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Vulnerable Rural Counties: The Changing Rural Landscape, 2000–2010

Introduction

In 2002, the SCRHRC released “Minorities in Rural America,” one of the first analyses to illustrate the distribution of rural vulnerable populations and the challenges they face.^{1,2,3,4} Since that time, the composition of rural America has continued to change. Simultaneously, there has been increasing recognition that health outcome metrics are strongly affected by family, community and societal factors in addition to health services. Understanding the demography of rural America is vital to understanding what programs, interventions and policy initiatives are needed to improve health care access, delivery and outcomes.

Our overall findings suggest that rural America experienced the recession that ended the 2000–2010 decade more severely than did urban America. Loss of income, declining population and reduced health care resources marked the period for most rural counties. Rural counties will need continued monitoring in the present decade to ascertain whether these adverse trends continue and to identify any policy approaches that can serve to ameliorate losses in health care services.

Technical Notes

This analysis used the 2013-2014 Area Health Resources File (AHRF) available from the Health Resources Services Administration⁵, supplemented by data from the U.S. Census Bureau. Unless otherwise noted, analyses were performed at the person level. Thus, the total rural population was aggregated to rural or regional classifications and subdivided by category of interest rather than taking averages of county values.

Geographic definitions

Our geographic analysis is based on county of residence. Counties were characterized based on level of rurality using Urban Influence Codes (UICs): metropolitan (UICs 1, 2), micropolitan (UICs 3, 5, 8), small adjacent (UICs 4, 6, 7) and remote rural (UICs 9, 10, 11, 12).⁶

Indicator Definitions

We utilized the 25th percentile of an indicator in 2000 as the threshold for establishing a high (or low) value for the measures in this brief. These indicators include counties with:

- >20% living in poverty
- >20% over 65
- >50% non-white residents
- >6% unemployed
- >20% without a HS diploma
- >15% uninsured

¹ Probst JC, Samuels ME, Jespersen KP, Willert K, Swann RS, McDuffie JA. Minorities in Rural America: An Overview of Population Characteristics (January, 2002). Grant No. 6 U1C RH 00045-01, ORHP, HRSA.

² Probst JC, Moore CG, Glover S, Samuels ME. (2004). Person and Place: The compounding effects of race/ethnicity and rurality on health. *Am J Public Health*, 94: 1695-1703.

³ Probst JC, Moore CG and Baxley EG. (2005). Update: Health Insurance and Utilization of Care among Rural Adolescents. *J Rural Health*; 21:279-287.

⁴ Glover S, Moore CG, Probst JC, Samuels ME. Disparities in Access to Care Among Rural Working Age Adults. (2004). *J Rural Health*; 20:193-205.

⁵ Area Health Resource File: <http://ahrh.hrsa.gov/>

⁶ Urban Influence Codes: <http://www.ers.usda.gov/data-products/urban-influence-codes.aspx>

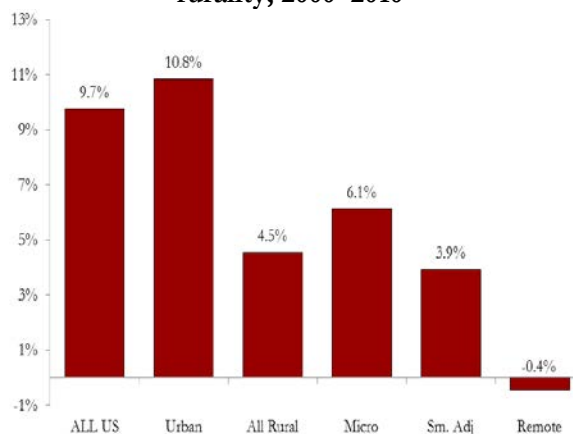
Population Changes

Modest growth in some rural areas but decline in remote rural counties

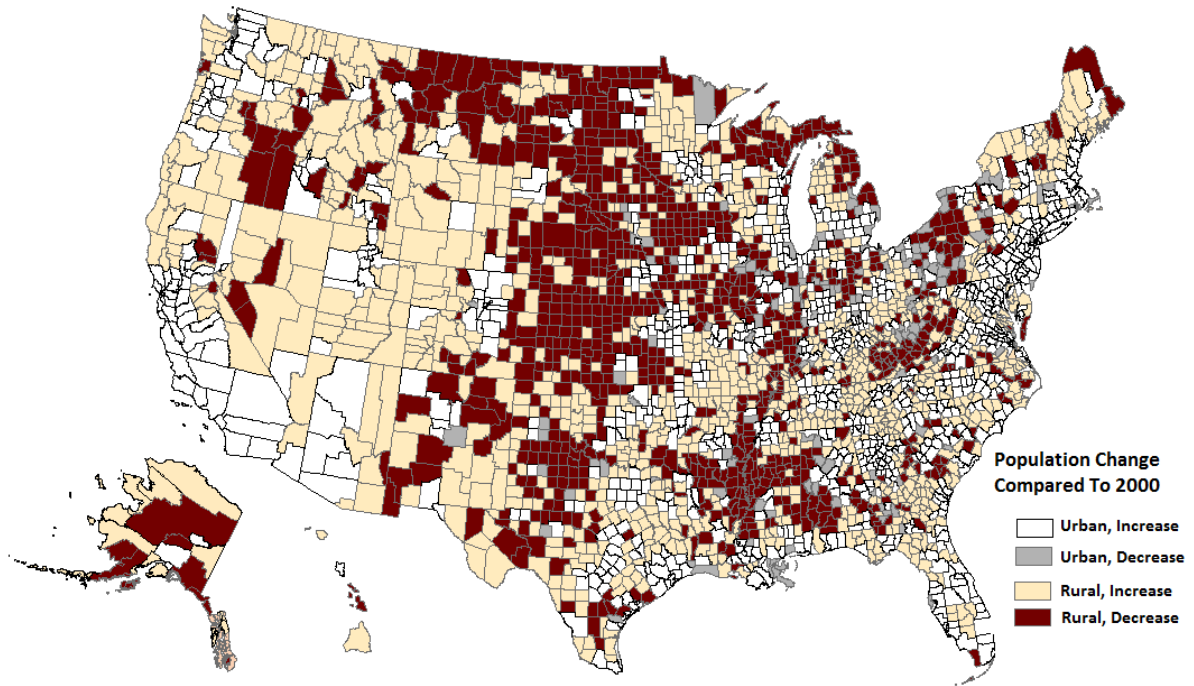
The population of the United States (U.S.) grew by 10% from 2000 to 2010 (Figure 1), from 280 million to 308 million persons. The aggregated urban population grew at a greater rate (11%) than the rural population (5%) during this period across all regions of the country. Within rural counties, micropolitan and small adjacent counties saw increases in population (6% and 4%, respectively), whereas remote rural areas saw a population decline (-0.4%). Measured at the county level, rural residents accounted for a slightly smaller proportion of the U.S. population in 2010 (16.6%) than in 2000 (17.4%).

Although population growth occurred across much of the U.S., this growth was not uniform across counties. Between 2000 and 2010, 14.2% of urban counties lost population compared to 45.9% of rural counties (Map 1). The majority of remote rural counties (63.1%) experienced declining population during this decade. Within all regions, rural counties had lower growth rates. In the West, mean rural county population growth was lower (10.1%) than urban growth (14.2%); similar trends were seen in the South (6% rural growth vs. 16.6% urban growth). In the Northeast, rural growth was near zero (0.9%), and counties in the rural Midwest averaged declining populations (-2.5%).

