

Covid-19 Health Metrics

12/17/2020



Dashboard of Public Health Indicators

Testing and Cases

Newly Reported Confirmed Cases	Total New Molecular Tests Reported	7-Day Average Positivity	Estimated Active Cases
4,985	92,627	6.02%	76,215

Hospitalization

Total Confirmed COVID Patients in Hospital	Total Confirmed COVID Patients in ICU	Average Age of Cases that were Hospitalized*
1,871	383	67

Deaths

Newly Reported Deaths among Confirmed	Average Age of Deaths*	14-Day Average Turnaround (from Test Sample to Report to DPH)*
44	81	1.83

Total Cases By Age Group
from 11/29/2020-12/12/2020*



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 11/29/2020 to 12/12/2020. Please see the most current weekly dashboard for more details <https://www.mass.gov/info-details/covid-19-response-reporting>

*Last updated Wednesday, 12/16/2020

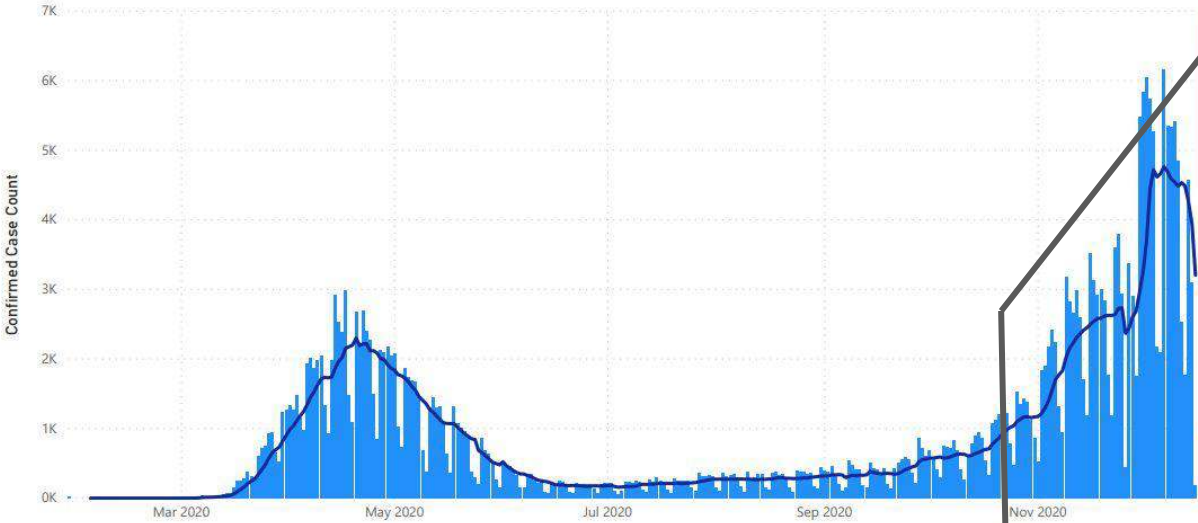
Impact of Thanksgiving



Daily Confirmed Cases (Since March)

Confirmed COVID-19 Cases To Date by Date Individual Tested

Confirmed Cases by Date 7-Day Average Confirmed Case Count

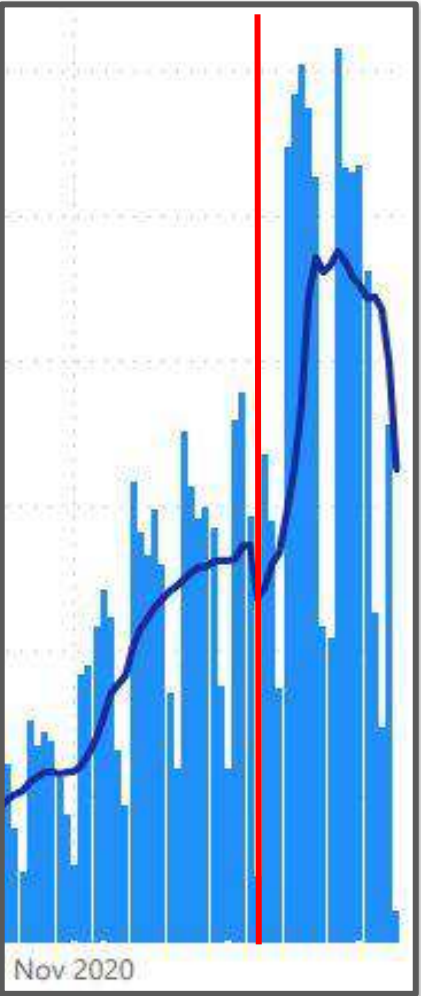


Total Confirmed Cases

297,301

Average Daily Incidence Rate Per 100,000 (last 14 days)

65.1



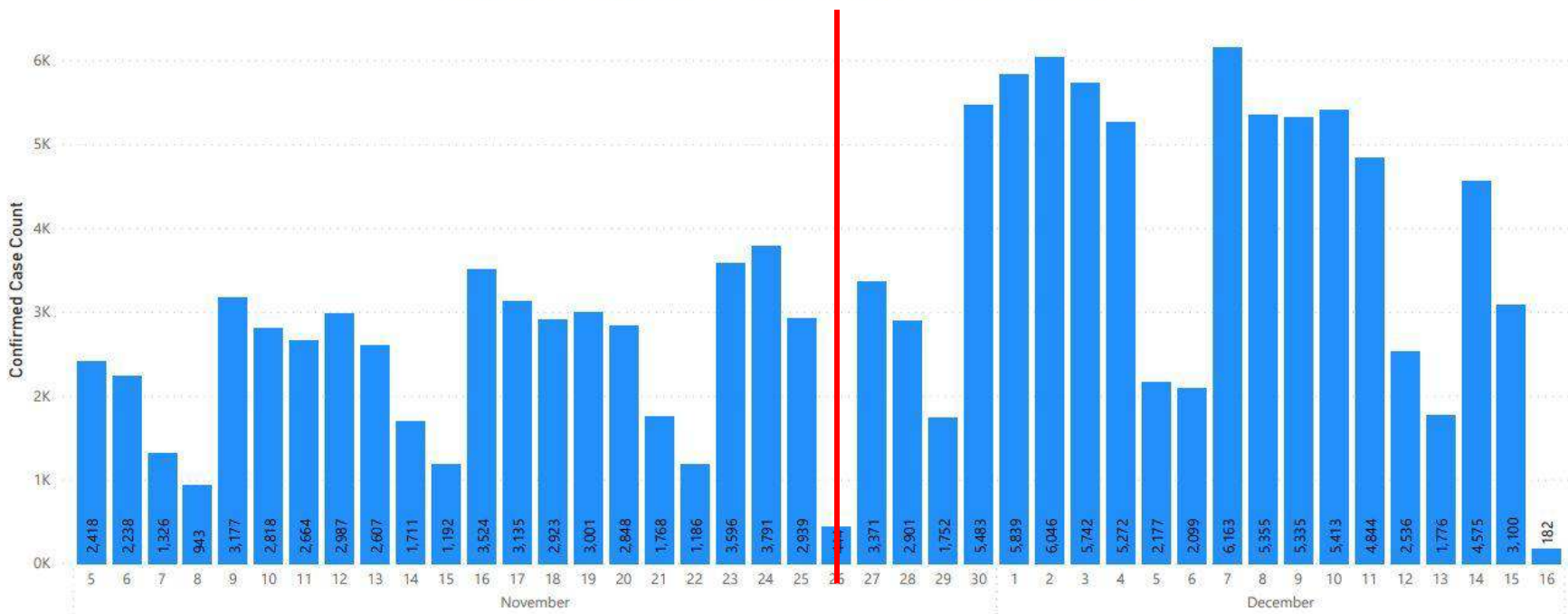
Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; State Population Estimate 2019; Small Area Population Estimates 2011-2020, version 2019, Massachusetts Department of Public Health, Bureau of Environmental Health; Tables and Figures created by the Office of Population Health. Note: all data are current as of 11:59pm on 12/16/2020. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete.

*Last updated Wednesday, 12/16/2020; Covers 11/29/2020-12/12/2020.



