



Global  
Health



## Returning to Work Safely Amid the COVID-19 Pandemic Webinar

# Welcome!



## Returning to Work Safely Amid the COVID-19 Pandemic Webinar

To ask questions during the webinar, please enter them into the Questions section.



Global  
Health



## Returning to Work Safely Amid the COVID-19 Pandemic Webinar

The mission of the Houston Area Safety Council is **building safe workplaces** by improving the quality and integrity of the workforce.

The mission of the UT School of Public Health is **changing the culture of health** through excellence in graduate education, research and engagement.

# THANK YOU

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Kristi Mena, PhD, MSPH- Associate Professor & El Paso Campus Dean

Janelle Rios, PhD, MPH - Faculty Associate & Director of Prevention, Preparedness, and Response (P2R) Academy

### **Moderator**

Thomas Hysler, MD, MPH - Chief Medical Officer & Vice President of Health Operations, Health and Safety Council



Southwest Center for Occupational  
and Environmental Health

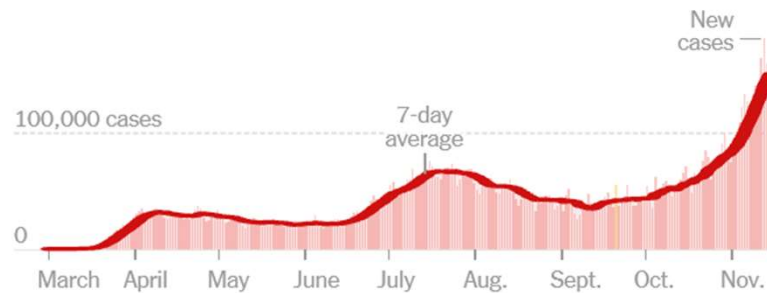


# Covid in the U.S.: Latest Map and Case Count

By The New York Times Updated November 16, 2020, 2:45 P.M. E.T.

[Leer en español](#)

WORLD COUNTRIES ▼ | U.S.A. STATES ▼ COLLEGES



	TOTAL REPORTED	ON NOV. 15	14-DAY CHANGE
<b>Cases</b>	11.2 million <sup>+</sup>	135,187	+81% ↗
<b>Deaths</b>	246,421	623	+39% ↗
<b>Hospitalized</b>		69,993	+44% ↗

■ Day with data reporting anomaly.

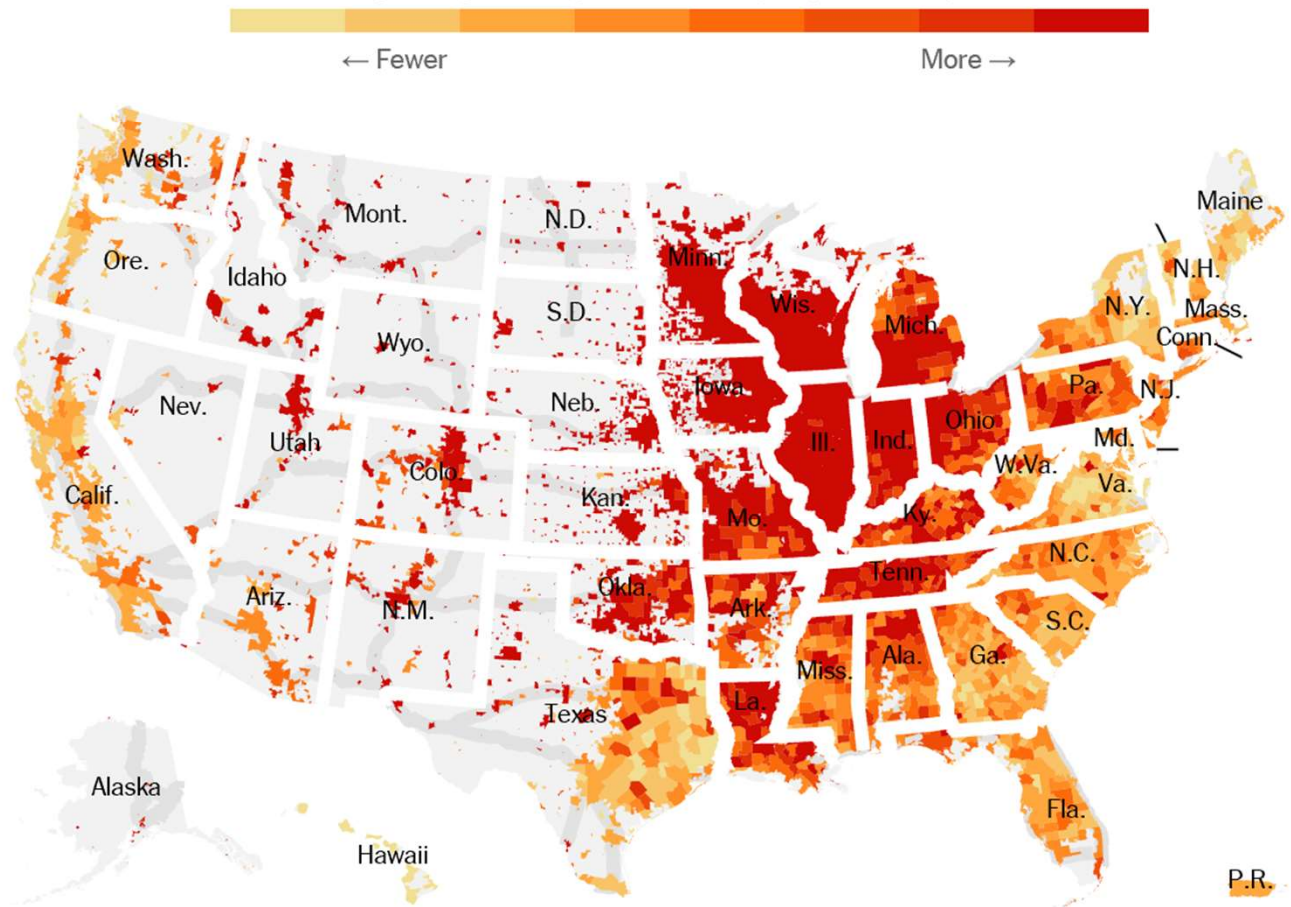
Hospitalization data from the Covid Tracking Project. 14-day change trends use 7-day averages.



