

# Virginia Department of Health Updates

## Virginia Stroke Care Quality Improvement Initiative and Virginia CDC Paul Coverdell National Acute Stroke Program (CDC PCNASP)

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## Leading Causes of Death in Virginia, 2021

Causes of Death	Number of Deaths
1. Heart Disease	15,942
2. Cancer	15,114
3. COVID-19	8,230
4. Accidents	4,558
5. Stroke	3,901
6. Chronic Lower Respiratory Diseases	3,117
7. Diabetes	2,589
8. Alzheimer's Disease	2,541
9. Kidney Disease	1,577
10. Parkinson's Disease	1,105

**Stroke:** Stroke death rates have increased from 36.2 in 2013 (lowest in 15 years) to 39.9 in 2020. Time is Brain - the vast majority of stroke patients do not arrive to the hospital within the treatment window, leading to increased death & disability.

**Cardiovascular Disease:** Heart Disease death rates have steadily increased over the past 3 years. In 2020, Heart Disease surpassed Cancer as the Leading Cause of Death in Virginia and remains the Leading Cause of Death in 2021.

**Source:** Vital Event Statistics Program, Office of Information Management - Virginia Department of Health 04/13/2022. Data is preliminary and subject to change. Counts for COVID-19 deaths are based strictly on underlying cause of death using the Virginia Case Definition for COVID-19 from 8/31/2021.

# Stroke Death Rates Rising in Virginia

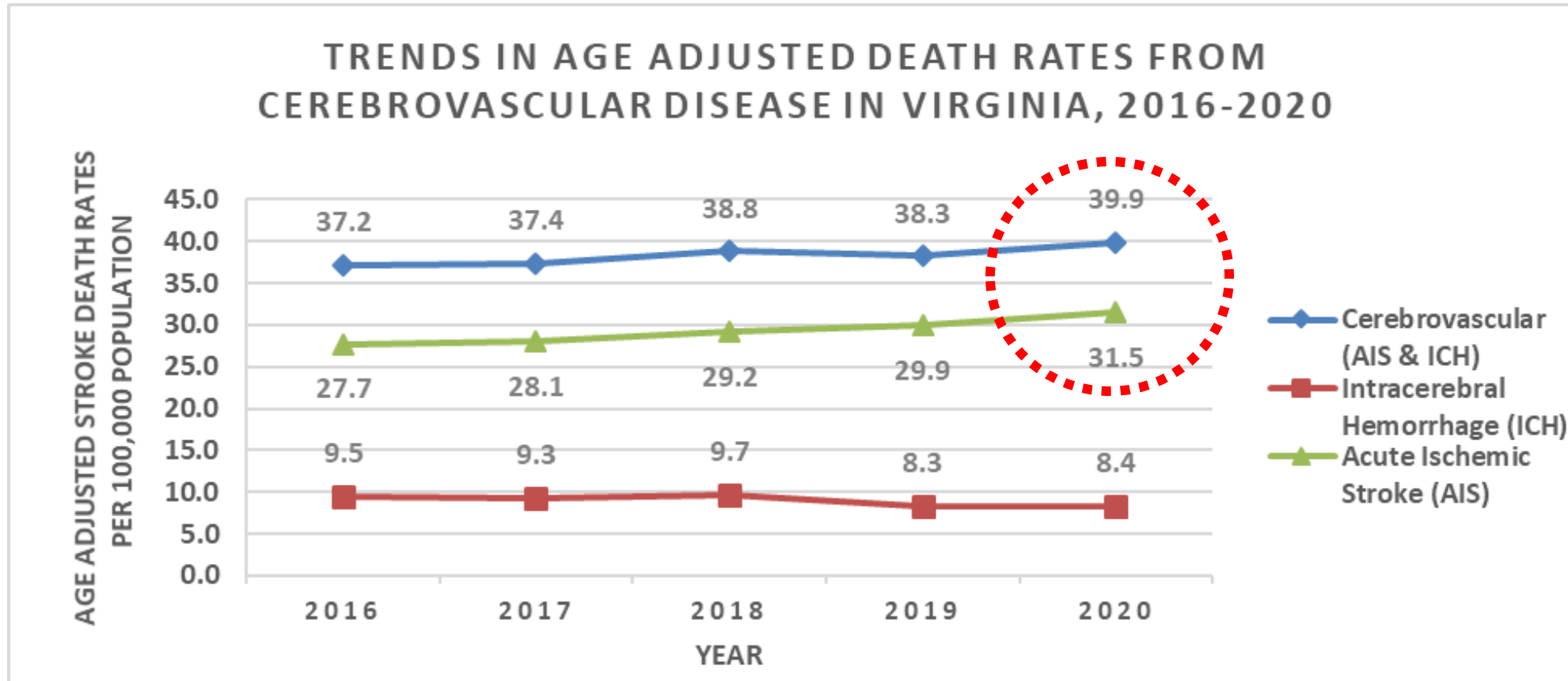


Figure. Trends in Age Adjusted Death Rates from Cerebrovascular Disease in Virginia, 2016-2020. ICD-10 Codes I60-I69 (Cerebrovascular), I60-I62 (Intracerebral Hemorrhage (ICH)), I63-I69 (Acute Ischemic Stroke (AIS)). Data Source: Vital Event Statistics Program, Office of Information Management, Virginia Department of Health.