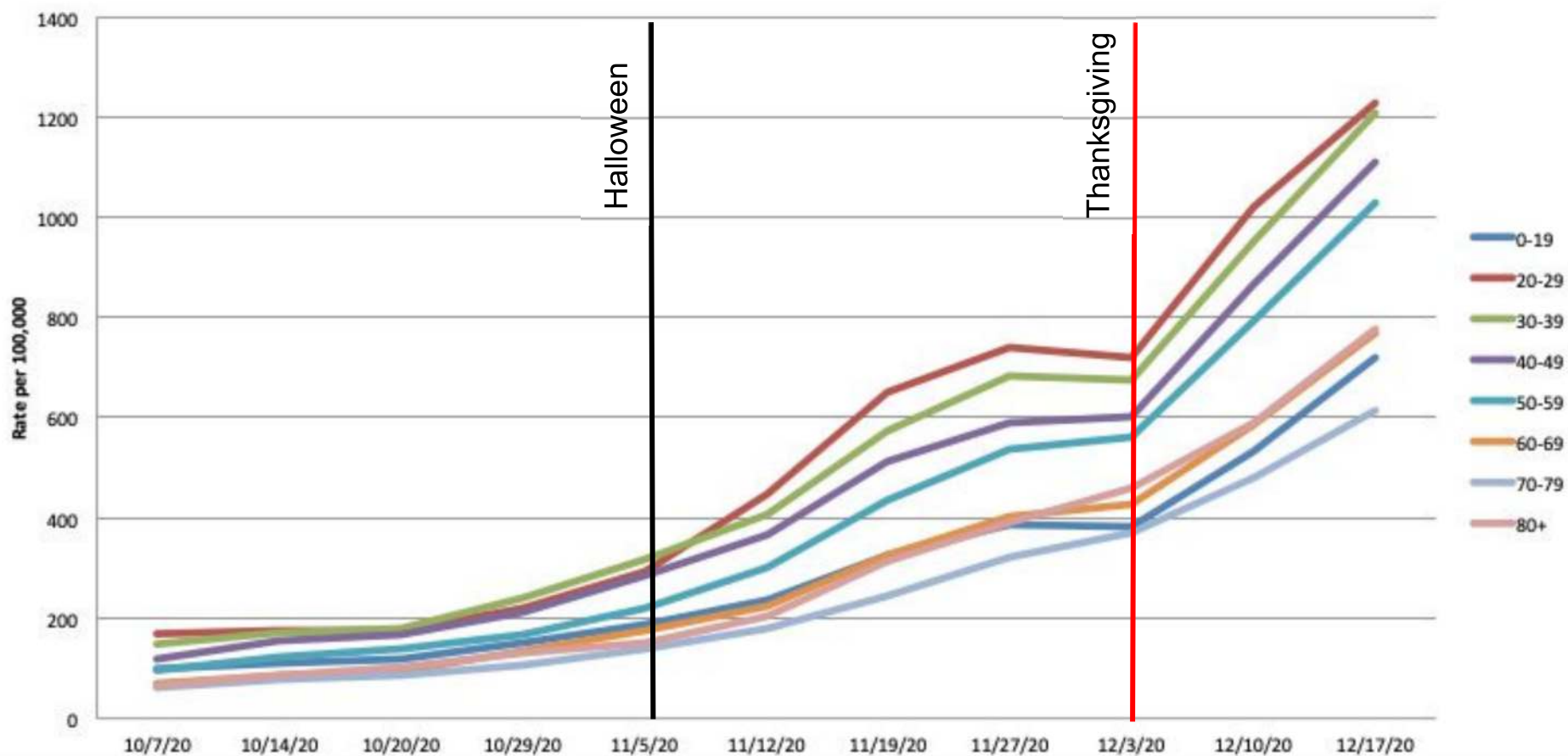
Daily Confirmed Cases (Past 6 Weeks)

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 11:59pm on 12/16/2020. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete.

Rate per 100,000 of total Covid-19 cases by age group for the last 14 days

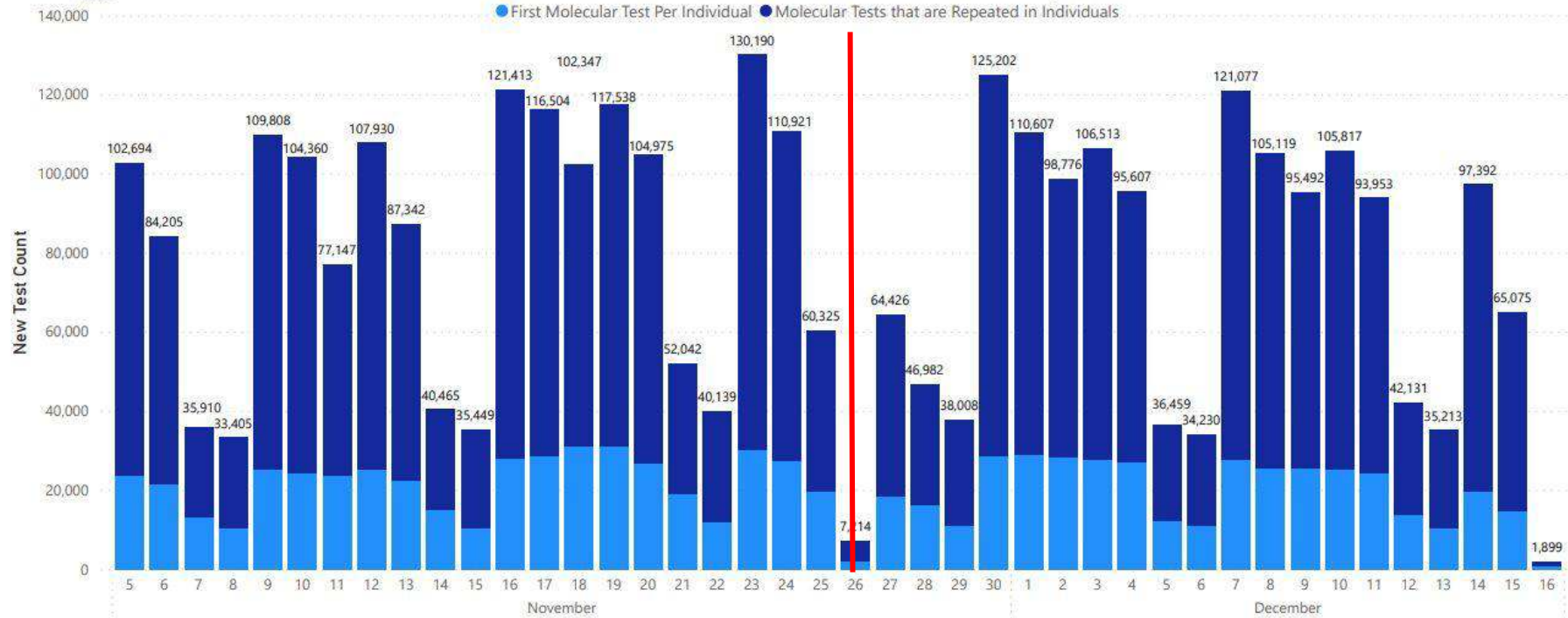




Testing by Date - Molecular (Total Tests Conducted Past 6 Weeks)

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 11:59pm on 12/16/2020. 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

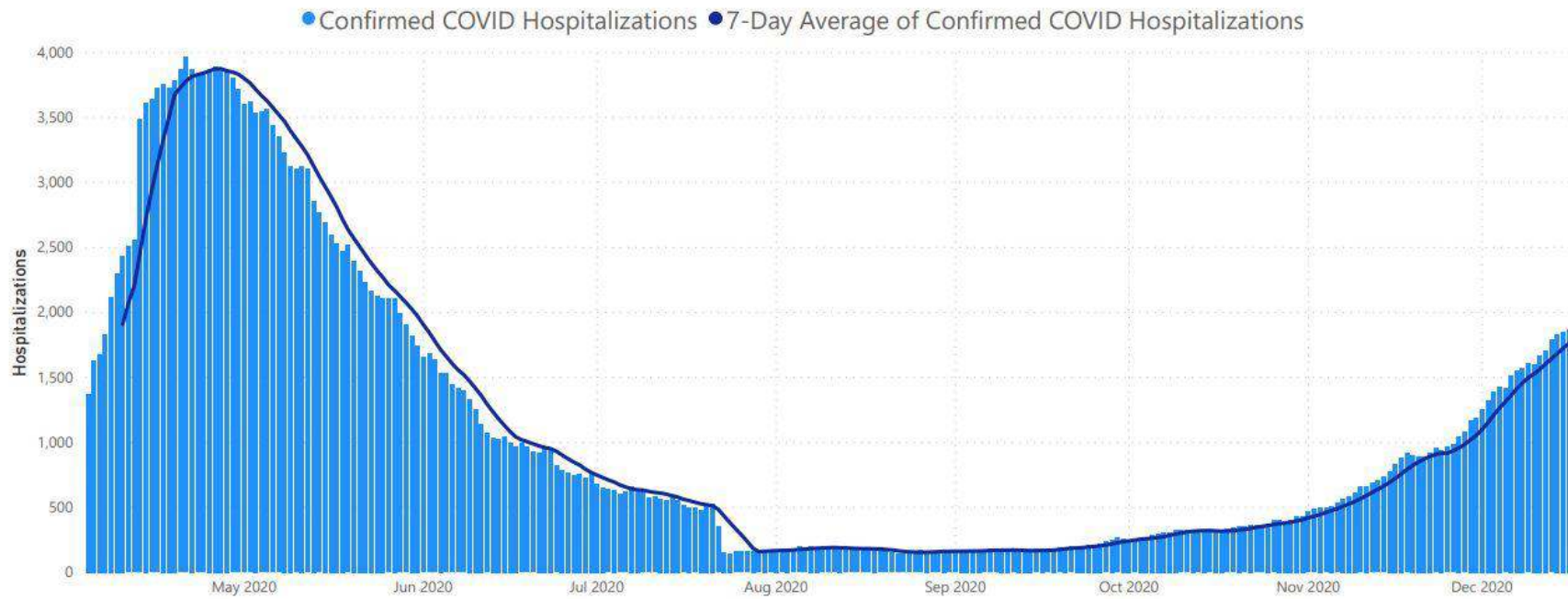
MA Statewide (metric on p.2) MA Higher Education Only MA with Higher Education Tests Removed





