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Access to Health Care in Rural America: Current Trends and Key Challenges

Medicaid, the Children's Health Insurance Program (CHIP), Medicare, and the Marketplace are important sources of affordable, comprehensive health care coverage for millions of Americans in rural areas. The American Rescue Plan Act of 2021 and Inflation Reduction Act of 2022 bolstered rural health insurance coverage options. However, challenges in accessing care remain in many rural areas.

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KEY POINTS

- About 1 in 7 Americans (46 million people) live in non-metropolitan (or rural) communities. Many rural communities face challenges that have contributed to persistent health disparities compared to urban areas.
- Uninsured rates among adults under age 65 in rural areas have fallen substantially since the passage of the Affordable Care Act (ACA), from 23.8 percent in 2010 to 12.6 percent in 2023. However, rural areas continued to have a higher uninsured rate than urban areas.
- Expansion of Medicaid eligibility to adults with incomes below 138 percent of the federal poverty level (FPL) made possible through the ACA played a key role in the declining uninsured rate; Medicaid coverage rates rose from 12.0 percent of the rural population in 2010 to 17 percent in 2020 and rose further to 21.2 percent in 2023, coinciding with the continuous enrollment condition during the PHE.
- Uninsured rates among rural residents are much higher in states that have not yet adopted the ACA Medicaid expansion. In 2023, the rural uninsured rate was 15.6 percent in non-expansion states compared to 11.5 percent in expansion states.
- HHS programs provide health coverage to millions of rural Americans: about 2.9 million HealthCare.gov enrollees, more than 12 million Medicaid enrollees, and more than 14 million Medicare enrollees live in rural areas.
- The American Rescue Plan Act of 2021 and the Inflation Reduction Act of 2022 enhanced premium tax credits (PTC) for purchasing coverage in the ACA Marketplaces. Rural consumers in HealthCare.gov states that are subsidy eligible received an increase of $74 in monthly PTC, while urban consumers received an increase of $58 per month. Overall, these enhanced PTCs are saving rural enrollees an average of $890 per year, about 28% more than their urban counterparts.
- Although uninsured rates have fallen in rural areas since the enactment of the ACA, other barriers to care such as geographic distances, infrastructure limitations, and provider shortages continue to contribute to rural health care access disparities.
- Programs and services such as telehealth, health care workforce programs, health centers, Indian Health Service and Tribally operated health care facilities, and Rural Health Clinics all help improve access to care in rural communities.

- HHS supports many programs that help grow the health workforce serving underserved populations and communities, including rural areas, such as the National Health Service Corps and Nurse Corps programs. As of September 2023, 38 percent of the National Health Service Corps field strength and 20 percent of the Nurse Corps field strength were serving in rural settings.

INTRODUCTION

Approximately 46 million Americans lived in non-metropolitan areas as of July 1, 2023 (according to the U.S. Office of Management and Budget's definition of non-metropolitan), accounting for approximately 14 percent of the overall U.S. population.[1,*] Rural areas and communities are diverse across many dimensions, such as racial/ethnic composition, geography, quality of roads and infrastructure, population density, socioeconomics, Tribal reservations and communities,[†] availability of health care providers, and broadband availability, among other characteristics. However, there are some common characteristics and challenges, such as long distances to care and provider shortages, that are present in many of these areas that may contribute to difficulties accessing health care and to persistent health disparities.

Disparities in health outcomes between rural and urban areas are reflected in many different domains. Research has shown, for instance, disparities in maternal outcomes, behavioral and mental health outcomes, risk factors for chronic disease such as obesity, hypertension, and cardiovascular disease as well as in potentially harmful health behaviors such as smoking and physical inactivity, to name a few.[2,3,4,5,6,7,8,9,10,11,12,13] Reflecting these disparities, rural populations also have higher mortality rates overall as well as higher rates of infant mortality and premature death, and higher rates of potentially excess deaths from heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke.[14,15,16]

This research report is an update to a 2021 report[17] describing patterns in insurance coverage and uninsured rates in rural and urban areas, reviewing non-financial challenges in accessing care for rural residents, and describing disparities in health outcomes between rural and urban areas. The report concludes by discussing policies, programs, and resources designed to address barriers to care in rural America; federal and state health care coverage programs like Medicaid, the Children's Health Insurance Program (CHIP), Marketplace, and Medicare provide health insurance coverage for millions of rural residents and there is an opportunity to cover many more. For instance, the Biden-Harris Administration recently awarded a new round of $100 million in grants to Navigators to help Americans, particularly those in underserved communities including rural areas, to sign up for health coverage using HealthCare.gov.[18]

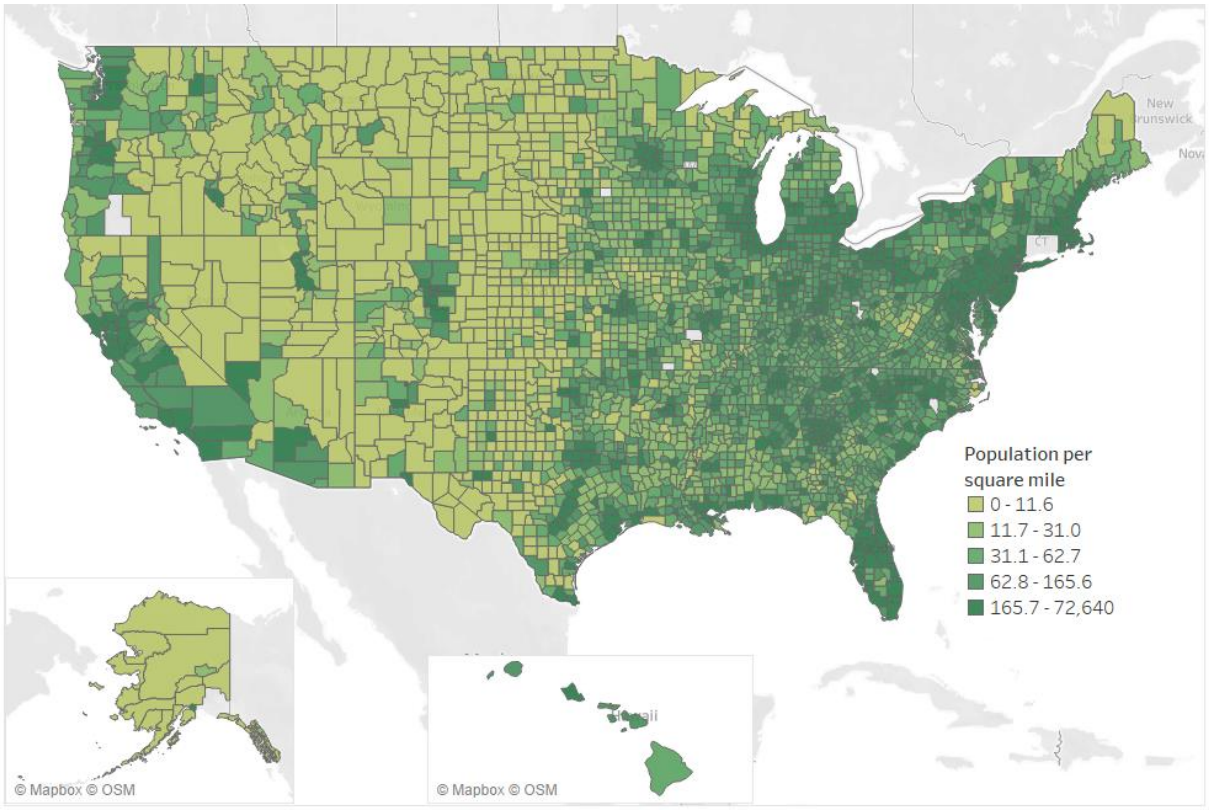
[*] There are several definitions of rural areas used by different parts of the federal government. The Census Bureau and the Office of Management and Budget create two of the primary definitions used, which are then modified in the version used by the Federal Office of Rural Health Policy (FORHP) at the U.S. Department of Health and Human Services (HHS). Using geographic boundaries defined as of the 2010 Census, the Census Bureau definition included 59.5 million people as living in rural areas, compared to 46.2 million using the Office of Management and Budget's definition, and 60.8 million using FORHP's definition. More information about the definitions used by FORHP and other federal agencies is available here: https://www.hrsa.gov/rural-health/about-us/definition/index.html

[†] American Indians and Alaska Natives are disproportionately rural, so Tribal reservations and communities are an important part of the rural landscape. This report does not focus on American Indians and Alaska Natives in particular, but interested readers should see an associated report which does focus on this group in a more in-depth way and is available here: https://aspe.hhs.gov/reports/health-insurance-coverage-access-care-among-aian

BACKGROUND

Figure 1 shows population density by county across the United States.* While population density is an imperfect proxy for urban versus rural status, the map shows that large portions of the Great Plains, Southwest, Alaska, and upper New England have low population densities relative to other regions.

