

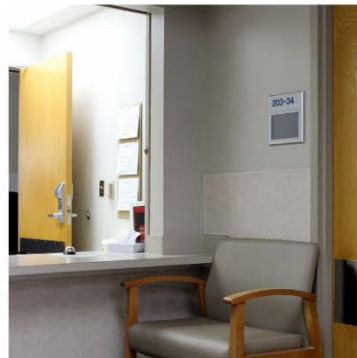
**2023**

# **SC Legislative Safety Net Proviso Report**

Proviso 33.22 DHHS: Rural Health Initiative

October 2023

Developed by the University of South Carolina Institute for Families in Society  
Under Contract to the  
SC Department of Health and Human Services



## **Acknowledgments**

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## **About IFS**

The University of South Carolina (USC) Institute for Families in Society (IFS) is a non-partisan, non-governmental institute established in 1992 to research the health and well-being of families and communities. The Division of Integrated Health and Policy Research (IHPR) within IFS conducted background research and analysis to prepare this report. IHPR is an interdisciplinary team with expertise in maternal and child health, health services and policy research, information technology, geographical information science (GIS), statistics, data science, and web and graphic design. As the fourth oldest University-Medicaid partnership in the nation, a large aspect of IHPR work is our technical assistance and research partnership with the State's Medicaid agency (SCDHHS). Our work also involves extensive GIS and visualizations to help inform data-driven decisions in collaboration with several state and federal agencies, organizations, and private foundations.

IFS has extensive experience in public health research and evaluation with qualitative and quantitative approaches. Specifically, we have years of experience and staff expertise collecting meaningful data from patients and providers and working with South Carolina's complex Medicaid datasets and other relevant public health and health care datasets.

## **Research Approach**

The research approach of IFS provides reports that help to improve policy and decision-making through research and analysis. We believe the best decisions are data-driven decisions with the understanding that health care delivery must consider the connection between the community of residence and potential outcomes. Publications as independent researchers do not necessarily reflect the opinions of our research clients and sponsors. IFS makes independent decisions about the evaluation itself, including methodology, analytical strategy, evaluation data analysis, and presentation of results.

## **Suggested Citation**

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Data Caveat: Provisions of the Families First Coronavirus Response Act (FFCRA) required states to maintain continuous eligibility for Medicaid members who were enrolled as of March 2020 throughout the coronavirus disease 2019 (COVID-19) federal public health emergency (PHE), which ended as of May 11, 2023.

## EXECUTIVE SUMMARY

The South Carolina Legislature initiated a mechanism to support and monitor the state's safety net as part of **Proviso 33.20**. This report analyzes the Safety Net Proviso for the state fiscal year (SFY) 2022 in South Carolina (SC). Utilizing a comprehensive approach, this report explores the data and trends that impact SC's safety net network, as outlined in section 33.22 of the proviso related to the "evaluation of the state's safety-net providers that include, at a minimum, Federally Qualified Health Centers, Rural Health Clinics, and to the extent applicable to funding received by the state, free clinics." In direct response to the Safety Net Proviso provided in Appendix A, this report examines South Carolina's urban-to-rural continuum, highlights general population trends, and evaluates the distance to care at each of the **three** safety net facility types identified in the proviso: Federally Qualified Health Centers (FQHCs), Rural Health Centers (RHCs), and Free Medical Clinics (FMCs). This report compares the SC safety net using the guidelines of the proviso for 2021 and 2022. It accomplishes the evaluation and monitoring goals intended in the proviso by updating the measures capturing the population demand and access to services with an extrapolation of health care status and outcomes. The key findings for the Safety Net Proviso evaluation provide a baseline of the changes during the height of the COVID-19 pandemic with higher stresses on the safety net population and providers. Overall, it identifies areas of potential changes with gains across the safety net system in South Carolina.

### Demand for Safety Net Services

The uninsurance rate and Medicaid enrollment serve as a proxy for health care safety net services demand. Different national and state surveys indicate 2022 uninsurance rates for SC across all ages, ranging between 8.4% and 7.9% for ages 18–64. SC rates for private insurance increased slightly from 2019 (63.4%) to 2021 (68.7%), while the uninsured and public insurance rates decreased. **Public health insurance coverage changes positively impact the lowering of uninsured rates** and the demand for safety net services. The county level analysis indicates not all counties experienced a decrease in the uninsured or poverty rates with differing age groups, and rural counties are more likely to experience increased demand for safety net services.

No county-level data was available for analysis at the time of this report. As such, the report examined changes between 2020 and 2021 county-level trends. The analysis documents the following findings using the American Community Survey (ACS) to indicate the source of insurance at the county level. Understanding county-level trends can provide baseline data related to potential interventions for leveraging resources to meet the demand for health services. Looking at the 1-year change (2020–2021) in the percentage of Medicaid and the uninsured population, ages 0–64, by county for all counties in the state, shows that:

- Statewide, the **uninsured** rate among persons ages 0–64 increased by 1.2% between 2020–2021.
  - Most significant increases were in Bamberg, Barnwell, Colleton, and Laurens counties, all of which saw a 10% to 17% increase among persons under 65.
  - Cherokee, Saluda, and Union counties saw a 9% increase in the rate of uninsured populations over this time.
- Over half of all counties saw a **decrease in the proportion of Medicaid enrollees**, ages 0 to 64 years, between 2020–2021.
  - Substantive declines were in Allendale, Lee, and McCormick counties, where Medicaid enrollment decreased by 10%–14% since 2020.
  - Enrollment increases surpassed 10% in Barnwell and Hampton counties. Medicaid enrollment in Edgefield, Fairfield, and York counties increased by 7% between 2020–2021.
- Some county-level similarities observed in uninsured and Medicaid enrollment changes included:
  - **Fairfield and Marlboro Counties showed some of the most significant declines in the uninsured rate and notable increases in Medicaid enrollment.**
  - **The rise in uninsured rates in Bamberg, Colleton, and Laurens Counties corresponded with a noticeable decline in their socioeconomic rankings.** The most substantial occurring in Colleton County, which moved from the 26th to the 35th rank in the state.

- Similar, albeit weaker, associations between a decrease in Medicaid enrollment and overall county-level socioeconomic improvements in CDC Social Vulnerability Index (SVI) scores were found in Allendale and Lee counties.
- **Among all counties, Greenwood exhibited the most significant overall reduction in Medicaid enrollment and the uninsured rate, dropping by 17% between 2020 and 2021.**
- **Additionally, Allendale, Calhoun, Jasper, and McCormick counties all saw a 10% decrease in their Medicaid enrollment and uninsured rates in 2021.**

According to the 2022 estimates from the U.S. Census Bureau, South Carolina ranked 10th in the nation, with 14.6% of its residents in poverty. Overall, household poverty rates among both young adults (ages < 18) and adults (ages 18–64) increased stepwise, moving from urban to suburban to rural counties. Approximately half of all young adults in Barnwell (50.9%) and Dillon (48.6%) had income levels below the federal poverty level in 2021, with both counties seeing an overall increase in poverty from 2020.

- ACS estimates of **household poverty rates among both young adults (ages < 18) and adults (ages 18–64) showed a stepwise increase across urban to suburban to rural counties:**
  - Approximately half of all young adults in Barnwell (50.9%) and Dillon (48.6%) had income levels below the federal poverty level in 2021, with both counties seeing an overall increase in their poverty rate from 2020.
  - However, rural areas also exhibited the most significant overall reduction in poverty since 2020. On average, rural poverty rates among young adults fell by 6% and 2.1% among adults aged 18 to 64 between 2020 and 2021.
  - **The most significant overall improvements in poverty occurred in Bamberg and Lee counties, both of which saw over a 30% decline in poverty among young adults. Similar but attenuated reductions in poverty among adults ages 18 to 64 also occurred within these two counties.**
- **Rural areas also exhibited the most significant overall reduction in poverty since 2020.**
  - **On average, poverty rates among young adults fell by 6% and 2.1% among adults aged 18 to 64 in rural areas between 2020 and 2021.**
  - The most **extensive overall improvements in poverty occurred in Bamberg and Lee counties**, both of which saw over a 30% decline in poverty among young adults. Similar but attenuated poverty reduction among all adults also occurred within these two counties.

## Access to Care

Access to health care refers to the ability to obtain needed medical services. Limited availability of health care resources is another barrier that may reduce access to health services and increase the risk of poor health outcomes.

- In 2022, **one in five South Carolinians lives in Health Professional Shortage Areas (HPSA) or Medically Underserved Areas (MUA)**. This represents over 1 million South Carolinians with the potential to not have access to needed health care services. Shortage designations identify areas and populations experiencing a less than needed health care services, serving as a guidepost for examining reduced access to care. HPSA and MUA/P are closely associated with the following:
  - Residing in rural areas with an aging population requires more primary and specialty care services.
  - Lack of health care educational programs with limited resources to increase the number of trained providers willing to practice outside urban centers.
  - Population shifts to urban locations, reducing the ability of rural practitioners and hospitals to sustain resources to provide services in HPSA and MUA/P service areas.
  - **Over the last two years, rural MUA households have seen the most remarkable overall improvement in broadband access, with household subscription rates increasing by 12.6% since 2019. Since 2017, household broadband access has improved by nearly 28% in rural MUAs.** Rural communities with increased broadband access have an improved ability to leverage

access to preventive and specialty care services through telemedicine, telehealth, and telepsychiatry initiatives compared to communities with lower access to broadband services.

- **Populations residing in geographical areas classified as Least Rural and Most Rural experience longer driving times to access safety net providers, on average.** Although the drive time to critical care hospitals in rural counties exceeds 60 minutes, individuals can access rural designated hospitals and those found in urban settings. The breakdown of driving times indicates the need to examine other services to increase access to health care (e.g., telehealth and the availability of broadband services in rural communities):
  - **South Carolinians can access an FQHC within 14.2 minutes from their residence, ranging from 11.9 minutes in Urban ZCTAs to 16.5 minutes in the Least Rural ZCTAs.** Approximately 60% of all Medicaid recipients (ages 0–64) and 58% of the uninsured population (ages 0–64) residing in Urban ZCTAs can access the nearest FQHC within these times, on average.
  - **Free Medical Clinics (FMCs) are the least accessible safety net providers in the state based on travel time.** On average, South Carolinians can access an FMC within 21.7 minutes from their residence, ranging from 14.2 minutes within Urban ZCTAs to 27.7 minutes in Most Rural ZCTAs.
  - While FQHCs and RHCs grew during the evaluation period, South Carolina's network of **FMCs saw a 15% decrease between 2022 and 2023**, with mostly rural areas going from 10 available locations down to 5.
  - **SC has experienced a sharp decline in its number of Rural Health Clinics.** These closures parallel trends that are occurring nationally. The loss of RHCs has been primarily borne out within the state's most rural and underserved communities, particularly since 2019. **Although rural communities have seen an overall increase in FQHC and FMC providers during this period, the growth has not been commensurate with RHC closures, particularly over the last year.** For example, **Anderson, Bamberg, Charleston, Kershaw, Marion, and Orangeburg counties all experienced the loss of brick-and-mortar FMCs in the past year.** These closures disproportionately occurred within the **Most Rural** communities in the state. The variability in growth and loss of services reveals increasing instability for reliable access to a rural health workforce within the state's most isolated communities.
  - In 2022, SC had **four Critical Access Hospitals (CAH-designated)** mainly located along the Savannah River region in **Abbeville, Allendale, and Edgefield counties, and a site in Williamsburg County.** There were an additional 21 hospital facilities with **Rural Exempt Hospital (REH) status.** Statewide, there were 25 ZCTAs whose nearest hospital was an REH or CAH, only one of which was an Urban ZCTA. Approximately half of all Medicaid recipients and uninsured persons ages 0–64 residing in these ZCTAs, or about 21,000 people, must travel twice as far to access a facility compared to other populations in the state whose nearest hospital is an REH or CAH.
  
- **Primary care's vital role in addressing the safety need has been extensively documented in a subsequent section of this report.** Their value rests with the ability of primary care providers to engage in the 4 Cs of patient care—First Contact, Continuity, Comprehensiveness, and Coordination of care. Primary care providers for this report were restricted to obstetrics and gynecology (OB/GYN), primary care providers (PCPs), generalists, pediatricians, internal medicine, family medicine, and mental health providers. The provider-to-safety net population highlights a critical component of access to care – workforce availability to meet health care needs.
  - **OB/GYN providers are often seen as women's “primary care” physicians.** The fertility rate in South Carolina in 2021 was 57.5 per 1,000 women ages 15–44. In 2021, as the safety net provider for low-income women, Medicaid paid for approximately 60% of all births. **Ten counties experienced a decrease in OB/GYN providers between CY2021 and CY2022: Cherokee, Chesterfield, Dillon, Fairfield, Hampton, Jasper, Laurens, Marion, Marlboro, and Union.** Medicaid beneficiaries residing in these counties experienced a decrease in OB/GYN providers. At the same time, South Carolina's infant mortality rate rose by **12%** from

2020 to 2021 (the most recent data available) and has grown by almost **40%** since 2017 for infants born to non-Hispanic Black mothers.

- **Twenty-five counties with decreased PCP providers between CY 2021 and CY 2022: Abbeville, Allendale, Anderson, Bamberg, Barnwell, Berkeley, Calhoun, Colleton, Dorchester, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Marion, Marlboro, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, and Spartanburg.** This finding indicates that **54%** of counties have decreased access to PCPs in CY22, suggesting the need to continue reinforcing the safety net clinic providers within the safety net – FQHC, RHC, and FMC.
- **An estimated one in every five (20%) adult South Carolinians experiences mental health problems each year.** Everyone is at risk of developing a mental health disorder, regardless of their demographics. Many individuals with mental health conditions are part of the safety population – low-income or uninsured with chronic complex physical needs. The provider-to-population ratio **identifies decreased mental health providers in 21 (46%) counties between CY 2021 and CY 2022. The counties are the following: Anderson, Bamberg, Calhoun, Charleston, Colleton, Fairfield, Greenville, Greenwood, Jasper, Lancaster, Laurens, Lexington, Marion, Marlboro, Newberry, Oconee, Pickens, Richland, Spartanburg, Sumter, and York.**

## Safety Net Health Status and Outcomes

The **health status findings** indicate the increased **complexity of patients** served by safety net providers in South Carolina. The data suggests the need for multidisciplinary providers to address the complexity of **co-occurring physical and mental health conditions**. IFS examined the rates of chronic disease and other health conditions to extrapolate the population based on income categories using 2022 Behavioral Risk Factor Surveillance System (BRFSS) data. Results indicated that the individuals within the safety net population are households with incomes less than \$24,999, with the highest percentages for all health indicators associated with poor health outcomes.

- Some of the most significant **health status differences** between the lowest and highest income levels rates occurred in households with current smokers (**+23.9%**), **arthritis (+17.7%)**, and **diabetes (+15%)**.
- Nearly **one in five households with incomes under \$15,000 reported COPD, more than six times the rate of households making over \$100,000 (18.1% vs. 2.4%)**.
- The rate of **asthma** for households in the lowest income bracket (13.4%) was **more than double that of households with incomes over \$100,000 a year (6.3%)**.
- Over **10% of all homes noted depression**, but the rate of depression in households with incomes less than **\$25,000 was 2.5 times that of households with incomes over \$200,000**.
- At least **one in three households reported obesity across all income groups**, but the rate was **11% higher among the lowest-income households**.

The **complex health status** of the safety net population can result in the high use of avoidable emergency department visits, and the lack of ongoing preventative services can result in avoidable inpatient hospital stays and the burden of **uncompensated care**. An essential payment mechanism to support the safety net network of hospitals is the Medicaid Disproportionate Share Hospital (DSH) payment program and increased funding mechanism to hospitals designated as rural exemptions and critical care safety net providers.

- **In 2022, uncompensated care for 46,835 inpatient hospital discharges represented \$3,444,193,696 in charges compared to 50,004 discharges with total charges of \$3,341,144,562 in 2021.** In SFY2021 and SFY2022, increased COVID-19-related inpatient hospitalization accounted for the increase in total charges and a decrease in overall discharges.

**Health Outcome measures** using the Healthcare Effectiveness Data and Information Set (HEDIS®) analysis provide insight into the health status of individuals receiving services from safety net providers. HEDIS® is a set of performance data developed and maintained by the National Committee for Quality Assurance (NCQA) and is the most widely used standardized performance measure in the managed care industry. The quality measures available to measure the outcomes and performance of the safety net are limited.

The lack of measures poses challenges when providing uniformity in measurement across different populations and provider geographic areas and using the data quality outcomes for four measures associated with effective primary care services. The Medicaid population served by FQHCs and RHCs serves as a **proxy** for the safety net population in this analysis. *We caution the reader not to interpret these findings as they may under or overestimate the outcomes based on the geographical regions and the ability of Medicaid beneficiaries to access other providers within their network.* The outcome measure compares Medicaid beneficiaries who had at least one CY2021 or CY2022 visit at an FQHC or RHC with those who received services through other providers. There is no overlap in the populations, providing an accurate comparison between safety net clinics and other outpatient providers. The results are mixed for these four measures associated with access to care.

### **Safety Net Providers Better Outcomes Compared to Other Primary Care Providers**

- **Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis (AAB) showed** better outcomes associated with treatment from a safety net provider than other PCPs in CY2021 and CY2022 with acute bronchitis and the adherence to clinical recommendations standards related to the use of antibiotics to treat this condition.
- **Adult Access to Preventive/Ambulatory Health Services (AAP).** Access to timely preventive services is associated with reducing morbidity and mortality, shifting the focus from treatment of the disease to prevention. Ensuring access to the best-evidence practice of preventive/ambulatory care services can reduce the incidence of chronic disease and decrease the cost of avoidable emergency room and inpatient hospital stays. Cost reductions in health care are also found by avoiding treatment for advanced stages of chronic conditions and their complications due to their impact on other organs. **The findings indicate a consistent pattern of better access to preventive and ambulatory care for individuals receiving care through safety net providers in CY2021 and CY2022 compared to those receiving health services through non-safety net providers.**

### **Other PCPs Better Outcomes Compared to Safety Net Providers**

- **Appropriate Testing for Pharyngitis (CWP).** Pharyngitis, commonly known as a sore throat, is an inflammation of the pharynx, resulting in a sore throat. Thus, pharyngitis is a symptom rather than a condition that does not require prescribing antibiotics. The findings indicate a higher rate in CY2021 and CY2022 associated with non-safety net providers' appropriate testing for pharyngitis compared to safety net providers. In this measure, there was almost a 10% difference between the rates for safety net providers (65.2) compared to non-safety net providers (74.0%)
- **Appropriate Treatment for Upper Respiratory Infection (URI)** can be defined as self-limited irritation and swelling of the upper airways with associated cough and no signs of pneumonia in a patient with no other condition that would account for their symptoms or with no history of chronic obstructive pulmonary disease, emphysema, or chronic bronchitis. Upper respiratory tract infections involve the nose, sinuses, pharynx, larynx, and large airways. **The low incidence of events for appropriate treatment of URI among safety net providers requires caution in the interpretation. Nevertheless, the pattern would indicate that non-safety net providers performed better in the appropriate treatment for “the common cold” in avoiding prescribing antibiotics than safety net providers.**

In 2000, the Institute of Medicine (IOM) published a report on America's health care safety net. The *America's Health Care Safety Net: Intact but Endangered* report indicated that the safety net is a patchwork of providers'

funding and programs tenuously held together by the power of demonstrated need, community support, and political acumen. The SC Safety Net Proviso evaluation findings indicate the need for continued support of safety net providers to meet the health care services needs of the low-income and uninsured populations. The status of the safety net and the drivers contributing to leveraging external resources to support access to these services varies by geographical location, population demographics, workforce availability, and community resources. The one consistent finding is that legislative funding support continues to bolster the health care safety net within South Carolina.

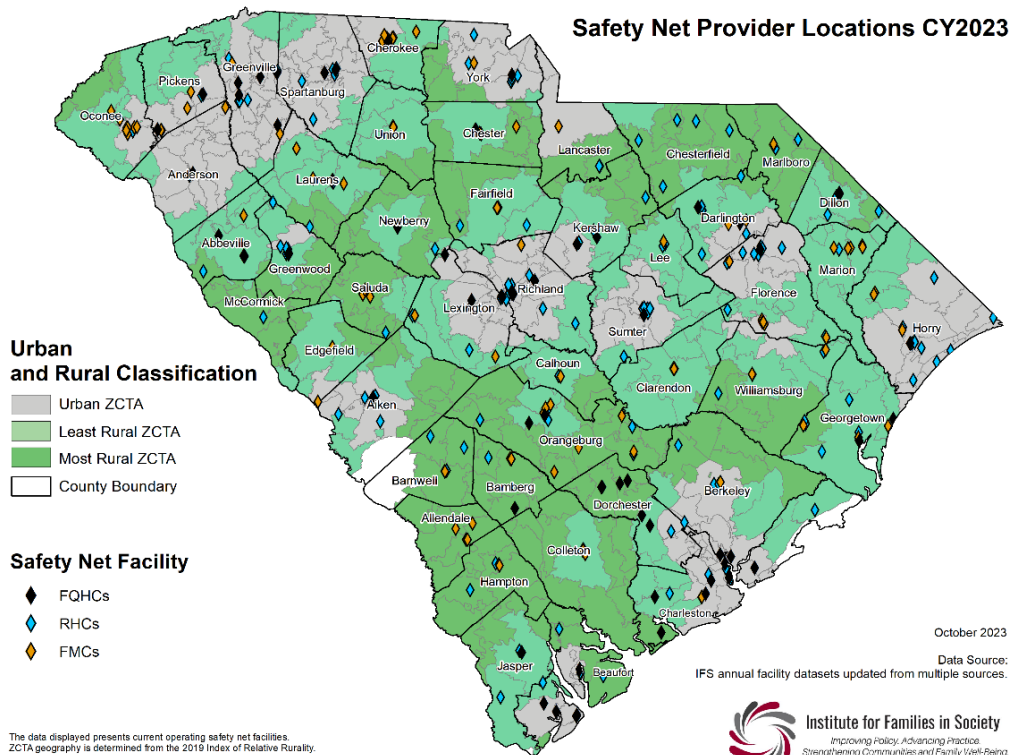
## 1.0 INTRODUCTION

In 2000, the Institute of Medicine (IOM) published a report on America’s health care safety net. The *America’s Health Care Safety Net: Intact but Endangered* report indicated that the “safety net is a patchwork of providers’ funding and programs tenuously held together by the power of demonstrated need, community support, and political acumen.”<sup>11</sup> **The safety net has never been exceptionally safe or secure.** The health care safety net is a network of public programs and health care facilities aimed at providing a basic level of health care services and coverage to individuals and communities, particularly those who are uninsured, those who have limited coverage and those covered by Medicaid. The term “safety net” underscores the idea that federal, state, and local programs can catch individuals who slip through the cracks of the health insurance system.

The South Carolina Legislature initiated a mechanism to support and monitor the state’s safety net as part of Proviso 33.20. This report analyzes the Safety Net Proviso for state fiscal year (SFY) 2022 in South Carolina (SC). Utilizing a comprehensive approach, this report explores the data and trends that impact SC’s safety net network, as outlined in section 33.22 of the proviso related to the "evaluation of the state’s safety net providers that include, at a minimum, Federally Qualified Health Centers, Rural Health Clinics, and to the extent applicable to funding received by the state, free clinics." In direct response to the Safety Net Proviso provided in Appendix A, this report examines South Carolina’s urban-to-rural continuum, highlights general population trends, and evaluates the distance to care at each of the **three** safety net facility types identified in the proviso: Federally Qualified Health Centers (FQHCs), Rural Health Centers (RHCs), and Free Medical Clinics (FMCs). Additionally, the report assesses available health outcomes for SFY 2022, ensuring a comprehensive overview of South Carolina’s safety net landscape in alignment with the proviso’s parameters.

**Figure 1** illustrates the geographical locations of each of the three safety net facilities for the state’s counties and its urban and rural ZIP Code Tabulated Areas (ZCTA). Every county had at least one safety net provider in 2023, but no county contained all three safety net provider types.

**Figure 1. Safety Net Provider Locations**



See **Appendix B** for geographical illustrations of the locations of each of these three safety net facility types.



The Institute of Medicine (IOM) offers a definition of safety net practices, characterizing them as providers who organize and deliver a substantial level of health care and essential services to uninsured, Medicaid recipients, and other vulnerable patients.<sup>1</sup> This report confines its analysis to the FQHC, RHC, and FMC services and quality indicators available through public and Medicaid data for SFY 2021 and 2022. Additionally, where feasible, the report provides a comparative context to national profiles for key areas of examination. The emergence of COVID-19 in 2020 resulted in job losses and prompted concerns that millions would lose coverage and become uninsured.<sup>2-5</sup> Unlike previous recessions during which laid-off workers lost health insurance and had limited access to Medicaid coverage, during COVID-19, the federal government enacted policies to improve access to health care, which reduced or prevented health care coverage losses.<sup>6</sup> The report's findings are presented within the more considerable statewide impact of COVID-19 on health care systems and populations.

