
May 13, 2020

Laura Young, MPH, CIC - Epidemiologist
Kristin Clay - Policy Analyst Senior
Julie Henderson - Director, OEHS
Virginia Department of Health

*Information is current as of the date presented, but is subject to change.*
BACKGROUND INFORMATION
Coronavirus Disease 2019

• On 2/11/20, WHO announced the official name for the disease that is causing the 2019 novel coronavirus outbreak

  • Disease: coronavirus disease 2019 (COVID-19)

  • Virus: severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

  • SARS-CoV-2 causes COVID-19
Coronavirus Disease 2019 (COVID-19)

• Several coronaviruses cause illness in people
  • Common colds
  • SARS (2002)
  • MERS (2012)
  • Novel coronavirus (2019)

TEM from the first U.S. case of COVID-19
Courtesy CDC
Human Coronaviruses

4 HCoVs are common around the world
- 0%-30% of upper respiratory tract infections in adults

3 highly pathogenic HCoVs
- Lower respiratory tract infections
  - 2002 - SARS-CoV-1
  - 2012 - MERS-CoV
## COVID-19 Compared with Past CoV Epidemics

<table>
<thead>
<tr>
<th>CoV</th>
<th>Origin</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SARS-CoV-2</strong></td>
<td>Dec 2019 (China)</td>
<td>3,517,345</td>
<td>243,401</td>
</tr>
<tr>
<td>As of 4/21/20*</td>
<td></td>
<td></td>
<td>CFR = 6.9%^</td>
</tr>
<tr>
<td><strong>MERS-CoV</strong></td>
<td>2012 (Saudi Arabia)</td>
<td>2,494</td>
<td>858</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CFR = 34%</td>
</tr>
<tr>
<td><strong>SARS-CoV</strong></td>
<td>2002 (China)</td>
<td>8,098</td>
<td>774</td>
</tr>
<tr>
<td></td>
<td>(None since 2004)</td>
<td></td>
<td>CFR = 10%</td>
</tr>
</tbody>
</table>

*Reported by the World Health Organization
^Estimate; CFR may depend on location

Sources: www.who.int/health-topics/coronavirus; diseases/novel-coronavirus-2019/situation-reports/
## How Contagious Is It?

<table>
<thead>
<tr>
<th>Disease</th>
<th>$R_0$</th>
</tr>
</thead>
<tbody>
<tr>
<td>MERS-CoV</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Seasonal influenza</td>
<td>1-2</td>
</tr>
<tr>
<td><strong>COVID-19</strong></td>
<td>Estimates as of 2/20/20: 2-2.5</td>
</tr>
<tr>
<td>SARS-CoV</td>
<td>3</td>
</tr>
<tr>
<td>Measles</td>
<td>12-18</td>
</tr>
</tbody>
</table>

[https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article](https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article)
Person-to-person spread

- Between people who are in close contact with one another (about 6 ft)
- Through respiratory droplets when an infected person coughs, sneezes, or talks
- Droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs
- COVID-19 may be spread by people who are not showing symptoms
What are High-Risk Exposures to COVID-19?

• Prolonged, close contact with confirmed case
  • Prolonged: > 10 minutes in community setting
  • Close contact: < 6 feet

• Household members of a confirmed case

• Healthcare workers not using proper personal protective equipment (PPE)
COVID-19: Transmission

Contaminated surfaces and objects

• It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly eyes.
• This is not thought to be the main way the virus spreads
• Cleaning and disinfection of high touch areas is still important
COVID-19: Environmental Stability

• Can survive for up to 72 hours on plastic and stainless steel, < 4 hours on copper and <24 hours on cardboard

• Surfaces can easily be cleaned with common household disinfectants that will kill the virus

• Always clean your hands with an alcohol-based hand rub or wash them with soap and water

• Avoid touching your eyes, mouth, or nose
COVID-19: Incubation Period

Time between infection and when signs of illness occur

Range: 2-14 days

- Average = 4-5 days
- Evidence of asymptomatic and/or pre-symptomatic transmission
- People are thought to be most contagious when they are most symptomatic (the sickest)
COVID-19: Symptoms

