

Covid-19 Health Metrics

School Committee Meeting - September 9, 2021

Prepared by Katrina Wilcox Hagberg, MPH

Background

- Masters of Public Health in Epidemiology from Boston University (2007)
- Bachelor of Science in Biology from Bates College (2000)
- Worked for 21 years in research
 - Disease epidemiology
 - Pharmacoepidemiology
 - Clinical trials
- Conflict of Interest Disclosure:
 - Littleton resident
 - Children attend Littleton Public Schools
 - No commercial, financial, or legal conflicts to declare

Data Sources

- MA Department of Public Health Covid Response Reporting Dashboard:
<https://www.mass.gov/info-details/covid-19-response-reporting>
- US Center for Disease Control and Prevention (CDC) Covid Data Tracker:
<https://covid.cdc.gov/covid-data-tracker/#dataatatracker-home>
- Littleton Public Schools Covid-19 Dashboard and Health Notification Letters

MA State Data



Massachusetts Department of Public Health | COVID-19 Dashboard

Trends: 7-day Averages Over Time

Released on: September 9, 2021
Data as of: September 8, 2021
Caution: recent data may be incomplete

Navigation

Today's Overview

Overview Trends

COVID-19 Cases

COVID-19 Testing

Hospitalizations

COVID-19 Deaths

Higher Ed & LTCF

Patient Breakdown

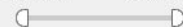
City & Town Data

Resources

Data Archive

Select dates:

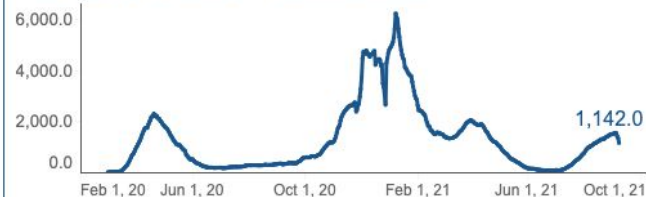
3/1/2020 9/8/2021



+ a b l e a u

Cases

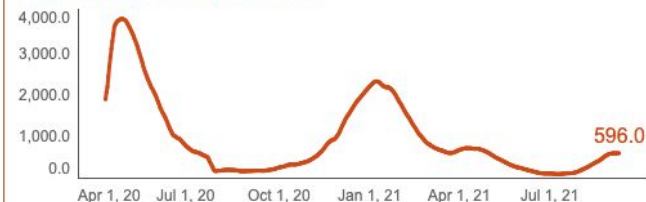
7-day average of COVID-19 confirmed cases



The lowest observed value was 64.0 on 6/25/2021.

Hospitalizations

7-day average of hospitalizations

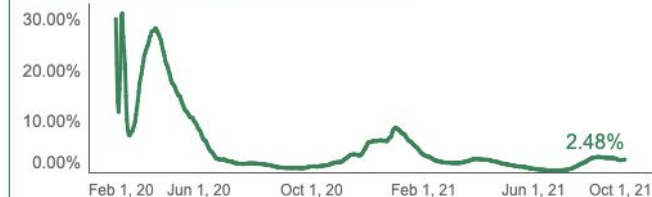


The lowest observed value was 84.8 on 7/9/2021.

The lowest observed value is since tracking of the lowest value began on April 15, 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.

Testing

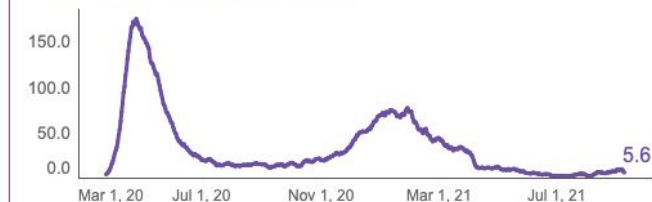
7-day weighted average percent positivity



The lowest observed value was 0.31% on 6/25/2021.

