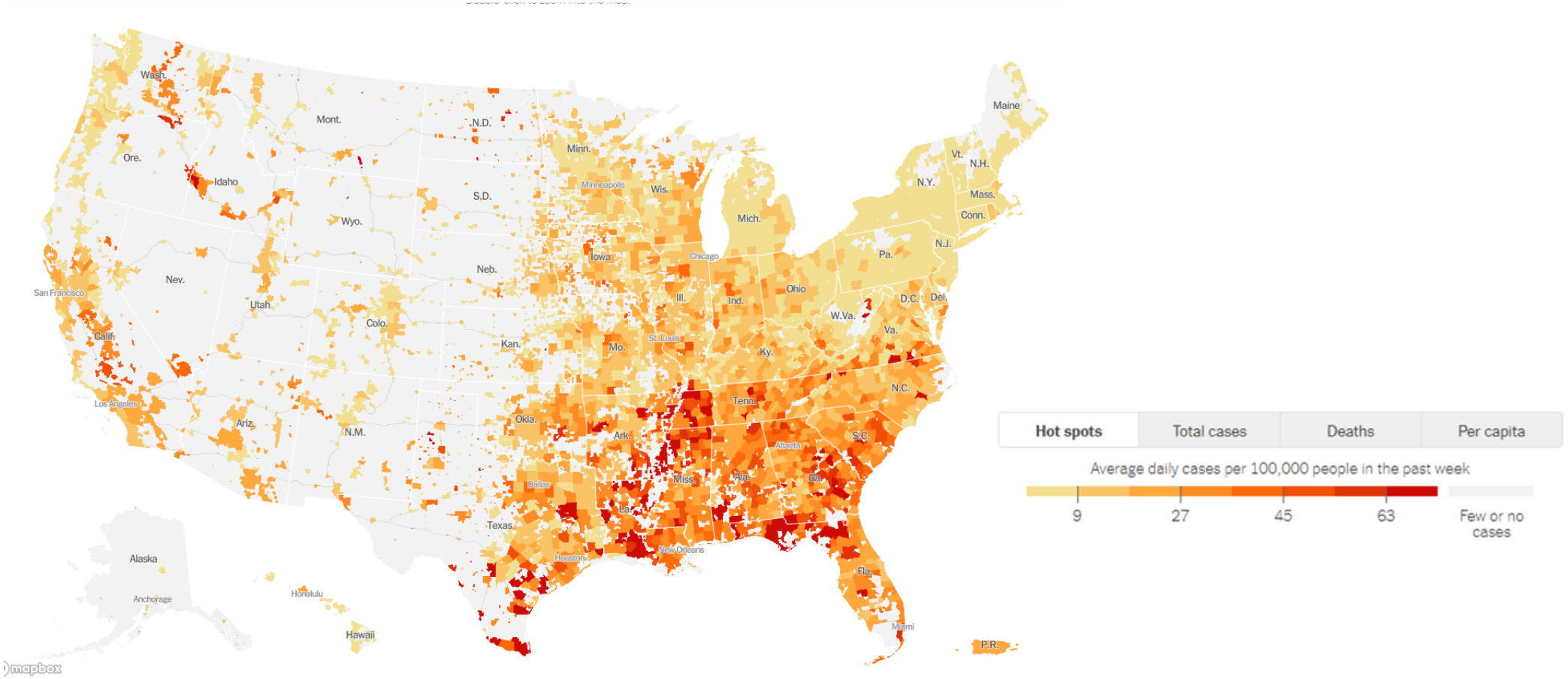
Considerations for School Opening

- 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

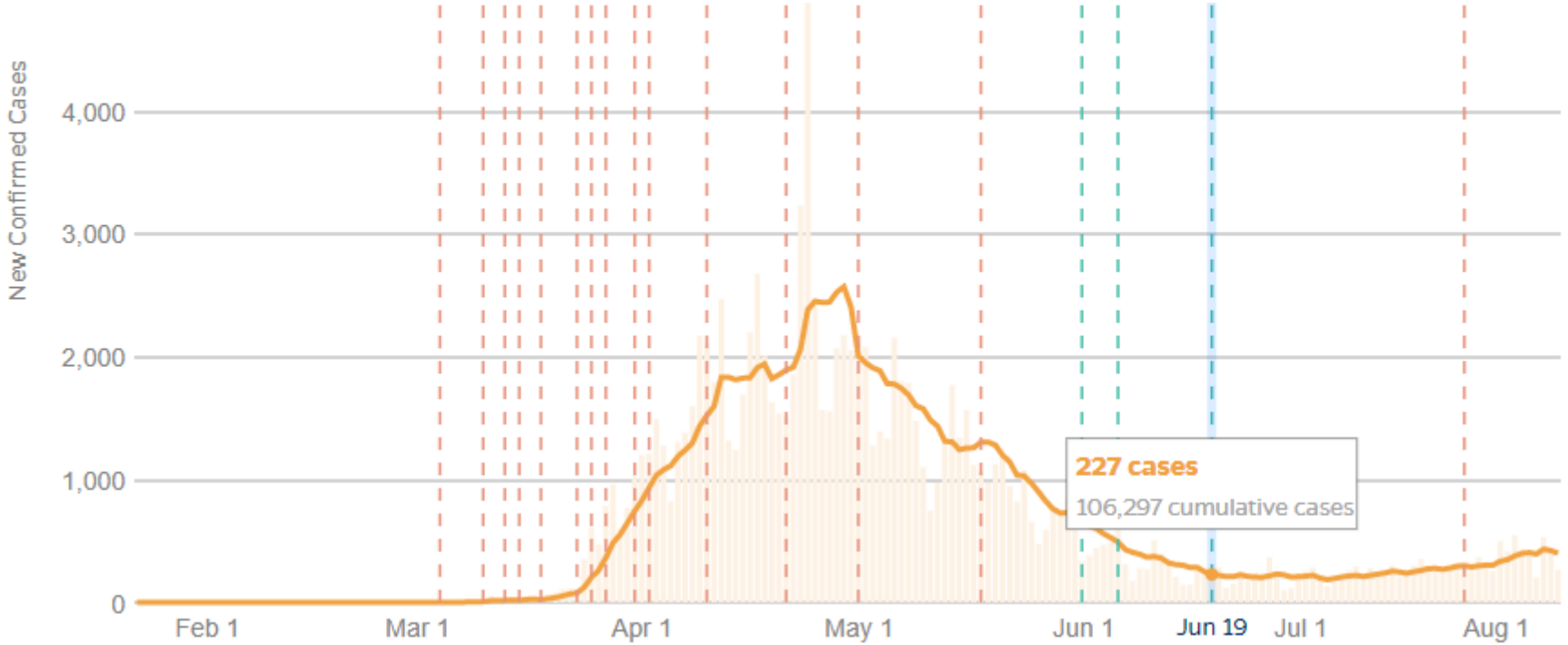
National Picture mid-August 2020



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

Map from New York Times, 8/10/20. Data source is state and local health agencies

Massachusetts COVID cases—number of new confirmed cases by date