# Stroke Death Rates and Demographic Data

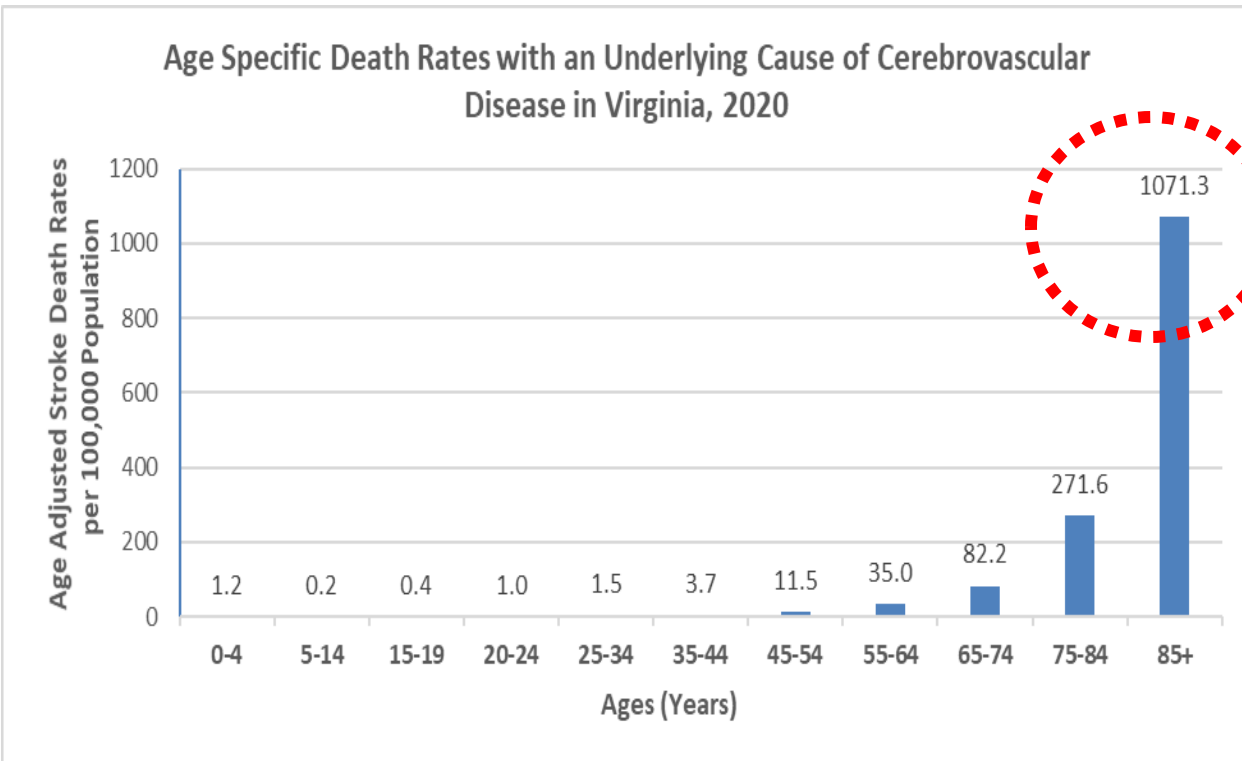


Figure. Age Specific Death Rates with an Underlying Cause of Cerebrovascular Disease in Virginia, 2020. ICD-10 Codes I60-I69 (Cerebrovascular), I60-I62 (Intracerebral Hemorrhage (ICH)), I63-I69 (Acute Ischemic Stroke (AIS)). Data Source: Vital Event Statistics Program, Office of Information Management, Virginia Department of Health.

