MI COVID RESPONSE DATA AND MODELING UPDATE

NOTE: All data as of April 17 unless otherwise noted

April 20, 2021

Executive summary

Percent Positivity (16.4%, ↓2.1) is down 11% from last week but remains 371% higher than the mid-February low.

Case Rate (642.4, ↑90.2) is up 12% since last week, and has increased 504% in the past eight weeks

Michigan has the **highest number of cases (↔),** and **highest case rate (↔)** in the last 7 days (source: CDC COVID Data Tracker)

Percent of inpatient beds occupied by individuals with COVID (19.3%, ↑2.8%) has increased 17% since last week and is up 395% over six weeks

Michigan has the **highest inpatient bed utilization (↔),** and the **highest adult ICU bed utilization (↔)** (source: US HHS Protect)

Deaths have increased 25% since last week. There were 306 (↑69) deaths between Apr 4 and Apr 10, and the **Death Rate** is 4.4 deaths per million residents (↑1.0)

Michigan has the **8th highest number of deaths (↔),** and **T11th highest death rate (↓3)** in the last 7 days (source: CDC COVID Data Tracker)

The 7-day average **state testing rate** has increased to 4,461.0 tests/million/day (↑545.8). **Daily diagnostic tests (PCR)** is 44.4K per day (↑5.5K), and the **weekly average for PCR and antigen tests** conducted in Michigan is 64.8K (↑8.1K).

6.07 million **COVID-19 vaccine** doses reported to MDHHS, 45.6% of Michigan population 16+ has at least one dose

Comparison across states: Summary

What we see today (data through 4/17):

- 13 states are seeing increasing 1 week case trends (>=10%) (down vs. 16 last week)
- 10 states are seeing 1 week increases (>=10%) in new COVID hospital admissions (down vs. 23 last week)
- Michigan, DC, Maryland, New Jersey and New York have highest per capita hospitalized patient numbers.
- Midwest (case data from CDC as of 4/19):
  - Wisconsin with slight increase in hospitalizations (62/M) and stable cases (104/100k last 7d)
  - Indiana with stable hospitalizations (120/M), and stable cases (116/100k last 7d)
  - Illinois showing increase in hospitalizations (171/M), and stable cases (177/100k last 7d)
  - Ohio with increase in hospitalizations (152/M) and decrease in cases (117/100k last 7d)
  - Michigan showing increase in hospitalizations (423/M) and slight decrease in cases (485/100k last 7d)

COVID-19 Spread

Statewide positivity has decreased to 16.4%

- One week decrease of 11% (compared to 17% increase last week)
- *Decreasing* for seven days (371% *increase* since mid-February)
- Seven MERC regions are above 15% (Risk Level D)
- One MERC region, Saginaw, is above 20% (Risk Level E)
- Highest state, regional, and county levels recorded since mid-April 2020

Case rates (642.4 cases/million) are increasing in the state

- One week increase of 12% (compared to 14% last week)
- Increasing for eight weeks (504% cumulative increase since mid-February)
- Increases are seen among all age groups, races, and ethnicities
- Variants in Michigan: 3,455 confirmed B.1.1.7; 15 confirmed B.1.351; 78 confirmed B.1.427/B.1.429 ; 26 confirmed P.1

Number of active outbreaks is up 10% from previous week

- Reported school outbreaks is steady since last week (312)
- Since January, the most cases and clusters related to K-12 sports have been in basketball, hockey, and wrestling

Confirmed and probable case indicators

Table Date: 4/17/2021 (7 days from date table was produced: 4/10/2021)

Risk levels: Low | A | B | C | D | E

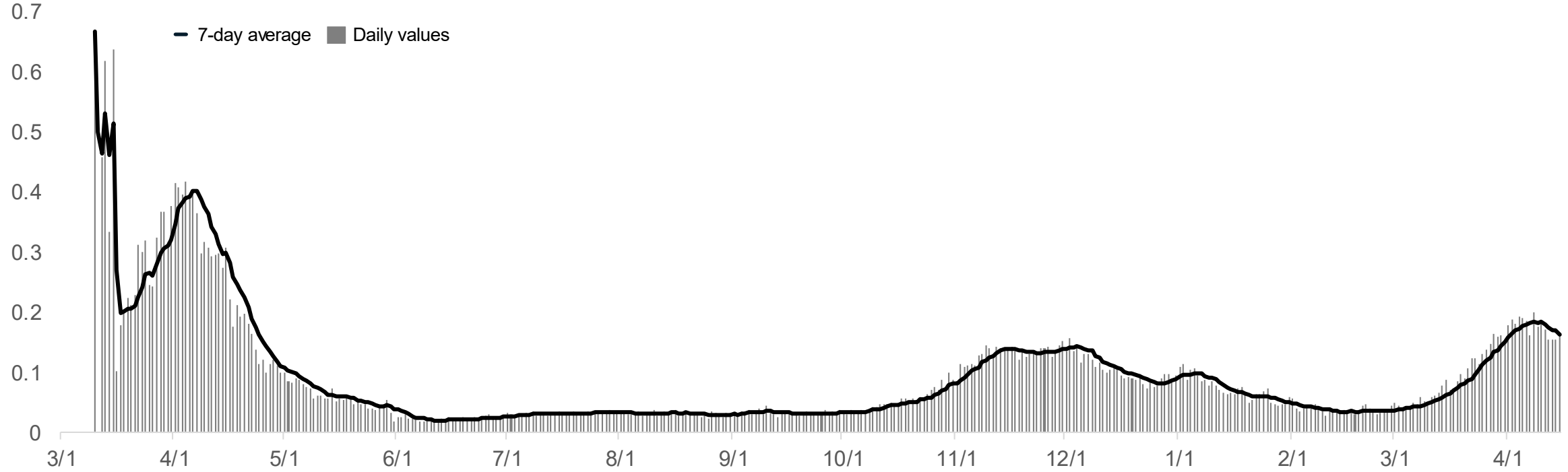
	Overall Risk Level	Absolute Cases (per million)	CDC Case Trend	Average Percent Positivity	Positivity Trend	Tests (per million)	% IP Beds Occupied by COVID-19 Cases	% Occupied IP Beds Trend	Absolute Deaths (per million)	Death Trend
Detroit	E	717.4	elevated incidence growth	15.8	Decrease - 1wk	5162.0	21.9	Increase - 7wk	5.0	Increase - 4wk
Grand Rapids	E	566.7	elevated incidence growth	18.9	Increase - 7wk	3786.1	14.8	Increase - 4wk	2.7	Increase - 1wk
Kalamazoo	E	469.4	elevated incidence growth	16.5	Increase - 6wk	3186.7	15.0	Increase - 6wk	4.3	Increase - 1wk
Saginaw	E	758.2	elevated incidence plateau	21.3	Increase - 7wk	3449.5	15.3	Increase - 4wk	5.4	<20 wkly deaths
Lansing	E	556.6	decline [6 days]	16.5	Increase - 6wk	3534.0	25.1	Increase - 4wk	3.2	<20 wkly deaths
Traverse City	E	562.5	elevated incidence plateau	16.7	Decrease - 1wk	2601.7	12.4	Increase - 7wk	4.5	<20 wkly deaths
Jackson	E	645.5	elevated incidence growth	16.9	Increase - 5wk	4259.6	21.7	Increase - 5wk	5.7	<20 wkly deaths
Upper Peninsula	E	316.9	elevated incidence plateau	9.0	Increase - 6wk	2944.1	5.1	Increase - 4wk	0.5	<20 wkly deaths
Michigan	E	642.4	elevated incidence growth	16.4	Decrease - 1wk	4461.0	19.3	Increase - 6wk	4.4	Increase - 4wk

Cases Low: <7 | A: 7-20 | B: 20-40 | C: 40-70 | D: 70-150 | E: >=150

Positivity Low: <3% | A: 3-7% | B: 7-10% | C: 10-15% | D: 15-20% | E: >=20%

Statewide Positivity Trends

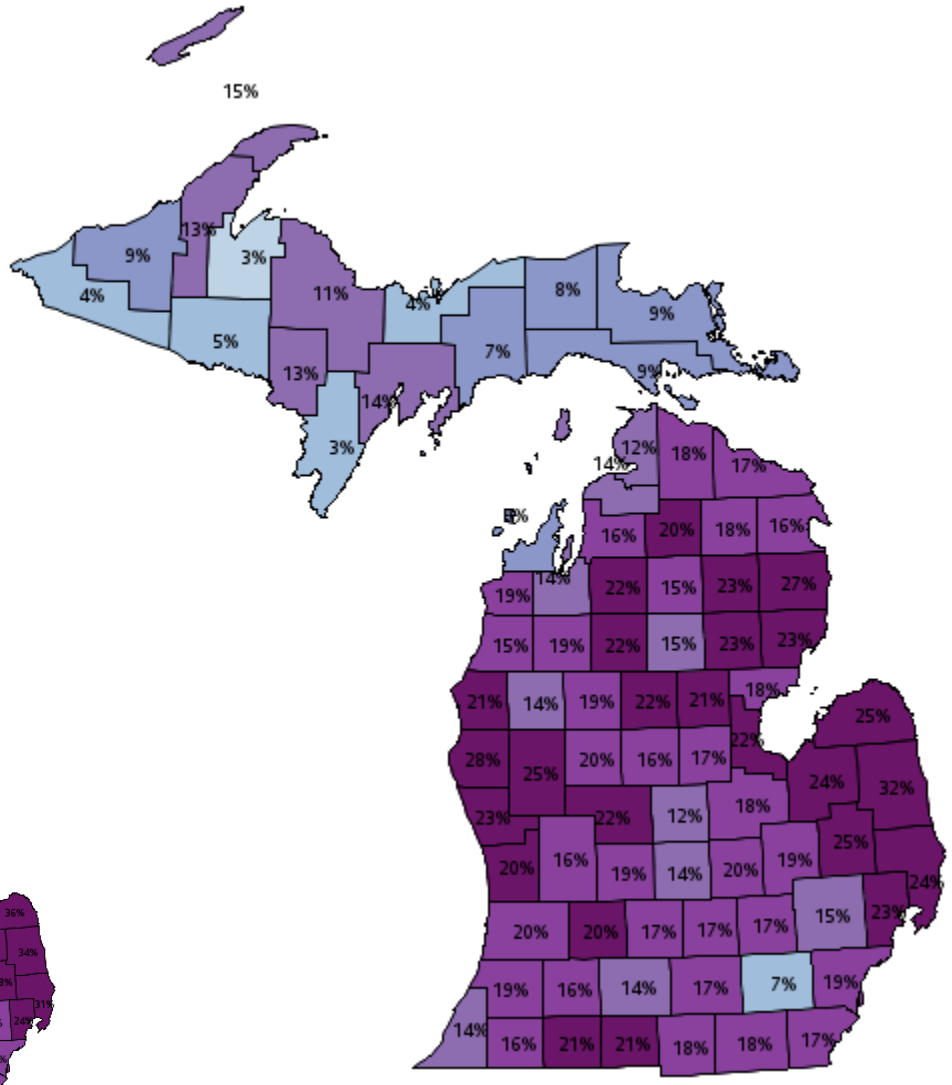
Daily positivity and 7-day rolling average positivity for Michigan



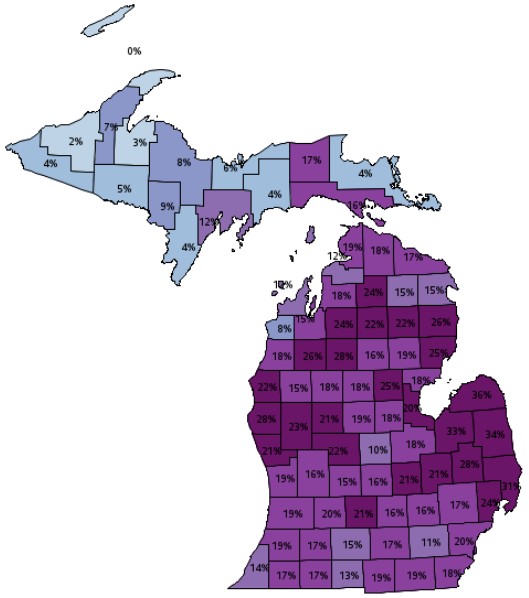
- Early in the pandemic, testing was not as robust as it has been since July 2020 to present
- Positivity is an early indicator of SARS-CoV-2 Transmission (as positivity increases, we expect case rates to follow)
- Current statewide positivity is the highest it has been since April 22, 2020*
- Positivity is down 11% from last week but remains 371% higher than the mid-February low
- These are for PCR tests only and exclude tests conducted with Michigan Department of Corrections

*Note: Testing was not as robust early in the pandemic
Source: MDHHS – Michigan Disease Surveillance System

Positivity by county, 4/9-4/15



Last week, 4/2-4/8



Average positivity per day	# of counties	This week	Last week
<3%		1	3
3-7%		5	6
7-10%		6	4
10-15%		15	10
15-20%		31	35
>=20%		25	25

Updates since last week:

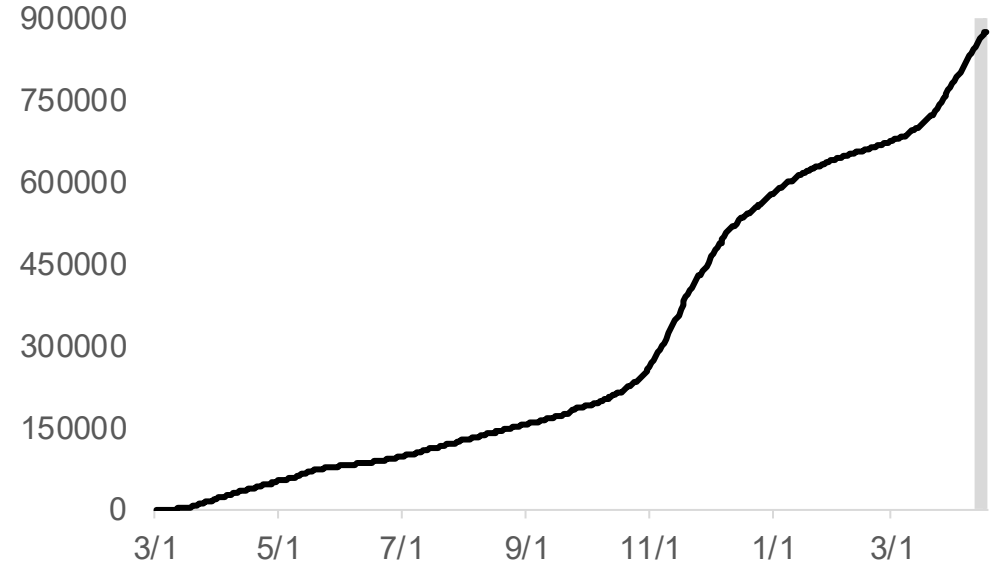
71 of 83 counties saw double digit positivity in the last week (1 county increase)

77 of 83 counties saw positivity > 7% in the last week (3 county increase)

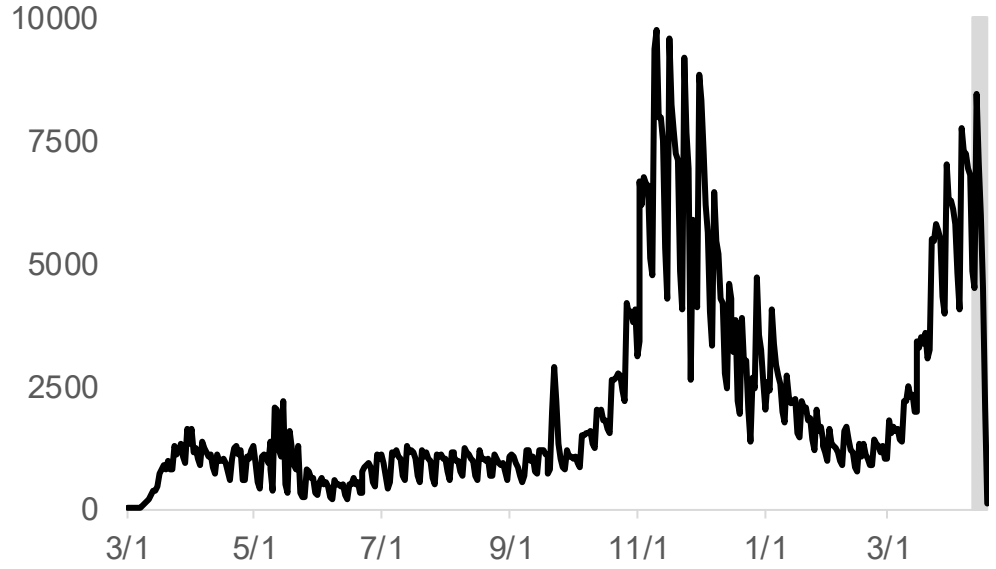
Source: SEOC Testing Results – Excluding MDOC

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

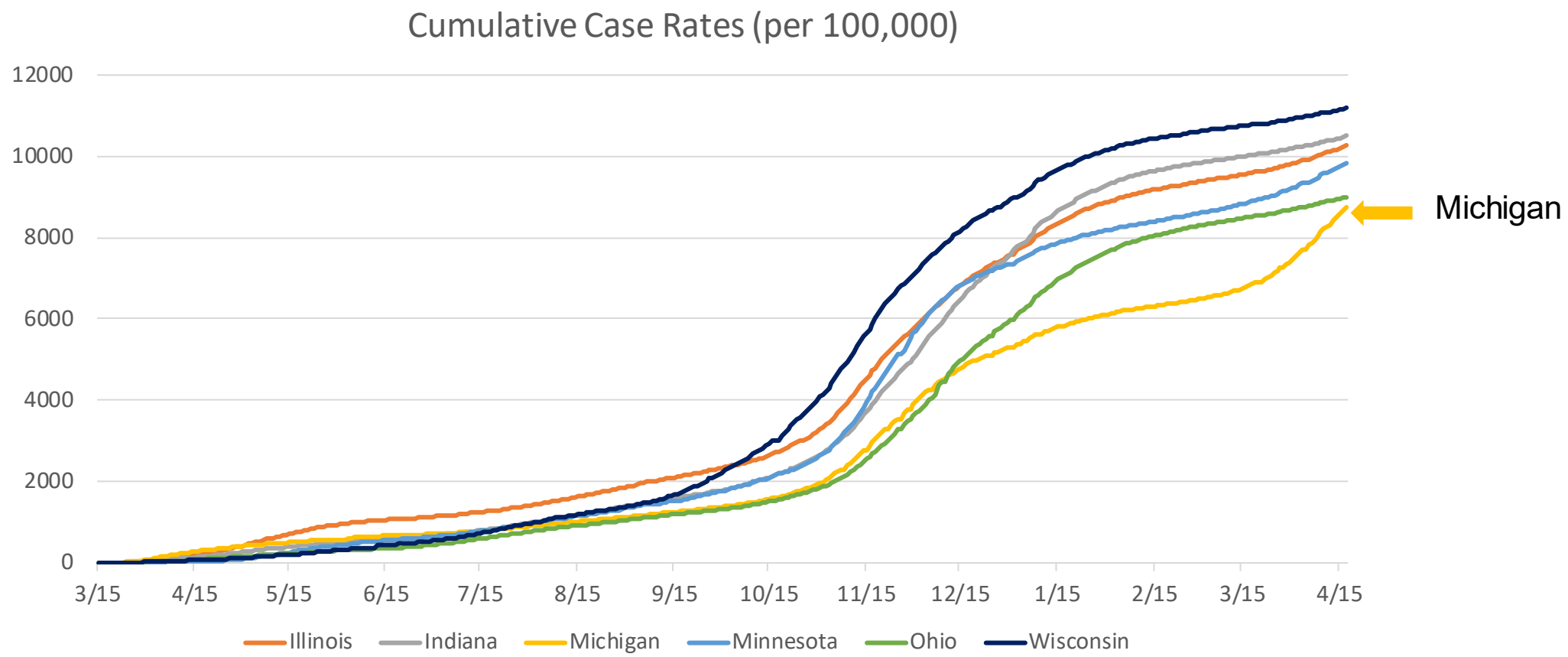


Updates since last week:

- Cases have increased for eight weeks
- Cumulative cases are approaching 900,000
- There are over 6,400 new cases per day, an increase of 900 since last week

Note: Case information sourced from MDHHS and reflects date of onset of symptoms (refers to lab-confirmed cases). Case spike on 5/12 is a result of batch of test results, not all of which have onset date of symptoms completed
Source: MDHHS – Michigan Disease Surveillance System

Cumulative COVID-19 Case Rates: Midwest Comparison

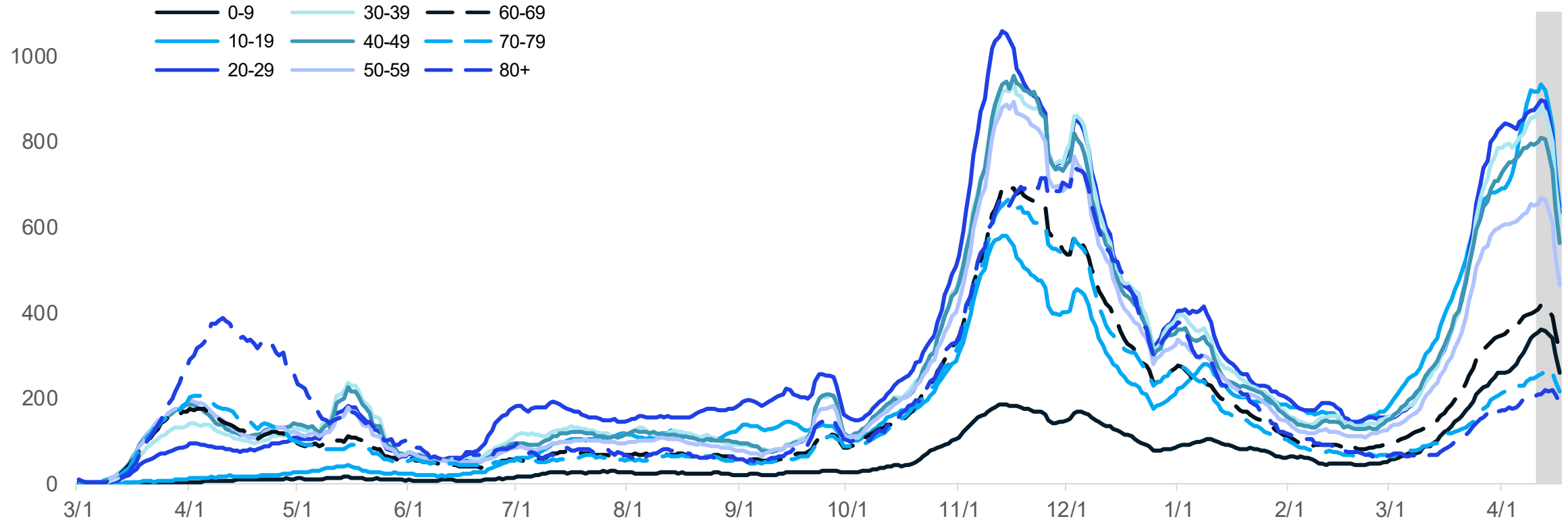


- Cumulative incidence per 100,000 cases in Michigan has been lower than other states in the Midwest following spring 2020 surge
- Michigan's mitigation policies helped control the spread of SARS-CoV-2 relative to other states in the Midwest, particular during surge in November and December
- The current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

Source: CDC COVID Data Tracker – State Trend Comparison

Age group: average new daily cases

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



- All age groups by decade are increasing
- Those aged 10-19 have the highest case rates, followed by 20-29, 30-39, 40-49, and 50-59
- There are over 6,400 new cases per day (↑900)

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Age group: average new daily cases and daily case rate

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

Age Group	Average daily cases	Average Daily Case Rate	One Week % Change (Δ #)	% Change since 2/19* (Δ #)
0-9	401.4	348.2	32% (97)	694% (351)
10-19	1150.9	917.1	30% (264)	567% (978)
20-29	1203.0	872.0	4% (45)	505% (1,004)
30-39	1038.3	855.9	8% (75)	530% (874)
40-49	932.3	790.5	5% (45)	517% (781)
50-59	877.6	649.9	7% (60)	490% (729)
60-69	511.1	400.7	12% (53)	382% (405)
70-79	188.6	245.9	11% (19)	276% (138)
80+	84.1	203.1	13% (10)	177% (54)
Total¶	6,414.4	642.4	12% (666)	495% (5,314)

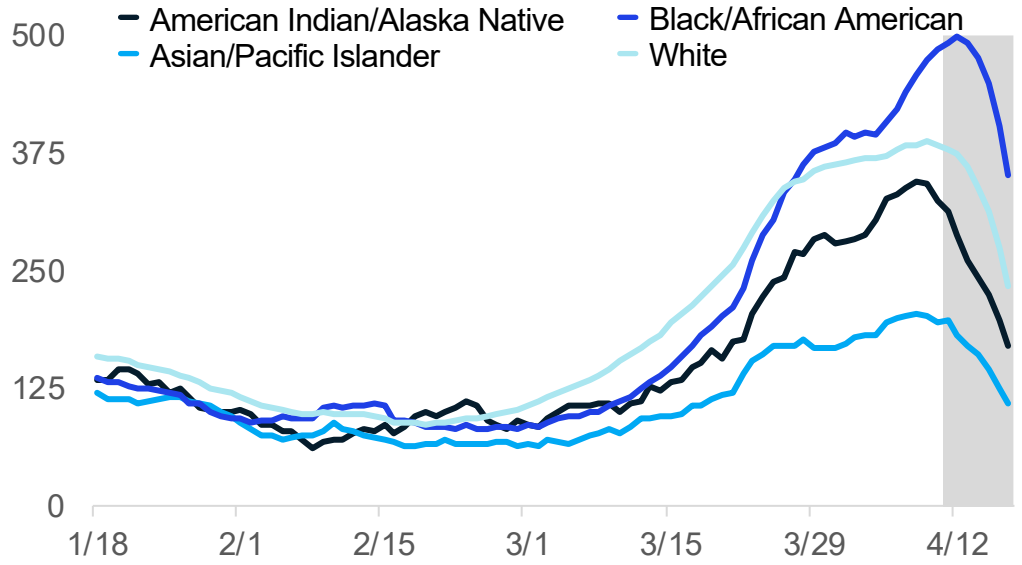
* Lowest 7-day avg. following winter surge
¶ Total may not reflect state due to missing age data

- Avg. daily number of cases (1,203.0) is currently highest for 20-29; Avg. daily case rate (917.1) is highest for 10-19
- All age groups under 70 are experiencing an average of more than 400 cases per day
- Since February 19, case rates and number of cases have been highest among those under 70 years of age

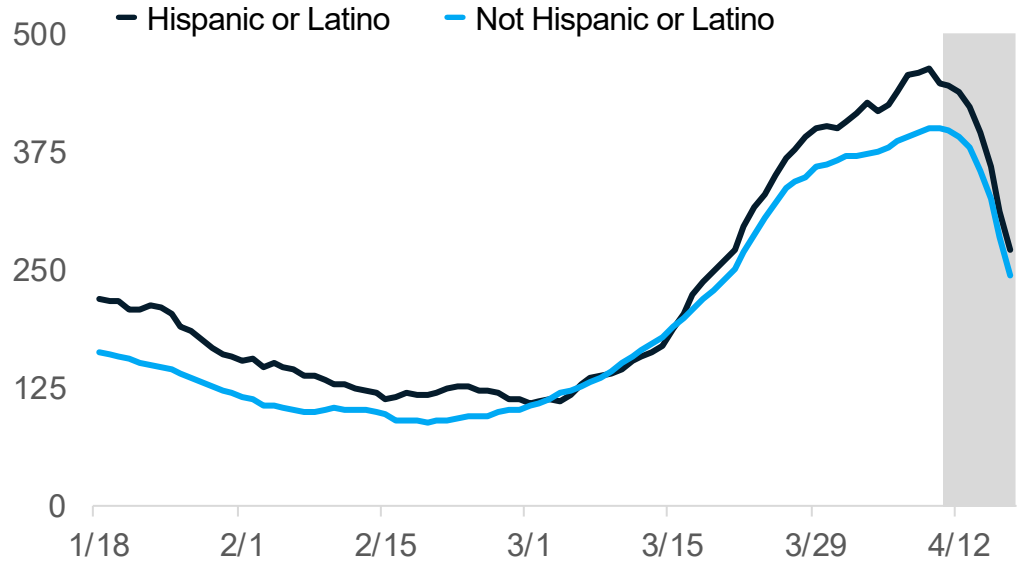
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

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



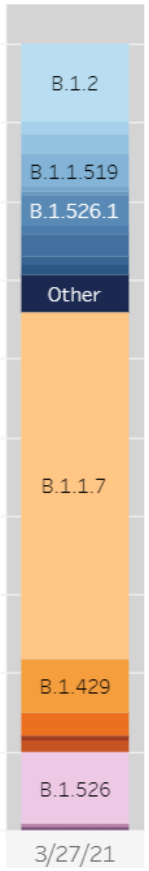
Updates since last week:

- Cases per million are 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, 36% of all cases represent unknown, multiple, or other races (30% of race is unknown, ↓1%)
- In the past 30 days, 34% of all cases have an unknown ethnicity reported (↓2%)

Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

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

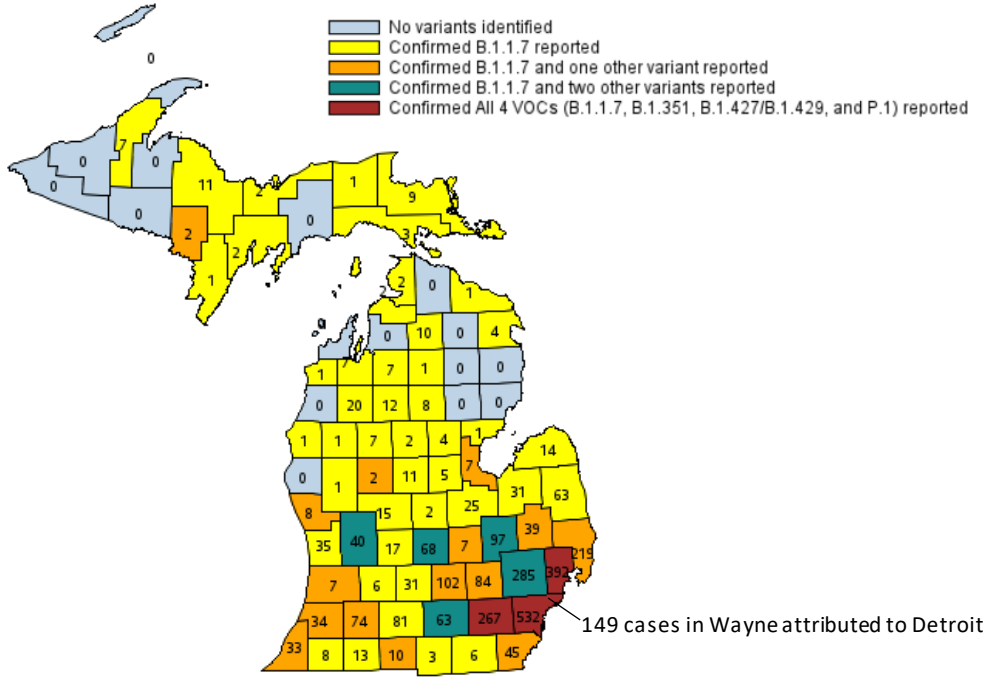
SARS-CoV-2 Variants Circulating in the United States, Mar 14 – Mar 27



	Lineage	% Total	95%CI	Type
Most common lineages	B.1.1.7	44.1%	41.2-47.1%	VOC
	B.1.2	10.0%	8.9-11.2%	
	B.1.526	9.2%	7.2-11.7%	VOI
	B.1.429	6.9%	5.1-9.4%	VOC
	B.1.1.519	4.1%	3.4-5.0%	
	B.1.526.1	3.9%	3.3-4.7%	
	B.1.526.2	2.9%	2.3-3.8%	
	B.1.427	2.9%	2.2-3.9%	VOC
	B.1	2.4%	2.0-3.0%	
	B.1.596	1.7%	1.3-2.1%	
	P.1	1.4%	1.0-1.8%	VOC
	R.1	1.2%	0.8-1.6%	
	B.1.575	1.1%	0.9-1.5%	
	B.1.1	0.9%	0.6-1.5%	
	B.1.243	0.6%	0.4-1.0%	
	B.1.234	0.5%	0.3-0.7%	
Additional VOI/VOC lineages	B.1.351	0.7%	0.5-1.0%	VOC
	B.1.525	0.5%	0.3-0.7%	VOI
	P.2	0.3%	0.2-0.4%	VOI
Other*	Other	4.7%	4.1-5.4%	

Summary data that appear in the table include specimen collection dates from March 14 through March 27, 2021.
* Other represents >200 additional lineages, which are each circulating at <1% of viruses
** Most recent data (shaded) are subject to change as samples from that period are still being processed.

Emergent Variants of Cases in Michigan, Apr 19



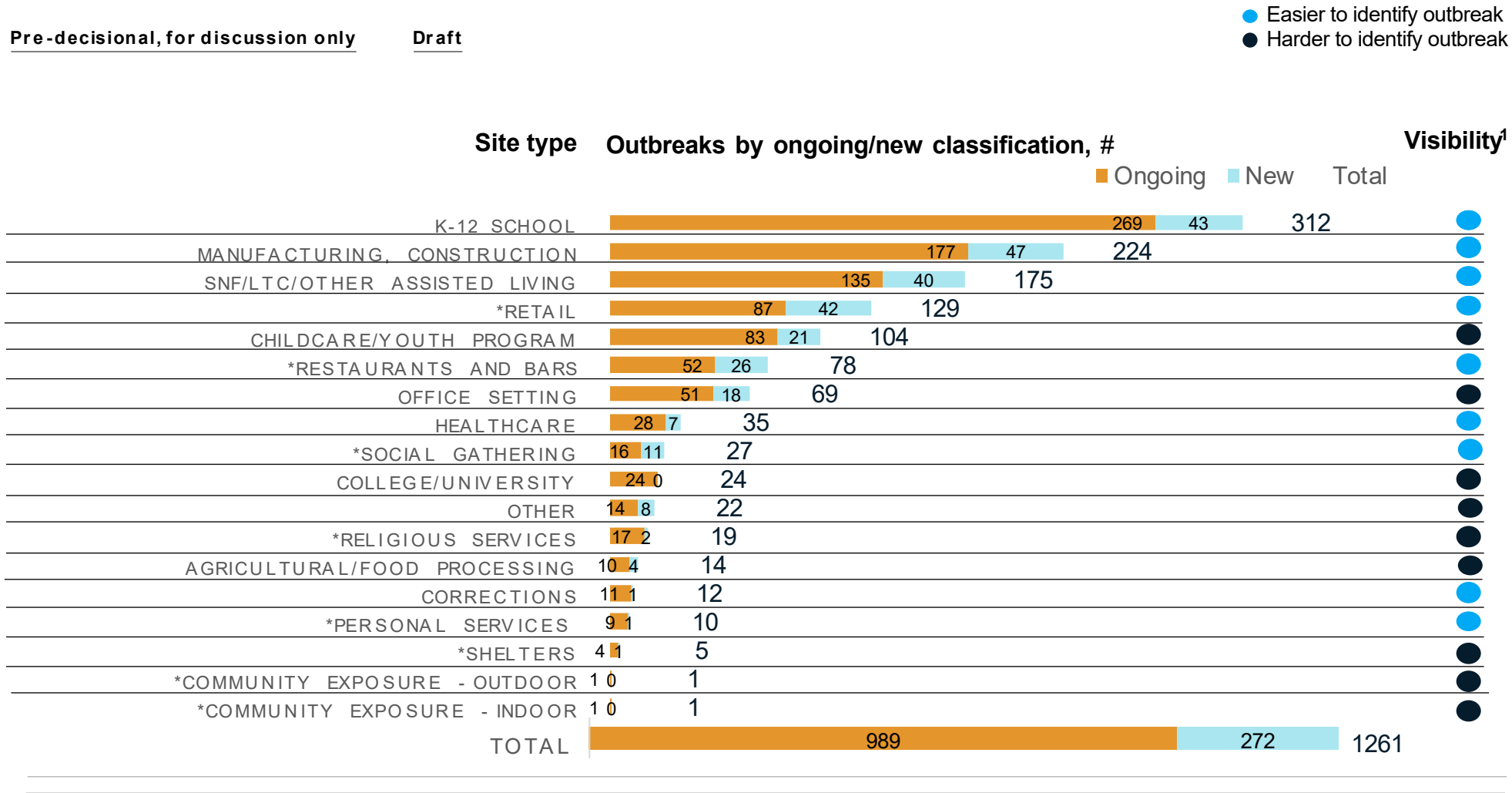
Variant	MI Reported Cases¶	# of Counties	CDC est. prevalence
B.1.1.7	3,455*	67	57.6%
B.1.351	15	10	0.1%
B.1.427/B.1.429	78	16	5.8%
P.1	26	8	0.2%

* 517 cases within MDOC; ¶ Several cases with county not yet determined

Data last updated April 20, 2021
Source: https://covid.cdc.gov/covid-data-tracker/#variant-proportions and Michigan Disease Surveillance System (MDSS)

Number of outbreak investigations by site type, week ending Apr 15

Pre-decisional, for discussion only **Draft**



Total number of active outbreaks is up 10% from previous week

Following manufacturing/ construction (47), the greatest number of new outbreaks were reported inK-12 (43), retail (42), SNF/LTC (40), restaurants & bars (26), childcare/youth programs (21), office settings (18), and social gatherings (11).

