



South Carolina Institute of
Medicine & Public Health

**BEYOND THE CLINICAL ENCOUNTER:
Supporting Pandemic Recovery
and Improving Rural Health**

APRIL 2022



Opinions represented in this report are those of individuals interviewed for this project and do not necessarily represent the opinions of the South Carolina Institute of Medicine and Public Health or the South Carolina Center for Rural and Primary Healthcare. All suggested objectives listed are based on interviews with participants and evidence-based materials recommended by interview participants. To protect participant privacy, direct quotes are being reported anonymously in the following pages.

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The South Carolina Institute of Medicine & Public Health (IMPH) is an independent entity serving as an informed nonpartisan convener around the important health issues in our state, providing evidence-based information to inform health policy decisions.

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Background And Context

As we continue to navigate the pandemic with an increased understanding of the viral pathways and outcomes, we have a collective opportunity to address the disparities that have been illuminated. The qualitative data presented in the following pages was gathered from thirty interviews with rural leaders and key stakeholders throughout South Carolina.^a Supporting evidence was collected through a literature review and, when appropriate, illustrated using Esri ArcGIS Pro version 2.8.0.

Although rural South Carolina is not a monolith, infrastructural issues common across rural communities were described in many of the interviews. Housing, transportation, employment, broadband, education and access to healthy foods were repeatedly cited as key contributors to vulnerability in rural South Carolina. Addressing these issues extends beyond the capacity of health care providers alone but are no less important to discuss and recognize as the contextual factors impacting the health of many rural South Carolinians.

Following the survey of infrastructural concerns that influence vulnerability, this report will highlight five opportunities to foster recovery in rural South

Carolina uncovered in the qualitative interviews. These opportunities include supporting medical-legal partnerships, expanding telehealth capabilities, improving health communications, building health care capacity in medically underserved areas and investing in mental health in rural communities. These five focus areas were chosen in part due to thematic consistency as well as the ability to address them within a health system. Concluding with a discussion of strengths and actions steps, it is our goal in this report to identify opportunities for health care providers and systems to contribute to increasing resiliency across the state.

Key stakeholders interviewed represent all corners of the state and, cumulatively, boast an excess of five hundred years of experience working to improve health outcomes across South Carolina. At project culmination, 20% of respondents were situated in the Lowcountry, 43% in the Midlands, 10% in the Pee Dee Region and 27% in the Upstate. Several interview participants represented organizations that provide services across the state. Examples of organizations participants represent include:

- Allendale County Hospital
- AmeriCorps
- Beaufort - Jasper - Hampton Comprehensive Health Services
- Black River United Way
- Clemson University
- Eastern Carolina Housing Organization
- FoodShare South Carolina
- Goodwill Industries of the Upstate and Midlands
- Orangeburg-Calhoun Technical College
- Pee Dee Coalition
- Prisma Health
- Rural Health and Nutrition Program at Clemson University
- SC AHEC
- SC Appleseed Legal Justice Center
- SC Arts Commission
- SC Department of Employment and Workforce
- SC Department of Health and Environmental Control
- SC Infant Mental Health Association
- SC Office for Healthcare Workforce, AHEC
- SC State Library
- SERCAP, Inc.
- Small Business Development Center at SC State
- South Carolina First Steps
- South Carolina Primary Care Office
- United Housing Connections
- United Way Association of South Carolina
- United Way of Pickens County
- University of South Carolina

^a Qualitative interviews were transcribed and analyzed thematically using Dedoose version 8.0.35, a web application for managing, analyzing and presenting qualitative and mixed method research data.

Participants were encouraged to speak as representatives of their organizations as well as individuals. As a result, personal anecdotes and individual impacts from the coronavirus were also discussed. The professional roles and responsibilities varied, illustrated by percentage of participants representing those roles in the following table.

Table 1. Participant Professional Roles

Role	Percent of Participants	
Director	16.7%	<div></div>
CEO	13.3%	<div></div>
President	13.3%	<div></div>
Program Director	6.7%	<div></div>
Professor	6.7%	<div></div>
Project Coordinator	6.7%	<div></div>
Chief Medical Officer	3.3%	<div></div>
Chief Innovation Officer	3.3%	<div></div>
Organization Co-Founder	3.3%	<div></div>
Executive Director	3.3%	<div></div>
Librarian	3.3%	<div></div>
Hospitalist	3.3%	<div></div>
Vice President	3.3%	<div></div>
Senior Deputy	3.3%	<div></div>
Social Worker	3.3%	<div></div>
Program Manager	3.3%	<div></div>
Americorps Member	3.3%	<div></div>

Many participants cited concerns such as transportation, housing, employment, broadband education and food systems as key contributors to vulnerability in rural communities. Widespread social vulnerability negatively influences a community’s ability to respond to disasters such as hurricanes and pandemics. For example, existing financial insecurity can be exacerbated by sudden illness or hospitalization which can subsequently impact housing security, employment and educational attainment. The intersection of these indicators, often referred to as the social determinants of health, illustrate the need to elevate social and community development in discussions surrounding health and resiliency.

Addressing these vulnerabilities requires strategic partnerships and data-driven decision making, which can be gathered through measures of vulnerability or resilience. There are a variety of measurement tools available in the literature, including the Baseline Resilience Indicators for Communities (BRIC) index which measures an array of variables to identify levels of resilience across counties. Pertinent variables included in the BRIC index include housing, medical care capacity, high-speed internet infrastructure, local food suppliers, employment rate and financial viability independent of revenue from tourism. The BRIC index uses a scale from one to six, with six indicating the most resilient communities.

The following pages examine selected social determinants of health discussed throughout the interviews which impact resiliency. Beginning with transportation and concluding with a discussion on food systems, these indicators are far too broad for one entity to address in singularity but offer valuable opportunities for providers and health systems to plug in to local organizations to support improved health outcomes.

Transportation

The design and material development of roads, highways and transit impact health seeking behaviors, employment and food systems across the state.^{1,2} According to the American Community Survey, 2.5% of South Carolinians do not have access to a car, and county level differences illustrate a considerable disparity in car ownership between rural and urban communities.³ In the absence of a vehicle a person may rely on family members, neighbors or public transit to access critical services. Although fourteen of the twenty-seven publicly supported transit agencies in the state operate exclusively in rural or non-urbanized areas, many interview participants cited difficulty in terms of public transportation as a key factor limiting resilience in rural South Carolina.⁴

The South Carolina Department of Transportation has identified six primarily rural counties without publicly funded transportation systems – Abbeville County, Greenwood County, Laurens County, Saluda County, Cherokee County and Union County.⁵ When asked about opportunities to address transportation needs one stakeholder identified the lack of coordination between transit and social service providers as an important growth opportunity for the state. They explained that more coordination between local transit providers, local area agencies on aging, Medicaid transit providers and the Department of Employment and Workforce in rural areas would be beneficial and could help leverage their many different assets.