Spectrum ranges from none (asymptomatic) to mild to severe

- Chills
- Muscle pain
- Sore throat
- New loss of taste or smell

Risk Factors for Severe Illness

- Age \( \geq 65 \) years
- People who live in a nursing home or long-term care facility
- People of all ages with underlying conditions
  - Chronic lung disease, including moderate to severe asthma
  - Heart disease
  - Diabetes
  - Immunosuppressive conditions (e.g., cancer)
  - Chronic kidney disease undergoing dialysis
  - Liver disease
  - Severe obesity (BMI \( \geq 40 \))
Restrictions on Movement and Public Health Monitoring

**QUARANTINE**
- healthy person
- exposed
- staying at home + away from others

**VERSUS**

**ISOLATION**
- known case
- sick (even mild symptoms)
- staying at home + away from others
What to do if sick?

- Those with mild illness should **stay home and rest**
  - Drink plenty of fluids
  - Stay away from others in household

- For those needing to seek medical care, advise they **call ahead** to their healthcare provider

- For medical emergencies, **call 911**
GLOBAL INFORMATION
Key COVID-19 Events Globally

Cluster of 44 cases of pneumonia announced in Wuhan 12/31/19

First exported case from China diagnosed 1/13/20

>50,000 cases reported 2/15/20

WHO declared PHEIC 3/11/20

>3,000,000 cases reported 4/29/20

1/7/20 Novel coronavirus isolated in China

1/30/20 WHO declared PHEIC

3/7/20 >100,000 cases reported

3/19/20 >200,000 cases reported

Source: www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/
Which Countries Have Cases?

Globally, as of 6:42pm CEST, 12 May 2020, there have been 4,098,018 confirmed cases of COVID-19, including 283,271 deaths.

Source: https://covid19.who.int/
World Health Declaration: Public Health Emergency of International Concern

January 30, 2020

• A PHEIC is declared if an event poses a public health threat to other nations through the spread of disease and potentially requires a coordinated international response.
World Health Organization
Declaration: Pandemic

March 11, 2020

This is the first pandemic known to be caused by a coronavirus.
Key COVID-19 Events in the U.S.

- CDC developed rRT-PCR test: 1/19/20
- Entry restrictions for U.S.: 2/2/20
- Private lab testing began: 3/6/20
- “15 Days to Slow the Spread”: 3/16/20
- First U.S. case diagnosed: 1/21/20
- FDA issued EUA for diagnostic test: 2/4/20
- National State of Emergency: 3/13/20
- “Opening America Up Again”: 4/16/20
Epidemic Curve: U.S. Cases

As of 5/11/2020

Cases in the U.S. by State or Territory

This map shows COVID-19 cases and deaths reported by U.S. states, the District of Columbia, and other U.S.-affiliated jurisdictions. Hover over the map to see the number of cases and deaths reported in each jurisdiction. To go to a jurisdiction’s health department website, click on the jurisdiction on the map.

26 states report more than 10,000 cases of COVID-19.

Key COVID-19 Events in Virginia

- **ICS response activated**: 1/22/20
- **First positive case announced**: 3/7/20
- **DCLS began testing**: 2/29/20
- **State of Emergency issued**: 3/12/20
- **K-12 school closures**: 3/13/20
- **VDH reported first death**: 3/14/20
- **PHEO prohibits more than 10 patrons**: 3/17/20
Key COVID-19 Events in Virginia

K-12 schools closed for remainder of academic year as well as certain non-essential businesses
3/23/20

VA receives major disaster declaration from the federal gov’t
4/2/20

EO 61 – Outlines easing of certain restrictions beginning 5/15
5/8/20

3/30/20
Stay at Home order issued, active through 6/10/20

4/15/20
Business closure order extended through 5/8/20
### COVID-19 Cases in Virginia

Dashboard Updated: 5/12/2020, Data entered by 5:00 PM the prior day.

