

**VIRGINIA'S  
HEALTH  
IS IN YOUR  
HANDS.**

Do your part,  
stop the spread.

## **Virginia COVID-19 Testing Unit External Situation Report**

October 29, 2020

# Testing Unit Goals and Metrics

## Testing Unit Goals & Objectives

### 1. Facilitate testing initiatives across the Commonwealth to reach testing goals and <10% absolute positivity goal

- Objective: Facilitate and implement community testing events to meet demand
- Objective: Establish and maintain a diverse set of contracts to support testing mission
- Objective: Communicate health district level data with VDH leadership and district directors to understand current trends

### 2. Support PPS in at-risk facilities (i.e., SNFs, ALFs, jails/prisons)

- Objective: Schedule and implement PPS in identified facilities (missions)
- Objective: Monitor where outbreaks are occurring and work with outbreak team to develop testing plan

### 3. Create infrastructure to enhance and maintain testing access across the Commonwealth

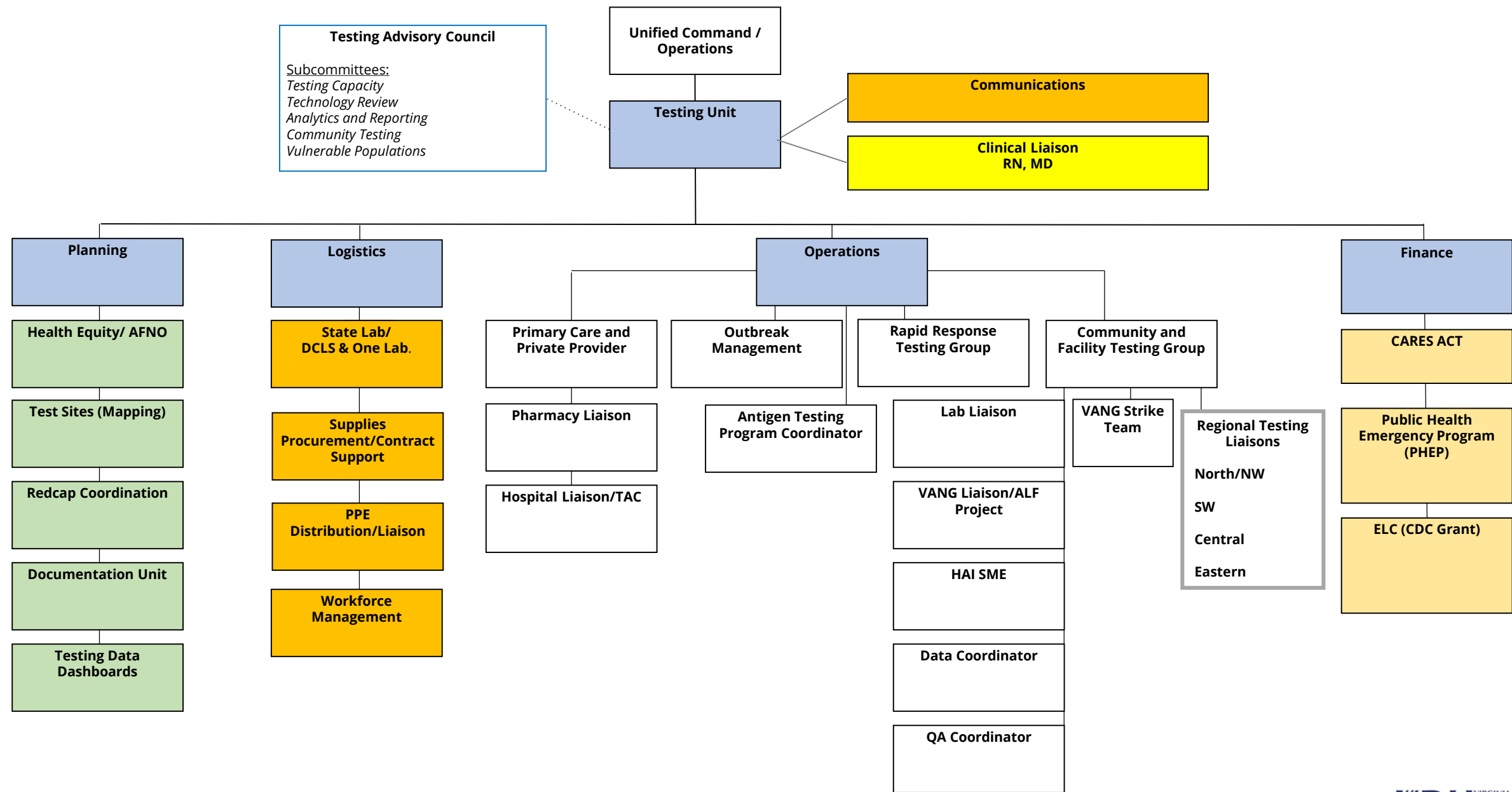
- Objective: Continue to work with pharmacies, address barriers, and explore reimbursement mechanisms
- Objective: Encourage full utilization of the National Guard to support local/regional testing (e.g., Department of Corrections, LTFs with completed baseline testing).
- Objective: Enhance lab capacity and testing turnaround times through the establishment of the OneLab concept
- Objective: Work with the Testing Advisory Council to consider use of new technologies to support testing

### 4. Prioritize testing for vulnerable populations and ensure utilization

- Objective: Collaborate with the Health Equity Working Group to formulate proactive strategies for reaching vulnerable populations
- Objective: Collaborate with the JIC/PIO's, VDH Partners, and Health Districts to provide appropriate messaging
- Objective: Ensure equitable access to testing for those with accessibility and functional needs

### 5. Continue to track costs and funding needs

- Objective: Formalize and submit requests for additional federal funding and track approval and disbursement
- Objective: Determine grant reporting requirements and develop mechanism for continued insight into spending by local health districts



# Situation Report Summary and Key Trends

This Situation Report contains insights from data collected by the VDH Testing Unit. The below integrates insights from across the weekly Situation Reports to highlight key trends and data points of note.



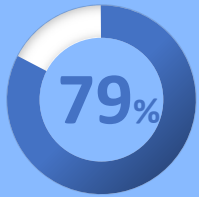
## Statewide Snapshot



Positivity rate has increased from 4.9% to

**5.0%**

Hospital capacity is at



**1.06**

Effective Reproduction Number (Rt)



**76**

Community testing events held this week

**2,563,313**

Total PCR tests to date



On track to exceed the **October PCR testing projection**

## Commonwealth and Locality Trends

*At a positivity rate of 5.0%, Virginia is below the national average of 6.2%. We are on track to exceed the October PCR testing projection.*



Across the Commonwealth, an **average of 17,098 PCR tests** were conducted per day – significantly above the daily target of 14,516 tests per day.



**92% of localities** (122 of 133) are meeting the absolute goal of a 7-day positivity rate less than 10%.



**8% of localities** (10 of 133) are reporting positivity rates higher than 10%.



**Southamptton** is reporting the highest positivity rate in the state, at 20.8%.



**Lexington**, part of the Central Shenandoah LHD, and **Scott**, part of the Lenowisco LHD, are reporting the highest 7-Day Average Daily New Cases Per 100k. Both LHDs held CTEs this week, according to REDCap.

## Community Testing Events (CTE)

- **20** health districts reported **76** CTEs in REDCap this week and 64% of those events were in the Southwest region.
- **12** districts reported CTEs targeting vulnerable populations this week.

## VA National Guard (VANG)

- Supported **seven** CTEs.
- Supported **seven** point prevalence surveys at correctional facilities (4), educational facilities (1) and long-term care facilities (2).

## Laboratory



Average Turnaround Time (TAT) increased from 1.43 to

**1.46** days

- **Increases in academic lab TATs** are driving the marginal increase.
- **Commercial lab TATs decreased** for the second week in a row.

