

MI COVID RESPONSE DATA AND MODELING UPDATE

NOTE: All data as of April 3 unless otherwise noted

April 6, 2021

Executive summary

Percent Positivity is up 348% and **Case Rates** are up 375% since previous low on Feb 19. Positivity (15.6%, ↑4.3%) and case rates (491.0, ↑190.0) have increased for six weeks

Michigan has the **1st highest number of cases (↑2)**, and **1st highest case rate (↑2)** in the last 7 days

Percent of inpatient beds occupied by individuals with COVID has increased 203% since the Feb 28 low to 11.9% (↑3.8%). Trends for COVID hospitalizations are increasing for four weeks

Michigan has the **1st highest inpatient bed utilization (↑3)**, and the **1st highest adult ICU bed utilization (↑3)**

Deaths have increased 75% since Mar 9 low. There were 166 (↑53) between Mar 14 and Mar 20, and the **Death Rate** is 2.4 deaths per million residents (↑0.8)

Michigan has the **12th highest number of deaths (↑3)**, and **T28th highest death rate (↓2)** in the last 7 days

The 7-day average **state testing rate** has increased to 3,497.1 tests/million/day (↑244.4). **Daily diagnostic tests (PCR)** is 34.8K per day (↑2.6), and the **weekly average for PCR and antigen tests** conducted in Michigan is 51.7K (↑2.4K).

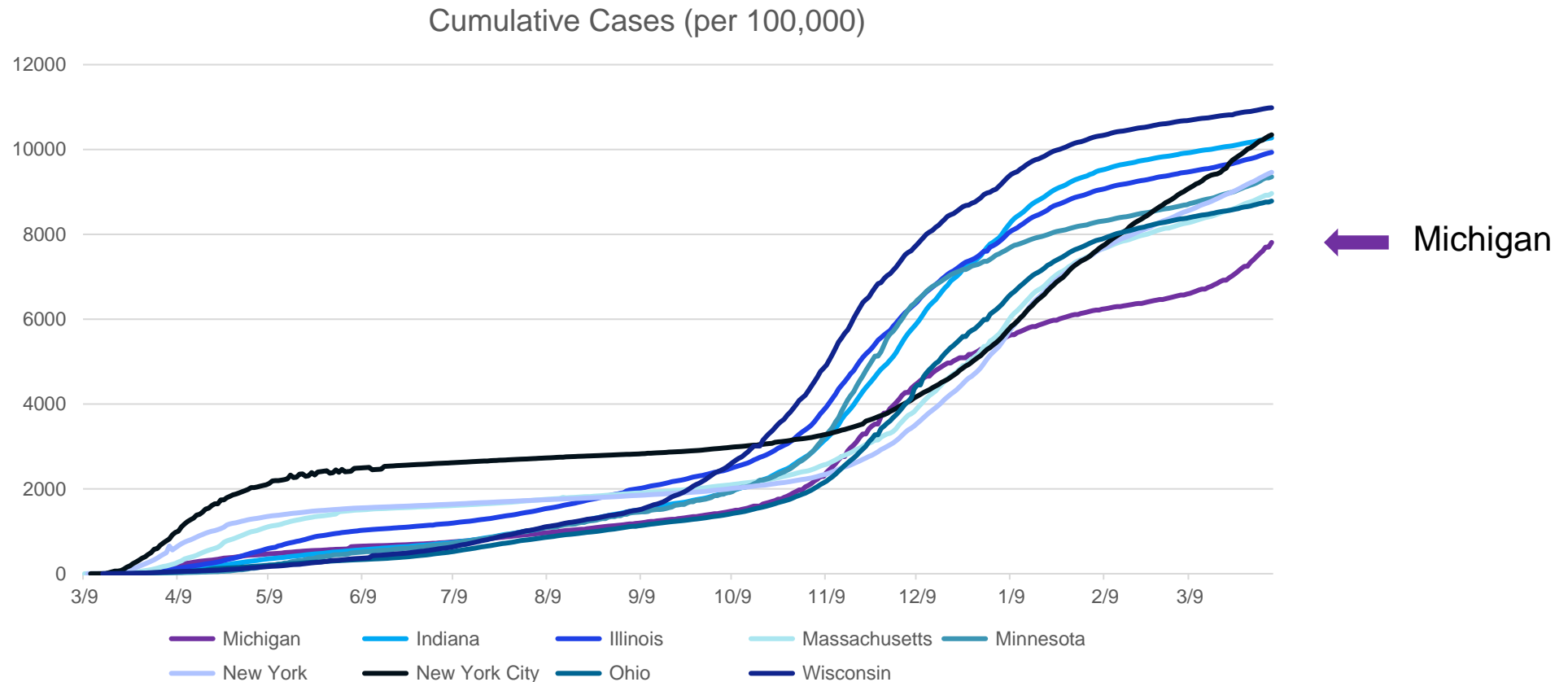
4.7 million **COVID-19 vaccine** doses reported to MDHHS, 36.7% of Michigan population 16+ has at least one dose

Comparison across states: Summary

What we see (data as of 4/3/21 due to Easter Sunday reporting lags):

- 26 states are seeing increasing 1 week case trends ($\geq 10\%$) (stable vs. last week)
- 21 states are seeing weekly increases ($\geq 10\%$) in new COVID hospital admissions (up vs. 17)
- Michigan, New Jersey, New York, DC and Maryland have highest per capita hospitalized patient numbers.
- Midwest (case data from CDC):
 - Wisconsin with small increase in hospitalizations (51/M) and small increase in cases (87/100k last 7d)
 - Indiana with small increase in hospitalizations (102/M), and increase in cases (102/100k last 7d)
 - Illinois showing increase in hospitalizations (123/M), and increase in cases (148/100k last 7d)
 - Ohio with increase in hospitalizations (117/M) and small increase in cases (106/100k last 7d)
 - Michigan showing increase in hospitalizations (294/M) and increase in cases (452/100k last 7d)

Cumulative COVID-19 cases: Midwest Comparison + NY, NYC, MA



- Cumulative incidence per 100,000 cases in Michigan has been lower than other states in the Midwest following spring 2020 surge
- Michigan's mitigation policies helped control the spread of SARS-CoV-2 relative to other states in the Midwest, particular during surge in November and December
- The current trajectory in Michigan is bringing us closer to case rates of our Midwest neighbors

How is COVID-19 Spreading in Michigan?

Statewide positivity has increased to 15.6%, and is increasing in all MERC regions

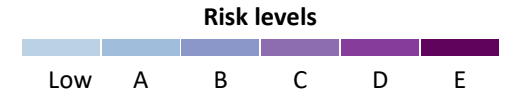
- Five MERC regions are now above 15% (Risk Level D)
- Increasing trends at the state and regional levels are also seen at the county level

Case rates (391.0 cases/million) have also increased in the state

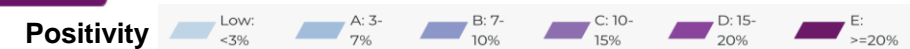
- 375% increase from mid-February low
- All eight MERC regions showing an increase in case rates
- Increases are seen among most age groups, races, and ethnicities
- COVID 19 Variants of concern are in Michigan: increased vigilance in use of masks and social distancing and increase testing
 - 12,505 cases with the B.1.1.7 variant have been identified in the US (↑1,926), 1,817 confirmed in Michigan (↑477)
 - 323 cases with the B.1.351 variant have been identified in the US, 7 confirmed in Michigan
 - 224 cases with the P.1 variant have been identified in the US, 2 confirmed in Michigan
- Number of active outbreaks is up 14% from previous week
 - Reported school outbreaks have increased since last week (248 to 301)
 - Since January 2021, the K-12 sports transmission has been highest in basketball, hockey, and wrestling

Confirmed and probable case indicators

Table Date: 4/3/2021 (7 days from date table was produced: 3/27/2021)

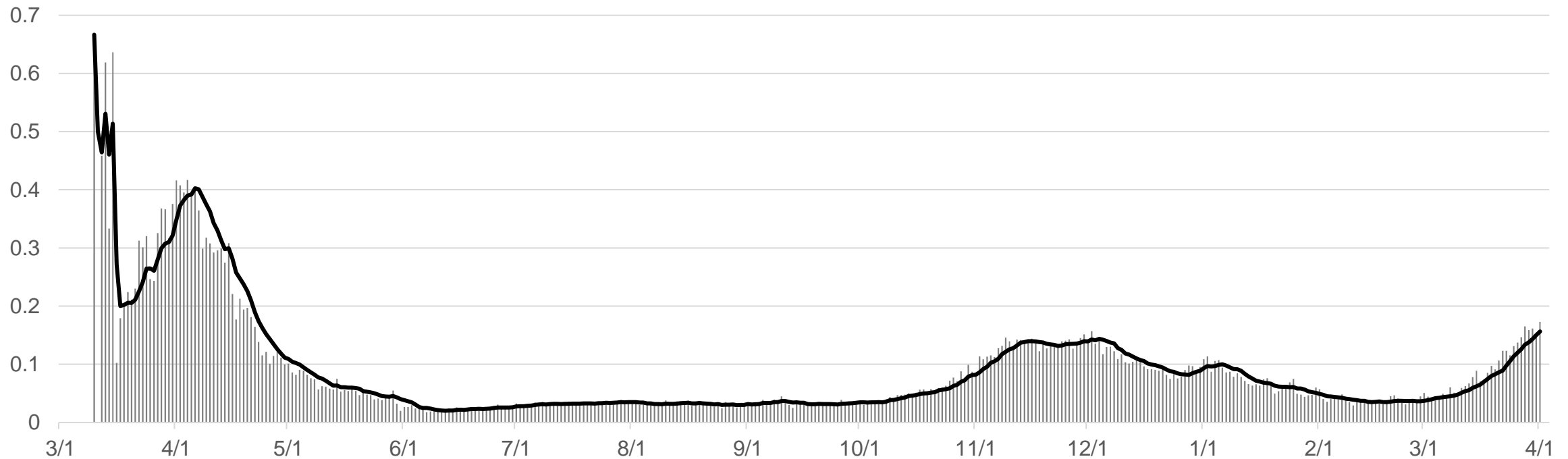


	Overall Risk Level	Absolute Cases (per million)	CDC Case Trend	Average Percent Positivity	Positivity Trend	Tests (per million)	% IP Beds Occupied by COVID-19 Cases	% Occupied IP Beds Trend	Absolute Deaths (per million)	Death Trend
Detroit	E	578.7	elevated incidence growth	16.4	Increase - 6wk	3832.2	13.6	Increase - 5wk	2.8	Increase - 2wk
Grand Rapids	E	362.3	elevated incidence growth	14.0	Increase - 5wk	3375.8	7.5	Increase - 2wk	1.0	<20 wkly deaths
Kalamazoo	E	361.0	elevated incidence growth	13.9	Increase - 4wk	2892.0	10.4	Increase - 4wk	1.3	<20 wkly deaths
Saginaw	E	440.4	elevated incidence growth	18.2	Increase - 5wk	2588.2	8.5	Increase - 2wk	3.7	<20 wkly deaths
Lansing	E	517.9	elevated incidence growth	15.9	Increase - 4wk	3169.9	15.6	Increase - 2wk	2.7	<20 wkly deaths
Traverse City	E	395.3	elevated incidence growth	17.0	Increase - 6wk	1880.7	9.3	Increase - 5wk	3.6	<20 wkly deaths
Jackson	E	495.2	elevated incidence growth	15.8	Increase - 3wk	3398.8	14.1	Increase - 3wk	1.9	<20 wkly deaths
Upper Peninsula	E	213.0	elevated incidence growth	5.7	Increase - 4wk	2461.2	1.8	Increase - 2wk	0.9	<20 wkly deaths
Michigan	E	491.0	elevated incidence growth	15.6	Increase - 6wk	3497.1	11.9	Increase - 4wk	2.4	Increase - 2wk



Statewide Positivity Trends

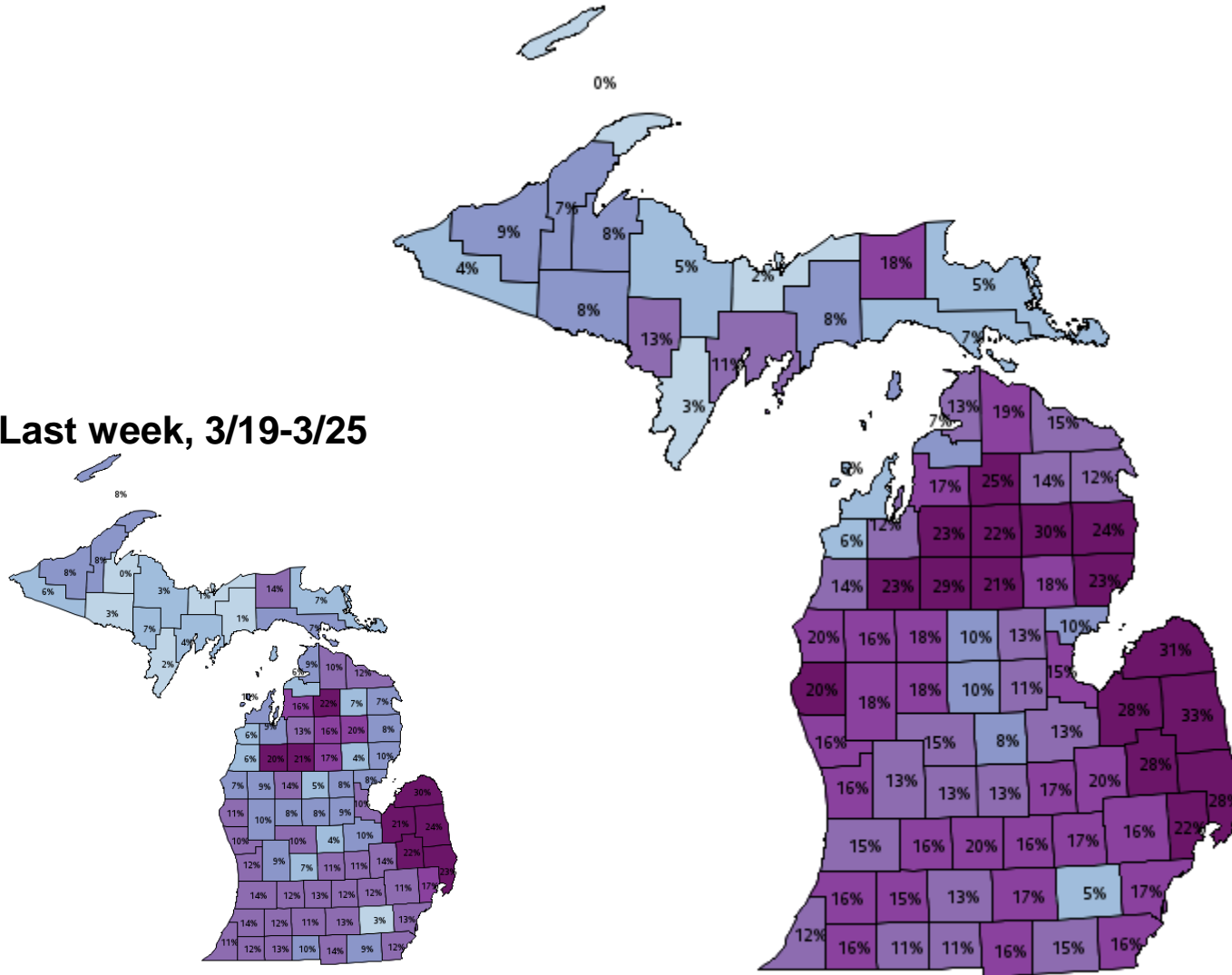
Daily positivity and 7-day rolling average positivity for Michigan (PCR tests in community)



- Early in the pandemic, testing was not as robust as it has been since July 2020 to present
- Current statewide positivity is the highest it has been since April 24, 2020
- Positivity is an early indicator of SARS-CoV-2 Transmission (as positivity increases, we expect case rates to follow)

Positivity by county, 3/26-4/1

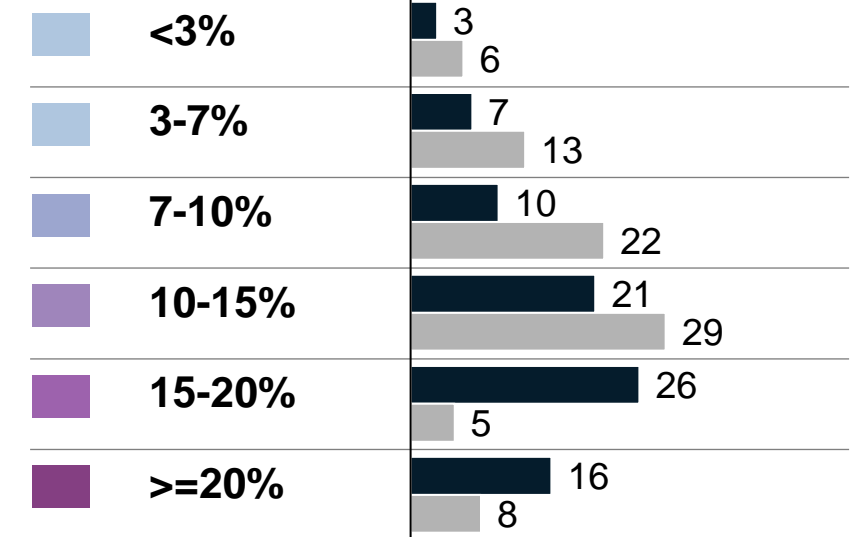
Last week, 3/19-3/25



Average
positivity per day

of counties

■ This week
■ Last week



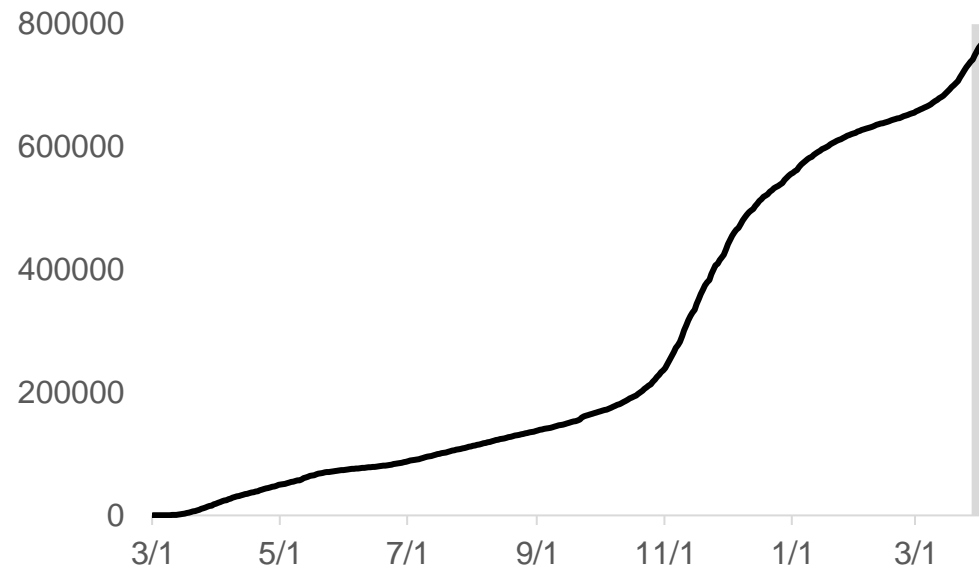
Updates since last week:

63 of 83 counties saw double digit positivity in the last week (21 county increase)

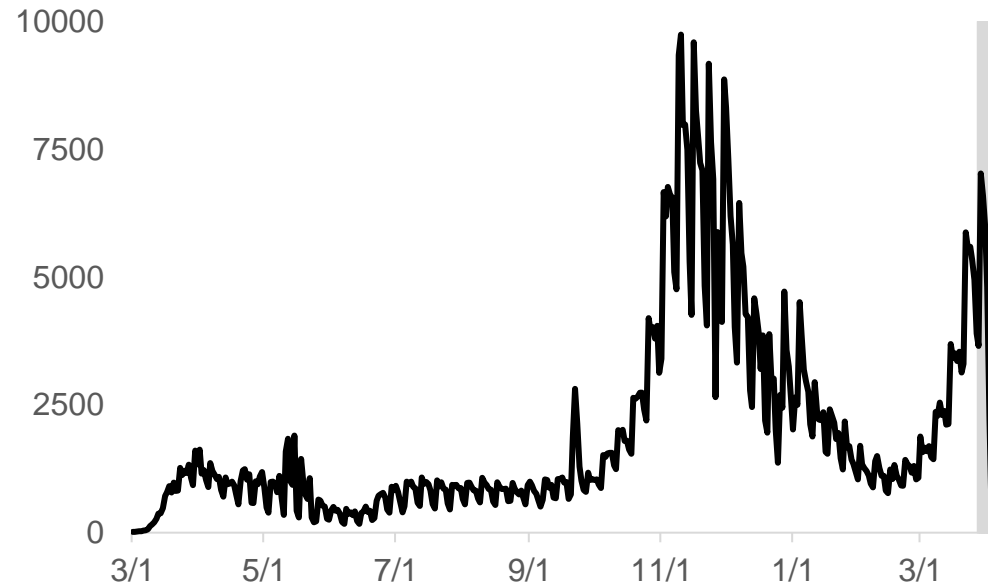
73 of 83 counties saw positivity > 7% in the last week (9 county increase)

COVID-19 cases by onset date: State of Michigan

Cumulative confirmed and probable cases, by date of onset of symptoms



New confirmed and probable cases, by date of onset of symptoms

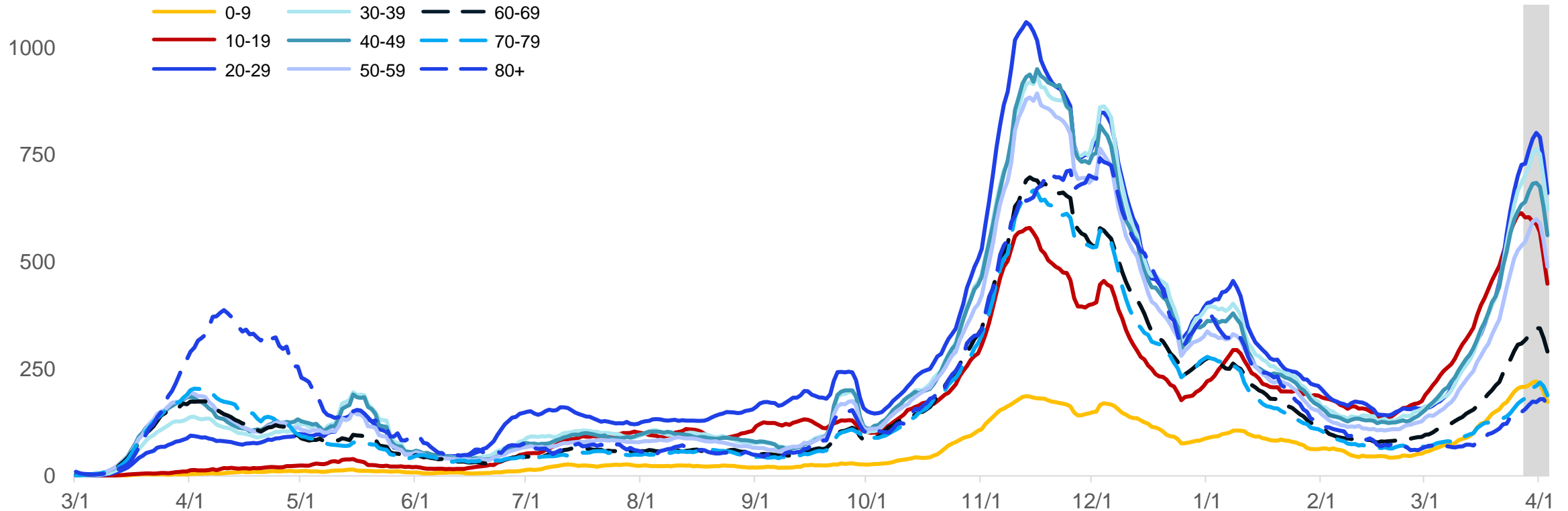


Updates since last week:

- Cases have increased for over six weeks
- There are over 5,000 new cases per day

Age group: average new daily cases

Daily new confirmed and probable cases per million by age group (7-day rolling average)



- Those aged 20-29 and 30-39 have the highest case rates
- Case rates for children 0-9 and 10-19 are at an all time high and are more than quadruple from a month ago

Age group: average new daily cases and daily case rate

Daily new confirmed and probable cases, rates per million, and change by age group (7-day rolling average)

Age Group	Average daily cases	Average Daily Case Rate	One Week % Change (Δ #)	% Change since 2/19/21* (Δ #)
0-9	239.3	207.6	38% (66)	387% (190)
10-19	770.1	613.7	30% (175)	352% (600)
20-29	1,002.1	726.4	73% (423)	415% (808)
30-39	829.6	638.8	63% (322)	433% (674)
40-49	747.0	633.4	51% (252)	414% (602)
50-59	726.1	537.8	54% (256)	399% (581)
60-69	394.3	309.1	46% (125)	281% (291)
70-79	134.6	175.5	35% (35)	173% (85)
80+	61.7	149.0	42% (18)	111% (32)
Total [¶]	5,144.0	491.0	52% (1,671)	370% (3,862)

* Lowest 7-day avg. following winter surge

¶ Total may not reflect state due to missing age data

Daily number of cases (1,002) and daily case rate (726.4 cases/mil) are currently highest for those 20-29 years.