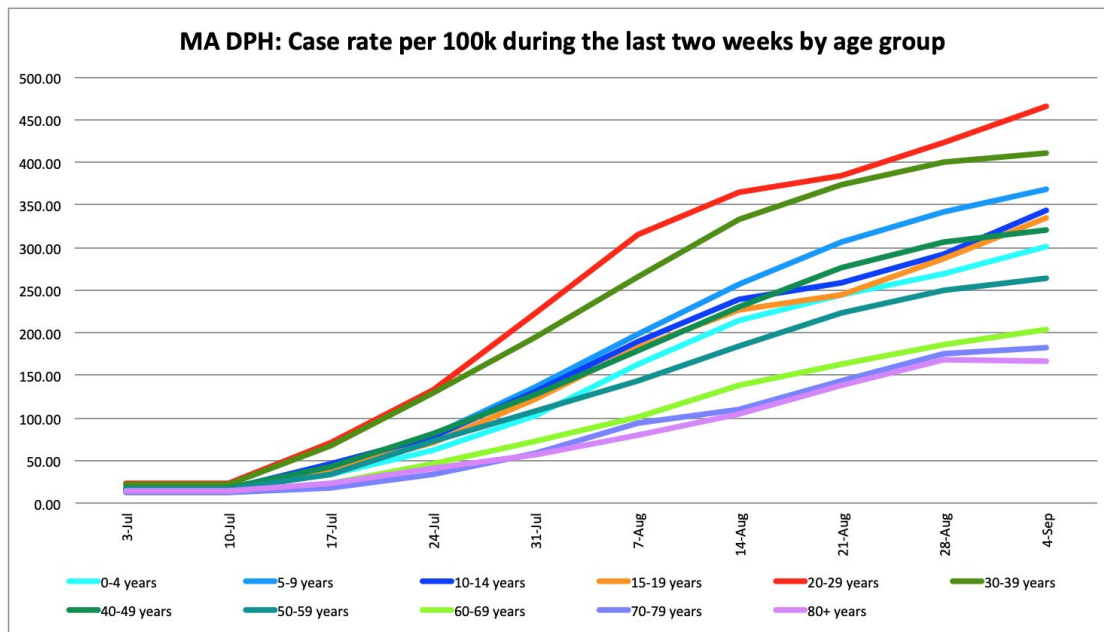
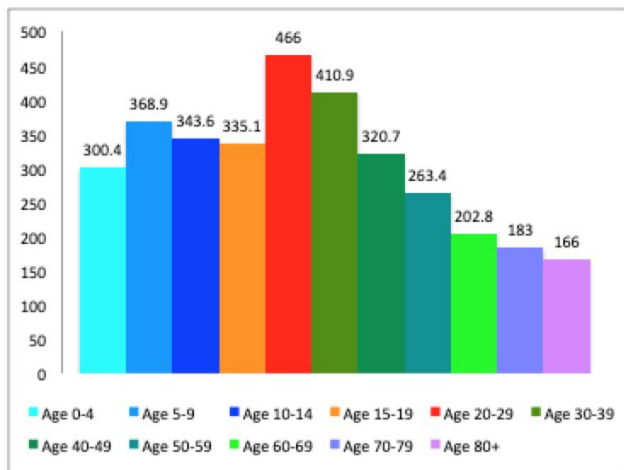
Deaths

7-day average of confirmed deaths



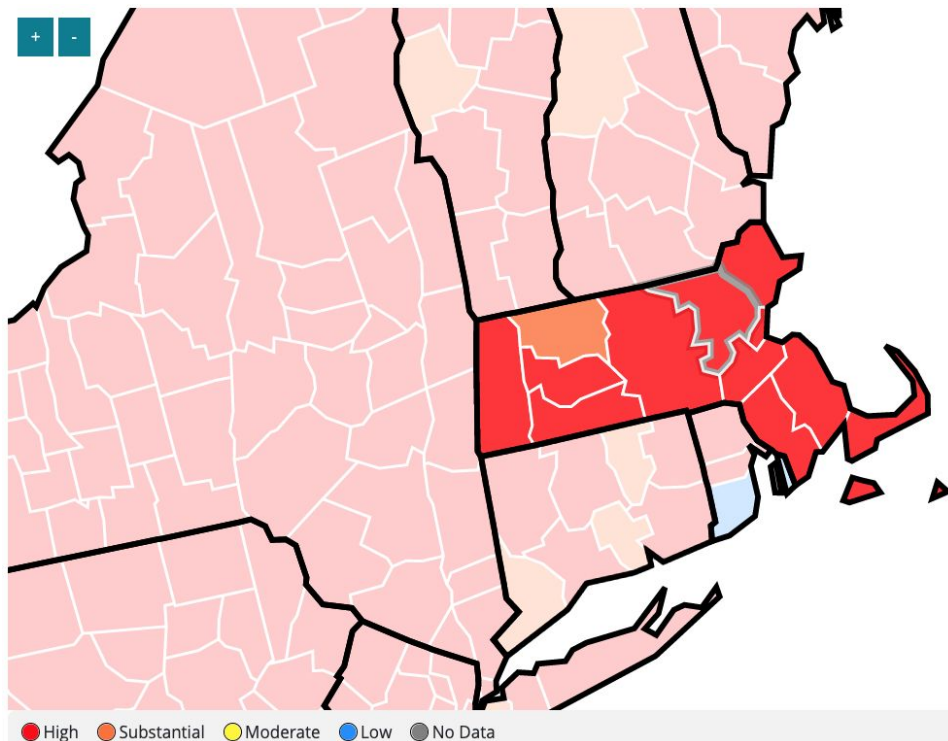
The lowest observed value was 1.1 on 7/12/2021.

