Introduction of the 2022-2026 Virginia Rural Health Plan and Data Commons

Presenting on behalf of the Virginia State Office of Rural Health

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Presenting on behalf of the UVA Biocomplexity Institute

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U.S. Department of Health & Human Services
HRSA
Federal Office of Rural Health Policy

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VDH VIRGINIA DEPARTMENT OF HEALTH

Housekeeping

- Presentation is being recorded via Zoom
- Slide deck available upon request

? - Q&A will take place after the presentation

Audience Takeaways

1. Understand the approach to and development of the 2022-2026 Virginia Rural Health Plan (VRHP)
2. Introduce the Virtual Rural Resource Toolkit to support the VRHP that was created in partnership with the Rural Virginia Initiative, Healthcare and Community Well-being Working Group
3. Debut the county-level interactive data commons to support the VRHP, in partnership with the UVA Biocomplexity Institute, Social and Decision Analytics Division

Topic Spotlight: Education

Kiptopeke State Park
: Rachel Stevens

Virginia State Office of Rural Health (VA-SORH)

Mission:

To address and rectify health disparities affecting the rural residents of the Commonwealth of Virginia

The VA-SORH is dedicated to:

- Fostering collaboration and leveraging resources across and within various levels of government, communities, and non-profit organizations
- Collecting and disseminating information to stakeholders
- Providing technical assistance
- Assisting the coordination of rural health interests statewide
- Recruitment and retention of health professionals in rural and medically underserved areas

Virginia State Office of Rural Health

VA-SORH Innovative Rural Programming Awards

- Healthy Moms & Babies
- Food Access & Nutrition
- Workforce Development
- Behavioral Health
- Telehealth

Rural Healthcare Workforce Incentive Programs

- State Loan Repayment Program (SLRP)
  - Tobacco Region Revitalization Commission
- Behavioral Health Loan Repayment Program (BHLRP)
- Conrad 30 Waiver Program (J-1)
- Nursing Preceptor Incentive Program (NPIP)

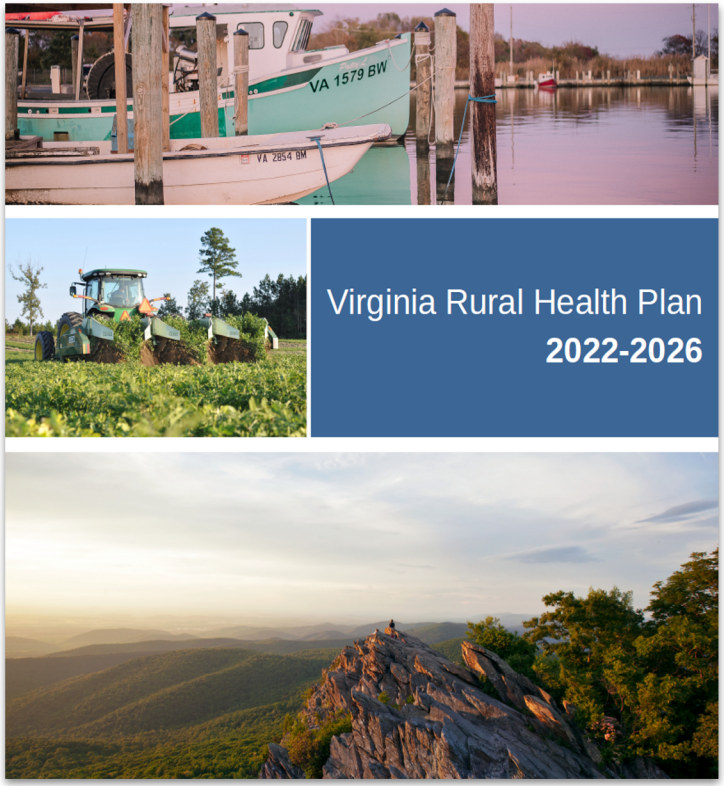
VA-SORH Partnerships & Collaborations

- Virginia Rural COVID-19 Response & Relief Program
  - (COVID-19 Rural Health Disparities Grant)
- Conference Sponsorships
  - Virginia Association of Free & Charitable Clinics
  - United Way of Southwest Virginia
- Development of the Statewide Telehealth Pan
- Office of EMS Rescue Squad and Relief Fund

Rural Hospital Programs

- Small Rural Hospital Improvement Grant Program (SHIP)
- SHIP COVID-19 Testing & Mitigation
- Medicare Rural Hospital Flexibility Program (FLEX)

Virginia Rural Health Plan 2022-2026



Question: *What is most important to a rural community?*

Goals:

- Community-informed lens
- Asset-based approach
- Define rurality
- Identify priority VA-SORH metrics

Virginia Rural Health Plan 2022-2026

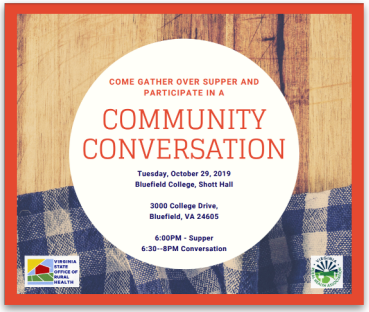
Community Conversation, Bluefield, VA

Approach

- Meet people where they are through community-driven conversations
- Conversations to be held in locality familiar, centralized to attendees
- Local Community facilitator to lead the conversation
- Absolutely NO powerpoint presentation
- Converse over a warm meal, catered by a local restaurant
- Conduct site visits and met with local leaders, agencies, grassroots organizations