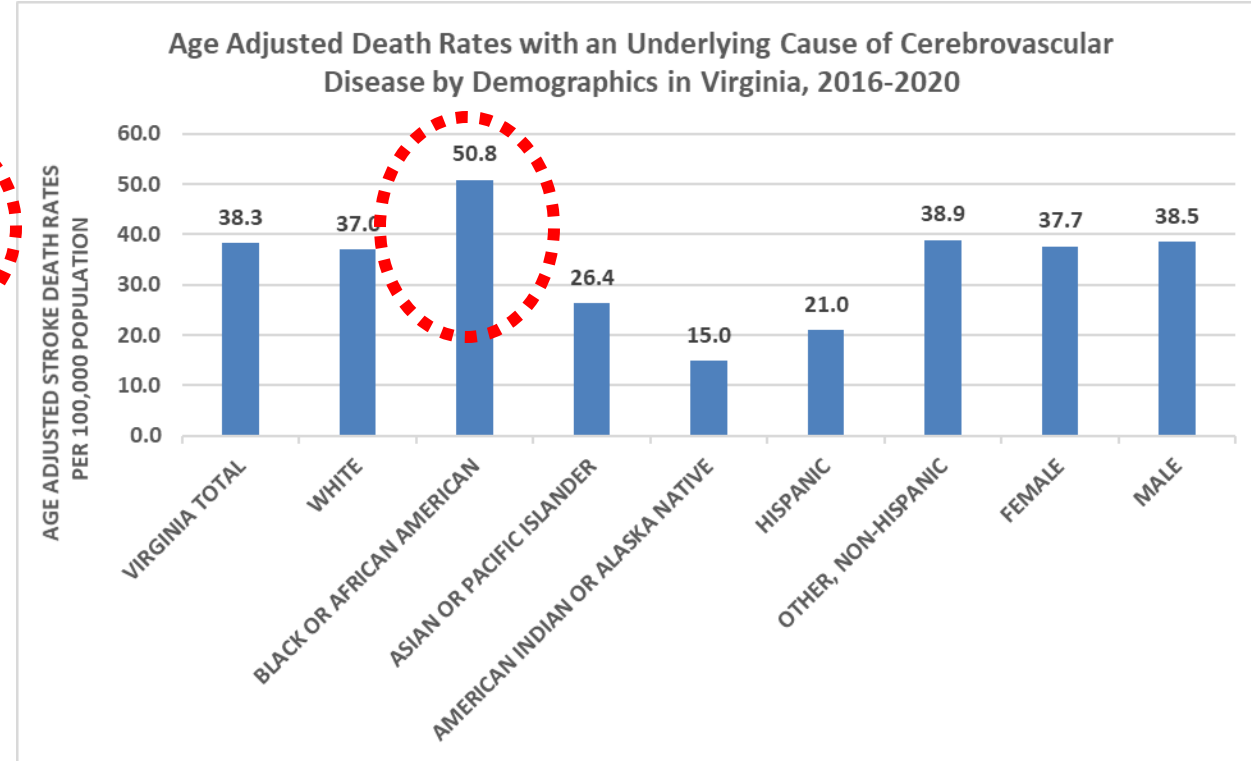


Figure. Age Adjusted Death Rates with an Underlying Cause of Cerebrovascular Disease by Demographics in Virginia, 2016-2020. ICD-10 Codes I60-I69 (Cerebrovascular), I60-I62 (Intracerebral Hemorrhage (ICH)), I63-I69 (Acute Ischemic Stroke (AIS)). Data Source: Vital Event Statistics Program, Office of Information Management, Virginia Department of Health.