Figure 1: Population Density by County, 2018-2022



Source: Population data come from the 5-year American Community Survey from 2018-2022, which can be downloaded here: https://data.census.gov/table/ while land mass was downloaded from the Census Gazetteer files, available here: https://www.census.gov/geographies/reference-files/time-series/geo/gazetteer-files.html.

A number of demographic and socioeconomic factors that vary between rural and urban areas on average may contribute to urban-rural disparities in access to health care and health outcomes. Approximately 14 percent of Americans live in non-metropolitan areas.[19] On average, households in rural communities have lower median incomes ($76,220 for urban areas and $71,122 for rural areas in 2018-2022)† and individuals living in rural households are more likely to be uninsured (12.6 percent versus 10.9 percent in 2022, shown in Figure 2, below). Rural populations tend to be older, with more adults age 65 and older (15.7 percent in urban areas compared to 19.7 percent in rural areas in 2018-2022)‡ and their share is growing.[20,21] This growth in the older population is important not only because these individuals may have greater need for care and have more chronic health conditions but also because they may face additional challenges with mobility, access to transportation, and traveling long distances to care.[22,23,24] The share of the population enrolled in Medicare is

* Data on territories is inconsistently available, depending on data source, so for comparability figures and tables generally focus on states and the District of Columbia.

† These estimates are from the 2018-2022 ACS, table DP03, available here: https://data.census.gov/table/ACSDP5Y2022.DP03?g=010XX01US_010XX43US&d=ACS%205-Year%20Estimates%20Data%20Profiles

‡ These estimates are from the 2018-2022 ACS, table DP05, available here: https://data.census.gov/table/ACSDP5Y2022.DP05?g=010XX01US_010XX43US&d=ACS%205-Year%20Estimates%20Data%20Profiles

higher in rural areas (22 percent) compared to urban areas (17 percent).* In addition, one in four rural residents in 2020 was a person of color and American Indians/Alaska Natives are also more likely to live in rural areas, and individuals in these groups in rural areas often experience additional barriers to care and disparities in outcomes.[25,26]

Table 1 shows a selection of characteristics of the uninsured population (under age 65) and how these characteristics compare to the overall non-elderly population by rural status. Compared to the overall non-elderly population, the uninsured in rural and urban areas are older, less likely to be White, more likely to delay or forgo care, less likely to have a usual source of care, and are less likely to have more than a high school level education. Furthermore, while many of the patterns among the uninsured in rural and urban areas are quite similar (such as mean age and portion of the population that is male), the racial/ethnic composition is quite different. The uninsured in rural areas are less likely to be Hispanic/Latino or to be Asian, but more likely to be White.

Table 1: Selected Characteristics of Uninsured Individuals Ages 0-64 in Rural versus Urban Areas, 2023

	Rural		Urban	
	All people <65	**Uninsured people <65**	**All people <65**	**Uninsured people <65**
Mean age	32.6	35.7	32.1	34.3
Male	50.4%	56.7%	50.1%	57.7%
Race/ethnicity				
Hispanic/Latino (all races)	10.0%	28.8%	23.9%	49.3%
White (non-Hispanic)	82.0%	76.9%	67.8%	60.4%
Black (non-Hispanic)	8.5%	6.8%	14.1%	14.6%
Asian (non-Hispanic)	0.1%	1.7%	7.1%	2.9%
American Indian/Alaska Native (non-Hispanic)	4.6%	1.1%	1.6%	2.5%
Other	0.1%	0.1%	0.4%	0.5%
Delayed or did not receive care due to cost (last 12 months)	6.6%	24.0%	6.5%	23.4%
Has usual source of care	97.5%	82.7%	97.4%	72.1%
Education (18-64 only)				
Less than high school	11.9%	29.9%	9.4%	23.5%
High school/GED	36.9%	38.0%	25.4%	37.6%
Post-high school	51.2%	32.1%	65.2%	38.9%

Source: National Health Interview Survey, 2023. The NHIS definition of urban and rural is based on OMB's classification of metropolitan and non-metropolitan.

Individuals in rural areas have higher overall mortality rates, and the urban-rural gap in mortality rates has persisted for many years. One analysis of mortality rates between 1999 and 2019, for instance, showed that although both rural and urban areas had a general decline in age-adjusted mortality rates over that time, the

* These estimates are from the 20218-2022 ACS, table S2704, available here: https://data.census.gov/table/ACSST5Y2022.S2704?t=Health%20Insurance&g=010XX01US_010XX43US&y=2022

mortality rate in rural areas was consistently higher and did not decline as much as the mortality rate in urban areas. By 2019, the age-adjusted mortality rate in rural areas was 20 percent higher than in urban areas. [27] Rural populations also have higher rates of premature death (defined as years of life lost before age 75),[28,29] and a higher percent of potentially excess deaths from the five leading causes (heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke).[30,31]

Rural populations have other worse health outcomes across many measures compared to those living in urban areas. On average, rural areas also have higher rates of maternal and infant mortality as well as maternal morbidity.[32,33,34,35,36] Rural communities have worse performance on several measures relating to mental and behavioral health, such as higher rates of suicide,[37,38] higher rates of age-adjusted overdose deaths,[39,40] as well as higher rates of any diagnosed mental illness and serious mental illness.[41,42] They also have higher rates of potentially harmful health behaviors such as higher rates of cigarette smoking, lower levels of physical activity, and lower rates of seatbelt use.[43,44,45,46] People of color living in rural areas frequently have worse health outcomes and higher mortality compared to rural non-Hispanic White rural residents as well as to urban residents of the same race.[47,48,49]

DATA AND METHODS

This report relies on data from several sources; in general, every effort was made to use the most recently available data for each source. Research on rural communities and populations is complicated by the fact that different data sources and different parts of the federal government use different definitions of the term rural. For the purposes of this report, the definition of rural used will depend on the data source and will be specified.

The uninsured rates and Medicaid coverage rates among non-elderly adults were calculated using 1-year American Community Survey (ACS) files from 2010 to 2023. The ACS is conducted by the Census Bureau and is the largest national survey of households. However, the ACS 1-year estimates only include areas with at least 65,000 individuals. In addition, the ACS reports Public Use Microdata Areas (PUMA)-level data. PUMAs are geographic areas defined and used by the Census Bureau that divide the country into non-overlapping regions with no fewer than 100,000 people.[*] They do not map onto zip codes or counties. For the figures in the report that use these data, a crosswalk of PUMAs to core-based statistical area (CBSA) type (metropolitan, non-metropolitan) as defined by the Office of Management and Budget, was used to assign each PUMA to a single CBSA type. A non-metropolitan area was defined as "rural."[50]

Health insurance data by county was obtained from the Small Area Health Insurance Estimates (SAHIE) from the Census Bureau. In these data, counties that are classified as non-metropolitan were called "rural" in this report. Data on demographics and measures of access to care among the uninsured population were obtained from the 2023 National Health Interview Survey (NHIS), a nationally representative survey of the civilian, non-institutionalized population. Marketplace data came from the Centers for Medicare & Medicaid Services (CMS) Center for Consumer Information and Insurance Oversight (CCIIO) plan selection and characteristics files for the 2015-2024 plan years in HealthCare.gov states.[†] Population density by county was calculated using ACS 5-year data (2018-2022). Data on health professional shortage areas (HPSAs) and healthcare providers were obtained from the Health Resources and Services Administration (HRSA).

[*] More information on PUMAs from the Census Bureau is available here: https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html

[†] Marketplace data for states that do not use the HealthCare.gov platform are not reported as timely or with the same level of detail as HealthCare.gov states and therefore these states are not included in Marketplace estimates in this report.

HEALTH INSURANCE COVERAGE

Uninsured Rates

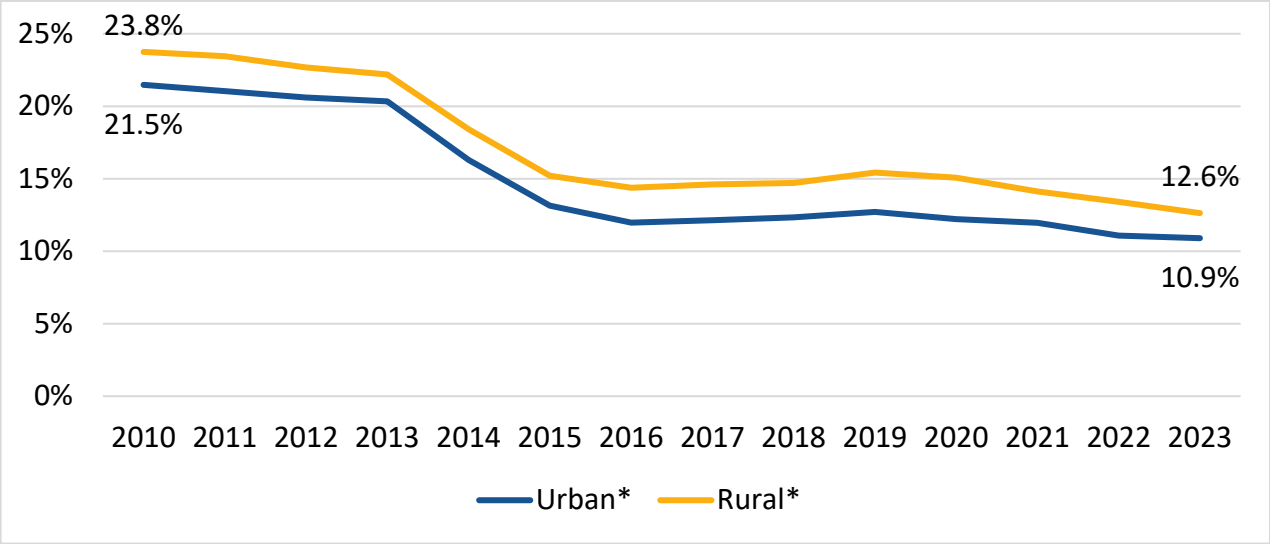
1 in 7 *rural adults under 65 is enrolled in Medicaid**
1 in 9 *rural adults under 65 is enrolled in direct-purchase insurance*
1 in 3 *rural adults is enrolled in Medicare*
1 in 8 *rural adults under 65 is uninsured*

