MI COVID RESPONSE DATA AND MODELING UPDATE

September 13, 2022

Epidemiologic Surveillance: Key Messages

COVID-19 pandemic is plateauing in some parts of the globe; decreases are seen in parts of the United States

- Case rates for several European countries are plateaued
- Within the U.S., case rates decreased 18.8% over the past week, however this includes over the Labor Day holiday when we have historically seen decreases in testing
- Most midwestern states (region 5) are showing signs of declines

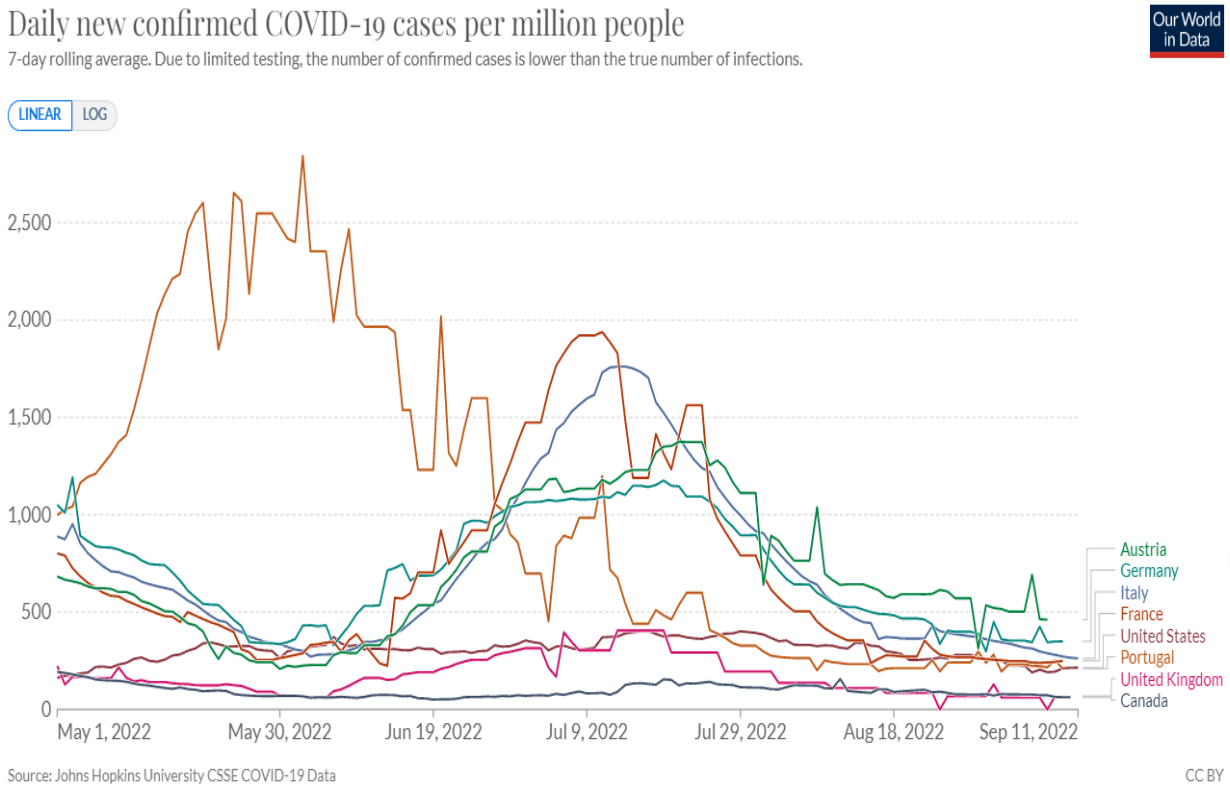
COVID spread in Michigan is plateaued

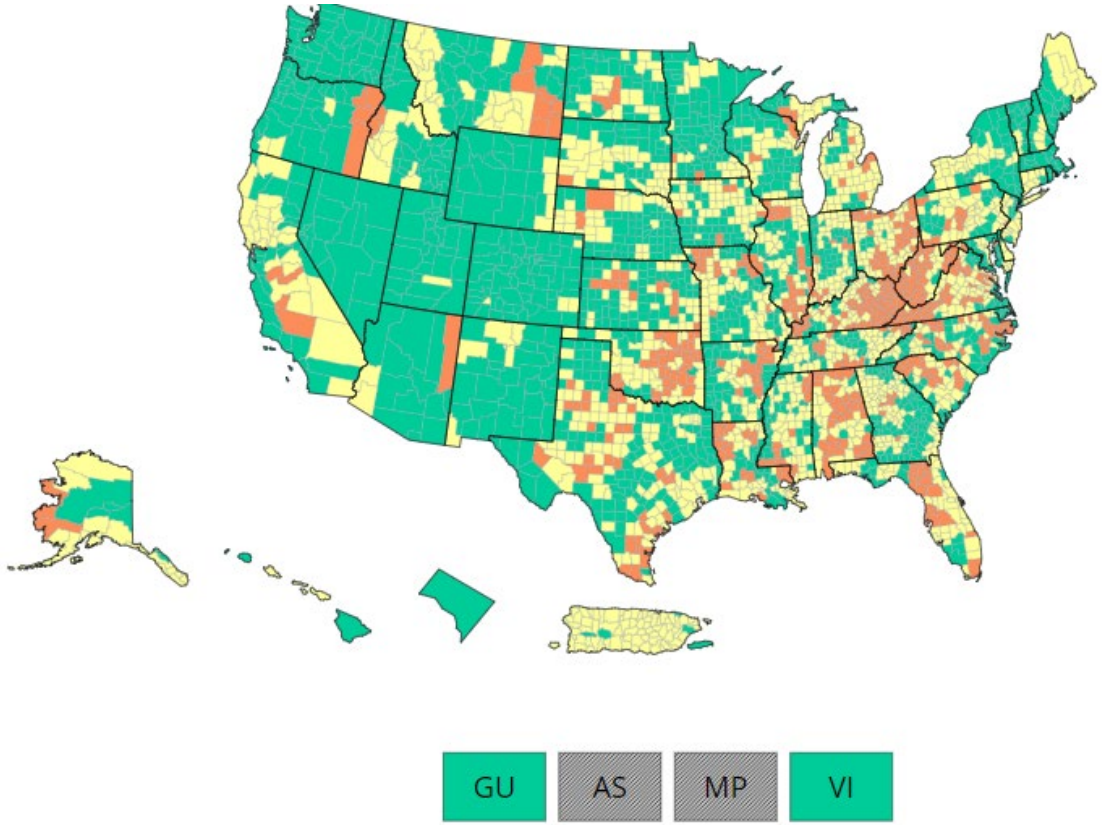
- COVID spread is assessed from many different markers including CDC community levels and other surveillance systems
- As of September 8, 73% of Michigan counties are at medium or high COVID-19 community levels
  - 8 Michigan counties are classified as High this week according to CDC's Community Levels (10%). This represents 6% of the population.
  - 52 Michigan counties are currently at Medium level (63%). This represents 83% of the population.
- The R_t for Michigan is around 1 indicating COVID is plateaued
- The proportion of specimens sequenced and identified as BA.5 in the U.S. and Michigan continues to remain the most dominant
- 65% of SWEEP sites saw a decrease in the most recent week

COVID-19 hospital metrics in Michigan remain lower than past surges

- COVID-19 hospital admissions, hospital census, and ICU census showed plateaus or decreases this week

Global and National Trends





Globally, 608,709,777 cases and 6,514,732 deaths (Data* through 9/12/2022)

- Case rates for many countries in Europe are plateaued

United States: Reported cases (7-day average) have decreased 18.8% since the prior week¶

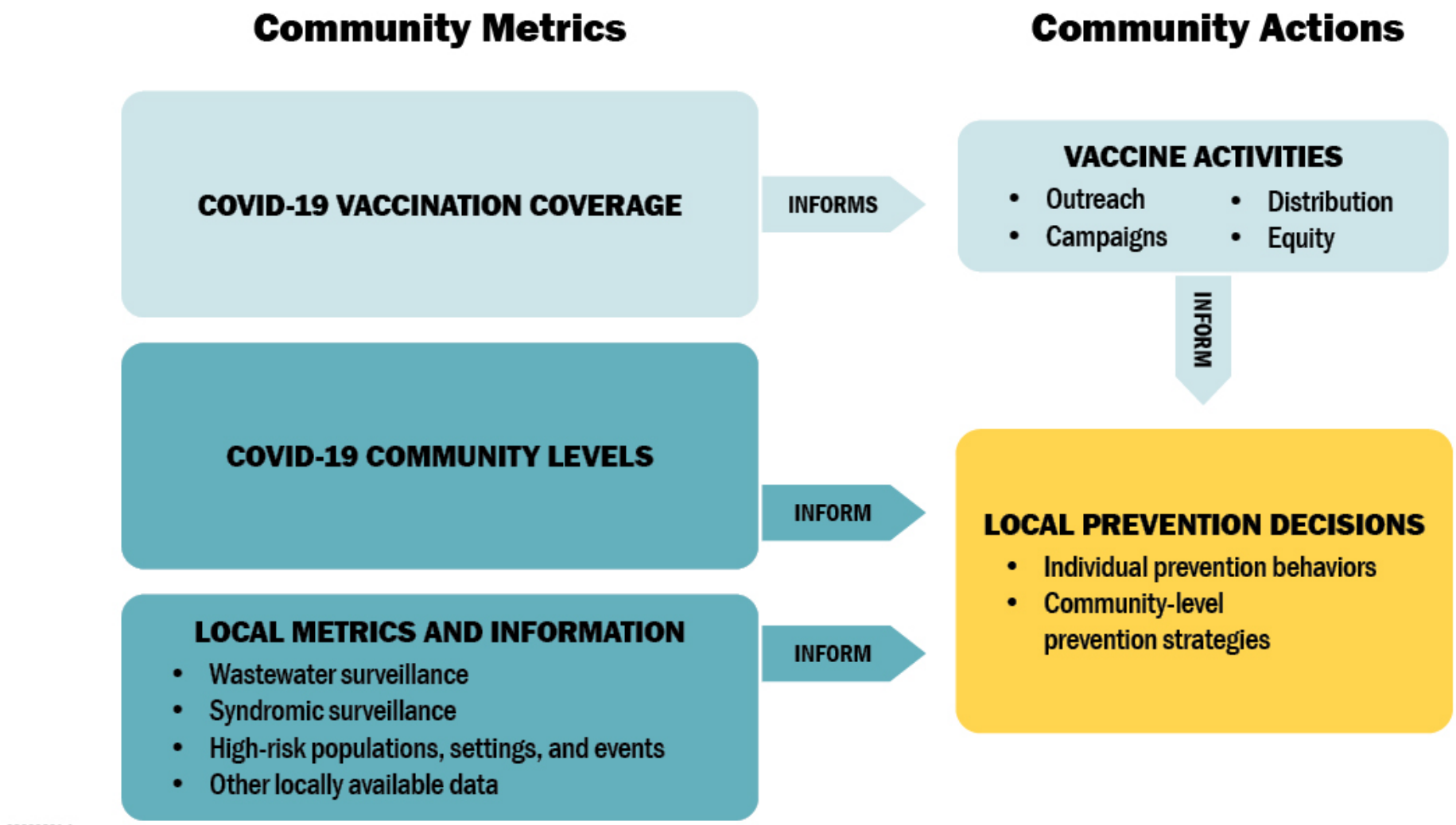
- In the U.S., the case rate is 142.1 cases/100,000 in last 7 days (last week: 177.0 cases per/100,000)

Most Region 5 (Midwest) states are declining

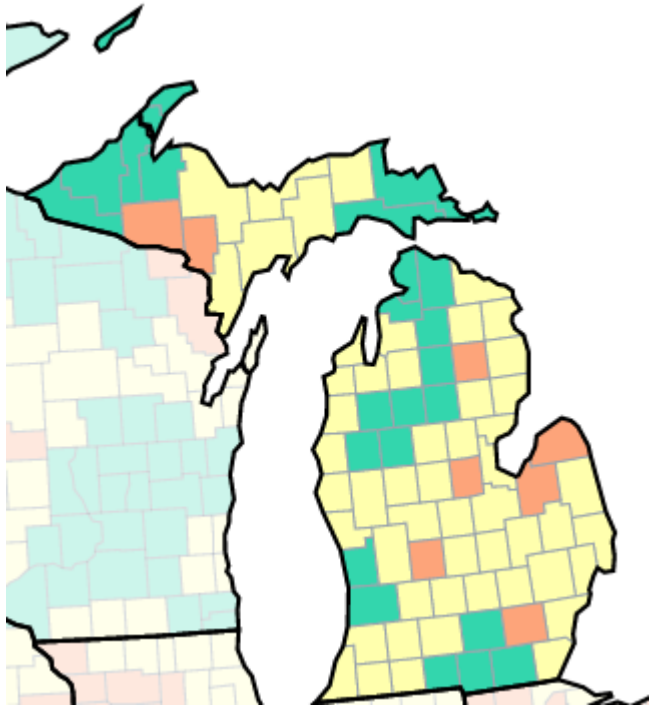
- Minnesota and Wisconsin have the lowest case rates *in Region 5* (9/8/2022)

Source: * Johns Hopkins Coronavirus Resource Center; ¶ CDC COVID Data Tracker Weekly Review; † CDC COVID Data Tracker – CDC recently updated their methodology for reporting case rates

Local Prevention Decisions Should Use Community Levels in Concert with Other Pandemic Indicators



As of Sep 8, 8 Michigan Counties at High COVID-19 Community Level



- In the US, 17% of counties have high risk for medically significant disease and healthcare strain
- In Michigan, 10% (8/83) of counties are at high risk. This represents 6% of the population
- 52 Michigan counties are currently at Medium level (63%). This represents 83% of the population
- 23 Michigan counties are currently at Low level (28%). This represents 11% of the population

Percent of Counties

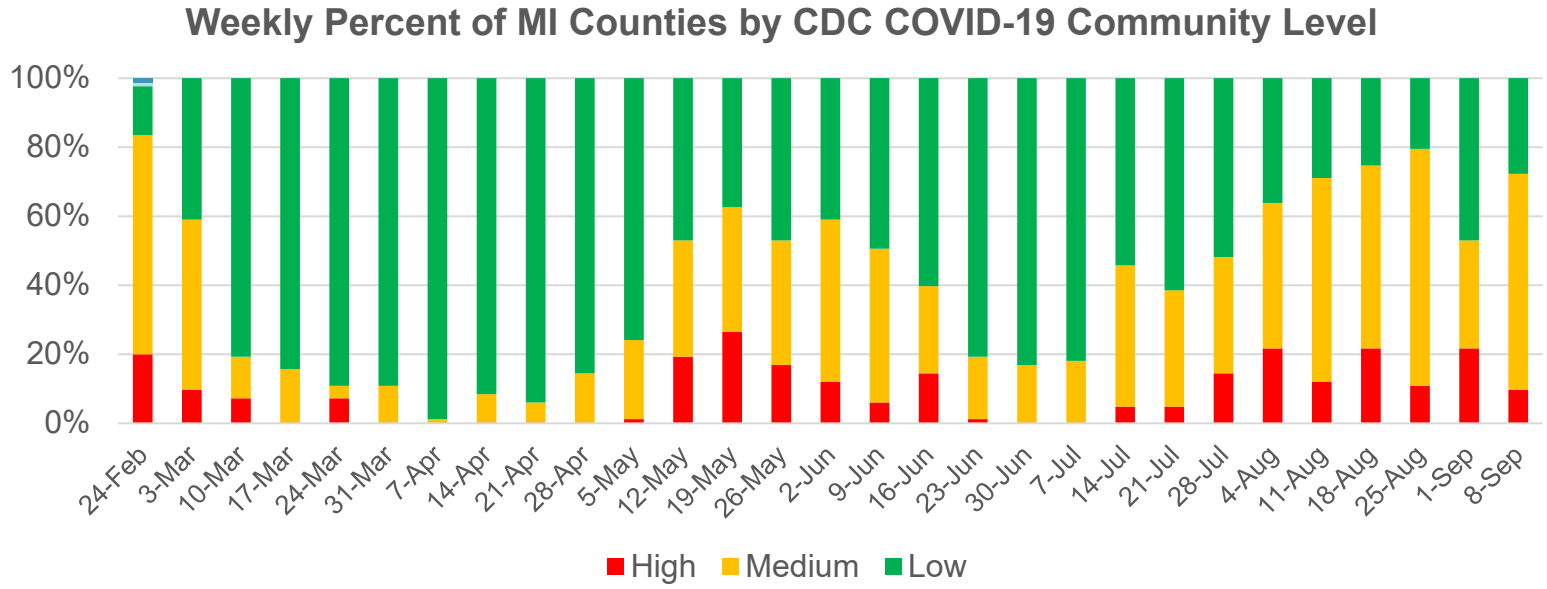
	United States	Michigan	Percent of MI Population
Low	43%	28%	11%
Medium	40%	63%	83%
High	17%	10%	6%

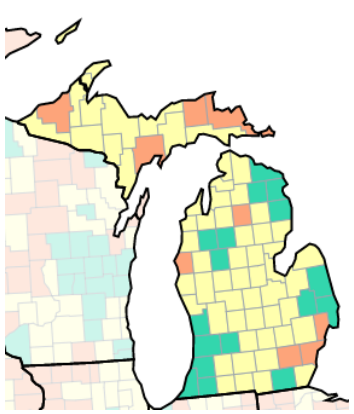
Low	Medium	High
• Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• 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

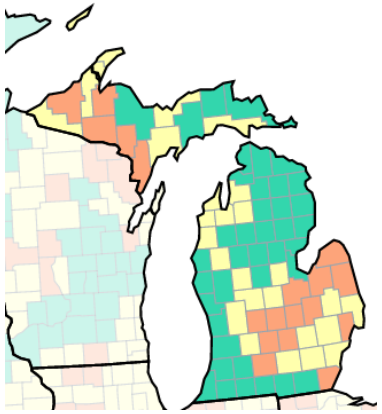
Source: CDC COVID-19 Community Levels https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=CommunityLevels

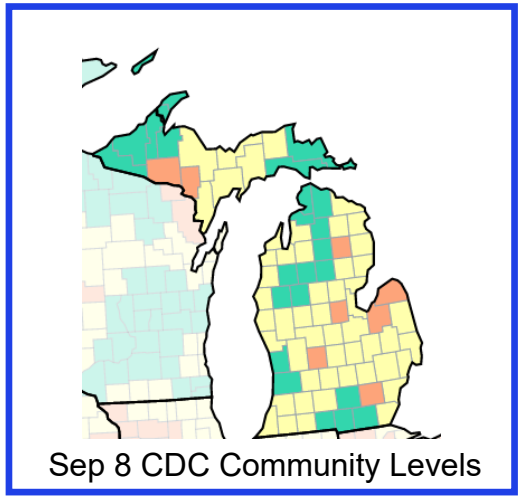
Michigan Trends of COVID-19 Community Levels

- As of September 8, 8 (10%) Michigan counties at high COVID-19 community level and another 52 Michigan counties are currently at Medium level (63%)
- The proportion of Michigan counties at medium and high is higher than last week
- Current levels are not as high as the first Omicron wave but are higher than the second Omicron (BA.2.12.1) wave




Aug 25 CDC Community Levels


Sep 1 CDC Community Levels

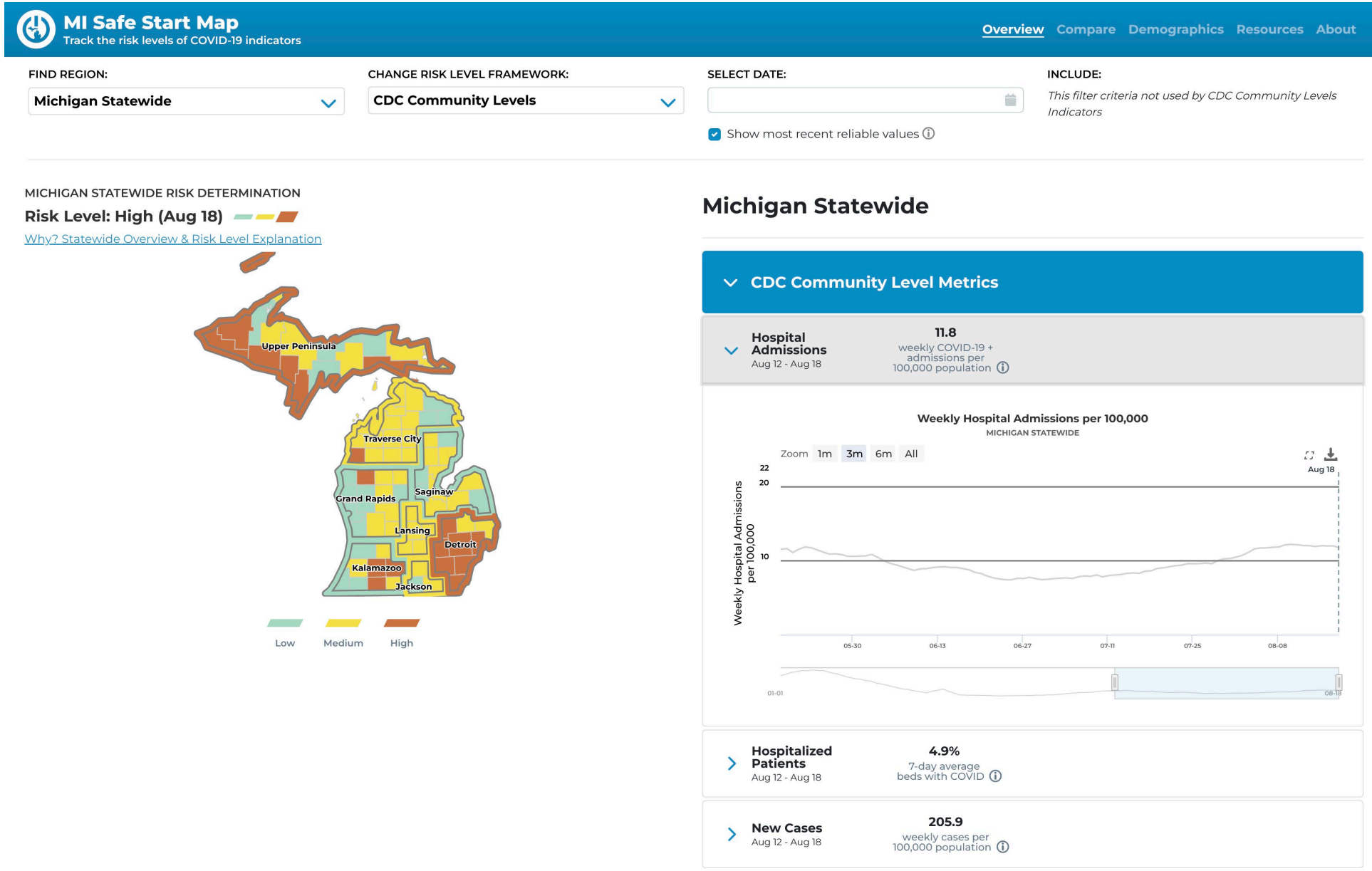

Sep 8 CDC Community Levels

This metric uses three indicators for categorization: (1) new COVID-19 cases per 100,000 population in the last 7 days lagged 1 day behind the date the COVID-19 Community Level is calculated; (2) new COVID-19 hospital admissions per 100,000 population in the last 7 days; and (3) percent of staffed inpatient beds occupied by patients with confirmed COVID-19 (7-day average) lagged 1 day behind the 7-day case rate .

