

# *Preparing for Students – Assessment, Risks, and Decisions*

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UNMC

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Medicine and Infectious Diseases, Children's Hospital & Medical Center/UNMC

# Outline

- I. KM: Introduction to the series – COVID Response for Schools
- II. AS: COVID Overview and Transmission
- III. AS: Who is at high risk?
- IV. RM: Symptom Checker – Assessment
- V. RM: : Swim Lane COVID algorithm
- VI. KM: Children's Resources
- VII. ALL: Q&A session

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# COVID Response for Schools

Kim McClintick

## Objectives & Benefits

In partnership with the Nebraska Department of Education, Children's offers opportunities to learn and interact with Children's experts throughout this school year.

- Bi-directional training sessions on how to address the needs of students, with attention to those with chronic health conditions and special health care needs
- Inform and support to school nurses on how to safely assess students and staff for COVID-19 and how to isolate sick individuals
- Access to current information, practices and resources on a variety of COVID-19 related topics; networking with other school nurses and Children's experts in a community of practice; shared problem-solving; educational resource
- Children's webpage for school nurses (coming soon!)

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# SARS-CoV-2 Pandemic: Overview

Alice Sato

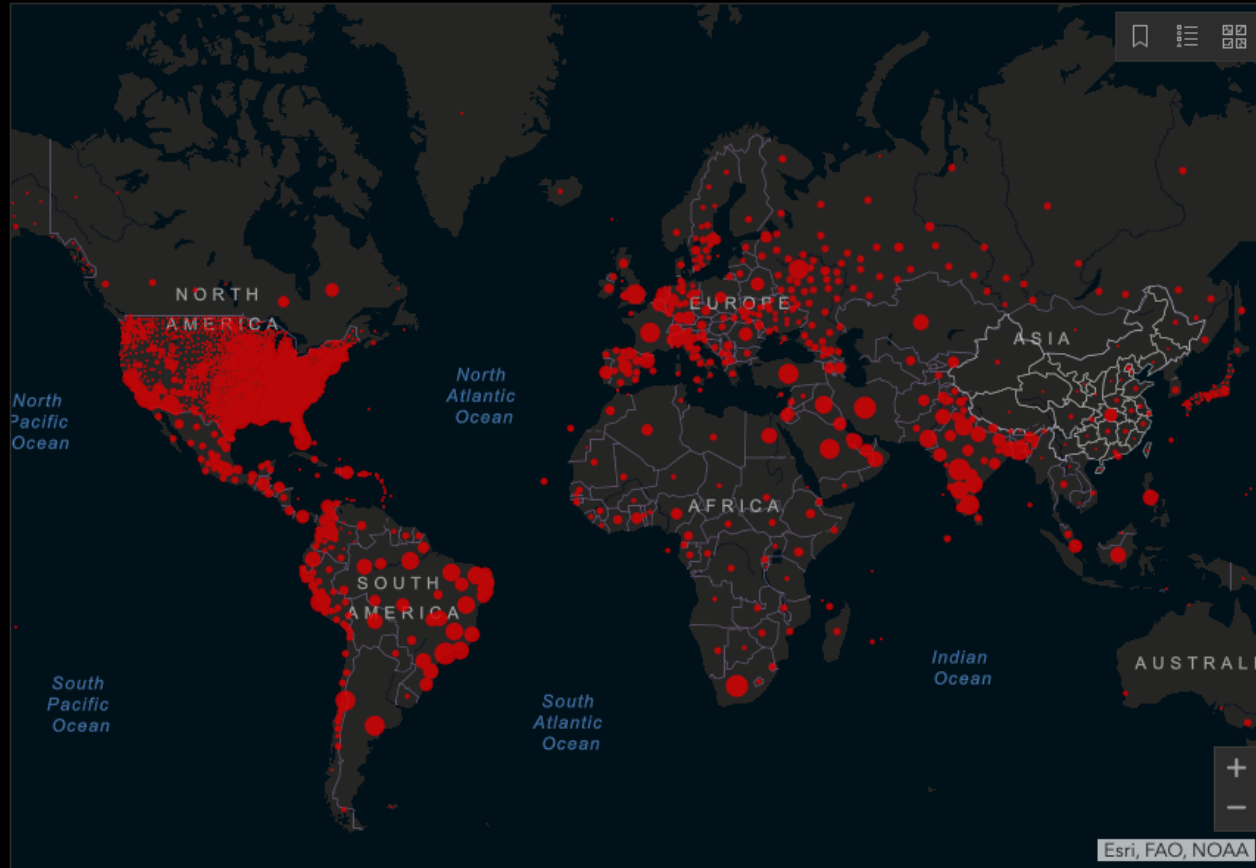


Global Cases

18,727,530

Cases by Country/Region/Sovereignty

- 4,821,287 US
- 2,859,073 Brazil
- 1,908,254 India
- 864,948 Russia
- 529,877 South Africa
- 456,100 Mexico
- 439,890 Peru
- 364,723 Chile
- 334,979 Colombia
- 317,483 Iran
- 307,258 United Kingdom
- 305,767 Spain
- 282,824 Saudi Arabia
- 281,136 Pakistan
- 248,803 Italy



Cumulative Cases | Active Cases | Incidence Rate | Case-Fatality Ratio | Testing Rate | Hospitalization Rate

188

countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Data sources: [Full list](#). Downloadable database: [GitHub](#), [Feature Layer](#).  
Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: [JHU](#), [NSF](#), [Bloomberg Philanthropies](#) and [Stavros Niarchos Foundation](#). Resource support: [Slack](#), [Github](#) and [AWS](#). Click [here](#) to [donate](#) to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. [FAQ](#). Read

Global Deaths

706,041

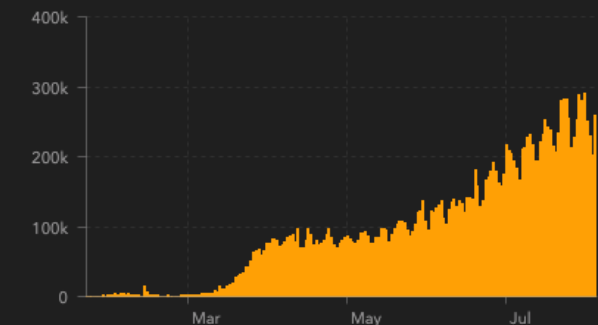
- 158,171 deaths US
- 97,256 deaths Brazil
- 49,698 deaths Mexico
- 46,295 deaths United Kingdom
- 39,795 deaths India
- 35,181 deaths Italy
- 30,297 deaths France

Global Deaths

US State Level Deaths, Recovered

- 32,754 deaths, 73,410 recovered New York US
- 15,842 deaths, 32,749 recovered New Jersey US
- 9,729 deaths, recovered California US
- 8,659 deaths, 99,021 recovered Massachusetts US
- 7,770 deaths, recovered Illinois US
- 7,706 deaths, 315,652 recovered

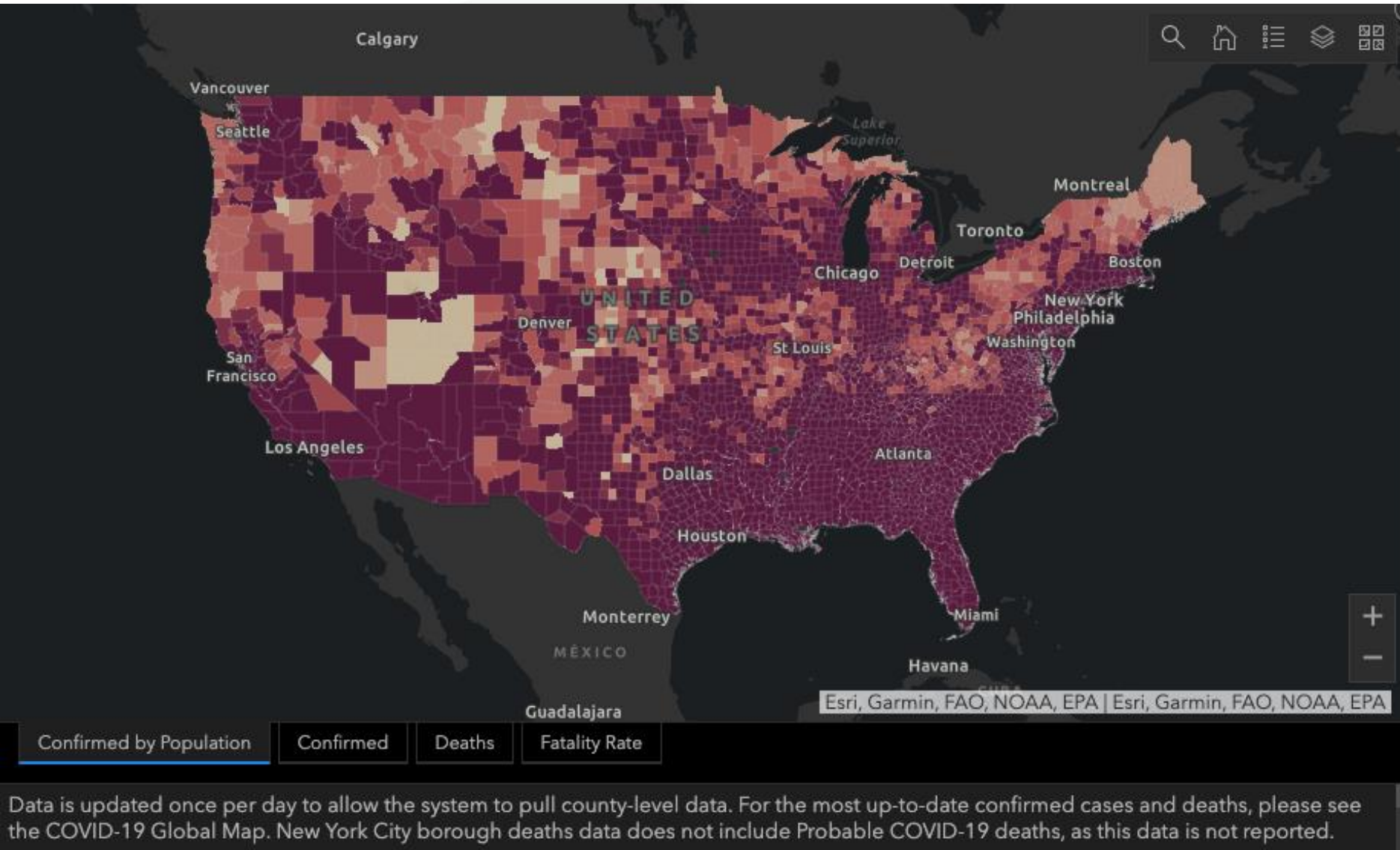
US Deaths, Recover...



Daily Cases

Last Updated at (M/D/YYYY)  
8/5/2020, 8:48:45 PM





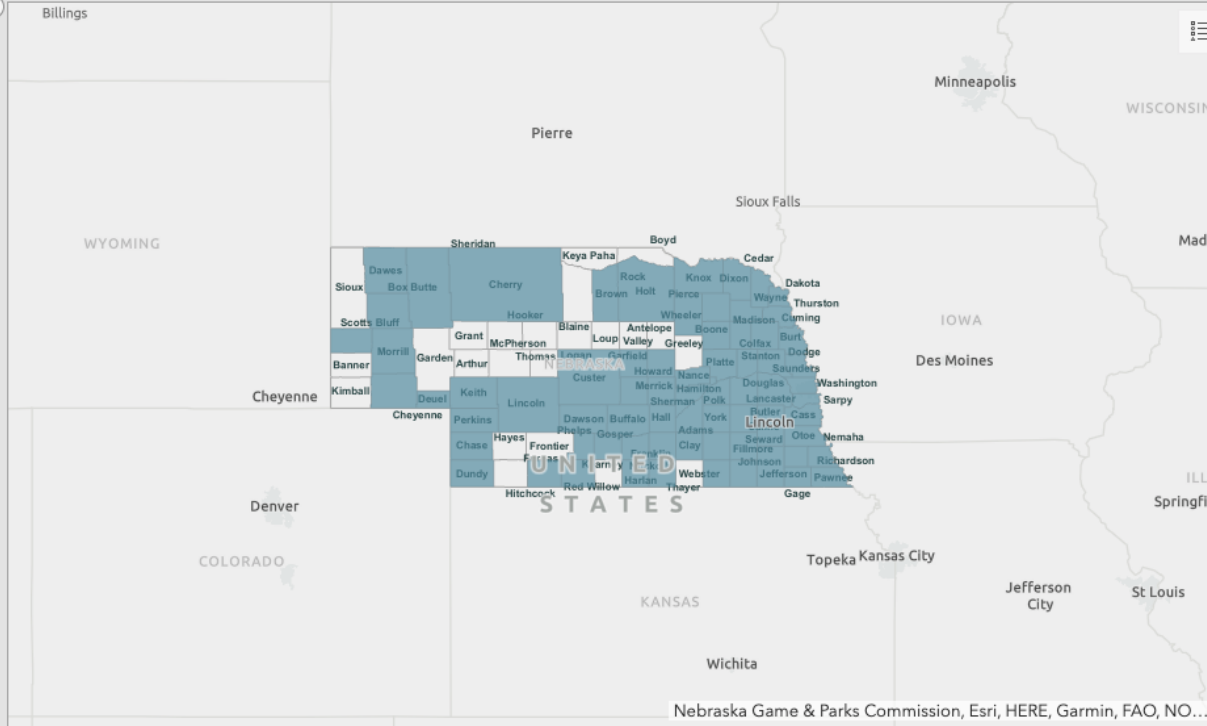
Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)

Total Positive Cases  
**27,489**

Total Tested  
**290,477**

Tested: Not Detected  
**262,692**  
\*Does not include inconclusive results

Deaths  
**335**



Number of positive tests by county in the last 14 days

- 1,836** Douglas
- 560** Lancaster
- 513** Sarpy
- 125** Buffalo
- 72** Hall
- 60** Dodge
- 58** Dawson
- 54** Platte
- 47** Seward
- 37** Cass
- 36** Saunders
- 35** Madison
- 34** Scotts Bluff
- 34** Washington
- 32** Dakota
- 31** Saline
- 25** Lincoln
- 24** Adams

Last Updated: 8/5/2020, 6:30:00 PM CDT

- Last 14 Day Positive Cases
- Total Positive Cases
- Hospital Capacity
- Positive Cases
- Hospitalized Cases
- Recoveries
- Deaths
- Race
- Ethnicity
- About the Data

