Covid-19 Health Metrics

January 28, 2021

MA State Data

Massachusetts Department of Public Health | COVID-19 Dashboard
Trends: 7-day Averages Over Time

Released on: January 28, 2021
Data as of: January 27, 2021
Caution: recent data may be incomplete

Navigation

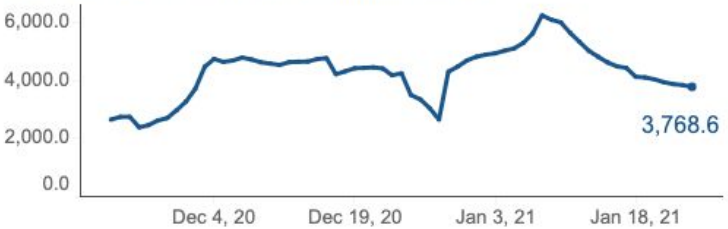
- Today's Overview
- Overview Trends
- COVID-19 Cases
- COVID-19 Testing
- Hospitalization
- COVID-19 Deaths
- Higher Ed & LTCF
- Patient Breakdown
- City and Town
- Resources
- Data Archive

Date Filter

11/23/2020 1/24/2021

Cases

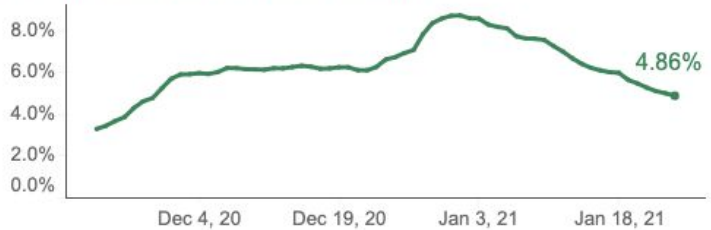
7-day average of COVID-19 confirmed cases



The lowest observed value was 156.7 on 7/4/2020.

Testing

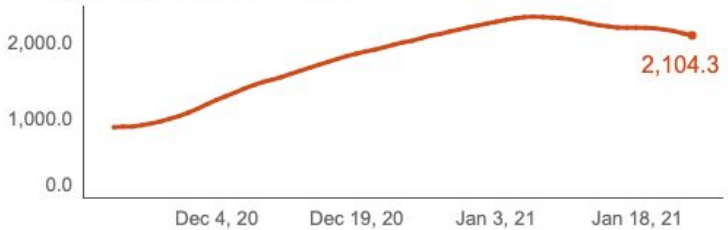
7-day weighted average percent positivity



The lowest observed value was 0.8% on 9/21/2020.

Hospitalizations

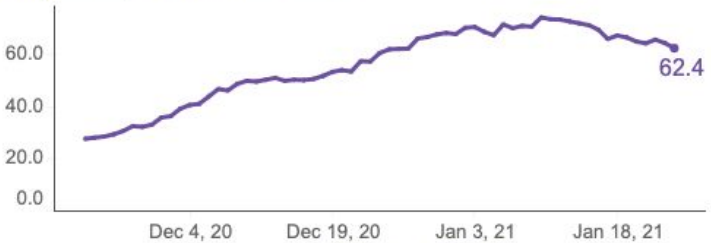
7-day average of hospitalizations



The lowest observed value was 155.3 on 8/26/2020.

Deaths

7-day average of confirmed deaths

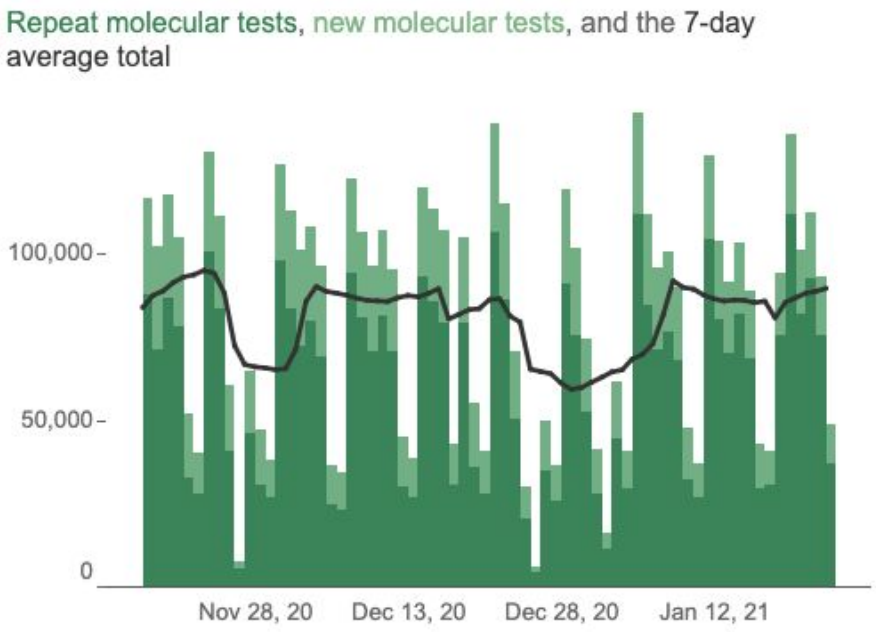


The lowest observed value was 3.7 on 9/9/2020.

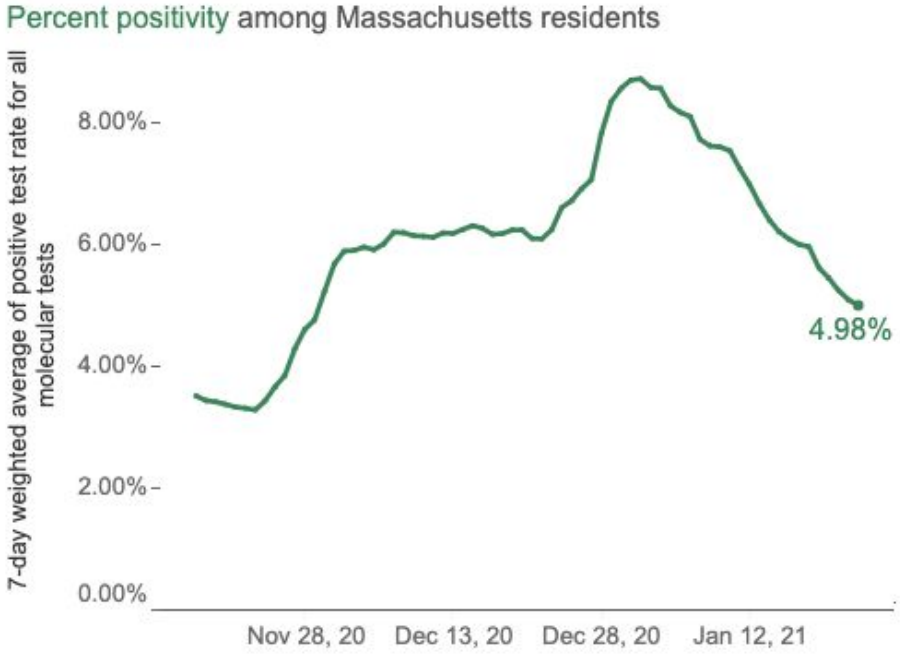
For details on the definitions of each indicator please see the corresponding tab for that indicator. All data included in this dashboard are preliminary and subject to change. Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences and the Registry of Vital Records and Statistics; Created by the Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Office of Integrated Surveillance and Informatics Services.

