

MI COVID RESPONSE DATA AND MODELING UPDATE

September 7, 2022

Epidemiologic Surveillance: Key Messages

COVID-19 pandemic is decreasing in some parts of the globe and within the United States but early signs of another potential wave

- Case rates for several European countries are plateaued, some countries are seeing increases
- Within the U.S., case rates decreased 7.8% over the past week
- Several midwestern states (region 5) are showing signs of a plateau, while others noted an increase in the past week

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 1, 53% of Michigan counties are at medium or high COVID-19 community levels
 - 18 Michigan counties are classified as High this week according to CDC's Community Levels (22%). This represents 26% of the population.
 - 26 Michigan counties are currently at Medium level (31%). This represents 52% 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
- 60% 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, ICU census, and pediatric hospitalizations showed moderate signs of increases this week compared to last week

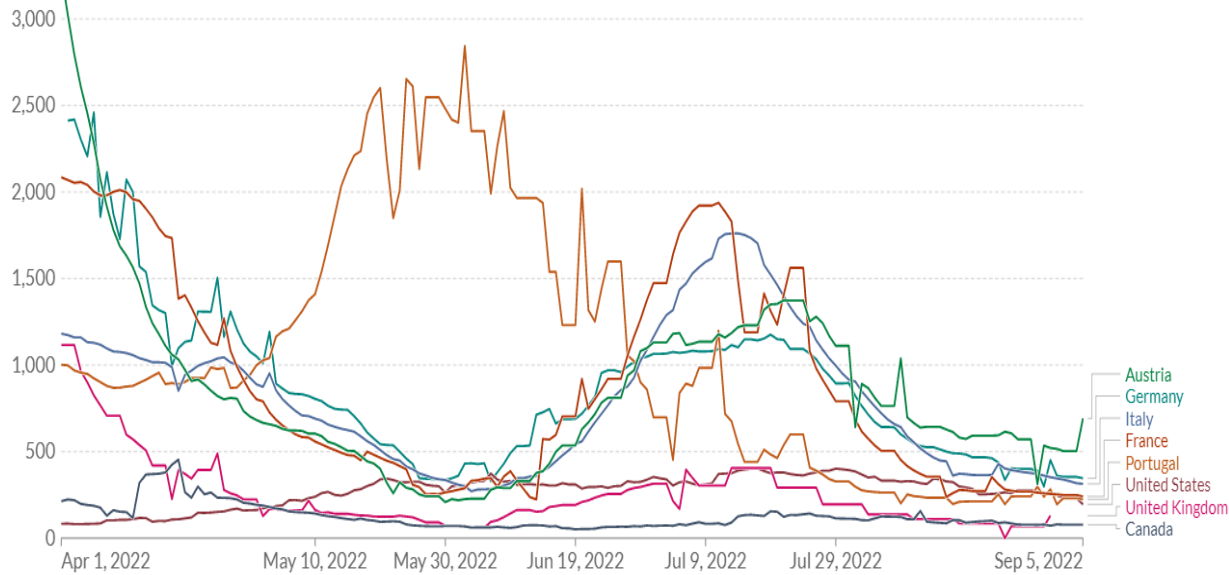
Global and National Trends

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

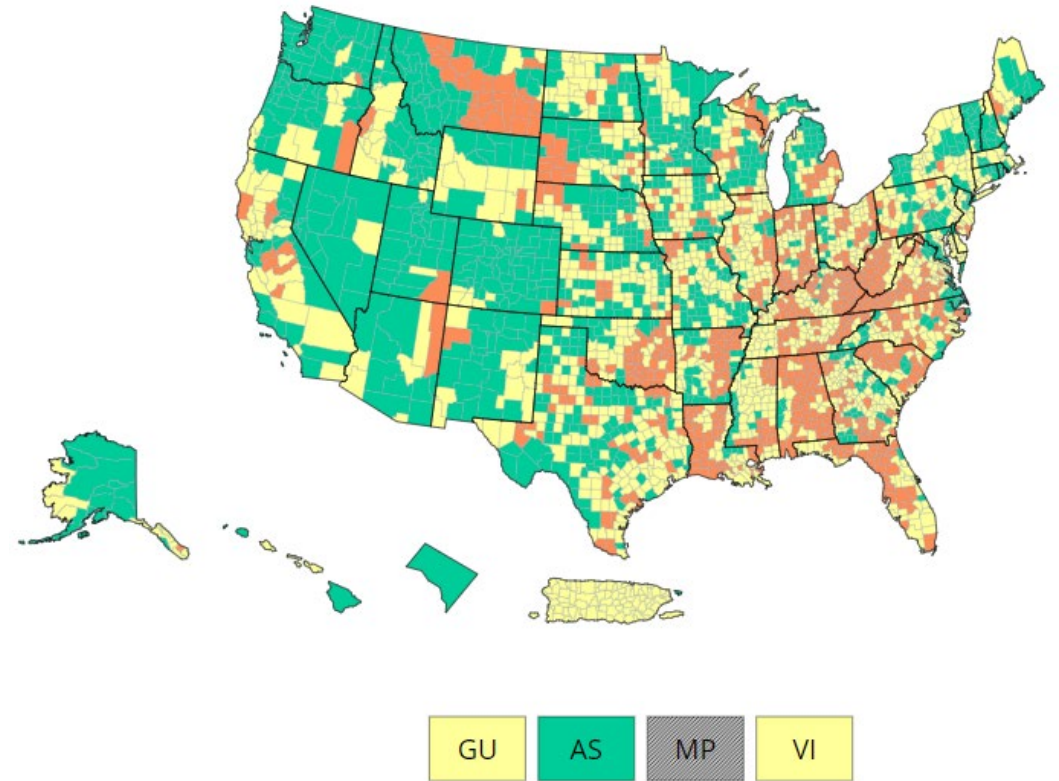
Our World in Data

LINEAR LOG



Source: Johns Hopkins University CSSE COVID-19 Data

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Globally, 605,683,142 cases and 6,503,746 deaths (Data* through 9/6/2022)

- Case rates for some countries in Europe are increasing

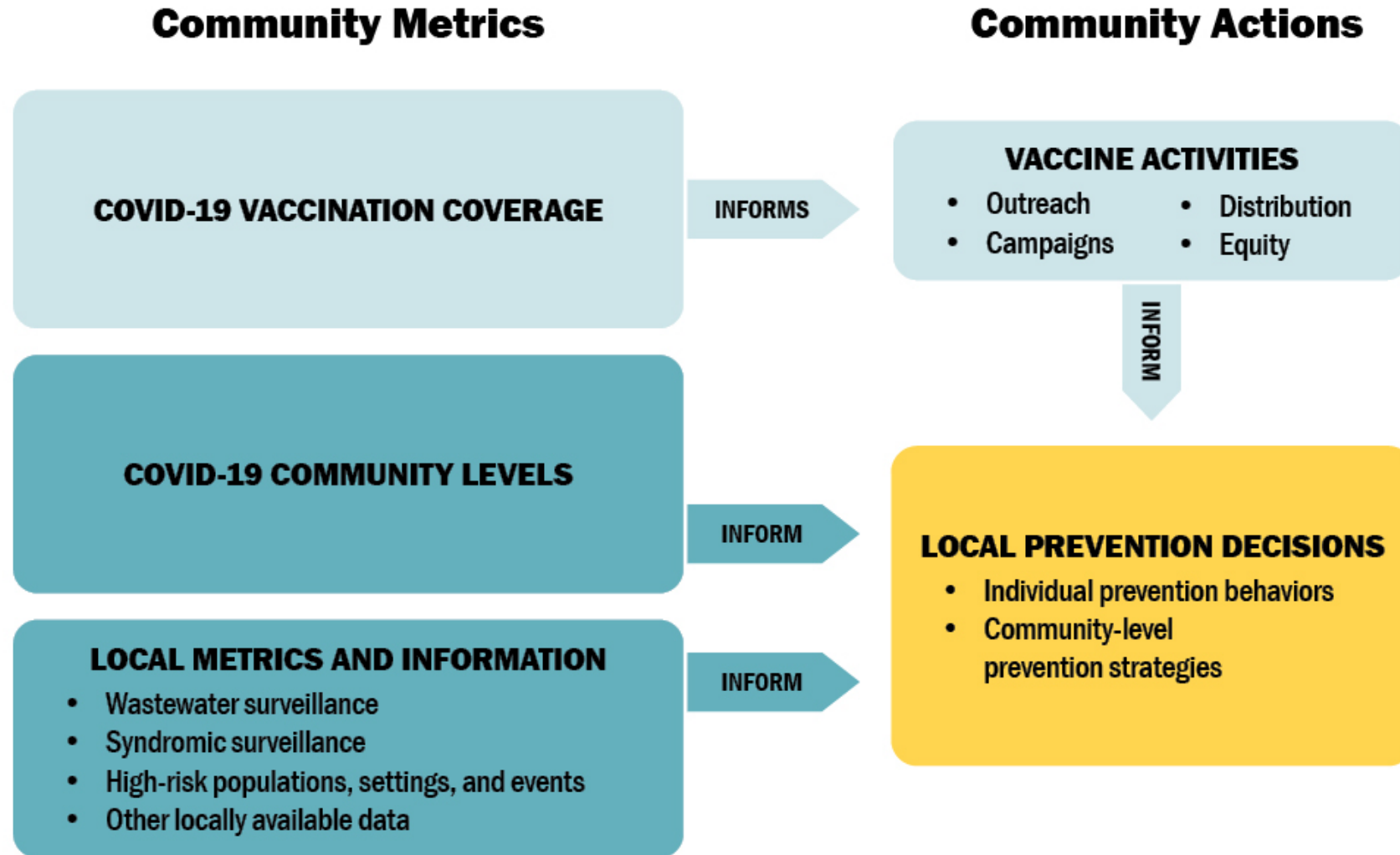
United States: Reported cases (7-day average) have decreased 7.8% since the prior week[†]

- In the U.S., the case rate is 177.0 cases/100,000 in last 7 days (last week: 186.8 cases per/100,000)

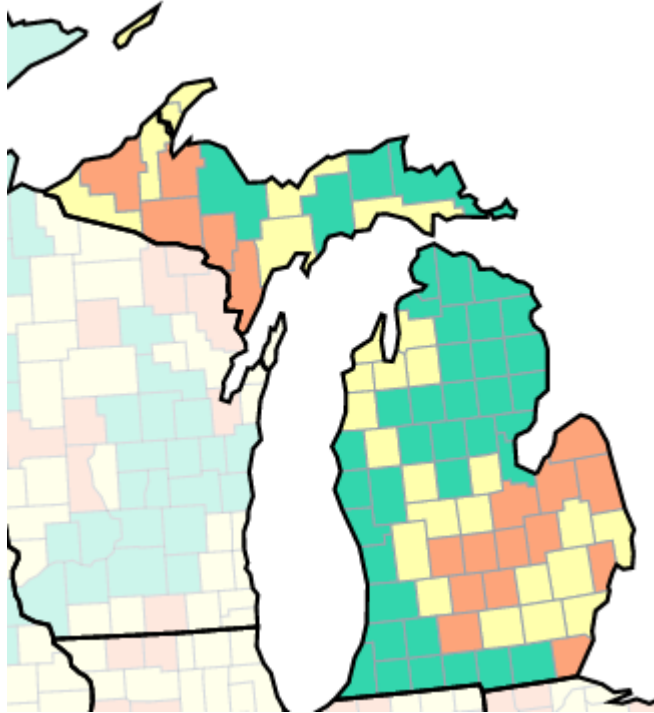
Many Region 5 (Midwest) states are plateaued

- Minnesota and Wisconsin have the lowest case rates *in Region 5* (9/1/2022)

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



As of Sep 1, 18 Michigan Counties at High COVID-19 Community Level



- In the US, 32% of counties have high risk for medically significant disease and healthcare strain
- In Michigan, 22% (18/83) of counties are at high risk. This represents 26% of the population
- 26 Michigan counties are currently at Medium level (31%). This represents 52% of the population
- 39 Michigan counties are currently at Low level (47%). This represents 22% of the population

Percent of Counties

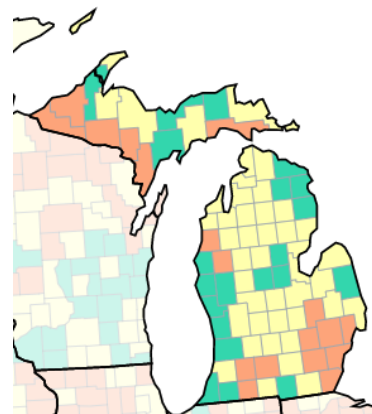
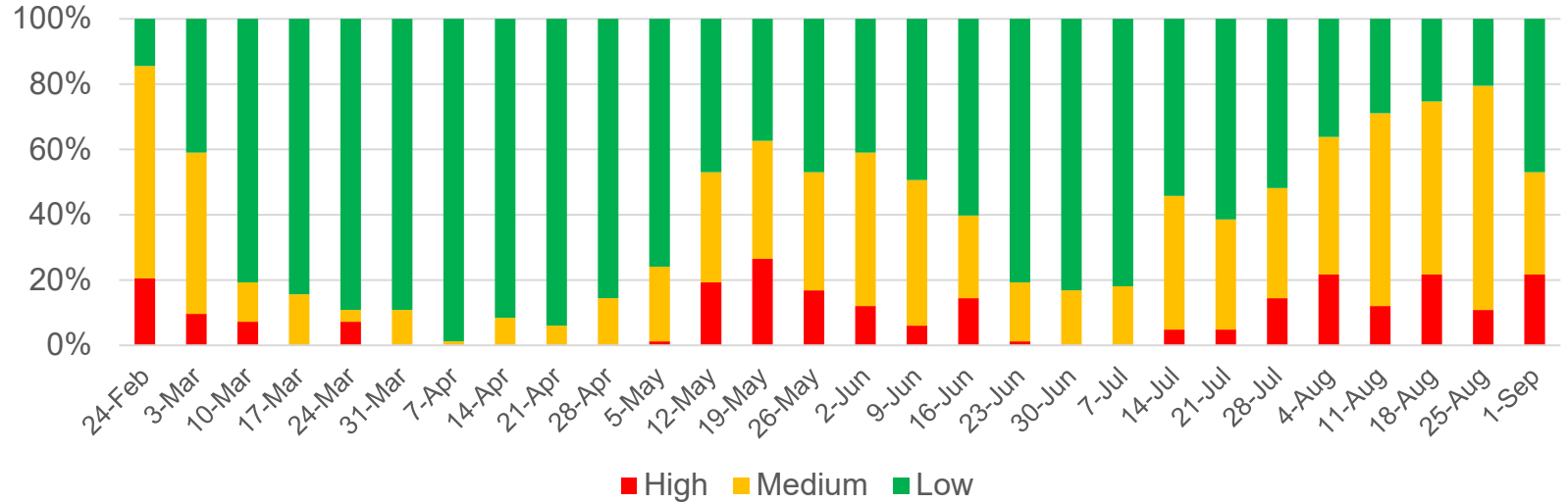
	United States	Michigan	Percent of MI Population
Low	32%	47%	22%
Medium	42%	31%	52%
High	26%	22%	26%

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

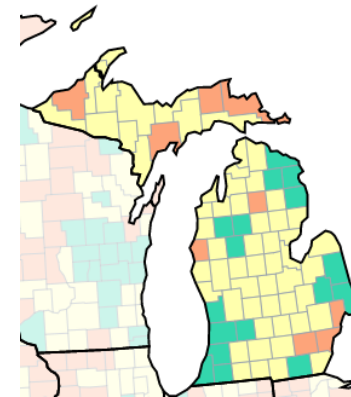
Michigan Trends of COVID-19 Community Levels

- As of September 1, 18 (22%) Michigan counties at high COVID-19 community level and another 26 Michigan counties are currently at Medium level (31%)
- The proportion of Michigan counties at medium and high is at the lowest level seen over the last month
- Current levels are not as high as the first Omicron wave but are higher than the second Omicron (BA.2.12.1) wave

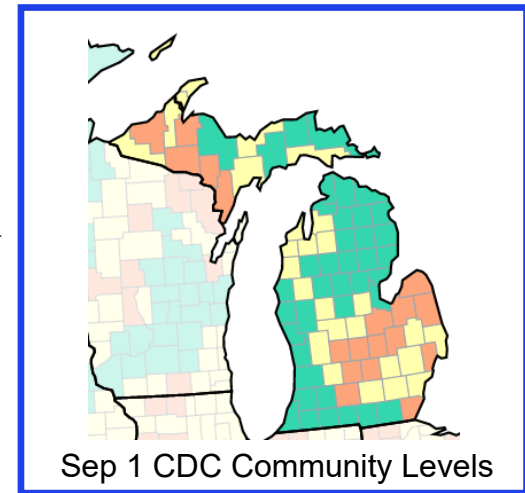
Weekly Percent of MI Counties by CDC COVID-19 Community Level