* Sources: Analysis of American Community Survey (ACS), 5-year estimates, 2018-2022. The population included here are civilian, noninstitutionalized persons. Direct-purchase insurance does not include employer-sponsored insurance.

The ACA helped to expand access to health insurance coverage for millions of Americans, including many who live in rural areas. Figure 2 plots national trends in the uninsured rate for non-elderly adults in rural and urban areas from 2010 to 2023. Appendix Table 1 presents state-level estimates for non-elderly adult rural residents in the two endpoint years.

There was a substantial decline in the uninsured rate for both rural and urban residents after the implementation of the ACA's Medicaid coverage expansions. However, the uninsured rate was higher in rural areas than urban areas through the period. From 2010 to 2016, the data show a roughly parallel decline among rural and urban adults under aged 65. The uninsured rates for both groups increased slightly between 2017 and 2019, a period of reduced funding for ACA Marketplace outreach and marketing and other administrative policies that reduced enrollment (described at more length in a previous ASPE report).[51] In both rural and urban areas, the uninsured rate declined again between 2020 and 2023, a period that included the implementation of enhanced subsidies for Marketplace coverage, the adoption of ACA Medicaid expansion in five additional states, and the Medicaid continuous enrollment condition during the PHE. In 2023, the uninsured rate was 12.6 percent in rural areas compared to 10.9 percent in urban areas, demonstrating that uninsured rates generally increase with the degree of rurality.[52]

Figure 2: Uninsured Rates Among Adults under Age 65 by Metropolitan Status, 2010-2023

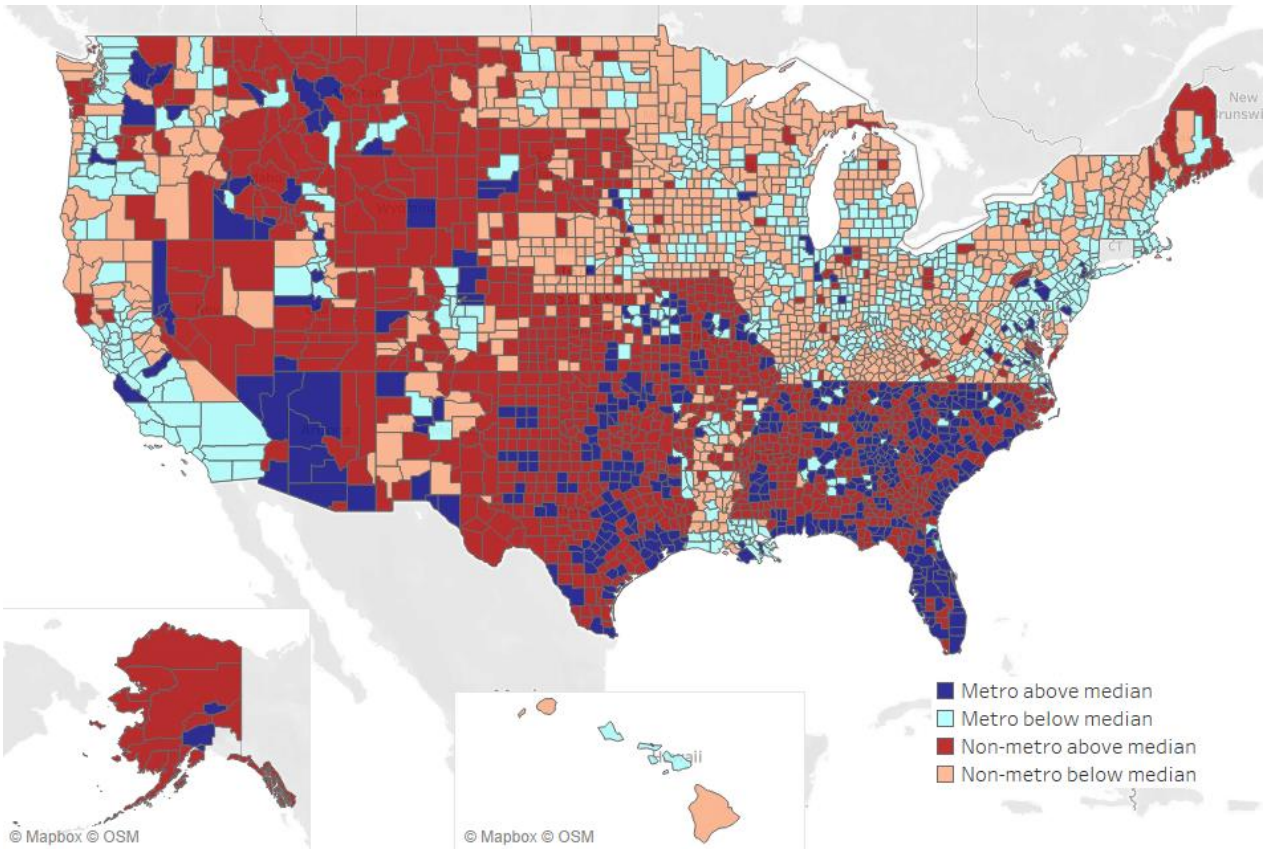


Source: American Community Survey (ACS), 1-year estimates, 2010-2023.
*Definition of rural and urban based on PUMA to CBSA (where CBSA metropolitan areas are "urban" and non-metropolitan areas are "rural").

Figure 3, below, categorizes counties by whether they are metropolitan or non-metropolitan and by whether their uninsured rate (for non-institutionalized adults under age 65) is above or below the overall county-level median of 9.4 percent in 2022. This map shows the uninsured rate by county varies across the country.

Counties with uninsured rates above the median (shown in red for non-metropolitan counties and dark blue for metropolitan counties in Figure 3) tend to be clustered in the South, Southeast, and Midwest. They also overlap with states with significant rural American Indian/Alaska Native populations (such as Alaska, Montana, South Dakota, and northern Arizona).

Figure 3: High and Low Uninsured Rates among Adults under Age 65 by County Metropolitan Status, 2022

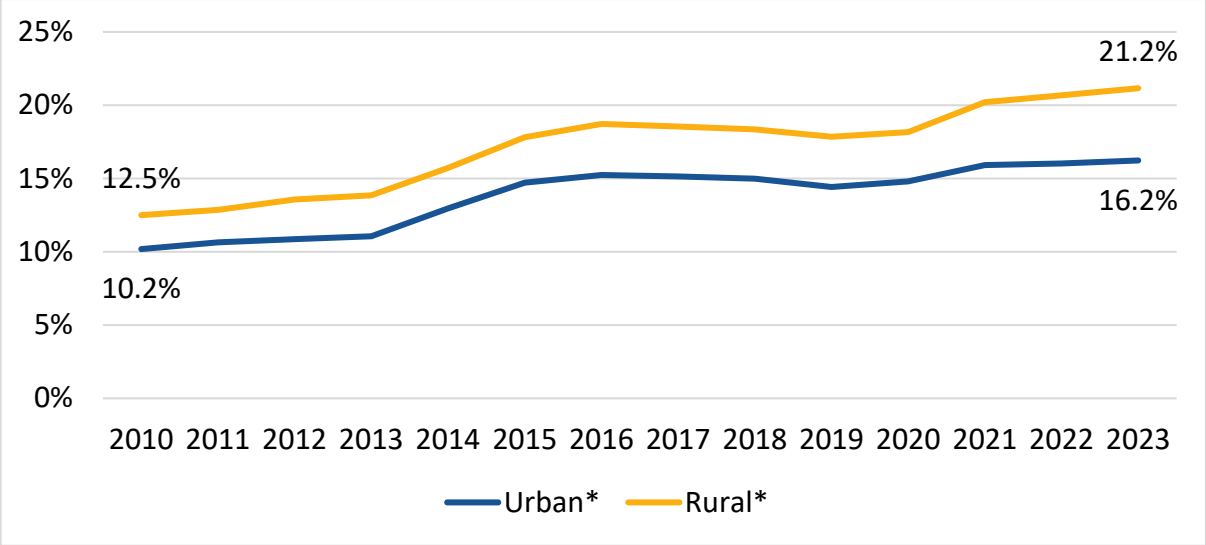


Source: 2022 Small Area Health Insurance Estimates (available here: https://www.census.gov/data/datasets/time-series/demo/sahie/estimates-acs.html) . OMB county metropolitan/micropolitan designations were applied to Census Bureau data (available here: https://www.census.gov/programs-surveys/metro-micro.html). The median uninsured rate is across rural and urban counties.