Covid-19 Testing

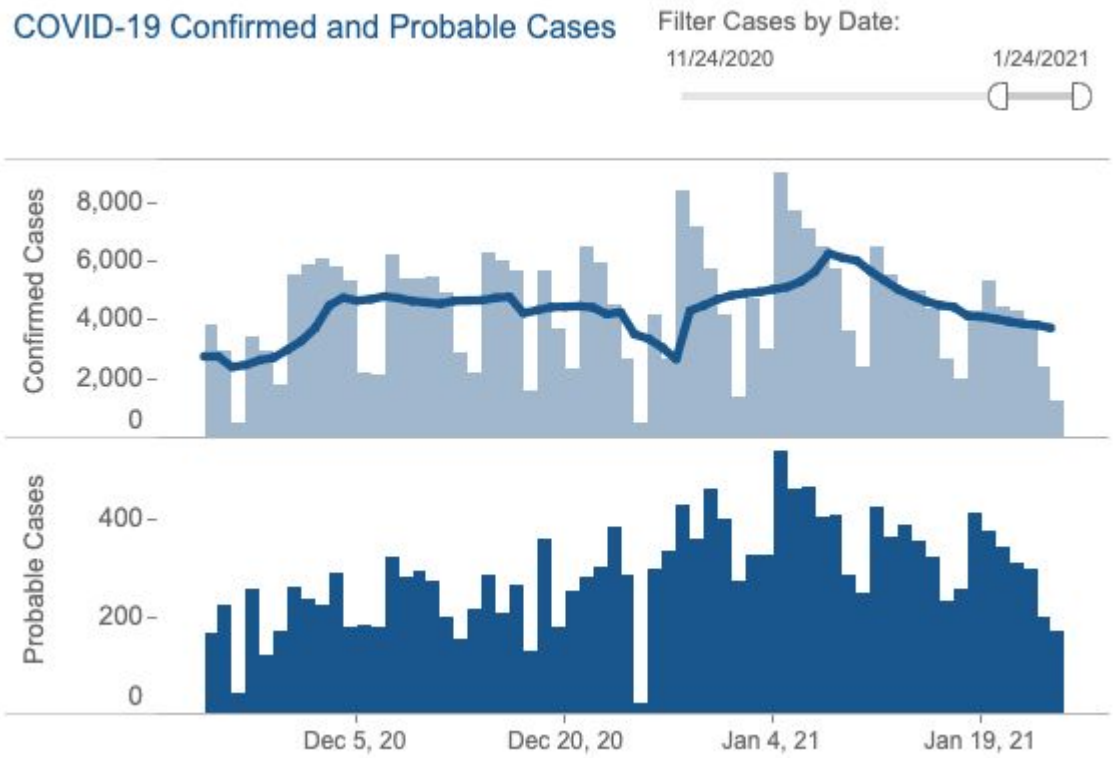
Number of Molecular Tests



Test Positivity



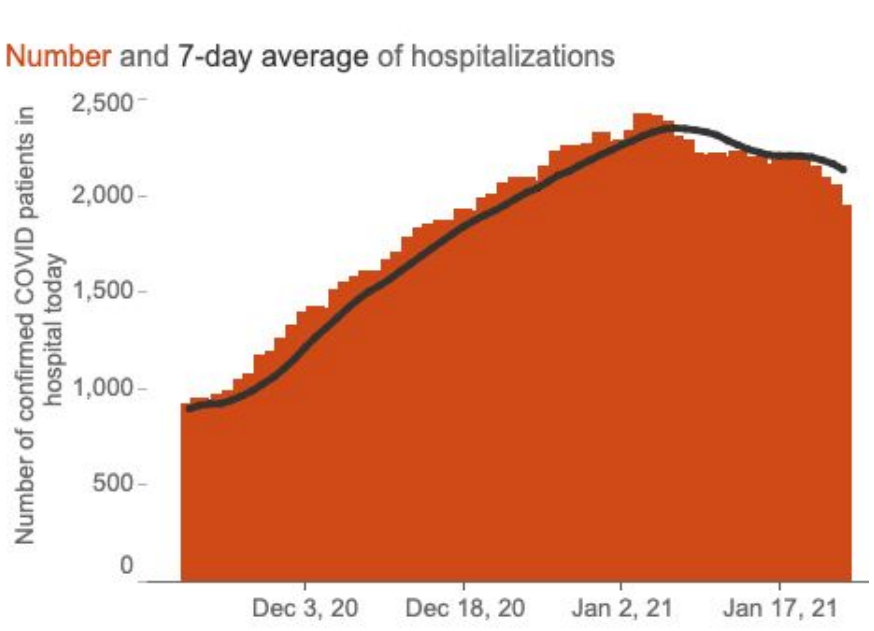
Covid-19 Cases

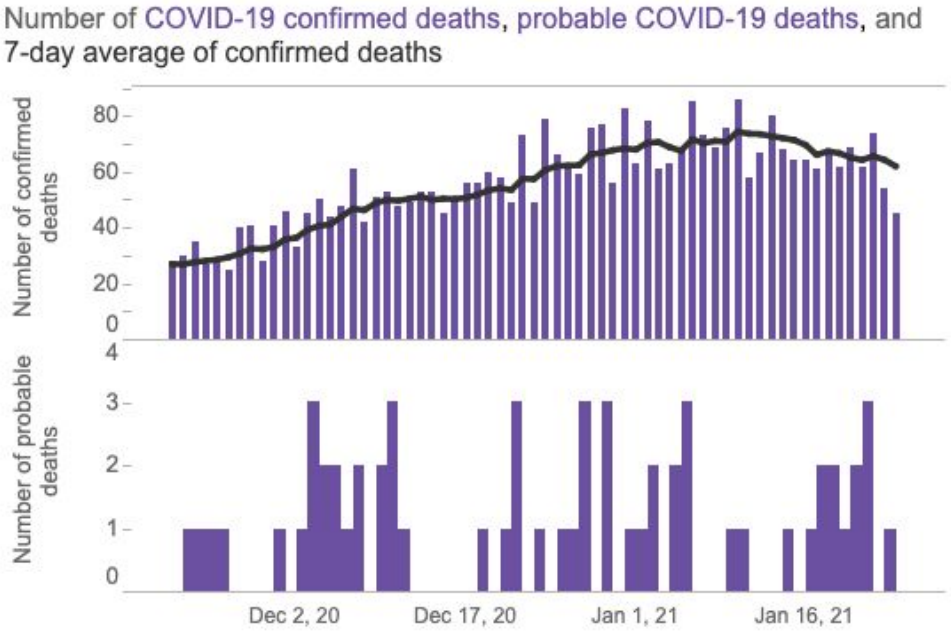


Incidence Rate

The 14-day, statewide incidence rate is 59.40 per 100,000 Massachusetts residents.