Contact Nebraska Department of Health and Human Services (DHHS)

<http://dhhs.ne.gov/coronavirus>

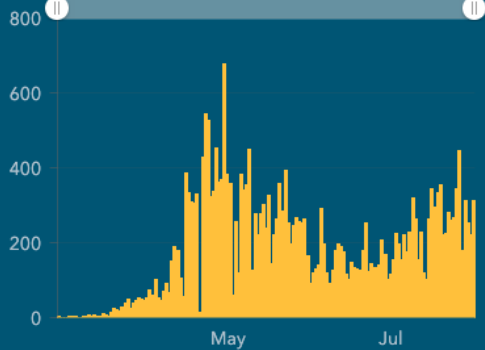
Information Line: (402) 552-6645

*Data are representative of Nebraska residents, are provisional and data reported by the local health department should be considered the most up to date.*



<https://experience.arcgis.com/experience/ece0db09da4d4ca68252c3967aa1e9dd>

New positive cases by date results were received

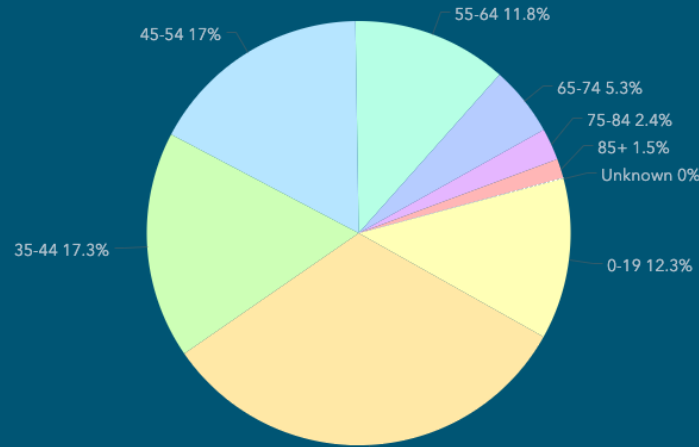


Positives by Date

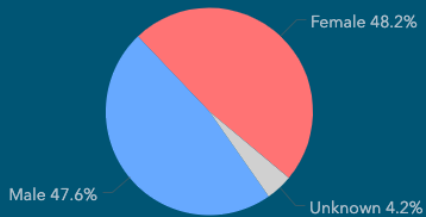
# Higher percentage in children than initial reports: 12.3%

Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)

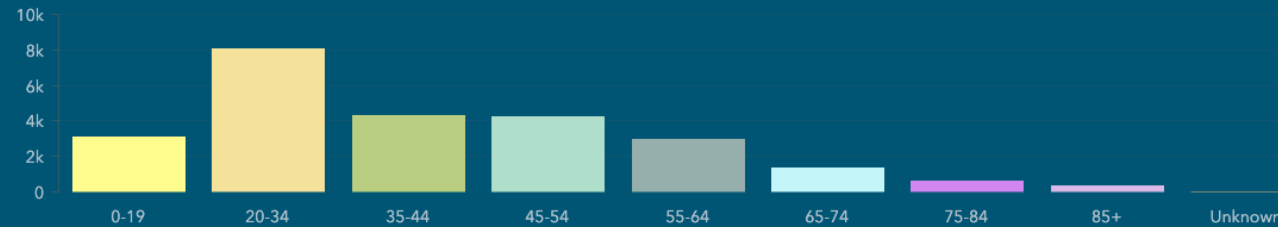
Total Positive Cases by Age Group



Total Positive Cases by Gender



Total Positive Cases by Age Group



# Total children hospitalized: 40

## Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)

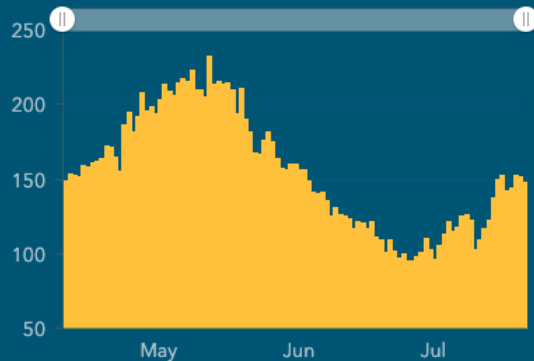
Active Hospitalizations

148

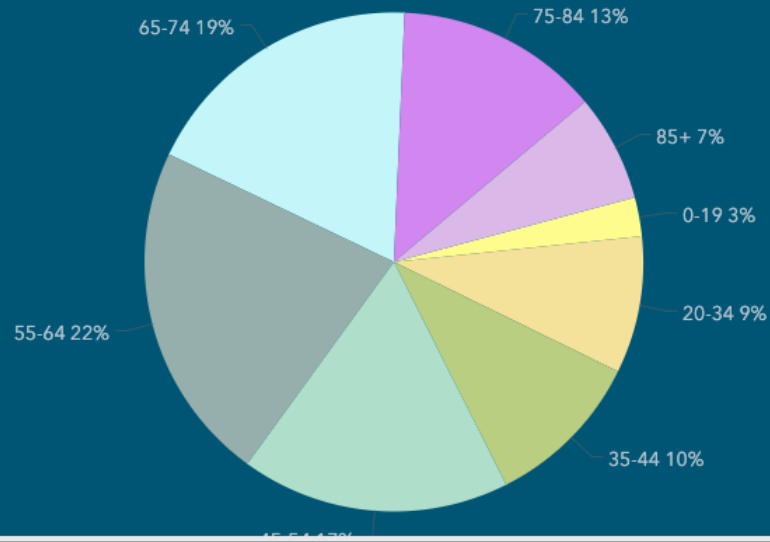
Total Cumulative Hospitalizations

1,681

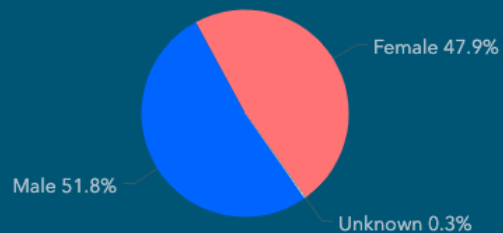
Daily Active Hospitalizations



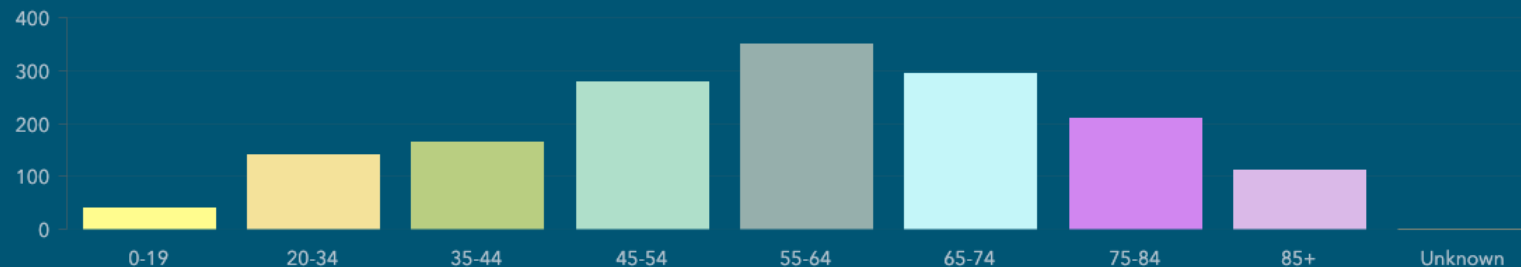
Total Cumulative Hospitalized Cases by Age Group



Total Cumulative Hospitalized Cases by Gender



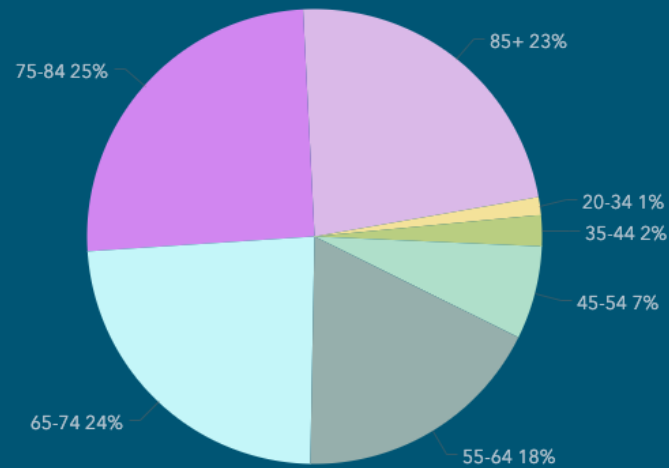
Total Cumulative Hospitalized Cases by Age Group



# Total pediatric deaths: 1 US (by end of July):

Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)

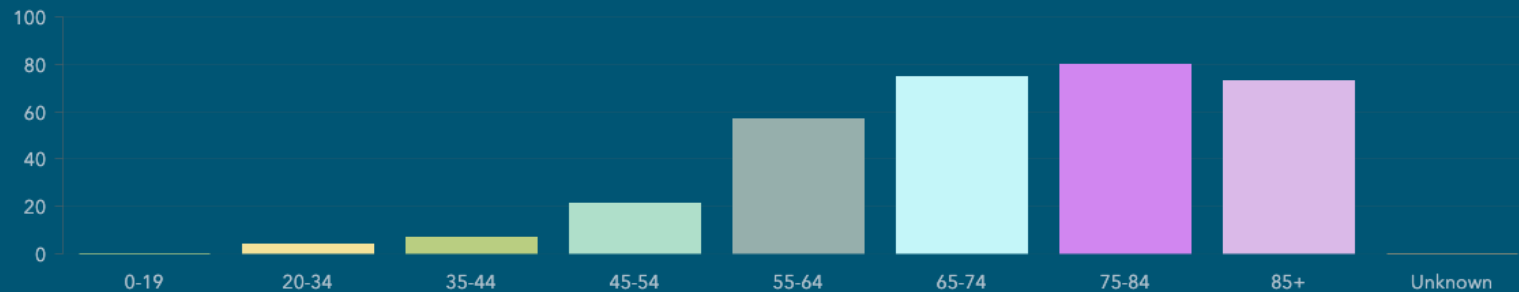
Deaths by Age Group



Deaths by Gender



Deaths by Age Group



## Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)



Last 14 Day Positive Cases

Total Positive Cases

Hospital Capacity

Positive Cases

Hospitalized Cases

Recoveries

Deaths

**Race**

Ethnicity

About the Data

Coronavirus COVID-19 Nebraska Cases by the Nebraska Department of Health and Human Services (DHHS)



Search for your state or county

NEBRASKA USA

# Nebraska

SHARE

RECEIVE ALERTS



UPDATES

**New key indicator added**  
We added daily new cases per 100k population. That changed the threat level from Medium to High. [Learn more](#)

Click to add text

151 per million



### DAILY NEW CASES

15.1 PER 100K

Very large number of new cases

New Indicator

### INFECTION RATE

1.07

COVID is still spreading, but slowly

### POSITIVE TEST RATE

9.0%

Indicates adequate testing

### ICU HEADROOM USED

23%

Can likely handle a new wave of COVID

Beta

### CONTACTS TRACED

65%

Insufficient tracing to stop the spread of COVID

Beta

Updated August 5, 2020

<https://covidactnow.org/us/ne?s=824153>



## TESTING OVERVIEW

### New Daily Cases



+180 new

WEEKLY TREND

THIS WEEK  LAST WEEK 

### Daily Tests



1.7 tests per 1,000

WEEKLY TREND

THIS WEEK  LAST WEEK 

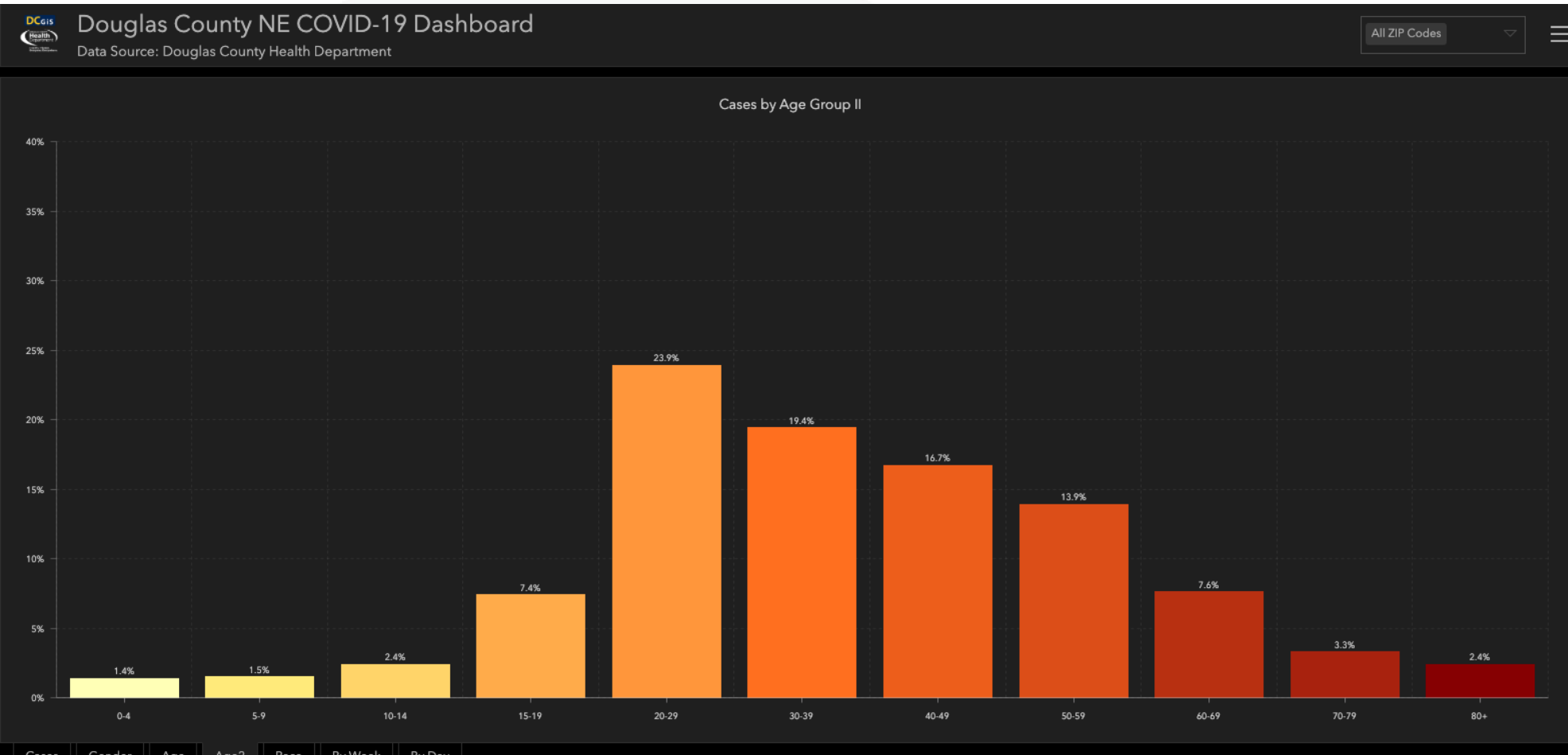
### Daily % Positive



9.0% positive

ABOVE THRESHOLD?

