

MI COVID RESPONSE DATA AND MODELING UPDATE

June 7, 2022

Epidemiologic Surveillance: Key Messages

Global Trends and National Trends show spread slowing but remain heterogenous by location

- Many countries in Europe showing continued signs of decline
- U.S. cases now decreasing. The decrease is seen in most midwestern states (region 5)

As of June 2, 59% of Michigan Counties at Medium or High COVID-19 Community Levels

- 46% of Michigan residents reside in a county (10 counties) classified as High according to CDC's Community Levels.
- 39 Michigan counties are currently at Medium level (47%). This represents 25% of the population.

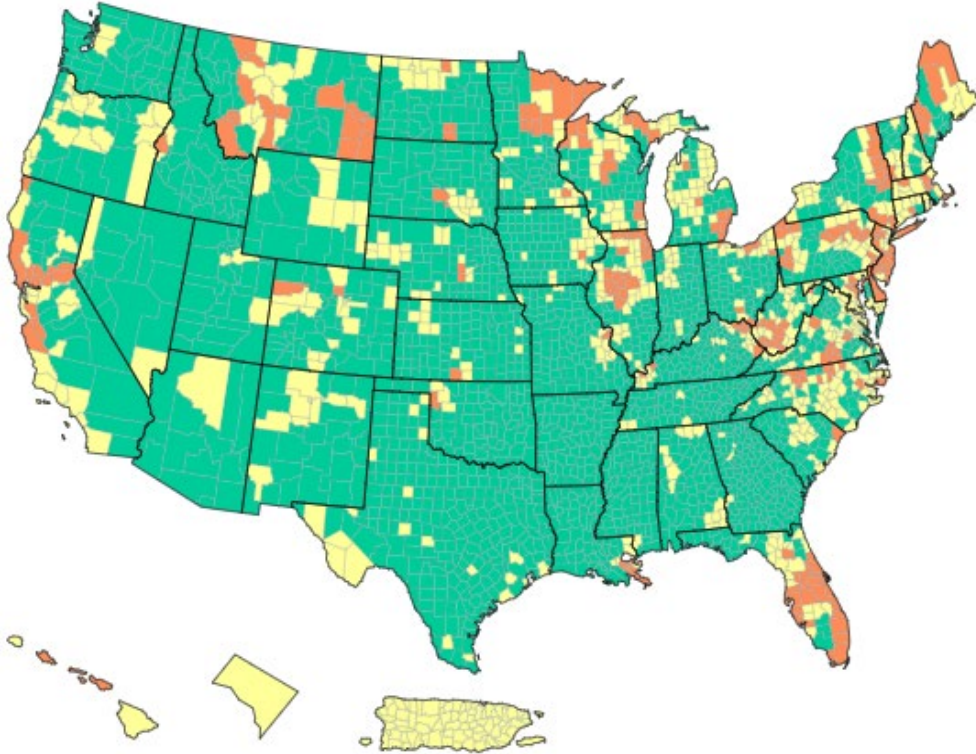
Case rates in Michigan have peaked/plateaued

- The proportion of specimens sequenced and identified as BA.2.12.1 in the U.S. and Michigan continues to rise
- 30% of SWEEP sites saw an increase in the most recent week and another 10% of sites saw a plateau in trends
- Case trends are mixed for MERC regions, age groups, and most reported races and ethnicities – mostly plateaus and declines

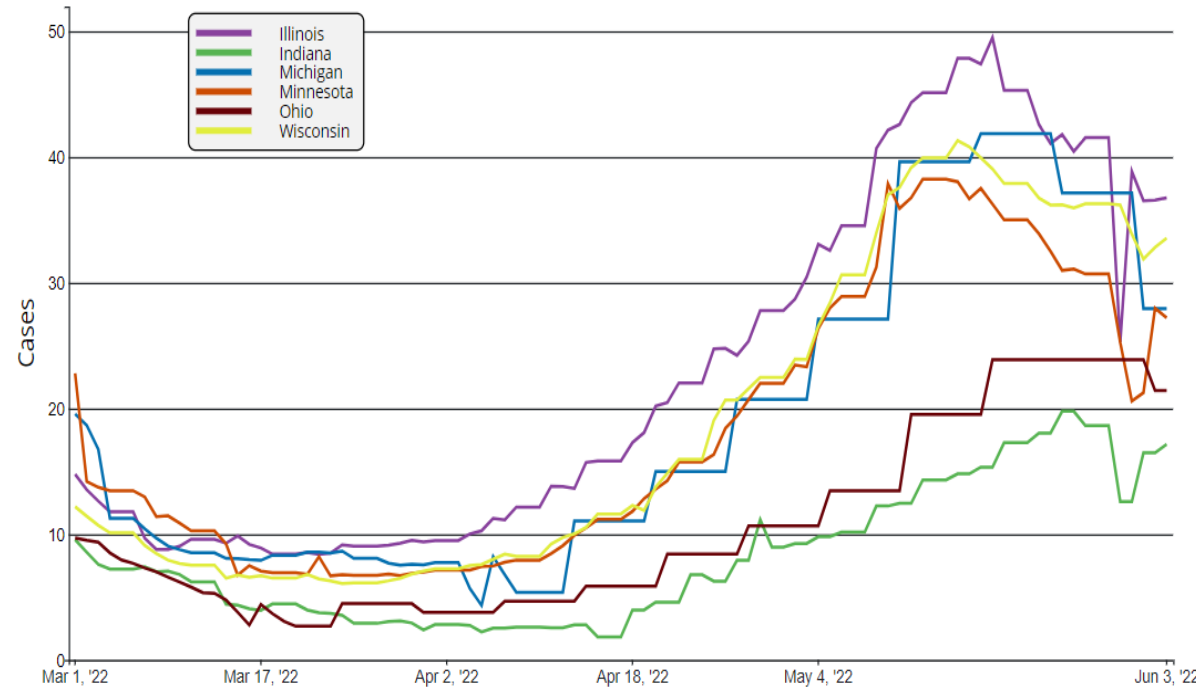
Hospitalization Metrics in Michigan are mixed

- Statewide COVID+ census in hospitals has decreased by 10% in the past week
- COVID+ hospital census has increased in regions 1, 3, and 7 while decreasing in all other preparedness regions
- Overall, the census of COVID+ patients in ICUs has increased by 5% from last week

Global and National Trends



Region 5 New COVID-19 Cases, Reported to CDC
Seven-day moving average of new cases per 100K



Globally, 532,027,701 cases and 6,299,304 deaths (Data* through 6/6/2022)

- Case rates appear to be plateauing in many European countries following second Omicron wave

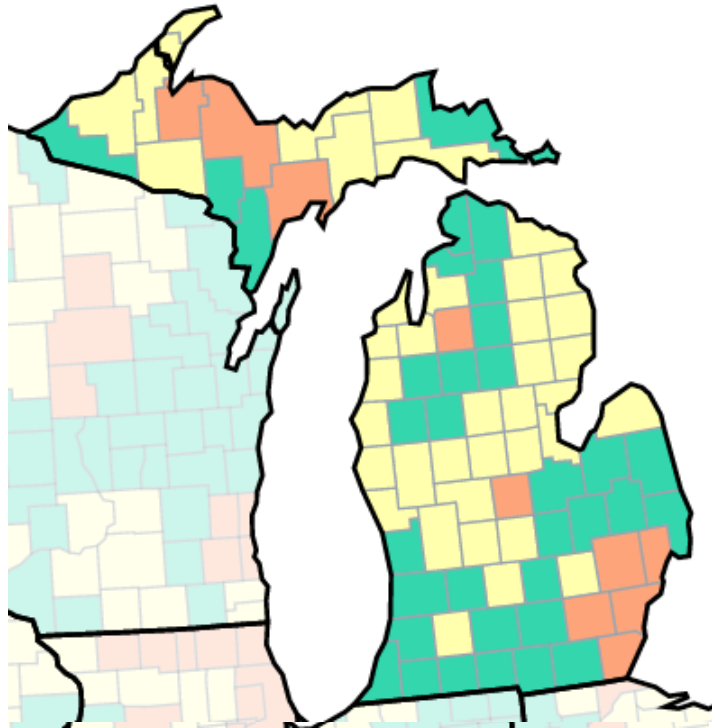
United States: Reported cases (7-day average) have decreased over 8.5% since the prior week[†]

- In the U.S., the case rate is 206 cases/100,000 in last 7 days (last week: 231 cases per/100,000)

Continued signs of plateaus/declines in some parts of Region 5 (Midwest) states, including Michigan

- Illinois and Michigan have the highest case rates in Region 5 (6/6)

As of June 2, 10 Michigan Counties at High COVID-19 Community Level



- In the US, 7% of counties have high risk for medically significant disease and healthcare strain; in Michigan, 12% of counties are at high risk
- 46% of Michigan residents reside in a county with a High COVID-19 Community Level
- All counties that are categorized as High have case rates that are equal to or greater than 200 per 100,000 and the HSA COVID hospital admissions per 100k is above 10.
- 39 Michigan counties are currently at Medium level (47%). This represents 25% of the population.

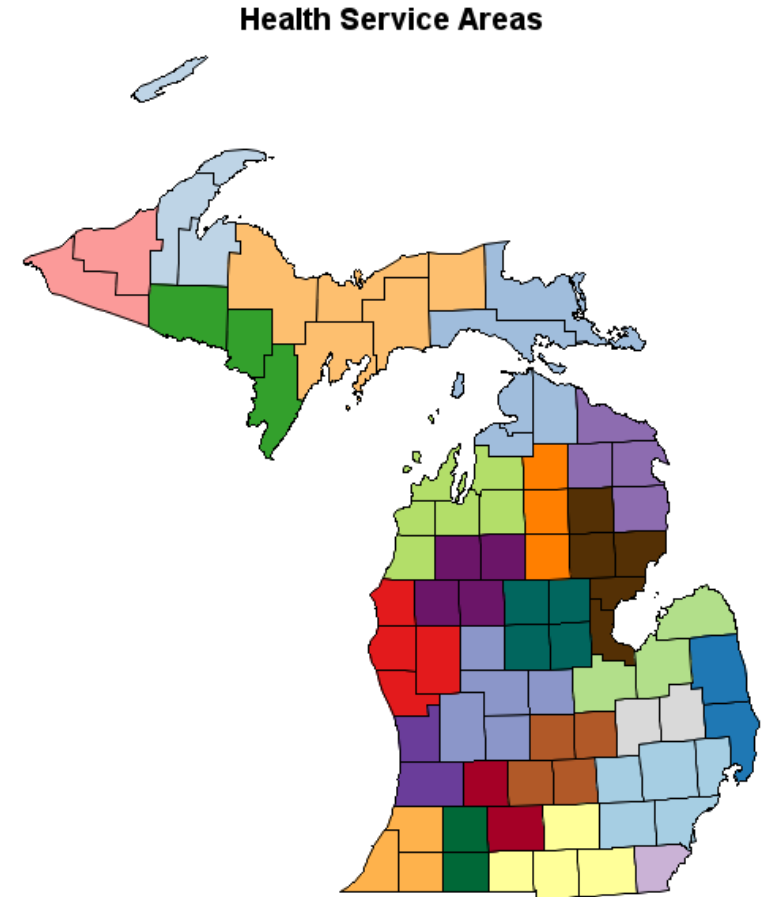
Percent of Counties

	United States	Michigan	Percent of MI Population
Low	70%	41%	29%
Medium	23%	47%	25%
High	7%	12%	46%

Low	Medium	High
<ul style="list-style-type: none"> • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms 	<ul style="list-style-type: none"> • If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms 	<ul style="list-style-type: none"> • Wear a mask indoors in public • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms • Additional precautions may be needed for people at high risk for severe illness

CDC COVID-19 Community Levels are defined by County Case Rates and Health Service Area (HSA) Hospitalizations

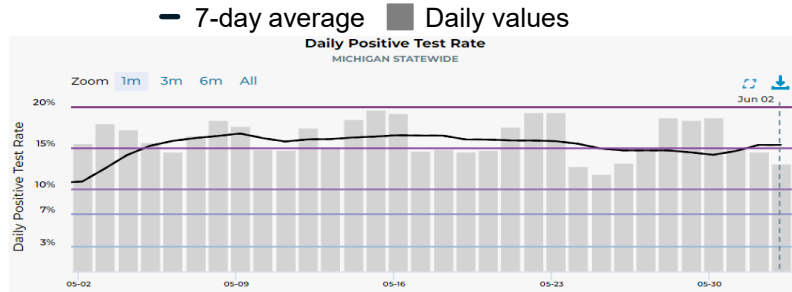
COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Proportion of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%



Recent statewide trends suggest early signs of plateaus/peaks

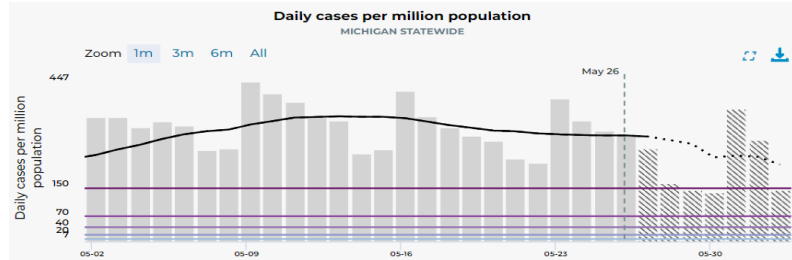
Statewide trends

Positivity, %



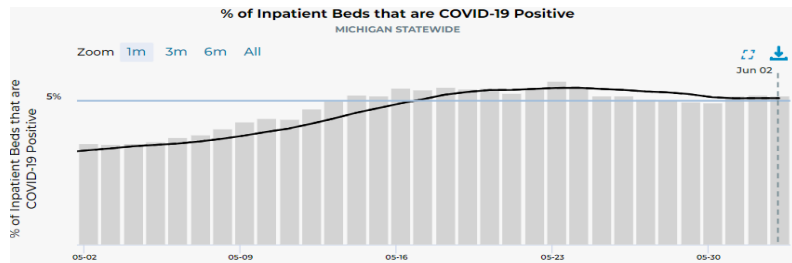
Current: 15.4%
Last Week: 14.7%

Daily cases per million



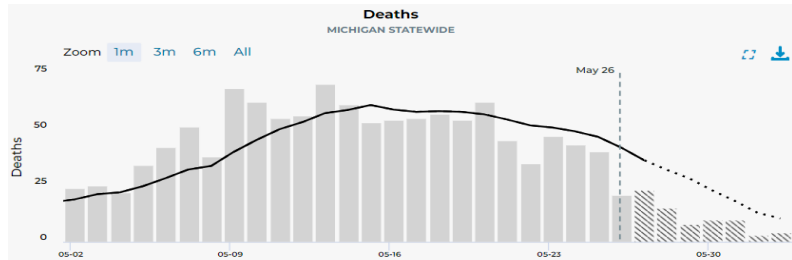
Current: 294.2
Last Week: 300.6

Daily hospitalization rate, %



Current: 5.0%
Last Week: 5.3%

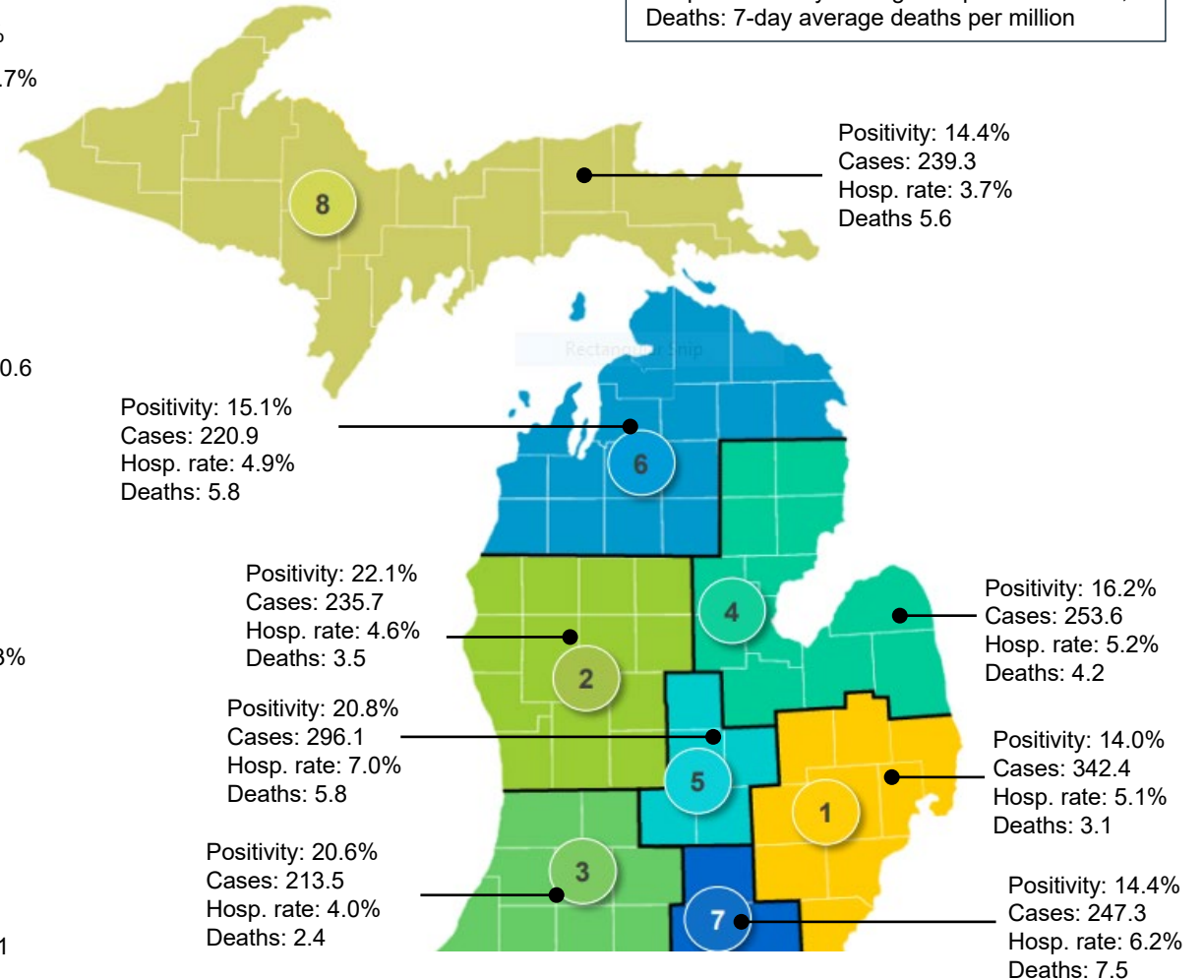
Deaths



Current: 3.6
Last Week: 3.1

MERC Regional breakdown: Positivity, cases, hospitalization rate, and deaths

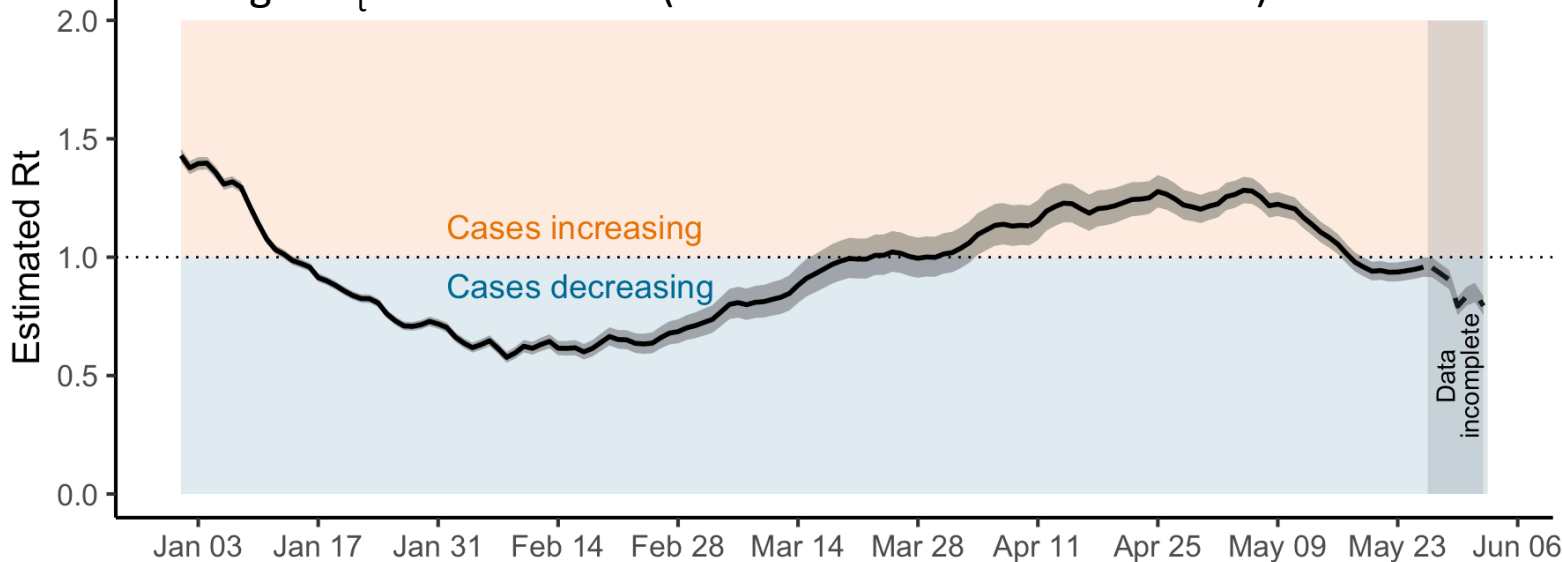
Positivity: 7-day average positivity, %
Cases: 7-day average cases per million
Hosp. rate: 7-day average hospitalization rate, %
Deaths: 7-day average deaths per million



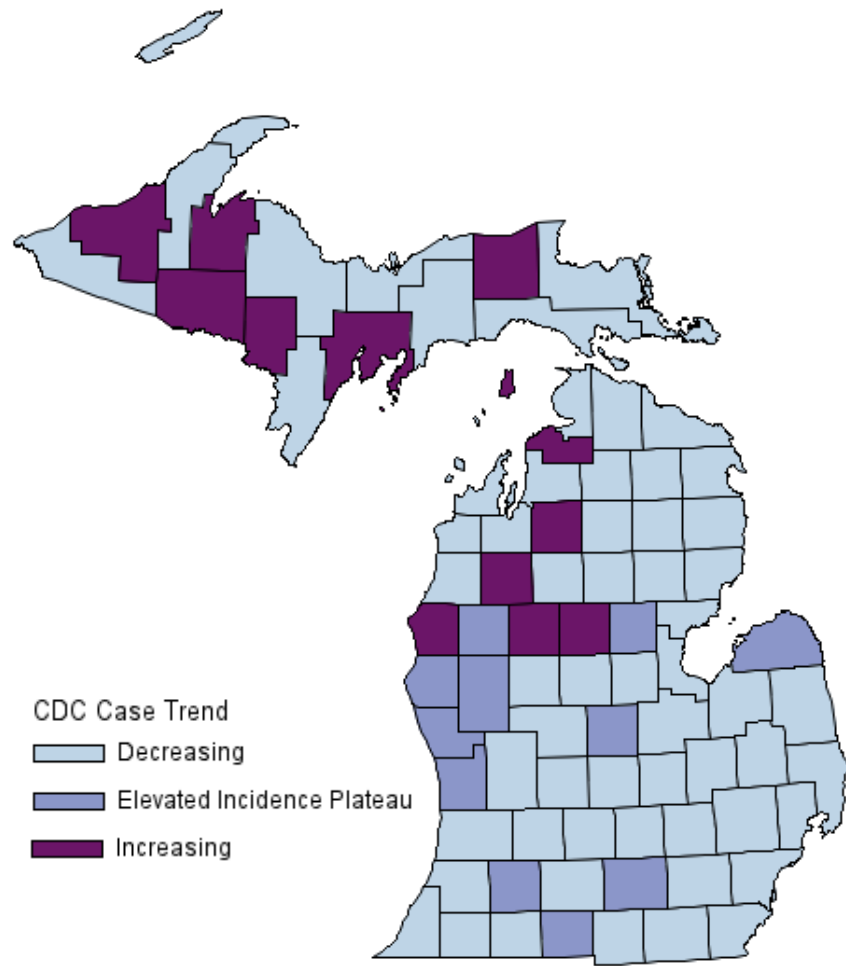
Case rates appear to have peaked/plateaued in Michigan

However, will need to monitor post holiday weekend

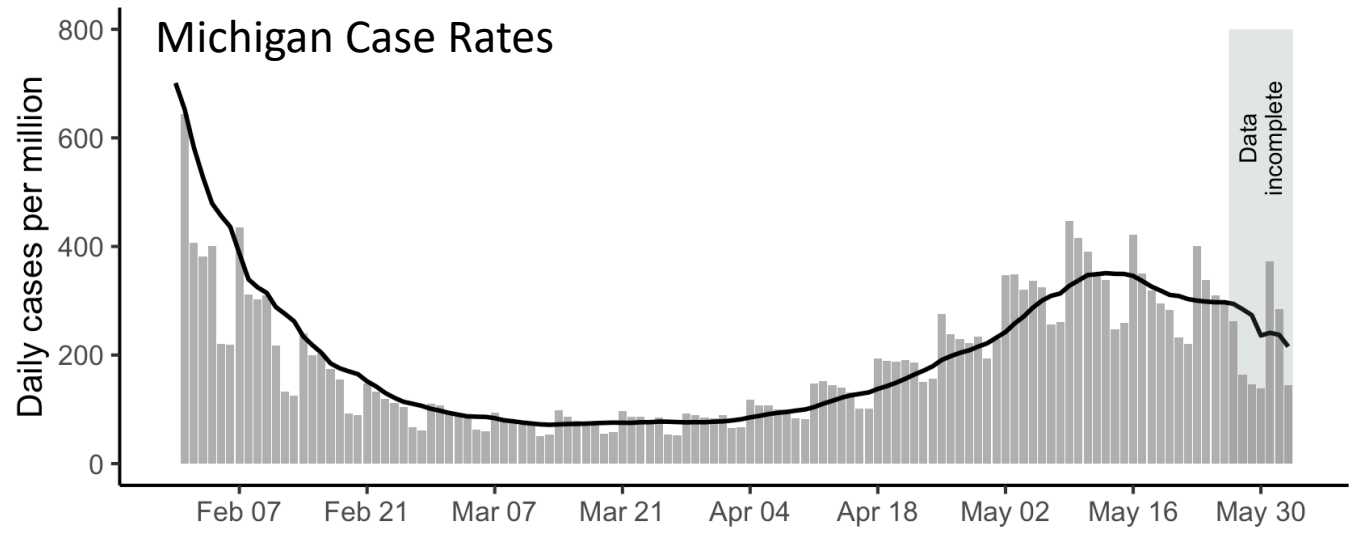
Michigan R_t has reached 1 (neither increase nor decrease)



12 counties currently showing increases and 11 in elevated incidence plateaus (via mstartmap.info as of 6/3/22, data through 5/27/22).

