1.0	4.6	0.3
Micropolitan	18.9	0.9	33.8	1.4	4.6	0.4
Non-core	17.2	1.2	31.0	1.8	4.5	0.5
Northeast:						
Metropolitan counties:						
Large central	24.4	1.1	47.5	1.6	6.8	0.7
Large fringe	8.8	0.4	30.6	1.7	2.8	0.3
Small metro	13.2	0.9	35.1	2.2	4.1	0.4
Nonmetropolitan counties	17.7	2.7	37.5	3.7	4.3	1.1
Midwest:						
Metropolitan counties:						
Large central	16.9	1.0	33.4	1.6	4.1	0.6
Large fringe	10.0	1.1	27.8	2.1	2.8	0.3
Small metro	13.6	1.1	31.8	1.6	2.9	0.4
Nonmetropolitan counties	15.3	1.3	31.2	2.4	3.8	0.4
South:						
Metropolitan counties:						
Large central	14.9	0.7	28.4	0.9	3.4	0.3
Large fringe	8.7	0.5	22.0	0.9	2.9	0.3
Small metro	14.5	0.6	27.9	1.0	3.4	0.3
Nonmetropolitan counties	20.2	0.9	32.8	1.3	5.0	0.5
West:						
Metropolitan counties:						
Large central	14.5	0.4	30.5	0.8	3.4	0.2
Large fringe	8.8	1.0	23.7	2.0	2.2	0.5
Small metro	15.5	1.4	32.5	1.9	4.0	0.4
Nonmetropolitan counties	19.2	1.3	33.1	1.5	5.7	1.0

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 25. Private insurance coverage among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Family income as a percent of poverty level					
	All income		Under 200 percent		200 percent or more	
	Percent	SE	Percent	SE	Percent	SE
	Private insurance					
All regions……..	61.2	0.4	26.3	0.4	81.3	0.3
Metropolitan counties:						
Large central……..	57.6	0.7	23.6	0.7	80.6	0.4
Large fringe……	70.4	0.8	30.2	0.9	84.6	0.5
Small metro……	60.8	0.8	27.7	0.9	80.3	0.5
Nonmetropolitan counties……	53.6	1.0	24.8	1.1	78.0	0.8
Micropolitan……	54.5	1.1	26.0	1.2	78.8	0.9
Non-core……..	52.3	2.1	22.9	1.8	76.8	1.5
Northeast:						
Metropolitan counties:						
Large central……..	54.0	1.5	18.5	1.6	79.8	1.0
Large fringe……	74.5	1.1	26.8	1.7	87.4	1.0
Small metro……	70.2	1.3	29.4	2.4	85.8	0.8
Nonmetropolitan counties……	59.4	2.3	25.4	3.2	80.3	1.6
Midwest:						
Metropolitan counties:						
Large central……..	61.7	1.6	28.5	2.3	84.2	1.1
Large fringe……	72.6	1.7	33.5	2.1	87.0	0.7
Small metro……	67.9	2.0	34.2	2.3	85.5	1.0
Nonmetropolitan counties……	62.9	2.2	32.5	2.7	82.9	1.0
South:						
Metropolitan counties:						
Large central……..	55.6	1.4	23.4	1.2	79.0	1.0
Large fringe……	67.7	1.1	30.9	1.6	81.8	0.8
Small metro……	54.9	1.2	24.5	1.2	76.9	1.0
Nonmetropolitan counties……	48.1	1.2	22.5	1.2	75.5	1.0
West:						
Metropolitan counties:						
Large central……..	58.8	0.9	23.9	0.9	80.6	0.6
Large fringe……	66.3	2.7	27.3	2.3	82.4	1.7
Small metro……	57.5	1.8	27.1	1.6	75.9	1.1
Nonmetropolitan counties……	45.5	2.0	17.8	2.3	69.8	2.7

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 26. Employer-sponsored private insurance among persons less than 65 years of age by poverty status, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Family income as a percent of poverty level					
	All income		Under 200 percent		200 percent or more	
	Percent	SE	Percent	SE	Percent	SE
	Private insurance obtained through workplace					
All regions	56.0	0.4	22.0	0.4	75.7	0.3
Metropolitan counties:						
Large central	51.8	0.6	19.1	0.6	74.0	0.5
Large fringe	65.5	0.8	25.4	0.8	79.7	0.6
Small metro	56.0	0.8	23.4	0.8	75.2	0.6
Nonmetropolitan counties	48.3	1.0	21.3	1.0	71.2	0.9
Micropolitan	49.9	1.1	23.0	1.2	72.9	1.1
Non-core	45.9	1.9	18.8	1.5	68.6	1.7
Northeast:						
Metropolitan counties:						
Large central	50.3	1.4	15.1	1.3	75.9	1.1
Large fringe	70.4	1.2	22.9	1.5	83.3	1.1
Small metro	67.0	1.3	26.2	2.4	82.6	0.8
Nonmetropolitan counties	56.0	2.4	23.2	3.6	76.5	1.2
Midwest:						
Metropolitan counties:						
Large central	56.4	1.5	23.2	1.8	79.0	1.1
Large fringe	68.4	1.8	29.2	1.9	82.7	0.9
Small metro	63.2	1.8	29.3	1.9	80.8	1.1
Nonmetropolitan counties	55.7	2.0	26.2	2.4	75.0	1.3
South:						
Metropolitan counties:						
Large central	49.8	1.2	18.9	1.0	72.3	0.9
Large fringe	62.0	1.1	25.2	1.4	76.2	0.9
Small metro	50.0	1.1	20.5	1.0	71.4	1.1
Nonmetropolitan counties	43.5	1.2	19.8	1.2	69.1	1.3
West:						
Metropolitan counties:						
Large central	52.0	1.0	19.4	0.7	72.5	0.8
Large fringe	60.9	2.8	22.9	2.0	76.4	2.1
Small metro	51.6	1.7	21.9	1.4	69.6	1.1
Nonmetropolitan counties	40.7	1.8	16.2	2.4	62.4	2.5

≥ Greater than or equal to.
SE Standard Error
NOTES: Percentages are age-adjusted. See Technical Notes for description of age-adjustment method, poverty status, and urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 27. Active physicians per 100,000 population by physician specialty, region, and urbanization level: United States, 2010

Region and urbanization level	General and family practitioners	General pediatricians	General internists	Obstetricians and gynecologists	Other specialists	All physicians
	Physicians per 100,000 population					
All regions	29.1	18.1	35.1	12.1	179.9	274.2
Metropolitan counties:						
Large central	27.0	25.1	49.6	16.0	262.8	380.5
Large fringe	24.5	20.1	37.1	12.4	174.2	268.4
Small metro	34.2	15.6	30.5	11.4	169.1	260.8
Nonmetropolitan counties	30.4	6.8	14.4	5.8	60.9	118.3
Micropolitan	29.6	8.8	17.9	7.5	80.1	143.9
Non-core	31.6	3.7	8.9	3.0	30.2	77.3
Northeast:						
Metropolitan counties:						
Large central	17.3	31.5	74.2	18.9	353.7	495.5
Large fringe	20.5	28.3	55.1	15.1	237.8	356.7
Small metro	28.5	18.4	43.1	12.2	190.8	292.9
Nonmetropolitan counties	29.4	10.2	24.7	7.9	110.3	182.4
Micropolitan	28.0	11.5	27.7	8.4	128.4	203.9
Non-core	32.9	6.9	16.7	6.5	61.2	124.2
Midwest:						
Metropolitan counties:						
Large central	33.0	27.6	56.3	17.7	291.9	426.6
Large fringe	28.9	16.6	31.5	11.7	151.1	239.8
Small metro	39.2	14.9	31.8	11.2	180.0	277.0
Nonmetropolitan counties	34.2	5.4	11.8	4.8	51.5	107.6
Micropolitan	33.9	7.4	15.5	6.8	71.1	134.7
Non-core	34.5	2.5	6.7	2.0	23.7	69.4
South:						
Metropolitan counties:						
Large central	27.3	24.8	41.4	16.5	260.3	370.3
Large fringe	23.6	17.6	30.2	11.5	152.7	235.7
Small metro	32.9	16.1	28.5	12.1	171.2	260.8
Nonmetropolitan counties	25.8	6.8	13.4	5.8	52.2	104.0
Micropolitan	25.5	8.8	16.6	7.7	71.1	129.7
Non-core	26.2	4.0	8.9	3.0	25.5	67.6
West:						
Metropolitan counties:						
Large central	28.7	21.2	41.0	13.6	208.1	312.7
Large fringe	28.0	17.0	30.8	10.9	148.2	235.0
Small metro	35.3	13.6	24.4	10.0	139.9	223.2
Nonmetropolitan counties	37.2	7.4	15.3	6.4	71.4	137.8
Micropolitan	34.0	9.1	18.0	7.6	82.8	151.6
Non-core	43.8	3.8	9.7	4.0	47.6	108.9

≥ Greater than or equal to.
NOTES: Includes all Federal and non-Federal patient care doctors of medicine. See Technical Notes for description of physician specialties and urbanization levels.
SOURCE: Health Resources and Services Administration, Area Resource File.

Data Table 28. Dentists per 100,000 population by region and urbanization level: United States, 2007

Urbanization level	All regions	Northeast	Midwest	South	West
	Dentists per 100,000 population				
All regions	64.7	80.4	61.1	54.2	72.5
Metropolitan counties:					
Large central	83.2	97.7	82.3	71.3	85.4
Large fringe	71.5	91.4	66.1	59.9	73.6
Small metro	56.5	59.5	58.6	52.1	60.0
Nonmetropolitan counties	36.4	40.7	38.4	31.1	45.3
Micropolitan	40.2	43.5	42.4	35.4	46.4
Non-core	30.4	32.9	32.7	25.2	43.1

≥Greater than or equal to.
NOTES: Includes all professionally active Federal and non-Federal dentists. See Technical Notes for description of urbanization levels.
SOURCE: Health Resources and Services Administration, Area Resource File.

Data Table 29. Dental visit within the past year among persons 18–64 years of age by region and urbanization level: United States, 2010-2011

Region and urbanization level	Percent	SE
All regions……..	61.3	0.4
Metropolitan counties:		
Large central……..	60.9	0.7
Large fringe……	66.3	0.8
Small metro……	61.0	0.7
Nonmetropolitan counties……	54.9	1.0
Micropolitan……	56.8	1.3
Non-core……..	52.2	1.6
Northeast:		
Metropolitan counties:		
Large central……..	66.4	1.2
Large fringe……	71.2	1.4
Small metro……	69.7	1.6
Nonmetropolitan counties……	61.3	3.6
Midwest:		
Metropolitan counties:		
Large central……..	62.6	1.5
Large fringe……	67.8	1.8
Small metro……	66.0	1.5
Nonmetropolitan counties……	59.0	1.8
South:		
Metropolitan counties:		
Large central……..	57.5	1.6
Large fringe……	63.1	1.1
Small metro……	55.2	1.0
Nonmetropolitan counties……	49.6	1.1
West:		
Metropolitan counties:		
Large central……..	60.3	1.0
Large fringe……	62.6	2.6
Small metro……	60.0	1.5
Nonmetropolitan counties……	57.3	2.7

≥ Greater than or equal to.
SE Standard error.
NOTES: See Technical Notes for description of urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Data Table 30. Hospital discharge rates and average length of stay among persons 18–64 years of age by sex and urbanization level: United States, 2010-2011