# Statewide View: High-Level COVID-19 Metrics, Cumulative

## Key Metrics, as of 10/28

**Total Cases:**  
176,754

**Total Hospitalizations:**  
12,384

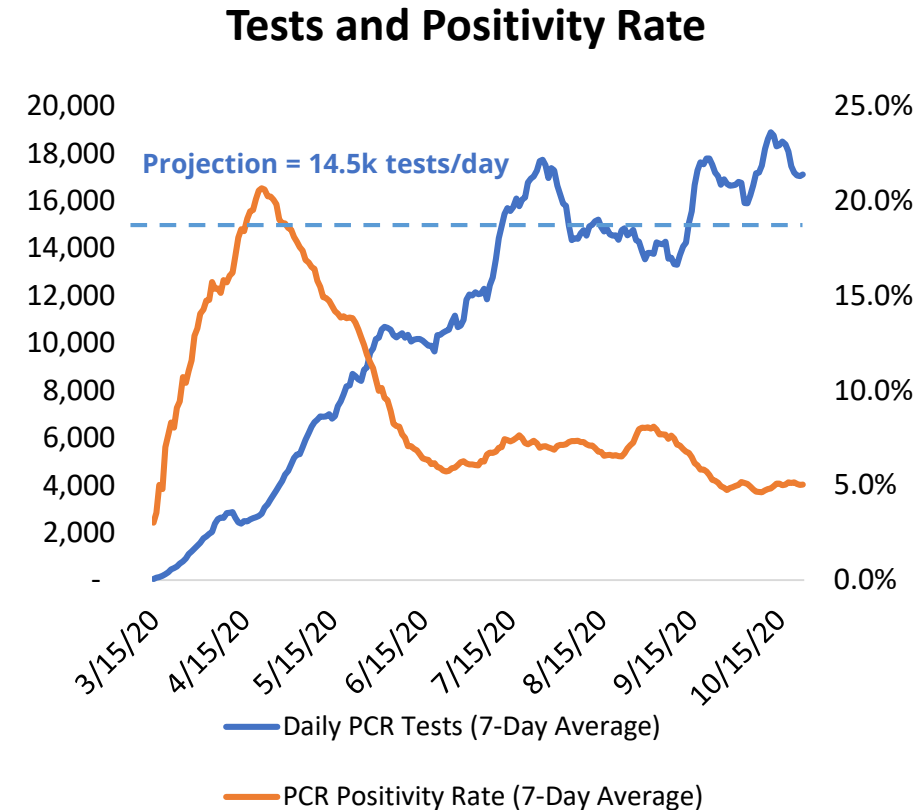
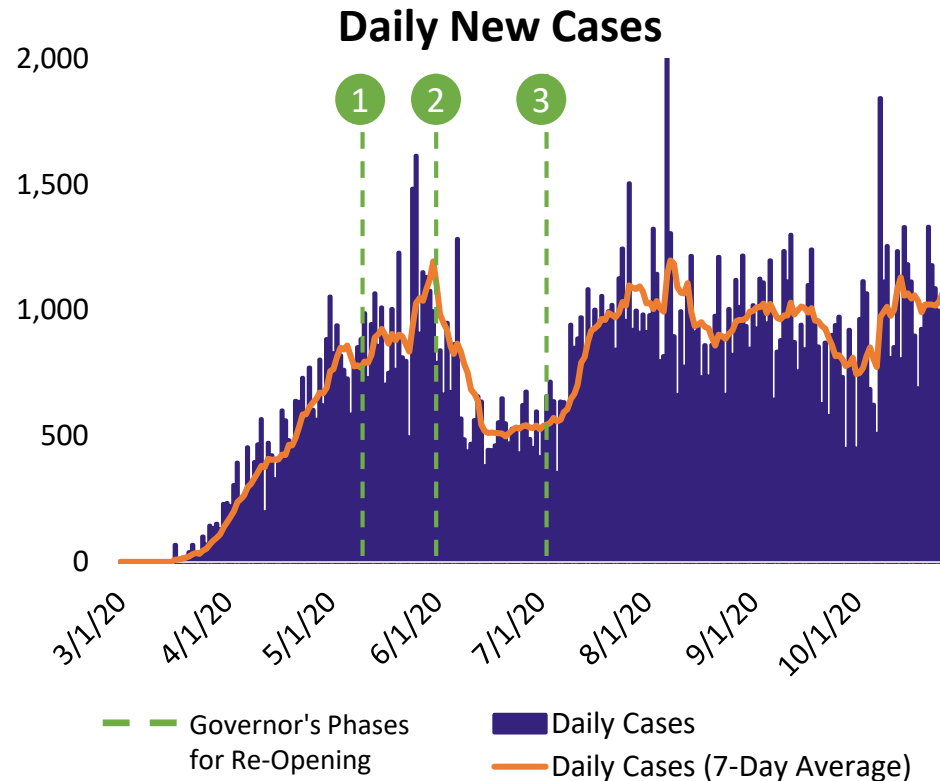
**Total Deaths:**  
3,616

**Total PCR Tests:**  
2,563,313

### Quick Facts

- As of 10/27, Virginia's 7-day **average daily new cases** is 1094 (13 cases per 100k).
- As of 10/23<sup>1</sup>, the **daily tests 7-day average** is 17,098 (down from 18,231 last week) and the 7-day **average positivity rate** is 5.0% (up from 4.9% last week).
- As of 10/27, 1,081 patients are **hospitalized** with COVID-19, 230 patients are **in the ICU**, and hospital capacity is at 79%.
- As of 10/28, the **Effective Reproduction Number ( $R_t$ )** in Virginia is 1.06. *An  $R_t$  greater than 1.0 indicates the virus is expanding within the population.*

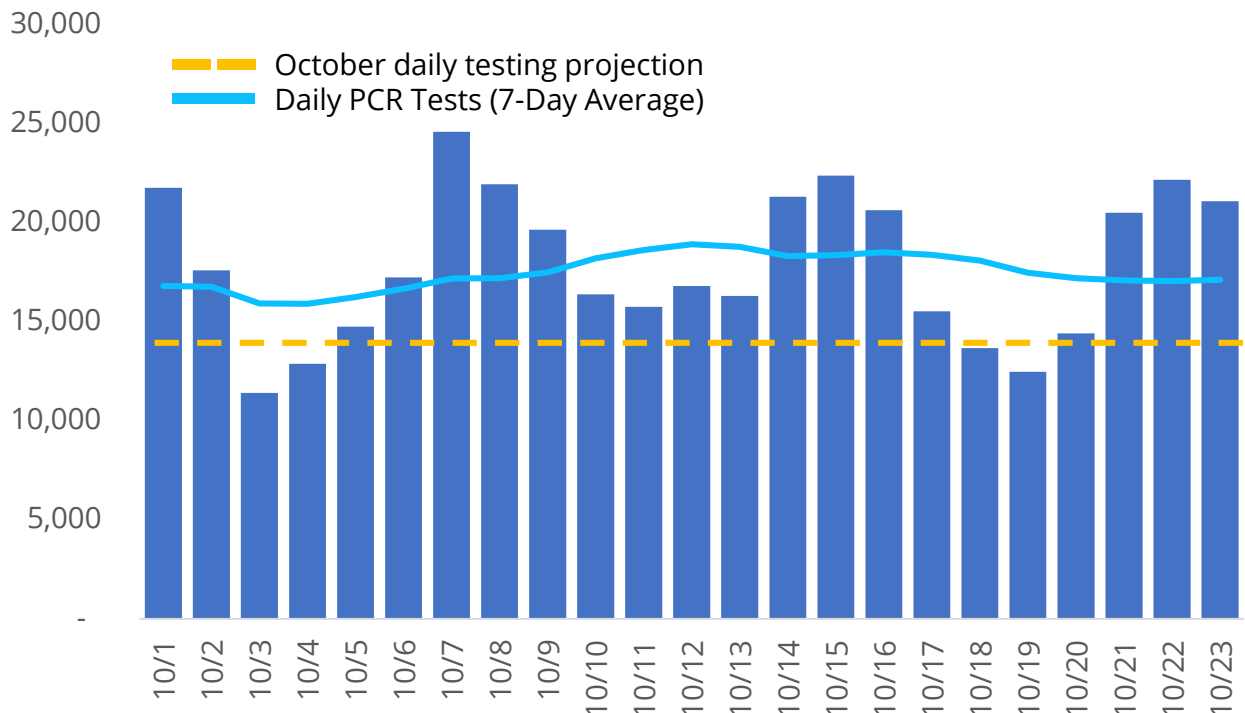
1. To account for delays in adding more recent data, a 3-day buffer is applied to lab data. The latest day of full data as of this report is 10/23.



# Statewide View: PCR Tests Conducted – October

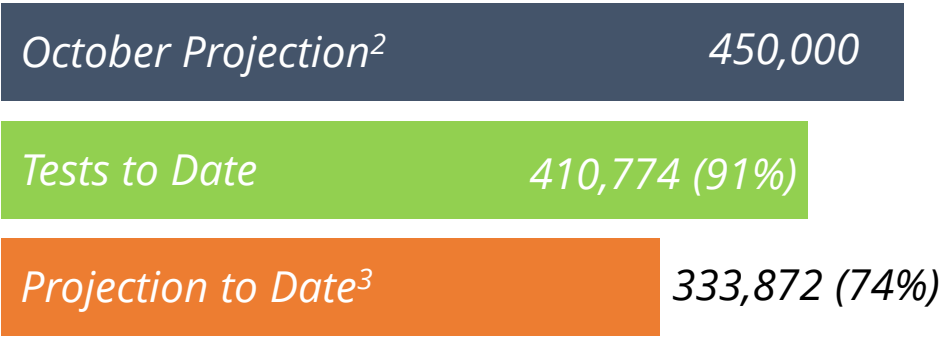
The UVA Adaptive Fit Scenario is used to develop an overall picture of expected cases statewide for the month. This projection, coupled with an assumption of 10 contacts per case and an overall goal of expanding testing capacity, suggested a target of 450,000 tests for October (14,516 tests per day).

## Daily Statewide Number of PCR Tests Conducted: October<sup>1</sup>



1. To account for delays in adding more recent data, a 3-day buffer is applied to lab data. The latest day of full data as of this report is 10/23.

## Progress Toward October PCR Testing Projection



- 2. Testing projections are informed by The UVA Adaptive Fit Scenario, the Harvard Global Health Institute, and the goal to increase testing capacity across the state.
- 3. Projection to Date (as of 10/23) represents the number of tests that should have been completed by this time in the month to track to the amount needed as projected.

The current 7-day average PCR tests per day is 17,098, exceeding the daily target of 14,516. Virginia is on track to meet the October projection of 450,000 total tests.