<table>
<thead>
<tr>
<th></th>
<th>Total Cases*</th>
<th>Total Hospitalizations**</th>
<th>Total Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing Encounters^</td>
<td>171,239</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unique People Tested^</td>
<td>154,130</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Confirmed+</td>
<td>Probable+</td>
<td>Confirmed+</td>
</tr>
<tr>
<td></td>
<td>24,601</td>
<td>1,199</td>
<td>864</td>
</tr>
<tr>
<td></td>
<td>Confirmed+</td>
<td>Probable+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3,373</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Confirmed+</td>
<td>Probable+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>864</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

Select Measure (Affects Map and Bar Chart)
- Cases
- Hospitalizations
- Deaths

Counts of Cases
- 0
- 1-19
- 20-99
- 100-199
- 200-299
- 300-499
- 500+

Select Counts or Rates (Affects Map)
- Counts
- Rates per 100,000

Rates that are based on counts less than 15 should be interpreted with caution.

# Outbreaks in Virginia

## COVID-19 Cases in Virginia: Outbreaks*

<table>
<thead>
<tr>
<th>All Health Districts</th>
<th>Total Outbreaks</th>
<th>Outbreak Associated Cases</th>
<th>Cases in Healthcare Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>275</td>
<td>5,780</td>
<td>1,883</td>
</tr>
</tbody>
</table>

### Current Selection: All Health Districts

<table>
<thead>
<tr>
<th>Number of Outbreaks by Facility Type</th>
<th>Long Term Care Facilities</th>
<th>Congregate Setting</th>
<th>Correctional Facility</th>
<th>Healthcare Setting</th>
<th>Educational Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>162</td>
<td>64</td>
<td>21</td>
<td>21</td>
<td>7</td>
</tr>
</tbody>
</table>

*Number of Outbreaks: 1-4, 5-9, 10-14, 15-19, 20+*
PUBLIC HEALTH RESPONSE
How Is the U.S. Responding?

- Declared public health emergency
- Travel restrictions and airport screening
- Surveillance
- Diagnostic test developed
- Expanded laboratory testing
- Ongoing research for treatment options
- Started on vaccine development
- Information and guidance
- Declared national emergency
- Social distancing
Information for Travelers

On March 31, U.S. Department of State issued a Level 4 Global Health Advisory - Do Not Travel.

CDC:
How is VDH Responding?

- Testing
- Case and Contact Investigation
- Outbreak Investigation
- Guidance to clinical and general community
- Partnering with other state and local agencies to assist response
- Education
  - Press releases
  - Statewide call center activated (877-ASK-VDH3)
TESTING INFORMATION
Testing for COVID-19

There are two kinds of tests available for COVID-19:

- **Viral tests** - tells you if you have the virus now
  - Respiratory specimen

- **Antibody tests** - tells you if you had a previous infection
  - Blood specimen
## COVID-19 Testing Availability

<table>
<thead>
<tr>
<th>Virginia Public Heath Lab (DCLS)</th>
<th>Private Labs</th>
<th>Community Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Molecular testing only</td>
<td>• List of private and commercial labs offering testing for Virginia residents is <a href="#">here</a></td>
<td>• Provide improved access to testing</td>
</tr>
<tr>
<td>• Reserved for patients meeting <a href="#">VDH public health priority investigation criteria</a></td>
<td>• VDH approval is not necessary</td>
<td>• VDH approval is not necessary</td>
</tr>
<tr>
<td>• <a href="#">VDH approval is required</a> - specimens should not be sent without approval</td>
<td>• Contact your lab provider to determine testing availability</td>
<td>• Local health departments are working with community partners to set up testing sites and target hard-to-reach populations</td>
</tr>
<tr>
<td>• Specimen collection guidance available on <a href="#">DCLS website</a></td>
<td>• Provide complete demographic information on testing request form</td>
<td>• Testing event details provided by local health department or partners</td>
</tr>
</tbody>
</table>

List of available testing sites in Virginia is [here](#)
## Who Should Be Tested for COVID-19?