Medicaid and CHIP Coverage

Medicaid and CHIP provide an essential safety net for access to health care for millions of low-income adults, children, and families. Medicaid and CHIP are especially important sources of coverage for rural communities. As discussed above, rural populations are more likely to be low-income and less likely to have private coverage, both factors that may contribute to higher Medicaid coverage rates.[53] Figure 4 illustrates how Medicaid coverage rates for adults ages 18 to 64 have been increasing substantially in both rural and urban areas since the passage of the ACA, from 12.5 percent of the rural population in 2010 to 21.2 percent in 2023 and 10.2 percent of the urban population in 2010 to 16.2 percent in 2023. Medicaid covered 50 percent of rural births in 2018, compared to 41.9 percent of urban births.[54]

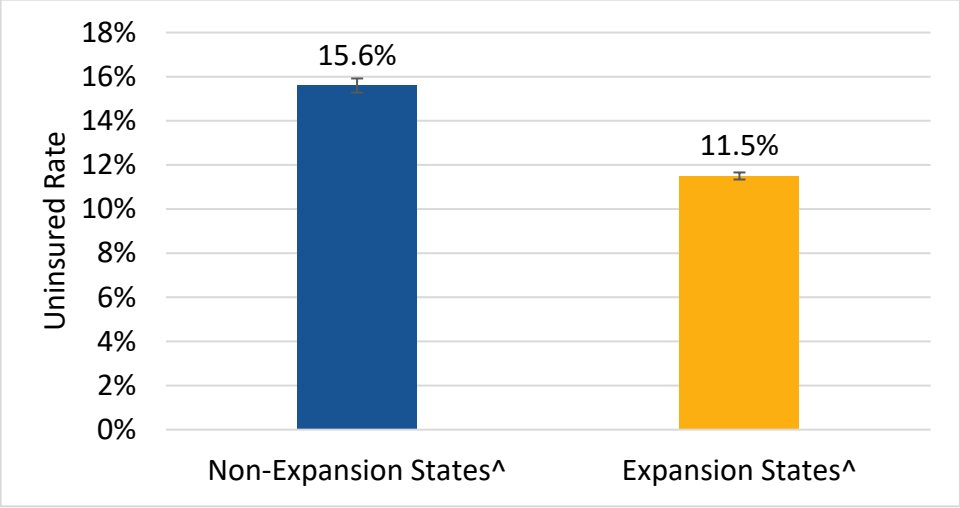
Figure 4: Medicaid Coverage Rates Among Adults under Age 65 by Metropolitan Status, 2010-2023



Source: American Community Survey (ACS), 1-year estimates, 2010-2023
*Definition of rural and urban based on PUMA to CBSA (where CBSA metropolitan areas are "urban" and non-metropolitan areas are "rural").

States that have expanded Medicaid under the ACA tend to have lower rural uninsured rates, and studies suggest that Medicaid expansion to certain low-income adults has been associated with a greater reduction in the uninsured rate in rural areas compared to urban ones.[55,56,57] The rural uninsured rate in states that have not adopted the ACA Medicaid expansion was 15.6 percent in 2023 compared to 11.5 percent in expansion states (Figure 5). Although Medicaid expansion status is not depicted in Figure 3, many of the counties with uninsured rates above the median are in states that did not expand Medicaid (for instance, many states in the South and Southeast).

Figure 5: Uninsured Rate among Adults under Age 65 in Rural* (Non-Metropolitan) Areas by State ACA Medicaid Expansion Status, 2023



Source: American Community Survey (ACS), 1-year estimates, 2023 with 95% confidence intervals
*Definition of rural and urban based on PUMA to CBSA (where CBSA metropolitan areas are "urban" and non-metropolitan areas are "rural").
^Definition of non-expansion and expansion states based on status of Medicaid expansion implementation as of 01/01/2023, obtained from KFF.[58]

In states that have not expanded Medicaid coverage to low-income adults, many individuals under 100 percent of the federal poverty line may be ineligible for Medicaid and ineligible for Marketplace subsidies, leaving

some with no option for affordable health insurance. This is known as the coverage gap. Uninsured rural residents are more likely to fall into the coverage gap than metropolitan residents.[59] Medicaid expansion has also been associated with other potentially positive outcomes, such as increases in visits to health centers and Rural Health Clinics in rural areas for nearly 20 different services, including mammograms, mental health care, and treatment for substance use disorders.[60,61,62] In rural areas with a higher baseline uninsured rate, Medicaid expansion was also associated with improved hospital financial performance and lower risk of hospital closure.[63,64,65]

Marketplace Coverage

The ACA Marketplace, which includes the federal Marketplace (HealthCare.gov) and state-based marketplaces (SBMs), is another important source of health insurance coverage for lower- and middle-income individuals and families not eligible for Medicaid and without access to other affordable coverage. However, rural areas often have fewer insurers. On average, 2.5 insurers per county were participating in non-metro counties in 2021, compared to 3.1 insurers in metro counties. By comparison, in 2014, 2.0 insurers per county were participating in non-metro counties, compared to 2.6 insurers in metro counties. Reduced issuer presence is associated with reduced competition among insurers, higher premiums for unsubsidized individuals, and less choice for all consumers.[66]

The American Rescue Plan Act of 2021 (ARP) increased Marketplace subsidies for plan year 2022, lowering the percentage of income that consumers with household incomes between 100 and 400 percent of the federal poverty line (FPL) are expected to contribute towards their health insurance premiums and extending the availability of advance payments of the premium tax credit (APTC)* to households with household incomes above 400 percent of the FPL (Table 2). The Inflation Reduction Act of 2022 (IRA) extended these enhanced subsidies through 2025.

Table 2: Expected Family Contribution (Percent of Adjusted Gross Income) Towards Benchmark Plan Under the ACA and IRA

Income/FPL	Expected Family Contribution under ACA, % Adjusted Gross Income	Expected Family Contribution under IRA, % Adjusted Gross Income
100-138	2.0	0
138-150	3.0-4.0	0
150-200	4.0-6.3	0-2
200-250	6.3-8.05	2-4
250-300	8.05-9.5	4-6
300-400	9.5	6-8
400+ FPL	.	8.5

Table 3 shows enrollment in states that use the HealthCare.gov platform (i.e., excluding individuals enrolled through SBMs that use their own eligibility and enrollment platforms) from 2015 to 2024. It shows that in the most recent open enrollment period (OEP) for coverage in 2024, 17 percent of individuals enrolled in Marketplace plans lived in rural areas. This percent is similar to the share in preceding years.

* The APTC is a tax credit individuals can take in advance to lower monthly health insurance premiums based on estimated expected income for the year. More information is available here: https://www.healthcare.gov/glossary/advanced-premium-tax-credit/

Table 3: Marketplace Plan Selections in HealthCare.gov States by Rural/Urban Status, 2015-2024, by Population Count (in Millions) and Percent

	Rural^		Urban	
	Number of Enrollees (Millions)	Percent of Total Enrollment	Number of Enrollees (Millions)	Percent of Total Enrollment
2015	1.3	14.4%	7.6	85.6%
2016	1.4	14.7%	8.2	85.3%
2017	1.4	14.7%	7.8	85.3%
2018	1.3	14.9%	7.4	85.1%
2019	1.2	14.8%	7.2	85.2%
2020	1.2	14.8%	7.1	85.2%
2021	1.2	15.0%	7.0	85.0%
2022	1.8	17.5%	8.5	82.5%
2023	2.1	17.2%	10.1	82.8%
2024	2.9	17.4%	13.4	82.6%

Source: CCIIO MIDAS Open Enrollment Period Public Use Files (PUFs), Coverage Year 2015-2024 Open Enrollment Periods. Available at: Marketplace Products | CMS.