Source: Johns Hopkins University Coronavirus Resource Center https://coronavirus.jhu.edu/

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.

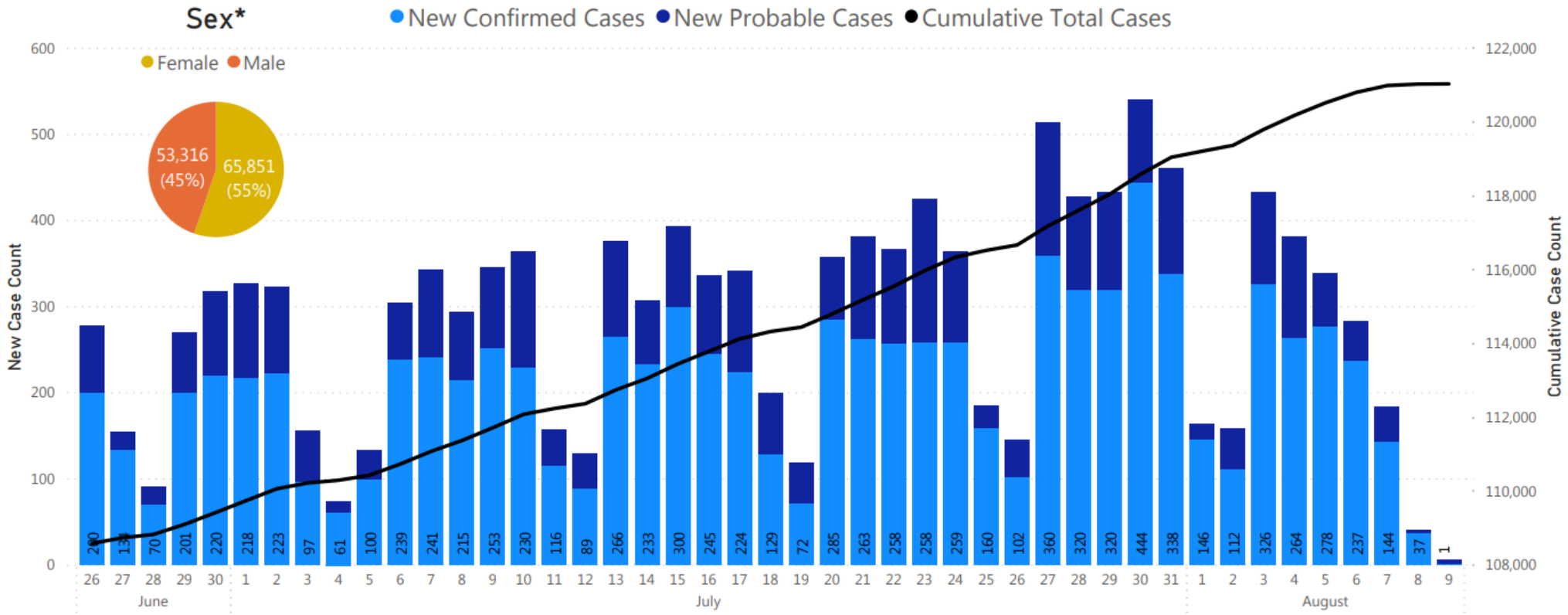
July 6: Average daily cases were about 175-200. Step One of Phase III begins. Gyms, movies, outdoor performances, sports league games, indoor recreation allowed to open.