Figure 1. Percent total population growth by rurality, 2000–2010



Map 1. Counties experiencing growth or decline in population by rurality, 2000–2010



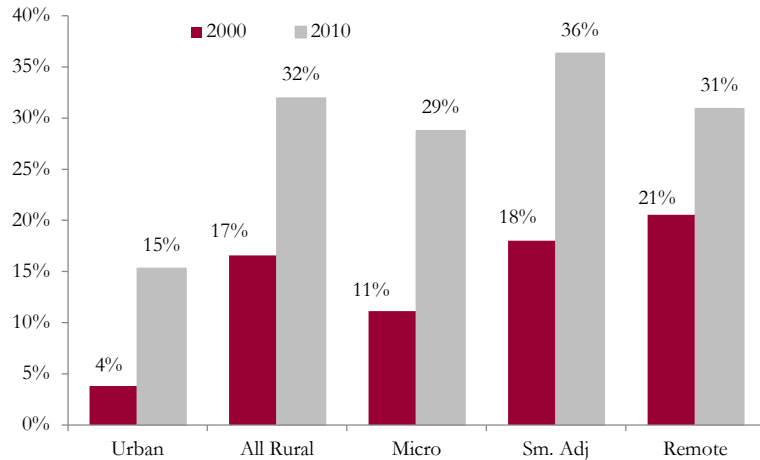
Rural residents became increasingly vulnerable

Poverty increased more in rural than in urban counties

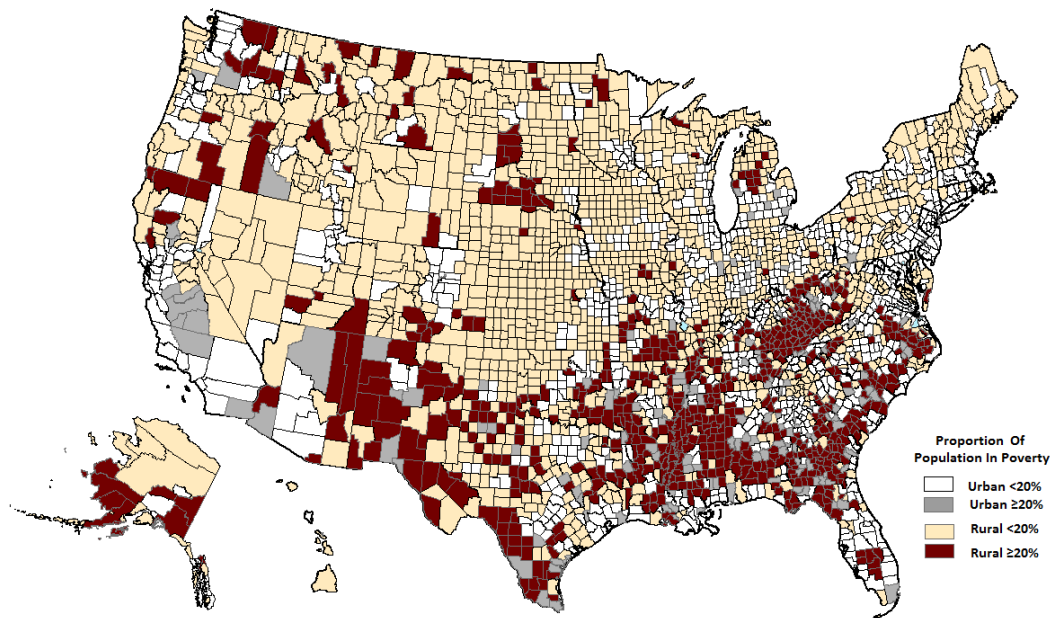
Poverty⁵ presents challenges to health by restricting access to both healthy lifestyles and care. In 2000, 12% of all U.S. counties had at least 20% of their residents living in poverty; by 2010, this percentage had increased to 26% of U.S. counties (Table A1). Rural counties were more likely than urban counties to meet this high-poverty threshold at both time periods (Figure 2).

Poverty is regionally concentrated (Table A2, Map 2). In 2010, the South had the highest proportion of counties with more than 20% of residents living in poverty (45%), and the Northeast had the lowest proportion (3%). These trends were amplified when regions were subcategorized by rurality, with rural counties in every region except the Northeast having a higher proportion of residents meeting this threshold. Notably, a majority of rural counties in the South (59%) had >20% of residents living in poverty in 2010.

Figure 2. Proportion of counties with >20% of residents living in poverty, by rurality, 2000–2010



Map 2. Proportion of population in poverty, 2010 Census



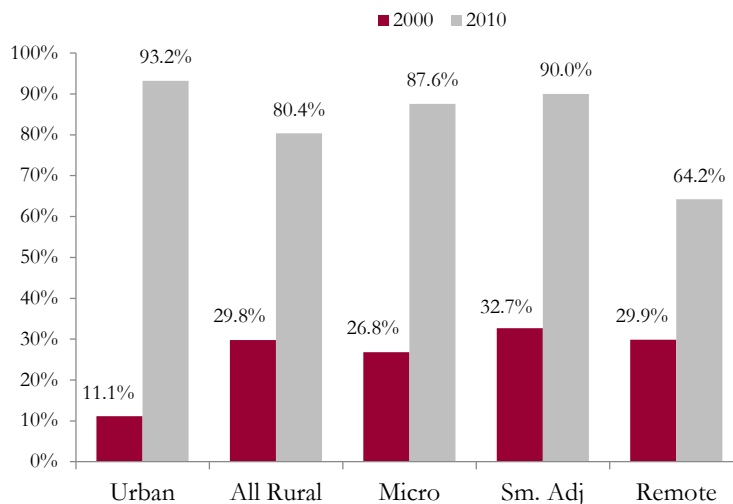
⁵ Poverty was defined by the Census based on income and family unit size: <https://www.census.gov/hhes/www/poverty/about/overview/measure.html>

Unemployment increased more in rural than in urban counties, 2000–2010

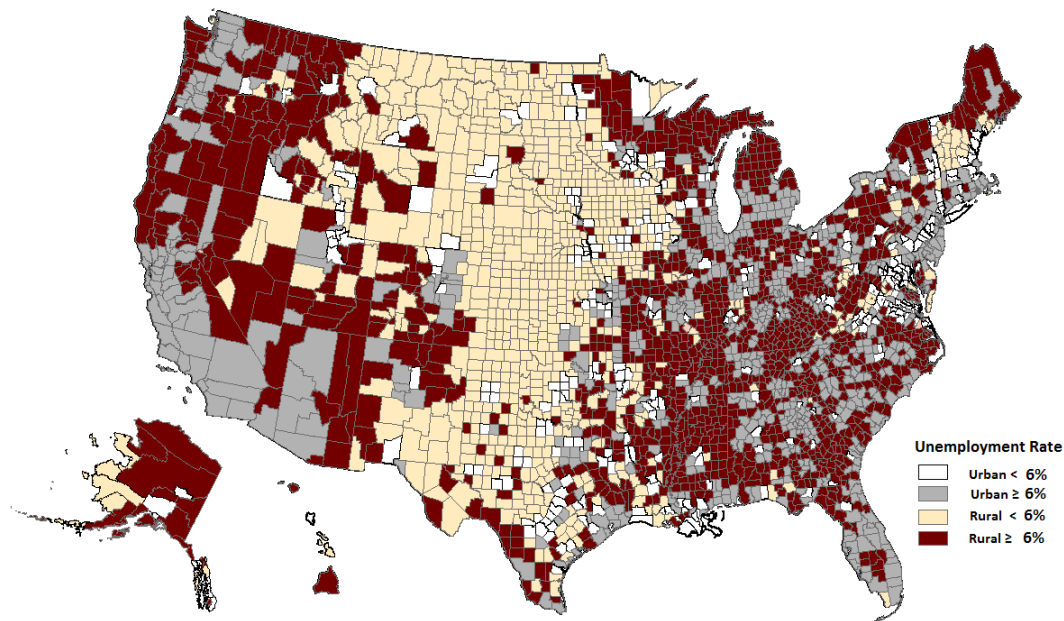
The proportion of U.S. counties with an unemployment rate greater than 6% (worst quartile in 2000) increased from 23.3% in 2000 to 84.8% in 2010 (See the Appendix, Table A1). To some extent, this adverse economic change brought unemployment in urban counties to levels more equal to those of their rural counterparts. Within rural counties, micropolitan and small adjacent rural counties had particularly high proportions of counties with >6% unemployment in 2010 (Figure 3).

Unemployment, like poverty, is regionally concentrated (Tables A2 & A3, Map 3). The areas with the highest proportion of >6% unemployment in 2010 were Northeastern urban and rural counties, followed by Western urban counties.