# Stroke Hospitalization Rates and Demographic Data

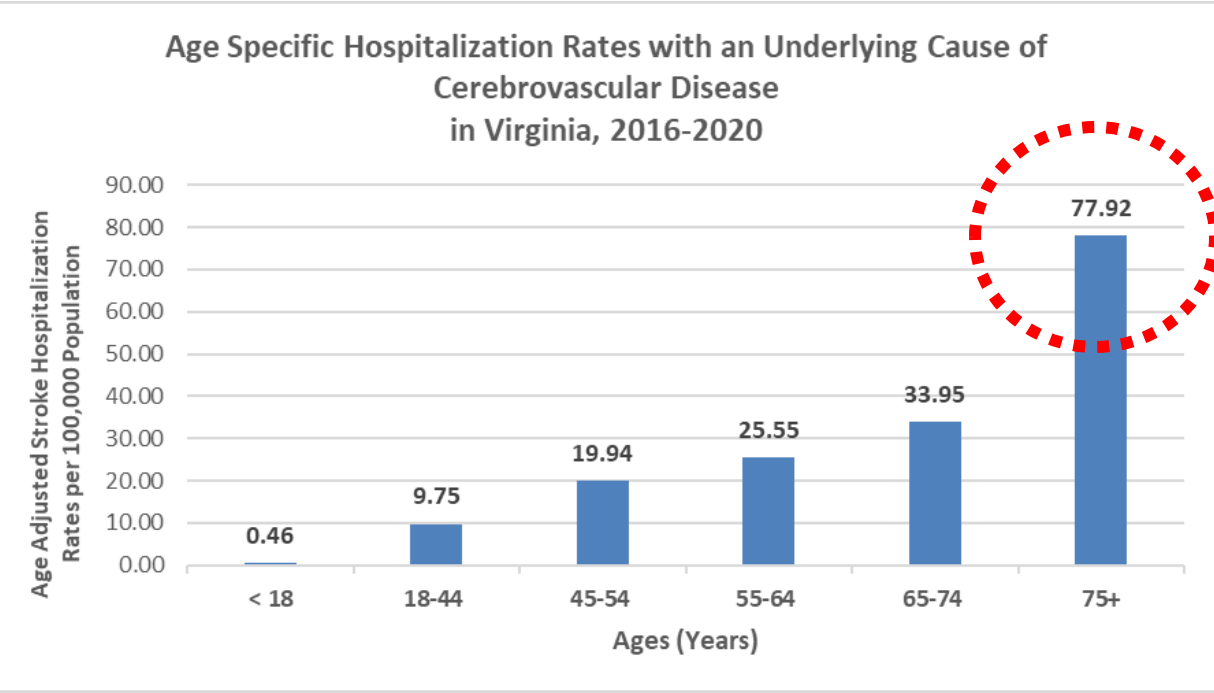


Figure. Age Specific Hospitalization Rates Per 100,000 Population with an Underlying Cause of Cerebrovascular Disease in Virginia, 2016-2020. ICD-10 Codes I60-I62 (Intracerebral Hemorrhage (ICH)), I63-I69 (Acute Ischemic Stroke (AIS)), G45 (Transient Ischemic Attack (TIA)), I60-I69 and G45 (All Stroke/TIA). Data Source: Inpatient discharge dataset provided to Virginia Department of Health by Virginia Health Information Discharge Database, 2022.

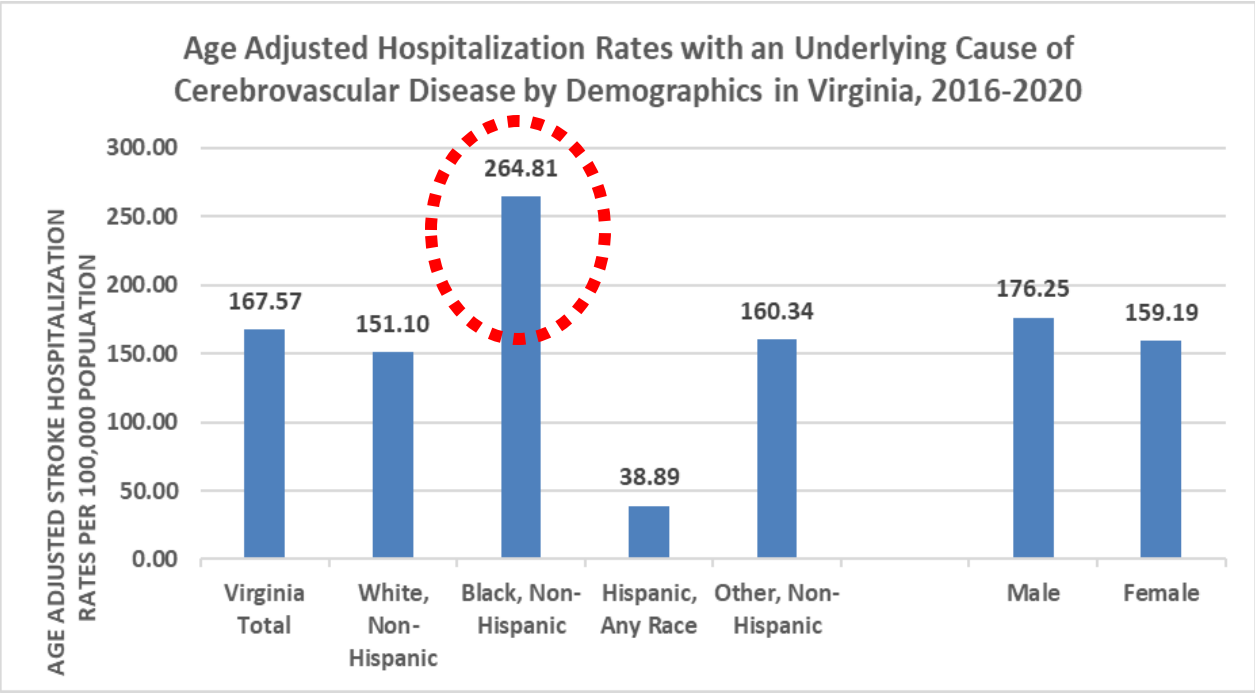


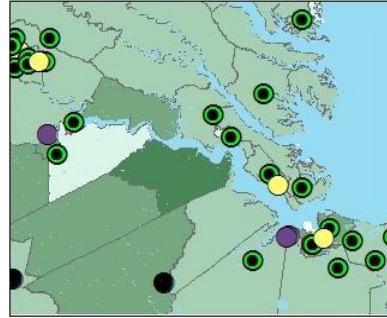
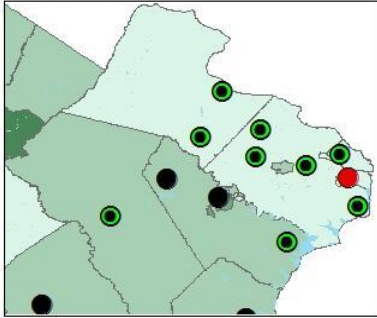
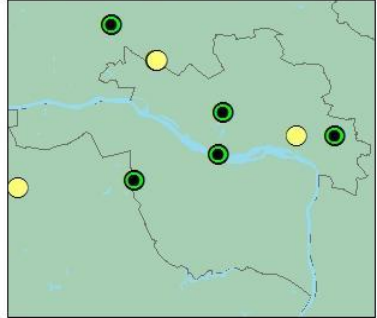
Figure. Age Adjusted Hospitalization Rates per 100,000 Population with an Underlying Cause of Cerebrovascular Disease by Demographics in Virginia, 2016-2020. ICD-10 Codes I60-I62 (Intracerebral Hemorrhage (ICH)), I63-I69 (Acute Ischemic Stroke (AIS)), G45 (Transient Ischemic Attack (TIA)), I60-I69 and G45 (All Stroke/TIA). Data Source: Inpatient discharge dataset provided to Virginia Department of Health by Virginia Health Information Discharge Database, 2022.