# Trend Analysis by Locality, Cases Per 100K, Last 14 Days

	LOCALITY	GROWTH IN CASES	CHANGE IN TREND	RECENT CASES	PER 100K		LOCALITY	GROWTH IN CASES	CHANGE IN TREND	RECENT CASES	PER 100K
1	Radford	Increasing	Still Increasing	149	812	16	Martinsville	Flat or Decreasing	Increasing to Decreasing	47	364
2	Lexington	Decreasing	Increasing to Decreasing	56	785	17	Prince Edward	Decreasing	Increasing to Decreasing	81	353
3	Salem	Flat or Increasing	Still Increasing	173	675	18	Prince George	Decreasing	Increasing to Decreasing	126	331
4	Scott	Increasing	Still Increasing	134	622	19	Wise	Increasing	Still Increasing	125	329
5	Southampton	Decreasing	Still Decreasing	102	580	20	Bristol	Flat or Increasing	Still Increasing	54	328
6	Lee	Increasing	Still Increasing	136	578	21	Tazewell	Increasing	Decreasing to Increasing	131	321
7	Emporia	Increasing	Still Increasing	27	527	22	Harrisonburg	Flat or Decreasing	Increasing to Decreasing	168	311
8	Roanoke City	Increasing	Still Increasing	518	518	23	Petersburg	Flat or Decreasing	Increasing to Decreasing	98	310
9	Greensville	Decreasing	Increasing to Decreasing	59	507	24	Amherst	Flat or Decreasing	Increasing to Decreasing	96	303
10	Franklin County	Flat or Decreasing	Increasing to Decreasing	265	472	25	Danville	Decreasing	Increasing to Decreasing	119	292
11	Russell	Flat or Decreasing	Increasing to Decreasing	123	460	26	Bedford	Flat or Decreasing	Increasing to Decreasing	230	292
12	Washington	Increasing	Still Increasing	238	437	27	Nottoway	Decreasing	Increasing to Decreasing	45	292
13	Franklin City	Flat or Decreasing	Increasing to Decreasing	35	437	28	Lynchburg	Flat or Decreasing	Increasing to Decreasing	229	279
14	Montgomery	Flat or Increasing	Still Increasing	370	374	29	Halifax	Flat or Increasing	Still Increasing	94	275
15	Roanoke County	Flat or Increasing	Still Increasing	347	369	30	Galax	Increasing	Decreasing to Increasing	17	265

**Growth in Cases** = Trend over last 14 days

**Change in Trend** = Trend 0-14 days compared to case trend in prior 14-28 days

**Recent Cases** = New cases over last 14 days

**Per 100K** = New cases over last 14 days per 100K

**Green** = Top 3 localities where trend improved over last 14 days

**Red** = Top 3 localities where trend worsened over last 14 days

# Trend Analysis by Locality, Deaths Per 100K, Last 14 Days

	LOCALITY	GROWTH IN DEATHS	CHANGE IN TREND	RECENT DEATHS	PER 100K		LOCALITY	GROWTH IN DEATHS	CHANGE IN TREND OVER	RECENT DEATHS	PER 100K
1	Southampton	Increasing	Decreasing to Increasing	8	45	16	Lancaster	Increasing	Flat to Increasing	1	9
2	Emporia	Increasing	Flat to Increasing	2	39	17	Washington	Increasing	Decreasing to Increasing	5	9
3	Franklin City	Flat or Increasing	Decreasing to Increasing	3	37	18	Sussex	Increasing	Decreasing to Increasing	1	9
4	Greensville	Increasing	Flat to Increasing	4	34	19	Lee	Decreasing	Increasing to Decreasing	2	8
5	Surry	Decreasing	Flat to Decreasing	2	31	20	Charlotte	Increasing	Flat to Increasing	1	8
6	Warren	Increasing	Flat to Increasing	7	17	21	Lunenburg	Increasing	Flat to Increasing	1	8
7	Smyth	Flat or Increasing	Decreasing to Increasing	5	16	22	Northumberland	Flat or Decreasing	Flat to Decreasing	1	8
8	King and Queen	Increasing	Flat to Increasing	1	14	23	Martinsville	Increasing	Decreasing to Increasing	1	8
9	Isle of Wight	Flat or Increasing	Still Increasing	5	14	24	Amelia	Decreasing	Flat to Decreasing	1	8
10	Carroll	Increasing	Still Increasing	4	13	25	Roanoke City	Flat or Increasing	Decreasing to Increasing	7	7
11	Grayson	Flat or Decreasing	Still Decreasing	2	13	26	Richmond City	Increasing	Decreasing to Increasing	15	7
12	Appomattox	Flat or Increasing	Still Increasing	2	13	27	Nottoway	Increasing	Decreasing to Increasing	1	6
13	Staunton	Increasing	Flat to Increasing	3	12	28	Roanoke County	Increasing	Decreasing to Increasing	6	6
14	Pittsylvania	Flat or Increasing	Still Increasing	6	10	29	Portsmouth	Flat or Increasing	Still Increasing	6	6
15	Danville	Flat or Increasing	Still Increasing	4	10	30	Amherst	Flat or Increasing	Flat to Increasing	2	6

**Growth in Deaths** = Trend over last 14 days

**Change in Trend** = Trend 0-14 days compared to trend in prior 14-28 days

**Recent Deaths** = New deaths over last 14 days

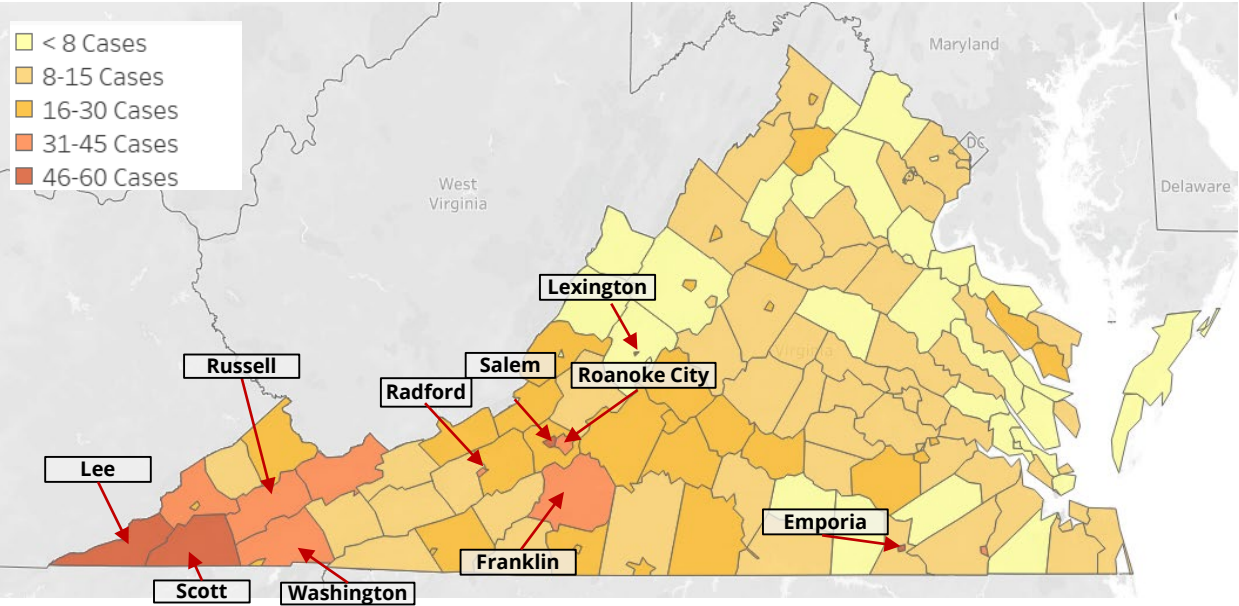
**Per 100K** = New deaths over last 14 days per 100K

**Green** = Top 3 localities where trend improved over last 14 days

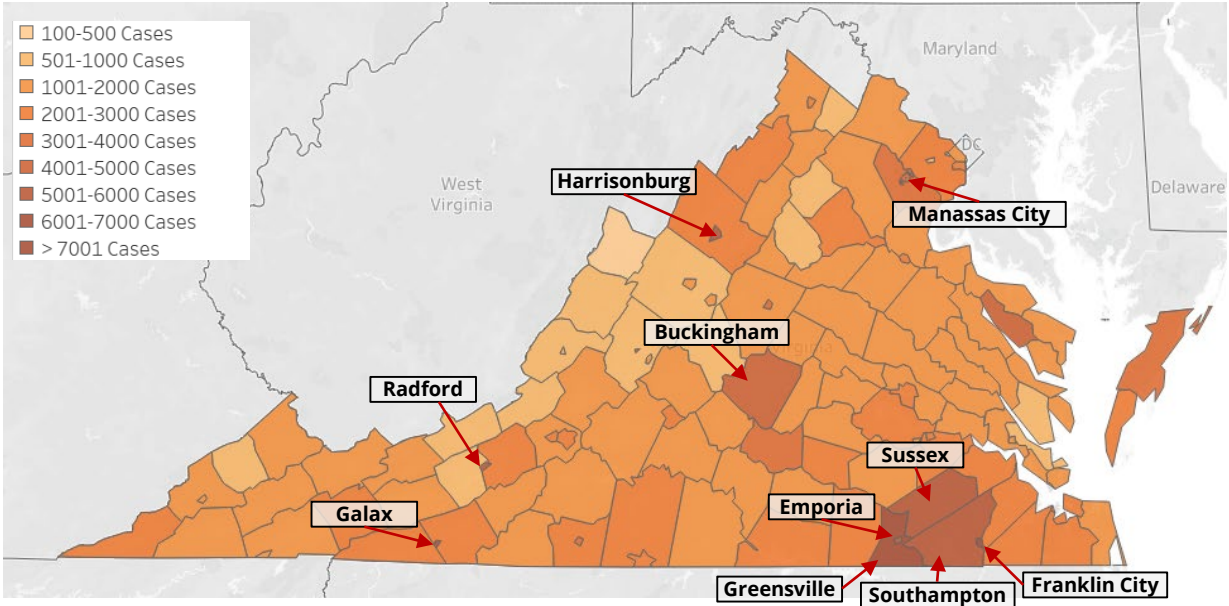
**Red** = Top 3 localities where trend worsened over last 14 days