# The New York Times

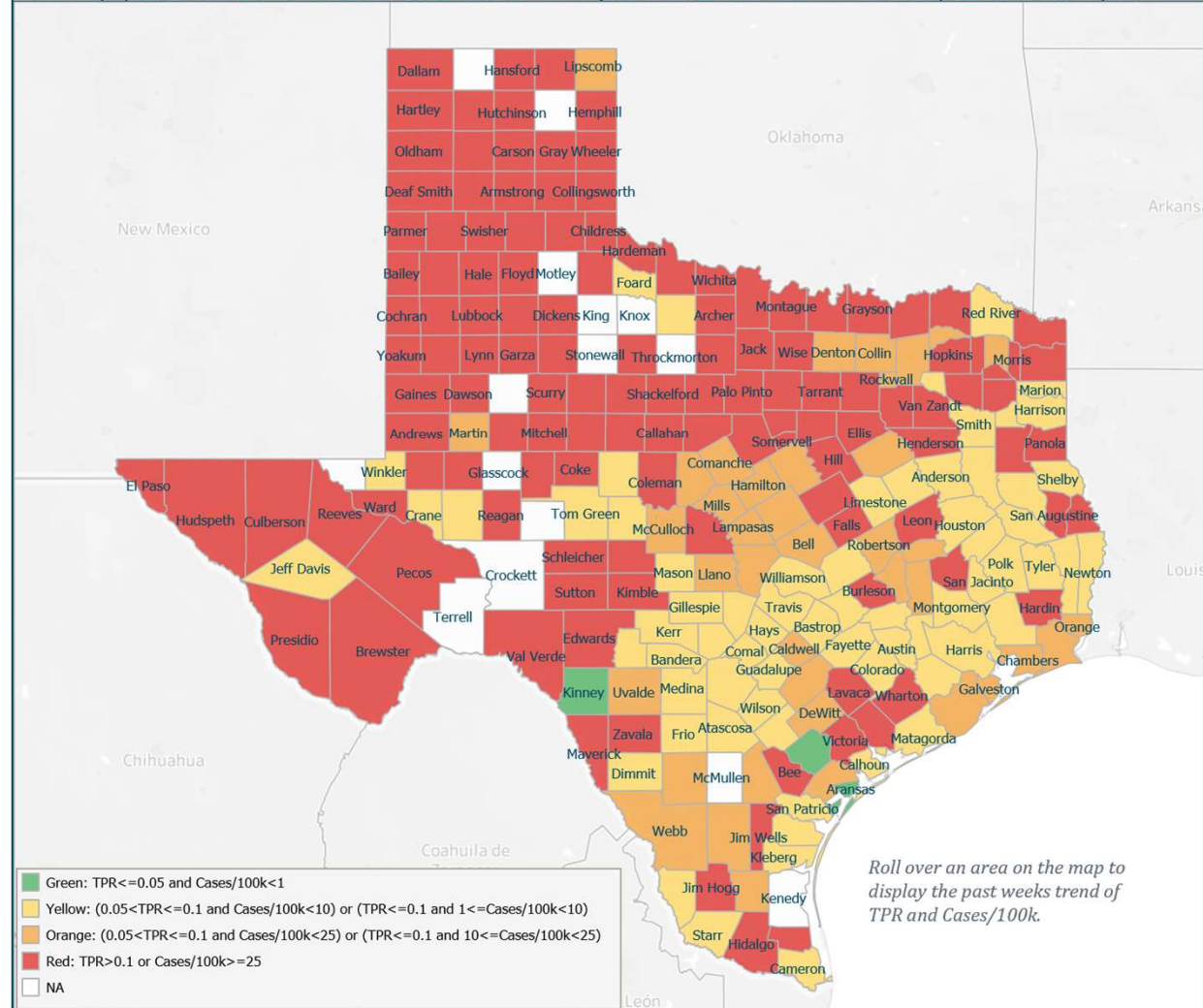
## Reported cases in the United States

Average daily cases per 100,000 people in the past week



## Test positivity rate (TPR) compared to the number of cases per 100,000 population in each county

Test Positive Rate is an indicator of "Are we testing enough?". While Cases per 100k is an indicator of spread of the disease in the communities. A TPR of  $>10\%$  and  $>25$  per 100k indicates that not only is there substantial community spread but we are not testing sufficiently in the community to identify all those who may be potentially infected. Wide spread testing is key to containing continued community spread. We recommend these metrics be use collectively as an indicator for COVID-19 risk of spread at the county level.

