

# **MI COVID response**

## Data and modeling update

November 23, 2021

# Executive Summary

**Michigan remains at High Transmission and is experiencing highest daily referral case count of pandemic**

**Percent positivity** (17.4%) is increasing (up from 16.7 % last week)

**Case rate** (519.7 cases/million) is increasing for about 3 weeks (416.3 cases/million prior week)

In the last 7 days, no other state or territory reported **more cases** or a **higher case rate** than Michigan (Case Count – this week rank: highest; last week's rank: highest) (Case Rate – this week rank: highest; last week's rank: 8<sup>th</sup> highest)

Cases among pediatric populations < 12 years have increased 20% since last week

**Percent of inpatient beds occupied by individuals with COVID** (17.2%) is increasing for 18 weeks (up from 13.9% last week)

In the last 7 days, no other state or territory has reported a higher inpatient bed utilization than Michigan (3<sup>rd</sup> highest last week) and 6<sup>th</sup> highest adult ICU bed utilization (12<sup>th</sup> highest last week)

Daily pediatric hospital census are similar to last week but are near 2021 highs

**Death rate** (5.8 deaths/million) is increasing for one week (4.0 last week). There were 406 COVID deaths between Nov 9-Nov 15

Michigan has the 8<sup>th</sup> highest number of deaths (12<sup>th</sup> highest last week), and 24<sup>th</sup> highest death rate (T33<sup>rd</sup> highest last week) in the last 7 days

7-day average **state testing rate** increased to 4,746.4 tests/million/day. **Daily diagnostic tests (PCR)** is 42.9K per day, and the weekly average for PCR and antigen tests conducted in Michigan is 60.7K.

Nearly 12.5 million **COVID-19 vaccine** doses administered, 54.4% of the population is fully vaccinated (5.4 million people)

105,955 administrations in 5- to 11-year-olds as of 11/23

## SCIENCE ROUNDUP

Amid rising COVID-19 cases, as well as influenza outbreaks, Michigan has issued a Public Health Advisory to wear masks

Holidays can be celebrated safer when following health recommendations

Hospital census has returned to spring peak levels and is rising

Both rural and urban counties are experiencing COVID increases, but cases rates are higher in more rural areas where vaccine coverage is lower

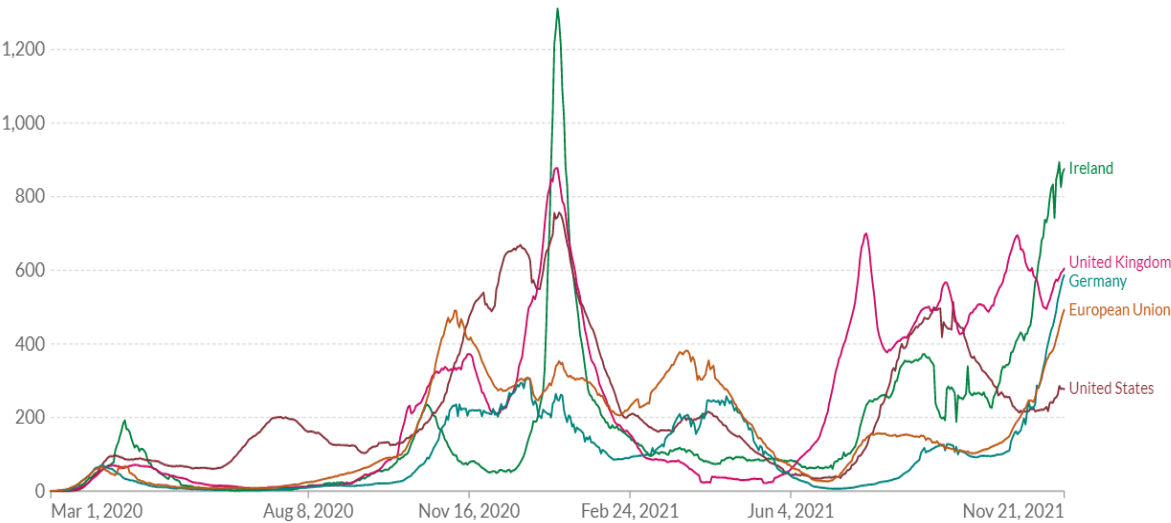
# **Global, National and Michigan Trends**