Daily Confirmed Hospitalizations

Total Confirmed COVID Patients in Hospital



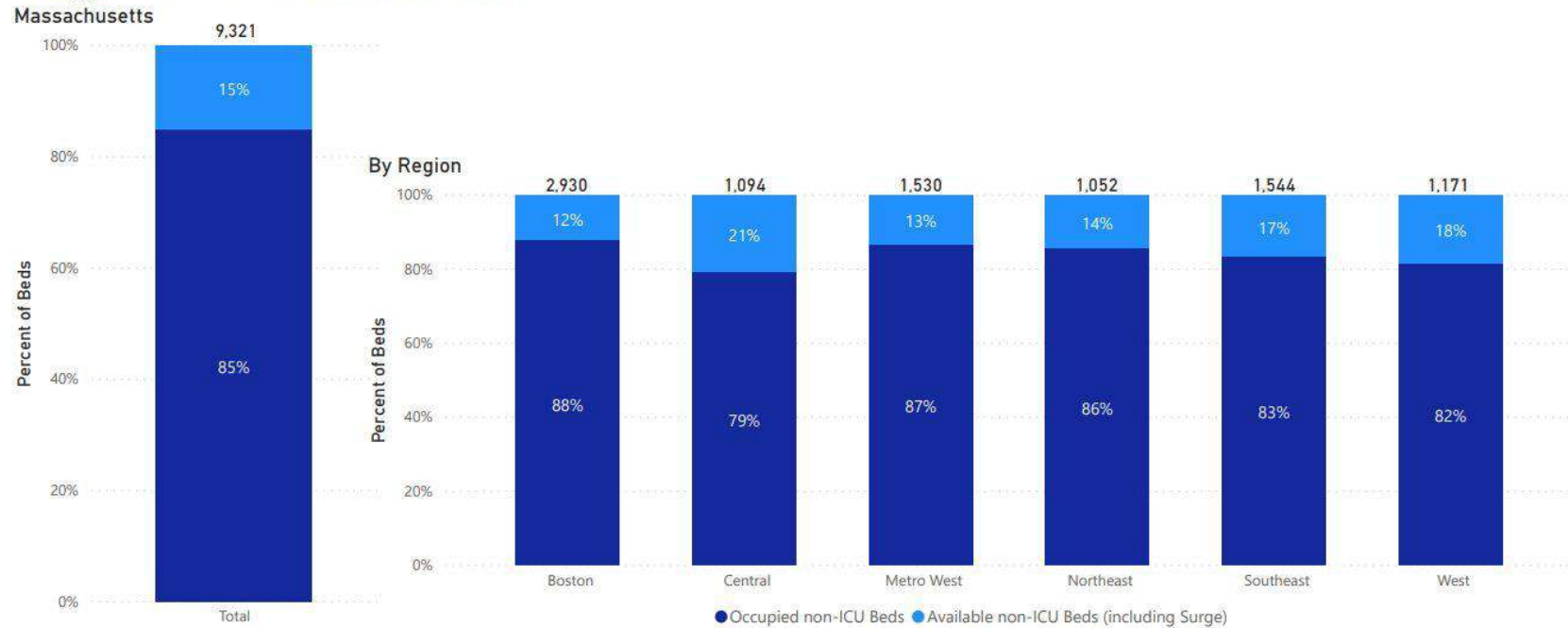
Data Sources: COVID-19 Data provided by the MDPH survey of hospitals (hospital survey data are self-reported); Tables and Figures created by the Office of Population Health.

Notes: data are current as of 3:00pm on 12/16/2020. For purposes of this reporting, "confirmed" are cases with a PCR test. Hospitalization data includes alternate care sites beginning on 12/06/2020. Data prior to 07/22/2020 include both confirmed and suspected COVID hospitalizations, as confirmed COVID hospitalizations were not reported separately during this time.



Total Hospital Capacity by Region (Non-ICU)

Data collected as of 12/16/2020 3:00pm



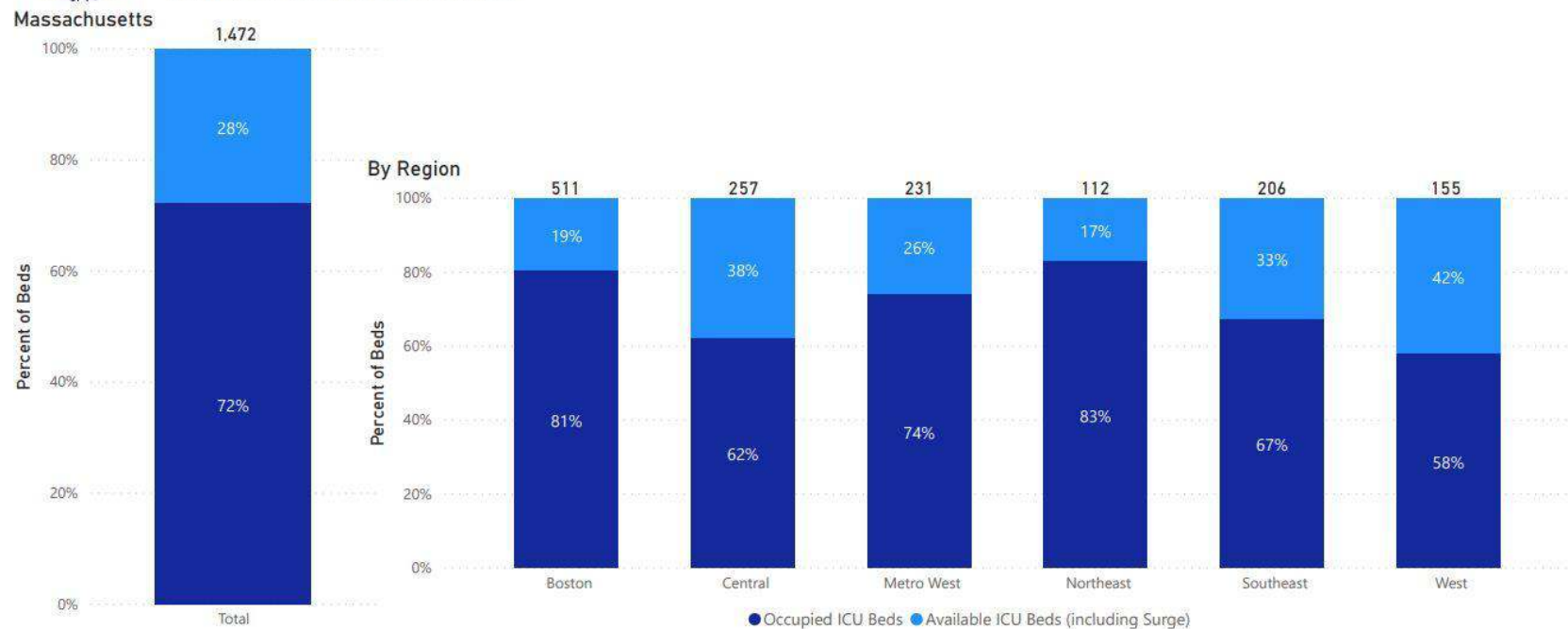
Previously these graphs were based on rounded bed counts. As of 12/11/2020, they display the bed counts as reported. Occupancy/ availability as reported by hospitals to DPH.