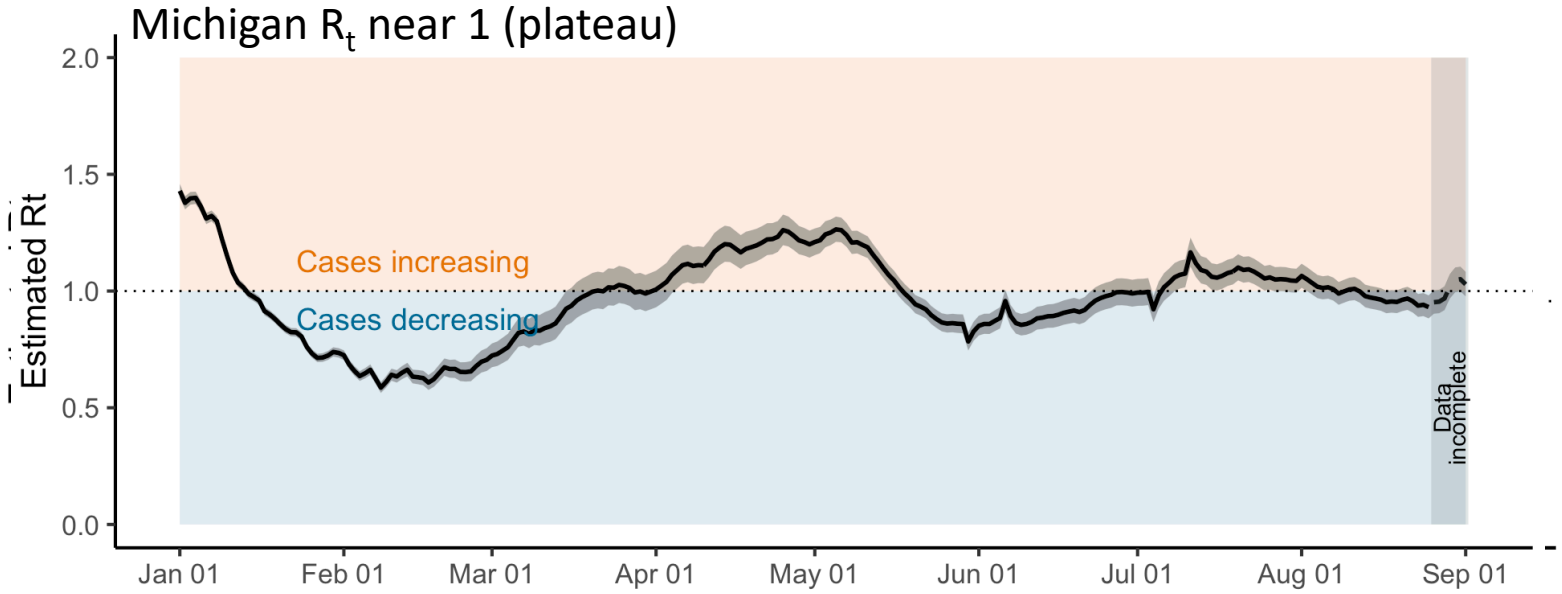
Source: CDC COVID-19 Community Levels https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=CommunityLevels

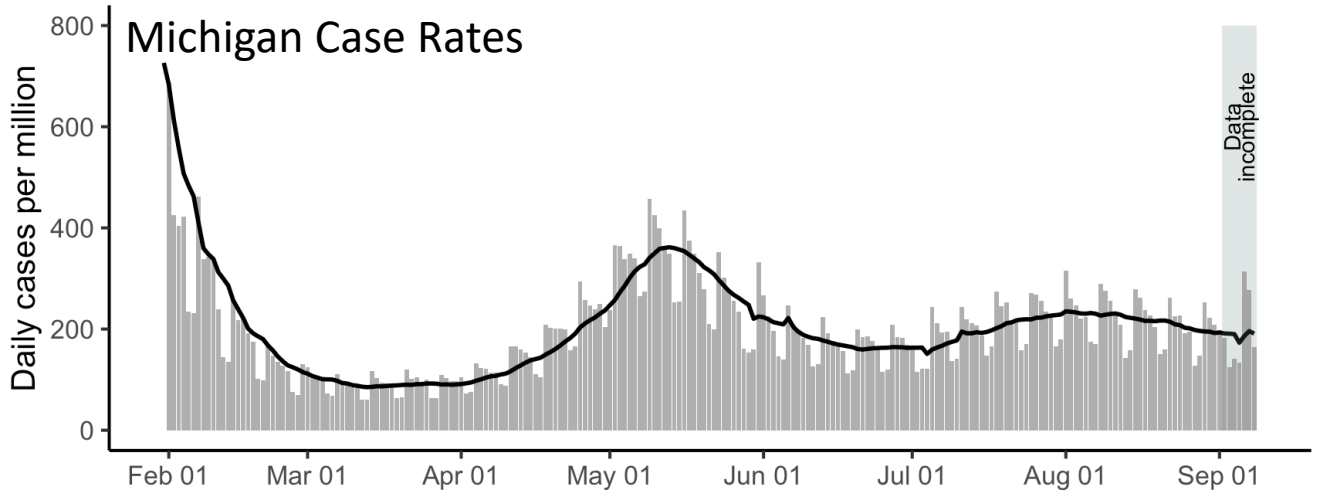
CDC Community Levels now available on mistartmap.info

- Community Levels available at the county, regional, and statewide levels
- County level data updates weekly
- Regional and statewide data updates twice weekly

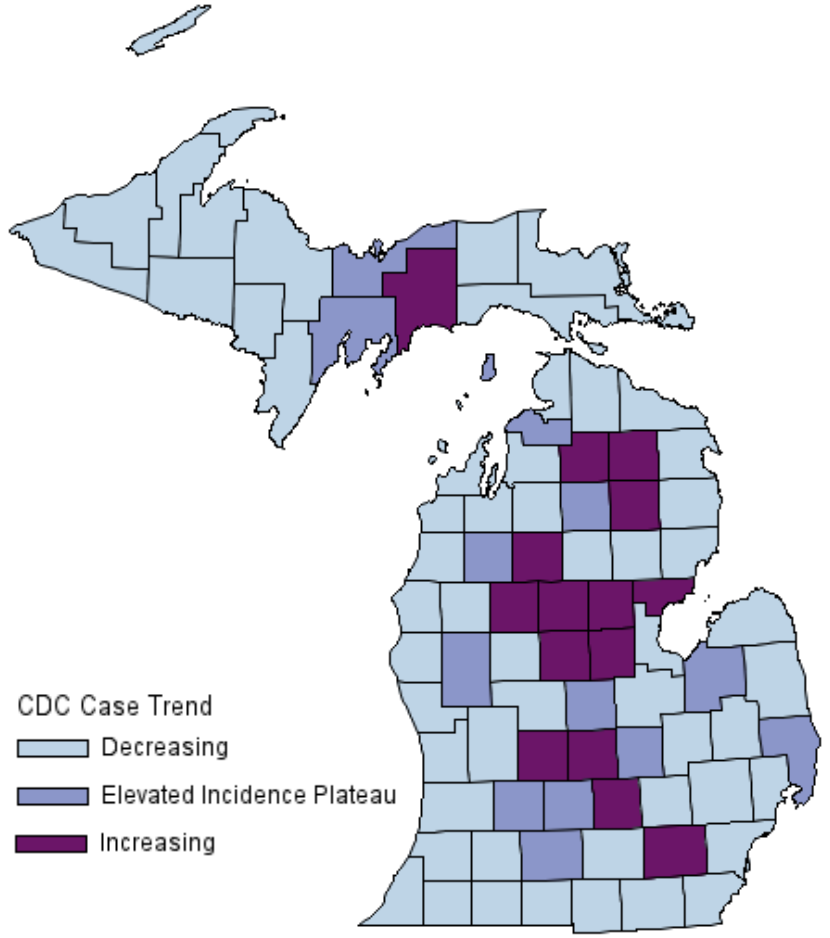


Cases are plateaued in Michigan





15 counties currently showing increases and 13 in elevated incidence plateaus (via mistartmap.info as of 9/9/22, data through 9/1/22).

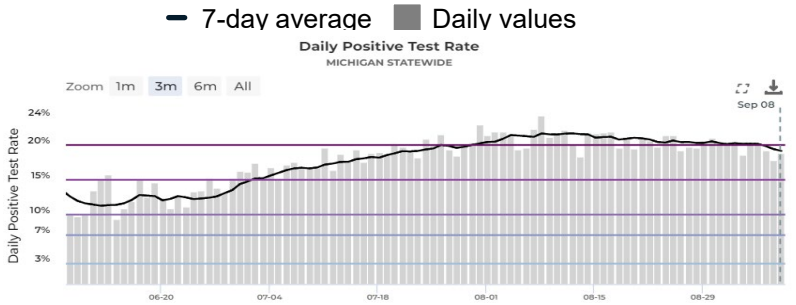


Sources: MDSS cases plotted by onset date as of 9/9/22.

Recent statewide trends are plateaued

Statewide trends

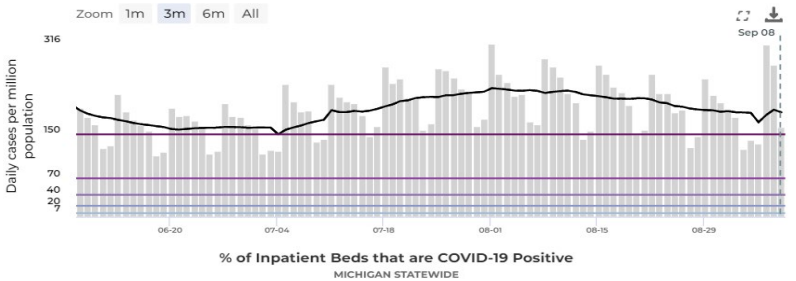
Positivity, %



Current: 19.2%

Last Week: 20.1 %

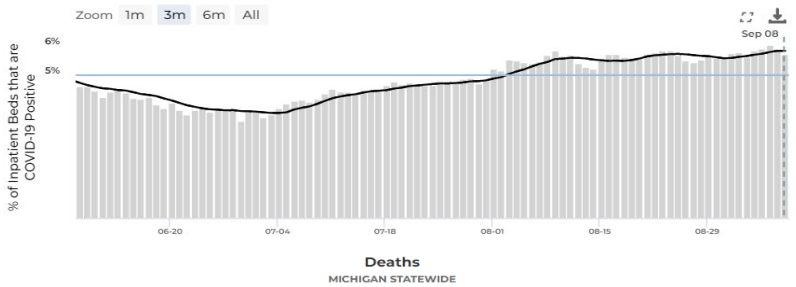
Daily cases per million



Current: 191.3

Last Week: 197.8

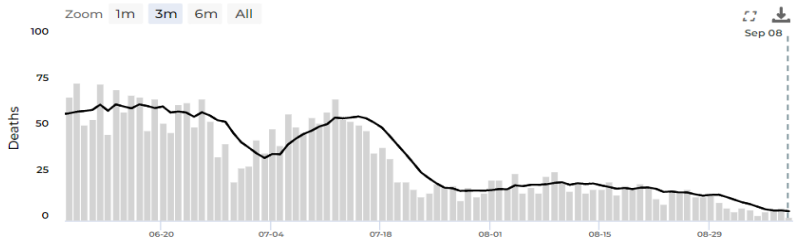
Daily hospitalization rate, %



Current: 5.8%

Last Week: 5.6 %

Deaths

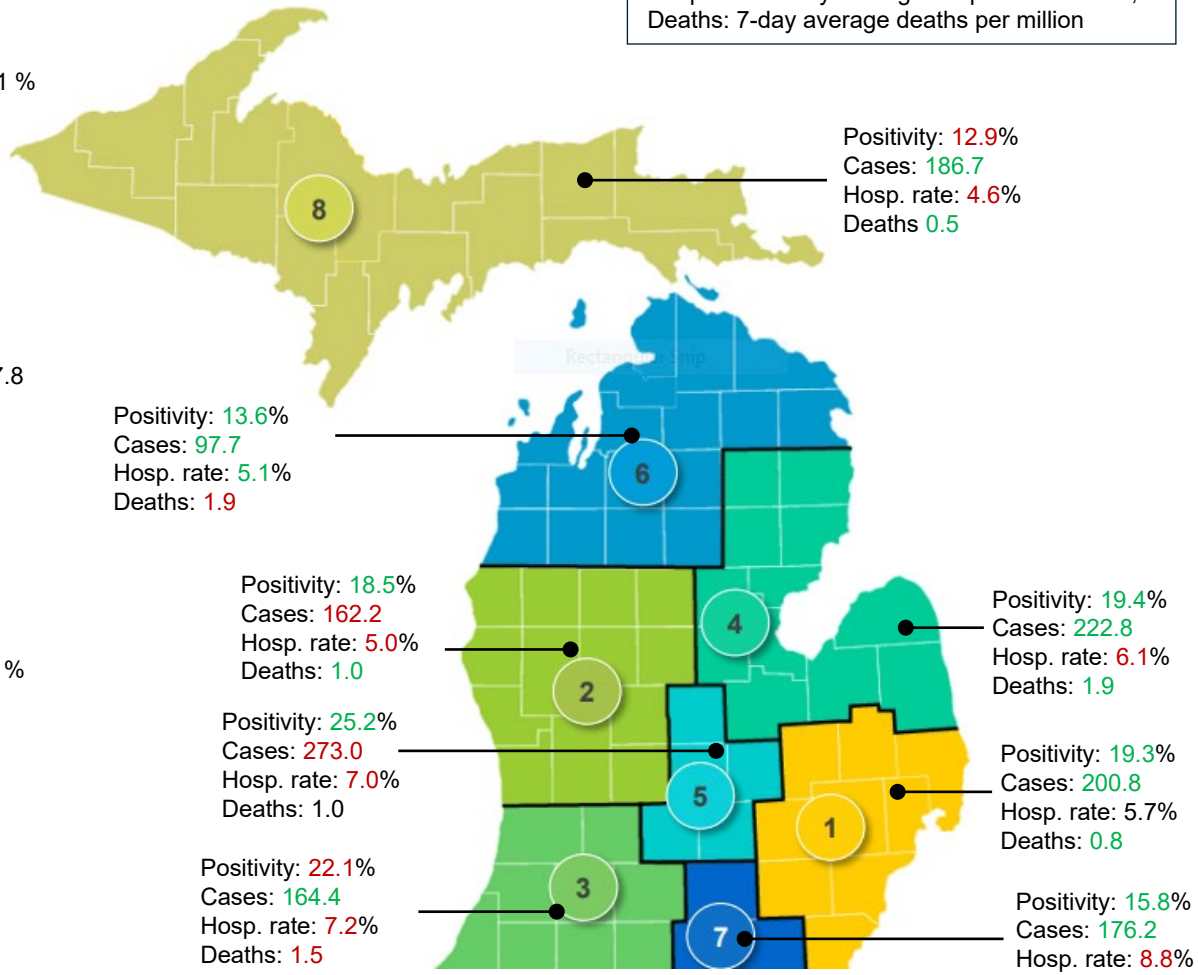


Current: 1.0

Last Week: 1.2

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



Positivity: 12.9%
Cases: 186.7
Hosp. rate: 4.6%
Deaths 0.5

Positivity: 13.6%
Cases: 97.7
Hosp. rate: 5.1%
Deaths: 1.9

Positivity: 18.5%
Cases: 162.2
Hosp. rate: 5.0%
Deaths: 1.0

Positivity: 19.4%
Cases: 222.8
Hosp. rate: 6.1%
Deaths: 1.9

Positivity: 25.2%
Cases: 273.0
Hosp. rate: 7.0%
Deaths: 1.0

Positivity: 19.3%
Cases: 200.8
Hosp. rate: 5.7%
Deaths: 0.8

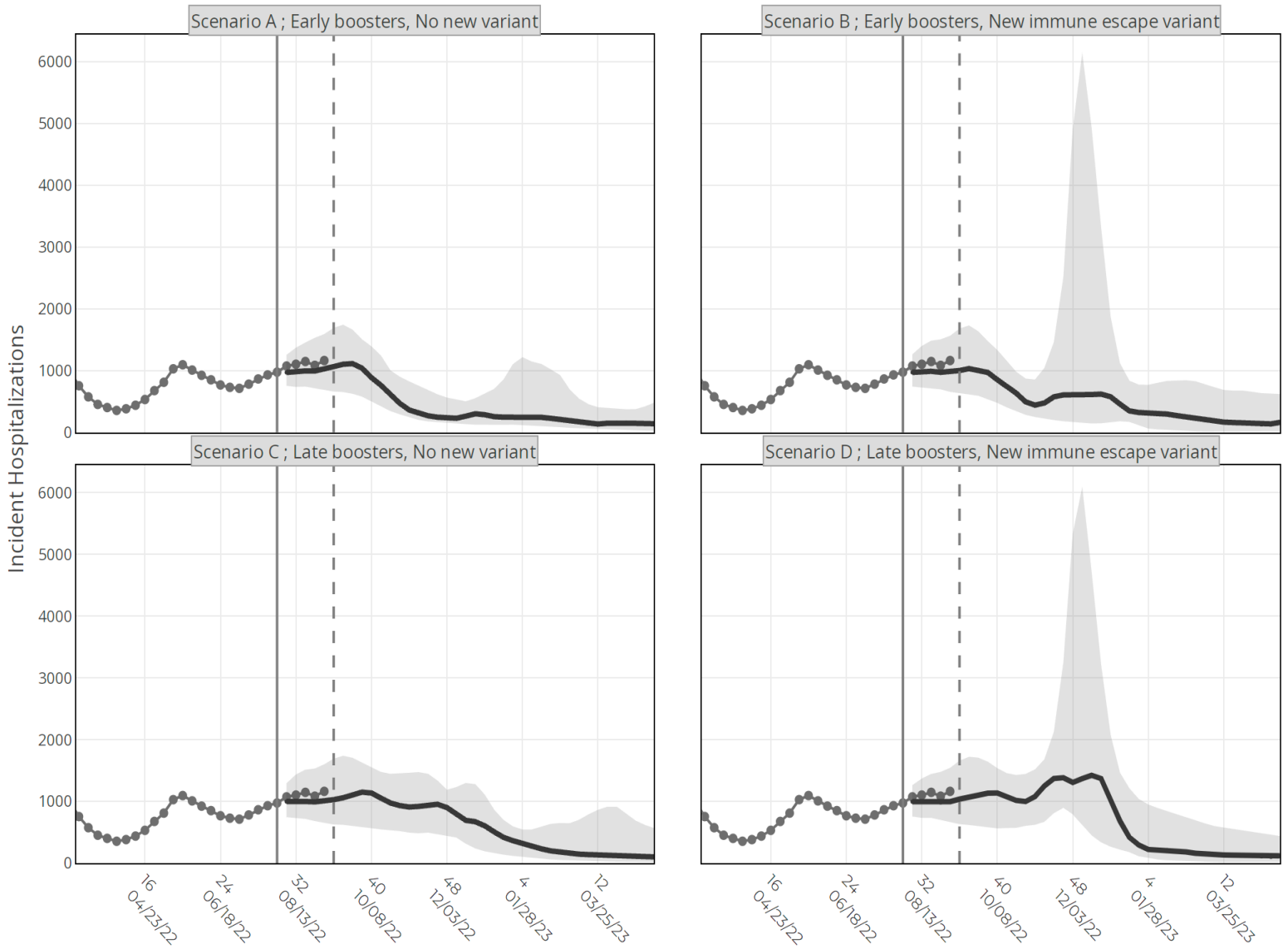
Positivity: 22.1%
Cases: 164.4
Hosp. rate: 7.2%
Deaths: 1.5

Positivity: 15.8%
Cases: 176.2
Hosp. rate: 8.8%
Deaths: 0.5

Source: https://mistartmap.info/

Scenario Hub projections suggest plateau/smaller fall surge + potential winter surge

- Explored scenarios with early/late boosters and potential new variant
- Fall: smaller surge or plateau
- Winter
  - If no new immune escape variant, suggests plateau through winter (left two plots)
  - If new variant, potential for larger winter surge (right two plots)
- Similar patterns for cases and deaths (see link below)

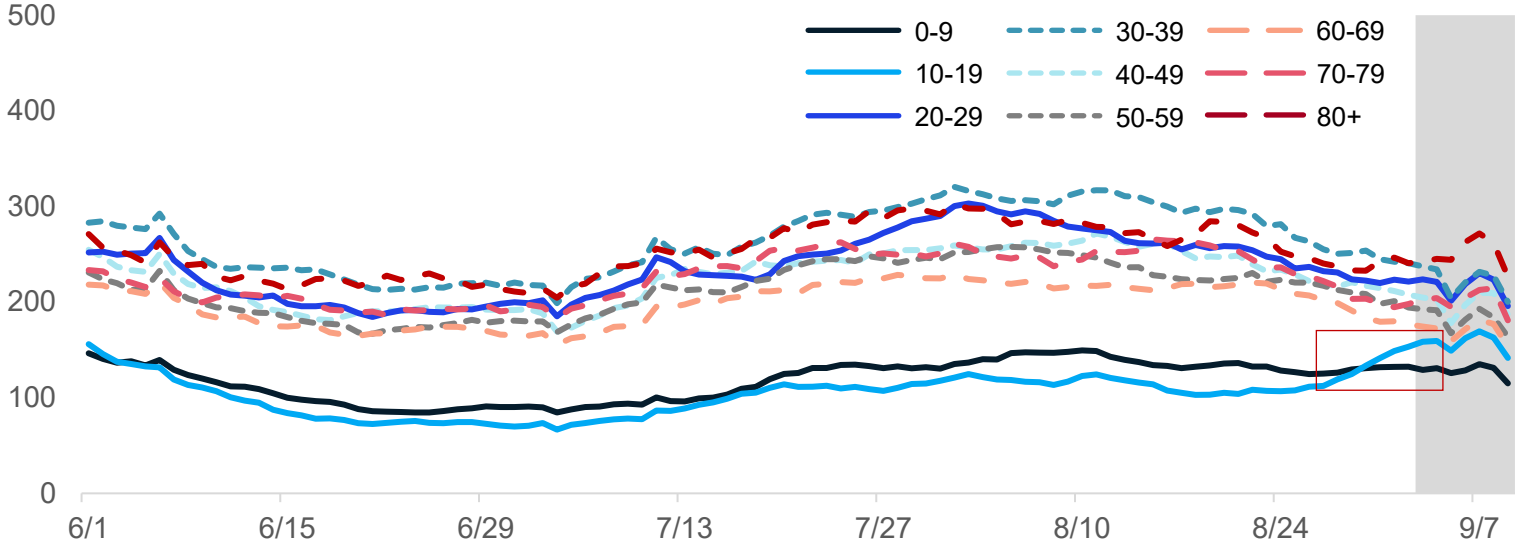


Plotted with 50% uncertainty interval

Source: [Round 15 Scenario Modeling Hub Projections]

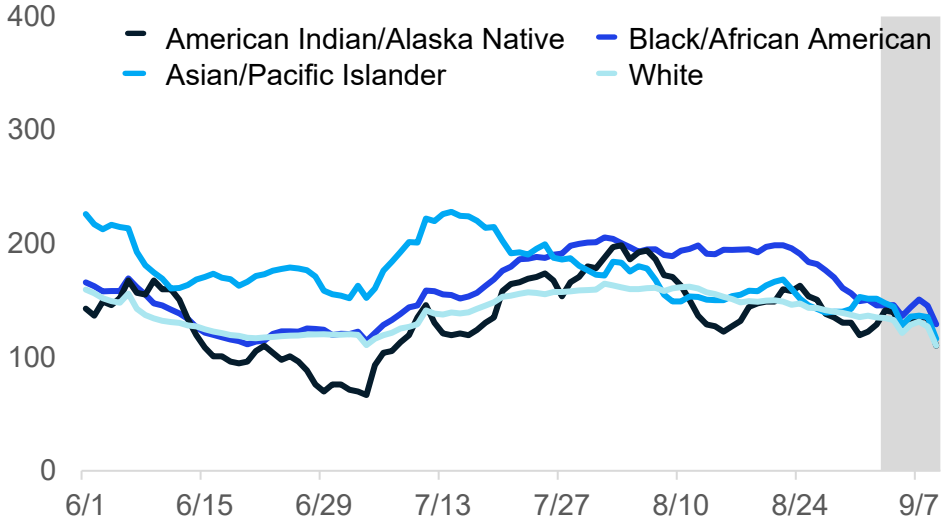
Case rates by age, race, and ethnicity are seeing some increases after Labor Day

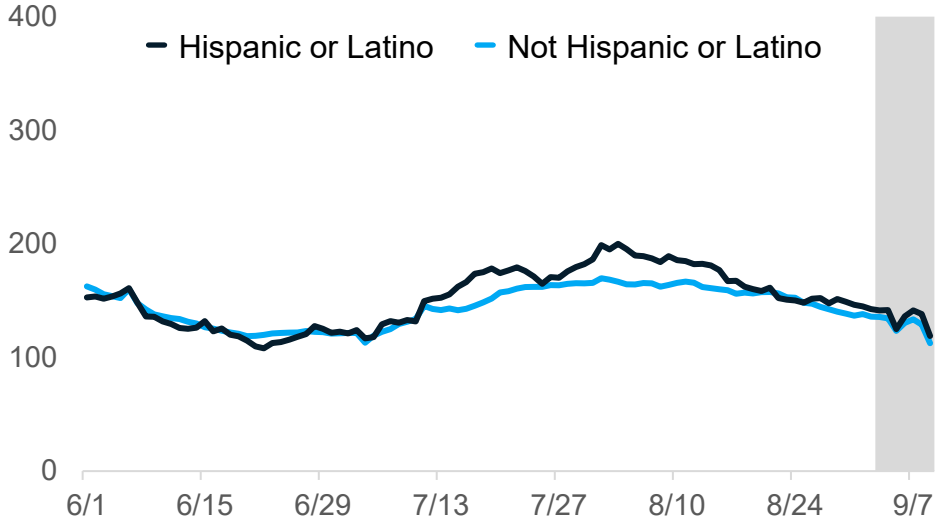
Daily new confirmed and probable cases per million by age group (7-day rolling average)



