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December 21, 2023

MEMORANDUM

TO: The Honorable Glenn A. Youngkin
Governor of Virginia

The Honorable Janet D. Howell
Co-Chair, Senate Finance and Appropriations Committee

The Honorable George L. Barker
Co-Chair, Senate Finance and Appropriations Committee

The Honorable Barry D. Knight
Chair, House Appropriations Committee

FROM: Karen Shelton, MD
State Health Commissioner, Virginia Department of Health

SUBJECT: Board of Health Annual Report

This report is submitted in compliance with the Virginia Acts of the Assembly – § 32.1-14, which states:

> *The Board shall submit an annual report to the Governor and General Assembly. Such report shall contain information on the Commonwealth's vital records and health statistics and an analysis and summary of health care issues affecting the citizens of Virginia, including but not limited to, health status indicators, the effectiveness of delivery of health care, progress toward meeting standards and goals, the financial and geographic accessibility of health care, and the distribution of health care resources, with particular attention to health care access for those Virginia citizens in rural areas, inner cities, and with greatest economic need. Such report shall also contain statistics and analysis regarding the health status and conditions of minority populations in the Commonwealth by age, gender, and locality.*

Should you have any questions or need additional information, please feel free to contact me at (804) 864-7002.

KS/AJ
Enclosure

Pc: The Honorable John Littel, Secretary of Health and Human Resources

Annual Report of the Board of Health

2022

VDH VIRGINIA DEPARTMENT OF HEALTH

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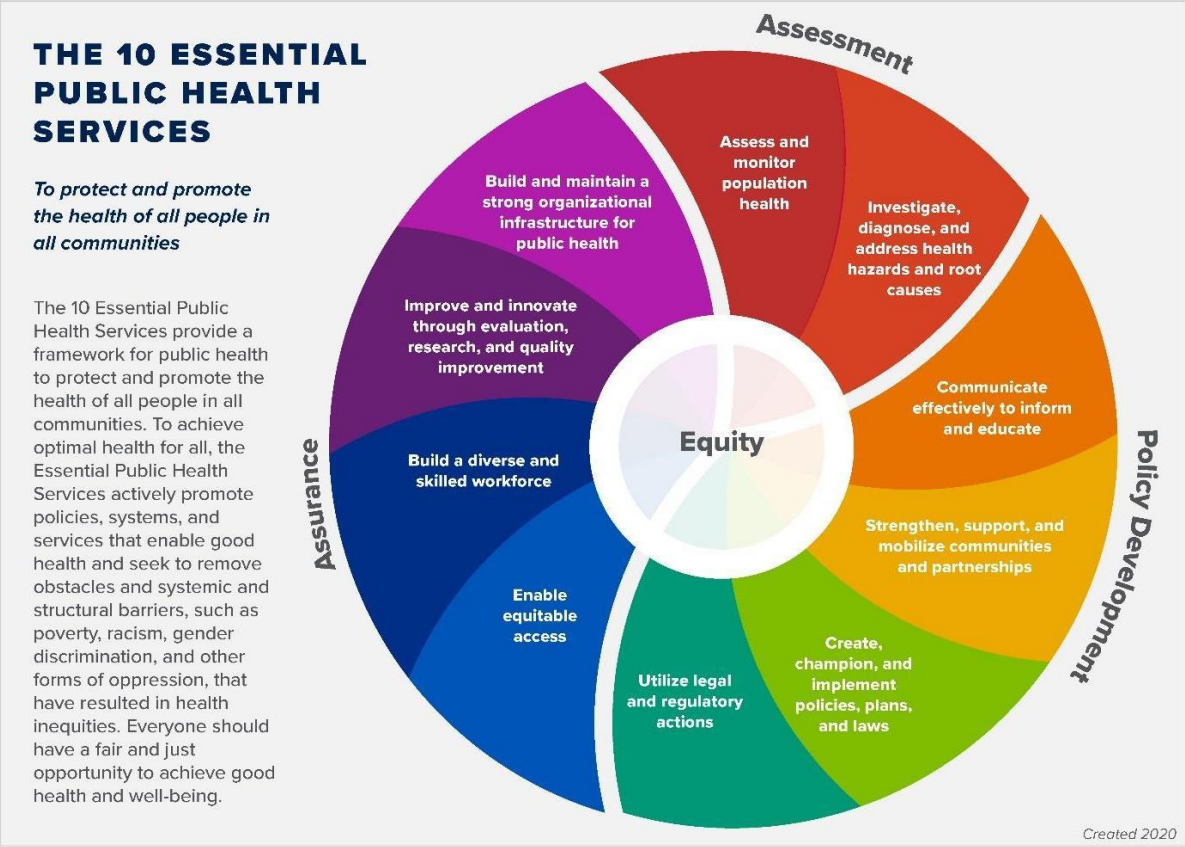
Introduction

Pursuant to Virginia Code §32.1-14 the Virginia Department of Health (VDH) is submitting the following State Board of Health annual report summarizing health care issues affecting citizens of Virginia and the corresponding collaborative efforts to address health disparities.

Throughout 2022, the VDH continued leading the way for COVID-19 response while simultaneously providing services, programs, and interventions across the Commonwealth. VDH remains committed to ensure that every Virginian has a fair and equitable opportunity to achieve optimal health, and for Virginia to become the healthiest state in the nation. The COVID-19 pandemic underscored the importance of using data and partnering with communities to improve community health outcomes. Ensuring all Virginians have the opportunity for optimal health requires actions designed to understand and address the root causes of health disparities. VDH is focused on a team-of-teams approach to improve the health of all Virginians.



Highlighted Accomplishments

Response to Global Emerging Disease

During 2022, VDH continued to track COVID-19 and investigate outbreaks in higher risk settings. In May 2022, Mpox (updated nomenclature of Monkeypox) was identified in countries where it had not been detected in the past and began to spread globally. The VDH Office of Epidemiology quickly developed and disseminated guidance for its clinical partners and the general public and established data systems and procedures to track and control the disease. Local health departments investigated cases, identified contacts of cases, and provided Mpox vaccine to targeted groups in order to prevent further transmission. In September 2022, the World Health Organization declared an outbreak of Ebola in Uganda, and VDH worked with Centers for Disease Control and Prevention (CDC) and other states to quickly re-establish its public health response to prevent transmission of Ebola in the United States. Beginning in early October, all travelers from Uganda were funneled through five US airports, including Dulles International. The Office of Epidemiology, the Office of Emergency Preparedness, and local health districts are worked closely with clinical partners to ensure preparedness; and VDH's regional epidemiology surge teams (established during the COVID-19 pandemic) conducted outreach to travelers from Uganda to provide public health guidance and monitoring.

Collaboration and Focus on Data to Foster Community Health Improvement

VDH launched several centers and programs that are focused on developing the capabilities of all programs and offices to drive measurable outcomes utilizing the Public Health 3.0 Framework.

- The Center for Community Health Improvement (CCHI) coordinates with and provides guidance and technical support to the VDH Central Office and local health districts to meet national public health accreditation requirements for (1) engaging with the public health system and the community in identifying and addressing health problems through collaborative processes; (2) conducting and disseminating assessments focused on population health status and public health issues facing the community; and (3) conducting comprehensive planning processes that result in population health improvement plans. The CCHI facilitates the collaborative State Health Assessment at least every five years.

- The Office of Family Health Services' Community Health Epidemiology Program (CHEP) provides strategic direction for community-engaged research and informatics activities supporting population health and equity, including metrics and dashboards, vulnerable population data systems, interoperability standards, and Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) monitoring. Since its inception in late August 2022, CHEP has worked to build relationships and work collaboratively with CCHI and local health districts to improve community health via evidence-based methods and appropriate data analyses regarding the distribution and determinants of population health.

- The Office of Information Management's Center of Public Health Informatics (CPHI) supports programs through the provision of expertise in the development, translation, visualization, and

dissemination of public health data and informatics knowledge. CPHI improves population health outcomes by developing innovative ways to improve use and understanding of data to better inform and promote the health of all Virginians. The Community Health Informatics Team within the CPHI provides informatics, data and assessment support for the Community Health Assessments and Improvement Plans (CHAs/CHIPs); supports CCHI and Population Health with CARES portal data system's needs; standardizes key performance indicators; establishes data management best practices; and collects and maintains reliable, comparable and valid data that provides information on conditions of public health importance and on the health status of the population.

State Health Assessment

In 2022, VDH facilitated Virginia's State Health Assessment. The State Health Assessment (SHA) Data Highlights Report (Appendix A) provides an overview of health indicators and whether they have improved, remained stable, or worsened. These data show where community health efforts are working and where renewed attention is needed. The findings of the SHA will be analyzed, prioritized, and made actionable through the State Health Improvement Plan (SHIP) in 2023.

Virginia Community Health Improvement Data Portal

Partnering for a Healthy Virginia (PHV) was founded by VDH and the Virginia Hospital and Healthcare Association (VHHA) to impact population health efforts and activities. The goal of PHV is to ensure that every Virginian has a fair and equitable opportunity to achieve optimal health, making Virginia the healthiest state in the nation. Partnering for a Healthy Virginia is Virginia's state-level population health improvement collaborative and continues to grow and expand partnerships, including stakeholders from local health districts, hospitals, community health coalitions, businesses, and foundations. In 2022, PHV continued its work towards population health improvement including the launch of the Virginia Community Health Improvement Portal.

Community Health Assessment and Improvement Planning

For the first time in 2022 the Rappahannock Area Health District and Mary Washington Healthcare partnered to complete a joint CHA for the City of Fredericksburg and Caroline, King George, Spotsylvania, and Stafford Counties, as well as parts of Westmoreland, Orange, and Prince William Counties. Over 70 organizations and nearly 2,000 community members provided feedback during this collaborative assessment process. Using data from the assessment, mental health, affordable housing, and access to healthcare were identified as the top three priority issues to be addressed through a community health improvement plan (CHIP), which can be viewed in its entirety here:

www.vdh.virginia.gov/rappahannock/fy23-fy25_cha-chip

The plan outlines ways in which community organizations will come together to enhance collaboration around these issues, improve access to care, ensure equitable housing options, and develop a strategy to increase the healthcare workforce pathway.

The Rappahannock-Rapidan Health District is collaborating with five counties, two hospitals, two community foundations, and one community-based organization to complete a joint CHA. They pooled financial resources to contract with a facilitator to meet the varying needs of localities, hospitals, health departments, and community partners. Each organization selected key priority targets for improvement for the community health improvement process, and they will continue to collaborate implementing these strategies over the next CHIP cycle.

The Crater Health District has partnered with a private foundation that serves five of the eight health district localities to complete a community health needs assessment (CHNA) for its local health system. As a part of this partnership, Crater Health District has trained three staff to lead focus groups for the CHNA and is supporting the distribution of the community survey. The foundation will share all data collected and analyzed with the health district, which means this partnership will greatly expedite the CHA for Crater Health District.

The Fairfax Health District provides backbone support for the work of the Partnership for a Healthier Fairfax and the Fairfax Food Council, multi-sector community coalitions working to implement the goals, objectives and key actions of the Live Healthy Fairfax CHIP. Partnership for a Healthier Fairfax is engaged in implementation activities for year 4 of the CHIP and work is underway to complete a 2022 Community Health Assessment. The CHIP and local community health indicators are found on www.livehealthyfairfax.org. Current projects include promoting the "Real Food for Real Change" toolkit for middle school students, developing resources to help adults access behavioral care services, and developing a food rescue protocol for schools.

LiveHealthy FAIRFAX
Transforming our communities together
Partnership for a Healthier Fairfax

Partnership for a Healthier Fairfax Milestones

www.fairfaxcounty.gov/livehealthy

Fairfax - an engaged and empowered community working together to achieve optimal health and well-being for all who live, work and play here.

Planning • Prioritizing • Implementing • Sustaining • Planning

2020 - 2022

CURRENT PROJECTS:

- Identify food-growing initiatives with a Fairfax County searchable map
- Promote "Real Food for Real Change," toolkit for middle school youth
- Develop a food rescue protocol for schools
- Publish *Social isolation and Loneliness: Impacts on Health and Approaches to Prevention for the Fairfax Community*
- Develop resources to help adults access behavioral health care services
- Launch *Healthy Together Fairfax* Event
- "Tell Me Your Story" Cultural Competency curriculum offered via the Northern Virginia Area Health Education Center at Mason (AHEC)
- Serve community needs during the Covid-19 pandemic

2018-2019

PROJECT HIGHLIGHTS:

- Develop and Launch CHIP 2.0 (2019-2023)
- Complete Community Health Assessment
- Establish Trauma-Informed Care Network
- Urban Agriculture in Zoning Modernization
- Develop Curriculum to Support the "Tell Me Your Story" Project
- Expand Food Insecurity Screening & Resources

2016-2017

PROJECT HIGHLIGHTS:

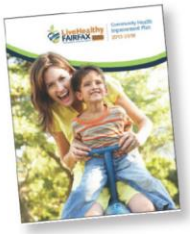
- Established Trauma Informed Community Network
- Completed Community Food Assessment
- Health in All Policies (HiAP) Objective Added to the Economic Success Plan of Fairfax County

2014-2015

PROJECTS LAUNCHED:

- Tobacco-Free Play Zones
- Community Health Dashboard
- Fairfax Food Council
- Healthy Community Design Summit
- Eat and Run Project
- Transit Center Health Impact Assessment

2008-2013



BUILDING THE FOUNDATION:

- Initialized the Mobilizing for Action through Planning and Partnerships (MAPP) Process
- Established the Partnership for a Healthier Fairfax
- Awarded a Community Transformation Grant
- Conducted a policy, systems and environmental scan
- Adopted the Community Health Improvement Plan (2013-2018)

updated April 2022

VDH VIRGINIA DEPARTMENT OF HEALTH

Office of Vital Records Improved Customer Service

The VDH Office of Vital Records (OVR) is the official repository of vital events (birth, death, spontaneous fetal death, marriage, divorce, and induced termination of pregnancy) occurring in the Commonwealth of Virginia, as well as vital events of Virginia residents occurring outside the Commonwealth. It is the responsibility of the various reporting sources (i.e. hospitals, clinics, courts, funeral homes) to file these vital events with OVR. With the exception of marriage and divorce records, these vital events are filed electronically via the Virginia Vital Event and Screening Tracking System (VVESTS). VVESTS is a web application used for the registration, collection, preservation, amendment and certification of vital records. In addition to collecting Virginia's vital events, OVR has reciprocity arrangements among the other states and US territories to receive vital records data pertaining to Virginia residents. Likewise, OVR exchanges data on vital events occurring in Virginia to non-residents with the proper states. In Virginia's vital records data, a distinction is made in the tables and analyses as to those events occurring in Virginia and to those occurring to residents of Virginia.

In April 2022 the fully online vital records application service was launched. This new service allows customers from around the world to request a copy of a vital record from a computer, phone or tablet. This new system decreases processing times and improves access to vital records for customers. In June 2022 the National Association for Public Health Statistics and Information Systems (NAPHSIS) awarded the OVR's Field Services Team the '2022 Team Excellence Award' for improving mortality and natality data quality in the state. OVR significantly improved customer satisfaction during the pandemic, with their rating on Google improving from 2.0 stars (out of 5.0) before the pandemic to 4.2 stars as of October 2022.

