



# Virginia Rural Health Plan 2022-2026



**Virginia State Office of Rural Health**  
Virginia Department of Health





# Introduction



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# Executive Summary

The Virginia State Office of Rural Health (VA-SORH) was established in 1991 to create, fund, and support quality and sustainable rural healthcare infrastructure throughout the Commonwealth of Virginia. The VA-SORH is housed within the Virginia Department of Health, Office of Health Equity, and is the sole organization in Virginia that is federally designated to address and rectify health disparities affecting the state's rural residents. The mission of the office is to partner with rural communities to identify opportunities and long-term solutions that ensure the health and prosperity of all Virginians. The VA-SORH fulfills this mission through providing technical assistance, regulatory updates, resources, and opportunities for collaboration with communities.

Updating the Virginia Rural Health Plan has been a journey as windy as the roads of Virginia's Heritage Music trail. The process began in the spring of 2019 with a series of community conversations intended to gather first-person content for the new plan. The working group in partnership with the Virginia Rural Health Association (VRHA) selected eleven rural communities to visit and host community conversations, based on Robert Wood Johnson Foundation Community Health Rankings, Appalachian Regional Commission's Economic Distress Index, and Virginia's Health Opportunity Index.

Understanding that rurality is extremely difficult to define, once you've visited one rural community, you have visited one rural community. The working group sought comments from communities that sit in the shadow of urban cores as well as regions which have been chronically under-resourced and have been more traditionally labeled as rural. Rural Virginia's geography extends from the wild horse drawn beaches of the Eastern Shore, to the northwestern mountains of the Shenandoah Valley, to the Appalachian highlands of the southwest, and into the former tobacco regions of Central and Southside Virginia. The plan intends to reflect the uniqueness of each of these very different regions.

Throughout our travels in Virginia's rural communities, the working group made it a point to meet with community leaders and chat with community-based organizations such as the Bland Ministry which operates two free dental clinics, a food bank, community closet, and Head Start child care center. Local community champions facilitated the community conversations over supper. Attendees were asked to provide responses to three questions: What are the good things about your community?; Name one or two things that would improve the health of your community.; and What is wellness and what does it look like here? Participants included local business owners, health care workers, school officials, city and county elected officials, social service providers, and transportation workers, among others. The result is a working action plan reflecting community voices.

Leading up to the March 2020 declaration of the novel coronavirus 2019 (COVID-19) pandemic, the working group had visited 9 counties and hosted five community suppers. Due to travel restrictions and the need to comply with social distancing recommendations, the working group had to shift it's approach for the remaining community conversations. Key stakeholders and identified leaders provided insight via virtual and telephonic conferencing platforms.

The goal of the 2022-2026 Virginia Rural Health Plan is to showcase the resiliency and highlight the assets of the Commonwealth's rural communities. The COVID-19 pandemic brought to light everything known to be true about rural Virginia: the people are spirited, resourceful and can count on one another to create effective local solutions to unique challenges..

In good health,

Virginia Rural Health Plan Working Group

## Virginia State Office of Rural Health Priority Metrics

The Virginia State Office of Rural Health has chosen seven priority areas and respective metrics to study and monitor longitudinally. Trends of these metrics will be visualized in a public-facing, interactive dashboard which will be accessible to our partners, stakeholders, policy-makers and the public on the VA-SORH website. These metrics aim to provide a comprehensive evaluation of the overall health and well-being of Virginia's rural communities.

### 1. Education

- Child Readiness via Third Grade Standards of Learning Reading Assessment

### 2. Broadband

- Percentage of Households with Broadband

### 3. Nutrition and Food Security

- Rates of Food Security
- Rates of Food Insecurity among Households with Children

### 4. Healthy Moms and Babies

- Adequacy of Prenatal Care Utilization via Kotelchuck Index

### 5. Access to Health Care Services

- Rates of Avoidable Hospitalizations per 100,000 Residents



Nicole Warner

### 6. Behavioral Health, Substance Use Disorder and Recovery

- Rates of Emergency Department Visits for Overdose (All Drugs)

### 7. Employment/Workforce Development

- Earnings/Income per Job
- Employment Rates per Census Tract

The State Office of Rural Health team is committed to continuing its work showcasing Virginia's rural communities, providing technical assistance and resources. A portion of this work will be to measure the impact of this plan and to benefit from continuous community feedback.

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## Rural Resource Toolkit



The Rural Virginia Initiative (RVI) was the result of legislation passed in the 2018 General Assembly Session that tasked the University of Virginia with leading a conversation on the challenges faced by residents of rural Virginia and to prepare a white paper to recommended solutions. Following initial recommendations, the University of Virginia, Virginia Tech, UVA-Wise, and Virginia State University convened a broad group of stakeholders from academia, government and the private sector to continue the dialogue. The Healthcare and Community Well-being Working Group sought to address health disparities in rural Virginia. The group collaborated with the Virginia State Office of Rural Health to develop a toolkit of community and academic resources to be included in the State Rural Health Plan. The toolkit contains resources linked to each of the topic areas presented in the plan and the toolkit is accessible online at the VA-SORH website.



Jumping Rocks Photography

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Washington County • Cameron Davidson



# Defining Rurality in Virginia



Patrick County • © Beverly Smith

# Defining Rurality in Virginia

Rurality is a multifaceted concept with a meaning that varies from persons to organizations to governments. Defining “rural” has been a challenging task. Rural Virginia is diverse in its geography, demographics, and cultural identity. The concept of rurality plays out differently for counties within the influence of a metropolitan area versus places that are far away from metropolitan areas. Rural cultures can exist in urban places. The proximity of rural areas to urban cores and services may range from a few miles to hundreds of miles. The most common reason for the difference includes accessibility to the amenities of a metro area, such as airports, shopping centers, and cultural opportunities. Given the rapidly changing demographic and economic landscape and link to state and federal funding, a precise definition of the word “rural” is important.

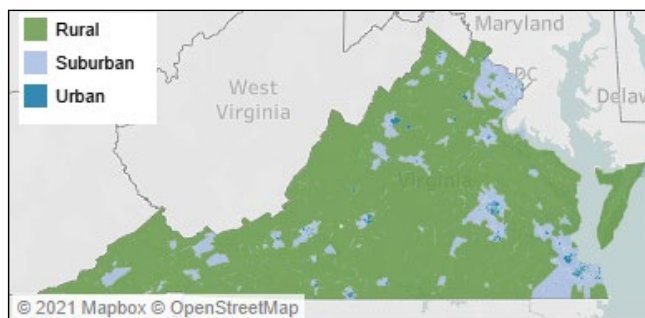
## Eighty-eight Percent of Virginia is Rural

In the 2017 American Housing Survey, the US Department of Housing and Urban Development asked respondents whether they thought they lived in urban, suburban, or rural areas. When examined through this lens, it turns out that most of Virginia is rural. People living in communities covering 88% of the state consider those communities rural. Despite occupying such a large area, however, only 26% of Virginians live in these communities. By contrast, nearly three quarters of Virginians live in neighborhoods that residents believe are urban or suburban, covering just 12% of Virginia’s land. This includes the nearly 20% of Virginians who squeeze themselves into neighborhoods they consider urban.

## A Statistical Lens on Rural

Most Virginians associate “rural” with open spaces, a slower pace, and a small town lifestyle. Statisticians, economists, and sociologists add a different view based on economic, social, and spatial connections. Through this lens, people who live in very different settings may be connected by transportation networks, labor and service markets, and institutional relationships. People who live in similar settings may have very different economic opportunities, institutional structures, and access to services.

## Urbanization Perceptions Small Area Index



The US Department of Housing and Urban Development’s Urbanization Perceptions Small Area Index (UPSAs) examines whether people consider their communities urban, suburban, or rural. By this index, 26% of Virginians consider themselves living in rural communities covering 88% of the state.



According to classifications by the US Census Bureau, one of these structures is in metropolitan Virginia, while the other is in non-metropolitan (rural) Virginia.

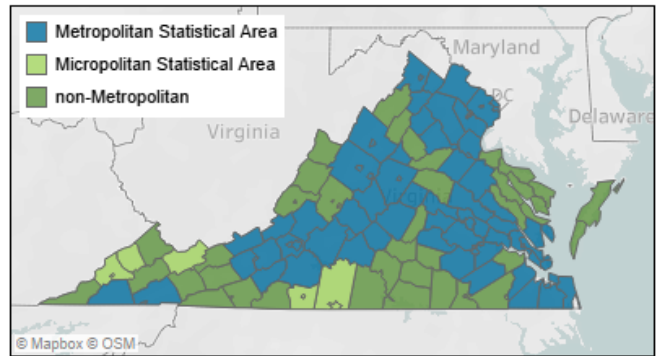


# Defining Rurality in Virginia

## Metropolitan and Micropolitan Statistical Areas

While there are various definitions of Metropolitan and Micropolitan Statistical Areas (MSAs and  $\mu$ SAs), the US Office of Management and Budget (OMB), provides the standard definition of urban areas nationwide. MSAs and  $\mu$ SAs are large areas linked by economic, transportation, and institutional networks to one or more urban cores. The principle difference between the two definitions is the size of the urban core. Under this system, rural areas are usually defined as non-metropolitan (non-metro) areas. Although there is some variation, this usually includes  $\mu$ SAs as well. Under this classification system, the majority of Virginia's land mass (54%) and the greater majority of its population (88%) lies in metropolitan areas. Economically, 92% of personal income goes to metropolitan areas, while only 8% goes to non-metro areas.

## Core-Based Statistical Areas in Virginia



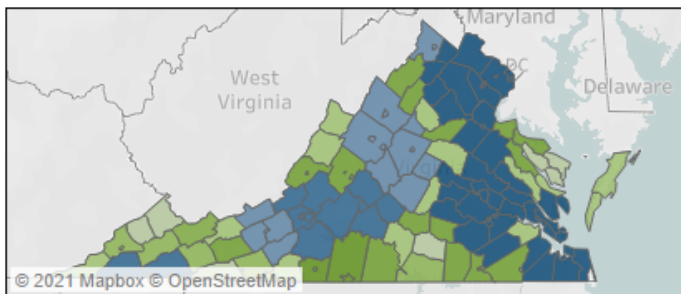
Metropolitan and Micropolitan Areas are both Core Based Statistical Areas, defined by their economic, transportation, and institutional connections to urban cores. "Rural" is often defined as Micropolitan Statistical Areas, with their smaller urban cores, and non-Metro Areas.

## Adding Detail

Several classification schemes add detail to OMB's statistical areas. The simplest, from the National Center on Health Statistics (NCHS), further classifies Metropolitan counties but leaves Micropolitan and non-Metro counties unchanged. The US Department of Agriculture (USDA) gives more attention to rural counties in two classification schemes: Rural-Urban Continuum Codes (RUCCs) and Urban Influence Codes (UICs).

**Rural-Urban Continuum Codes** classify non-Metro counties by their adjacency to an urban area, and the size of the county population in small cities or towns, ultimately creating three Metro classifications and six non-Metro.

## Rural-Urban Continuum Codes

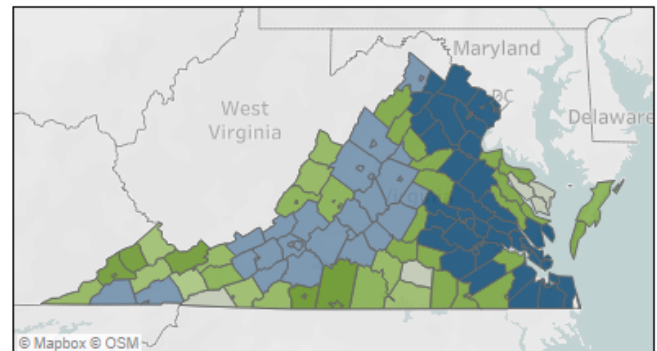


- Metro - Counties in metro areas of 1 million population or more
- Metro - Counties in metro areas of 250,000 to 1 million population
- Metro - Counties in metro areas of fewer than 250,000 population
- Nonmetro - Urban population of 20,000 or more, adjacent to a metro area
- Nonmetro - Urban population of 2,500 to 19,999, adjacent to a metro area
- Nonmetro - Urban population of 20,000 or more, not adjacent to a metro area
- Nonmetro - Urban population of 2,500 to 19,999, not adjacent to a metro area
- Nonmetro - Completely rural or less than 2,500 urban population, adjacent to a metro area
- Nonmetro - Completely rural or less than 2,500 urban population, not adjacent to a metro area

**Urban Influence Codes** further distinguish non-Metro counties, including two classifications for Micropolitan areas, based on adjacency to Metro areas, and noncore counties based on adjacency to Micro and Metro areas, and the size of the population in small towns.

## Urban Continuum Codes

- Large-in a metro area with at least 1 million residents or more
- Small-in a metro area with fewer than 1 million residents
- Micropolitan adjacent to a small metro area
- Micropolitan not adjacent to a metro area
- Noncore adjacent to a large metro area
- Noncore adjacent to a small metro with town of at least 2,500 residents
- Noncore adjacent to a small metro and does not contain a town of at least 2,500 residents
- Noncore adjacent to micro area and contains a town of 2,500-19,999 residents
- Noncore adjacent to micro area and does not contain a town of at least 2,500 residents
- Noncore not adjacent to a metro/micro area and contains a town of 2,500 or more residents
- Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents



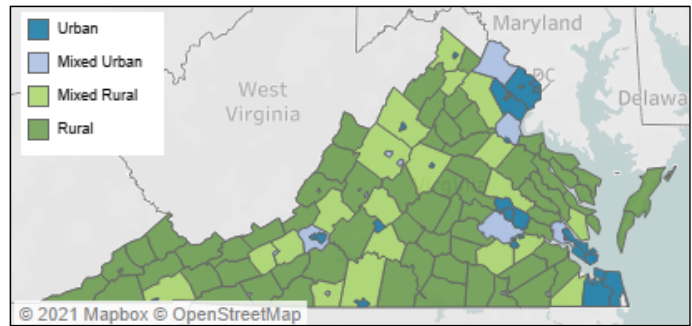
## Defining Rurality in Virginia

### 2013 SHRP Isserman Classification

#### Beyond Metropolitan Statistical Areas

While OMB definitions set the standard for rural/urban classification it does have its limits. This system, based on connections to urban areas, often overlooks the rural character of an area, even one connected to urban systems. Metro counties with rural character, often on the fringes of MSAs, may face some of the same issues rural counties face. The Isserman Classification system uses a combination of urban area population and population density, without reference to MSAs to identify counties as urban, rural, or mixed.

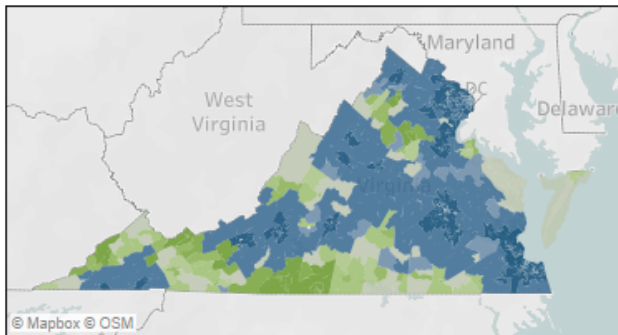
Using this definition a very different rural/urban landscape emerges in Virginia, one much closer to the neighborhood perceptions identified in the USPAI (US HUD's Urbanization Perceptions Small Area Index). Under the Isserman classification used in the 2013 State Rural Health Plan, 90% of Virginia's land area, 32% of the population, and 30% of personal income is rural.



#### Census Tract-Level Classifications

Many classification systems dive below the county-level to get to neighborhood level classifications. Most of these, like the USPAI, use census tracts, small units with populations averaging 4,000. In urban areas these can be a single building; in rural areas, an entire county. Census tracts allow a much more nuanced view of rurality.

#### Rural Urban Commuting Areas

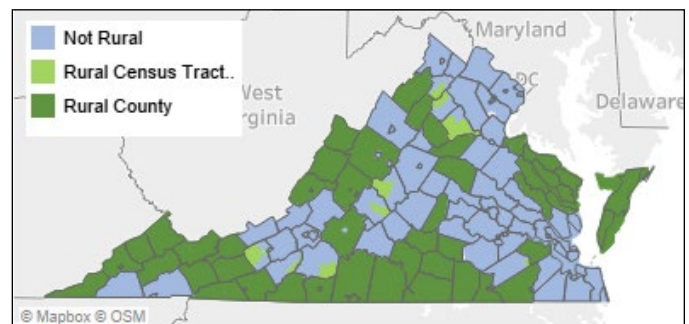


- Metropolitan area core: primary flow within an urbanized area (UA)
- Metropolitan area high commuting: primary flow 30% or more to a UA
- Metropolitan area low commuting: primary flow 10% to 30% to a UA
- Micropolitan area core: primary flow within an Urbanized Cluster of 10,000 to 49,999
- Micropolitan high commuting: primary flow 30% or more to a large UC
- Micropolitan low commuting: primary flow 10% to 30% to a large UC
- Small town core: primary flow 10% to 30% to a large UC
- Small town high commuting: primary flow 30% or more to a small UC
- Small town low commuting: primary flow 10% to 30% to a small UC
- Rural areas: primary flow to a tract outside a UA or UC

**Rural Urban Commuting Areas** classify census tracts by a combination of population density, urbanization, and daily commuting flows. The ten primary codes, shown above, are further subdivided with secondary commuting flows, allowing a dizzying array of combinations for program classifications and policy analysis. One of the most common, also shown above, designates three primary codes as metropolitan with the rest micropolitan, small town, or rural. Even with this classification, many census tracts in MSAs are defined as rural and many without as metropolitan.

The HRSA **Federal Office of Rural Health Policy** uses a combination of OMB MSAs and rural urban commuting area codes (RUCA) to identify rural areas. This scheme identifies all non-MSA counties as rural, along with non-metro RUCA codes listed to the right. A wide range of federal funding designated for rural areas is directed using this system.

#### Federal Office of Rural Health Policy Classification

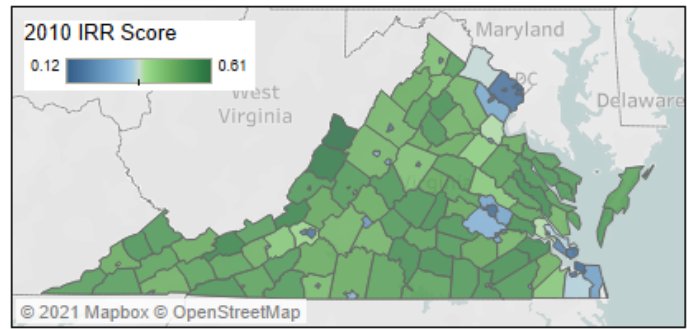


## Defining Rurality in Virginia

### Index of Relative Rurality

Another way to add nuance to measures of rurality is to discard threshold-based classification schemes entirely. The Index of Relative Rurality (IRR) uses a continuous measure to “score” counties based on measures of population size and density, remoteness, and urban land area. Each county is given a score from 0 (most urban) to 1 (most rural). Although the IRR does not include thresholds for rural or urban classification, the map to the right uses the middle of the range of Virginia scores (0.365) for coloration.

### Index of Relative Rurality

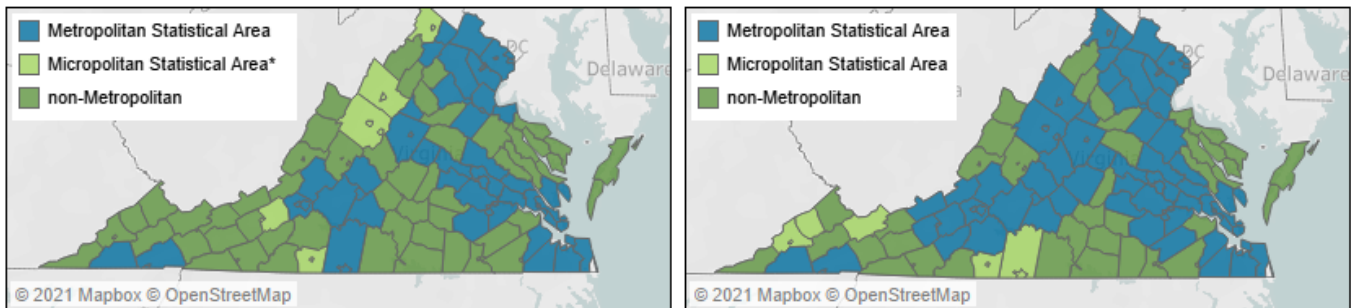


### Changes Over Time

Most rural and urban classification schemes use a combination of urban population size and connection to an urban core to determine whether an area is rural or not rural. This means that rural areas with expanding towns often drive economic growth, and eventually become classified as metropolitan. Similarly, rural counties that increase connections to metropolitan areas, and the economic opportunities that metropolitan areas provide, become classified as part of those metropolitan areas. In parallel, metropolitan counties with shrinking urban populations, or that become isolated from metropolitan areas, are eventually classified as rural. When considered this way, rural is often defined as “what’s left” when large urban and prosperous small cities and towns are removed.

A quick visual comparison of MSA classifications based on the 1990 and 2010 US Census shows this process at work. Designated as Micropolitan\* in 1990, Winchester, Harrisonburg, Staunton, and Radford cities have since been designated as metropolitan. Meanwhile, Danville has been reclassified from metropolitan to micropolitan. Existing metropolitan areas have also expanded to include a growing number of counties. Over time, a few such counties have been shed by metropolitan areas. King and Queen and Louisa counties, for instance, both connected to the Richmond MSA following the 2000 Census, are now designated as non-metro.

### Comparing 1990 and 2010 Metropolitan Statistical Areas

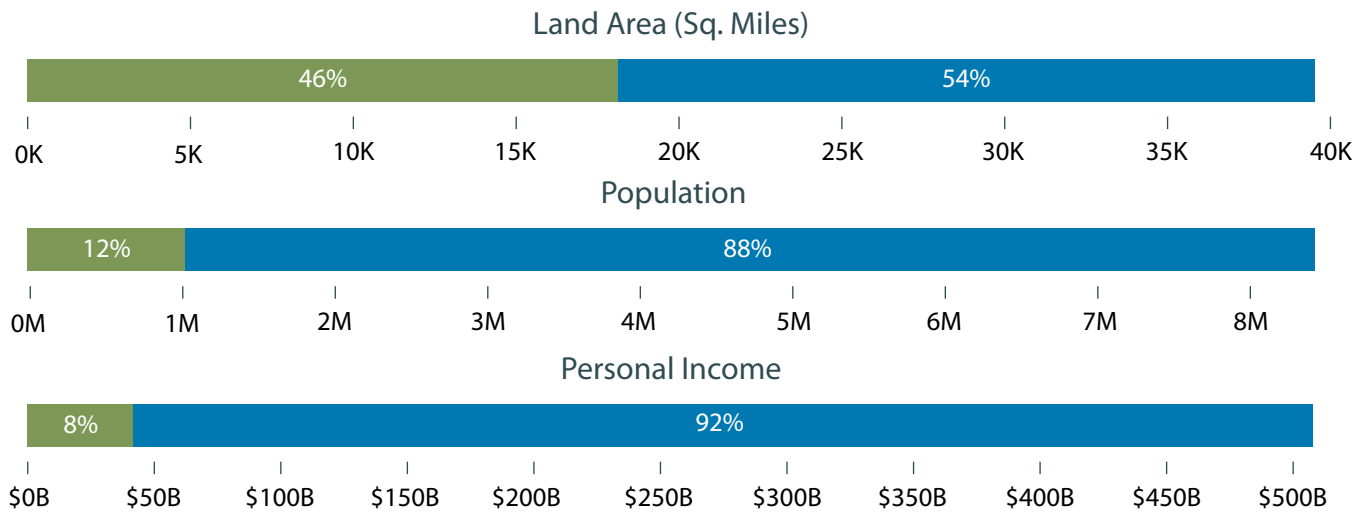
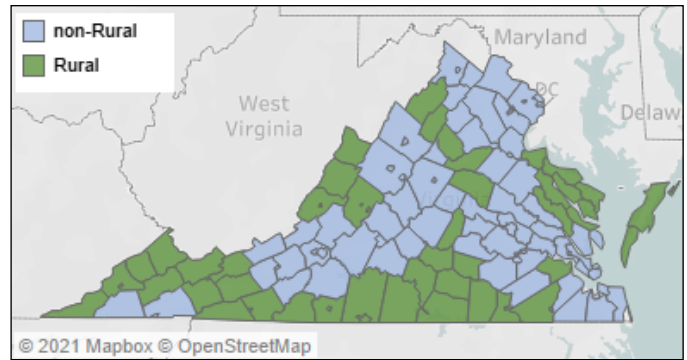


# Defining Rurality in Virginia

## Virginia State Rural Health Plan

The 2022-2026 State Rural Health Plan uses the OMB classification for metropolitan, micropolitan, and non-metropolitan counties. Micropolitan and non-metropolitan counties are classified as rural, while metropolitan counties are classified as non-rural. This system is county-based, because while some data is reported at the sub-county level, much more is available at the county level. As a commonly used system, it also allows comparisons among states and among MSAs and non-metropolitan areas.

