

Medicaid and Rural Health

Medicaid is an important source of health care coverage for the 60 million Americans living in rural areas (U.S. Census Bureau 2017).¹ Nearly a quarter of individuals under age 65 who live in rural areas are covered by Medicaid, as well as 22 percent of people dually enrolled in Medicaid and Medicare (NCHS 2018, MedPAC 2020).

Overall, rural residents have worse health outcomes and tend to be older, poorer, and sicker than those in urban areas (ERS 2020a, Foutz et al. 2017, Moy et al. 2017). They are also more likely to have lower levels of education, less likely to be in the labor force, and less likely to be covered by private insurance if they are working (Pender et al. 2019, Mueller et al. 2018, Foutz et al. 2017). Rural residents face barriers to accessing health care due to a limited number of providers, especially those providing specialized care. They may also lack access to reliable transportation and may have to travel long distances to access health care services (Foutz et al. 2017).

This brief provides an overview of the role Medicaid plays in rural health. It begins by describing the characteristics of rural residents generally, including socioeconomic factors, insurance status, and health status. It then describes provider availability, particularly for primary care services and rural hospitals. It concludes by discussing a few Medicaid policies that are particularly important for providing health care in rural areas.

Characteristics of Rural Residents

While we have limited data on Medicaid beneficiaries living in rural areas, general information on rural residents may shed light on their circumstances. As such, some of the characteristics of rural residents described below are likely true for Medicaid beneficiaries living in those areas.

Socioeconomic characteristics

Rural residents have lower incomes than their urban counterparts and rural areas have higher overall poverty rates, particularly among racial and ethnic minorities.² While less than one quarter of individuals living in rural areas are racial and ethnic minorities, in 2018, rural residents who are Black had the highest rate of poverty (31.6 percent), followed by American Indians and Alaska Natives (30.9 percent), and those of Hispanic origin (23.8 percent) (ERS 2020b, Foutz et al. 2017). By contrast, the poverty rate for rural whites was 14.0 percent (ERS 2020b).



Insurance coverage

Individuals under age 65 who live in rural areas are less likely to have private insurance coverage and are more likely to be uninsured than residents of urban and other areas.³ This is due in part to greater employment in jobs that do not offer employer-sponsored insurance and lower participation in the labor force (Foutz et al. 2017).⁴ In addition, many rural states have not expanded Medicaid to the new adult group.

Rural areas in states that implemented the Medicaid expansion to low-income adults under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) experienced larger gains in coverage than those in non-expansion states.⁵ In rural areas, the Medicaid coverage rate in expansion states increased from 21 to 26 percent between 2013 and 2015, while non-expansion states saw an increase of one percentage point from 20 to 21 percent. During this same time period, the uninsured rate in rural areas within expansion states fell by nearly half from 16 to 9 percent; largely a reflection of gains in Medicaid coverage in these states (Foutz et al. 2017).

Health status

Rural residents have worse health outcomes and higher death rates than their urban counterparts. For example, individuals living in rural areas report poorer physical and mental health, and have higher rates of cigarette smoking, obesity, and physical inactivity (Moy et al. 2017). Mortality rates are higher in rural areas for the five major causes of death in the United States—heart disease, cancer, unintentional injury, chronic respiratory disease, and stroke—and rural individuals are also more likely to die by suicide or from a drug overdose (Mack et al. 2017, Moy et al. 2017, Ivey-Stephenson et al. 2017). Pregnant and postpartum women in rural areas may also have worse outcomes; one study found that rural women had a 9 percent greater probability of severe maternal morbidity and mortality compared to urban residents (Kozhimannil et al. 2019).^{6,7} Compared to urban residents with Medicaid, more rural residents report having a disability or being limited in their ability to work due to a health problem (MACPAC 2018a).⁸

Provider Availability in Rural Areas

Rural residents have less access to health care services and are less likely to receive preventive services than their urban counterparts, in part because fewer health care professionals are located in rural areas (Moy et al. 2017). More than half of all primary care, mental health, and dental health professional shortage areas (HPSAs) nationally are located in rural areas (BHW 2020).⁹ Shortages of behavioral health providers such as psychologists, psychiatrists, and social workers are particularly pronounced in rural areas; and residents may also have difficulty gaining access to medical specialists (BPC 2020, KFF 2017). Hospitals are an important source of care in rural areas, particularly for medical specialists; however, recent closures have also reduced access in rural areas (Sheps Center 2021, GAO 2020a).