COVID-19 Response

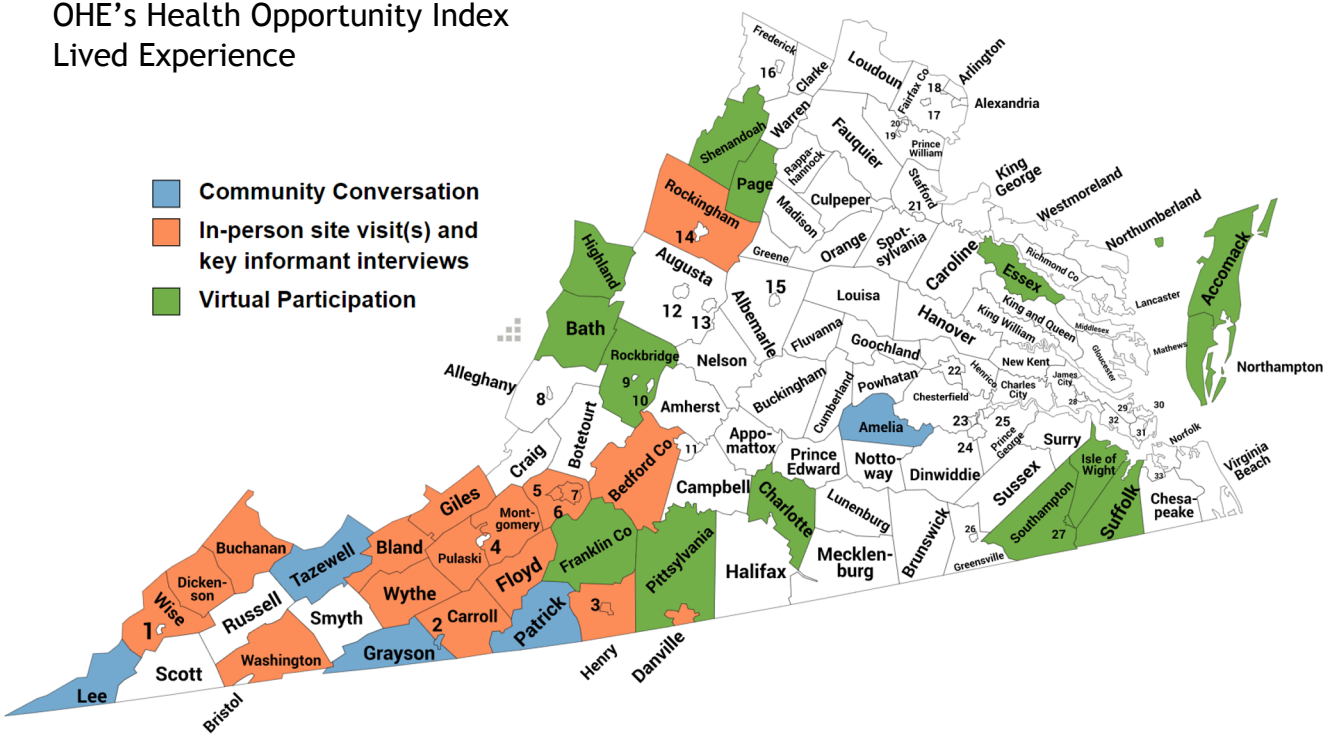
- REDCap online survey version of the Community Conversation questions to share with the remaining communities and other key stakeholders
- Conducted phone interviews with community leaders and organizations



Outreach-Community Informed Lens

Where to go?

RWJF's Community Health Rankings
ARC's Economic Distress Index
OHE's Health Opportunity Index
Lived Experience



Developing Plan Framework:

Qualitative data analysis identified recurring topics

Themes created the framework of the VRHP

Identified community/regional leading and promising practices

Virginia Rural Health Plan 2022-2026

Recurring Topics

- Education as the Backbone in Rural Virginia
- Healthy Housing
- Broadband Internet Supporting Rural Virginia
- Transportation
- Nutrition and Food Security
- Healthy Moms and Babies
- Access to Health Care Services
- Behavioral Health, Substance Use Disorder and Recovery
- Healthy Minds and Bodies
- Built and Natural Environment
- Aging in Place and Addressing Social Isolation
- Elevating Rural Workforce Development and Employment
- Financial Proficiency: Leveraging Individualized Resources

VDH VIRGINIA DEPARTMENT OF HEALTH

Virginia Rural Health Plan 2022-2026

Natural and Built Environments

Natural Environment

How our communities are planned, designed and built can have a major influence on our health. Influential factors, such as the natural and built environment, encompass objective and subjective features of the physical environment in which people live, work and play. Such factors contribute to the conditions and opportunities that enable individuals to live long and healthy lives.

"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

The term '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, 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 the environments where people live, work, and play. Rural Virginia's natural assets, such as outdoor recreation, supports 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, also 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, contributing to the economic vitality of the region. A great example of this balance between preservation and economic development, includes The Crooked Road Heritage Music Trail. The Crooked Road is a 330 mile driving trail through the mountains of Southwest Virginia that connects nine major venues and over 60 affiliated venues 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 from communities, musicians, music venues, and tourism organizations along the proposed route. As a result, "The Crooked Road," emerged, which currently runs through nineteen 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 also a 501(c)3 non-profit organization founded in 2004 whose mission is 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

Built environment significantly affects the public's health. The connection between health and the built environment can be dated 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 of the physical parts of where we live and work (e.g., 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 individuals opportunities to socialize, play, exercise and enjoy the neighborhood in which they live (5). There is some evidence to support these forms of community engagement contributing to physical health, mental health and human development (5). Communities that feel like they live close to parks or mountains, have a beautiful neighborhood, or have a safe neighborhood, on average, spend more time walking outside. The evidence indicates that improving multiple aspects of 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 & 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

Plan Development

- Overview
- Leading Practices and Approaches
  - Focus: Virginia
  - National programs/organizations
- Opportunities for Growth
  - Policy recommendations
  - Pilot program(s)
  - Funding

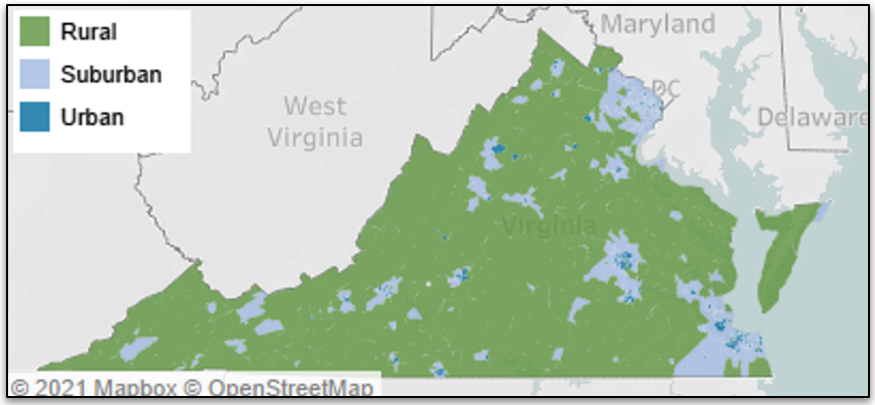
Defining Rurality

- Rural Virginia is diverse in geography, demographics, and cultural identity
- Definitions vary based on the lens (economic, statistical classifications, funding opportunities)
- Rurality exists within the shadows of urban cores and suburban areas

Tazewell County

Accomack County

Urbanization Perceptions Small Area Index



Topic Spotlight
Education: 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 to 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.