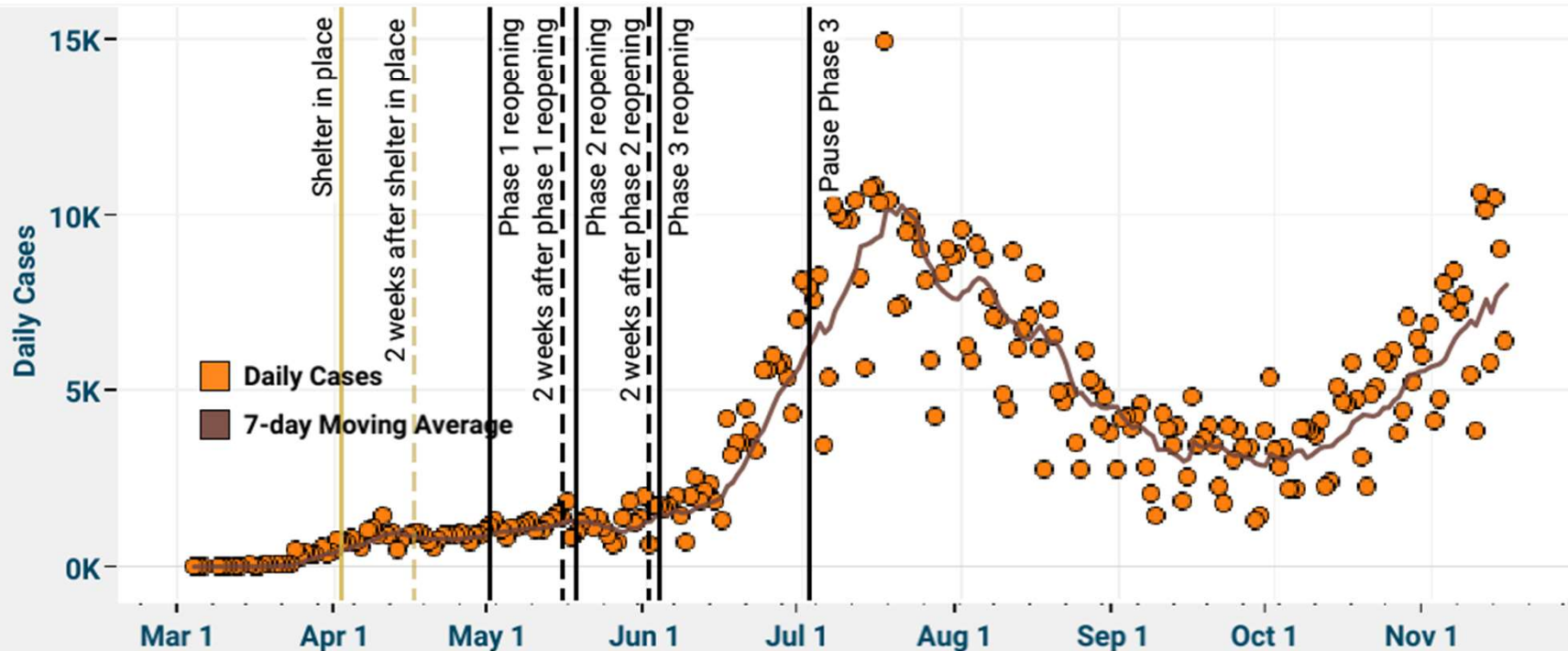


Source: [www.texaspandemic.org](http://www.texaspandemic.org)



## Daily Cases Trend

This graph shows a daily number of new COVID19 Cases (dots) over time in Texas. The graph also shows the moving average in daily number of Cases (line) over time. In the past week, there has been a **5.99% increase** in cumulative Cases. Since Phase I reopening, there has been a **3392.15% increase** in cumulative Cases. Since Phase II reopening, there has been a **1996.24% increase** in cumulative Cases.



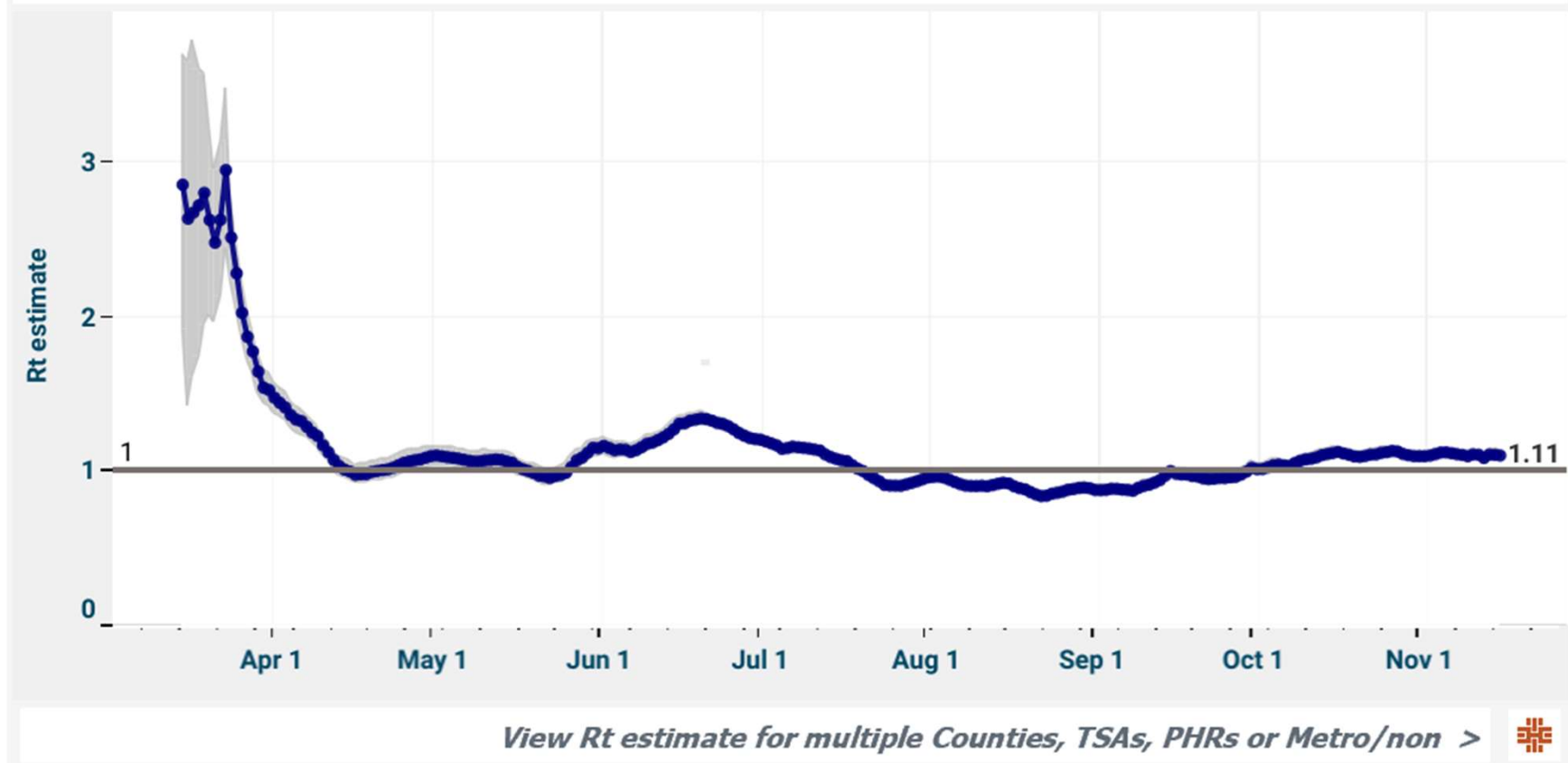
[View Daily Cases Trend for multiple Counties, TSAs, PHRs or Metro/non >](#)