Hospitalizations and Deaths





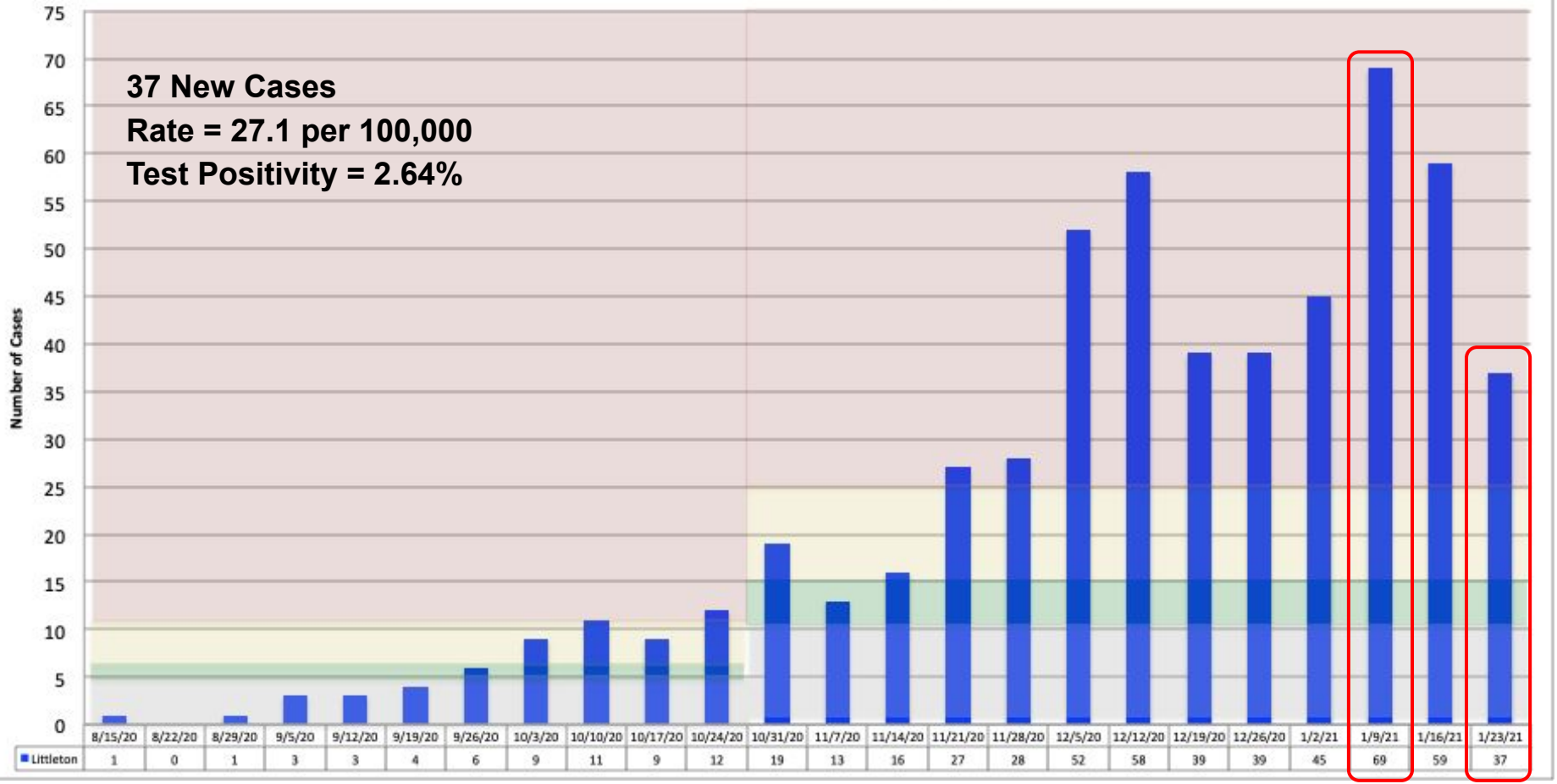
Littleton Data

Average Daily Incidence Rate per 100,000 Color Calculations

	Population		
Group	**Under 10K**	**10K-50K**	**Over 50K**
Grey	Less than or equal to 10 total cases	Less than or equal to 10 total cases	Less than or equal to 15 total cases
Green	Less than or equal to 15 total cases	<10 avg cases/100k AND >10 total cases	<10 avg cases/100k AND >15 total cases
Yellow	Less than or equal to 25 total cases	≥10 avg cases/100k OR ≥5% pos rate	≥10 avg cases/100k OR ≥ 4% pos rate
Red	More than 25 total cases	≥10 avg cases/100k AND ≥5% pos rate	≥10 avg cases/100k AND ≥4% pos rate

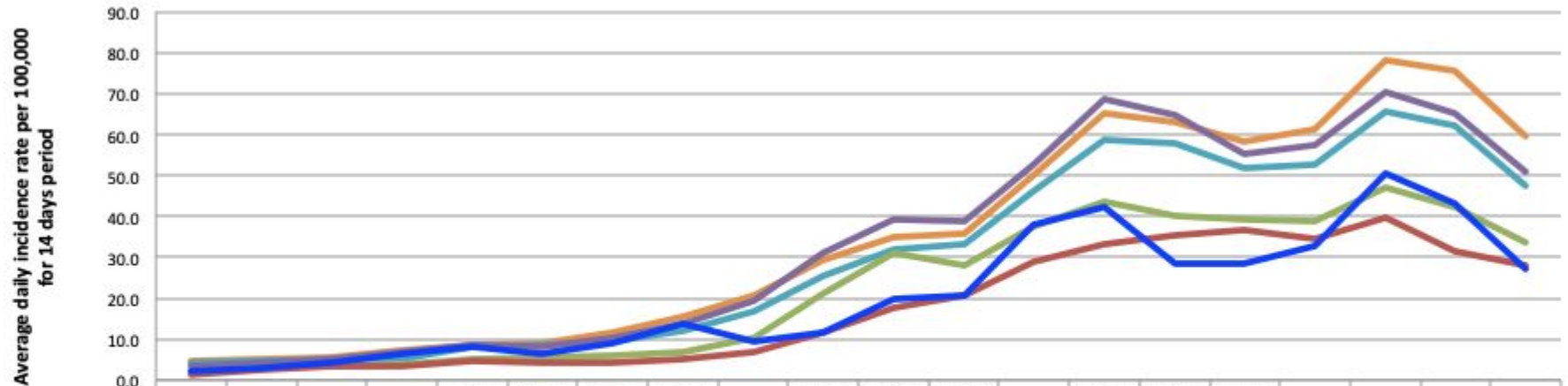
As of 11/5, DPH is using 2019 population estimates derived from a method developed by the University of Massachusetts Donahue Institute.
The 2019 estimates are the most currently available data.