## 2020 State Rural Health Plan Classification



This classification provides a convenient way to evaluate rural areas and encourages progress at addressing rural disparities. As this section shows, however, there are a number of ways to classify rural regions, many of which more closely match residents’ perceptions of their own neighborhoods. The Virginia State Office of Rural Health acknowledges the various definitions of rurality and wants to call attention to a definition of “rural” that is required for effective targeted policy and research aimed at improving the health of rural Virginia





# Education as the Backbone in Rural Virginia



Sarah Hauser, IG account: @virginiaflair

# Education as a Backbone in Rural Virginia

## Overview

Education, a key driver of lifelong health and well-being, extends beyond the walls of classrooms. The education system in rural Virginia serves as the foundation for establishing healthy learning that continues throughout life.

Lifelong learning begins with early holistic education including Head Start programs, and continues into pipeline career programs, retraining the workforce at community colleges, and adult continuing education. Every child deserves the opportunity to lead the healthiest life possible and communities committed to providing access to education and encouraging higher educational attainment help to ensure that they do.

An investment in the early years of life is one of the most impactful decisions communities can make. Quality early learning experiences are an essential element in preparing children to succeed in kindergarten and beyond. This return is lifelong: children who experience effective early childhood programs are more likely to finish college, get high-paying jobs, and be healthier and happier later in life. Yet access does not equal quality and quality does not happen by chance. If the quality of early childhood education experiences is not high there will be little or no return on investment.

While there is an emphasis on early-childhood education, it is important to acknowledge the anchoring role higher education plays as agents of economic redevelopment in rural communities. Rural community colleges and technical career institutions have served a critical role in local economic development by offering workforce training and encouraging degree and credential attainment. In 2014, the Virginia Foundation for Community College Education founded the Virginia Rural Horseshoe Initiative (VRHI). The initiative is named for

the 14 community college campuses that are located in Virginia's "rural horseshoe," a crescent arc of countryside that stretches from the Shenandoah Valley to the corners of Southwest Virginia, up towards the eastern shore of the commonwealth. The Virginia Rural Horseshoe Initiative is a collaboration between rural community colleges and philanthropists working to double the number of rural students who earn a post-secondary degree or certification (1). While college enrollment is critical, one of the goals of the VRHI is to increase the number of students completing a degree or credential. A community college credential can increase a student's income between 20% and 40%, and with such a pay increase, can move students off of public assistance. Opportunities such as the Virginia Rural Horseshoe Initiative establish a solid foundation from which students can grow a career, and potentially provide the economic means to support a family. (1)

## Education Metrics

(Median School District)



Rural

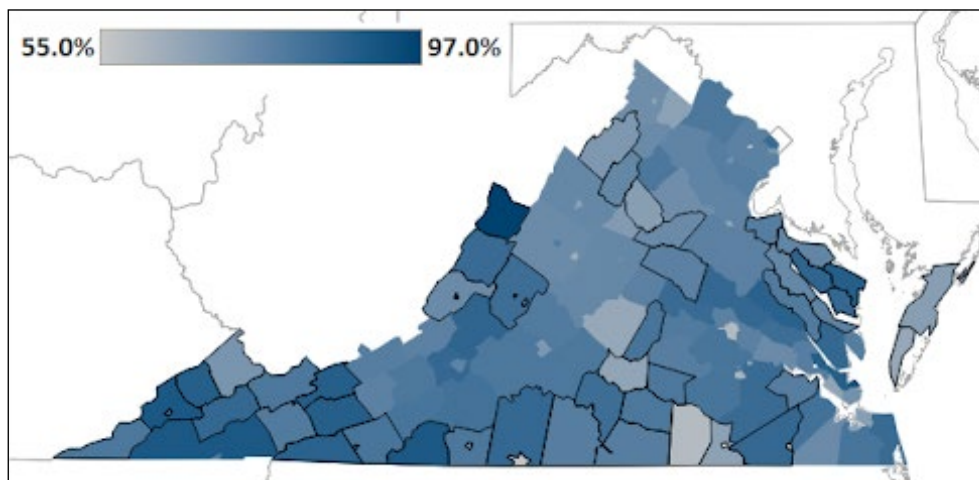


non-Rural

	Rural	non-Rural
On-time Graduation	92.0%	92.7%
Third grade Standards of Learning Reading Assessment Pass Rate	71.5%	70.0%

The Virginia Department of Education (DOE) provides families with information and resources including *A Guide to Child Development Milestones*, quality child care, and preschool programs. To ensure that children are prepared to enter kindergarten, additional programs exist to address the educational and developmental needs of children with disabilities and developmental delays.

## Third Grade SOL Reading Assessment Pass Rate



Source: Virginia Department of Education, 2019

## Education as a Backbone in Rural Virginia

### Educational Attainment of Adults Metrics



Rural



non-Rural

	Rural	non-Rural
Adults (18+) without a High School or College Degree	16.4%	9.6%
Adults (18+) with a Bachelor's Degree or Higher	17.3%	38.1%

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### School-Based Health Centers

School-based health centers (SBHCs) provide much of the needed preventive and primary care service right at school, with clinical providers students know and trust. School-based health centers “reflect the convergence of public health, primary care, and mental health care in a setting that students can easily access” (2). School-based health centers are often the access point to health care that many students may not otherwise see. When children are healthy and can receive the health care they need to stay in school, they are absent less and do better in school. The benefits of SBHCs reach students, their families, school teachers and staff, and the entire community.

#### School-Based Health Center, Highland Medical Center in Monterey, Virginia (3)

**Need addressed:** The Highland Medical Center is a SBHC whose mission is to attend to unmet needs by providing mental and medical health care where the children are; to support families by keeping children healthy; and to reduce barriers to learning by keeping children in school. The center serves students at Highland High School, Middle School, and Elementary School.

**Services offered include:** ill child care, well child screenings, preventive health screenings, sports physicals, immunizations, health education, physician referrals, individual and family counseling, crisis intervention, mental health screenings, education, referrals to additional resources, and treatment for problems such as substance abuse, anger management, anxiety, depression, disruptive behavior, and attention deficit disorder

#### Ballad Health and Lee County Public Schools Partner for School-Based Telehealth Program in Lee County, Virginia (4)

**Need addressed:** Beginning in early 2020, Ballad Health and Lee County Public Schools partnered to provide telehealth services for children and faculty members. The telemedicine program serves students and staff at 108 schools in Virginia and Tennessee.



Lee County • United Way of Southwest Virginia

## Education as a Backbone in Rural Virginia

**Approach:** The program embraces technology that allows individuals to connect to medical professionals within the school nurse's office for illness and injury that require greater care.

**Outcome(s):** The partnership has made healthcare more accessible to students and staff, enforcing a small per-visit fee for those without insurance.

### Career and Technical Education

Career and Technical Education (CTE) prepares students to succeed after high school by creating a link between what happens inside the classroom and what happens on the job. Examples of CTE include courses in welding and child care, and training to become an Emergency Medical Technician (EMT) or Certified Nursing Assistant (CNA). Rigorous programs of study or sequences of coursework may culminate in a certificate or credential and apprenticeships that combine on-the-job training with classroom instruction. Students graduate with work-based learning experiences which provide skills needed either for immediate employment after graduation or the ability to further their post-secondary education and training.

#### Career and Technical Education, Virginia Department of Education, Project Lead the Way, Engineering Pathway (5)

**Need addressed:** Project Lead the Way (PLTW) is a not-for-profit organization that develops curriculum and training for school divisions. Participating school divisions must have a contractual agreement with the organization and send teachers to specialized training for the courses they will teach. Virginia currently participates through the engineering program and the biomedical science program and offers the pathway at more than thirty school districts around the state including Galax, Smyth, and Russell Counties in rural Virginia.

**Approach:** The Project Lead the Way Engineering pathway offers a four-year sequence of courses which, when combined in high school with college-preparatory mathematics and science courses, introduces students to engineering and engineering technology.

**Outcome(s):** Research demonstrates that PLTW students are better prepared for post-secondary studies and are more likely to consider careers as scientists, technology experts, engineers, mathematicians, healthcare providers, and researchers compared to their non-PLTW peers. Students find PLTW programs relevant, inspiring, engaging, and foundational to their future success.



VDH SORH Staff

#### School to Career Pipeline Program, United Way of Southwest Virginia's Ignite Program (6)

**Need addressed:** The United Way of Southwest Virginia (UWSWVA) Ignite Program provides middle and high school students with opportunities to learn critical workplace skills and gain exposure to many future job opportunities directly from industry professionals located in Southwest Virginia (SWVA).

**Approach:** The UWSWVA Ignite Program provides the region's high school students with a four-week summer internship designed to teach critical workplace skills and prepare students for the workplace through hands-on work experience. Internships bridge the gap between the worlds of learning and work by connecting students and schools with employees and employers.

As one component of the UWSWVA Ignite Program, the Careers Expo for Youth is an annual event for over 4,000 7th grade students from SWVA. Students move through four zones filled with hands-on activities presented by more than 100 volunteers from regional employers. At this annual event, seventh-grade students see firsthand what it is like to participate in a chemistry experiment, climb a utility pole, practice CPR, or use a 3D printer, with instruction directly from industry professionals located in SWVA.

**Outcome(s):** The Ignite Program facilitates professional youth development through annual summer internships, career expos, and school-partnered activities.

#### Head Start (7,8)

**Need addressed:** Low income families often face unique struggles when seeking educational programs for their small children. Because of limited income, there are fewer available options to help prepare their children for school.



## Education as a Backbone in Rural Virginia



Jonathan Kozowyk

Head Start is a national development program for children from birth to age 5, which provides services to promote academic, social, and emotional development for income-eligible families.

**Approach:** Head Start is a child-centered, family focused, community-based program. Head Start provides comprehensive education, health, nutrition, dental, mental health, social services, and parent involvement opportunities to low-income children and their families. Services are provided in child care settings, community centers, or the child's home, and are aimed at preparing children to enter school. The variety of settings allows foster children and families who are facing homelessness to access appropriate programs.

Not only does Head Start prepare small children academically, but also it has implemented programs to instill healthy lifestyle habits like nutritious eating, physical activity, and regular exercise. Head Start increases a family's access to healthcare, including medical, dental care and behavioral health services.

**Outcome(s):** In recent years, Virginia's Head Start program has operated with a budget of well over one hundred million dollars, provided the commonwealth with over four thousand jobs, and has encouraged hundreds of caregivers to participate in program governance. In Virginia alone, Head Start conducted over seventy thousand home visits and connected more than two thousand children with behavioral health treatment plans.

### Virginia's Preschool Initiative (9)

**Need addressed:** The Virginia Preschool Initiative (VPI) distributes state funds to schools and community-based organizations to provide quality preschool programs for at-risk four-year-olds unserved by the federal Head Start program. The purpose of the grant is to reduce disparities among young children upon formal school entry and to reduce or eliminate those risk factors that lead to early academic failure.

**Approach:** For four-year-olds, preschool is often the first opportunity for observation of school-readiness activities and skills. High-quality preschool programs provide a foundation for learning and prepare students for success in kindergarten and beyond. School-readiness activities in high-quality preschools focus on physical, motor, and social skills, and emotional development.

**Outcome:** Through a focus on advancing effective interaction and instruction, VPI programs help ensure all Virginia children enter school fully prepared for success. VPI programs are called to make continuous quality improvements in use of integrated, evidence-based curriculum; assessing teacher-child interactions; and providing individualized professional development.

### 4-H (10)

Cooperative Extension, a community of more than 70 public land grant universities across the nation, including Virginia State University and Virginia Tech, provides learning by doing experiences for young people through its 4-H (Head, Heart, Hands, and Health) program. For more than 100 years, 4-H has welcomed young people

## Education as a Backbone in Rural Virginia

of all beliefs and backgrounds, giving them a voice to express who they are and how they make their lives and communities better. Through life-changing 4-H programs, nearly 190,000 Virginia youth have taken on critical societal issues, such as addressing community health inequities, engaging in civil discourse, and advocating for equity and inclusion for all.

### 4-H Tech Changemakers Program, Charlotte County, Virginia (11)

**Need addressed:** Rural communities have lost businesses they depended on and suffered from the loss of jobs. The workforce in many rural communities have skill sets that do not align with 21st-century job opportunities. Because of the lack of jobs with a future, many of Virginia's rural youth leave for better opportunities. This exodus hurts the rural economy by the loss of new ideas, and entrepreneurship.

**Approach:** The 4-H Tech Changemakers initiative is a teen-led program that empowers young people to change their community's future using technology and digital skills. These opportunities help them build leadership skills, take action, make presentations to local government officials, and develop a strong, positive reputation in their community.

**Outcome(s)** Teens participating in the program grow into responsible contributing citizens in an environment where they can make decisions and mistakes safely. Through the 4-H Tech Changemakers program, participants learn website development, social media marketing, and drone mapping. Participants have met with the governor, supported their local growers' association, and even helped save the loss of over two acres of a local farmer's soybeans using a drone. The program teaches youth how important digital skills can be in helping rural economies thrive and keeps young people contributing to the future of their towns.

## Opportunities for Growth

1. Promote literacy during early childhood by regularly providing books (recreational and educational) to children
2. Ensure access to broadband and invest in current technology to provide equitable access to education
3. Invest in pipeline educational programs that begin during middle school and provide students with hands-on exposure to a variety of trades and careers.
4. Develop and expand opportunities to combine college preparatory academics with technical training and workplace experience
5. Prioritize supporting students with learning differences; provide regular, up-to-date information and resources to teachers on how best to support students with learning differences; provide instruction on how to implement personalized education plans
6. Promote new and expand current after school programs and clubs like scouting, 4-H and Trail Life for students to gain exposure to a variety of experiences and learning opportunities





# Broadband Internet Supporting Rural Virginia



Tazewell County • Sarah Hauser

# Broadband Internet Supporting Rural Virginia

## Overview

Broadband internet allows communities to stay connected and informed. With high-speed broadband, communities can attract and retain businesses, and individuals can apply for a job, shop, stream entertainment, use smart devices, and access educational opportunities. These activities are only possible when there is adequate connectivity to homes. Adequate connectivity through broadband, cable, or cell phone is defined by the Federal Communications Commission (FCC) for a basic business broadband connection at 50-100 Mbps (Megabits/sec). According to the 2018 American Community Survey 5-year estimates, seven out of ten rural Virginians have internet access, compared to nine out of ten of non-Rural Virginians. This means that one-third of rural Virginia homes do not have adequate broadband coverage, which creates what is called the digital divide (1).

By way of telehealth or telemedicine, broadband internet provides patients and healthcare providers with access to technologies that enhance quality of care. These technologies allow patients to access urgent, primary care.

and specialty appointments and increase opportunities for obtaining health information and education from the comfort and convenience of the home, a solution to transportation and mobility limitations faced by many rural Virginians. Healthcare providers, including emergency service personnel such as firefighters and police officers, are able to obtain accurate information in real time, connect with community health workers (CHWs) via remote patient monitoring, and exchange health information in a timely manner, all of which improves the quality of patient care.

## Internet Access Metrics



	Rural	non-Rural
Share with Broadband (Cable, Fiber Optic, DSL)	66.1%	84.4%
Share with Satellite Only	3.0%	1.0%
Share with Cellular Only	13.1%	8.0%
Share without Internet Service	28.5%	12.0%

Source: US Census Bureau, ACS 5-year Estimate, 2018

## Household Computer Access Metrics



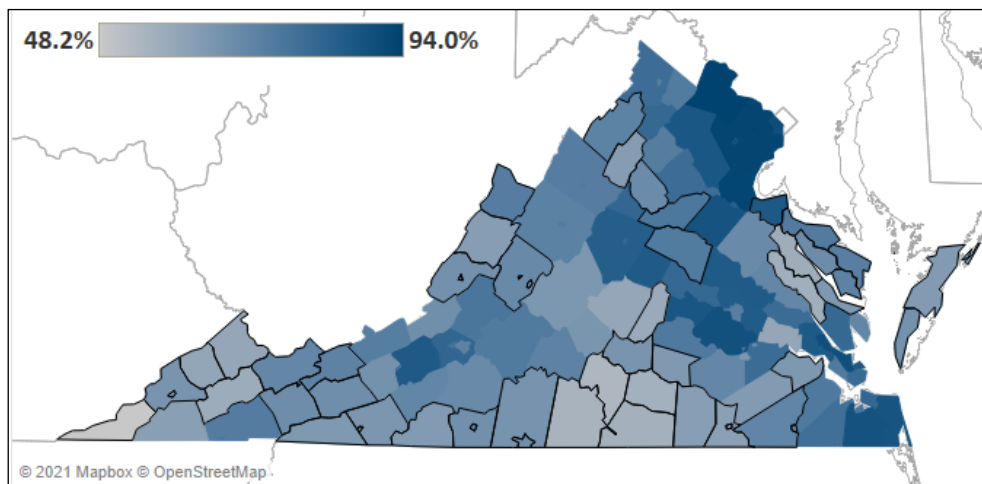
	Rural	non-Rural
Households with a Desktop or Laptop	64.3%	83.2%
Households with no Computer or Mobile Device	21.9%	8.3%

Source: US Census Bureau, ACS 5-year Estimate, 2018

In America, the digital divide is not only a matter of geography, it is also a matter of affordability. Among the quarter of Americans without broadband, a connection fast enough to stream video, are many who simply cannot afford the monthly bill for service. Less than half of households living on under \$20,000 are connected. The collective deficit in opportunity, education, and prospects,—everything implied in being connected,—further separates us (3).

Telemedicine is not possible without sufficient connection for both the provider and the patient. Ideally, broadband connections need to be in place throughout the state so that all patients can access telemedicine services. Even with the proper infrastructure in place, internet cost will

## Share of Households with Broadband



Source: US Census Bureau, ACS 5-year Estimate, 2018

## Broadband Internet Supporting Rural Virginia

continue to be a barrier for rural and economically disadvantaged residents to access adequate broadband connections for telemedicine.

The Virginia Telecommunication Initiative is a state-funded program administered by the Virginia Department of Housing and Community Development. Its goal is to create strong, competitive communities throughout the Commonwealth by preparing those communities to build, utilize, and capitalize on telecommunications infrastructure.

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### E-Rate Schools and Libraries USF Broadband Program

**Need addressed:** Many of Virginia's rural communities struggle to provide affordable and accessible broadband connection.

**Approach:** In 1998, the Federal Communications Commission created the E-Rate Schools & Libraries USF (Universal Service Support) Program, which assists schools and libraries in attaining cost-effective broadband connection. This nationwide program offers discounts ranging from twenty to ninety percent of the cost of eligible services. In 2014, a modernization order addressed the gap in connectivity that many rural communities face, giving any community not designated as "urban" an additional discount (4).

**Outcome(s):** In the late nineties, less than one fifth of classrooms in the United States had internet access. Today, nearly 100% have access due in part to the E-Rate Program (4).

#### Rockbridge Broadband Initiative (RBI) and the Virginia Telecommunication Initiative (VATI)

**Need addressed:** Mountainous terrain in much of the central and western regions of Virginia has created an obstacle that in the past prevented broadband connection as well as communication between public safety entities (5).

**Approach:** In 2013, the Rockbridge Broadband Initiative collaborated with Rockbridge Area Network Authority (RANA), a public-private partnership between Washington and Lee University and local rural governments, to

propose construction of 134 miles of new fiber in west central Virginia. The new fiber was intended to help governments deliver improved healthcare, education, and public safety in regions with difficult terrain. Over 10,000 households and almost 1,500 businesses were to experience improvements in the affordability and quality of their broadband connections (5).

**Outcome(s):** The Rockbridge Broadband Initiative experienced several challenges, but was able to build seventy miles of fiber backbone, about half of its original goal. Outlying customers in west central Virginia saw 27 DSL cabinets installed to meet their internet needs (6).

In early 2020, the Virginia Telecommunication Initiative announced over \$18 million in grants, \$2.2 million of which was awarded to a project being led by the Central Shenandoah Planning District Commission (CSPDC) in partnership with Rockbridge County and BARC Electric Cooperative. The project intends to provide over one hundred miles of gigabit last-mile fiber infrastructure to areas in Rockbridge County (7).

#### The Virginia Tobacco Region Revitalization Commission (TRRC)

**Need addressed:** Southside Virginia is another region of the commonwealth which experiences challenges to the provision of adequate broadband.

**Approach:** The Virginia Tobacco Region Revitalization Commission (TRRC) awarded the Mecklenburg Electric Cooperative (MEC) a \$2.6 million grant. MEC will work with its subsidiary, EmPower Broadband Cooperative (EBC), to install 135 miles of last-mile fiber broadband (8). MEC has extensive and detailed plans to deploy fiber cable, providing service to citizens from Gretna to Emporia. High speed, low cost internet will be available to those within a certain distance of the fiber, including Brunswick, Charlotte, Greenville, Halifax, Mecklenburg and Pittsylvania Counties (8).

**Outcome(s):** MEC has initiated procurement of parts of its fiber backbone and has already received an additional grant of \$1.8 million to be awarded over ten years. The newer grant will provide fiber for over 800 more homes in Southside Virginia (9).

#### Bipartisan Policy Center (BPC) and the Rural Health Care Report

**Need addressed:** Rural communities continue to struggle to provide their citizens with quality healthcare due to limited access to technology and broadband connection.

## Broadband Internet Supporting Rural Virginia

**Approach:** In April of 2020, the Bipartisan Policy Center published its Rural Health Care Report, containing policy recommendations from its Rural Health Task Force. It suggested that lawmakers support increased broadband access and data collection and lengthen the list of authorized originating sites for telehealth to include patient homes. It also recommended providing rural-specific training programs for those who work in health information technology systems. The BPC urged lawmakers to implement the Broadband Deployment Accuracy and Technology Availability Act (Broadband DATA Act), which calls for the FCC to collect broadband availability data. The act also encourages the identification of locations that need broadband the most (10).

**Outcome(s):** Lawmakers' adoption of the policy recommendations from the Bipartisan Policy Center's Rural Health Care Report can transform Virginia's rural communities from being devoid of technological opportunities to a place where health care and other services are more readily available through increased access to broadband.

### Appalachian Regional Commission (ARC)

**Need addressed:** The Appalachian region of the United States struggles with issues like remoteness and poverty, which makes it difficult for its citizens to access the internet and technology in a manner that is comparable to urban areas.

**Approach:** Starting in 2004, ARC began distributing \$41 million in grants to Appalachian communities, including those in Virginia. The funds were used to upgrade hospital computer systems, install school computer labs, lay fiber, and train citizens on effective internet use.

**Outcome(s):** ARC has helped many rural Appalachian communities expand their access to technologies. In 2016, the commission created the ARC Broadband Planning Primer and Toolkit in order to assist rural communities in adding broadband to their communities (11).

### Cross Sector Partnership Pilot Program: Expanding Telehealth Services for Rural Veterans in Martinsville, VA

Announced in September 2021, a two-year pilot program partnership between the Virginia Department of Health and the Salem Veterans Affairs Health Care System will establish a new point of access at the Martinsville Health Department for telehealth services provided by

the U.S. Veterans Health Administration. Services will be provided at the Martinsville Health Department, utilizing the "telehealth-in-a-box" model that the Salem Veterans Affairs Health Care System has utilized at several sites in their region. A registered nurse, hired by the Veterans Health Administration, will conduct quality health assessments prior to and during the exam for the physician connected remotely to the veteran patient. For the first time, a local Virginia health district will provide access to telehealth services provided by the U.S. Veterans Health Administration without having to travel significant distances or have difficulty connecting to the internet.