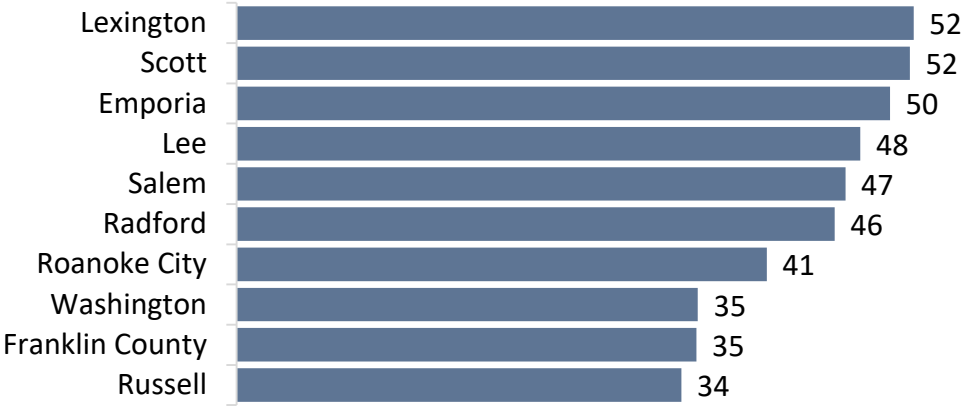
7-Day Average Daily New Cases Per 100k



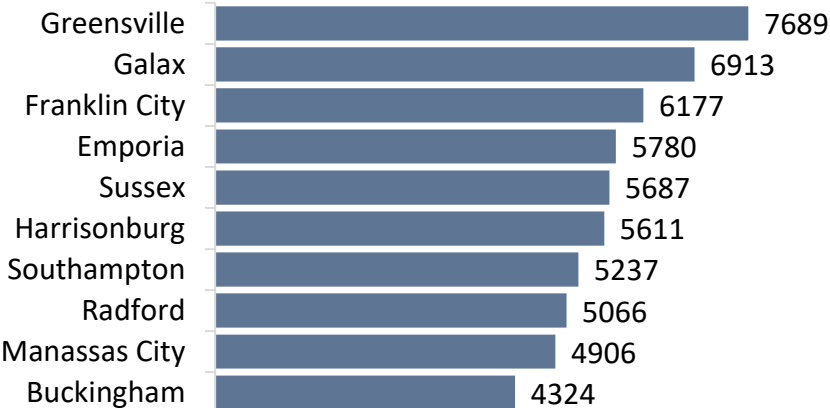
Total Cumulative Cases Per 100K



Top Localities Sorted: 7-Day Average Daily New Cases Per 100k



Top Localities Sorted: Total Cumulative Cases Per 100k

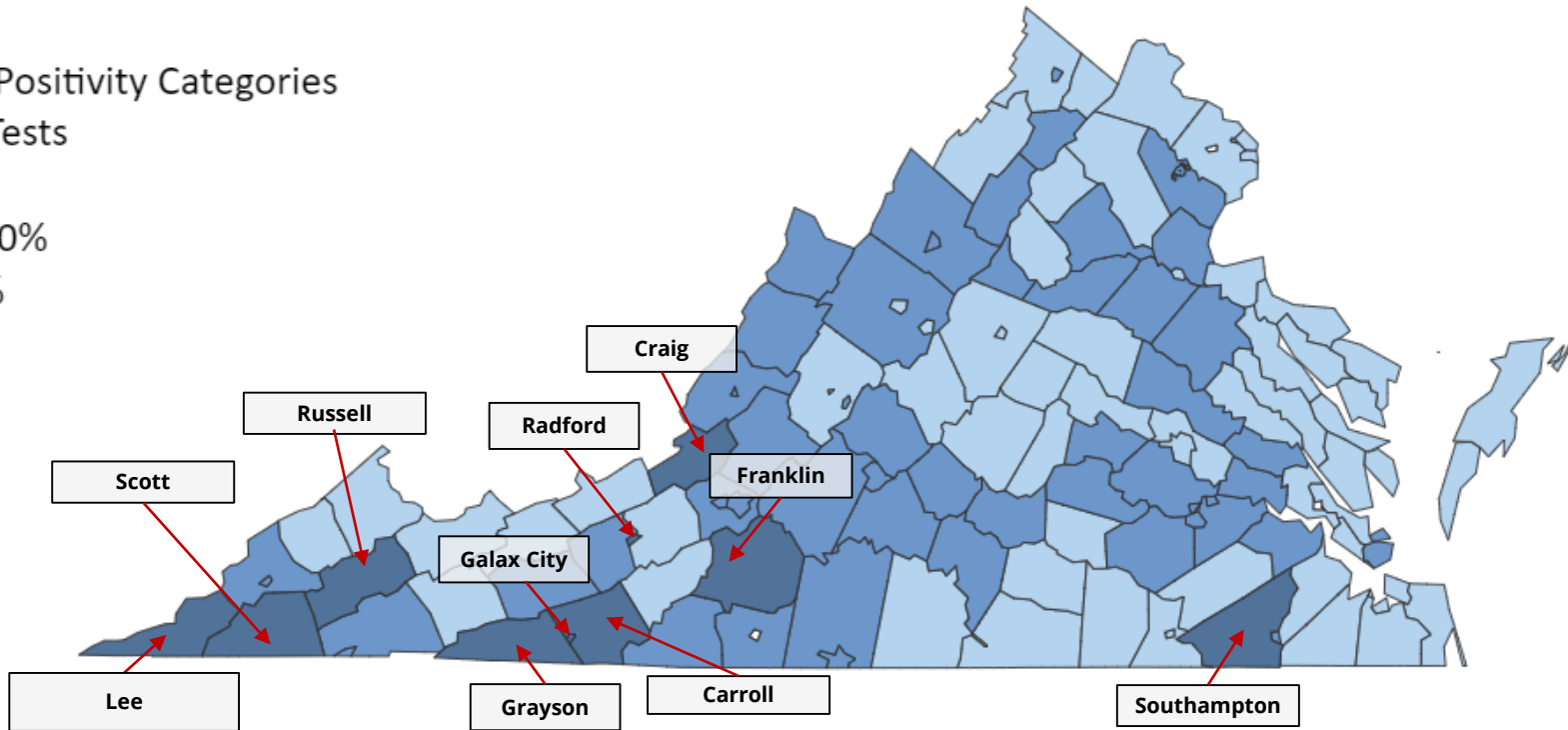
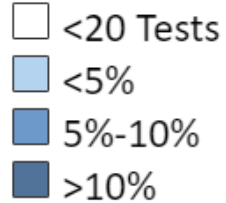