Aug 18 CDC Community Levels



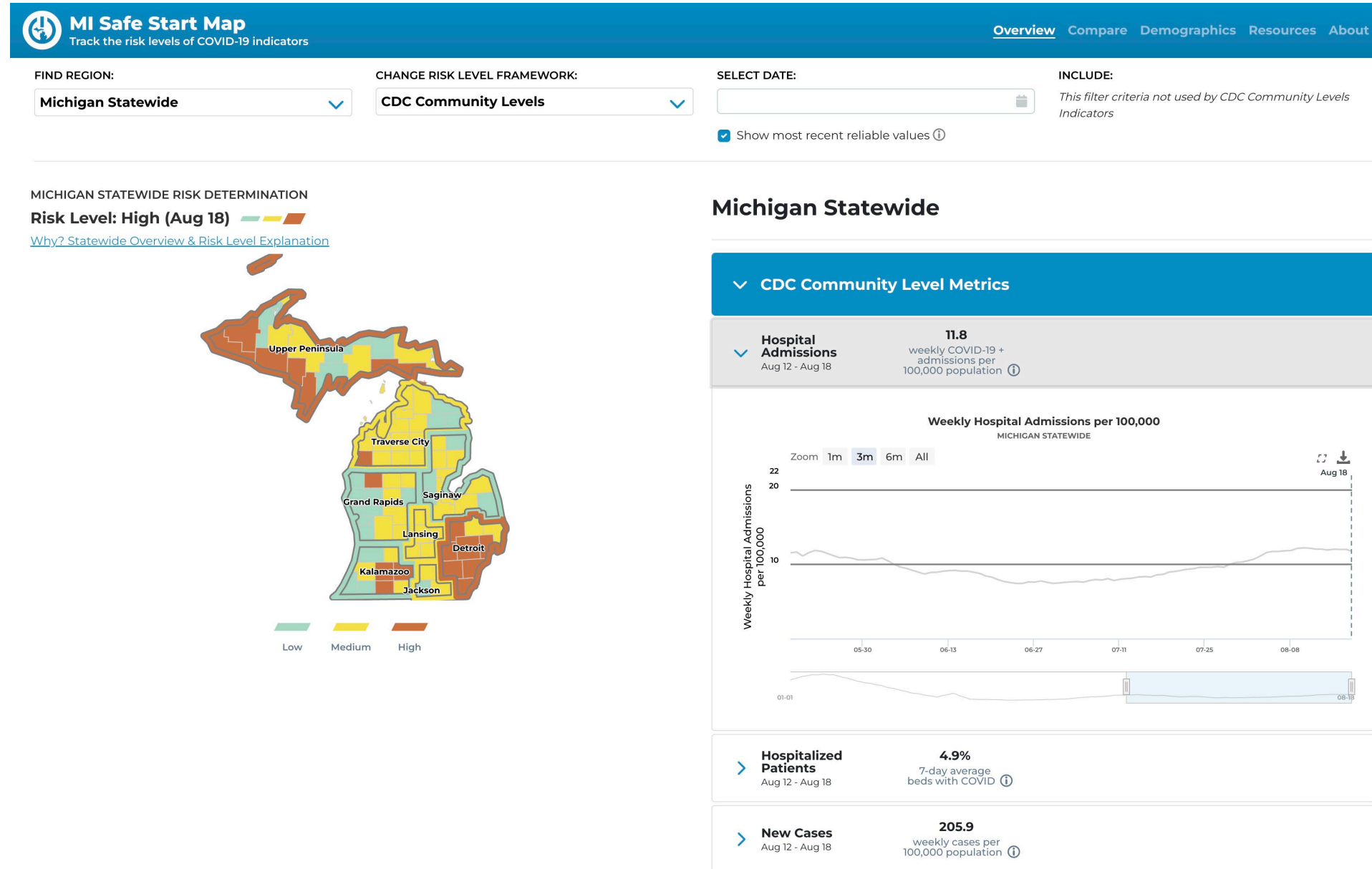
Aug 25 CDC Community Levels



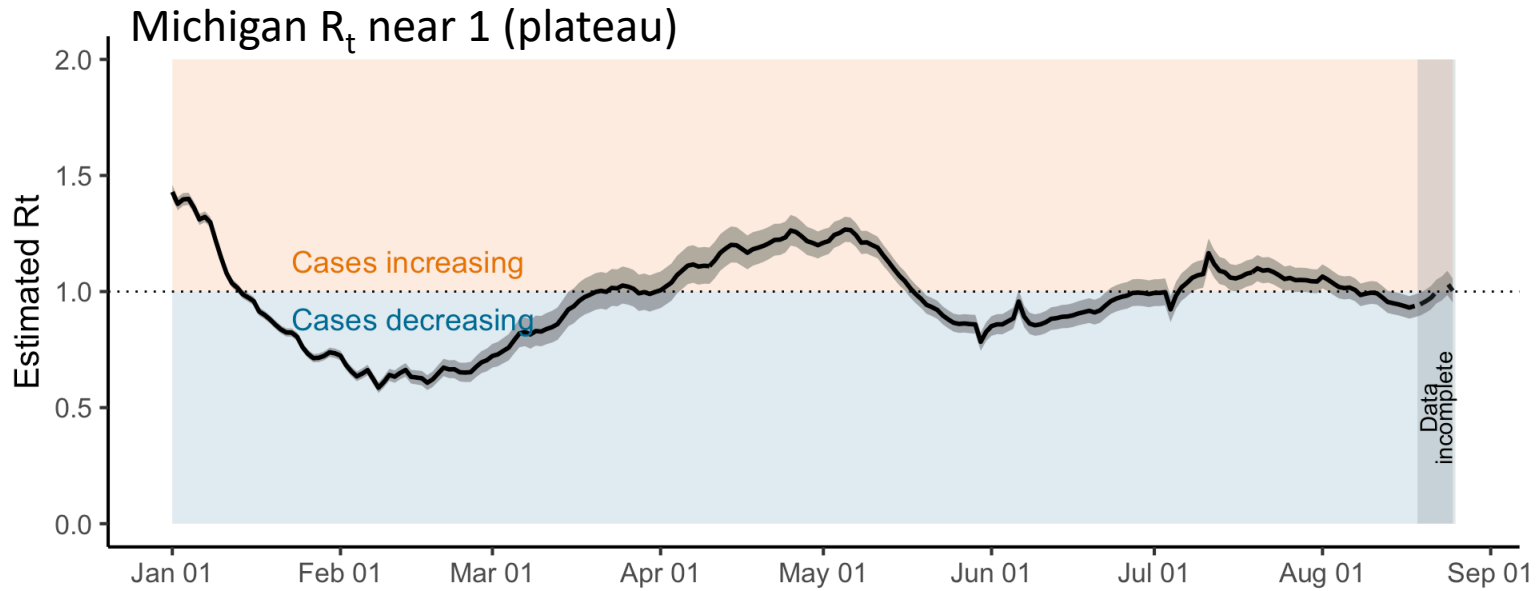
Sep 1 CDC Community Levels

CDC Community Levels now available on mistartmap.info

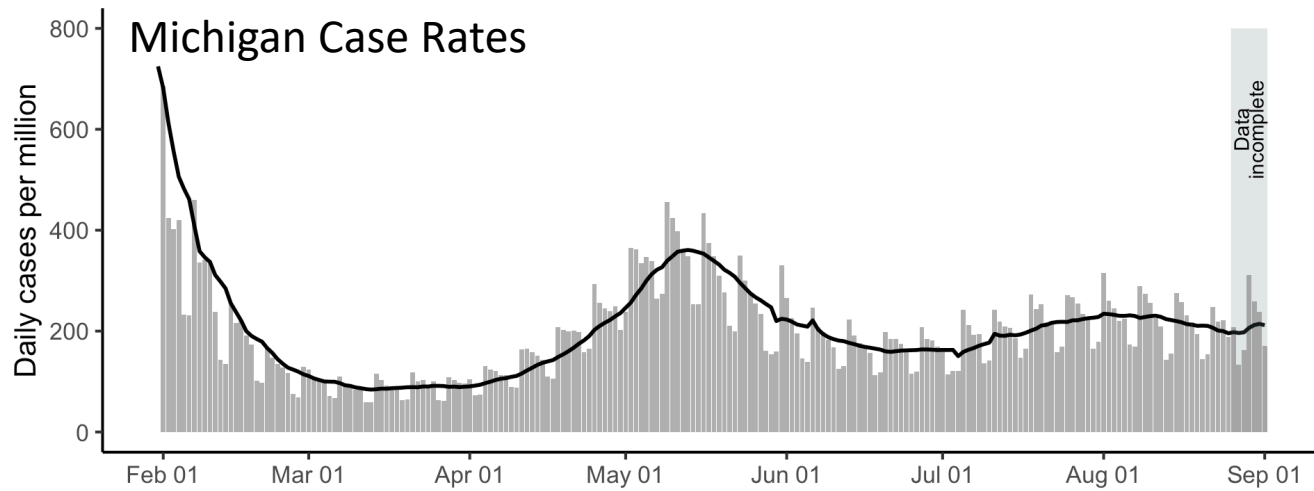
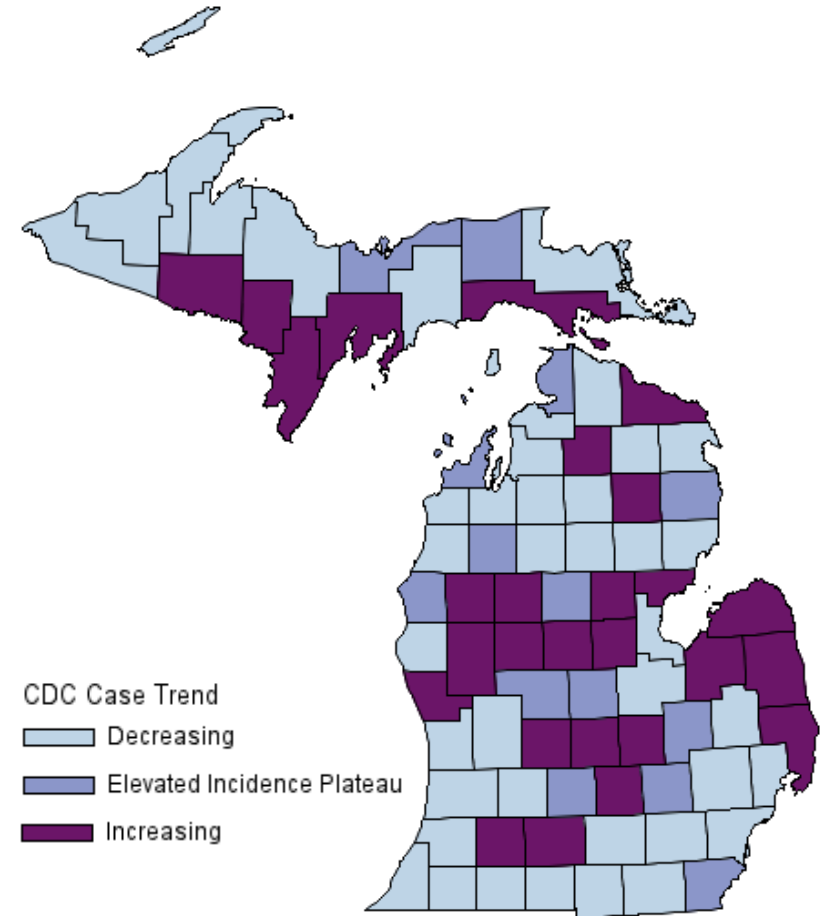
- Community Levels available at the county, regional, and statewide levels
- County level data updates weekly
- Regional and statewide data updates twice weekly



Cases are plateaued in Michigan



27 counties currently showing increases and 14 in elevated incidence plateaus (via mstartmap.info as of 9/2/22, data through 8/26/22).

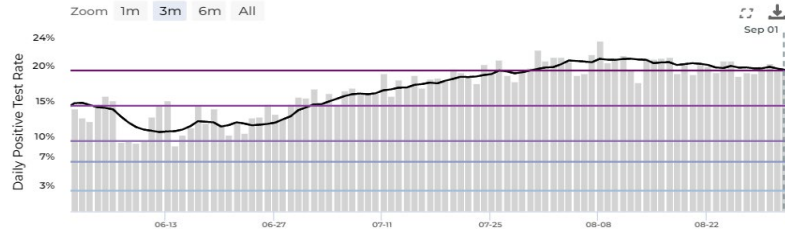


Recent statewide trends are plateaued

Statewide trends

— 7-day average ■ Daily values

Daily Positive Test Rate
MICHIGAN STATEWIDE

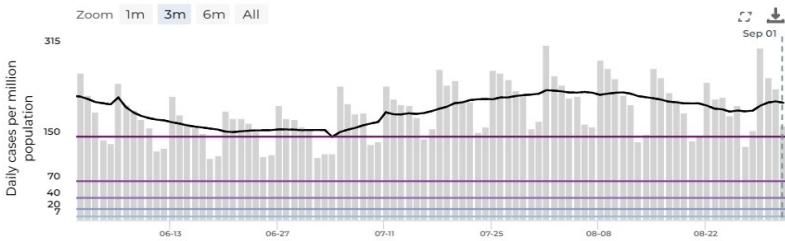


Positivity, %

Current: 20.1%

Last Week: 20.6%

Daily cases per million population
MICHIGAN STATEWIDE

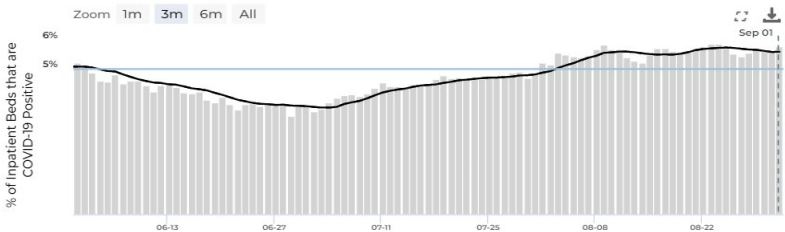


Daily cases per million

Current: 197.8

Last Week: 201.1

% of Inpatient Beds that are COVID-19 Positive
MICHIGAN STATEWIDE

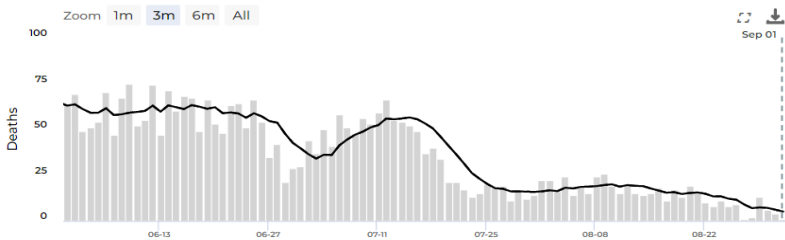


Daily hospitalization rate, %

Current: 5.6%

Last Week: 5.7%

Deaths
MICHIGAN STATEWIDE



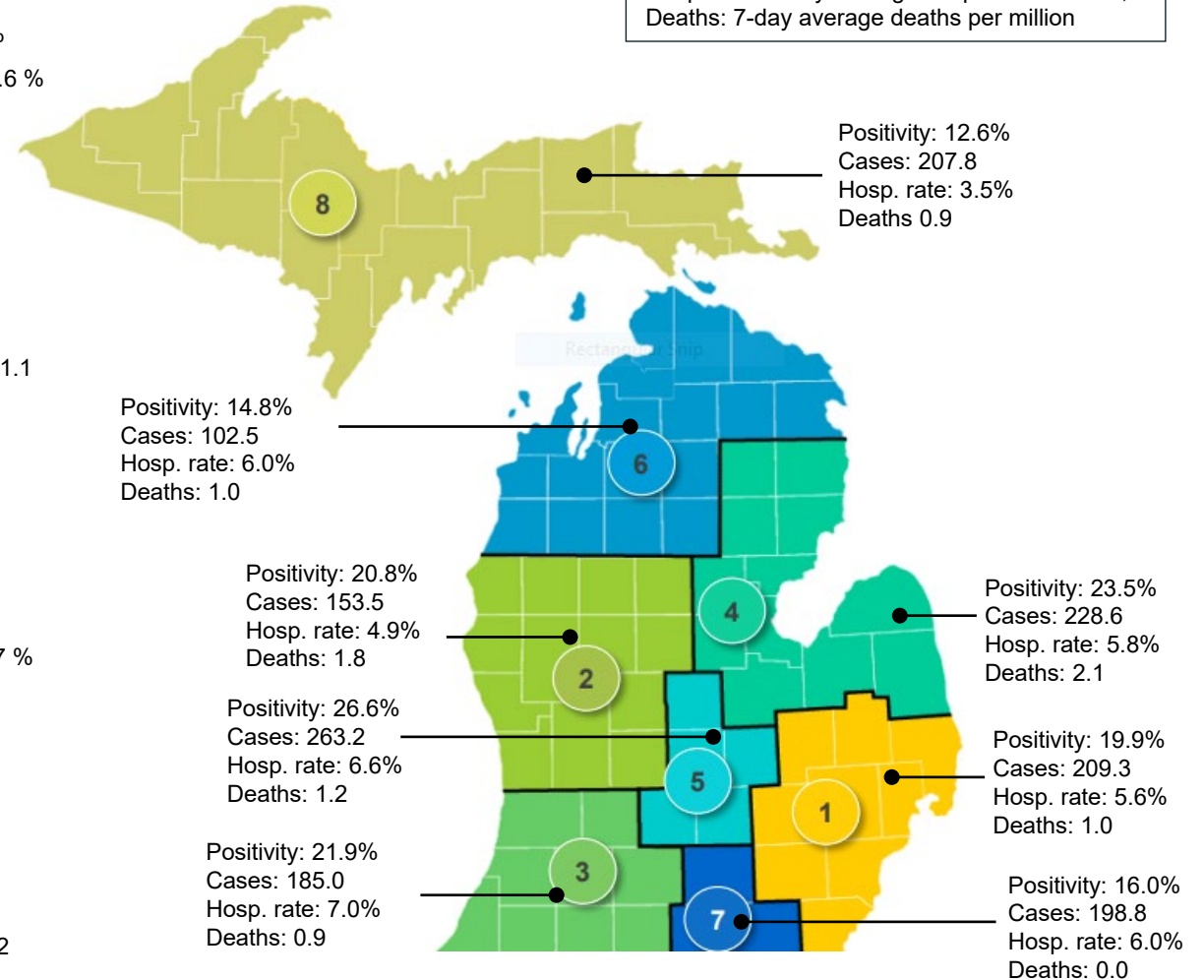
Deaths

Current: 1.2

Last Week: 1.2

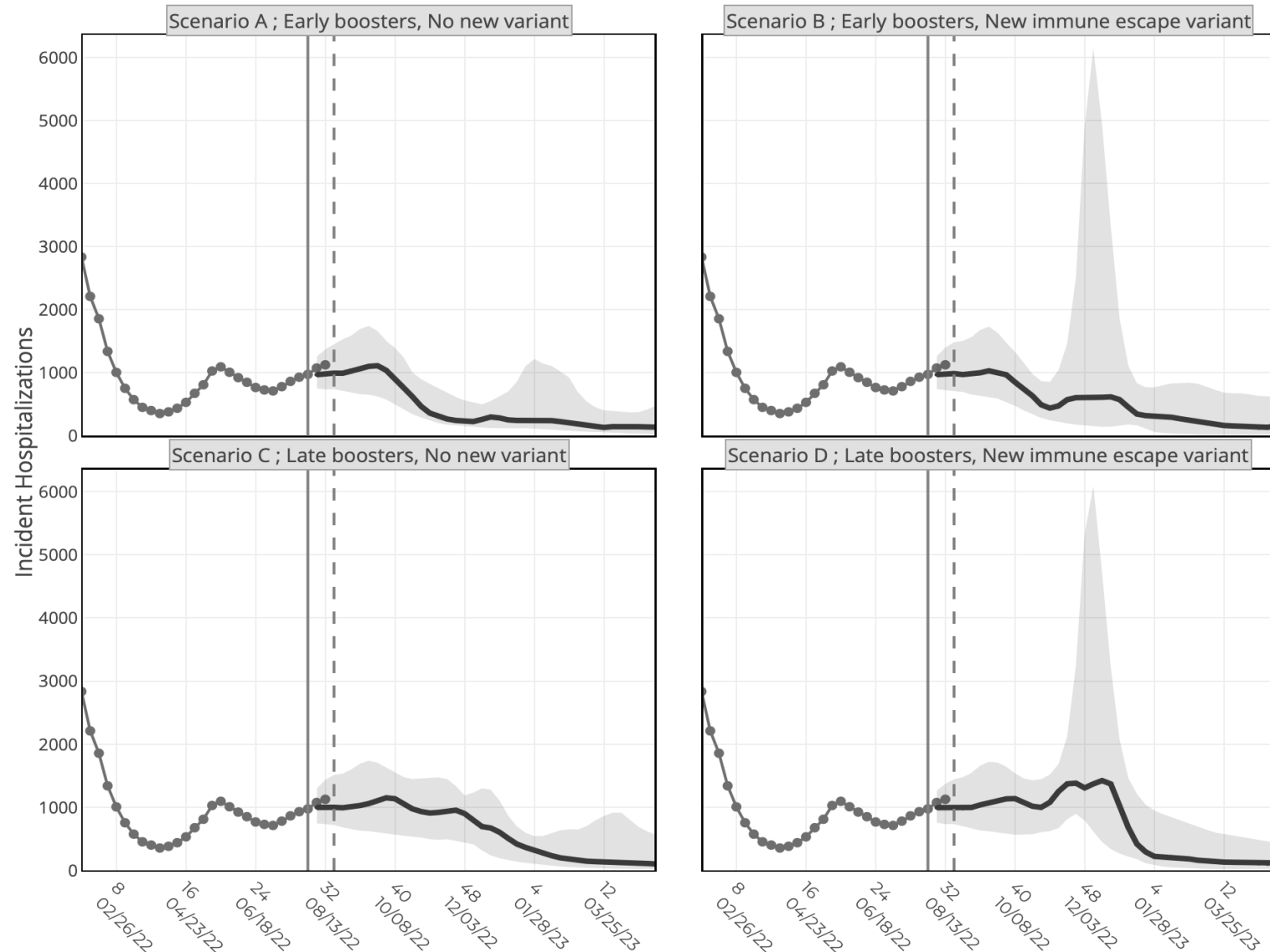
MERC Regional breakdown: Positivity, cases, hospitalization rate, and deaths

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



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)

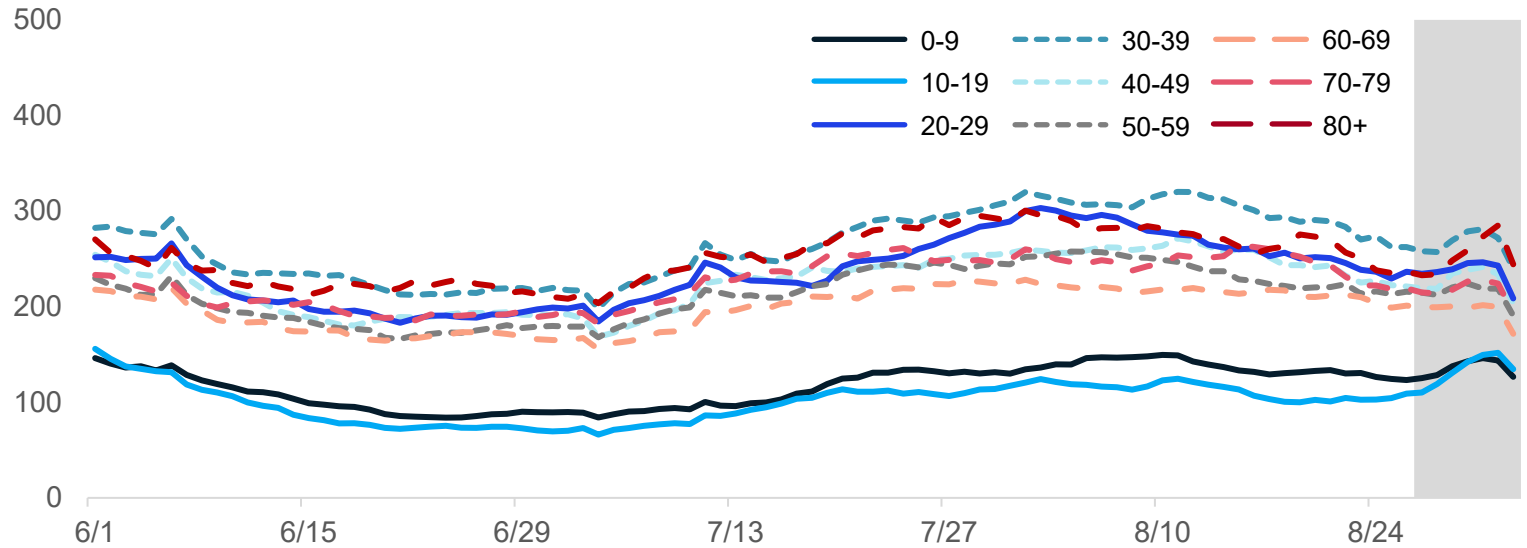


Plotted with 50% uncertainty interval

Source: [Round 15 Scenario Modeling Hub Projections](#)

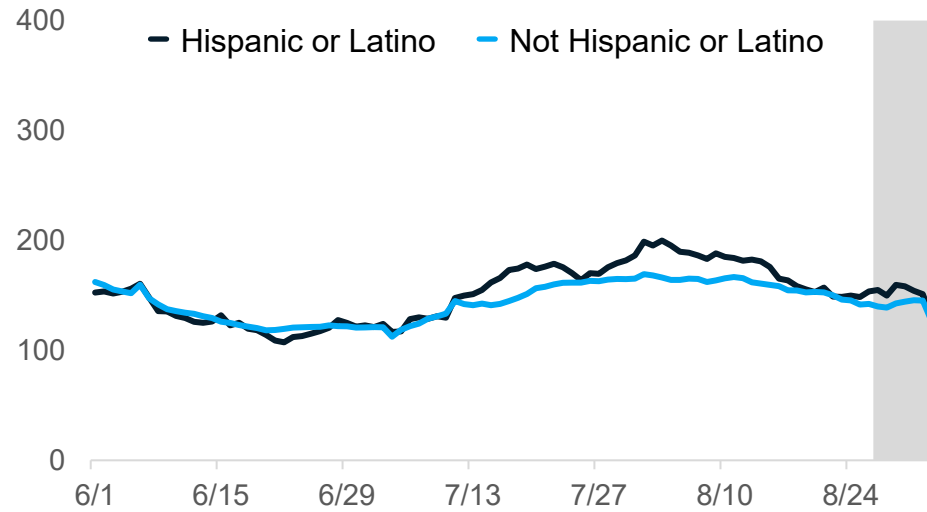
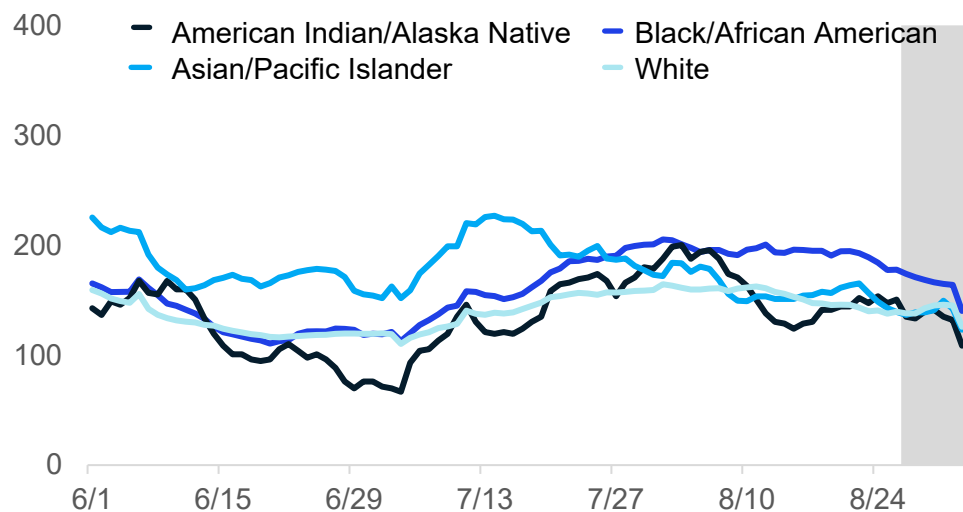
Case rates by age, race, and ethnicity

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 109.1 and 262.2 cases per million (through 8/26)
- Case counts and case rates are highest for 30-39-year-olds this week, followed by 20-29-year-olds and the 80+-year-old age groups
- There are early indicators of potential increases in the lag period with the start of academic year

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



- Case rates are highest for Black populations (177.8 cases/million)
- Between 22-28% of cases in last 30 days have missing race/ethnicity data

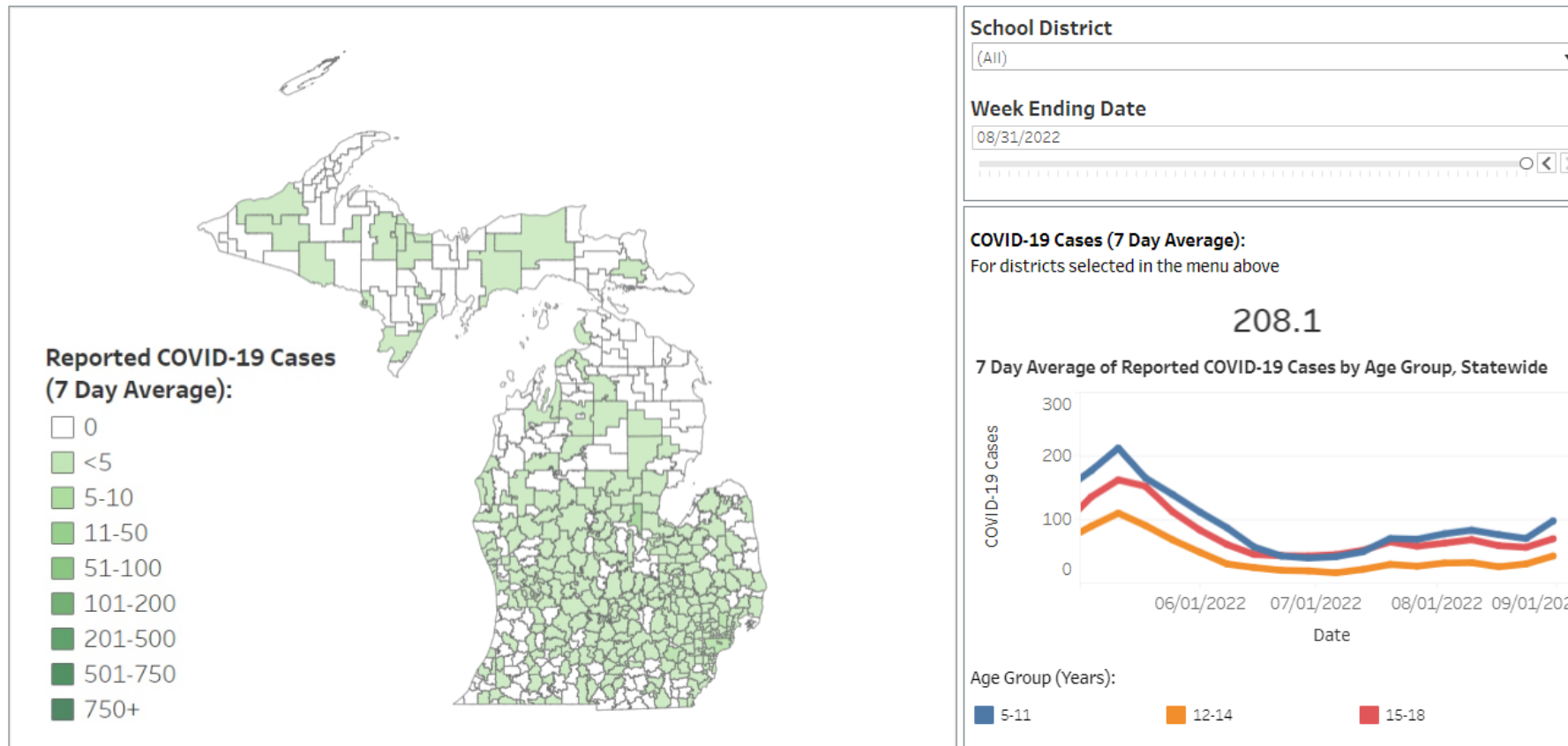
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

COVID case counts among K-12 age individuals are increasing

Intermediate School Districts | School Districts | About

Michigan School District COVID-19 Case Reporting

The map below displays the 7-day average of newly reported COVID-19 cases for school aged residents (ages 5 to 18 years) by their Michigan school district. The geocoding is based on the residential address on record and not the student's enrollment. The 7-day case average for the defined date range can be viewed by hovering over the jurisdiction on the map or by selecting the school district from the drop down list in the right panel. Adjusting the date scale will change the 7-day average on the map for the selected date.