- Case rates by onset date for all age groups are between 132.4 and 240.7 cases per million (through 9/2)
- Case counts and case rates are highest for 80+-year-olds this week, followed by 30-39-year-olds and the 20-29-year-old age groups
- There are early indicators of potential increases in the lag period with the start of academic year (red box)

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

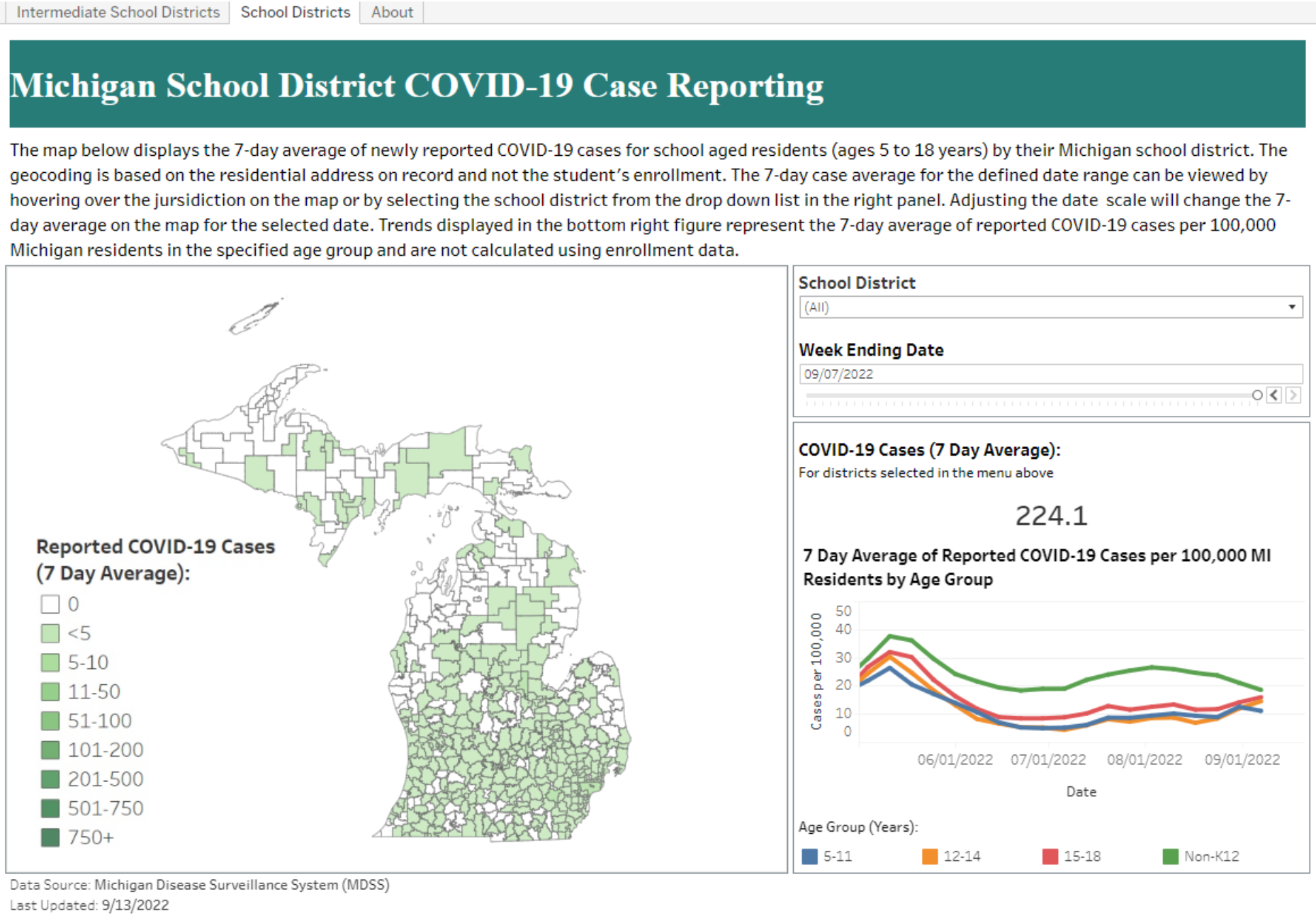




- Case rates are highest for Asian/Pacific Islander populations (151.5 cases/million)
- Between 22-28% of cases in last 30 days have missing race/ethnicity data

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

COVID case counts among K-12 age individuals are increasing



K-12 age population summary:

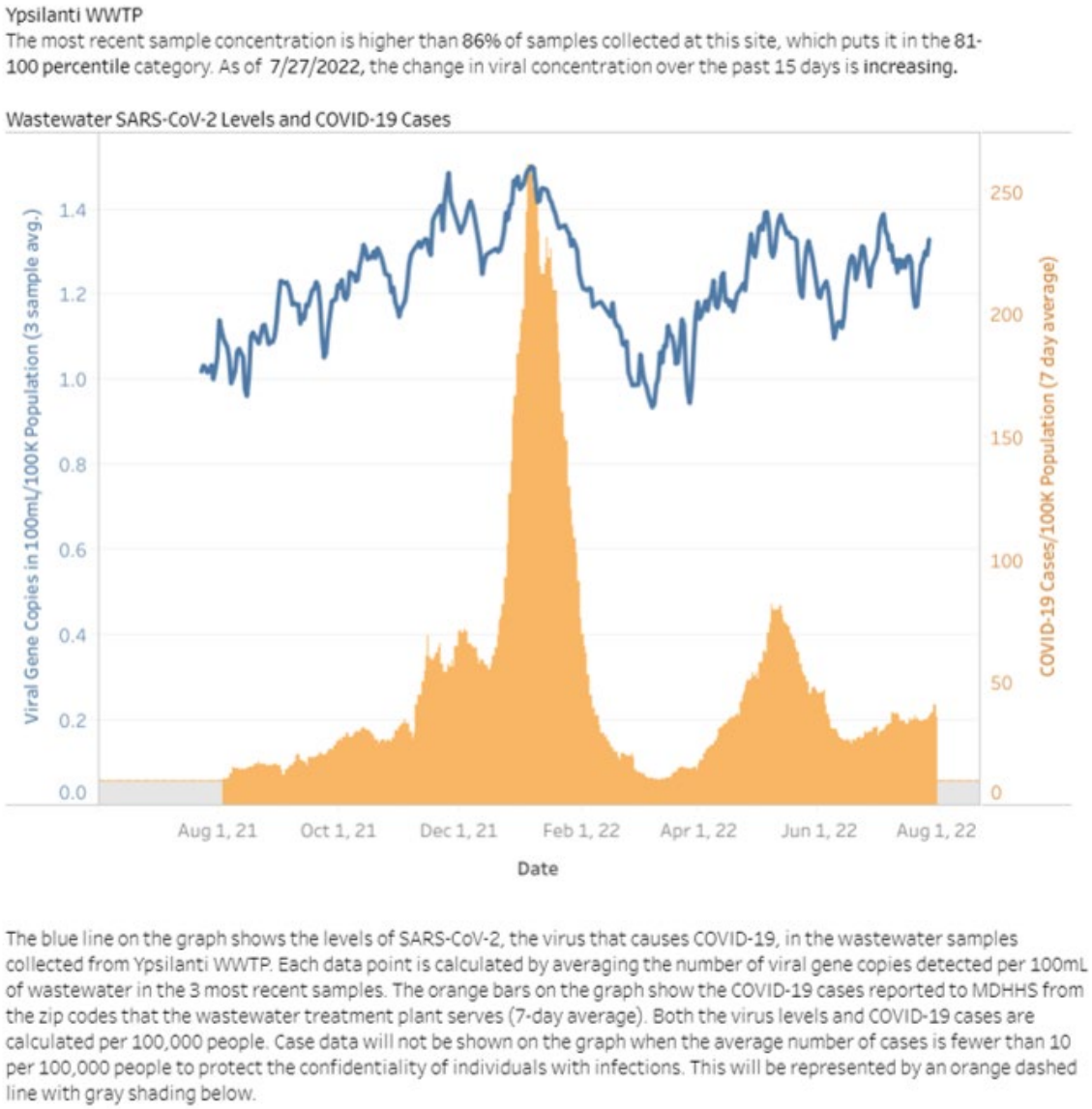
- Overall case counts among school-aged populations are increasing (7-day average 224.1)
- 63% (↑ 5%) of school district areas have between 1-10 cases.
- 10 ISD areas have greater than 5 cases.

Interactive dashboard and data download can be found at: https://www.michigan.gov/coronavirus/stats/k-to-12-aged-isd-reporting

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

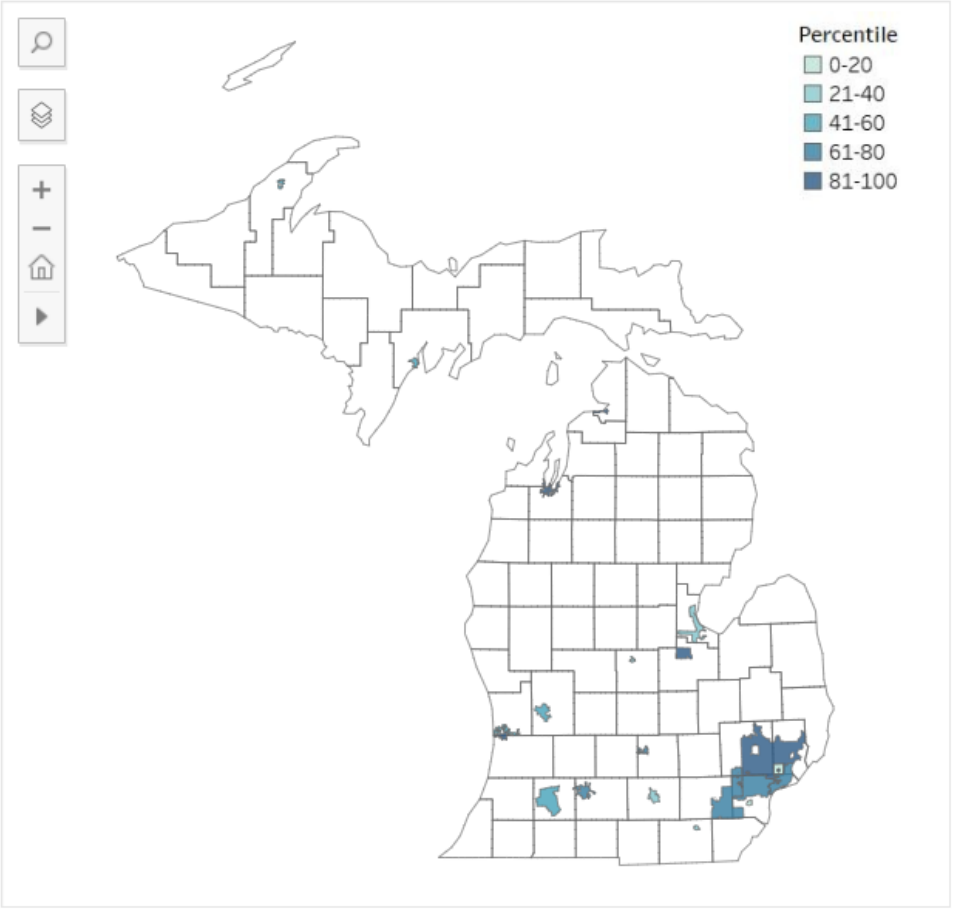
- When increases are seen within one wastewater site, public health officials compare with neighboring communities and other data sources to understand potential of surges
  - For example, the Ypsilanti WWTP saw increases in SARS-CoV-2 levels which correlated with increasing presence of Omicron BA.2 lineage and then followed by an increase in cases



Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

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. To view wastewater data from previous weeks, please use the "Map - All Data" and "Trends - All Data" tabs.



Site	Sewershed Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	20	8/29/2022	
Battle Creek WWTP	51093	20	8/31/2022	
Bay City WWTP	34000	11	9/1/2022	
Delhi Township WWTP	22500	22	8/25/2022	
Escanaba WWTP	12600	18	8/31/2022	
GLWA Detroit River Interce..	492000	7	8/24/2022	
GLWA North Interceptor-Ea..	1482000	74	8/24/2022	
GLWA Oakwood-Northwest..	840600	97	8/24/2022	
Grand Rapids WWTP	265000	56	9/1/2022	
Holland WWTP North	45606	20	8/31/2022	
Holland WWTP South	36912	22	8/31/2022	
Jackson WWTP	90000	59	9/1/2022	
Kalamazoo WWTP	150000	23	9/1/2022	
Petoskey WWTP	7900	20	9/1/2022	
Portage Lake WWTP	14000	51	8/31/2022	
Saginaw Township WWTP	40000	21	9/1/2022	
Tecumseh WWTP	8680	34	9/2/2022	
Traverse City WWTP	45000	25	9/1/2022	
Warren WWTP	135000	19	8/25/2022	
Ypsilanti WWTP	330000	59	9/1/2022	

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 9/7/2022. 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.

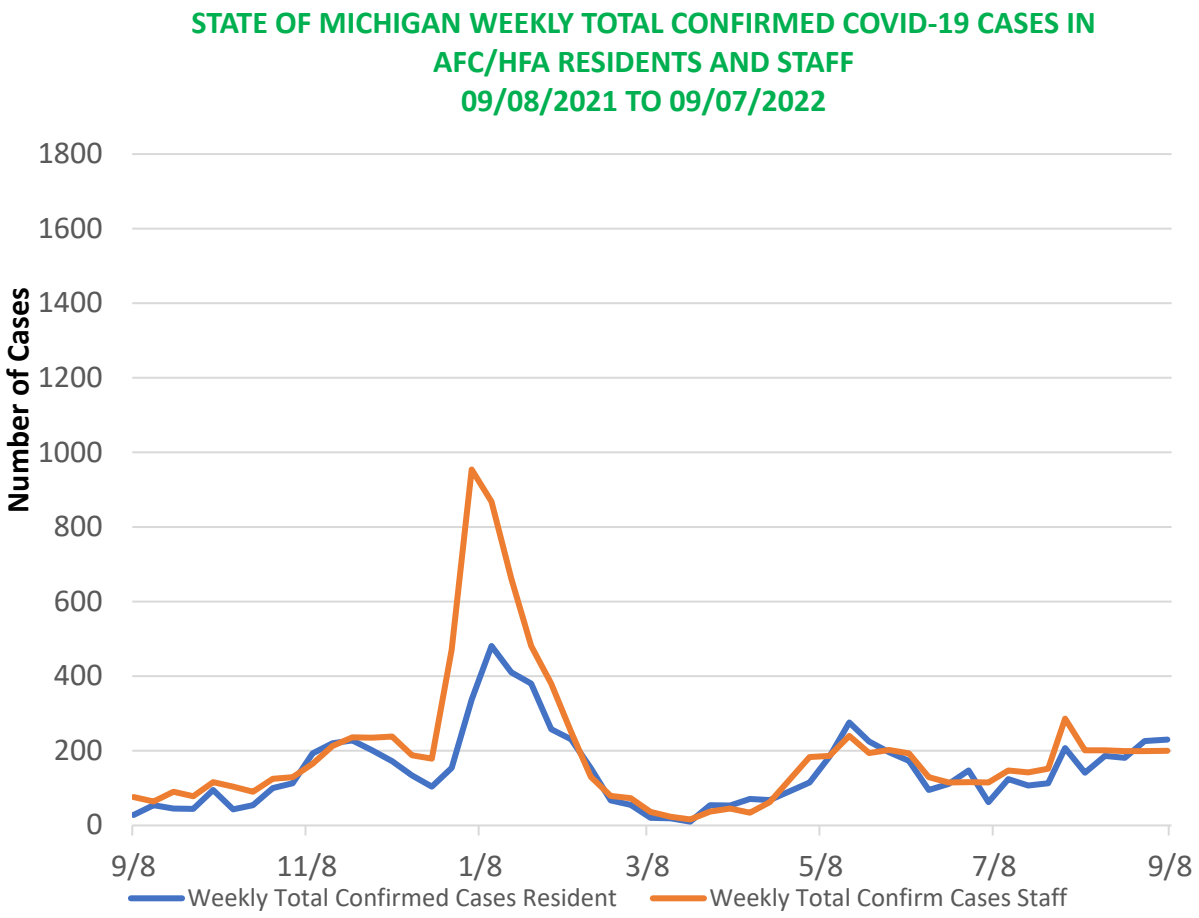
15-Day Trends
- 1000% or more
- 100% to 999%
- 10% to 99%
- 0% to 9%
- -1% to -9%
- -10% to -99%
- -100% to -999%
- -1000% or more

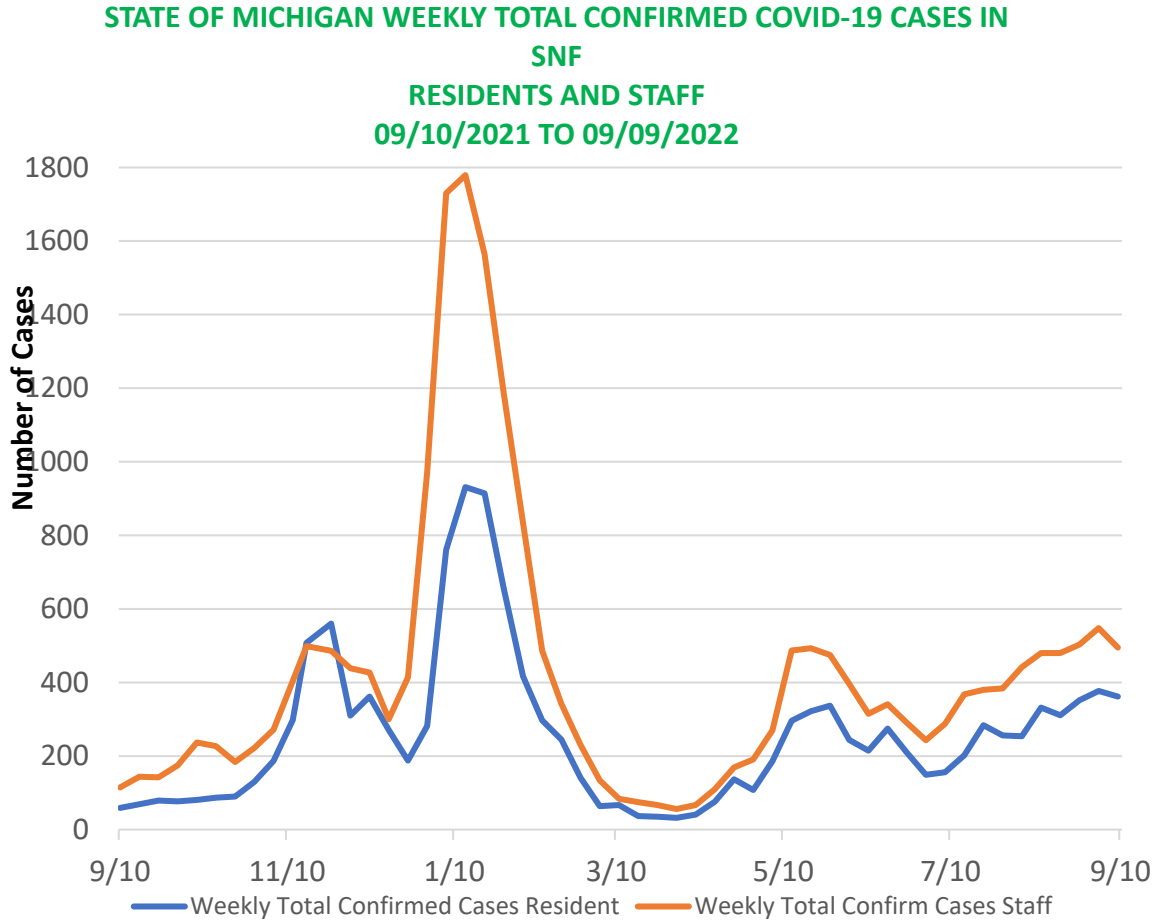
SWEEP Summary

- 30% (6/20) of sentinel sites are showing increasing trends over last 15-days
- 5% (1/20) of sites have plateaued over the last 15 days
- 65% (13/20) of sentinel sites are showing declines in the previous 15-days

Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

Cases Among Staff and Residents in Long Term Care Facilities Have Increased Since July



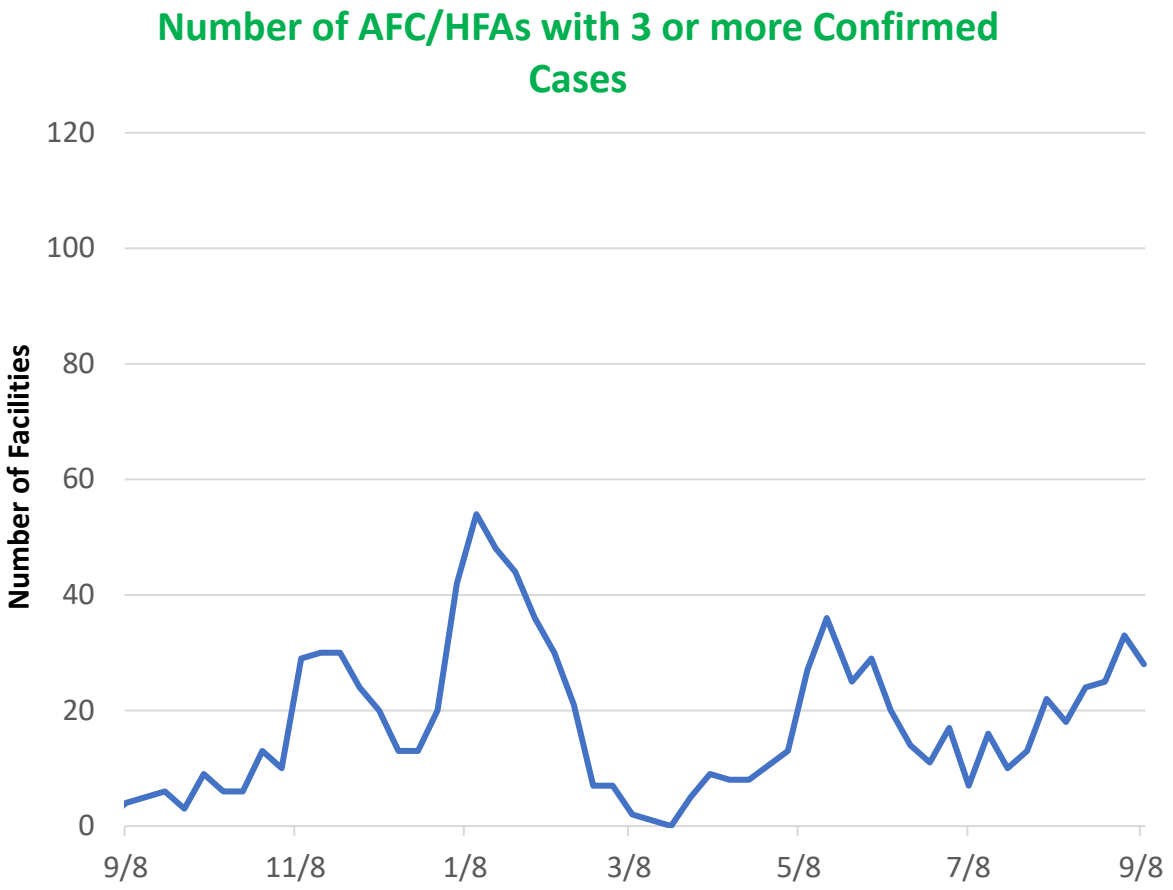


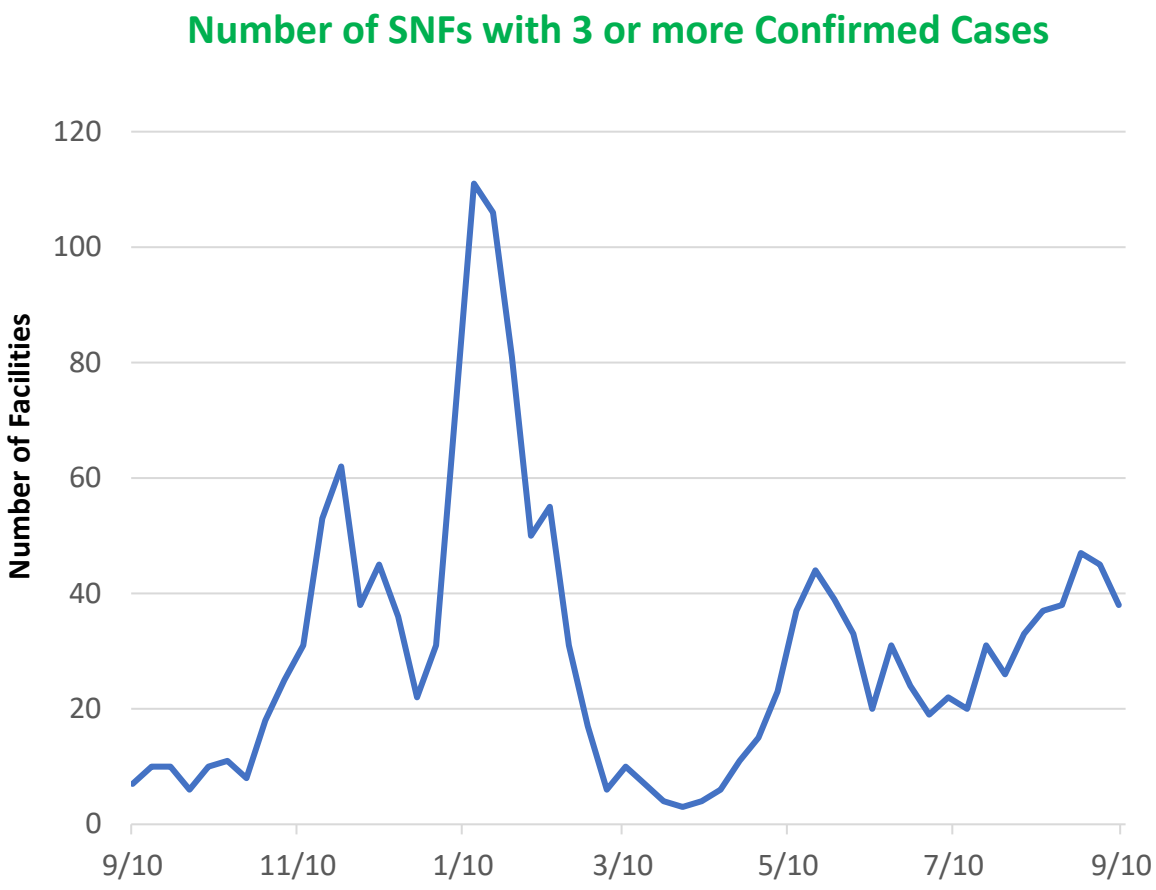
- Case counts in residents increased in AFC/HFA (226 to 230) but decreased in SNFs (377 to 362) since last week
- Case counts in staff are plateaued within AFC/HFA (199 to 200), but decreased in SNFs (548 to 495) since last week
- **29%** of SNFs are reporting **nursing shortages** and **31%** of SNFs are reporting **aide shortages**, which is 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 Clusters in Long Term Care Facilities