### Broadband Expansion: Bi-Partisan Infrastructure Investment Plan: GA approves \$700 million investment to Achieve Universal Broadband

Of the \$4.3 billion in federal coronavirus relief funding under the American Rescue Plan, the 2021 Virginia General Assembly approved the \$700 million broadband investment that would accelerate Virginia's goal of deploying broadband infrastructure by 2028 to its rural and underserved areas, pushing the timeline forward to 2024. The investment positions Virginia on track to be one of the first states in the nation to achieve universal broadband service. The investment to achieve universal broadband connectivity will be a boost for rural economic development, possibly drawing new businesses to rural regions, bringing new career opportunities.

## Opportunities for Growth

### 1. Build broadband infrastructure as quickly as possible

- Building broadband has always been important as it gives Virginia's rural population access to internet and electronic services. However, access has never been more important given the current need for social distancing while remaining in contact with health providers and academic resources

### 2. Ensure affordability, in addition to accessibility

- The poverty rate in rural areas is twice that of the urban areas of the Commonwealth (11). The benefit of broadband access would not be optimized if the citizens most in need did not have access. It is imperative that the affordability of broadband is made a priority so that quality of life is raised for all Virginians, including those most vulnerable.

## Broadband Internet Supporting Rural Virginia

### **3. Continue relaxed “COVID-19” policies by CMS for telemedicine**

- The Centers for Medicare and Medicaid Services (CMS) has expanded access to Medicare telehealth services so that citizens are able to access healthcare from their homes (12).
- CMS has approved the originating site to be a patient’s home in order to reduce social contact during the COVID-19 pandemic.
- Patients are able to receive a wider variety of healthcare services from their homes.
- The emergency measures taken due to the pandemic circumstances have given insight into the benefits of increased access to telehealth services:
  - Providers are able to administer low-risk urgent care (13)

- Services can be provided for patients in long-term care facilities (13)
- Chronic conditions can be monitored at a low risk to both patient and provider (13)

### **4. Provide training for professionals (e.g., healthcare, teachers, etc.) on the use of virtual technology**

- Studies support virtual technology training for providers in behavioral health professions (14). Training for professionals in all health, academic, and other essential professions will prove to be useful as the population of the Commonwealth has varying degrees of comfort with technology.

### **5. Incentivize existing utility providers to leverage infrastructure as a means to provide broadband access**

- The infrastructure of Virginia’s power industry could serve as a platform to provide internet access to Virginia homes without access.

Broadband Internet Supporting Rural Virginia



Jeff Greenough







# Healthy Housing



Jumping Rocks Photography

# Healthy Housing

## Overview

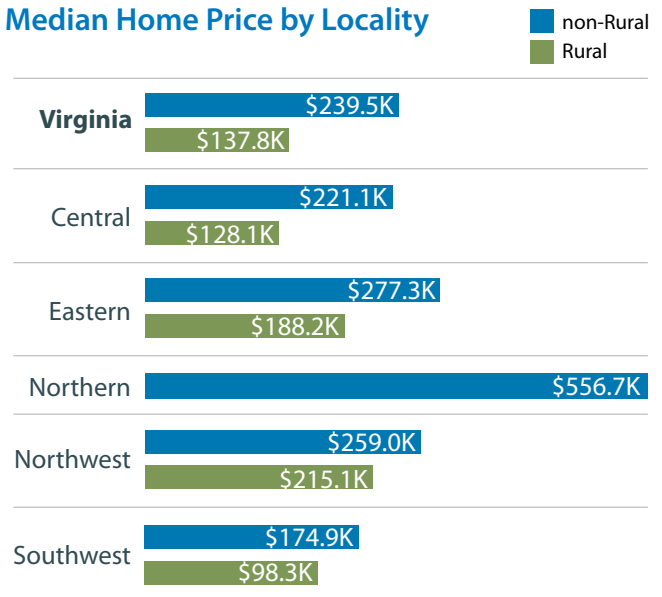
Where a person lives, along with the quality and stability of housing, determines many of the factors that contribute to overall health. Access to important resources that directly influence health such as public transit, healthcare, essential services, quality school systems, job opportunities, and outdoor spaces, is dependent on the location and condition of one's neighborhood. In rural areas the physical distance between housing and public resources is often greater than that of more urban areas. The cost of housing depends on many variables including location and proximity to services. For this reason, the choice of affordable housing often comes at the expense of more convenient access to everyday necessities including healthcare services. Certain rural populations are faced with this tradeoff at disproportionately higher rates than others.

Historically discriminatory housing policies such as redlining, a practice considered legal until 1968 that denied home loans to African Americans applying to live in certain neighborhoods, contribute to the housing and health disparities that exist today (1). Segregation of communities by race, ethnicity, and income has had a lasting impact on the quality of housing and healthcare available to certain vulnerable populations. Homelessness, while not as visible in rural areas, is both a result of and predictor of poor health. Homeless service providers in rural Virginia face both limited funding and capacities (2). Virginia Department of Education data show a similar share of students in rural and non-rural areas are housing insecure.

A survey by *Housing Forward Virginia* found that the top three housing challenges are a lack of affordable financing, poor public infrastructure, and a limited capacity of providers (3). These exist as the demand for rental housing increases, incomes remain flat or are declining, and the senior population grows. The survey found the top three Virginia housing needs are rehabilitation of substandard housing, an increase of affordable rentals, and home accessibility modifications for aging in place (3).

Nevertheless, housing affordability provides an opportunity for rural communities. Statewide, the median rural county has a median housing price of \$137,800 compared to \$239,500 in nonrural communities. Differences are even more stark when compared to Northern Virginia where the median county has a median home price of \$556,700. Even with transportation costs included, rural communities tend to have a lower cost of living than nonrural ones. Many retirees take advantage of affordable housing by moving to rural communities, bringing retirement and health care funding with them (4).

## Median Home Price by Locality



Source: National Association of Realtors, 2018

## Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

### The ElderSpirit Community

**Need addressed:** The aging population can be more susceptible to feelings of loneliness and isolation largely due to the increased time spent at home and limited mobility. This is in part due to the difficulty older people on fixed incomes have in finding housing that meets their needs while promoting both independence and community.

**Approach:** Created almost fifteen years ago, the ElderSpirit Community provides a mixed-income, co-housing community in which elderly people in rural Virginia can participate and encourage each other. Besides providing affordable housing, ElderSpirit promotes mutual support, spirituality, service, simple lifestyles, respect for the earth, arts, recreation, health, care during illness and dying, mutual assistance, and kindness among its members. ElderSpirit unites the elderly in rural areas by creating communities that are intentionally mixed-income so that older people experience both individual and communal development and grow in spirituality.

**Outcome(s):** The ElderSpirit Community has welcomed members from all spiritual paths, including Christianity, Quakerism, Unitarian Universalism, Judaism, Buddhism, and Hinduism. ElderSpirit has promoted diversity in rural southwest Virginia while supporting the housing needs of the elderly population (5).

### College Service Project: Appalachia Service Project

**Need addressed:** Appalachian families face poverty at rates almost five percent higher than the national average. Rural families in Central Appalachia, made up of communities in Tennessee, Kentucky, West Virginia, Virginia, and North Carolina, are at higher risk of experiencing unsafe structural conditions of the home.

**Approach:** The College Service Project (CSP) is a student-led campus-based organization that affiliates each of its chapters with the Appalachia Service Project (ASP). The CSP follows the ASP model for home repair projects in their local communities. College students and other volunteers make critical repairs on homes and build new homes when current dwellings are beyond repair. More than 15,000 volunteers give their time to repair and build homes with the Appalachia Service Project.

**Outcome(s):** In the fifty two years since the Appalachia Service Project's founding in 1969, over 400,000 volunteers have repaired nearly 20,000 homes. Not only does the service create safer living situations for rural families in Appalachia, it also establishes meaningful relationships between repair staff and homeowners. Likewise, youth and adult volunteers gain experience and confidence to make important home repairs (6).

### Southeast Rural Community Assistance Project (SERCAP)

**Need addressed:** Millions of households in the southeastern region of the United States struggle to access basic necessities like clean drinking water and appropriate housing.



Washington County • ElderSpirit Community

**Approach:** The Southeast Rural Community Assistance Project was formed in the mid-1960s and serves seven states: Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida. SERCAP provides professional services in water and wastewater infrastructure, housing, and community development (7). SERCAP partners with several state agencies and a network of nonprofits to deliver expert services to improve the lives and well-being of rural citizens in the southeastern United States.

SERCAP provides individuals with home improvement loans of up to \$15,000 and communities with housing rehabilitation and grant management services. The program provides individuals with indoor home services such as plumbing, rehabilitation, and home inspections, and supports the community with planning and grant administration (7).

**Outcome(s):** Although SERCAP started its mission helping rural residents of Roanoke County, Virginia, more than fifty years ago, today it serves over 900,000 households each year with access to safe drinking water, efficient wastewater facilities, housing rehabilitation, and community development assistance (7).

### Virginia Housing: Rural Housing Services and Closing Costs Assistance (CCA) Grant

**Need addressed:** Rural Virginians can face disproportionate struggles when attempting to find affordable housing opportunities.

**Approach:** Virginia Housing, formerly known as the Virginia Housing Development Authority (VHDA), provides home loans and the Closing Costs Assistance Grant to rural Virginians in need of financial assistance for housing. Working with the United States Department of Agriculture's (USDA) Rural Housing Service (RHS), Virginia Housing provides a program for which some individuals qualify for \$0 down payment for eligible rural properties. First-time homebuyers who are at or below 80% of the median income qualify (8).

**Outcome(s):** The Closing Cost Assistance Grant makes the 100% financing program even more affordable and reduces out-of-pocket expenses for the borrower (8).



Page County • Karen Riddle

### Rural Homeowner Rehabilitation Program

**Need addressed:** Many rural homeowners encounter repair costs that they cannot afford, creating unsafe living environments.

**Approach:** The Virginia Department of Housing and Community Development (DHCD) has created the Rural Homeowner Rehabilitation Program to provide federal funding to eligible subrecipients. Applicants must apply in a competitive process and demonstrate past success in administering a local housing rehabilitation program. After a subrecipient is awarded funds of up to \$40,000 per unit, homes in non-entitlement areas of Virginia may enter the program and be rehabilitated per DHCD Housing Rehabilitation Standards. The maximum award is \$350,000 (9).

**Outcome(s):** Rural homeowners at or below 80% of the U.S. Department of Housing and Urban Development (HUD) established area median income receive assistance as a “five-year deferred loan, forgiven at a rate of twenty percent per year” so long as the homeowner remains in the home (9).

### Opportunities for Growth

#### 1. Encourage health systems to consider acquiring short-term housing-related capabilities through cross-sector partnerships with community-based organizations

- Community-level efforts have emerged across the nation to integrate the activities of disparate social service organizations with local health care delivery systems (10).
- Large health care systems may also consider using community benefit dollars and other institutional resources to create new affordable housing units in their communities (11).

#### 2. Increase the supply of available housing for low-income families

- Expanding access to Low-Income Housing Tax Credits is one way the government could provide a stimulus to private developers and managers, while the expansion of rental assistance and mobility programs may provide more immediate relief for families facing housing instability (12).



Lexington • Virginia Tourism

### 3. Promote policy that addresses home safety and accessibility

- The geographic dispersion of older households is significant because lower-density areas are more difficult to service and typically provide few housing options other than single-family homes (13).
- Policies should focus on:
  - Home Safety and Accessibility (e.g., single-floor living, no-step entry, in-home ramps, lifts, door widening, etc.)

### 4. Create new policies to support seniors aging in place

- The number of people aged 65 and over living in low-density metro tracts rose significantly from 24% to 32%, an increase of more than 6 million older adults, from 2000 to 2016 (13).
- Supportive services in permanent housing programs could help address the growing needs of low-income and vulnerable older adults.

- In addition to helping older adults afford their rents, assisted housing also tends to offer more accessibility and safety features than unsubsidized units (13).

### 5. Establish more affordable senior rental communities, located near essential services

- The ElderSpirit Community is a unique intentional, mixed-income, participatory, co-housing community of elders, 55 and older. The community is located in Washington County, Southwest Virginia. The town center of Abingdon and its amenities, is within a 15-minute walk of the community.

### 6. Expand and develop new housing rehabilitation and repair programs

- The Rural Homeowner Rehabilitation Program provides federal HOME Investment Partnerships Program funding to eligible subrecipient organizations to administer local owner-occupied housing rehabilitation programs targeted to low- and moderate-income homeowners in non-entitlement areas of the commonwealth.

## Healthy Housing

### 7. Encourage local funding and grants for smoke detector distribution programs and programs that test well water and treatment to ensure residents are safe within their home

- The Central Appalachian Region American Red Cross operates the Sound the Alarm Campaign hosting several smoke detector installation events each year.
- The Virginia Well Owner Network is a group of dedicated Virginia Cooperative Extension educator/agents and volunteers who have completed training about protecting and maintaining private water systems such as wells, springs, and cisterns, and about water conservation, testing, and treatment. With members across the state, this network is designed to provide practical information to private water system owners.



Northampton • @adamlewis





# Rural Transportation



Rockbridge County • Sarah Hauser





## Rural Transportation

**Approach:** In the spring of 2018, the Walsh Center for Rural Health Analysis produced its Rural Evaluation Brief which listed successful practices from rural transportation program models already in place.

The Walsh Center listed the Public Transportation Model as one way to improve access to transportation. “Public transportation systems provide transit services to the public via bus, rail, or other mode on a regular and continual basis” (2). Not only would the traditional model increase access, but variations could be considered, such as the flex-route transportation system which allows buses to leave routine routes to make other stops when requested. To overcome transportation barriers, the report recommended a variety of programs that would allow services to come directly to, or close to, those in need. Mobile clinics, telehealth, clinics located in schools or workplaces, and home visiting programs were all suggested solutions (2).

The Walsh Center gave suggestions on improving the infrastructure of rural transportation by recommending active transportation models, which includes activities such as walking or biking to a destination. The report showed walking and biking are about as common in rural areas as urban ones. To improve road safety, the Walsh Center recommended lowering speed limits on rural roads and seeking methods to reduce response time of emergency vehicles (2).

**Outcome(s):** The Walsh Center provides solutions intended to integrate well with a community’s existing programs and resources. Rural communities should implement effective strategies to increase the availability of transportation to accommodate the needs of older adults, low income workers, and others who might lack adequate personal transportation, since access can impact the health of rural communities (2).

### Mountain Empire Older Citizens, Inc. (MEOC)

**Need addressed:** Rural citizens face unique transportation challenges, especially when they are elderly. Southwest Virginia’s twenty-one cities and counties contain a disproportionately high number of people over the age of sixty when compared to the rest of Virginia, resulting in unique difficulties in addressing transportation needs (5).

**Approach:** Mountain Empire Older Citizens, Inc., was created in 1974 to provide transportation to the elderly living in Scott, Lee, and Wise Counties, and the City of Norton. MEOC directs several other organizations including Mountain Empire Transit which provides its principal mode of transporting older adults.



Wise County • Mountain Empire Older Citizens, Inc. Transit

Due to the small population of this region of Virginia, the transit service does not have a set route and runs by request. Buses are able to accommodate those with canes, walkers, and wheelchairs, and pick up citizens from locations other than a bus stop. Citizens call the number listed on the MEOC site to schedule a trip a full day before they need to be picked up. At seventy-five cents, fares are very low for minors and those over sixty. For all other adults, the fare is one dollar and fifty cents (5).

**Outcome(s):** MEOC's Mountain Empire Transit has helped countless rural community members in Southwest Virginia reach their destinations. Their by-request operation model and low fares for the older population efficiently serves the needs of part of Southwest Virginia.

### JAUNT, Inc. (JAUNT)

**Need addressed:** It is difficult for citizens in the southwest and central regions of Virginia to find reliable public transportation due to the large distances and low population density.

**Approach:** Over forty years ago, JAUNT was created to provide transportation service to citizens of six rural counties in Central Virginia, and the city of Charlottesville. The regional public transportation system prides itself on a comprehensive driver training curriculum and excellent customer service. The JAUNT fleet of transport vehicles can average one hundred trips each day in an area of over 2,500 square miles. The system is funded by a combination of bus fares, government funding, and agency payments (6).

**Outcome(s):** JAUNT helps citizens in rural communities who would not otherwise have access to transportation to make trips to medical appointments, recreational activity sites, to and from work and leisure activities, and other destinations. JAUNT vehicles travel over two million miles per year. According to a 2013 case study, JAUNT served 314,994 riders, 83,394 of whom were considered to be rural residents (6).

## Rural Transportation

### Shore Transit and Rideshare (STAR Transit)

**Need Addressed:** Shore Transit and Rideshare (STAR Transit) serves the Eastern Shore of Virginia, comprised of Accomack and Northampton Counties. The 70-mile long region is part of the Delmarva Peninsula and is geographically removed from the rest of Virginia by the Chesapeake Bay. The 23-mile Chesapeake Bay Bridge-Tunnel, part of U.S. Route 13, spans the mouth of the Bay and connects the Eastern Shore to South Hampton Roads and the rest of the state (7).

**Approach:** In 1996, the Virginia Department of Rail and Public Transportation (DRPT) approved a \$150,000 grant for the Accomack-Northampton Transportation District Commission (ANTDC) to initiate a public transportation system. The contract to operate and provide management services for STAR Transit was awarded to Virginia Regional Transit (VRT) in January, 2010. VRT is “a not-for-profit 501(c)(3) organization specializing in providing high quality, affordable community transportation service solutions” (7).

**Outcome(s):** Most of the STAR Transit service area has a population of 500 persons or less per square mile. This is lower than the service coverage standard of population densities of at least 2,000 persons per square mile; however, almost all major destinations are served by the transit service. Concentrated transit demand is typically forecast by major trip generators and is then used to determine which destinations both transit-dependent persons and choice riders are demand most. They include high density housing locations such as apartments and assisted living facilities, major employers, medical facilities, educational facilities, shopping malls and plazas, grocery stores, public buildings, and human service agencies. According to Virginia’s DRPT, STAR Transit provided 82,420 one-way passenger trips in 2013 (7).

### Opportunities for Growth

#### 1. Allocate federal and state funds to support planning and realization of transportation infrastructure

- There are deficits in available transportation in non-urbanized areas of Virginia. Federal and state funds have not always been allocated in adequate amounts to support the creation of infrastructure and maintenance of rural transportation systems.
- The Rural Transportation Planning (RTP) Program uses federal and state funding to aid in transportation planning in rural areas of the commonwealth. Federal funds are allocated as 80% of total funds so long as the local government can “match” and provide the other 20%.

- This program reviews proposed enhancement projects, executes funding agreements, trains staff involved in the rural transportation planning process, and manages contracts.
- The RTP was approved and certified by the Secretary and Chair of the Central Virginia Planning District Commission in 2020. It has created another proposal for the next fiscal year which is awaiting approval (8).

#### 2. Invest in transportation infrastructure that prioritizes physical activity such as sidewalks, bike lanes, multi-use trails, and public transit.

- Rural communities often lack safe and reliable opportunities for active transportation, such as walking and bicycling.
- Active transportation provides the opportunity for people to be active throughout the day, “walking or bicycling as a form of transportation or walking to public transportation stations, such as bus stops, counts toward meeting the daily physical activity recommendations” (9). This can be especially true for low-income populations that may rely more heavily on public transit.
- Less car dependency can lead to a more active community and a healthier environment. Not only does more active transportation increase physical activity, it also can help reduce the amount of carbon emitted into the atmosphere by single-occupancy vehicles (10).



Roanoke • Virginia Tourism

## Rural Transportation

### **3. Provide funding and technological assistance for non-emergency transportation programs to expand access to employment, medical appointments, necessary errands, and community activity.**

- Transportation programs provide rural residents who do not otherwise have access to transportation with the ability to participate in essential travel.
- The Transportation Reimbursement Incentive Program (TRIP) in Riverside County, California, is a “mileage reimbursement transportation service that complements public transportation by encouraging volunteer friends and neighbors to transport older adults and people with disabilities to access medical services and for other purposes where no transit service exists or when the individual is... unable to use public transportation for other reasons” (11).
  - TRIP has been in place for over 20 years, providing over 10,000 trips a month, and was originally funded in partnership between the Independent Living Partnership (sponsor), Riverside County Transportation Commission, the Riverside County Office on Aging, foundations, and participating communities (11).

- The program was named “the best volunteer driver model in the nation” by The Beverly Foundation in 2009 and received the 2012 STAR (Senior Transportation Action Response) Award” (11).

### **4. Apply for the U.S. Department of Veterans Affairs’ Highly Rural Transportation Grants (HRTG)**

- “Highly Rural Transportation Grants (HRTG) is a grant-based program that helps Veterans in highly rural areas travel to VA or VA-authorized health care facilities. This program provides grant funding to Veteran Service Organizations and State Veterans Service Agencies to provide transportation services in eligible counties” (12).
- Highly Rural Transportation Grants (HRTG) provide transportation programs in counties with fewer than seven people per square mile. There is no cost to participate in the program for Veterans who live in an area where HRTG is available.

## Rural Transportation



Fairy Stone State Park, Patrick County • VDH SORH Staff





# Nutrition and Food Security



Bill Crabtree Jr.

# Nutrition and Food Security

## Overview

Eating healthy and nutritious food is essential to the growth, development, and maintenance of a healthy body and overall well-being. It is important that people have access to affordable nutrient-rich foods that, when combined with physical activity, can help maintain a healthy weight, reduce the risk of chronic disease, and promote overall health.

Factors including environmental barriers and social disparities, such as income, race, ethnicity, and disability, prevent some Virginians from accessing healthy food. The proximity of restaurants and grocery stores, food prices, the existence of food and nutrition assistance programs, and community characteristics all contribute to the ability to access available healthy food. As with the cost of housing, food tends to be more affordable in rural areas. The cost per meal in Virginia's median rural locality is \$3.03, compared to \$3.23 in the median non-rural locality.

However, food insecurity is still a problem in rural Virginia. As reported by County Health Rankings in 2018, 13.1% of residents are food insecure in Virginia's median rural locality, compared to 9.8% in non-rural localities. Food insecurity is particularly high in far Southwest Virginia, affecting over 17% of the population in several localities there. According to the USDA, food insecurity refers to a "lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods (1)." Food-insecure individuals "may be at an increased risk for a variety of negative health outcomes and health disparities" (2). A commitment to community institutions such as supermarkets and grocery stores helps to

relieve the negative effects of food insecurity while also stimulating local economic growth.

Children are also impacted by food insecurity with 66.7% of rural students eligible for free or reduced lunch in rural places, compared to 42.3% in non-Rural places. Additionally, 15.4% of rural households are eligible for Supplemental Nutrition Assistance Program (SNAP) benefits, compared to just 7.6% of non-rural households. Efforts to enroll eligible students and households in these or similar programs could improve health and well-being, while bringing in funding to support groceries and other businesses.

## Leading Practices and Approaches

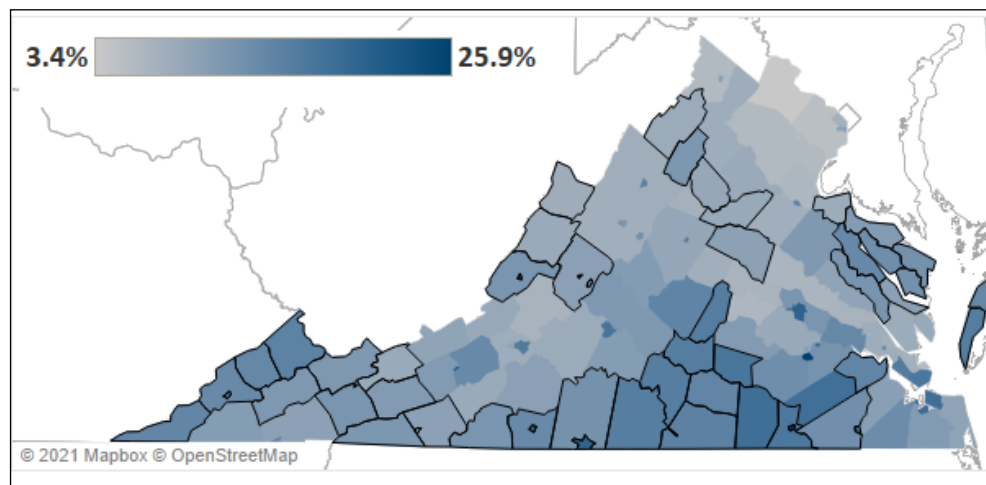
Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

### The Local Environmental Agriculture Project (LEAP)

**Need:** Virginia's Roanoke Valley has struggled with food insecurity for years due to inadequate food distribution practices, inequitable access, and lack of consumer education.