Urbanization level	Total		Males		Females	
	Rate	SE	Rate	SE	Rate	SE
	Discharges per 1,000 population					
Total	72.0	4.6	66.2	4.2	78.0	5.1
Metropolitan counties:						
Large central	71.3	6.4	67.5	6.2	75.3	6.9
Large fringe	67.6	5.3	61.2	4.8	73.9	6.1
Small metro	75.9	10.0	68.3	8.7	83.5	11.5
Nonmetropolitan counties	73.9	9.4	68.2	8.9	80.0	10.2
	Average length of stay in days					
Total	4.7	0.1	5.0	0.2	4.4	0.1
Metropolitan counties:						
Large central	5.4	0.4	5.8	0.6	5.1	0.2
Large fringe	4.3	0.1	4.6	0.2	4.0	0.2
Small metro	4.3	0.2	4.5	0.2	4.2	0.2
Nonmetropolitan counties	4.7	0.3	5.0	0.4	4.5	0.3

SE Standard error.
NOTES: Rates are age adjusted. Data are for non-Federal short stay hospitals and exclude obstetrical deliveries. Population estimates for rate calculations are for the civilian population corrected for net under-enumeration. Urbanization levels are for patient's place of residence. See Technical Notes for description of urbanization levels.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

Data Table 31. Substance abuse treatment admission rates by primary substance, region and urbanization level: United States, 2010

Region and urbanization level	Alcohol	Opiates	Cocaine	Marijuana	Stimulants
	Admissions per 100,000 population- age-adjusted				
All regions……..	266.6	154.5	54.3	126.2	43.2
Metropolitan counties:	261.6	162.2	58.4	123.2	41.4
Large central……	247.8	176.0	75.8	128.9	48.7
Large fringe……	245.2	172.5	43.6	99.9	21.5
Small metro……	292.7	142.8	53.7	137.2	50.1
Nonmetropolitan counties……	298.2	113.7	32.1	143.8	53.5
Micropolitan……..	326.8	127.3	38.2	162.8	57.9
Non-core……...	250.3	90.4	21.7	112.0	45.8
Northeast:	527.8	419.7	121.3	207.9	4.3
Metropolitan counties:	535.3	430.4	126.9	209.9	4.2
Large central……	619.9	432.6	175.3	267.6	4.4
Large fringe……	465.6	433.8	91.2	159.1	3.3
Small metro……	550.7	444.4	122.9	206.4	5.2
Nonmetropolitan counties……	463.2	318.0	67.9	186.5	5.7
Micropolitan……	479.5	317.1	70.3	186.1	5.5
Non-core…….....	418.0	320.2	60.8	187.7	6.4
Midwest:	303.3	130.2	51.5	159.1	38.0
Metropolitan counties:	285.0	138.1	59.2	150.0	29.1
Large central……	246.9	205.5	104.0	158.8	17.9
Large fringe……	196.5	110.5	28.5	99.4	19.8
Small metro……	385.4	110.8	50.8	183.9	44.8
Nonmetropolitan counties……	371.3	103.4	24.7	192.5	70.5
Micropolitan……	422.2	126.1	31.3	217.3	74.1
Non-core…….....	292.3	66.6	14.4	154.4	64.7
South:	118.3	75.1	38.4	81.0	15.4
Metropolitan counties:	112.4	73.5	39.4	78.5	12.9
Large central……	77.1	80.3	42.4	65.3	12.4
Large fringe……	94.1	69.4	26.2	66.8	4.1
Small metro……	153.7	72.4	47.9	98.3	20.3
Nonmetropolitan counties……	144.8	82.9	34.4	92.5	26.7
Micropolitan……	167.4	87.6	44.0	115.7	30.8
Non-core…….....	112.0	76.1	20.4	58.5	20.8
West:	266.6	102.4	30.7	107.1	119.9
Metropolitan counties:	243.3	104.9	32.5	100.9	118.3
Large central……	197.4	111.5	40.6	96.8	111.2
Large fringe……	333.7	81.9	28.1	86.0	106.4
Small metro……	277.9	105.9	21.3	116.3	137.3
Nonmetropolitan counties……	498.1	81.5	14.1	169.0	136.6
Micropolitan……	451.5	87.2	10.6	168.9	141.7
Non-core…….....	604.4	68.7	22.2	172.0	125.5

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels. Wisconsin and Arizona did not report facility location and are excluded from calculations by urbanization level. In addition, select states provided partial facility location information and thus a portion of each state's records are excluded from calculations by urbanization level including: Alabama (47% excluded), Indiana (93%), Florida (28%), and Pennsylvania (25%).
SOURCE: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS).

Data Table 32. Past year any mental illness (AMI) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Men		Women	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	18.1	0.2	14.6	0.3	21.5	0.3
Metropolitan counties……..	17.8	0.2	14.4	0.3	21.1	0.3
Large central……..	17.0	0.4	13.9	0.6	19.9	0.6
Large fringe……..	17.5	0.4	14.1	0.6	20.6	0.6
Small metro……..	19.0	0.4	15.2	0.5	22.8	0.5
Nonmetropolitan counties……..	19.5	0.5	15.1	0.7	23.6	0.7
Micropolitan……..	19.6	0.6	15.1	0.8	23.9	0.9
Non-core……....	19.2	0.7	15.2	1.1	23.1	1.0
Northeast:	17.7	0.4	14.3	0.6	21.1	0.6
Metropolitan counties……..	17.6	0.5	14.2	0.7	20.9	0.7
Large central……..	17.6	0.9	14.9	1.3	20.2	1.2
Large fringe……..	17.1	0.8	13.3	1.1	20.7	1.1
Small metro……..	18.3	0.8	14.9	1.1	22.0	1.2
Nonmetropolitan counties……..	19.2	0.9	15.4	1.5	23.1	1.4
Micropolitan……..	18.8	1.0	15.0	1.6	22.5	1.6
Non-core……....	20.6	2.5	16.2	3.2	24.7	3.3
Midwest:	18.7	0.4	14.5	0.5	22.6	0.5
Metropolitan counties……..	18.6	0.4	14.5	0.6	22.7	0.6
Large central……..	18.4	0.8	14.6	1.0	21.9	1.2
Large fringe……..	17.9	0.7	14.0	1.0	21.6	1.1
Small metro……..	19.4	0.8	14.7	0.9	24.1	1.0
Nonmetropolitan counties……..	18.9	0.6	14.8	0.9	22.8	0.9
Micropolitan……..	19.4	0.9	15.3	1.2	23.6	1.4
Non-core……....	18.3	0.9	14.1	1.2	22.0	1.2
South:	17.7	0.4	14.3	0.5	20.9	0.5
Metropolitan counties……..	17.3	0.4	14.2	0.6	20.3	0.6
Large central……..	15.5	0.8	12.9	1.2	17.9	1.0
Large fringe……..	17.3	0.7	14.3	0.9	20.0	1.1
Small metro……..	18.4	0.6	14.8	0.8	22.0	0.8
Nonmetropolitan counties……..	19.4	0.8	14.8	1.2	23.7	1.2
Micropolitan……..	19.1	1.0	13.8	1.4	23.8	1.5
Non-core……....	19.9	1.3	16.1	2.1	23.4	1.9
West:	18.4	0.5	15.2	0.7	21.7	0.7
Metropolitan counties……..	18.1	0.5	15.0	0.7	21.4	0.7
Large central……..	17.2	0.7	13.9	1.0	20.6	1.1
Large fringe……..	18.1	1.3	15.1	2.0	20.9	2.1
Small metro……..	20.0	0.8	16.7	1.1	23.3	1.1
Nonmetropolitan counties……..	21.3	1.6	17.2	2.0	26.2	1.8
Micropolitan……..	22.5	2.2	18.4	2.4	26.6	2.3
Non-core……....	19.4	1.7	14.7	2.6	25.2	2.7

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: National Survey on Drug Use and Health (NSDUH).

Data Table 33. Past year serious mental illness (SMI) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Men		Women	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	4.0	0.1	2.9	0.1	5.1	0.2
Metropolitan counties……..	3.9	0.1	2.8	0.1	4.9	0.2
Large central……	3.5	0.2	2.3	0.2	4.7	0.3
Large fringe……	3.6	0.2	2.9	0.3	4.3	0.3
Small metro……	4.4	0.2	3.1	0.2	5.7	0.3
Nonmetropolitan counties……	4.7	0.3	3.6	0.4	5.7	0.4
Micropolitan……	4.7	0.4	3.8	0.5	5.6	0.5
Non-core……....	4.6	0.4	3.3	0.6	5.8	0.6
Northeast:	3.7	0.2	2.8	0.3	4.6	0.3
Metropolitan counties……..	3.7	0.2	2.8	0.3	4.5	0.3
Large central……	3.2	0.3	2.9	0.6	3.6	0.4
Large fringe……	3.4	0.4	2.5	0.5	4.3	0.6
Small metro……	4.6	0.4	3.3	0.5	6.0	0.6
Nonmetropolitan counties……	4.3	0.6	3.1	0.6	5.6	0.9
Micropolitan……	4.2	0.6	3.4	0.7	5.1	0.9
Non-core……....	4.9	1.3	2.6	1.2	7.3	2.2
Midwest:	4.4	0.2	3.5	0.3	5.3	0.3
Metropolitan counties……..	4.4	0.2	3.4	0.3	5.4	0.3
Large central……	4.5	0.5	2.9	0.5	6.0	0.7
Large fringe……	4.0	0.3	3.6	0.5	4.4	0.5
Small metro……	4.6	0.3	3.6	0.5	5.7	0.5
Nonmetropolitan counties……	4.5	0.4	3.8	0.6	5.2	0.6
Micropolitan……	4.8	0.6	4.0	0.7	5.6	0.9
Non-core……....	4.3	0.6	3.6	1.0	4.8	0.9
South:	3.7	0.2	2.7	0.2	4.6	0.2
Metropolitan counties……..	3.5	0.2	2.6	0.2	4.4	0.3
Large central……	2.7	0.3	1.7	0.3	3.6	0.4
Large fringe……	3.4	0.3	2.8	0.4	4.0	0.5
Small metro……	4.2	0.3	3.0	0.4	5.3	0.4
Nonmetropolitan counties……	4.4	0.4	3.3	0.6	5.4	0.6
Micropolitan……	4.2	0.5	3.2	0.7	5.1	0.8
Non-core……....	4.5	0.7	3.2	1.1	5.9	0.9
West:	4.3	0.2	2.7	0.3	5.9	0.4
Metropolitan counties……..	4.2	0.2	2.5	0.3	5.8	0.4
Large central……	3.9	0.4	2.2	0.3	5.6	0.6
Large fringe……	4.2	0.7	3.3	1.0	5.1	0.8
Small metro……	4.5	0.3	2.7	0.4	6.2	0.6
Nonmetropolitan counties……	6.3	1.1	4.8	1.3	7.8	1.2
Micropolitan……	6.8	1.5	5.5	1.9	8.0	1.5
Non-core……....	5.5	1.1	3.5	1.1	7.7	1.9

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: National Survey on Drug Use and Health (NSDUH).

