

# COVID-19 ECHO update Jan 13 2020

---

Brigg Reilley MPH

Brigg.Reilley@ihs.gov

No disclosures

Opinions expressed only my own

# Agenda

Prevention

Testing/Screening

# Prevention

---

Wildland firefighter crew guidelines

Home ventilation guidelines

Outbreak in Australian facility among HCW staff linked to break room

# FAQs and Communication Resources for Wildland Firefighters

Updated Jan. 5, 2021

Languages ▾

Print



[FAQs and Communication Resources for Wildland Firefighters | CDC](#)



---

What steps can be taken by wildland fire personnel to prevent infection and spread of COVID-19? How can a crew, module, or resource “isolate as a unit” to better protect themselves? ▾

---

In many situations, fire personnel travel from many different geographic locations and live and work closely in shared living spaces, such as bunkhouses, during the fire season. In these situations, how do you prevent infection and spread of COVID-19 for co-workers or crewmates? ▾

---

Should wildfire management agencies screen personnel for signs and symptoms of COVID-19? ▾

---

Are first responders, like wildland firefighters, being prioritized for those who will be tested for COVID-19? ▾

---

# Improving Ventilation in Your Home

Updated Jan. 7, 2021 Languages ▼ Print



Staying home with only members of your household is the best way to keep SARS-CoV-2 (the virus that causes COVID-19) particles out of your home. However, if a visitor needs to be in your home, improving ventilation (air flow) can help prevent virus particles from accumulating in the air in your home. Good ventilation, along with [other preventive actions](#), like staying 6 feet apart and wearing masks, can help prevent you from getting and spreading COVID-19.

Below are ways you can improve ventilation in your home. Use as many ways as you can (open windows, use air filters, and turn on fans) to help clear out virus particles in your home faster.



# Ventilation 1 of 3

---

Bring in as much fresh air as possible

If you can, open **multiple** doors and windows

Filter the air

In homes where the HVAC fan operation is on a thermostat, **set the fan to the “on” position instead of “auto” when you have visitors.**

# Ventilation 2 of 3

---

Turn on the exhaust fan in your bathroom and kitchen

Keep the exhaust fans turned on for an hour after your visitors leave to help remove virus particles that might be in the air.

Use fans to improve air flow

- Place a **fan as close as possible to** an open window blowing outside
- **Point fans away from people.**
- Use **ceiling fans** whether or not windows are open.

# 3 of 3: Limit the number of persons in your home and the time spent inside

---

The more people inside your home, and the longer they stay, the more virus particles can accumulate.

- Limit the number of visitors in your home.
- Try to gather in larger rooms or areas
- Be sure that visitors and residents wear masks while in your home.
- Follow additional recommendations for [hosting gatherings](#).



---

[Comment on this paper](#)

## **Staff to staff transmission as a driver of healthcare worker infections with COVID-19**

Claire L Gordon, Jason A Trubiano, Natasha E Holmes, Kyra YL Chua, Jeff Feldman, Greg Young, Norelle L Sherry, M Lindsay Grayson, Jason C Kwong

**doi:** <https://doi.org/10.1101/2020.12.25.20248824>

**This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.**

# Outbreak in the facility

---

Health facility in Australia

45 staff tested positive

- of which 19 infections linked to facility,

  - of which 15 deemed staff to staff

    - of which 10 linked to single COVID ward

# Outcomes

---

- Probable staff exposures linked to break room/snack room
- Outbreak stopped with enhanced infection control measures

# Outcomes

---

- Probable staff exposures linked to break room/snack room
- Outbreak stopped with enhanced infection control measures

## Conclusion

“Unrecognised infections among staff may be a significant driver of HCW infections in healthcare settings. Control measures should be implemented to prevent acquisition from other staff as well as patient-staff transmission.”

# Outcomes

---

- Probable staff exposures linked to break room/snack room
- Outbreak stopped with enhanced infection control measures

## Conclusion

“Unrecognised infections among staff may be a significant driver of HCW infections in healthcare settings. Control measures should be implemented to prevent acquisition from other staff as well as patient-staff transmission.”

Most infections were not linked to facility (26/45)

# Testing and Screening

---

Diagnostic, Surveillance, Screening

White House outbreak—was it a rapid testing failure?