**Approach:** The Local Environmental Agriculture Project (LEAP) uses two approaches to improve food access in the Roanoke Valley. The LEAP Food Hub helped connect over one hundred farmers to a wholesale market, and provided access to other diverse markets in 2019. The LEAP Kitchen provided supplies and lowered start-up costs for Small, Women-owned and Minority-owned businesses (SWaM) (3).

## Food Insecurity Rate



Source: County Health Ranking, 2017; County Health Ranking, 2018

## Nutrition and Food Security

LEAP has also created several healthy food incentive programs, including the SNAP Double Value program, funded by Virginia Fresh Match. This program allows people who receive Supplemental Nutrition Assistance Program (SNAP) benefits to double the amount of money they can spend at fresh fruit and vegetable markets (4).

**Outcome:** Since 2018, the number of farms participating in the LEAP program has almost doubled. In 2019, the Local Environmental Agriculture Project served over 2,000 Roanoke Valley residents and almost 160 food businesses. As a result, almost \$250,000 was generated for those food businesses and farmers, bringing the locally grown fruit and vegetable variety count to 182 (3).

### Bland Ministry Center: Food Pantry

**Need:** A 2015 study conducted by Feeding America determined that almost 150,000 people in Central and Western Virginia regions experience food insecurity (5). Southwest Virginia's Bland County is part of that region.

**Approach:** The Bland Ministry Center operates many programs to physically and spiritually assist its community, one of which is its food pantry. Bland Ministry partners with large organizations like Walmart and Little Caesars to obtain and distribute food to families in need. Once the ministry receives food donations from the organizations, they report what they received to one of the nation's largest hunger relief organizations, Feeding America (6). Individuals are invited to come to the ministry's main office, provide photo identification, proof of residency and income, and leave with a food box (6).

In times of emergency, the Bland Ministry can partner with social services organizations such as Mount Rogers Community Services to deliver food directly to individuals and families in need (6).

**Outcome:** The Bland Ministry Food Pantry provides food assistance each week through their food pantry and effective partnerships, and also builds handicap ramps and helps with home repair projects. The ministry operates a clothes closet and performs special events and services such as distributing school supplies and running two of the largest free dental clinics in the region (6).



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### Farm to Virginia Child and Adult Care Food Program

**Need:** Although Virginia is the second largest agricultural exporter on the East Coast, its population still struggles with access to food (7).

**Approach:** The Farm to Virginia Child and Adult Care Food Program (Farm to CACFP) aims to educate Virginians on nutrition and gardening opportunities within their own communities. This program is an extension of the more widely known Virginia CACFP, comprising Child Care Centers, Adult Care Centers, Emergency Shelters, and Family Day Care Homes. The Farm to CACFP facilitates a variety of community activities, including taste tests, farm visits, and food seasonality and gardening education. The program also helps connect Virginians with local food, local partners, and educational resources (7).

**Outcome:** For many years, the Virginia Child and Adult Care Food Program has allotted grant money and various forms of assistance to its participating organizations in order to increase food access to Virginians and facilitate nutrition education. Farm to CACFP takes this service a step further by connecting Virginians to one of their state's most essential export categories, agriculture (7).

### The National Farm to School Network

**Need:** There are citizens in each state that lack access to fresh, nutritious foods. Likewise, the youngest generations are experiencing a disconnect with food that humans have never experienced before while local farmers struggle.

**Approach:** The National Farm to School Network, aims to enhance the connection between communities and healthy food. Farm to school engages students using a combination of procurement, school gardens, and education. The program often supplies schools with food from local farms so that students may try them, and then educates the students on agriculture and nutrition. Farm to school also encourages students to participate in gardening (8).

**Outcome:** The National Farm to School Network has grown from a few schools to over 40,000 schools in the past thirty years. The program has granted over \$400,000 to its core partners in all fifty states and US territories (8).

### Healthy Harvest Community Garden

**Need:** The Healthy Harvest Community Garden (HHCG) is funded by the Virginia State Office of Rural Health with partners in Halifax County including Sentara Halifax Regional Hospital, Halifax County Cooperative Extension, and Halifax County Public Schools. HHCG is an effort of the Southern Virginia Botanical Garden and Environmental



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Education Center (SVBG). In 2017, a community survey conducted by the health district found that obesity, a chronic condition and precursor to other health problems, is ranked first in a list of health problems, with 61.2% of 539 survey respondents reporting it as a major health problem. Access to healthy food is ranked third in health problems, with 41.2% of respondents choosing that item.

**Approach:** Originally conceived as a way to introduce people to the importance of nutrition and healthy eating, and a way to provide healthy produce to individuals who otherwise may not have access to fresh food, the garden has become a way for community members to explore healthy eating while learning about growing and cooking nutritious produce. Ten summer interns are assigned to the community garden and have opportunities to learn about programs like the SNAP food assistance program and other programming that teach healthy food habits. Harvested produce is provided to low income residents of Halifax County. Written information on healthy food choices and cooking techniques is distributed with the food to provide education on the health benefits of good food choices.

**Outcome(s):** Efforts are ongoing to expand the operations of the community garden that has become a hub for information and activity supporting healthy food habits and nutritional knowledge while supplying the most vulnerable Halifax County residents with a source of healthy, fresh produce. At least ten local public high school students will be introduced to careers that focus on food and nutrition in a community setting while they





Caroline County • Sarah Hauser, IG account: @virginiaflair

assist in the mission of the garden. At least 80 low-income residents of Halifax County will be provided with fresh produce they would otherwise not be able to obtain, enriching their diet and giving them opportunities to improve their health.

### Opportunities for Growth

#### 1. Increase access to nutritious foods by coordinating pre-existing social programs

- The Virginia Farmers Market Association and the Virginia Fresh Match Program
  - The Virginia Farmers Market Association (VAFMA) states that people eat a greater variety of fresh fruits and vegetables instead of processed foods when they shop at a local farmers market rather than a grocery store (9). For this reason, the VAFMA created the Virginia Fresh Match program. This program allows a customer to double the value of their food stamps. For example, if a customer spends \$25 worth of their SNAP benefits, Virginia Fresh Match will provide an additional \$25 to spend on fresh fruits and vegetables.
  - This approach not only benefits the children and families challenged with access to food but also helps small and medium-sized farmers to sell their products. Farmers are connected with dependable markets where families enrolled in the Virginia Fresh Match program use their extra SNAP benefits to purchase fresh fruits and vegetables (9).
  - In 2018, over 2,500 Virginians benefitting from SNAP utilized the Virginia Fresh Match Program which resulted in over five hundred Virginia farmers earning about \$250,000 more than they would have otherwise. The connections between families and farmers that the Virginia Fresh Match Program creates benefits the community from the smallest child to mid-sized farms in rural Virginia (9).

### 2. Establish and support infrastructure that enables local organizations to secure surplus food

- If it weren't for logistical complications, it is likely that many more grocery stores would donate their nearly expired food to charities and nonprofit organizations.
  - There is a misconception that grocery stores will be held liable if their near-expired, donated food causes illness. However, the federal Bill Emerson Good Samaritan Food Donation Act protects entities from "civil and criminal liability should the product donated in good faith later cause harm to the recipient" (10).
  - For organizations that still have concerns the USDA has released a three-page FAQ about what can be donated, by whom, and to whom (10).
- Exceptionally large organizations such as Feeding America are able to support the logistical costs of transportation and storage, but few small, local organizations have the consistent staff, volunteers, and funding necessary to regularly transport surplus food from grocery stores.
- The addition of available grant monies or publicly funded infrastructure to transport surplus foods from grocery stores to local nonprofits that work to decrease hunger may be a viable solution.
  - The Conservation Fund reports that the Grant Program for Transporting Healthy Food is a similar program that helps fund the transport of healthy food from farmers and fishers to local markets in underserved populations. This program has served 19 states and 317 counties and has been able to help provide an additional 4.5 million healthy meals (11).



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### 3. Encourage the creation of institutions that support local farmers and provide nutritious food.

- It is beneficial to support as many aspects of rural communities as possible when deciding which solutions to implement. Grocery stores that provide fresh, nutritious food to their customers, support local farmers, and financially empower their employees achieve this goal.
  - Food City, a prominent grocery store in Southwestern Virginia and Tennessee, partners with local farmers to bring their customers fresh-from-the-field fruits and vegetables. The grocery stores offer a plethora of food items that are delivered directly from the farm to the store on the same day they are picked, helping farmers to sell their crops quickly and allowing customers same-day access to high quality foods. Additionally, Food City reports that almost 15% of its company is owned by its associates through its profit-sharing plan. Food City also organizes a variety of community events such as food drives, school fundraisers, and local farm promotions (12).



# Healthy Moms and Babies



Roanoke • © Virginia Tourism

# Healthy Moms and Babies

## Overview

Maternal health refers to the health of women during pregnancy, childbirth, and the postnatal period (1). It is influential in determining the overall health outcomes of both mother and baby, making a woman's preconception health and ability to access maternal healthcare extremely important. Prenatal care is critical as it allows expecting mothers to be screened and monitored for potential complications that could occur during and after pregnancy. Access to prenatal care reduces the risk of many pregnancy complications that can be dangerous and even fatal for both the mother and baby, especially if left undiagnosed.

While genetics can play a role in maternal and infant health outcomes, the preconception health of a mother is critical. Research strongly supports that where people live, learn, work, and play (in addition to environmental and social factors and availability of resources to meet daily needs) influence maternal and infant health behaviors and health status (2).

### A **maternity care**

**desert**, as defined by the March of Dimes, is "a county in which maternity care services are limited or absent

because of either a lack of services or barriers to a woman's ability to access those services" (4). Women living in these counties have limited access to appropriate preventive, prenatal, and postpartum care.

Nationally, more than 5 million women live in maternity care deserts that have no hospital offering obstetric care and no obstetric providers (4).

Almost 150,000 babies are born annually to women living in maternity care deserts in the United States (4).

Among women living in maternity care deserts, 4 of 5 live in a rural area (4).

Pregnant women living in rural communities face unprecedented barriers to accessing adequate maternity care, often leading to disparate birth outcomes (3). Rural women often face lengthy journeys to reach a hospital that offers obstetric care. The scarcity of obstetricians practicing in rural areas increases the number of births without obstetrician care and influences the number of early elective deliveries through the induction of labor and cesarean section procedures. The complications associated with these procedures present increased risks of maternal and infant mortality

(4). The likelihood of facing these challenges is even greater for women of color in rural areas as they are disproportionately affected by a lack of access to maternal care and have a higher incidence of maternal mortality (5).

## Prenatal Care Rated Adequate or Better



Rural  
355.9 per 1,000



non-Rural  
411.3 per 1,000

Virginia Department of Health PRAMS 2018

### In Virginia, rural communities have a higher rate of infants born with low birth weight.

In rural areas, the rate of low birth weight is approximately 94 per 1,000 live births, compared to 82 per 1,000 in non-rural areas. However, there is much variation regionally. In Eastern Virginia, there are 123 babies born annually with low birth weight per 1,000 live births. In Northern Virginia, that number falls to 72. Additionally, low birth weight is often seen in babies with Neonatal Abstinence Syndrome (NAS), which occurs more frequently in rural areas.

### Time between births is a concern for rural mothers and babies.

Children in rural areas are born with a birth interval of less than two years at over twice the rate of non-rural area; 190 per 1,000 live births in rural areas compared to just 89 per 1,000 live births in non-rural areas. Short birth rate intervals increase the risk of the mother not recovering fully from previous births, creating a sub-optimal environment for the next baby. These conditions can cause complications such as low birth weight and higher mortality rates in future births.





## Healthy Moms and Babies

### Mount Rogers Health District: Baby Care Program

**Need addressed:** A 2013 study about the fourth trimester of the postpartum period reports that “rural women are...a dangerously underserved population due to the inadequate number of care providers who serve rural regions” (10). Additional health care options would benefit rural mothers and babies.

**Approach:** The Mount Rogers Health District created the Baby Care Program to coordinate Registered Nurses who are willing to educate mothers about the growth and development of their babies and to connect them with appropriate medical care. The Baby Care Program helps women learn how to have a healthy pregnancy, raise a healthy baby, and locate the appropriate health services for both herself and her baby. A mother enrolled in the program will learn how to monitor her baby’s growth and development, keep her baby safe, maintain a healthy diet, and breastfeed. Beyond infant years, the Baby Care Program gives mothers advice on how to be a good parent, the importance of regular doctor visits, healthy lifestyle choices, and family immunizations (11).

**Outcome(s):** The Baby Care Program provides case management services, pregnancy and parenting information, emotional support, referrals to community services, home visits, and phone support to new moms and babies up to the age of two. The program has helped many growing families and even offers a plan of safe care for moms and families with substance abuse disorder (11).

### Three Rivers Health District: Healthy Start Loving Steps

**Need addressed:** Maternal mortality rates have often been utilized as a broad indicator of a society’s overall well-being, with lower mortality indicating better living conditions and increased access to high quality health care. Unfortunately, a 2019 study that examined the maternal outcomes of more than 33 million births between 2001 and 2015 found that in the United States, rural women were 9% more likely to suffer from severe morbidity and mortality “as compared to urban women (12).

**Approach:** The Three Rivers Health District encompasses the rural area of Virginia located between the Potomac, Rappahannock, and York Rivers and to the west of the Chesapeake Bay. Three Rivers Health District has three impressive home visiting programs that aid women in making sure their pregnancies are healthy and that they have the skills needed to effectively raise emotionally, physically, and socially healthy children (13).

The health district offers Community Health Workers’ Home Visiting Case Management Services, a program called Three Rivers Resource Mothers, and the Healthy Start/Loving Steps program. The Three



Rivers Resource Mothers Program works with teen moms to promote prenatal care, breastfeeding education, and developmental screenings of infants. It also makes sure young mothers immunize their babies. The Healthy Start/Loving Steps program provides health education services exclusively to women in Westmoreland County until their child reaches two years of age. All three programs utilize community health workers to deliver services, education, and assistance to mothers (13).

**Outcome(s):** The Three Rivers Home Visiting Program has provided assistance to countless mothers and babies in rural Eastern Virginia. The Resource Mothers Program has especially improved health outcomes of mothers, as it assists teens with taking proper care of their babies, family planning, and developing a stable home (14).

### University of Arkansas for Medical Sciences (UAMS) High Risk Pregnancy Program

**Need addressed:** In the early 2000’s, Arkansas had high rates of low birthweight babies compared to the rest of the country, and women in rural areas had difficulty accessing specialty obstetric care (15).

**Approach:** The University of Arkansas for Medical Sciences (UAMS) created the Institute for Digital Health and Innovation (IDHI) High-Risk Pregnancy Program to increase access to care for pregnant women in an effort to improve outcomes for high-risk pregnancies. UAMS describes its program as an innovative consultative service for a wide range of obstetric providers in the state (9). Its goal is to ensure that pregnant women have access to high-risk obstetric services regardless of their residence in Arkansas. This program is the only one of its kind in the United States and offers access to maternal-fetal medicine physicians via telemedicine (15).

**Outcome(s):** The program has increased access to care and reduced infant mortality for rural Arkansas women through various programs and has been recognized as a model. Over the past fifteen years, the High Risk Pregnancy Program has resulted in a downward trend in neonatal death, post-neonatal death, and postpartum



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complications. Every participant in the High-Risk Pregnancy Program who completed a survey reported that they would either use the service again or thought the service was beneficial for the state of Arkansas (15).

### Mothers and Infants Sober Together (Eastern Tennessee)

**Need addressed:** Tennessee and other states in the Central Appalachian region face higher rates of substance abuse disorder compared to the rest of the country. There is an opportunity to create programs for pregnant women using illicit substances and infants born into drug-positive families.

**Approach:** The Mothers and Infants Sober Together (MIST) program assists mothers who use substances to get treatment and provide a safe, drug-free home for themselves and their newborns. MIST provides mothers with integrated physical and mental health care and works with the mother to create a stable environment free of drugs. The average age of a MIST client is 24, with a range of 13 to 41 years (16).

**Outcome(s):** MIST has helped mothers find treatment and education and has helped children grow up in safe and healthy homes. The MIST Program reports that it has received 942 agency referrals. Because of MIST and with assistance of their physicians, many women have successfully detoxed before giving birth. Drug-free, healthy babies have been born to women who were previously addicted to drugs during pregnancy (16).

## Opportunities for Growth

### 1. Establish a Health Professional Shortage Area (HPSA) designation specific to maternity care

- Designations would allow for the National Health Service Corps, State Primary Care Office and State Office of Rural Health to offer student loan repayments to incentivize maternal health providers to practice in shortage areas.

### 2. Integrate more certified nurse-midwives in prenatal care and birth plans

- Expanding access to midwifery is critical for improving maternal and neonatal health outcomes for rural women, especially those lacking access to traditional prenatal care.
- Medicaid pays for slightly under half of all births in the United States, but in rural areas, the proportion is often higher. Since Medicaid pays approximately half as much as private insurance for childbirth, the financial aspect of keeping a labor and delivery unit open is more difficult in rural areas. Expanding the use of midwives and birthing centers could be a cost-effective alternative because they are generally less expensive than physicians and hospital obstetric units.

### 3. Provide targeted training of providers practicing in maternity care deserts

- Traveling mobile units to offer training of general practitioners on common obstetric complications.

### 4. Inform the strategic planning of Maternal Mortality Review Committees

- Compare maternal and infant birthing outcomes prior to and after Medicaid expansion.

### 5. Utilize Telemedicine to provide long-distance maternal-fetal medicine consultations in rural hospitals and clinics

### 6. Share resources across systems and settings by regionalizing perinatal care

- By coordinating a system of care within a geographic area, pregnant women would receive risk-appropriate care in a facility equipped with the proper resources and health care providers (17). A study examining geographic gaps in access in the availability of obstetric and neonatal care found that while the majority of women of reproductive age in the U.S. do have access to critical care, there are significant differences (17). Nearly all obstetric and

## Healthy Moms and Babies

newborn intensive care units were concentrated in urban areas with clusters of hospitals operating close to each other, which meant that the majority of the population did not have access to perinatal critical care units. Access is defined as living within 50 miles of care. However, large geographic areas were not covered by either of the perinatal facility zones, indicating a significant gap in access for women in rural areas. In addition, the fastest access to both obstetric and neonatal critical care for almost 10% of women was in a neighboring state, underscoring the need for coordination between states (17).

### 7. Train and implement more community health workers (CHWs)

- The addition of CHWs is critical to improving healthcare in rural settings, especially perinatal care.
- A program that brings perinatal care and parenting education to parents in rural areas by CHWs is needed.
- Holy Cross Medical Center in New Mexico's First Steps program provides home visits by CHWs to parents and children from the perinatal period to age three. This program assists parents with raising a child by helping reduce barriers. The CHW works with families to find resources and create plans for success.

### 8. Expand awareness of and access to governmental assistance

- In 2012, Virginia spent over \$16 million on Medicaid expenditures for pre- and postnatal care of mothers in rural areas. Over 5,000 births were paid through Medicaid.
- In Virginia's Child Care Subsidy Program, a portion of the cost is made directly to high quality child care providers. This program is available to many women including those who are employed, participating in an education or training program, and/or receiving child protective services.
- In 2019, there were 109,469 participants in the Women, Infants, and Children Program (WIC) in Virginia. However, in 2014, almost 50% of eligible pregnant women did not participate in the WIC program. Additionally, participation in the program has been decreasing as children become older even if they are still eligible. The overall coverage rate in Virginia is 47.7%.
- While these programs are vital to many rural women and children, they do not have full participation. Support groups and classes can be created to help women and their children sign-up for these programs. Community members such as social workers should better explain these programs, the eligibility criteria, and how to receive coverage.







# Access to Health Care Services



Accomack County • © Todd Wright

# Access to Health Care Services

## Overview

Access to healthcare refers to both the availability and obtainability of health care services. Health care services include, but are not limited to: primary care, dental care, behavioral health, specialty care, emergency care, and public health services. Simply put, access to healthcare means that everyone has the ability to find the type of health care service(s) that they need, when they need it, and are able to pay for those services. This includes ancillary care and access to physical, respiratory, cardiovascular, and pulmonary therapies that prolong and enhance life and keep populations healthy. Access to healthcare is important for a person's overall physical, social, and mental health status, disease prevention, detection, diagnosis, treatment of illnesses, and quality of life.

Generally speaking, the reasons people are unable to access healthcare when they need it are due to an inability to find an appropriate provider or insufficient resources to afford the care needed. Additional barriers include the inability to take time off work for an appointment, inadequate access to transportation to travel to the appointment, and limited options to improve health literacy of the patients.

### The U.S. Department of Health and Human Services (HHS) defines health literacy



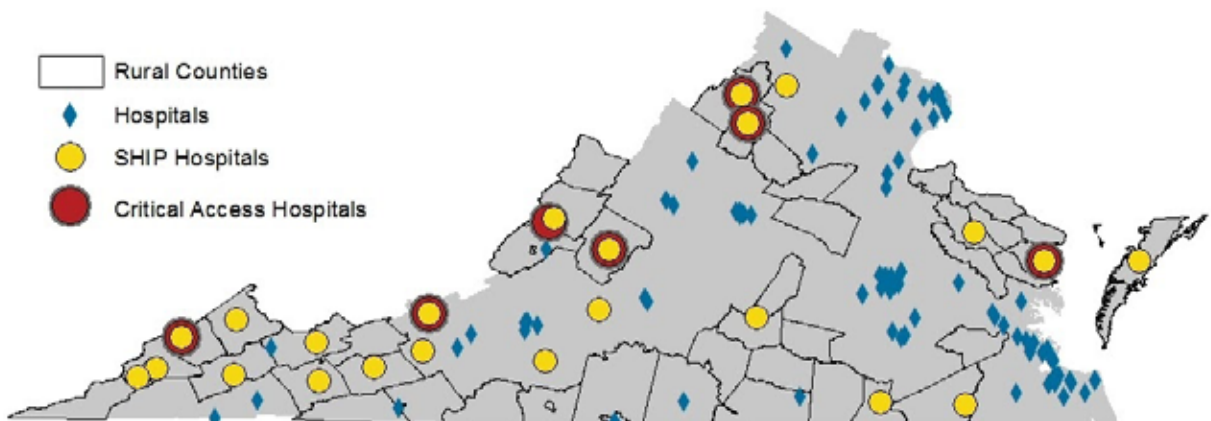
as “the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions (2010). Health literacy can affect a patient’s ability to take medications and understand recommended treatments.

Additionally, a patient’s health literacy determines how they utilize the healthcare system.

Many of Virginia’s rural areas are federally designated Health Professional Shortage Areas (HPSAs), for dental health, mental health and primary care. This definition means the area lacks enough providers for the population. Other communities might have providers but they may not accept the patient’s insurance plan. Some communities lack ancillary or specialty providers. Many rural counties lack a hospital and some of these communities rely heavily on volunteer emergency medical service providers.

The VA-SORH team held a series of conversations with several rural communities across the Commonwealth. During these community conversations, access to healthcare services was unanimously identified as an issue or barrier community members faced which inhibited their ability to achieve optimal health and well-being. The issue was particularly notable in Lee County (Pennington Gap) and Patrick County (Stuart), where both communities had recently lost their rural hospitals. In Patrick County, EMS personnel reported routinely transporting patients two hours to North Carolina or Roanoke, keeping the ambulance out of service for up to 4 hours. Communities on the Eastern Shore have a robust clinical system available but most specialty care is across the Chesapeake Bay Bridge-Tunnel, which spans 17.6 miles with an eighteen dollar toll each way.