A unique contribution of this analysis in examining the safety net is using a geospatial framework to understand access to care among South Carolina's safety net providers and services available to its rural population. The 2023 look back identified structural gaps in access to health care, highlighting the importance of safety net facilities, the social needs of safety net patients, and the benefits of ongoing financial support to address this population's comprehensive health care needs. Safety net providers, such as Free Medical Clinics, Rural Health Clinics, and Federally Qualified Health Care Centers, serve uninsured individuals without health care coverage, underinsured, and Medicaid beneficiaries.<sup>1</sup>

### 1.1 Measuring the Uninsured Population

Under Proviso 33-20, understanding the changes to the safety net in SC starts with examining the best approach to defining the uninsured population. The number and percentage of uninsured have decreased over the years due to legislation such as the Affordable Care Act (ACA), which paved the way for access to health care, including the option for states to expand Medicaid.<sup>5,7,8</sup> In response to the pandemic, the federal government implemented additional policies built upon the ACA to improve access to health care.<sup>5-6</sup> The policies increased Medicaid funding,<sup>9</sup> allowed states to provide continuous Medicaid coverage,<sup>10</sup> and alerted states to issues that would erroneously disenroll individuals from Medicaid.<sup>11</sup> Federal policies and legislation also introduced measures to increase access to prescriptions and health care<sup>12-13</sup> as well as assist with Marketplace enrollment.<sup>14</sup>

Various federal surveys capture insurance coverage estimates.<sup>1</sup> However, the onset of the COVID-19 pandemic significantly disrupted the administration of these surveys, subsequently affecting their results. The disruption stemmed from changes in the survey administration process, including changes in data collection methods, timing, and frequency.<sup>1</sup> Consequently, these modifications had discernible effects on surveys, including lower 2020 response rates, suspended in-person interviews, shifts in the demographic composition of respondents, and the transition from in-person to telephonic interviews, among other documented concerns.<sup>15-17</sup> Ongoing efforts persist to understand better the pandemic's impact on insurance coverage and the gathering of insurance-related data.<sup>2,4,5,18</sup>

#### *Survey Similarities and Differences*

IFS compiled data related to uninsured rates from three federal surveys: The American Community Survey (ACS), the Current Population Survey—Annual Social and Economic Supplement (CPS-ASEC), and the National Health Interview Survey (NHIS). All three surveys define the uninsured as individuals who do not have insurance provided by public services. As described in **Table 1**, all plans consider individuals uninsured if they only have benefits through Indian Health Services, which is not considered comprehensive coverage.<sup>15-17</sup> A significant difference in the surveys is that NHIS classifies military plans, such as TRICARE public health insurance; the others organize military plans as private insurance.<sup>15-17</sup> *Distinctions in definitions for the uninsured include:*

- ACS considers people **insured** if they were covered during the interview.<sup>15</sup>
- CPS-ASEC considers people to be **uninsured** if they had no coverage at any time during the calendar year. People who lose coverage are not included in the uninsured rate.<sup>16</sup>
- NHIS considers people **uninsured** if they did not have coverage at the time of the survey.<sup>17</sup>

As demonstrated in **Table 1**, the purposes of the three federal surveys vary. The Centers for Disease Control and Prevention is the federal agency for the NHIS, the principal source for health information for the US. This instrument comprises adult and child surveys with similar insurance questions, allowing for aggregate results. Conducted by the U.S. Census Bureau, CPS-ASEC provides estimates for health insurance coverage, household income, and the official annual forecast for the US. The ACS provides detailed demographic, socioeconomic, and household data. They are also conducted by the US Census Bureau and completed by one person for the household. All surveys report uninsured status based on states' Medicaid expansion status but report on different geographic regions.<sup>15-17</sup>

**Table 1. Federal Survey Definitions of the Uninsured**

Uninsured Do Not Have:	ACS	CPS-ASEC	NHIS
<b>Public Health Insurance</b>			
Medicaid	√	√	√
CHIP	√	√	√
State-sponsored or other government plan	√	√	√
Medicare	√	√	√
Military plans such as TRICARE or other military coverage			√
VA Health Care – CHAMPVA (Civilian Health and Medical Program at the Dept. of Veterans Affairs)	√		√
<b>Private Health Insurance</b>			
Employer-Based Health Insurance	√	√	√
Direct Purchase Health Insurance	√	√	√
Purchased through local/community programs	√	√	√
Purchased through Insurance Health Marketplace/state-based exchange	√	√	√
Military plans such as TRICARE or other military coverage	√		
Plans that pay for only one type of coverage (dental, vision, accident, disability, or prescription drug plans)		√	√

*Survey Strengths and*

*Weaknesses*

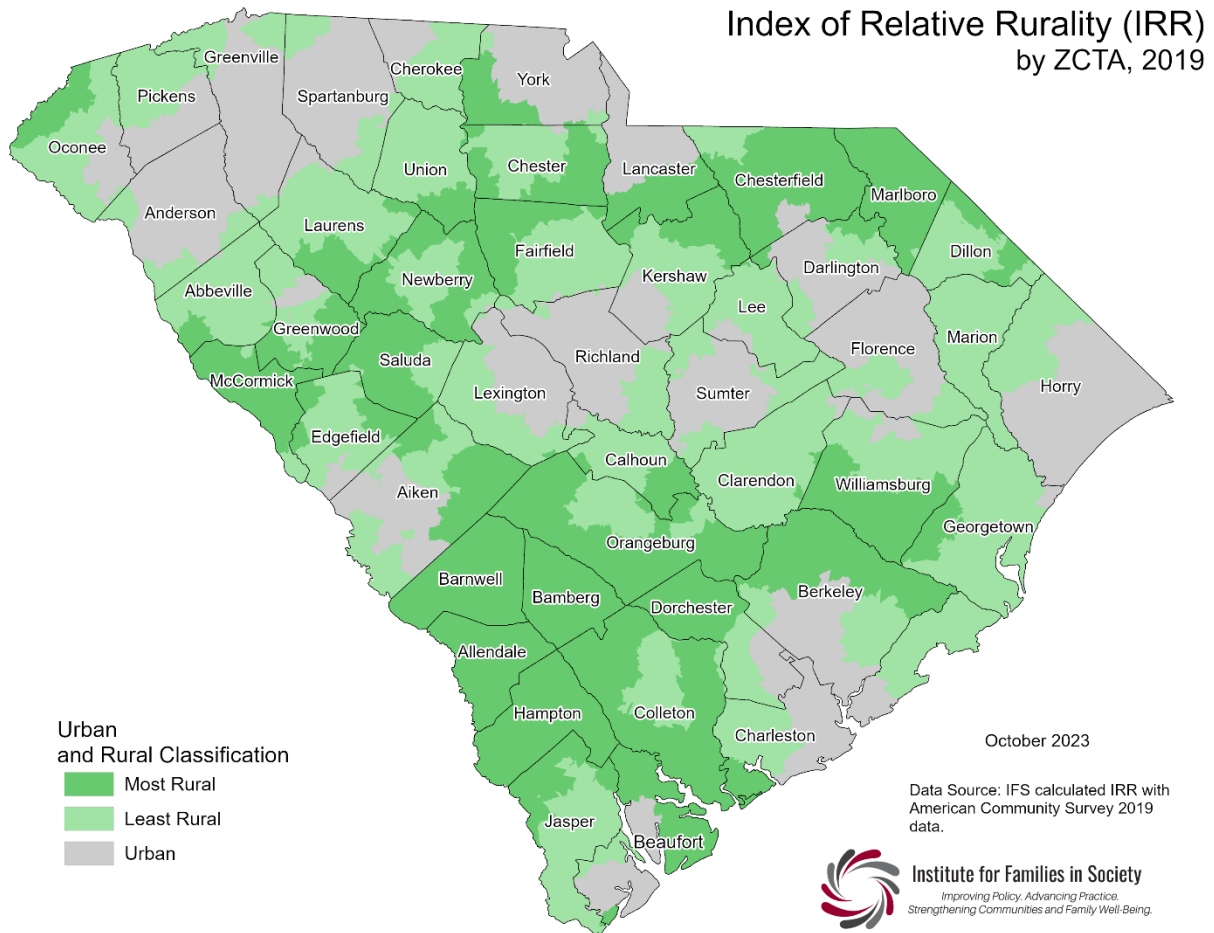
Excluding 2020, the ACS and the CPS-ASEC had response rates that averaged at least 80%. The NHIS' response rate was closer to 50% yearly. The ACS, the largest federal survey, has the largest sample size of about 250,000 households each month or about 3 million households annually. The sample size allows researchers to estimate down to the local level, including census block groups and census tracts. In comparison, NHIS has a sample size of 300,000, including people with both public and private coverage. CPS-ASEC has a sample size of one-third the size of NHIS.<sup>15 17</sup> For defining the uninsured population, IFS incorporates each approach in determining the uninsured population, citing the survey method with each table and figure throughout the document.

The NHIS reports early estimates, which allows researchers to predict trends. The estimate for the first quarter of 2023 was released in August of 2023.

**1.2 Rurality and the Safety Net**

Geographic access to care can be quite different in large urban centers, suburban areas, and remote rural regions. Distinguishing urban and rural areas in South Carolina provides the ability to discern critical geographic differences in health care accessibility for South Carolina residents.

**Figure 2. Index of SC Relative Rurality Classifications: Urban, Least Rural, and Most Rural Areas**



According to the U.S. Census Bureau, any area not defined as "urban" is considered "rural." Treating rural as the inverse definition of urban presents challenges in examining and understanding the characteristics of the people and areas outside urban centers. Such a blanket definition casts these areas as homogenous when rural is a multidimensional concept, and the differing definitions can impact interpretation differently.<sup>19</sup>

IFS uses the Index of Relative Rurality (IRR) to describe rurality in South Carolina<sup>20</sup> (see **Figure 2**). The IRR is a continuous, relative index that combines frequently used census metrics with other measures of rurality to create index values that adhere to a continuous scale from 0–100, with the lowest values being the most urban and the higher values being the most rural. As an index, the IRR treats rurality as a relative concept to evaluate contextual changes over space and time. The index's values are comparable to the area for which it is being calculated and is scalable to any geographic unit. **Appendix C** provides the individual IRR scores and designation class for all SC ZCTAs.

Considering the multidimensionality of rurality and with the focus of this report on the underserved, further delineation of rural ZCTAs was needed to provide a working framework for this report. Using the IRR, IFS derived a 3-class classification system specific to South Carolina for this report to identify ZIP Code Tabulation Areas (ZCTAs) in the states that were Urban, Least Rural, and Most Rural. IRR break values were determined by analyzing each ZCTA's index scores against the U.S. Census Bureau's rural/urban designations. The break value between the IRR-based urban and rural is the intersection between the respective frequency distributions. This rural designation was further classified into Most Rural and Least Rural using the mean of

the Census-based rural assignment. Of the **424** ZCTAs in South Carolina, **253** are classified as rural by the IRR, with 54% (n = 139) of these areas considered among the country's most remote and sparsely populated areas. Approximately **25%** of South Carolinians reside in rural geographical ZCTA areas. Using the IRR, we can move from a county or non-metropolitan classification system to a more flexible examination of challenges inherent in rural areas within urban counties.

The next section of the report highlights the population characteristics with their implications on the delivery of services by safety net providers.

## 2.0 SAFETY NET POPULATION CHARACTERISTICS

The characteristics profile in this section of the report provides a window on the extent of the need for safety net services. Across differing geographical areas in South Carolina, the demand for services is a function of the size of the population requiring safety net providers and the intensity of the need for services. The size of the uninsured population, poverty, and health status all play a significant role in the need to access and effectively use essential health care services. The intent of this report is not to duplicate other existing reports and documents. Instead, the goal is to provide information at the intersectionality of the various safety net providers based on the characteristic of the population. The Agency for Health Research and Quality (AHRQ) (2003), identifies three different measures of population characteristics for the *Demand for Safety Net Services*.<sup>21</sup> These indicators are the following:

- Percent uninsured
- Percent below the federal poverty level
- Percent with disabilities or complex medical needs

For each indicator, AHRQ stratifies the data by age and income. Using this framework, the next section of the report characterizes the population in demand of services through the network of safety net providers.

### 2.1 Uninsurance Rates

Although the three surveys report varying uninsured rates, all reported downward trends for the uninsured over the past few years, with ages 18–64 having less coverage than people of all ages (see **Table 2**). The exclusion of individuals over 65 who qualify for Medicare and children who are eligible for public insurance may explain the higher rates among 18–64-year-olds. Thirty million people were uninsured in 2019, with uninsurance rates ranging from 8% (CPS-ASEC) to 10.2% (NHIS). In 2022, the uninsured decreased to approximately 27 million or roughly 8% of the population.<sup>15-17</sup>

**Table 2. U.S. Uninsurance Rates for All Ages and Ages 18–64**

Survey	All Ages					Ages 18–64				
	2019	2020	2021	2022	Change from 2019–2022	2019	2020	2021	2022	Change from 2019-2022
NHIS	10.2%	9.7%	8.6%	8.4%	-1.8%	14.7%	13.9%	13.5%	12.2%	-2.5%
ACS	9.2%		8.6%	8.0%	-1.2%					
CPS-ASEC	8.0%	8.6%	8.3%	7.9%	-0.1%	11.1%	11.9%	11.6%	10.3%	-0.8%

Notes:

- Blank spaces indicate missing/unavailable data.
- Possibly due to its reference period or uninsured definition, the CPS-ASEC was the only survey that showed an increase in 2020 and 2021 rates that eventually dropped in 2022.
- The NHIS 2022 rate is early release data, and the early release information for the first quarter of 2023 indicates a record low of 7.7% for the uninsured.



States that did not expand Medicaid coverage (NME), such as South Carolina, followed the same downward trend in uninsurance rates but had estimates roughly twice that of the uninsured in Medicaid expansion (ME) states. South Carolina-specific data for NHIS and ACS showed lower uninsurance rates for all ages (see **Table 3**).

**Table 3. Uninsured Rates for SC Compared to States Based Upon Medicaid Expansion Status – All Ages**

Survey & Medicaid Expansion Status	2019	2020	2021	2022	Change from 2019-2022
NHIS (ME)		6.3%	7.2%	7.7%	-1.6%
ACS (ME)	6.1%	6.4%	6.4%		-0.3%
NHIS (NME)	11.8%	12.7%		13.3%	-1.5%
ACS (NME)	9.1%	10.0%		10.8%	-1.7%
NHIS SC	9.6%	10.7%	8.4%		-1.7%
ACS SC	6.1%	6.4%	6.4%		-0.3%

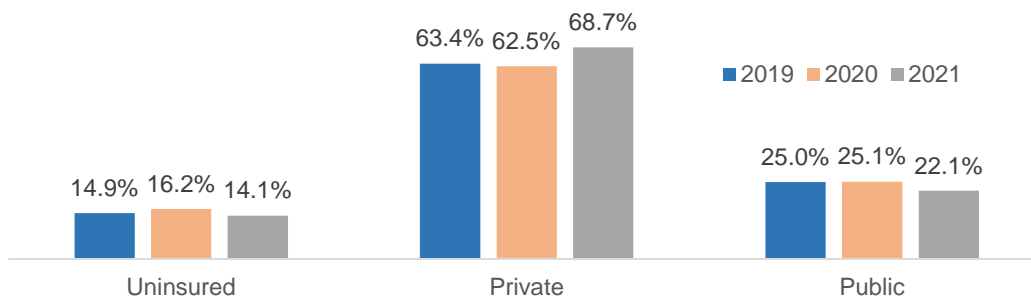
**Notes:**

- Change in years reflects the most recent available data.
- The NHIS-ME change is from 2020–2022.



As described in **Figure 3**, for ages 18–64, SC rates for private insurance increased slightly from 2019 (63.4%) to 2021 (68.7%), while the uninsured and public insurance rates decreased (see Figure 3 note regarding differences). Public health insurance coverage changes can impact the uninsured rates. In South Carolina, the preliminary census data indicates an increase in private health insurance had neither decreases nor no changes in public health insurance, excluding the COVID-19 population. Overall, the 2022 increase in private health insurance is a factor in the lower uninsured rates with a lowering of the safety net population in South Carolina.

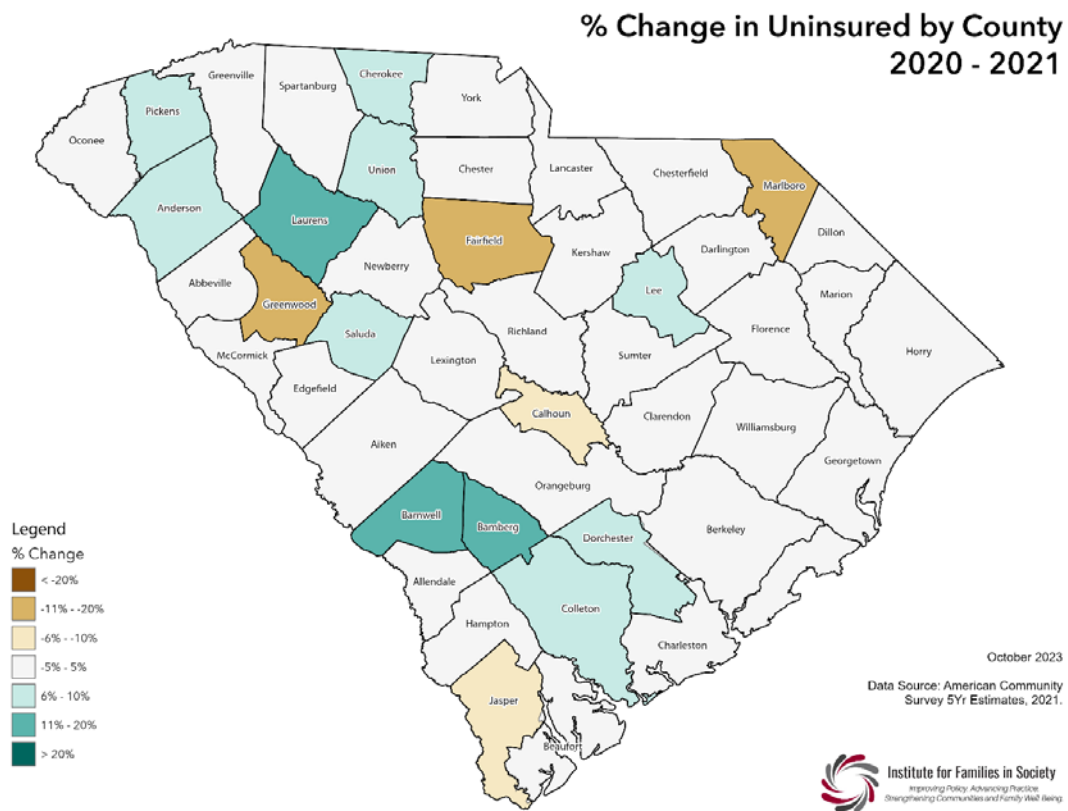
**Figure 3. NHIS SC Coverage Rates: Ages 18–64 (2019 to 2021)**



**\*Notes:**

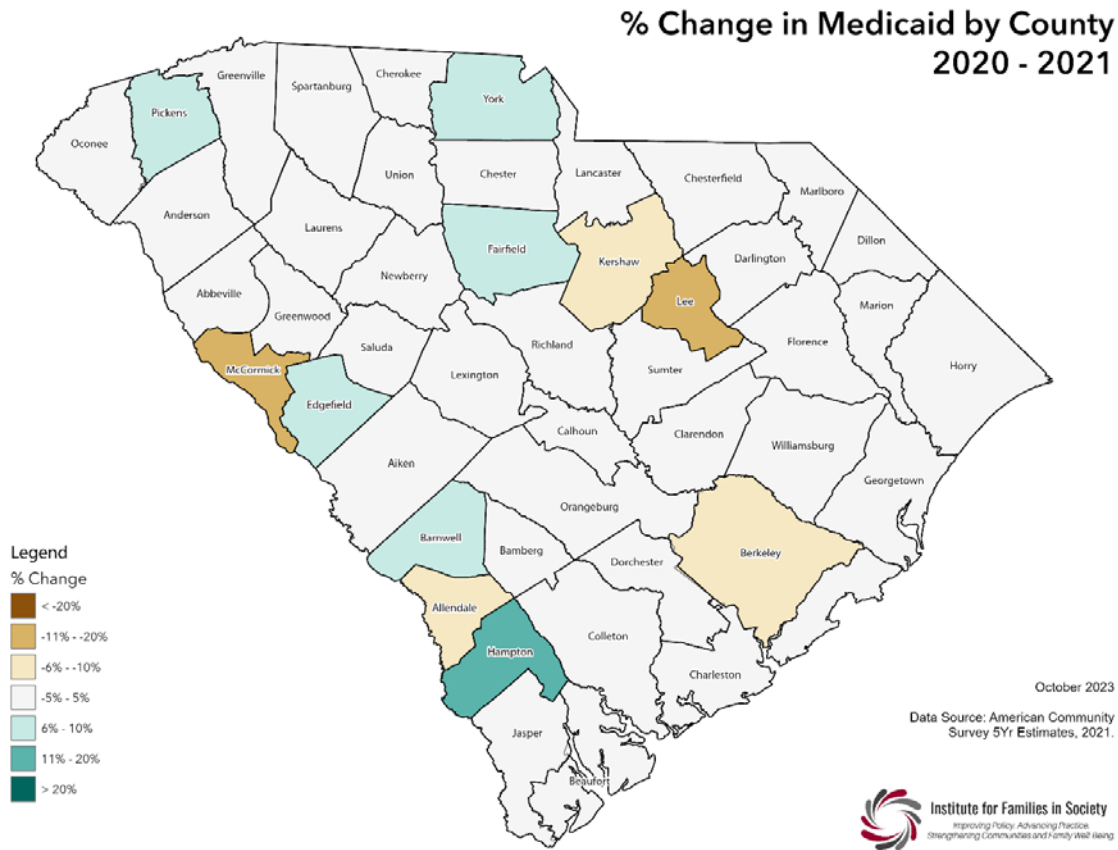
- SC-specific rates for ages 18–64 for 2022 will not be available until early 2024.
- Reasons for the differences are:
  - The uninsurance rates for these surveys cannot be compared due to definitions and age groups.
  - Survey questions design and survey questions were different. Some surveys include public health insurance; others do not.

**Figure 4. 1-Year Change (2020–2021) in Uninsured Rate, by County**



**Figure 4** highlights the 1-year change (2020–2021) in the percentage of Medicaid and the uninsured population, ages 0–64, by county using the most recent data available from the ACS for all counties in the state. Statewide, the uninsured rate among persons ages 0–64 increased by 1.2% between 2020–2021, based on ACS question for health insurance coverage for individuals, by age and by sex (B27001). ***The most significant increases in the uninsured were in Bamberg, Barnwell, Colleton, and Laurens counties, all of which saw a 10% to 17% increase among persons under 65. Cherokee, Saluda, and Union counties saw a 9% increase in the rate of uninsured populations over this time.***

**Figure 5. 1-Year Change (2020–2021) in Medicaid Enrollment, by County**



Over half of all counties saw a decrease in the proportion of Medicaid enrollees, ages 0 to 64 years, between 2020–2021, according to the ACS estimate on public health insurance coverage for individuals, by age and sex (B27003). **The substantive declines were in Allendale, Lee, and McCormick counties, where Medicaid enrollment decreased by 10%–14% since 2020.** Enrollment increases surpassed 10% in Barnwell and Hampton counties. Medicaid enrollment in Edgefield, Fairfield, and York counties increased by 7% between 2020–2021. For an examination of the change patterns of Medicaid enrollment for all persons under the age of 65 for all counties, see **Figure 5**. The table in **Appendix D** lists ACS estimates for changes in the uninsured and Medicaid enrollment rates for each county between 2020–2021.

Some county-level similarities were observed in the changes in uninsured and Medicaid enrollment. For instance, Fairfield and Marlboro Counties showed some of the most significant declines in the uninsured rate and notable increases in Medicaid enrollment. Regarding CDC SVI rankings (refer to **Tables 4 and 5**), the rise in uninsured rates in Bamberg, Colleton, and Laurens Counties corresponded with a noticeable decline in their socioeconomic rankings. The most substantial decline occurred in Colleton County, which moved from the 26th to the 35th rank in the state. Conversely, Kershaw and McCormick counties both witnessed improved socioeconomic rankings alongside declines in Medicaid enrollment and no increase in uninsured rates. Similar, albeit weaker, associations between a decrease in Medicaid enrollment and overall county-level socioeconomic improvements in CDC Social Vulnerability Index (SVI) scores were found in Allendale and Lee counties. Among all counties, Greenwood exhibited the most significant overall reduction in Medicaid enrollment and the uninsured rate, dropping by 17% between 2020 and 2021. Additionally, Allendale, Calhoun, Jasper, and McCormick counties all saw a 10% decrease in their Medicaid enrollment and uninsured rates in 2021.

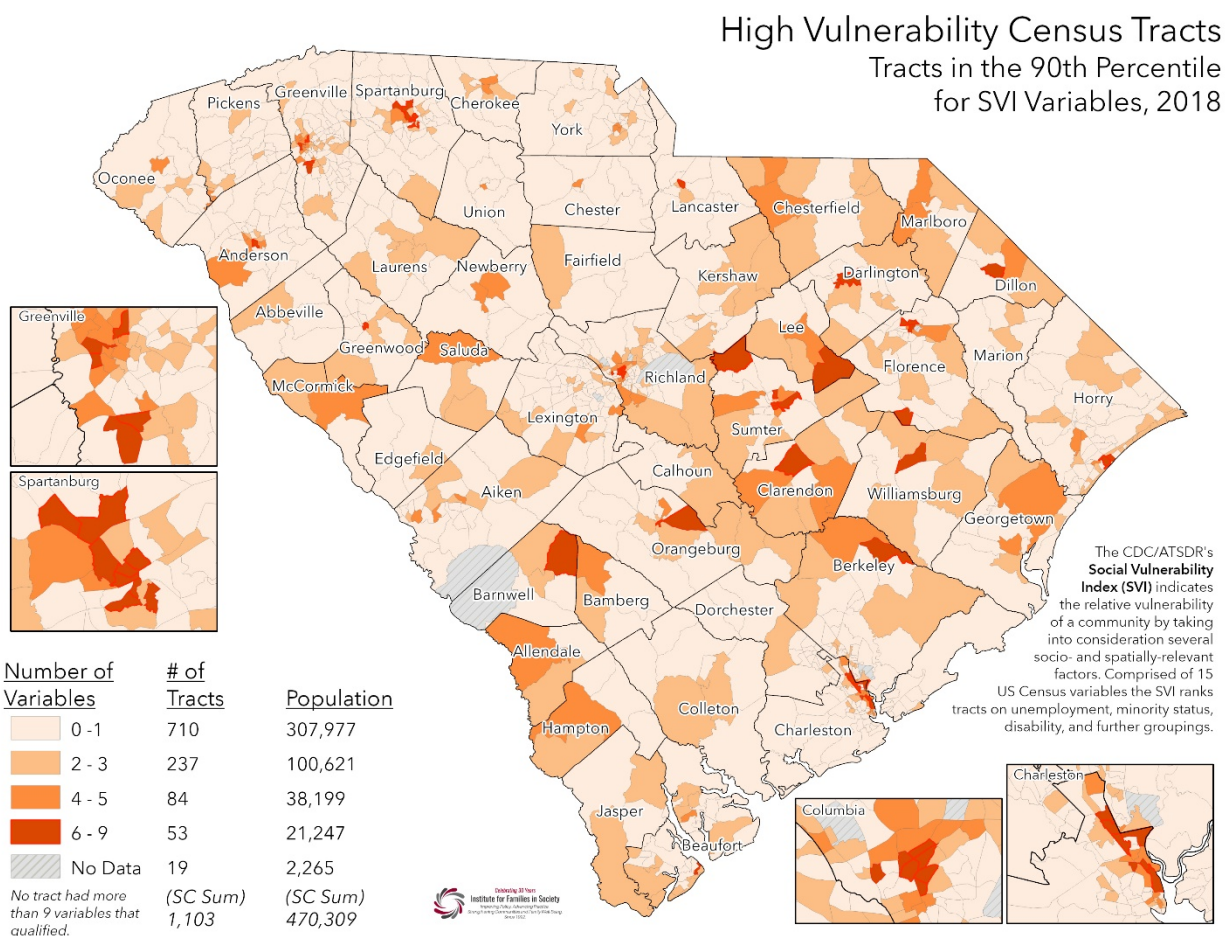


County-level trends showed that some areas had notable declines in the uninsured rate and significant increases in Medicaid enrollment that exceeded state averages. Continued monitoring and tracking of changes in insurance rates across the state is critical for understanding changes in health care utilization trends.

## 2.2 The Safety Net and Social Vulnerability

Social vulnerability refers to communities' resilience when confronted by external stresses on health, stresses such as natural or human-caused disasters or disease outbreaks. CDC's SVI is a tool to identify socially vulnerable populations spatially. The SVI uses U.S. Census information on the location and relative concentration of social vulnerabilities in small geographic areas, such as census tracts.<sup>22</sup> The SVI is a tool to facilitate understanding how community factors like socioeconomic status, household composition, disability, race/ethnicity, language spoken at home, housing type, and transportation contribute to the vulnerabilities of communities relying on providers in the safety net. The map in **Figure 6** provides further context based on the participant's census tract of residence and an index of social vulnerability. Communities with high vulnerability likely have four or more variables that qualify them at the highest risk for lower access and poor health care outcomes. Although all counties have high vulnerability zip code areas, rural communities and those along the I-95 corridor have the highest numbers on the SVI scale.

**Figure 6: CDC Social Vulnerability Index (SVI) of High Vulnerability Areas in SC**



## 2.3 SVI and County Ranking of Uninsured

As mentioned earlier, the SC safety net population experienced no significant change in public coverage between 2020 and 2021. However, there were notable increases in private coverage and an overall decrease in the



uninsured population statewide. **Tables 4 and 5** provide the most up-to-date estimates from the ACS regarding insurance status, categorized by age group and by urban, suburban, and rural county designations. They offer valuable insights into **how poverty and health insurance status changed within the safety net population at the county level between 2020 and 2021**. To adequately interpret the values in the tables, the reader is encouraged to use the guidelines found in the table footnotes to interpret the data.

**Table 4: Change in SVI and Insurance Status for Urban Counties, 2020–2021**

	Poverty		Medicaid Enrollment		Uninsured Rate		SVI Rank (change from 2018)
	Under 18 (change)	18–64 (change)	Under 18 (change)	18–64 (change)	Under 18 (change)	18–64 (change)	
Aiken	19.8 (-1.7)	12.5 (-7.0)	46.9 (+3.1)	17.4 (-4.5)	4.1 (-20.4)	15.1 (+3.4)	11 (+4)
Anderson	20.4 (+3.5)	12.9 (+0.8)	44.5 (+1.1)	17.0 (+3.2)	6.7 (+4.1)	15.6 (+6.1)	10 (+3)
Beaufort	17.9 (+14.7)	9.8 (+9.4)	33.2 (-1.0)	12.7 (-2.9)	7.9 (+12.5)	15.4 (+0.7)	7 (-2)
Berkeley	16.9 (-2.1)	10.2 (-5.5)	39.4 (-5.3)	16.3 (-6.5)	6.1 (+28)	14.8 (-3.6)	12 (-2)
Charleston	18.9 (-1.3)	11.6 (-1.6)	31.6 (-1.8)	10.8 (-2.5)	6.8 (-0.1)	13.3 (-5.1)	6 (-5)
Dorchester	18.6 (+3.0)	10.4 (-2.8)	33.8 (-4.3)	17.6 (-6.1)	7.4 (+32.6)	15.3 (+3.3)	15 (-12)
Florence	22.8 (-5.8)	16.9 (+3.7)	49.0 (-4.1)	18.9 (+4)	3.4 (+13.5)	16.2 (+4.3)	24 (+5)
Greenville	15.8 (-1.1)	10.2 (-0.4)	36.4 (+0.1)	12.0 (-0.9)	5.4 (+5.5)	15.0 (-1.5)	8 (+1)
Horry	22.5 (-6.4)	13.9 (-4.3)	52.9 (+1.1)	20.0 (-0.1)	7.8 (+2.6)	22.5 (+4)	17 (-5)
Lexington	16.2 (+0.8)	11.2 (-2.0)	38.8 (+5.9)	14.3 (+2.6)	4.6 (+10.7)	14.2 (-1.4)	2 (+2)
Pickens	13.8 (+5.1)	20.5 (+3.1)	40.8 (+0.9)	14.5 (+9.5)	4.7 (+8)	13.0 (+5.6)	4 (+3)
Richland	21.9 (+1.3)	15.9 (+1.3)	39.6 (+2.5)	16.5 (+1.8)	4.5 (+1.6)	13.0 (-0.6)	22 (-6)
Spartanburg	19.1 (-5.8)	12.7 (-3.4)	43.3 (-5.0)	15.9 (-3.4)	5.9 (-5.0)	14.7 (-1.3)	19 (-1)
Sumter	25.3 (+0.3)	15.8 (-3.9)	54.2 (+0.8)	25.7 (+6.4)	3.1 (-12.7)	18.2 (+1.1)	31 (+5)
York	11.9 (-2.4)	8.4 (-4.4)	32.3 (+4.8)	11.9 (+9.5)	2.7 (+8.3)	13.0 (-0.4)	1 (+1)

**Notes:**

*- Interpretation of cell values*

1. Mean values are provided for all statistics and by safety net age group.
2. The number in parenthesis (+, -) shows whether the rate increased (+) or decreased (-) since 2020.