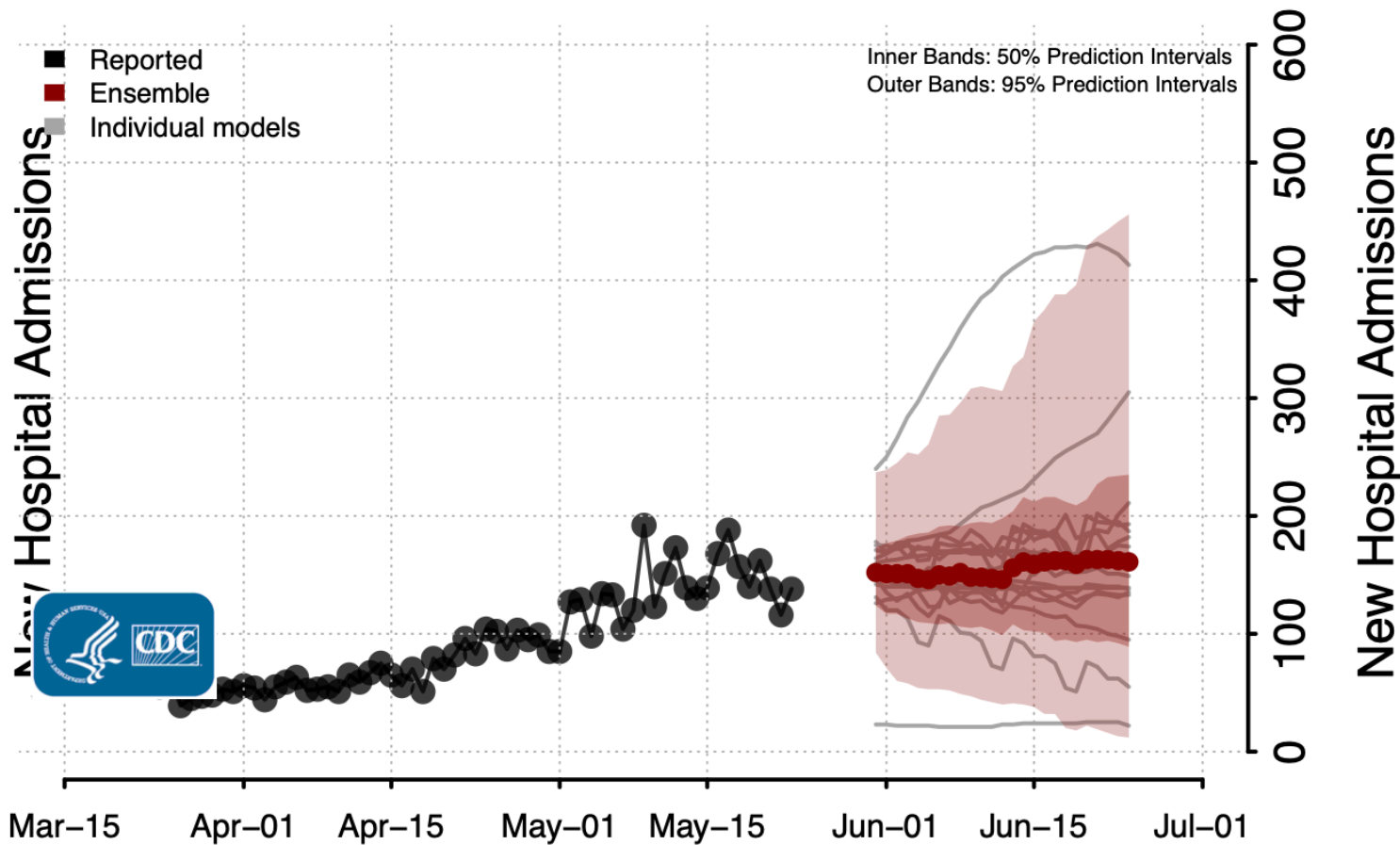


Michigan Case Rates

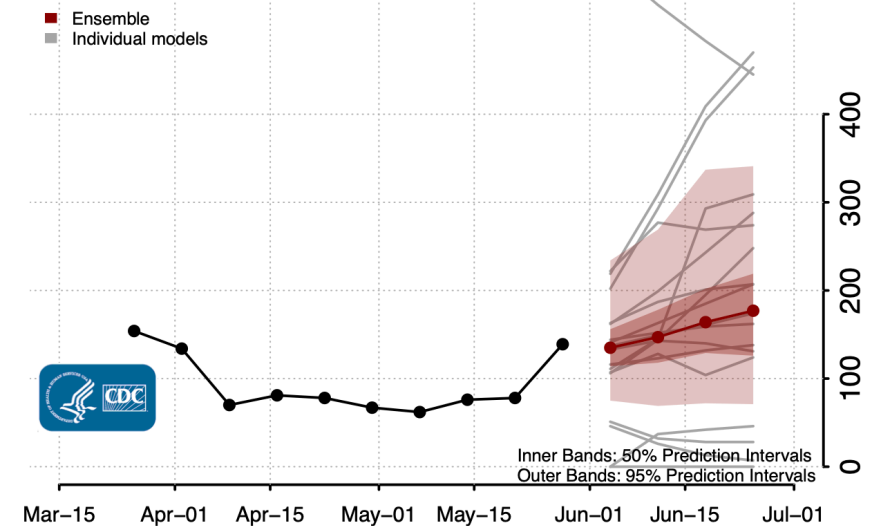


Sources: MDSS cases plotted by onset date as of 6/6/22.

CDC hospitalization projections suggest hospitalizations likely to stay plateaued over next four weeks in Michigan



Deaths projected to show a slow increase (lagging indicator)

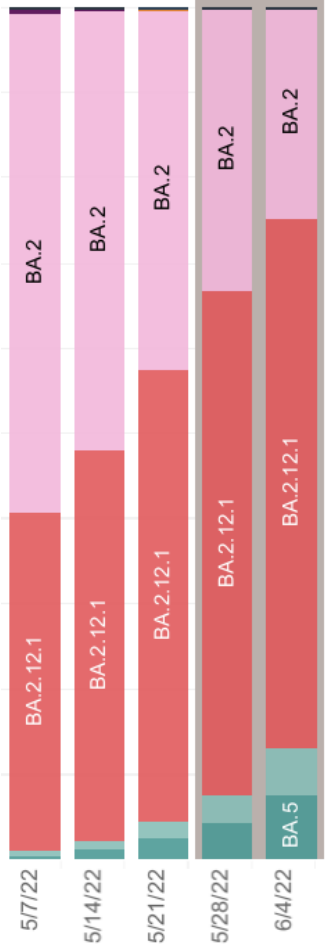


Emerging Variant Update

- Omicron continues to be the predominant concern, including all its sublineages
 - Omicron has several sublineages of this variant, including BA.1, BA.2, BA.4, BA.5, BA.2.12.1, and recombinations of these.
 - BA.4 and BA.5 (new sublineages of Omicron) may spread faster than current lineages of Omicron in U.S. or U.K. These variants are spreading in other countries (BA.4 in S. Africa; BA.5 in Portugal), but data is still very preliminary.
 - Here in the U.S., BA.2.12.1 is now the most predominant but the proportion of BA.2 is below 50% for the first time and decreasing
- BA.2.12.1 is most common variant in HHS Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

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

SARS-CoV-2 Variants Circulating in the United States, May 1 – Jun 4 (NOWCAST)

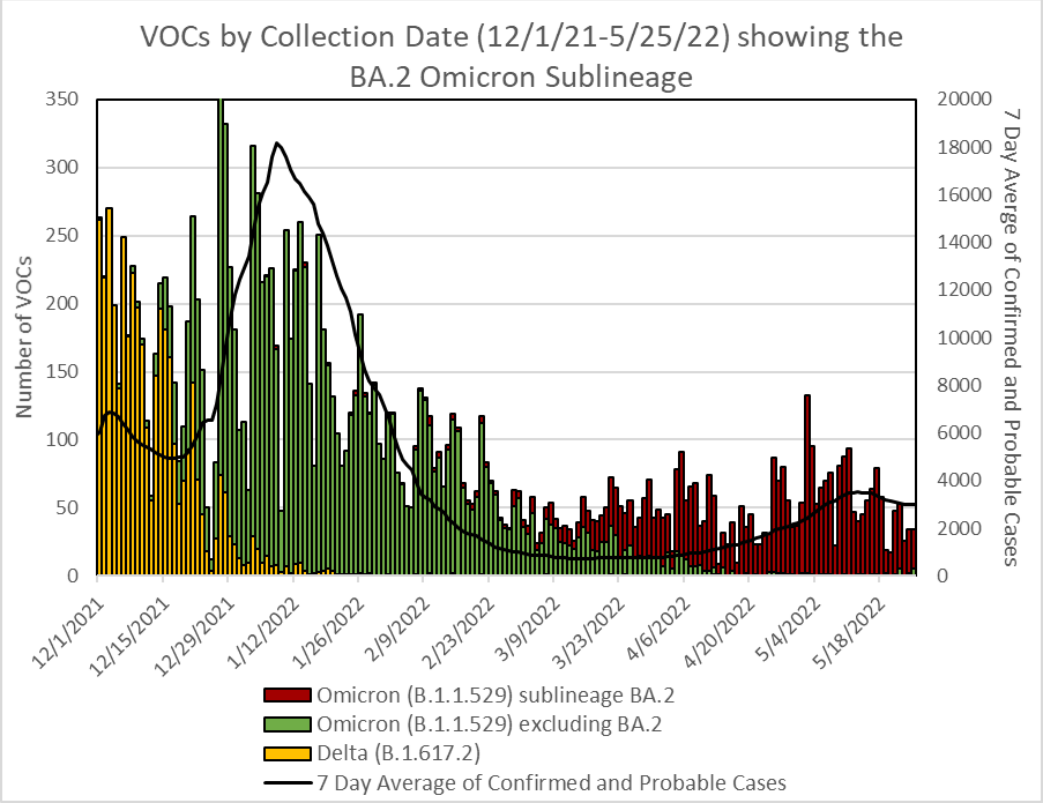


USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BA.2.12.1	VOC	62.2%	58.5-65.7%
	BA.2	VOC	24.8%	22.4-27.3%
	BA.5	VOC	7.6%	5.6-10.1%
	BA.4	VOC	5.4%	3.8-7.5%
	BA.1.1	VOC	0.0%	0.0-0.0%
	B.1.1.529	VOC	0.0%	0.0-0.0%
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%
Other	Other*		0.1%	0.0-0.1%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
 ** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
 # AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA.1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region. Except BA.2.12.1 and its sublineages, BA.2 sublineages are aggregated with BA.2.

VOC Distribution in Michigan

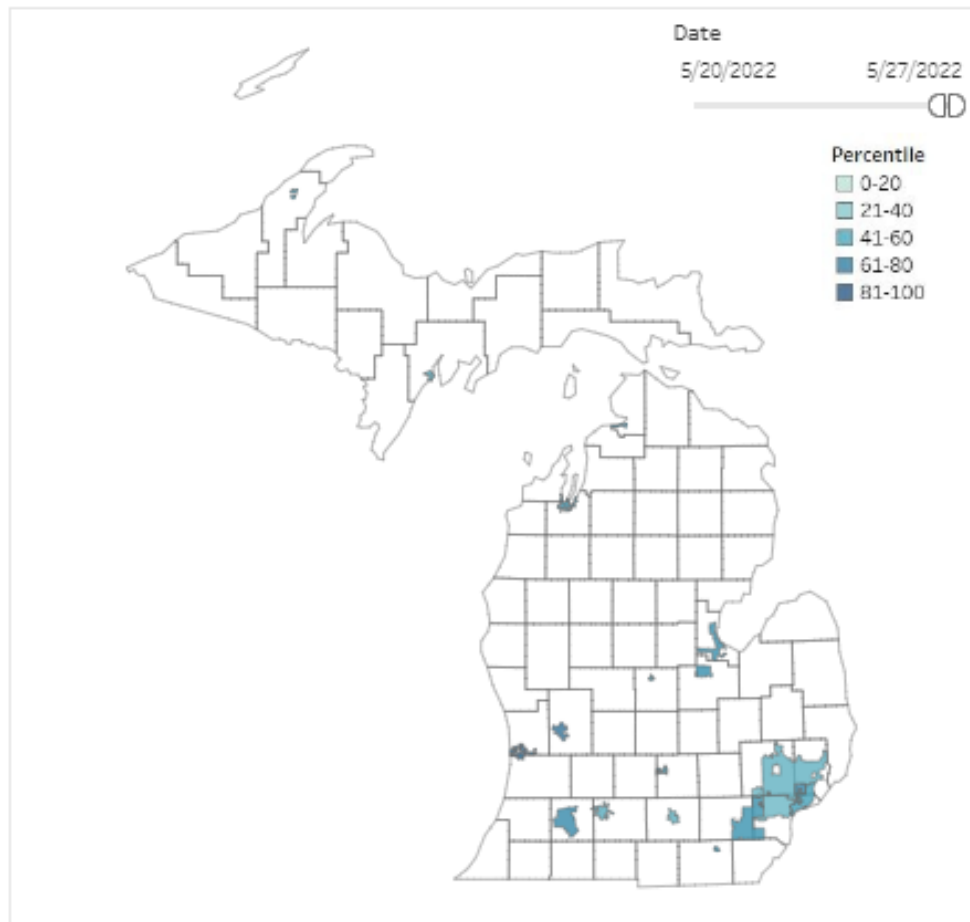


- Since May 1, there have 1,450 VOC specimens sequenced
- 100% of specimens sequenced are Omicron
- A small fraction of specimens have been identified as BA.4 (n=14) and BA.5 (n=6)

Data last updated Jun 7, 2022
 Source: MDSS
 † Sequence specimens are from the most recent week by onset date which may change as more specimens are sent in

Michigan COVID-19 SWEEP Sentinel Wastewater Dashboard

The map below shows 20 sewershed sites in Michigan where wastewater is being monitored for the presence of SARS-CoV-2, the virus that causes COVID-19. These sentinel sites serve as a subset of wastewater surveillance in Michigan distributed across the Michigan Economic Recovery Council (MERC) Regions. Click on each site on the map to see wastewater and clinical case data over time. In the top right corner of the map, slide the white buttons to select the time period for which the site-specific percentile is calculated.



Site	Sewershed Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	6	5/23/2022	↑
Battle Creek WWTP	51093	6	5/25/2022	↓
Bay City WWTP	34000	6	5/25/2022	↑
Delhi Township WWTP	22500	9	5/26/2022	↓
Escanaba WWTP	12600	4	5/25/2022	↑
GLWA Detroit River Interce..	492000	84	5/25/2022	↓
GLWA North Interceptor-	1482000	61	5/25/2022	↔
GLWA Oakwood-	840600	84	5/25/2022	↔
Grand Rapids WWTP	265000	42	5/26/2022	↑
Holland WWTP North	45606	6	5/25/2022	↓
Holland WWTP South	36912	8	5/25/2022	↑
Jackson WWTP	90000	45	5/26/2022	↓
Kalamazoo WWTP	150000	9	5/26/2022	↓
Petoskey WWTP	7900	7	5/31/2022	↓
Portage Lake WWTP	14000	37	5/25/2022	↑
Saginaw Township WWTP	40000	7	5/25/2022	↓
Tecumseh WWTP	8680	20	5/27/2022	↓
Traverse City WWTP	45000	11	5/26/2022	↓
Warren WWTP	135000	6	5/26/2022	↓
Ypsilanti WWTP	330000	45	5/26/2022	↓

Abbreviations: GLWA - Great Lakes Water Authority; WWTP - Waste Water Treatment Plant

Definitions and descriptions of data calculations can be found in the "About" tab.

Current results reflect data that were uploaded to MDHHS as of 6/2/2022. Labs are required to report test results to local partners within 24 hours. Data is subject to change as additional wastewater data and case data are received.

15-Day Trends

- ↑ 1000% or more
- ↑ 100% to 999%
- ↑ 10% to 99%
- ↔ 0% to 9%
- ↓ -1% to -9%
- ↓ -10% to -99%
- ↓ -100% to -999%
- ↓ -1000% or more

Sentinel Summary

- 30% (6) of sentinel sites are showing increasing trends over last 15-days
- 10% of sites have plateaued over the last 15 days
- 60% (12/20) of sentinel sites are showing declines in the previous 15-days

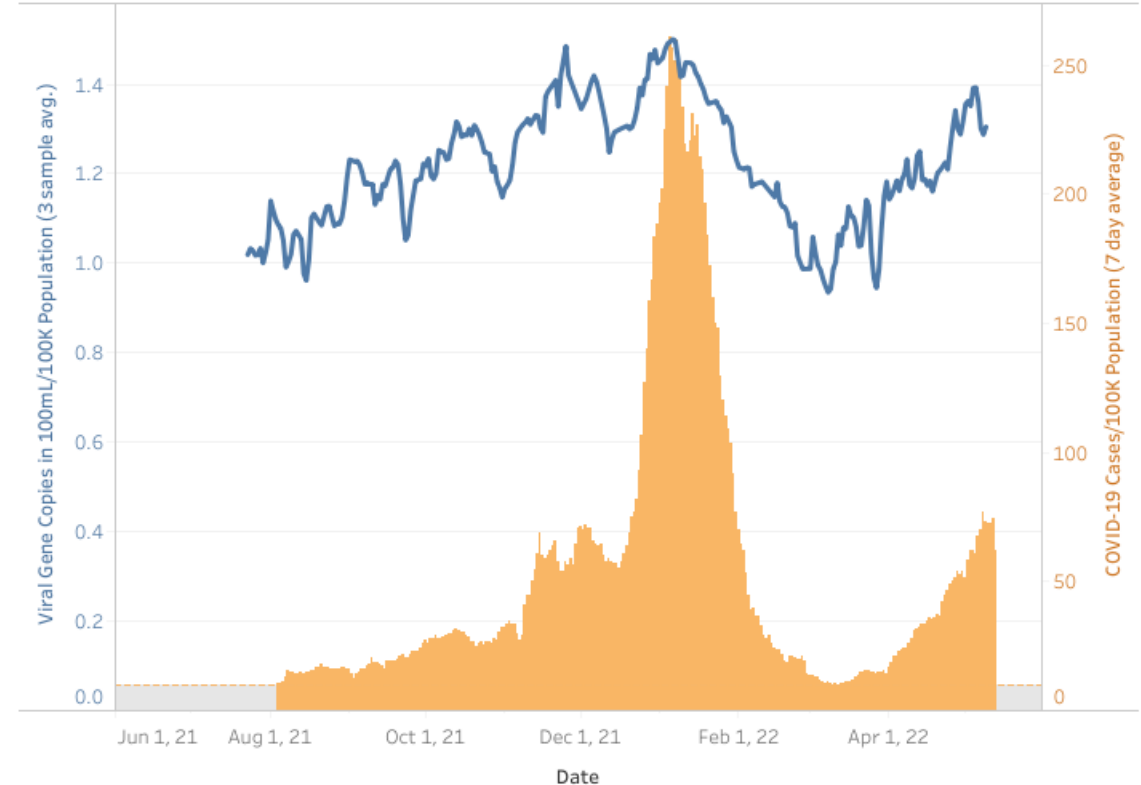
Interpreting Wastewater Should Be In Context with Other Indicators

- When levels of virus in wastewater are low, a modest increase overall in virus level can appear much larger as numbers are translated into percentages
 - This does not necessarily mean we will see major increases in transmission in the community
- When increases are seen within one wastewater site, public health officials compare with neighboring communities and other data sources to understand potential of surges
 - For example, the Ypsilanti WWTP saw increases in SARS-CoV-2 levels which correlated with increasing presence of Omicron BA.2 lineage and then followed by an increase in cases

Ypsilanti WWTP

The most recent sample concentration is higher than 84% of samples collected at this site, which puts it in the 81-100 percentile category. As of 5/10/2022, the change in viral concentration over the past 15 days is increasing.

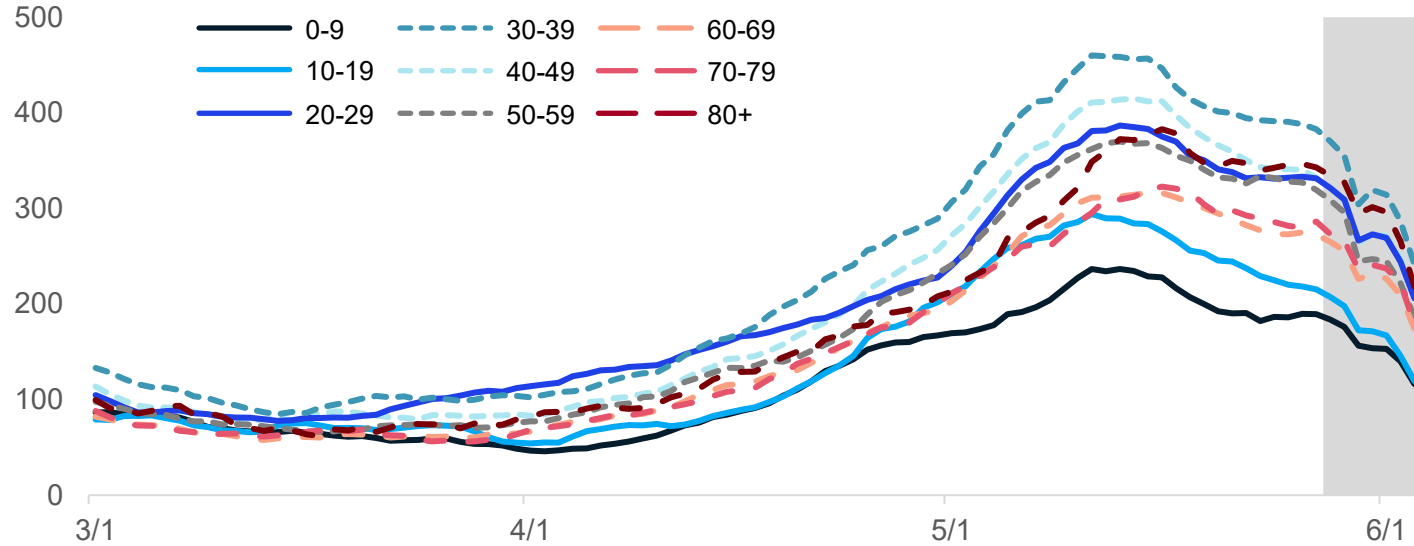
Wastewater SARS-CoV-2 Levels and COVID-19 Cases



The blue line on the graph shows the levels of SARS-CoV-2, the virus that causes COVID-19, in the wastewater samples collected from Ypsilanti WWTP. Each data point is calculated by averaging the number of viral gene copies detected per 100mL of wastewater in the 3 most recent samples. The orange bars on the graph show the COVID-19 cases reported to MDHHS from the zip codes that the wastewater treatment plant serves (7-day average). Both the virus levels and COVID-19 cases are calculated per 100,000 people. Case data will not be shown on the graph when the average number of cases is fewer than 10 per 100,000 people to protect the confidentiality of individuals with infections. This will be represented by an orange dashed line with gray shading below.