Data demonstrates that the absence of coordinated public transit exacerbates vulnerabilities and creates “transit deserts.”⁶ Similar to food deserts, transit deserts are geographic areas with high transit demand but low access to transit services.⁷ Transit deserts in rural communities adversely impact economic and social capital, negatively influence social dynamics, exacerbate isolation and have been shown to disproportionately affect minority groups.⁸ Research also suggests that without reliable transportation people are less likely to participate in educational opportunities or preventative health services, further impacting vulnerability.⁹

Housing

The dearth of affordable housing in rural South Carolina was cited during interviews as a key issue affecting resilience. The National Low Income Housing Coalition (NLIHC) reports that the state suffers from a shortage of affordable rental homes available to extremely low-income households (ELI), which refers to renters whose incomes are at or below the poverty guideline or 30% of their area median income.¹⁰ Estimates suggest that South Carolina would need to construct approximately 87,000 additional affordable rental units to completely meet the demand across the state.¹¹ Among ELI renters in South Carolina, 39% are currently in the labor force, 17% are disabled, 25% are seniors and 3% are single caregivers.¹²

Housing experts interviewed for this project describe difficulties attracting developers to rural areas and high rates of eviction across the state as the primary systemic barriers to housing. One participant representing a large housing coalition explained that “developers say, ‘OK, so you want me to build affordable apartments in Greenwood, South Carolina? Well, there are no jobs there. There’s no public transportation. There’s very little access. There are food deserts all over the place. How am I supposed to be attractive if the infrastructure is not there?’”

Beyond the challenges associated with encouraging developers to invest in affordable housing in rural communities, South Carolina also suffers from an eviction crisis. In 2016 South Carolina had the highest eviction rate in the country.¹³ According to the most recent data, 47 out of the top 100 small cities and rural areas with the highest eviction rates in the country are located throughout South Carolina.¹⁴ East Gaffney, SC and Promised Land, SC were situated in the top ten small cities and rural areas with the highest eviction rates in 2016.¹⁵ One participant discussed the importance of intervening prior to eviction, explaining that, “we can’t make eviction the answer, because once someone gets evicted in South Carolina you don’t get a unit on your own anymore.”

Interview participants also discussed the threat of evictions and the availability of housing in relation

to the availability of medical-legal partnerships in the state and their pertinence to mental health. Unstable housing and homelessness are both known risk factors for mental illness, and literature suggests that these factors may exacerbate existing mental health conditions.¹⁶ Experiencing evictions, foreclosure or difficulties finding affordable housing is associated with elevated anxiety and depression and poorer self-reported health outcomes.¹⁷ Housing advocacy also emerged as a critical need. At the time of writing, there is a need for a statewide coalition to connect separate housing entities to avoid duplication of efforts, maximize collaboration and enhance funding dissemination.

Employment

Outside of health outcomes, the coronavirus pandemic has also negatively impacted employment rates and economic viability. Although the unemployment rate has continued to decrease across the state since the initial lockdown period, data indicates that rural communities in South Carolina are slower to recover and report higher rates of unemployment than more urban areas.¹⁸ Data from the United States Bureau of Labor Statistics illustrate this fact and can be found in Appendix A.¹⁹ During the first fourteen months of the pandemic, Allendale County (9.3%), Bamberg County (9%), Marlboro County (9%), Orangeburg County (8.6%) and Union County (7.8%) reported the highest average unemployment rates across the state.²⁰

When asked about employment, one interview participant responded, “In the rural areas, there’s always been a higher unemployment rate. There have also been larger health disparities, greater hunger and less opportunity. That doesn’t mean we want people to move from the rural areas. It means we need to be bringing the opportunities to folks.”

K-12 Education

Educational attainment came up regularly in discussions surrounding fostering resiliency and advancement in rural areas. Disparities in educational opportunities in rural communities, specifically along the I-95 corridor, are a barrier to advancement both in these communities and across the state. The I-95 corridor, colloquially referred

to as the “Corridor of Shame,” includes Bamberg, Beaufort, Calhoun, Clarendon, Colleton, Darlington, Dillon, Dorchester, Florence, Hampton, Jasper, Lee, Marion, Marlboro, Orangeburg, Sumter and Williamsburg counties.²¹

Approximately two in five schools in South Carolina are in rural areas, highlighting the need to leverage resources to ensure that these institutions are positioned to prepare their students for the future.²² The Rural Schools and Community Trust reported that, as of 2019, students in rural South Carolina performed significantly worse on NAEP math and reading tests compared to the nation. In addition, rural students in South Carolina have lower graduation rates than rural students nationally.²³

These figures indicate that rural South Carolina students encountered educational disadvantages even prior to the coronavirus pandemic. The disproportionate lack of broadband and higher levels of poverty across rural South Carolina exacerbated these issues.²⁴ When asked broadly what policy changes could be used to support recovery in rural communities a participant representing business and economic recovery responded that equity must be prioritized to address the disparities in educational outcomes. They explained, “across the state, urban districts have advantages that a rural school district doesn’t. I’d like to see more equity in the education system and maybe even over equity in the rural areas since they need more resources because they have existing issues to address, including simply accessing broadband to attend school online.”

During the pandemic, libraries and school districts rallied to provide mobile hotspots to areas without adequate broadband, and anecdotal accounts of these efforts are largely positive. One interview participant explained that because of the availability of hotspots several individuals were able to graduate from nursing school. She reported, “I heard from one of our directors in Marlboro County that during the pandemic, three young ladies were able to graduate from nursing school because they were able to come in and check out the hot spots.” However, another interview participant explained that increased evaluation on the efficacy of hot spot programs on K-12 educational attainment is needed.