Regions shown represent EOHHS Regions. Note that total bed estimates may change day-to-day due to hospitals updating surge planning. As of 06/16/2020, data reflects updated data collection methodology and the removal of unstaffed beds from this analysis. Analysis here reflects total beds that hospitals could staff within 12-24 hours. As of 9/8/20, all observation beds and observation status patients are included in the Available Non-ICU Beds and Occupied Non-ICU Beds categories.



Total Hospital Capacity by Region (ICU)

Data collected as of 12/16/2020 3:00pm



Previously these graphs were based on rounded bed counts. As of 12/11/2020, they display the bed counts as reported. Occupancy/ availability as reported by hospitals to DPH.

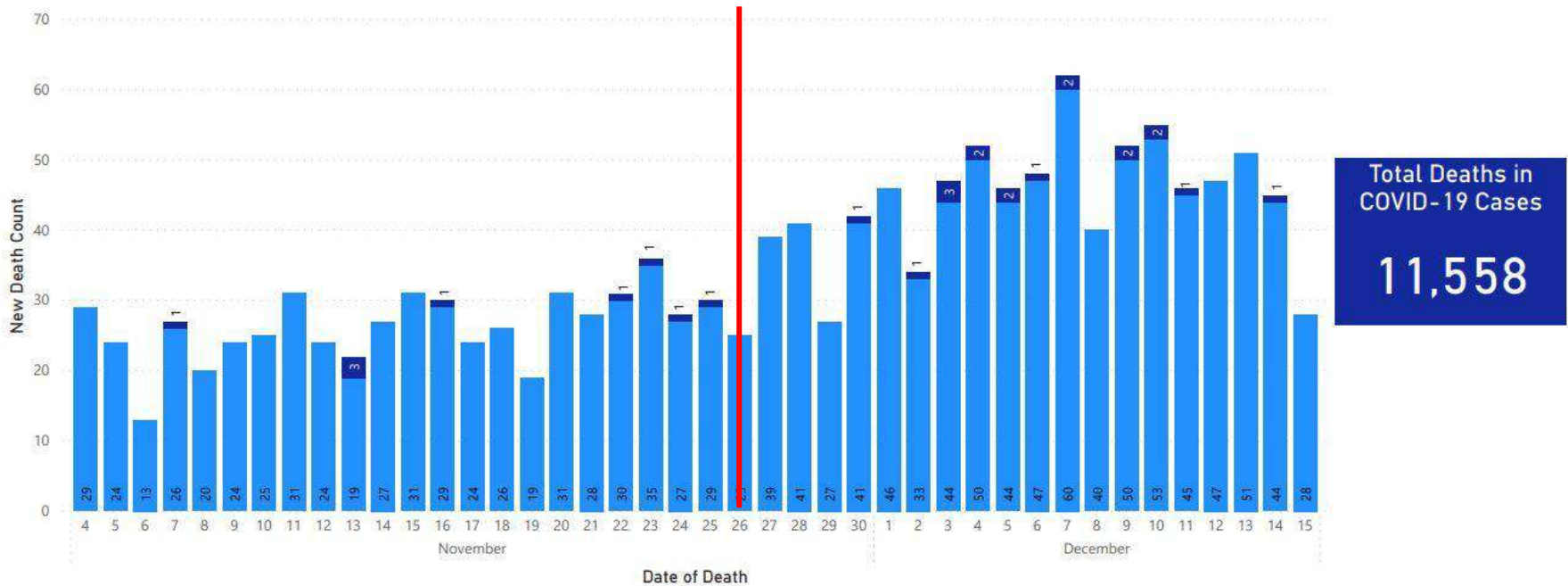
Regions shown represent EOHHS Regions. Note that total bed estimates may change day-to-day due to hospitals updating surge planning. As of 06/16/2020, data reflects updated data collection methodology and the removal of unstaffed beds from this analysis. Analysis here reflects total beds that hospitals could staff within 12-24 hours. As of 9/8/20, all observation beds and observation status patients are included in the Available Non-ICU Beds and Occupied Non-ICU Beds categories.



Daily and Cumulative Deaths

Total Deaths* in COVID-19 Cases by Date of Death

● New Confirmed Deaths ● New Probable Deaths



Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences and the Registry of Vital Records and Statistics; Tables and Figures created by the Office of Population Health.
Note: all data are current as of 11:59pm on 12/16/2020; *Counts on the trend chart do not match total number of deaths reported, as there is a several day lag in reporting by date of death. Includes both probable and confirmed cases.
For confirmed and probable case definitions, please see the Glossary at the end of this document in 'Definitions and Disclaimers'.

Thanksgiving gatherings had a large, negative impact on Covid-19 in MA, putting our healthcare system under strain

Gov. Baker reported that ONE WEEK after Thanksgiving, MA had:

- 96% increase in number of new cases per day
- 93% increase in hospitalizations
- 73% increase in ICU
- 104% increase in intubations
- 84% increase in deaths



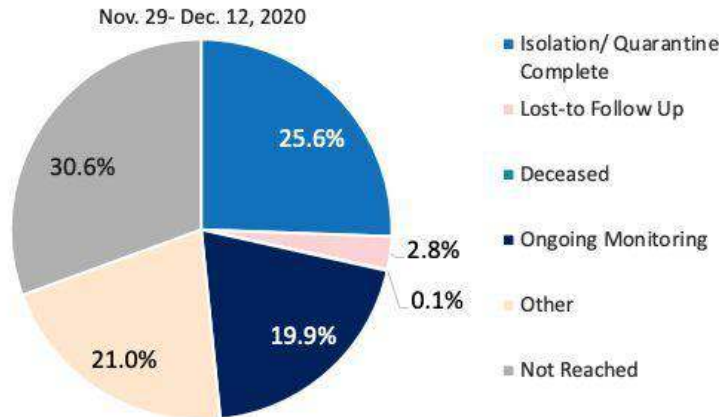
Massachusetts Department of Public Health COVID-19 Dashboard – Thursday, December 17, 2020

MA Contact Tracing: Case and Contact Outreach Outcomes for Last Two Weeks

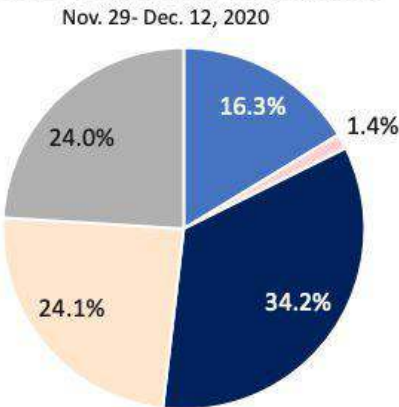
Case Outreach Completed:
69.4% of 44,906
(65% Case Outreach Completed Within 1 Day)
Nov. 29- Dec. 12, 2020

Contact Outreach Completed:
76.0% of 28,405
Nov. 29- Dec. 12, 2020

Case Outreach Outcomes



Contact Outreach Outcomes



Total Workforce (Dec. 15, 2020)	3,363
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Combined case investigation, contact tracing, and monitoring workforce

Note: The COVID-19 Community Tracing Collaborative (CTC) began operation on April 10, 2020. Data in this dashboard reflect the combined contact tracing conducted by Local Health Departments, Massachusetts Department of Public Health (MDPH) and the CTC since that date. Prior to April 10, 2020, all COVID-19 contact tracing in Massachusetts was conducted by Local Health Departments.

