



THE UNIVERSITY OF  
CHICAGO



Department  
of Pediatrics  
Established 1930

# Illinois Education Association Pediatric COVID Disease

July 30, 2020

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(ICAAP)



# Disclosures

- No financial disclosures
- The world has changed and is changing
  - What gets said here today may change based on new data and recommendations
  - Knowledge is moving rapidly, the fastest it has for any pandemic



# Agenda

- Review
- Schools and COVID
  - Data to date
  - Ideal approach
- Q&A/Discussion

What will  
**SCHOOL**  
look like  
this Fall?

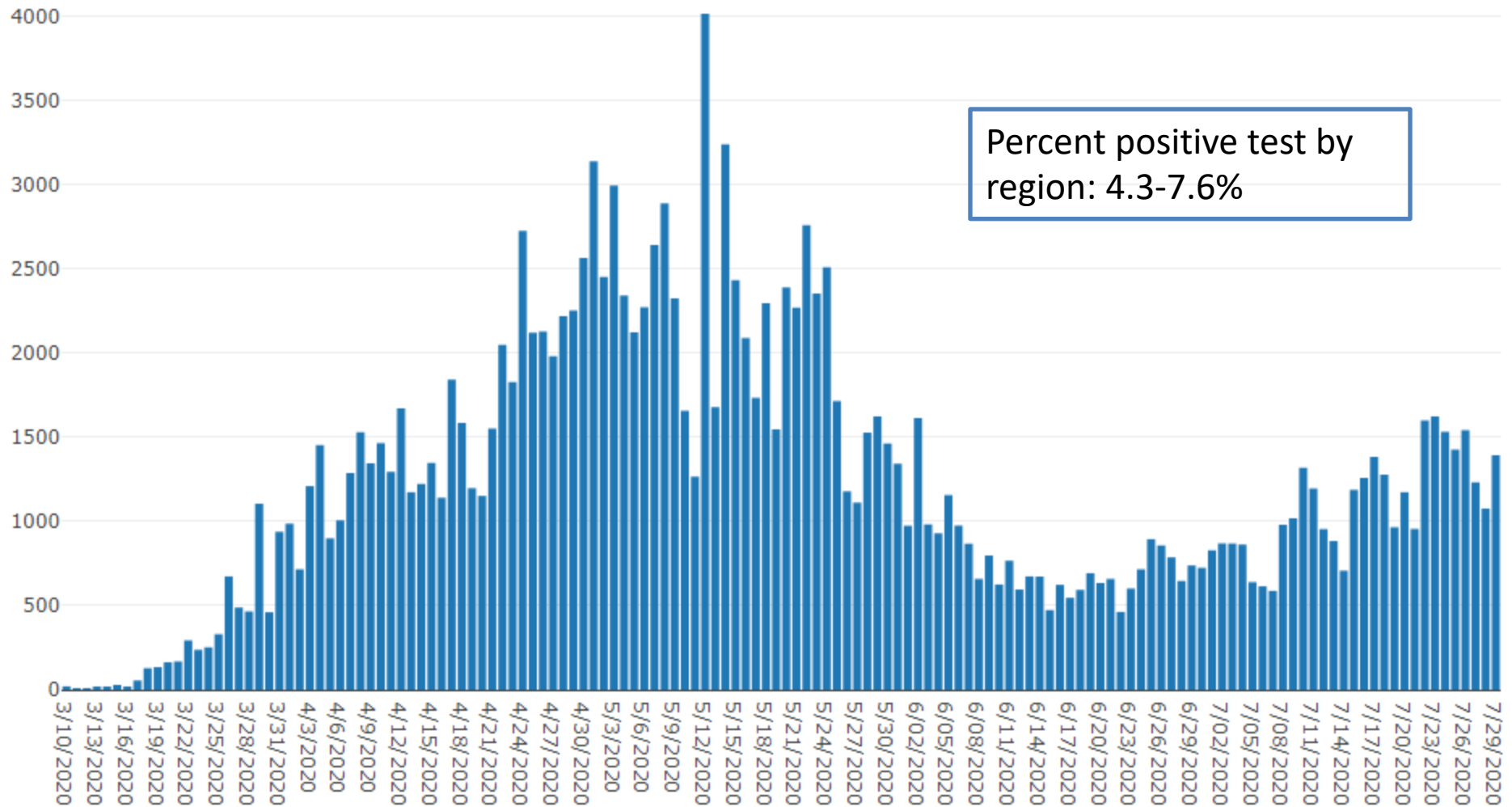


# Epidemiology



# Illinois

<https://www.dph.illinois.gov/>



# Emily Oster's COVID Childcare Database

## June 29, 2020

Open access, crowd sourced voluntary database so may not be representative

<https://explaincovid.org/kids/covid-19-and-children-our-crowd-sourced-data>



### Child Care Survey

#### All Locations

Number of Centers	841
Total Students Served During Pandemic	20,424
Count of Covid-19 Cases in Students	44
Confirmed Case Rate, Students	0.22%
Total Staff During Pandemic	7,154
Count of Covid-19 Cases in Staff	86
Confirmed Case Rate, Staff	1.20%

# Epidemiology Take Home Points

- Cases are rising in our country
  - Our state is doing better than most others
- SARS-CoV-2 spreads mainly by droplet, less so by surfaces and even less by aerosol
- Children under 10 years old rarely spread the infection to adults or even each other
  - Those over 10 years old spread similar to adults
- People spread the infection before they are symptomatic
- Spread in daycare settings appears to be very small