Data Source: Michigan Disease Surveillance System (MDSS)
Last Updated: 9/6/2022

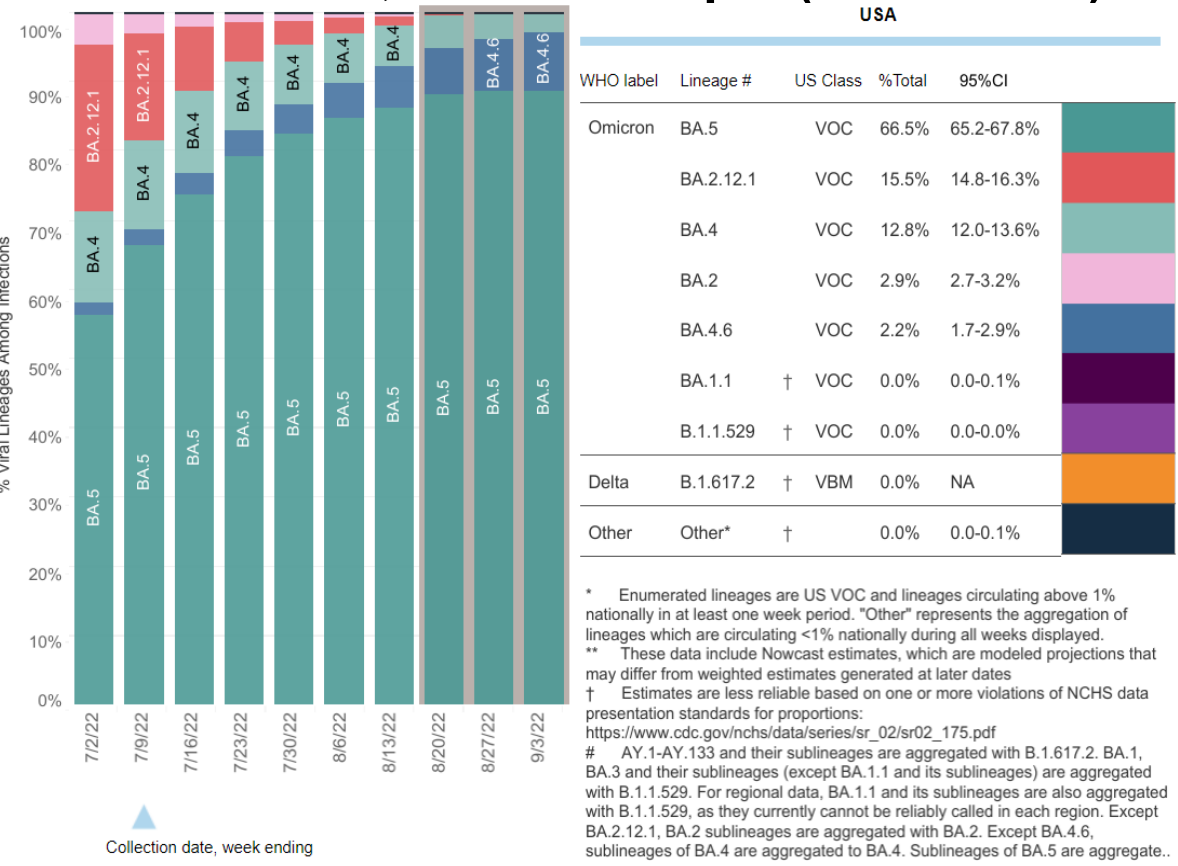
K-12 age population summary:

- Overall case counts among school-aged populations are increasing (7-day average 208.1)
- 58% (↑ 7%) of school district areas have between 1-10 cases.
- 12 ISD areas have greater than 5 cases.

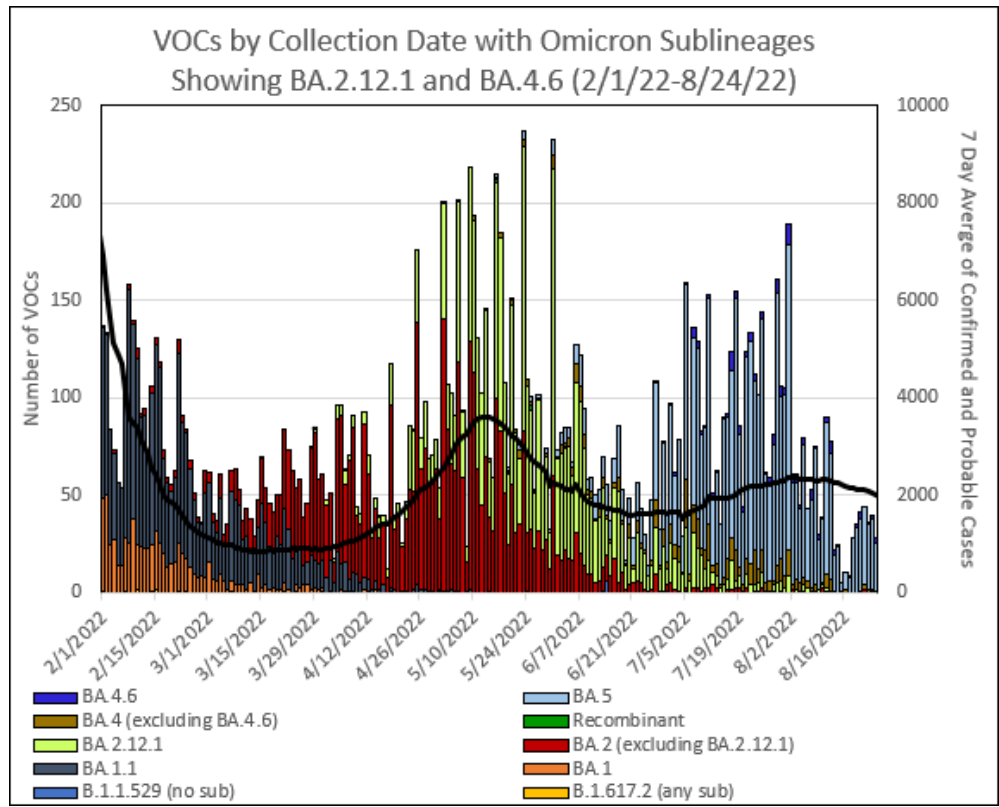
Interactive dashboard and data download can be found at: <https://www.michigan.gov/coronavirus/stats/k-to-12-aged-isd-reporting>

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

SARS-CoV-2 Variants Circulating in the United States, Jun 26 – Sep 3 (NOWCAST)



VOC Distribution in Michigan



- Since August 1, there have 1,169 VOC specimens sequenced
- 100% of specimens sequenced are Omicron, 87% of those are BA.5 lineage
 - Since August 1, only 10% of specimens sequenced and reported (n=117) have been identified as BA.4; however, 49% of those specimens are BA.4.6 (n=57)

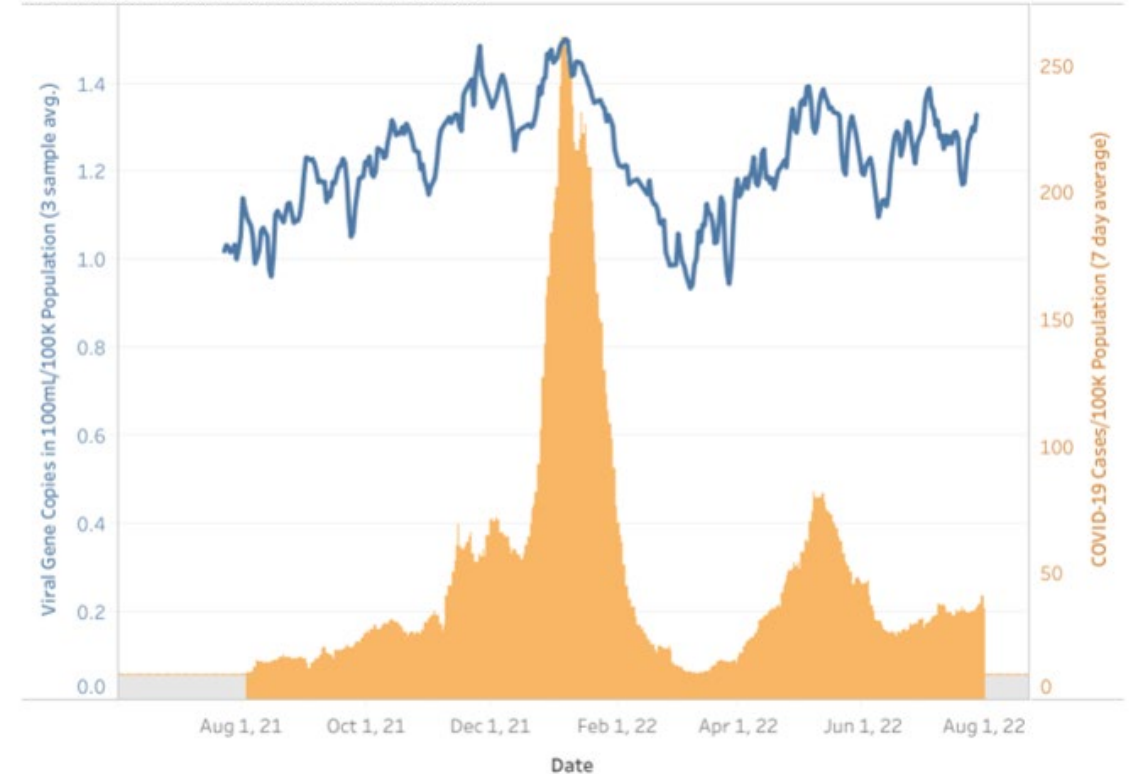
Interpreting Wastewater Should Be In Context with Other Indicators

- 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 86% of samples collected at this site, which puts it in the 81-100 percentile category. As of 7/27/2022, the change in viral concentration over the past 15 days is increasing.

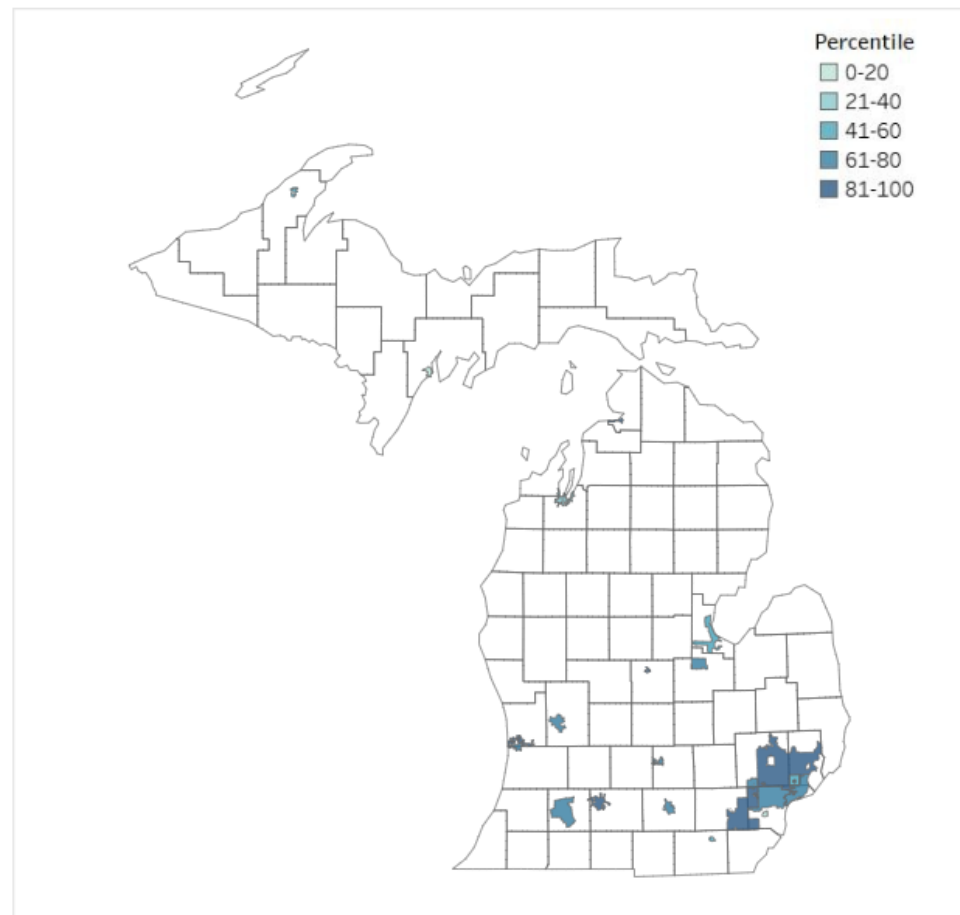
Wastewater SARS-CoV-2 Levels and COVID-19 Cases



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.

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.

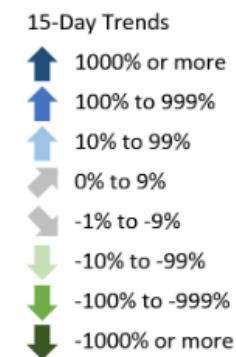


Site	Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	19	8/22/2022	↑
Battle Creek WWTP	51093	19	8/24/2022	↓
Bay City WWTP	34000	10	8/23/2022	↓
Delhi Township WWTP	22500	21	8/18/2022	↓
Escanaba WWTP	12600	17	8/24/2022	↓
GLWA Detroit River Interce..	492000	7	8/24/2022	↑
GLWA North Interceptor-Ea..	1482000	74	8/24/2022	↑
GLWA Oakwood-Northwest..	840600	97	8/24/2022	↑
Grand Rapids WWTP	265000	55	8/25/2022	↑
Holland WWTP North	45606	19	8/24/2022	↓
Holland WWTP South	36912	21	8/24/2022	↓
Jackson WWTP	90000	58	8/25/2022	↓
Kalamazoo WWTP	150000	22	8/25/2022	↑
Petoskey WWTP	7900	19	8/25/2022	↑
Portage Lake WWTP	14000	50	8/24/2022	↓
Saginaw Township WWTP	40000	20	8/22/2022	↓
Tecumseh WWTP	8680	33	8/26/2022	↓
Traverse City WWTP	45000	24	8/25/2022	↓
Warren WWTP	135000	18	8/18/2022	↓
Ypsilanti WWTP	330000	58	8/25/2022	↔

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 8/31/2022. 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.

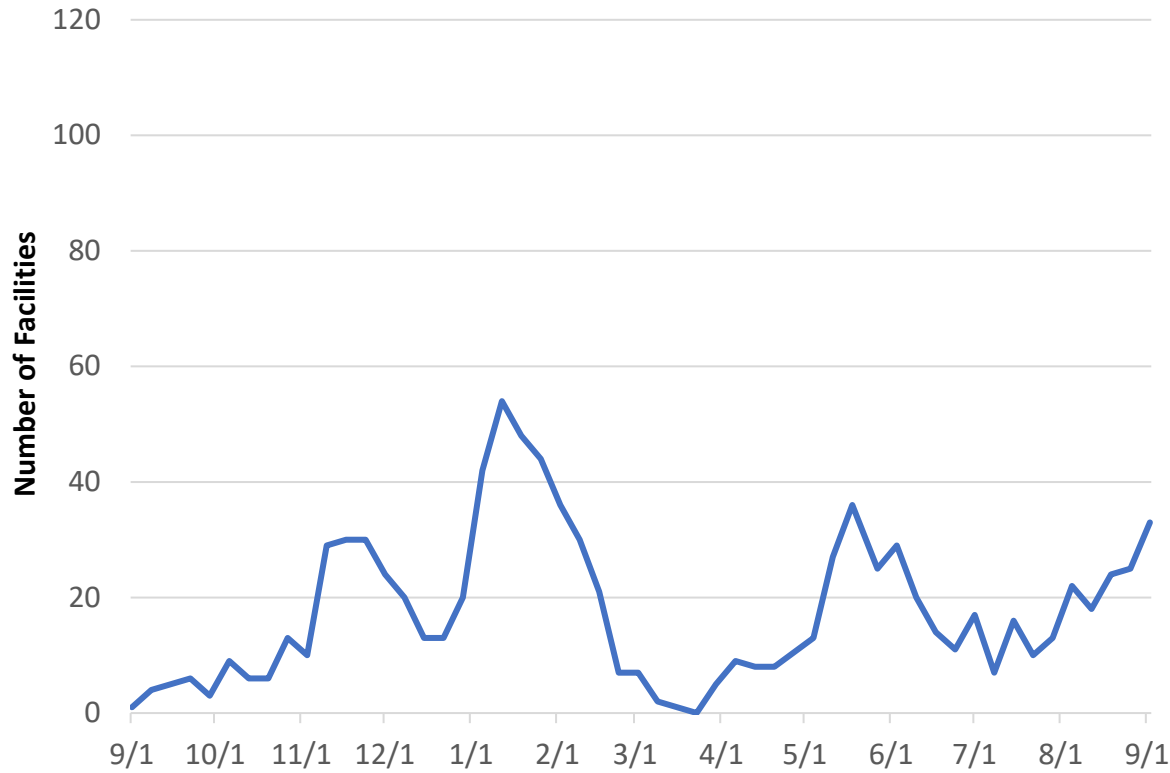


SWEEP Summary

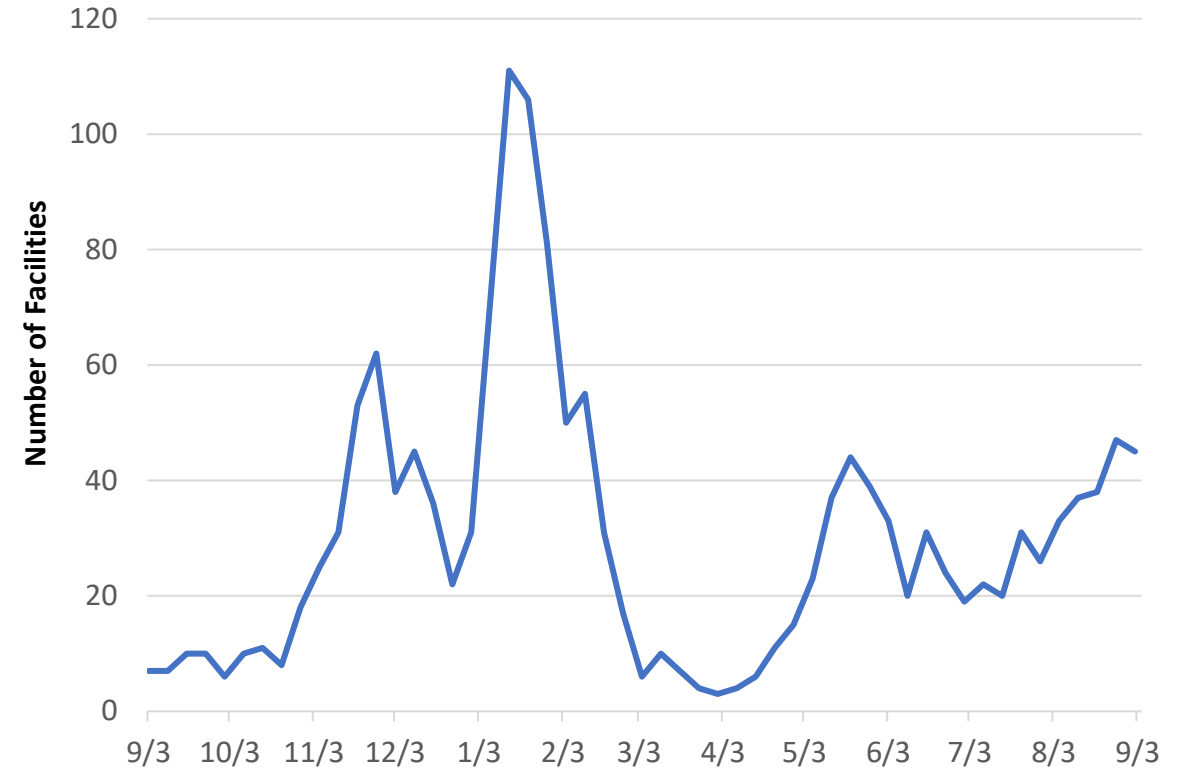
- 35% (7/20) of sentinel sites are showing increasing trends over last 15-days
- 5% (1/20) of sites have plateaued over the last 15 days
- 60% (12/20) of sentinel sites are showing declines in the previous 15-days