Data Table 34. Past year major depressive episode (MDE) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Men		Women	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	6.7	0.1	4.8	0.2	8.5	0.2
Metropolitan counties……..	6.6	0.1	4.7	0.2	8.5	0.2
Large central……	6.1	0.2	4.1	0.3	8.1	0.4
Large fringe……	6.5	0.2	4.8	0.3	8.1	0.4
Small metro……	7.2	0.2	5.2	0.3	9.2	0.3
Nonmetropolitan counties……	7.2	0.3	5.5	0.4	8.9	0.4
Micropolitan……	7.6	0.4	5.8	0.5	9.3	0.6
Non-core……....	6.6	0.5	4.8	0.7	8.3	0.7
Northeast:	6.5	0.3	4.7	0.3	8.3	0.4
Metropolitan counties……..	6.5	0.3	4.7	0.4	8.2	0.5
Large central……	6.1	0.5	4.5	0.7	7.6	0.8
Large fringe……	6.5	0.5	4.6	0.6	8.3	0.8
Small metro……	7.1	0.5	5.5	0.7	8.7	0.7
Nonmetropolitan counties……	6.9	0.7	4.5	0.8	9.3	1.0
Micropolitan……	7.0	0.8	4.9	0.9	9.3	1.2
Non-core……....	6.4	1.2	3.6	1.3	9.2	1.9
Midwest:	7.0	0.2	5.3	0.3	8.8	0.3
Metropolitan counties……..	7.1	0.3	5.2	0.4	9.0	0.4
Large central……	6.9	0.5	4.7	0.6	9.0	0.8
Large fringe……	6.6	0.4	5.3	0.6	7.8	0.6
Small metro……	7.6	0.4	5.2	0.6	10.0	0.6
Nonmetropolitan counties……	6.9	0.4	5.6	0.6	8.2	0.6
Micropolitan……	7.2	0.6	5.6	0.7	8.8	1.0
Non-core……....	6.5	0.7	5.6	1.1	7.3	0.9
South:	6.5	0.2	4.8	0.3	8.2	0.3
Metropolitan counties……..	6.4	0.2	4.8	0.3	8.0	0.3
Large central……	5.7	0.4	4.2	0.6	7.1	0.7
Large fringe……	6.4	0.4	4.7	0.5	8.0	0.6
Small metro……	7.0	0.4	5.1	0.5	8.8	0.5
Nonmetropolitan counties……	7.0	0.5	4.9	0.7	8.8	0.7
Micropolitan……	7.3	0.7	5.3	0.9	9.0	0.9
Non-core……....	6.3	0.8	4.2	1.2	8.4	1.1
West:	6.9	0.3	4.7	0.4	9.1	0.4
Metropolitan counties……..	6.6	0.3	4.3	0.4	8.9	0.5
Large central……	6.1	0.4	3.4	0.4	8.9	0.7
Large fringe……	6.8	0.8	5.1	1.0	8.6	1.2
Small metro……	7.4	0.5	5.3	0.6	9.4	0.7
Nonmetropolitan counties……	9.2	1.1	7.9	1.4	11.0	1.3
Micropolitan……	9.9	1.5	8.8	2.0	11.1	1.5
Non-core……....	8.0	1.3	5.8	1.4	10.9	2.5

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: National Survey on Drug Use and Health (NSDUH).

Data Table 35. Past year major depressive episode (MDE) among persons 12-17 years of age by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Men		Women	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	8.1	0.2	4.5	0.2	12.0	0.3
Metropolitan counties……..	8.1	0.2	4.4	0.2	11.9	0.3
Large central……	7.9	0.4	4.5	0.4	11.4	0.6
Large fringe……	8.2	0.4	4.7	0.4	11.9	0.6
Small metro……	8.1	0.3	4.1	0.3	12.3	0.5
Nonmetropolitan counties……	8.5	0.4	4.6	0.4	12.7	0.6
Micropolitan……	9.0	0.5	5.1	0.6	13.1	0.8
Non-core……....	7.7	0.7	3.7	0.6	12.0	1.1
Northeast:	7.4	0.4	4.2	0.4	10.8	0.6
Metropolitan counties……..	7.4	0.4	4.1	0.4	10.8	0.7
Large central……	7.4	0.8	4.1	0.7	11.0	1.3
Large fringe……	7.0	0.7	4.2	0.7	9.9	1.2
Small metro……	7.9	0.6	4.0	0.8	11.8	1.0
Nonmetropolitan counties……	8.2	0.9	5.0	1.2	11.7	1.5
Micropolitan……	9.1	1.1	5.3	1.5	13.4	1.9
Non-core……....	5.6	1.0	4.2	1.6	7.0	1.7
Midwest:	8.2	0.3	4.4	0.3	12.3	0.5
Metropolitan counties……..	8.4	0.4	4.5	0.4	12.5	0.6
Large central……	7.9	0.8	4.6	0.8	11.5	1.4
Large fringe……	8.8	0.6	5.1	0.6	12.8	1.0
Small metro……	8.3	0.5	3.8	0.5	12.8	0.8
Nonmetropolitan counties……	7.8	0.6	4.1	0.6	11.6	0.9
Micropolitan……	8.3	0.7	4.4	0.7	12.4	1.3
Non-core……....	7.2	0.9	3.6	0.9	10.7	1.4
South:	8.1	0.3	4.4	0.3	12.1	0.5
Metropolitan counties……..	8.0	0.3	4.2	0.3	12.0	0.5
Large central……	7.4	0.6	3.9	0.6	11.0	1.0
Large fringe……	8.9	0.6	5.2	0.7	12.8	0.9
Small metro……	7.6	0.5	3.6	0.4	11.9	0.8
Nonmetropolitan counties……	8.8	0.7	5.1	0.7	12.7	1.0
Micropolitan……	9.0	0.9	5.7	1.0	12.6	1.3
Non-core……....	8.4	1.2	4.3	1.0	12.9	1.8
West:	8.6	0.4	4.9	0.4	12.4	0.7
Metropolitan counties……..	8.5	0.5	5.0	0.5	12.1	0.8
Large central……	8.4	0.7	5.1	0.7	12.0	1.2
Large fringe……	7.6	1.0	3.8	0.9	11.4	1.5
Small metro……	9.0	0.8	5.5	0.9	12.7	1.3
Nonmetropolitan counties……	9.3	1.1	3.6	0.9	15.6	2.0
Micropolitan……	10.0	1.3	4.7	1.3	15.4	2.2
Non-core……....	7.8	1.9	1.7	0.6	16.1	4.2

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: National Survey on Drug Use and Health (NSDUH).

Data Table 36. Past 30-day serious psychological distress (SPD) among persons 18 years of age and older by sex, region, and urbanization level: United States, 2010-2011

Region and urbanization level	Total		Men		Women	
	Percent	SE	Percent	SE	Percent	SE
All regions……..	4.8	0.1	4.0	0.2	5.6	0.2
Metropolitan counties……..	4.7	0.1	3.9	0.2	5.4	0.2
Large central……	4.8	0.2	4.1	0.3	5.6	0.3
Large fringe……	4.0	0.2	3.5	0.3	4.5	0.3
Small metro……	5.1	0.2	4.1	0.2	6.1	0.3
Nonmetropolitan counties……	5.7	0.3	4.7	0.4	6.6	0.4
Micropolitan……	5.7	0.3	4.6	0.4	6.7	0.5
Non-core……....	5.7	0.5	4.9	0.7	6.5	0.6
Northeast:	4.7	0.2	4.0	0.3	5.5	0.4
Metropolitan counties……..	4.7	0.3	4.0	0.3	5.4	0.4
Large central……	5.3	0.5	4.4	0.8	6.1	0.8
Large fringe……	4.0	0.4	3.1	0.5	4.9	0.6
Small metro……	5.1	0.5	4.8	0.6	5.4	0.7
Nonmetropolitan counties……	5.0	0.6	3.9	0.8	6.2	0.9
Micropolitan……	5.1	0.6	4.5	1.0	5.7	0.9
Non-core……....	4.9	1.3	2.2	0.7	7.8	2.4
Midwest:	5.1	0.2	4.5	0.3	5.6	0.3
Metropolitan counties……..	5.1	0.2	4.5	0.3	5.7	0.3
Large central……	5.8	0.4	5.1	0.6	6.4	0.5
Large fringe……	3.9	0.3	3.6	0.4	4.3	0.4
Small metro……	5.5	0.4	4.7	0.6	6.4	0.5
Nonmetropolitan counties……	4.9	0.5	4.5	0.5	5.3	0.6
Micropolitan……	5.5	0.7	5.0	0.8	6.0	0.9
Non-core……....	4.3	0.5	4.0	0.7	4.5	0.7
South:	4.8	0.2	4.0	0.2	5.7	0.2
Metropolitan counties……..	4.4	0.2	3.7	0.2	5.2	0.3
Large central……	4.0	0.3	3.3	0.4	4.7	0.5
Large fringe……	4.2	0.3	3.7	0.5	4.6	0.5
Small metro……	4.9	0.3	3.9	0.4	6.0	0.4
Nonmetropolitan counties……	6.6	0.5	5.4	0.7	7.7	0.6
Micropolitan……	6.2	0.5	4.5	0.7	7.7	0.8
Non-core……....	7.2	0.8	6.6	1.4	7.8	1.0
West:	4.7	0.3	3.8	0.4	5.6	0.4
Metropolitan counties……..	4.7	0.3	3.7	0.4	5.6	0.4
Large central……	4.8	0.4	4.0	0.6	5.7	0.6
Large fringe……	3.7	0.6	3.3	0.8	3.9	0.7
Small metro……	4.9	0.4	3.4	0.4	6.3	0.6
Nonmetropolitan counties……	5.3	0.6	4.0	0.7	6.7	1.1
Micropolitan……	5.3	0.7	4.4	0.8	6.2	1.1
Non-core……....	5.4	1.2	3.1	1.1	7.7	2.3

≥ Greater than or equal to.
SE standard error
NOTES: Rates are age adjusted. See Technical Notes for description of age-adjustment method and urbanization levels.
SOURCE: National Survey on Drug Use and Health (NSDUH).

Appendices

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Appendix I: Data Sources

Introduction

The 2014 Update of the Rural-Urban Chartbook consolidates the most current data on the health of the urban and rural population of the United States and the availability and use of health resources. Information was obtained from the data files and published reports of several Federal government agencies. In each case, the sponsoring agency collected data using its own methods and procedures. Therefore, data in this report may vary considerably with respect to source, method of collection, definitions, and reference period.

Although a detailed description and comprehensive evaluation of each data source are beyond the scope of this appendix, readers should be aware of the general strengths and weaknesses of the different data collection systems shown in *The 2014 Update of the Rural-Urban Chartbook*. For example, population- based surveys obtain socioeconomic data, data on family characteristics, and information on the impact of an illness, such as days lost from work or limitation of activity. These data are limited by the amount of information a respondent remembers or is willing to report. For example, a respondent may not know detailed medical information, such as a precise diagnosis or the type of procedure performed, and therefore cannot report that information. In contrast, records-based surveys, which collect data from physician and hospital records, usually contain good diagnostic information but little or no information about the socioeconomic characteristics of individuals or the impact of illnesses on individuals.

Different data collection systems may cover different populations, and understanding these differences is critical to interpreting the resulting data. Data on vital statistics cover the entire population. However, most data on morbidity cover only the civilian noninstitutionalized population and thus may not include data for military personnel, who are usually young; for institutionalized people, including the prison population, who may be of any age; or for nursing home residents, who are usually older.

All data collection systems are subject to error, and records may be incomplete or contain inaccurate information. Respondents may not remember essential information, a question may not mean the same thing to different respondents, and some institutions or individuals may not respond at all. It is not always possible to measure the magnitude of these errors or their effect on the data. Where possible, table notes describe the universe and method of data collection, to assist users in evaluating data quality.

Some information is collected in more than one survey, and estimates of the same statistic may vary among surveys because of different survey methodologies, sampling frames, questionnaires, definitions, and tabulation categories.

Overall estimates generally have relatively small sampling errors, but estimates for certain population subgroups may be based on a small sample size and have relatively large sampling errors. Numbers of births and deaths from the National Vital Statistics System represent complete counts (except for births in those states where data are based on a 50% sample for certain years). Therefore, these data are not subject to sampling error. However, when the figures are used for analytical purposes, such as the comparison of rates over a period, the number of events that actually occurred may be considered as one of a large series of possible results that could have arisen under the same circumstances. When the number of events is small and the probability of such an event is rare, estimates may be unstable, and considerable caution must be used in interpreting the statistics.

In this appendix, data sources are listed alphabetically by the agency that sponsored the data collection. The *Overview* is a brief, general statement about the purpose or objectives of the data system. The *Selected Content* section lists major data elements that are collected or estimated using interpolation or modeling. The *Data Years* section gives the years the survey or data system has existed or been fielded. The *Coverage* section describes the population that the data system represents: for example, residents of the United States, the noninstitutionalized population, persons in specific population groups, or other entities that make up the survey. The *Methodology* section presents a short description of the methods used to collect the data. The *Sample Size and Response Rate* section provides these statistics for surveys. The *Issues Affecting Interpretation* section describes major changes in the data collection methodology or other factors that must be considered when analyzing trends; for example, a major survey redesign that may introduce a discontinuity in the trend. For additional information about the methodology, data files, and history of a data source, consult the *For More Information* section that follows each summary.