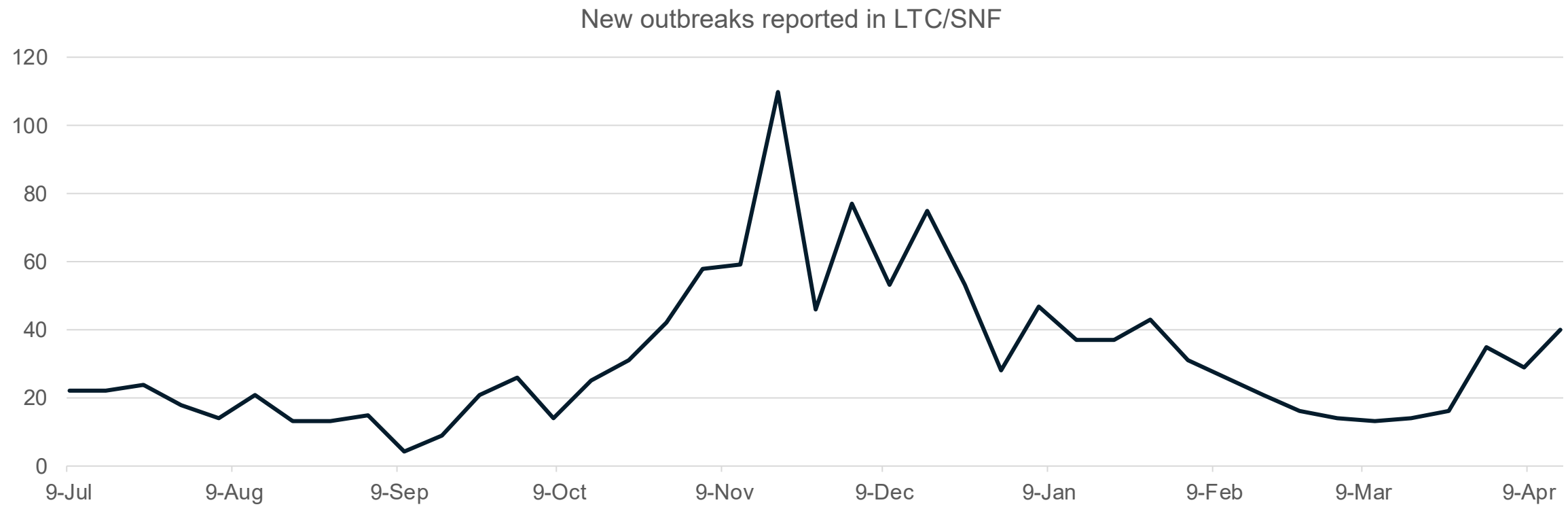
LHDs reported new outbreaks in all settings except college/universities, indoor and outdoor community exposures.

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

Long-Term Care Facilities: Number of Outbreak Investigations by Week

Weekly new outbreaks in LTC/SNF through April 15

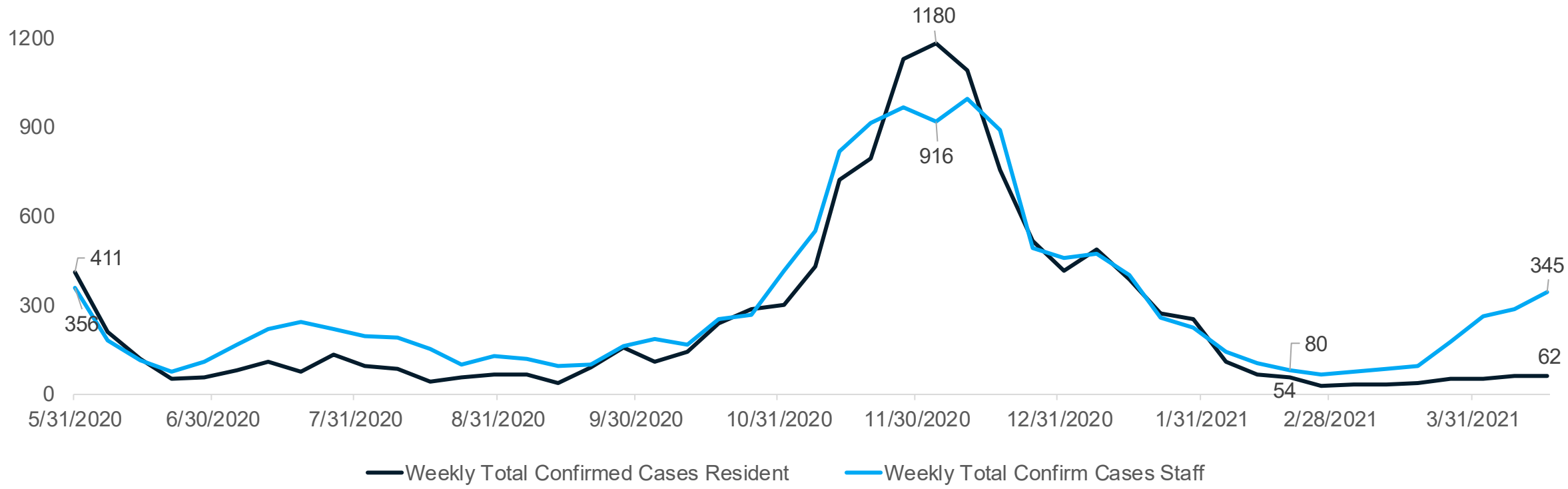


- The number of outbreaks in long term care facilities had been reflecting case trends in the community
- Outbreaks peaked in mid-November
- Increases are again seen recently in LTC/SNF

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

Total Confirmed COVID-19 Cases in Nursing Homes: Residents & Staff

Weekly totals in Nursing Homes through April 16

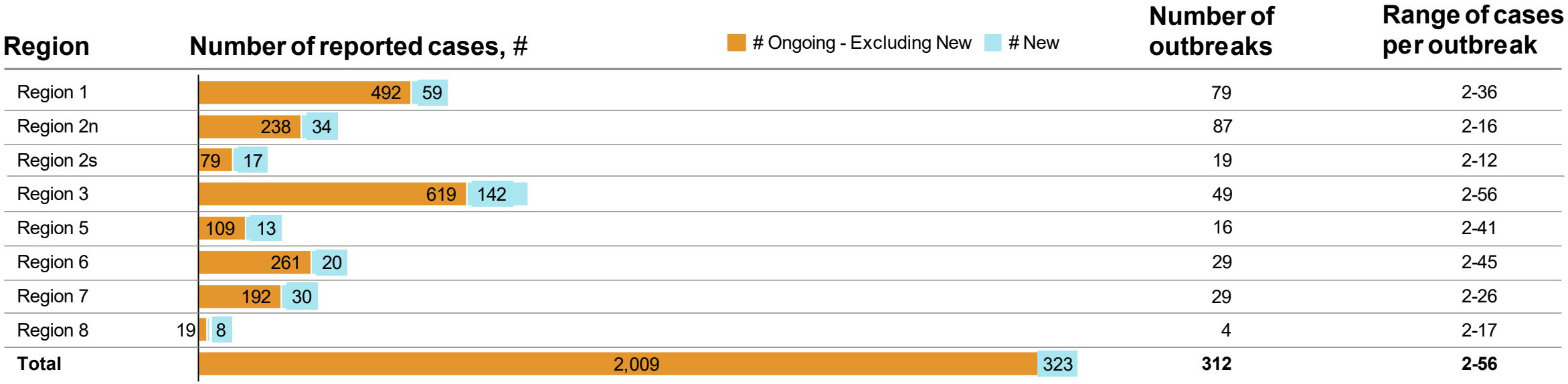


- Cases in nursing homes peaked in mid-November
- Increases are again seen recently, reflecting trends seen in the community
- Increases in nursing homes are primarily driven by staff

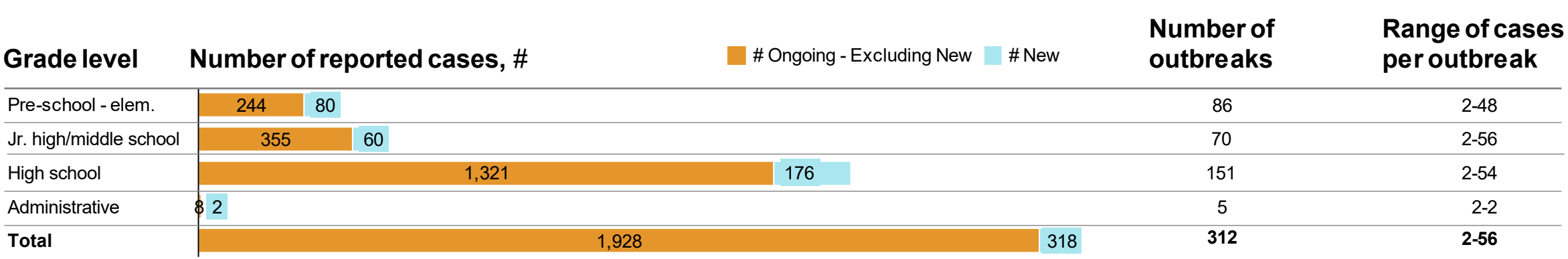
Source: MDHHS and EM Resource

K-12 school outbreaks, recent and ongoing, week ending Apr 15

Number of reported outbreaks is steady since last week (312) with increases in Middle/Jr High (68 to 70), and Pre-K – Elementary (74 to 86). High Schools decreased (165 to 151) and Administrative remained the same at 5.



Region	Number of reported cases, #		Number of outbreaks	Range of cases per outbreak
Region 1	492	59	79	2-36
Region 2n	238	34	87	2-16
Region 2s	79	17	19	2-12
Region 3	619	142	49	2-56
Region 5	109	13	16	2-41
Region 6	261	20	29	2-45
Region 7	192	30	29	2-26
Region 8	19	8	4	2-17
Total	2,009	323	**312**	**2-56**



Grade level	Number of reported cases, #		Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	244	80	86	2-48
Jr. high/middle school	355	60	70	2-56
High school	1,321	176	151	2-54
Administrative	8	2	5	2-2
Total	1,928	318	**312**	**2-56**

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 through Apr 2021

424 cases
118 clusters

285 cases
57 clusters

242 cases
64 clusters

70 cases
25 clusters

36 cases
10 clusters

36 cases
4 clusters

25 cases
14 clusters

14 cases
3 clusters

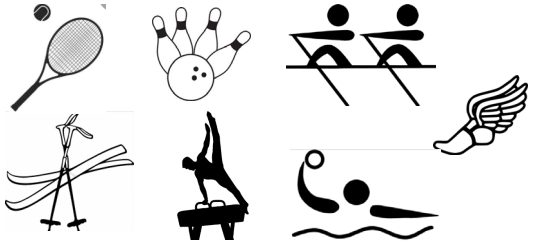
13 cases
5 clusters

9 cases
4 clusters

10 cases
7 clusters

6 cases
4 clusters

19 cases
13 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 22 different sport settings

Source: MDHHS – Michigan Disease Surveillance System

COVID-19 and Healthcare Capacity and COVID Severity

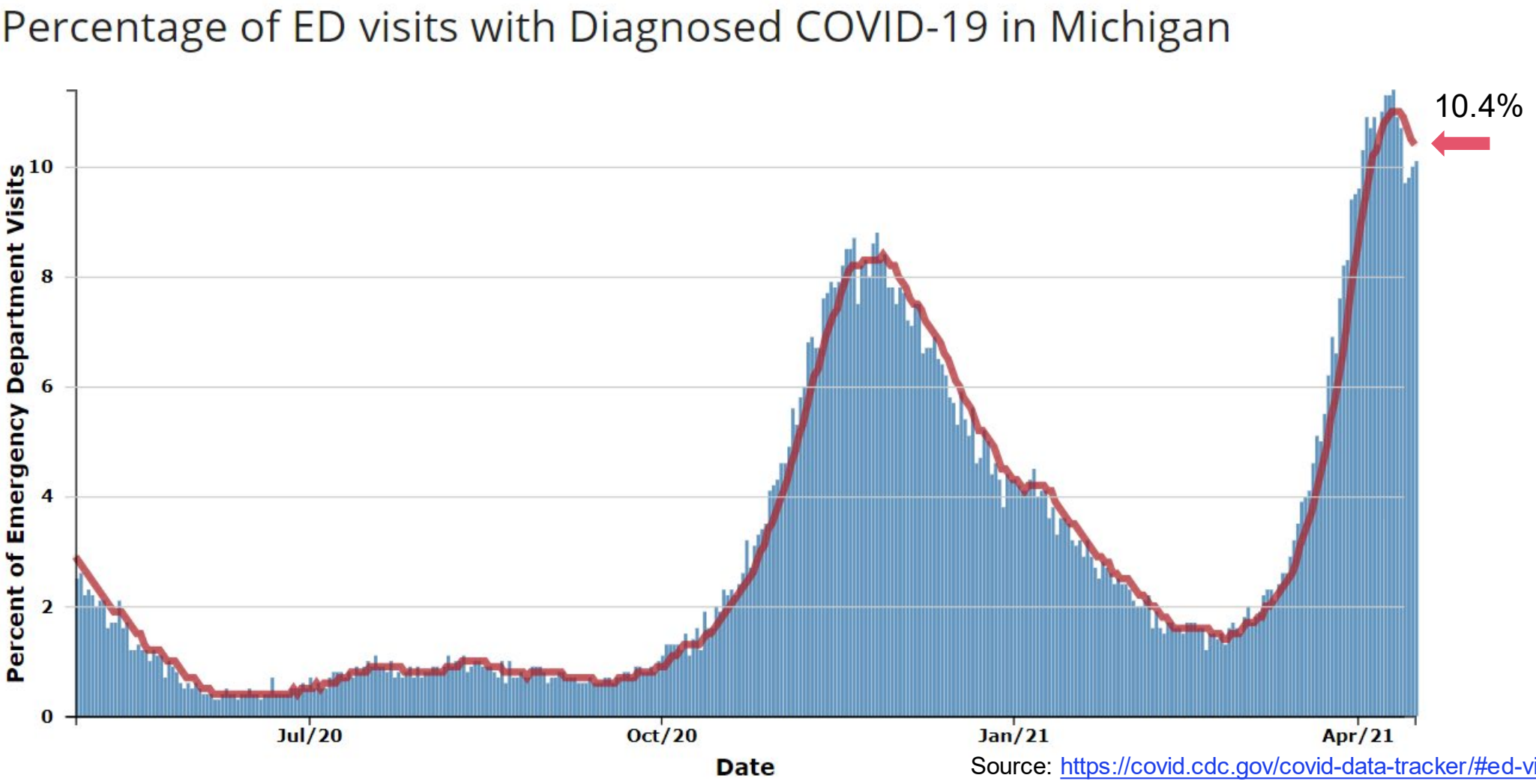
Hospitalization metrics vary by indicator

- COVID-like illness (CLI) has decreased to 10.4%
- Hospital admissions are decreasing but trends vary by age groups
- Hospitalizations up ~6% since last week
- Confirmed census is 4,211 patients which is the highest measure since April 9, 2020
- The fastest regional growth was in Regions 5 and 6 (SW/Grand Rapids), as well as Region 8 (UP)
- Volume of COVID-19 patients in intensive care (ICU) has increased 14% since last week

Deaths trends have increased to 4.4 deaths per million

- Deaths are a lagging indicator of cases and hospitalization
- Deaths are up 25% since last week
- Deaths are up 219% since the March 9 low
- Proportion of deaths among those 60+ is slowly declining

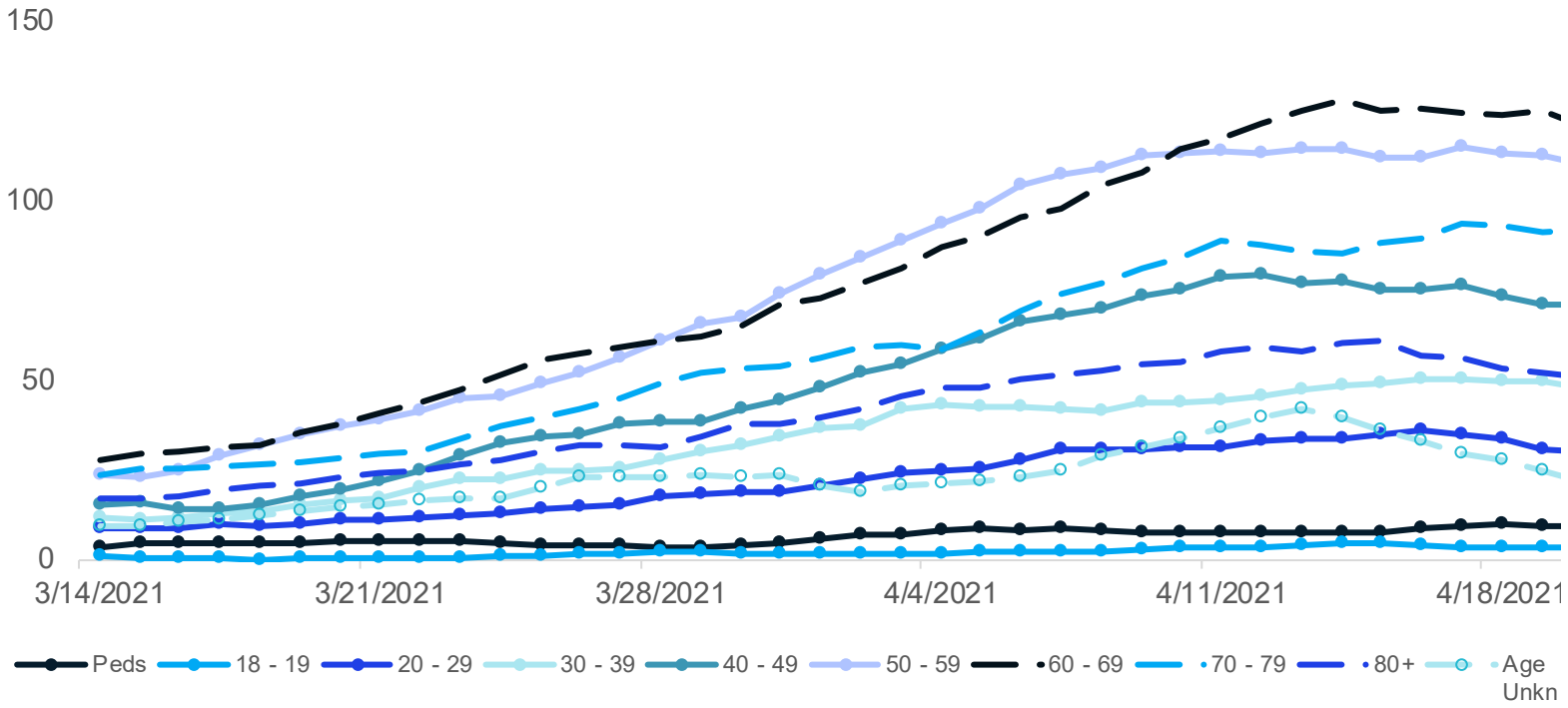
Michigan Trends in Emergency Department Visits for COVID-19-Like Illness (CLI)



