Considerations for School Opening

• State and local COVID Disease current picture
• Public Health Indicators considered for reopening
  • New COVID cases diagnosed daily or in past 7 or 14 days
  • Average Daily Case Rate per 100,000 population
  • Test Positivity Rate
• Contact Tracing, Isolation and Quarantine—How will it work at CPS?
• Layers of Protections in place for opening

Susan Rask, M.S, R.S.
Public Health Director
August 18, 2020
Northeastern states currently have low average daily case rates. Impressive given that NY, NJ, and MA had the highest number of cases nationally in April.
Mid-April: 2500-3000 new cases were being diagnosed each day— and there was very limited testing available at that time, so this likely significantly under-represents the real number of cases.

**June 19:** Governor Baker announces Step Two of Phase II of the Commonwealth’s four-phase reopening plan, will begin on June 22. Children’s camps, youth sports, outside dining, retail, personal services, hotels, beaches, allowed to open.

**July 6:** Average daily cases were about 175-200. Step One of Phase III begins. Gyms, movies, outdoor performances, sports league games, indoor recreation allowed to open.

**August 7:** Average daily cases have risen to about 350-400. Governor announces Step Two of Phase III will be indefinitely postponed.
New cases diagnosed per day statewide started rising after July 4 but appear to be starting to decrease starting August 3. Current 14 day average = 369. **Current 7 day average= 183**
Note the low rate of cases per 100,000 population in Age Group 0-19.
As of August 12:

- 185 cases in total since April (>100 of these were in nursing facilities)
- 3 current active cases
- <5 new cases in past 14 days; this has been consistent throughout the summer
- Case counts are lower in past 14 days (7/26/2020 - 8/8/2020) compared to previous 14 day period (7/19/2020 – 8/1/2020)
<table>
<thead>
<tr>
<th>Level of Community Transmission</th>
<th>Community characteristics and description</th>
<th>Level of mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantial, uncontrolled transmission</td>
<td>Large scale, uncontrolled community transmission, including communal settings (e.g., schools, workplaces)</td>
<td>Shelter in place</td>
</tr>
<tr>
<td>Substantial, controlled transmission</td>
<td>Large scale, controlled community transmission, including communal settings (e.g., schools, workplaces)</td>
<td>Significant mitigation</td>
</tr>
<tr>
<td>Minimal to moderate community transmission</td>
<td>Sustained transmission with high likelihood or confirmed exposure within communal settings and potential for rapid increase in cases</td>
<td>Moderate mitigation</td>
</tr>
<tr>
<td>No to minimal community transmission</td>
<td>Evidence of isolated cases or limited community transmission, case investigations underway; no evidence of exposure in large communal setting</td>
<td>Low mitigation</td>
</tr>
</tbody>
</table>
Public Health Indicators for School Opening

Indicator #1: Number of New Cases Being Diagnosed per day

What is the 14 day trend?
What is the 7 day trend?

Statewide:
  • Current 14 day average =369.
  • Current 7 day average= 183

Statewide trend appears to be downward.
Concord trend is low and steady at <5
Indicator is Positive

Source: Johns Hopkins University Coronavirus Resource Center https://coronavirus.jhu.edu/
Public Health Indicators for School Opening

Indicator #2: Average Daily Case Rate

New Cases per day per 100,000 population-- 14 day average

<table>
<thead>
<tr>
<th>State</th>
<th>Case Rate per 100,000 population 14 day average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>4.01/ 100,000 population 14 day average</td>
</tr>
<tr>
<td>Middlesex County</td>
<td>2.89 per day/ 100,000 population 14 day average</td>
</tr>
<tr>
<td>Suffolk County</td>
<td>7.56 per day/100,000 population 14 day average</td>
</tr>
</tbody>
</table>

Indicator is Positive
Massachusetts and Middlesex County are in the Yellow Zone: slightly greater risk, with 1 to 10 new cases per 100,000 per day.