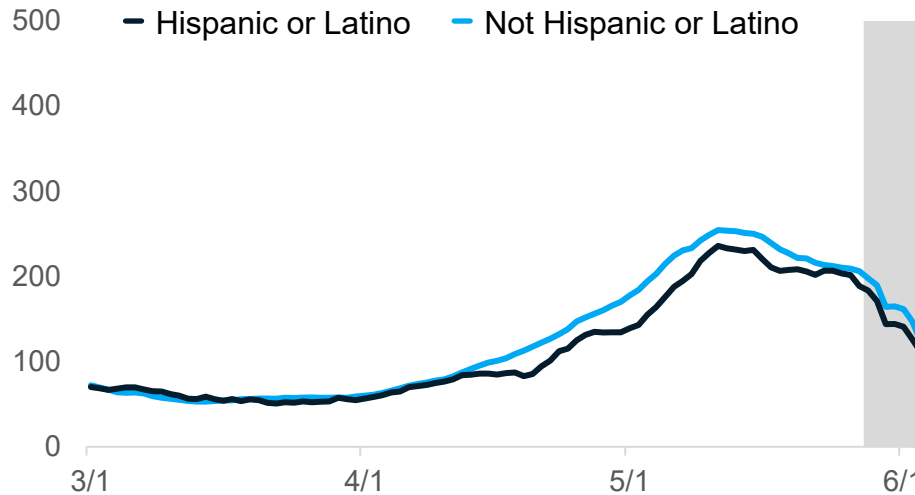
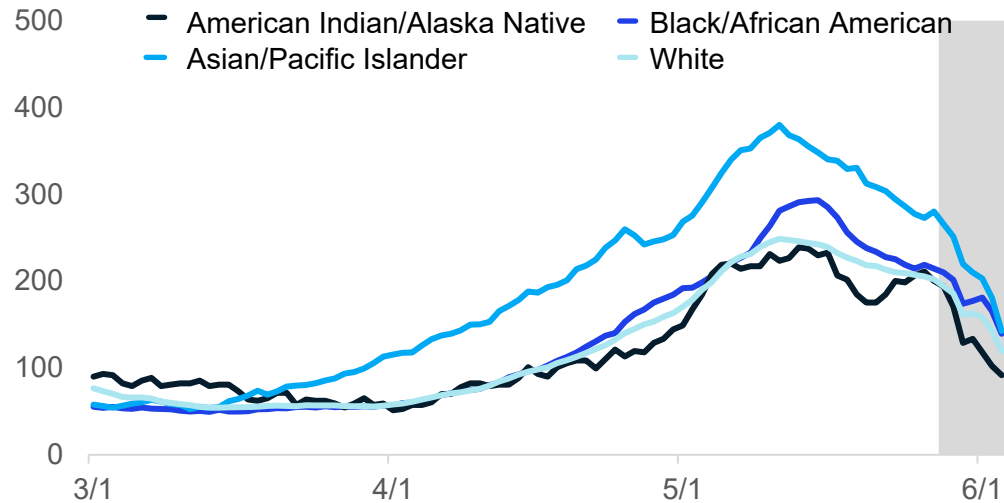
Case rate are decreasing or plateauing for all stratified groups

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



- Case rates by onset date for all age groups are between 189.4 and 382.8 cases per million (through 5/27)
- Case counts and case rates are highest for 30-39-year-olds this week, followed by 80+-year-olds and the 40-49-year age groups

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

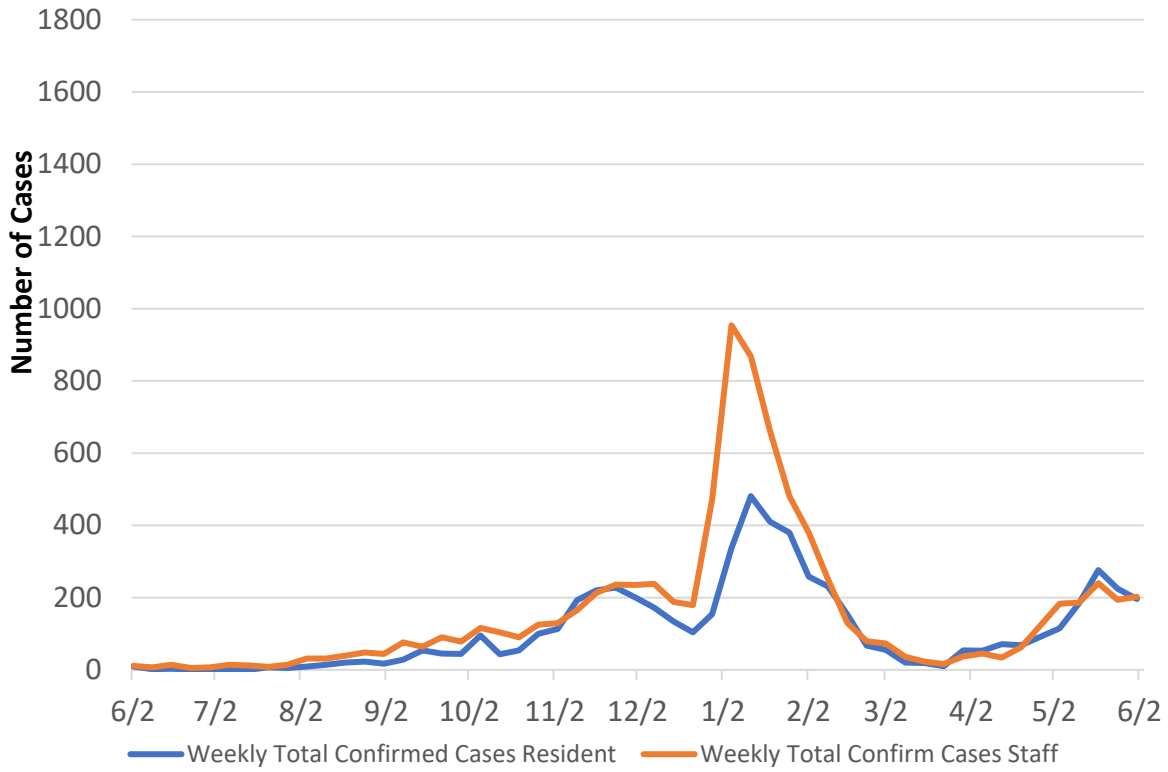


- Case rates are highest for Asian/Pacific Islander populations (280.2 cases/million)
- Between 22-27% of cases in last 30 days have missing race/ethnicity data

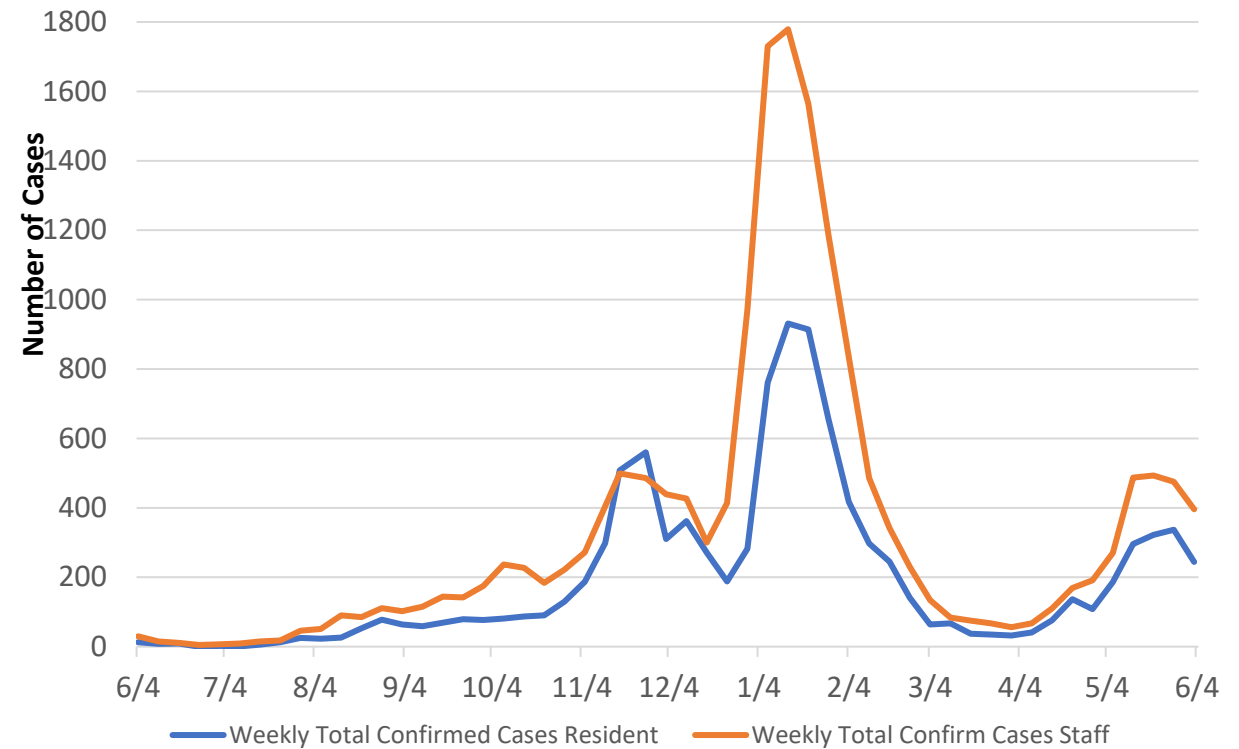
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Cases Among Staff and Residents Experienced Early Signs of Plateaus and Decreases in Long Term Care Facilities

STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN AFC/HFA RESIDENTS AND STAFF 06/02/2021 TO 06/01/2022



STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN SNF RESIDENTS AND STAFF 06/04/2021 TO 06/03/2022



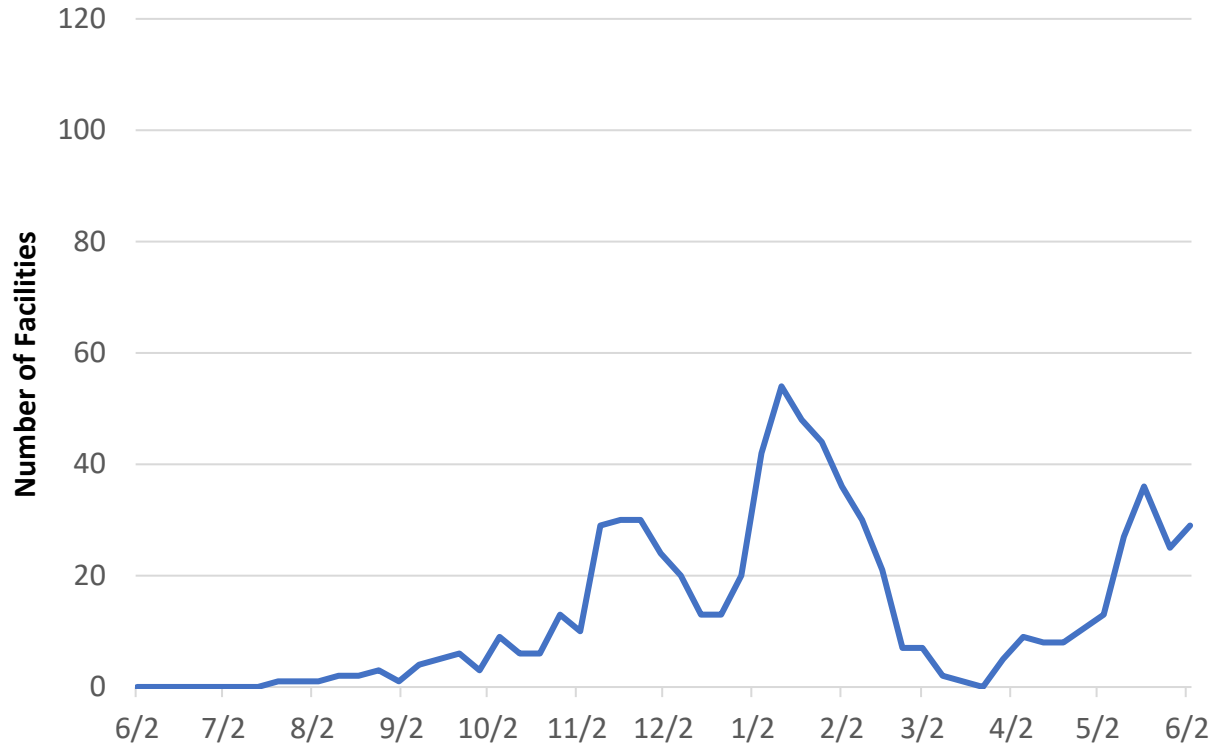
- Case counts in residents decreased in AFC/HFA (196) and SNFs (224) since last week
- Case counts in staff plateaued in AFC/HFA (202) but continued to decrease in SNFs (396) since last week
- **31%** of SNFs are reporting **nursing shortages** and **36%** of SNFs are reporting **aide shortages**, which are stable from last week

Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

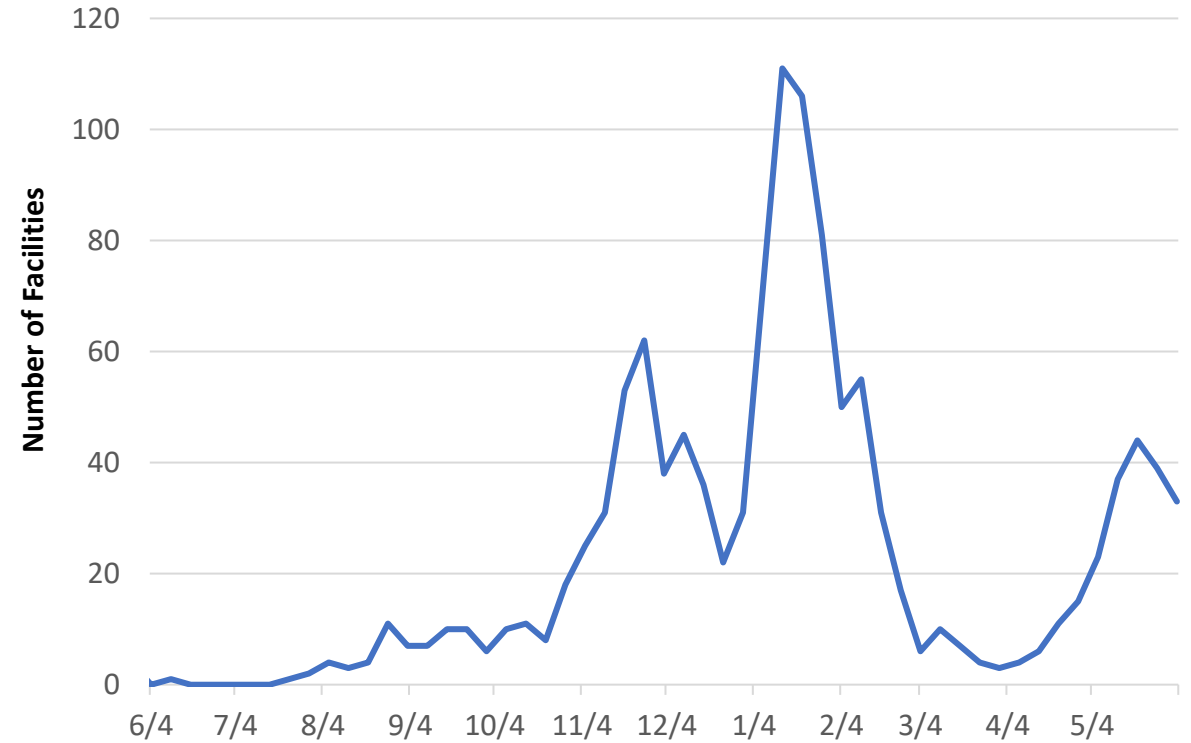
The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Reported Number of Outbreaks in Long Term Care Facilities

Number of AFC/HFAs with 3 or more Confirmed Cases



Number of SNFs with 3 or more Confirmed Cases



- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period increased in **AFC/HFA** from 25 to 29 but this is lower than the number of outbreaks reported two weeks ago
- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period decreased in **SNF** from 44 to 39 in most recent data.

The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Those who are eligible, must receive a second booster in order to stay up to date with their COVID-19 vaccine.

Four months after receipt of a first booster dose of Pfizer BioNTech, Moderna or Janssen (Johnson & Johnson), the following are now authorized

- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine or Moderna COVID-19 vaccine **should** be administered to individuals 50 years of age and older.
- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine **should** be administered to moderately or severely immunocompromised individuals 12 years of age and older.
- A second booster dose of the Moderna COVID-19 vaccine **should** be administered to moderately or severely immunocompromised individuals 18 years of age and older.
- A new CDC Tool is available, to help persons understand if they are up to date or eligible for another COVID-19 vaccine dose: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html>

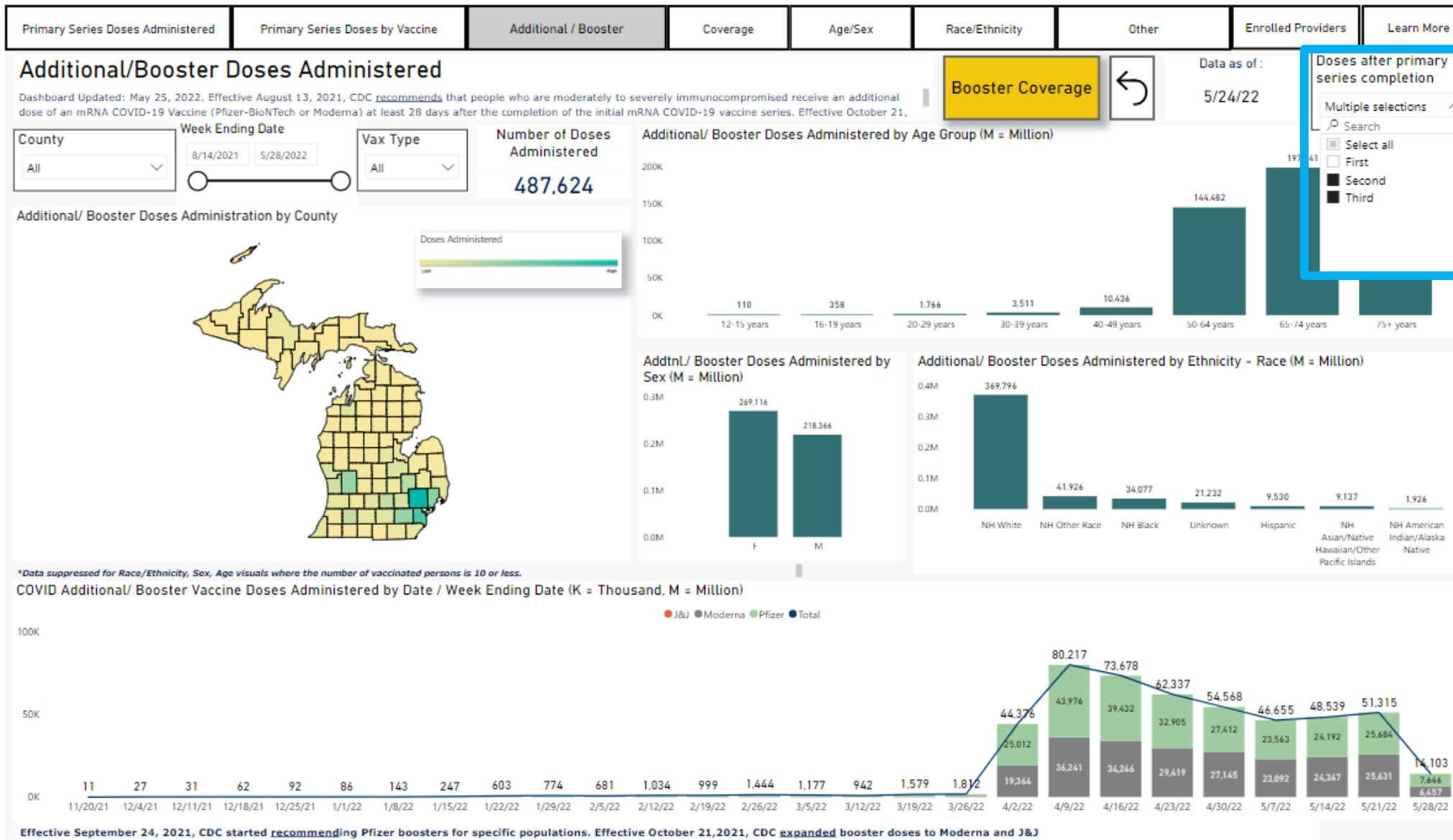
When Are You Up to Date?

You are **up to date** with your COVID-19 vaccines when you have received all doses in the primary series and all boosters recommended for you, when eligible.

- Vaccine recommendations are different depending on your age, the vaccine you first received, and time since last dose, [as shown below](#).
- Learn more about [COVID-19 vaccine recommendations specifically for people who are moderately or severely immunocompromised](#).

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html>

The MDHHS COVID-19 Vaccine Dashboard now can be filtered by the number of vaccines received after completion of the primary series



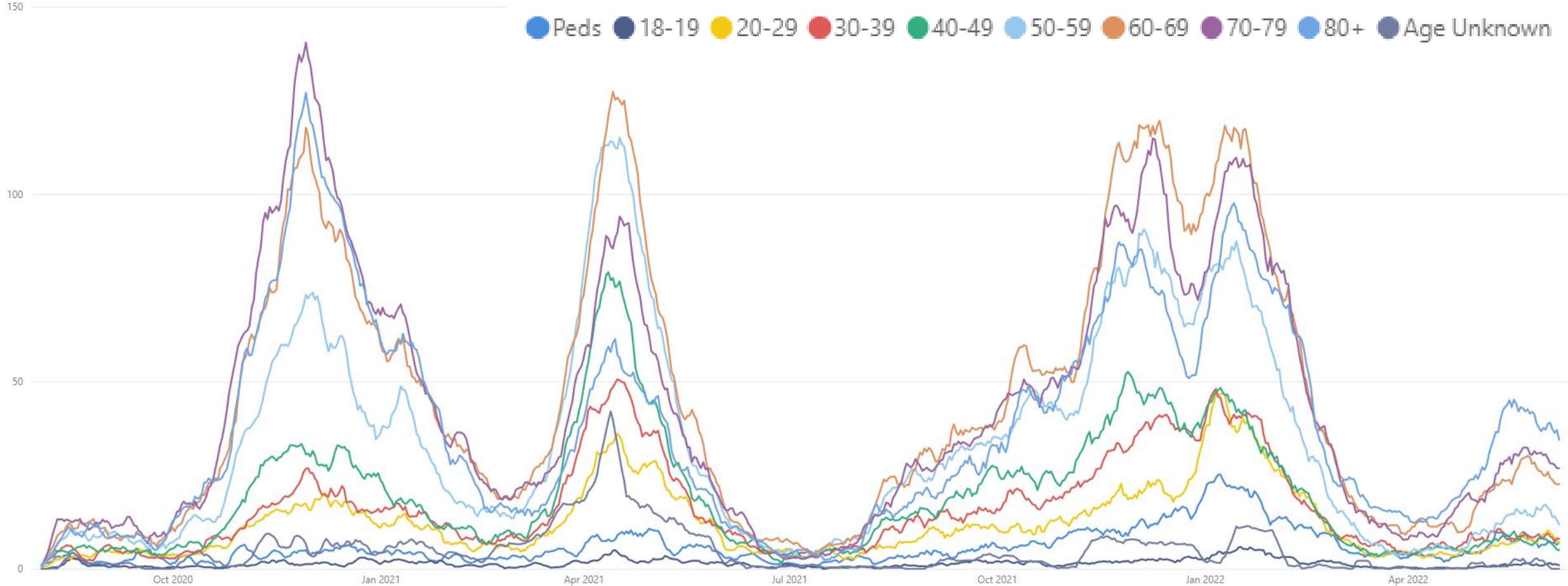
1) Click on **Additional / Booster Tab**

2) Then Click on **Additional / Booster Administrations Trend**

3) Filter using the drop down in the upper right corner

487,624 doses have been administered as an individual's second or third dose post-series completion

Hospital admissions due to COVID-19 remain lower than past surges and are decreasing



- Trends for daily average hospital admissions decreased (-12%) since last week (vs. -5% prior week)
- Most of the age groups saw decreases this week
- Those 60-69, 70-79, and 80+ are seeing between 20-40 daily hospital admissions

Source: CHECC & EM Resource

Hospital Admissions and Admission Rates by Age Group

Daily new hospital admission per million by age group (7-day rolling average)

Age Group	Average [†] daily number of hospital admissions	Average [†] Daily Hospital Admission Rate*	One Week % Change (Δ #)
0-11	4.9	3.5	-11% (-1)
12-17	1.1	1.5	+14% (+<1)
18-19	1.1	4.3	+33% (+<1)
20-29	7.6	5.5	-10% (-1)
30-39	8.1	6.7	+2% (+<1)
40-49	5.1	4.4	-40% (-3)
50-59	13.0	9.6	-17% (-3)
60-69	22.6	17.7	-13% (-3)
70-79	26.9	35.0	-13% (-4)
80+	37.0	89.3	+1% (+<1)
Total[¶]	127.4	11.2	-12% (-17)

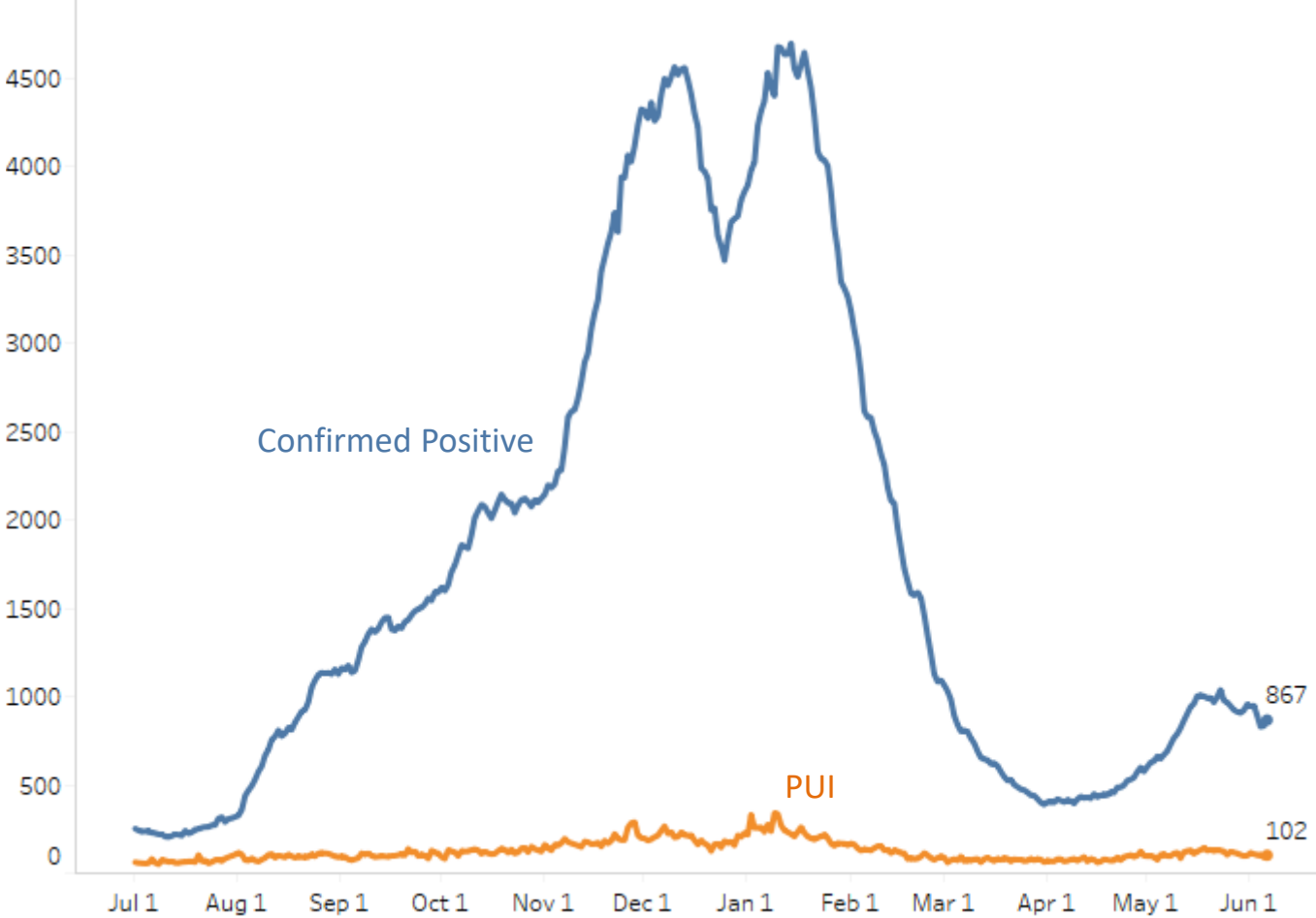
* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
 Note: Hospital Admission data reflects date data was submitted
 Source: CHECC and EM Resource

