

Covid-19 Health Metrics

Data from November 12, 2020 DPH Weekly Report



Dashboard of Public Health Indicators

Testing and Cases

Newly Reported Confirmed Cases	Total New Molecular Tests Reported	7-Day Average Positivity	Estimated Active Cases
2,482	98,075	2.90%	26,201

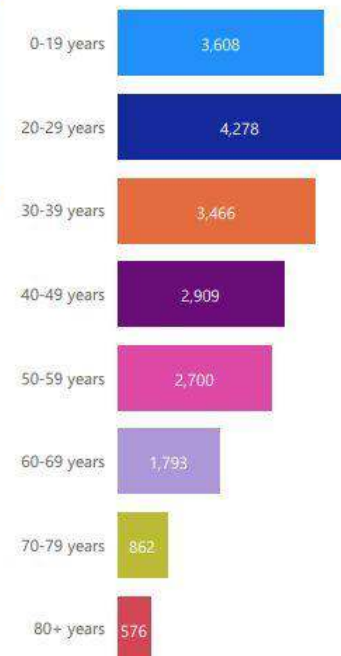
Hospitalization

Total Confirmed COVID Patients in Hospital	Total Confirmed COVID Patients in ICU	Average Age of Cases that were Hospitalized*
661	151	67

Deaths

Newly Reported Deaths among Confirmed	Average Age of Deaths*	14-Day Average Turnaround (from Test Sample to Report to DPH)*
21	80	1.83

Total Cases By Age Group
from 10/25/2020-11/7/2020 *



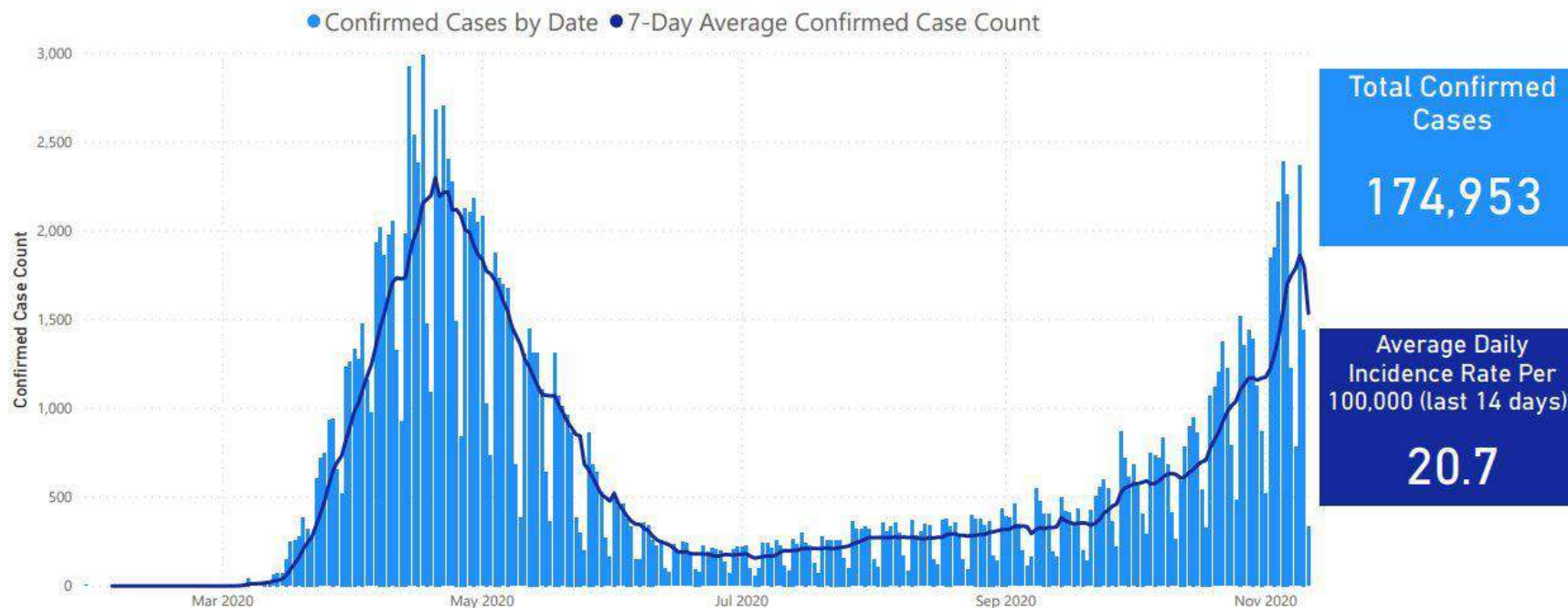
Note: For definitions, please see the Glossary at the end of this document in "Definitions and Disclaimers". Average age of hospitalized cases and deaths are calculated for a two week period covering 10/25/2020 to 11/07/2020. Please see the most current weekly dashboard for more details <https://www.mass.gov/info-details/covid-19-response-reporting>

*Last updated Wednesday, November 11, 2020



Daily Confirmed Cases (Since March)

Confirmed COVID-19 Cases To Date by Date Individual Tested



Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; State Population Estimate 2019: Small Area Population Estimates 2011-2020, version 2019, Massachusetts Department of Public Health, Bureau of Environmental Health; Tables and Figures created by the Office of Population Health.

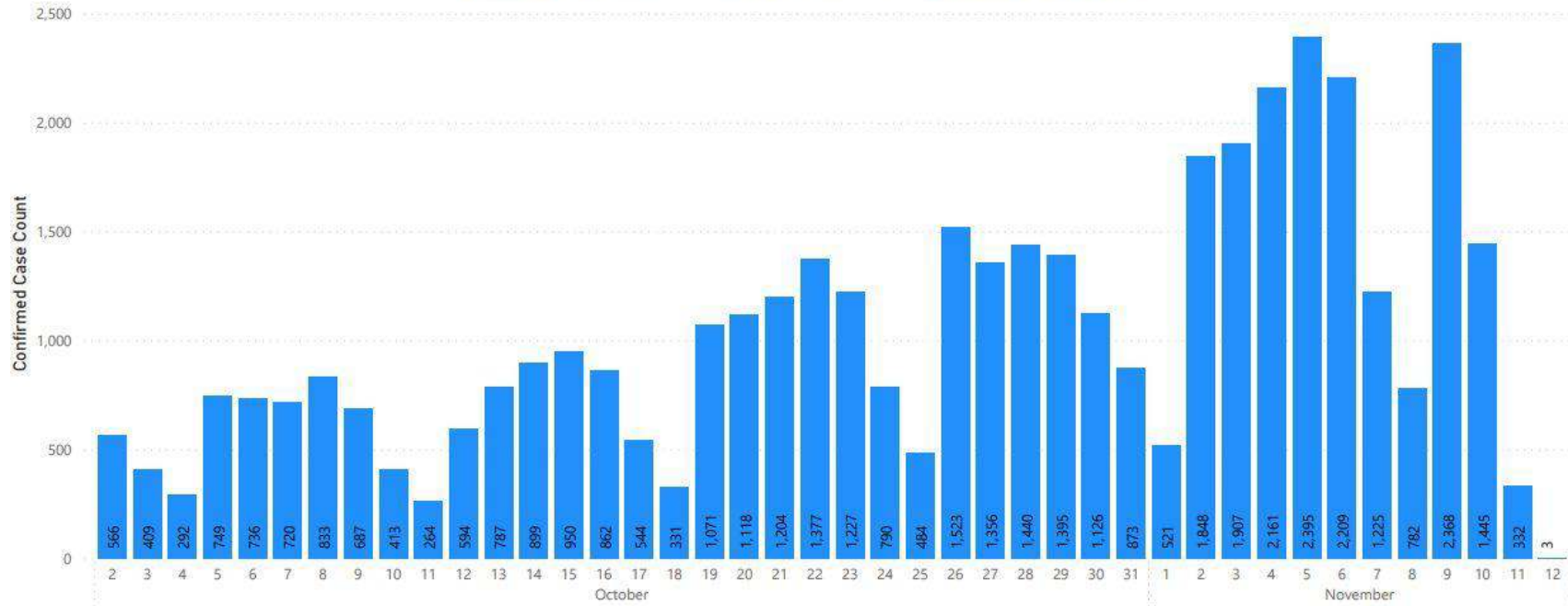
Note: all data are current as of 8:00am on the date at the top of the page. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete.