Based on this COVID Risk Level, the report recommends 3 priorities: first is the return of in-person instruction for grades K through 5 and special education grades K through 8; second is reopening for grades 6 through 8 and special education 9 through 12; last is the opening of a hybrid system for high schoolers, where only a subset of students can be in-person at a time.

Governor Baker’s COVID Command Center’s updated approach to COVID control
August 11, 2020

Governor Baker: Towns in Green and White categories meet all public health benchmarks to reopen schools either in person or using hybrid model. “No reason not to reopen schools in these towns”.

New map identifies COVID hotspots and towns where disease rates remain high. Additional state resources will be allocated specifically to these Red and Yellow towns to bring COVID infection rates down.
New DESE Guidance 8/11/20
based on Governor Baker’s COVID Command Center’s new approach to COVID control

With new color-coded metric from COVID Command, DESE is issuing additional guidance for selecting a learning model

<table>
<thead>
<tr>
<th>New color-coded metric*</th>
<th>DESE expectation for learning model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RED</strong> Average daily cases per 100,000 is greater than 8</td>
<td>Remote</td>
</tr>
<tr>
<td><strong>YELLOW</strong> Average daily cases per 100,000 is between 4 - 8</td>
<td>Hybrid OR Remote (if extenuating circumstances)</td>
</tr>
<tr>
<td><strong>GREEN</strong> Average daily cases per 100,000 is less than 4</td>
<td>Full-time in-person OR Hybrid (if extenuating circumstances)</td>
</tr>
<tr>
<td><strong>UNSHADED</strong> Fewer than 5 total cases over the past 14 days. Generally, this is for communities with small populations and very few cases.</td>
<td></td>
</tr>
</tbody>
</table>

*Measured as a 14-day rolling average and will be reported weekly as part of the online DPH dashboard
**Additional considerations**

**Other metrics to review:** While average daily cases per 100,000 is the metric that determines the color coding for each community, districts / schools should also monitor whether cases are increasing or decreasing vs. the prior period. Monitoring positive testing also remains an important metric. In consultation with their local boards of health, districts should consider whether these additional metrics and underlying data may indicate other concerning trends. DESE will provide additional guidance on example scenarios regarding other metrics for districts to review.

**Multiple weeks of data is necessary to understand trends:** Districts should look at multiple reports to inform any changes to their learning model for the start of the school year or to make any changes during the year.

**Regional schools and others that draw from multiple cities/towns:** We will issue additional guidance that points you to the appropriate data to view for your context.
### Count and Rate of Confirmed COVID-19 Cases and Tests Performed in MA by City/Town, January 1, 2020 – August 12, 2020