### Table 1. VDH Recommendations for prioritizing SARS-CoV-2 testing

<table>
<thead>
<tr>
<th>Priority</th>
<th>Private/Commercial Lab Testing</th>
<th>Public Health Lab Testing</th>
</tr>
</thead>
</table>
| High Priority | • Hospitalized patients*  
• Healthcare workers and first responders with COVID-19 symptoms*  
• Un- or underinsured persons with COVID-19 symptoms*  
• Workers and residents with COVID-19 symptoms* in, or newly arriving to, congregate settings (e.g., long-term care facilities, prisons, group homes, or jails) | • Outbreak investigations  
• Selected contact investigations  
• Un- or underinsured persons with COVID-19 symptoms*  
• Workers and residents with COVID-19 symptoms* in, or newly arriving to, congregate settings (e.g., long-term care facilities, prisons, or jails) |
| Priority   | • Persons with COVID-19 symptoms*  
• Persons without symptoms who are prioritized by clinicians based on their best clinical judgment (e.g. for medical procedures) | • Public health monitoring  
• Sentinel surveillance  
• Community testing clinics |

PHARMACEUTICAL INTERVENTIONS
Vaccination and Treatment

- No current antiviral treatment
- No current vaccine
- Studies and trials are underway
NON-PHARMACEUTICAL INTERVENTIONS
Nonpharmaceutical Interventions
• Avoid close contact with people who are sick
• Cover coughs and sneezes
• Avoid touching your face
• Wear a cloth face covering when in public
• Clean and Disinfect surfaces
• Wash hands
• Stay home when sick
• Practice social distancing (maintain 6 feet from others)
Social Distancing

• Essential to prevent person-to-person spread
• Remain $\geq 6$ feet from others
• Do not gather in groups
“Flatten the Curve”

Source: Adapted from CDC [www.cdc.gov/mmwr/volumes/66/rr/rr6601a1.htm#F1_down]
10 ways to manage respiratory symptoms at home

If you have fever, cough, or shortness of breath, call your healthcare provider. They may tell you to manage your care from home. Follow these tips:

1. **Stay home** from work, school, and away from other public places. If you must go out, avoid using any kind of public transportation, ridesharing, or taxis.

2. **Monitor your symptoms** carefully. If your symptoms get worse, call your healthcare provider immediately.

3. **Get rest and stay hydrated.**

4. If you have a medical appointment, **call the healthcare provider** ahead of time and tell them that you have or may have COVID-19.

5. **For medical emergencies, call 911 and notify the dispatch personnel** that you have or may have COVID-19.

6. **Cover your cough and sneezes.**

7. **Wash your hands often** with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol.

8. **As much as possible, stay in a specific room and away from other people** in your home. Also, you should use a separate bathroom, if available. If you need to be around other people in or outside of the home, wear a facemask.

9. **Avoid sharing personal items** with other people in your household, like dishes, towels, and bedding.

10. **Clean all surfaces** that are touched often, like counters, tabletops, and doorknobs. Use household cleaning sprays or wipes according to the label instructions.

For more information: [www.cdc.gov/COVID19](http://www.cdc.gov/COVID19)
Guidance for Migrant Labor Camp Operators
Essential Critical Workers

- While many businesses have temporarily closed or switched to remote work, many work sectors are designated as essential, including workers in food and agriculture.
- Essential work sectors must implement precautions to protect their workers and operations as community transmission of COVID-19 continues in Virginia.
PREPARE

- **COMMUNICATE** with local public health
- **IDENTIFY** medical isolation and quarantine spaces ahead of time
- **PLAN** for staff absences and encourage sick employees to stay home
- **POST** information around the facility on COVID-19 symptoms and hygiene
- **CHECK** supply stocks (cleaning supplies, hand washing supplies, medical supplies, PPE)
Be Prepared

• Keep in contact with community partners
  • Maintain contact info with your local health department, local healthcare facilities and other state/local agencies