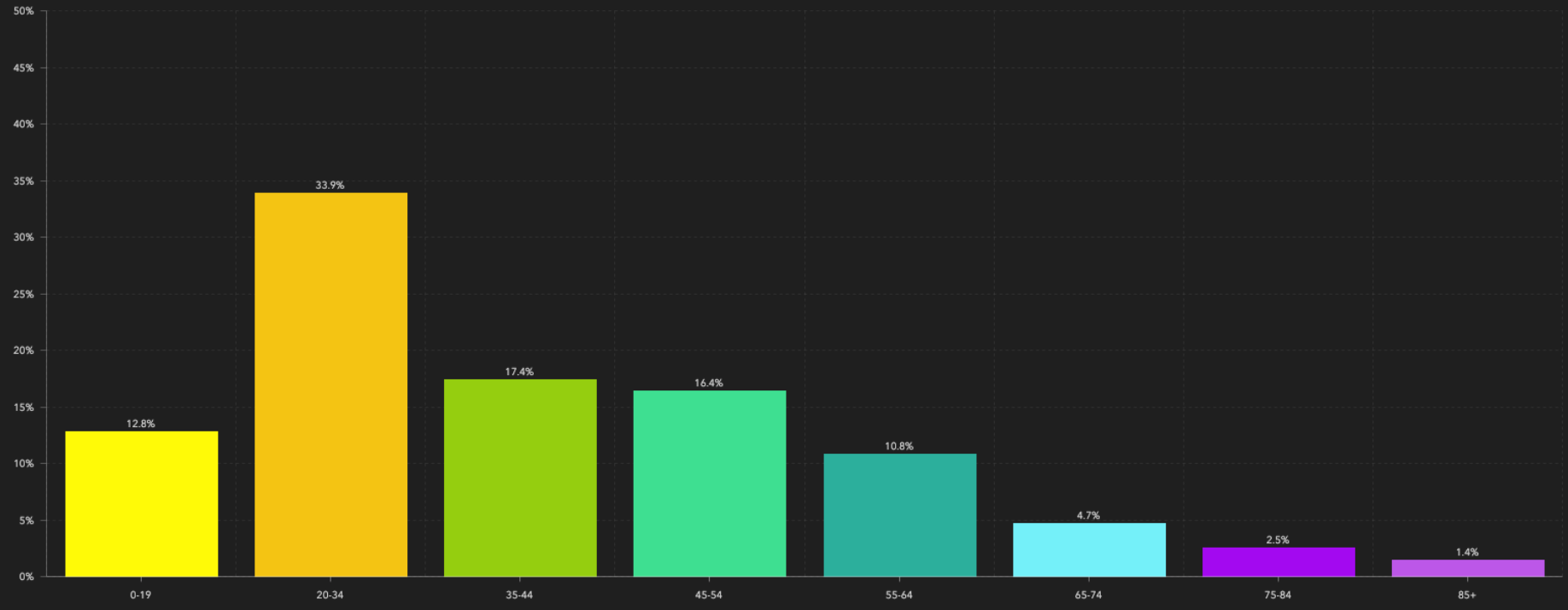
THIS WEEK  LAST WEEK 



DCgis  
health  
Douglas County NE COVID-19 Dashboard  
Data Source: Douglas County Health Department

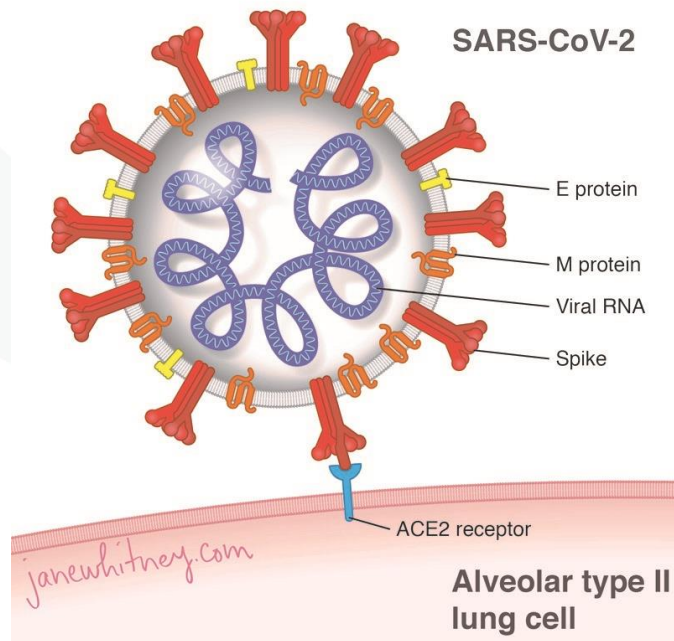
All ZIP Codes

Cases by Age Group



# DEFINITIONS

- SARS-CoV-2: the novel coronavirus that emerged in 2019



VS

- COVID-19

- MIS-C (or PMIS)

Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019 (COVID-19)



## SYMPTOMS OF CORONAVIRUS DISEASE 2019

Patients with COVID-19 have experienced mild to severe respiratory illness.

Symptoms\* can include

FEVER

COUGH

\*Symptoms may appear 2-14 days after exposure.

SHORTNESS OF BREATH

Seek medical advice if you develop symptoms, and have been in close contact with a person known to have COVID-19 or if you live in or have recently been in an area with ongoing spread of COVID-19.



For more information: [www.cdc.gov/COVID19-symptoms](http://www.cdc.gov/COVID19-symptoms)

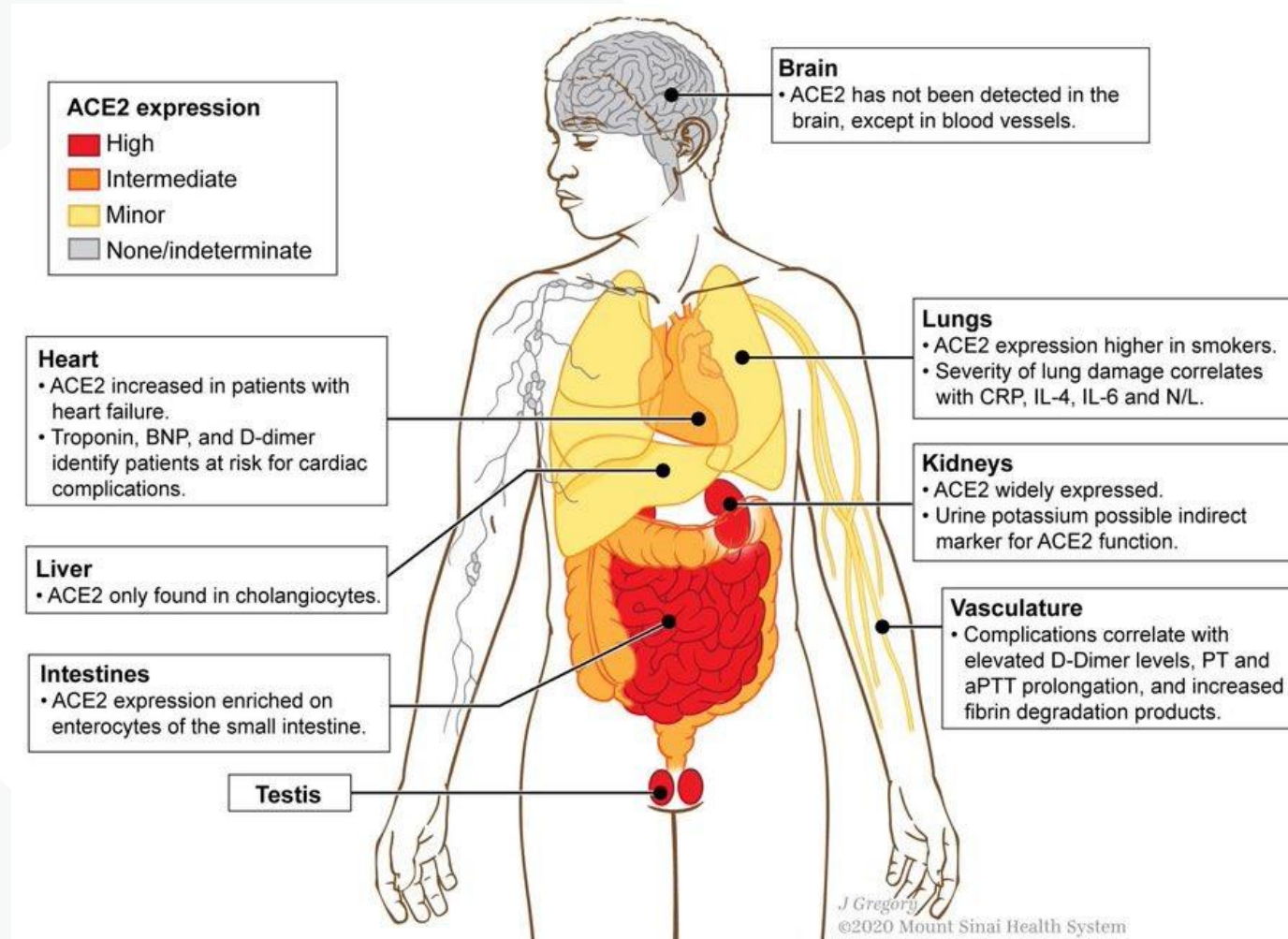
# COVID-19: acute infection

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
  
- Fatigue
- Muscle or body aches
- Headache
  
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
  
- Nausea or vomiting
- Diarrhea

# MIS-C: (probably) post-infectious

- Fever
- Abdominal pain
- Vomiting
- Diarrhea
  
- Neck pain
- Rash
- Bloodshot eyes
  
- Feeling extra tired

# ACE2 Expression: Multiple Tissues



# Transmission of SARS-CoV-2

Alice Sato

# SARS-CoV-2 Transmission

- Transmission may be through
  - droplets (splatter)
  - fomites/surfaces
  - in the air\*

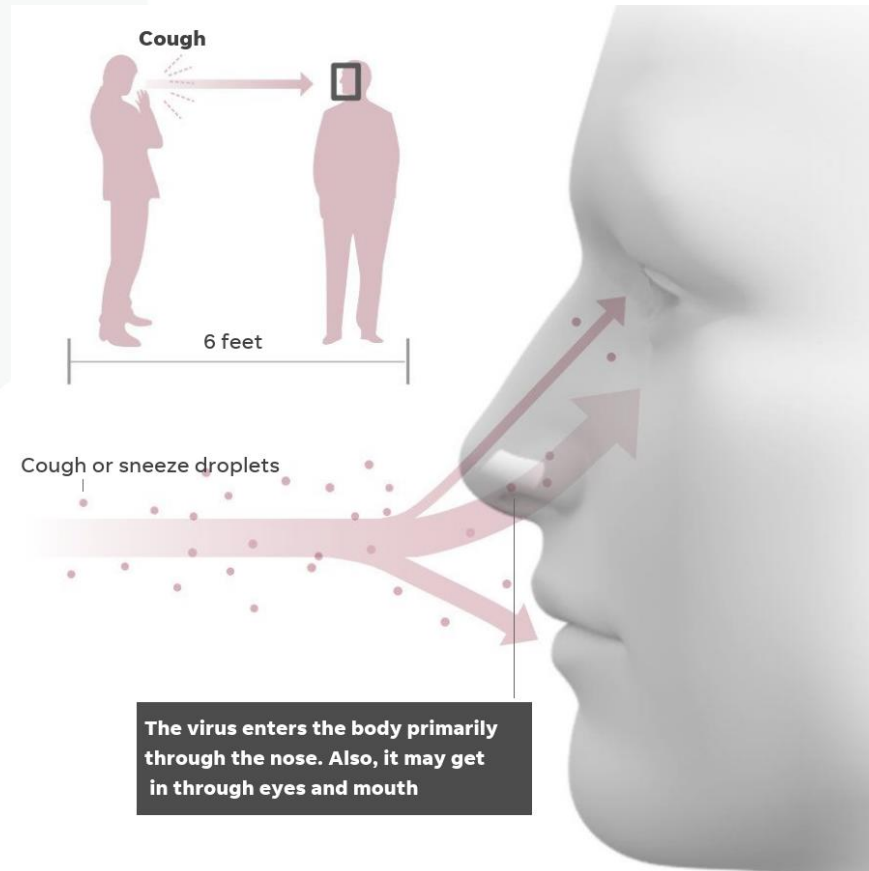


Image:  
USA Today

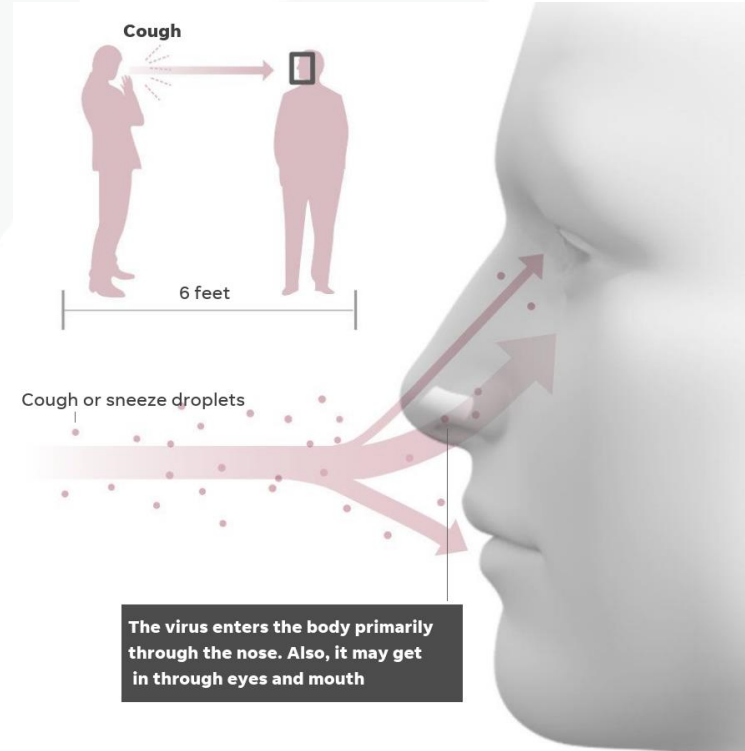


# SARS-CoV-2 Risks

- When an infected person coughs, sneezes, or talks they spread respiratory droplets or aerosols
- Touching a surface or object that has the virus on it, and then by touching your mouth, nose, or eyes.

