Mount Greylock Regional School District School Committee
Education Subcommittee

Date: Tuesday, October 13, 2020   **Time: 3:30pm**
Location: Remote ZOOM meeting

Per Governor Baker's order suspending certain provisions of the Open Meeting Law, M.G.L. c. 30A sec. 20, the public will not be allowed to physically access this School Committee meeting. The public may access this meeting via Zoom link:

Join Zoom Meeting
https://zoom.us/j/94021433887?pwd=ZmcyNVpjQmI5SXlORTFTcjBYdVRudz09

Meeting ID: 940 2143 3887
Passcode: 118485
One tap mobile
+16468769923,,94021433887# US (New York)

Open Session Agenda

 I. Call to order
 II. Public comments
 III. Approval of minutes
   A. August 4, 2020
 IV. Reports from working groups
   A. Technology
   B. Facilities
   C. Instruction
   D. Wellness
   E. Operations
 V. Discussion of how remote, hybrid and in-person learning is going, and brainstorming solutions to any problems, especially on
   A. preK - 2
   B. Special Education
   C. Athletics (including busing)
   D. Connectivity
   E. Content covered
 VI. Discussion on conditions on being in-person, hybrid and remote.
 VII. Other business not anticipated by the Chair within 48 hours of the meeting
 VIII. Motion to adjourn

Mt. Greylock Regional School District

School Committee Education Sub-Committee Minutes

Date: August 4, 2020
Start: 9:02 AM
Adjourn: 11:27 AM

Location:
Zoom

In Attendance:

Committee Members:	Also Present:
Steve Miller, Chair Christina Conry, Vice Chair (until 10:52 AM) Ali Carter, Secretary	Robert Putnam, Interim Superintendent Nolan Pratt, LES Principal Elea Kaatz, WES Assistant Principal Alex Kastrinakis Amy Perry Mercier Anna Mello Beth Reynolds Jacqueline Vinette Julia Bowen Julieann Haskins Karen Kathleen Igoe Kellie Houle Matthew Hane Maureen Andersen Molly Polk Noelle Sullivan Ralph Hammann Rebecca Tucker-Smith Rob Mathews Stephen Dravis Wendy and John Skavlem

Item	Comments	Motion	Second	Vote
Call to order	Meeting called to order by Steve at 9:02 AM			
Public comment	None (written submissions from local pediatrician and several parents added to meeting packet)			
Approval of minutes	July 23 meeting	Conry	Carter	3-0-0

R. Putnam: Have to conceive of education in a different way. Need to determine our priority content goals and make those happen.

S. Miller: Whatever plans we have now we will need to adapt as plans change. Need to take advantage of the time we have now to make connections between teachers and students.

R. Putnam: Discussing how to facilitate and practice social distancing.

J. Skavlem: Concerned about where we are in the process and running out of time. We know the plan is only as good as remote learning component and also that there are tremendous effects on adolescents from remote learning. Need to better understand where we are as a community so we know what we need. How can we help? Kids are desperate to get back and highly motivated. We are a responsible community and our numbers are testament to that. Zero cases in N Berkshire County. We are in an ideal position to do the most for our kids and meet states objectives for getting students back in. CDC Director also said reopening schools in public health interest.

W. Skavlem: Earlier the better for in-person to build relationships between teachers and children, also weather is better. Bathrooms in administrative building at MG. Other schools have figured this out – borrow from them. Need to come up with a solution.

R. Putnam to put summary from instructional group on website.

R. Putnam: Rethinking class time – longer classes to minimize transitions? How to maximize educational opportunities in school and at home.

J. Skavlem: Better format for success if establish strong relationships first for when need to shift to remote model.

A. Mello: People will not feel safe until ventilation fixed. Need to prioritize this. What if the first week teachers connect with parents and figure out how many feel safe in person, who needs remote. Would be easy to give a lesson as practice. As an elementary school teacher can't just have students watch a video. Need more paras? Need to talk about bathrooms and bathroom breaks.

S. Miller: Can we use these creative ideas to have grade 10-12 students in classroom 2 d/wk?

R. Putnam: Will put into narrative to think through what we have and what we need. Meeting has helped refocus work of administrative team so we can get these things answered. Clear that there are questions I haven't been able to answer.