<table>
<thead>
<tr>
<th>City/Town</th>
<th>Total Case Count</th>
<th>Case Count (Last 14 Days)</th>
<th>Average Daily Incidence Rate per 100,000 (Last 14 days)</th>
<th>Relative Change in Case Counts</th>
<th>Total Tests</th>
<th>Total Tests (Last 14 days)</th>
<th>Total Positive Tests (Last 14 days)</th>
<th>Percent Positivity (Last 14 days)</th>
<th>Change in Percent Positivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlton</td>
<td>105</td>
<td>11</td>
<td>5.6</td>
<td>Lower</td>
<td>3173</td>
<td>590</td>
<td>13</td>
<td>2.20%</td>
<td>Higher</td>
</tr>
<tr>
<td>Chatham</td>
<td>22</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>1308</td>
<td>230</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Chelmsford</td>
<td>361</td>
<td>8</td>
<td>1.6</td>
<td>Lower</td>
<td>9042</td>
<td>1406</td>
<td>12</td>
<td>0.85%</td>
<td>No Change</td>
</tr>
<tr>
<td>Chelsea</td>
<td>3151</td>
<td>101</td>
<td>19.2</td>
<td>Higher</td>
<td>18683</td>
<td>2675</td>
<td>121</td>
<td>4.52%</td>
<td>Lower</td>
</tr>
<tr>
<td>Cheshire</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>539</td>
<td>122</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Chester</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>182</td>
<td>29</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Chesterfield</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>Higher</td>
<td>154</td>
<td>24</td>
<td>1</td>
<td>4.17%</td>
<td>Higher</td>
</tr>
<tr>
<td>Chicopee</td>
<td>557</td>
<td>47</td>
<td>5.9</td>
<td>Lower</td>
<td>11293</td>
<td>1950</td>
<td>60</td>
<td>3.08%</td>
<td>Lower</td>
</tr>
<tr>
<td>Chilmark</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>845</td>
<td>158</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Clarksburg</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>219</td>
<td>39</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Clinton</td>
<td>266</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>No Change</td>
<td>3601</td>
<td>602</td>
<td>6</td>
<td>1.00%</td>
<td>No Change</td>
</tr>
<tr>
<td>Cohasset</td>
<td>29</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>No Change</td>
<td>1170</td>
<td>159</td>
<td>1</td>
<td>0.63%</td>
<td>No Change</td>
</tr>
<tr>
<td>Colrain</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>248</td>
<td>48</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Concord</td>
<td>185</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>Lower</td>
<td>5683</td>
<td>814</td>
<td>2</td>
<td>0.25%</td>
<td>Lower</td>
</tr>
<tr>
<td>Conway</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>349</td>
<td>77</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Cummington</td>
<td>&lt;5</td>
<td>0</td>
<td>0</td>
<td>No Change</td>
<td>168</td>
<td>29</td>
<td>0</td>
<td>0%</td>
<td>No Change</td>
</tr>
<tr>
<td>Dalton</td>
<td>18</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>No Change</td>
<td>1226</td>
<td>242</td>
<td>2</td>
<td>0.83%</td>
<td>Lower</td>
</tr>
<tr>
<td>Danvers</td>
<td>761</td>
<td>13</td>
<td>3.3</td>
<td>Higher</td>
<td>9270</td>
<td>1049</td>
<td>16</td>
<td>1.53%</td>
<td>Higher</td>
</tr>
</tbody>
</table>
As of August 10, Positive Molecular Test Rate for Massachusetts was 1.7%; this is a 94% reduction since April 15 (peak of disease in MA).

In May, the MA positive test rate was 10%.

For comparison:
The current positive test rate in Arizona is approx. 25%; Florida approx. 18%; Texas approx. 15%

Source: Johns Hopkins University Coronavirus Resource Center [https://coronavirus.jhu.edu/](https://coronavirus.jhu.edu/)

A low rate of positivity in testing data can be seen as a sign that a state has sufficient testing capacity for the size of their outbreak and is testing enough of its population to make informed decisions about reopening. Positivity rates >10% suggest that not enough testing is being done.
Public Health Indicators for School Opening

Test Positivity Rate Recommendations

WHO: Reopen social activities if test positivity rate <5%
CDC: Reopen social activities if test positivity rate <10%
New York State: Open schools if test positivity rate <5% (current NY state rate is 1%)
New York City: Open schools if test positivity rate <3%
Harvard Global Health Institute: Open schools if test positivity rate <3%

As of August 12:
Massachusetts has a test positivity rate of 1.75% (last 14 days). Source: MDPH
Concord has a test positivity rate of 0.25%
Carlisle has a test positivity rate of 0.50%
Suffolk County has test positivity rate of 2.77%

Indicator is Positive
CONCORD-CARLISLE COVID DASHBOARD as of August 21, 2020

<table>
<thead>
<tr>
<th>TOWN</th>
<th>Total Case Count</th>
<th>Case Count last 14 days</th>
<th>Relative Change in Case counts (2)</th>
<th>Total Tests</th>
<th># Tests last 14 days</th>
<th>Total Positive Tests last 14 days</th>
<th>Percent Positivity last 14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>185</td>
<td>8</td>
<td>increase</td>
<td>5190</td>
<td>644</td>
<td>8</td>
<td>0.76%</td>
</tr>
<tr>
<td>Carlisle</td>
<td>20</td>
<td>&lt;5</td>
<td>no change</td>
<td>819</td>
<td>158</td>
<td>1</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

2) Number of new cases occurring over the current two-week period compared to the previous two-week period.