*- Interpretation – SVI*

3. The number is the rank for the county relative to all other counties.
4. The number in parenthesis (+, -) shows whether the county became relatively less vulnerable (+) since 2018 or relatively more vulnerable (-) since 2018.

ACS estimates of household poverty rates among both young adults (ages < 18) and adults (ages 18–64) showed a stepwise increase across urban to suburban to rural counties. Approximately half of all young adults in Barnwell (50.9%) and Dillon (48.6%) had income levels below the federal poverty level in 2021, with both counties seeing an overall increase in its poverty rate from 2020. However, rural areas also exhibited the greatest overall reduction in poverty since 2020. On average, rural poverty rates among young adults fell by 6% and by 2.1% among adults ages 18 to 64 between 2020 and 2021. The largest overall improvements in poverty occurred in Bamberg and Lee counties, both of which saw over a 30% decline in poverty among young adults. Similar, but attenuated declines in poverty among adults ages 18 to 64 also occurred within these two counties.

**Table 5. Change in SVI and Insurance Status for Rural and Suburban Counties, 2020–2021**

	Poverty		Medicaid Enrollment		Uninsured Rate		CDC SVI (change from 2018)
	Under 18 (change)	18–64 (change)	Under 18 (change)	Under 18 (change)	18–64 (change)	Under 18 (change)	
<b>Suburban</b>							
Cherokee	24.4 (-1.2)	16.6 (-1.8)	56.7 (+11.3)	21.4 (-6)	3.7 (-6)	18.7 (+11.3)	16 (+3)
Chesterfield	30.5 (-10.0)	19.1 (+2)	57.1 (-3.4)	20.7 (-0.7)	5.1 (-14.3)	18.7 (+7.8)	- - *
Darlington	30.0 (-5.3)	19.2 (-3.5)	58.6 (+1.3)	24.1 (-6)	3.2 (-17.5)	14.0 (-1.5)	35 (-3)
Georgetown	31.5 (+3.4)	15.8 (+2.8)	55.6 (-4)	22.4 (+3.4)	6.3 (+4.9)	18.1 (-1.7)	14 (+0)
Greenwood	29.4 (-17.5)	14.5 (-11.6)	51.4 (-3.9)	19.5 (-4.2)	3.0 (-50.2)	13.9 (-6.8)	29 (+4)
Kershaw	20.6 (+6.5)	13.7 (-8.6)	43.6 (-1.4)	19.0 (-10.6)	3.0 (-2.0)	16.1 (+0.7)	3 (+3)
Lancaster	16.3 (-11.7)	11.9 (-8.5)	38.1 (-0.5)	14.0 (-3.4)	3.6 (+24.9)	13.5 (-2.0)	5 (+3)
Laurens	29.3 (-2.2)	19.5 (+1.9)	55.5 (-0.3)	22.3 (-3)	5.9 (+17.2)	20.6 (+13)	32 (-2)
Marion	32.7 (-0.6)	24.1 (+17.4)	66.4 (+1.6)	29.1 (+5.6)	6.8 (+16.3)	21.7 (-0.9)	42 (-3)
Marlboro	42.4 (+3)	22.4 (-11.3)	75.5 (+2.9)	29.3 (+5.6)	2.5 (-71.6)	21.2 (-5.5)	43 (+0)
Newberry	25.3 (-9.2)	14.2 (-12.7)	50.5 (+6.3)	16.2 (-1.2)	4.0 (-5.8)	14.7 (+1.7)	21 (+10)
Oconee	21.9 (-3.1)	16.2 (+2.4)	52.1 (+4.5)	21.0 (+3.3)	3.1 (-17.2)	17.2 (-4.4)	20 (-3)
Orangeburg	37.9 (+8.7)	21.8 (+8.7)	66.7 (+7)	22.9 (+2.9)	2.6 (+7.6)	17.5 (+2.3)	34 (+0)
Union	35.9 (-3.3)	18.7 (+8.6)	60.2 (-1)	26.3 (-1)	5.6 (+22.9)	17.3 (+8.0)	27 (+1)
<b>Rural</b>							
Abbeville	26.1 (+8.3)	14.8 (-11.0)	49.2 (+1.3)	20.3 (+2.9)	6.8 (+20.3)	18.0 (-2.1)	25 (+2)
Allendale	33.6 (-12.1)	25.4 (-7.1)	50.3 (-14.3)	30.9 (-5.8)	N/A	20.7 (+0.3)	44 (+0)
Bamberg	21.3 (-31.9)	19.3 (-2.9)	56.2 (+2.5)	22.1 (-0.4)	10.3 (+69.8)	21.3 (+10.3)	36 (+2)
Barnwell	50.9 (+6.4)	25.5 (+5.1)	73.4 (+11.7)	23.4 (+4.3)	4.8 (+1.0)	21.3 (+17.6)	39 (+3)
Calhoun	34.1 (+18.5)	18.3 (-1.9)	52.5 (+4.7)	18.9 (-7.1)	3.5 (+24.0)	15.0 (-12.1)	26 (-15)
Chester	23.6 (+8.0)	16.7 (-3.2)	51.6 (+2.5)	22.5 (+1.2)	5.5 (+20.0)	17.3 (+3.8)	13 (+7)
Clarendon	31.1 (-14.5)	18.4 (-10.1)	65.5 (-0.2)	27.7 (-0.8)	2.9 (+24.9)	17.8 (+0.8)	40 (+1)
Colleton	28.4 (-16.4)	17.0 (+0.9)	58.5 (-1.4)	20.1 (+0.3)	10.0 (+112.9)	20.2 (+0.6)	33 (-9)
Dillon	48.6 (+11.0)	26.1 (-6.0)	70.9 (+11.2)	30.8 (-1.9)	4.9 (-6.5)	21.2 (+5.3)	41 (-1)
Edgefield	22.6 (+8.8)	15.6 (+4.9)	42.3 (+9.7)	19.2 (+5.5)	2.4 (-42.0)	14.5 (+6.7)	23 (+2)
Fairfield	24.7 (-5.5)	16.5 (-5.1)	59.8 (+1.0)	22.3 (+13.9)	1.9 (-43.0)	12.5 (-12.3)	18 (+3)
Hampton	29.7 (+9.5)	18.4 (+16.4)	59.7 (+9.4)	25.2 (+14.9)	4.6 (-10.6)	15.7 (+1.5)	28 (-2)
Jasper	29.6 (-8.3)	15.7 (-4.8)	63.3 (-3.5)	18.7 (+2.4)	7.1 (+63.0)	21.1 (-14.2)	38 (-3)
Lee	31.5 (-31.5)	20.2 (-0.9)	65.5 (-17.7)	24.2 (-10.9)	5.1 (+14.0)	17.3 (+0.9)	37 (+0)
McCormick	31.5 (-19.2)	15.7 (-4.1)	74.0 (-4.7)	25.7 (-12.2)	1.5 (+3.5)	10.5 (-1.9)	9 (+14)
Saluda	21.7 (-17.5)	18.2 (+1.1)	57.9 (+1.1)	17.8 (-9.3)	10.9 (+25.0)	26.1 (+7.7)	30 (-8)
Williamsburg	24.9 (-15.3)	20.6 (-6.8)	65.9 (+5.0)	29.1 (-1.9)	2.1 (-47.6)	16.7 (+3.1)	- - *

**Notes:**

*- Interpretation of cell values*

1. Mean values are provided for all statistics and by safety net age group.
2. The number in parenthesis (+, -) shows whether the rate increased (+) or decreased (-) since 2020.

*- Interpretation – SVI*

3. The number is the rank for the county relative to all other counties.
4. The number in parenthesis (+, -) shows whether the county became relatively less vulnerable (+) since 2018 or relatively more vulnerable (-) since 2018.

All CDC SVI domain scores are shown in **Table 6**. The overall CDC SVI score is based on the cumulative rankings of the Socioeconomic Status, Household Characteristics, Race & Ethnicity, and Housing & Transportation domains.

**Table 6. Changes in County Poverty and Health Insurance Status in Each CDC SVI Domain Between 2018 and 2020**

	Socioeconomic Status	Household Characteristics	Race & Ethnicity	Housing & Transportation	CDC SVI (change)
	Rank (change)	Rank (change)	Rank (change)	Rank (change)	
<b>Urban Counties</b>					
Aiken	12 (+1)	21 (-3)	15 (+12)	8 (+3)	11 (+4)
Anderson	11 (+1)	12 (+11)	4 (+2)	17 (+3)	10 (+3)
Beaufort	4 (-2)	8 (-3)	11 (+23)	12 (+4)	7 (-2)
Berkeley	6 (+1)	22 (-11)	20 (+12)	9 (+3)	12 (-2)
Charleston	8 (-7)	2 (-1)	16 (+7)	18 (+1)	6 (-5)
Dorchester	19 (-14)	20 (-11)	19 (-1)	6 (-3)	15 (-12)
Florence	16 (+4)	17 (+15)	29 (-8)	32 (+2)	24 (+5)
Greenville	5 (-2)	15 (-12)	13 (+19)	16 (+5)	8 (+1)
Horry	24 (-13)	26 (-11)	3 (+12)	5 (+8)	17 (-5)
Lexington	2 (+2)	12 (-5)	5 (+11)	7 (+3)	2 (+2)
Pickens	10 (+4)	1 (+1)	1 (+0)	26 (+1)	4 (+3)
Richland	18 (-9)	15 (-9)	36 (+3)	23 (+3)	22 (-6)
Spartanburg	13 (-5)	33 (-19)	12 (+14)	21 (+7)	19 (-1)
Sumter	32 (-1)	24 (+15)	34 (+2)	32 (+6)	31 (+5)
York	1 (+5)	9 (+1)	8 (+0)	3 (-1)	1 (+1)
<b>Suburban Counties</b>					
Cherokee	28 (-4)	5 (+12)	6 (-1)	14 (+3)	16 (+3)
Chesterfield	--	--	--	--	--
Darlington	29 (+8)	39 (-5)	27 (-13)	37 (-7)	35 (-3)
Georgetown	23 (-5)	12 (+9)	17 (+2)	2 (+6)	14 (+0)
Greenwood	27 (-4)	39 (+0)	22 (+15)	34 (-5)	29 (+4)
Kershaw	9 (+8)	10 (+16)	9 (-6)	1 (+0)	3 (+3)
Lancaster	3 (+7)	19 (-4)	7 (+5)	4 (+0)	5 (+3)
Laurens	36 (-3)	29 (-2)	14 (-2)	35 (-1)	32 (-2)
Marion	42 (-3)	35 (+6)	39 (+3)	30 (-7)	42 (-3)
Marlboro	44 (-1)	36 (-1)	38 (-3)	41 (-1)	43 (+0)
Newberry	14 (+8)	43 (-12)	21 (+17)	15 (+21)	21 (+10)
Oconee	20 (-5)	41 (-11)	2 (+9)	13 (+2)	20 (-3)
Orangeburg	36 (-1)	11 (+17)	42 (-11)	28 (+4)	34 (+0)
Union	25 (+3)	36 (+6)	18 (-15)	27 (-3)	27 (+1)
<b>Rural Counties</b>					
Abbeville	26 (+9)	18 (+15)	9 (-7)	30 (-5)	25 (+2)
Allendale	43 (+1)	44 (-8)	44 (-15)	43 (+1)	44 (+0)
Bamberg	33 (-4)	23 (+20)	41 (-21)	39 (+0)	36 (+2)
Barnwell	38 (+0)	42 (+2)	31 (-6)	40 (+3)	39 (+3)
Calhoun	21 (-6)	28 (-20)	28 (-18)	21 (-14)	26 (-15)
Chester	17 (+8)	7 (+18)	23 (-16)	9 (-3)	13 (+7)
Clarendon	33 (+7)	32 (+5)	32 (-9)	44 (-4)	40 (+1)
Colleton	35 (-9)	34 (-6)	26 (-10)	24 (-6)	33 (-9)
Dillon	41 (+1)	38 (+0)	33 (-4)	38 (-5)	41 (-1)
Edgefield	21 (-2)	27 (-8)	25 (+16)	20 (+11)	23 (+2)
Fairfield	15 (+12)	6 (+7)	40 (-13)	19 (-14)	18 (+3)
Hampton	30 (+4)	30 (-26)	37 (+2)	25 (-4)	28 (-2)
Jasper	39 (-9)	25 (-5)	35 (+9)	36 (+0)	38 (-3)
Lee	40 (+1)	3 (+9)	43 (-21)	42 (-2)	37 (+0)
McCormick	7 (+25)	4 (+20)	30 (-21)	11 (+3)	9 (+14)
Saluda	31 (-10)	31 (-9)	23 (+20)	29 (-21)	30 (-8)
Williamsburg	--	--	--	--	--

\* Chesterfield and Williamsburg counties did not have an SVI score for 2018

Allendale county had the most significant overall vulnerability score in 2020, based on the combined ranking of each of the SVI domains: (1) Socioeconomic Status, (2) Household Characteristics, (3) Racial & Ethnic Minority Status, and (4) Housing & Transportation. York County had the lowest overall vulnerability score for all SVI domains, moving up one position since the 2018 rankings. Overall, the most significant improvement in SVI rankings occurred in McCormick and Newberry counties, with each county improving its rank by 10 and 14 points, respectively. The most significant relative increase in vulnerability occurred in Calhoun, Dorchester, and Colleton counties. Calhoun had the most significant overall decrease, falling from 11<sup>th</sup> to 26<sup>th</sup> on the SVI scale between rankings, whereas Dorchester fell from 3<sup>rd</sup> to 15<sup>th</sup> and Colleton fell from 24<sup>th</sup> to 33<sup>rd</sup>, respectively. Five counties, including Lee, Allendale, Orangeburg, Marlboro, and Georgetown, did not change their rank positions between surveys. CDC SVI scores were unavailable for Chesterfield and Williamsburg counties in 2018 and excluded from comparisons.

Seven of the top 10 counties with the most significant overall vulnerability relative to all other counties in the state were in rural areas: Allendale, Bamberg, Barnwell, Clarendon, Dillon, Jasper, and Lee. Except for Dillon and Jasper counties, each has improved its overall ranking since 2018. In contrast, six of the top 10 counties with the slightest overall vulnerability were urban counties: Beaufort, Charleston, Greenville, Lexington, Pickens, and York counties. Sumter was the lowest-scoring urban county on all SVI domains relative to other urban counties.

## 2.4 Poverty

According to the 2022 estimates from the U.S. Census Bureau, South Carolina was ranked 10<sup>th</sup> in the nation, with 14.6% of its residents in poverty. Overall, household poverty rates among both young adults (ages < 18) and adults (ages 18–64) increased stepwise, moving from urban to suburban to rural counties. Approximately half of all young adults in Barnwell (50.9%) and Dillon (48.6%) had income levels below the federal poverty level in 2021, with both counties seeing an overall increase in poverty from 2020.

However, rural areas also exhibited the most significant overall reduction in poverty since 2020. On average, poverty rates among young adults fell by 6% and 2.1% among adults aged 18 to 64 in rural areas between 2020 and 2021. The most extensive overall improvements in poverty occurred in Bamberg and Lee counties, both of which saw over a 30% decline in poverty among young adults. Similar but attenuated poverty reduction among all adults also occurred within these two counties.

## 3.0 ACCESS TO CARE FOR THE SAFETY NET

In 2022, one in five South Carolinians live in Health Professional Shortage Areas (HPSA) or Medically Underserved Areas (MUA). As a part of the U.S. Department of Health and Human Services Health Resources & Services Administration's (HRSA) mission to "improve health outcomes and achieve health equity through access to quality service, a skilled health workforce, and innovative, high-value programs," shortage designations identify areas and populations experiencing a shortage of health care services.<sup>23</sup> The definitions of these areas are the following:

- *Health Professional Shortage Area (HPSA)*

As designated by the Health Resources & Services Administration (HRSA), a health professional shortage area is a geographic area (a county or service area), population (e.g., low-income or Medicaid eligible), or facility (e.g., Federally Qualified Health Center) that has a shortage of either primary medical care, dental care, or mental health providers and services. An area can also be eligible for designation based on its total resident or low-income population.

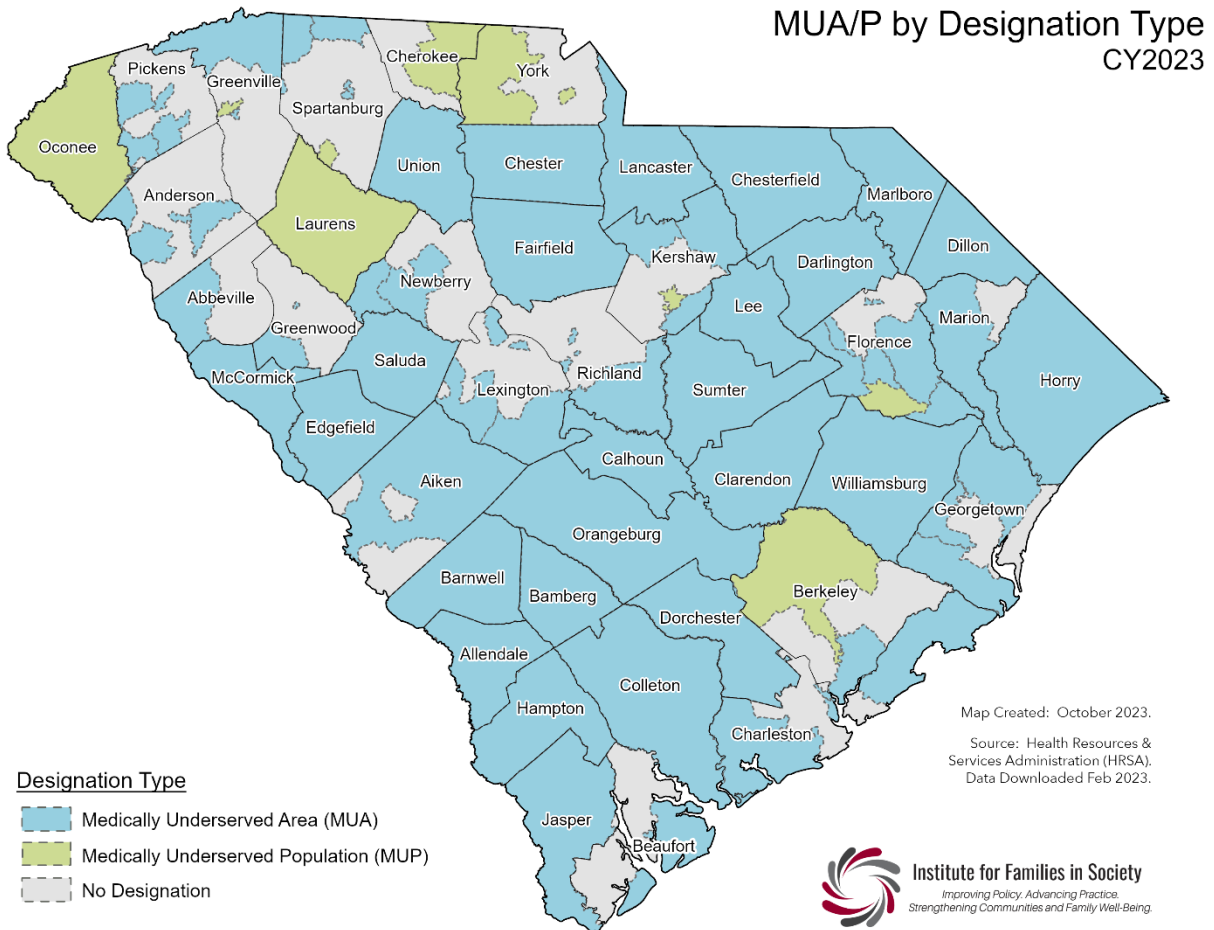
- *Medically Underserved Areas & Populations (MUA/P)*

Like HPSAs, Medically Underserved Areas (MUA) and Populations (MUP) are geographic areas and specific populations lacking access to primary care services. These designations help establish health maintenance organizations or community health centers like RHCs. Classification is based on the Index of Medical Underservice (IMU). The IMU is calculated based on the population-to-provider ratio, the percent of the

population below the federal poverty level, the percent of the population over age 65, and the infant mortality rate.

Roughly **one out of every five** persons in South Carolina resides in geographical areas without sufficient primary care, dental, and mental health care providers.

**Figure 7. HRSA Designated MUA/P Shortage Areas in South Carolina**



As previously noted, the population of individuals requiring services from safety net providers are low-income, Medicaid beneficiaries, and the uninsured. HPSA and MUA/P are closely associated with the following:

- Residing in rural areas with an aging population requires more primary and specialty care services.
- Lack of health care educational programs with limited resources to increase the number of trained providers willing to practice outside urban centers.
- Population shifts to urban locations, reducing the ability of rural practitioners and hospitals to sustain resources to provide services in HPSA and MUA/P service areas.
- Rural communities have lower broadband access, decreasing the ability of the safety net population in these counties to gain access to preventive and specialty care services through telemedicine, telehealth, and telepsychiatry initiatives.

### 3.1 Broadband and Access to Care

Broadband access is critical for achieving economic growth, social equity, and access to health care services, especially in rural areas. For rural areas, high-speed internet can foster economic growth, attract businesses, and create job opportunities. Telehealth services can thrive with reliable broadband, enabling remote health care consultations and improving health care outcomes in underserved areas.

Although broadband access has increased across the state, disparities in rural areas remain, particularly across MUA/P designations. **Table 7** shows the 2-year change in household broadband subscriptions between 2019–2021 across the state within its MUAs. The rates are based on census tract estimates from the ACS 5-year data cycle questionnaire (B28002) on the presence and types of internet subscriptions within the household.

While median household broadband subscription rates remain highest in non-MUA households, they are similar to the subscription rates within urban and partially rural MUA households. However, non-MUA households within the lowest 25<sup>th</sup> percentile still have greater broadband access than the average rural MUA household. These disparities may be converging. For example, over the last two years, rural MUA households have seen the most remarkable overall improvement in broadband access, with household subscription rates increasing by 12.6% since 2019. Since 2017, household broadband access has improved by nearly 28% in rural MUAs.

**Table 7. Change in Broadband Internet Access Within MUA and Non-MUA Households, 2019–2021**

	2021 Rates			Change (2019)	Change (2017)
	25th	Median	75th		
MUA Designation type					
Urban	69.6	80.1	89.0	+ 10.5	+ 24.0
Partially Rural	75.7	84.5	89.8	+ 8.5	+ 19.0
Rural	63.0	72.5	81.9	+ 12.6	+ 27.9
Non-MUA households	77.3	86.9	93.8	+ 5.0	+ 12.7



A continued emphasis on increasing broadband access to underserved communities is critical for South Carolina to meet all its citizens' health care needs adequately.

### 3.2 Measuring Access to Care to Safety Net Providers

To evaluate geographic access to South Carolina's network of safety net facilities, IFS geo-located each safety net facility based on available address information using a geographic information system (GIS). Those facilities located in-state are in the analysis. Address data for each safety net provider was standardized and then geo-located using the IFS composite geocoder. A geocoder (address locator) is a dataset that stores the address attributes, associated indexes, and rules that define the process for translating nonspatial descriptions of places, such as street addresses, into spatial data as features on a map.<sup>24</sup> The IFS composite geocoder includes spatial reference data from multiple data sources, each representing a different level of geo-positional accuracy.

Using the geographic center of each Zip Code Tabulation Area (ZCTA), the total driving time (minutes) along a GIS road network from each ZCTA to each of their nearest safety net facility type was calculated. The calculated driving time is averaged across the 3-class classifications of rurality. The driving time rurality classification of each ZCTA – *Least Rural*, *Most Rural*, and *Urban* – is the basis for the analysis.

**Table 8. Average Driving Time (in Minutes) to the Nearest Safety Net Provider by Type, Including Rural Hospitals**

Geographic Classification	FQHC		RHC		FMC		Rural Hospital		Critical Access Hospital	
	Average	St. Dev	Average	St. Dev	Average	St. Dev	Average	St. Dev	Average	St. Dev
Urban	11.9	6.4	21.7	10	14.2	7.3	37.7	11.5	81.2	24.6
Least Rural	16.5	21.6	19.9	22	25.7	22.3	30.6	26.1	69.0	36.4
Most Rural	15.1	14.7	21.4	16.4	27.7	14.5	29.6	16.6	65.4	38.5
Statewide	14.2	14.8	21.1	16.1	21.7	16.3	33.1	18.5	72.7	33.8

**Data Sources and Caveats**

The data framing this report’s analysis was pulled from many different resources to provide a complete picture of the residential makeup, geographic size, and critical medical care information for South Carolina. The U.S. Census Bureau releases data from its decennial census and annual surveys at various geographic levels. The American Community Survey (ACS) provided updated information on residential demographics. The Rand McNally Road Atlas for 2021 was used to establish the geographic size and scale of South Carolina. Information on the medically underserved areas of South Carolina and the specific health professional shortage area (HPSA) data and maps come from the Health Resources & Services Administration (HRSA). HRSA is also the organization that funds the Federally Qualified Health Centers (FQHCs). FQHCs: Grantee and Look-Alike delivery sites were pulled from the Health Resources and Services Administration data stores. Sites must have been listed as 'Active' for the given years. RHCs: Locations before 2019 were identified and pulled from the CMS CASPER Report (2017). Locations post-2019 were identified and pulled from the Health Resources and Services Administration data stores. FMCs: Locations were identified and pulled from The South Carolina Free Clinic Association. Rural Hospitals: Rural hospitals were identified using rural exempt status as of 2022. Critical Access Hospitals: Locations were identified from the Critical Access Hospital Locations List as reported by the Flex Monitoring Team (2022).



As shown in **Table 8**, Populations residing in geographical areas that are classified as least rural and most rural experience longer driving times to access safety net providers, on average. Although the drive time to critical care hospitals located in rural counties exceeds 60 minutes’ drive time, individuals can access rural designated hospitals and those located in urban settings. The breakdown of driving times indicates the need to examine other services to increase access to health care (e.g., telehealth and the availability of broadband services in rural communities). Funding mechanisms that reduce the distance to safety net providers through mobile vans or alternative mechanisms for direct patient care can increase their access to care.

This evaluation is location specific. Service delivery sites are not equal in services offered. For example, safety net providers may offer a variety of services at a given location, and these services may change depending on whether the facility is a FQHC, RHC, or FMC.