All age groups under 70 are experiencing an average of more than 200 cases per day.

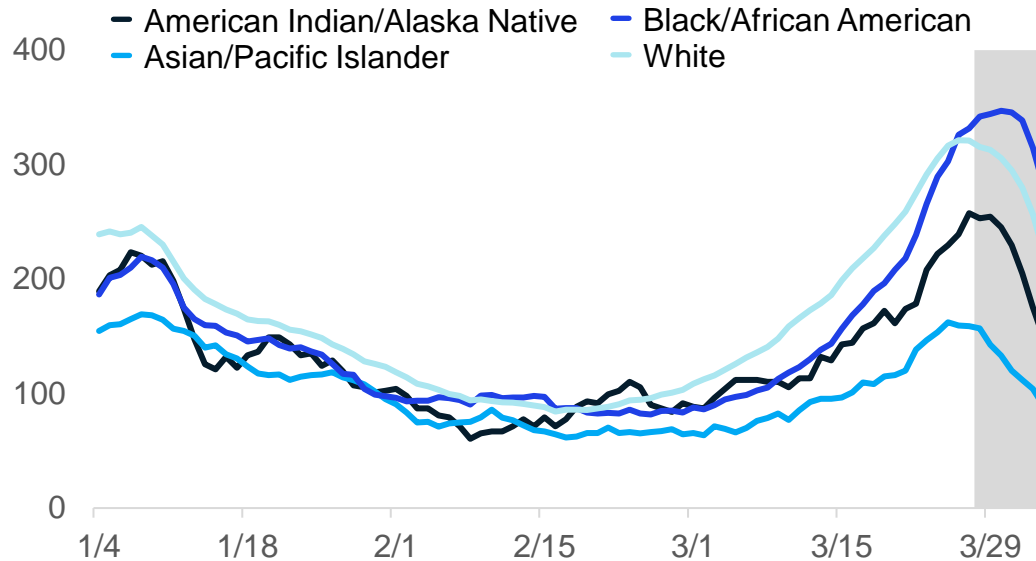
Since February 19, case rate increase and number of cases have been highest among those under 70 years of age.

There were an additional 1,671 cases each day this week compared to last.

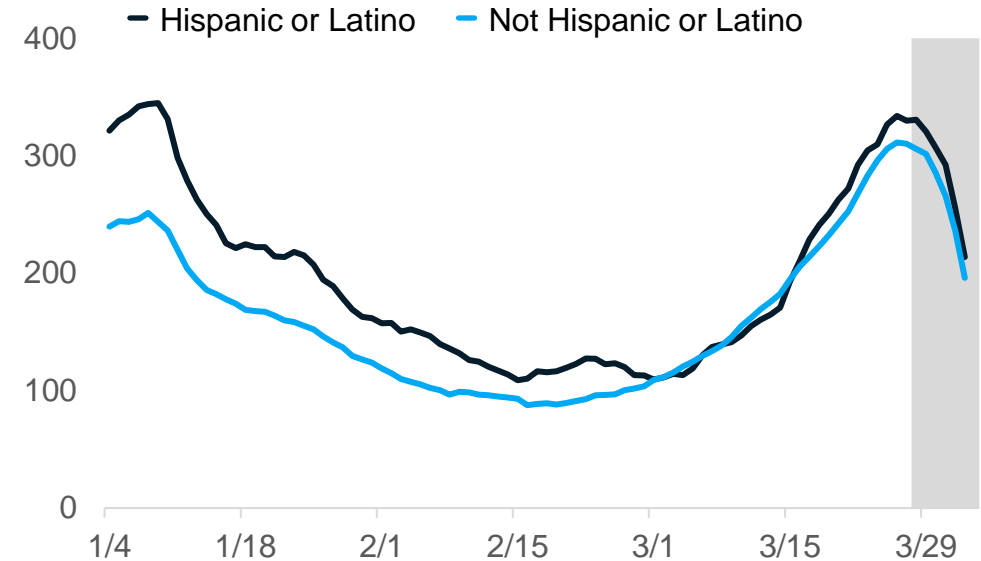
There were an additional 3,863 cases each day this week compared to week of 2/19.

Average daily new cases per million people by race and ethnicity

Daily new confirmed and probable cases per million (7 day rolling average) by race category



Daily new confirmed and probable cases per million (7 day rolling average) by ethnicity category

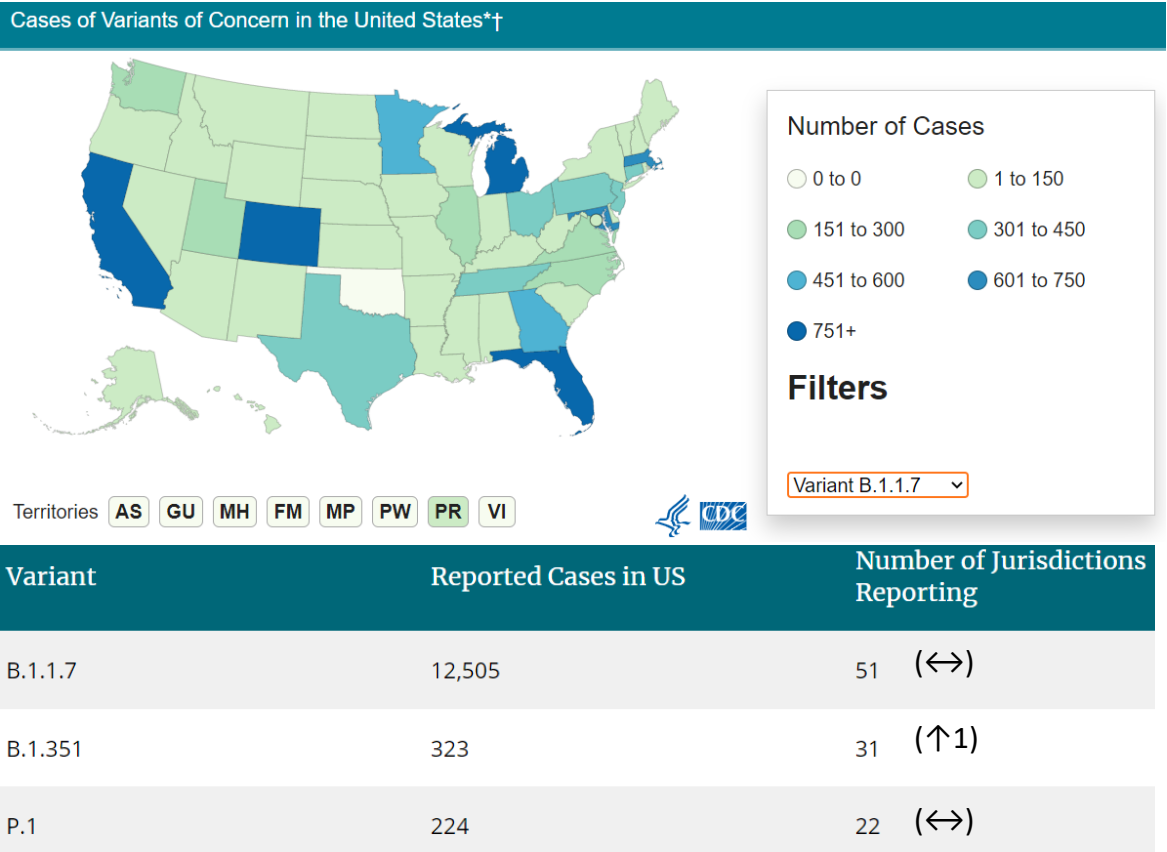


Updates since last week:

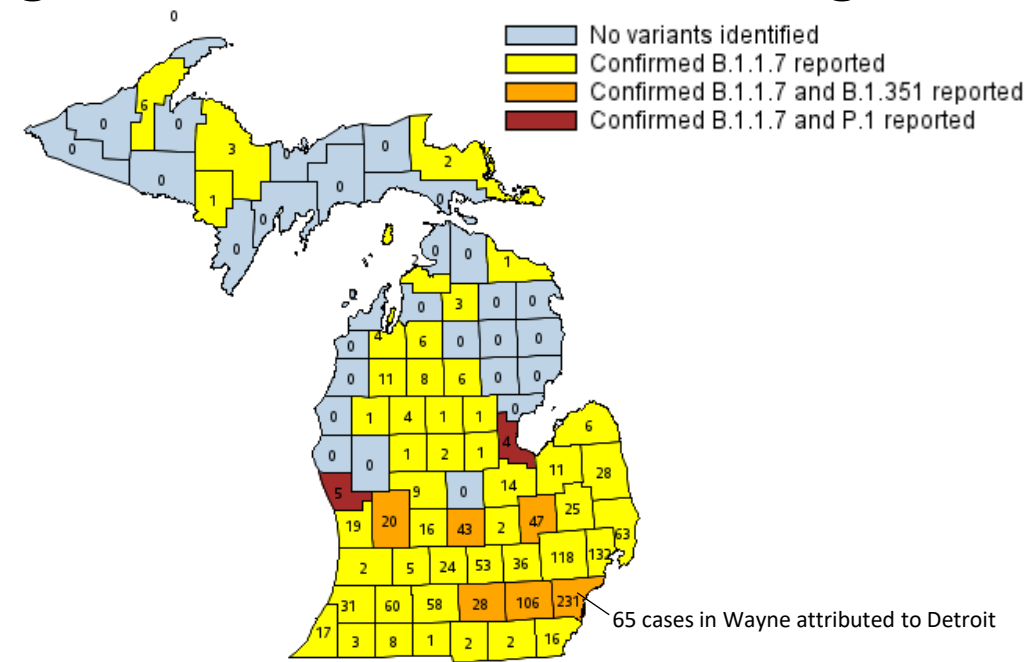
- Cases per million are now increasing for all races and ethnicities
- Most recent data show that Blacks and Hispanic/Latinos have the highest case rates
 - In the past 30 days, 35% of all cases represent unknown, multiple, or other races (30% of race is unknown, ↑4%)
 - In the past 30 days, 33% of all cases have an unknown ethnicity reported (↑3%)

Identified COVID-19 Cases Caused by Variants of Concern in US and Michigan

Emergent Variant Cases of Concern in the United States



Emergent Variants of Cases in Michigan



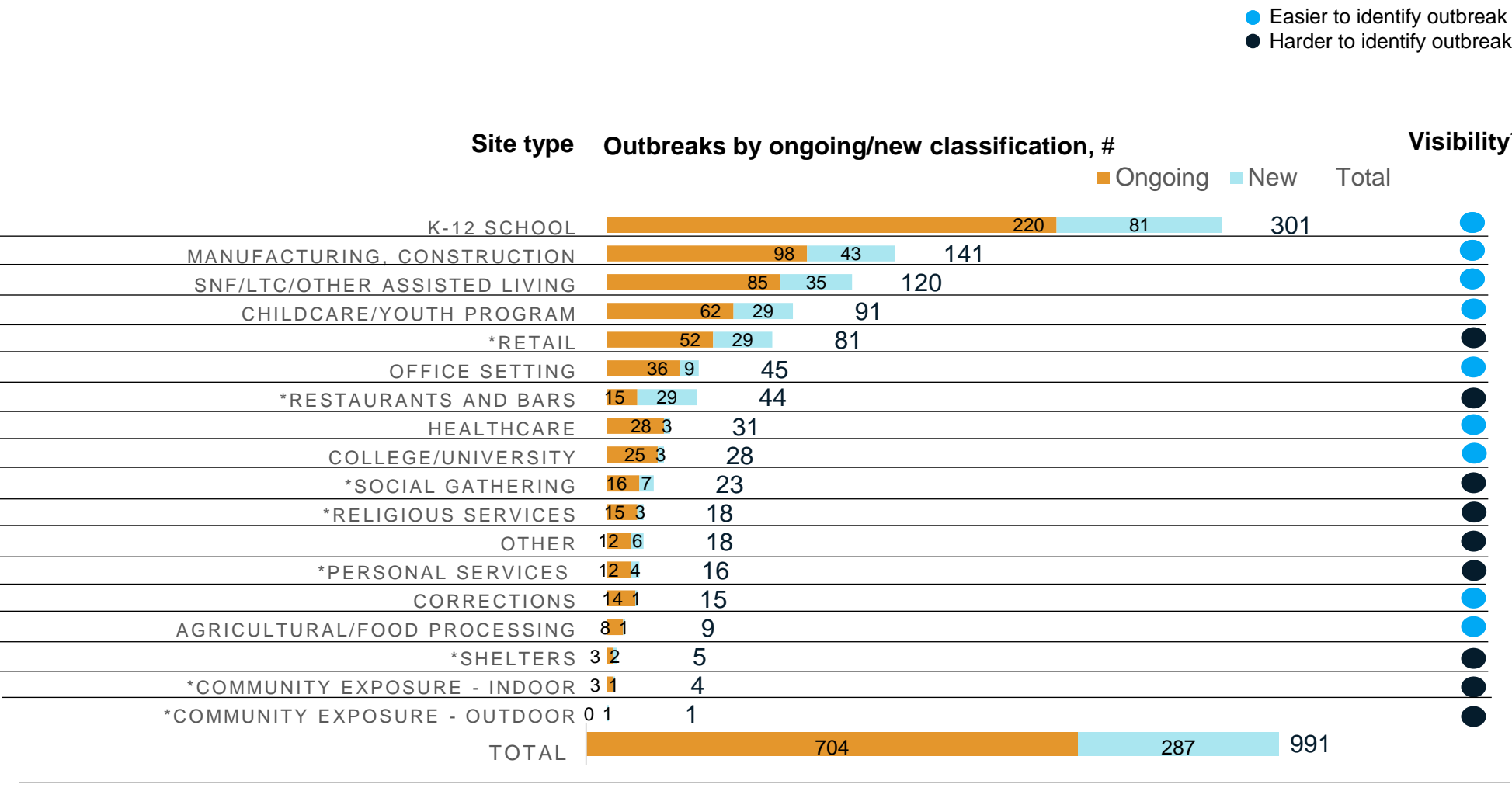
Variant	Reported Cases in MI	Number of Counties Reporting Cases
B.1.1.7	1817*	46
B.1.351	7	6
P.1	2	2

* 505 cases within MDOC; 3 cases currently out of state or county unknown

Data last updated April 6, 2021

Source: <https://www.cdc.gov/coronavirus/2019-ncov/transmission/variant-cases.html> and Michigan Disease Surveillance System (MDSS)

Number of outbreak investigations by site type, week ending Apr 1



Number of active outbreaks up 14% from previous week

Following K-12 (81), greatest number of new outbreaks were reported in manufacturing/construction (43), SNF/LTC (35), childcare/youth programs (29), retail (29), and restaurants & bars (29).

LHDs reported new outbreaks in all settings.

1. Based on a setting's level of control and the extent of time patrons/residents spend in the particular setting, different settings have differing levels of ability to ascertain whether a case derived from that setting

NOTE: Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.

Source: LHD Weekly Sitreps

K-12 school outbreaks, recent and ongoing, week ending Apr 1

Number of reported outbreaks increased since last week (248 to 301) including increases in High Schools (144 to 172), Middle/Jr High (50 to 64), and Pre-K – Elementary (48 to 61). Only Administrative decreased (6 to 4).

Region	Number of reported cases, #	# Ongoing - Excluding New	# New	Number of outbreaks	Range of cases per outbreak
Region 1	309	97		54	2-58
Region 2n	251	107		90	2-28
Region 2s	158	7		29	2-20
Region 3	474	80		44	2-53
Region 5	143	29		24	2-41
Region 6	184	68		25	2-43
Region 7	202	59		33	2-25
Region 8	17	2		2	2-17
Total	1,738	449		301	2-58

Grade level	Number of reported cases, #	# Ongoing - Excluding New	# New	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	210	61		61	2-33
Jr. high/middle school	320	67		64	2-58
High school	1,204	317		172	2-53
Administrative	4	4		4	2-2
Total	1,738	449		301	2-58

Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.

Source: LHD Weekly Sitreps

COVID-19 K-12 Sports Related Clusters and Cases

Cumulative Since Jan 2021



376 cases
100 clusters



256 cases
52 clusters



190 cases
55 clusters



56 cases
21 clusters



31 cases
8 clusters



26 cases
3 clusters



14 cases
3 clusters

12 cases
6 clusters



11 cases
8 clusters



9 cases
4 clusters



26 cases
16 clusters



- Cases identified by local public health which include school-affiliated and club/travel/regional sports (spectators, collegiate, and professional sports as well as secondary cases to collegiate/professional sports are excluded)
- Since January 2021, basketball, hockey, and wrestling have had the highest number of cases and clusters
- Cases and clusters have occurred in over 15 sport settings

How is Healthcare Capacity Impacted? What is COVID Severity?

Hospitalizations and ICU utilization are increasing

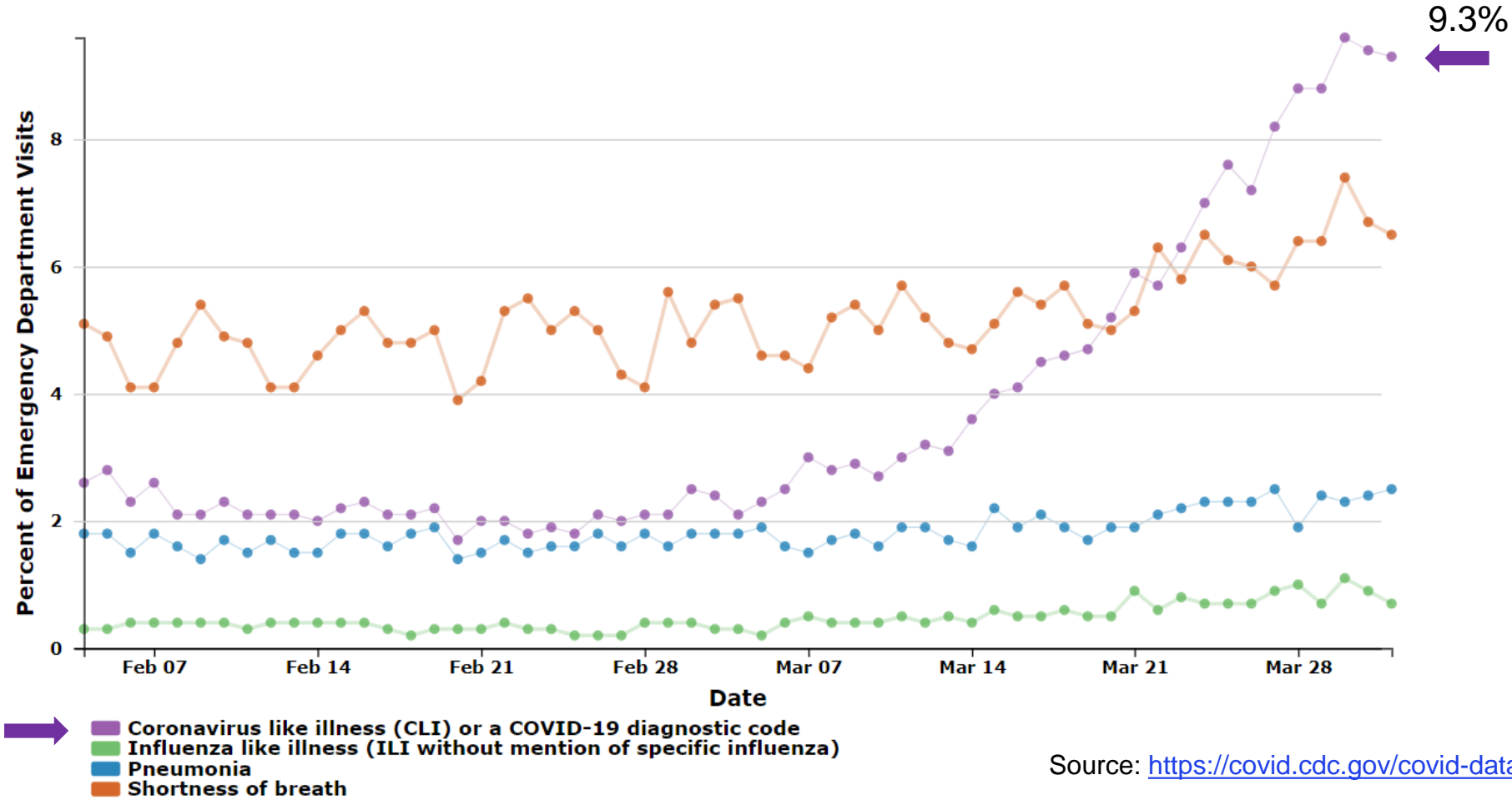
- COVID-like illness (CLI) in the emergency department has increased to 9.3% of visits
- Hospital admissions, increasing for all age groups, are highest for those 50-59 years
- Hospitalizations up ~45% since last week (six consecutive week)
- All regions are showing increasing hospitalization trends this week
- Volume of COVID-19 patients in intensive care (ICU) has increased 41% since last week (accelerated growth)