# 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.

LINEAR LOG



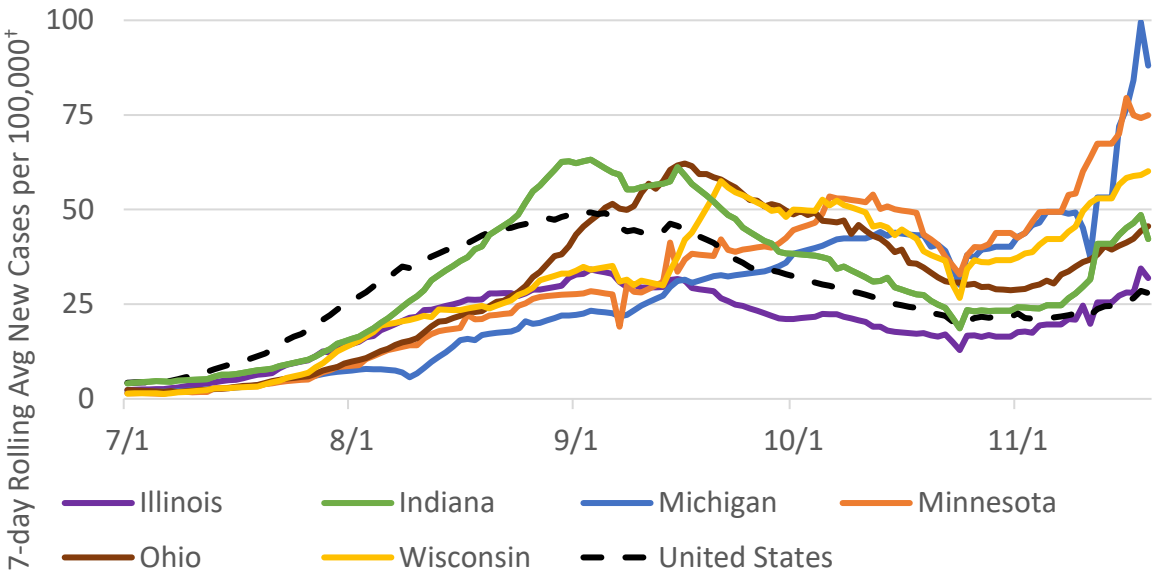
Source: Johns Hopkins University CSSE COVID-19 Data

Our World in Data

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## Daily new cases of Covid-19, reported to CDC in Region 5 States

Seven-day moving average *per 100,000*



**Globally, 257,731,649 cases and 5,154,066** (Data\* through 11/22/2021)

- European case rates are increasing rapidly; & several European countries introduced mitigation measures for unvaccinated individuals (Greece, Germany, Italy, Austria)

**United States: Nearly all US jurisdictions have High or Substantial community transmission<sup>†</sup>**

- The U.S. is at High transmission level (195.8 cases/100,000 in last 7 days) with 54 states/territories in Substantial or High transmission

**Midwest states maintain High transmission levels<sup>†</sup> and are increasing**

- Michigan has highest case rate in Midwest

Source: \* [Johns Hopkins Coronavirus Resource Center](#); <sup>†</sup> CDC [COVID Data Tracker Weekly Review](#); <sup>‡</sup> CDC [COVID Data Tracker](#) – CDC recently updated their methodology for reporting case rates