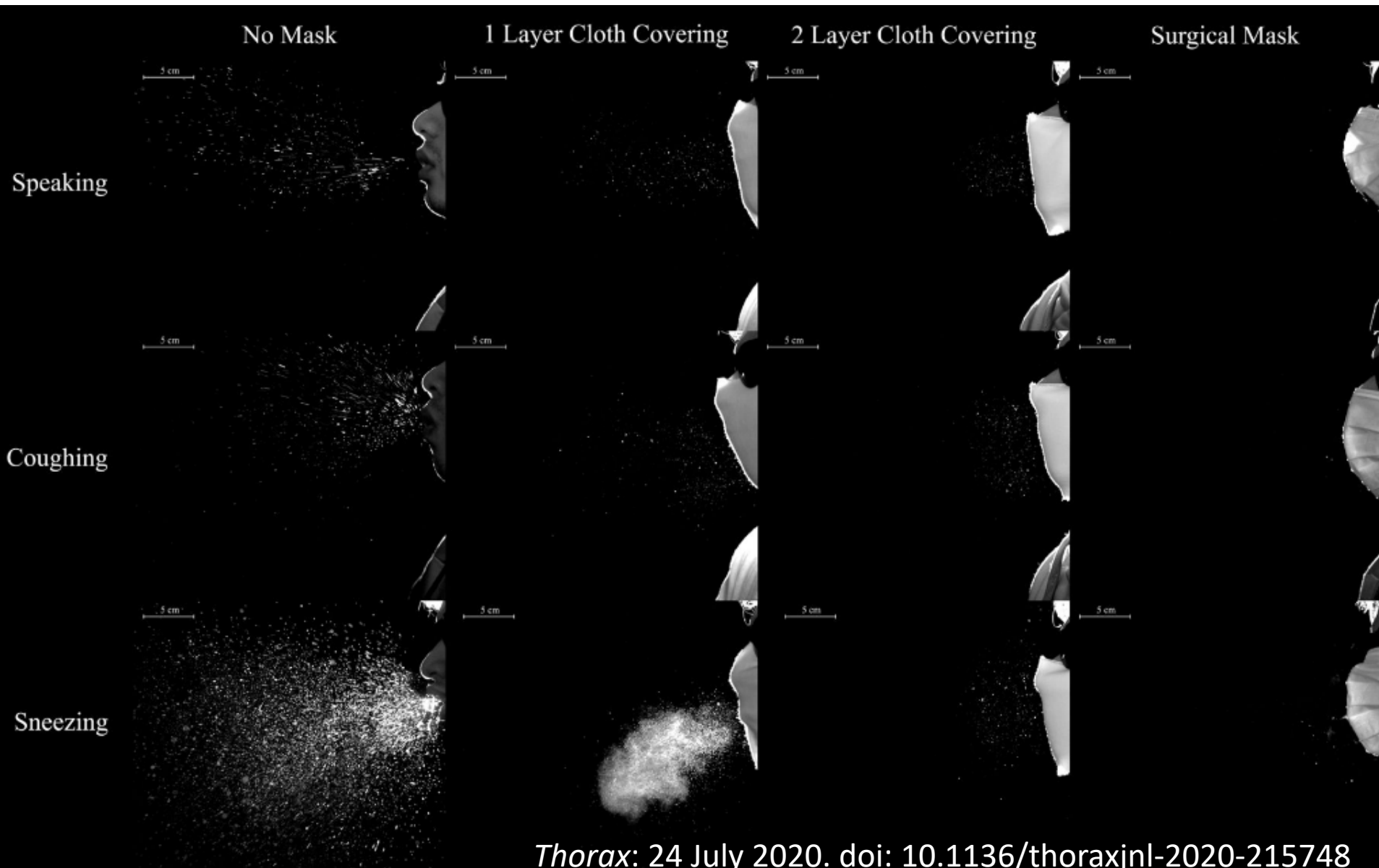


# Prevention





# Two Layers Is Better Than One!



# Prevention Take Home Points

- Isolate infected people
- Distance
  - $\geq 6$  feet is the goal, 3 feet works well
- Masking
  - Cloth works to protect others, two layers is best e.g., cotton–silk, cotton–chiffon, cotton–flannel work best
  - Fit is important- need it tight against the face with few gaps if it is to protect the wearer
- Face shields
  - Works almost as well as mask to protect others
  - Works almost as well as mask to protect the wearer from droplets, less so from aerosol
- Hand hygiene with soap and water for 20 seconds or with 60% alcohol based hand sanitizer gel
- Ventilation
  - Open windows, open doors, fresh air
  - Do not have fans blowing horizontally

# Schools



**DAMNED IF YOU DO**



**DAMNED IF YOU DON'T**

[makeameme.org](http://makeameme.org)

**(((ECHO)))**  
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# Public Health Risk Either Way

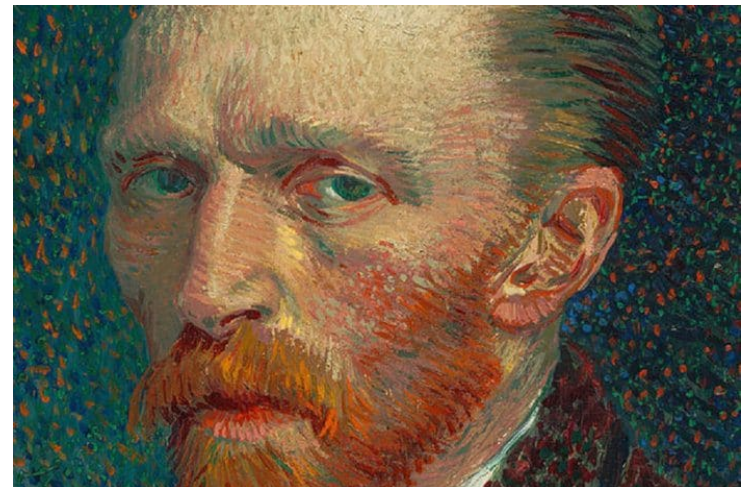
- Open schools means some risk of exposure and spread
- Close Schools
  - Lost learning
    - Disproportionately hitting people of color, low income populations, and those with disabilities
  - Missed abuse and neglect cases
  - Lost wages which translates into poverty, eviction, hunger, food insecurity, and more



# There Is No True Safe Harbor

- “The fishermen know that the sea is dangerous and the storm terrible, but they have never found these dangers sufficient reason for remaining ashore”

## Vincent van Gogh





# Lessons Learned?

# Schools and COVID-19: How To?

Denmark re-opened schools for children under 11 years of age on April 15, 2020

- Primary schools were the first to reopen with “Micro-groups” of students
  - 12 students/group which is the maximum number of students that could occupy a room while maintaining social distancing
  - Arrive at a separate time, eat lunch separately, stay in their own zones in the playground and play only in their small groups, and are taught by one teacher
  - Students are assigned their own desks spaced 6 feet apart
  - Handwashing and sanitization hourly
- Students and staff are not asked to wear face masks
- In the context of low community transmission, school re-opening in Denmark has not resulted in a significant increase in the growth rate of COVID-19 cases