Deaths trends have shifted and are now increasing to 2.4 deaths per million

- Deaths are a lagging indicator of cases and hospitalization
- 75% increase since the March 9 low
- Proportion of deaths among those 60+ is slowly declining

Michigan Trends in Emergency Department Visits for COVID-19-Like Illness

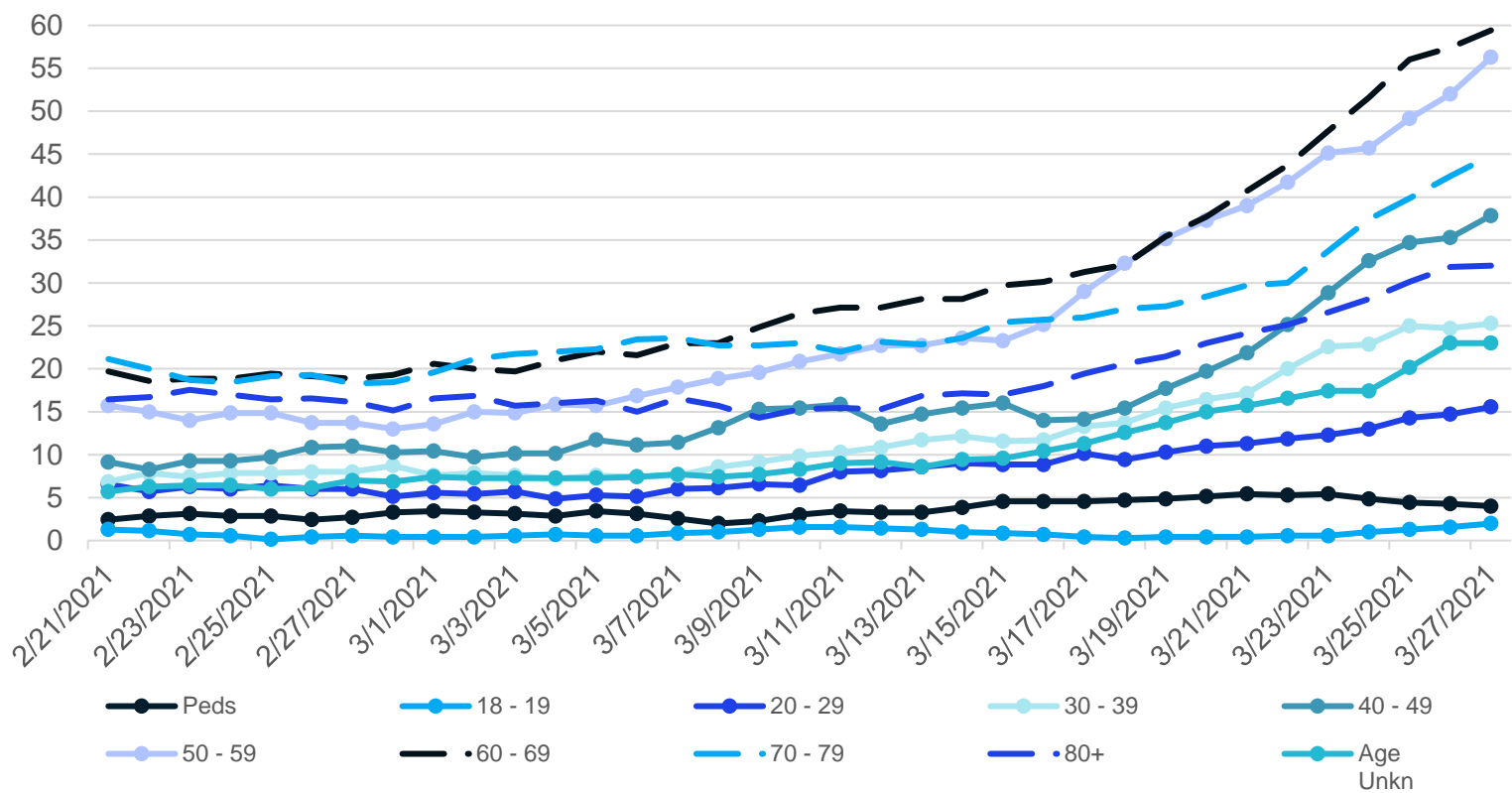
Percentage of ED visits by syndrome in Michigan: COVID-19-Like Illness, Shortness of Breath, Pneumonia, and Influenza-Like Illness



Source: <https://covid.cdc.gov/covid-data-tracker/#ed-visits>

Average Hospital Admissions by Age

Confirmed COVID-19 Hospital Admissions by Age Group - Statewide Rolling Weekly Average



Age Group	Daily Avg Adm.	One Week % Change (#)	% Change since 2/28* (#)
Peds	8.7	165% (5.4)	165% (5.4)
18-19	2.1	0% (0.0)	400% (1.7)
20-29	25.6	38% (7.0)	397% (20.4)
30-39	42.6	41% (12.4)	389% (33.9)
40-49	62.0	60% (23.1)	503% (51.7)
50-59	97.9	48% (31.7)	653% (84.9)
60-69	90.3	45% (28.0)	368% (71.0)
70-79	63.7	23% (11.7)	246% (45.3)
80+	48.0	38% (13.3)	217% (32.9)
Total [¶]	463.0	39% (131.0)	360% (362.4)

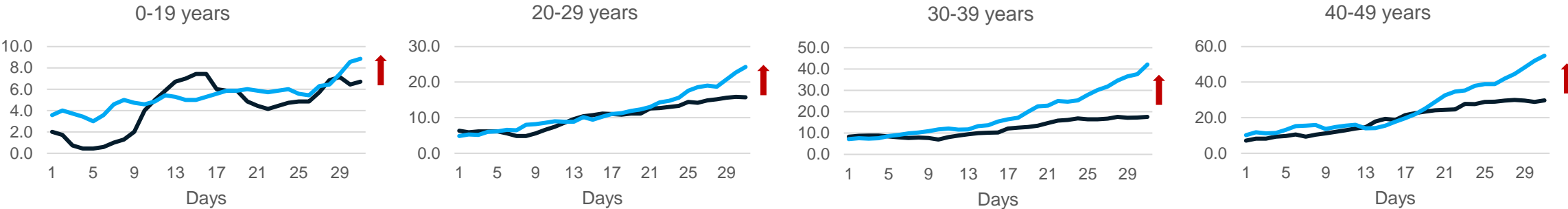
* Lowest 7-day avg. hospital admissions following winter surge
¶ Total may not reflect state due to missing age data

- Currently, there are ~463 daily hospital admissions for COVID-19
- Over the past week, those 40-49 years have greatest increase in avg. daily hospital admissions and percent change
- Since Feb 28 low, those 50-59 years have greatest increase in avg. daily hospital admissions and percent change

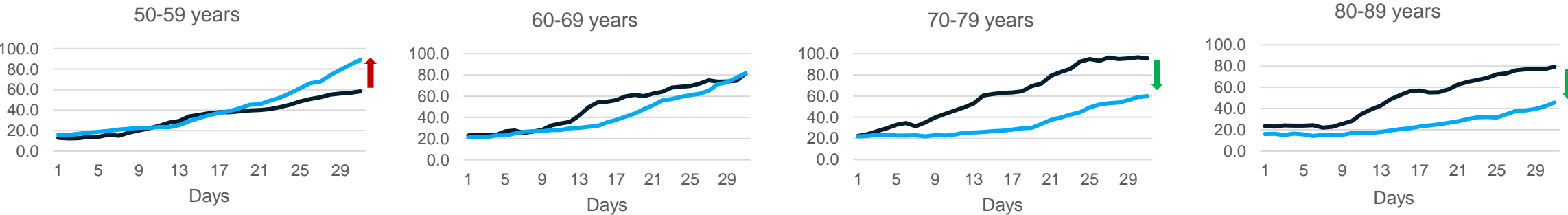
Hospital Admission Comparison of Winter and Spring Surges

- Second Surge (Oct 18 – Nov 17)
- Third Surge (Mar 4 – Apr 3)

Number of 7-day Rolling Average Hospital Admissions for Younger Ages (note scale on y-axes)



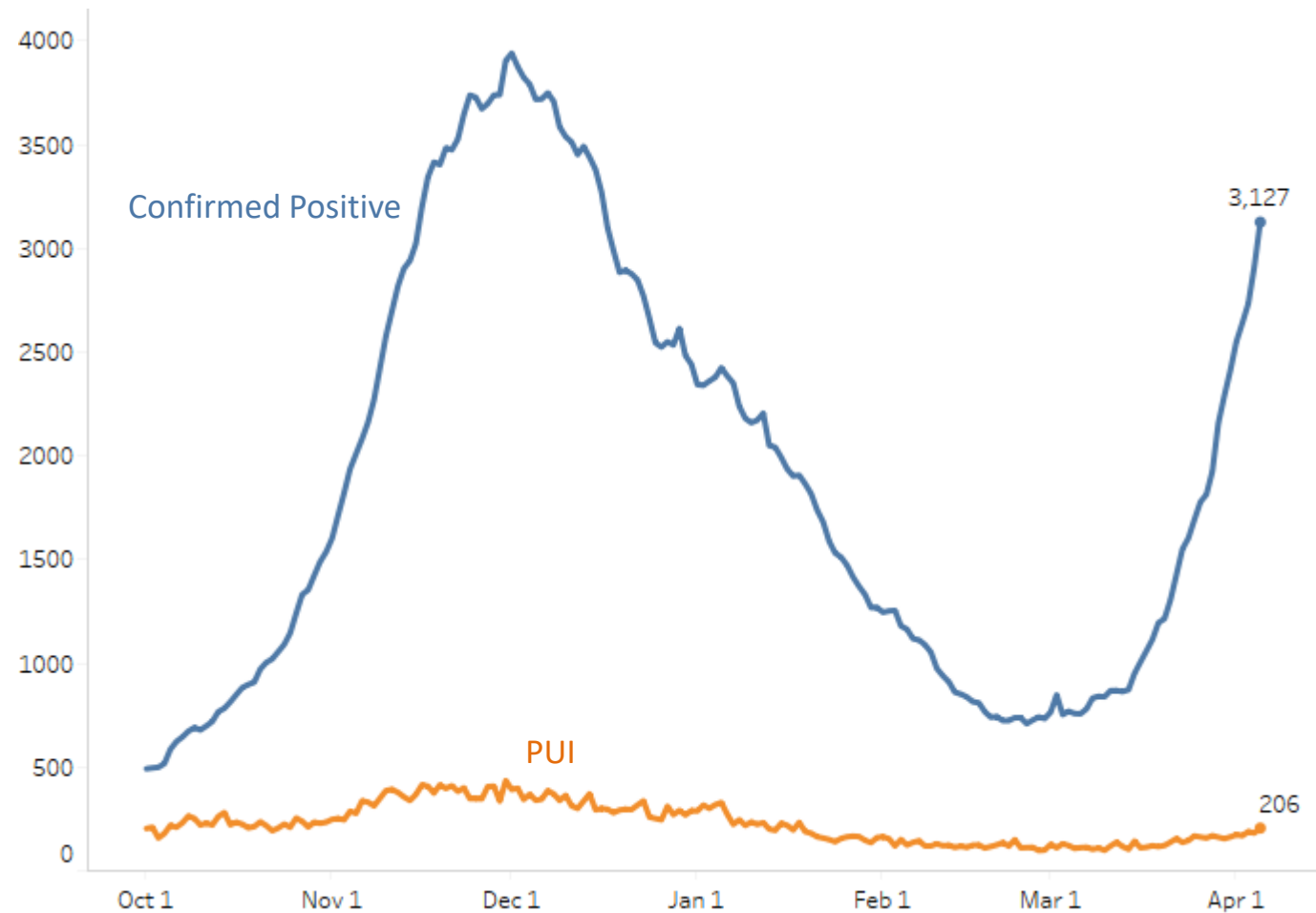
Number of 7-day Rolling Average Hospital Admissions for Older Ages



Note: y-axes are of different scale

Statewide Hospitalization Trends: Total COVID+ Census

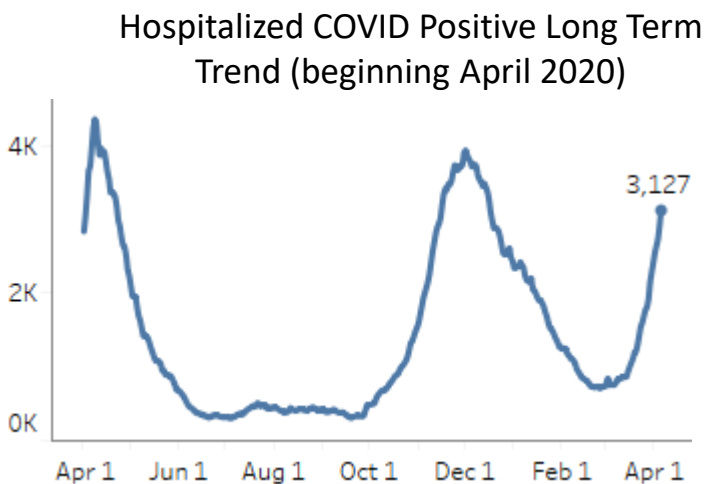
Hospitalization Trends 10/1/2020 – 4/5/2021
Confirmed Positive & Persons Under Investigation (PUI)



COVID+ census in hospitals continues to increase rapidly. This week is up 45% from the previous week (vs. 51% increase last week vs. previous)

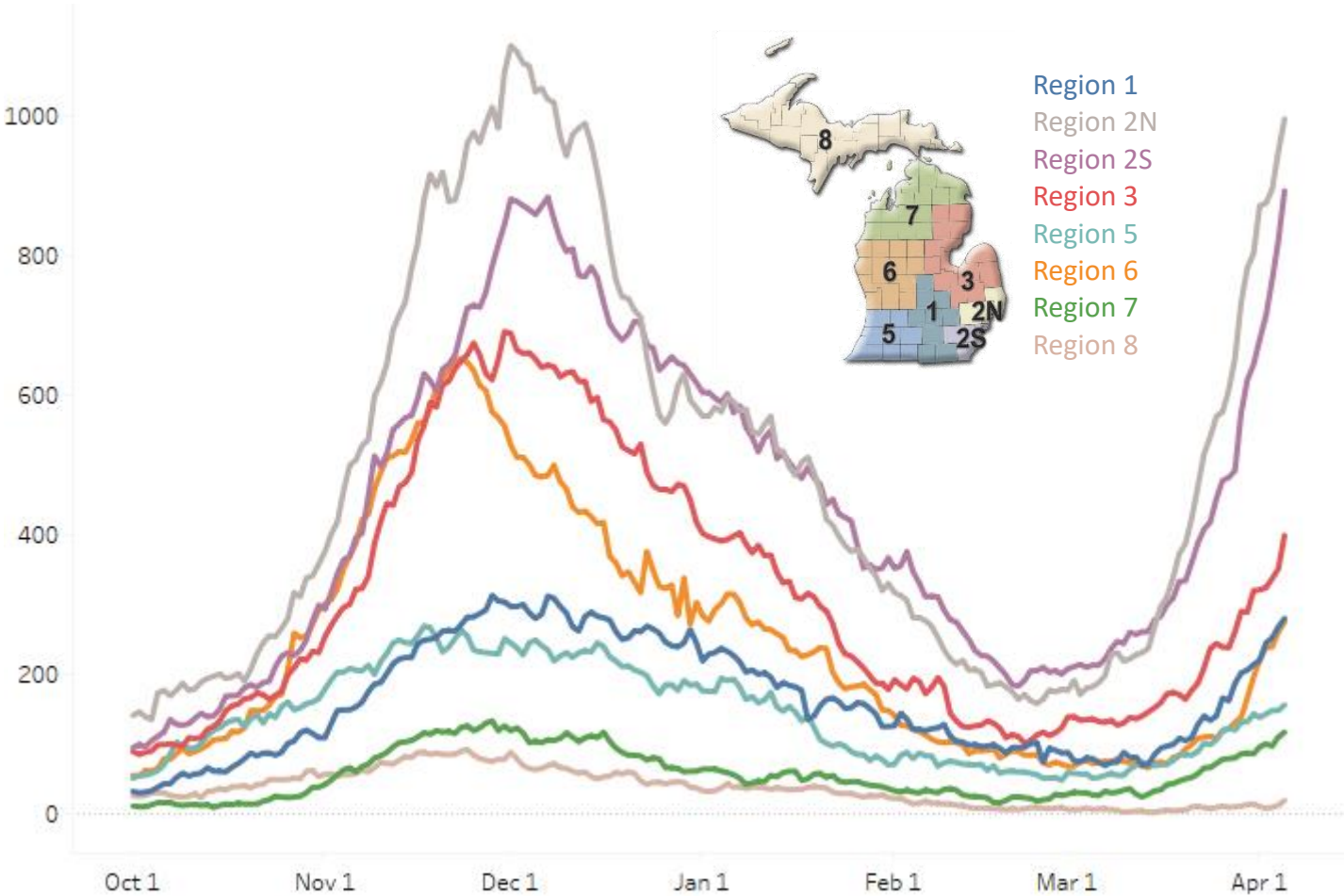
The 1-week absolute increase was just under 1000 patients (2158→3127) which is the highest weekly absolute change since the Spring 2020 surge

Hospitalizations are doubling every 12-14 days now for 3 consecutive weeks.



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 10/1/2020 – 4/5/2021
Confirmed Positive by Region



All regions are showing increasing hospitalization trends this week.

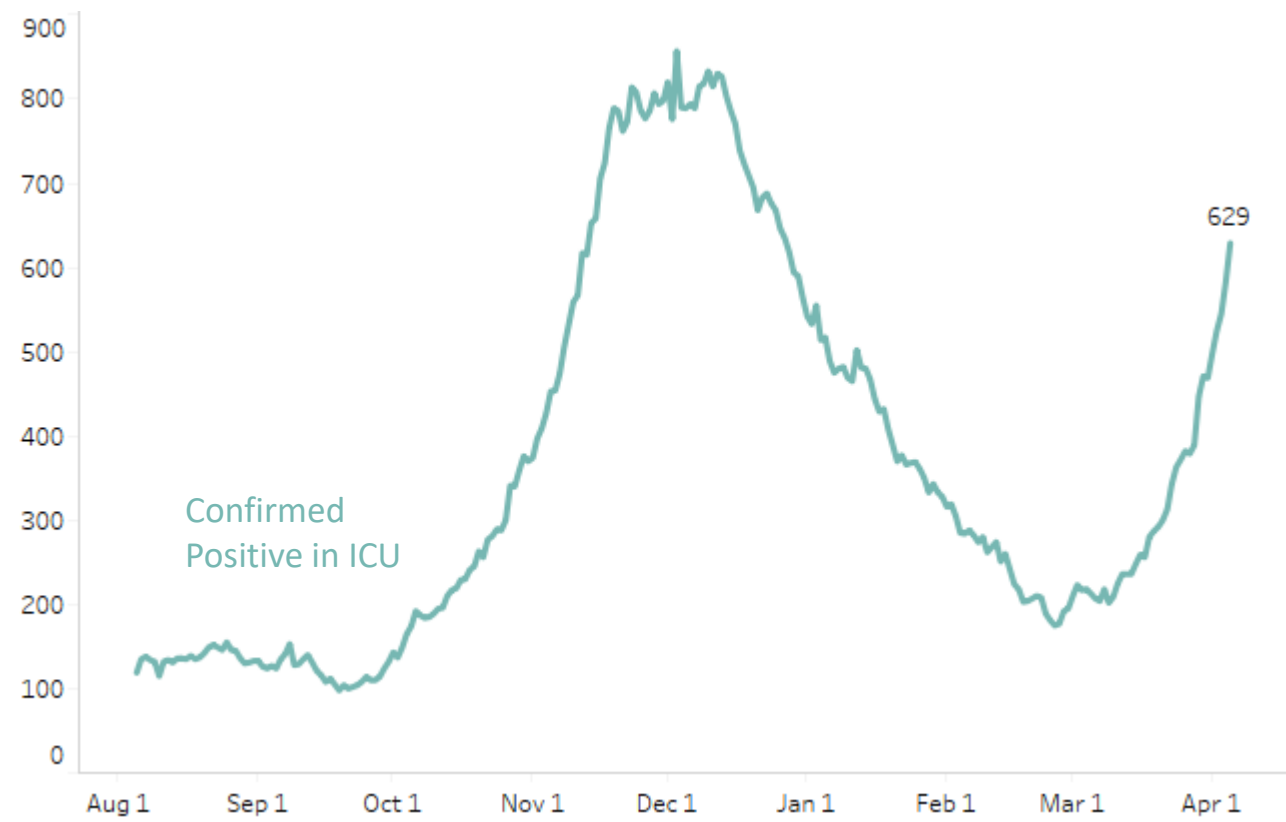
Region 6 showed the most rapid growth this week; doubling in one week.

5 Regions are >200/M population hospitalized with Regions 2N and 2S now >400/M.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / Million Pop.
Region 1	279 (+39%)	258/M
Region 2N	995 (+36%)	449/M
Region 2S	892 (+58%)	400/M
Region 3	398 (+39%)	351/M
Region 5	155 (+19%)	163/M
Region 6	274 (+101%)	187/M
Region 7	116 (+36%)	232/M
Region 8	18 (+80%)	58/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 8/1/2020 – 4/5/2021
Confirmed Positive in ICUs



Overall, census of COVID+ patients in ICUs has increased 41% from last week (vs. 43% last week vs. previous)

All regions have increasing COVID+ ICU census; fastest growth in regions 1, 6 and 8.