Primary care

Many rural residents lack access to primary care providers (Clawar et al. 2018, Starfield et al. 2005). About 6 out of 10 primary care HPSAs are located in rural areas (BHW 2020). Rural health clinics (RHCs), which



operate in rural areas designated as shortage areas, and federally qualified health centers (FQHCs) provide primary and preventive health care and basic laboratory services in some rural areas.¹⁰ However, in 2017, more than 17 million people lived in rural counties without RHCs, and 15 million people lived in rural counties without FQHCs. Most of these counties are located in the South and Midwest (Clawar et al. 2018).

The supply of many types of primary providers is lower in rural areas than it is in urban areas, including for primary care physicians, dentists, registered nurses, physician assistants (PAs), nurse practitioners (NPs), and obstetricians (RHIhub 2020). In addition, the rural health care workforce is aging and the number of younger physicians entering rural practice has declined (Skinner et al. 2019).¹¹ These shortages are expected to grow, as it is estimated that the United States will have a national shortage of between 21,400 and 55,200 primary care physicians by 2033 (AAMC 2020).

Increased Medicaid coverage in expansion states has improved access to care. A study of community health center (CHC) patients found that, for rural CHCs, Medicaid expansion was associated with significant increases in the number of visits for 18 different visit types, such as mammograms and substance use disorders (Cole et al. 2018). Another study of CHCs found that for the period 2013 through 2017, CHCs increased behavioral health staffing faster in rural areas than urban areas, which they contribute in part to growth in patient volumes as a result of Medicaid expansion (Han and Ku 2019).¹²

State scope of practice rules may also affect access to primary care. Mid-level practitioners, such as NPs and PAs can provide primary care services, but some states require them to work under the supervision of a physician, which can limit their ability to provide care in rural communities.¹³ In 22 states and the District of Columbia, NPs are allowed to practice to the full extent of their training, including prescribing medication without the supervision of a physician, while 28 states limit the types of services NPs may provide and require additional supervision (AANP 2019).¹⁴ Expanding scope of practice laws can increase access to health care services (Traczynski and Udalova 2018, Xue et al. 2016). For example, after enactment of the Comprehensive Addiction and Recovery Act of 2016 (CARA, P.L. 114-198) enabled NPs and PAs to obtain federal waivers to prescribe buprenorphine for individuals with opioid use disorders, the number of providers in rural counties able to provide these services grew substantially.¹⁵ The fastest growth of waived providers was in rural counties where NPs were allowed to exercise the full scope of practice (Barnett et al. 2019).

Rural hospitals

Rural hospitals are an important provider of inpatient, outpatient, and emergency services for rural communities (MACPAC 2021). Such hospitals may include critical access hospitals (CAHs)—small hospitals that receive a special payment designation from Medicare—as well as larger hospitals that offer more specialty care.¹⁶

Rural hospitals face financial pressures due to low occupancy rates, high levels of uncompensated care, competition from other hospitals, and weak local economies (BPC 2020, MACPAC 2018b).¹⁷ As such, rural hospitals tend to be less profitable than urban hospitals, and at greater risk of closure; since 2010, 136 rural hospitals have closed, including 20 that closed in 2020 (Sheps Center 2021, Pink et al. 2018).



Rural hospital closures reduce access to emergency care, primary care services, and specialty care. One study reported that people chose to forego services such as laboratory and diagnostic tests after their local rural hospital closed, and the unmet need for behavioral health care intensified (Wishner et al. 2016). Another study found that rural hospital closures in California increased inpatient mortality rates by 5.9 percent (Gujral and Basu 2019).

When rural hospitals close, patients must travel further to access services. One analysis found that for residents living in the closed hospitals' service areas, the distance people had to travel to access general inpatient care or an emergency department increased by about 20 miles (GAO 2020a). Another study found that, following rural hospital closures, low-income and elderly patients were more likely than others to report delaying or forgoing needed care because of transportation challenges (Wishner et al. 2016).