# Locality View: Positivity Rate

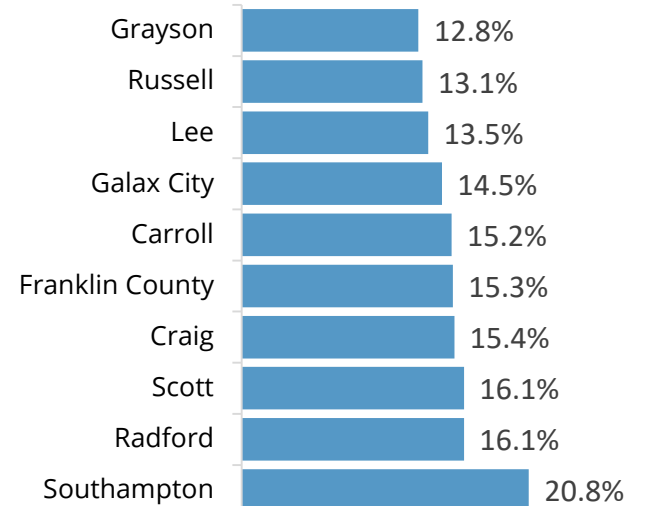
## 14-Day Positivity Rate by Locality

(October 10, 2020 to October 23, 2020)<sup>1</sup>

### Percent Positivity Categories



### Localities with 14-Day Positivity Rates over 10%

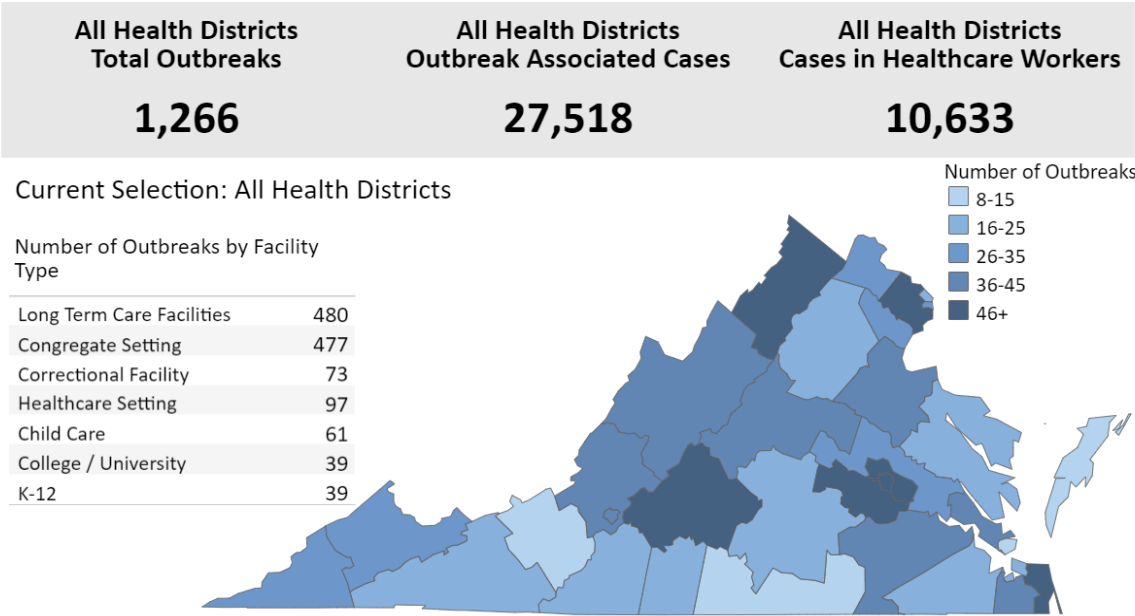


### Quick Facts

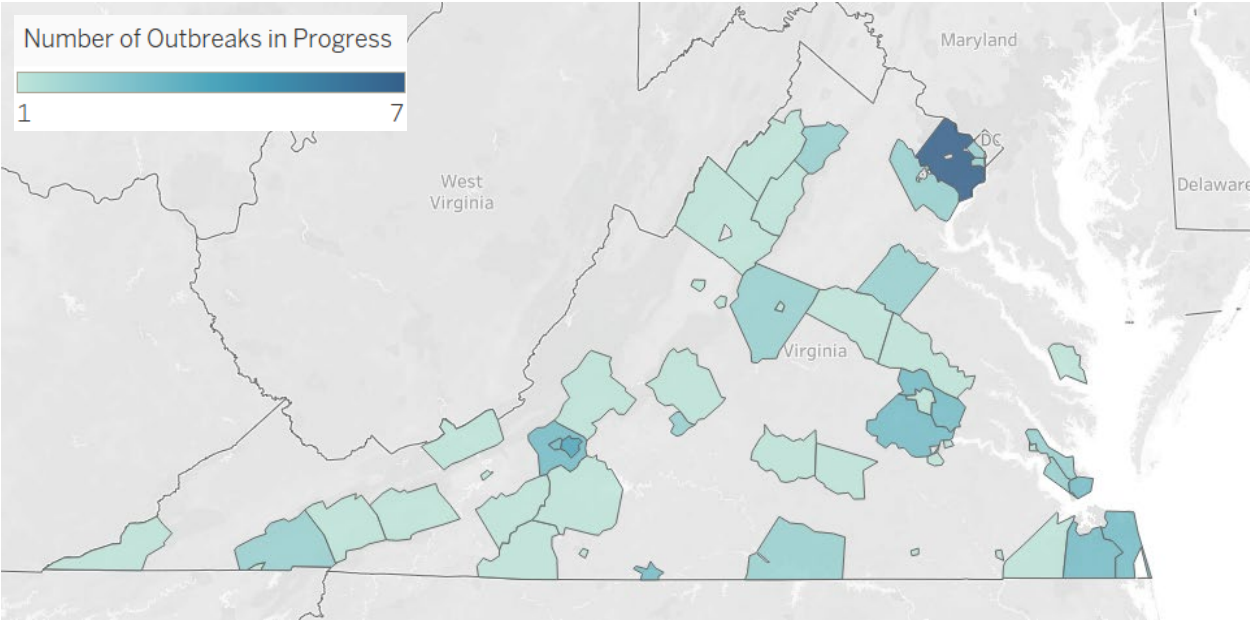
- Virginia's 7-day positivity rate of **5.0%** is 1.2 percentage points below the national average of **6.2%**.
- **92%** of localities (123 of 133) are meeting the absolute goal of 7-day positivity rates less than 10%.
- **8%** of localities (10 of 133) have positivity rates above 10%, and the locality with the highest 7-day positivity rate is **Southampton** (20.8%).

1. Testing data are provided at the locality level with the exception of Covington, Emporia, Lexington, and Manassas Park. Based on how laboratory results are reported, data from these small jurisdictions are not trustworthy on their own. The surrounding localities of Alleghany, Greensville, Rockbridge, and Manassas are displayed instead. (Source: VDH Website)

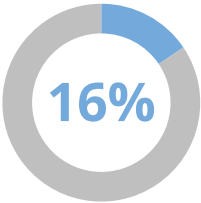
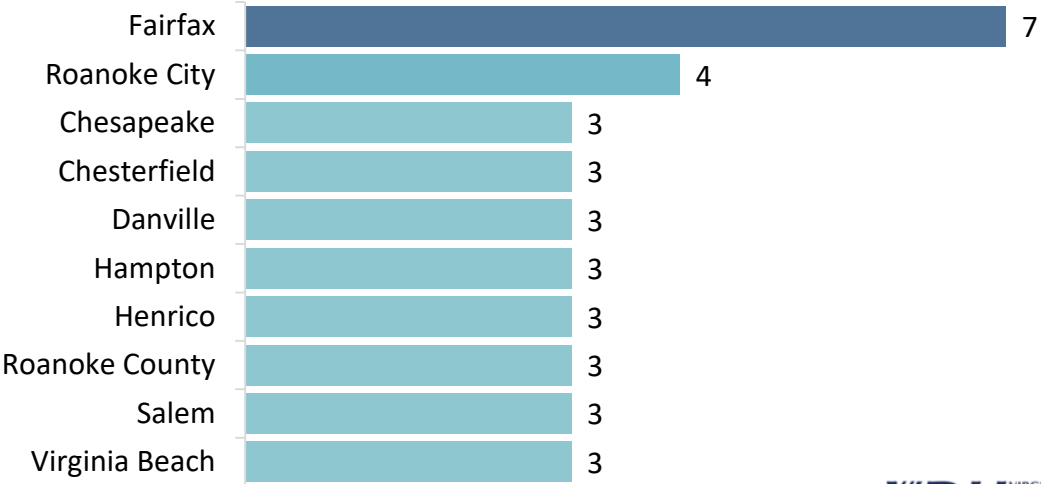
Cumulative Outbreaks



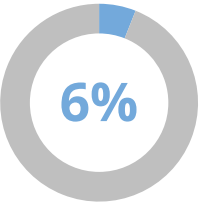
LTCF Outbreaks in Progress



Localities with the Most LTCF Outbreaks in Progress



Percent of cases in VA that are outbreak related



Percent of healthcare worker cases in VA

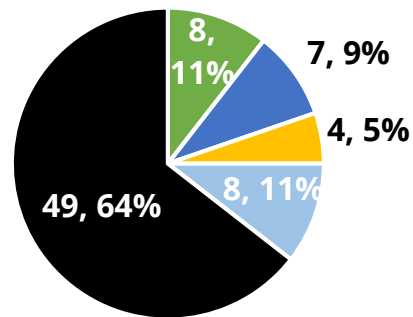
# Community Testing Events This Week (10/25-10/31)

Region	Health District	Events	Estimated Tests	Individuals Targeted
Central	Chesterfield	3	275	General Population
Central	Chickahominy	1	20	Low-income, people of color, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Central	Crater	2	120	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Central	Richmond City	2	300	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Eastern	Peninsula	1	150	General Population
Eastern	Portsmouth	1	150	General Population
Eastern	Three Rivers	2	300	General Population
Eastern	Western Tidewater	3	300	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Northern	Alexandria	1	100	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured
Northern	Arlington	1	350	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Northern	Fairfax	2	200	Low-income, people of color, uninsured or underinsured
Northwest	Central Shenandoah	4	300	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Northwest	Rappahannock	2	400	General Population
Northwest	Thomas Jefferson	2	225	General Population
Southwest	Alleghany/Roanoke	2	325	General Population
Southwest	Central Virginia	10	185	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Southwest	Cumberland Plateau	2	100	Low-income, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Southwest	Lenowisco	8	500	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Southwest	Mount Rogers	22	595	General Population
Southwest	West Piedmont	5	50	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs

**Events Planned**  
**76**

**Estimated Tests**  
**4,945**

Events by Region



■ Central
 ■ Eastern
 ■ Northern
 ■ Northwest
 ■ Southwest

Data source: REDCap. Numbers represent only Community Testing Events self-reported by LHDs to REDCap. LHDs may hold events that are unreported. Data reported Tuesday-Friday will be counted in the following week's SitRep.

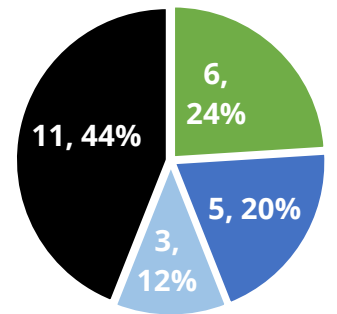
# Community Testing Events Next Week (11/1-11/7)

Region	Health District	Events	Estimated Tests	Individuals Targeted
Central	Chesterfield	4	390	General Population
Central	Piedmont	1	200	
Central	Southside	1	300	General Population
Eastern	Norfolk	1	250	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Eastern	Peninsula	1	200	General Population
Eastern	Three Rivers	2	350	General Population
Eastern	Western Tidewater	1	100	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Northwest	Rappahannock	2	400	General Population
Northwest	Thomas Jefferson	1	100	General Population
Southwest	Alleghany/Roanoke	1	100	General Population
Southwest	Central Virginia	7	120	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs
Southwest	Pittsylvania/Danville	1	300	General Population
Southwest	West Piedmont	2	300	Low-income, people of color, elevated health risk due to COVID-19, living in multi-generational households, uninsured or underinsured, individuals with access and functions needs

**Events Planned**  
**25**

**Estimated Tests**  
**3,110**

Events by Region



■ Central
 ■ Eastern  
■ Northern
 ■ Northwest  
■ Southwest

Data source: REDCap. Numbers represent only Community Testing Events self-reported by LHDs to REDCap. LHDs may hold events that are unreported. Data reported Tuesday-Friday will be counted in the following week's SitRep.