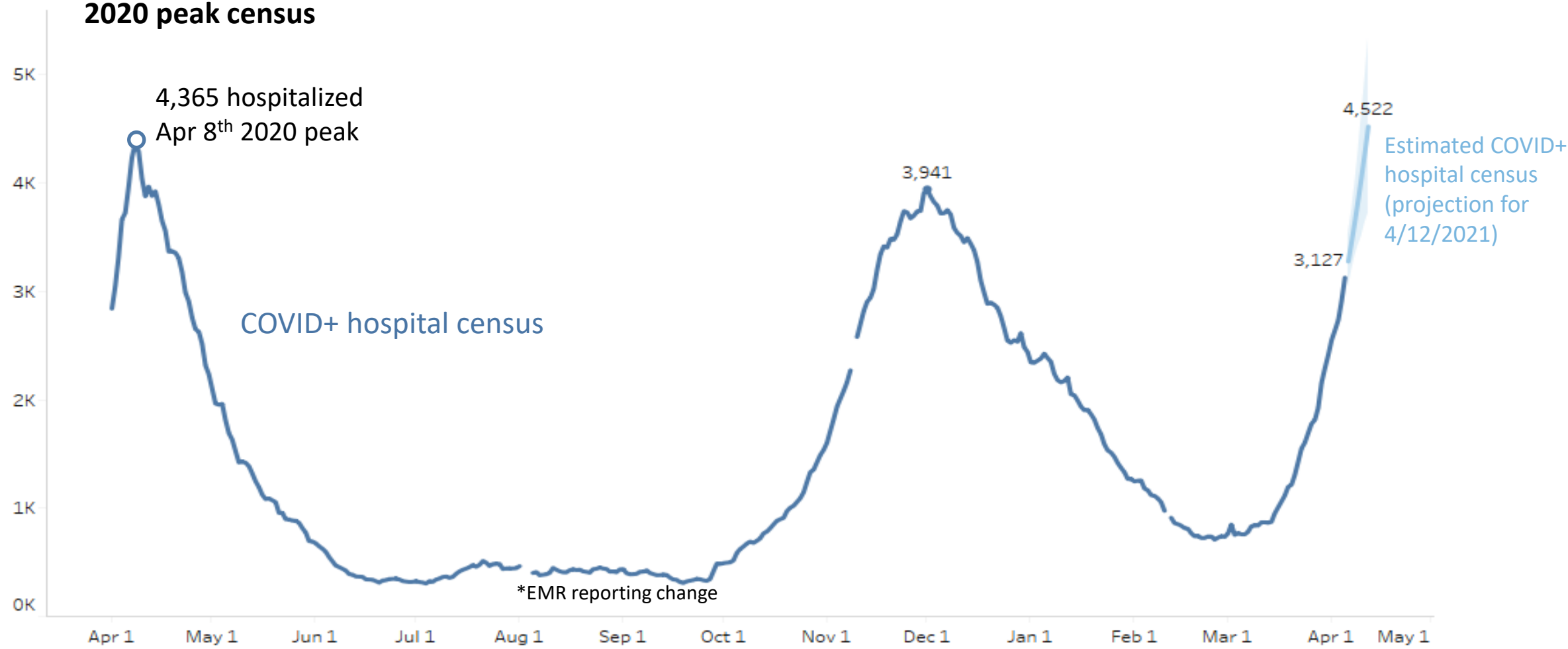
6 regions have 25% or greater of their ICU beds occupied with COVID patients.

Region	Adult COVID+ in ICU	Adult ICU Occupancy	% of Adult ICU beds COVID+
Region 1	48 (+78%)	86%	25%
Region 2N	152 (+30%)	79%	26%
Region 2S	166 (+46%)	76%	22%
Region 3	90 (+22%)	86%	27%
Region 5	38 (+12%)	83%	25%
Region 6	78 (+86%)	78%	31%
Region 7	49 (+36%)	70%	27%
Region 8	8 (+167%)	48%	14%

Hospital bed capacity updated as of 4/2

Statewide Projection: Total COVID+ Census 1 week outlook

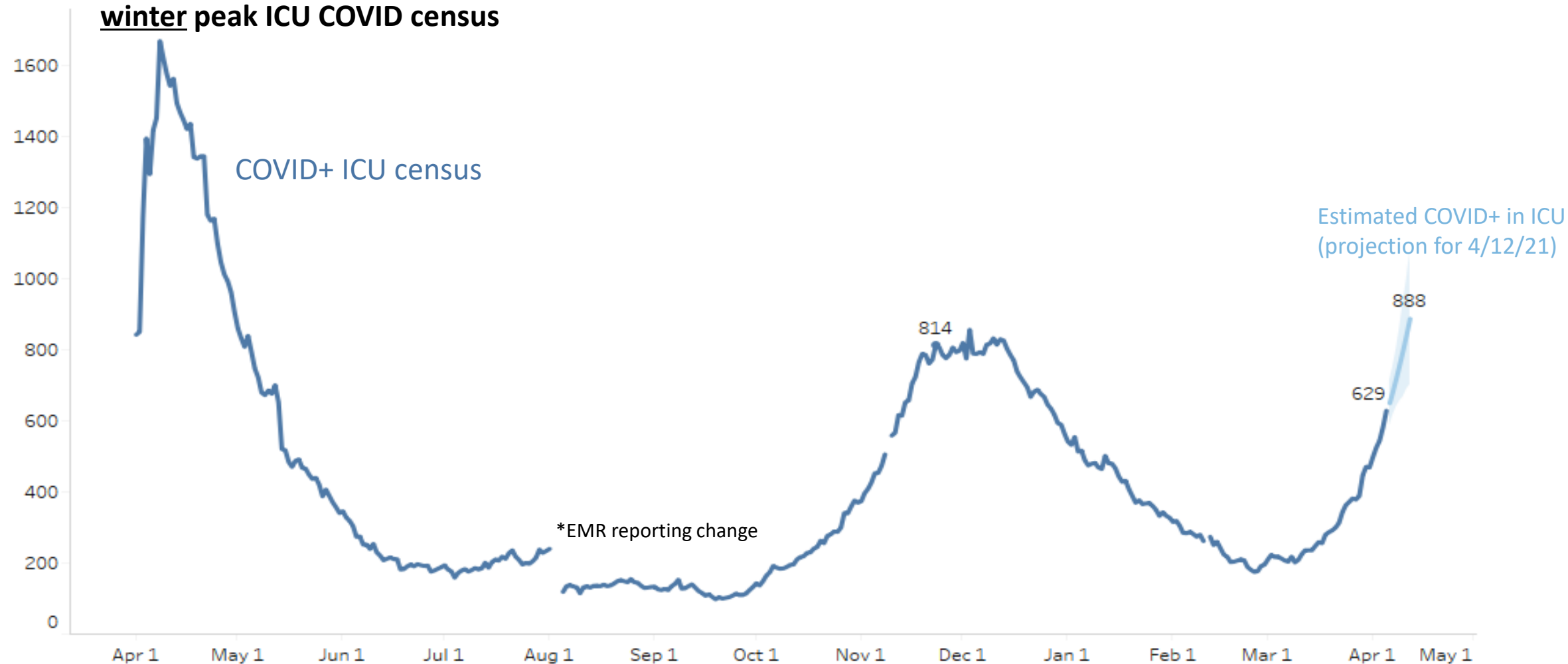
If current growth trends continue over the next week, we could see a COVID+ census that exceeds our spring 2020 peak census



Multiplicative trend forecast model

Statewide Projection: ICU COVID+ Census 1 week outlook

If current growth trends continue over the next week, we could see a COVID ICU census that exceeds our winter peak ICU COVID census

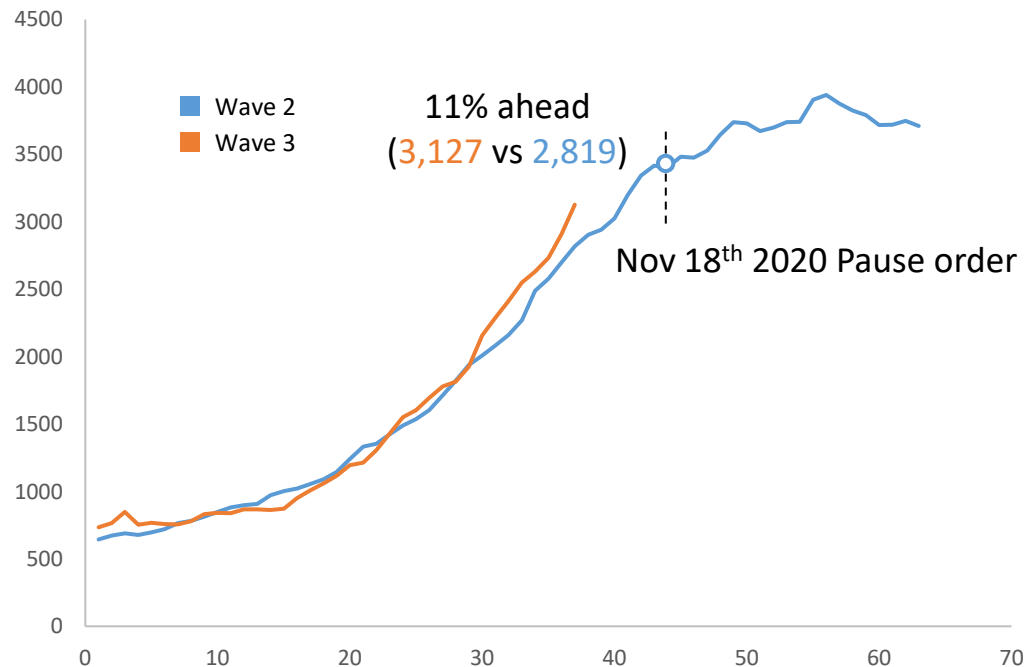


Multiplicative trend forecast model

Wave 2 and 3 Growth Rate Comparison

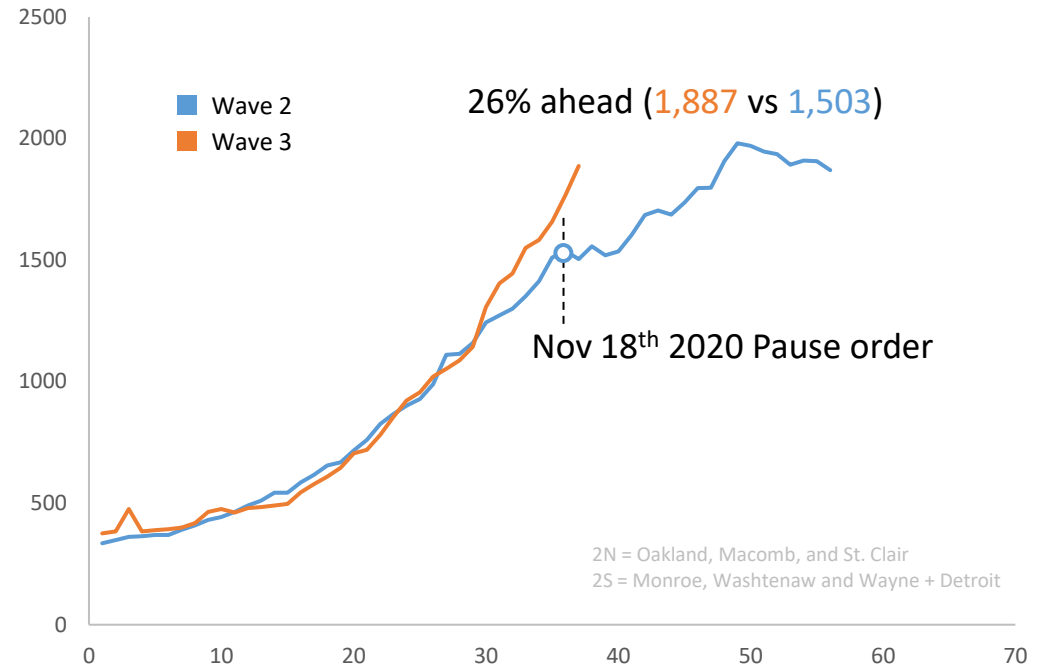
- Statewide hospitalizations are 11% higher than the previous winter wave when aligned to the same starting point.
- Regions 2N and 2S (SE MI) are a week ahead of their winter wave growth with 26% higher hospitalizations vs. comparable starting point reflecting that this wave (#3) started first in the SE region

COVID+ hospital census, State overall



Days since start date: Oct 7th 2020 for Wave 2
and Feb 28th 2021 for Wave 3

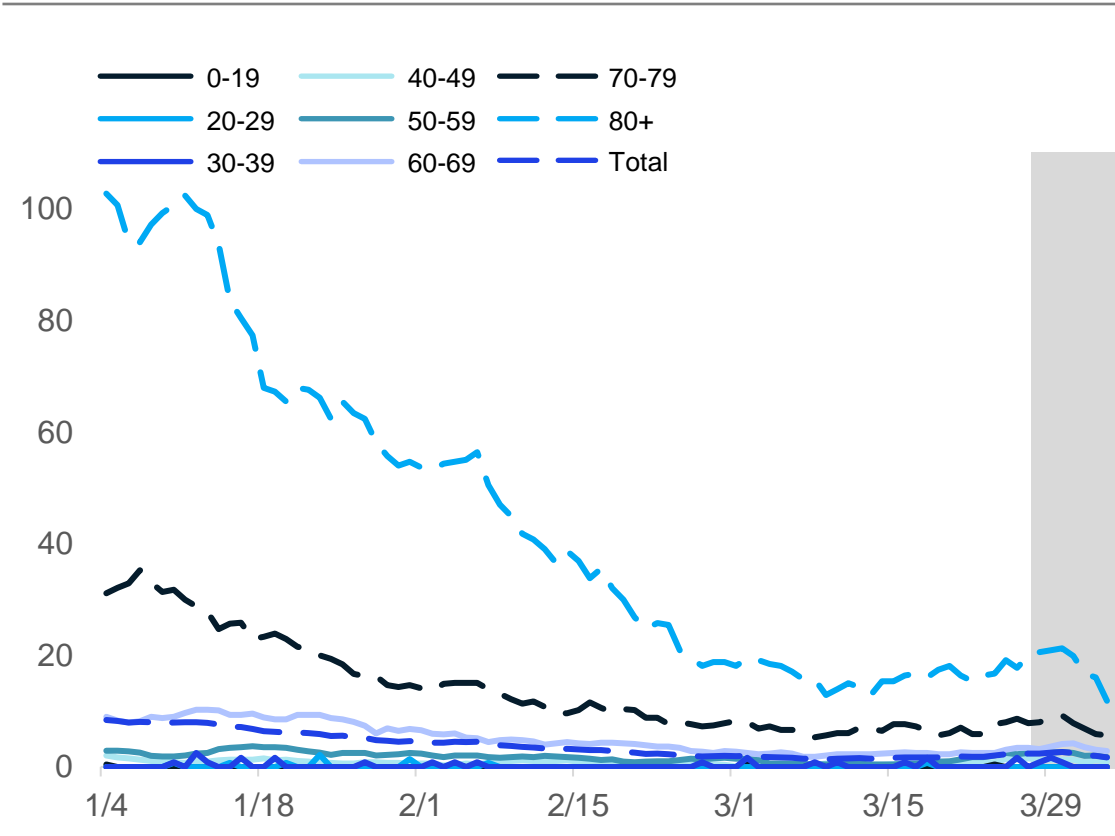
COVID+ hospital census, Regions 2N + 2S



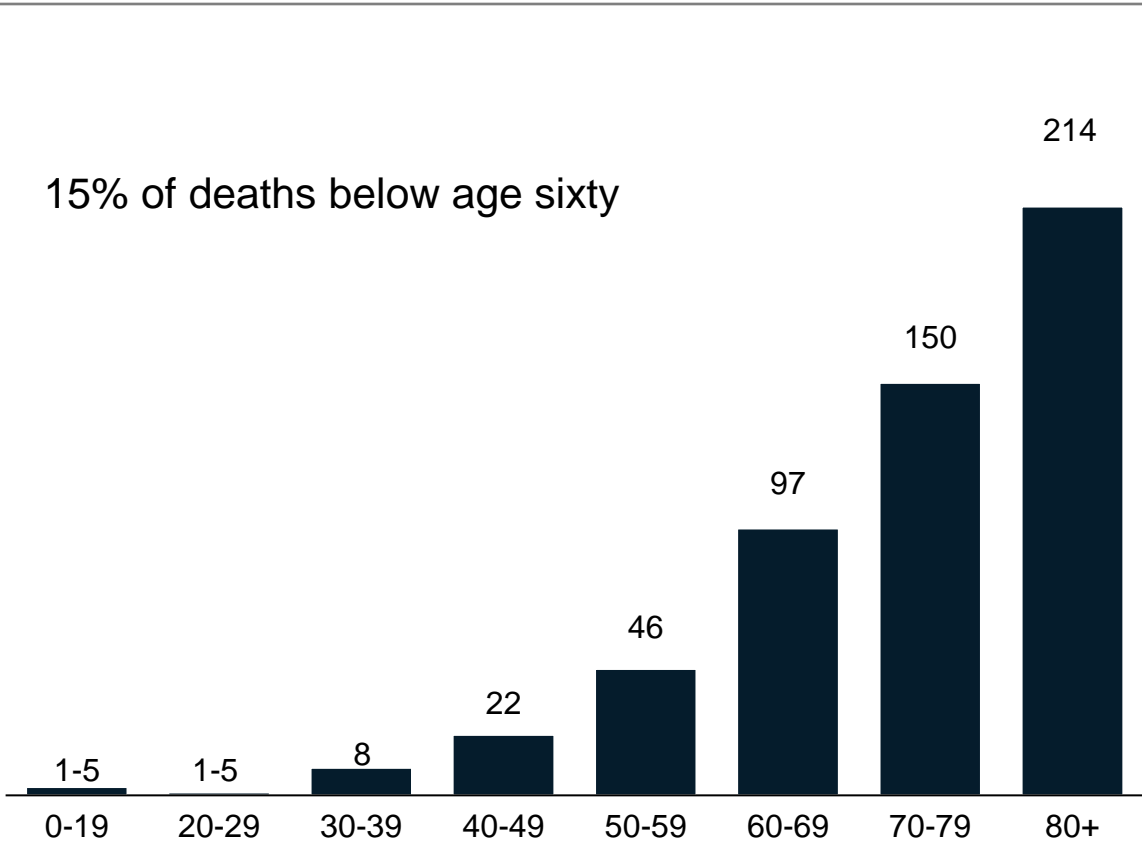
Days since start date: Oct 14th 2020 for Wave 2
and Feb 28th 2021 for Wave 3

Average and total new deaths, by age group

Daily confirmed and probable deaths per million by age group (7 day rolling average)



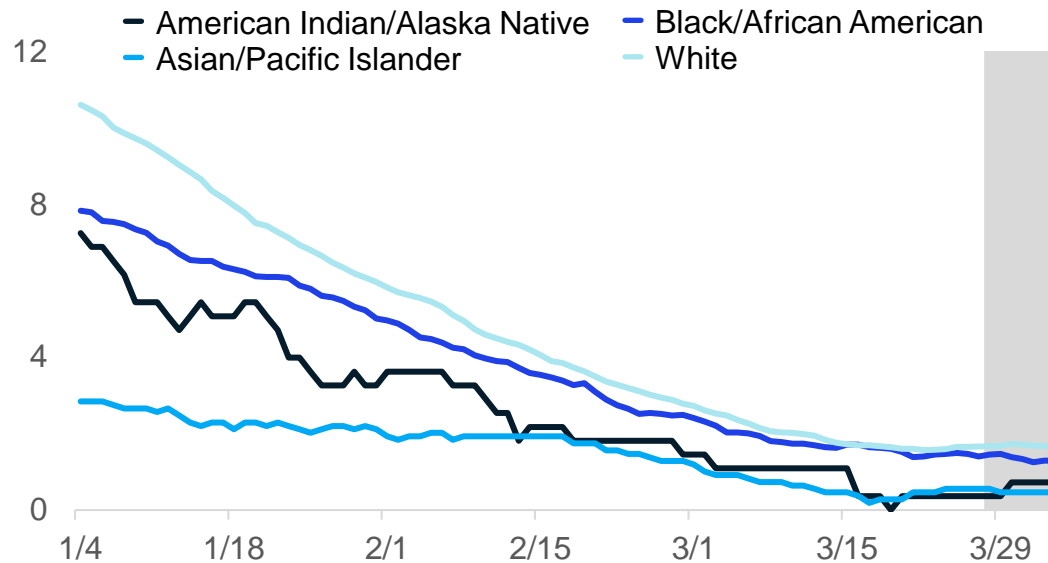
Total confirmed and probable deaths by age group (past 30 days, ending 3/27/2021)



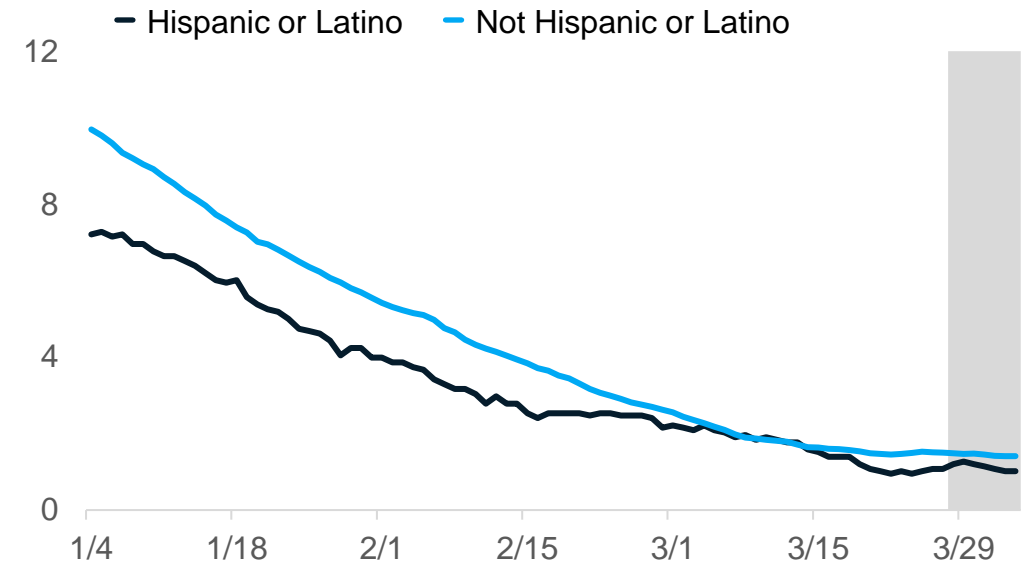
Daily deaths per million people are increasing for age groups, including 80+ age group.

30-day rolling average daily deaths per million people by race and ethnicity

Average daily deaths per million people by race



Average daily deaths per million people by ethnicity



Updates since last week:

- Deaths are a lagging indicator of cases, and death rates are decreasing among racial and ethnic groups
- Whites and Blacks have the most reported deaths per capita while Hispanic/Latinos and Non-Hispanic Latino are similar
- Deaths are not adjusted for confounders (e.g., age, sex, comorbidities)

How is public health capacity holding up?

