MEDICAID in Small Towns and Rural America:

A Lifeline for Children, Families, and Communities

Georgetown University
Center for Children and Families
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University of North Carolina
NC Rural Health Research Program

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By Jack Hoadley, Karina Wagnerman, Joan Alker, and Mark Holmes

Key Findings

1. Medicaid covers a larger share of children and families in small towns and rural areas than in large metropolitan areas. ***In 2014-2015, Medicaid provided health coverage for 45 percent of children and 16 percent of adults in small towns and rural areas, compared to 38 percent and 15 percent, respectively, in metropolitan areas***. In nearly all states, a larger share of children and adults living in small towns and rural areas relies on Medicaid than those in metropolitan areas—and is more likely to be affected by increases or decreases in services.
2. ***The Affordable Care Act's Medicaid expansion is having a disproportionately positive impact on small towns and rural areas***. The rate of uninsured adults in expansion states decreased 11 percentage points in the small towns and rural areas of these states between 2008-2009 and 2014-2015. This is larger than the decrease in metropolitan areas of expansion states (9 percentage points) and larger than the decrease in small towns and rural areas in states that did not accept the expansion (6 percentage points).
3. The rate of uninsured children in small towns and rural areas declined in the vast majority of states (43 out of 46 states) during the time period examined. The national rate of uninsured children in small towns and rural areas decreased by 3 percentage points. ***Five states (Colorado, Nevada, New Mexico, Oregon, and South Carolina) saw very large declines of at least 8 percentage points between 2008-2009 and 2014-2015***. Three of these states (Nevada, Oregon and South Carolina) had the largest percentage point increases in children's Medicaid coverage among small towns and rural areas.

Introduction

Medicaid is a vital source of health coverage nationwide, but the program's role is even more pronounced in small towns and rural areas. Medicaid covers a larger share of nonelderly adults and children in rural and small-town areas than in metropolitan areas; this trend is strongest among children. Demographic factors have an impact on this relationship: rural areas tend to have lower household incomes, lower rates of workforce participation, and higher rates of disability—all factors associated with Medicaid eligibility.[1] In addition, the role of Medicaid has increased in the past few years both in small towns and rural areas and in metropolitan areas, given the implementation of the Affordable Care Act (ACA) and more aggressive efforts to enroll children in Medicaid and the Children's Health Insurance Program (CHIP). Because Medicaid plays such a large role in small towns and rural areas, any changes to the program are more likely to affect the children and families living in small towns and rural communities.

This paper examines how the role of Medicaid has changed over time in the 46 states with small-town and rural populations.[2] Nationally, 14 percent of the U.S. nonelderly population resides in small towns and rural areas. Of that, about 6 percent are in rural ("noncore") counties and 8 percent are in small-town ("micropolitan") counties. In 16 states, the share of the nonelderly population that lives in small towns and rural areas is one-third or more of the population.[3]

Using data from the Census Bureau's American Community Survey (ACS) public use micro sample, this report examines the changing levels of Medicaid coverage and uninsured rates at the county level by age between 2008-2009 and 2014-2015.[4] These county-level estimates are used to characterize coverage in metro versus non-metro areas; direct estimates using the ACS are not available because variables denoting whether the respondent lived in a small town or rural area are not included in the public use ACS files. Complete county-level data for children and nonelderly adults are available on CCF's website; in this report, the county-level data are aggregated to the state level. The county level estimates reported here are unique because they are two-year data, rather than the most recent five-year data (2011-2015) available from the ACS.

This distinction is important because the ACA was largely implemented in 2014, and thus the time periods analyzed here allow for an examination of the law's effects in small towns and rural areas. It is also worth noting that for children the ACA's effects are likely to be less pronounced as described below.

In general, states have higher income eligibility levels for children (a median of 255 percent of the federal poverty line) in Medicaid or CHIP than adults.[5] More than 9 in 10 children with public insurance receive their health services through Medicaid.[6] In this report, children enrolled in CHIP are included in the Medicaid data. As a result of many years of effort to extend eligibility and simplify enrollment for children through Medicaid and CHIP (both before and after passage of the ACA), the national uninsured rate for children reached a historic low of just under 5 percent in 2015.[7] In small towns and rural areas, 6 percent of children were uninsured in 2014-2015.

Prior to the enactment of the ACA, Medicaid coverage for adults was mostly limited to very low-income parents, pregnant women, or those with a qualifying disability. The Medicaid expansion under the ACA—setting eligibility for adults at 138 percent of the federal poverty line (FPL)—contributed to the historic decline in the rate of uninsured adults, which was cut by almost half between 2010 and 2015.[8] However, there are significant inequities in adults' Medicaid income eligibility between states that expanded Medicaid under the ACA and those that did not, leading to disparities in the rate of uninsured adults.

Medicaid is a leading insurer of children, and there is evidence that access to the program in childhood improves long-term health, educational, and economic outcomes.[9] Children and adults with Medicaid coverage fare comparably to those with private insurance on measures of access and satisfaction, while the uninsured fare worse.[10] Medicaid coverage also provides financial protection and economic stability for families by reducing exposure to medical debt and limiting out of pocket costs.

Medicaid Has a More Significant Role in Small Towns and Rural Areas than in Metropolitan Areas

In 2014-2015, 45 percent of children were enrolled in Medicaid in small town and rural counties, compared to 38 percent in metropolitan areas. For adults, there is a smaller difference: 16 percent versus 15 percent. In nearly all states with populations in small towns and rural counties (43 out of 46 states), a higher share of children in these areas have Medicaid coverage than in metropolitan areas (Figure 1). There are only three states where the Medicaid share for children is higher in metro counties than rural and small-town counties: Montana, North Dakota, and Wyoming; the difference is small in these states.

Figure 1. States with the Largest Difference in the Share of Children Covered by Medicaid in Small Towns and Rural Areas Compared to Metro Areas, 2014-2015

State	Children with Medicaid, non-metro counties (percent)	Children with Medicaid, metro counties (percent)	Difference between non-metro and metro counties (percentage points)
Hawaii	48%	27%	21%
Virginia	44%	25%	18%
Arizona	54%	36%	18%
South Carolina	57%	41%	16%
Alaska	47%	31%	16%
North Carolina	54%	39%	15%
Arkansas	61%	46%	15%
Washington	53%	38%	15%
Georgia	53%	39%	15%
Vermont	44%	30%	14%

Notes: Medicaid counts include CHIP enrollees. Differences may not sum due to rounding.

For adults the gap between metro and non-metro counties is smaller than the gap for children (Figure 2). The difference is 16 percentage points for Arizona, but relatively few counties are classified as non-metro in Arizona. Still, there are only a few states where Medicaid enrollment of adults is higher in metro counties than in rural and small-town counties.