^Definition of rural and urban is based on county-level FIPS crosswalk to CBSA (where CBSA type of metropolitan areas are "urban") available here: https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html

Many Marketplace consumers, including those in rural areas, can now find more affordable coverage under the ARP/IRA premium tax credit enhancements and extensions.[67,68] As shown in Table 4, in 2024, 78.8 percent of HealthCare.gov enrollees in rural counties were able to select a zero-premium plan. This represents a 15.1 percentage point increase relative to pre-ARP premium tax credit policies. Eighty-seven percent of rural enrollees can select a plan with a monthly premium of less than $50, compared to 77.7 percent if the ARP/IRA enhancements were not in place. Similar percentages of enrollees in urban counties have access to zero- and low-premium plans. In addition to individuals who have enrolled in Marketplace plans, many uninsured individuals would qualify for low-premium plans if they were to enroll. Roughly two-thirds of non-elderly rural adults who are uninsured and eligible for a premium tax credit could purchase a plan for less than $50 per month.

Table 4: Zero- and Low-Premium Plan Availability for Current HealthCare.gov Enrollees and Uninsured Adults under Age 65 by Rural/Urban Status, With and Without IRA Enhanced Premium Tax Credits, Plan Year 2024

	$0 Available - Any Metal			$50 or Less Per Month Available - Any Metal		
	ACA, %	IRA, %	% Point Diff	ACA, %	IRA, %	% Point Diff
Total Enrollees in HealthCare.gov States	67.4%	81.0%	+13.7	78.2%	87.7%	+9.5
Rural^	63.7%	78.8%	+15.1	76.6%	87.2%	+10.6
Urban	68.0%	81.4%	+13.4	78.5%	87.7%	+9.2
Total Uninsured in HealthCare.gov States* **	33.6%	52.7%	+19.1	47.3%	65.3%	+18.0
Rural^	35.7%	54.7%	+19.0	50.8%	68.9%	+18.1
Urban	33.2%	52.7%	+19.5	46.6%	64.6%	+18.0

Source: ASPE estimates based on data from American Community Survey, 2022; Marketplace Plan Files for Coverage in 2024. Analysis excludes enrolling selecting catastrophic plans.

***The uninsured examined in this analysis are adults under age 65 in HealthCare.gov states who are likely eligible for Marketplace plans and advanced premium tax credits based on their incomes being above 138 percent of the federal poverty line (FPL) in Medicaid expansion states, and above or equal to 100 percent FPL in non-expansion states, where Medicaid expansion is based on status as of 1/1/2022. We do not examine those with incomes below 100 percent FPL in the uninsured part of the analysis, though some individuals in this income range may be qualified health plan (QHP) eligible.

^Definition of rural and urban is based on 2017 HRSA zip-level crosswalk available here: Federal Office of Rural Health Policy (FORHP) Data Files | HRSA

Table 5 presents average premium tax credit receipt under the original ACA policy and under the ARP/IRA enhancements. The estimates pertain to subsidy-eligible HealthCare.gov enrollees in plan year 2024. These results show that for policies under both laws, average tax credits were higher in rural areas than in urban areas. The gap is larger under the ARP/IRA rules than under the original ACA rules, indicating that rural consumers benefited more from the enhancements than did urban consumers. On average, the ARP/IRA enhancements increased monthly tax credits by $74 in rural areas and by $58 in rural areas. Rural enrollees in Marketplace coverage are disproportionately benefitting from the improvements to the ACA enacted in the Biden-Harris Administration. The improvements in the ARP and the IRA are saving rural enrollees an average of $890 per year ($74.1 x 12 = $889.20).

Table 5: Average Monthly Premium Tax Credits (PTC) Among Subsidy-Eligible Enrollees in HealthCare.gov States, Plan Year 2024

	ACA	IRA	Change
Total population	$522.5	$582.7	$60.2
Rural	$579.6	$653.7	$74.1
Urban	$512.9	$570.8	$57.9

Source: ASPE estimates based on data from Marketplace Plan Files for Coverage in 2024 for consumers eligible for a premium tax credit (PTC).
^Definition of rural and urban is based on 2017 HRSA zip-level crosswalk available here: Federal Office of Rural Health Policy (FORHP) Data Files | HRSA

NON-FINANCIAL BARRIERS TO CARE

Despite improvements in insurance coverage and the consequent decline in uninsured rates that have occurred in many rural areas, those individuals who live in rural areas often still face additional challenges in accessing health care services. One of the most important potential barriers to accessing care in many rural communities is the availability of health care providers. Table 6 shows, for a selection of provider types, the number of providers per 10,000 persons in metropolitan and non-metropolitan counties in 2021/2022. It demonstrates the disparity in provider to population ratios between rural and urban areas, particularly for doctors. Table 6 shows, for instance, that there are approximately three times as many doctors per capita in metropolitan counties compared to non-metropolitan counties. Many rural areas experience persistent provider shortages, particularly for certain types of specialists and for primary care providers.[69] Certain rural areas have also been significantly impacted by the opioid crisis and combined with a shortage of behavioral health specialists in many rural areas,[70,71] residents in these areas may face significant barriers to receiving treatment for substance use disorder.[72,73]

Table 6: Providers per 10,000 Persons for Rural versus Urban Counties, 2021-2022

	Non-Metropolitan	Metropolitan
Doctors	11	33
Primary care doctors	4	7
Nurse Practitioners	9	11
Dentists	5	8

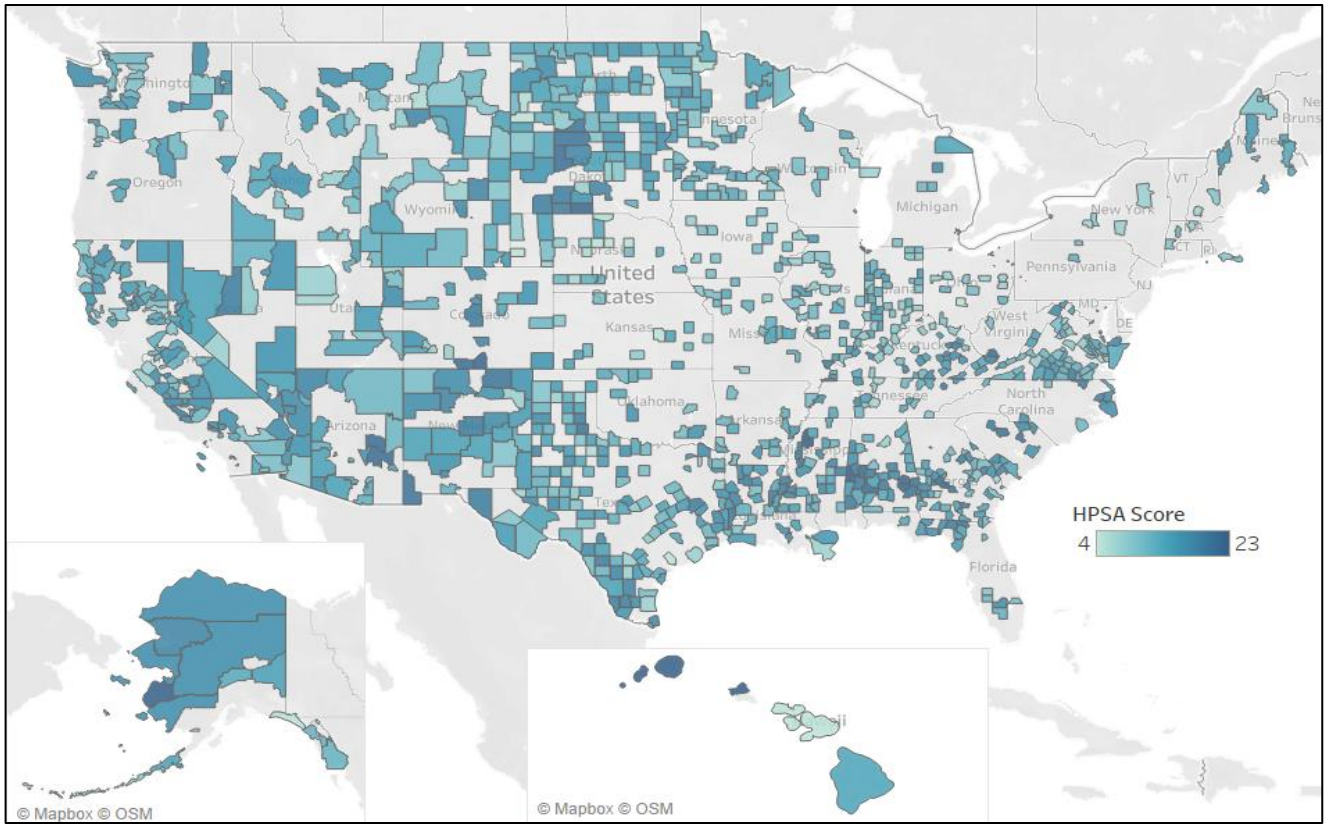
Source: HRSA Area Health Resources Files, 2022-2023, which pulls from a number of sources (which are either data from 2021 or 2022, depending on the source). These data can be accessed here: https://data.hrsa.gov/data/download?data=AHRF#AHRF