Figure 3. Proportion of counties with >6% of residents unemployed, by rurality, 2000–2010



Map 3. Unemployment rates, 2010 Census

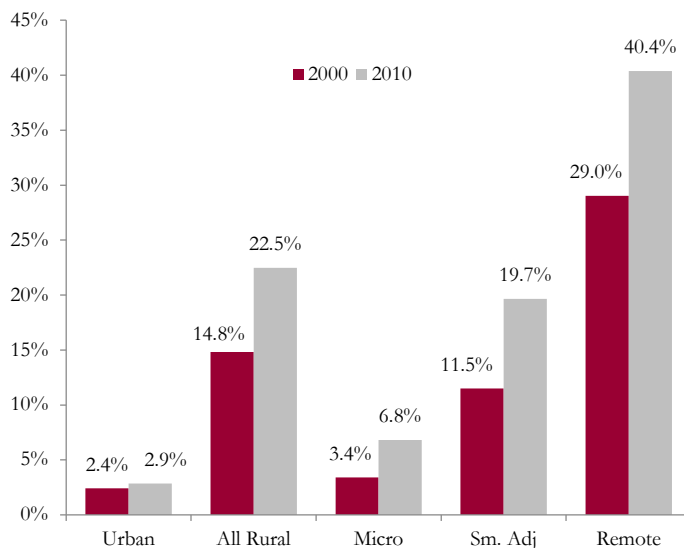


Rural counties experienced a growth in the 65 and older population while losing children

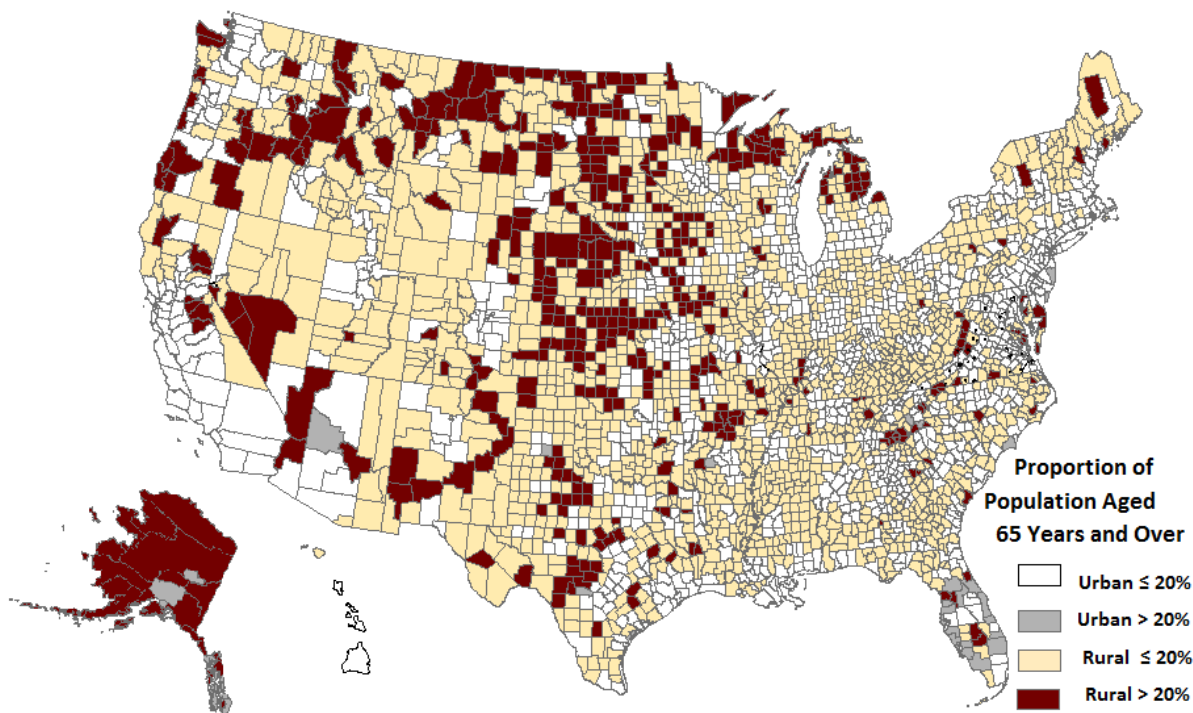
A concentration of older residents has implications for the types of health resources required to support population health. More than one out of every five rural counties had 20% or more of their population aged 65 or older in 2010, up from 15% in 2000. In comparison, less than 3% of urban counties had this demographic makeup (Figure 4, Table A1). The proportion of counties with a large concentration of older residents increased with rurality from about 7% in micropolitan counties to 40% in remote rural counties.

The increase in the number of counties with >20% of residents over the age of 65 was particularly prominent in the West, which saw an increase from 5% of all its counties in 2000 to 21% in 2010. The Midwest and South also saw substantial, though smaller, increases (Tables A2 and A3, Map 4).

Figure 4. Proportion of counties with 20% or more of residents >65 years old by rurality, 2000–2010

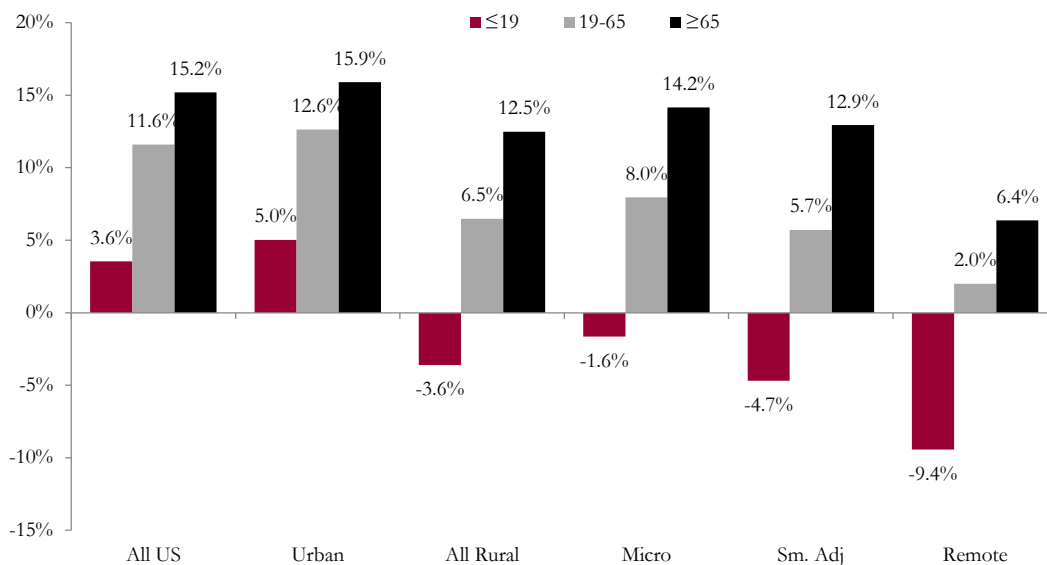


Map 4. Population aged 65 years or older, 2010



Despite an overall increase in child population nationally, rural counties in aggregate experienced a 4% decline in the proportion of the population under age 19 between 2000 and 2010. Within levels of rurality, declines in the proportion of children ranged from a -2% drop in micropolitan counties to a -9% decline in remote rural counties (Figure 5).

Figure 5. Percent population growth by age group by rurality, 2000–2010

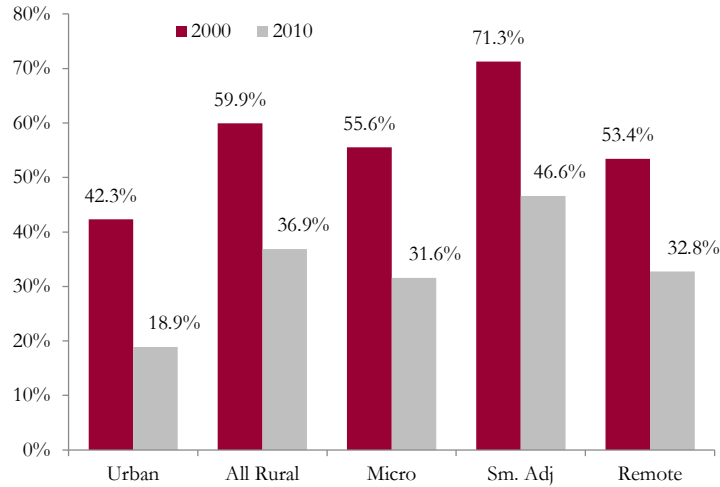


These differential growth rates led to changes in age distributions across county types. The proportion of residents aged at least 65 years grew in every county type, with rural areas having the highest proportions. Averaged across all urban counties, the average resident age was 38 in 2010 (median 39). Across rural counties, the mean and median age was 41. Median age in the population of rural counties was 40 for micropolitan counties, 42 for small adjacent counties and 44 for remote rural counties. A large older adult population suggests that the need for health services in rural communities will remain high.