## PREVENTION METHODS;

1. Physical distancing
2. Masking/eye protection
3. Hand washing, not touching eyes/nose/mouth
4. Good ventilation (or outdoors)



## After choir practice with one symptomatic person, 87% of group developed COVID-19



● index case

● 32 confirmed and 20 probable cases

● unaffected person

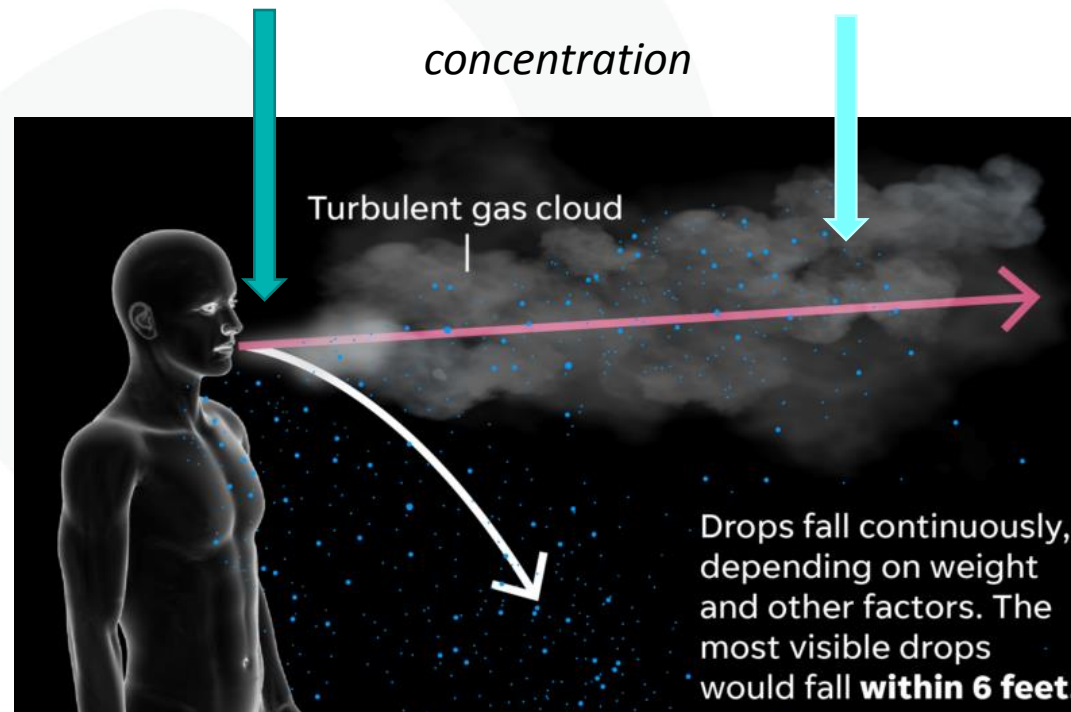
**COVID-19 spreads easily**

- Avoid groups
- Stay at least 6 feet apart
- Wear face coverings

# How is COVID-19 spread?

Risk depends on distance and covering of nose/mouth

- droplets affected by gravity
- gas cloud disperses into volume; air exchange effects





## Visualizing the effectiveness of face masks in obstructing respiratory jets

Cite as: Phys. Fluids 32, 061708 (2020); doi: [10.1063/5.0016018](https://doi.org/10.1063/5.0016018)

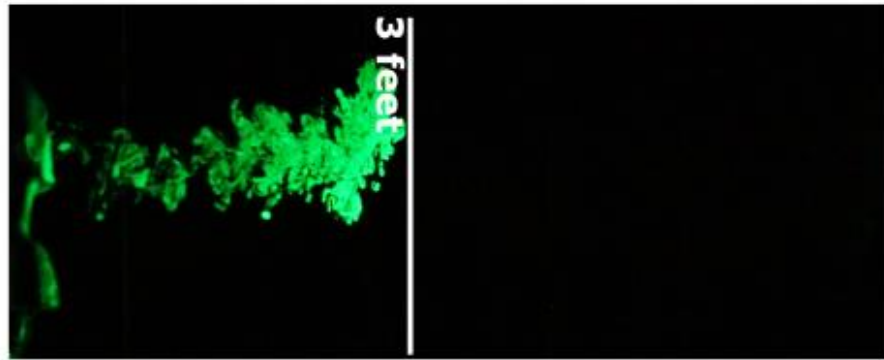
Submitted: 31 May 2020 • Accepted: 6 June 2020 •

Published Online: 30 June 2020

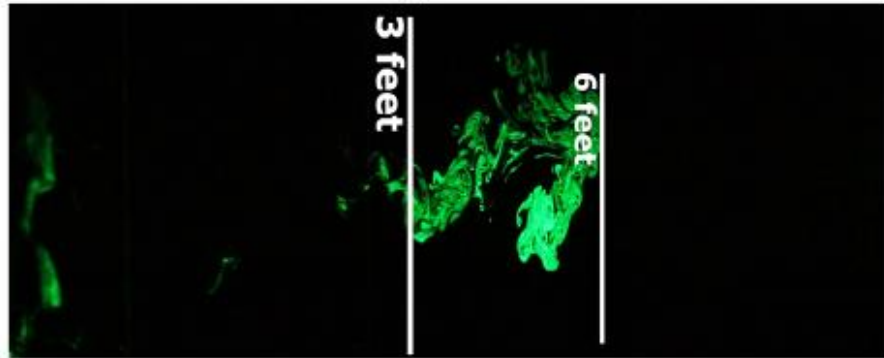


Siddhartha Verma,<sup>a)</sup>  Manhar Dhanak,<sup>b)</sup>  and John Frankenfield<sup>c)</sup>

**FIG. 2.** An emulated heavy cough jet travels up to 12 ft in ~50 s, which is twice the CDC's recommended distancing guideline of 6 ft.<sup>7</sup> Images taken at (a) 2.3 s, (b) 11 s, and (c) 53 s after the initiation of the emulated cough.



(a)



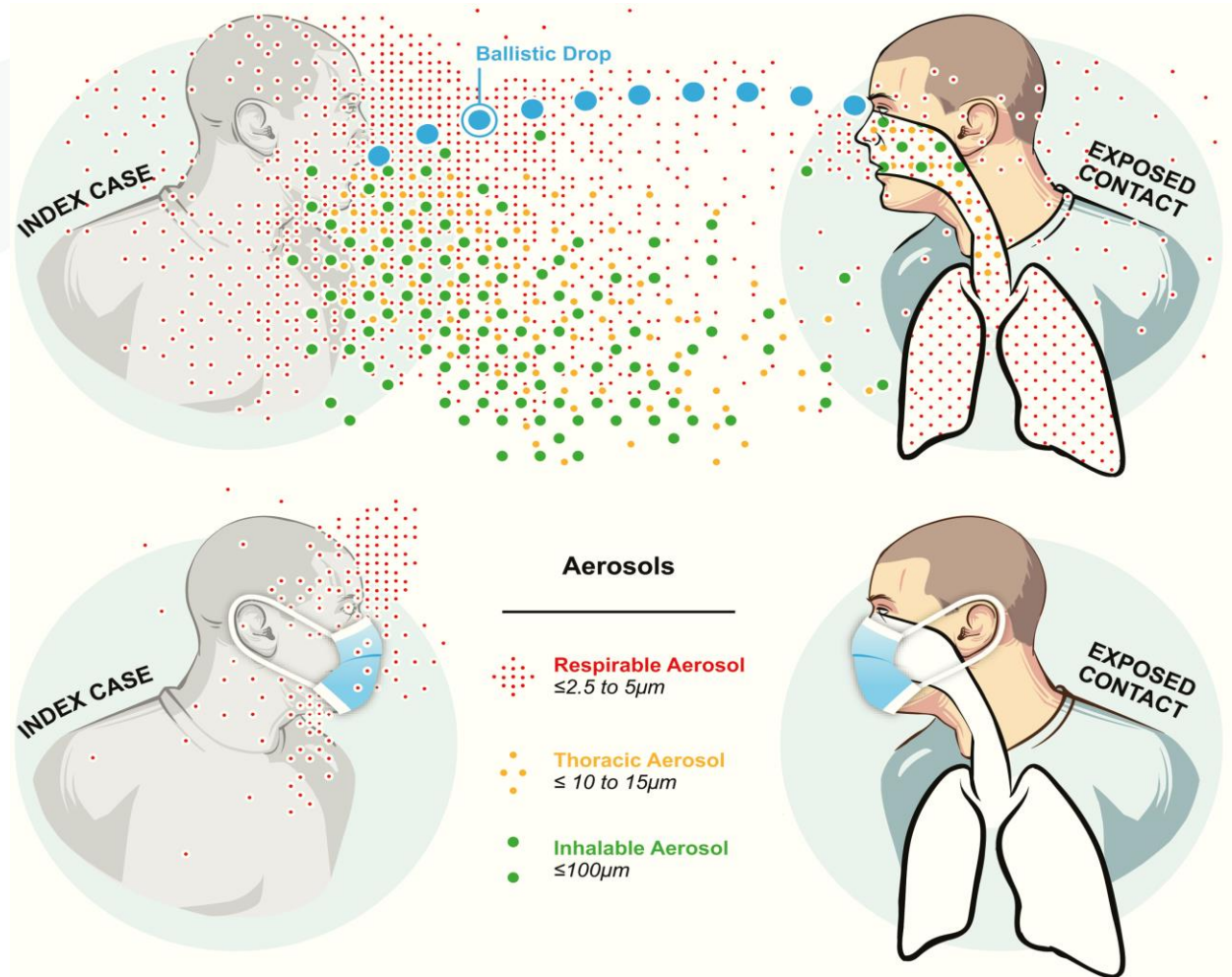
(b)



(c)

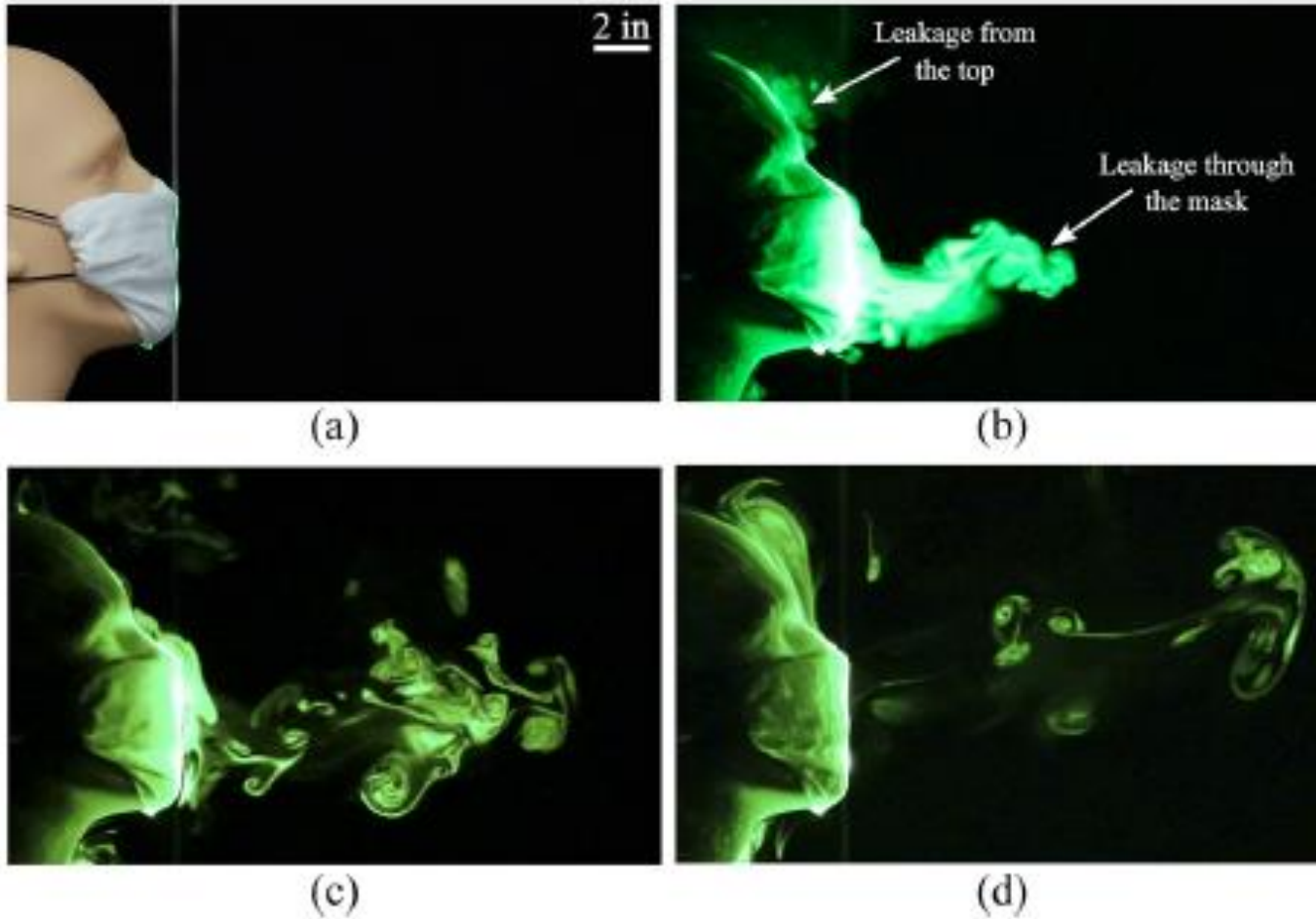
COUGH =  
SPLATTER

**Figure 1.** Short-range transmission potential of ballistic drops and droplet aerosols in the inhalable, thoracic, and ...

