COVID-19 & the Classroom

COVID-19 & the Flu

THE ABC SCIENCE COLLABORATIVE
Learning | Informed Decision-Making | Research
The information presented here is the most up-to-date, data-driven and evidence-based science to help school districts make important decisions regarding face-to-face instruction.

Duke University and its partners will not make decisions nor will they advise specific action.
Thank you for joining us this evening!

- We will take questions from the comments section in YouTube and will supplement our presentations with some of your questions.
- Questions that are not answered during the webinar will be collated and may be combined with other questions and will be addressed in a “Frequently Asked Questions” document or future webinars.
- The link to the YouTube live stream will continue to work and you can view this webinar again, at your convenience. See Video section.
- We are developing a website that will contain these materials. The website will be available at the end of September.
Post-Webinar Survey

To mark your attendance for viewing the YouTube Live Stream, please be sure to complete the post-webinar survey at:
https://duke.qualtrics.com/jfe/form/SV_blszuoVNM5ShBnn
What is the Flu? (Influenza)

- Common virus that infects the respiratory tract
- Averages 40-50 million cases per year in the US
- Rarely requires medical labs or imaging
- May last several days or weeks
- Preventable by vaccine
- Transmitted through droplet exposure
CDC estimates* that, from **October 1, 2019**, through **April 4, 2020**, there have been:

- **39,000,000 – 56,000,000** flu **illnesses**
- **18,000,000 – 26,000,000** flu **medical visits**
- **410,000 – 740,000** flu **hospitalizations**
- **24,000 – 62,000** flu **deaths**

https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm
Who is at High-Risk for Severe Illness for COVID-19 and Flu?

**Adults:**
- Older Adults
- People with certain underlying medical conditions
- Pregnant women

**Children:**
- Flu
  - The risk of complications for healthy children is higher for flu compared to COVID-19 especially:
    - Young children
    - Those with chronic medical conditions
- COVID-19
  - School-aged children infected with COVID-19 are at higher risk of Multisystem Inflammatory Syndrome in Children (MIS-C), a rare but severe complication of COVID-19.
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How can we tell the difference between COVID-19 and Flu?
COVID-19 and Flu Symptoms: Similarities and Differences

Similarities:
Both COVID-19 and flu can have:
- Fever or feeling feverish/chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue (tiredness)
- Sore throat
- Runny or stuffy nose
- Muscle pain or body aches
- Headache
- Some people may have vomiting and diarrhea, though this is more common in children than adults

Differences:
Flu is vaccine preventable

Can you get COVID-19 and other respiratory viruses at the same time?

- Retrospective review of pediatric patients from March 9 – April 30 2020
- In 2 large Chicago-based hospitals

<table>
<thead>
<tr>
<th>Patients Undergoing Multiplex RVP testing(^2)</th>
<th>SARS-CoV-2 Positive, n (%) (n=16)</th>
<th>SARS-CoV-2 Negative, n (%) (n=335)</th>
<th>p-value(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive for any respiratory pathogen</td>
<td>2 (12.5)</td>
<td>130 (38.8)</td>
<td>0.036</td>
</tr>
<tr>
<td>Patients tested for RSV and Influenza</td>
<td>SARS-CoV-2 Positive, n (%) (n=101)</td>
<td>SARS-CoV-2 Negative, n (%) (n=666)</td>
<td></td>
</tr>
<tr>
<td>Positive for RSV or Influenza</td>
<td>2 (2.0)</td>
<td>39 (5.9)</td>
<td>0.151</td>
</tr>
</tbody>
</table>

Zhang D. et al. ICHE. 2020
How do we protect ourselves?
Prevention of COVID-19 and the Flu

• Both can be prevented by mask-wearing,
  – coughing into the crook of your elbow (when unmasked at home)
• Frequent and thorough hand washing,
• Staying home when sick and limiting contact with people who are infected.
• Physical distancing limits the spread of COVID-19 in communities.

Even though flu season continued, patients testing positive for flu dropped precipitously by end of March.

Note: Annual Influenza deaths in NC not significantly less than usual

- 18-19: 206
- 17-18: 391
- 16-17: 218
Why is it important to get a flu vaccine EVERY year?

- Flu viruses are constantly changing, so flu vaccines may be updated from one season to the next to protect against the viruses that research suggests will be common during the upcoming flu season.
- Your protection from a flu vaccine declines over time.
- Yearly vaccination is needed for the best protection.
Approximately 49% of the U.S. population chose to get a flu vaccine during the 2018-2019 flu season, and this prevented an estimated:

- 4.4 million flu illnesses
- 58,000 flu hospitalizations
- 3,500 flu deaths

More than the population of Los Angeles

About the number of students at The Ohio State University

Equivalent to saving about 10 lives per day over the course of a year

get vaccinated

www.cdc.gov/flu
Question 1: Are we anticipating a less severe flu season based on what occurred in the Southern Hemisphere?
Real life experience: Australia
Number of specimens tested and percentage testing positive for influenza, by year, using weeks 14 – 31
Real life experience: South Africa
Number of specimens tested and percentage testing positive for influenza, by year, using weeks 14 – 31
Encouraging News!

“The behavioral changes people have already adopted to flatten the curve of COVID-19—such as social distancing, hand washing, and mask wearing—could lessen the impact of the flu.”

If you leave home, know your Ws!

- **WEAR**
  - a cloth face covering.
- **WAIT**
  - 6 feet apart. Avoid close contact.
- **WASH**
  - hands often or use hand sanitizer.

Are there any updates on COVID-19 vaccine?

- Currently 3 candidate vaccines in US phase III trials
  - Pfizer
  - Moderna
  - Astra Zeneca
    - Currently enrolling in the UK and on hold in the United States

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Thank you.
Key Reasons to Get a Flu Vaccine

- Every year, flu vaccination prevents illnesses, medical visits, hospitalizations, and deaths.
- Flu vaccination also is an important preventive tool for people with chronic health conditions.
  - Associated with lower rates of some cardiac events among people with heart disease.
- Vaccinating pregnant women helps protect them from flu illness and hospitalization,
  - Also protects the baby from flu infection for several months after birth, before the baby can be vaccinated.
- A 2017 study showed that flu vaccine can be life-saving in children.
- While some people who get vaccinated still get sick, flu vaccination has been shown in several studies to reduce severity of illness.
COVID vs. Influenza

• COVID-19 and Influenza
  – Have similar symptoms (change in or loss of taste or smell may be unique to COVID-19)
  – Much longer to develop symptoms after COVID-19 exposure
  – Spread via similar mechanisms and even before symptoms start
  – Case for aerosol transmission is stronger for COVID-19 than it is for influenza

• A feature of COVID-19 which makes it unique is its transmissibility – how easily it can pass from person to person and more super-spreading events
  – COVID-19 is more transmissible than influenza

• Both infections can cause severe illness among certain high risk groups
• There is a vaccine for flu but no approved vaccine for COVID-19
• There are approved antiviral medications for flu
• Our non-pharmacologic prevention interventions can help us
• Exposure Period