August 7: Average daily cases have risen to about 350-400. Governor announces Step Two of Phase III will be indefinitely postponed.

Massachusetts Department of Public Health COVID-19 Dashboard - Sunday, August 09, 2020

Daily and Cumulative Confirmed and Probable Cases

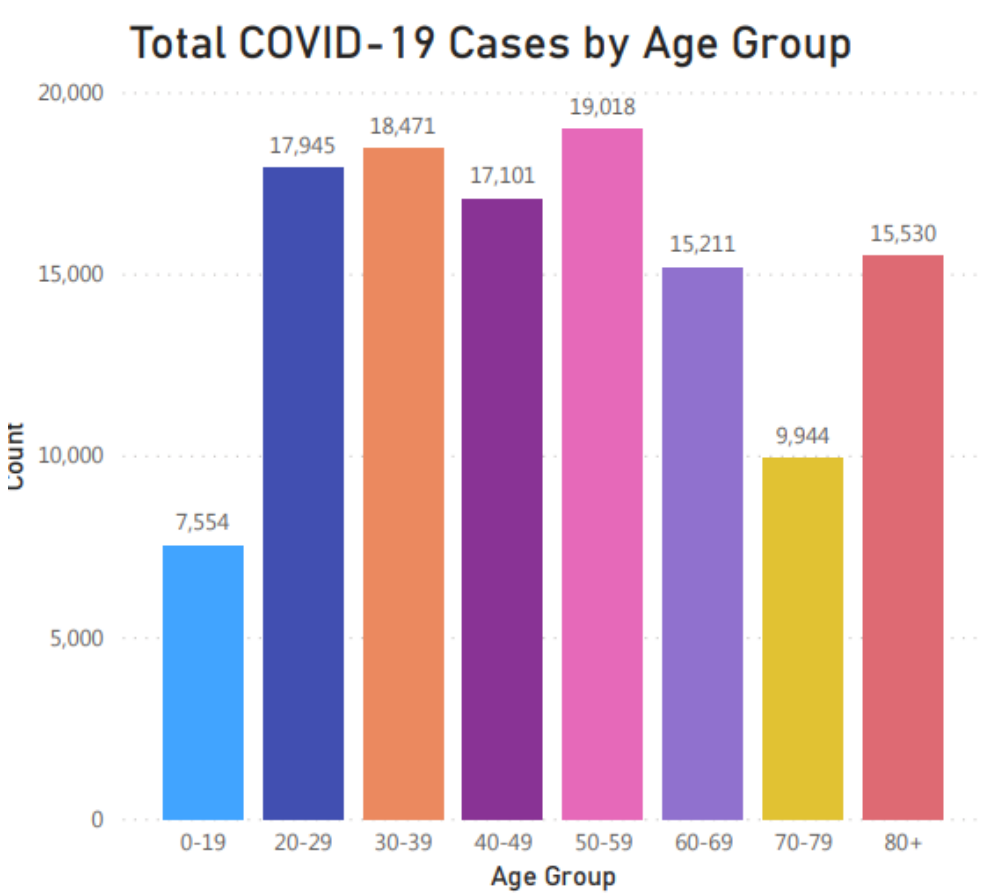
Total COVID-19 Cases To Date by Date Individual Tested or Date of Symptom Onset