One way that HHS works to address issues of geographic maldistribution of providers is by directing program resources and grant funding to areas facing particularly significant provider shortages. This is often done by identifying areas of the country with shortages of certain provider types and designating them as health

professional shortage areas (HPSAs). HHS identifies primary, dental, and mental health care HPSAs. HPSAs can be geography-based (there is a shortage of providers for the entire population within an area), population-based (when certain population subsets have a shortage of services), or facility-based (includes a number of facilities including Federally Qualified Health Centers, Rural Health Clinics, and Indian Health facilities). These designations are used, for instance, as the initial basis for directing resources for the National Health Service Corps and the Nurse Corps programs (both described in greater detail below). For all three types of providers, most HPSAs are located in rural areas.[74]

Figure 6 shows the distribution of geographic primary care HPSAs across the country (and shows their level of priority). It demonstrates that HPSAs are distributed across the country, but that there is significant overlap with rural and southern areas (as shown in Figure 1). Another designation used by HHS is that of "medically underserved population or area." These identify areas or populations with a lack of access to primary care services. As discussed below, both the Health Center Program and CMS certified Rural Health Clinics use these designations. Health Centers receiving federal grants and Rural Health Clinics certified by CMS must be located in medically underserved areas or serve medically underserved populations.*

Figure 6: Primary Care Geographic Health Professional Shortage Areas (HPSAs)



Source: Data on health provider shortage areas were provided by HRSA, through its online data tool, downloaded July 2024. Available here: https://data.hrsa.gov/data/download

Another related issue contributing to challenges of accessing care in rural areas is that of rural hospital closures and concern about providing hospital and emergency services in rural areas. There are particular

* More information about the HPSA designation versus the medically-underserved designation and how they are used is available here: https://www.hhs.gov/guidance/document/hpsa-and-muap-shortage-designation-types or https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation

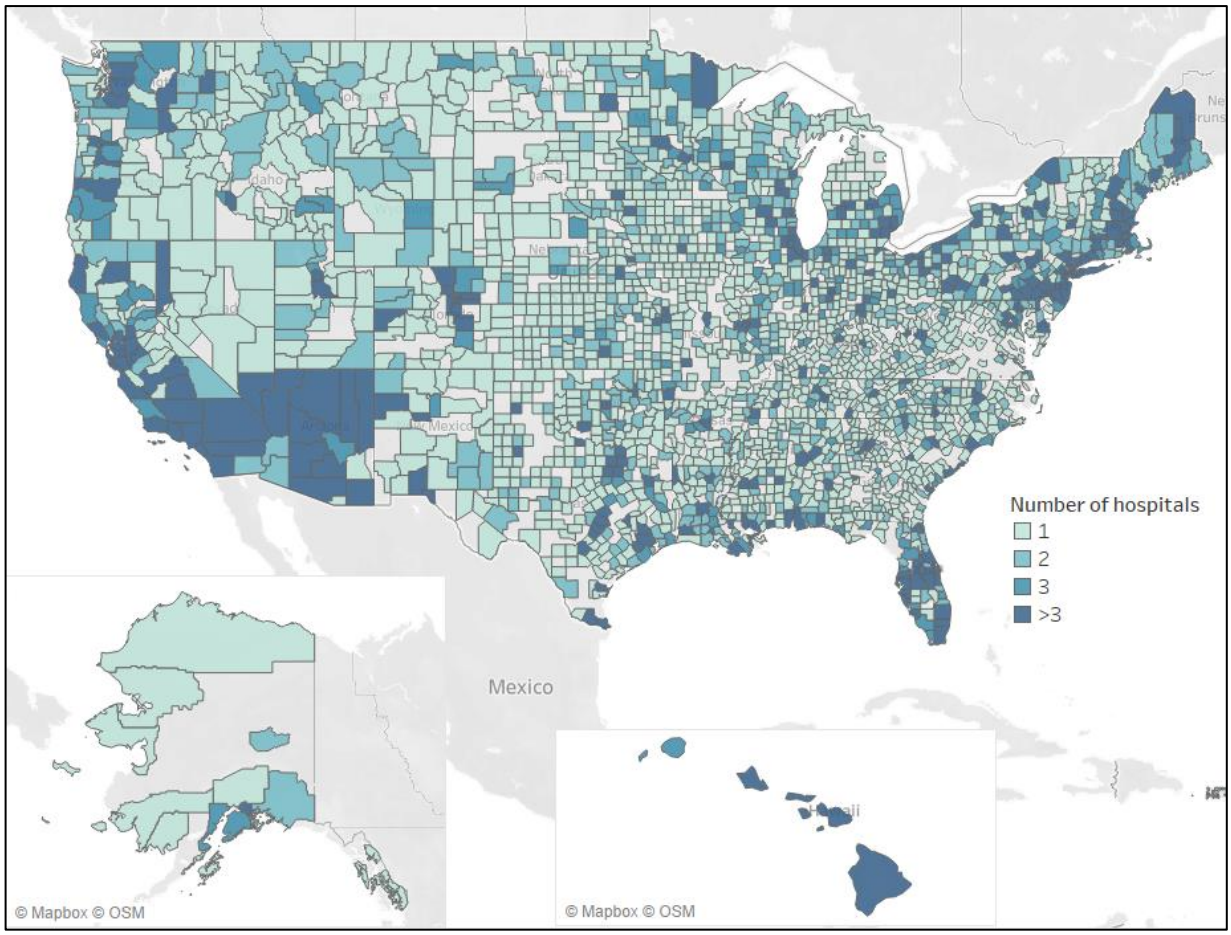
challenges that rural hospitals may face that threaten their financial viability. One is that rural hospitals serve smaller population sizes and therefore have lower patient volumes, and a high percentage of their costs are fixed, such as salaries and utilities. Rural hospitals also tend to serve older, sicker patients as well as patients who are more likely to be low-income, more likely to be covered by public insurance rather than private insurance, and more likely to be uninsured.[75,76,77,78,79] Rural hospital closures are also more likely to be located in communities with larger Black and Hispanic populations and in areas with higher unemployment, which can further contribute to disparities in health outcomes.[80,81]

There has been a fairly steady rate of rural hospital closures and conversions to facilities that do not provide inpatient services since 2010.[82,*] The COVID-19 pandemic, however, put additional stress on health care systems and particularly on some hospitals during earlier phases of the public health emergency when overall utilization rates declined. The COVID-19 Provider Relief Fund allocated $11.09 billion to rural areas in particular, which went to 8,858 facilities (including rural acute general hospitals, critical access hospitals, Rural Health Clinics, and health centers located in rural areas).[83] HRSA also funds four grant programs to states to support rural hospitals, in addition to providing technical assistance to state grantees and to hospitals.[†] Nonetheless, there were 18 rural hospital closures and conversions in 2020, 2 in 2021, 6 in 2022, 8 in 2023, and 3 in 2024 as of August.[84] Figure 7 shows the counties with Medicare-registered hospitals across the country. This is a very rough proxy for access (given differences in county and population size) but it gives a general idea of the distribution of hospitals across the country.

[*] In this context, hospital closure means cessation of short-term acute inpatient care. Converted closures mean that a facility continues to provide services other than inpatient care (e.g., outpatient, emergency, urgent care, SNF, rehab, etc.). Conversions to become a Rural Emergency Hospital are not included.

[†] More detailed descriptions of these programs and the technical assistance provided by HRSA is available here: https://www.hrsa.gov/rural-health/grants/rural-hospitals

Figure 7: Medicare-Registered Hospitals by County, 2024



Source: Data on hospitals registered with Medicare was accessed September 2024 and is available here: https://data.cms.gov/provider-data/dataset/xubh-q36u

Another related area of concern is the provision of particular kinds of services at hospitals in rural areas, as hospitals may close or cut back on certain departments or types of care. Overall, rural hospitals are less likely to provide all the services that urban hospitals provide, such as intensive care units,[85,86] psychiatric units,[87] and obstetric care.[88,89] In 2022, 59 percent of rural counties lacked hospital-based obstetric services.[90] The American Medical Association estimates that between 2015 and 2019, at least 89 obstetric units closed in rural hospitals.[91] The Rural Emergency Hospital (REH) designation was created to help retain emergency and other basic services in rural hospitals that can no longer support inpatient services. Starting January 1, 2023, Medicare pays REHs to deliver emergency hospital, observation, and other services to Medicare beneficiaries on an outpatient basis. There are a number of requirements REHs must meet, including not having inpatient beds; having a staffed emergency department 7 days a week, 24 hours a day; and maintaining an annual per patient average stay of no more than 24 hours of service. Critical Access Hospitals and small rural hospitals with no more than 50 beds are eligible to convert to become an REH. Tribal and IHS operated hospitals are also eligible to convert to an REH.* HRSA funds a technical assistance center to help at-risk rural hospitals determine if REH status makes sense for their community. There are 30 REHs as of October 4, 2024.[92] HRSA also funds programs with the goal of supporting rural hospitals or supporting the provision of certain types of

* More information on this new designation, including differences in requirements for Tribal and IHS operated hospitals, can be found here: https://www.cms.gov/files/document/mln2259384-rural-emergency-hospitals.pdf

care (primary care, maternal care, and behavioral health/substance use disorder treatment are some key examples).*

In addition, individuals in rural areas can be geographically isolated and therefore often tend to live farther from care[93] and lack reliable public transit, which can make care harder to access and contribute to worse health outcomes (particularly in emergencies).[94]

INTERVENTIONS THAT ADDRESS ACCESS TO CARE FOR RURAL POPULATIONS

There are many potential avenues for trying to improve access to health care in rural areas and for rural populations, many of which are funded or supported by HHS. A selection of key examples is described below.