Covid Case Rate per 100k by age group



Data Source: MA DPH Covid Dashboard www.mass.gov/info-details/covid-19-response-reporting (Patient Breakdown) - accessed 9/9/21

CDC Community Transmission Rates



Middlesex County

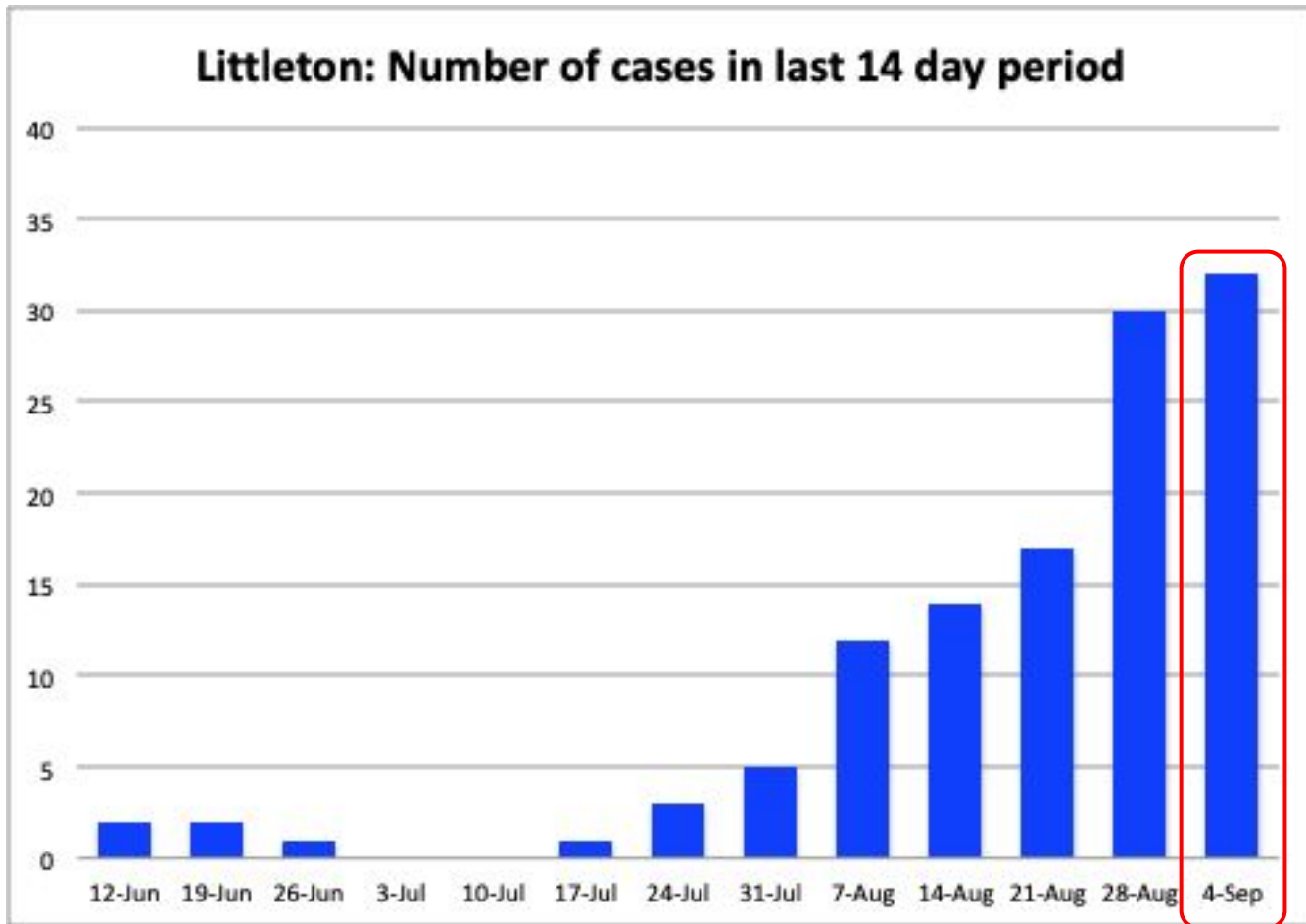
Case Rate last 7 days = 111.87 per 100k

Percent Positivity = 1.48%

Current 7-days is Thu Sep 02 2021 - Wed Sep 08 2021 for case rate and Tue Aug 31 2021 - Mon Sep 06 2021 for percent positivity. The percent change in counties at each level of transmission is the absolute change compared to the previous 7-day period.

Data Source: CDC Covid-19 Integrated County View - <https://covid.cdc.gov/covid-data-tracker/#county-view> - accessed 9/8/21