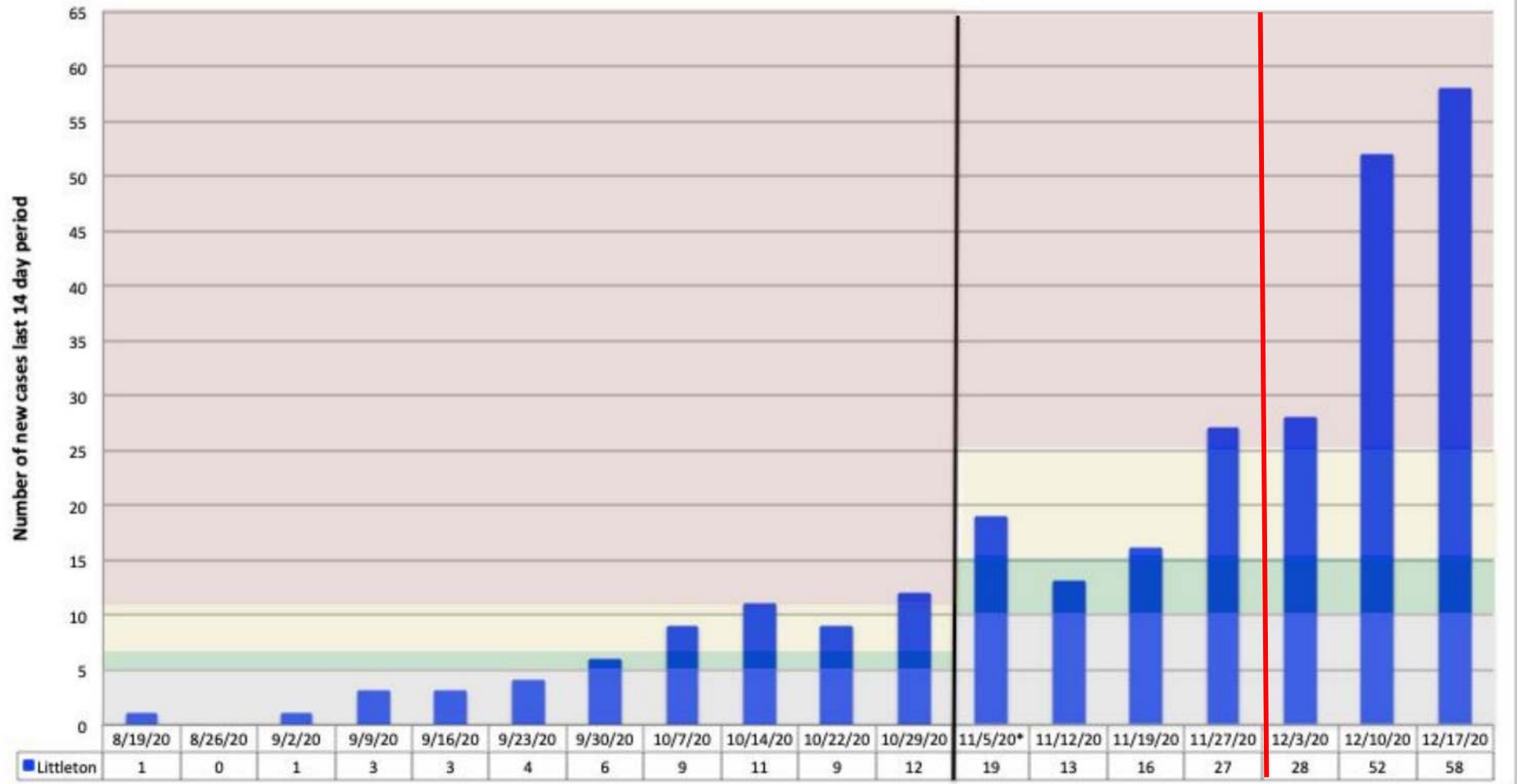


Average Daily Incidence Rate per 100,000 Color Calculations

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.

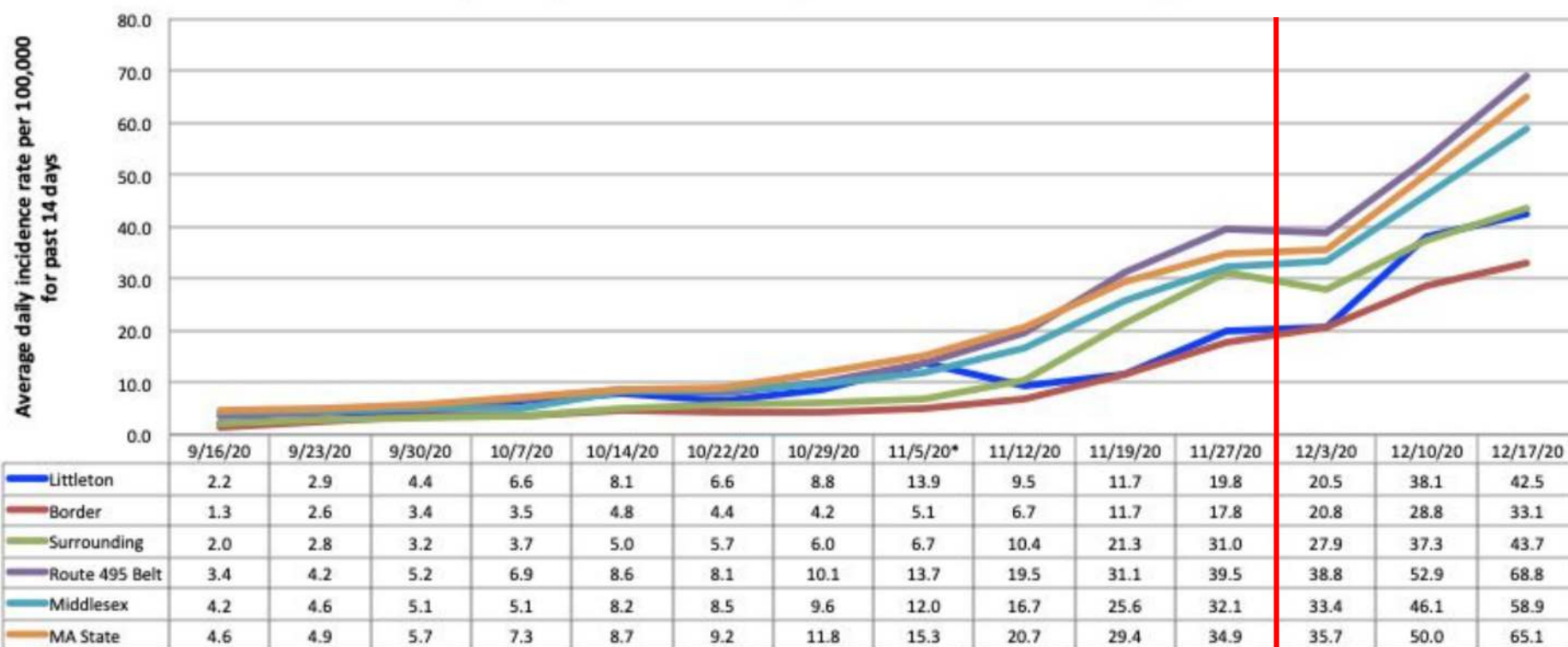
Littleton: Number of New Cases in Last 14 Day Period



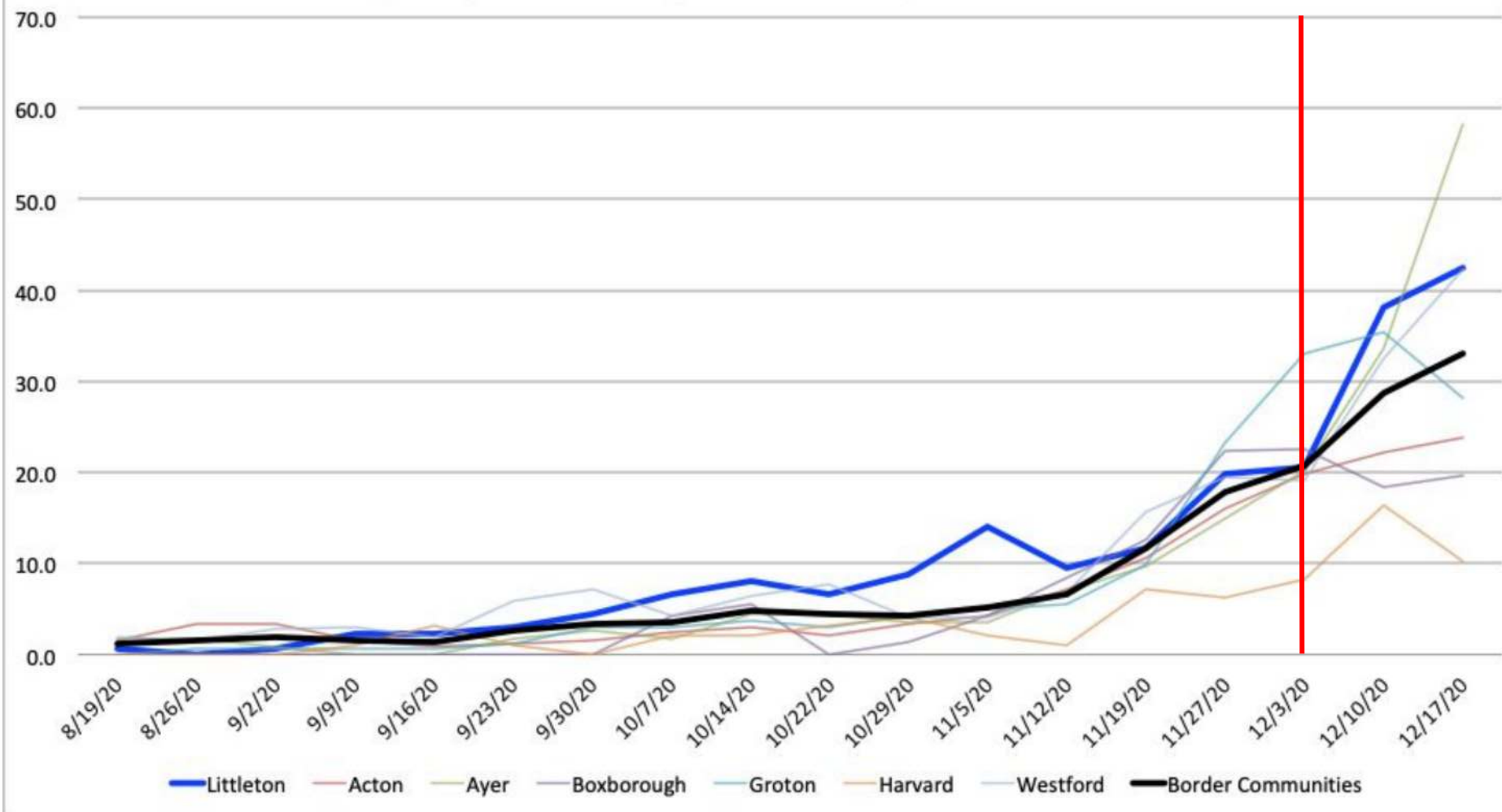
Average daily incidence rate per 100,000