Education Metrics
(Median School District)

	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.

Educational Attainment of Adults Metrics

	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" (1). School-based health centers are often the access point to health care that many students may not otherwise see. When kids 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.

Southern Virginia Botanical Garden & Environmental Education Center
VA-SORH Staff

Topic Spotlight
Education: A Backbone in Rural Virginia

Leading Practices & Approaches

- School-Based Health Centers
  - Highland Medical Center
  - Ballad Health & Lee County's School-Based Telehealth Program
- Career and Technical Education
  - VDOE's Project Lead the Way
  - UWSWVA's School to Career Pipeline Ignite Program
- Head Start
- Virginia Preschool Initiative
- 4-H

Opportunities for Growth

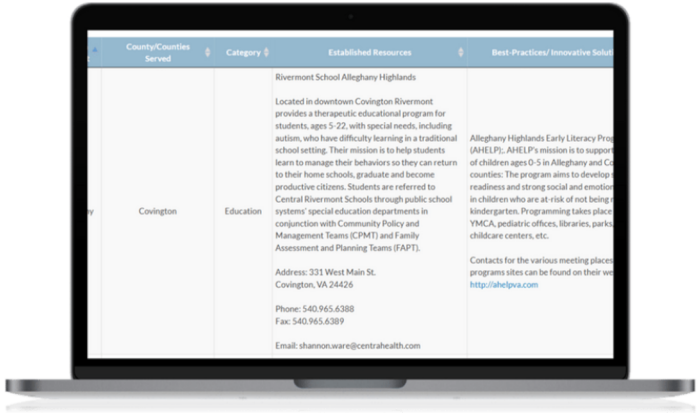
- Promote literacy during early childhood by regularly providing books (recreational and educational) to children.
- Ensure access to broadband and invest in current technology to provide equitable access to education.
- Invest in pipeline educational programs that begin during middle school and provide students with hands-on exposure to a variety of trades and careers.
- Ensure and expand opportunities to combine college preparatory academics with technical training and workplace experience.

Ensure that supporting students with learning differences is a priority. Provide regular, up-to-date information and resources to teachers on how best to support their students with learning differences and instruction on how to implement personalized education plans.

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.

Virginia Rural Health Plan Resource Online Toolkit

- Virtual
  - Housed on VA-SORH website
- Option to search by Statewide, Health District, County/Counties
- Category
  - Established Resources
  - Best Practices, Innovative Solutions
  - How-to Guide, Instrument
- Updated continuously
- Submission of additional resources
  - Anyone can submit information about new/available resources



Category	Established Resources	Best-Practices/ Innovative Solutions
Education	Rivermont School Alleghany Highlands Located in downtown Covington Rivermont provides a therapeutic educational program for students, ages 5-22, with special needs, including autism, who have difficulty learning in a traditional school setting. Their mission is to help students learn to manage their behaviors so they can return to their home schools, graduate and become productive citizens. Students are referred to Central Rivermont Schools through public school systems' special education departments in conjunction with Community Policy and Management Teams (CPMT) and Family Assessment and Planning Teams (FAPT). Address: 331 West Main St. Covington, VA 24426	Alleghany Highlands Early Literacy Program (AHELP);. AHELP's mission is to support families of children ages 0-5 in Alleghany and Covington counties: The program aims to develop school readiness and strong social and emotional skills in children who are at-risk of not being ready for kindergarten. Programming takes place in the YMCA, pediatric offices, libraries, parks, schools, childcare centers, etc. Contacts for the various meeting places and programs sites can be found on their website: http://ahelpva.com

Priority Metrics

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

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

RURAL HEALTH DATA COMMONS

an innovative approach to inform health and well-being

UVA | BIOCOMPLEXITY INSTITUTE

VDH VIRGINIA DEPARTMENT OF HEALTH

AGENDA

- Intro: UVA Biocomplexity Institute
- Data Commons: Vision and Purpose
- Priority Areas
- Coming Soon

SALLIE ANN KELLER

University of Virginia
Biocomplexity Institute
Division Director
Distinguished Professor in Biocomplexity
Professor of Public Health Sciences

AARON SCHROEDER

University of Virginia
Biocomplexity Institute
Research Associate Professor

RURAL HEALTH
DATA COMMONS

WHO WE ARE

UNIVERSITY of VIRGINIA

BIOCOMPLEXITY INSTITUTE

Mathematical Biocomplexity

Network Systems Science and Advanced Computing

Social and Decision Analytics

RURAL HEALTH DATA COMMONS

VISION

A Rural Health Data Commons to Inform Community Health and Well-Being

RURAL HEALTH DATA COMMONS

VISION

WHAT IS A DATA COMMONS?

An open knowledge repository that co-locates data from a variety of sources, builds and curates data insights, and provides tools designed to track issues over time and geography allowing governments and community stakeholders to learn continuously from their own data.

Key features:

- Data sources, collected and created
- Maps reflecting multiple geographies
- Composite metrics
- Navigation and capability to statistically explore the data
- Data download via web or API
- Metadata

RURAL HEALTH DATA COMMONS

PURPOSE

INTENDED AUDIENCE

- General public
- Virginia government: elected officials and agency personnel
- Community stakeholders and leaders: local government, NGOs, business and industry
- Researchers: universities, institutes, think tanks
- Health professionals

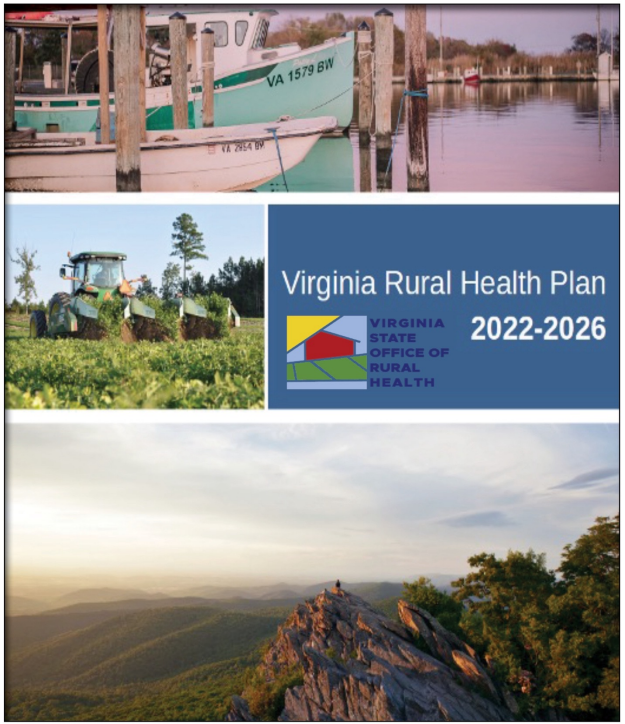
A Data Commons allows multiple audiences to explore issues relevant to their communities.