Educational gains in rural counties continued to lag urban gains

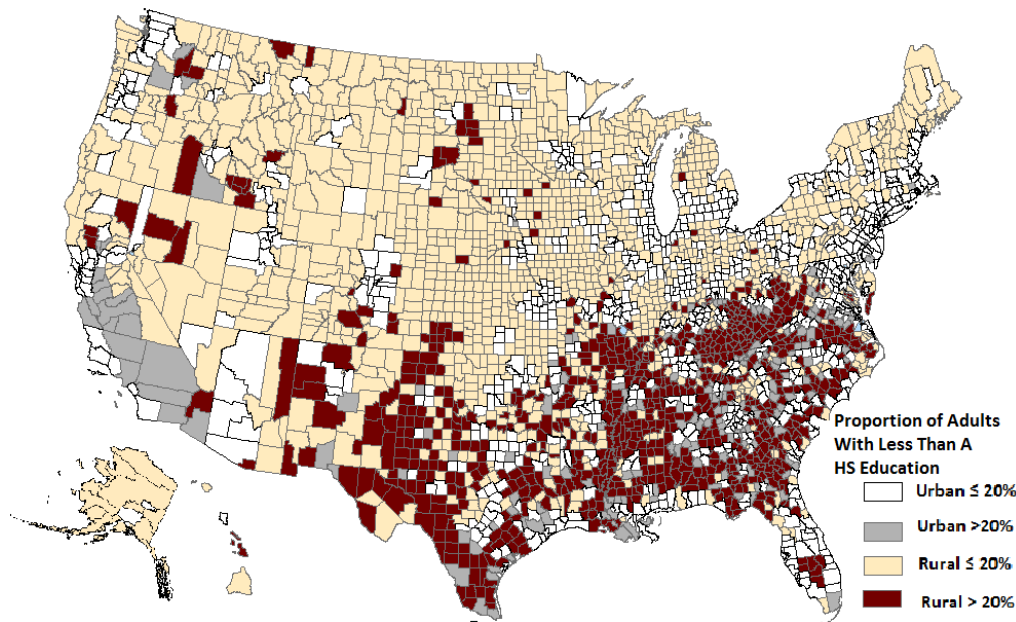
From 2000 to 2010, the proportion of counties with low educational attainment (>20% of adults without a high school diploma) declined, indicating that the overall level of education increased). The decrease was similar for both urban and rural areas (Figure 6, Table A1). In 2010, rural counties remained nearly twice as likely to have a large proportion of their population with lower educational attainment, which has been linked with reduced lifetime earnings and worsened health behaviors and outcomes.⁶ The proportion of counties with a substantial population of undereducated adults was highest among small adjacent rural counties, which tend to be concentrated in the South.

Figure 6. Proportion of counties with >20% of residents without a high school diploma by rurality, 2000–2010



Although Southern counties made gains in educational attainment during the 2000–2010 period, the region still retains the highest concentration of counties with >20% of adults who lack a high school diploma (56.5%) (Table A2). Nearly three out of every four rural Southern counties had low educational attainment compared to 0% in the rural Northeast (Table A3, Map 5).

Map 5. Educational attainment levels, 2010



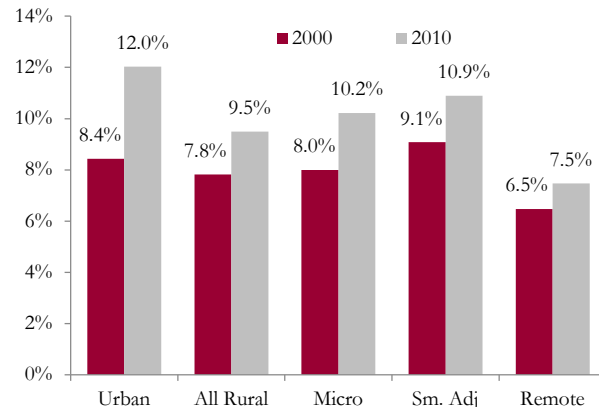
⁶ Baum S, Ma J, Payea K. (2013). Education Pays 2013: The Benefits of Higher Education for Individuals and Society. Available online: <http://www.nilin.state.nj.us/Special/ses15/commdocs/Education%20Pays,%20The%20College%20Board.pdf>; Montez JK, Hummer RA, Hayward MD. Educational Attainment and Adult Mortality in the United States: A Systematic Analysis of Functional Form. (2012). *Demography*, 49(1): 315-336.

Growing racial/ethnic diversity

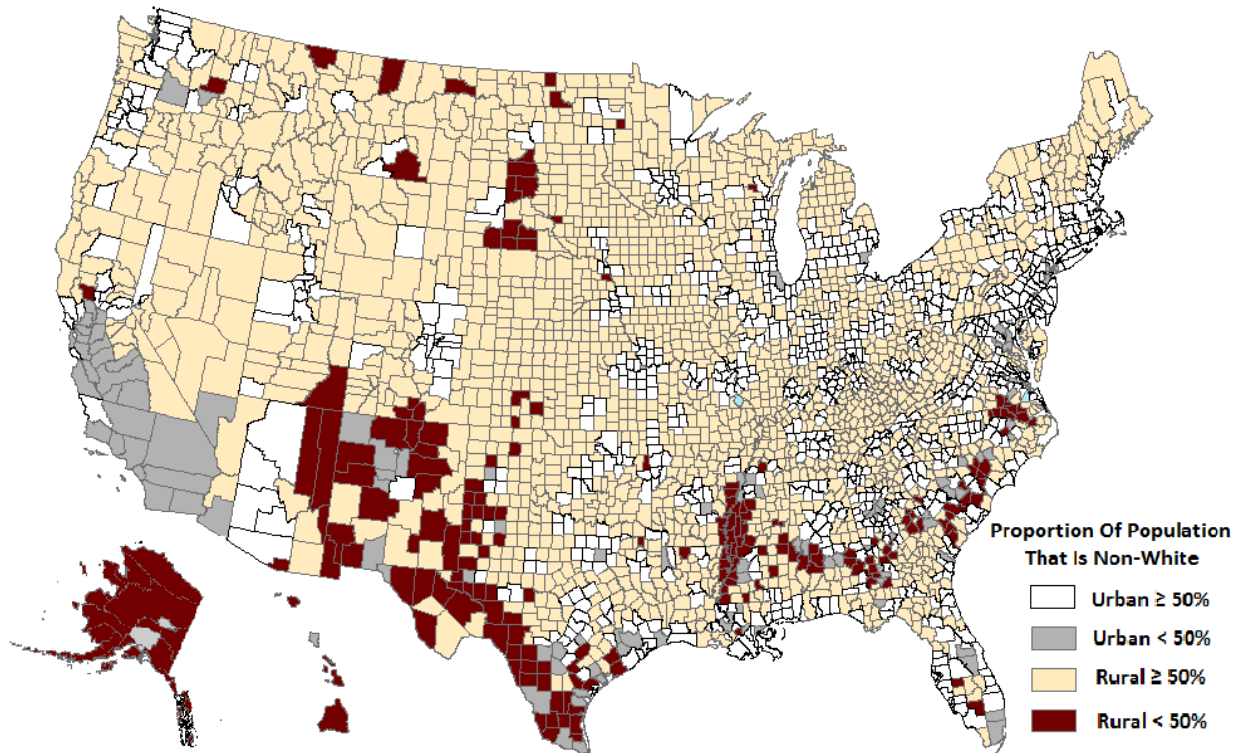
Diversity is a challenge to health and health care for multiple reasons ranging from long-standing discrimination against many non-white populations to the need for cultural and linguistic skills to meet the needs of newer immigrants. From 2000 to 2010, the non-white population in the U.S. increased by 29%, whereas the white population grew by only 1% in both urban and rural counties. This change was more visible in urban America. However, without growth in the numbers of non-white residents, particularly Hispanic residents, rural counties would have experienced even slower growth across the decade.