VDH's Office of Information Management's Vital Event Statistics Program analyzes Virginia vital event data, develops statistical reports, charts, tables and graphs and publishes the annual Virginia Health Statistics report online at: https://apps.vdh.virginia.gov/HealthStats/stats.htm

School-Aged Dental Health Program

VDH's Division of Child and Family Health in the Office of Family Health Services has collaborated with the Virginia Health Catalyst and the Virginia Department of Education to create a School-Aged Dental Health Program. This program provides education, training, and resources to school nurses to increase the number of Virginia children receiving oral health services. This program focuses on preventative care by growing the number of school-based oral health programs. The school nurse training programs are designed to break down barriers to dental care by providing technical assistance. The first cohort (2021-2022 school year) consisted of twelve school nurses. The schools selected were in the underserved communities of Campbell County, Wythe County, Giles County, Pulaski County, Petersburg, Hopewell, Hampton Roads, Orange County and Eastern Shore.

Additionally, as of September 2022, Alexandria Health District's Neighborhood Health Team began to see patients enrolled at Mount Vernon Community School and William Ramsay Elementary School in Alexandria to provide dental care to 400 students during the 2022-2023 school year.

Pregnancy Loss Services Project

In 2022, VDH partnered with five organizations: Birth in Color RVA, Full Circle Grief Center, Kennedy's Angel Gowns, Sisters in Loss, and VCU, to create the Pregnancy Loss Services Project. VDH launched the project to support individuals and families who have experienced pregnancy loss. VDH's Pregnancy Loss Services Project aims to build community organizations' capacity by providing support and education services to individuals and groups (including families) who have experienced pregnancy loss. This program is supported by Title V funds and came about as a result of the Title V Maternal Child Health Needs Assessment. The program services include grief groups, community events, material support, education materials, and training for doulas.

State-Certified Doulas

Doulas positively impact maternal and infant health outcomes and the need for access to doula services was underscored during the Maternal Health Listening Sessions. The Board of Health finalized regulations guiding the State Doula Certification program in January 2022. VDH developed a process to allow doulas to apply for state certification. Interested doulas submit applications to the Virginia Certification Board. Doulas receiving state certification have the option of being listed in a public-facing database. Consumers can use the database to find a doula that meets their needs. State-certified doulas are eligible for Medicaid reimbursement and work with the Department of Medical Assistance Services (DMAS) to become Medicaid providers. As of August 23, 2022, 37 doulas have received state certification. Of the 37, 22 have completed Medicaid enrollment, 21 have completed contracting with at least one managed care organization (MCO), and five are pending Medicaid enrollment.

The Rare Disease Council and Additional Newborn Screening Tests

This Virginia Newborn Screening and Birth Defects Surveillance Program includes the Newborn Bloodspot Screening (NBS) Program, Early Hearing Detection and Intervention (EHDI) program, the Critical Congenital Heart Disease (CCHD) Program, and the Birth Defects Surveillance (BDS) Program. The BDS program provided expertise and staff support to the new Virginia Rare Disease Council. The Rare Disease Council is a Governor appointed council with diverse representation to learn about the challenges of those affected by or living with family members of rare diseases and reports to the Governor and the General Assembly.

In 2022, the Newborn Screening program implemented screening for two new disorders, Spinal Muscular Atrophy (SMA) and X-Linked Adrenoleukodystrophy (X-ALD).

Maternal and Child Health Key Collaborations

VDH collaborated with Healthy Beginnings' learning cohort Advancing Anti-Racism in Preterm Birth Prevention, CityMatCH's Alignment for Action Learning Collaborative, and Listening to the Living, efforts aimed at bringing together firsthand knowledge of and access to Black maternal experiences and inspiring collective action to support better birth outcomes for Black women.

Stroke Care Partnerships

VDH and Virginia Hospital and Healthcare Association (VHHA) have identified key partners to improve the continuation of stroke care including emergency medical service (EMS) regional councils, Unite Us, Sheltering Arms Institute, Kwikpoint, Medical Society of Virginia, and the Virginia Pharmacists Association.

The Virginia Stroke Registry, developed by the VDH, and the ESO Data Exchange, a trauma registry, allow participating hospitals and EMS agencies in Virginia to access and use their own data to improve protocols and achieve better outcomes. Analysis of stroke outcomes across Virginia hospitals, as well as peer-reviewed research on stroke protocols, drove the development of a statewide Stroke Smart initiative in 2021. Stroke Smart aims to reduce pre-hospital delays of stroke by educating the public to recognize and activate 9-1-1 early. Clinical and community partners were critical for the implementation of new public health research-based protocols, training delivery, and successful dissemination of educational materials.

Substance Use Response

Harm reduction is a public health strategy to reduce negative health outcomes for persons who engage in behaviors that put them and others at risk for disease or injury. VDH has long-term experience implementing a public health approach to reduce the impact of drug-related injuries, including active monitoring and surveillance, primary prevention strategies, rescue initiatives, and comprehensive harm reduction (CHR) efforts. VDH works through its local health departments and partners with community based organizations to provide a set of public health strategies intended to reduce the negative impact of drug use, including infections, overdose, and death, among people who are unable or not ready to stop using drugs. Comprehensive Harm Reduction sites provide referral and linkage to other services such as substance use disorder treatment. Peer counselors play an important role in this program, working with participants over time to improve health outcomes. VDH is working to expand its network of harm reduction partners to more settings in order to reach those at greatest risk of encountering fentanyl and experiencing an overdose. Currently, there are eight authorized comprehensive harm reduction (CHR) sites in Virginia. Comprehensive Harm Reduction sites provide health education on the potential impact of fentanyl and how to identify it using test strips. These sites distribute both fentanyl test strips to identify when fentanyl is present and naloxone to reverse its impact in the event of an overdose. VDH Central Pharmacy Services supports sites with Fentanyl Test Strips (FTS) for distribution to community members and program participants, and designs protocol and processes for Local Health Districts in the distribution of these supplies. Through partnership with Virginia Broadcast Solutions, VDH continues to stand up public facing communication campaigns through a variety of media channels to message the overdose risks associated with drug use and link individuals to treatment.

The Mount Rogers Health District Population Health Team was a key partner in planning a fentanyl awareness day, held at Virginia High School in Bristol in the spring of 2022. In response to student overdoses, dozens of partners provided a day of programming for high school students, including an internationally known speaker, stories of local lived experience, and a resource fair focused on substance use prevention, mental health resources, and dispensing naloxone to students and staff. The event was so successful and well received by the students that other similar events are in the works locally.

StayWellNoVa

Since the summer of 2020, the Northern Virginia health districts of the City of Alexandria, and the counties of Arlington, Fairfax, Loudoun, and Prince William, have been collaborating on a public health information campaign, StayWellNoVa. The initiative began to boost childhood and flu immunizations, and then changed focus to promote COVID-19 vaccinations. Close collaboration with community partners to inform cultural competency, as well as engagement of trusted messengers and influencers, have served as the 'special sauce' to ensure that all promotions truly resonate with the intended audiences and deliver results. The initiative continues today with a new focus on Mpox vaccination. This regional communications approach has innovated the way the local health districts target and connect with key public health audiences in Virginia's most populous and diverse health districts.

Virginia Partners in Prayer and Prevention

Virginia Partners in Prayer and Prevention (Virginia P3) is a community health initiative that has developed meaningful partnerships across faith-based coalitions throughout the Commonwealth since its inception in 2016. These partnerships have increased collaboration between VDH and faith-based organizations and their members. Additionally, by working with these organizations on health and prevention, trust has been established and strengthened in VDH and public health among populations that have historical mistrust in the medical and public health systems, especially Black and African American communities. This year, Virginia P3 continued to develop partnerships with other organizations to deliver training, facilitate

discussions, and disseminate resources across its faith-based coalitions. These partners include Department of Homeland Security for a faith-based safety active shooter training, Virginia Breast Cancer Foundation, American Association of Retired Persons, American Heart Association for Heart Health Matters, Walgreens for community collaborations, VDH Arthritis Coalition for Walk with Ease and the Chronic Disease Self-Management Program, and Alzheimer's Association for Purple Power Virginia.

Telehealth-in-a-Box

VDH partnered with the Salem Veterans Affairs Health Care System to 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. These are examples of the several partnerships with clinical providers and medical technology vendors, which allow VDH to better serve the public health needs of Virginia.

The Academic Advisory Council

The Academic Advisory Council is composed of the Chairs of all Council on Education for Public Health-accredited Master of Public Health programs in Virginia, and VDH staff. The Council represents the public health programs at Old Dominion University, Virginia Commonwealth University, Eastern Virginia Medical School, University of Virginia, Virginia Polytechnic Institute and State University, George Mason University, and Liberty University. During quarterly meetings the Council determines public health issues that can be better understood and addressed through collaboration with MPH program support. Community health initiatives and public health education are also incorporated into partnerships with several Historically Black Colleges and Universities in Virginia. These educational partnerships are invaluable resources to public health initiatives that serve student communities as well as the communities that these institutions are already working with directly.

Community Health Workers

Many health districts utilized the opportunity granted by COVID-19 funds to hire community health workers (CHWs). Rappahannock-Rapidan Health District has placed CHWs in each of their free clinics. The CHWs are working together, alongside the free clinic and the health district, to screen patients for social determinants of health and connect patients with resources. Mount Rogers Health District has partnered with the Institute for Public Health Innovation to hire a team of six CHWs. The CHWs were deployed and have been assisting with COVID-19 recovery and response efforts, in addition to training hundreds of people on how to use naloxone. Central Shenandoah Health District hired nine CHWs, who have supported 475 families since June 2021 (see graphic on page 18).

Central Shenandoah Health District

2021-2022 Community Health Improvement Efforts

The Population Health Program at the Central Shenandoah Health District launched Spring 2019. Since then, our team has grown into a robust community health improvement program focused on health equity and data driven interventions. Below are some program and district highlights from the past year.

Connection 2 Care CHW Program

- Onboarded and trained 9 Community Health Workers (CHW)
- 475 families supported since June 2021 through Unite Virginia
- Continue to distribute rapid COVID-19 test kits to food pantries, domestic violence shelters, clothing closets, and other social safety net providers

Community Engagement & Outreach

- 112 community events attended by Population Health Staff since September 2021
- Actively participate in 8 local Community Coalitions
- Established Weekly Wellness Newsletter with approximately 26,300 subscribers

Substance Abuse Prevention Program

- Conducted 52 REVIVE! Training events since March 2022
- 298 Individuals received REVIVE! Lay Rescue training since March 2022 of individual Narcan met
- 305 boxes of Narcan distributed since March 2022 approximate of
- Established Quarterly Substance Use Prevention newsletter to highlight community efforts across the district

COVID-19 Response

- CSHD hosted approximately 247 community-based COVID-19 vaccine clinics since July 2021
- Approximately 138,000 total COVID-19 vaccines dispensed by CSHD
- Approximately 29,360 COVID-19 tests performed by CSHD staff in community testing settings

Funding Community Health Improvement Initiatives

- Provided 8 Community Based Organizations (CBOs) with funding to address health disparities in the district
- CBOs include: Augusta Health Hospital, Rockbridge Area Health Center, Health Communities Health Centers, Highland County Medical Center, Valley Program for Aging Services, Community Foundation, Strength in Peers, and Rockbridge Area Transit Services

VDH VIRGINIA DEPARTMENT OF HEALTH

Highlights from State Health Assessment

Demographics

According to the U.S. Census Bureau 2021 population estimates, there are 8,642,274 residents in Virginia. Figure 1 displays the racial and ethnic make-up of Virginia residents. In 2021, the median household income in Virginia was $76,398, higher than the US median income of $67,340. As shown in Figure 2, the median annual household income was highest for Asian residents ($121,000) and lowest for Black or African American residents ($55,000).

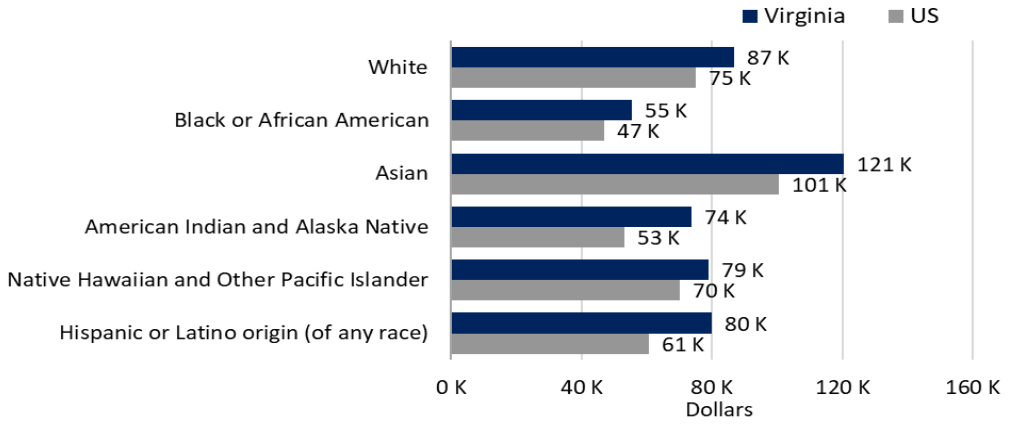
Figure 1 - Virginia Population by Race and Ethnicity, 2021

Race and Hispanic Origin	Percent of Population
White, alone	68.8%
Black or African American, alone	20.0%
American Indian and Alaska Native, alone	0.6%
Asian, alone	7.2%
Native Hawaiian and Other Pacific Islander, alone	0.1%
Two or More Races	3.4%
Hispanic or Latino	10.2%

Data source: US Census Bureau

Figure 2 - Median Household Income by Race and Ethnicity, 2021

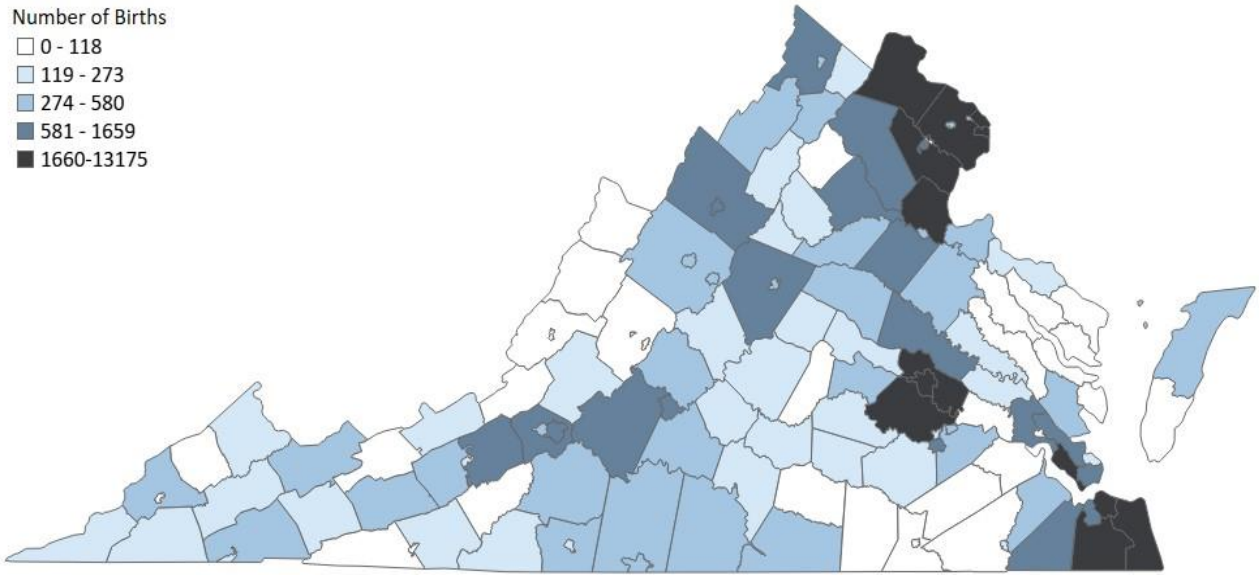
Source: U.S. Census Bureau, 2021 American Community Survey 1-Year Estimates
Note: Median household income in 2021 inflation-adjusted dollars



Births

In 2021, there were a total of 95,620 live births in Virginia Figure 3 shows the distribution of births by locality.