# PCR Testing Locations: Statewide Overview

## Number of PCR Testing Locations<sup>1</sup>

	This Week	Reported Last Week	% Change
FQHC	48	48	0%
Free Clinic (incl. Health Dept)	41	41	0%
Pharmacy	178	151	18%
Hospital/Healthcare System	55	55	0%
Primary Care/Private Practice	60	64	-6%
Urgent Care	143	143	0%
<b>Total Testing Sites</b>	<b>525</b>	<b>502</b>	<b>5%</b>

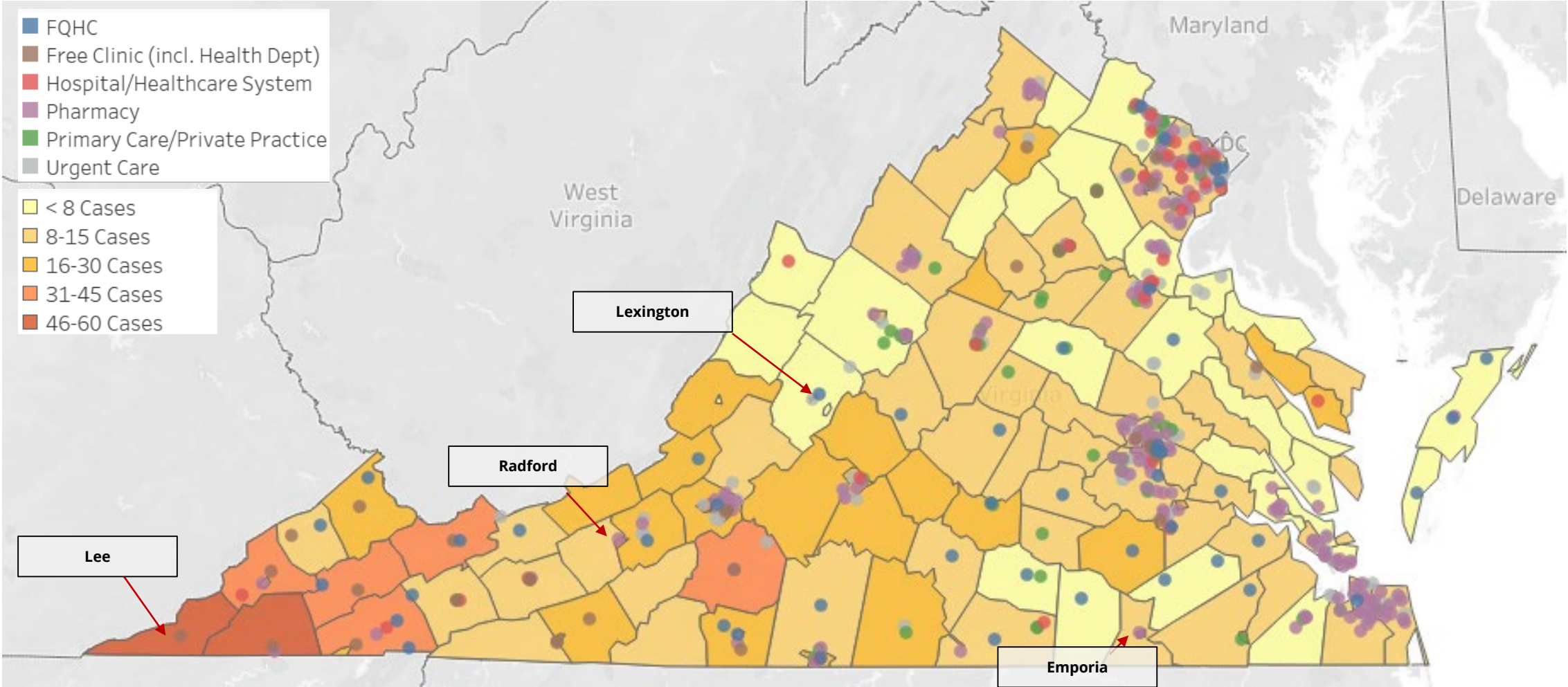
## Breakdown of Pharmacy Locations

Partner	Locations	Activities
CVS	114	CVSHealth utilizes a <a href="#">website</a> to maintain an accurate list of testing locations.
Walmart	22	No change
Rite Aid	8	Opened two new sites on 9/25
Independent	12	No change
Walgreens	22	Planning to open two new sites on 10/9 and two additional sites on 10/16
Kroger	NA	Exploring potential partnership to use at-home testing kits in congregate care settings

1. Showing permanent locations - does not include community testing events (CTE)

# Testing Locations Map: 7-Day Average Daily New Cases Per 100k vs. Testing Locations

Updated 10/28



Localities with High Daily New Cases Per 100k and Limited Permanent Testing Locations			
Locality	Local Health District	Daily New Cases Per 100k	Permanent Testing Sites (#)
Lexington	Central Shenandoah	52	VelocityCare - Lexington (1)
Emporia	Crater	50	CVS Pharmacy (1)
Lee	Lenowisco	48	Lee County Health Department (1)
Radford	New River	46	CVS Pharmacy (1)

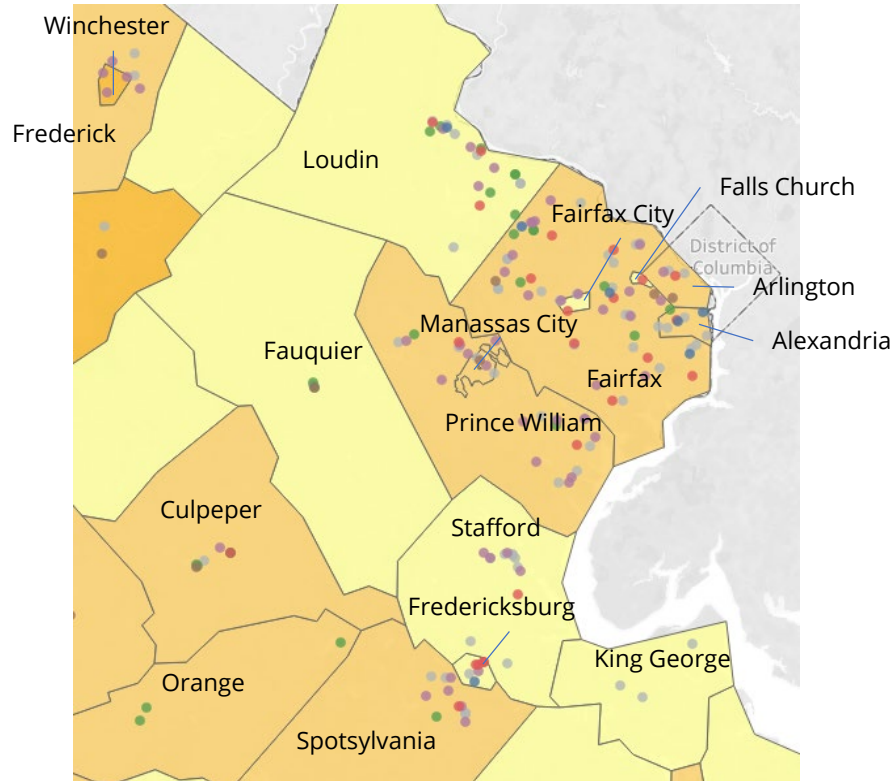
- **Central Shenandoah** held four CTEs this week, as reported in REDCap.
- **Crater** held two CTEs this week, as reported in REDCap.
- **Lenowisco** held eight CTEs this week, as reported in REDCap.
- **New River** did not have CTEs this week, as reported in REDCap

Data sources: Internal VDH, public pharmacy location data, Internal Testing Location Data, VDH Website (PublicUseDataset-Cases), NCHS 2018 Population Estimates

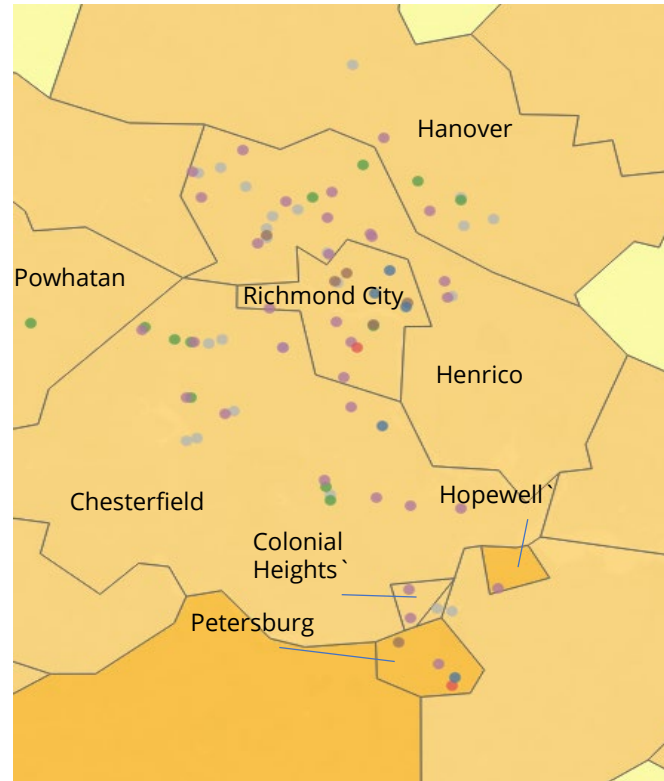
# Testing Locations Map: Urban Area Zoom-Ins