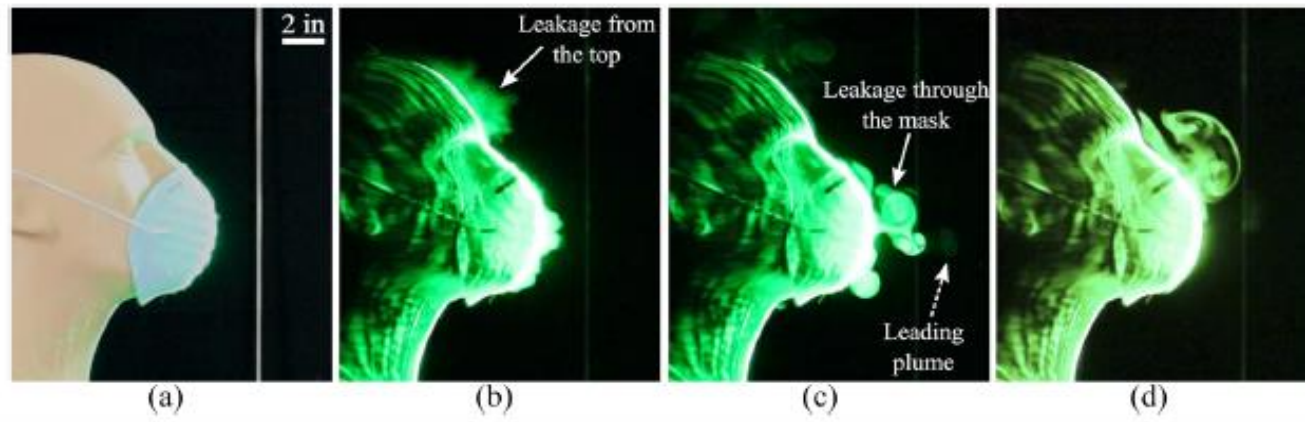


**Source control**

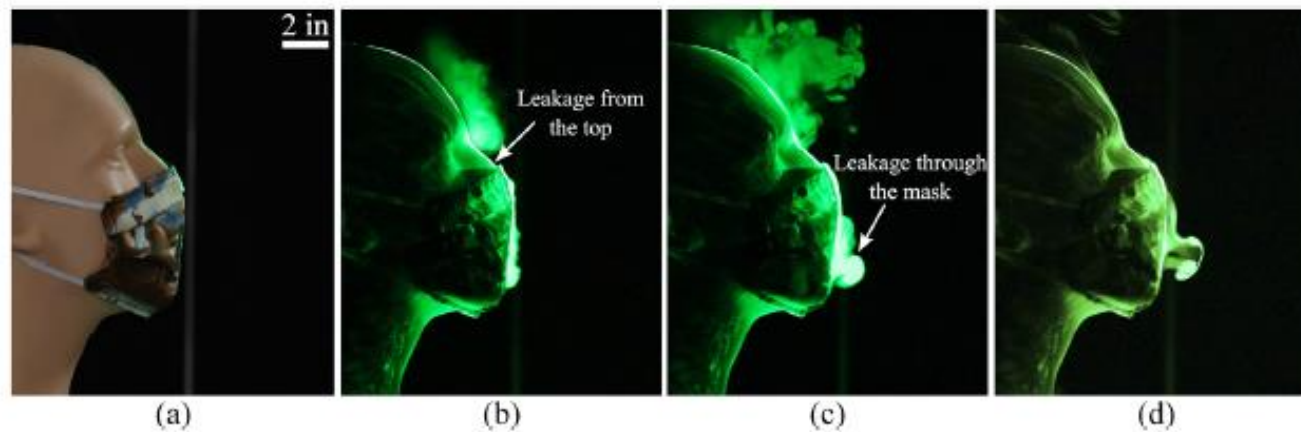
**Protection**



**FIG. 3.** (a) A face mask constructed using a folded handkerchief. Images taken at (b) 0.5 s, (c) 2.27 s, and (d) 5.55 s after the initiation of the emulated cough.



**FIG. 5.** (a) An off-the-shelf cone style mask. (b) 0.2 s after initiation of the emulated cough. (c) 0.97 s after initiation of the emulated cough. The leading plume, which has dissipated considerably, is faintly visible. (d) 3.7 s after initiation of the emulated cough.



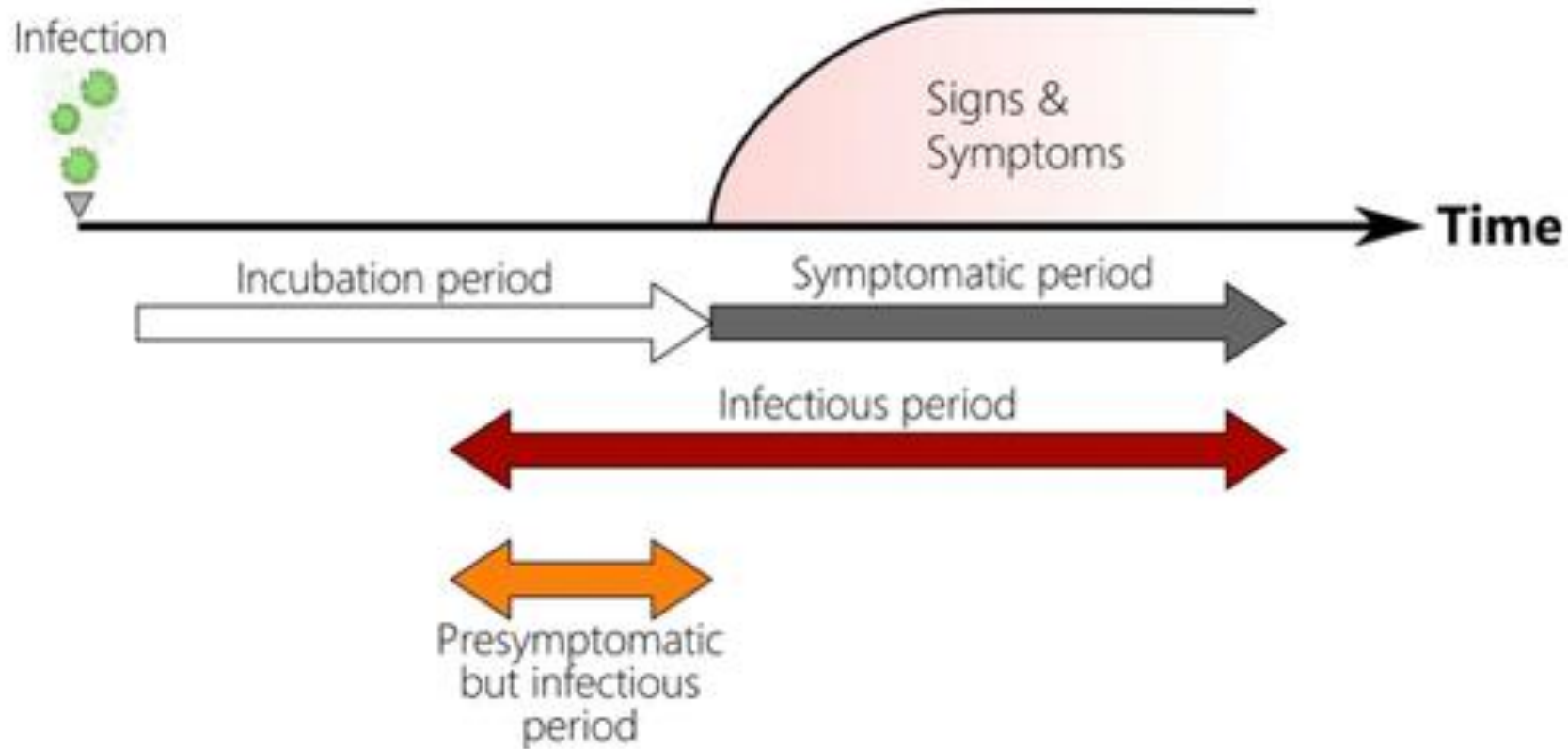
**FIG. 4.** (a) A homemade face mask stitched using two-layers of cotton quilting fabric. Images taken at (b) 0.2 s, (c) 0.47 s, and (d) 1.68 s after the initiation of the emulated cough.

**TABLE I.** A summary of the different types of masks tested, the materials they are made of, and their effectiveness in impeding droplet-dispersal. The last column indicates the distance traveled by the jet beyond which its forward progression stops. The average distances have been computed over multiple runs, and the symbol “~” is used to indicate the presence of high variability in the first two scenarios listed.

Mask type	Material	Threads/in.	Average jet distance
Uncovered	...	...	~8 ft
Bandana	Elastic T-shirt material	85	~3 ft 7 in.
Folded handkerchief	Cotton	55	1 ft 3 in.
Stitched mask	Quilting cotton	70	2.5 in.
Commercial mask <sup>a</sup>	Unknown	Randomly assorted fibres	8 in.

<sup>a</sup>CVS Cone Face Mask.





# Asymptomatic spread



40-45% of infections  
are asymptomatic,  
but infectious

Two hair stylists with **COVID-19**  
spent at least 15 minutes with 139 clients

**EVERYONE WORE FACE COVERINGS**  **NO CLIENTS ARE KNOWN TO BE INFECTED\***



**WEAR CLOTH FACE COVERINGS CONSISTENTLY AND CORRECTLY TO SLOW THE SPREAD OF COVID-19**

\*No clients reported symptoms; all 67 customers tested had negative tests

CDC.GOV

[bit.ly/MMWR71420](https://bit.ly/MMWR71420)

MMWR

During all interactions with clients at salon A, stylist A wore a **double-layered cotton face covering**, and stylist B wore a double-layered cotton face covering or a surgical mask.

During Stylist A's symptomatic period, the two stylists interacted while neither was masked during intervals between clients.

## Requirements

For all students and adults



Low community spread



Physical distance



Mask wearing



Hand hygiene and disinfection



HEPA air filtration indoors or outdoor activities

# K-12 School Relative Risk Index



[www.covid19reopen.com](http://www.covid19reopen.com)

	Transportation to and from school	Routine classwork	Lunchtime <small>Assuming 6 feet of distancing at all times</small>	Arts & Humanities	Recess & Athletics
Low	Walk or ride a bicycle	Desk-based instruction	Picking up prepackaged meals	Art Indoor	Outdoor playground
Low	Automobile Household members only	Shop/Vocational-technical	Outdoor eating	Supervised clubs/Organizations	Outdoor non-contact sports
Medium	Automobile Carpool/non-household members	Going to the restroom	Cafeteria lunch line	Band/Orchestra	Indoor non-contact sports
High	School bus	Unmonitored study hall	Indoor eating Classroom	Choir	All contact sports, indoor or outdoor
High	Public transportation (Subway, bus)	Lockers/Changing rooms between classes	Indoor seating Cafeteria	Drama performances	Locker rooms

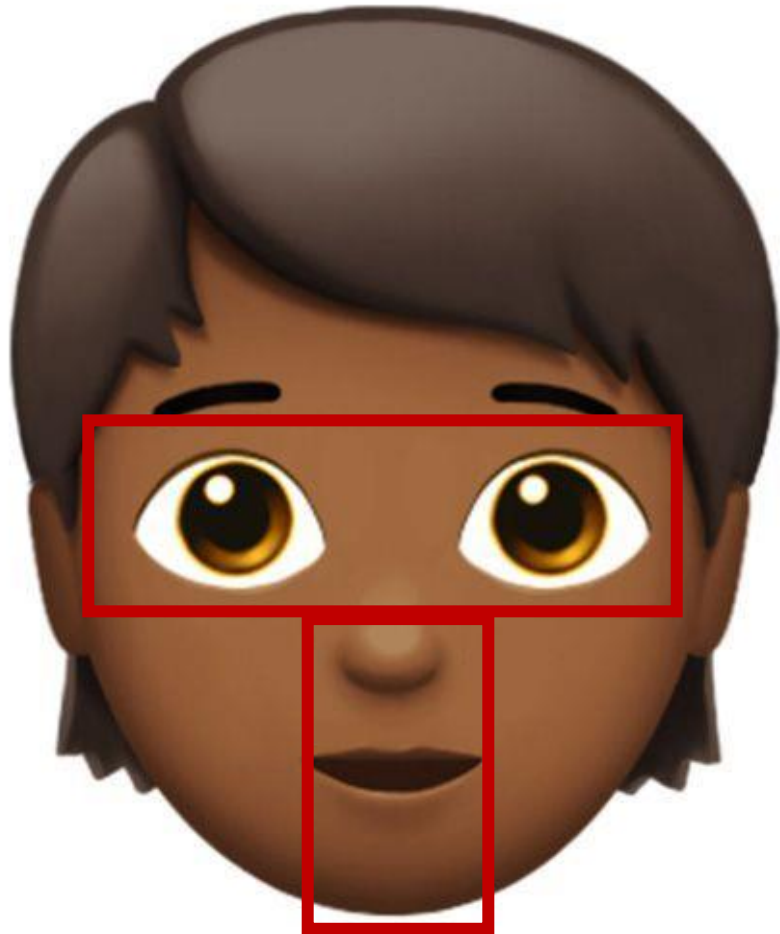
## Risk Reducing Actions

- Classes outdoors (e.g., using tents)
- Maximum class size of 10-15 students
- Open classroom windows
- Stagger drop-off and pick-up times
- Pod students in groups
- Switch teachers between classes, not students
- Limit shared items
- Make unused spaces classrooms (e.g., gyms and band rooms)

Ezekiel J. Emanuel, MD, PhD Perelman School of Medicine at the University of Pennsylvania  
 James P. Phillips, MD George Washington University School of Medicine and Health Sciences  
 Saskia Popescu, PhD, MPH University of Arizona/George Mason University

SOURCES:  
 CDC (<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>)  
 NASEM (<https://www.nationalacademies.org/our-work/guidance-for-k-12-education-on-responding-to-covid-19>)