Figure 3 - Total Births by Locality, 2021

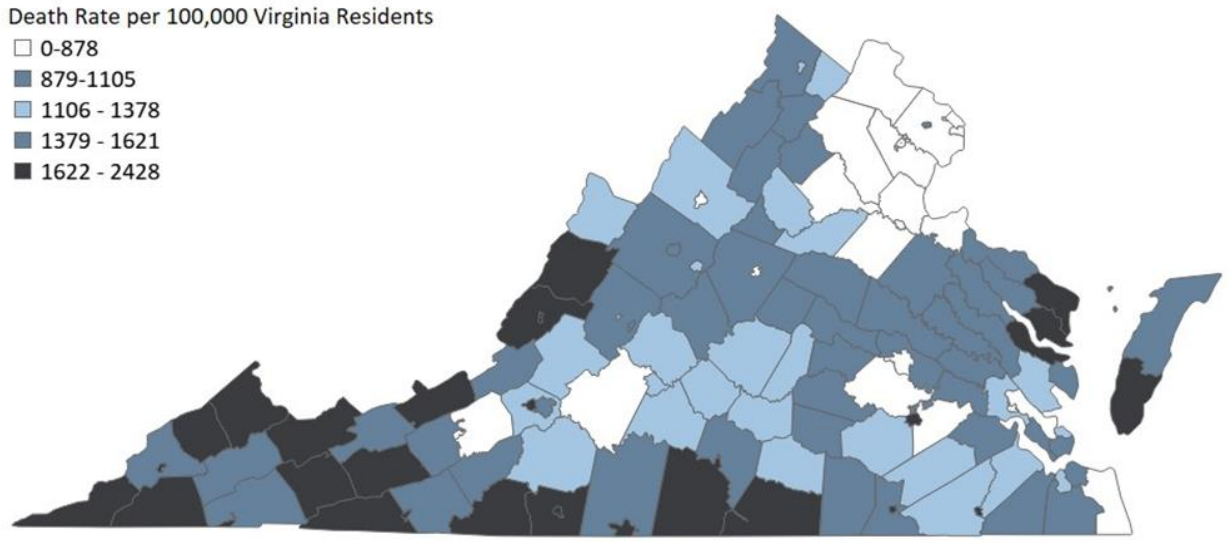


*Source: Virginia Department of Health, Vital Events and Screening Tracking System
*Residence refers to the Virginia city or a county where the mother resided for a birth, where the patient resided for an induced termination of pregnancy or a natural fetal death, or where the deceased resided.

Deaths

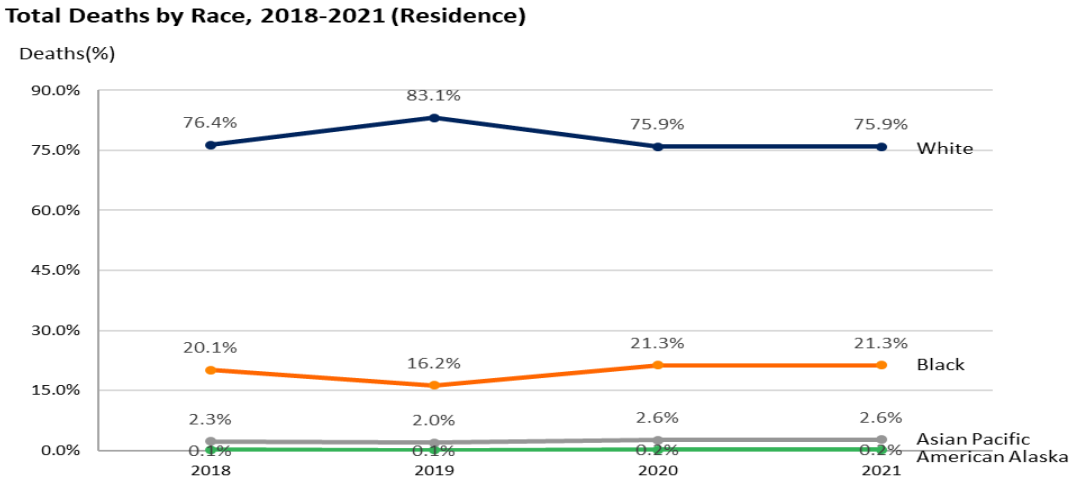
From 2018 to 2020 the overall death rate in Virginia was highest in Galax City, Martinsville City, and Lancaster county. 75.9% of deaths occurred in white residents (Figure 5). In 2021, the top three leading causes of deaths were heart disease, cancer, and COVID-19. Among adults 20-44 years old, the leading cause of death in Virginians was accidental poisoning and exposure to noxious substances (Figure 6).

Figure 4 - Death Rate by Locality, 2020



*Source: Virginia Department of Health, Vital Events and Screening Tracking System
*Data are derived from death certificates and include Virginia residents only. Counts by locality are based on residence at time of death, whether or not the death occurred in Virginia.

Figure 5 - Percentage of Total Deaths by Race, 2018-2021 (Residence)



Source: Virginia Department of Health, Office of Vital Records, Virginia Vital Events and Screening Tracking System.
Note: Residence refers to the Virginia city or county where the mother resided for a birth, where the patient resided for an induced termination of pregnancy or a natural fetal death, or where the deceased reside.

Figure 6 - 20 Leading Causes of Death percent distribution by Age Group, 2021

CAUSE NAME	AGES 0-4	AGES 5-19	AGES 20-44	AGES 45-69	AGES 70+	TOTAL DEATHS
HEART DISEASES	0.0%	0.1%	2.7%	27.7%	69.4%	16618
NEOPLASMS	0.1%	0.2%	2.5%	37.0%	60.2%	15667
COVID	0.0%	0.1%	4.3%	34.4%	61.2%	8960
ACCIDENTS	0.5%	2.4%	37.5%	33.1%	26.5%	5319
CEREBROVASCULAR	0.1%	0.1%	2.0%	19.0%	78.8%	4098
LOWER-RESPIRATORY	0.0%	0.2%	0.8%	25.6%	73.4%	3190
DIABETES	0.0%	0.1%	4.1%	39.9%	55.9%	2661
ALZHEIMER'S	0.0%	0.0%	0.0%	3.7%	96.3%	2577
NEPHRITIS/NEPHROSIS	0.0%	0.0%	1.8%	27.2%	71.0%	1635
SUICIDE	0.0%	6.8%	43.4%	35.6%	14.2%	1184
LIVER	0.0%	0.0%	11.7%	61.8%	26.6%	1175
PARKINSONS	0.0%	0.0%	0.0%	7.0%	93.0%	1121
SEPTICEMIA	0.1%	0.5%	2.8%	32.9%	63.8%	1085
INFLUENZA/PNEUMONIA	0.2%	0.1%	3.1%	23.8%	72.8%	959
HYPERTENSION/RENAL	0.0%	0.0%	3.0%	27.3%	69.7%	938
HOMICIDE	0.2%	15.5%	59.0%	21.8%	3.5%	593
PNEUMONITIS	0.0%	0.4%	1.2%	21.0%	77.4%	499
IN-SITU NEOPLASMS	0.7%	0.7%	3.4%	19.9%	75.4%	443
NUTRITIONAL DEFICIENCY	0.0%	0.0%	2.4%	15.5%	82.1%	252
AORTIC-ANEURYSM	0.0%	0.0%	5.0%	28.1%	66.9%	242

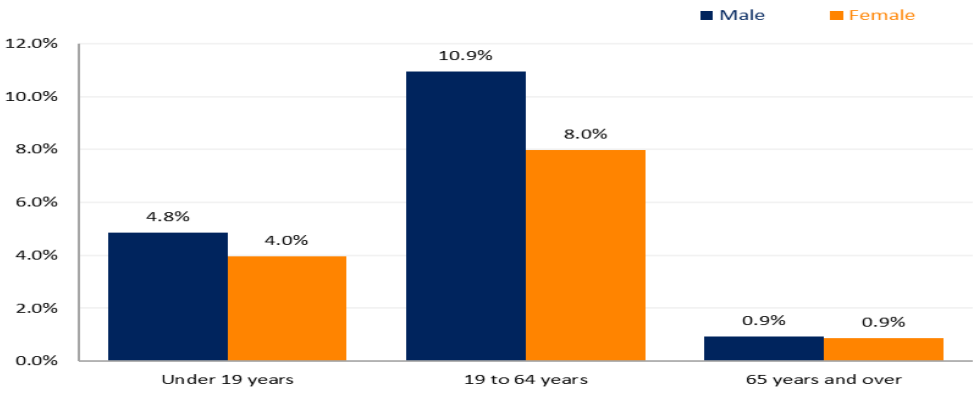
*Source: Virginia Department of Health, Vital Events and Screening Tracking System
*Data are derived from death certificates and include Virginia residents only. Counts by locality are based on residence at time of death, whether or not the death occurred in Virginia. Cause of Death groupings derived from CDC/NCHS/NVSS Instruction Manual Part 9 'ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics (Updated September 2020 to include WHO updates to ICD-10 for data year 2020)'

Health Insurance

Since January 1, 2019, more adults living in Virginia have access to quality, low-cost health comprehensive health insurance through Virginia Medicaid. Covered adults include individuals ages 19-64 with income at or below 138% of the federal poverty level. In 2021, 10.9% of female adults 19 to 64 years old were uninsured, compared to 8% of males (Figure 7). As Figure 8 shows, 28.1% of Hispanic/Latino Virginians 19 to 64 years old were uninsured in 2021, compared to 6.7% of White Virginians and 9.1% of African

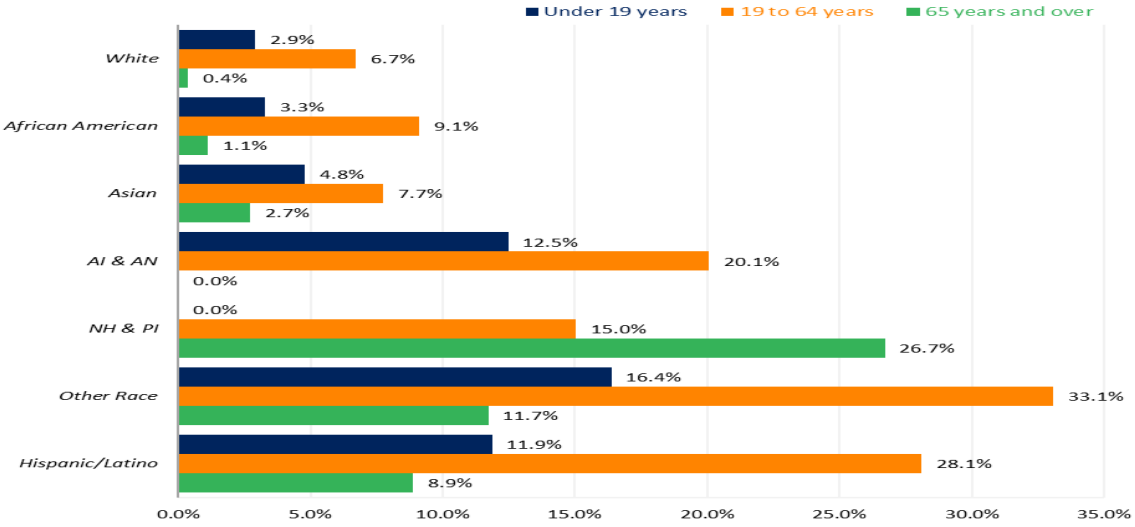
American Virginians. Figure 9 shows that 28.4% of uninsured Virginians 26 to 64 years old had less than a high school education.