Reported Number of Clusters in Long Term Care Facilities

Number of AFC/HFAs with 3 or more Confirmed Cases



Number of SNFs with 3 or more Confirmed Cases

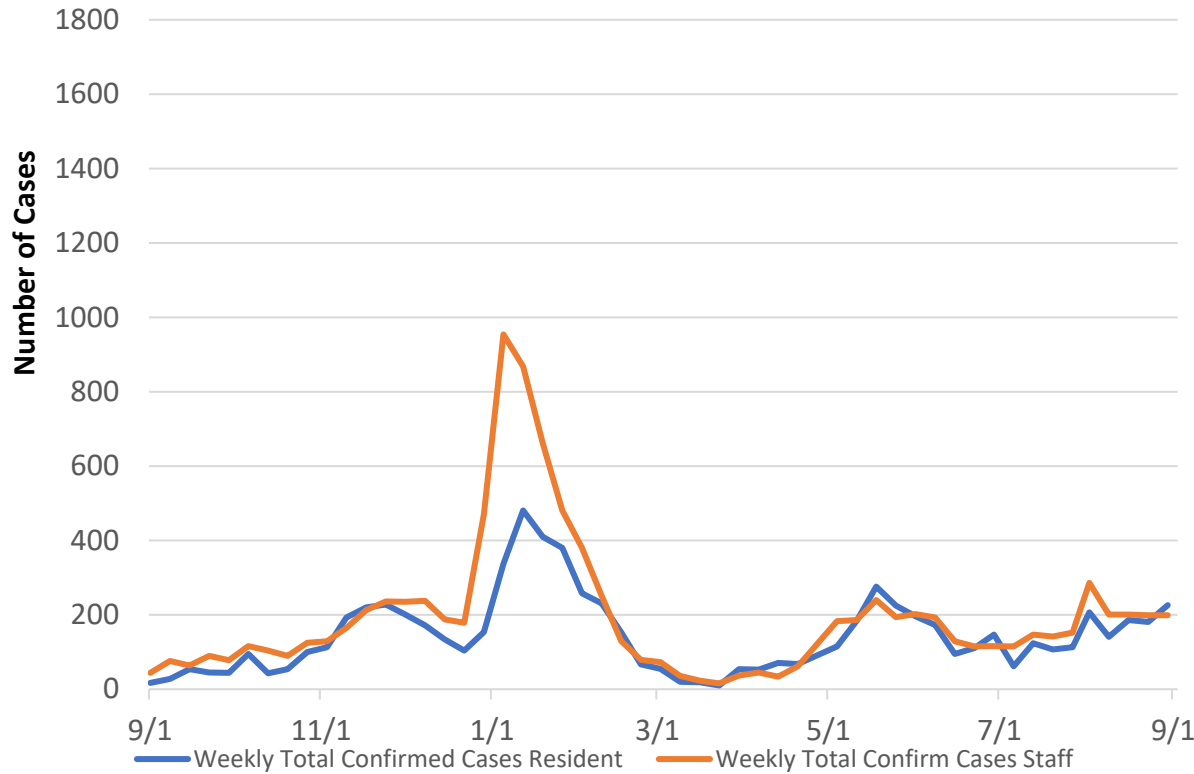


- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period is steadily increasing over the past 2 months
- This week, the number has increased in **AFC/HFAs** (25 to 33) but decreased in **SNFs** (47 to 45) since the previous week

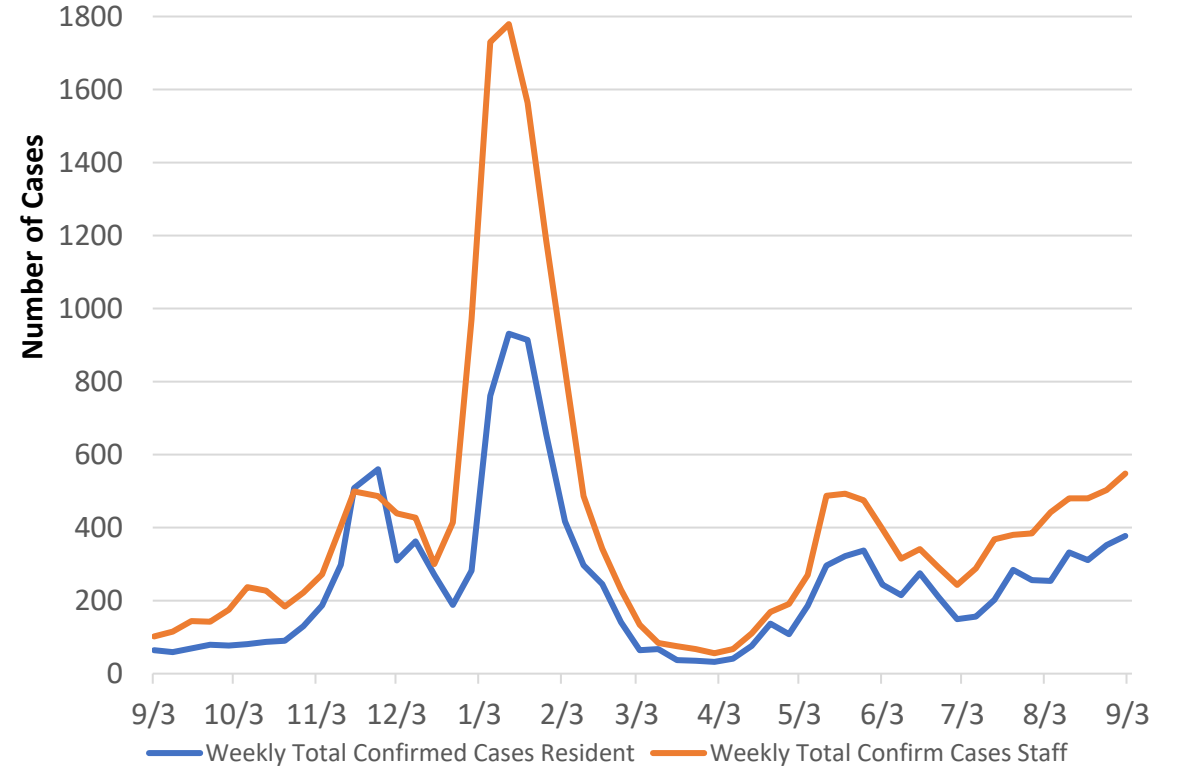
The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Cases Among Staff and Residents in Long Term Care Facilities

STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN AFC/HFA RESIDENTS AND STAFF 09/01/2021 TO 08/30/2022



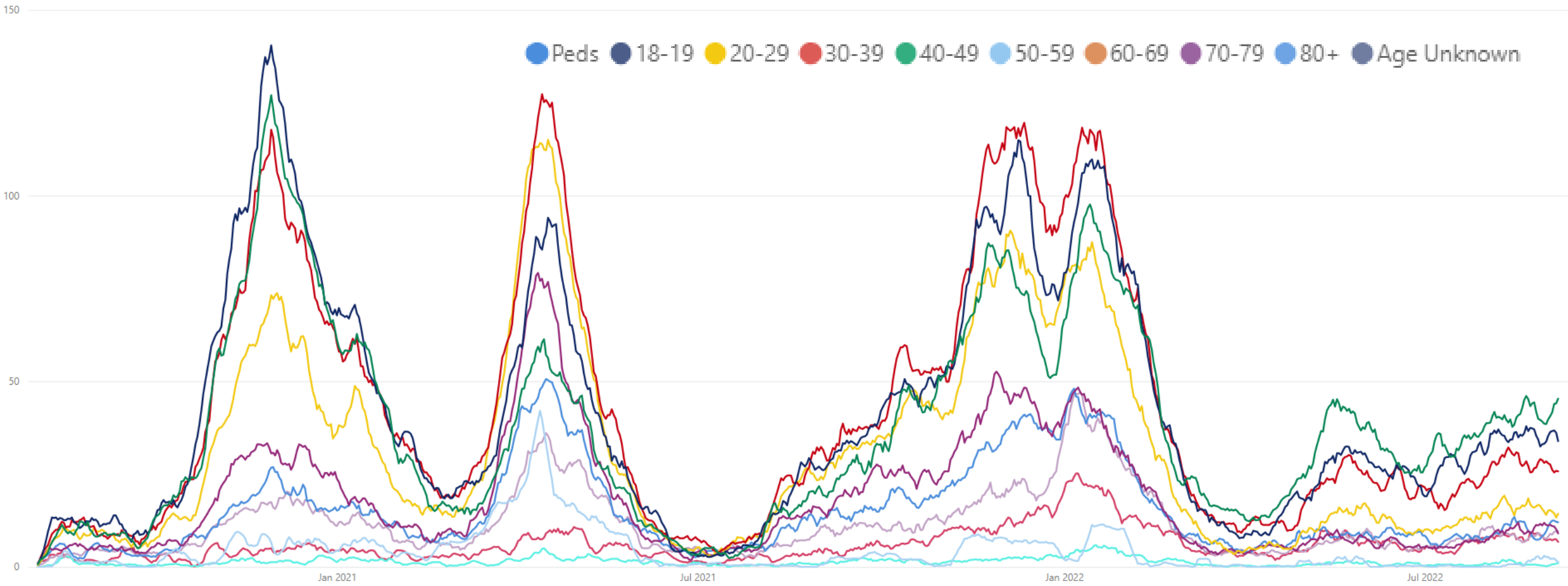
STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN SNF RESIDENTS AND STAFF 09/03/2021 TO 09/02/2022



- Case counts in residents increased in both AFC/HFA (181 to 226) and SNFs (352 to 377) since last week
- Case counts in staff are plateaued within AFC/HFA (199), but increased in SNFs (503 to 548) 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

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



- Trends for daily average hospital admissions increased (+4%) compared to last week (vs. -5% prior week)
- Older age groups (70-79, and 80+) saw larger increases this week compared to other age groups
- Those 60-69, 70-79, and 80+ are seeing between 25-45 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	6.4	4.6	-10% (-1)
12-17	1.0	1.3	-22% (-<1)
18-19	0.9	3.2	+200% (+1)
20-29	9.6	6.9	+14% (+1)
30-39	12.1	10.0	+47% (+4)
40-49	10.1	8.6	-9% (-1)
50-59	13.3	9.8	-15% (-2)
60-69	25.9	20.3	-10% (-3)
70-79	36.1	47.1	+10% (+3)
80+	44.0	106.2	+12% (+5)
Total[¶]	161.1	14.2	+4% (+6)

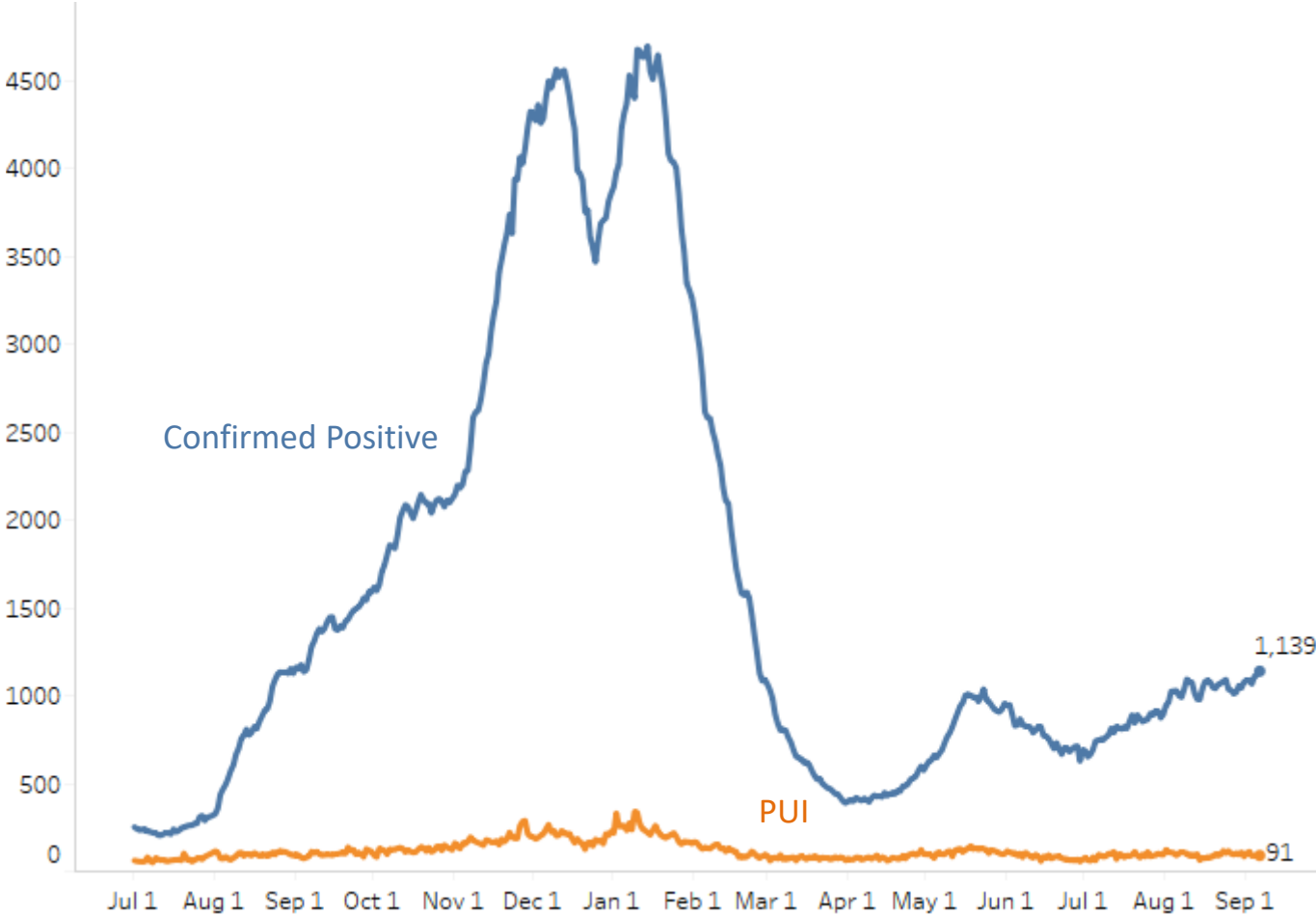
* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
 Note: Hospital Admission data reflects date data was submitted
 Source: CHECC and EM Resource

- Through September 5, there were an average of 161.1 hospital admissions per day due to COVID-19; an increase from last week (+4%, +6)
- The oldest age groups (70-79, and 80+) saw larger increases this week compared to other age groups
- This week, those between 80+ years (+5/day) saw the greatest daily average increase while 18–19-year-olds saw the largest percent increase (+200%)*
- Average daily hospital admission count (44.0 hospital admissions per day) and average daily hospital admission rate (106.2 hospital admissions/million) was highest among those aged 80+
- Those 60-69, 70-79, and 80+ are seeing between 45 daily hospital admissions

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

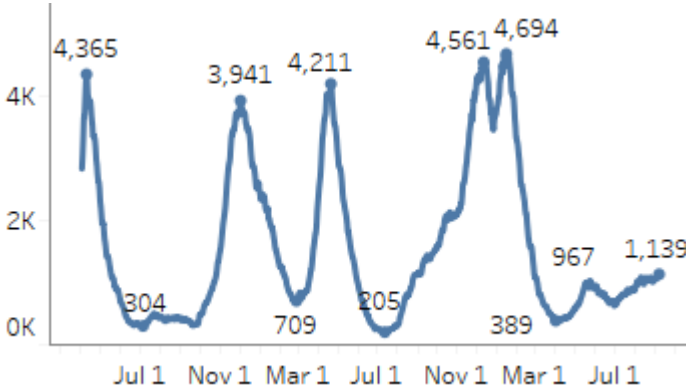
Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 7/1/2021 – 9/6/2022
Confirmed Positive & Persons Under Investigation (PUI)



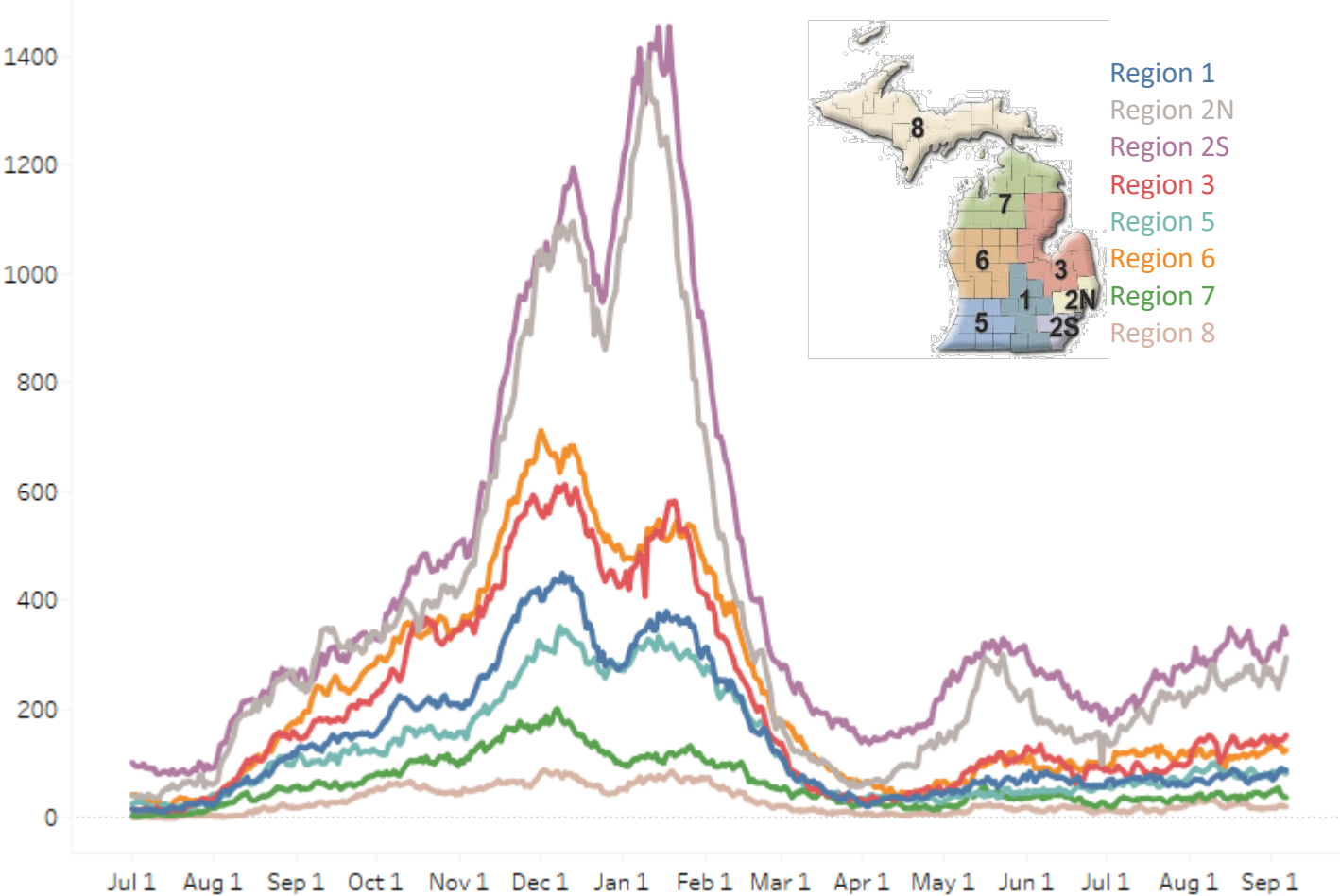
The COVID+ census in hospitals has increased by 8% from last week. Overall census is currently 1,139 patients.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 9/6/2022
Confirmed Positive by Region



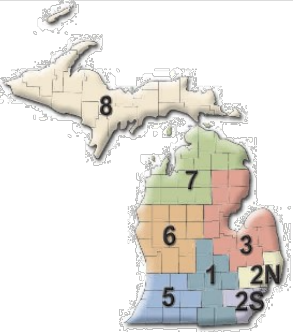
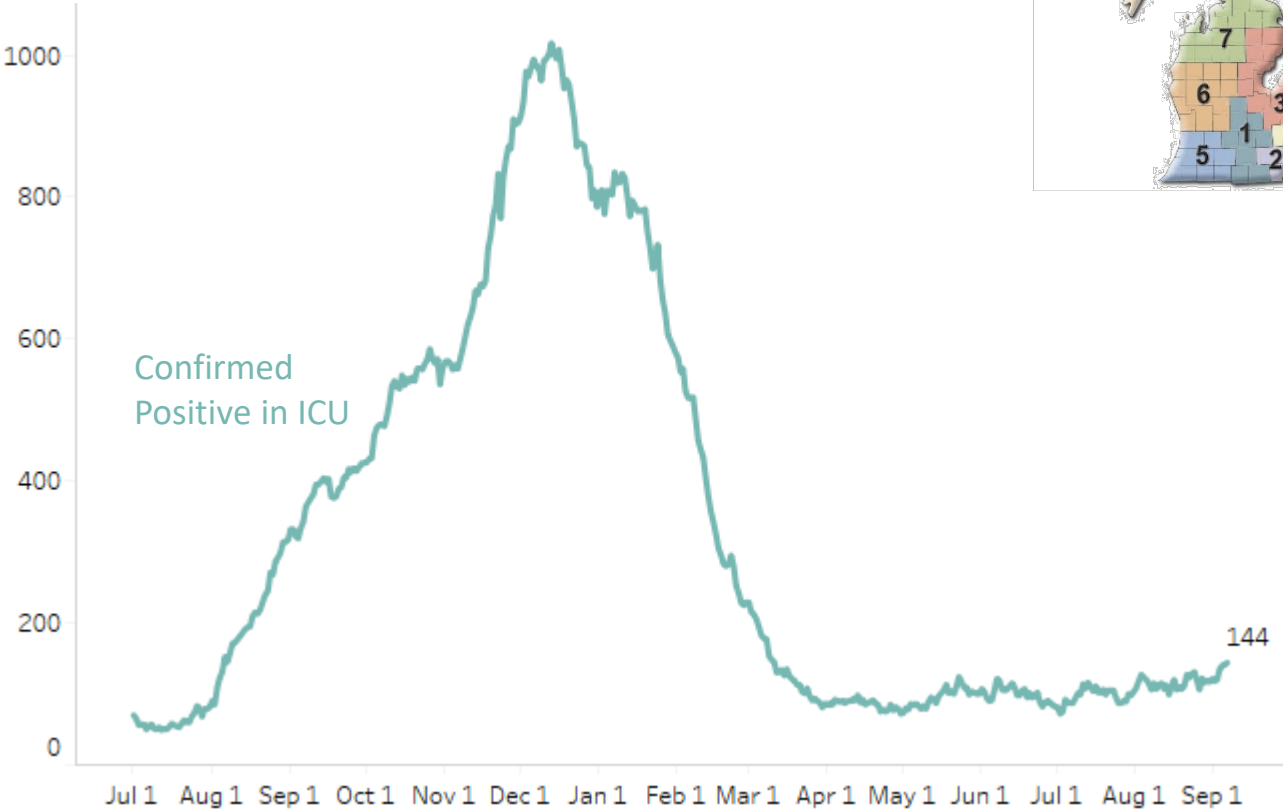
This week hospitalizations have increased in Regions 1, 2N, 2S, 3, 6, and 8. Hospitalizations have decreased or remained flat in Regions 5 and 7.