## Similar experience in Norway, Taiwan



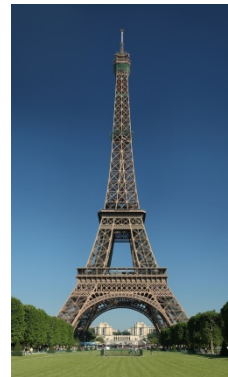
• [https://globalhealth.washington.edu/sites/default/files/COVID-19%20Schools%20Summary%20%282%29.pdf?mkt\\_tok=eyJpIjoiWVdRMVpqWmlNek16WldReSlInQiOiJpVUE4Uk1ScjBpT1JqVWp1eFM4WTlzaTVzWURTeWpOT2liZUxCeHdNREdvc3Zxano4Z0FWWlk4Mms3S3IJeTNIbEFQVWFUT3d5V3cWdVc3R3RCVfVxRldIVnBlakgwa3dxWnFKMjk3RHltMORYVmc3Qmt0ZzF5OXVGVWVvaXppZiJ9](https://globalhealth.washington.edu/sites/default/files/COVID-19%20Schools%20Summary%20%282%29.pdf?mkt_tok=eyJpIjoiWVdRMVpqWmlNek16WldReSlInQiOiJpVUE4Uk1ScjBpT1JqVWp1eFM4WTlzaTVzWURTeWpOT2liZUxCeHdNREdvc3Zxano4Z0FWWlk4Mms3S3IJeTNIbEFQVWFUT3d5V3cWdVc3R3RCVfVxRldIVnBlakgwa3dxWnFKMjk3RHltMORYVmc3Qmt0ZzF5OXVGVWVvaXppZiJ9)

• MedRxiv - <https://doi.org/10.1101/2020.06.24.20139634>

# School Exposures



- Students exposed in preschool setting (Singapore)
  - No transmission despite exposure in one school to 16 infected adults (77 students, age range of 3-6 years old)
  - No transmission despite exposure in classroom to one infected 5 year old (34 students, age range of 2.8–6.2 years old)
- Students exposed in lower school (France)
  - No transmission despite exposure in 3 schools to a 9 year old (61 high risk exposed students and teachers and 30 low risk exposed students and teachers)
- Broad outbreak in a community including school (Chile)
  - 9.9% of children and 16.6% of adults in school infected
    - Impossible to know source points for transmission or where transmission occurred (community and/or school)
    - No precautions taken until community quarantined
    - Adult to adult spread was common



# What Is Our Goal?

- Schools will eventually need to reopen
- Keeping schools closed comes with massive, long-term individual and societal costs
  - Many children cannot effectively learn, grow, engage, socialize, be active, eat healthy food, or get support until schools reopen.
  - Parents and caregivers cannot go back to work until children go back to school
- **Reduce risk of COVID-19 transmission**
  - There is no such thing as ‘zero risk’, in anything we do, and certainly not during a pandemic

# Source Control



## Wear masks

- Have students wear face masks as much as possible
  - Face shields are an alternative
- Train students and staff on how to wear and care for masks
- Two layer masks
- Try to create time when students can take off their masks
  - Outside and physically distant (>6 feet) and no hollering or singing
- Allow teachers to wear transparent face shields when teaching at the front of the room
  - Face masks when working more closely with students or in proximity of each other
- Make lunch as short as possible and limit talking
  - Focus on the food!
  - Eat in the classroom

# Source Control

## Handwashing

- Gel or water
- Build handwashing into the schedule of the day
  - When leaving home, touching one's face, and leaving school and arriving at home
  - Arriving at school, entering or leaving classroom, eating, finishing lunch, touching shared objects, using the bathroom, coughing, sneezing, and blowing one's nose
  - Hourly when in the classroom
    - Gel at the desk if possible





# Source Control

## Physical distancing (preferred language than social distancing)

- De-densify the school
  - Minimize visitors
  - Repurpose spaces in the school as temporary classrooms (e.g., auditorium, gym, lunch room)
- Keep at least 6 feet between individuals, as much as possible, for as long as possible
- Student should all face in the same direction
- Move class outdoors, if possible, weather permitting
- Walking past someone is low risk but if continuous then problematic
- Manage transition times and locations
  - Stagger school arrival and departure times, class transitions, and locker access
  - Set up separate entrances and exits for different groups of students
  - Use well-marked lines on the floor to encourage physical distancing and indicate direction of travel