Figure 7 - Percent Uninsured by Sex and Age, Virginia



Source: U.S. Census Bureau, 2021 American Community Survey 1-Year Estimates

Figure 8 - Percent Uninsured by Age and Race/Ethnicity, Virginia



Source: U.S. Census Bureau, 2021 American Community Survey 1-Year Estimates

Figure 9 - Percent Uninsured by Educational Attainment, Age 26-64 Years

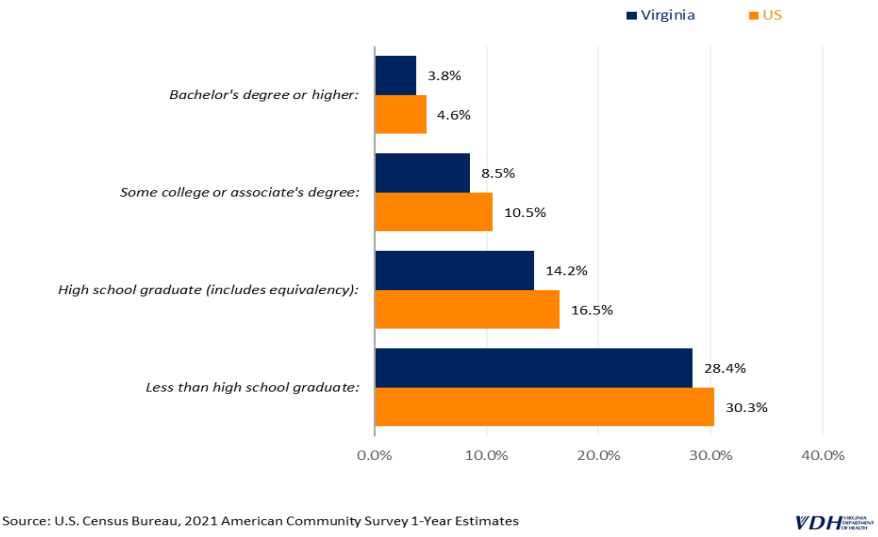
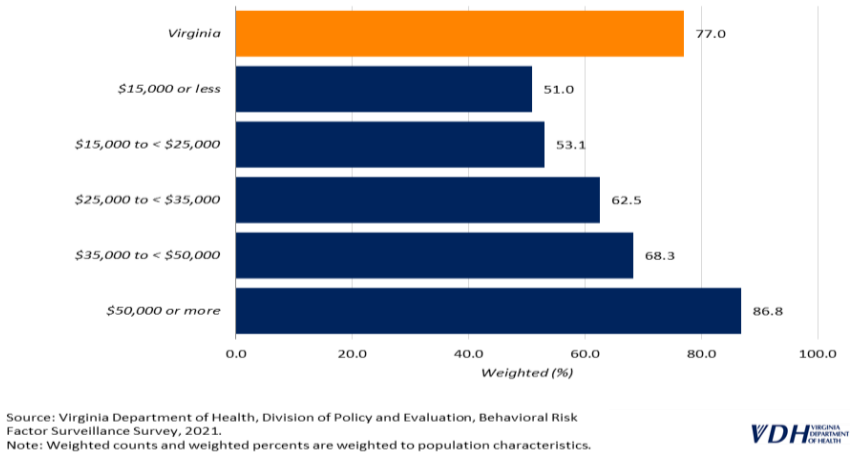


Figure 10 - Dental Insurance Coverage Among Adults 18+ by Income, 2021

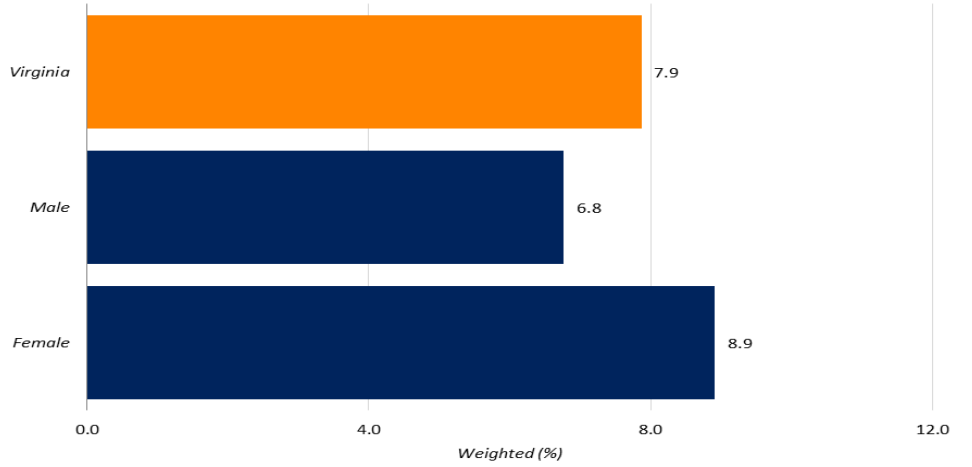


Health Care Affordability

Even when Virginia residents have health insurance coverage, people with limited funds or lack of transportation options still may not be able to get the care they need. Delays in seeking medical care for injuries, illness or chronic conditions can have significant impact on the individual, the economy, and the healthcare system. These delays are mostly attributed to cost. According to the Kaiser Family Foundation, dental services are the most common type of care that people report delaying or skipping.

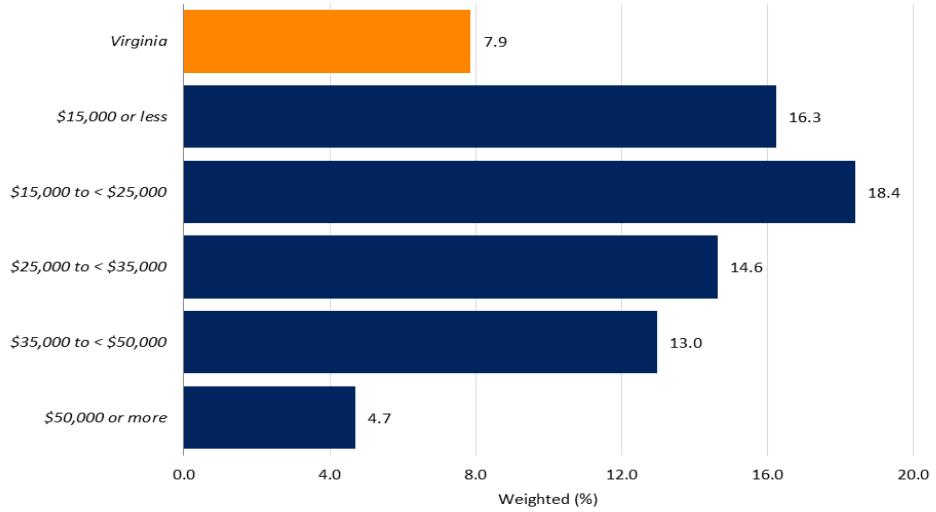
Lower income families spend a greater share of their income on health care costs than those families with higher incomes. In 2021, 7.9% of adults in Virginia reported that they could not afford to see a doctor (Figure 11). The group with the highest percentage of adults who could not afford to see a doctor were in households earning $15,000 to less than $25,000 (Figure 12). The racial/ethnic group with the highest percentage of adults who could not afford to see a doctor were those that identified as Hispanic (Figure 13). By education level, Virginians with less than a high school education were the largest group that could not afford to see a doctor in 2021 (Figure 14).

Figure 11 - Could Not Afford to See Doctor Among Adults 18+ by Sex, 2021



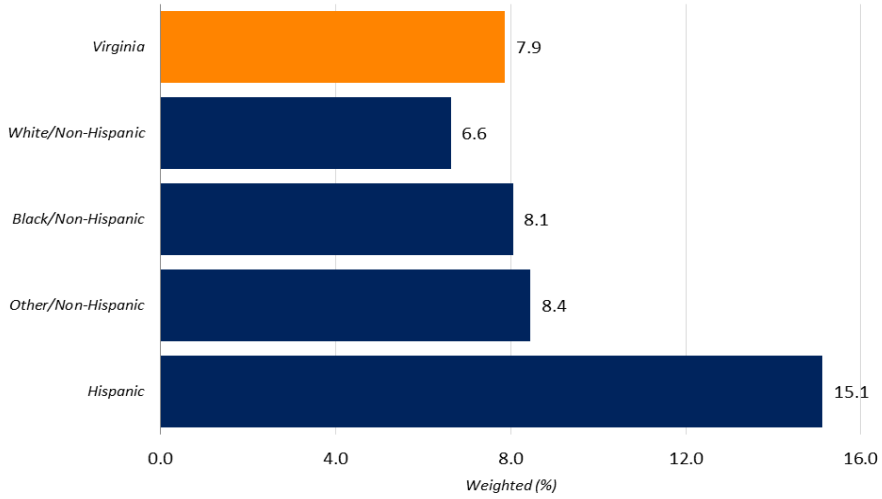
Source: Virginia Department of Health, Division of Policy and Evaluation, Behavioral Risk Factor Surveillance Survey, 2021.
Note: Weighted counts and weighted percents are weighted to population characteristics.

Figure 12 - Could Not Afford to See Doctor Among Adults 18+ by Income, 2021



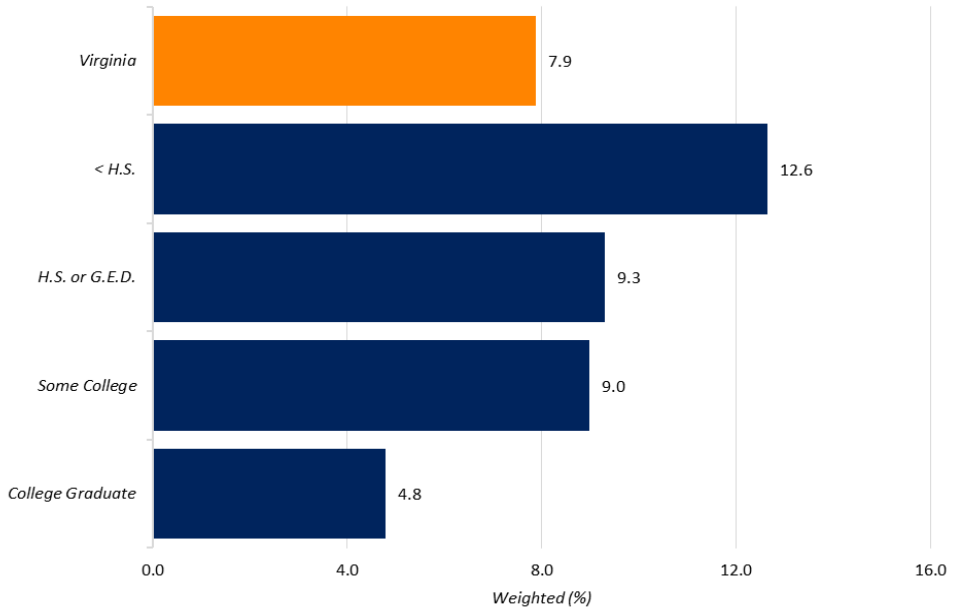
Source: Virginia Department of Health, Division of Policy and Evaluation, Behavioral Risk Factor Surveillance Survey, 2021.
Note: Weighted counts and weighted percents are weighted to population characteristics.

Figure 13 - Could Not Afford to See Doctor Among Adults 18+ by Race, 2021



Source: Virginia Department of Health, Division of Policy and Evaluation, Behavioral Risk Factor Surveillance Survey, 2021.
Note: Weighted counts and weighted percents are weighted to population characteristics.

Figure 14 - Could Not Afford to See Doctor Among Adults 18+ by Education Level, 2021



Source: Virginia Department of Health, Division of Policy and Evaluation, Behavioral Risk Factor Surveillance Survey, 2021.
Note: Weighted counts and weighted percents are weighted to population characteristics.

Health Opportunity

Virginians who live in communities with higher income are able to access resources that contribute to their health more easily than Virginians who live in communities with lower income. The Social Vulnerability Index (Figure 14) measures the relative vulnerability of each US Census tract (subdivisions of counties). The tracts are ranked across 15 social factors (unemployment, minority status, disability, etc.) that are further grouped into four themes (socioeconomic status, household composition and disability, minority status and language, housing type and transportation).

Each tract is rated on each of the four themes as well as overall. Virginia's variance in its SVI scores illustrates the wide array of needs and experiences of Virginians across our state. The lower the score the lower the relative risk.

A locality's rurality also impacts the distribution of hospitals, clinics, and other healthcare services. Figure 15 from the Virginia Rural Health Plan shows the distribution of primary care shortage areas and illustrates the overlap between rurality and in gaps in healthcare access and health equity.

The Health Opportunity Index (Figure 16) is a multivariate tool that is used to identify and understand the effect of social determinants of health on health outcomes. The index uses 29 indicators to measure

neighborhood health for residents. Some of these indicators include school poverty, access to healthy food, access to green space, home ownership rate, as well as other related indicators. Each indicator has an individual weight that correlates to the indicators ability to impact health. The indicators are all measured on different scales.

Figure 14 - Social Vulnerability Index

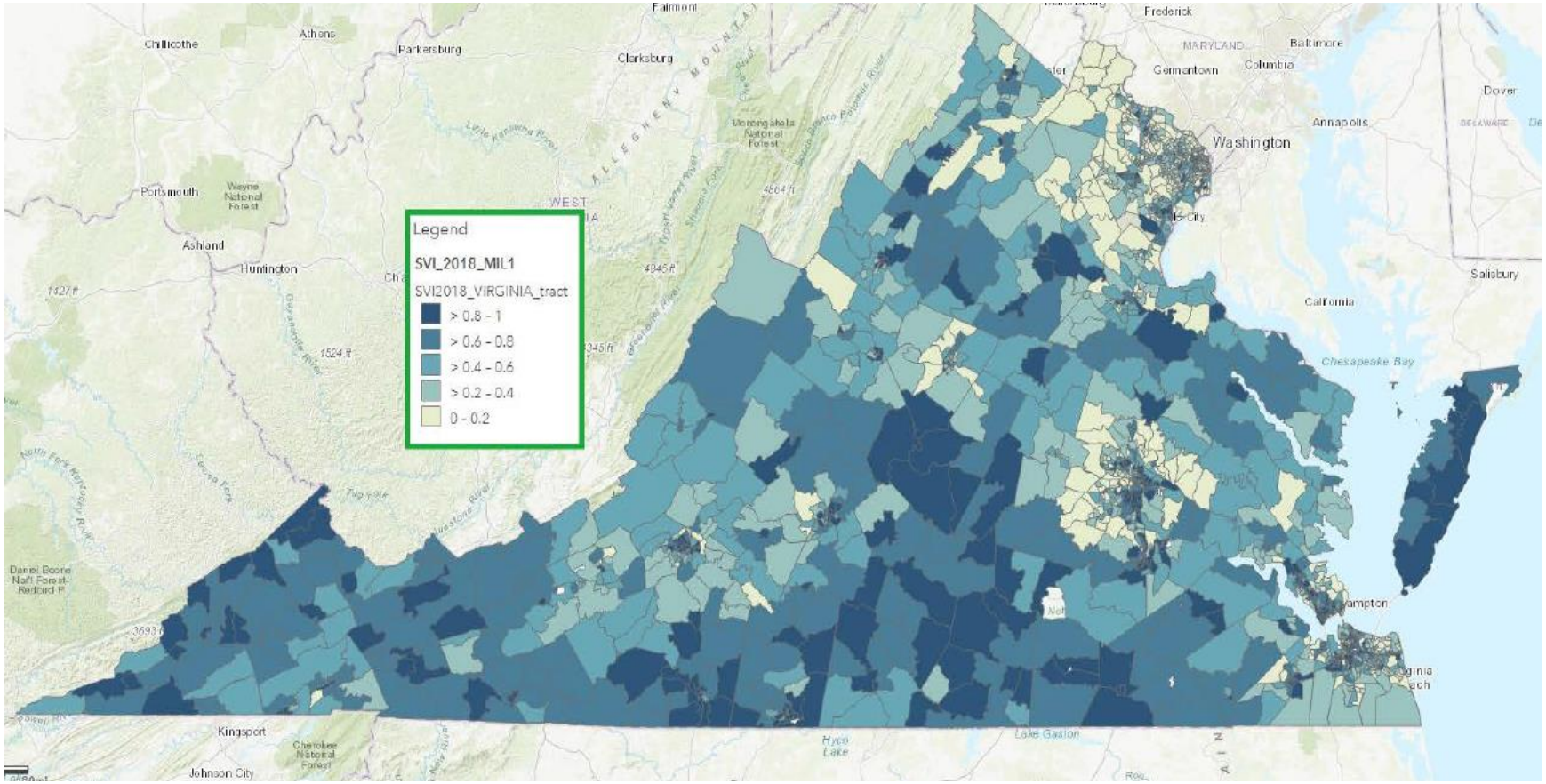
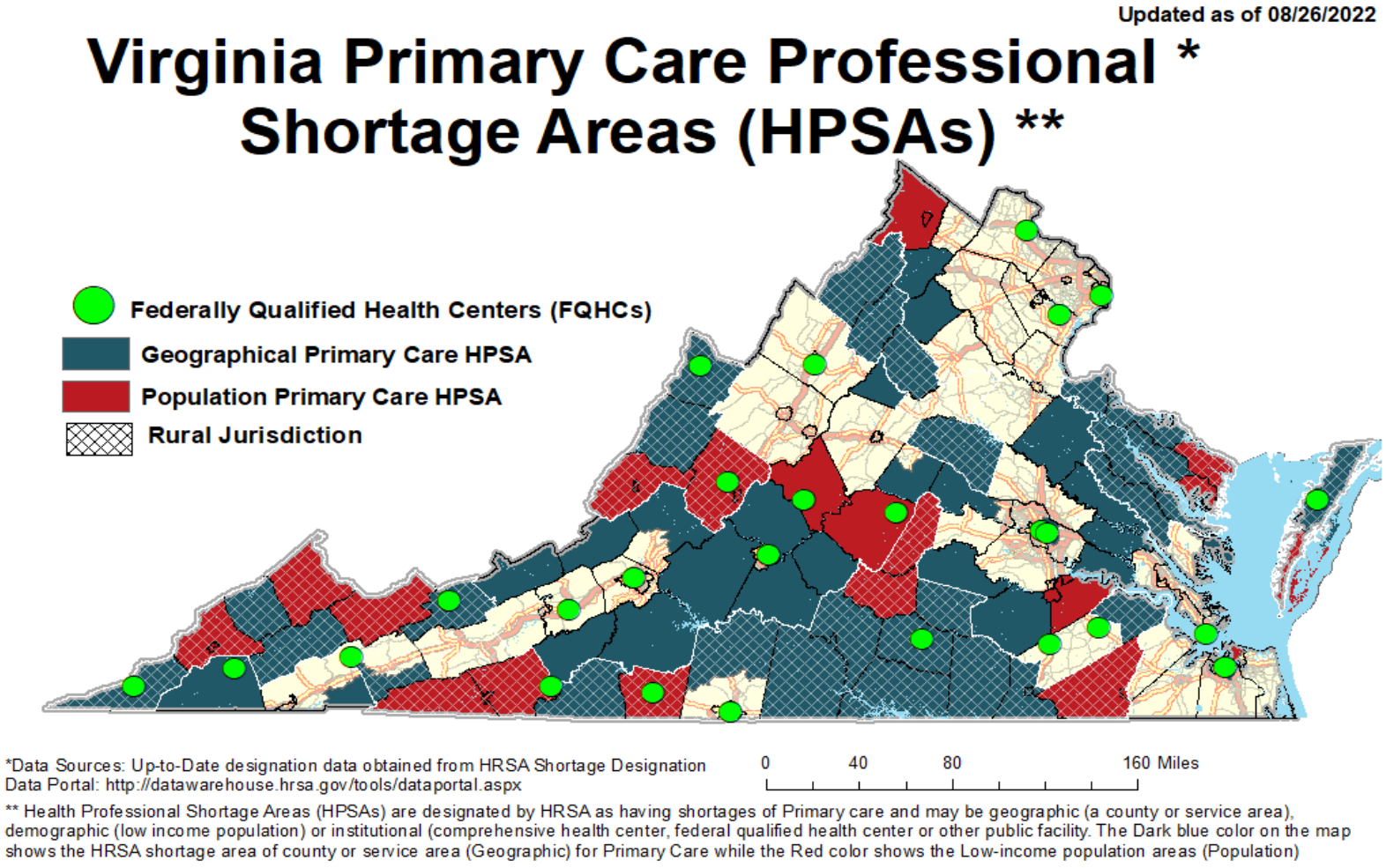