Figure 2. States with the Largest Difference in the Share of Adults Covered by Medicaid in Small Towns and Rural Areas Compared to Metro Areas, 2014-2015

State	Adults with Medicaid, non-metro counties (percent)	Adults with Medicaid, metro counties (percent)	Difference between non-metro and metro counties (percentage points)
Arizona*	34%	18%	16%
Kentucky*	27%	19%	9%
Hawaii*	20%	12%	8%
California*	28%	21%	7%
Virginia	13%	6%	6%
Oregon*	26%	20%	6%
Alaska**	16%	10%	6%
Arkansas*	21%	16%	6%
Maine	19%	13%	6%
Colorado*	20%	15%	6%

* States that expanded Medicaid through the ACA on or before January 1, 2014.

** States that expanded Medicaid after January 1, 2014.

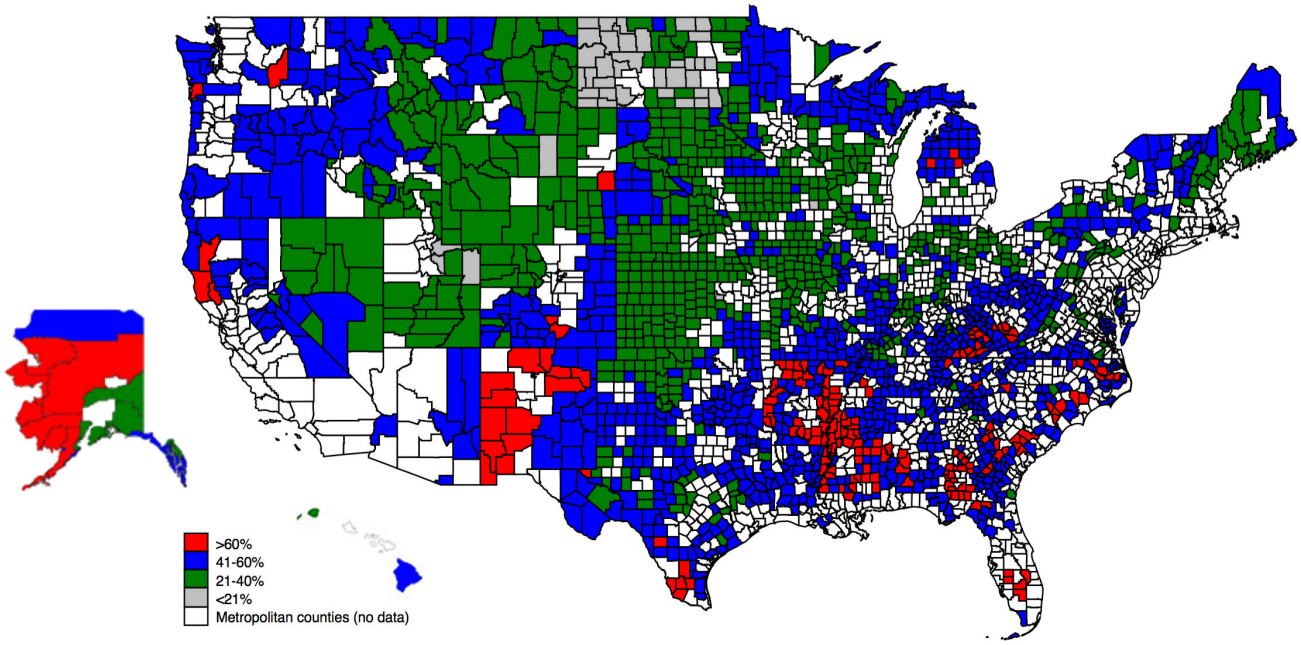
Notes: Differences may not sum due to rounding.

There are several factors that may explain why a larger share of children and adults in small towns and rural areas are enrolled in Medicaid than in metropolitan counties. Compared to families in metropolitan areas, studies have shown that families in small towns and rural areas tend to have lower household incomes, are more likely to include individuals with disabilities, have higher unemployment rates and are less likely to have jobs that offer employer-sponsored insurance.[11] Even though a greater share of rural and small town residents now receive Medicaid, more eligible children and adults in these communities have not signed up for available benefits. This suggests that outreach efforts likely face more challenges in those areas.[12]

Medicaid Plays an Important Role for Children in Small Towns and Rural Areas

For children in particular, Medicaid (including CHIP) is a primary source of health insurance coverage. *In 2014-2015, 45 percent of children in small towns and rural areas were covered through Medicaid.* Across the country, they comprise more than half of the beneficiaries in small towns and rural areas. As expected, the percent of children covered by Medicaid varies by county (Figure 3).

Figure 3. Percent of Children Covered by Medicaid in Small Towns and Rural Areas, 2014-2015



Notes: Medicaid counts include CHIP enrollees. See methodology for information on methods and data sources.

Notably, as Figure 4 shows, in 14 states, more than half of children in small towns and rural areas are covered through Medicaid. Furthermore, in nearly all states at least one-third of children in these areas have Medicaid coverage. These large coverage shares make Medicaid a key factor for the physicians, clinics, hospitals, and other health care providers who care for children in small towns and rural areas.

Figure 4. States with More than Half of Children Covered by Medicaid in Small Towns and Rural Areas, 2014-2015

State	Children with Medicaid, 2014-2015 (percent)
Arkansas	61%
Mississippi	60%
New Mexico	59%
Florida	57%
South Carolina	57%
Arizona	54%
California	54%
North Carolina	54%
Georgia	53%
Washington	53%
Louisiana	53%
Oregon	52%
Alabama	52%
West Virginia	51%

Notes: Medicaid counts include CHIP enrollees.

Children in Small Towns and Rural Areas Have Gained Medicaid Coverage and Are Less Likely to Be Uninsured

Between 2008-2009 and 2014-2015, the share of children in small towns and rural areas with Medicaid coverage increased from 40 percent to 45 percent. In 29 states, there was at least a 5-percentage point increase in the share of children with Medicaid coverage. There were five states (California, Florida, Nevada, Oregon and South Carolina) with an increase greater than 10 percentage points. Figure 5 shows the states with the largest increases.

Figure 5. States with the Greatest Increase in Percent of Children Covered by Medicaid in Small Towns and Rural Areas, 2008-2009 and 2014-2015

State	Children with Medicaid, 2008-2009 (percent)	Children with Medicaid, 2014-2015 (percent)	Gain in Medicaid coverage (percentage points)
Oregon	34%	52%	18%
Nevada	21%	37%	16%
Florida	43%	57%	14%
South Carolina	44%	57%	13%
California	43%	54%	11%
Connecticut	23%	34%	10%
Minnesota	28%	38%	10%
Mississippi	50%	60%	10%
Hawaii	39%	48%	9%
Kansas	28%	36%	8%

Notes: Medicaid counts include CHIP enrollees. Differences may not sum due to rounding.