*Last updated Wednesday, November 11, 2020 Covers 10/25/2020-11/7/2020



Daily Confirmed Cases (Past 6 Weeks)

Confirmed COVID-19 Cases by Date Individual Tested



Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.

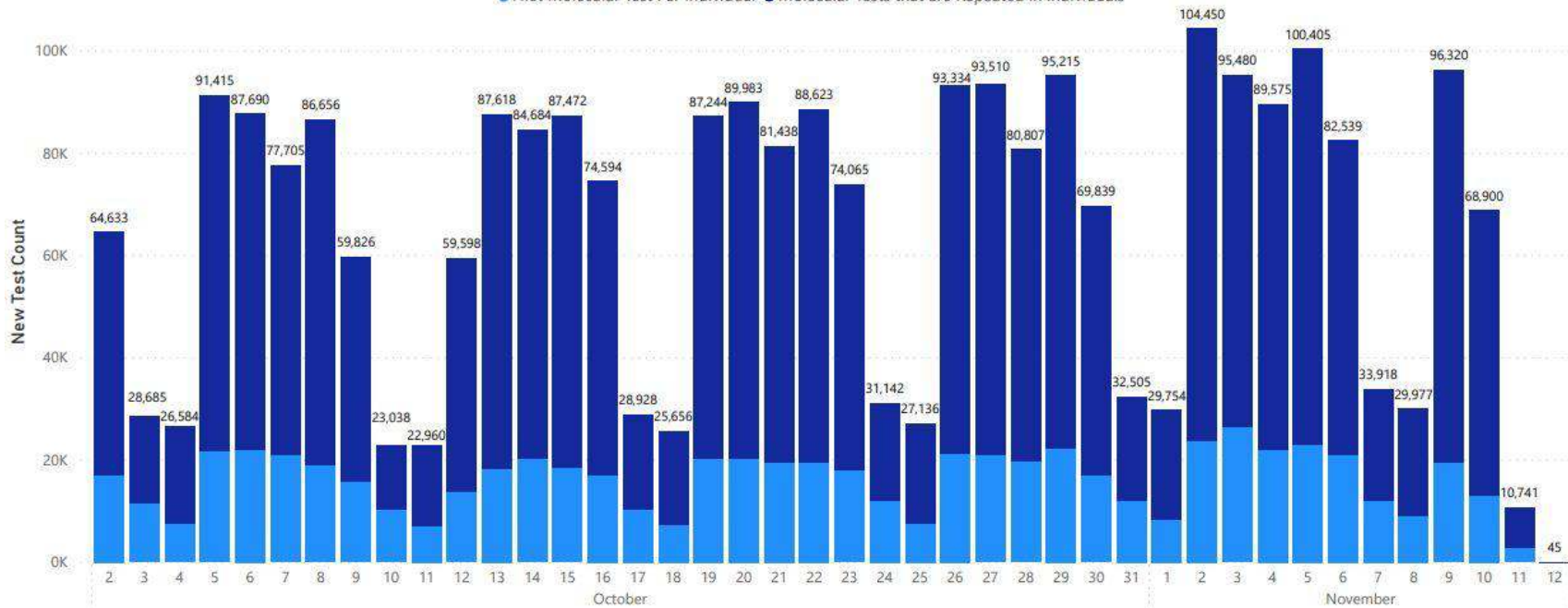
Note: all data are current as of 8:00am on the date at the top of the page. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete.



Testing by Date - Molecular (Total Tests Conducted Past 6 Weeks)

Total Number of Molecular Tests Performed by Date

● First Molecular Test Per Individual ● Molecular Tests that are Repeated in Individuals



Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.

Note: all data are current as of 8:00am on the date at the top of the page. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete. This includes individuals who have had more than one molecular test.



Testing by Date - Molecular (Percent Positive)

7-Day Weighted Average of Percent of Tests By Molecular Method that are Positive by Test Date

● MA Statewide (metric on p.2) ● MA Higher Education Only ● MA with Higher Education Tests Removed



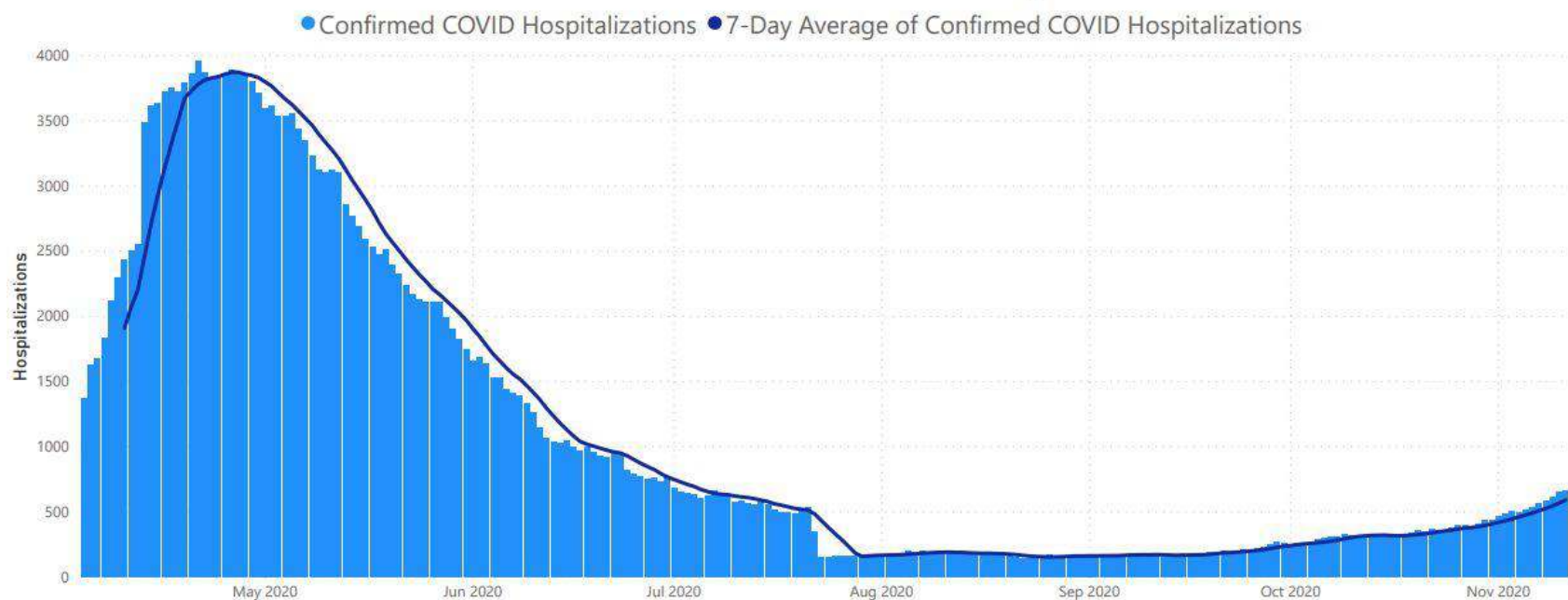
Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.

