Albany Business COVID-19 Resilience Training May 6th, 2020



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University of California, Berkeley,

Doctor of Public Health Candidate, 2020

PROTECTING PEOPLE, PLACE & PLANET

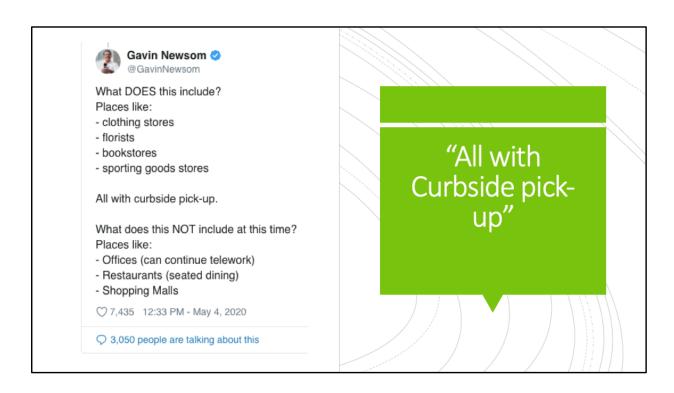




Additional businesses will reopen Friday, with conditions

What we are learning about this disease is continuously changing. We all have to become experts and stay up-to-date. This is everyone's fight!

https://www.cnbc.com/2020/05/04/california-gov-gavin-newsom-says-some-businesses-will-reopen-friday-with-conditions.html



Not an exhaustive list

https://www.cnbc.com/2020/05/04/california-gov-gavin-newsom-says-some-businesses-will-reopen-friday-with-conditions.html



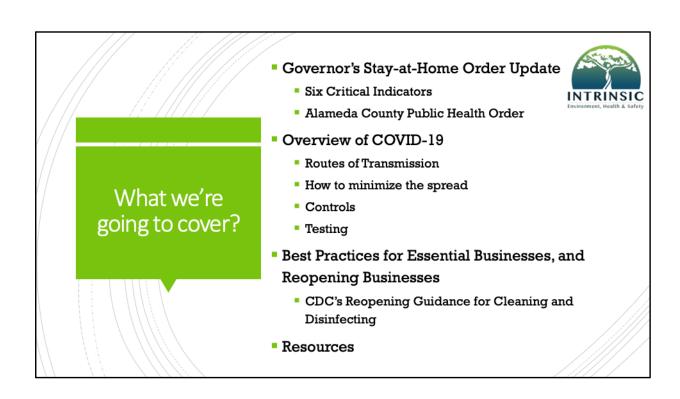
Overarching Questions!

How do we get back to business?

What can we learn from other frontline Essential Businesses, like restaurants?

What other businesses have been given the **Green Light** to reopen?

How do we reopen?



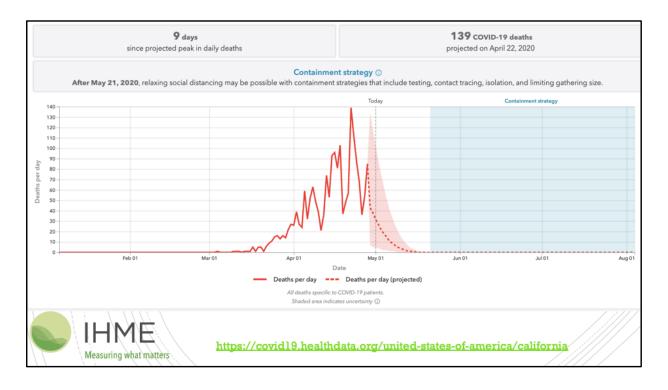
Governor's Stay-at-Home Order



"While Californians have stepped up in a big way to flatten the curve and buy us time to prepare to fight the virus, at some point in the future we will need to modify our stay-at-home order..."

"As we contemplate reopening parts of our state, we must be guided by **science** and **data**, and we must understand that things will look different than before."

--Governor Newsom.



The Institute for Health Metrics and Evaluation (IHME) is an independent global health research center at the University of Washington. May 1st, 2020.

California's six indicators for modifying the stay-at-home order are:



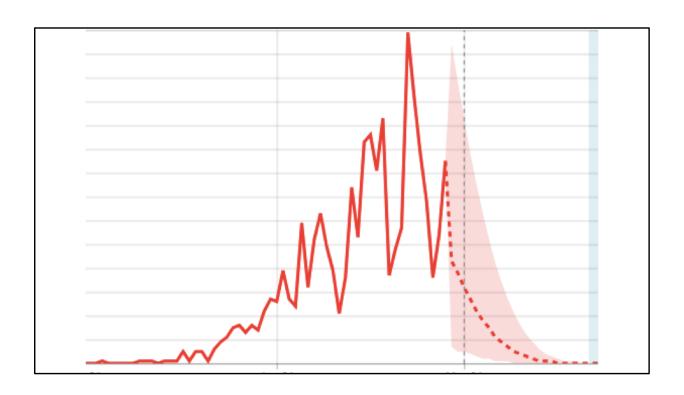
The ability to monitor and protect our communities through testing, contact tracing, isolating, and supporting those who are positive or exposed;