- Through June 6, there were an average of 127.4 hospital admissions per day due to COVID-19; a decrease from last week (-12%, -17)
- Most age groups saw a decrease this week
- Of the four age groups with increases, none were more than an average of 1 additional hospital admissions per day
- Average daily hospital admission count (37.0 hospital admissions per day) and average daily hospital admission rate (89.3 hospital admissions/million) were highest among those aged 80+
- Those 60-69, 70-79, and 80+ are seeing between 20-40 daily hospital admissions

Note: for some age groups, small changes in number of hospitalization admissions can cause large change in One Week Percent Change

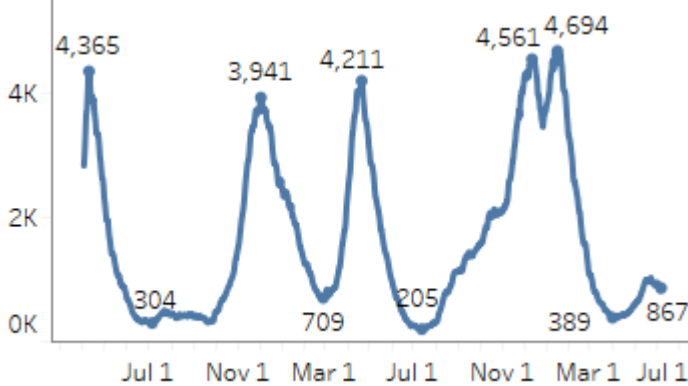
Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 7/1/2021 – 6/6/2022
Confirmed Positive & Persons Under Investigation (PUI)



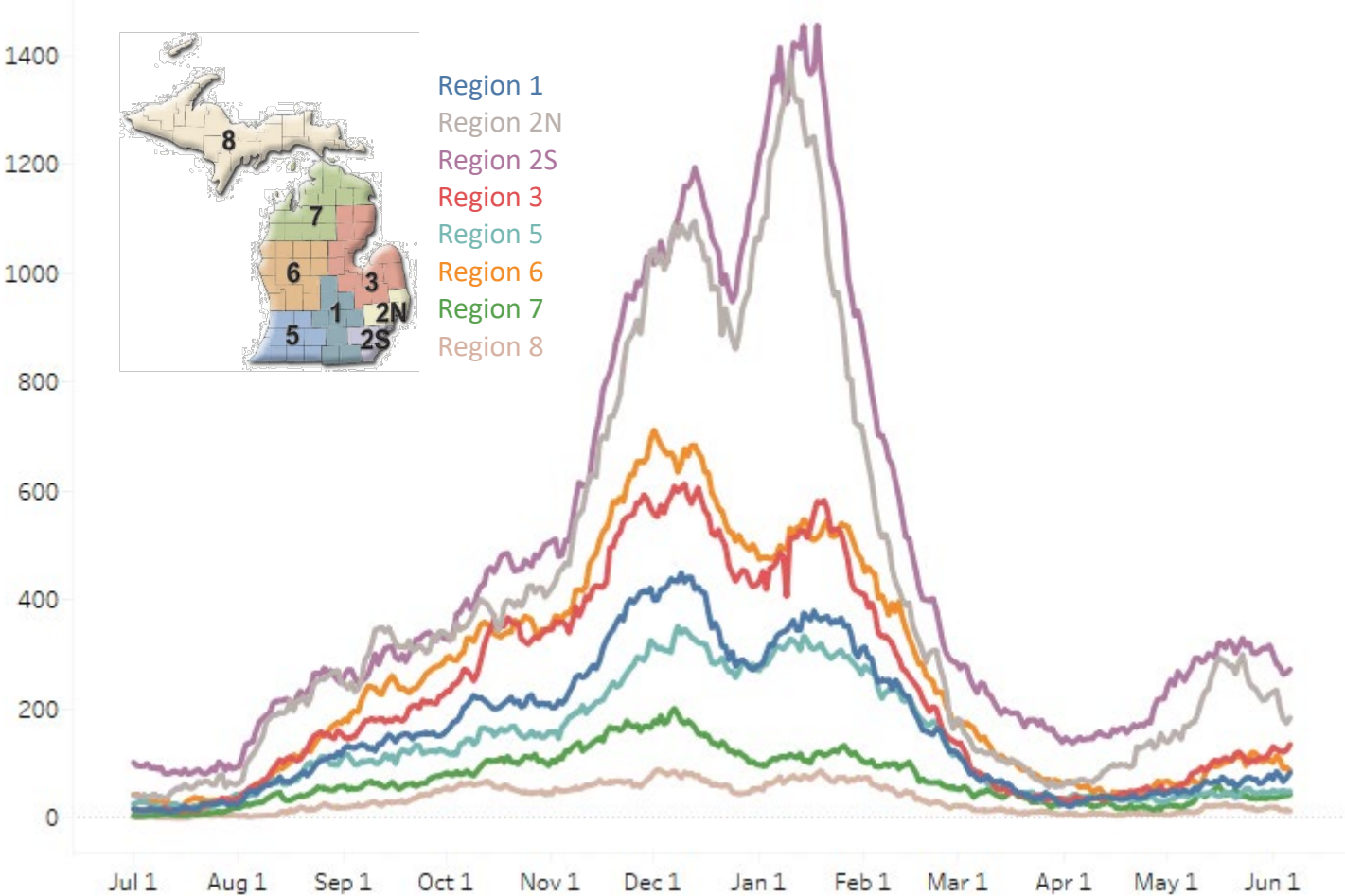
The COVID+ census in hospitals has decreased by 10% from last week (last week decreased 7% from the previous week). Overall census is currently 867 patients.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 6/6/2022
Confirmed Positive by Region



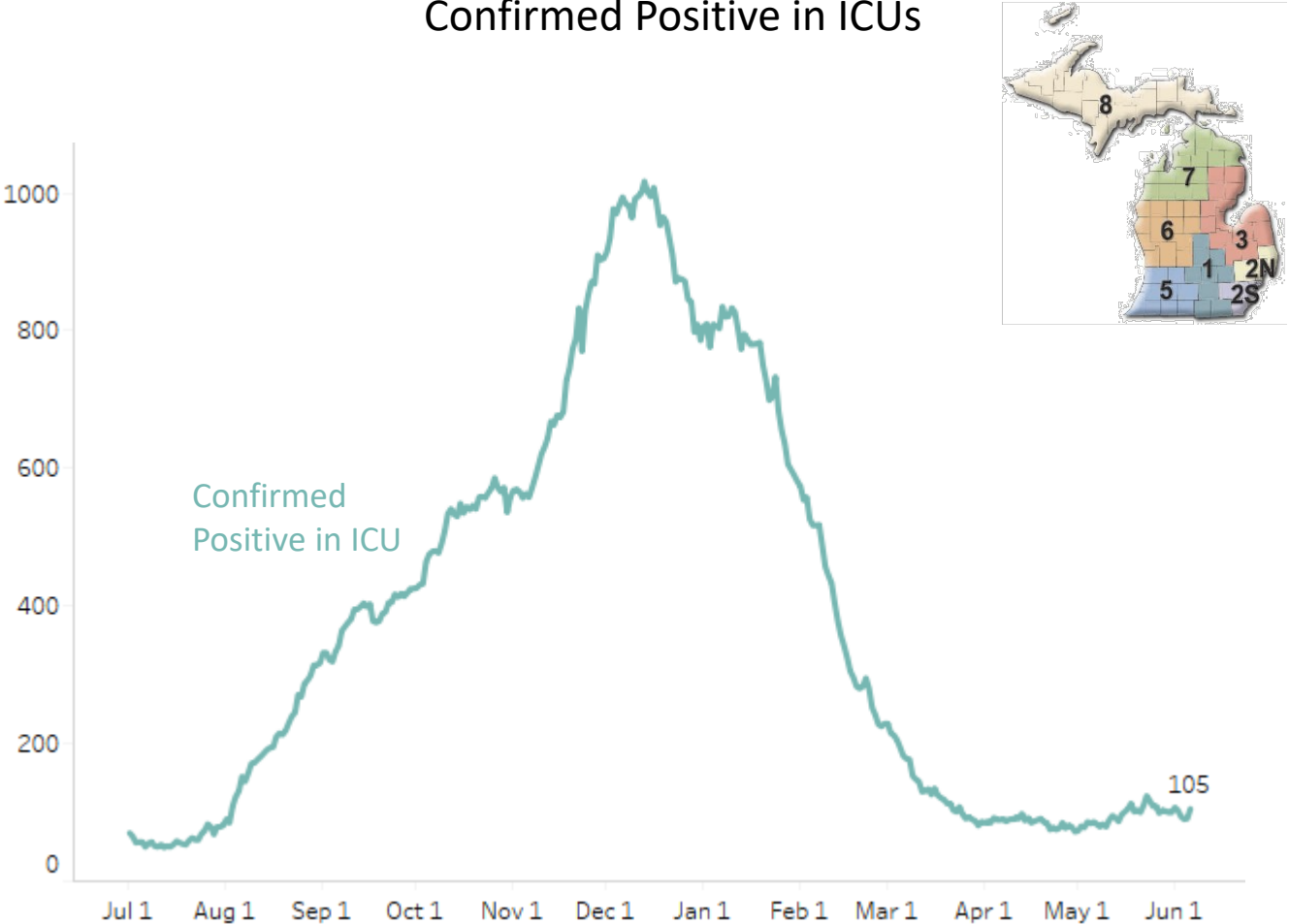
This week the COVID+ hospital census has increased in Regions 1, 3, 5, and 7. The census has decreased in Regions 2N, 2S, 6, and 8.

Regions 2S and 3 have greater than 100 hospitalizations/M

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	83 (5%)	77/M
Region 2N	184 (-19%)	83/M
Region 2S	273 (-15%)	123/M
Region 3	135 (13%)	119/M
Region 5	49 (7%)	51/M
Region 6	87 (-19%)	59/M
Region 7	43 (10%)	86/M
Region 8	13 (-35%)	42/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 6/6/2022
Confirmed Positive in ICUs



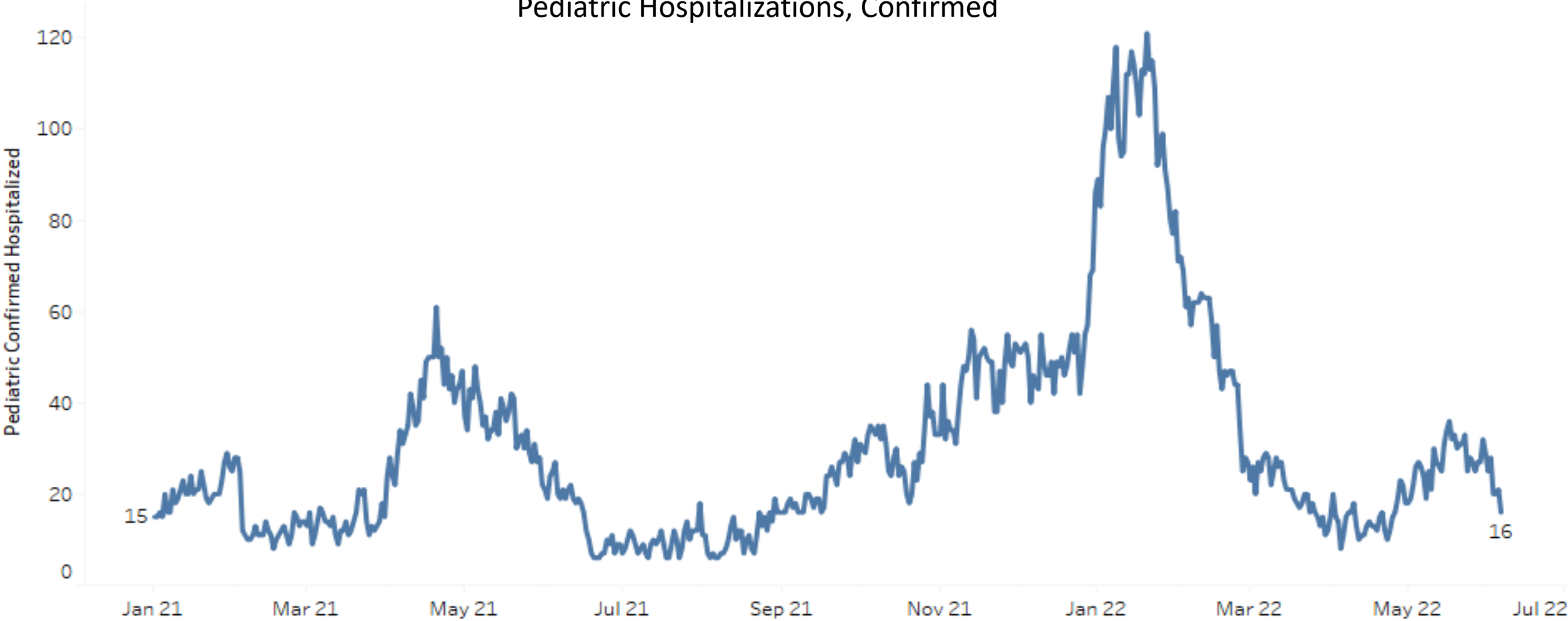
Overall, the census of COVID+ patients in ICUs has increased by 5% from last week. There are 105 COVID+ patients in ICU beds across the state.

COVID+ ICU census has decreased or remained flat in Regions 2N, 5, and 6. ICU census has increased in Regions 1, 2S, 3, 7, 8. ICU occupancy is at or above 85% in Region 3.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	9 (50%)	73%	5%
Region 2N	23 (-21%)	63%	4%
Region 2S	38 (12%)	84%	6%
Region 3	13 (18%)	85%	4%
Region 5	4 (0%)	65%	2%
Region 6	4 (-20%)	65%	2%
Region 7	12 (100%)	82%	9%
Region 8	2 (200%)	60%	3%

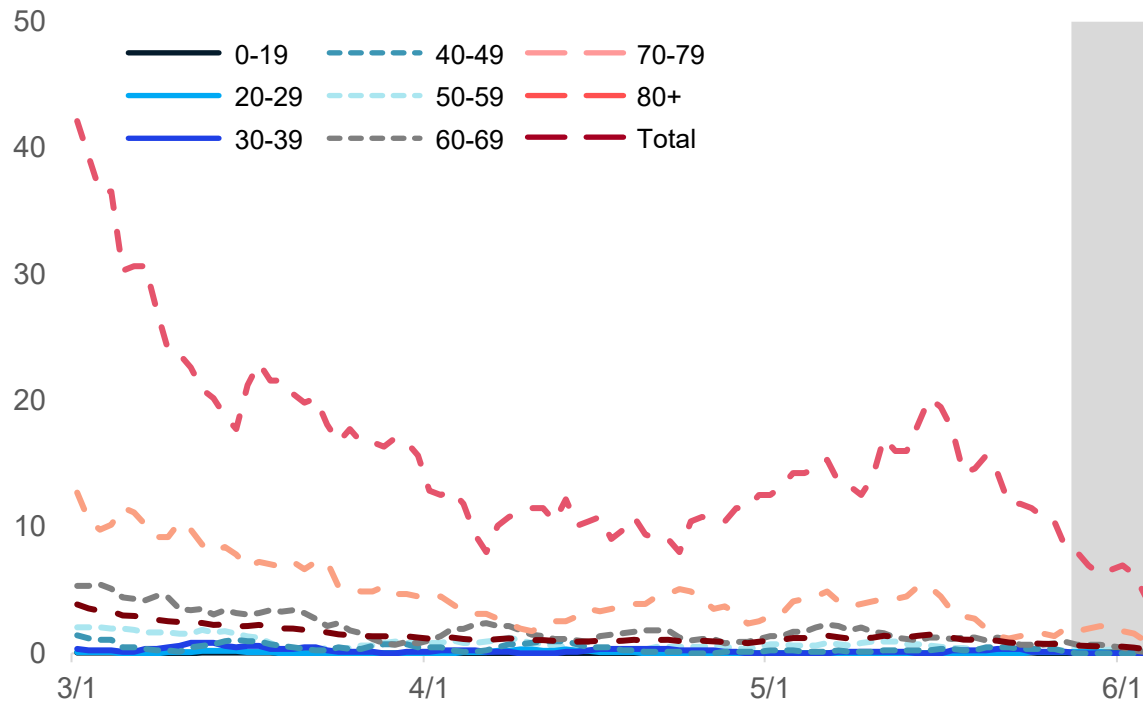
Statewide Hospitalization Trends: Pediatric COVID+ Census

Hospitalization Trends 1/1/2021 – 6/6/2022
Pediatric Hospitalizations, Confirmed



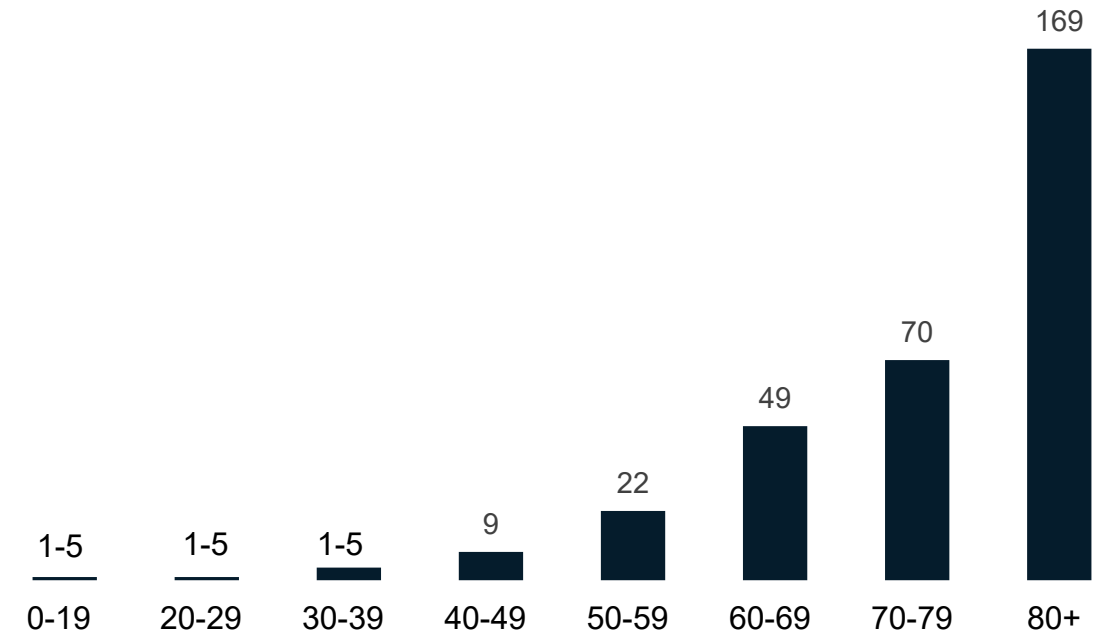
Average new deaths have plateaued for most age groups

Daily COVID-19 deaths in confirmed and probable cases per million by age group (7 day rolling average)



Total COVID-19 deaths in confirmed and probable cases by age group (past 30 days, ending 5/27/2022)

- 11.4% of deaths below age sixty

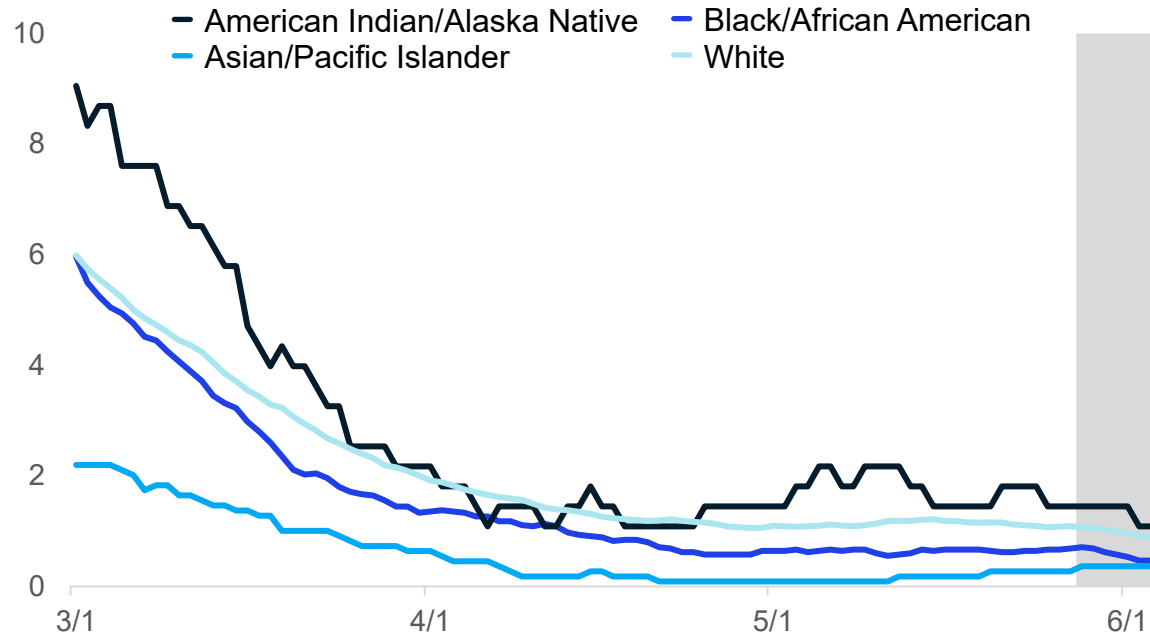


- Through 5/27, the 7-day avg. death rate has declined (8.4 deaths per million people) for those over the age of 80
- In the past 30 days, there are fewer than 10 among confirmed and probable COVID-19 cases under the age of 40
- 30-day proportion of deaths among those under 60 years of age is 11.4%. This proportion has decreased incrementally over the last 4 weeks (last week 11.6%)

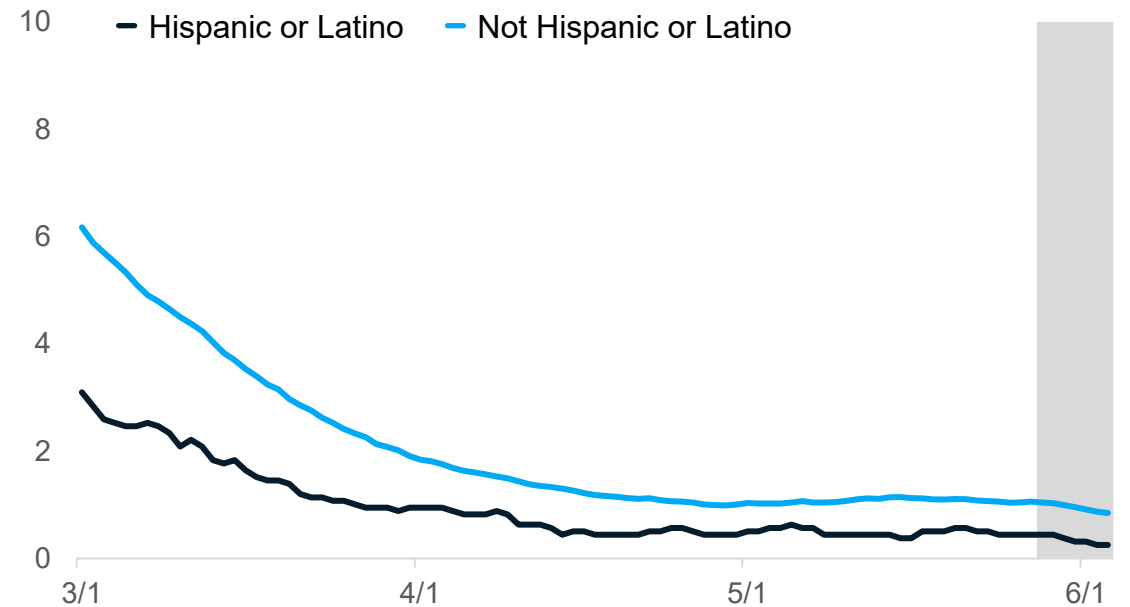
Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System (MDSS)

Daily average deaths per million people by race and ethnicity have plateaued

Average daily deaths per million people by race



Average daily deaths per million people by ethnicity



- Deaths are lagging indicator of other metrics
- Currently, the American Indian/Alaskan Native population have the highest death rate (1.1 deaths/million)

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

Harm Reduction: Key Messages

Michiganders can take advantage of local, state, and national COVID-19 resources

- Empowering community members to make best choices for their individual circumstances and to be prepared by making a COVID plan
- CDC recommends masking in public indoor settings when COVID-19 Community Levels reach High
 - Currently, 10 Michigan counties classified as High
- Get tested and if positive, seek care with therapeutics
 - Therapeutic administration increased during Michigan's Spring Omicron surge

Vaccinations and Boosters

- Those 12 years and older who are immunocompromised or those 50 years of age and above SHOULD receive a 2nd Booster
- COVID-19 vaccinations remain safe and effective to prevent spread and severe disease
- 54.9% of fully vaccinated Michiganders have received at least one booster. Vaccination coverage has modestly increased overall with greatest increase in the percent who have received a booster dose
 - 24.8% of people in Michigan (529K) with a first booster dose have received a second booster dose

Testing

Keep a supply of at-home tests

- 8 rapid tests are available through the third round of the USPS national at home test distribution:
<https://special.usps.com/testkits>

Consider testing before and after travel or large events/gathering

Test early and seek care

Library Partnership for At-Home Test

> Contain COVID > Test > Library Partnership for At-Home Test

MDHHS has partnered with several libraries across the state of Michigan to provide free at-home COVID-19 test kits to Michiganders.

Individuals and families should consider seeking out COVID-19 at-home test kits if they are considered more vulnerable to severe health outcomes from contracting COVID-19 or live, work, and socialize in group settings.