During the same time period, the rate of uninsured children in small towns and rural areas declined from 9 percent to 6 percent. Thirteen states had a decline of at least 5 percentage points. Figure 6 shows that Nevada had the largest decline in the rate of uninsured children (14 percentage points) in small towns and rural areas. Texas had the largest decline in the number of uninsured children (52,000 children) in small towns and rural areas.

Figure 6. States with the Greatest Decline in the Rate of Uninsured Children in Small Towns and Rural Areas, 2008-2009 and 2014-2015

State	Uninsured children, 2008-2009 (percent)	Uninsured children, 2014-2015 (percent)	Decline in uninsured (percentage points)
Nevada	21%	7%	-14%
Oregon	14%	4%	-10%
South Carolina	11%	3%	-8%
New Mexico	14%	5%	-8%
Colorado	15%	7%	-8%
Florida	16%	9%	-7%
Mississippi	11%	4%	-7%
Montana	15%	8%	-7%
Texas	18%	11%	-7%
Alaska	16%	9%	-6%

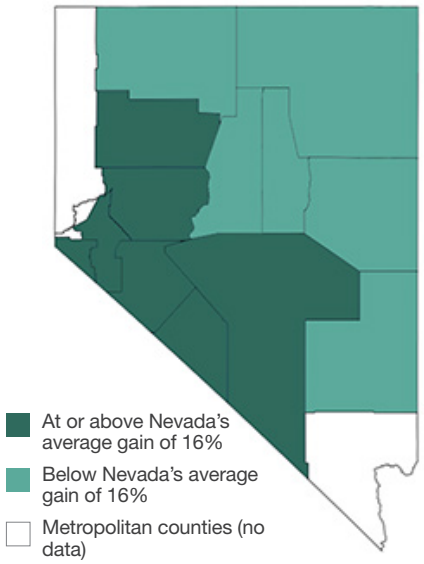
Note: Differences may not sum due to rounding.

The data show a clear correlation between increases in Medicaid coverage and decreases in the rate of uninsured children in small towns and rural areas. Five states (Florida, Mississippi, Nevada, Oregon, and South Carolina) are included in both the list of the states with the largest increases in Medicaid coverage rates and the list of the states with the largest decreases in the rate of uninsured children in small towns and rural areas. This is consistent with previous research that shows over the past two decades the national rate of children covered through Medicaid consistently increased, the rate of uninsured children consistently declined, and the rate of children insured through employer-sponsored coverage moderately declined.[13,14]

State Spotlight on Nevada

Nevada ranked second in percentage point change in Medicaid enrollment and first in decline in the rate of uninsured children in small towns and rural areas. From 2008-2009 to 2014-2015, there were an additional 10,000 children enrolled in Medicaid and 9,000 fewer uninsured children. Nevada's take-up of the Medicaid expansion under the ACA may be helping the state reach uninsured children through a "welcome mat effect": when parents gained insurance through Medicaid or the marketplace, they signed up their children for Medicaid or CHIP programs. Research shows that states that expanded Medicaid under the ACA had an overall lower uninsured rate among children eligible for the program in 2014 and a greater decrease in the rate of uninsured Medicaid-eligible children between 2013 and 2014, than states that did not expand the program.[15]

Small Towns and Rural Counties in Nevada Experienced Large Gains in Children's Medicaid Coverage



Adults in Small Towns and Rural Areas Experienced Large Gains in Medicaid Coverage and Reductions in Uninsured Rates

As described previously (see page 3), income eligibility levels for Medicaid are much lower for adults than for children. In 2014-2015, 16 percent of adults in small towns and rural areas nationwide have Medicaid coverage. In 13 states, at least one in five adults has Medicaid coverage (Figure 7).

The importance of Medicaid for families in small towns and rural areas has grown over time. The share of adults in these areas who receive their health coverage from Medicaid increased from 11 percent to 16 percent between 2008-2009 and 2014-2015. In 18 states, the share with Medicaid increased by at least 5 percentage points. All states showing the largest increase in adult enrollment are states that adopted the Medicaid expansion under the ACA (Figure 8).

Figure 7. States with at Least 20 Percent of Adults Covered by Medicaid in Small Towns and Rural Areas, 2014-2015

State	Adults with Medicaid, 2014-2015 (percent)
Arizona*	34%
California*	28%
Kentucky*	27%
New Mexico*	27%
West Virginia*	26%
Oregon*	26%
Vermont*	24%
Arkansas*	21%
New York*	21%
Washington*	21%
Colorado*	20%
Hawaii*	20%
Michigan**	20%

* States that expanded Medicaid through the ACA on or before January 1, 2014.

** States that expanded Medicaid after January 1, 2014.

Figure 8. States with the Greatest Increase in Percent of Adults Covered by Medicaid in Small Towns and Rural Areas, 2008-2009 and 2014-2015

State	Adults with Medicaid, 2008-2009 (percent)	Adults with Medicaid, 2014-2015 (percent)	Gain in Medicaid coverage (percentage points)
Oregon*	9%	26%	17%
California*	13%	28%	14%
Kentucky*	13%	27%	14%
West Virginia*	14%	26%	12%
New Mexico*	15%	27%	12%
Nevada*	6%	17%	11%
Colorado*	9%	20%	11%
Maryland*	9%	19%	10%
Arizona*	24%	34%	10%
Hawaii*	10%	20%	9%

* States that expanded Medicaid through the ACA on or before January 1, 2014.

Note: Differences may not sum due to rounding.

During the same time period, the rate of uninsured adults in small towns and rural areas declined from 24 percent to 16 percent. This drop reflects both increased enrollment in Medicaid and selection of other health insurance options including the availability of tax credits for coverage in the new ACA marketplace. Fourteen states had a decline of at least 10 percentage points. Figure 9 shows that Oregon had the largest decline in the rate of uninsured adults (19 percentage points). Kentucky had the largest decline in the number of uninsured adults (189,000) in small towns and rural areas, followed by Michigan (123,000) and Ohio (115,000).

