COVID-19 and Schools: Mitigation Strategies, Community Spread, and Decision-Making

August 17, 2020

CT DPH: Lynn Sosa, MD, Richard Melchreit, MD, and Tom St. Louis, MSPH

Yale SPH: Albert Ko, MD

CONNECTICUT DEPARTMENT of PUBLIC HEALTH

Yale SCHOOL OF PUBLIC HEALTH
COVID-19

• SARS-CoV-2
  • Coronavirus - cause of COVID-19
  • Transmission modes:
    1. Respiratory droplets (*primary mode*)
    2. Respiratory secretions on surfaces (*less significant*)
    3. Aerosols of respiratory secretions (*possible in certain conditions*)

• COVID-19
  • Signs
  • Symptoms

• Transmission to and from children
• Risk to children
Testing for COVID-19

• Types of SARS-CoV-2 tests
  • Swab
    • Viral Polymerase Chain Reaction
    • Antigen (rapid)
  • Blood
    • Antibody

• Use and usefulness of SARS-CoV-2 tests

• Screening
  • Symptoms
  • Signs (e.g., temperature-fever)
How will administrators decide whether...

- Full in-person learning
- Hybrid (blended) learning
- Full virtual learning

is the best model and when to change?
Indicators of Community Spread

Leading Indicator

→ New Community Cases per 100,000 population
  Daily average for previous week
  County level

Counting only community cases will exclude cases in settings like prisons or nursing homes.

Secondary Indicators

Test Positivity
  Daily average for previous week
  County level

New Hospitalizations per 100,000 population
  Daily average for previous week
  County level

COVID-like illness
  Hospital ED visits
  Percentage of emergency department visits for previous week
  County level

Town-level data will be available online, but we don’t recommend using only town case rates.

In small towns, just a few cases can lead to a very high case rate.
Leading Indicator

New Community Cases per 100,000 population
Daily average for previous week at the county level

<table>
<thead>
<tr>
<th>Case Rate</th>
<th>Risk Level</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>Low</td>
<td>Favors in-person learning</td>
</tr>
<tr>
<td>10-25</td>
<td>Moderate</td>
<td>Favors hybrid learning</td>
</tr>
<tr>
<td>&gt;25</td>
<td>High</td>
<td>Favors remote learning</td>
</tr>
<tr>
<td>Trend</td>
<td>Risk Level</td>
<td>New Hospitalizations per 100,000 population</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>↓ or →</td>
<td>Low</td>
<td>Favors in-person learning</td>
</tr>
<tr>
<td>→ or ↑</td>
<td>Moderate</td>
<td>Favors hybrid learning</td>
</tr>
<tr>
<td>↑</td>
<td>High</td>
<td>Favors remote learning</td>
</tr>
</tbody>
</table>

Each week will be compared to previous weeks to identify trends.
When and where can I find this information?

Metrics will be posted online each Thursday afternoon.

Consider having a standing meeting on Fridays to discuss your local situation.

A link will be provided starting next week.
## Indicators as of August 13th

### Leading and secondary indicators of COVID-19 infection levels by county

<table>
<thead>
<tr>
<th>County</th>
<th>Leading Indicator</th>
<th>Secondary Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New COVID-19 cases per 100,000 population per day</td>
<td>Percent test positivity</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1.8</td>
<td>0.9%</td>
</tr>
<tr>
<td>Fairfield</td>
<td>2.6</td>
<td>1.4%</td>
</tr>
<tr>
<td>Hartford</td>
<td>1.3</td>
<td>0.8%</td>
</tr>
<tr>
<td>Litchfield</td>
<td>0.5</td>
<td>0.2%</td>
</tr>
<tr>
<td>Middlesex</td>
<td>1.3</td>
<td>0.6%</td>
</tr>
<tr>
<td>New Haven</td>
<td>1.8</td>
<td>0.9%</td>
</tr>
<tr>
<td>New London</td>
<td>1.1</td>
<td>0.8%</td>
</tr>
<tr>
<td>Tolland</td>
<td>0.3</td>
<td>0.3%</td>
</tr>
<tr>
<td>Windham</td>
<td>2.3</td>
<td>1.3%</td>
</tr>
</tbody>
</table>
Worsening data for community rates will affect decision-making... but it should be considered in context with other factors.
Mitigation Strategies

Return to In-Person Learning

- Case Identification and Isolation
- Physical Distancing
- Face Coverings (cloth masks)
- Cohorting
- Improved Ventilation
- Enhanced Cleaning & Disinfection

CONNECTICUT DEPARTMENT of PUBLIC HEALTH
Mitigation Strategies

**Systems Approach** to Maximize Health and Safety

- **Face Coverings** (masks)
  - Types/Styles/Fabrics?
  - Exhalation valves
  - Exemptions?

- **Physical Distancing**
  - 6 ft.? 12 ft.? 3 ft.?

- **Hand Washing**
  - Soap/water?
  - Hand sanitizer?
  - Methanol?

- **Cohorting**
  - What size?
  - Classrooms
  - Buses
  - Extracurriculars

- **Cleaning and Disinfection**

- **Ventilation**

- **Identification, Isolation, and Exclusion**
  - Symptomatic
  - Positive test result
  - Contacts
Temperature Screening

DPH is currently not recommending temperature screening at schools:

- Poor indicator of COVID-19 infection status
- Bottlenecks
- Inaccurate readings/repeated testing
- False sense of security
- Labor intensive

- Instead, give some ownership to students/parents for health monitoring
Mitigation Strategies

Before Schools Open

• Work with municipal officials and the Local Health Department to plan and operationalize

• Communicate what/how strategies will be used and expectations for
  - Parents
  - Students
  - Teachers and other staff

After Schools Open

• Train, practice, re-train (masks, policies)

• Adapt to changing conditions, problems with compliance

• Communicate, communicate, communicate!
CDC Print Resources

https://www.cdc.gov/coronavirus/2019-ncov/communication/print-resources.html
A well designed and implemented set of mitigation strategies can lighten the burden of community spread on schools, allowing them to stay open longer in the face of worsening data metrics.
Thank you for all you do to make CT schools healthy environments for learning!

Questions?