# Protect this!



Masks

EVEN WHEN 6 FT APART

Eye protection/face shield

# Avoid the "3 Cs"

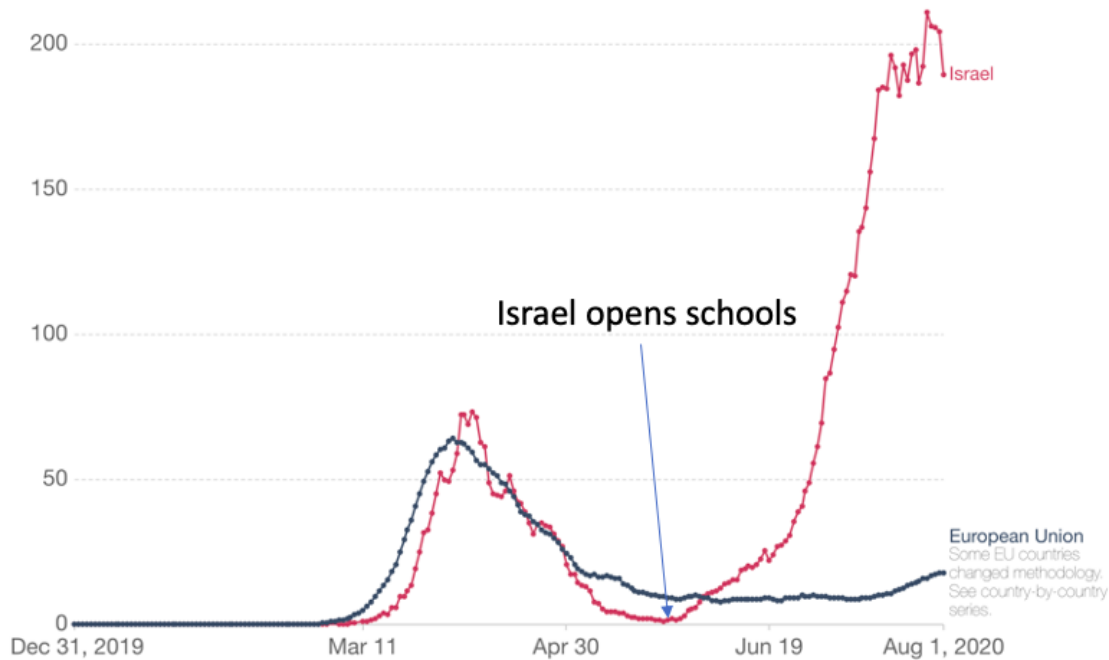


<https://www.burlingtonvt.gov/covid-19/guidance>

## Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Our World  
in Data



Source: European CDC – Situation Update Worldwide – Last updated 1 August, 10:02 (London time)

CC BY

Online Banking & Bill Pay | Bellco Credit Union  
bellco.org/personal/.../online-banking.aspx

WATCH LIVE NEWS CORONAVIRUS ON YOUR SIDE WEATHER S

## Georgia camp with COVID-19 outbreak didn't require masks

### CORONAVIRUS OUTBREAK

- 44% of all attendees contracted COVID-19
- 51% ages 6-10
- 44% ages 11-17



Hospitalizations from COVID-19 increase in Georgia: CDC releases report on YMCA infections

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Physical distance



Mask wearing



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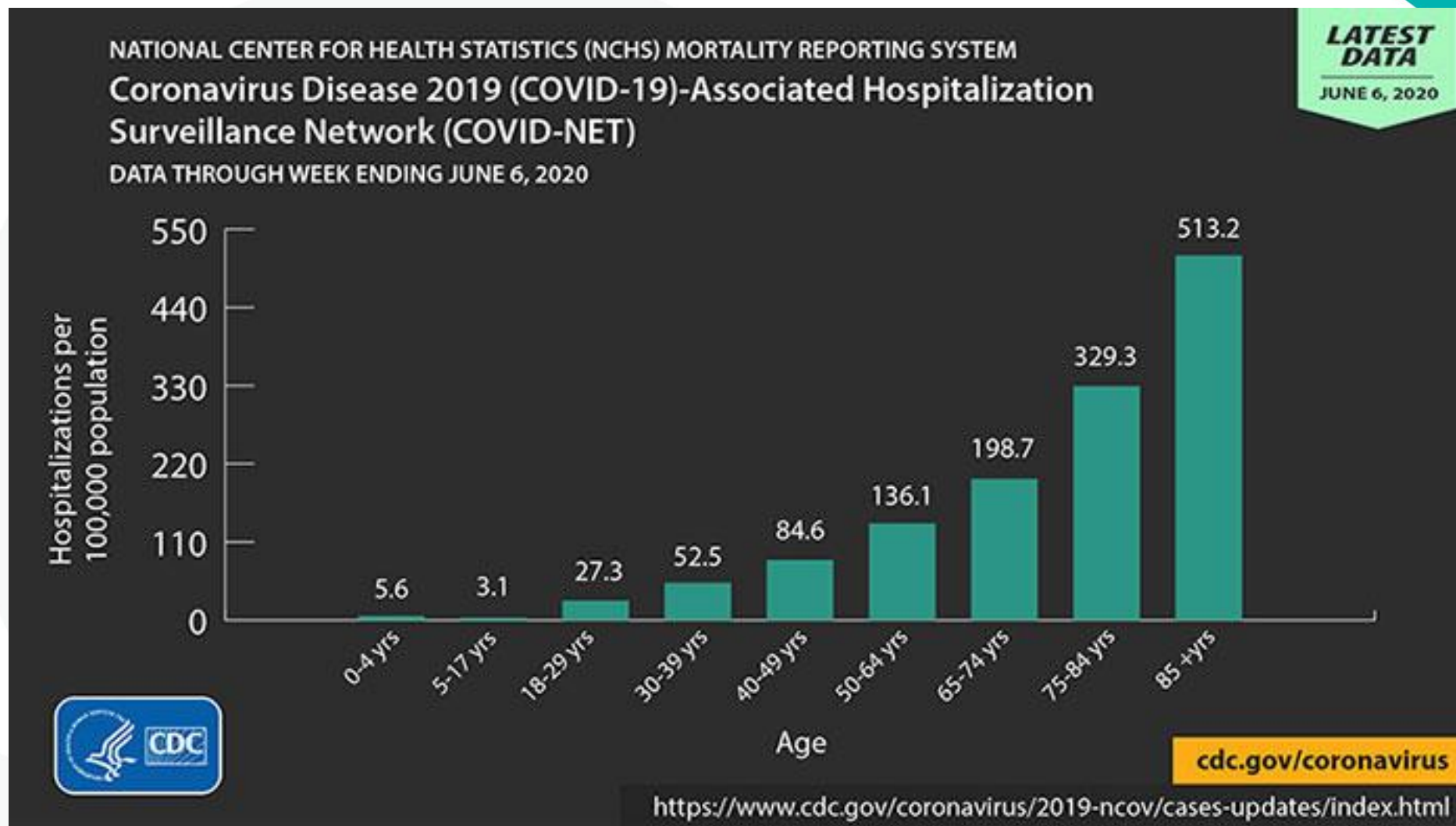
SOURCES:  
 CDC (<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>)  
 NASEM (<https://www.nationalacademies.org/our-work/guidance-for-k-12-education-on-responding-to-covid-19>)



# Who is at highest risk for severe COVID-19?

Alice Sato

# Age



# Underlying Medical Conditions

- CDC: Increased risk – Any AGE

- Cancer
- Chronic Kidney disease
- COPD
- Weakened immune system from solid organ transplant
- Obesity (BMI  $\geq 30$ )
- Serious heart conditions
- Sickle Cell Disease
- Type 2 diabetes

## Might be at increased risk?

- Asthma (moderate-to-severe)
- Cerebrovascular disease (affects blood vessels and blood supply to the brain)
- Cystic fibrosis
- Hypertension or high blood pressure
- Immunocompromised state (weakened immune system) from blood or bone marrow transplant, immune deficiencies, HIV, use of corticosteroids, or use of other immune weakening medicines
- Neurologic conditions, such as dementia
- Liver disease
- Pregnancy
- Pulmonary fibrosis (having damaged or scarred lung tissues)
- Smoking
- Thalassemia (a type of blood disorder)
- Type 1 diabetes mellitus

# Children: Who is at Highest Risk?

"Children who have medical complexity, who have neurologic, genetic, metabolic conditions, or who have congenital heart disease **might be** at increased risk for severe illness from COVID-19 compared to other children."

<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-increased-risk.html>

from imgur u/lostfly



## Below-the-nose community stunned as study shows nose connected to lungs

*Ogden, Utah (UPI)* — Scientists with the National Institute for Understanding Basic Anatomy shocked the world today by announcing the discovery that in humans, the nose is attached to the lungs. The revelation deals a stunning blow to the growing community of those who wear Covid masks below the nose.

“What? How can that be?” asked an incredulous Roger Shmutz of Peoria, Illinois, mask dangling from his upper lip. “My nose is right next to my mouth. How is it not connected to the stomach? That doesn’t make any sense.”

# Wearing a mask protects YOU... And ME!

- Viral load (amount of virus) at time of infection directly correlates with severity of illness for influenza, other viruses
  - Shown in humans and animal models
- SARS-CoV-2\*:
  - Healthcare workers in China, Italy more severely affected before universal masking

\*h/t Monica Gandhi, MD MPH (UCSF)

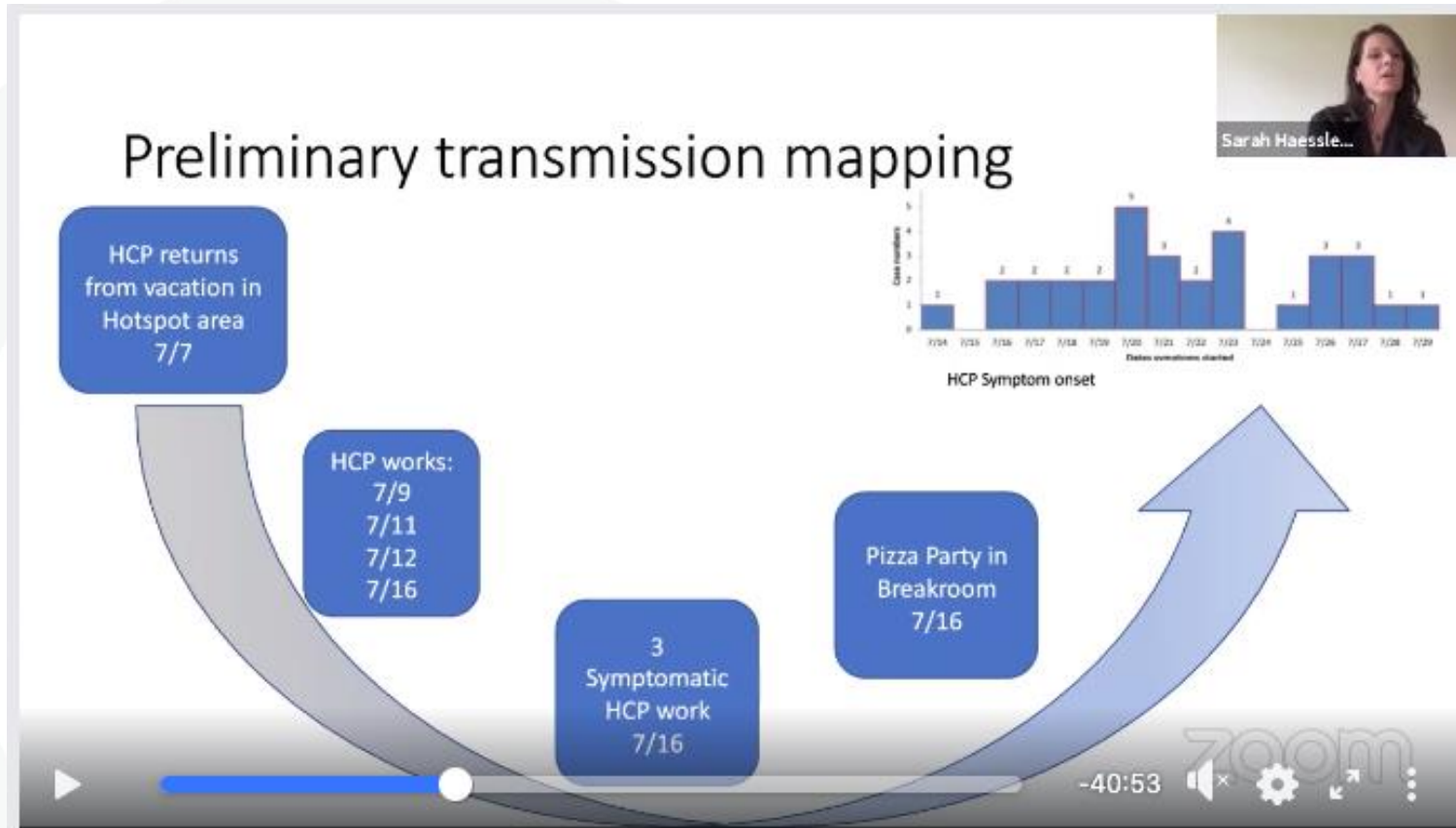
# Wearing a mask protects YOU... And ME!