We examined minority concentration, defined as counties whose population was 50% or more non-white. The proportion of counties with more than 50% non-white residents increased overall; urban areas remained the highest in 2010 (12%) compared to rural counties (10%). Within rural counties, micropolitan and small adjacent counties were most likely to be majority non-white, with less than 8% of remote rural counties meeting the threshold. (Figure 7). The West (16%) and South (16%) had the highest proportion of counties that were principally non-white (Table A2, Map 6).

Figure 7. Proportion of counties with >50% non-white residents by rurality, 2000–2010



Map 6. Counties with majority non-white population, 2010



Health care vulnerabilities

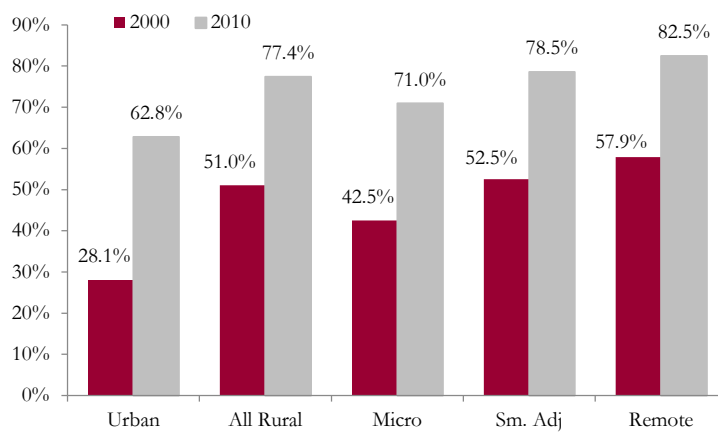
High proportions of uninsured residents

Prior to implementation of the Affordable Care Act (ACA), rural counties were more likely than urban counties to experience a high concentration of uninsured persons, defined here as more than 15% of the population being uninsured (worst quartile in 2000). This proportion increased from 43% of all counties in 2000 to 72% in 2010 (Figure 8, Table A1).

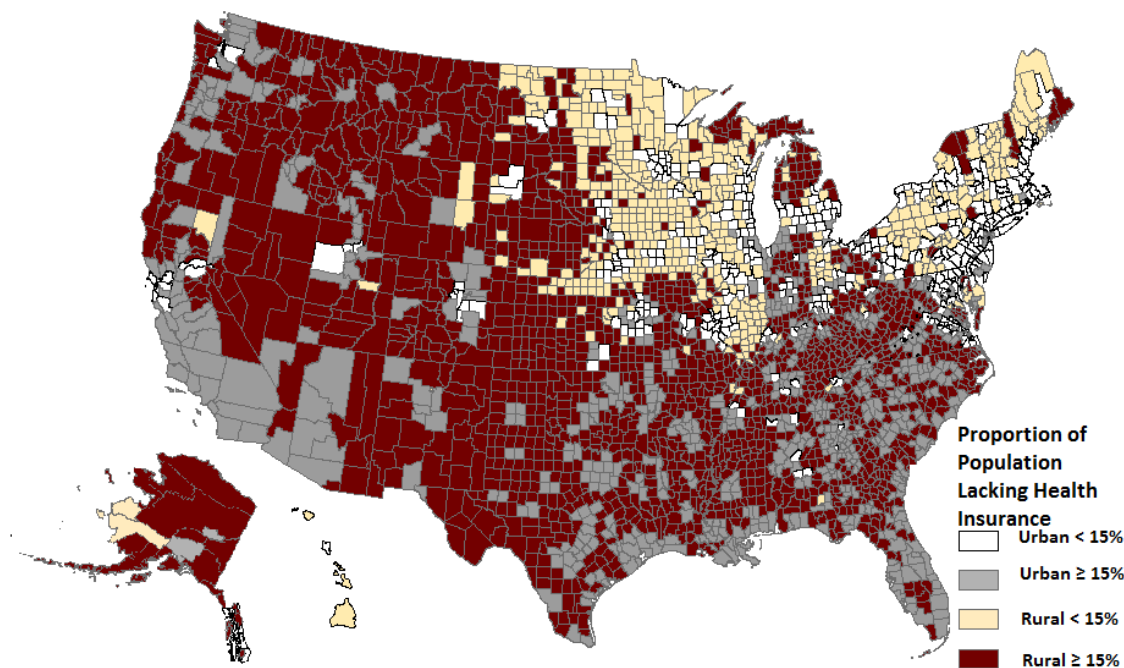
A larger proportion of rural than urban counties had more than 15% uninsured residents in 2010 (77%); this proportion increased as rurality increased to a high of 83% among remote rural counties (Figure 8). The South (95%) and West (92%) had the highest proportion of counties with >15% uninsured (Table A2).

As indicated in maps comparing the uninsured population in 2010 (Map 7) and Medicaid expansion subsequent to the ACA (Map 8), areas with the highest levels of need were the least likely to participate in expansion and thus offered the least relief to uninsured residents.

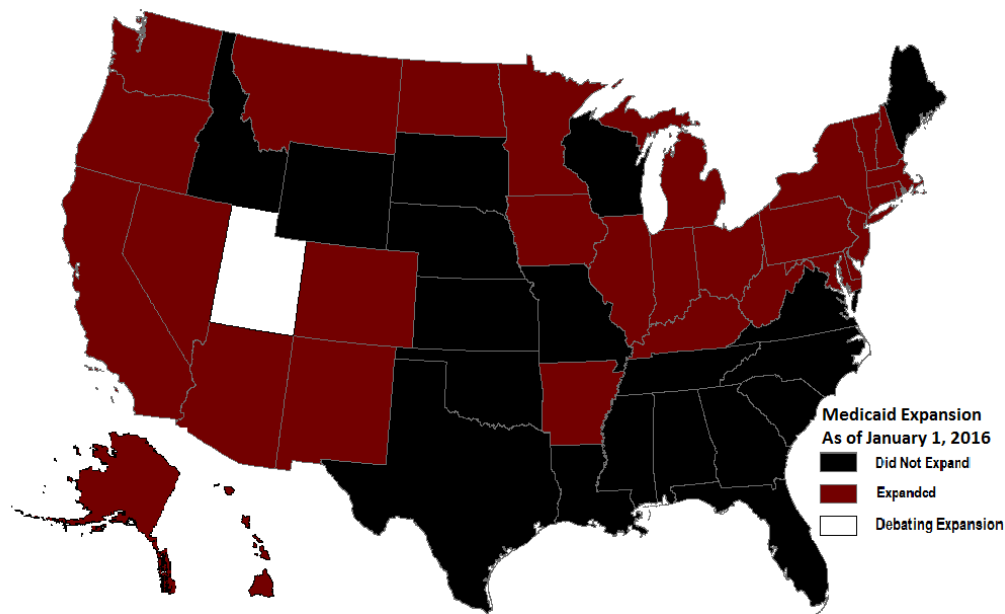
Figure 8. Proportion of counties with >15% of residents without health insurance, by rurality, 2000–2010



Map 7. Proportion of the population without health insurance, 2010



Map 8. Medicaid expansion after the Affordable Care Act, as of 2016



Service gaps

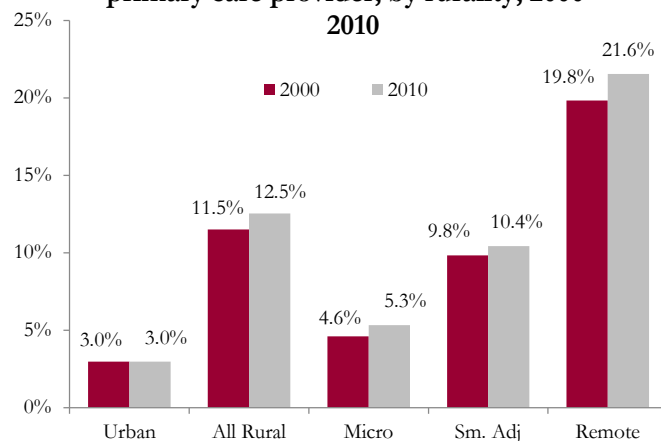
Several measures of health care resource vulnerability are addressed below, chosen because of their associations with poorer health, outcomes or access.