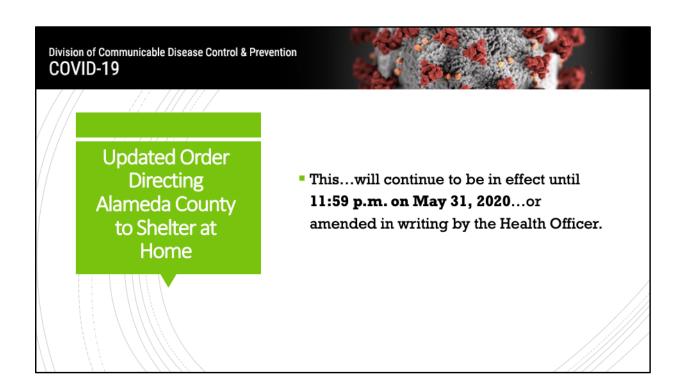
The ability to prevent infection in people who are at risk for more severe COVID-19;

The ability of the hospital and health systems to handle surges;

The ability to develop therapeutics to meet the demand;

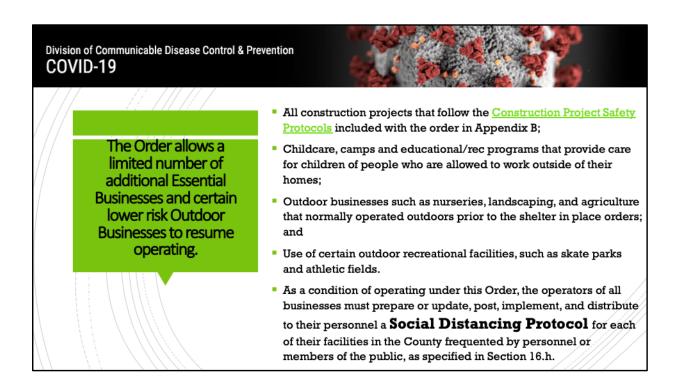
The ability for businesses, schools, and child care facilities to support physical distancing; and The ability to determine when to reinstitute certain measures, such as the stayat-home orders, if necessary.





Division of Communicable Disease Control & Prevention COVID-19 Performing tasks...essential to...health and safety; Obtaining necessary services and supplies...(a All persons to shelter at more detailed list in the Order); their place of residence, other than to provide or Performing work providing essential products and receive essential services. services or engage in certain low-risk Engaging in outdoor activity...so long as you do not activities: congregate in a group and maintain at least six feet of distance between you and other people; For most people, this means you and those you live with should remain at home. If you are sick, you should self-isolate, including, to the extent you can, from others you live with

http://www.acphd.org/2019-ncov/shelter-in-place.aspx



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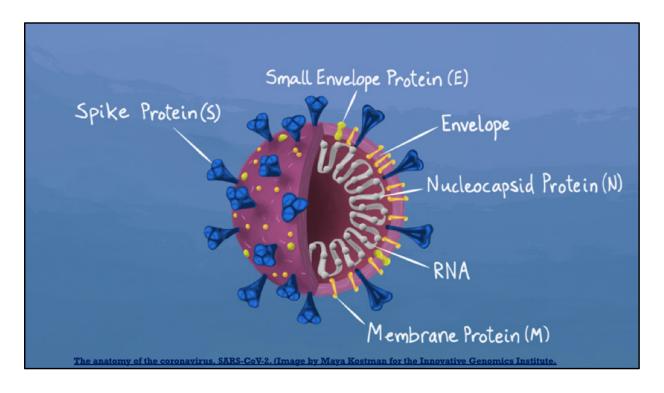




Industrial Hygienists are Considered "Essential Workers"

"Essential critical infrastructure workers include employed and contracted specialists who **anticipate**, **recognize**, **evaluate**, **and control hazards** or conditions which may cause injury or illness to workers, the public, or their communities."

https://www.aiha.org/public-resources/consumer-resources/coronavirus outbreak resources/industrial-hygienists-are-considered-essential-workers

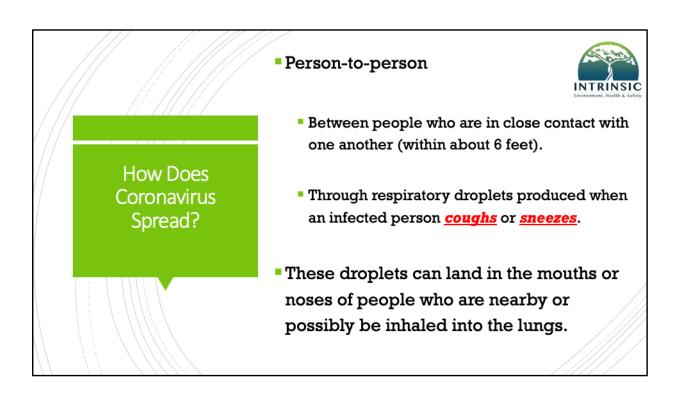


When infected by a virus like SARS-CoV-2, the cause of COVID-19, the body initially produces antibodies known as IgM (immunoglobulin-M), in an attempt to neutralize the virus. Later, as the body's adaptive immune system revs up, IgM levels go down, and the body ramps up production of IgG, which more specifically targets the viral invader.

Antibody tests, also called serology tests because they are conducted on blood samples, such as from a finger prick, can assess levels of both IgM and IgG, and the relative levels could indicate whether a person is in the early or late stages of infection.