One way to measure access to care and its impact is to examine the number of avoidable hospitalizations. These are hospitalizations that could have been prevented if adequate care was available outside of the hospital setting, as defined by the US Agency for Healthcare Research and Quality (AHRQ). In 2017 throughout rural Virginia, there were about 20.6 avoidable hospitalizations per 1,000 residents compared to just 12.2 for non-rural residents. Avoidable hospitalizations per 1,000 residents are particularly low in Northern Virginia, just 6.8 per 1,000 residents. While the age and health of these populations is one factor driving per capita numbers, these factors demonstrate the need for improved access to primary care and other outpatient services in rural communities.



## Access to Health Care Services

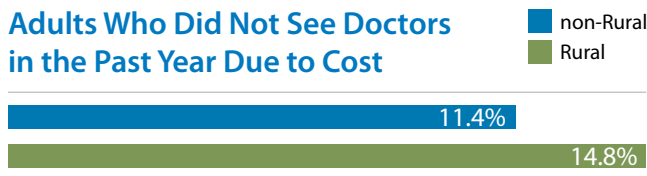
### Avoidable Hospitalizations per 1,000 Residents



Source: Virginia Health Information, 2017

Affordability is a significant barrier to accessing care for many rural residents. A cycle of neglect is begun when patients cannot afford to pay for medical care or to take time off work. Patients might delay care until they require emergency department care, which could produce a bill that cannot be paid. According to the 2018 American Community Survey 5-year estimates, 16.7% of rural Virginians aged 18 to 64 lacked health insurance compared to 12.3% in non-rural areas. Fewer than 5% of Virginia's children were uninsured in 2018 with lower rural/urban disparities overall. However, the impacts from lack of access may last a lifetime. Up to 1.5 million Virginians are newly eligible for Medicaid since Governor Ralph Northam's administration expanded eligibility in 2019. Still, there are those who are unable to pay for the cost of their healthcare. For those with coverage, many plans have high deductibles and out-of-pocket minimums prior to gaining full coverage. Prior to 2021, Virginia's Medicaid program did not cover comprehensive dental care for adult members.

### Adults Who Did Not See Doctors in the Past Year Due to Cost



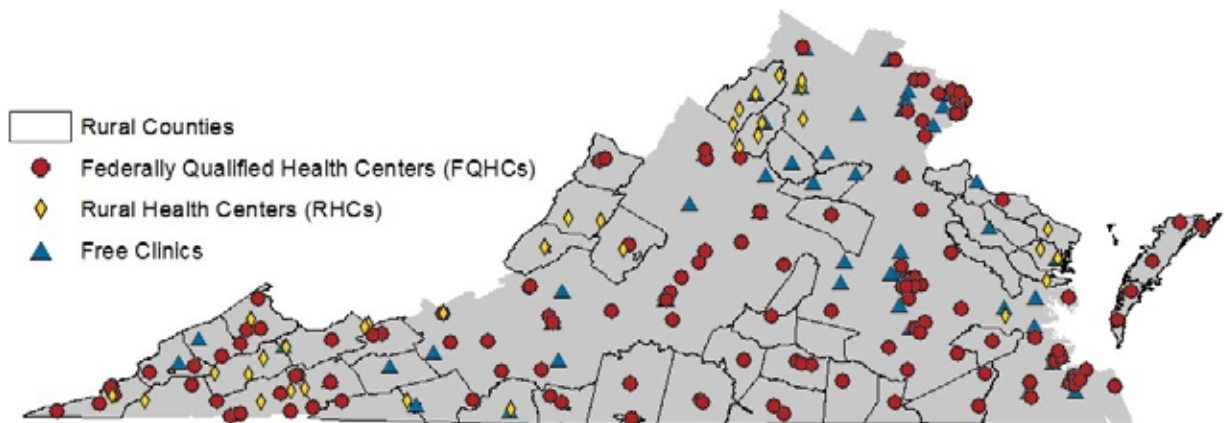
Source: Behavioral Risk Factor Surveillance System, 2019

The lack of access to healthcare for many rural residents can be seen during Remote Area Medical (RAM) events. RAM's mission is to prevent pain and alleviate suffering by providing free quality healthcare to those in need. RAM events deliver free dental, vision, and medical services to underserved, functionally uninsured, and uninsured individuals through pop-up clinics held throughout the Commonwealth and surrounding areas. RAM relies on volunteers as their workforce. RAM events are often in rural areas like Wise County, Rappahannock, Harrisonburg, and Rural Retreat. RAM has delivered health care services to hundreds of thousands of people.

The healthcare safety net consists of Federal Qualified Health Centers (FQHCs), rural health clinics (RHCs), and free and charitable clinics (FCC) that care for the underinsured or uninsured. These clinics offer care on a sliding scale and many offer integrated services providing patients access to primary care, dental care and mental health services. Virginia has a strong healthcare safety net with clinics located throughout the Commonwealth, many in rural communities. Virginia's safety net sites recruit healthcare professionals who are culturally and linguistically able to connect with their patients. Still, many members of Virginia's safety net cannot recruit enough physicians to serve their population and report having openings for 12 months or more.

### Healthcare/Allied Health Provider Shortage

The reasons for a lack of healthcare professionals in rural areas are well-documented. Common concerns are a lack of opportunities for families, the quality of schools, and low pay in the face of high debt upon graduation. Traditionally, medical school training focuses students toward urban centric and specialty-focused experiences. (1)



## Access to Health Care Services

### Obligated Providers



	Rural	non-Rural
Dental	25	22
Mental	38	80
Primary Care	102	91
<b>Total</b>	<b>165</b>	<b>193</b>

Current count of providers obligated to serve in shortage areas in 2020.  
Source: Office of Health Equity

On the other hand, rural physicians enjoy the variety of cases they see from minor surgery to obstetrics. The Association of American Medical Colleges (AAMC) identifies successful candidates for rural practice as those having grown up in a rural area or having participated in a rural clerkship immersing students in the community for an extended period. Rural rotations introduce students to career paths they may not have considered otherwise.

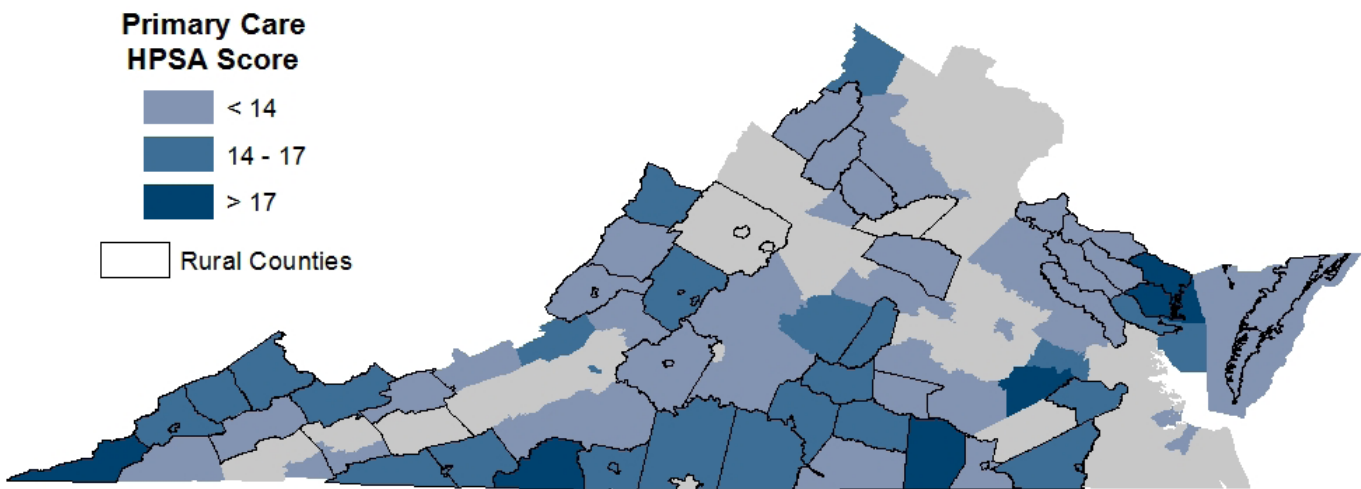
Residency training in Virginia must occur at a hospital, leaving little opportunity for rural community-based experiences and training. Currently there are two rural residency training tracks in Virginia, one in Blackstone, graduating 2 residents each year, and the other in Big Stone Gap, graduating 6 primary care physicians annually. All Virginia medical schools offer rural clerkships to third and fourth year medical students.

Virginia continually works to meet the challenges of maintaining an adequate health care workforce to meet the needs of all citizens. Those living in rural areas have a disparity in access to providers. The primary care, dental, and mental Health Professional Shortage Areas (HPSAs) illustrate this disparity in the Commonwealth.

Primary care HPSAs are designed to indicate shortages of primary medical care providers, defined as family medicine, general internal medicine, pediatrics, obstetrics and gynecology, and general practice. Virginia currently has 106 primary care HPSA designations in 83 counties and independent cities. There are 54 geographic primary care designations and 11 population-based primary care designations.

There are also 41 health care facilities with HPSA designations, of which 28 are Community Health Centers (CHCs), 4 are Rural Health Clinics (RHCs), and 9 are correctional facilities. There are 9 jurisdictions without geographic or population-based HPSAs that have designated facilities.

There are currently 343.1 Full-Time Equivalent (FTE) primary care physicians practicing within designated HPSAs. It is estimated that the Commonwealth will need an additional 192.3 FTE primary care physicians to eliminate the shortages currently experienced within the primary care HPSAs.

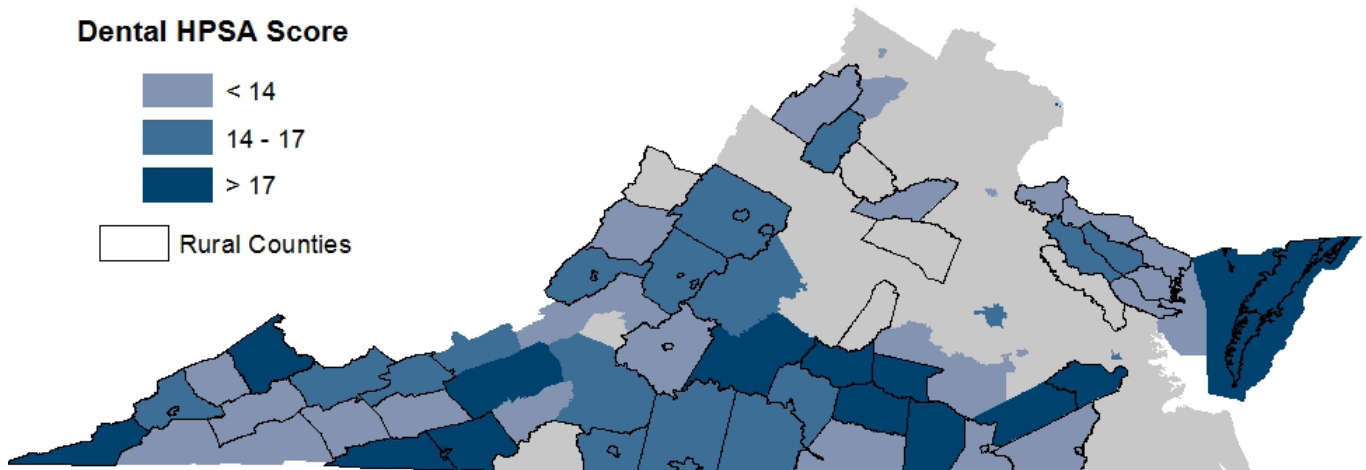


## Access to Health Care Services

Dental HPSAs are designed to indicate shortages of general dental care and take into account the number (FTE) of dentists, which are, in turn, weighted by the age of the individual dentist and the number (FTE) of dental hygienists and assistants associated with each dentist. Virginia has 98 separate dental HPSA designations in 82 jurisdictions. The designations include 15 geographic designations and 45 low-income designations.

There are also 38 facility designations: 27 are CHCs, 4 are RHCs, and 7 are correctional facilities. There are 12 jurisdictions that have designated facilities, without geographic or population-based HPSAs

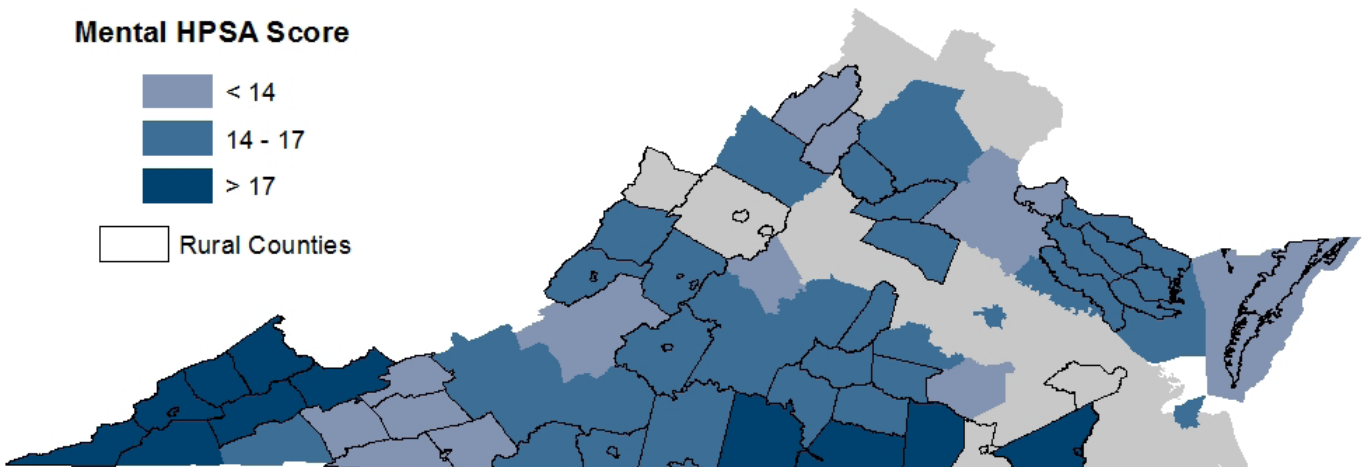
There are currently 112.7 FTE dentists practicing within the designated HPSAs. It is estimated that it would require an additional 171.5 FTE dentists, who agree to serve the medically needy in these institutions and areas, to eliminate the dental shortages that are currently being experienced within the Commonwealth's dental HPSAs.



Mental health HPSAs are designed to indicate shortages of mental health care providers, defined as psychiatrists and other core mental health providers (e.g., clinical psychologists, psychiatric nurses, marriage/family counselors and clinical social workers). Virginia has 74 separate mental HPSA designations in 82 jurisdictions. The designations include 11 geographic designations, and 15 low-income designations.

There are also 48 facility designations: 27 are CHCs, 4 are RHCs, 9 are correctional facilities, and 8 State Mental Hospitals. There are 8 jurisdictions that have designated facilities, without geographic or population-based HPSAs.

There are currently 72 FTE psychiatrists practicing within the designated HPSAs. It is estimated that it would require an additional 83 FTE psychiatrists, who agree to serve the medically needy in these institutions and areas, to eliminate the psychiatry shortages that are currently being experienced within the Commonwealth's mental HPSAs.



### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### Central Virginia Health Services (CVHS)

**Need addressed:** Many rural areas in Virginia lack access to healthcare, including dental care and behavioral health services. Additionally, some urban/suburban areas with high poverty populations have inadequate access to primary healthcare services.

**Approach:** Central Virginia Health Services (CVHS) is one of Virginia's oldest federally qualified community health center systems. Its mission is to transform lives through exceptional healthcare by providing safe, accessible, affordable, comprehensive, high quality, and culturally sensitive health services to anyone. CVHS operates 18 practices that provide medical, dental, and behavioral health care, and pharmacy services. The majority of these serve rural regions with another four in urban/suburban areas (Charlottesville, Petersburg, Hopewell, and Fredericksburg) which have high poverty populations, too few primary care or no dental or behavioral health providers characterize the underserved rural communities where CVHS has a presence (3).

**Outcome(s):** Central Virginia Health Services serves over 40,000 patients per year through almost 150,000 visits. Each patient receives excellent primary care regardless of insurance or place of residence (3).

#### University of California Programs In Medical Education (UC PRIME) Program

**Need addressed:** California has a growing shortage of health providers. The state already has large regions that are Medically Underserved Areas (MUAs) and other regions with distinct Medically Underserved Populations (MUPs).

**Approach:** The University of California Programs in Medical Education (UC PRIME) is a unique medical school program that supplements standard training with additional curriculum tailored to meet the needs of various underserved populations. Each program has a dedicated area of focus, targeted student recruitment, supplemental criteria for admission, relevant curricular content, and dedicated faculty mentorship.

**Outcome(s):** The UC PRIME program is an innovative longitudinal medical student training program focused on meeting the needs of California's underserved populations in both rural communities and urban areas by combining specialized coursework, structured clinical experiences, advanced independent study, and mentoring. These activities are organized and structured to prepare highly motivated, socially conscious students as future clinicians, leaders, and policymakers. Each campus has an area of focus that is based upon faculty expertise, the populations served by each school and its medical center, and other local considerations. Rural-PRIME was created to train the best and brightest medical students for a fulfilling career in a rural community. It is an opportunity that offers a range of experiences, from public health and community service to the use of leading-edge medical technologies like telemedicine. Rural-PRIME creates a new model for non-urban medical practice, one that utilizes advanced technologies to provide up-to-date healthcare knowledge while also preserving the positive aspects of smaller, more remote clinics. (2)



Wise County • The Health Wagon



Danville • David Hungate

### Centra Health Community Paramedicine Program

**Need addressed:** Virginians in Bedford, Farmville, and Lynchburg struggle with access to basic healthcare. Due to this issue, many emergency medical services vehicles are utilized for 911 calls that are not emergencies.

**Approach:** Centra Health employed Community Health Needs Assessments for the cities of Bedford, Farmville and Lynchburg to determine the unique needs of each area. In response, Centra developed the Community Paramedicine Program, consisting of a team of four highly experienced nationally registered paramedics and Centra's supervisor of training. The program provides patients with medical visits to their homes and individual plans that address nutrition, exercise, and healthy lifestyle. Patients with chronic obstructive pulmonary disease (COPD), congestive heart failure, hypertension, and diabetes are included in the program, as well as those who have had several hospital admissions within the past twelve months (4).

**Outcome(s):** The Community Paramedicine Program has built several ramps for patients in Central Virginia, educated patients on healthy living, and created healthier communities. The program boasts a 93% success rate in preventing readmissions to the hospital (5).

### Stone Mountain Health Services: Black Lung Program and Behavioral Health Integration

**Need addressed:** Health care clinics are sparse in some rural areas of Southwest Virginia, and citizens are often challenged to obtain needed primary healthcare. At the same, Virginia produces over ten million tons of

bituminous coal per year, much of it produced by coal miners in the Southwest portion of the state (6). It is especially important for these miners to have access to preventive care and lung disease screenings.

**Approach:** Stone Mountain Health Services (SMHS) provides community health care clinics in rural, Southwest Virginia, enabling citizens to access affordable medical care and behavioral health services. SMHS also created the Black Lung Program, which provides a process of screening, diagnosis, and treatment. Healthcare professionals perform a physical evaluation and whatever testing the miner needs, with additional tests for those who display abnormalities. If a miner is diagnosed with occupational lung disease, treatment will be provided that meets the standards of the Department of Labor guidelines. Miners without primary care providers may receive services at any Stone Mountain clinic.

The Black Lung Program provides education for its patients in individual and group settings. Topics include smoking cessation, breathing exercises, and relationship tips. Benefits counseling is also available so that miners understand their eligibility for state and federal benefits (7).

**Outcome(s):** Stone Mountain Health Services is able to provide primary health care, including behavioral health services, to rural Southwest Virginia. Their Black Lung Program screens, treats, and educates miners, creating a healthier community. In 2017, SMHS used 317 awards from the Department of Labor to generate more than \$4.3 million in benefit monies to coal miners and their families. The SMHS Lay Advocacy Program has been so successful that it has presented training programs all across the country (7).

### Central Appalachia Health Wagon

**Need addressed:** Transportation limitations often make it difficult for citizens in the Central Appalachian region of Virginia to attend their medical appointments. Limited access to transportation may be a result of poverty, disability, or a variety of other causes.

**Approach:** Created in 1980 to assist the medically underserved in rural Virginia, the Central Appalachia Health Wagon assists more than 4,000 patients per year to obtain affordable health care. Offering counseling, chronic disease management, telemedicine, eye exams, and behavioral health services, the Health Wagon provides an extensive list of health services and helps to coordinate care for patients who need more. The Health Wagon uses three mobile health units to provide over 16,000 visits and it has two stationary clinic sites.

The Health Wagon provides transportation services as part of its offering. The program primarily helps rural Virginians who are lacking health insurance, and without a high school diploma.

**Outcome(s):** For 41 years, the Health Wagon has supported the health of almost five thousand rural Virginians who are five times more likely to be chronically unemployed than the average Virginian. Many Health Wagon patients represent some of the most vulnerable citizens of the Commonwealth, and are more likely to die from heart disease, diabetes, and suicide.

### Opportunities for Growth

#### 1. Increase funding to the Virginia Area Health Education Centers Program to expand both graduate medical education and health professions education and training into rural areas

- The General Assembly created the Virginia Health Workforce Development Authority (VHWDA) to solve health sector workforce shortages. The VHWDA sets priorities for the Area Health Education Center (AHEC) Program encouraging health sector growth in specific communities. Programs address recruitment, continuing education, and student connections with internships and preceptorships (8). Increased funding would allow AHEC to implement their programs in additional rural communities.
- Universities and health systems could apply for grants expanding GME training opportunities such as rural training tracks, school-based health centers, and teaching health centers. There are not enough residency slots for graduating medical and dental students. By placing residents into longitudinal,

community based experiences, they are more likely to look for clinical practices similar to their residency experience.

- More pipeline programs for healthcare professionals could be implemented at the high school level to include first responders, therapists, medical, community health workers.

#### 2. Expand Medicaid reimbursement to include community paramedicine and community health workers.

- Community health workers and emergency medical service personnel who perform community paramedicine functions for their community often fill the gaps created by the lack of other health care providers. Expansion of Medicaid reimbursement to include these two groups could have significant positive impacts on rural communities that lack access to traditional health care.

#### 3. Duplicate a model similar to the UC PRIME Program in Virginia

- The University of California Health created the Programs in Medical Education (UC PRIME) to educate future clinicians about how to meet the needs of populations that are often overlooked or underserved. The program encourages students from the “same underserved communities to pursue a medical degree – 64% of PRIME students are from groups under-represented in medicine” (9). Rural Virginia communities would benefit from a similar program that educates health care professionals on the best ways to reach rural patients and encourages rural community members to become physicians or other healthcare professionals.

#### 4. Increase the amount of funding allocated for the expansion of the Virginia State Loan Repayment Program (SLRP) or establish other incentive programs

- The Virginia SLRP is very successful in recruiting and retaining providers into medical shortage areas. Virginia could expand on a very successful model for retaining providers by increasing those eligible for the SLRP and increasing the amount of funds available.
- A tax relief program could be established for healthcare professionals, including volunteer first responders, who work in a rural practice. Tax relief could be in the form of a waiver of vehicle property taxes or on miles driven in the line of service.





Virginia Rural Health Plan

# Behavioral Health, Substance Use Disorder, Recovery



Waynesboro • © Ashley Early

# Behavioral Health, Substance Use Disorder, Recovery

## Overview

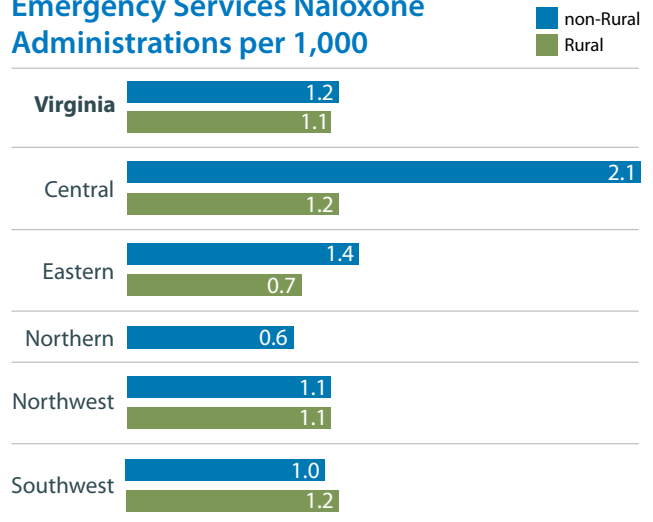
Substance use disorder (SUD) is defined by the World Health Organization as the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs (1). When substance use disorder is severe, it is considered addiction, a brain disease that is manifested by compulsive substance use despite harmful consequences, and can take over a person's life (2). Substance use disorders continue to disproportionately affect rural communities, challenging the previous stereotype that portrayed substance use disorder as an urban problem. However, addiction often presents differently in rural communities than in urban counterparts. Addiction is a life-long disease that impacts people of all ages and walks of life. In rural Virginia, addiction has proven to reshape family dynamics, hinder economic prosperity, contribute to the spread of infectious disease, increase crime, cause health issues for expecting mothers and their babies, and carry a harmful stigma.