	S. Miller: Making great progress on social distancing protocols, getting grades 10-12 in. Need info on HVAC, numbers of students in school. Create safe environment so all students want to send their kids back. R. Putnam: Working group reports on website by 4pm today. Will publish plan next week once submitted. Will look at Dover-Sherborn plans. S. Miller: Hybrid plan has to have clear benchmarks and be specific about what is necessary for us to transition to full in person. R. Putnam: Will include rudimentary benchmarks. S. Miller: Need to make sure we are not forgetting about any of our children. Want to see grades 10-12 back at least 2 d/wk. Would like to see timeline for 5 d/wk, what are the challenges, what is needed?			
Business not anticipated	None			
Adjourn	**MOTION** to adjourn at 11:27 AM	Carter	Miller	2-0-0

Respectfully Submitted,
Alison Carter
Education Sub-Committee Secretary

Steven J. Miller
Department of Mathematics & Statistics
33 Stetson Court
(617) 835-3982

To: Jeffrey C. Riley, Commissioner of Education

Re: Covid color metrics

Greetings. I am writing to you wearing two hats. First, I serve as the Vice-Chair of the Mount Greylock Regional School District (I chair the education sub-committee). Second, I am a Professor of Mathematics at Williams College, where I am teaching a class on the Mathematics of Pandemics and Risk-Analysis of Responses (see https://web.williams.edu/Mathematics/sjmiller/public_html/119/ for all course materials). The state covid metrics are thus of great interest to me. **There is a fatal flaw in the color-coding scheme that is hurting small communities with high proactive testing rates, and we need your help to fix it.**

In my role on the school committee I have seen that there are unfortunate consequences to the formulas being used. I understand and appreciate the tremendous challenges that exist in their creation, but from years of professional and consulting experience I know firsthand that a "one-size-fits-all" approach often works well in some areas and not as well in others.

In particular, the color coding scheme has some unintended consequences for small, rural districts that are preventing us from returning or sustaining in-person instruction, which we are (correctly) advised to do. I have been analyzing this issue with my class (which is composed of not only current students but also graduates with years of experience in health care and industry), and I would like to highlight first some of the issues and then propose some simple adjustments to the coloring that will address them. There are of course numerous choices one can have for the formulas; overall I am a strong supporter of "keep it simple", and the proposed changes will follow the spirit of the original metric and still be easy to implement, use only readily available data, and be transparent.

Here are the metrics: https://www.mass.gov/info-details/community-level-covid-19-data-reporting
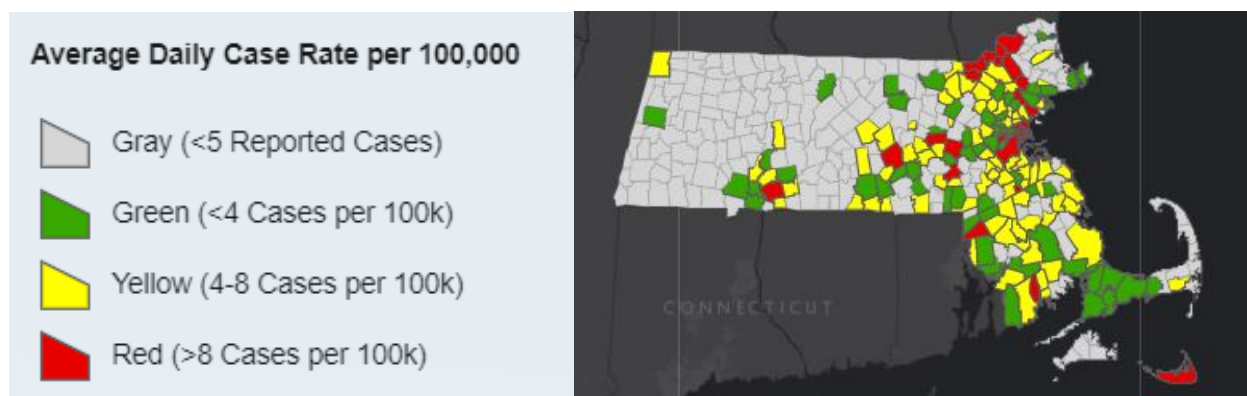
Using the average number of cases per day in a two week period in an area with respect to one hundred thousand is a good first approximation, but it misses some important information and has some issues. It is great that it averages over two weeks, but for a small town scaling to per one-hundred thousand means that just **one** additional case can have a tremendous impact. For example, Williamstown has a 2019 population of 7759. If we have four cases in a two week period we are grey (with a scaled rate of 3.68 cases per 100,000), but if we go to five cases we are at 4.60 per 100,000. It is thus mathematically impossible for our town to ever be green.

