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# **AFTER COVID-19?**

**What Changes Should We Expect for Worker Safety and Health**

**NT-AIHA**

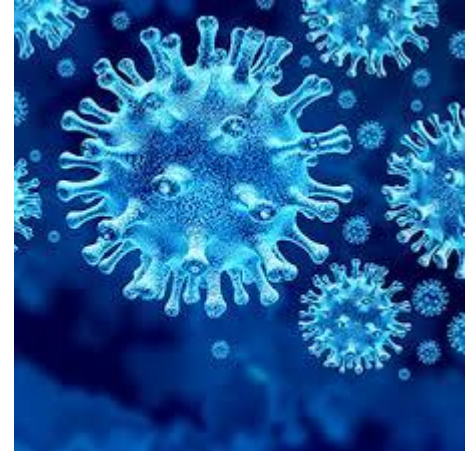
**14 May 2019**

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# Participants will be able to describe:

- What is COVID-19 and how did it get here?
- What have we learned so far?
- What is Social Distancing and how effective is it?
- What about masks?
- What about fever?
- How will workplaces be different?
- How will HR be different?
- What does the future hold?



## What is a Coronavirus?

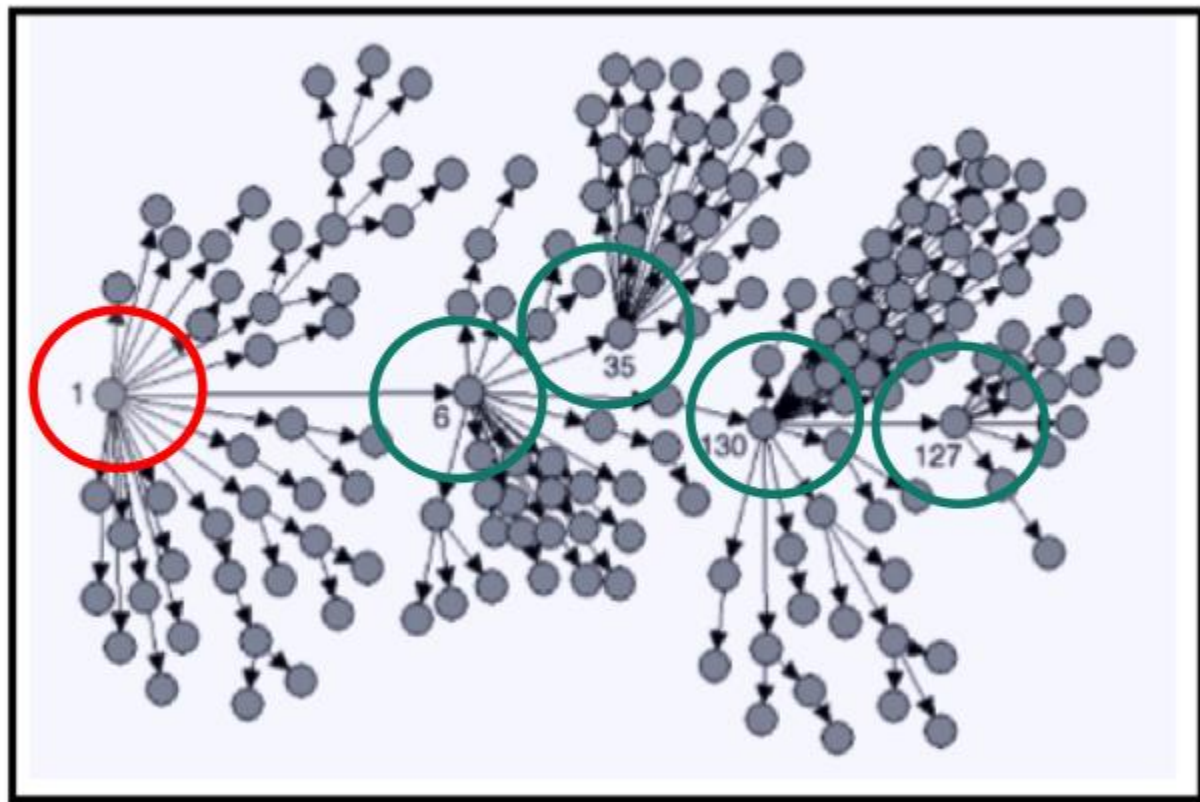
- ❑ Named for their crown-like spikes on their surfaces
- ❑ The coronavirus family causes multiple respiratory and gastrointestinal illnesses, most of which are not severe.
- ❑ Some like COVID-2019, SARS, and MERS cause more severe illnesses.
- ❑ COVID-19 is the "Real Deal"
- ❑ Comparison of Case Fatality Rates:
  - Influenza = 0.2%
  - COVID-19 = 2%
  - SARS = 11% (UP TO 50% IN SOME AGE GROUPS!)
  - MERS = 30-40%