Regions 2N, 2S, and 3 have greater than 100/Million population hospitalized with COVID.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	88 (13%)	81/M
Region 2N	295 (4%)	133/M
Region 2S	338 (18%)	152/M
Region 3	152 (1%)	134/M
Region 5	82 (0%)	86/M
Region 6	125 (3%)	85/M
Region 7	38 (-5%)	76/M
Region 8	21 (17%)	67/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 9/6/2022
Confirmed Positive in ICUs

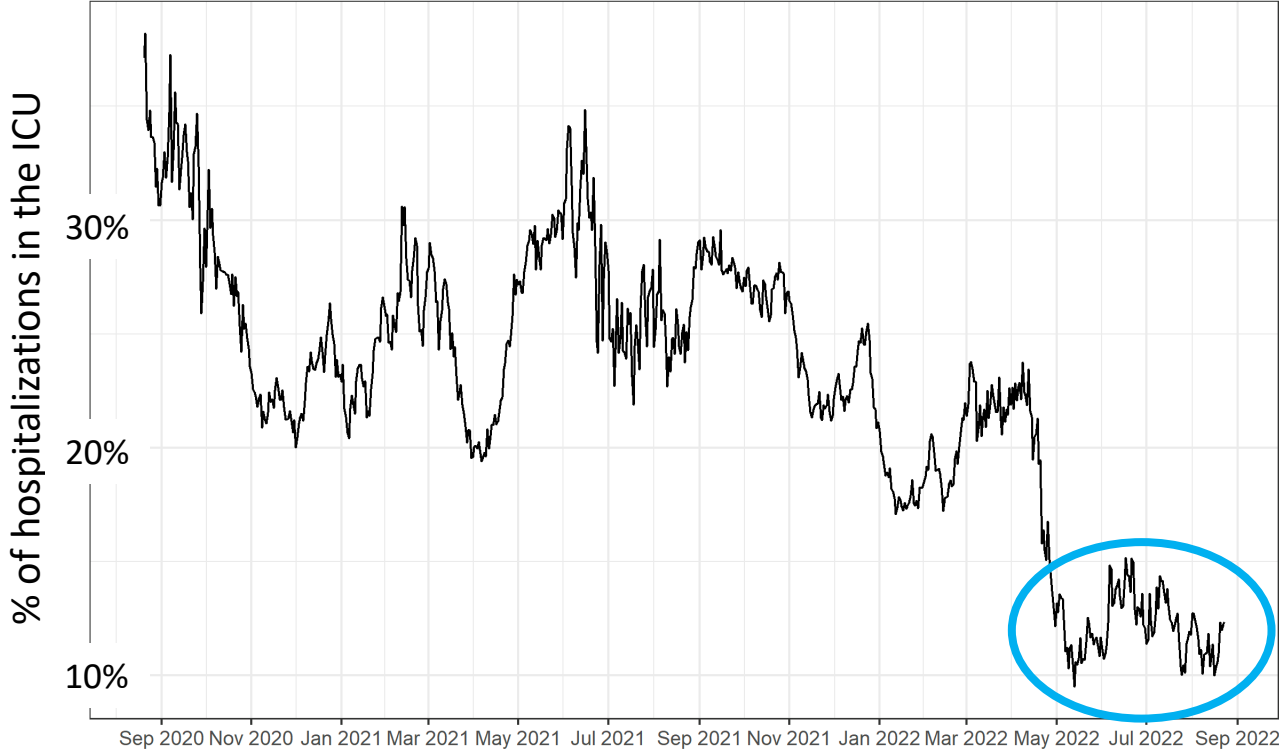


Overall, the volume of COVID+ patients in ICUs has increased by 21% from last week. There are 144 COVID+ patients in ICU beds across the state.

ICU occupancy is less than 85% in all regions. 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	10 (-9%)	84%	6%
Region 2N	37 (-12%)	68%	6%
Region 2S	56 (87%)	71%	8%
Region 3	14 (-7%)	84%	5%
Region 5	8 (167%)	67%	4%
Region 6	6 (-25%)	67%	3%
Region 7	8 (0%)	82%	6%
Region 8	5 (150%)	56%	8%

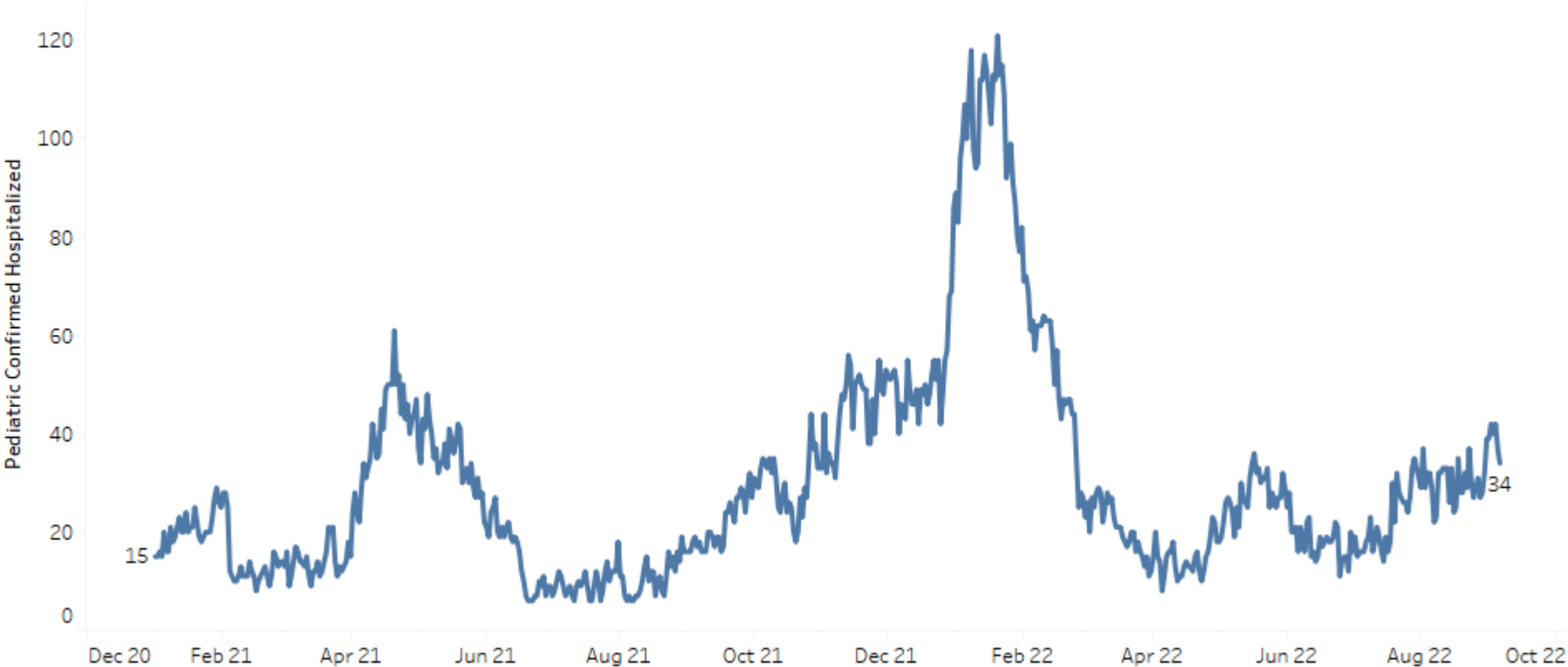
Recent months have seen the lowest % of hospitalizations in the ICU or on a ventilator over the entire pandemic



- 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

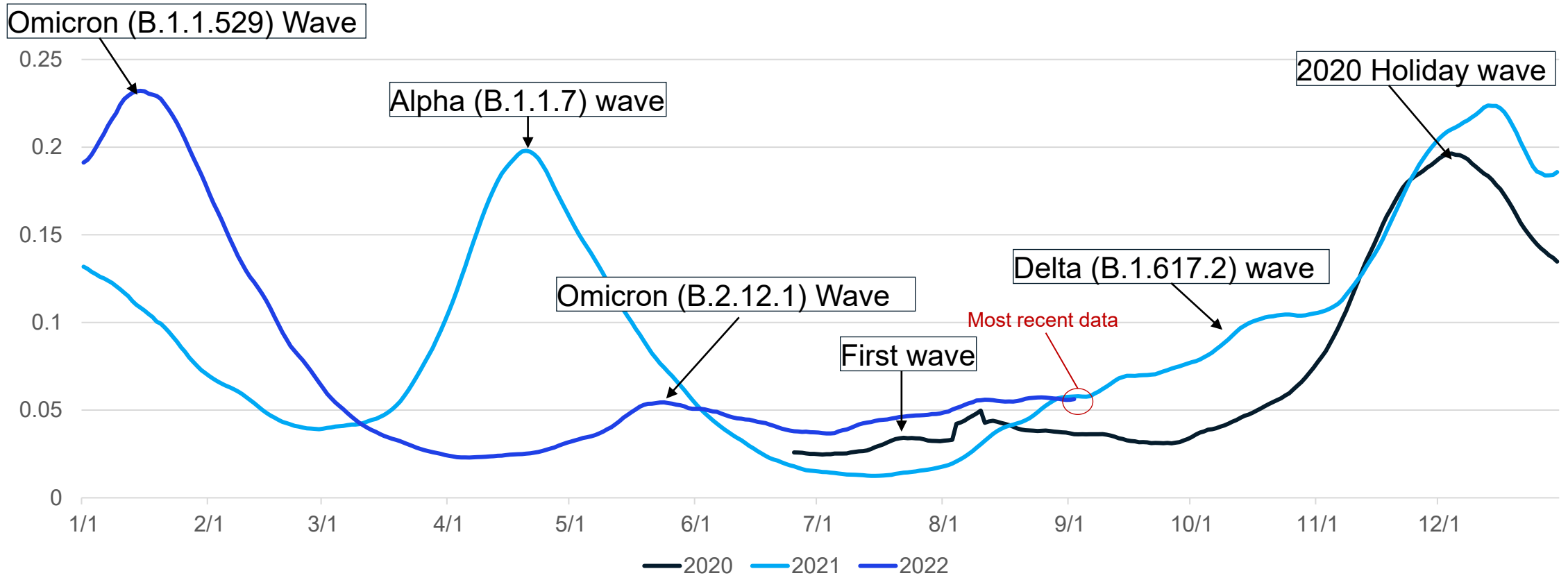
Hospitalization Trends 1/1/2021 – 9/6/2022
Pediatric Hospitalizations, Confirmed



Time Trends – Annual Comparison: Percent Inpatient COVID+

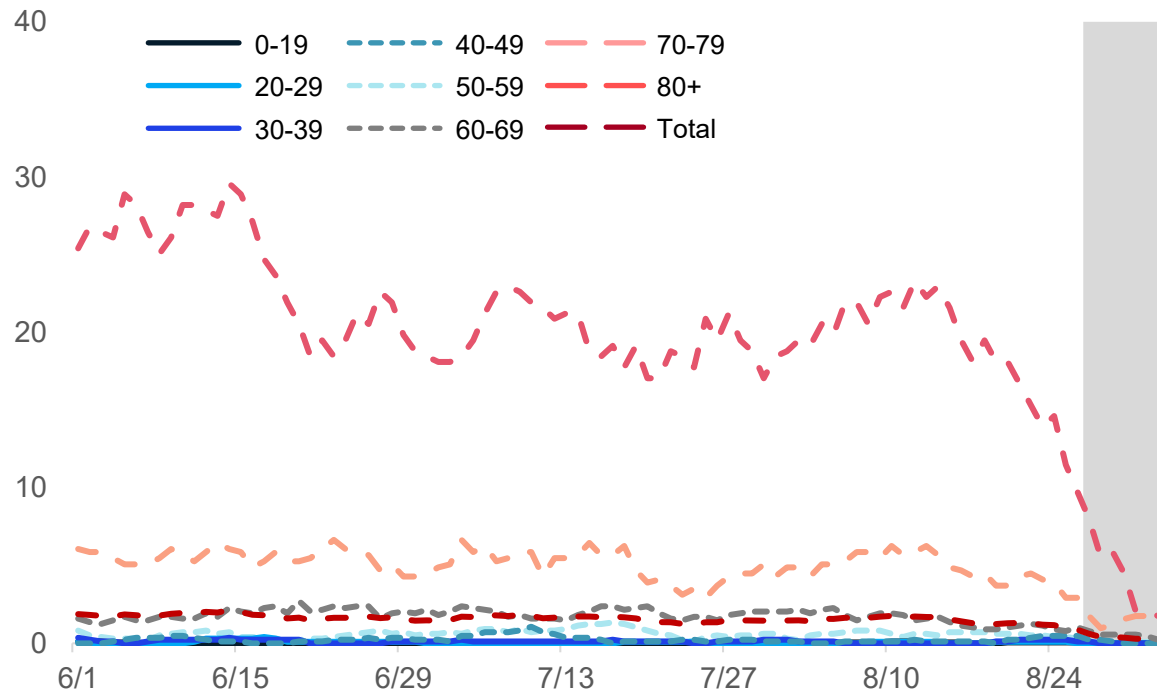
- The percent of inpatients who are COVID+ remains lower than Alpha, Omicron, and holiday wave peaks
- Current hospital levels are similar to last summer's levels as we head into fall

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



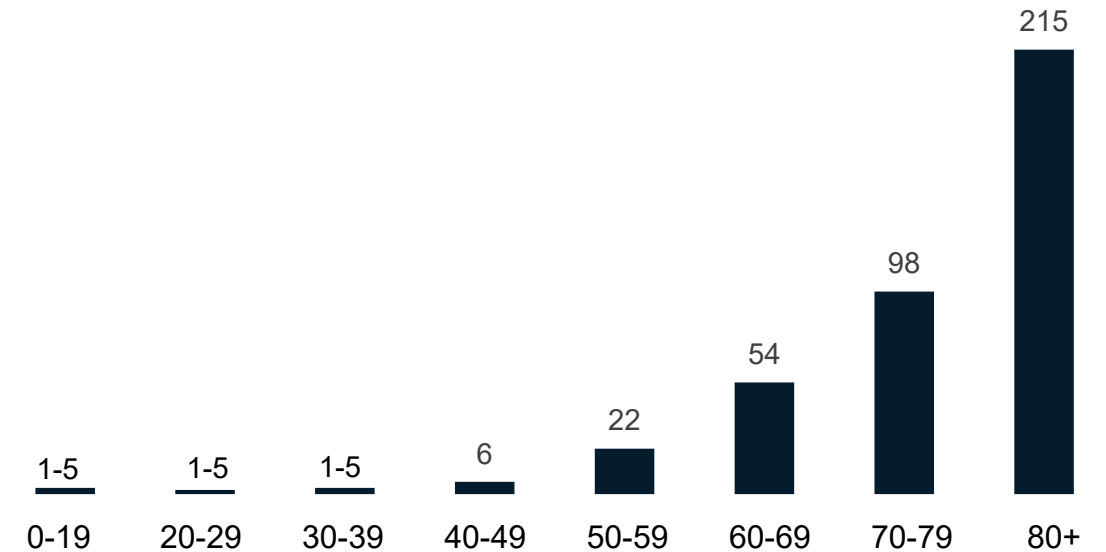
Average new deaths has plateaued for those over the age of 80

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 8/26/2022)

- 8.9% of deaths below age sixty



- Through 8/26, the 7-day avg. death rate has plateaued (9.8 deaths per million people) for those over the age of 80
- In the past 30 days, there are fewer than 15 confirmed and probable COVID-19 deaths under the age of 50
- 30-day proportion of deaths among those under 60 years of age is 8.9%.

Harm Reduction: Key Messages

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

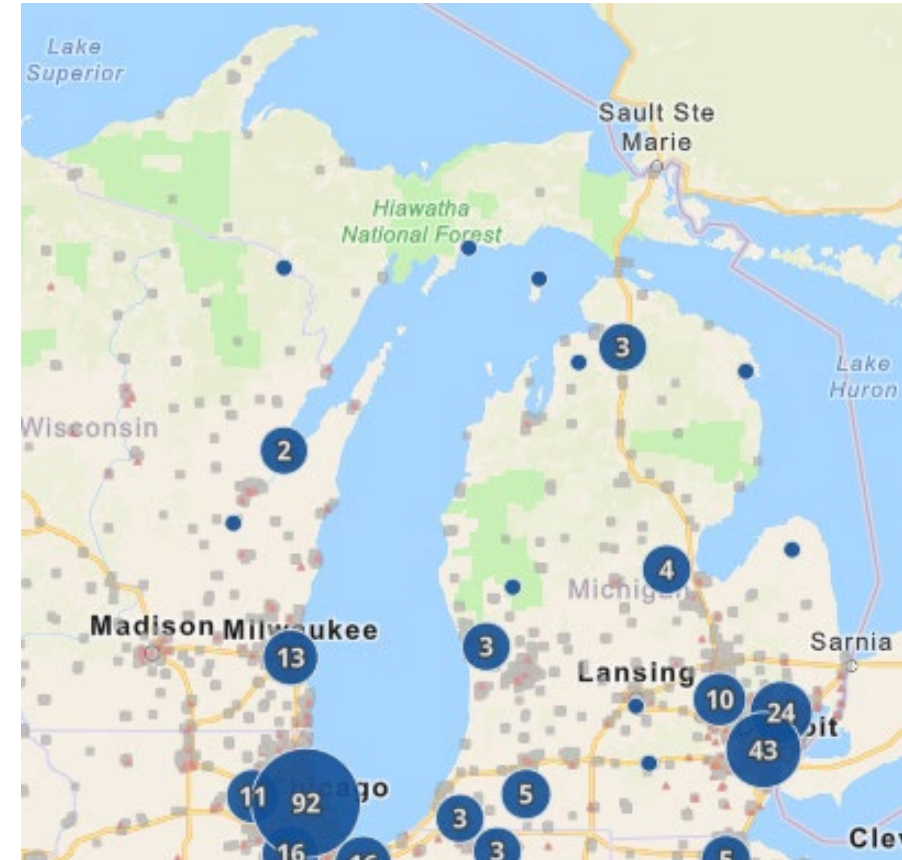
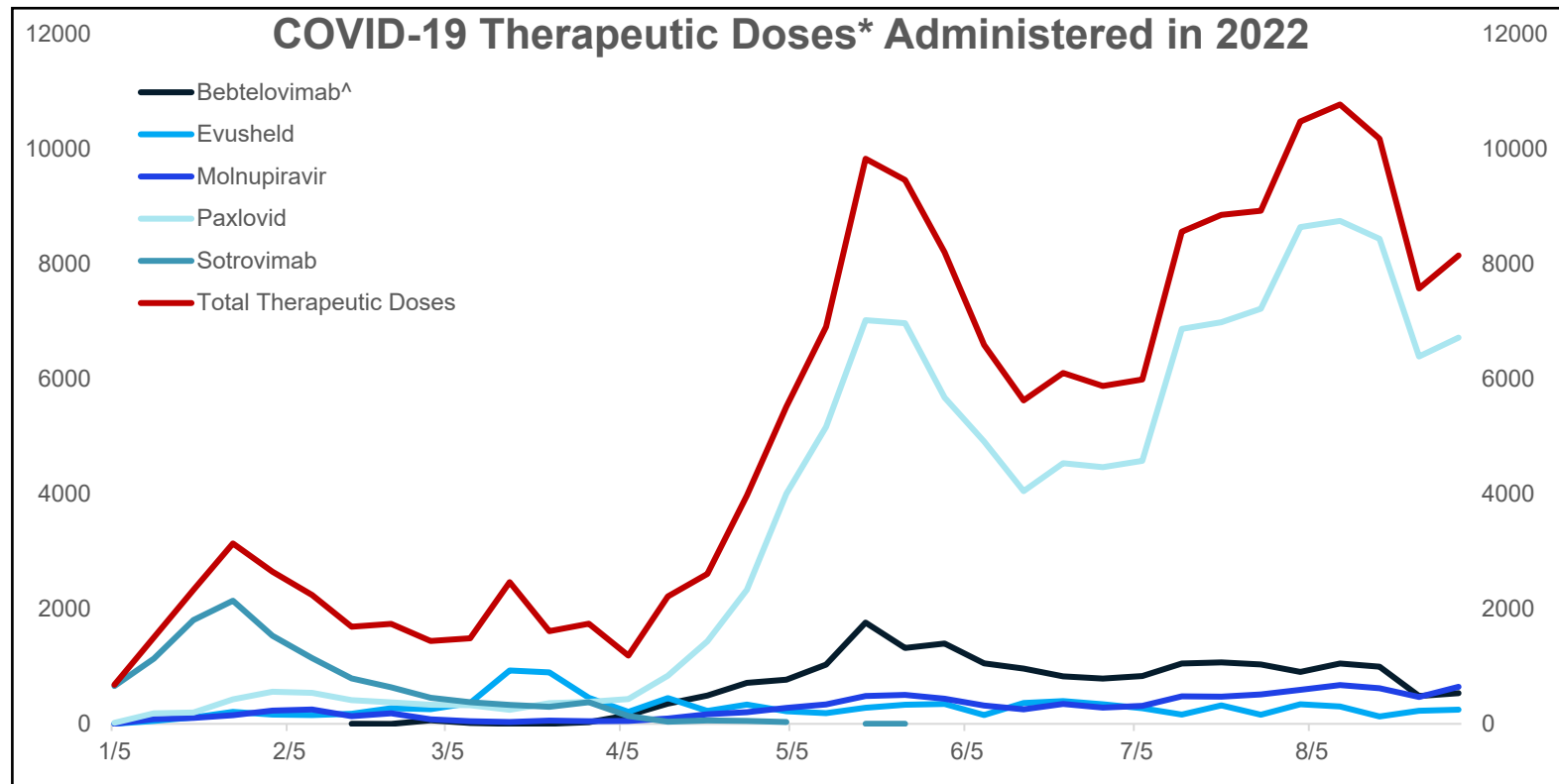
- Michiganders can take advantage of local, state, and national COVID-19 resources
- Get tested, and if positive, seek care with therapeutics (e.g., antibodies or antiviral medications)
 - Cumulative therapeutic availability and administration is lower than but still near all-time highs from early August
 - 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
 - 34.5% of people in Michigan (751K+) 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](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.