Note: all data are current as of 8:00am on the date at the top of the page. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete. This includes individuals who have had more than one molecular test.



Daily Confirmed Hospitalizations

Total Confirmed COVID Patients in Hospital



Data Sources: COVID-19 Data provided by the MDPH survey of hospitals (hospital survey data are self-reported); Tables and Figures created by the Office of Population Health.

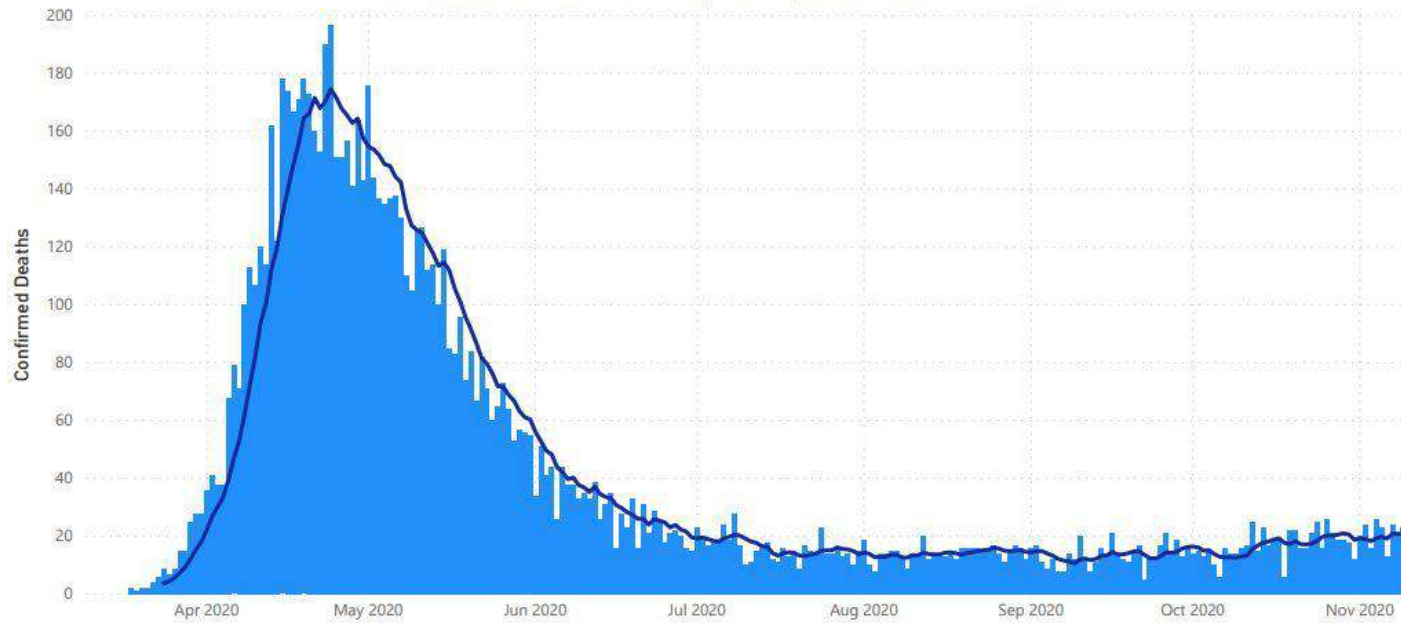
Notes: data are current as of 3:00pm the day before the date at the top of the page. For purposes of this reporting, "confirmed" are cases with a PCR test. Data prior to July 22, 2020 include both confirmed and suspected COVID hospitalizations, as confirmed COVID hospitalizations were not reported separately during this time..



Daily Confirmed Deaths (Since March)