- SARS-CoV-2\*:
  - Argentinian cruise ship provided masks (surgical to passengers, N95s to crew) - > **81%** asymptomatic
  - Indiana pediatric hemodialysis unit outbreak with universal masking: seroconversions but **no** illness in 11/25 HCWs (44%) and 3/13 patients (23%)
  - Missouri Tyson chicken plant, masks issued: 371 employees infected, **85%** asymptomatic
  - Oregon Pacific Seafood facilities, masks issued: 124 infected, **95%** asymptomatic

40-45% of  
infections are  
asymptomatic

\*h/t Monica Gandhi, MD MPH (UCSF)

# Co-worker transmission



### SHEA's Weekly COVID-19 Town Hall Round 17



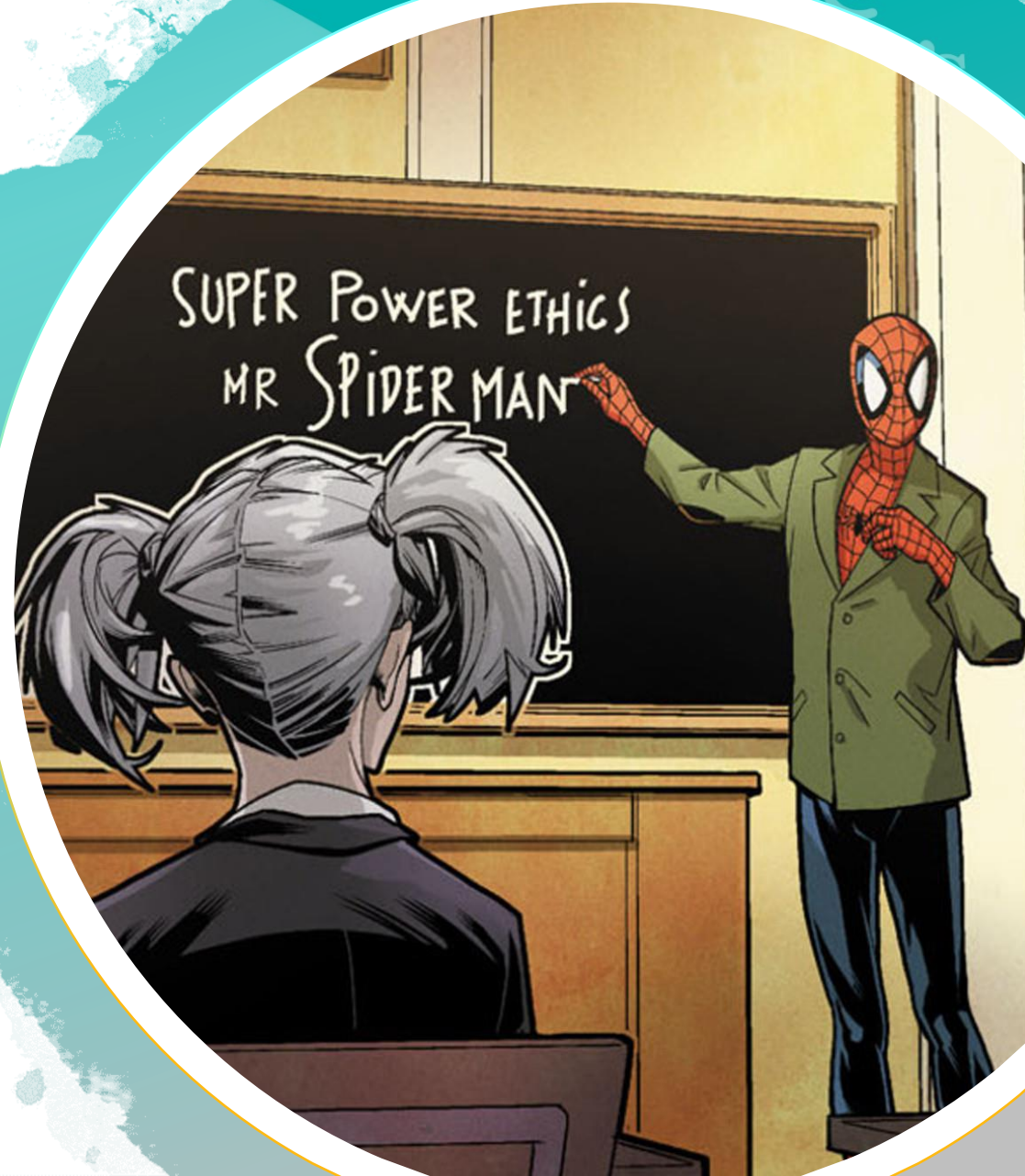
Society for Healthcare Epidemiology of America (SHEA) was live.

August 2 at 11:59 AM · 🌐



# Be like Spider-Man!

- Eye protection
- Cloth mask
- Social distancing
- Often outdoors
- Ethical
  
- With great power...



# Outline

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# Symptom Checker

Russell McCulloh

# Symptom Screening

- CDC Guidance:
- "Parents/caregivers strongly encouraged to monitor their children for signs of infectious illness every day."
- "Students who are sick should not attend school in-person."



Students with two of the following: fever (measured or subjective), chills, cold/shivering, muscle pain, headache, sore throat, nausea, vomiting, diarrhea

OR

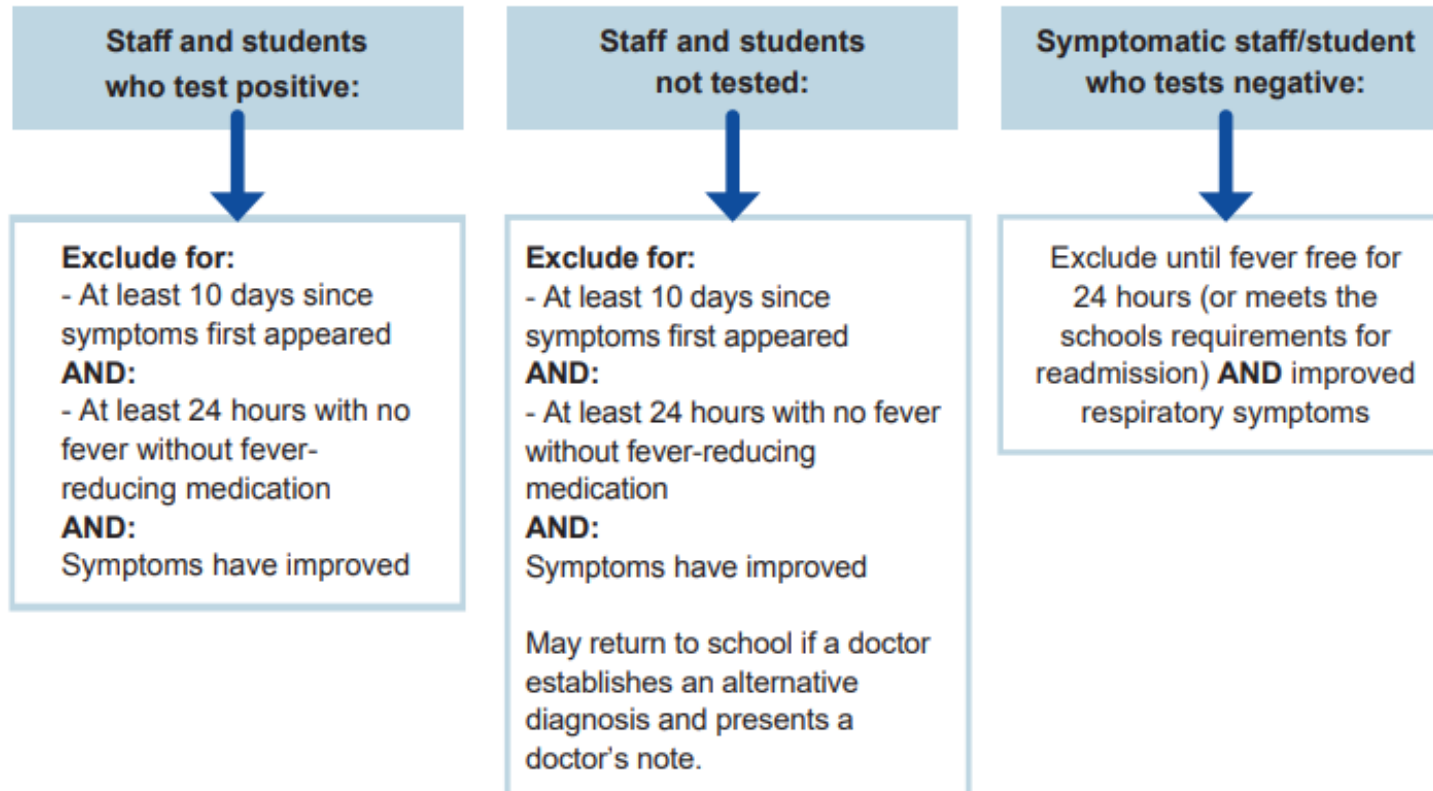
At least one of the following: new cough, shortness of breath, difficulty breathing, loss of taste and smell



Students and staff who screen positive should be immediately isolated in the designated area and sent home as soon as possible. Require the symptomatic person to wear a surgical or procedure mask while waiting, if tolerable.

# Returning to School

## Re-Admittance to School



**There is no reason for a student or staff member to get a “negative test” to be cleared for the return to school.** A COVID-19 positive individual does not need a repeat COVID-19 test or a doctor's note in order to return.

# Challenges to Screening

- Remembering the guidance
- Communicating guidance
- Generating usable information for:
  - Parents
  - Students
  - Schools
  - Health Departments
- Rapidly adjusting guidance to changing knowledge and circumstances

## COVID-19 Symptom Checker



### COVID-19 Guidance for Parents

ES

This guide will help you decide whether your child needs medical attention for COVID-19 and what you can do to protect your child and others from the spread of the disease.

- Released April 21, 2020
- Provides stepwise reference for parents on symptoms, diagnosis, prevention, and contact info for Children's COVID-19 Help Line
- Used by over xxx users to date
- Available in English and Spanish

# Household Screener

- Developed based on COVID-19 Symptom Checker
- Designed to combine
  - School district information
  - Health department guidance/CDC guidance
- Daily use by households or students



## Duchesne COVID-19 Screener ES

This screener is for families with students who attend Duchesne Academy of the Sacred Heart. It will help you decide if your student(s) should attend school today or seek testing/medical care for possible COVID-19 infection.

In the last 14 days, has anyone in the household been tested for COVID-19?

- Yes, one or more household members tested positive
- Yes, all household members tested, tested negative
- Yes, but the results have not come back yet
- No one in the household has been tested

General Considerations

[Duchesne's Return to School Plan Student Handbook Addendum](#) includes COVID-19 related safety procedures, absence policies & online learning requirements

Did your student(s) test positive for COVID-19?

- Yes
- No

**Your student(s) who tested positive should not attend school today.**

Positive testing students may return to school when the following conditions are met:

- It has been at least 10 days since their symptoms first started

AND

- They have been symptom-free for 24hrs without the use of medication

Asymptomatic and/or negative testing students in the household should also not attend school until:

- It has been more than 15 days since any household member who tested positive last had symptoms

OR

- It has been more than 14 days since the student had contact with any positive testing household member.