Further, one additional positive raises our daily case average per 100,000 by **almost one full case**; this should be compared to a city of 100,000 where one additional person causes a change of only .07, while in Boston the change is only about .01. This means color decisions are going to be tremendously sensitive in small municipalities to a single case.

Additionally, Williamstown is a college town that has chosen to allow students to return to campus, but only under extreme testing. Every student is tested twice a week, while faculty and staff are tested weekly.

Recent Results

| 0 | Positive test results in the last 24 hours |
| 1 | Positive test results in the last 7 days |

Positive Test Results Since August 17

| 4 | Students |
| 1 | Faculty & Staff |

Tests Completed

| 3,290 | Tests completed in last 7 days |
| 17,215 | Tests completed since August 17 |

Updated 10/6/2020

https://www.williams.edu/coronavirus/dashboard/

The snapshot shows that we have had over 17,000 tests in a month and a half, with only 5 positive results. With this many tests, the possibility of a false positive is quite high. If the tests give a false positive only .01% of the time, there is an 82% chance that there will be at least one false positive with this much testing; if the false positive rate is .1% that number rises to 99.999995895%. Unfortunately it is not clear that people who test positive are retested, and these results count towards the caseloads.

Thus the metrics, as provided, give a disincentive to localities to test their population. Instead towns should be rewarded for doing more testing. In particular, if a town tests 100% of its population and has 5 positive results, we know precisely how present covid is in that community; this is markedly different than a place which only tests symptomatic people and has 5 positive results in 200.

My district is not alone in this predicament; many districts that are one positive test away from losing in-person instruction (while yellow means districts should consider remote or hybrid, due to negotiations with unions and a desire to err on the side of being overly cautious, yellow often means remote instruction; based on the analysis

we have done we believe that this is not always the correct or intended interpretation). It is imperative that we enable students to have a good educational experience while minimizing the risk.

Below are some simple, easy to implement suggestions that would have an immediate and enormous impact.

First, change the color metrics so that the lower bounds are not less than, but less than or equal to. If it is up to 5 cases make one grey instead of less than 5, that would help relieve the cost of one additional positive case. In particular, our district has 5 in the current two week cycle and had 6 in the one before; if grey is now up to 5 (and not less than 5), we would not move to yellow (given the amount of testing we are doing, which is the next point, I believe that grey or green is a more accurate indication of our status than yellow).

Second, reward towns for testing. There are several ways to do this. The simplest is to have a scaling factor that takes into account testing. For example, https://www.nbcboston.com/news/coronavirus/coronavirus-hot-spots-map-and-list-show-where-more-people-are-testing-positive/2188402/ provides some data from a month ago on towns with high positive test rates. Looking at the first two we have the following data from the previous 14 days (the average test rate for these 25 sites is 5.21% of the population):

Chelsea: 3061 tests, 180 positive, 5.88% positivity rate, 40,160 people: 7.6% tested

Revere: 3964 tests, 228 positive, 5.75% positivity rate, 53,831 people: 7.4% tested

When trying to figure out how prevalent covid is in a community, if we cannot test everyone we look at the number of positive results and try to scale up; thus if we test 5% of the population and see 8 cases, we scale up by 20 and estimate 160 cases. However, if most of the people tested are symptomatic the data will have significant holes. Further, the fewer people we test the more a few extra or missed cases can change things, and the less confidence we have on scaling (if we test 5% of the people and have 8 or 9 cases, that scales to 160 or 180 cases, while if we test 40% of the population and have 64 or 65 cases, that scales to 160 or 162.5 cases; notice the impact of one additional positive is greatly diminished with more testing).