Confirmed COVID Deaths by Date of Death

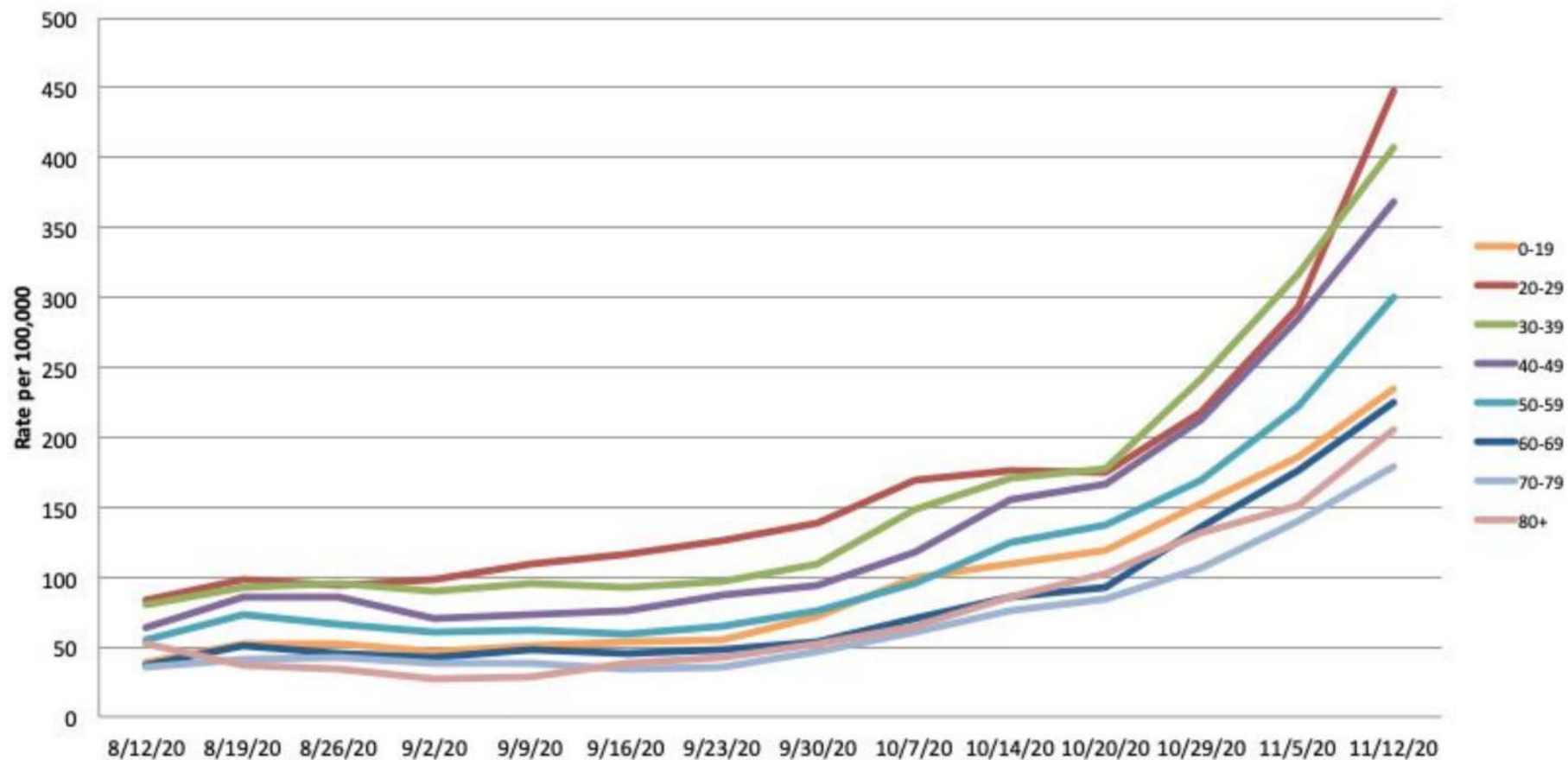
● Confirmed Deaths ● 7-Day Average of Confirmed Deaths



Total Deaths
Among Confirmed
Cases
10,015

Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; State Population Estimate 2019: Small Area Population Estimates 2011-2020, version 2019, Massachusetts Department of Public Health, Bureau of Environmental Health; Tables and Figures created by the Office of Population Health.
Note: all data are current as of 8:00am on the date at the top of the page.

Rate (per 100k) of Total COVID-19 Cases by Age Group for the Last Two Weeks





Active COVID Clusters by Exposure Setting Type

Exposure	New Clusters (Identified 10/11 – 11/7)			Ongoing Clusters (Cluster Identified Prior to 10/11 But Not Meeting Criteria for Closing)			Total		
Setting	Clusters	Confirmed Cases	Contacts	Clusters	Confirmed Cases	Contacts	Clusters	Confirmed Cases	Contacts
24/7 Congregate Settings	33	124	59	12	35	17	45	159	76
Child Care	47	115	273	34	14	90	81	129	363
Colleges & Universities	13	69	47	9	5	4	22	74	51
Corrections	6	228	14	5	21	1	11	249	15
Hospitals	10	92	84	14	27	118	24	119	202
Household	4,469	11,268		1,721	772		6,190	12,040	
Industrial Settings	23	108	52	32	18	20	55	126	72
K-12 Schools	22	60	175	21	27	54	43	87	229
Long Term Care Facilities	70	518		100	679		170	1,197	
Offices	8	26	10	4	0	0	12	26	10
Organized Athletics/Camps	14	41	119	24	17	128	38	58	247
Other	2	6	0	5	4	21	7	10	21
Other Food Establishments	5	24	18	5	0	0	10	24	18
Other Healthcare	9	41	6	11	6	1	20	47	7
Other Workplaces	8	33	0	11	24	11	19	57	11
Places of Worship	6	88	26	10	24	44	16	112	70
Recreation/Cultural	3	18	36	7	0	0	10	18	36
Restaurants & Food Courts	22	87	84	17	7	8	39	94	92
Retail & Services	13	39	6	11	21	2	24	60	8
Senior Living	11	61	29	18	53	4	29	114	33
Shelters	2	13	25	1	0	0	3	13	25
Social Gatherings	21	114	63	20	1	6	41	115	69
Travel & Lodging	1	5	0	3	0	0	4	5	0
Total	4,818	13,178	1,126	2,095	1,755	529	6,913	14,933	1,655

New Clusters: Clusters with the first case (indicated by the first positive lab result) identified during the four week period 10/11 to 11/7

Ongoing Clusters: Clusters with the first case identified prior to 10/11 that has not met criteria to be closed. Confirmed cases included in ongoing clusters occurred between 10/4 and 10/31 but are associated with a cluster that began prior to 10/11. Close contacts included in ongoing clusters occurred between 10/11 and 11/7 but are associated with a cluster that began prior to 10/11

Closed Clusters: A cluster is closed after 28 days have passed since the last confirmed case; 15,953 clusters are closed, 77,356 cases are associated with closed clusters

Source of data: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences; Long Term Care Facility Data from the National Healthcare Safety Network beginning 5/31/2020. All other data from MAVEN and are subject to change.

Only clusters consisting of two or more confirmed Massachusetts cases with a common exposure have been included.