RURAL HEALTH
DATA COMMONS

PURPOSE

BRING VIRGINIA RURAL HEALTH PLAN TO LIFE

- **AMPLIFY**
  understanding of priority areas
- **PROVIDE**
  opportunity to explore current data insights to dive deeper into regions, communities, or neighborhoods
- **CREATE**
  a sustainable tool with current data ingested over time
- **SUPPORT**
  multiple audiences



RURAL HEALTH DATA COMMONS

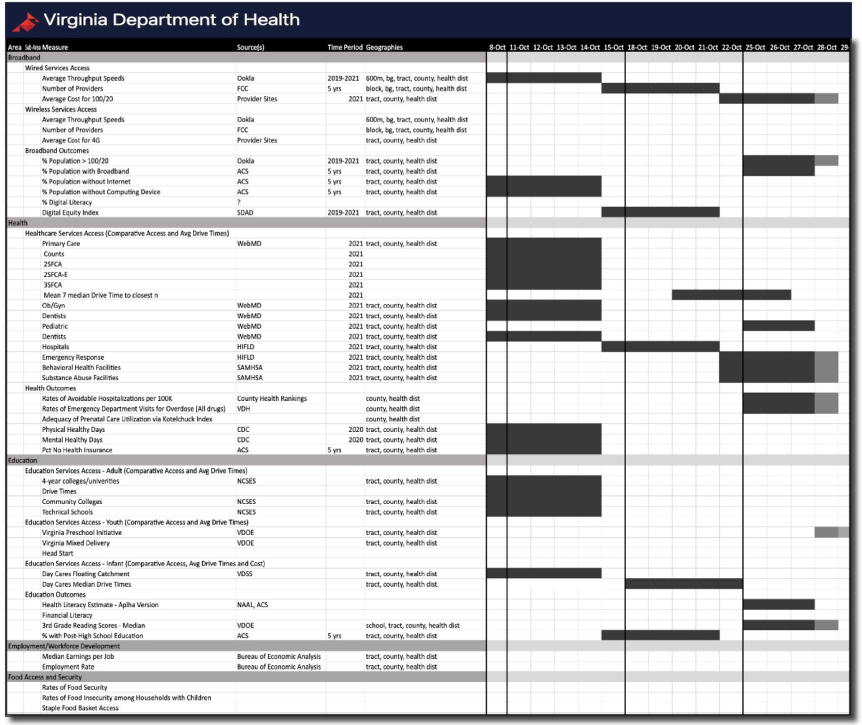
PRIORITY AREAS

Exemplars

PRIORITY AREAS

70+ SUB-COUNTY MEASURES COLLECTED

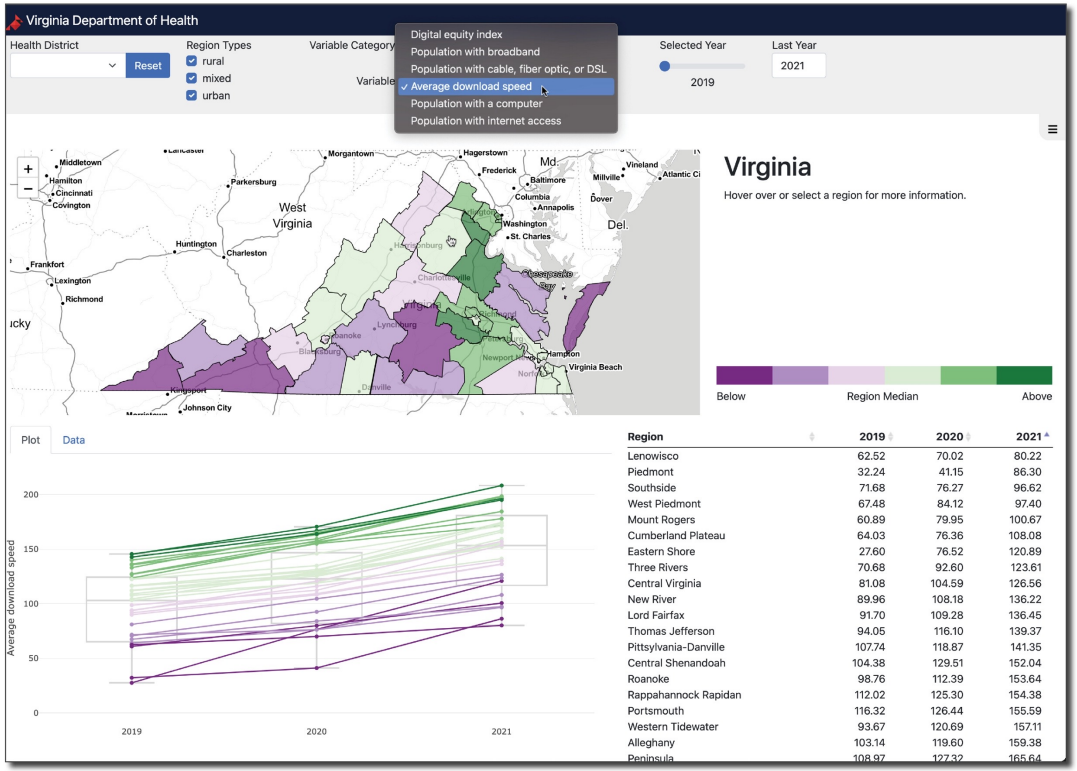
...and we're just getting started!