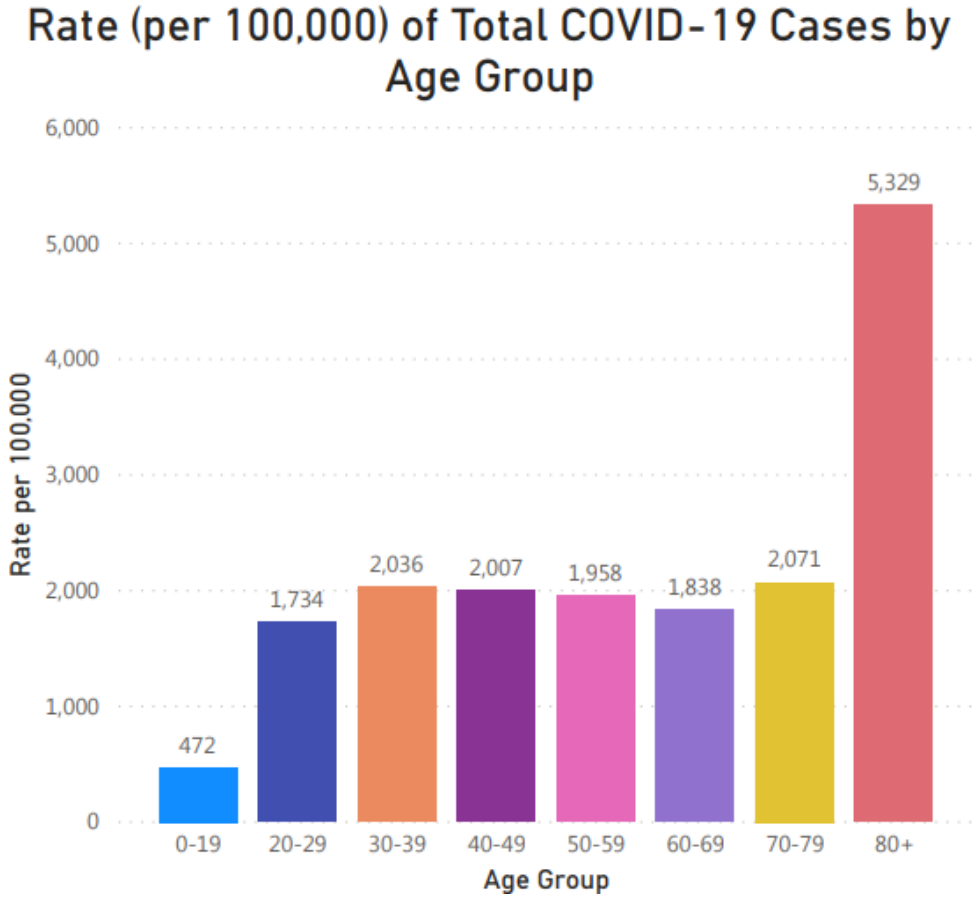


New cases diagnosed per day statewide started rising after July 4 but appear to be starting to decrease starting August 3. Current 14 day average =369. Current 7 day average= 183

Massachusetts Department of Public Health COVID-19 Dashboard - Sunday, August 09, 2020

Cases and Case Rate by Age Group





Average age of Total COVID-19 Cases

50

Note the low rate of cases per 100,000 population in Age Group 0-19.

Town of Concord COVID Data

from MDPH Massachusetts Department of Public Health COVID-19 Dashboard -
Weekly COVID-19 Public Health Report
https://www.mass.gov/info-details/covid-19-response-reporting#covid-19-weekly-public-health-report-

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)

CDC: Level of mitigation needed by level of community transmission and community characteristics

MASSACHUSETTS IN APRIL

CONCORD NOW

Level of Community Transmission	Community characteristics and description	Level of mitigation
Substantial, uncontrolled transmission	Large scale, uncontrolled community transmission, including communal settings (e.g., schools, workplaces)	Shelter in place
Substantial, controlled transmission	Large scale, controlled community transmission, including communal settings (e.g., schools, workplaces)	Significant mitigation
Minimal to moderate community transmission	Sustained transmission with high likelihood or confirmed exposure within communal settings and potential for rapid increase in cases	Moderate mitigation
No to minimal community transmission	Evidence of isolated cases or limited community transmission, case investigations underway; no evidence of exposure in large communal setting	Low mitigation

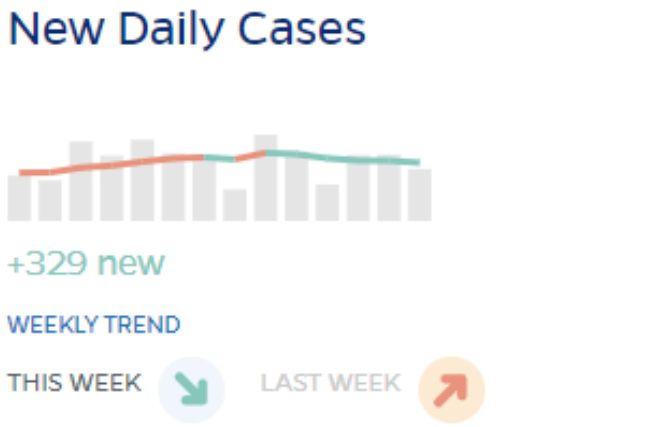
Public Health Indicators for School Opening

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



7-day moving average— a green line segment represents a day-over-day decrease in cases, and a red line segment represents a day-over-day increase in cases

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

Massachusetts	4.01/ 100,000 population 14 day average
Middlesex County	2.89 per day/ 100,000 population 14 day average
Suffolk County	7.56 per day/100,000 population 14 day average

Indicator is Positive

Public Health Indicators for School Opening

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

HARVARD GLOBAL HEALTH INSTITUTE

EDMOND J. SAFRA Center for Ethics

The Path to Zero and Schools: Achieving Pandemic Resilient Teaching and Learning Spaces

The single best policy to support school re-opening prior to the development of a vaccine or treatment is suppression of COVID to near zero case incidence. This can be achieved via universal mask wearing, rigorous social distancing, reduction or elimination of indoor congregant settings, and Testing, Tracing and Supported Isolation (TTSI)

Report released July 2020.

