

Covid-19 Health Metrics

Littleton, MA

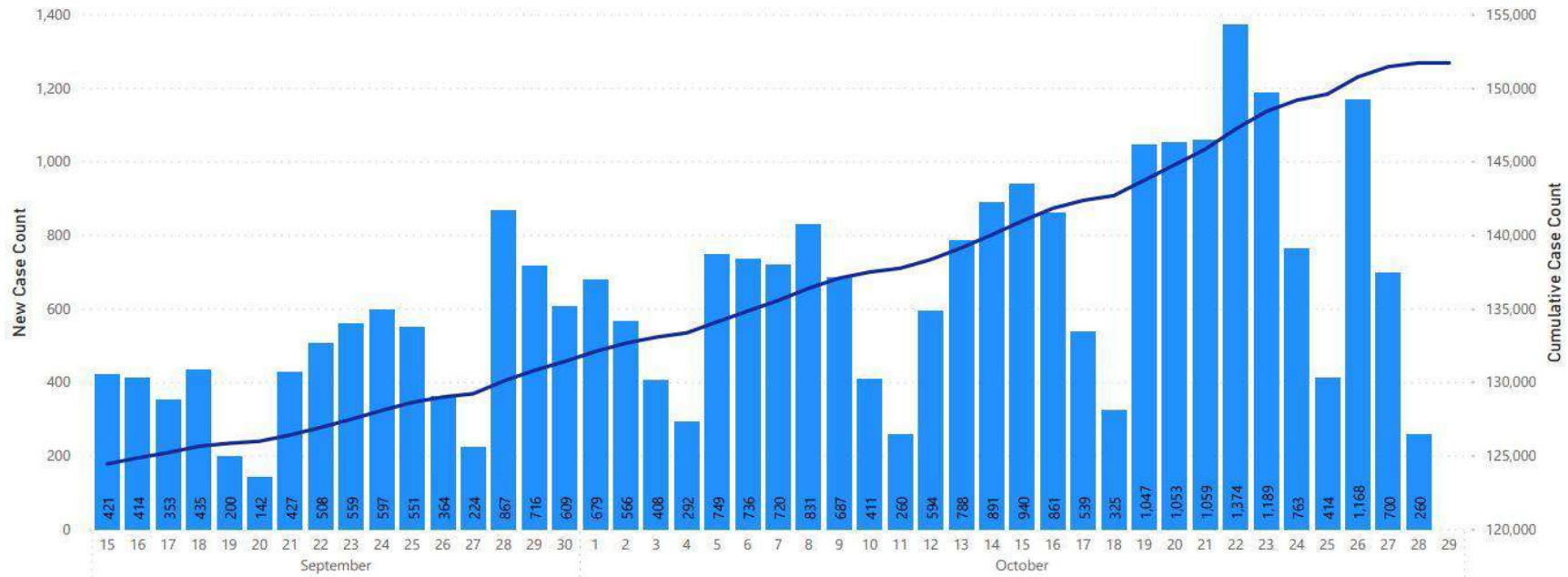
School Committee
10/29/2020



Daily and Cumulative Confirmed Cases

Confirmed COVID-19 Cases To Date by Date Individual Tested

● New Confirmed Cases ● Cumulative Confirmed Cases

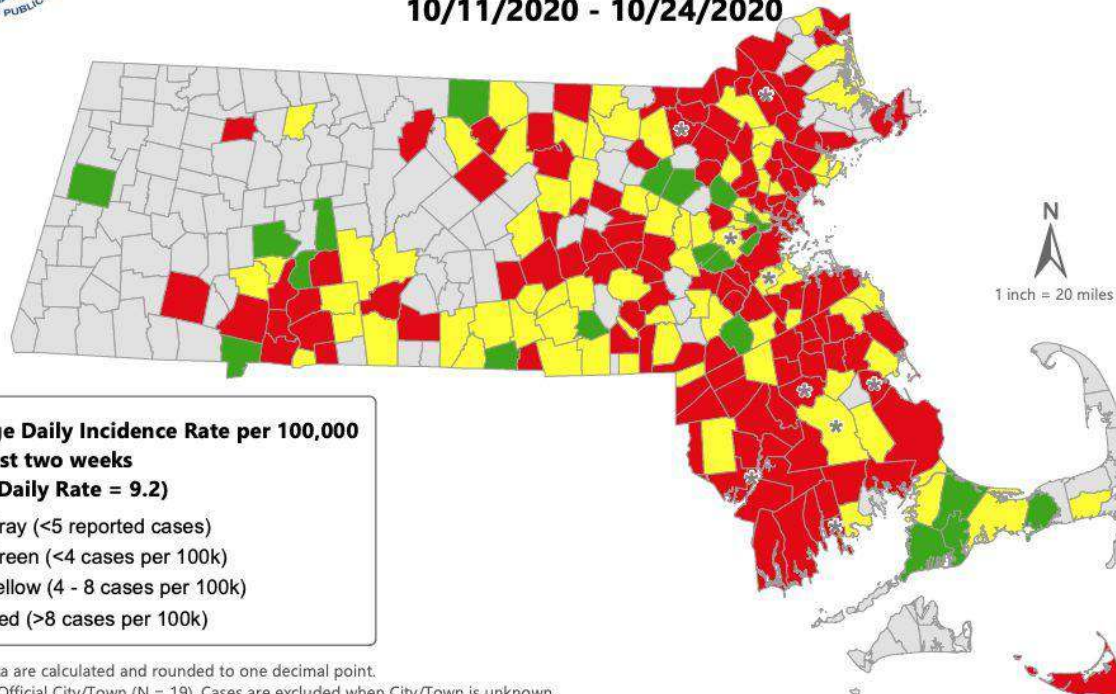


Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.

Note: all data are current as of 8:00am on the date at the top of the page; Data previously shown according to date report received; data now presented according to date the individual was tested. Due to lag in reporting by laboratories, counts for most recent dates are likely to be incomplete.



Average Daily Incidence Rate* (per 100,000, PCR only) for COVID-19 in MA by City/Town Over Last Two Weeks 10/11/2020 - 10/24/2020



Average Daily Incidence Rate per 100,000 over last two weeks
(State Daily Rate = 9.2)

- Gray (<5 reported cases)
- Green (<4 cases per 100k)
- Yellow (4 - 8 cases per 100k)
- Red (>8 cases per 100k)

*These data are calculated and rounded to one decimal point.
Unknown Official City/Town (N = 19). Cases are excluded when City/Town is unknown.

Municipalities marked with an asterisk (*) have either a long term care facility, institution of higher education and or correction facility with 1) more than 10 confirmed cases in the last 14 days and 2) these cases make up more than 30% of the total cases for that municipality in the last 14 days.

* Data as of 28OCT2020 and are subject to change.

Bureau of Infectious Disease and Laboratory Sciences

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 population

- 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:

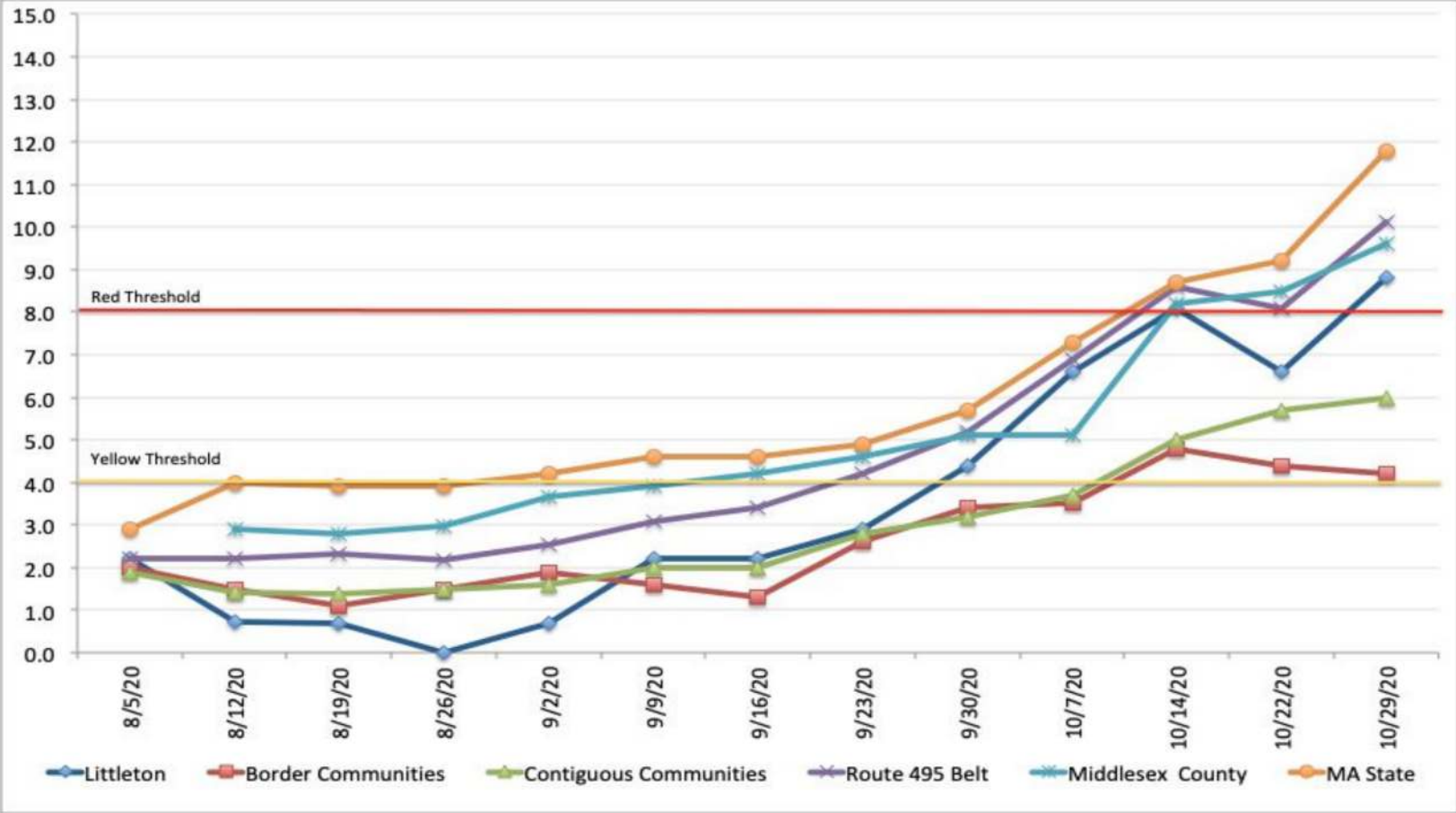
Average Daily Incidence Rate =

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

Average daily incidence rate per 100,000

	Average daily case rate per 100,000 over last two weeks	Trend (compared to 2 weeks ago)	Threshold
MA State	11.8	Higher (+3.1)	Red
Middlesex County	9.6	Higher (+1.4)	Red
495 Belt	10.1	Higher (+1.6)	Red
Surrounding Communities	6.0	Higher (+0.9)	Yellow
Border Communities	4.2	Lower (-0.6)	Yellow
Littleton	8.8	Higher (+0.7)	Red
Data from October 29, 2020 report			