# Health Disparities in Virginia

Richmond Metro Area

Northern Virginia

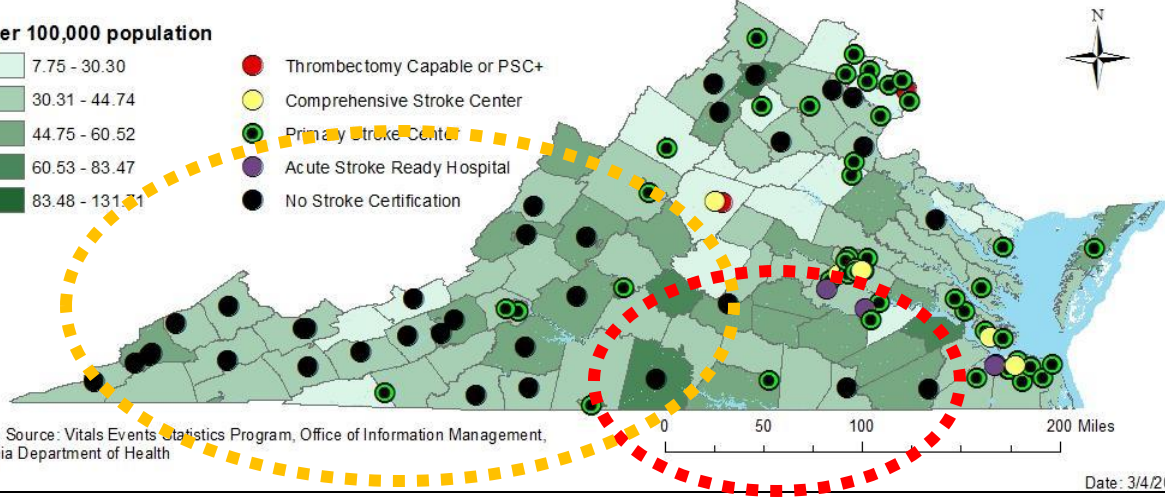
Hampton Roads



## Virginia

Stroke Death Rate\* per 100,000 by City/County, 2018

Rate per 100,000 population



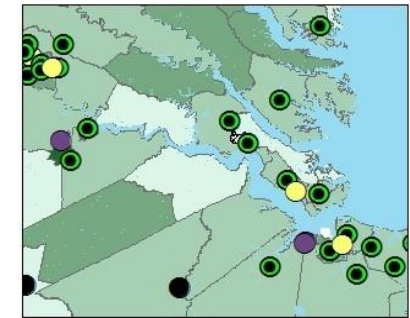
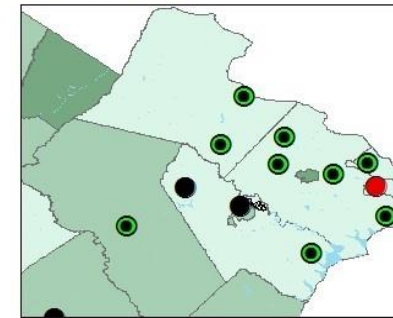
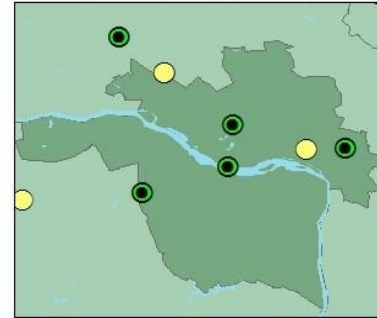
\*Data Source: Vitals Events Statistics Program, Office of Information Management, Virginia Department of Health