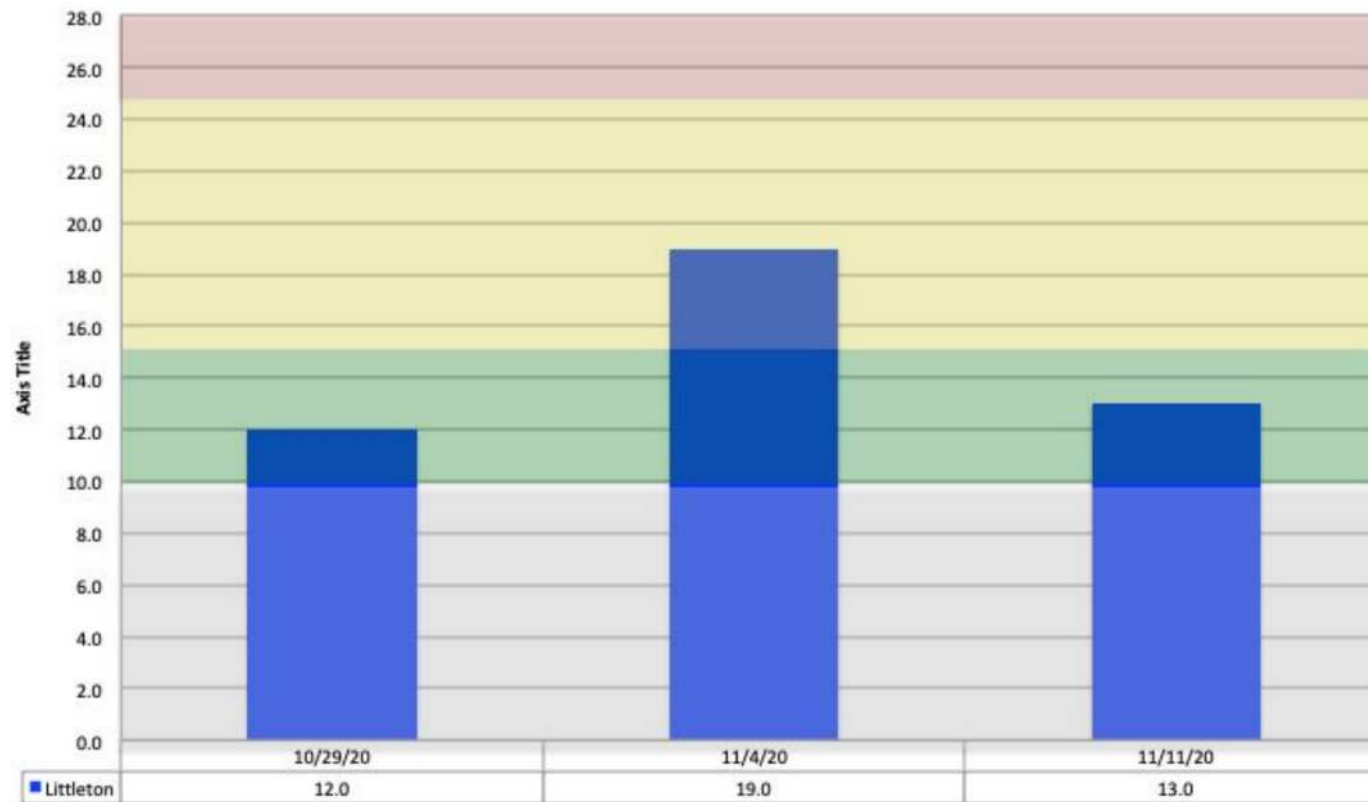


Average Daily Incidence Rate per 100,000 Color Calculations

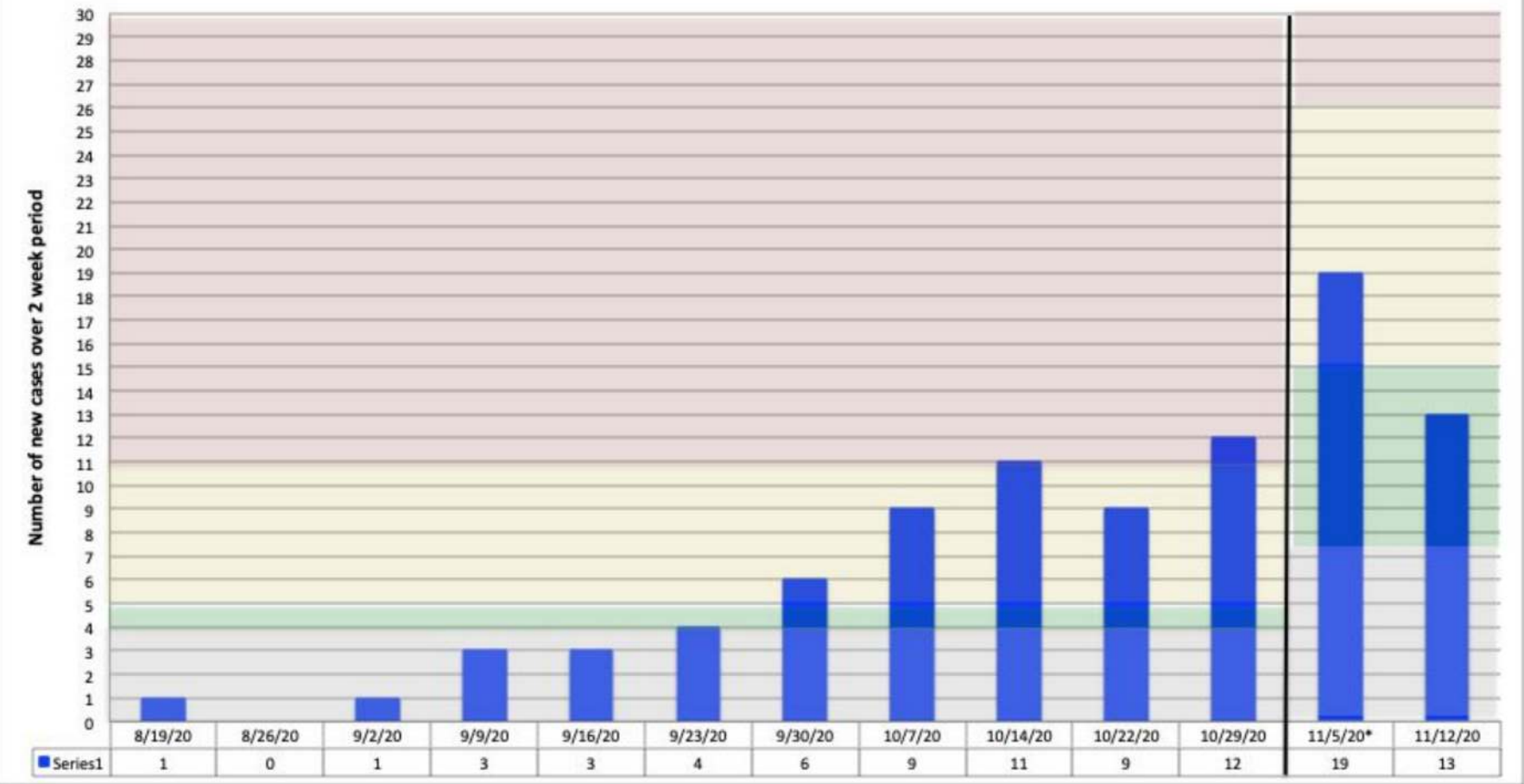
Group	Population		
	Under 10K	10K-50K	Over 50K
Grey	Less than or equal to 10 total cases	Less than or equal to 10 total cases	Less than or equal to 15 total cases
Green	Less than or equal to 15 total cases	<10 avg cases/100k AND >10 total cases	<10 avg cases/100k AND >15 total cases
Yellow	Less than 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.