Trend: Average daily incidence rate per 100,000



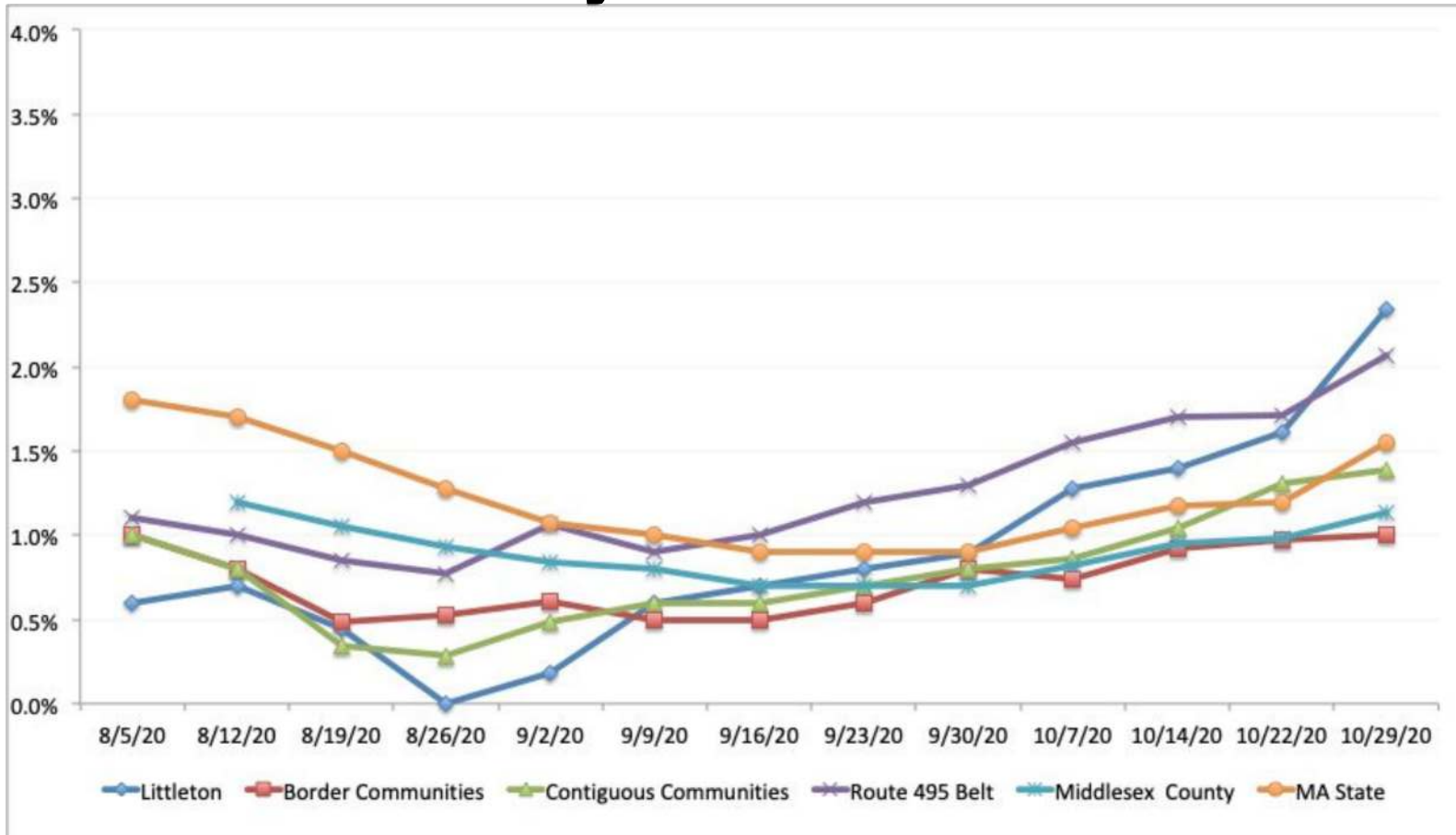
Total Test Positivity

- Data Source:
<https://www.mass.gov/info-details/covid-19-response-reporting>
- Percent 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