Bureau of Labor Statistics (BLS) and U.S. Census Bureau

Current Population Survey (CPS)

Overview: CPS provides current estimates and trends in employment, unemployment, and other characteristics of the general labor force, the population as a whole, and various population subgroups.

Selected Content: The CPS interview is divided into three basic parts: (a) household and demographic information, (b) labor force information, and (c) supplement information for months that include supplements. Comprehensive work experience information is gathered on the

employment status, occupation, and industry of persons interviewed.

Data Years: The basic CPS has been conducted since 1945, although some data were collected prior to that time. The U.S. Census Bureau has collected data in the Annual Social and Economic Supplement (ASEC) or Annual Demographic Supplement (ADS) since 1947.

Coverage: To be eligible to participate in the CPS, individuals must be 15 years of age or over and not in the Armed Forces. People in institutions, such as prisons, long-term care hospitals, and nursing homes are ineligible to be interviewed in the CPS. In general, the BLS publishes labor force data only for people aged 16 and over, since those less than age 16 are limited in their labor market activities by compulsory schooling and child labor laws. No upper age limit is used, and full-time students are treated the same as nonstudents. One person generally responds for all eligible members of the household. The person who responds is called the ‘‘reference person’’ and usually is the person who either owns or rents the housing unit. If the reference person is not knowledgeable about the employment status of the others in the household, attempts are made to contact those individuals directly.

Sample Size and Response Rate: The CPS is administered by the Census Bureau using a probability selected sample of about 60,000 occupied households. The fieldwork is conducted during the calendar week that includes the 19th of the month. The questions refer to activities during the prior week; that is, the week that includes the 12th of the month. Households from all 50 states and the District of Columbia are in the survey for 4 consecutive months, out for 8, and then return for another 4 months before leaving the sample permanently. This design ensures a high degree of continuity from one month to the next (as well as over the year). The 4-8-4 sampling scheme has the added benefit of allowing the constant replenishment of the sample without excessive burden to respondents. The CPS has one of the highest response rates among government household surveys, averaging around 90 percent.

Methodology: The CPS questionnaire is a completely computerized document that is administered by Census Bureau field representatives across the country through both in-person and telephone interviews. Additional telephone interviewing is conducted from the Census Bureau’s three centralized collection facilities in Hagerstown, Maryland; Jeffersonville, Indiana; and Tucson, Arizona.

In addition to the regular labor force questions, the CPS often includes supplemental questions on subjects of interest to labor market analysts. These include annual work activity and income, veteran status, school enrollment, contingent employment, worker displacement, and job tenure, among other topics. Because of the survey’s large sample size and broad population coverage, a wide range of sponsors use the CPS supplements to collect data on topics as diverse as expectation of family size, tobacco use, computer use, and voting patterns.

For More Information. See the CPS website at: http://www.census.gov/cps.

U.S. Census Bureau

Population Census and Population Estimates

Decennial Census

The census of population (decennial census) has been held in the United States every 10 years since 1790. Since 1930, it has enumerated the resident population as of April 1 of the census year. The “short-form” questionnaire collects data on sex, race, Hispanic origin, age, and marital status are collected from 100% of the enumerated population. From 1940 to 2000, a subset of households (about one in six) have received a “long form” questionnaire, which contains the basic questions from the “short-form” plus about 50 additional questions on socioeconomic and housing characteristics. Starting with the 2010 Census, only the “short-form” survey was administered because the American Community Survey (ACS) replaced the “long-form” questionnaire.

Race Data on the 2000 and 2010 Census

The question on race on the 2000 and 2010 census was based on OMB's 1997 *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* (Fed Regist 1997 October 30;62:58781–90). (Also see Appendix II, Race.) The 1997 Standards incorporated two major changes in the collection, tabulation, and presentation of race data. First, the 1997 Standards increased from four to five the minimum set of categories to be used by Federal agencies for identification of race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. Second, the 1997 Standards included the requirement that Federal data collection programs allow respondents to select one or more race categories when responding to a query on their racial identity. This provision means that there are potentially 31 race groups, depending on whether an individual selects one, two, three, four, or all five of the race categories. The 1997 Standards continue to call for use, when possible, of a separate question on Hispanic or Latino ethnicity and specify that the ethnicity question should appear before the question on race. Thus, under the 1997 Standards, as under the 1977 Standards, persons of Hispanic origin may be of any race.

For more information: See the Decennial Census website at: http://www.census.gov/history/www/programs/demographic/decennial_census.html.

Small Area Income & Poverty Estimates (SAIPE)

The U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program provides annual estimates of income and poverty statistics for all school

districts, counties, and states. The main objective of this program is to provide estimates of income and poverty for the administration of Federal programs and the allocation of Federal funds to local jurisdictions. In addition to these Federal programs, state and local programs use the income and poverty estimates for distributing funds and managing programs.

The estimates are not direct counts from enumerations or administrative records, nor direct estimates from sample surveys. Instead, for counties and states, income and poverty estimates are modeled by combining survey data with population estimates and administrative records.

Beginning with the SAIPE program's estimates for 2005, data from the American Community Survey (ACS) are used in the estimation procedure; all prior years used data from the Annual Social and Economic Supplements of the Current Population Survey.

For more information: See the SAIPE website at: http://www.census.gov/did/www/saipe/index.html.

Centers for Disease Control and Prevention (CDC)/ National Center for Health Statistics (NCHS)

National Health Interview Survey (NHIS)

Overview: NHIS monitors the health of the U.S. population through the collection and analysis of data on a broad range of health topics. A major strength of this survey lies in the ability to analyze health measures by many demographic and socioeconomic characteristics.

Selected Content: During household interviews, NHIS obtains information on activity limitation, illnesses, injuries, chronic conditions, health insurance coverage, utilization of health care, and other health topics. Demographic data reported by respondent or proxy include age, sex, education, race, ethnicity, place of birth, employment status, and income. Other data collected annually include health risk factors such as lack of exercise, smoking, alcohol consumption, and use of prevention services such as vaccinations. Special modules and supplements focus on different issues each year and have covered many topics, including vaccinations; aging; cancer screening, including periodic prevention activities such as mammography, colorectal tests or procedures, and Pap smears; and complementary and alternative medicine.

Data Years: NHIS has been conducted annually since 1957, with a major redesign every 10–15 years.

Coverage: The survey covers the civilian noninstitutionalized population of the United States. Among those excluded are patients in long-term care facilities, persons on active duty with the Armed Forces (although their dependents are included), incarcerated persons, and U.S. nationals living in foreign countries.

Methodology: NHIS is a cross-sectional household interview survey. Sampling and interviewing are continuous throughout each year. The sampling plan follows a multistage area probability design that permits the representative sampling of households. Traditionally, the sample for NHIS is redesigned and redrawn about every 10 years to better measure the changing U.S. population and to meet new survey objectives. A new sample design was implemented in the 2006 survey. The fundamental structure of the new design is very similar to the previous design for the 1995–2005 surveys. Information is presented only for the current sampling plan covering design years 2006–2014. The first stage of the current sampling plan consists of a sample of 428 primary sampling units (PSUs) drawn from approximately 1,900 geographically defined PSUs that cover the 50 states and the District of Columbia. A PSU consists of a county, a small group of contiguous counties, or a metropolitan statistical area. For more information regarding the sampling methodology, please refer to the NHIS website below.

Sample Size and Response Rate: In the 2006–2014 redesign, the NHIS sample was reduced by 13% compared with the 1995–2005 design. With four sample panels and no sample cuts or augmentations, the expected NHIS sample size (completed interviews) is approximately 35,000 households containing about 87,500 persons.

From each family in NHIS, one sample adult and, for families with children less than age 18, one sample child are randomly selected to participate in the Sample Adult and Sample Child questionnaires. For children, information is provided by a knowledgeable family member aged 18 or over residing in the household. Because some health issues are different for children and adults, these two questionnaires differ in some items but both collect basic information on health status, use of health care services, health conditions, and health behaviors.

In 2010, the NHIS sample was augmented by approximately 25% during January–March. There were no further changes to sample size in the remaining months of 2010. As a result, the 2010 NHIS sample size is slightly larger than the 2009 sample size. In 2010, the sample numbered 89,976 with 27,157 persons participating in the Sample Adult and 11,277 persons in the Sample Child questionnaires. In 2010, the total household response rate was 79%. The final response rate was 61% for the Sample Adult file and 71% for the Sample Child file.

In 2011, the sample size was augmented in 32 states and the District of Columbia to increase the number of reliable state-level estimates that could be produced. In 2011, the sample numbered 101,875 persons, with 33,014 persons participating in the Sample Adult and 12,850 in the Sample Child questionnaires. In 2011, the total household response rate was 82%. The final response rate was 66% for the Sample Adult file and 75% for the Sample Child file.

For More Information: See the NHIS website at: http://www.cdc.gov/nchs/nhis.htm.

National Hospital Discharge Survey (NHDS)

Overview: NHDS collects and produces national estimates on characteristics of inpatient stays in non-Federal, short-stay hospitals in the United States.

Selected Content: Patient information collected includes demographics, length of stay, diagnoses, and procedures. Hospital characteristics collected include region, ownership, and bed size.

Data Years: NHDS has been conducted annually since 1965.

Coverage: The survey design covers the 50 states and the District of Columbia. Included in the survey are hospitals with an average length of stay of less than 30 days for all inpatients, general hospitals, and children's general hospitals. Excluded are Federal, military, and Department of Veterans Affairs hospitals, as well as hospital units of institutions (such as prison hospitals) and hospitals with fewer than six beds staffed for patient use. All discharged patients from in-scope hospitals are included in the survey; however, data for newborns are not included in *The 2014 Update of the Rural-Urban Chartbook*.

Methodology: Since 1988, hospitals were selected using a three-stage stratified design. Units selected at the first stage consisted of either hospitals or geographic areas. The geographic areas were the primary sampling units (PSUs) used for the 1985–1994 National Health Interview Survey, which are geographic areas such as counties or townships. Hospitals within PSUs were selected at the second stage. Strata at this stage were defined by geographic region, PSU size, abstracting service status, and hospital specialty-size groups. Within these strata, hospitals were selected with probabilities proportional to their annual number of discharges. At the third stage, a sample of discharges was selected by a systematic random sampling technique. The sampling rate was determined by the hospital's sampling stratum and the type of data collection system (manual or automated) used. Discharge records from hospitals submitting data from commercial abstracting services and selected state data systems (close to one-half of sample hospitals in 2009–2010) were arrayed by primary diagnoses, patient sex and age group, and date of discharge, before sampling.

The NHDS hospital sample has generally been updated every 3 years by continuing the sampling process among hospitals that become eligible for the survey during the intervening years and by deleting hospitals that are no longer eligible. This updating was conducted in 1991, 1994, 1997, 2000, 2003, and 2006.

The basic unit of estimation for NHDS is a sampled discharge. The basic estimation procedure involves inflation by the reciprocal of the probability of selection. Adjustments are made for nonresponding hospitals and discharges, and a post-ratio adjustment to fixed totals is employed.

Hospital discharge rates per 1,000 population were computed using estimates of the civilian population from the 2010 decennial census.

Sample Size and Response Rate: Due to funding limitations, the 2008–2010 survey sample sizes were cut in half; therefore caution is required in comparing trend data from before and after this change. In 2009, 239 hospitals were selected: 238 were within scope, 205 participated (for an unweighted response rate of 86%), and data were collected from medical records for approximately 162,000 discharges. In 2010, 239 hospitals were selected: 236 were within scope, 203 participated (for an unweighted response rate of 86%), and data were collected from medical records for approximately 152,000 discharges. (See Appendix I, Population Census and Population Estimates.)