Diagnostic testing volume (PCR and antigen) has increased slowly from last week

- PCR testing increased since last week
- Percent of antigen tests are relatively steady since last week

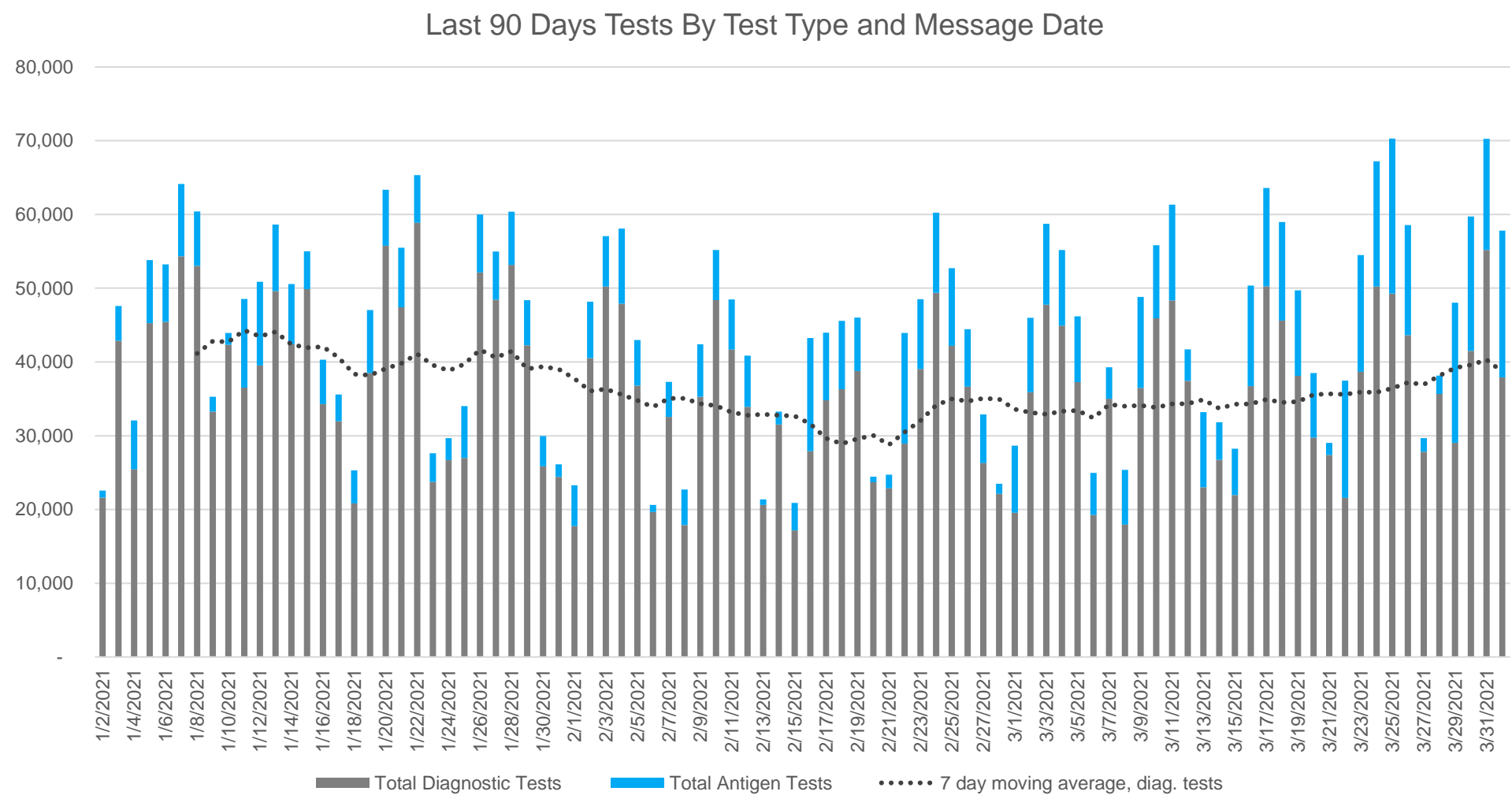
Michigan tracks testing within school programs

- Testing for spring break and pop testing available

Cases identified for investigations has sharply increased

- Number of cases not investigated this week (26,449) exceeds total number of cases reported the prior week (25,710)
- Consistent low proportion of cases interviewed with a source of known infection (indicating community acquisition)
 - As cases have increased, the percent of interviews attempted has declined
- Consistent low proportion of those quarantining when their symptoms begin (indicating no effective halt in community transmission)

Daily diagnostic tests, by message date



Weekly Update

- 51,743 rolling 7-day average daily diagnostic tests reported to MDHHS (PCR + Ag) (↑)
- 38,677 average daily PCR tests (↑)
- 25.3% are antigen tests over the past week (↔)
- 15.6% positivity in PCR tests (↑)



COVID-19 TESTING

Event Type

- ☐ Airport
- ☐ Neighborhood Test
- ☐ Spring Break Pop Up
- ☐ Welcome Center

County

All

City

All

Region

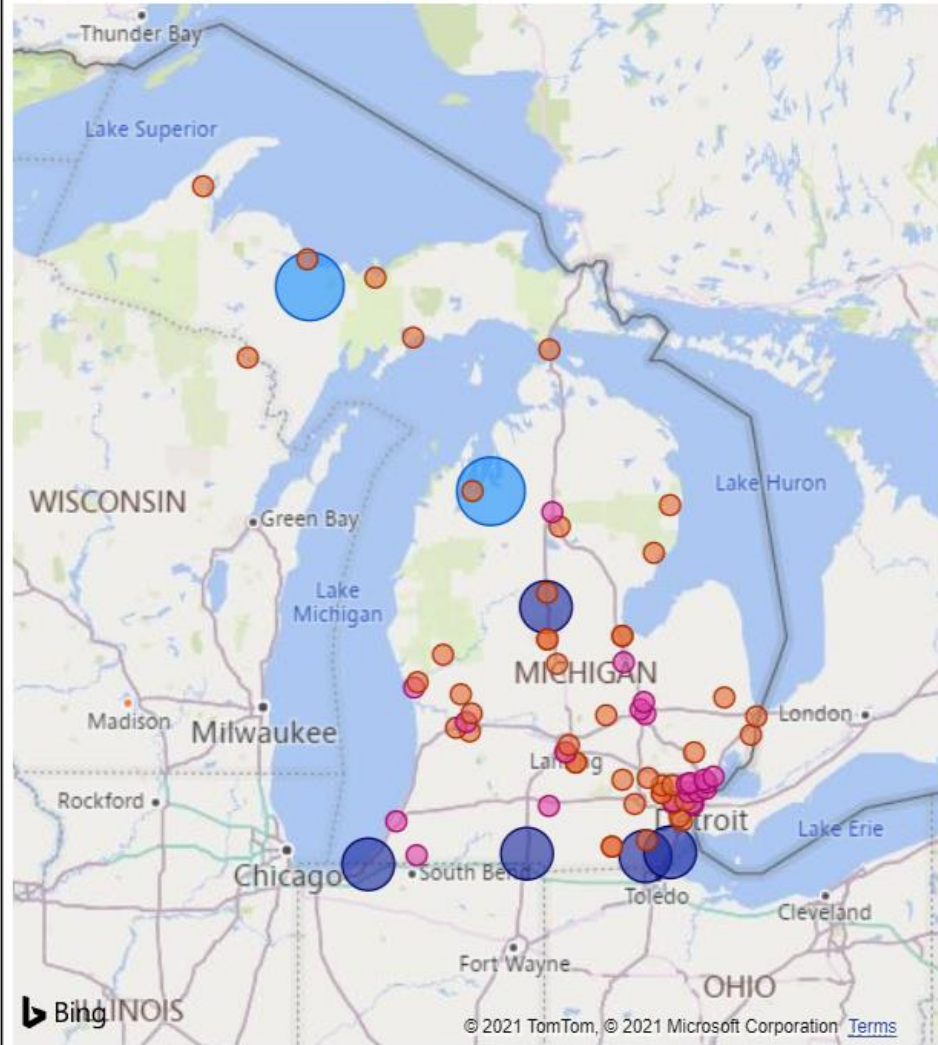
All



Can Select Event Type and County/City/Region preferred; Can Sort Tables

MI COVID TESTING SITES

● Airport ● Neighborhood Test ● Spring Break Pop Up ● Welcome Center



4/3/2021

4/15/2021

Spring Break Pop Up Dates

Spring Break Pop Up	Event Date	Event Times	City
Alma Middle School	4/3/21	12pm-6pm	Alma
Brownstown Middle School	4/3/21	10am-4pm	Romulus
Clare Gladwin RESD	4/3/21	10am-4pm	Clare
Corunna Public School Trans	4/3/21	12pm-6pm	Corunna
Pathfinder High School	4/3/21	10am-4pm	Pinckney
Plymouth High School	4/3/21	10am-5pm	Canton
Stevenson High School	4/3/21	12pm-7pm	Livonia
Washtenaw ISD	4/3/21	10am-4pm	Ann Arbor
Alcona High School	4/4/21	12pm-6pm	Lincoln
Mt. Pleasant High School	4/4/21	12pm-6pm	Mt. Pleasant
Northville High School	4/4/21	11am-6pm	Northville
Plymouth High School	4/4/21	12pm-7pm	Canton
Port Huron High School	4/4/21	12pm-6pm	Port Huron
Bay Arenac ISD	4/5/21	7am-1pm	Bay City
Edsel Ford High School	4/5/21	11am-6pm	Dearborn
Iosco RESA Adm Bldg	4/5/21	12pm-6pm	Tawas City
Kingsford High School	4/5/21	12pm-6pm	Kingsford
Marquette High School	4/5/21	12pm-6pm	Marquette
Munising Middle/High Schools	4/5/21	12p-6pm	Munising
Roscommon High School	4/5/21	12pm-6pm	Roscommon
St. Ignace LaSalle High School	4/5/21	12pm-6pm	St. Ignace
Traverse City High School	4/5/21	12pm-7pm	Traverse City
Wayne RESA Adm	4/5/21	10a-4pm	Wayne
Woodhaven High School	4/5/21	12p-6pm	Brownstown

Neighborhood Site	Event Times	City
Albion College - Washington Gardner	Mon 12pm-7pm Wed 12pm-7pm Fri 9am-5pm	Albion
All God's People Church	Tue 10am-3pm Wed 10am-3pm Thu 10am-6pm	Roseville
Bethel Baptist Church East	Mon 10am-5pm Wed 11am-7pm Fri 10am-5pm	Detroit
Bethel United Methodist Church	Tue 10am-4pm Wed 10am-4pm Thu 1pm-7pm	Flint
Christ Temple Church	Mon 10am-5pm	Muskegon

Airport	Event Times	City	Street
Cherry Capital Airport (TVC)	Start 4/7 Wed 2pm-10pm Fri 12pm-8pm Sun 3pm-11pm	Traverse City	727 Fl
Sawyer Int'l Airport (MQT)	Start 4/7* Wed 3pm-11pm	Gwinn	125 A

Welcome Center	Event Times	City	Street
I-69 North @ Mile #6	Start 4/12* Daily 10am-5pm	Coldwater	
I-75 North @ Mile #10	Start 4/12* Daily 10am-5pm	Monroe	
I-94 East	Start 4/12* Daily 10am-5pm	New Buffalo	11

More sites being negotiated.

*dates are tentative

Airport Neighborhood Testing Spring Break Pop Up Welcome Center

CORONAVIRUS DISEASE 2019 (COVID-19)

International Travel

RECOMMENDATIONS AND REQUIREMENTS

Get tested 1-3 days before traveling out of the US



Mandatory test required before flying to US



Get tested 3-5 days after travel



Self-quarantine after travel for 7 days with a negative test or 10 days without test



Self-monitor for symptoms



Wear a mask and take other precautions during travel



Domestic Travel

RECOMMENDATIONS AND REQUIREMENTS

Not Vaccinated

Fully Vaccinated

Get tested 1-3 days before travel



Get tested 3-5 days after travel and self-quarantine for 7 days. Self-quarantine for 10 days if you don't get tested.



Self-monitor for symptoms



Wear a mask and take other precautions during travel



cdc.gov/coronavirus

CS323515-A 04/02/2021

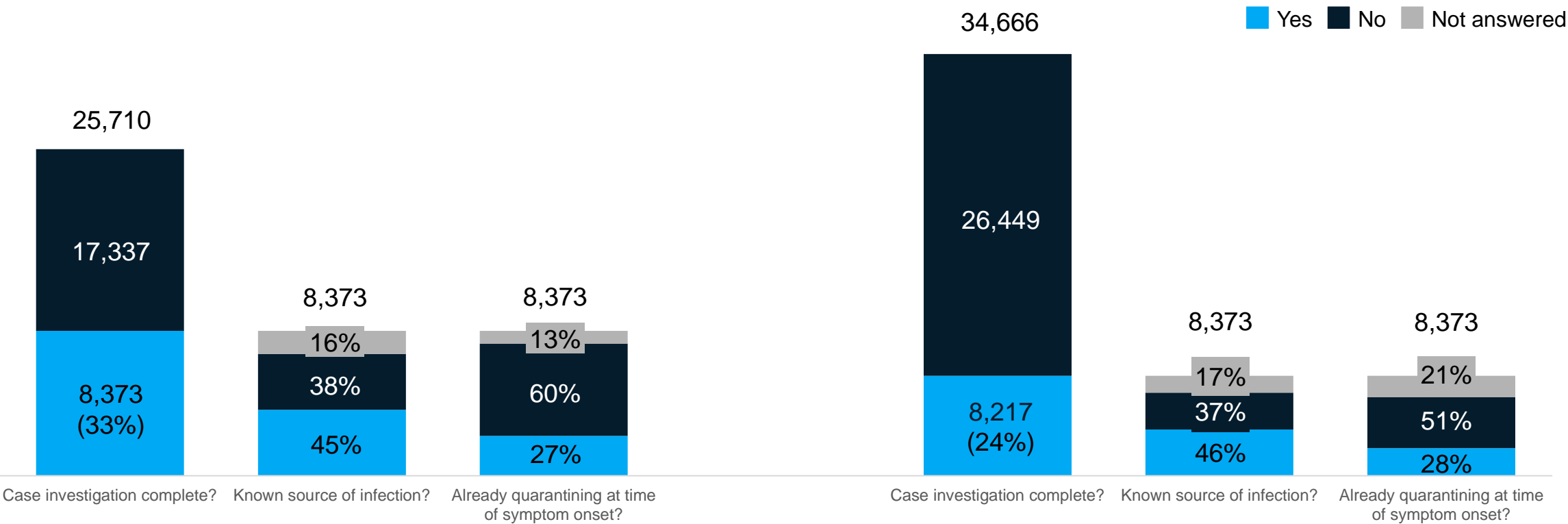
Case Investigation

New Communicable Disease metrics decreased since last week:

- Number of cases not investigated this week (26,449) exceeds total number of cases reported the prior week (25,710)
- Number of case investigations completed dropped since cases increased
- 46% of investigated cases having a known source (45% last week, 47% week prior)
- 28% of investigated cases noting that they were quarantining before symptoms (27% last week)

03/20-03/26 Case report form information

03/26-04/02 Case report form information



How is COVID-19 Vaccination Progressing?

- 10th in nation for number of people with first dose; 10th for number fully vaccinated
- 36.7% of MI residents have initiated COVID vaccination series
- Over 1.8 million people have completed their vaccination series, including 54.5% of people aged 65 or older

Addressing vaccine disparities

- Coverage was highest among Non-Hispanic White individuals
- Racial/ethnic disparities smaller in 65 years and older age group
- Case rates are lower in age groups with higher vaccination coverage

Vaccinated Individuals Who Test Positive

- Number of cases who are fully vaccinated (n=246) is not in excess of what expected
- Proportion of vaccinated cases who are symptomatic, hospitalized, or died are lower than for unvaccinated.
- Precautions in public (e.g., wearing masks, washing hands and social distancing) recommended even after receiving the vaccine until more Michiganders have been able to be vaccinated

Vaccine Distribution & Administration 20 Most Populous States (4/2/21)

10th for number with first dose

13-14th for % with 1 or more doses

10th for number fully vaccinated

8th for % who are fully vaccinated

	Total Doses Delivered	Number with 1+ Dose	% with 1+ Dose	Number Fully Vaccinated	% Fully Vaccinated
1	California	California	Massachusetts	California	New Jersey
2	Texas	Texas	New Jersey	Texas	Massachusetts
3	Florida	New York	Pennsylvania	New York	Wisconsin
4	New York	Florida	Wisconsin	Florida	New York
5	Illinois	Pennsylvania	Virginia	Pennsylvania	Washington
6	Pennsylvania	Illinois	Maryland	Illinois	Maryland
7	Ohio	Ohio	Illinois	Ohio	Virginia
8	North Carolina	North Carolina	New York	North Carolina	Michigan
9	Georgia	New Jersey	California	New Jersey	Arizona
10	Michigan	Michigan	Washington	Michigan	Ohio
11	New Jersey	Virginia	Arizona	Virginia	Pennsylvania
12	Virginia	Georgia	Ohio	Washington	Indiana
13	Washington	Massachusetts	NC/MI (33)	Massachusetts	Illinois
14	Arizona	Washington		Georgia	North Carolina
15	Massachusetts	Arizona	Florida	Arizona	California
16	Tennessee	Maryland	Texas	Indiana	Florida
17	Maryland	Wisconsin	Missouri	Wisconsin	Missouri
18	Missouri	Tennessee	Indiana	Maryland	Texas
19	Indiana	Indiana	Tennessee	Tennessee	Tennessee
20	Wisconsin	Missouri	Georgia	Missouri	Georgia

Doses Shipped and Administered

36.7% of MI residents have initiated COVID vaccination series

22.8% have completed their series or **1,842,940 people**

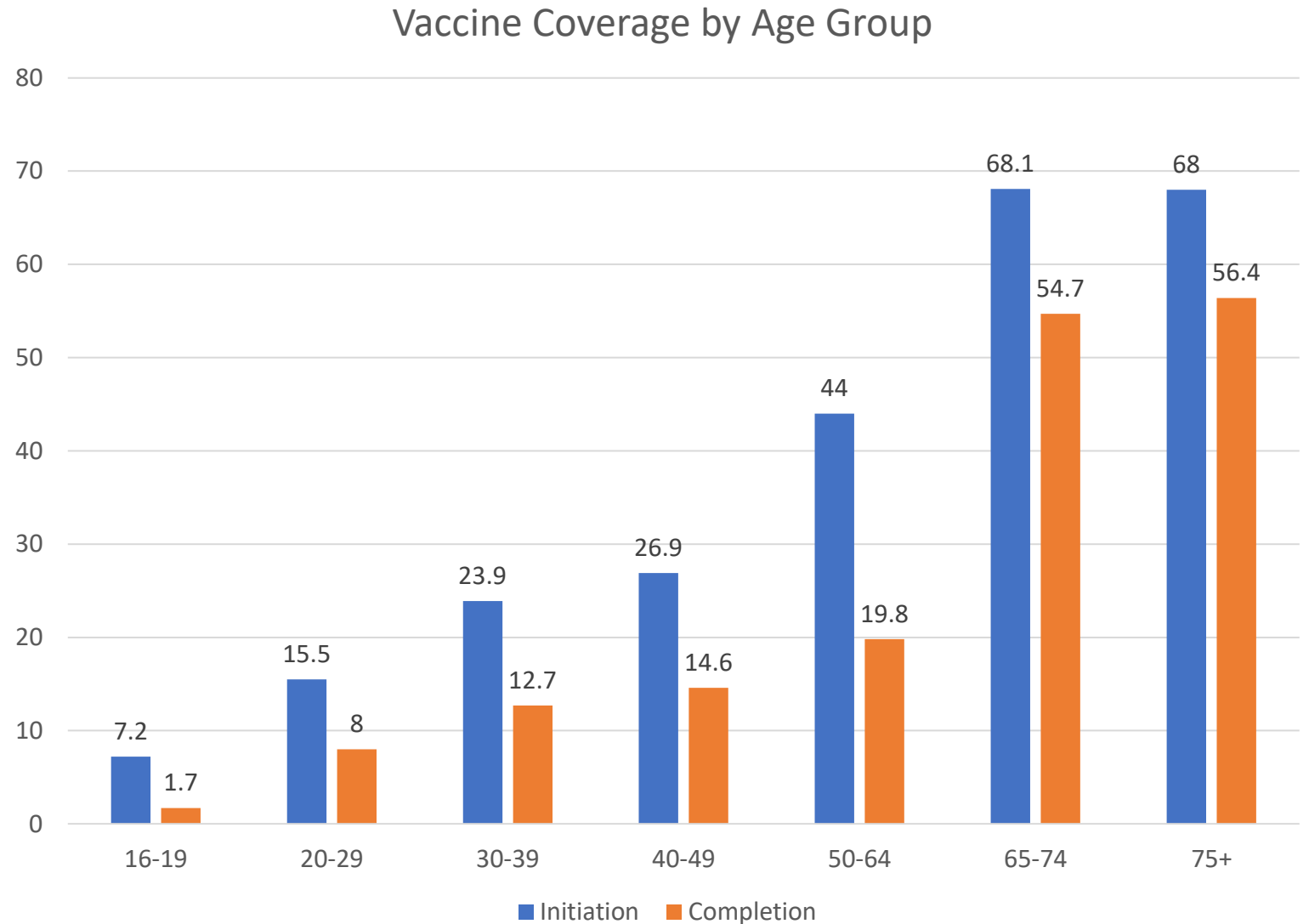
	Enrolled Providers	Doses Shipped	Total Doses Administered			1 st Dose Coverage, 16+	2 nd Dose Coverage, 16+
Data as of	4/4/21	4/6/21	4/5/21	1 st Dose	2 nd Dose	4/5/21	4/5/21
Michigan Distributed	2,983	5,235,585	4,732,399	2,990,674	1,741,725	36.7	22.8
Federal Programs		426,160					
Total Distribution		5,661,745					

More than 500K doses administered last week
8 weeks administering more than 300,000 doses/week
Over 122,000 doses administered in a single day.