Special Populations

National  
Comparison

Spread

Severity

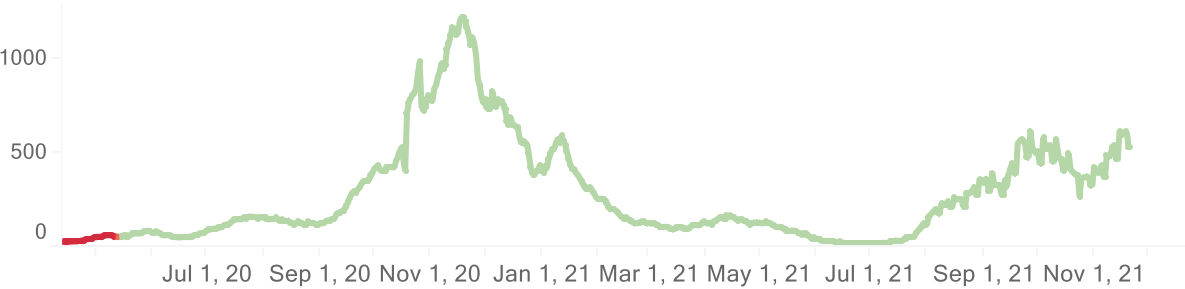
Public Health  
Response

Other  
Indicators

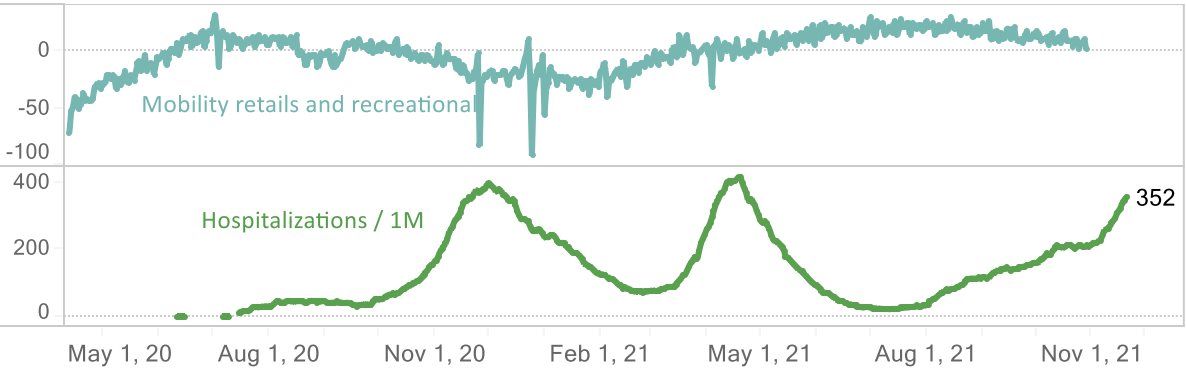
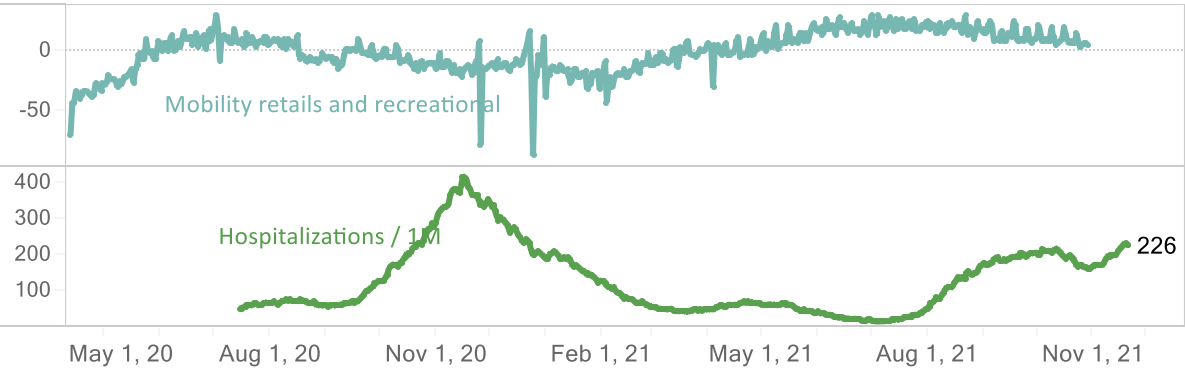
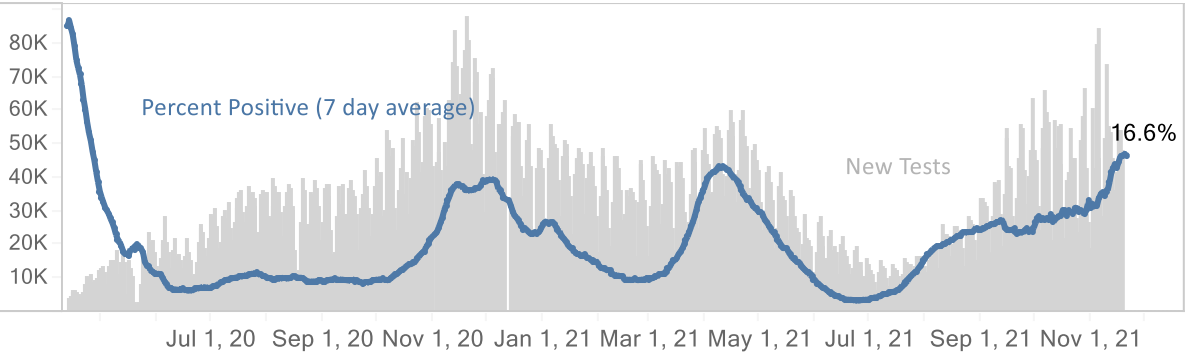
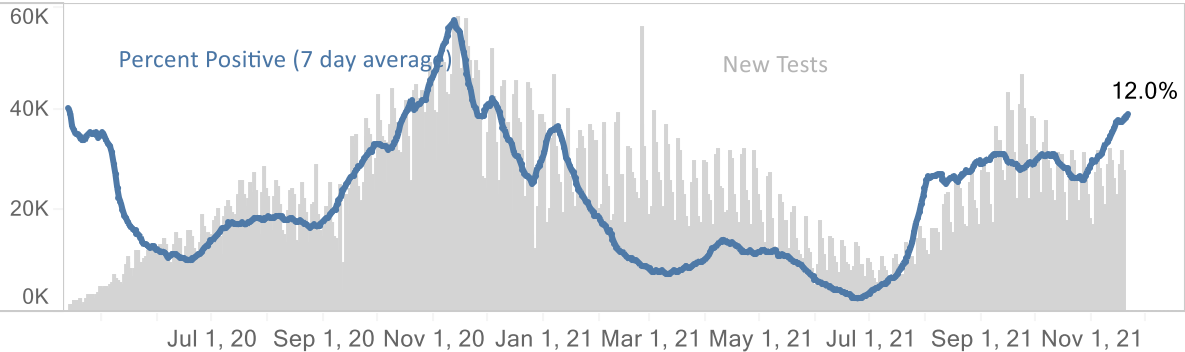
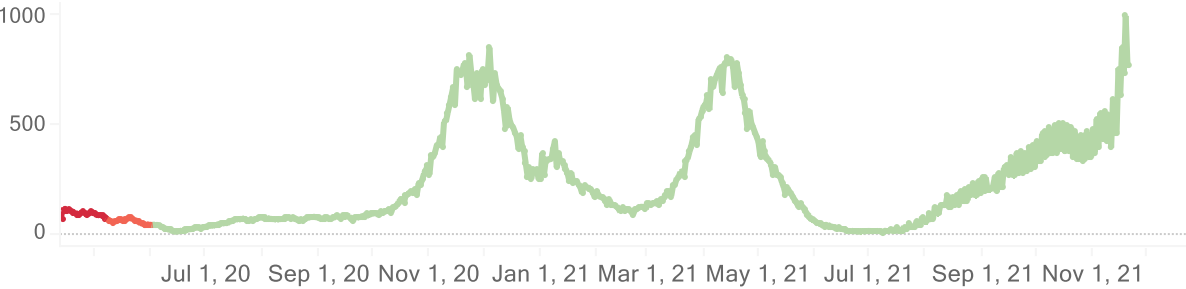
Science  
Roundup