Figure 15 - Virginia Primary Care Professional Shortage Areas (HPSAs)

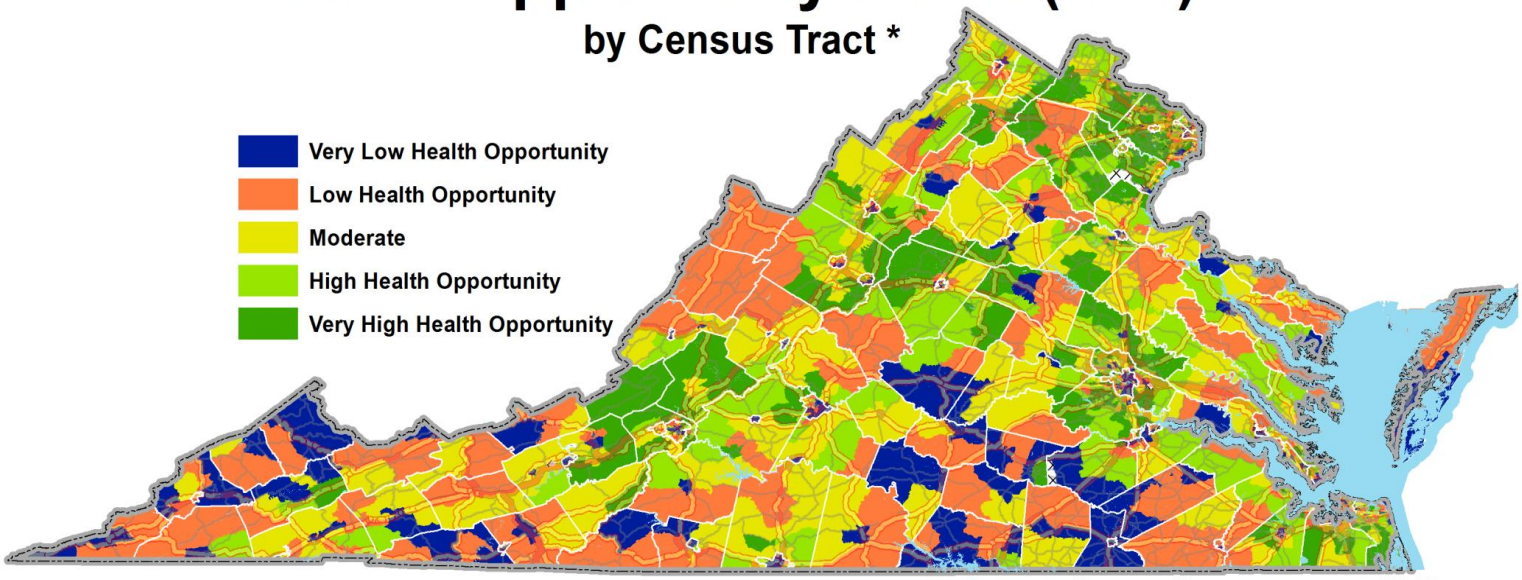


VDH VIRGINIA DEPARTMENT OF HEALTH

Virginia

Health Opportunity Index (HOI)

by Census Tract *



* Health opportunity Index (HOI) – The HOI is a composite measure comprising 4 componets that reflect a broad array of social determinants of health. The 4 components include: 1. Consumer Opportunity Profile 2. Economic Opportunity Profile 3. Wellness Disparity Profile 4. Community Environmental Profile (Note: the 4 components were derived from 13 initial indices)

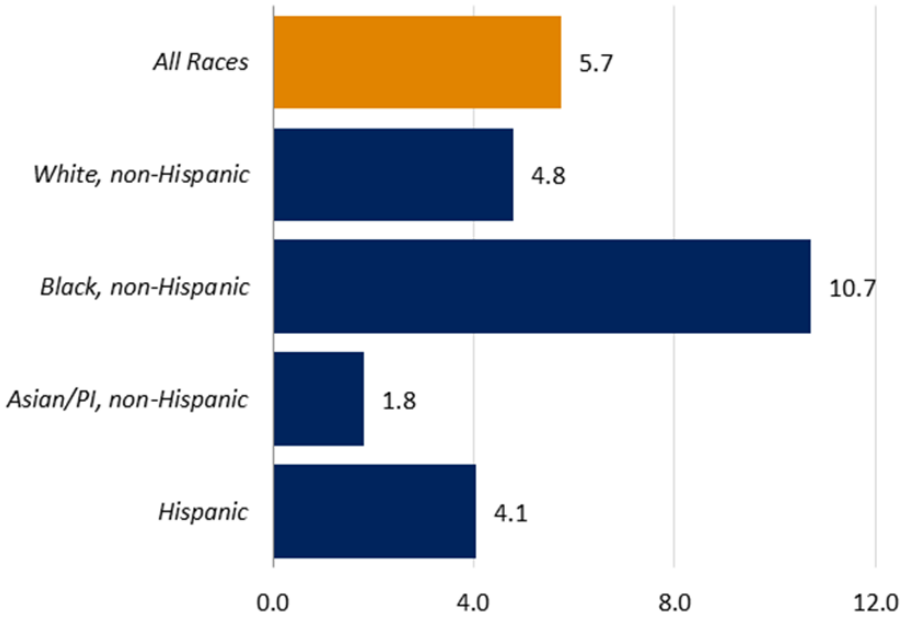
The HOI was developed to assist the public, businesses, policy makers, communities, healthcare organizations and public health professionals in identifying key social and economic factors (also known as social determinants of health) that affect the health outcomes of the residents of Virginia communities. The set of factors chosen to be included within the HOI was designed to capture the processes by which "opportunities to be healthy" emerge; upon determination of the community HOI score it can suggest where specific interventions may aid in developing a healthy community. Not only does the HOI assist in identifying such areas, it can facilitate a positive attitude toward change within the local community

VDH VIRGINIA DEPARTMENT OF HEALTH

Infant Mortality

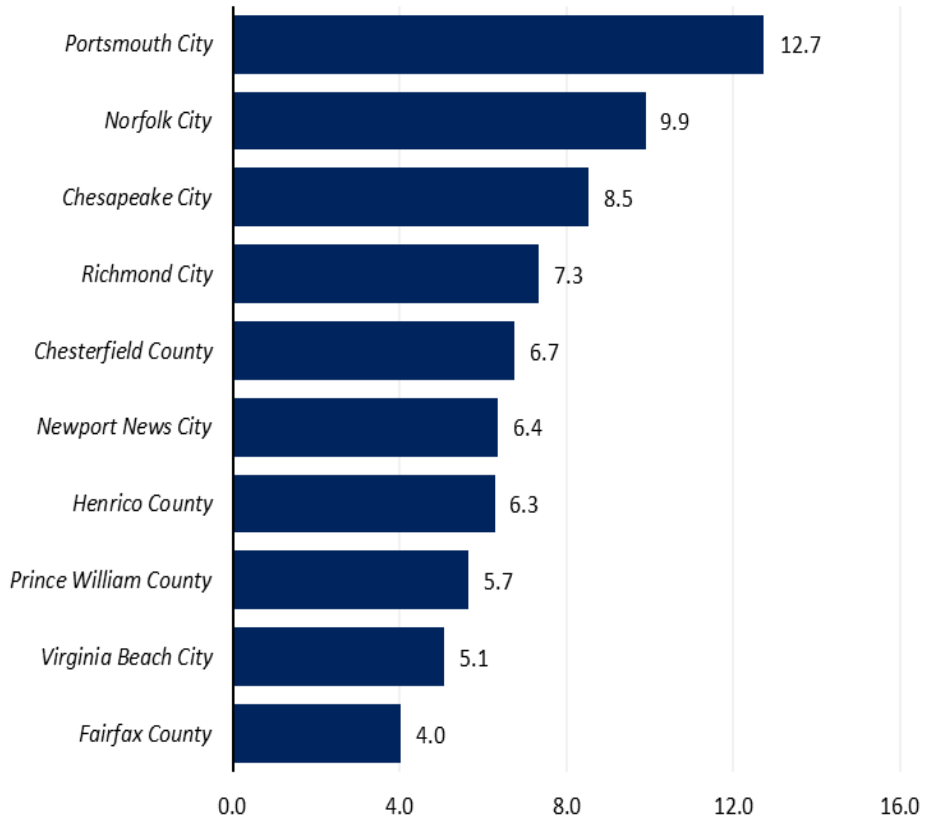
In 2020, 543 infants died before their first birthday in Virginia, making the overall infant mortality rate 5.7 per 1,000 live births, improved from 5.9 in 2019. Since 2011, the overall infant mortality numbers have remained relatively constant, with a slight downward trend apparent in recent years. However, the infant mortality rate varies by race and ethnicity. As Figure 17 shows, the infant mortality rate among the non-Hispanic white population was 4.8, while the rate among non-Hispanic Black infants was 10.7, which has remained stable in recent years. This disparity in infant mortality rates shows that Black infants were 2.2 times more likely to die than their White counterparts. Infant mortality also differed by locality. The top ten localities by highest counts had infant mortality rates ranging from 4.0 to 12.7 deaths per 1,000 live births (Figure 18). Due to the small numbers, localities could not be further broken down by race/ethnicity.

Figure 17 - Infant Mortality Rate by Race/Ethnicity, 2020



Source: Virginia Department of Health, Office of Information Management, Division of Health Statistics.
Note: Infant Mortality Rate is the number of deaths to live born infants before one year of age per 1,000 live births. American Indian/ Alaska Native data is suppressed because numerator is < 5.

Figure 18 - Infant Mortality Rate by Top Ten Localities, 2020



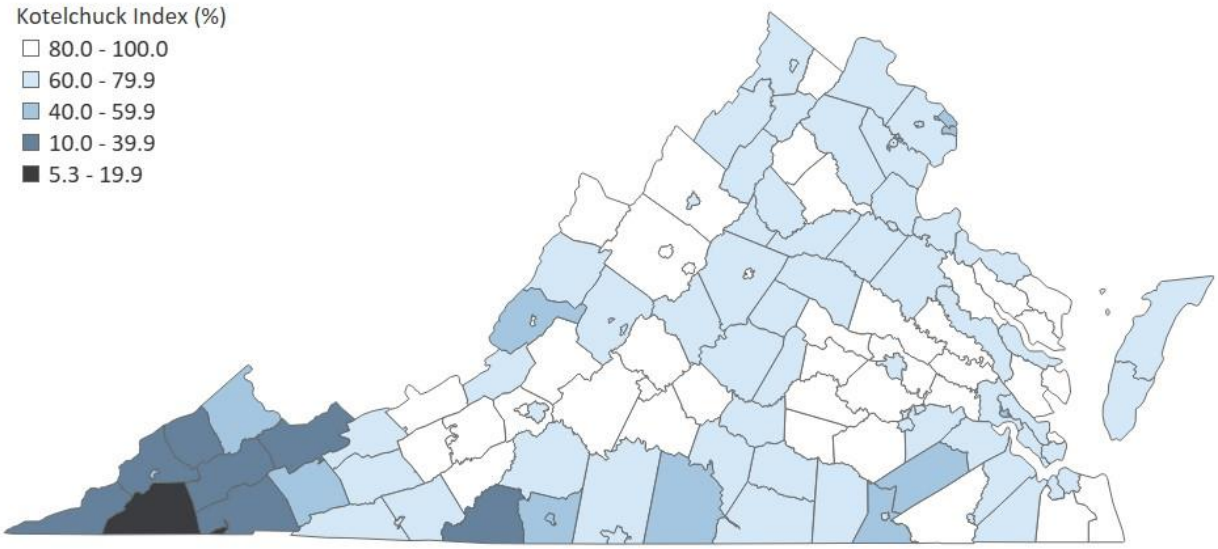
Source: Virginia Department of Health, Office of Information Management, Division of Health Statistics.
Note: Infant Mortality Rate is the number of deaths to live born infants before one year of age per 1,000 live births.