Vaccination by Age Group (4/4/21 data)

Two thirds of people aged 65 or older (1.2M) have received one or more doses of vaccine

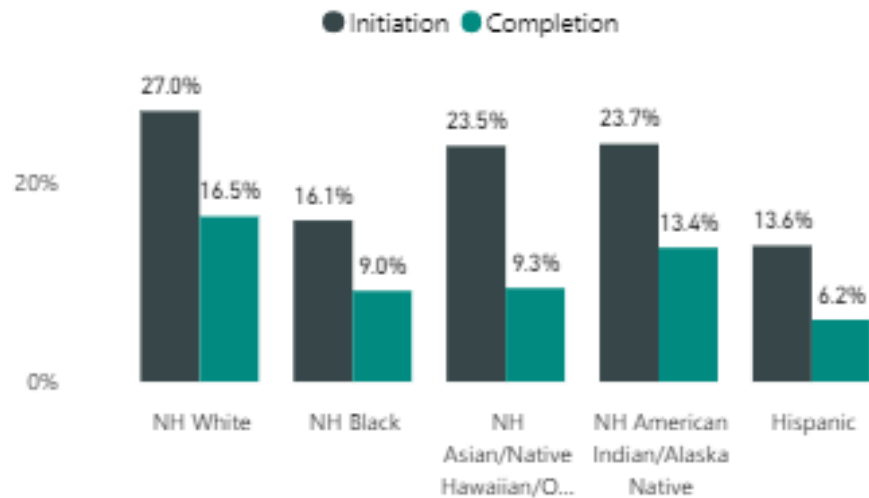
55.4% of people aged 65 or older have completed their vaccine series



Coverage by Race: State Level data 4/4/21

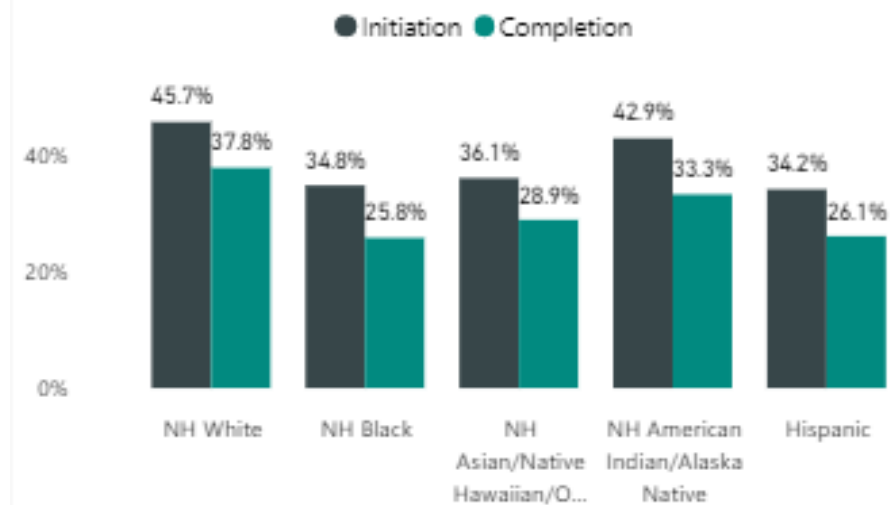
16 and older

Coverage by Race - State Level



65 and older

Coverage by Race - State Level



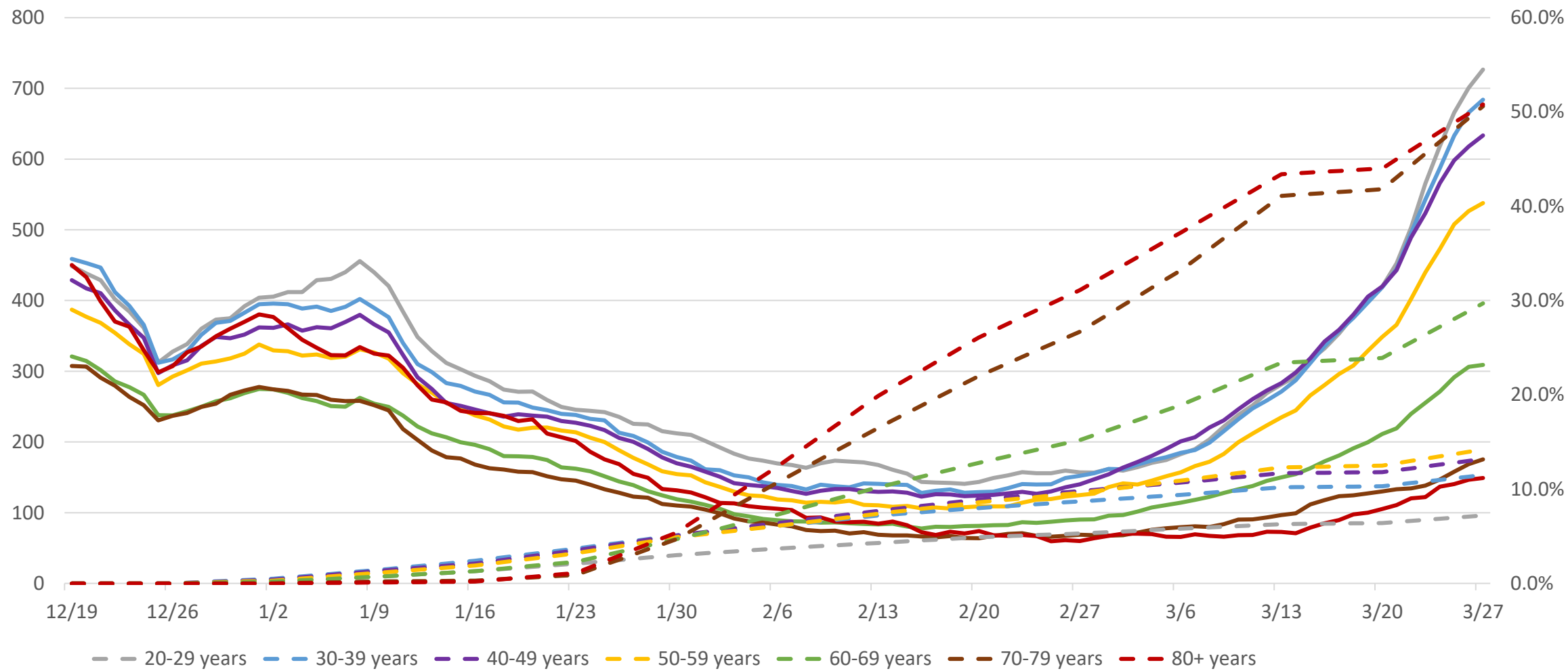
- Coverage was highest among those of NH (Non-Hispanic) White Race (27%), then NH American Indian (23.7%), NH Asian, Native Hawaiian or Pacific Islander (23.5%), NH Black or African American (16.1%) Races, and Hispanic (13.6%) ethnicity
- Initial Coverage disparities are seen in 65+ age group showed the same disparity, but the differences between NH White individuals (45.7%) and NH Black or Hispanic individuals (34.8% and 34.2%) were smaller.

Note: NH Asian/Native Hawaiian/Other Pacific Islander doses were double counted in some subgroups. The correction reduced coverage percent for this group. 30% data missing or unknown

Comparing Vaccine Coverage and Case Rate Trends (Dec 19 – Mar 27)

Solid lines – case rates per million

Dashed lines – vaccine coverage (%)



Source: Michigan Disease Surveillance System (MDSS) and Immunization Program

Potential COVID-19 Vaccination Breakthrough Cases

Process:

- Michigan part of CDC's nationwide investigation (CDC website forthcoming)
- Weekly match COVID-19 cases to records of all fully vaccinated persons
- Absence of a positive test less than 45 days prior to the post-vaccination positive test
- Send data to CDC and, if available, gather respiratory specimens for whole genome sequencing

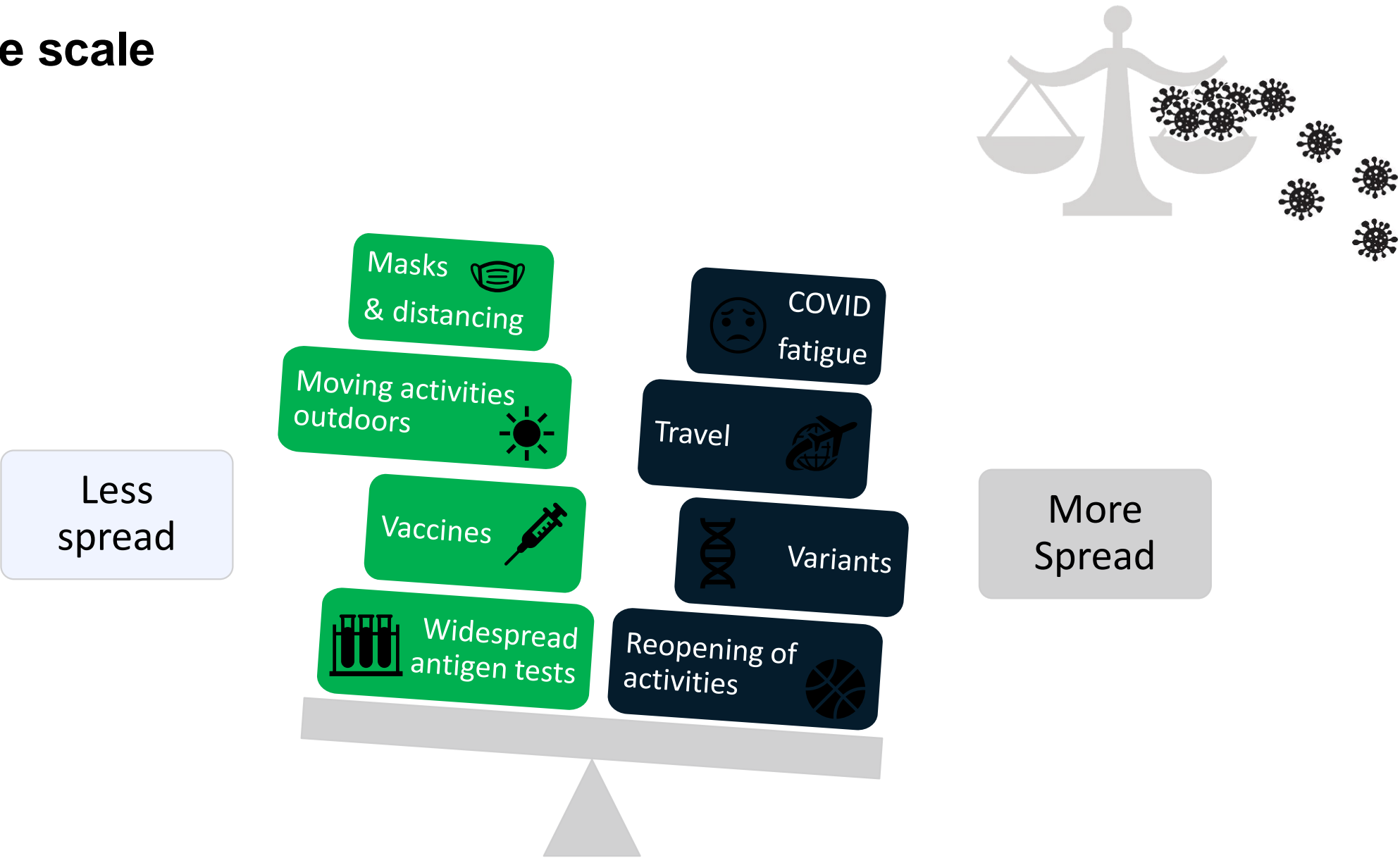
Michigan Data (1/1/21 through 3/31/21):

- 246 cases met criteria based on symptom onset or positive test 14 or more days after being fully vaccinated
- Less than 1% of people who were fully vaccinated met this case definition
 - Includes 3 deaths, all persons 65 years or older
 - 11 cases were known to have been hospitalized

Summary Points:

- Number of potential cases identified to date is not in excess of what might be expected with vaccines with 95% efficacy.
- Proportions of those symptomatic, hospitalized, and who died are all lower than those who are unvaccinated.
- Continue to encourage precautions while out in public, including wearing masks, washing hands and social distancing, even after receiving the vaccine until more Michiganders have been able to be vaccinated.

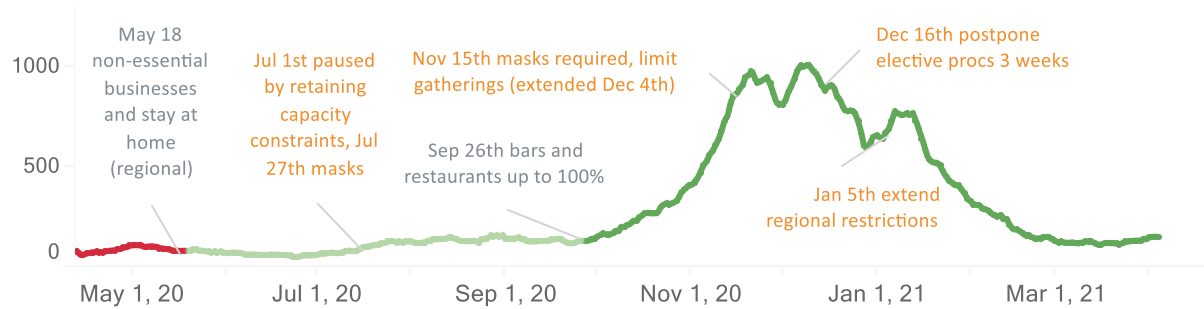
Tipping the scale



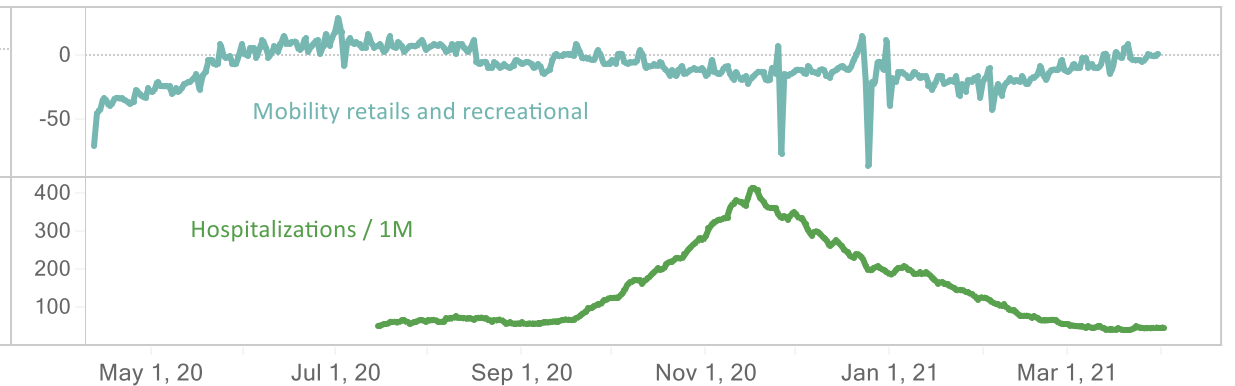
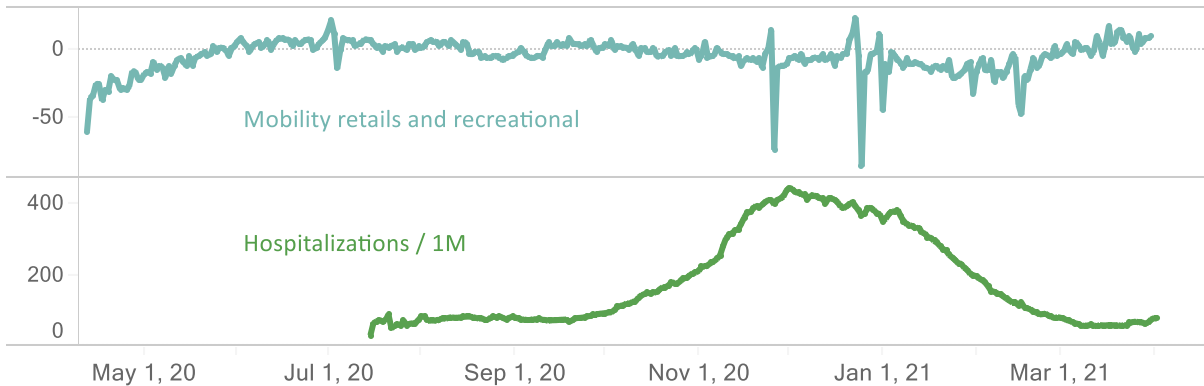
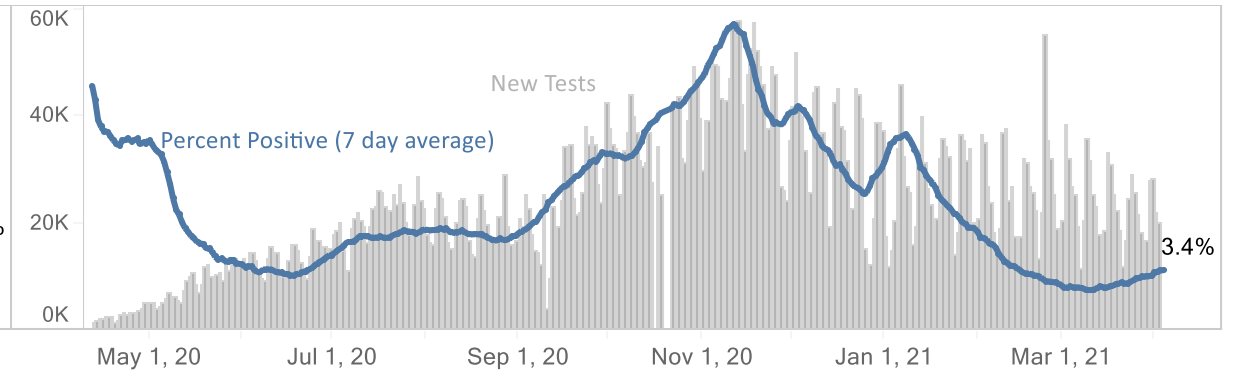
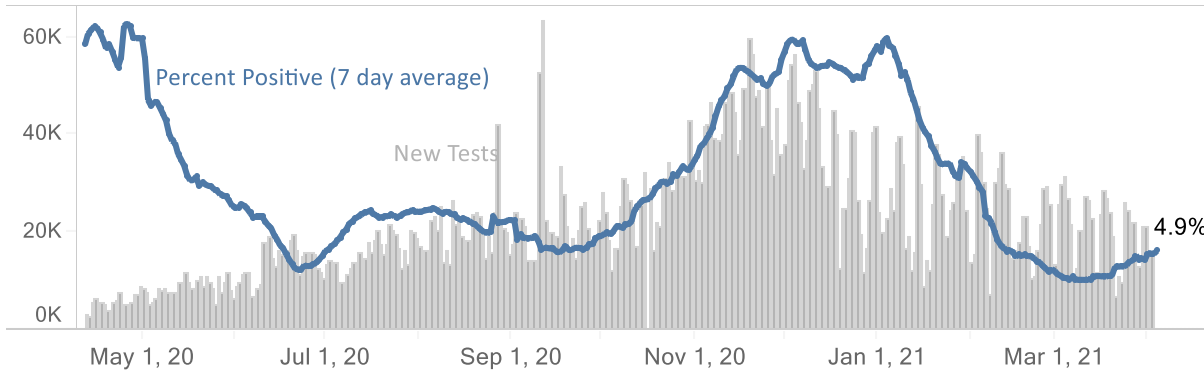
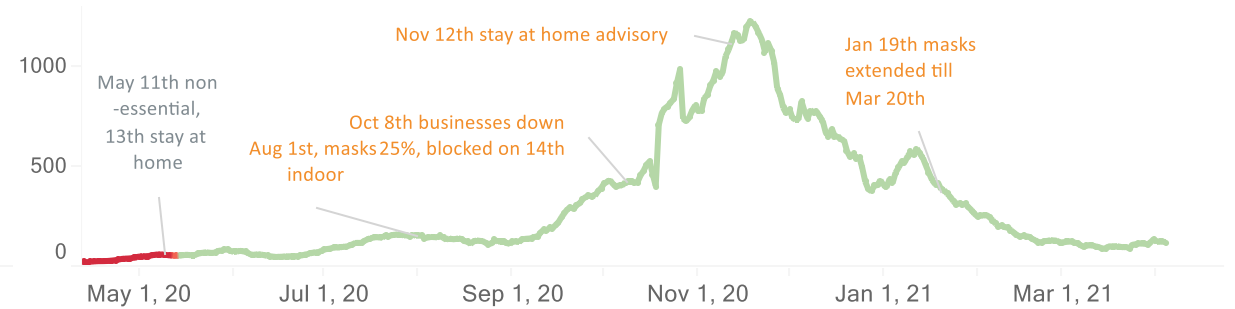
Appendix

Indiana and Wisconsin: Detailed examination

Indiana Confirmed New Cases / 1M (7 days average)

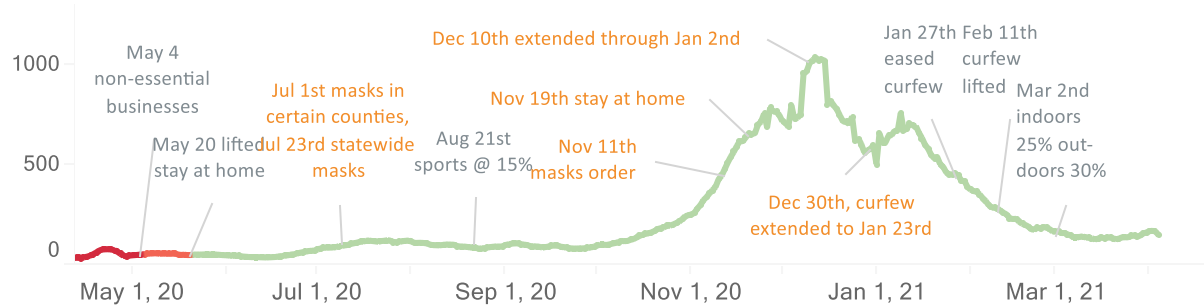


Wisconsin Confirmed New Cases / 1M (7 days average)