Limited resources and the stigma surrounding substance use disorder makes accessing treatment and support during recovery difficult, especially in rural communities. People with substance use disorder may avoid or delay seeking treatment due to a lack of anonymity or fear of judgement. When someone with a substance use disorder does seek treatment, it can be challenging to overcome barriers such as inability to pay, limited services covered by insurance, lack of healthcare professionals and treatment centers, long waiting lists, potential of legal consequences, and many misconceptions about addiction. In order to address these challenges, rural Virginia communities demonstrate their resilience by providing education and treatment-based resources to people with a substance use disorder.

### Overdoses occur at a higher rate in rural areas compared to non-rural areas.

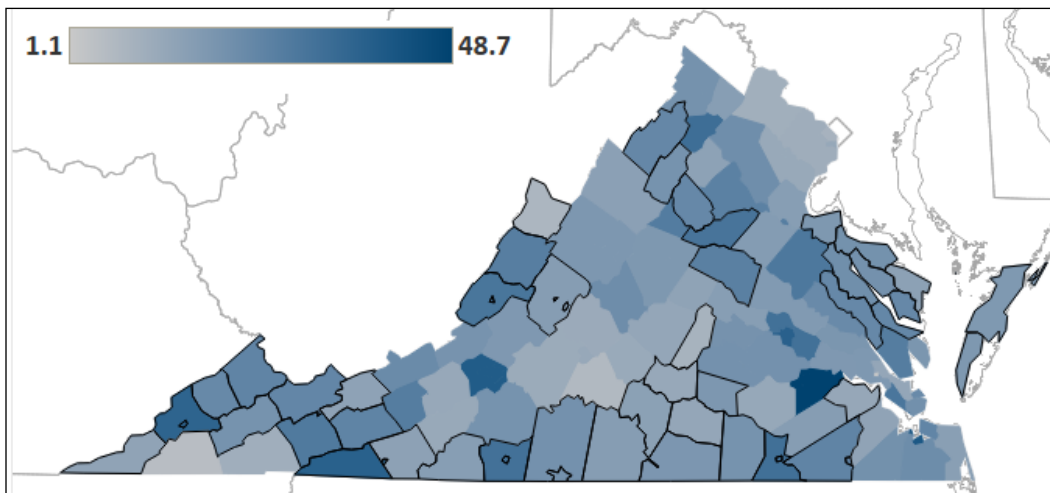
In 2019, the typical rural county experienced, on average, 17.1 Emergency Department (ED) visits for overdose per 100,000 residents and 9.8 per 100,000 residents for opioid overdoses. By comparison, the typical nonrural county experienced 14.5 overdose visits per 100,000 residents, including 7.5 opioid overdose visits per 100,000 residents. Despite this, Virginia's Emergency Medical Services report slightly higher Naloxone administration rates in non-rural areas. This disparity affects all regions of the state, but stands out in the Central and Eastern Health Planning Regions.

### Emergency Services Naloxone Administrations per 1,000



Source: Virginia Department of Health, Office of Emergency Medical Services, 2019

### Monthly Emergency Department Overdose Visits per 100k Residents



Source: Virginia Department of Health Syndromic Surveillance, 2020

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### Appalachian Substance Abuse Coalition for Prevention, Treatment, and Recovery

**Need addressed:** Southwest Virginia has experienced a higher rate of substance abuse compared to the rest of the Commonwealth in recent years. The reasons for this can be attributed to lack of access to health care, healthcare providers who lack substance abuse training, and stigma in small, tight-knit communities (3).

**Approach:** The Appalachian Substance Abuse Coalition (ASAC) for Prevention was created to prepare communities in Southwest Virginia to address the substance abuse epidemic. ASAC achieves this goal through strategic planning and follows the Substance Abuse and Mental Health Services Administration (SAMHSA) model for Strategic Prevention Framework (SPF). This framework is simply a planning process aimed at the prevention of substance abuse, which is highly effective when a community's needs, formed from the basis of statistical data, are well-understood (4).

The strategic planning used by ASAC includes a coalition of stakeholders representing civic organizations, faith communities, youth groups, law enforcement, schools, tribal governments, religious organizations, and many other entities that participate in reducing substance abuse (5).

ASAC reports it has helped many people through strategic planning and dispersal of federal grants. After years of serving the Central Appalachian area, ASAC determined that drug courts provide the highest rate of success for those who complete the entire program (5). Likewise, ASAC notes that not every medical treatment program will fit every person with substance abuse disorder, and faith-based recovery programs can be helpful to reach sobriety.

**Outcome(s):** ASAC is composed of over two hundred members whose strategic planning efforts and organized training events have made the difference in countless lives in the Appalachian region of Virginia. ASAC also serves as the consortium of ten substance abuse coalitions throughout the southwest region (5). The organization has allotted millions of dollars in federal grant money to various substance abuse programs, health care provider education sessions, drug drop-box programs, and REVIVE! training for families (5).

#### Council of Community Services: Comprehensive Harm Reduction (CHR) Program

**Need addressed:** When an individual with substance abuse disorder uses needles to self-administer drugs like opioids, the risk of transmitting disease increases drastically. A 2018 study that evaluated the available literature relating to needle and syringe programs (NSP) found that NSP services have an important role to play in improving human immunodeficiency virus and hepatitis C virus prevention efforts across the world (6).

**Approach:** The Council of Community Services has created a Comprehensive Harm Reduction (CHR) Program to address substance use in the Appalachian, Danville, and Roanoke regions. Individuals with substance abuse disorder are able to enter a Drop-In Center office and exchange needles and syringes, as well as receive HIV and Hepatitis C testing, wound care kits, and assistance with accessing care. The Drop-In Center also offers contraceptives and informational brochures (7).

**Outcome(s):** CHR programs have protected rural Virginia communities from experiencing more severe outbreaks of dangerous, viral diseases. The Drop-In Centers effectively collect and dispose of hazardous medical waste, and also offer patients a five session program named CLEAR (Choose Life! Empowerment, Action, Results!). This program helps patients set goals, adhere to a daily routine, and create a pathway out of substance use (7).

#### The Virginia Lock and Talk Program

**Need addressed:** Rural areas experience disproportionately high rates of opioid abuse compared with urban areas. This may be attributed to reported higher levels of pain, higher unemployment rates, lower education, and overall poorer health (8). Rural individuals who use opioids other than prescribed often receive the drugs via prescriptions, revealing opportunities for improvement in how physicians identify signs of opioid misuse and how pharmacists dispense the drugs.

**Approach:** The Virginia Lock and Talk program focuses on reducing suicide and substance by supplying individuals with free lock boxes to secure drugs and guns. The program provides education on how to secure lethal means and encourages participants to take a regular inventory of their drugs. Lock and Talk also trains Crisis Intervention Team (CIT) officers who have helped install medication drop boxes across the Commonwealth of Virginia in order, to limit access to drugs for overdose and abuse (9).

## Behavioral Health, Substance Use Disorder, Recovery

**Outcome(s):** The Virginia Lock and Talk Program focuses on preventing suicide and drug overdose by ensuring that firearms and prescription drugs are harder to access for those with mental health concerns and substance abuse disorder. In 2019, the program distributed 6,500 locking medication boxes and handed out 77,000 tip cards containing poison control information to pharmacy customers (9).

### East Tennessee State University Addiction Science Center

**Need addressed:** The Appalachian region of the United States, spanning rural areas from New York and Pennsylvania to Georgia and Alabama, reports that its residents are over 60% more likely to die from drug overdose than other U.S. residents (10).

**Approach:** The East Tennessee State University (ETSU) Addiction Science Center recently partnered with West Virginia University (WVU) and Virginia Tech as the Opioids Research Consortium for Central Appalachia (ORCCA) to address the opioid crisis in the Central Appalachia region. The three universities submitted a proposal called Reinvestment from an Expanded System to Treat Opioid Use Disorder: Reclaiming the Epicenter (RESTORE), which details a plan to bring together a network of opioid-treatment clinics. The network will reinvest the profits into additional services stationed in the communities that need them the most (11).

**Outcome(s):** The RESTORE Project was named a Top 100 project idea and is included in a public database for donors called the Bold Solutions Network (11). ORCCA hopes to use precision data science, geographic risk assessment, and readiness algorithms to identify which communities are in highest need of additional services and how to implement them (11).

### One Care of Southwest Virginia, Inc.

**Need addressed:** Southwest Virginia has a history of drug misuse, lack of available care for substance abuse disorder, and stigma towards those who use drugs. A study published in September, 2019, focused on Dickenson County in Southwest Virginia. The Center for Disease Control (CDC) has ranked Dickenson County as the nation's 29th most vulnerable county to experience rapid dissemination of HIV and HCV infections among injection drug users. The CDC has also identified the county as the second most at-risk county in Virginia to spread infectious diseases via injection drug use (12).

The study surveyed residents of Dickenson County to determine the perception of people who inject drugs. The survey revealed high levels of stigma toward people who inject drugs combined with very little knowledge of harm reduction programs (12).

**Approach:** One Care of Southwest Virginia Inc. is a nonprofit organization created to address the issues of drug misuse, stigma, and lack of care in Virginia's westernmost tip. One Care states that its mission is to decrease substance misuse, and related social, economic, and health factors through planning, policy, data, and advocacy. Spanning from Bristol to Floyd County, One Care has implemented carefully constructed plans centered on a strategy for reducing harm created by substance use disorder and the surrounding stigma. The organization has identified several challenges in the region, including an insufficient number of behavioral health professionals licensed to treat substance use disorder and low licensee participation (12).

One Care also reports that Community Services Boards (CSBs), points of entry in counties and cities to treat opioid use disorder, often provide inadequate service. For example, some CSBs do not provide medication-assisted treatment considered an option in the whole-patient approach. As a result, some full-service CSBs in Southwest Virginia are overloaded with many of their medication medication-assisted treatment patients coming from surrounding counties. One Care has adopted a top-down approach, attempting to influence the legislature and to secure grants to support programs that provide relief to individuals with substance use disorder (12).

**Outcome(s):** One Care plans to increase the number of evidence-based prevention efforts in Southwest Virginia in order to prevent the harmful effects of substance abuse before they arise. One Care has detailed plans to reduce high levels of stigma toward individuals who use injection drugs and to increase access to long-term recovery resources (12).

### Far Southwest Virginia Drug Court Initiative

**Need addressed:** The Far Southwest Virginia Drug Court Initiative represents adult drug treatment courts in Buchanan, Dickenson, Lee, Russell, Smyth, Tazewell, Washington, and Wise Counties and the City of Bristol and the 30th District Juvenile Drug Treatment Court which has dockets in Lee, Scott, and Wise Counties. The initiative aims to ensure drug court participants and their families, significant others, and support persons continue to have access to services addressing significant public health issues in their communities. Local health districts partner with the initiative and have clinics that focus on communicable diseases, comprehensive harm reduction, overdose prevention, and family planning services as well as health education and prevention services. Drug courts are also present in the Northwest, Central, Northern, and Eastern regions of Virginia.

## Behavioral Health, Substance Use Disorder, Recovery

**Approach:** Drug Treatment Courts combine intense treatment and legal supervision services designed to break the cycle of substance misuse and criminal behavior. Drug Courts offer localities a cost-effective way to increase the percentage of individuals living in sustained recovery, thereby, improving public safety and reducing costs associated with re-arrest and additional incarceration. According to the National Association of Drug Court Professionals, evidence-based Drug Courts save lives because they graduate individuals with the necessary skills to rebuild their lives and because they adhere to evidence-based standards.

**Outcome(s):** Drug Court participants and guests receive testing and referral for communicable diseases such as hepatitis B virus (HBV), and hepatitis C virus (HCV), sexually transmitted disease (STIs), and human immunodeficiency virus (HIV) as well as bacterial infections associated with injection drug use. CPHD and LHD have trained staff to provide education about the comprehensive harm reduction philosophy and practices. CPHD and LHD agree to continue to use the HIV Harm Reduction Navigator curriculum.

### Opportunities for Growth

#### 1. Maintain and provide long-term funding for the Virginia Behavioral Health loan repayment program

- The Community Service Boards (CSBs) continue to experience a workforce shortage and high staff turnover. A student loan repayment program specific to behavioral health safety net providers will make the CSBs a more desirable choice for employment.
- A current effective model is the National Health Service Corps (NHSC) Rural Community Loan Repayment Program (LRP), which offers an opportunity for students of behavioral health care professions such as substance abuse disorder counselors, pharmacists, and registered nurses, to receive loan repayment awards.

#### 2. Provide support in schools to respond to trauma

- Help schools to implement trauma-informed practices by increasing the support personnel resources in schools. Continue to build on efforts to reduce the counselor to student ratio and fund schools at the necessary level to provide more staff positions to provide counseling, mental health support, and to recognize and address trauma in students. In addition, take steps towards increasing access to school-based health centers.

- The Eastern Shore Community Services Board (ESCSB) has employed Adverse Childhood Experiences (ACEs) Interface Training, which examines a prolific study. The class educates individuals about toxic stress, the impact of trauma on the brain, how ACEs contribute to chronic disease and lower life expectancy, and the importance of healthy relationships. The ESCSB also provides sixteen publicly accessible resources containing information about the effects of ACEs on children (14).

#### 3. Empower Communities to provide resources and funding for those with substance use disorder

- Provide adequate funding and reduce barriers so that rural communities can more easily employ Community-Collaborative Wide Effort consisting of healthcare, law enforcement, faith-based organizations, behavioral health institutions, and social services.



Hazel Mountain Overlook • Samantha Brooke





# Healthy Minds and Bodies



Virginia Tourism

# Healthy Minds and Bodies

## Overview

The Virginia Department of Health and the Virginia Center for Health Innovation describe well-being as, “a state characterized by health, happiness, and prosperity”. Understanding the importance of healthy minds as well as healthy bodies is critical to addressing physical, emotional, and spiritual health, and how they are integral parts of well-being.

The Kaiser Family Foundation has reported that individual behavior (40%), genetics (30%), and societal and environmental factors (20%) account for the majority of overall well-being; with access to health care accounting for only 10%. The partnership between health professionals and patients is essential to understand unique circumstances and events that make it easier or harder to be healthy. Important features of whole person care include health and wellness promotion to build each person’s resiliency and prevention to identify and address health concerns early. Wellness can mean visiting a primary care provider annually, seeing a dentist for an annual check up, attending Friday bingo night at a local AmVet center, or attending a religious service.

## Oral Health

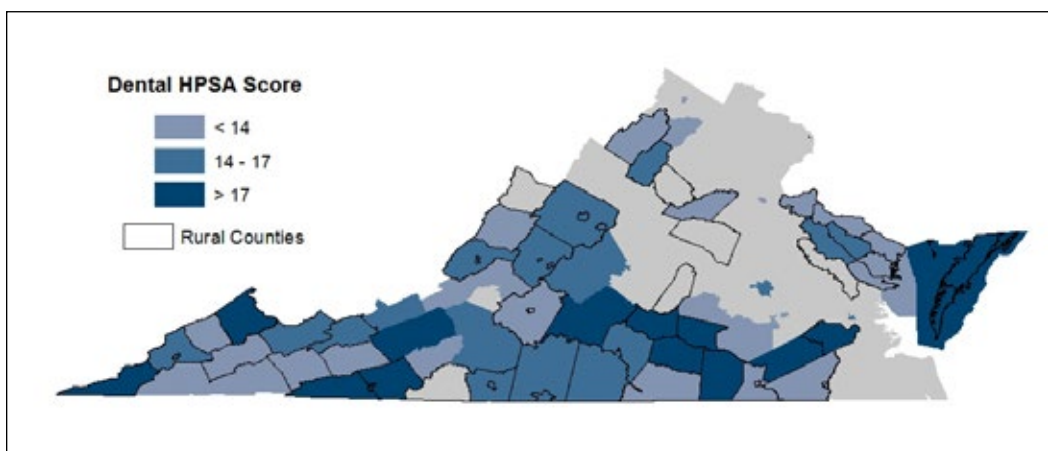
Oral health is an integral part of overall health and an essential component of comprehensive health care. Oral health promotion and disease prevention are essential to strategies aimed at improving access to care. Oral health care is a dimension of the American health care delivery system in which disparities exist, and magnified for rural communities. For example, 54% of rural adults in Virginia report missing teeth, compared to just 40% of non-rural Virginia adults (1).

## Aspects of Overall Wellness



Contributing factors to the widening oral health disparities gap include:

- Geographic maldistribution and isolation
- Dental professional workforce shortage
- Inadequate dental health insurance coverage
- Poor oral health literacy
- Tobacco use
- Lack of fluoridation of water supplies





## Healthy Minds and Bodies



Antioch Baptist Church

The dental professional shortage is one of the biggest causes of oral health disparities in rural communities (2). Dental healthcare professional shortage areas (HPSAs) are designated to indicate shortages of general dental care and take into account the number of full-time dentists, which are, in turn, weighted by the age of the individual dentist and the number of dental hygienists and assistants associated with each dentist. Roughly 40.9% of rural Virginians reside in a dental HPSA compared with 16.0% of those in a non-rural area. The demand for dental professionals outweighs the supply of graduates. Practice location has trended towards urban and metropolitan areas instead of rural areas. The Agency for Healthcare Research and Quality (AHRQ) reported that individuals who lacked dental insurance were two-thirds less likely than people with private insurance to have had a dental visit within the last year (16.1% compared with 50.9%) (3). The study found in 2018, nearly 16,000 Medicaid recipients visited the emergency department approximately 19,000 times for dental-related issues. Of those visits, more than half were for non-traumatic dental conditions like toothaches or loose teeth, and most were for adults who did not have a dental benefit in Medicaid. Although access to oral health care is a need throughout Virginia, only 65% of rural adults reported a dental visit within the past 12 months, compared to 73% in non-rural Virginia (1).

Despite the widening gap between access to dental care, rural communities have created innovative approaches to address the need for oral care:

- Oral health integration
- Mobile oral health programs
- Health profession incentive programs

## Spiritual Health

During our community conversations people reported what they enjoyed most about living in their communities. Feelings of fellowship, connectedness, belonging, and community support contributed to overall happiness.

While many metro/urban areas are anchored by healthcare systems, large academic institutions, and safety-net organizations, many rural localities are defined by the whole person approach represented by faith-based organizations. These are central to community organizing efforts and are trusted sources of information for members and the community at large. Virginia's faith-based organizations and communities form partnerships to provide assistance when needed. The natural beauty of rural Virginia, plus social, faith-based, and cultural connections to land and waterways make Virginia's rural communities some of the state's best localities in which to live and thrive.

## Leading Practices and Approaches

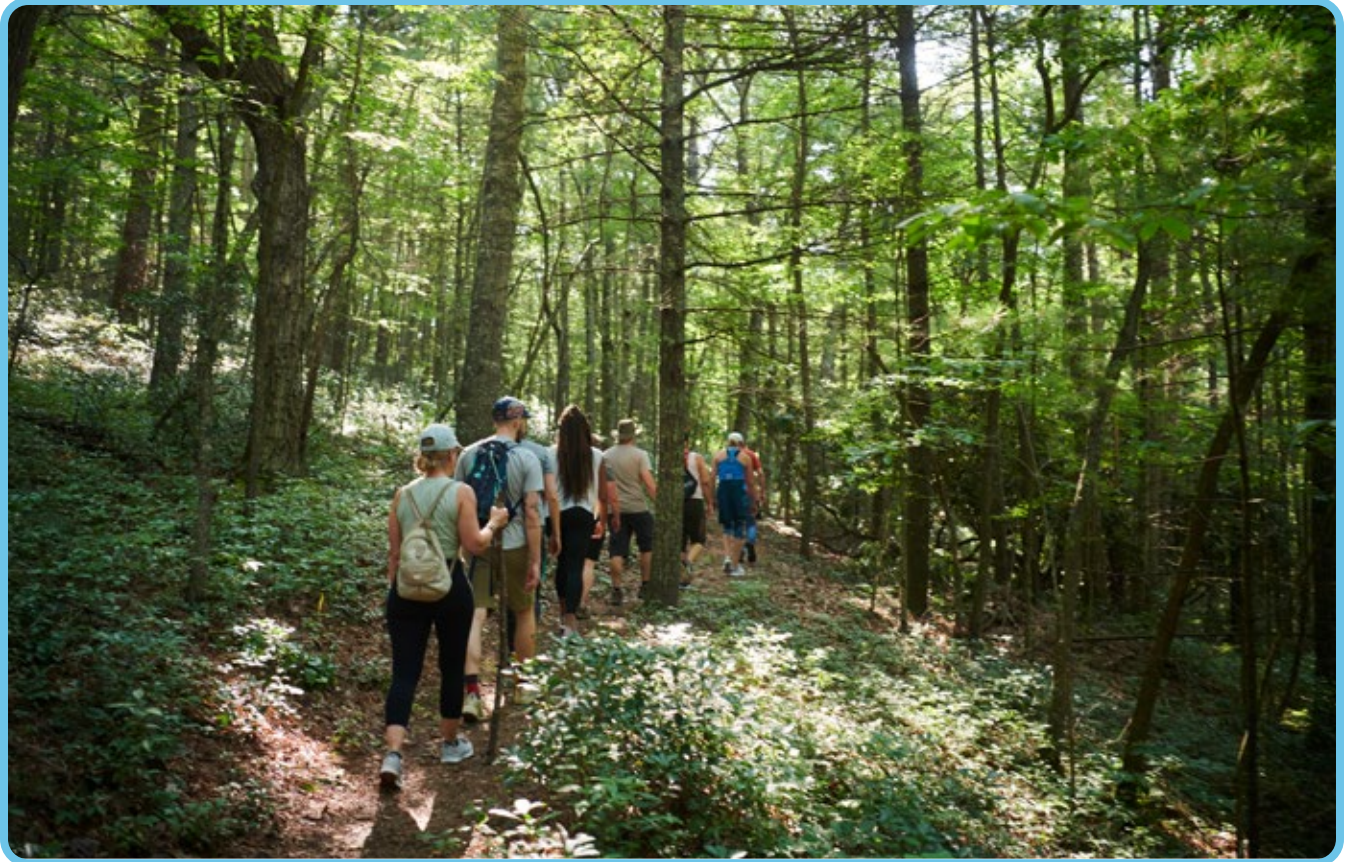
Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

### Virginia Partners in Prayer & Prevention (P3): Zika Pilot Program

The VDH Office of Health Equity, Virginia Partners in Prayer & Prevention (P3) is the evolution and rebranding of Virginia's Congregations for Million Hearts program. The newly branded initiative facilitates partnerships between marginalized communities, faith and interfaith organizations, and local and state public health agencies to promote health and well-being.



Virginia Partners in Prayer & Prevention



Bland County • Mahmoud Hassan

**Need addressed:** The P3 pilot outreach effort focused on Zika prevention through the targeted distribution of VDH-approved Zika prevention around your home and in your community messages. P3 provided a hub for public health resources, facilitated new partnerships, and provided technical assistance to empower communities to bridge the gap between faith and health with ease.

**Approach:** P3 kits were distributed to families in the Central Virginia area. Kits included mosquito repellent, a screen repair kit, and prevention informational materials. Over 100,000 pieces of educational materials have been distributed across the state of Virginia.

**Outcome(s):** The success of this pilot provided a solid foundation to expand programming, broadening the scope of prevention to several key public health issues impacting rural communities. As a result of these efforts, the VA P3 Newsletter was established and additional programming resulted. The newsletter served as a health guide and resource for places of worship and communities of faith. The VA P3 Newsletter has been a resource to over 250 congregations, reaching over 25,000 people monthly. The VA P3 Newsletter has over 10,000 subscribers and continues to be a resource for communities of faith. Virginia P3 has been instrumental in educating diverse

communities around the Commonwealth in health equity and the importance of identifying and addressing health-related social needs in the community.