Broadband

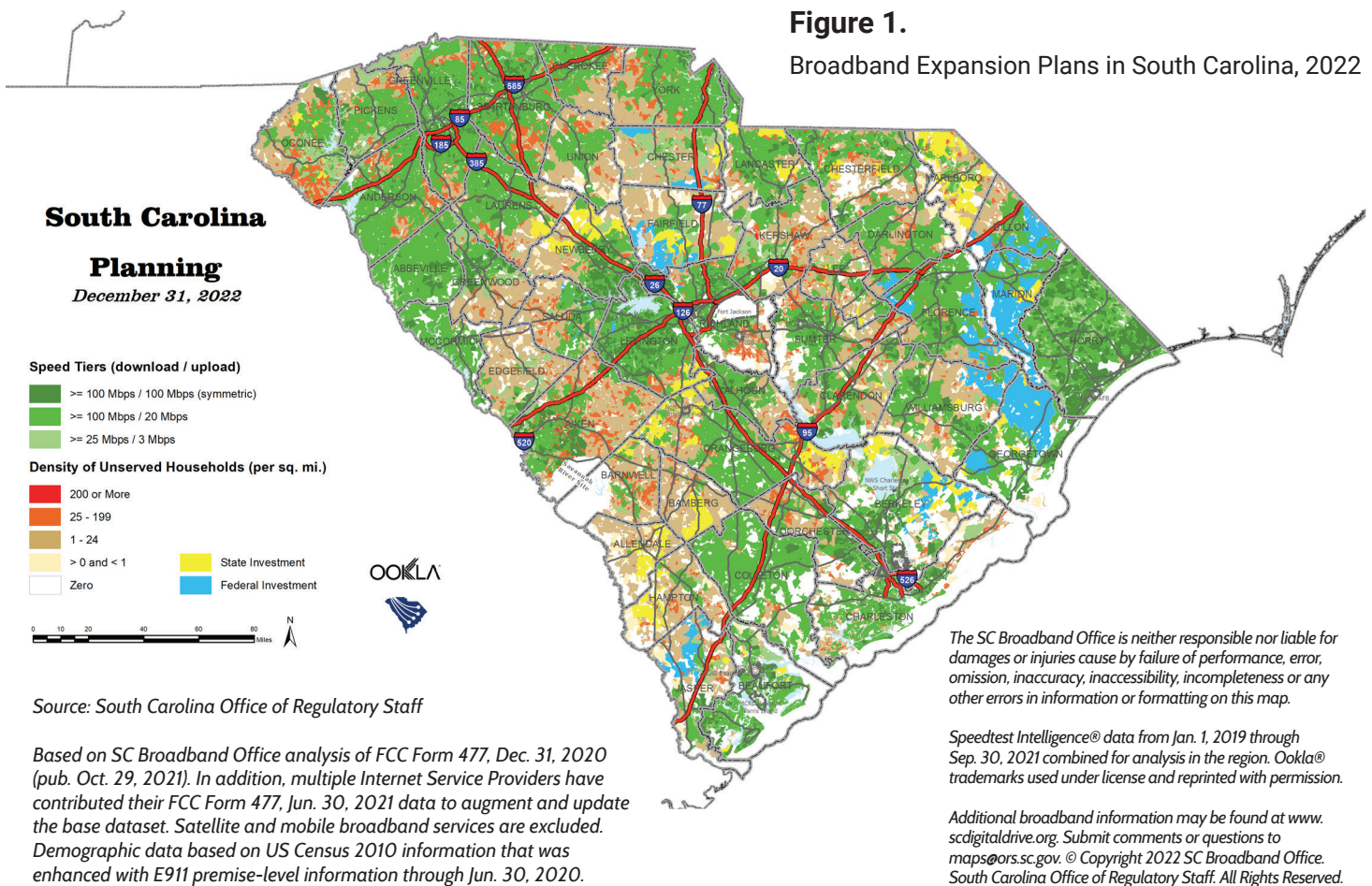
The availability of high-speed broadband infrastructure directly impacts education, employment and access to social services. Several agencies worked diligently to pivot to virtual workforce trainings during the pandemic; however, without universal internet availability, these interventions are not always able to reach their target population. One participant explained that, “if you have a community that doesn't have access to the Internet, then that virtual access to training will not really help them any. So even though they do not have to come into a facility to get the workforce training, they may not be able to access it online either.”

Throughout the pandemic, millions of dollars were allocated from state, federal and private sources to expand broadband across rural South Carolina.²⁵

Using AI technology, a consulting firm contracted by the South Carolina Office of Regulatory Staff (ORS) identified program targets and priority program target areas for broadband expansion across the state in 2020. In the same report, ORS estimated that an excess of 182,000 households in these target areas do not have access to adequate broadband services.²⁶ Several agencies across the state are collaborating to improve access to essential broadband services in rural South Carolina including the South Carolina Office of Rural Health and ORS. The map below shows the projected availability of broadband service to residential and business sites in the state.^{27, a}

Figure 1.

Broadband Expansion Plans in South Carolina, 2022



^a Everything that is reflected in blue and yellow on the map is scheduled to be completed by December 31, 2022.

In addition to education, employment and access to social services, broadband infrastructure also impacts access to medical services through telemedicine. Telemedicine is a promising solution to the barriers impacting rural communities surrounding access to essential health services; however, the success of telemedicine is contingent on reliable broadband services, access to a cell phone or personal computer and provider participation. Rural communities are disproportionately represented across the state in terms of the percent of households without internet access.²⁸

Even after full broadband expansion is realized, rural organizations will still require technical support and frameworks outlining the best ways they can utilize high speed internet to expand their footprint and meet their individual goals. This type of digital literacy overlaps with individual strategic visions and can be used to improve education, employment and financial literacy as well as mitigate the consequences of social isolation. State and local organizations which are working to leverage digital literacy would benefit from additional funding for pilot programs to identify effective strategies and interventions for supporting communities with digital literacy.

Food Systems

Food insecurity and disruptions in food systems were regularly discussed in the interviews. The United States Department of Agriculture defines food insecurity as a “household-level economic and social condition of limited or uncertain access to adequate food.”²⁹ Food insecurity is a multisectoral concern involving equity, health and educational attainment. The impetus to address this issue has increased since the emergence of COVID-19, demonstrated in a recent study published in the *Journal of the American Medical Association (JAMA)* which found that the prevalence of food insecurity increased during the pandemic.^{30,31}

Food insecurity is directly related to the food supply chain. The food supply chain is divided into five stages; agricultural production, postharvest handling, processing, distribution and consumption.³² Each of these stages was vulnerable to disruption during the pandemic; specifically handling, processing and distribution. One interview participant cited disruptions in processing as a significant barrier to providing meat to the residents of South Carolina. They explained that “there's only so many meat processors in the state, so if one meat processor closes down then there's a big bottleneck.”

Beyond processing, another participant voiced concerns over safely distributing products to consumers. They explained “in the early weeks I was concerned about food safety and food handling. There were all these trucks selling meat in the parking lot of the YMCA because it was like Tyson couldn't get their meat to the store. So, they were just selling meat at the back of the trucks. I thought that was great in the sense that it was super low cost for people and, if you found out about it, you could get it but I was worried about food safety and I continued to be worried about that.”