Additional information on COVID-19 self-testing can be found here: [Self-Testing_Fast_Facts_v5_744280_7.pdf \(michigan.gov\)](#)

Households are eligible to receive up to 5 free at-home test kits from participating library partners while supplies last. Participating library partners are listed below:

Library	Address	City	Zip
Amy Van Andel Library (ADA)	7215 Headley SE	Ada	49301
Adrian District Library	143 E. Maumee St.	Adrian	
Albion District Library	501 S Superior St.	Albion	
Allegan District Library	331 Hubbard St.	Allegan	49010

Have questions?
Chat with Robin

<https://www.michigan.gov/coronavirus/contain-covid/test/library-partnership-for-at-home-test>



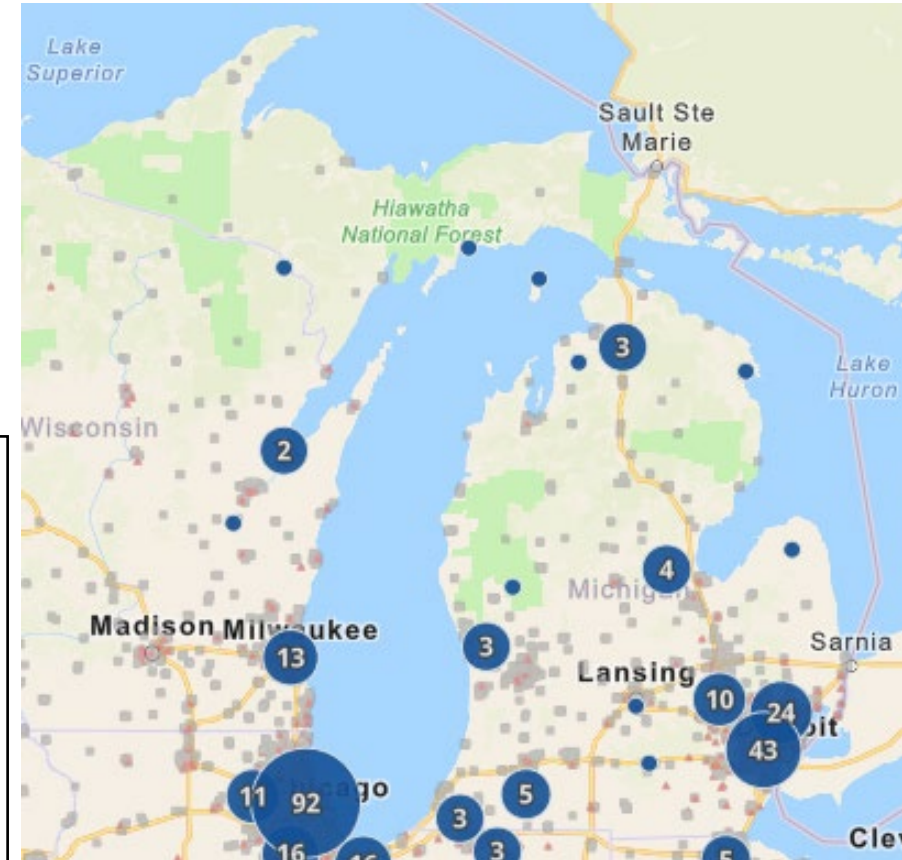
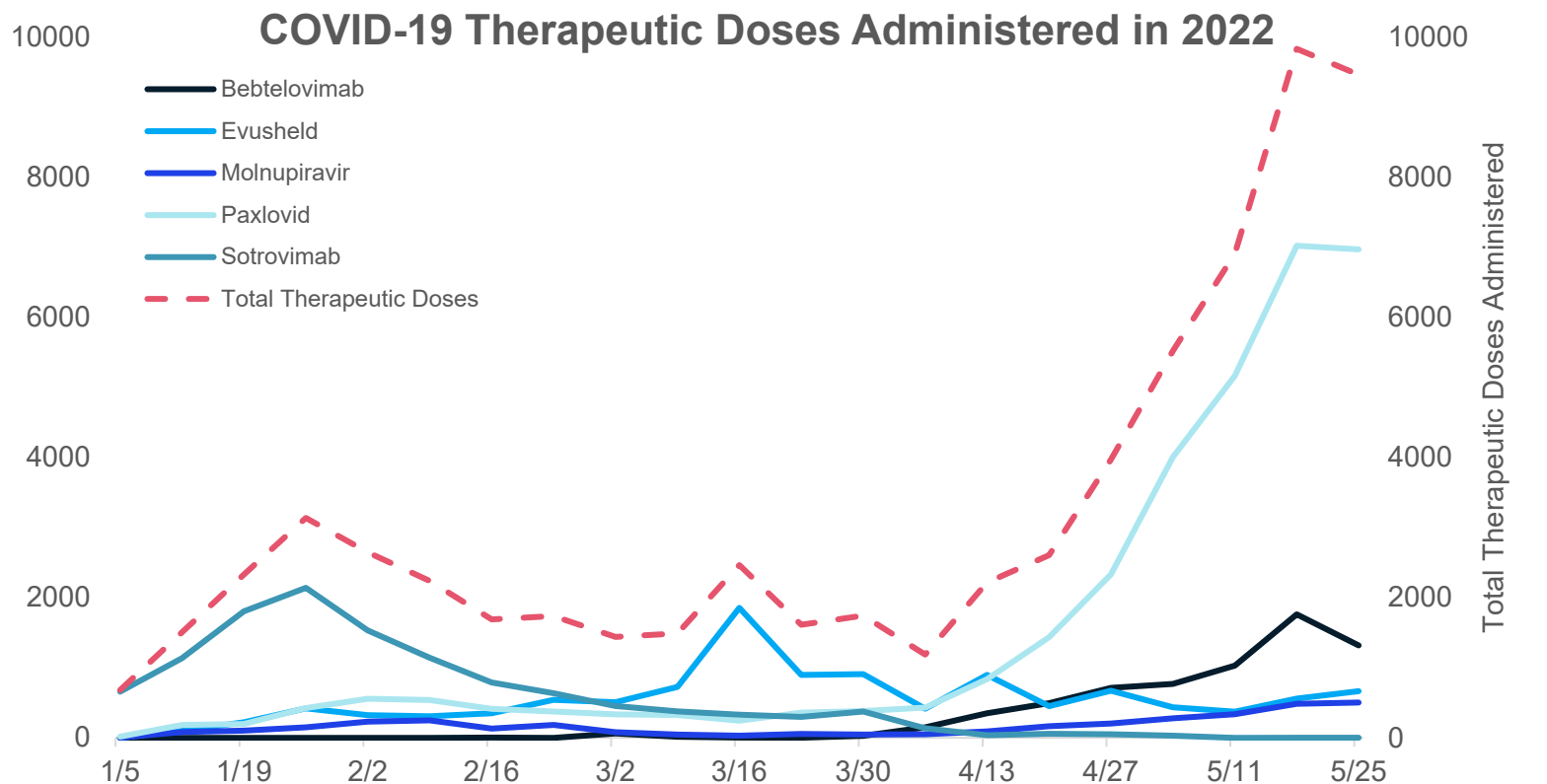
Federal & Michigan websites assist COVID positive residents find treatment

COVID-19 resources available on federal website: [COVID.gov](https://www.covid.gov)

Test-to-Treat program simplifies access to COVID treatment:

[Find a Test-to-Treat location near you](#)

- If you have COVID-19 symptoms, do not wait to get treated
- You must take oral COVID-19 medication within 5 days of your first COVID-19 symptoms
- Use the tool to find a location that is right for you

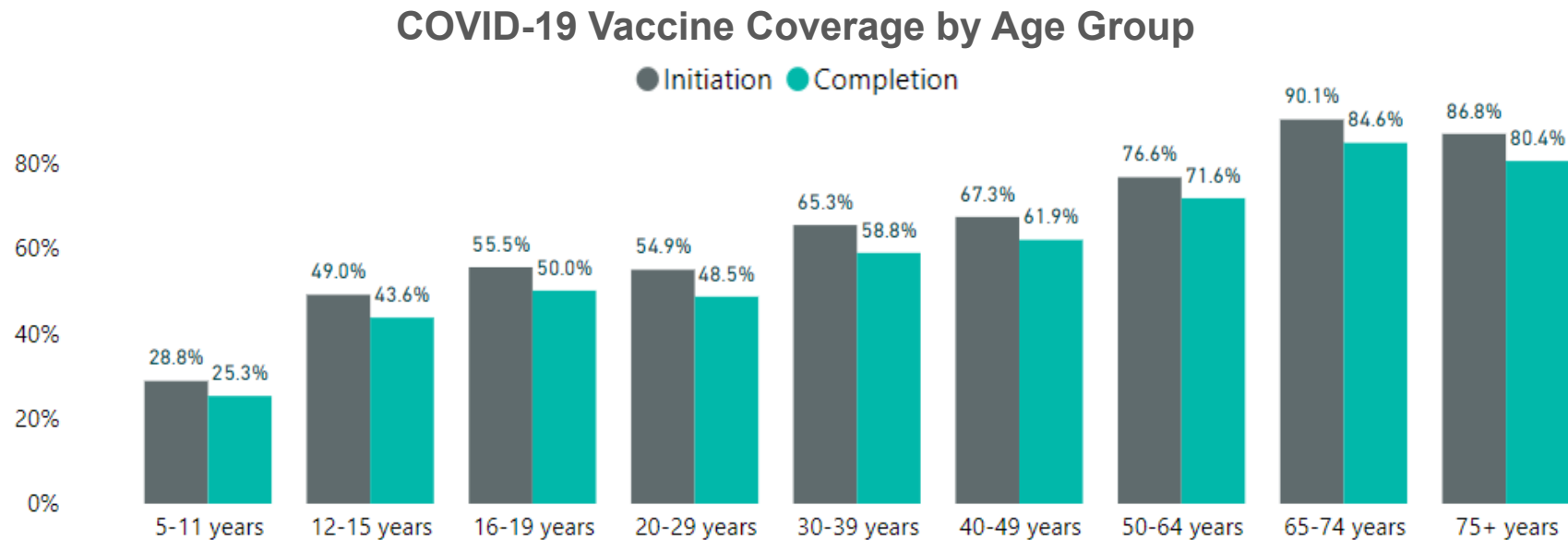


Source: Screen capture of Michigan Test-to-Treat sites from linked website

Therapeutic administration increased during Michigan's Spring Omicron surge. Supply limitations in January 2022 required strategic distribution and should not be compared directly.

Vaccinations and Boosters

- Over 16.2 million COVID-19 vaccine doses have been administered in Michigan
 - Over 6.7 million Michiganders have received at least one dose (67.3%)
 - Over 6 million Michiganders have completed a primary series (60.5%)
 - Over 3.3 million additional/booster doses have been administered in Michigan
 - 54.9% of the fully vaccinated population has received a booster
 - 77.2% of the fully vaccinated population 65 years of age or older has received a booster
- Nearly 530,000 Michiganders 50 years of age or older who have received a first booster dose have received second booster (24.8%)



https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>

Those Aged 5 to 11 should get a COVID-19 Booster when Eligible

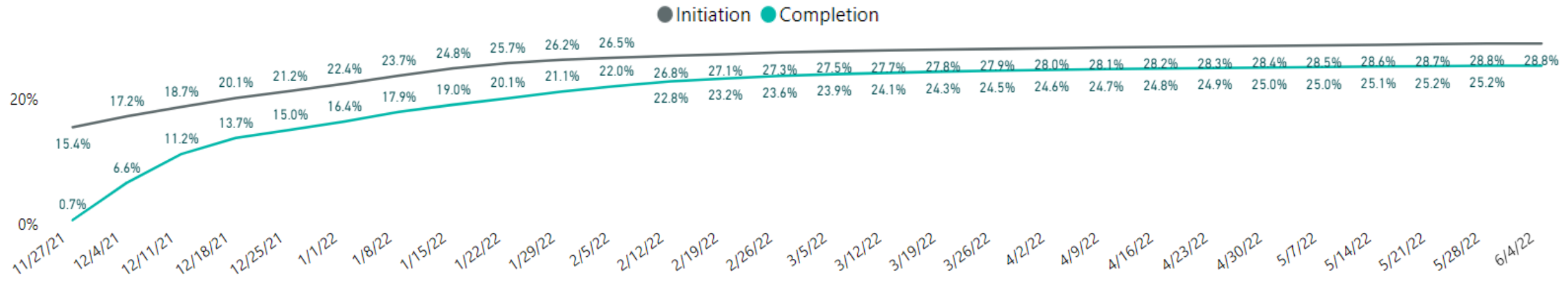
What You Need to Know

- CDC recommends **everyone ages 5 years and older** get vaccinated against COVID-19.
- Everyone ages 12 years and older should also get a COVID-19 [booster shot](#).

CDC Recommends Booster doses for those 5 years of age and older, 5 months after completion of a primary vaccine series

Those who received their second dose by end of December 2021 will be eligible for a booster shortly

Initiation and Completion Trends in 5–11-year-olds



https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/children-teens.html>

<https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html>

Vaccines

Protect against severe outcomes

Vaccines and boosters are available for ages 5 and up.

Masks, Distancing & Ventilation

Prevent spread

People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a mask. Masking may also be based on personal preference and informed by personal level of risk.



Tests

Prevent spread

Over-the-counter tests allow for testing at home; an important addition to on-site antigen and PCR testing.

Treatment

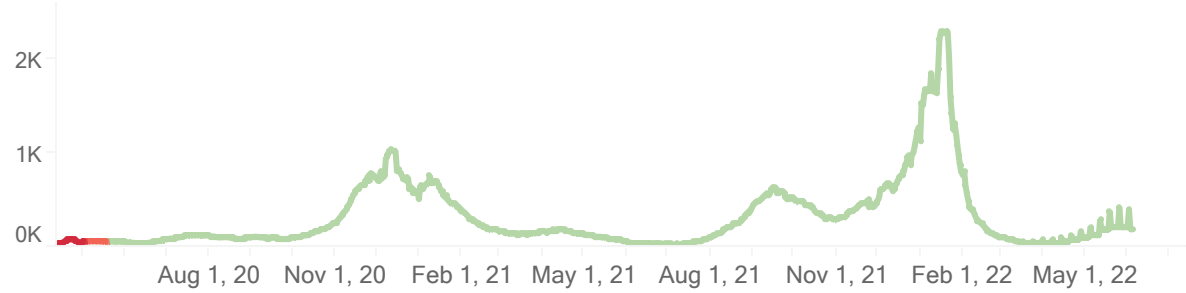
Protect against severe outcomes

Oral antivirals and monoclonal antibodies can reduce the risk of hospitalization and death from COVID-19.

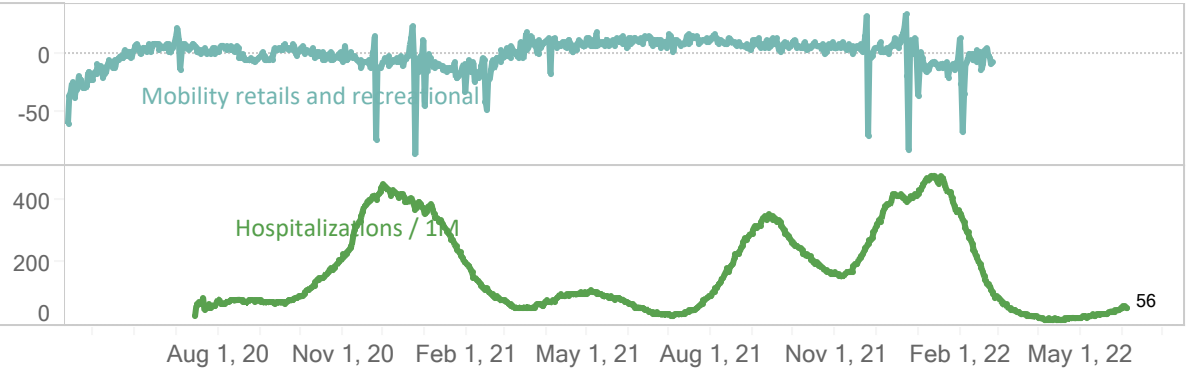
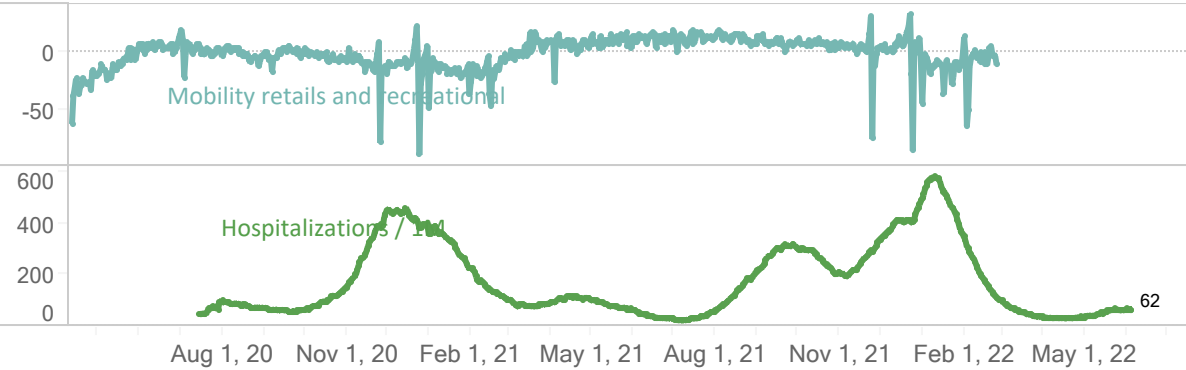
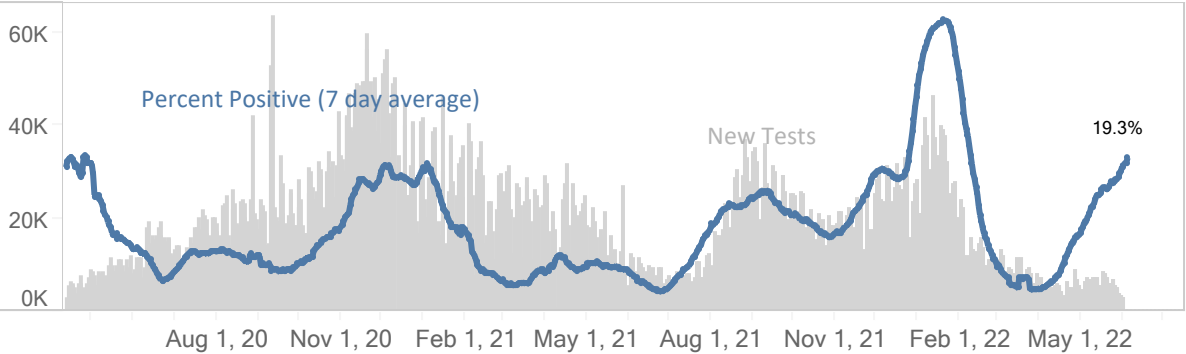
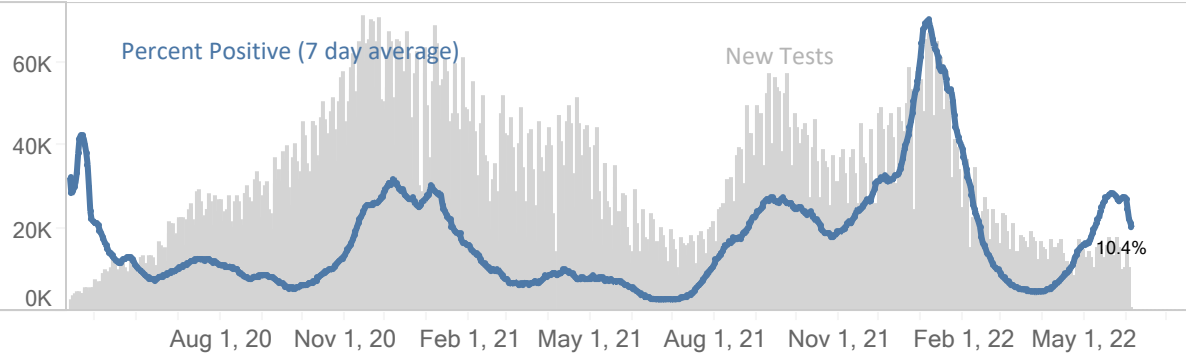
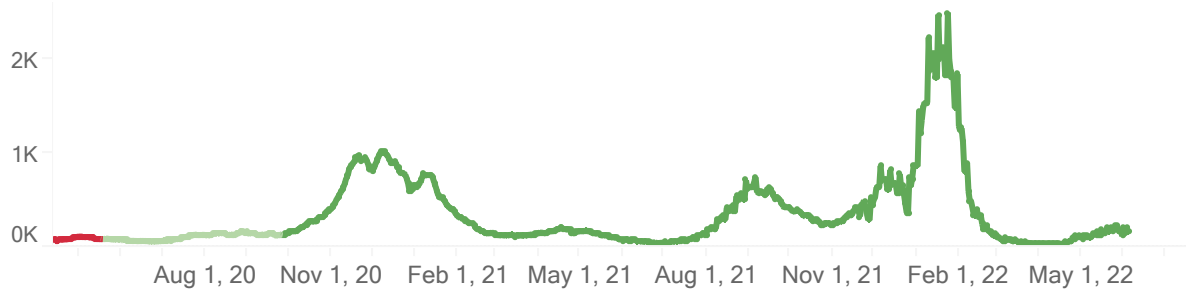
APPENDIX

State Comparisons: Ohio and Indiana

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

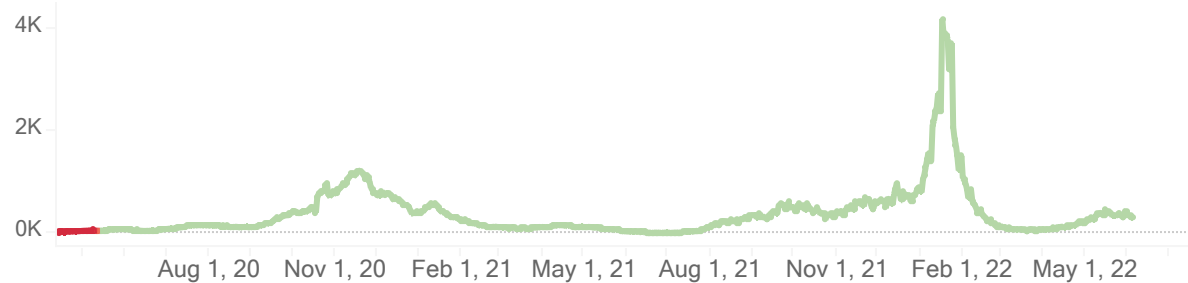


Indiana Confirmed New Cases / 1M (7 days average)

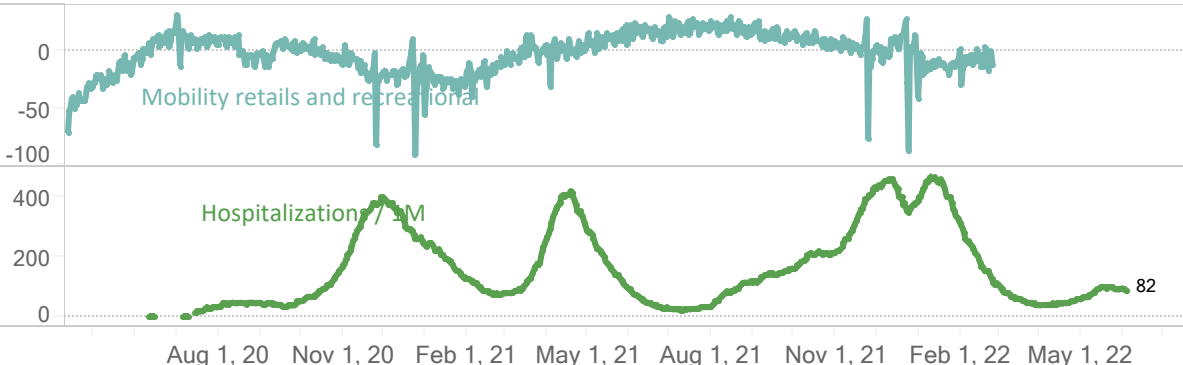
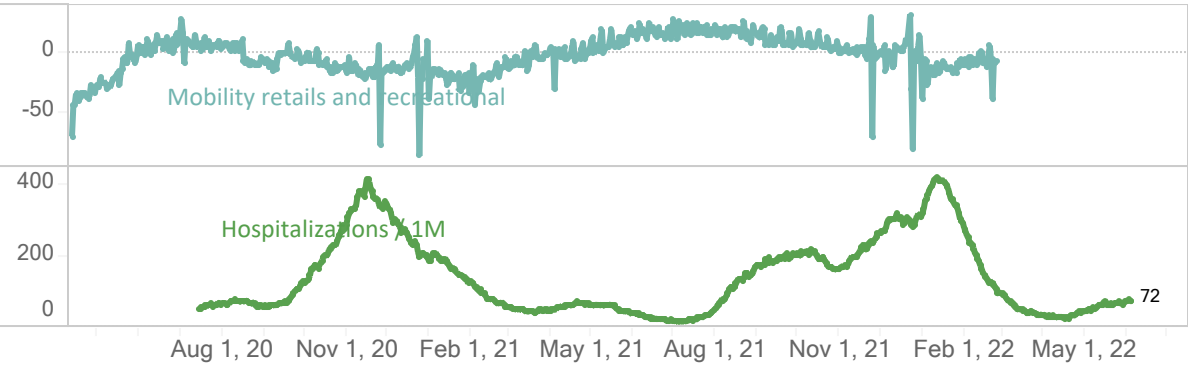
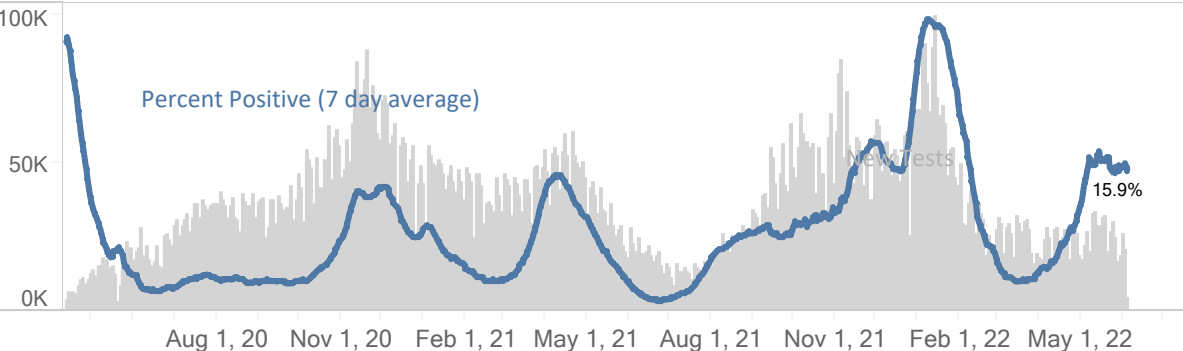
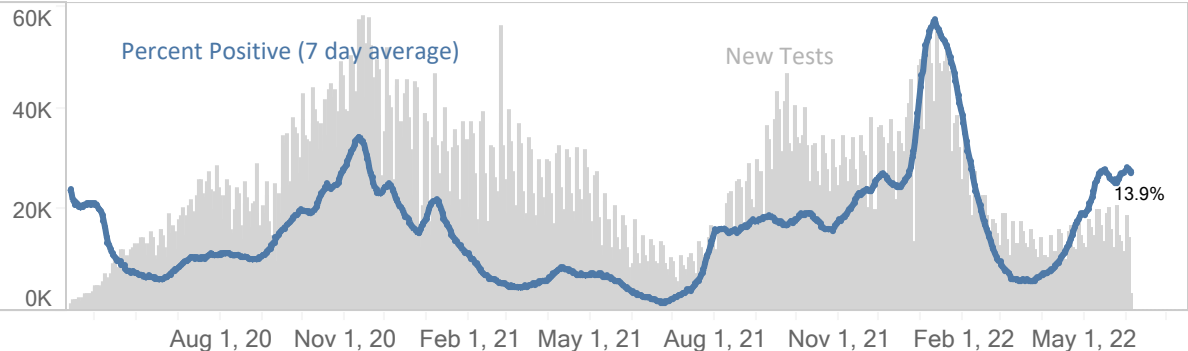
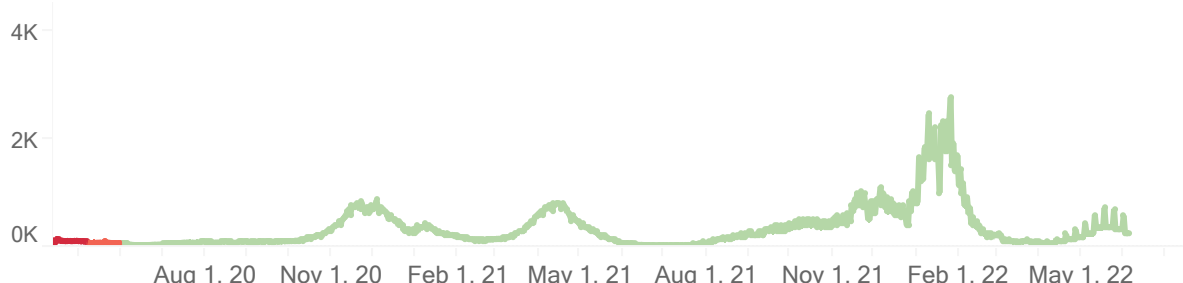