Source: [www.texaspandemic.org](http://www.texaspandemic.org)

## Rt estimate

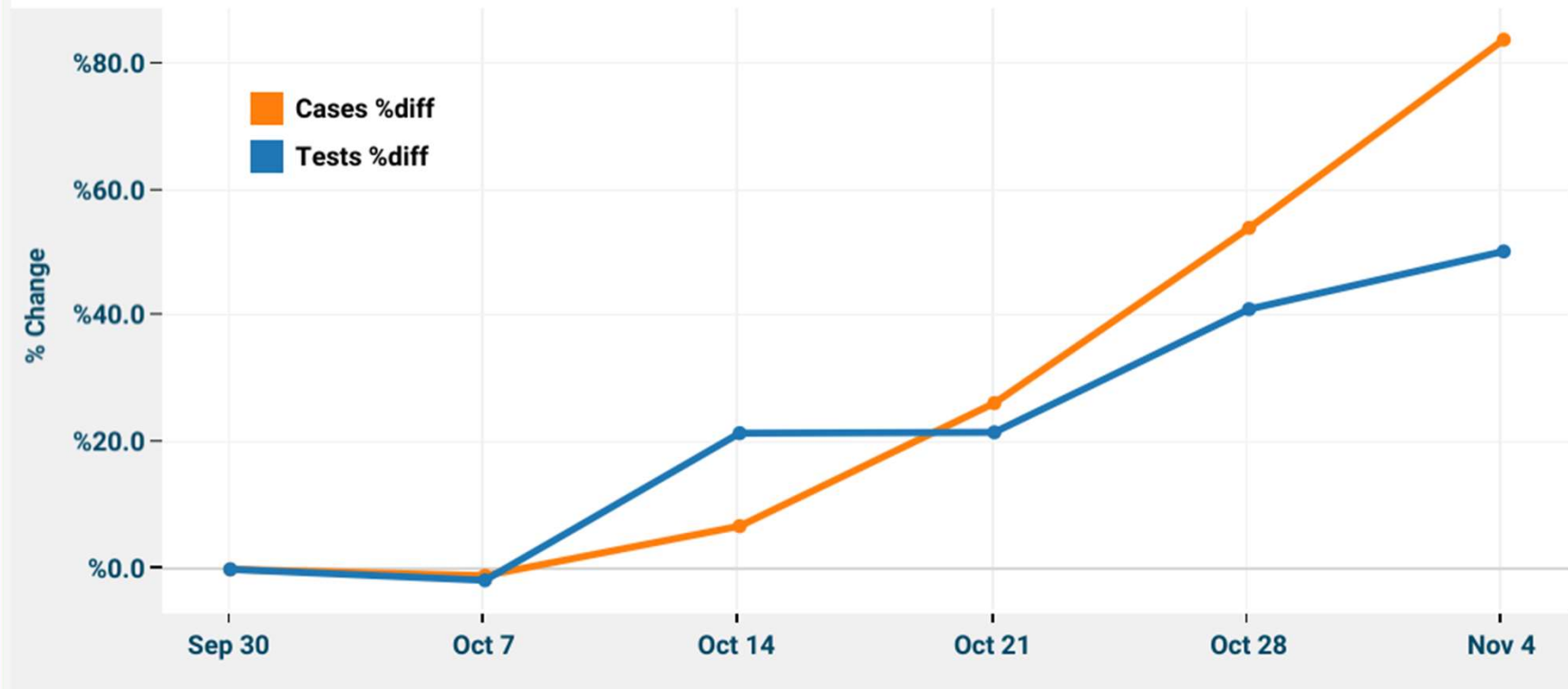
This graph shows the  $R(t)$  over time.  $R(t)$  is a measure of contagiousness or how many people one COVID19 person infects. If  $R(t) > 1$ , the epidemic is increasing. If  $R(t) < 1$ , the epidemic is declining. There is higher alert if the whole interval is above the horizontal line at 1. For **Texas**, the rate of contagiousness is **1.11**; the epidemic is **increasing**.