# State Comparisons: Wisconsin and Michigan

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

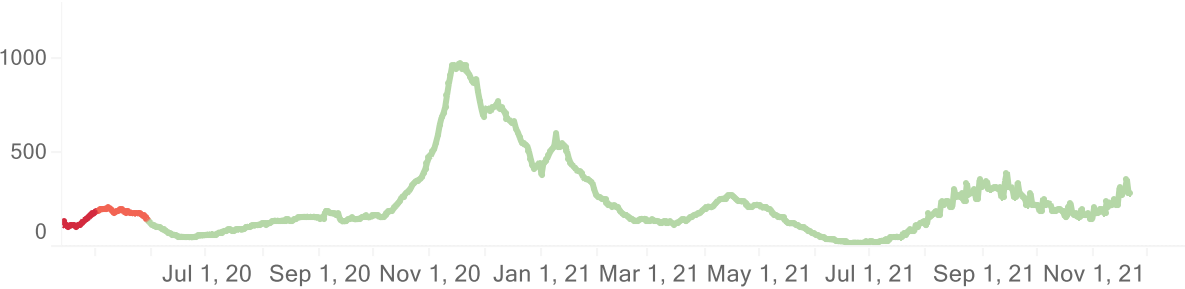


Michigan Confirmed New Cases / 1M (7 days average)