WHAT ARE RISK INCIDENCE LEVELS AND WHAT THEY CAN TELL US ABOUT WHAT IT TAKES TO CREATE A PANDEMIC RESILIENT LEARNING SPACE?

To get to a near zero case incidence level, jurisdictions need to first understand the severity of the outbreak they are responding to. To determine their COVID level, they should assess case incidence levels as follows:

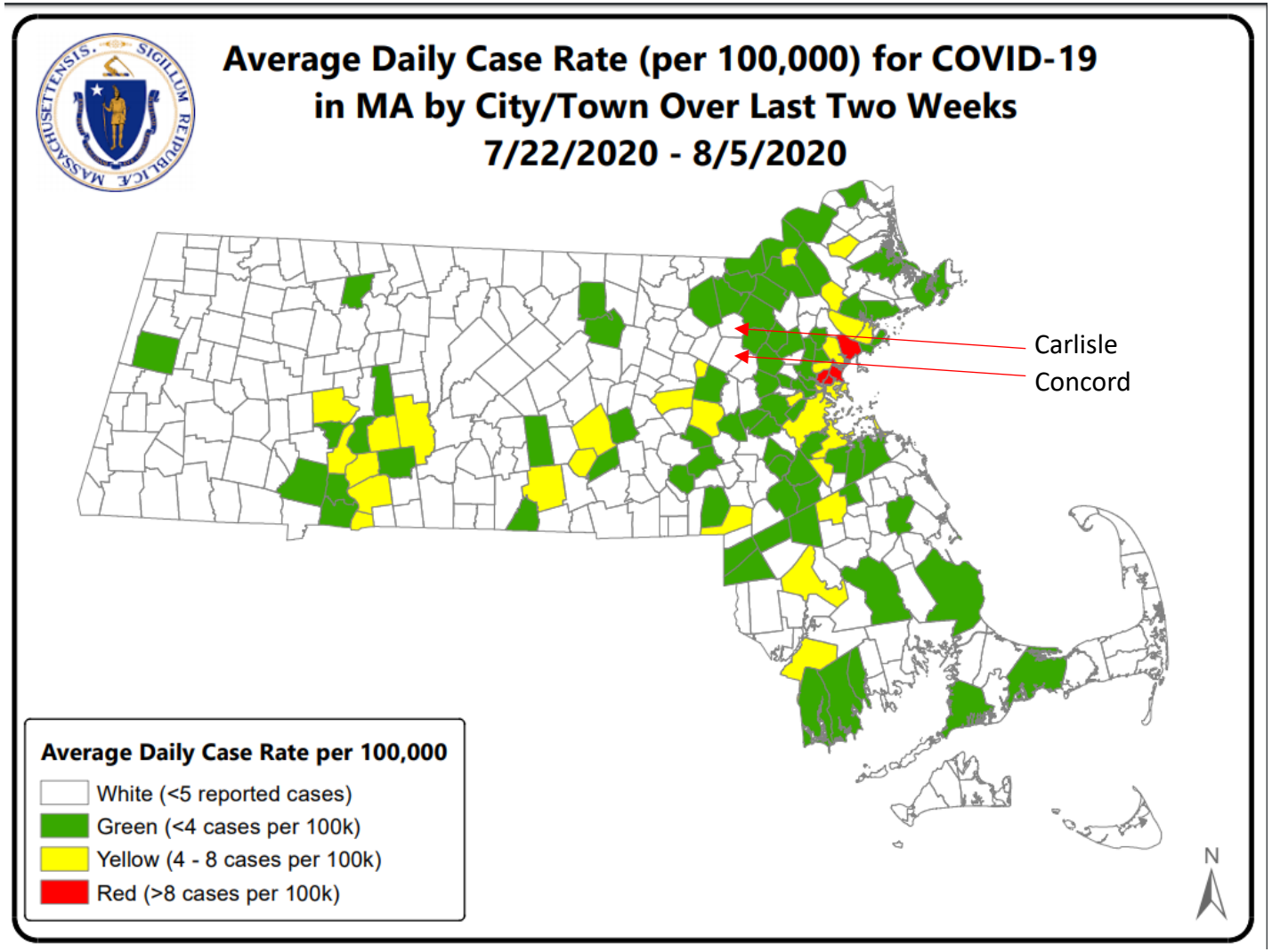
Covid Risk Level	Case Incidence	
Red	>25	daily new cases per 100,000 people
Orange	10<25	daily new cases per 100,000 people
Yellow	1<10	daily new cases per 100,000 people
Green	<1	daily new case per 100,000 people

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.

https://globalepidemics.org/wp-content/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf

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



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.

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 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

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

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

DESE Guidance 8/11/20

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.