Littleton: Number of Cases in 14-Day Period



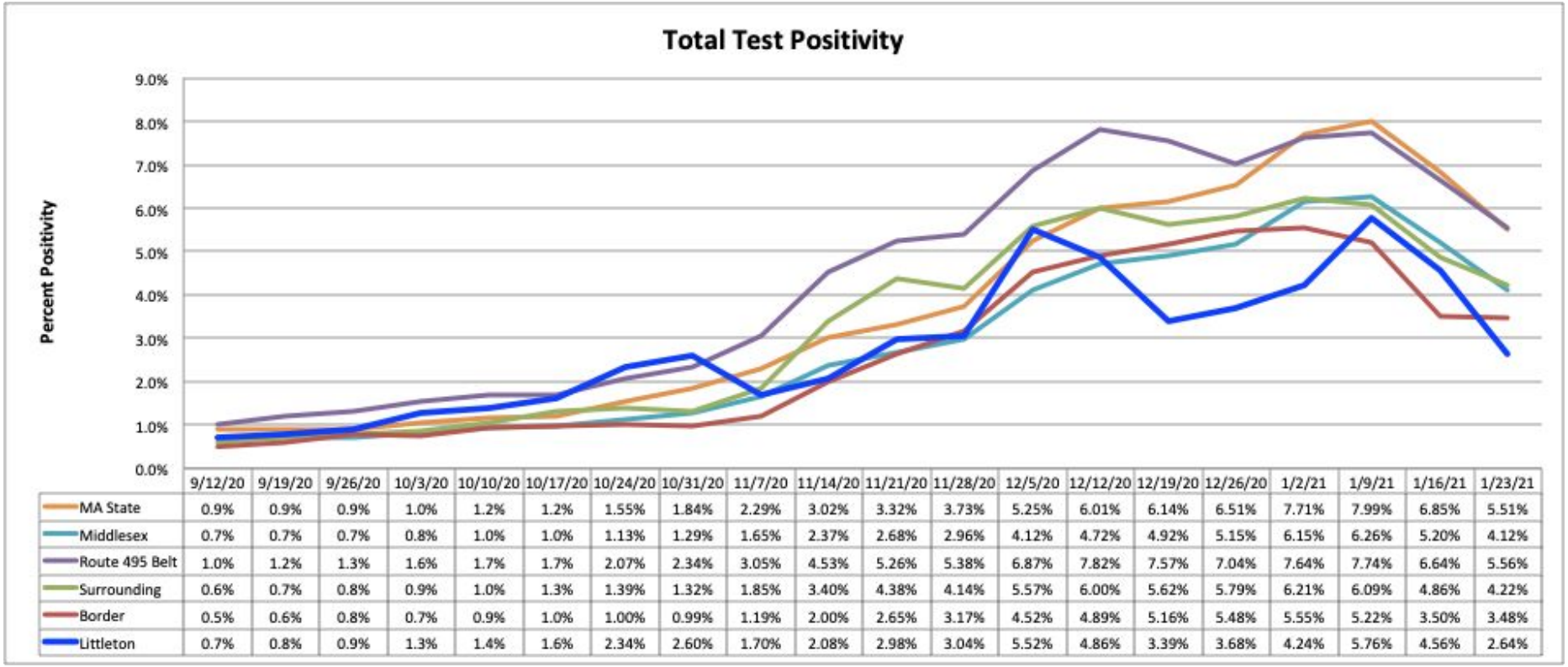
	8/15/20	8/22/20	8/29/20	9/5/20	9/12/20	9/19/20	9/26/20	10/3/20	10/10/20	10/17/20	10/24/20	10/31/20	11/7/20	11/14/20	11/21/20	11/28/20	12/5/20	12/12/20	12/19/20	12/26/20	1/2/21	1/9/21	1/16/21	1/23/21
Littleton	1	0	1	3	3	4	6	9	11	9	12	19	13	16	27	28	52	58	39	39	45	69	59	37

Average Daily Incidence Rate per 100,000 for Past 14 Days



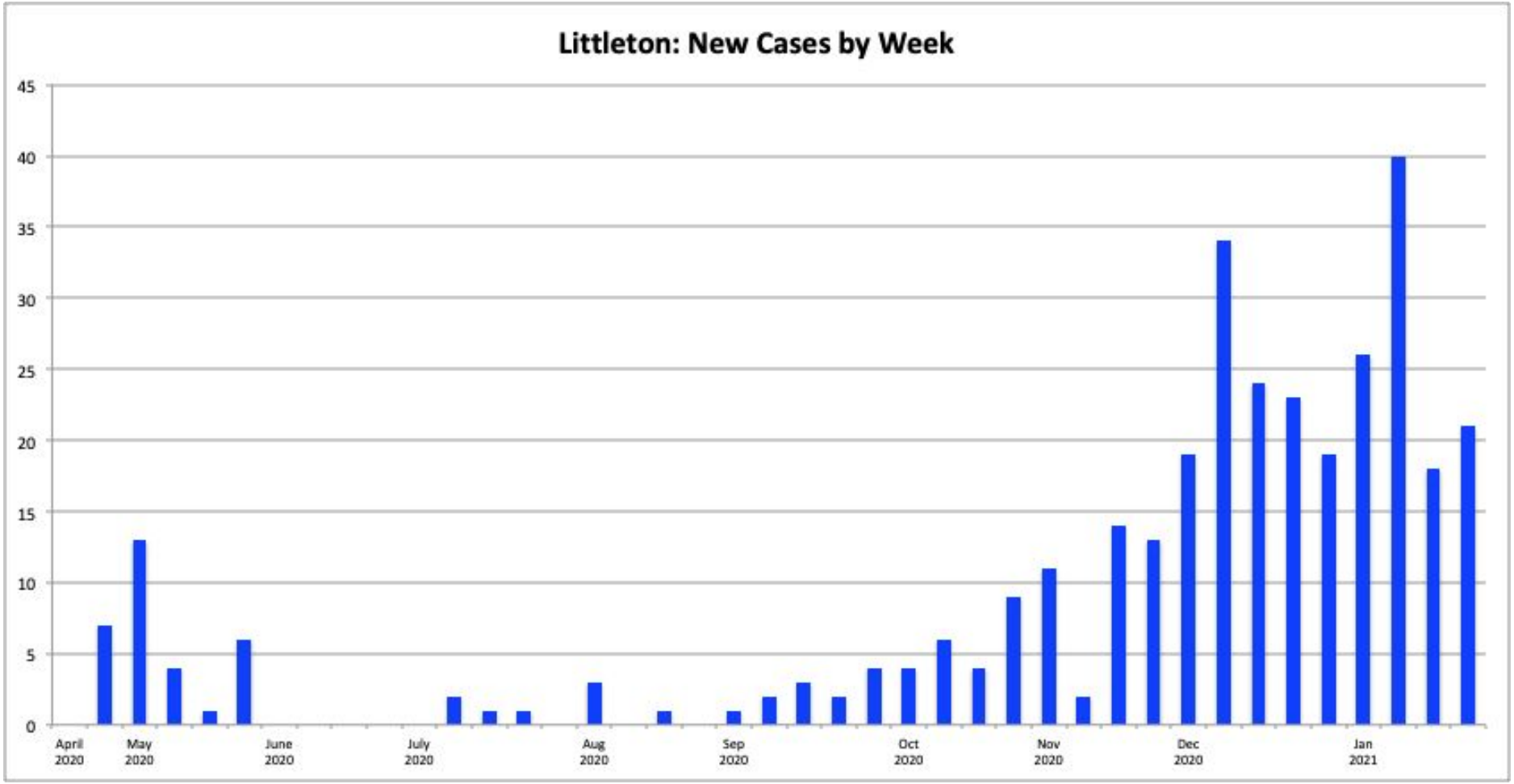
	9/12/20	9/19/20	9/26/20	10/3/20	10/10/20	10/17/20	10/24/20	10/31/20	11/7/20	11/14/20	11/21/20	11/28/20	12/5/20	12/12/20	12/19/20	12/26/20	1/2/21	1/9/21	1/16/21	1/23/21
MA State	4.6	4.9	5.7	7.3	8.7	9.2	11.8	15.3	20.7	29.4	34.9	35.7	50.0	65.1	63.2	58.3	61.1	78.0	75.5	59.4
Middlesex	4.2	4.6	5.1	5.1	8.2	8.5	9.6	12.0	16.7	25.6	32.1	33.4	46.1	58.9	57.8	52.0	52.6	65.8	62.1	47.3
Route 495 Belt	3.4	4.2	5.2	6.9	8.6	8.1	10.1	13.7	19.5	31.1	39.5	38.8	52.9	68.8	64.8	55.4	57.3	70.2	65.0	51.1
Surrounding	2.0	2.8	3.2	3.7	5.0	5.7	6.0	6.7	10.4	21.3	31.0	27.9	37.3	43.7	39.9	39.3	38.8	47.2	42.2	33.8
Border	1.3	2.6	3.4	3.5	4.8	4.4	4.2	5.1	6.7	11.7	17.8	20.8	28.8	33.1	35.2	36.9	34.6	39.8	31.4	28.2
Littleton	2.2	2.9	4.4	6.6	8.1	6.6	8.8	13.9	9.5	11.7	19.8	20.5	38.1	42.5	28.6	28.6	32.9	50.5	43.2	27.1

