

Training Plan for Long Term Care and Congregate Care Response Teams

Background:

In March 2020, the Richmond/Henrico Health Departments provided testing and education in the first outbreak in an LTC setting in Virginia. Within a week, LHD leadership pulled existing LHD staff to form a LTC Covid-19 response team. Over time, with support from NACCHO and CARES Act funding, we have been able to hire team members with infection control and long term care experience, as well as expand our team to have dedicated staff for other congregate care settings (group homes, homeless shelters, and jails). In our continued response efforts, we have identified the need for structured education and training for our staff to supplement existing experience and on-the-job training.

Identified Gaps:

Our infection control specialist leads our site visits, ICARs, and follow-up written facility recommendations. It is best practice that the public health nurse assigned to investigate the facility outbreak joins these site visits to ensure incorporation of IPC education into further communication. While on these site visits, our specialist has identified common gaps in knowledge which has informed the following learning objectives and training plan.

I. Covid-19 Overview

- A. Virus background

II. Prevention and Control Measures

- A. Cloth face coverings
- B. Surgical, procedural masks, respirators
- C. Disinfection

III. Transmission and Exposure

- A. Drivers for transmission in long term care settings
- B. Surface transmission
- C. Assessing exposures

Learning Objectives:

Upon completion of the training, LTC and CC team members will:

- I. Have a general understanding of the history and distinction between a Coronavirus, SARS CoV-2, and Covid-19.
- II. Have a strong understanding of the life of the virus and how this affects droplet and surface transmission.
- III. Have a practical understanding of the effectiveness of different mask types (cloth, surgical, droplet, respirators) to ensure IPC guidance is adapted to unique settings and to better assess exposure risk.
- IV. Have a strong understanding of the added risk and vulnerable nature of long term care and congregate care settings as to tailor Covid-19 infection prevention and control guidance.

- V. Be able to assess unique scenarios in congregate settings to determine level of viral exposure and make testing or quarantine recommendations.

Implementation:

We are planning the following implementation schedule:

1. Host a required 1.5 webinar training for LTC and CC team members with our IPC consultant, December 29th
 - a. Disseminate a pre-assessment to measure current knowledge
 - b. Build in “polls” to ensure understanding of content
 2. Disseminate supplemental resources, such as fliers, and recorded webinars to reiterate important topics covered in presentation. (January 11th)
 3. Host dedicated Q&A sessions with LHD infection control specialist and representatives from state epidemiological and healthcare associated infection departments. (TBD: January-March)
 - a. Outbreak Mgmt - Developing a Covid Unit
 - b. Outbreak Mgmt - Containing Covid in Small Spaces (group home focused)
 - c. Infection Prevention - Safe communal activities and dining
 - d. Infection Prevention - Good Practices post vaccine
-

IV. Covid-19 Overview

- A. Virus background
 1. How long does it survive on surfaces
 2. [How it spreads](#)
 3. [FAQ](#)

What is a Coronavirus?

1. Coronaviruses are a large group of viruses. It consists of a core of genetic material surrounded by a lipid envelope with protein spikes. This gives it the appearance of a crown. Crown in latin is ‘corona’ and that is how these viruses get their name.
2. They infect a wide range of mammals and birds. This virus originated in bats but it has developed the ability to jump between species and infect people.
3. There are different types of coronaviruses that cause different types of illnesses. In humans coronaviruses can cause respiratory infection ranging from the common cold to more severe diseases.
4. This is the third coronavirus that we know of since 2002 and it commonly causes mild respiratory illnesses. COVID-19 is a new disease caused by a novel coronavirus that has not previously been seen in humans”

SARS-CoV-2

1. The first of these viruses was called severe acute respiratory syndrome or SARS coronavirus. It emerged in Guangdong, China in 2002.

2. The second virus was known as Middle Eastern Respiratory Syndrome Coronavirus or MERS. It emerged in the middle east in 2012 and still causes human infections and small outbreaks there.
3. Most recently at the end of 2019, SARS coronavirus 2 emerged in Wuhan, China. And because the virus is similar to the virus that caused the first SARS coronavirus, it was named SARS coronavirus 2.

COVID-19

1. COVID-19 is the name for the disease causing the 2019 novel coronavirus outbreak. It stands for coronavirus disease 2019 . in COVID-19, 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly this disease was referred to as "2019 novel coronavirus" or "2019-nCoV".
2. The virus mainly targets the respiratory system and is transmitted by contact, droplets... but may cause damage to other systems

How does the virus spread?