Building a resilient food system and addressing food insecurity both require a nuanced understanding of the communities served. There is ample research available on food security during an epidemic and it is well established that vulnerable populations, such as rural and low-income communities, are the most affected by food insecurity during a crisis.³³ Several participants described a need for an emergency plan focused on food security and food systems specific to South Carolina that illuminates opportunities for collaboration between agencies.

Opportunities for Health Systems and Providers to Cultivate Resilience in Rural South Carolina

The following pages outline several opportunities for health organizations and providers to cultivate resilience and foster advancement in rural South Carolina. These opportunities include expanding medical-legal partnerships to serve rural communities across the state, investing in telehealth capacity across rural health systems, building trust in health care providers, improving health care capacity in medically underserved areas and investing in mental health services in rural communities.

These opportunities are being promoted in this report due to thematic consistency throughout the thirty key stakeholder interviews and their applicability to health care providers and systems. Organizations affiliated with health systems and local coalitions are well situated to leverage existing strengths to address these opportunities. Strengths found in rural communities include heightened community investment, an increased emphasis on social capital, existing philanthropic endeavors targeting rural areas and the presence of established community centers such as churches and libraries that can be leveraged to meet these goals.

Elaborating on these strengths, one participant stated, “I generally feel that in rural areas, especially in South Carolina, there's a lot of cohesion in terms of really wanting to do things to improve your local area. I think that's a strength of rural that we often don't think to leverage in these kinds of situations.” Interview participants explained that faith communities and existing federally qualified health centers (FQHCs), libraries, food hubs and community centers are vital resources for many rural South Carolinians. Facilitating strategic partnerships with and working collaboratively to increase capacity among these different entities is a necessary component of advancement.

Investing in strategic partnerships with existing entities is a recurring theme throughout the following pages and is a necessary first step to avoid duplication of efforts and to create meaningful partnerships. One respondent suggested creating and regularly updating a state-specific atlas of organizations and the services they provide.

Medical-Legal Partnerships

A health harming legal need is a social condition that adversely affect a person's health which may be remedied through joint legal and medical care.³⁴ According to one interview participant, health harming legal needs may include, “not having access to food, the threat of eviction, not having access to appropriate housing and being denied benefits.” Following their explanation, the interview participant elaborated on the necessity of these partnerships by saying, “I think expanding the medical-legal partnership statewide is necessary to address health harming legal needs. I would love to see this opportunity everywhere.”

Several other stakeholders interviewed cited existing medical-legal partnerships, such as the South Carolina Medical-Legal Partnership (MLP) and the Carolina Health Advocacy Medicolegal Partnership (CHAMPS), as essential elements in efforts to support individual resiliency throughout the state. One regularly discussed example of the effectiveness of medical-legal partnerships was a story of a child with complex health needs who was often hospitalized due to difficulty breathing. After being referred to the legal partners situated within the hospital, they determined the housing unit he was living in was filled with mold and legal aid was leveraged to assist the family in navigating the process of changing units without suffering any financial consequences.

This recount is just one example of how medical-legal partnerships can be utilized to address some of the contextual factors that influence resilience in rural areas of the state. The literature suggests that medical-legal partnerships may offer providers the opportunity to collaborate with legal aid to address a variety of health harming legal needs in rural communities.³⁵ Data illustrates the need for these partnerships. In a single year, low-income households across the country experience between one and three legal needs including access to health care, challenges receiving disability benefits and challenges maintaining safe and habitable

housing.³⁶ The American Hospital Association (AHA) published a report describing how during and beyond the COVID-19 pandemic, medical-legal partnerships have helped patients improve overall health outcomes.³⁷

Expanding existing medical-legal partnerships in the state may increase resiliency among low-income rural patients. Expansion would require increasing the availability of the technical and human resources necessary to administer these programs such as electronic health records (EHR) to connect legal providers to patients receiving services via telehealth. Clinical, allied health and legal service providers can encourage health care systems to establish robust methods of information sharing that utilize electronic health records (EHRs) and coordinated care models to allow these partnerships to reach their full potential.³⁸

Embedding these partnerships in hospitals throughout rural South Carolina is a salient opportunity to address vulnerability and create a more resilient network of rural communities. Since South Carolina already boasts two established medical-legal partnerships, the recommendations which emerged throughout the interviews surrounding this opportunity strongly emphasized building on these existing partnerships. The following lists survey several short-term and long-term objectives related to expanding medical-legal partnerships across the state, with the end goal being to embed medical-legal partnerships in all rural hospitals and/or other relevant organizations across the state and to expand capacity in existing medical-legal services that disproportionately affect rural communities such as housing, unemployment compensation, educational attainment and benefit advocacy.

Short-Term Objectives

- Create a work group consisting of key players in existing medical-legal partnerships across the state to facilitate relationship building, knowledge sharing and determine opportunities to expand existing partnerships.
- Using available data sources, identify service area gaps in existing medical-legal partnerships across the state with a focus on rural South Carolina and areas that experience high levels of housing insecurity.
- Determine if there is a need to establish a separate medical-legal partnership to reach service area gaps.
- Identify funding sources to expand current medical-legal partnerships or, if necessary, begin the process to develop a separate partnership targeting rural South Carolinians.
- Identify additional legal partners who practice in rural communities who can provide continuity, pertinent expertise and have exhibited capacity to engage the community.

Long-Term Objectives

- Secure sustainable funding sources to expand existing partnerships to serve rural communities.
- If initiating a new medical-legal partnership, develop a Memorandum of Understanding and Advisory Council to define the mission and acknowledge the parameters of the partnership(s).
- If initiating a new medical-legal partnership, develop an evaluation process to measure outcomes and the effectiveness of the screening process to connect patients with legal aid.
- Identify opportunities for training for facilitators, physicians, allied health providers and legal aides that elevate the needs of rural South Carolinians.
- Establish a robust system of communication between providers, patients and legal services through coordinated electronic health records.

End Goals

- Embed medical-legal partnerships in all rural hospitals and/or other relevant organizations across the state.
- Expand capacity in existing medical-legal services that disproportionately affect rural communities such as housing, unemployment compensation, educational attainment and benefit advocacy.