## 7-Day Average Daily New Cases Per 100k and Testing Locations

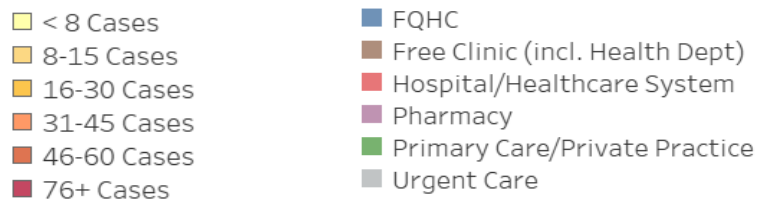
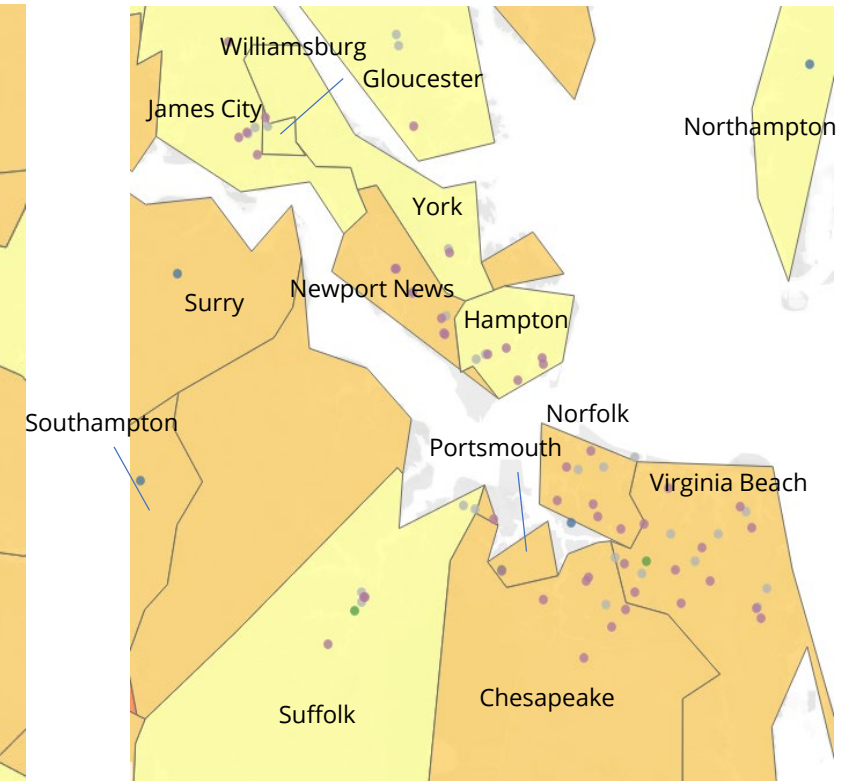
Washington, DC Area



Richmond



Newport News/ Virginia Beach





# Testing Locations Offering Free Testing by Local Health District

	Local Health District	CVS	Rite Aid	Walgreens	Walmart	Independent*	FQHC	Free Clinic	Total
Central	Chesterfield	9	1	2	1	2	1		16
	Chickahominy	1			1	1	1		4
	Crater	2		1			4	1	8
	Henrico	9			1	1		1	12
	Piedmont						5		5
	Richmond	2		4			3	4	13
	Southside	1					2		3
Eastern	Chesapeake	3	1	1	2				7
	Eastern Shore	1					3		4
	Hampton	2	1	1	1				5
	Norfolk	5		1	1		1		8
	Peninsula	5	2	1	2	1			11
	Portsmouth	3	1						4
	Three Rivers		1					1	2
	Virginia Beach	8			3				11
Northern	Western Tidewater		1	1			1		3
	Alexandria			1			1		2
	Arlington					1	1	1	3
	Fairfax	13		1		2	3	2	21
	Loudoun	4					1		5
	Prince William	9		2	2	3		1	17
	Rappahannock	11		1	1		2		15
Northwest	Central Shenandoah	5			2		1		8
	Lord Fairfax	5		1				1	7
	Rappahannock			1				3	4
	Thomas Jefferson	2					2		4
Southwest	Central Virginia	2			2				4
	Cumberland Plateau						4	4	8
	Lenowisco	1				1		3	5
	Mount Rogers			1			5	9	15
	New River	2					1		3
	Pittsylvania Danville	3		1	1		2		7
	Roanoke/Alleghany	4		1	2		2	2	11
	West Piedmont	2					2	2	6

## VA National Guard (VANG) Mission Overview

- Starting September 8<sup>th</sup>, VANG began supporting VDH-organized community testing events and PPS testing events.
- VANG support comprises four PPS strike teams and two PPE fit testing teams.
- The four PPS strike teams will work directly with the Community and Facility Testing Group and Regional Testing Liaisons to support community testing events and PPS testing events, including the ALF PPS Project.

### Current Reporting Period Activities (10/25-10/31)

- **Community Testing Events:**
  - Supporting **seven** events
  - Approximately **775** tests expected
- **Point Prevalence Survey events**
  - Supporting **seven** events at correctional facilities (4), educational facilities (1) and long term care facilities (2); **2,619** tests expected

### Next Reporting Period Activities (11/1-11/7)

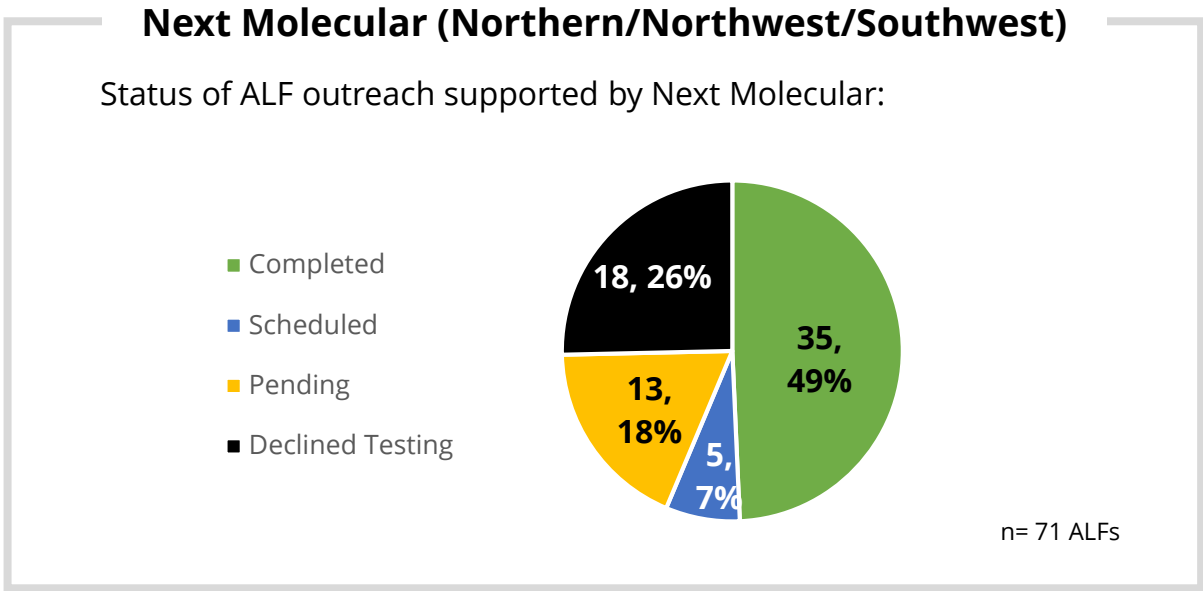
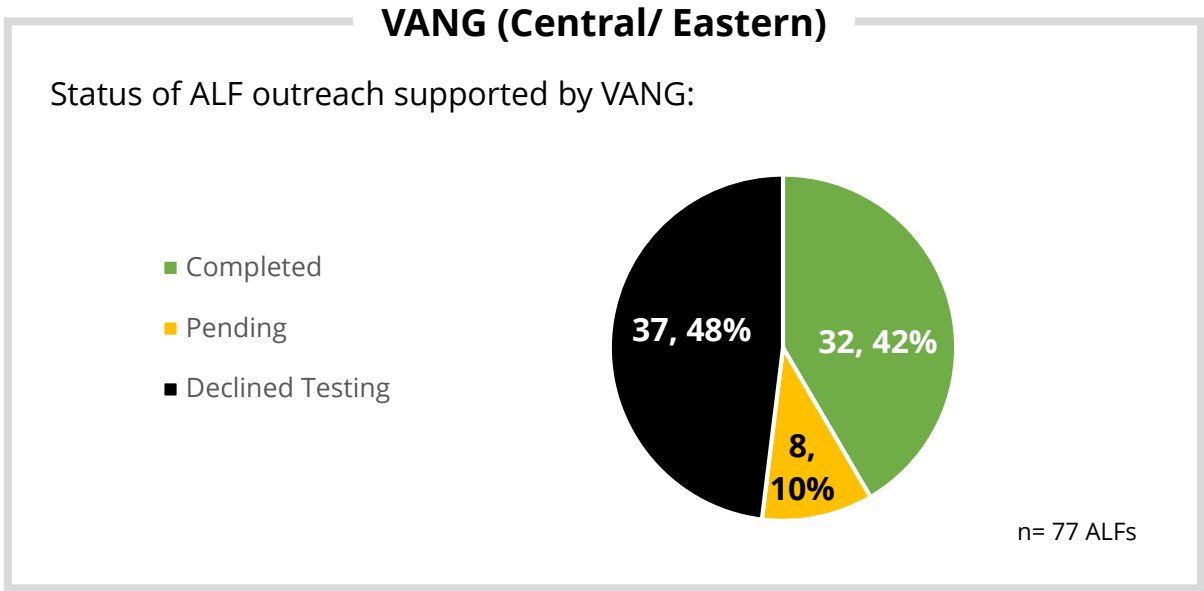
- **Community Testing Events:**
  - Supporting **seven** events
  - Approximately **1,600** tests expected
- **Point Prevalence Survey**
  - Supporting **four** events at correctional facilities; **2,493** tests expected