Figure 9. States with the Greatest Decline in Percent of Uninsured Adults in Small Towns and Rural Areas, 2008-2009 and 2014-2015

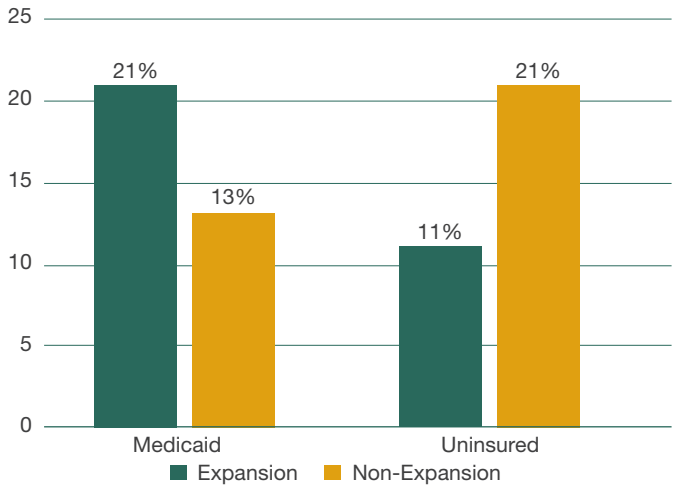
State	Uninsured adults, 2008-2009 (percent)	Uninsured adults, 2014-2015 (percent)	Decline in uninsured (percentage points)
Oregon*	31%	12%	-19%
Kentucky*	26%	10%	-17%
Nevada*	30%	14%	-16%
California*	30%	14%	-16%
New Mexico*	35%	19%	-16%
Maryland*	21%	8%	-14%
West Virginia*	23%	10%	-14%
Arkansas*	29%	16%	-13%
Washington*	26%	14%	-12%
Colorado*	28%	17%	-12%

* States that expanded Medicaid through the ACA on or before January 1, 2014.

Note: Differences may not sum due to rounding.

Overall, eight of the top states (Oregon, California, Kentucky, West Virginia, New Mexico, Nevada, Colorado, and Maryland) with the largest Medicaid increases for adults in small towns and rural areas were also among the top states with the largest decreases in the rate of uninsured adults. All of these states expanded Medicaid under the ACA; this finding is consistent with other data that show the rate of uninsured individuals in Medicaid-expansion states is lower than the rate in non-expansion states.[16] In states that expanded Medicaid at their first opportunity (i.e. in 2014), Medicaid coverage for adults in non-metro counties rose from 13 percent to 21 percent, compared to a gain of only 2 percentage points in non-expansion states (11 percent to 13 percent) (Figure 10). States that expanded Medicaid after the initial opportunity had gains between these two levels.

Figure 10. Rates of Medicaid Coverage and Uninsurance for Adults in Small Towns and Rural Areas, 2014-2015, in States with and without Medicaid Expansion



Note: States that expanded Medicaid through the ACA on or before January 1, 2014 are categorized as "Expansion." States that expanded Medicaid after January 1, 2014 through December 31, 2015 are not included in this chart. States that expanded Medicaid on or after January 1, 2016 are categorized as "Non-expansion."

There were similar drops in the uninsured rate corresponding with state decisions to expand Medicaid. The rate of uninsured adults in rural and small-town counties fell by 11 percentage points in expansion states, but only 6 percent in non-expansion states. The pattern of Medicaid gains and uninsured reductions was similar in metropolitan counties. However, the increase in Medicaid coverage and the decline in the uninsured were both largest in the small towns and rural areas of expansion states (Figure 11).

Figure 11. Percent of Adults with Medicaid Coverage and Those Who are Uninsured, by Expansion Status, 2008-2009 and 2014-2015

Expansion Status	Location	Adults with Medicaid (percent)			Uninsured Adults (percent)		
		2008-2009	2014-2015	Increase	2008-2009	2014-2015	Decrease
Yes, first year	Metro	11%	18%	+8%	19%	11%	-9%
Yes, first year	Non-metro	13%	21%	+9%	22%	11%	-11%
Yes, later year	Metro	11%	15%	+4%	16%	10%	-6%
Yes, later year	Non-metro	11%	16%	+4%	20%	13%	-7%
No Expansion	Metro	8%	9%	+2%	24%	18%	-6%
No Expansion	Non-metro	11%	13%	+2%	27%	21%	-6%
All states		10%	15%	+5%	21%	14%	-8%

Note: States that expanded Medicaid through the ACA on or before January 1, 2014 are categorized as "yes, first year." States that expanded Medicaid after January 1, 2014 through December 31, 2015 are categorized as "yes, later year." States that expanded Medicaid on or after January 1, 2016 are categorized as "no expansion."

Differences may not sum due to rounding.

Evidence from other studies helps address the relationship between the policies from the Affordable Care Act, including both Medicaid expansion and the availability of more subsidized coverage in the individual insurance market. One survey found that about three of five adults with new coverage through Medicaid were uninsured before obtaining that coverage; about one in five had prior employer coverage, some of whom probably lost access due to job changes or other factors.[17] Another study found that most newly insured people in 2014, especially for those with income at 138 percent or below, were uninsured for more than three years when they gained coverage in 2014.[18]

Conclusion

Medicaid plays a critical role for Americans who live in small towns and rural areas. In fact, Medicaid is of greater importance in these areas than in metropolitan areas. Almost half of all children living in small towns and rural areas receive their health coverage through Medicaid. The role of Medicaid in small towns and rural areas grew considerably between 2008-2009 and 2014-2015 and contributed to a reduction in the total number of uninsured.

Research shows that Medicaid provides families with access to necessary health services.[19] In addition to the health benefits of Medicaid, it also protects the entire family against medical debt, bankruptcy and improves economic insecurity.[20] Because more families living in small towns and rural areas are enrolled in Medicaid than in more urban areas, they are more likely to reap the health and economic benefits and more likely to feel the effects of any changes made to Medicaid.

Methodology

This report relies primarily on data from the Census Bureau's American Community Survey (ACS) public use micro sample to calculate levels of Medicaid coverage and uninsured rates at the county level by age between 2008-2009 and 2014-2015. We establish county-level estimates of Medicaid coverage and the uninsured for children (under 19), nonelderly adults (19 to 64) and elderly adults (over 65). These county-level estimates are used to characterize coverage in metro versus non-metro areas; direct estimates using the ACS are not available because variables denoting whether the respondent lived in a small town or rural area are not included in the public use ACS files. Estimates for the elderly are not included in this report. Estimates for children and nonelderly adults are also combined to provide totals for the nonelderly population.

The two-year time frames used in this report provide a different perspective compared to the single-year ACS summary estimates. Those are available at the national and state levels, as well as for a selection of counties. The five-year ACS summary estimates are available for all counties in the United States. However, these data are from 2011 through 2015, whereas the analytical approach in this report provides us with more recent complete county-level data for 2014 through 2015.

Due to the nature of the analytical approach, data presented are estimates and may not match actual enrollment. Thus, some differences shown in the report, such as those between individual states or between different years, may be within the margin of error.

State tables shown in the report are aggregated from the county estimates. Complete county-level data for children and nonelderly adults are available on CCF's website.

Method for Estimating the Number of Medicaid Enrollees and Uninsured Individuals per County

Although some states release annual, county-level number of Medicaid enrollees by age group, these data do not exist in a consistent manner across all years and states. Thus, we developed synthetic estimates using the Public Use Microdata Sample (PUMS) of the ACS to estimate annual, county-level estimates for each of three age groups using a three-step approach to calculate.[21] Effectively, the approach takes the statewide estimated number of enrollees and allocates them across counties according to the degree to which the county's demographics make them likely to enroll in Medicaid. We repeated the same basic approach to estimate the number of uninsured in the county using the insurance coverage variable (HICOV) to define whether the respondent had insurance coverage.