Littleton: 37 cases (50% lower) Rate 27.1 per 100k



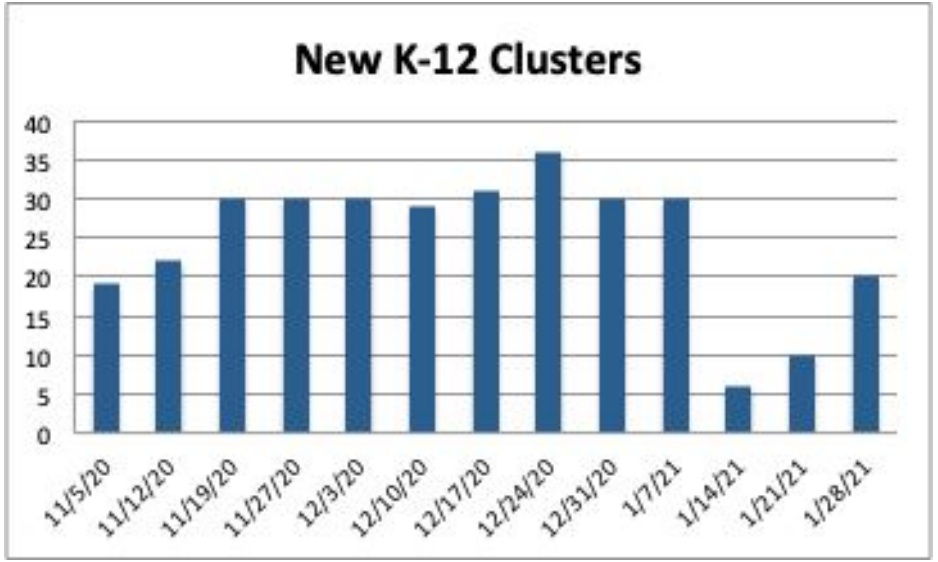
	9/12/20	9/19/20	9/26/20	10/3/20	10/10/20	10/17/20	10/24/20	10/31/20	11/7/20	11/14/20	11/21/20	11/28/20	12/5/20	12/12/20	12/19/20	12/26/20	1/2/21	1/9/21	1/16/21	1/23/21
MA State	0.9%	0.9%	0.9%	1.0%	1.2%	1.2%	1.55%	1.84%	2.29%	3.02%	3.32%	3.73%	5.25%	6.01%	6.14%	6.51%	7.71%	7.99%	6.85%	5.51%
Middlesex	0.7%	0.7%	0.7%	0.8%	1.0%	1.0%	1.13%	1.29%	1.65%	2.37%	2.68%	2.96%	4.12%	4.72%	4.92%	5.15%	6.15%	6.26%	5.20%	4.12%
Route 495 Belt	1.0%	1.2%	1.3%	1.6%	1.7%	1.7%	2.07%	2.34%	3.05%	4.53%	5.26%	5.38%	6.87%	7.82%	7.57%	7.04%	7.64%	7.74%	6.64%	5.56%
Surrounding	0.6%	0.7%	0.8%	0.9%	1.0%	1.3%	1.39%	1.32%	1.85%	3.40%	4.38%	4.14%	5.57%	6.00%	5.62%	5.79%	6.21%	6.09%	4.86%	4.22%
Border	0.5%	0.6%	0.8%	0.7%	0.9%	1.0%	1.00%	0.99%	1.19%	2.00%	2.65%	3.17%	4.52%	4.89%	5.16%	5.48%	5.55%	5.22%	3.50%	3.48%
Littleton	0.7%	0.8%	0.9%	1.3%	1.4%	1.6%	2.34%	2.60%	1.70%	2.08%	2.98%	3.04%	5.52%	4.86%	3.39%	3.68%	4.24%	5.76%	4.56%	2.64%

Littleton: 1440 tests (10% increase) Test positivity 2.64% (lower)

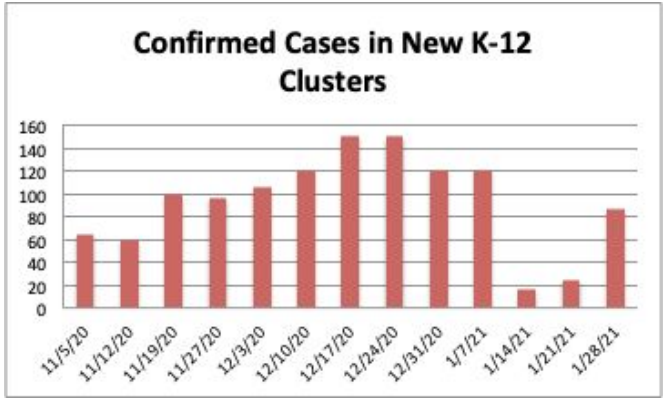

Littleton: New Cases by Week
45
40
35
30
25
20
15
10
5
0
April 2020
May 2020
June 2020
July 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Dec 2020
Jan 2021