*Changes in the Number of Safety Net Facilities*

**Table 9** details the number of safety net facilities by year and type from 2013 to 2023 that have occurred within the state's Least and Most Rural ZCTAs. Overall, South Carolina has experienced a sharp decline in its number of Rural Health Clinics. These closures parallel trends that are occurring nationally. The loss of RHCs has been primarily borne out within the state's most rural and underserved communities, particularly since 2019. Although rural communities have seen an overall increase in FQHC and FMC providers during this period, the growth has not been commensurate with RHC closures, particularly over the last year. For example, Anderson, Bamberg, Charleston, Kershaw, Marion, and Orangeburg counties all experienced the loss of brick-and-mortar FMCs in the past year. These closures disproportionately occurred within the most rural communities in the state. The variability in growth and loss of services reveals increasing instability for reliable access to a rural health workforce within the state’s most isolated communities.<sup>25</sup>



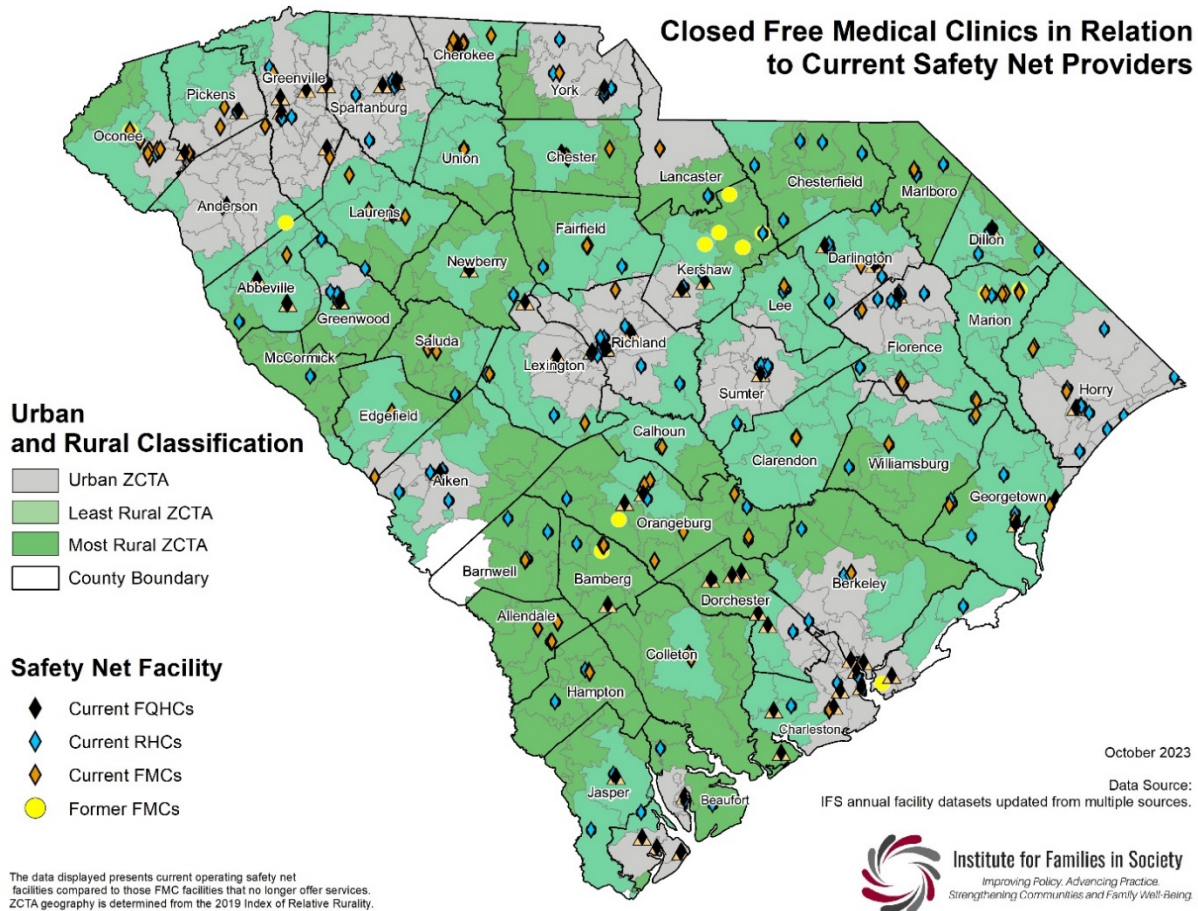
**Table 9. Change in Safety Net Providers 2013–2023**

	2013		2019		2022		2023		% Change		% Change	
	Mostly Rural	Least Rural	Mostly Rural	Least Rural	Mostly Rural	Least Rural	Mostly Rural	Least Rural	2013–2023		2022–2023	
									Mostly Rural	Least Rural	Mostly Rural	Least Rural
Federally Qualified Health Center (FQHC)	32	46	38	41	43	47	41	51	28.1	10.9	-4.7	8.5
Rural Health Clinic (RHC)	28	64	15	51	15	47	18	52	-35.7	-18.8	20.0	10.6
Free Medical Clinic (FMC)	3	14	9	22	10	22	5	18	66.7	28.6	-50.0	-18.2



**Figure 8** (below) highlights the locations of FMC closures over the past year, the largest of which occurred in Kershaw County. In part, the loss of FMC services likely stems from COVID-19 and the reliance on older staff more susceptible to the SARS-CoV-2 virus. Although some FMCs have maintained care through telephone consultations, the loss of place-based care poses a significant challenge to access to health care services, particularly for the uninsured.

**Figure 8. Free Medical Clinics Closures, 2022–2023**

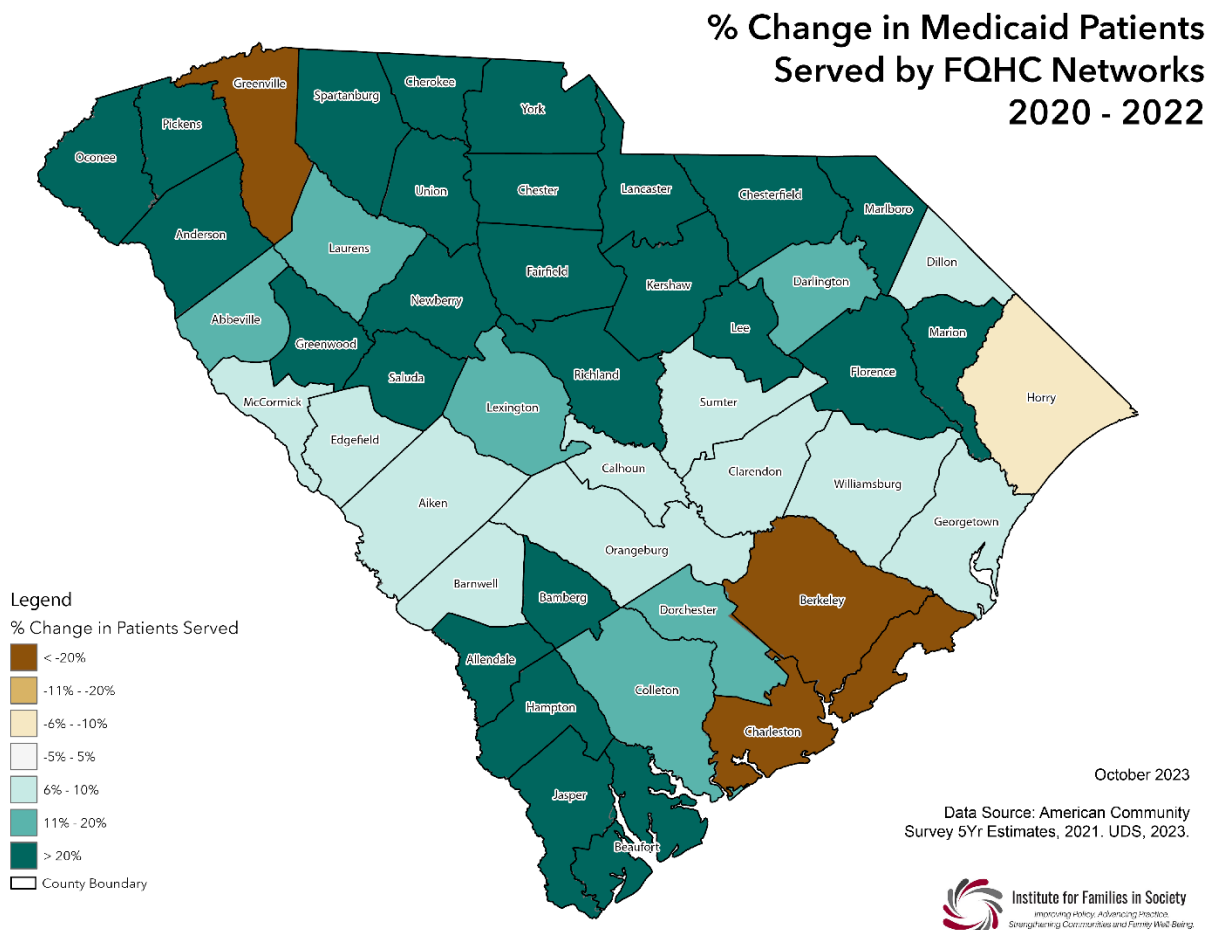




The FQHCs are the most similar to the FMCs in the types and array of services. **Figure 9** shows the 2-year change in the percentage of uninsured patients served by FQHC networks in South Carolina between 2020 and 2022 by county. Overall, the analysis indicates the following:

- FQHCs within South Carolina saw a decrease in the number of uninsured patients. Some of the largest declines were in Bamberg, Calhoun, Darlington, Lee, and Marlboro Counties, which saw an average 50% reduction in uninsured patients across its clinic networks. Just over 34,000 patients were served by clinics in these counties in 2022.
- The percentage of uninsured patients within the state's FQHC network did increase in some counties.
- On average, Anderson, Kershaw, and Oconee counties saw a 17% to 51% increase in uninsured patients served by its FQHCs networks. Approximately 16,000 patients relied on FQHC networks within these three counties to obtain health care services in 2022.

**Figure 9. Change in Percentage of Medicaid Patients Within County FQHC Networks, 2020–2022**



Although this analysis cannot indicate a one-to-one association between the loss of FMCs in Kershaw County and the increased uninsured rates in the same period, the analysis indicates the need to strengthen access to providers across all safety net provider types. Maintaining a robust safety net of providers ensures access to care for the uninsured and low-income populations.

### 3.3 Driving Time to Safety Net Provider by Type

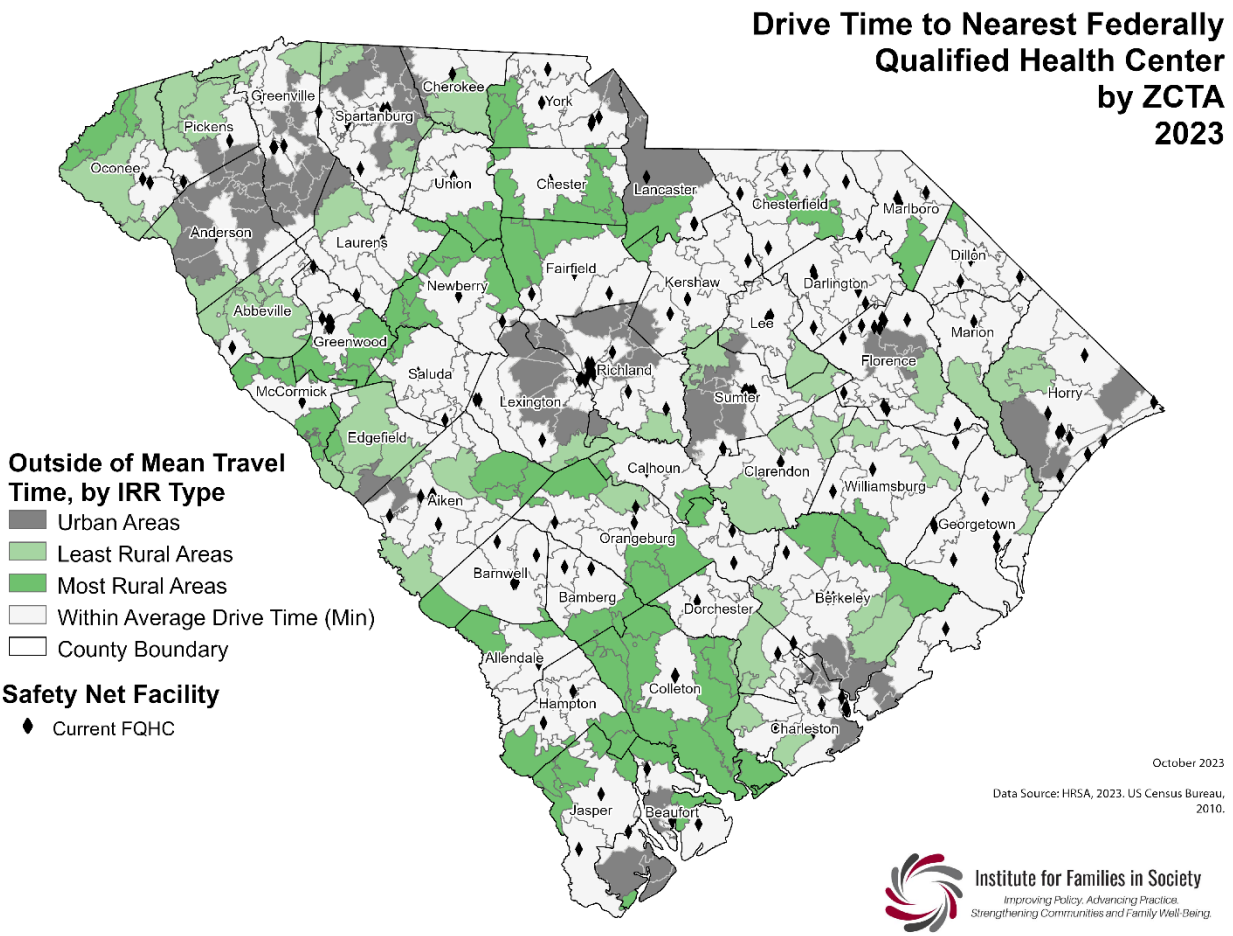
Transportation barriers can impede access to health care services. Long driving times and difficulty obtaining transportation can lead to missed appointments, delayed care, and missed or delayed medication use. High driving times and related transportation barriers have consequences for managing chronic illness, avoiding preventive care, inappropriate use of the emergency department, and poorer health outcomes.<sup>26</sup>

#### 3.3.1 Federally Qualified Health Clinics (FQHC)

FQHCs are community-based health centers that provide medically necessary primary, behavioral, mental, and preventive health services to all patients regardless of their ability to pay or health insurance status.<sup>27</sup> In 2022, South Carolina had a network of 179 FQHCs, of which 90 were in **Most Rural** and **Least Rural Areas** throughout the state. South Carolina's FQHCs network has grown to 185, a **3% increase** (see **Table 9**). As shown in **Figure 10**, FQHC locations are widespread throughout the state, with every county having at least one facility.

**Figure 10** also highlights ZCTAs whose commute time to its nearest FQHC was above average for communities of the same geographic classification—for example, they emphasized that Most Rural Areas on the map (shown in dark green) traveled more than 15.1 minutes to reach the nearest FQHC. Despite the widespread nature of facility locations, clusters of mainly urban and primarily rural communities still have longer commute times to a facility than similar communities across the state. The table in Appendix E lists the percent change in patient insurance type (uninsured and Medicaid) within SC FQHC networks, by county between 2020–2022.

**Figure 10. ZCTAs Outside of the Mean Drive Time (in Minutes) to its Nearest FQHC**



On average, South Carolinians can access an FQHC within 14.2 minutes from their residence, ranging from 11.9 minutes in Urban ZCTAs to 16.5 minutes in the Least Rural ZCTAs. Approximately 60% of all Medicaid recipients (ages 0–64) and 58% of the uninsured population (ages 0–64) residing in Urban ZCTAs can access the nearest FQHC within these times, on average. Among the Urban populations residing beyond 11.9 minutes to the nearest FQHC, mean travel times to the nearest FQHC are 17.7 minutes, or approximately 6 minutes longer. Average travel times to the nearest FQHC for approximately 30% of the Medicaid and Uninsured populations residing beyond 15.1 to 16.5 minutes to the nearest FQHC are approximately 8 to 11 minutes longer, on average, ranging from 23.3 minutes in the Most Rural ZCTAs to 25.9 minutes in the Least Rural ZCTAs.

**Table 10. Average Travel Time (in Minutes) to the Nearest FQHC and the Number of Medicaid and Uninsured Populations (Ages 0–64) Beyond Mean Travel Times**

	Drive Time		Outside of Mean Drive Time to Nearest FQHC			
	Mean (SD)	ZCTA	Medicaid (%)	Uninsured (%)	Mean (SD)	ZCTA (%)
<b>Geographic Classification</b>						
Urban	11.9 (6.4)	169	265,847 (40)	159,583 (42)	17.7 (5.1)	72 (43)
Least Rural	16.5 (21.6)	116	60,821 (28)	28,340 (30)	25.9 (30.7)	49 (42)
Most Rural	15.1 (14.7)	139	28,932 (29)	13,308 (29)	23.3 (18.5)	62 (45)
Total	14.2 (14.8)	424	355,600 (36)	201,231 (39)	21.8 (19.6)	183 (43)

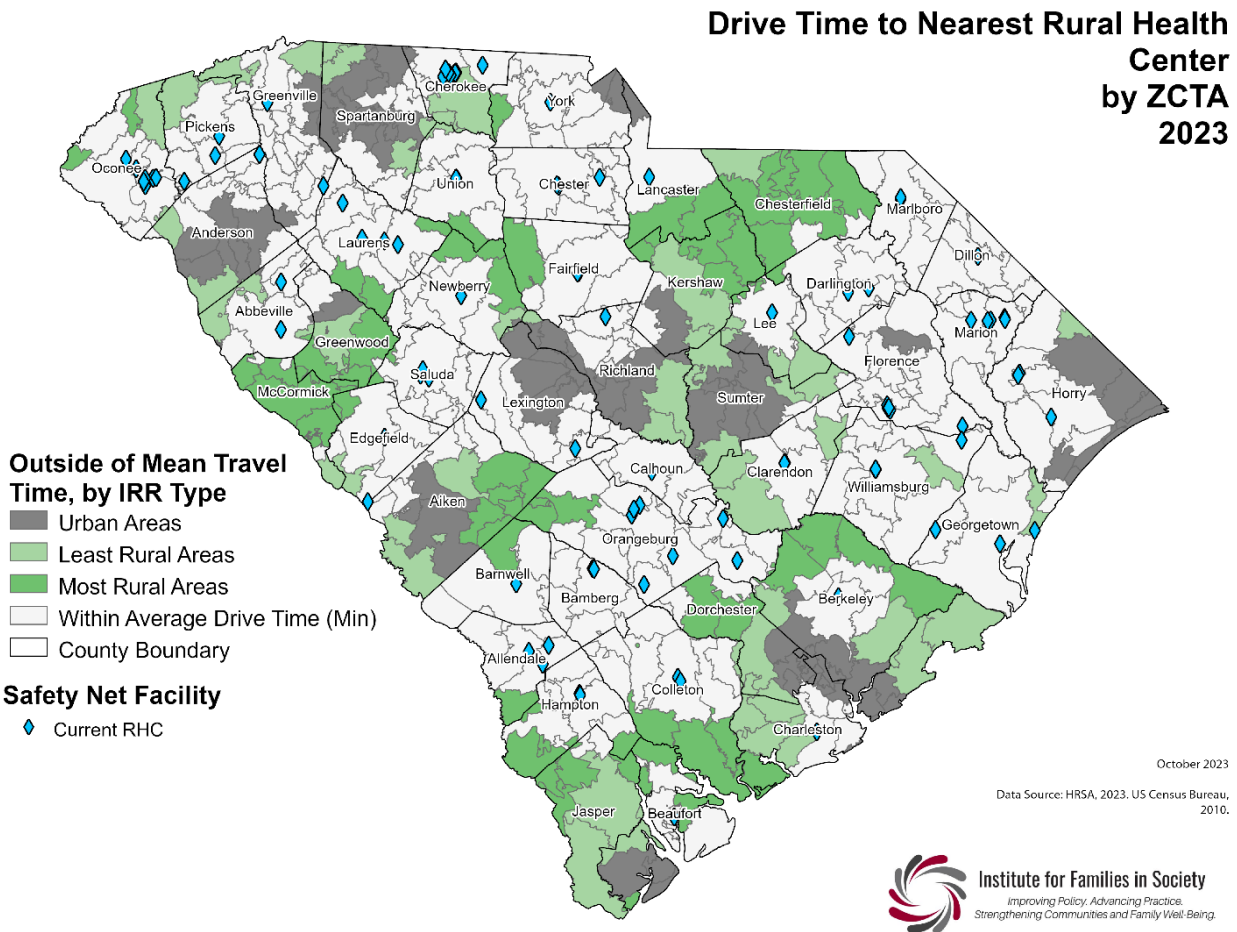


### 3.3.2 Rural Health Clinics (RHC)

Rural Health Clinics (RHCs) and FQHCs deliver critical primary care services. These federally designated safety net providers both serve populations with inadequate access to care in geographical areas designated as Geographic-Population-based Health Professional Shortage Areas, a Medically Underserved Area, or a Governor-Designated Secretary-Certified Shortage Area. FQHCs and RHCs reimbursement is via an all-inclusive bundle payment per visit rather than a physician fee schedule. RHCs must be located in non-urbanized areas. The required services differ for these providers, with FQHCs providing broader benefits, such as pharmacy, dental care, case management, and related services. Because they are similar and may be in similar rural areas, they differ, potentially serving different members of the safety net population.

From 2022 to 2023, South Carolina's network of RHCs **increased by 14%**, from 92 facilities to 105 statewide (see **Table 9**). Locations of RHC are relatively widespread across the state and mainly clustered in **Most Rural** and **Least Rural Areas**; Figure # highlights ZCTAs whose commute time to its nearest RHC was above average for communities of the same geographic classification. Note, that while RHCs are intended to provide access in rural areas, residents in **Urban Areas** may also utilize these facilities for care. In rural counties, such as Kershaw and McCormick, which lack an in-county RHC, we see rural communities having longer commute times than other rural areas across the state. Despite having in-county RHC locations, rural communities in northern Beaufort and southern Colleton counties also experience longer commute times.

**Figure 11. ZCTAs Outside of the Mean Drive Time (in Minutes) to its Nearest RHC**



On average, South Carolinians can access an RHC within 21.1 minutes from their residence, ranging from 19.9 minutes within the Least Rural ZCTAs to 21.7 minutes from Urban ZCTAs. Approximately 54% to 57% of all uninsured and Medicaid recipients (ages 0–64) can access an RHC within these travel times, on average. However, average travel times to the nearest RHC are over 50% higher for populations residing in Rural ZCTAs beyond these travel times. For example, for approximately 30% to 35% of Medicaid and uninsured populations residing in rural ZCTAs in South Carolina, it takes about 32 minutes to access the nearest Rural Health Clinic (see **Table 11** below).

**Table 11. Average Travel Time (in Minutes) to the Nearest RHC and the Number of Medicaid and Uninsured Populations (Ages 0–64) Beyond Mean Travel Times**

	Drive Time		Outside of Mean Drive Time to Nearest RHC			
	Mean (SD)	ZCTA	Medicaid (%)	Uninsured (%)	Mean (SD)	ZCTA (%)
<b>Geographic Classification</b>						
Urban	21.7 (10.0)	169	327,953 (49)	190,988 (51)	29.7 (6.6)	85 (50)
Least Rural	19.9 (22.0)	116	61,610 (28)	28,322 (30)	32.7 (30.1)	45 (39)
Most Rural	21.4 (16.4)	139	35,916 (36)	16,680 (37)	32.1 (21.3)	55 (40)
<i>Total</i>	21.1 (16.1)	424	425,479 (43)	235,990 (46)	31.1 (19.6)	185 (44)



### 3.3.3 Free Medical Clinics (FMC)

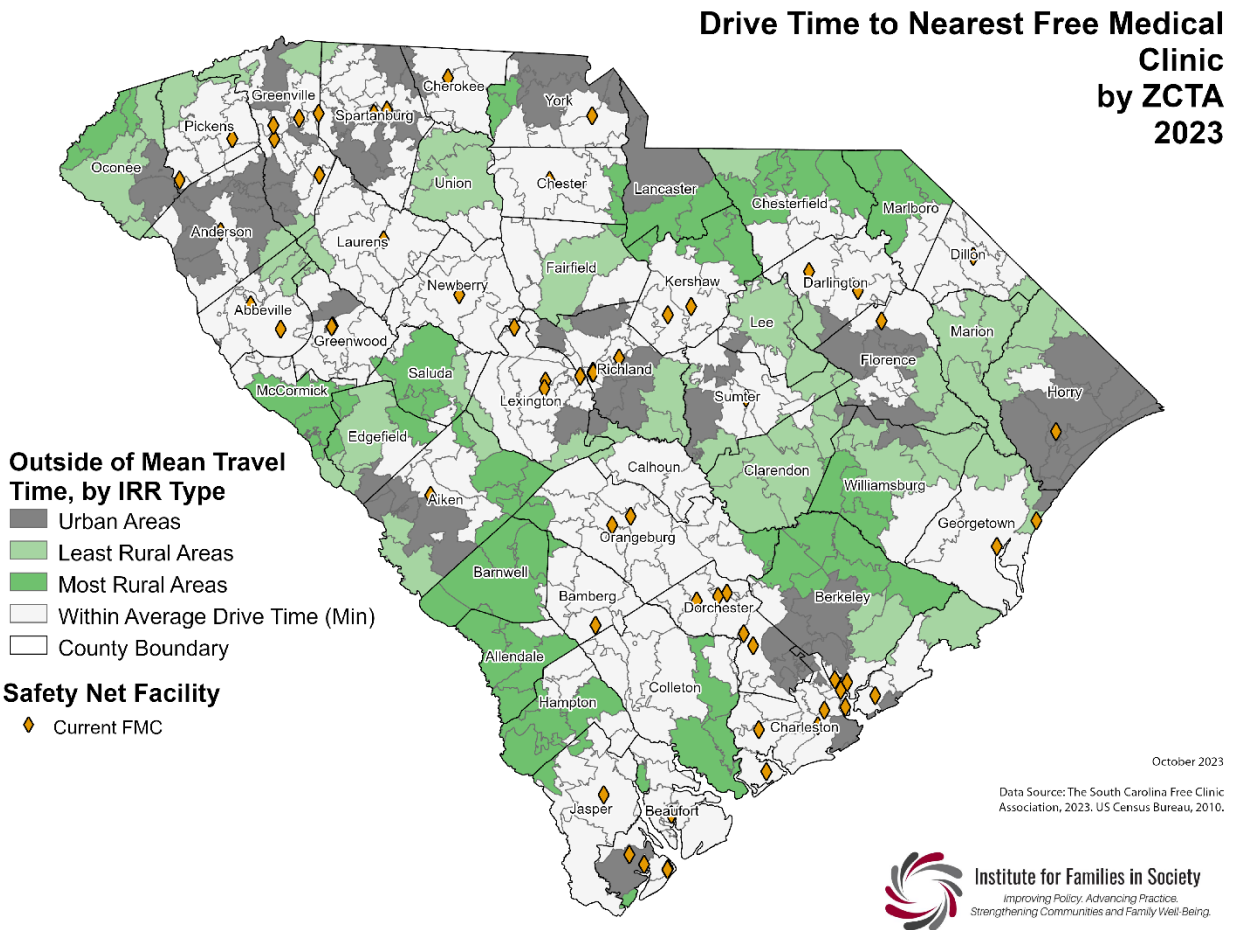
Free Medical Clinics use a volunteer/staff model to provide health care services to uninsured, low- and no-income patients as a safety net provider. FMCs can provide general medical, prescription, and specialty services, including dental, lab testing, health education, and referrals (SC Free Clinic Association, 2022).

While FQHCs and RHCs grew during the evaluation period, South Carolina’s network of FMCs saw a **15% decrease** between 2022 and 2023, with mostly rural areas, going from 10 available locations down to five (see **Table 9**). FMC locations have less generous coverage than FQHCs and RHC, with sites clustered in the Upstate region, Midlands along I-20, and Dorchester and Charleston counties in the Lowcountry (**Figure 12 and Table 12**).

**Figure 12** highlights ZCTAs whose commute time to the nearest FMC was above average for communities of the same geographic classification. Where gaps exist, along the border near the Savannah River region, in the PeeDee region, in the northern-most Midlands and Upstate region, we see those communities having longer commute times compared to communities nearer to where FMCs are clustered.



