



COMMONWEALTH of VIRGINIA

DEPARTMENT OF LABOR AND INDUSTRY

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VIRGINIA SAFETY AND HEALTH CODES BOARD

BRIEFING PACKAGE FOR

June 24, 2020

[ITEMS HIGHLIGHTED IN GREEN SUBJECT TO CHANGE]

Emergency Temporary Standard/ Emergency Regulation, Infectious Disease Prevention, SARS-CoV-2 Virus That Causes COVID-19, §16 VAC 25-220

I. Action Requested.

The VOSH Program requests the Safety and Health Codes Board adopt an Emergency Temporary Standard/Emergency Regulation, Infectious Disease Prevention, SARS-CoV-2 Virus That Causes COVID-19, §16 VAC 25-220, applicable to every employer, employee, and place of employment in the Commonwealth of Virginia within the jurisdiction of the VOSH program as described in §§16 VAC 25-60-20 and 16 VAC 25-60-30. Va. Code §40.1-22(6a) or Va. Code §2.2-4011.

II. Summary of Rulemaking Process.

A. Petition Concerning Poultry and Meat Processing.

On April 23, 2020, the Commissioner of Labor and Industry received a petition from the Virginia Legal Aid Justice Center (LAJC), Community Organizing, and Community Solidarity with the Poultry Workers organizations to enact an emergency regulation to address COVID-19 related workplace hazards in the poultry processing and meatpacking industries.

See Attachment A. On April 29, 2020, Commissioner C. Ray Davenport provided an initial response to the April 23rd petition letter.

On May 6, 2020, the Commissioner received a follow-up letter from the same petitioners. *See Attachment B.* On May 14, 2020, Commissioner C. Ray Davenport provided a follow-up response to the April 23rd and May 6th petition letters indicating that the petition would be submitted to the Virginia Safety and Health Codes Board for consideration.

B. Virginia Executive Order 63, issued May 26, 2020.

On May 26, 2020, Governor Ralph Northam issued a revised Executive Order 63¹ (EO 63), “Order of Public Health Emergency Five, Requirement to Wear Face Covering While Inside Buildings” that provides in part:

“E. Department of Labor and Industry

Except for paragraph B above, this Order does not apply to employees, employers, subcontractors, or other independent contractors in the workplace. **The Commissioner of the Virginia Department of Labor and Industry shall promulgate emergency regulations and standards to control, prevent, and mitigate the spread of COVID-19 in the workplace.** The regulations and standards adopted in accordance with §§ 40.1-22(6a) or 2.2-4011 of the Code of Virginia **shall apply to every employer, employee, and place of employment within the jurisdiction of the Virginia Occupational Safety and Health program as described in 16 Va. Admin. Code § 25-60-20 and Va. Admin. Code § 25-60-30.** These regulations and standards **must address personal protective equipment, respiratory protective equipment, and sanitation, access to employee exposure and medical records and hazard communication.** Further, these regulations and standards **may not conflict with requirements and guidelines applicable to businesses set out and incorporated into Amended Executive Order 61 and Amended Order of Public Health Emergency Three.**”² (Emphasis added). *See Attachment C* for Amended Executive Order 61.

Although EO 63 does not mention the Safety and Health Codes Board, the Governor issued a news release which says in part:

“The Governor is also directing the Commissioner of the Department of Labor and Industry to develop emergency temporary standards for occupational safety that will protect employees from the spread of COVID-19 in their workplaces. **These occupational safety standards will require the approval by vote of the Virginia Safety and Health Codes Board** and must address personal protective equipment, sanitation, record-keeping of incidents, and hazard communication. Upon approval,

¹ <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-63-and-Order-Of-Public-Health-Emergency-Five---Requirement-To-Wear-Face-Covering-While-Inside-Buildings.pdf>

² [https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-Of-Public-Health-Emergency-Three-AMENDED---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-Of-Public-Health-Emergency-Three-AMENDED---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)

the Department of Labor and Industry will be able to enforce the standards through civil penalties and business closures.”³ (Emphasis added).

C. Emergency Meeting of Safety and Health Codes Board.

On June 12, 2020 the Department posted a Notice of Meeting for a June 24, 2020 emergency meeting of the Safety and Health Codes Board to consider for adoption an Emergency Temporary Standard/Emergency Regulation (“ETS/ER”), Infectious Disease Prevention: SARS-CoV-2 Virus That Causes COVID-19, applicable to every employer, employee, and place of employment in the Commonwealth of Virginia within the jurisdiction of the VOSH program as described in §§16VAC 25-60-20 and 16 VAC 25-60-30.

On June 12, 2020 the Department also opened a 10 day Comment Forum to provide the public the opportunity to submit written comments on the Department’s request to consider for adoption an ETS/ER Infectious Disease Prevention, SARS-CoV-2 Virus that Causes COVID-19. The comment period closes on June 22, 2020, and the comments will be reviewed with the Board at its meeting on June 24, 2020.

D. Review Comments Submitted.

[A SUMMARY DOCUMENT WILL BE PROVIDED TO THE BOARD AND POSTED ON THE VIRGINIA REGULATORY TOWNHALL PRIOR TO THE EMERGENCY MEETING]

III. **Background.**

A. SARS-CoV-2 Virus That Causes the COVID-19 Disease.

SARS-CoV-2 is a betacoronavirus, like MERS-CoV (Middle East Respiratory Syndrome Coronavirus) and SARS-CoV (Severe Acute Respiratory Syndrome Coronavirus). Coronaviruses are named for the crown-like spikes on their surface. The SARS-CoV-2 causes what has been designated as the Coronavirus Disease 2019 (COVID-19).

At present the Virginia Safety and Health Codes Board has no regulations or standards specific to the SARS-CoV-2 virus or COVID-19 disease. SARS-CoV-2 is easily transmitted through the air from person-to-person through respiratory aerosols, and the aerosols can settle and deposit on environmental surfaces where they can remain viable for days.

There is currently no approved vaccine⁴ or effective antiviral treatment for COVID-19.⁵

COVID-19 symptoms include.⁶

³ <https://www.governor.virginia.gov/newsroom/all-releases/2020/may/headline-857020-en.html>

⁴ <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/coronavirus-disease-2019-covid-19-frequently-asked-questions>; See answer to question “Are there any vaccines or other medical products to prevent COVID-19?”

⁵ *Id.* See answer to question “Are there any FDA-approved drug products or medicines to treat COVID-19?”

⁶ <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus>

- Cough
- Fever
- Shortness of breath
- Muscle aches
- Sore throat
- Unexplained loss of taste or smell
- Diarrhea
- Headache

COVID-19 Medical Complications.

“Although most people with COVID-19 have mild to moderate symptoms, the disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with COVID-19.”⁷:

“Younger adults are also being hospitalized in the U.S. Adults 20–44 account for 20% of hospitalizations, 12% of ICU admissions.”⁸

“Emergency signs and symptoms can include:

- Trouble breathing
- Persistent chest pain or pressure
- Inability to stay awake
- New confusion
- Blue lips or face”⁹

“Complications can include:

- Pneumonia and trouble breathing
- Organ failure in several organs
- Heart problems
- A severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome)
- Blood clots
- Acute kidney injury
- Additional viral and bacterial infections”¹⁰

NOTE: See section IV. SARS-CoV-2 and COVID-19, General Information, Studies, and Statistics below for additional information.

⁷ <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>

⁸ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540747/all/Coronavirus_COVID_19_SA_RS_CoV_2

⁹ *Id.*

¹⁰ *Id.*

There are different sources from which general statistics on COVID-19 confirmed cases and deaths can be obtained:

National and State COVID-19 Case and Death Statistics.

Centers for Disease Control (CDC): U.S. and Virginia Statistics

As of June 11, 2020, there were 1,994,283 total cases (20,486 new cases compared to June 10, 2020) of COVID-19 and 112,967 deaths (834 new deaths compared to June 10, 2020).¹¹

Confirmed COVID-19 cases in Virginia totaled 52,647 with 1,520 deaths.

Johns Hopkins University: World, U.S. and Virginia Statistics

As of June 11, 2020 (4:33:25 pm)¹², there were 7,442,050 confirmed cases of COVID-19 and 418,563 deaths worldwide. COVID-19 has spread to 216 countries, areas, or territories, and all 50 states and territories in the United States.¹³

Confirmed COVID-19 cases in the United States totaled 2,015,214 resulting in 113,561 deaths.¹⁴

Confirmed COVID-19 cases in Virginia totaled 50,681, with 7,553 hospitalizations, 1,520 deaths, with 6,826 recovered.¹⁵

B. Situation Summary¹⁶

- The SARS-CoV-2 and COVID-19 outbreak was first detected in China in December 2019.
- On February 7, 2020, the Commissioner of the Virginia Department of Health (VDH) issued a Declaration of Public Emergency.¹⁷
- On March 7, the first case of COVID-19 in Virginia was announced.
- COVID-19 has now been detected in more than 200 nations internationally.
- On March 11, the World Health Organization characterized COVID-19 as a pandemic.
- On March 12, Governor Ralph S. Northam issued Executive Order 51, Declaration of a State of Emergency Due To Novel Coronavirus (Covid-19) in the Commonwealth of Virginia.¹⁸

¹¹ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

¹² <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

¹³ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

¹⁴ <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

¹⁵ *Id.*

¹⁶ <https://www.vdh.virginia.gov/coronavirus/> - Situation Summary Taken in Part from the Virginia Department of Health Website

¹⁷ <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/Order-of-the-Governor-and-State-Health-Commissioner-Declaration-of-Public-Health-Emergency.pdf>

¹⁸ [https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/EO-51-Declaration-of-a-State-of-Emergency-Due-to-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/EO-51-Declaration-of-a-State-of-Emergency-Due-to-Novel-Coronavirus-(COVID-19).pdf)

- On March 13, 2020, President Donald J. Trump declared a national emergency in response to the COVID-19 pandemic.¹⁹
- On March 17, Governor Northam and State Health Commissioner M. Norman Oliver, MD, MA issued a Declaration of Public Health Emergency.²⁰
- On March 23, Governor Northam issued Executive Order 53²¹ that orders the closure of certain non-essential businesses, bans all gatherings of more than 10 people, and closes all K-12 schools for the remainder of the academic year. Governor Northam also urged all Virginians to avoid non-essential travel outside the home, if and when possible. Food establishments are mandated to offer curbside takeout and delivery service only, or close to the public.
- On March 25, Governor Northam and State Health Commissioner M. Norman Oliver, MD, MA directed all hospitals to stop performing elective surgeries or procedures to help conserve supplies of personal protective equipment (PPE). Order of Public Health Emergency Two.²²
- On March 30, Governor Northam issued Executive Order 55²³, a statewide Temporary Stay at Home order. The executive order took effect immediately and will remain in place until June 10, 2020. The order directed all Virginians to stay home except in extremely limited circumstances. Individuals may leave their residence for allowable travel, including to seek medical attention, work, care for family or household members, obtain goods and services like groceries, prescriptions, and others as outlined in Executive Order Fifty-Three, and engage in outdoor activity with strict social distancing requirements.
- As of March 31, VDH reported widespread community transmission across the state. This means that COVID-19 is spreading within communities across Virginia.
- On May 8, Governor Northam issued Executive Order 61 and Order of Public Health Emergency Three, Phase One Easing of Certain Temporary Restrictions Due to Novel Coronavirus (COVID-19).²⁴
- On May 12, Governor Northam issued Executive Order 62 and Order of Public Health Emergency Four, Jurisdictions Temporarily Delayed from Entering Phase One in Executive Order 61 and Permitted to Remain in Phase Zero Northern Virginia Region.²⁵
- On May 14, Governor Northam issued Amended Executive Order 62 and Amended Order of Public Health Emergency Four, Jurisdictions Temporarily Delayed from

¹⁹ <https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/>

²⁰ <https://www.governor.virginia.gov/media/governorviriniagov/governor-of-virginia/pdf/Order-of-the-Governor-and-State-Health-Commissioner-Declaration-of-Public-Health-Emergency.pdf>

²¹ <https://www.governor.virginia.gov/newsroom/all-releases/2020/march/headline-855292-en.html>

²² <https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/Order-of-Public-Health-Emergency-Two---Order-of-The-Governor-and-State-Health-Commissioner.pdf>

²³ <https://www.governor.virginia.gov/newsroom/all-releases/2020/march/headline-855702-en.html>

²⁴ [https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)

²⁵ <https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/EO-62-and-Order-of-Public-Health-Emergency-Four---Jurisdictions-Temporarily-Delayed-From-Entering-Phase-One-in-Executive-Order-61-and-Permitted-to-Remain-in-Phase-Zero-Northern-Virginia-Region.pdf>

Entering Phase One in Executive Order 61 and Permitted to Remain in Phase Zero, Phase Zero Jurisdictions.²⁶

- On May 26, Governor Northam issued a revised Executive Order 63²⁷ (EO 63), “Order of Public Health Emergency Five, Requirement to Wear Face Covering While Inside Buildings.”

IV. SARS-CoV-2 and COVID-19, General Information, Studies, and Statistics.

A. General Information.

On SARS-CoV-2 and COVID-19

“SARS-CoV-2 is a Severe Acute Respiratory Syndrome²⁸ (SARS), Coronavirus²⁹ (a common human respiratory coronavirus infection). The name derives “from the Latin corona, meaning crown. Viral envelope under electron microscopy appears crown-like due to small bulbar projections formed by the viral spike (S) peplomers.”³⁰ “Coronavirus Disease³¹ 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus.”³²

“The Centers for Disease Control and Prevention (CDC) today confirmed the first case of 2019 Novel Coronavirus (2019-nCoV) in the United States in the state of Washington. The patient recently returned from Wuhan, China, where an outbreak of pneumonia caused by this novel coronavirus has been ongoing since December 2019.... The patient from Washington with confirmed 2019-nCoV infection returned to the United States from Wuhan on January 15, 2020.”³³

On Pandemics³⁴

“Viruses are constantly mutating. Those that trigger pandemics have enough novelty that the human immune system does not quickly recognize them as dangerous invaders. They force the body to create a brand-new defense, involving new antibodies and other immune system components that can react to and attack the foe. Large numbers of people get sick in the short term, and social factors such as crowding and the unavailability of medicine can drive

²⁶ <https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/EO-62-and-Order-of-Public-Health-Emergency-Four-AMENDED.pdf>

²⁷ <https://www.governor.virginia.gov/media/governorviriniagov/executive-actions/EO-63-and-Order-Of-Public-Health-Emergency-Five---Requirement-To-Wear-Face-Covering-While-Inside-Buildings.pdf>

²⁸ [https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540494/all/SARS_\[Severe_Acute_Respiratory_Syndrome\]](https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540494/all/SARS_[Severe_Acute_Respiratory_Syndrome])

²⁹ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540143/all/Coronavirus

³⁰ *Id.*

³¹ Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people. This occurred with MERS-CoV and SARS-CoV, and now with the virus that causes COVID-19. The SARS-CoV-2 virus is a betacoronavirus, like MERS-CoV and SARS-CoV. All three of these viruses have their origins in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir. However, the exact source of this virus is unknown.

<https://www.cdc.gov/coronavirus/2019-ncov/faq.html#How-COVID-19-Spreads>

³² <https://www.osha.gov/Publications/OSHA3990.pdf> at page 3.

³³ <https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html>

³⁴ <https://www.scientificamerican.com/article/how-the-covid-19-pandemic-could-end1/>

those numbers even higher. Ultimately, in most cases, antibodies developed by the immune system to fight off the invader linger in enough of the affected population to confer longer-term immunity and limit person-to-person viral transmission. But that can take several years, and before it happens, havoc reigns.

....

Learning to live with a disease. The most famous example of this dynamic in modern history was the H1N1 influenza outbreak of 1918–1919. Doctors and public health officials had far fewer weapons than they do today, and the effectiveness of control measures such as school closures depended on how early and decisively they were implemented. **Over two years and three waves, the pandemic infected 500 million and killed between 50 million and 100 million. It ended only as natural infections conferred immunity on those who recovered.**

The H1N1 strain became endemic, an infectious disease that was constantly with us at less severe levels, circulating for another 40 years as a seasonal virus. It took another pandemic—H2N2 in 1957—to extinguish most of the 1918 strain. One flu virus kicked out another one, essentially, and scientists don’t really know how. Human efforts to do the same have failed. “Nature can do it, we cannot,” says virologist Florian Krammer of the Icahn School of Medicine at Mount Sinai in New York City.

Containment. The severe acute respiratory syndrome (SARS) epidemic of 2003 was caused not by an influenza virus but by a coronavirus, SARS-CoV, that is closely related to the cause of the current affliction, SARS-CoV-2. **Of the seven known human coronaviruses, four circulate widely, causing up to a third of common colds.** The one that caused the SARS outbreak was far more virulent. Thanks to aggressive epidemiological tactics such as isolating the sick, quarantining their contacts and implementing social controls, bad outbreaks were limited to a few locations such as Hong Kong and Toronto.

This containment was possible because sickness followed infection very quickly and obviously: almost all people with the virus had serious symptoms such as fever and trouble breathing. And they transmitted the virus after getting quite sick, not before. “Most patients with SARS were not that contagious until maybe a week after symptoms appeared,” says epidemiologist Benjamin Cowling of the University of Hong Kong. “If they could be identified within that week and put into isolation with good infection control, there wouldn’t be onward spread.” Containment worked so well there were only 8,098 SARS cases globally and 774 deaths. The world has not seen a case since 2004.

Vaccine power. When a new H1N1 influenza virus, known as swine flu, caused a pandemic in 2009, “there was an alarm bell because this was a brand-new H1N1,” Cowling says, and it was very similar to the 1918 killer. Swine flu proved less severe than feared. In part, Krammer says, “we were lucky because the pathogenicity of the virus wasn’t very high.” But another important reason was that six months after the virus appeared, scientists developed a vaccine for it.

Unlike measles or smallpox vaccines, which can confer long-term immunity, **flu vaccines offer only a few years of protection. Influenza viruses are slippery, mutating rapidly to escape immunity. As a result, the vaccines must be updated every year and given**

regularly. But during a pandemic, even a short-term vaccine is a boon. The 2009 vaccine helped to temper a second wave of cases in the winter. As a result, the virus much more rapidly went the way of the 1918 virus, becoming a widely circulating seasonal flu, from which many people are now protected either by flu shots or by antibodies from a previous infection.

Projections about how COVID-19 will play out are speculative, **but the end game will most likely involve a mix of everything that checked past pandemics: Continued social-control measures to buy time, new antiviral medications to ease symptoms, and a vaccine.** The exact formula—how long control measures such as social distancing must stay in place, for instance—depends in large part on how strictly people obey restrictions and how effectively governments respond. **For example, containment measures that worked for COVID-19 in places such as Hong Kong and South Korea came far too late in Europe and the U.S. “The question of how the pandemic plays out is at least 50 percent social and political,” Cobey says.**

The other 50 percent will probably come from science. Researchers have banded together like never before and are working on multiple fronts to develop remedies. If any of the several antiviral medications currently in development prove effective, they will improve treatment options and lower the numbers who get seriously ill or die. A technique to screen for SARS-CoV-2 neutralizing antibodies, an indicator of immunity in recovered patients, could also prove very useful.

Krammer and his colleagues have developed one such test, and there are others. Previously used only in local epidemics, these new serological assays won’t end the pandemic, but they could make it possible to spot and use antibody-rich blood as a treatment for critically ill patients; more certainly, the tests will also get people back to work faster if those who fought off the virus and are immune can be identified.

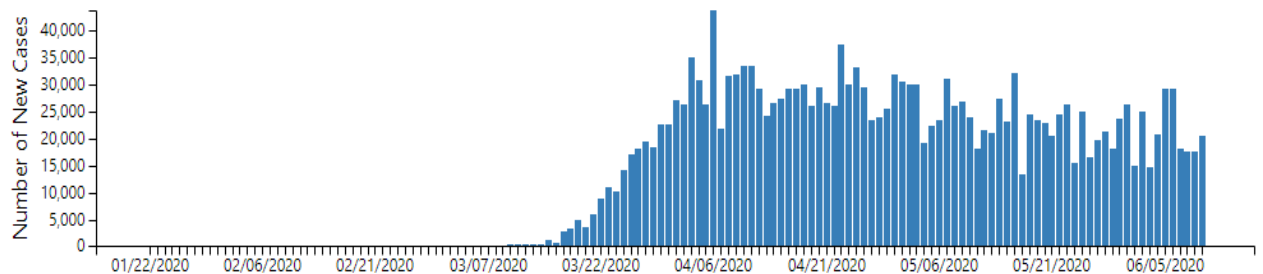
It will take a vaccine to stop transmission. That will take time—probably a year from now. Still, there is reason to think a vaccine could work effectively. **Compared with flu viruses, coronaviruses don’t have as many ways to interact with host cells. “If that interaction goes away, [the virus] can’t replicate anymore,” Krammer says. “That’s the advantage we have here.” It is not clear whether a vaccine will confer long-term immunity as with measles or short-term immunity as with flu shots. But “any vaccine at all would be helpful at this point,”** says epidemiologist Aubree Gordon of the University of Michigan.

Unless a vaccine is administered to all of the world’s eight billion inhabitants who are not currently sick or recovered, COVID-19 is likely to become endemic. It will circulate and make people sick seasonally—sometimes very sick. But if the virus stays in the human population long enough, it will start to infect children when they are young. Those cases are typically, though not always, quite mild, and so far the children appear less likely to develop severe disease if they get reinfected as adults. The combination of vaccination and natural immunity will protect many of us. The coronavirus, like most viruses, will live on—but not as a planetary plague.” (Emphasis added).

National COVID-19 Cases as of June 11, 2020³⁵:

New Cases by Day

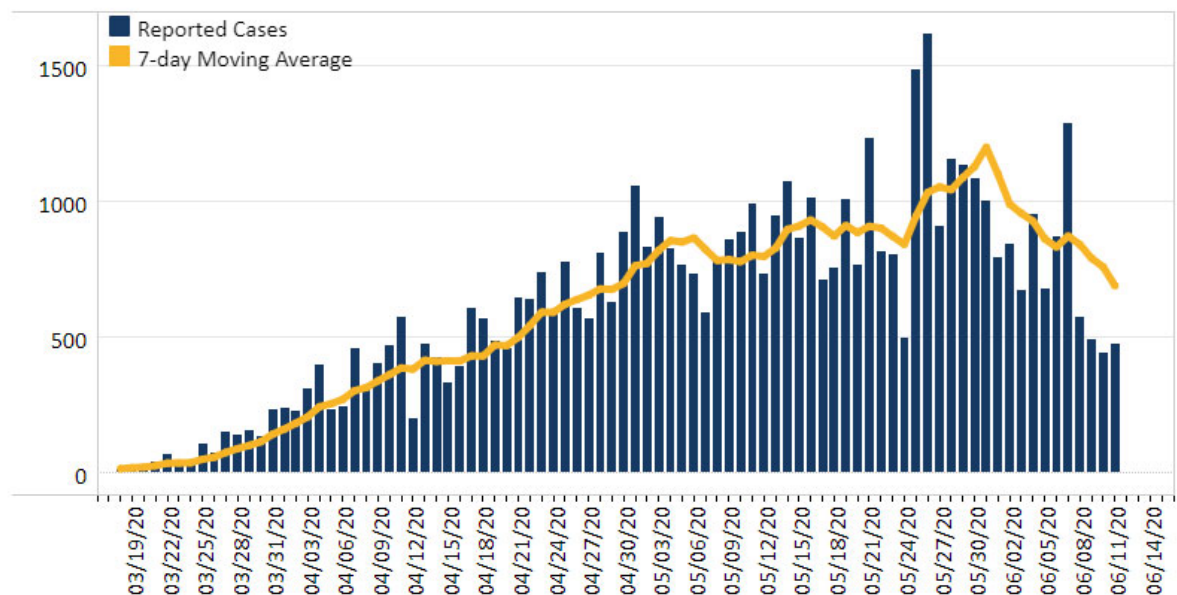
The following chart shows the number of new COVID-19 cases reported each day in the U.S. since the beginning of the outbreak. Hover over the bars to see the number of new cases by day.



Virginia Cases as of June 11, 2020:

Total Cases by Date Reported

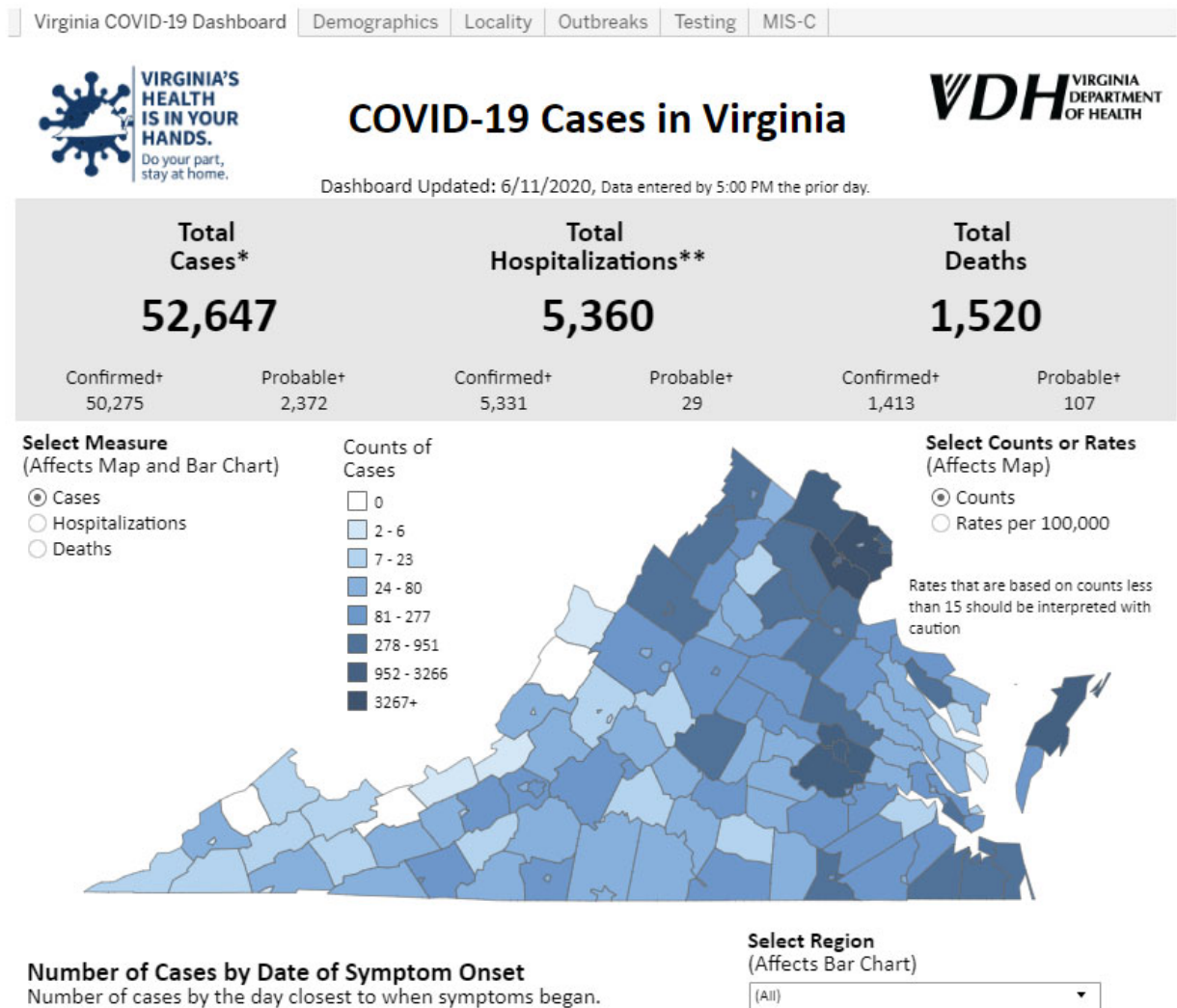
Number of new cases VDH reported by day.



³⁵ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

Spread of COVID-19 in Virginia: Case by County as of 6.11.2020³⁶

As is evident from the above county by county chart, community transmission of the virus is widespread in Virginia. “Community spread [or transmission] means spread of an illness for which the source of infection is unknown.”³⁷



“Depending on the severity of COVID-19’s international impacts, outbreak conditions—including those rising to the level of a pandemic—can affect all aspects of daily life, including travel, trade, tourism, food supplies, and financial markets.”³⁸

“Although most people with COVID-19 have mild to moderate symptoms, the disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with

³⁶ <https://www.vdh.virginia.gov/coronavirus/>

³⁷ <https://www.cdc.gov/media/releases/2020/s0226-Covid-19-spread.html>

³⁸ <https://www.osha.gov/Publications/OSHA3990.pdf> at page 3.

COVID-19.”³⁹

“The virus that causes COVID-19 is thought to spread mainly from person to person, mainly through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely when people are in close contact with one another (within about 6 feet). COVID-19 seems to be spreading easily and sustainably in the community (“community spread”) in many affected geographic areas.”⁴⁰

“It may also 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 their eyes. This is not thought to be the main way the virus spreads; however, we are still learning more about this virus.”⁴¹

“Asymptomatic and Pre-Symptomatic Transmission. Epidemiologic studies have documented SARS-CoV-2 transmission during the pre-symptomatic incubation period, and asymptomatic transmission has been suggested in other reports. Virologic studies have also detected SARS-CoV-2 with RT-PCR low cycle thresholds, indicating larger quantities of viral RNA, and cultured viable virus among persons with asymptomatic and pre-symptomatic SARS-CoV-2 infection.

The exact degree of SARS-CoV-2 viral RNA shedding that confers risk of transmission is not yet clear. Risk of transmission is thought to be greatest when patients are symptomatic since viral shedding is greatest at the time of symptom onset and declines over the course of several days to weeks. However, the proportion of SARS-CoV-2 transmission in the population due to asymptomatic or pre-symptomatic infection compared to symptomatic infection is unclear.”⁴²

“Viral shedding by asymptomatic people may represent 25–50% of total infections. Viral shedding may antedate symptoms by 1–2 days.”⁴³

“Viral shedding⁴⁴...occurs when a virus is released from an infected host. Studying viral shedding is helpful in understanding how infectious diseases like COVID-19 spread. Researchers often define the term across a spectrum, using modifiers like “low” and “high” to describe levels of viral shedding. Assessing levels of viral shedding helps researchers determine at what point individuals are most infectious.

For example, a recently published study⁴⁵ of 94 patients with COVID-19 suggests that those infected with the new strain of **coronavirus have the highest levels of viral shedding right before showing symptoms**. Other studies have shown that some individuals may continue

³⁹ <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>

⁴⁰ <https://www.cdc.gov/coronavirus/2019-ncov/faq.html#How-COVID-19-Spreads>

⁴¹ <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-manufacturing-workers-employers.html>

⁴² <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

⁴³ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540747/all/Coronavirus_COVID_19_SARS_CoV_2_

⁴⁴ <https://achi.net/newsroom/defining-covid-19-terms-viral-shedding/>

⁴⁵ <https://www.nature.com/articles/s41591-020-0869-5>

shedding the virus even after their symptoms resolve, or subside; one study⁴⁶ found that individuals with mild cases of the virus may continue viral shedding up to eight days after symptom resolution.

From a public health perspective, understanding viral shedding of COVID-19 is necessary to determine appropriate actions for virus mitigation. **If viral shedding is indeed highest right before a person starts showing symptoms, robust contact tracing efforts to identify potential exposures is necessary to slow the further spread of COVID-19 in communities.** Information about viral spread after symptom resolution also allows public health officials to determine appropriate measures for those who have recovered from COVID-19, including guidance on extended quarantine.” (Emphasis added).

“It is not yet known whether weather and temperature affect the spread of COVID-19. Some other viruses, like those that cause the common cold and flu, spread more during cold weather months but that does not mean it is impossible to become sick with these viruses during other months. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19 and investigations are ongoing.”⁴⁷ (Emphasis added).

“At this time there is no vaccine to prevent coronavirus disease 2019 (COVID-19). The FDA is working with vaccine developers and other researchers and manufacturers to help expedite the development and availability of medical products such as vaccines, antibodies, and drugs to prevent COVID-19.”⁴⁸

“Robert Redfield, MD, the director of the Centers for Disease Control and Prevention (CDC), warned yesterday [April 21, 2020] **that a late fall or early winter wave of COVID-19 could be even more deadly in the United States, as it would coincide with the flu season, which already puts a strain on hospitals.**”⁴⁹ (Emphasis added).

According to the Director-General of the World Health Organization, “This [SARS-CoV-2] virus does not respect borders.”⁵⁰ While “stay at home” orders are still in place in 17 states and the District of Columbia as of May 25, 2020, 32 states are reopening, including the Virginia border states of Maryland, Tennessee, and West Virginia.

Particularly in the construction industry, but in other mobile work crew industries as well, contractors from the states of Maryland, North Carolina, West Virginia, Tennessee, the District of Columbia, Georgia, Pennsylvania, and other states regularly work in Virginia, increasing the chance of virus spread across borders.⁵¹

For instance, during calendar year 2019,

⁴⁶ <https://www.healio.com/pulmonology/practice-management/news/online/%7B071c6a27-2c50-458f-9558-19b9f501df05%7D/patients-with-covid-19-may-shed-virus-after-symptom-resolution>

⁴⁷ <https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Coronavirus-Disease-2019-Basics>

⁴⁸ <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/coronavirus-disease-2019-covid-19-frequently-asked-questions>

⁴⁹ <https://www.cidrap.umn.edu/news-perspective/2020/04/coroner-first-us-covid-19-death-occurred-early-february>

⁵⁰ <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19--27-february-2020>

⁵¹ <https://www.kayak.com/travel-restrictions/united-states/>

Alabama (5) California (2) Delaware (3) District of Columbia (11) Florida (9) Georgia (13) Illinois (4) Indiana (4) Iowa (1) Kentucky (2) Maryland (66) Michigan (2) Minnesota (3) Mississippi (1)	Missouri (5) Nebraska (3) New Hampshire (1) New Jersey (1) New York (1) North Carolina (96) Ohio (5) Oklahoma (1) Pennsylvania (11) South Carolina (5) Tennessee (22) Texas (6) West Virginia (11) Wisconsin (2).
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WSLS.com, Roanoke, VA, May 5, 2020, “25 COVID-19 cases connected to Cave Spring High School construction work”

“ROANOKE, Va. – More than two dozen coronavirus cases are connected to construction work at a local high school, according to Roanoke County Public Schools officials.

The president of Avis Construction, Troy Smith, spoke to the Roanoke County school board on Tuesday and reported as many as 25 cases of COVID-19 that are related to construction work at Cave Spring High School.

Smith told school board members that not all 25 cases are construction workers, but rather, some are family members of workers.

School officials told 10 News that most cases are in workers from different out-of-state subcontractors.

All work was halted at the Cave Spring High School construction site on Monday, per recommendation from the health department.”⁵² (Emphasis added).

B. National and Virginia COVID-19 Case and Death Statistics.

Centers for Disease Control (CDC): U.S. and Virginia Statistics

As of June 11, 2020, there were 1,994,283 total cases (20,486 new cases compared to June 10, 2020) of COVID-19 and 112,967 deaths (834 new deaths compared to June 10, 2020).⁵³

⁵² <https://www.wsls.com/news/local/2020/05/06/25-covid-19-cases-connected-to-cave-spring-high-school-construction-work/>

⁵³ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

Confirmed COVID-19 cases in Virginia totaled 52,647, with 1,520 deaths.

Johns Hopkins University: World, U.S. and Virginia Statistics

As of June 11, 2020 (4:33:25 pm)⁵⁴, there were 7,442,050 confirmed cases of COVID-19 and 418,563 deaths worldwide. COVID-19 has spread to 216 countries, areas, or territories, and all 50 states and territories in the United States.⁵⁵

Confirmed COVID-19 cases in the United States totaled 2,015,214 resulting in 113,561 deaths.⁵⁶

Confirmed COVID-19 cases in Virginia totaled 50,681, with 7,553 hospitalizations, 1,520 deaths, with 6,826 recovered.⁵⁷

2. Virginia Workers Compensation Statistics.

Since February, 2020, the Virginia Workers' Compensation Commission has received 3,154 COVID-19 related claims as of May 31, 2020 in a wide variety of occupational settings, representing a nearly **44.5% increase** in claims over a 20 day period since May 11, 2020 (2,182 claims).

NOTE 1: Individual private self-insurers are not included in these statistics.

NOTE 2: Most but not all claims are assigned a NAICS code (North American Industrial Classification Code). As of May 31, 2020, 18.4 % (581 claims) of claims were not assigned a NAICS code. A cursory review of the non-NAICS claims revealed that a significant number were in healthcare or long term care environments.

NOTE 3: Workers classified as independent contractors are not included in these statistics. There is a practice known as "misclassification"⁵⁸ of employees as independent contractors that has been found to be prevalent in certain industries⁵⁹ in Virginia that impacts the ability to obtain accurate workers' compensation data.

The following industries had 10 or more claims filed as of May 31, 2020:

⁵⁴ <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

⁵⁵ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

⁵⁶ <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

⁵⁷ *Id.*

⁵⁸ <https://www.doli.virginia.gov/vosh-programs/misclassification-in-the-workplace/>

⁵⁹ [http://www.dpor.virginia.gov/uploadedFiles/MainSite/Content/Licensees/JLARC_Employee%20Misclassification%20Report%20\(2012\).pdf](http://www.dpor.virginia.gov/uploadedFiles/MainSite/Content/Licensees/JLARC_Employee%20Misclassification%20Report%20(2012).pdf)

<u>NAICS⁶⁰</u>	<u>Industry</u>
No NAICS	Restaurant: Fast Food (70)
322299	All Other Converted Paper Product Manufacturing (25)
445110	Supermarkets and Other Grocery (except Convenience) Stores (14)
452990	All Other General Merchandise Stores (11)
488119	Other Airport Operations (13)
531	Real Estate (33)
54151	Computer Programming (541511) and Design (541512) (13)
561320	Temporary Help Services (12)
561720	Janitorial Services (25)
621111	Offices of Physicians (except Mental Health Specialists) (97)
621498	All Other Outpatient Care Centers (33)
621511	Medical Laboratories (17)
621512	Diagnostic Imaging Centers (16)
621610	Home Health Care Services (12)
621999	All Other Miscellaneous Ambulatory Health Care Services (29)
622110	General Medical and Surgical Hospitals (457)
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals (40)
623311	Continuing Care Retirement Communities (79) (See NOTE 2 above)
721110	Hotels (except Casino Hotels) and Motels (18)
722310	Food Service Contractors (13)
921190	Other General Government Support (317)
922120	Police Protection (106)
922160	Fire Protection (125)
922190	Other Justice, Public Order, and Safety Activities (941)

3. Virginia Department of Human Resources Workers' Compensation Statistics.

As of May 31, 2020, the Virginia Department of Human Resource Management (DHRM) Workers' Compensation Division has received 42 claims involving COVID-19 exposure. Agencies involved included:

Library of Virginia
State Corporation Commission
Virginia Alcoholic Beverage Control Authority
Virginia Commonwealth University
Virginia Department of Agriculture and Consumer Services
Virginia Department of Behavioral Health and Developmental Services
Virginia Department of Corrections
Virginia Department of Forestry
Virginia Department of Game and Inland Fisheries
Virginia Department of Health
Virginia Department of Juvenile Justice
Virginia Department of Military Affairs
Virginia Department of Motor Vehicles

⁶⁰ North American Industrial Classification System, <https://www.census.gov/eos/www/naics/>

4. Deaths, Hospitalizations, and Employee Complaints reported to the Virginia Department of Labor and Industry.

a. Employee Deaths in Virginia Reported to VOSH.

Pursuant to Va. Code §40.1-51.1.D,⁶¹ eight (8) COVID-19 related employee deaths have been reported by employers to the Department⁶² all of which are currently under investigation.

An additional three (3) employee deaths have been reported to the Department by the Virginia Workers' Compensation Commission and inspections opened by VOSH.

The VOSH Program has investigated an average of 37 annual work-related⁶³ employee deaths over the last five calendar years. The 11 COVID-19 death notifications so far in 2020 would represent 30% of the deaths investigated by VOSH in an average year.

It is not unreasonable to assume that had no mitigation efforts been undertaken by state and local governments beginning in mid-March (e.g., stay at home requests and orders, business shutdowns, physical distancing requirements, face covering recommendations and requirements, etc.), the number of COVID-19 death notifications would be even higher than the 11 reported to date.

It is anticipated VOSH will be receiving more notifications of employee deaths in the coming weeks and months.

b. Employee Hospitalizations in Virginia Reported to VOSH.

Pursuant to Va. Code §40.1-51.1.D,⁶⁴ 11 COVID-19 related employee hospitalizations have been reported by employers to the Department.

c. Employee Complaints Filed with VOSH

Summary of How VOSH Initially Handled COVID-19 Related Complaints:

⁶¹ <https://law.lis.virginia.gov/vacode/40.1-51.1/>

⁶² Please note that when it comes to COVID-19 employee deaths, as is done with all reported employee deaths, VOSH will be making a determination on whether the death appeared to be work related or not (i.e., in the case of COVID-19, whether it is more likely that the employee contracted the disease away from work). This is a threshold decision that has to be made before any potential violations could be issued directly related to the cause of an employee's death.

⁶³ NOTE: The VOSH Program will ultimately make a determination as to whether an employee's death due to COVID-19 was work-related or not. An infectious disease such as COVID-19 presents additional difficulties to investigators when it comes to determining work-relatedness.

⁶⁴ <https://law.lis.virginia.gov/vacode/40.1-51.1/>

COVID-19 related employee complaints received by the VOSH program that are within VOSH's jurisdiction are being addressed with employers. In an abundance of caution, at the beginning of the COVID-19 outbreak in Virginia the Department decided to modify its normal complaint processing procedures for both the safety and health of the employees at the work sites and its VOSH compliance officers by trying to limit exposure to the virus as much as possible while carrying out statutory enforcement mandates.

Rather than conducting a combination of onsite inspections and informal investigations as is the case under normal situations, COVID-19 complaints were initially handled through the VOSH program's complaint investigation process, which involves contacting the employer by phone, fax, email, or letter.

VOSH informed the employer of the complaint allegation and required a written response concerning the validity of the complaint allegation, any safety and health measures taken to date to protect employees against potential COVID-19 related hazards, and any measures to be taken in response to valid complaint allegations.

Employers were required to post a copy of VOSH's correspondence where it would be readily accessible for review by employees; and provide a copy of the correspondence and the employer's response to a representative of any recognized union or safety committee at the facility. Complainants were provided a copy of the employer's response.

Depending on the specific facts of the employee's alleged complaint, an employer's failure to respond or inadequate response could result in additional contact by the VOSH program with the employer, a referral to local law enforcement officials, an onsite VOSH inspection, or other enforcement options available to the VOSH program.

d. VOSH COVID-19 Statistics as of June 5, 2020.

Total complaints received:	460
Total complaints closed:	3360 (100 remain open)
Total complaint inspections:	3 (open)
Total hospitalizations inspections:	4 (open)
Total workplace death/fatality inspections:	8 (open)

NOTE: VOSH has also received reports of **3 other employee deaths** from the Virginia Workers' Compensation Commission (VWCC) and is in the process of opening inspections in response.

C. COVID-19 Clinical Symptoms.

COVID-19 symptoms include⁶⁵:

- Cough
- Fever
- Shortness of breath
- Muscle aches
- Sore throat
- Unexplained loss of taste or smell
- Diarrhea
- Headache

D. COVID-19 Clinical Outcomes.

“Although most people with COVID-19 have mild to moderate symptoms, the disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with COVID-19.”⁶⁶

“Younger adults are also being hospitalized in the U.S. Adults 20–44 account for 20% of hospitalizations, 12% of ICU admissions.”⁶⁷

“Emergency signs and symptoms can include:

- Trouble breathing
- Persistent chest pain or pressure
- Inability to stay awake
- New confusion
- Blue lips or face”⁶⁸

“Complications can include:

- Pneumonia and trouble breathing
- Organ failure in several organs
- Heart problems
- A severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome)
- Blood clots
- Acute kidney injury

⁶⁵ <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus>

⁶⁶ <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>

⁶⁷ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540747/all/Coronavirus_COVID_19_SARS_CoV_2_

⁶⁸ *Id.*

- Additional viral and bacterial infections”⁶⁹

“Illness Severity [CDC]

The largest cohort of >44,000 persons with COVID-19 from China showed that illness severity can range from mild to critical:

- Mild to moderate (mild symptoms up to mild pneumonia): **81%**
- Severe (dyspnea, hypoxia, or >50% lung involvement on imaging): **14%**
- Critical (respiratory failure, shock, or multiorgan system dysfunction): **5%**

In this study, all deaths occurred among patients with critical illness and the overall case fatality rate was 2.3%. The case fatality rate among patients with critical disease was 49%. Among children in China, illness severity was lower with 94% having asymptomatic, mild or moderate disease, 5% having severe disease, and <1% having critical disease.

Among U.S. COVID-19 cases with known disposition, **the proportion of persons who were hospitalized was 19%. The proportion of persons with COVID-19 admitted to the intensive care unit (ICU) was 6%.**”⁷⁰ (Emphasis added).

Long-term Effects of COVID-19

“People with moderate to severe asthma may be at higher risk of getting very sick from COVID-19. COVID-19 can affect your respiratory tract (nose, throat, lungs), cause an asthma attack, and possibly lead to pneumonia and acute respiratory disease.

....

There is currently no specific treatment for or vaccine to prevent COVID-19. The best way to prevent illness is to avoid being exposed to this virus.”⁷¹

‘Patients with acute respiratory distress syndrome (ARDS), seen often in severe COVID-19 illness, sometimes develop permanent lung damage or fibrosis as well,’ Dr. Andrew Martin, chair, pulmonary medicine at Deborah Heart and Lung Center in Browns Mills, New Jersey, told Healthline.

....

‘Viral respiratory infections can lead to anything from a simple cough that lasts for a few weeks or months to full-blown chronic wheezing or asthma,’ Martin said. He added that when a respiratory infection is severe, recovery can be prolonged with a general increase in shortness of breath — even after lung function returns to normal.

Also, patients with COVID-19 who developed ARDS, a potentially life threatening lung injury that could require treatment in an intensive care unit (ICU), have a greater risk of long-term health issues.

....

Those most at risk are ‘people 65 years and older, people who live in a nursing home or

⁶⁹ *Id.*

⁷⁰ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

⁷¹ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html>

long-term care facility, people with chronic lung, heart, kidney and liver disease,’ said Dr. Gary Weinstein, pulmonologist/critical care medicine specialist at Texas Health Presbyterian Hospital Dallas (Texas Health Dallas). Additionally, he said others who could be at risk are those **with compromised immune systems and people with morbid obesity or diabetes.**

Weinstein added that there are particular health issues that patients with severe COVID-19 illness may face. He said some patients will need to recover from pneumonia or acute ARDS and that many may require oxygen. Additionally, depending on the duration of the illness, many will be severely debilitated, deconditioned, weak, and could require aggressive rehabilitation.

‘Finally, when patients have lung failure, they frequently have failure or dysfunction of their other organs, such as the kidney, heart, and brain,’ emphasized Weinstein. However, **‘Patients with mild symptoms will recover faster and be less likely to need oxygen but will likely have weakness and fatigue.’**⁷² (Emphasis added).

A CDC report on “Characteristics and Clinical Outcomes of Adult Patients Hospitalized with COVID-19 — Georgia, March 2020”⁷³:

“In a cohort of 305 hospitalized adults with COVID-19 in Georgia (primarily metropolitan Atlanta)....One in four hospitalized patients had no recognized risk factors for severe COVID-19.

....

Although a larger proportion of older patients had worse outcomes (IMV [invasive mechanical ventilation] or death), a considerable proportion of patients aged 18–64 years who lacked high-risk conditions received ICU-level care and died (23% and 5%, respectively). **Estimated case fatality among patients who received ICU care was high (37%–49%)** but comparable with that observed in a smaller case series of COVID-19 patients in the state of Washington. Among hospitalized patients, 26% lacked high-risk factors for severe COVID-19, and few patients (7%) lived in institutional settings before admission, **suggesting that SARS-CoV-2 infection can cause significant morbidity in relatively young persons without severe underlying medical conditions.** Community mitigation recommendations (e.g., social distancing) should be widely instituted, not only to protect older adults and those with underlying medical conditions, but also to prevent the spread of SARS-CoV-2 among persons in the general population who might not consider themselves to be at risk for severe illness.

⁷² <https://www.healthline.com/health-news/what-we-know-about-the-long-term-effects-of-covid-19#COVID-19-might-affect-the-brain-stem>

⁷³ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e1.htm>

Report on “What factors did people who died with COVID-19 have in common?”⁷⁴

“A team of investigators hailing from eight institutions in China and the United States — including the Chinese People’s Liberation Army General Hospital in Beijing, and the University of California – Davis — recently looked at the data of 85 patients who died of multiple organ failure after having received care for severe COVID-19.

....

‘The greatest number of deaths in our cohort were in males over 50 with noncommunicable chronic diseases,’ the investigators note.

‘We hope that this study conveys the seriousness of COVID-19 and emphasizes the risk groups of males over 50 with chronic comorbid conditions, including hypertension (high blood pressure), coronary heart disease, and diabetes,’ they have commented.

The team also notes that, among the 85 patients whose records they analyzed, the most common COVID-19 symptoms were fever, shortness of breath, and fatigue.

....

Among the complications that the patients experienced while hospitalized with COVID-19, some of the most common were respiratory failure, shock, acute respiratory distress syndrome, and cardiac arrhythmia, or irregular heartbeat.

....

‘Perhaps our most significant observation is that while respiratory symptoms may not develop until a week after presentation, once they do there can be a rapid decline, as indicated by the short duration between time of admission and death (6.35 days on average) in our study,’ they write.”⁷⁵

Report on “Irish Study: Blood Clotting a Significant Cause of Death in Patients With COVID-19”.

“A study led by clinician scientists at RCSI University of Medicine and Health Sciences has found that Irish patients admitted to hospital with severe COVID-19 infection are experiencing abnormal blood clotting that contributes to death in some patients.

The study, carried out by the Irish Centre for Vascular Biology, RCSI and St James' Hospital, Dublin, is published in current edition of the British Journal of Hematology.

The authors found that abnormal blood clotting occurs in Irish patients with severe COVID-19 infection, causing micro-clots within the lungs. They also found that Irish patients with higher levels of blood clotting activity had a significantly worse prognosis and were more likely to require ICU admission.

‘Our novel findings demonstrate that COVID-19 is associated with a unique type of

⁷⁴ <https://www.sciencedaily.com/releases/2020/04/200430113015.htm>

⁷⁵ <https://www.medicalnewstoday.com/articles/what-factors-did-people-who-died-with-covid-19-have-in-common#Some-important-observations>

blood clotting disorder that is primarily focused within the lungs and which undoubtedly contributes to the high levels of mortality being seen in patients with COVID-19,' said Professor James O'Donnell, Director of the Irish Centre for Vascular Biology, RCSI and Consultant Hematologist in the National Coagulation Centre in St James's Hospital, Dublin.

'In addition to pneumonia affecting the small air sacs within the lungs, we are also finding hundreds of small blood clots throughout the lungs. This scenario is not seen with other types of lung infection, and explains why blood oxygen levels fall dramatically in severe COVID-19 infection.'"⁷⁶

E. Determining Cause of Death.

Report on "How COVID-19 Deaths Are Counted".⁷⁷

"As coronavirus has swept through the United States, finding the true number of people who have been infected has been stymied due to lack of testing. Now, official counts of coronavirus deaths are being challenged, too.

....

The reality is that assigning a cause of death is not always straightforward, even pre-pandemic, and a patchwork of local rules and regulations makes getting valid national data challenging. However, data on excess deaths in the United States over the past several months suggest that COVID-19 deaths are probably being undercounted rather than over counted.

....

Death certificates can be signed by a physician who was responsible for a patient who died in a hospital, which accounts for many COVID-19 deaths. They can also be signed by medical examiners or coroners, who are independent officials who work for individual counties or cities. 'Many COVID-19 death certificates are being handled by physicians unless the death occurred outside of the hospital, in which case a medical examiner or coroner would step in', said Dr. Sally Aiken, the president of the National Association of Medical Examiners (NAME).

....

For COVID-19, the immediate cause of death might be listed as respiratory distress, with the second line reading "due to COVID-19." Contributing factors such as heart disease, diabetes or high blood pressure would then be listed further down. This has led to some confusion by people arguing that the "real" cause of death was heart disease or diabetes, Aiken said, but that's not the case.

'Without the COVID19 being the last straw or the thing that led to the chain of events that led to death, they probably wouldn't have died,' she said.

....

'Most COVID-19 deaths seen at Mount Sinai Health System in New York are in people who have comorbid (or co-occurring) conditions such as coronary artery disease or kidney disease', said Dr. Mary Fowkes, the chief of autopsy services at Mount Sinai. But it's not typically difficult to tell what killed them.

⁷⁶ <https://www.invasivecardiology.com/news/irish-study-blood-clotting-significant-cause-death-patients-covid-19>

⁷⁷ <https://www.scientificamerican.com/article/how-covid-19-deaths-are-counted1/>

‘Most of the cases are pretty straightforward,’ Fowkes told Live Science. ‘The lungs are usually so severely involved with pathology, so they are two to three times or more the normal weight of a normal lung.’

(The excess weight is due to fluid and cell detritus from damaged lung tissues.)

....

Another complication for assigning a cause of death for COVID-19 is that some younger people have died of strokes and heart attacks and then tested positive for COVID-19 without any history of respiratory symptoms. The virus is now known to cause blood clots, suggesting that COVID-19 was the killer in these cases, too. Fowkes and her colleagues conducted a microscopic inspection of the brains of 20 COVID-19 victims in her hospital system and found that six of them contained tiny blood clots that had caused small strokes before death.