Telemedicine

Telemedicine expands health services to patients who live in isolated areas or who are otherwise unable to access services in person. It is well established in the literature that rural populations encounter greater challenges accessing health care which results in poorer health outcomes among this population.^{39, 40, 41} In addition to challenges associated with geographic isolation, such as increased travel time to a hospital for many rural residents, emergency services in rural areas are often reported to have longer wait times and are less likely to offer specialty care.^{42, 43}

Telemedicine is well situated to help address some of the challenges in accessing care in rural regions, and the onset of the coronavirus pandemic ushered in an opportunity to integrate telehealth more frequently in clinical practice. The American Hospital Association (AHA) issued a statement in March 2021 explaining that the increase in telemedicine during the pandemic has helped to address longstanding gaps in access to care in rural communities.⁴⁴ Recent research demonstrates that telemedicine has helped facilitate increased access to medical specialists during the pandemic. Additionally, services offered remotely provide a forum for distance consults to minimize the risk of viral spread and, in some situations, has improved continuity of care among patients with a history of cancelled or missed appointments.⁴⁵

The benefits of telemedicine in rural communities have been well documented.^{46, 47, 48, 49} As a result, many agencies, including the South Carolina Department of Health and Environmental Control (DHEC), have taken this opportunity to expand telehealth programs focused on diabetes management to rural communities. Practicing physicians included in the interviews discussed the possibilities associated with asynchronous virtual chronic disease management contingent on funding for necessary supplies and training.⁵⁰ One participant explained, “there was the funding that came down the line for remote patient monitoring from the FCC, but not every clinic received funding. We didn’t, so we couldn’t offer those services and I think it would have helped us monitor patients during COVID a lot better.”

Funding is necessary to develop sustainable and efficient telemedicine programs across rural South

Carolina. However, effective development is also contingent on extended broadband services, extending licensure and reimbursement flexibilities post-COVID, investing in necessary technologies for rural hospitals and embedding digital literacy navigators across rural communities.^{51, 52, 53}

Tele-specialty programs, such as tele-NICU programs, require more financial investment and buy-in from providers and funders to ensure effective integration.⁵⁴ The following bullets outline suggestions for providers and health systems interested in assisting with the expansion of telemedicine throughout the state. At the time of the interviews many of these objectives were in their infancy, but at report dissemination several are already underway - further illustrating the positive effects of strategic partnerships and the swift progression that can occur given stakeholder buy-in.

Short-Term Objectives

- Facilitate strategic partnerships with or among organizations such as the South Carolina Digital Equity Collaborative, the South Carolina Department on Aging, Palmetto Care Connections and the South Carolina Telehealth Alliance to facilitate relationship building, knowledge sharing and determine opportunities to expand existing partnerships.
- Build on efforts to develop sustainable funding sources to embed remote monitoring tools and technology in rural hospitals, rural health clinics and FQHCs.
- Communicate with health system administrators to encourage the expansion of remote monitoring services and tele-specialty services in rural South Carolina.
- Expand training opportunities for resident physicians in telemedicine and tele-specialty services during their rotations through simulation and other experiential medical education opportunities.
- Build on programs currently working on embedding comprehensive IT services in rural health systems currently providing telehealth.

Long-Term Objectives

- Work with state organizations, such as the Office of Regulatory Staff, and nonprofits, such as Palmetto Care Connections and the South Carolina Telehealth Alliance to embed broadband across the state to ensure equitable distribution of telemedicine in rural communities.
- Permanently expand licensure flexibilities introduced during COVID-19 which allow providers to connect and treat patients virtually from across the state and potentially the country.

- Ensure that all rural hospitals, rural health clinics and rural FQHC's have the necessary technologies to effectively conduct telehealth services including remote monitoring tools, comprehensive IT services and necessary broadband infrastructure.
- Conduct process and outcome evaluations to identify strengths and opportunities to refine telemedicine in rural South Carolina with a specific focus on ascertaining rural areas where telemedicine gaps are most pressing.
- Establish a robust system of communication between providers and patients utilizing telemedicine through coordinated electronic health records.

End Goals

- Expand comprehensive telemedical services to all areas of the state.
- Embed ongoing evaluations to ensure continuous process improvement.

Building Trust in Health Systems

According to the Nonpartisan and Objective Research Organization (NORC) at the University of Chicago, 32% of survey respondents across the United States reported decreased levels of trust in the health system during the pandemic.⁵⁵ Medical mistrust is a by-product of systemic racism, poor health communication, medical misinformation and contemporary experiences of discrimination in health care.^{56, 57, 58} Developing trust in health care providers and systems of care is necessary to facilitate healthier communities during, and as we emerge, from this pandemic.⁵⁹

In a report published by the International Federation of Red Cross, the authors explain that public trust in medical institutions is a necessary component of an effective emergency response; however, levels of trust in public institutions have been wavering in recent years due to political polarization, a history of medical racism and readily available sources of misinformation.^{60, 61} Their report provides numerous examples of how to build trust and address racism in health care, providing a valuable framework for providers interested in building trust with community members but unsure of where to start.

Research suggests that rural populations are more likely to report poor patient-provider relationships due to mistrust compared to urban populations.⁶²

Addressing declining levels of trust in medical systems requires a multiplicity of interventions including developing a health care workforce that is representative of the population, creating strategies to counter misinformation and facilitating meaningful partnerships between providers, trusted community organizations and leaders. One interview participant explained that their success reaching rural populations was facilitated by collaboration with a local federally qualified health center. They stated that, “I think the fact that FQHC’s were, in most cases, known and trusted in the community, they were able to reach folks who may have been hesitant about getting tested or hesitant about getting vaccinated later on.”

In addition to facilitating strategic partnerships among rural health systems and community organizations such as FQHCs, churches and libraries, more must be done in the rural South to address the history of medical racism, counter medical misinformation, create a representative workforce and develop robust systems of health communication that reach rural communities. Recently, the American Medical Association introduced guidelines for internal policies to address systemic racism in a health care setting, which includes acknowledging racism’s role in perpetuating health inequities.⁶³ Similarly, building a representative workforce is a long-term objective that has been identified as a critical component of caring for a diverse patient population.⁶⁴

Creating forums to address medical misinformation is also a vital component in building trust in an increasingly connected world. Examples of potential strategies include identifying trusted community leaders to act as health communicators, elevating peer-reviewed evidence on social media and engaging professional communication firms to lead efforts to dispel misinformation and build relationships with communities.⁶⁵ Of all the opportunities introduced in this report, this one is perhaps the most abstract and difficult to operationalize. Regardless, the following page bullets several suggestions to begin the long journey to rebuild trust in medical institutions.