	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	63,445	65.1 80% higher	Higher (+29.4)	Red
Middlesex County	13,407	59.9 80% higher	Higher (+25.5)	
495 Belt	6,207	68.8 80% higher	Higher (+16.0)	
Surrounding Communities	1,306	43.7 60% higher	Higher (+15.7)	
Border Communities	410	33.1 60% higher	Higher (+12.4)	
Littleton	58	42.5 Doubled	Higher (+22.0	Red (4 weeks)
Data from Weekly DPH report December 17, 2020				

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



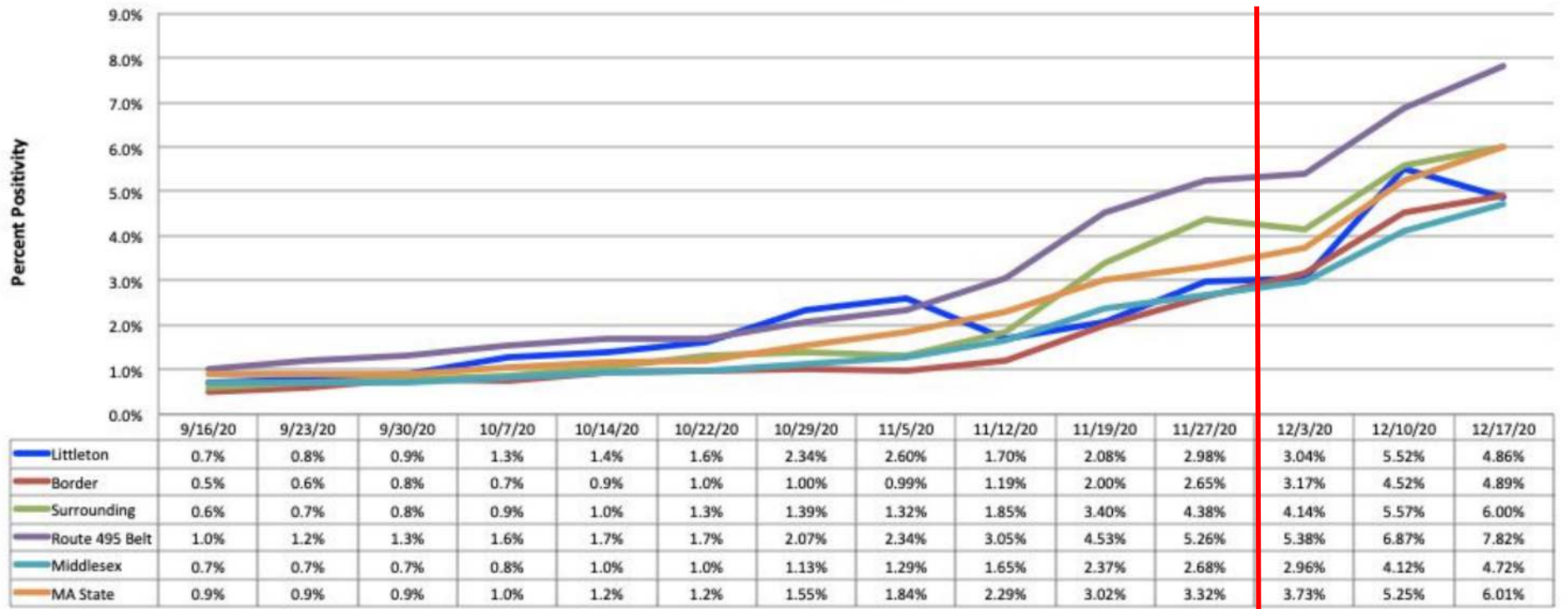
Average Daily Incidence Rate per 100,000 among Littleton's Border Towns