In brief: the more people who are tested, the more confidence we have scaling up the numbers because we are scaling less and less!

In our town, if we only count distinct tests (so we count students only once) we have at least 2000 tests a week on a population of under 8000, giving at least a 25% test rate. Having 5 cases with 2000 tests is significantly better than 5 cases with 600 tests, and thus the result should be adjusted.

In the simple proposed formula below I am using 7% as a baseline test rate, and no town is penalized for having a lower rate. Let r be the test rate of the town, which ranges from 0 (hopefully not!) to 100%.

$$\text{Adjusted case rate per 100,000} = \text{case rate per 100,000} * \text{minimum}(7/r, \ 1)$$

Thus if a town tests 7% of its population, there is no change. If it tests 14% then the case rate per 100,000 is decreased by half, while if it tests only 1% there is no change (this is what the "1" in the minimum does).

This formula could give too much credit for additional testing, but this is easily fixed by adjusting the discounting for additional tests:

<p style="color:red; text-align:center">Adjusted case rate per 100,000 = case rate per 100,000 * minimum($(7/r)^d$, 1)</p>

By choosing different values of d, we can lesson the impact; taking d=1 is the most natural, and can be interpreted as scaling up the number of positive results to the entire population (though some discount factor is reasonable, as in many areas it may be those with symptoms who are tested with greater frequency; this is why we also show d = 1/2 below).
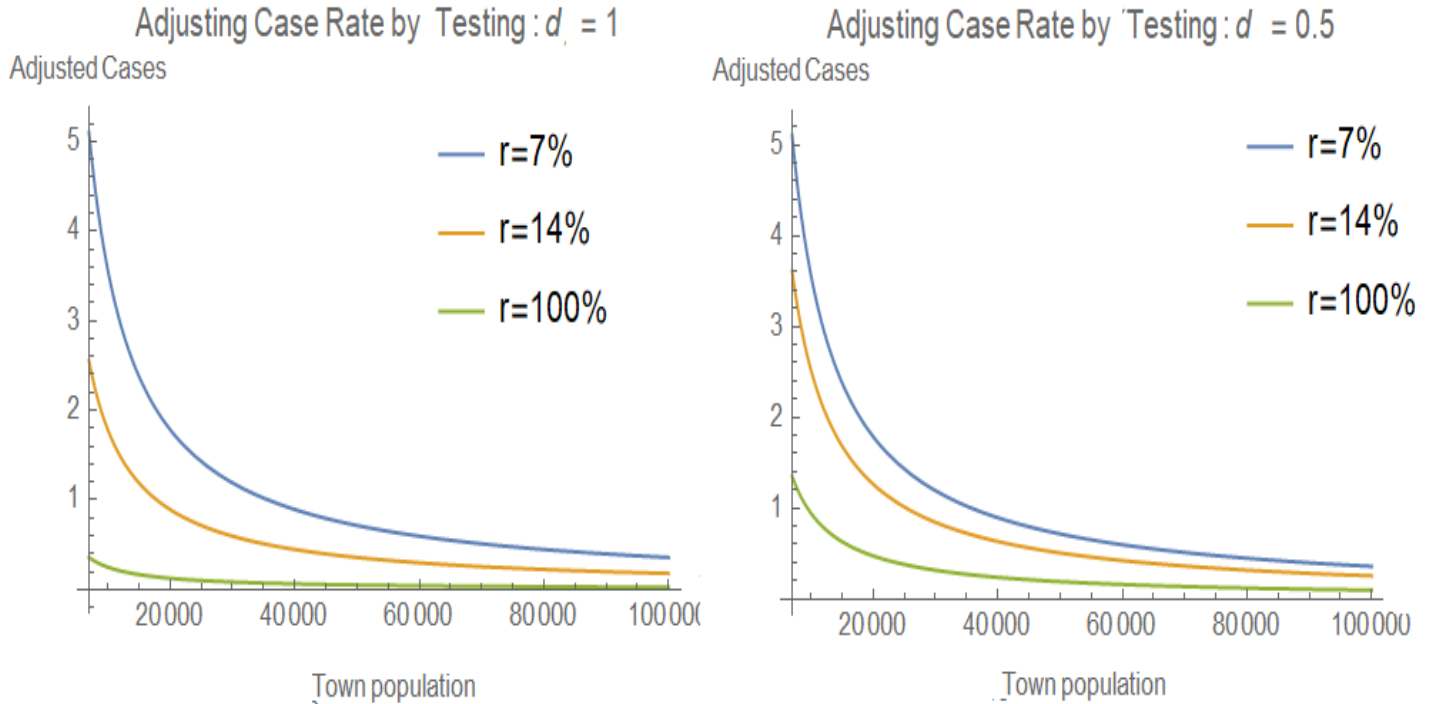
The above plot shows the reward from additional testing with 5 positive cases in 14 days; the left has d = 1 while the right has d = 1/2, which results in a significantly decreased reward for additional testing. Note the average test rate in the 25 towns was 5.21%, so using 7% as a baseline means you must be approximately 40% above this baseline to receive any credit for additional testing.