## How Do New Pathogens Emerge?

- ❑ Existing benign animal pathogens “jump” to humans  
→ followed by human-to-human spread in immunologically naïve populations
- ❑ Existing benign animal pathogens co-mingle and mutate with human pathogens
- ❑ Normal Mutation → New strains of existing pathogens
- ❑ Normal Mutation → New pathogens
- ❑ Normal human biome → Opportunistic infections  
→ Ab resistant organisms → Human-to-human spread
- ❑ Note: Viruses can undergo a half million generations in the span of our one generation!

# Superspreaders Are the Cause of Illness Outbreaks

Superspreader =  
1 person sickens  
10 or more  
people



# **What have we learned about COVID-19 so far?**

# COVID-19 Course of Severe Infection

- **Phase 1:** Viral Replication (may be asymptomatic but elevated temperature is the leading indicator) ... risk spectrum?
- **Phase 2:** Immune System Hyper-Reactivity (Cytokine Storm)
- **Phase 3:** Pulmonary Destruction (Honeycomb Effect)
- **Phase 4:** Respiratory Failure (holes fill with fluid)

# How does COVID-19 spread?

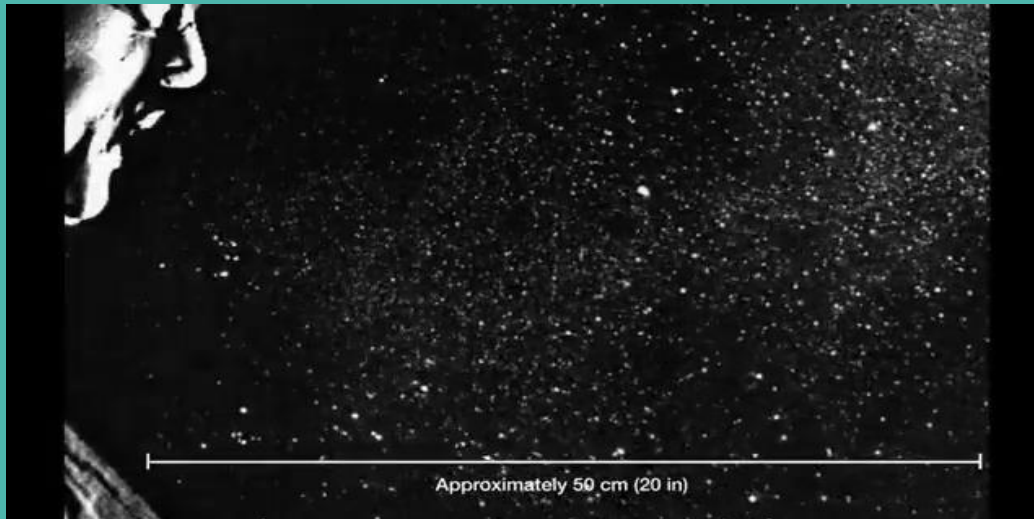
- Droplet - Confirmed
- Aerosol - Confirmed
- Fecal-Oral – Confirmed in patient stool samples
- Bloodborne – Confirmed in patient blood samples

\*Multiple pathways, long latency period (14 days), and asymptomatic spread may explain its high communicability



# What is Social Distancing and how effective is it?

[Sneezing and Coronavirus Disease 2019 \(COVID-19\).mp4](#)



# How not to do Social Distancing



# Lucky the Virus doesn't move sideways?



# And what about Masks?

## It's NOT What You Think!

# N95

### MYTH: v/s FACT:

**MYTH:**  
An N95 respirator and a surgical mask provide the same protection.

**MYTH:**  
I can decorate my N95 respirator to look stylish!

**MYTH:**  
There's no way to verify if an N95 respirator is actually NIOSH-approved.

**FACT:**  
A NIOSH-approved N95 respirator forms a seal against the user's face, preventing particle penetration around the edges. The filter has passed NIOSH tests to determine that it protects against at least 95% of airborne particles.

Because surgical masks do not seal against the face and the filters have not been tested, the same level of protection against airborne particles cannot be guaranteed.

**FACT:**  
Any alteration of the N95 will void the NIOSH approval because respirator can no longer be guaranteed to provide the necessary level of protection.