• Stay up to date on information about COVID-19 from CDC and VDH

• Develop a plan to house sick employees away from healthy employees

• Develop a plan for healthcare support if an employee becomes ill
Be Prepared

• Plan for absences to allow sick employees to stay home when possible
• Ensure sufficient stocks of hygiene supplies, cleaning supplies, medical supplies and personal care items
• Provide personal protective equipment such as a facemasks that an employee will need if they develop symptoms
  • CDC recommends that all people wear a cloth face covering in public settings when they cannot practice social distance
    • Provide cloth face coverings to employees if they do not have them
Be Prepared - Congregate Space

• Facilitate social distancing in common areas and in shared sleeping spaces
  • Separate beds at least 6 feet apart
  • Arrange bunks so that individual sleep head to foot to increase distance
  • Consider the use of barriers between sleeping spaces
Be Prepared - Congregate Space

• Create a dining schedule and space out tables and chairs to allow for social distancing
  • Consider providing prepared/catered meals from a permitted food establishment

• Ensure that congregate spaces are well ventilated
  • Open windows as weather permits
  • Provide mechanical fans
Monitor Employee Health

- Employer or occupational health program administrator is strongly encouraged to monitor symptoms of all employees for **14 days after arrival**
  - A monitoring template is available from VDH
  - Employees should self monitor after the initial 14 days
  - Consider the use of non-contact thermometers
Hygiene and Social Distancing

• Provide signage about healthy hygiene practices in appropriate languages
  • Hand hygiene
  • Cough and sneeze etiquette
• Encourage and facilitate social distancing in areas where employees might congregate:
  • Recreation spaces
  • Dining areas
  • Transport (make additional trips to allow for social distancing if needed)
  • Living areas (rearrange furniture to promote social distancing)
Sanitation Practices

• Ensure employees have access to supplies such as soap, alcohol-based hand sanitizer, tissues and lined trash cans
  • Provide these items in common areas, sleeping areas and dining areas
• Use EPA-registered disinfectants or household bleach solutions to clean and disinfect frequently touched objects and surfaces including any shared equipment
• Maintain a cleaning schedule and regular housekeeping practices to ensure routine cleaning and disinfection of high touch surfaces and equipment
  • Doorknobs, tables, bathrooms, headsets
• Disinfect transportation vehicles prior and after transporting employees
Managing COVID-19 Cases and Contacts

**WHAT IS A CASE?**
A patient has a diagnosis of COVID-19.

**TAKE ACTION:**
Isolate.
Separate from people who are not sick to avoid spreading illness.

**WHAT IS A CONTACT?**
An individual had close contact while the case patient was infectious.

**TAKE ACTION:**
Quarantine.
Stay at home to limit community exposure to illness and to see if symptoms develop.

**WHAT IS A CONTACT OF A CONTACT?**
An individual had or continues to have close contact with a contact.

**TAKE ACTION:**
Everyday preventative actions.
Wash hands, cover coughs and sneezes, and clean surfaces frequently. Be alert for symptoms.
Managing Cases

• If an employee has a positive test for COVID-19 or has symptoms of COVID-19, provide the individual with a mask and isolate him or her from others
  • If the employee does not need medical attention and lives in a shared space, ideally provide the employee with a private room with a door
    • Limit movement outside of the isolation areas
    • Assign a dedicated bathroom, ideally attached to the sleeping area
    • Exclude from activities
    • Provide meals in the isolation areas
    • If leaving the isolation area, the employee should wear a face mask
Managing Cases

When can release from isolation occur?

**Symptom-based strategy:**
- At least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and,
- At least 10 days have passed since symptoms first appeared.

**Test-based strategy:**
- Resolution of fever without the use of fever-reducing medication and
- Improvement in respiratory symptoms, and
- Two negative viral tests collected at least 24 hours apart.
WHEN IT IS SAFE TO BE AROUND OTHERS:
ENDING ISOLATION IN NON-HEALTHCARE SETTINGS

For persons with confirmed or suspected COVID-19 to know when they are likely no longer contagious:

### Determining the end of isolation

**WITHOUT additional TESTING**

**If you had COVID-19 symptoms** and were directed to care for yourself at home, you can leave your "sick room" and home after these 3 things have happened:
- You have had no fever for at least 3 days (that is 72 hours of no fever **without** the use of medicine that reduces fevers), AND
- Other respiratory symptoms have improved (for example, when your cough or shortness of breath have improved), AND
- At least 10 days have passed since your symptoms first appeared.