Third, one can incorporate other factors such as (a) population density, (b) rural versus urban, (c) number of infected households, and (d) case rate in neighboring towns. The purpose of the first three is to try to get a sense of how many cases might arise from an infected individual. Thus if the population density is high one could argue there are more chances for interaction; we have not explicitly incorporated a factor for this as so much depends on how much people are socially distancing, and these are proxy variables. Incorporating household effects is promising, as often people in the same household have non-disjoint spheres of interaction, and thus for contract tracing purposes a family of four all infected is less worrisome than three different families.

The last item, (d), is interesting and is in line with what many local governments already do for a variety of issues: average over time to protect budgets from sudden changes. Here the idea is that the most important factor might be the case rate in your town, but as there are interactions with neighbors (through shopping and youth sports and activities, for example, as well as employment), it is reasonable to look not just at one town but at its neighbors as well. The advantage of this is that it increases the numbers, and thus lessens the shock from small numbers. One can do this in many ways. The simplest is to look at a town and any town that borders it,

and look at the amalgamated population. Other metrics would assign weights, say 50% to your town and 50% to its neighbors. Similar to the testing formula, the purpose here is to suggest what might be possible to implement easily and lead to a more accurate assessment of the presence of covid.

This analysis is joint with the students and alumni in my class, especially

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I would be very happy to discuss this further; my contact information is below. Thank you for your consideration, and your service in these challenging times.

Steven Miller

Steven J Miller, Ph.D.
Professor of Mathematics, Williams College
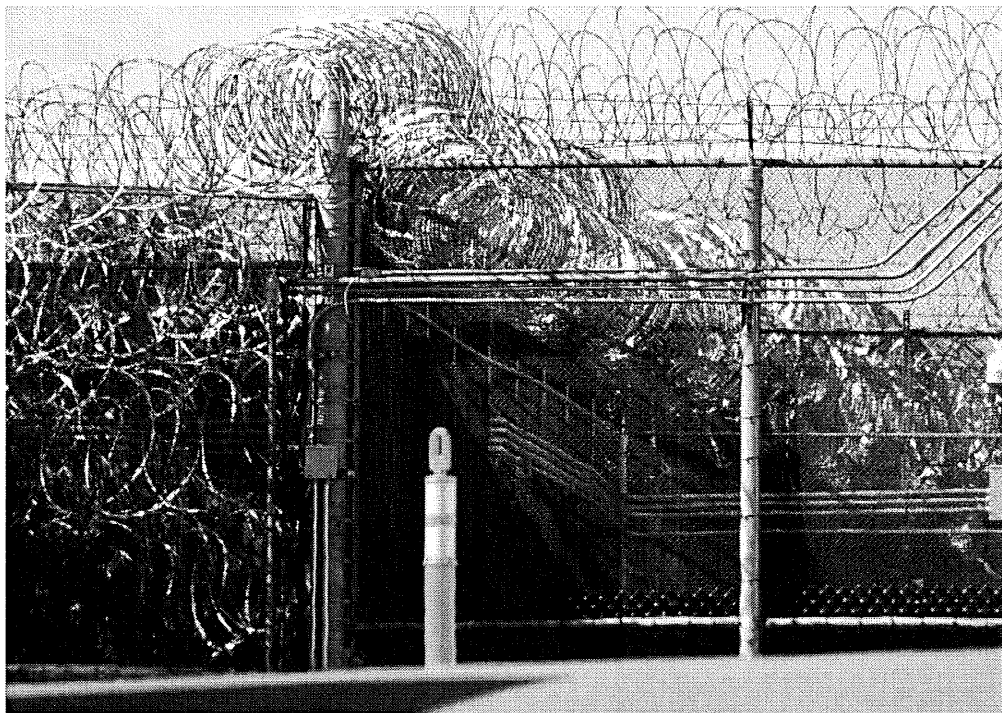Fellow of the American Mathematical Society
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Massachusetts towns push Charlie Baker to stop counting coronavirus clusters at jails, college campuses in community risk data