Step 1: Modeling individual probabilities. First, we used the PUMS to model factors associated with an individual's probability of being enrolled in Medicaid. We examined two time periods: 2008-2009 and 2014-2015. An individual was identified as being "enrolled" if he/she indicated they were enrolled in Medicaid or CHIP (HINS4). We estimated a separate linear probability model for each state and the District of Columbia, age category (0 to 18, 19 to 64, 65 or older), and time period (2008-2009 and 2014-2015), for a total of 51 states x 2 time periods x 3 age categories for 306 models. We estimated the probability an individual was enrolled in Medicaid or CHIP as a function of 18 age categories (five year increments: 0-4, 5-9, continuing through 80-84, and 85 or more), gender, age interacted with gender, 14 race/ethnicity categories (Hispanic status crossed with race, including "other" and "two or more races"), 5 income categories (under 50, 50-99% FPL, 100-149% FPL, 150-199% FPL, 200% FPL), family status (marriage status interacted with whether there are children in the household), disability interacted with income category, indicators for whether the individual was born in the United States or was a naturalized citizen, and indicators for the Public Use Microdata Area (PUMA) of the respondent. For adults, labor force status (industry of employment, unemployed, or not in labor force) was also included. Sampling weights were used to ensure the sample was representative of the state population. A year indicator (e.g. 2008 for the early period or 2014 for the later period) was used to account for secular shifts in coverage rates.

Step 2: Developing Small Area Estimates. We collected county-level data on corresponding characteristics from the ACS summary data. For example, for each county we calculated the proportion working in each industry, the age/income profile, and the age/sex/nativity profile. Usually, these data were pulled from the five-year estimates. Using the Missouri Master Area Block Level Equivalency (MABLE) data engine provided by the Missouri Census Data Center,[22] we developed crosswalks from county to PUMA so the PUMA of the ACS PUMS could be used to generate county-specific estimates that could be allocated to PUMAs. For example, if 60 percent of the population of a county was in PUMA 101, and 40 percent was in PUMA 102, the PUMA indicators from the PUMS models would have .6

for PUMA 101 and .4 for PUMA 102, with 0 for the rest of the PUMA indicators (counties spanning multiple PUMAs were allocated proportionally by 2010 Census population). Thus, we generate a county-level dataset of the population in each county in the state. These data were then used with the parameter estimates from Step 1 to develop the average probability in the county of being enrolled in Medicaid. This probability, multiplied by the county population in the age group, served as the initial estimate of the number of Medicaid enrollees in the county.

Step 3: Raking Estimates. The sum of the county estimates aggregated to the state may differ from the direct state estimates in ACS. Therefore, the county estimates were adjusted (raked) to ensure the sum of the county estimates in a state equals the estimated state total.[23] For example, if the number of enrollees summed across counties was 100 but the state estimate was 110, each county estimate was increased by 10 percent as long as the county's Medicaid count did not exceed its total population. The number of enrollees in the second year of each two-year time period was used as the "target" for each state/age group/period; this approach trades off the increased precision and sample size from the two-year time period against the accuracy from using the second year only. For example, the number of enrollees in 2015 may be considerably higher than in 2014 due to a ramp-up in Medicaid enrollment resulting from expansion. This approach ensures the county-level estimates aggregate to the state estimates.

Classifying Counties as Small Towns and Rural Areas

In this report, we classify counties as metropolitan and non-metropolitan. The latter category combines the Census Bureau categories of micropolitan or small town counties (those with central urban areas of no more than 50,000 people) and noncore or rural counties. We characterize non-metro counties as representing America's small towns and rural areas.

In four states (DC, DE, NJ, RI), no counties are classified as non-metro and are thus excluded from this report. In addition, we exclude Massachusetts, where the total non-metro population is only 1 percent of the state's population (only 100,000 people).

The limitation of a county-based definition of small towns and rural areas is that county size and county boundaries vary considerably by state. For example, San Bernardino County, California, has 2 million people and runs from urbanized areas near Los Angeles through deserts and mountains to the Nevada border. Its classification as a metropolitan county thus effectively misclassifies people living in the small town and rural areas of that county. By contrast, states such as Georgia and Kansas have much smaller counties allowing more residents to be accurately classified as metro or non-metro. The Census Bureau also uses another definition of urban and rural; but it is built up from census tract data and thus is not readily amenable to classifying counties.[24] One recent report by the Kaiser Family Foundation defines rural counties based on an index of relative rurality, which is based on population size, population density, extent of urbanized area, and distance to the nearest metro area.[25] This produces a different classification of the population, which could lead to different findings.

Classifying States Based on Medicaid Expansion

In this report, states are classified for their Medicaid expansion status based on analysis by the Kaiser Family Foundation.[26] States that expanded Medicaid on or before January 1, 2014 are categorized in "yes, first year." States that expanded Medicaid after January 1, 2014 through December 31, 2015 (Alaska, Indiana, Michigan, New Hampshire, and Pennsylvania) are categorized in "yes, later year." The Census data for this analysis are based on surveys conducted throughout 2014 and 2015, so the Medicaid expansion in these states was not effective throughout the survey period. The two states that expanded Medicaid after January 1, 2016 (Louisiana and Montana) are categorized as non-expansion states because all data collection had been concluded prior to the effective date of their expansions.

For complete county-level data for children and nonelderly adults, visit CCF's website at http://ccf.georgetown.edu/topic/rural-health/.

Appendix Table 1. Change Over Time in Children with Medicaid Coverage Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Children with Medicaid, 2008-2009 (percent)	Children with Medicaid, 2014-2015 (percent)	Change from 2008-2009 to 2014-2015 (percentage points)
United States	40%	45%	5%
Alabama	46%	52%	5%
Alaska	40%	47%	7%
Arizona	50%	54%	4%
Arkansas	55%	61%	5%
California	43%	54%	11%
Colorado	34%	42%	8%
Connecticut	23%	34%	10%
Florida	43%	57%	14%
Georgia	47%	53%	6%
Hawaii	39%	48%	9%
Idaho	32%	39%	7%
Illinois	43%	42%	-1%
Indiana	32%	35%	4%
Iowa	29%	36%	6%
Kansas	28%	36%	8%
Kentucky	48%	49%	1%
Louisiana	52%	53%	1%
Maine	46%	38%	-8%
Maryland	37%	43%	6%
Michigan	39%	44%	5%
Minnesota	28%	38%	10%
Mississippi	50%	60%	10%
Missouri	42%	41%	-1%
Montana	27%	35%	8%
Nebraska	29%	31%	2%
Nevada	21%	37%	16%
New Hampshire	26%	33%	7%
New Mexico	59%	59%	1%
New York	34%	42%	8%
North Carolina	46%	54%	8%
North Dakota	18%	19%	1%
Ohio	34%	40%	6%
Oklahoma	45%	47%	2%
Oregon	34%	52%	18%
Pennsylvania	40%	40%	0%
South Carolina	44%	57%	13%
South Dakota	35%	34%	-1%
Tennessee	45%	50%	5%
Texas	43%	46%	3%
Utah	24%	23%	-1%
Vermont	44%	44%	1%
Virginia	36%	44%	7%
Washington	47%	53%	6%
West Virginia	44%	51%	7%
Wisconsin	31%	34%	3%
Wyoming	27%	26%	-1%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

Medicaid counts include CHIP enrollees.