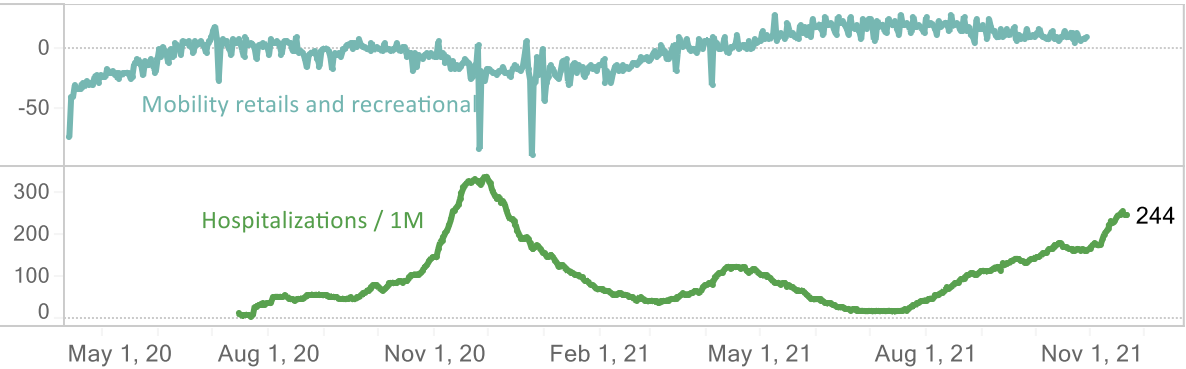
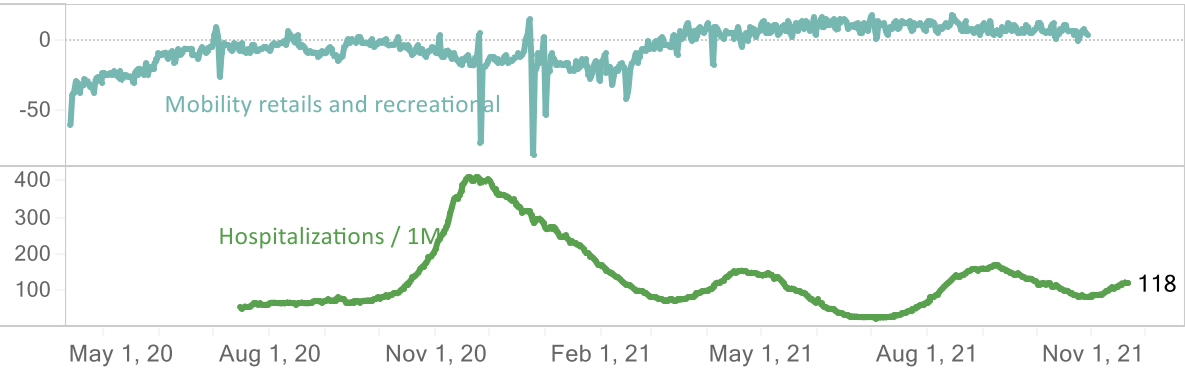
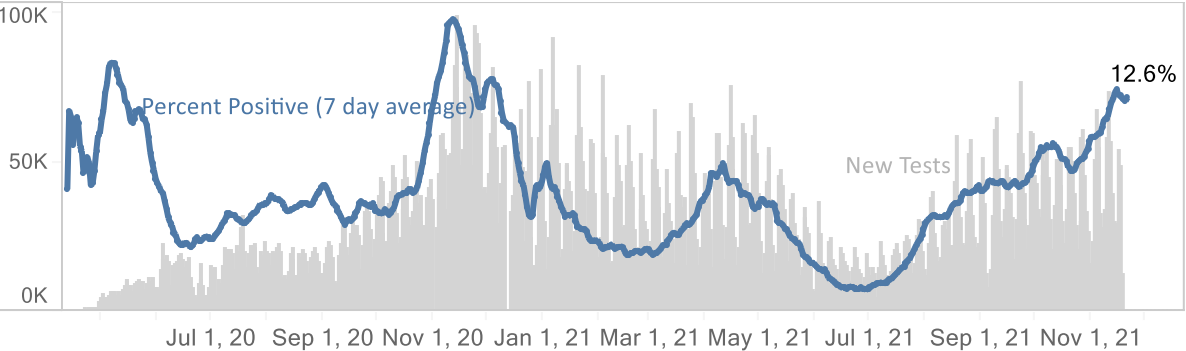
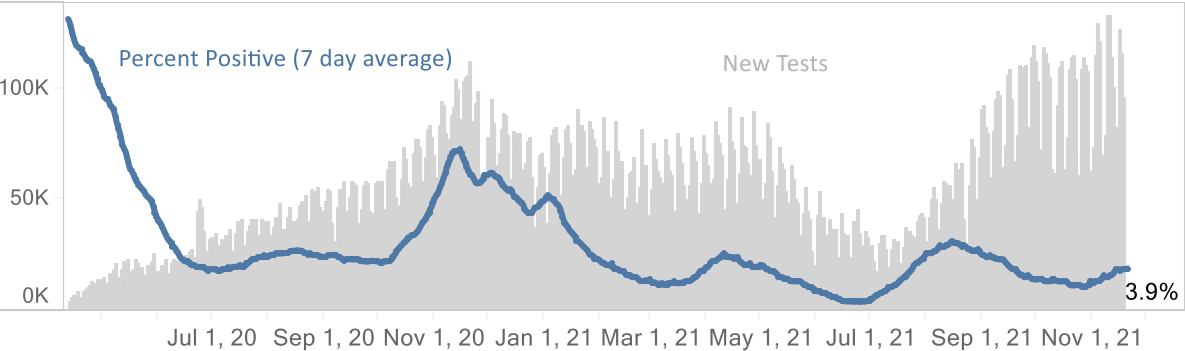
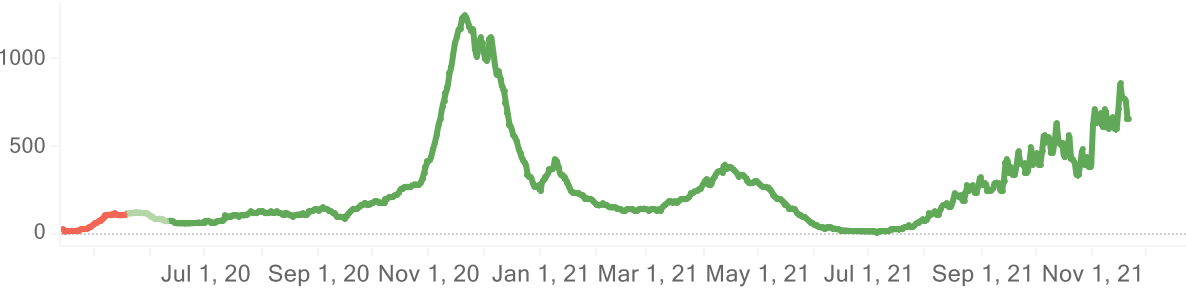


# State Comparisons: Illinois and Minnesota

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

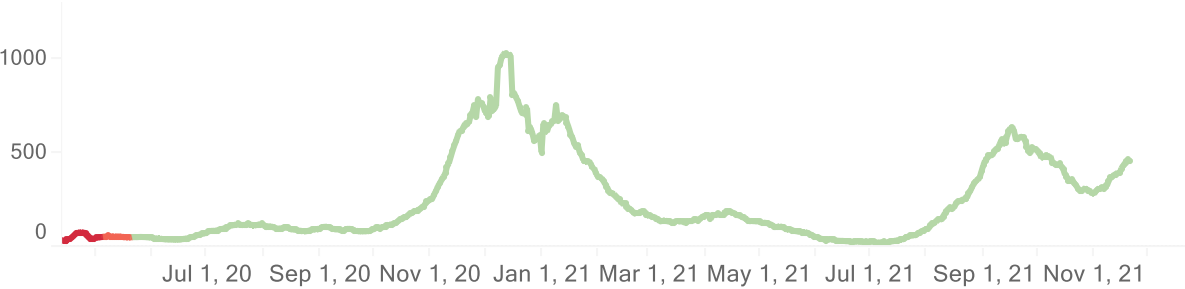


Minnesota Confirmed New Cases / 1M (7 days average)