1. Primarily spreads person-to-person via respiratory droplets from coughs or sneeze (like the flu). When an infected person coughs, sneezes, or talks, droplets aerosols carry the virus in the air from their nose and mouth. Anyone who is within 6 feet of that person can breathe it into their lungs.
2. Airborne transmission - Droplet Research shows that the virus can live in the air for up to 3 hours. It can get into your lungs if someone who is infected breathes out and you breathe that air in.
1. Surface transmission: An object covered with viral particles. Spreads by touching an object or surface with the virus on it and then touching mouth, nose, or eyes. The virus can live on surfaces like plastic and stainless steel for 2 to 3 days. This depends on the amount of droplets deposited on the surface (and is mixed with some snot and nutrients to keep it from desiccating faster) as well as the ambient temperature and humidity of the room. Mention some from the list below
 - Paper = up to 4 days
 - Wood = up to 2 days
 - Cardboard = 24 hours
 - Glass = up to 4 days
 - Copper = up to 4 hours
 - Cloth = up to 2 days
 - Aerosolized = up to 3 hours
 - Virus was stable at room temperature but became severely inactivated at a higher temperature of 70C. Lasted less than 5 minutes on surfaces at higher temperatures. (Van Doremalen and Chin)
2. [CDC](#) continues to believe, based on current science, that people are more likely to become infected the longer and closer they are to a person with COVID-19. Today's update acknowledges the existence of some published reports showing limited, uncommon circumstances where people with COVID-19 infected others who were more than 6 feet away or shortly after the COVID-19-positive person left an area. In these instances, transmission occurred in poorly ventilated and enclosed spaces that often involved activities that caused heavier breathing, like singing or exercise. Such

environments and activities may contribute to the buildup of virus-carrying particles. CDC's recommendations remain the same based on existing science and after a thorough technical review of the guidance.

Life of the virus

1. The incubation period which is the time taken from exposure to the virus and development of symptoms is on average five to six days but can range from 2 to 14 days. The virus most often spreads through people who have symptoms It take approximately 2 to 14 days (median ~ 5 days) for an infected person to show symptoms
2. People are infectious while they are most symptomatic and just before symptoms begin
 - Also spreads from people who are asymptomatic
3. There can be a range of symptoms from very mild to severe and some people may not develop symptoms at all.

What are the symptoms?

1. Common symptoms include fever, fatigue and respiratory sx's such as cough, sore throat, and SOB. Other symptoms are loss of their sense of taste, smell, and appetite, as well as hypoxia, nausea, vomiting, and diarrhea or loose stools.
2. In more severe cases there can be pneumonia, organ failure, and sometimes death.
3. About 80% of cases recover without needing special treatments.

COVID-19 in Vulnerable elder populations

1. Many elderly residents may exhibit less typical symptoms, such as altered mental status, falls or dizziness, or lack of appetite.
2. Mitigation strategies decrease infection rates and transmissibility
 - Differences that may present between:
 - i. Medicaid
 - ii. Private Pay, higher resourced

Covid-19 in Intellectually and Developmentally Disabled communities

1. Similar to the elderly population, intellectually and/or developmentally disabled individuals may exhibit symptoms such as decreased appetite, listlessness, irritability, or fatigue.
2. Mitigation strategies decrease infection rates and transmissibility
 - a. May need to be creative with mitigation strategies
 - i. It is hard to maintain 6ft with intellectually or developmentally disabled individuals
 - ii. Most individuals in this population cannot tolerate wearing masks

Virginia Demographics Data - Cases by setting, outbreaks by setting

[in slides]

V. Prevention and Control Measures

- A. Cloth face coverings: understanding effectiveness of different materials

1. Cloth masks are effective at preventing the dispersal of droplets when someone talks, coughs, or sneezes
 2. Cloth masks should have multiple layers of fabric
 3. Mask should be worn over the mouth and nose
 4. Cloth masks should be laundered regularly
 5. Cloth masks should not be worn as PPE in a healthcare setting, as they are not as effective as medical grade masks
- B. Surgical, procedural masks, respirators: difference from cloth coverings; importance
1. Surgical and procedural masks have higher filtration than cloth masks and therefore should be used in healthcare environments
 2. Surgical and procedural masks are effective protection when the COVID infected person is not receiving an aerosol generating procedure (CPAP, Bipap, jet nebulizer treatments, trach)
 3. An N95 respirator is required when patient is receiving a treatment that creates aerosols
 4. N95 masks must be fit tested for the particular wearer. Different makes and models fit differently and are not interchangeable.

VI. Transmission and Exposure

- A. Drivers for transmission in long term care settings
1. Planned social activities for resident's emotional wellness
 2. Staffing challenges
 3. Inability for some residents to wear masks due to other medical comorbidities
 4. Lack of trained infection preventionists
 5. Semi-private rooms/exposure to roommates
 6. Staff to staff transmission
 7. Close work conditions
- B. Assessing exposures
1. CDC criteria define exposure as close contact (i.e. within 6 feet), for more than 15 minutes in a 24 hour period, with someone who has COVID where
 - a) Both the COVID positive person and the personal in contact with them do not have a mask on
 - b) COVID positive person does NOT have a mask on, and the person in contact with them does not have mask AND eye protection
 2. Universal eye protection may be considered in environments where patients/residents are unable to reliably wear a mask

Example Scenarios:

1. Healthcare worker is wearing a mask and providing care to a resident who is able to wear a mask during the entire time of contact. NO EXPOSURE
2. Healthcare worker is assisting resident with activities of daily living (bathing, brushing teeth, feeding). Resident will likely not have a mask on during these activities, so healthcare worker wears eye protection. NO EXPOSURE.
3. Two residents are together in a common area and one has a mask on, but the other does not. EXPOSURE.