Source: [www.texaspandemic.org](http://www.texaspandemic.org)

## % Change of Weekly Cases and Testing since 9/30

This graph shows a comparison of the percent change in new weekly cases compared to the percent change in new weekly tests in [Texas](#). If the two lines are parallel, then the increase in cases could potentially be explained by increased testing. If the cases ([line](#)) increase faster than the tests ([line](#)), this suggests that the increase in cases cannot be explained by increased testing.



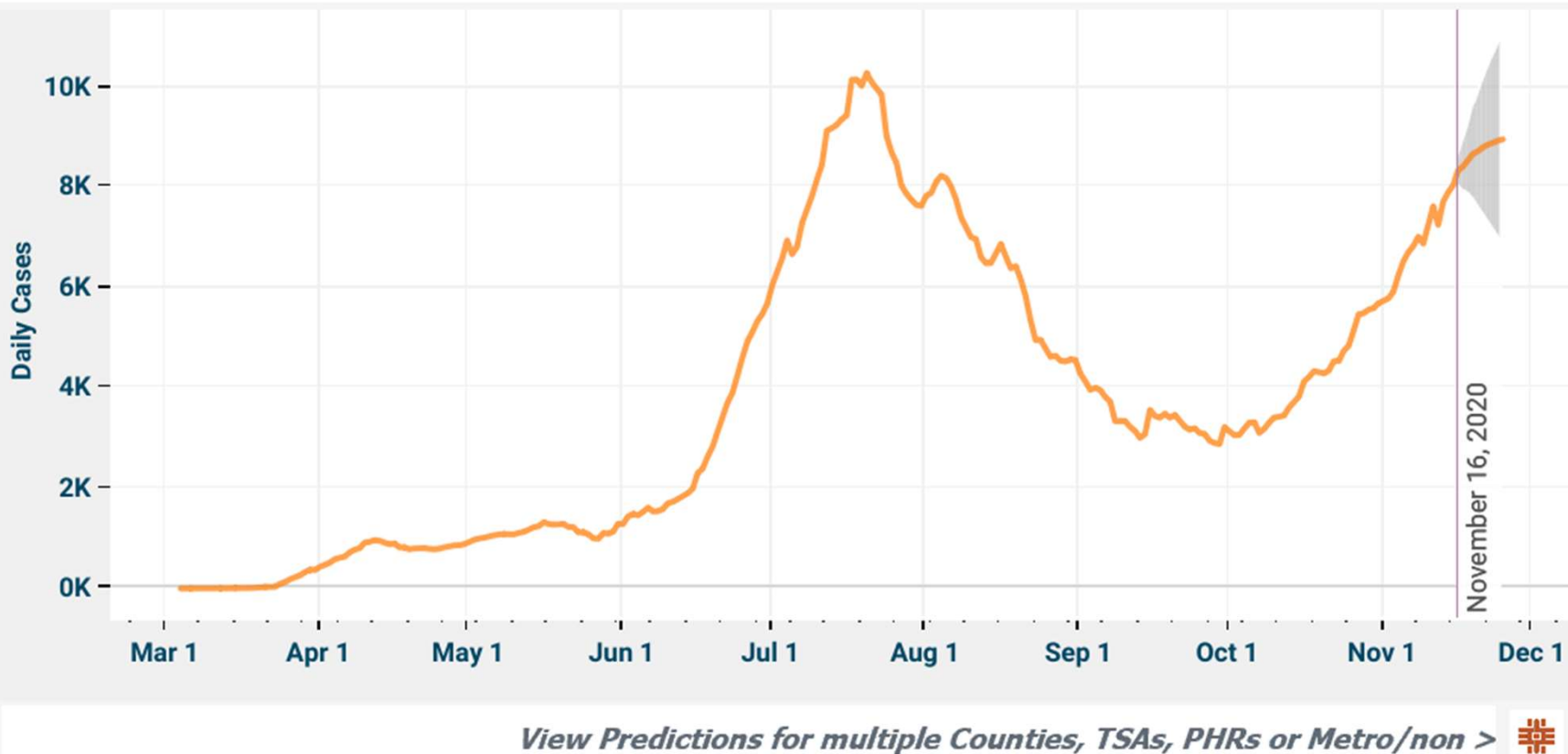
[View %Change for multiple Counties, TSAs, PHRs or Metro/non >](#)



Source: [www.texaspandemic.org](http://www.texaspandemic.org)

## Prediction of number of new cases in the next 10 days with 95% confidence intervals

Predictions in **Texas**. If the upper band for the predictions is approximately below the current number of new cases, cases are expected to decrease. If the lower band for the predictions is approximately above the current numbers of new cases, cases are expected to increase. Otherwise, they are not expected to increase or decrease significantly. For dates prior to the predictions, the 7-day moving average is shown.



Source: [www.texaspandemic.org](http://www.texaspandemic.org)



## TMC KEY TAKEAWAYS FOR NOVEMBER 16, 2020

1

### Effective Reproduction Rate, $R(t)$

- $R(t)$  for the Greater Houston Area as of 11/14 (9-county MSA) is **1.11**<sup>1</sup>
  - This is above 1.0, which means the virus spread is increasing. Compared to:
  - Last week,  $R(t)$  was **1.06** for Greater Houston Area

2

### Testing

- The current 7-day average COVID-19 testing positivity rate is **5.2%** for TMC hospital systems. Compared to:
  - Last week<sup>3</sup>: **4.4%**
  - Last month: **3.4%**

3

### New cases

- As of 11/13, **1,053 new people**<sup>2</sup> were reported as testing positive for COVID-19 in the Greater Houston Area. DSHS also released **137** older cases recently reported as of yesterday. Compared to:
  - Last week: **697** new cases/day
  - Last month: **394** new cases/day