RURAL HEALTH DATA COMMONS

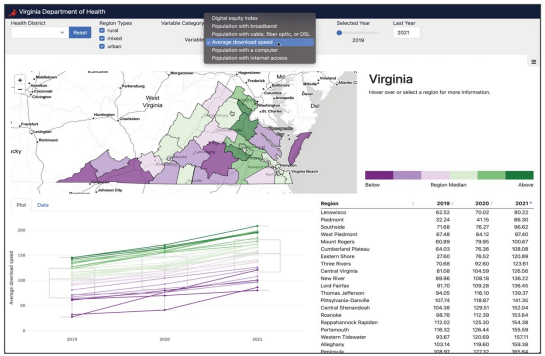
BROADBAND

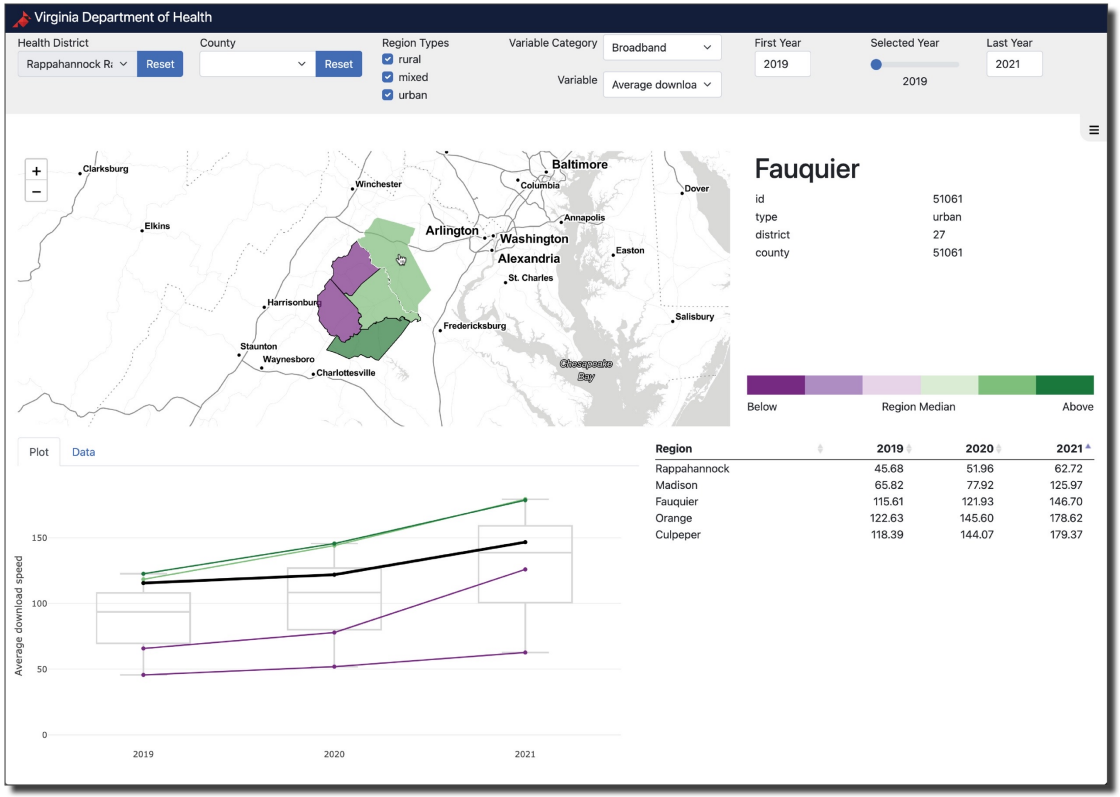
MEASURE: Average download speeds



BROADBAND

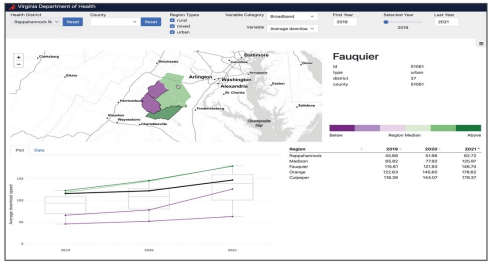
DIVING IN

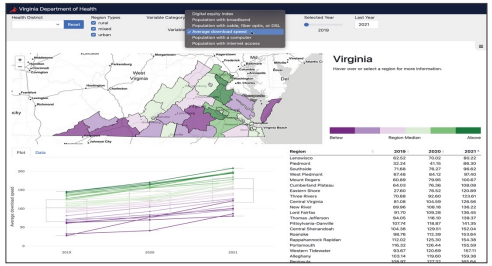


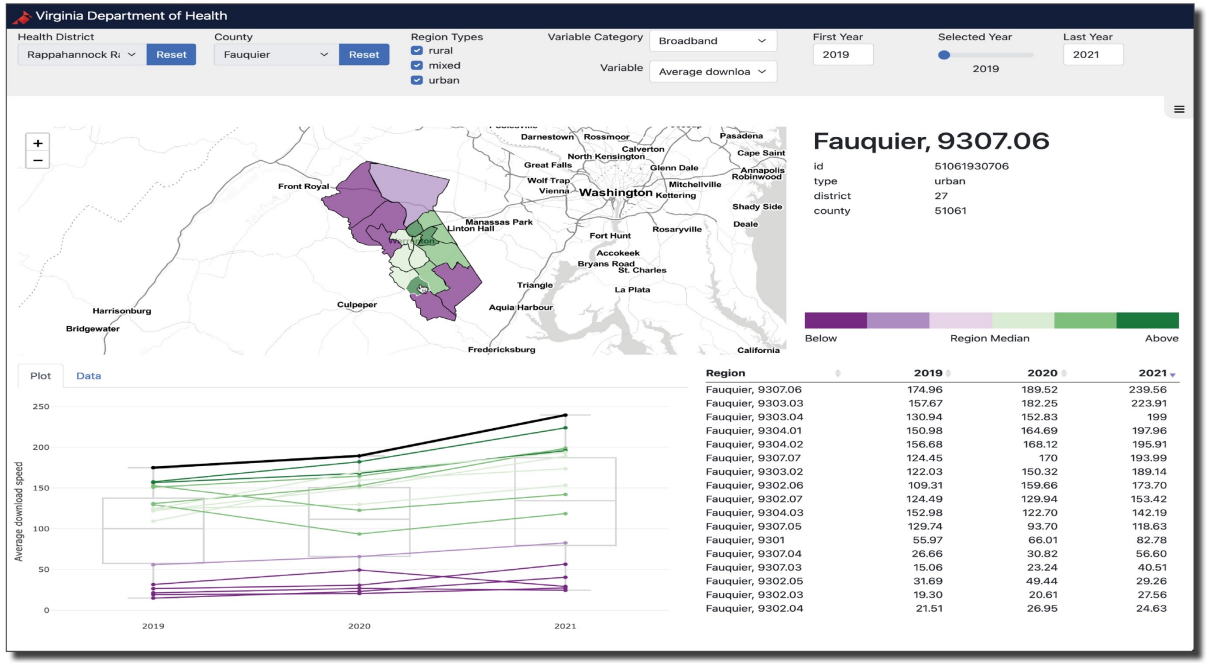


BROADBAND

DIVING DEEPER