Massachusetts Department of Public Health COVID-19 Dashboard – Wednesday, August 12, 2020

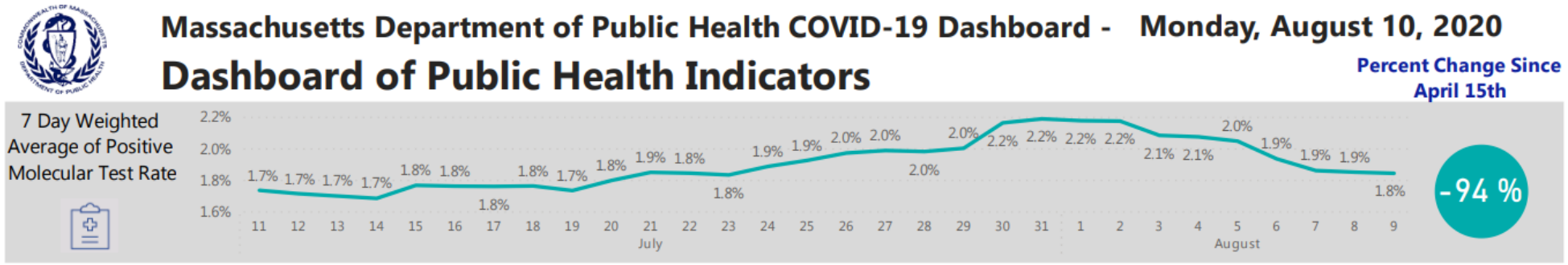
Count and Rate of Confirmed COVID-19 Cases and Tests Performed in MA by City/Town, January 1, 2020 – August 12, 2020

City/Town	Total Case Count	Case Count (Last 14 Days)	Average Daily Incidence Rate per 100,000 (Last 14 days)[1]	Relative Change in Case Counts[2]	Total Tests	Total Tests (Last 14 days)	Total Positive Tests (Last 14 days)	Percent Positivity (Last 14 days)	Change in Percent Positivity[3]
Charlton	105	11	5.6	Lower	3173	590	13	2.20%	Higher
Chatham	22	0	0	No Change	1308	230	0	0%	No Change
Chelmsford	361	8	1.6	Lower	9042	1406	12	0.85%	No Change
Chelsea	3151	101	19.2	Higher	18683	2675	121	4.52%	Lower
Cheshire	<5	0	0	No Change	539	122	0	0%	No Change
Chester	<5	0	0	No Change	182	29	0	0%	No Change
Chesterfield	<5	<5	<5	Higher	154	24	1	4.17%	Higher
Chicopee	557	47	5.9	Lower	11293	1950	60	3.08%	Lower
Chilmark	<5	0	0	No Change	845	158	0	0%	No Change
Clarksburg	8	0	0	No Change	219	39	0	0%	No Change
Clinton	266	<5	<5	No Change	3601	602	6	1.00%	No Change
Cohasset	29	<5	<5	No Change	1170	159	1	0.63%	No Change
Colrain	<5	0	0	No Change	248	48	0	0%	No Change
Concord	185	<5	<5	Lower	5683	814	2	0.25%	Lower
Conway	<5	0	0	No Change	349	77	0	0%	No Change
Cummington	<5	0	0	No Change	168	29	0	0%	No Change
Dalton	18	<5	<5	No Change	1226	242	2	0.83%	Lower
Danvers	761	13	3.3	Higher	9270	1049	16	1.53%	Higher

Public Health Indicators for School Opening

Indicator #3: Test Positivity Rate

Positive Molecular Test Rate: Percentage of people who were tested and were positive for COVID-19.



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/

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

World Health Organization (WHO) advised governments that before reopening, rates of positivity in testing (ie, out of all tests conducted, how many came back positive for COVID-19) of should remain at 5% or lower for at least 14 days.

CDC Gating Criteria: Threshold for entering Phase 3 of reopening if robust testing exists and test positivity rate is <10% for 14 days

PROPOSED WEEKLY DASHBOARD FOR PARENTS AND RESIDENTS

CONCORD-CARLISLE COVID DASHBOARD as of August 21, 2020

TOWN	Total Case Count	Case Count last 14 days	Relative Change in Case counts (2)	Total Tests	# Tests last 14 days	Total Positive Tests last 14 days	Percent Positivity last 14 days
Concord	185	8	increase	5190	644	8	0.76%
Carlisle	20	<5	no change	819	158	1	0.50%