‘We’re seeing it in younger patients than you would expect, and we’re seeing it in a distribution that you wouldn’t expect, so we think it’s related to the COVID,’ Fowkes said.

The Centers for Disease Control and Prevention (CDC) has issued guidelines⁷⁸ for how to attribute a death to COVID-19. The guidelines urge using information from COVID-19 testing, where possible, but also allow for deaths to be listed as “presumed” or “probable” COVID-19 based on symptoms and the best clinical judgment of the person filling out the death certificate. A medical examiner trying to determine a cause of death in the absence of testing would comb medical records and query family and loved ones about the person’s symptoms before they died, Aiken said. Postmortem COVID-19 tests may be possible, depending on the jurisdiction.”⁷⁹

F. SARS-CoV-2 and COVID-19 Transmission Characteristics.

A meta-analysis estimated that the initial median R_0 [the basic reproduction number for the virus] for COVID-19 is 2.79 (meaning that one infected person will on average infect 2.79 others), although current estimates might be biased because of insufficient data.⁸⁰

Around one in five people are traditionally thought to be super-spreaders. These are people who seem to transmit a given infectious disease significantly more widely than most.⁸¹

Persons infected with SARS-CoV-2 are most infectious from 2 days before through 7 days after symptom onset.⁸²

The median incubation period of COVID-19 is estimated to be 5.1 days.⁸³

The CDC’s current best estimate of the percentage of persons with positive COVID-19 infections that are asymptomatic is 35%.⁸⁴

⁷⁸ <https://www.cdc.gov/nchs/covid19/coding-and-reporting.htm>

⁷⁹ *Id.*

⁸⁰ https://wwwnc.cdc.gov/eid/article/26/6/20-0495_article

⁸¹ <https://newatlas.com/health-wellbeing/covid19-case-studies-coronavirus-superspreader-clusters-cdc-report/>

⁸² *Id.*

⁸³ *Id.*

⁸⁴ <https://www.cnn.com/2020/05/22/health/cdc-coronavirus-estimates-symptoms-deaths/index.html>

The CDC's current best estimate of the percentage of COVID-19 disease transmission occurring prior to symptom onset is 40%.⁸⁵

Centers for Disease Control https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html	
Parameter Values Related to Healthcare Usage	Source: Preliminary COVID-19 estimates, CDC§
Mean number of days from symptom onset to hospitalization (standard deviation)	0-49 years: 6.9 (5.0) days 50-64 years: 7.2 (5.3) days ≥65 years: 6.2 (5.7) days
Mean number of days of hospitalization among those not admitted to ICU (standard deviation) ¶	0-49 years: 3.9 (3.7) days 50-64 years: 4.9 (4.3) days ≥65 years: 6.3 (5.1) days
Mean number of days of hospitalization among those admitted to ICU (standard deviation) ¶	0-49 years: 9.5 (7.2) days 50-64 years: 10.5 (7.0) days ≥65 years: 10.0 (6.8) days
Percent admitted to ICU among those hospitalized	0-49 years: 21.9% 50-64 years: 29.2% ≥65 years: 26.8%
Percent on mechanical ventilation among those in ICU	0-49 years: 72.1% 50-64 years: 77.6% ≥65 years: 75.5%

⁸⁵ *Id.*

Mean number of days from symptom onset to death (standard deviation)	0-49 years: 14.9 (7.7) days 50-64 years: 15.3 (8.1) days ≥65 years: 12.9 (7.6) days
Mean number of days from death to reporting (standard deviation)	0-49 years: 7.1 (7.7) days 50-64 years: 7.2 (7.7) days ≥65 years: 6.6 (7.3) days

1. Infectious Dose and Viral Load.

“Infectious respiratory diseases spread when a healthy person comes in contact with virus particles expelled by someone who is sick — usually through a cough or sneeze. The amount of particles a person is exposed to can affect how likely they are to become infected and, once infected, how severe the symptoms become.

The amount of virus necessary to make a person sick is called the infectious dose. Viruses with low infectious doses are especially contagious in populations without significant immunity.

The minimum infectious dose of SARS-CoV-2, the virus that causes COVID-19, is unknown so far, but researchers suspect it is low. “The virus is spread through very, very casual interpersonal contact,” W. David Hardy, a professor of infectious disease at Johns Hopkins University School of Medicine, told STAT.⁸⁶

A high infectious dose may lead to a higher viral load, which can impact the severity of COVID-19 symptoms. **Viral load is a measure of virus particles. It is the amount of virus present once a person has been infected and the virus has had time to replicate in their cells. With most viruses, higher viral loads are associated with worse outcomes.**

One study⁸⁷ of COVID-19 patients in China found that those with more severe symptoms tended to have higher viral loads. ‘It’s not proven, but it would make sense that higher inoculating doses will lead to higher viral loads, and higher viral loads would translate into more pathogenic clinical courses,’ said Dan Barouch, director of the Center for Virology and Vaccine Research at Beth Israel Deaconess Medical Center.’⁸⁸ (Emphasis added).

2. Infection Fatality Rate.

Though there are limitations on the availability and accuracy of COVID-19 data around the

⁸⁶ <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

⁸⁷ [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30196-1/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30196-1/fulltext)

⁸⁸ <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

country, researchers are conducting studies to determine a likely range of the “infection mortality rate” (IFR) of COVID-19. The infection fatality rate is the ratio of deaths divided by the number of actual infections with SARS-CoV-2.

A study by the University of Washington using data through April 20, 2020 calculated the U.S. “infection mortality rate” among symptomatic cases (IFR-S) to be 1.3%.⁸⁹ Another study calculated a global IFR of 1.04%.⁹⁰

A study by the London School of Hygiene and Tropical Medicine estimated the infection fatality rate on the Diamond Princess Cruise Ship to be 1.2%.⁹¹ Nearly the entire cruise ships 3,711 passengers and crew were tested.

The generally accepted approximate IFR-S of seasonal influenza is 0.1%.⁹²

G. Potential for “Second Wave” of COVID-19.

Second Wave of COVID-19 from Reopening of State Economies

CNN.com, June 4, 2020, “Coronavirus may not be mutating, but experts say there is still potential for danger”

“Covid-19 is not mutating, health experts say, but that doesn't mean it's not dangerous. So far, evidence does not show that the coronavirus is changing to become more severe or more transmittable, but **complacency by people and local governments** could increase its spread, World Health Organization infectious disease epidemiologist Maria Van Kerkhove said Wednesday at a news briefing.

....

As US states push forward with reopening plans, nearly as many are seeing

⁸⁹ <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2020.00455>; Study assumptions: We make three assumptions for our analysis: (1) Errors in the numerator and the denominator lead to underreporting of true COVID-19 deaths and cases, respectively; error is smaller for deaths than for cases. (2) Both the errors are declining over time. (3) The errors in the denominator are declining at a faster rate than the error in the numerator.

Assumption #1 is self-evident; both the deaths and the actual cases are undercounted during the initial phase of the epidemic. Because deaths are much more visible events than infections, which, in the case of COVID-19, can go asymptomatic during the first few days of infection, we posit that, at any point in time, the errors in the denominator are larger than the errors in the numerator. Hence, this assumption leads to CFR estimates being larger than the IFR-S, which is typically believed to be true based on observed data.

Assumption #2 is our central assumption, which states that under some stationary processes of care delivery, health care supply, and reporting, which are all believed to be improving over time, the errors in both the numerator and the denominator are declining. It implies that we are improving in the measurement of both the numerator and denominator over time, albeit at different rates in different jurisdictions.

Assumption #3 posits that the error in the denominator is declining faster than the error in the numerator. This assumption indicates that the CFR rates, based on the number of cumulative COVID-19 deaths and the cumulative reported COVID-19 cases, are declining over time and are confirmed based on our observed data (described in detail below).

⁹⁰ <https://www.medrxiv.org/content/10.1101/2020.05.11.20098780v1>

⁹¹ <https://www.medrxiv.org/content/10.1101/2020.03.05.20031773v2>

⁹² *Id.* referencing <https://www.cdc.gov/flu/about/burden/2018-2019.html>

coronavirus caseloads trending upward as those where case numbers are declining, an analysis of Johns Hopkins data shows. **Nineteen states have averaged more new cases over the past week than the prior week, while 13 are holding steady and 18 are seeing a downward trend.**

Louisiana is one of those downward-trending states and is set to begin Phase 2 of its plan to reopen the economy Friday, allowing businesses to open at 50% capacity, according to Gov. John Bel Edwards.

....

Texas and Florida are still recording increasing weekly averages of new cases as they take steps toward reopening.”⁹³

Second Wave of COVID-19 in Fall, 2020

“Robert Redfield, MD, the director of the Centers for Disease Control and Prevention (CDC), warned yesterday [April 21, 2020] that a late fall or early winter wave of COVID-19 could be even more deadly in the United States, as it would coincide with the flu season, which already puts a strain on hospitals.

In an interview with the *Washington Post*, Redfield said, ‘There’s a possibility that the assault of the virus on our nation next winter will actually be even more difficult than the one we just went through.’

Redfield said the 2009 H1N1 flu pandemic saw a spike in cases in the spring, followed by a bigger wave in the fall, as of course, did the 1918 flu pandemic. While COVID-19 is a coronavirus, and not an influenza strain, it may follow a similar pattern.”⁹⁴

H. COVID-19 Comparisons to Seasonal Influenza.

Seasonal Influenza

“While seasonal influenza (flu) viruses are detected year-round in the United States, flu viruses are most common during the fall and winter. The exact timing and duration of flu seasons can vary, but influenza activity often begins to increase in October. Most of the time flu activity peaks between December and February, although activity can last as late as May.”⁹⁵

“Influenza activity in the United States during the 2018–2019 season began to increase in November and remained at high levels for several weeks during January–February. Influenza A viruses were the predominant circulating viruses last year. While influenza A (H1N1pdm09) viruses predominated from October 2018 – mid February 2019, influenza A (H3N2) viruses were more commonly reported starting in late February 2019. Influenza B viruses were not commonly reported among circulating viruses during the 2018–2019 season. The season had moderate severity based on levels of outpatient influenza-like illness,

⁹³ <https://www.cnn.com/2020/06/04/health/us-coronavirus-thursday/index.html>

⁹⁴ <https://www.cidrap.umn.edu/news-perspective/2020/04/coroner-first-us-covid-19-death-occurred-early-february>

⁹⁵ <https://www.cdc.gov/flu/about/season/flu-season.htm>

hospitalizations rates, and proportions of pneumonia and influenza-associated deaths.

CDC estimates that the burden of illness during the 2018–2019 season included **an estimated 35.5 million people getting sick with influenza, 16.5 million people going to a health care provider for their illness, 490,600 hospitalizations, and 34,200 deaths** from influenza (Table 1). The number of influenza-associated illnesses that occurred last season was similar to the estimated number of influenza-associated illnesses during the 2012–2013 influenza season when an estimated 34 million people had symptomatic influenza illness.” (Emphasis added).

The effectiveness of the 2018-2019 influenza vaccine for all vaccine types against influenza A or B viruses was estimated by the CDC to be 29%.⁹⁶

The mortality rate or death rate of the seasonal influenza in 2018 was approximately 0.1%.⁹⁷

“According to the CDC, counted deaths during the **peak week** of the influenza seasons from 2013-2014 to 2019-2020 **ranged from 351** (2015-2016, week 11 of 2016) **to 1,626** (2017-2018, week 3 of 2018).”⁹⁸

COVID-19

“The Centers for Disease Control and Prevention (CDC) today confirmed the first case of 2019 Novel Coronavirus (2019-nCoV) in the United States in the state of Washington. The patient recently returned from Wuhan, China, where an outbreak of pneumonia caused by this novel coronavirus has been ongoing since December 2019.... The patient from Washington with confirmed 2019-nCoV infection returned to the United States from Wuhan on **January 15, 2020.**”⁹⁹ (Emphasis added).

“Officials in Santa Clara County, California, announced last night that at least two deaths in early February can now be attributed to COVID-19. Until now, the first US fatality from the pandemic coronavirus was assumed to be in the Seattle area on Feb 28, but postmortem testing on deaths from **Feb 6 [2020]** and Feb 17 now confirm that COVID-19 was spreading in the San Francisco Bay area weeks earlier than previously thought.”¹⁰⁰

There is no vaccine for COVID-19.

“[As of May 20, 2020] The CDC's current "best guess" is that — **in a scenario without any further social distancing or other efforts to control the spread of the virus — roughly 4 million patients would be hospitalized in the U.S. with COVID-19 and 500,000 would die over the course of the pandemic.** That's according to the agency's new parameters that the Center for Public Integrity plugged into a simple epidemiological model.

....

⁹⁶ <https://www.cdc.gov/flu/vaccines-work/2018-2019.html>

⁹⁷ https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.00455?utm_campaign=covid19fasttrack&utm_medium=p ress&utm_content=basu&utm_source=mediaadvisory citing <https://www.cdc.gov/flu/about/burden/2018-2019.html>

⁹⁸ <https://www.thedenverchannel.com/news/coronavirus/study-covid-19-10-to-40-times-deadlier-than-seasonal-flu>

⁹⁹ <https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html>

¹⁰⁰ <https://www.cidrap.umn.edu/news-perspective/2020/04/coroner-first-us-covid-19-death-occurred-early-february>

The CDC document outlines five possible scenarios¹⁰¹ for the future of the pandemic, one "best guess" and two better-case and two worse-case versions. All of them are "unmitigated," meaning they do not account for future social distancing, widespread mask usage or other efforts to contain the coronavirus.

Social distancing practices among U.S. states vary wildly: Dozens of states have now lifted their stay-at-home orders; seven never issued them, and 15 still mandate that residents stay home when possible, according to the nonpartisan political reference site *Ballotpedia*.

State and local officials can use the scenarios as a baseline model against which to weigh different responses.”¹⁰² (Emphasis added).

“During the week ending April 21, 2020, 15,455 coronavirus-related deaths [occurred], which made the **coronavirus' peak death rate 10 to 40 times higher than the one-week peak of the flu.**”¹⁰³ (Emphasis added).

Early studies indicate that COVID-19 “infection fatality rate” may be substantially higher than the seasonal influenza. A study by the University of Washington using data through April 20, 2020 calculated the U.S. “infection mortality rate” among symptomatic cases (IFR-S) to be 1.3%¹⁰⁴ [13 times the seasonal influenza rate]. Another study calculated a global IFR of 1.04%¹⁰⁵ [10.4 times the seasonal influenza rate]. A study by the London School of Hygiene and Tropical Medicine estimated the infection fatality rate on the Diamond Princess Cruise Ship to be 1.2%¹⁰⁶ [12 times the seasonal influenza rate] Nearly the entire cruise ships 3,711 passengers and crew were tested.

I. Superspreader Cases.

¹⁰¹ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html>

¹⁰² <https://www.npr.org/sections/health-shots/2020/05/22/860981956/scientists-say-new-lower-cdc-estimates-for-severity-of-covid-19-are-optimistic>

¹⁰³ <https://www.thedenverchannel.com/news/coronavirus/study-covid-19-10-to-40-times-deadlier-than-seasonal-flu>

¹⁰⁴ <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2020.00455>; Study assumptions: We make three assumptions for our analysis: (1) Errors in the numerator and the denominator lead to underreporting of true COVID-19 deaths and cases, respectively; error is smaller for deaths than for cases. (2) Both the errors are declining over time. (3) The errors in the denominator are declining at a faster rate than the error in the numerator.

Assumption #1 is self-evident; both the deaths and the actual cases are undercounted during the initial phase of the epidemic. Because deaths are much more visible events than infections, which, in the case of COVID-19, can go asymptomatic during the first few days of infection, we posit that, at any point in time, the errors in the denominator are larger than the errors in the numerator. Hence, this assumption leads to CFR estimates being larger than the IFR-S, which is typically believed to be true based on observed data.

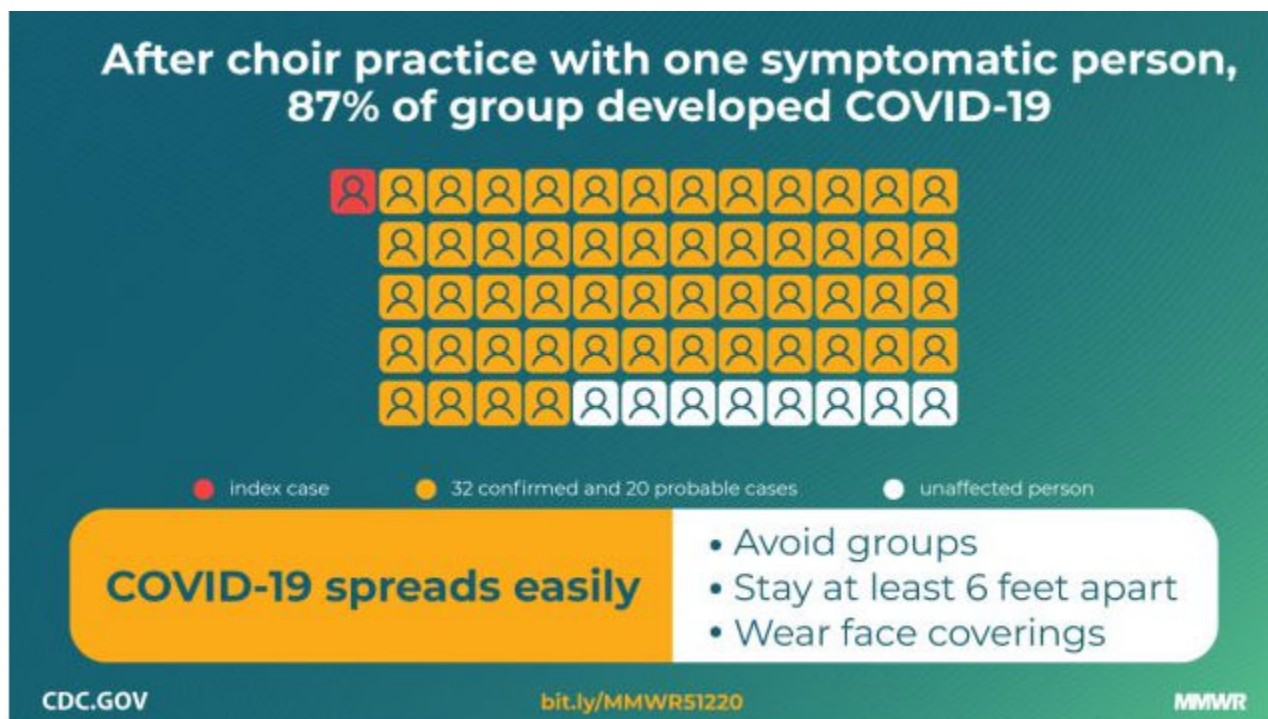
Assumption #2 is our central assumption, which states that under some stationary processes of care delivery, health care supply, and reporting, which are all believed to be improving over time, the errors in both the numerator and the denominator are declining. It implies that we are improving in the measurement of both the numerator and denominator over time, albeit at different rates in different jurisdictions.

Assumption #3 posits that the error in the denominator is declining faster than the error in the numerator. This assumption indicates that the CFR rates, based on the number of cumulative COVID-19 deaths and the cumulative reported COVID-19 cases, are declining over time and are confirmed based on our observed data (described in detail below).

¹⁰⁵ <https://www.medrxiv.org/content/10.1101/2020.05.11.20098780v1>

¹⁰⁶ <https://www.medrxiv.org/content/10.1101/2020.03.05.20031773v2>

“Superspreader Event”: High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice — Skagit County, Washington, March, 2020¹⁰⁷



“Following a 2.5-hour choir practice on March 10, 2020 attended by 61 persons, including a symptomatic index patient, 32 confirmed and 20 probable secondary COVID-19 cases occurred (an attack virus rate of from 53.3% to 86.7%)¹⁰⁸; three patients were hospitalized, and two died. Transmission was likely facilitated by close proximity (within 6 feet) during practice and augmented by the act of singing.

....

No choir member reported having had symptoms at the March 3 practice. One person at the March 10 practice had cold-like symptoms beginning March 7. This person, who had also attended the March 3 practice, had a positive laboratory result for SARS-CoV-2 by reverse transcription–polymerase chain reaction (RT-PCR) testing.

....

Aerosol emission during speech has been correlated with loudness of vocalization, and certain persons, who release an order of magnitude more particles than their peers, have been referred to as superemitters and have been hypothesized to contribute to

¹⁰⁷ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e6.htm>

¹⁰⁸ “The findings in this report are subject to at least two limitations. First, the seating chart was not reported because of concerns about patient privacy. However, with attack rates of 53.3% and 86.7% among confirmed and all cases, respectively, and one hour of the practice occurring outside of the seating arrangement, the seating chart does not add substantive additional information. Second, the 19 choir members classified as having probable cases did not seek testing to confirm their illness. One person classified as having probable COVID-19 did seek testing 10 days after symptom onset and received a negative test result. It is possible that persons designated as having probable cases had another illness.” *Id.*

superspreading events.¹⁰⁹

....

The 2.5-hour singing practice provided several opportunities for droplet and fomite transmission, including members sitting close to one another, sharing snacks, and stacking chairs at the end of the practice. The act of singing, itself, might have contributed to transmission through emission of aerosols, which is affected by loudness of vocalization.

....

Certain persons, known as superemitters, who release more aerosol particles during speech than do their peers, might have contributed to this and previously reported COVID-19 superspreading events (2–5). These data demonstrate the high transmissibility of SARS-CoV-2 and the possibility of superemitters contributing to broad transmission in certain unique activities and circumstances.

....

It is recommended that persons avoid face-to-face contact with others, not gather in groups, avoid crowded places, maintain physical distancing of at least 6 feet to reduce transmission, and wear cloth face coverings in public settings where other social distancing measures are difficult to maintain.”¹¹⁰

High COVID-19 Attack Rate Among Attendees at Events at a Church — Arkansas, March 2020¹¹¹

On March 16, 2020, the day that national social distancing guidelines were released (1), the Arkansas Department of Health (ADH) was notified of two cases of coronavirus disease 2019 (COVID-19) from a rural county of approximately 25,000 persons; these cases were the first identified in this county. The two cases occurred in a husband and wife; the husband is the pastor at a local church.

During March 6–8, the church hosted a 3-day children’s event which consisted of two separate 1.5-hour indoor sessions (one on March 6 and one on March 7) and two, 1-hour indoor sessions during normal church services on March 8. This event was led by two guests from another state. During each session, children participated in competitions to collect offerings by hand from adults, resulting in brief close contact among nearly all children and attending adults.

On March 7, food prepared by church members was served buffet-style. A separate Bible study event was held March 11; the pastor reported most attendees sat apart from one another in a large room at this event. Most children and some adults participated

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ https://www.cdc.gov/mmwr/volumes/69/wr/mm6920e2.htm?s_cid=mm6920e2_w

The findings in this report are subject to at least four limitations. First, some infected persons might have been missed because they did not seek testing, were ineligible for testing based on criteria at the time, or were unable to access testing. Second, although no previous cases had been reported from this county, undetected low-level community transmission was likely, and some patients in this cluster might have had exposures outside the church. Third, risk of exposure likely varied among attendees but could not be characterized because data regarding individual behaviors (e.g., shaking hands or hugging) were not collected. Finally, the number of cases beyond the cohort of church attendees likely is undercounted because tracking out-of-state transmission was not possible, and patients might not have identified church members as their source of exposure.

in singing during the children's event; no singing occurred during the March 11 Bible study. Among all 94 persons who might have attended any of the events, 19 (20%) attended both the children's event and Bible study.

During the investigation, two church participants who attended the March 6–8 children's event were found to have had onset of symptoms on March 6 and 7; these represent the primary cases and likely were the source of infection of other church attendees. The two out-of-state guests developed respiratory symptoms during March 9–10 and later received diagnoses of laboratory-confirmed COVID-19, suggesting that exposure to the primary cases resulted in their infections. The two primary cases were not linked except through the church; the persons lived locally and reported no travel and had no known contact with a traveler or anyone with confirmed COVID-19. Patient interviews revealed no additional common exposures among church attendees.

The husband and wife were the first to be recognized by ADH among the 35 patients with laboratory-confirmed COVID-19 associated with church attendance identified through April 22; their illnesses represent the index cases. During the investigation, two persons who were symptomatic (not the husband and wife) during March 6–8 were identified; these are considered the primary cases because they likely initiated the chain of transmission among church attendees.

The estimated attack rate ranged from 38% (35 cases among all 92 church event attendees) to 78% (35 cases among 45 church event attendees who were tested for SARS-CoV-2).

During contact tracing, at least 26 additional persons with confirmed COVID-19 cases were identified among community members who reported contact with the church attendees and likely were infected by them; one of the additional persons was hospitalized and subsequently died.

Community Transmission of SARS-CoV-2 at Two Family Gatherings — Chicago, Illinois, February–March 2020¹¹²

Most early reports of person-to-person SARS-CoV-2 transmission have been among household contacts, where the secondary attack rate has been estimated to exceed 10% (1), in health care facilities (2), and in congregate settings (3). However, widespread community transmission, as is currently being observed in the United States, requires more expansive transmission events between nonhousehold contacts.

This report describes the cluster of 16 cases¹¹³ of confirmed or probable COVID-19,

¹¹² *Id.*

¹¹³ The findings in this investigation are subject to at least three limitations. First, lack of laboratory testing for probable cases means some probable COVID-19 patients might have instead experienced unrelated illnesses, although influenza-like illness was declining in Chicago at the time. Second, phylogenetic data, which could confirm presumed epidemiologic linkages, were unavailable. For example, patient B3.1 experienced exposure to two patients with confirmed COVID-19 in this cluster, and the causative exposure was presumed based on expected incubation periods. Patient D3.1 was a health care professional, and, despite not seeing any patients with known COVID-19, might have

including three deaths, likely resulting from transmission of SARS-CoV-2 at two family gatherings (a funeral and a birthday party).

The median interval from last contact with a patient with confirmed or probable COVID-19 to first symptom onset was 4 days. Within 3 weeks after mild respiratory symptoms were noted in the index patient, 15 other persons were likely infected with SARS-CoV-2, including three who died. Patient A1.1, the index patient, was apparently able to transmit infection to 10 other persons, despite having no household contacts and experiencing only mild symptoms for which medical care was not sought (patient A1.1 was only tested later as part of this epidemiologic investigation).

Identifying and Interrupting Superspreading Events—Implications for Control of Severe Acute Respiratory Syndrome Coronavirus 2¹¹⁴

Severe acute respiratory syndrome (SARS) coronavirus 2 (SARS-CoV-2) continues to spread (1). Although we still have limited information on the epidemiology of coronavirus disease (COVID-19), there have been multiple reports of superspreading events (SSEs)

SSEs highlight a major limitation of the concept of R_0 . The basic reproductive number R_0 , when presented as a mean or median value, does not capture the heterogeneity of transmission among infected persons (16); 2 pathogens with identical R_0 estimates may have markedly different patterns of transmission. Furthermore, the goal of a public health response is to drive the reproductive number to a value <1 , something that might not be possible in some situations without better prevention, recognition, and response to SSEs.

J. COVID-19 Potential for a Second Wave of Infections in Fall, 2020.

“Scientists still don’t fully understand key aspects of the virus, including how immune systems respond once a person is exposed. The answers may have large implications for vaccine development, including how quickly it can be deployed to the public.

....

‘Four months into this pandemic, we’re not able to say an antibody response means someone is immune,’ Dr. Maria Van Kerkhove, head of the World Health Organization’s emerging diseases and zoonosis unit, said during an April 27 news conference.

There have been multiple reports of patients who tested positive for the coronavirus after having recovered. Experts say it’s unclear if the tests were simply picking up on dead fragments of the virus left in the body or if the virus was able to infect someone more than once.

acquired SARS-CoV-2 during clinical practice rather than through contact with members of this cluster. Similarly, other members of the cluster might have experienced community exposures to SARS-CoV-2, although these transmission events occurred before widespread community transmission of SARS-CoV-2 in Chicago. Finally, despite intensive epidemiologic investigation, not every confirmed or probable case related to this cluster might have been detected. Persons who did not display symptoms were not evaluated for COVID-19, which, given increasing evidence of substantial asymptomatic infection (9), means the size of this cluster might be underestimated. *Id.*

¹¹⁴ https://wwwnc.cdc.gov/eid/article/26/6/20-0495_article

‘I would say there’s a lot of optimism,’ Abraham said. ‘But I think the optimism is making a lot of assumptions. The assumptions include that what we’re seeing now is a type of infection where if you get infected and you’re reexposed shortly after that you won’t be infected again.’

....

If the coronavirus emerges again in the fall as expected, scientists wonder whether the people who have survived the first wave of infections will have enough antibodies to fight off another infection, Walker asked.

‘And that’s just going to take time because we have to see what happens after two months, four months, six months and then we have to monitor people to see what’s going to happen then,’ he said.”¹¹⁵ (Emphasis added).

K. Community or “Herd” Immunity.

“Community immunity [or herd immunity]: A situation in which a sufficient proportion of a population is immune to an infectious disease (through vaccination and/or prior illness) to make its spread from person to person unlikely. Even individuals not vaccinated (such as newborns and those with chronic illnesses) are offered some protection because the disease has little opportunity to spread within the community....”¹¹⁶

“Although more than 2.5 million confirmed cases of COVID-19 have been reported worldwide, studies suggest that (as of early April 2020) no more than 2-4% of any country’s population has been infected with SARS-CoV-2 (the coronavirus that causes COVID-19). Even in hotspots like New York City that have been hit hardest by the pandemic, initial studies suggest that perhaps 15-21% of people have been exposed so far. In getting to that level of exposure, more than 17,500 of the 8.4 million people in New York City (about 1 in every 500 [480] New Yorkers) have died, with the overall death rate in the city suggesting deaths may be undercounted and mortality may be even higher. [more recent data indicate that as of May 24, 2020, New York City has suffered 16,469 confirmed COVID-19 deaths (i.e., positive laboratory test) and another 4,747 probable deaths (i.e., cause of death reported as "COVID-19" or equivalent, but no positive laboratory test) for a total of 21,216 deaths, about 1 in every 395 New Yorkers].”¹¹⁷

....

To reach herd immunity for COVID-19, likely 70% or more of the population would need to be immune. Without a vaccine, over 200 million Americans would have to get infected before we reach this threshold. Put another way, even if the current pace of the COVID-19 pandemic continues in the United States – with over 25,000 confirmed cases a day – it will be well into 2021 before we reach herd immunity.”¹¹⁸

“There are two ways this [community immunity] can happen.

You can develop resistance naturally. When your body is exposed to a virus or bacteria, it

¹¹⁵ <https://www.cnbc.com/2020/05/21/coronavirus-vaccine-why-it-may-be-ready-early-next-year-and-what-could-go-wrong.html>

¹¹⁶ <https://www.cdc.gov/vaccines/terms/glossary.html#commimmunity>

¹¹⁷ <https://www1.nyc.gov/site/doh/covid/covid-19-data.page>

¹¹⁸ <https://coronavirus.jhu.edu/from-our-experts/early-herd-immunity-against-covid-19-a-dangerous-misconception>

makes antibodies to fight off the infection. When you recover, your body keeps these antibodies. Your body will defend against another infection. This is what stopped the Zika virus outbreak in Brazil. Two years after the outbreak began, 63% of the population had had exposure to the virus. Researchers think the community reached the right level for herd immunity.

Vaccines can also build resistance. They make your body think a virus or bacteria has infected it. You don't get sick, but your immune system still makes protective antibodies. The next time your body meets that bacteria or virus, it's ready to fight it off. This is what stopped polio in the United States.

When does a community reach herd immunity? It depends on the reproduction number, or R_0 . The R_0 tells you the average number of people that a single person with the virus can infect if those people aren't already immune. The higher the R_0 , the more people need to be resistant to reach herd immunity.

Researchers think that the R_0 for COVID-19 is between 2 and 3. This means that one person can infect two to three other people. It also means 50% to 67% of the population would need to be resistant before herd immunity kicks in and the infection rates start to go down.”¹¹⁹

L. Development of COVID-19 Antibodies and Immunity.

“Nearly all immune competent individuals will develop an immune response following SARS-CoV-2 infection. Like infections with other pathogens, SARS-CoV-2 infection elicits development of IgM and IgG antibodies, which are the most useful for assessing antibody response because little is known about IgA response in the blood.

Antibodies in some persons can be detected within the first week of illness onset. SARS-CoV-2 infections are somewhat unusual because IgM and IgG antibodies arise nearly simultaneously in serum within 2 to 3 weeks after illness onset. Thus, detection of IgM without IgG is uncommon. How long IgM and IgG antibodies remain detectable following infection is not known.

In addition, development of neutralizing antibodies can also be assessed. Neutralizing antibodies inhibit viral replication in vitro, and as with many infectious diseases, **their presence correlates with immunity to future infection, at least temporarily.**

Recurrence of COVID-19 illness appears to be very uncommon, suggesting that the presence of antibodies could confer **at least short-term immunity** to infection with SARS-CoV-2. Consistent with this observation, experimental primary infection in primates and subsequent development of antibodies resulted in protection from reinfection after the primates were rechallenged.

Additionally, antibody development in humans correlates with a marked decrease in viral load in the respiratory tract. Taken together, these observations suggest that the presence of antibodies may decrease a person's infectiousness and offer some level of protection from

¹¹⁹ <https://www.webmd.com/lung/what-is-herd-immunity#1>

reinfection. **However, definitive data are lacking, and it remains uncertain whether individuals with antibodies (neutralizing or total) are protected against reinfection with SARS-CoV-2, and if so, what concentration of antibodies is needed to confer protection.**¹²⁰ (Emphasis added).

M. COVID-19 Virus Mutations.

Depending on the level of contagiousness of COVID-19 expressed in the R_0 ¹²¹ value, “the threshold for combined [COVID-19] vaccine efficacy and herd immunity needed for disease extinction” is estimated between 55% and 82% “(i.e., >82% of the population has to be immune, through either vaccination or prior infection, to achieve herd immunity to stop transmission).¹²²

“The new [SARS-CoV-2] coronavirus is an RNA virus: a collection of genetic material packed inside a protein shell. Once an RNA virus makes contact with a host, it starts to make new copies of itself that can go on to infect other cells.

RNA viruses, like the flu and measles, are more prone to changes and mutations compared with DNA viruses, such as herpes, smallpox, and human papillomavirus (HPV).

‘In the world of RNA viruses, change is the norm. We expect RNA viruses to change frequently. That’s just their nature,’ said Dr. Mark Schleiss, a pediatric infectious disease specialist and investigator with the Institute for Molecular Virology at the University of Minnesota.

SARS-CoV-2 is no exception, and over the past few months it has been mutating.

But the virus has mutated at a very slow pace. And when it does mutate, the new copies aren’t far off from the original virus.

‘The sequences of the original isolates from China are very close to those in viruses circulating in the U.S. and the rest of the world,’ said Dr. John Rose, a senior research scientist in the department of pathology at Yale Medicine who’s helping develop a COVID-19 vaccine.

....

Early research from scientists at Los Alamos National Laboratory¹²³ shows that SARS-CoV-2 has mutated into a new form that may be more contagious.

The new strain is responsible for the vast majority of infections reported around the world

¹²⁰ <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antibody-tests-guidelines.html>

¹²¹ “The basic reproduction number (R_0), pronounced “R naught,” is intended to be an indicator of the contagiousness or transmissibility of infectious and parasitic agents.... R_0 has been described as being one of the fundamental and most often used metrics for the study of infectious disease dynamics (7–12). An R_0 for an infectious disease event is generally reported as a single numeric value or low–high range, and the interpretation is typically presented as straightforward; an outbreak is expected to continue if R_0 has a value >1 and to end if R_0 is <1 (13). The potential size of an outbreak or epidemic often is based on the magnitude of the R_0 value for that event (10), and R_0 can be used to estimate the proportion of the population that must be vaccinated to eliminate an infection from that population (14,15). R_0 values have been published for measles, polio, influenza, Ebola virus disease, HIV disease, a diversity of vectorborne infectious diseases, and many other communicable diseases (14,16–18).

https://wwwnc.cdc.gov/eid/article/25/1/17-1901_article

¹²² https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article#suggestedcitation

¹²³ <https://www.biorxiv.org/content/10.1101/2020.04.29.069054v1>

since mid-March, according to the new study published in the preprint research website BioRxiv Thursday.

In total, the researchers identified 14 strains of COVID-19 and released their findings to help those working on vaccines and treatments.

That being said, the new dominant strain identified does seem to be more infectious in laboratory settings.

But scientists are now trying to understand how the variation behaves in the body — which may be very different from lab settings. Additionally, the study is in preprint, which means it hasn't yet been fully peer-reviewed.

It's also unclear whether the new mutation infects and sickens people differently. At this time, the illness and hospitalization rates caused by the new variation seems to be similar.”¹²⁴

N. COVID-19 Vaccine Development and Deployment.

“U.S. officials and scientists are hopeful a vaccine to prevent Covid-19 will be ready in the first half of 2021 - 12 to 18 months since Chinese scientists first identified the coronavirus and mapped its genetic sequence. It's far from guaranteed. Even the most optimistic epidemiologists hedge their bets when they say it could be ready that quickly. And a lot can go wrong that could delay their progress, scientists and infectious disease experts warn.

It's a record-breaking time frame for a process that normally takes about a decade for an effective and safe vaccine. The fastest-ever vaccine development, mumps, took more than four years and was licensed in 1967. A lot has changed since then that gives scientists reasonable hope a Covid-19 vaccine could be available early next year.

Scientists still don't fully understand key aspects of the virus, including how immune systems respond once a person is exposed. The answers may have large implications for vaccine development, including how quickly it can be deployed to the public.

....

Assuming a vaccine can be developed, manufacturing it in large quantities may also be an issue, said Stanford's Greenberg. Some promising vaccines under development are using genetic material called messenger RNA, or mRNA, that was produced in a lab.

Messenger RNA vaccines, which are capable of being produced more quickly than traditional vaccines that use a killed or weakened form of the virus, have never been licensed for infectious diseases before, he said.

There are still unknowns, Greenberg said, adding that producing enough for the world's 7.6 billion people in 18 months would be “totally ludicrous.” Moderna said it hopes to produce about 1 billion doses of its vaccine per year. Pharmaceutical giant Pfizer, which is also using mRNA technology, hopes to produce “millions” of vaccines by the end of this year and

¹²⁴ <https://www.healthline.com/health-news/what-to-know-about-mutation-and-covid-19#The-new-coronavirus-is-mutating,-but-very-slowly>

expects to increase to “hundreds of millions” of doses next year.”¹²⁵

There are over 329,000,000 people living in the United States.¹²⁶

Successful deployment of a COVID-19 vaccine will depend on the willingness of the U. S. population to actually take the vaccine. In a Reuters’ survey¹²⁷ of 4,428 U.S. adults taken between May 13 and May 19:

“Fourteen percent of respondents said they were not at all interested in taking a vaccine, and 10% said they were not very interested. Another 11% were unsure.

....

Overall, 84% of respondents said vaccines for diseases such as measles are safe for both adults and children, suggesting that people hesitant to take a coronavirus vaccine might reconsider, depending on safety assurances they receive. For example, among those who said they were “not very” interested in taking the vaccine, 29% said they would be more interested if the FDA approved it.

....

In addition, misinformation about vaccines has grown more prevalent on social media during the pandemic, according to academic researchers.

‘It’s not surprising a significant percentage of Americans are not going to take the vaccine because of the terrible messaging we’ve had, the absence of a communication plan around the vaccine and this very aggressive anti-vaccine movement,’ said Peter Hotez, dean of the National School of Tropical Medicine at Baylor College of Medicine, where he is developing a vaccine.

....

The Reuters/Ipsos poll was conducted online, in English, throughout the United States and had a credibility interval, a measure of precision, of plus or minus 2 percentage points.”¹²⁸

O. Laws and Regulations

Neither OSHA nor VOSH has a regulation specific to SARS-CoV-2 or COVID-19 or infectious diseases generally.¹²⁹

Certain VOSH regulations (identical to OSHA counterparts unless otherwise noted)

¹²⁵ <https://www.cnbc.com/2020/05/21/coronavirus-vaccine-why-it-may-be-ready-early-next-year-and-what-could-go-wrong.html>

¹²⁶ <https://www.census.gov/popclock/>

¹²⁷ <https://www.reuters.com/article/us-health-coronavirus-vaccine-poll-exclu/exclusive-a-quarter-of-americans-are-hesitant-about-a-coronavirus-vaccine-reuters-ipsos-poll-idUSKBN22X19G>

¹²⁸ *Id.*

¹²⁹ Following the H1N1 virus outbreak in 2009, the AFL-CIO petitioned OSHA on May 28, 2009 for an infectious disease standard to be promulgated. In 2010, OSHA published a Request for Information toward developing an infectious disease standard, held stakeholder meetings, and conducted site visits. A regulatory framework document was created. In Spring 2017, on OSHA’s Regulatory Agenda an infectious disease standard was placed under long term action. No subsequent actions have been taken by OSHA toward this standard during the current administration. <https://www.osha.gov/dsg/id/>. The AFL-CIO has again recently petitioned OSHA for a standard covering COVID-19 exposure risks, and on May 18, 2020 filed a petition in the U.S. Circuit Court of Appeals for the District of Columbia asking the court to order OSHA to promulgate such a rule. *In re: AFL-CIO*, dkt. no. 20-1158 (D.C. Cir. 2020).

can be used to address some SARS-CoV-2 or COVID-19 hazards.

1. VOSH Regulations

a. General Industry.

General requirements to provide personal protective equipment to employees in **General Industry** are contained in:

1910.132 (Personal Protective Equipment)¹³⁰,

1910.133 (Eye and Face Protection)¹³¹, however, the scope of the regulation is limited to exposure “to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.” It is does not reference exposure to airborne biological hazards.

1910.134 (Respiratory Protection)¹³²,

1910.138 (Hand Protection)¹³³

1910.141 (Sanitation)¹³⁴

1910.142 (Temporary Labor Camps)¹³⁵

1910.1200 (Hazard Communication)¹³⁶ (i.e., regulatory requirements for employee use of certain cleaning chemicals)

1910.1045 (Occupational Exposure to Hazardous Chemicals in Laboratories)¹³⁷

b. Construction Industry.

1926.21(b)(2)¹³⁸ (Safety Training and Education)

1926.59 (Hazard Communication)¹³⁹ (i.e., regulatory requirements for employee use of certain cleaning chemicals)

¹³⁰ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132>

¹³¹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.133>

¹³² <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134>

¹³³ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.138>

¹³⁴ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141>

¹³⁵ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.142>

¹³⁶ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>

¹³⁷ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1450>

¹³⁸ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

¹³⁹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.59>

1926.28¹⁴⁰ and 1926.95¹⁴¹, (Personal Protective Equipment)

NOTE: The Construction Industry does not have a requirement comparable to 1910.132(d) which requires General Industry employers to conduct a written workplace assessment to “determine if hazards are present, or are likely to be present, which necessitate the use of” PPE.¹⁴²

1926.102 (Eye and Face Protection)¹⁴³; however, the scope of the regulation is limited to exposure “to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.” It is does not reference exposure to airborne biological hazards.

1926.103 (Respiratory Protection)¹⁴⁴

NOTE: The Construction Industry Standards do not have a “Hand Protection” regulation similar to 1910.138.

16VAC25-160¹⁴⁵ (Construction Industry Sanitation Standard – Virginia unique regulation that is the functional equivalent of 1926.51 for Construction), sanitation requirements are limited to “Toilet facilities shall be operational and maintained in a clean and sanitary condition.”

c. Agriculture Industry.

1928.21(a)(1)¹⁴⁶ (Temporary Labor Camps, 1910.142 applies to agricultural operations)

¹⁴⁰ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.28>

¹⁴¹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.95>

¹⁴² 1910.132(d), Hazard assessment and equipment selection.

1910.132(d)(1), The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

1910.132(d)(1)(i), Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

1910.132(d)(1)(ii), Communicate selection decisions to each affected employee; and,

1910.132(d)(1)(iii), Select PPE that properly fits each affected employee.

Note: Non-mandatory appendix B contains an example of procedures that would comply with the requirement for a hazard assessment.

1910.132(d)(2)

The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

¹⁴³ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.102>

¹⁴⁴ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.103>

¹⁴⁵ <https://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+16VAC25-160-10>

¹⁴⁶ <https://www.osha.gov/laws-regs/regulations/standardnumber/1928/1928.21>

1928.21(a)(5)¹⁴⁷ (Hazard Communication, 1910.1200 applies to agricultural operations) (i.e., regulatory requirements for employee use of certain cleaning chemicals)

1910.142 (Temporary Labor Camps)¹⁴⁸ applies to the Agriculture Industry

16VAC25-180¹⁴⁹ (Field Sanitation - Virginia unique regulation that is the functional equivalent of 1928.110 for Agriculture), sanitation requirements are limited to “(3) Maintenance. Potable drinking water and toilet and handwashing facilities shall be maintained in accordance with appropriate public health sanitation practices, including the following:

(i) Drinking water containers shall be constructed of materials that maintain water quality, shall be refilled daily or more often as necessary, shall be kept covered and shall be regularly cleaned.

(ii) Toilet facilities shall be operational and maintained in clean and sanitary condition.

(iii) Handwashing facilities shall be refilled with potable water as necessary to ensure an adequate supply and shall be maintained in a clean and sanitary condition; and

(iv) Disposal of wastes from facilities shall not cause unsanitary conditions.

NOTE: There are no regulatory requirements in the Agriculture Industry for PPE, including respiratory protection.

d. Maritime Industry.

NOTE: VOSH has jurisdiction of state and local government maritime related activities only. OSHA retains jurisdiction over private sector maritime activities in Virginia.

1915.88¹⁵⁰, Shipyard Employment (Sanitation)

1915.152¹⁵¹, Shipyard Employment (Personal Protective Equipment)

¹⁴⁷ <https://www.osha.gov/laws-regs/regulations/standardnumber/1928/1928.21>

¹⁴⁸ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.142>

¹⁴⁹ <https://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+16VAC25-180-10>

¹⁵⁰ <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.88>

¹⁵¹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.152>

1915.153¹⁵², Shipyard Employment (Eye and Face Protection); however, the scope of the regulation is limited to exposure “to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.” It does not reference exposure to airborne biological hazards.

1915.154¹⁵³, Shipyard Employment (Respiratory Protection)

1915.157¹⁵⁴, Shipyard Employment (Hand and Body Protection)

1917.127¹⁵⁵, Marine Terminal Operations (Sanitation)

1917.1(a)(2)(vi)¹⁵⁶, Marine Terminal Operations (Hazard Communication, 1910.1200)

1917.92 and 1917.1(a)(2)(x)¹⁵⁷, Marine Terminal Operations (Respiratory Protection, 1910.134)

1917.91¹⁵⁸, Marine Terminal Operations (Eye and Face Protection)

1917.95¹⁵⁹, Marine Terminal Operations (PPE, Other Protective Measures)

1918.95¹⁶⁰, Longshoring (Sanitation)

1918.90¹⁶¹, Longshoring (Hazard Communication)

1918.102¹⁶² Longshoring (Respiratory Protection)

1918.101¹⁶³ Longshoring (Eye and Face Protection)

2. Recognized Mitigation Strategies for COVID-19 Not Covered by VOSH Regulations or Standards.

There are no VOSH or OSHA regulations or standards that would require:

¹⁵² <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.153>

¹⁵³ <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.154>

¹⁵⁴ <https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.157>

¹⁵⁵ <https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.127>

¹⁵⁶ [https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.1#1917.1\(a\)\(2\)\(ix\)](https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.1#1917.1(a)(2)(ix))

¹⁵⁷ *Id.*

¹⁵⁸ <https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.91>

¹⁵⁹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.95>

¹⁶⁰ <https://www.osha.gov/laws-regs/regulations/standardnumber/1918/1918.95>

¹⁶¹ <https://www.osha.gov/laws-regs/regulations/standardnumber/1918/1918.90>

¹⁶² <https://www.osha.gov/laws-regs/regulations/standardnumber/1918/1918.102>

¹⁶³ <https://www.osha.gov/laws-regs/regulations/standardnumber/1918/1918.101>

Physical distancing of at least six feet where feasible (also known as Social Distancing)

Disinfection of work areas where known or suspected COVID-19 employees or other persons accessed or worked¹⁶⁴

Employers to develop policies and procedures for employees to report when they are sick or experiencing symptoms consistent with COVID-19

Employers to, prior to the commencement of each work shift, prescreen of employees and other persons to verify each employee or person is not COVID-19 symptomatic

Employers to prohibit known and suspected COVID-19 employees and other persons from reporting to or being allowed to remain at work or on a job site until cleared for return

Employers to develop and implement policies and procedures for known COVID-19 or suspected COVID-19 employees to return to work using either a symptom-based or test-based strategy depending on local healthcare and testing circumstances

Employers to prohibit COVID-19 positive employees from reporting to or being allowed to remain at work or on a job site until cleared for return to work

Employers to provide employees assigned to work stations and in frequent

¹⁶⁴ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141>

1910.141(a)(3)(i) provides that “All places of employment shall be kept **clean** to the extent that the nature of the work allows.” (Emphasis added). The term “sanitary” is not used, although it is used in reference to “washing facilities”, “waste disposal”, “food storage”, “sweepings”, and “drinking water”.

1910.141(a)(4)(i) provides that “Any receptacle used for putrescible solid or liquid waste or refuse shall be so constructed that it does not leak and may be thoroughly cleaned and maintained in a **sanitary** condition. Such a receptacle shall be equipped with a solid tight-fitting cover, unless it can be maintained in a **sanitary** condition without a cover. This requirement does not prohibit the use of receptacles which are designed to permit the maintenance of a **sanitary** condition without regard to the aforementioned requirements.” (Emphasis added).

1910.141(a)(4)(ii) provides that “All sweepings, solid or liquid wastes, refuse, and garbage shall be removed in such a manner as to avoid creating a menace to health and as often as necessary or appropriate to maintain the place of employment in a **sanitary** condition.” (Emphasis added).

1910.141(b)(1)(iii) provides that “Portable drinking water dispensers shall be designed, constructed, and serviced so that **sanitary** conditions are maintained, shall be capable of being closed, and shall be equipped with a tap.” (Emphasis added).

1910.141(d)(1) provides that “Washing facilities shall be maintained in a **sanitary** condition.” (Emphasis added).

1910.141(g)(3) provides that “Waste disposal containers. Receptacles constructed of smooth, corrosion resistant, easily cleanable, or disposable materials, shall be provided and used for the disposal of waste food. The number, size, and location of such receptacles shall encourage their use and not result in overfilling. They shall be emptied not less frequently than once each working day, unless unused, and shall be maintained in a **clean and sanitary** condition. Receptacles shall be provided with a solid tight-fitting cover unless **sanitary** conditions can be maintained without use of a cover.” (Emphasis added).

1910.141(g)(4) provides that “**Sanitary** storage. No food or beverages shall be stored in toilet rooms or in an area exposed to a toxic material.” (Emphasis added).

contact with other persons inside six feet with alcohol based hand sanitizers at their workstations

Employers with hazards or job tasks classified at very high, high, or medium exposure risk to develop a written Infectious Disease Preparedness and Response Plan

Employee training on SARS-CoV-2 and COVID-19 hazards, with the exception of 1926.21(b)(2) referenced above for the Construction Industry

NOTE: Employers that provide training to employees will be able to avail themselves of an affirmative defense to VOSH citations and penalties known as the “Employee Misconduct Defense,” which is codified in VOSH regulation 16 VAC 25-60-260.B:¹⁶⁵

B. A citation issued under subsection A of this section to an employer who violates any VOSH law, standard, rule, or regulation **shall be vacated if such employer demonstrates that:**

1. **Employees of such employer have been provided with the proper training** and equipment to prevent such a violation;
2. Work rules designed to prevent such a violation have been established and adequately communicated to employees by such employer and have been effectively enforced when such a violation has been discovered;
3. The failure of employees to observe work rules led to the violation; and
4. Reasonable steps have been taken by such employer to discover any such violation.
(Emphasis added)

In order for an employer to avail themselves of the above affirmative defense, which can result in dismissal of COVID-19 citations and penalties, they have to be able to demonstrate that employees were trained on hazards regulated by and the requirements of the ETS/ER. Including a training requirement in the ETS/ER will assure that employers have preserved an important legal right.

3. Va. Code §40.1-51(a), the “General Duty Clause”.

¹⁶⁵ <https://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+16VAC25-60-260>

While neither OSHA nor VOSH has a regulation specific to SARS-CoV-2 or COVID-19, Va. Code §40.1-51(a), otherwise known as the “general duty clause” (the Virginia equivalent to §5(a)(1))¹⁶⁶ of the OSH Act of 1970), provides that:

“It shall be the duty of every employer to furnish to each of his employees safe employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees....”

While Congress intended that the primary method of compliance and enforcement under the OSH Act of 1970 would be through the adoption of occupational safety and health standards¹⁶⁷, it also provided the general duty clause as an enforcement tool that could be used in the absence of an OSHA (or VOSH) regulation.

As is evident from the wording of the general duty statute, it does not directly address the issue of SARS-CoV-2 or COVID-19 related hazards. While preferable to no enforcement tool at all, the general duty clause does not provide either the regulated community, employees, or the VOSH Program with substantive and consistent requirements on how to reduce or eliminate SARS-CoV-2 or COVID-19 related hazards.

Federal case law has established that the general duty clause can be used to address “serious” recognized hazards to which employees of the cited employer are exposed through reference to such things as national consensus standards, manufacturer’s requirements, requirements of the Centers for Disease Control (CDC), or an employer’s safety and health rules.