**Figure 12. ZCTAs Outside of the Mean Drive Time (in Minutes) to its Nearest FMC**



Free Medical Clinics are the least accessible Safety Net Providers in the state based on travel time. On average, South Carolinians can access an FMC within 21.7 minutes from their residence, ranging from 14.2 minutes within Urban ZCTAs to 27.7 minutes in Most Rural ZCTAs. Approximately 57% of all uninsured and Medicaid recipients (ages 0–64) can access an RHC within these times, regardless of where they live, on average. Approximately 40% of the state’s Medicaid recipients and uninsured populations under the age of 65 require 31 minutes or longer to obtain care from the nearest FMC. In other words, an estimated 40% increase in travel burden accessing FMCs among populations residing in the state’s mean travel times. For approximately 63% of Medicaid and uninsured people living in the Least Rural ZCTAs in South Carolina, accessing the nearest FMC takes about 37 minutes by car. It takes about 39 minutes for half of the state’s most rural Medicaid and uninsured populations to access these safety net providers by car.

**Table 12. Average Travel Time (in Minutes) to Nearest FMC and the Number of Medicaid and Uninsured Populations (Ages 0–64) Beyond Mean Travel Times**

	Drive Time		Outside of Mean Drive Time to Nearest FMC			
	Mean (SD)	ZCTA	Medicaid (%)	Uninsured (%)	Mean (SD)	ZCTA (%)
<b>Geographic Classification</b>						
Urban	14.2 (7.3)	169	288,204 (43)	168,929 (45)	20.5 (5.8)	74 (44)
Least Rural	25.7 (22.3)	116	83,263 (38)	34,832 (37)	36.8 (29.1)	52 (45)
Most Rural	27.7 (14.5)	139	50,892 (51)	22,285 (49)	38.5 (15.1)	61 (44)
<i>Total</i>	21.7 (16.3)	424	422,359 (43)	226,046 (44)	30.9 (19.8)	187 (44)

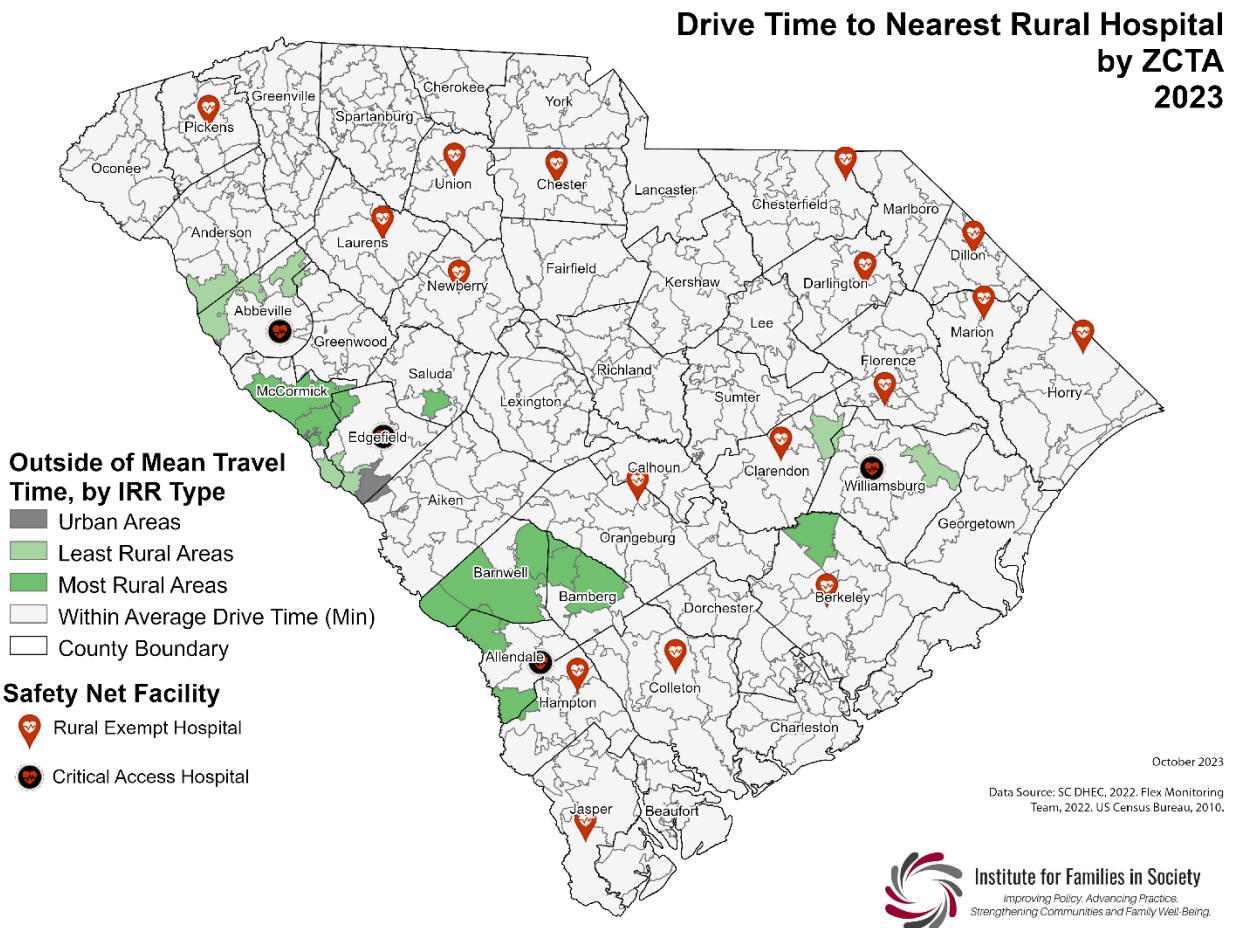


### 3.3.4 Rural Exempt and Critical Access Hospitals (CAH)

"Critical Access Hospital" is a special designation the Centers for Medicare & Medicaid (CMS) granted to eligible rural hospitals. CAH status grants hospitals unique benefits to keep essential services available to rural communities, such as cost-based reimbursement for services and access to additional resources from Medicaid and Medicare programs. CAH designation is one of the classification criteria for "Rural Hospital Exemption" status, a designation with the same goal as CAH – reducing the financial vulnerability of rural hospitals and improving access to care in rural communities.

In 2022, South Carolina had **four** CAH-designated hospitals mainly located along the Savannah River region in Abbeville, Allendale, and Edgefield counties, including a site in Williamsburg County (**Figure 13**). There were 21 facilities with Rural Exempt status. Figure # highlights ZCTAs whose commute time to the nearest rural hospital was above average for communities of the same geographic classification.

**Figure 13. ZCTAs Outside of the Mean Drive Time (in Minutes) to its Nearest Rural Hospital (Including Critical Access Hospitals)**



Due to the Rural Exemption designation criterion, commute times for communities may be longer than for other safety net provider types. Rural Exempt facilities may be the closest available location for care for some communities, and other safety net providers may be nearby for others. While Rural Hospitals are intended to provide access in rural areas, residents in **Urban Areas** may also utilize these facilities for care.

**Table 13** shows the mean travel times to Rural Exempt Hospitals (REHs), including CAHs. Statewide, there were 25 ZCTAs whose nearest hospital was an REH or CAH, only one of which was an Urban ZCTA. This Urban Area's travel time and population estimates are provided for reference purposes only. Overall, the mean travel time to an REH/CAH varied from 11.6 minutes to 15.7 minutes within the Least and Most Rural ZCTAs. Mean travel times for all rural ZCTAs beyond these thresholds ranged from 26.9 to 32.3 minutes. In total, 17 of the 24 Least and Most Rural ZCTAs beyond these averages had to travel between 26.9 to 32.3 minutes to access their nearest REH/CAH. Approximately half of all Medicaid recipients and uninsured persons ages 0–64 residing in these ZCTAs, or about 21,000 people, must travel twice as far to access a facility compared to other populations in the state whose nearest hospital is an REH or CAH.

The table in **Appendix F** lists the drive time to the nearest safety net facility for each ZCTA, by facility type.



**Table 13. Average Travel Time (in Minutes) to Nearest REH (Including CAH) and the Number of Medicaid and Uninsured Populations (Ages 0–64) Beyond Mean Travel Times**

	Drive Time		Outside of Mean Drive Time to Nearest Rural and Critical Care Hospital			
	Mean (SD)	ZCTA	Medicaid (%)	Uninsured (%)	Mean (SD)	ZCTA (%)
<b>Geographic Classification</b>						
Urban	25.0 (n/a)	1	1,740 (100)	511 (100)	25.0 (n/a)	1 (100)
Least Rural	11.6 (4.9)	11	4,254 (30)	1,530 (29)	26.9 (5.6)	6 (55)
Most Rural	15.7 (5.6)	13	9,209 (59)	4,436 (60)	32.3 (6.2)	11 (85)
<i>Total</i>	14.6 (5.6)	25	15,203 (49)	6,477 (49)	30.1 (6.4)	18 (72)



### 3.4 Population to Primary Care Provider Ratios

This next section of the report focuses on the role of primary care providers within the safety net network. In 1996, the IOM defined primary care as a vital component of health services, ensuring access to health care services through several provider types framing primary care delivery systems. Primary care's vital role and value rests with the ability of primary care providers to engage in the 4 Cs of patient care—First Contact, Continuity, Comprehensiveness, and Coordination of care. Starfield's seminal approach to delivering primary care services is associated with improved overall health outcomes and increased access to preventive health care, lowering the costs associated with avoidable emergency room and inpatient hospital stays.<sup>28</sup>

The Association of American Medical Colleges<sup>29</sup> projected a shortage of up to 124,000 physicians by 2034. Utilization of physician services and projected growth in demand is the largest for primary care physicians in the southern regions of the United States for primary care physicians. Understanding the population-to-provider ratios is essential to understand access to care.

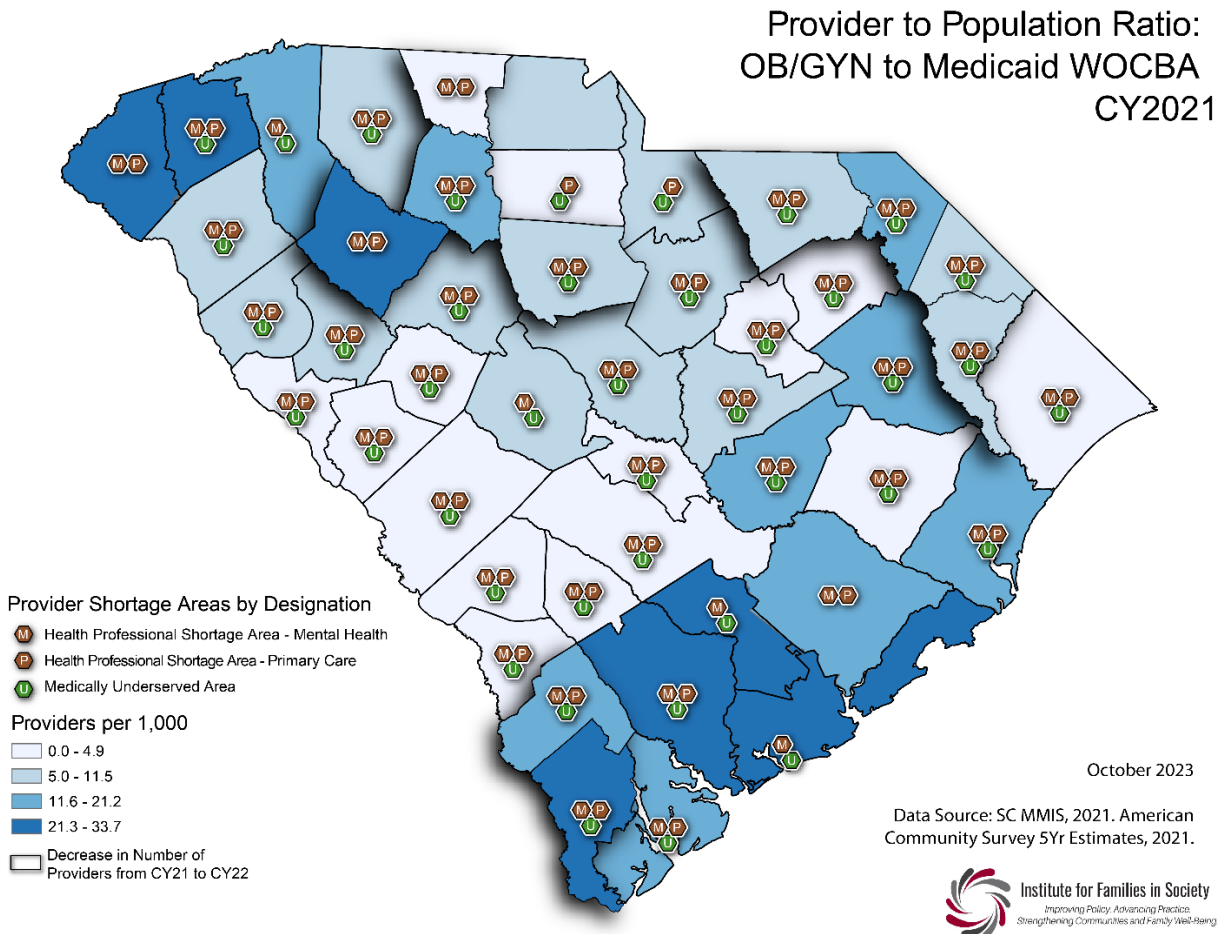
The analysis for this section of the report focuses on the following providers: Obstetrics and gynecology (OB/GYN) as the primary providers of preventive primary care services for women, primary care (PCP) consisting of family medicine, internal medicine, general medicine, and pediatricians. The report excludes the analysis of nurse practitioners and physician assistants.

#### 3.4.1 Obstetrics and Gynecology

OB/GYN providers are often seen as women's "primary care" physicians. The fertility rate in South Carolina in 2021 was 57.5 per 1,000 women ages 15–44. Of all live births in South Carolina during 2019–2021 (average), 5.6% were to women under the age of 20, 51.7% were to women ages 20–29, 40.0% were to women ages 30–39, and 2.7% were to women ages 40 and older. In 2021, as the safety net provider for low-income women, Medicaid paid for approximately 60% of all births.

**Figure 14** identifies 10 counties that experienced a decrease in OB/GYN providers between CY2021 and CY2022: Cherokee, Chesterfield, Dillon, Fairfield, Hampton, Jasper, Laurens, Marion, Marlboro, and Union. Medicaid beneficiaries residing in these counties experienced a decrease in OB/GYN providers. At the same time, the **2023 Infant Mortality Report**<sup>30</sup> released annually by DHEC's **Bureau of Maternal and Child Health**, shows that South Carolina's infant mortality rate rose by **12%** from 2020 to 2021 (the most recent data available) and has grown by almost **40%** since 2017 for infants born to non-Hispanic Black mothers. Population to OB/GYN ratios (for the uninsured, Medicaid, and the total population) are provided in **Appendix G**.

**Figure 14. Ratio of OB/GYN Providers to Women of Childbearing (WCB) Age for CY2021**

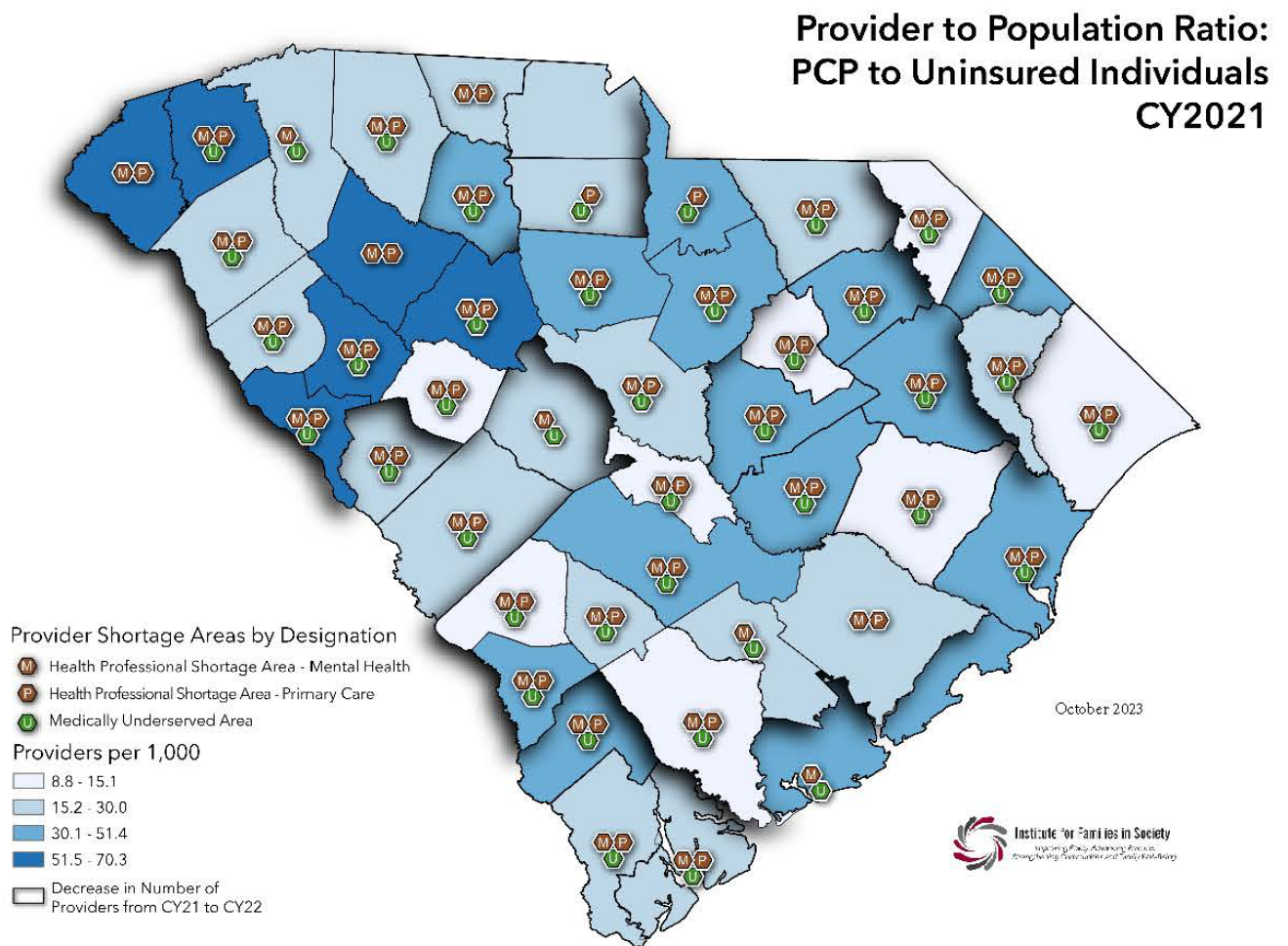


### 3.4.2 Primary Care Providers (PCPs)

The primary care providers of preventive primary care services for women and primary care consist of family medicine, internal medicine, general medicine, and pediatricians.

**Figure 15** depicts the PCPs to uninsured individuals. The map identifies 25 counties with decreased PCPs between CY2021 and CY2022: Abbeville, Allendale, Anderson, Bamberg, Barnwell, Berkeley, Calhoun, Colleton, Dorchester, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Marion, Marlboro, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, and Spartanburg. This finding indicates that **54%** of counties have decreased access to PCPs in CY2022, reinforcing the need to bolster the safety net clinic providers within the safety net. We note that the same counties have a decrease in PCPs serving Medicaid beneficiaries. Population to Total PCP ratios (ages 0–64) and for Pediatrician ratios (ages 0–18) for the uninsured, Medicaid, and the total population are provided in **Appendices H and I**.

**Figure 15. Ratio of Primary Care Providers (PCP) to Population for CY2021**



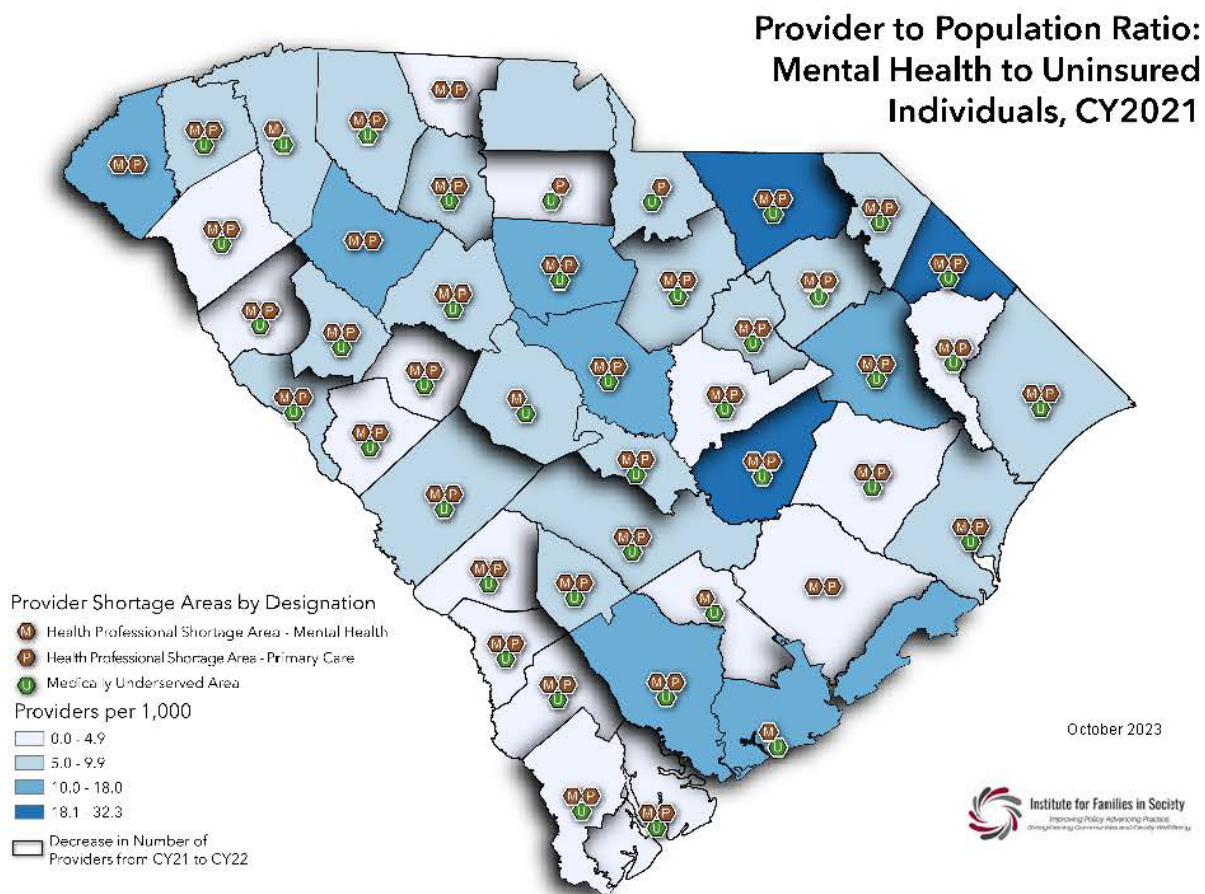
### 3.4.3 Mental Health Providers

According to the [National Alliance on Mental Illness](#)<sup>31</sup> (NAMI), an estimated 1 in every 5 (20%) adult South Carolinians experiences mental health problems each year. Everyone is at risk of developing a mental health disorder, regardless of their demographics. Some common risk factors include social and economic pressures (socioeconomic conditions, occupation, education, etc.) and biological factors, such as a family history of mental disorders. The safety net system recognizes that **consumers with co-occurring behavioral and mental health conditions often receive support from multiple agencies, including mental health, special education, psychiatric, and mobile crisis services.** Many individuals with mental health conditions are part of the safety population – low-income or uninsured with chronic complex physical conditions.

**Figure 16** highlights Mental Health providers to uninsured individuals for CY2021. The map identifies a decrease in mental health providers in 21 (**46%**) counties between CY2021 and CY2022. The counties are the following: Anderson, Bamberg, Calhoun, Charleston, Colleton, Fairfield, Greenville, Greenwood, Jasper, Lancaster, Laurens, Lexington, Marion, Marlboro, Newberry, Oconee, Pickens, Richland, Spartanburg, Sumter, and York. The same counties experienced decreases in the number of mental health providers serving the

Medicaid population. Population to Mental Health provider ratios (for the uninsured, Medicaid, and the total population) are provided in **Appendix J**.

**Figure 16. Ratio of Mental Health Providers to the Uninsured Population for CY2021**



#### 4.0 SAFETY NET HEALTH CARE OUTCOMES

The previous sections of the report have focused on descriptions of the safety net with an emphasis on changes that occurred between CY2021 and CY2022. Details on the composition or structure of health care providers and data that describes the need or demand for services are presented. In this section, the emphasis is on the link between health outcomes and the safety net. The information in this section is necessary to understand more about the relationship of these factors to health outcomes and performance to help inform the allocation of scarce resources.

##### 4.1 Safety Net Service Population – Health Status

Low-income individuals are among the most likely uninsured<sup>32</sup> and adults in poor health are more likely to be uninsured.<sup>33</sup> To determine among the state’s uninsured the population most likely to be served by the safety net, IFS examined rates of chronic disease and other health conditions based on income categories using 2022 Behavioral Risk Factor Surveillance System (BRFSS) data. Results indicated that the individuals within the



safety net are households with incomes less than \$24,999 and with the highest percentages for all health indicators associated with poor health outcomes. Adverse health outcomes related to skin cancer and heavy drinking are most prevalent among families with incomes over \$200,000 (see **Table 14**).

- Some of the most significant differences between the lowest and highest income levels rates occurred in households with current smokers (+23.9%), arthritis (+17.7%), and diabetes (+15%).
- Nearly one in five households with incomes under \$15,000 reported COPD, more than six times the rate of households making over \$100,000 (18.1% vs. 2.4%).
- The rate of asthma for households in the lowest income bracket (13.4%) was more than double that of households with incomes over \$100,000 a year (6.3%).
- Over 10% of all homes noted depression, but the rate of depression in households with incomes less than \$25,000 was 2.5 times that of households with incomes over \$200,000.
- At least one in three households reported obesity across all income groups, but the rate was 11% higher among the lowest-income households.

These findings indicate the high complexity of patients served by safety net providers in our state. The data indicates the need for multidisciplinary providers to address the complexity of co-occurring physical and mental health conditions.

**Table 14. BRFSS Chronic Conditions and Other Health Indicators Based on Income**

Condition	Income Range				Difference Between the Lowest & Highest Available Incomes
	Less than \$15,000	\$15,000–\$24,999	\$100,000–\$199,999	More than \$200,000	
Arthritis	39.4%	39.3%	20.6%	21.7%	+17.7%
Asthma	13.4%	12.1%	6.3%	6.0%	+7.4%
Coronary Heart Disease	9.0%	6.1%	2.8%	3.2%	+5.8%
Myocardial Infarction	7.4%	7.6%	2.4%	*	+5.0%
Coronary Heart Disease or Myocardial Infarction	12.6%	11.0%	4.0%	4.6%	+8.0%
Stroke	7.8%	7.4%	*	*	
COPD	18.1%	14.8%	2.4%	*	+15.7%
Depression	27.7%	28.2%	15.1%	11.4%	+16.3%
Diabetes	19.7%	18.4%	8.3%	4.7%	+15.0%
Kidney	10.2%	6.2%	2.5%	*	+7.7%
Skin Cancer	4.1%	4.7%	5.9%	9.4%	-5.3%
Other Cancer	7.6%	9.4%	8.3%	7.8%	-0.2%
Obese	39.5%	37.2%	34.1%	28.5%	+11.0%
Binge Drinking	12.4%	17.6%	24.0%	23.1%	-10.7%
Heavy Drinking	6.4%	7.7%	8.9%	11.4%	-5.0%
Current Smoker	29.9%	24.1%	6.9%	6.0%	+23.9%

Source: Data obtained from BRFSS Prevalence and Trends Data for 2022 ([CDC - BRFSS Prevalence Data & Data Analysis Tools](#)).<sup>34</sup>

#### 4.2 Safety Net Medical Care and Uncompensated Care

The complex health care profile of the safety net population can result in the high use of avoidable emergency department visits and the lack of ongoing preventative services, resulting in avoidable inpatient hospital stays. An essential payment mechanism to support the safety net network of hospitals is the Medicaid Disproportionate Share Hospital (DSH) payment program and increased funding mechanism to hospitals designated as rural exemptions and critical care. **In 2022, uncompensated care for 46,835 inpatient hospital discharges represented \$3,444,193,696 in charges compared to 50,004 discharges with total charges of \$3,341,144,562 in 2021.** In SFY2021 and SFY2022, increased COVID-19-related inpatient hospitalization

accounted for the increase in total charges and a decrease in overall discharges. (SC Revenue and Fiscal Affairs Office Analysis of Inpatient Discharges)<sup>35</sup>

Federal law establishes an annual DSH allotment for each state that limits Federal Financial Participation (FFP) for total statewide DSH payments made to hospitals. Federal law also limits FFP for DSH payments through the hospital specific DSH limit. Under the hospital-specific DSH limit, FFP is not available for state DSH payments that are more than the hospital's eligible uncompensated care cost, which is the cost of providing inpatient hospital and outpatient hospital services to Medicaid patients and the uninsured, minus payments received by the hospital on or on behalf of those patients. (CMS Medicaid DSH Payments)<sup>36</sup>

#### 4.3 Safety Net Quality Outcomes

The Healthcare Effectiveness Data and Information Set (HEDIS®) is a set of performance data developed and maintained by the National Committee for Quality Assurance (NCQA) and is the most widely used standardized performance measure in the managed care industry. HEDIS is part of an integrated system to establish accountability in managed care. It is designed to assure employers, regulators, public purchasers, and consumers have the information they need to compare the performance of managed care plans.