NIOSH Homepage  
A to Z Index  
For Respirator Users  
For Respirator Manufacturers  
Protective Clothing and Equipment  
Respirator Technology Program at NIOSH  
Approved Particulate Filtering Facepiece Respirators  
Certified Equipment List (CFL)  
Respirator User Notices  
Contact NIOSH

**FACT:**  
A list of approved N95 respirators is updated every month. Find it at [Knowits.niosh.gov](https://www.knowits.niosh.gov) under the "Approved Particulate Filtering Facepiece Respirators" tab.

**NIOSH**

# How effective are “Masks”?

## WHEN TO USE A MASK

For healthy people wear a mask **only if you are taking care of a person with suspected 2019-nCoV infection**

Wear a mask, **if you are coughing or sneezing**

Masks are effective only when used **in combination with frequent hand-cleaning with alcohol-based hand rub or soap and water**

If you wear a mask then you **must know how to use it and dispose of it properly**



World Health  
Organization



# What about Fever?

## Normal Body Temperature Ranges

°F	0 – 2 Years	3 – 10 Years	11 – 65 Years	>65 Years
ORAL	-	95.9 – 99.5	97.6 – 99.6	96.5 – 98.5
RECTAL	97.9 – 100.4	97.9 – 100.4	98.6 – 100.6	97.1 – 99.2
AXILLARY	94.5 – 99.1	96.6 – 98.0	95.3 – 98.4	96.0 – 97.4
EAR	97.5 – 100.4	97.0 – 100.0	96.6 – 99.7	96.4 – 99.5
CORE	97.5 – 100.0	97.5 – 100.0	98.2 – 100.2	96.6 – 98.8



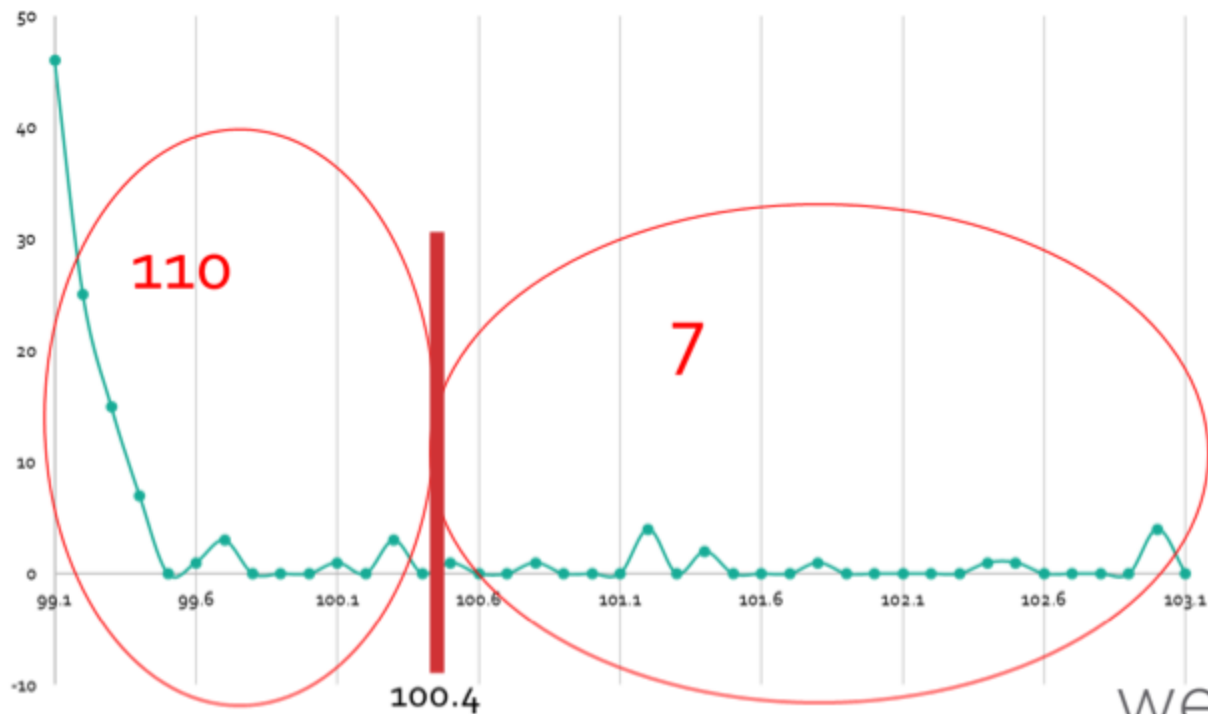
## How Do You Know Who Is Contagious?