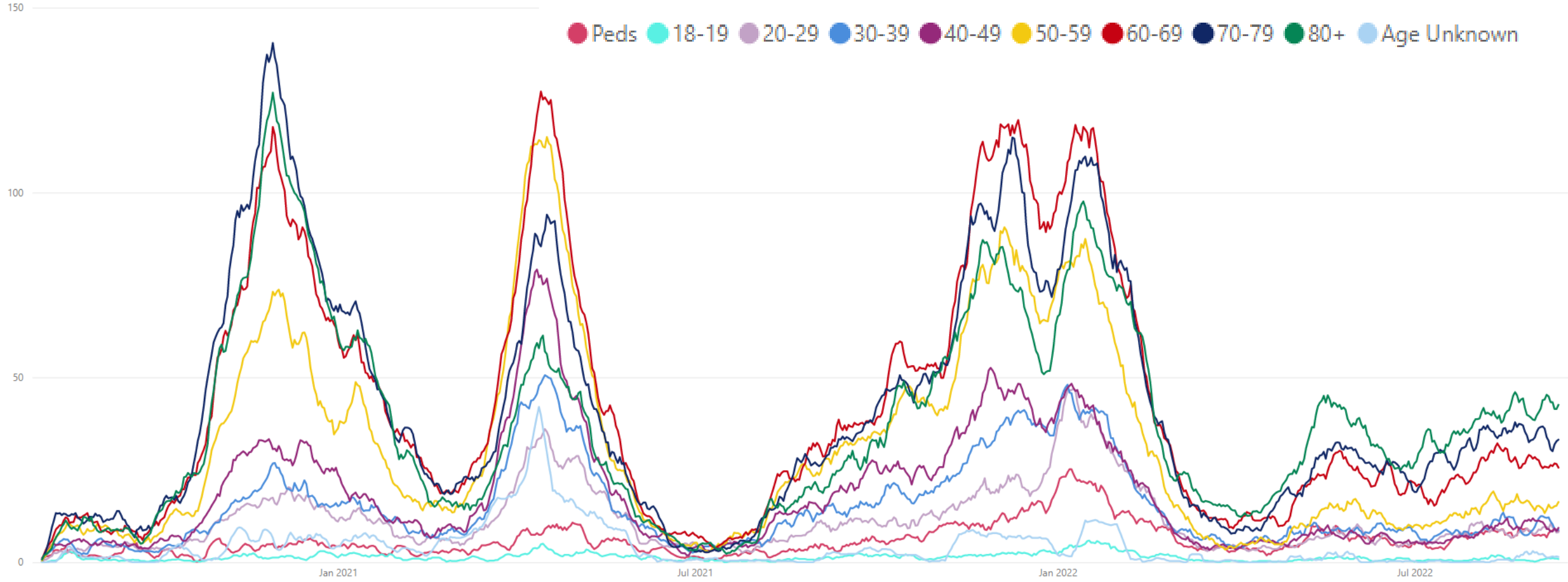




- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period is steadily increasing over the past 2 months
- This week, the number has decreased in **AFC/HFAs (**33 to 28) and in **SNFs** (45 to 38) since the previous week

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

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



- Trends for daily average hospital admissions decreased (-5%) compared to last week (vs. +4% prior week)
- Only those age groups of 12-17 and 50-59 saw increases this week
- Those 60-69, 70-79, and 80+ are seeing between 25 and 42 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	5.3	3.8	-18% (-1)
12-17	2.7	3.6	+171% (+2)
18-19	0.9	3.2	-0% (-0)
20-29	7.9	5.7	-18% (-2)
30-39	8.4	6.9	-31% (-4)
40-49	9.3	7.9	-8% (-1)
50-59	16.3	12.1	+23% (+3)
60-69	**25.4**	**19.9**	-2% (-<1)
70-79	**32.0**	**41.7**	-11% (-4)
80+	**41.7**	**100.7**	-5% (-2)
Total¶	**152.7**	**13.4**	**-5% (-8)**

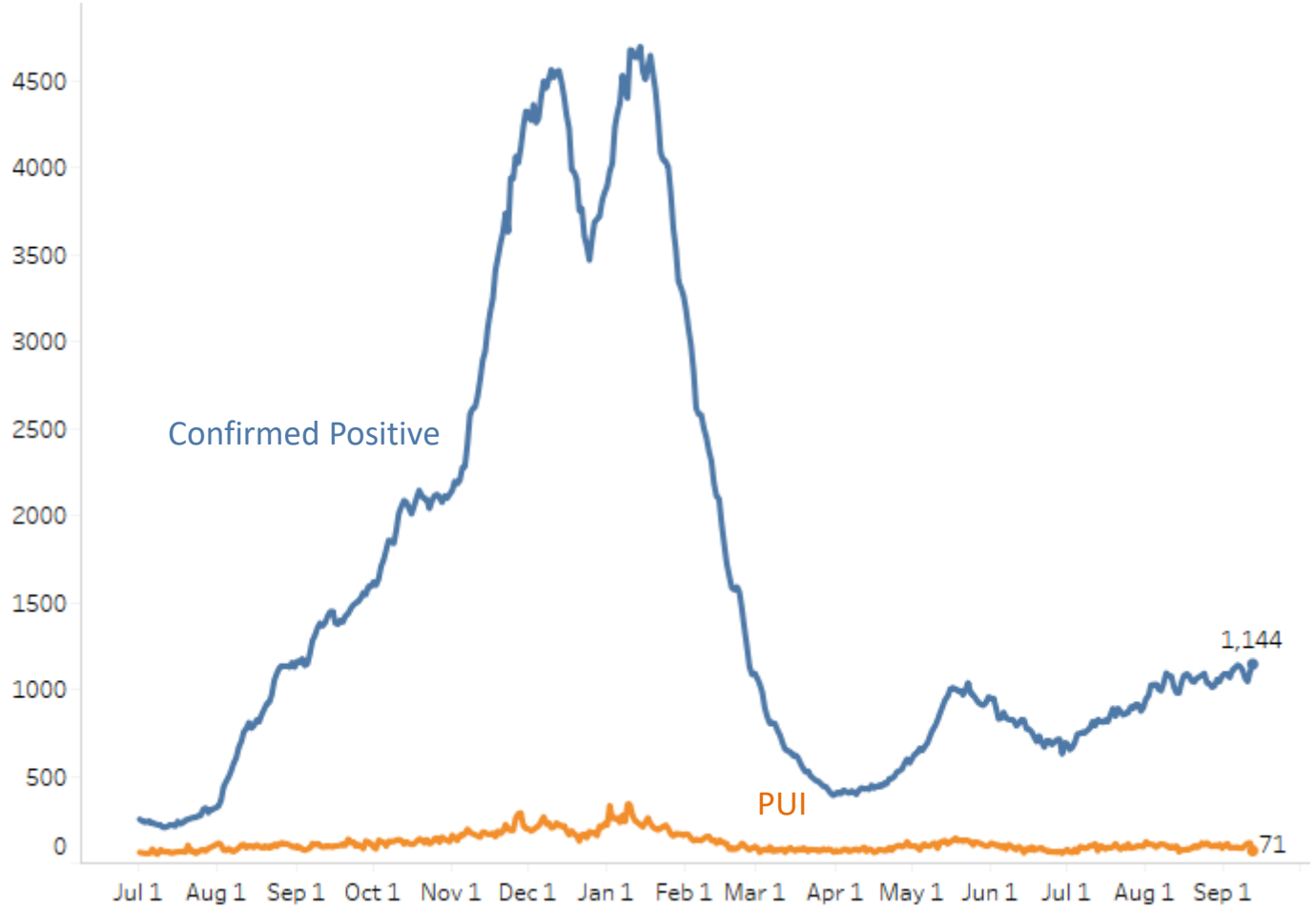
* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Hospital Admission data reflects date data was submitted
Source: CHECC and EM Resource

- Through September 12, there were an average of 152.7 hospital admissions per day due to COVID-19; a decrease from last week (-5%, -8)
- Only those 12-17 and 50-59 saw increases this week
- This week, those between 30-39 years (-4/day) saw the greatest daily average decrease and the largest percent decrease (-31%)
- Average daily hospital admission count (41.7 hospital admissions per day) and average daily hospital admission rate (100.7 hospital admissions/million) was highest among those aged 80+
- Those 60-69, 70-79, and 80+ are seeing between 25 and 42 daily hospital admissions

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

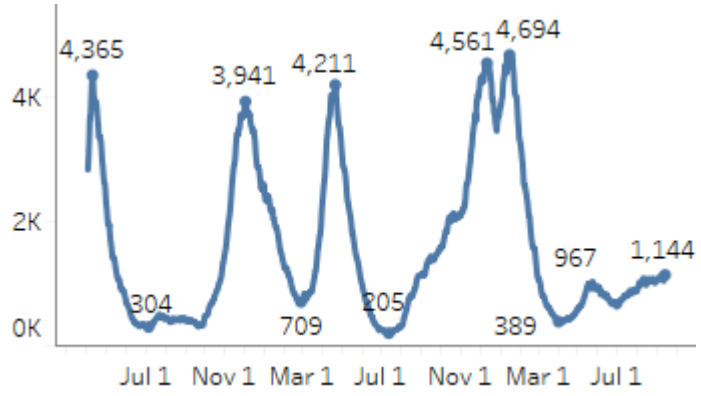
Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 7/1/2021 – 9/12/2022
Confirmed Positive & Persons Under Investigation (PUI)



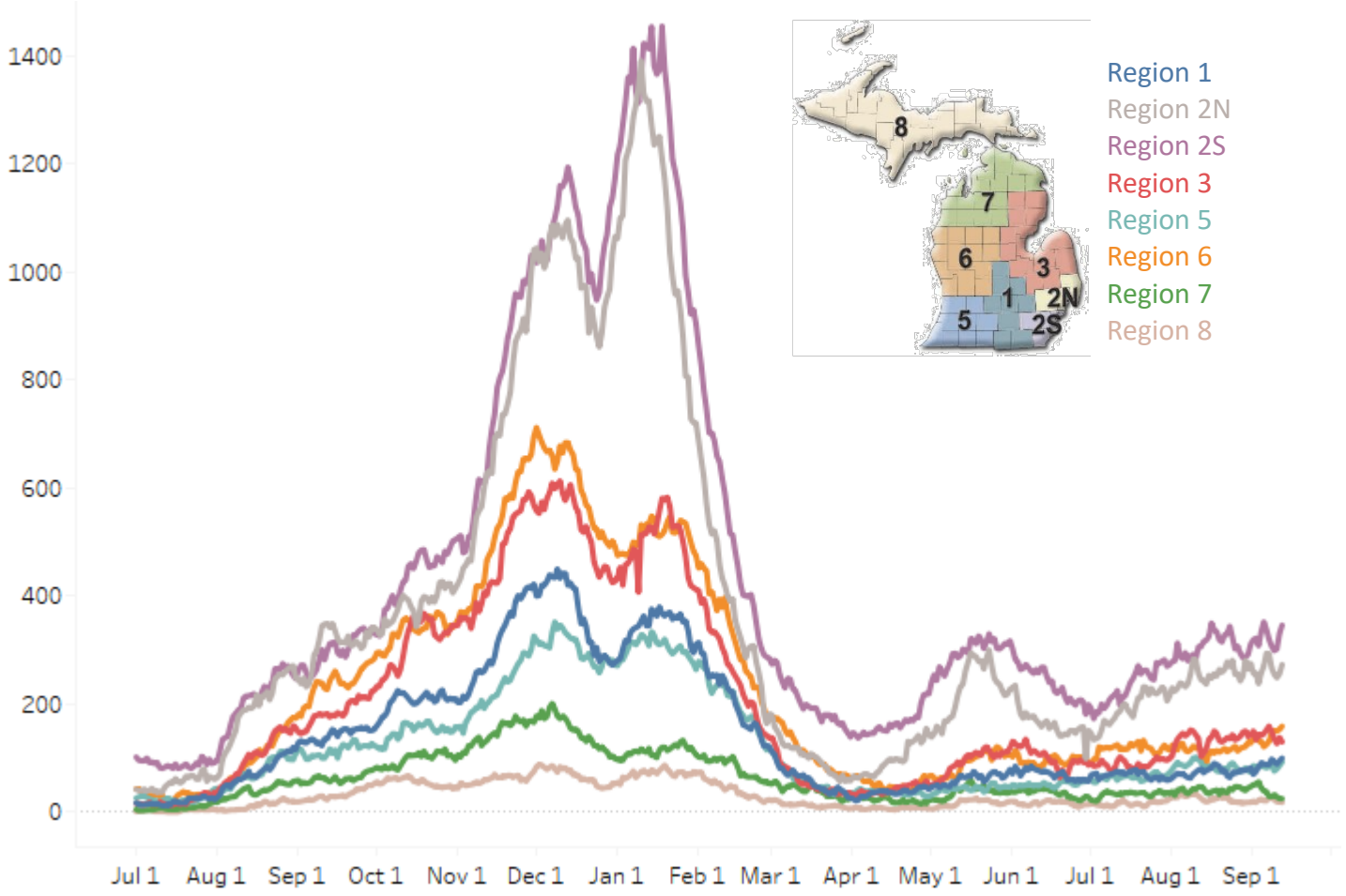
COVID+ census in hospitals has remained flat from last week. Overall census is currently 1,144 patients.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 9/12/2022
Confirmed Positive by Region



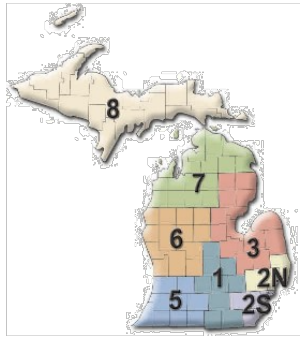
This week hospitalizations have increased in Regions 1, 2S, 5, and 6. Hospitalizations have decreased or remained flat in Regions 2N, 3, 7 and 8.

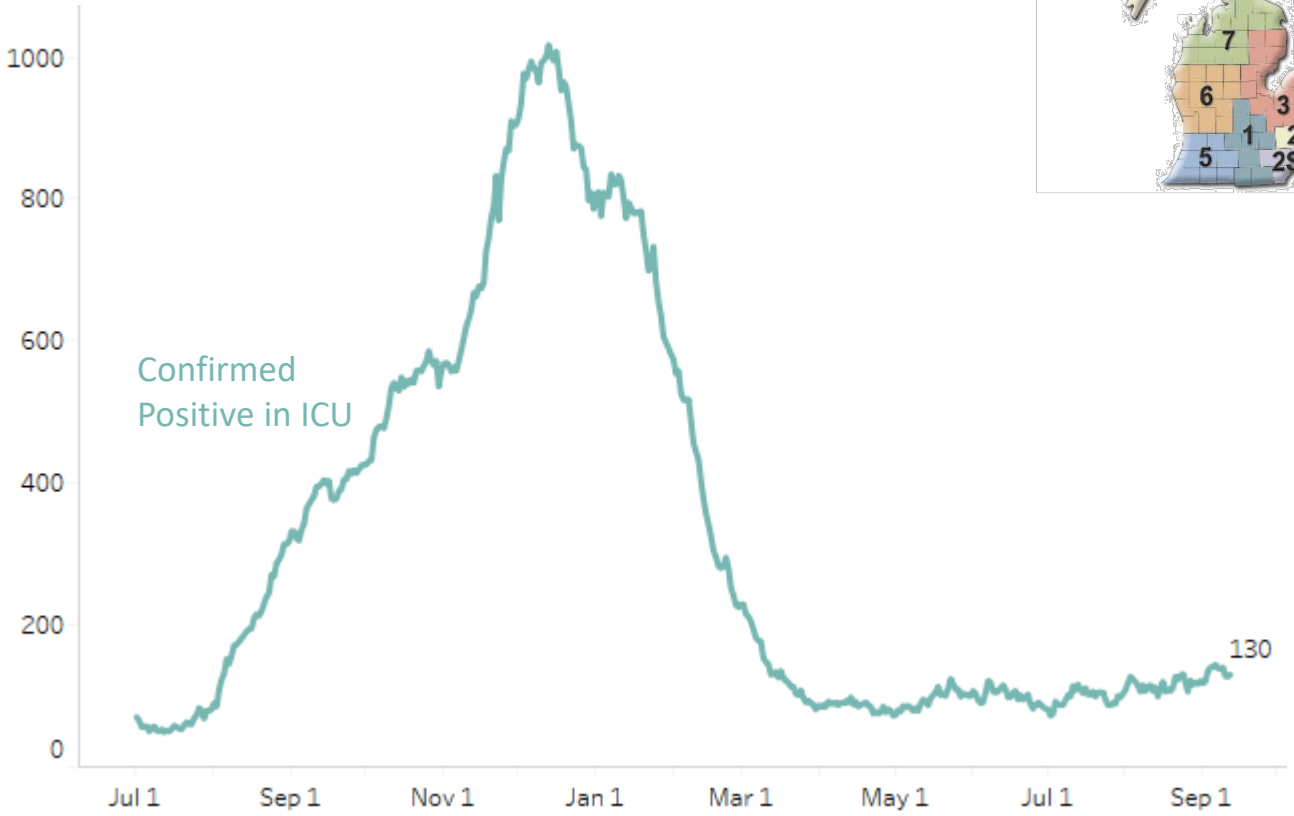
Regions 2N, 2S, 3, and 6 have greater than 100 hospitalizations/M.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	100 (14%)	92/M
Region 2N	273 (-7%)	123/M
Region 2S	346 (2%)	155/M
Region 3	130 (-14%)	115/M
Region 5	93 (13%)	98/M
Region 6	159 (27%)	108/M
Region 7	25 (-34%)	50/M
Region 8	18 (-14%)	58/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 9/12/2022
Confirmed Positive in ICUs



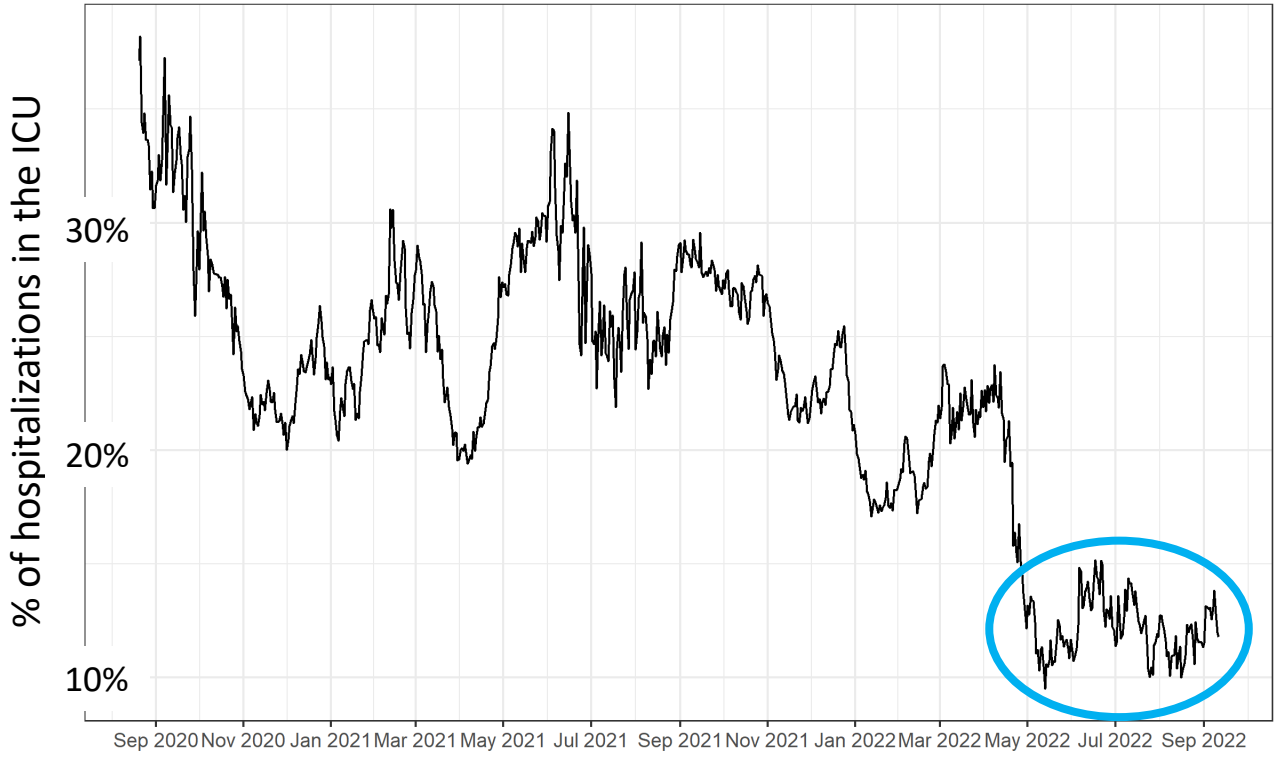


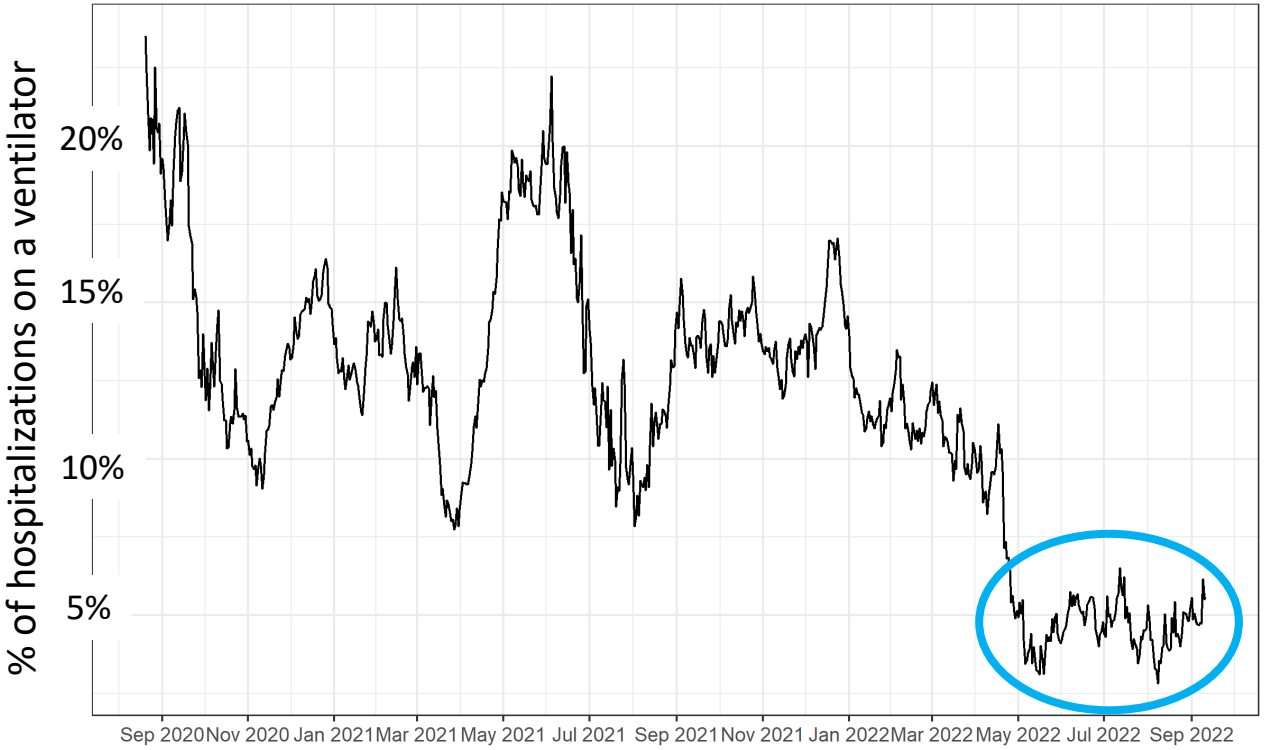
Overall, the volume of COVID+ patients in ICUs has decreased by 10% from last week. There are 130 COVID+ patients in ICU beds across the state.