However, there are limitations to use of the general duty clause that make it problematic to enforce and result in its infrequent use. The recent 2019 decision of the Occupational Safety and Health Review Commission’s (OSHRC) in *Secretary of Labor v. A. H. Sturgill Roofing, Inc.*,¹⁶⁸ demonstrates the complexities and difficulties of establishing a heat-related illness general duty “recognized hazard” and accompanying violation in a case where an employee of a roofing contractor collapsed and later died with a diagnosis of heat stroke where the employee’s core body temperature was determined to be 105.4°F.¹⁶⁹

One limitation of use of the general duty clause can result in unfortunate outcomes in at a worksite with multiple employers. For instance, a general duty clause violation can only be issued to an employer whose own employees were exposed to the alleged

¹⁶⁶ https://www.osha.gov/laws-regs/oshact/section_5, 29 U.S.C. § 654(a)(1).

¹⁶⁷ *The Law of Occupational Safety and Health*, Nothstein, 1981, page 259.

¹⁶⁸ OSHRC Docket No. 13-0224, [https://www.oshrc.gov/assets/1/18/A.H. Sturgill Roofing Inc.%5E13-0224%5EComplete_Decision_signed%5E022819%5EFINAL.pdf?8324](https://www.oshrc.gov/assets/1/18/A.H._Sturgill_Roofing_Inc.%5E13-0224%5EComplete_Decision_signed%5E022819%5EFINAL.pdf?8324)

¹⁶⁹ *Id.* at pages 2-3, Contributing factors included that the worker had some preexisting medical conditions, it was his first day on the job, and the outside temperature at the time of collapse was estimated to be 82°F with 51 percent relative humidity. The work took place on a flat roof with periods of direct sun alternating with clouds; and involved removing a single-ply sheet rubber membrane and Styrofoam insulation so that a new roof could be installed.

hazardous condition.¹⁷⁰ In the context of a COVID-19 situation, consider a subcontractor who sends one employee to a multi-employer worksite who is COVID-19 positive and knowingly allows that employee to work around disease free employees of a second subcontractor, which results in the transmission of the disease to one or more of the second contractors' employees.

In such a situation, because no uninfected employees of the first contractor were exposed to the disease at the worksite, the contractor who created the hazard could not be issued a general duty violation or accompanying monetary penalty.

There is no ability to cite "other-than-serious" general duty violations ("other than serious" violations normally do not carry a monetary penalty) because the statutory language specifies that the hazard be one that is "causing or likely to cause death or serious physical harm."

In the context of the COVID-19 pandemic, the primary problem with the use of the general duty clause is the inability to use it to enforce any national consensus standard, manufacturer's requirements, CDC recommendations, or employer safety and health rules which use "should," "may," "it is recommended," and similar non-mandatory language.¹⁷¹

a. Use of the General Duty Clause to Enforce OSHA and CDC Guidelines.

All of the "Guidelines" published by OSHA, both of general application and directed to specific industries are by their own wording, unenforceable under the General Duty Clause:

"This guidance is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace."¹⁷²

With regard to CDC guidelines generally, as an example, its "Meat and Poultry Processing Workers and Employers, Interim Guidance from CDC and the Occupational Safety and Health Administration (OSHA)"¹⁷³ states that:

"All meat and poultry processing facilities developing plans for continuing

¹⁷⁰https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\181\GDoc_DOLI_5354_v6.pdf, VOSH Field Operations Manual (FOM), Chapter 10, page 18)

¹⁷¹" Courts and the [Occupational Safety and Health Review] Commission have held that OSHA must define an alleged hazard in such a way as to give the employer fair notice of its obligations under the OSH Act. In *Ruhlin Co.* [*Ruhlin Co.*, 21 OSH Cases 1779], the Commission held that the employer 'lacked fair notice that it could have an obligation under section 5(a)(1) to require its employees to wear high visibility vests.' The Commission found that a May 2004 interpretive letter by OSHA refers to a provision of the Federal Highway Administration manual which contained optional, not mandatory language."

¹⁷² <https://www.osha.gov/Publications/OSHA3990.pdf>, at page 2.

¹⁷³ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html>

operations in the setting of COVID-19 occurring among workers or in the surrounding community **should** (1) work directly with appropriate state and local public health officials and occupational safety and health professionals; (2) incorporate relevant aspects of CDC guidance, including but not limited to this document and the CDC’s Critical Infrastructure Guidance; and (3) incorporate guidance from other authoritative sources or regulatory bodies as needed.”¹⁷⁴ (Emphasis added).

The above-referenced CDC Interim Guidance document contains very little “mandatory” language:

- “shall” is never used
- “much” is used 8 times but mostly with regard to OSHA regulatory requirements
- “should” is used 56 times
- “may” is used 39 times
- “recommend” or “recommendation” is used 7 times

In addition, the large majority of CDC’s documents providing employers with mitigation strategies for COVID-19 identify them as “recommendations” rather than mandatory requirements, which makes use of the General Duty Clause to enforce them very problematic.

For instance, the CDC’s “Interim Guidance for Restaurants and Bars”¹⁷⁵ appears unenforceable under the General Duty Clause, even though the body of the document lists what read like “requirements” without any qualifying “should” or “may” language, because the opening paragraph says the following:

“This **guidance** provides **considerations** for businesses in the food service industry (e.g., restaurants and bars) on ways to maintain healthy business operations and a safe and healthy work environment for employees, while reducing the risk of COVID-19 spread for both employees and customers. **Employers should follow applicable** Occupational Safety and Health Administration (OSHA) and **CDC guidance for businesses to plan and respond to COVID-19**. All decisions about implementing **these recommendations** should be made in collaboration with local health officials and other State and local authorities who can help assess the current level of mitigation needed based on levels of COVID-19 community transmission and the capacities of the local public health and healthcare systems. CDC is releasing this interim **guidance**, laid out in a series of three steps, to inform a gradual scale up of activities towards pre-COVID-19 operating practices. The scope and nature of community mitigation suggested decreases from Step 1 to Step 3. Some amount of community mitigation is necessary across all steps

¹⁷⁴ *Id.*

¹⁷⁵ <https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/CDC-Activities-Initiatives-for-COVID-19-Response.pdf#page=53>

until a vaccine or therapeutic drug becomes widely available.” (Emphasis added).

b. Use of the General Duty Clause to Enforce “Mandatory” Requirements in Virginia Executive Orders.

Where Virginia Executive Order 61¹⁷⁶ provides for mandatory measures to be taken by an employer **to protect employees** (e.g., wearing of “face covering” or “physical distancing” of 6 feet), the Department believes that it would be able to use the General Duty Clause to enforce such requirements. However, only those mitigation measures that contain “mandatory” language that result in protection for employees can be enforced using the General Duty Clause.

4. Va. Code §18.2-422, Prohibition of wearing of masks in certain places; exceptions.¹⁷⁷

Section 18.2-422 provides as follows:

“It shall be unlawful for any person over 16 years of age to, **with the intent to conceal his identity**, wear any mask, hood or other device whereby a substantial portion of the face is hidden or covered so as to conceal the identity of the wearer, **to be or appear in any public place, or upon any private property in this Commonwealth without first having obtained from the owner or tenant thereof consent to do so in writing.** However, **the provisions of this section shall not apply to persons** (i) wearing traditional holiday costumes; (ii) **engaged in professions, trades, employment or other activities and wearing protective masks which are deemed necessary for the physical safety of the wearer or other persons;** (iii) engaged in any bona fide theatrical production or masquerade ball; or (iv) wearing a mask, hood or other device for bona fide medical reasons upon (a) the advice of a licensed physician or osteopath and carrying on his person an affidavit from the physician or osteopath specifying the medical necessity for wearing the device and the date on which the wearing of the device will no longer be necessary and providing a brief description of the device, or **(b) the declaration of a disaster or state of emergency by the Governor in response to a public health emergency where the emergency declaration expressly waives this section, defines the mask appropriate for the emergency, and provides for the duration of the waiver.** The violation of any provisions of this section is a Class 6 felony.” (Emphasis added).

Virginia Executive Order 62 continues the waiver of Va. Code §18.2-422 of the Code of Virginia so as to allow the wearing of a medical mask, respirator, or any other protective face covering for the purpose of facilitating the protection of one’s personal health in response to the COVID-19 public health emergency declared by the State

¹⁷⁶ [https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)

¹⁷⁷ <https://law.lis.virginia.gov/vacode/18.2-422/>

Health Commissioner on February 7, 2020, and reflected in Executive Order 51 declaring a state of emergency in the Commonwealth. Executive Order 51 is so further amended. This waiver is effective as of March 12, 2020.

5. Other States with Infectious Disease Laws or Regulations.

The California Division of Occupational Safety and Health (Cal/OSHA) Aerosol Transmissible Diseases (ATD) standard¹⁷⁸ is aimed at preventing worker illness from infectious diseases that can be transmitted by inhaling air that contains viruses (including SARS-CoV-2), bacteria or other disease-causing organisms. While the Cal/OSHA ATD standard is only mandatory for certain healthcare employers in California, it may provide useful guidance for protecting other workers exposed to SARS-CoV-2.

Oregon Temporary rule addressing the COVID-19 emergency in employer-provided housing, labor-intensive agricultural operations, and agricultural transportation.

The Oregon Occupational Safety and Health Administration (Oregon OSHA) adopted a temporary rule¹⁷⁹ addressing the COVID-19 emergency in employer-provided housing, labor-intensive agricultural operations, and agricultural transportation with an effective date of May 11, 2020 and end date of October 23, 2020.¹⁸⁰ The temporary rule provides for:

- enhanced sanitation requirements for toilet and handwashing facilities in the field;
- procedures to identify and isolate suspect COVID-19 cases “with sleeping, eating, and bathroom accommodations that are separate from others” (“Sick people should be isolated from others, have adequate hygiene facilities, and be taken care of by only one person in the household. If such isolation is not possible, follow guidance provided by the Oregon Health Authority or the local public health authority to make appropriate arrangements”.);
- procedures for isolating confirmed COVID-19 cases and only housing them with other confirmed cases with separate bathroom, cooking and eating facilities separate from people who have not been diagnosed with COVID-19. (“Sick people should be isolated from others, have adequate hygiene facilities, and be taken care of by only one person in the household. If such isolation is not possible, follow guidance provided by the Oregon Health Authority or the local public health authority to make appropriate arrangements.”); and
- “Affected employers must post a notice describing the requirements of these rules, including their application to COVID-19 risks, and advising where workers may file complaints regarding field sanitation matters. It must be in the language of the majority of the workers.”

NOTE: The Virginia Department of Health is responsible for conducting pre-

¹⁷⁸ <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/OHB/Pages/ATDStd.aspx>

¹⁷⁹ <https://osha.oregon.gov/OSHARules/adopted/2020/ao2-2020-text-emergency-rules-ag-covid.pdf>

¹⁸⁰ *Id.*

occupancy inspections of temporary labor camps under 1910.142, and has issued “Interim Guidance for Migrant Labor Camp Operators and Employees Regarding COVID-19.”¹⁸¹

6. OSHA Recordkeeping Guidelines for Recording COVID-19 Occupationally Related Cases.

OSHA’s changing guidance in April and May, 2020, concerning employer responsibilities to record COVID-19 occupationally related illnesses has over the short term resulted in reduced access to accurate workplace exposure and illness data related to COVID-19.

On **April 10, 2020**, OSHA issued a memorandum on “Enforcement Guidance for Recording Cases of Coronavirus Disease 2019 (COVID-19)”¹⁸² to provide “interim guidance to Compliance Safety and Health Officers (CSHOs) for enforcing the requirements of 29 CFR Part 1904 with respect to the recording of occupational illnesses, specifically cases of Coronavirus Disease 2019 (COVID-19)....This guidance is intended to be time-limited to the current public health crisis:

Under OSHA’s recordkeeping requirements, COVID-19 is a recordable illness, and employers are responsible for recording cases of COVID-19, if: (1) the case is a confirmed case of COVID-19, as defined by Centers for Disease Control and Prevention (CDC);^[1] (2) the case is work-related as defined by 29 CFR § 1904.5;^[2] and (3) the case involves one or more of the general recording criteria set forth in 29 CFR § 1904.7.^[3] On March 11, the World Health Organization (WHO) declared COVID-19 a global pandemic, and the extent of transmission is a rapidly evolving issue.

In areas where there is ongoing community transmission, employers other than those in the healthcare industry, emergency response organizations (e.g., emergency medical, firefighting, and law enforcement services), and correctional institutions may have difficulty making determinations about whether workers who contracted COVID-19 did so due to exposures at work. In light of those difficulties, **OSHA is exercising its enforcement discretion in order to provide certainty to the regulated community.**

Employers of workers in the healthcare industry, emergency response organizations (e.g., emergency medical, firefighting, and law enforcement services), and correctional institutions must continue to make work-relatedness determinations pursuant to 29 CFR § 1904. **Until further notice, however, OSHA will not enforce 29 CFR § 1904 to require other employers to make the same work-relatedness determinations, except where:**

1. There is objective evidence that a COVID-19 case may be work-

¹⁸¹ <https://www.vdh.virginia.gov/environmental-health/environmental-health-services/migrant-labor-camps/9505-2/>

¹⁸² [https://www.osha.gov/memos/2020-04-10/enforcement-guidance-recording-cases-coronavirus-disease-2019-covid-](https://www.osha.gov/memos/2020-04-10/enforcement-guidance-recording-cases-coronavirus-disease-2019-covid-19)

related. This could include, for example, a number of cases developing among workers who work closely together without an alternative explanation; and

2. The evidence was reasonably available to the employer. For purposes of this memorandum, examples of reasonably available evidence include information given to the employer by employees, as well as information that an employer learns regarding its employees' health and safety in the ordinary course of managing its business and employees.

This enforcement policy will help employers focus their response efforts on implementing good hygiene practices in their workplaces, and otherwise mitigating COVID-19's effects, rather than on making difficult work-relatedness decisions in circumstances where there is community transmission. (Emphasis added).

On **May 19, 2020**¹⁸³, OSHA revised its April 10, 2020 guidance as follows:

“Confirmed cases of COVID-19 have now been found in nearly all parts of the country, and outbreaks among workers in industries other than healthcare, emergency response, or correctional institutions have been identified. As transmission and prevention of infection have become better understood, both the government and the private sector have taken rapid and evolving steps to slow the virus's spread, protect employees, and adapt to new ways of doing business. As the virus's spread now slows in certain areas of the country, states are taking steps to reopen their economies and workers are returning to their workplaces. All these facts—incidence, adaptation, and the return of the workforce—indicate that employers should be taking action to determine whether employee COVID-19 illnesses are work-related and thus recordable. Given the nature of the disease and ubiquity of community spread, however, in many instances it remains difficult to determine whether a COVID-19 illness is work-related, especially when an employee has experienced potential exposure both in and out of the workplace.

In light of these considerations, OSHA is exercising its enforcement discretion in order to provide certainty to employers and workers. Accordingly, until further notice, OSHA will enforce the recordkeeping requirements of 29 CFR 1904 for employee COVID-19 illnesses for all employers according to the guidelines below.

....

Because of the difficulty with determining work-relatedness, OSHA is exercising enforcement discretion to assess employers' efforts in making work-related determinations.

In determining whether an employer has complied with this obligation and

¹⁸³ <https://www.osha.gov/memos/2020-05-19/revised-enforcement-guidance-recording-cases-coronavirus-disease-2019-covid-19>

made a reasonable determination of work-relatedness, CSHOs should apply the following considerations:

- The reasonableness of the employer's investigation into work-relatedness. Employers, especially small employers, should not be expected to undertake extensive medical inquiries, given employee privacy concerns and most employers' lack of expertise in this area. It is sufficient in most circumstances for the employer, when it learns of an employee's COVID-19 illness, (1) to ask the employee how he believes he contracted the COVID-19 illness; (2) while respecting employee privacy, discuss with the employee his work and out-of-work activities that may have led to the COVID-19 illness; and (3) review the employee's work environment for potential SARS-CoV-2 exposure. The review in (3) should be informed by any other instances of workers in that environment contracting COVID-19 illness.
- The evidence available to the employer. The evidence that a COVID-19 illness was work-related should be considered based on the information reasonably available to the employer at the time it made its work-relatedness determination. If the employer later learns more information related to an employee's COVID-19 illness, then that information should be taken into account as well in determining whether an employer made a reasonable work-relatedness determination.
- The evidence that a COVID-19 illness was contracted at work. CSHOs should take into account all reasonably available evidence, in the manner described above, to determine whether an employer has complied with its recording obligation. This cannot be reduced to a ready formula, but certain types of evidence may weigh in favor of or against work-relatedness. For instance:
 - COVID-19 illnesses are likely work-related when several cases develop among workers who work closely together and there is no alternative explanation.
 - An employee's COVID-19 illness is likely work-related if it is contracted shortly after lengthy, close exposure to a particular customer or coworker who has a confirmed case of COVID-19 and there is no alternative explanation.
 - An employee's COVID-19 illness is likely work-related if his job duties include having frequent, close exposure to the general public in a locality with ongoing community transmission and there is no alternative explanation.
 - An employee's COVID-19 illness is likely not work-related if she is the only worker to contract COVID-19 in her vicinity and her job duties do not include having frequent contact with the general public, regardless of the rate of community spread.
 - An employee's COVID-19 illness is likely not work-related if

he, outside the workplace, closely and frequently associates with someone (e.g., a family member, significant other, or close friend) who (1) has COVID-19; (2) is not a coworker, and (3) exposes the employee during the period in which the individual is likely infectious.

- CSHOs should give due weight to any evidence of causation, pertaining to the employee illness, at issue provided by medical providers, public health authorities, or the employee herself.

If, after the reasonable and good faith inquiry described above, the employer cannot determine whether it is more likely than not that exposure in the workplace played a causal role with respect to a particular case of COVID-19, the employer does not need to record that COVID-19 illness.” (Emphasis added).

P. Industry Specific Information.

The following is not intended to be an exhaustive list of all industries or job tasks with potential COVID-19 exposure risks (i.e., “very high,” “high,” “medium,” “lower”), but does provide a broad overview of the types of job tasks and hazards that expose employees to the various levels of COVID-19 exposure risk. The following also provides statistics and reports on work-related COVID-19 infections, non-fatal illnesses, hospitalizations, and deaths.

Reference to non-employee infections, non-fatal illnesses, hospitalizations, and deaths are provided to demonstrate the actual and potential exposure for employees at work whose job tasks involved close contact inside 6 feet with other COVID-19 infected employees and non-employees.

1. Meat and Poultry Processing.

The meat and poultry processing work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“Multiple outbreaks of COVID-19 among meat and poultry processing facility workers have occurred in the United States recently.

....

Workers involved in meat and poultry processing are not exposed to SARS-CoV-2 through the meat products they handle. However, their work environments—processing lines and other areas in busy plants where they have **close contact** with coworkers and supervisors—may contribute substantially to their potential exposures. The risk of occupational transmission of SARS-CoV-2 depends on several factors.

Some of these factors are described in the U.S. Department of Labor and U.S. Department of and Health and Human Services’ booklet “Guidance on Preparing Workplaces for COVID-19.”¹⁸⁴ Distinctive factors that affect workers’ risk for exposure to SARS-CoV-2 in meat and poultry processing workplaces include:

¹⁸⁴ <https://www.osha.gov/Publications/OSHA3990.pdf>

- Distance between workers – meat and poultry processing workers often work **close** to one another on processing lines. Workers may also be near one another at other times, such as when clocking in or out, during breaks, or in locker/changing rooms.
- Duration of contact – meat and poultry processing workers often have **prolonged closeness** to coworkers (e.g., for 10-12 hours per shift). Continued contact with potentially infectious individuals increases the risk of SARS-CoV-2 transmission.
- Type of contact – meat and poultry processing workers may be exposed to the infectious virus through respiratory droplets in the air – for example, when workers in the plant who have the virus cough or sneeze. It is also possible that exposure could occur from contact with contaminated surfaces or objects, such as tools, workstations, or break room tables. Shared spaces such as break rooms, locker rooms, and entrances/exits to the facility may contribute to their risk.
- Other distinctive factors that may increase risk among these workers include:
 - A common practice at some workplaces of sharing transportation such as ride-share vans or shuttle vehicles, car-pools, and public transportation.
 - Frequent contact with fellow workers in community settings in areas where there is ongoing community transmission.¹⁸⁵
 (Emphasis added).

Meat and Poultry Processing COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Newsobserver.com, May 23, 2020, “Coronavirus outbreaks at processors force NC farmers to start killing 1.5M chickens”

“[North Carolina] Agriculture officials said Thursday that 2,006 workers in 26 processing plants across the state have tested positive for coronavirus. Although some plants have closed temporarily to clean and disinfect, none have shut down in North Carolina.”¹⁸⁶

Eastern Shore Health District, May 15, 2020, “Eastern Shore Health District Announces Results from May 8-9 Testing Clinic”

“(Accomac, Va.) – The Eastern Shore Health District is reporting results of the

¹⁸⁵ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html>

¹⁸⁶ <https://www.newsobserver.com/news/business/article242944156.html>

mass testing clinic conducted at Eastern Shore Community College on May 8-9, 2020. A total of 1380 individuals were tested over the two days. Of those tested, 49 were positive, 1290 were negative and 41 were inconclusive/invalid.

....

In addition, we have received reporting of approximately 2875 results out of an expected 3100 conducted at the poultry plants last week. That testing has revealed an approximate 18% positive rate with a total positive count of roughly 510. The majority of these cases will not appear in the case counts on the VDH website for several days.

The labs that processed the tests are not connected to VDH electronic reporting and each result will have to be entered manually into the database to be counted. In addition, some of the positive cases do not reside in Virginia. As of today, about 85 of the 510 results mentioned above are reflected in the case count for Accomack and Northampton counties.¹⁸⁷

Virginia Mercury.com, May 5, 2020, “COVID-19 cases keep climbing at Virginia poultry plants; some members of Congress seek better protections”

“COVID-19 cases continue to rise at Virginia’s Eastern Shore poultry plants, with Gov. Ralph Northam on Monday reporting more than 260 cases associated with two facilities run by Tyson Foods and Perdue Farms in Accomack County.

‘We are also still closely tracking cases in the Shenandoah Valley, which has a large number of plants — cases that have increased as well, but the increase is smaller and could be leveling off,’ said Northam. ‘Our focus right now remains on the Shore.’

Poultry plant-related cases now represent about 60 percent of Accomack’s confirmed cases, which according to the Virginia Department of Health totaled 425 Monday. Twenty-one people in the county have been hospitalized, and six have died. How much testing has been conducted is unclear.”¹⁸⁸

CDC, May 8, 2020, “COVID-19 Among Workers in Meat and Poultry Processing Facilities — 19 States, April 2020”

“Persons in congregate work and residential locations are at increased risk for transmission and acquisition of respiratory infections.

....

Factors potentially affecting risk for infection include difficulties with workplace physical distancing and hygiene and crowded living and transportation conditions.

....

¹⁸⁷ <https://www.vdh.virginia.gov/news/2020-regional-news-releases/eastern-shore-health-district-announces-results-from-may-8-9-testing-clinic/>

¹⁸⁸ <https://www.nbc12.com/2020/05/05/covid-cases-keep-climbing-virginia-poultry-plants-some-members-congress-seek-better-protections/>

Among workers, socioeconomic challenges might contribute to working while feeling ill, particularly if there are management practices such as bonuses that incentivize attendance.

....

By April 27, CDC had received aggregate data on COVID-19 cases from 19 of 23 states reporting at least one case related to this industry; there were 115 meat or poultry processing facilities with COVID-19 cases, including 4,913 workers with diagnosed COVID-19 (Table 1). Among 17 states reporting the number of workers in their affected facilities, 3.0% of 130,578 workers received diagnoses of COVID-19. The percentage of workers with diagnosed COVID-19 ranged from 0.6% to 18.2%. Twenty COVID-19–related deaths were reported among workers.

....

Sociocultural and economic challenges to COVID-19 prevention in meat and poultry processing facilities (Table 2) include accommodating the needs of workers from diverse backgrounds who speak different primary languages; one facility reported a workforce with 40 primary languages. This necessitates innovative approaches to educating and training employees and supervisors on safety and health information.

In addition, some employees were incentivized to work while ill as a result of medical leave and disability policies and attendance bonuses that could encourage working while experiencing symptoms.

Finally, many workers live in crowded, multigenerational settings and sometimes share transportation to and from work, contributing to increased risk for transmission of COVID-19 outside the facility itself. Changing transportation to and from the facilities to increase the number of vehicles and reduce the number of passengers per vehicle helped maintain physical distancing in some facilities.

Cases of COVID-19 have been observed in other congregate settings, including long-term care facilities (5), acute care hospitals (6), correctional facilities (7), and homeless shelters (8). Similarly, the crowded conditions for workers in meat and poultry processing facilities could result in high risk for SARS-CoV-2 transmission.

Respiratory disease outbreaks in this type of setting demonstrate the need for heightened attention to worker safety (9). However, COVID-19 among workers in meat and processing facilities could be due to viral transmission at the workplace or in the community.”¹⁸⁹

2. Seafood Processing.

The seafood processing work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

¹⁸⁹ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e3.htm>

“During 2011-2017, seafood processing workers had the highest injury/illness rate of any U.S. maritime workers at 6,670 injuries/illnesses per 100,000 workers. Occupational hazards in this industry include exposures to biological aerosols containing allergens, microorganisms, and toxins; bacteria and parasites; excessive noise levels; low temperatures; poor workplace organization; poor ergonomics; and contact with machinery and equipment.”¹⁹⁰



[CDC photo of seafood processing employees working in close proximity to each other] Seafood processing worker transporting fresh mackerel while the production line prepares fish in the background.¹⁹¹

Seafood Processing COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Seafoodsource.com, Louisiana, May 21, 2020,

“Around 100 people at three crawfish farms in Louisiana have tested positive

¹⁹⁰ https://www.cdc.gov/niosh/programs/cms/seafood_processing.html

¹⁹¹ *Id.*

for COVID-19, state health officials announced earlier this week.

The Louisiana Department of Health declined to name the three crawfish farms, citing “active, evolving, protected investigations,” according to *The Advocate*.

Louisiana Office of Public Health Assistant Secretary Alex Billioux said the outbreaks were concentrated among migrant workers living in dormitory-like settings. The local crawfish industry is highly reliant on workers – many from Mexico – who use H-2B visas to live and work temporarily in the United States. According to Louisiana State University Assistant Professor of Agriculture Economics and Agribusiness Maria Bampasidou, a review of federal data showed Louisiana had 31 seafood processing facilities file for H-2B visas. Collectively, they received nearly all of the 1,467 positions they applied for. The workers live in trailers or bunkhouses provided by employers in exchange for a cut of workers’ paychecks, depending on the type of visa, according to *The Advocate*.

David Savoy, the operator of a crawfish farm and processing facility near Church Point, Louisiana, said working and living conditions are tight in most of the industry’s facilities.

‘It’s like a house with a family in it,’ Savoy said. ‘If one person gets it, there’s a good chance everyone’s going to get sick. That’s just the reality of the situation.’”¹⁹²

Newscentermaine.com, Portland, ME, May 18, 2020, “Bristol Seafood voluntarily closes after workers test positive for COVID-19”

“Bristol Seafood announced Monday it is voluntarily pausing production in its Portland Fish Pier processing plant after identifying confirmed positive cases of COVID-19 among staff members.

The Maine Center for Disease Control (Maine CDC) Director Dr. Nirav Shah said in the daily coronavirus briefing Monday that they began working with the company over the weekend to investigate the outbreak and collect additional samples for testing.”¹⁹³

KATU.com, Astoria, OR, May 4, 2020, “11 at Astoria seafood facility test positive for coronavirus”

“Eleven employees at a seafood processing plant in Astoria have tested positive for COVID-19, health officials said Monday.

¹⁹² <https://www.seafoodsource.com/news/supply-trade/covid-19-outbreak-sickens-100-workers-in-louisiana-crawfish-industry>

¹⁹³ <https://www.newscentermaine.com/article/news/health/coronavirus/bristol-seafood-voluntarily-closes-after-workers-test-positive-for-covid-19/97-6dbe22cd-1014-474e-9152-c054c42d5cb6>

The Clatsop County Public Health investigation started Friday when they learned an employee at Bornstein Seafood facility tested positive for the novel coronavirus, COVID-19. They ran tests on 35 other employees and found that 11 others had the virus.

The county is working closely with the facility to test the rest of the company's workforce and started contact tracing with those people who tested positive.

Borstein's facility in Astoria is closed until further notice. The company also said its employees were told to self-isolate at home while they work with public health officials.

'The 11 positive cases reported Monday included four women (one aged 30-39 and three aged 40 to 49) and seven men (two aged 30 to 39, four aged 50 to 59 and one aged 60 to 69),' Clatsop County Public Health said."¹⁹⁴

3. Food Processing.

The food processing work environment contains various hazards and job tasks which present "medium" (close contact) to "lower" risk exposures:

To the extent that food processing employees "...work environments—processing lines and other areas in busy plants where they have close contact with coworkers and supervisors" mirror those in the meat and poultry processing industries, they are exposed to the same hazards and undertake the same job tasks that result in "medium" and "low" risk exposures.

Food Processing COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Martinsvillebulletin.com, Martinsville, VA, May 27, 2020, "Monogram Snacks in Henry County will shut down voluntarily for COVID-19 testing after positive tests lead to complaints about employee's safety filed with state and OSHA"

"Angela Hairston's brother is living in isolation at a hotel, separated from his 81-year-old mother at their home in Henry County. He is listed statistically as a "confirmed COVID-19 male, 56 years old," along with five of his coworkers at Monogram Snacks in Martinsville.

But Hairston's brother not only contracted the coronavirus, he also continued to work after being tested because he said he feared loss of income or being fired by Monogram if he didn't.

¹⁹⁴ <https://katu.com/news/local/11-employees-at-astoria-bornstein-seafood-processing-facility-test-positive-for-covid-19-closure>

....

The Bulletin obtained a copy of the complaint alleging “unsafe work practices and a lack of appropriate safeguards to prevent employee injuries.”

The complaint also alleges several employees, including Hairston’s brother, have been injured on the job and that “workers are reluctant to raise concerns about conditions and procedures that they consider to be potentially hazardous with supervisors because of a fear of retaliation due to the overall company culture.”

Said Hairston: ‘OSHA did not appear to address those concerns, and the conditions ... deteriorated further in the midst of COVID-19. My brother lives with my mother, who is 81 years old and has a number of chronic health issues. Due to her age and underlying medical conditions, she is in the high-risk category for severe illness from COVID-19 ... and the virus ... could be deadly given her underlying health issues.’

Monogram Foods Communications Coordinator Sally Vaughan released a statement late Tuesday in which she praised the management and employees.

‘To date, our leaders and team members at our Martinsville, Virginia plant have done an incredible job preventing the spread of COVID-19 by implementing and executing our practices and protocols and providing constant oversight on risk reduction and mitigation,’ Vaughan said. **‘Less than 1% of our nearly 650 team members at Martinsville have tested positive for COVID-19 during the pandemic.’**

Monogram Foods employs 630 people in three manufacturing centers on a 54-acre site at the Patriot Centre Industrial Park in Henry County. The company produces prepackaged snacks.

....

On May 12, Roanoke Regional Health Director Paul Saunier notified Hairston by letter of the findings by VOSH.

‘Based on the employer’s investigation results and the documentation the employer has provided to our agency, the employer is operating in accordance with the Governor’s Executive Orders and is implementing appropriate preventive measures,’ Saunier wrote. “VOSH has determined that the investigation can now be closed.”

Hairston wrote back to Saunier that she was appalled that VOSH would accept statements made by Luffman without verifying them, so she took her concerns to her Facebook page.

On May 19, Saunier notified Hairston that VOSH had opened a second

investigation on Monogram Snacks.”¹⁹⁵

Oregonlive.com, Vancouver, WA, May 22, 2020, “Vancouver frozen fruit processor reports 27 coronavirus cases”

“A Vancouver food processing company says 27 of its employees have COVID-19. It may be the Portland area’s biggest workplace outbreak reported thus far, excluding the healthcare sector.

Josh Hinerfeld, CEO of Firestone Pacific Foods, said the company had its first confirmed case midday Sunday and learned of two more later that afternoon. The Vancouver plant shut down Monday but the infection total has now grown to 27, including 17 new cases Friday.

....
Firestone processes frozen fruit.”¹⁹⁶

Vadogwood.com, Virginia, May 21, 2020, “Here Are All the Virginia Factories With Coronavirus Outbreaks”

“Health officials in Chesterfield County are unable to provide an updated number of coronavirus cases but WRIC-TV in Richmond reported that there are at least seven employees of the Maruchan Ramen factory that have tested positive for the coronavirus as of May 14. The factory has remained open a deep cleaning following guidelines from the CDC.

“We can confirm the Maruchan Virginia report about employees testing positive for COVID-19 at their Chesterfield facility,” Chesterfield Health District Director Dr. Alexander Samuel said in a statement to Fox5.”¹⁹⁷

Oregonlive.com, Albany, OR, May 12, 2020, “Oregon cites National Frozen Foods, site of coronavirus outbreak, for unsafe practices”

“Oregon regulators cited an Albany fruit and vegetable processor Monday for safety violations after a coronavirus outbreak there infected at least 34.

National Frozen Foods faces a \$2,000 penalty for failing to adopt practices to enable workers to stay at least six feet apart from one another.

....
[Oregon] OSHA said it inspected the Albany plant on April 20 in response to worker complaints. The regulatory agency said National Frozen Food allowed employees on frozen packaging lines to work within two to four feet of one another.”¹⁹⁸

¹⁹⁵ https://www.martinsvillebulletin.com/news/local/monogram-snacks-in-henry-county-will-shut-down-voluntarily-for-covid-19-testing-after-positive/article_665228f4-4673-59d4-b5a5-d19824a49ac0.html

¹⁹⁶ <https://www.oregonlive.com/business/2020/05/vancouver-frozen-fruit-processor-reports-10-coronavirus-cases.html>

¹⁹⁷ <https://vadogwood.com/2020/05/21/here-are-all-the-virginia-factories-with-coronavirus-outbreaks/>

¹⁹⁸ <https://www.oregonlive.com/business/2020/05/oregon-cites-national-frozen-foods-site-of-coronavirus-outbreak-for-unsafe-practices.html>

4. Healthcare, Nursing Home Care,¹⁹⁹ and Long Term Care.²⁰⁰

The healthcare, nursing home care and long term care work environment contains various hazards and job tasks which present the full spectrum of exposure risks (Very high, High, Medium, Lower):

Very high – “Performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients. Collecting or handling specimens from known or suspected COVID-19 patients.”²⁰¹

High – “Entering a known or suspected COVID-19 patient’s room. Providing care for a known or suspected COVID-19 patient not involving aerosol-generating procedures.”²⁰²

Medium – “Providing care to the general public who are not known or suspected COVID-19 patients. Working at busy staff work areas within a healthcare facility.”²⁰³

Lower – “Performing administrative duties in non-public areas of healthcare facilities, away from other staff members.”²⁰⁴

Healthcare, Nursing Home Care and Long Term Care COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

CDC.gov, May 31, 2020, “Cases & Deaths among Healthcare Personnel [HCP]”

“Data were collected from 1,417,310 people, but healthcare personnel status was only available for 304,479 (21.5%) people. For the 66,447 cases of COVID-19 among healthcare personnel, death status was only available for 37,485 (56.4%).

Cases among HCP: 66,447

Deaths among HCP: 318²⁰⁵

¹⁹⁹ OSHA publication “COVID-19 Guidance for Nursing Home and Long-Term Care Facility Workers” references “OSHA’s COVID-19 guidance for healthcare workers and employers.”

²⁰⁰ *Id.*

²⁰¹ <https://www.osha.gov/SLTC/covid-19/healthcare-workers.html>

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.*

²⁰⁵ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

Usatoday.com, April 13, 2020, referencing *Cincinnati Enquirer* story, “Health care workers in Ohio are testing positive for COVID-19 at an alarming rate”

“More than 1,300 health care workers in Ohio have tested positive for the novel coronavirus since the pandemic began, accounting for about 1 of every 5 positive tests in the state.

But Ohio’s public health officials aren’t talking about where all those employees work, how they’re doing now or how many may have been infected in “hot spots,” or clusters of positive tests.

State and local health departments, the Ohio Hospital Association, the Health Collaborative of Greater Cincinnati and the hospitals themselves all have refused to provide details beyond a statewide total.

The reason? Most say revealing more information could jeopardize the privacy of infected employees.

They say more specific numbers for hospitals, or even for entire cities or counties, could allow someone to figure out who got sick, thereby violating the workers’ privacy rights.

....

Not everyone thinks the secrecy is a good idea. Shortages of protective equipment and tests, along with the daily challenges of coping with a pandemic, mean health care workers are at significant risk every time they go to work.

More information about what’s happening in those workplaces, some say, could identify locations that need additional help and resources protecting the people who work there.

‘From a health care worker perspective, I think those numbers can be beneficial,’ said Michelle Thoman, president of the Registered Nurses Association at the University of Cincinnati Medical Center. ‘If you see that numbers in your facility or hospital are climbing, you can be prepared for that.’”²⁰⁶ (Emphasis added).

WRIC.com, Richmond, VA, April 30, 2020, “Canterbury Rehabilitation & Healthcare Center reports 50th COVID-19 death”

“Officials at Canterbury Rehabilitation & Healthcare Center in Henrico County today reported the facility’s 50th coronavirus-related death. The resident died yesterday in a hospital.

Canterbury officials also reported that 51 patients who previously tested

²⁰⁶ <https://www.usatoday.com/story/news/nation/2020/04/13/ohio-health-care-workers-test-positive-covid-19-alarming-rate/2981253001/>

positive for COVID-19 have fully recovered. A cluster of COVID-19 deaths and infections have been reported at Canterbury Rehabilitation & Healthcare Center since the outbreak began.

More than 100 residents and staff members have tested positive for the virus, making Canterbury one of the worst clusters of cases in the United States. Recent reports obtained by 8News state that Canterbury is certified as a 190-bed facility.²⁰⁷

Beginning April 1, 2020, the Virginia Department of Health (VDH) conducted an assessment of the Canterbury Rehabilitation facility and of the 141 residents, 91 tested positive for COVID-19 (64.5%).²⁰⁸

CDC, March 27, 2020, “COVID-19 in a Long-Term Care Facility — King County, Washington, February 27–March 9, 2020”

“On February 28, 2020, a case of coronavirus disease (COVID-19) was identified in a woman resident of a long-term care skilled nursing facility (facility A) in King County, Washington.* Epidemiologic investigation of facility A identified 129 cases of COVID-19 associated with facility A, including 81 of the residents, 34 staff members, and 14 visitors; 23 persons died. Limitations in effective infection control and prevention and staff members working in multiple facilities contributed to intra- and inter-facility spread.

COVID-19 can spread rapidly in long-term residential care facilities, and persons with chronic underlying medical conditions are at greater risk for COVID-19–associated severe disease and death. Long-term care facilities should take proactive steps to protect the health of residents and preserve the health care workforce by identifying and excluding potentially infected staff members and visitors, ensuring early recognition of potentially infected patients, and implementing appropriate infection control measures.

....

Reported symptom onset dates for facility residents and staff members ranged from February 16 to March 5. The median patient age was 81 years (range = 54–100 years) among facility residents, 42.5 years (range = 22–79 years) among staff members, and 62.5 years (range = 52–88 years) among visitors; 84 (65.1%) patients were women (Table). Overall, 56.8% of facility A residents, 35.7% of visitors, and 5.9% of staff members with COVID-19 were hospitalized.

Preliminary case fatality rates among residents and visitors as of March 9 were 27.2% and 7.1%, respectively; no deaths occurred among staff members. The most common chronic underlying conditions among facility residents were hypertension (69.1%), cardiac disease (56.8%), renal disease (43.2%), diabetes

²⁰⁷ <https://www.wric.com/health/coronavirus/canterbury-rehabilitation-healthcare-center-reports-50th-covid-19-death/>

²⁰⁸ <https://www.vdh.virginia.gov/content/uploads/sites/96/2020/05/Canterbury-04-16-2020-COVID-Focus-POC.pdf>

(37.0%), obesity (33.3%), and pulmonary disease (32.1%). Six residents and one visitor had hypertension as their only chronic underlying condition.

....

Information received from the survey and on-site visits identified factors that likely contributed to the vulnerability of these facilities, including 1) staff members who worked while symptomatic; 2) staff members who worked in more than one facility; 3) inadequate familiarity and adherence to standard, droplet, and contact precautions and eye protection recommendations; 4) challenges to implementing infection control practices including inadequate supplies of PPE and other items (e.g., alcohol-based hand sanitizer) §; 5) delayed recognition of cases because of low index of suspicion, limited testing availability, and difficulty identifying persons with COVID-19 based on signs and symptoms alone.

....

The findings in this report suggest that once COVID-19 has been introduced into a long-term care facility, it has the potential to result in high attack rates among residents, staff members, and visitors.”²⁰⁹

5. Dental Services.

Dental work environment contains various hazards and job tasks which present “high”, “medium” (close contact), and “lower” risk exposures:

“The practice of dentistry involves the use of rotary dental and surgical instruments, such as handpieces or ultrasonic scalers and air-water syringes. These instruments create a visible spray that can contain particle droplets of water, saliva, blood, microorganisms, and other debris. Surgical masks protect mucous membranes of the mouth and nose from droplet spatter, but they do not provide complete protection against inhalation of airborne infectious agents. There are currently no data available to assess the risk of SARS-CoV-2 transmission during dental practice.”²¹⁰

Dentist Offices COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Dental-tribune.com, Jakarta, Indonesia, April 16, 2020, “Dentists in Indonesia are dying from COVID-19”

“The Indonesian Medical Association has confirmed that 24 medical professionals have died in the country from COVID-19, six of whom were dentists. Not all of those who died were working on the front line in the battle against the illness. The government’s COVID-19 response team has called on the health ministry to protect doctors and dentists by advising them to close

²⁰⁹ https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e1.htm?s_cid=mm6912e1_w

²¹⁰ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html>

their practices.”²¹¹

6. Morgue and Mortuary Services

The morgue and mortuary services work environment contains various hazards and job tasks which can present risk exposures at all levels:

Very high – “Morgue workers performing autopsies, which generally involve aerosol-generating procedures, on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.”²¹²

High – “Mortuary workers involved in preparing (e.g., for burial or cremation) the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.”²¹³

Medium – “Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within 6 feet of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients....In areas where there is ongoing community transmission, workers in this category may have contact with the general public [funerals] (e.g., schools, high-population-density work environments, some high-volume retail settings).”²¹⁴

Lower – “Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact with (i.e., within 6 feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers [administrative services associated with funerals].”²¹⁵

Morgue and Mortuary Services COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Tuscon.com, Tucson, AZ, May 2, 2020, “Illnesses at Tucson funeral home highlight risks to 'last responders' during pandemic”

“Numerous employees at a Tucson funeral home contracted coronavirus, but experts say it is unlikely they were infected by the body of a COVID-19 victim.

Adair Funeral Homes temporarily closed its Dodge Chapel after “a number” of staff members fell ill and were sent home to recover in self-quarantine, according to a written statement from the company.

²¹¹ <https://www.dental-tribune.com/news/dentists-in-indonesia-are-dying-from-covid-19/>

²¹² <https://www.osha.gov/Publications/OSHA3990.pdf> at page 19.

²¹³ *Id.*

²¹⁴ *Id.* at page 20.

²¹⁵ *Id.* at page 20.

The incident highlights lingering questions about how the virus is transmitted, and it underscores the essential work still being done by so-called “last responders” in the community’s morgues and mortuaries.

‘They really are heroes, but they don’t get the recognition they deserve, because it’s death and nobody wants to talk about that,’ said Judith Stapley, executive director of the Arizona State Board of Funeral Directors and Embalmers.

Adair did not identify the suspected source of the outbreak. It’s unclear if the Dodge Chapel has handled any of the more than 80 people who have died from the coronavirus in Pima County.

Dr. Greg Hess, chief medical examiner for the county, said it is doubtful the outbreak at the mortuary came from a corpse.

‘Are we hearing that someone has contracted COVID from a dead body? We’re not,’ Hess said. ‘It’s possible, but honestly there is a much greater risk of contracting it from somewhere else.’”²¹⁶

CDC.gov, “Community Transmission of SARS-CoV-2 at Two Family Gatherings [including a **Funeral**]” — Chicago, Illinois, February–March 2020 “Most early reports of person-to-person SARS-CoV-2 transmission have been among household contacts, where the secondary attack rate has been estimated to exceed 10% (1), in health care facilities (2), and in congregate settings (3).

However, widespread community transmission, as is currently being observed in the United States, requires more expansive transmission events between nonhousehold contacts. In February and March 2020, the Chicago Department of Public Health (CDPH) investigated a large, multifamily cluster of COVID-19. Patients with confirmed COVID-19 and their close contacts were interviewed to better understand nonhousehold, community transmission of SARS-CoV-2. This report describes the cluster of **16 cases of confirmed or probable COVID-19, including three deaths**, likely resulting from transmission of SARS-CoV-2 at two family gatherings (a **funeral** and a birthday party).”²¹⁷ (Emphasis added).

²¹⁶ https://tucson.com/news/local/illnesses-at-tucson-funeral-home-highlight-risks-to-last-responders-during-pandemic/article_e0ea6dbc-721b-5b46-a30b-609fcdd9ae5a.html

²¹⁷ https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e1.htm?s_cid=mm6915e1_w

“The findings in this investigation are subject to at least three limitations. First, lack of laboratory testing for probable cases means some probable COVID-19 patients might have instead experienced unrelated illnesses, although influenza-like illness was declining in Chicago at the time. Second, phylogenetic data, which could confirm presumed epidemiologic linkages, were unavailable. For example, patient B3.1 experienced exposure to two patients with confirmed COVID-19 in this cluster, and the causative exposure was presumed based on expected incubation periods. Patient D3.1 was a health care professional, and, despite not seeing any patients with known COVID-19, might have acquired SARS-CoV-2 during clinical practice rather than through contact with members of this cluster. Similarly, other members of the cluster might have experienced community exposures to SARS-CoV-2, although these transmission events occurred before widespread community transmission of SARS-CoV-2 in Chicago. Finally, despite intensive epidemiologic investigation, not every confirmed or probable case related to this cluster might have been

7. Veterinary Services.

The veterinary work environment contains various hazards and job tasks which present “medium” (close contact), and “lower” risk exposures:

“The greatest risk of COVID-19 exposure to staff at veterinary clinics comes from **person-to-person transmission** through respiratory droplets from coughing, sneezing, or talking, which is the main way SARS-CoV-2 spreads.

....

We are still learning about this novel zoonotic virus, and it appears that in some rare situations, human to animal transmission can occur.

CDC is aware of a small number animals, including dogs and cats, to be infected with SARS-CoV-2 after **close contact** with people with COVID-19. The United States Department of Agriculture (USDA) and CDC recently reported confirmed infection with SARS-CoV-2 in two pet cats with mild respiratory illness in New York, which were the first confirmed cases of SARS-CoV-2 infections in companion animals in the United States. Both cats are expected to recover. The cats had close contact with people confirmed or suspected to have COVID-19, suggesting human-to-cat spread. Further studies are needed to understand if and how different animals could be affected by SARS-CoV-2.

Limited information is available to characterize the spectrum of clinical illness associated with SARS-CoV-2 infection in animals. Clinical signs thought to be compatible with SARS-CoV-2 infection in animals include fever, coughing, difficulty breathing or shortness of breath, lethargy, sneezing, nasal/ocular discharge, vomiting, and diarrhea.

....

If a pet owner currently has respiratory symptoms or is a suspected of or confirmed to have COVID-19, they should not visit the veterinary facility. Consider whether a telemedicine consult is appropriate. If possible, a healthy friend or family member from outside their household should bring the animal to the veterinary clinic. The clinic should use all appropriate precautions to minimize contact with the person bringing the animal to the clinic. If there is an emergency with the animal, the animal should not be denied care.

If a **pet owner is suspected or confirmed to have COVID-19** and must bring their pet to the clinic, the following actions should be taken:

- Communicate via phone call or video chat to maintain social distancing.
- Retrieve the animal from the owner’s vehicle (also called curbside) to prevent the owner from having to enter the clinic or hospital.
- Maintain social distancing and PPE recommendations when interacting with clients.
- Request smaller animals be brought in a plastic carrier to facilitate disinfection

detected. Persons who did not display symptoms were not evaluated for COVID-19, which, given increasing evidence of substantial asymptomatic infection (9), means the size of this cluster might be underestimated.” *Id.*

of the carrier after use. Also advise the owner to leave all non-essential items at home to avoid unnecessary opportunities for additional exposure.²¹⁸

Veterinary COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Avma.org, May 29, 2020, “Remembering veterinarians who have died during the pandemic”

“Wildlife, avian veterinarian honored. Dr. Peter Sakas (Illinois ’83), a staff veterinarian at the Animal Hospital and Bird Medical Center in Niles, Illinois, died on March 30 of COVID-19. In his work, he focused on wildlife veterinary medicine. Those who knew him say he was charismatic, had a big personality, and cared deeply for his clients and their animals.

....

‘There has been a lot of attention on human health care front-line workers, but I think people often forget that veterinarians are front-line health care workers too,’ Dr. Courtney Sakas said. ‘My father told us that he was never going to retire because he loved his job so much. I knew he was going to continue working as long as he possibly could to keep caring for the clients and animals he loved, even if it meant putting himself at risk.’”²¹⁹

“A community-focused veterinarian celebrated. Dr. Julie R. Butler (Cornell ’83), founder of 145th Street Animal Hospital in the Harlem neighborhood of New York City, died on April 4. In her personal life, Dr. Butler was an advocate of the arts who made an excellent lemon meringue pie.

....

In her professional life, Dr. Butler was the kind of veterinarian who never turned away an animal.

Dr. Butler was the co-founder of New York Save Animals in Veterinary Emergency, a nonprofit organization that provides financial assistance for pets who need emergency care. She also served as past president of the VMA of New York City. She spent over 30 years serving the Harlem community, and she used her experience to educate and mentor other veterinary professionals.

Kylie Lang, a veterinary technician, said Dr. Butler was a role model who made work enjoyable.”²²⁰

8. Hand Labor Operations in Agriculture.

Hand labor operations in agriculture contain various hazards and job tasks which

²¹⁸ <https://www.cdc.gov/coronavirus/2019-ncov/community/veterinarians.html>

²¹⁹ <https://www.avma.org/javma-news/remembering-veterinarians-who-have-died-during-pandemic>

²²⁰ *Id.*

present “medium” (close contact), and “lower” risk exposures:

Northcarolinahealthnews.org, March 13, 2020, “For migrant workers in NC, coronavirus may be hard to avoid”

“As the growing season ramps up in North Carolina, agencies that care for and about migrant and seasonal farmworkers are hastily preparing to screen and educate them about coronavirus.

Migrant workers aren’t especially susceptible to coronavirus, **but their living conditions during the growing season — trailers and rooms that house many workers — could put them at greater risk of catching the virus**, which spreads through droplets, close contact and surfaces.

....

‘They all share the same bathroom, they all share the same kitchen, they’re all usually within the same living area,’ said Amy Elkins, an outreach worker at North Carolina Farmworkers’ Project, a Benson-based organization that serves an average of 3,000 migrant and seasonal workers a year. **‘So if we have one case inside a camp, it is most likely that everyone is going to be infected.’**

....

Her colleague, Janeth Tapia, the organization’s outreach coordinator, said that **migrant farmworkers are used to working through illness and are reluctant to reveal that they are sick for fear of being sent to their home countries before the end of the growing season.**

‘That’s something we see a lot,’ Elkins said. ‘We’ll have someone who just gets pneumonia or hurts their foot and can’t work. The farmer will give them one or two days and (if the employee does not recover) he’s on a bus back to Mexico.’²²¹

Hand Labor Operations Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Bloomberg.com, May 29, 2020, “Every Single Worker Has Covid at One U.S. Farm on Eve of Harvest”

“One farm in Tennessee distributed Covid-19 tests to all of its workers after an employee came down with the virus. It turned out that **every single one of its roughly 200 employees had been infected.**

In New Jersey, more than 50 workers had the virus at a farm in Gloucester County, adding to nearly 60 who fell ill in neighboring Salem County. Washington state’s Yakima County, an agricultural area that produces apples, cherries, pears and most of the nation’s hops, has the highest per capita

²²¹ <https://www.northcarolinahealthnews.org/2020/03/13/for-migrant-workers-in-nc-coronavirus-may-be-hard-to-avoid/>

infection rate of any county on the West Coast.

The outbreaks underscore the latest pandemic threat to food supply: Farm workers are getting sick and spreading the illness just as the U.S. heads into the peak of the summer produce season. In all likelihood, the cases will keep climbing as more than half a million seasonal employees crowd onto buses to move among farms across the country and get housed together in cramped bunkhouse-style dormitories.

....

The early outbreaks are already starting to draw comparisons to the infections that plunged the U.S. meat industry into crisis over the past few months. Analysts and experts are warning that thousands of farm workers are vulnerable to contracting the disease.

....

Unlike grain crops that rely on machinery, America's fruits and vegetables are mostly picked and packed by hand, in long shifts out in the open -- a typically undesirable job in major economies. So the position typically goes to immigrants, who make up about three quarters of U.S. farm workers.

A workforce of seasonal migrants travels across the nation, following harvest patterns. Most come from Mexico and Latin America through key entry points like southern California, and go further by bus, often for hours, sometimes for days.

There are as many as 2.7 million hired farm workers in the U.S., including migrant, seasonal, year-round and guest-program workers, according to the Migrant Clinicians Network. While many migrants have their permanent residence in the U.S., moving from location to location during the warmer months, others enter through the federal H2A visa program. Still, roughly half of hired crop farmworkers lack legal immigration status, according to the U.S. Department of Agriculture.