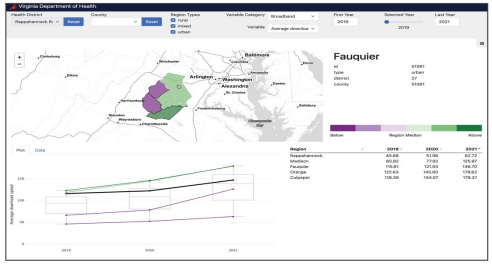


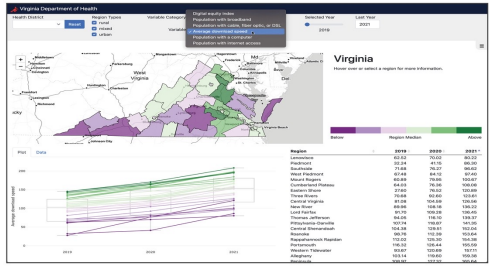


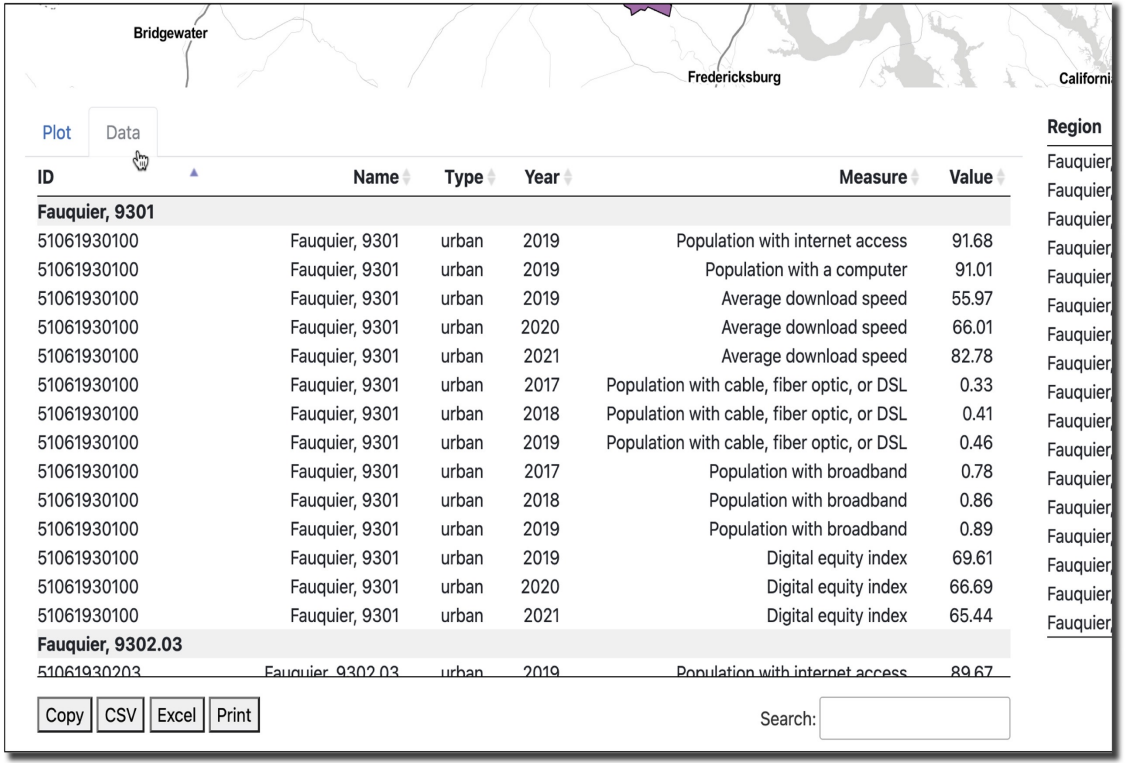
RURAL HEALTH DATA COMMONS

BROADBAND

GETTING THE DATA






Bridgewater
Fredericksburg
Plot
Data
Region
Fauquier
Fauquier
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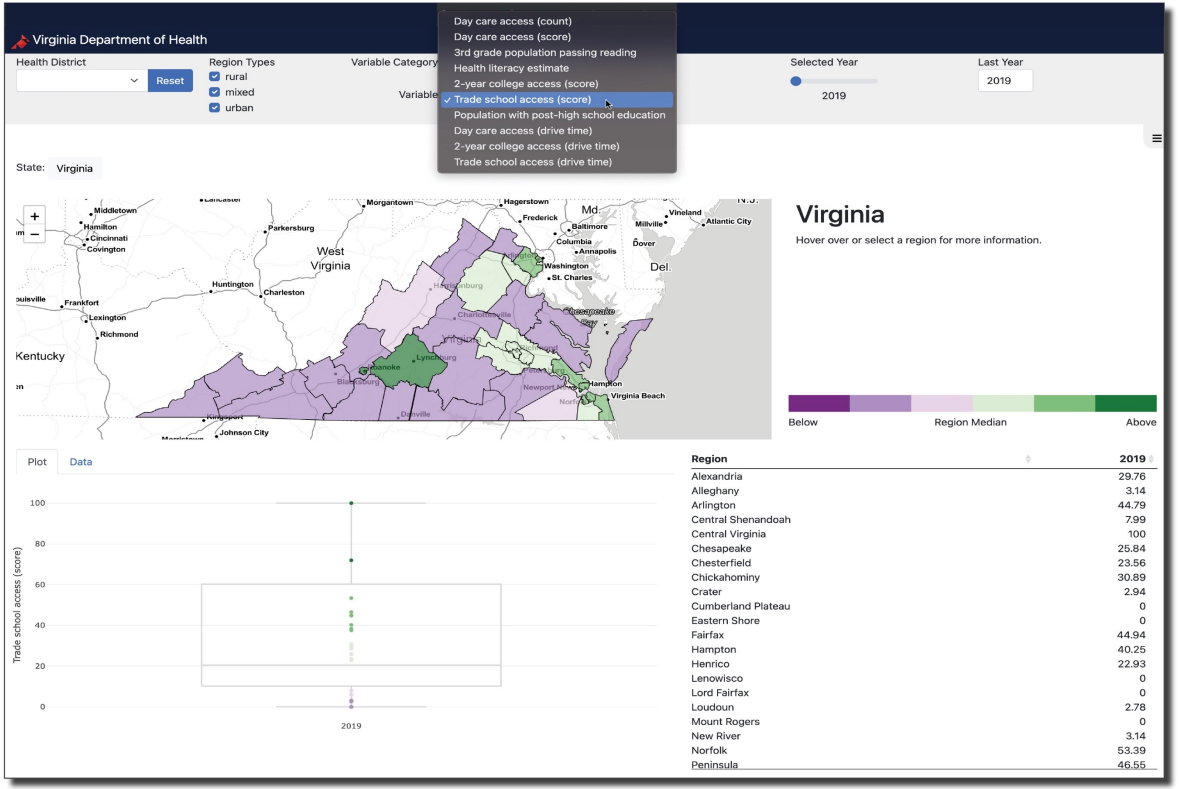
EDUCATION