ICU occupancy is less than 85% in all regions except Region 3. All regions have fewer than 10% of ICU beds occupied by COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	12 (20%)	78%	7%
Region 2N	23 (-38%)	67%	4%
Region 2S	49 (-13%)	74%	7%
Region 3	20 (43%)	87%	7%
Region 5	6 (-25%)	70%	3%
Region 6	11 (83%)	75%	5%
Region 7	6 (-25%)	82%	4%
Region 8	3 (-40%)	62%	5%

Recent months have seen the lowest % of hospitalizations in the ICU or on a ventilator over the entire pandemic





- Testing, hospitalizations, and ICU usage have all changed substantially over the pandemic
- Currently seeing lower % of hospitalizations in the ICU or on a ventilator compared to earlier in the pandemic, likely due in part to vaccination and increased availability of treatment

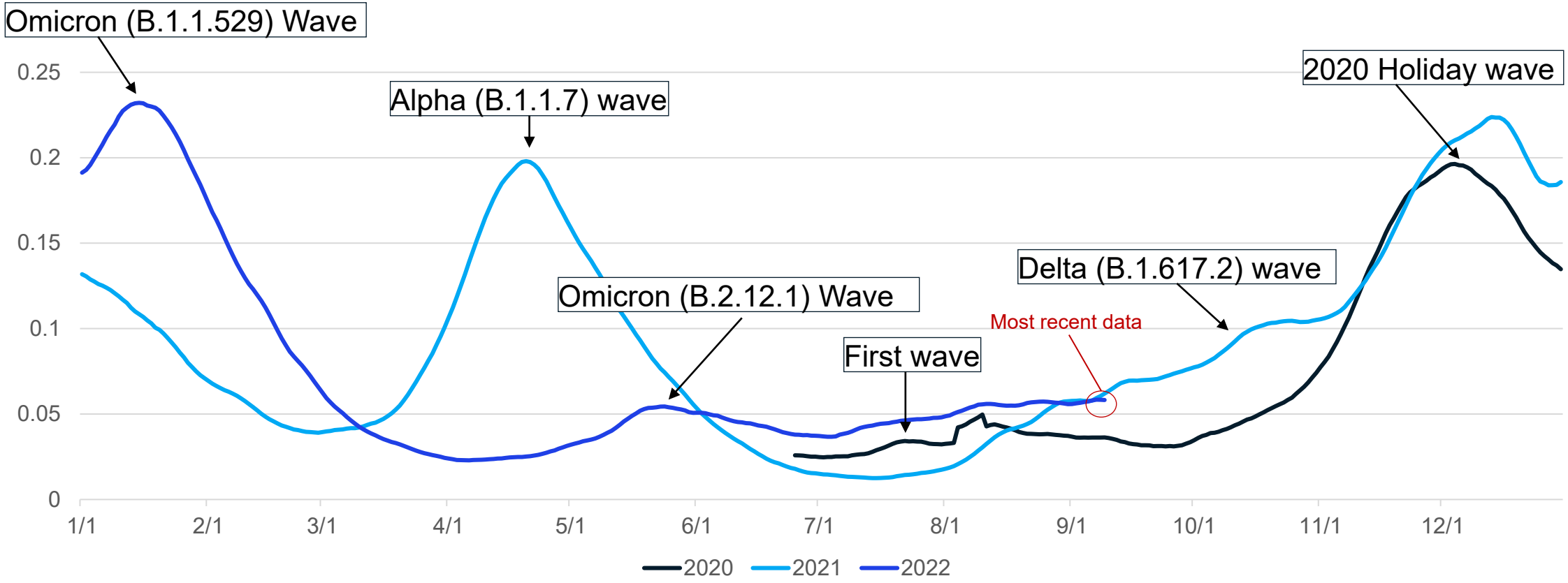
Statewide Hospitalization Trends: Pediatric COVID+ Census

Hospitalization Trends 1/1/2021 – 9/12/2022
Pediatric Hospitalizations, Confirmed + PUI

Percent of Inpatients with COVID is Similar to One Year Ago During the Delta Wave

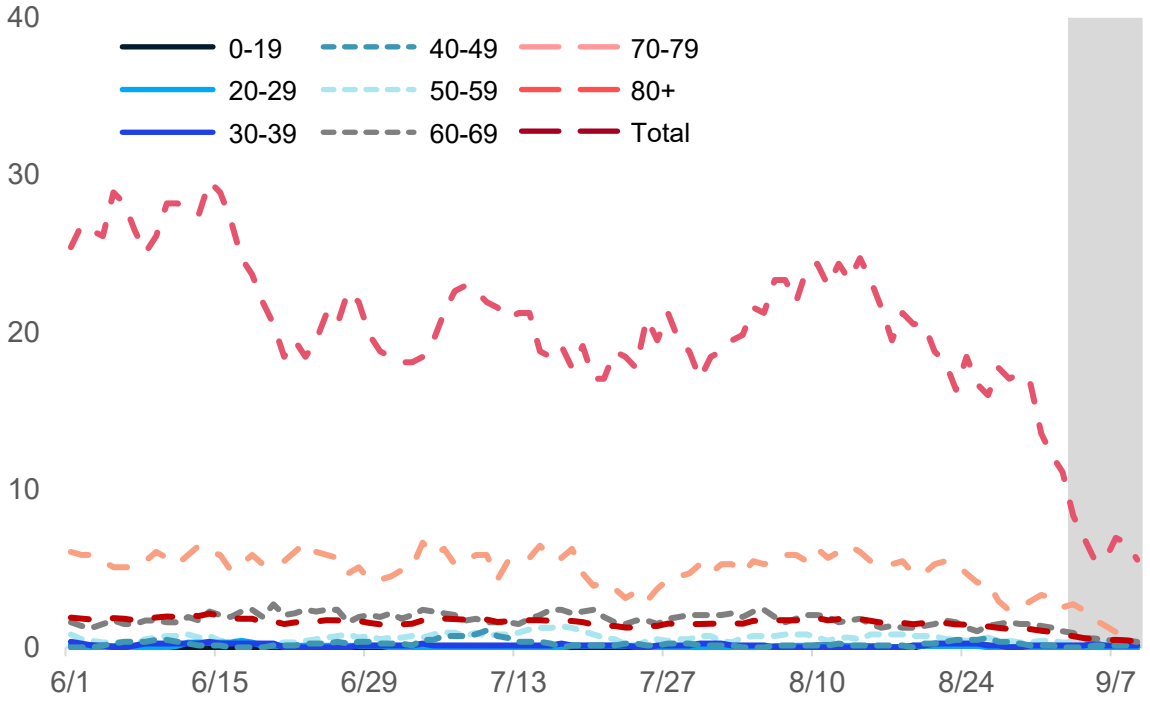
- The percent of inpatients who are COVID+ remains lower than Alpha, Omicron, and holiday wave peaks
- Current hospital levels are similar to last summer's levels as we head into fall

7-day rolling average of percent of inpatients who are COVID positive



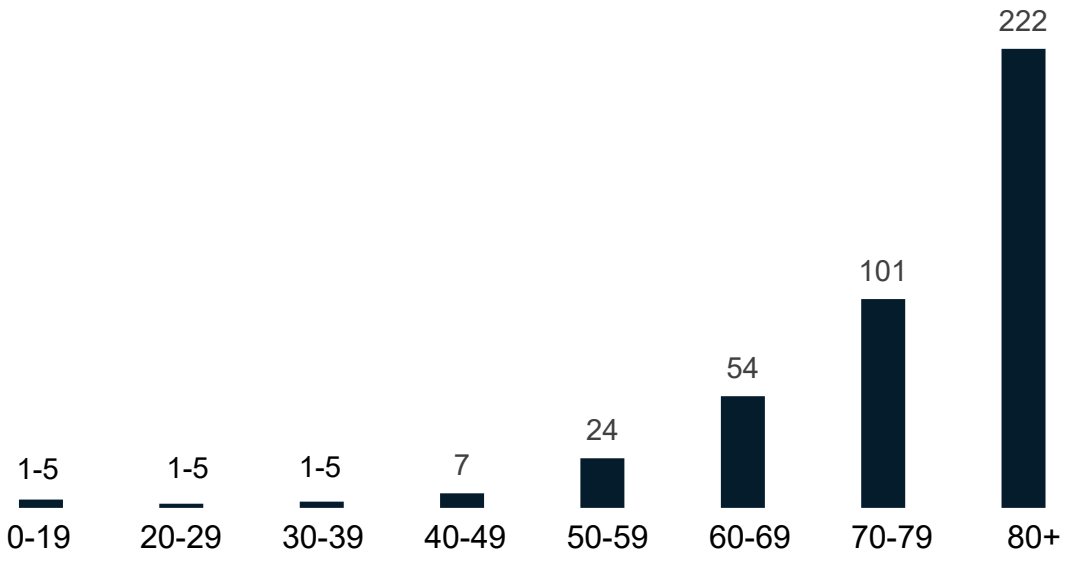
Average new deaths have plateaued for those over the age of 80

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 9/2/2022)

- 9.6% of deaths below age sixty



- Through 9/2, the 7-day avg. death rate has plateaued (11.1 deaths per million people) for those over the age of 80
- In the past 30 days, there are fewer than 20 confirmed and probable COVID-19 deaths under the age of 50
- 30-day proportion of deaths among those under 60 years of age is 9.6%.

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

Harm Reduction: Key Messages

Empowering community members to make best choices for their individual circumstances and to be prepared by making a COVID plan

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

- Get tested, and if positive, seek care with therapeutics (e.g., antibodies or antiviral medications)
  - Cumulative therapeutic availability and administration is lower than but near all-time highs from early August
  - Talk to your doctor or pharmacist about whether you should get antibody or antiviral treatment, and where you can find treatment
  - Therapeutics are authorized for people who meet select criteria
  - Additional public health, regulatory, and policy efforts might help decrease barriers to oral antiviral access, particularly in communities with high social vulnerability

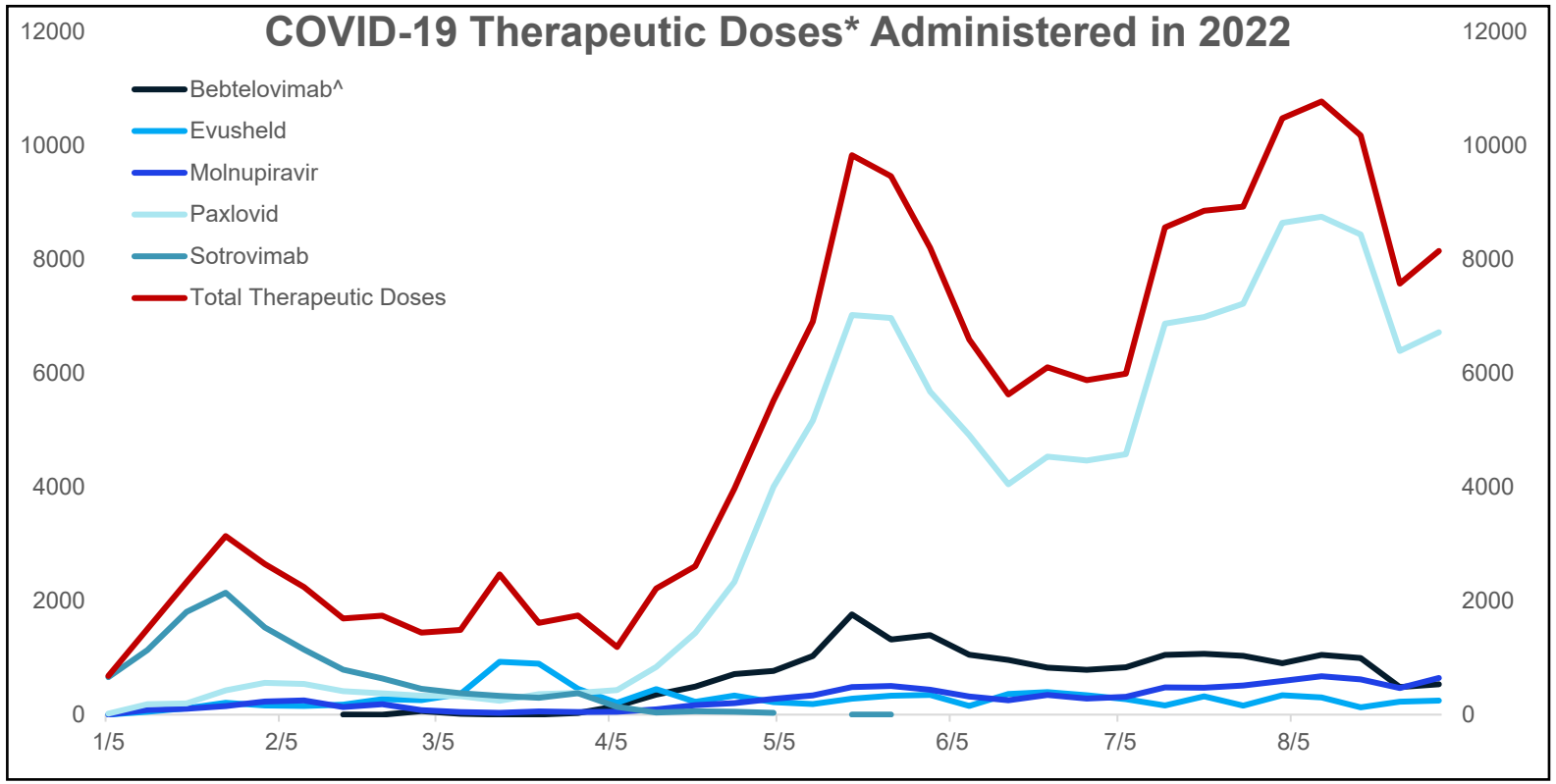
- Vaccinations remain the best way to protect from COVID-19, especially from severe disease
  - COVID-19 vaccines are now available for ages 6 months and up
    - Everyone 6 months and older should also get an age-appropriate COVID-19 booster, when eligible
  - Data tracker now includes Novavax administration
  - Over 6.8 million Michiganders have received at least one dose (68.1%)
  - 56.4% of fully vaccinated Michiganders have received at least one booster
  - 34.6% of people in Michigan (755K+) with a first booster dose have received a second booster dose

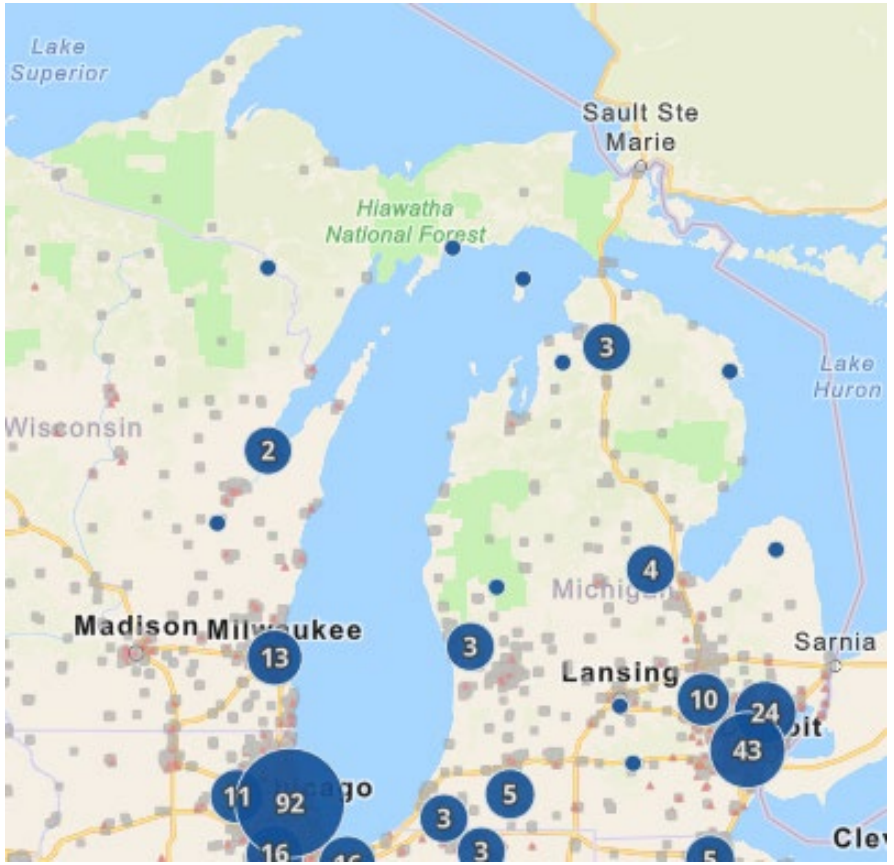
Federal & Michigan websites assist COVID positive residents find treatment

COVID-19 resources available on federal website: 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.

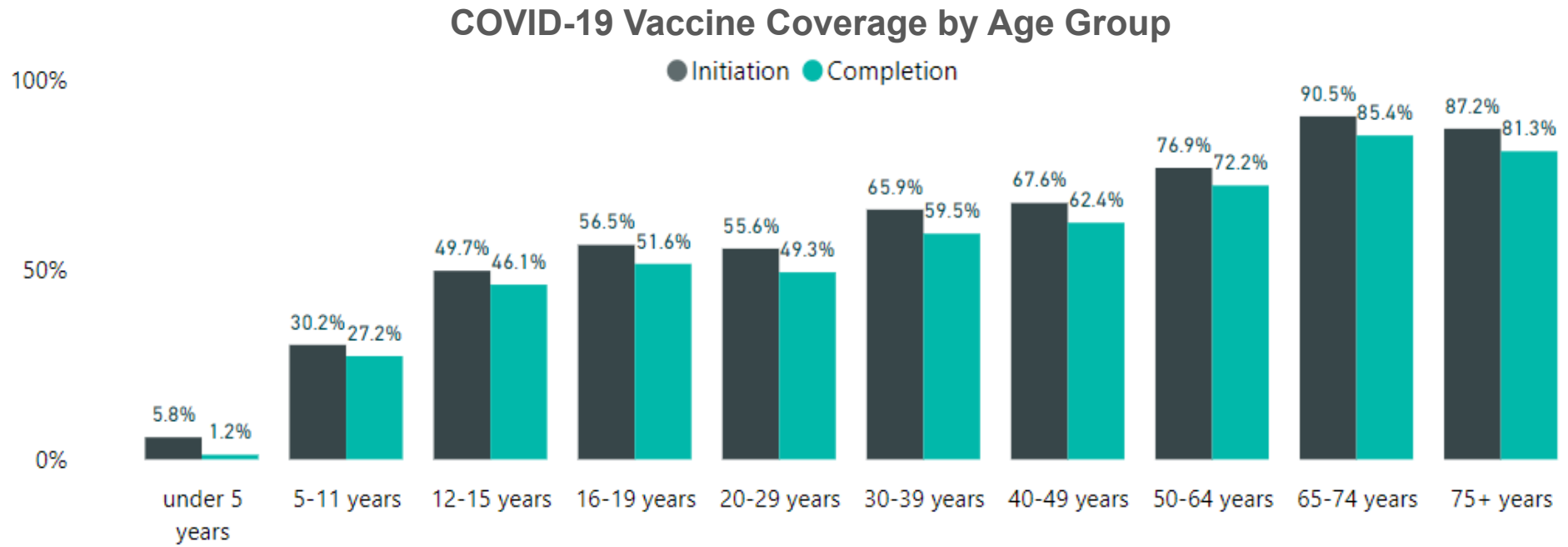
Source: HHS – Tiberius

*Data is reported as a single patient course, except for Evusheld, which is reported as the number of 300mg doses administered. Data Updated September 5

^Federally supplied Bebtelovimab has concluded, and product has transitioned to the commercial marketplace

Vaccinations and Boosters

- Over 16.7 million COVID-19 vaccine doses have been administered in Michigan
  - Over 6.8 million Michiganders have received at least one dose (68.1%)
  - Over 6.1 million Michiganders have completed a primary series (61.1%)
  - Over 3.4 million additional/booster doses have been administered in Michigan
    - 56.4% of the fully vaccinated population has received a booster
    - 77.9% of the fully vaccinated population 65 years of age or older has received a booster
  - Nearly 755,595 Michiganders 50 years of age or older who have received a first booster dose have received second booster (34.6%)

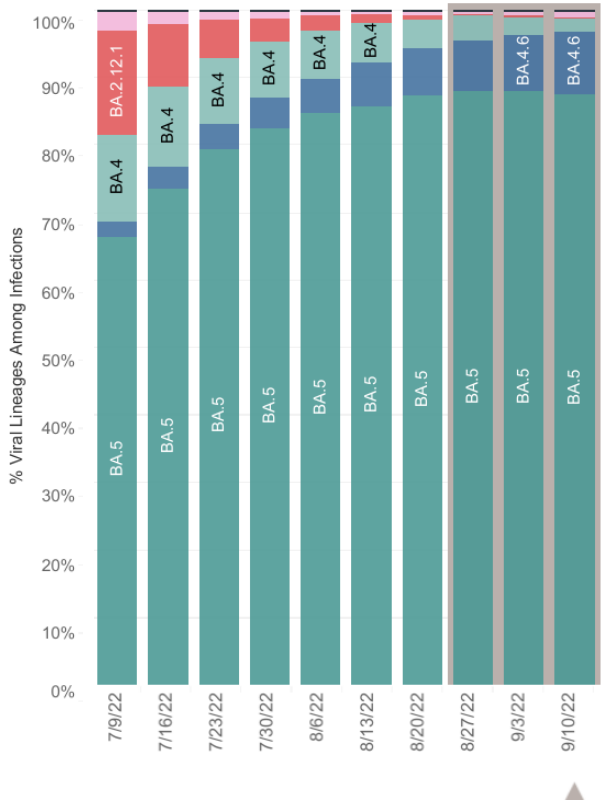


Note: Cumulative data and population percentages now include those ages 6 months and older

Sources: Michigan Coronavirus Vaccine Dashboard; CDC COVID-19 Data Tracker: Vaccine Coverage Dashboard

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan: Predominately BA.5 and BA.4 lineages

SARS-CoV-2 Variants Circulating in the United States, Jul 3– Sep 10 (NOWCAST)

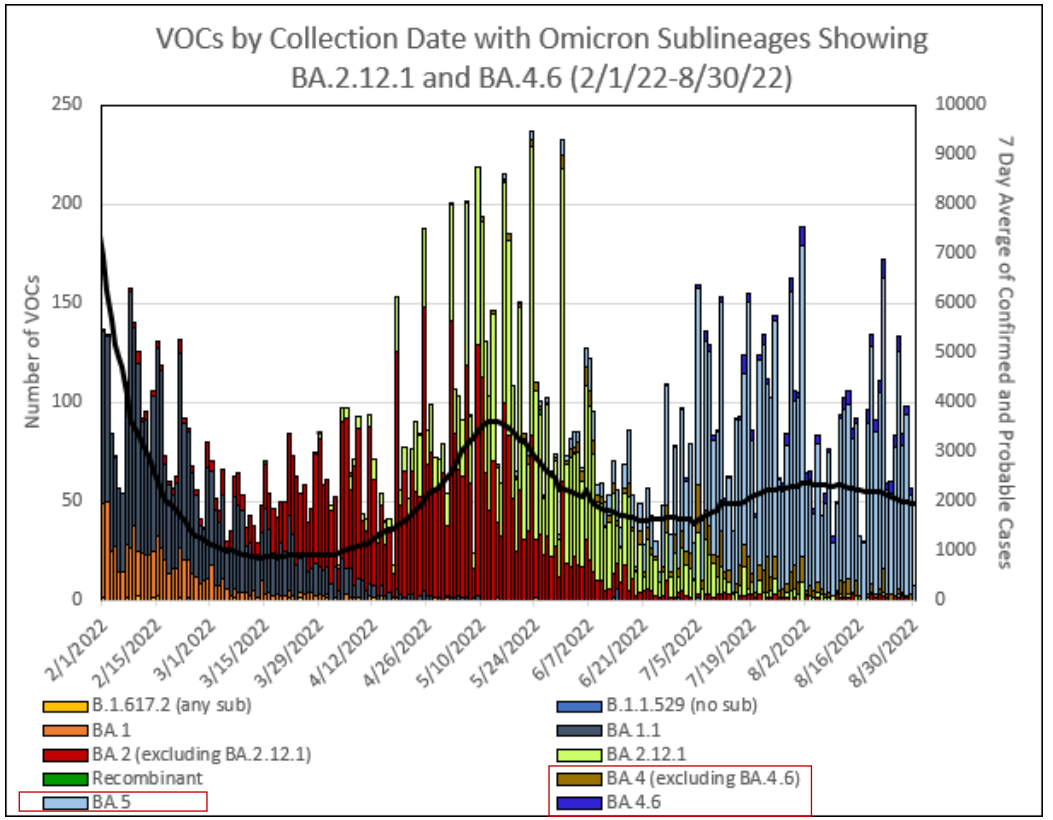


USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BA.5	VOC	87.5%	86.2-88.7%
	BA.4.6	VOC	9.2%	8.1-10.4%
	BA.4	VOC	2.2%	2.1-2.4%
	BA.2	VOC	1.0%	0.6-1.7%
	BA.2.12.1	VOC	0.1%	0.1-0.1%
	B.1.1.529	VOC	0.0%	0.0-0.0%
	BA.1.1	VOC	0.0%	0.0-0.0%
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%
Other	Other*		0.0%	0.0-0.0%

* 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, BA.2 sublineages are aggregated with BA.2. Except BA.4.6, sublineages of BA.4 are aggregated to BA.4. Sublineages of BA.5 are aggregated to BA.5.