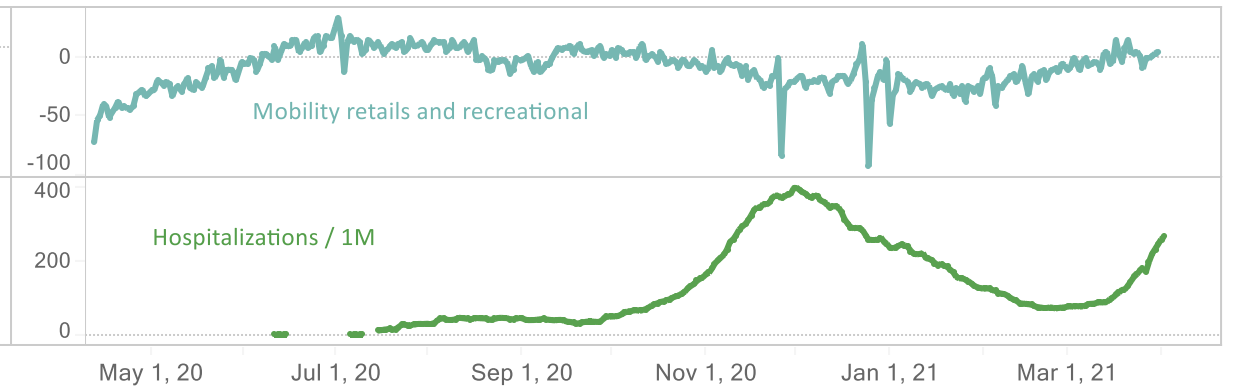
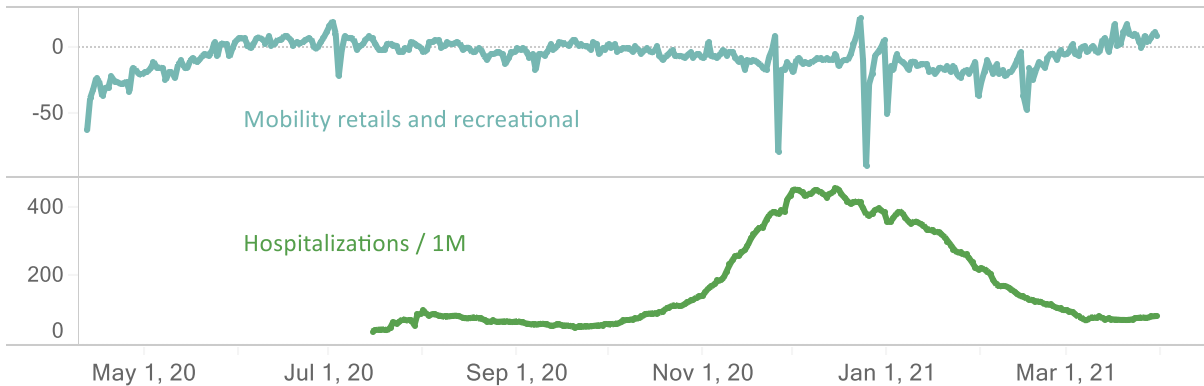
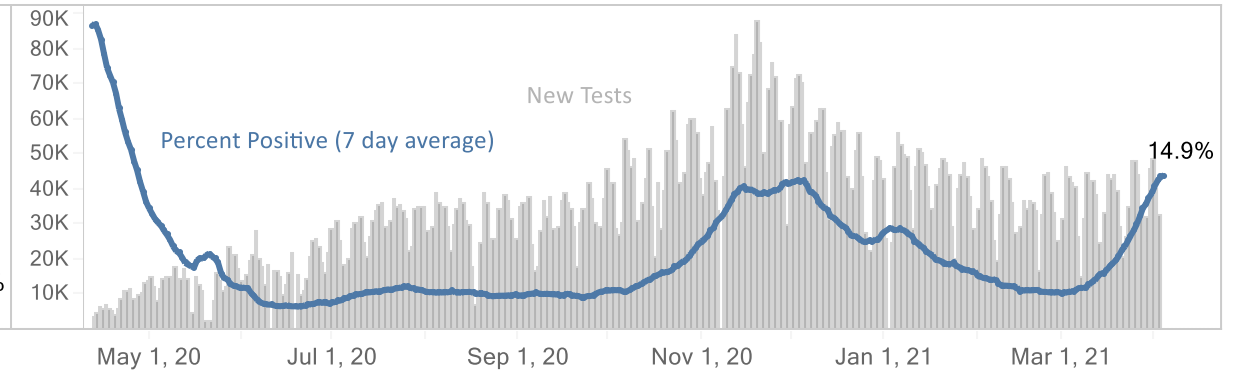
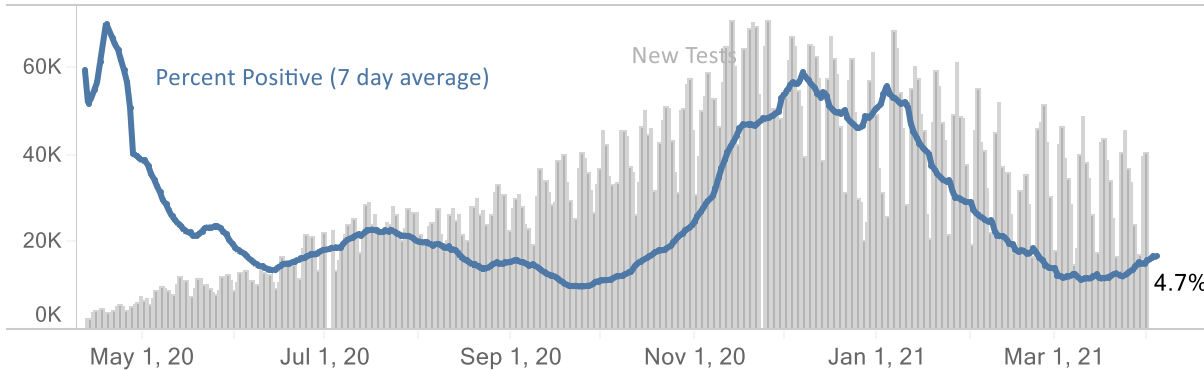
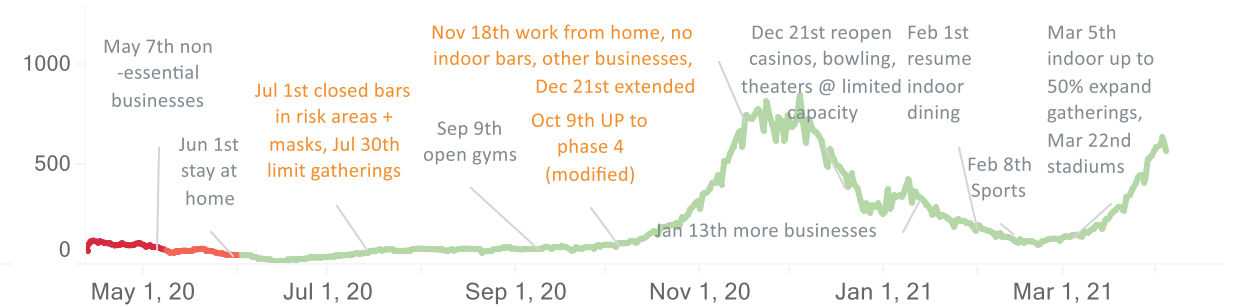


Ohio and Michigan: Detailed Examination

Ohio Confirmed New Cases / 1M (7 days average)

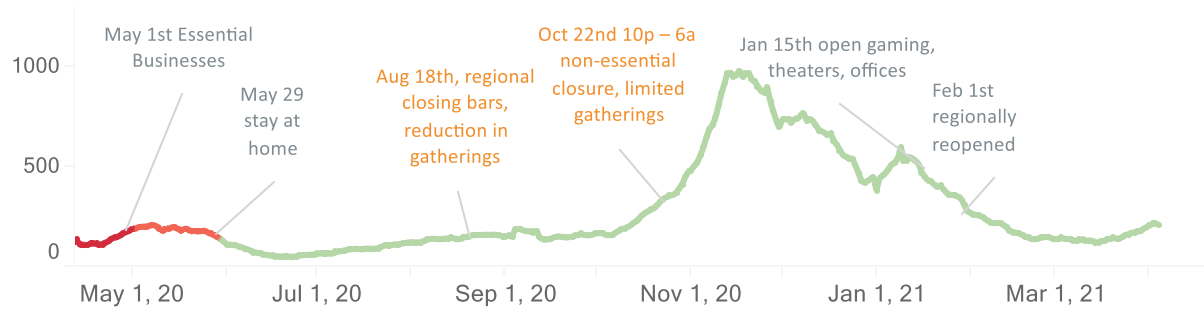


Michigan Confirmed New Cases / 1M (7 days average)

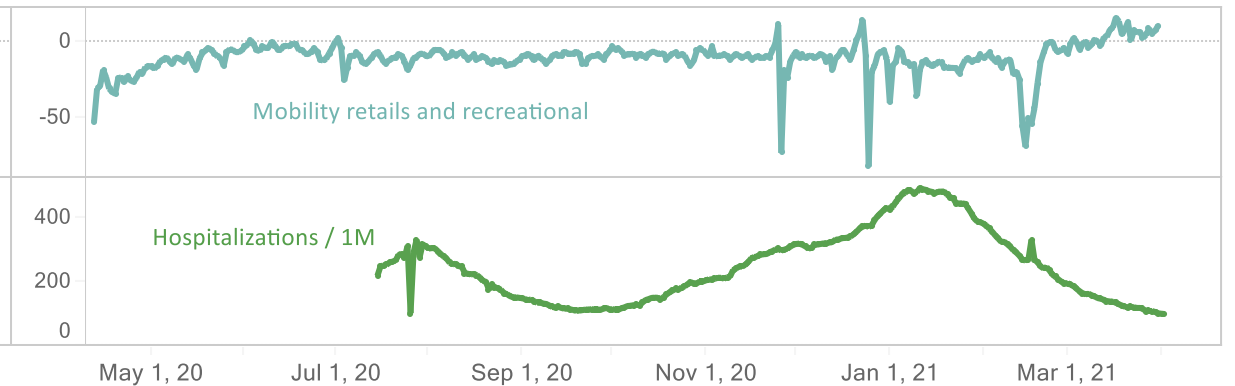
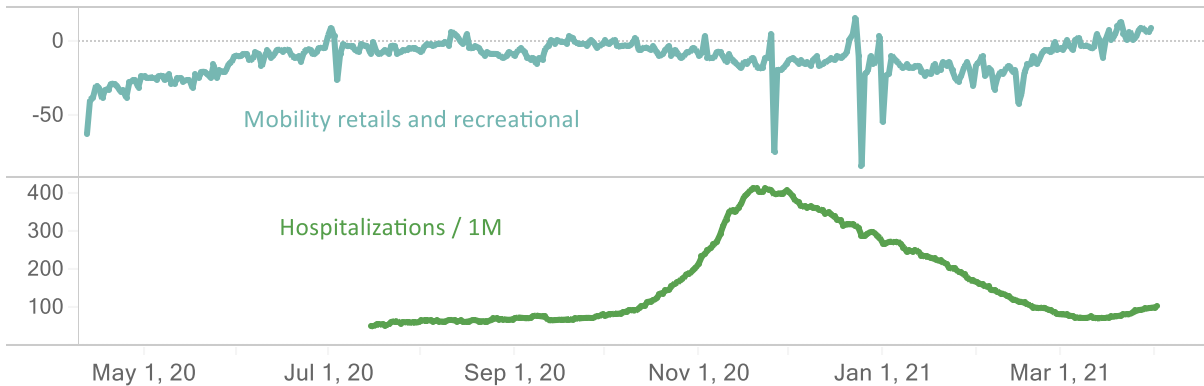
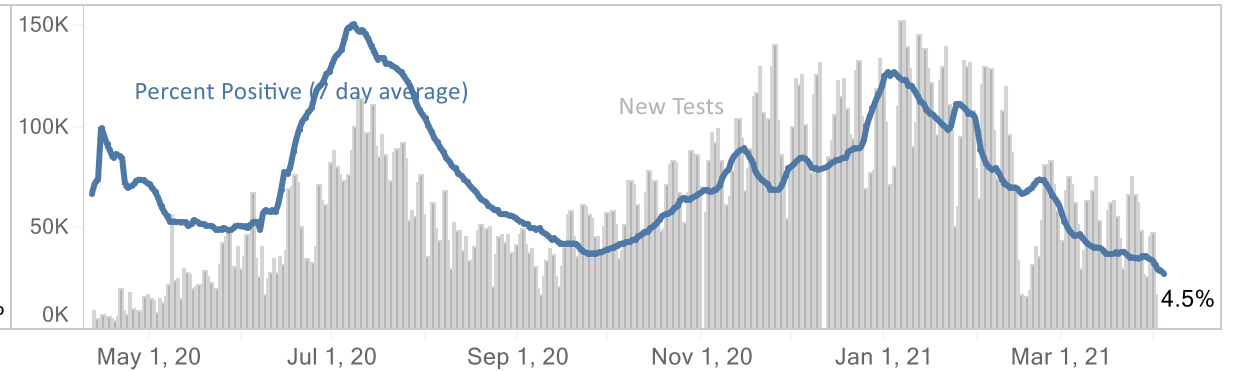
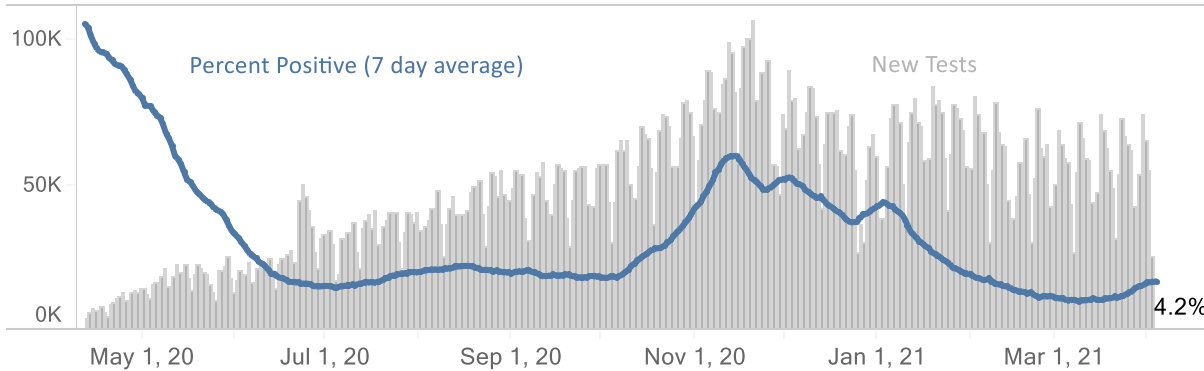
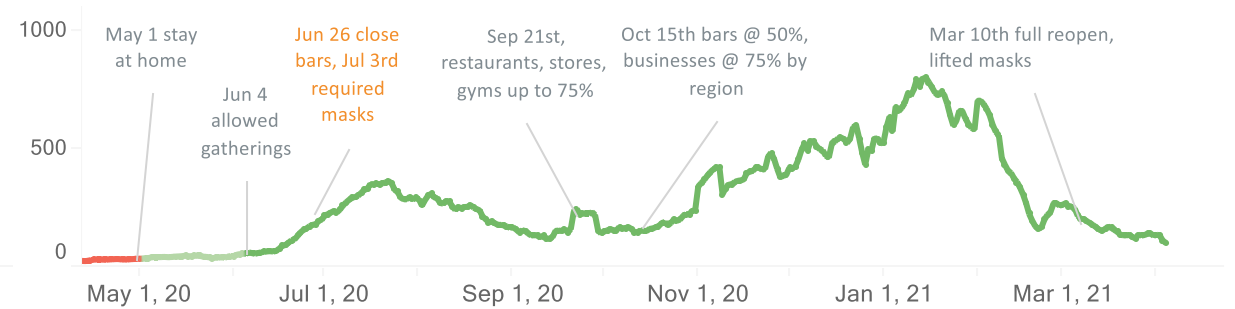


Illinois and Texas: Detailed Examination

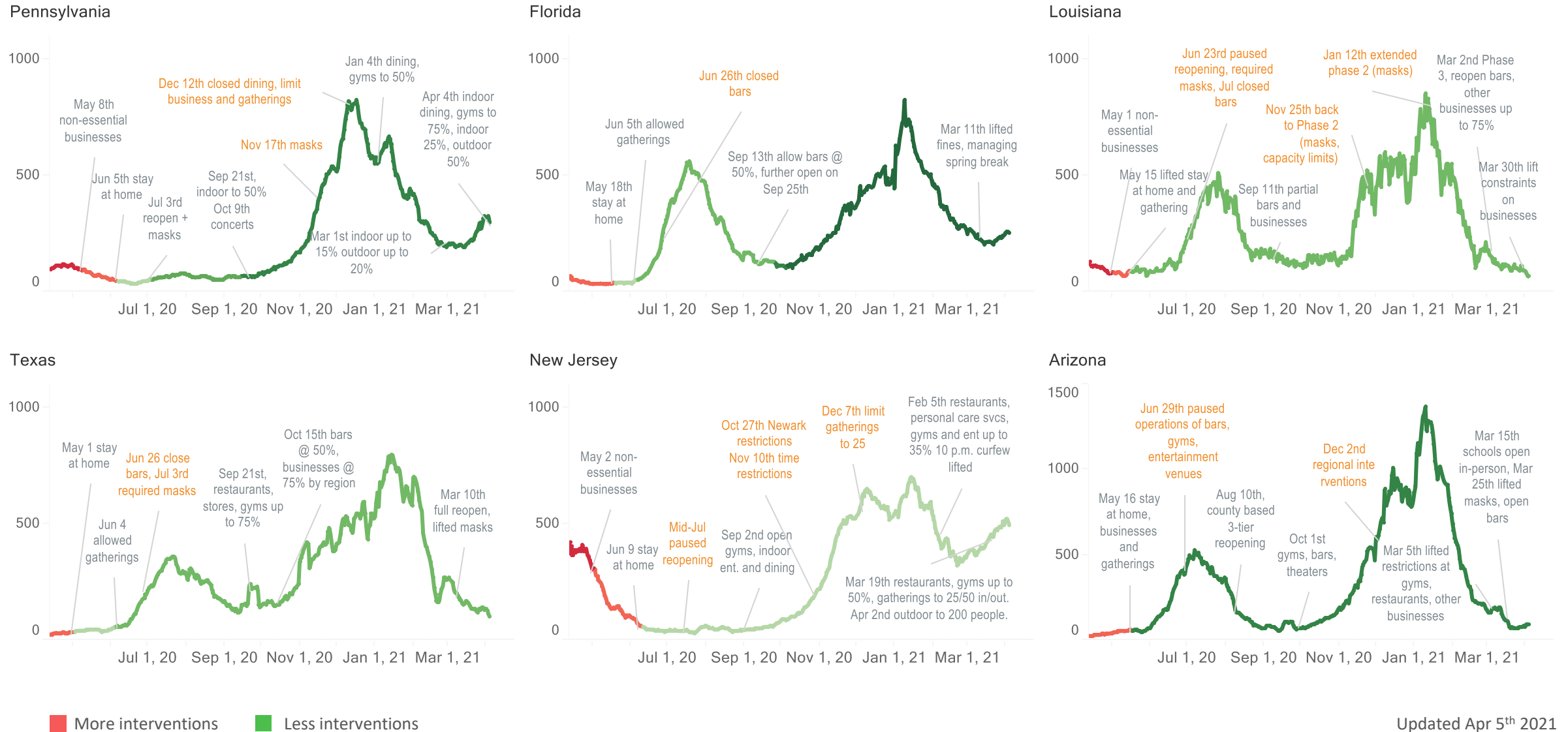
Illinois Confirmed New Cases / 1M (7 days average)



Texas Confirmed New Cases / 1M (7 days average)



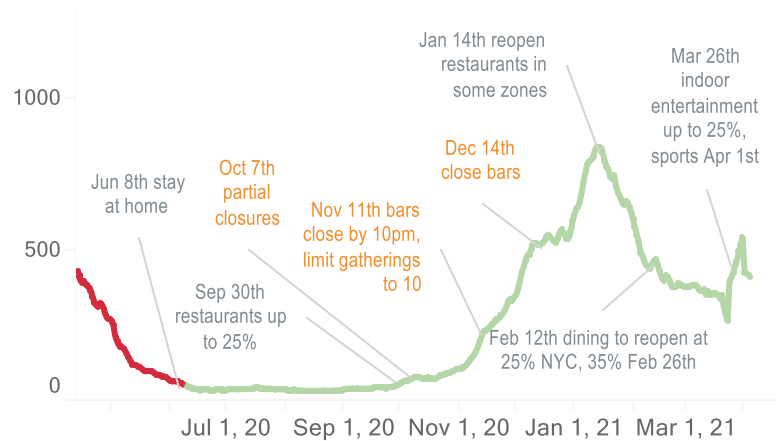
State Comparisons: 7 day avg. of daily new cases per 1M population