Date: 3/4/2020

Richmond Metro Area

Northern Virginia

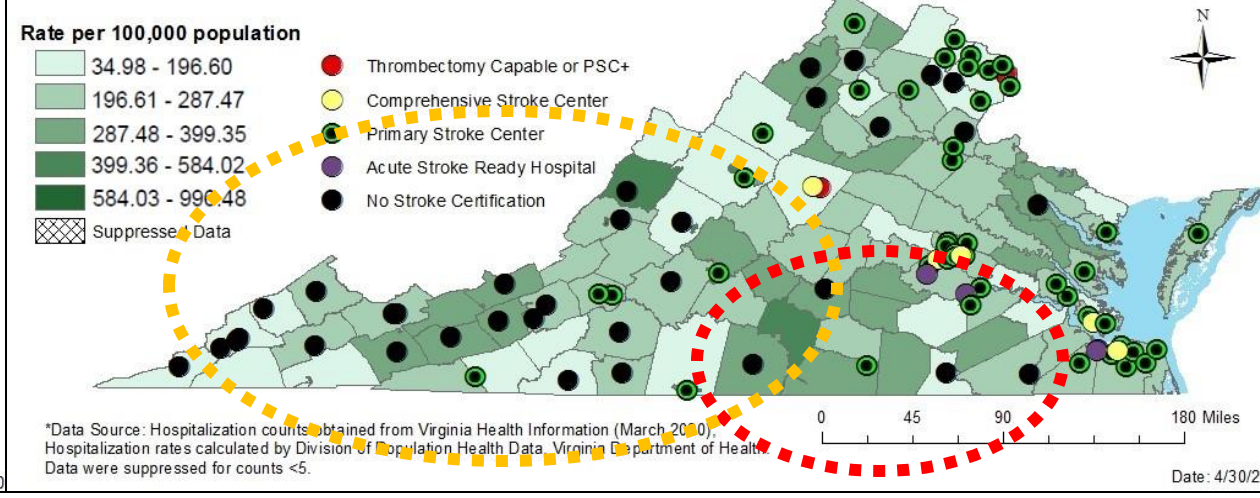
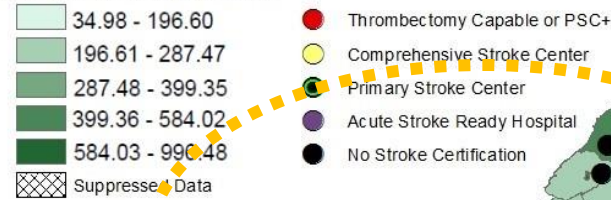
Hampton Roads



## Virginia

Stroke Age-Adjusted Hospitalization Rate\* per 100,000 by City/County, 2018

Rate per 100,000 population



\*Data Source: Hospitalization counts obtained from Virginia Health Information (March 2020). Hospitalization rates calculated by Division of Population Health Data, Virginia Department of Health. Data were suppressed for counts <5.

Date: 4/30/2020

Region	Locality	Stroke Mortality 2014-2018	Stroke Mortality 2016-2020	Stroke Mortality Change (+ / -)
<b>Central</b>	Greensville County	64.76	63.43	-1.33
	Brunswick County	59.44	59.53	0.09
	Nottoway County	59.13	53.97	-5.16
	Petersburg City	58.65	65.10	6.45
	Surry County	57.96	39.08	-18.88
	Mecklenburg County	56.97	60.28	3.31
	Hopewell City	49.93	44.49	-5.44
<b>Eastern</b>	Franklin City	93.2	96.93	3.73
	Portsmouth City	52.67	47.68	-4.99
	Lancaster County	52.66	58.78	6.12
	Norfolk City	50.01	53.09	3.08
	Hampton City	47.33	42.89	-4.44
	Accomack County	45.56	51.32	5.76
	Mathews County	44.48	35.87	-8.61
<b>Northern</b>	Manassas City	49.75	46.00	-3.75
	Fairfax City	41.11	49.95	8.84
<b>Northwest</b>	Highland County	60.66	37.51	-23.15
	Lexington City	60	54.99	-5.01
	Buena Vista City	53.67	44.49	-9.18
	Harrisonburg City	48.99	47.57	-1.42
	Staunton City	48.17	41.44	-6.74
	Warren County	44.16	47.87	3.71
	King William County	44.14	51.49	7.35
	Caroline County	42.46	39.53	-2.93
<b>Southwest</b>	Martinsville City	84.64	94.42	9.78
	Covington City	74.77	64.23	-10.54
	Galax City	70.09	82.64	12.55
	Radford City	67.57	62.29	-5.28
	Lynchburg City	61.13	64.97	3.84
	Appomattox County	59.56	58.82	-0.75
	Danville City	54.72	52.85	-1.87
	Salem City	51.26	51.97	0.71
Amherst County	50.55	47.20	-3.35	

**Table.** Virginia Stroke Priority Geographic Areas by Mortality Age-Adjusted Rates, 2014-2018 and 2016-2020 Comparison.

**Highest Stroke Mortality**  
**Franklin City**  
**Martinsville City**  
**Galax City**

Notes: Localities were categorized by Virginia Health Planning Region and sorted by Age-Adjusted Mortality Rate. The top quartile of each region was then selected to indicate priority localities. (Virginia Department of Health, Office of Vital Records).