As such, antibody tests can complement the information from PCR tests, since even these relatively accurate tests can give false negatives. PCR tests for coronavirus generally exhibit lower sensitivity if performed several days to a week after symptom onset, probably because of decreasing levels of the virus in the upper respiratory, tract where samples for testing are commonly taken.

https://news.berkeley.edu/2020/04/27/what-covid-19-antibody-tests-can-tell-us-and-what-they-cant/?utm_source=Berkeleyan&utm_campaign=71c3f36124-berkeleyan&utm_medium=email&utm_term=0_99ee3800d7-71c3f36124-388617225



 $\frac{https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html}{}$

How does this coronavirus spread? (Cont.)

Incubation period = 2-14 days

"Someone who completes 14-day COVID-19 quarantine without developing illness is not considered a risk for spreading the virus to others"

Infectious period = Unknown

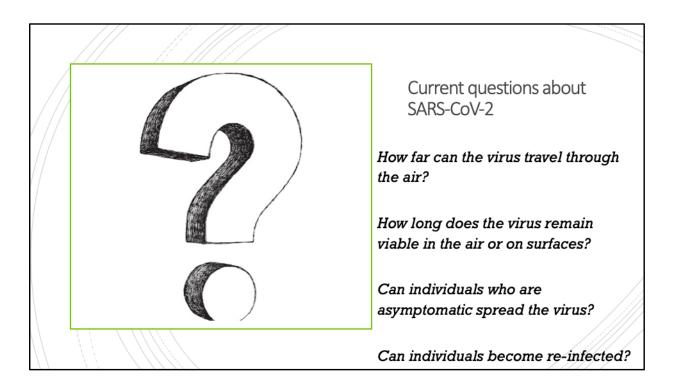
"People are thought to be most contagious when they are symptomatic (the sickest); the virus has also been detected in asymptomatic persons"

COVID-19 is an "Aerosol Transmissible Disease" (i.e., Diseases that <u>travel through aerosols</u> and are transmitted from one individual to another, either through inhalation or through hand to face contact or contact with contaminated items or surfaces)

To note:

- COVID-19 is currently thought to mainly transmit over short distances ("near-field" contact) and quickly fall out of the air contrast with other ATDs (e.g., measles can remain in airspace for up to 2 hours after an infected person has left the area)
 - Still a possibility that researchers will discover transmission over longer distances...
- COVID-19 may survive (remain "viable") on surfaces for up to 9 hours (and maybe even several days)

Source: https://www.cdc.gov/coronavirus/2019-ncov/index.html

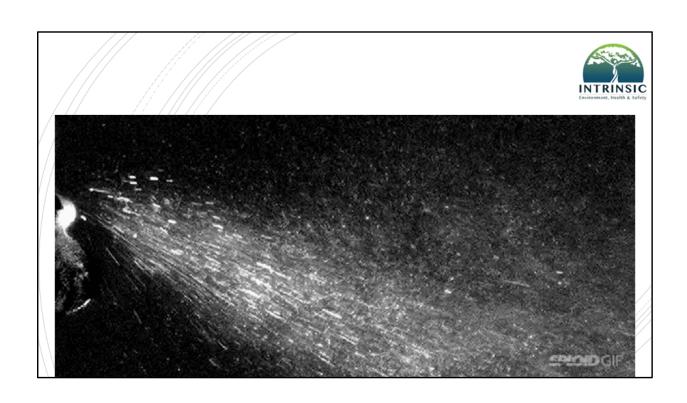


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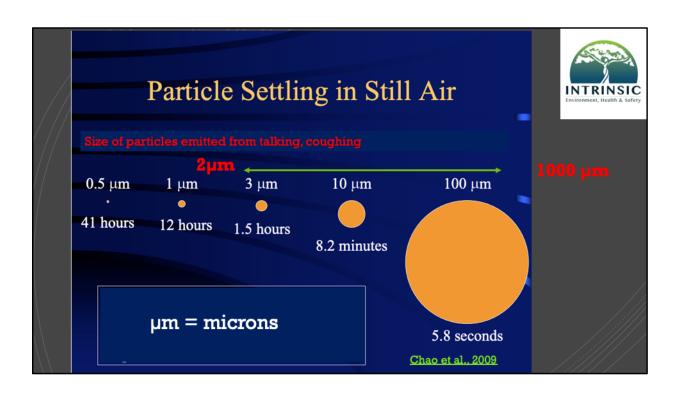
To note:

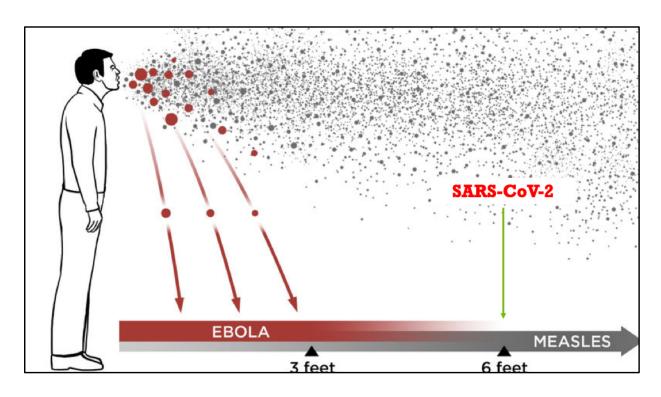
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 $\frac{https://www.npr.org/sections/goatsandsoda/2014/12/01/364749313/ebola-in-the-air-what-science-says-about-how-the-virus-spreads}{}$