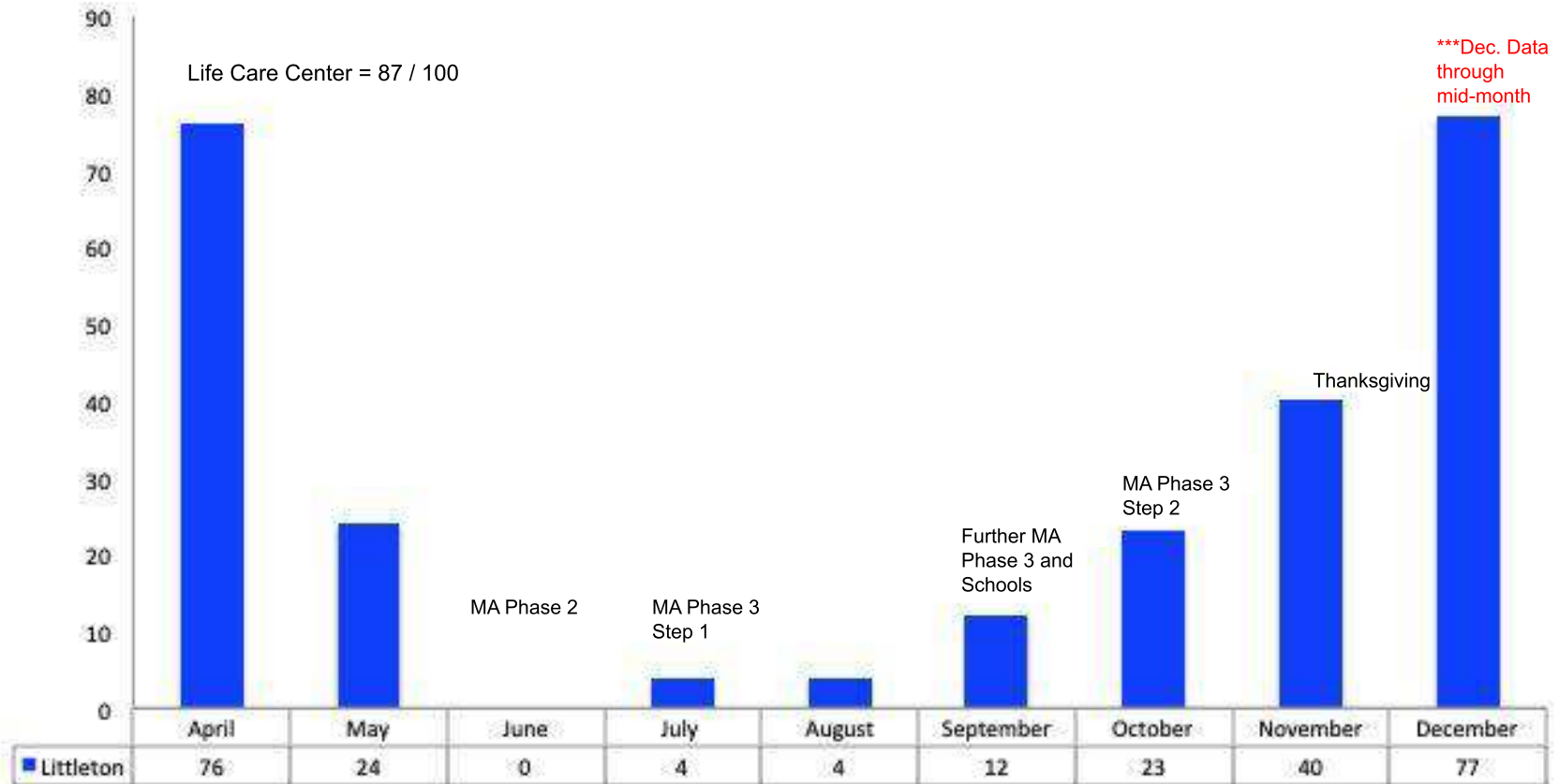
Total Test Positivity

	Total Molecular Tests conducted (last 14 days)	Percent Positivity	Trend (compared to 2 weeks ago)
MA State	1,202,244	6.01%	Higher (+2.28%)
Middlesex County	319,519	4.72%	Higher (+1.76%)
495 Belt	87,959	7.82%	Higher (+2.44%)
Surrounding Communities	23,270	1.87%	Higher (+1.87%)
Border Communities	9040	4.89%	Higher (+1.72%)
Littleton	1275 275 additional tests	4.86%	Higher (+1.83%)
Data from Weekly DPH report December 17, 2020			

Total Test Positivity



Littleton: Covid-19 Cases by Month





**Massachusetts Department of Public Health COVID-19 Dashboard -
Active COVID Clusters by Exposure Setting Type**

Thursday, December 17, 2020

Exposure	New Clusters (Identified 11/15 – 12/12)			Ongoing Clusters (Cluster Identified Prior to 11/15 But Not Meeting Criteria for Closing)			Total		
Setting	Clusters	Confirmed Cases	Contacts	Clusters	Confirmed Cases	Contacts	Clusters	Confirmed Cases	Contacts
24/7 Congregate Settings	36	225	52	58	59	28	94	284	80
Child Care	130	364	504	120	81	215	250	445	719
Colleges & Universities	7	63	12	33	7	27	40	70	39
Corrections	1	2	0	15	860	128	16	862	128
Hospitals	15	175	30	24	161	28	39	336	58
Household	15,740	40,339		6,747	3,700		22,487	44,039	
Industrial Settings	16	65	25	65	162	56	81	227	81
K-12 Schools	31	151	130	51	23	123	82	174	253
Long Term Care Facilities	142	1,378		171	1,776		313	3,154	
Offices	2	5	0	14	1	2	16	6	2
Organized Athletics/Camps	5	26	91	25	15	108	30	41	199
Other	1	5	0	8	5	30	9	10	30
Other Food Establishments	5	26	6	8	8	1	13	34	7
Other Healthcare	16	74	64	23	19	10	39	93	74
Other Workplaces	19	86	59	24	52	7	43	138	66
Places of Worship	1	6	0	15	12	11	16	18	11
Recreation/Cultural	4	23	0	4	0	0	8	23	0
Restaurants & Food Courts	30	182	53	54	21	110	84	203	163
Retail & Services	13	37	10	21	15	16	34	52	26
Senior Living	45	257	139	46	184	36	91	441	175
Shelters	0	0	0	5	3	11	5	3	11
Social Gatherings	46	262	71	49	16	22	95	278	93
Travel & Lodging	0	0	0	3	0	0	3	0	0
Total	16,305	43,751	1,246	7,583	7,180	969	23,888	50,931	2,215

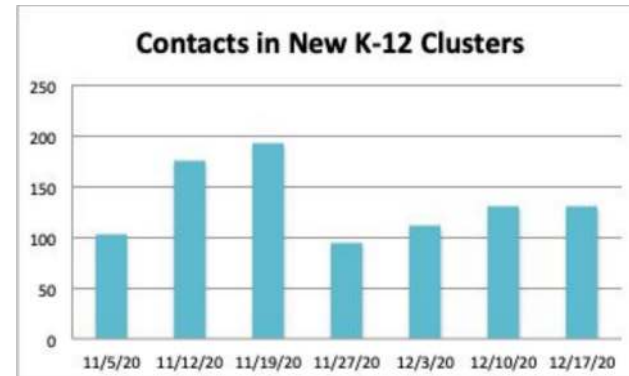
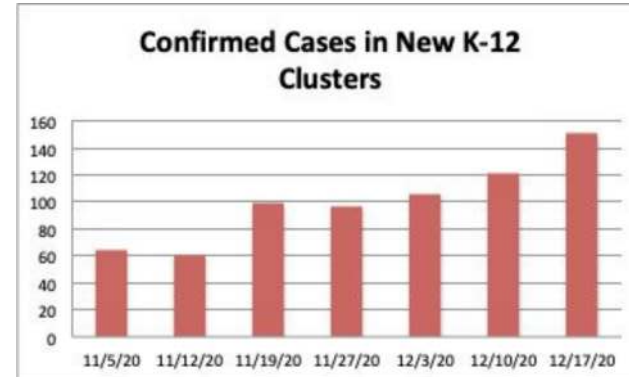
New Clusters: Clusters with the first case (indicated by the first positive lab result) identified during the four week period 11/15 – 12/12/2020

Ongoing Clusters: Clusters with the first case identified prior to 11/15 that has not met criteria to be closed. Confirmed cases included in ongoing clusters occurred between 11/15 and 12/12 but are associated with a cluster that began prior to 11/15. Close contacts included in ongoing clusters occurred between 11/15 and 12/12 but are associated with a cluster that began prior to 11/15

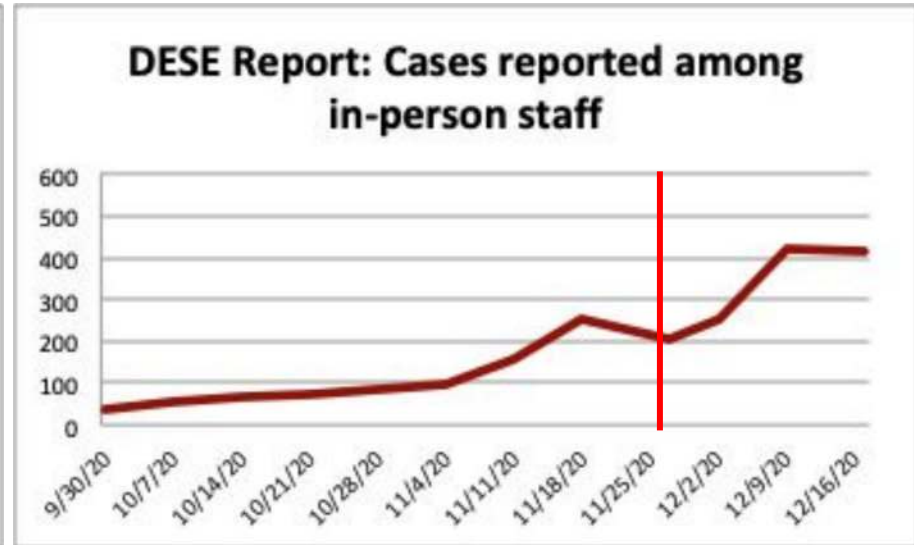
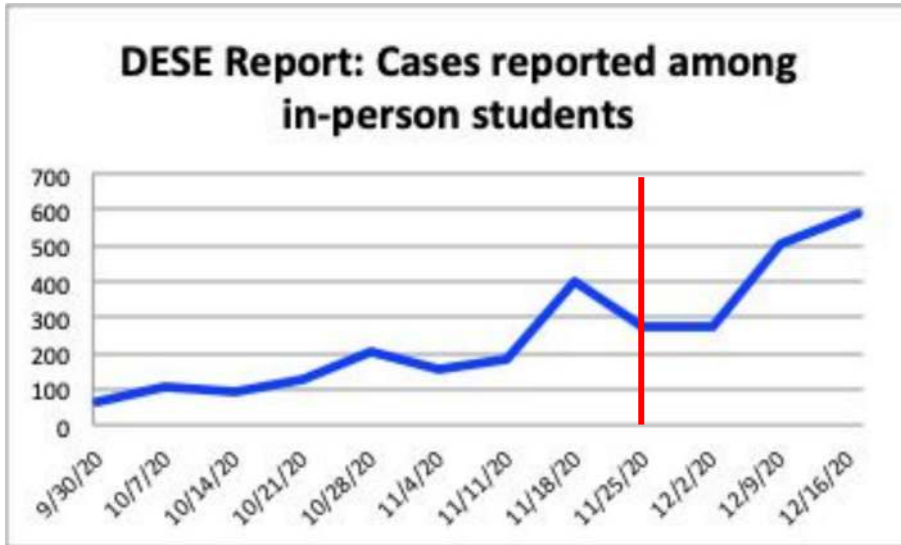
Closed Clusters: A cluster is closed after 28 days have passed since the last confirmed case; 19,676 clusters are closed, 102,201 cases are associated with closed clusters

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.

