

# SAFETY STRATEGIES FOR RESUMPTION OF RESEARCH AT PENN

MAY 26, 2020



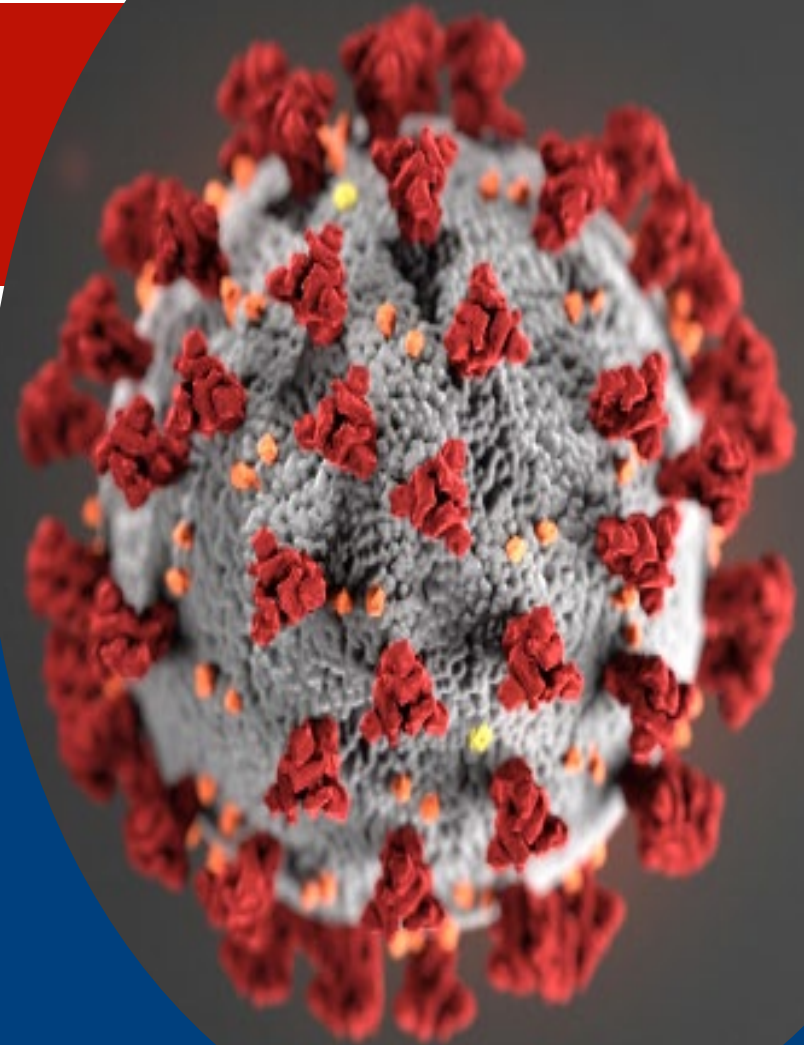
**PennEHRS**

Environmental Health & Radiation Safety

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# WHAT IS COVID 19?

- Coronavirus disease 2019, or COVID-19, is a respiratory illness.
- Signs & Symptoms may include fever (>99.8F), chills, muscle pain, cough, shortness of breath, sore throat, headaches, and sudden loss of taste and smell.
- Symptoms can appear 2-14 days after exposure to the virus that causes COVID-19.
- COVID-19 is caused by the virus SARS-CoV-2.



# COVID-19 CASES- PHILADELPHIA

- COVID-19 tests 85,142
- Confirmed cases 21,641
- 1,235 Deaths (657 (53%) in long-term care facilities)
- 4,783 hospitalized
- Testing for COVID-19 has expanded to anyone with a cough, fever, chills, sore throat, loss of taste & smell

# HOW IS THE VIRUS SPREAD?

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs, sneezes or talks. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. This is not thought to be the main way the virus spreads.
- **COVID-19 can be spread by people 1-3 days before symptoms appear.**



Image  
CDC.gov

# 6 SAFETY STRATEGIES FOR RETURNING TO CAMPUS

1. Health Self-Monitoring
2. Social Distancing
3. Mask Wearing
4. Hand Hygiene
5. Cleaning and Disinfection of Surfaces
6. COVID-19 Case Reporting and Close Contact Tracing

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #1 HEALTH SELF-MONITORING

- Self-Monitor for symptoms everyday and do not come to campus if you are sick
- Hospitals use a phone-based app
- Mass General Brigham Hospital System
  - 75,000 employees, 2/3 onsite
  - Week one=500 reported symptoms
  - Total through May=11,000 reported symptoms
  - 1,400 tested positive for COVID-19

# OUTCOMES OF HEALTH SELF-MONITORING

- Reduces (workplace) transmission
- Cultural change
  - Calling in sick is not a sign of weakness, but means you care about others!
- Awareness
  - Mild COVID-19 symptoms such as nasal congestion and runny nose
  - Close contact with a COVID-19 case