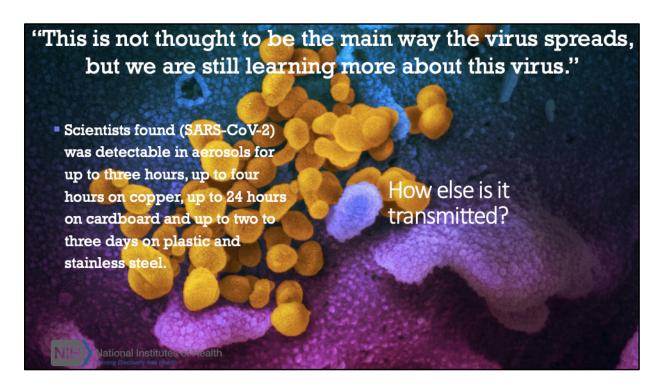


EXPLAIN: This video simulation how coughs or sneezes create particulate clouds that travel through the room, expanding outward.

ATDs = Diseases that may travel through aerosols like this and be transmitted from one individual to another, either through inhalation or through hand to face contact or contact with contaminated items or surfaces.

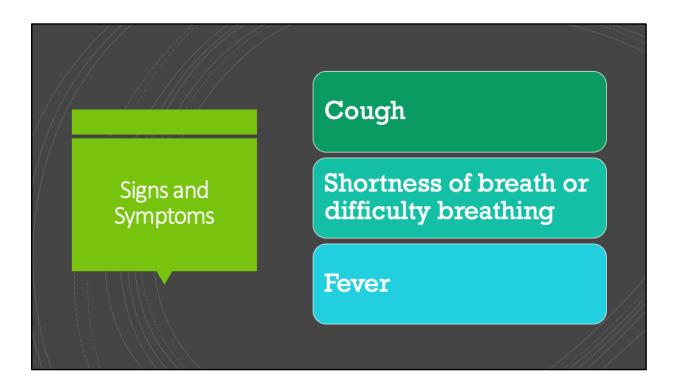
The ATD standard addresses exposures of health care workers and others in higher risk environments to infectious particles that are generated a) spontaneously by patients, b) induced by medical procedures such as bronchoscopy, b) created through use of aerosolized medication or oxygen, or d) created through sputum inductions.

The ATD standard also addresses exposures to these pathogens that are created by hand to face contact or contact with contaminated items or surfaces. One section of the ATD Standard applies to exposures in laboratories, where infectious materials may be concentrated or multiplied in order to diagnose diseases.



https://www.nih.gov/news-events/news-releases/new-coronavirus-stable-hours-surfaces

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html



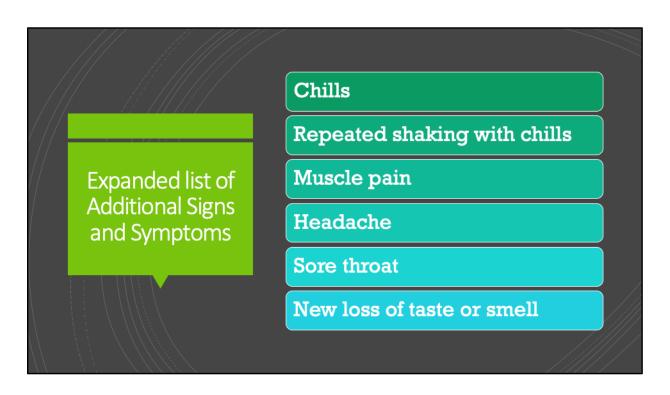
People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness.

Symptoms may appear **2-14 days after exposure to the virus.** People with these symptoms or combinations of symptoms may have COVID-19:

https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

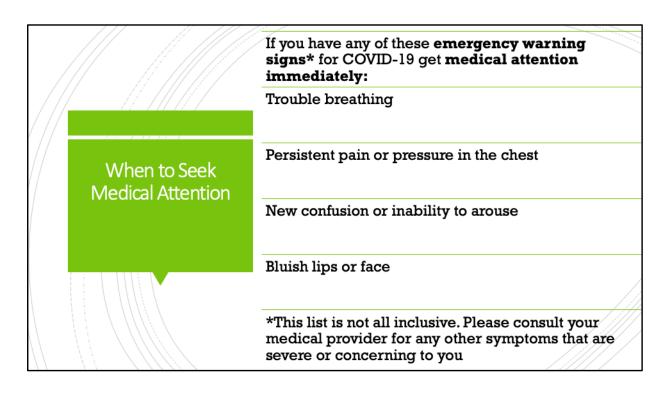
Remind learners that not everyone will experience symptoms, with estimates as high as 33% asymptomatic. (Mizumoto et al, 2020)

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7078829/



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https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html



https://www.nature.com/articles/d41586-020-00502-w

Viral RNA levels are highest in people with COVID-19 soon after their symptoms appear, according to two separate research teams.

Kwok-Yung Yuen at The University of Hong Kong—Shenzhen Hospital, China, and his colleagues analysed saliva samples coughed up by 23 people infected with SARS-CoV-2. The team found that study participants' viral concentrations peaked shortly after they started feeling ill, and began declining about one week after the peak. The more viral RNA detected in a person's body, the more they excrete when coughing or sneezing. The authors say that the high levels of SARS-CoV-2 particles detected at the onset of symptoms suggest that the virus can be transmitted easily between people, even when symptoms are relatively mild (K. K.-W. To *et al. Lancet Infect. Dis.* http://doi.org/ggp4qx; 2020).