The proportion of U.S. counties without a primary care provider (PCP) increased from 8.5% in 2000 to 9.2% in 2010 (Table A4). This increase occurred in rural areas exclusively, in which 12.5% of counties did not have a PCP in 2010 (Figure 9). More than one-fifth of remote rural counties did not have a PCP in 2010.

Substantial differences in PCP presence also existed by region; the Midwest had the highest proportion of counties without a PCP followed by the West and the South (Table A5). Across all regions, there were higher proportions of rural counties without a PCP, led by counties in the rural Midwest, West and South (Table A6).

In 2010, a majority of rural counties (59%) did not have an obstetrics/gynecology (OB/GYN) provider, a rate more than twice that of urban areas (Figure 10, next page, & Table A4). This proportion increased steadily with rurality to a high of 81% in remote rural areas. Regionally, the Midwest had the highest proportion of counties without an OB/GYN (57%), followed by the South (47%), West (45%) and Northeast (7%) (Table A5).

Figure 9. Proportion of counties without a primary care provider, by rurality, 2000–2010



A majority of rural counties did not have a pediatrician in 2010 (56%), a rate more than twice that in urban counties (Figure 11 & Table A4). This proportion increased with rurality to a high of 79% in remote rural areas.

Regionally, the Midwest had the highest proportion of such counties (55%), followed by the West (46%), South (42%) and Northeast (7%) (Table A5).

In 2000, there was no hospital in 20.3% of all U.S. counties; by 2010,

this percentage had decreased to 19.5% (Table A4). Despite this growth in hospitals, more than one out every five rural counties remained without a hospital in 2010 (Table A4). More than one-fourth of all remote rural counties did not have a hospital in 2010. Since that time, the rate of rural hospital closure has increased, with 75 additional rural closures since 2010⁷. Of these, 17 were located in rural areas of urban counties, while the remaining 58 were in rural counties.

A majority of rural counties did not have a hospital that offered obstetric services in 2010 (56%), a substantial increase from 48% in 2000 (Figure 12, Table A4). This proportion was lowest among micropolitan rural counties and highest among small adjacent rural counties. Regionally, the South had the highest proportion of counties without this service (57%), followed by the Midwest (50%), West (46%) and Northeast (20%) (Table A5).

Figure 10. Proportion of counties without an OB/GYN by rurality, 2000-2010

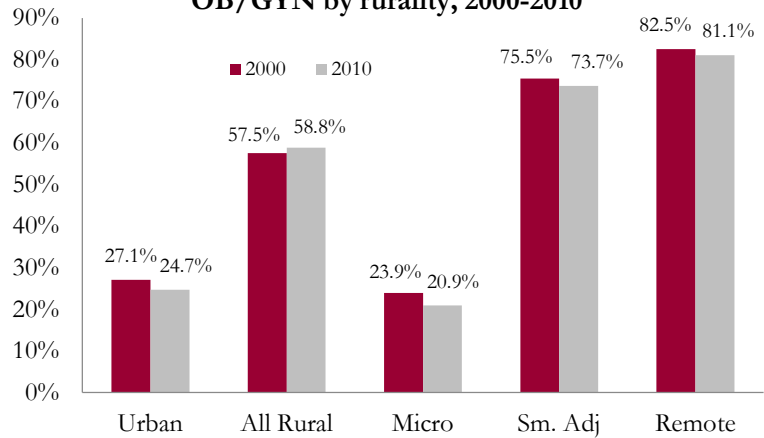


Figure 11. Proportion of counties without a pediatrician, by rurality, 2000-2010

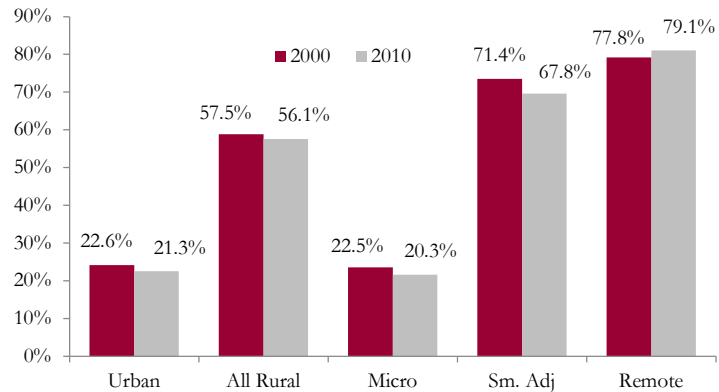
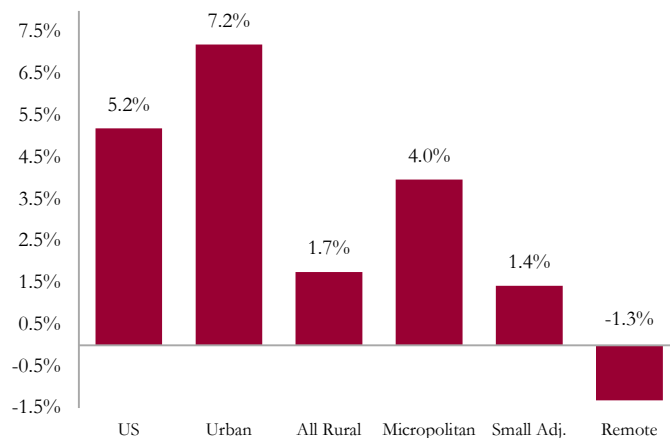


Figure 12: Percent change in number of hospitals, by rurality, 2000-2010



⁷Source: <https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/> Accessed June 30, 2016.

The proportion of counties without a home health agency (HHA) increased to nearly one-third of all U.S. counties in 2010 (33%), up from 28% in 2000 (Table A4). This proportion was higher among rural counties, where 38.9% did not have an HHA in 2010 (Figure 14). Nearly one-half of all remote rural counties did not have an HHA in 2010.

All regions except the Northeast had a high proportion of counties without an HHA, ranging from a high of 38.9% (West) to a low of 33.1% (Midwest) (Table A5). There was substantial variation within regions by rurality; across all regions, there were higher proportions of rural counties without an HHA, with the highest proportions in the rural West (Table A6).

The final indicator of health care resource vulnerability examined was the lack of a long-term care (LTC) facility in the county. The proportion of counties in the U.S. without an LTC facility increased from 6.0% in 2000 to 6.6% in 2010 (Table A4). This proportion was higher among rural than urban counties (Figure 15) and increased with rurality.

Differences in LTC facility presence were also found by region, with 19% of all Western counties lacking an LTC facility (Table A5). This proportion increased in Western rural counties, where nearly 23.4% lacked an LTC facility (Table A6).