Short-Term Objectives

- Continue to facilitate strategic partnerships with trusted community organizations such as churches, libraries and FQHCs to develop strategies to build trust in health systems.
- Work collaboratively with community organizations to hold space for open forums to discuss ways to effectively address the history of medical racism in the rural South. Examples of effective community forums dedicated to addressing and fostering healing surrounding historical and institutionalized racism include Rapid City Community Conversations (Rapid City, South Dakota) and Community Action Partnership Sonoma County's Community Conversations on Race (Sonoma County, California).
- Encourage health systems and providers to acknowledge diversity by formally celebrating Hispanic Heritage month and Black History month.
- Encourage the adoption of the AMA Guidelines on Confronting Systemic Racism in Medicine in rural health systems.
- Advocate for health communication training for trusted community leaders and health providers throughout rural South Carolina.
- Work with health systems to establish training requirements focused on confronting systemic racism and recognizing explicit and implicit bias and microaggressions for all members of the health care system.
- Establish and enforce accountability mechanisms to address institutional racism in health systems.

Long-Term Objectives

- Expand demographic questionnaires across the state to reflect and acknowledge diversity by allowing patients to populate demographic information forms with their preferred ethnicity and removing the option to choose "other."
- Develop incentive programs to recruit and retain Black, Hispanic, Indigenous and other minority physicians in rural areas to increase representation.
- Work with existing entities such as South Carolina AHEC to continue to develop educational pipelines with the intent to diversify the health care workforce across rural South Carolina.
- Work with community health workers to embed health communicators in rural health systems across the state that are trained to be aware of the challenges that affect rural communities, answer difficult questions and be transparent in their messaging.
- Encourage health systems and community-based organizations to partner with communities to develop emergency preparedness plans that empower them to execute and work in tandem with health systems during a crisis.

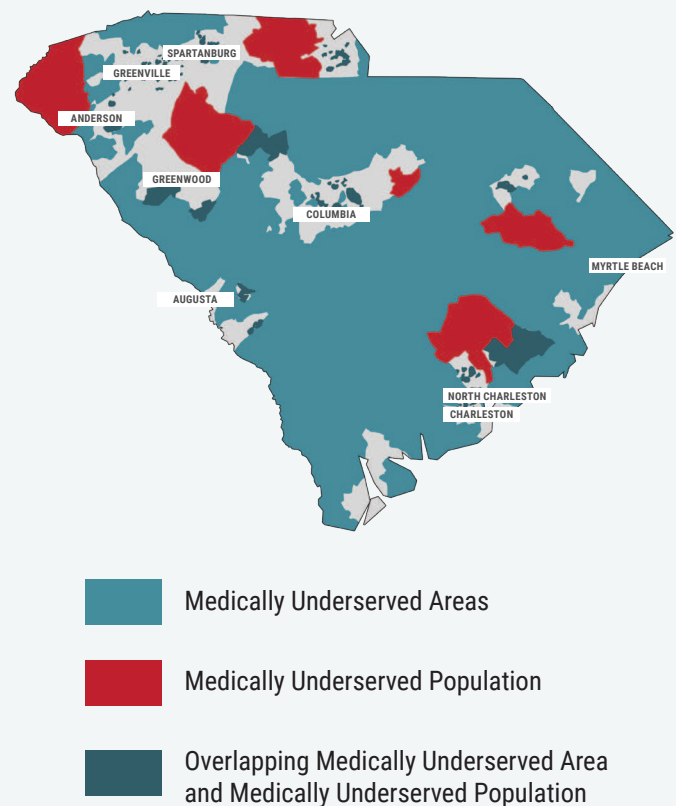
End Goals

- Increase trust in the health care system across rural South Carolina.
- Embed anti-racism in health service organizations across the state.

Increasing Access to Health Care Providers

Medically underserved areas are defined as geographic areas with a lack of access to primary care services.⁶⁶ Most of South Carolina's forty-six counties are fully or partially medically underserved, and twenty-nine entire counties across the state are designated as medically underserved areas, demonstrated in the map below.^{67, 68} The unequal distribution of health care providers creates barriers to necessary preventive health services, leading to increased utilization of emergency departments for preventable conditions.^{69, 70}

Figure 2. Medically Underserved Areas and Medically Underserved Populations, South Carolina, 2021



Source: Health Resources and Service Administration, 2021

Similar but distinct in its focus on the provider, a primary care Health Professional Shortage Area (HPSA) is a second indicator that highlights the unequal distribution of health services across the state. In September 2021, eleven counties were designated a geographic primary care HPSAs in South Carolina, all in rural or semi-rural communities. Currently, this list includes Allendale County, Bamberg County, Barnwell County, Chesterfield County, Colleton County, Fairfield County, Hampton County, Lee County, Marlboro County, Union County and Williamsburg County.⁷¹

Increasing access to health care across rural South Carolina has the potential to improve health outcomes and increase overall resiliency across the state. For example, researchers found that the unequal distribution of hospitals equipped to deal with cardiovascular crises introduced a bias against stroke recovery in rural populations.⁷² Regarding emergency preparedness, the American Hospital Association reports that many rural communities do not possess the medical staff necessary to respond to a disaster.⁷³ Increasing medical surge capacity in rural areas was highlighted in the American Hospital Associations' 2019 Rural Report, in which the authors discussed the consequences of medical surges beyond existing capacity, which has been demonstrated several times throughout the current pandemic.

Attracting physicians to the state has also been shown to have a significant, positive financial impact in rural South Carolina. The Robert Graham Center reports that, "family physicians are significant generators of economic activity in local communities."⁷⁴ However, even without this measure, increasing access to primary care providers is a critical need in many rural areas of our state. This fact introduces several challenges surrounding how to incentivize physicians to settle in isolated communities. One interview participant explained that isolated and rural communities have faced challenges recruiting and retaining physicians.

Creating incentives for providers to practice in rural communities is a generally well accepted strategy. However, little research has been done to determine if these incentives encourage providers to practice in rural areas long term. One study conducted

in 2012 found that the national retention rate for providers practicing in underserved areas due to an incentive was only 55%.⁷⁵ One interview participant described this phenomenon with the statement, "you'll have providers who, for an incentive, will drive from Charleston to Kingstree, Williamsburg County to provide care. But that's an hour and a half, so they're not going to do that once their obligation is fulfilled and they've gotten whatever incentive it was to get them to go there. They're not going to do that long term."