See Methodology section for additional information.

Appendix Table 2. Change Over Time in Uninsured Children Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Uninsured children, 2008-2009 (percent)	Uninsured children, 2014-2015 (percent)	Change, 2008-2009 to 2014-2015 (percentage points)
United States	9%	6%	-3%
Alabama	7%	3%	-3%
Alaska	16%	9%	-6%
Arizona	16%	11%	-5%
Arkansas	7%	4%	-3%
California	10%	4%	-6%
Colorado	15%	7%	-8%
Connecticut	3%	3%	1%
Florida	16%	9%	-7%
Georgia	12%	8%	-4%
Hawaii	4%	1%	-3%
Idaho	13%	8%	-5%
Illinois	4%	3%	-1%
Indiana	11%	10%	-1%
Iowa	5%	3%	-1%
Kansas	9%	5%	-4%
Kentucky	7%	5%	-2%
Louisiana	9%	6%	-3%
Maine	6%	7%	1%
Maryland	6%	3%	-3%
Michigan	5%	4%	-1%
Minnesota	8%	4%	-4%
Mississippi	11%	4%	-7%
Missouri	9%	8%	-1%
Montana	15%	8%	-7%
Nebraska	8%	5%	-3%
Nevada	21%	7%	-14%
New Hampshire	6%	4%	-2%
New Mexico	14%	5%	-8%
New York	6%	4%	-2%
North Carolina	9%	5%	-4%
North Dakota	7%	10%	3%
Ohio	8%	7%	-1%
Oklahoma	12%	10%	-2%
Oregon	14%	4%	-10%
Pennsylvania	7%	6%	-1%
South Carolina	11%	3%	-8%
South Dakota	9%	8%	-1%
Tennessee	7%	4%	-3%
Texas	18%	11%	-7%
Utah	12%	10%	-1%
Vermont	4%	1%	-3%
Virginia	8%	5%	-3%
Washington	8%	4%	-4%
West Virginia	7%	2%	-4%
Wisconsin	6%	5%	-1%
Wyoming	9%	7%	-2%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

See Methodology section for additional information.

Appendix Table 3. Change Over Time in Adults with Medicaid Coverage Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Adults with Medicaid, 2008-2009 (percent)	Adults with Medicaid, 2014-2015 (percent)	Change from 2008-2009 to 2014-2015 (percentage points)
United States	11%	16%	5%
Alabama	11%	14%	3%
Alaska	15%	16%	2%
Arizona	24%	34%	10%
Arkansas	12%	21%	9%
California	13%	28%	14%
Colorado	9%	20%	11%
Connecticut	8%	14%	6%
Florida	10%	17%	7%
Georgia	10%	13%	3%
Hawaii	10%	20%	9%
Idaho	7%	11%	4%
Illinois	13%	19%	6%
Indiana	9%	12%	3%
Iowa	9%	15%	5%
Kansas	7%	9%	2%
Kentucky	13%	27%	14%
Louisiana	10%	15%	5%
Maine	20%	19%	0%
Maryland	9%	19%	10%
Michigan	13%	20%	7%
Minnesota	14%	19%	5%
Mississippi	14%	16%	2%
Missouri	11%	13%	2%
Montana	6%	9%	3%
Nebraska	7%	7%	0%
Nevada	6%	17%	11%
New Hampshire	7%	11%	4%
New Mexico	15%	27%	12%
New York	15%	21%	7%
North Carolina	12%	15%	3%
North Dakota	6%	8%	2%
Ohio	11%	19%	7%
Oklahoma	9%	11%	2%
Oregon	9%	26%	17%
Pennsylvania	13%	16%	3%
South Carolina	12%	17%	5%
South Dakota	8%	9%	1%
Tennessee	15%	17%	2%
Texas	9%	9%	0%
Utah	7%	8%	1%
Vermont	18%	24%	6%
Virginia	11%	13%	2%
Washington	13%	21%	8%
West Virginia	14%	26%	12%
Wisconsin	12%	14%	1%
Wyoming	6%	7%	1%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

See Methodology section for additional information.

Appendix Table 4. Change Over Time in Uninsured Adults Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Uninsured adults, 2008-2009 (percent)	Uninsured adults, 2014-2015 (percent)	Change, 2008-2009 to 2014-2015 (percentage points)
United States	24%	16%	-8%
Alabama	28%	19%	-9%
Alaska	31%	25%	-6%
Arizona	29%	20%	-9%
Arkansas	29%	16%	-13%
California	30%	14%	-16%
Colorado	28%	17%	-12%
Connecticut	12%	6%	-6%
Florida	40%	30%	-10%
Georgia	33%	26%	-7%
Hawaii	13%	7%	-6%
Idaho	28%	19%	-8%
Illinois	17%	8%	-9%
Indiana	21%	15%	-6%
Iowa	14%	7%	-6%
Kansas	20%	15%	-5%
Kentucky	26%	10%	-17%
Louisiana	31%	24%	-7%
Maine	16%	14%	-1%
Maryland	21%	8%	-14%
Michigan	22%	11%	-11%
Minnesota	14%	7%	-6%
Mississippi	27%	21%	-5%
Missouri	24%	19%	-5%
Montana	27%	17%	-10%
Nebraska	17%	12%	-5%
Nevada	30%	14%	-16%
New Hampshire	17%	12%	-4%
New Mexico	35%	19%	-16%
New York	16%	10%	-6%
North Carolina	28%	20%	-8%
North Dakota	15%	12%	-3%
Ohio	19%	11%	-8%
Oklahoma	30%	23%	-7%
Oregon	31%	12%	-19%
Pennsylvania	17%	12%	-5%
South Carolina	28%	21%	-7%
South Dakota	21%	18%	-3%
Tennessee	25%	18%	-7%
Texas	35%	29%	-6%
Utah	23%	21%	-2%
Vermont	14%	8%	-6%
Virginia	21%	19%	-3%
Washington	26%	14%	-12%
West Virginia	23%	10%	-14%
Wisconsin	15%	9%	-6%
Wyoming	25%	15%	-10%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

See Methodology section for additional information.