Figure 13: Percentage of counties with a decreased number of hospitals offering obstetrics, among counties with a hospital with services in 2000, by rurality, 2000–2010

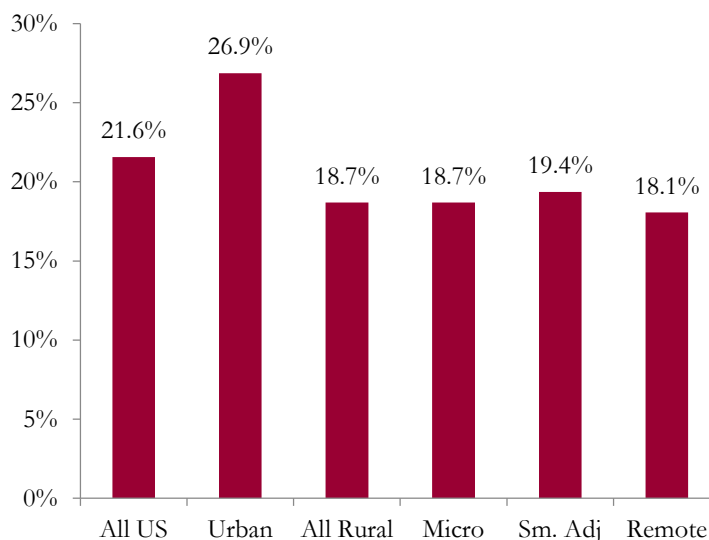


Figure 14. Proportion of counties without a home health agency by rurality, 2000–2010

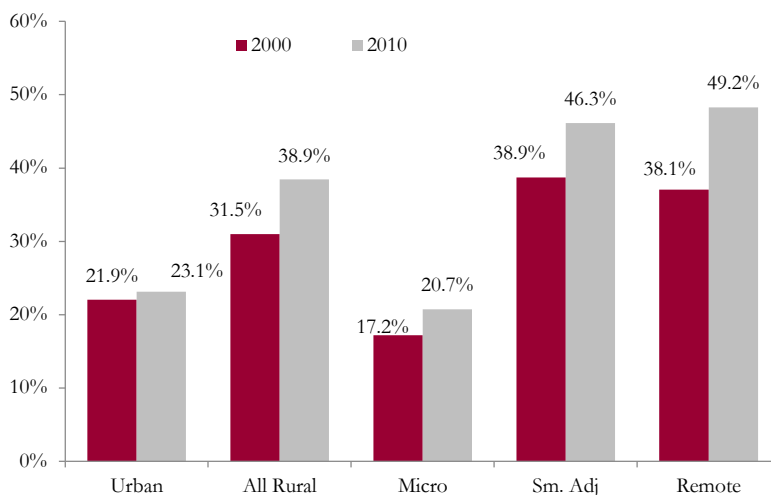


Figure 15. Proportion of counties without a long-term care facility by rurality, 2000–2010

Nationally, 5.6% of counties had a decline in the number of Community Health Centers. This decline was smaller among rural counties compared to urban ones. This decline decreased as rurality increases, once again because of the small number of counties with a facility (See Figure 15, Table A5). The Northeast saw the greatest number of counties with a decline in community mental health centers at 15.2% (See Table A6).

Among those counties with a community mental health facility in 2000, nearly 40% saw a reduction. This was slightly lower among rural counties but was consistent across levels of rurality (See Figure 15).

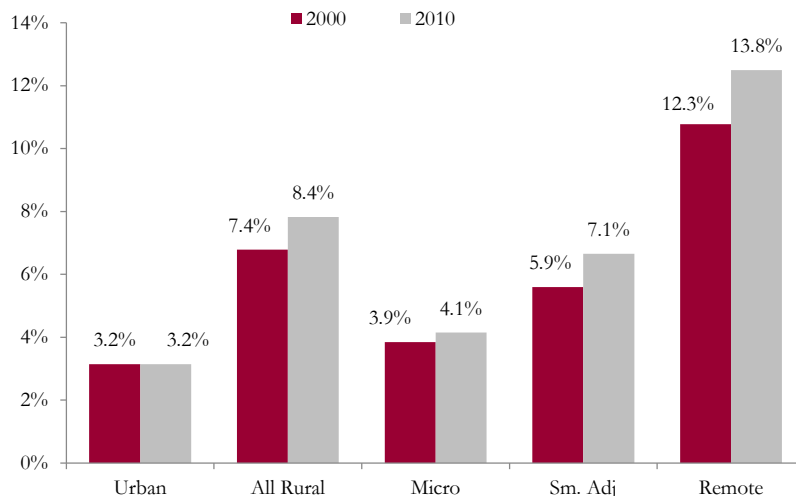
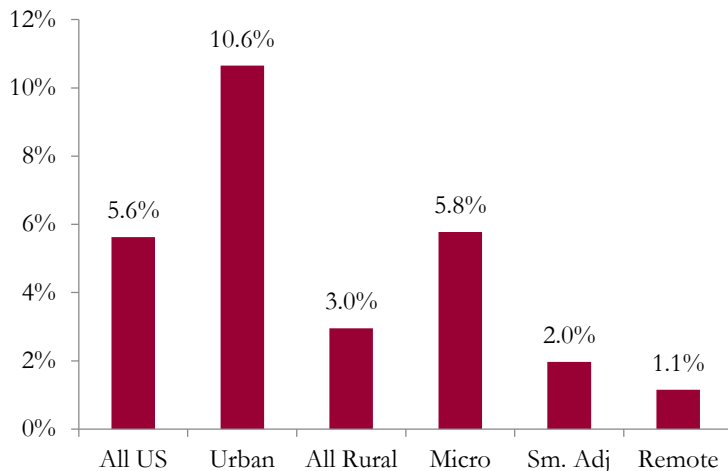


Figure 16: Percentage of counties with a decreased number of community mental health facilities, among those counties with a facility in 2000, by rurality, 2000–2010



Conclusions

Rural counties experienced change across multiple sectors between the 2000 and the 2010 Census. The most noteworthy demographic change was the lower population growth among rural populations and the contraction among remote rural counties. This was most prominent in the Midwest and the South. A slower rate of growth, combined with the changes in age distributions in rural populations, specifically, a higher proportion over the age of 65 and a lower proportion under the age of 19, give cause for concern for the stability of rural areas.

The economics of rural America also changed substantially during this time period. Both the percentage of rural residents living in poverty and the percentage unemployed saw large increases, and the change in rural counties was greater than that in urban counties. This was especially true in the South, which saw the highest increases in the percentage of its rural population in poverty. These trends warrant further study, particularly given the recovery seen since the year 2010, to determine if these areas continue to lag behind others.

Access to health care contracted between 2000 and 2010. The proportion of uninsured residents, increased, particularly among remote rural residents and in the West. These data predate the Affordable Care Act; further study will be needed to determine if the insurance marketplace or Medicaid expansion has brought about more positive results. However, the differential implementation of Medicaid expansion will perpetuate lack of insurance in poor communities and may further exacerbate disparities between expansion states and others, particularly in the South.

Provider availability, specifically for specialists, remains a cause for concern. A majority of rural counties lacked an OB/GYN or pediatrician; this proportion increased dramatically as rurality increased. Even primary care provider access was low, with one out of every five remote rural counties lacking even this basic level of care. Similar trends were seen for hospitals, particularly those that provide obstetric services. These supply issues will cause residents to travel to seek health services, increasing their burdens and hampering care. In addition, rural county populations are increasingly older, yet have proportionately fewer home health agencies or long-term care facilities located. Although home health agencies located in urban areas may still serve these rural counties, this assumption requires further research to ensure that access has not decreased. A lack of long-term care facilities would either require residents to forgo such care or necessitate locating out of their county to seek such care. Neither option is a preferable outcome. Further work needs to be done to quantify the impact on this reduced capacity.

Implications for Policy and Practice

Rural populations will need to be monitored to ensure that vulnerable residents are not left without access to health care services, providers or facilities because of demographic and economic shifts. Ensuring that these communities have access to providers via various programs such as those supported by the Health Resources and Services Administration and those administered by the Bureau of Health Workforce is key to this supply and should be supported if not expanded. Regional variations will also require monitoring, particularly with the differential impact of the ACA. Interventions targeted at states that chose not to expand Medicaid will be required to meet the health care needs of those residents, particularly as facilities in these states are financially vulnerable and have a higher likelihood of closure.⁸

⁸ Reiter KL, Noles M, and Pink GH. (2015). Uncompensated Care Burden May Mean Financial Vulnerability For Rural Hospitals In States That Did Not Expand Medicaid. *Health Affairs*, 34(10): 1721-1729.