### **Whole-Person Approach to Healthcare: Tri-Area Community Health Center**

**Need addressed:** Tri-Area Community Health is a Federally Qualified Health Center (FQHC) providing services in Carroll, Floyd, Franklin and Grayson Counties. Its mission is to provide affordable community-based health services and to promote good health in patients and communities. In addition to traditional primary care, Tri Area Community Health provides a variety of wrap-around services are provided to treat the whole person, not just the condition.

Services provided:

- Patient transportation
- Pharmacy services
- Behavioral health
- Case management
- Health education

## Healthy Minds and Bodies

**Approach:** Tri-Area Community Health aims to be a partner in well-being, by providing patients the necessary resources to self-manage and achieve health goals. Tri-Area has integrated behavioral health, case management, and health education services as part of the patient's overall health care, of targeting and enhancing well-being and health.

**Outcome(s):** Tri-Area Community Health is a nationally recognized health quality leader and a Patient-Centered Medical Home (PCMH) certified by the National Committee for Quality Assurance. Practices that achieve PCMH recognition place patients at the forefront of care. Research suggests that PCMHs improve quality, the patient experience, and staff satisfaction while reducing health care costs (4).

### Virginia State Loan Repayment Program (VA-SLRP)

**Need addressed:** Virginia has a shortage of healthcare professionals in rural and underserved areas of the state. Partial payment of educational loans incentivize practitioners to locate in underserved areas.

**Approach:** The Virginia State Loan Repayment Program (VA-SLRP) is funded by a federal grant from the Health

Resources Services Administration (HRSA), Bureau of Health Professions and is administered by the Virginia Department of Health (VDH) Office of Health Equity (OHE). VA-SLRP provides educational loan repayment in exchange for at least two years of service in a HPSA in Virginia. Primary care physicians, dentists, nurse practitioners, nurse midwives, physician assistants, registered dental hygienists, psychiatric nurse specialists, mental health counselors, health service psychologists, licensed clinical social workers, licensed professional counselors, alcohol and abuse counselors (masters-level), marriage and family therapists, registered nurses, and pharmacists are eligible to apply.

VA-SLRP requires a dollar for dollar match from the community or practice site. The maximum award for a four year commitment is \$140,000 and is exempt from federal income and employment taxes.

**Outcome(s):** It is not uncommon for VA-SLRP recipients to stay at their practice site after the 4-year obligation is completed. In the 2020 grant cycle, there were 47 VA-SLRP recipients providing healthcare services to 25 of Virginia's medically underserved communities.



Bland County • Mahmoud Hassan



Bland County • Mahmoud Hassan

## Opportunities for Growth

### 1. Additional Provider Loan Repayment and/or Incentives

- Especially critical for dentists and dental hygienists, practicing in designated HPSAs
- Providing additional funding for dental professional may increase the number of applicants for the program, increasing the number of providers in communities of high need.



Roanoke • Virginia Tourism





# Natural and Built Environments



Rockbridge County • Kelsey Johnson

# Natural and Built Environments

## Overview

How communities are planned, designed and built has a major influence on health. The natural and built environment encompass objective and subjective features of the physical space where people live, work, and play. Such factors contribute to the conditions and opportunities that enable individuals to live long and healthy lives.

## Natural Environment

The natural environment can be defined as non-human-made surroundings and conditions in which all living and nonliving things exist (1). Access to nature has been related to lower levels of mortality and illness, higher levels of outdoor physical activity, restoration from stress,

**“Where we live influences how well we live. You might say that our zip code can be more important than our genetic code.”**

Robert Wood  
Johnson Foundation

a greater sense of well-being, and greater social capital (2). Given the importance of contact with nature for well-being, the American Public Health Association supports the

protection and restoration of nature in environments where people live, work, and play. Rural Virginia’s natural assets support a high quality of life, attracts tourists, and sustains the well-being of Virginia’s residents and guests. Protecting and preserving Virginia’s natural environment, helps meet important goals for water quality, wildlife habitat, recreation, and overall quality of life.

The preservation of Virginia’s natural environment, especially in rural areas has created desirable destinations, that contribute to the economic vitality of the region. A great example of this balance between preservation and economic development is The Crooked Road, Virginia’s Heritage Music Trail. The Crooked Road is a 330-mile driving trail through the mountains of Southwest Virginia connecting nine major venues and over 60 affiliated sites and festivals that visitors can enjoy every day of the year. The Crooked Road began as an idea in January, 2003. The concept of a heritage music trail was positively received by communities, musicians, music venues, and tourism organizations along the proposed route. As a result, The Crooked Road emerged running through 19 counties, four cities, over 50 towns, five regional planning districts, two tourism



organizations, and a large number of music venues. The Crooked Road: Virginia’s Heritage Music Trail is a 501(c)3 non-profit organization founded in 2004 with the mission to support economic development in Southwest Virginia by promoting the region’s rich heritage of traditional music (3).



Bland County • Bland Ministry Center

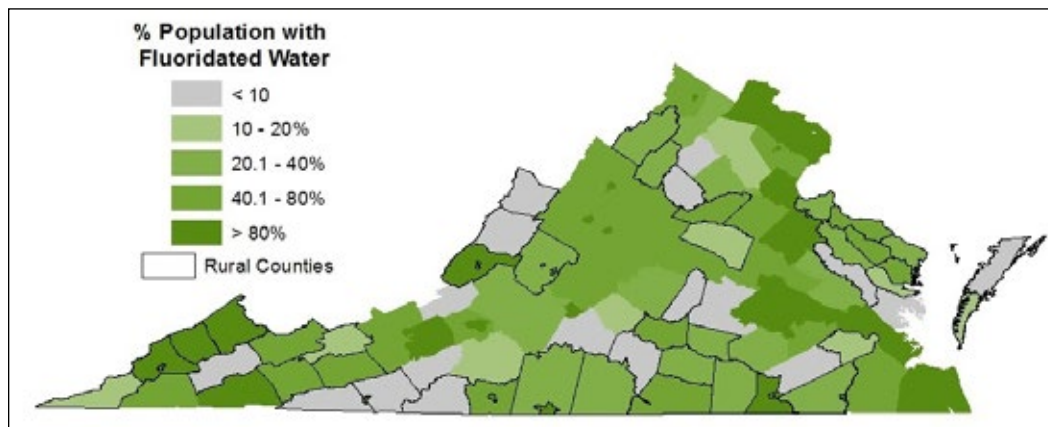
## Built Environment

The built environment significantly affects the public’s health. The connection between health and the built environment dates back to the 19th century at the height of the industrial revolution where physical space became limited, living conditions worsened, and life expectancy decreased (4). Even today with the prevalence of chronic diseases, there remains an important connection between population health and the built environment. The built environment includes all physical parts of where people live and work: homes, buildings, streets, open spaces, and infrastructure. The health of individuals and communities is closely tied to the built environment. Neighborhood amenities such as recreational facilities, libraries, playgrounds and sidewalks offer opportunities to socialize, play, exercise and enjoy the neighborhood(5). There is evidence to support these forms of community engagement contributing to physical health, mental health, and human development (5). People who live close to parks or mountains, have a beautiful neighborhood, or have a safe neighborhood spend more time walking outside. The evidence indicates that improving neighborhood roads and walkways for pedestrians and cyclists, and installing play equipment in parks may increase physical activity levels in adults and children (5).

## Intersection between Health and Built Environment Case Study: Water Fluoridation

Community water fluoridation is consistently found to be one of the most effective means of preventing tooth decay. According to a 2016 Journal of Public Health Dentistry article, every \$1 spent on fluoridation saves \$38 in dental treatment costs in a community with a population of more than 20,000. However, it is proportionally much more expensive to fluoridate small community water supplies than large ones. For communities with fewer than 5,000 people, the ratio is \$6 saved to every \$1 spent. In addition, most of the 12.6 % of US residents with private wells are located in rural areas. These wells are typically unfluoridated.

## Intersection between Health and Built Environment Case Study: Water Fluoridation



The Centers for Disease Control and Prevention (CDC) Community Water Fluoridation website includes maps, safety guidelines, and state statistics. The CDC's My Water's Fluoride website provides information on the fluoridation status of local community water supplies. Water Fluoridation and Dental Health Indicators in Rural and Urban Areas of the United States reports on the availability of fluoridated water in both rural and urban settings and compares fluoride availability to the dental health of adults and children.

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.



Virginia Tourism

### Virginia Creeper Trail

The 34.3-mile Virginia Creeper Trail was named after the steam engine that crept up the rails into the Iron Mountains. A plant called Virginia creeper grew along its tracks. By the 1970s, many railroads were abandoned and in 1986, the Rails-to-Trails Conservancy began converting old railroad beds into trail systems for hikers and bikers. There are 11 access points that lead hikers and bikers to towns, the two most popular trailheads located in Abingdon and Damascus. Offering bike rental, horseback riding, and fishing the Virginia Creeper Trail attracts outdoor enthusiasts throughout the region. The trail now boasts two breweries and wineries along the way, for those looking to take a break or mark their victorious end. In the 30 years since its opening, the Virginia Creeper Trail remains one of the country's premier rail-trails, honored as the inductee into the 2014 Rails-to-Trails Conservancy's Hall of Fame.

### Virginia Main Street, Virginia Department of Housing and Community Development

**Need addressed:** Since 1985, the Virginia Main Street (VMS) program has been helping localities revitalize downtown commercial districts using the National Main Street Center's successful Main Street Approach.

**Approach:** VMS is a comprehensive, incremental approach to revitalization built around a community's unique heritage and attributes. Using local resources and initiatives, Main Street helps communities develop their own strategies to stimulate long term economic growth and pride in the traditional or commercial districts, also known as, downtowns.

## Natural and Built Environments

**Outcome:** In 2019, the VMS program recognized 26 Designated Main Street Communities, one Virginia Downtown and over 80 Commercial District Affiliates throughout the Commonwealth. VMS awarded six downtown investment grants, (\$102,196), five financial feasibility studies (\$125,000), six commercial district affiliate grants (\$41,565) and 16 scholarships (\$16,000).

### Go Virginia

Go Virginia is a bipartisan, business-led economic development initiative that is changing the way Virginia's diverse regions collaborate on economic and workforce development activities.

### Opportunity Zones Virginia

In Virginia, Governor Northam tasked the Department of Housing and Community Development (DHCD) and the Virginia Economic Development Partnership (VEDP) with gathering local, state and other stakeholder input to nominate 212 tracts as Opportunity Zones. Investors receive tax benefits over a long horizon for equity investments in Qualified Opportunity Zone businesses and property.

## Opportunities for Growth

### 1. Employ Health in All Policies (HiAP)

- HiAP is a formal process for integrating health considerations into policies across multiple sectors with the goal of addressing the many social drivers that influence health outcomes.
  - The *National Prevention Strategy* describes the need for this cross-sector approach to meet the goal of increasing the number of Americans who are healthy at every stage of life.

### 2. Expand and improve bicycle and pedestrian infrastructure.

- Allocate municipal funding to support and ensure infrastructure is in place to make bicycling or walking viable modes of travel. This approach can promote health by providing added opportunities for physical activity from transportation.



Galax • Cameron Davidson

- Benefits include:
  - Cost savings: Bicycle paths and complete sidewalks are comparatively less expensive than building new roadway infrastructure. While still a large investment, their narrower widths make them a much smaller price tag per linear foot.
  - Increase public health and safety: The Benchmarking Report on Bicycling and Walking in the United States (2018) reports that bicyclist and pedestrian fatalities, "may be reduced through proactive infrastructure, policy, education and other community investments in bicycling and walking."
  - Economic Development: More people regardless of generation are looking to live and work in areas that support their hunger for outdoor recreation opportunities and desire to commute by bike or foot. This creates economic development opportunities for communities.



Pulaski County • Sam Dean







# Aging in Place and Addressing Social Isolation



Pulaski County • New River Valley Area Agency on Aging

# Aging in Place and Addressing Social Isolation

## Overview

In recent years, the demographic composition of Virginia's rural population has become increasingly older, as the number of retirees increases and younger residents move to more urban areas. Older individuals are attracted to rural Virginia's lower cost of living, lower crime rate, lower taxes, and its high quality of life. An aging population has an increased need for health care services, long-term care, and social services. Communities with an aging population must also consider the need for in-home care, limited mobility accommodations, access to transportation, opportunities for social interaction, public safety and emergency preparedness infrastructure, and access to healthy affordable food.

The ideal situation for most older adults would be to continue living in their homes for as long as possible. However, it is sometimes necessary for people to be in closer proximity to healthcare services as they age. While some are able to afford in-home care or to move into a long term care facility, this is not always the case. Some of Virginia's families live in multi-generational households where family members are able to take care of young children or grandparents.

For aging adults living away from families, social isolation, defined as the lack of social connections, has been well-documented as a major risk factor for a variety of physical and mental conditions. Some studies suggest that the

## Grandparents Raising Grandchildren Alone



Rural  
44.7%



non-Rural  
35.1%

impact of social isolation and loneliness on health and mortality are of the same order of magnitude as risk factors like high blood pressure, obesity, and smoking (1). In rural areas, inadequate broadband and public transportation services often make it more difficult for older people to stay connected to their families and friends.

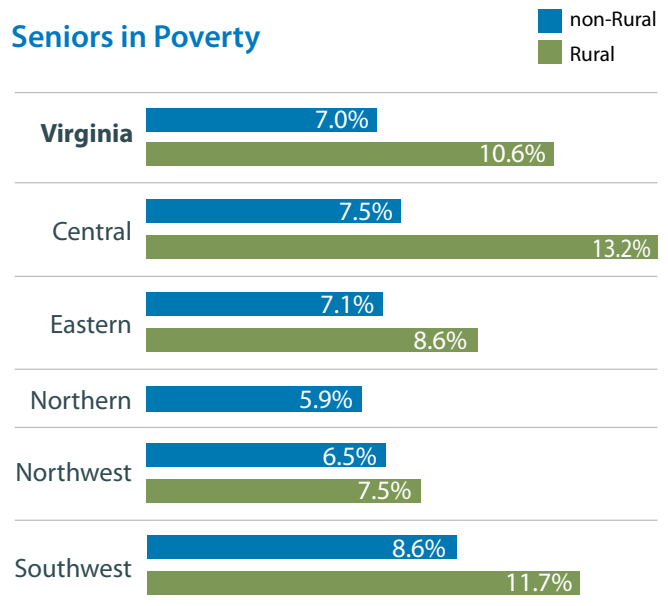
## Rural Veterans

Recent studies show that military veterans, especially older veterans, present unique experiences of loneliness and social isolation(2). Nearly a quarter of all veterans in the United States, 4.7 million, return from active military careers to reside in rural communities(3). After returning from service, it is common for veterans to experience difficulty readjusting to civilian life without some of the people they formed close bonds with in the military.

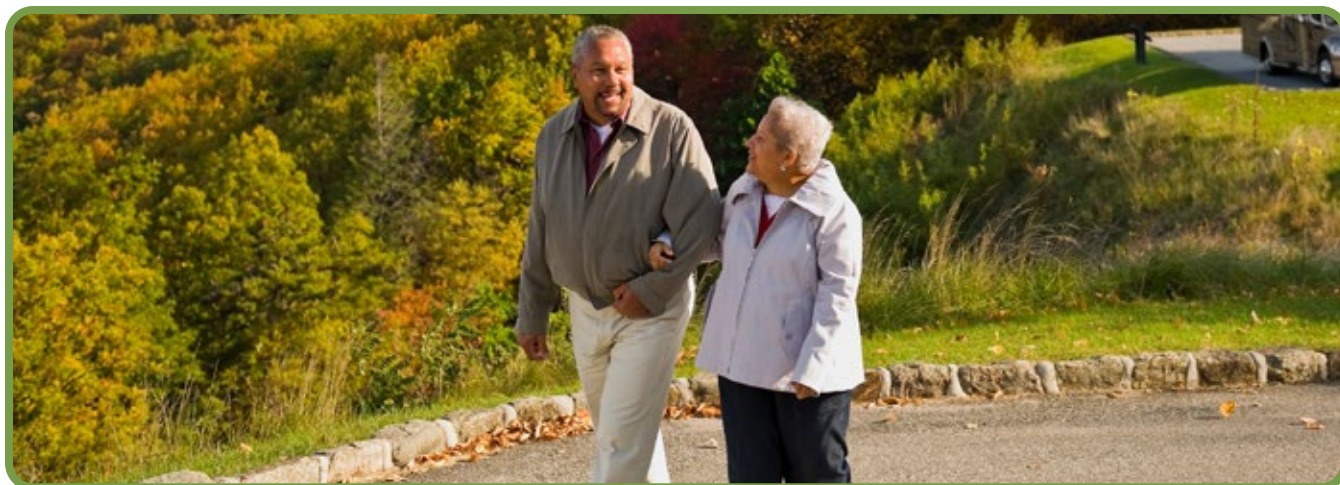


Smyth County • Earl Neikirk

## Seniors in Poverty



Source: US Census Bureau, ACS 5-year Estimate, 2018



Blue Ridge Parkway • VA Tourism Library

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### New River Valley Agency on Aging

**Need addressed:** National and local surveys indicate that almost 90% of older adults want and expect to age in place by remaining in their homes as they get older (4). While most older adults expect to be able to manage changes that might occur in their health, wellbeing, and finances, approximately 70% will require help with their care at some point, for an average of three years(4).

**Approach:** The New River Valley Agency on Aging exists to support and enhance the lives of older adults, their families, and caregivers through advocacy, information, and services(4). They do this by offering programs and services that help facilitate aging in place such as care coordination, congregate meals, elder abuse prevention, home delivered meals, homemaker services, and medical transportation. In addition to these programs and services, the agency has held Aging in Place workshops and launched an Aging in Place website containing a workbook, videos, a facilitation guide, and resource listings to help individuals create a plan to age in place.

**Outcome(s):** By partnering with community organizations and with the help of donors, the agency is able to provide information and services that allow older adults in rural Virginia to maintain independence and remain in their homes for as long as possible. Many of the challenges commonly faced by older adults including limited access to health care, lack of transportation, and social isolation are addressed by the agency's many programs and dedicated staff.

#### Bay Aging (Urbanna, Virginia)

**Need addressed:** Bay Aging exists to provide dignity and resources to older adults so that they may live independently in their communities.

**Approach:** Bay Aging offers accessible and affordable transportation, housing, and healthy community living services and programs. With an emphasis on personal choice, Bay Aging offers a range of programs and services to meet the needs of everyone they serve.

**Outcome(s):** Bay Aging is known for its ability to collaborate and form partnerships with federal, state, and local governments, community and civic groups, faith communities, and businesses. Their many partnerships along with a dedication to innovation and leadership allows them to serve a large population of people with a wide variety of wants and needs.

#### Community Paramedicine/Mobile Integrated Healthcare (CP-MIH) model

**Need addressed:** Due to a lack of access to primary care, some rural patients rely on 911 and emergency medical services (EMS) to receive healthcare even in non-emergency situations (5). The use of 911 for non-emergency situations is an inefficient use of emergency resources that can have negative and potentially fatal consequences on those in need of immediate medical attention. This issue is particularly common among the elderly population.

**Approach:** Community Paramedicine/Mobile Integrated Healthcare (CP-MIH) is a relatively new and evolving healthcare model that improves access to healthcare for underserved populations including older adults in rural communities (5). The model allows paramedics and emergency medical technicians (EMTs) to operate in expanded roles by assisting with public health, primary

## Aging in Place and Addressing Social Isolation

health care and preventive services, aiming to improve access to care without duplicating existing services (5).

**Outcome(s):** The CP-MIH model creates a system that benefits both rural patients and community paramedics alike by allowing for resources to be allocated in a more efficient and proactive way (5). With this model community paramedics can provide care in non-emergency situations without denying immediate care to those in critical or life threatening conditions.

### Senior Farmers' Market Nutrition Program (SFMNP) - Farm Market Fresh

**Need addressed:** To improve seniors' access to nutritious, locally-grown, fresh produce.

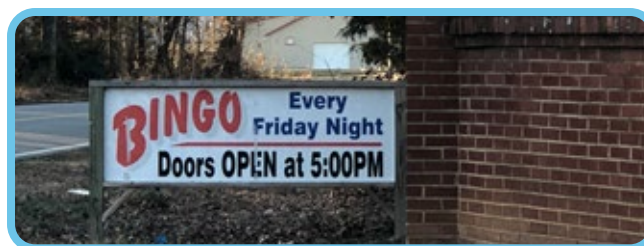
**Approach:** The Virginia Department for Aging and Rehabilitative Services-Office for Aging Services (DARS-OAS) partners with the Virginia Department of Agriculture and Consumer Services (VDACS), ten local Area Agencies on Aging (AAA), and one city government to operate the program which is funded by the US Department of Agriculture, Food and Nutrition Service(6). Seniors who are 60 years or older and meet the program's locality and income requirements are able to apply to participate in the program each year. Participants receive nine 5-dollar checks each growing season that can be spent on fresh produce at participating farmers' market vendors (6).

**Outcome(s):** The Virginia's Farm Market Fresh program helps eligible seniors get fresh, tasty, and nutritious locally-grown fruit, vegetables, and cut herbs while also supporting local farmers and farmers markets in Virginia (6).

### Older Americans Congregate Nutrition Program

**Need addressed:** The purpose of the Older Americans Congregate Nutrition Program is to reduce hunger and food insecurity among older individuals, promote socialization of older individuals, promote the health and well-being of older individuals, and delay adverse health conditions for older individuals(7).

**Approach:** The program targets adults aged 60 and older who are in greatest social and economic need, with particular attention to individuals who are low income, part of a minority population, in rural communities, with limited English proficiency, or at risk of institutional care (7). Through the program older adults receive meals and nutrition services in group settings.



Amelia County • VDH SORH Staff

**Outcome(s):** The program provides not only meals that contribute to the overall health and wellbeing of participants but also offers opportunities for social engagement, information on healthy aging, and meaningful volunteer roles(7).

## Opportunities for Growth

### 1. Technology-based Interventions

- Though not appropriate for all seniors, telehealth has been used internationally to target social isolation and to enhance communication and connectedness, particularly among those with geographical or mobility barriers. Further exploration is needed to determine how to effectively leverage technology to address social isolation among seniors.

### 2. Infrastructure Investing

- Community-based interventions that consider healthy aging in place can improve quality of life and prevent unnecessary costs for communities. A promising intervention is to build or adapt community infrastructure in ways that support healthy lifestyles among older adults. For instance, by increasing the number of parks, grocery stores, and health clinics in neighborhoods where older adults live, relaxes the burden of physical mobility constraints. Improving transportation systems provides safe transportation alternatives for older adults and people with disabilities. These types of investments are necessary not only to promote the general health of aging individuals.

### 3. Structural Interventions

- Supporting the employment of seniors can promote inclusivity and help change societal attitudes towards seniors.





# Elevate Rural Workforce Development and Employment



Accomack County • Big Orange Frame

# Elevate Rural Workforce Development and Employment

**“Where the rubber meets the road is workforce development.”**



Statement of Governor Ralph Northam at the Governor’s Summit on Rural Prosperity, 2019

## Overview

Employment status is a determining factor in a person's ability to access resources that impact health. These resources may include educational opportunities, healthy food, health insurance, the inclination to seek routine preventive medical services, and benefits that provide for long term stability such as retirement benefits. Employees rely on employers to provide a living wage, the minimum amount of pay needed to meet basic needs in a particular community, as well as health insurance and other benefits. Employers are motivated to provide employees with the

means to support themselves and their families in order to maintain a reliable workforce and run a profitable operation. A healthy economy is sustained by a healthy workforce; the two work hand-in-hand.