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 through April 19



Age Group	Daily Avg Adm.	One Week % Change (#)	% Change since 2/28* (#)
Peds	9.3	18% (1.4)	183% (6.0)
18-19	3.4	-8% (-0.3)	700% (3.0)
20-29	31.0	-6% (-2.1)	503% (25.9)
30-39	49.7	9% (4.1)	470% (41.0)
40-49	71.4	-10% (-8.0)	594% (61.1)
50-59	112.7	-1% (-0.9)	767% (99.7)
60-69	125.0	2% (3.0)	548% (105.7)
70-79	91.6	4% (3.4)	397% (73.1)
80+	52.4	-12% (-7.1)	246% (37.3)
Total¶	571.4	-4% (-21.1)	468% (470.9)

* Lowest 7-day avg. hospital admissions following winter surge

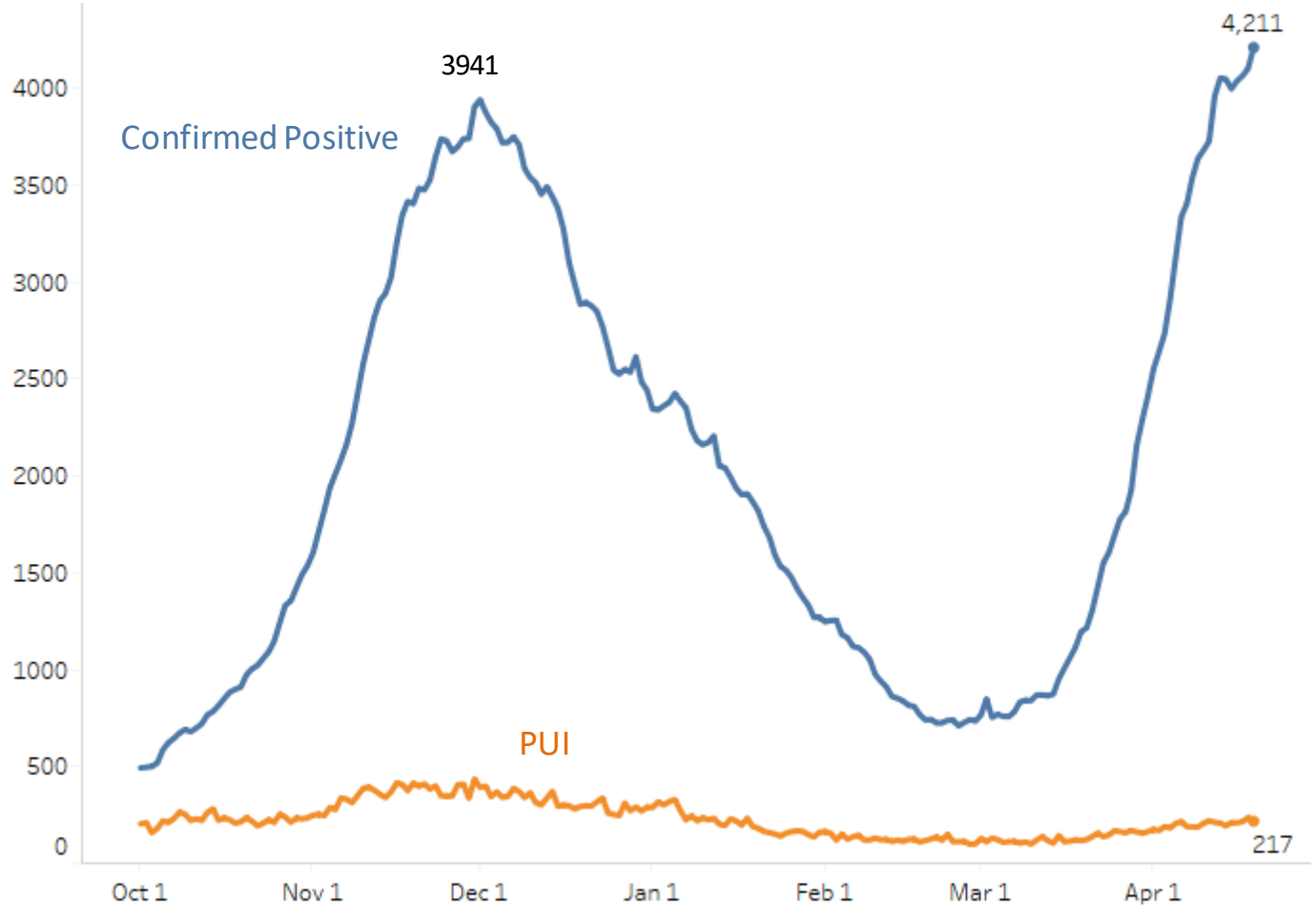
¶ Total may not reflect state due to missing age data

- Currently, there are approximately 571 daily hospital admissions for COVID-19
- Over the past week, avg. daily hospital admissions has decreased although some groups are still experiencing increases
- Since Feb 28 low, all age groups remain relatively higher with the highest burden among those 50-59 and 60-69

Source: CHECC & EM Resource

Statewide Hospitalization Trends: Total COVID+ Census

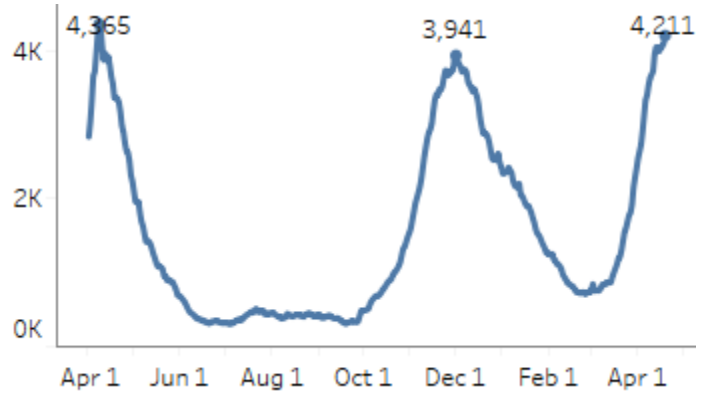
Hospitalization Trends 10/1/2020 – 4/19/2021
Confirmed Positive & Persons Under Investigation (PUI)



COVID+ census in hospitals rose at a much slower rate this week of 6% from the previous week (vs. 26% increase last week). Confirmed census is now 4211 patients which is the highest confirmed number recorded since April 9, 2020 (2020 peak= 4365 on April 8th)

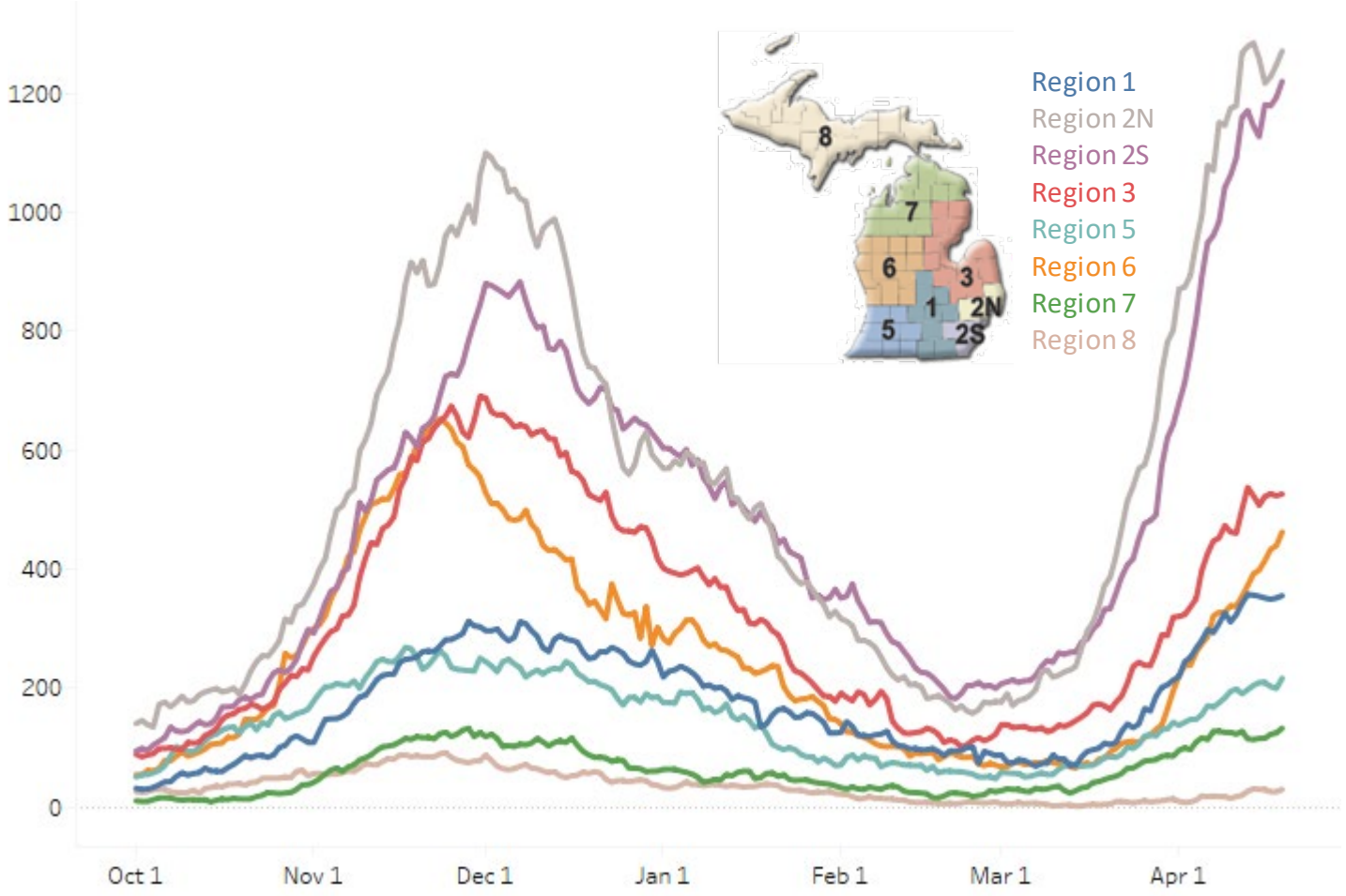
New hospital COVID admissions this week are down about 4% (~4000) vs. last week and the number of new admissions over the last 2 days was the lowest 2 day admission volume in the past 2 weeks.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 10/1/2020 – 4/19/2021
Confirmed Positive by Region



All regions except Region 2N are showing some increase in hospital COVID census this week.

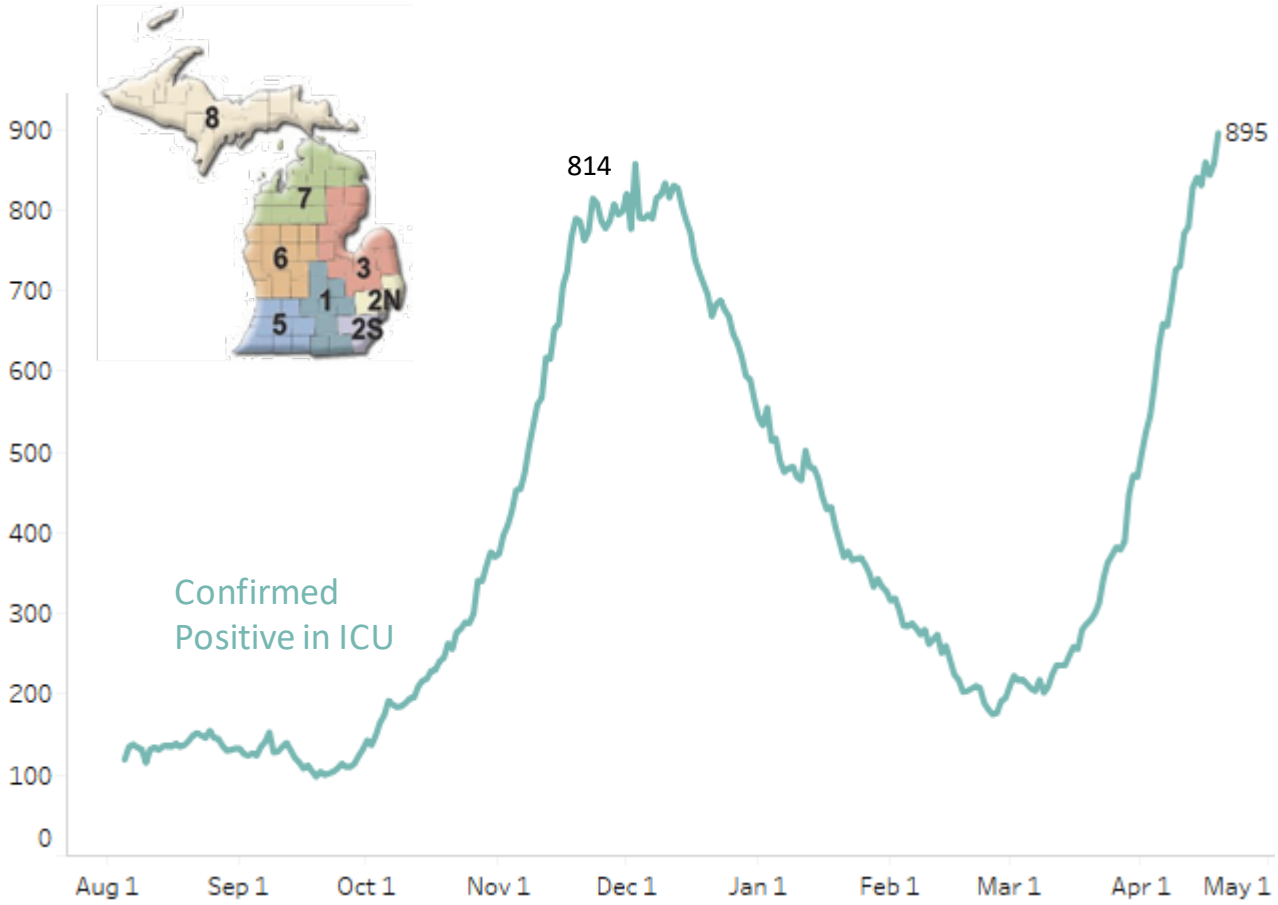
The fastest growth was in Regions 5,6 (SW/Grand Rapids) and 8 (UP).

The rest of the state showed very minimal growth.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	355 (+4%)	328/M
Region 2N	1271 (+0%)	574/M
Region 2S	1220 (+5%)	548/M
Region 3	526 (+5%)	464/M
Region 5	216 (+14%)	227/M
Region 6	462 (+31%)	315/M
Region 7	132 (+4%)	264/M
Region 8	29 (+53%)	93/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 8/1/2020 – 4/19/2021
Confirmed Positive in ICUs



Overall, the census of COVID+ patients in ICUs has increased 14% from last week and now exceeds the winter peak census. Fastest growth was in Region 1 and 6.

Regions 1, 2N and 5 have >95% overall ICU occupancy.