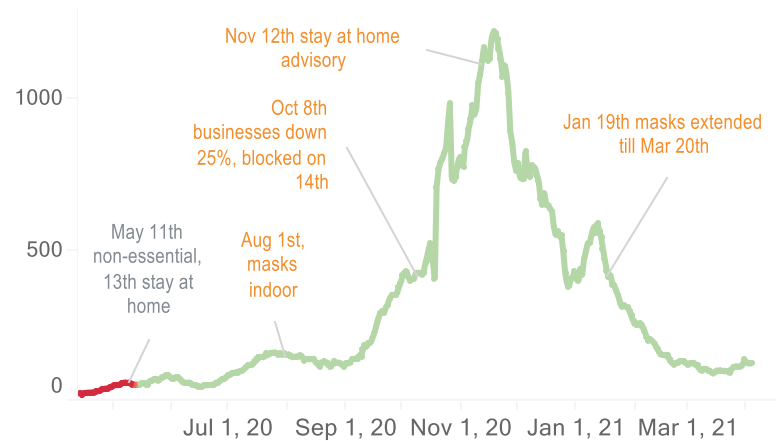
Updated Apr 5th 2021

State Comparisons: 7 day avg. of daily new cases per 1M population

New York



Wisconsin



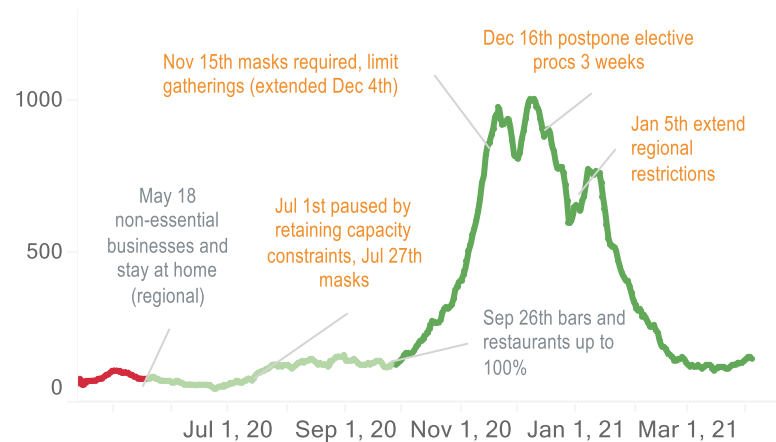
Michigan



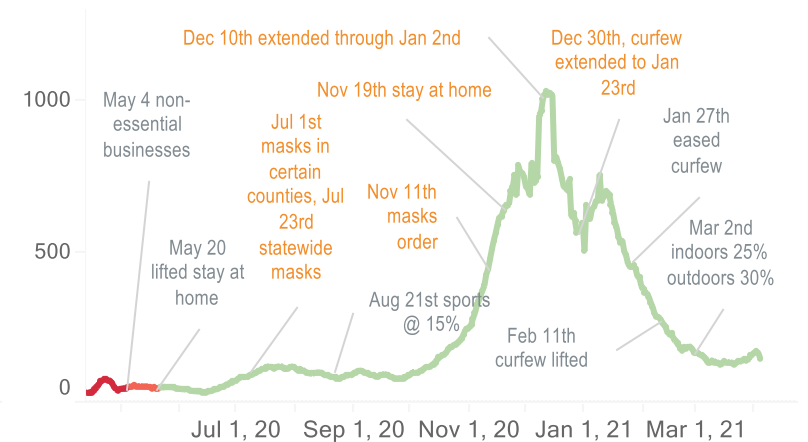
Illinois



Indiana



Ohio

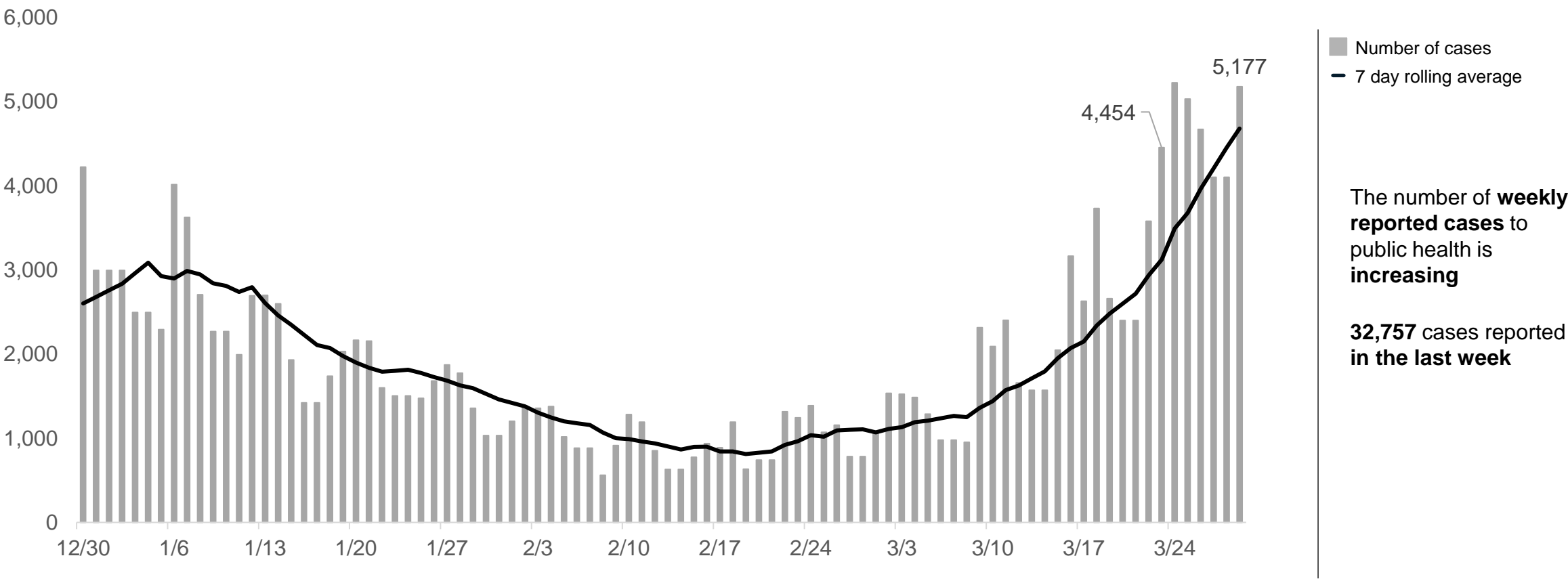


More interventions Less interventions

Updated Apr 5th 2021

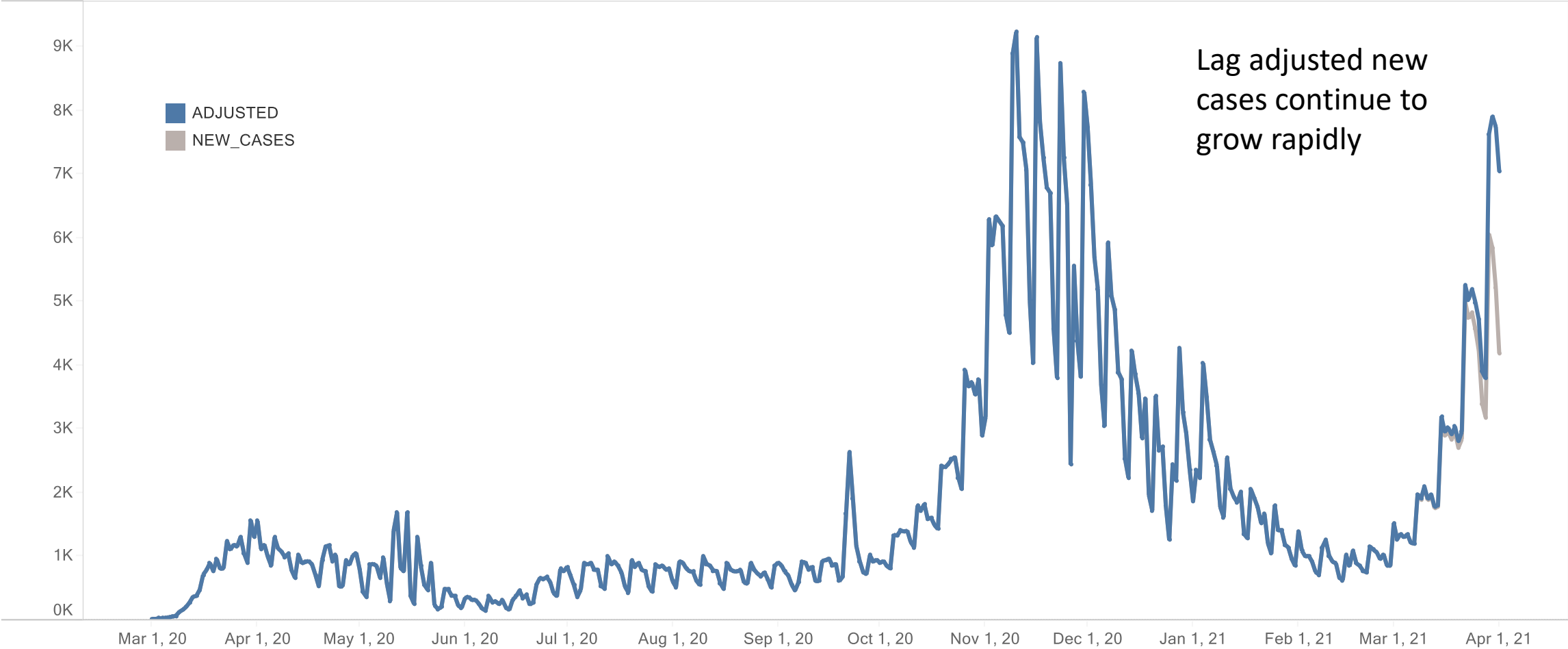
Confirmed COVID-19 cases by report date: State of Michigan

Confirmed cases reported on prior day (7-day rolling average)

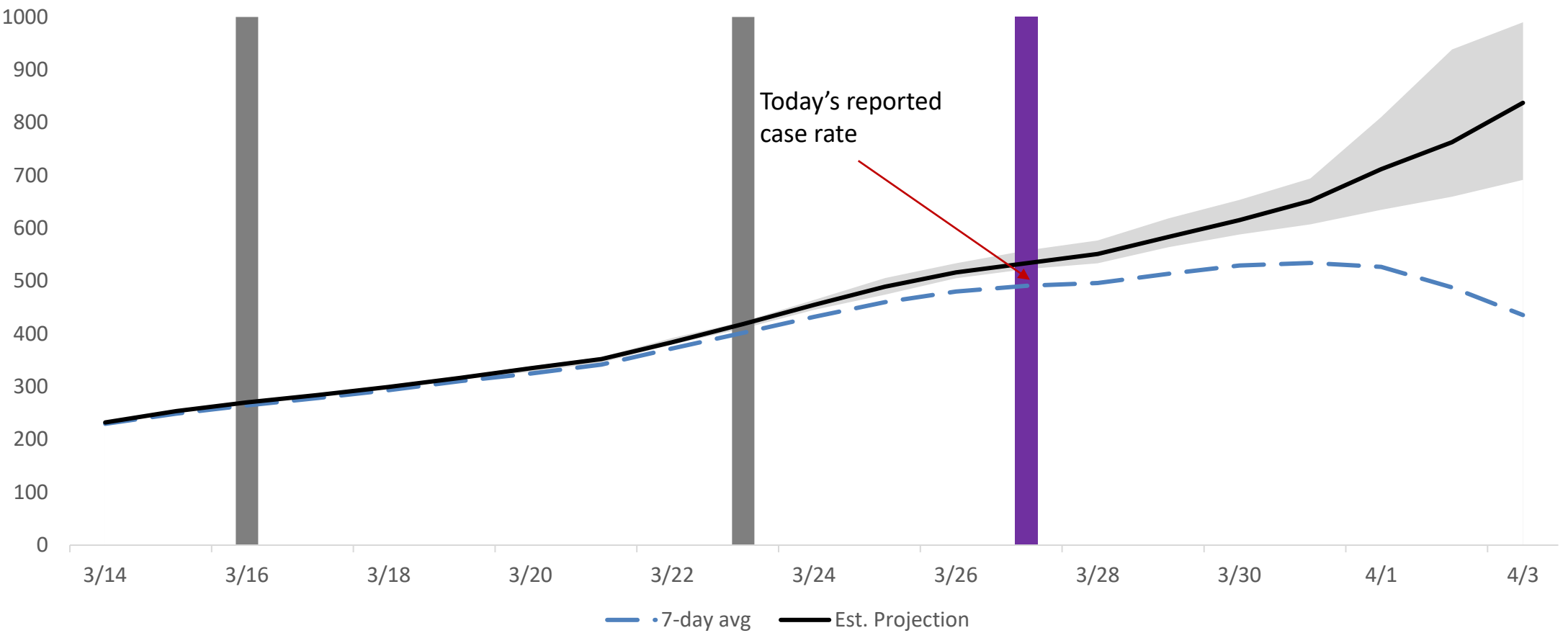


Lag adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of April 3, 2021 (-2 days)

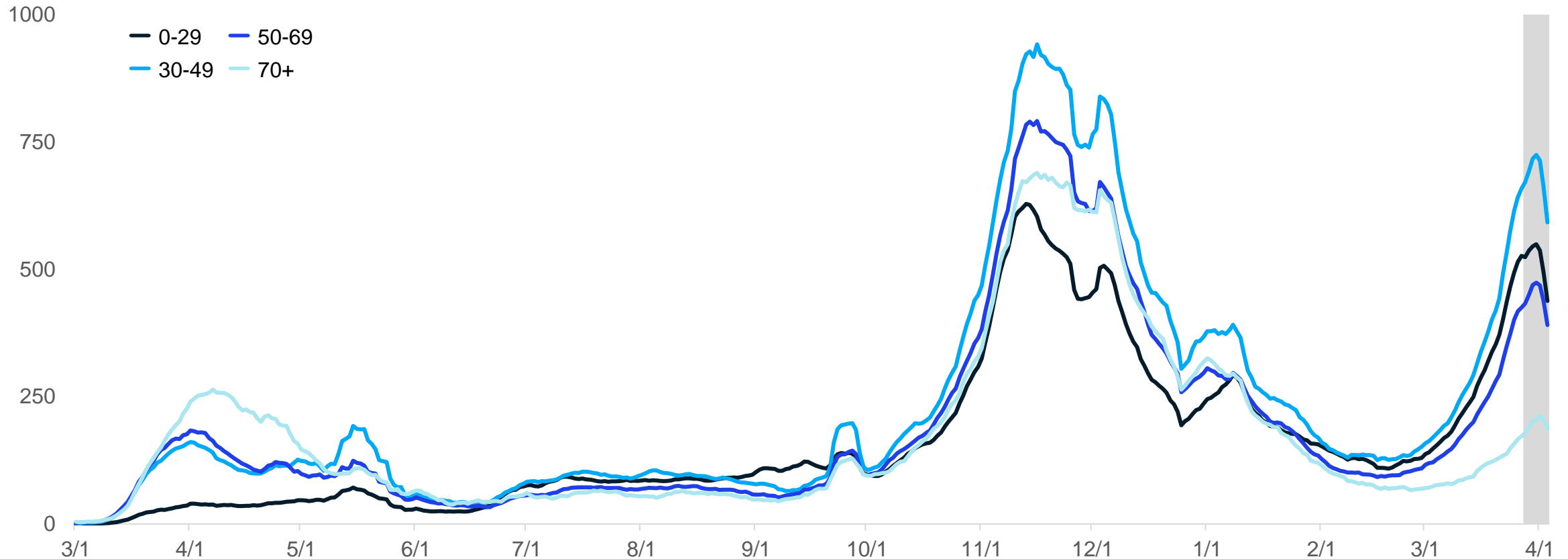


Current 7-day average vs. projected 7-day average projected with backfill



Age group: average new daily cases

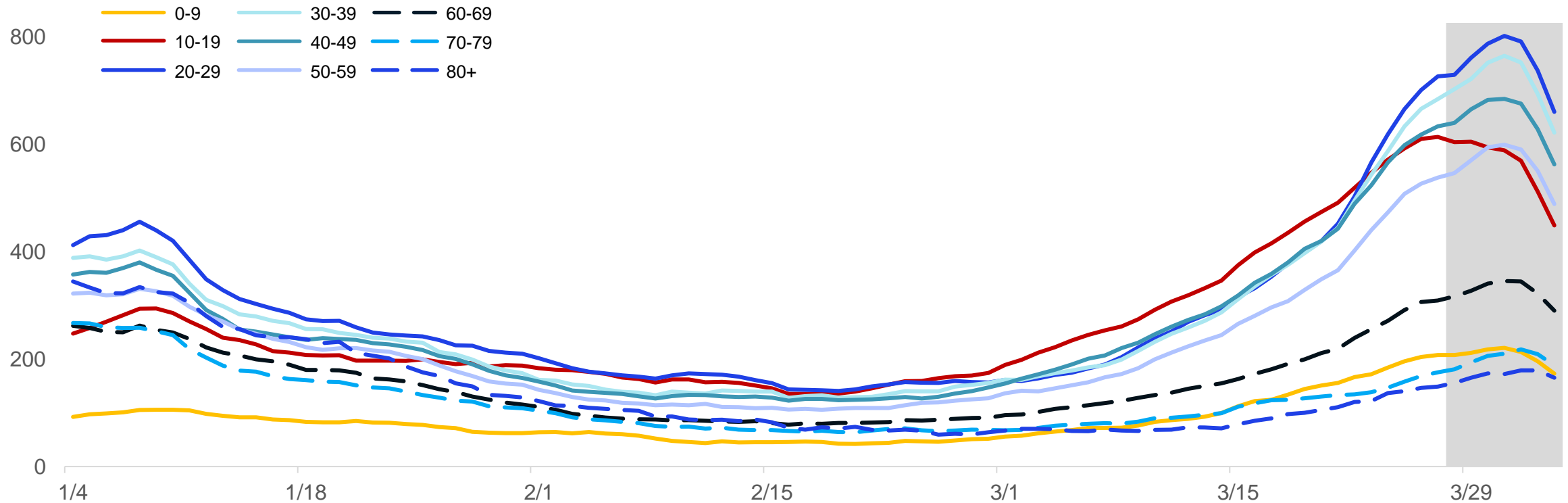
Daily new confirmed and probable cases per million by age group (7-day rolling average)



- Case rates are increasing at a faster pace for those under 70
- Cases per million is highest among the 30–49-year-olds, followed by 0-29-year-olds

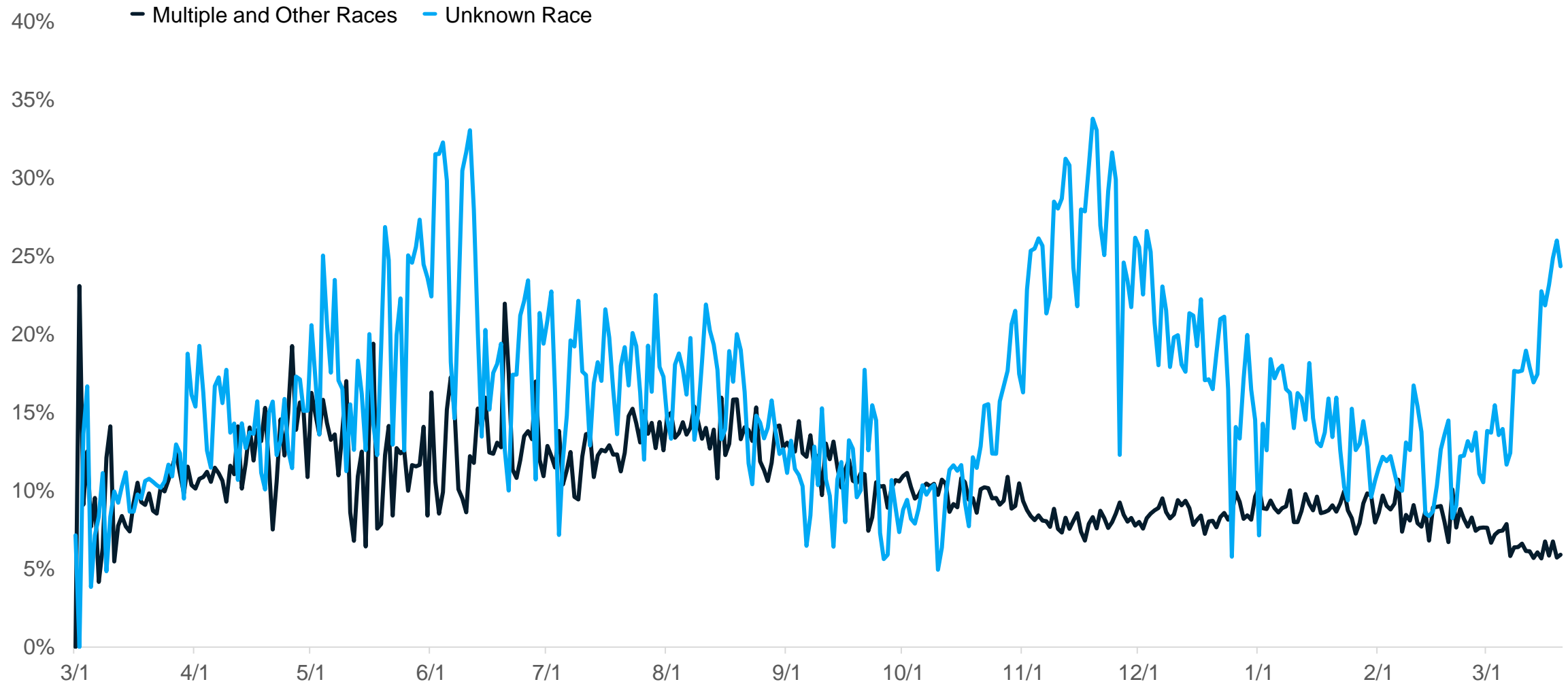
Age group: average new daily cases

Daily new confirmed and probable cases per million by age group (7-day rolling average)



- Case rates for those aged 0-9 and 10-19 is 207.6 and 613.7 (cases per million), respectively
 - In absolute measures, over 775 kids 0-19 are infected with COVID-19 every day
- This is an all-time high for children 0-19, and is more than quadruple from a month ago

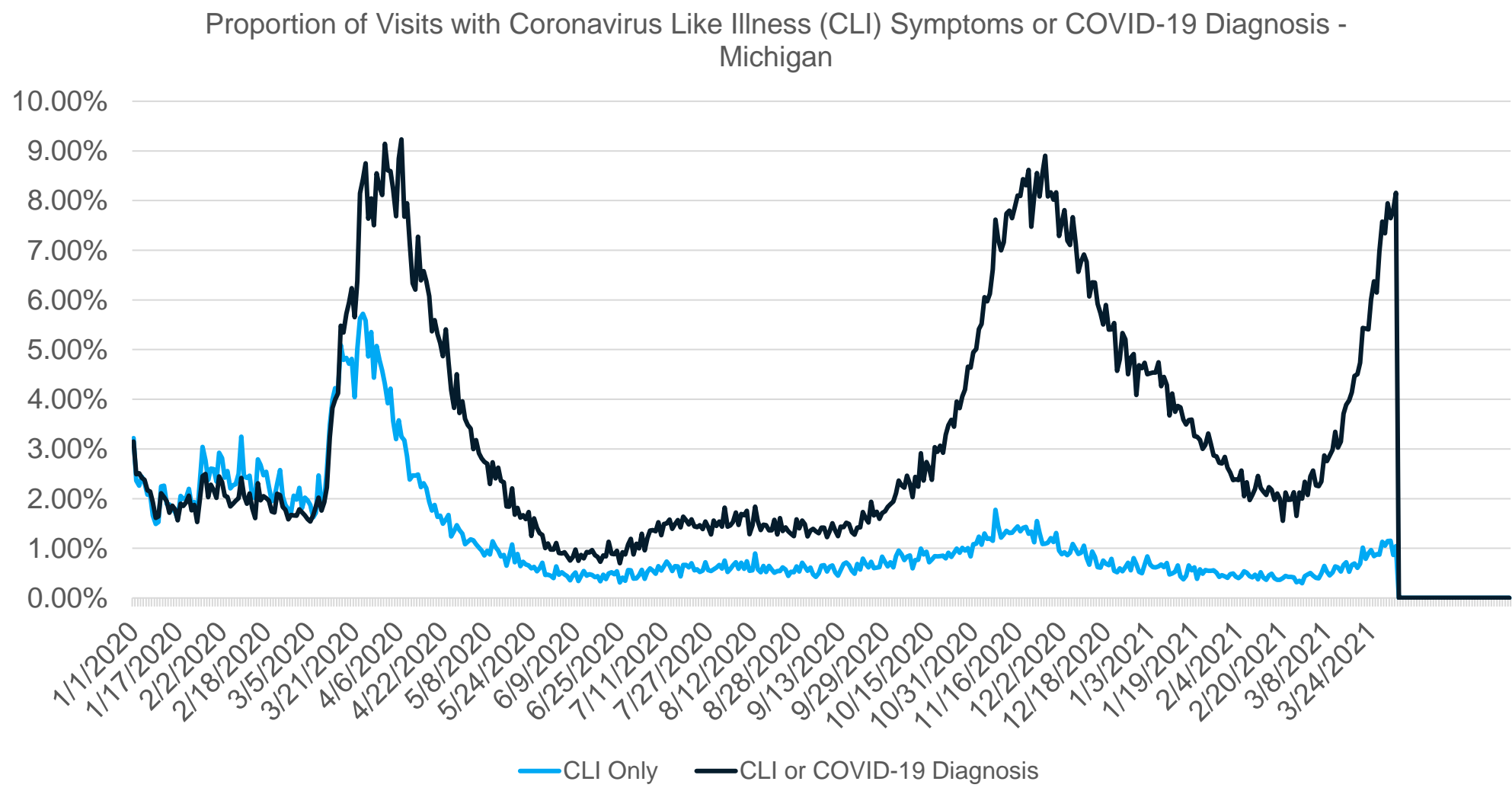
Percent daily new cases for Unknown, Multiple and Other Races



Note: Case information sourced from MDHHS and reflects date of onset of symptoms

Source: MDHHS – Michigan Disease Surveillance System

Trends in for COVID-19-Like Illness (CLI) and COVID-19 Diagnosis within 183 Michigan Emergency Departments and Urgent Cares



Source: Michigan Syndromic Surveillance System (MSSS)



QUESTIONS?

[Michigan.gov/Coronavirus](https://michigan.gov/Coronavirus)