Percent Positivity

	Total Molecular Tests conducted (last 14 days)	Percent Positivity	Trend (compared to 2 weeks ago)
MA State	899,970	1.55%	Higher (+0.38%)
Middlesex County	234,060	1.13%	Stable (+0.18%)
495 Belt	52,353	2.07%	Higher (+0.37%)
Surrounding Communities	15,722	1.39%	Higher (+0.35%)
Border Communities	6469	1.00%	Higher (+0.37%)
Littleton	725	2.34%	Higher (+0.94%)
Data from October 29, 2020 report			

Trend: Test Positivity



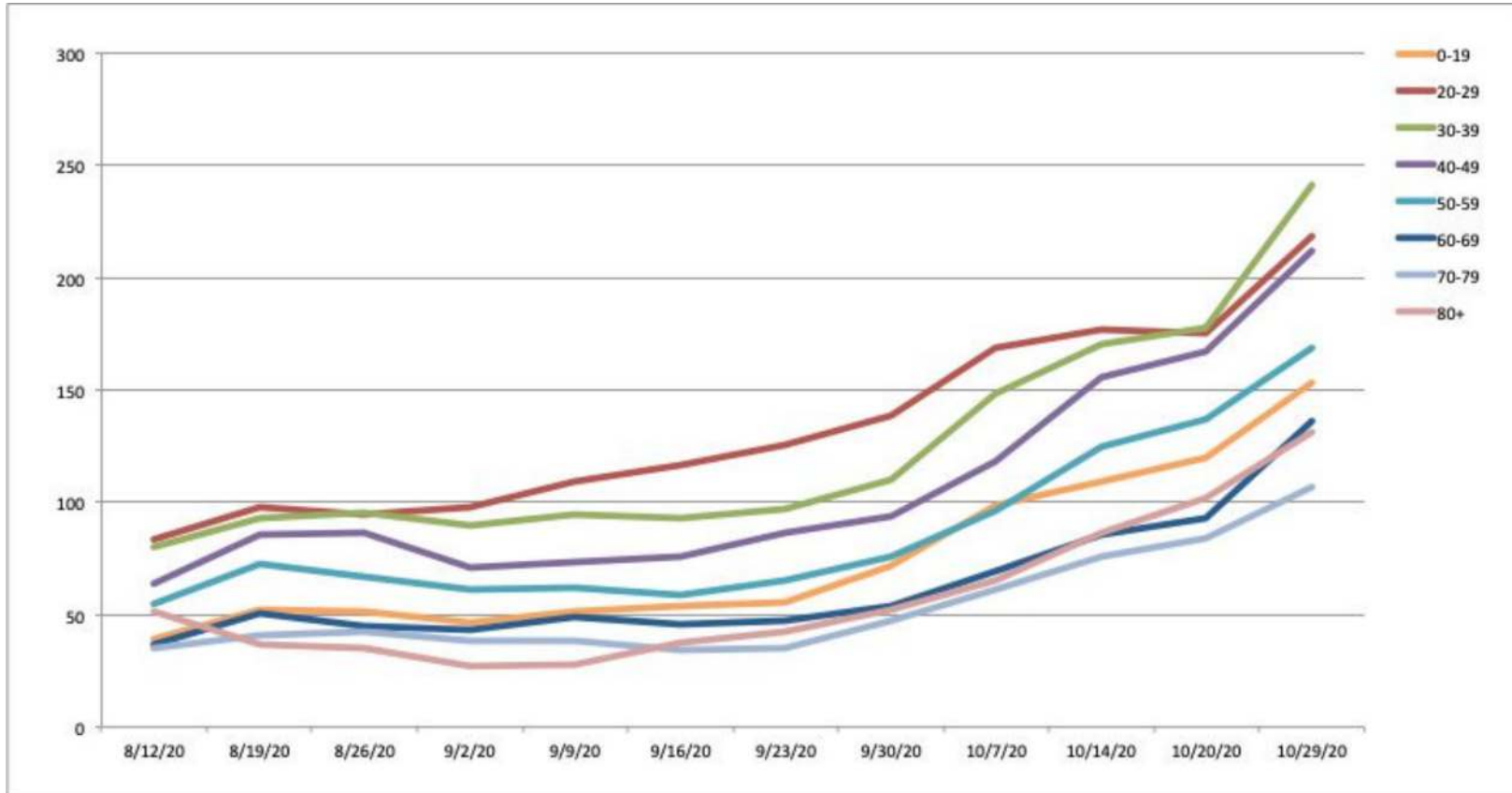
Covid-19 Health Metrics Summary

- Data as of October 29, 2020 report
- MA State is **red**
 - Rate (11.8) and test positivity (1.55%) are trending higher
- Middlesex County is **red**
 - Rate (9.6) is higher, test positivity (1.13%) is stable
- Average daily incidence rate for our local area: 4.2 to 10.1 per 100,000
 - Littleton is **red**
 - 12 cases in the last 14 days
 - Average daily incidence rate per 100,000 = 8.8
 - Percent test positivity = 2.34%
 - Rates and test positivity continue to trend higher
 - Border and Surrounding Communities are **yellow**
 - Rates (4.2 - 6.0) and testing (1.00 - 1.39%) are trending higher
 - 495 Belt is **red**