6 Regions have >30% of ICU beds occupied with COVID patients and Regions 1 and 2N are nearing 40%.

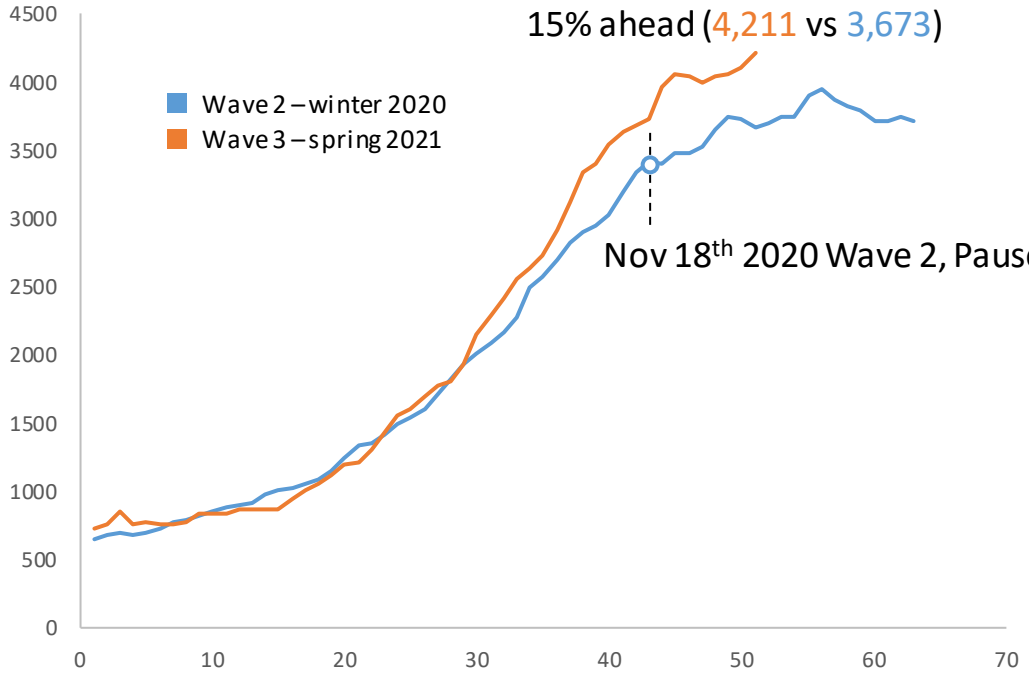
Region	Adult COVID+ in ICU	Adult ICU Occupancy	% of Adult ICU beds COVID+
Region 1	70 (+52%)	96%	38%
Region 2N	206 (+4%)	98%	38%
Region 2S	264 (+6%)	74%	31%
Region 3	119 (+3%)	87%	30%
Region 5	39 (-7%)	96%	25%
Region 6	131 (+62%)	71%	36%
Region 7	53 (+26%)	92%	35%
Region 8	13 (+30%)	75%	25%

Hospital bed capacity updated as of 4/16

Wave 2 and 3 Growth Rate Comparison (through 4/19)

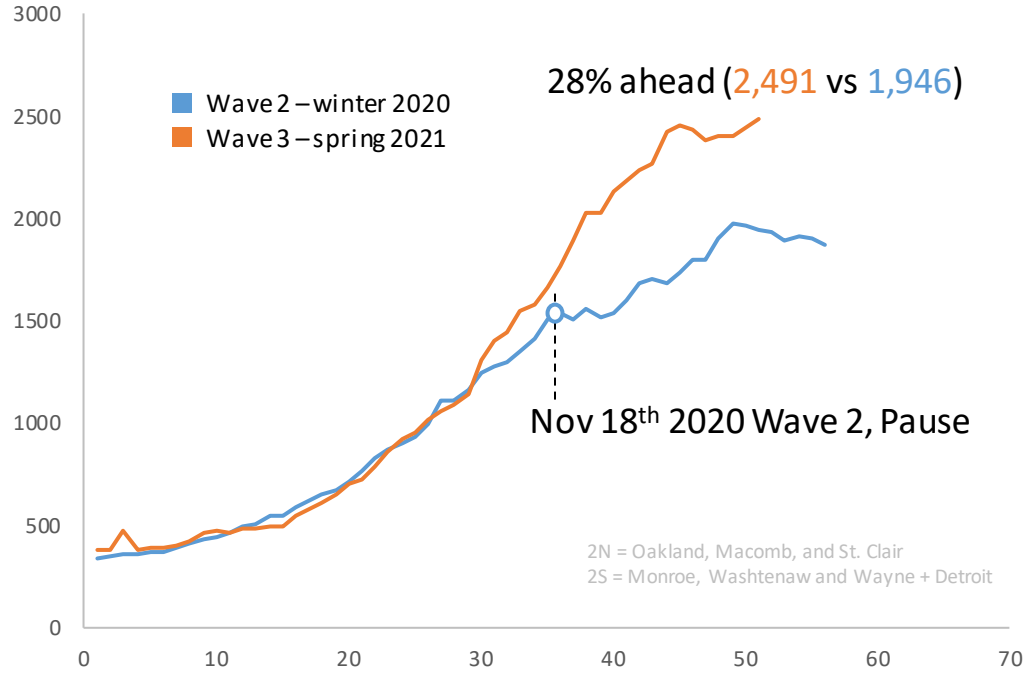
- Statewide Covid+ hospital census is 15% higher than the winter wave (wave #2) when aligned to the same starting point
- Regions 2N and 2S (SE) Covid+ hospital census is 28% higher vs. comparable starting point
- Notably both the state and the SE are showing patterns of slowing growth that are very similar to the winter wave

Covid+ hospital census, State overall



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

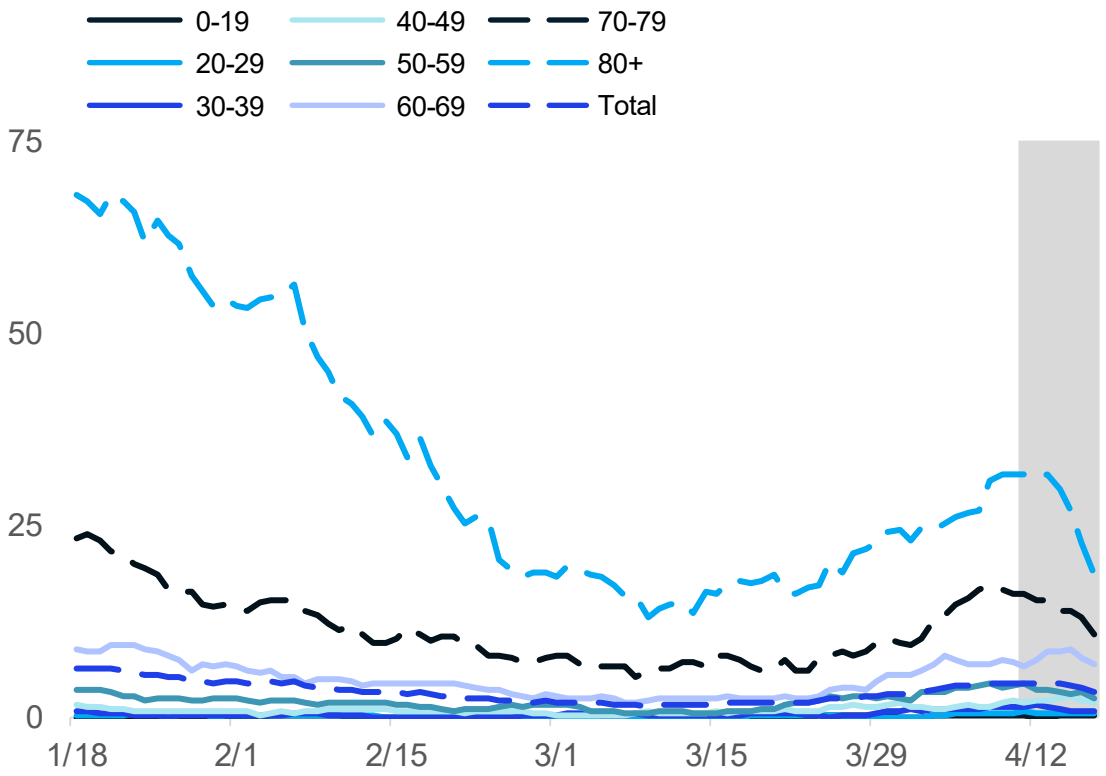
Covid+ hospital census, Regions 2N + 2S (SE)



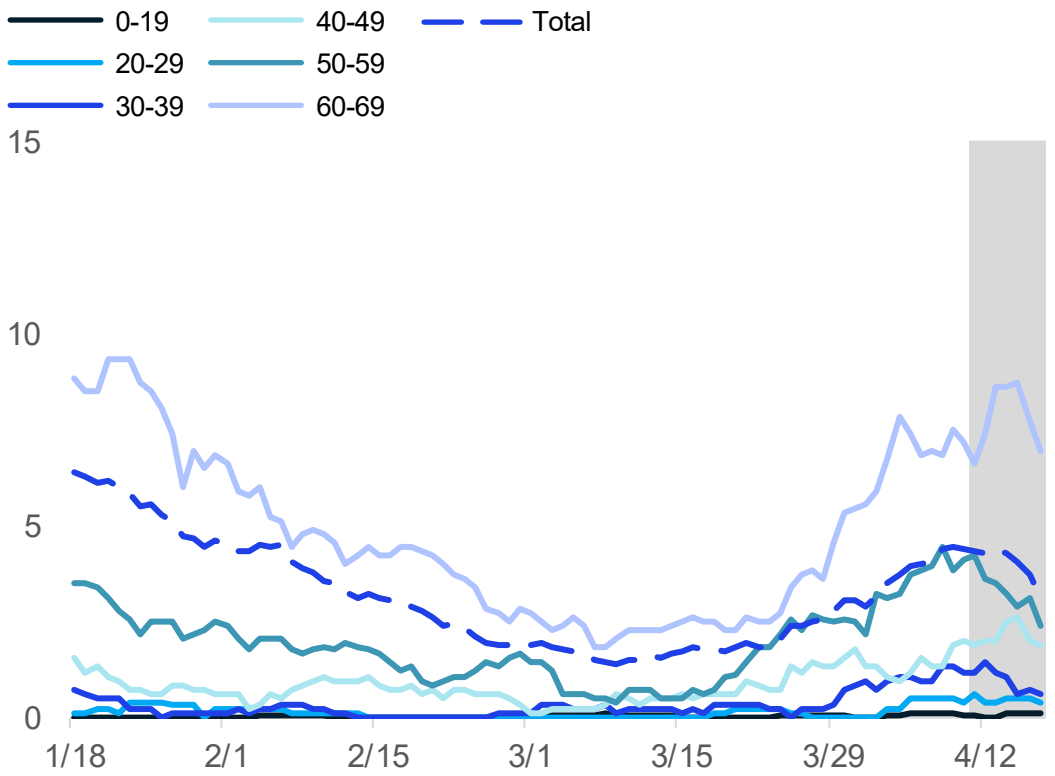
Days since start date: Oct 14th 2020 for Wave 2
and Feb 28th 2021 for Wave 3

Average and total new deaths, by age group

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



Under 70 daily confirmed and probable deaths per million by age group (7 day rolling average)

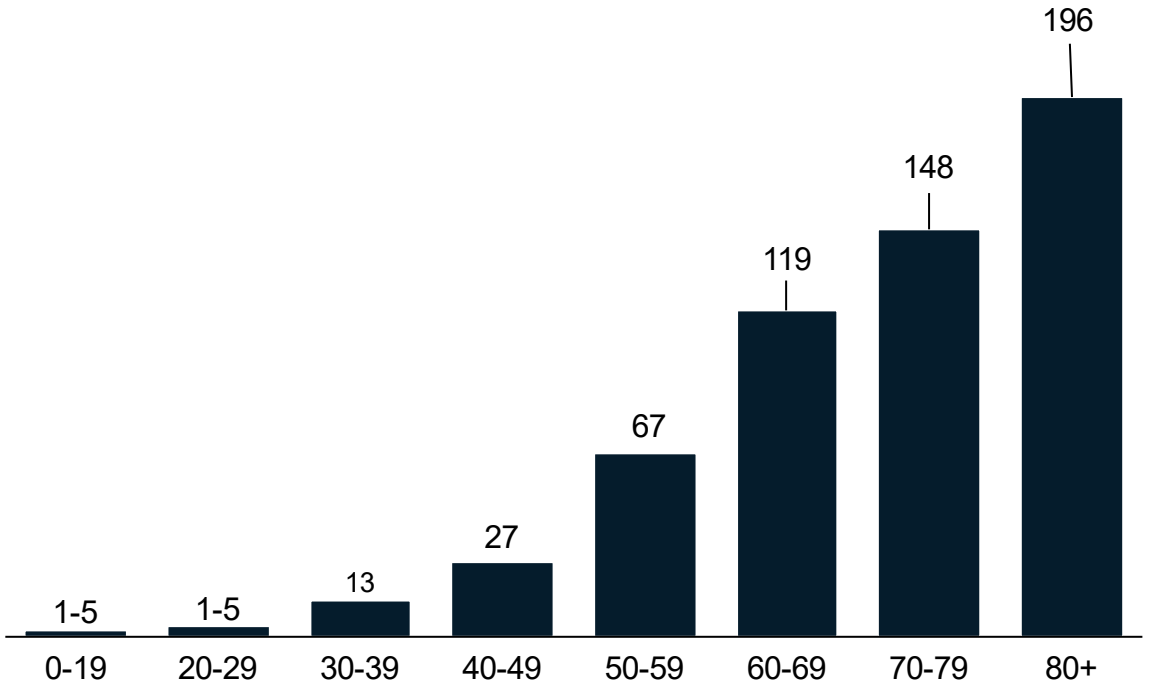


Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.

Source: MDHHS – Michigan Disease Surveillance System

Average and total new deaths, by age group

Total confirmed and probable deaths by age group (past 30 days, ending 4/10/2021)



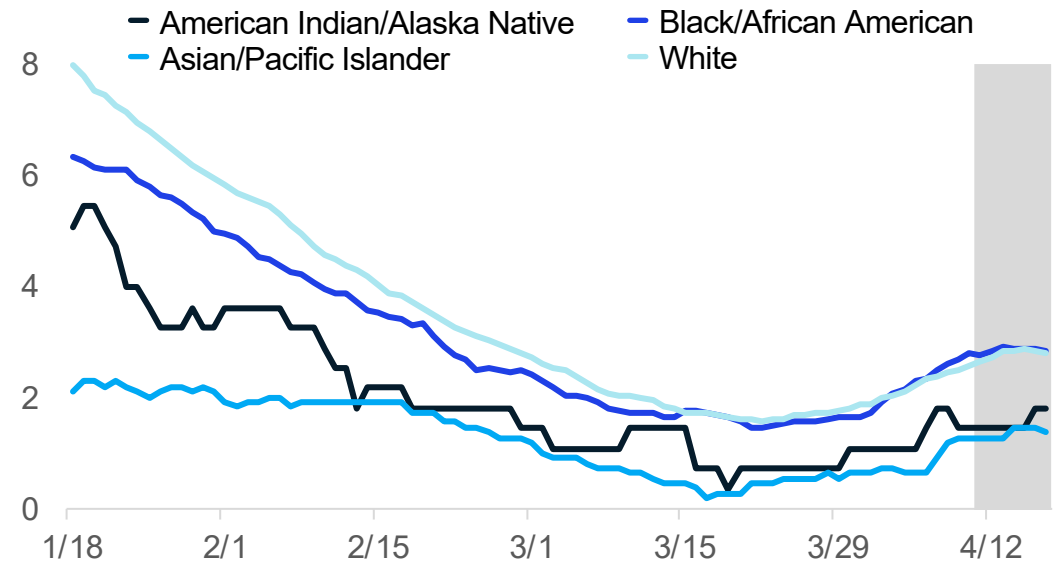
- All age groups (by decade) are seeing increases in deaths
- In the past 30 days, 20% of deaths occurred in those under 60 years of age
  - This is an increase of 1% from last week

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.

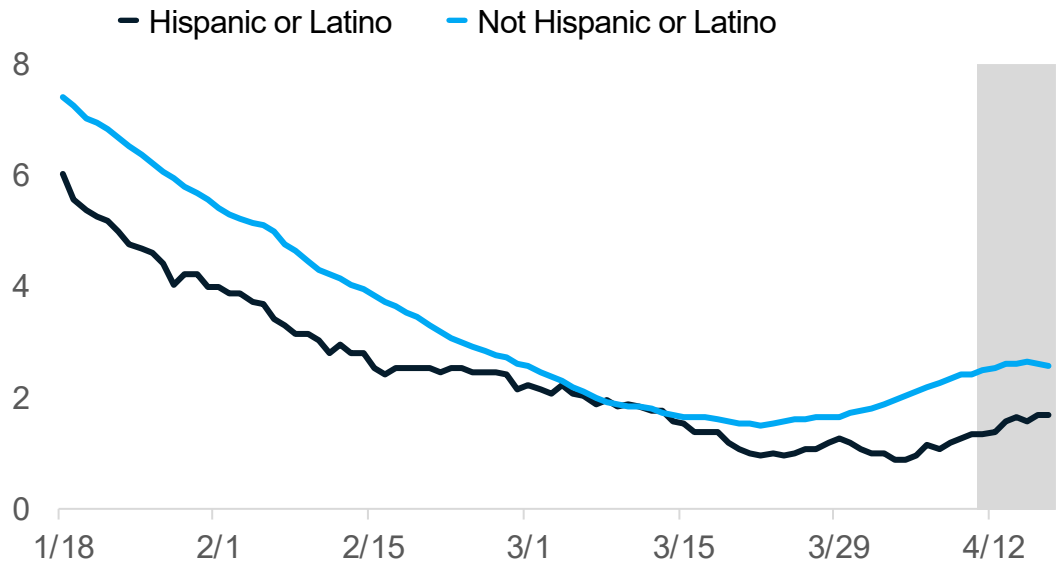
Source: MDHHS – Michigan Disease Surveillance System

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 increasing among racial and ethnic groups
- All racial and ethnic groups are seeing an increase in COVID deaths
- Whites and Blacks have the most reported deaths per capita while Non-Hispanic Latino have experienced a larger increase
- Deaths are not adjusted for confounders (e.g., age, sex, comorbidities)

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

How is public health capacity?