School Data

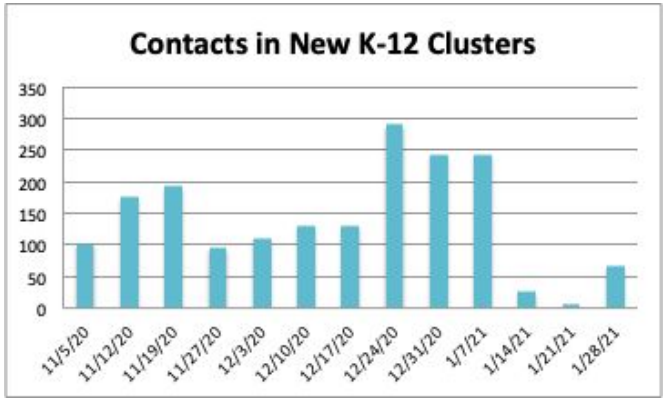
MA DPH Data K-12 Clusters



Period of evaluation: 12/27/2020 - 1/23/2021

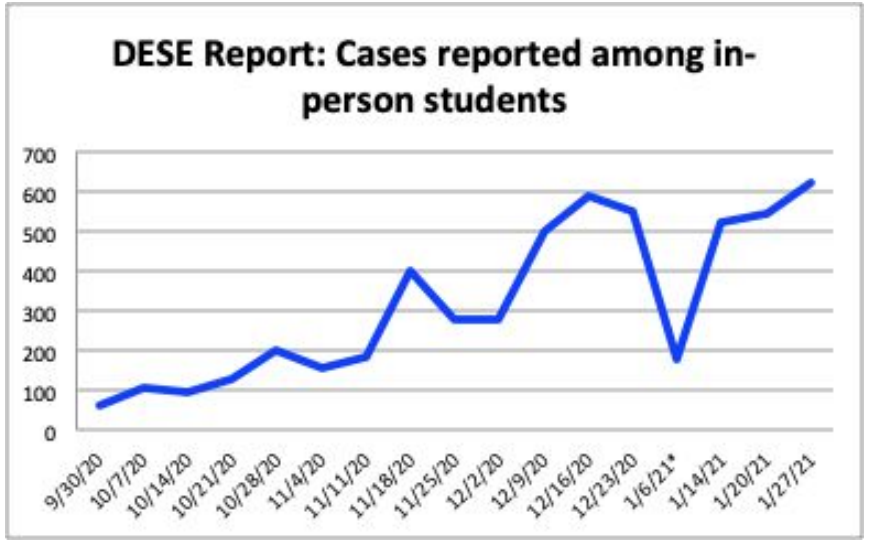


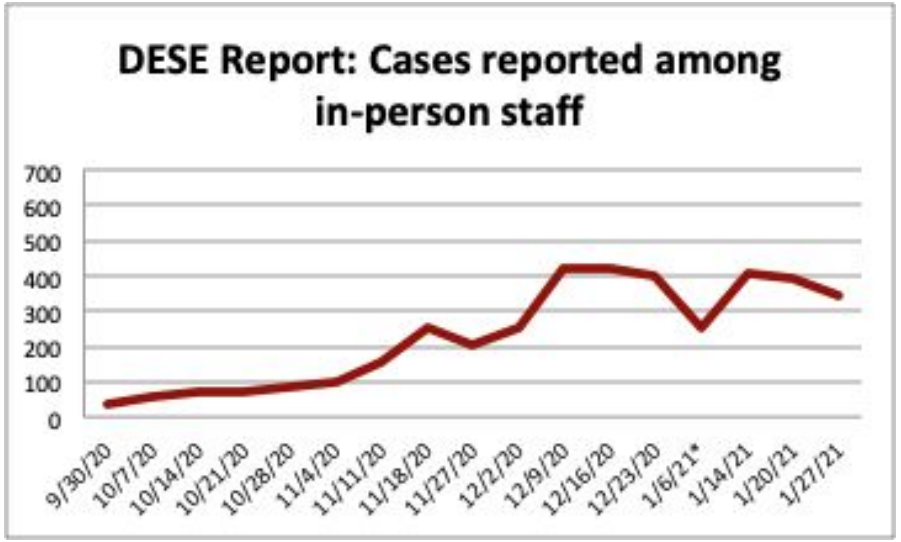
Average Cases per Cluster = 4.4



Average Cases per Cluster = 3.3

DESE Positive Cases in MA Schools





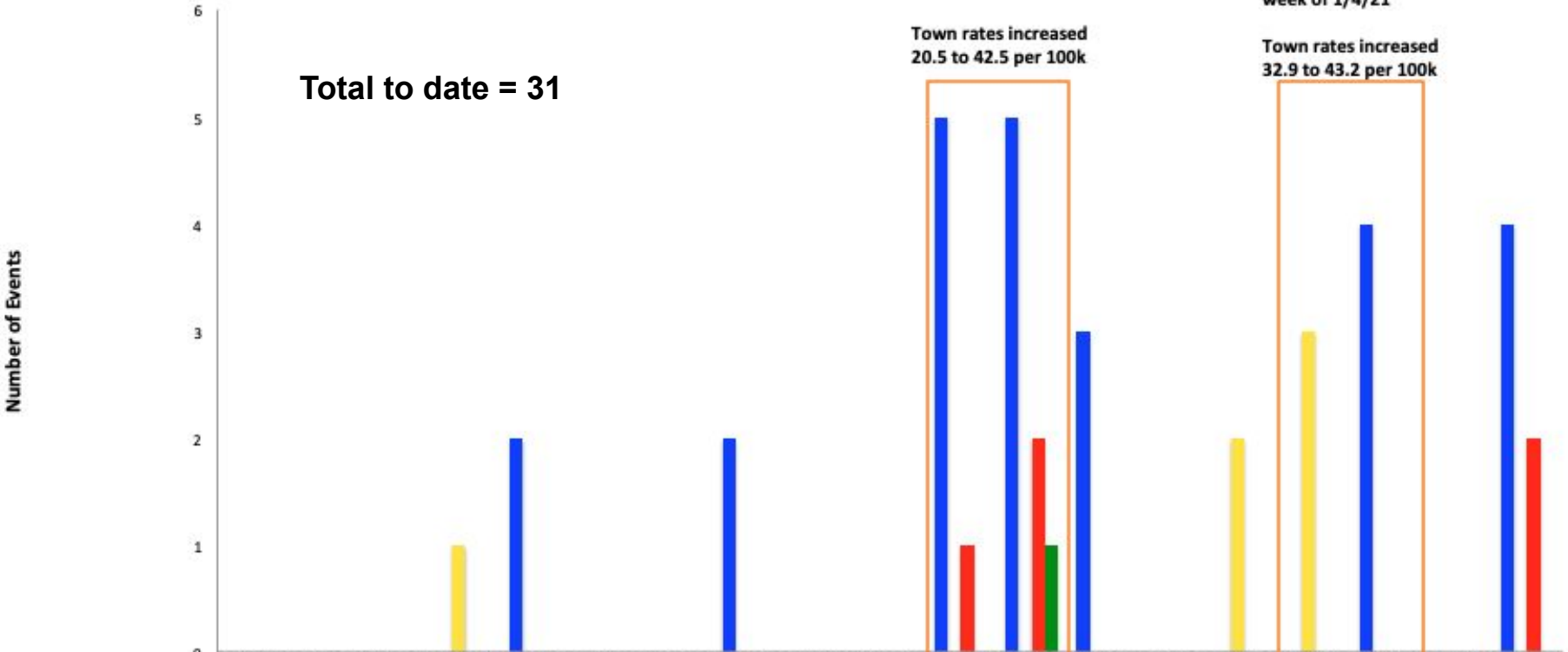
LPS Health Notification Letters

Total to date = 31

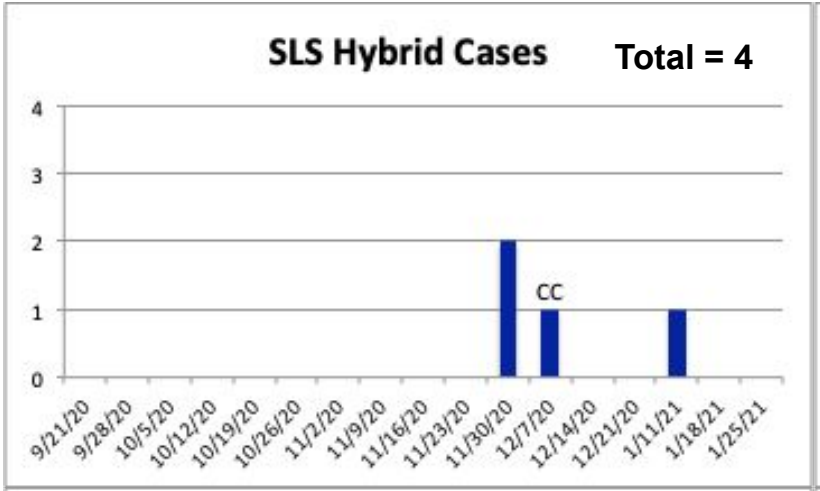
Town rates increased 20.5 to 42.5 per 100k