Fever is the leading indicator of infection and the best predictor of infection spread or contagiousness.

Mississippi, 2015  
Sick clinic during  
peak of flu season  
February that year.  
-Wello study

Conclusion for sample:  
100.4F fever definition : 110 false negatives  
99.2F fever definition : 0 false negatives  
Confidence > 95%





# Increased Moisture is Antiseptic – April 2019

● Green is AH Moist

● Red ● Yellow is AH Dry



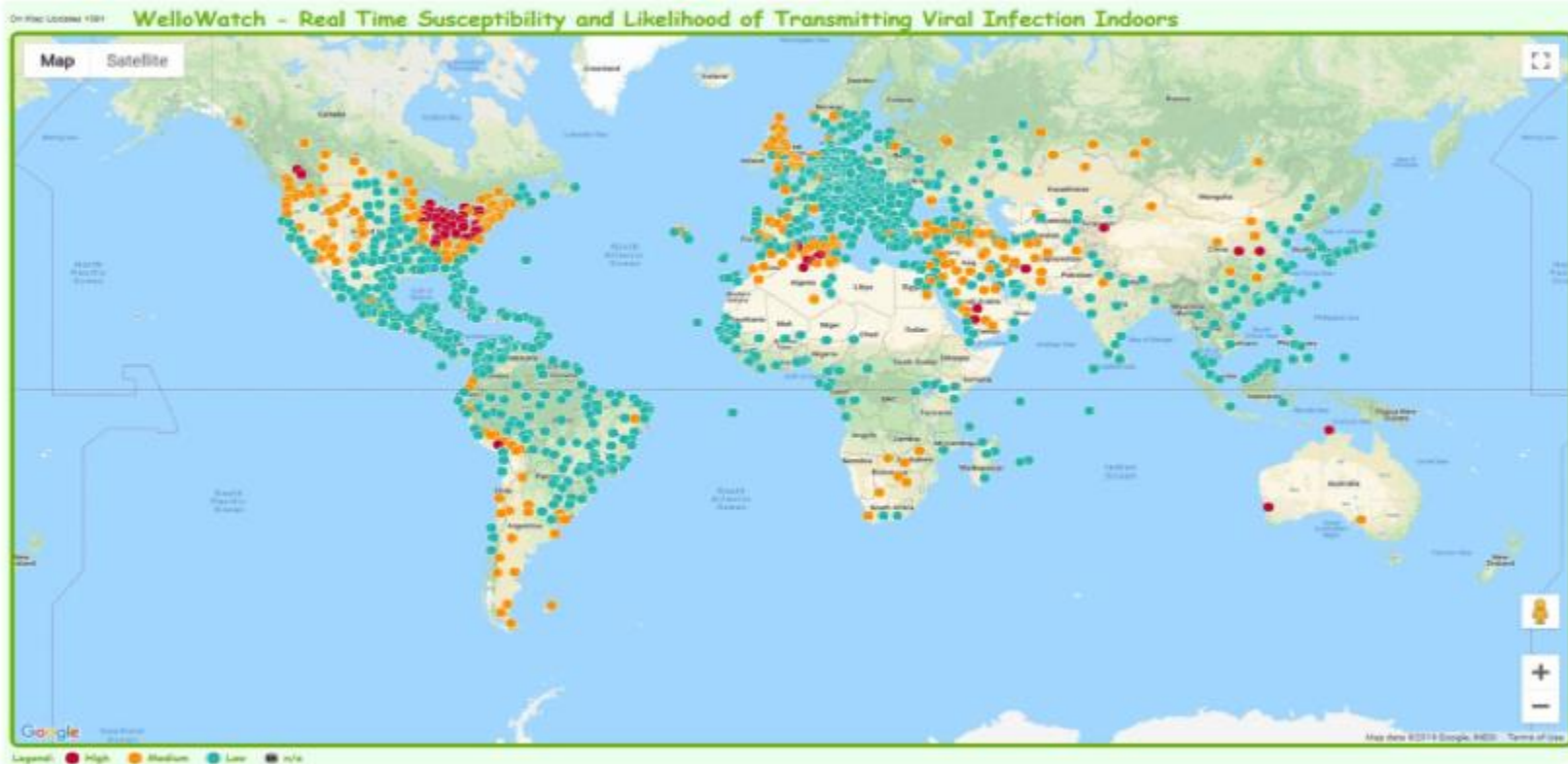
# Seasonality of epidemics – June 2019



Green is AH Moist



Red and Yellow is AH Dry



# How will workplaces be different?

# Good Hygiene:

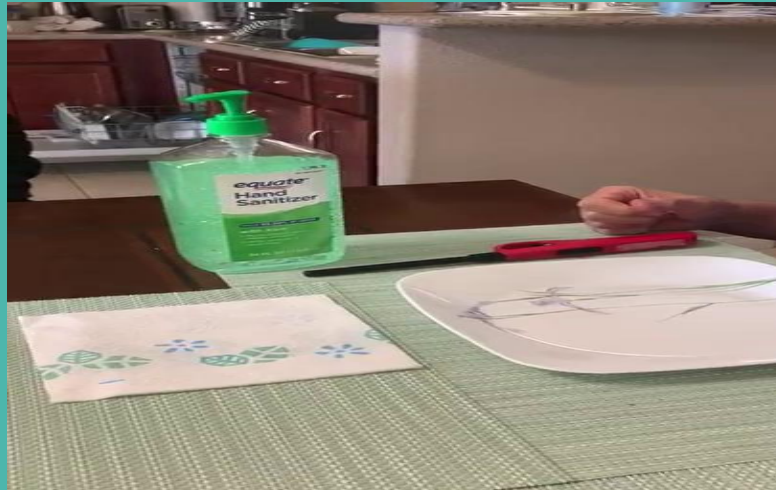
Promote good hygiene:

- Wash your hands often with soap and water for at least 20 seconds.
- Avoid touching your eyes, nose, and mouth
- Cover your coughs or sneezes with a tissue or your sleeve (not with your hands)
- Disinfect surfaces (phones, timeclocks, doorknobs/handles)
- Stay away from people who are sick
- Stay home when you are sick



**If unable to wash, use alcohol-based hand sanitizers?**

[Hand gel.mp4](#)



# Good-bye to:

- Open office space
- Handshakes
- Open break rooms
- Travel







# The New Handshake

# What return to work will be like





# Re-thinking office layout

- More distance between work-spaces
- Barriers and partitions
- One-way corridors
- Automatic opening 'no-touch' doors
- Back-to-back desk set up
- Reduced capacity meeting rooms



# Return to work trends

- Workers sit 2m apart
- One-way passages to avoid people crossing paths
- Temperature screening on entry
- Many employees are working from home
- Stairs instead of elevators
- Designer masks are the new fashion trend



# Hangouts and Zoom encounters are now a common part of American workplace culture

Working from home not just an ADA accommodation



**How will the roles of IH and HR be different?**

# Educate Employees:

- General education regarding COVID-19
  - ✓ Use only reliable sources for information and direct employees to these sources
  - ✓ CDC, WHO, local health departments, OSHA