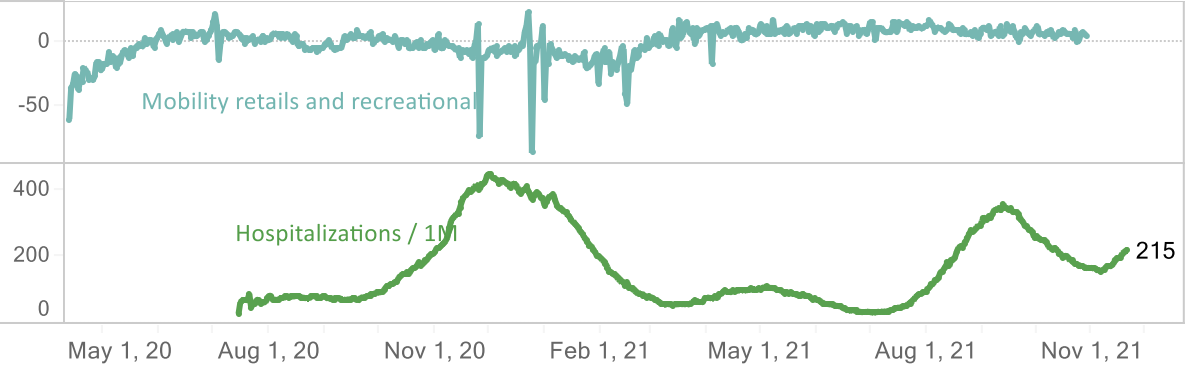
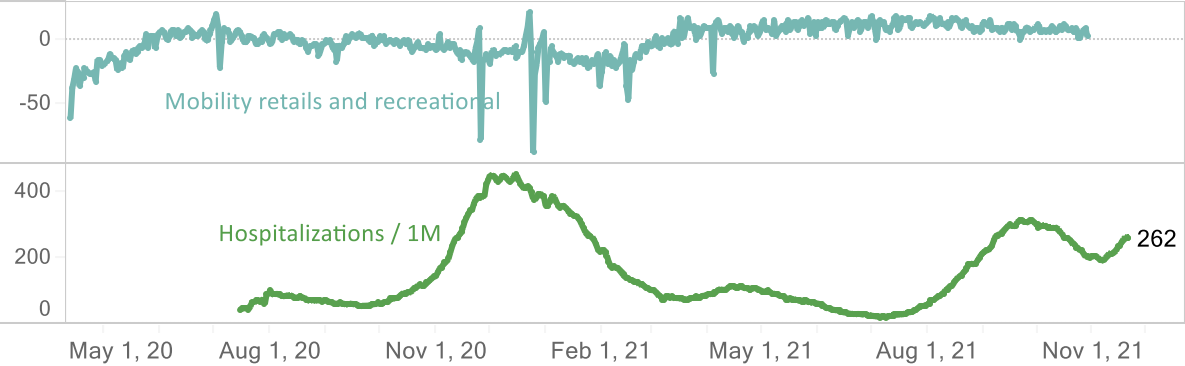
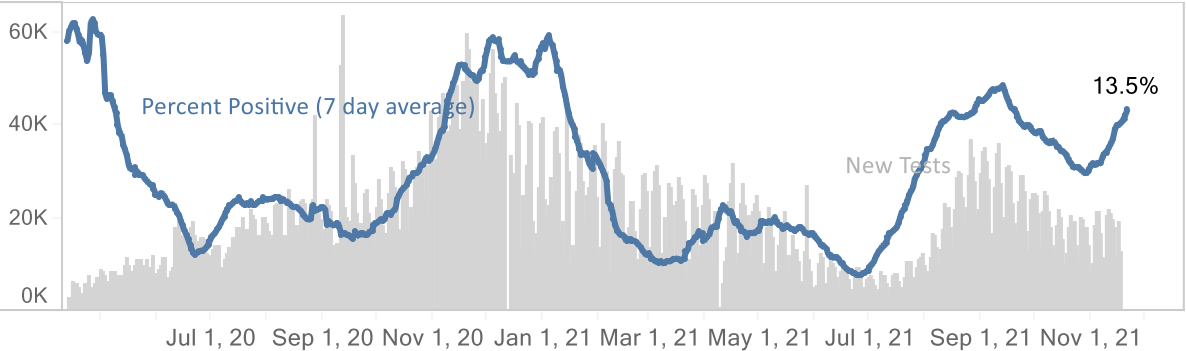
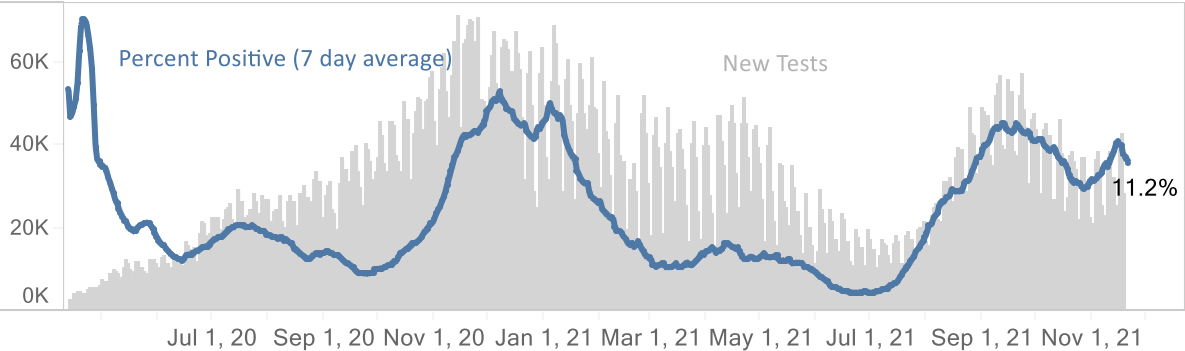
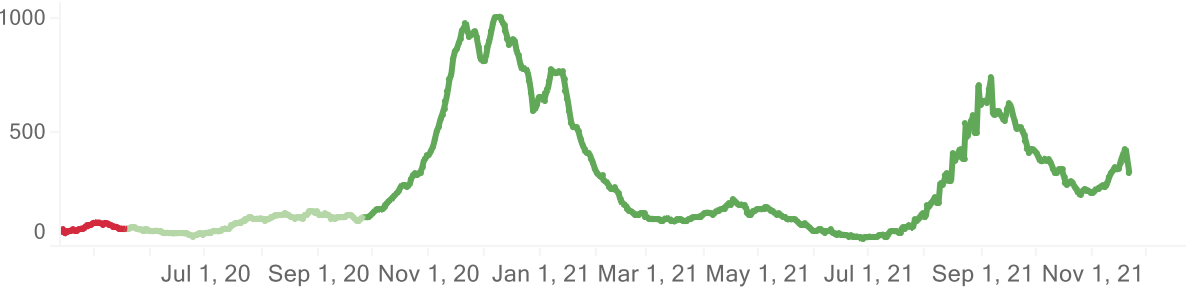