Closures of specific services (e.g., obstetrical services) or entire facilities can have ripple effects. For example, one study found that rural hospital closures were associated with immediate and persistent decreases in the supply of surgical specialists and long-term decreases in the supply of physicians across multiple specialties. Rural hospital closure was associated with an average annual reduction in the supply of these physicians of 8.3 percent for primary care physicians and 4.8 percent for obstetrician-gynecologists (Germack et al. 2019). Another study also found that counties with rural hospital closures had fewer physicians, PAs, and advanced practice registered nurses than counties without closures (GAO 2020a).

Medicaid expansion has implications for the financial viability of rural health care providers. One study found that expansion was associated with improved hospital financial performance and lower likelihood of closure, particularly in rural areas that had many uninsured adults prior to Medicaid expansion (Lindrooth et al. 2018). Medicaid expansion has also helped prevent some CAHs from closing by reducing the uninsured rates and the amount of bad debt the hospital accumulates for performing charity care, for which they do not receive reimbursement (BPC 2018).

Obstetrical services. Access to obstetrical services is a particular problem in rural areas, especially in areas where hospitals and obstetric units have closed. Between 2004 and 2014, 9 percent of rural counties experienced a loss of all hospital obstetric services (Hung et al. 2017). One study found that more than half of all rural counties did not have hospital obstetric services in 2014 (Hung et al. 2017). Because almost all births financed by Medicaid occur in a hospital setting, this means that there are fewer options for women living in rural areas (MACPAC 2020, CMS 2019, Hung et al. 2017). The loss of hospital obstetric services in rural counties not adjacent to urban areas was associated with increases in out-of-hospital and preterm births and births in hospitals without obstetric units (Kozhimannil et al. 2018).

The Role of Medicaid in Rural Areas

Medicaid plays an important role in ensuring access to health care in rural areas. Nearly 14 million Medicaid enrollees live in rural areas, representing 17 percent of all Medicaid beneficiaries (CMS 2020b).¹⁸ Moreover, in states with both rural and urban areas, Medicaid coverage rates are generally higher in rural areas of the state compared to other areas (Foutz et al. 2017).¹⁹ Additionally, although they have fewer



providers overall, physicians in these areas are more likely than those in urban areas to accept new Medicaid patients, and about as likely to accept new patients with Medicaid coverage as they are patients with private coverage. In 11 states where more than half the population lives in rural areas, the median Medicaid physician participation rate is 90 percent (Paradise 2017).

Like most rural residents, Medicaid enrollees face many barriers to accessing health care services; however, hospital payment policy and use of several particular Medicaid services can help address some of these barriers.²⁰ Access in rural areas is also affected by multiple other players, including Medicare, private insurers, and many other federal agencies, such as the U.S. Department of Health and Human Services, Health Resources & Services Administration, Indian Health Service, Substance Abuse and Mental Health Services Administration, and the U.S. Department of Agriculture.

Hospital payment policy

Many states have established special payment policies for rural hospitals, often using a different payment method than they use for hospitals in other locations or making adjustments to payment rates. Several states use cost-based payment methods for inpatient and outpatient services provided at CAHs and apply special rules for certain hospital types. Examples of these adjustments include different base rates, wage index adjustments, and service-specific adjustments (MACPAC 2018b).

Several states also target Medicaid supplemental payments to rural and critical access hospitals. The two largest types of Medicaid supplemental payments to hospitals are disproportionate share hospital (DSH) payments, which support hospital uncompensated care for both Medicaid-enrolled and uninsured patients, and upper payment limit (UPL) supplemental payments, which are intended to fill the gap between fee-for-service (FFS) Medicaid base payments and the amount that Medicare would have paid. Fifteen states explicitly target DSH payments to rural or critical access hospitals, and nine states explicitly target inpatient hospital UPL payments to these providers (MACPAC 2017, MACPAC 2016).