- Reassure employees that you are monitoring the situation, staying abreast, and following guidance from the CDC and AIHA
- While regulations, generally exempts recording of the common cold and flu, COVID-19 may be a recordable illness when a worker is infected on the job.

**COVID-19**  
CORONAVIRUS DISEASE

**What you need to know about coronavirus disease 2019 (COVID-19)**

**What is coronavirus disease 2019 (COVID-19)?**  
Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China.

**Can people in the U.S. get COVID-19?**  
Yes, COVID-19 is spreading from person to person in parts of the United States. Risk of infection with COVID-19 is higher for people who are close contacts of someone known to have COVID-19, for example healthcare workers, or household members. Other people at higher risk for infection are those who live in or have recently been in an area with ongoing spread of COVID-19. Learn more about places with ongoing spread at <https://www.cdc.gov/coronavirus/2019-nCoV/about/transmission.html#geographic>.

**Have there been cases of COVID-19 in the U.S.?**  
Yes. The first case of COVID-19 in the United States was reported on January 21, 2020. The current count of cases of COVID-19 in the United States is available on CDC's webpage at <https://www.cdc.gov/coronavirus/2019-nCoV/cases-in-us.html>.

**How does COVID-19 spread?**  
The virus that causes COVID-19 probably emerged from an animal source, but is now spreading from person to person. The virus is thought to spread mainly between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs or sneezes. It also 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, but this is not thought to be the main way the virus spreads. Learn what is known about the spread of newly emerged coronaviruses at <https://www.cdc.gov/coronavirus/2019-nCoV/about/transmission.html>.

**What are the symptoms of COVID-19?**  
Patients with COVID-19 have had mild to severe respiratory illness with symptoms of

- fever
- cough
- shortness of breath

**What are severe complications from this virus?**  
Some patients have pneumonia in both lungs, multi-organ failure and in some cases death.