 - Rate (10.1) and testing (2.07%) are trending higher

Contact Tracing and Clusters

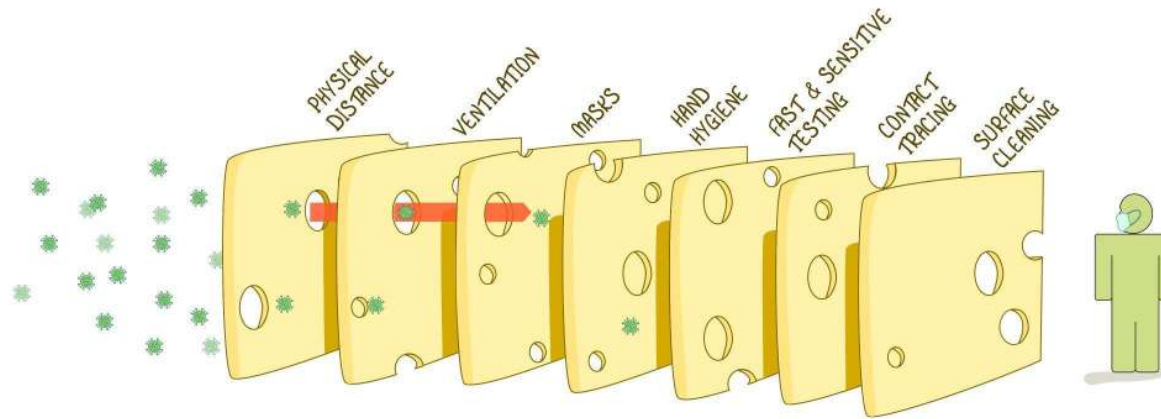
- DPH started to publish details of contact tracing in the weekly report
- **80%** of the clusters connected to **household transmission**
- Other exposure settings include: social gatherings, restaurants/food establishments, retail & services, long term care facilities/senior living
- Gov. Baker indicated (10/27/20) that cases identified in schools were mainly arising from exposures *outside* of the school
- Littleton is trending higher than our surrounding communities
- **What can we as individuals do to slow Littleton's rising rates and help protect our schools to keep them open?**

Rates per 100,000 by Age Group



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
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BASED ON THE SWISS CHEESE MODEL OF ACCIDENT CAUSATION, BY JAMES T REASON, 1990
VERSION 1.3
UPDATE: 12OCT2020

Important to take precautions, even at home

- Wear a mask when with friends/family outside your household
- Meet outside
- Avoid large groups
- Quarantine if you/household member have a known exposure