Littleton Data



Data Source: MA DPH Covid Dashboard - www.mass.gov/info-details/covid-19-response-reporting (City and Town Data) - accessed 9/9/21

Littleton and Local Trends - Methods

Town Groupings:

- **Littleton**
- **Border Towns** - Littleton plus Acton, Ayer, Boxborough, Groton, Harvard, Westford
- **Surrounding Communities** - Border Towns plus, Bolton, Carlisle, Chelmsford, Concord, Dunstable, Lancaster, Lunenburg, Maynard, Pepperell, Shirley, Stow
- **495 Belt** - Surrounding 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**
- **Massachusetts**

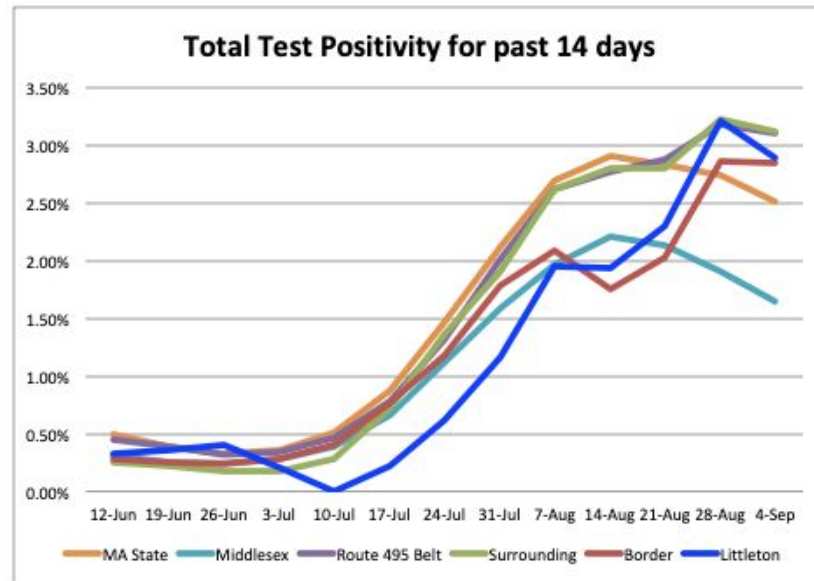
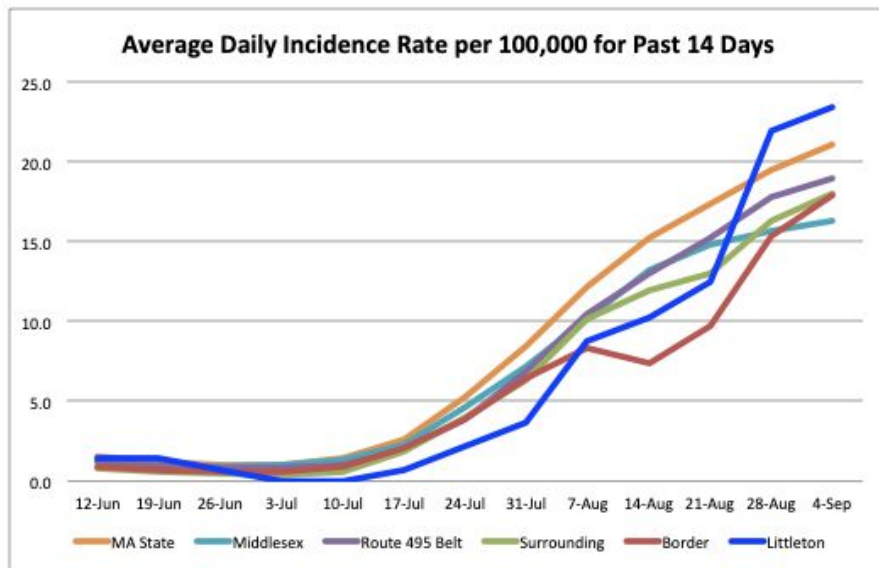
Data Source and Time Period:

- MA DPH Covid Dashboard - www.mass.gov/info-details/covid-19-response-reporting, City and Town Data
- Two week period (Sunday to Saturday) ending the Saturday before the DPH report is released on Thursdays

Calculations:

- **Average Daily Incidence Rate** = ((total cases in two week period / 14 days) / population)*100,000
- **Test Positivity** = total positive tests in last two week period / total tests conducted in last two week period

Littleton and surrounding area - trends

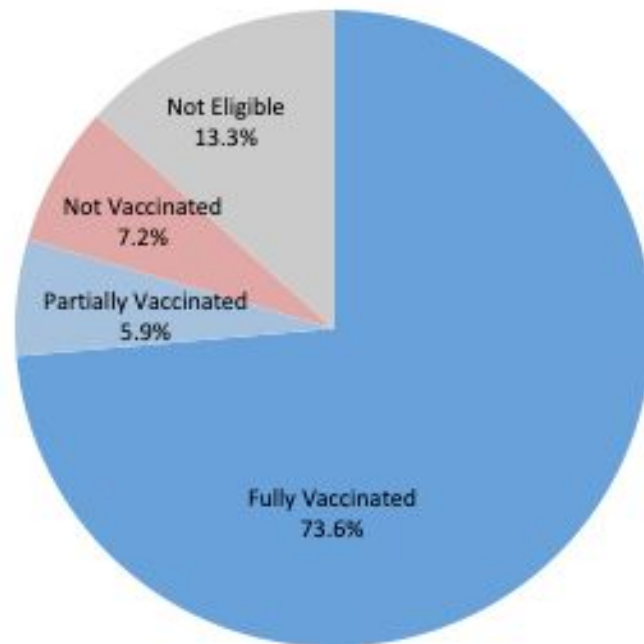


- Littleton's average daily incidence rate was 23.4 per 100k
- The rate of increase for all areas that we track slowed compared to late July - early August

- For August 22 - September 4, test positivity flattened or decreased for all areas that we track
- Littleton had 1143 tests conducted and 2.89% test positivity

Littleton's Vaccination Coverage

Age Group	Fully Vaccinated	Partially Vaccinated	Not Vaccinated
0-11	Not eligible	Not eligible	1301 (100%)
12-15	429 (83%)	74 (14%)	15 (3%)
16-19	437 (78%)	31 (6%)	91 (16%)
20-29	783 (86%)	91 (10%)	33 (4%)
30-49	1918 (87%)	155 (7%)	129 (6%)
50-64	2121 (85%)	109 (4%)	258 (10%)
65-74	930 (93%)	59 (6%)	7 (1%)
75+	564 (72%)	57 (7%)	164 (21%)
Total	7182 (73.6%) (+19)	576 (5.9%)	698 eligible (7.2%) (-30) 1301 (13%) not eligible due to age <12 years



Data Source:

MA DPH Weekly Covid-19 municipality vaccination data - www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates - accessed 9/9/21

Note: 0-11 data imputed by subtracting total population in 12+ age groups from total population

Littleton Public Schools

COVID-19 DASHBOARD




Health Notification Letters (week of 9/6/21)


- 1 case (LMS)

Updated on: 9/03/21	Data for 9/01/2021-9/03/2021		
SCHOOL	POSITIVE CASES	CLOSE CONTACTS* (requiring quarantine or test and stay)	TREND
Shaker Lane School	0	2	N/A
Russell Street School	0	2	N/A
Littleton Middle School	0	0	N/A
Littleton High School	0	1	N/A
TOTAL/OVERALL	0	5	