State Comparisons: Wisconsin and Michigan

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

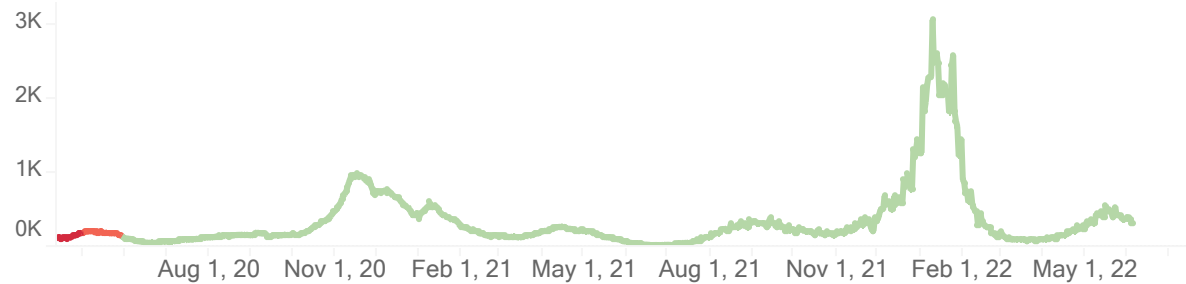


Michigan Confirmed New Cases / 1M (7 days average)

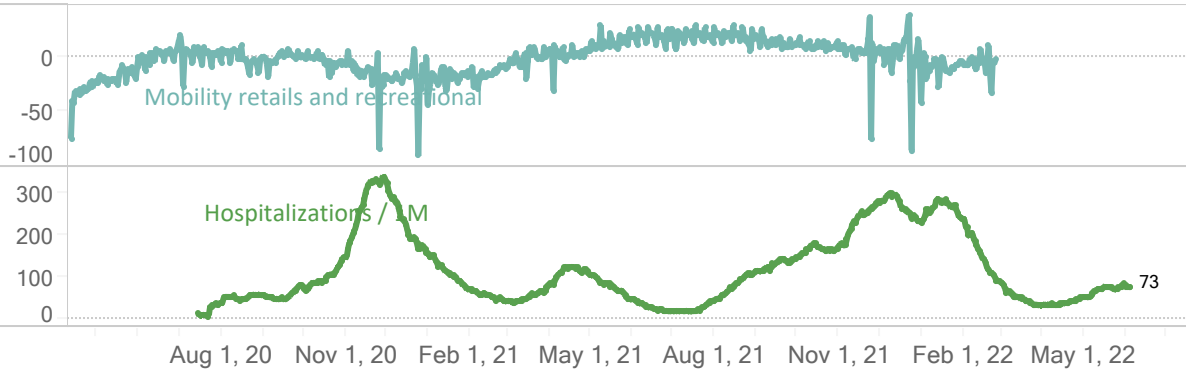
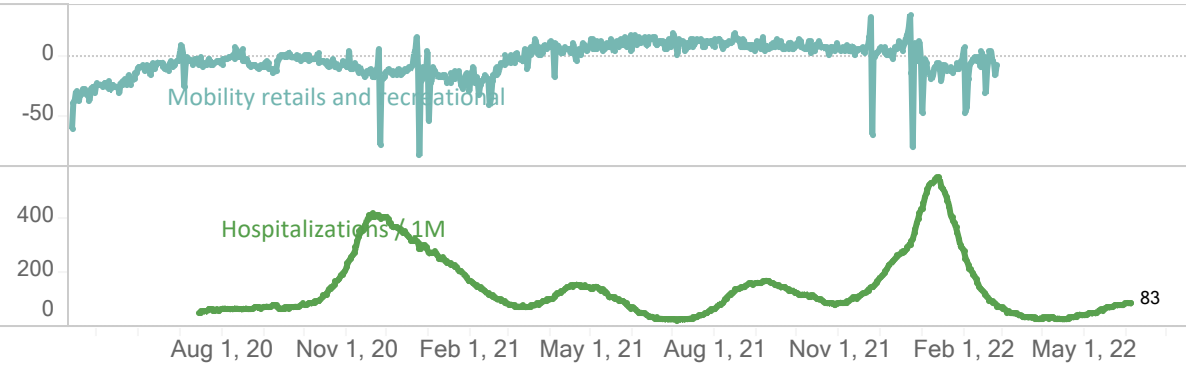
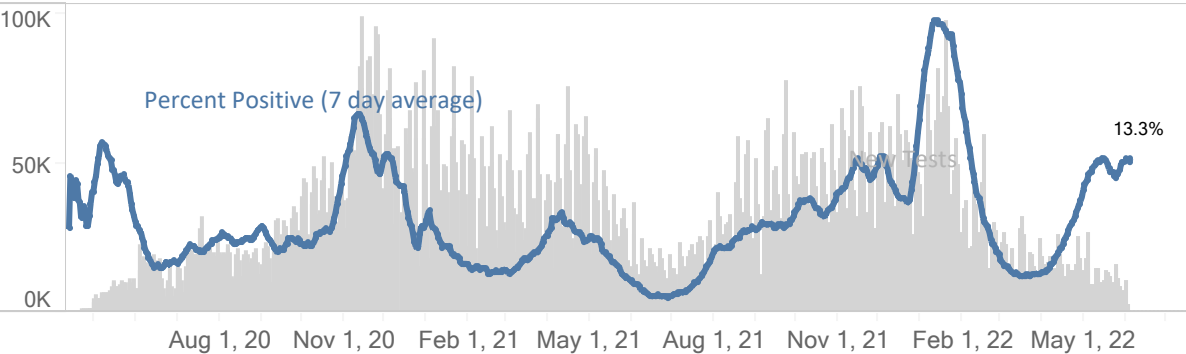
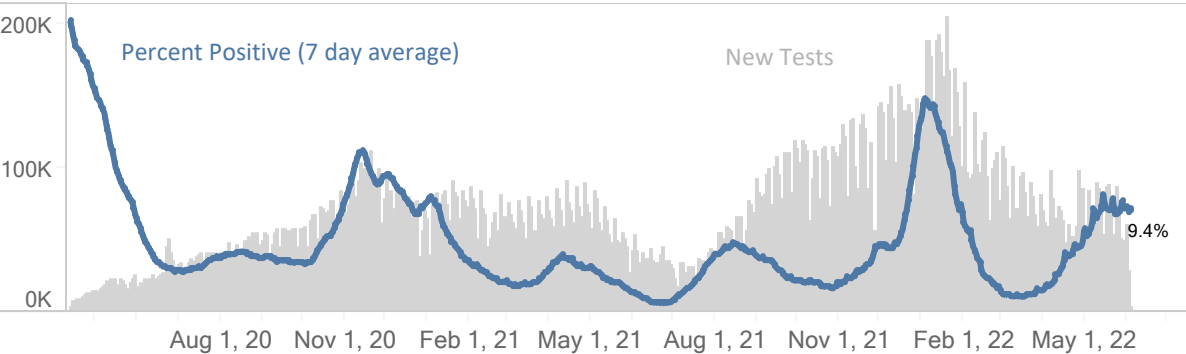
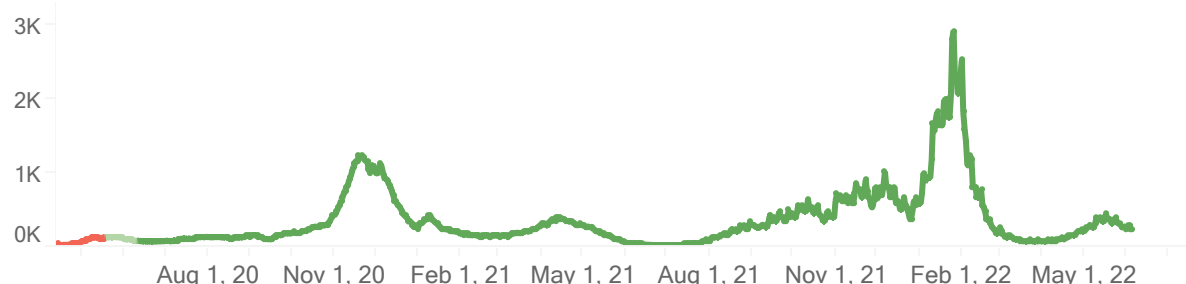


State Comparisons: Illinois and Minnesota

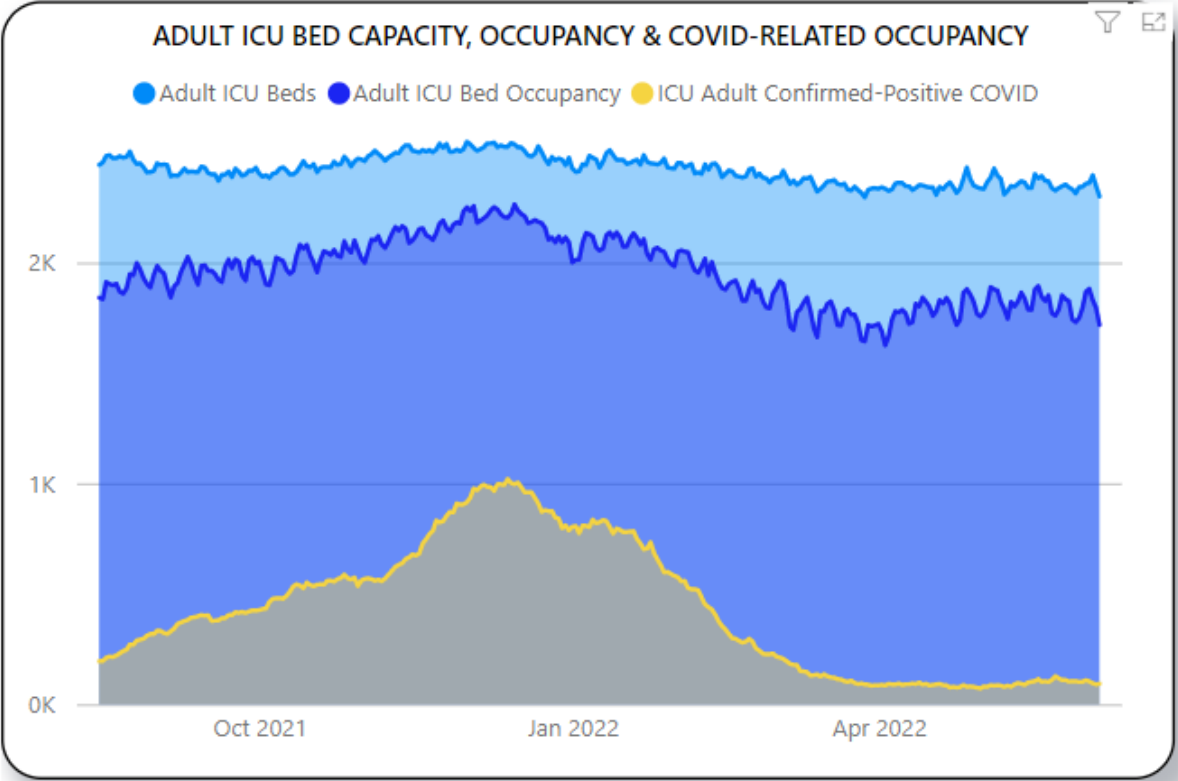
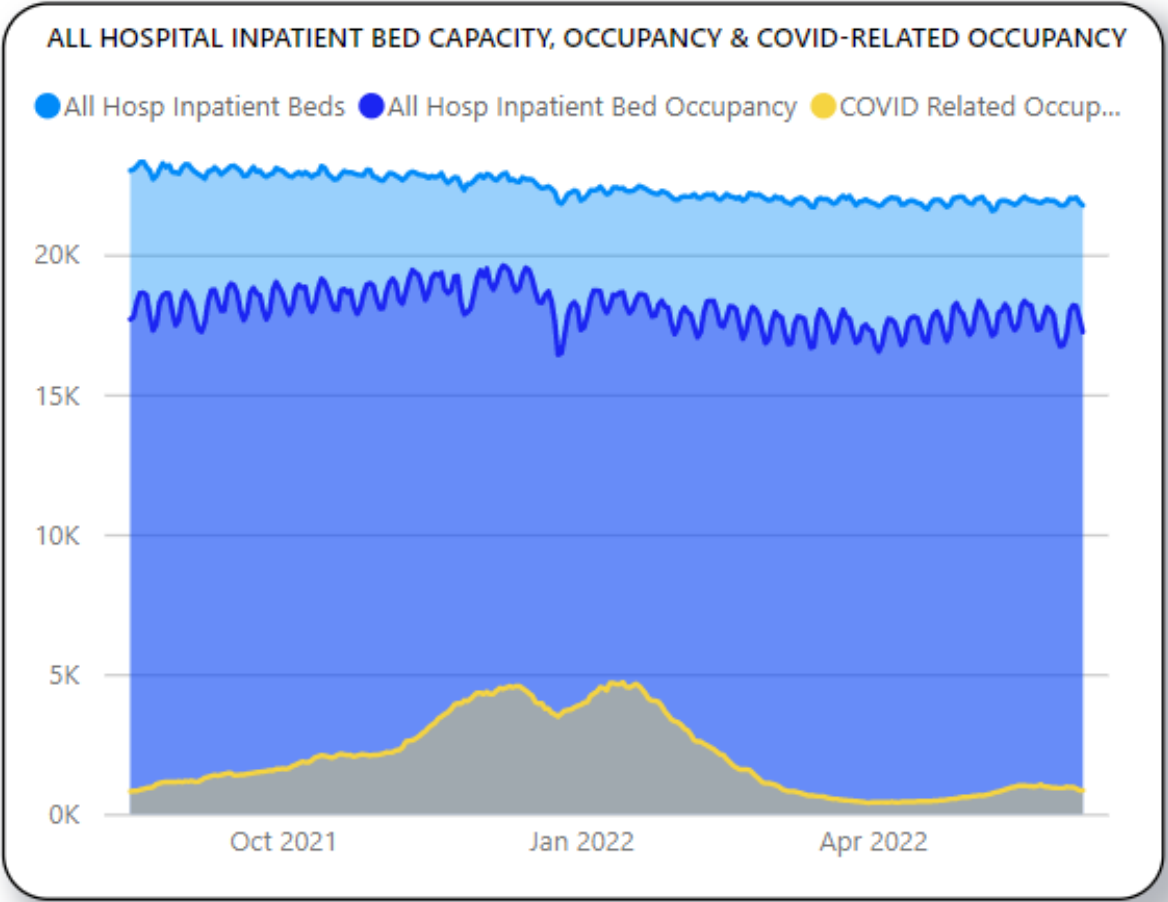
Illinois Confirmed New Cases / 1M (7 days average)



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



Adult Hospital Bed Capacity and COVID-related Occupancy

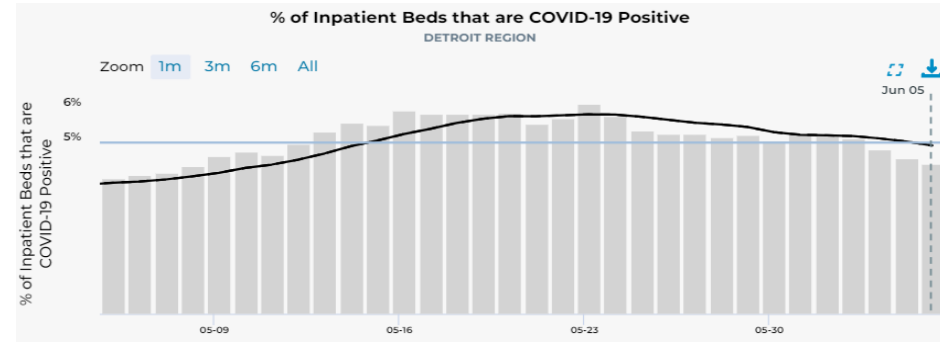
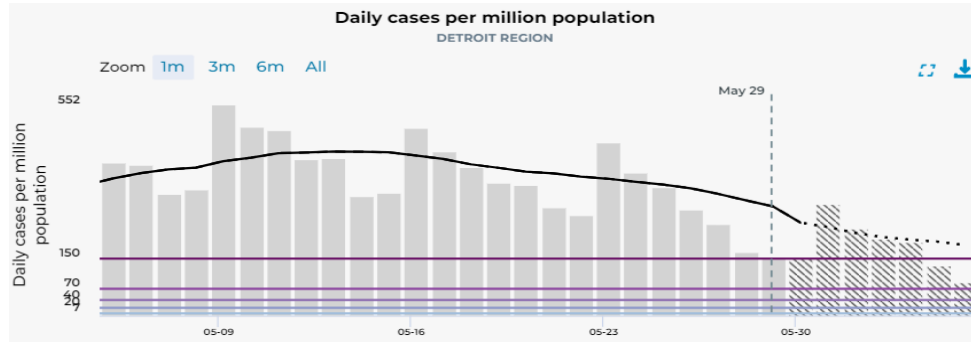


Source: EM Resource

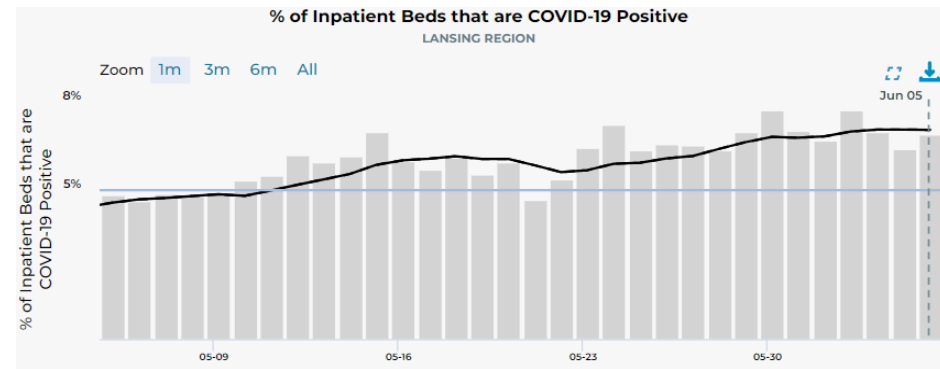
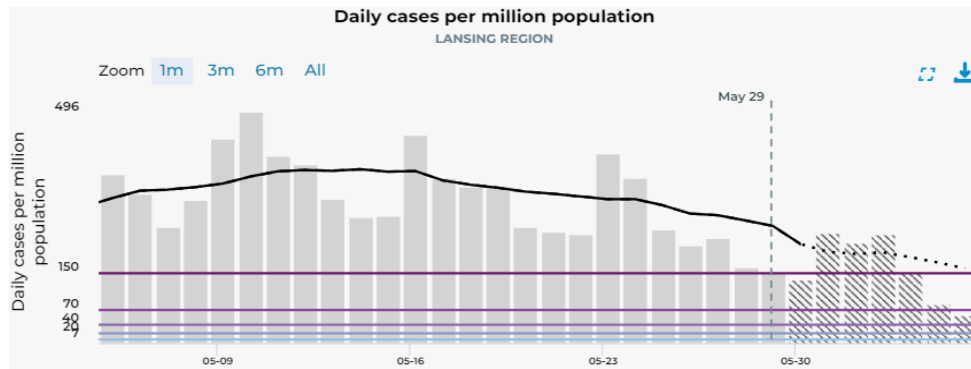
Recent trends: Case Rates*

Recent trends: Hospital Capacity

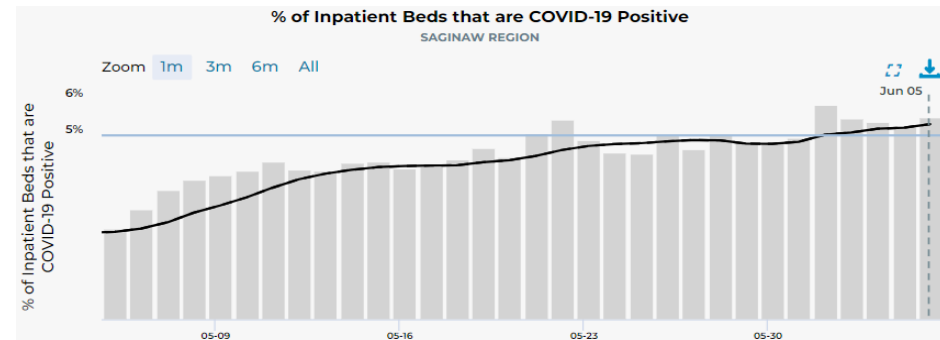
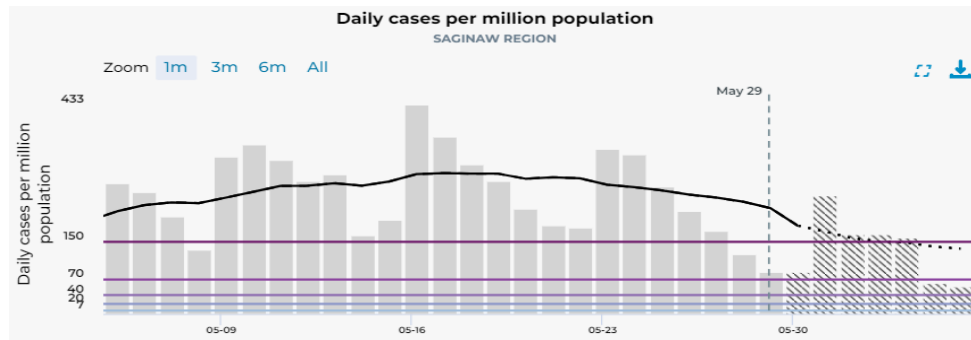
Detroit MERC Region



Lansing MERC Region



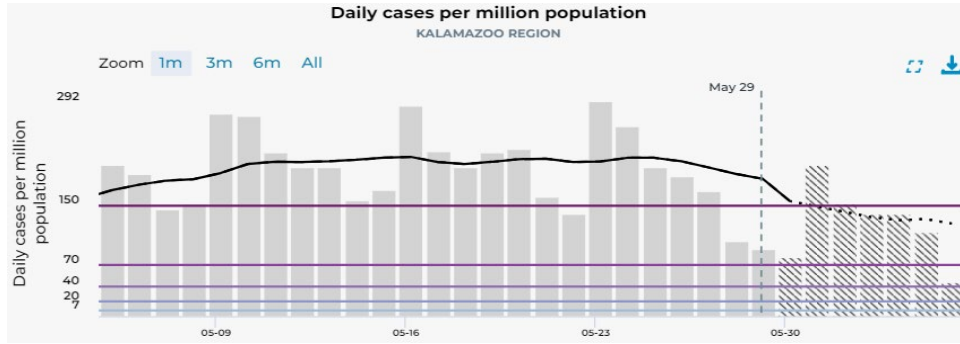
Saginaw MERC Region



All charts represent data from 05/05/22 – 06/05/22

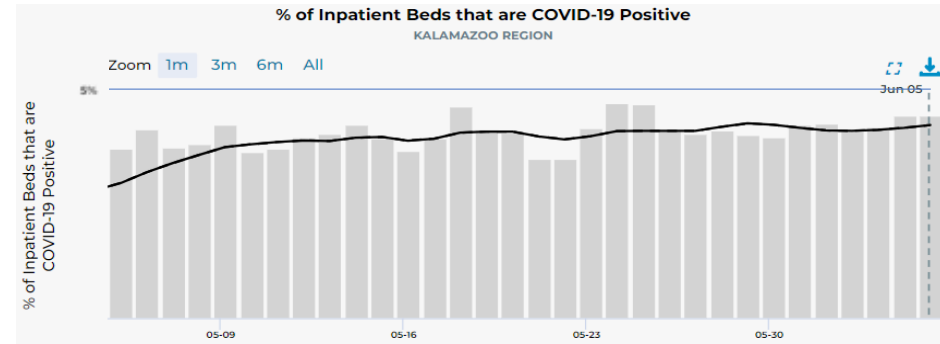
*Case rates reported by onset date are subject to backfill
Source: MI Start Map; MDOC excluded