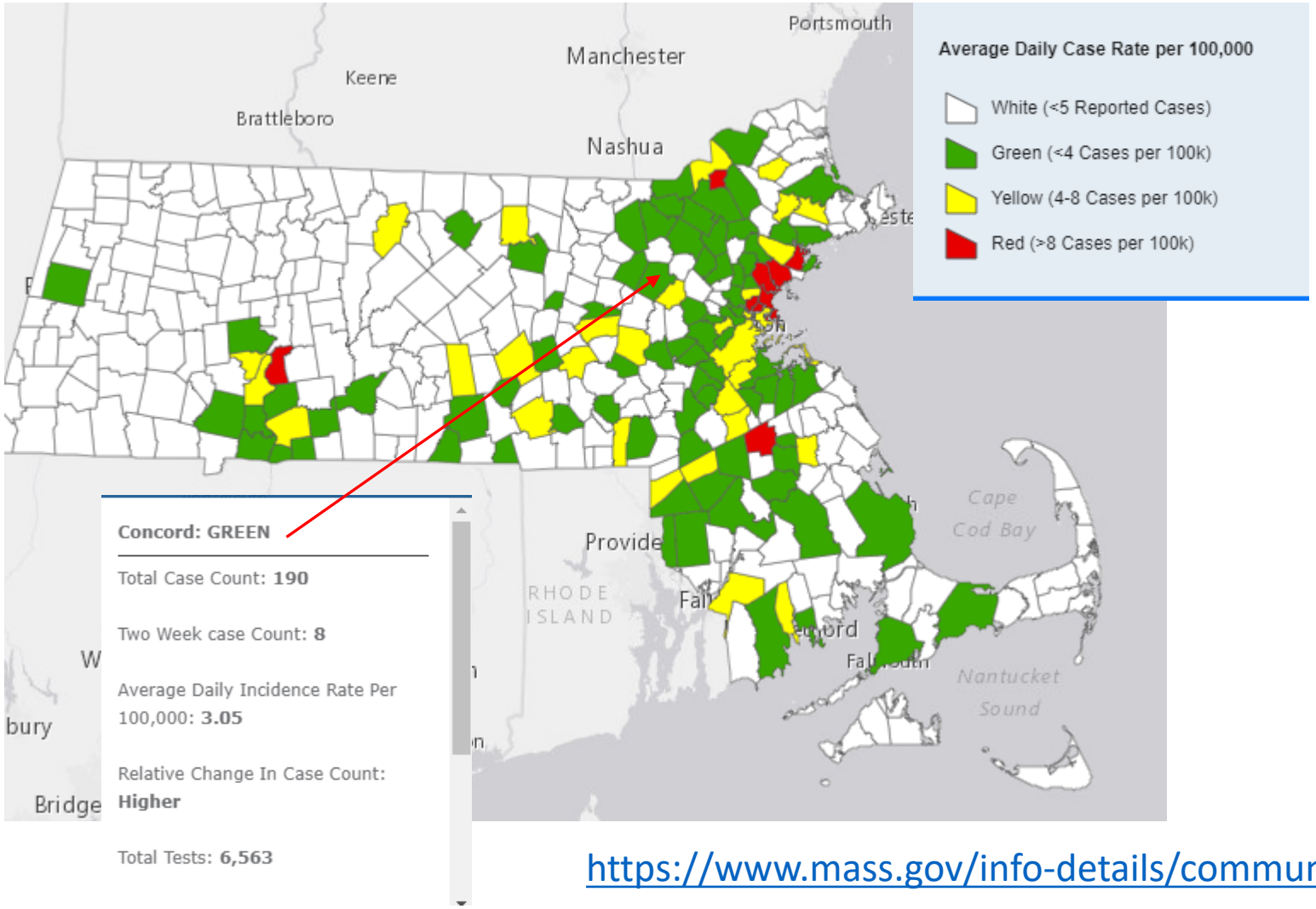
2) Number of new cases occurring over the current two-week period compared to the previous two-week period

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

TOWN	0-10 yr.	10-20 yr.	20-30 yr.	30-40 yr.	40-50 yr.	50-60 yr.	60-70 yr.	70+ yr.
Concord	1	4	9 (1)	6	13 (1)	20 (1)	26	106
Carlisle	0	4	0	1	1	7	2	5