COMPOSITE METRIC:
Trade School Access Catchment Area Score



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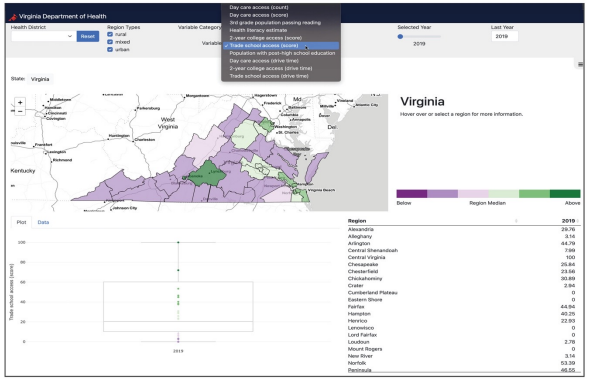
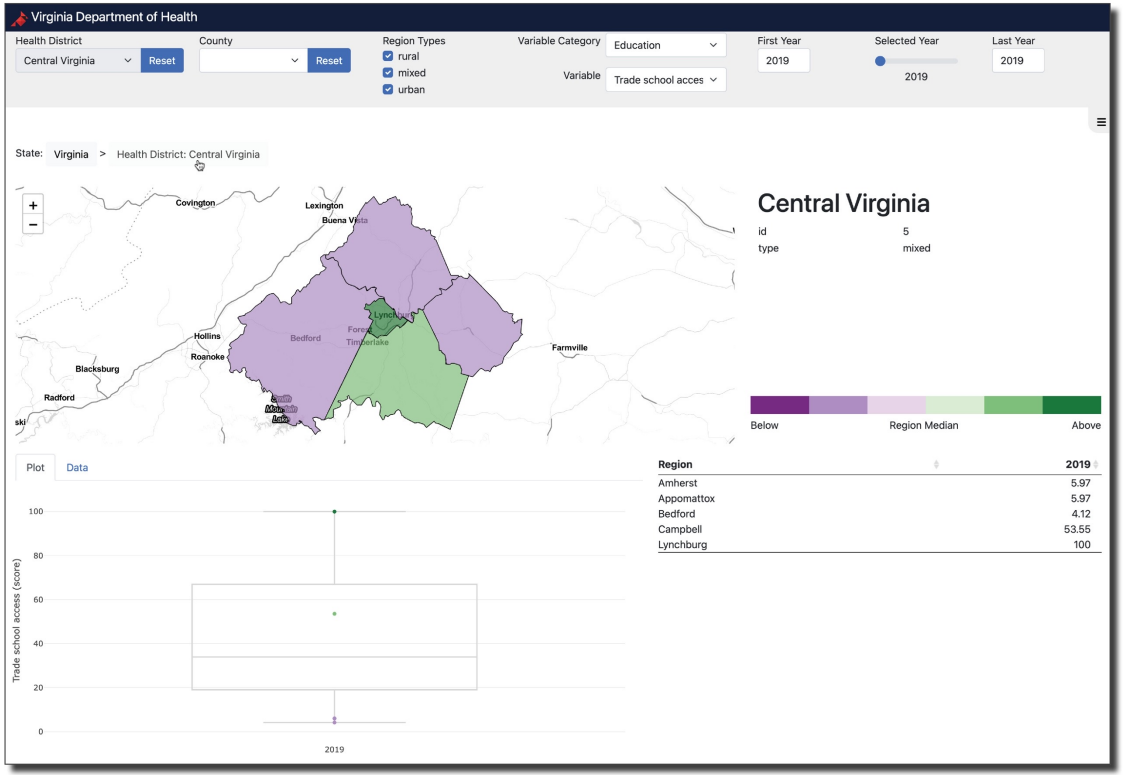
EDUCATION