Recent trends: Case Rates*

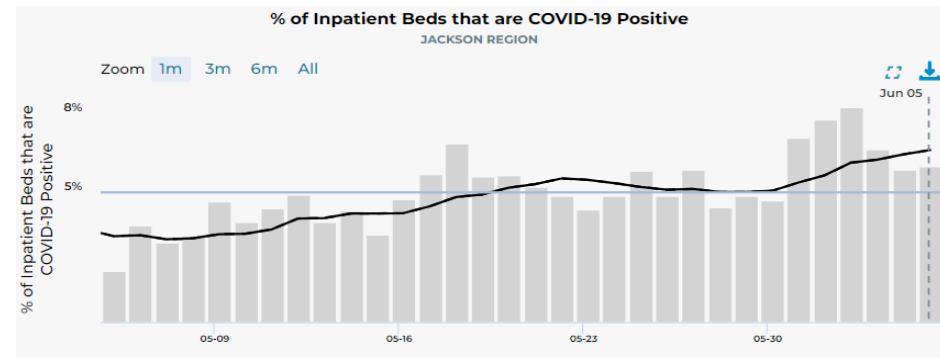
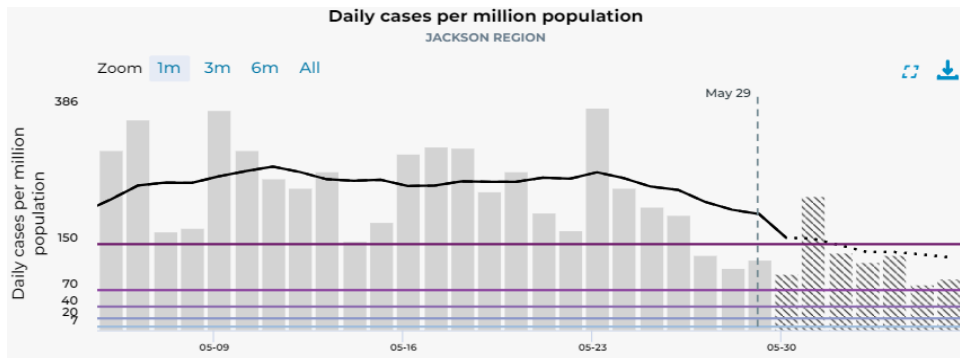


**Kalamazoo
MERC Region**

Recent trends: Hospital Capacity

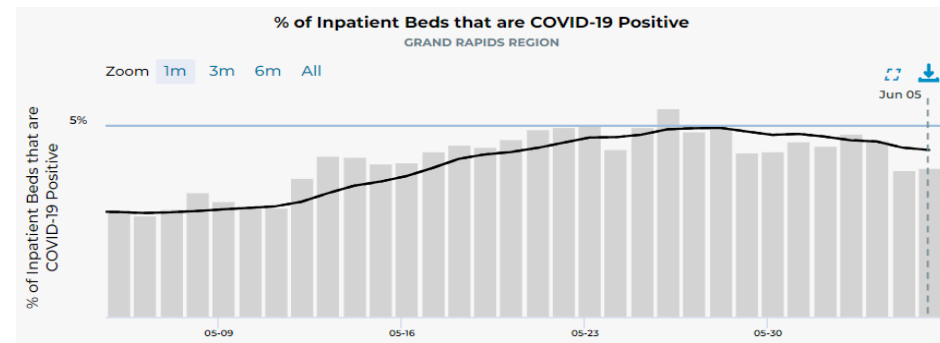
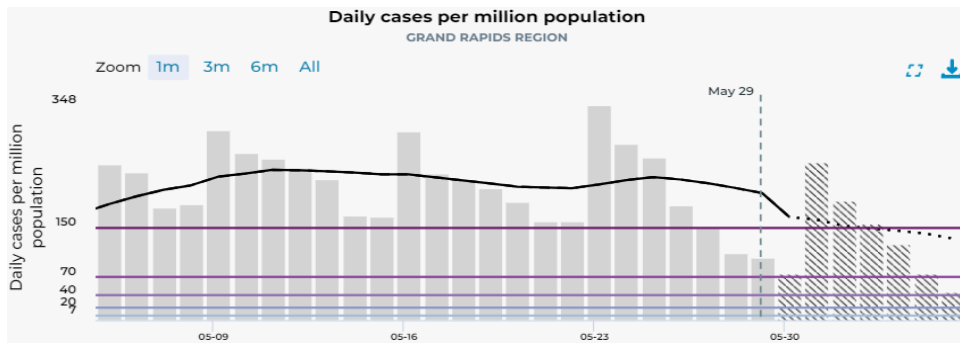


**Jackson
MERC Region**



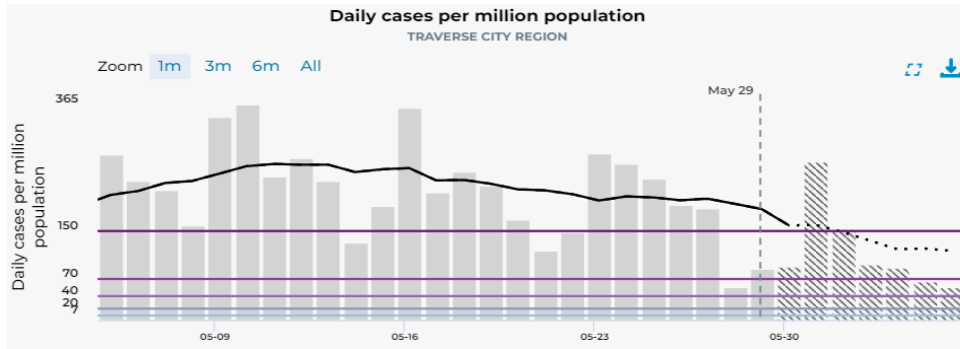
**All charts
represent
data from
05/05/22 –
06/05/22**

**Grand Rapids
MERC Region**



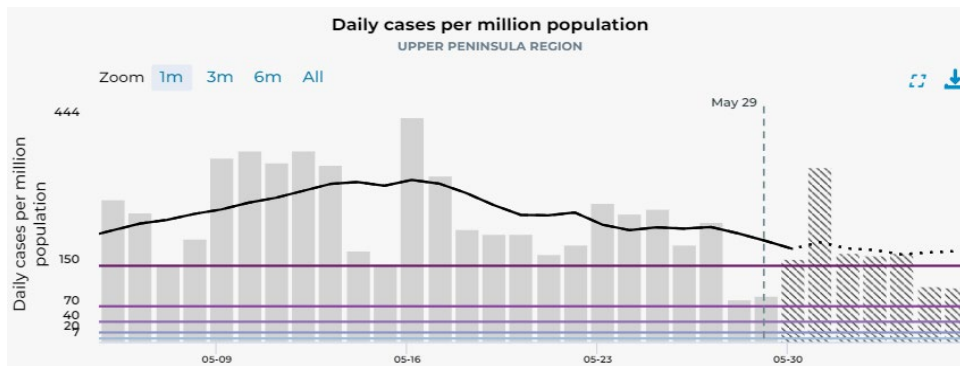
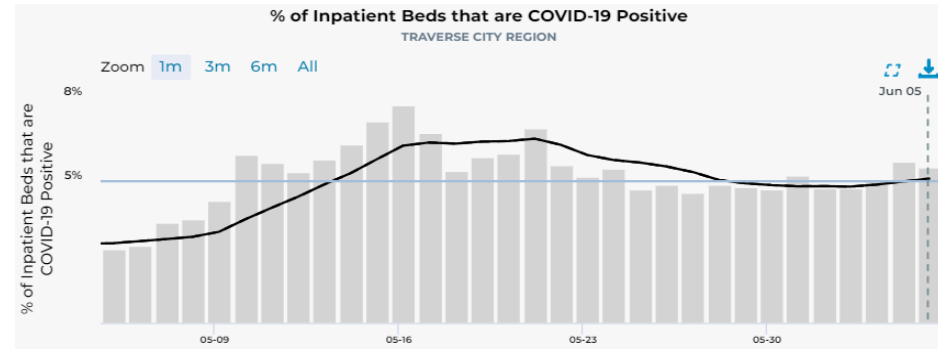
*Case rates reported by onset date are subject to backfill
Source: MI Start Map; MDOC excluded

Recent trends: Case Rates*

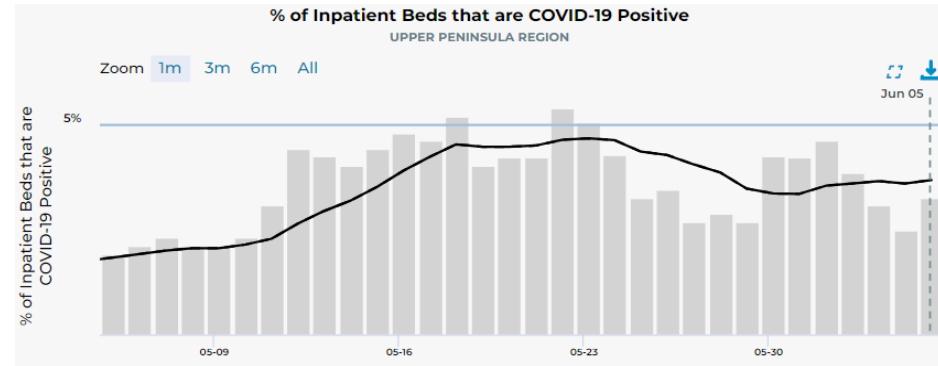


Traverse City
MERC Region

Recent trends: Hospital Capacity



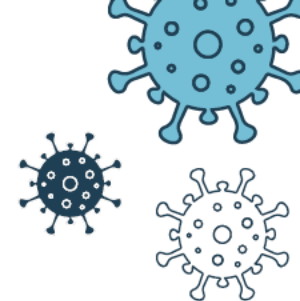
Upper
Peninsula
MERC Region



All charts
represent
data from
05/05/22 –
06/05/22

*Case rates reported by onset date are subject to backfill
Source: MI Start Map; MDOC excluded

Make a COVID-19 Plan



Visit Michigan.gov/Coronavirus for current COVID-19 information.



Make a plan for vaccination or learn if you are eligible for boosters.

- Ages 5 and older can get vaccinated.
- Ages 12 and older can get the booster.
- Ages 50 and older, or 12 and older and moderately to severely immunocompromised, can schedule a second booster.



Learn more about vaccines and whether you're up to date at Michigan.gov/COVIDVaccine.



Keep a supply of well-fitting masks.

Masks are helpful tools to reduce COVID-19 transmission, especially if:

- You are unwell or test positive for COVID-19.
- You have been exposed to someone with COVID-19.
- You are concerned about the risk of transmission in a particular setting. Respect that others may have a risk different than yours.



Learn more about masking at Michigan.gov/MaskUp.



Keep a supply of over-the-counter COVID-19 tests.

Tests are useful for early detection of COVID-19, especially if:

- You have symptoms of or have been exposed to COVID-19.
- You are traveling or will be attending a large or unmasked gathering. Test before and after attending large events.



Over-the-counter tests are available at libraries and schools through MIbackpack, also through federal distribution programs.

Learn more about COVID-19 testing at Michigan.gov/COVIDTest.



Learn if you are eligible for COVID-19 therapeutics.

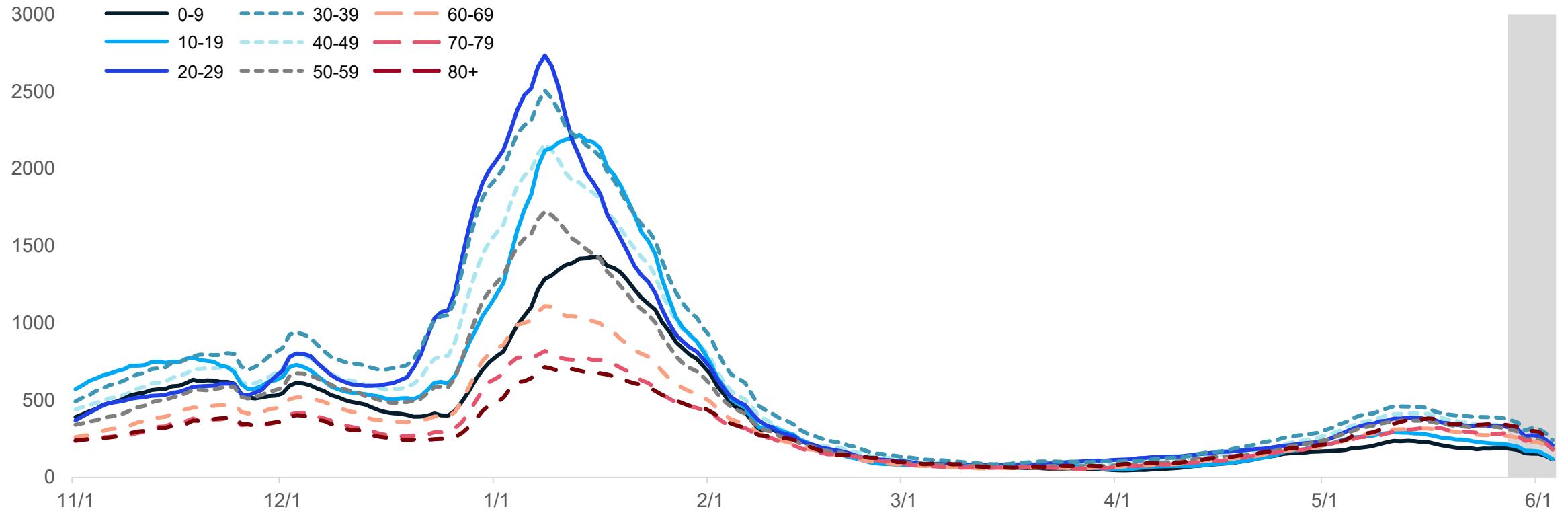
- Talk to a primary care provider about whether you are eligible for preventative antibodies or for COVID-19 antiviral treatment if you become infected.



Learn more about COVID-19 therapeutics at Michigan.gov/COVIDTherapy.

Case Rate Trends by Age Group

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

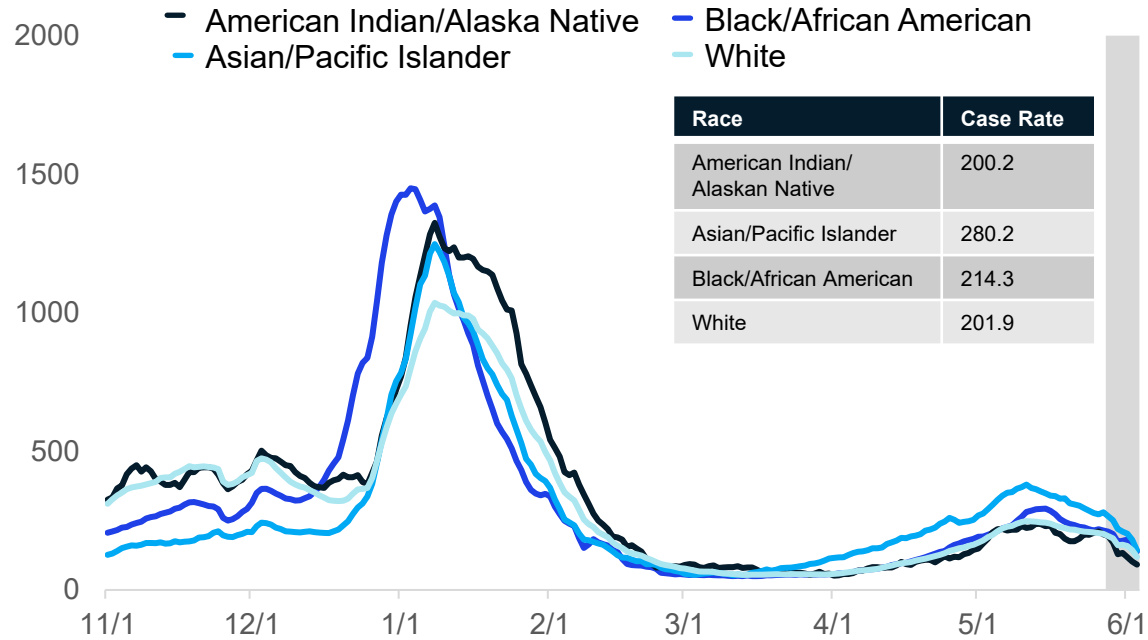


- Case rate trends for all age groups experienced a decrease over the last week
- Case rates by onset date for all age groups are between 189.4 and 382.8 cases per million (through 5/27/22)
- Case counts and case rates are highest for 30-39-year-olds this week, followed by 80+ and the 40-49 age groups

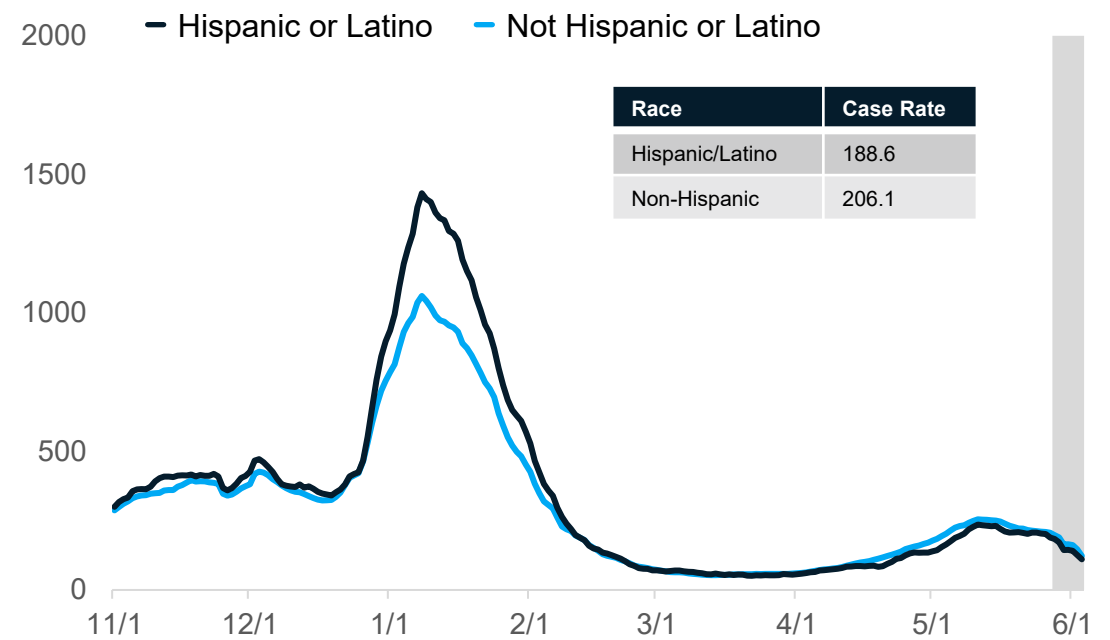
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Case Rates by Reported Racial and Ethnic Group

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



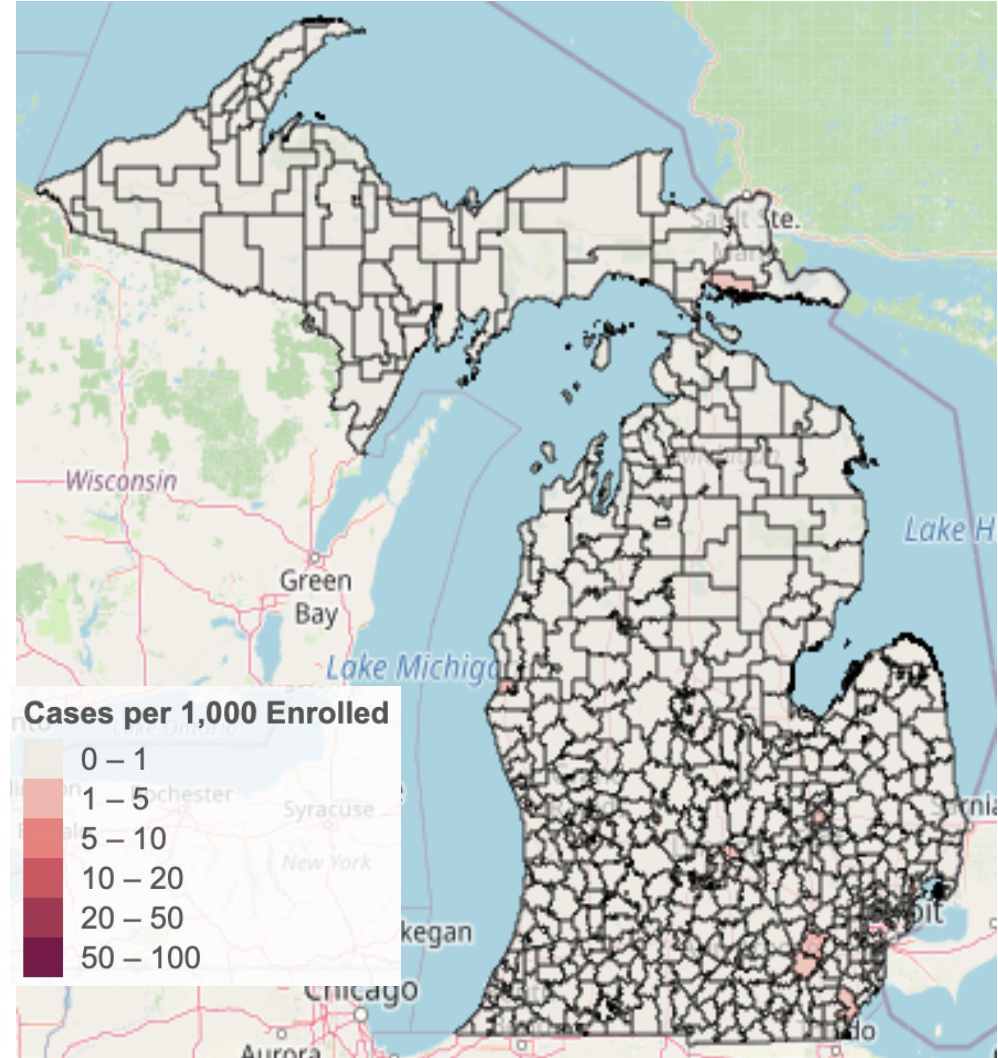
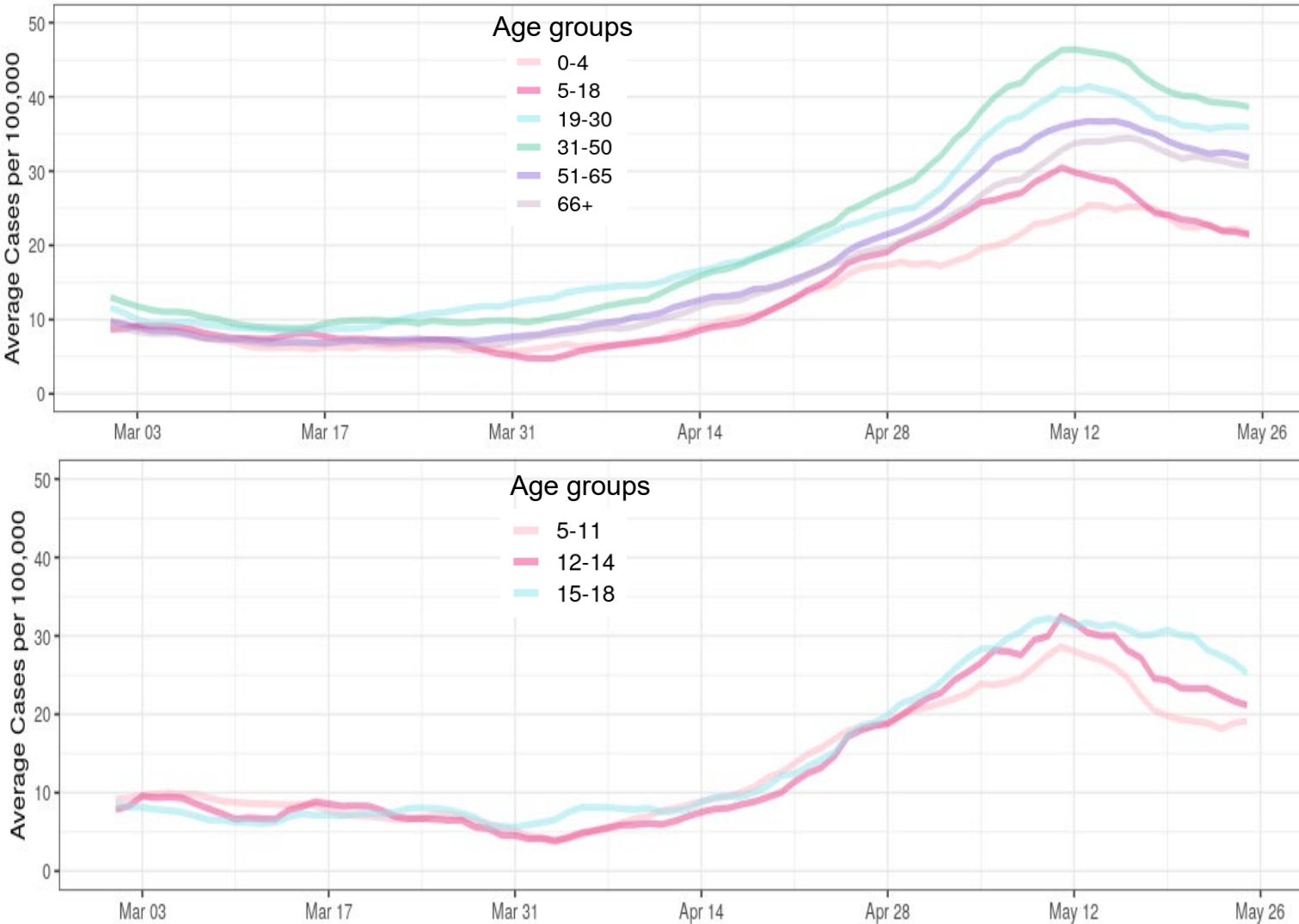
Updates since last week:

- Cases per million are decreasing at a similar rate for all reported racial and ethnic groups
- In the past 30 days, 22.3% (↑ 1.0%) of race data and 27.9% (↑ 1.4%) ethnicity data was either missing or reported as unknown

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

Case rate plateau or decrease in the school-aged population statewide

- Case rates in 5–18-year-olds are lower than rates in 19–50-year-olds
- Case rates among school-aged populations show signs of decline along with other age groups



Sources: MDSS case data as of 6/6/2022 (data through 5/25/22), line charts use statewide age group population, map uses ISD enrolled populations from EOG mask tracker data.