Source: HHS – Tiberius

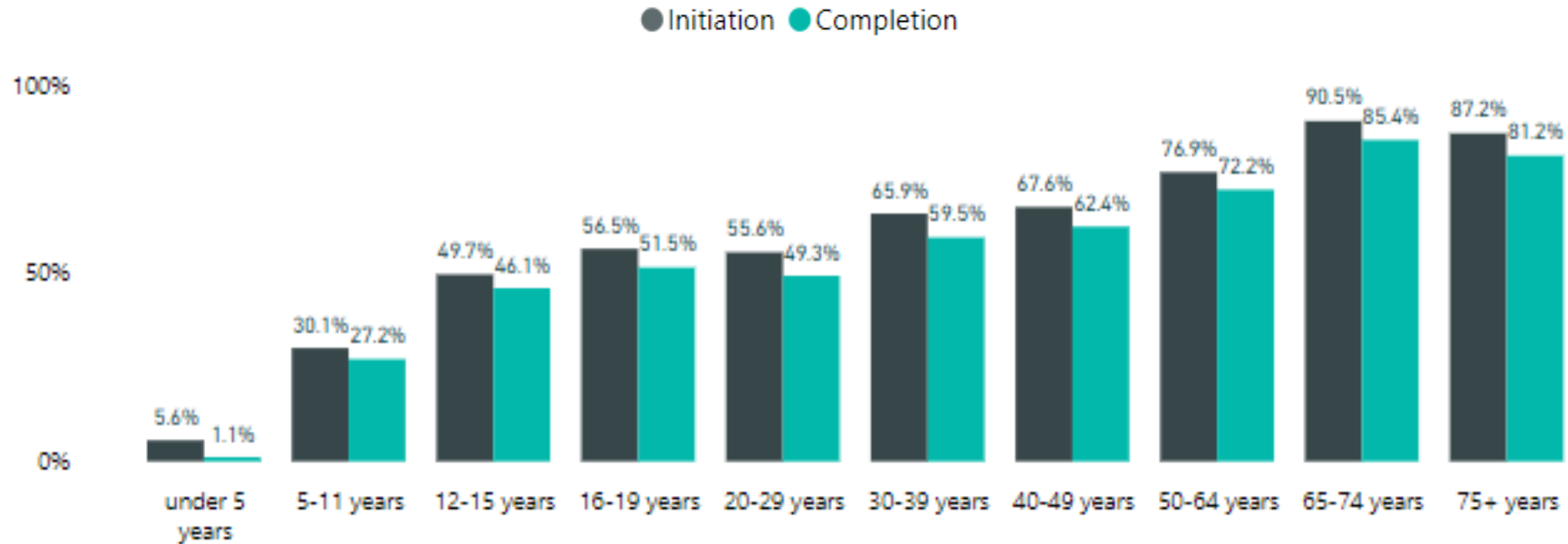
*Data is reported as a single patient course, except for Evusheld, which is reported as the number of 300mg doses administered. Data Updated September 5

^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 751,470 Michiganders 50 years of age or older who have received a first booster dose have received second booster (34.5%)

COVID-19 Vaccine Coverage by Age Group



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

Person-, household-, and community level public health strategies to minimize COVID-19 impact (1 of 4)

- Summary guidance and links to scientific evidence
- Includes vaccination, PREP, treatment, ventilation, facial coverings, testing, isolation, close contacts, hand hygiene, and other NPIs

Recommended public health strategy	Person- and household-level prevention behaviors	Community-level prevention strategies*	Links to guidance and scientific evidence
COVID-19 vaccination	Stay up to date with COVID-19 vaccination	Distribute and administer vaccines to achieve high community vaccination coverage and ensure health equity Support community partnerships and leverage trusted sources of information to expand booster coverage	Vaccines for COVID-19: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html Stay up to date with COVID-19 vaccines: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html Science brief: COVID-19 vaccines and vaccination: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/fully-vaccinated-people.html
Preexposure prophylaxis	Persons who are moderately or severely immunocompromised might benefit from COVID-19 preexposure prophylactic treatment (Evusheld) to prevent severe COVID-19 illness	Provide education and communication outreach to patients and clinical care organizations that serve patients with immunocompromising conditions to support equitable access to preexposure prophylaxis	COVID-19 preventive medication: https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#preventive Prevention of SARS-CoV-2 infection: https://www.covid19treatmentguidelines.nih.gov/overview/prevention-of-sars-cov-2/
Medications for treatment of COVID-19	Persons at increased risk for severe illness should have a plan for rapid access to tests and	Enable rapid access to oral COVID-19 treatment within ≤5 days of diagnosis Support clinical-community linkages to	COVID-19 treatments and medication: https://www.cdc.gov/coronavirus/2019-ncov/your-health/treatments-for-severe-illness.html

Person–, household–, and community level public health strategies to minimize COVID-19 impact (2 of 4)

- Summary guidance and links to scientific evidence
- Includes vaccination, PREP, treatment, ventilation, facial coverings, testing, isolation, close contacts, hand hygiene, and other NPIs

Recommended public health strategy	Person- and household-level prevention behaviors	Community-level prevention strategies*	Links to guidance and scientific evidence
Improved ventilation	Increase ventilation and filtration	Take steps to increase ventilation and filtration in public places	Improving ventilation in your home: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/Improving-Ventilation-Home.html Ventilation in buildings: https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html Ventilation in schools and childcare programs: https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/ventilation.html Science brief: SARS-CoV-2 transmission: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html
Masks and respirators	Persons at high risk for severe illness should wear a mask or respirator (N95/KN95) that provides more protection indoors in public at medium and high COVID-19 community levels All persons should wear well-fitting masks or respirators indoors in public at high COVID-19 Community Levels†	Recommend all persons wear well-fitting masks or respirators at high COVID-19 Community Levels and support use of masks through messaging and resources	Masks and respirators: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html Science brief: community use of masks to control and spread of SARS-CoV-2: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html

Person–, household–, and community level public health strategies to minimize COVID-19 impact (3 of 4)

- Summary guidance and links to scientific evidence
- Includes vaccination, PREP, treatment, ventilation, facial coverings, testing, isolation, close contacts, hand hygiene, and other NPIs

Recommended public health strategy	Person- and household-level prevention behaviors	Community-level prevention strategies*	Links to guidance and scientific evidence
Managing exposures to SARS-CoV-2	Persons with recent exposure should wear a mask indoors in public for 10 days and test ≥5 days after last exposure	Increase equitable access to testing, including through point-of-care and at-home tests for all persons Support case investigation and contact tracing in high-risk settings where recommended ⁵	What to do if you are exposed: https://www.cdc.gov/coronavirus/2019-ncov/your-health/if-you-were-exposed.html Definition of close contacts: https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/appendix.html#contact Science brief: SARS-CoV-2 transmission: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html
Hand hygiene	Wash hands frequently mask around others at home and in public and avoid contact with persons at high risk for severe illness ⁴	Ensure provision of adequate hand sanitation supplies	How to protect yourself and others: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html Science brief: SARS-CoV-2 transmission: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html

Person-, household-, and community level public health strategies to minimize COVID-19 impact (4 of 4)

- Summary guidance and links to scientific evidence
- Includes vaccination, PREP, treatment, ventilation, facial coverings, testing, isolation, close contacts, hand hygiene, and other NPIs

Recommended public health strategy	Person- and household-level prevention behaviors	Community-level prevention strategies*	Links to guidance and scientific evidence
Increasing space and distance	Persons at high risk for severe illness can consider avoiding crowded areas and minimizing direct physical contact, especially in settings where there is high risk for exposure	Provide education to populations at high risk for severe illness to advise them to consider taking steps to protect themselves in settings where there is high risk for exposure	How to protect yourself and others: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html Science brief: SARS-CoV-2 transmission: https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html

* Recommended strategies relate to general community settings; adapted setting-specific guidance and recommendations include schools and early childhood settings (<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-childcare-guidance.html>), high-risk congregate settings such as correctional facilities and homeless shelters (<https://www.cdc.gov/coronavirus/2019-ncov/community/high-risk-congregate-settings.html>), health care settings (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>), and travel (<https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html>).

† Although all masks and respirators provide some level of protection, properly fitting respirators provide the highest level of protection. Persons may consider the situation and other factors when choosing a mask or respirator that offers greater protection. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html#DifferentSituations>

§ Universal case investigation and contact tracing are not recommended for COVID-19; health departments and jurisdictions should prioritize investigation of COVID-19 cases, clusters, and outbreaks involving high-risk congregate settings such as long-term care facilities and correctional facilities or unusual clusters of cases. <https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/prioritization.html>

¶ Infected persons should end isolation only when they are without a fever for ≥24 hours without use of medication and all other symptoms have improved. Persons who had moderate illness from COVID-19, including those who show evidence of lower respiratory disease such as shortness of breath or difficulty breathing should isolate for ≥10 days. Persons who had severe illness from COVID-19 (including those who were hospitalized or required intensive care) and persons who are immunocompromised should consult with a health care provider about how to determine end of isolation. <https://www.covid19treatmentguidelines.nih.gov/overview/clinical-spectrum/>

Take action if you test positive

DAY 0



Everyone:
Stay home and away from others (isolate)

People at high risk for severe illness:
Talk to your doctor about treatment

End isolation on day 6 or later if you never had symptoms or if you are fever-free for 24 hours and other symptoms improved



Everyone through day 10:

- Wear a mask OR use 2 negative antigen tests to decide when to stop wearing a mask
- Avoid people at high risk of getting very sick

DAY 11 or later

See CDC's isolation guidance for more info:
bit.ly/COVID19isolation



MMWR

AUGUST 11, 2022

Evidence Supporting CDC's New Isolation Recommendations

- Isolation is effective at reducing transmission of SARS-CoV-2¹
- Symptomatic individuals with URI symptoms should isolate regardless of test result. Symptomatic individuals with an initial negative home antigen test result for SARS-CoV-2 should test again 1 to 2 days later because test sensitivity seems to peak several days after illness onset⁴
- SARS-CoV-2 transmission is propagated through high viral loads of viable virus which is found to be most evident earlier in infection through approximately day 8^{2,3}
- Immunocompromised individuals may be infectious for longer periods of time²

Abbreviations: URI upper respiratory infection

Sources: 1. Massetti GM, Jackson BR, Brooks JT, et al. Summary of Guidance for Minimizing the Impact of COVID-19 on Individual Persons, Communities, and Health Care Systems — United States, August 2022. MMWR Morb Mortal Wkly Rep. ePub: 11 August 2022. DOI: <http://dx.doi.org/10.15585/mmwr.mm7133e1>

2. Rahmani A, Dini G, Leso V, Montecucco A, Kuszniir Vitturi B, Iavicoli I, Durando P. Duration of SARS-CoV-2 shedding and infectivity in the working age population: a systematic review and meta-analysis. Med Lav. 2022 Apr 26;113(2):e2022014. doi: 10.23749/mdl.v113i2.12724. PMID: 35481581; PMCID: PMC9073762

3. Jefferson T, Spencer EA, Brassey Jon, Heneghan C, Viral Cultures for Coronavirus Disease 2019 Infectivity Assessment: A Systematic Review, Clinical Infectious Diseases, Volume 73, Issue 11, 1 December 2021, Pages e3884–e3899, <https://doi.org/10.1093/cid/ciaa1764>

4. Chu VT, Schwartz NG, Donnelly MAP, et al. Comparison of Home Antigen Testing With RT-PCR and Viral Culture During the Course of SARS-CoV-2 Infection. JAMA Intern Med. 2022;182(7):701–709. doi:10.1001/jamainternmed.2022.1827

CDC Operational Guidance for K-12 School and Early Childhood Education (ECE) Programs to Support Safe In-Person Learning

Strategies for Everyday Operations in K-12 Schools and Early Childhood Education

- Schools and ECE programs should promote, emphasize, and implement a core set of infectious disease prevention strategies as part of their normal operations, including to mitigate COVID-19
 - Staying up to date on vaccinations
 - Staying home when sick
 - Improving ventilation
 - Washing hands and respiratory etiquette
 - Cleaning surfaces at least once a day

Recently released CDC guidance to minimize COVID-19 impact in the United States modifies some of the existing mitigations in K-12 schools and ECEs

- Removed recommendation to cohort
- Changed recommendation to focus screening for high-risk activities during high COVID-19 Community level or in response to an outbreak
- Removed the recommendation to quarantine, except in high risk congregate settings
- Removed recommendation about Test to Stay in school settings
- Added detailed information about when to wear a mask*, managing cases and exposures, and responding to outbreaks

Considerations for Prioritizing Strategies

- COVID-19 community levels and other community or setting-specific context
 - Age of those in the population served
 - Students with disabilities
 - People at risk of getting very sick
 - Equity
 - Availability of resources
 - Communities served
 - Pediatric-specific considerations

Safety Monitoring of Pfizer-BioNTech COVID-19 Vaccine Booster Doses Among Children Aged 5–11 Years — United States, May 17–July 31, 2022

TABLE 2. Adverse reactions and health impacts reported to v-safe for children aged 5–11 years who received homologous Pfizer-BioNTech COVID-19 booster vaccination* (N = 3,249) — United States, May 17–July 31, 2022

Reported event	% Reporting event [†]		
	Dose 1	Dose 2	Dose 3
Any local injection site reaction	62.6	68.0	68.5
Itching	4.9	4.9	5.3
Pain	60.7	66.1	66.7
Redness	4.5	5.5	8.5
Swelling	4.2	6.2	9.6
Any systemic reaction	38.1	45.8	45.6
Abdominal pain	5.3	7.4	6.1
Myalgia	7.1	10.2	13.9
Chills	3.8	7.6	7.4
Diarrhea	2.6	2.2	2.4
Fatigue	22.9	29.9	28.9
Fever	7.8	15.4	16.9
Headache	15.2	20.6	19.9
Joint pain	2.2	3.0	3.4
Nausea	4.8	7.1	7.1
Rash	1.0	0.8	1.3
Vomiting	1.9	2.5	3.1
Any health impact	9.4	14.5	16.3
Unable to perform normal daily activities	4.7	7.5	12.1
Unable to attend school	6.5	10.0	6.9
Needed medical care	1.1	0.9	1.0
Clinic	0.5	0.5	0.5
Telehealth	0.2	0.2	0.3
Emergency department visit	0.03	0.1	0.03
Hospitalization	0.03	0	0

TABLE 3. Reports of nonserious and serious events to the Vaccine Adverse Event Reporting System for children aged 5–11 years who received a Pfizer-BioNTech COVID-19 booster dose (N = 581) — United States, May 17–July 31, 2022

Reported events	No. (%)
Nonserious VAERS reports	578 (100)
Symptom, sign, diagnostic result, or condition (MedDRA PT*)	
Product preparation issue	145 (25.1)
Incorrect dose administered	128 (22.2)
No adverse event [†]	105 (18.2)
Product administered to patient of inappropriate age	55 (9.5)
Product preparation error	53 (9.2)
Expired product administered	46 (8.0)
Fever	45 (7.8)
Pain in extremity	38 (6.6)
Fatigue	28 (4.8)
Headache	22 (3.8)
Injection site pain	22 (3.8)
Product storage error	22 (3.8)
Vomiting	22 (3.8)
Chills	18 (3.1)
Dizziness	18 (3.1)
Serious VAERS reports ^{§,¶}	3 (100)
Clinical impression	
Generalized pain, fatigue, and malaise requiring hospitalization	1 (33.3)
New onset type 1 diabetes	1 (33.3)
Facial swelling	1 (33.3)

Key Messages

- COVID-19 mRNA vaccine booster dose is recommended for children aged 5–11 years
- Between May and July 2022, approximately 657,302 third doses were administered to children in this age group
- Vaccine reactions after dose 3 were reported to v-safe with similar frequency to that after doses 2
- Serious adverse events after dose 3 are rare, and no reports of myocarditis or death after receipt of dose 3 were received

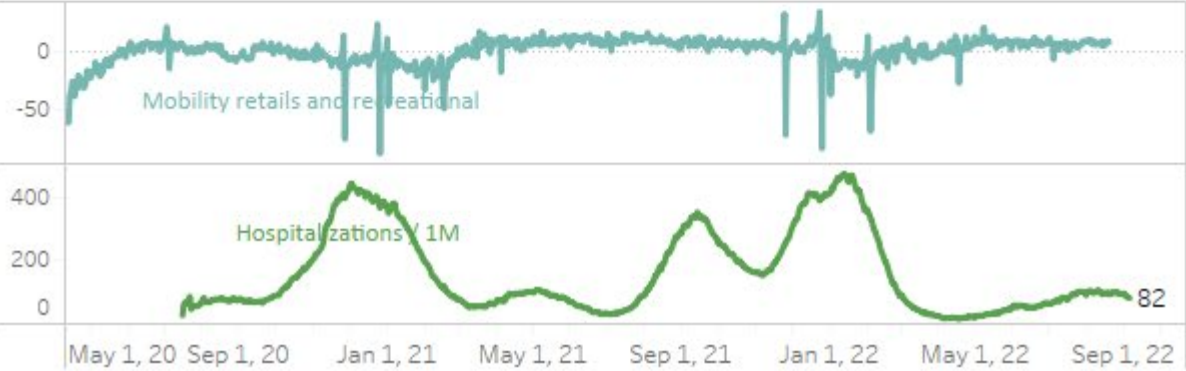
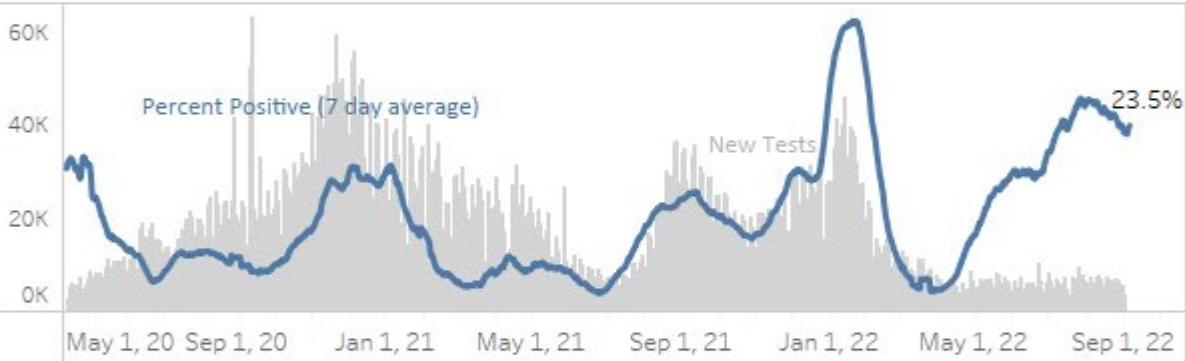
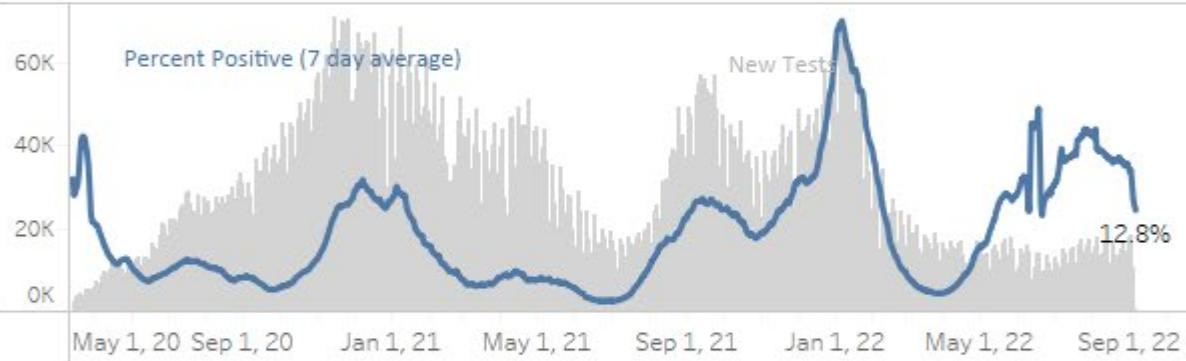
APPENDIX

State Comparisons: Ohio and Indiana

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

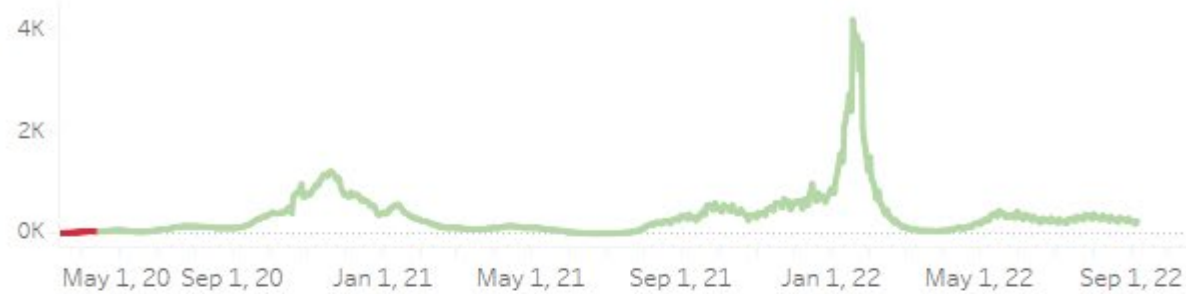


Indiana Confirmed New Cases / 1M (7 days average)

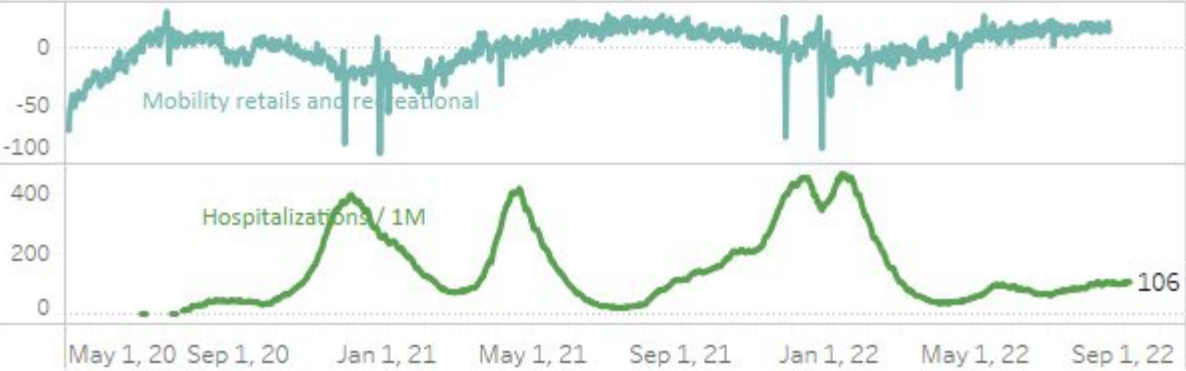
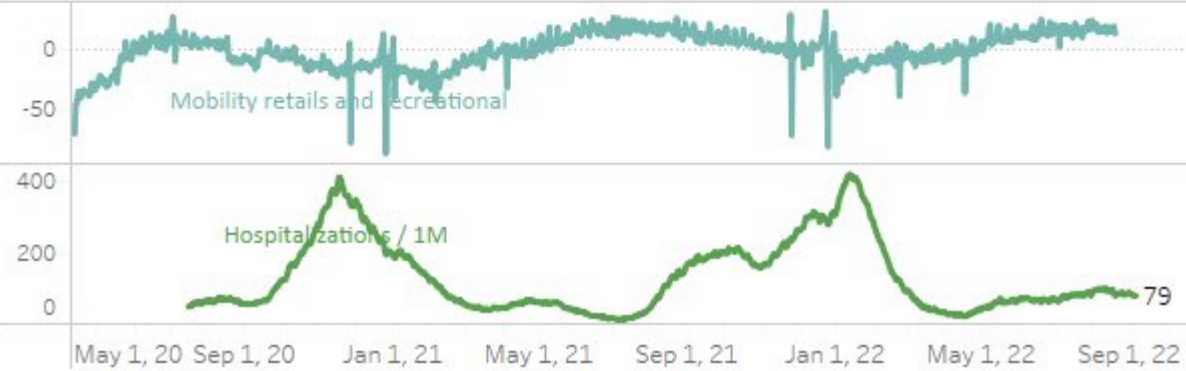
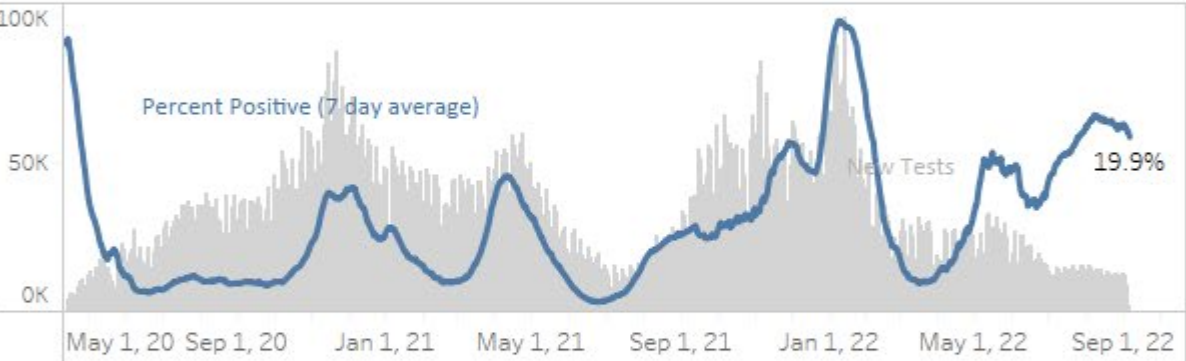
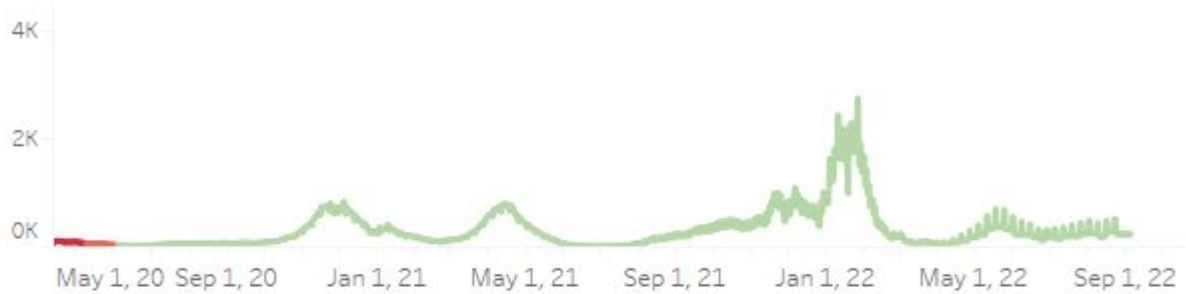