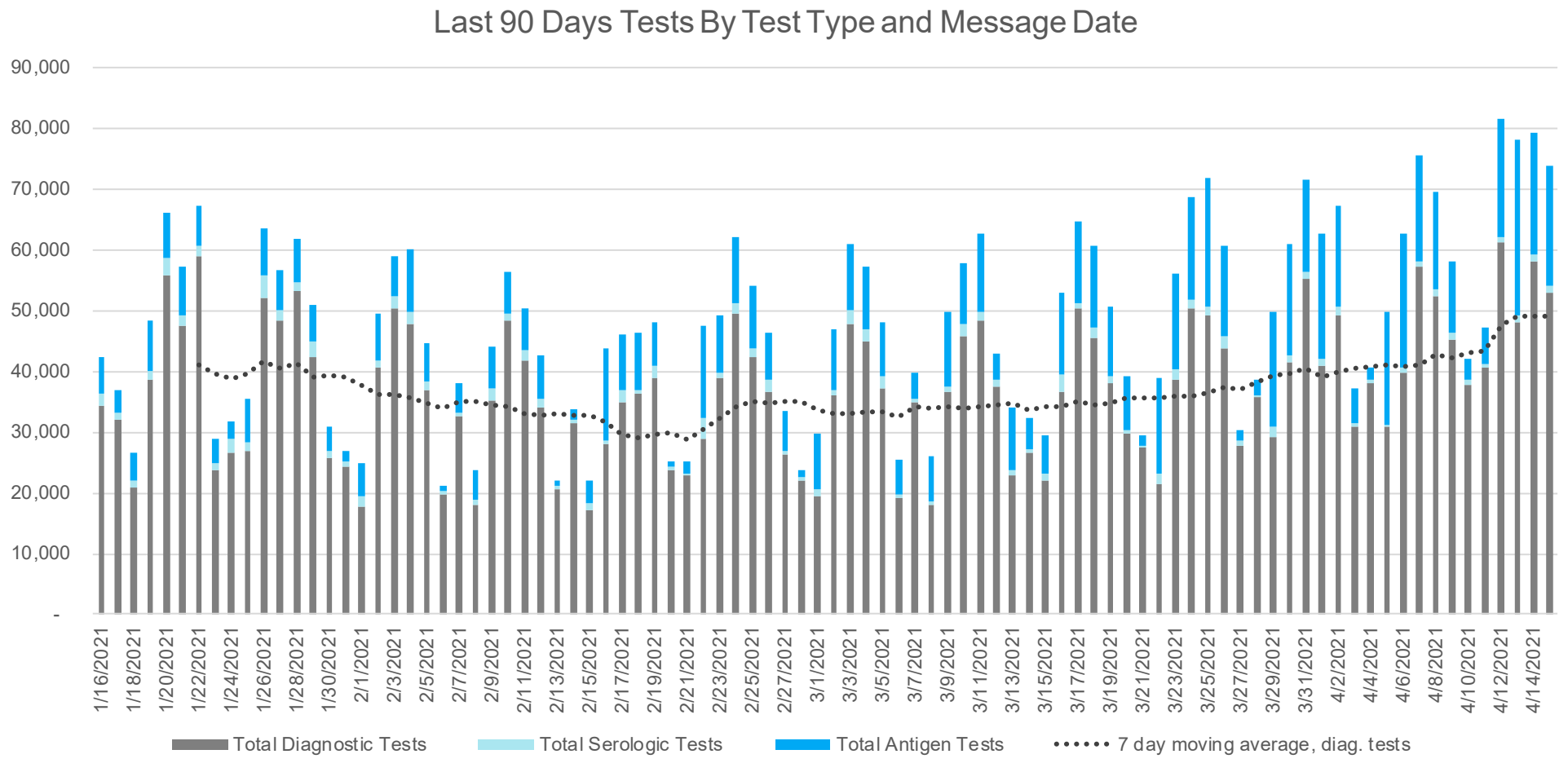
Diagnostic testing volume (PCR and antigen) has increased from last week

- PCR testing increased since last week
- Percent of antigen tests declined slightly since last week

Cases identified for investigations has plateaued

- Consistent low proportion of cases interviewed with a source of known infection (indicating community acquisition)
- 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

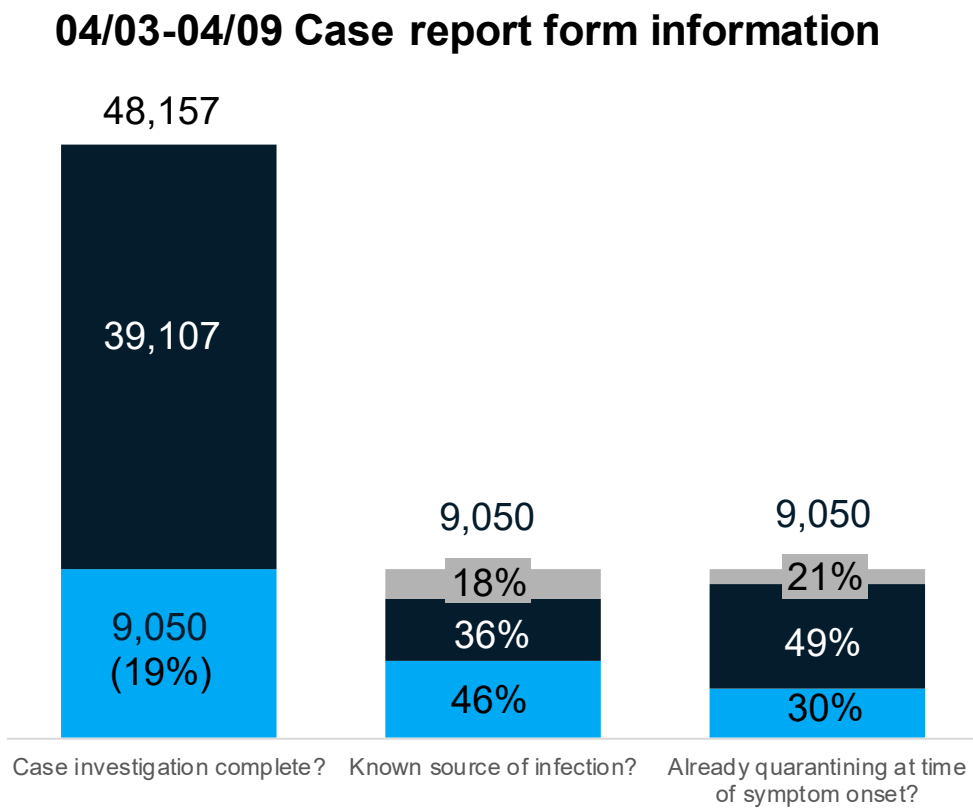
- 64,773 rolling 7-day average daily diagnostic tests reported to MDHHS (PCR + Ag) (↑)
- 52,938 average daily PCR tests (↑)
- 24.1% are antigen tests over the past week (↓)
- 16.4% positivity in PCR tests (↓)

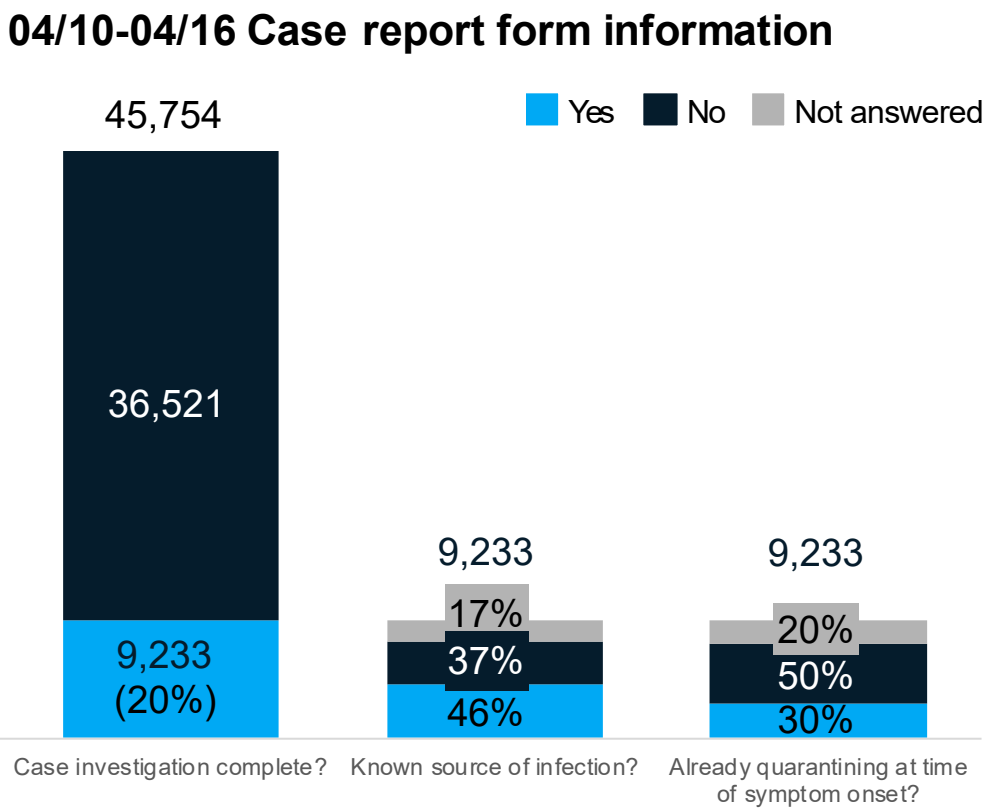
Source: MDSS/Michigan Medical Advantage Group, MDHHS, testing labs

New Case Investigation Metrics (Statewide)

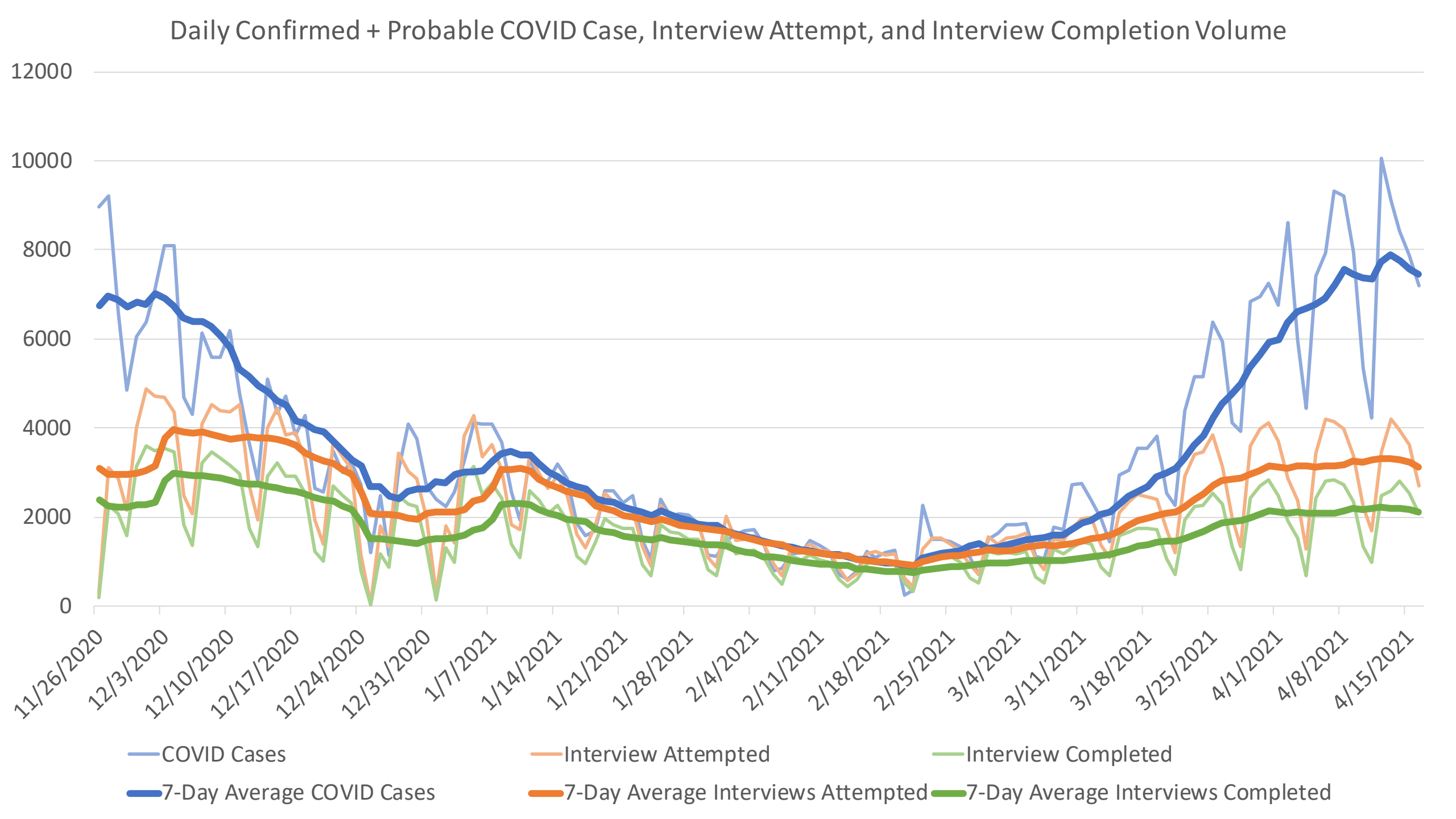
New Communicable Disease metrics this week:

- Number of case investigations completed increased, and percent completed (20%) increased
- 46% of investigated cases having a known source (46% last week, 46% week prior)
- 30% of investigated cases noting that they were quarantining before symptoms (30% last week)





Source: MDHHS – Michigan Disease Surveillance System


Daily Confirmed + Probable COVID Case, Interview Attempt, and Interview Completion Volume
12000
10000
8000
6000
4000
2000
0
11/26/2020
12/3/2020
12/10/2020
12/17/2020
12/24/2020
12/31/2020
1/7/2021
1/14/2021
1/21/2021
1/28/2021
2/4/2021
2/11/2021
2/18/2021
2/25/2021
3/4/2021
3/11/2021
3/18/2021
3/25/2021
4/1/2021
4/8/2021
4/15/2021
COVID Cases
Interview Attempted
Interview Completed
7-Day Average COVID Cases
7-Day Average Interviews Attempted
7-Day Average Interviews Completed

COVID-19 Vaccination

Administration

- 9th among national jurisdictions for raw number with first dose; 9th for number fully vaccinated (per CDC data tracker as of 4/19/2021)
- 79.4% adjusted administration ratio (excluding federal entities, per CDC channel portfolio as of 4/18/2021)

Coverage

- 45.6% of MI residents age 16+ have initiated COVID vaccination series and 31.5% have completed their series
- Coverage is highest among 65-75 and 75+ age groups
- Initiation coverage was highest among Asian, Native Hawaiian or Pacific Islander Race individuals
- Case rates are lower in age groups with higher vaccination coverage

Vaccinated Individuals Who Test Positive

- Number of cases who are fully vaccinated (n=694) is not in excess of what might be expected with vaccines with 95% efficacy.
- Possibility of infection and further transmission is why recommend precautions in public (e.g. wearing masks, washing hands and social distancing) even after receiving the vaccine until more Michiganders have been able to be vaccinated

Recommendation to Pause Use of Johnson & Johnson's Janssen COVID-19 Vaccine

Updated Apr. 16, 2021 Languages Print

On April 13, 2021, CDC and FDA recommended a pause in the use of Johnson & Johnson's Janssen COVID-19 Vaccine. Of the nearly 7 million doses administered so far in the United States, a small number of reports of a rare and severe type of blood clot have been reported in people after receiving the J&J/Janssen COVID-19 Vaccine. All reports occurred among women between the ages of 18 and 48, and symptoms occurred six to 13 days after vaccination. As of April 13, 2021, of the more than 180 million doses administered so far of the Pfizer-BioNTech or Moderna vaccines, no reports matching those associated with the J&J/Janssen vaccine have been received.

Get answers to your questions

J&J/Janssen COVID-19 Vaccine Update, April 13, 2021

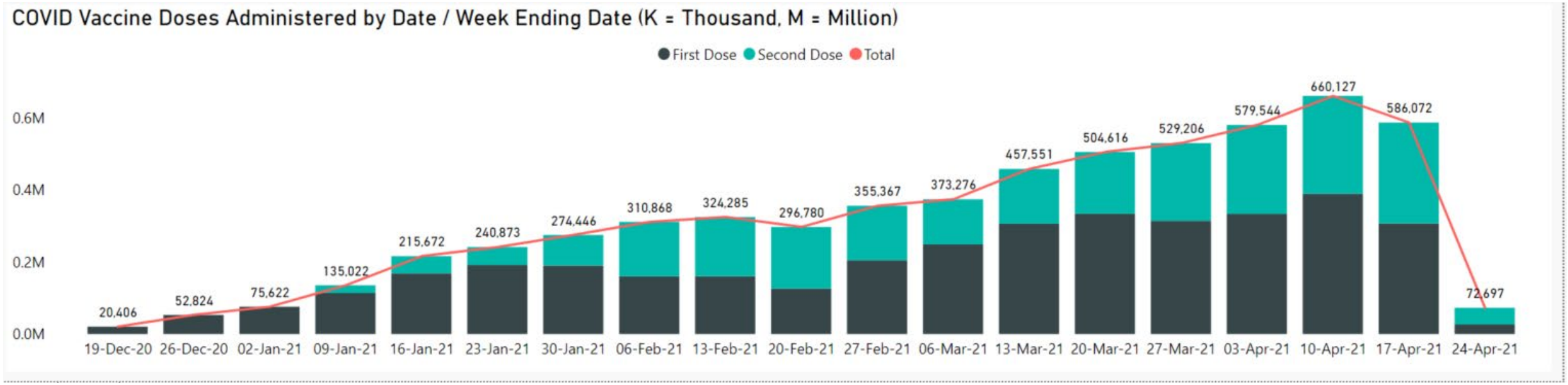
The use of this vaccine is 'paused' for now. This is because the safety systems that make sure vaccines are safe received a small number of reports of a rare and severe type of blood clot happening in people who got this vaccine.

We do not know enough yet to say if the vaccine is related to or caused this health issue. To be extra careful, CDC and FDA recommend that the vaccine not be given until we learn more.

Source: CDC – Recommendation to Pause Use of Johnson & Johnson's Janssen COVID-19 Vaccine

Doses Delivered and Administered, and Coverage as of 4/20

8,077,755 doses delivered to Michigan providers*



- 79.4% Federal-Jurisdiction adjusted administration ratio (excluding federal entities, per CDC channel portfolio as of 4/18/2021)
- 5 weeks with more than 500,000 doses administered in a week; 14 days over 100,000 in a day
- 586,072 doses administered last week (down ~74,000 mostly due to a pause in J&J administration).

*Includes state allocated doses ordered by State of Michigan, SOM allocation transferred to federal programs, and federal doses from federal programs to Michigan providers. Does not include federal doses sent to federal providers (i.e., Veteran's Administration hospitals, federal prison system, or Department of Defense programs). The State of Michigan does not have control over how much vaccine is allocated or administered by Federal program.