For More Information: See the National Hospital Discharge Survey website at: http:// www.cdc.gov/nchs/nhds.htm.

National Vital Statistics System (NVSS)

Overview: NVSS collects and publishes official national statistics on births, deaths, and fetal deaths. Fetal deaths are classified and tabulated separately from other deaths. The vital statistics files—Birth, Linked Birth/Infant Death, and Compressed Mortality—are described in detail below.

Coverage: NVSS collects and presents U.S. resident data for the aggregate of 50 states, New York City, and D.C., as well as for each individual state and D.C. Vital events occurring in the United States to non-U.S. residents, and vital events occurring abroad to U.S. residents, are excluded.

Methodology: NCHS' Division of Vital Statistics obtains information on births and deaths from the registration offices of each of the 50 states, New York City, D.C., Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands. Data are sent to NCHS through the Vital Statistics Cooperative Program (VSCP). Starting in 1985, all 50 states and D.C. participated in VSCP.

U.S. Standard Certificates: U.S. Standard Certificates of Live Birth and Death and Fetal Death Reports are revised periodically, allowing evaluation and addition, modification, and deletion of items. Beginning with 1989, revised Standard Certificates replaced the 1978 versions. The 1989 revision of the birth certificate included items to identify the Hispanic parentage of newborns and to expand information about maternal and infant health characteristics. The 1989 revision of the death certificate included items on educational attainment and Hispanic origin of decedents, as well as changes to improve the medical certification of cause of death. Standard Certificates recommended by NCHS are modified in each registration area to serve the area's needs. However, most certificates conform closely in content and arrangement to the Standard Certificate, and all certificates contain a minimum data set specified by NCHS. The 2003 revision of vital records went into effect in some states beginning in 2003, but full implementation in all states will be phased in over several years.

Birth File

Overview: Vital statistics natality data are a fundamental source of demographic, geographic, and medical and health information on all births occurring in the United States. This is one of the few sources of comparable health-related data for small geographic areas over an extended time period. The data are used to present the characteristics of babies and their mothers, track trends such as birth rates for teenagers, and compare natality trends with those in other countries.

Selected Content: The Birth file includes characteristics of the baby, such as sex, birth weight, and weeks of gestation; demographic information about the parents, such as age, race, Hispanic origin, parity, educational attainment, marital status, and state of residence; medical and health information, such as prenatal care, based on hospital records; and behavioral risk factors for the birth, such as mother's tobacco use during pregnancy.

Data Years: The birth registration area began in 1915 with 10 states and D.C.

Methodology: In the United States, state laws require birth certificates to be completed for all births. The registration of births is the responsibility of the professional attendant at birth, generally a physician or midwife. The birth certificate must be filed with the local registrar of the district in which the birth occurs. Each birth must be reported promptly; the reporting requirements vary from state to state, ranging from 24 hours to as much as 10 days after the birth. Federal law mandates national collection and publication of birth and other vital statistics data. NVSS is the result of cooperation between NCHS and the states to provide access to statistical information from birth certificates. Standard forms for the collection of the data, and model procedures for the uniform registration of the events, are developed and recommended for state use through cooperative activities of the states and NCHS. NCHS shares the costs incurred by the states in providing vital statistics data for national use.

Issues Affecting Interpretation: Data on mother's educational attainment, tobacco use during pregnancy, and prenatal care based on the 2003 revision of the U.S. Standard Certificate of Live Birth are not comparable with data based on the 1989 revision of the U.S. Standard Certificate of Live Birth. Two-thirds (66%) of all births in 2009 and 76% of all births in 2010 were reported using the 2003 revision. Interpretation of trend data should take into consideration changes to reporting areas

For More Information: See the Birth Data website at: http://www.cdc.gov/nchs/births.htm.

Compressed Mortality File (CMF)

Overview: The CMF is a county-level national mortality and population database.

Selected Content: The CMF contains mortality data derived from the detailed Mortality files of the NVSS and estimates of U.S. national, state, and county resident populations from the U.S. Census Bureau. For infant mortality (infant deaths per 1,000 live births), the CMF estimates the number of live births from the Birth files of the NVSS. For 1999–2010, mortality statistics can be obtained by place of residence (total U.S., state, and county), by age group and expanded race groups (White, Black, American Indian or Alaska Native, Asian or Pacific Islander), and by Hispanic origin.

Data Years: The CMF spans the years 1968–2010. On CDC WONDER, data are available starting with 1979.

Methodology: The CMF is used to compute death rates, including infant mortality, by urbanization level of the decedent's county of residence. Counties are categorized according to level of urbanization based on the 2006 ‘‘NCHS Urban-Rural Classification Scheme for Counties.’’ This scheme assigns counties and county equivalents to one of six urbanization levels: four metropolitan and two nonmetropolitan.

For More Information: See the CMF website at: http://www.cdc.gov/nchs/data_access/cmf.htm and the CDC WONDER website at: http://wonder.cdc.gov/. (Also see Appendix II, Urbanization).

Health Resources and Services Administration

Area Health Resource Files (AHRF)

Overview: The Area Health Resources Files (AHRF) provide a comprehensive set of data offering a broad range of health resources and socioeconomic indicators which impact demand for health care. The AHRF provides current as well as historic data for more than 6,000 variables for each of the nation's counties.

Selected Content: The AHRF contains information on health facilities, health professions, measures of resource scarcity, health status, economic activity, health training programs, and socioeconomic and environmental characteristics. In addition, the basic file contains geographic codes and descriptors which enable it to be linked to many other files and to aggregate counties into various geographic groupings, including urban/rural levels.

Methodology: The AHRF is released annually and integrates data from numerous primary data sources including: the American Hospital Association, the American Medical Association, the American Dental Association, the American Osteopathic Association, the Bureau of the Census, the Centers for Medicare and Medicaid Services, the Bureau of Labor Statistics, the CDC/National Center for Health Statistics, the Environmental Protection Agency, and the Veteran's Administration.

For more information: See the AHRF website at: http://arf.hrsa.gov/index.htm.

Substance Abuse and Mental Health Services Administration (SAMHSA)

National Survey on Drug Use & Health (NSDUH)

Overview: NSDUH, formerly called the National Household Survey on Drug Abuse (NHSDA), collects data on substance use, abuse, and dependence; mental health problems; and receipt of substance abuse and mental health treatment.

Selected Content: NSDUH reports on the prevalence, incidence, and patterns of drug and alcohol use and abuse in the general U.S. civilian noninstitutionalized population aged 12 and over. Data are collected on use of the following substances: illicit drugs, including marijuana or hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or nonmedical use of prescription-type psychotherapeutics (including stimulants, sedatives, tranquilizers, and pain relievers); alcohol; and tobacco. NSDUH also reports on substance use disorders, substance use treatment, health care, mental health disorders, and mental health service utilization.

Data Years: In 2002, the survey was redesigned, its name was changed to NSDUH, and a monetary incentive for participation was introduced. NSDUH replaces NHSDA, which had been conducted periodically since 1971 and annually starting in 1990.

Coverage: The survey is representative of persons aged 12 and older in the civilian noninstitutionalized population of the United States, and representative in each state and the District of Columbia. NSDUH oversamples youths and young adults.

The survey covers residents of households (including those living in houses, townhouses, apartments, and condominiums), persons in noninstitutional group quarters (including those in shelters, boarding houses, college dormitories, migratory work camps, and halfway houses), and civilians living on military bases. Persons excluded from the survey include homeless people who do not use shelters, active military personnel, and residents of institutional group quarters such as jails and hospitals.

Methodology: The data collection method is in-person interviews conducted with a sample of individuals at their place of residence. Computer-assisted interviewing (CAI) methods, including audio computer-assisted self-interviewing (ACASI), are used to provide a private and confidential setting to complete the interview.

NSDUH uses a 50-state sample design. In 2005, NSDUH introduced a coordinated 5-year sample design in which the first stage of selection involved census tracts, with sample segments within a single census tract to the extent possible. States were first stratified into a total of 900 state sampling regions (48 regions in each large sample state and 12regions in each small sample state). These regions were contiguous geographic areas designed to yield the same number of interviews on average. Starting with the 2005 survey, a total of 48 census tracts per state sampling region were selected with probability proportional to size. Within sampled census tracts, adjacent census blocks were combined to form the second-stage sampling units, or area segments. Of these segments, 24 were designated for the coordinated 5-year sample and 24 were designated as reserve segments. Eight sample segments per state sampling region were fielded during the survey year. These sampled segments were allocated equally into four separate samples, one for each 3-month period (calendar quarter) during the year, so that the survey was essentially continuous in the field.

The design also oversampled youths and young adults, so that each state's sample was approximately equally distributed among three major age groups: 12–17, 18–25, and 26 and over.

Sample Size: The main sample size consisted of 67,500 persons equally allocated across three age groups: persons aged 12-17, persons aged 18-25, and persons aged 26 or older. In 2011, the target sample size was expanded by 2,000 in four Gulf Coast Region states (Alabama, Florida, Louisiana, and Mississippi) to measure the impact of the April 2010 Deepwater Horizon oil spill on substance abuse and mental health. This resulted in a total targeted national sample size of 69,500; the achieved sample in 2011 was 20,109 persons.

Issues Affecting Interpretation: In 2002, SAMHSA implemented several improvements to the survey, which was redesigned as NSDUH. Due to these improvements and modifications, estimates from NSDUH completed in 2002 and later should not be compared with estimates from the 2001 or earlier versions of the survey. Special questions on methamphetamine were added in 2005 and 2006. Data for years prior to 2007 were adjusted for comparability.

For More Information: See the NSDUH website at: http://oas.samhsa.gov/nsduh.htm.

Treatment Episode Data Set-Admissions (TEDS-A)

Overview: The Treatment Episode Data Set -- Admissions (TEDS-A) is an administrative data system providing descriptive information about the national flow of admissions to providers of substance abuse treatment. TEDS-A is part of a reporting system that was originally designed to provide annual data on the number and characteristics of persons admitted to public and private substance abuse treatment programs receiving public funding. The unit of analysis is treatment admissions. TEDS includes both Minimum Data Set (MDS) data (required reporting) and Supplemental Data Set (SuDS) data (optional reporting), as reported to state substance abuse agencies by the treatment programs.

Selected Content: The TEDS-A contains information on service setting, number of prior treatments, primary source of referral, gender, race, ethnicity, education, employment status, route of administration, frequency of use, age at first use, whether methadone was prescribed in treatment, and substance(s) abused (e.g., alcohol, cocaine and

crack, marijuana and hashish, heroin, and other substances).

Methodology: Substance abuse admissions data are routinely collected by State administrative systems from substance abuse treatment programs and then submitted annually to SAMHSA. States report TEDS data primarily on admissions to facilities that receive State alcohol and/or drug agency funds (including Federal Block Grant funds) for provision of treatment services.

Issues Affecting Interpretation: For this report, several key aspects regarding the TEDS-A data require notation. The scope of facilities included in TEDS is affected by differences in State systems of licensure, certification, accreditation, and disbursement of public funds. Although States may report data from facilities that do not receive public funding, they generally do not because of the difficulty in obtaining data from these facilities. Facilities that may not be accountable to the States and thus not included in the TEDS data are: a) facilities that operate entirely with private funds; b) individual practitioners; c) hospital-based substance abuse treatment facilities not licensed through the State substance abuse agency; d) correctional facilities (State prisons and local jails); and e) Federal facilities operated by the Department of Veterans Affairs, the Department of Defense, and the Federal Bureau of Prisons.

The urbanization levels used for analysis of TEDS-A data correspond to location of the facility rather than client residence. Rate differences may reflect the presence or absence of treatment facilities in metro and nonmetro counties rather than county differences in the rates of substance abuse. In addition, clients may seek treatment outside their county of residence.