Local officials: 'Isolated' outbreaks unfairly 'penalized' small businesses

MIDDLETON -MA-SUNDAY 1011: Essex County Sheriff Headquarters in Middleton, Sunday, Oct. 11, 2020. (Jim Michaud / MediaNews Group/Boston Herald)

By **LISA KASHINSKY** | lkashinsky@bostonherald.com |
PUBLISHED: October 11, 2020 at 4:31 p.m. | UPDATED: October 12, 2020 at 9:34 a.m.

The coronavirus outbreak at the Middleton Jail has swelled to 133 inmates.

The number of active cases among residents in town stands at just one.

But to the state, it's counted as one and the same — a combined caseload that, when measured against the town's relatively small population, resulted in an average daily incidence rate per 100,000 residents high enough to catapult Middleton to the top of the high-risk list for COVID-19 transmission last week.

For frustrated local officials, the issue goes far beyond any "stigma" of being labeled "red" for highest-risk under the Department of Public Health's color-coded assessment system. Landing in the red zone is an automatic stoplight that prevents cities and towns from moving into step two of the third phase of reopening. And the only way out is to drop to a lower-risk category for at least three weeks straight.

"It's really contrary to the governor's stated intention of reopening Massachusetts, because it's keeping us artificially from moving forward," Middleton Town Administrator Andrew Sheehan said.

Middleton officials are now among the growing chorus of municipal leaders and Beacon Hill lawmakers calling on Gov. Charlie Baker to cut "contained" coronavirus clusters — such as in jails and college campuses — out of the metrics the state uses to assess a town's risk level each week.

"There's nothing we can do about it. We can't get better performance out of our residents or out of our businesses," because the problem is primarily at the jail, Sheehan said. "Even if things turn around quickly, we're not going to be able to move up to the next step of reopening until sometime in November. That affects our local businesses, particularly eateries, and by extension the town, because that's meal revenue that we're missing."

Sheehan and the Board of Selectmen sent Baker a letter last week urging him to "parse the data to exclude an isolated institution such as the jail."

"We're being penalized for something that's not under our control," Middleton Board of Selectmen member Brian Cresta said.

Sheehan said he raised the issue to Lt. Gov. Karyn Polito during a call with the Massachusetts Municipal Association last week. Baker's office did not say whether the governor would consider carving out the jail or college campuses when asked Friday by the Herald.

"The COVID Enforcement and Intervention Team will continue to work closely with high risk communities, collaborating with local officials to understand the impact that unique factors like higher education or long term care facilities may have on their case numbers," spokesman Tory Mazzola said in an email.

Just up Route 114, officials in North Andover are facing a similar problem: Their town landed in the red the past two weeks after an outbreak at Merrimack College that local leaders say was largely linked to a dormitory actually located in Andover on the campus that splits the two communities.

The Board of Selectmen sent a letter asking Baker to "consider carving obvious clusters in universities and colleges out of town numbers moving forward." Chairman Chris Nobile said local officials just want the governor to "revisit an arbitrary policy" that's now having real-world consequences for at least 43 businesses identified by the town.

The economic impact on establishments still recovering from shutdowns in the wake of the 2018 Columbia Gas disaster prompted a bipartisan group of Merrimack Valley lawmakers to fire off a letter calling on Baker to "consider all the factors at play" when determining risk levels.