Coverage Demographics as of 04/20/2021

45.6% of MI residents age 16+ have initiated COVID vaccination series

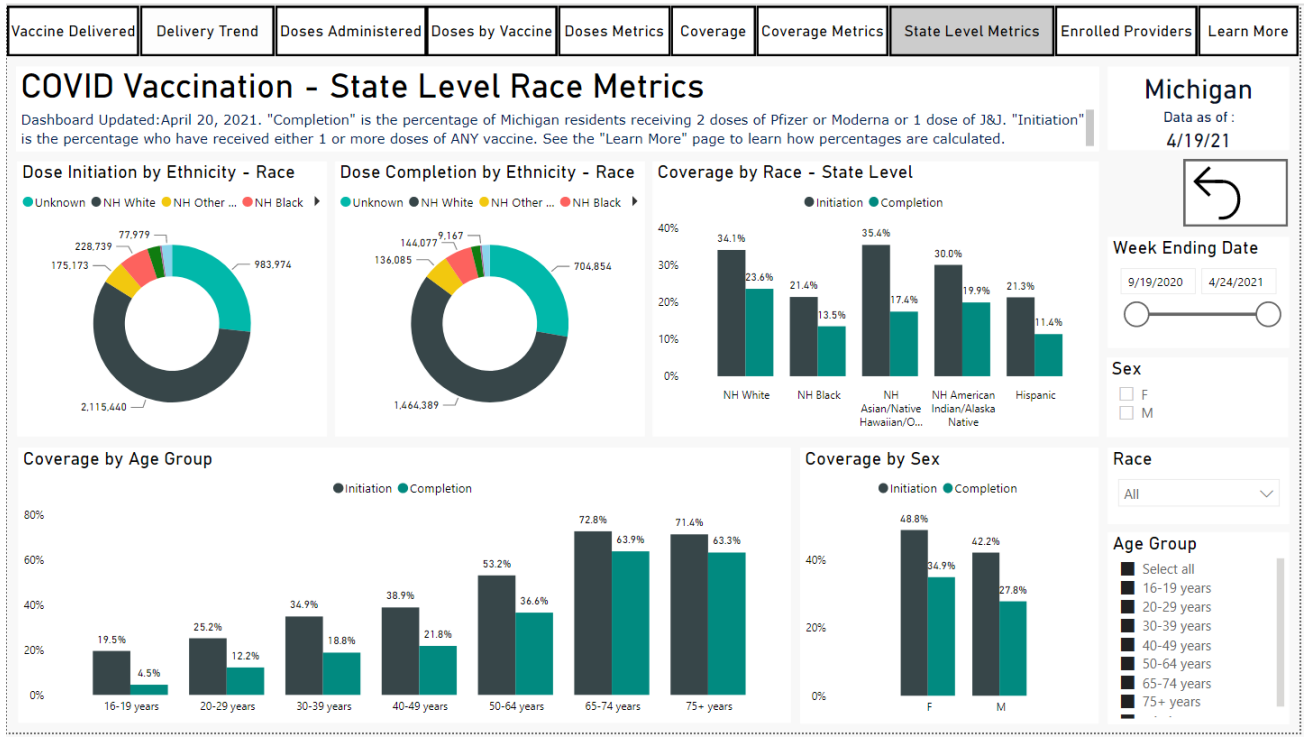
31.5% or **2,547,645 people** have completed their series

Age Group

- 72.2% people aged 65 or older (1.27M) have received one or more doses of vaccine
- 63.6% people aged 65 or older have completed their vaccine series

Race/Ethnicity

- Initiation coverage highest among those of Asian, Native Hawaiian or Pacific Islander Race (35.4%) then NH (Non-Hispanic) White (34.1%), NH American Indian (30.0%), NH Black or African American (21.4%) Races, and Hispanic (21.3%) ethnicity
- 26.7% data missing or unknown

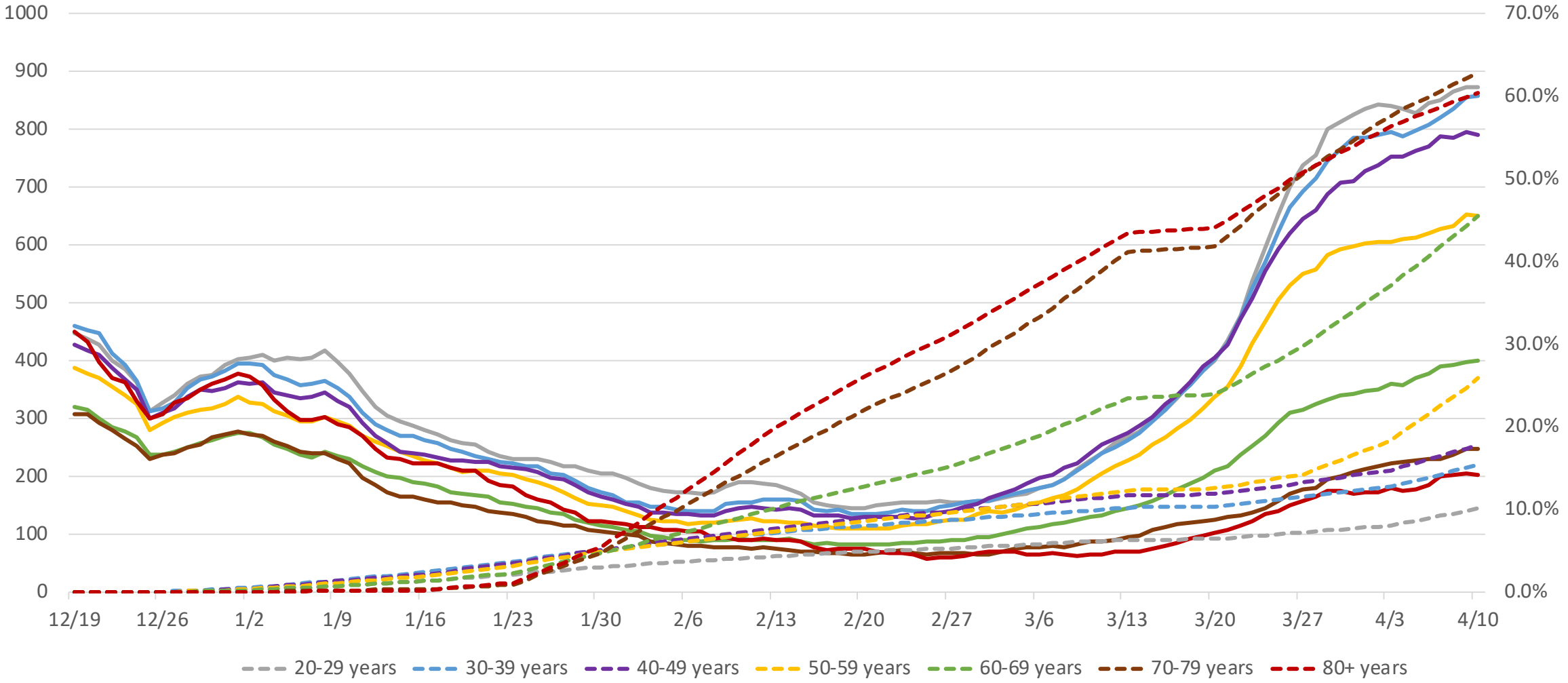


Source: Michigan Coronavirus Dashboard https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214-547150--,00.html

Comparing Vaccine Coverage and Case Rate Trends (Dec 19 – Apr 10)

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 (COVID-19 Breakthrough Case Investigations and Reporting | CDC)
- 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 4/13/21):

- 694 cases met criteria based on a positive test 14 or more days after being fully vaccinated
- Less than 1% of people who were fully vaccinated met this case definition
  - Includes 14 deaths, 12 persons 65 years or older, one had prior PCR positive greater than 45 days prior
  - 14 cases were hospitalized

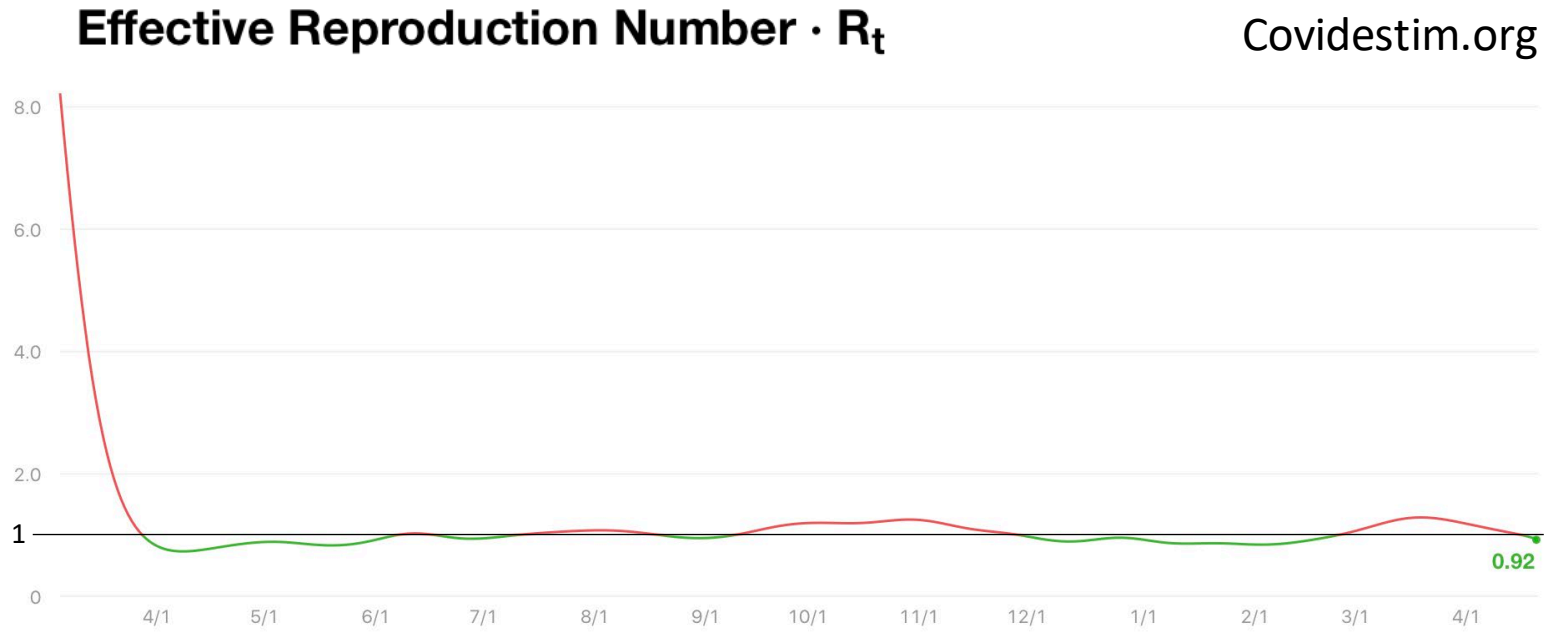
Summary Points:

- 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.

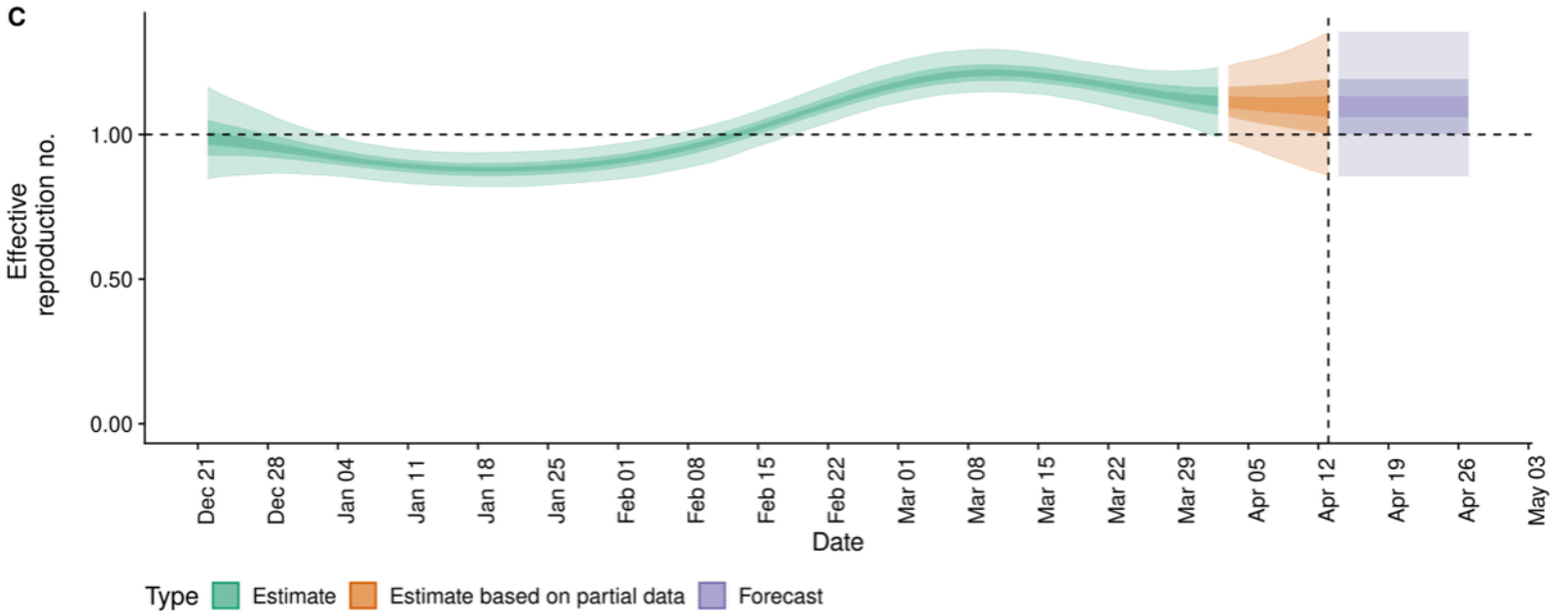
Rt estimates suggest slowing growth over the coming weeks with potential for plateau

- Rt estimates are ~1, which suggests plateau or slowed growth for the next couple of weeks

Covidestim.org

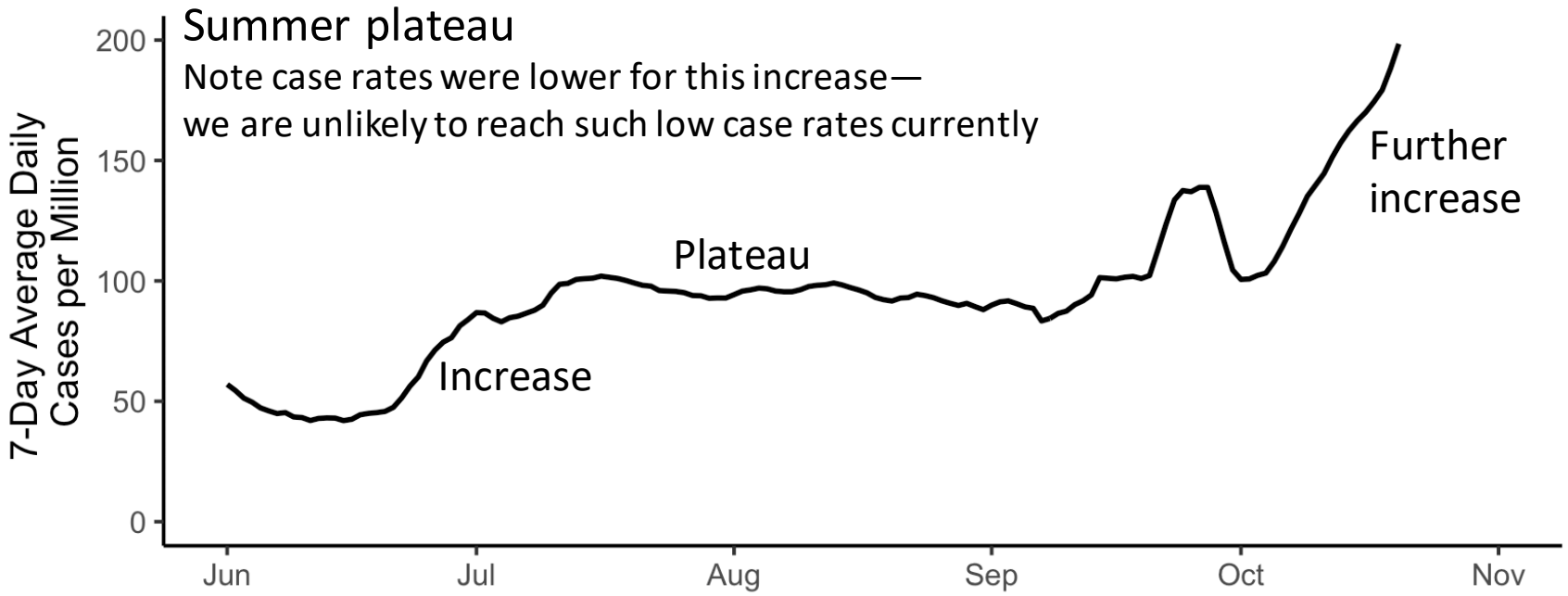


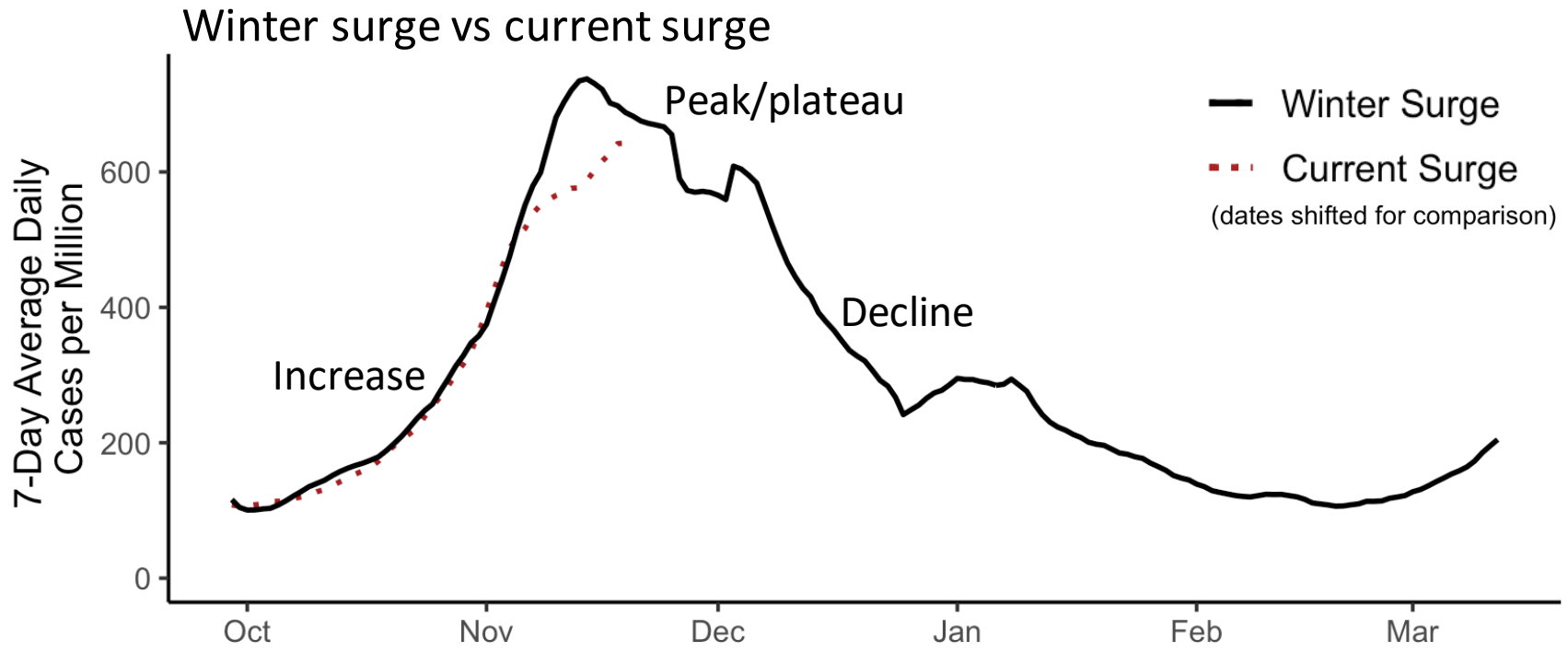
Epiforecasts.io



Previous increases have resolved in different ways

- Some plateaus and peaks have been followed by further increases, others by declines