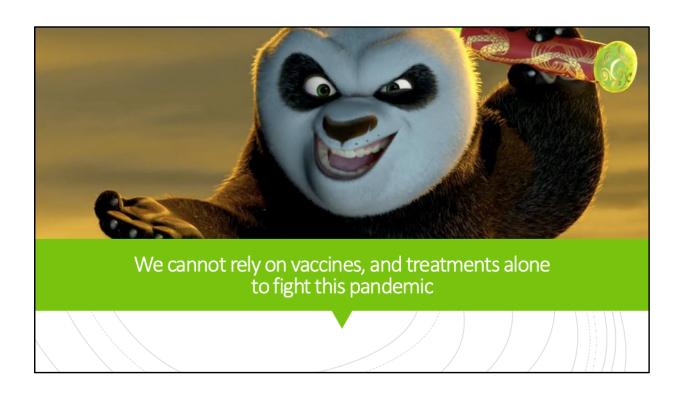


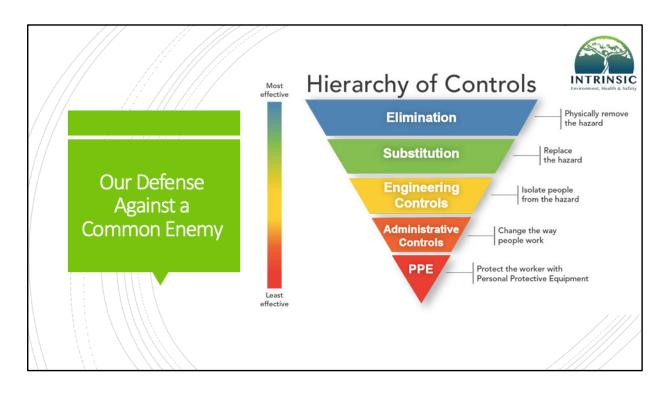
https://www.niaid.nih.gov/news-events/nih-clinical-trial-shows-remdesivir-accelerates-recovery-advanced-covid-19

https://www.gilead.com/



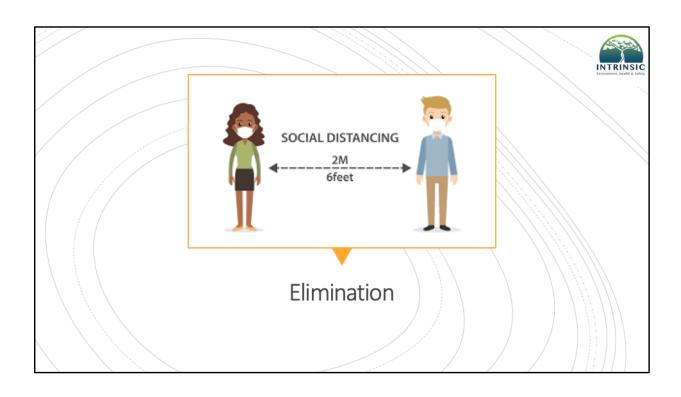
 $\frac{https://www.newsweek.com/coronavirus-vaccine-update-progress-covid-19-treatment-1499138}{treatment-1499138}$





https://www.cdc.gov/niosh/topics/hierarchy/default.html

This is to reinforce the importance of Eliminating the Hazard: staying home when sick, social distancing, source control, and keeping 6ft of distance in between others when outside performing essential functions.



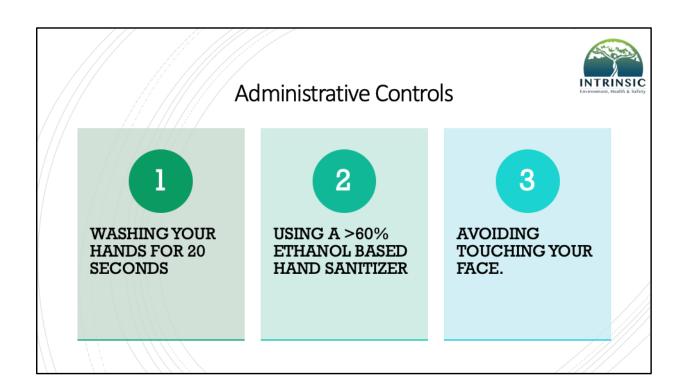


 $\frac{https://www.cnn.com/2020/04/15/world/social-distancing-language-change-trnd/index.html}{}$



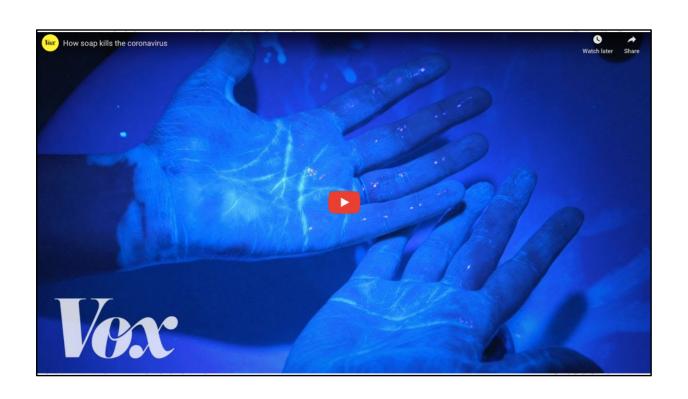
https://www.picturehangingsystems.com/stas-barrier-screen?gclid=EAlalQobChMlotWTo-fA6AlVKB6tBh3zvAuyEAAYASAAEgKTZPD_BwE