The quality measures available to measure the outcomes and performance of the safety net are limited, They pose challenges when providing uniformity in measurement across different populations and provider geographic areas and using the data quality outcomes for four measures associated with effective primary care services. The Medicaid population served by FQHCs and RHCs serves as a *proxy* for the safety net population in this analysis. *We caution the reader not to interpret these findings as they may under or overestimate the outcomes based on the geographical regions and the ability of Medicaid beneficiaries to access other providers within their network.*

**Table 15. HEDIS Quality Measures Relevant to the Safety Net Population**

Measure Dimension	Measure Domain	Measure Abbreviation	Measure Name	Measure Stratification(s)	Measure Definition
Access to Care	Effectiveness of Care	AAB	Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis	3 Months – 17 Years 18–64 Years 65+ Years Total	The percentage of episodes for members ages 3 months and older diagnosed with acute bronchitis/bronchiolitis did not result in an antibiotic dispensing event.
Access to Care	Access/ Availability of Care	AAP	Adults Access to Preventive/ Ambulatory Health Services	20–44 Years 45–64 Years 65+ Years Total	The percentage of members 20 years and older had an ambulatory or preventive care visit.
Access to Care	Effectiveness of Care	CWP	Appropriate Testing for Pharyngitis	3–17 Years 18–64 Years 65+ Years Total	The percentage of episodes for members 3 years and older where the member was diagnosed with pharyngitis, dispensed an antibiotic, and received a group A streptococcus (strep) test for the episode.
Access to Care	Effectiveness of Care	URI	Appropriate Treatment for Upper Respiratory Infection	3 Months – 17 Years 18–64 Years 65+ Years Total	The percentage of episodes for members 3 months of age and older diagnosed with upper respiratory infection (URI) did not result in an antibiotic dispensing event.

Each outcome measure compares Medicaid beneficiaries who had at least one CY2021 or CY2022 visit at an FQHC or RHC with those who received services through other providers. There is no overlap in the populations, providing an accurate comparison between safety net clinics and other outpatient providers.

#### 4.3.1 Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis (AAB)

Antibiotics are commonly misused and overused for several viral respiratory conditions where antibiotic treatment is not clinically indicated.<sup>37</sup> According to CDC prevention guidelines, about 80% of antibiotics prescribed for acute respiratory infections in adults are unnecessary. In adults, antibiotics are most often (65%–80%) prescribed for acute bronchitis/bronchiolitis despite its viral origin. The misuse and overuse of antibiotics contribute to antibiotic drug resistance, which is of public health concern due to the diminished efficacy of antibiotics against bacterial infections, particularly in sick patients and the elderly.<sup>38-40</sup> *Table 16 documents better outcomes associated with treatment from a safety net provider than other PCPs in CY2021 and CY2022 with acute bronchitis and the adherence to clinical recommendations standards related to the use of antibiotics to treat this condition.*

**Table 16. Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis, 2020**

CY2021									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3 Months – 17 Years	49	101	48.5	2,097	5,519	38.0	2,146	5,620	38.2
18–64 Years	33	158	20.9	1,391	3,744	37.2	1,424	3,902	36.5
65+ Years	0	44	0.0	4	152	2.6	4	196	2.0
Total	82	303	27.1	3,492	9,415	37.1	3,574	9,718	36.8

CY2022									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3 Months – 17 Years	106	249	42.6	4,467	13,898	32.1	4,573	14,147	32.3
18–64 Years	38	179	21.2	2,014	5,742	35.1	2,052	5,921	34.7
65+ Years	1	71	1.4	11	221	5.0	12	292	4.1
Total	145	499	29.1	6,492	19,861	32.7	6,637	20,360	32.6



#### 4.3.2 Adult Access to Preventive/ Ambulatory Health Services (AAP)

Access to timely preventive services is associated with reducing morbidity and mortality, shifting the focus from treatment of the disease to prevention. Ensuring access to the best-evidence practice of preventive/ambulatory care services can reduce the incidence of chronic disease and decrease the cost of avoidable emergency room and inpatient hospital stays. Cost reductions in health care are also found by avoiding treatment for advanced stages of chronic conditions and their complications due to their impact on other organs. Table 17 depicts a consistent pattern of better access to preventive/ambulatory health services for individuals receiving care through safety net providers in CY2021 and CY2022 compared to those receiving health services through non-safety net providers.



**Table 17. Adult Access to Preventive/Ambulatory Health Services (AAP)**

CY2021									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
20–44 Years	12,272	14,078	87.2	167,977	227,256	73.9	180,249	241,334	74.7
45–64 Years	15,147	16,686	90.8	70,421	90,259	78.0	85,568	106,945	80.0
65+ Years	11,724	13,303	88.1	27,743	43,786	63.4	39,467	57,089	69.1
Total	39,143	44,067	88.8	266,141	361,301	73.7	305,284	405,368	75.3

CY2022									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
20–44 Years	11,962	13,705	87.3	192,413	285,564	67.4	204,375	299,269	68.3
45–64 Years	16,056	17,479	91.9	74,706	97,163	76.9	90,762	114,642	79.2
65+ Years	14,826	16,173	91.7	32,454	48,274	67.2	47,280	64,447	73.4
Total	42,844	47,357	90.5	299,573	431,001	69.5	342,417	478,358	71.6



**4.3.3 Appropriate Testing for Pharyngitis (CWP)**

Pharyngitis<sup>41</sup> — commonly known as sore throat — is an inflammation of the pharynx, resulting in a sore throat. Thus, pharyngitis is a symptom rather than a condition. It is usually caused by viral and bacterial infections, such as the common cold<sup>42</sup> and flu<sup>43</sup> (both viral infections), or by infection with the Streptococcus bacterium (strep throat). Pharyngitis can also occur with mononucleosis<sup>44</sup> (aka “mono”), a viral infection. A higher rate indicates completion of the appropriate testing required to merit antibiotic treatment for pharyngitis. Table 18 indicates a higher rate in CY2021 and CY2022 associated with non-safety net appropriate testing for pharyngitis compared to safety net providers. In this measure, there was almost a 10% difference between the rates for safety net providers (65.2) compared to non-safety net providers (74.0).

**Table 18. Appropriate Testing for Pharyngitis (CWP)**

CY2021									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3–17 Years	39	57	68.4	16,370	21,294	76.9	16,409	21,351	76.9
18–64 Years	4	9	44.4	3,399	5,432	62.6	3,403	5,441	62.5
65+ Years	0	0	0.0	3	3	100.0	3	3	100.0
Total	43	66	65.2	19,772	26,729	74.0	19,815	26,795	74.0

CY2022									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3–17 Years	109	165	66.1	31,933	38,481	83.0	32,042	38,646	82.9
18–64 Years	3	9	33.3	5,080	7,314	69.5	5,083	7,323	69.4
65+ Years	0	0	0.0	1	3	33.3	1	3	33.3
Total	112	174	64.4	37,014	45,798	80.8	37,126	45,972	80.8



**4.3.4 Appropriate Treatment for Upper Respiratory Infection (URI)**

Upper respiratory tract infections can be defined as self-limited irritation and swelling of the upper airways with associated cough and no signs of pneumonia in a patient with no other condition that would account for their symptoms or with no history of chronic obstructive pulmonary disease, emphysema, or chronic bronchitis. Upper respiratory tract infections involve the nose, sinuses, pharynx, larynx, and large airways, often called the common cold. Too often, antibiotics are prescribed inappropriately. The misuse of antibiotics can have adverse clinical outcomes, such as *Clostridioides difficile* infections, and has public health implications, including the encouragement of antibiotic resistance (when antibiotics can no longer cure bacterial infections). Antibiotic resistance is a significant health concern in the United States, with 2.8 million antibiotic-resistant infections and 35,000 deaths occurring annually. ([2019 Antibiotic Resistance Threats Report | CDC](#))<sup>45</sup>

**Table 19. Appropriate Treatment for Upper Respiratory Infection (URI)**

CY2021									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3 Months – 17 Years	101	824	87.7	7,345	80,013	90.8	7,446	80,837	90.8
18–64 Years	38	303	87.5	2,019	13,039	84.5	2,057	13,342	84.6
65+ Years	0	80	100.0	3	185	98.4	3	265	98.9
Total	139	1,207	88.5	9,367	93,237	90.0	9,506	94,444	89.9

CY2022									
Age	Events for Members With At Least 1 Safety Net Visit			Events for Members With No Safety Net Visits			Total		
	Num	Den	Rate	Num	Den	Rate	Num	Den	Rate
3 Months – 17 Years	225	1,917	88.3	13,905	154,466	91.0	14,130	156,383	91.0
18–64 Years	59	571	89.7	3,284	24,562	86.6	3,343	25,133	86.7
65+ Years	0	156	100.0	4	314	98.7	4	470	99.1
Total	284	2,644	89.3	17,193	179,342	90.4	17,477	181,986	90.4



The low incidence of events with events for appropriate treatment of URI among safety net providers requires caution in the interpretation. Nevertheless, the pattern would indicate that non-safety net providers performed better in the appropriate treatment for “the common cold” in avoiding prescribing antibiotics than safety net providers.

## Glossary

**American Community Survey (ACS)** - an annual survey program of several population datasets and reports created by the U.S. Census Bureau.<sup>15</sup>

**Critical Access Hospital (CAH)** - a designation provided by the Centers for Medicare & Medicaid Services (CMS), that is derived from six measures: location, bed limit, length of stay, emergency care, compliance, and certification.

**Federally Qualified Health Centers (FQHCs)** - community-based health centers that provide comprehensive primary health care and behavioral and mental health services to all patients regardless of their ability to pay or health insurance status.<sup>27</sup>

**Free Medical Clinics (FMC)** - health care organizations that utilize a volunteer/staff model to provide various health care services, including medical, dental, pharmacy, vision, and/or behavioral health services to economically disadvantaged individuals. Such clinics are 501(c)(3) tax-exempt organizations or operate as a program component or affiliate of a 501(c)(3) organization.<sup>47</sup>

**Geocoder** - an address locator; a dataset that stores the address attributes, associated indexes, and rules that define the process for translating nonspatial descriptions of places, such as street addresses, into spatial data that can be displayed as features on a map.<sup>24</sup>

**GIS Road Network** - a system of interconnected transportation elements, such as streets (lines), representing possible routes from one location to another.<sup>24</sup>

**Health Professional Shortage Area (HPSA)** - geographic areas or populations with a shortage of primary, dental, or mental health care providers.<sup>48</sup>

**Index of Relative Rurality (IRR)** - a continuous, relative index that combines frequently used census metrics with other measures of rurality to create index values that adhere to a continuous scale, with the lowest values being the most urban and the highest being the most rural.<sup>20</sup>

**Medically Underserved Area (MUA)** - a geographic area lacking access to primary care services. The designation is based on the Index of Medical Underservice (IMU). The IMU is calculated based on the population-to-provider ratio, the percent of the population below the Federal Poverty Level, the percent over age 65, and the infant mortality rate. The IMU is scaled from 0 to 100, where 0 represents completely underserved and 100 represents best served or least underserved. Areas with an IMU of 62 or less are designated as medically underserved.<sup>23</sup>

**Geometric Centroid** – a point within a polygon that represents the geometric center of an area (county, census tract, etc.).

**Rural Exemption Status** - designations and reimbursement mechanisms assigned by CMS based on location and characteristics of rural hospitals intended to support and sustain health care services in rural areas.

**Rural Health Clinic (RHC)** - clinics providing primary care services to residents in rural, underserved communities located in either a Geographic- or Population-based HPSA, a MUA, or a Governor-Designated Secretary-Certified Shortage Area.<sup>46</sup>

**Underserved** – provided with inadequate service.<sup>50</sup>

**ZIP Code Tabulation Areas (ZCTA)** - approximate area representations of U.S. Postal Service (USPS) five-digit ZIP Code service areas used by the U.S. Census Bureau to present statistical data from censuses and surveys.<sup>49</sup>

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# APPENDICES



## APPENDIX A. The Safety Net Proviso

Proviso 33.22 (DHHS: Rural Health Initiative) - 2022-2023 Appropriations Bill H.5150

33.22. (DHHS: Rural Health Initiative) From the funds appropriated to the Department of Health and Human Services for the Rural Health Initiative in the current fiscal year, the department shall partner with the following state agencies, institutions, and other key stakeholders to implement these components of a Rural Health Initiative to better meet the needs of medically underserved communities throughout the state. The department may leverage any and all available federal funds to implement this initiative. Recurring and non-recurring funding for the Rural Health Initiative may be carried forward by the department and expended for the same purpose.

(A) The Department of Health and Human Services shall incentivize the development of primary care access in rural and underserved areas, leverage Medicaid spending on Graduate Medical Education (GME) by implementing methodologies that support recommendations contained in the January 2014 report of the South Carolina GME Advisory Group, and continue to leverage the use of teaching hospitals to ensure rural physician coverage in counties with a demonstrated lack of adequate access and coverage through the following provisions:

(1) Rural and Underserved Area Provider Capacity - the department shall partner with the University of South Carolina School of Medicine to develop a statewide Rural Health Initiative to identify strategies for significantly improving health care access, supporting physicians, and reducing health inequities in rural communities. In addition, the department shall also contract with the MUSC Hospital Authority in the amount of \$1,500,000, and the USC School of Medicine in the amount of \$2,000,000 to further develop statewide teaching partnerships. The department shall also expend \$5,000,000 in accordance with a graduate medical education plan developed cooperatively by the Presidents or their designees of the following institutions: the Medical University of South Carolina, the University of South Carolina, and Francis Marion University.

(2) Rural Healthcare Coverage and Education - The USC School of Medicine, in consultation with statewide rural health stakeholders and partners, shall continue to operate a Center of Excellence to support and develop rural medical education and delivery infrastructure with a statewide focus, through clinical practice, training, and research, as well as collaboration with other state agencies and institutions. The Center shall submit to the department an annual spending plan centered on efforts to improve access to care and expand healthcare provider capacity in rural communities. Upon approval of the annual spending plan, the department shall authorize at least \$3,000,000 to support center staffing as well as the programs and collaborations delivering rural health research, the ICARED program, workforce development scholarships and recruitment, rural fellowships, health education development, and/or rural practice support and education. Funding released by the department pursuant to this section must not be used by the recipient(s) to supplant existing resources already used for the same or comparable purposes. No later than February first of the current fiscal year, the USC School of Medicine shall report to the Chairman of the House Ways and Means Committee, the Chairman of the Senate Finance Committee, and the Director of the Department of Health and Human Services on the specific uses of funds budgeted and/or expended pursuant to this provision.

(3) Rural Medicine Workforce Development - The department, in consultation with the Medical Education Advisory Committee (MEAC), shall support the development of additional residency and/or fellowship slots or programs in rural medicine, family medicine, and any other appropriate primary care specialties that have been identified by the department as not being adequately served by existing Graduate Medical Education programs. The department shall ensure that each in-state member of the Association of American Medical Colleges is afforded the opportunity to participate in MEAC. New training sites and/or residency positions are subject to approval as specified by the Accreditation Council for Graduate Medical Education (ACGME). The department may also accept proposals and award grants for programs designed to expose resident physicians to rural practice and enhance the opportunity to recruit these residents for long-term practice in these rural and/or underserved communities. Up to \$500,000 of the recurring funds appropriated to the department for the Rural Health Initiative may be used for this purpose. Additionally, the department shall use up to \$200,000 of the recurring funds appropriated for the Department of Aging's Geriatric Physicians Loan Forgiveness program.

(4) Statewide Health Innovations - At least \$2,500,000 must be expended by the department to contract with the USC School of Medicine and at least \$1,000,000 to Clemson University to develop and continue innovative healthcare delivery and training opportunities through collaborative community engagement via ICARED, Clemson Rural Health Programming, and other innovative programs that provide clinical services, mental and behavioral health services, children's health, OB/GYN services, and/or chronic disease coverage gaps. In consultation with statewide rural health stakeholders and partners, the department must prioritize collaborative efforts with the greatest impact potential.

(5) Maternal Mortality Reduction - Prior to the expiration of the COVID-19 public health emergency, the department shall ensure that 12-month postpartum coverage is preserved by making the election offered under Section 1902(e)(16) of the Social Security Act. The Department of Health and Human Services shall collaborate with the South Carolina Maternal Mortality and Morbidity Review Committee to develop a method of evaluating the effectiveness of this provision.

(6) Rural Health Network Revitalization Project - For the purpose of establishing self-sustaining rural health networks that will improve care delivery in rural communities, funds appropriated for Rural Health Network Revitalization shall be expended, in consultation with the Director of Department of Health and Human Services, by the South Carolina Center for Rural and Primary Healthcare within the University of South Carolina School of Medicine to provide material support, facilitation, technical assistance, and other resources to rural communities seeking to create or renew their rural health networks. The Center shall submit to the department an annual spending plan. Upon approval of the annual spending plan, the Center shall:

(a) be authorized to provide funding to such communities for a time to establish and support the work,

(b) work with partners across the state to implement evidence-based models of community development and healthcare delivery,

(c) evaluate the implementation and impact of the network development work undertaken; and

(d) facilitate the development, implementation, and evaluation of alternative payment models with payors within the state.

No later than February first of the current fiscal year, the South Carolina Center for Rural and Primary Healthcare within the University of South Carolina School of Medicine shall report to the Chairman of the House Ways and Means Committee, the Chairman of the Senate Finance Committee, and the Director of the Department of Health and Human Services on the specific uses of funds budgeted and/or expended pursuant to this provision.

(B) The department shall continue to investigate the potential use of DSH and/or any other source of funds in order to improve access to medical services in one or more rural communities identified by the department in which such access has been determined to be unstable or at-risk.

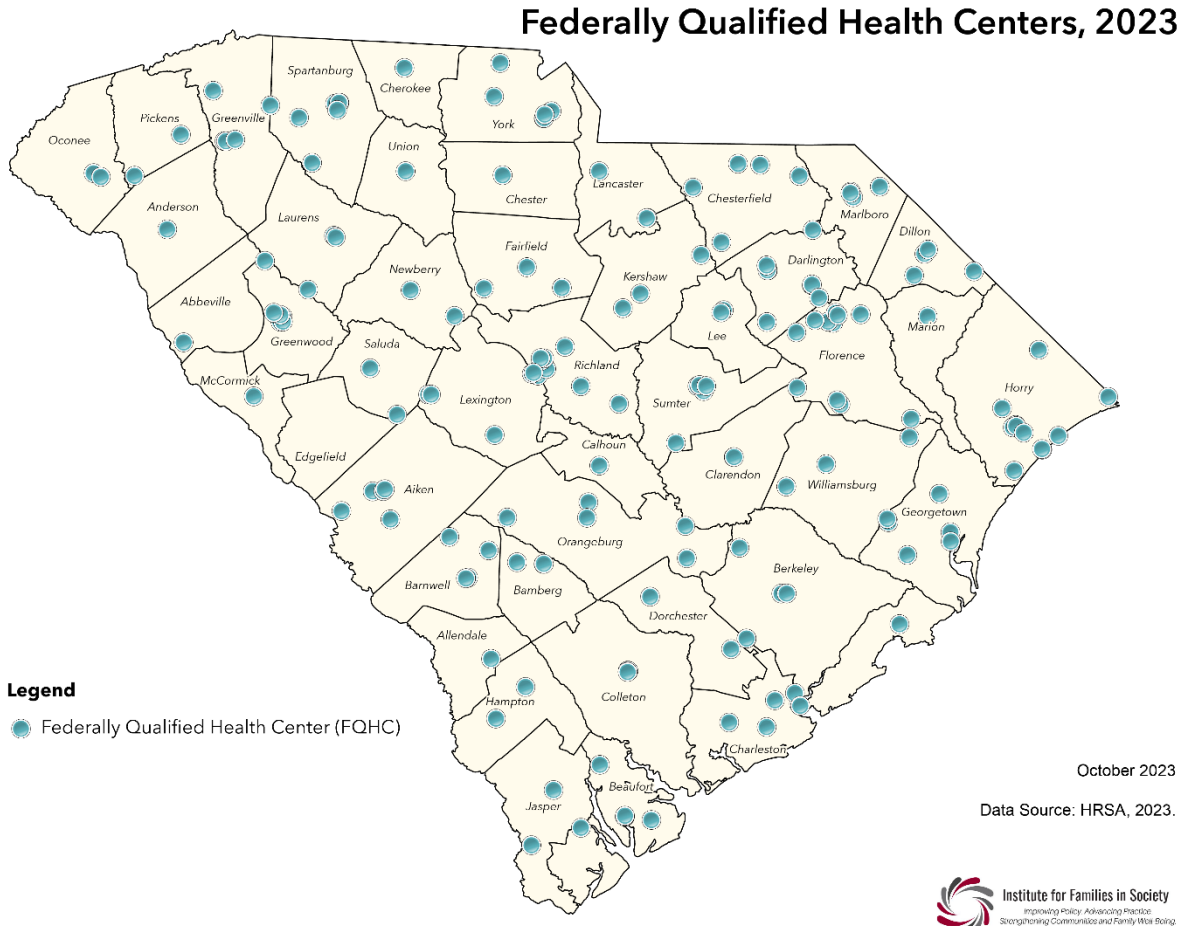
(1) In the current fiscal year, the department is authorized to establish a DSH pool, or support pool from other available funds, for this purpose and/or if deemed necessary to implement transformation plans for which conforming applications were filed with the department pursuant to this or a previous hospital transformation or rural health initiative proviso, but for which additional negotiations or development were required. The department, at its discretion, may cap or limit the amount of available funds at any time. An emergency department or facility that is established within 35 miles of its sponsoring hospital pursuant to this or a previous hospital transformation or rural health initiative proviso and which receives dedicated funding pursuant to this proviso shall be exempt from any Department of Health and Environmental Control Certificate of Need requirements or regulations. Any such facility shall participate in the South Carolina Telemedicine Network.

(2) The department may receive proposals from and provide financial support for capital expenditures associated with the replacement/renovation of two or more rural hospitals, or addition of critical health services. Such proposals must be submitted by a hospital system approved to advise a rural transformation project, and the project must be subject to ongoing advisement by the submitting facility, or subject to acquisition by the advising facility. Proposals must demonstrate that the rural hospital has been properly sized to meet the needs of its service area and support a sustainable model of care in a rural setting. Priority shall be given to active health service districts and proposals that replace significantly aged physical plants; that preserve access to inpatient, outpatient, and emergency services; or that improve access to behavioral health services. The

department shall require such written agreements, which may require project milestones, last-dollar funding, and other stipulations deemed necessary and prudent by the department to ensure the funds are used to improve health outcomes and ensure rural health access.

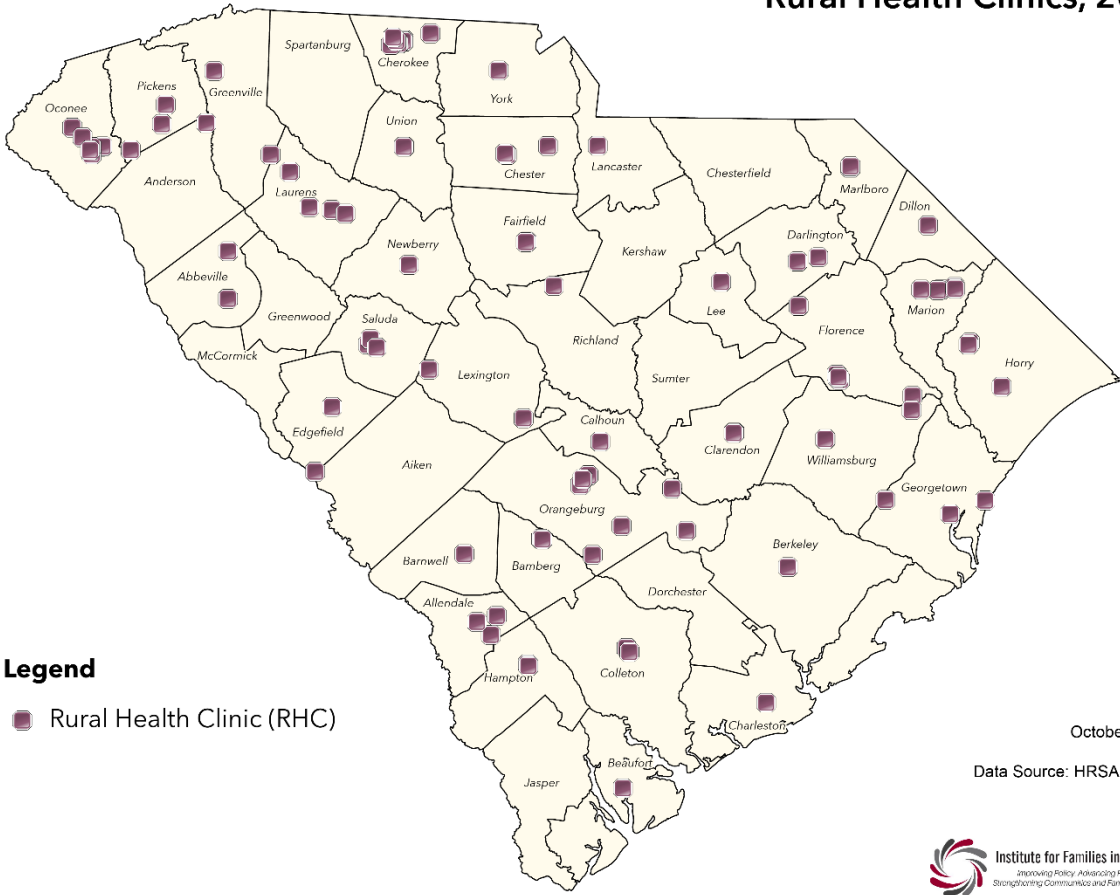
(C) The Revenue and Fiscal Affairs Office and the Area Health Education Consortium's Office of Healthcare Workforce Analysis and Planning shall provide the department with any information required to implement this proviso by state law and regulations. Not later than January 1 of the current fiscal year, the department shall submit to the President of the Senate and Speaker of the House of Representatives an evaluation of the state's safety-net providers that includes, at a minimum, Federally Qualified Health Centers, Rural Health Clinics, and to the extent applicable to funding received by the state, free clinics.