# Legislation

Code of Virginia 32.1-111.15:1

HB 1197 and SB 867 | Effective 1/1/2019

*Department responsible for stroke care quality improvement; sharing of data and information.*

1. Implement systems to collect data and information related to stroke care.
2. Facilitate information & data sharing and collaboration among hospitals and providers.
3. Apply evidence-based treatment guidelines for transitioning patients to community-based follow-up care following acute treatment for stroke.
4. Establish a process for continuous quality improvement for the delivery of stroke care.

VIRGINIA ACTS OF ASSEMBLY – 2018 SESSION

CHAPTER 276

An Act to amend the Code of Virginia by adding in Article 2.1 of Chapter 4 of Title 32.1 a section numbered 32.1-111.15:1, relating to stroke care quality improvement.

Approved March 9, 2018 [H 1197]

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Article 2.1 of Chapter 4 of Title 32.1 a section numbered 32.1-111.15:1, to read:

§ 32.1-111.15:1. Department responsible for stroke care quality improvement; sharing of data and information.

The Department shall be responsible for stroke care quality improvement initiatives in the Commonwealth. Such initiatives shall include:

1. Implementing systems to collect data and information about stroke care in the Commonwealth in accordance with subsection B;
2. Facilitating information and data sharing and collaboration among hospitals and health care providers to improve the quality of stroke care in the Commonwealth;
3. Requiring the application of evidence-based treatment guidelines for transitioning patients to community-based follow-up care following acute treatment for stroke; and
4. Establishing a process for continuous quality improvement for the delivery of stroke care by the statewide system for stroke response and treatment in accordance with subsection C.

B. The Department shall implement systems to collect data and information related to stroke care that are nationally recognized data set platforms with confidentiality standards approved by the Centers for Medicare and Medicaid Services or consistent with the Get With The Guidelines Stroke registry platform from hospitals designated as comprehensive stroke centers, regional stroke centers, or acute stroke-ready hospitals and emergency medical services agencies in the Commonwealth and (ii) from every primary stroke center with supplementary levels of stroke care distinction in the Commonwealth. Every hospital designated as a comprehensive stroke center, primary stroke center, or primary stroke center with supplementary levels of stroke care distinction shall report data and information described in clauses (i) and (ii) to the Department. The Department shall take steps to encourage hospitals designated as acute stroke-ready hospitals and emergency medical services agencies to report data and information described in clause (i) to the Department.

C. The Department shall develop a process for continuous quality improvement for the delivery of stroke care provided by the statewide system for stroke response and treatment, which shall include:

1. Collection and analysis of data related to stroke care in the Commonwealth;
2. Identification of potential interventions to improve stroke care in specific geographic areas of the Commonwealth; and
3. Development of recommendations for improvement of stroke care throughout the Commonwealth.

D. The Department shall make information contained in the systems established pursuant to subsection B and data and information collected pursuant to subsection C available to licensed hospitals and the Virginia Stroke Systems Task Force, and, upon request, to emergency medical services agencies, regional emergency medical services councils, the State Emergency Medical Services Advisory Board, and other entities engaged in the delivery of emergency medical services in the Commonwealth to facilitate the evaluation and improvement of stroke care in the Commonwealth.

E. The Department shall report to the Governor and the General Assembly annually on July 1 on stroke care improvement initiatives undertaken in accordance with this section. Such report shall include a summary report of the data collected pursuant to this section.

F. Nothing in this article shall require or authorize the disclosure of confidential information in violation of state or federal law or regulations, including the Health Insurance Portability and Accountability Act, 42 U.S.C. § 1320d et seq.

2. That the provisions of the first enactment of this act shall become effective on January 1, 2019.

3. That the Department of Health shall convene a group of stakeholders, which shall include representatives of (i) hospital systems, including at least one hospital system with at least six or more stroke centers in the Commonwealth, recommended by the Virginia Hospital and Healthcare Association; (ii) the Virginia Stroke Systems Task Force; and (iii) the American Heart Association/American Stroke Association, to advise on the implementation of the provisions of this act.



# CDC Paul Coverdell National Acute Stroke Program

**Grantor:** Centers for Disease Control & Prevention

**Funding Amount:** \$600,000 per year, eligible for continued funding based on performance throughout 3 year period

**# of Years in Funding Period:** 3 Years - 2021 to 2024



## Scope of Work:

- **Category I:** Data Infrastructure across Stroke Systems
- **Category II:** Team-based Approach and Quality of Care
- **Category III:** Referral Systems: Community Resources and Clinical Services

# Paul Coverdell National Acute Stroke Program Mission

The mission of the Paul Coverdell National Acute Stroke Program is to track and improve the quality of care for acute stroke patients; to decrease the rate of premature death and disability from acute stroke through secondary prevention; to increase public awareness of stroke treatment and prevention; and to reduce disparities in acute stroke care by providing underserved populations with better access to care.