DPH Weekly Data: K-12 Clusters

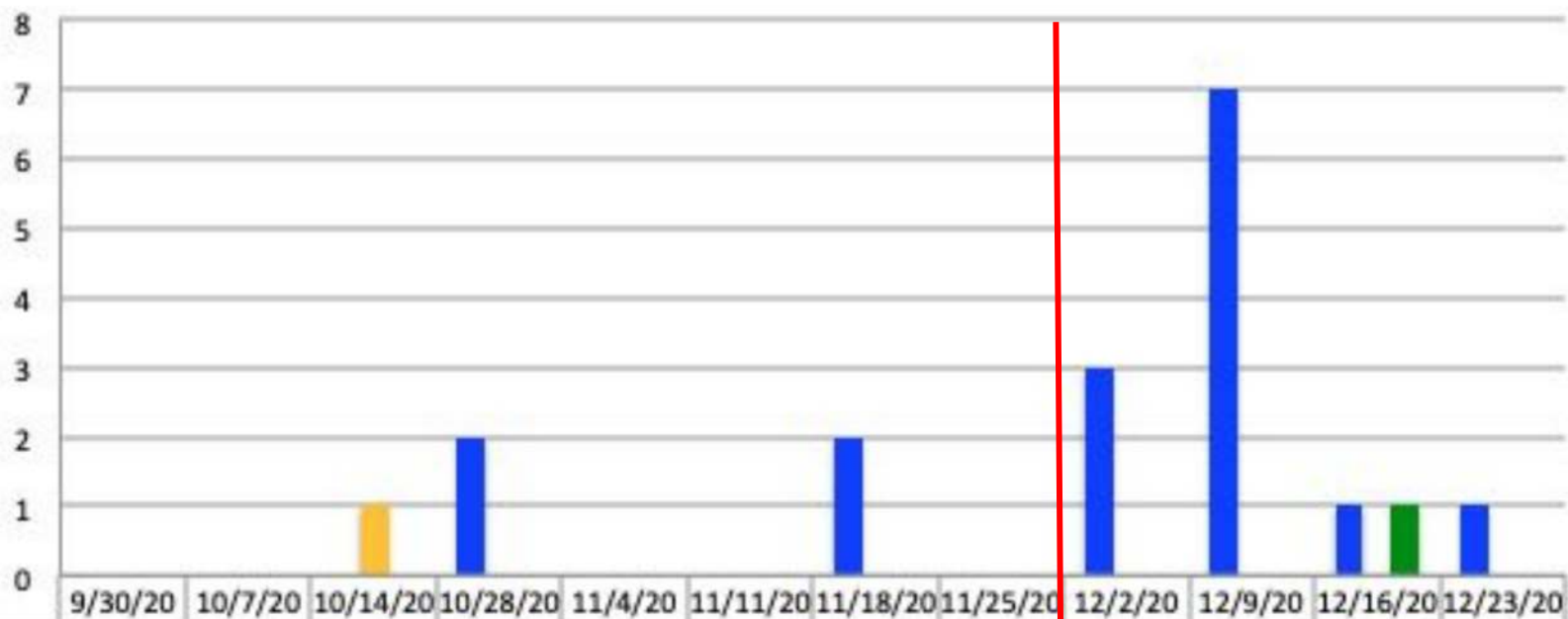


DESE Positive Cases in Schools



- CRUDE look at the change in the number of cases among in-person students and staff as published by DESE
- Major Limitations:
 - Denominator does not account for changes in learning model (remote, hybrid) - cannot be used to calculate a reliable proportion
 - Unclear what definitions DESE uses (While LPS reports all cases, DESE only publishes some)

Number of Cases reported LPS Health Notification and Classrooms Moved to Remote by Date

[illegible]

How Covid Spreads

Covid-19 spreads easily in households



- Isolate the sick person (create a “sick room”)
- Wear a mask
- Quarantine yourself too
- Get tested
- Clean surfaces and hands
- Protect high-risk individuals

Gatherings increase Covid-19 risk



RESTAURANTS AND BARS

Reduce the Spread of COVID-19

LOWER RISK

HIGHER RISK



Pick-up or delivery



Outdoor seating at
least 6 feet apart



Outdoor & indoor seating
at least 6 feet apart



Outdoor & indoor seating
no restrictions



cdc.gov/coronavirus

CS317547-A 06/10/2020

Be **MERRY** and **SAFE**





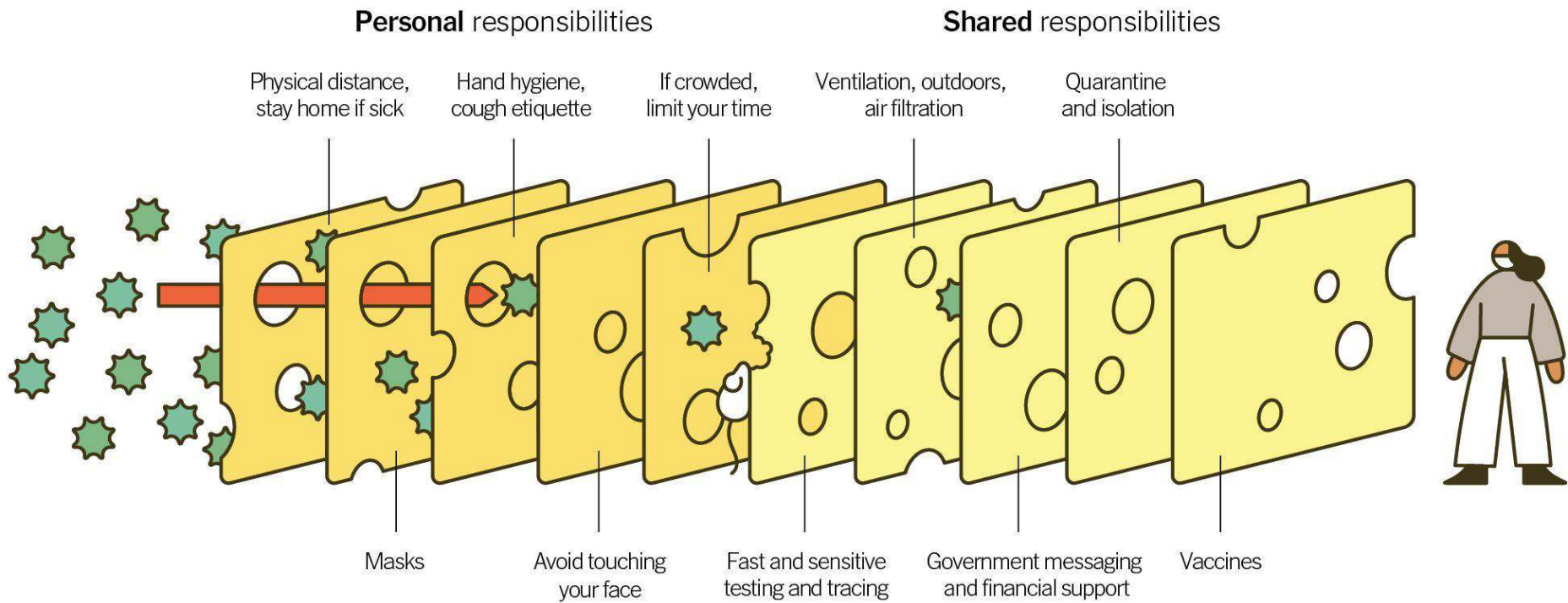
Holiday gatherings increase the risk of COVID-19 spread

Protect your family and read the Holiday guidelines and Travel Order

<https://www.mass.gov/holidays-during-covid-19-in-massachusetts>

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.

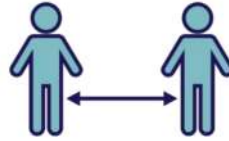


Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong

Stop the Spread of Covid-19



**WASH HANDS
OFTEN**



**PHYSICAL
DISTANCE**



WEAR A MASK



**CHECK YOUR
HEALTH DAILY**



**FEEL SICK?
STAY HOME!**



**COVER YOUR
COUGH**



**CLEAN &
DISINFECT**

MASK-UP
01460