# APPENDIX B. South Carolina Safety Net Provider Locations, by Type (2023)

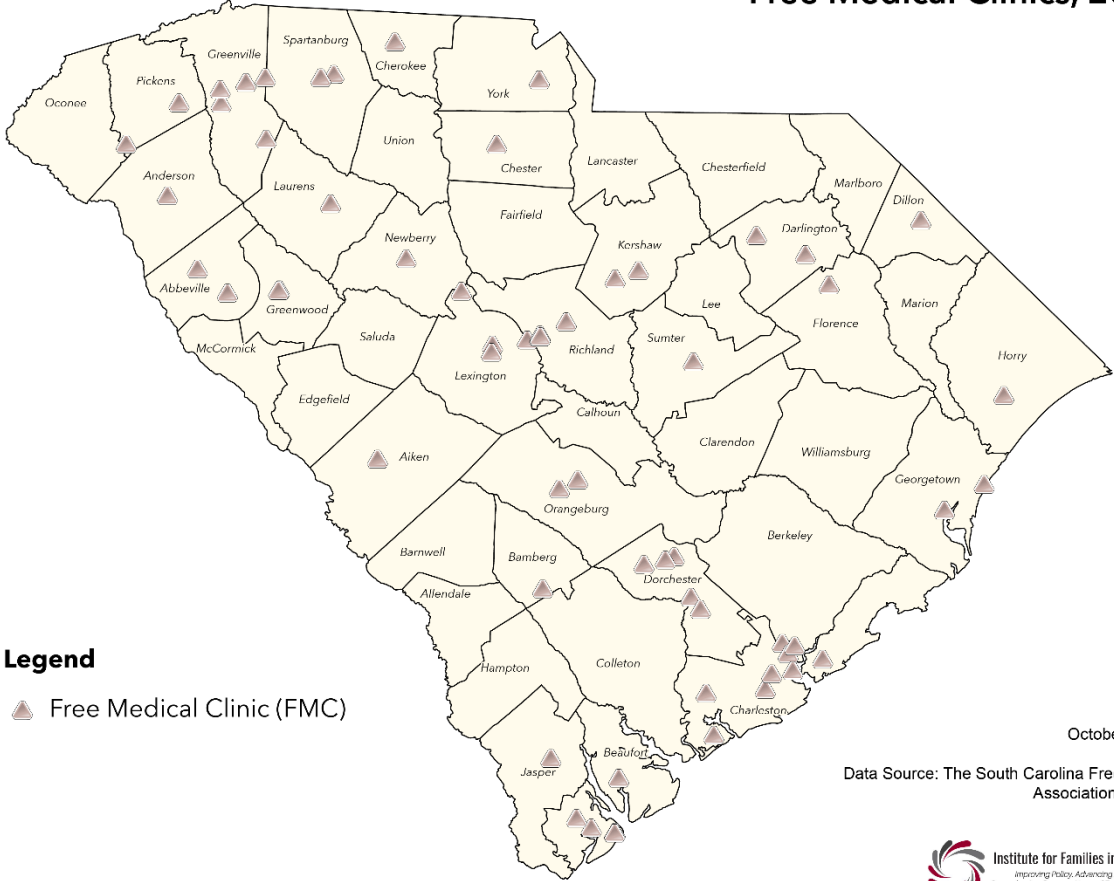




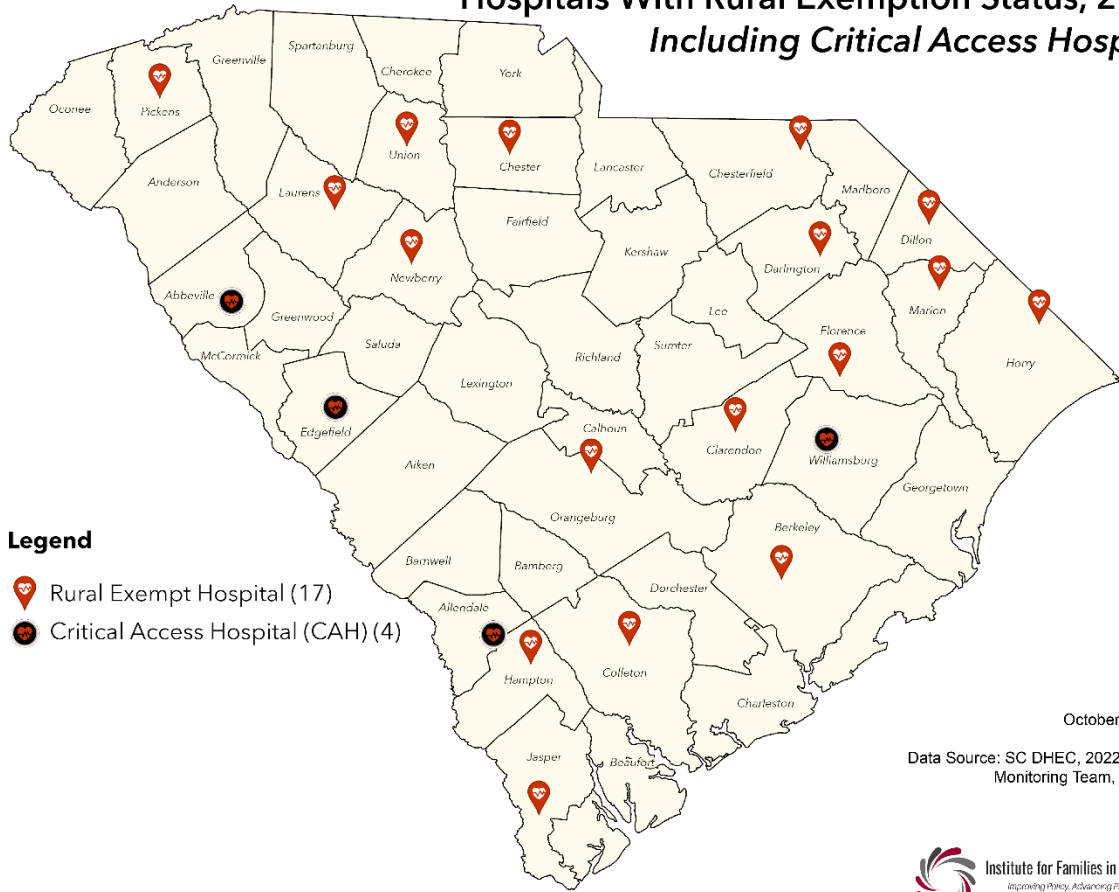
# Rural Health Clinics, 2023



# Free Medical Clinics, 2023



## Hospitals With Rural Exemption Status, 2022 Including Critical Access Hospital



October 2023

Data Source: SC DHEC, 2022. Flex Monitoring Team, 2022.



**APPENDIX C. Index of Relative Rurality (IRR) for South Carolina ZCTAs, 2019**

ZCTA	Class	IRR (2019)	ZCTA	Class	IRR (2019)
29001	Least Rural	0.804	29505	Urban	0.67
29003	Most Rural	0.937	29506	Urban	0.714
29006	Least Rural	0.856	29510	Most Rural	0.888
29009	Most Rural	0.876	29511	Least Rural	0.78
29010	Least Rural	0.786	29512	Most Rural	0.862
29014	Most Rural	0.897	29516	Most Rural	0.886
29015	Most Rural	0.9	29518	Least Rural	0.826
29016	Urban	0.689	29519	Least Rural	0.853
29018	Most Rural	0.909	29520	Most Rural	0.878
29020	Least Rural	0.768	29525	Most Rural	0.922
29030	Most Rural	0.906	29526	Urban	0.596
29031	Most Rural	0.889	29527	Urban	0.699
29032	Least Rural	0.857	29530	Least Rural	0.768
29033	Urban	0.553	29532	Urban	0.739
29036	Urban	0.69	29536	Least Rural	0.816
29037	Most Rural	0.944	29540	Least Rural	0.834
29038	Most Rural	0.944	29541	Urban	0.733
29039	Most Rural	0.887	29543	Most Rural	0.882
29040	Urban	0.712	29544	Least Rural	0.791
29042	Most Rural	0.915	29545	Least Rural	0.812
29044	Least Rural	0.797	29546	Least Rural	0.825
29045	Urban	0.687	29547	Most Rural	0.886
29046	Least Rural	0.81	29550	Urban	0.764
29047	Most Rural	0.875	29554	Least Rural	0.832
29048	Most Rural	0.885	29555	Least Rural	0.802
29051	Least Rural	0.796	29556	Least Rural	0.803
29052	Least Rural	0.815	29560	Urban	0.749
29053	Urban	0.728	29563	Most Rural	0.881
29054	Least Rural	0.822	29564	Most Rural	0.888
29055	Most Rural	0.882	29565	Least Rural	0.834
29056	Most Rural	0.861	29566	Urban	0.679
29058	Most Rural	0.903	29567	Most Rural	0.904
29059	Most Rural	0.891	29568	Urban	0.745
29061	Urban	0.742	29569	Urban	0.74
29062	Least Rural	0.798	29570	Most Rural	0.94
29063	Urban	0.541	29571	Least Rural	0.793
29065	Most Rural	0.867	29572	Urban	0.57
29067	Most Rural	0.883	29574	Least Rural	0.832

ZCTA	Class	IRR (2019)	ZCTA	Class	IRR (2019)
29069	Least Rural	0.829	29575	Urban	0.516
29070	Least Rural	0.814	29576	Urban	0.622
29072	Urban	0.473	29577	Urban	0.466
29073	Urban	0.579	29579	Urban	0.531
29074	Most Rural	0.899	29580	Least Rural	0.847
29075	Least Rural	0.85	29581	Least Rural	0.829
29078	Urban	0.756	29582	Urban	0.605
29079	Least Rural	0.857	29583	Urban	0.763
29080	Least Rural	0.808	29584	Most Rural	0.911
29081	Most Rural	0.991	29585	Least Rural	0.772
29082	Most Rural	0.984	29588	Urban	0.519
29101	Most Rural	0.877	29590	Most Rural	0.867
29102	Least Rural	0.768	29591	Least Rural	0.766
29104	Least Rural	0.787	29592	Least Rural	0.836
29105	Most Rural	0.901	29593	Most Rural	0.875
29107	Most Rural	0.884	29594	Most Rural	0.941
29108	Least Rural	0.834	29596	Most Rural	0.936
29111	Least Rural	0.838	29601	Urban	0.464
29112	Most Rural	0.859	29605	Urban	0.431
29113	Most Rural	0.906	29607	Urban	0.415
29114	Least Rural	0.802	29609	Urban	0.488
29115	Least Rural	0.793	29611	Urban	0.473
29117	Urban	0.617	29613	Urban	0.501
29118	Least Rural	0.821	29614	Urban	0.464
29122	Least Rural	0.855	29615	Urban	0.399
29123	Least Rural	0.828	29617	Urban	0.537
29125	Least Rural	0.796	29620	Least Rural	0.803
29126	Most Rural	0.881	29621	Urban	0.536
29127	Most Rural	0.864	29624	Urban	0.625
29128	Least Rural	0.785	29625	Urban	0.57
29129	Most Rural	0.883	29626	Urban	0.702
29130	Least Rural	0.82	29627	Urban	0.706
29133	Most Rural	0.941	29628	Most Rural	0.862
29135	Least Rural	0.85	29630	Urban	0.734
29137	Most Rural	0.897	29631	Urban	0.543
29138	Most Rural	0.889	29634	Urban	0.605
29142	Least Rural	0.858	29635	Least Rural	0.818
29145	Most Rural	0.938	29638	Least Rural	0.824
29146	Most Rural	0.924	29639	Least Rural	0.834
29147	Urban	0.525	29640	Urban	0.642

ZCTA	Class	IRR (2019)	ZCTA	Class	IRR (2019)
29148	Least Rural	0.818	29642	Urban	0.567
29150	Urban	0.488	29643	Least Rural	0.812
29152	Urban	0.699	29644	Urban	0.721
29153	Urban	0.699	29645	Least Rural	0.809
29154	Urban	0.613	29646	Least Rural	0.774
29160	Least Rural	0.828	29649	Urban	0.723
29161	Urban	0.762	29650	Urban	0.411
29162	Least Rural	0.81	29651	Urban	0.52
29163	Most Rural	0.875	29653	Least Rural	0.852
29164	Most Rural	0.894	29654	Least Rural	0.777
29166	Most Rural	0.902	29655	Least Rural	0.787
29168	Urban	0.755	29657	Urban	0.733
29169	Urban	0.46	29658	Most Rural	0.903
29170	Urban	0.524	29659	Least Rural	0.823
29172	Urban	0.674	29661	Least Rural	0.778
29175	Most Rural	0.885	29662	Urban	0.479
29178	Most Rural	0.891	29664	Most Rural	0.885
29180	Least Rural	0.805	29665	Least Rural	0.791
29201	Urban	0.502	29666	Most Rural	0.904
29202	Urban	0.437	29667	Urban	0.661
29203	Urban	0.549	29669	Urban	0.749
29204	Urban	0.456	29670	Urban	0.738
29205	Urban	0.439	29671	Least Rural	0.765
29206	Urban	0.449	29672	Urban	0.748
29207	Urban	0.703	29673	Urban	0.63
29208	Urban	0.487	29676	Least Rural	0.849
29209	Urban	0.577	29678	Urban	0.704
29210	Urban	0.421	29680	Urban	0.584
29212	Urban	0.543	29681	Urban	0.428
29223	Urban	0.372	29682	Least Rural	0.826
29225	Urban	0.271	29683	Urban	0.529
29229	Urban	0.425	29684	Urban	0.761
29301	Urban	0.419	29685	Least Rural	0.856
29302	Urban	0.656	29686	Most Rural	0.888
29303	Urban	0.518	29687	Urban	0.49
29306	Urban	0.591	29689	Least Rural	0.788
29307	Urban	0.625	29690	Urban	0.695
29316	Urban	0.467	29691	Least Rural	0.812
29320	Urban	0.496	29692	Least Rural	0.833
29321	Least Rural	0.84	29693	Least Rural	0.821



ZCTA	Class	IRR (2019)	ZCTA	Class	IRR (2019)
29322	Least Rural	0.771	29696	Least Rural	0.836
29323	Urban	0.732	29697	Urban	0.706
29324	Urban	0.528	29702	Least Rural	0.829
29325	Least Rural	0.801	29704	Least Rural	0.83
29329	Urban	0.525	29706	Least Rural	0.839
29330	Urban	0.738	29707	Urban	0.619
29331	Least Rural	0.822	29708	Urban	0.498
29332	Most Rural	0.907	29709	Most Rural	0.931
29333	Urban	0.511	29710	Urban	0.732
29334	Urban	0.589	29712	Most Rural	0.858
29335	Least Rural	0.794	29714	Most Rural	0.88
29338	Least Rural	0.802	29715	Urban	0.575
29340	Least Rural	0.765	29717	Most Rural	0.892
29341	Urban	0.736	29718	Most Rural	0.905
29346	Urban	0.525	29720	Urban	0.731
29349	Urban	0.614	29724	Most Rural	0.868
29351	Least Rural	0.826	29726	Most Rural	0.868
29353	Least Rural	0.807	29727	Most Rural	0.916
29355	Most Rural	0.881	29728	Least Rural	0.847
29356	Least Rural	0.791	29729	Most Rural	0.88
29360	Least Rural	0.786	29730	Urban	0.584
29364	Most Rural	0.861	29732	Urban	0.47
29365	Urban	0.612	29733	Urban	0.527
29368	Urban	0.541	29741	Most Rural	0.924
29369	Urban	0.619	29742	Most Rural	0.897
29370	Most Rural	0.885	29743	Most Rural	0.894
29372	Least Rural	0.785	29745	Urban	0.749
29373	Least Rural	0.795	29801	Urban	0.711
29374	Least Rural	0.781	29803	Urban	0.715
29375	Urban	0.583	29805	Least Rural	0.848
29376	Urban	0.717	29809	Least Rural	0.769
29377	Urban	0.514	29810	Most Rural	0.955
29378	Urban	0.501	29812	Most Rural	0.883
29379	Least Rural	0.788	29816	Urban	0.617
29384	Most Rural	0.895	29817	Most Rural	0.909
29385	Urban	0.613	29819	Most Rural	0.911
29388	Urban	0.733	29821	Least Rural	0.823
29401	Urban	0.474	29824	Least Rural	0.838
29403	Urban	0.44	29826	Most Rural	0.901
29404	Urban	0.544	29827	Most Rural	0.976

ZCTA	Class	IRR (2019)	ZCTA	Class	IRR (2019)
29405	Urban	0.438	29828	Urban	0.557
29406	Urban	0.445	29829	Urban	0.74
29407	Urban	0.423	29831	Least Rural	0.809
29409	Urban	0.382	29832	Most Rural	0.861
29410	Urban	0.534	29834	Urban	0.615
29412	Urban	0.538	29835	Most Rural	0.89
29414	Urban	0.567	29836	Most Rural	0.945
29418	Urban	0.482	29838	Most Rural	0.86
29420	Urban	0.508	29840	Most Rural	0.891
29423	Urban	0.566	29841	Urban	0.522
29424	Urban	0.451	29842	Least Rural	0.766
29426	Least Rural	0.847	29843	Most Rural	0.951
29429	Least Rural	0.79	29844	Most Rural	0.861
29431	Most Rural	0.881	29845	Most Rural	0.884
29432	Most Rural	0.956	29847	Least Rural	0.829
29434	Least Rural	0.847	29848	Most Rural	0.937
29435	Most Rural	0.897	29849	Most Rural	0.964
29436	Most Rural	0.91	29850	Least Rural	0.83
29437	Most Rural	0.886	29851	Urban	0.7
29438	Most Rural	0.897	29853	Most Rural	0.873
29439	Urban	0.637	29856	Most Rural	0.869
29440	Least Rural	0.812	29860	Urban	0.713
29445	Urban	0.56	29899	Most Rural	0.897
29446	Most Rural	0.901	29902	Urban	0.753
29448	Most Rural	0.901	29904	Urban	0.643
29449	Least Rural	0.811	29905	Urban	0.76
29450	Least Rural	0.803	29906	Urban	0.718
29451	Urban	0.694	29907	Most Rural	0.86
29452	Most Rural	0.872	29909	Least Rural	0.765
29453	Most Rural	0.886	29910	Urban	0.686
29455	Urban	0.715	29911	Most Rural	0.995
29456	Urban	0.535	29912	Most Rural	0.917
29458	Least Rural	0.85	29915	Most Rural	0.931
29461	Urban	0.727	29916	Most Rural	0.948
29464	Urban	0.414	29918	Most Rural	0.937
29466	Urban	0.442	29920	Most Rural	0.927
29468	Most Rural	0.911	29921	Most Rural	0.934
29469	Most Rural	0.877	29922	Most Rural	0.928
29470	Least Rural	0.812	29923	Most Rural	0.978
29471	Most Rural	0.941	29924	Most Rural	0.957

ZCTA	Class	IRR (2019)
29472	Least Rural	0.85
29474	Most Rural	0.913
29475	Most Rural	0.954
29477	Most Rural	0.908
29479	Most Rural	0.897
29481	Most Rural	0.987
29482	Urban	0.561
29483	Urban	0.523
29485	Urban	0.523
29487	Least Rural	0.817
29488	Least Rural	0.851
29492	Urban	0.72
29493	Most Rural	0.973
29501	Urban	0.518

ZCTA	Class	IRR (2019)
29926	Urban	0.627
29927	Least Rural	0.813
29928	Urban	0.62
29929	Most Rural	0.979
29932	Most Rural	0.973
29934	Most Rural	0.923
29935	Urban	0.659
29936	Least Rural	0.853
29939	Most Rural	0.937
29940	Most Rural	0.943
29941	Most Rural	0.954
29943	Most Rural	0.89
29944	Most Rural	0.971
29945	Most Rural	0.933

**APPENDIX D. Percent Change (2020–2021) in Insurance Status, by County (Source: ACS)**

County	Medicaid (%)	Uninsured (%)
Abbeville	2.5	0.0
Aiken	-0.6	0.3
Allendale	-9.5	-3.2
Anderson	2.1	5.8
Bamberg	1.7	16.5
Barnwell	9.8	14.8
Beaufort	-1.8	2.4
Berkeley	-5.7	-0.1
Calhoun	-1.8	-10.1
Charleston	-2.1	-4.4
Cherokee	2.6	9.5
Chester	2.2	5.1
Chesterfield	-2.5	5.4
Clarendon	-0.4	1.8
Colleton	-0.4	10.4
Darlington	-2.1	-3.5
Dillon	5.1	3.4
Dorchester	-5.3	7.5
Edgefield	7.1	2.1
Fairfield	7.0	-14.6
Florence	-0.2	4.7
Georgetown	-0.4	-0.9
Greenville	-0.2	-0.8

County	Medicaid (%)	Uninsured (%)
Greenwood	-3.8	-13.3
Hampton	11.5	0.4
Horry	0.5	3.9
Jasper	-1.1	-9.3
Kershaw	-6.0	0.1
Lancaster	-1.9	0.1
Laurens	-1.3	13.0
Lee	-14.4	7.2
Lexington	4.5	-0.3
Marion	3.3	1.2
Marlboro	4.0	-14.6
McCormick	-10.5	-0.5
Newberry	2.5	1.2
Oconee	3.8	-5.3
Orangeburg	5.3	2.4
Pickens	5.6	5.6
Richland	2.4	-0.5
Saluda	-2.8	9.3
Spartanburg	-4.1	-1.9
Sumter	4.0	-0.5
Union	-0.4	9.0
Williamsburg	1.6	-2.0
York	6.9	0.2

**APPENDIX E. Percent Change (2020–2022) in Patient Insurance Type Served by South Carolina FQHC Networks, Aggregated by County (Source: UDS Mapper)**

County	Region	Uninsured	Medicaid
Abbeville	I	-0.17	0.07
Aiken	V	-0.14	0.05
Allendale	V	-0.20	0.26
Anderson	I	0.17	0.54
Bamberg	V	-0.57	0.12
Barnwell	V	0.08	0.03
Beaufort	IV	-0.05	0.21
Berkeley	IV	-0.06	-0.14
Calhoun	V	-0.57	-0.02
Charleston	IV	0.01	-0.13
Cherokee	III	-0.21	0.25
Chester	III	-0.18	0.30
Chesterfield	VI	-0.25	0.63
Clarendon	VI	-0.16	0.06
Colleton	IV	-0.01	0.06
Darlington	VI	-0.54	0.11
Dillon	VI	-0.24	0.04
Dorchester	IV	-0.24	0.10
Edgefield	V	-0.22	0.02
Fairfield	II	-0.42	0.13
Florence	VI	-0.10	0.19
Georgetown	VI	-0.27	0.02
Greenville	I	-0.17	-0.18
Greenwood	V	-0.19	0.12
Hampton	IV	-0.05	0.15
Horry	VI	0.12	-0.07
Jasper	IV	-0.03	0.19
Kershaw	II	0.51	0.47
Lancaster	III	-0.13	0.27
Laurens	I	-0.12	0.10
Lee	VI	-0.54	0.14
Lexington	II	-0.04	0.11
Marion	VI	0.10	0.22
Marlboro	VI	-0.58	0.64
McCormick	V	-0.25	-0.01
Newberry	II	0.02	0.16
Oconee	I	0.24	0.75
Orangeburg	V	-0.53	0.06
Pickens	I	0.01	0.25
Richland	II	-0.18	0.17
Saluda	V	0.07	0.14
Spartanburg	III	-0.19	0.25
Sumter	VI	-0.21	0.04
Union	III	-0.22	0.58
Williamsburg	VI	-0.14	0.05
York	III	-0.16	0.12

**APPENDIX F. Drive Time (in Minutes) From Each SC ZCTA to Nearest Federally Qualified Health Center (FQHC), Rural Health Clinic (RHC), Free Medical Clinic (FMC), Rural Exempt Hospital (REH),\* and Critical Access Hospital (CAH)\***

\*Distances are only calculated for ZCTAs if the nearest hospital was an REH/CAH.

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29001	19.3	18.7	31.6	19.7	
29003	11.3	10.8	14.1	37.9	37.9
29006	9.8	10.2	27.6		
29009	4.7	25.3	28.2		
29010	3.6	5.6	25.8		
29014	20.4	17.7	20.5		
29015	17.2	22.6	26.2	26.5	
29016	12.2	3.6	15.8		
29018	20.0	7.0	19.8	26.2	
29020	6.3	34.6	11.1		
29030	15.0	13.2	21.2		
29031	22.2	21.3	21.5		
29032	14.1	28.5	19.4		
29033	5.9	25.2	7.8		
29036	13.8	29.5	8.4		
29037	17.1	17.8	24.2		
29038	8.2	7.3	8.8	24.7	
29039	14.1	15.3	10.3		
29040	16.7	23.6	20.9		
29042	1.4	14.6	21.7	33.5	33.5
29044	10.9	31.4	26.0		
29045	15.0	21.7	12.9		
29046	9.3	15.1	25.2		
29047	16.6	10.6	26.9	25.8	
29048	11.2	15.8	30.1	42.9	
29051	16.1	16.6	21.3		
29052	17.7	31.3	38.2		
29053	17.6	11.0	20.7		
29054	15.4	15.1	15.3		
29055	20.0	19.6	28.3		
29056	4.1	19.3	47.2		
29058	16.4	24.1	38.7		
29059	1.0	2.9	14.8	36.3	
29061	9.6	34.1	23.4		
29062	26.3	42.7	29.2		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29505	14.8	26.3	16.2		
29506	4.6	19.7	13.9		
29510	6.4	5.2	26.1		
29511	17.1	7.1	25.4	18.2	
29512	2.9	2.9	37.5		
29516	16.1	18.5	22.8		
29518	18.1	18.2	48.2	18.6	
29519	19.2	17.8	40.6	18.6	
29520	3.5	21.7	37.2		
29525	14.8	18.6	22.7		
29526	11.5	11.5	16.5		
29527	15.6	13.2	19.2		
29530	12.9	12.3	21.5		
29532	6.6	6.9	5.8		
29536	2.1	2.3	1.7		
29540	8.2	8.2	9.5		
29541	15.0	17.6	16.6		
29543	9.5	10.7	16.2		
29544	20.9	3.5	28.0	24.5	
29545	14.5	28.7	41.0		
29546	17.1	16.8	31.2	29.1	
29547	6.6	7.5	8.0		
29550	6.0	18.9	5.6		
29554	14.5	14.2	36.1		
29555	6.5	6.3	43.1	29.2	
29556	7.6	7.6	51.9		
29560	8.1	8.2	38.2		
29563	4.2	16.1	16.0		
29564	17.4	19.3	44.9		
29565	11.2	12.0	11.4		
29566	8.6	36.8	32.9		
29567	17.2	18.0	18.6		
29568	21.9	29.3	34.3		
29569	6.2	25.6	32.9		
29570	4.0	17.6	35.1	34.5	

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29063	21.2	31.8	17.6		
29065	1.6	20.5	18.7		
29067	3.9	31.9	32.3		
29069	5.2	19.9	25.8		
29070	9.3	9.0	22.7		
29072	25.5	25.1	10.7		
29073	18.3	22.9	10.1		
29074	22.9	30.9	28.1		
29075	6.9	24.1	4.3		
29078	6.6	28.9	6.4		
29079	9.5	15.4	13.8		
29080	21.8	23.6	31.8		
29081	23.9	21.2	4.9	27.6	
29082	22.7	20.3	8.4		
29101	2.6	27.1	17.0		
29102	9.5	9.8	34.0		
29104	13.6	29.5	18.5		
29105	14.3	18.7	31.5		
29107	11.4	21.4	18.4	29.1	
29108	5.3	5.0	5.0		
29111	22.0	23.7	36.5	24.0	24.0
29112	24.9	14.4	24.9	27.1	
29113	6.7	16.3	18.2	31.1	
29114	2.5	15.0	28.2		
29115	1.9	6.7	4.4		
29117	6.4	6.1	4.3		
29118	17.3	13.8	15.1	18.6	
29122	9.6	25.5	15.4		
29123	2.8	15.6	20.6		
29125	4.9	24.2	25.7	26.8	
29126	17.8	22.5	21.7		
29127	14.9	19.4	19.1		
29128	18.9	31.7	16.9		
29129	9.4	21.2	25.3		
29130	8.3	16.2	24.9		
29133	17.3	17.1	21.4	27.4	
29135	6.3	6.7	25.2	18.4	
29137	20.5	26.3	34.8		
29138	5.5	2.4	28.3	28.8	
29142	8.4	6.3	22.3		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29571	12.8	11.9	31.4		
29572	6.5	30.4	26.6		
29574	11.9	3.7	28.9		
29575	9.3	27.6	21.1		
29576	11.7	18.7	14.7		
29577	5.0	21.8	17.9		
29579	6.3	18.1	14.3		
29580	21.2	21.0	37.1	21.6	21.6
29581	16.4	15.3	33.9	21.6	
29582	11.2	37.1	33.3		
29583	19.0	18.5	29.1	19.7	
29584	16.9	33.3	23.9		
29585	234.5	232.1	237.9		
29588	13.5	25.5	16.3		
29590	10.6	10.7	47.6		
29591	7.7	7.2	25.4		
29592	8.6	13.5	17.7		
29593	2.6	17.7	19.0		
29594	2.4	14.0	36.1	35.0	
29596	13.9	15.9	49.3		
29601	8.3	14.3	4.5		
29605	6.8	11.5	13.2		
29607	7.6	12.7	14.1		
29609	15.6	16.6	7.7		
29611	9.6	10.3	9.8		
29613	13.1	10.6	8.6		
29614	9.0	18.5	9.5		
29615	12.9	18.0	15.5		
29617	10.6	9.4	6.9		
29620	21.7	8.5	9.2		
29621	8.4	27.1	5.4		
29624	11.5	22.9	12.2		
29625	21.8	20.8	20.9		
29626	17.5	30.6	19.2		
29627	22.2	24.4	19.0		
29628	2.9	14.0	14.9		
29630	10.3	9.4	11.9		
29631	3.3	2.3	3.4		
29634	7.3	6.3	5.7		
29635	20.6	22.9	26.1	24.5	