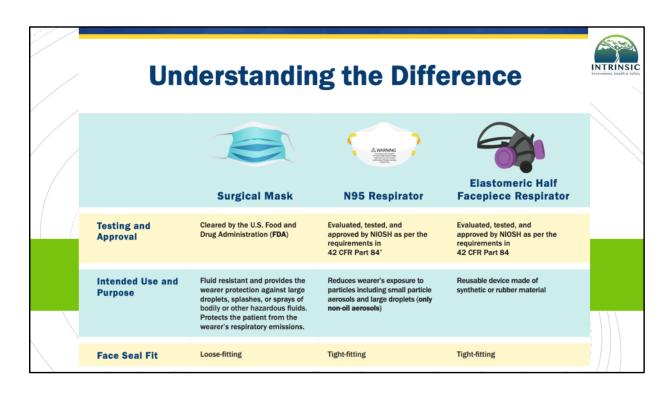
This illustrates how a seemingly invisible plexiglass barrier can protect workers, and the public from unexpected aerosol generating events (coughing, sneezing). Another recommendation could be to increase ventilation, where feasible.



CDC Recommends 60% alcohol based hand sanitizer at a minimum, but recommends 70% isopropanol.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/hand-hygiene.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Finfection-control%2Fhcp-hand-sanitizer.html





https://www.cdc.gov/niosh/npptl/pdfs/UnderstandingDifference3-508.pdf



https://www.cdc.gov/coronavirus/2019-ncov/images/face-covering-checklist.jpg



U.S. Surgeon General Jerome Adams Demonstrates How to Make a Cloth Face Covering

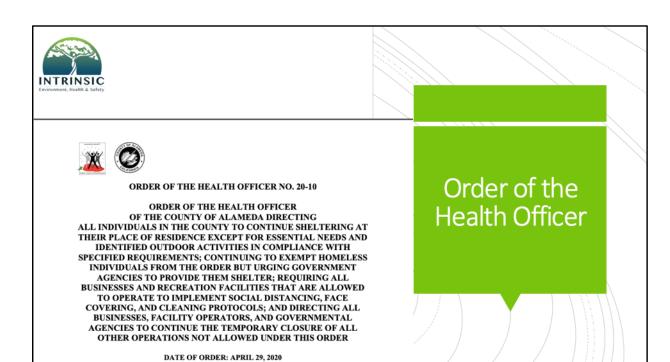
https://www.facebook.com/CDC/videos/1265861866938492/?v=1265861866938492

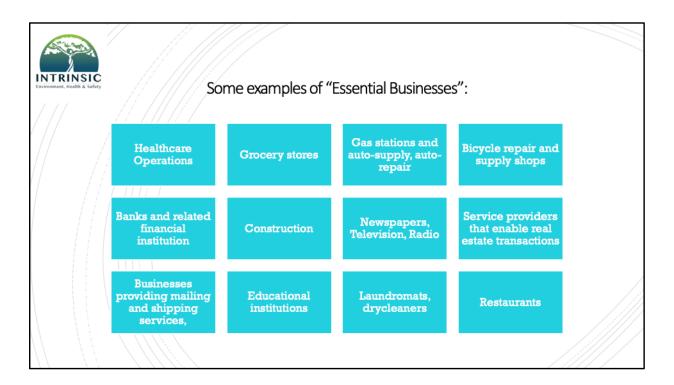


https://www.health.pa.gov/topics/disease/coronavirus/Pages/Social-Media.aspx



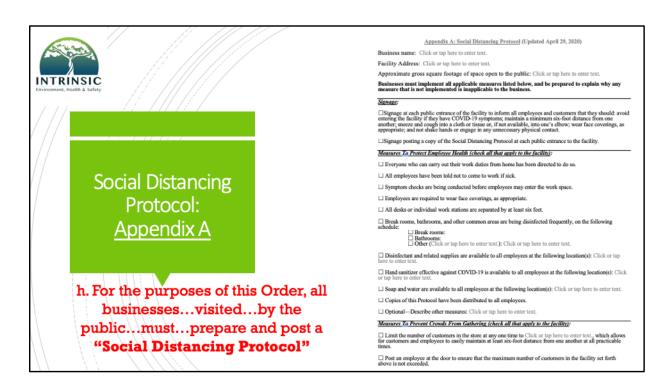
 $\frac{https://www.npr.org/sections/goatsandsoda/2020/04/10/832003425/coronavirus-faqs-do-gloves-heip-is-it-allergies-or-covid-19}{}$





http://www.acphd.org/media/572718/health-officer-order-20-10-shelter-in-place-20200429.pdf

Refer back to the Order for the complete list



http://www.acphd.org/2019-ncov/shelter-in-place.aspx



Appendix A: Social

Distancing <u>Protocol</u>

(Updated April 29, 2020)