DIVING IN

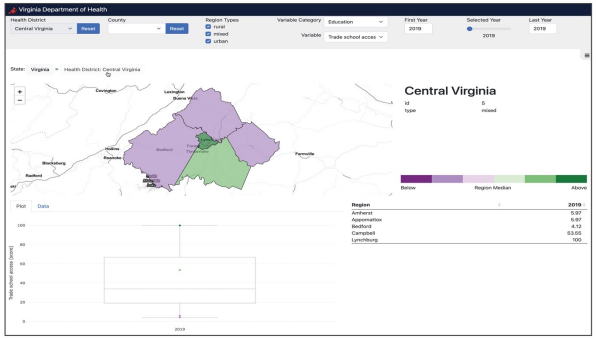


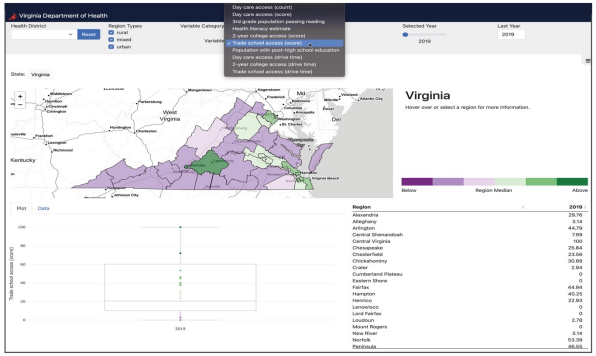


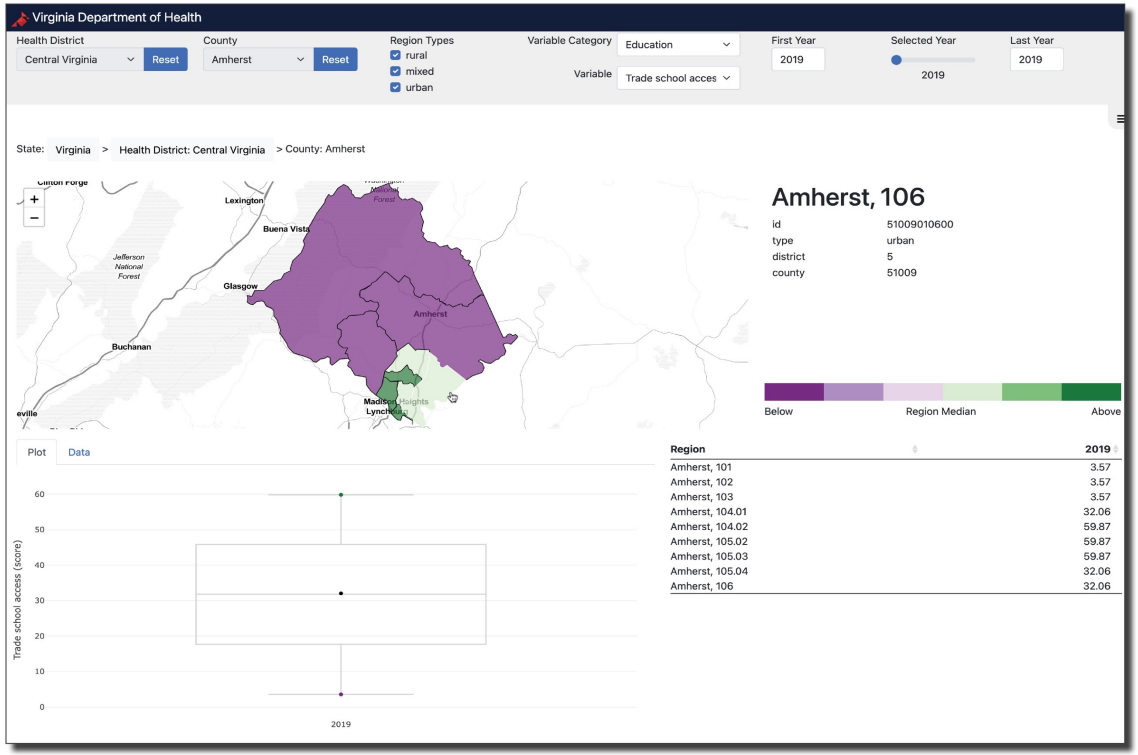
RURAL HEALTH DATA COMMONS

EDUCATION

DIVING DEEPER





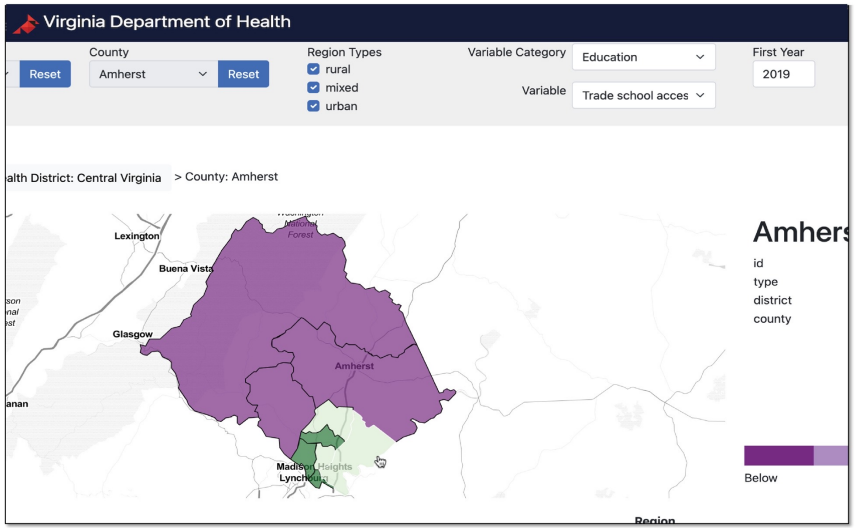


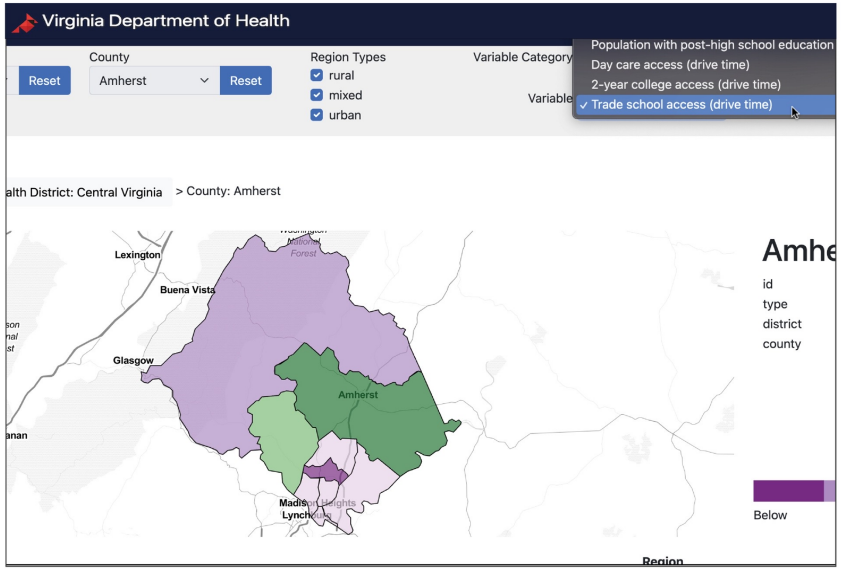
RURAL HEALTH DATA COMMONS

EDUCATION

COMBINING MEASURES FOR DEEPER UNDERSTANDING:

Composite Measure + Average Drive Time





RURAL HEALTH DATA COMMONS

Coming November 2021!

RURAL HEALTH DATA COMMONS

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