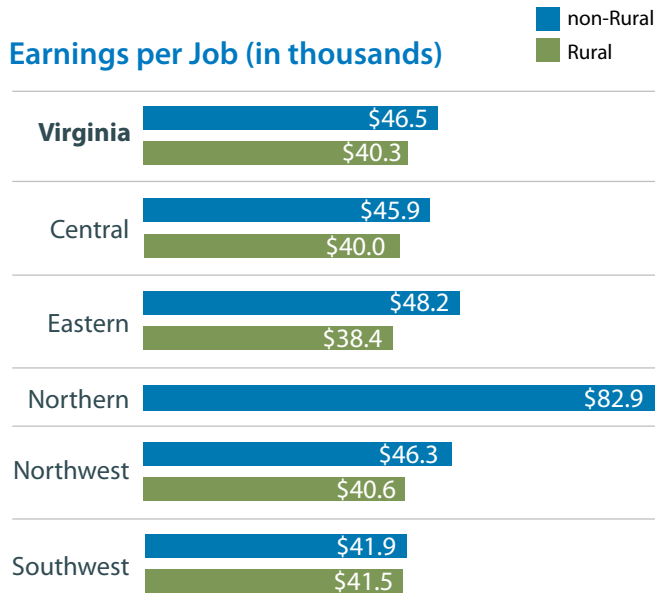
Ideally, all who seek employment would have jobs and rural workforce participation would be no different than that in urban areas. Rural Virginia boasts a variety of thriving industries including agriculture, forestry, technology, tourism, healthcare, education, state and local government, fishing, hatcheries, manufacturing, retail, and customer service. A focus on industry diversity, continuing education, professional training, recruitment, and retention contributes to the improvement of the overall quality and health of a workforce. Organizations in rural Virginia continue to address these issues in order to create a workforce that supports its community and results in economic resilience.

## Employment and Earnings in Rural Virginia

Industry Sector	Employment	Total Earnings	Earning per job
Government and government enterprises	83,742	\$5,240,201	\$62,576
Retail trade	53,773	\$1,419,966	\$26,407
Manufacturing	50,174	\$2,938,104	\$58,558
Health care and social assistance	49,853	\$2,282,113	\$45,777
Accommodation and food services	32,279	\$681,814	\$21,123
Other services (except government and government enterprises)	31,234	\$984,755	\$31,528
Construction	27,331	\$1,235,105	\$45,191
Administrative and support and waste management and remediation services	25,770	\$738,804	\$28,669
Farm earnings	20,670	\$102,489	\$4,958
Professional, scientific, and technical services	19,578	\$1,068,485	\$54,576
Real estate and rental leasing	16,386	\$217,162	\$13,253
Transportation and warehousing	15,649	\$762,168	\$48,704
Finance and insurance	13,112	\$477,624	\$36,426
Wholesale trade	10,544	\$629,017	\$59,656
Educational services	7,289	\$276,575	\$37,944
Forestry, fishing, and related activities	5,719	\$214,734	\$37,547
Information	3,905	\$179,391	\$45,939
Utilities	3,694	\$564,297	\$152,760
Management of companies and enterprises	2,970	\$228,224	\$76,843
Mining and support (less oil & gas)	Censored	\$341,262	NA
Arts, entertainment, and recreation	Censored	Censored	NA

Source: US Bureau of Economic Analysis, 2018. Author Calculations for Earnings per Job. Includes data for both employees and proprietors, and includes the value of salaries, proprietor's income, and benefits.

# Elevate Rural Workforce Development and Employment



Source: US Census Bureau, ACS 5-year Estimate, 2018

## Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

### The Virginia Economic Development Partnership

**Need addressed:** Rural areas in Virginia experience low employment for a variety of reasons, one of which is the lack of economic development. More remote areas of the

Commonwealth can benefit from special assistance when attempting to help their communities thrive economically.

**Approach:** The Virginia Economic Development Partnership created the Rural Virginia Action Committee in 2016 to address economic disparities experienced in rural communities. This committee meets regularly to discuss opportunities for economic improvement examining which regions experience job losses due to differences in industry mix and distribution of unemployment claims.

The committee has developed four strategic opportunities for economic restoration, post COVID-19 relief-efforts. The strategies include increasing production demand for exporters, developing Virginia as a leader in technology, and making education and skills training more available to those whose employment was most affected by the COVID-19 pandemic. One of the strategies most beneficial for rural Virginia is making the most of teleworking opportunities that have arisen due to the pandemic (1).

Aside from the Rural Virginia Action Committee, the Virginia Economic Development Partnership has created other initiatives and incentives to improve Virginia's economic landscape, particularly in rural areas. Among these are the Agriculture and Forestry Industries Development Fund (AFID), the Rail Industrial Access Program, the Virginia Jobs Investment Program (VJIP), and the Virginia Coalfield Economic Development Authority (VCEDA) which provides loans and grants to new businesses in southwestern Virginia (2).

**Outcome(s):** The Virginia Economic Development Partnership has worked to help elevate Virginia



Bath County • Jumping Rocks Photography



United Way of Southwest VA

economically, and has recently identified strategies to achieve that goal in the midst of the global pandemic. Additionally, its VCEDA financing program has used a percentage of Virginia's mineral severance taxes paid by the state's own natural resource industries to strengthen its economy in rural regions (3).

### Virginia's Chief Workforce Advisor: Virginia Future of Work Taskforce

**Need addressed:** The Commonwealth of Virginia boasts that it has the top ranked workforce in the country, according to CNBC's Top States for Business 2019 report, as well as the second highest concentration of technology workers in the country. Despite these facts, Virginia still struggles to ensure its citizens find employment, especially those living in its most rural regions (4).

**Approach:** The Office of Virginia's Chief Workforce Advisor functions to identify job openings for Virginians. In the spring of 2019, Governor Northam announced the Virginia Future of Work Taskforce, which analyzes the changing work environment and farm placement staff policy recommendations based on its findings (5).

**Outcome(s):** The Virginia Future of Work Taskforce plans to provide policy recommendations to promote initiatives and policies that encourage and support working Virginians. The report will be important as the state recovers from the effects of the COVID-19 pandemic, which has left many Virginians with job instability (5).

### The Virginia Employment Commission: Agricultural Labor Program

**Need addressed:** One of Virginia's most valuable exports is its agricultural products. Agricultural producers located in rural Virginia sometimes struggle to fill positions.

**Approach:** The Virginia Employment Commission created the Agricultural Labor Program, which connects agricultural producers and businesses to those searching for employment. The program utilizes the Virginia Workforce Connection system which broadcasts the availability of an open position to local regions. The program offers farm placement specialists to assist farmers with recruitment (6).

The system first advertises the jobs to the surrounding areas, and will only attempt to recruit workers from further regions or other states after all local options have been exhausted. Similarly, all US worker options must be exhausted before the system will suggest foreign, nonimmigrant workers (6).

**Outcome(s):** The Agricultural Labor Program enlists farm placement staff to visit even the most remote Virginia farms and businesses to assist with employment needs, connecting employers with the available workforce.

### The Virginia Community College Rural Horseshoe Initiative

**Need addressed:** There is a horseshoe shaped section of Virginia, starting in Virginia's Eastern Shore, looping west across Southwest Virginia and circling back through the Shenandoah Valley. This region is home to more than 500,000 who do not have, at minimum, a high school education. Lack of education affects employment opportunities of those residing in this predominantly rural region.

**Approach:** The Rural Virginia Horseshoe Initiative (RVHI) was created to address the educational attainment levels in the rural localities served by 14 of Virginia's 23 community colleges. The goals of the RVHI are to reduce the number of rural residents who lack a high school diploma and double the number of rural residents with an associate degree or higher or other college certification. Strategies employed to achieve these goals include placing full-time career coaches in rural high schools to assist lower- and middle-income families in navigating higher education options, and to awarding scholarship incentives to remove barriers to achieving success in higher education (7).

**Outcome(s):** The work of the Rural Virginia Horseshoe Initiative has touched the lives of many rural Virginians. RVHI intends to halve the percentage of Virginians living in the region who do not have at least a high school education.





Accomack County • Mike Deep

The initiative has goals to ensure that more than half of those residents obtain at least an associate degree or college certification, and to reach more people with their program (7).

### The Virginia Rural Center

**Need addressed:** Rural Virginia experiences many disparities compared to more urban areas of the Commonwealth. In 2004, the Virginia General Assembly established the Center for Rural Virginia to address these inequities.

**Approach:** The Virginia Rural Center is a collaborative partnership of the Center for Rural Virginia and the Council for Rural Virginia, which work together on a joint mission to work with policymakers and stakeholders to create innovative solutions and expand entrepreneurial opportunities to ensure economic prosperity for all regions in the commonwealth.

The Virginia Rural Center accomplishes its goal through six double-pronged initiatives: policy development and advocacy; entrepreneurship and innovation; national trends and best practices; research and data assessment; strategic public/private partnerships; and leadership and development. Through these initiatives, the Rural Center partners with Virginia's best universities, develops leadership programs, and advocates for policies at every government level that work for rural communities (8).

The Virginia Rural Center's work in entrepreneurship and innovation assists rural areas to expand upon its citizens' talent and intellect. The center helps start small businesses and in turn creates more opportunities for employment (8).

**Outcome(s):** The Virginia Rural Center has worked to address the most important issues that face rural Virginia communities, like its infrastructure, access to healthcare, economic development, and job creation. It supports entrepreneurship and employs a scope substantial enough to support the other aspects that a community needs to function (8).

### Opportunities for Growth

#### 1. Increase opportunities for investment in workforce development in rural areas:

- Education and training programs that prepare young and adult workers for high demand jobs and skills within existing and burgeoning industry sectors
- Economic diversification initiatives to expand the region's job base and increase economic resiliency in case a major employer closes or relocates elsewhere
- Strategies to create community amenities, support entrepreneurship, and improve the quality of jobs in order to attract and retain workers with a range of skill sets and income levels

## Elevate Rural Workforce Development and Employment

- Community development efforts focused on transportation, housing, child care, health care, and broadband that help workers and residents, particularly from low-wage sectors, access economic opportunity

### 2. Foster Cultural and Systematic Changes in the Public and Private Sectors

- By collaborating across the public, nonprofit, and private sectors to address regional workforce development, recruitment and retention needs can be addressed. By fostering a culture of innovation and embracing risk, potential employers and localities can reach their economic development, and community development goals.
- Potential opportunities include:
  - Facilitate student access to SNAP and other benefits at higher education institutions to meet the fundamental needs of the student
  - Create opportunities for increased employer engagement within companies/organizations
  - Ease access to affordable cost-benefit analysis
  - Provide employees educational opportunities regarding goal setting, career planning and coaching

### 3. Make Work Pay

- Work supports are policies and programs that help people experiencing barriers to work enter and succeed in the workforce. The most common work-supports are tax credits, child care and pathways to work, career and self-sufficiency. Many family-support



Martinsville • Scott K. Brown

programs, especially child care, do double-duty as work-support programs.

- Income and work supports include Medicaid, SNAP, TANF, and refundable tax credits. Reduce barriers to these support programs to help maintain a healthy workforce through times of instability
- Make efforts to increase access across work-support programs as well as ensuring immigrant access to benefits
- Increase accessibility of tax credits for working families
- Provide opportunities for career pathways education in order to retain the strong workforce in rural areas and decrease migration





# Financial Proficiency: Leveraging Individualized Resources



Southampton County • Ashley Covington

### Overview

To lead sustainably healthy lives, it is important that people have access to employment opportunities and manage their money to prepare economically for the future (1). Resources should be readily available and easily accessible to promote financial capability. The Center for Financial Inclusion defines financial capability as the combination of knowledge, skills, attitudes, and ultimately behaviors that translate into sound financial decisions and appropriate use of financial services (2). Financial capability refers to the understanding of finances and to the ability and opportunity to apply acquired financial knowledge in daily life.

Financial capability plays a large role in determining the success of consumer behaviors including financial decisions that may impact future health outcomes. Healthcare providers should consider the influence of financial situations and understanding of financial information on patient healthcare behaviors. There are significant financial circumstances that prevent individuals from prioritizing health over other basic needs such as food and housing. Those in difficult financial situations might suffer more from negative health experiences such as physical and physiological symptoms caused by stress, a misunderstanding of health maintenance resulting in chronic disease, and a lack of preparation for health emergencies.

### Consumers with Poor or Bad Credit



**Rural**  
49.6%



**non-Rural**  
41.7%

Financial credit is defined as the ability to borrow or to purchase goods and services with payment delayed beyond delivery. A person with no credit and a person with bad credit face similar challenges stemming from different issues. No credit means an individual has not yet established any credit and he or she has no credit file with the credit bureaus. Bad credit means an individual can satisfy the requirements to generate a credit score but has poor credit. In the graphic shown, 49.6% of Virginians residing in a rural community have either poor or no credit, compared with 41.7% of individuals residing in a non-rural locality.

### Asset Building: Strategies for Financial Security

Asset building emphasizes the value of enabling individuals and families to learn about and use sound budgeting and money management practices to address financial issues, and to plan for long-term success (1).

The Health and Human Services Administration of Children and Families, in partnership with the Office of Community Services and the Office of Head Start, identified six strategies fundamental to the asset building approach. These strategies describe skills and supports that can help families with day-to-day decision making and set goals for the future. (1)

#### 1. Financial Education

- By understanding basic financial concepts to address everyday needs, individuals can plan for the long-term

#### 2. Savings and Individual Development Accounts

- Savings funds are an important building block for financial stability and can help families stay afloat in case of job loss, health crisis, or other emergencies. Special savings accounts known as Individual Development Accounts (IDAs) can be used to save for a long-term goal such as a first home, education, or for small business expenses.

#### 3. Banking

- Trust is essential between communities and credible financial institutions. Entrusting well-regulated financial institutions with banking services can enable families to reduce reliance on check-cashers and other high-cost “fringe” financial outlets that often charge excessive rates for services and loans.

#### 4. Managing Credit and Debt

- Maintaining a positive credit score, credit history and low debt ratio affects a family’s financial status. Managing credit and debt can affect employment opportunities, home ownership, and other necessities. By having a strong credit score, a good credit history, and knowing how to borrow and manage debt, financial security is strengthened.

#### 5. Tax credits and Tax Filing Assistance

- Low income families can qualify for substantial financial support in the form of tax credits and tax refunds from the federal government and in some localities, from state and local governments. Individuals can access credits such as Earned Income Tax Credit (EITC), the Child Tax Credit, and the Child and Dependent Care Credit. To qualify for EITC,



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individuals must have a valid social security number, and show proof of income, show investment income below \$3,650 in the tax year to claim the credit. Local Head Start programs can offer educational assistance around tax credit eligibility and tax filing.

### 6. Accessing Federal and State Benefits

- Families who earn a low income are eligible for federal and state benefit programs that can help stretch their income. Accessing federal and state benefits can provide a temporary safety net for families, while other benefits may be available to help families pay down debt, increase savings, and build credit. Helping families identify and obtain benefits like healthcare and healthy food access can be important in achieving family financial goals (1).

These strategies can support family success at navigating financial challenges and create lasting financial security for themselves and future generations.

### Leading Practices and Approaches

Whenever possible, examples of leading practices and approaches were taken from rural Virginia communities. Otherwise, examples were gathered from localities with comparable demographic characteristics.

#### WealthWorks

**Need addressed:** WealthWorks exists to fuel economic development by analyzing market demands and addressing them with community assets. In Appalachia, WealthWorks recognizes the potential for clean energy market opportunities that emphasize energy efficiency and renewable sources(3).

**Approach:** WealthWorks connects a community's assets to current market demands in order to create lasting economic opportunity. The systematic approach offered by WealthWorks "identifies enterprising opportunities in a region and engages a wide range of partners forming strong business relationships that produce revenue (3). This approach can complement or incorporate traditional economic development methods, but intentionally focuses on creating more value that becomes rooted in local people, places, and firms(3).

**Outcome(s):** WealthWorks aims to help communities utilize its assets in order to create lasting wealth that results in a more self-reliant economy. A self-reliant economy is supported by local ownership, control, and reinvestments (3). Strong economies allow for an increase in upward mobility for workers, strengthens industry sectors, and creates overall resiliency (3).

#### Rooftop of Virginia-Community Action Partnership: VITA Program

**Need addressed:** Lower income individuals often face barriers to optimum tax filing, resulting in poorer economic outcomes. The Rooftop of Virginia-Community Action Partnership: VITA Program offers free income tax preparation to residents earning \$66,000 or less annually.

**Approach:** The Volunteer Income Tax Assistance (VITA) program offers free tax preparation services to people with low incomes, disabilities, or limited English proficiency (4). VITA also provides educational services that inform people about claiming specific tax credits, including the [earned income tax credit] (EITC)(4).

**Outcome(s):** The VITA program helps to ensure that people maximize annual tax returns. Education about claiming other tax credits ... has also been recommended as a strategy to reduce poverty(4).

#### People Incorporated

**Need addressed:** People Inc. offers community economic development services in order to strengthen local businesses and aid individuals in need of financial assistance.

**Approach:** People Incorporated provides financial assistance to businesses and individuals through services and programs such as business development and loan services, technical assistance and training, Virginia Individual Development Accounts (VIDA), consumer loans, Volunteer Income Tax Assistance (VITA), Earned Income Tax Credit Outreach Program (EITC), New Markets Tax Credits, and Ninth District Development Financing (5).

**Outcome(s):** People Inc. has assisted businesses start and expand by providing loans, training events, and other financial services. Over 1,000 participants have trained in financial literacy, microenterprise, or received one-on-one technical assistance through People Incorporated Financial Services(5).

## Opportunities for Growth

### 1. Map and Reimage Benefit Cliffs.

Benefits cliffs or the cliff effect are hurdles for businesses and workers alike. The cliff effect refers to the sudden and often unexpected decrease in public benefits that can occur with a small increase in earnings. When income increases, families sometimes lose some or all economic support. These can include the Supplemental Nutrition Assistance Program (SNAP), school nutrition programs, health care, child care assistance, Temporary Assistance for Needy Families (TANF), and housing assistance. Wage increases can result in a net loss of income or only a small overall increase. Sometimes the cliff effect acts more like a slope or plateau, but it is still a disincentive to work. When lost benefits outpace a wage increase, many families park or fall off the cliff's edge, stalling progression in their jobs and careers.

One of the first steps in addressing benefits cliffs is to recognize where and how they happen. States have taken various approaches to understand the interaction between wages and benefit cliffs, including defining a self-sufficiency standard to understand what families need to earn to transition away from benefits altogether.

- Consider Self-Sufficiency Standards
  - A financial self-sufficiency standard is defined as the income necessary for a family to meet

its basic needs without public or private assistance. Some states use 200% of the federal poverty guideline. However, most have taken a more nuanced approach and factor in the varying costs of living by geography, household size, and ages of children. Forty-one states and the District of Columbia have self-sufficiency standards specific to their circumstances. Seven states—California, Indiana, New York, Ohio, Oregon, Washington, and Wyoming—are using self-sufficiency calculators. For a 50-state perspective, the Center for Women's Welfare at the School of Social Work, University of Washington, publishes a self-sufficiency standard for each state that considers the age and composition of the family and includes the costs of all major budget items.

- Employ Benefits Calculators
  - Benefits calculators help caseworkers and families receiving benefits identify cliffs on an individual or family level and how increases in income could impact benefits. By illuminating how employment-related income impacts public support, benefits calculators help families make informed decisions related to their well-being, especially when paired with career coaching and access to workforce training and education. They also help frontline employees and government officials understand the interplay of benefits and income. The results help identify cliffs, as well as the policy or practice levers that could be pulled to prevent or mitigate the cliff effect.





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# Glossary of Acronyms and Abbreviations



Nelson County • Beth-Anne Norman Driskill

# Glossary of Acronyms and Abbreviations

Abbreviation/Acronym	Terms/Meaning
AAA	Area Agency on Aging
ACEs	Adverse Childhood Experiences
AHRQ	Agency for Healthcare Research and Quality
ALICE	Asset Limited, Income Constrained, Employed
ANTDC	Accomack-Northampton Transportation District Commission
ARC	Appalachian Regional Commission
ASAC	Appalachian Substance Abuse Coalition
ASP	Appalachian Service Project
BPC	Bipartisan Policy Center
CACFP	Child and Adult Care Food Program
CCA	Closing Costs Assistance
CDC	Center for Disease Control and Prevention
CHNA	Community Health Needs Assessment
CHW	Community Health Worker
CIT	Crisis Intervention Team
CLEAR	Choose Life! Empowerment, Action and Results!
CMS	Centers for Medicare and Medicaid Services
CNA	Certified Nursing Assistant
CNM	Certified Nurse Midwife
COVID-19	Coronavirus Disease 2019
CP	Community Paramedicine
CPHD	Cumberland Plateau Health District
CSB	Community Service Board
CSP	College Service Project
CTE	Career Technical Education
CVHS	Central Virginia Health Service
DARS-OAS	Department for Aging and Rehabilitative Services, Office for Aging Services
DATA Act	Deployment Accuracy and Technology Availability Act
DMV	Department of Motor Vehicles
DOE	Virginia Department of Education
DRPT	Virginia Department of Rail and Public Transportation
EBC	EmPower Broadband Cooperative
EMT	Emergency Medical Technician
ESCSB	Eastern Shore Community Service Board
ETSU	East Tennessee State University
FCC	Federal Communication Commission
Flex	Medicare Rural Hospital Flexibility Program
FORHP	Federal Office of Rural Health Policy
FQHC	Federally Qualified Health Center
HCV	Hepatitis C Virus
HHCG	Healthy Harvest Community Garden

## Glossary of Acronyms and Abbreviations

Abbreviation/Acronym	Terms/Meaning
HHS	Health and Human Services Administration
HiAP	Health in All Policies
HIE	Health Information Exchange
HIV	Human Immunodeficiency Virus
HPSA	Healthcare Professional Shortage Area
HRSA	Human Resources and Services Administration
HUD	U.S. Department of Housing and Urban Development
LEAP	Local Environmental Agriculture Project
LHD	Local Health District
MEC	Mecklenburg Electric Cooperative
MEOC	Mountain Empire Older Citizens, Inc.
MIH	Mobile Integrated Healthcare
MIST	Mothers and Infants Sober Together
MUA	Medically Underserved Area
MUP	Medically Underserved Population
NAS	Neonatal Abstinence Syndrome
NHSC	National Health Service Corps
NOSORH	National Office for State Offices of Rural Health
NSP	Needle and Syringe Program
OHE	Office of Health Equity
PCMH	Patient Centered Medical Home
PCO	Primary Care Office
PLTW	Project Lead The Way
PPE	Personal Protective Equipment
PRIME	Programs in Medical Education
RAM	Remote Area Medical
RBI	Rockbridget Broadband Initiative
RESTORE	Reinvestment from an Expanded System to Treat Opioid Use Disorder
RHC	Rural Health Clinic
RHS	Rural Housing Service
RISP	Rural Infant Services Program
SAMHSA	Substance Abuse and Mental Health Services Administration
SBHC	School-based Health Center
SERCAP	Southeast Rural Community Assistance Project
SFMNP	Senior Farmers Market Nutrition Program
SNAP	Supplemental Nutrition Assistance Program
SOL	Standard of Learning
SPF	Strategic Prevention Framework
STAR	Shore Transit and Rideshare
SUD	Substance Use Disorder
SWAM	Small, Women-owned and Minority-owned

## Glossary of Acronyms and Abbreviations

Abbreviation/Acronym	Terms/Meaning
SWVA	Southwest Virginia
TRRC	Virginia Tobacco Region Revitalization Commission
UAMS	University of Arkansas for Medical Sciences
US	United States
USDA	United States Department of Agriculture
UWSWVA	United Way of Southwest Virginia
VA-SLRP	Virginia State Loan Repayment Program
VA-SORH	Virginia State Office of Rural Health
VAFCC	Virginia Association of Free and Charitable Clinics
VAFMA	Virginia Farmers Market Association
VATI	Virginia Telecommunications Initiative
VDACS	Virginia Department of Agriculture and Consumer Services
VDARS	Virginia Department of Aging and Rehabilitative Services
VDH	Virginia Department of Health
VDHCD	Virginia Department of Housing and Community Development
VEDP	Virginia Economic Development Partnership
VHDA	Virginia Housing Development Authority
Virginia P3	Virginia Partners in Prayer and Prevention
VPI	Virginia Preschool Initiative
VRHA	Virginia Rural Health Association
VRHP	Virginia Rural Health Plan
WIC	Women Infant and Children
WVU	West Virginia University
YHELI	Youth Health Equity Leadership Institute





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Virginia Department of Health