These are some of the most vulnerable populations in the U.S., subjected to tough working conditions for little pay and meager benefits. Most don't have access to adequate health care. Many don't speak English.

Without them, it would be nearly impossible to keep America's produce aisles filled. And yet, there's no one collecting national numbers on how many are falling sick.

'There is woefully inadequate surveillance of what's happening with Covid-19 and farm workers,' said Erik Nicholson, a national vice president for the United Farm Workers. 'There is no central reporting, which is crazy because these are essential businesses.'"²²² (Emphasis added).

²²² <https://www.bloomberg.com/news/articles/2020-05-29/every-single-worker-has-covid-at-one-u-s-farm-on-eve-of-harvest>

WBGO.org, New Jersey, May 12, 2020, “Coronavirus update: Cases spike among farmworkers”

“More than half the seasonal workers at a South Jersey farm have tested positive for COVID-19, raising fears of an unchecked outbreak ahead of the blueberry and other harvests.

At least 59 migrant workers at a farm in Upper Pittsgrove, in rural Salem County, have been infected, NJ Spotlight reported Monday. The news came just as the state Department of Health and local federally qualified health centers prepared to launch a testing program for all such workers.

Upper Pittsgrove Mayor Jack Cimprich said he didn’t know how the farmer was isolating infected workers in camp dormitories, dining halls and fields. “I wouldn’t be surprised, in fact, if it hasn’t spread to the whole group,” he told NJ Spotlight.

Several thousand migrant farmworkers — many from Mexico, Haiti, Puerto Rico and Central America — come to the region for the spring and summer harvests. One immigrant advocate interviewed by the outlet called the rise in cases among workers “a potential crisis.”²²³

9. Correctional and Detention Facilities.

The correctional and detention facilities work environments contain various hazards and job tasks which present, high, medium (close contact) to lower risk exposures:

NOTE: Virginia correctional facilities have clinics that provide certain medical services to inmates.

“Correctional and detention facilities face challenges in controlling the spread of infectious diseases because of crowded, shared environments and potential introductions by staff members and new intakes.

....

An estimated 2.1 million U.S. adults are housed within approximately 5,000 correctional and detention facilities on any given day (1). Many facilities face significant challenges in controlling the spread of highly infectious pathogens such as SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19).

Such challenges include crowded dormitories, shared lavatories, limited medical and isolation resources, daily entry and exit of staff members and visitors, continual introduction of newly incarcerated or detained persons, and transport of incarcerated or detained persons in multiperson vehicles for court-related, medical, or security reasons (2,3). During April 22–28, 2020, aggregate data on COVID-19 cases were reported to CDC by 37 of 54 state and territorial health department jurisdictions.

²²³ <https://www.wbgo.org/post/coronavirus-update-cases-spike-among-farmworkers-nj-curbs-wave-parades#stream/0>

Thirty-two (86%) jurisdictions reported at least one laboratory-confirmed case from a total of 420 correctional and detention facilities. Among these facilities, COVID-19 was diagnosed in 4,893 incarcerated or detained persons and 2,778 facility staff members, resulting in 88 deaths in incarcerated or detained persons and 15 deaths among staff members. Prompt identification of COVID-19 cases and consistent application of prevention measures, such as symptom screening and quarantine, are critical to protecting incarcerated and detained persons and staff members.

....

Approximately one half of facilities with COVID-19 cases reported them among staff members but not among incarcerated persons.²²⁴

Correctional Facility and Detention Center COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

The Virginia Department of Corrections website²²⁵ as of Noon, May 29, 2020, Cases by location, reports that 132 staff and contractors (active cases), and 1,171 offenders have tested positive COVID-19. Seven (7) offenders have died:

LOCATION	OFFENDERS ON-SITE	OFFENDERS IN HOSPITALS	DEATH OF COVID-19 POSITIVE OFFENDER	TOTAL POSITIVE OFFENDERS onsite + hospital + deaths + releases + recovered + transfers in - transfers out	STAFF active cases including employees & contractors
Appalachian Men's CCAP	0	0	0	0	0
Augusta Correctional Center	0	0	0	0	1
Baskerville Correctional Center	0	0	0	0	1
Bland Correctional Center	0	0	0	0	0
Brunswick CCAP	0	0	0	0	0
Buckingham Correctional Center	44	2	3	113	8
Caroline Correctional Unit	0	0	0	0	0
Central Virginia Correctional Unit #13	1	0	0	57	2
Chesterfield Women's CCAP	0	0	0	0	0
Coffeewood Correctional Center	0	0	0	0	0
Cold Springs CCAP	0	0	0	0	0
Cold Springs Correctional Unit #10	0	0	0	0	0
Deerfield Correctional Center (includes	20	1	1	78	3

²²⁴ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e1.htm>

²²⁵ <https://www.vadoc.virginia.gov/news-press-releases/2020/covid-19-updates/>

LOCATION	OFFENDERS ON-SITE	OFFENDERS IN HOSPITALS	DEATH OF COVID-19 POSITIVE OFFENDER	TOTAL POSITIVE OFFENDERS onsite + hospital + deaths + releases + recovered + transfers in - transfers out	STAFF active cases including employees & contractors
Deerfield Work Centers)					
Dillwyn Correctional Center	121	2	1	322	9
Fluvanna Correctional Center for Women	0	0	0	0	0
Green Rock Correctional Center	0	0	0	0	0
Greensville Correctional Center (includes Greensville Work Center)	190	2	0	193	53
Halifax Correctional Unit	0	0	0	0	0
Harrisonburg Men's CCAP	5	0	0	26	1
Haynesville Correctional Center	114	3	0	246	9
Haynesville Correctional Unit #17	0	0	0	0	0
Indian Creek Correctional Center	0	0	0	0	1
Keen Mountain Correctional Center	0	0	0	0	0
Lawrenceville Correctional Center	0	0	0	0	0
Lunenburg Correctional Center	0	0	0	0	0
Marion Correctional Treatment Center	0	0	0	0	0
Nottoway Correctional Center (includes Nottoway Work Center)	0	0	0	0	4
Patrick Henry Correctional Unit	0	0	0	0	0
Pocahontas State Correctional Center	0	0	0	0	0
Red Onion State Prison	0	0	0	0	0
River North Correctional Center	0	0	0	0	1
Rustburg Correctional Unit	0	0	0	0	0
St. Brides Correctional Center	0	0	0	0	1
Stafford Men's CCAP	0	0	0	0	0
State Farm Correctional Complex	19	1	0	20	17
Sussex I State Prison	0	0	0	0	3
Sussex II State Prison	23	1	1	71	7

LOCATION	OFFENDERS ON-SITE	OFFENDERS IN HOSPITALS	DEATH OF COVID-19 POSITIVE OFFENDER	TOTAL POSITIVE OFFENDERS onsite + hospital + deaths + releases + recovered + transfers in - transfers out	STAFF active cases including employees & contractors
Virginia Correctional Center for Women (includes State Farm Work Center)	2	0	1	45	9
Wallens Ridge State Prison	0	0	0	0	2
Wise Correctional Unit	0	0	0	0	0
Probation & Parole — Eastern Region	n/a	n/a	n/a	n/a	0
Probation & Parole — Central Region	n/a	n/a	n/a	n/a	0
Probation & Parole — Western Region	n/a	n/a	n/a	n/a	0
Administration & Operations	n/a	n/a	n/a	n/a	0
TOTALS	539	12	7	1171	132

Rrjva.org, Riverside Regional Jail, May 28, 2020, “COVID-19 Information as of May 28, 2020”

“Current Statistics:

Currently we have 45 positive cases of COVID-19 in the inmate population, We also have seven (7) staff members who have tested positive.

....

We have designated several living areas for quarantine. When inmates are initially booked in, they are placed in precautionary quarantine for 14 days. Once they are cleared, they are moved to general population.

Should an inmate test positive in general population, all inmates and staff that have been in contact are isolated and tested. If a significant number of inmates in that area were exposed, the entire living area is placed on isolation.

Staff that test positive are placed on leave until cleared by a physician.”²²⁶

Usatoday.com, April 27, 2020, “Isolated and scared: The plight of juveniles locked up during the coronavirus pandemic”

“Arjanae Avula talks to her younger brother twice a week. Phone calls last about three minutes before they’re cut off. During their last conversation, she said, he was crying.

....

Her 18-year-old brother is at Bon Air Juvenile Correctional Center, a coronavirus hot spot **near Richmond, Virginia, where 27 youths and 10**

²²⁶ <https://rrjva.org/wp/covid-19/>

employees have tested positive for COVID-19.



This photo shows the Bon Air Juvenile Correctional Center in Bon Air, Va., Tuesday, April 21, 2020. The Virginia Department of Corrections said Monday that it will dramatically increase testing of inmates as the state struggles to control the spread of the coronavirus in prisons across the state. *Steve Helber, AP*

10. Manufacturing

“The manufacturing work environment—production or assembly lines and other areas in busy plants where workers have **close contact** with coworkers and supervisors [medium risk exposure] — may contribute substantially to workers’ potential exposures. The risk of occupational transmission of SARS-CoV-2 depends on several factors. (Emphasis added).

....

Distinctive factors that affect workers’ risk for exposure to SARS-CoV-2 in manufacturing workplaces include:

- Distance between workers – Manufacturing workers often work close to one another on production or assembly lines. Workers may also be near one another at other times, such as when clocking in or out, during breaks, or in locker/changing rooms.
- Duration of contact – Manufacturing workers often have prolonged closeness to coworkers (e.g., for 8–12 hours per shift). Continued contact with potentially infectious individuals increases the risk of SARS-CoV-2 transmission.
- Type of contact – Manufacturing workers may be exposed to the infectious virus through respiratory droplets in the air—for example, when workers in a plant who have the virus cough or sneeze. It is also possible that exposure could occur from contact with contaminated surfaces or objects, such as tools, workstations, or break room tables. Shared spaces such as break rooms, locker

rooms, and entrances/exits to the facility may contribute to their risk.

- Other distinctive factors that may increase risk among these workers include:
 - A common practice at some workplaces of sharing transportation such as ride-share vans or shuttle vehicles, car-pools, and public transportation
- Frequent contact with fellow workers in community settings in areas where there is ongoing community transmission”²²⁷

Manufacturing COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

NBCnews.com, May 16, 2020, “Midwest manufacturing workers sound alarm over COVID-19 outbreaks”

“But outbreaks at manufacturing facilities that **make everything from wind turbine parts to soap** have also sickened scores of workers while garnering far less attention.

....

TPI Composites, a manufacturer of wind blades, shut down its Newton, Iowa, facility after approximately 20 percent of employees tested positive for the coronavirus, according to a May 2 news release.²²⁸ At least one worker has died.

....

Kyle Brown, 54, worked at TPI Composites for eight years, most recently in the maintenance department, his wife, Pamela Dennen, told NBC News in a phone interview. **Brown died from COVID-19 on April 29.**

....

Almost 500 miles away in Grand Forks, North Dakota, workers said they were ignored in March when they raised alarms about safety conditions at LM Wind Power, a General Electric-owned plant that **produces wind turbine blades**, according to the company’s website. Weeks later, 145 people tested positive for COVID-19, according to the North Dakota Department of Health. Fifteen of those employees live outside of North Dakota, while 130 are North Dakota

²²⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-manufacturing-workers-employers.html>

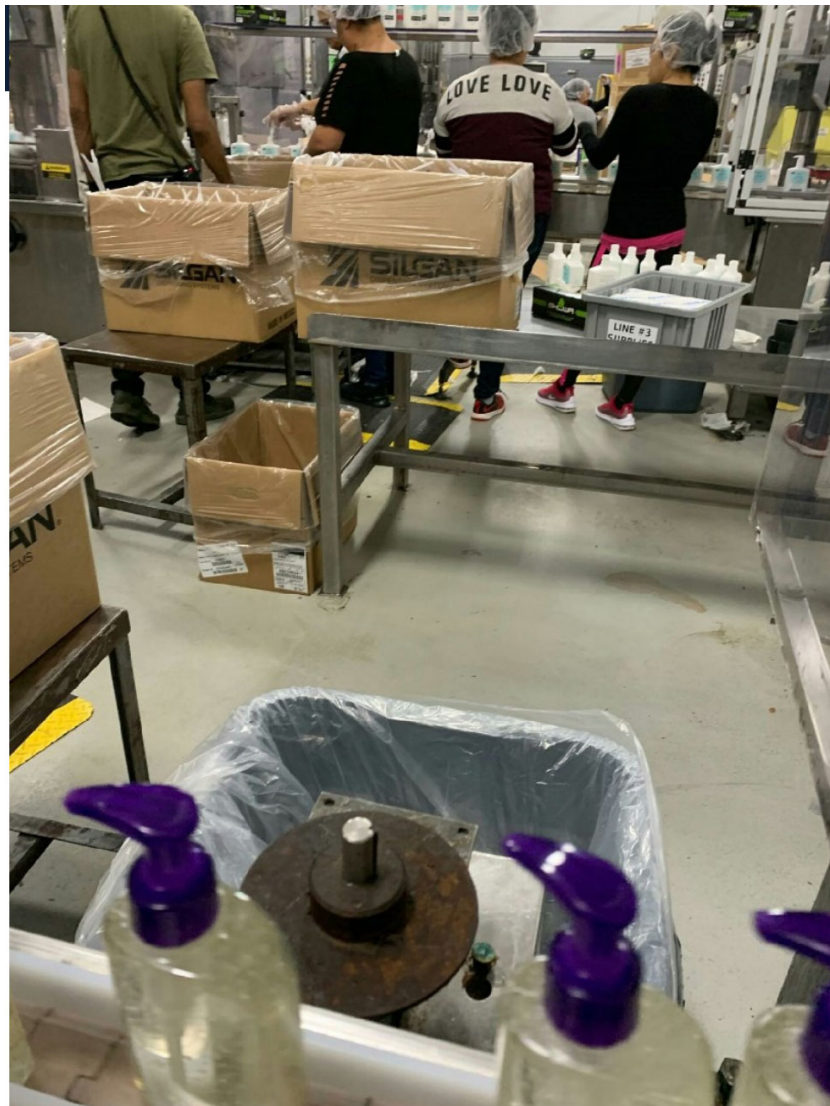
²²⁸ <https://www.tpicomposites.com/English/newsroom/press-releases/press-release-details/2020/TPI-Composites-Inc-Provides-Update-on-COVID-19-Testing-Results-of-Its-Newton-Iowa-Associates/default.aspx>

“TPI Composites, Inc. Provides Update on COVID-19 Testing Results of Its Newton, Iowa Associates May 2, 2020. SCOTTSDALE, Ariz., May 02, 2020 (GLOBE NEWSWIRE) -- TPI Composites, Inc. (Nasdaq: TPIC), the only independent manufacturer of composite wind blades with a global footprint, announced today that it has completed COVID-19 testing on nearly all of its Newton, Iowa associates. Following an increase in COVID-19 cases in Jasper, Marshall, and Polk counties, as well as a significant number of positive cases in our plant in Newton, Iowa, and in collaboration with the State of Iowa, TPI proactively conducted mandatory COVID-19 testing for nearly all of its associates at its Newton facility on April 25, 2020. During this time, TPI paused production and undertook another deep clean of the facility. TPI also provided all associates’ family members with surgical masks to help prevent further community spread, and offered hotel rooms to associates who tested negative to allow for isolation. TPI has received the majority of the test results and approximately 20% of its Newton associates have tested positive to date, which is representative of test results in the broader community.”

residents, the department told NBC News. At least one employee from the plant has died, but GE did not confirm whether it was related to the coronavirus.

....

Three weeks after Boushee raised concerns, the outbreak at LM Wind Power was so widespread that North Dakota's Department of Health issued an executive order mandating all plant employees remain under quarantine for two weeks."²²⁹ (Emphasis added).



Workers are shown on the manufacturing line at Voyant Beauty in late March. The company makes soaps, lotions and beauty products for major brands in Countryside, Illinois. One temporary worker from Voyant has died from COVID-19, and others said the company hasn't done enough to keep them safe. Chicago Workers Collaborative

Above photo: "Workers are shown on the manufacturing line at Voyant Beauty in late March. The company makes soaps, lotions and beauty products for major brands in Countryside, Illinois. **One temporary worker from Voyant has died from COVID-**

²²⁹ <https://www.nbcnews.com/news/us-news/midwest-manufacturing-workers-sound-alarm-over-covid-19-outbreaks-n1207391>

19, and others said the company hasn't done enough to keep them safe.” (Emphasis added).

11. Construction.

The construction work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“Potential sources of exposure include having **close contact** with a coworker or member of the public who is ill with COVID-19 and touching your nose, mouth, or eyes after touching surfaces contaminated with the virus or handling items that others infected with COVID-19 have touched.”²³⁰ (Emphasis added).

[Excerpt from April 27, 2020 NABTU (North American Building Trades Unions) and CPWR (CPWR – The Center for Construction Research and Training) COVID-19 Standards for U.S. Construction Sites]

“Respiratory protection: If workers **need to be near each other to perform tasks** or when **working in close quarters**, such as confined space work, they should wear a NIOSH-approved respirator implemented under a full respiratory protection program. NIOSH-approved respirators include filtering facepiece and elastomeric negative or positive pressure half or full facepiece respirators equipped with N95, N99, N100, R95, P95, P99, or P100 filters. Cloth face coverings are not respirators and do not replace physical distancing or respirators required when workers are in close proximity. However, cloth face coverings should be provided in other circumstances when required or recommended by state or local governments.”²³¹

[Excerpt from April 30, 2020 Associated General Contractors (AGC) response to “NABTU COVID-19 Standards for U.S. Construction Sites”]

“Required Use of Respirators

In accordance with recent guidance issued by the CDC and OSHA, AGC recognizes that requiring workers to cover their mouths and noses will help with preventing the spread of COVID-19. Both agencies have recommended face coverings and/or face masks and not necessarily respiratory protection when social distancing cannot be achieved. It is our concern that the requirement, or mandate, to use respiratory protection will significantly increase the number of contractors who will be required to implement and maintain a written respiratory protection program as **nearly every construction worker will, at some point, be required to work within six feet of a coworker to complete an assigned task.**

Based on our review of the OSHA Guidance for Preparing Workplaces for COVID-19, which was prepared in partnership with the Department of Health and Human Services, construction would be considered low risk for most operations/tasks.

²³⁰ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/construction-workers.html>

²³¹ https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf

According to the guidance, additional PPE is not recommended for workers in the low exposure risk group. It advises that workers in low risk occupations should continue to use the PPE, if any, that they would ordinarily use for other job tasks. And **while some operations/tasks may fall into the medium risk category**, the recommended PPE for this category does not specifically state respiratory protection must be worn. In fact, the OSHA guidance states that only in rare situations would workers in this risk category be required to use respirators. It is our belief that this level of protection is unnecessary, and that contractors allowing the use of some form of face covering or face mask will provide adequate protection to affected workers.”²³² (Emphasis added).

Construction COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

NOTE: Reports are limited to Virginia and states contiguous to or near Virginia: North Carolina, Washington, DC, Maryland, West Virginia, Georgia, Pennsylvania, and Tennessee as construction contractors from those states are known to regularly conduct work in Virginia.

Charlotte Observer, May 22, 2020, “38 test positive for COVID-19 at uptown tower construction site, prompting a shutdown”

“Thirty-eight workers at the construction site for an uptown apartment tower have tested positive for the coronavirus and the project has shut down temporarily, the general contractor said Friday.

As a result of the spike in cases, most of which occurred in the past week, Hoar Construction decided to shut down the job site until June 1, Randall Curtis, the company’s executive vice president and chief operating officer, said in a statement.

While it is closed, Curtis said, Hoar will conduct a deep cleaning and sterilization of the site, which is along North College Street between 8th and 9th streets. Hoar will work with a third-party company to beef up screening on the site when it reopens, he said.”

....

It’s the latest outbreak at a Charlotte construction site, after the general contractor for the expansion of the Charlotte Convention Center confirmed four positive COVID-19 cases on that site earlier this week.

....

Curtis said up until now, Hoar has recommended the use of face coverings, but will now require it for all employees on the site. He said the company has taken a number of measures, including screening employees prior to entering the jobsite, adding handwashing and sanitation stations, and putting up social

²³² <https://www.agc.org/sites/default/files/Files/Safety%20%26%20Health/NABTU%20Covid%204.30.20.pdf>

distancing markers.”²³³

Newschannel5.com, Nashville, TN, May 21, 2020, “Mass testing at construction site reveals 74 workers with COVID-19”

“Mass testing of workers at a Nashville construction site has revealed more than 70 cases of COVID-19. The Metro Health Department is monitoring the site on the campus of Montgomery Bell Academy, a prominent private school off West End Avenue. General Contractor Brasfield & Gorrie is overseeing construction of an athletic facility on the campus.

Emails obtained by News Channel 5 Investigates reveal the "first positive case" on the site was discovered earlier this month. In one email, General Contractor Brasfield & Gorrie "confirmed multiple positive cases of COVID-19 among our subcontractor employees."

The contractor then closed the site for five days for cleaning and testing of workers.”²³⁴

WataugaDemocrat.com, Boone, NC, May 14, 2020, “16 App State construction workers test positive for COVID-19”

“Appalachian State announced on May 14 that 16 subcontracted workers for a campus construction project have tested positive for COVID-19. The workers are not Watauga County residents.”²³⁵

Baltimore Sun, Baltimore, MD, “As construction in Maryland continues amid coronavirus, some are grateful for work while others worry about safety”

“They’re staggering workers, trying to make sure there are fewer electricians, laborers and contractors on building sites at the same time. They’re using video when possible to conduct meetings and site visits. But in the world of construction, workers don’t always have masks, and they’re almost all using the same portable toilets.

....

The state health department said it does not track the number of cases on construction sites, but the Department of General Services said five construction sites are shut down due to possible COVID-19 threats.

WAMU.org, Washington, DC, May 6, 2020, “Construction Stops In Parts of the Air and Space Museum After Workers Contract COVID-19”

“Four construction workers at the Smithsonian’s National Air and Space

²³³ <https://www.charlotteobserver.com/news/business/biz-columns-blogs/development/article242928141.html>

²³⁴ <https://www.newschannel5.com/news/newschannel-5-investigates/mass-testing-at-construction-site-reveals-74-workers-with-covid-19>

²³⁵ https://www.wataugademocrat.com/covid19/16-app-state-construction-workers-test-positive-for-covid-19/article_303494af-b54d-57f6-8b59-1d75b50b5843.html

Museum have tested positive for COVID-19, leading parts of the site to shutter for a “deep cleaning,” the Huffington Post reports.”²³⁶

WSLS.com, Roanoke, VA, May 5, 2020, “25 COVID-19 cases connected to Cave Spring High School construction work”

“ROANOKE, Va. – More than two dozen coronavirus cases are connected to construction work at a local high school, according to Roanoke County Public Schools officials.

The president of Avis Construction, Troy Smith, spoke to the Roanoke County school board on Tuesday and reported as many as 25 cases of COVID-19 that are related to construction work at Cave Spring High School.

Smith told school board members that not all 25 cases are construction workers, but rather, some are family members of workers.

School officials told 10 News that most cases are in workers from different out-of-state subcontractors.

All work was halted at the Cave Spring High School construction site on Monday, per recommendation from the health department.”²³⁷
(Emphasis added).

DCist.com, Washington, DC, April 30, 2020, “More COVID-19 Cases Reported At D.C. Construction Sites”

“More than a dozen COVID-19 cases have been reported at a residential construction site in Navy Yard, and it’s not the only site with concerns. Fears over the virus spreading further at the renovation of a congressional office building could lead to a shorter workweek at the site to prevent the spread of the virus.

There have been between 14 and 18 positive COVID cases among construction workers at D.C. Crossing, an 818-unit residential building under construction in Navy Yard, a source tells DCist. (The source asked for anonymity to protect workers at the site who shared information.) A spokesperson for the Maryland-based Clark Construction Group, which is helming the project, confirmed that there had been positive cases in mid-April, but the infected workers had not been at the worksite since. The spokesperson did not confirm how many positive cases there had been.

‘In each instance, Clark quickly performed contact tracing to identify areas of the project and workers that may have been impacted. We have kept the

²³⁶ <https://wamu.org/story/20/05/04/coronavirus-latest-dc-maryland-virginia-week-of-may4/#smithsonian>

²³⁷ <https://www.wsls.com/news/local/2020/05/06/25-covid-19-cases-connected-to-cave-spring-high-school-construction-work/>

subcontractors and the developer informed of each confirmed case. We have worked with leadership from our subcontracting partners to ensure that workers who may have had contact with the affected individuals have taken appropriate measures in accordance with guidance provided by the CDC, including self-quarantining,’ the spokesperson said.

‘Through our thorough contact tracing and investigation, we have not been able to confirm where the individuals contracted COVID-19,’ they added.

....

Over at the Cannon House Office Building, where Clark Construction is conducting an extensive renovation of the 120-year-old building, the possibility of two new positive cases has forced the contractor to close the site from Thursday through Sunday.

....

At least 11 workers at the Cannon House Office Building project have tested positive for COVID-19 so far, as DCist reported last week.”²³⁸

Newsbreak.com, Baltimore, MD, “Worker at Havre de Grace school construction site dies from coronavirus; site shut down day prior when he tested positive”

“Harford County schools and the company managing construction of the new Havre de Grace Middle/High School building shut down the site earlier this week after learning a contracted worker tested positive for the novel coronavirus. The worker died the next day.”²³⁹

WJBF.com, April 16, 2020, “Plant Vogtle asking employees to voluntarily stay home amid COVID-19 outbreak”

“Augusta, Ga. (WJBF) – Representatives at Plant Vogtle tell WJBF they have seen an increase recently in positive COVID-19 cases among the workforce at Units 3 and 4 with over **40 positive test results so far**. As a result, Georgia Power is asking for volunteers among the craft worker ranks to stay at home during this COVID crisis.”²⁴⁰ (Emphasis added).

12. Air Transportation.

The air transportation work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“As a customer service representative or gate agent, potential sources of exposure could include assisting a person with COVID-19 in **close contact** or by touching your mouth, nose, or eyes; or handling passenger items, such as baggage, boarding passes, identification documents, credit cards, and mobile devices.”²⁴¹ (Emphasis added).

²³⁸ <https://dcist.com/story/20/04/30/more-covid-19-cases-reported-at-d-c-construction-sites/>

²³⁹ <https://www.newsbreak.com/news/0OifdEoB/after-worker-dies-from-coronavirus-havre-de-grace-school-construction-site-shut-down>

²⁴⁰ <https://www.wjbf.com/csra-news/plant-vogtle-asking-employees-to-voluntarily-stay-home-amid-covid-19-outbreak/>

²⁴¹ <https://www.cdc.gov/coronavirus/2019-ncov/community/airport-customer-factsheet.html>

“For baggage or cargo handlers, while the general risk remains **low**, potential sources of exposure could include surfaces touched or handled by a person with COVID-19 or by touching your mouth, nose, or eyes.”²⁴² (Emphasis added).

“As an airport custodial staff, while the general risk remains **low**, potential sources of exposure could include handling solid waste or cleaning public facilities (such as waste bins, tables, chairs, basins, toilets) with which a person with COVID-19 has interacted or by touching your mouth, nose, or eyes.”²⁴³ (Emphasis added).

“As an airport passenger service worker, potential sources of exposure can occur from assisting, transporting, or escorting a person with COVID-19 and their belongings or by touching your mouth, nose, or eyes.”²⁴⁴

“As an aircraft maintenance worker, you could be exposed to COVID-19 in situations such as when you have **close contact** with someone with COVID-19, when you touch surfaces while repairing aircraft interiors and lavatories that have been touched or handled by a person with COVID-19, or by touching your mouth, nose, or eyes.”²⁴⁵ (Emphasis added).

“As an airline catering kitchen worker, you could be exposed to COVID-19 in situations such as having **close contact** with someone with COVID-19 or touching your mouth, nose, or eyes after handling frequently touched items used by someone with COVID-19 such as catering or food service carts or solid waste.”²⁴⁶ (Emphasis added).

“As an airline catering truck driver or helper, you could be exposed to COVID-19 in situations such as having **close contact** with someone with COVID-19 or touching your mouth, nose, or eyes after handling frequently touched items used by someone with COVID-19 such as catering and food service carts, used non-disposable food service items (e.g., utensils and serving trays), and solid waste.”²⁴⁷ (Emphasis added).

“As an airport retail or food service worker, potential sources of exposure can occur while working in an airport store, bar, restaurant, or food concession stand if you are if in **close contact** with someone with COVID-19 or by touching your mouth, nose, or eyes after handling items used by someone with COVID-19.”²⁴⁸ (Emphasis added).

Air Transportation COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Travelandleisure.com, May 22, 2020, “American and United Airlines Both Lose

²⁴² <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/airport-baggage-cargo-handlers.html>

²⁴³ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/airport-custodial-staff.html>

²⁴⁴ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/airport-passenger-assistance-workers.html>

²⁴⁵ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/aircraft-maintenance-workers.html>

²⁴⁶ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/airline-catering-kitchen-workers.html>

²⁴⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/airline-catering-truck-drivers.html>

²⁴⁸ <https://www.cdc.gov/coronavirus/2019-ncov/community/airport-retail-factsheet.html>

Employees to Coronavirus in Same Week”

“Both American and United Airlines lost employees this week due to complications from the coronavirus. American Airlines flight attendants received the news of the death of their colleague — Paul Frishkorn — on Thursday evening in a joint letter from the airline’s senior VP of flight service and presidents of the Association of Professional Flight Attendants (APFA).

A spokesperson for United also confirmed the death of their employee — Carlos Consuegra, a United ramp worker at Newark Liberty Airport — to T+L. Consuegra passed away earlier this week.²⁴⁹

The 65-year-old Philadelphia-based flight attendant had worked with American Airlines since 1997. He had been twice honored as one of the airline’s Flight Service Champions for excellent customer service. He was also a union representative with the APFA.

NBCnews.com, April 29, 2020, “TSA says 500 of its employees have tested positive for COVID-19”

“Five hundred people who work for the Transportation Security Administration have tested positive for COVID-19, including four people who died from the disease, the agency said Wednesday.

Of the 500 who tested positive, 208 recovered from the illness caused by the coronavirus, the agency said in a statement.

Almost 40 percent of positive cases were found in employees working in the three major airports serving the greater New York City region.”²⁵⁰

USAToday.com, May 3, 2020, “COVID-19 deaths among FedEx workers in Newark leave families, employees questioning company’s response”

“Pamela Pope spent her days doing a mix of work at FedEx’s Newark Liberty International Airport facility, from office work to deliveries and helping unload cargo from the dozens of planes flying in and out every day. It was a job she loved, and one the 56-year-old from Neptune, New Jersey, had done for more than half her life.

....

Pope died of coronavirus on April 25, her sister said.

The day prior, eight FedEx Express domestic workers' deaths were cited in an internal document obtained by the Memphis Commercial Appeal and Bergen Record.

²⁴⁹ <https://www.travelandleisure.com/airlines-airports/american-united-airlines-confirm-employee-deaths-coronavirus>

²⁵⁰ <https://www.nbcnews.com/politics/politics-news/tsa-says-500-its-employees-have-tested-positive-covid-19-n1195566>

At least five fatalities have occurred in Newark, according to family members who spoke with reporters from both newspapers. The death of a sixth person, identified as a FedEx Newark worker on her personal LinkedIn and Facebook accounts, was also attributed to COVID-19 complications in the social media posts of family members. Attempts to reach that family were unsuccessful.

Tsa.gov, May 31, 2020,” TSA Confirmed COVID-19 Cases”

“Overall, TSA has had 621 federal employees test positive for COVID-19. 423 employees have recovered, and 6 have unfortunately died as a result of the virus. We have also been notified that one screening contractor has passed away due to the virus.”²⁵¹

13. Ground Transportation.

The ground transportation work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

Long-haul Truck Drivers – “As a long-haul truck driver, you spend many hours alone in the cab of your truck. However, there are times when you will be at increased risk of exposure to COVID-19. For long-haul truck drivers, potential sources of exposure include having **close contact** with truck stop attendants, store workers, dock workers, other truck drivers, or others with COVID-19, and touching your nose, mouth, or eyes after contacting surfaces touched or handled by a person with COVID-19.”²⁵² (Emphasis added).

Bus Transit Operators – “For bus transit operators, potential sources of exposure include having **close contact** with a bus passenger with COVID-19, by contacting surfaces touched or handled by a person with COVID-19, or by touching your mouth, nose, or eyes.”²⁵³ (Emphasis added).

Rail Transit Operators – “For rail transit operators, potential sources of exposure include having **close contact** with a passenger with COVID-19, by contacting surfaces touched or handled by a person with COVID-19, or by touching your mouth, nose, or eyes.”²⁵⁴ (Emphasis added).

Transit Maintenance Workers – “For transit maintenance workers, potential sources of exposure include **close contact** with a coworker with COVID-19, contacting surfaces touched or handled by a person with COVID-19, or by touching your mouth, nose, or eyes.”²⁵⁵ (Emphasis added).

Transit Station Workers – “For transit station workers, potential sources of exposure include having **close contact** with a transit passenger with COVID-19, by touching

²⁵¹ <https://www.tsa.gov/coronavirus>

²⁵² <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/long-haul-trucking.html>

²⁵³ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/bus-transit-operator.html>

²⁵⁴ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/rail-transit-operator.html>

²⁵⁵ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/transit-maintenance-worker.html>

surfaces contaminated with coronavirus, or by touching your mouth, nose, or eyes.”²⁵⁶ (Emphasis added).

Mail and Parcel Delivery Workers – “As a mail and parcel delivery driver, potential sources of exposure include having **close contact** with co-workers or delivery recipients, or when you touch surfaces touched or handled by a person who has COVID-19.”²⁵⁷ (Emphasis added).

Rideshare, Taxi, Limo, and other Passenger Drivers-for-Hire – “As a driver-for-hire, potential sources of exposure include having **close contact** with passengers with COVID-19, or touching surfaces touched or handled by a person with COVID-19.”²⁵⁸ (Emphasis added).

Food and Grocery Pick-up and Delivery Drivers – “Potential sources of exposure include having **close contact** with individuals with COVID-19 when picking up or delivering food or groceries, or by touching surfaces touched or handled by a person with COVID-19.”²⁵⁹ (Emphasis added).

“Coronavirus in the United States—Considerations for Travelers

....

Travel increases your chances of getting and spreading COVID-19. We don’t know if one type of travel is safer than others; however, airports, bus stations, train stations, and rest stops are all places travelers can be exposed to the virus in the air and on surfaces. These are also places where it can be **hard to social distance** (keep 6 feet apart from other people)....

- Air travel: Air travel requires spending time in security lines and airport terminals, which can bring you in **close contact** with other people and frequently touched surfaces. Most viruses and other germs do not spread easily on flights because of how air circulates and is filtered on airplanes. However, social distancing is difficult on crowded flights, and you may have to sit near others (within 6 feet), sometimes for hours. This may increase your risk for exposure to the virus that causes COVID-19.
- Bus or train travel: Traveling on buses and trains for any length of time can involve sitting or standing within 6 feet of others....”²⁶⁰ (Emphasis added).

Ground Transportation COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Thecity.nyc, New York City, April 7, 2020 “Bus Drivers Hardest Hit by Deaths as COVID-19 Devastates MTA”

²⁵⁶ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/transit-station-workers.html>

²⁵⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/mail-parcel-drivers.html>

²⁵⁸ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/rideshare-drivers-for-hire.html>

²⁵⁹ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/food-grocery-drivers.html>

²⁶⁰ <https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-in-the-us.html>

“For 15 years, Ernesto Hernandez drove MTA buses around his home borough of Brooklyn, based out of the Jackie Gleason depot in Sunset Park.

....

Hernandez, 57, kept that routine, his son said, until he started to feel lousy on March 20. ‘He thought it was allergies,’ Jimenez said. A little more than a week later, Hernandez became one of the MTA’s first COVID-19 fatalities during the pandemic — and **one of seven bus operators, so far, to die from coronavirus.**

Among the at least **33 subway and bus workers who have died from COVID-19**, the MTA’s bus drivers have taken the biggest hit in an agency with more than 74,000 employees.

By comparison, the **NYPD has lost 13 members** to COVID-19 from a workforce of more than 55,000 people, while the **FDNY has suffered two deaths** among its more than 40,000 employees.”²⁶¹ (Emphasis added).

Theguardian.com, April 20, 2020, “Revealed: nearly 100 US transit workers have died of Covid-19 amid lack of basic protections”

“Interviews with union officials, workers and transit authorities in a dozen major cities reveal that:

- At least **94 transit workers have succumbed to coronavirus, according to two national transit unions, New York City transit officials, and workers in New Orleans.** This number includes many kinds of workers who keep transit systems running, from mechanics and maintenance workers to bus and subway operators. The number of all transit workers who have died of coronavirus across the US is likely higher.
- The New York City area has seen the majority of American transit worker deaths, with 68 fatalities among employees of the Metropolitan Transportation Authority as of Friday afternoon. Nearly 2,500 MTA transit employees had tested positive, and more than 4,000 were in quarantine, a spokesman said.
- At least 24 more transit union members have died in other cities, according to two major transit unions. **Bus drivers have died from coronavirus in Boston; Chicago; St Louis; Detroit; Seattle; Newark and Dover, New Jersey; Richmond, Virginia; and Washington DC,** among others. In New Orleans, city bus drivers said they had lost three colleagues to coronavirus, only one of them a union member.”²⁶² (Emphasis added).

²⁶¹ <https://www.thecity.nyc/health/2020/4/7/21216831/bus-drivers-hardest-hit-by-deaths-as-covid-19-devastates-mta>

²⁶² <https://www.theguardian.com/world/2020/apr/20/us-bus-drivers-lack-life-saving-basic-protections-transit-worker-deaths-coronavirus>

14. Water Transportation.

The water transportation work environment contains various hazards and job tasks which present “high”, “medium” (close contact) and “lower” risk exposures:

NOTE: Cruise ships provide medical services for passengers, including known or suspected COVID-19 passengers and crew.

Water Transportation COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

ABCnews.go.com, April 14, 2020, “Employees sue Celebrity Cruises over COVID-19 response”

“A class action lawsuit filed Tuesday on behalf of over a thousand Celebrity Cruises employees alleges the company failed to protect its crew members working aboard ships amid the novel coronavirus outbreak.

The suit comes less than two weeks after a **crew member working on the Celebrity Infinity died after being medically evacuated** by the U.S. Coast Guard. The USCG confirmed the employee had coronavirus-like symptoms.

....

According to the CDC, over the last two months outbreaks on three cruise ships have caused more than 800 confirmed cases of coronavirus in the United States among passengers and crew, including 10 deaths.”²⁶³

Businessinsider.com, April 12, 2020, “All the cruise ships that have had confirmed cases of COVID-19 onboard”

“...Here's a look at the cruise ships at the center of the coronavirus crisis on the high seas.”²⁶⁴

²⁶³ <https://abcnews.go.com/Business/cruise-employees-sue-celebrity-covid-19-response/story?id=70147214>

²⁶⁴ <https://www.businessinsider.com/cruise-ships-with-confirmed-covid-19-cases-during-coronavirus-pandemic-2020-4>

Cruise ships with COVID-19 outbreaks

SHIP	PARENT COMPANY	CONFIRMED COVID-19 CASES
Diamond Princess	Carnival Corp.	712
Ruby Princess	Carnival Corp.	612
Oasis of the Seas	Royal Caribbean Cruises	157
Grand Princess	Carnival Corp.	78
Celebrity Eclipse	Royal Caribbean Cruises	76
MS A'Sara	Gate 1 Travel	45
Disney Wonder	Walt Disney Company	38
Costa Luminosa	Carnival Corp.	36
Symphony of the Seas	Royal Caribbean Cruises	31
Artania	Phoenix Reisen	27
Voyager of the Seas	Royal Caribbean Cruises	26
Ovation of the Seas	Royal Caribbean Cruises	23
Carnival Freedom	Carnival Corp.	14
Celebrity Solstice	Royal Caribbean Cruises	11
Zaandam	Carnival Corp.	9
World Dream	Genting Hong Kong	8
Silver Explorer	Royal Caribbean Cruises	6
Costa Favolosa	Carnival Corp.	6
MS Braemar	Bonheur ASA	5
Marella Explorer 2	TUI Group	5
Majesty of the Seas	Royal Caribbean Cruises	2
Costa Magica	Carnival Corp.	2
Celebrity Apex	Royal Caribbean Cruises	2
MSC Opera	Mediterranean Shipping Company	2
Jewel of the Seas	Royal Caribbean Cruises	2
Sun Princess	Carnival Corp.	1
Carnival Valor	Carnival Corp.	1
Celebrity Infinity	Royal Caribbean Cruises	1
Explorer of the Seas	Royal Caribbean Cruises	1
Norwegian Bliss	Norwegian Cruise Line Holdings	1
Norwegian Breakaway	Norwegian Cruise Line Holdings	1
Silver Shadow	Royal Caribbean Cruises	1
Costa Victoria	Carnival Corp.	1
Norwegian Encore	Norwegian Cruise Line Holdings	1
MSC Fantasia	Mediterranean Shipping Company	1

Sources: CDC; The Guardian; KUSI; NBC News; CNN; Independent; Western Australia DOH; The New South Wales Ministry of Health; Australian Broadcasting Corporation; Holland America PR; Miami Herald; COVID-19 Cruise Tracker; NY Times; USA Today; Seatrade Cruise News; WKBN; South Florida Sun Sentinel; SILive.com; WESH; TUI Group; Cruise Law News; The Daily Mail; Axios

Updated as of April 9, 2020.

BUSINESS INSIDER

15. Post-Secondary and Higher Education.

The post-secondary and higher education work environments contains various hazards and job tasks which present “high”, “medium” (close contact) and “lower” risk exposures:

NOTE: Many colleges and universities provide on campus medical services for suspected covid-19 students. College and university affiliated hospitals provide medical services for suspected COVID-19 and COVID-19 positive students and members of the general public.

“Considerations for Institutes of Higher Education (IHE)

....

The more an individual interacts with others, and the longer that interaction, the higher the risk of COVID-19 spread. The risk of COVID-19 spread increases in IHE non-residential and residential (i.e., on-campus housing) settings as follows:

- Lowest Risk: Faculty and students engage in virtual-only learning options, activities, and events.
- More Risk: Small in-person classes, activities, and events. Individuals remain spaced at least 6 feet apart and do not share objects (e.g., hybrid virtual and in-person class structures or staggered/rotated scheduling to accommodate smaller class sizes).
- Highest Risk: Full-sized in-person classes, activities, and events. Students are not spaced apart, share classroom materials or supplies, and mix between classes and activities.”²⁶⁵

Post-secondary and Higher Education COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

WBEZ.org, April 2, 2020, “A City Colleges Of Chicago Employee Has Died Of COVID-19. Staffers Say Conditions Are Unsafe.”

“Employees at Wright College, one of the City Colleges of Chicago, are mourning the death of a campus clerical worker, Carmelita Cristobal, who died of complications from COVID-19 on March 30. Employees remembered Cristobal as a beautiful person. ‘If you needed help, she helped you,’ said Audrey Butler, executive vice president of the clerical workers. Butler worked with Cristobal, who was 71, for years. She said Cristobal’s husband had contracted the virus as well.

Staffers are accusing City Colleges' leadership of failing to do enough to ensure employee safety. **At least nine cases have been confirmed at multiple campuses** so far. Union leaders representing faculty and staff painted a chaotic

²⁶⁵ <https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html>

picture of safety protocols across the seven colleges during a virtual press conference Thursday.”²⁶⁶

Clickondetroit.com, Detroit, MI, “Wayne State University employee studying at college for degree in sociology dies from coronavirus”

“A Wayne State University employee who was also studying for a degree in sociology at the college died from complications related to the coronavirus, WSU president Roy Wilson announced Saturday.

Darrin Adams worked at WSU for almost six years as a custodian primarily in the Manoogian Hall.

‘This pandemic has hit Detroit hard, and we have all watched with great concern as the cases in our city have mounted. Unfortunately, our campus is not immune. **We have had a number of cases**, and now we mourn the loss of one of our employees.’”²⁶⁷

16. Child Care Programs, Pre-school, Elementary, and Secondary Education.

The child care, pre-school, elementary, secondary education work environments contains various hazards and job tasks which present “high”, “medium” (close contact) and “lower” risk exposures:

NOTE: Some schools provide on campus medical/nursing services for suspected COVID-19 students.

School Nutrition Professionals – “For school nutrition professionals...working in meal preparation and/or distribution at a school/school district site or other public settings, potential sources of exposure include **close contact** with co-workers, students, and families with COVID-19 and touching your nose, mouth, or eyes after touching contaminated surfaces or handling items that others infected with COVID-19 have touched. Currently there is no evidence to support transmission of COVID-19 is spread through food.”²⁶⁸ (Emphasis added).

US K-12 Schools and Child Care Programs – “Schools, working together with local health departments, have an important role in slowing the spread of diseases to help ensure students have safe and healthy learning environments. Schools serve students, staff, and visitors from throughout the community. All of these people may have **close contact** in the school setting, often sharing spaces, equipment, and supplies.

Information about COVID-19 in children is somewhat limited, but the information that is available suggests that children with confirmed COVID-19 generally had mild

²⁶⁶ <https://www.wbez.org/stories/a-city-colleges-of-chicago-employee-has-died-of-covid-19-staffers-say-conditions-are-unsafe/4e12e670-cd2b-4d32-9352-a4bbe9aa9708>

²⁶⁷ <https://www.clickondetroit.com/news/local/2020/04/04/wayne-state-university-employee-studying-at-college-for-degree-in-sociology-dies-from-coronavirus/>

²⁶⁸ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/school-nutrition-professionals.html>

symptoms. Person-to-person spread from or to children, as among adults, is thought to occur mainly via respiratory droplets produced when an infected person coughs, sneezes, or talks. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19.

However, a small percentage of children have been reported to have more severe illness. Older adults and people who have serious underlying medical conditions are at highest risk of severe illness from COVID-19. Despite lower risk of serious illness among most children, children with COVID-19-like symptoms should avoid contact with others who might be at high risk for severe illness from COVID-19.²⁶⁹ (Emphasis added).

Child Care Programs, Pre-school, Elementary, and Secondary Education.COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

WTVR.com, Richmond, VA, May 27, 2020, “Richmond principal diagnosed with COVID-19; his wife hospitalized”

“Parents and students who picked-up computers or supplies from Richmond’s Mary Munford Elementary School over the last two weeks have been asked to self-isolate for 14 days.

That’s because the school’s principal Greg Muzik was at those events and has since tested positive for COVID-19.

‘The only time that we’ve had any kind of event of any kind where I was around a lot of people was the computer distribution,’ Muzik told CBS 6 via Zoom on Wednesday. Muzik notified parents about his diagnosis on the school’s PTA website.

‘Both my wife and I have tested positive for COVID,’ he wrote. ‘So far I am doing just fine and just isolating at home.’

....

The school system indicated the employee was asymptomatic while attending events at the school.”²⁷⁰

ABC7ny.com, New York City, NY, May 11, 2020, “Coronavirus News: 30 teachers among 74 DOE employees to die of COVID-19”

The New York City Department of Education said it has now lost 74

²⁶⁹ https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fspecific-groups%2Fguidance-for-schools.html

²⁷⁰ <https://www.wtvr.com/news/local-news/richmond-principal-diagnosed-with-covid-19-families-told-to-self-isolate>

employees to COVID-19. On Monday, official announced the two new deaths. All but four of the 74 DOE employees who died were based in schools across the city. The other 70 school-based employees include:

- 28 are paraprofessionals
- 30 are teachers
- 2 are food service staffers
- 2 are administrators
- 2 are facilities staff
- 2 are school aides
- 2 are guidance counselors
- 1 is a parent coordinator
- 1 is a School Computer Technology Specialist²⁷¹

Blog.edweek.org, April 30, 2020, “A Third of Teachers Are at Higher Risk of Severe Illness From COVID-19”

“As states begin to consider what reopening schools might look like, a new analysis of federal data warns that teachers could be more susceptible to severe illness from COVID-19.

About 29 percent of teachers are aged 50 and older, federal data show. Older adults are at higher risk for severe illness from COVID-19—92 percent of deaths related to the disease in the United States were of people aged 55 and older, and that age group also has higher rates of coronavirus-related hospitalizations than younger adults. And as the brief report by the research group Child Trends points out, teachers have significantly more social contact than the average adult, since they're in close quarters with dozens of students every day.

Already, teachers' workplaces rank among the "germiest"—one study found that teachers have nearly 27 times more germs on their computer keyboards than other professions studied. Teachers report that they frequently come down with colds and other garden-variety illnesses over the course of the school year. After all, children are "effective transmitters of respiratory germs," Donna Mazyck, the executive director of the National Association of School Nurses, told Education Week earlier this year.

The immune system naturally deteriorates with age, the Child Trends report notes. Also, teachers are more likely to report being stressed at work than average people, and some research suggests that stress can weaken the immune system.”²⁷²

17. Restaurants and Bars.

²⁷¹ <https://abc7ny.com/teacher-deaths-doe-department-of-education-schools/6173896/>

²⁷² https://blogs.edweek.org/teachers/teaching_now/2020/04/a_third_of_teachers_are_at_higher_risk_of_severe_illness_from_covid-19.html

The restaurants and bars work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“The more an individual interacts with others, and the longer that interaction, the higher the risk of COVID-19 spread. The risk of COVID-19 spread increases in a restaurant or bar setting as follows:

- Lowest Risk: Food service limited to drive-through, delivery, take-out, and curbside pickup.
- More Risk: Drive-through, delivery, take-out, and curbside pickup emphasized. On-site dining limited to outdoor seating. Seating capacity reduced to allow tables to be spaced at least 6 feet apart.
- Even More Risk: On-site dining with both indoor and outdoor seating. Seating capacity reduced to allow tables to be spaced at least 6 feet apart.
- Highest Risk: On-site dining with both indoor and outdoor seating. Seating capacity not reduced and tables not spaced at least 6 feet apart.²⁷³

Restaurants and Bars COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

CNN.com, May 24, 2020, Ozarks, MI, “Pool party at Lake of the Ozarks in Missouri draws a packed crowd”

“Video posted by a reporter shows partiers [at a bar] crowded together in a pool at the Lake of the Ozarks, Missouri, this Memorial Day weekend.

....

The gathering violates social distancing measures intended to limit the spread of Covid-19. As part of Missouri's reopening plan announced earlier this month, state officials said restaurants may offer dining-in services but must adhere to social distancing and other precautionary public health measures.

²⁷³ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/business-employers/bars-restaurants.html>



The bar posted on Facebook that this was its launch of a summer party called 'Zero Ducks Given Pool Party.' It advertised several DJs and bands performing throughout the event. The venue has worked with and taken the advice of government officials and management teams and will be following social distancing guidelines. Extra precautions and safety measures will be taken to provide a safe environment for you to enjoy the event,' the bar said.

USAtoday.com, May 29, 2020, "Lake of the Ozarks pool partier tests positive for coronavirus"

"SPRINGFIELD, Missouri -- A week after images of Memorial Day weekend revelers jammed into a Lake of the Ozarks pool party at Backwater Jack's Bar & Grill in Osage Beach made international headlines, the Camden County Health Department announced that a Boone County resident tested positive for the novel coronavirus after visiting the Lake of the Ozarks area over the holiday weekend.

The Boone County subject arrived at the lake on Saturday, May 23, and "developed illness" on Sunday, according to a news release obtained by LakeNewsOnline.com, which like the News-Leader is part of the USA TODAY Network.

The infected person "was likely incubating illness and possibly infectious at the time of the visit," the health department said."²⁷⁴

Ny.eater.com, May 22, 2020, "Coronavirus, Those We've Lost"

"In NYC, where COVID-19 has hit harder than anywhere else in the country, the number of people dying in the restaurant industry is growing.

²⁷⁴ <https://www.usatoday.com/story/news/health/2020/05/29/lake-ozarks-pool-party-missouri-resident-coronavirus/5288079002/>

...

Only three weeks after COVID-19 cases were confirmed in New York City, the metropolis became the epicenter of the virus in the United States. Restaurants and bars completely shut down for dine-in service on March 16. And weeks later, the virus has shown a dramatic and tragic impact on people within the dining community.

Top chefs and restaurateurs like Floyd Cardoz, neighborhood stalwarts like butcher Moe Albanese, and lesser-known, behind-the-scene chefs like Jesus Roman Melendez from Jean-Georges Vongerichten's Nougatine have all died due to the virus. As of Thursday, May 21, in NYC, more than 200,000 people have tested positive for COVID-19 and 20,491 people have died.

....

Jimmy Glenn, 89, bar owner

....

Lloyd Porter, 49, restaurateur

....

Michael Halkias, 82, event space owner

....

Jonathan Adewumi, 57, restaurateur

....

Victor Morales, 33, bar assistant

....

Deodoro Monge Gutierrez, chef and restaurateur

....

Miguel Grande, 52, chef

....

Domingo Vega, 45, restaurateur and chef

....

Vincent Mesa, 76, chef

....

Vincent Cirelli Sabatino, 68, food vendor

....

Jose Torres, 73, chef and restaurateur

....

Miguel Torres, chef

....

Samuel Hargress, Jr., 84, bar owner

....

Panayiotis Peter Panayiotou, 65, restaurateur

....

Kathleen Elizabeth McNulty, 80, restaurateur

....

Joe Joyce, 74, bar owner

....

Moe Albanese, 95, butcher

....