4

### Hospitalizations

- Yesterday, TMC **admitted 162 new COVID-19 patients** in TMC hospital institutions<sup>4</sup>. Compared to:
  - Last week: **104** hospitalizations/day
  - Last month: **76** hospitalizations/day

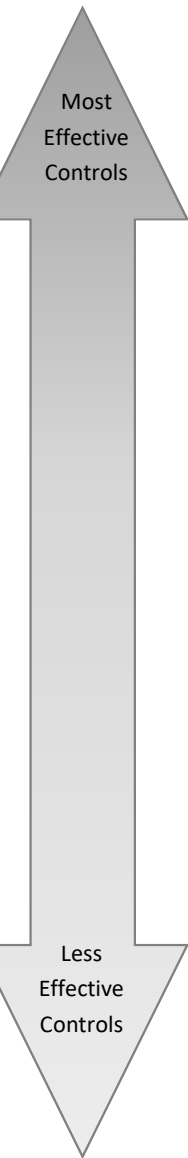
5

### ICU capacity

- Yesterday, TMC's ICU Phase 1 (non-pandemic configurations) is **95% full**, and TMC is not into Phase 2 plans for intensive care.

1. <https://sph.uth.edu/dept/bads/covid19-dashboard>

**Apply the most effective method first (Hierarchy of Controls)**



**Elimination**

**Substitution**

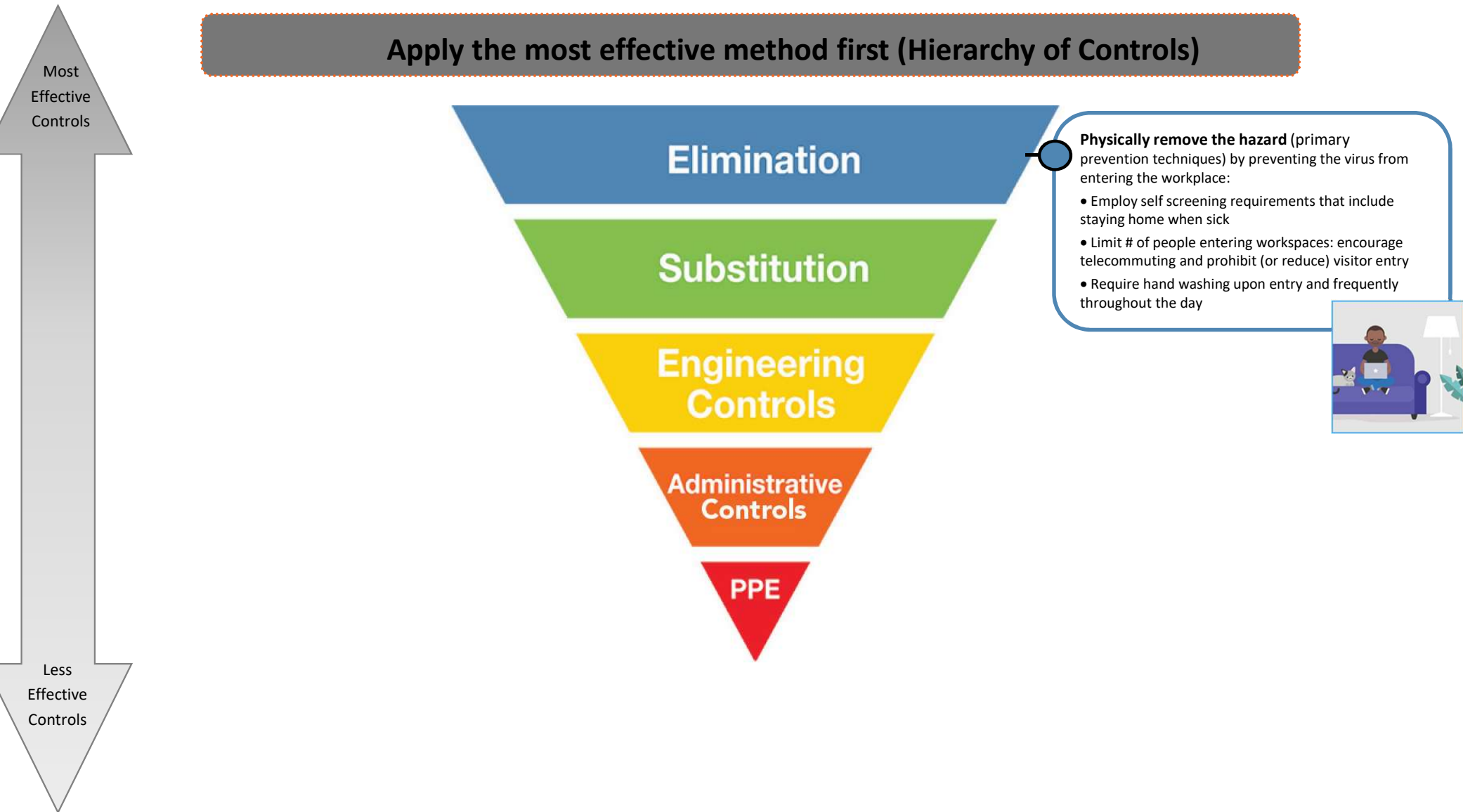
**Engineering  
Controls**

**Administrative  
Controls**

**PPE**



## Apply the most effective method first (Hierarchy of Controls)



## Apply the most effective method first (Hierarchy of Controls)

Most  
Effective  
Controls



### Isolate people from the hazard:

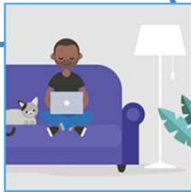
- Install physical barriers where possible, e.g., plexiglass screens
- Clean and disinfect surfaces, especially frequently touched surfaces, with an EPA-registered disinfectant (see [EPA List N](#)) and use according to the manufacturer's instructions
- Consider using HVAC technologies, e.g., increasing number of air exchanges per hour (fresh air), using in-line UV lights (remember maintenance costs)