# State Comparisons: Ohio and Indiana

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



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



# Key Messages: All COVID-19 Transmission Metrics Increasing

**Michigan is at High Transmission level and is experiencing highest daily referral case count of pandemic**

- All counties in Michigan are at High transmission level
- CDC recommends all individuals, regardless of vaccination status, should mask indoors

**Statewide positivity is 17.4% (last week: 16.7 %)**

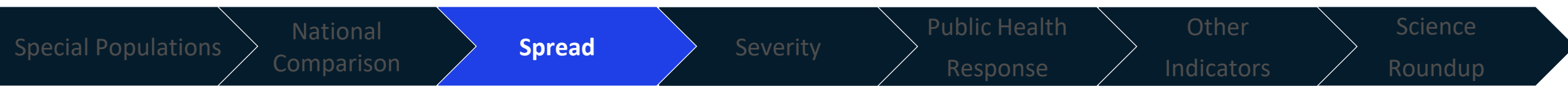
- The trend is increasing for 4 weeks
- Positivity is increasing in most MERC regions
- Positivity in seven regions is above 15% and five regions are above 20%

**Case rate has increased to 519.7 cases/million (last week: 416.3 cases/million)**

- Cases per million are at elevated incidence growth in most MERC regions
- Cases per million are increasing among all age groups
- In the past 7 days, 10-19-years-olds are experiencing the highest number of cases (844.4 daily cases), and 30-39 has highest case rate (679.1 cases/mil)
- Approximately 1.7% of people who were fully vaccinated have been reported with a breakthrough infection