Kamal Ahmed, 69, hotel banquet worker

....
 Joseph Migliucci, 81, restaurateur

 Kosta Kasimis, 84, restaurateur

 Jesus Roman Melendez, 49, chef

 Andreas Koutsoudakis, 59, restaurateur

 Floyd Cardoz, 59, restaurateur and chef²⁷⁵

18. Grocery Store and Food Retail (Including General Retail).

The grocery store and food retail work environments contain various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“As a grocery or food retail worker, potential sources of exposures include **close contact for prolonged periods of time** with a customer with COVID-19 and touching your nose, mouth, or eyes after handling items, cash, or merchandise that customers with COVID-19 have touched.”²⁷⁶

Grocery Store and Food Retail COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Boston.com, May 27, 2020, Quoting story from the *Washington Post*, “COVID-19 has killed 100 grocery store workers. Vitalina Williams was one of the first.”

“The couple [David and Vitalina Williams] worked at grocery stores near their Salem home: Vitalina Williams as a cashier at a Market Basket in Salem and security at a Walmart in Lynn, while David Williams stocked shelves at a Market Basket in Danvers. When the coronavirus pandemic hit the United States in March, they were concerned but needed to pick up extra hours to pay bills. **Both were given gloves but no masks.**

By the end of March, both were sick with COVID-19, the disease the virus causes. He recovered quickly, but her condition continued to deteriorate. On March 28, she was hospitalized and put on a ventilator. A week later, she died. Vitalina Williams was 59.

“As somebody who shared everything with her, it rattles in the back of my head, ‘Did I give it to her?’ ” he said. “‘Did I get it first and give it to her, or did she give it to me?’ To be honest, I don’t know.”

²⁷⁵ <https://ny.eater.com/2020/5/6/21229781/nyc-coronavirus-death-restaurant-workers-chefs>

²⁷⁶ <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/grocery-food-retail-workers.html>

The Williamses' jobs were deemed essential — putting them at grave risk of infection. **At least 5,500 grocery store employees have tested positive for the novel coronavirus since late March**, according to a recent Washington Post investigation and **100 workers have died of the virus**. Vitalina Williams was one of the first.

....

David Williams stocks shelves, constantly changing out of his latex gloves as he wears holes into them. He isn't sure whether his wife regularly wore gloves or whether she caught the virus at work. But two other employees at the Market Basket location where Vitalina Williams worked tested positive around the time she died.”²⁷⁷ (Emphasis added).

Richmond.com, Richmond, VA, May 15, 2020, “Half of people around Richmond aren't wearing masks to go to the store. We counted.”

“After weeks of saying that healthy people didn't need to wear masks in public, elected leaders and health officials across the country in April reversed course and began recommending them in stores and places where it's difficult to stay 6 feet apart. You can't get on a plane or in an Uber without one. People are required to wear one when they leave home in New York.

But in Virginia, you can still get into a Walmart, or a Home Depot or an ABC store with an uncovered face.

Richmond Times-Dispatch reporters spent nearly 15 hours observing nearly 2,900 people **entering stores for groceries and other supplies in the city and neighboring localities this week. More than half — 1,480 — didn't wear a mask or other face covering**. Two dozen more were doing it wrong: A woman walked into the Home Depot in Chester on Wednesday with a black headband wrapped behind her neck and over her mouth, with nothing covering her nose.

....

A recent study and computer model from the University of California, Berkeley's International Computer Science Institute and Hong Kong University of Science and Technology suggested that **if 80% of people would wear masks in public, the spread of the coronavirus would plummet. But the impact of masks falls dramatically in the model if the rate of people using them dips below 50%.**

....

The message on masks has been jumbled since the coronavirus spread here in March: Officials with the U.S. Centers for Disease Control and Prevention and the World Health Organization initially said people shouldn't wear them, as the world grappled with a shortage of specialized N95 masks for medical personnel and first responders.

²⁷⁷ <https://www.boston.com/news/coronavirus/2020/05/27/covid-19-has-killed-100-grocery-store-workers-vitalina-williams-was-one-of-the-first>

The agencies reversed course last month, announcing that face coverings can help keep people from infecting others — even if they don't protect the wearer.”²⁷⁸ (Emphasis added).

9news.com, Colorado, May 16, 2020, “Costco & Walmart among grocery stores with COVID-19 outbreaks”

“There are now six grocery stores with COVID-19 outbreaks in Colorado.

Data released from the Colorado Department of Health and Environment (CDPHE) on Wednesday **shows 67 confirmed COVID-19 staff cases in grocery stores throughout Colorado, four probable staff cases and three deaths.**

....

These are the six grocery stores in Colorado with COVID-19 outbreaks:

King Soopers - 1155 E. 9th Ave., Denver, **8 confirmed staff cases**

Costco - 1470 South Havana St., Aurora, **6 confirmed staff cases**

Walmart - 14000 E. Exposition Ave., Aurora, **14 confirmed staff cases and 3 deaths**

Mi Pueblo Market, 9171 Washington St., Thornton, **19 confirmed staff cases**

Carniceria Sonora, 347 N. 1st St., Montrose, **7 confirmed staff cases**

City Market, 400 N. Parkway, Breckenridge, **13 confirmed staff cases and 4 probable staff cases**”²⁷⁹ (Emphasis added).

Businessinsider.com, April 13, 2020, “At least 30 grocery store workers have died from the coronavirus, and their colleagues are pleading for shoppers to wear masks and respect social distancing”

“ At least 30 grocery store workers have died from the coronavirus so far, and at least 3000 have stopped working because they've been exposed or gotten sick.

In a media call on Monday, the United Food and Commercial Workers International Union, or UFCW, told journalists that over 30 of its members had died from the coronavirus. UFCW, which represents about 1.3 million grocery store workers and food processing workers, is pushing for increased protection from the government for its members. The union is asking the CDC to classify grocery workers as first responders, and to give them priority for testing and protective equipment.

Those 30 deaths are only the ones the union has accounted for, said UFCW president Marc Perrone. There are many chains, such as Whole Foods and

²⁷⁸ https://www.richmond.com/special-report/coronavirus/half-of-people-around-richmond-arent-wearing-masks-to-go-to-the-store-we-counted/article_7cd4a541-986b-5a1e-b4e9-b0e7f99147d3.html

²⁷⁹ <https://www.9news.com/article/news/health/coronavirus/costco-walmart-among-grocery-store-covid-19-outbreaks/73-bde0be4d-e1e3-41f1-a56d-8cf2356d6dde>

Trader Joe's, that aren't part of the union and aren't included in the data UFCW collects.

....

In a survey conducted by the UFCW of 5000 grocery store workers, **85% of respondents said they had seen customers violating social distancing guidelines.**²⁸⁰ (Emphasis added).

General Retail

Detroitnews.com, May 15, 2020, "Michiganians flock to Ohio to enjoy state's reopening"

"Ohio Gov. Mike DeWine on Friday restarted parts of his state's economy, with selected businesses opening for the first time since he issued a stay-at-home order on March 22 in response to the coronavirus emergency.

Michiganians like Hamade of Temperance flocked across the border for goods and services still not available in their own state. Dozens of vehicles bearing Michigan license plates were parked outside Toledo businesses that reopened Friday.

....

Hilary Wilcox said she understands that "Michigan is a little crazier" than Ohio as far as being impacted by the COVID-19 virus. Ohio has reported 26,954 COVID cases, with 1,581 deaths. That compares to 50,079 cases and 4,825 deaths in Michigan as of Friday.

"I'm just excited Ohio is opening up, and that I live close enough to drive here," said Wilcox, 31, who made the 75-mile trip from her Wixom home to enjoy her version of normal — an afternoon of lunch and shopping with her friend.

....

Rylee Rasmussen, 19, and her 14-year-old sister, Ragean Rasmussen, of Carleton in Monroe County said their shopping excursion Friday was their first since Whitmer imposed the original stay-at-home order March 24.

"It feels weird," Rylee Rasmussen said as she and her sister strolled through the Dick's Sporting Goods store in Franklin Park Mall. "We're not really looking for anything; we just wanted to get out."

²⁸⁰ <https://www.businessinsider.com/grocery-store-worker-deaths-from-coronavirus-at-least-30-nationwide-2020-4>

Like most of the store's customers, the sisters did not wear masks.²⁸¹



19. Drug Stores and Pharmacies.

The drug store and pharmacy work environments contain various hazards and job tasks which present “high”, “medium” (close contact) and “lower” risk exposures:

“Reduce risk during COVID-19 testing and other close-contact pharmacy care services

Pharmacies that are participating in **public health testing for COVID-19** should communicate with local and state public health staff to determine which persons meet the criteria for testing. State and local health departments will inform pharmacies about procedures **to collect, store, and ship specimens** appropriately, including during afterhours or on weekends/holidays. Some pharmacies are including self-collection options.

In the “CDC Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings,” there is guidance for collecting respiratory specimens.

Pharmacy staff conducting COVID-19 testing and other **close-contact patient care** procedures that will likely elicit coughs or sneezes (e.g., influenza and strep testing) should be provided with appropriate PPE. Staff who use respirators must be familiar with proper use and follow a complete respiratory protection program that complies with OSHA Respiratory Protection standard (29 CFR 1910.134). Staff should also have training in the appropriate donning

²⁸¹Photo: Hilary Wilcox of Wixom spent Friday afternoon shopping at Franklin Park Mall in Toledo. (Photo: Max Ortiz, The Detroit News)” (Emphasis added).

and doffing of PPE. Cloth face coverings should NOT be worn by staff instead of a respirator or facemask if more than source control is required.”²⁸²

Drug Stores and Pharmacies COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Propublica.org, April 9, 2020, “Pharmacy Workers Are Coming Down With COVID-19. But They Can’t Afford to Stop Working.”

“A few days later, during routine calls to customers about medication ready for pickup, Peralta learned that the customer whom he had helped had tested positive for COVID-19. Peralta notified his manager that he may have been exposed to the virus. The manager checked with headquarters and told him to keep working, Peralta said.

Toward the end of March, Peralta and two colleagues started to come down with telltale symptoms: A loss of smell and taste. Fatigue. Body aches. He realized that he might be laid up for weeks — far longer than his sick pay would last.

....

Without sufficient safeguards, pharmacies could become vectors for spreading the coronavirus within communities, according to Denis Nash, a professor of epidemiology at the CUNY School of Public Health. “This is not a hospital setting per se, but it is a busy place where sick people may be going at a time when transmission of SARS-CoV-2 is high,” he said.”²⁸³

20. Personal Care, Personal Grooming, Salon, and Spa Services.

The personal care, personal grooming, salon, and spa services work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

Personal Care, Personal Grooming, Salon, and Spa Services COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

CNN.com, Missouri, May 24, 2020, “A second hairstylist who worked while symptomatic potentially exposed 56 clients to Covid-19, officials say”

“The Springfield-Greene Health Department announced Saturday that a

²⁸² <https://www.cdc.gov/coronavirus/2019-ncov/hcp/pharmacies.html>

²⁸³ <https://www.propublica.org/article/pharmacy-workers-are-coming-down-with-covid-19-but-they-cant-afford-to-stop-working>

second hairstylist tested positive for coronavirus, and may have exposed 56 clients at the same Great Clips salon. A day earlier, officials had said another hairstylist with coronavirus at the same salon potentially exposed 84 customers and seven coworkers. **Both stylists had symptoms while at work**, officials said. They did not provide details on their conditions or when they tested positive.”²⁸⁴ (Emphasis added).

CNN.com, Missouri, May 23, 2020, “A hairstylist worked while symptomatic and exposed 91 people to coronavirus”

“A hairstylist with coronavirus worked for eight days this month **while symptomatic**, exposing as many as 91 customers and coworkers in Missouri, health officials said.

‘In this instance, the 84 customers exposed got services from the hairstylist at Great Clips,’ said Clay Goddard, director of the Springfield-Greene County Health Department. In addition to the customers, seven coworkers were also notified of exposure.

It's unclear when the stylist tested positive but the infection is believed to have happened while traveling. The stylist worked May 12 through Wednesday, health officials said Friday. At the time, businesses such as barbershops and hair salons were allowed to operate in the state.

‘The individual and their clients were wearing face coverings. The 84 clients potentially directly exposed will be notified by the Health Department and be offered testing, as will seven coworkers,’ the Springfield-Greene County Health Department said in a statement.’ It is the hope of the department that because face coverings were worn throughout this exposure timeline, no additional cases will result.”²⁸⁵ (Emphasis added).

ABC7News.com, California, May 7, 2020, “Coronavirus: First case of COVID-19 community spread in California tracked to nail salon, Newsom reveals in press conference”

“The first case of community spread of novel coronavirus in California can be tracked back to a nail salon, Gov. Gavin Newsom revealed in a press conference Thursday.

The announcement wasn't part of the governor's prepared remarks; he mentioned it in only in response to a question about why churches and salons aren't being allowed to open in Stage 2 of the state's reopening.

²⁸⁴ <https://www.cnn.com/2020/05/24/us/missouri-hairstylists-coronavirus-clients-trnd/index.html>

²⁸⁵ <https://www.cnn.com/2020/05/23/us/missouri-hairstylist-coronavirus-trnd/index.html>

‘This whole thing started in the state of California - the first community spread - in a nail salon. I just want to remind you, remind everybody, of that. I’m very worried about that.’

‘Community spread’ means the virus was locally contracted, not from traveling to a foreign country or by being in close proximity who recently traveled to a foreign country.

The first case of community spread in California was known to have occurred in Solano County in February. The county told ABC7 News, ‘Solano Public Health cannot confirm this information and we did not release this information when the first COVID-19 community spread occurred.’

Nail salons, spas, barbershops and the like are included in Stage 3 of reopening. They are considered higher risk environments because the business necessitates close proximity between people. Newsom pointed out that nail technicians typically wear face masks and even sometimes gloves, yet COVID-19 was apparently still transmitted. That makes the reopening of such businesses particularly challenging.”²⁸⁶

21. Sports and Entertainment, and Mass Gatherings.

The sports and entertainment venue work environments contain various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“Large events and mass gatherings can contribute to the spread of COVID-19 in the United States via travelers who attend these events and introduce the virus to new communities. Examples of large events and mass gatherings include conferences, festivals, parades, concerts, sporting events, weddings, and other types of assemblies. These events can be planned not only by organizations and communities but also by individuals.

....

Larger gatherings (for example, more than 250 people) offer more opportunities for person-to-person contact and therefore pose greater risk of COVID-19 transmission.

....

Based on what is currently known about the virus, spread from person-to-person happens most frequently among close contacts (within 6 feet).”²⁸⁷

Sports and Entertainment, and Mass Gatherings COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Bleacherreport.com, “Timeline of Coronavirus' Impact on Sports”

²⁸⁶ <https://abc7news.com/first-case-of-coronavirus-in-california-nail-salon-covid-nails/6161231/>

²⁸⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/large-events/mass-gatherings-ready-for-covid-19.html>

“Saturday, March 14

10:44 p.m.: Cleveland State women's basketball head coach Chris Kielsmeier has tested positive for COVID-19, the school announced, per ESPN.

8:05 p.m.: ESPN's Adrian Wojnarowski and Stadium and The Athletic's Shams Charania reported that Detroit Pistons big man Christian Wood tested positive for the coronavirus. Per Charania, Wood "has shown no symptoms and is doing well." The 24-year-old played on March 7 against the Utah Jazz, who have two players (Rudy Gobert and Donovan Mitchell) who have tested positive for the coronavirus.

....

Tuesday, March 17

....

3:57 p.m.: The Brooklyn Nets announced four players tested positive for the coronavirus. Only one of the four is showing symptoms. The organization says it's currently notifying anyone who has had known contact with the players, including recent opponents.

....

Thursday, March 19

....

7:17 p.m.: Two Los Angeles Lakers players tested positive for COVID-19, per Shams Charania of Stadium and The Athletic. Mark Medina of USA Today reported Wednesday that "the majority" of Lakers players received tests that morning at the team's practice facility in El Segundo, California. Charania noted that the Lakers may test other players who did not take part in those tests.

6:11 p.m.: The Philadelphia 76ers announced three members of the organization have received positive tests for the coronavirus.”²⁸⁸

²⁸⁸ <https://bleacherreport.com/articles/2880569-timeline-of-coronavirus-impact-on-sports>

Richmond Times Dispatch, April 16, 2020, “Dozens protest social distancing orders as Virginia's death toll passes 200”



A Virginia Capitol Police officer asked demonstrators to maintain social distancing guidelines during Thursday's protest at Capitol Square. Organizers plan to hold another protest May 1.

DANIEL SANGJIB MIN/RTD

“A Virginia Capitol Police officer asked demonstrators to maintain social distancing guidelines during Thursday’s protest at Capitol Square. Organizers plan to hold another protest May 1.”

22. Homeless Shelters.

The homeless shelter work environments contain various hazards and job tasks which present “high”, “medium” (close contact) and “lower” risk exposures:

“People experiencing homelessness are at risk for infection during community spread of COVID-19.

....

Continuing homeless services during community spread of COVID-19 is critical, and homeless shelters should not close or exclude people who are having symptoms or test positive for COVID-19 without a plan for where these clients can safely access services and stay.

Decisions about whether clients with mild illness due to suspected or confirmed COVID-19 should remain in a shelter, or be directed to alternative housing sites, should be made in coordination with local health authorities. Community coalitions should identify additional temporary housing and shelter sites that are able to provide appropriate services, supplies, and staffing. Ideally, these additional sites should

include:

- Overflow sites to accommodate shelter decompression (to reduce crowding and higher shelter demands)
- Isolation sites for people who are confirmed to be positive for COVID-19
- Quarantine sites for people who are waiting to be tested, or who know that they were exposed to COVID-19
- Protective housing for people who are at highest risk of severe COVID-19

Depending on resources and staff availability, non-group housing options (such as hotels/motels) that have individual rooms should be considered for the overflow, quarantine, and protective housing sites.”²⁸⁹

Homeless Shelter COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Voiceofoc.org, Orange County, CA, May 29, 2020, “Coronavirus Outbreak Hits Second Orange County Homeless Shelter”

“The Fullerton Armory’s replacement shelter at Independence Park has become the second Orange County homeless shelter to have an outbreak of coronavirus cases, according to county officials.

....

The Fullerton outbreak was about a week ago, and people who tested positive were moved into the county’s motel sheltering program, county Chief Executive Officer Frank Kim said Friday in response to Voice of OC’s questions.

....

Late Friday, county spokeswoman Molly Nicholson said two people tested positive at one shelter in OC and 11 people at another, none of whom were hospitalized. She declined to say which shelter had two cases and which had 11, citing privacy.

The first known shelter outbreak was at the Salvation Army shelter in Anaheim, where **two staff members tested positive** for coronavirus in late March. It wasn’t clear if more people have since tested positive at the Anaheim shelter.”²⁹⁰ (Emphasis added).

KHOU.com, Houston, TX, May 25, 2020, “77 positive coronavirus cases reported at Houston homeless shelter”

“Eichenbaum said 69 residents and **eight staff members** have now tested positive at one shelter. ‘I consider it a spike, it seems to be isolated right now,’

²⁸⁹ <https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/plan-prepare-respond.html>

²⁹⁰ <https://voiceofoc.org/2020/05/coronavirus-outbreak-hits-second-orange-county-homeless-shelter/>

Eichenbaum said. The cases are all at the Men's Development Center downtown. Right now, it's not accepting new clients and the city is vowing to increase homeless testing."²⁹¹ (Emphasis added).

23. Fitness, Gyms, and Exercise Facilities.

The fitness, gyms, and exercise facility work environments contain various hazards and job tasks which present "medium" (close contact) to "lower" risk exposures:

"During 24 days in Cheonan, South Korea, 112 persons were infected with severe acute respiratory syndrome coronavirus 2 associated with fitness dance classes at 12 sports facilities. Intense physical exercise in densely populated sports facilities could increase risk for infection. Vigorous exercise in confined spaces should be minimized during outbreaks.

....

By March 9, we identified 112 COVID-19 cases associated with fitness dance classes in 12 different sports facilities in Cheonan (Figure). All cases were confirmed by RT-PCR; 82 (73.2%) were symptomatic and 30 (26.8%) were asymptomatic at the time of laboratory confirmation. Instructors with very mild symptoms, such as coughs, taught classes for ≈ 1 week after attending the workshop (Appendix). The instructors and students met only during classes, which lasted for 50 minutes 2 times per week, and did not have contact outside of class.

On average, students developed symptoms 3.5 days after participating in a fitness dance class (3). Most (50.9%) cases were the result of transmission from instructors to fitness class participants; 38 cases (33.9%) were in-family transmission from instructors and students; and 17 cases (15.2%) were from transmission during meetings with coworkers or acquaintances.

....

Characteristics that might have led to transmission from the instructors in Cheonan include large class sizes, small spaces, and intensity of the workouts. The moist, warm atmosphere in a sports facility coupled with turbulent air flow generated by intense physical exercise can cause more dense transmission of isolated droplets. Classes from which secondary COVID-19 cases were identified included 5–22 students in a room $\approx 60 \text{ m}^2$ during 50 minutes of intense exercise. We did not identify cases among classes with < 5 participants in the same space.

Of note, instructor C taught Pilates and yoga for classes of 7–8 students in the same facility at the same time as instructor B (Figure; Appendix Table 2), but none of her students tested positive for the virus. We hypothesize that the lower intensity of Pilates and yoga did not cause the same transmission effects as those of the more intense fitness dance classes."²⁹², ²⁹³

²⁹¹ <https://www.khou.com/article/news/health/coronavirus/77-positive-covid-19-cases-at-houston-homeless-shelter/285-f8ad7306-cb8d-4471-b8bb-4ce310ebd3a7>

²⁹² https://wwwnc.cdc.gov/eid/article/26/8/20-0633_article

²⁹³ *Id.* "A limitation of our study is the unavailability of a complete roster of visitors to the sports facilities, which might have meant we missed infections among students during surveillance and investigation efforts. Discovery of outbreak cases centered on exercise facilities led to a survey of instructors who participated in a fitness dance workshop

24. Call Centers.

The call center work environments contain various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“Coronavirus Disease Outbreak in Call Center, South Korea

....

We describe the epidemiology of a coronavirus disease (COVID-19) outbreak in a call center in South Korea. We obtained information on demographic characteristics by using standardized epidemiologic investigation forms. We performed descriptive analyses and reported the results as frequencies and proportions for categorical variables. Of 1,143 persons who were tested for COVID-19, a total of 97 (8.5%, 95% CI 7.0%–10.3%) had confirmed cases.

Of these, 94 were working in an 11th-floor call center with 216 employees, translating to an attack rate of 43.5% (95% CI 36.9%–50.4%). The household secondary attack rate among symptomatic case-patients was 16.2% (95% CI 11.6%– 22.0%). Of the 97 persons with confirmed COVID-19, only 4 (1.9%) remained asymptomatic within 14 days of quarantine, and none of their household contacts acquired secondary infections.

....

However, if we restrict our results to the 11th floor, the attack rate was as high as 43.5%. This outbreak shows alarmingly that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can be exceptionally contagious in **crowded office settings** such as a call center. The magnitude of the outbreak illustrates how a high-density work environment can become a high-risk site for the spread of COVID-19 and potentially a source of further transmission. Nearly all the case-patients were on one side of the building on 11th floor.

Severe acute respiratory syndrome coronavirus, the predecessor of SARS-CoV-2, exhibited multiple superspreading events in 2002 and 2003, in which a few persons infected others, resulting in many secondary cases. Despite considerable interaction between workers on different floors of building X in the elevators and lobby, spread of COVID-19 was limited almost exclusively to the 11th floor, which indicates that the duration of interaction (or contact) was likely the main facilitator for further spreading of SARS-CoV-2.

....

In summary, this outbreak exemplifies the threat posed by SARS-CoV-2 with its propensity to cause large outbreaks among persons in office workplaces.”^{294 295}

and provided clues to identifying additional cases among students. Early identification of asymptomatic persons with RT-PCR–confirmed infections helped block further transmissions. Because of the increased possibility of infection through droplets, vigorous exercise in closely confined spaces should be avoided during the current outbreak, as should public gatherings, even in small groups.”

²⁹⁴ https://wwwnc.cdc.gov/eid/article/26/8/20-1274_article

²⁹⁵ *Id.* “This outbreak investigation has several limitations. First, we could not track these cases to another cluster, making it difficult to identify the actual index case-patient. Second, not all clinical information was available for all confirmed cases, prohibiting detailed description of clinical syndromes. Date of symptom onset by office seat would be informative in understanding SARS-CoV-2 transmission in close contact area. However, our findings demonstrate the

Call Center COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

Martinsvillebulletin.com, Martinsville, VA, May 13, 2020, “Martinsville call center Young Williams sees outbreak of COVID-19, including one death”

“An outbreak of COVID-19 has hit a Martinsville call center that has had **six positive cases and one death among its employees.**

A spokesperson for the Virginia Department of Social Services confirmed via email that six employees of Young Williams Child Support Services, located in the Clocktower Building off Commonwealth Boulevard, have tested positive for the virus as of Wednesday morning.”²⁹⁶

25. Package Processing Facilities.

The package processing facility work environment contains various hazards and job tasks which present “medium” (close contact) to “lower” risk exposures:

“...production or assembly lines and other areas in busy plants where workers have **close contact with coworkers** and supervisors—may contribute substantially to workers’ potential exposures.”²⁹⁷

Package Processing Facilities COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

NBCnews.com, May 21, 2020,” Eighth Amazon warehouse worker dies from COVID-19”

“Another Amazon warehouse worker has died from COVID-19, bringing the **total known deaths to eight employees**, the company said Thursday.

The female employee worked in packing at the fulfillment center outside

power of screening all potentially exposed persons and show that early containment can be implemented and used in the middle of national COVID-19 outbreak. By testing all potentially exposed persons and their contacts to facilitate the isolation of symptomatic and asymptomatic COVID-19 case-patients, we might have helped interrupt transmission chains. In light of the shift to a global pandemic, we recommend that public health authorities conduct active surveillance and epidemiologic investigation in this rapidly evolving landscape of COVID-19.”

²⁹⁶ https://www.martinsvillebulletin.com/news/local/martinsville-call-center-young-williams-sees-outbreak-of-covid-19-including-one-death/article_4d116bb4-0dbd-58b4-bc21-984a9faa3053.html

²⁹⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-manufacturing-workers-employers.html>, NOTE: The CDC guidance in this document is for manufacturing workers, but to the extent that work conditions at package processing facilities mirror the work activities described in the document, the same exposure risk level analysis can be reasonably applied to package processing facilities.

Cleveland in North Randall, Ohio, known as CLE2, Amazon said. She had been with the company since November 2018.

The employee last went to work on April 30, the same day she was diagnosed, said Amazon spokesperson Lisa Levandowski. The e-commerce giant learned of her positive test results on May 8 and was informed of her death by her sister-in-law on May 18.

....

NBC News has confirmed that seven other Amazon warehouse workers have died after testing positive for coronavirus in Staten Island, New York; Waukegan, Illinois; Hawthorne, California; Tracy, California; Bethpage, New York; Jeffersonville, Indiana; and Indianapolis, Indiana.”²⁹⁸ (Emphasis added).

Washingtonpost.com, March 25, 2020, “Amazon workers test positive for covid-19 at 10 U.S. warehouses”

“The U.S. coronavirus outbreak has spread to at least 10 Amazon warehouses, infecting workers racing to deliver massive volumes of packages for consumers leery of leaving their homes to shop.

In the past few days, workers tested positive for covid-19 at Amazon warehouses and shipping facilities across the country, from New York to California and Michigan to Texas. In some cases, Amazon shut down facilities for cleaning, and some workers who were in close contact with their infected colleagues have been quarantined.

26. Emergency Responders Including Police, Fire, Emergency Medical Services.

The emergency responder work environment contains various hazards and job tasks which present “high”, “medium” (close contact) to “lower” risk exposures:

“Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and **providing emergency medical treatment and transport for ill persons**. However, unlike patient care in the controlled environment of a healthcare facility, care and transports by EMS present unique challenges because of the nature of the setting, **enclosed space during transport**, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.”²⁹⁹ (Emphasis added).

Emergency Responder COVID-19 Reports and Statistics

The following is not intended to be an exhaustive list of COVID-19 outbreaks in this industry.

²⁹⁸ <https://www.nbcnews.com/news/us-news/eighth-amazon-warehouse-worker-dies-covid-19-n1212546>

²⁹⁹ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>

Thecity.nyc, New York City, April 7, 2020 “Bus Drivers Hardest Hit by Deaths as COVID-19 Devastates MTA”

“By comparison, the **NYPD has lost 13 members** to COVID-19 from a workforce of more than 55,000 people, while the **FDNY has suffered two deaths** among its more than 40,000 employees.”³⁰⁰ (Emphasis added).

Pressherald.com, “Seven state public health and emergency workers report COVID-19 symptoms”

“Seven employees who work at the Maine Emergency Management Agency experienced symptoms similar to COVID-19 and called in sick Thursday, forcing the state to shift its daily media briefing to a virtual event.”³⁰¹

Ems1.com, May 4, 2020, “COVID-19: EMS Deaths, Tracking the coronavirus-related deaths of EMTs and paramedics”

“As COVID-19 continues to spread around the country, the first responders on the front lines are increasingly vulnerable of contracting the virus. As was feared, the death toll now includes a growing number of EMS personnel.

What follows is a compilation of the reports, by state, of EMS personnel who have died of coronavirus-related complications. For cities with multiple diagnoses, the links are ordered chronologically, with the top being the most recent.

Note: Not all of these deaths have been confirmed as line-of-duty deaths. Deputy Chief Billy Goldfeder shared an update from the Public Safety Officers’ Benefits program as to how COVID-19 deaths will be classified.

COLORADO

Denver — Colo. paramedic, Paul Cary, 66, dies from COVID-19

MICHIGAN

Huron Township — Mich. paramedic and former fire Lt., Paul Novicki, 51, dies from COVID-19

MISSISSIPPI

Natchez — Miss. AMR paramedic, David Martin, dies from COVID-19 complications

MISSOURI

Kansas City — Mo. EMT, Billy Birmingham, dies from COVID-19

³⁰⁰ <https://www.thecity.nyc/health/2020/4/7/21216831/bus-drivers-hardest-hit-by-deaths-as-covid-19-devastates-mta>

³⁰¹ <https://www.pressherald.com/2020/05/28/maine-reports-3-more-deaths-52-additional-covid-19-cases/>

NEW JERSEY

Passaic — City of Passaic firefighter-EMT, Israel Tolentino, 33, has died from COVID-19

Hackensack — Past Hackensack Volunteer Ambulance Corps captain and life member, Reuven Maroth, dies from COVID-19

Newark — EMT Liana Sá, of Monmouth-Ocean Hospital Service Corporation and Watchung Rescue Squad, dies from COVID-19

Pompton Lakes — North Bergen and Saint Clare's Hospital EMT Kevin Leiva, 24, dies from COVID-19 complications

Bergen County — Physician and NJSEA EMS member, Dr. Frank Molinari, has died from COVID-19

Monmouth County — NJ firefighter-EMT, Robert Weber, dies from COVID-19 complications

West Orange — RWJBarnabas Health EMS educator, Robert Tarrant, has died from COVID-19

Elizabeth — Trinitas Regional Medical Center EMT, Solomon Donald, dies from COVID-19

Chatham — Atlantic Health EMS educator, former Chatham police captain, Bill Nauta, 72, dies from COVID-19

Morristown — Atlantic Mobile Health EMT, Scott Geiger, dies due to COVID-19 complications

Bergen County — Firefighter, EMS instructor and NJSEA EMT, John Ferrarella, dies from COVID-19

Woodbridge — NJ volunteer EMS chief, John Careccia, 74, dies from COVID-19

Bergen County — NJ EMT, former fire chief, David Pinto, 70, dies from COVID-19 complications

NEW YORK

New York City — FDNY ambulance mechanic, James Villecco, 55, dies from COVID-19

New York City — FDNY EMT and 9/11 responder, Gregory Hodge, 59, dies from COVID-19

New York City — NYU Langone Hospital paramedic, former FDNY EMS member, Tony Thomas, dies from COVID-19

Valley Stream — LODD: NY firefighter-EMT and 9/11 responder, Mike Field, dies from COVID-19

New York City — FDNY EMT, John Redd, 63, dies due to COVID-19

New York City — FDNY EMT, Idris Bey, 60, dies due to COVID-19

New York City — FDNY EMT, 30-year EMS veteran, Richard Seaberry, 63, dies due to COVID-19

Blooming Grove — NY ambulance volunteer, Sal Mancuso, 66, dies from COVID-19

PENNSYLVANIA

Delaware County — Pa. first responders, healthcare professionals mourn paramedic, Kevin Bundy, who died from COVID-19

Robesonia — Pa. assistant fire chief and EMT, Robert Zerman, 49, dies from COVID-19³⁰²

V. Findings

A. Worplace exposures to SARS-CoV-2 and COVID-19 constitute a grave danger to employees and employers in Virginia necessitating the adoption of an emergency temporary standard pursuant to Va. Code §40.1-22(6a).

1. Statutory Construction of Va. Code §40.1-22(6a).

§40.1-22(6), is specific to the Board and provides procedures for adopting an Emergency Temporary Standard:

§ 40.1-22. Safety and Health Codes Commission continued as Safety and Health Codes Board.

....

(6) Chapter 40 (§ 2.2-4000 et seq.) of Title 2.2 shall apply to the adoption of rules and regulations under this section and to proceedings before the Board.

(6a) The Board shall provide, without regard to the requirements of Chapter 40 (§ 2.2-4000 et seq.) of Title 2.2, for **an emergency temporary standard to take immediate effect upon publication** in a newspaper of general circulation, published in the City of Richmond, Virginia, **if it determines that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards,**

³⁰² <https://www.ems1.com/coronavirus-covid-19/articles/covid-19-ems-deaths-jk5zWFziwYVYUaM4/>

and that such emergency standard is necessary to protect employees from such danger. The publication mentioned herein shall constitute notice that the Board intends to adopt such standard within a period of six months. The Board by similar publication shall prior to the expiration of six months give notice of the time and date of, and conduct a hearing on, the adoption of a permanent standard. The emergency temporary standard shall expire within six months or when superseded by a permanent standard, whichever occurs first, or when repealed by the Board.
(Emphasis added).

The terms “grave danger” and “necessity” are not defined in the statute, but have been addressed in federal court cases surrounding federal OSHA’s similar statutory requirement in the OSH Act, §6(c) (identical language highlighted in **bold**):

“(1) The Secretary shall provide, without regard to the requirements of chapter 5, title 5, Unites States Code, for **an emergency temporary standard to take immediate effect upon publication** in the Federal Register if he determines –

(A) **that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and**

(B) **that such emergency standard is necessary to protect employees from such danger.** (Emphasis added).

29 U.S.C. § 655(c).

From *Asbestos Information Ass’n/North America v. OSHA*, 727 F.2d 415 (5th Cir. 1984) – review of OSHA’s Emergency Temporary Standard (ETS) lowering the PEL for asbestos under Section 6(c) of the OSH Act (29 U.S.C. § 655(c)):

“As the Supreme Court has noted, the determination of what constitutes a risk worthy of Agency action is a policy consideration that belongs, in the first instance to the Agency. [citation omitted] The Secretary determined that eighty lives at risk is a grave danger. We are not prepared to say it is not. The Agency need not support its conclusion ‘with anything approaching scientific certainty. [citation omitted] ... so long as the Agency supports its conclusion with ‘a body of reputable scientific thought,’ it may ‘use conservative assumptions’ to support that conclusion. The Agency also has prerogative to choose between conflicting evidence of equivalent quality, and a court will consider a finding consistent with one authority or another to be supported by substantial evidence.”

From *Florida Peach Growers Ass’n v. Dept. of Labor*, 489 F.2d 120 (5th Cir. 1974) – review of OSHA ETS regarding protecting farmworkers from exposure to certain pesticides during cultivation of various crops:

“The Act requires determination of danger from exposure to harmful substances, not just a danger of exposure; and, not exposure to just a danger, but to a grave danger; and, not the necessity of just a temporary standard, but that an emergency standard is necessary.

OSHA relied on a report finding that 800 persons are killed annually from the improper use of pesticides, and 80,000 injured. The court found this did not support a conclusion that the per se use of the pesticides presents a “grave danger.” *Id.* at 131. There was not enough data in the record on deaths from use of pesticide in the workplace (as opposed to ingestion by children, etc.).

The court looked at petitioner’s evidence “detailing the generally mild nature of the relatively few cases of illness reported by crop workers exposed solely to residues. ... from time to time a group of workers will experience nausea, excessive salivation and perspiration, blurred vision, abdominal cramps, vomiting, and diarrhea, in approximately that sequence....these are not grave illnesses, however, and do not support a determination of a grave danger....no deaths have been conclusively attributed to exposure to residues.” *Id.* at 131.

The court said “We reject any suggestion that deaths must occur before health and safety standards may be adopted. Nevertheless, the danger of incurable, permanent, or fatal consequences to workers, as opposed to easily curable and fleeting effects on their health, becomes important in the consideration of the necessity for emergency measures to meet a grave danger.” *Id.* at 132.

From *International Union, United Auto., Aerospace, and Agr. Implement Workers of America, UAW v. Donovan*, 590 F. Supp. 747 (D.D.C. 1984), where OSHA declined to promulgate an ETS on formaldehyde in the workplace. The court action was brought in district court challenging decision under the federal APA:

“The ‘grave danger’ and ‘necessity’ findings must be based on evidence of actual, prevailing industrial conditions, i.e., current levels of employee exposure to the substance in question.” *Id.* at 751.

From *Dry Color Mfrs. Ass’n, Inc. v. Brennan*, 486 F.2d 98 (3d Cir. 1973), a review of OSHA’s emergency regulations regarding 14 carcinogenic substances under Section 6(c) of the OSH Act (29 U.S.C. § 655(c)):

“...the most that can be said is that DCB and EI pose a ‘potential’ cancer hazard to men. Although the danger to cancer is surely “grave,” subsection 6(c)(1) of the Act requires a grave danger of exposure to substances ‘determined to be toxic or physically harmful.’ 486 F.2d 98, 104.

“While the Act does not require an absolute certainty as to the deleterious effect of a substance on man, an emergency temporary standard must be supported by evidence that shows more than some possibility that a substance may cause cancer in man. On this record, the evidence supplies no more than some possibility that DCB and EI may cause cancer in man.” *Id.* at 104-5.

2. Finding that SARS-CoV-2 and COVID-19 constitute a grave danger to employees in Virginia that necessitates the adoption of an emergency temporary standard to protect Virginia employees from such danger.

The staff of the Department of Labor and Industry recommends that the Board find that SARS-CoV-2 and COVID-19 related hazard and job task employee exposures constitute a grave danger to employees in Virginia that necessitate the adoption of an emergency temporary standard to protect Virginia employees from the spread of the SARS-CoV-2 virus which causes COVID-19 under Va. Code §40.1-22(6a).

As is supported by the information presented below and in the administrative record presented to the Board, there currently exists in the Commonwealth of Virginia an emergency situation due to the ongoing spread of the potentially deadly SARS-CoV-2 virus which causes COVID-19.

A state of emergency has been declared by Governor Northam, due to the presence of COVID-19, a communicable disease which poses a public health threat as declared by the State Health Commissioner.

In the context of the Board's authority to regulate occupational safety and health hazards in Virginia, COVID-19 poses a threat of "material impairment of health or functional capacity" to employees. The threat is new, immediate, dangerous, and potentially life threatening to employees and presents a grave danger to employees that necessitates the adoption of an emergency temporary standard.

The onslaught of the SARS-CoV-2 virus and COVID-19 disease are by their own definitions new and "novel," involving a sudden, unforeseen, and fast spreading epidemic which evolved into a worldwide pandemic in a matter of months. In the U.S. it quickly spread to all 50 states and territories and became one of the leading causes of death in the country in just four months at over 112,000 deaths so far. As of June 11, 2020, thirty-seven (37) U.S. jurisdictions report more than 10,000 COVID-19 cases,³⁰³ including the Virginia border states of Maryland (over 60,100 cases, and 2,875 deaths), North Carolina (over 38,100, and 1,053 deaths), Kentucky (over 11,800, and 484 deaths), Tennessee (over 28,000, and 456 deaths). The District of Columbia has over 9,500 cases, and 499 deaths.³⁰⁴

Virginia now has 52,647 cases, 5,306 people hospitalizations, and 1,520 deaths as of June 11, 2020. The COVID-19 impact on Virginia's employees and employers has been widespread, significant and devastating. Employee deaths under VOSH investigation now total 11 in a span of four months (which would represent 30% of the average number of deaths investigated by VOSH on a calendar year basis), with at least four employee hospitalizations under VOSH investigation. Both are expected to increase over the coming months.

³⁰³ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

³⁰⁴ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

According to Virginia Workers' Compensation Commission statistics, over 3,150 claims have been submitted in a four month period across a wide range of industries and job classifications. On May 11, 2020, VWCC was reporting 2,182 workers' compensation claims; and by May 31, 2020 the total had increased by 972 claims to 3,154, a 44.5% increase in a 20 day time period. For a number of reasons, these numbers significantly underrepresent the number of actual workers' compensation claims and COVID-19 illnesses suffered by Virginia employees on the job. In addition, over 40 claims have been submitted for Virginia state employees from a wide variety of agencies during the same period.

According to a CDC study, among U.S. COVID-19 cases with known disposition, **the proportion of persons who were hospitalized was 19%.** The proportion of persons with COVID-19 admitted to the intensive care unit (ICU) was 6%.³⁰⁵

The federal and state governments have almost universally acknowledged the emergency presented by the disease with declarations of emergencies around the country and implementation of a combination of voluntary and mandatory mitigation efforts to attempt to slow the progress of the disease. The effectiveness of those efforts remain an open question. Statistics, studies, and news reports demonstrate that employees are becoming infected, seriously ill, and dying from COVID-19 because of workplace exposures in a wide variety of industries.

Complications can include pneumonia and trouble breathing, organ failure in several organs, heart problems, a severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome), blood clots, acute kidney injury, additional viral and bacterial infections, permanent long term injury to the body, and death.

Early studies indicate that COVID-19's "infection fatality rate" may be substantially higher than the seasonal influenza – potentially resulting in death ten or more times frequently than the seasonal flu.

Susceptibility to COVID-19 is near universal in the workplace as there is no pre-existing immunity to this novel virus among humans. There is currently no specific treatment for or vaccine to prevent COVID-19. The best way to prevent workplace related illness is to prevent workplace exposure to the SARS-CoV-2 virus.

SARS-CoV-2 is easily transmitted through the air from person-to-person through respiratory aerosols created by coughing, sneezing, talking, and even singing. Epidemiologic studies have documented SARS-CoV-2 transmission during the pre-symptomatic incubation period, and asymptomatic transmission has been suggested in other reports. SARS-CoV-2 aerosols can settle and deposit on environmental surfaces where they can remain viable for days, although it is thought that transmission of the virus in this manner is not thought to be the primary mode of transmission.

³⁰⁵ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

The CDC's current best estimate of the percentage of persons with positive COVID-19 infections that are asymptomatic is 35%. The CDC's current best estimate of the percentage of COVID-19 disease transmission occurring prior to symptom onset is 40%. This means that until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer's best efforts to conduct pre-shift screening of employees, customers, and other persons to identify suspected COVID-19 carriers of the disease.

Researchers think that the reproduction number for COVID-19 is between 2 and 3, which means that one person can infect two to three other people. There are also documented cases in the U.S. of "superspreader" events where, one person has been shown to have infected dozens of people at a single mass gathering event.

"The threshold for combined [COVID-19] vaccine efficacy, once one is developed and herd immunity needed for disease extinction" is estimated between 55% and 82% "(i.e., >82% of the population has to be immune, through either vaccination or prior infection, to achieve herd immunity to stop transmission)." Development and deployment of a vaccine in the United States remains at least six months away and perhaps many more months beyond that.

CDC's current "best guess" is that — in a scenario without any further social distancing or other efforts to control the spread of the virus — roughly 4 million patients would be hospitalized in the U.S. with COVID-19 and 500,000 would die over the course of the pandemic.

Although all employees are potentially susceptible to serious health complications from exposure to the SARS-CoV-2 virus and COVID-19 disease, there are sound reasons to be significantly concerned about workplace exposures to employees in high risk categories (age and medical condition). A substantial portion of the workforce are individuals of 65 years or older, or suffering from chronic medical conditions such as diabetes, obesity, hypertension, high cholesterol, or underlying respiratory conditions.

Continued spread of the virus in the general population and the workplace is anticipated for months to come. The disease is spread through "very, very casual interpersonal contact." Despite all the efforts of national, state, and local government leaders, there are currently (as of June 4, 2020) 19 states that have averaged more new cases over the past week than the prior week, while 13 are holding steady and 18 are seeing a downward trend. In addition, it is still widely expected that a late fall or early winter second wave of COVID-19 could be even more deadly in the U. S., as it would coincide with the flu season, which already puts a strain on hospitals.

There is ample evidence to support the conclusion that spread of the SARS-CoV-2 virus and the potentially deadly COVID-19 disease will persist in Virginia's workplaces for many months to come. It is well documented that employers will be confronted with employees who work despite being symptomatic for fear of job loss, and customers who will refuse to observe physical distancing or face covering

requirements, even in the face of Governor’s executive orders, thereby exposing employees to a continuing risk of exposure unless mandatory mitigation efforts are implemented through an emergency regulation.

In addition, as contractors from other states cross borders into and out of Virginia, combined with the loosening of travel restrictions and opening of state economies, more people from other states and localities with ongoing high rates of community transmission will potentially bring the SARS-CoV-2 virus and COVID-19 disease to Virginia’s workplaces and communities.

As previously noted, there is currently no vaccine for COVID-19. While officials are hopeful a vaccine to prevent COVID-19 will be ready in the first half of 2021, it’s far from guaranteed. Producing and deploying a vaccine to a sufficient number of the U. S. population (over 329,000,000 people) to achieve a minimum of 50% of the population with effective COVID-19 antibodies will take some time to accomplish. In addition the fact that the vaccine may have an effectiveness rate below 100%, successful deployment of a vaccine will depend on the willingness of the U.S. population to actually take the vaccine. There is evidence to support a conclusion that a not insignificant portion of the population may refuse to take the vaccine.

The need for an emergency temporary standard is demonstrated by the rapid and overwhelmingly widespread onslaught of the SARS-CoV-2 virus and COVID-19 disease in the country, to states surrounding Virginia, and to Virginia itself and its places of employment. The deadly virus is both new and “novel,” involving a sudden, unforeseen, and fast spreading epidemic which evolved into a worldwide pandemic in a matter of months.

A significant number of employee deaths and workers’ compensation claims have been reported in Virginia in just a four month period. Virginia employees are becoming infected, seriously ill, and dying from COVID-19 because of workplace exposures in a wide variety of industries.

Susceptibility to COVID-19 is near universal in the workplace as there is no pre-existing immunity to this novel virus among humans. There is currently no specific treatment for or vaccine to prevent COVID-19. Development and deployment of a vaccine in the United States remains at least six months away and perhaps many more months beyond that.

Due to the high potential for pre-symptomatic and asymptomatic persons to unknowingly spread the SARS-CoV-2 virus in a public or workplace setting, until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer’s best efforts to conduct pre-shift screening of employees, customers, and other persons to identify suspected COVID-19 carriers of the disease.

The most effective way to ensure that no Virginia “employee will suffer material impairment of health or functional capacity” is to prevent the spread of workplace

related COVID-19 infections through the adoption of mandatory employee protection and virus mitigation requirements.

There currently is no occupational law, standard, or regulation that specifically addresses infectious diseases such as the SARS-CoV-2 virus that causes the COVID-19 disease. While there are some VOSH regulations that can be applied toward some mitigation efforts (i.e., personal protective equipment, respiratory protection equipment), those regulations are not universal across all Virginia industries, and none would require:

- Physical distancing of at least six feet where feasible
- Disinfection of work areas where known or suspected COVID-19 employees or other persons accessed or worked³⁰⁶
- Employers to develop policies and procedures for employees to report when they are sick or experiencing symptoms consistent with COVID-19
- Employers to, prior to the commencement of each work shift, prescreen of employees to verify each employee is not COVID-19 symptomatic
- Employers to prohibit known and suspected COVID-19 employees from reporting to or being allowed to remain at work or on a job site until cleared for return to work
- Employers to develop and implement policies and procedures for known COVID-19 or suspected COVID-19 employees to return to work using either a symptom-based or test-based strategy depending on local healthcare and testing circumstances

³⁰⁶ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141>

1910.141(a)(3)(i) provides that “All places of employment shall be kept **clean** to the extent that the nature of the work allows.” (Emphasis added). The term “sanitary” is not used, although it is used in reference to “washing facilities”, “waste disposal”, “food storage”, “sweepings”, and “drinking water”.

1910.141(a)(4)(i) provides that “Any receptacle used for putrescible solid or liquid waste or refuse shall be so constructed that it does not leak and may be thoroughly cleaned and maintained in a **sanitary** condition. Such a receptacle shall be equipped with a solid tight-fitting cover, unless it can be maintained in a **sanitary** condition without a cover. This requirement does not prohibit the use of receptacles which are designed to permit the maintenance of a **sanitary** condition without regard to the aforementioned requirements.” (Emphasis added).

1910.141(a)(4)(ii) provides that “All sweepings, solid or liquid wastes, refuse, and garbage shall be removed in such a manner as to avoid creating a menace to health and as often as necessary or appropriate to maintain the place of employment in a **sanitary** condition.” (Emphasis added).

1910.141(b)(1)(iii) provides that “Portable drinking water dispensers shall be designed, constructed, and serviced so that **sanitary** conditions are maintained, shall be capable of being closed, and shall be equipped with a tap.” (Emphasis added).

1910.141(d)(1) provides that “Washing facilities shall be maintained in a **sanitary** condition.” (Emphasis added).

1910.141(g)(3) provides that “Waste disposal containers. Receptacles constructed of smooth, corrosion resistant, easily cleanable, or disposable materials, shall be provided and used for the disposal of waste food. The number, size, and location of such receptacles shall encourage their use and not result in overfilling. They shall be emptied not less frequently than once each working day, unless unused, and shall be maintained in a **clean and sanitary** condition. Receptacles shall be provided with a solid tight-fitting cover unless **sanitary** conditions can be maintained without use of a cover.” (Emphasis added).

1910.141(g)(4) provides that “**Sanitary** storage. No food or beverages shall be stored in toilet rooms or in an area exposed to a toxic material.” (Emphasis added).

- Employers to prohibit COVID-19 positive employees from reporting to or being allowed to remain at work or on a job site until cleared for return to work
- Employers to provide employees assigned to work stations and in frequent contact with other persons inside six feet with alcohol based hand sanitizers at their workstations
- Employers with hazards or job tasks classified at very high, high, or medium exposure risk to develop a written Infectious Disease Preparedness and Response Plan
- Employee training on SARS-CoV-2 and COVID-19 hazards, with the exception of 1926.21(b)(2) requirements for the Construction Industry³⁰⁷

The current patchwork of VOSH and OSHA standards and regulations do not ensure that similarly situated employees and employers exposed to the same SARS-CoV-2 and COVID-19 related hazards and job tasks in similar exposure settings are provided the same level of occupational safety and health protections. Examples include but are not limited to:

- Construction Industry employers would be required to provide training to employees on an emergency temporary standard/emergency regulation, but no other employers covered by VOSH jurisdiction would be required to do so. Section 1926.21(b)(2)³⁰⁸ (Safety Training and Education).
- The Agricultural Industry has no standards or regulations to provide respiratory or personal protective equipment to employees.
- Sanitation requirements in the Construction Industry are limited to “Toilet facilities shall be operational and maintained in a clean and sanitary condition.”
- Neither the Construction Industry nor the Agricultural Industry have a requirement comparable to 1910.132(d) which requires General Industry employers to conduct a written workplace assessment to “determine if hazards are present, or are likely to be present, which necessitate the use of” PPE.³⁰⁹

³⁰⁷With the exception of the Construction Industry regulation at 1926.21(b)(2) (Safety Training and Education)

³⁰⁸ <https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

³⁰⁹ 1910.132(d), Hazard assessment and equipment selection.

1910.132(d)(1), The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

1910.132(d)(1)(i), Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

1910.132(d)(1)(ii), Communicate selection decisions to each affected employee; and,

1910.132(d)(1)(iii), Select PPE that properly fits each affected employee.

Note: Non-mandatory appendix B contains an example of procedures that would comply with the requirement for a hazard assessment.

1910.132(d)(2)

The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

The Board's statutory mandate in Va. Code §40.1-22(5) to:

“... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the federal OSH Act of 1970...as may be necessary to carry out its functions established under this title. The Commissioner shall enforce such rules and regulations. All such rules and regulations shall be designed to protect and promote the safety and health of such employees. In making such rules and regulations to protect the occupational safety and health of employees, the Board shall **adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity. However, such standards shall be at least as stringent as the standards promulgated by the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596). In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws....”** (Emphasis added).

As is discussed in greater detail in section IV.O.3, while the General Duty Clause, Va. Code §40.1-51(a), can be used in certain limited circumstances to enforce mandatory requirements in Governor Northam's Executive Orders, there are severe limitations to its use that make it problematic to enforce and results in its infrequent use. As is evident from the wording of the statute, it does not directly address the issue of SARS-CoV-2 or COVID-19 related hazards.

While preferable to no enforcement tool at all, the general duty clause does not provide either the regulated community, employees, or the VOSH Program with substantive and consistent requirements on how to reduce or eliminate SARS-CoV-2 or COVID-19 related hazards, serious illnesses and deaths, that can otherwise be clearly and uniformly established in an emergency temporary standard. It cannot be used to enforce OSHA Guidelines at all, and can only be used to enforce CDC guidelines that use “mandatory” language such as “shall” and “will” as opposed to language that “suggests” or “recommends” employer action through words such as “should” or “may”. Of the specific mitigation efforts listed above only the physical distancing and enhanced sanitation requirements are addressed in Governor Northam's Executive Orders and therefore enforceable through the General Duty Clause.