Appendix 1. Detailed Tables

Table A1. Proportion of counties exhibiting selected demographic characteristics, by rurality, 2000–2010

	US	Urban	All Rural	Micro	Small Adj.	Remote
>20% of Residents in Poverty						
2000	12.1	3.9	16.5	11.1	17.9	20.5
2010	26.0	15.3	31.7	28.7	36.2	31.1
>15% of Residents Uninsured						
2000	43.1	28.1	51.0	42.5	52.5	57.9
2010	72.3	62.8	77.4	71.0	78.5	82.5
>6% of Residents Unemployed						
2000	23.3	11.1	29.8	26.8	32.7	29.9
2010	84.8	93.2	80.4	87.6	90.0	64.2
>20% of Residents Over the Age of 65						
2000	10.5	2.4	14.8	3.4	11.5	29.0
2010	15.7	2.9	22.5	6.8	19.7	40.4
>20% of Residents Lack High School Diploma						
2000	53.8	42.3	59.9	55.6	71.3	53.4
2010	30.6	18.9	36.9	31.6	46.6	32.8
<50% Non-Hispanic White						
2000	8.0	8.4	7.8	8.0	9.1	6.5
2010	10.4	12.0	9.5	10.2	10.9	7.5

Definitions for Selected Variables	
Poverty	The total number of people below the poverty level is the sum of people in families and the number of unrelated individuals with incomes in the last 12 months below the Federal poverty threshold.
Uninsured	The CPS ASEC asks about health insurance coverage “at any time” during the previous year. People who had health insurance coverage for only part of the year are considered to be insured. Note that coverage solely by Indian Health Services (IHS) does not count as health insurance; i.e., people who were only covered by IHS in the previous year are counted as uninsured.
Unemployed	Unemployed are all persons who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment some time during the 4 week-period ending with the reference week. Persons who were waiting to be recalled to a job which they had laid off need not have been looking for work to be classified as unemployed.
Lack a high school diploma	Persons age 25 years or more without a diploma. Less than a High School Diploma fields include response categories “no schooling completed” and “12 th grade, no diploma.”

Table A2. Proportion of counties exhibiting selected demographic characteristics, by region, 2000–2010

	West	Midwest	South	Northeast
>20% of Residents in Poverty				
2000	10.6	2.7	21.3	0.9
2010	19.0	8.9	44.9	2.8
>15% of Residents Uninsured				
2000	71.9	15.9	60.6	4.1
2010	92.4	46.5	94.7	11.5
>6% of Residents Unemployed				
2000	35.9	14.2	27.6	14.7
2010	85.6	70.8	93.2	97.2
>20% of Residents Over the Age of 65				
2000	5.0	19.4	6.8	2.3
2010	21.0	23.9	9.7	4.1
>20% of Residents Lack a High School Diploma				
2000	31.4	28.9	82.9	28.1
2010	14.9	7.9	56.5	2.3
<50% Non-Hispanic White				
2000	12.1	1.5	12.4	3.2
2010	16.3	2.0	15.6	5.1

Table A3. Proportion of counties exhibiting selected demographic characteristics, by rurality and region, 2000–2010

	West		Midwest		South		Northeast	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
>20% of Residents in Poverty								
2000	6.9	12.2	0.4	3.6	5.5	31.3	1.6	0.0
2010	14.6	20.8	6.0	10.0	22.9	58.7	4.1	1.1
>15% of Residents Uninsured								
2000	53.2	79.8	3.2	20.5	40.0	73.5	6.5	1.1
2010	82.5	96.6	27.8	53.4	88.3	98.7	9.8	13.8
>6% of Residents Unemployed								
2000	23.0	41.4	4.2	17.9	12.8	36.8	7.3	24.5
2010	94.4	81.8	89.4	63.8	94.0	92.7	97.6	96.8
>20% of Residents Over the Age of 65								
2000	0.8	6.7	0.7	26.3	3.7	8.8	2.4	2.1
2010	0.8	29.6	0.4	32.6	4.8	12.8	2.4	6.4
>20% of Residents Lack a High School Diploma								
2000	30.2	32.0	15.1	33.9	63.8	95.0	22.0	36.2
2010	18.3	13.5	2.5	9.9	30.9	72.6	4.1	0.0
<50% Non-Hispanic White								
2000	19.8	8.8	0.7	1.8	10.4	13.6	5.7	0.0
2010	29.4	10.8	1.1	2.3	14.4	16.4	8.9	0.0

Table A4. Proportion of counties lacking selected health care resources, by rurality, 2000–2010

	US	Urban	All Rural	Micro	Small Adj.	Remote
No Primary Care Physicians						
2000	8.5	3.0	11.5	4.6	9.8	19.8
2010	9.2	3.0	12.5	5.3	10.4	21.6
No OB/GYN Physicians						
2000	49.2	27.1	60.9	23.9	75.5	82.5
2010	47.0	24.7	58.8	20.9	73.7	81.1
No Pediatricians						
2000	44.9	22.6	57.5	22.5	71.4	77.8
2010	43.5	21.3	56.1	20.3	67.8	79.1
No Hospitals						
2000	20.3	18.8	21.0	12.0	24.5	26.4
2010	19.5	17.7	20.5	11.1	23.9	26.1
No Hospital with Obstetric Services						
2000	42.9	33.0	48.2	22.8	62.4	61.2
2010	49.7	37.7	56.1	31.0	70.5	68.9
No Home Health Agency						
2000	28.2	21.9	31.5	17.2	38.9	38.1
2010	33.4	23.1	38.9	20.7	46.3	49.2
No Long Term Care Facility						
2000	6.0	3.2	7.4	3.9	5.9	12.3
2010	6.6	3.2	8.4	4.1	7.1	13.8
No Community Mental Health Facility						
2000	85.2	73.0	91.8	84.1	94.3	96.8
2010	88.6	77.8	94.4	89.1	96.1	98.0

Table A5. Proportion of counties lacking selected health care resources, by region, 2000–2010

	West	Midwest	South	Northeast
No Primary Care Physicians				
2000	10.6	11.7	6.7	1.4
2010	10.6	12.7	7.3	1.8
No OB/GYN Physicians				
2000	47.1	59.2	48.9	6.0
2010	44.6	57.0	46.5	6.9
No Pediatricians				
2000	47.7	55.5	43.1	6.9
2010	45.5	54.5	41.4	6.9
No Hospitals				
2000	16.3	19.0	23.8	6.9
2010	14.9	18.9	22.6	7.4
No Hospital with Obstetric Services				
2000	39.6	40.0	51.6	13.8
2010	45.7	49.8	56.7	19.8
No Home Health Agency				
2000	29.0	26.6	32.2	7.4
2010	38.9	33.1	35.3	11.1
No Long Term Care Facility				
2000	17.0	3.6	4.9	1.8
2010	19.0	3.8	5.6	1.8
No Community Mental Health Facility				
2000	80.9	90.5	84.5	72.8
2010	82.1	93.7	87.8	82.0

Table A6. Proportion of counties lacking selected health care resources, by rurality and region, 2000–2010

	West		Midwest		South		Northeast	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
No Primary Care Physicians								
2000	2.4	14.1	1.4	15.5	4.6	8.0	0.0	3.2
2010	2.4	14.1	2.8	16.4	3.7	9.6	0.8	3.2
No OB/GYN Physicians								
2000	15.4	60.3	31.0	69.6	34.0	58.8	1.6	11.7
2010	13.1	57.7	27.1	68.1	31.6	56.4	2.4	12.8
No Pediatricians								
2000	15.4	61.2	27.4	66.0	26.7	53.4	1.6	13.8
2010	12.3	59.3	27.0	64.7	24.9	51.8	1.6	13.8
No Hospitals								
2000	13.8	17.6	15.8	20.2	25.0	23.2	4.1	10.6
2010	12.3	19.2	15.1	20.3	23.2	22.2	5.7	9.6
No Hospital with Obstetric Services								
2000	20.0	47.8	26.8	45.0	44.8	56.1	9.8	19.1
2010	24.6	54.5	34.5	55.5	47.9	62.4	14.6	26.6
No Home Health Agency								
2000	12.3	35.9	19.4	29.4	29.6	33.9	4.1	11.7
2010	16.9	48.1	20.4	37.8	30.2	38.6	4.9	19.1
No Long Term Care Facility								
2000	8.5	20.5	0.0	4.9	4.0	5.5	1.6	2.1
2010	8.5	23.4	0.0	5.2	4.0	6.7	1.6	2.1
No Community Mental Health Facility								
2000	62.2	89.0	79.6	94.5	75.6	90.0	56.9	93.6
2010	64.6	89.7	84.6	97.1	79.5	93.0	68.3	100.0