**If you tested positive for COVID-19 and never had any symptoms** and were directed to care for yourself at home, you can leave your "sick room" and home if:
- At least 10 days* have passed since the date of your first positive COVID-19 diagnostic (molecular) test, AND
- You continue to have no symptoms (no cough or shortness of breath) since the test.

*Note: because symptoms cannot be used to gauge where these individuals are in the course of their illness, it is possible that the duration of viral shedding could be longer or shorter than 10 days after the first positive test.

### Determining the end of isolation

**WITH additional TESTING**

**If you had COVID-19 symptoms and will be tested to determine if you are still contagious,** you can leave your "sick room" and home after these 3 things have happened:
- You no longer have a fever (without fever-reducing medicine), AND
- Other respiratory symptoms have improved (for example, when your cough or shortness of breath have improved), AND
- Negative results of an FDA Emergency Use Authorization COVID-19 diagnostic (molecular) test from at least 2 consecutive respiratory specimens collected at least 24 hours apart (total of 2 negative specimens)**.

**If you tested positive for COVID-19 and never had any symptoms and will be tested to determine if you are still contagious,** you can leave your "sick room" and home after receiving:
- Negative results of an FDA Emergency Use Authorization COVID-19 diagnostic (molecular) test from at least 2 consecutive respiratory specimens collected at least 24 hours apart (total of 2 negative specimens)**.

**All test results should be final before isolation is ended. There have been reports of prolonged detection of RNA without direct correlation to viral culture; however, detecting viral RNA via PCR does not necessarily mean that infectious virus is present.**

- A longer timeframe after recovery may be desired to minimize the chance of prolonged shedding of active virus for 1) healthcare personnel in close contact with vulnerable persons at high-risk for severe COVID-19 and 2) persons who have conditions that might weaken their immune system. Such persons should consult with their healthcare provider; this might include additional PCR testing.
- Healthcare personnel should be excluded from work during isolation and then follow Return to Work Practices and Work Restrictions of universal source control and self-monitoring for symptoms.
- Based on CDC guidance for Discontinuation of Isolation in Non-Healthcare Settings aimed to prevent most instances of further spread.

May 11, 2020
Managing Contacts

• Contacts of a case should quarantine for 14 days
  • Individual quarantine is preferred, such as in a private room
    • It is preferable that exposed workers do not work during the quarantine period
  • If individual quarantine cannot be implemented, grouping of exposed employees may be necessary
    • Do NOT group ill employees with not ill employees
    • If grouping must occur, a large, well-ventilated room is preferable that allows for maintaining at least 6 feet between beds
Managing Contacts

- During the quarantine period, symptoms and temperature should be monitored daily
  - If symptoms develop, the employee should be isolated immediately if they are in a group setting
- Asymptomatic essential workers are permitted to work if necessary as long as precautions are taken
  - Pre-screening (daily symptom and temp check prior to starting work)
  - Regular monitoring (employee should self-report if symptoms develop)
  - Use of mask/cloth face covering at all times
  - Practicing social distancing
  - Cleaning and disinfection of work spaces
Contact Local Health Departments

www.vdh.virginia.gov/health-department-locator/
Comprehensive public information campaign - media, webpage, 211 call center (1-877-ASK-VDH3), targeted communications
Resources

• Virginia Department of Health (VDH)
  • 35 Local Health Districts
  • www.vdh.virginia.gov/coronavirus
  • Respiratory@vdh.virginia.gov
  • https://www.vdh.virginia.gov/environmental-health/

• Centers for Disease Control and Prevention (CDC)
  • www.cdc.gov/coronavirus/2019-nCoV

• World Health Organization (WHO)
  • www.who.int/emergencies/diseases/novel-coronavirus-2019
Questions?

laura.r.young@vdh.virginia.gov
kristin.clay@vdh.virginia.gov
julie.henderson@vdh.virginia.gov
Thank you!

Please send questions to:

respiratory@vdh.virginia.gov