Further, federal OSHA has taken the position that it will not be promulgating an emergency temporary standard pursuant to its authority under the OSH Act of 1970,³¹⁰ instead opting to rely upon many voluntary guidelines for various business sectors. These guidelines, while useful for employers with the intention of complying with health and safety standards, will be irrelevant for businesses who

³¹⁰ https://www.osha.gov/laws-regs/oshact/section_6

choose not to take steps to protect employees from the grave danger posed by COVID-19.

Many of the guidelines are explicit that they are voluntary, and may not be used to impose legal obligations upon employers. Employers' voluntary compliance with relevant guidelines, which has also been asserted by OSHA as a reason a standard is unnecessary, is antithetical to the goal of protecting all employees, particularly in those workplaces with recalcitrant employers.

An emergency regulation is also necessary to establish clear baseline standards employers can rely upon as to how to protect employees, rather than having them rely upon ad hoc "interim" guidance documents from various agencies. In a similar case where federal OSHA relied solely upon voluntary guidance and employers' voluntary compliance instead of an emergency temporary standard, the D.C. Circuit Court of Appeals found OSHA had "embarked upon the least responsive course short of inaction" and ordered OSHA to expedite rulemaking for an ethylene oxide standard. *Public Citizen Health Research Group v. Auchter*, 702 F.2d 1150, 1153 (D.C. Cir. 1983).

The following items are intended to support and supplement the above finding, but the Board reserves the right to rely on other evidence presented in the administrative record to support the finding and its decision to adopt an emergency temporary standard, should it decide to do so.

- On February 7, 2020, the State Health Commissioner declared COVID-19 a communicable disease of public health threat³¹¹ as defined in Va. Code §44-146.16 in part as "an illness of public health significance....caused by a specific or suspected infectious agent that may be reasonably expected or is known to be readily transmitted directly or indirectly from one individual to another and has been found to create a risk of death or significant injury or impairment...."
- In the context of VOSH's jurisdiction over places of employment and the Safety and Health Codes Board's authority to regulate occupational safety and health hazards in Virginia, COVID-19 poses a threat of "material impairment of health or functional capacity" to employees. Va. Code §40.1-22(5).
- Infectious respiratory diseases can spread in a workplace setting when a healthy person comes in contact with virus particles expelled by someone who is sick — usually through a cough or sneeze.³¹² SARS-CoV-2 is easily transmitted through the air from person-to-person through respiratory aerosols, and the aerosols can

³¹¹ <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/Order-of-the-Governor-and-State-Health-Commissioner-Declaration-of-Public-Health-Emergency.pdf>

³¹² <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

settle and deposit on environmental surfaces where they can remain viable for days.³¹³

- Susceptibility to COVID-19 will be universal in the workplace as there is no pre-existing immunity to this novel virus among humans. **“The virus is spread through very, very casual interpersonal contact,”** W. David Hardy, a professor of infectious disease at Johns Hopkins University School of Medicine, told STAT.³¹⁴
- “Although most people with COVID-19 have mild to moderate symptoms, the [COVID-19] disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with COVID-19.”³¹⁵ “Younger adults are also being hospitalized in the U.S. Adults 20–44 account for 20% of hospitalizations, 12% of ICU admissions.”³¹⁶ Some research indicates that SARS-CoV-2 infection can cause significant morbidity in relatively young persons without severe underlying medical conditions.³¹⁷
- **“Those most at risk are ‘people 65 years and older, people who live in a nursing home or long-term care facility, people with chronic lung, heart, kidney and liver disease,’** said Dr. Gary Weinstein, pulmonologist/critical care medicine specialist at Texas Health Presbyterian Hospital Dallas (Texas Health Dallas). Additionally, he said others who could be at risk are those **with compromised immune systems and people with morbid obesity or diabetes. “Finally, when patients have lung failure, they frequently have failure or dysfunction of their other organs, such as the kidney, heart, and brain,”**”³¹⁸ (Emphasis added).
- In all 50 states and the District of Columbia, at least 20 percent of adults ages 65 to 74 are in the workforce. In seven states, more than 30 percent are working. Since 2013, 46 of 51 had seen increases in workforce participation of 75-and-older residents. Seniors represent significant portions of the workforce for many professions that require close contact with others, including bus drivers, ushers, ticket takers, taxi drivers, street vendors, chiropractors, dentists, barbers and many more.³¹⁹

³¹³ <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/coronavirus-disease-2019-covid-19-frequently-asked-questions>

³¹⁴ <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

³¹⁵ <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>

³¹⁶ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540747/all/Coronavirus_COVID_19_SARS_CoV_2_

³¹⁷ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e1.htm>

³¹⁸ <https://www.healthline.com/health-news/what-we-know-about-the-long-term-effects-of-covid-19#COVID-19-might-affect-the-brain-stem>

³¹⁹ <https://www.seniorliving.org/research/senior-employment-outlook-covid/>

- The CDC conducted a study of “Selected health conditions and risk factors, by age: United States, selected years 1988–1994 through 2015–2016”³²⁰ of the general population. Although the working population of the country is only a subset of the totals for the table, the data nonetheless demonstrates the significant risk that SARS-CoV-2 and COVID-19 related hazards pose to the U.S. and Virginia workers. Using the age adjusted statistical totals:
 - 14.7% of the population suffer from diabetes
 - 12.2% from high cholesterol
 - 30.2% suffer from hypertension
 - 39.7% suffer from obesity

NOTE: Virginia’s Adult Diabetes Rate in 2019 was 10.5%.³²¹

Virginia’s Hypertension Rate in 2015 was 33.2%³²²

Virginia’s Adult High Cholesterol Rate³²³ in 2019 was 33%.³²⁴

Virginia’s Adult Obesity Rate³²⁵ in 2019 was 30.3%.³²⁶

- The largest cohort of >44,000 persons with COVID-19 from China showed that illness severity can range from mild to critical:
 - Mild to moderate (mild symptoms up to mild pneumonia): **81%**
 - Severe (dyspnea, hypoxia, or >50% lung involvement on imaging): **14%**
 - Critical (respiratory failure, shock, or multiorgan system dysfunction): **5%**
- “In this study, all deaths occurred among patients with critical illness and the overall case fatality rate was 2.3%. The case fatality rate among patients with critical disease was 49%. Among children in China, illness severity was lower with 94% having asymptomatic, mild or moderate disease, 5% having severe disease, and <1% having critical disease. **Among U.S. COVID-19 cases with known disposition, the proportion of persons who were hospitalized was 19%. The proportion of persons with COVID-19 admitted to the intensive care unit (ICU) was 6%.**”³²⁷ (Emphasis added).

³²⁰ <https://www.cdc.gov/nchs/data/hus/2018/021.pdf>

³²¹ https://www.americashealthrankings.org/explore/annual/measure/High_Cholesterol/state/VA

³²² <https://www.vdh.virginia.gov/content/uploads/sites/65/2018/05/VA-Heart-Disease-FactSheetFINAL.pdf>

³²³ Percentage of adults who reported having their cholesterol checked and were told by a health professional that it was high.

³²⁴ https://www.americashealthrankings.org/explore/annual/measure/High_Cholesterol/state/VA

³²⁵ Percentage of adults with a body mass index of 30.0 or higher based on reported height and weight (pre-2011 BRFSS methodology).

³²⁶ <https://www.americashealthrankings.org/learn/reports/2019-annual-report/state-summaries-virginia>

³²⁷ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

- Asymptomatic and Pre-Symptomatic Transmission. **Epidemiologic studies have documented SARS-CoV-2 transmission during the pre-symptomatic incubation period, and asymptomatic transmission has been suggested in other reports.** Virologic studies have also detected SARS-CoV-2 with RT-PCR low cycle thresholds, indicating larger quantities of viral RNA, and cultured viable virus among persons with asymptomatic and pre-symptomatic SARS-CoV-2 infection. The exact degree of SARS-CoV-2 viral RNA shedding that confers risk of transmission is not yet clear. Risk of transmission is thought to be greatest when patients are symptomatic since viral shedding is greatest at the time of symptom onset and declines over the course of several days to weeks. **However, the proportion of SARS-CoV-2 transmission in the population due to asymptomatic or pre-symptomatic infection compared to symptomatic infection is unclear.**³²⁸
- “There is currently no specific treatment for or vaccine to prevent COVID-19. The best way to prevent illness is to avoid being exposed to this virus.”³²⁹
- “Complications can include pneumonia and trouble breathing, organ failure in several organs, heart problems, a severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome), blood clots, acute kidney injury, additional viral and bacterial infections.”³³⁰
- There is significant evidence of workplace exposures for employees to COVID-19 in many different industries in Virginia and around the country (see section IV.O.1 to .26).
- Early studies indicate that COVID-19 “infection fatality rate” may be substantially higher than the seasonal influenza. The generally accepted approximate IFR-S of seasonal influenza is 0.1%.³³¹ A study by the University of Washington using data through April 20, 2020, calculated the U.S. “infection mortality rate” among symptomatic cases (IFR-S) to be 1.3%³³² [13 times the seasonal influenza rate].

³²⁸ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

³²⁹ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html>

³³⁰ *Id.*

³³¹ *Id.* referencing <https://www.cdc.gov/flu/about/burden/2018-2019.html>

³³² <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2020.00455>; Study assumptions: We make three assumptions for our analysis: (1) Errors in the numerator and the denominator lead to underreporting of true COVID-19 deaths and cases, respectively; error is smaller for deaths than for cases. (2) Both the errors are declining over time. (3) The errors in the denominator are declining at a faster rate than the error in the numerator.

Assumption #1 is self-evident; both the deaths and the actual cases are undercounted during the initial phase of the epidemic. Because deaths are much more visible events than infections, which, in the case of COVID-19, can go asymptomatic during the first few days of infection, we posit that, at any point in time, the errors in the denominator are larger than the errors in the numerator. Hence, this assumption leads to CFR estimates being larger than the IFR-S, which is typically believed to be true based on observed data.

Assumption #2 is our central assumption, which states that under some stationary processes of care delivery, health care supply, and reporting, which are all believed to be improving over time, the errors in both the numerator and the

Another study calculated a global IFR of 1.04%³³³ [10.4 times the seasonal influenza rate]. A study by the London School of Hygiene and Tropical Medicine estimated the infection fatality rate on the Diamond Princess Cruise Ship to be 1.2%³³⁴ [12 times the seasonal influenza rate] Nearly the entire cruise ships 3,711 passengers and crew were tested.

- The CDC’s current best estimate of the percentage of persons with positive COVID-19 infections that are asymptomatic is 35%.³³⁵ The CDC’s current best estimate of the percentage of COVID-19 disease transmission occurring prior to symptom onset is 40%.³³⁶ This means that until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer’s best efforts to conduct pre-shift screening of employees.
- The CDC has documented multiple “superspreaders” of the virus at mass gathering events involving a choir practice,³³⁷ a church service,³³⁸ a funeral,³³⁹ and a birthday party³⁴⁰ where dozens of persons were infected by a single “superemitter” of the virus.
- Since February, 2020, the Virginia Workers’ Compensation Commission has received 3,154 COVID-19 related claims as of May 31, 2020 in a wide variety of occupational settings, representing a nearly **44.5% increase** in claims over a 20 day period since May 11, 2020 (2,182 claims).
- Since February, 2020, the Virginia Department of Human Resources Workers’ Compensation Statistics has received 42 COVID-19 related claims for state employees in a wide variety of occupational settings (see section IV.A.2).
- Pursuant to Va. Code §40.1-51.1.D³⁴¹, eight (8) COVID-19 related employee deaths have been reported by employers to the Department. An additional three (3) employee deaths have been reported to the Department by the Virginia Workers’ Compensation Commission.

denominator are declining. It implies that we are improving in the measurement of both the numerator and denominator over time, albeit at different rates in different jurisdictions.

Assumption #3 posits that the error in the denominator is declining faster than the error in the numerator. This assumption indicates that the CFR rates, based on the number of cumulative COVID-19 deaths and the cumulative reported COVID-19 cases, are declining over time and are confirmed based on our observed data (described in detail below).

³³³ <https://www.medrxiv.org/content/10.1101/2020.05.11.20098780v1>

³³⁴ <https://www.medrxiv.org/content/10.1101/2020.03.05.20031773v2>

³³⁵ <https://www.cnn.com/2020/05/22/health/cdc-coronavirus-estimates-symptoms-deaths/index.html>

³³⁶ *Id.*

³³⁷ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e6.htm>

³³⁸ https://www.cdc.gov/mmwr/volumes/69/wr/mm6920e2.htm?s_cid=mm6920e2_w

³³⁹ https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e1.htm?s_cid=mm6915e1_w

³⁴⁰ *Id.*

³⁴¹ <https://law.lis.virginia.gov/vacode/40.1-51.1/>

- The VOSH Program has investigated an average of 37 annual work-related employee deaths over the last five calendar years. The eleven (11) COVID-19 death notifications so far in 2020 would represent 30% of the deaths investigated by VOSH in an average year. It is not unreasonable to assume that had no mitigation efforts been undertaken by state and local governments beginning in mid-March (e.g., stay at home requests and orders, business shutdowns, physical distancing requirements, face covering recommendations and requirements, etc.), that the number of COVID-19 death notifications would be even higher than the 11 reported to date. It is anticipated that VOSH will be receiving more notifications of employee deaths in the coming weeks and months.
- “[As of May 20, 2020] The CDC's current "best guess" is that — **in a scenario without any further social distancing or other efforts to control the spread of the virus — roughly 4 million patients would be hospitalized in the U.S. with COVID-19 and 500,000 would die over the course of the pandemic.** That's according to the agency's new parameters that the Center for Public Integrity plugged into a simple epidemiological model.”³⁴²
- Researchers think that the R_0 [reproduction number] for COVID-19 is between 2 and 3. This means that one person can infect two to three other people.³⁴³ Depending on the level of contagiousness of COVID-19 expressed in the R_0 ³⁴⁴ value, “the threshold for combined [COVID-19] vaccine efficacy and herd immunity needed for disease extinction” is estimated between 55% and 82% “(i.e., >82% of the population has to be immune, through either vaccination or prior infection, to achieve herd immunity to stop transmission).”³⁴⁵
- There is anecdotal evidence to support the conclusion that employers will be confronted with employees who work despite being symptomatic and customers who will refuse to observe physical distancing or face covering requirements, even in the face of Governor’s executive orders (see section IV.O.17, Restaurants and Bars; section IV.O.18, Grocery Retail and Food Retail; section IV.O.20, Personal Care, Personal Grooming, Salon, and Spa Services; section IV.O.21, Sports and Entertainment, and Mass Gatherings).

³⁴² <https://www.npr.org/sections/health-shots/2020/05/22/860981956/scientists-say-new-lower-cdc-estimates-for-severity-of-covid-19-are-optimistic>

³⁴³ <https://www.webmd.com/lung/what-is-herd-immunity#1>

³⁴⁴ “The basic reproduction number (R_0), pronounced “R naught,” is intended to be an indicator of the contagiousness or transmissibility of infectious and parasitic agents.... R_0 has been described as being one of the fundamental and most often used metrics for the study of infectious disease dynamics (7–12). An R_0 for an infectious disease event is generally reported as a single numeric value or low–high range, and the interpretation is typically presented as straightforward; an outbreak is expected to continue if R_0 has a value >1 and to end if R_0 is <1 (13). The potential size of an outbreak or epidemic often is based on the magnitude of the R_0 value for that event (10), and R_0 can be used to estimate the proportion of the population that must be vaccinated to eliminate an infection from that population (14,15). R_0 values have been published for measles, polio, influenza, Ebola virus disease, HIV disease, a diversity of vectorborne infectious diseases, and many other communicable diseases (14,16–18).

https://wwwnc.cdc.gov/eid/article/25/1/17-1901_article

³⁴⁵ https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article#suggestedcitation

- “As U.S. states push forward with reopening plans, nearly as many are seeing coronavirus caseloads trending upward as those where case numbers are declining, an analysis of Johns Hopkins data shows. **Nineteen states have averaged more new cases over the past week than the prior week, while 13 are holding steady and 18 are seeing a downward trend.** Louisiana is one of those downward-trending states and is set to begin Phase 2 of its plan to reopen the economy Friday, allowing businesses to open at 50% capacity, according to Gov. John Bel Edwards....Texas and Florida are still recording increasing weekly averages of new cases as they take steps toward reopening.”³⁴⁶
- “It is not yet known whether weather and temperature affect the spread of COVID-19. Some other viruses, like those that cause the common cold and flu, spread more during cold weather months but that does not mean it is impossible to become sick with these viruses during other months. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19 and investigations are ongoing.”³⁴⁷
- “Robert Redfield, MD, the director of the Centers for Disease Control and Prevention (CDC), warned yesterday [April 21, 2020] that a late fall or early winter wave of COVID-19 could be even more deadly in the United States, as it would coincide with the flu season, which already puts a strain on hospitals.”³⁴⁸
- There is currently no vaccine for COVID-19. “U.S. officials and scientists are hopeful a vaccine to prevent Covid-19 will be ready in the first half of 2021 - 12 to 18 months since Chinese scientists first identified the coronavirus and mapped its genetic sequence. It’s far from guaranteed. Even the most optimistic epidemiologists hedge their bets when they say it could be ready that quickly. And a lot can go wrong that could delay their progress, scientists and infectious disease experts warn.”³⁴⁹
- Producing and deploying a vaccine to a sufficient number of the U. S. population (over 329,000,000 people) to achieve a minimum of 50% of the populations with effective COVID-19 antibodies will take some time to accomplish. The U.S. Census estimates that Virginia’s population as of July 1, 2019 was 8,535,519, and that 15.4% (1,314,469) of Virginia’s population was 65 years or older.³⁵⁰
- Successful deployment of a COVID-19 vaccine will depend on the willingness of the U.S. population to actually take the vaccine. In a Reuters’ survey³⁵¹ of 4,428

³⁴⁶ <https://www.cnn.com/2020/06/04/health/us-coronavirus-thursday/index.html>

³⁴⁷ <https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Coronavirus-Disease-2019-Basics>

³⁴⁸ <https://www.cidrap.umn.edu/news-perspective/2020/04/coroner-first-us-covid-19-death-occurred-early-february>

³⁴⁹ <https://www.cnbc.com/2020/05/21/coronavirus-vaccine-why-it-may-be-ready-early-next-year-and-what-could-go-wrong.html>

³⁵⁰ <https://www.census.gov/quickfacts/fact/table/VA#>

³⁵¹ <https://www.reuters.com/article/us-health-coronavirus-vaccine-poll-exclu/exclusive-a-quarter-of-americans-are-hesitant-about-a-coronavirus-vaccine-reuters-ipsos-poll-idUSKBN22X19G>

U.S. adults taken between May 13 and May 19: “Fourteen percent of respondents said they were not at all interested in taking a vaccine, and 10% said they were not very interested. Another 11% were unsure.”

B. Workplace exposures to SARS-CoV-2 and COVID-19 constitute an emergency situation to employees and employers in Virginia necessitating the adoption of an emergency regulation.

1. Statutory Construction of Va. Code §2.2-4011.

Va. Code §2.2-4011 contains a detailed process and specific time periods for the length of time that an adopted emergency regulation can remain in effect (18 to 24 months, depending on circumstances), and requirements for pursuing a replacement regulation thereafter. That section provides in part that:

“A. Regulations that an agency finds are necessitated by an emergency situation may be adopted by an agency upon consultation with the Attorney General, which approval shall be granted only after the agency has submitted a request stating in writing the **nature of the emergency, and the necessity for such action** shall be at the sole-discretion of the Governor.” (Emphasis added).

The term “emergency” is not defined in the statute. Prior to July 1, 2007, the statute defined an “emergency” to be a situation (i) involving an imminent threat to public health or safety or (ii) in situations which Virginia statutory law or the appropriations act or federal law or federal regulation requires that a regulation be effective in 280 days or less from its enactment. Va. Code § 2.2-4011 (2006), *see* HB 2537 (2007 Regular Session).

It is not apparent why the General Assembly chose to eliminate the definition of “emergency” from the statute; however, part (ii) of the definition did become current subsection B to §2.2-4011.

Virginia case law on emergency regulations under the Va. Code §1.2-4011 pre-date the 2007 change to the statute which eliminated the definition of “emergency”.

The term “emergency” is defined in Va. Code §44-146.16, part of the Commonwealth of Virginia Emergency Services and Disaster Law of 2000, for purposes of the Governor’s authority to issue a declaration of a state emergency, as he did in Executive Order 51³⁵²:

“Emergency” means any occurrence, or threat thereof, whether natural or man-made, which results or may result in substantial injury or harm to the population or substantial damage to or loss of property or natural resources and

³⁵² [https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/EO-51-Declaration-of-a-State-of-Emergency-Due-to-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/governor-of-virginia/pdf/eo/EO-51-Declaration-of-a-State-of-Emergency-Due-to-Novel-Coronavirus-(COVID-19).pdf)

may involve governmental action beyond that authorized or contemplated by existing law because governmental inaction for the period required to amend the law to meet the exigency would work immediate and irrevocable harm upon the citizens or the environment of the Commonwealth or some clearly defined portion or portions thereof;”

In Executive Order 51, the Governor noted that:

“The Commonwealth of Virginia is monitoring an outbreak of a respiratory illness referred to as the coronavirus (COVID-19), which has spread from Wuhan, Hubei Province, China to more than 80 other locations internationally, including the Commonwealth....Given recent confirmed occurrences of COVID-19 within The Commonwealth and in neighboring states, as well as information from the Centers for Disease Control and Prevention, it is anticipated that the disease will spread.

Therefore, on this date, March 12, 2020, I declare that a state of emergency exists in the Commonwealth of Virginia to continue to prepare and coordinate our response to the potential spread of COVID-19, a communicable disease of public health threat. The anticipated effects of COVID-19 constitute a disaster as described in §44-146.16 of the Code of Virginia (Code). By virtue of the authority vested in me by Article V, Section 7 of the Constitution of Virginia, by §§44-146.17 and 44-75.1 of the Code, as Governor and Director of Emergency Management and Commander-in-Chief of the Commonwealth’s armed forces, I proclaim a state of emergency.”

Where a term in a statute is **undefined**, canons of statutory interpretation dictate an analysis of the “plain, obvious, and rational meaning of a statute [which] is always preferred to a curious, narrow or strained construction; a statute could never be construed so that it leads to an absurd result.” *Branch v. Commonwealth*, 14 Va. App. 836, 839 (1992). When using an undefined term “we give that phrase its ordinary meaning, given the context in which it is used.” *Sansom v. Board of Supervisors*, 257 Va. 589, 594-95 (1999). “Where the same term is used in different places within a statutory scheme, we apply the same meaning unless the legislature clearly intended a different one.” *Lawlor v. Commonwealth*, 285 Va. 187, 237 (2013).

However, the Administrative Process Act and the Emergency Services and Disaster Law are different statutory schemes. It appears from Attorney General Opinions and the one reported case on this subject that “emergency” under the since-deleted definition in the APA may have been broader than the term “emergency” in Title 44.

2. Finding on the “Nature of the Emergency and the Necessity for Such Action”

The staff of the Department of Labor and Industry recommends that the Board find that SARS-CoV-2 and COVID-19 related hazard and job task employee exposures constitute an emergency situation that necessitate the adoption of an emergency regulation to protect Virginia employees and employers under Va. Code §2.2-4011.

As is supported by the information presented below and in the administrative record presented to the Board, there currently exists in the Commonwealth of Virginia an emergency situation due to the ongoing spread of the potentially deadly SARS-CoV-2 virus which causes COVID-19.

A state of emergency has been declared by Governor Northam, due to the presence of COVID-19, a communicable disease which poses a public health threat as declared by the State Health Commissioner.

In the context of the Board's authority to regulate occupational safety and health hazards in Virginia, COVID-19 poses a threat of "material impairment of health or functional capacity" to employees. The threat is new, immediate, dangerous, and potentially life threatening to employees and qualifies as an "emergency" situation under Va. Code §2.2-4011.

Since "emergency" is not defined under the statute, it is appropriate to consult generally accepted meanings of the term:

- "A sudden serious and dangerous event or situation which needs immediate action to deal with it."³⁵³
- "An unforeseen combination of circumstances or the resulting state that calls for immediate action; an urgent need for assistance or relief."³⁵⁴
- "A serious, unexpected, and often dangerous situation requiring immediate action."³⁵⁵
- "Situation requiring immediate attention and remedial action. Involves injury, loss of life, damage to the property, or catastrophic interference with the normal activities. A sudden, unexpected, or impending situation."³⁵⁶

The onslaught of the SARS-CoV-2 virus and COVID-19 disease are by their own definitions new and "novel," involving a sudden, unforeseen, and fast spreading epidemic which evolved into a worldwide pandemic in a matter of months. In the U.S. it quickly spread to all 50 states and territories and became one of the leading causes of death in the country in just four months at over 112,000 deaths so far. As of June 11, 2020, thirty-seven (37) U.S. jurisdictions report more than 10,000 COVID-19 cases,³⁵⁷ including the Virginia border states of Maryland (over 60,100 cases, and 2,875 deaths), North Carolina (over 38,100, and 1,053 deaths), Kentucky (over 11,800, and 484 deaths), Tennessee (over 28,000, and 456 deaths). The District of Columbia has over 9,500 cases, and 499 deaths.³⁵⁸

³⁵³ https://www.oxfordlearnersdictionaries.com/us/definition/american_english/emergency#:~:text=noun,of%20emergen cy%20following%20the%20earthquake.

³⁵⁴ <https://www.merriam-webster.com/dictionary/emergency>

³⁵⁵ <https://www.lexico.com/en/definition/emergency>

³⁵⁶ <https://thelawdictionary.org/emergency/>

³⁵⁷ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

³⁵⁸ <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>

Virginia now has 52,647 cases, 5,306 people hospitalizations, and 1,520 deaths as of June 11, 2020. The COVID-19 impact on Virginia's employees and employers has been widespread, significant and devastating. Employee deaths under VOSH investigation now total 11 in a span of four months (which would represent 30% of the average number of deaths investigated by VOSH on a calendar year basis), with at least four employee hospitalizations under VOSH investigation. Both are expected to increase over the coming months.

According to Virginia Workers' Compensation Commission statistics, over 3,150 claims have been submitted in a four month period across a wide range of industries and job classifications. On May 11, 2020, VWCC was reporting 2,182 workers' compensation claims; and by May 31, 2020 the total had increased by 972 claims to 3,154, a 44.5% increase in a 20 day time period. For a number of reasons, these numbers significantly underrepresent the number of actual workers' compensation claims and COVID-19 illnesses suffered by Virginia employees on the job. In addition, over 40 claims have been submitted for Virginia state employees at a wide variety of agencies during the same period.

According to a CDC study, among U.S. COVID-19 cases with known disposition, **the proportion of persons who were hospitalized was 19%.** The proportion of persons with COVID-19 admitted to the intensive care unit (ICU) was 6%.³⁵⁹

The federal and state governments have almost universally acknowledged the emergency presented by the disease with declarations of emergencies around the country and implementation of a combination of voluntary and mandatory mitigation efforts to attempt to slow the progress of the disease. The effectiveness of those efforts remain an open question. Statistics, studies, and news reports demonstrate that employees are becoming infected, seriously ill, and dying from COVID-19 because of workplace exposures in a wide variety of industries.

Complications can include pneumonia and trouble breathing, organ failure in several organs, heart problems, a severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome), blood clots, acute kidney injury, additional viral and bacterial infections, permanent long term injury to the body, and death.

Early studies indicate that COVID-19's "infection fatality rate" may be substantially higher than the seasonal influenza – potentially resulting in death ten or more times frequently than the seasonal flu.

Susceptibility to COVID-19 is near universal in the workplace as there is no pre-existing immunity to this novel virus among humans. There is currently no specific treatment for or vaccine to prevent COVID-19. The best way to prevent workplace related illness is to prevent workplace exposure to the SARS-CoV-2 virus.

³⁵⁹ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

SARS-CoV-2 is easily transmitted through the air from person-to-person through respiratory aerosols created by coughing, sneezing, talking, and even singing. Epidemiologic studies have documented SARS-CoV-2 transmission during the pre-symptomatic incubation period, and asymptomatic transmission has been suggested in other reports. SARS-CoV-2 aerosols can settle and deposit on environmental surfaces where they can remain viable for days, although it is thought that transmission of the virus in this manner is not thought to be the primary mode of transmission.

The CDC's current best estimate of the percentage of persons with positive COVID-19 infections that are asymptomatic is 35%. The CDC's current best estimate of the percentage of COVID-19 disease transmission occurring prior to symptom onset is 40%. This means that until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer's best efforts to conduct pre-shift screening of employees, customers, and other persons to identify suspected COVID-19 carriers of the disease.

Researchers think that the reproduction number for COVID-19 is between 2 and 3, which means that one person can infect two to three other people. There are also documented cases in the U.S. of "superspreader" events where, one person has been shown to have infected dozens of people at a single mass gathering event.

"The threshold for combined [COVID-19] vaccine efficacy, once one is developed and herd immunity needed for disease extinction" is estimated between 55% and 82% "(i.e., >82% of the population has to be immune, through either vaccination or prior infection, to achieve herd immunity to stop transmission)." Development and deployment of a vaccine in the United States remains at least six months away and perhaps many more months beyond that.

CDC's current "best guess" is that — in a scenario without any further social distancing or other efforts to control the spread of the virus — roughly 4 million patients would be hospitalized in the U.S. with COVID-19 and 500,000 would die over the course of the pandemic.

Although all employees are potentially susceptible to serious health complications from exposure to the SARS-CoV-2 virus and COVID-19 disease, there are sound reasons to be significantly concerned about workplace exposures to employees in high risk categories (age and medical condition). A substantial portion of the workforce are individuals of 65 years or older, or suffering from chronic medical conditions such as diabetes, obesity, hypertension, high cholesterol, or underlying respiratory conditions.

Continued spread of the virus in the general population and the workplace is anticipated for months to come. The disease is spread through "very, very casual interpersonal contact." Despite all the efforts of national, state, and local government leaders, there are currently (as of June 4, 2020) 19 states that have averaged more new cases over the past week than the prior week, while 13 are holding steady and 18 are seeing a downward trend. In addition, it is still widely

expected that a late fall or early winter second wave of COVID-19 could be even more deadly in the U. S., as it would coincide with the flu season, which already puts a strain on hospitals.

There is ample evidence to support the conclusion that spread of the SARS-CoV-2 virus and the potentially deadly COVID-19 disease will persist in Virginia's workplaces for many months to come. It is well documented that employers will be confronted with employees who work despite being symptomatic for fear of job loss, and customers who will refuse to observe physical distancing or face covering requirements, even in the face of Governor's executive orders, thereby exposing employees to a continuing risk of exposure unless mandatory mitigation efforts are implemented through an emergency regulation.

In addition, as contractors from other states cross borders into and out of Virginia, combined with the loosening of travel restrictions and opening of state economies, more people from other states and localities with ongoing high rates of community transmission will potentially bring the SARS-CoV-2 virus and COVID-19 disease to Virginia's workplaces and communities.

As previously noted, there is currently no vaccine for COVID-19. While officials are hopeful a vaccine to prevent Covid-19 will be ready in the first half of 2021, it's far from guaranteed. Producing and deploying a vaccine to a sufficient number of the U. S. population (over 329,000,000 people) to achieve a minimum of 50% of the populations with effective COVID-19 antibodies will take some time to accomplish. In addition the fact that the vaccine may have an effectiveness rate below 100%, successful deployment of a vaccine will depend on the willingness of the U.S. population to actually take the vaccine. There is evidence to support a conclusion that a not insignificant portion of the population may refuse to take the vaccine.

The need for an emergency regulation is demonstrated by the rapid and overwhelmingly widespread onslaught of the SARS-CoV-2 virus and COVID-19 disease in the country, to states surrounding Virginia, and to Virginia itself and its places of employment. The deadly virus is both new and "novel," involving a sudden, unforeseen, and fast spreading epidemic which evolved into a worldwide pandemic in a matter of months.

A significant number of employee deaths and workers' compensation claims have been reported in Virginia in just a four month period. Virginia employees are becoming infected, seriously ill, and dying from COVID-19 because of workplace exposures in a wide variety of industries.

Susceptibility to COVID-19 is near universal in the workplace as there is no pre-existing immunity to this novel virus among humans. Development and deployment of a vaccine in the United States remains at least six months away and perhaps many more months beyond that. There is currently no specific treatment for or vaccine to prevent COVID-19.

Due to the high potential for pre-symptomatic and asymptomatic persons to unknowingly spread the SARS-CoV-2 virus in a public or workplace setting, until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer's best efforts to conduct pre-shift screening of employees, customers, and other persons to identify suspected COVID-19 carriers of the disease.

The most effective way to ensure that no Virginia "employee will suffer material impairment of health or functional capacity" is to prevent the spread of workplace related COVID-19 infections through the adoption of mandatory employee protection and virus mitigation requirements.

There currently is no occupational law, standard, or regulation that specifically addresses infectious diseases such as the SARS-CoV virus that causes the COVID-19 disease. While there are some VOSH regulations that can be applied toward some mitigation efforts (i.e., personal protective equipment, respiratory protection equipment), those regulations are not universal across all Virginia industries, and none would require:

- Physical distancing of at least six feet where feasible
- Disinfection of work areas where known or suspected COVID-19 employees or other persons accessed or worked³⁶⁰
- Employers to develop policies and procedures for employees to report when they are sick or experiencing symptoms consistent with COVID-19
- Employers to, prior to the commencement of each work shift, prescreen of

³⁶⁰ <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.141>

1910.141(a)(3)(i) provides that "All places of employment shall be kept **clean** to the extent that the nature of the work allows." (Emphasis added). The term "sanitary" is not used, although it is used in reference to "washing facilities", "waste disposal", "food storage", "sweepings", and "drinking water".

1910.141(a)(4)(i) provides that "Any receptacle used for putrescible solid or liquid waste or refuse shall be so constructed that it does not leak and may be thoroughly cleaned and maintained in a **sanitary** condition. Such a receptacle shall be equipped with a solid tight-fitting cover, unless it can be maintained in a **sanitary** condition without a cover. This requirement does not prohibit the use of receptacles which are designed to permit the maintenance of a **sanitary** condition without regard to the aforementioned requirements." (Emphasis added).

1910.141(a)(4)(ii) provides that "All sweepings, solid or liquid wastes, refuse, and garbage shall be removed in such a manner as to avoid creating a menace to health and as often as necessary or appropriate to maintain the place of employment in a **sanitary** condition." (Emphasis added).

1910.141(b)(1)(iii) provides that "Portable drinking water dispensers shall be designed, constructed, and serviced so that **sanitary** conditions are maintained, shall be capable of being closed, and shall be equipped with a tap." (Emphasis added).

1910.141(d)(1) provides that "Washing facilities shall be maintained in a **sanitary** condition." (Emphasis added).

1910.141(g)(3) provides that "Waste disposal containers. Receptacles constructed of smooth, corrosion resistant, easily cleanable, or disposable materials, shall be provided and used for the disposal of waste food. The number, size, and location of such receptacles shall encourage their use and not result in overfilling. They shall be emptied not less frequently than once each working day, unless unused, and shall be maintained in a **clean and sanitary** condition. Receptacles shall be provided with a solid tight-fitting cover unless **sanitary** conditions can be maintained without use of a cover." (Emphasis added).

1910.141(g)(4) provides that "**Sanitary** storage. No food or beverages shall be stored in toilet rooms or in an area exposed to a toxic material." (Emphasis added).

- employees to verify each employee is not COVID-19 symptomatic
- Employers to prohibit known and suspected COVID-19 employees from reporting to or being allowed to remain at work or on a job site until cleared for return to work
- Employers to develop and implement policies and procedures for known COVID-19 or suspected COVID-19 employees to return to work using either a symptom-based or test-based strategy depending on local healthcare and testing circumstances
- Employers to prohibit COVID-19 positive employees from reporting to or being allowed to remain at work or on a job site until cleared for return to work
- Employers to provide employees assigned to work stations and in frequent contact with other persons inside six feet with alcohol based hand sanitizers at their workstations
- Employers with hazards or job tasks classified at very high, high, or medium exposure risk to develop a written Infectious Disease Preparedness and Response Plan
- Employee training on SARS-CoV-2 and COVID-19 hazards, with the exception of 1926.21(b)(2) requirements for the Construction Industry³⁶¹

The current patchwork of VOSH and OSHA standards and regulations do not ensure that similarly situated employees and employers exposed to the same SARS-CoV-2 and COVID-19 related hazards and job tasks in similar exposure settings are provided the same level of occupational safety and health protections. Examples include but are not limited to:

- Construction Industry employers would be required to provide training to employees on an emergency temporary standard/emergency regulation, but no other employers covered by VOSH jurisdiction would be required to do so. Section 1926.21(b)(2)³⁶² (Safety Training and Education).
- The Agricultural Industry has no standards or regulations to provide respiratory or personal protective equipment to employees.
- Sanitation requirements in the Construction Industry are limited to “Toilet facilities shall be operational and maintained in a clean and sanitary condition.”
- Neither the Construction Industry nor the Agricultural Industry have a requirement comparable to 1910.132(d) which requires General Industry employers to conduct a written workplace assessment to “determine if hazards are present, or are likely to be present, which necessitate the use of” PPE.³⁶³

³⁶¹With the exception of the Construction Industry regulation at 1926.21(b)(2) (Safety Training and Education)

³⁶²<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

³⁶³ 1910.132(d), Hazard assessment and equipment selection.

1910.132(d)(1), The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

1910.132(d)(1)(i), Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

The Board’s statutory mandate in Va. Code §40.1-22(5) to:

“... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the federal OSH Act of 1970...as may be necessary to carry out its functions established under this title. The Commissioner shall enforce such rules and regulations. **All such rules and regulations shall be designed to protect and promote the safety and health of such employees. In making such rules and regulations to protect the occupational safety and health of employees, the Board shall **adopt the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity**. However, such standards shall be at least as stringent as the standards promulgated by the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596). In addition to **the attainment of the highest degree of health and safety protection for the employee**, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws....”** (Emphasis added).

As is discussed in greater detail in section IV.O.3, while the General Duty Clause, Va. Code §40.1-51(a), can be used in certain limited circumstances to enforce mandatory requirements in Governor Northam’s Executive Orders, there are severe limitations to its use that make it problematic to enforce and results in its infrequent use. As is evident from the wording of the statute, it does not directly address the issue of SARS-CoV-2 or COVID-19 related hazards.

While preferable to no enforcement tool at all, the general duty clause does not provide either the regulated community, employees, or the VOSH Program with substantive and consistent requirements on how to reduce or eliminate SARS-CoV-2 or COVID-19 related hazards, serious illnesses and deaths, that can otherwise be clearly and uniformly established in an emergency regulation. It cannot be used to enforce OSHA Guidelines at all, and can only be used to enforce CDC guidelines that use “mandatory” language such as “shall” and “will” as opposed to language that “suggests” or “recommends” employer action through words such as “should” or “may”. Of the specific mitigation efforts listed above only the physical distancing and enhanced sanitation requirements are addressed in Governor Northam’s Executive Orders and therefore enforceable through the General Duty Clause.

1910.132(d)(1)(ii), Communicate selection decisions to each affected employee; and,
1910.132(d)(1)(iii), Select PPE that properly fits each affected employee.

Note: Non-mandatory appendix B contains an example of procedures that would comply with the requirement for a hazard assessment.

1910.132(d)(2)

The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

Further, federal OSHA has taken the position that it will not be promulgating an emergency temporary standard pursuant to its authority under the OSH Act of 1970,³⁶⁴ instead opting to rely upon many voluntary guidelines for various business sectors. These guidelines, while useful for employers with the intention of complying with health and safety standards, will be irrelevant for businesses who choose not to take steps to protect employees from the emergency posed by SARS-CoV-2 and COVID-19.

Many of the guidelines are explicit that they are voluntary, and may not be used to impose legal obligations upon employers. Employers' voluntary compliance with relevant guidelines, which has also been asserted by OSHA as a reason a standard is unnecessary, is antithetical to the goal of protecting all employees, particularly in those workplaces with recalcitrant employers.

An emergency temporary standard is also necessary to establish clear baseline standards employers can rely upon as to how to protect employees, rather than having them rely upon ad hoc "interim" guidance documents from various agencies. In a similar case where federal OSHA relied solely upon voluntary guidance and employers' voluntary compliance instead of an emergency temporary standard, the D.C. Circuit Court of Appeals found OSHA had "embarked upon the least responsive course short of inaction" and ordered OSHA to expedite rulemaking for an ethylene oxide standard. *Public Citizen Health Research Group v. Auchter*, 702 F.2d 1150, 1153 (D.C. Cir. 1983).

The following items are intended to support and supplement the above finding, but the Board reserves the right to rely on other evidence presented in the administrative record to support the finding and its decision to adopt an emergency regulation, should it decide to do so.

- On February 7, 2020, the State Health Commissioner declared COVID-19 a communicable disease of public health threat³⁶⁵ as defined in Va. Code §44-146.16 in part as "an illness of public health significance....caused by a specific or suspected infectious agent that may be reasonably expected or is known to be readily transmitted directly or indirectly from one individual to another and has been found to create a risk of death or significant injury or impairment...."
- In the context of VOSH's jurisdiction over places of employment and the Safety and Health Codes Board's authority to regulate occupational safety and health hazards in Virginia, COVID-19 poses a threat of "material impairment of health or functional capacity" to employees. Va. Code §40.1-22(5).
- Infectious respiratory diseases can spread in a workplace setting when a healthy person comes in contact with virus particles expelled by someone who is sick —

³⁶⁴ https://www.osha.gov/laws-regs/oshact/section_6

³⁶⁵ <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/Order-of-the-Governor-and-State-Health-Commissioner-Declaration-of-Public-Health-Emergency.pdf>

usually through a cough or sneeze.³⁶⁶ SARS-CoV-2 is easily transmitted through the air from person-to-person through respiratory aerosols, and the aerosols can settle and deposit on environmental surfaces where they can remain viable for days.³⁶⁷

- Susceptibility to COVID-19 will be universal in the workplace as there is no pre-existing immunity to this novel virus among humans. **“The virus is spread through very, very casual interpersonal contact,”** W. David Hardy, a professor of infectious disease at Johns Hopkins University School of Medicine, told STAT.³⁶⁸
- “Although most people with COVID-19 have mild to moderate symptoms, the [COVID-19] disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with COVID-19.”³⁶⁹ “Younger adults are also being hospitalized in the U.S. Adults 20–44 account for 20% of hospitalizations, 12% of ICU admissions.”³⁷⁰ Some research indicates that SARS-CoV-2 infection can cause significant morbidity in relatively young persons without severe underlying medical conditions.³⁷¹
- **“Those most at risk are ‘people 65 years and older, people who live in a nursing home or long-term care facility, people with chronic lung, heart, kidney and liver disease,’** said Dr. Gary Weinstein, pulmonologist/critical care medicine specialist at Texas Health Presbyterian Hospital Dallas (Texas Health Dallas). Additionally, he said others who could be at risk are those **with compromised immune systems and people with morbid obesity or diabetes. “Finally, when patients have lung failure, they frequently have failure or dysfunction of their other organs, such as the kidney, heart, and brain,”**”³⁷² (Emphasis added).
- In all 50 states and the District of Columbia, at least 20 percent of adults ages 65 to 74 are in the workforce. In seven states, more than 30 percent are working. Since 2013, 46 of 51 had seen increases in workforce participation of 75-and-older residents. Seniors represent significant portions of the workforce for many professions that require close contact with others, including bus drivers, ushers, ticket takers, taxi drivers, street vendors, chiropractors, dentists, barbers and many

³⁶⁶ <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

³⁶⁷ <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/coronavirus-disease-2019-covid-19-frequently-asked-questions>

³⁶⁸ <https://www.statnews.com/2020/04/14/how-much-of-the-coronavirus-does-it-take-to-make-you-sick/>

³⁶⁹ <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>

³⁷⁰ https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_ABX_Guide/540747/all/Coronavirus_COVID_19__SARS_CoV_2_

³⁷¹ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e1.htm>

³⁷² <https://www.healthline.com/health-news/what-we-know-about-the-long-term-effects-of-covid-19#COVID-19-might-affect-the-brain-stem>

more.³⁷³

- The CDC conducted a study of “Selected health conditions and risk factors, by age: United States, selected years 1988–1994 through 2015–2016”³⁷⁴ of the general population. Although the working population of the country is only a subset of the totals for the table, the data nonetheless demonstrates the significant risk that SARS-CoV-2 and COVID-19 related hazards pose to the U.S. and Virginia workers. Using the age adjusted statistical totals:
 - 14.7% of the population suffer from diabetes
 - 12.2% from high cholesterol
 - 30.2% suffer from hypertension
 - 39.7% suffer from obesity

NOTE: Virginia’s Adult Diabetes Rate in 2019 was 10.5%.³⁷⁵

Virginia’s Hypertension Rate in 2015 was 33.2%³⁷⁶

Virginia’s Adult High Cholesterol Rate³⁷⁷ in 2019 was 33%.³⁷⁸

Virginia’s Adult Obesity Rate³⁷⁹ in 2019 was 30.3%.³⁸⁰

- The largest cohort of >44,000 persons with COVID-19 from China showed that illness severity can range from mild to critical:
 - Mild to moderate (mild symptoms up to mild pneumonia): **81%**
 - Severe (dyspnea, hypoxia, or >50% lung involvement on imaging): **14%**
 - Critical (respiratory failure, shock, or multiorgan system dysfunction): **5%**
- “In this study, all deaths occurred among patients with critical illness and the overall case fatality rate was 2.3%. The case fatality rate among patients with critical disease was 49%. Among children in China, illness severity was lower with 94% having asymptomatic, mild or moderate disease, 5% having severe

³⁷³ <https://www.seniorliving.org/research/senior-employment-outlook-covid/>

³⁷⁴ <https://www.cdc.gov/nchs/data/hus/2018/021.pdf>

³⁷⁵ https://www.americashealthrankings.org/explore/annual/measure/High_Cholesterol/state/VA

³⁷⁶ <https://www.vdh.virginia.gov/content/uploads/sites/65/2018/05/VA-Heart-Disease-FactSheetFINAL.pdf>

³⁷⁷ Percentage of adults who reported having their cholesterol checked and were told by a health professional that it was high.

³⁷⁸ https://www.americashealthrankings.org/explore/annual/measure/High_Cholesterol/state/VA

³⁷⁹ Percentage of adults with a body mass index of 30.0 or higher based on reported height and weight (pre-2011 BRFSS methodology).

³⁸⁰ <https://www.americashealthrankings.org/learn/reports/2019-annual-report/state-summaries-virginia>

disease, and <1% having critical disease. **Among U.S. COVID-19 cases with known disposition, the proportion of persons who were hospitalized was 19%. The proportion of persons with COVID-19 admitted to the intensive care unit (ICU) was 6%.**³⁸¹ (Emphasis added).

- Asymptomatic and Pre-Symptomatic Transmission. **Epidemiologic studies have documented SARS-CoV-2 transmission during the pre-symptomatic incubation period, and asymptomatic transmission has been suggested in other reports.** Virologic studies have also detected SARS-CoV-2 with RT-PCR low cycle thresholds, indicating larger quantities of viral RNA, and cultured viable virus among persons with asymptomatic and pre-symptomatic SARS-CoV-2 infection. The exact degree of SARS-CoV-2 viral RNA shedding that confers risk of transmission is not yet clear. Risk of transmission is thought to be greatest when patients are symptomatic since viral shedding is greatest at the time of symptom onset and declines over the course of several days to weeks. **However, the proportion of SARS-CoV-2 transmission in the population due to asymptomatic or pre-symptomatic infection compared to symptomatic infection is unclear.**³⁸² (Emphasis added).
- “There is currently no specific treatment for or vaccine to prevent COVID-19. The best way to prevent illness is to avoid being exposed to this virus.”³⁸³
- “Complications can include pneumonia and trouble breathing, organ failure in several organs, heart problems, a severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome), blood clots, acute kidney injury, additional viral and bacterial infections.”³⁸⁴
- There is significant evidence of workplace exposures for employees to COVID-19 in many different industries in Virginia and around the country (see section IV.P.1 to .26).
- Early studies indicate that COVID-19 “infection fatality rate” may be substantially higher than the seasonal influenza. The generally accepted approximate IFR-S of seasonal influenza is 0.1%.³⁸⁵ A study by the University of Washington using data through April 20, 2020, calculated the U.S. “infection mortality rate” among symptomatic cases (IFR-S) to be 1.3%³⁸⁶ [13 times the

³⁸¹ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

³⁸² <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

³⁸³ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/asthma.html>

³⁸⁴ *Id.*

³⁸⁵ *Id.* referencing <https://www.cdc.gov/flu/about/burden/2018-2019.html>

³⁸⁶ <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2020.00455>; Study assumptions: We make three assumptions for our analysis: (1) Errors in the numerator and the denominator lead to underreporting of true COVID-19 deaths and cases, respectively; error is smaller for deaths than for cases. (2) Both the errors are declining over time. (3) The errors in the denominator are declining at a faster rate than the error in the numerator.

seasonal influenza rate]. Another study calculated a global IFR of 1.04%³⁸⁷ [10.4 times the seasonal influenza rate]. A study by the London School of Hygiene and Tropical Medicine estimated the infection fatality rate on the Diamond Princess Cruise Ship to be 1.2%³⁸⁸ [12 times the seasonal influenza rate] Nearly the entire cruise ships 3,711 passengers and crew were tested.

- The CDC’s current best estimate of the percentage of persons with positive COVID-19 infections that are asymptomatic is 35%.³⁸⁹ The CDC’s current best estimate of the percentage of COVID-19 disease transmission occurring prior to symptom onset is 40%.³⁹⁰ This means that until an effective vaccine is developed and deployed, healthy employees will run a continuing risk of exposure to COVID-19 despite an employer’s best efforts to conduct pre-shift screening of employees.
- The CDC has documented multiple “superspreaders” of the virus at mass gathering events involving a choir practice,³⁹¹ a church service,³⁹² a funeral,³⁹³ and a birthday party³⁹⁴ where dozens of persons were infected by a single “superemitter” of the virus.
- Since February, 2020, the Virginia Workers’ Compensation Commission has received 3,154 COVID-19 related claims as of May 31, 2020 in a wide variety of occupational settings, representing a nearly **44.5% increase** in claims over a 20 day period since May 11, 2020 (2,182 claims).
- Since February, 2020, the Virginia Department of Human Resources Workers’ Compensation Statistics has received 42 COVID-19 related claims for state employees in a wide variety of occupational settings (see section IV.A.2).

Assumption #1 is self-evident; both the deaths and the actual cases are undercounted during the initial phase of the epidemic. Because deaths are much more visible events than infections, which, in the case of COVID-19, can go asymptomatic during the first few days of infection, we posit that, at any point in time, the errors in the denominator are larger than the errors in the numerator. Hence, this assumption leads to CFR estimates being larger than the IFR-S, which is typically believed to be true based on observed data.

Assumption #2 is our central assumption, which states that under some stationary processes of care delivery, health care supply, and reporting, which are all believed to be improving over time, the errors in both the numerator and the denominator are declining. It implies that we are improving in the measurement of both the numerator and denominator over time, albeit at different rates in different jurisdictions.

Assumption #3 posits that the error in the denominator is declining faster than the error in the numerator. This assumption indicates that the CFR rates, based on the number of cumulative COVID-19 deaths and the cumulative reported COVID-19 cases, are declining over time and are confirmed based on our observed data (described in detail below).