PROPOSED WEEKLY DASHBOARD FOR PARENTS AND RESIDENTS

MDPH Town map as of 8/19/20



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

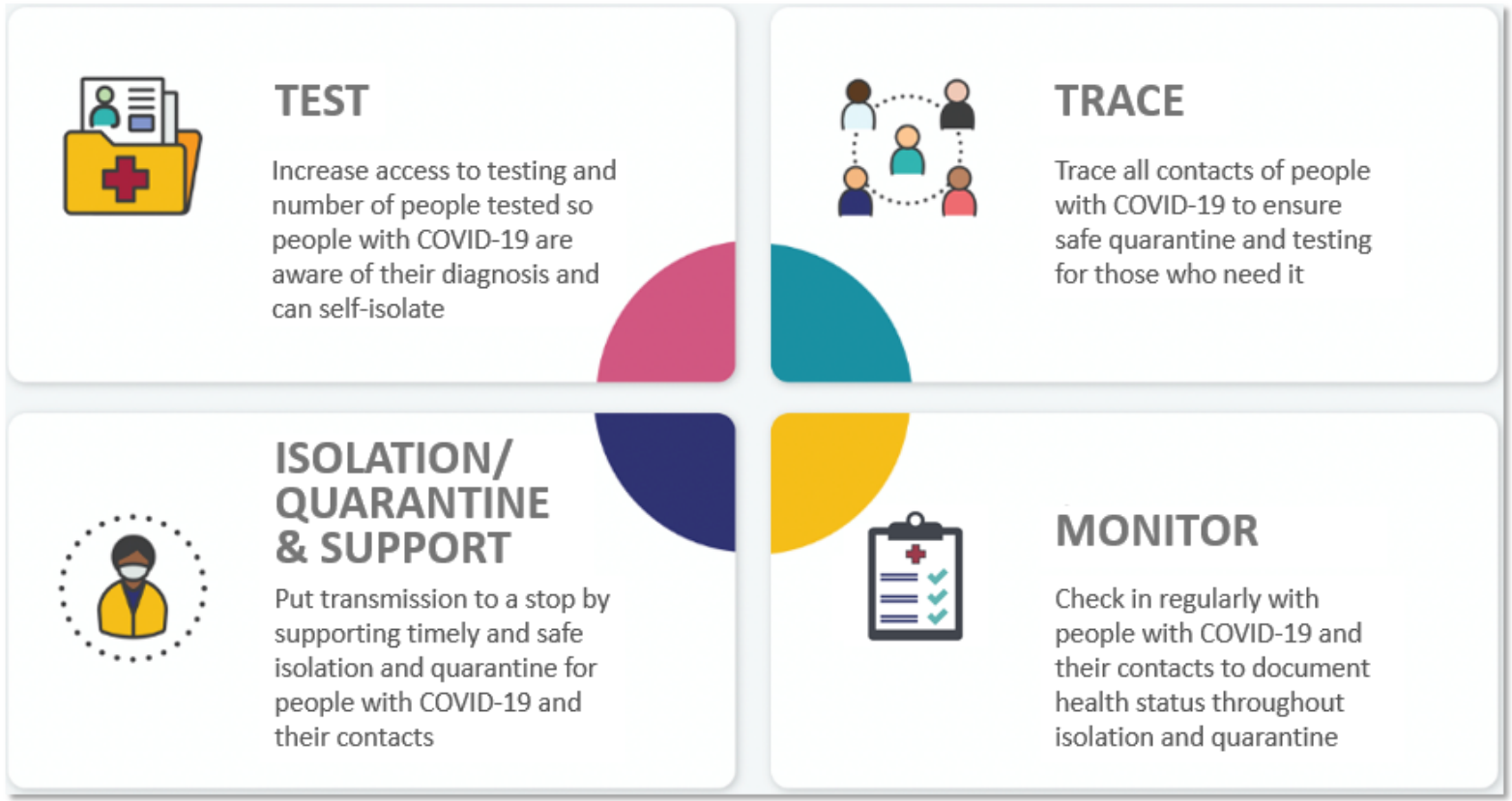
Working with MDPH to resolve the discrepancy

https://www.mass.gov/info-details/community-level-covid-19-data-reporting

CONTACT TRACING, ISOLATION AND QUARANTINE

Contact Tracing | Basics

Tracing is an essential leg of four-legged stool

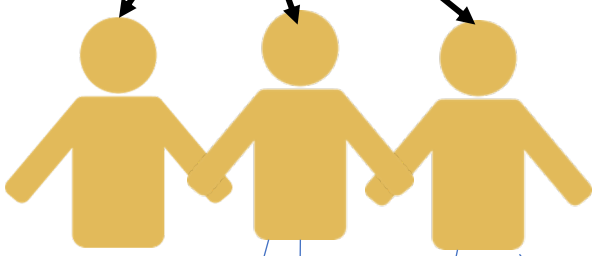


CONTACT TRACING, ISOLATION AND QUARANTINE

COVID-positive case

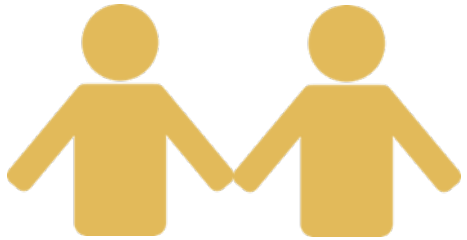
Nurse interviews COVID – positive case, determines Close Contacts, instructs person to isolate

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



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.

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

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.

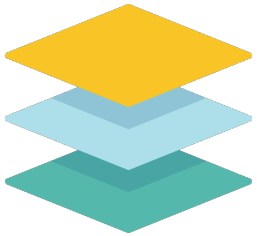
- Public Health Nurse will work with School Nurses and Teachers to determine who the Close Contacts are.
- Public Health Nurse will contact each Close Contact to discuss Quarantine requirements and follow the case for 14 days.

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.

LAYERS OF PROTECTION

Protections 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.

GOING FORWARD……
EVERYONE HAS A ROLE TO PLAY TO HELP KEEP SCHOOLS OPEN

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.