Telehealth

Telehealth is a potential opportunity to improve access to care for many individuals and populations, including those who live in rural areas or in areas with shortages of providers. Before the COVID-19 pandemic, payment policies for services furnished via telehealth under Medicare fee-for-service (FFS) was limited due to statutory requirements, even in the context of care provided to rural patients. As a result, telehealth utilization was quite low (<1 percent of Medicare fee-for-service Part B services and visits in 2019).[95] States have the discretion to set their telehealth policies for Medicaid, but prior to the pandemic telehealth utilization for Medicaid was also quite low (0.3 percent of all Medicaid and CHIP services in 2019).[96]

Throughout the course of the pandemic, CMS announced a number of telehealth flexibilities for Medicare meant to protect beneficiaries from exposure to COVID-19 and to allow continued access to needed care. Initial flexibilities were announced on March 17, 2020, following emergency waiver authority enacted by Congress, and then subsequent legislation further expanded and extended some of these authorities.† For instance, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) temporarily authorized Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs) to be distant site providers (where the practitioner is located) during the public health emergency, whereas previously they could only serve as originating sites (where the patient is located). Other examples of temporary Medicare changes relating to telehealth include allowing Medicare patients to receive telehealth services in their home and allowing some non-behavioral/mental health telehealth services to be delivered using audio-only communication. The Consolidated Appropriations Act, 2023 extended this authority through December 31, 2024. Some flexibilities have been made permanent, including allowing FQHCs and RHCs to serve as distance site providers for behavioral/mental health services, allowing Medicare patients to receive behavioral/mental health services in their home, removing geographic restrictions for originating sites (where the patient is located) for behavioral/mental health, and allowing behavioral/mental health services to be delivered by audio-only communication.‡ Furthermore, the Drug Enforcement Agency (DEA), in concert with HHS, added additional flexibilities for prescribing certain controlled medications via telemedicine that are important for treatment of behavioral health conditions like substance use disorder and ADHD.[97]

Enabled in part by these new flexibilities, telehealth utilization among Medicare fee-for-service beneficiaries increased dramatically during the pandemic, particularly during the first few months. One analysis, for

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* More information on these programs can be found here: https://www.hrsa.gov/rural-health

† Additional discussion of these flexibilities can be found here: https://telehealth.hhs.gov/providers/telehealth-policy and a separate report on the impact on telehealth utilization among Medicare fee-for-service beneficiaries can be found here: https://aspe.hhs.gov/reports/updated-medicare-ffs-telehealth-trends

‡ More information about the telehealth flexibilities that have been either temporarily or permanently extended for Medicare beneficiaries is available here: https://telehealth.hhs.gov/providers/telehealth-policy/policy-changes-after-the-covid-19-public-health-emergency

instance, showed that compared to the same time period during 2019, in April 2020 there was a 350-fold increase in primary care telehealth visits among Medicare fee-for-service beneficiaries.[98] Many states also greatly expanded telehealth flexibilities or encouraged the use of existing flexibilities in their Medicaid program. As a result of these increased flexibilities, the share of services delivered via telehealth for all Medicaid and CHIP enrollees increased to 7.1 percent in 2020.[99] Some of these states' expanded flexibilities have since been ended but many have been made permanent.[100]

Most recently, on February 1, 2024, the Substance Abuse and Mental Health Services Administration (SAMHSA), announced a final rule updating the regulations regarding Opioid Treatment Programs (OTPs) as part of the Biden Administration's Overdose Prevention Strategy. These changes significantly increase access to methadone and buprenorphine, which are medications used to treat opioid use disorder. Specifically, it allows "take-home" doses of methadone and OTPs to use telemedicine to initiate buprenorphine from a patient's home.[101]

Increases in telehealth were also seen for individuals with other types of insurance coverage. One analysis of a cohort of working-age individuals enrolled in private health plans estimated telehealth use in ambulatory encounters increased from 0.3 percent of contacts in 2019 to 23.6 percent in March-June 2020.[102] Another nation-wide analysis of health insurance claims from individuals covered by employer-sponsored insurance showed the use of telehealth increased by 4,081 percent between April 2019 to April 2020.[103]

However, telehealth utilization did not increase for everyone equally; some analyses have shown that uptake among urban individuals was higher than among rural individuals.[104] In general, there are constraints and challenges which may prevent some individuals from taking up telehealth as easily. For instance, in rural areas, the availability and affordability of broadband internet access can make using telehealth, particularly with video, more challenging. One analysis using U.S. Census Bureau's 2019 American Community Survey estimated that 60.9 percent of persons in non-metropolitan areas reported having access to broadband internet service while 13.4 percent had no internet access at all, compared to 76.7 percent and 7.4 percent, respectively of persons in metropolitan areas.[105] Even if broadband internet is technically available in a given area, it still may not be financially accessible for some individuals or families, in addition to potential barriers in terms of technological literacy and access to necessary devices.[106]

After those large increases in the first few months of the pandemic and as some flexibilities ended, telehealth utilization has declined substantially from its high in the early months of the pandemic. More recent utilization is at a lower level (although still higher than pre-pandemic).[107,108,109] How telehealth utilization grows or declines in the future may depend not only on improved broadband access, the expansion of which has been funded by the Infrastructure Investment and Jobs Act,[*] but advancements in telehealth technology and continued changes in policy for Medicare, Medicaid, and commercial insurers.

Workforce Programs

The federal government, and particularly HHS, support many programs with the goal of supporting and growing the health care workforce in underserved populations and communities, including rural communities. These programs have the goal of decreasing shortages and improving distribution of provider and increasing

[*] Examples of recent investments announced from this funding are available here: https://www.usda.gov/media/press-releases/2024/02/21/biden-harris-administration-announces-over-770-million-rural. Funding from the Infrastructure Investment and Jobs Act is now largely with states for deployment (more information as of two years after the law's passage can be found here: https://broadbandusa.ntia.gov/news/latest-news/investment-meets-impact-celebrating-2nd-anniversary-bipartisan-infrastructure-law#:~:text=On%20November%2015th%2C%202021%2C%20President,access%20for%20people%20across%20America). A resource designed for rural communities in particular can be found here: https://www.whitehouse.gov/wp-content/uploads/2022/04/BIL-Rural-Playbook-.pdf.

access to high-quality care. Within HHS, programs supported by HRSA that focus on workforce development and deployment account for approximately $2.4 billion in funding annually.[*]

Some examples of HHS's workforce programs and programs with significant rural workforce implications and their impact in rural areas include the following:

- HRSA operates the National Health Service Corps (NHSC) and the Nurse Corps (NC) programs. The NHSC includes a number of programs focusing on primary care, medical, dental, and behavioral health providers all focused on scholarship or loan repayment support in exchange for service in a Health Professional Shortage Area (HPSA) or a critical shortage facility (CSF). Although some HPSAs are geography-based, others are determined based on populations that are underserved or facilities, such as health centers, that address the needs of the underserved. Many NHSC participants serve in FQHCs. Figure 6 (above) showed the distribution of primary care geographic HPSAs across the country to illustrate where they are located and their overlap with rural areas and states. As a result, more than one in three providers participating in the NHSC works in a rural area.[110] A related program is the Nurse Corps program, which provides loan repayment and scholarships to nurses and nursing students in exchange for a commitment to work at facilities with a shortage of nurses or to serve as a nurse faculty in a CSF such as a FQHC, a small rural hospital, a Rural Health Clinic, or an eligible school of nursing. As of September 30, 2023, the Nurse Corps field strength was 3,628 clinicians (with 20 percent serving in a rural setting) and the NHSC field strength was 18,335 clinicians (with 38 percent serving in rural settings).[†] COVID-19-related legislation provided additional support to these programs, leading to historically high field strength levels.[111] Indian health professionals are eligible to apply to participate in NHSH and NC as well as the Indian Health Service Loan Repayment Program, which provides loan repayment support for recipients serving in an eligible Indian health facility.[‡]

  20 percent *of current NC providers works in a rural setting*
  37 percent *of current NHSC providers works in a rural setting*
  50 percent *of recent graduates of the BHWET Program who responded to the follow-up survey work in a medically underserved community*
  15 percent of recent graduates of the BHWET Program who responded to the follow-up survey work in a rural community
  9.7 million *rural residents were served by HRSA-funded health centers in 2023*