³⁸⁷ <https://www.medrxiv.org/content/10.1101/2020.05.11.20098780v1>

³⁸⁸ <https://www.medrxiv.org/content/10.1101/2020.03.05.20031773v2>

³⁸⁹ <https://www.cnn.com/2020/05/22/health/cdc-coronavirus-estimates-symptoms-deaths/index.html>

³⁹⁰ *Id.*

³⁹¹ <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e6.htm>

³⁹² https://www.cdc.gov/mmwr/volumes/69/wr/mm6920e2.htm?s_cid=mm6920e2_w

³⁹³ https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e1.htm?s_cid=mm6915e1_w

³⁹⁴ *Id.*

- Pursuant to Va. Code §40.1-51.1.D³⁹⁵, eight (8) COVID-19 related employee deaths have been reported by employers to the Department. An additional three (3) employee deaths have been reported to the Department by the Virginia Workers' Compensation Commission.
- The VOSH Program has investigated an average of 37 annual work-related employee deaths over the last five calendar years. The eleven (11) COVID-19 death notifications so far in 2020 would represent 30% of the deaths investigated by VOSH in an average year. It is not unreasonable to assume that had no mitigation efforts been undertaken by state and local governments beginning in mid-March (e.g., stay at home requests and orders, business shutdowns, physical distancing requirements, face covering recommendations and requirements, etc.), that the number of COVID-19 death notifications would be even higher than the 11 reported to date. It is anticipated that VOSH will be receiving more notifications of employee deaths in the coming weeks and months.
- “[As of May 20, 2020] The CDC's current "best guess" is that — **in a scenario without any further social distancing or other efforts to control the spread of the virus — roughly 4 million patients would be hospitalized in the U.S. with COVID-19 and 500,000 would die over the course of the pandemic.** That's according to the agency's new parameters that the Center for Public Integrity plugged into a simple epidemiological model.”³⁹⁶
- Researchers think that the R_0 [reproduction number] for COVID-19 is between 2 and 3. This means that one person can infect two to three other people.³⁹⁷ Depending on the level of contagiousness of COVID-19 expressed in the R_0 ³⁹⁸ value, “the threshold for combined [COVID-19] vaccine efficacy and herd immunity needed for disease extinction” is estimated between 55% and 82% “(i.e., >82% of the population has to be immune, through either vaccination or prior infection, to achieve herd immunity to stop transmission).”³⁹⁹
- There is anecdotal evidence to support the conclusion that employers will be confronted with employees who work despite being symptomatic and customers

³⁹⁵ <https://law.lis.virginia.gov/vacode/40.1-51.1/>

³⁹⁶ <https://www.npr.org/sections/health-shots/2020/05/22/860981956/scientists-say-new-lower-cdc-estimates-for-severity-of-covid-19-are-optimistic>

³⁹⁷ <https://www.webmd.com/lung/what-is-herd-immunity#1>

³⁹⁸ “The basic reproduction number (R_0), pronounced “R naught,” is intended to be an indicator of the contagiousness or transmissibility of infectious and parasitic agents.... R_0 has been described as being one of the fundamental and most often used metrics for the study of infectious disease dynamics (7–12). An R_0 for an infectious disease event is generally reported as a single numeric value or low–high range, and the interpretation is typically presented as straightforward; an outbreak is expected to continue if R_0 has a value >1 and to end if R_0 is <1 (13). The potential size of an outbreak or epidemic often is based on the magnitude of the R_0 value for that event (10), and R_0 can be used to estimate the proportion of the population that must be vaccinated to eliminate an infection from that population (14,15). R_0 values have been published for measles, polio, influenza, Ebola virus disease, HIV disease, a diversity of vectorborne infectious diseases, and many other communicable diseases (14,16–18).

https://wwwnc.cdc.gov/eid/article/25/1/17-1901_article

³⁹⁹ https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article#suggestedcitation

who will refuse to observe physical distancing or face covering requirements, even in the face of Governor's executive orders (see section IV.P.17, Restaurants and Bars; section IV.P.18, Grocery Retail and Food Retail; section IV.P.20, Personal Care, Personal Grooming, Salon, and Spa Services; section IV.P.21, Sports and Entertainment, and Mass Gatherings).

- “As US states push forward with reopening plans, nearly as many are seeing coronavirus caseloads trending upward as those where case numbers are declining, an analysis of Johns Hopkins data shows. **Nineteen states have averaged more new cases over the past week than the prior week, while 13 are holding steady and 18 are seeing a downward trend.** Louisiana is one of those downward-trending states and is set to begin Phase 2 of its plan to reopen the economy Friday, allowing businesses to open at 50% capacity, according to Gov. John Bel Edwards....Texas and Florida are still recording increasing weekly averages of new cases as they take steps toward reopening.”⁴⁰⁰
- “It is not yet known whether weather and temperature affect the spread of COVID-19. Some other viruses, like those that cause the common cold and flu, spread more during cold weather months but that does not mean it is impossible to become sick with these viruses during other months. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19 and investigations are ongoing.”⁴⁰¹
- “Robert Redfield, MD, the director of the Centers for Disease Control and Prevention (CDC), warned yesterday [April 21, 2020] that a late fall or early winter wave of COVID-19 could be even more deadly in the United States, as it would coincide with the flu season, which already puts a strain on hospitals.”⁴⁰²
- There is currently no vaccine for COVID-19. “U.S. officials and scientists are hopeful a vaccine to prevent Covid-19 will be ready in the first half of 2021 - 12 to 18 months since Chinese scientists first identified the coronavirus and mapped its genetic sequence. It's far from guaranteed. Even the most optimistic epidemiologists hedge their bets when they say it could be ready that quickly. And a lot can go wrong that could delay their progress, scientists and infectious disease experts warn.”⁴⁰³
- Producing and deploying a vaccine to a sufficient number of the U. S. population (over 329,000,000 people) to achieve a minimum of 50% of the populations with effective COVID-19 antibodies will take some time to accomplish. The U.S. Census estimates that Virginia's population as of July 1, 2019 was 8,535,519, and that 15.4% (1,314,469) of Virginia's population was 65 years or older.⁴⁰⁴

⁴⁰⁰ <https://www.cnn.com/2020/06/04/health/us-coronavirus-thursday/index.html>

⁴⁰¹ <https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Coronavirus-Disease-2019-Basics>

⁴⁰² <https://www.cidrap.umn.edu/news-perspective/2020/04/coroner-first-us-covid-19-death-occurred-early-february>

⁴⁰³ <https://www.cnbc.com/2020/05/21/coronavirus-vaccine-why-it-may-be-ready-early-next-year-and-what-could-go-wrong.html>

⁴⁰⁴ <https://www.census.gov/quickfacts/fact/table/VA#>

- Successful deployment of a COVID-19 vaccine will depend on the willingness of the U.S. population to actually take the vaccine. In a Reuters' survey⁴⁰⁵ of 4,428 U.S. adults taken between May 13 and May 19: "Fourteen percent of respondents said they were not at all interested in taking a vaccine, and 10% said they were not very interested. Another 11% were unsure."

VI. Summary of Emergency Temporary Standard/Emergency Regulation

The VOSH Program seeks to adopt regulations applicable to protect Virginia employers and employees from the SARS-CoV-2 Virus That Causes COVID-19.

NOTE: VOSH jurisdiction over the maritime industry only extends to state and local government employers and employees. Federal OSHA retains jurisdiction over the maritime industry in the private sector in Virginia.

A. Summary of the Emergency Temporary Standard/Emergency Regulation.

§10 Purpose, scope, and applicability.

- The ETS is designed to establish requirements for employers to control, prevent, and mitigate the spread of coronavirus disease 2019 (COVID-19) to and among employees and employers, and would apply to all Virginia employees and employers under VOSH's jurisdiction.
- Application of the standard to a place of employment will be based on the exposure risk level presented by SARS-CoV-2 virus-related and COVID-19 disease-related hazards present or job tasks undertaken by employees at the place of employment as defined in this standard (i.e., "very high", "high", "medium", and "lower").
- It is recognized that various hazards or job tasks at the same place of employment can be designated as "very high", "high", "medium", or "lower" as presenting potential exposure risk for purposes of application of the requirements of this standard.
- Provides factors to be considered in determining exposure risk level.
- This standard/regulation may not conflict with requirements and guidelines applicable to businesses set out in any applicable executive order or order of public health emergency.

NOTE 1: The above Executive Order limitation does not apply to previously adopted VOSH laws, standards, and regulations, including those identical to OSHA standards and regulations that currently apply to SARS-CoV-2 and COVID-19 related hazards and job tasks.

⁴⁰⁵ <https://www.reuters.com/article/us-health-coronavirus-vaccine-poll-exclu/exclusive-a-quarter-of-americans-are-hesitant-about-a-coronavirus-vaccine-reuters-ipsos-poll-idUSKBN22X19G>

NOTE 2: VOSH is required by the OSH Act of 1970⁴⁰⁶ and OSHA regulations⁴⁰⁷ to be “at least as effective as” federal OSHA. VOSH generally follows OSHA interpretations of federal identical standards and regulations.

NOTE 3: The Department is not currently aware of any provisions in the draft ETS/ER that would be in conflict with Executive Order 61 such that the EO would take precedence over it.

§20 Dates.

[Under §40.1-22(6)]

- This emergency temporary standard shall take immediate effect upon publication in a newspaper of general circulation, published in the City of Richmond, Virginia. This emergency temporary standard shall expire within six months of its effective date or when superseded by a permanent standard, whichever occurs first, or when repealed by the Virginia Safety and Health Codes Board.

[Under §2.2-4011]

- This emergency regulation shall become effective upon approval by the Governor and filing with the Registrar of Regulations, unless a later date is specified, pursuant to § 2.2-4012. This emergency regulation shall be limited to no more than 18 months in duration, except as otherwise provided in §2.2-4011.

§30 Definitions.

- Definitions are provided for the following terms: Administrative Control, Airborne infection isolation room (AIIR), Asymptomatic, Building/facility owner, Cleaning, Community transmission, COVID-19, Disinfecting, Duration and frequency of employee exposure, Economic feasibility, Elimination, Engineering control, Exposure Risk Level (“Very high,” “High,” “Medium,” and “Lower”), Face covering, Face shield, Feasible, Filtering facepiece, Hand sanitizer, Known COVID-19, May be infected with SARS-CoV-2, Occupational exposure, Personal protective equipment, Physical distancing, Respirator, Respirator user, SARS-CoV-2, Surgical/Medical procedure mask, Suspected COVID-19, Symptomatic, Technical feasibility, VOSH, and Work practice control.

⁴⁰⁶ https://www.osha.gov/laws-regs/oshact/section_18

⁴⁰⁷ <https://www.osha.gov/laws-regs/regulations/standardnumber/1902/1902.4>

§40 Mandatory requirements for employers in all exposure risk levels.

- Employers shall assess their workplace for hazards and job tasks that can potentially expose employees SARS-CoV-2 or COVID-19, and classify each employee by risk level of exposure.
- Employers shall develop and implement policies and procedures for employees to report when they are sick or experiencing symptoms consistent with COVID-19. Such employees shall not report to or be allowed to remain at work or on a job site until cleared for return to work.
- Employers shall not permit known COVID-19, known asymptomatic COVID-19, or suspected COVID-19 employees or other persons to report to or be allowed to remain at work or on a job site until cleared for return to work
- Employers shall notify employees, other employers, and the building/facility owner if an employer is notified of a COVID-19 positive test for one of its own employees, a subcontractor employee, or other person who was present at the place of employment within the previous 14 days from the date of positive test.
- Employers shall ensure that sick leave policies are flexible
- Employers shall discuss with subcontractors, and companies that provide contract or temporary employees about the importance of suspected COVID-19 and known COVID-19 subcontractor, contract, or temporary employees staying home and encourage them to develop non-punitive sick leave policies. Known COVID-19 and suspected COVID-19 subcontractor, contract, or temporary employees shall not report to or be allowed to remain at work or on a job site until cleared for return to work.
- The employer shall develop and implement policies and procedures for employee return to work using either a symptom-based and test-based strategy depending on local healthcare and testing circumstances.
- Unless otherwise provided in this regulation/standard, employers shall ensure that employees observe physical distancing while on the job and during paid breaks on the employer's property.
- Employers shall comply with applicable respiratory protection, personal protective equipment regulations and ensure compliance with mandatory requirements of any applicable executive order or order of public health emergency.
- A medical exemption is provided from use of a respirator, surgical/medical procedure mask, or face covering by any employee.
- Access to common areas, break or lunchrooms shall be closed or controlled.
- Sanitation and disinfecting procedures. Compliance with the hazard communication standard.

§50 Requirements for hazards or job tasks classified at very high or high exposure risk.

- Engineering controls (including installed air handling systems),⁴⁰⁸ administrative and work practice controls, and personal protective equipment requirements are listed.
- For those employers with hazards or job tasks classified at very high or high exposure risk not already covered by 1910.132(d), that section is included to require employers to conduct a written assessment of the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE).

NOTE: An employer's "assessment of the workplace" may take into account the jobsite characteristics that could impact its decision making (e.g., the differences between the "linear" aspects of a highway construction workplace versus the "vertical" aspects of a building construction worksite).

- Unless specifically addressed by an industry specific standard applicable to the employer and providing for PPE protections to employees from the SARS-COV-2 virus or COVID-19 disease (e.g., Parts 1926, 1928, 1915, 1917, or 1918), the requirements of §§1910.132 (General requirements) and 1910.134 (Respiratory protection) shall apply to all employers for that purpose.
- Special PPE respiratory protection requirements are provided for employees classified as "very high" or "high" exposure risk.
- Employee training shall be provided in accordance with the requirements of §80 of this standard/regulation.

§60 Requirements for hazards or job tasks classified at medium exposure risk.

- Engineering controls (including installed air handling systems),⁴⁰⁹ administrative and work practice controls, and personal protective equipment requirements are listed.
- For those employers with hazards or job tasks classified at very high or high exposure risk not already covered by 1910.132(d), that section is included to require employers to conduct a written assessment of the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE).

NOTE: An employer's "assessment of the workplace" may take into account the jobsite characteristics that could impact its decision

⁴⁰⁸ https://wwwnc.cdc.gov/eid/article/26/7/20-0764_article, "We conclude that in this outbreak, droplet transmission was prompted by air-conditioned ventilation. The key factor for infection was the direction of the airflow. Of note, patient B3 was afebrile and 1% of the patients in this outbreak were asymptomatic, providing a potential source of outbreaks among the public (7,8). To prevent spread of COVID-19 in restaurants, we recommend strengthening temperature-monitoring surveillance, increasing the distance between tables, and improving ventilation."

⁴⁰⁹ *Id.*

making (e.g., the differences between the “linear” aspects of a highway construction workplace versus the “vertical” aspects of a building construction worksite).

- Unless specifically addressed by an industry specific standard applicable to the employer and providing for PPE protections to employees from the SARS-COV-2 virus or COVID-19 disease (e.g., Parts 1926, 1928, 1915, 1917, or 1918), the requirements of §§1910.132 (General requirements) and 1910.134 (Respiratory protection) shall apply to all employers for that purpose.

§70 Infectious disease preparedness and response plan.

- Employers with hazards or job tasks classified as:
 - “Very high,” and “high,” shall develop and implement a written Infectious Disease Preparedness and Response Plan;
 - “Medium” with eleven (11) or more employees shall develop and implement a written Infectious Disease Preparedness and Response Plan.
- The plan shall consider and address the level(s) of risk associated with various places of employment, the hazards employee are exposed to and job tasks employees perform at those sites.
- The plan shall consider contingency plans for situations that may arise as a result of outbreaks.
- The plan shall identify basic infection prevention measures to be implemented.
- The plan shall provide for the prompt identification and isolation of sick persons away from work, including procedures for employees to report when they are sick or experiencing symptoms of COVID-19.
- The plan shall address infectious disease preparedness and response with outside businesses.

§80 Training.

- Employers with hazards or job tasks classified at “very high” or “high” exposure risk shall provide training to all employee(s) regardless of employee risk classification.
- Employees shall be trained on the requirements of this standard, the employer’s Infectious Disease Preparedness and Response Plan, where applicable, the characteristics and methods of spread of the SARS-CoV-2 virus, the symptoms of the COVID-19 disease as well as the asymptomatic reactions of some persons to the SARS-CoV-2 virus, safe work practices, including but not limited to, disinfection procedures, disinfecting frequency, noncontact methods of greeting, and PPE.
- The employer shall verify compliance with §80.A of this section by preparing a written certification record for those employees exposed to hazards or job tasks classified at “very high,” “high,” or “medium” exposure risk levels.

- When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by §80.A, the employer shall retrain each such employee.

NOTE: Construction employers, regardless of risk category, will be required to provide SARS-CoV-2 and COVID-19 related training, and training on the ETS/ER in accordance with the federal identical OSHA/VOSH regulation at 1926.21(b)(2), which provides:

“The employer shall **instruct each employee in the** recognition and avoidance of unsafe conditions and the **regulations applicable to his work environment** to control or eliminate any hazards or other exposure to illness or injury.” (Emphasis added).

§90 Discrimination against an employee for exercising rights under this emergency temporary standard/emergency regulation is prohibited.

- No person shall discharge or in any way discriminate against an employee who voluntarily provides and wears his or her own personal protective equipment, including but not limited to a respirator, face mask, face shield, or gloves, if such equipment is not provided by the employer, provided that the PPE does not create a greater hazard to the employee, or create a serious hazard for other employees.
- No person shall discharge or in any way discriminate against an employee who raises a reasonable concern about infection control related to the SARS-CoV-2 virus and COVID-19 disease to the employer, the employer’s agent, other employees, a government agency, or to the public such as through print, online, social, or any other media.

NOTE: HIPAA does not apply to apply to VOSH or OSHA.⁴¹⁰

B. VOSH Violation and Penalty Structure.

The emergency temporary standard/emergency regulation would be enforced in the same manner as all other VOSH laws, standards, and regulations. The types of civil violations that VOSH can cite are “serious”, “other than serious”, “repeat”, “willful,” and “failure to abate. Maximum penalties for each type are:

Serious and Other-than-serious	\$13,047
Willful and Repeat	\$130,463
Failure-to-Abate	\$13,047 per day

⁴¹⁰ <https://www.osha.gov/Publications/OSHA-factsheet-HIPPA-whistle.pdf>

In calculating penalties, Va. Code §40.1-49.4.A.4 .a provides:

In determining the amount of any proposed penalty [the Commissioner] shall give due consideration to the appropriateness of the penalty with respect to the **size** of the business of the employer being charged, the **gravity** of the violation, the **good faith** of the employer, and the **history** of previous violations. (Emphasis added).

Chapter 11 of the VOSH FOM explains how penalties are calculated:

https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\181\GDoc_DOLI_5354_v6.pdf

Employers can receive penalty reductions for “size” based on the number of employees as follows:

1 - 25	70%
26-100	40%
101-250	20%
251 or more	zero

A penalty reduction of up to 25 percent is permitted in recognition of an employer’s “good faith” in increments of 0%, 5%, 10%, 15%, 20% and 25%.

History. A reduction of 10% shall be given to employers who have not been cited by VOSH for any serious, willful or repeated violations in the past three years.

The minimum penalty for a serious violation is \$600.00.

C. Employee Misconduct Defense.

The “Employee Misconduct” affirmative defense to VOSH citations and penalties is codified in VOSH regulation 16 VAC 25-60-260.B:

B. A citation issued under subsection A of this section to an employer who violates any VOSH law, standard, rule, or regulation shall be vacated if such employer demonstrates that:

1. Employees of such employer have been provided with the proper **training** and equipment to prevent such a violation;
2. **Work rules** designed to prevent such a violation have been established and **adequately communicated** to employees by such employer and have been **effectively enforced** when such a violation has been discovered;
3. The **failure of employees to observe work rules** led to the violation; and
4. **Reasonable steps** have been taken by such employer **to discover any such violation**. (Emphasis added)

D. De Minimis Violation Policy.

Va. Code §40.1-49.4.A.2⁴¹¹ provides “The Commissioner may prescribe procedures for calling to the employer's attention *de minimis* violations which have no direct or immediate relationship to safety and health.” (Emphasis added).

The Virginia Occupational Safety and Health (VOSH) Field Operations Manual (FOM)⁴¹² describes the Commissioner’s procedures for *de minimis* violations in Chapter 10, pp. 38-39:

De minimis violations are violations of standards which have no direct or immediate relationship to safety or health. Compliance Officers identifying *de minimis* violations of a VOSH standard shall not issue a citation for that violation, but should verbally notify the employer and make a note of the situation in the inspection case file. The criteria for classifying a violation as *de minimis* are as follows:

1. Employer Complies with Clear Intent of Standard.

An employer complies with the clear intent of the standard but deviates from its particular requirements in a manner that has no direct or immediate relationship to employee safety or health. These deviations may involve distance specifications, construction material requirements, use of incorrect color, minor variations from recordkeeping, testing, or inspection regulations, or the like.

....

2. Employer Complies with Proposed Standard.

An employer complies with a proposed standard or amendment or a consensus standard rather than with the standard in effect at the time of the inspection and the employer’s action clearly provides equal or greater employee protection or the employer complies with a written interpretation issued by OSHA or VOSH.

3. Employer Technically Exceeds Standard.

An employer’s workplace is at the “state of the art” which is technically beyond the requirements of the applicable standard and provides equivalent or more effective employee safety or health protection.

Note: Maximum professional discretion must be exercised in determining the point at which noncompliance with a standard constitutes a *de minimis* violation.

The FOM⁴¹³ further provides:

⁴¹¹ <https://law.lis.virginia.gov/vacode/40.1-49.4/>

⁴¹² [https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\181\GDoc_DOLI_5354_v6.p
df](https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\181\GDoc_DOLI_5354_v6.pdf)

⁴¹³ *Id.* at Chapter 5, p. 76.

The Compliance Officer shall discuss all conditions noted during the walkaround considered to be *de minimis*, indicating that such conditions are subject to review by the Regional Safety or Health Director in the same manner as apparent violations but, **if finally classified as *de minimis*, will not be included on the citation.** (Emphasis added).

VII. **Basis, Purpose and Impact of the Emergency Temporary Standard/Emergency Regulation.**

A. **Basis.**

1. Applicable Statutes. Va. Code §40.1-22(5).

The Safety and Health Codes Board is authorized by Title 40.1-22(5)⁴¹⁴ to:

“... adopt, alter, amend, or repeal rules and regulations to further, protect and promote the safety and health of employees in places of employment over which it has jurisdiction and to effect compliance with the federal OSH Act of 1970...as may be necessary to carry out its functions established under this title. The Commissioner shall enforce such rules and regulations. All such rules and regulations shall be designed to **protect and promote the safety and health of such employees.** In making such rules and regulations to protect the occupational safety and health of employees, the Board shall adopt the **standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity.** However, such standards shall be at least as stringent as the standards promulgated by the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596). In addition to the attainment of the **highest degree of health and safety protection for the employee,** other considerations shall be the **latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws.** Whenever practicable, the standard promulgated shall be expressed in terms of **objective criteria and of the performance desired.** Such standards when applicable to products which are distributed in interstate commerce shall be the same as federal standards unless deviations are required by compelling local conditions and do not unduly burden interstate commerce.” (Emphasis added).

2. Applicable Statutes. Va. Code §§2.2-4011, -4012.

The April 23, 2020 emergency regulation petition from the Virginia Legal Aid Justice Center (LAJC), Community Organizing, and Community Solidarity with the Poultry Workers organizations requested the Board adopt an emergency regulation pursuant

⁴¹⁴ <https://law.lis.virginia.gov/vacode/40.1-22/>

to Va. Code §2.2-4011⁴¹⁵, Emergency regulations; publication; exceptions, which generally applies to agency/board adoption of emergency regulations in Virginia.

Va. Code §2.2-4011 contains a detailed process and specific time periods for the length of time that an adopted emergency regulation can remain in effect (18 to 24 months, depending on circumstances), and requirements for pursuing a replacement regulation thereafter. That section provides in part that:

A. Regulations that an agency finds are necessitated by an emergency situation may be adopted by an agency **upon consultation with the Attorney General, which approval shall be granted only after the agency has submitted a request stating in writing the nature of the emergency, and the necessity for such action shall be at the sole discretion of the Governor.**

....

C. All emergency regulations **shall be limited to no more than 18 months in duration.** During the 18-month period, an agency may issue additional emergency regulations as needed addressing the subject matter of the initial emergency regulation, but any such additional emergency regulations shall not be effective beyond the 18-month period from the effective date of the initial emergency regulation. If the agency wishes to continue regulating the subject matter governed by the emergency regulation beyond the 18-month limitation, a regulation to replace the emergency regulation shall be promulgated in accordance with this article. The Notice of Intended Regulatory Action to promulgate a replacement regulation shall be filed with the Registrar within 60 days of the effective date of the emergency regulation and published as soon as practicable, and the proposed replacement regulation shall be filed with the Registrar within 180 days after the effective date of the emergency regulation and published as soon as practicable.

(Emphasis added).

Va. Code §2.2-4012 further provides that:

B. “....In the case of an emergency regulation filed in accordance with § 2.2-4011, the regulation shall **become effective upon its adoption and filing with the Registrar of Regulations, unless a later date is specified....**”

(Emphasis added).

In order to proceed with an emergency regulation, the Board must find that a regulation is “necessitated by an emergency situation.” The term “emergency situation” is not defined in the statute.

If a party wished to challenge the emergency regulation, it would do so under Va. Code §§2.2-4026⁴¹⁶ and 2.2-4027⁴¹⁷. If it alleged a procedural error under Va. Code §2.2-4026, it would have the burden to prove so by a preponderance of the evidence.

⁴¹⁵ <https://law.lis.virginia.gov/vacode/2.2-4011/>

⁴¹⁶ <https://law.lis.virginia.gov/vacode/title2.2/chapter40/section2.2-4026/>

⁴¹⁷ <https://law.lis.virginia.gov/vacode/title2.2/chapter40/section2.2-4027/>

Otherwise, it would proceed under Va. Code Section 2.2-4027 and have to prove an error of law, and:

“[w]hen the decision on review is to be made on the agency record, the duty of the court with respect to issues of fact shall be to determine whether there was substantial evidence in the agency record to support the agency decision. The duty of the court with respect to the issues of law shall be to review the agency decision de novo.”

Finally, Va. Code §2.2-4011.C provides:

“...If the agency **wishes to continue regulating the subject matter governed by the emergency regulation beyond the 18-month limitation**, a regulation to replace the emergency regulation shall be promulgated in accordance with this article. The **Notice of Intended Regulatory Action** to promulgate a replacement regulation shall be filed with the Registrar **within 60 days** of the effective date of the emergency regulation and published as soon as practicable, and the **proposed replacement** regulation shall be filed with the Registrar **within 180 days** after the effective date of the emergency regulation and published as soon as practicable.

Executive Order 14 provides the special procedures to be followed by agencies wishing to replace an emergency regulation with a permanent regulation:

“C. Emergency Rulemaking Process

Emergency regulations may be promulgated by an agency if it determines there is an emergency situation, consults with the OAG [Office of the Attorney General], and obtains the approval of the Governor or his designee. Emergency regulations may also be promulgated where Virginia statutory law, an Act of Assembly such as the appropriation act, federal law, or federal regulation requires that a state regulation be effective in 280 days or fewer from its enactment and the regulation is not exempt from the APA. If the agency plans to replace the emergency regulation with a permanent regulation, it should file an Emergency/NOIRA stage. The order of Executive Branch Review shall be as follows:

1. OAG. The OAG will conduct a review of the proposed emergency regulation and produce a memorandum assessing the agency’s legal authority to promulgate the regulation and determining that the content of the proposed regulation does not conflict with existing law. The OAG may also provide any advice, recommendations, or other comments for consideration by the Governor with respect to the proposed emergency regulation. After the OAG has completed its review, the package will be submitted to DPB.

2. DPB. DPB shall review the proposed emergency regulatory package to determine whether it complies with all requirements of this Executive Order, applicable statutes, and other policies of the Commonwealth. Within 14 days of receiving a complete emergency regulation package from the agency, the Director of DPB or his designee shall prepare a policy analysis, and advise the appropriate Secretary and the Governor of the results of the review.
3. Cabinet Secretary. The Cabinet Secretary shall review the proposed emergency regulation package within 10 days and forward a recommendation to the Governor.
4. Governor. The Chief of Staff to the Governor or his designee is hereby authorized to approve or disapprove emergency regulations on behalf of the Governor.

An emergency regulation shall be effective for up to 18 months and may be extended for up to an additional six months if, despite the rulemaking entity's best efforts, a permanent replacement regulation cannot become effective before the emergency regulation expires.

If an agency wishes to extend an emergency regulation beyond its initial effective period, the agency shall submit an emergency extension request to the Governor's Office via Town Hall as soon as the need for the extension is known, but no later than 30 days before the emergency regulation is set to expire. The emergency extension request must be granted prior to the expiration date of the emergency regulation, pursuant to § 2.2-4011(D) of the Code of Virginia."

3. Applicable Statutes. Va. Code §40.1-22(6).

There is also a provision in the Labor Laws of Virginia, Title 40.1 of the Code at §40.1-22(6a), specific to the Board providing procedures for adopting an Emergency Temporary Standard:

§40.1-22⁴¹⁸. Safety and Health Codes Commission continued as Safety and Health Codes Board.

....

(6a) The Board shall provide, without regard to the requirements of Chapter 40 (§ 2.2-4000 et seq.) of Title 2.2, for **an emergency temporary standard to take immediate effect upon publication in a newspaper of general circulation**, published in the City of Richmond, Virginia, if it determines that **employees are exposed to grave danger** from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, **and that such emergency standard is necessary to protect employees from such danger.** The publication mentioned herein shall constitute notice

⁴¹⁸ <https://law.lis.virginia.gov/vacode/40.1-22/>

that the Board intends to adopt such standard within a period of six months. The Board by similar publication shall prior to the expiration of six months give notice of the time and date of, and conduct a hearing on, the adoption of a permanent standard. **The emergency temporary standard shall expire within six months or when superseded by a permanent standard, whichever occurs first,** or when repealed by the Board.
(Emphasis added).

Va. Code §40.1-22(6) is a specific grant of authority to the Safety and Health Codes Board. If the Board wants to exercise this authority it must make a specific determination:

“that employees are exposed to **grave danger** from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and that such emergency standard is **necessary** to protect employees from such danger.”
(Emphasis added).

The terms “grave danger” and “necessity” are not defined in the statute, but have been addressed in federal court cases surrounding federal OSHA’s similar statutory requirement in the OSH Act, §6(c) (identical language highlighted in **bold**):

“(1) The Secretary shall provide, without regard to the requirements of chapter 5, title 5, United States Code, for **an emergency temporary standard to take immediate effect upon publication** in the Federal Register if he determines –

- (A) **that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and**
- (B) **that such emergency standard is necessary to protect employees from such danger.**

(2) Such standard shall be effective until superseded by a standard promulgated in accordance with the procedures prescribed in paragraph (3) of this subsection.

(3) Upon publication of such standard in the Federal Register the Secretary shall commence a proceeding in accordance with section 6 (b) of this Act, and the standard as published shall also serve as a proposed rule for the proceeding. The Secretary shall promulgate a standard under this paragraph no later than **six months** after publication of the emergency standard as provided in paragraph (2) of this subsection.”
(Emphasis added).

If a party wished to challenge the emergency temporary standard, Va. Code Section 40.1-22(7) states:

“Any person who may be adversely affected by a standard issued under this title may challenge the validity of such standard in the Circuit Court of the City of Richmond by declaratory judgment. The determination of the Safety and Health Codes Board shall be conclusive if supported by substantial evidence in the record considered as a whole...”

Thus, judicial review of the Board’s action would be done – if done correctly – with a substantial evidence standard applied to the facts and legal questions, instead of just to the facts as done with challenges under Va. Code §2.2-4027.

Va. Code §40.1-22(6a) further provides that to replace the emergency temporary standard with a permanent standard:

“The Board by similar publication shall **prior to the expiration of six months** give notice of the time and date of, and **conduct a hearing on, the adoption of a permanent standard.**

You will note that Va. Code §§2.2-4011.C and 40.1-22(6a) contain different procedures and for adoption of a replacement permanent standard/regulation.

The Department consulted with the OAG to ensure that its recommendation to the Board was legally permissible.

Our interpretation of Va. Code Section 40.1-22(6a) is that the APA does not apply to the Board’s power to issue emergency temporary/permanent standards if the Board determines that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards and that such standard is necessary to protect employees from such danger. **The clear intent of 40.1-22(6a) and 29 USC Section 655(c) in the OSH Act – is to create an alternative path to a temporary and permanent standard outside of the rigors and processes of the APA.** The emergency standard takes effect almost immediately, and then the Board can go through (6a)’s hearing process to adopt a permanent standard – instead of the normal APA process required by 40.1-22(6) for non-emergency rules and regulations issued by the Board [Title 2.2, which includes the Administrative Process Act]. This creates a separate procedure for emergency temporary/permanent standards – deliberately outside of the APA. And it is incumbent on the Board to make findings and a record sufficient to support those findings of a grave danger and the necessity of the standard to protect employees from that grave danger.

....

As this is an issue of first impression – and as with any litigation – there are corresponding risks that a Court may interpret that statute differently and apply the APA to 40.1-22(6a).

4. Discussion of Differences in the Statutory Requirements for Promulgation of an Emergency Temporary Standard or Emergency Regulation.

Counsel from the OAG advised that it would be legally permissible for the Board to proceed under either Va. Code §§2.2-4011 or 40.1-22(6a).

Each statute has different findings/determinations required to trigger them, each has different procedural requirements to make them effective, each has different durations, and both provide for the potential adoption of a “replacement” (§2.2-4011) or permanent regulation (§40.1-22(6a)).

The following chart summarizes the differences:

Provision	§2.2-4011	§40.1-22(6a)
Finding Required	"Regulations that an agency finds are necessitated by an emergency situation"	"The Board....determines that employees are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful or from new hazards, and that such emergency standard is necessary to protect employees from such danger."
Duration of Regulation/Standard	18 months, with an option to request an additional six months for adoption of a replacement regulation	6 months
Becomes Effective	Pursuant to § 2.2-4012, such regulations shall become effective upon approval by the Governor and filing with the Registrar of Regulations.	Takes immediate effect upon publication in a newspaper of general circulation, published in the City of Richmond, Virginia
Ability to Amend During the Duration of the Regulation/Standard	During the 18-month period, an agency may issue additional emergency regulations as needed addressing the subject matter of the initial emergency regulation , but any such additional emergency regulations shall not be effective beyond the 18-month period from the effective date of the initial emergency regulation.	Not mentioned.

Procedures for Replacement Regulation or Permanent Standard	Filing of a Notice of Intended Regulatory Action (NOIRA) within 60 days; the proposed regulation filed with the Registrar within 180 days. Adoption of a final replacement regulation must be done in accordance with Title 2.2, the Administrative Process Act (APA)	"The publication mentioned herein shall constitute notice that the Board intends to adopt such standard within a period of six months. The Board by similar publication shall prior to the expiration of six months give notice of the time and date of, and conduct a hearing on, the adoption of a permanent standard."
Standard of Review if Lawsuit Filed	For alleged procedural errors, the challenging party would have the burden to prove so by a preponderance of the evidence. Was there "substantial evidence" in the agency record to support the agency decision to adopt the emergency regulation	The "determination of the Safety and Health Codes Board shall be conclusive if supported by substantial evidence in the record considered as a whole."
Venue	Per 2.2-4026, 2.2-4003, and §8.01-261(1). In actions for review of, appeal from, or enforcement of state administrative regulations, decisions, or other orders: a. If the moving or aggrieved party is other than the Commonwealth or an agency thereof, then the county or city wherein such party: (1) Resides; (2) Regularly or systematically conducts affairs or business activity; or (3) Wherein such party's property affected by the administrative action is located.	Circuit Court of the City of Richmond

5. Department's Recommendation on Promulgation Statute.

The Department recommends that Board should proceed under Va. Code §40.1-22(6a). While the Board can select the route it thinks is most effective as long as it acts in accordance with the procedural and substantive requirements of either statute, proceeding under §40.1-22(6a) means the Board will be acting under a specified power in its own statute.

In addition, based on the informal guidance of the OAG, the Board would have the ability to put in place a permanent standard during the six month period that the emergency temporary standard is in effect.

However, because of the possibility of court review, it is the further recommendation of the Department that the Board attempt to substantially comply with the core

requirements in the APA by undertaking to do the following during the six month period that the emergency temporary standard is in effect:

- Send the emergency temporary standard to the Department of Planning and Budget (DPB) for an economic impact analysis with a request that they complete the same within 14 days, as is provided for under Executive Order 14 for emergency regulations adopted under Va. Code §2.2-4011.
- Publish a 60 day written comment period for the emergency temporary standard as provided for in the Board's Public Participation Guidelines for "normal" proposed regulations, 16VAC25-11-50.
- Although not required by the Board's Public Participation Guidelines, the Board should consider scheduling a public hearing as is the standard course of action for the Board with "normal" proposed regulations, 16VAC25-11-100.
- Schedule a meeting to adopt a final regulation.
- Publish the final regulation in a paper of statewide distribution (just as with the emergency temporary standard) and simultaneously send it to the Registrar of Regulations for publication.

NOTE: To the extent feasible, the planning process for adoption of permanent regulation should account for the fact that there is a 30 day period after publication in the Virginia Register before a "normal" permanent regulation becomes final.

B. Purpose.

The purpose of the proposed change is to reduce/eliminate employee injuries, illnesses, and fatalities by considering for adoption a comprehensive emergency temporary standard/emergency regulation to address the exposure of similarly situated employees to SARS-CoV-2 and COVID-19 related hazards and job tasks in all industries under the jurisdiction of the Virginia State Plan.

Application of the proposed standard to a place of employment will be based on the exposure risk level presented by SARS-CoV-2 virus-related and COVID-19 disease-related hazards present or job tasks undertaken by employees at the place of employment as defined in this standard (i.e., "very high", "high", "medium", and "lower").

C. Impact on Employers.

Employers will have to familiarize themselves with the requirements of emergency temporary standard/emergency regulation and train employees on the requirements of the regulation based on the risk levels for its employees, including:

1. Mandatory requirements for all employers:

- Workplace assessment and classification of employees according to the hazards they are potentially exposed to and the job tasks they undertake for “very high,” “high,” “medium,” or “lower” risk levels of exposure.
- Procedures for assuring that known COVID-19, known asymptomatic COVID-19, or suspected COVID-19 employees or other persons remain away from work until cleared for return to work.
- Providing notification to employees within 24 hours of discover that a person was previously present at the worksite who had tested positive for COVID-19. Providing the same notice to other contractors and building/facility owner.
- To the extent feasible and permitted by law, employers shall ensure that sick leave policies are flexible and consistent with public health guidance and that employees are aware of these policies; discuss the same with subcontractors and other businesses that supply contact and temporary employees.
- Ensure employee access to exposure and medical records.
- Develop and implement return to work policies and procedures.
- Ensure employees observe physical distancing, unless otherwise permitted in the ETS/ER.
- Access to common areas, breakrooms, or lunchrooms shall be closed or controlled.
- When physical distancing is not possible, ensure employees are provided with and wear either N95 respirators or surgical/medical procedure masks if commercially available; otherwise they shall wear face coverings over their nose and mouth when inside six feet of other employees or other persons.
- Implement sanitation and disinfecting procedures and ensure compliance with the hazard communication standard.
- Train employees on the requirements of the ETS/ER in accordance with the training section.

2. Requirements for employers with hazards or job tasks classified at “very high” or “high” exposure risk, including:

- Implementation of engineering controls, administrative and work practice controls, and personal protective equipment, including respiratory protection equipment.
- Develop and implement a written Infectious Disease Preparedness and Response Plan and train employees classified as “very high” or “high” on its contents.

3. Requirements for employers with hazards or job tasks classified at “medium” exposure risk, including:

- Implementation of engineering controls, administrative and work practice controls, and personal protective equipment, including respiratory protection equipment.

- Develop and implement a written Infectious Disease Preparedness and Response Plan and train employees classified as “medium” on its contents.
4. Ensure that employees are not discriminated against for exercising their rights under the ETS/ER.

Education, Training, and Outreach Materials

The Department will significantly supplement its COVID-19 webpage with education, training, and outreach materials that will assist employers and employees in complying with the emergency temporary standard/emergency regulation.

The Department intends to provide outreach and training materials that can be used by employers to comply with requirements of the emergency temporary standard/emergency regulation.

Employers should benefit from reductions in injuries, illnesses, and fatalities associated with employee exposure to SARS-CoV-2 and COVID-19 related hazards which would be addressed by any comprehensive regulation.

In addition, there may be an ancillary benefit to those employers whose establishments are frequented by the general public who may take some level of confidence in the safety and health of the physical establishment because of the requirements of this emergency temporary standard/emergency regulation.

D. Impact on Employees.

1. Vulnerabilities of Virginia’s Workforce to SARS-CoV-2 and COVID-19 Hazards.

Those employees at high-risk for severe illness from COVID-19 are⁴¹⁹:

People 65 years and older

- People of all ages with underlying medical conditions, particularly if not well controlled, including:
- People with chronic lung disease or moderate to severe asthma
- People who have serious heart conditions
- People who are immunocompromised (Many conditions can cause a person to be immunocompromised, including cancer treatment, smoking, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids and other immune weakening medications)
- People with severe obesity (body mass index [BMI] of 40 or higher)
- People with diabetes
- People with chronic kidney disease undergoing dialysis
- People with liver disease

⁴¹⁹ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>

2. National and Virginia Statistics.

Based on U. S. Census figures, “In 1998, adults ages 55 and older represented 12 percent of the American workforce. Twenty years later, this group represents 23 percent of the workforce, the largest labor force share of any age group. By 2028, nearly one in three people between the ages of 65 and 74 are expected to remain in the labor force, and more than 12 percent of people 75 and older will still be working, roughly tripling the rate at which the oldest Americans were working two decades ago.”⁴²⁰

NOTE: In 2008, the labor force participation rate for employees 65 and older in Virginia was 16%.⁴²¹ In 2017 the U.S. Senate’s Special Committee on Aging noted that the average labor force participation rate of employees 65 years and older in the South Atlantic states, including Virginia, was 17.9%.⁴²²

The U.S. Census estimates that Virginia’s population as of July 1, 2019 was 8,535,519, and that 15.4% (1,314,469) of Virginia’s population was 65 years or older.⁴²³

A labor force participation rate for those 65 and older in Virginia of 17.9% would equate to 235,289 elderly employees.

A study by SeniorLiving.Org looked “at the jobs that are most common for seniors, how have their labor force participation rates changed over time, and what impacts might arise from the COVID-19 crisis.” Key findings include:

- In all 50 states and the District of Columbia, at least 20 percent of adults ages 65 to 74 are in the workforce. In seven states, more than 30 percent are working.
- Since 2013, 46 of 51 had seen increases in workforce participation of 75-and-older residents. Seven states posted 20 percent gains, including Vermont, West Virginia, Maine, Georgia, Michigan, Rhode Island and Connecticut.
- Seniors represent significant portions of the workforce for many professions that require close contact with others, including bus drivers, ushers, ticket takers, taxi drivers, street vendors, chiropractors, dentists, barbers and many more.

Additionally, current data suggest a disproportionate burden of illness and death among racial and ethnic minority groups. A recent CDC MMWR report including racial and ethnic data from 580 hospitalized lab-confirmed COVID-19 patients found

⁴²⁰ <https://www.seniorliving.org/research/senior-employment-outlook-covid/>

⁴²¹ [http://sfc.virginia.gov/pdf/health/2008%20Session/August%2020%20mtg/HHR%20-%20Perrone%20-%20UVA%20-%208.20.08%20\(B&W\).pdf](http://sfc.virginia.gov/pdf/health/2008%20Session/August%2020%20mtg/HHR%20-%20Perrone%20-%20UVA%20-%208.20.08%20(B&W).pdf)

⁴²² <https://www.aging.senate.gov/imo/media/doc/Aging%20Workforce%20Report%20FINAL.pdf>, p. 12.

⁴²³ <https://www.census.gov/quickfacts/fact/table/VA#>

45% of individuals for whom such data was available were white, compared to 59% of individuals in the surrounding community.

Instead, 33% of hospitalized patients were black, compared to 18% in the community at large – suggesting an overrepresentation of blacks among hospitalized patients. New York City identified death rates among Black/African American persons (92.3 deaths per 100,000 population) and Hispanic/Latino persons (74.3) that were substantially higher than that of white (45.2) or Asian (34.5) persons. The CDC states studies are underway to confirm and understand this data.⁴²⁴

The CDC postulates that part of the reason for this disparity is that nearly 25% of African American and Hispanic workers are employed in essential industries, compared to 16% of non-Hispanic whites. These minority workers tend to be without paid sick leave, and may be more likely to continue to work even when they are sick.

Other factors postulated include the disproportionate lack of access to health insurance, long-standing distrust of the health care system, language barriers, financial implications, serious underlying health conditions (higher prevalence of chronic conditions), stigmatization, and other systemic inequalities.⁴²⁵

Almost 40% of the population of Virginia are from a racial minority.⁴²⁶

The Bureau of Labor Statistics (BLS) conducted an analysis of employment statistics entitled “How many workers are employed in sectors directly affected by COVID-19 shutdowns, where do they work, and how much do they earn?”⁴²⁷ The report looked at “six of the most directly exposed sectors include: Restaurants and Bars, Travel and Transportation, Entertainment (e.g., casinos and amusement parks), Personal Services (e.g., dentists, daycare providers, barbers), other sensitive Retail (e.g., department stores and car dealers), and sensitive Manufacturing (e.g., aircraft and car manufacturing).”

⁴²⁴ <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>

⁴²⁵ *Id.*

⁴²⁶ <https://www.census.gov/quickfacts/VA>

⁴²⁷ <https://www.bls.gov/opub/mlr/2020/article/covid-19-shutdowns.htm>

In all, 20.4 percent of all workers are employed in industries most immediately affected by the COVID-19 shutdowns”⁴²⁸:

Table 1. Industry statistics, by firm size class

Firm size (number of employees)	Total	All other	Most exposed sectors						
			Restaurants and bars	Travel and transportation	Entertainment	Personal services	Other sensitive retail	Sensitive manufacturing	Most exposed sectors combined
Employment levels in June 2019 (thousands)									
10 or less	14,139.9	10,813.4	1,124.6	140.1	209.2	845.7	779.8	227.1	3,326.5
11 to 50	22,257.7	14,994.6	4,022.0	545.2	541.1	743.5	961.4	449.9	7,263.1
51 to 100	10,572.4	7,644.2	1,533.8	198.5	294.7	100.9	556.5	243.8	2,928.2
101 to 500	25,483.5	20,893.5	1,668.0	558.9	642.0	146.2	830.9	744.0	4,590.0
More than 500	77,528.8	65,076.8	3,925.1	2,050.6	957.0	249.9	3,419.9	1,849.5	12,452.0
Total	149,982.3	119,422.5	12,273.5	3,493.3	2,644.0	2,086.2	6,548.5	3,514.3	30,559.8
Total wages paid in second quarter 2019 (billions of dollars)									
10 or less	\$144.894	\$120.886	\$5.183	\$0.926	\$1.951	\$7.731	\$5.844	\$2.373	\$24.008
11 to 50	242.971	194.789	19.428	3.350	2.581	7.412	9.954	5.457	48.182
51 to 100	132.246	108.932	8.192	1.674	1.649	1.010	7.550	3.239	23.314
101 to 500	358.286	314.502	8.519	5.413	5.783	1.453	12.052	10.564	43.784
More than 500	1,240.032	1,121.793	20.876	27.118	8.879	2.259	24.403	34.704	118.239
Total	2,118.429	1,860.902	62.198	38.481	20.843	19.865	59.803	56.337	257.527

Note: Firms are identified by Employer Identification Number.

Source: Authors' calculations based on U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages data for June and second quarter 2019. The North American Industry Classification System codes used to define the most exposed sectors can be found in Joseph S. Vavra, "Shutdown sectors represent large share of all U.S. employment" (Chicago, IL: Becker Friedman Institute for Economics at the University of Chicago, March 31, 2020), <https://bfi.uchicago.edu/insight/blog/key-economic-facts-about-covid-19/>.

⁴²⁸ *Id.*

“Older adults make up a large percentage of many of the jobs in these industries. For example, nearly half of bus drivers are older than 55, while almost 1 in 5 ticket takers and ushers are 65 or older. And although the BLS didn’t specifically call them out, farmers have also been impacted by the toll of the virus, with both prices of commodities and consumption declining. The median age of farmers and ranchers in the U.S. is 56.1 years old.”⁴²⁹



⁴²⁹ <https://www.seniorliving.org/research/senior-employment-outlook-covid/>

“When it comes to specific job titles, a few roles are much more common for older adults than for others. For example, nearly 80 percent of funeral service managers are 55 and older, compared to much more physical roles like fence builders (7.3 percent) or lifeguards (5.8 percent).”⁴³⁰



Percentage of workers 55 and older by job and age group (Top 10)

Age Group: 55-64

Heat treating equipment setters and operators	50%
Cleaning, washing and metal pickling equipment operators	50%
Financial examiners	48%
Funeral service managers	46%
Agricultural inspectors	44%
Electrical / electronics installers / repairers (transportation equipment)	43%
Furnace, kiln, oven, drier and kettle operators	41%
Atmospheric and space scientists	40%
Model makers and patternmakers (metal and plastic)	40%
Textile machine setters and operators	40%

Age Group: 65+

Shoe and leather workers and repairers	43%
Motor vehicle operators	39%
Legislators	37%
Models, demonstrators and product promoters	34%
Embalmers and funeral attendants	33%
Funeral service managers	31%
Farmers and ranchers	31%
Etchers and engravers	25%
Crossing guards	25%
Nuclear engineers	25%

⁴³⁰ *Id.*

Finally, the CDC conducted a study of “Selected health conditions and risk factors, by age: United States, selected years 1988–1994 through 2015–2016”⁴³¹ of the general population. Although the working population of the country is only a subset of the totals for the table, the data nonetheless demonstrates the significant risk that SARS-CoV-2 and COVID-19 related hazards pose to the U.S. and Virginia workers. Using the age adjusted statistical totals:

- 14.7% of the population suffer from diabetes,
- 12.2% from high cholesterol
- 30.2% suffer from hypertension
- 39.7% suffer from obesity

Table 21. Selected health conditions and risk factors, by age: United States, selected years 1988–1994 through 2015–2016

Excel version (with more data years and standard errors when available): https://www.cdc.gov/nchs/hus/contents2018.htm#Table_021.

[Data are based on interviews, physical examinations, and laboratory data of a sample of the civilian noninstitutionalized population]

Health condition	1988–1994	1999–2000	2001–2002	2003–2004	2005–2006	2007–2008	2009–2010	2011–2012	2013–2014	2015–2016
Diabetes¹										
Percent of adults aged 20 and over										
Total, age-adjusted ²	8.8	10.0	11.6	11.8	11.5	12.6	12.5	12.7	13.1	14.7
Total, crude	8.3	9.6	11.2	11.8	11.9	13.0	13.2	13.4	14.0	16.0
Hypercholesterolemia³										
Total, age-adjusted ⁴	22.8	25.5	24.6	27.9	27.4	27.6	27.2	28.2	27.4	26.9
Total, crude	21.5	24.5	24.2	27.9	28.1	28.8	28.6	30.4	29.3	29.6
High total cholesterol⁵										
Total, age-adjusted ⁴	20.8	18.3	16.5	16.9	15.6	14.2	13.2	12.7	11.1	12.2
Total, crude	19.6	17.7	16.4	17.0	15.9	14.6	13.6	13.1	11.1	12.5
Hypertension⁶										
Total, age-adjusted ⁴	25.5	30.0	29.7	32.1	30.5	31.2	30.0	30.0	30.8	30.2
Total, crude	24.1	28.9	28.9	32.5	31.7	32.6	31.9	32.5	33.5	33.2
Uncontrolled high blood pressure among persons with hypertension⁷										
Total, age-adjusted ⁴	77.2	71.9	68.3	63.8	63.0	56.2	55.7	54.6	51.3	59.7
Total, crude	73.9	69.1	65.4	60.8	56.6	51.8	46.7	48.0	46.1	51.5
Overweight or obesity⁸										
Total, age-adjusted ⁴	56.0	64.5	65.6	66.4	66.9	68.1	68.8	68.6	70.4	71.3
Total, crude	54.9	64.1	65.6	66.5	67.3	68.3	69.2	69.0	70.7	71.6
Obesity⁹										
Total, age-adjusted ⁴	22.9	30.5	30.5	32.3	34.4	33.7	35.7	34.9	37.8	39.7
Total, crude	22.3	30.3	30.6	32.3	34.7	33.9	35.9	35.1	37.9	39.8
Untreated dental caries¹⁰										
Total, age-adjusted ⁴	27.7	24.4	21.3	29.8	24.4	21.7	---	25.5	31.5	26.1
Total, crude	28.2	25.0	21.7	30.2	24.5	21.8	---	25.5	31.3	25.9
Obesity¹¹										
Percent of persons under age 20										
2–5 years	7.2	10.3	10.6	14.0	11.0	10.1	12.1	8.4	9.4	13.9
6–11 years	11.3	15.1	16.3	18.8	15.1	19.6	18.0	17.7	17.4	18.4
12–19 years	10.5	14.8	16.7	17.4	17.8	18.1	18.4	20.5	20.6	20.6
Untreated dental caries¹⁰										
5–19 years	24.3	23.6	21.2	25.6	16.2	16.9	14.6	17.5	19.6	14.3

⁴³¹ <https://www.cdc.gov/nchs/data/hus/2018/021.pdf>

NOTE: Virginia's Adult Reported Diabetes Rate in 2019 was 10.5%.⁴³²

Virginia's Hypertension Rate in 2015 was 33.2%⁴³³

Virginia's Adult Reported High Cholesterol Rate⁴³⁴ in 2019 was 33%.⁴³⁵

Virginia's Adult Reported Obesity Rate⁴³⁶ in 2019 was 30.3%.⁴³⁷

Employees, particularly those in high risk age and medical categories, would benefit from increased safety and health protections provided by a comprehensive regulation to address SARS-CoV-2 and COVID-19 related hazards. Employees in the affected industries would have to be trained on the requirements of any new regulation.

E. Impact on the Department of Labor and Industry.

No significant impact is anticipated on the Department. VOSH employees would be trained on the requirements of any new regulation. A VOSH Compliance Directive on Inspection and Enforcement Procedures would be developed by staff. Training and outreach products would be developed by VOSH Cooperative Programs staff and made available to the regulated community, employees, and the general public.

Written Comments:

Submit written comments between the dates of June 12 – 22, 2020 at:

<https://townhall.virginia.gov/L/ViewNotice.cfm?GNid=1118>

Contact Person:

Mr. Jay Withrow
Director, Division of Legal Support, ORA, OPPPI, and OWP
jay.withrow@doli.virginia.gov

⁴³² https://www.americashealthrankings.org/explore/annual/measure/High_Chol/state/VA

⁴³³ <https://www.vdh.virginia.gov/content/uploads/sites/65/2018/05/VA-Heart-Disease-FactSheetFINAL.pdf>

⁴³⁴ Percentage of adults who reported having their cholesterol checked and were told by a health professional that it was high.

⁴³⁵ https://www.americashealthrankings.org/explore/annual/measure/High_Chol/state/VA

⁴³⁶ Percentage of adults with a body mass index of 30.0 or higher based on reported height and weight (pre-2011 BRFSS methodology).