"The community really can't take another hit," state Sen. Diana DiZoglio, D-Methuen — who co-authored the letter with Senate Minority Leader Bruce Tarr, R-Gloucester, and state Reps. Christina Minicucci, D-North Andover, and Tram Nguyen, D-Andover — said in an interview. "It's important the administration not paint with a broad brush when it comes to circumstances like this."
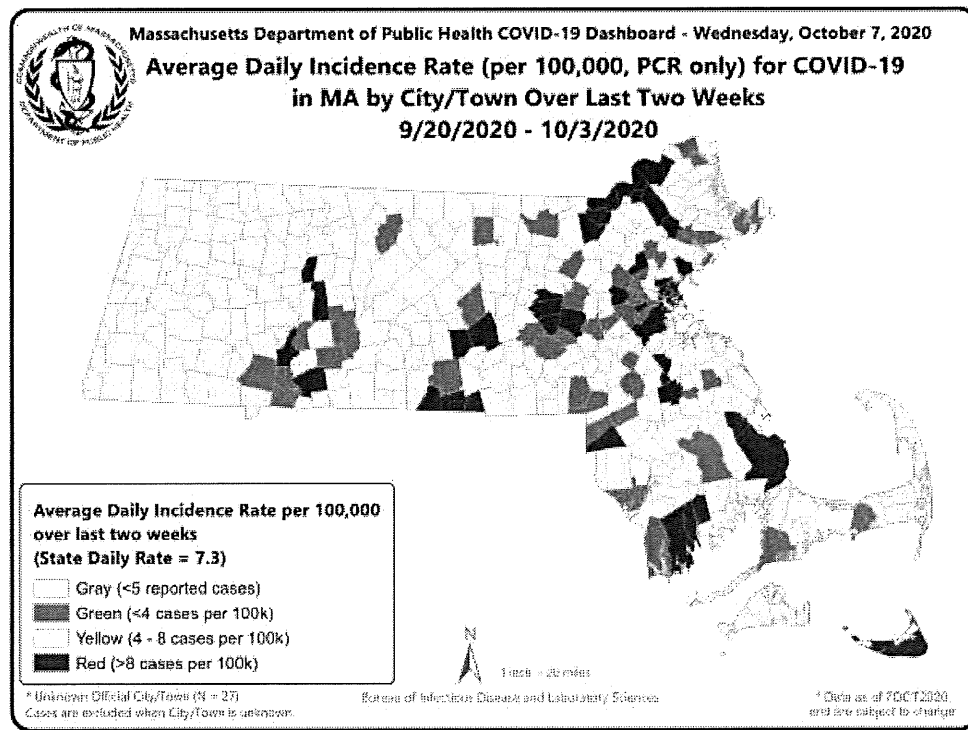
Map of Massachusetts cities and towns at high, medium and low risk for coronavirus transmission for the two-week period ending Oct. 3. Courtesy/Massachusetts Department of Public Health

Tags: **Charlie Baker, coronavirus, COVID-19, Department of Public Health, Gov. Charlie Baker, Merrimack College, North Andover**

Lisa Kashinsky

Lisa Kashinsky is a multimedia journalist covering politics and more for The Boston Herald. A graduate of Boston University, she previously covered the Merrimack Valley for The Eagle-Tribune and the South Shore for Wicked Local, winning awards for her work at both newspapers.

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can you add this email to the education sub-committee packet? thanks

---------- Forwarded message ----------
Date: Sun, 11 Oct 2020 09:42:04 -0400
From: Steve Dew <stevedew77@gmail.com>
To: schoolcommittee@mgrhs.org
Subject: Harvard/UC Boulder indoor ventilation analysis tool
Resent-From: <smiller@mgrhs.org>

Hi MGRHS School Committee:I ran across this today and thought you might be interested. It's a tool developed by the Healthy Buildings Program at Harvard's Chan School of Public Health for
assessing ventilation and mitigating aerosol transmission of SARS-CoV-2 in indoor spaces such as school classrooms. There's a ton of info on the README page about how to use the tool, its
limitations, and links to other resources.

https://docs.google.com/spreadsheets/d/1GuBCl1ICpwaS6HTt_WXYFSFM-V_KQvh_g54ef6W0TOc/edit#gid=1836861232

Please let me know if you have difficulty opening it. It's a Google Sheets document.

Best--
Steve Dew