The Centers for Medicare & Medicaid Services Innovation Center (CMMI) is testing the use of global payments for rural hospitals in a couple of states, and launching a new payment and delivery model targeting rural health care delivery systems. For example, 18 critical access hospitals and acute care hospitals in rural Pennsylvania participate in the Pennsylvania Rural Health Model that tests whether hospital global budgets and hospital care delivery transformation together can increase access to care and improve health outcomes, while reducing the growth of hospital expenditures across payers. Payers include Medicare, Medicaid, and certain commercial plans. The model began in 2017 with a two-year pre-implementation period, followed by the performance period that began in 2019 and goes through 2024 (CMS 2021a).

In August 2020, CMMI announced the Community Health Access and Rural Transformation (CHART) Model, which will use new financial arrangements and operational and regulatory flexibilities to provide a way for rural communities to transform their health care delivery systems. In particular, the model aims to increase the financial stability of rural providers through new payment approaches that provide up-front investments and predictable, capitated payments that pay for quality and patient outcomes. As part of the community transformation track, Medicaid agencies can serve as the lead organization, responsible for



Medicaid and CHIP Payment
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working closely with model participants (e.g., rural hospitals). Other entities can also serve as lead organizations, but must engage with state Medicaid agencies. Applications for the community transformation track are due in May 2021 (CMS 2021b).²¹

Other services

With fewer providers and longer distances to travel to receive care, many rural residents face barriers to accessing medical services. Two Medicaid covered services—non-emergency medical transportation (NEMT) and telehealth—while not unique for rural residents, are particularly important in facilitating access to care for these individuals.

Non-emergency medical transportation. Federal Medicaid law requires that states ensure transportation to and from medical appointments for Medicaid beneficiaries with no other means of accessing services. NEMT generally covers a broad range of transportation services including trips in taxis, buses, vans, public transportation, and personal vehicles belonging to beneficiaries and their family or friends. States differ in how they deliver NEMT services and in how they administer the benefit, but are required to use the most appropriate form of transportation for the beneficiary. States are also required to provide assistance with transportation for children and their families as part of Medicaid’s early and periodic screening, diagnostic, and treatment (EPSDT) benefit.

A MACPAC analysis of NEMT utilization by urban and rural geographic areas found that among beneficiaries who used NEMT those living in urban areas did so with greater frequency than those living in rural areas, averaging 19.8 ride-days compared to 15.8 ride-days in 2018. This may be due in part to more limited NEMT access in rural areas, as the NEMT provider network is usually more robust in urban areas than rural ones; rural beneficiaries often have few NEMT providers to choose from (Buderi and Pervin 2021).

Telehealth. The use of technology, including interactive telecommunication, to deliver medical and other health services to patients, commonly referred to as telehealth, can eliminate many access barriers for residents of rural and frontier communities. Telehealth permits patients at one site to receive care or health education from providers at another site and lets patients, caregivers, and providers in one location consult with providers at a different site (MACPAC 2018c). Rural residents may use telehealth more frequently than individuals in urban areas; one study noted Medicaid beneficiaries living in rural areas were 17 times more likely to use telehealth compared to individuals in large metropolitan areas (Daugherty Douglas et al. 2017). These patterns may change, however, due to increased use of telehealth across all areas during the COVID-19 pandemic.

States have broad flexibility to determine parameters for Medicaid coverage of telehealth; and nearly all states and the District of Columbia provide coverage for at least one telehealth modality in Medicaid FFS (MACPAC 2018c).²² Moreover, all states and the District of Columbia have expanded use of telehealth to some degree in response to the COVID-19 pandemic. Many states expanded the types of services eligible to be delivered through telehealth, such as physical, occupational, and speech therapy, as well as long-term services and supports, dental services, maternity care and primary care services. States also



expanded the types of providers eligible to deliver services via telehealth and the modalities through which beneficiaries could receive telehealth, among other provisions (Libersky et al. 2020).