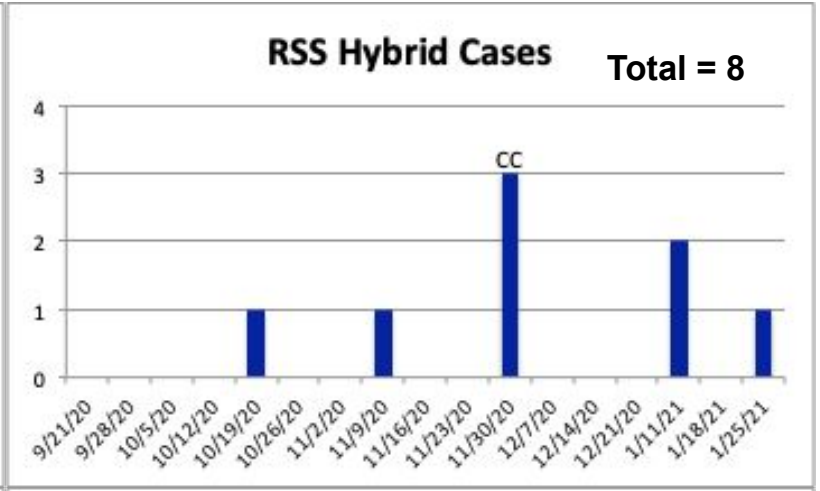
***All students remote week of 1/4/21**

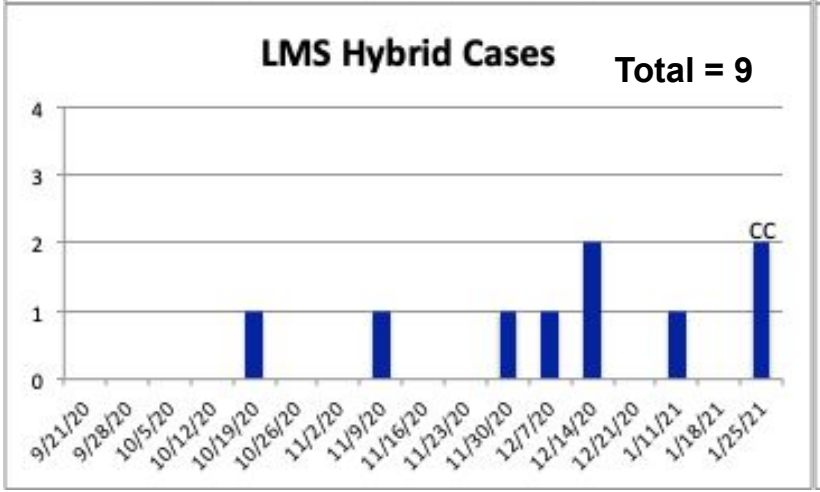
Town rates increased 32.9 to 43.2 per 100k

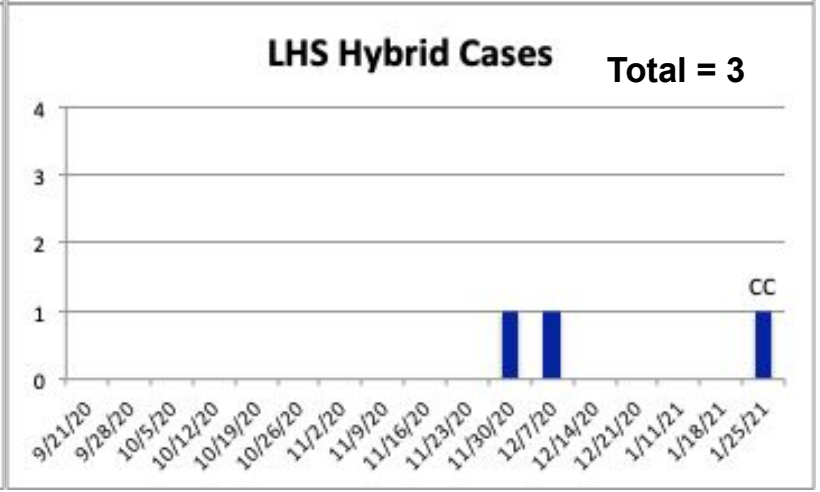


	9/21/20	9/28/20	10/5/20	10/12/20	10/19/20	10/26/20	11/2/20	11/9/20	11/16/20	11/23/20	11/30/20	12/7/20	12/14/20	12/21/20	12/28/20	1/4/21	1/11/21	1/18/21	1/25/21
Hybrid Cases	0	0	0	0	2	0	0	2	0	0	5	5	3	0	0	0	4	0	4
Remote Cases	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0
Letter stated close contacts	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
Class moved remote	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0









CC = close contacts notified.

Note: does not report cases reported during vacation or remote weeks

LPS Covid-19 Mitigation Strategies (1/27/21)

Masks
- Masks are required in all school buildings

Physical Distance
- Hybrid model reduces density to allow for 6 feet of distance

Ventilation, Air Filtration, Opening Windows
- Audit of HVAC systems
- Added HEPA Filter Units
- Open windows

Contact Tracing
- Nurses work with BOH when cases arise
- Seating charts
- Closed cohorts SLS/RSS
- Health Notification Letters
- 6 feet distance nearly eliminates close contacts

Stay Home if Test Positive, Sick or had Known Exposure
- Policies in place
- Nurses track absences and symptoms

Lunch (Differs by school)
- SLS/RSS - in classroom, windows open, outdoors when possible
- LMS - assigned seating in cafeteria, HEPA filters
- LHS - plexiglass dividers, HEPA filters

Vaccines
- K-12 Staff - March 2021?
- Kids 12+ years - Fall 2021?
- Kids 6-11 years - Spring 2022?

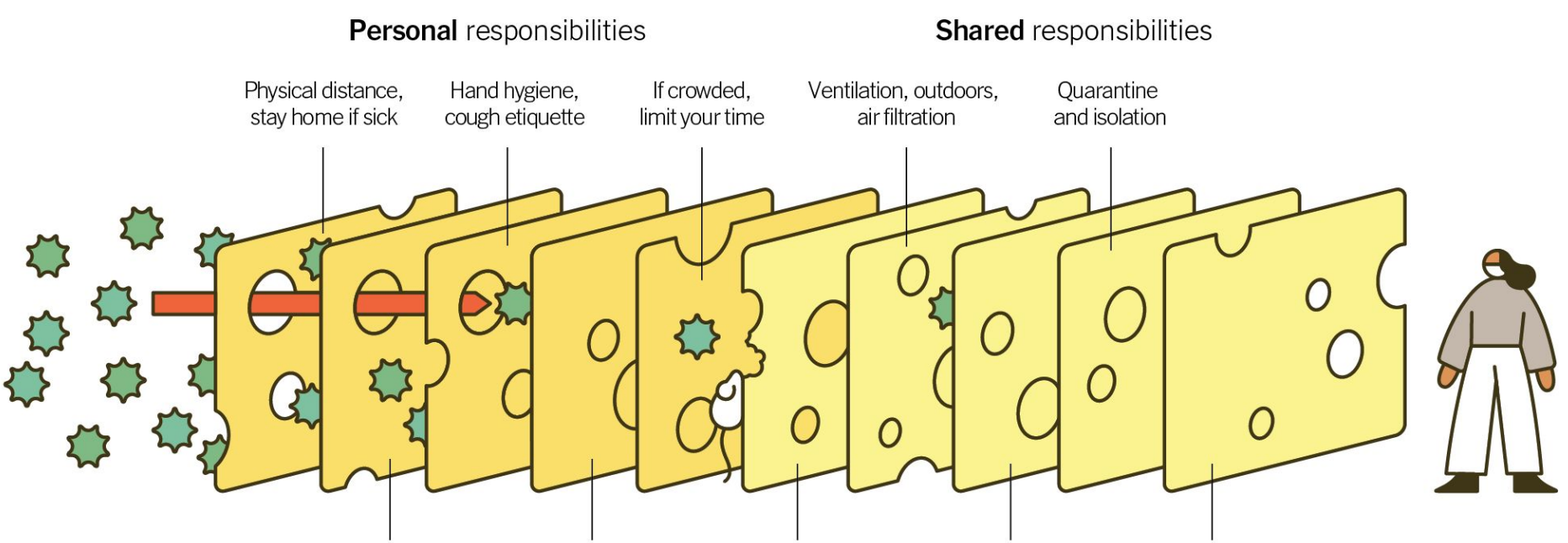
Testing
- Possibility of pooled testing under investigation