# COVID-19 testing: One size does not fit all

Michael J. Mina<sup>1,2,3,4</sup>, Kristian G. Andersen<sup>5,6</sup>

+ See all authors and affiliations

*Science* 08 Jan 2021:

Vol. 371, Issue 6525, pp. 126-127

DOI: 10.1126/science.abe9187

-Diagnostic Testing

-Surveillance

-Entry testing/screening

# Diagnostic Testing

---

- accurately identify infected patients to establish presence or absence of disease
- performed on symptomatic patients or asymptomatic individuals with presumed exposure
- requires high specificity (to not wrongly diagnose negative individuals)
- requires high sensitivity (to not miss disease)
- bottlenecks lead to results taking days and therefore useless in preventing transmission
- POC testing, including those that do not need equipment or skilled operators



# Surveillance Testing

---

- Understand real time community transmission (wastewater, swab or saliva, pooled testing)
- Goal is measure prevalence to inform public health policy and resource allocation, NOT find every case
- Antibody testing may become more accessible for surveillance

# Screening 1 of 2

---

- testing of asymptomatic individuals to detect people who are likely infectious
- goal to identify and break most likely or consequential transmission chains
- Need rapid results (ideally within 15 mins)
- Positive test alone enough to deny entry in most settings
- Sensitivity and specificity required depend on context
  - (e.g. nursing home vs. school)

# Screening 2 of 2: Large Scale

---

- Tests need to be easy to obtain and administer, fast, and cheap
- If lower specificity, pair with confirmatory testing
- Goal to identify persons at highest risk of transmitting
- Frequency and abundance of tests important
- Public messaging may need to include expectations of screening so that false positives and false negatives do not erode community trust

## Personal health

### Diagnostics

Symptomatic  
At-risk

### Testing

qPCR, LAMP, Ag

### Key attributes

Sensitivity 

Specificity 



Frequency 

## Population health

### Surveillance

Asymptomatic  
Wastewater  
Surfaces

### Screening

Everyone  
Entrance   Public health

### Testing

qPCR, Ag, LAMP  
Ab, pooling

Ag plus confirmation with Ag,  
LAMP, or qPCR; LAMP

### Key attributes



# Use of Coronavirus Rapid Tests May Have Fueled White House Covid-19 Cluster, Experts Say

The administration has relied on testing to help prevent the spread of Covid-19 in its ranks, while forgoing other mitigation strategies

Even Giroir made that point, in a [press release](#) issued 2 days after the Rose Garden event.

“Testing does not substitute for avoiding crowded indoor spaces, washing hands, or wearing a mask when you can’t physically distance,” he said. “Further, a negative test today does not mean that you won’t be positive tomorrow. Combining personal responsibility with smart testing is a key component of the administration’s national strategy for combatting COVID-19...”

October 26, 2020

# Preventing the Spread of SARS-CoV-2 With Masks and Other “Low-tech” Interventions

— Andrea M. Lerner, MD, MS<sup>1</sup>; Gregory K. Folkers, MS, MPH<sup>1</sup>; Anthony S. Fauci, MD<sup>1</sup> —

» [Author Affiliations](#) | [Article Information](#)

*JAMA*. 2020;324(19):1935-1936. doi:10.1001/jama.2020.21946



**COVID-19 Resource Center**

“Masks should be used in combination with other modalities . . . including physical distancing, hand hygiene, adequate ventilation, and avoiding crowded spaces. Widespread testing for SARS-CoV-2 infection is also important but insufficient on its own for pandemic control”

[Preventing the Spread of SARS-CoV-2 With Masks and Other “Low-tech” Interventions | Infectious Diseases | JAMA | JAMA Network](#)

# Test specs

---

- New validation studies continue to emerge
- Hundreds of tests to choose from
- Exploring SalivaDirect
- Full spec sheet here: [EUA Authorized Serology Test Performance | FDA](#)

# Mitigation Policies and COVID-19–Associated Mortality — 37 European Countries, January 23–June 30, 2020

*Early Release* / January 12, 2021 / 70

James A. Fuller, PhD<sup>1</sup>; Avi Hakim, MPH<sup>1</sup>; Kerton R. Victory, PhD<sup>1</sup>; Kashmira Date, MD<sup>1</sup>; Michael Lynch, MD<sup>1</sup>; Benjamin Dahl, PhD<sup>1</sup>; Olga Henao, PhD<sup>1</sup>; CDC COVID-19 Response Team ([View author affiliations](#))

“ . . . . Mitigation policies were largely successful at curbing transmission . . . but they came with social and economic costs, including increases in unemployment, interrupted education, social isolation, and related psychosocial outcomes”