Appendix Table 5. Change Over Time in Nonelderly Individuals with Medicaid Coverage Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Nonelderly individuals with Medicaid, 2008-2009 (percent)	Nonelderly individuals with Medicaid, 2014-2015 (percent)	Change from 2008-2009 to 2014-2015 (percentage points)
United States	20%	25%	5%
Alabama	22%	25%	3%
Alaska	22%	26%	3%
Arizona	34%	41%	8%
Arkansas	25%	33%	8%
California	21%	35%	13%
Colorado	16%	26%	10%
Connecticut	12%	19%	7%
Florida	19%	28%	8%
Georgia	21%	25%	3%
Hawaii	19%	28%	9%
Idaho	16%	20%	4%
Illinois	21%	25%	4%
Indiana	16%	19%	3%
Iowa	16%	21%	6%
Kansas	13%	18%	4%
Kentucky	23%	33%	10%
Louisiana	23%	26%	3%
Maine	27%	24%	-3%
Maryland	16%	26%	9%
Michigan	20%	26%	6%
Minnesota	18%	24%	7%
Mississippi	25%	30%	4%
Missouri	20%	21%	1%
Montana	12%	17%	4%
Nebraska	14%	15%	1%
Nevada	10%	23%	13%
New Hampshire	12%	17%	4%
New Mexico	30%	37%	8%
New York	20%	27%	7%
North Carolina	22%	26%	4%
North Dakota	10%	11%	1%
Ohio	18%	25%	7%
Oklahoma	20%	22%	2%
Oregon	16%	33%	17%
Pennsylvania	20%	22%	2%
South Carolina	22%	28%	7%
South Dakota	16%	17%	0%
Tennessee	24%	26%	3%
Texas	20%	20%	1%
Utah	13%	14%	0%
Vermont	25%	30%	5%
Virginia	18%	21%	3%
Washington	23%	30%	7%
West Virginia	22%	33%	10%
Wisconsin	18%	19%	2%
Wyoming	12%	12%	0%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

Medicaid counts include CHIP enrollees.

See Methodology section for additional information.

Appendix Table 6. Change Over Time in Uninsured Nonelderly Individuals Living in Small Towns and Rural Areas, 2008-2009 to 2014-2015

State	Uninsured nonelderly individuals, 2008-2009 (percent)	Uninsured nonelderly individuals, 2014-2015 (percent)	Change, 2008-2009 to 2014-2015 (percentage points)
United States	20%	13%	-7%
Alabama	21%	14%	-7%
Alaska	26%	20%	-6%
Arizona	25%	17%	-8%
Arkansas	22%	12%	-10%
California	25%	11%	-13%
Colorado	25%	14%	-11%
Connecticut	10%	6%	-4%
Florida	33%	24%	-9%
Georgia	27%	21%	-6%
Hawaii	10%	5%	-5%
Idaho	23%	16%	-7%
Illinois	14%	7%	-7%
Indiana	18%	13%	-5%
Iowa	11%	6%	-5%
Kansas	16%	12%	-5%
Kentucky	21%	8%	-13%
Louisiana	24%	18%	-5%
Maine	13%	12%	-1%
Maryland	17%	6%	-11%
Michigan	17%	9%	-8%
Minnesota	12%	7%	-6%
Mississippi	22%	16%	-6%
Missouri	19%	16%	-4%
Montana	23%	14%	-9%
Nebraska	14%	10%	-4%
Nevada	27%	12%	-15%
New Hampshire	14%	10%	-4%
New Mexico	28%	15%	-13%
New York	13%	8%	-5%
North Carolina	22%	16%	-6%
North Dakota	12%	11%	-1%
Ohio	16%	10%	-6%
Oklahoma	25%	19%	-6%
Oregon	26%	10%	-16%
Pennsylvania	15%	11%	-4%
South Carolina	23%	16%	-7%
South Dakota	17%	15%	-2%
Tennessee	20%	14%	-6%
Texas	30%	23%	-6%
Utah	19%	17%	-2%
Vermont	11%	6%	-5%
Virginia	18%	15%	-3%
Washington	21%	11%	-10%
West Virginia	19%	8%	-11%
Wisconsin	12%	8%	-4%
Wyoming	21%	13%	-8%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia). See Methodology section for additional information.

Appendix Table 7. Share of Children and Adults in Non-Metro and Metro Areas Who Are Enrolled in Medicaid, 2014-2015

State	Children with Medicaid in non-metro areas, 2014-2015 (percent)	Children with Medicaid in metro areas, 2014-2015 (percent)	Adults with Medicaid in non-metro areas, 2014-2015 (percent)	Adults with Medicaid in metro areas, 2014-2015 (percent)
United States	45%	38%	16%	15%
Alabama	52%	42%	14%	11%
Alaska	47%	31%	16%	10%
Arizona	54%	36%	34%	18%
Arkansas	61%	46%	21%	16%
California	54%	44%	28%	21%
Colorado	42%	35%	20%	15%
Connecticut	34%	32%	14%	17%
Florida	57%	44%	17%	11%
Georgia	53%	39%	13%	8%
Hawaii	48%	27%	20%	12%
Idaho	39%	35%	11%	9%
Illinois	42%	38%	19%	15%
Indiana	35%	34%	12%	12%
Iowa	36%	32%	15%	13%
Kansas	36%	27%	9%	7%
Kentucky	49%	36%	27%	19%
Louisiana	53%	48%	15%	12%
Maine	38%	30%	19%	13%
Maryland	43%	32%	19%	14%
Michigan	44%	38%	20%	19%
Minnesota	38%	28%	19%	14%
Mississippi	60%	46%	16%	12%
Missouri	41%	30%	13%	8%
Montana	35%	37%	9%	9%
Nebraska	31%	26%	7%	7%
Nevada	37%	35%	17%	14%
New Hampshire	33%	23%	11%	8%
New Mexico	59%	55%	27%	24%
New York	42%	41%	21%	22%
North Carolina	54%	39%	15%	10%
North Dakota	19%	20%	8%	9%
Ohio	40%	36%	19%	17%
Oklahoma	47%	38%	11%	8%
Oregon	52%	41%	26%	20%
Pennsylvania	40%	34%	16%	14%
South Carolina	57%	41%	17%	12%
South Dakota	34%	23%	9%	7%
Tennessee	50%	39%	17%	13%
Texas	46%	41%	9%	8%
Utah	23%	20%	8%	7%
Vermont	44%	30%	24%	19%
Virginia	44%	25%	13%	6%
Washington	53%	38%	21%	16%
West Virginia	51%	43%	26%	21%
Wisconsin	34%	31%	14%	13%
Wyoming	26%	29%	7%	8%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia).

Medicaid counts include CHIP enrollees.

See Methodology section for additional information.