**Nashoba Associated Boards of Health Weekly MAVEN Snapshot:
Littleton's New Cases in the last 14 days**



Number of New Cases over Two Week Period



Aggregated Health Metrics - Town Groupings

- **Littleton**
- **Border Towns**
 - Littleton, plus Acton, Ayer, Boxborough, Groton, Harvard, and Westford
- **Surrounding Communities**
 - Border Towns, plus Ashby, Bedford, Berlin, Boylston, Clinton, Hudson, Leominster, Lincoln, Lowell, Marlborough, Northborough, Shrewsbury, Southborough, Sterling, Sudbury, Townsend, Tyngsboro, Wayland, West Boylston, Westborough, Weston
- **495 Belt**
 - Contiguous Communities, plus Ashby, Bedford, Berlin, Boylston, Clinton, Hudson, Leominster, Lincoln, Lowell, Marlborough, Northborough, Shrewsbury, Southborough, Sterling, Sudbury, Townsend, Tyngsboro, Wayland, West Boylston, Westborough, Weston
- **Middlesex County**
- **Commonwealth of Massachusetts**

Average Daily Incidence Rate per 100,000

- Data Sources:
 - Weekly COVID-19 Public Health Report:
<https://www.mass.gov/info-details/covid-19-response-reporting>
 - Where a town had <5 cases, used the Rate of Average Daily Cases per 100k and population to estimate number of cases
 - Population data from UMass Donahue Institute (2018)

- Calculation:

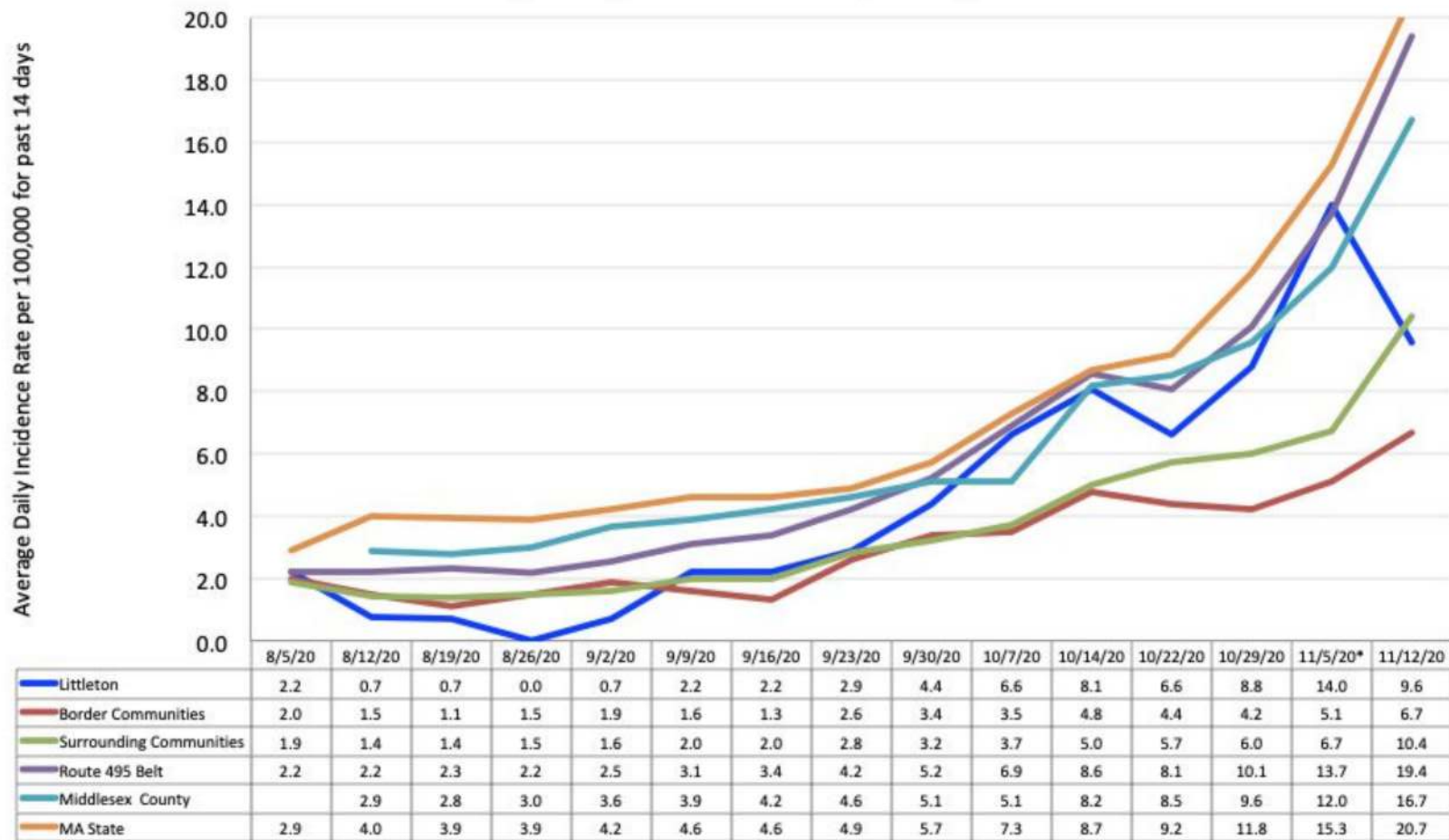
Average Daily Incidence Rate =

$((\text{number of cases diagnosed in last 14 days} / 14 \text{ days}) / \text{population}) * 100,000$

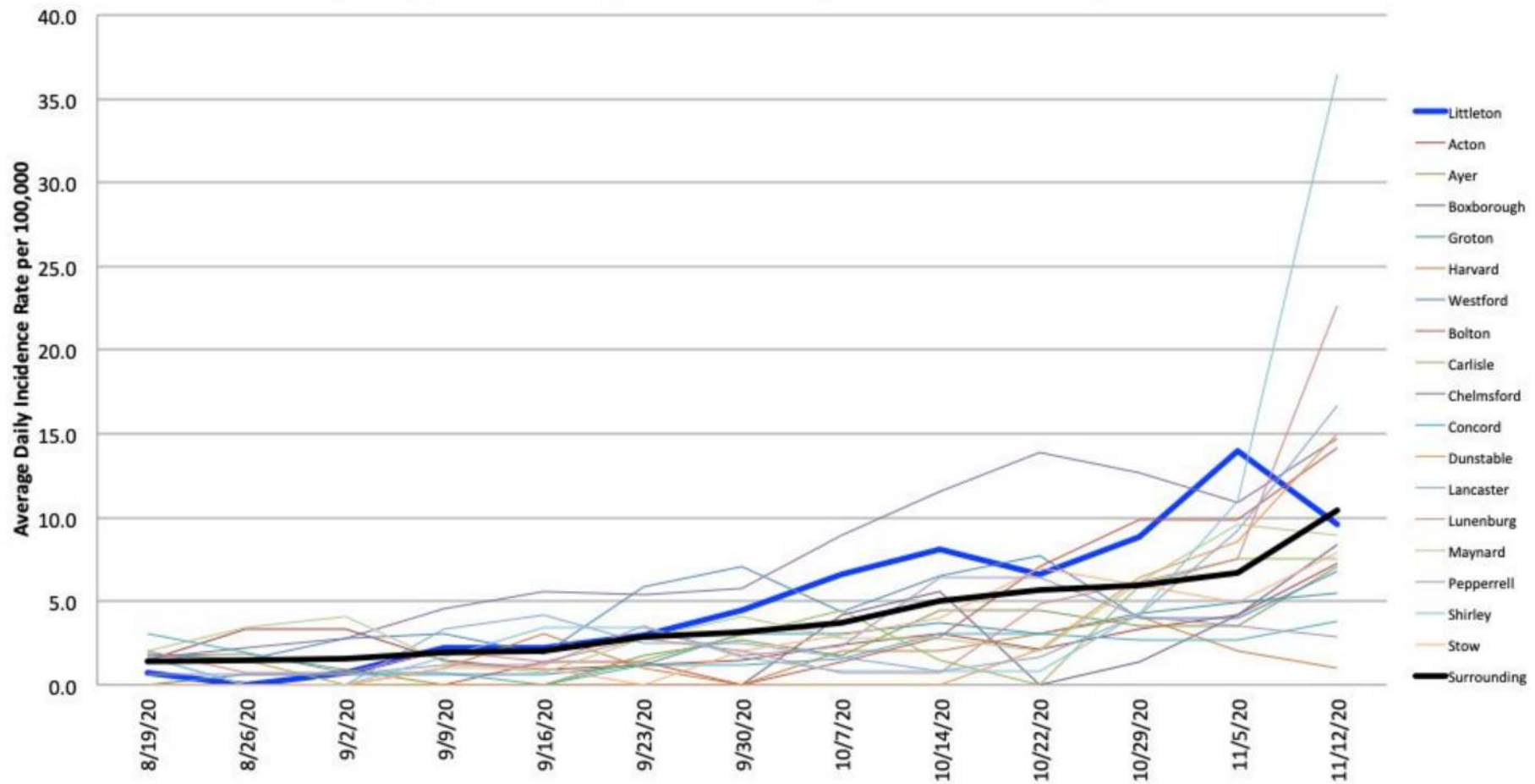
Average daily incidence rate per 100,000