Signage

Measures To Protect Employee Health

Measures To Prevent Crowds From Gathering

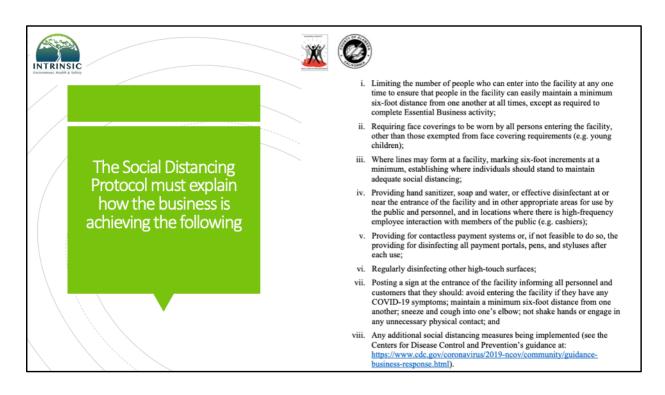
Measures To Keep People At Least Six Feet

<u>Apart</u>

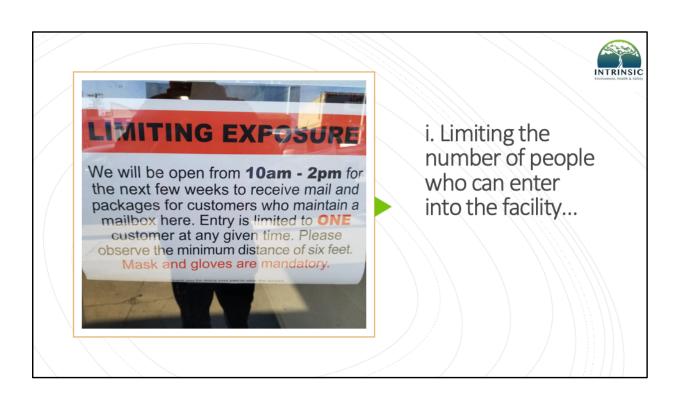
Measures To Prevent Unnecessary Contact

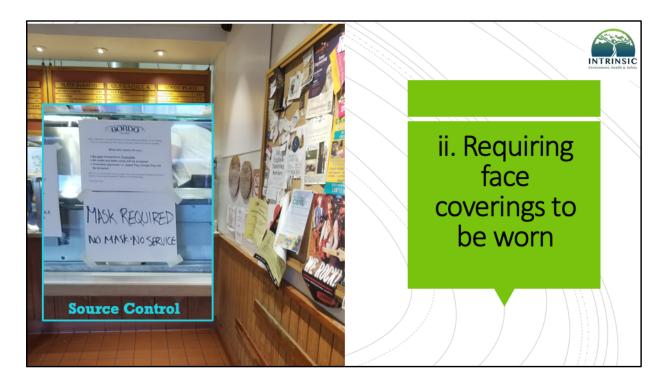
Measures To Increase Sanitization

http://www.acphd.org/2019-ncov/shelter-in-place.aspx



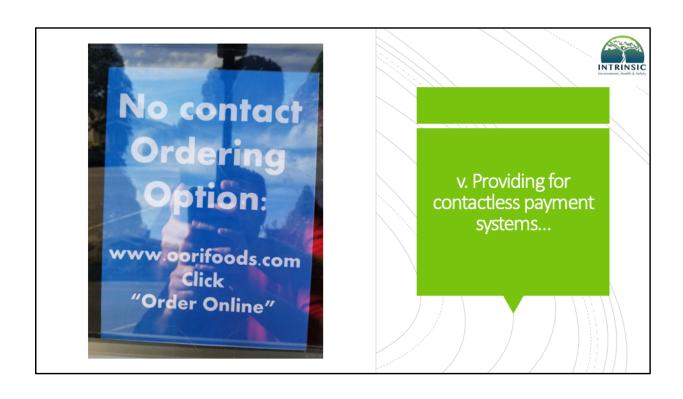
 $\frac{http://www.acphd.org/media/572718/health-officer-order-20-10-shelter-in-place-20200429.pdf}{20200429.pdf}$

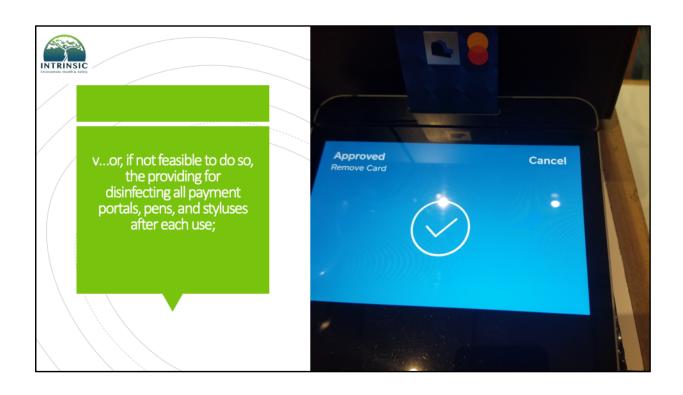




Restaurant is requiring masks.