~~Limit time in crowded places~~
- Duration limitations not in use at LPS

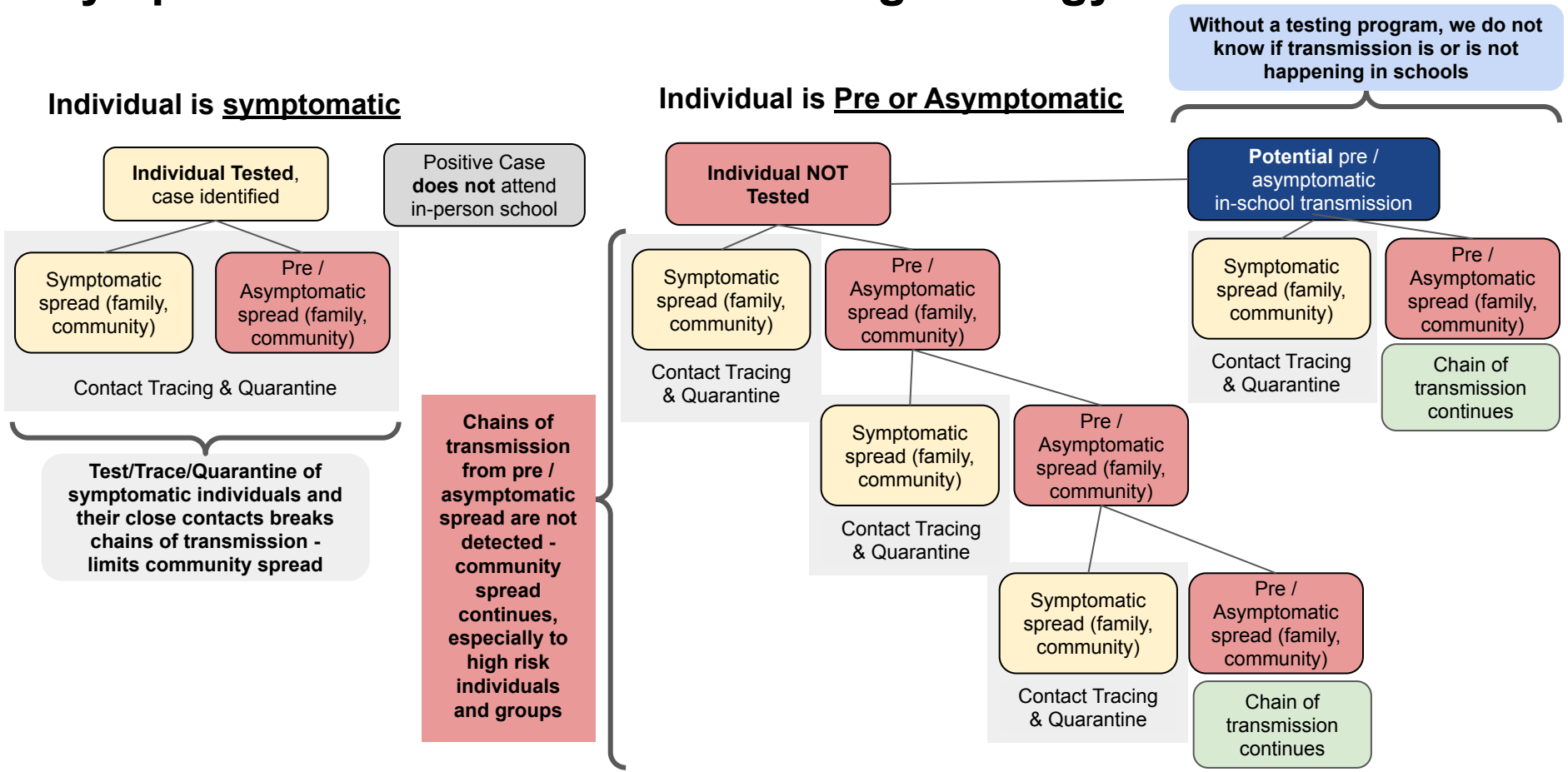
Sanitation, Hand hygiene
- Deep clean between cohorts
- Surface cleaning

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



Symptomatic / Close Contact Testing Strategy



Pooled Testing Strategy

Individual is symptomatic

Individual Tested, case identified

Positive Case **does not** attend in-person school

Symptomatic spread (family, community)

Pre / Asymptomatic spread (family, community)

Contact Tracing & Quarantine

Pooled Testing does not impact current testing of symptomatic individuals and their close contacts - continues to limit transmission

Pooled testing helps to limit community spread by breaking chains of transmission

Individual is Pre or Asymptomatic

Pool tests positive

Retest to find positive individuals

Symptomatic spread (family, community)

Pre / Asymptomatic spread (family, community)

Contact Tracing & Quarantine

With pooled testing, we can measure what is happening in the schools

Positive Case **does not** attend in-person school

Symptomatic spread (family, community)

Pre / Asymptomatic spread (family, community)

Contact Tracing & Quarantine

Symptomatic spread (family, community)

Pre / Asymptomatic spread (family, community)

Symptomatic spread (family, community)

Pre / Asymptomatic spread (family, community)

Benefits of Pooled Testing

- **Littleton Public Schools**
  - **Direct measure** what is or is not happening under current hybrid model
  - Pooled testing results **available more quickly** than the current, but less targeted State and Town health metrics
  - **Will know who is in the denominator**
  - **Captures pre/asymptomatic cases early** (reduce potential for spread)
  - Administration will have data to target interventions when needed
  - Data to help **inform data driven decisions** regarding adding more in-building instruction (which may change effectiveness of various mitigation strategies)
- **Town of Littleton**
  - Given household transmission, testing in schools may help identify positive family units early and help to **break chains of transmission** for the entire community

Data on SARS-CoV-2 Variants is Emerging

UK - B.1.1.7

- Associated with increased transmissibility (40-70% higher)[1]
- Preliminary data suggests it may also be more virulent (increased severity of disease)
- **Has been found in 26 States, including Massachusetts**
- Predicted to be the dominant strain by March

South Africa - B.1.351

- No current evidence to suggest any impact on disease severity
- Scientists monitoring to see if this mutation could affect how well Covid-19 vaccines work
- Reported in North Carolina (2 cases in separate parts of State, no travel history)

Brazil - P.1

- Mutations may affect transmissibility
- May affect ability of antibodies generated through prior infection or vaccination to neutralize the virus
- Travel related case reported in Minnesota

What does this mean for me?
At this time, what you need to do doesn't change. It is still critical to use layers of protection to protect yourself and others from spread: Masks, distance, avoid crowded settings, limit duration, wash hands.

Sources:
www.cdc.gov/coronavirus/2019-ncov/transmission/variant,
www.medrxiv.org/content/10.1101/2020.12.30.20249034v2

Long Term Health Impacts of COVID-19

Most Common Long-Term Symptoms

- Fatigue
- Shortness of Breath
- Cough
- Joint Pain
- Chest Pain

Other Reported Long-Term Symptoms

- Difficulty thinking or concentrating (brain fog)
- Depression
- Muscle Pain
- Headache
- Intermittent fever
- Fast beating heart (palpitations)

More Serious / Long-Term Complications

- Cardiovascular: inflammation of heart muscle
- Respiratory: Lung function abnormalities
- Renal: Acute kidney injury
- Dermatologic: rash, hair loss
- Neurological: smell and taste issues, sleep issues, difficulty concentrating, memory problems
- Psychiatric: depression, anxiety, change in mood
- Multisystem inflammatory syndrome in children (MIS-C)

Even people who are not hospitalized and have mild illness can experience persistent or late symptoms

Young survivors, even physically fit prior to infection, have reported symptoms months after acute illness

Sources: https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html
https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/late-sequelae.html
https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/children/mis-c.html