Prenatal Care

Adequacy of Prenatal Care is measured by the Kotelchuck Index. The index accounts for when prenatal care began (initiation) and the number of prenatal visits from when prenatal care began until delivery (received services), as documented on the birth record. Adequacy of initiation is classified as months 1-2, months 3-4, months 5-6, and months 7-9 of pregnancy. Adequacy of received services is classified by comparing the number of prenatal visits to the expected number of visits for the period between when care began and the delivery date, based on the ACOG prenatal care standards, and adjusted for gestational age when care began and at delivery. A ratio of observed to expected visits is calculated, with at least adequate care to have received 80% or more of expected visits. Overall, in 2020, nearly three-quarters (73.1%) of pregnant women received at least adequate prenatal care in Virginia, as measured by the Kotelchuck Index. However, this percentage varies by locality, from less than 25.0% (counties in the Southwest region) to

91.1% (Figure 19). Note that the Kotelchuck Index does not measure the quality of prenatal care services received, only the number of prenatal care visits attended.

Figure 19 - Adequacy of Prenatal Care Utilization (Kotelchuck Index) by Locality, 2020



*Source: Virginia Department of Health, Vital Events and Screening Tracking System
*Data are derived from birth and death certificates. The Kotelchuck Index does not measure the quality of prenatal care services received

Maternal Mortality

Maternal mortality, as defined by the World Health Organization, is deaths related to or aggravated by pregnancy (not due to accidental/incidental causes) and occurring within 42 days of the end of a pregnancy. Maternal mortality has been trending upwards in Virginia. For 2016-2020, the five-year maternal mortality rate was 21.6 per 100,000 live births, higher than the US rate (19.3 per 100,000 live births). The maternal mortality rate is more than two times higher among non-Hispanic Black birthing mothers when compared with their non-Hispanic, White counterparts (49.1 vs 23.7 per 100,000, respectively) (Figure 20).

Figure 20 - Maternity Mortality Rate by Race/Ethnicity, 2016-2020

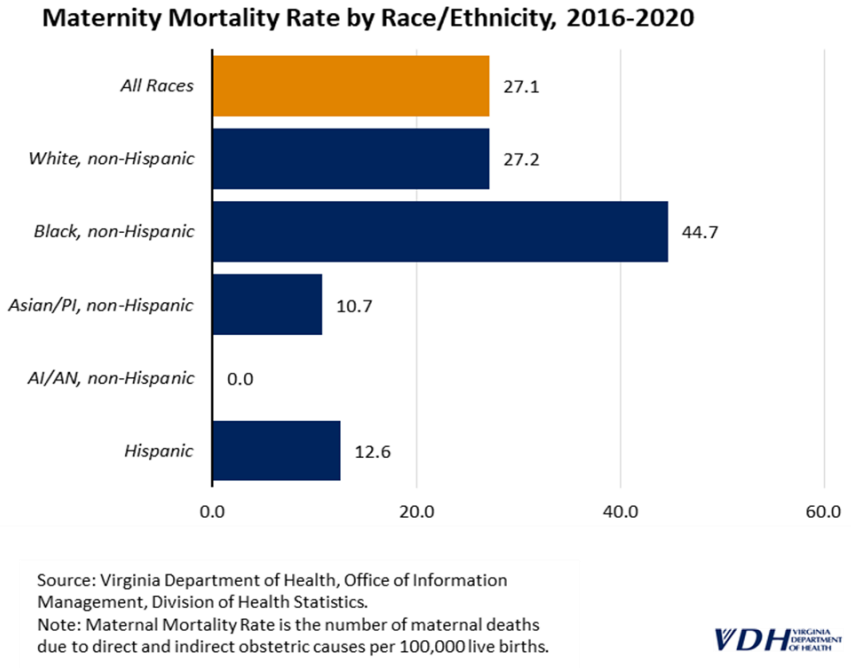
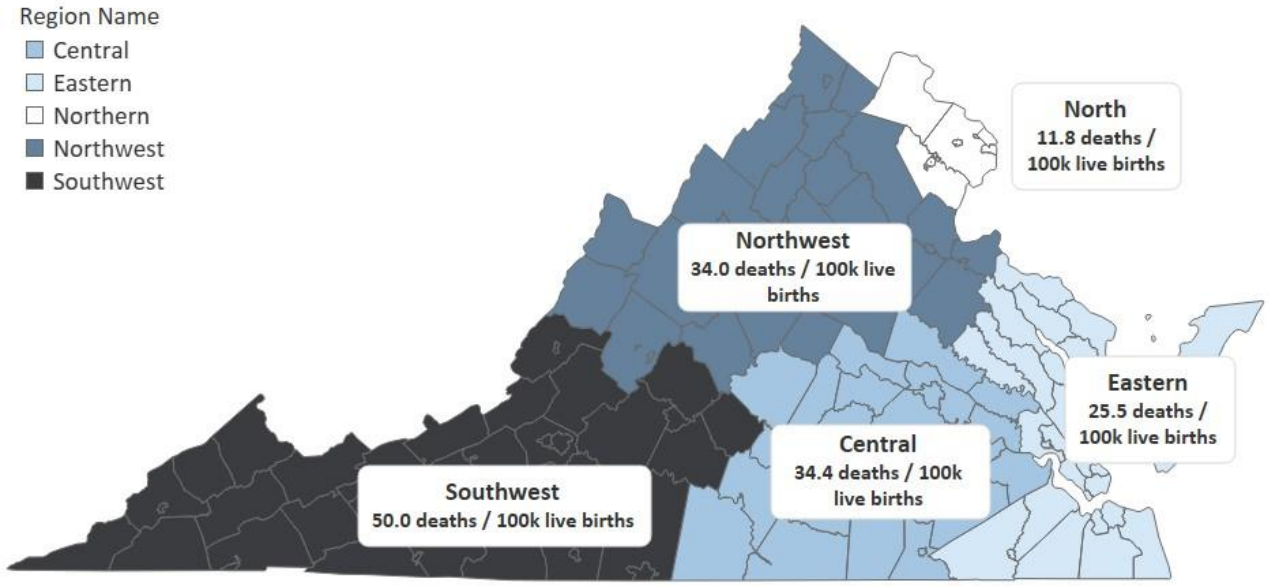


Figure 21 - Maternal Mortality Rate by Region, 2016-2020

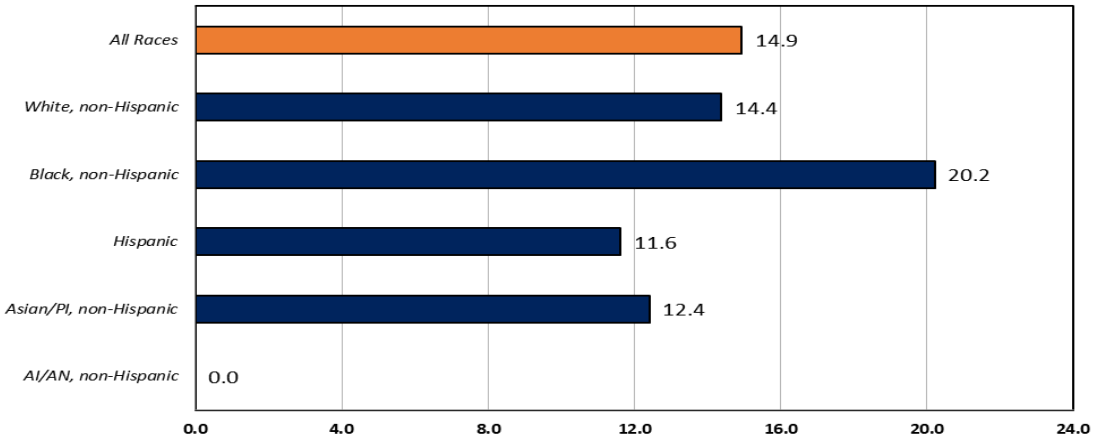


*Source: Virginia Department of Health, Vital Events and Screening Tracking System
*Data are derived from birth and death certificates.

Child Mortality

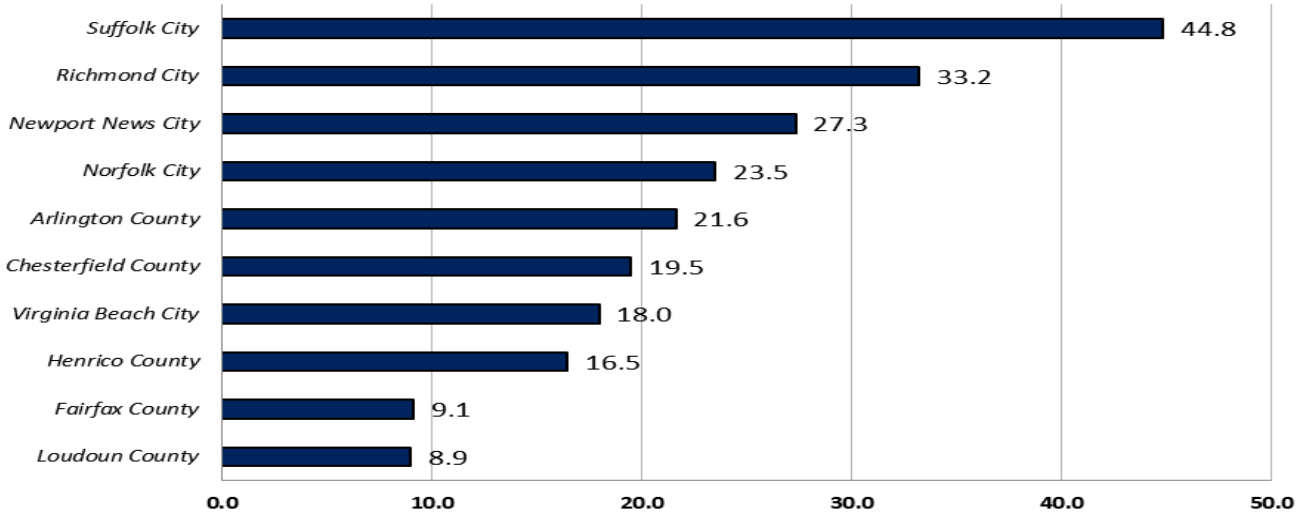
In 2020, there were 138 deaths among children ages 1 through 9, with a rate of 14.9 per 100,000 children aged 1-9, which is below the national rate. The child mortality rate varied by race/ethnicity, with higher rates among non-Hispanic Black children (Figure 22) and by county, ranging from 44.8 to 8.9 (Figure 23).

Figure 22 - Child Mortality Rate by Race/Ethnicity, 2020



Source: Virginia Department of Health, Office of Information Management
Note: Child Mortality Rate is the number of deaths among children, ages 1 through 9 per 100,000 children

Figure 23 - Child Mortality Rate by Top Ten Localities, 2020



Source: Virginia Department of Health, Office of Information Management

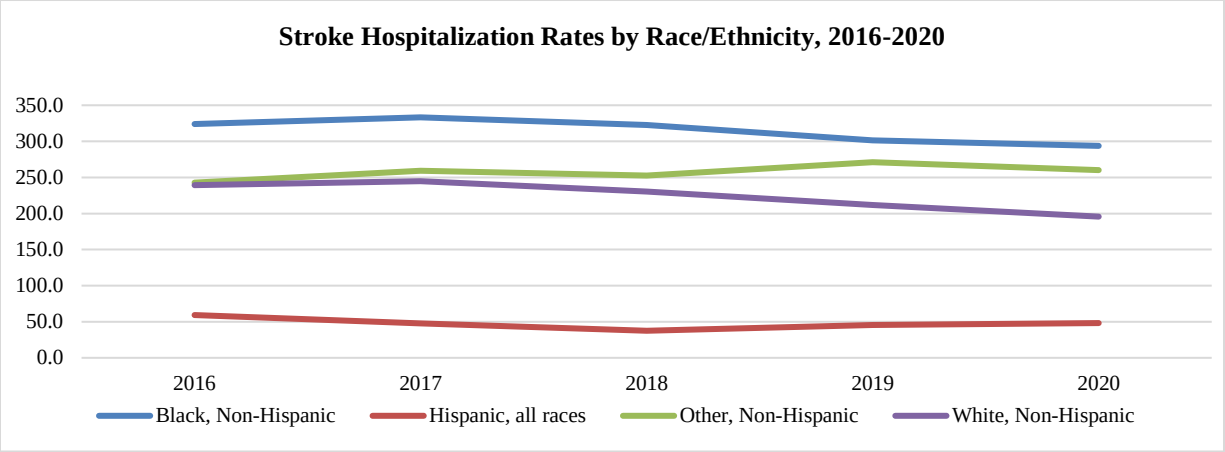
Note: Child Mortality Rate is the number of deaths among children, ages 1 through 9 per 100,000 children

Stroke

Six in ten Americans live with at least one chronic disease, like asthma, heart disease, cancer, stroke, or diabetes. These and other chronic diseases are a leading causes of death and disability in Virginia, and they are also a leading driver of healthcare costs. Chronic conditions are typically defined as lasting one year or more. These conditions may limit the activities of daily living and may require ongoing medical attention.

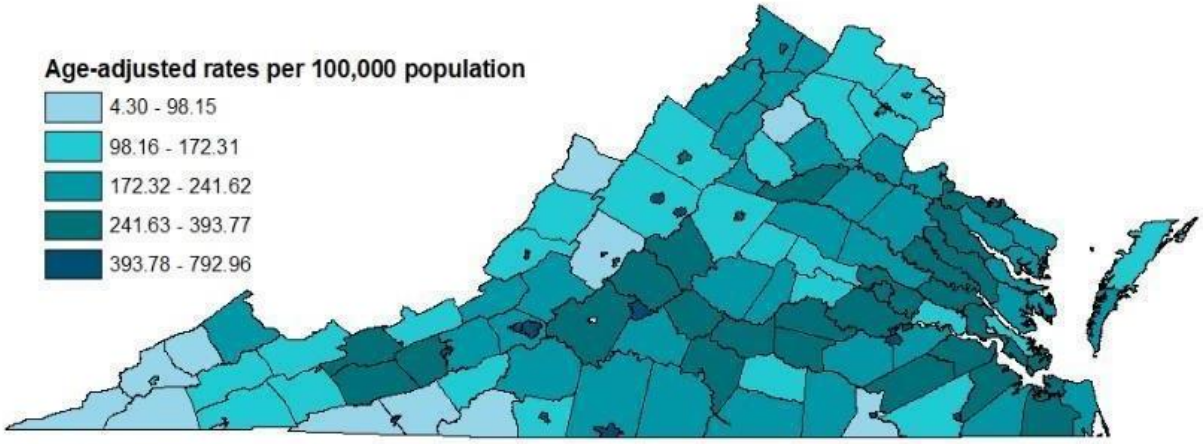
Virginia is a member of the Stroke Belt, a region of southeastern states with high stroke incidence (stroke is the fourth leading cause of death in Virginia) and prevalence of cardiometabolic conditions including hypertension, diabetes, hypercholesterolemia, and obesity. Age is still the strongest predictive factor for stroke hospitalization and stroke death. Stroke and stroke death disproportionately impact Black or African American communities, where the stroke death rate is 50.8 compared to 38.3 for Virginia overall. The same disparities appear in stroke hospitalization rates in Virginia as shown in Figure 24. Disparities are also evident by geographic location. The localities with three highest age-adjusted stroke mortality rates per 100,000 population for 2016-2020 were Franklin City at 96.3, Martinsville City at 94.4, and Galax City at 82.6. Figure 25 shows stroke hospitalization rates by locality.