Total Cases and Past 2-week New Cases by Age Group *(New cases noted in red)*

<table>
<thead>
<tr>
<th>TOWN</th>
<th>0-10 yr.</th>
<th>10-20 yr.</th>
<th>20-30 yr.</th>
<th>30-40 yr.</th>
<th>40-50 yr.</th>
<th>50-60 yr.</th>
<th>60-70 yr.</th>
<th>70+ yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>1</td>
<td>4</td>
<td>9 (1)</td>
<td>6</td>
<td>13 (1)</td>
<td>20 (1)</td>
<td>26</td>
<td>106</td>
</tr>
<tr>
<td>Carlisle</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>
Why is the 8/19 map different from the map released 8/11?

Concord’s current 2-week case count changed from 4 to 8, which caused Concord to change from White to Green status.

Working with MDPH to resolve the discrepancy.

CONTACT TRACING, ISOLATION AND QUARANTINE

Contact Tracing | Basics
Tracing is an essential leg of four-legged stool

TEST
Increase access to testing and number of people tested so people with COVID-19 are aware of their diagnosis and can self-isolate

TRACE
Trace all contacts of people with COVID-19 to ensure safe quarantine and testing for those who need it

ISOLATION/QUARANTINE & SUPPORT
Put transmission to a stop by supporting timely and safe isolation and quarantine for people with COVID-19 and their contacts

MONITOR
Check in regularly with people with COVID-19 and their contacts to document health status throughout isolation and quarantine
Nurse interviews COVID–positive case, determines Close Contacts, instructs person to isolate

COVID–positive case isolates for 10 days past date of test or onset of symptoms

Nurse interviews all possible contacts to determine who was exposed and should be quarantined

Quarantine for 14 days after last date of exposure; COVID test required for students.

Nurse does not need to contact these persons because they had no direct exposure to positive case, Their risk of getting COVID is very low

No quarantine or testing required

**CONTACT TRACING, ISOLATION AND QUARANTINE**

**COVID-positive case**

**Close contacts**—within 6 ft. for more than 15 minutes, with or without mask, indoors or outdoors. Could be other students, teachers, family members etc.

**Contacts of contacts**—no direct exposure to positive case. Could be students or teachers in other classrooms
COVID-Positive Case

- Public Health Nurse is notified of positive case via state database MAVEN and/or School Nurse or Principal
- Nurse contacts student/family and teachers to determine who the possible Close Contacts might be
- Nurse instructs COVID case to isolate for 10 days past test date or onset of symptoms
- Nurse checks in with case/family periodically to assess medical status and assure quarantine is being followed
- Nurse works with family’s health care provider as needed to determine when student or teacher can return to school or work
Close Contacts
Anyone within 6 ft. of positive case for 10-15 minutes or more

**For Grades K-5,** everyone in the classroom will be considered a Close Contact and will need to quarantine for 14 days.

**For Middle and High School,** students will have assigned seats in each classroom and seats will be 6 ft. apart so it will be fairly easy to use a 6 ft. radius to determine who the Close Contacts are in each classroom.

- Public Health Nurse will work with School Nurses and Teachers to determine who the Close Contacts are.
- Public Health Nurse will contact each Close Contact to discuss Quarantine requirements and follow the case for 14 days.
Contacts of Contacts
People who have spent time with Close Contacts but had no direct exposure to the COVID-positive case.

Concerned that they’ve been exposed to COVID because they’ve been with a Close Contact who is quarantined and is at some risk of becoming ill. But, these people have had no direct exposure to anyone who is known to be infectious. Even if the Close Contact becomes ill, these people were very likely not with the Close Contact when they were infectious.