Elimination

**Physically remove the hazard** (primary prevention techniques) by preventing the virus from entering the workplace:

- Employ self screening requirements that include staying home when sick
- Limit # of people entering workspaces: encourage telecommuting and prohibit (or reduce) visitor entry
- Require hand washing upon entry and frequently throughout the day



Substitution

Engineering  
Controls


Administrative  
Controls

PPE

Less  
Effective  
Controls

# EPA List N Tool

<https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>

 **EPA** United States Environmental Protection Agency

## List N Tool: COVID-19 Disinfectants

Feedback

# EPA Registration Number

Active Ingredient

Use Site

Contact Time

Browse All

Keyword Search

☐ <= 1 (contact in minutes)

☐ <= 5 (contact in minutes)

☐ <= 10 (contact in minutes)

☒ <= 15 (contact in minutes)

☐ <= 20 (contact in minutes)

☐ <= 25 (contact in minutes)

☐ <= 30 (contact in minutes)

Show results

Clear results

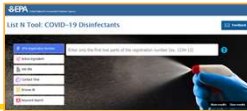
Total count: 485

Show  entries

PDF CSV

## Apply the most effective method first (Hierarchy of Controls)

Most  
Effective  
Controls



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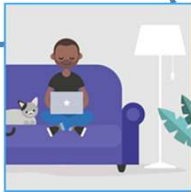
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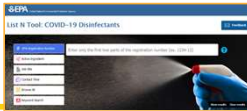
PPE

Less  
Effective  
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## Apply the most effective method first (Hierarchy of Controls)

Most Effective Controls

Less Effective Controls



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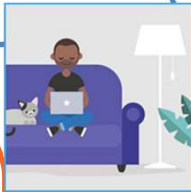
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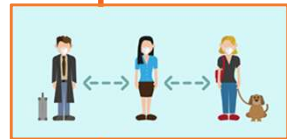
Engineering Controls

Administrative Controls

PPE

### Change how work is performed:

- Offer training: self-screening, telecommuting technology, hand hygiene, and resilience
- Practice social distancing: separate action stations at least 6 feet, use signage as reminders
- Organize in-person activities to minimize physical interactions
  - Stagger shifts
  - Create teams (pods)
- Limit the sharing of physical supplies and equipment, e.g., tools, equipment, toys, and other items



## Apply the most effective method first (Hierarchy of Controls)

Most Effective Controls



### Isolate people from the hazard:

- Install physical barriers where possible, e.g., plexiglass screens
- Clean and disinfect surfaces, especially frequently touched surfaces, with an EPA-registered disinfectant (see [EPA List N](#)) and use according to the manufacturer's instructions
- Consider using HVAC technologies, e.g., increasing number of air exchanges per hour (fresh air), using in-line UV lights (remember maintenance costs)



### Protect the worker from the hazard by using personal protective equipment (PPE)

- Designed to protect the wearer
- Learn to use, reuse, clean, disinfect, discard PPE
- Examples: respirators, gloves, eye protection

Less Effective Controls

Elimination

Substitution

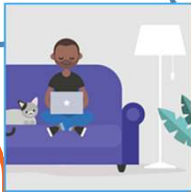
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PPE

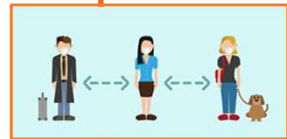
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## Apply the most effective method first (Hierarchy of Controls)

Most Effective Controls

Less Effective Controls

### Elimination

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### Engineering Controls

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### Administrative Controls

#### Protect the worker from the hazard by using personal protective equipment (PPE)

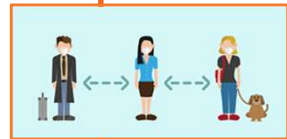
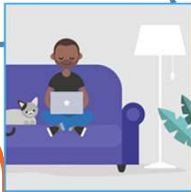
- Designed to protect the wearer
- Learn to use, reuse, clean, disinfect, discard PPE
- Examples: respirators, gloves, eye protection

PPE

#### Use community protective equipment (CPE)

- Designed to protect others from the wearer
- Learn to use, reuse, clean, disinfect, discard CPE
- Examples: cloth masks, scarves, disposable cloth masks

CPE



# Testing options

## Viral

➤ PCR/Molecular

➤ Antigen

## Antibody

# Testing options

- ✓ PCR
  - ✓ Nasal swab test sent to a lab
  - ✓ Checks for the actual virus in your body at the time of testing
- ✓ Antigen
  - ✓ A point-of-care/in clinic quick test
  - ✓ Checks for proteins found on the virus

# Testing options

- ✓ Antibody
  - ✓ A blood sample
  - ✓ Checks for past exposure to the virus
  - ✓ Indicates if you have antibodies as a result of the infection

# PROS and CONS

- ✓ PCR
  - ✓ Deep nasal test (uncomfortable)
  - ✓ Can take several days to get back
  - ✓ Highly sensitive

# PROS and CONS

- ✓ Antigen
  - ✓ Deep nasal test (uncomfortable)
  - ✓ Less sensitive than a PCR test, but highly specific to positives
  - ✓ Results back within minutes to hours



# PROS and CONS

- ✓ Antibody
  - ✓ Does NOT tell you if you have the virus at the time of testing
  - ✓ May reflect immunity, but duration unknown
  - ✓ Immunity may decrease or disappear over time