VOC Distribution in Michigan



- Since August 1, there have 2,430 VOC specimens sequenced
- 100% of specimens sequenced are Omicron, 88% of those are BA.5 lineage
  - Since August 1, only 10% of specimens sequenced and reported (n=236) have been identified as BA.4; however, 54% of those specimens are BA.4.6 (n=128)

Data last updated Sep 13, 2022
Source: CDC COVID Data Tracker: Genomic Surveillance and Michigan's MDSS; sequence data may take up to four weeks to process and get reported back to health departments

Bivalent (Omicron) Pfizer and Moderna COVID-19 vaccines available for booster shots in Michigan

- The Moderna and Pfizer bivalent boosters target two strains of COVID-19: the original strain of the virus and the widely spread Omicron variants (BA.4 and BA.5)

- **Who is eligible to receive a single bivalent booster dose and when**:
  - Individuals 18 years of age and older are eligible for a single booster dose of the bivalent **Moderna** COVID-19 vaccine if it has been at least two months since they completed primary vaccination or received the most recent booster dose with any authorized or approved monovalent COVID-19 vaccine
  - Individuals 12 years of age and older are eligible for a single booster dose of the bivalent **Pfizer-BioNTech** COVID-19 vaccine if it has been at least two months since they completed primary vaccination or received the most recent booster dose with any authorized or approved monovalent COVID-19 vaccine

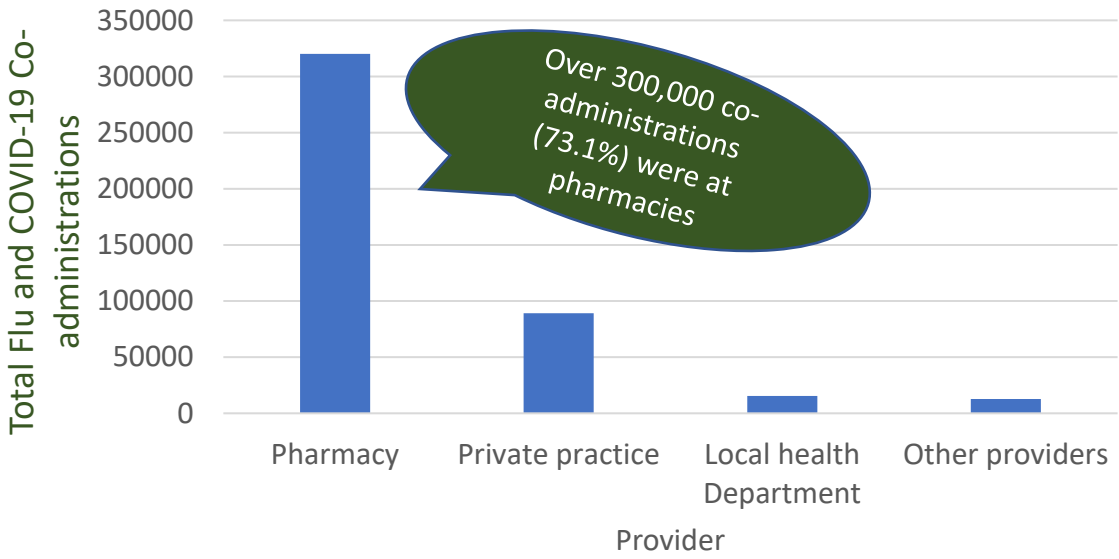
- Individuals may choose to receive either the Pfizer or Moderna bivalent booster, regardless of which primary series vaccine or original booster dose they had previously.
- Influenza vaccines, which are now available in Michigan, can also be co-administered with the COVID-19 bivalent booster doses

Sources: Michigan Department of Health and Human Services; FDA; CDC ACIP

Co-administration of Flu and COVID-19 Vaccines

- Coadministration of influenza and COVID-19 vaccines has proven to be safe and effective*[1], is recommended by the CDC[2], and provides an efficient way to immunize the population against two potentially serious illnesses
- During the 2021-2022 season, 13.4% (413,101/3,075,658) of all flu vaccines administered in Michigan were co-administered with COVID-19 vaccines and highest among 18–49-year-olds
  - Pharmacies reported the most coadministrations of flu and COVID vaccines during this season
- Educational outreach to pharmacies, other health care providers, and the general public to co-administer flu and COVID vaccines can be an effective strategy to enhance immunizations

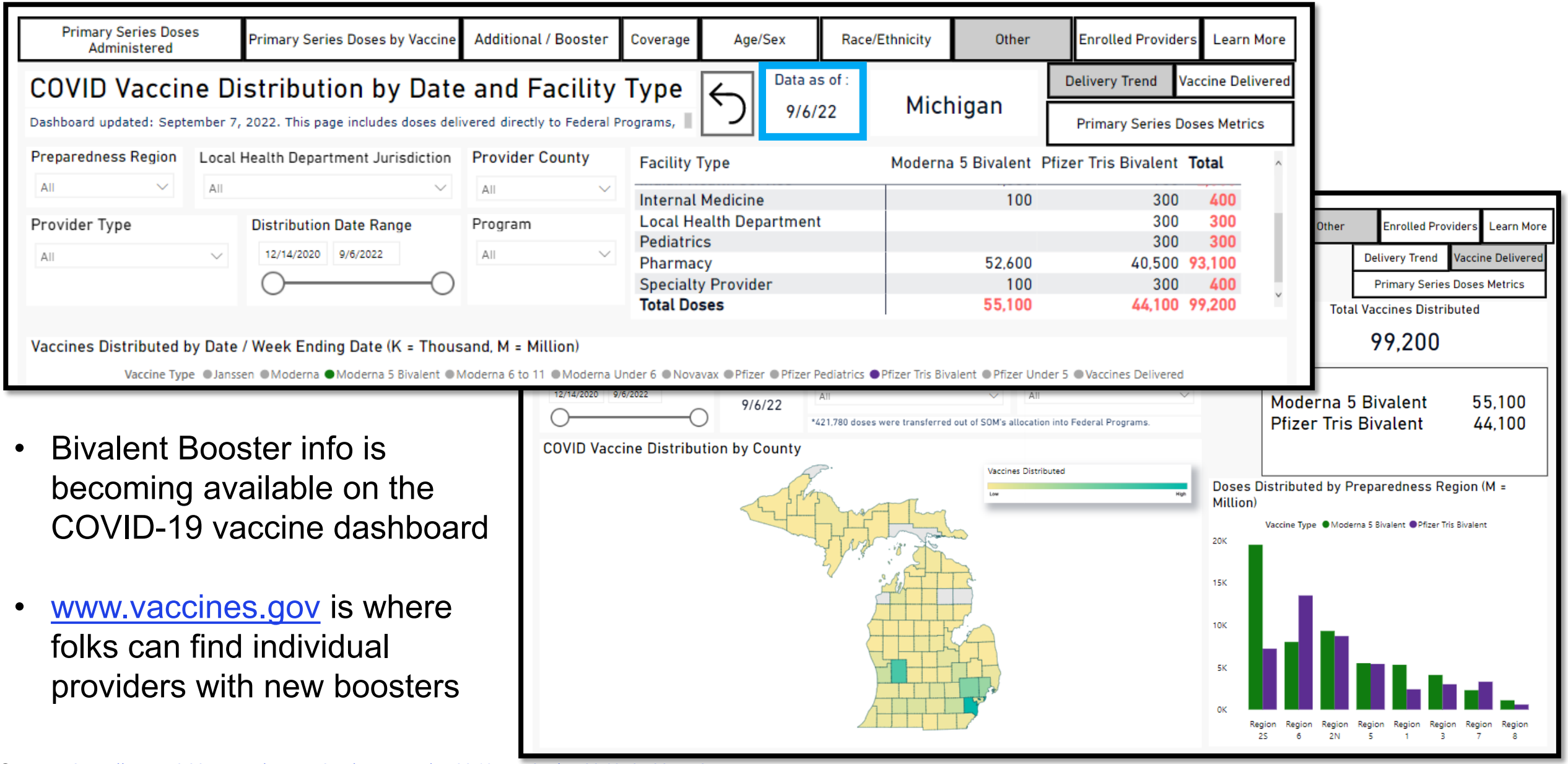
Age group	Flu-COVID Coadministrations (%)
5 – 11 years	283 (0.1%)
12 – 17 years	11,144 (2.5%)
18 – 49 years	161,949 (37.0%)
50 – 64 years	114,210 (26.1%)
65 years and above	150,025 (34.3%)



* Routine vaccinations for all persons aged ≥ 6 months who do not have contraindications

Sources: Michigan Department of Health and Human Services: Division of Immunization; **1.** Toback S, et al. Safety, immunogenicity, and efficacy of a COVID-19 vaccine (NVX-CoV2373) co-administered with seasonal influenza vaccines: an exploratory substudy of a randomised, observer-blinded, placebo-controlled, phase 3 trial. Lancet Respir Med. 2022 Feb;10(2):167-179. doi: 10.1016/S2213-2600(21)00409-4. Epub 2021 Nov 17. **2** Grohskopf LA et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2021–22 Influenza Season. MMWR Recomm Rep 2021;70(No. RR-5):1–28. DOI: http://dx.doi.org/10.15585/mmwr.rr7005a1

COVID-19 Vaccine Dashboard Continues to be Updated on Wednesdays



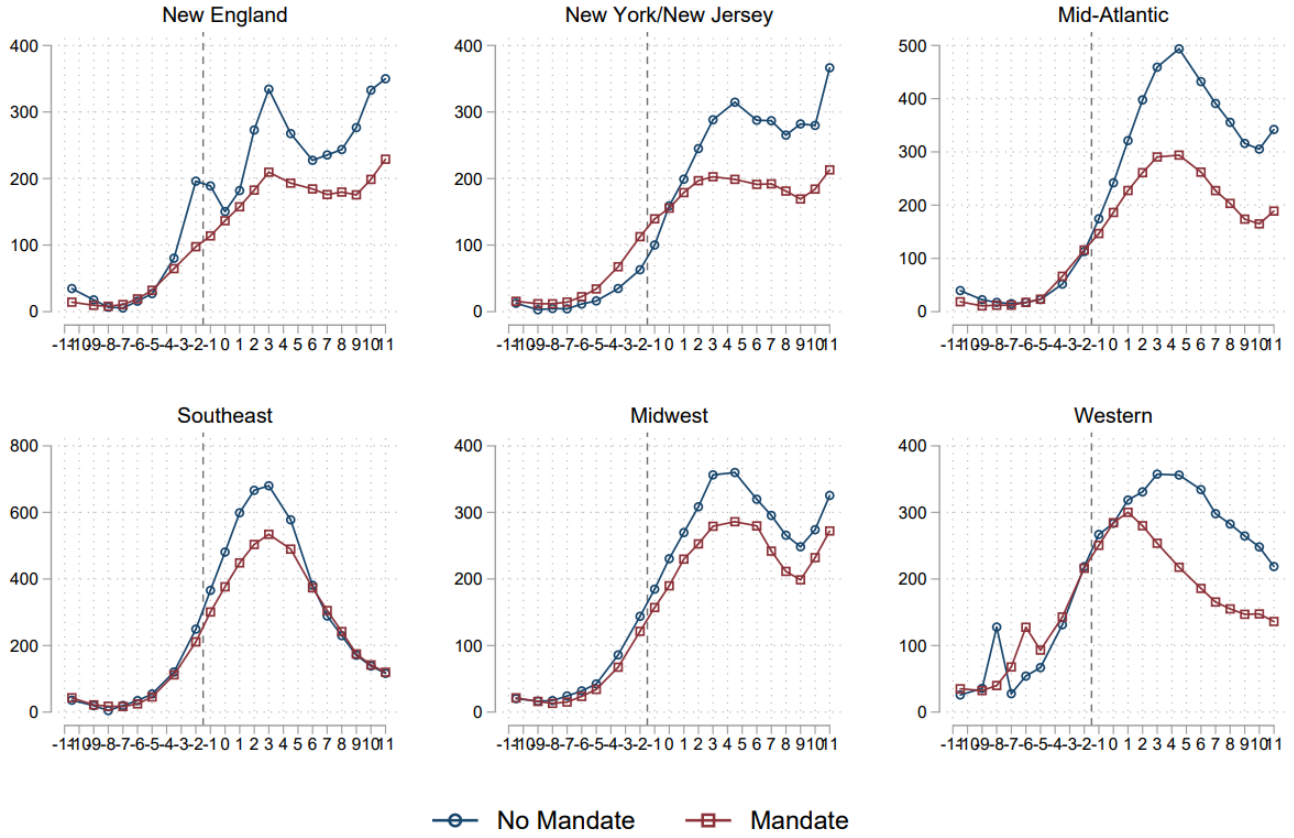
- Bivalent Booster info is becoming available on the COVID-19 vaccine dashboard
- www.vaccines.gov is where folks can find individual providers with new boosters

Sources: https://www.michigan.gov/coronavirus/resources/covid-19-vaccine/covid-19-dashboard

In Fall 2021, college vaccine mandates reduced cases and deaths in surrounding communities

- Study of 4-year colleges and surrounding counties over the first 13 weeks of Fall 2021
- In counties with colleges that had a vaccine mandate, COVID-19 cases were reduced by 339 per 100,000 people, and deaths reduced by 5.4 per 100,000 people
- College vaccine mandates estimated to have reduced total COVID-19 deaths **nationwide** in autumn 2021 by ~5%

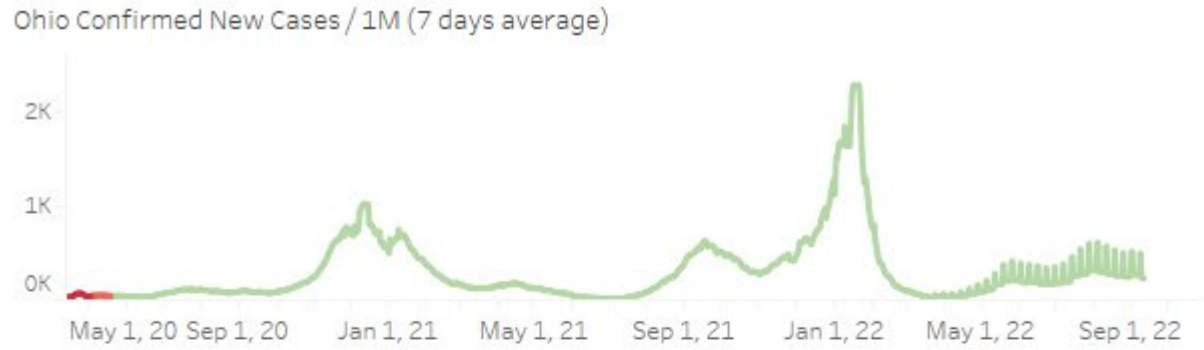
Figure 1: COVID-19 Cases by Region and Mandate Status

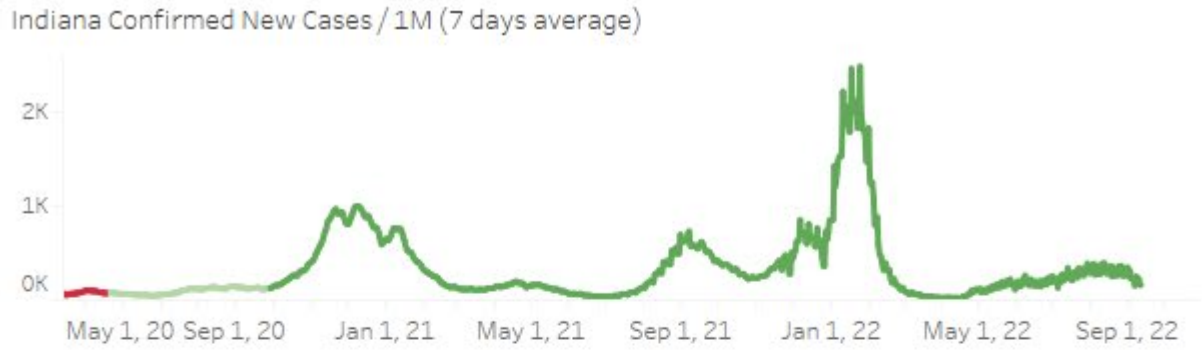


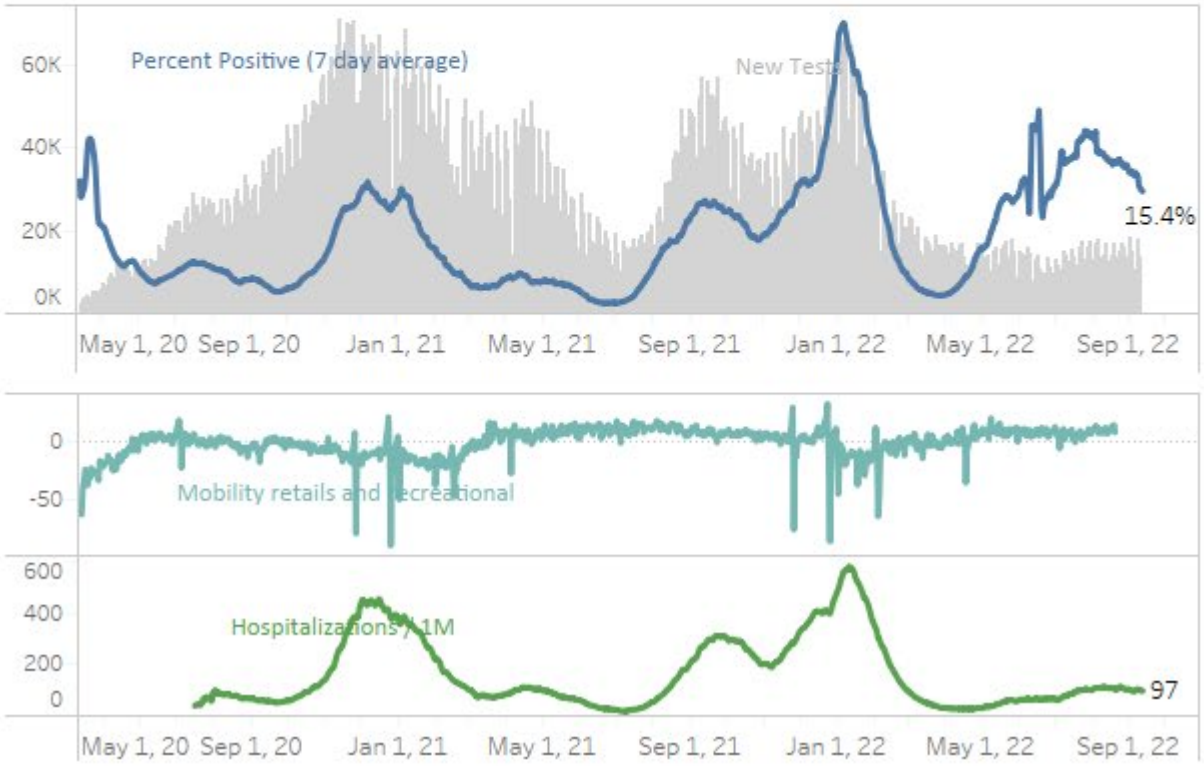
The Effect of Vaccine Mandates on Disease Spread: Evidence from College COVID-19 Mandates. Riley K. Acton, Wenjia Cao (MSU), Emily E. Cook (MSU), Scott A. Imberman, and Michael F. Lovenheim, NBER Working Paper No. 30303. July 2022. JEL No. H75,I18,I23