7 day Trend Key:

Increasing 

Decreasing 

No Change 

* Close contacts who were exposed to a COVID-19 positive individual while both individuals were masked on the bus with windows open or in the classroom spaced at least 3 feet apart, or are fully vaccinated without symptoms are exempt from testing and quarantine response protocols. This does not apply if someone was identified as a close contact outside of the school setting or if masks are not worn by both persons at the time of the exposure and the close contact was unvaccinated or if the close contact has symptoms. All other close contacts must follow the standard protocol for when a close contact may return to school.

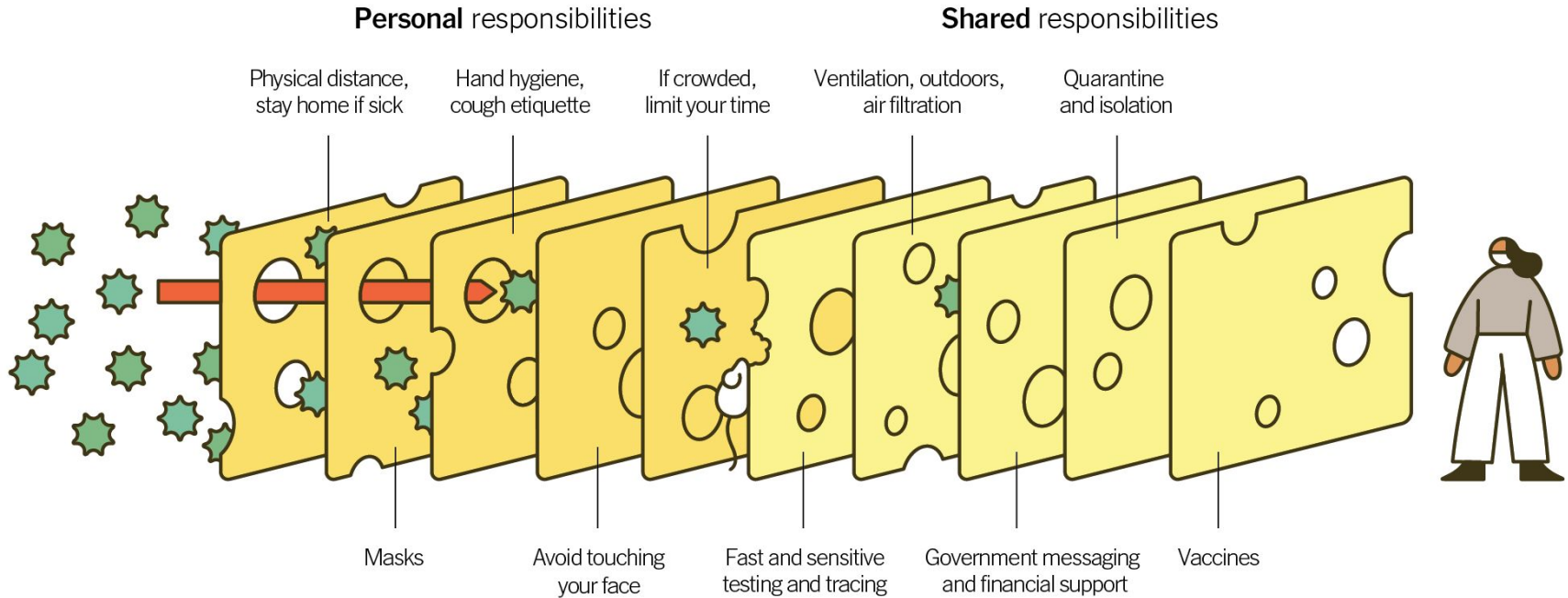
Data Sources:

Littleton Public Schools Covid-19 Dashboard
(https://docs.google.com/document/d/e/2PACX-1vRnQPa8FEUED-R4WFIJPmX83hYM_cUeY-BL_RJ8bb4yPkd0myerYUyKhbsw13FZU5zhW-m89BxkTO_n/pub?urp=gmail_link)

LPS Health Notification Letters sent to parents

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

Image from: www.nytimes.com/2020/12/05/health/coronavirus-swiss-cheese-infection-mackay.html