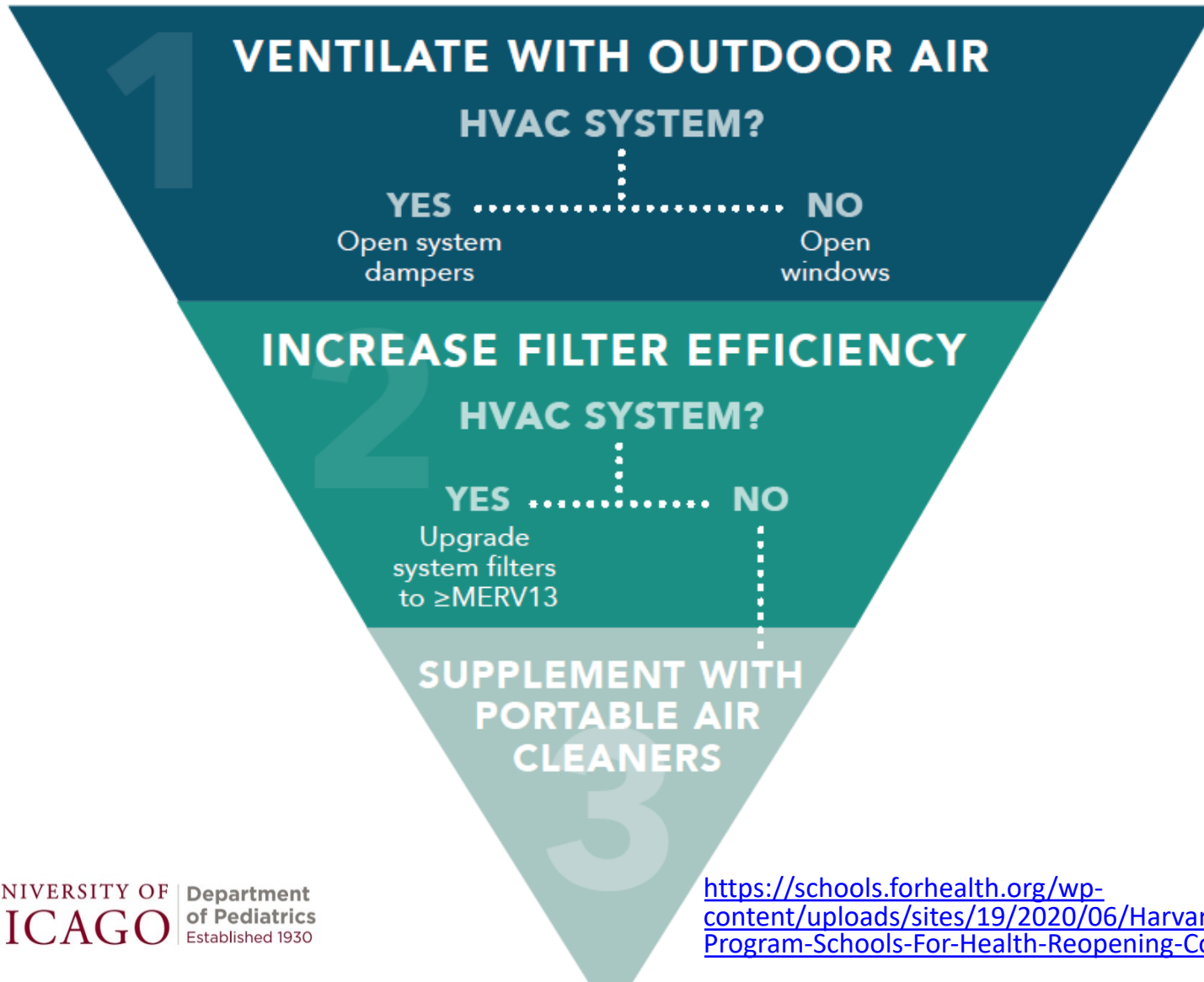


# Source Control

## Pod (cohorting) formation

- Keep class groups as distinct and separate as possible
- Limit students moving between different classrooms
- Avoid large groups and gatherings, both in and outside of school