Figure 24 - Stroke Hospitalization Rates by Race/Ethnicity, 2016-2020



Data Source: Virginia Health Information, 2020

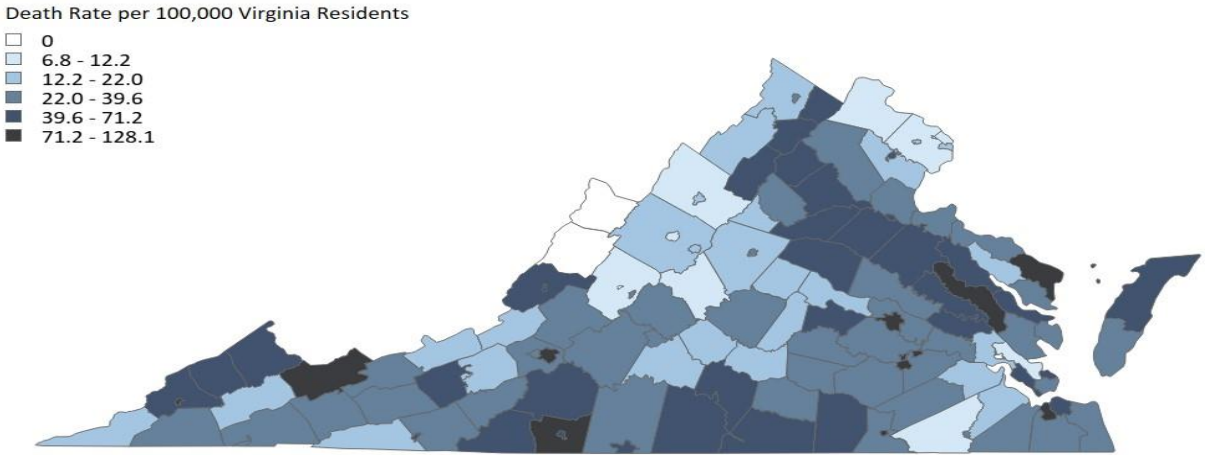
Figure 25 - Stroke Hospitalization Rates by Locality, 2020



Drug Overdose-Related Deaths

On average, seven Virginians died by drug overdose every day during 2021. Drug overdose deaths increased 70% from 2019 to 2021 (1,546 in 2019 to 2,633 in 2021), and more than eight out of ten drug overdose deaths involved an opioid. Figure 26 shows drug overdose-related deaths by locality for 2021.

Figure 26 - Drug Overdose-Related Deaths by Locality, 2021

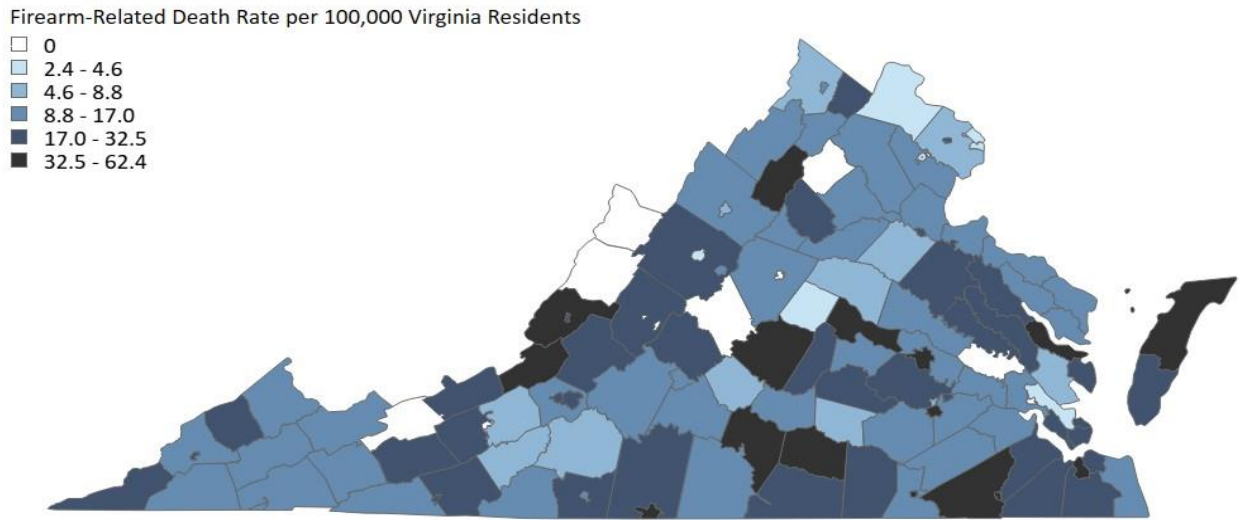


*Source: Virginia Department of Health, Office of Vital Records, Vital Event Statistics Program. Data analyzed by the OFHS Division of Population Health Data; Mapped by Center for Public Health Informatics, September 2022
*Data are death certificate data maintained by VDH; data include Virginia residents only. Counts by locality are based on the locality of residence at time of death, whether or not the death occurred within the state.

Firearm-Related Deaths

On average, three Virginians died by a firearm every day in 2021. Virginia saw a 21% increase in firearm-related deaths from 2019 to 2021 (1,025 in 2019 to 1,244 in 2021). Most firearm-related deaths in 2019-2021 were suicide deaths (60%), followed by homicide deaths (37%). Firearm-related homicide deaths increased 47% from 2019 to 2021 (342 in 2019 to 502 in 2021). Figure 27 shows firearm-related deaths by locality in Virginia for 2019-2021.

Figure 27 - Firearm-Related Deaths by Locality, 2021

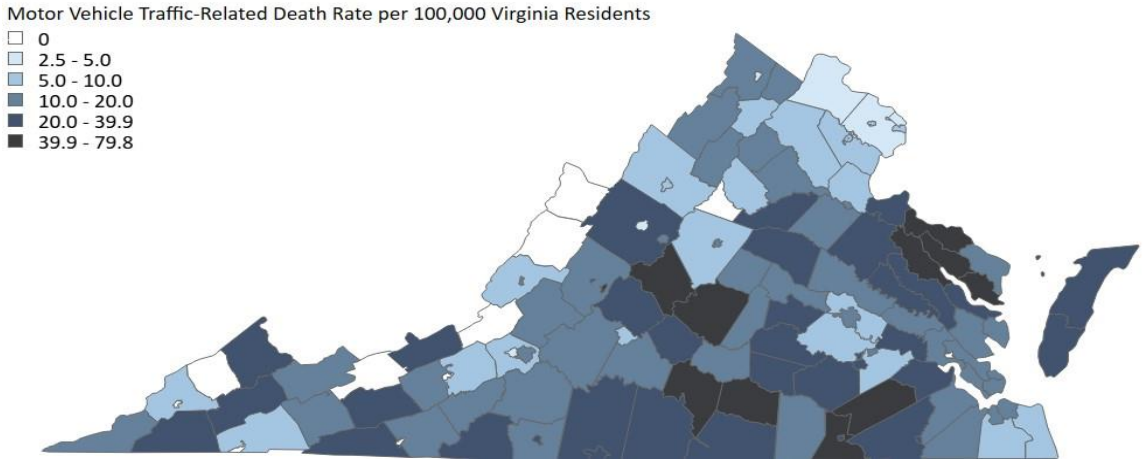


*Source: Virginia Department of Health, Office of Vital Records, Vital Event Statistics Program. Data analyzed by the OFHS Division of Population Health Data; Mapped by Center for Public Health Informatics, September 2022
*Data are death certificate data maintained by VDH; data include Virginia residents only. Counts by locality are based on the locality of residence at time of death, whether or not the death occurred within the state.

Motor Vehicle Traffic-Related Deaths

On average, almost three Virginians died due to a motor vehicle traffic-related event every day in 2021. Motor vehicle traffic-related deaths include: occupant (three-wheeled motor vehicle, car, pick-up truck or van, heavy transport vehicle, bus), pedestrian, motorcyclist, pedalcyclist, and other land transport deaths. Motor vehicle traffic-related deaths increased 14% from 2019 to 2021 (867 in 2019 to 992 in 2021). Figure 28 shows motor vehicle traffic-related deaths by locality in Virginia for 2021.

Figure 28 - Motor Vehicle Traffic-Related Deaths by Locality, 2021

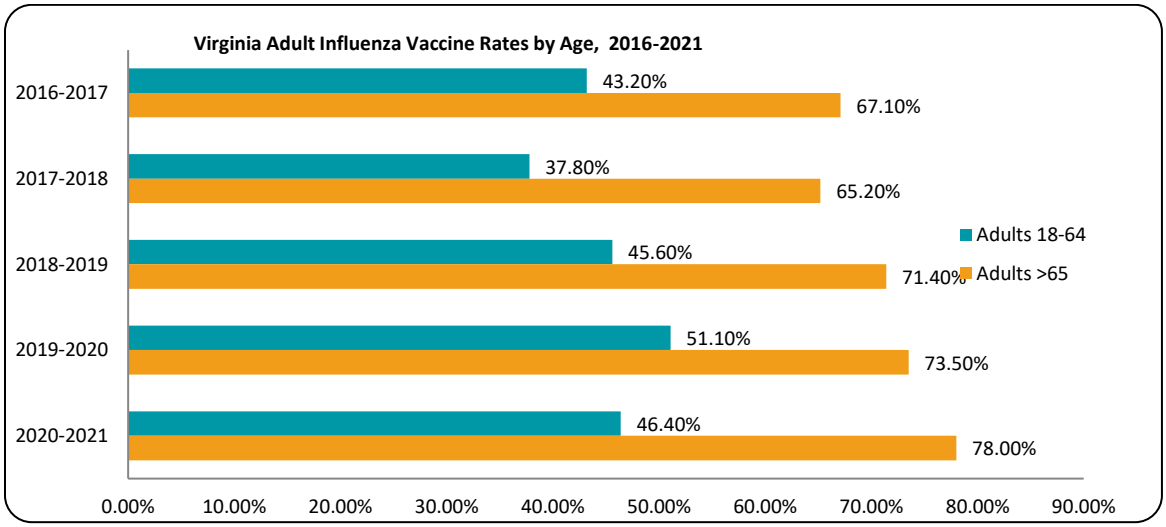


*Source: Virginia Department of Health, Office of Vital Records, Vital Event Statistics Program. Data analyzed by the OFHS Division of Population Health Data; Mapped by Center for Public Health Informatics, September 2022
*Data are death certificate data maintained by VDH; data include Virginia residents only. Counts by locality are based on the locality of residence at time of death, whether or not the death occurred within the state.

Flu Immunization

In 2021 the proportion of adults > 65 years in Virginia who received their annual influenza vaccine reached 78%, an increase of 10.9% between 2016 and 2021, and exceeded the Healthy People 2030 goal of 70%.

Figure 29 - Virginia Adult Influenza Vaccine Rates by Age, 2016-2021



APPENDIX

Indicators with Improving Trends

(Excerpt from the State Health Assessment 2022 Data Highlights Report).

1. Beach Water Quality Monitoring – The number of days for which beaches are under advisory in Virginia decreased from 67 days in 2017 to 61 days in 2021. The number of advisories decreased annually from 68 in 2018 to 32 in 2021. The number of beaches under advisory has been fairly stable with little variations over the years from 18 in 2017 to 16 in 2021.

2. Elevated Blood Lead Levels in Children – The percentage of children < 6 years with elevated blood lead levels decreased from 2.9% in 2016 to 1.9% in 2019. (The number of children < 6 years tested for blood lead levels increased from 53,474 to 62,293 in 2021 from the previous year). The number of children < 16 years with elevated blood lead levels decreased from 3.0% in 2017 to 2.0% in 2021. (The number of children < 16 years tested for blood lead levels increased from 57,013 to 64,919 in 2021 from the previous year).

3. Percent Population Served with Lead Levels Below Action Limit (0.015mb/L) (NTNC School and Non-School) – The percentage of the population served by non-transient non-community water systems that serve a school (NTNC School) and had lead levels below the action limit increased from 89.2% in 2020 to 96.3% in 2021. The percentage of the population served by non-transient non-community that do not serve a school (NTNC Non-school) increased from 84.8% in 2020 to 97.8% in 2021.

4. Water Systems with Optimized Fluoride Levels – The number of systems with optimized fluoride levels decreased yearly from 71 in 2016 to 63 in 2019; however, the number increased substantially in 2020 to 73.

5. Stroke Hospitalization Rate – The rate of stroke hospitalization decreased from 244.4 per 100,000 in 2016 to 208.1 per 100,000 in 2020. The rate of stroke hospitalization decreased yearly prior to 2020.

6. Ischemic Heart Disease Hospitalization Rate – The incidence of hospitalizations due to ischemic heart disease decreased from 1,456.2 per 100,000 people in 2016 to 1,221.4 in 2020.

7. Asthma Hospitalization Rate – The asthma hospitalization rate in 2020 was 448.0 per 1000,000 people, lower than it was in 2016 at 662.6.

8. Alzheimer's and Dementia-related Disorders (ADRD) Hospitalization – The rate of ADRD hospitalization decreased from 555.8 in 2016 per 100,000 people to 466.37 in 2020.

9. Arthritis Hospitalization Rate – The rate of arthritis hospitalizations decreased each year between 2016 and 2020, from 1059.8 per 100,000 people to 621.9 in 2020.

10. Tuberculosis – The rate of tuberculosis infection in Virginia has decreased within 5 years from 2.4 per 100,000 population in 2017 to 1.9 per 100,000 population in 2021. However, Virginia has not met the Healthy People 2030 goal of 1.4 per 100,000 population.

11. High School Students Who Reported Being in a Physical Fight – The percentage of high school students who reported being in a physical fight decreased between 2013 and 2019 from 23.5% to 19.5%.

12. Non-Fatal Assault Hospitalizations – The number of hospitalizations from nonfatal assaults declined from 1,058 to 816 between 2016 and 2020.

13. Non-Fatal Hospitalizations from Traumatic Brain Injury among Youths in Virginia Aged 10-24 Years – The number of hospitalizations due to traumatic brain injury among Virginia youths decreased from 2016 at 742 to 591 in 2020.