Even though the use of telehealth is growing and is a promising mechanism for improving access, rural residents' ability to use such services can be hampered by inadequate broadband access. Because telehealth relies on the electronic transmission of data, video, and images, reliable and affordable broadband connectivity is crucial. However, some areas—such as rural areas and Indian reservations where access to care could be improved through use of telehealth—lack such connectivity (ASPE 2016).²³ Moreover, when broadband is available in rural areas, its cost can be three times that in urban areas, which may make it cost prohibitive for some providers (ASPE 2016).²⁴

Endnotes

¹ The U.S. Census Bureau identifies two types of urban areas: urbanized areas (UA) as those with 50,000 or more residents and urban clusters (UC) as those with 2,500 to 50,000 residents; any territory, population or housing unit located outside of UAs and UCs are considered rural (U.S. Census Bureau 2017). There are many ways in which to define rural, and not all federal programs use the same definition (Bennett et al. 2019). For example, the Centers for Medicare & Medicaid Services (CMS) often uses the U.S. Census Bureau's definition (RHHub 2019). In contrast, the Health Resources & Services Administration (HRSA) Federal Office of Rural Health Policy, which was created in 1987 to advise the Secretary of the U.S. Department of Health and Human Services (HHS) on health care issues impacting rural communities, uses Rural-Urban Commuting Area (RUCA) codes to determine rurality (FORHP 2019, 2018). For purposes of this brief, we used the terms rural and urban generally, however, we do note that many of the programs and sources cited throughout use varying definitions of rural.

² The poverty rate for children in rural areas is particularly high; in 2018, 22.4 percent of rural children were poor, compared to 17.3 percent of children living in urban areas (ERS 2020b).

³ In 2017, the uninsured rate for individuals under the age of 65 in rural areas was 12.3 percent, compared to 10.1 percent for mostly urban areas (Cheeseman Day 2019).

⁴ In 2018, rural areas had a labor force participation rate of 57.6 percent compared to 63.7 percent in urban areas (Pender et al. 2019). Unemployment is slightly higher in rural areas (4.2 percent compared to 3.9 percent in urban areas in 2018) (ERS 2019).

⁵ As of March 2021, 36 states and the District of Columbia have adopted and implemented the Medicaid expansion created by the ACA, 2 states have adopted but not implemented, and 12 states have not adopted Medicaid expansion (KFF 2021).

⁶ This finding was after controlling for sociodemographic factors and clinical conditions (Kozhimannil et al. 2019).

⁷ MACPAC uses the term pregnant women as this is the term used in the statute and regulations. However, the term birthing people is being used increasingly, as it is more inclusive and recognizes that not all individuals who become pregnant and give birth identify as women.

⁸ Medicaid plays an important role in providing services to rural residents who are older or have disabilities and might require long-term services and supports (LTSS), as Medicaid is the primary payer of LTSS, including home- and community-based services (Coburn et al. 2017).



⁹ HRSA uses a measure called health professional shortage areas (HPSAs) to identify geographic areas, population groups or facilities within the U.S. that have a health care workforce shortage. Geographic HPSAs have a shortage of services for the entire population within an established geographic area. Population HPSAs have a shortage of services for a specific population subset within an established geographic area. Facility HPSAs include state mental hospitals, correctional facilities, and other facilities (BHW 2019).

HRSA breaks down the location of HPSAs by rural, partially rural, non-rural, and unknown. Nationally, as of December 31, 2020, there were 7,290 primary care HPSAs, 6,559 dental HPSAs, and 5,820 mental health HPSAs. There were 4,485 primary care HPSAs in rural areas and 482 in partially rural areas, 4,137 dental HPSAs in rural and 367 in partially rural areas, and 3,409 mental health HPSAs in rural and 469 in partially rural areas (BHW 2020).

¹⁰ RHCs operate in rural areas designated as shortage areas, cannot be a rehabilitation agency or a facility primarily for the care and treatment of mental diseases, and must meet all other requirements at 42 CFR 405 and 491 (CMS 2020a). RHCs are certified for participation in Medicare, and a clinic certified under Medicare is deemed to meet the standards for certification under Medicaid (42 CFR 491.3). For the purpose of RHC designation, rural areas are those not delineated as urbanized areas in the last census conducted by the U.S. Census Bureau (42 CFR 491.5). FQHCs are outpatient health centers that receive federal grant funding under Section 330 of the Public Health Service Act (PHSA, P.L. 115-96, as amended).

¹¹ From 2000 to 2017, the total number of rural physicians grew 3 percent, but the number of physicians under the age of 50 decreased by 25 percent. By 2017, more than half of rural physicians were 50 or older (Skinner et al. 2019).