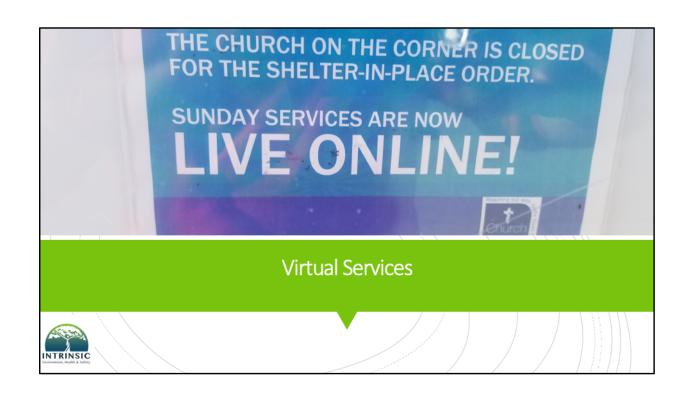






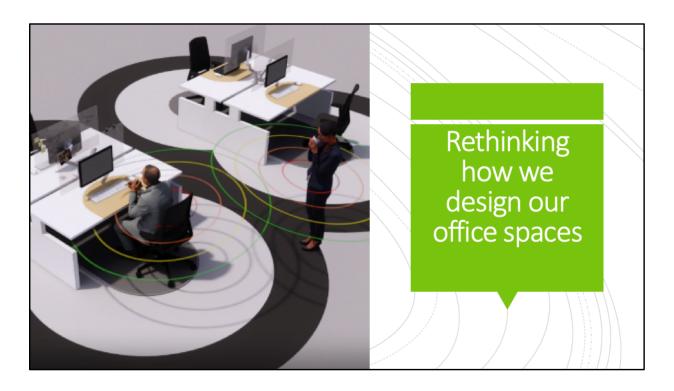




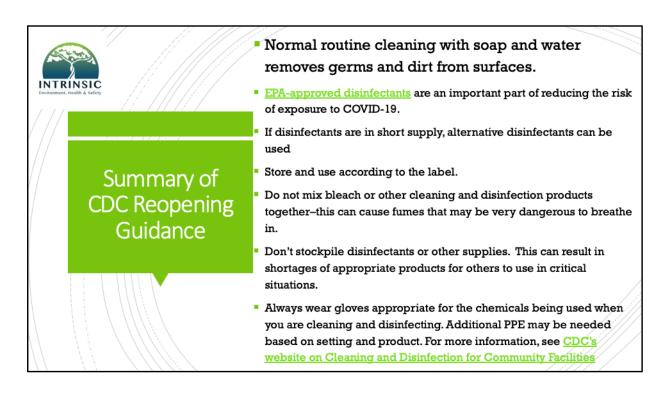




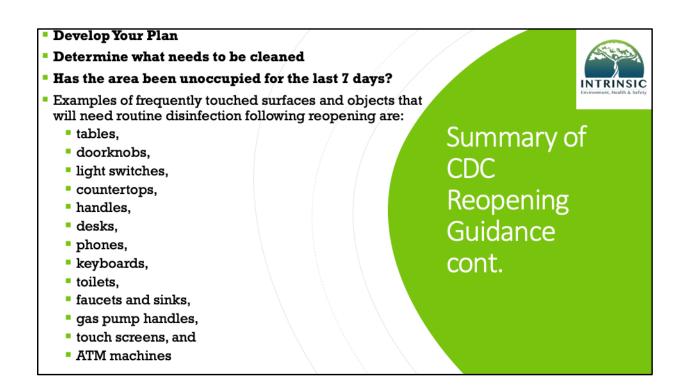




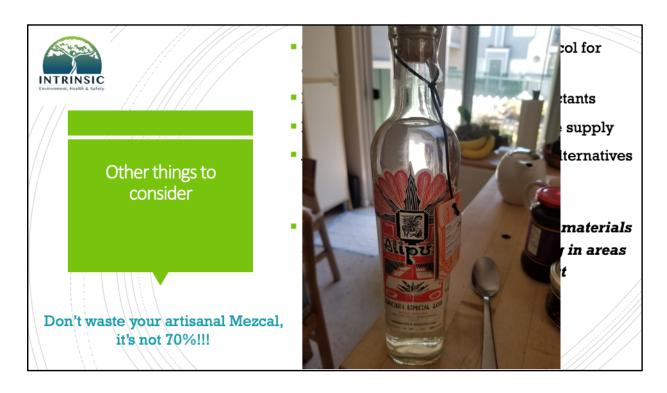
https://www.vox.com/recode/2020/4/14/21211789/coronavirus-office-space-work-from-home-design-architecture-real-estate



<u>Summary of CDC's Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes</u>



<u>Summary of CDC's Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes</u>



https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html



 CDC notes that bleach solutions will be effective for disinfection up to 24 hours



- Rutala et al. found that the concentration of available chlorine of bleach diluted 1:100 with tap water, was reduced to ~40% of the original concentration when stored in translucent spray or wash bottles for 30 days.
- Contrarily, bleach will retain 97% of its free available chlorine for up to 30 days if stored in a closed, opaque container, given that exposure to light will deactivate bleach.



Gov. Gavin Newsom is deciding whether to order that essential employees who contract coronavirus be presumed to have done so on the job — and thus automatically qualify for workers' comp benefits. Businesses warn that could cost billions.

 $\frac{https://calmatters.org/health/coronavirus/2020/04/essential-workers-comp-covid-california-newsom-coronavirus-benefits-presumption-order/$



 $\underline{https://www.cdc.gov/coronavirus/2019-ncov/downloads/stop-the-spread-of-germs.pdf}$









Questions?

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