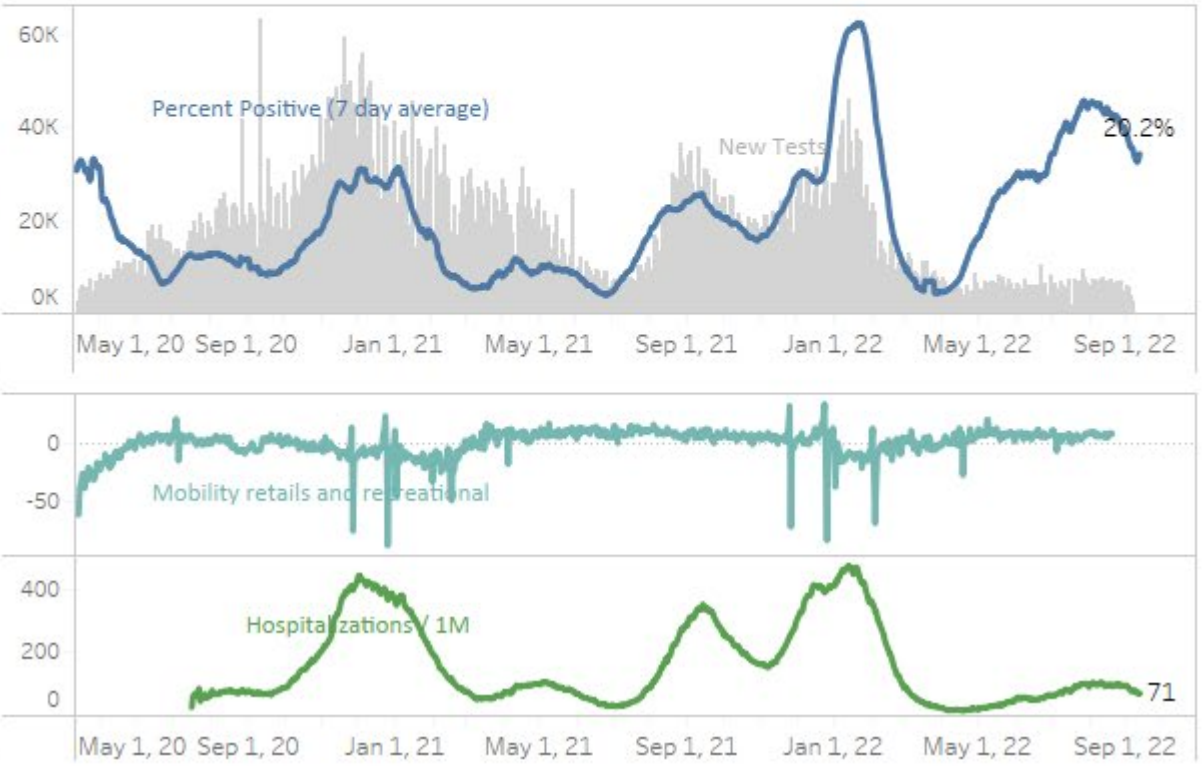
APPENDIX

Ohio, Indiana

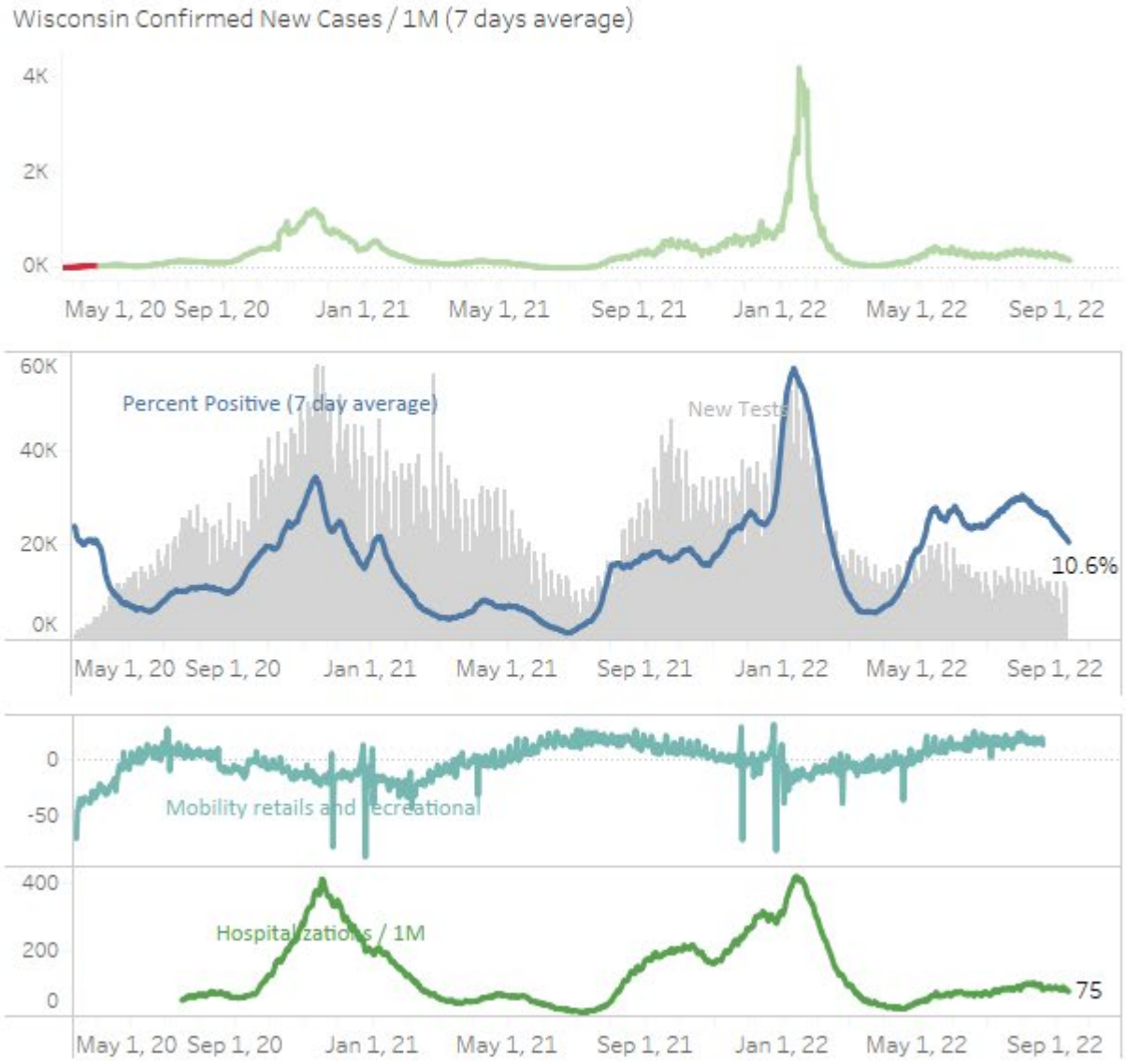


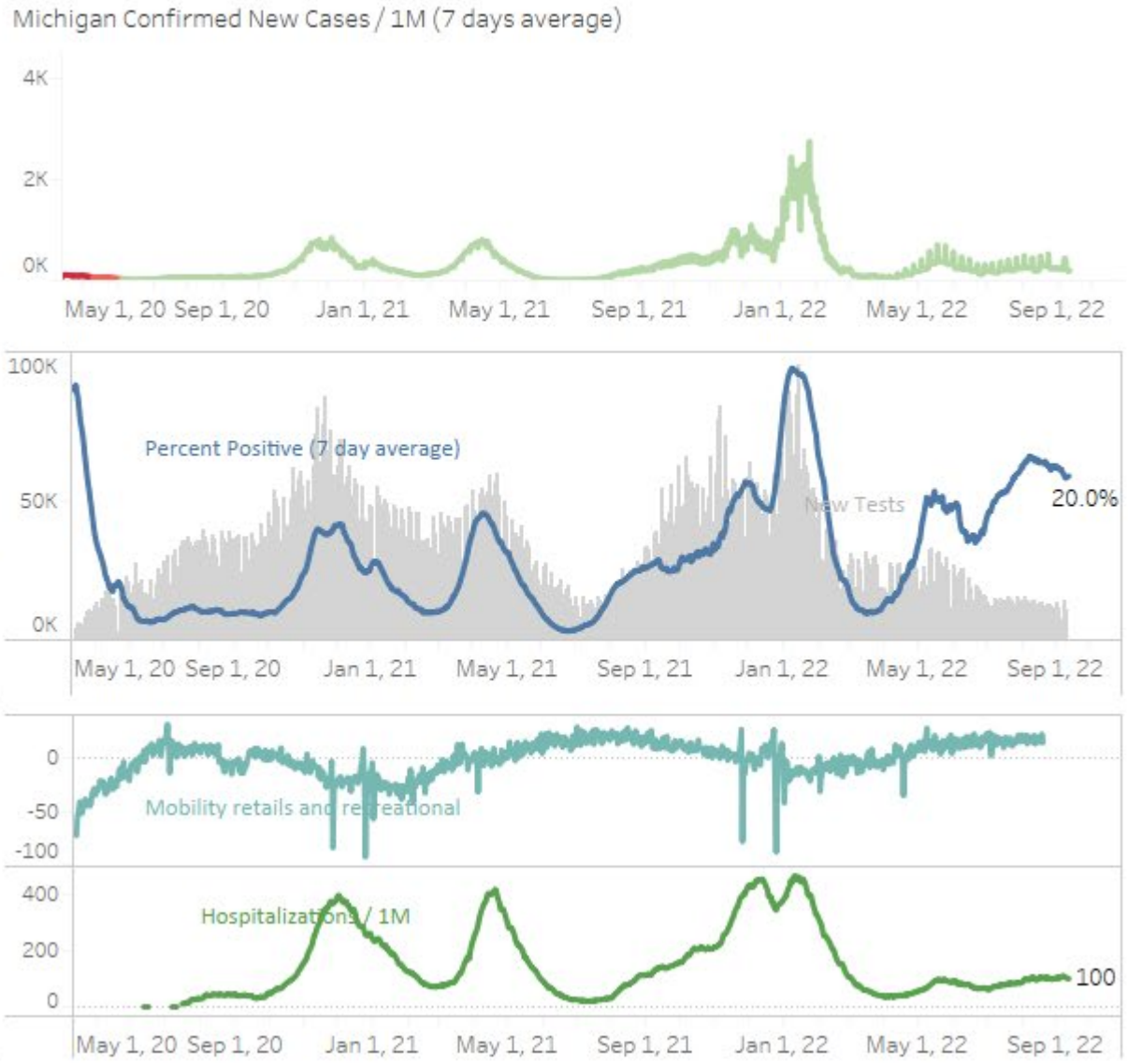




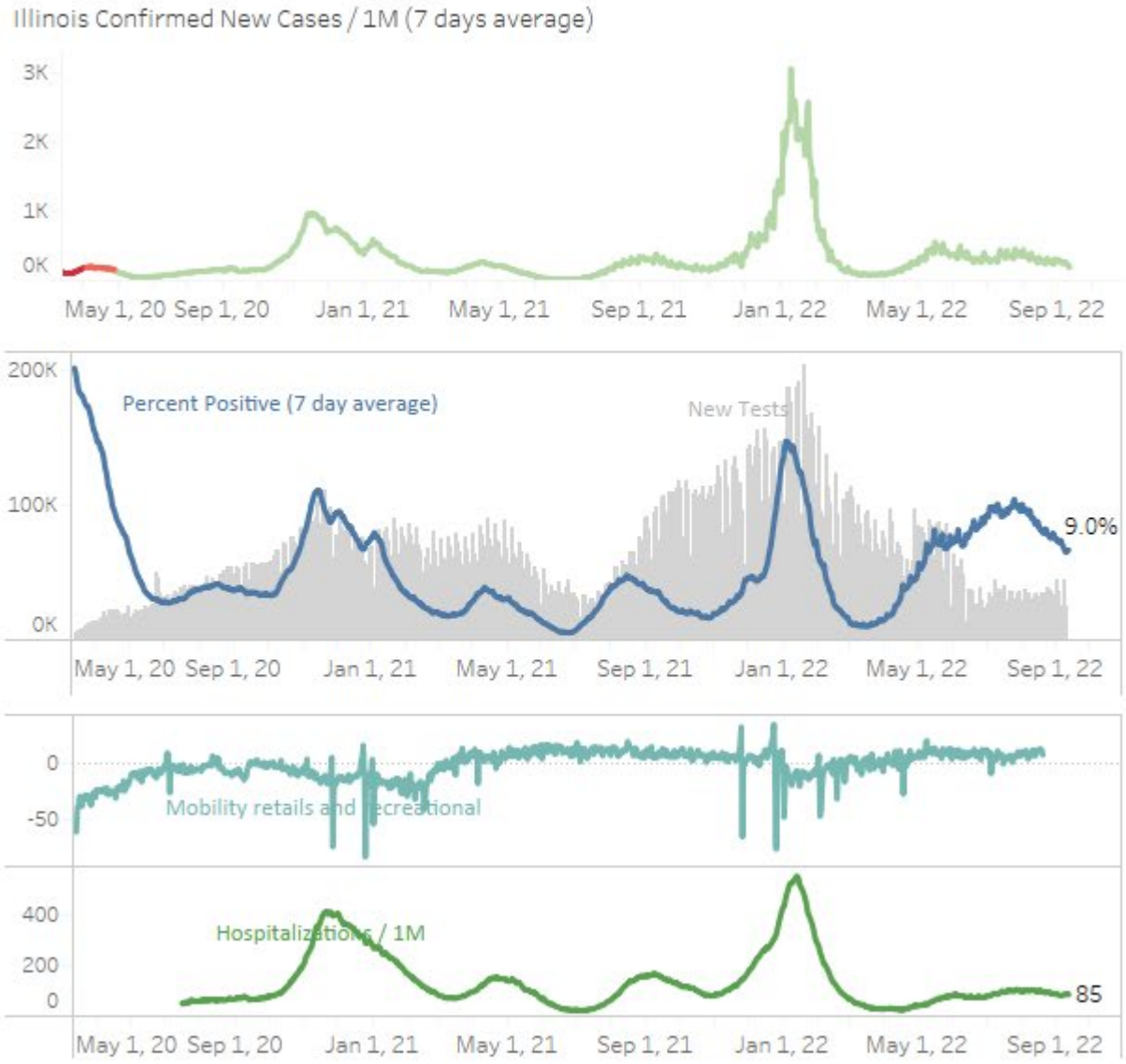


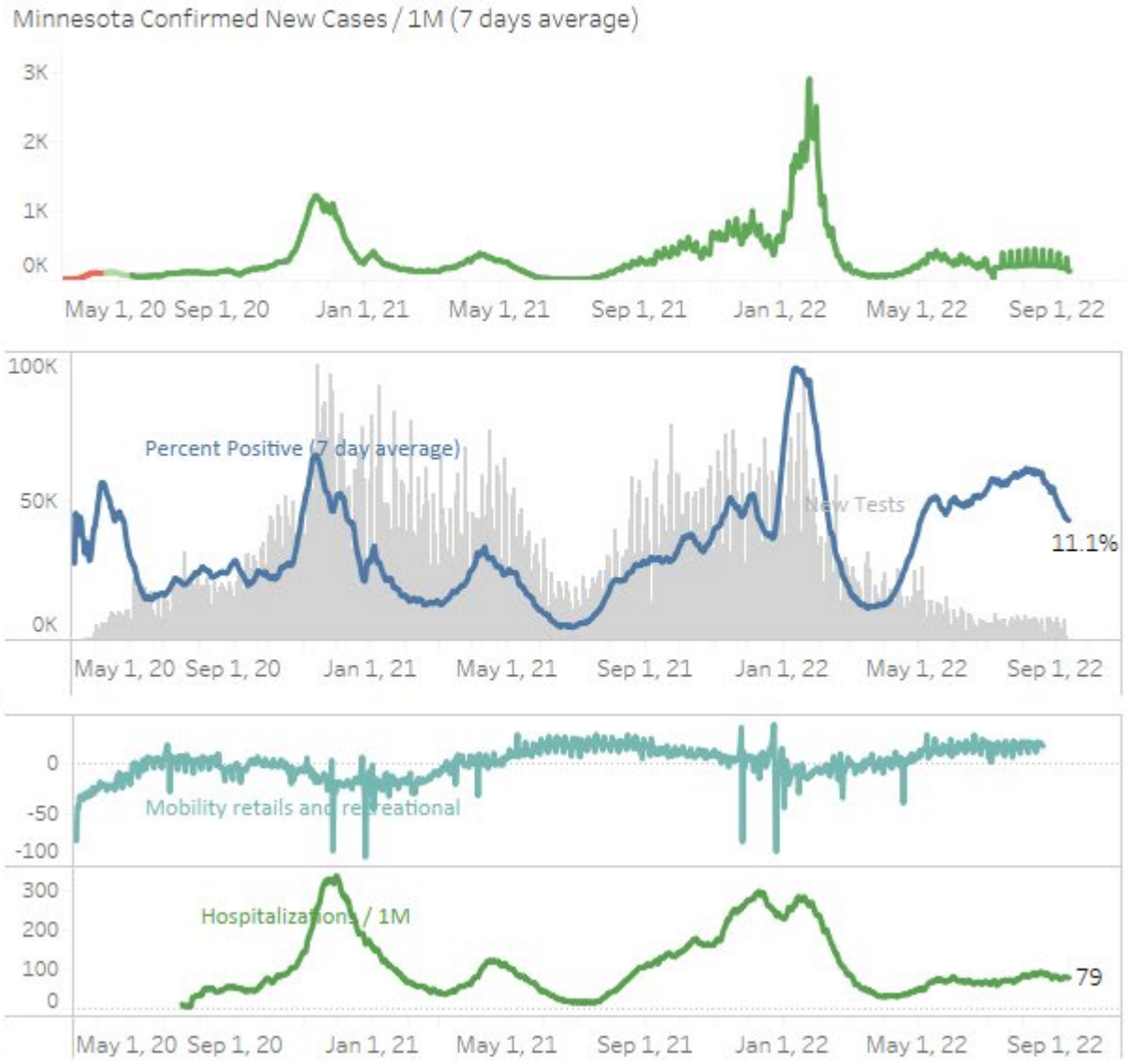
Wisconsin, Michigan



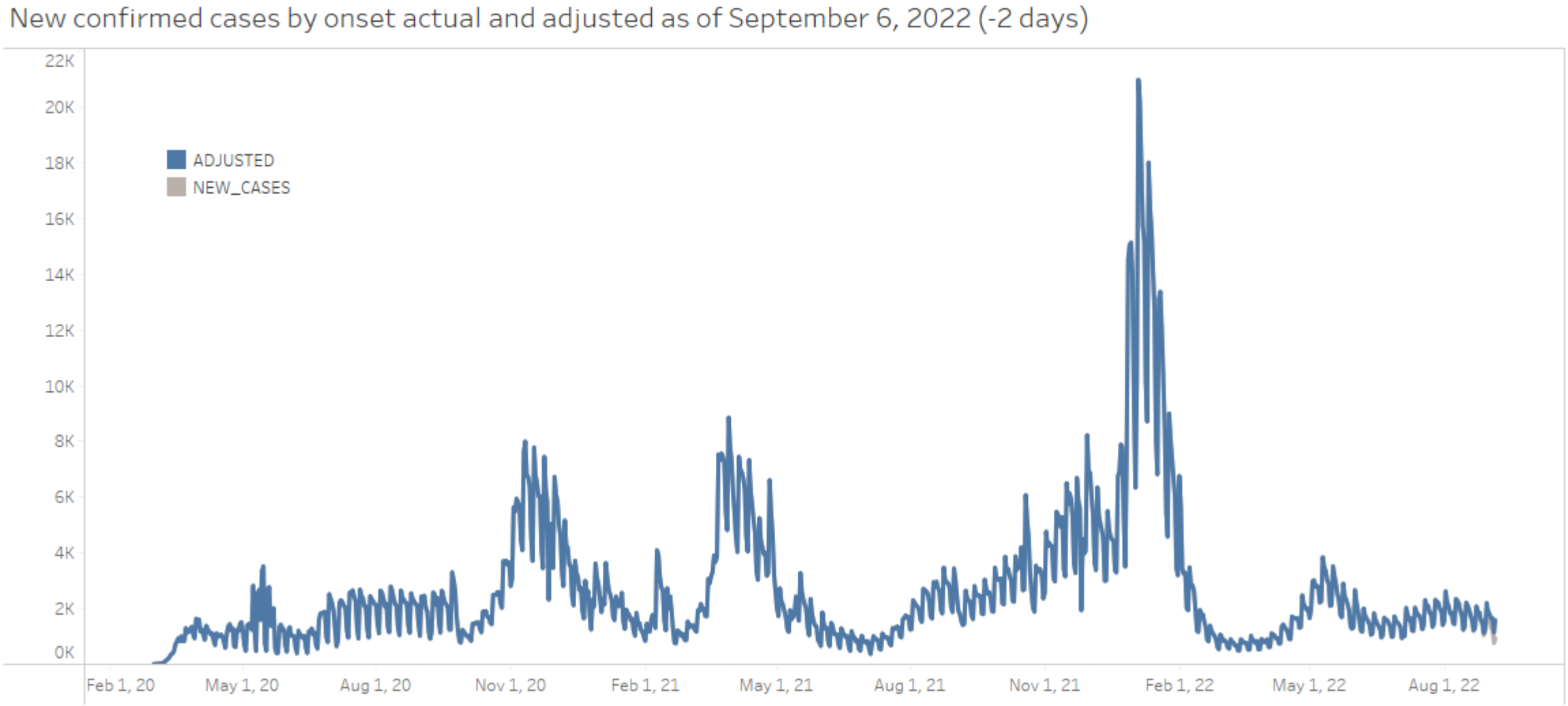


Illinois, Minnesota

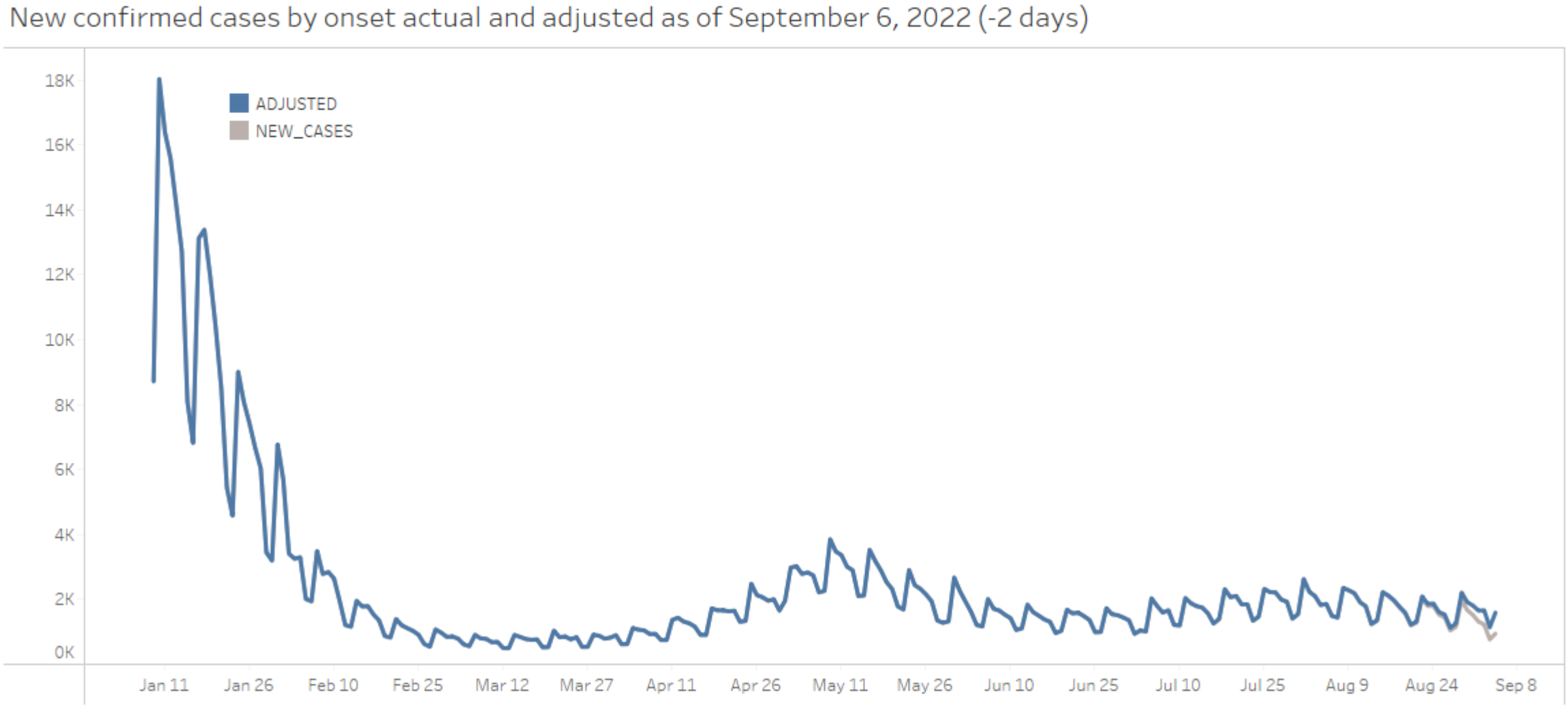




Adjusted new cases by on-set

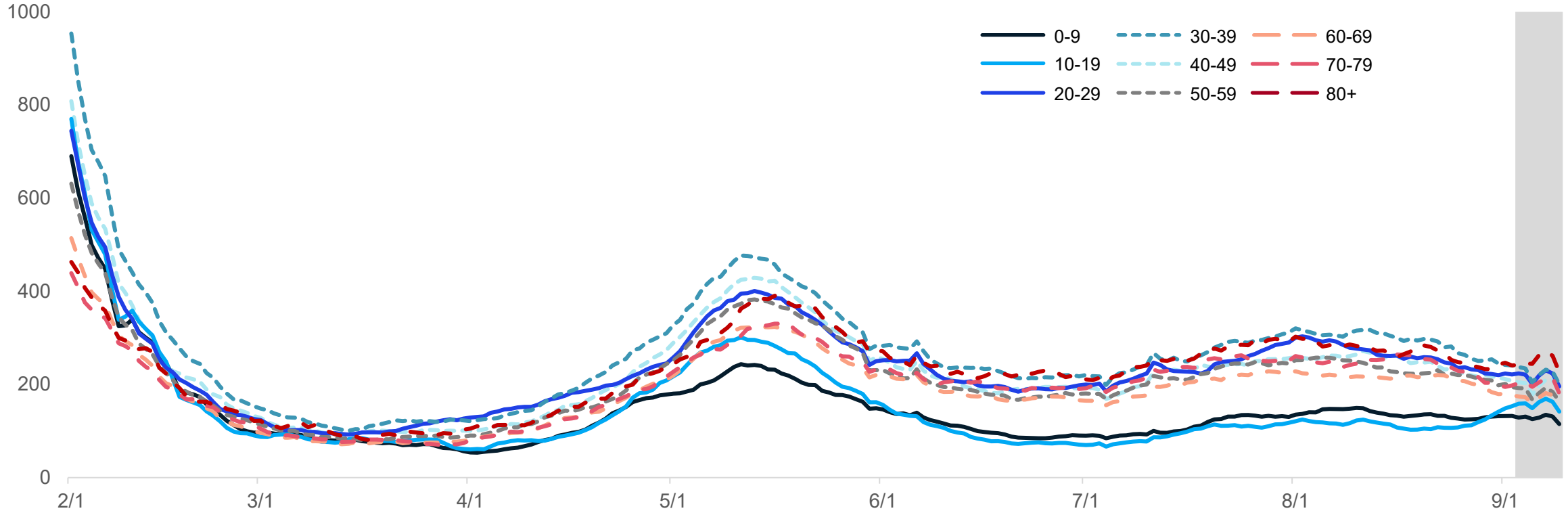


Adjusted new cases by on-set, recent trends



Case Rate Trends by Age Group

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

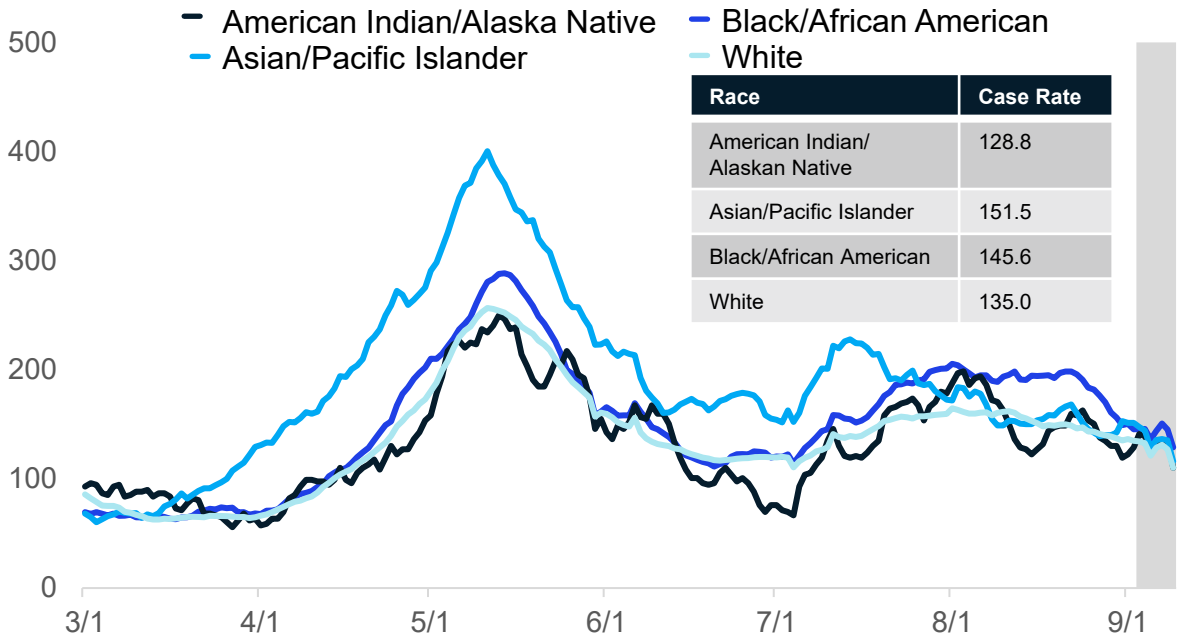


- Case rate trends for the 10-19 age group has increased since last week.
- Case rates by onset date for all age groups are between 132.4 and 240.7 cases per million (through 9/2)
- Case counts and case rates are highest for 80+-year-olds this week, followed by 30-39-year-olds and the 20-29-year-olds

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

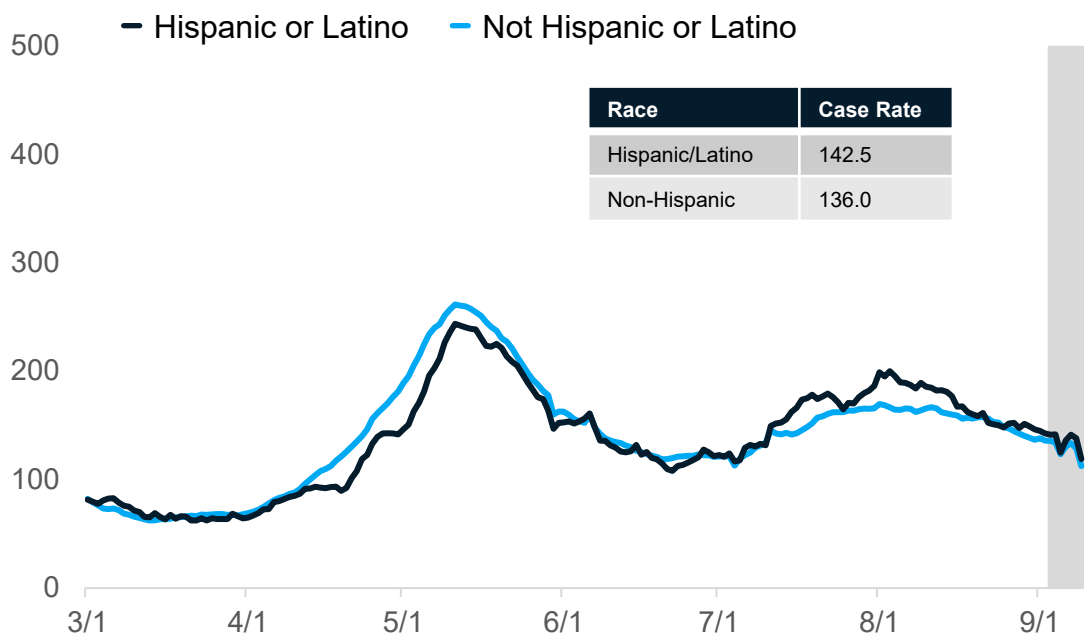
Case Rates by Reported Racial and Ethnic Group

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



Race	Case Rate
American Indian/ Alaskan Native	128.8
Asian/Pacific Islander	151.5
Black/African American	145.6
White	135.0

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



Race	Case Rate
Hispanic/Latino	142.5
Non-Hispanic	136.0

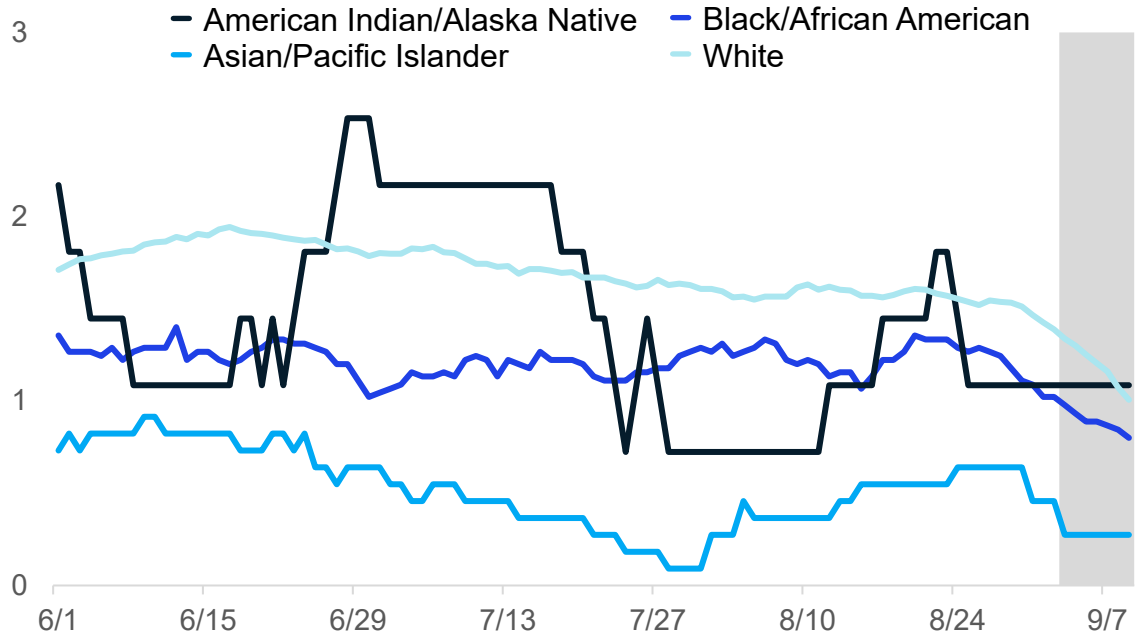
Updates since last week:

- Cases per million have plateaued for nearly all reported racial and ethnic groups
- In the past 30 days, 22.3% (↓ 0.1%)) of race data and 27.9% (↓ 0.2%) ethnicity data was either missing or reported as unknown

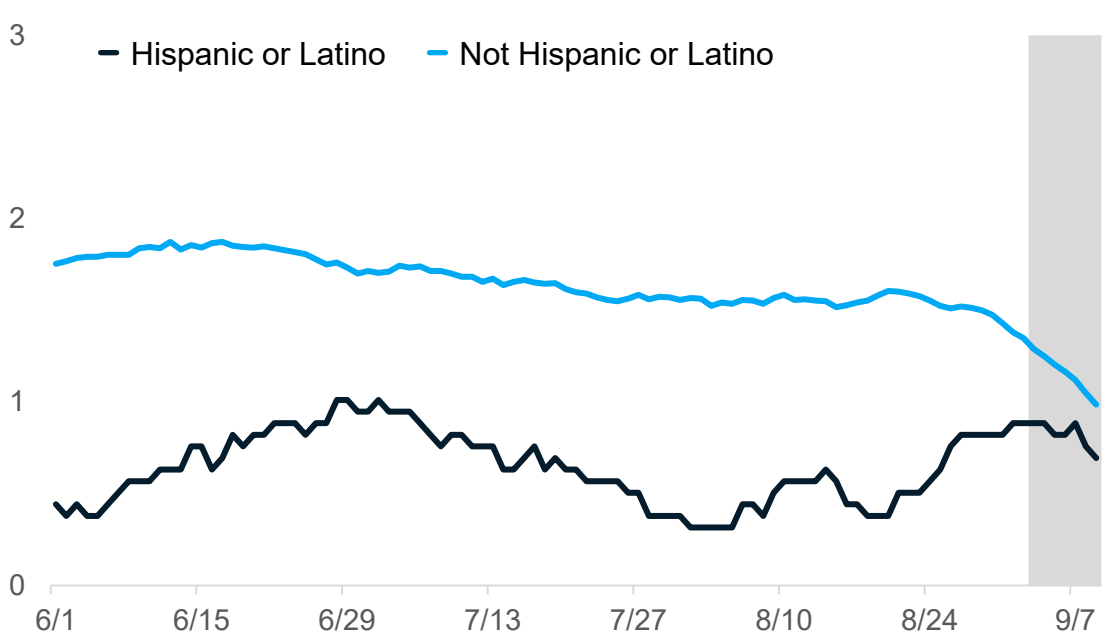
Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

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

Average daily deaths per million people by race



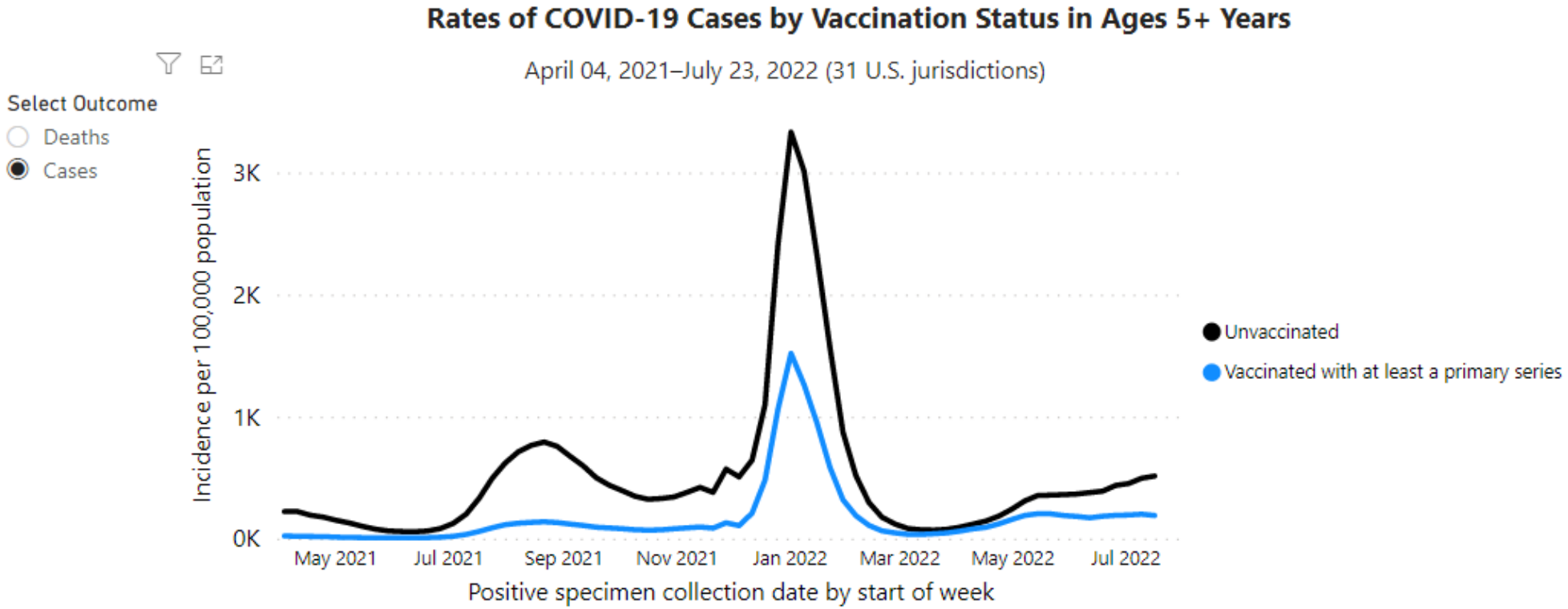
Average daily deaths per million people by ethnicity



- Deaths are lagging indicator of other metrics
- Currently, the White population has the highest death rate (1.39 deaths/million)

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

Nationally, unvaccinated people had 5 times the risk of dying from COVID-19 in June compared to people vaccinated with at least a primary series



Unvaccinated people aged 5 years and older had:

2.1X
Risk of Testing Positive for COVID-19

AND

5X
Risk of Dying from COVID-19

in June 2022, and

2.4X
Risk of Testing Positive for COVID-19

in July 2022, compared to people vaccinated with at least a primary series.

Source: CDC COVID-19 Response, Epidemiology Task Force, Surveillance & Analytics Team, Vaccine Breakthrough Unit