# Ventilation



# Cleaning

Cleaning Frequency	Examples
<b>Daily</b>	<ul style="list-style-type: none"> <li>• Classroom desks, tables, and chairs</li> <li>• Shared spaces</li> </ul>
<b>Multiple times per day</b>	<ul style="list-style-type: none"> <li>• Door handles</li> <li>• Light switches</li> <li>• Handrails</li> <li>• Drinking fountains</li> <li>• Sink handles</li> <li>• Restroom surfaces</li> <li>• Cafeteria surfaces</li> <li>• Elevator buttons</li> </ul>
<b>Between uses</b>	<ul style="list-style-type: none"> <li>• Toys, games, art supplies, instructional materials</li> <li>• Keyboards, phones, printers, copy machines</li> <li>• Seats on bus</li> </ul>

<https://schools.forhealth.org/wp-content/uploads/sites/19/2020/06/Harvard-Healthy-Buildings-Program-Schools-For-Health-Reopening-Covid19-June2020.pdf>

# Establish A Culture of Health, Safety, And Shared Responsibility

- Provide training to teachers, staff, students, and parents/guardians prior to school opening
- Start each day with a morning message to the entire school reinforcing health messaging
- Create and display signs around the school as reminders of rules, roles, and responsibilities
- Hold weekly and monthly all-staff meetings on COVID-19 to evaluate control strategies
- Send out weekly reports and reminders to parents and students of their respective roles
- Reward good behavior
- Form a COVID-19 response team and plan
- Prioritize staying home when sick

# What To Do If Symptoms Appears at School

- Any individual who shows symptoms should be immediately separated from the rest of the school population
  - Designate a safe area to quarantine any individuals who are experiencing COVID-19-like symptoms and may be awaiting pickup/evaluation
    - Students should never be left alone and must always be supervised while maintaining necessary precautions.
- School community members who are sick should not return to school until they have met criteria to return.
  - Schools may wish to consider a symptom checklist for families and staff to use to determine if they are well enough to attend that day



# School Opening

- For the lower grades, seems with steps of social distancing, screening, pod formation, and eating in classrooms, possible to open schools safely
  - Not clear that masking necessary
- Amount of community spread may be important to successful opening of schools

# The Facts

- Risks to students and staff can be kept low if schools adhere to strict control measures and respond to potential outbreaks
- There is no perfect plan to reopen schools
- There is no 'one size fits all' strategy that works for every school
  - Schools have limited budgets and student and staff compliance will be imperfect
- Schools may need to reclose unexpectedly depending on local conditions
  - No one knows with certainty what the fall will bring in terms of this pandemic

# School Recommendations

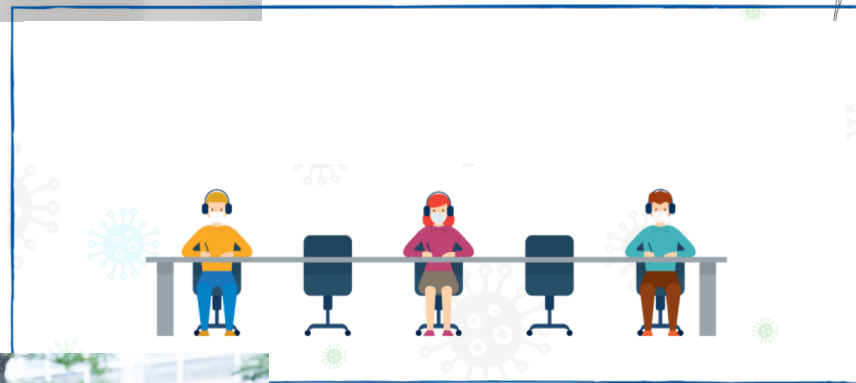
- Hand hygiene



- Face covering



- Social distancing



- Ventilation



# Reference

## SCHOOLS FOR HEALTH

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Risk Reduction Strategies  
for Reopening Schools

June, 2020

**COVID-19**

<https://schools.forhealth.org/wp-content/uploads/sites/19/2020/06/Harvard-Healthy-Buildings-Program-Schools-For-Health-Reopening-Covid19-June2020.pdf>

- **Albert Camus' *The Plague*, Dr. Rieux:** “It may seem a ridiculous idea, but the only way to fight the plague is with decency.”



# THE PLAGUE

ALBERT CAMUS



# Questions



# Thank you!

Resources, slides & recording of the session

<https://www.echo-chicago.org/resources/covid19/>

[ieanea.org](https://www.ieanea.org/)

[www.iasaedu.org](https://www.iasaedu.org/)