**How can I help protect myself?**  
People can help protect themselves from respiratory illness with everyday preventive actions:

- Avoid close contact with people who are sick.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Wash your hands often with soap and water for at least 20 seconds. Use an alcohol based hand sanitizer that contains at least 60% alcohol if soap and water are not available.

**If you are sick, to keep from spreading respiratory illness to others, you should**

- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces.

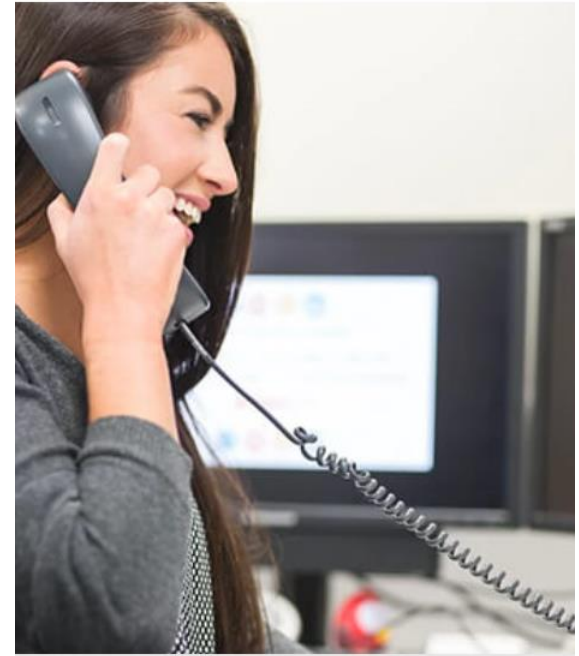
**What should I do if I recently traveled from an area with ongoing spread of COVID-19?**  
If you have traveled from an affected area, there may be restrictions on your movements for up to 2 weeks. If you develop symptoms during that period (fever, cough, trouble breathing), seek medical advice. Call the office of your health care provider before you go, and tell them about your travel and your symptoms. They will give you instructions on how to get care without exposing other people to your illness. While sick, avoid contact with people, don't go out and delay any travel to reduce the possibility of spreading illness to others.

**Is there a vaccine?**  
There is currently no vaccine to protect against COVID-19. The best way to prevent infection is to take everyday preventive actions, like avoiding close contact with people who are sick and washing your hands often.

**Is there a treatment?**  
There is no specific antiviral treatment for COVID-19.

# Reaching Employees:

- Distribute literature
  - ✓ Translate into employee's language (CDC and AIHA) provide English and Spanish literature)
  - ✓ Post it in high traffic/visible areas
  - ✓ Handouts and home mailings
- Hold small huddles or meetings
  - ✓ Allow employees to express concerns and take them seriously
  - ✓ Make visible efforts in terms of cleanliness and PPE





# Attendance and Leave policies:

- Can workers choose PTO/Sick Leave/Vacation pay if being asked to stay home?
- Will absences related to COVID-19 count against attendance?
- FMLA, ADA, and local leave laws may apply
- Workers need to understand isolation at home requirements
- Stop PRESENTEEISM

# EPA Approved Products for use against SARS-CoV-2

The EPA has issued a comprehensive list of disinfectants capable of 'killing' the COVID-19 virus, with the ability to search for products via their EPA Registration number.

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>



**Clorox - Multi Surface Cleaner + Bleach; Disinfecting Wipes; Commercial Solutions Disinfecting Spray**



**Purell Professional Surface Disinfectant Wipes**



**Lysol: Heavy Duty Cleaner Disinfectant Concentrate; Disinfectant Max Cover Mist; Clean and Fresh Multi-Surface Cleaner**



# What Does the Future Hold

## **COVID-19 is Here to Stay**

- **Additional work stoppages**
- **School closings -> more work at home**
- **Engineering Controls for Workplace Infection Control**
- **Better Hand Hygiene**
- **Fewer meetings**
- **Less travel**

# Additional Resources

1

[www.BackToWorkSafely.org](http://www.BackToWorkSafely.org)

**Designed for small businesses that don't have readily available OH&S processes**

2

[www.aiha.org/COVID](http://www.aiha.org/COVID)

**Updated daily with links to publicly available health resources for industrial hygienists, public health officials, frontline workers and support staff**

3

[www.WelloInc.com](http://www.WelloInc.com)

**WelloWatch free app for environmental relevance to infection control**