In the 2010 dataset, a total of 162,000 admissions out of 1.8 million (9%) were not assigned to a specific county and therefore could not be assigned an urbanization level. States with significant percentages of admissions that could not be assigned to a county or an urbanization level included: Alabama (47%), Florida (28%), Pennsylvania (25%), Indiana (93%), Arizona (100%), and Wisconsin (100%). Records that could not be assigned a county were not included in the analysis (Figure 28), meaning, for example, that treatment admissions rates in the Midwest and West regions, as well as overall rates, do not reflect Wisconsin and Arizona treatment admissions, respectively. Likewise, almost all of Indiana admissions, about half of Alabama admissions, and about a quarter of Florida and Pennsylvania admissions are not represented in the treatment admissions rates presented in Figure 28.

For more information: See the TEDS-A website at: https://www.icpsr.umich.edu/icpsrweb/SAMHDA/studies/33261.

Appendix II. Glossary

The glossary is an alphabetical listing of terms used in the *2014 Update of the Rural-Urban Chartbook*. It includes cross references to related terms and synonyms. It also contains the standard populations used for age adjustment and International Classification of Diseases (ICD) codes for cause of death and diagnostic and procedure categories.

Active physician — See Physician.

Activities of daily living (ADL) — Activities related to personal care and include bathing or showering, dressing, getting in or out of bed or a chair, using the toilet, and eating. In the National Health Interview Survey respondents were asked about needing the help of another person with personal care needs because of a physical, mental, or emotional problem. Persons are considered to have an ADL limitation if any causal condition is chronic. See related: *Limitation of activity.*

Admission — The American Hospital Association defines admissions as patients, excluding newborns, accepted for inpatient services during the survey reporting period. See related: *Days of care; Discharge; Patient.*

Age — Reported as age at last birthday, that is, age in completed years, often calculated by subtracting date of birth from the reference date, with the reference date being the date of the examination, interview, or other contact with an individual.

Age adjustment — Age adjustment, using the direct method, is the application of age-specific rates in a population of interest to a standardized age distribution in order to eliminate differences in observed rates that result from age differences in population composition (see Table I). This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

Age-adjusted rates are calculated by the direct method as follows:

$$\sum_{i=1}^{n} r_i \times (p_i/P)$$

where r_i = rate in age group *i* in the population of interest

p_i = standard population in age group *i*

$$P = \sum_{i=1}^{n} p_i$$

n = total number of age groups over the age range of the age-adjusted rate

Age adjustment by the direct method requires use of a standard age distribution. The standard for age adjusting death rates and estimates from most surveys in Health, United States is the year 2000 projected U.S. resident population. Starting with Health, United States, 2001, the year 2000 population replaces the 1940 U.S. population for age adjusting mortality statistics. The 2000 standard population also replaces the 1970 civilian noninstitutionalized population and 1980 U.S. resident population, which previously had been used as standard age distributions for age adjusting estimates from NCHS surveys.

The year 2000 standard has implications for race and ethnic differentials in mortality. For example, the mortality ratio for the Black and White populations is reduced from 1.6 using the 1940 standard to 1.4 using the year 2000 standard, reflecting the greater weight that the year 2000 standard gives to the older population where race differentials in mortality are smaller.

For more information on implementation of the new population standard for age adjustment of death rates, see:

Centers for Disease Control and Prevention. National Center for Health Statistics. *Age Standardization of Death Rates: Implementation of the Year 2000 Standard.* By Robert N. Anderson and Harry M. Rosenberg. National Vital Statistics Reports: Vol. 47 No. 3. DHHS Publication No. (PHS) 99–1120. Hyattsville, MD: National Center for Health Statistics, 1998. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr47/nvs47_03.pdf.

For more information on the derivation of age adjustment weights for use with NCHS survey data, see:

Centers for Disease Control and Prevention. *Age adjustment using the 2000 projected U.S. population.* By Richard J. Klein and Charlotte A. Schoenborn. Healthy People Statistical Notes, No. 20. Hyattsville, MD: National Center for Health Statistics, 2001.

Both reports are available through the NCHS home page at www.cdc.gov/nchs. The year 2000 projected U.S. resident population is available through the Bureau of the Census home page at www.census.gov/prod/1/pop/p25–1130/, table 2.

Mortality data — Death rates are age adjusted to the year 2000 standard population (table I). Age-adjusted rates are calculated using age-specific death rates per 100,000 population rounded to 1 decimal place. Adjustment is based on 11 age groups with two exceptions. First, age-adjusted death rates for Black males and Black females in 1950 are based on nine age groups, with less than 1 year and 1–4 years of age combined as one group and 75–84 years and 85 years of age and over combined as one group. Second, age-adjusted death rates by educational attainment for the age group 25–64 years are based on four 10-year age groups (25–34 years, 35–44 years, 45–54 years, and 55–64 years).

Age-adjusted rates for years of potential life lost (YPLL) before age 75 years also use the year 2000 standard population and are based on eight age groups (under 1 year, 1–14 years, 15–24 years, and 10-year age groups through 65–74 years).

Table I. Projected year 2000 U.S. population and proportion distribution by age for age adjusting death rates

Age	*Population*	*Proportion Distribution (weights)*	*Standard million*
Total.	274,634,000	1.000000	1,000,000
Under 1 year	3,795,000	0.013818	13,818
1–4 years	15,192,000	0.055317	55,317
5–14 years.	39,977,000	0.145565	145,565
15–24 years.	38,077,000	0.138646	138,646
25–34 years.	37,233,000	0.135573	135,573
35–44 years.	44,659,000	0.162613	162,613
45–54 years.	37,030,000	0.134834	134,834
55–64 years.	23,961,000	0.087247	87,247
65–74 years.	18,136,000	0.066037	66,037
75–84 years.	12,315,000	*0.044842	44,842
85 years and older.	4,259,000	0.015508	15,508

*Figure is rounded up instead of down to force total to 1.0.

SOURCE: Anderson RN, Rosenberg HM. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. National vital statistics reports; vol 47 no 3. Hyattsville, Maryland: National Center for Health Statistics. 1998.

National Health Interview Survey — Estimates based on the National Health Interview Survey (NHIS) are age adjusted to the year 2000 projected resident population. Information on the age groups used in the age adjustment procedure is contained in the footnotes on the relevant tables.

Health Care Surveys — Estimates based on the National Hospital Discharge Survey (NHDS) are age adjusted to the year 2000 standard population. Information on the age groups used in the age adjustment procedure is contained in the footnotes on the relevant tables.

Any mental illness (AMI) — Is defined, among adults, as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder as defined above, regardless of the level of impairment in carrying out major life activities. AMI includes persons with mental illness having serious, moderate, or mild functional impairment. See related: *Mental illness; Serious mental illness.*

Average length of stay — In the National Health Interview Survey, average length of stay per discharged patient is computed by dividing the total number of hospital days for a specified group by the total number of discharges for that group. Similarly, in the National Hospital Discharge Survey, average length of stay is computed by dividing the total number of days of care, counting the date of admission but not the date of discharge, by the number of patients discharged. The American Hospital Association computes average length of stay by dividing the number of inpatient days by the number of admissions. See related: *Days of care; Discharge; Patient.*

Birth cohort — Consists of all persons born within a given period of time, such as a calendar year.

Birth rate — See Rate: Birth and related rates.

Body mass index (BMI) — A measure that adjusts body weight for height. It is calculated as weight in kilograms divided by height in meters squared. Healthy weight for adults is defined as a BMI of 18.5 to less than 25; overweight, as greater than or equal to a BMI of 25; and obesity, as greater than or equal to a BMI of 30. BMI cut points are defined in the Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000.[5,6.7];;

Cause of death — For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and using the international rules for selecting the underlying cause of death from the conditions stated on the death certificate. Since 1999, cause of death has been coded according to the Tenth Revision of the International Classification of (ICD-10). Changes in classification of causes of death in successive revisions of the ICD may result in discontinuities in cause-of-death trends. These discontinuities are measured using comparability ratios. For further discussion, see the Mortality Technical Appendix available on the NCHS web site at www.cdc.gov/nchs/about/major/dvs/mortdata.htm. See related: *International Classification of Diseases.*

Civilian noninstitutionalized population; Civilian population — See Population.

Community hospitals — See Hospital.

Crude birth rate; Crude death rate — See *Rate: Birth rates; Rate: Death rates.*

Current drinker — In this report, current drinkers are defined as persons who drink five or more drinks of alcohol in one day in the last year as determined by the following question on the National Health Interview Survey (NHIS): “In the past year, on how many days did you have 5 or more drinks of any alcoholic beverage?”

Current smoker — In this report, current smokers 18 years and older were defined by the following questions from the National Health Interview Survey: “Have you smoked at least 100 cigarettes in your entire life?” and “Do you now smoke cigarettes every day, some days, or not at

[5] U.S. Department of Agriculture, Agricultural Research Service, Dietary Guidelines Advisory Committee, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000* (2000), 23. Available at www.health.gov/dietaryguidelines/dgac/.

[6] National Heart, Lung, and Blood Institute, Obesity Education Initiative Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults—The Evidence Report.* NIH Publication No. 98-4083. 1998. Available at www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.htm

[7] U.S. Department of Health and Human Services. Health People 2020: Nutrition and Weight Status. 2013. NWS-8, NWS-9, NWS-10, and NWS-11. Available at http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=29.

all?" Participants that answered "yes" to the former question and "every day or some days" to the latter question were labeled as current smokers.

Current smoking in adolescents ages 12-17 was defined by having smoked within the past month on the National Survey on Drug Use and Health (NSDUH).

Starting with 1993, data estimates of cigarette smoking prevalence were based on the revised definition that is considered a more complete estimate of smoking prevalence. In 1993–95 estimates of cigarette smoking prevalence were based on a half-sample. Smoking data were not collected in 1996. Starting in 1997 smoking data were collected in the sample adult questionnaire.

Days of care — According to the American Hospital Association, days, hospital days, or inpatient days are the number of adult and pediatric days of care rendered during the entire reporting period. Days of care for newborns are excluded.

In the National Health Interview Survey, hospital days during the year refer to the total number of hospital days occurring in the 12-month period before the interview week. A hospital day is a night spent in the hospital for persons admitted as inpatients.

In the National Hospital Discharge Survey, days of care refers to the total number of patient days accumulated by patients at the time of discharge from non-Federal, short-stay hospitals during a reporting period. All days from and including the date of admission but not including the date of discharge are counted. See related: *Admission; Average length of stay; Discharge; Hospital; Patient.*

Death rate — See *Rate: Death and related rates.*

Dental visit — In the National Health Interview Survey respondents are asked ''About how long has it been since you last saw or talked to a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists as well as hygienists.''

Discharge — The National Health Interview Survey defines a hospital discharge as the completion of any continuous period of stay of one night or more in a hospital as an inpatient. According to the National Hospital Discharge Survey and the American Hospital Association, discharge is the formal release of an inpatient by a hospital (excluding newborn infants), that is, the termination of a period of hospitalization (including stays of 0 nights) by death or by disposition to a place of residence, nursing home, or another hospital. See related: *Admission; Average length of stay; Days of care; Patient.*

Family income — For the purposes of the National Health Interview Survey and National Health and Nutrition Examination Survey, all people within a household related to each other by blood, marriage, or adoption constitute a family. Each member of a family is classified according to the total income of the family. Unrelated individuals are classified according to their own income. In the National Health and Nutrition Examination Survey and the National Health Interview Survey (in years prior to 1997) family income is the total income received by members of a family (or by an unrelated individual) in the 12 months before the interview. Starting in 1997 the National Health Interview Survey has been collecting family income data for the calendar year prior to the interview. (For example, 2010 family income data are based on 2009 calendar year information.) Family income includes wages, salaries, rents from property, interest, dividends, profits and fees from their own businesses, pensions, and help from relatives. In the National Health Interview Survey, family income data are used in the computation of poverty level. For data years 2007-2010, the weighted percentages of persons with unknown family income were within the following ranges: 33% and 25% for the "exact" value; 15% and 9% for any of the family income ranges questions; and 9% and 5% for the two-category ($50,000 or more, or less than $50,000) income range value respectively. Missing values were imputed for family income using multiple imputation, with five sets of imputed values created to allow the assessment of variability due to imputation. A detailed description of the imputation procedure is available from NCHS. See related: *Poverty level*.