Other strategies to increase the health care workforce and improve access to care in rural communities include embedding nurse practitioners in isolated primary care clinics, increasing reimbursement rates in rural hospitals, continuing to create pathway programs to engage students interested in pursuing medicine with a focus on underserved areas, expanding graduate medical education programs that serve these communities, supporting "co-location" for specialists to practice in rural hospitals that are not their primary employer and introducing increased flexibilities surrounding state policies regarding scope of practices for the non-physician workforce.^{76, 77} This issue is multifaceted and requires a variety of strategies and effective partnerships. Health systems will need to continue to partner with existing champions working to further develop the health care workforce such as South Carolina AHEC.

Since 1972, South Carolina AHEC has strived to improve the training, diversity and distribution of health professionals to build and support the health care workforce South Carolina needs to connect all communities to better health. SC AHEC programming supports individuals throughout the continuum of a health care career, from high school students all the way to practice.⁷⁸

SC AHEC supports health professions students by providing community-based training experiences to not only expose students to the realities of clinical practice in rural and underserved areas, but to also introduce them to communities as a focus for health improvements. One program, AHEC Scholars, prepares students for interprofessional primary care practice and service to rural and underserved populations. Overall, 125 students have enrolled in the program from 8 different disciplines and 6 educational institutions in the state. The third cohort

of AHEC Scholars included 14 medical students and 9 nurse practitioners, among other disciplines.⁷⁹

SC AHEC works closely with the South Carolina Office of Rural Health and the South Carolina Office of Primary Care at DHEC to promote the recruitment and retention of providers to rural areas. To address the maldistribution of health care providers in South Carolina, SC AHEC administers the Rural Incentive Grant Program, which provides financial incentives to

qualified health care providers who contract to practice in rural and underserved areas for up to 4 years. Unlike a loan repayment program, financial incentives can be used at the provider's discretion for purposes like paying down student loans, putting a down payment on a house or investing in their practice. In 2021, 27 new providers were funded, including 11 physicians, 13 nurse practitioners, 2 physician assistants and 1 certified nurse midwife.⁸⁰

Short-Term Objectives

- Assess the effectiveness of incentive programs to recruit providers to practice in rural areas with a focus on continuity and opportunities to ensure that these providers remain in rural South Carolina.
- Distribute and embed nurse practitioners and physician assistants in rural clinics to meet the health care needs of rural communities across the state.
- Partner with SC AHEC to support programmatic efforts to train and recruit providers to practice in rural areas.
- Expand “co-location” opportunities for providers to work in rural communities on a per diem basis.
- Strengthen efforts to increase reimbursement rates with an emphasis on ensuring an adequate margin to protect rural hospital viability.

Long-Term Objectives

- Work with legislators and other key stakeholders to address the infrastructural issues (i.e. housing, broadband and education) that interfere with recruiting providers to settle in rural communities.

- As mentioned in earlier sections, the state would benefit from extending licensure and reimbursement flexibilities introduced during COVID-19 that expand access to care in rural and underserved communities. Providers can work with their health system and colleagues to advocate for permanent flexibilities that will expand access to health services.
- Expand existing graduate medical programs that serve rural and medically underserved communities.
- Implement policies that will extend the capacity of congregate settings such as schools, worksites and prisons to effectively integrate telehealth to serve their respective populations.

End Goals

- Expand access to health care services across the state.
- Increase the availability of preventive care services in rural South Carolina to improve health outcomes and divert patients from emergency departments.

Building Resilient Communities through Investing in Mental Health

Data indicates that Americans living in rural areas suffer from higher rates of depression and suicide compared to people who live in more urban communities.⁸¹ Higher rates of poverty, isolation, stigma and mental health professional shortages in rural areas contribute to this figure.⁸² Some researchers suggest that factors including hazardous vocational demands in agricultural sectors, governmental policies, housing insecurity and availability of means also contribute to the disparity.⁸³

On the topic of stigma specific to rural Black communities, one interview participant discussed

that cultural factors lead to resistance to speaking with a counselor or physician about their mental health. They explained that, “especially in the Black communities, you know, we don’t talk to anybody. We can’t talk to our pastor. We’re not going to talk to anybody. I have tried to be an advocate in my family and in my community back home. I’ve tried to say it’s OK to talk to somebody.”

Behavioral health impacts all facets of a person’s life; it impacts various social determinants of health including housing, employment, education and community cohesion. Several community-based organizations provide substance use disorder counseling to facilitate better transitions to housing for community members who struggle with

substance use disorders. However, barriers to accessing these, and other mental health services, persist.

In addition to stigma, the shortage of mental health professionals and psychiatric beds across rural South Carolina negatively impact access to behavioral health services. One participant stated, “it’s safe to say we don’t have enough psychiatrists per capita and they are not well distributed. There’s no question about that. By that federal standard, just about everywhere in the state is a mental health HPSA right now.” Expanding flexibilities allowing behavioral health providers in states outside of South Carolina to continue to provide services via telehealth is one potential option to address the shortage.

A lack of access to behavioral health services negatively impacts the entire health care system. Research indicates that nearly 60% of mental health care visits across the country are conducted via a primary care physician, rather than a mental health specialist.⁸⁵ In addition to the added strain placed on primary care providers, a lack of mental health professionals in rural communities can lead to an increase in emergency department utilization.⁸⁶ The total costs associated with mental health and substance use emergency department (ED) visits in rural communities eclipse those in more urban areas, placing increased financial burden on the patient and the rural health system.⁸⁷

In addition to extended flexibilities allowing out-of-state behavioral health providers to permanently offer services remotely, other strategies to address this issue include improving reimbursement for behavioral health services to ensure competitive wages, addressing the turnover rate among mental health service providers, improving access to mental health providers in schools, reducing barriers to entry for students interested in entering the behavioral health workforce and developing a diverse and culturally competent workforce.⁸⁸ These and other strategies are outlined in the following objectives and goals.

Short-Term Objectives

- Health care providers would benefit from continuing to facilitate strategic partnerships with and among trusted community organizations such as churches, libraries, schools and community centers with the intent to embed mental health professionals in these spaces.
- Advocate for increased funding to increase salaries and compensation for behavioral health professionals and regularly review the average mental health salaries across the country to maintain a competitive market for the recruitment and retention of mental health professionals.

Long-Term Objectives

- Advocate for the allotment of funds to increase the number of psychiatric beds across the state to meet the projected need.
- Work with SC AHEC and other state organizations to expand school-to-work pipelines targeting historically underrepresented populations to join the behavioral health workforce.
- Incentivize health systems to implement effective virtual behavioral health services across the state.
- Partner with state agencies and subject matter experts to increase capacity among existing programs working to alleviate the burden of substance abuse across the state.
- Support providers to continue to create integrated behavioral and physical health care systems.