ZCTA	FQHC	RHC	FMC	REH*	CAH*
29145	20.1	20.0	20.0		
29146	10.5	27.6	32.8		
29147	5.7	10.4	8.1		
29148	25.5	22.4	42.2	26.5	
29150	8.0	23.0	6.0		
29152	16.8	34.0	19.9		
29153	3.7	26.5	9.9		
29154	12.0	31.1	11.7		
29160	20.5	6.5	28.8	22.9	
29161	4.1	4.8	21.1		
29162	8.0	18.1	28.3	20.3	
29163	5.5	12.3	24.2	33.3	
29164	23.2	31.0	31.5		
29166	8.6	10.0	34.7	26.6	26.6
29168	17.1	38.5	24.0		
29169	3.5	25.7	2.7		
29170	11.9	24.9	11.2		
29172	11.2	18.2	12.3		
29175	9.5	35.8	18.9		
29178	23.8	23.3	23.3	23.6	
29180	1.8	1.4	29.2		
29201	5.3	23.4	5.3		
29202	4.3	22.4	4.3		
29203	9.4	15.9	14.0		
29204	5.8	18.1	4.7		
29205	6.8	23.0	7.7		
29206	11.3	20.0	10.9		
29207	17.3	31.4	18.8		
29208	7.2	25.3	7.1		
29209	10.7	26.1	15.4		
29210	8.8	22.0	10.1		
29212	16.5	30.2	13.1		
29223	3.8	13.4	6.2		
29225	4.0	22.9	4.3		
29229	12.3	15.1	13.9		
29301	10.6	27.8	5.1		
29302	16.2	28.3	15.4		
29303	5.7	20.4	7.1		
29306	9.0	36.4	12.0		
29307	12.9	20.2	12.8		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29638	16.3	8.4	26.7	26.4	26.4
29639	24.4	5.7	19.3	19.5	
29640	10.0	13.0	8.3		
29642	12.7	14.5	12.4		
29643	18.7	17.6	28.2		
29644	21.0	3.0	11.2		
29645	17.8	4.4	18.9		
29646	5.4	23.2	6.0		
29649	11.9	29.1	14.4		
29650	9.5	25.1	7.9		
29651	1.1	26.2	2.5		
29653	10.2	18.1	20.3		
29654	15.6	17.1	26.8		
29655	23.7	30.4	20.4	31.4	31.4
29657	13.0	7.0	12.8		
29658	32.1	30.7	45.7		
29659	14.6	22.1	14.4	22.2	22.2
29661	12.8	15.1	25.5	29.5	
29662	12.3	10.8	13.3		
29664	27.1	16.7	39.4		
29665	8.5	4.5	11.8		
29666	24.3	26.5	23.8		
29667	12.1	8.6	13.7	16.1	
29669	22.6	19.6	25.7		
29670	17.3	16.3	16.8		
29671	17.2	11.9	18.1		
29672	11.0	10.3	23.3		
29673	12.7	10.9	15.8		
29676	33.6	26.5	39.9	30.4	
29678	9.2	8.2	15.9		
29680	25.8	10.6	14.1		
29681	23.7	15.6	11.0		
29682	20.5	16.5	18.1		
29683	6.9	9.2	19.5		
29684	18.0	34.4	18.7		
29685	33.6	28.2	34.5	24.6	
29686	33.6	26.5	45.6		
29687	14.9	16.4	12.2		
29689	19.4	19.9	20.0		
29690	11.8	12.3	17.7		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29316	11.1	22.4	12.5		
29320	8.5	24.3	4.8		
29321	14.1	14.2	30.7		
29322	22.1	35.2	17.8		
29323	19.3	23.0	20.6		
29324	13.6	19.5	13.5		
29325	11.3	6.3	13.0		
29329	11.0	17.9	10.9		
29330	20.1	14.3	18.6		
29331	19.8	18.7	25.4	21.8	
29332	9.9	21.5	25.0	24.8	
29333	3.3	22.1	4.6		
29334	8.9	29.0	15.0		
29335	15.8	18.6	21.8	25.0	
29338	22.9	27.3	21.7		
29340	20.8	20.2	19.4		
29341	9.2	3.3	10.8		
29346	12.5	26.9	12.4		
29349	18.4	31.6	14.1		
29351	15.0	10.0	16.7		
29353	13.8	14.2	26.2		
29355	16.1	15.4	15.6		
29356	26.4	34.5	27.8		
29360	13.5	2.2	14.4		
29364	18.7	18.0	24.1		
29365	9.8	35.8	10.5		
29368	15.5	16.1	16.9		
29369	8.4	30.2	13.5		
29370	9.9	12.1	15.5		
29372	25.1	26.2	25.0		
29373	21.1	19.7	18.9		
29374	22.8	25.7	21.7		
29375	7.2	28.4	16.2		
29376	17.8	33.5	20.1		
29377	5.4	30.1	12.8		
29378	4.8	23.8	6.5		
29379	6.8	5.6	37.8		
29384	10.5	21.6	27.3	26.6	
29385	11.5	29.0	12.0		
29388	4.1	19.8	19.1		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29691	16.9	6.8	29.3		
29692	7.3	19.6	30.2	30.7	
29693	18.6	17.9	32.1		
29696	16.5	11.7	28.8		
29697	21.4	18.1	21.6		
29702	14.5	4.9	18.6		
29704	16.2	15.3	20.8		
29706	6.0	9.3	5.3		
29707	23.3	28.8	25.6		
29708	16.4	30.0	18.8		
29709	2.9	35.0	36.9		
29710	2.0	18.7	28.9		
29712	16.8	12.8	21.3		
29714	12.9	10.7	28.9		
29715	16.2	30.3	18.5		
29717	20.7	23.3	28.0		
29718	10.4	44.5	37.5		
29720	13.1	13.1	40.1		
29724	16.0	6.6	18.8		
29726	13.9	15.6	16.4		
29727	10.0	46.2	44.4	28.1	
29728	11.7	30.0	45.8		
29729	20.8	6.3	21.5		
29730	4.8	14.6	9.1		
29732	10.5	13.3	9.6		
29733	6.1	19.3	2.9		
29741	3.5	42.1	45.2		
29742	17.9	21.3	20.2	25.5	
29743	19.1	16.2	29.9		
29745	6.5	3.8	19.1		
29801	4.0	25.1	5.2		
29803	5.8	33.0	20.0		
29805	22.2	31.1	23.4		
29809	5.4	31.8	19.5		
29810	14.6	8.6	35.3		
29812	14.8	15.1	43.6	41.5	41.5
29816	3.2	14.9	17.2		
29817	3.5	14.6	31.5	43.8	43.8
29819	17.0	26.3	17.6		
29821	31.5	22.4	45.6	35.8	35.8

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29401	5.8	21.5	7.3		
29403	2.1	20.7	2.1		
29404	17.0	34.1	15.7		
29405	3.5	25.4	6.1		
29406	15.4	31.4	12.8		
29407	7.2	18.8	6.9		
29409	5.5	19.7	5.5		
29410	16.1	30.4	7.0		
29412	17.1	21.4	17.5	12.7	
29414	7.6	18.1	11.2		
29418	14.9	32.0	13.6		
29420	19.4	36.1	17.8		
29423	9.9	26.7	14.2		
29424	4.7	21.4	6.3		
29426	19.5	34.1	14.2		
29429	13.0	40.5	16.2		
29431	12.6	11.7	44.5		
29432	23.7	4.9	24.0	33.4	
29434	19.4	18.4	39.4		
29435	18.3	17.4	21.7		
29436	8.3	23.0	32.6		
29437	11.8	25.9	11.3		
29438	25.4	47.7	7.2		
29439	22.7	27.0	23.1	18.2	
29440	11.0	11.3	11.3		
29445	23.2	27.7	15.4		
29446	39.4	41.9	47.1	44.1	
29448	9.4	11.2	4.5		
29449	8.0	30.3	8.5		
29450	28.1	27.2	27.6		
29451	32.4	49.9	20.8		
29452	34.0	35.3	28.8	37.6	
29453	19.7	22.7	41.9		
29455	11.1	10.5	13.6	27.6	
29456	10.3	30.8	17.5		
29458	5.6	27.7	26.4		
29461	8.0	9.7	34.2		
29464	11.0	28.6	7.0		
29466	23.7	41.2	9.5		
29468	16.3	31.2	49.9	33.1	33.1

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29824	26.6	9.8	37.3		
29826	7.8	17.9	35.6		
29827	0.4	1.3	28.9		
29828	8.8	19.8	14.3		
29829	12.4	13.4	17.0		
29831	21.5	31.6	34.2		
29832	14.3	15.5	28.8		
29834	5.4	16.7	16.4		
29835	4.6	27.1	27.9	27.2	27.2
29836	27.6	20.9	48.1	26.9	26.9
29838	22.7	19.4	47.0		
29840	19.3	23.0	23.9		
29841	8.2	10.7	22.7		
29842	8.4	20.5	26.7		
29843	12.1	14.1	15.9		
29844	18.5	27.2	47.6	27.4	27.4
29845	15.2	28.3	42.0	28.4	28.4
29847	22.4	11.4	23.1		
29848	24.9	35.4	26.7		
29849	16.9	8.3	20.5		
29850	11.1	19.0	13.6		
29851	11.6	22.5	17.0		
29853	1.3	23.3	29.9		
29856	9.7	28.1	18.9		
29860	17.0	8.4	27.7	25.0	25.0
29899	6.0	31.0	29.7		
29902	6.6	8.6	8.6		
29904	13.4	11.8	11.9		
29905	11.0	13.0	13.0		
29906	13.6	12.0	12.0		
29907	22.8	24.8	24.7		
29909	7.2	24.5	21.7	21.8	
29910	27.3	47.4	23.8	29.5	
29911	13.1	15.2	27.6		
29912	10.2	28.8	7.4		
29915	161.5	179.5	139.8		
29916	20.9	18.7	24.6		
29918	3.0	19.5	37.5		
29920	6.3	20.3	20.2		
29921	12.1	21.3	32.1		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29469	9.1	12.3	33.9		
29470	11.8	23.0	17.8		
29471	12.4	17.4	12.2	28.8	
29472	18.6	30.5	3.7		
29474	19.6	18.7	28.4		
29475	15.3	15.5	20.4		
29477	4.9	23.7	5.1	24.0	
29479	24.8	23.8	56.0		
29481	26.7	13.4	19.4	28.9	
29482	22.7	40.2	20.0		
29483	6.2	30.1	22.8		
29485	9.3	40.2	18.8		
29487	21.4	20.8	23.9	37.9	
29488	3.6	2.7	25.6		
29492	18.5	37.2	5.8		
29493	24.5	23.6	20.5	24.6	
29501	7.7	13.1	9.6		

ZCTA	FQHC	RHC	FMC	REH*	CAH*
29922	21.1	36.5	32.9	36.7	
29923	12.7	12.5	34.4		
29924	2.9	5.0	21.0		
29926	30.2	48.3	8.5		
29927	11.7	39.6	18.3		
29928	36.6	54.7	10.4		
29929	19.4	18.1	27.5		
29932	13.3	27.2	47.2	29.3	29.3
29934	20.8	34.5	23.7	34.7	
29935	3.2	5.2	5.1		
29936	3.7	35.1	2.6		
29939	9.3	24.7	31.5	24.9	
29940	13.0	20.5	20.6		
29941	11.3	36.9	29.5		
29943	16.2	41.7	15.1		
29944	12.0	9.8	31.0		
29945	16.8	28.9	22.9	29.1	

**APPENDIX G. Provider to Population Ratios, OB/GYN (CY2021)**

County	OB/GYN							
	CY2021							
	# (CY2021)	ACS Female Members 19–44 Years						# (CY2022)
Medicaid		Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Abbeville	7	759	9.2	580	12.1	4,901	1.4	8
Aiken	17	4,830	3.5	4,026	4.2	35,391	0.5	30
Allendale	0	300	0.0	266	0.0	1,579	0.0	1
Anderson	54	5,918	9.1	5,727	9.4	44,275	1.2	57
Bamberg	2	481	4.2	558	3.6	3,143	0.6	4
Barnwell	1	952	1.1	512	2.0	4,348	0.2	2
Beaufort	54	3,091	17.5	3,742	14.4	30,998	1.7	58
Berkeley	122	6,111	20.0	5,575	21.9	50,345	2.4	138
Calhoun	1	489	2.0	161	6.2	2,680	0.4	4
Charleston	220	7,165	30.7	9,606	22.9	91,867	2.4	251
Cherokee	7	2,090	3.3	1,723	4.1	13,103	0.5	5
Chester	4	1,137	3.5	675	5.9	6,707	0.6	5
Chesterfield	8	1,373	5.8	1,171	6.8	9,177	0.9	4
Clarendon	30	1,415	21.2	646	46.4	6,347	4.7	32
Colleton	36	1,303	27.6	1,069	33.7	8,091	4.4	36
Darlington	9	2,886	3.1	1,317	6.8	14,122	0.6	12
Dillon	22	1,917	11.5	1,057	20.8	7,645	2.9	18
Dorchester	109	4,606	23.7	4,864	22.4	36,746	3.0	121
Edgefield	0	955	0.0	353	0.0	4,741	0.0	0
Fairfield	7	890	7.9	313	22.4	4,093	1.7	6
Florence	86	4,786	18.0	3,504	24.5	31,689	2.7	101
Georgetown	47	2,533	18.6	1,384	34.0	12,012	3.9	57
Greenville	191	12,330	15.5	13,274	14.4	115,799	1.6	222
Greenwood	23	2,512	9.2	1,430	16.1	15,482	1.5	24
Hampton	11	859	12.8	384	28.6	3,997	2.8	7
Horry	52	10,503	5.0	10,710	4.9	70,315	0.7	69
Jasper	15	597	25.1	977	15.4	5,685	2.6	12
Kershaw	9	1,511	6.0	1,799	5.0	13,197	0.7	11
Lancaster	18	2,614	6.9	1,868	9.6	18,833	1.0	19
Laurens	80	2,420	33.1	2,066	38.7	15,160	5.3	78
Lee	1	590	1.7	506	2.0	3,469	0.3	1
Lexington	70	7,859	8.9	6,500	10.8	62,848	1.1	76
Marion	11	1,663	6.6	861	12.8	7,032	1.6	9

County	OB/GYN							
	CY2021							
	# (CY2021)	ACS Female Members 19–44 Years						# (CY2022)
Medicaid		Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Marlboro	11	851	12.9	813	13.5	5,397	2.0	6
McCormick	0	226	0.0	47	0.0	1,135	0.0	0
Newberry	9	1,052	8.6	432	20.8	6,865	1.3	13
Oconee	71	2,104	33.7	1,994	35.6	14,560	4.9	71
Orangeburg	18	3,900	4.6	1,771	10.2	19,331	0.9	24
Pickens	101	3,435	29.4	2,628	38.4	29,337	3.4	105
Richland	127	14,888	8.5	9,088	14.0	102,922	1.2	135
Saluda	0	584	0.0	775	0.0	3,987	0.0	0
Spartanburg	83	8,851	9.4	7,862	10.6	70,802	1.2	96
Sumter	31	4,517	6.9	2,989	10.4	24,504	1.3	40
Union	12	812	14.8	698	17.2	5,479	2.2	10
Williamsburg	2	1,318	1.5	735	2.7	6,593	0.3	3
York	44	6,307	7.0	6,284	7.0	60,030	0.7	53
<b>South Carolina</b>	<b>772</b>	<b>148,290</b>	<b>5.2</b>	<b>125,320</b>	<b>6.2</b>	<b>1,106,759</b>	<b>0.7</b>	<b>904</b>

**APPENDIX H. Provider to Population Ratios, Total Primary Care Providers (CY2021)**

County	Primary Care (All Ages)							
	CY2021							
	# (CY2021)	ACS Members 0–64 Years						# (CY2022)
Medicaid		Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Abbeville	60	5,427	11.1	2,800	21.4	27,199	2.2	53
Aiken	360	34,633	10.4	16,006	22.5	184,689	1.9	362
Allendale	31	2,133	14.5	839	36.9	8,771	3.5	30
Anderson	619	41,485	14.9	21,533	28.7	228,557	2.7	615
Bamberg	53	3,359	15.8	1,905	27.8	15,782	3.4	45
Barnwell	25	6,651	3.8	2,678	9.3	26,134	1.0	20
Beaufort	325	23,792	13.7	17,057	19.1	169,403	1.9	325
Berkeley	525	43,238	12.1	22,654	23.2	252,109	2.1	483
Calhoun	20	3,006	6.7	1,317	15.2	15,255	1.3	17
Charleston	1,279	53,382	24.0	38,721	33.0	423,802	3.0	1,326
Cherokee	190	14,851	12.8	6,683	28.4	68,210	2.8	201
Chester	75	8,147	9.2	3,617	20.7	37,935	2.0	79
Chesterfield	131	11,054	11.9	5,236	25.0	51,714	2.5	207
Clarendon	115	8,781	13.1	3,129	36.8	34,869	3.3	156
Colleton	70	9,655	7.3	5,280	13.3	45,702	1.5	66
Darlington	214	17,568	12.2	5,483	39.0	74,107	2.9	231
Dillon	129	10,322	12.5	3,782	34.1	37,780	3.4	211
Dorchester	524	30,447	17.2	17,424	30.1	183,050	2.9	482
Edgefield	48	4,780	10.0	2,136	22.5	25,841	1.9	57
Fairfield	69	5,303	13.0	1,595	43.3	23,358	3.0	49
Florence	562	31,700	17.7	13,919	40.4	158,579	3.5	630
Georgetown	347	14,093	24.6	6,749	51.4	65,958	5.3	392
Greenville	1,284	82,869	15.5	52,909	24.3	570,273	2.3	1,190
Greenwood	379	16,186	23.4	5,969	63.5	77,975	4.9	340
Hampton	72	5,218	13.8	1,824	39.5	21,736	3.3	77
Horry	672	73,560	9.1	48,607	13.8	381,503	1.8	743
Jasper	81	6,914	11.7	3,844	21.1	33,036	2.5	103
Kershaw	218	13,871	15.7	6,364	34.3	72,727	3.0	160
Lancaster	285	15,379	18.5	7,776	36.7	96,350	3.0	265
Laurens	610	17,348	35.2	8,922	68.4	80,788	7.6	498
Lee	17	4,423	3.8	1,716	9.9	18,505	0.9	17
Lexington	549	52,069	10.5	27,677	19.8	322,904	1.7	555
Marion	82	9,564	8.6	4,075	20.1	37,315	2.2	80



County	Primary Care (All Ages)							
	CY2021							
	# (CY2021)	ACS Members 0–64 Years						# (CY2022)
		Medicaid	Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems	
Marlboro	35	8,448	4.1	3,131	11.2	31,387	1.1	33
McCormick	28	1,881	14.9	463	60.5	7,654	3.7	20
Newberry	225	7,916	28.4	3,488	64.5	41,521	5.4	201
Oconee	561	17,516	32.0	7,979	70.3	85,009	6.6	452
Orangeburg	344	24,345	14.1	8,861	38.8	100,952	3.4	336
Pickens	790	22,975	34.4	11,659	67.8	142,321	5.6	649
Richland	977	78,546	12.4	35,892	27.2	454,737	2.1	902
Saluda	29	4,497	6.4	3,294	8.8	23,004	1.3	19
Spartanburg	757	64,523	11.7	32,375	23.4	365,040	2.1	755
Sumter	360	29,118	12.4	11,226	32.1	123,976	2.9	375
Union	143	7,761	18.4	3,021	47.3	32,399	4.4	154
Williamsburg	35	9,301	3.8	2,912	12.0	35,569	1.0	37
York	431	42,395	10.2	23,317	18.5	301,177	1.4	448
<b>South Carolina</b>	<b>5,618</b>	<b>1,000,430</b>	<b>5.6</b>	<b>517,844</b>	<b>10.8</b>	<b>5,616,662</b>	<b>1.0</b>	<b>5,304</b>

**APPENDIX I. Provider to Population Ratios, Pediatricians (CY2021)**

County	Pediatric Primary Care							
	CY2021							
	# (CY2021)	ACS Members 0–18 Years						# (CY2022)
	Medicaid	Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Abbeville	57	2,684	21.2	369	154.5	8,505	6.7	51
Aiken	254	18,004	14.1	1,579	160.9	57,992	4.4	264
Allendale	28	882	31.7	0	0.0	2,637	10.6	28
Anderson	490	21,591	22.7	3,251	150.7	73,401	6.7	492
Bamberg	44	1,705	25.8	313	140.6	5,053	8.7	39
Barnwell	24	3,986	6.0	259	92.7	9,676	2.5	19
Beaufort	228	12,127	18.8	2,893	78.8	51,566	4.4	243
Berkeley	429	22,072	19.4	3,427	125.2	81,475	5.3	403
Calhoun	14	1,473	9.5	97	144.3	4,375	3.2	13
Charleston	841	26,660	31.5	5,737	146.6	116,874	7.2	917
Cherokee	100	7,787	12.8	513	194.9	22,040	4.5	115
Chester	42	3,991	10.5	429	97.9	12,158	3.5	45
Chesterfield	83	5,818	14.3	519	159.9	16,525	5.0	142
Clarendon	82	4,204	19.5	185	443.2	10,810	7.6	121
Colleton	43	5,301	8.1	904	47.6	15,260	2.8	44
Darlington	150	8,966	16.7	482	311.2	24,748	6.1	159
Dillon	72	5,362	13.4	372	193.5	13,300	5.4	134
Dorchester	432	13,828	31.2	3,039	142.2	57,812	7.5	393
Edgefield	45	2,109	21.3	121	371.9	7,217	6.2	56
Fairfield	62	2,595	23.9	84	738.1	7,016	8.8	46
Florence	371	16,874	22.0	1,156	320.9	52,441	7.1	451
Georgetown	236	6,657	35.5	759	310.9	19,380	12.2	289
Greenville	877	46,029	19.1	6,769	129.6	179,258	4.9	825
Greenwood	319	8,544	37.3	504	632.9	25,658	12.4	291
Hampton	53	2,616	20.3	203	261.1	7,202	7.4	60
Horry	448	34,795	12.9	5,096	87.9	105,624	4.2	526
Jasper	38	3,902	9.7	437	87.0	10,504	3.6	63
Kershaw	118	6,939	17.0	479	246.3	23,333	5.1	113
Lancaster	210	8,091	26.0	766	274.2	30,111	7.0	206
Laurens	401	8,685	46.2	917	437.3	25,259	15.9	340
Lee	14	2,268	6.2	176	79.5	5,904	2.4	16
Lexington	429	27,455	15.6	3,256	131.8	101,515	4.2	443
Marion	47	4,768	9.9	490	95.9	12,440	3.8	48

County	Pediatric Primary Care							
	CY2021							
	# (CY2021)	ACS Members 0–18 Years						# (CY2022)
Marlboro	30	4,315	7.0	145	206.9	10,177	2.9	29
McCormick	26	793	32.8	16	1,625.0	1,880	13.8	19
Newberry	204	4,480	45.5	357	571.4	13,702	14.9	182
Oconee	340	8,391	40.5	506	671.9	25,008	13.6	283
Orangeburg	236	13,475	17.5	518	455.6	34,199	6.9	235
Pickens	535	11,397	46.9	1,315	406.8	40,612	13.2	460
Richland	681	38,512	17.7	4,341	156.9	140,048	4.9	642
Saluda	28	2,583	10.8	485	57.7	7,526	3.7	19
Spartanburg	556	34,708	16.0	4,731	117.5	119,514	4.7	566
Sumter	262	14,468	18.1	840	311.9	42,026	6.2	279
Union	76	3,698	20.6	345	220.3	10,188	7.5	82
Williamsburg	27	4,482	6.0	146	184.9	11,431	2.4	30
York	327	22,770	14.4	1,886	173.4	95,227	3.4	344
<b>South Carolina</b>	<b>3,694</b>	<b>512,840</b>	<b>7.2</b>	<b>61,212</b>	<b>60.3</b>	<b>1,748,607</b>	<b>2.1</b>	<b>3,933</b>

**APPENDIX J. Provider to Population Ratios, Mental Health Providers (CY2021)**

County	Mental Health							
	CY2021							
	# (CY2021)	ACS Members 0–64 Years						# (CY2022)
Medicaid		Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Abbeville	5	5,427	0.9	2,800	1.8	27,199	0.2	6
Aiken	88	34,633	2.5	16,006	5.5	184,689	0.5	104
Allendale	4	2,133	1.9	839	4.8	8,771	0.5	4
Anderson	102	41,485	2.5	21,533	4.7	228,557	0.4	93
Bamberg	11	3,359	3.3	1,905	5.8	15,782	0.7	8
Barnwell	3	6,651	0.5	2,678	1.1	26,134	0.1	3
Beaufort	77	23,792	3.2	17,057	4.5	169,403	0.5	77
Berkeley	85	43,238	2.0	22,654	3.8	252,109	0.3	86
Calhoun	8	3,006	2.7	1,317	6.1	15,255	0.5	6
Charleston	612	53,382	11.5	38,721	15.8	423,802	1.4	583
Cherokee	20	14,851	1.3	6,683	3.0	68,210	0.3	22
Chester	8	8,147	1.0	3,617	2.2	37,935	0.2	8
Chesterfield	118	11,054	10.7	5,236	22.5	51,714	2.3	131
Clarendon	93	8,781	10.6	3,129	29.7	34,869	2.7	114
Colleton	61	9,655	6.3	5,280	11.6	45,702	1.3	55
Darlington	45	17,568	2.6	5,483	8.2	74,107	0.6	58
Dillon	122	10,322	11.8	3,782	32.3	37,780	3.2	133
Dorchester	66	30,447	2.2	17,424	3.8	183,050	0.4	68
Edgefield	0	4,780	0.0	2,136	0.0	25,841	0.0	0
Fairfield	28	5,303	5.3	1,595	17.6	23,358	1.2	25
Florence	250	31,700	7.9	13,919	18.0	158,579	1.6	269
Georgetown	50	14,093	3.5	6,749	7.4	65,958	0.8	56
Greenville	385	82,869	4.6	52,909	7.3	570,273	0.7	383
Greenwood	47	16,186	2.9	5,969	7.9	77,975	0.6	42
Hampton	9	5,218	1.7	1,824	4.9	21,736	0.4	9
Horry	297	73,560	4.0	48,607	6.1	381,503	0.8	319
Jasper	17	6,914	2.5	3,844	4.4	33,036	0.5	16
Kershaw	35	13,871	2.5	6,364	5.5	72,727	0.5	35
Lancaster	43	15,379	2.8	7,776	5.5	96,350	0.4	35
Laurens	107	17,348	6.2	8,922	12.0	80,788	1.3	96
Lee	17	4,423	3.8	1,716	9.9	18,505	0.9	18
Lexington	143	52,069	2.7	27,677	5.2	322,904	0.4	140
Marion	8	9,564	0.8	4,075	2.0	37,315	0.2	5
Marlboro	30	8,448	3.6	3,131	9.6	31,387	1.0	29
McCormick	3	1,881	1.6	463	6.5	7,654	0.4	3

County	Mental Health							
	CY2021							
	# (CY2021)	ACS Members 0–64 Years						# (CY2022)
Medicaid		Prov/1k Mems	Uninsured	Prov/1k Mems	Total Pop	Prov/1k Mems		
Newberry	18	7,916	2.3	3,488	5.2	41,521	0.4	15
Oconee	111	17,516	6.3	7,979	13.9	85,009	1.3	92
Orangeburg	78	24,345	3.2	8,861	8.8	100,952	0.8	98
Pickens	115	22,975	5.0	11,659	9.9	142,321	0.8	99
Richland	440	78,546	5.6	35,892	12.3	454,737	1.0	397
Saluda	1	4,497	0.2	3,294	0.3	23,004	0.0	1
Spartanburg	211	64,523	3.3	32,375	6.5	365,040	0.6	194
Sumter	47	29,118	1.6	11,226	4.2	123,976	0.4	44
Union	19	7,761	2.4	3,021	6.3	32,399	0.6	22
Williamsburg	9	9,301	1.0	2,912	3.1	35,569	0.3	21
York	172	42,395	4.1	23,317	7.4	301,177	0.6	168
<b>South Carolina</b>	<b>2,570</b>	<b>1,000,430</b>	<b>2.6</b>	<b>517,844</b>	<b>5.0</b>	<b>5,616,662</b>	<b>0.5</b>	<b>2,488</b>

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