Federal hospitals — See *Hospital.*

Federal physicians — See *Physician.*

Fee-for-service health insurance — Private (commercial) health insurance that reimburses health care providers on the basis of a fee for each health service provided to the insured person. Also known as indemnity health insurance. See related: Health insurance coverage.

General hospitals — See *Hospital*.

Geographic region and division — The 50 States and the District of Columbia are grouped for statistical purposes by the U.S. Bureau of the Census into 4 geographic regions and 9 divisions. The groupings are as follows:

Northeast

- New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- Middle Atlantic: New York, New Jersey, Pennsylvania

Midwest

- East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin
- West North Central: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

South

- South Atlantic: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
- East South Central: Kentucky, Tennessee, Alabama, Mississippi
- West South Central: Arkansas, Louisiana, Oklahoma, Texas

West

- Mountain: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
- Pacific: Washington, Oregon, California, Alaska, Hawaii

Health insurance coverage — National Health Interview Survey (NHIS) respondents were asked about their health insurance coverage in at the time of the interview. Respondents are covered by private health insurance if they indicate private health insurance or if they are covered by a single service hospital plan. Private health insurance includes managed care such as health maintenance organizations (HMO's). Respondents were also asked if they received the private insurance through their workplace.

Persons were considered to be covered by Medicaid if they reported Medicaid or a State-sponsored health program.

Respondents were considered uninsured if they did not report having health insurance at the time of the interview under private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), a State-sponsored health plan, other government programs, or military health plan (includes TRICARE, VA, and CHAMP-VA). See related: *Fee-for-service health insurance; Health maintenance organization; Managed care; Medicaid; Medicare.*

Health maintenance organization (HMO) — An HMO is a prepaid health plan delivering comprehensive care to members through designated providers, having a fixed monthly payment for health care services, and requiring members to be in a plan for a specified period of time (usually 1 year). Pure HMO enrollees use only the prepaid capitated health services of the HMO's panel of medical care providers. Open-ended HMO enrollees use the prepaid HMO health services but in addition may receive medical care from providers who are not part of the HMO's panel. There is usually a substantial deductible, copayment, or coinsurance associated with use of non-panel providers. These open-ended products are governed by State HMO regulations. HMO model types are:

Group—An HMO that delivers health services through a physician group that is controlled by the HMO unit or an HMO that contracts with one or more independent group practices to provide health services.

Individual practice association (IPA)—An HMO that contracts directly with physicians in independent practice, and/or contracts with one or more associations of physicians in independent practice, and/or contracts with one or more multispecialty group practices. The plan is predominantly organized around solo-single-specialty practices.

Mixed — An HMO that combines features of group and IPA. This category was introduced in mid-1990 because HMO's are continually changing and many now combine features of group and IPA plans in a single plan.

See related: *Managed care.*

Hispanic origin — Includes persons of Mexican, Puerto Rican, Cuban, Central and South American, and other or unknown Latin American or Spanish origins. Persons of Hispanic origin may be of any race. See related: *Race*.

Hospital — According to the American Hospital Association, hospitals are licensed institutions with at least six beds whose primary function is to provide diagnostic and therapeutic patient services for medical conditions by an organized physician staff, and have continuous nursing services under the supervision of registered nurses. The World Health Organization considers an establishment to be a hospital if it is permanently staffed by at least one physician, can offer inpatient accommodation, and can provide active medical and nursing care. Hospitals may be classified by type of service, ownership, size in terms of number of beds, and length of stay. In the National Hospital Ambulatory Medical Care Survey (NHAMCS) hospitals include all those with an average length of stay for all patients of less than 30 days (short-stay) or hospitals whose specialty is general (medical or surgical) or children's general. Federal hospitals and hospital units of institutions and hospitals with fewer than six beds staffed for patient use are excluded. See related: *Average length of stay; Days of care; Patient.*

Community hospitals traditionally included all non-Federal short-stay hospitals except facilities for the mentally retarded. In the revised definition the following additional sites are excluded: hospital units of institutions, and alcoholism and chemical dependency facilities.

Federal hospitals are operated by the Federal Government.

For profit hospitals are operated for profit by individuals, partnerships, or corporations.

General hospitals provide diagnostic, treatment, and surgical services for patients with a variety of medical conditions. According to the World Health Organization, these hospitals provide medical and nursing care for more than one category of medical discipline (for example, general medicine, specialized medicine, general surgery, specialized surgery, and obstetrics). Excluded are hospitals, usually in rural areas, that provide a more limited range of care.

Nonprofit hospitals are operated by a church or other nonprofit organization.

Psychiatric hospitals are ones whose major type of service is psychiatric care.

Registered hospitals are hospitals registered with the American Hospital Association. About 98 percent of hospitals are registered.

Short-stay hospitals in the National Hospital Discharge Survey are those in which the average length of stay is less than 30 days. The National Health Interview Survey defines short-stay hospitals as any hospital or hospital department in which the type of service provided is

general; maternity; eye, ear, nose, and throat; children's; or osteopathic.

Specialty hospitals, such as psychiatric, tuberculosis, chronic disease, rehabilitation, maternity, and alcoholic or narcotic, provide a particular type of service to the majority of their patients.

Hospital-based physician — See *Physician*.

Hospital days — See *Days of care.*

ICD; ICD codes — See *Cause of death; International Classification of Diseases.*

Incidence — The number of cases of disease having their onset during a prescribed period of time. It is often expressed as a rate (for example, the incidence of measles per 1,000 children 5–15 years of age during a specified year). Incidence is a measure of morbidity or other events that occur within a specified period of time. See related: *Prevalence*.

Infant death — The death of a live-born child before his or her first birthday. Deaths in the first year of life may be further classified according to age as neonatal and postneonatal. Neonatal deaths are those that occur before the 28th day of life; postneonatal deaths are those that occur between 28 and 365 days of age. See related: *Live birth; Rate: Death and related rates.*

Inpatient days — See *Days of care.*

Insured — See *Health insurance coverage.*

International Classification of Diseases (ICD) — The ICD provides the ground rules for coding and classifying cause-of-death data. The ICD is developed collaboratively between the World Health Organization (WHO) and ten international centers, one of which is housed at NCHS. The purpose of the ICD is to promote international comparability in the collection, classification, processing, and presentation of health statistics. Since the beginning of the century, the ICD has been modified about once every 10 years, except for the 20-year interval between ICD–9 and ICD–10. The purpose of the revisions is to stay abreast with advances in medical science. New revisions usually introduce major disruptions in time series of mortality statistics. For more information, see www.cdc.gov/nchs/about/major/dvs/icd10des.htm. See related: *Cause of death; Comparability ratio; International Classification of Diseases, Ninth Revision, Clinical Modification.*

Length of stay — See *Average length of stay.*

Limitation of activity — In the National Health Interview Survey limitation of activity refers to a long-term reduction in a person's capacity to perform the usual kind or amount of activities associated with his or her age group due to a chronic condition. Limitation of activity is assessed by asking respondents a series of questions about limitations in their ability to perform activities usual for their age group because of a physical, mental, or emotional problem. Respondents are asked about limitations in activities of daily living, instrumental activities of daily living, play, school, work, difficulty walking or remembering, and any other activity limitations. For reported limitations, the causal health conditions are determined and respondents are considered limited if one or more of these conditions is chronic. See related: *Activities of daily living.*

Live birth — In the World Health Organization's definition, also adopted by the United Nations and the National Center for Health Statistics, a live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles, whether the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born. See related: Gestation; Rate: Birth and related rates.

Major depressive episode (MDE) — Defined as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) (APA, 1994), two or more MDEs are necessary to meet the criteria for recurrent major depressive disorder. The same definition is used for adults ages 18 and older and adolescents ages 12-17.

Managed care — A health care plan that integrates the financing and delivery of health care services by using arrangements with selected health care providers to provide services for covered individuals. Plans are generally financed using capitation fees. There are significant financial incentives for members of the plan to use the health care providers associated with the plan. The plan includes formal programs for quality assurance and utilization review. Health maintenance organizations (HMO's), preferred provider organizations (PPOs), and point of service (POS) plans are examples of managed care. See related: *Health maintenance organization; Preferred provider organization.*

Medicaid — Medicaid was authorized by Title XIX of the Social Security Act in 1965 as a jointly funded cooperative venture between the Federal and state governments to assist States in the provision of adequate medical care to eligible needy persons. Medicaid is the largest program providing medical and health-related services to America's poorest people. Within broad Federal guidelines, each of the States establishes its own eligibility standards; determines the type, amount, duration, and scope of services; sets the rate of payment for services; and administers its own program. Thus, the Medicaid program varies considerably from State to State, as well as within each State over time. See related: *Health expenditures, national; Health maintenance organization; Medicare.*

Medical specialties — See *Physician specialty.*

Medicare — A nationwide health insurance program providing health insurance protection to people 65 years of age and over, people entitled to social security disability payments for 2 years or more, and people with end-stage renal disease, regardless of income. The program was enacted July 30, 1965, as Title XVIII, Health Insurance for

the Aged of the Social Security Act, and became effective on July 1, 1966. It consists of two separate but coordinated programs, hospital insurance (Part A) and supplementary medical insurance (Part B). See related: *Health expenditures, national; Health maintenance organization; Medicaid.*

Mental health organization — The Center for Mental Health Services defines a mental health organization as an administratively distinct public or private agency or institution whose primary concern is provision of direct mental health services to the mentally ill or emotionally disturbed. Excluded are private office-based practices of psychiatrists, psychologists, and other mental health providers; psychiatric services of all types of hospitals or outpatient clinics operated by Federal agencies other than the Department of Veterans Affairs (for example, Public Health Service, Indian Health Service, Department of Defense, and Bureau of Prisons); general hospitals that have no separate psychiatric services but admit psychiatric patients to nonpsychiatric units; and psychiatric services of schools, colleges, halfway houses, community residential organizations, local and county jails, State prisons, and other human service providers.

Mental health service type — Refers to the following kinds of mental health services:

24-hour mental health care, formerly called inpatient care, provides care in a mental health hospital setting.

Less than 24-hour care, formerly called outpatient or partial care treatment, provides mental health services on an ambulatory basis.

Residential treatment care provides overnight mental health care in conjunction with an intensive treatment program in a setting other than a hospital. Facilities may offer care to emotionally disturbed children or mentally ill adults.

Mental illness — Among persons aged 18 or older, mental illness is defined according to two dimensions: (1) the presence of a diagnosable mental, behavioral, or emotional disorder in the past year (excluding developmental and substance use disorders) of sufficient duration to meet diagnostic criteria specified in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (APA, 1994); and (2) the level of interference with or limitation of one or more major life activities resulting from a disorder (functional impairment). Adult NSDUH respondents' mental illness was determined based on modeling their responses to questions on distress (K6 scale) and impairment (truncated version of the World Health Organization Disability Assessment Schedule). See related: *Any mental illness; Serious mental illness*

Metropolitan statistical area (MSA) — The Office of Management and Budget (OMB) defines metropolitan areas according to published standards that are applied to Census Bureau data. The collective term ''metropolitan area'' includes metropolitan statistical areas (MSA's), consolidated metropolitan statistical areas (CMSA's), and primary metropolitan statistical areas (PMSA's). An MSA is a county or group of contiguous counties that contains at least one city with a population of 50,000 or more or a Census Bureau-defined urbanized area of at least 50,000 with a metropolitan population of at least 100,000. In addition to the county or counties that contain all or part of the main city or urbanized area, an MSA may contain other counties that are metropolitan in character and are economically and socially integrated with the main city. If an MSA has a population of 1 million or more and meets requirements specified in the standards, it is termed a CMSA, consisting of two or more major components, each of which is recognized as a PMSA. In New England, cities and towns, rather than counties, are used to define MSA's.