- HRSA funds the Area Health Education Center grant program, which funds grantees who provide community-based training and develop partnerships in their communities. The purpose of the program is to improve distribution and quality of care, particularly in rural and underserved communities. During the academic year 2022-2023, 22 percent of the individuals who had completed one of these training programs were from rural backgrounds and 47 percent or more of the experiential training sites were in rural areas.[112]

[*] More detail on all of HRSA's workforce programs can be found here: https://bhw.hrsa.gov/programs and more details about HRSA's budget can be found here: https://www.hrsa.gov/about/budget

[†] More detailed information on these programs and their field strength is available at HRSA's website here: https://data.hrsa.gov/topics/health-workforce/field-strength

[‡] More information on the Indian Health Service Loan Repayment Program, and other related options and programs, is available here: https://www.ihs.gov/careeropps/loanrepayment/

- HRSA funds the HRSA's Behavioral Health Workforce Education and Training (BHWET) Program, which funds a variety of initiatives with the goal of enhancing the quality of education and clinical training of the behavioral health workforce. An additional goal is to increase the number of individuals working as behavioral health providers and paraprofessionals. The program has a particular focus on providing training for serving in underserved and rural communities. Of the academic year 2022-2023 graduates who responded to a follow-up survey after the program, 50 percent reported working in a medically underserved community and 15 percent reported working in a rural community.[113]

- HRSA funds the Rural Residency Planning and Development Program, which provides grants to develop new, rural residency programs in family medicine, internal medicine, preventive medicine, psychiatry, general surgery, and obstetrics/gynecology. The goal of the program is to support the expansion of the physician workforce in rural areas. The first cohort of awards was funded in FY 2019, and as of October 2024, award recipients have created 47 new, accredited rural residency programs creating 587 approved residency positions to train in rural settings.[*]

- The Teaching Health Center Graduate Medical Education (TCHGME) Program is a residency program training physicians in community-based, ambulatory settings rather than in hospitals, including in FQHCs, Rural Health Clinics, and tribal health centers. The focus of these residency programs is on primary care, and in the academic year 2022-2023 the program is funding the training of approximately 1,096 residents in 72 residency programs. 21 percent of the clinical training sites are in rural areas.[†,114]

Rural Health Clinics and Health Centers

In addition to its workforce program, HHS also supports certain types of care facilities that have a particular focus on serving underserved communities and populations, including health care facilities serving rural areas. One important example is HRSA's funding for the Health Center Program. This funding supports health centers, which provide community-based, culturally competent primary and specialty care. These facilities serve vulnerable populations and provide services regardless of a patient's ability to pay (and on a sliding fee scale). They are located in areas that are underserved and where there may be barriers to access to care.

Health center services always include primary medical care and often include pharmacy, mental health, substance abuse, and oral health services coupled with enabling services, such as case management, outreach and enrollment support, transportation, interpretation and health education, to help ensure that clients are able to access the health care they need. In 2023, HRSA-funded health centers provided care to more than 31 million people, including more than 9.7 million rural residents and 24.7 million patients who were uninsured or covered by Medicaid or Medicare. About 90 percent of the patients served at health centers had incomes at or below 200 percent of the federal poverty level.[115] In 2022, more than 40 percent of HRSA-funded health center organizations were located in rural areas.[116]

Another example is CMS Rural Health Clinic (RHC) certification, in which health care facilities that meet certain requirements are paid at enhanced rates by Medicare and Medicaid.[‡] RHCs must be located in rural,

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[*] More information about this program and the program recipients is available here: https://www.hrsa.gov/rural-health/grants/rural-health-research-policy/rrpd and at https://ruralgme.org/

[†] More information about THCGME program and the residency programs and residents trained is available here: https://bhw.hrsa.gov/funding/apply-grant/teaching-health-center-graduate-medical-education

[‡] For more information about the Rural Health Clinic certification, including detailed information on how RHCs are paid under Medicare and Medicaid, see here: https://www.ruralhealthinfo.org/topics/rural-health-clinics

underserved areas and meet certain other requirements including using a team approach to delivering care with physicians working with non-physician practitioners, such as nurse practitioners and physician assistants. RHCs are also required to provide outpatient primary care and basic laboratory services.[117] As of September 2024, there were 5,601 RHCs distributed across 45 states.[118]

CONCLUSION

Although rural areas are diverse and vary widely across the country along multiple dimensions, on average, disparities in health outcomes and mortality between urban and rural communities have persisted for many years despite being a focus of policy efforts to address poor health outcomes. These disparities are worse for more vulnerable populations in rural areas, such as people of color, older people, and people with low incomes. Although rural communities differ in terms of population size, racial/ethnic composition, geography, and economic characteristics, there are some common shared geographic and demographic challenges that can contribute to challenges in access to care and health disparities. These include long travel distance or time to care, infrastructure limitations, shortages of providers, lack of reliable broadband access, and aging populations.

One important way to increase access to care is to expand health insurance coverage. The uninsured rates in rural areas have fallen substantially since the passage of the ACA (as have uninsured rates in urban areas), but overall uninsured rates in rural areas continue to be consistently higher than those in urban areas. Medicaid enrollment in particular is an important source of coverage in rural areas, with the percent of individuals living in rural areas covered by Medicaid higher than in urban areas. The number of people covered by Medicaid has increased substantially since the passage of the ACA. In addition, states that have not expanded their Medicaid programs to certain low-income adults have higher rural uninsured rates than states that have expanded Medicaid. More than 2,900,000 HealthCare.gov enrollees are in rural areas, and 7 in 10 individuals who remain uninsured in rural areas of states that use the HealthCare.gov platform may be able to find zero- or low-premium plans (after premium tax credits) under the ARP/IRA suggesting the importance of outreach and enrollment activities.

A related strategy to increase access to care is to expand the range of services provided by HHS programs to work toward improving health outcomes and minimizing the disparities between rural and urban areas. This report describes some of the ways HHS is trying to narrow the gap—including by supporting the increased use of telehealth, health workforce programs, the Health Center Program and Rural Health Clinics—as well as how these may contribute to reducing barriers to care in rural communities.

APPENDIX

Appendix Table 1: Number and Share of Uninsured Rural Non-Elderly Adults (18-64) By State, 2010 and 2023

State	Share Uninsured (2010)	Share Uninsured (2023)	Change
Alabama	25.2%	14.6%	-10.6%
Alaska	26.2%	19.5%	-6.7%
Arizona	23.5%	18.2%	-5.3%
Arkansas	28.8%	13.5%	-15.3%
California	26.4%	8.7%	-17.7%
Colorado	23.1%	12.5%	-10.6%
Connecticut	N/A	7.2%	
Delaware	19.7%	12.3%	-7.4%
Florida	34.3%	23.1%	-11.2%
Georgia	32.0%	24.5%	-7.5%
Hawaii	15.1%	3.7%	-11.4%
Idaho	26.9%	7.4%	-19.5%
Illinois	18.2%	11.5%	-6.7%
Indiana	22.7%	7.9%	-14.8%
Iowa	14.5%	13.3%	-1.2%
Kansas	19.7%	9.6%	-10.1%
Kentucky	24.8%	10.3%	-14.5%
Louisiana	31.2%	11.3%	-19.9%
Maine	17.1%	8.9%	-8.2%
Maryland	19.9%	7.6%	-12.3%
Massachusetts	5.4%	16.5%	11.1%
Michigan	22.2%	16.3%	-5.9%
Minnesota	12.7%	15.4%	2.7%
Mississippi	27.9%	10.8%	-17.1%
Missouri	22.5%	15.8%	-6.7%
Montana	22.3%	7.5%	-14.8%
Nebraska	18.0%	13.2%	-4.8%
Nevada	25.1%	6.0%	-19.1%
New Hampshire	18.5%	16.7%	-1.8%
New Mexico	34.1%	7.9%	-26.2%
New York	16.8%	9.6%	-7.2%
North Carolina	26.5%	19.2%	-7.3%
North Dakota	15.6%	9.7%	-5.9%
Ohio	19.2%	9.1%	-10.1%
Oklahoma	30.0%	16.7%	-13.3%
Oregon	27.5%	14.5%	-13.0%
Pennsylvania	17.5%	16.1%	-1.4%
South Carolina	27.9%	27.2%	-0.7%
South Dakota	19.9%	11.5%	-8.4%
Tennessee	22.9%	4.7%	-18.2%
Texas	35.4%	9.6%	-25.8%

Utah	19.3%	12.1%	-7.2%
Vermont	13.3%	8.9%	-4.4%
Virginia	21.0%	7.4%	-13.6%
Washington	24.3%	16.0%	-8.3%
West Virginia	23.9%	14.6%	-9.3%
Wisconsin	13.5%	19.5%	6.0%
Wyoming	19.5%	18.2%	-1.3%

Source: American Community Survey (ACS), 1-year estimates, 2010 and 2023.
*Definition of rural and urban based on PUMA to CBSA (where CBSA metropolitan areas are “urban” and non-metropolitan areas are “rural”).

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