14. Non-Fatal Hospitalizations from Non-Drug Poisoning – The number of hospitalizations from non-drug poisoning decreased yearly between 2016 and 2020 from 683 to 435.

15. Deaths From Non-Drug Poisoning – The number of non-drug poisoning deaths declined from 107 in 2016 to 78 in 2020.

16. Influenza Vaccination Rate in Adults >65 Years Old – The proportion of adults > 65 years in Virginia who received their annual influenza vaccine increased between 2016 and 2021 from 67.1% to 78.0%. Virginia met the Healthy People 2030 goal of 70%.

17. HPV Vaccination Among Adolescent Males – Among adolescent males, the HPV vaccination rate increased yearly from 2015 to 2019 from 32.0% to 62.6%. However, this is below the Healthy People 2030 goal of 80%.

18. Combined 7-Series Vaccination among Children Aged 24 Months and Aged 35 Months – The percentage of children aged 24 months who received the combined 7-series vaccine increased to 73.3% in 2018 from 68.8% in 2017. The proportion of children aged 35 months increased between 2015 and 2018 from 75.2% to 84.0%.

19. Percentage of High School Students Who Reported Current Alcohol Use – The percentage of high school students who reported current alcohol use declined from 30.5% in 2011 to 25.4% in 2019.

20. Percentage of High School Students Who Rode With A Driver Who Had Been Drinking – The percentage of high school students who rode with a driver who had been drinking declined for both male and females. For males, this percentage reduced from 19.6% to 11.9% between 2011 and 2019. For females, the percentage declined from 20.2% to 14.1%.

21. Adults Who Reported Binge Drinking In The Past Month – The percentage of adults who reported binge drinking in the past month declined yearly from 16.0% to 14.8% between 2017 and 2020. Virginia met the Healthy People 2030 goal of 25.4% or below.

22. Drug Overdose Deaths from Heroin – The number of deaths from heroin overdose declined annually from 540 deaths in 2017 to 414 deaths in 2020.

23. Drug Overdose Deaths from Benzodiazepines – The number of deaths from benzodiazepine overdose decreased yearly from 210 in 2016 to 174 deaths in 2020.

24. Uninsured Children under the Age of 19 – The rate of uninsured children under the age of 19 decreased from 7% in 2010 to 4.5% in 2020.

25. Avoidable Hospitalizations – The percentage of avoidable hospitalizations in Virginia decreased from 14.2% in 2016 to 12.6% in 2019.

26. Proportion of Adults that Delayed Medical Care due to Cost – The percentage of adults that delayed medical care due to cost decreased yearly from 12.1% in 2015 to 10.4% in 2020.

27. Lung and Bronchus Cancer – The lung and bronchus cancer incidence declined yearly from 62.3 in 2012 to 53 in 2019. The rate of deaths from lung and bronchus cancer declined yearly from 48.5 per 100,000 population in 2010 to 33.8 in 2019. This is below the Healthy People 2030 goal of 25.1 per 100,000 population.

28. Colorectal Cancer – The incidence of colorectal cancer in Virginia decreased from 37.8 in 2015 to 34.7 in 2019. The rate of deaths due to colorectal cancer decreased from 15.2 deaths per 100,000 population in 2010 to 12.8 in 2019. However, Virginia has not met the Healthy People 2030 goal of 8.9 per 100,000 population.

29. Teen Pregnancy – The rate of teen pregnancy in Virginia declined steadily from 40.2 per 1,000 females in 2010 to 17.3 per 1,000 females in 2020. The rates decreased for all races and ethnicities.

30. Maternal Opioid Use Disorder – The rate of maternal opioid use disorder declined yearly from 5.6 to 4.7 per 1,000 delivery hospitalizations between 2016 and 2020. The rates decreased for all races.

31. Children (ages 0 -17 years) with Special Health Care Needs – The percentage of children with special care needs decreased from 21% in 2016 to 18% in 2019-2020.

32. HIV Incidence and Linkage to Care The HIV incidence in Virginia declined from 925 in 2016 to 631 in 2020. The percentage of people with HIV diagnosis that were not linked in 90 days declined between 2016 and 2020 from 19.26% to 13.47%. The percentage of HIV Viral suppression increased from 74% in 2016 to 80% in 2020.

Indicators with Little or No Change in Trend

1. Percent Population Served by Community Water Systems with Lead Levels Below Action Limit (0.015mb/L) © Although on the increase, there have been subtle changes in the percentage of the population served with lead levels below action limit by community water systems © in Virginia over the years from 98.55% in 2017 to 98.15% in 2021.

2. Hypertension Hospitalization Rate The rate of hospitalizations due to hypertension decreased from 3,968.2 per 100,000 population in 2017 to 3,814.9 in 2018. In 2019, it increased to 3,900.2 and then decreased to 3,410.8 in 2020. The decrease in 2020 may be affected by issues with access to care during the pandemic.

3. Chronic Kidney Disease (CKD) Hospitalization Rate The rate of CKD hospitalization remained fairly stable in a 5-year period between 2016 and 2020 with rates ranging from 2,267.56 per 100,000 people to 2,277.28.

4. Nonfatal Hospitalizations From Traumatic Brain Injury (TBI) Nonfatal traumatic brain injury related hospitalizations remained relatively stable within 5 years from 4,742 to 4,752 hospitalizations between 2016 and 2020.

5. Households With No Vehicle Available The proportion of households with no available vehicles remained fairly constant with mild variations within 11 years from 6.3% in 2010 to 6.1% in 2020.

6. Proportion of Adults With a Usual Primary Care Provider The proportion of adults with a usual primary care provider was relatively stable at around 69.5% from 2013 to 2019.

7. Female Breast Cancer The female cancer incidence increased slightly from 126.1 in 2010 to 132.3 in 2019. The rate of deaths from breast cancer decreased from 22.2 per 100,000 population in 2010 to 19.2 per 100,000 population in 2019; however, it has not met the Healthy People 2030 goal of 15.3 per 100,000 females.

8. Prostate Cancer The incidence rate of prostate cancer has fluctuated over the past 10 years; it increased from 99 in 2018 to 107.6 in 2019. The rate of prostate cancer deaths had mild variations over 10 years from 2010 to 2019, from 22.2 deaths per 100,000 population to 19.9. However, Virginia has not met the Healthy People 2030 goal of 16.9 per 100,000 population.

9. Hepatitis C Infection The incidence rate of Hepatitis C infection decreased yearly between 2016 and 2018 from 75.2 to 52.4 cases per 100,000 population. It increased in 2019 to 65.2 and decreased in 2020 (42.2) and 2021(41.1).

10. Infant Mortality The overall infant mortality rate in Virginia remained fairly constant in 11 years from 5.3 per 1,000 live births in 2010 to 5.7 per 1,000 live births in 2020. This is true for all races and ethnicities except for American Indian/Alaska Natives whose infant mortality rate varied from 6.4 per 1,000 live births in 2016 decreasing to 0.0 in 2018 and then increased yearly between 2019 and 2020 from 6.3 to 12.1 per 1,000 live births in 2020. However, the AI/AN population in Virginia is very small, which leads to instability in the rates when comparing them annually to other races.

11. Child (1 to 9 years) Mortality Rate The child mortality rate had little variation between 2009 and 2020, from 15.7 per 100,000 population to 15.0.

Indicators with Worsening Trends/Issues of Concern from the Virginia State Health Assessment 2022

1. Adults Reporting Poor Physical Health The percentage of adults reporting 14 or more days of poor physical health in the past 30 days increased from 11% in 2016 to 11.7% in 2019

2. Adult Consumption of Fruits and Vegetables The percentage of adults who consumed fruits and vegetables 5+ more times a day decreased from 17.8% in 2013 to 16.1% in 2019. The percentage

of adults who did not eat fruits and vegetables at least once a day increased from 37.4% in 2013 to 38.3% in 2019

3. Adults Who are Aerobically Active For 150 Minutes Each Week and No Leisure Time Physical Activity in the Past Month The percentage of adults who are aerobically active for 150 minutes each week has decreased from 51.9% in 2013 to 50% in 2019. This is below the Healthy People 2030 goal of 59.2%. The percentage of people with no leisure activity has worsened in four years increasing from 23.3% in 2016 to 25.3% in 2019. This has not met the Healthy People 2030 target of 21.2%.

4. Adults who are Overweight or Obese The percentage of adults who are overweight or obese had a little increase from 65.4% in 2016 to 66.4% in 2019. However, Virginia is far from meeting the Healthy People 2030 goal of 36.0%

5. Diabetes Hospitalization Rate The rate of hospitalization due to diabetes increased yearly from 1588.8 in 2016 to 1852.5 in 2019. The rate decreases in 2020 to 1,648.15 in 2020; however, this may be due to decreased access to care during the COVID 19 pandemic.

6. Hotline Calls Related to Sexual Violence Hotline calls to the state sexual and domestic violence increased between 2017 and 2021, from 9,077 to 11,086 calls.

7. Nonfatal Hospitalizations and Deaths from Firearms The rate of nonfatal hospitalizations from firearms worsened, increasing from 728 in 2016 to 756 in 2020. The number of deaths from firearms increased from 1,027 in 2016 to 1,164 in 2020.

8. Homicide Deaths The number of deaths from homicides worsened, increasing from 434 deaths in 2016 to 516 deaths in 2020.

9. Middle School Students Who Reported Being in a Physical Fight The proportion of middle school students who reported being in a physical fight increased from 44.4% in 2013 to 45.8% in 2019.

10. Deaths from Unintentional Falls Deaths from unintentional falls increased yearly from 811 in 2016 to 981 in 2020.

11. Deaths from Traumatic Brain Injury The number of deaths from traumatic brain injury increased between 2016 and 2020 from 1,644 to 1,876. The number of traumatic brain injury deaths among youths in Virginia worsened, increasing from 258 to 317 between 2016 and 2020.

12. Influenza Vaccine Rates in Adults 18-64 years and in Minority Groups The percentage of adults who received influenza vaccine declined from 51.1% from 2019-2020 to 46.40% in 2020-2021. While the percentage of the white population who received influenza vaccine increased between 2016 and 2021 from 51.3% to 60.9%, it decreased among the Black population from 52.5% in 2019 to 45.6% in 2021 and decreased among the Hispanic population from 51.4% in 2016 to 45.2% in 2021. For other/multiple races, the influenza vaccine rates declined from 61.3% to 56.6% between 2019 and 2021.

13. HPV Vaccine Among Adolescent Females The proportion of females who received the HPV vaccine declined from 60.1% in 2018 to 56.6% in 2019. This is below the Healthy People 2030 goal of 80%.

14. Percentage of Middle School Students Who Rode With A Driver Who Had Been Drinking The percentage of middle school students who rode with a driver who had been drinking worsened for both boys and girls. For boys, it increased from 13.7% in 2017 to 15.3% in 2019, and for girls, it increased from 16.5% in 2017 to 18.0% in 2019.

15. Alcohol Attributable Deaths Alcohol attributable deaths in Virginia increased every year between 2016 and 2020, from 2,926 to 3,667 deaths.

16. High School Students Who Reported Marijuana Use in the Past 30 Days The percentage of high school students who reported marijuana use in the past 30 days increased yearly between 2015 and 2019 from 16.2% to 17.3%.

17. Nonfatal Cannabis Hospitalizations Hospitalizations from cannabis increased every year from 17,796 in 2016 to 20,303 in 2019. There was a decrease to 19,837 in 2020, which may be related to the pandemic.

18. Drug Overdose Deaths While the number of nonfatal drug overdose hospitalizations decreased yearly from 2016 (except in 2019) to 2020 from 8,069 to 7,526, the number of deaths from drug overdose increased yearly between 2016 and 2020 from 1,324 to 1,749 deaths. This is true for all opioids, which increased from 1,078 deaths in 2016 to 1,478 deaths in 2020); synthetic opioids (except methadone), which increased from 624 in 2016 to 1,303 deaths in 2020; cocaine, which increased from 335 in 2016 to 435 in 2020; and psychostimulants, which increased from 66 in 2016 to 326 in 2020.

19. Cost Burdened Households The percentage of cost burdened households in Virginia increased from 28.5% in 2017 to 29.0% in 2020.

20. Homeless Students in Virginia The number of homeless students in Virginia increased from 7,663 in 2011 to 10,268 students in 2020.

21. Average Commute To Work Driving Alone The average commute to work driving alone increased yearly 2010 to 2020 from 25.9 minutes to 28.6 minutes.

22. Early Syphilis Infection The rate of early syphilis increased in Virginia from 13.5 in 2017 to 16.4 per 100,000 population in 2021.

23. Congenital Syphilis Infection The number of congenital syphilis increased from 0-2 cases per year in 2009- 2012 to 17 cases in 2021.

24. Gonorrhea Infection The rate of gonorrhea infections per 100,000 population increased yearly from 144.08 in 2017 to 174.12 in 2020. However, this rate decreased to 167.1 in 2021

25. Prenatal Care The number of women who received inadequate care increased for all races. It increased from 7.7% in 2012 to 21.6% in 2020 for Hispanics, 2.8% in 2012 to 14.5% in 2020 for Blacks, and 4.0% in 2012 to 9.3% in 2020 for White.

26. Proportion of Adults Who Have Seen a Dentist in the Past Year Although the proportion of adults who have seen a dentist in the past year has varied widely in 11 years, it decreased from 76.2% in 2019 to 70.0% in 2020.

27. Life Expectancy and Years of Potential Life Lost The overall life expectancy in Virginia decreased from 79.7 years in 2019 to 78.3 years in 2020. The years of potential life lost increased between 2016 and 2020, from 6,584.3 per 100,000 population to 7,549.4.

28. Chronic Obstructive Pulmonary Disease (COPD) Hospitalization Rate The rate of COPD hospitalization increased yearly from 1,188.3 per 100,000 people in 2016 to 1,357.5 in 2019. It decreased in 2020 to 1,202.9, likely due to factors associated with the COVID-19 pandemic.

29. Deaths From Drowning The number of deaths from drowning in Virginia increased yearly from 78 in 2017 to 93 in 2019. There was a decline in 2020 to 88, but this may have been affected by the pandemic.

30. Reports of Forcible Sex Offenses Although the number of forcible sex offenses reported to the police decreased in 2020, this number had an increasing trend between 2016 and 2019 from 5,529 to 5,854. The decrease in 2020 may be due to the effect of the pandemic

31. Maternal Opioid Related Diagnosis The rate of maternal opioid related diagnosis increased yearly from 7.7 in 2016 to 9.0 in 2019. However, this rate decreased to 7.7 per 1000 delivery hospitalizations in 2020. The decline in 2020 may be due to the effects of the pandemic.

32. Rate of Neonatal Abstinence Syndrome The overall rate of neonatal abstinence syndrome decreased between 2016 and 2018 from 6.5 to 7.0 per 1,000 birth hospitalizations and then increased to 7.2 in 2019. However, in 2020, there was a marked decrease to 5.8 per 1,000 birth hospitalizations. This decline in 2020 may be due to the effects of the pandemic.