Appendix Table 8. Share of Uninsured Children and Adults in Non-Metro and Metro Areas, 2014-2015

State	Uninsured children in non-metro areas, 2014-2015 (percent)	Uninsured children in metro areas, 2014-2015 (percent)	Uninsured adults in non-metro areas, 2014-2015 (percent)	Uninsured adults in metro areas, 2014-2015 (percent)
United States	6%	5%	16%	13%
Alabama	3%	3%	19%	16%
Alaska	9%	9%	25%	16%
Arizona	11%	9%	20%	16%
Arkansas	4%	6%	16%	14%
California	4%	4%	14%	13%
Colorado	7%	4%	17%	11%
Connecticut	3%	4%	6%	8%
Florida	9%	7%	30%	20%
Georgia	8%	7%	26%	19%
Hawaii	1%	2%	7%	5%
Idaho	8%	5%	19%	17%
Illinois	3%	3%	8%	11%
Indiana	10%	7%	15%	14%
Iowa	3%	4%	7%	7%
Kansas	5%	5%	15%	13%
Kentucky	5%	4%	10%	8%
Louisiana	6%	3%	24%	19%
Maine	7%	6%	14%	10%
Maryland	3%	4%	8%	9%
Michigan	4%	3%	11%	8%
Minnesota	4%	3%	7%	6%
Mississippi	4%	5%	21%	19%
Missouri	8%	6%	19%	12%
Montana	8%	7%	17%	17%
Nebraska	5%	5%	12%	11%
Nevada	7%	8%	14%	17%
New Hampshire	4%	3%	12%	8%
New Mexico	5%	4%	19%	15%
New York	4%	3%	10%	10%
North Carolina	5%	5%	20%	16%
North Dakota	10%	9%	12%	8%
Ohio	7%	4%	11%	9%
Oklahoma	10%	8%	23%	20%
Oregon	4%	4%	12%	10%
Pennsylvania	6%	4%	12%	9%
South Carolina	3%	5%	21%	16%
South Dakota	8%	8%	18%	15%
Tennessee	4%	5%	18%	15%
Texas	11%	10%	29%	24%
Utah	10%	8%	21%	14%
Vermont	1%	1%	8%	4%
Virginia	5%	5%	19%	12%
Washington	4%	3%	14%	9%
West Virginia	2%	3%	10%	8%
Wisconsin	5%	3%	9%	8%
Wyoming	7%	6%	15%	12%

Notes: Differences may not sum due to rounding.

States with less than 2 percent non-metro population are excluded (Delaware, Massachusetts, New Jersey, Rhode Island, and the District of Columbia). See Methodology section for additional information.

Appendix Table 9. Share of Nonelderly Population Living in Small Towns and Rural Areas, 2014-2015

State	Nonelderly Population Living in Non-Metro Areas (Percent)
United States	14%
Alabama	23%
Alaska	32%
Arizona	5%
Arkansas	38%
California	2%
Colorado	13%
Connecticut	5%
Delaware	0%
District of Columbia	0%
Florida	4%
Georgia	17%
Hawaii	18%
Idaho	33%
Illinois	11%
Indiana	22%
Iowa	40%
Kansas	32%
Kentucky	41%
Louisiana	16%
Maine	40%
Maryland	2%
Massachusetts	1%
Michigan	17%
Minnesota	22%
Mississippi	54%
Missouri	25%
Montana	64%
Nebraska	34%
Nevada	9%
New Hampshire	36%
New Jersey	0%
New Mexico	33%
New York	7%
North Carolina	22%
North Dakota	49%
Ohio	20%
Oklahoma	34%
Oregon	16%
Pennsylvania	11%
Rhode Island	0%
South Carolina	15%
South Dakota	52%
Tennessee	22%
Texas	11%
Utah	10%
Vermont	64%
Virginia	12%
Washington	10%
West Virginia	38%
Wisconsin	25%
Wyoming	70%

Note: See Methodology section for additional information.

Endnotes

[1] J. Foutz, S. Artiga, and R. Garfield, "The Role of Medicaid in Rural America," (Washington: Kaiser Family Foundation, April 25, 2017).

[2] Delaware, New Jersey, Rhode Island, and the District of Columbia were excluded from the analysis because they have no micropolitan or noncore counties. Massachusetts was excluded because less than 2 percent of its population resides in counties that are micropolitan or noncore.

[3] These states are Arkansas, Idaho, Iowa, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, New Mexico, North Dakota, Oklahoma, South Dakota, Vermont, West Virginia, and Wyoming.

[4] See the Methodology section for a full description of the analytic approach in this report.

[5] T. Brooks et al., "Medicaid and CHIP Eligibility, Enrollment, Renewal, and Cost Sharing Policies as of January 2017: Findings from a 50-State Survey," (Washington: Kaiser Family Foundation, January 12, 2017).

[6] Centers for Medicare and Medicaid Services, "2016 Number of Children Ever Enrolled Report."

[7] J. Alker and A. Chester, "Children's Health Coverage Rate Now at Historic High of 95 Percent," (Washington: Georgetown University Center for Children and Families, October 2016).

[8] R.A. Cohen, M.E. Martinez, and E.P. Zammitti, "Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, 2015," (Washington: Centers for Disease Control and Prevention: National Center for Health Statistics).

[9] K. Wagnerman, A. Chester, and J. Alker, "Medicaid is a Smart Investment in Children," (Washington: Georgetown University Center for Children and Families, March 2017).

[10] J. Paradise, "Data Note: Three Findings about Access to Care and Health Outcomes in Medicaid," (Washington: Kaiser Family Foundation, March 23, 2017).

[11] J. Foutz, S. Artiga, and R. Garfield, "The Role of Medicaid in Rural America," (Washington: Kaiser Family Foundation, April 25, 2017).

[12] V. Newkirk and A. Damico, "The Affordable Care Act and Insurance Coverage in Rural Areas," (Washington: Kaiser Family Foundation, May 2014); G.M. Kenney et al., "Medicaid/CHIP Participation Rates Rose Among Both Children and Parents in 2015," (Washington: The Urban Institute, May 2017).

[13] A. Chester and E. Burak, "Medicaid's Role for Children," (Washington: Georgetown University Center for Children and Families, January 2017).

[14] M. Long et al., "Trends in Employer-Sponsored Insurance Offer and Coverage Rates, 1999-2014," (Washington: The Kaiser Family Foundation, March 2016).

[15] G. Kenney et al., "Children's Coverage Climb Continues: Uninsurance and Medicaid/CHIP Eligibility and Participation Under the ACA," (Robert Wood Johnson Foundation and the Urban Institute, May 2016).

[16] R.A. Cohen, M.E. Martinez, and E.P. Zammitti, "Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, 2015," (Washington: Centers for Disease Control and Prevention: National Center for Health Statistics).

[17] S.R. Collins et al., "Americans' Experiences with ACA Marketplace and Medicaid Coverage: Access to Care and Satisfaction," (New York: The Commonwealth Fund, May 2017).

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