Source: https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status

Nationally, unvaccinated adults had 4.6 times the risk of hospitalizations from COVID-19 in May compared to people up to date on their vaccination

In June 2022, compared to people who are up to date with COVID-19 vaccination, monthly rates of COVID-19-associated hospitalizations were **4.6x Higher in Unvaccinated Adults Ages 18 Years and Older.**

1.7x Higher	**2.0x** Higher	**2.8x** Higher	**3.6x** Higher	**6.3x** Higher
in Unvaccinated Children Ages 5-11 Years	**in Unvaccinated Adolescents Ages 12-17 Years**	**in Unvaccinated Adults Ages 18-49 Years**	**in Unvaccinated Adults Ages 50-64 Years**	**in Unvaccinated Adults Ages 65 Years and Older**

Reset Filters

View

Age-Adjusted Rates

Age-Specific Rates

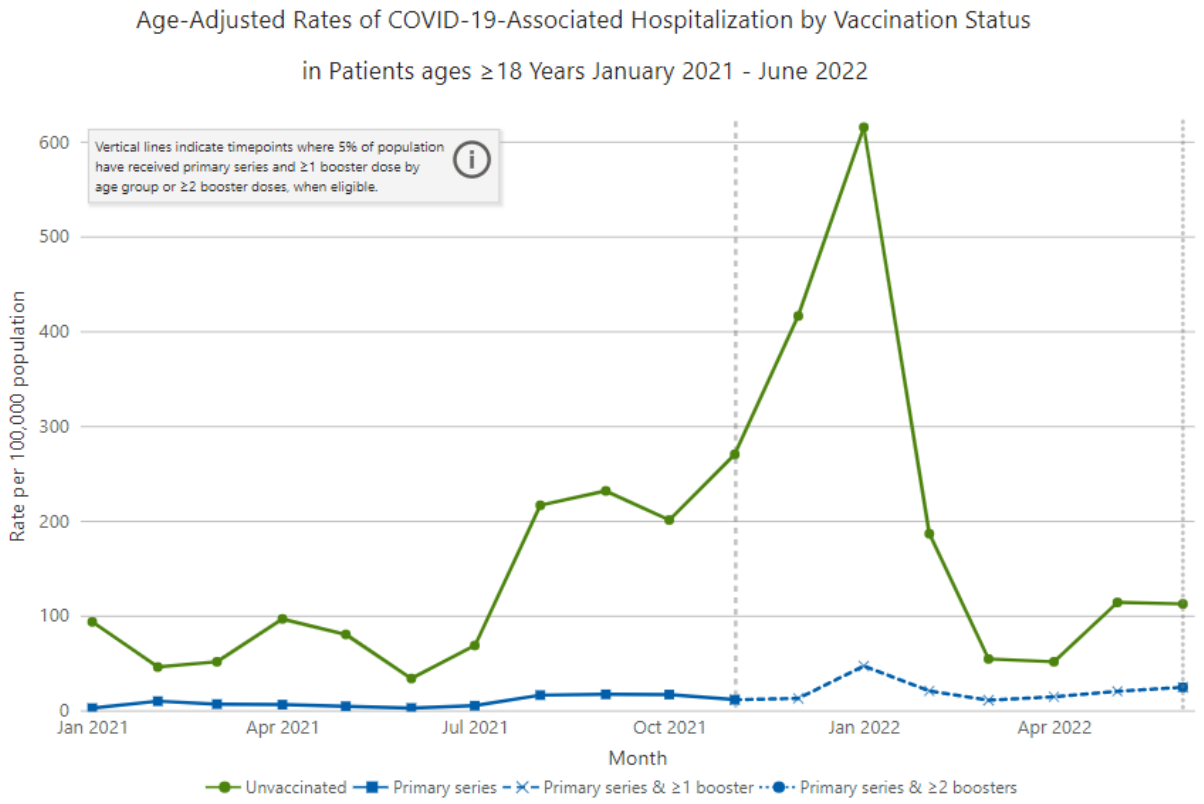
Filters

Season: All

Vaccine Status: All

Age Group: ≥18 Years

CDC Download Data

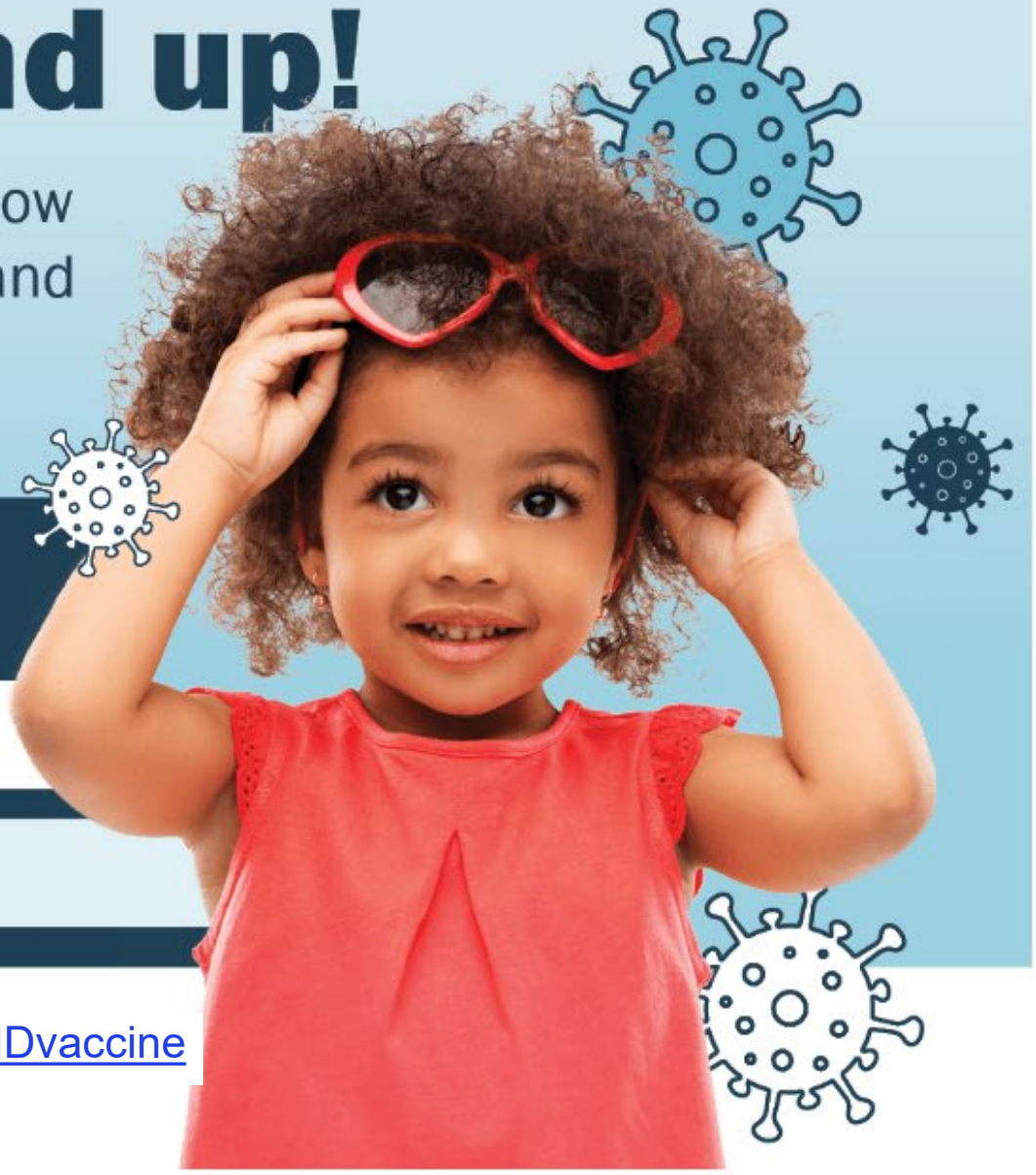


These data were posted on July 29, 2022, and reflect hospitalizations through June 2022.
Note: "Primary series" refers to hospitalized patients who have completed their primary COVID-19 vaccination series regardless of whether or not they received a booster or additional dose. "Primary series & ≥1 booster" refers to hospitalized patients who have completed their primary COVID-19 vaccination series and received one or more additional or booster dose. "Primary series & ≥2 boosters" refers to hospitalized patients who have completed their primary COVID-19 vaccination series and received two or more additional or booster doses. "Unvaccinated" refers to hospitalized patients with no record of receiving any COVID-19 vaccination. "Up-to-date" refers to persons who have received all doses in the primary COVID-19 vaccination series, in addition to one or more additional dose or booster dose, when eligible.

Source: https://covid.cdc.gov/covid-data-tracker/#covidnet-hospitalizations-vaccination

COVID-19 vaccines are now available for ages **6 months and up!**

Both the Pfizer and Moderna COVID-19 vaccines are now authorized and recommended for children 6 months and older. Everyone 5 years and older should also get an age-appropriate COVID-19 booster, when eligible.



More than **4,000** providers across Michigan can administer the COVID-19 kids vaccine, including:

- Family physicians and pediatricians
- Some pharmacies (ages 3+)
- Local health departments and federally qualified health centers
- Urgent cares (ages 5+)

MDHHS
Michigan Department of Health & Human Services

For more information, visit Michigan.gov/KidsCOVIDvaccine or talk to a health care provider.