For example, a parent is diagnosed with COVID. Their child attended school in the week before the parent was diagnosed. Should others at school be worried about exposure? NO—the child, who is considered to be a Close Contact of the positive parent, is now quarantined and was not infectious when they were in school.
LAYERS OF PROTECTION

State and community Public Health Indicators are positive

1. **Community Transmission Rate** (14 day average of new COVID cases per 100,000 population).
2. **New Cases diagnosed in Concord past 7 days**; and age distribution of these cases.
3. **Test Positivity Rate**. For Concord this is 0.47%; for Carlisle 0.63%.
4. Concord-Carlisle COVID Dashboard to be created with numbers updated weekly so parents and teachers have clear picture of COVID situation in town.
5. Governor Baker’s recent travel restriction: negative COVID test required prior to entering Massachusetts or person must quarantine until they get a negative test or for 14 days if not tested.
Protects within School

1. Parents must complete daily health assessment before their child attends school each day; Teachers and staff must do the same. Anyone with symptoms stays home.
2. Students wear masks; keep 6 ft. apart; wash hands frequently; surfaces sanitized regularly.
3. Anyone who is symptomatic in school (even mild symptoms) will be sent to School Nurse, isolated, then sent home as soon as possible. Student must have negative COVID test prior to returning to school or be cleared by their physician that testing was not warranted.
4. If a COVID case occurs, contact tracing and quarantine will be done quickly and thoroughly to contain spread of infection.
GOING FORWARD........
EVERYONE HAS A ROLE TO PLAY TO HELP KEEP SCHOOLS OPEN

Governor Baker: “This virus will take any opening we give it”.

Concord’s public health indicators look good and community transmission of the disease is low, but we can’t get complacent and let our guard down.
It continues to be important to follow the guidance that has been so successful in reducing disease incidence in Massachusetts.

• Family’s and Children’s activities and behavior outside of school are key to reducing exposure to the disease.
• The virus spreads easily in large gatherings. Avoid these, especially indoor gatherings.
• Please keep your, and your child’s, social circle small with people you know are also being careful about exposure.

• Maintain physical distancing of 6 ft. from others—we know it helps.
• Continue to be vigilant about wearing masks and washing hands.

• If your child feels unwell, even with mild symptoms, keep them home from school. Err on the side of caution to help protect others.
If your child is identified as a Close Contact of a positive case, please work cooperatively with Tricia. She is here to help and is a great source of information and support.

**Out of state travel:** If you travel outside of New England, NY and NJ, Governor Baker’s Travel Order requires you get a COVID test prior to, or as soon as possible after, return To Massachusetts. You must quarantine until you receive negative results or for 14 days if you are not tested.

**FLU SHOTS:** Everyone should get a flu shot as soon as possible. 
DESE is requiring ALL students be vaccinated for flu for the 2020-2021 school year.
How to Interpret this Data

**COVID-19 Molecular Test: Also known as a PCR test.** This diagnostic test identifies the presence of virus’s genetic material. These tests are very accurate and a positive result means someone has current or very recent infection.

**COVID-19 Antigen Test:** This test identifies the presence of proteins on the surface of the virus. These diagnostic tests are somewhat less accurate (i.e., low sensitivity) than molecular tests but a positive result is suggestive of current infection.

**COVID-19 Antibody Test:** Also known as a serology test. This test identifies antibodies; antibodies are the proteins produced by the immune system to fight off an infection. Because antibodies take days to weeks to make after infection, *a positive result indicates infection at some point in the past. It is not a diagnostic test.*

**Confirmed Case:** A person is counted as a confirmed case of COVID-19 if they have a positive molecular test (PCR test).

**Probable Case:** A person is counted as a probable case in four ways:
1. If they have a positive antigen test AND have symptoms OR were exposed to someone with COVID;
2. If they have a positive antibody test AND have symptoms OR were exposed to someone with COVID;
3. If they have COVID symptoms AND were exposed to someone with COVID;
4. If they died and their death certificate lists COVID as a cause of death.