⁴³⁷ <https://www.americashealthrankings.org/learn/reports/2019-annual-report/state-summaries-virginia>

Attachment A

On April 23, 2020, the Commissioner of Labor and Industry received a petition from the Virginia Legal Aid Justice Center (LAJC), Community Organizing, and Community Solidarity with the Poultry Workers organizations to enact an emergency regulation to address COVID-19 related workplace hazards in the poultry processing and meatpacking industries.

Attachment B

On May 6, 2020, the Commissioner received a follow-up letter from the same petitioners.

Attachment C

Amended Executive Order Number Sixty-One (2020) and Amended Order of Public Health Emergency Three Phase One Easing of Certain Temporary Restrictions Due to Novel Coronavirus (COVID-19), Expansion of Permitted Activities at Beaches in the City of Virginia Beach

Attachment A

On April 23, 2020, the Commissioner of Labor and Industry received a petition from the Virginia Legal Aid Justice Center (LAJC), Community Organizing, and Community Solidarity with the Poultry Workers organizations to enact an emergency regulation to address COVID-19 related workplace hazards in the poultry processing and meatpacking industries.



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Governor of Virginia
Patrick Henry Building
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M. Norman Oliver, MD, MA
State Health Commissioner
Virginia Department of Health
109 Governor Street
Richmond, VA 23219

Mark R. Herring
Office of the Attorney General
202 North Ninth Street
Richmond, Virginia 23219

C. Ray Davenport
Commissioner
DOLI
600 E. Main St, Suite 207
Richmond, Virginia 23219

Ronald L. Graham
VOSH Health Director
DOLI
600 E. Main St., Suite 207
Richmond, Virginia 23219

RE: Protecting Poultry Workers During the COVID-19 Pandemic

Dear Governor Northam, Commissioner Oliver, Attorney General Herring, Commissioner Davenport, and Director Graham:

We write you with urgency to request immediate protection for the Commonwealth of Virginia's poultry plant worker community during this dire health care crisis.

As workers in the food supply chain, poultry plant workers are considered essential workers, both in normal times and especially now. As this global crisis deepens, these workers are as invaluable as they are at risk. Many poultry plant workers in Virginia are highly vulnerable to COVID-19 illness because they are low-income individuals, lack access to medical care, are sometimes not fluent in English (which limits their ability to relay health concerns to employers), and work in very tight spaces in factories with hundreds of other workers.

Meat processing plants typically employ hundreds of workers who work in tight quarters with others. Meat processing is one of the most dangerous jobs in the country, with injury rates at 2.4 times the national average and occupational illness rates at 17 times the national average. These statistics illustrate the heavy burden we already place on these workers and the duty we owe to them now.

Further, these plants are located in semi-rural areas such as Harrisonburg or extremely rural areas such as Accomack, where resources are spread thin. As a result, poultry workers are much more likely to not have access to COVID-19 testing and will instead suffer in silence, or go to work even though they are symptomatic, out of both fear of losing their jobs and the necessity to keep food on their own tables.

Inaction could lead to rapid outbreaks in the processing plants, overwhelming rural health centers and quickly turning into a catastrophe. These workers' health and financial stability—and that of their families—must be unequivocally prioritized in recognition of their human rights and dignity, as well as their essential role in keeping our food system running during this emergency.

We stress that the above concerns are not merely hypothetical. Processing plants around the country are already experiencing outbreaks and are being forced to reckon with the fallout, including worker deaths.

Just this month, COVID-19 has killed four Tyson Foods poultry workers in Georgia and two in Iowa. In South Dakota, a massive Smithfield Foods swine plant was shut down after nearly 600 workers contracted the virus. **Most notably, workers indicate that most (if not all) poultry plants in the Commonwealth already have multiple workers who have tested positive for COVID-19, and that number is growing daily. Workers are dying from COVID-19 in the Commonwealth. In sum, the potential for an outbreak is ripe, and the time to act is now.**

States have broad power to protect public health and to protect workers. At present, however, there are few (if any) enforceable state or federal regulations in place to protect Virginia poultry workers. Fortunately, **federal OSHA law does not preempt or limit states from acting to protect workers from the threats of COVID-19 transmission in the workplace.** Indeed, as an OSHA “State Plan” state, **Virginia is free to promulgate its own standards regarding worker health and safety**, as long as they are at least as protective as the standards promulgated by the federal Occupational Safety and Health Administration (OSHA). And since OSHA has not adopted a federal standard that deals specifically with the workplace health and safety risks associated with COVID-19, the Virginia Occupational Safety and Health Program (VOSH) has free rein to create its own. Moreover, neither OSHA nor any other federal law would preempt state or local laws that protect whistleblowers who speak up about COVID-19 in the workplace.

Unfortunately, neither VOSH nor OSHA have issued any enforceable standards to protect workers during pandemics. Rather, only recommendations and suggested guidance have been issued, providing no oversight over employers and no protection to employees. As a State Plan state, however, **VOSH does not have to wait for OSHA to act** – it can issue enforceable emergency standards immediately in conjunction with the Governor’s office and the Attorney General’s office. *See* Va. Code § 2.2-4011; *see also* Va. Code § 32.1-13 (granting emergency rulemaking power to the State Board of Health); Va. Code § 44.146-17 (granting emergency rulemaking power to the Governor, including in cases of a communicable disease of public health threat).

In light of the above, we ask that VOSH and other state agencies immediately work with the Governor’s and Attorney General’s offices to promulgate enforceable emergency standards, as well as implement a procedure for inspections and enforcement of those standards.

For your review and consideration, we attached to this letter as Exhibit A recommended regulatory language, along with commentary. This model language is broad, and encompasses sectors beyond meat processing plants.

In addition to the requests delineated in Exhibit A, we further request that you strongly urge the General Assembly to enact emergency state legislation that applies the paid leave provisions in the federal Families First Coronavirus Response Act to employers with over 500 employees. As noted above, states have the ability to protect workers beyond what is required under federal law.

Finally, the following requested regulations are specific to the poultry and meatpacking industry:

1. To the maximum extent allowable under the law and in conformity with applicable privacy regulations, facilities must notify the local health department and facility workers immediately when an employee tests positive for COVID-19. The companies shall provide:
 - a. The department(s) and shift(s) worked by the employees testing positive for COVID-19. This is a continuing request for information if other employees test positive for the COVID-19 virus.
 - b. The names of all employees who worked in those department(s) and shift(s) on days when the COVID-19 positive employees last worked.
 - c. The date or dates last worked by the employees testing positive for the COVID-19 virus.

2. Workers who failed the temperature check shall be sent home, and be paid at their regular rate of pay.
3. Poultry and meatpacking facilities must take the following actions in order to protect the health and safety of workers at all poultry and meatpacking facilities:
 - a. Immediately shut down for a minimum of 72 hours the department(s) in which the COVID-19 positive employees worked and clean and sanitize the department in accordance with CDC recommended guidelines. Workers in these departments should be paid at their regular rate of pay during the duration of the cleaning.
 - b. Pursuant to CDC guidelines, require that any employee who worked in the same department(s) and shift(s) with the COVID-19 positive employees quarantine for 14 consecutive days. Employees shall be paid during this period of quarantine at their regular rate of pay.
 - c. Proper PPE shall be provided for all employees, including but not limited to gloves, masks, face shields, smocks and other appropriate PPE in order to prevent any transmission of the COVID-19 virus.
 - d. Install Plexiglass shielding between workstations, especially on the deboning lines where some poultry companies are currently forcing employees to work shoulder to shoulder without proper PPE.
 - e. Employers should set a schedule to ensure that all frequently touched surfaces are sanitized on a regular basis during the work day.
4. In addition to mandated daily temperature checks, as of the date of adoption of the regulations, facilities shall require mandatory COVID-19 testing of each employee. The employer shall bear the burden of the costs of such testing.

CONCLUSION

As Virginia addresses these concerns, we strive to ensure that the administration has the information and community trust needed to help implement the above requests. As such, we request a telephonic or videoconference meeting on or before Wednesday, April 29, 2020 to address the above concerns to ensure protection of all workers in Virginia (including but not limited to poultry plant workers), their families and communities, and the residents of the Commonwealth of Virginia. Finally, we acknowledge that you are exceedingly busy during this extraordinarily tasking time. As such, to the extent you would not be able to participate in such a call, we request the telephone or videoconference meeting be with the policy directors at your respective offices that are charged with oversight of the requested protections.

Sincerely,

Legal Aid Justice Center

Virginia Organizing

Community Solidarity with the Poultry Workers

Cc:

Rita Davis, Counselor to the Governor

Jessica Killeen, Deputy Counsel to the

Governor Senator Mark Warner, United States

Senate Senator Tim Kaine, United States Senate

Representative Elaine Luria, United States House of

Representatives Representative Ben Cline, United States House of

Representatives

W. Lynwood Lewis, Jr., Senate of

Virginia Mark Obenshain, Senate of

Virginia

Robert S. Bloxom, Jr., Virginia House of

Delegates Tony Wilt, Virginia House of Delegates

C. Reneta Major, Chair, Accomack County Board of Supervisors Sally Wolf Garrison, Rockingham County
Board of Supervisors William B. Kyger, Chairman, Rockingham County Supervisor

Exhibit A

Model Policy Language & Commentary

Policy Language	Commentary
Section 1. Definitions <ol style="list-style-type: none"> 5. “Worker” means any person whom an employer suffers or permits to work, and shall include independent contractors, and persons performing work for an employer through a temporary services or staffing agency. 6. “Employer” means an individual or entity that suffers or permits a person to work, and shall include contracting for the services of a person. More than one entity may be the “employer.” 7. “Hand sanitizer” means alcohol-based hand sanitizer that is at least 60% alcohol. 8. “Department” means the Department of Labor, or other state or local agency responsible for enforcing this Act. 	<ul style="list-style-type: none"> • In order to protect workers and the public during the COVID-19 crisis, it is essential that worker health and safety protections, and related protections for whistleblowers, apply broadly to all workers who regardless of how they are classified – or in many cases misclassified. • This policy therefore uses a broad definition of “worker” that includes employees (using the broad “suffer or permit” to work employment standard found in the federal Fair Labor Standards Act), but also independent contractors and employees performing work through temporary services or staffing agencies. • It also recognizes a Department chiefly charged with enforcement of the policy – which could be either the state Department of Labor or, for a municipal policy, a city or county labor or health agency. • As discussed below in the enforcement section, it also empowers a full range of law enforcement entities, including the attorney general, district attorneys, and city and county attorneys to enforce the law, recognizing that limited enforcement capacity is a major obstacle to ensuring safe workplaces. • And crucially, it authorizes workers and other whistleblowers to enforce the law through a private right of action and “qui tam” enforcement, supplementing limited government enforcement resources.
Section 2. Protecting Workers From COVID-19 <p>(b) Employers</p>	<ul style="list-style-type: none"> • Since OSHA has failed to adopt a COVID-19 standard, or any infectious disease standard, to protect workers, states and even cities, can act to adopt such standards.

<p>Employers must comply with the following measures:</p> <ol style="list-style-type: none"> (1) Social Distancing: The employer shall maintain 6 feet between workers, and between workers and customers, by using one or more of the following measures: Implementing flexible worksites (e.g., telework); Implementing flexible work hours (e.g., staggered shifts); Increasing physical space between workers at the worksite to six feet; Increasing physical space between workers and customers (e.g., drive-through, partitions, and limits to the number of customers in grocery stores , for example); Implementing flexible meeting and travel options (e.g., postpone non-essential meetings or events); Delivering services remotely (e.g. phone, video, or web); or Delivering products through curbside pick-up or delivery. Further, this should include reconfiguring spaces where workers congregate including lunch and break rooms, locker rooms and time clocks. (2) Face Masks and Plastic Face Shields: All workers shall be provided (free of charge) cotton face masks (double layer cotton) by their employer. All customers in grocery stores and pharmacies shall be required to wear face masks. Face shields shall also be made available by employers to workers. (3) Hand Sanitizing, Hand Washing and Gloves: Employers must provide hand sanitizers that are readily available in multiple locations in the workplace. Workers must have the ability to wash their hands with soap and water regularly. Gloves shall be provided by employers to workers who request them. (4) Regular Disinfection: Employers must clean and disinfect regularly all frequently touched surfaces in the workplace, such as workstations, touchscreens, telephones, handrails, and doorknobs. (5) Increase ventilation rates. Increase the percentage of outdoor air that circulates in the system. (6) Notification of Workers: If a worker is confirmed to have COVID-19 infection, the employer must inform fellow workers of their possible exposure to COVID-19 in the workplace while keeping the infected worker's identity confidential as required by the Americans with Disabilities Act (ADA). 	<ul style="list-style-type: none"> • This section outlines standards that states should adopt to protect workers. The model includes basic protections in six areas: (1) Social distancing; (2) Face masks and plastic face shields; (3) Hand sanitizing, hand washing and gloves; (4) Regular disinfection; (5) Ventilation (6) Notification of workers of illness in the workplace; and (7) Deep cleaning after confirmed cases. • This proposed standard is drawn in large part from voluntary, non-binding guidance that CDC and OSHA have issued for employers on how to protect all other essential workers. That guidance is gathered and linked to below the proposed standard. • Already states are beginning to step in to mandate some of these protections for workers during the COVID crisis – though none have yet mandated the full range of needed protections. In addition to California, New York Governor Andrew Cuomo recently issued an <u>Executive Order that requires all employers to provide essential workers with masks free of charge when interacting with the public.</u> • Cities are also now stepping in to require employers to protect workers. <u>Los Angeles now requires that delivery employers provide masks, gloves or hand sanitizers and physical distancing to workers. They have also enacted specific limits to how many customers can be in stores.</u> • The most critical guidance to follow to prevent COVID transmission in the workplace, is social distancing —physical distancing of workers from the public and from one another. • Equally important, face masks are recommended by CDC to help those who are infected with the virus and do not know it (those who are asymptomatic or pre-symptomatic) from spreading the virus to others. It is well established that there is significant risk of transmission from asymptomatic and presymptomatic individuals. CDC states: “It is critical to emphasize that maintaining six feet social distancing remains important to slowing the spread of the virus. CDC is additionally advising the use of simple cloth face coverings to slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others.” • Because not all cotton face masks provide equal protection, face shields are also being provided
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<p>(7) Deep Cleaning after Confirmed Cases: If a worker is suspected or confirmed to have COVID-19, the employer shall close off workplace areas visited by the ill person. Open outside doors and windows and use ventilating fans to increase circulation in the area. Wait 24 hours or as long as practical, and then conduct cleaning and disinfection as directed by CDC Cleaning and Disinfection for Community Facilities guidelines.</p> <p>References: https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html; https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html (employers must provide masks that are at least as protective as the more protective masks made from two layers of cotton sheet); https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html; https://www.osha.gov/Publications/OSHA3990.pdf</p>	<p>in grocery stores and other workplace, and should be required for all such workers. Further, as N95 respirators become more available (now being prioritized during the shortage for use among the most at risk health care workers) states can require these for all workers interacting with the public or who work in workplaces where social distancing is not always followed. All equipment must be provided free of charge to workers.</p> <ul style="list-style-type: none"> Note that unfortunately CDC weakened its guidance on when COVID-19 exposed workers should return to work. The new guidance, which allows exposed workers to return with just masks and some other precautions is very dangerous. Many state health departments have rejected this guidance- including Minnesota and <u>New York. States must make sure employers do not follow this guidance— but instead require COVID-19 exposed workers to quarantine for 14 days.</u>
<p>Section 3. Whistleblower Protection</p> <p>(a) No employer or other person shall discriminate or take adverse action against any worker or other person who raises any concern about infection control related to COVID-19 to the employer, the employer's agent, other workers, a government agency, or to the public such as through print, online, social, or any other media.</p> <p>(b) No employer shall discriminate or take adverse action against a worker who voluntarily brings in and wears his or her own personal protective equipment, such as a mask, faceguard, or gloves, if such equipment is not provided by the employer.</p> <p>(c) If an employer or other person takes an adverse action against a worker or other person within 90 days of the worker or person's engagement or attempt to engage in activities protected by this Section, such conduct shall raise a presumption that the action is retaliation in violation of this act. The presumption may be rebutted by clear and convincing evidence that the action was taken for other permissible reasons.</p>	<ul style="list-style-type: none"> Workers must feel free to speak up about threats to their health and safety from COVID-19. Their voice must be protected in order to mitigate the spread of the virus. We have also seen front line health care works being retaliated against, and fired, for bringing in their own equipment when the employer cannot provide adequate protection. Providing workers with a private right of action so that they may go to court if they are retaliated against is critical for ensuring workers are protected. Similarly, most existing state whistleblower protections only narrowly protect workers from retaliation for filing formal complaints – and don't protect them from being punished for complaining informally to employers, or notifying fellow workers or the public about workplace threats. It is essential that whistleblower protections be expanded to protect that full range of communication, which is essential for publicizing and addressing serious workplace threats.

	<ul style="list-style-type: none"> • This model also includes a rebuttable presumption that any adverse action taken against an employee or person within 90 days of protected activity is retaliatory. Such a presumption is an effective approach for protecting whistleblowers and has been incorporated into state and local wage theft laws.
<p>Section 4. Refusal to Work Under Dangerous Conditions</p> <p>(a) A worker shall have the right to refuse to work under conditions that the worker reasonably believes would expose him or her, other workers or the public to an unreasonable risk of illness or exposure to COVID-19.</p> <p>(b) An employer shall not discriminate or take adverse action against a worker for a good faith refusal to work if the worker has requested that the employer correct such a condition and the condition remains uncorrected.</p> <p>(c) A worker who has refused in good faith to work under such a condition and who has not been reassigned to other work by the employer shall, in addition to retaining a right to continued employment, shall continue to be paid by the employer for the hours that would have been worked until such time as the employer can demonstrate that the condition has been remedied.</p> <p>(d) If an employer or other person takes an adverse action against a worker or other person within 90 days of the worker or person's engagement or attempt to engage in activities protected by this Section, such conduct shall raise a presumption that the action is retaliation in violation of this act. The presumption may be rebutted by clear and convincing evidence that the action was taken for other permissible reasons.</p>	<ul style="list-style-type: none"> • Workers should not have to choose between their lives and their paycheck. • While OSHA rules protect this right on paper, they are weak at best and are largely unenforced. • It is therefore urgent that states and cities step to ensure that workers may refuse to work under dangerous conditions without being subject to retaliation – and that they continue to be paid so long as the dangerous workplace condition remains unremedied. • This right to be free from retaliation should, like the whistleblower protections detailed above, include a rebuttable presumption that any adverse action taken against an employee or person within 90 days of protected activity is retaliatory.
<p>Section 5. State Unemployment Insurance Benefits for Separating from Work Because of Dangerous Conditions</p> <p>Notwithstanding any other provisions of chapter X [the state Unemployment Insurance law]:</p>	<ul style="list-style-type: none"> • State unemployment insurance laws should be amended to clarify that workers have good cause to quit -- and therefore should be eligible for unemployment insurance benefits -- if their

<p>(a) A claimant who has left his or her employment, or had their hours reduced after they refused to work because their employer maintained and failed to cure a health or safety condition that made the environment unsuitable, or because the claimant needed to care for a sick or quarantined family member, shall be deemed constructively discharged and eligible for benefits.</p> <p>(b) In a public health emergency, no claimant shall be required to prove that an unreasonable condition created a risk unique to them. Nor shall a claimant be required to prove that the risk was not customary to their occupation.</p> <p>(c) The claimant shall not be subject to traditional exhaustion requirements, but shall be deemed to have exhausted alternatives if he or she notified the employer and the employer refused to cure, if another employee notified the employer and the employer refused to cure, or if the employer had or should have had reason to know that the condition made the work environment unsuitable and did not cure it.</p> <p>(d) In a public health emergency, when processing a claim for benefits for a worker who has quit for a health/safety-related reason, the worker shall be entitled to a presumption that he or she left their job for good cause, and the agency shall interpret any other existing statutory or regulatory requirement accordingly.</p>	<p>employer requires them to work under conditions that they believe would threaten their health and safety. Furthermore, good cause quits should include work assignments that violate workers' health and safety, and a workers' need to care for quarantined or sick family members.</p> <ul style="list-style-type: none"> • While permanent reform of state unemployment insurance rules generally requires legislative action, in many states governors can – and in <u>Michigan, Kentucky and Georgia are beginning to – adopt modifications to their unemployment insurance rules under their emergency powers. In many states, governors likely could adopt this crucial reform temporarily using those powers. Cities, however, cannot reform state unemployment insurance systems.</u>
<p>Section 6. Presumption of State Worker's Compensation Coverage for All Workers</p> <p>For purposes of workers compensation coverage under chapter X [the state workers' compensation law], a worker who contracts COVID-19 is presumed to have an occupational disease arising out of and in the course of employment if the worker is a worker of a health care and emergency responder employer, or a front-line worker, including workers of grocery stores and pharmacies, food beverage, cannabis production and agriculture, organizations that provide charitable and social services, gas stations and businesses needed for transportation, financial institutions, hardware and supplies stores, critical trades, mail, post, shipping, logistics, delivery, and pick-up services, educational institutions, laundry</p>	<ul style="list-style-type: none"> • Workers' compensation provides a crucial source of healthcare coverage and income support for sick workers. Importantly, workers' compensation coverage is broadly available to all sick workers, regardless of factors such as immigration status. • During the COVID-19 crisis, states should ensure that COVID-19 and any associated quarantine are covered by the state workers' compensation program. • Governors and legislatures in some states are already acting to clarify or expand workers' compensation eligibility for COVID-19 illness through orders issued under their emergency

<p>services, restaurants for consumption off-premises, supplies to work from home, supplies for essential businesses and operations, transportation, home-based care and services, residential facilities and shelters, professional services, day care centers, and manufacture, distribution, and supply chain for critical products and industries, media or any other worker deemed to be essential during the COVID-19 crisis.</p>	<p>powers, while other states are doing so through legislation. Cities, however, cannot reform state workers' compensation systems.</p> <ul style="list-style-type: none"> • This model language is adapted from some of these new workers' compensation reforms that have been implemented in states across the country. • The best language contains a presumption that all workers who continue to work outside of their homes are covered by workers' compensation if they become sick with COVID-19. • These changes can be implemented by legislation or governors' executive orders. It would be advisable to have the orders include a requirement for immediate payment of benefits pending resolution of individual claims (and hold harmless the claimant for benefits paid). • Illinois' Emergency COVID-19 related workers' compensation amendment is a great model with broad coverage. It contains a rebuttable presumption that any COVID-19 illness is covered. https://www2.illinois.gov/sites/iwcc/news/Documents/13APR20-Emergency-Amendment-Only-50IAC9030_70.pdf • Kentucky's governor recently adopted a similar workers' compensation coverage presumption through an executive order issue pursuant to the governor's emergency powers: https://governor.ky.gov/attachments/20200409-Executive-Order-2020-277-Workers-Compensation.pdf • Washington State's governor took steps to ensure workers compensation coverage during the COVID crisis for healthcare workers and first responders: https://www.governor.wa.gov/news-media/inslee-announces-workers-compensation-coverage-include-quarantined-health-workersfirst • Alaska passed new legislation to ensure that COVID-19 illness among health care workers and first responders is presumed to be work-related: http://www.akleg.gov/PDF/31/Bills/SB0241Z.PDF • Here is a summary of workers' compensation action by states since April 2020: https://www.iaiaabc.org/Document.asp?MODE=DOWNLOAD&DocID=8395
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<p>Section 7. Enforcement</p> <p>a. Administrative Enforcement. The Department shall enforce the requirements of this Act and shall have the authority to inspect workplaces, and to subpoena records and witnesses. Where an employer does not comply with any of them, the Department shall order relief as authorized in this Section.</p> <p>b. Private Civil Action. Where an employer does not comply with any requirement of this Act, an aggrieved worker or other person, may bring a civil action in a court of competent jurisdiction within three years of an alleged violation and, upon prevailing, shall be awarded the relief authorized in this section. Pursuing administrative relief shall not be a prerequisite for bringing a civil action.</p> <p>c. Other Government Enforcement. The attorney general, a district attorney, or a city or county attorney may also enforce the requirements of this Act, acting in the public interest, including the need to deter future violations. Such law enforcement agencies may inspect workplaces and subpoena records and witnesses and, where they determine that a violation has occurred, may bring a civil action as provided in Section 7(b).</p> <p>d. Relief. In a civil action or administrative proceeding brought to enforce this Act, the court or the Department shall order relief as follows:</p> <ol style="list-style-type: none"> i. For any violation of any provision of this Act: <ol style="list-style-type: none"> i. An injunction to order compliance with the requirements of this Act and to restrain continued violations, including through a stop-work order or business closure; ii. Payment to a prevailing worker by the employer of reasonable costs, disbursements, and attorney's fees; and iii. Civil penalties payable to the state or city of not less than \$100 per day per worker affected by any noncompliance with the provisions of this chapter. 	<ul style="list-style-type: none"> • Strong enforcement of these important new protections is crucial in order for them to be effective. This proposed policy includes key components detailed below that are essential for strong enforcement. For an even more comprehensive model bill detailing the full range of state-of-the-art protections against retaliation, see NELP, Model Bill to Protect Workers Who Experience Wage Theft from Retaliation (Sept. 2019). • This proposal provides four distinct avenues for enforcement, to ensure maximum flexibility and empower a range of public and private actors to serve as watch dogs and fill the enforcement gap. • First, it authorizes administrative enforcement by the state or local Labor Department – the agency chiefly responsible for implementation and enforcement. • Second, it provides for a private right of action which is especially important to enforce worker whistleblower protections and the right to still be paid while refusing to work under dangerous conditions, together with attorney’s fees and other remedies to make it realistic for low-wage workers to hire lawyer to help them enforce their rights. Given limited government enforcement capacity, a private right of action is crucial for ensuring meaningful enforcement – and is a key gap in OSHA’s enforcement system. • Third, it empowers the full range of public enforcement officers, including the Labor Department, the state attorney general, district attorneys, and city and county attorneys to bring actions to enforce the law. Public enforcement by the full range of law enforcement entities can help fill the enforcement gap left by OSHA’s failure to act during the COVID crisis. • Fourth, it authorizes "qui tam" enforcement to enlist whistleblowers in holding companies accountable, expand limited public enforcement capacity, and ensure that workers who are <u>blocked by forced arbitration clauses from bringing private suits can play a powerful role in enforcement.</u>
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<p>ii. For any violation of Sections 3 and 4 of this Act protecting whistleblowers and workers' right to refuse to work under dangerous conditions:</p> <ul style="list-style-type: none"> i. Reinstatement of the worker to the same position held before any adverse personnel action, or to an equivalent position, reinstatement of full fringe benefits and seniority rights, and compensation for unpaid wages, benefits and other remuneration, or front pay in lieu of reinstatement; and ii. Compensatory damages payable to the aggrieved worker equal to the greater of \$5,000 or twice the actual damages, including but not limited to unpaid wages, benefits and other remuneration. <p>e. Qui tam enforcement. The relief specified in subdivision (d)(i) of this section may be recovered through a civil action brought on behalf of the Department in a court of competent jurisdiction by a whistleblower, defined herein as a worker, contractor, or employee of a contractor of the employer, or by a representative nonprofit or labor organization designated by said person, pursuant to the following procedures:</p> <ul style="list-style-type: none"> i. The whistleblower shall give written notice to the Department of the specific provisions of this Act alleged to have been violated. The whistleblower or representative organization may commence a civil action under this subsection if no enforcement action is taken by the Department within 30 days. ii. Civil penalties recovered pursuant to this subsection shall be distributed as follows: 70 percent to the Department for enforcement of this act, with 25 percent of that amount reserved for grants to community organizations for outreach and education about worker rights under this Act; and 30 percent to the whistleblower or representative organization. iii. The right to bring an action under this section shall not be impaired by any private contract. A public enforcement 	<ul style="list-style-type: none"> • For remedies, it authorizes the full range of necessary relief. • For violations of the workplace protection standards: injunctive relief, civil penalties payable to the state, and attorneys' fees to make it economically realistic for low-wage workers to find attorneys to represent them. • For violations of the whistleblower and right-to-refuse to work under dangerous conditions provisions: the above plus reinstatement or "front pay" in lieu of reinstatement, unpaid wages and benefits, and compensatory damages equal to the greater of \$5,000 or twice any unpaid wages, to provide a strong deterrent against employers punishing whistleblowers during this time when public health and safety depend on workers' being able to speak up.
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action shall be tried promptly, without regard to concurrent adjudication of private claims.	
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Attachment B

On May 6, 2020, the Commissioner received a follow-up letter from the same petitioners.

May 6, 2020

Governor Ralph Northam
Governor of Virginia
Patrick Henry Building
1111 East Broad Street
Richmond, VA 23219

M. Norman Oliver, MD, MA
State Health Commissioner
Virginia Department of Health
109 Governor Street
Richmond, VA 23219

Ellen Marie Hess
Commissioner
Virginia Employment Commission
6606 West Broad St.
Richmond, VA 23230

C. Ray Davenport
Commissioner
DOLI
Main Street Centre
600 East Main Street
Suite 207
Richmond, Virginia 23219

Ronald L. Graham
VOSH Health Director
DOLI
600 E. Main St., Suite 207
Richmond, Virginia 23219

Mark R. Herring
Office of the Attorney General
202 North Ninth Street
Richmond, VA 23219

Re: Protecting Farmworkers and Poultry Workers during the COVID-19 Pandemic

Dear Governor Northam, Commissioner Oliver, Commissioner Hess, Commissioner Davenport, Director Graham, and Attorney General Herring:

We write to follow up on our March 30, 2020 letter requesting rulemaking and immediate protection for the Commonwealth's farmworker and migrant worker community during this dire health care crisis, and our April 23, 2020 letter requesting rulemaking and protections for the poultry and meatpacking worker community.

The Present and Looming Crisis for Farmworkers and Poultry Workers in the Commonwealth

As we have noted, migrant and poultry workers are plainly essential workers, but they are also highly vulnerable to COVID-19, particularly in light of their lack of access to medical care, health insurance, or, for migrant workers, personal transportation, their incredibly close-quartered living and working conditions, and their often limited English proficiency (leaving them less likely to have access to testing or treatment). Virginia depends heavily on the work of migrant and poultry workers to feed the Commonwealth and the world. These workers are traditionally and historically exploited and ignored.

In our prior communications, we requested proactive measures and rulemaking to protect the public health of all Virginians and the farmworker and poultry worker community. Our March 30 and April 23 letters are attached for your reference.

The Commonwealth has not Enacted Enforceable COVID Protections for Farmworkers

We were encouraged to have a call scheduled so soon after we sent the March 30 letter and were hopeful to see the Commonwealth enact measures that would help curb the negative impact of COVID-19 on our farmworker community.

Unfortunately, we have not seen anything issued beyond recommendations, many of which seem untenable or shift the burden to the workers, and none of which can be enforced if the employer does not follow them. By way of example, VDH recommends employers separate beds by at least six feet, despite there not being sufficient room in much of the worker housing we have observed to do so adequately. Similarly, VDH recommends having transportation set up to keep workers at least six feet apart (or, at far less than 6 feet apart, in every other seat). Given our experience, however, we question whether this recommendation will be implemented, given the lengthy drives that often must be taken in normally packed buses. VDH also recommends that employers only monitor symptoms for the first fourteen days after the workers arrive in Virginia, and says after that the employees “shall” self-monitor. Importantly, and as noted, none of VDH’s suggestions are mandatory, meaning employers can take or leave whatever they desire. With no stick, employers are less likely to implement burdensome measures.

The Commonwealth has not Enacted Enforceable COVID Protections for Poultry Workers

We were heartened to see Governor Northam address the current crisis surrounding poultry workers in his April 27 press conference. It is encouraging to see that the CDC was being deployed to the Eastern Shore to assist in compliance at the plants. Moreover, as a general matter, we are not blind to the tremendous pressure on the Governor’s office and all agencies of the Commonwealth during this crisis.

As a preliminary matter regarding the response, however, we note that the CDC should be similarly deployed to the Commonwealth’s Shenandoah Valley to investigate the plants in and around Harrisonburg, as it was to the Shore. More than ten thousand workers work in the Valley’s plants are similarly suffering, worrying, and, in some instances, dying due to COVID-19. Health statistics support this notion, and probably do not even account for the full scope of the issue in the plants. For every measure that the Commonwealth is taking for workers on the Shore, it should be taking measures for workers in the Valley. This includes, but is not limited to, provision of information to the community regarding accurate numbers for positive tests in plants.

Moreover, the substantive action items fall substantially short of what poultry workers need the government to do to protect them. As noted in our April 23 letter, Virginia operates its own occupational safety and health plan and does not fall under the purview of OSHA (VOSH’s regulations must be at least as protective as OSHA’s, but OSHA does not have enforcement power in Virginia). Further, OSHA has only issued guidance, which carries no enforcement mechanism even in federal plan states. VOSH must go farther and promulgate enforceable regulations.

Other States are Proactively Taking Enforceable Measures to Protect Vulnerable Workers

By contrast, other state governments are implementing measures to protect workers. By way of example, last week, new temporary regulations were enacted by the Oregon Occupational Safety and Health Administration that require farms to maintain social distancing during work, break and meal periods, as well as in employer-provided transportation and housing. Moreover, the Wisconsin Department of Health Services issued an Emergency Order mandating agricultural employers take certain steps to stem the spread of COVID-19 at their camps. Importantly, these requirements are enforceable, thereby penalizing any employer who disregards the regulations and orders.

This week, Oregon released \$12 million in emergency housing funds. Of those funds, according to the *Oregonian*, “a large chunk will be dedicated to safely housing migrant and seasonal farmworkers, most of whom usually stay in dormitory-style housing provided by the farm.”

In California, the state government has created a \$75 million dollar Disaster Relief Fund to help support undocumented immigrants, who are largely ineligible for other resources. They are also ensuring that all residents, including undocumented immigrants can receive testing, evaluation, and treatment as emergency services under Medi-Cal, California’s Medicaid program.

Additionally, on April 16, 2020, California ordered employers of Food Sector Workers, which includes agricultural workers and workers at food processing facilities, to provide two-weeks of COVID-19 Supplemental Paid Sick Leave to workers in qualifying circumstances.

Last week, Illinois issued an executive order requiring COVID-related employee protections in certain industries (including but not limited to greenhouses and nurseries), and as well as requirements for manufacturers such as required social distancing, provision of face coverings, staggering shifts, reducing line speeds, and downsizing operations in response to COVID.

The Commonwealth *Can* and *Should* do More Than Federal Law Requires to Protect Workers

The Commonwealth should be a leader on worker protections. With President Trump now issuing an Executive Order mandating meatpacking plants to continue operating, and delegating authority to the United States Department of Agriculture to expand such a declaration as it sees fit, worker health and safety is even more at risk.

To be clear: The Commonwealth can—and should—enact regulations that protect farmworkers and poultry workers over and above what federal law requires.

Virginia law grants the State Board of Health and the Governor additional powers that may be used to protect public health. The Governor has broad powers in emergencies and disasters as well, including those related to a communicable disease of public health threat. Va. Code § 44.146-17. The Governor declared COVID-19 a communicable disease of public health threat in his state-of-emergency order. VDH, moreover, has broad authority to issue orders and special regulations needed to protect public health in emergencies. *See* Va. Code § 32.1-13. It has the authority to issue mandatory requirements for employers to protect farmworkers' health, not just recommendations. VOSH and the VEC similarly should look to creative, enforceable ways to provide workers protections during the greatest health crisis of our times. **We have the opportunity to be national leaders and pave the way for workers around the country to receive the protection they deserve. During a pandemic, recommendations and guidance are not enough. Essential workers need essential, enforceable protections.**

Conclusion

Legal Aid Justice Center reiterates its requests for prompt rulemaking and emergency, enforceable measures to ensure the protection of all farmworkers and poultry workers, their families and communities, and the residents of the Commonwealth of Virginia, and asks the Commonwealth to support our most vulnerable workers in these harrowing times.

Again, we appreciate all your administration has done to date and look to your prompt response to continue to refine and improve all aspects of the Commonwealth's COVID-19 emergency planning.

Sincerely,

Legal Aid Justice
Center Virginia
Organizing
Community Solidarity with the Poultry Workers

Attachment C

Amended Executive Order Number Sixty-One (2020) and Amended Order of Public Health
Emergency Three Phase One Easing of Certain Temporary Restrictions Due to Novel Coronavirus
(COVID-19), Expansion of Permitted Activities at Beaches in the City of Virginia Beach



*Commonwealth of Virginia
Office of the Governor*

Executive Order

AMENDED NUMBER SIXTY-ONE (2020)

AND

AMENDED ORDER OF PUBLIC HEALTH EMERGENCY THREE

**PHASE ONE EASING OF CERTAIN TEMPORARY RESTRICTIONS
DUE TO NOVEL CORONAVIRUS (COVID-19)**

**Expansion of Permitted Activities at
Beaches in the City of Virginia Beach**

Importance of the Issue

On March 12, 2020, I declared a state of emergency existed in the Commonwealth due to the spread of the novel coronavirus (COVID-19), a communicable disease of public health threat. In that Order, I banned out-of-state travel for state employees, with some limited exceptions. The next day, I closed all K-12 schools for two weeks. Two days later, I ordered a statewide ban on public events of more than 100 people according to guidance from the Center on Disease Control and Prevention. On March 17, 2020, the State Health Commissioner and I issued Order of Public Health Emergency One (Health Order No. 1), later amended, which limited restaurants, fitness centers, and theaters to 10 or fewer patrons.

On March 23, 2020, I issued Executive Order 53. That Order closed certain recreational and entertainment business, limited the operations of non-essential retail businesses, restaurants and dining establishments, and banned gatherings of more than 10 people. It also closed all K-12 schools for the remainder of the academic school year and urged Virginians to stay home except for essential travel. Executive Order 55, which was issued on March 30, 2020, established a temporary Stay at Home Order unless carrying out a necessary life function and continued limiting all in-person gatherings to 10 people or fewer. It also ceased in-person instruction of less than 10 people at all institutions of higher education, restricted certain reservations at privately- owned campgrounds, and closed all public beaches except for exercising and fishing.

The objective of these actions was to slow the spread of this virulent and deadly disease. These extreme measures were necessary to save lives. By issuing the Stay at Home Order, encouraging physical distancing and teleworking, restricting businesses and gatherings, we

lowered transmission rates. These measures also prevented our healthcare systems from being overwhelmed—affording our healthcare systems and healthcare providers time to acquire the tools and resources necessary to respond to the virus. Equally as important, these measures were also necessary to prepare Virginians for the new normal of living and working in the midst of a pandemic.

Now, we must set the path forward. While Virginia’s efforts and sacrifices seem to have slowed the spread of the virus, we know it is still present. It is critical that as we begin to ease some of the restrictions in the next phase of our response, we remain vigilant, cautious, and measured. We cannot race back to the lives we led before the pandemic. The path forward will not be business as usual. We must remember to continue to practice physical distancing, to continue teleworking, whenever possible, to wash our hands frequently, to not touch our faces, and to wear face covering whenever possible. These measures, as well as the ones outlined below, are meant to make necessary ventures outside of your home *safer*, but everyone, especially those who may be more vulnerable to the virus, must understand we are all *safer at home*.

Directive

Therefore, by virtue of the authority vested in me by Article V of the Constitution of Virginia, by § 44-146.17 of the *Code of Virginia*, by any other applicable law, and in furtherance of Executive Order 51, and by virtue of the authority vested in the State Health Commissioner pursuant to §§ 32.1-13, 32.1-20, and 35.1-10 of the *Code of Virginia*, the following is ordered:

9. EASING OF BUSINESS RESTRICTIONS

a. All Businesses

Any businesses, not listed in this section, should adhere to the Guidelines for All Business Sectors expressly incorporated by reference herein *as best practices*. This guidance is located [here](#).

b. Restaurants, Dining Establishments, Food Courts, Breweries, Microbreweries, Distilleries, Wineries, and Tasting Rooms

Effective 12:00 a.m., Friday, May 15, 2020, restaurants, dining establishments, food courts, breweries, microbreweries, distilleries, wineries, and tasting rooms may operate delivery, take-out, and outdoor dining and beverage services only, provided such businesses comply with the Guidelines for All Business Sectors, and sector-specific guidance for restaurant and beverage services incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- Occupancy may not exceed the 50% of the lowest occupancy load on the certificate of occupancy, if applicable.
- No more than 10 patrons may be seated as a party.

- Tables at which dining parties are seated must be positioned six feet apart from other tables. If tables are not movable, parties must be seated at least six feet apart.
- No self-service of food (except beverages), including condiments. Condiments should be removed from tables and dispensed by employees upon the request of a customer. Buffets must be staffed by servers. For self-service beverage areas, use beverage equipment designed to dispense by a contamination-free method.
- Bar seats and congregating areas of restaurants must be closed to patrons except for through-traffic. Non-bar seating in an outdoor bar area may be used for customer seating as long as a minimum of six feet is provided between parties at tables.
- Employees working in customer-facing areas must wear face coverings over their nose and mouth at all times.
- A thorough cleaning and disinfection of frequently contacted surfaces must be conducted every 60 minutes during operation. Tabletops, chairs, and credit card/bill folders must be cleaned in between patrons.
- If any such business cannot adhere to these requirements, it must close.

c. Farmers Markets

Effective 12:00 a.m., Friday, May 15, 2020, farmers markets may reopen, provided such businesses comply with the Guidelines for All Business Sectors and the sector-specific guidelines for farmers markets incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- On-site shopping is allowed, as long as physical distancing guidelines are followed. Configure operations to avoid congestion or congregation points.
- Employees and vendors in customer-facing areas must wear face coverings over their nose and mouth at all times.
- Vendors must supply hand sanitizer stations or hand washing stations for patrons and employees.
- A thorough cleaning and disinfection of frequently contacted surfaces must be conducted.
- If any such business cannot adhere to these requirements, it must close.

d. **Brick And Mortar Retail Businesses Not Listed In Section C, Paragraph 1 (Non-Essential Retail)**

Effective 12:00 a.m., Friday, May 15, 2020, any brick and mortar retail business not listed in section C, paragraph 1 may continue to operate, provided such businesses comply with the Guidelines for All Business Sectors and the sector-specific guidance for brick and mortar retail expressly incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- Occupancy must be limited to no more than 50% of the lowest occupancy load on the certificate of occupancy.
- Employees working in customer-facing areas must wear face coverings over their nose and mouth at all times.
- If any such business cannot adhere to these requirements, it must close.

e. **Fitness and Exercise Facilities**

Effective 12:00 a.m., Friday, May 15, 2020, fitness centers, gymnasiums, recreation centers, sports facilities, and exercise facilities may reopen for outdoor activities only. Indoor activities are prohibited. Outdoor activities may be conducted provided such businesses comply with the Guidelines for All Business Sectors and the sector-specific guidelines for fitness and exercise facilities expressly incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- Patrons, members, and guests must remain at least ten feet apart during all activities.
- Hot tubs, spas, splash pads, spray pools, and interactive play features must be closed.
- Outdoor swimming pools may be open for lap swimming only and must be limited to one person per lane.
- Employees working in customer-facing areas are required to wear face coverings over their nose and mouth at all times.
- Employers must ensure cleaning and disinfection of shared equipment after each use.
- Facilities shall prohibit the use of any equipment that cannot be thoroughly disinfected between uses (e.g., climbing rope, exercise bands, etc.).
- Businesses must supply hand sanitizer stations or hand washing stations for patrons, members, and guests.

- All group outdoor activities may not have more than 10 guests, patrons, or members.
- If any such business cannot adhere to these requirements, it must close.

f. Personal Care and Personal Grooming Services

Effective 12:00 a.m., Friday, May 15, 2020, beauty salons, barbershops, spas, massage centers, tanning salons, tattoo shops, and any other location where personal care or personal grooming services are performed may reopen, provided such businesses comply with the Guidelines for All Business Sectors and the sector-specific guidelines for personal care and personal grooming services expressly incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- Occupancy may not exceed 50% of the lowest occupancy load on the certificate of occupancy with at least six feet of physical distancing between work stations and only one appointment per service provider at a time.
- Service providers and employees working in customer-facing areas must wear face coverings over their nose and mouth at all times.
- Provide face coverings for clients or ask that clients bring a face covering with them, which they must wear during the service. Limit services to only those that can be completed without clients removing their face covering.
- A thorough cleaning and disinfection of frequently-contacted surfaces must be conducted every 60 minutes in operations, while cleaning and disinfecting all personal care and personal grooming tools after each use. If that is not possible such items must be discarded.
- If any such business cannot adhere to these requirements, it must close.

g. Campgrounds

Effective 12:00 a.m., Friday, May 15, 2020, privately-owned campgrounds, as defined in § 35.1-1 of the *Code of Virginia* may reopen, provided they comply with the Guidelines for All Business Sectors and the sector-specific guidelines for campgrounds, which are expressly incorporated by reference herein. Such guidance includes, but is not limited to, the following requirements:

- A minimum of 20 feet must be maintained between units for all lots rented for short-term stays of less than 14 nights (and not owned by individuals).
- Employees working in public-facing areas are required to wear face coverings over their nose and mouth at all times.

- It is recommended that campgrounds must strongly encourage customers to wear face coverings over their nose and mouth.
- The provision of hand washing in bath houses and sanitizing stations for guests and employees.
- If any such business cannot adhere to these requirements, it must close.

h. Indoor Shooting Ranges

Effective 12:00 a.m., Friday, May 15, 2020, indoor shooting ranges may reopen, provided they comply with the following requirements:

- Occupancy must be limited to 50% of the lowest occupancy load on the certificate of occupancy with at least six feet of physical distancing between individuals at all times. Use every other lane to achieve six feet of physical distancing.
- Employees working in customer-facing areas are required to wear face coverings over their nose and mouth at all times.
- Perform thorough cleaning and disinfection of frequently contacted surfaces every 60 minutes in operation, while disinfecting all equipment between each customer use and prohibiting the use of equipment that cannot be thoroughly disinfected.
- Either thoroughly clean shared or borrowed equipment in between uses, or only allow the use of personal equipment at the range.
- It is recommended that facilities strongly encourage patrons, members, and guests to wear face coverings over their nose and mouth while in the facility.
- If any such indoor shooting range cannot adhere to these requirements, it must close.

i. Enforcement

Guidelines for All Business Sectors and the sector-specific guidelines appear [here](#). The Virginia Department of Health shall have authority to enforce section A of this Order. Any willful violation or refusal, failure, or neglect to comply with this Order, issued pursuant to § 32.1-13 of the *Code of Virginia* is punishable as a Class 1 misdemeanor pursuant to § 32.1-27 of the *Code of Virginia*. The State Health Commissioner may also seek injunctive relief in circuit court for violation of this Order, pursuant to § 32.1-27 of the *Code of Virginia*. In addition, any agency with regulatory authority over a business listed in section A may enforce this Order as to that business to the extent permitted by law.

10. CONTINUED RESTRICTIONS

a. **Certain Recreational and Entertainment Businesses**

All public access to recreational and entertainment businesses set forth below shall remain closed:

- Theaters, performing arts centers, concert venues, museums, and other indoor entertainment centers;
- Racetracks and historic horse racing facilities; and
- Bowling alleys, skating rinks, arcades, amusement parks, trampoline parks, fairs, arts and craft facilities, aquariums, zoos, escape rooms, public and private social clubs, and all other places of indoor public amusement.

b. **All Public And Private In-Person Gatherings**

All public and private in-person gatherings of more than 10 individuals are prohibited. The presence of more than 10 individuals performing functions of their employment is not a “gathering.” A “gathering” includes, but is not limited to, parties, celebrations, or other social events, whether they occur indoors or outdoors.

This restriction does not apply to the gathering of family members living in the same residence. “Family members” include blood relations, adopted, step, and foster relations, as well as all individuals residing in the same household. Family members are not required to maintain physical distancing while in their homes.

- Effective 12:00 a.m., Friday, May 15, 2020, individuals may attend religious services subject to the following requirements:
 - Religious services must be limited to no more than 50% of the lowest occupancy load on the certificate of occupancy of the room or facility in which the religious services are conducted.
 - Individuals attending religious services must be at least six feet apart when seated and must practice proper physical distancing at all times. Family members, as defined above, may be seated together.
 - Mark seating in six-foot increments and in common areas where attendees may congregate.
 - Persons attending religious services must strongly consider wearing face coverings over their nose and mouth at all times.

- No items can be passed to or between attendees, who are not family members, as defined above.
- Any items used to distribute food or beverages must be disposable, used only once, and discarded.
- A thorough cleaning and disinfection of frequently contacted surfaces must be conducted prior to and following any religious service.
- Post signage at the entrance that states that no one with a fever or symptoms of COVID-19 is permitted in the establishment.
- Post signage to provide public health reminders regarding social distancing, gatherings, options for high risk individuals, and staying home if sick.
- If religious services cannot be conducted in compliance with the above requirements, they must not be held in-person.

Further, any social gathering held in connection with a religious service is subject to the public and private in-person gatherings restriction in section B, paragraph 2. Additional suggested guidance can be found [here](#).

c. **K-12 Schools**

K-12 schools, public and private, will continue to be closed for in-person instruction for the remainder of the 2019-2020 school year. Those facilities providing child care services may remain open.

d. **Institutions of Higher Education**

Institutions of higher education shall continue to cease all in-person classes and instruction, and cancel all gatherings of more than ten individuals. For purposes of facilitating remote learning, performing critical research, or performing essential functions, institutions of higher education may continue to operate, provided that social distancing requirements are maintained.

e. **Public Beaches**

With the exception of the City of Virginia Beach, the continued closure of all public beaches as defined in § 10.1-705 of the *Code of Virginia* for all activity, except exercising and fishing. Physical distancing requirements must be followed.

Effective 12:00 a.m., Friday, May 21, 2020, and provided activities on the public beaches are conducted in compliance with the requirements linked [here](#) and [here](#),

the City of Virginia Beach may open its beaches to individual and family recreational activity, in addition to exercise and fishing.

f. Overnight Summer Camps

Overnight services of summer camps, as defined in § 35.1-1 of the *Code of Virginia*, must cease.

g. Enforcement

Violations of section B paragraphs 1, 2, 4, 5 (**with the exception of the City of Virginia Beach**), and 6 of this Order shall be a Class 1 misdemeanor pursuant to § 44-146.17 of the *Code of Virginia*.

11. CONTINUED GUIDANCE AND DIRECTION

a. Essential Retail Businesses

Essential retail businesses as set out below may remain open during their normal business hours. They should comply with the Guidelines for All Business Sectors expressly incorporated by reference and linked [here](#), as **best practices**. Employers are required to provide face coverings to employees.

- Grocery stores, pharmacies, and other retailers that sell food and beverage products or pharmacy products, including dollar stores, and department stores with grocery or pharmacy operations;
- Medical, laboratory, and vision supply retailers;
- Electronic retailers that sell or service cell phones, computers, tablets, and other communications technology;
- Automotive parts, accessories, and tire retailers as well as automotive repair facilities;
- Home improvement, hardware, building material, and building supply retailers;
- Lawn and garden equipment retailers;
- Beer, wine, and liquor stores;
- Retail functions of gas stations and convenience stores;
- Retail located within healthcare facilities;
- Banks and other financial institutions with retail functions;

- Pet and feed stores;
- Printing and office supply stores; and
- Laundromats and dry cleaners.

b. State Agencies

All relevant state agencies shall continue to work with all housing partners to execute strategies to protect the health, safety, and well-being of Virginians experiencing homelessness during this pandemic and to assist Virginians in avoiding evictions or foreclosures.

c. Face Coverings

The waiver of § 18.2-422 of the *Code of Virginia* is continued, so as to allow the wearing of a medical mask, respirator, or any other protective face covering for the purpose of facilitating the protection of one's personal health in response to the COVID-19 public health emergency declared by the State Health Commissioner on February 7, 2020, and reflected in Executive Order 51 declaring a state of emergency in the Commonwealth. Executive Order 51 remains so amended. This waiver is effective as of March 12, 2020.

d. Large State Events

Continued cancellation of all specially-scheduled state conferences and large events.

e. State Travel

Continued cessation of all official travel outside of Virginia by state employees, with increased flexibility for inter-state commuters and essential personnel.

f. Exceptions

Nothing in the Order shall limit: (a) the provision of health care or medical services; (b) access to essential services for low-income residents, such as food banks; (c) the operations of the media; (d) law enforcement agencies; or (e) the operation of government.

g. Expiration of Order

Amended Order of the Governor and State Health Commissioner Declaration of Public Health Emergency, Order of Public Health Emergency One shall expire at 11:59 p.m., on May 14, 2020.

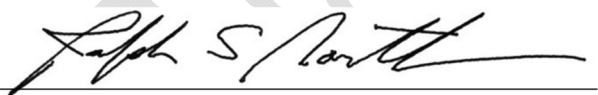
Effective Date of this Executive Order

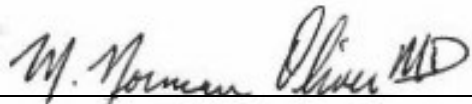
This Order shall be effective 12:00 a.m., Friday, May 15, 2020. This Order further amends

Executive Order 55 (2020). Unless otherwise expressly provided herein, this Executive Order shall remain in full force and effect until 11:59 p.m., Wednesday, June 10, 2020, unless amended or rescinded by further executive order.

Given under my hand and under the Seal of the Commonwealth of Virginia and the Seal of the Office of the State Health Commissioner of the Commonwealth of Virginia, this 19th day of May, 2020.

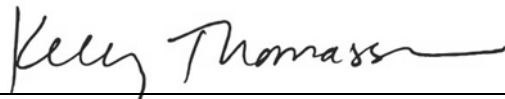






M. Norman Oliver, MD, MA
State Health Commissioner

Attest:



Kelly Thomasson, Secretary of the Commonwealth