# Community-level insight



**Anonymous user activity**

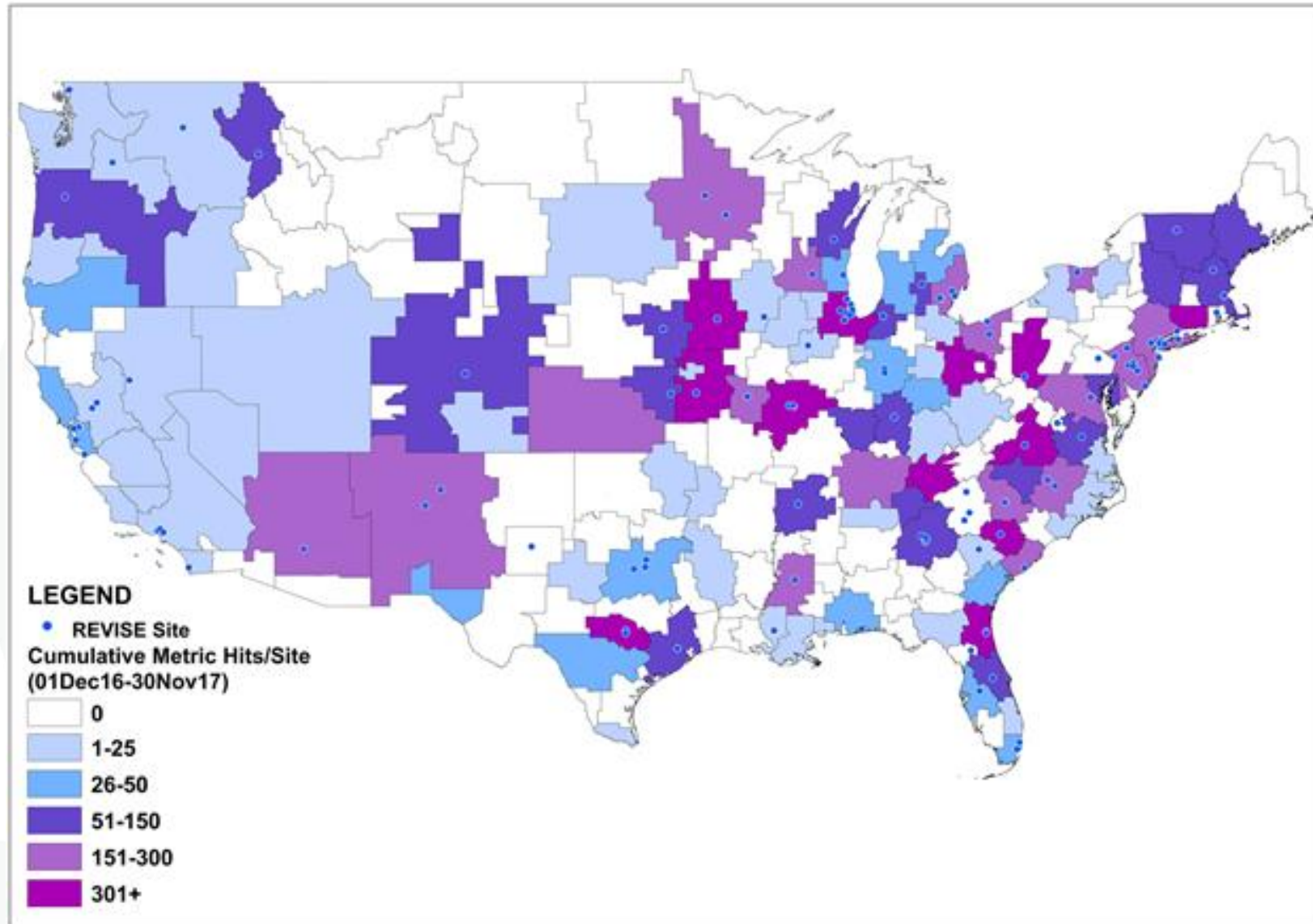


**Rolled up to school district level**

Can also be rolled up to the county level



**Reporting for schools, health  
departments**



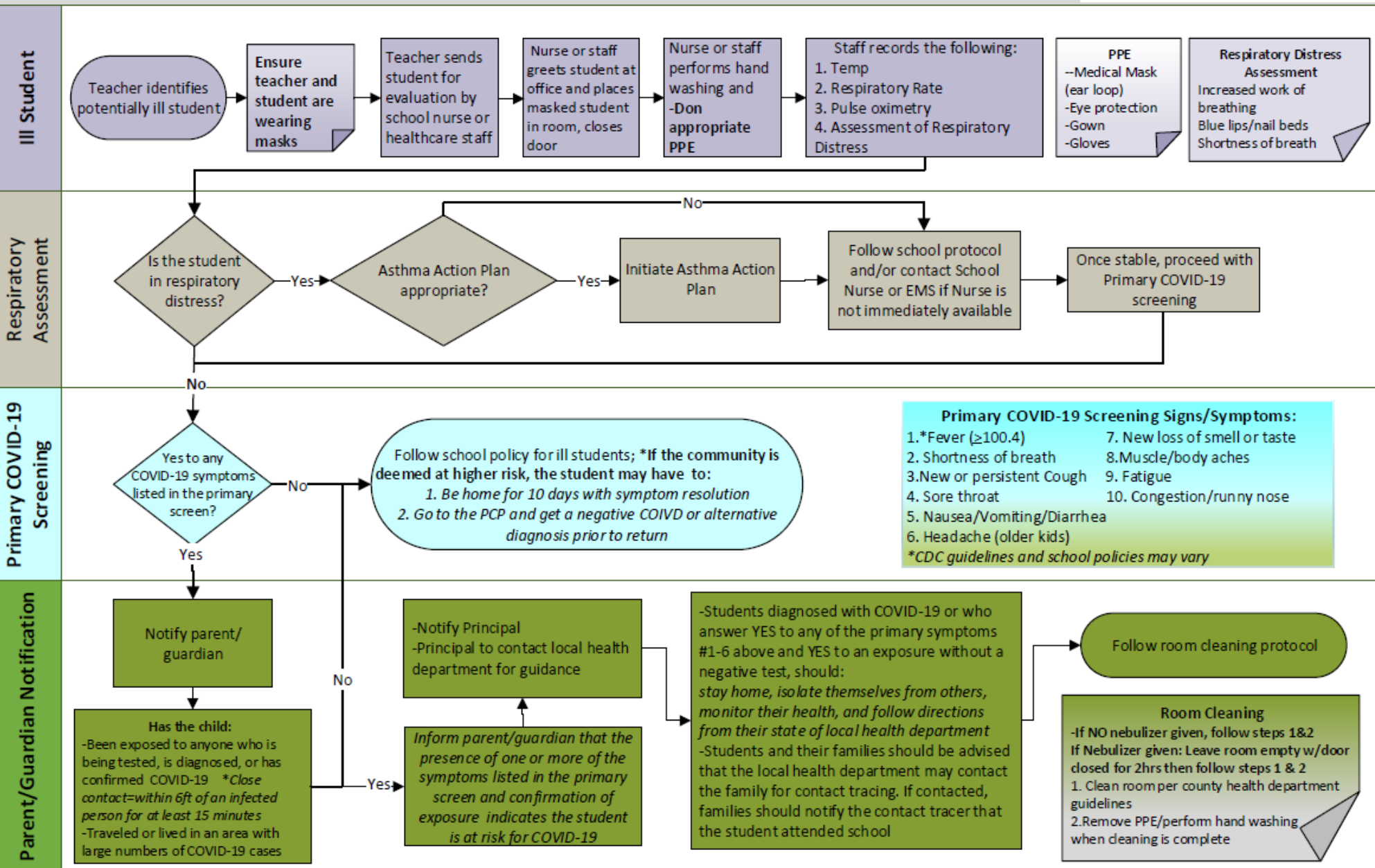
## Rationale

- Household and student information can help:
- Gauge disease activity
- Estimate positive testing impact on households
- Enable schools, public health entities to better direct resources
- Educate parents and students about COVID-19
- Connect families to important resources in the community

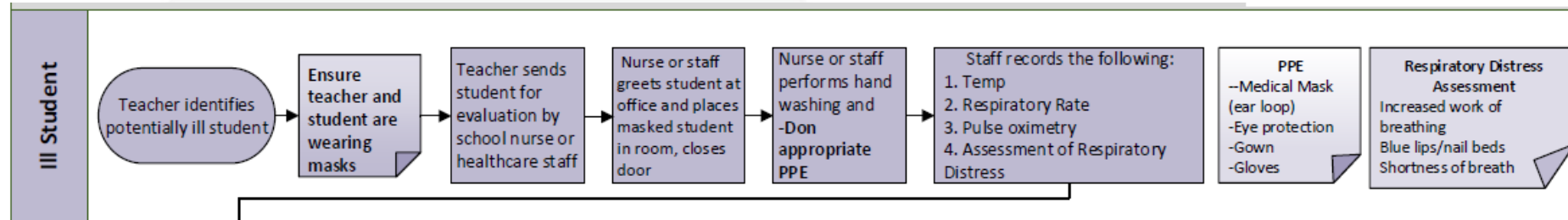
# Swim Lane COVID algorithm

Russell McCulloh

# General Community School COVID-19 Assessment

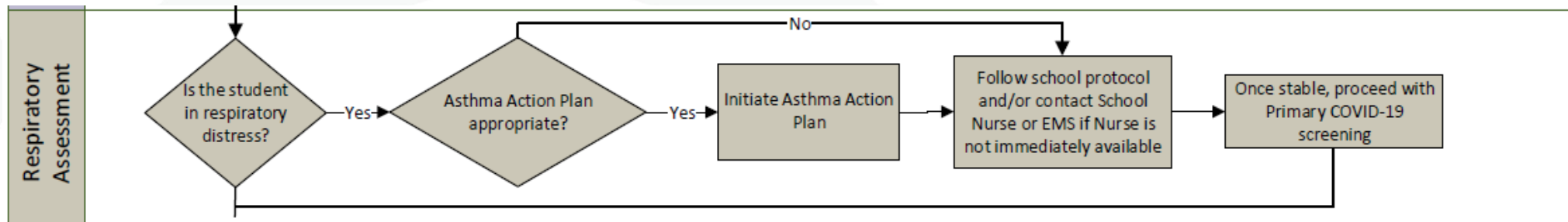


# Ill Student



- PPE: Ear-loop mask, eye protection, gown, gloves
- Assessment:
  - Temp, RR, Pulse Ox, respiratory distress
- Work of breathing, blue lips, nail beds, shortness of breath, etc.

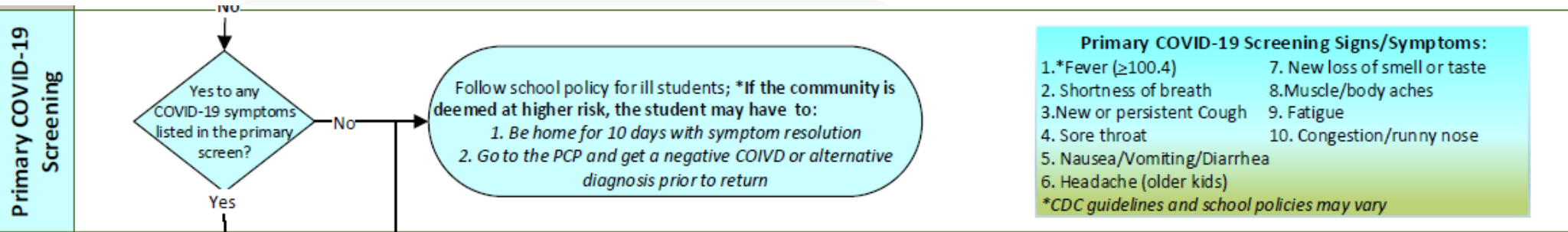
# Respiratory Assessment



- If respiratory distress, address and contact EMS as appropriate
- If child has asthma, initiate asthma action plan
- Once stabilized, move to COVID-19 screening

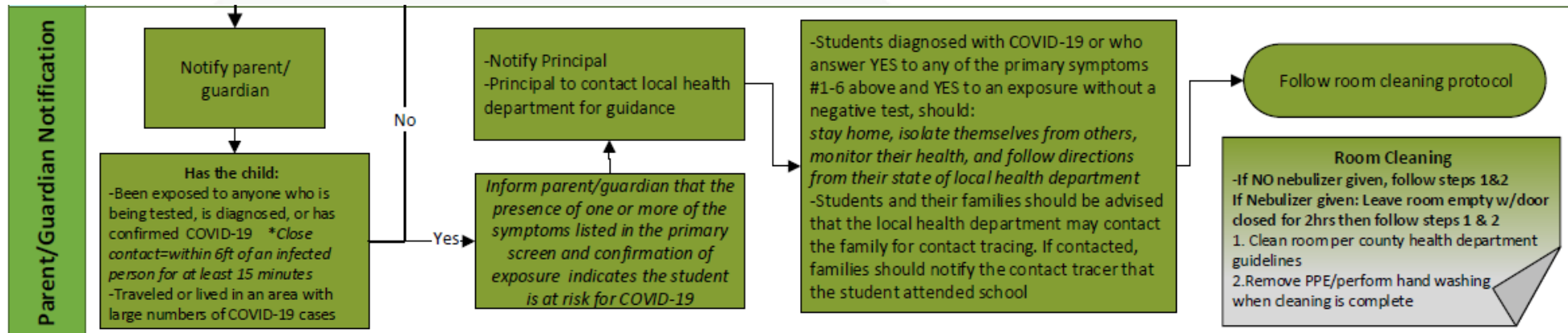


# COVID-19 Screening



- Follow your school's policy for ill students at high risk of COVID-19
- Assess symptoms based on your school's plan and local guidance
- Children's Symptom Checker can also be used (based off CDC guidelines)

# Parent/Guardian Notification



- If exposure risk, follow your school's plan for high-risk exposures
- If family contacted by contact tracer, they should notify them that the student attended school
- Terminally clean room where student was examined

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# Resources – what CHMC has, where to find, topics

Kim McClintick

<https://www.childrensomaha.org/back-to-school/>

- Lots of great information!
- Videos, articles, additional resources
- School health webpage for school nurses and other staff (go to bottom of page)

Have questions? Send specific questions to:

[kmcclintick@childrensomaha.org](mailto:kmcclintick@childrensomaha.org)

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# Questions

Kim McClintick, Alice Sato, Russell McCulloh

How are nebulizer treatments being handled during the school day?



# Is there guidance on having fans in the classrooms?

policy or plan they could share regarding how hot non-air-conditioned classrooms?

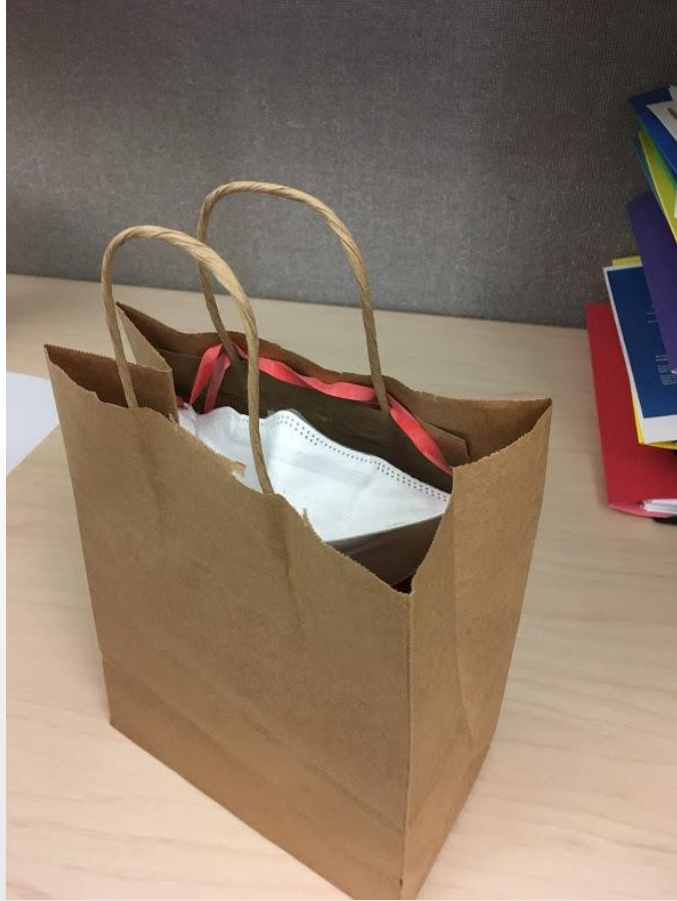
- Neck gaiters? Are they less effective or equal to masks?
- Should we be banning the face masks with exhaust valves?



**Children's**  
HOSPITAL & MEDICAL CENTER



When students and staff remove their face covering during lunch how and where are you instructing them to store it until it is time to put it back on?



# Additional Resources

## Resources

- Johns Hopkins global map  
<https://coronavirus.jhu.edu/map.html>
- Johns Hopkins dashboard: Nebraska  
<https://coronavirus.jhu.edu/region/us/nebraska>
- Nebraska coronavirus dashboard
- NYT interactive map: Nebraska  
<https://www.nytimes.com/interactive/2020/us/nebraska-coronavirus-cases.html#map>
- NYT tool: Risk of students arriving at school infected  
<https://www.nytimes.com/interactive/2020/07/31/us/coronavirus-school-reopening-risk.html>

# Resources

- Mask dynamics video <https://www.lavision.de/en/news/2020/4302/>
- Argentinian cruise ship <https://thorax.bmj.com/content/75/8/693>
- Indiana hemodialysis unit cohort <https://jamanetwork.com/journals/jama/fullarticle/2766215>
- Missouri Tyson chicken plant outbreak <https://www.news-leader.com/story/news/local/2020/06/26/missouri-coronavirus-tyson-foods-positive-covid-19-noel-facility/3266269001/>
- Oregon seafood facility outbreak <https://www.oregonlive.com/coronavirus/2020/06/65-coronavirus-cases-reported-at-pacific-seafood-facility-in-newport.html>
- M Gandhi: Protective effects of mask wearing <https://link.springer.com/article/10.1007/s11606-020-06067-8>



# Mask Basics for Staff

## Facemask Do's and Don'ts For Healthcare Personnel

### When putting on a facemask

Clean your hands and put on your facemask so it fully covers your mouth and nose.



DO secure the elastic bands around your ears.



DO secure the ties at the middle of your head and the base of your head.



## When wearing a facemask, don't do the following:



DON'T wear your facemask under your nose or mouth.



DON'T allow a strap to hang down. DON'T cross the straps.



DON'T touch or adjust your facemask without cleaning your hands before and after.



DON'T wear your facemask on your head.



DON'T wear your facemask around your neck.



DON'T wear your facemask around your arm.

- Don't use if wet or dirty
- Wash your hands after removing
- Wash cloth mask in soap or detergent preferably with hot water daily

# Thank You!

For further questions or information, please contact:

**Kim McClintick, MSN, RN**

School Health Nurse Coordinator  
Center for the Child & Community  
Children's Hospital & Medical Center  
402.955.6875

[kmclintick@childrensomaha.org](mailto:kmclintick@childrensomaha.org)