ALF PPS Project Updates

- Virginia National Guard (VANG) and Next Molecular are supporting VDH and VDSS in conducting baseline testing at all interested ALFs.
- Next Molecular is responsible for supporting activities in the Northern, Northwest, and Southwest VDH Regions. In total, Next Molecular is offering testing to 71 ALFs.
- VANG is responsible for supporting activities in the Central and Eastern VDH Regions. In total, VANG is offering testing to 77 ALFs.

ALF PPS Project Progress

VANG and Next Molecular are continuing to contact ALFs to determine interest and schedule testing. The status of their outreach to date is below.



## Media Communications/Concerns

- Three (3) media alerts related to testing.
- Topics of media interest: COVID-19 Vaccination Plan, Halloween guidance, change in close contact definition, COVIDWISE app, COVID-19 and LTCF
- Media coverage: *Washington Post*, *Virginia Mercury*, *The Roanoke Times*, *Richmond Times-Dispatch*, WSET, WRIC, NBC12

## Testing Advisory Council (TAC) Updates

- Key updates from the TAC meeting held on 10/22:
  - Drs. Jaber, Rossheim, and Toney presented.
  - Discussed statewide positivity rates.
  - Reviewed antigen testing guidance and resources.
  - Dr. Toney provided an update on DCLS, including the OneLab implementation and Abbott ID Now testing resources.

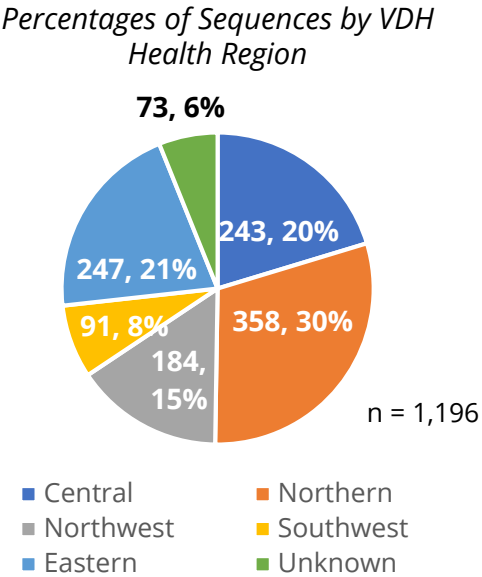
Overview of DCLS’ SARS-CoV-2 Sequencing Efforts

- DCLS was an early adopter of whole-genome sequencing (WGS) for Virginia SARS-CoV-2 (SC2) positive PCR specimens.
- Pathogens naturally mutate as they spread through a community; the incidence of mutations can be used as a marker of transmission in which similar mutations indicate closely related infections.
- Collection of SC2 sequences allows public health officials to monitor genetic diversity over time and across states, countries and continents. This improves the understanding of viral transmission dynamics and can identify the emergence of notable genetic variants.
- DCLS is prioritizing sequencing of Virginia outbreak specimens and representative samples from across the Commonwealth.

Key SARS-CoV-2 Sequencing Metrics (as of 10/21)

The team has sequenced **1,196** VA patient specimens with the following observations:

- **138 outbreaks identified** and investigated with sequencing by LHDs
- 110 outbreaks with **more than 1 sample** sequenced
- 25 outbreaks with **strong evidence of multiple virus introductions**; 4 additional with suspected evidence

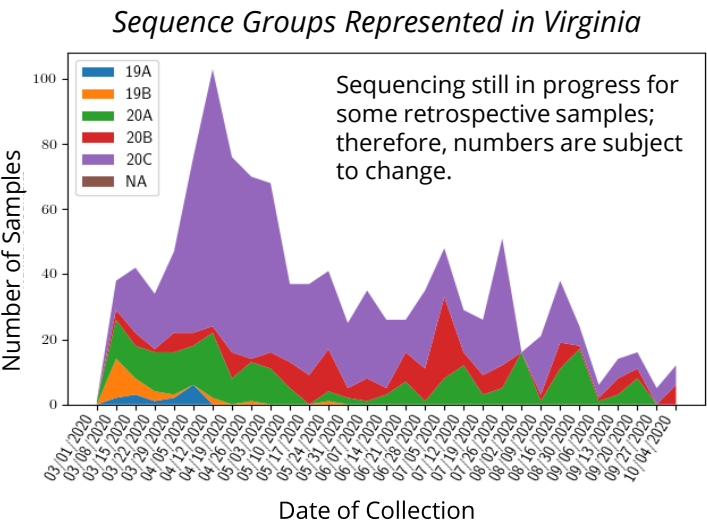


Virginia SARS-CoV-2 Sequence Group Trends

Early in the pandemic, more SC2 sequence groups were circulating in Virginia due to global and inter-state travel; **recent sequencing indicates that groups 20A, 20B, and 20C are currently the most common.**

Currently, there are five major sequence groups described for SC2\*.

- 19A and 19B emerged in Wuhan and were predominant early in the outbreak.
- 20A emerged from 19A during the European outbreak in March and has spread globally; 20B and 20C are large genetically distinct subgroups of 20A.



# Media Monitoring

**After 6 recent positive coronavirus tests, Virginia Beach jail will test all inmates, staff** (10/28): Following several new positive coronavirus cases among its staff and inmates, the Virginia Beach Sheriff's Office will do thorough testing and add new precautions to prevent additional spread. The sheriff's office said four deputies and two inmates have tested positive for the coronavirus since Oct. 16. Two of the deputies were assigned to correctional operations, and the other two were court security.

**Modelers: Coronavirus, now at 1,000-plus cases a day, to double if behavior doesn't change** (10/26): Virginia is averaging more than 1,000 new coronavirus cases each day, and unless people's behavior changes, the pace is likely to double and hit its peak by mid-December, according to the latest forecast by University of Virginia modelers. The model calls for nearly 15,000 new cases a week in December.

**Virginia Department of Health dashboard shows state has had 25 COVID-19 outbreaks in K-12 schools** (10/26): The Virginia Department of Health reported 174,275 total COVID-19 cases on Monday — a 904-case increase from Sunday — and 3,581 total deaths, an increase of two. More than 36,000 of those cases are within the 20-29 age group, and 27,136 cases are from the state's 1,238 outbreaks. The VDH classifies an outbreak as at least two lab-confirmed cases.

**11 dead, dozens more COVID-stricken, as Tyler's Retreat at Iron Bridge outbreak continues** (10/26): Chesterfield County's Health District Director Dr. Alexander Samuel confirms 11 people have died after testing positive for coronavirus at Tyler's Retreat at Iron Bridge. The retirement community is currently dealing with 35 positive cases among staff members and 69 positive cases among residents.

**TESTING TIMES: As COVID-19 cases rise, so does 'pandemic fatigue'** (10/24): As new cases of COVID-19 increase in Prince William County and across Northern Virginia, experts are expressing concern about the winter and the onset of "pandemic fatigue." According to updated Virginia Department of Health data released Monday, Northern Virginia is back up to a "moderate" level of community transmission for the virus that causes COVID-19.

**Virginia health officials urge community to take restrictions seriously as COVID-19 cases rise** (10/18): Hospital beds for Roanoke City COVID-19 patients in are approaching 90% capacity. As COVID-19 cases continue to rise in the region, health officials are planning and preparing to distribute a vaccine once its ready. Until then, the Virginia Department of Health is using new measures to prevent the spread of the virus. The Virginia Department of Health and Roanoke Valley Children's Choir teamed up to make a jingle once again asking the community to help prevent the spread of COVID-19.

## Trend analysis approach: Positive Cases and Recent Deaths

### Methodology for analyzing trends:

1. Calculated 7-day moving average of daily changes in cases per 100K for last 14 days for each locality
2. Linear regression was used to identify best fit line corresponding to moving averages calculated in the step above
3. The slopes of the regression lines for each locality were compared using a distribution analysis with 5 categories as follows:

Trend Category	Description
Increasing	• above average of positive slopes (50-100 <sup>th</sup> percentile of positive trendline slope values)
Flat or increasing	• below average of positive slopes (0-49 <sup>th</sup> percentile of positive trendline slope values)
Flattening / Flat	• Slope = 0
Flat or decreasing	• above average of negative slopes (50-100 <sup>th</sup> percentile of negative trendline slope values approaching 0)
Decreasing	• below average of negative slopes (0-49 <sup>th</sup> percentile of negative trendline slope values)

4. Highlighted counties where the trends have drastically changed compared to past 14 days.