	Number of new cases (2 week period)	Average daily case rate per 100,000 over last two weeks	Trend (compared to 2 weeks ago)	Threshold Color (new cut points)
MA State	20,197	20.7	Higher (+8.9)	Yellow
Middlesex County	3,799	16.7	Higher (+7.1)	
495 Belt	1,754	19.4	Higher (+9.3)	
Surrounding Communities	311	10.4	Higher (+1.1)	
Border Communities	83	6.7	Higher (+2.5)	
Littleton	13	9.6	Higher (+0.7)	Green
Data from Weekly DPH report November 12, 2020				

Average Daily Incidence Rate per 100,000



Average Daily Incidence Rate per 100,000 among Littleton's Surrounding Communities



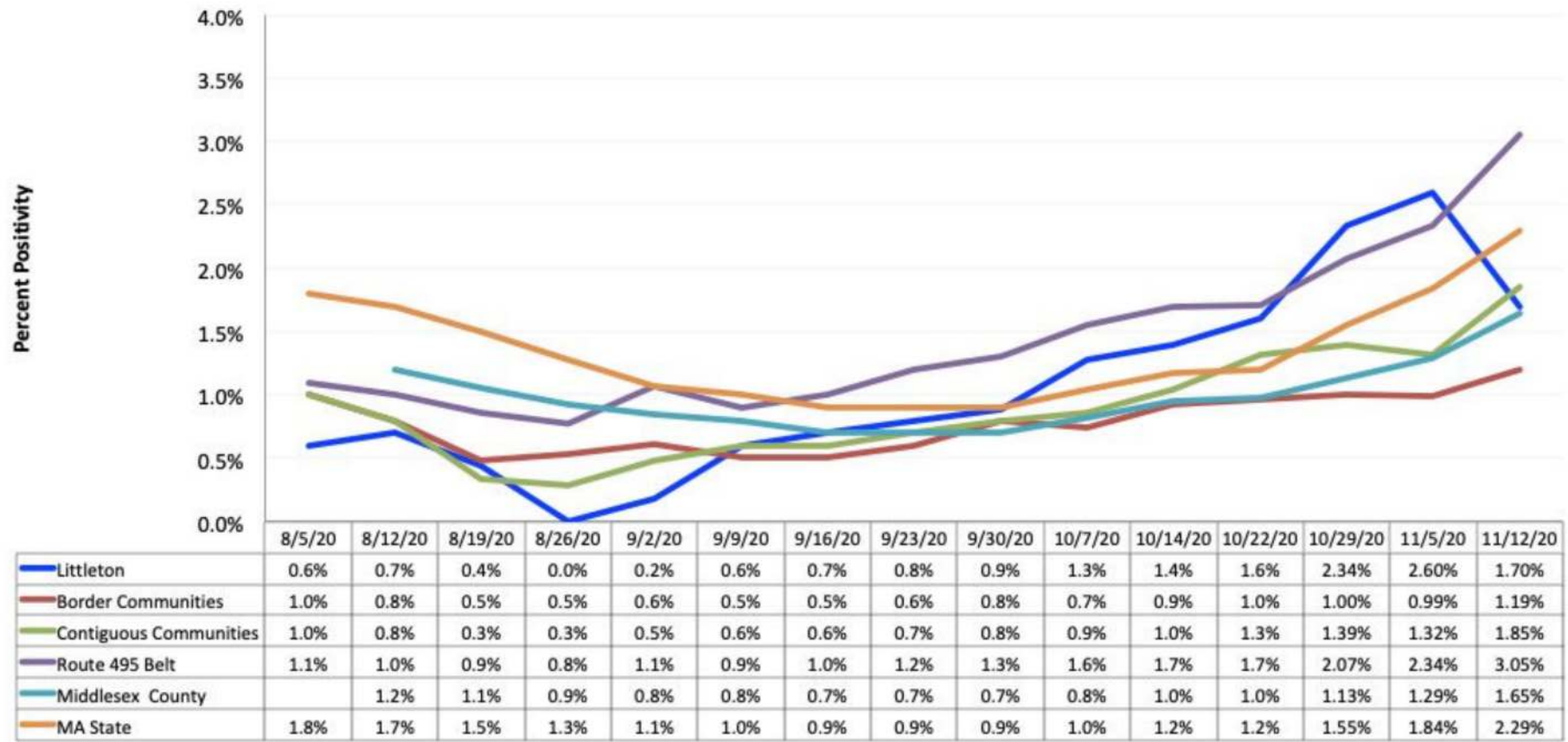
Total Test Positivity

- Data Source:
<https://www.mass.gov/info-details/covid-19-response-reporting>
- Total Test Positivity = total positive tests / total number of tests conducted
- This measure includes people who are tested more than one time, such as for surveillance testing for colleges, healthcare workers, and businesses

Total Test Positivity

	Total Molecular Tests conducted (last 14 days)	Percent Positivity	Trend (compared to 2 weeks ago)
MA State	961,864	2.29%	Higher (+0.74%)
Middlesex County	261,904	1.65%	Higher (+0.52%)
495 Belt	64,595	3.05%	Higher (+0.98%)
Surrounding Communities	19,251	1.85%	Higher (+0.46%)
Border Communities	7294	1.19%	Stable (+0.19%)
Littleton	825	1.70%	Lower (-0.65%)
Data from Weekly DPH report November 12, 2020			

Total Test Positivity



Covid-19 Health Metrics Summary

- **New Color Coding thresholds**
- Data as of November 12, 2020 report
- MA State is **yellow**
 - Rate (20.7) and test positivity (2.29%) are trending higher
- Rates and test positivity for Middlesex County, 495 Belt, Surrounding, and Border Communities were trending higher
- Littleton is **green** (new threshold)
 - 13 cases in the last 14 days
 - Average daily incidence rate per 100,000 = 9.6
 - Percent test positivity = 1.70%
 - While the new thresholds put us in the green, the case count is higher than we were two weeks ago when we were classified as red
 - Keep up the masks/limited social gatherings/distance to keep Littleton open!