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #2 SOCIAL DISTANCING

- **Six-foot-Rule determined by:**
  - **Theoretical models, simulation studies and evidence from previous outbreaks**
- **Reproduction Ratio (R0) from a COVID-19 case is to 2 (-3) other people**
- **Exposure time matters 10-15 minutes**
- **Social distancing must be maintained even while wearing a mask**



# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #3 MASKS

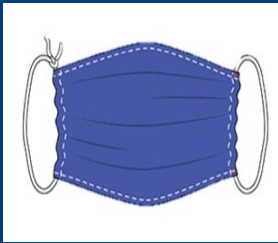
- Masks must be worn at all times at Penn except:
  - When eating/drinking and 6ft away from others
  - When seated in a private office,
  - Or in a cubicle whose sides extent above the head of the employee

# MASKS

- Basic logic with cloth face coverings and surgical-type masks= I protect you; you protect me.
- Protection from COVID-19 asymptomatic carriers and people that are infected who do not yet show symptoms or have just begun to
- Combining masks and distancing provides source control for viral transmission

# MASK COMPARISON

## Cloth Face Covering



Homemade 2-ply 100% cotton face coverings help people who may be unaware that they have the virus from transmitting it to others. To make or use follow [CDC guidance](#).

## Surgical-Style Face Masks



Masks (surgical-style) that cover the nose and mouth prevent droplets from being spread by the person wearing them.

Acceptable for Penn Universal Mask Precautions.

## Respirators (N95, N99, N100)



Tight-fitting, NIOSH-approved respirators are in limited supply and should be reserved for healthcare staff.

**Not recommended** for Penn Universal Mask Precautions.

# MASKS

- **Surgical masks if worn properly are effective at blocking 99% of respiratory droplets expelled by people with COVID-19**
- **Cotton masks are in general variable depending on the number of layers, weave, thread count and fit. Found to block expelled respiratory droplets**
- **Mask specifications can be found on the EHRS website**

# MASKS

- Bone Marrow transplant Unit 4 years of surgical mask wearing
  - Transmission to patients from health care workers and visitors
  - Mask compliance 98%
  - Resulted in a 60% decrease in patient infections

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #4 HAND WASHING

- Hands should be washed frequently with soap and water (~6% environmental transmission)
- Use hand sanitizer if no sink is available.
- Military Boot Camp Case
  - Implemented a top down program of hand washing
  - Hand washing required 5 times/day
  - Visits to infirmary for respiratory infections reduced by 45%

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #5 CLEANING

- Clean then disinfect surfaces
- Clean and disinfect between shifts and common area/equipment use
- In addition clean and disinfect high-touch areas routinely
- High Touch surfaces:
  - Elevator buttons
  - Door handles
  - Shared equipment
  - Light switches
  - Toilets
  - Sinks/faucets

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

- **EHRS and FRES have purchased limited central emergency stock of supplies**
- **Schools are responsible for the procurement of their own supplies**
- **Central Inventory will include:**
  - **Hand washing soap and paper towels for labs**
  - **Disinfectant wipes and sprays**
  - **Hand sanitizer**
  - **Surgical Masks**
  - **Cloth Masks**



# #6 COVID-19 CASE REPORTING AND CONTACT TRACING

- Contact tracing is extremely important in reducing transmission
- Philadelphia Department of Public Health contact tracing only for high risk facilities
- Student Health contact traces for students
- EHRS conducts contact tracing for essential employees (since April 10<sup>th</sup>)
  - EHRS Public Health Task Force
  - COVID-19 cases=17
  - Close Contacts=45

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #6 COVID-19 CASE REPORTING AND CONTACT TRACING

- If someone is COVID-19 positive, being tested, and/or a probable case:
  - Notify Supervisor, EHRS and FRES
  - Close off areas used by the person with probable or confirmed COVID-19.
  - If possible open outside doors and windows or increase air circulation in the areas.
  - Wait, if possible, 24 hours before cleaning and disinfection to minimize exposure to respiratory droplets
  - Cleaning staff will clean all public areas and high touch surfaces.
  - Laboratory staff will be responsible for cleaning the laboratory space/equipment and may request additional help from FRES.

# SAFETY STRATEGIES FOR RETURNING TO CAMPUS

## #6 CONTACT TRACING (CONTINUED)

- **Close Contact=Within 6 feet for greater than 10 minutes.**
- **Includes the 48 hours contact before symptom onset.**
- **Close contacts must self-isolate for 14 days (even if you do not develop symptoms)**
- **COVID-19 positive or probable cases MUST stay at home at least 10 days after onset AND be fever free for 72 hours with improving respiratory symptoms**

# CONTACT TRACING (CONTINUED)

- **EHRS will contact supervisor and COVID-19 case to determine the list of potential close workplace contacts.**
- **EHRS will then notify by phone the close contacts and follow up with a letter explaining what they must do.**

# EHRS WEBSITE RESOURCES

- **EHRS Resumption of Research Checklist**
- **EHRS COVID-19 Research Resumption Training**
- **EHRS Notification Web Form**
- **COVID-19 Research**
- **PPE Specifications**

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# QUESTIONS

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