End Goals

- Divert behavioral health crises away from Emergency Departments.
- Increase access to behavioral health providers across rural South Carolina.

Action Steps

The suggested objectives introduced in this report are a survey of potential interventions to build resiliency across the state. As mentioned in early sections, there are several infrastructural issues to address to fully elevate resiliency and advance rural communities. However, the opportunities highlighted in this report that relate directly to providers and health care systems can complement those necessary infrastructural improvements.

A common denominator across all the opportunities involves forming strategic partnerships with agencies and community organizations across the state to develop trust, avoid duplication and ensure that all voices are elevated in the process. Developing a state-specific atlas of the organizations that are addressing these issues may encourage collaboration and mitigate the chances of duplication of efforts.

Regarding duplication, one interview participant suggested reconceptualizing overlapping strategies as “aligned interests” and stated that, “there is still a lot of duplication and a lot of overlap that is happening, but that creates a lot of opportunities for alignment between agencies.” Aligning interests with key stakeholders, agencies and other community organizations reflects a breadth of opportunities to expand health care capacities across the state.

Also mentioned throughout the opportunity objectives is the suggestion to conduct a variety of studies focused on better understanding the specific needs of rural communities. These suggestions were often made based on the recommendations of interview participants to ensure that interventions are targeted to the audience – in this case, rural South Carolinians. Although time intensive, these analyses ensure interventions are appropriate for these populations, will be well received and are feasible.

Existing research on the needs of rural South Carolinians such as the 2017 Rural Health Action Plan, the 2018 State Health Assessment and more localized community health assessments such as the 2019 Tri-County Health Landscape report could be used in conjunction with this report.

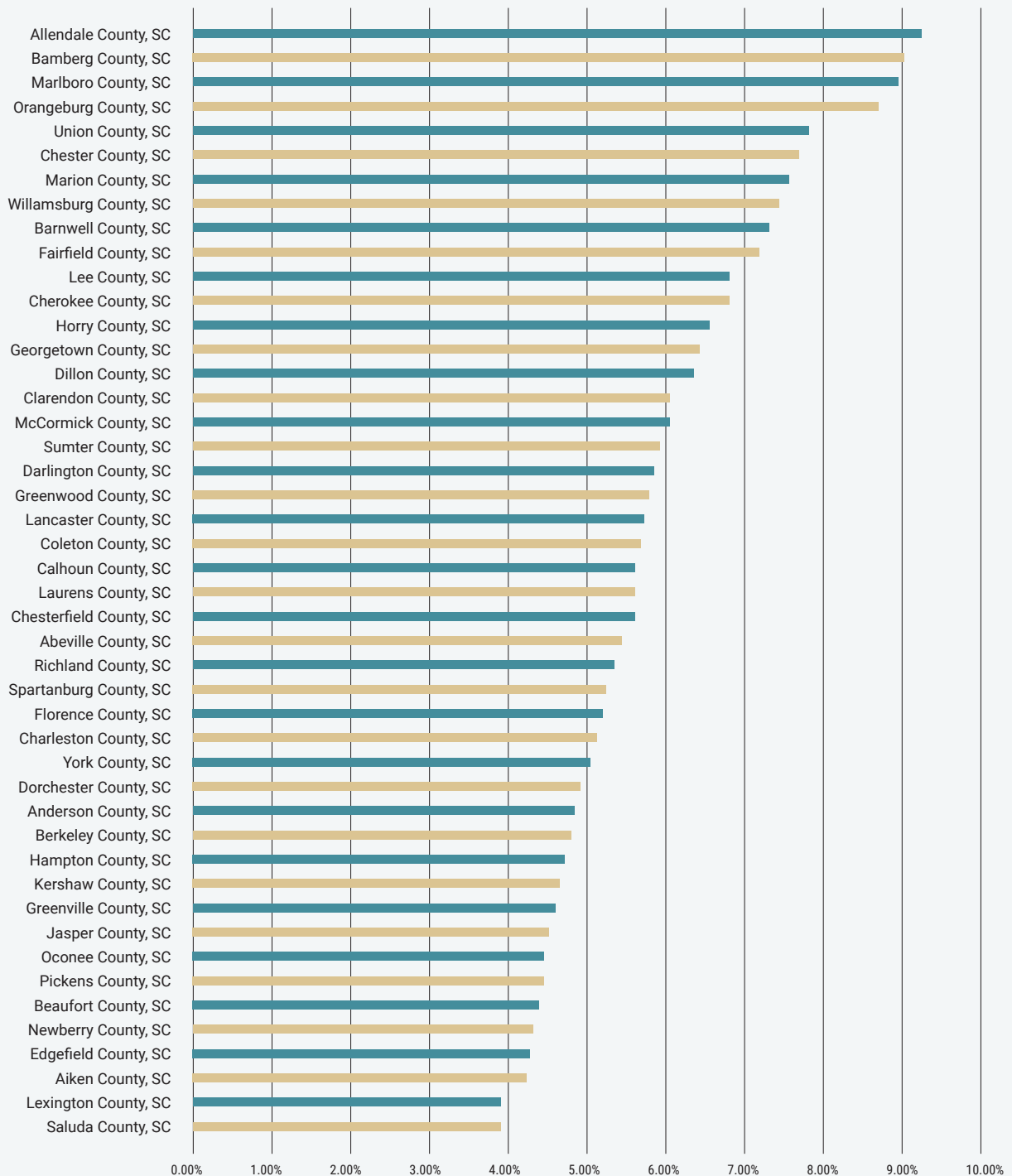
The final recurring objective involves creating a pipeline for students interested in practicing medicine in rural communities. Currently, the South Carolina Area Health Education Consortium (AHEC) facilitates the Healthcare Careers Program to connect students to health professions.⁸⁹ Pathway programs for students interested in medicine, particularly those from medically underserved and rural communities, establish a workforce that is invested in improving health outcomes across rural areas of the state. Expanding the current health care workforce also creates jobs in these communities and may increase the economic viability of small towns across the state.⁹⁰

The ultimate goals surveyed in this report will not be accomplished overnight. However, the pandemic has illustrated that the onus is on medical providers, state agencies, community organizations, nonprofits and other leaders in health to begin the journey to meet these goals. Building resiliency across rural South Carolina is a significant endeavor but is necessary to ensure that we can appropriately respond to the next health emergency and support a healthier state.

Appendix A.

14-Month Average Unemployment Rate by County July 2020 – June 2021⁹¹

Source: United State Bureau of Labor Statistics, 2021



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Aiken County, SC. Photo by Chrissy Hutchinson, South Carolina Office of Rural Health.



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