State Comparison: Wisconsin and Michigan

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

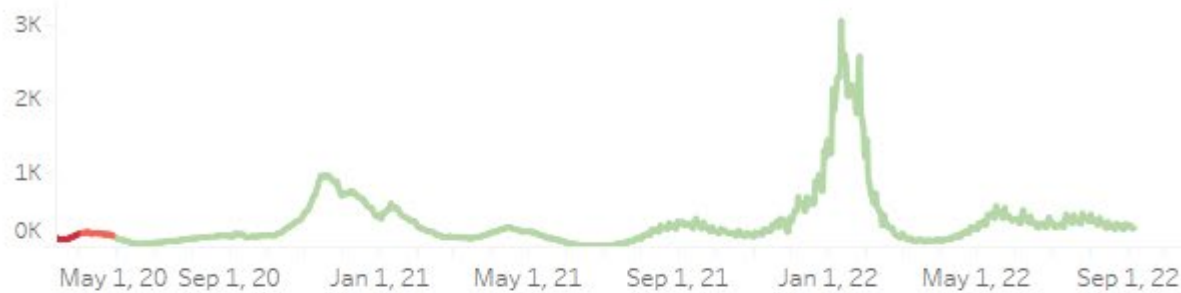


Michigan Confirmed New Cases / 1M (7 days average)

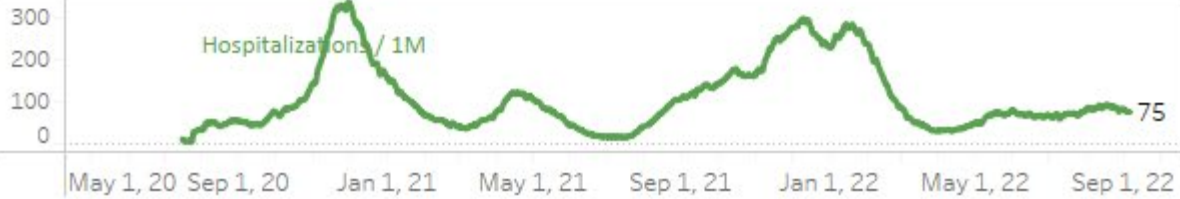
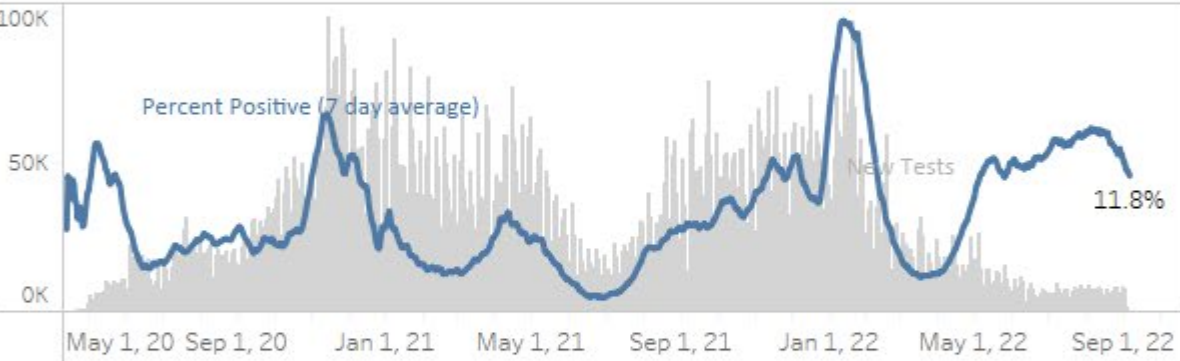
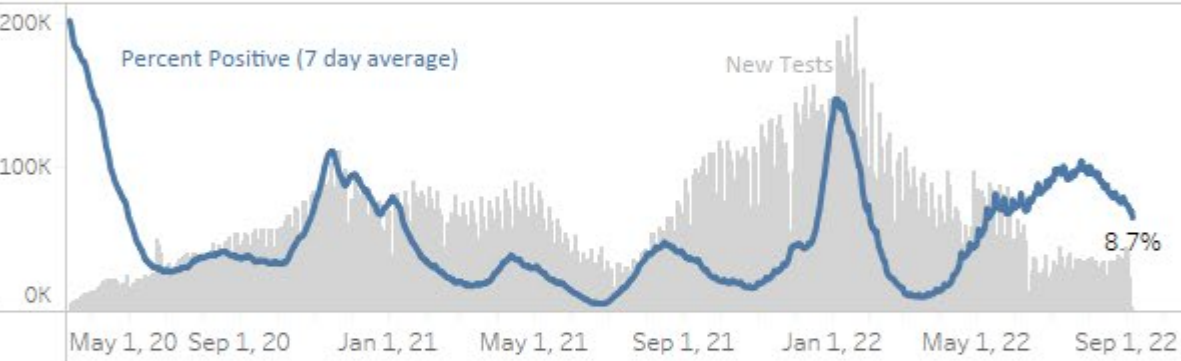
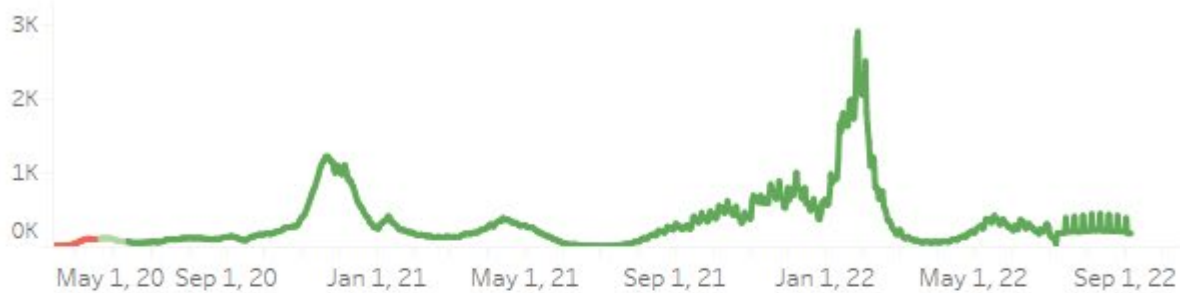


State Comparison: Illinois and Minnesota

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



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

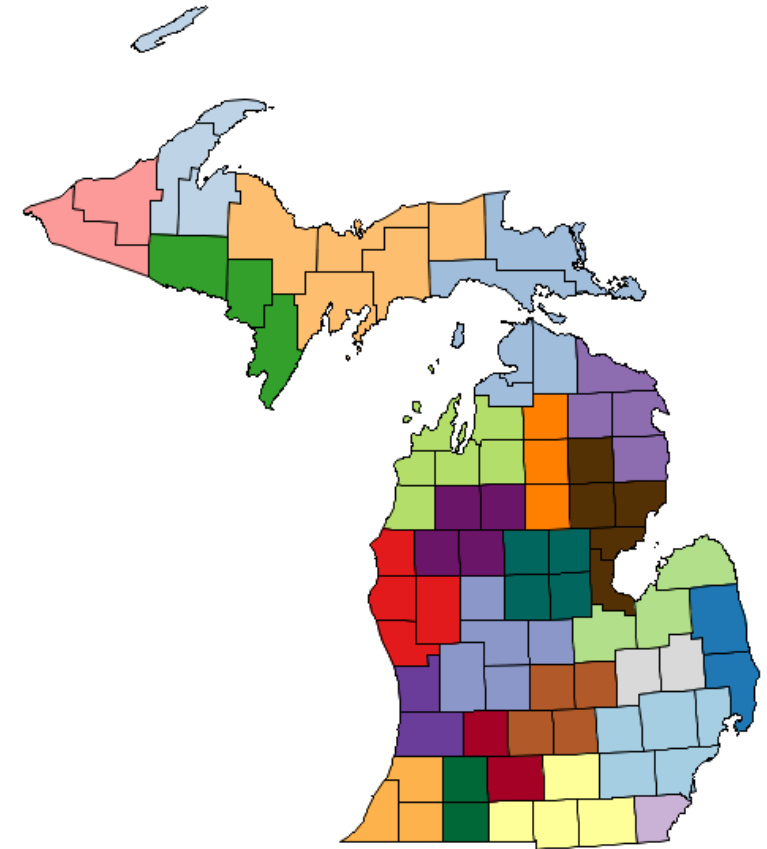


CDC COVID-19 Community Levels are defined by County Case Rates and Health Service Area (HSA) Hospitalizations

COVID-19 Community Levels – Use the Highest Level that Applies to Your Community

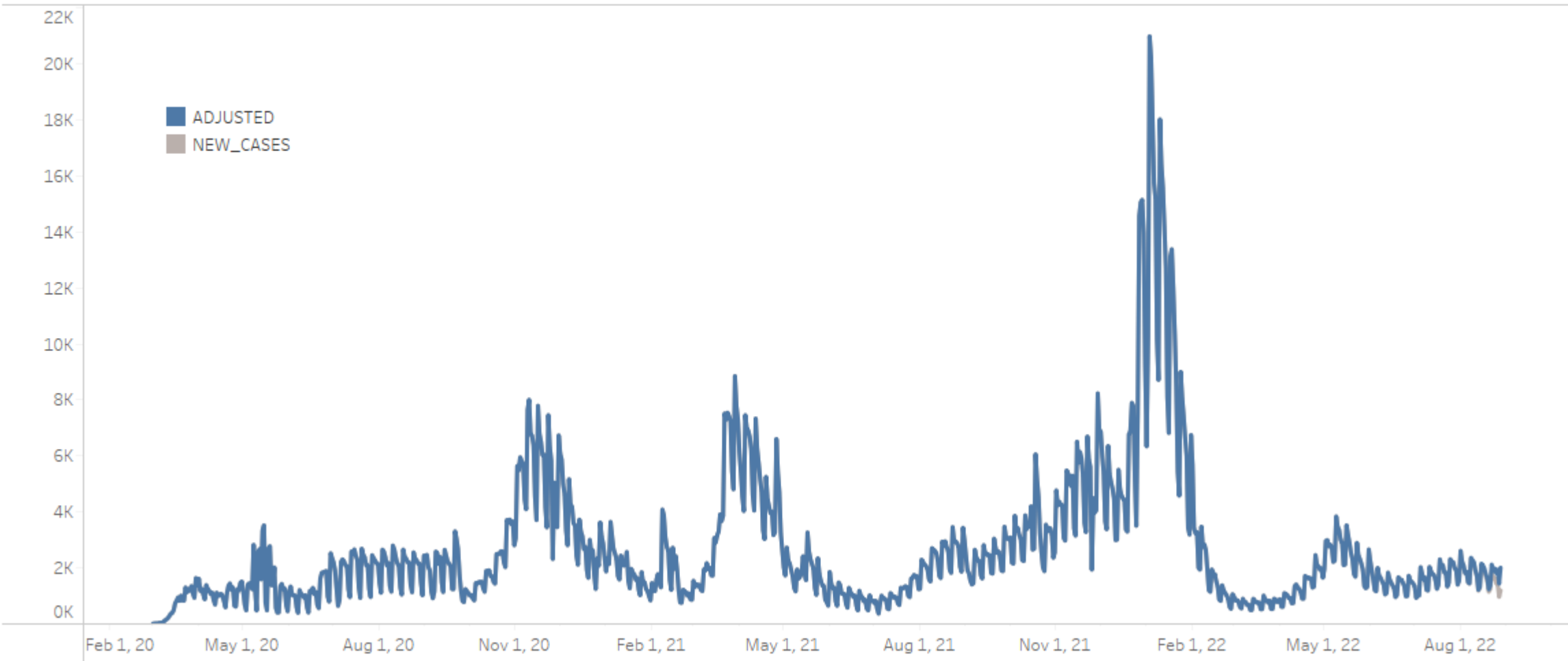
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New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

Health Service Areas



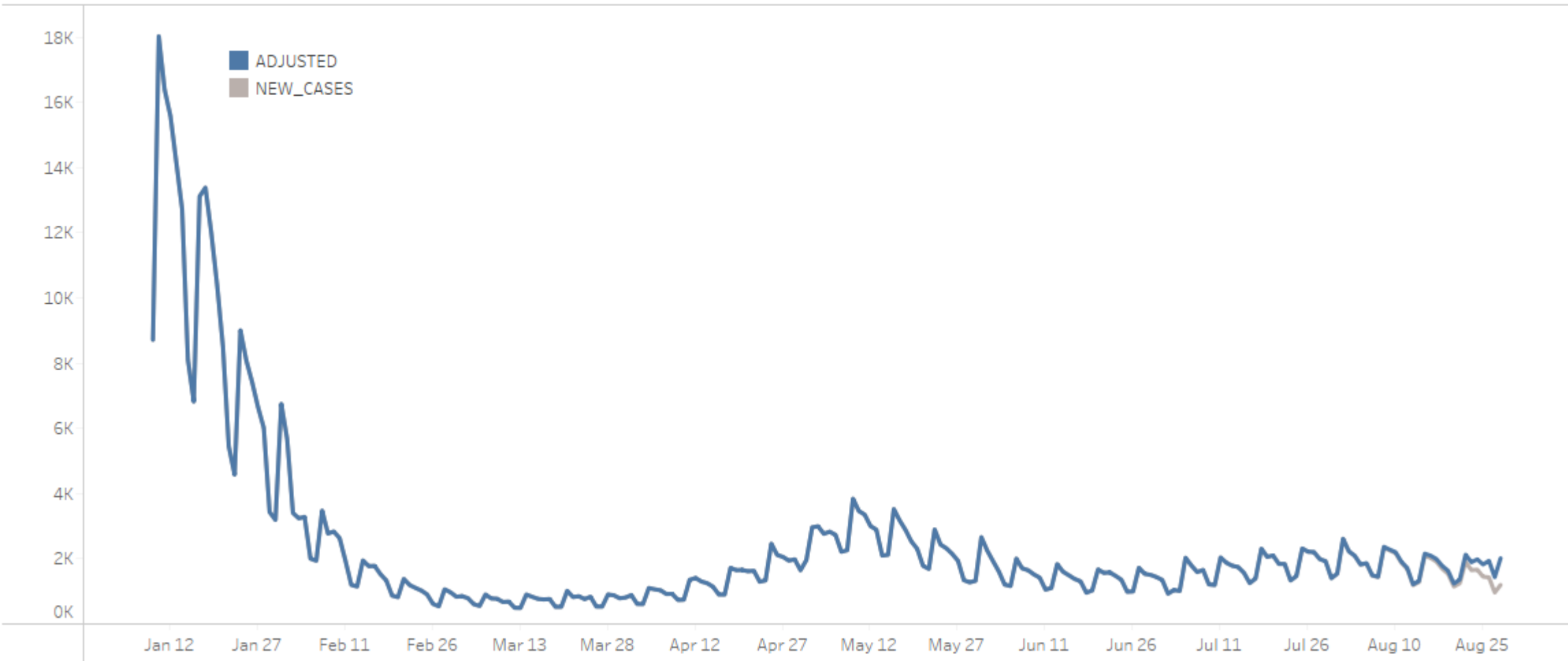
Michigan Lag-adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of August 30, 2022 (-2 days)



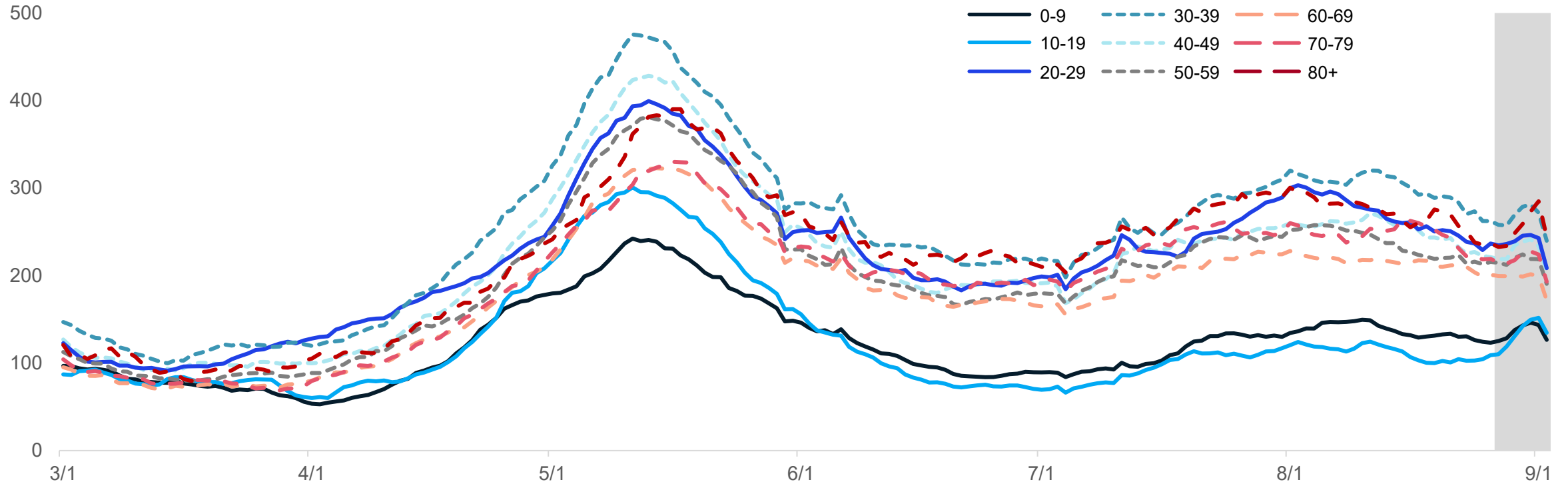
Michigan Lag-adjusted new cases by onset date, recent trends

New confirmed cases by onset actual and adjusted as of August 30, 2022 (-2 days)



Case Rate Trends by Age Group

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

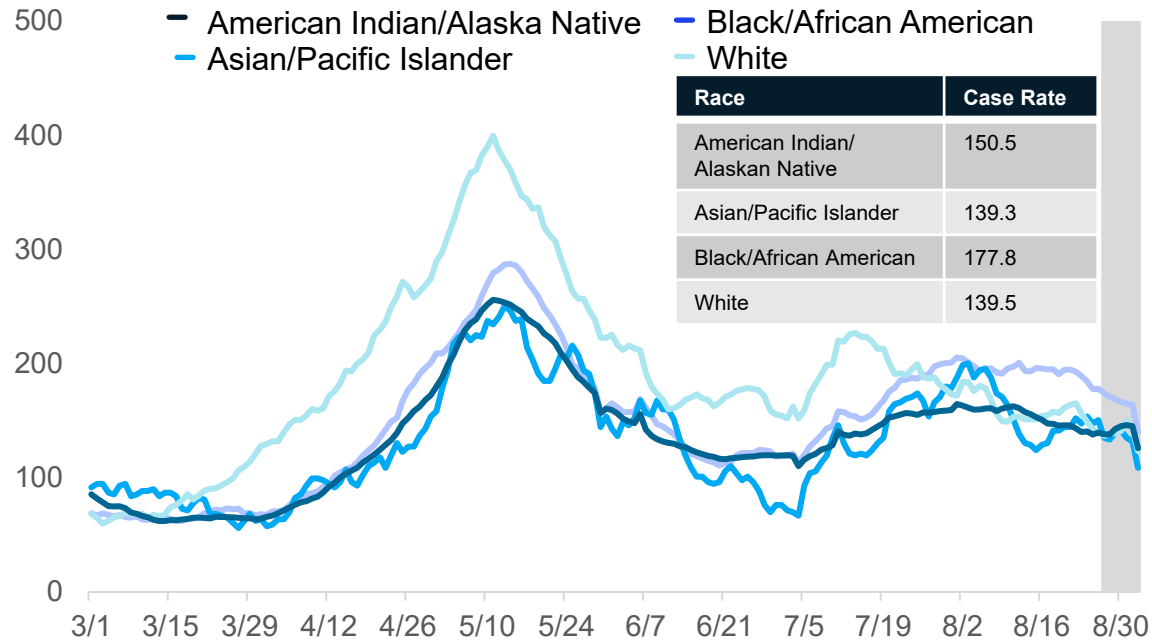


- Case rate trends for all age groups experienced a plateau over the last week
- Case rates by onset date for all age groups are between 109.1 and 262.2 cases per million (through 8/26)
- Case counts and case rates are highest for 30-39-year-olds this week, followed by 20-29-year-olds and the 80+-year-olds

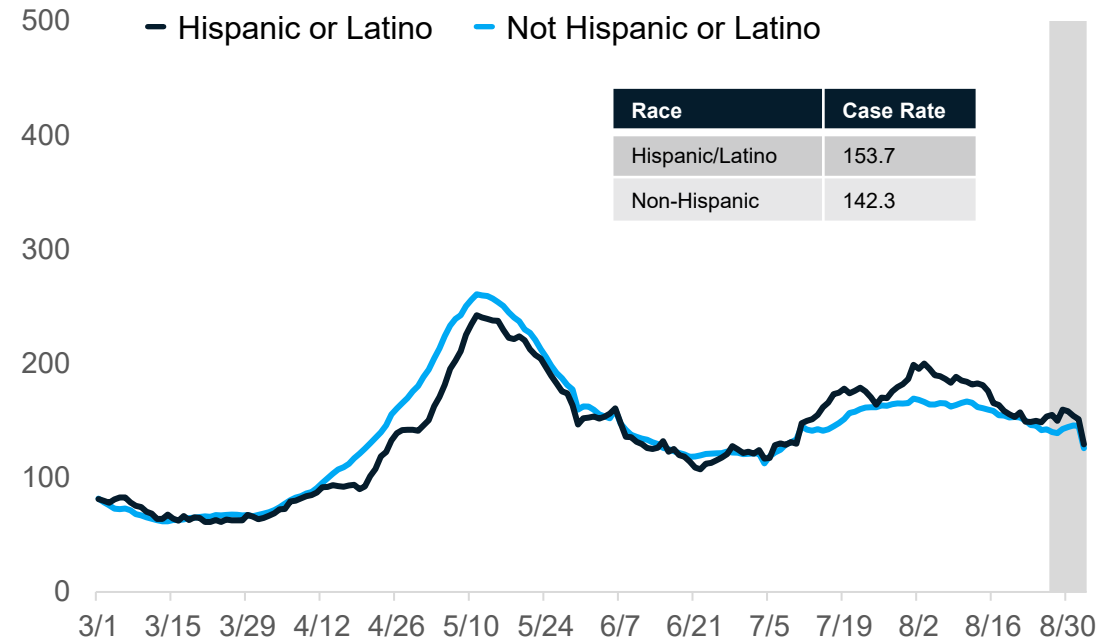
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Case Rates by Reported Racial and Ethnic Group

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



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



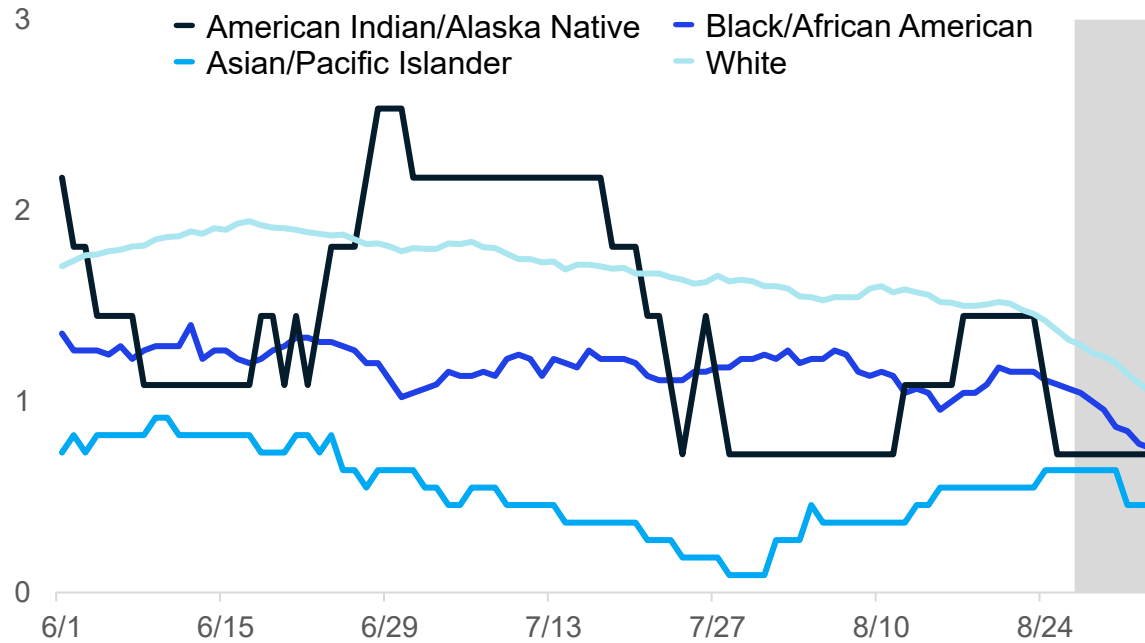
Updates since last week:

- Cases per million have plateaued for nearly all reported racial and ethnic groups
- In the past 30 days, 22.4% (↑ 0.1%) of race data and 28.1% (↑ 0.4%) ethnicity data was either missing or reported as unknown

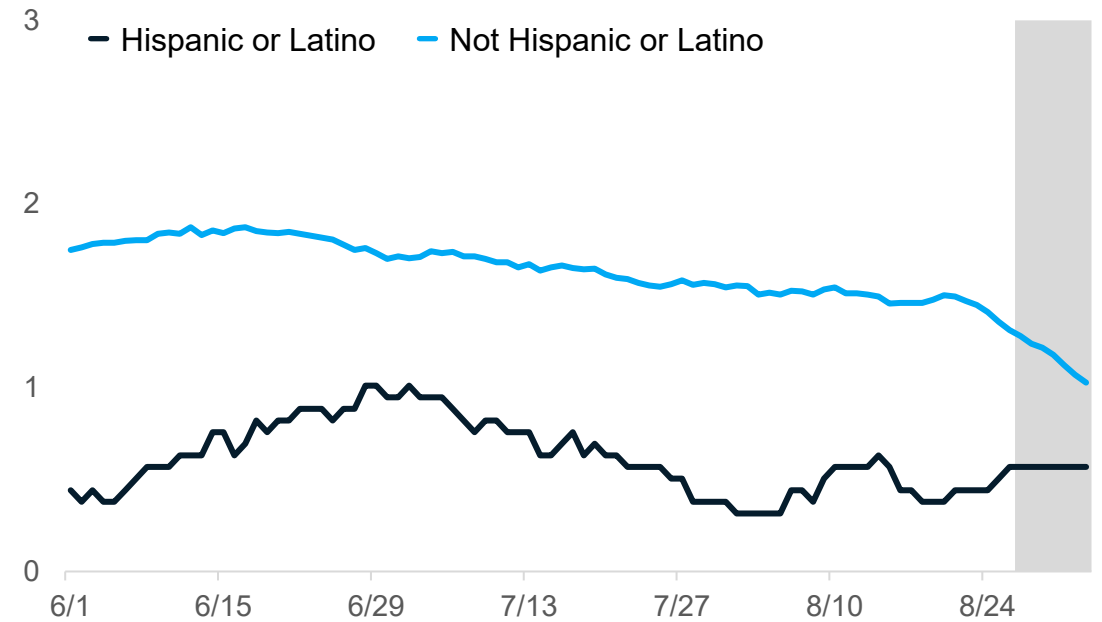
Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

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



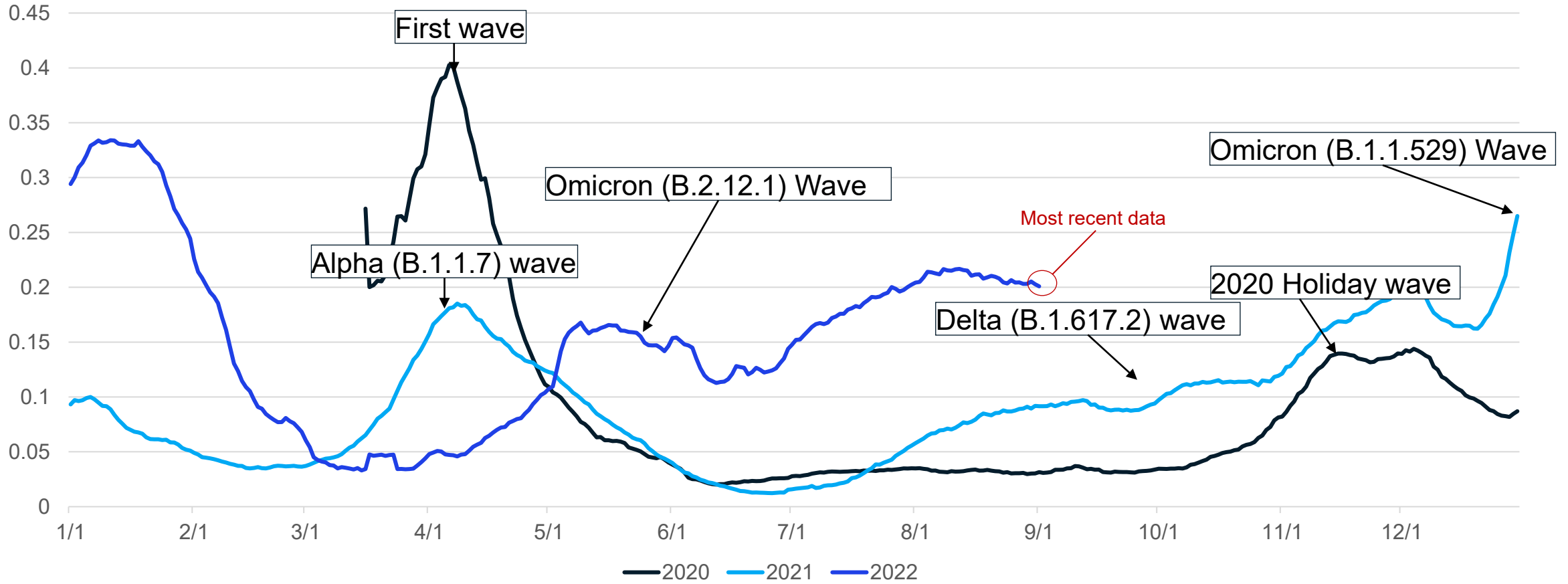
- Deaths are lagging indicator of other metrics
- Currently, the White population has the highest death rate (1.32 deaths/million)

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

Time Trends – Annual Comparison: Percent Positivity

- Positivity is about half as high as all-time pandemic highs
- However, testing behaviors have shifted, as such comparison year over year should be done so with caution

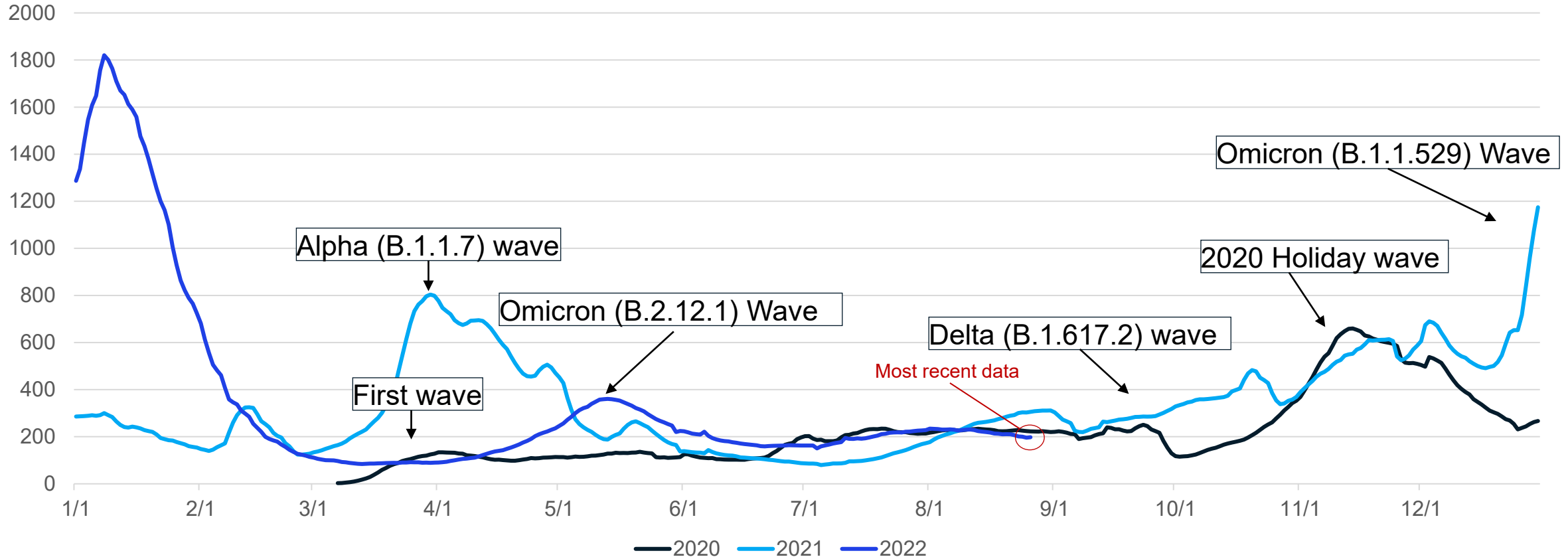
7-day Rolling Average of Positivity



Time Trends – Annual Comparison: Case Rates

- Case rates (by onset date) are plateaued but remain lower than surges from past peaks
- Case rate are, however, similar to August levels in 2020

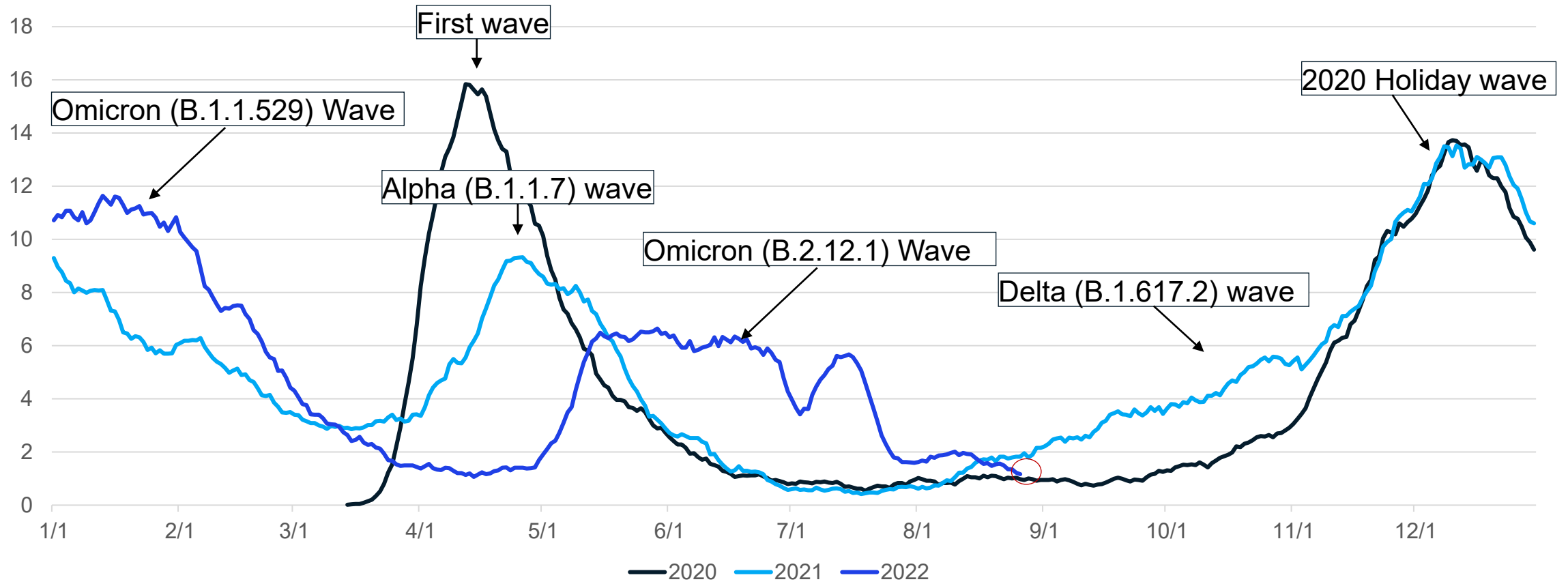
7-day Rolling Average of Case Rates



Time Trends – Annual Comparison: Death Rates

- Death rates (by date of death) are near pandemic all-time lows
- Deaths are lagging indicator, typically trailing case trends by 4 or 6 weeks

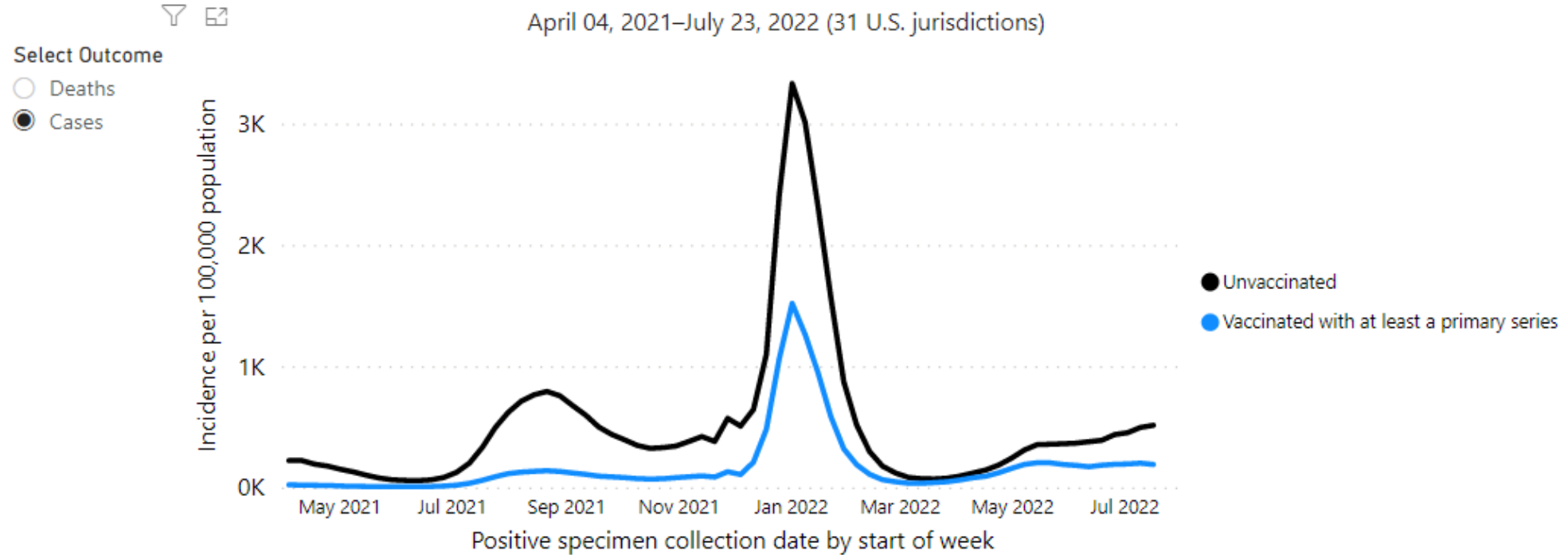
7-day Rolling Average of Death Rates (per million residents)



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

Rates of COVID-19 Cases by Vaccination Status in Ages 5+ Years

April 04, 2021–July 23, 2022 (31 U.S. jurisdictions)



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

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
in Unvaccinated Children
Ages 5-11 Years

2.0x Higher
in Unvaccinated Adolescents
Ages 12-17 Years

2.8x Higher
in Unvaccinated Adults
Ages 18-49 Years

3.6x Higher
in Unvaccinated Adults
Ages 50-64 Years

6.3x Higher
in Unvaccinated Adults
Ages 65 Years and Older

Reset Filters

View

Age-Adjusted Rates

Age-Specific Rates

Filters

Season

All

Vaccine Status

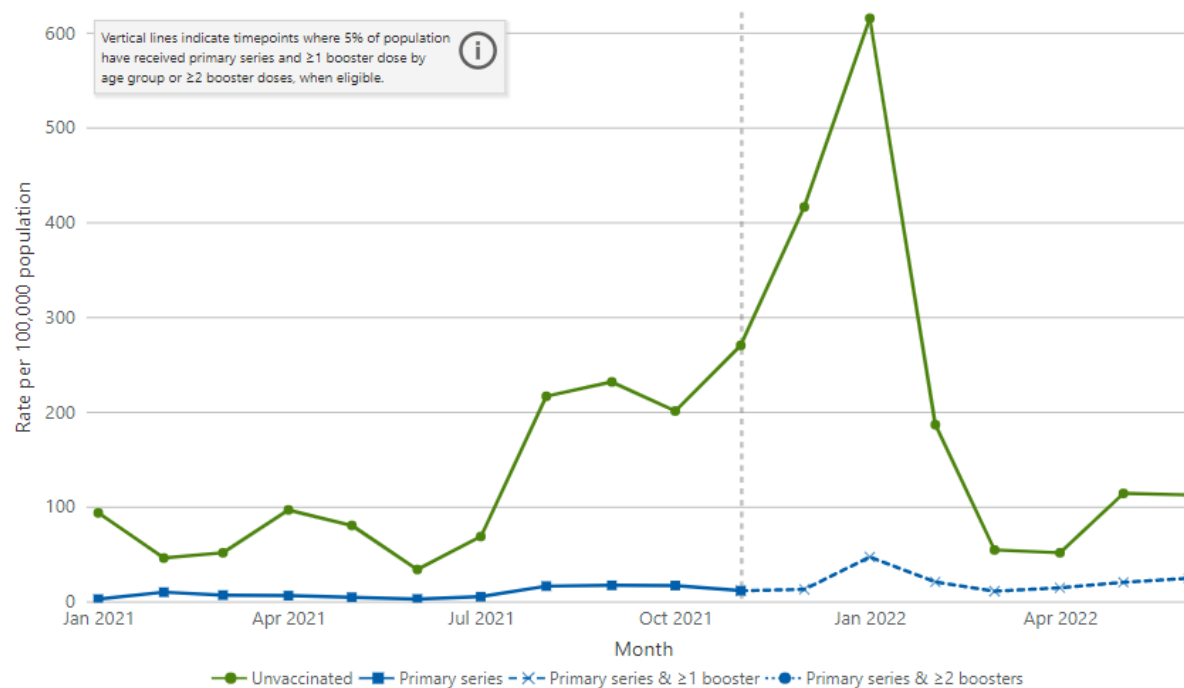
All

Age Group

≥ 18 Years

Age-Adjusted Rates of COVID-19-Associated Hospitalization by Vaccination Status

in Patients ages ≥ 18 Years January 2021 - June 2022



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+)



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



Peds (< 5 years) Vaccination Progress

COVID Vaccine Doses Administered by Person's Residence

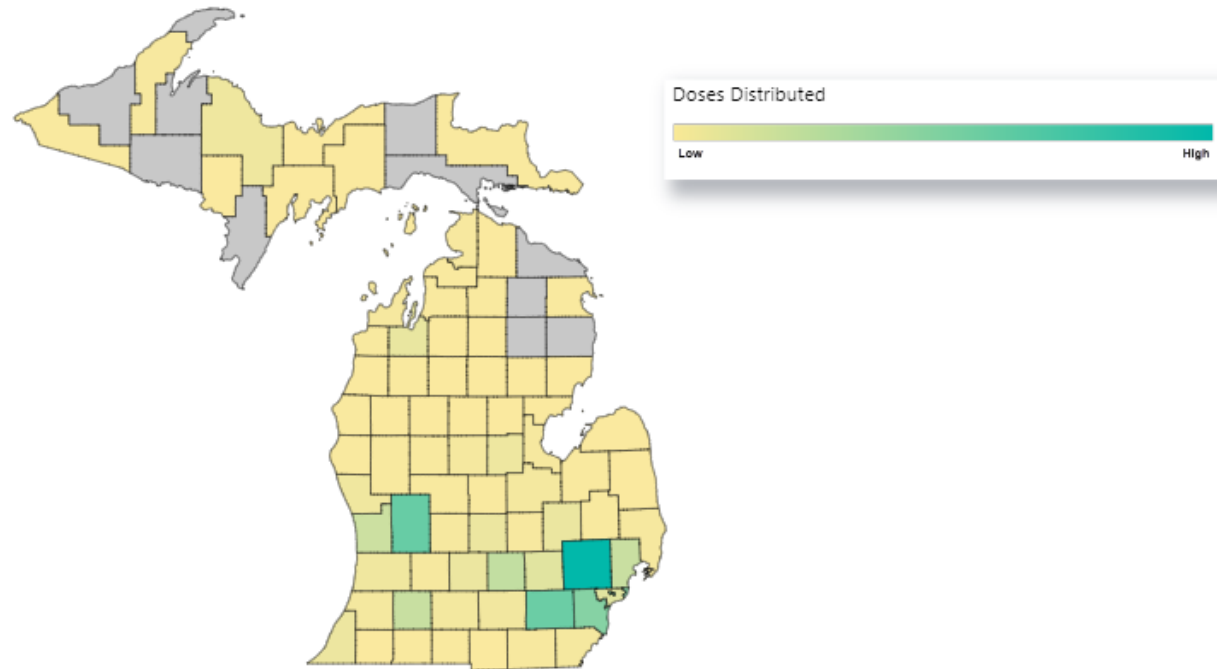
Dashboard Updated: August 31, 2022. Doses administered are reported according to where the patient lives and the date they were vaccinated. Non-Michigan residents vaccinated in Michigan can be found by selecting "Non-Michigan Resident" in the County drop-down. Providers have 24 hours to report vaccinations to MDHHS. MDHHS pulls the data each morning for cleaning and



Preparedness Region: All
Local Health Dept. Jurisdiction: All
County: All
Provider Type: All
Dose Number: All

Michigan

COVID Doses Administered by County



Data as of:
8/30/22

Week Ending Date

1/16/2021 9/3/2022

Sex

All

Age Group

under 5 years

Number of COVID
Vaccine Doses
Administered

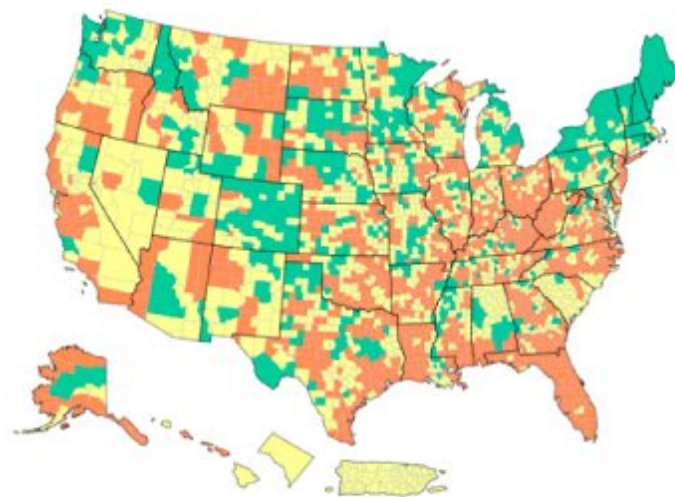
50,397

Know your risk for serious illness with COVID-19

Check out CDC's list of conditions that may increase your risk for serious illness



Use your COVID-19 Community Level to decide what protective actions to take



bit.ly/MMWR7133

AUGUST 11, 2022

MMWR

Guidance to help you make informed decisions to prevent severe COVID-19

1

Know your risk



2

Protect yourself



3

Take action if exposed



4

Take action if you are sick or test positive



bit.ly/MMWR7133

AUGUST 11, 2022

MMWR

Take action if you're exposed to COVID-19

EVERYONE:

Watch for symptoms for 10 days



Wear a mask around others indoors for 10 days



Test 5 days after exposure (or sooner if you have symptoms)



If positive, follow isolation guidance

Take extra precautions for 10 days when around people more likely to get very sick