Ongoing response to COVID-19 cycle



Readiness (Pre-Surge)

A surge is expected due to a new variant, local outbreak, seasonal changes.

Expect increased illness severity and overwhelmed hospital capacity.

- Educate public regarding new risks.
- Ensure enough supplies of tests, masks and medications.

Response (Surge)

A surge means rapid response by local and state public health.

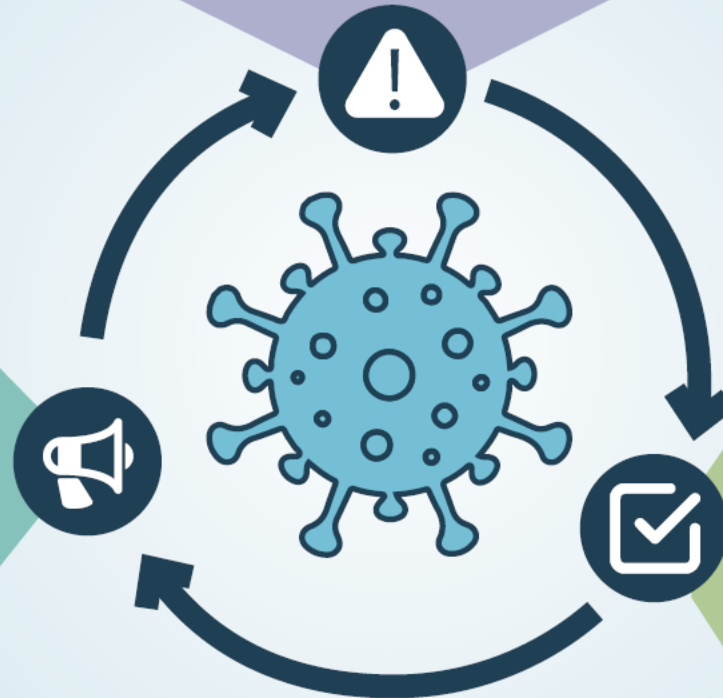
- Increased supplies for testing, masking and medications.
- Increased masking, testing and social distancing efforts.

Recovery (Post-Surge)

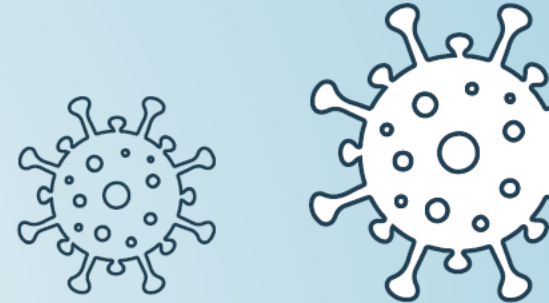
Expect to remain in this phase for longer periods as COVID-19 evolves.

Monitor conditions that may lead to surges, such as a new variant.

- Encourage vaccines to decrease COVID-19 risks.
- Strengthen community support with local stakeholders.
- Empower community members to make best choices for individual situations.



Visit Michigan.gov/Coronavirus for current COVID-19 information.



Cumulative COVID-19 Cases by Vaccination Status, Michigan, 1/15/21–4/8/22

Fully Vaccinated People (5,678,598)		
Cases	Hospitalizations*	Deaths
Percent of Cases In People Not Fully Vaccinated (1,213,561 / 1,702,057) 71.3%	Percent of Hospitalizations In People Not Fully Vaccinated (27,234 / 33,197) 82.0%	Percent of Deaths In People Not Fully Vaccinated (15,422 / 19,879) 77.6%
1,213,561 Total Cases Not Fully Vaccinated	27,234 Total Hospitalized Not Fully Vaccinated	15,422 Total Deaths Not Fully Vaccinated
Total Breakthrough Cases 488,496	Total Breakthrough Hospitalizations 5,963	Total Breakthrough Deaths 4,457
8.6% Percent of Fully Vaccinated People who Developed COVID-19 (488,496 / 5,678,598)	0.105% Percent of Fully Vaccinated People Who Were Hospitalized for COVID-19 (5,963 / 5,678,598)	0.078% Percent of Fully Vaccinated People Who Died of COVID-19 (4,457 / 5,678,598)
28.7% Percent of Cases Who Were Fully Vaccinated (488,496 / 1,702,057)	18.0% Percent of Hospitalizations Who Were Fully Vaccinated (5,963 / 33,197)	22.4% Percent of Deaths Who Were Fully Vaccinated (4,457 / 19,879)
Total Cases: 1,702,057	Total Hospitalizations: 33,197	Total Deaths: 19,879

*The Michigan Disease Surveillance System (MDSS) may underestimate the frequency of COVID-19 hospitalizations due to the following:

- Universal case investigations are no longer being performed
- Case investigation and follow-up is more difficult for individuals who get hospitalized (e.g., they are too ill to speak to investigators, don't answer their phone, or otherwise).
- These hospitalizations include individuals who are hospitalized for issues other than COVID19 (the same as breakthrough COVID-19).
- Many hospitalizations often lag after initial infection and may occur after case investigation.

Vital Infrastructure: K-12 school clusters and outbreaks, week ending June 2nd

Number of reported outbreaks/clusters decreased since last week (184 to 176).

Region	Number of reported cases, #	# Ongoing - Excluding New	# New	Number of outbreaks	Range of cases per outbreak
Region 1	217	10		21	3-69
Region 2n	0	0		0	N/A
Region 2s	449	89		69	3-41
Region 3	778	12		40	2-112
Region 5	17	0		3	3-10
Region 6	157	11		28	3-20
Region 7	265	36		15	4-66
Region 8	0	0		0	N/A
Total	1,883	158		176	2-112

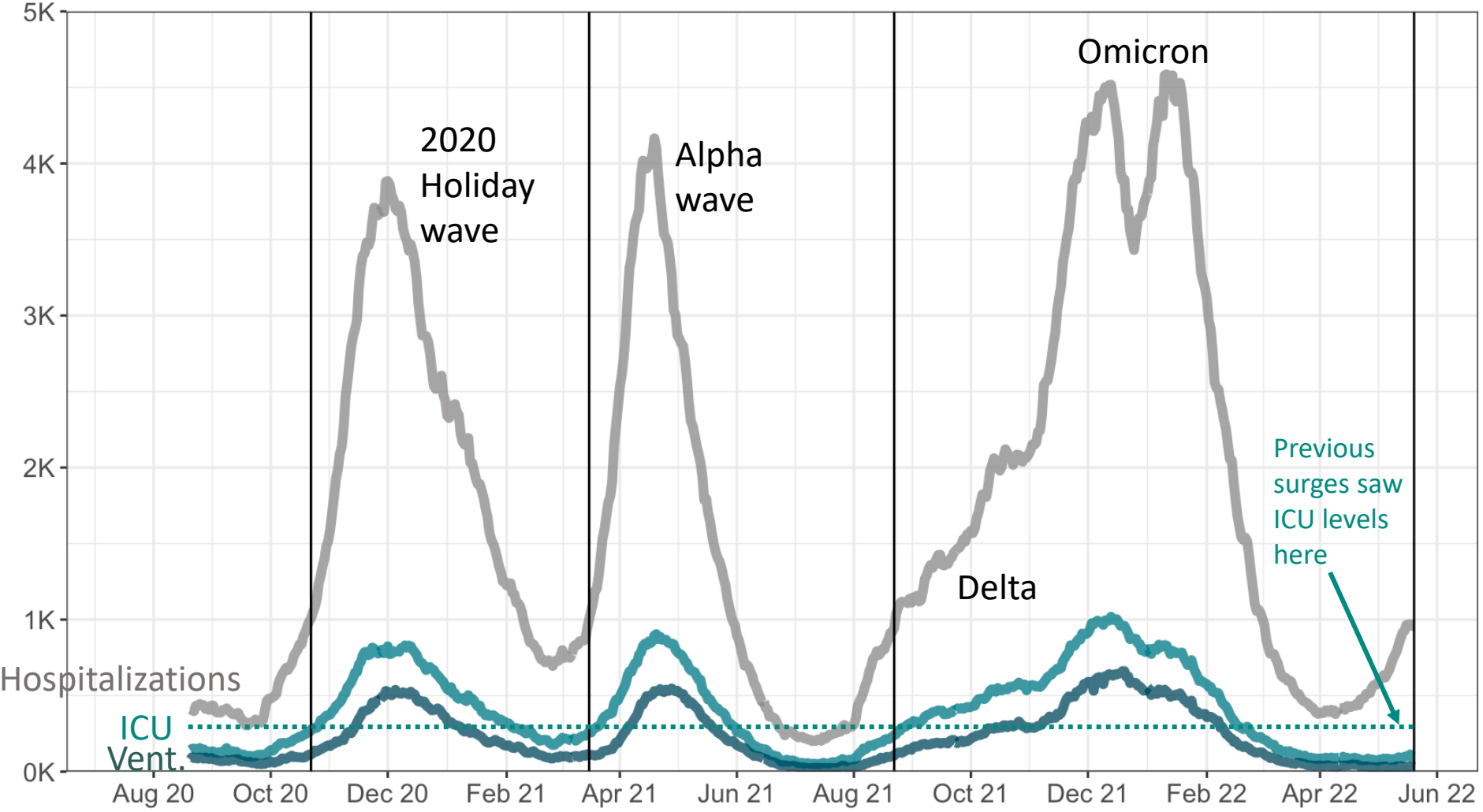
Grade level	Number of reported cases, #	# Ongoing - Excluding New	# New	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	992	114		116	2-66
Jr. high/middle school	208	26		23	2-94
High school	677	18		36	2-112
Administrative	6	0		31	6
Total	1,883	158		176	2-112

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.

NOTE (10/4): MDHHS adopted the new [CSTE school cluster and outbreak definition](#) which impacts how transmissions within school-sponsored settings are reported to the health department

Source: LHD Weekly Sitreps

COVID-19 Hospitalization and Severe Illness Trends



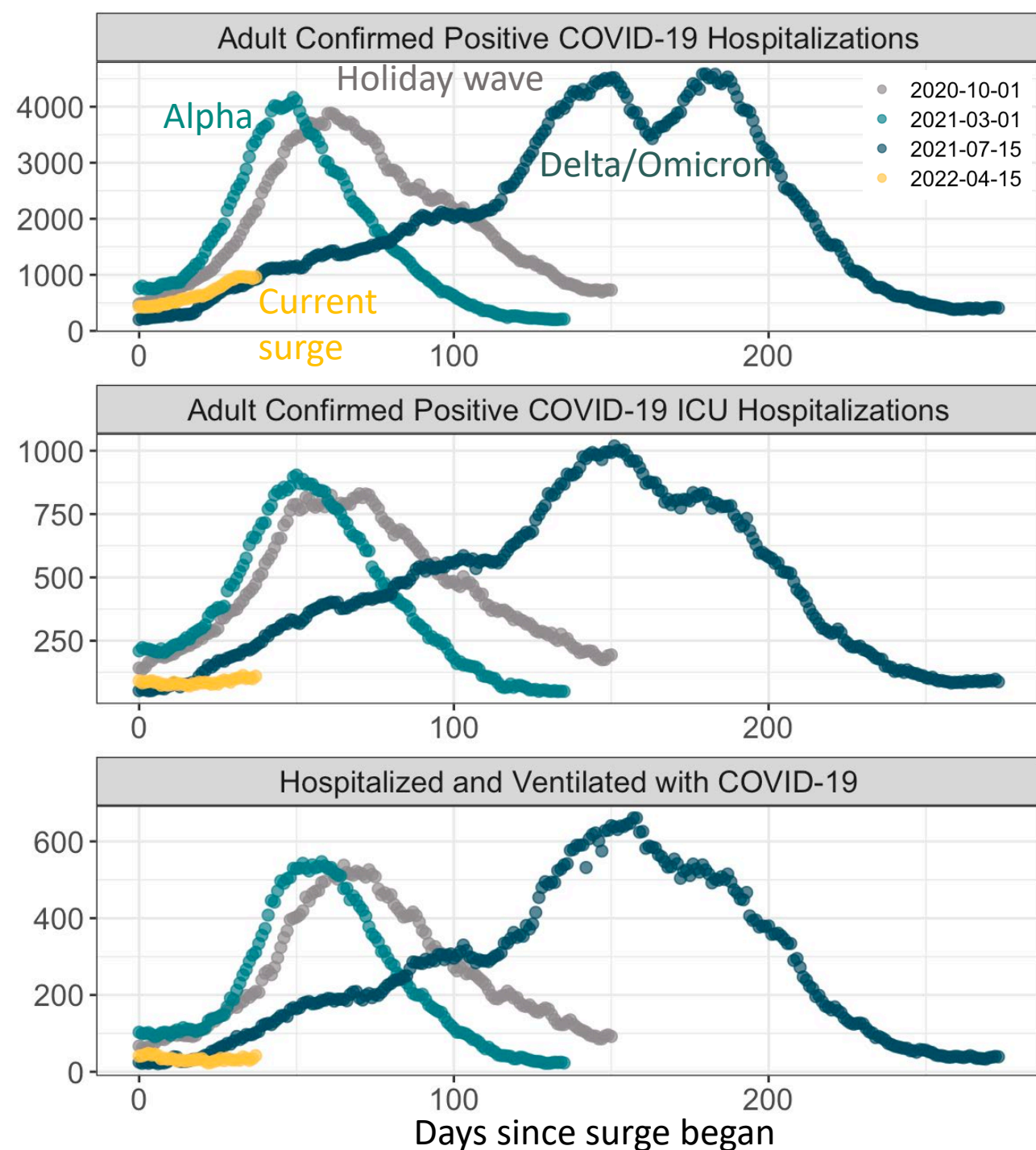
— vertical line indicates where hospitalizations reached 1K in previous increases

- Adult Confirmed Positive COVID-19 Hospitalizations
- Adult Confirmed Positive COVID-19 ICU Hospitalizations
- Hospitalized and Ventilated with COVID-19

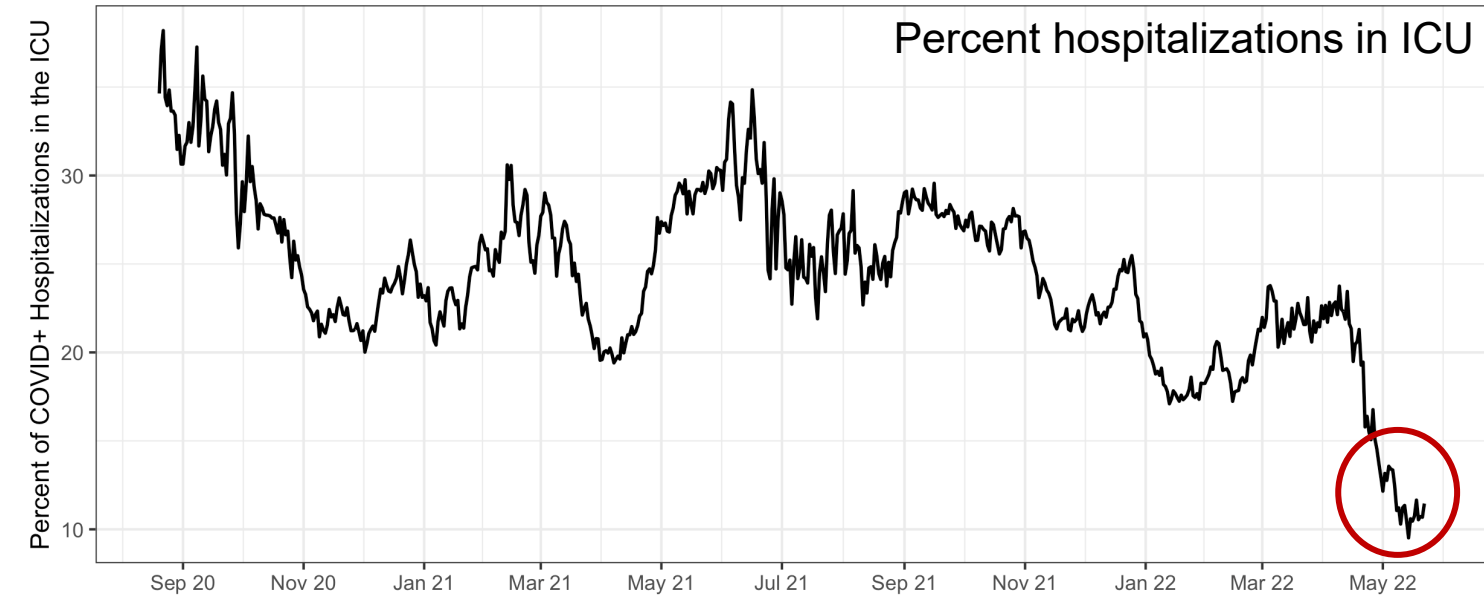
- In all prior surges we have seen a simultaneous increase in patients hospitalized with COVID-19 vs patients in the ICU with COVID-19 vs patients on ventilators with COVID-19.
- In the current surge there is a dissociation between those three metrics, likely indicating that even with an uptick in patients hospitalized with COVID-19, most hospitalized patients are not experiencing severe diseases. This may be attributed in part to vaccinations and therapeutics.

Another view: severity wave by wave

- In previous waves, when hospitalizations reached ~1000 patients (top panel), ICU and ventilator use were higher than they are currently (bottom two panels yellow vs. others)
- Overall, the ICU and ventilator usage is lower than would be expected based on previous surges



Correlating ICU and Ventilators with Hospitalization Census: currently seeing the lowest percentage of hospitalizations requiring ICU or ventilator since September 2020



- Both metrics have seen a general decline in the proportion compared to the total adult patients hospitalized between September 2020 and May 2022, with a steeper decrease in the last couple of months
- Currently seeing the lowest percent of hospitalizations in ICU or ventilator since September 2020
- Previous surges (e.g., Alpha, Delta waves) have seen a rise in the proportion either admitted to the ICU or placed on a ventilator, however, no such surge has been yet observed during the current Omicron wave (red circle)
- While these are lagging indicators, it is not expected that ICU admissions or ventilator usage during this wave will exceed that of previous waves

Guiding Principles

To prioritize **equity** in each of the following objectives

01

Prevent death and severe outcomes

Prioritize uptake of vaccinations and booster doses.

Protect the most vulnerable

- ❖ Mitigate risks in congregate settings using all available tools.

Maximize early access to testing and therapeutics.

02

Protect health care capacity (from hospitals to first responders to LTFS)

Reduce community spread during a surge through all available tools.

Reduce severity of cases, need for ICU/ventilators through vaccines and therapeutics.

03

Keep vital infrastructure (schools, corrections) functioning safely, while planning for recovery

Establish a new normal at every phase of the pandemic.

- ❖ Utilizing all available tools and the concept of "risk budget".

Provide tools to the public to protect themselves.

- ❖ Including OTC testing and instructions for isolation and contact tracing.

Understanding Personal and Household Risk

Protect yourself from COVID-19 by understanding levels of risk, practicing good hygiene and hand washing, staying home when sick, and staying up to date with vaccinations. Masking is a personal and local community choice. Know your risk; know that others may have a risk different from yours. Respect the choice.



Masking is a proven way to reduce your risk of COVID-19.

When making decisions about risk, consider the setting, your vaccination status and current level of community transmission in addition to the personal and family risk factors* noted below.



Up to Date on vaccine includes any booster doses as defined by the CDC. Additionally, individuals who have tested positive for COVID-19 in the past 90 days would fall into similar risk categories as those who are up to date on vaccination.

***Risk factors** include older adults (60+) and those who have serious chronic medical conditions like heart disease, diabetes or lung disease (at any age), and those who live in high-risk congregate settings (like nursing homes, corrections facilities and shelters). If you live with others who have risk factors, consider their health in addition to your personal health.



Visit Michigan.gov/Coronavirus for current COVID-19 information.



When to Wear a Well-Fitting Mask



Please be respectful of others' choices.

MDHHS recommends mask use in the following settings:



During Isolation and Quarantine.

- Those with COVID-19 infection and their contacts should wear a mask when around others.



When you are in a congregate setting.

- Long term care, health care or correctional facility.



When you are in an area with a local or federal mask policy.

- Counties, schools, businesses or other settings may have mask policies.

You might also consider masking in these settings:



If you, or those around you, are at high risk for infection or severe disease.

- Immunocompromised or have other medical conditions that increase risk.
- Unvaccinated.



If you feel the risk of exposure is high.

- Crowded indoor settings; a potential for unvaccinated individuals.



If you simply feel more comfortable wearing a mask.

During the Omicron wave, Nursing home residents with an additional dose/booster were significantly more protected against infection compared to those fully vaccinated without a booster

COVID-19 surveillance and vaccination coverage data among nursing home residents, were reported to CDC's National Healthcare Safety Network (NHSN) during February 14–March 27, 2022, when the Omicron variant accounted for >99% of sequenced isolates.

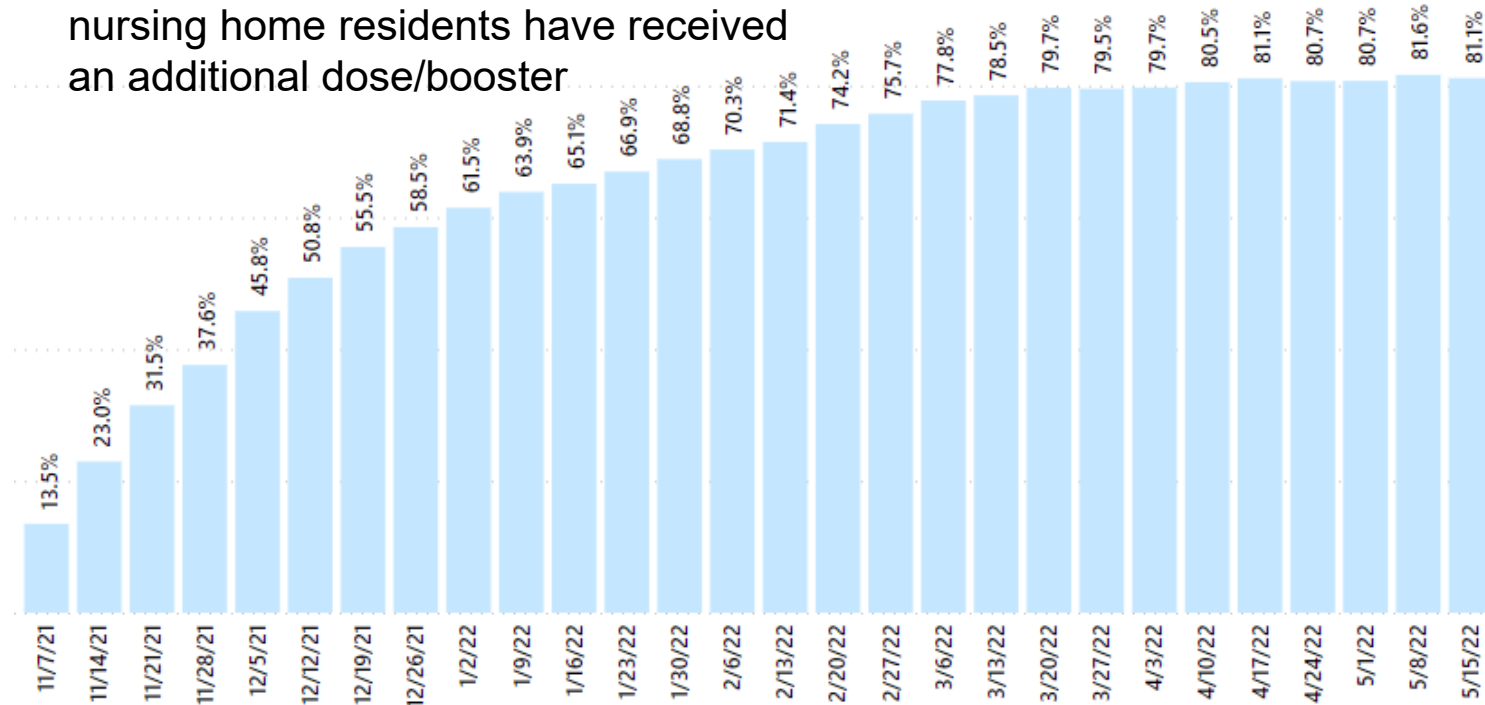
Overall, 7,510 cases were confirmed among 1,509,674 resident-weeks with primary series vaccination only and 11,334 cases were confirmed among 4,416,401 resident-weeks with an additional or booster dose

Relative vaccine efficacy of a COVID-19 additional primary or booster dose was 46.9% (95% CI = 44.8%–48.9%)

These findings indicate that COVID-19 additional primary or booster doses provide greater protection against Omicron variant infection than primary series vaccination alone.

Percentage of Fully Vaccinated Nursing Home Residents with Additional Primary or Booster Dose, by Week – Michigan

81.1% of fully vaccinated Michigan nursing home residents have received an additional dose/booster



MMWR Article: https://www.cdc.gov/mmwr/volumes/71/wr/mm7118a4.htm?s_cid=mm7118a4_w

Data: <https://www.cdc.gov/nhsn/covid19/ltc-vaccination-dashboard.html>

December 2021 through February 2022 saw COVID-19-associated hospitalization rates in children 5-11 that were twice as high among unvaccinated than in vaccinated children

- COVID-19 can cause severe illness in children
- During the period of Omicron predominance (Dec 19, 2021–Feb 28, 2022), COVID-19–associated hospitalization rates in children aged 5–11 years were approximately 2X as high among unvaccinated as among vaccinated children
 - Non-Hispanic Black children represented the largest group of unvaccinated children
 - Thirty percent of hospitalized children had no underlying medical conditions, and 19% were admitted to an intensive care unit
 - Children with diabetes and obesity were more likely to experience severe COVID-19
- **Increasing COVID-19 vaccination coverage among children aged 5–11 years, particularly among racial and ethnic minority groups disproportionately affected by COVID-19, can prevent COVID-19–associated hospitalization and severe outcomes**



Cardiac Complications was Significantly Higher after SARS-CoV-2 Infection than after mRNA COVID-19 Vaccination

- Data from 40 health care systems participating in a large network found that the risk for cardiac complications was significantly higher after SARS-CoV-2 infection than after mRNA COVID-19 vaccination for both males and females in all age groups
- These findings support continued use of recommended mRNA COVID-19 vaccines among all eligible persons aged ≥ 5 years