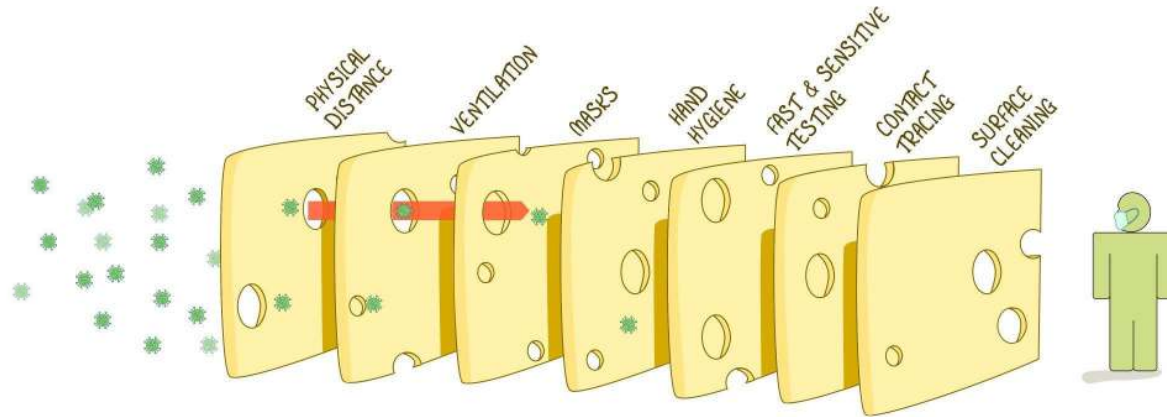
LAYER UP, LITTLETON

Stop the Spread of COVID-19

Anytime you are with people
you don't live with or near
someone who is Covid+:

- Wear a **mask**
- **Wash** your hands
- Stay at least **6 feet** apart
- Meet outside or **improve ventilation** by opening windows and doors
- Take extra precautions around someone at higher risk for severe illness from Covid-19

THE SWISS CHEESE RESPIRATORY VIRUS DEFENCE
RECOGNISING THAT NO SINGLE INTERVENTION IS PERFECT AT PREVENTING SPREAD



EACH INTERVENTION (LAYER) HAS IMPERFECTIONS (HOLES).
MULTIPLE LAYERS IMPROVE SUCCESS.

IAN M MACKAY
VIOLOGYDOWNUNDER.COM
DERIVED FROM @SKETCHPLANATOR
BASED ON THE SWISS CHEESE MODEL OF ACCIDENT CAUSATION, BY JAMES T REASON, 1990
VERSION 1.3
UPDATE: 12OCT2020

Masks Protect Others AND Protect YOU

MORE RESOURCES

Scientific Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2

Updated Nov. 10, 2020 Languages  Print



Background

SARS-CoV-2 infection is transmitted predominately by respiratory droplets generated when people cough, sneeze, sing, talk, or breathe. CDC recommends community use of [masks](#), specifically non-valved multi-layer cloth masks, to prevent transmission of SARS-CoV-2. Masks are primarily intended to reduce the emission of virus-laden droplets ("source control"), which is especially relevant for asymptomatic or presymptomatic infected wearers who feel well and may be unaware of their infectiousness to others, and who are estimated to account for more than 50% of transmissions.^{1,2} Masks also help reduce inhalation of these droplets by the wearer ("filtration for personal protection"). The community benefit of masking for SARS-CoV-2 control is due to the combination of these effects; individual prevention benefit increases with increasing numbers of people using masks consistently and correctly.

<https://www.cdc.gov/coronavirus/2019-ncov/more/masking-science-sars-cov2.html>

OCTOBER 29, 2020

Facial Masking for Covid-19 — Potential for “Variolation” as We Await a Vaccine

Monica Gandhi, M.D., M.P.H., and George W. Rutherford, M.D.

As SARS-CoV-2 continues its global spread, it's possible that one of the pillars of Covid-19 pandemic control — universal facial masking — might help reduce the severity of disease

tween public masking and pandemic control. Recent data from Boston demonstrate that SARS-CoV-2 infections decreased among health care workers after universal masking was implemented in

<https://www.nejm.org/doi/full/10.1056/NEJMp2026913>

Canada's Thanksgiving

- Canada celebrated Thanksgiving October 12
- Saw highest cases yet in the 2 weeks after Thanksgiving (incubation period)
- Testing was in decline - only symptomatic or high risk situations able to be tested
- More cases despite less testing indicates explosive growth
- Contact tracing showed Thanksgiving was directly related to Covid spread

Daily confirmed cases of COVID-19 in Canada



Chart: Alex Fitzpatrick for TIME • Source: JHU CSSE • Get the data • Created with Datawrapper

Daily COVID-19 testing in Canada

Per 1,000 people



Chart: Alex Fitzpatrick for TIME • Source: Canadian government/OurWorldInData • Get the data • Created with Datawrapper

https://time.com/5910635/thanksgiving-covid-19/?fbclid=IwAR0OD4_3ily8B_9fM6_Sgq2R8Ya7D4eFr3TKOqpPZSomCg0wdshV6Lg1kwk

Thanksgiving During COVID-19

Keep it Small

- Members of **same household** or small group with regular contact
- **Virtual dinner with extended family is safest**
- Remember current gathering limits (max 10 indoors, 25 outdoors)
- Avoid in-person gatherings with people at higher risk for severe illness from COVID-19 (older adults, certain medical conditions)

Improve ventilation

- Outdoors is safer
- Open doors and windows

Wear a mask

- When not eating and drinking
- When preparing food

Wash your hands

- While cooking
- Before eating

Keep visits short

- Share the meal, not the day

Quarantine or get tested

- Stay home for 14 days before and after holiday gatherings
- Obtain a negative COVID-19 molecular test no less than 3 days before and a separate test 4-7 days after your event
- Follow your destination and MA travel guidances
www.mass.gov/info-details/covid-19-travel-order

When not to go

People diagnosed with, has symptoms of, or exposed to COVID-19 should avoid attending any in-person gathering

Higher levels of COVID-19 cases and community spread increase the risk of spread among attendees (even if you stay in Massachusetts)

Visit www.mass.gov/news/thanksgiving-during-covid-19 and www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays for more information