# Virginia Stroke Registry Overview and Purpose

- Required Element of Participation for the Coverdell Grant
- Mandated by our General Assembly
- Outcomes
  - Track and Monitor Clinical Measures to Improve Data Infrastructure Across Stroke Systems of Care
  - Link Pre-Hospital, Hospital, and Post-hospital follow up data
- Hosted by the Office of EMS by ESO
  - ESO will allow reporting of data for ALL hospitals in Virginia without cost
  - Will be done in 2 Phases

# Virginia Stroke Registry Phases

## Phase 1: VDH Stroke Repository.

- Data submissions to state via ESO Portal utilizing the GWTG data set
- 13 Participating Hospitals for Phase 1

## Phase 2: VDH Stroke Registry (June 2023).

- Supplements the Stroke Repository with an expanded data set that beyond the Coverdell data set and adds on a full data entry and reporting product suite.
- Open to All Hospitals in Commonwealth at no extra cost

# Hospital Inventory Survey for the Coverdell Grant

- Annual Survey Required for Virginia's Coverdell Grant
- Aggregate Data Must be submitted to the CDC by VDH
  - Will not contain identifiable information
- Filled out by Stroke Coordinator or hospital designee
- Identifies
  - Capacities of Hospitals for stroke care
  - Gaps in acute stroke care
  - How we can better serve hospitals with fewer resources
- Hospital Inventory Survey is Open Now

# VIRGINIA COVERDELL ACUTE STROKE REGISTRY SURVEY

The Virginia Department of Health appreciates your work in stroke patient care and thanks you for your time completing the following survey. The information provided will help VDH understand the current capacity of facilities for stroke care in Virginia. It will also help the VCASR better serve its participating facilities. The information provided in this survey is confidential and will only be reported as aggregated results, without identifying your individual facility.

Please answer all questions for each individual facility and not for a healthcare system. Survey should be answered by the stroke coordinator or a hospital designee.

QR Code to take Hospital Inventory Survey

or

Hospital Inventory Survey link

<https://redcap.vdh.virginia.gov/redcap/surveys/?s=M9HKYEMX39>



Questions about this survey can be directed to Kathryn Funk ([Kathryn.Funk@vdh.virginia.gov](mailto:Kathryn.Funk@vdh.virginia.gov)).

# EMS Inventory Survey

- Required Element of Performance for the Coverdell Grant
- Strategies
  - Analyze data and identify areas to improve the efficiency and quality of care within EMS and Hospital settings
  - Coordinate, develop, and implement profession and workforce development opportunities to improve evidence-based knowledge of stroke care and implementation of activities to address disparities
  - Develop and implement patient care practices/protocols with EMS and Hospital systems to coordinate patient handoff and transitions of care
- In development and plan to have available in Summer 2022

# Stroke Smart Virginia Initiative 2022

Stroke Smart

# VIRGINIA

- ✓ Stroke Smart Virginia Work Group - VSSTF
- ✓ Stroke Smart Materials - Wallet Card and Magnets. Updated to be diverse and in Spanish.
- ✓ Stroke Smart Champions - Pharmacy Technicians in independent pharmacies training.
- ✓ Stroke Smart Faith-based Organizations - Events
- ✓ Stroke Smart Medical Practices - Training front office staff, tele-education in waiting room TVs
- ✓ Stroke Smart Northern Virginia - New Position
- ✓ [Stroke Smart Virginia PSA Video](#)

**Be Stroke Smart**

**STROKE SIGN TEST: SMILE**

Pass: Normal smile. Fail: One side droops. CALL 911

**STROKE SIGN TEST: RAISE ARMS**

Pass: Arms held straight out. Fail: Arm drifts downward. CALL 911

**OTHER STROKE SIGNS**

**SUDDEN TROUBLE:**

- Speaking or Understanding
- Walking or Balance
- Seeing
- Weak or Numb on one side of body

**CALL 911 for even ONE SIGN**  
**CALL 911 even if SIGNS STOP**

Stroke Smart VIRGINIA Kwikpoint

**¿Derrame Cerebral? ¡Conozca los Signos!**

**PRUEBA DE SIGNOS DEL DERRAME CEREBRAL: SONREIR**

Normal: Sonrisa normal. Anormal: Si un Lado de la Cara se Cae. LLAME 911

**PRUEBA DE SIGNOS DEL DERRAME CEREBRAL: LEVANTAR LOS BRAZOS**

Normal: Brazos levantados. Anormal: Si el Brazo se Cae. LLAME 911

**OTROS SIGNOS DEL DERRAME CEREBRAL**

**PROBLEMAS REPENTINOS:**

- Hablar o Entender
- Caminar o Equilibrio
- Viendo
- Adormecimiento o Debilidad en un Lado del Cuerpo

**LLAME 911 Si Observa un SIGNO**  
**LLAME 911 Si los Signos DESAPARECEN**

Stroke Smart VIRGINIA Kwikpoint



# Contact Information:

[Patrick.Wiggins@vdh.Virginia.gov](mailto:Patrick.Wiggins@vdh.Virginia.gov)

and

[Kathryn.Funk@vdh.Virginia.gov](mailto:Kathryn.Funk@vdh.Virginia.gov)

# Questions and Answers