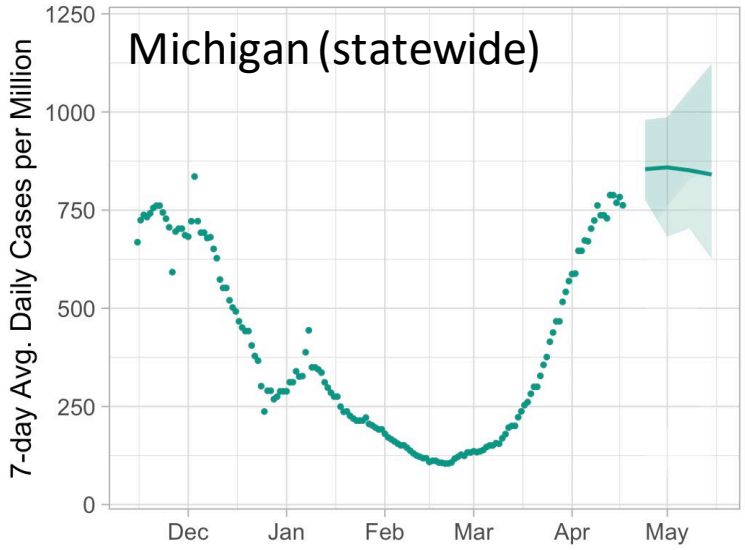


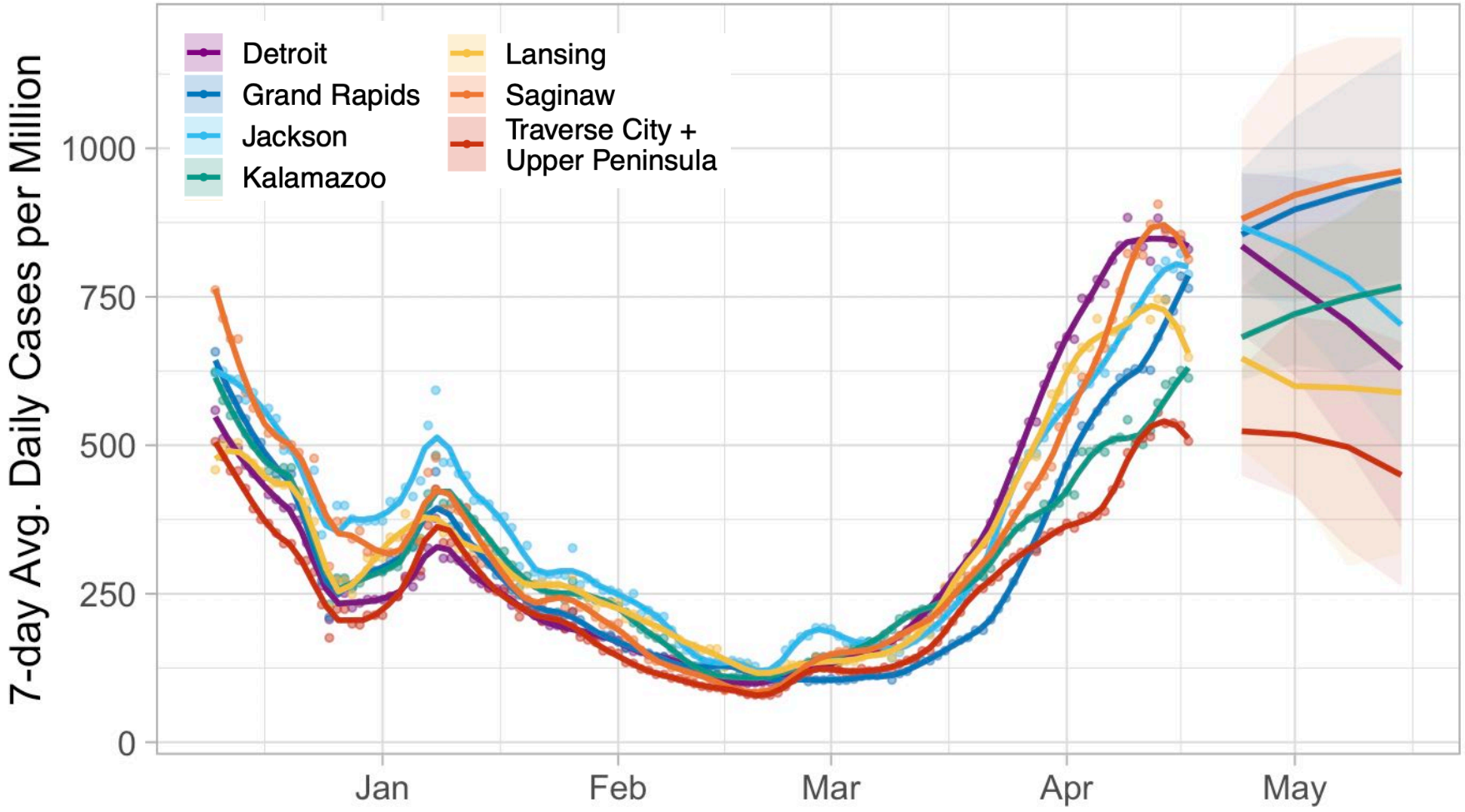


Source: MDSS Data

Ridge regression projections vary by region—some projected to plateau, others project slowed growth

- Confidence ranges for all regions include both plateaus and slowed growth



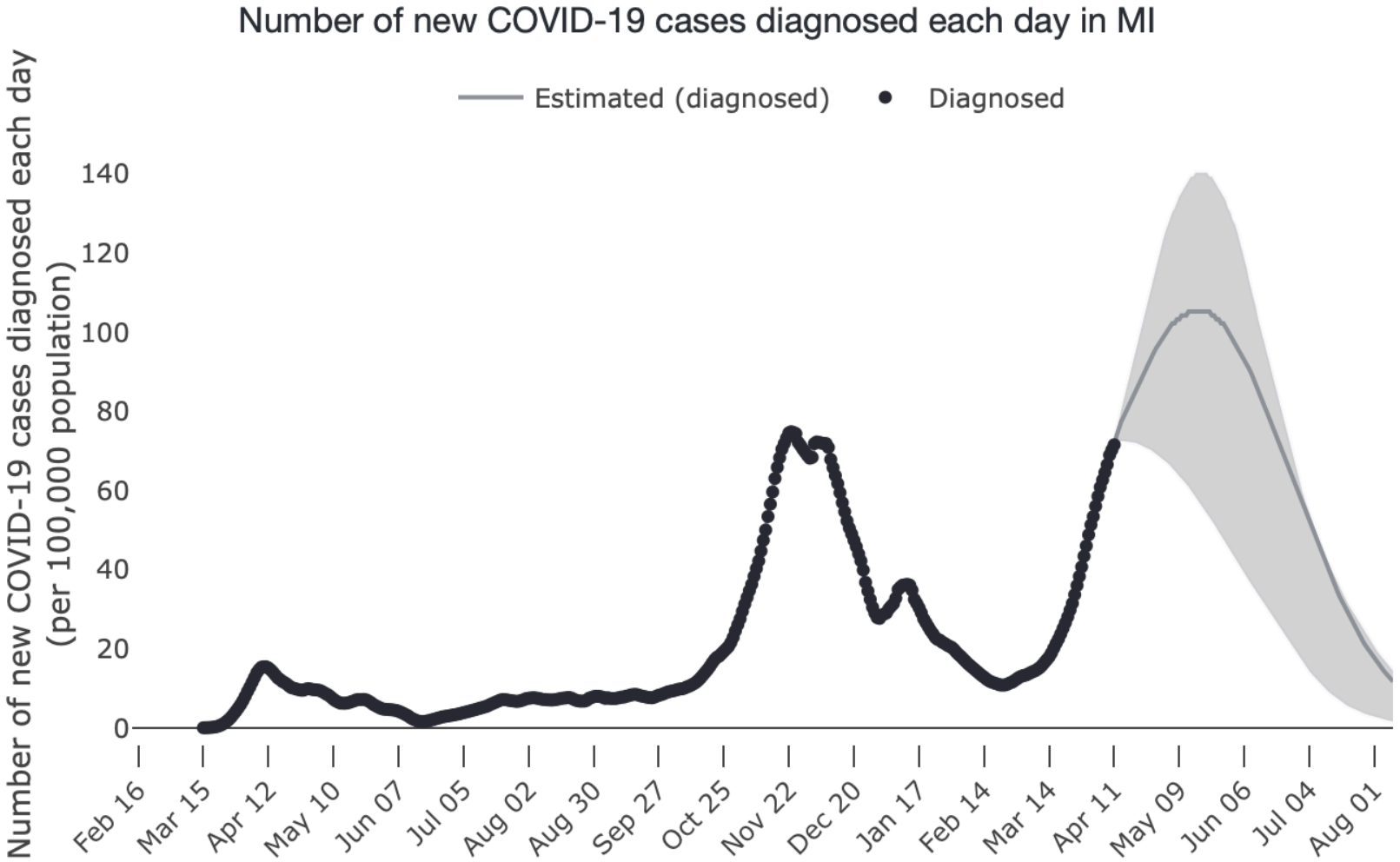


Line is the ridge regression model projection, and the shaded region represents the 95% confidence region (2.5% and 97.5% quantiles). Cases are plotted by report date.

Sources: Data from MDHHS/JHU, [UM Ridge Regression Model]

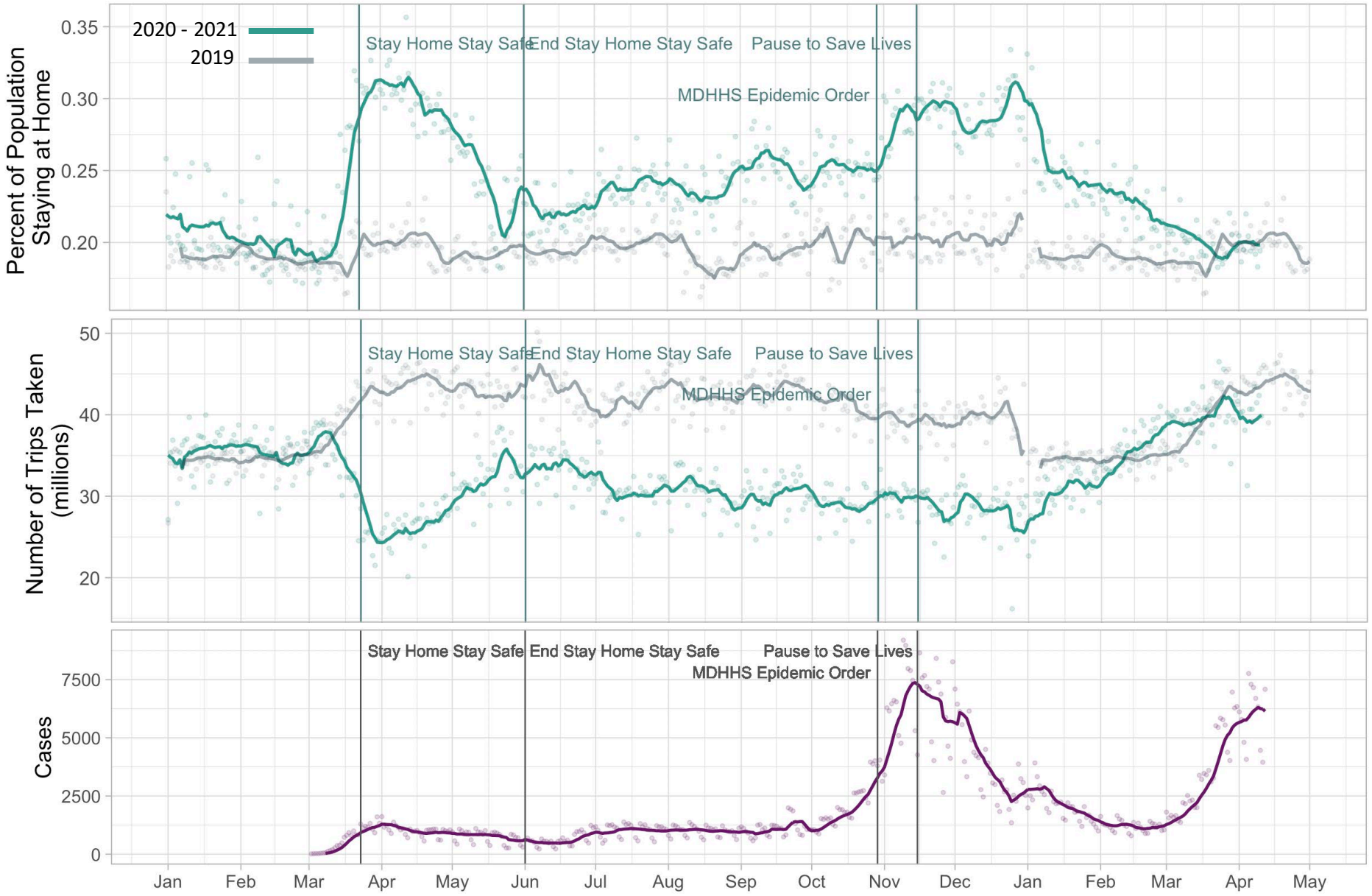
COVID-19-Sim Model projects slowing growth through April/May followed by decline

- Assumes continued current interventions
- Confidence ranges range from a plateau and decline in the next couple of weeks to continued growth through May/June



Source: http://covid19sim.org

How many people are staying at home in Michigan?



- % Stay-at-home levels have recently declined to 2019-2020 levels
- Number of trips taken/day has recently increased to 2019-2020 levels
- Most recent data is 4/10/21 (data as of 4/19/21)

Data Source: [Bureau of Transportation Statistics]

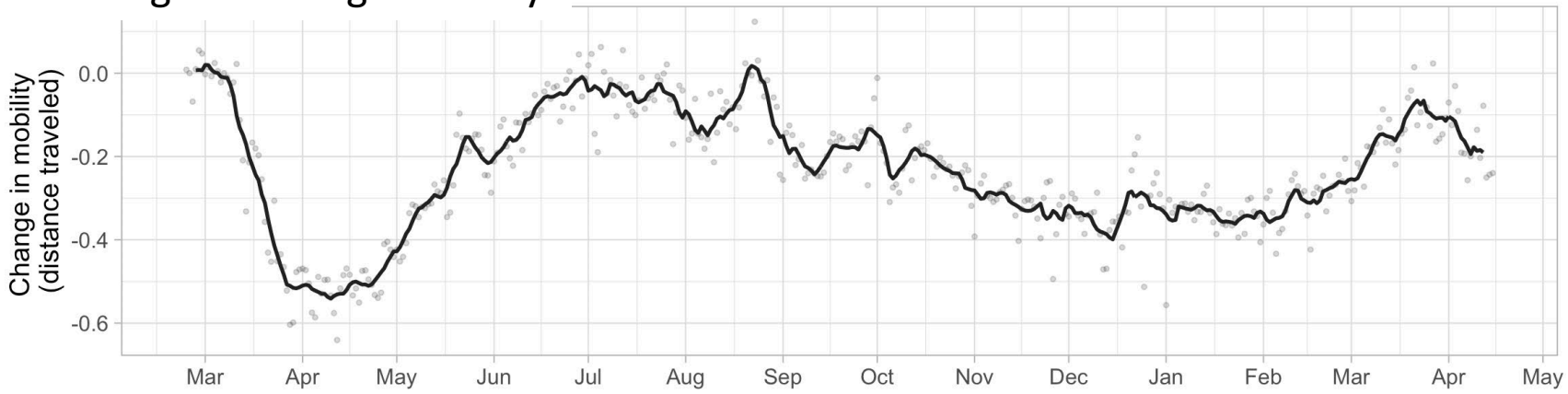
PUBLIC HEALTH

Unacast mobility patterns in MI

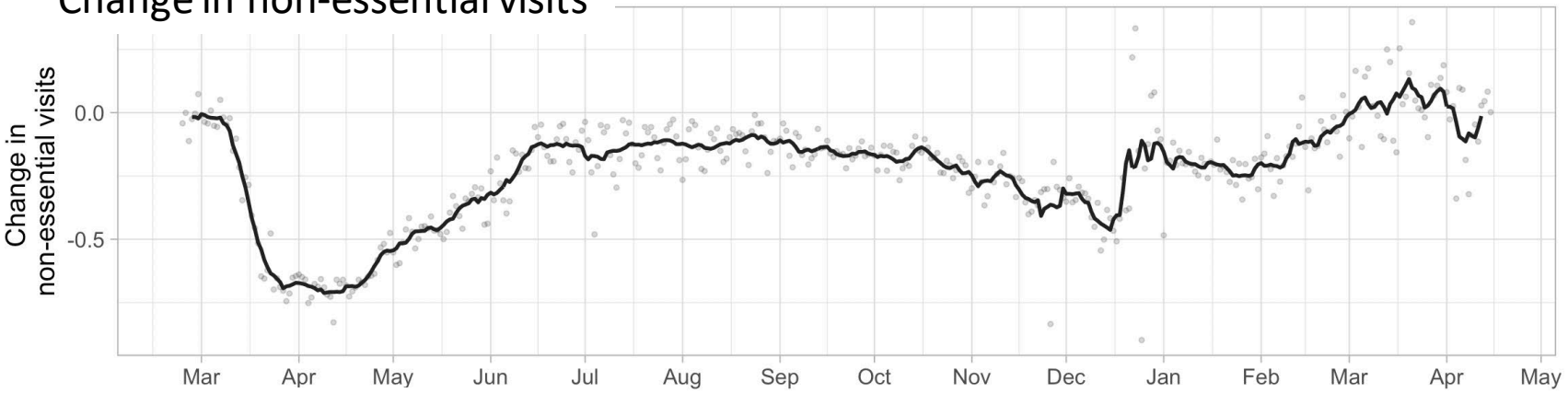
- Most recent data shows a return toward baseline mobility patterns, particularly for non-essential visits.
- Encounter density has stayed relatively low.
- Data through 4/15/21 (data as of 4/19/21)

Unacast social distancing scoreboard https://www.unacast.com/covid19/social-distancing-scoreboard

Change in average mobility



Change in non-essential visits



Difference in encounter density