¹² From 2013 to 2017, the average number of behavioral health professionals in rural CHCs increased by 66 percent, compared to 49 percent in urban centers. During this period, however, rural centers on average had fewer full-time behavioral health staff than urban centers (Han and Ku 2019).

¹³ Scope of practice is a term that describes what type of services a member of a specific health profession can provide under certain conditions. There are two types of scope of practice: professional scope of practice, which describes the services that a profession's members are trained and competent to perform; and legal scope of practice, which refers to state laws and regulations that dictate what services the members of a profession may or may not provide. Practice acts, which are passed by state legislatures, give health professionals the authority to provide care to patients; these acts and associated regulations also spell out the necessary education and training, licensure, supervision, and disciplinary processes (Dower et al. 2013).

¹⁴ State practice and licensure laws that permit all NPs to evaluate patients; diagnose, order and interpret diagnostic tests; and initiate and manage treatments, including prescribing medications and controlled substances, under the exclusive licensure authority of the state board of nursing is considered full scope of practice (22 states and the District of Columbia). Under reduced practice, state practice and licensure laws limit the ability of NPs to engage in at least one element of NP practice; and state law requires career-long regulated collaborative agreements with another health provider in order for the NP to provide patient care, or it limits the setting of one or more elements of NP practice (16 states). Under restricted practice, state practice and licensure laws restrict the ability of NPs to engage in at least one element of NP practice; and state law requires career-long supervision, delegation or team management by another health provider in order for the NP to provide patient care (12 states) (AANP 2019).

¹⁵ From 2016 to 2019 the number of waived clinicians per 100,000 population in rural areas increased by 111 percent; NPs and PAs accounted for more than half of this increase. By March of 2019, 12,706 NPs and PAs had obtained waivers. 637 rural counties containing 24 million people had at least one NP or PA with a waiver (Barnett 2019).

¹⁶ To be considered a critical access hospital (CAH), a hospital cannot have more than 25 inpatient beds and must be at least 15 miles by secondary road and 35 miles by primary road from the nearest hospital (BPC 2018). In fiscal year (FY) 2017, 1,246 rural hospitals were CAHs (GAO 2020b).

¹⁷ In 2015, the aggregate operating margins for rural hospitals was -0.2 percent compared to 1.2 percent for urban hospitals (MACPAC 2018b).



¹⁸ Enrollees were estimated using the Transformed Medicaid Statistical Information System (T-MSIS) and are defined as full-benefit beneficiaries in FY 2018. Rural areas were defined using zip-code level RUCA classifications.

¹⁹ By one definition of urban and rural, Delaware, New Jersey, Rhode Island, and the District of Columbia have no rural counties (Gong et al. 2019).

²⁰ Adults and children with Medicaid coverage in both urban and rural areas are more likely than those with private coverage to report barriers to care or unmet need (MACPAC 2018a).

²¹ The CHART Model has a second track, the accountable care organization (ACO) transformation track, in which CMS will select up to 20 rural-focused ACOs that will receive advanced payments as part of joining the Medicare Shared Savings Program. The request for applications for the ACO transformation track has not yet been posted at time of writing, but CMS indicates they will be available in spring of 2022 (CMS 2021b).

²² As of October 2017, 49 states and the District of Columbia covered live video, 21 states covered remote patient monitoring, and 15 states covered store-and-forward in FFS Medicaid (MACPAC 2018c).

²³ By the end of 2017, 26 percent of rural Americans and 32 percent of Americans on Tribal lands lacked access to 25 Mbps/3 Mbps broadband, compared to 1.7 percent of urban Americans (FCC 2019).

²⁴ Although the Federal Communications Commission and the U.S. Department of Agriculture have programs to facilitate expansion of broadband to rural areas, the required application, cost sharing, and process for obtaining the funds may prevent health care providers from accessing them (ASPE 2016). In addition, there are likely to be costs associated with the acquisition, installation, maintenance, repair, and replacement of front-end technology needed to establish telehealth as a way of delivering services. However, not all states provide payment for these costs, which may be prohibitive and thus affect providers' ability or willingness to adopt telehealth (MACPAC 2018c).



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