## Considerations for Workplace Safeguards Potential Drivers of Infection Risks

Role of  
Environmental  
Sources

Role of  
Improper  
Implementation  
of Controls

Role of  
Client  
Interactions

# Four Key Points for Today's Discussion

## 1. **Novel coronavirus: the term “novel” is really important**

- Novel means new, so there are aspects about this virus that are known and that are not known
  - Example: transmissibility without exhibiting symptoms – hence the need for community masking
- $R_0$  value is an important public health aspect to monitor – currently estimated to be 2.2

## 2. **Defining “screening”**

- Screening actually begins at home

## 3. **“Masking” versus PPE**

- Barriers to transmission
  - Face coverings
  - Surgical masks
- Protection for the wearer (PPE)
  - N95s, P100s
  - PAPRs

## 4. **Cleaning/disinfection and environmental persistence**

- This virus shown to be viable on stainless steel and plastic surfaces up to 72 hours
- Ensure use EPA registered disinfectants

# References

- **Surfaces Outdoor**

- Duan, S., 2020. *Stability Of SARS Coronavirus In Human Specimens And Environment And Its Sensitivity To Heating And UV Irradiation*. - Pubmed - NCBI. [online] Ncbi.nlm.nih.gov. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/14631830>

- **Surfaces Indoor**

- Morris, Bushmaker and van Doremalen, 2020. *Aerosol And Surface Stability Of SARS-Cov-2 As Compared With SARS-Cov-1* | NEJM. New England Journal of Medicine. Available at: <https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

- **Cleaning Surfaces**

- Centers for Disease Control and Prevention. 2020. *Communities, Schools, Workplaces, & Events*. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>

- **Incubation Period and Infection**

- The National Academic Press. 2020. *Rapid Expert Consultation On SARS-Cov-2 Surface Stability And Incubation For The COVID-19 Pandemic*. Available at: <https://www.nap.edu/read/25751/chapter/1>
- <https://www.medrxiv.org/content/10.1101/2020.03.05.20030502v1>
- <https://www.medrxiv.org/content/10.1101/2020.04.04.20053058v1>

- **Additional Resources for Businesses**

- <https://www.centerforhealthsecurity.org/our-work/publications/operational-toolkit-for-businesses-considering-reopening-or-expanding-operations-in-covid-19>
- <https://www.osha.gov/Publications/OSHA-FS-3747.pdf>

# OSHA Enforcement

- **Recordable**

- COVID-19: respiratory illness & should be coded as such on the **OSHA 300**
  - **Confirmed by:**
    - 1) one positive test; 2) work-related; 3) medical treatment beyond first aid, results in lost work days or restricted duty, **or** loss of consciousness or death
  - **Work-relatedness:**
    - *reasonableness of the employer investigation*
    - *evidence available to the employer*
    - *evidence that a COVID-19 illness was contracted at work*

- **Reportable**

- Employer must report any worker fatality within 8 hours and any amputation, loss of an eye, or hospitalization of a worker within 24 hours

- **Enforcement**

- Enforcement Response Plan
  - <https://www.osha.gov/memos/2020-05-19/updated-interim-enforcement-response-plan-coronavirus-disease-2019-covid-19>
- Response Summary
  - <https://www.osha.gov/enforcement/covid-19-data>

# Pandemic Fatigue

**Pandemic Fatigue** - emotional exhaustion, frustration and impatience that people are feeling as we enter the tenth month of the COVID-19 pandemic in the U.S.

**The Signs in the Workplace** - decreased diligence in following health and safety protocols, low morale, low productivity, anxiety, irritability, or trouble concentrating.

**The Risk** - fatigue increases the risk for injury and deteriorating health (infections, illnesses, and mental health disorders).

**Pandemic Stamina** - the “antidote” to pandemic fatigue. Right now, there is currently no simple solution other than **persistence**.

What can you continue to do personally?

**Three W's:** **W**ash your hands, **W**ear a mask, **W**atch your distance, (and frequently disinfect commonly touched surfaces).

**Take charge of your daily health** - adequate exercise, eating well, adequate sleep, and stress management are also key for pandemic stamina.



# Pandemic Fatigue

What can we do for our workers?

**Support** worker well-being by encouraging: practicing self-care, disconnecting from work devices during non-work hours (so important for work-from-home staff), and reducing stress through exercise, spending time outdoors, and connecting with others virtually.

**Encourage** use of PTO vacation time to recharge responsibly.

To **encourage** workers to continue following health and safety precautions properly, employers should continue to relay the protocols in place to protect workers, their families, and public health.

Keeping expectations consistent, providing PPE, and ensuring safety and hygiene supplies are readily available throughout the workspace will also make it easier for employees to comply.

# Pandemic Fatigue

## References:

<https://apps.who.int/iris/bitstream/handle/10665/335820/WHO-EURO-2020-1160-40906-55390-eng.pdf>

<https://www.sandiegouniontribune.com/columnists/story/2020-11-08/pandemic-stamina-is-the-answer-to-pandemic-fatigue-and-the-expected-winter-covid-19-surge>

<https://www.nytimes.com/2020/10/17/us/coronavirus-pandemic-fatigue.html>

<https://www.talentcanada.ca/ways-to-protect-workers-from-pandemic-fatigue/>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/managing-workplace-fatigue.html>

# Thank You!



**Southwest Center for Occupational  
and Environmental Health**

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

The logo for the P2R Academy, consisting of a dark grey rectangular background. The text "P2R Academy" is centered in a white, sans-serif font, with the "2" in orange. Below the rectangle, the text "Prevention, Preparedness and Response" is written in a smaller, grey, sans-serif font.

**P<sup>2</sup>R Academy**

Prevention, Preparedness and Response

[www.p2racademy.org](http://www.p2racademy.org)



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