Counties that are not within an MSA are considered to be nonmetropolitan. See related: *Urbanization level*.

Non-Federal physicians — See *Physician*.

Nonprofit hospitals — See *Hospital*.

Obesity — See *Body Mass Index (BMI).*

Office-based physician — See *Physician*.

Office visit — In the National Ambulatory Medical Care Survey, an office visit is any direct personal exchange between an ambulatory patient and a physician or members of his or her staff for the purposes of seeking care and rendering health services. See related: Outpatient visit.

Overweight — See *Body Mass Index (BMI).*

Patient — A person who is formally admitted to the inpatient service of a hospital for observation, care, diagnosis, or treatment. See related: *Admission; Average length of stay; Days of care; Discharge; Hospital.*

Physician — Physicians, through self-reporting, are classified by the American Medical Association as licensed doctors of medicine as follows:

Active (or professionally active) physicians are currently practicing medicine for a minimum of 20 hours per week. Excluded are physicians who are not practicing, practicing medicine less than 20 hours per week, have unknown addresses, or specialties not classified (when specialty information is presented).

Federal physicians are employed by the Federal Government; non-Federal or civilian physicians are not.

Hospital-based physicians spend the plurality of their time as salaried physicians in hospitals.

Office-based physicians spend the plurality of their time working in practices based in private offices.

Data for physicians are presented by area of specialty and geographic area. See related: *Office; Physician specialty.*

Physician specialty — Any specific branch of medicine in which a physician may concentrate. Data are based on physician self-reports of their primary area of specialty. Physician data are broadly categorized into two general areas of practice: generalists and specialists.

Generalist physicians are synonymous with primary care generalists and only include physicians practicing in the general fields of family and general practice, general internal medicine, and general pediatrics. They specifically exclude primary care specialists.

Primary care specialists practice in the subspecialties of general and family practice, internal medicine, and pediatrics. The primary care subspecialties for family practice include geriatric medicine and sports medicine. Primary care subspecialties for internal medicine include diabetes, endocrinology and metabolism, hematology, hepatology, cardiac electrophysiology, infectious diseases, diagnostic laboratory immunology, geriatric medicine, sports medicine, nephrology, nutrition, medical oncology, and rheumatology. Primary care subspecialties for pediatrics include adolescent medicine, critical care pediatrics, neonatal-perinatal medicine, pediatric allergy, pediatric cardiology, pediatric endocrinology, pediatric pulmonology, pediatric emergency medicine, pediatric gastroenterology, pediatric hematology/oncology, diagnostic laboratory immunology, pediatric nephrology, pediatric rheumatology, and sports medicine.

Specialist physicians practice in the primary care specialties, in addition to all other specialist fields not included in the generalist definition. Specialist fields include allergy and immunology, aerospace medicine, anesthesiology, cardiovascular diseases, child and adolescent psychiatry, colon and rectal surgery, dermatology, diagnostic radiology, forensic pathology, gastroenterology, general surgery, medical genetics, neurology, nuclear medicine, neurological surgery, obstetrics and gynecology, occupational medicine, ophthalmology, orthopedic surgery, otolaryngology, psychiatry, public health and general preventive medicine, physical medicine and rehabilitation, plastic surgery, anatomic and clinical pathology, pulmonary diseases, radiation oncology, thoracic surgery, urology, addiction medicine, critical care medicine, legal medicine, and clinical pharmacology.

See related: *Physician*.

Population — The U.S. Bureau of the Census collects and publishes data on populations in the United States according to several different definitions. Various statistical systems then use the appropriate population for calculating rates.

Total population is the population of the United States, including all members of the Armed Forces living in foreign countries, Puerto Rico, Guam, and the U.S. Virgin Islands. Other Americans abroad (for example, civilian Federal employees and dependents of members of the Armed Forces or other Federal employees) are not included.

Resident population includes persons whose usual place of residence (that is, the place where one usually lives and sleeps) is in one of the 50 States or the District of Columbia. It includes members of the Armed Forces stationed in the United States and their families. It excludes international military, naval, and diplomatic personnel and their families located in this county and residing in embassies or similar quarters. Also excluded are international workers and international students in this country and Americans living abroad. The resident population is usually the denominator when calculating birth and death rates and incidence of disease. The resident population is also the denominator for selected population-based rates that use numerator data from the National Nursing Home Survey.

Civilian population is the resident population excluding members of the Armed Forces. However, families of members of the Armed Forces are included. This population is the denominator in rates calculated for the NCHS National Hospital Discharge Survey, the National Home and Hospice Care Survey, and the National Survey of Ambulatory Surgery.

Civilian noninstitutionalized population is the civilian population not residing in institutions. Institutions include correctional institutions, detention homes, and training schools for juvenile delinquents; homes for aged and dependent persons (for example, nursing homes and convalescent homes); homes for dependent and neglected children; homes and schools for mentally or physically handicapped persons; homes for unwed mothers; psychiatric, tuberculosis, and chronic disease hospitals; and residential treatment centers. Census Bureau estimates of the civilian noninstitutionalized population are used to calculate sample weights for the NCHS National Health Interview Survey, National Health and Nutrition Examination Survey, and National Survey of Family Growth, and as denominators in rates calculated for the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey.

Poverty level — Poverty statistics are based on definitions originally developed by the Social Security Administration. These include a set of money income thresholds that vary by family size and composition. Families or individuals with a total annual income below the appropriate thresholds are classified as below the poverty level. These thresholds are updated annually by the U.S. Bureau of the Census to reflect changes in the Consumer Price Index for all urban consumers (CPI-U). For example, the average poverty threshold for a family of four was $22,314 in 2010 and $23,021 in 2011. For more information, see the U.S. Bureau of the Census website regarding poverty at: http://www.census.gov/hhes/www/poverty/index. See related: *Family income.*

Preferred provider organization (PPO) — A health plan generally consisting of hospital and physician providers. The PPO provides health care services to plan members usually at discounted rates in return for expedited claims payment. Plan members can use PPO or non-PPO health care providers; however, financial incentives are built into the benefit structure to encourage utilization of PPO providers. See related: *Managed care.*

Prevalence — The number of cases of a disease, infected persons, or persons with some other attribute present during a particular interval of time. It is often expressed as a rate (for example, the prevalence of diabetes per 1,000 persons during a year). See related: *Incidence.*

Primary care specialties — See *Physician specialty.*

Proprietary hospitals — See *Hospital*.

Psychiatric hospitals — See *Hospital*.

Public health activities — Any of the following essential services of public health: surveillance, investigations, education, community mobilization, workforce training, research, and personal care services delivered or funded by governmental agencies.

Race — The most recent standards for classification of individuals by race within the Federal government's data systems (Federal Register, 62FR58781–58790) were announced in 1997. These standards have five racial groups: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, and White. These five categories are the minimum set for data on race for Federal statistics. The 1997 standards also offer an opportunity for respondents to select more than one of the five groups, leading to many possible multiple race categories. As with the single race groups, data for the multiple race groups are to be reported when estimates meet agency requirements for reliability and confidentiality. The 1997 standards allow for observer or proxy identification of race but clearly state a preference for self-classification. All Federal data systems were required to comply with the 1997 standards by 2003.

Rate — A measure of some event, disease, or condition in relation to a unit of population, along with some specification of time. See related: *Age adjustment; Population.*

Birth rates

- *Birth rate,* in this report, is calculated by dividing the number of live births to female adolescents 15-19 years of age in years 2008-2010 by the 2010 decennial census population (the decennial population was multiplied by three to account for three years of birth data). Birth rates are expressed as the number of live births per 1,000 female adolescents ages 15-19.

Death and related rates

- *Death rate,* in this report, is calculated by dividing the number of deaths in a population in a year by the midyear resident population. For 2010, rates are based on April 1 modified census counts. For the noncensus years of 2008 and 2009, rates are based on revised intercensal estimates of the July 1 resident population. With the exception of infant mortality rates, the mortality rates in this report are age-adjusted using the 2000 U.S. standard population. Death rates are expressed as the number of deaths per 100,000 population.
- *Infant mortality rate*, in this report, is calculated by dividing the number of infant deaths during a calendar year by the number of live births reported in the same year. It is expressed as the number of infant deaths per 1,000 live births. See related: *Infant death.*

Region — See *Geographic region and division.*

Registered hospitals — See *Hospital.*

Registration area — The United States has separate registration areas for birth, death, marriage, and divorce statistics. In general, registration areas correspond to States and include two separate registration areas for the District of Columbia and New York City. All States have adopted laws that require registration of births and deaths and reporting of fetal deaths. It is believed that more than 99 percent of births and deaths occurring in this country are registered.

Relative standard error (RSE) — A measure of an estimate's reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate (SE(r)) by the estimate itself (r). This quantity is expressed as a percent of the estimate and is calculated as follows: RSE=100 x (SE(r)/r).

Reporting area — In the National Vital Statistics System, the reporting area for such basic items on the birth and death certificates as age, race, and sex, is based on data from residents of all 50 States in the United States and the District of Columbia (DC). The reporting area for selected items such as Hispanic origin, educational attainment, and marital status, is based on data from those States that require the item to be reported, whose data meet a minimum level of completeness (such as 80 or 90 percent), and are considered to be sufficiently comparable to be used for analysis. Starting in 1997 the Hispanic reporting area included all 50 States and DC. See related: *Registration area; National Vital Statistics System* in Appendix I.

Resident population — See *Population*.

Residential treatment care — See *Mental health service type.*

Rural — See *Urbanization level*.

Serious mental illness (SMI) — Persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder as defined above and resulting in substantial impairment in carrying out major life activities, based on Global Assessment of Functioning (GAF) scores of 50 or less. See related: *Any mental illness; Mental illness*

Serious psychological distress (SPD) — Six psychological distress questions are included in the National Health Interview Survey's Sample Adult Core component. These questions ask how often a respondent experienced certain symptoms of psychological distress during the past 30 days. The response codes (0 to 4) of the six items for each person are summed to yield a scale ranging from 0 to 24. A value of 13 or more for this scale is used here to define serious psychological distress.

Short-stay hospitals — See *Hospital*.

Smoker — See *Current smoker.*

Specialty hospitals — See *Hospital.*

State health agency — The agency or department within State government headed by the State or territorial health

official. Generally, the State health agency is responsible for setting statewide public health priorities, carrying out national and State mandates, responding to public health hazards, and assuring access to health care for underserved State residents.

Uninsured — See *Health insurance coverage.*

Urbanization Level (Urban-Rural Classification) —In this report, all data were analyzed by urbanization level. Counties and county equivalents were assigned to one of six urbanization levels based on their classification in the 2006 Urban-Rural Classification Scheme for Counties developed by the National Center for Health Statistics (NCHS). There are four levels for metropolitan counties and two levels for nonmetropolitan counties. The Office of Management and Budget's delineation of metropolitan and nonmetropolitan counties forms the foundation of the scheme. The NCHS scheme also uses the cut points of the U.S. Department of Agriculture Rural-Urban Continuum Codes to subdivide the metropolitan counties based on the population of their metropolitan statistical area (MSA): large, for MSA population of 1 million or more; medium, for MSA population of 250,000–999,999; and small, for MSA population below 250,000. Large metro counties were further separated into large central and large fringe metro categories using classification rules developed by NCHS. Nonmetropolitan counties were assigned to two levels based on the Office of Management and Budget's designated micropolitan or noncore status.

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Highlights

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