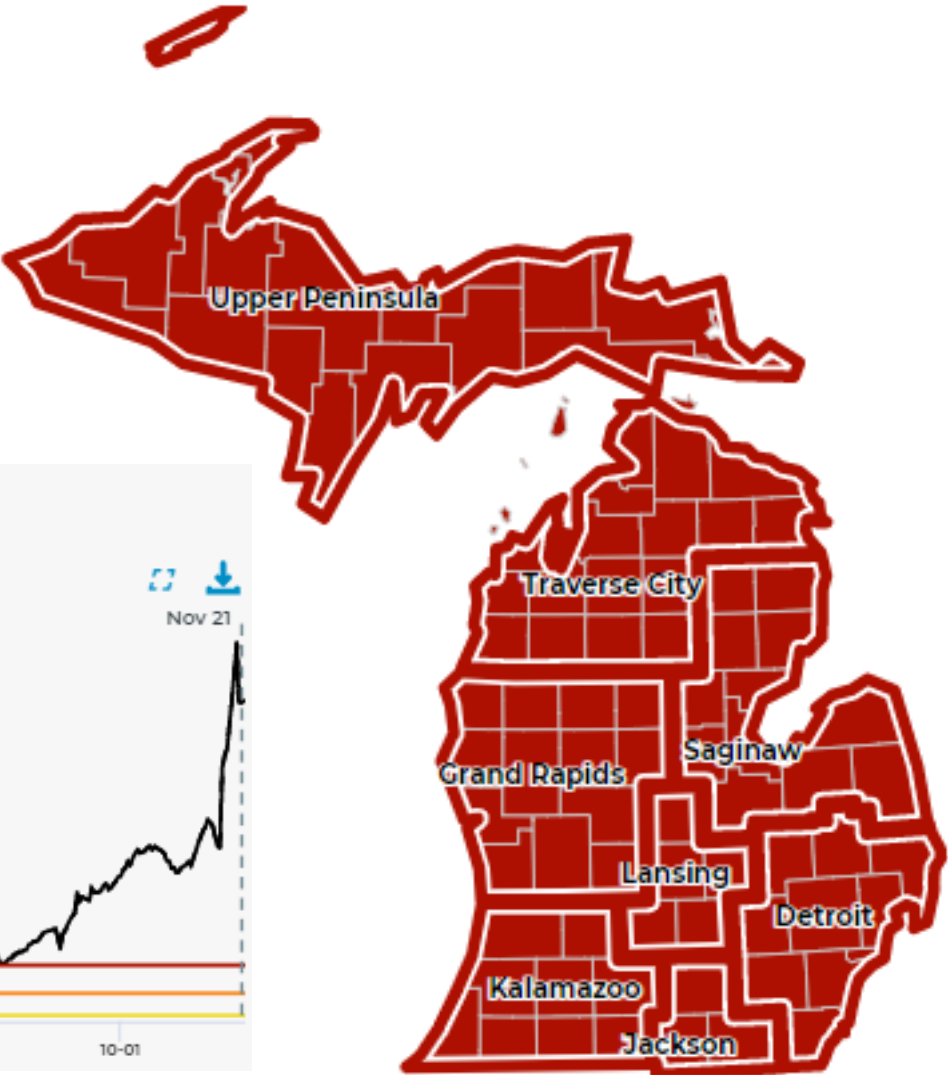
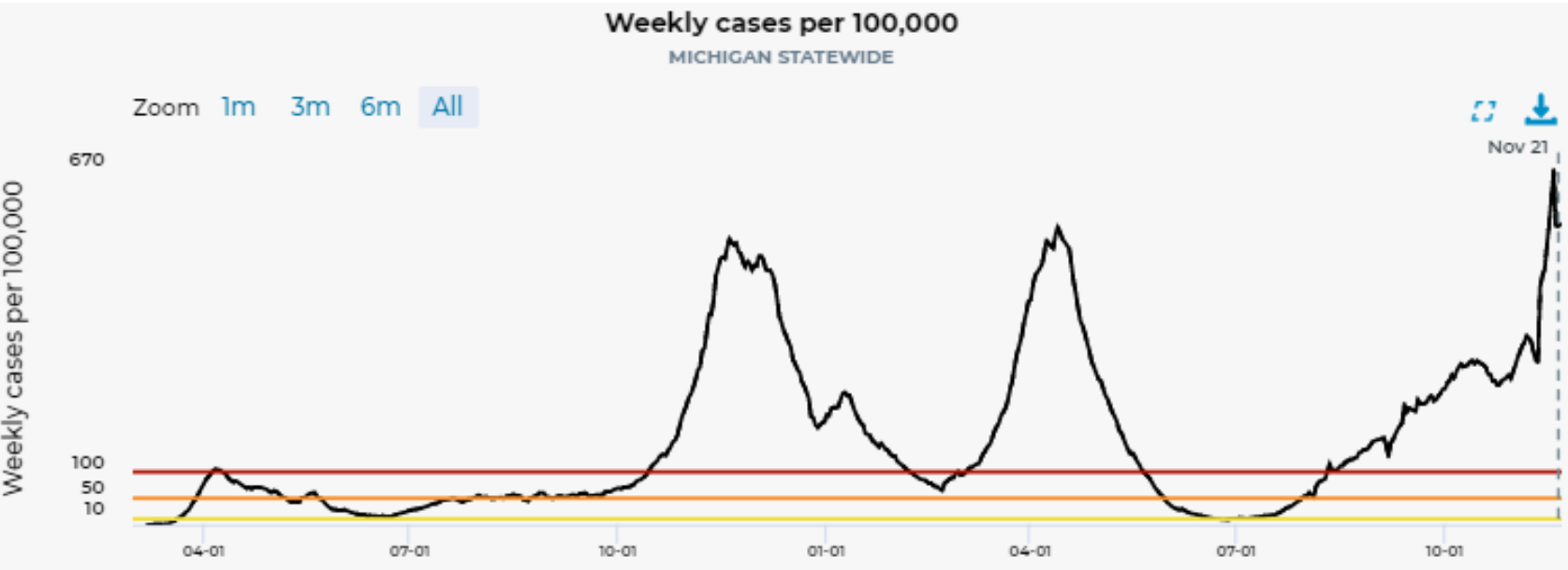
**The number of active outbreaks reported this week is 962**

- 236 new outbreaks were identified in the past week
- K-12 reported the most total outbreaks and clusters (610) and new outbreaks (140) this week



# Michigan experiencing highest daily case count of pandemic

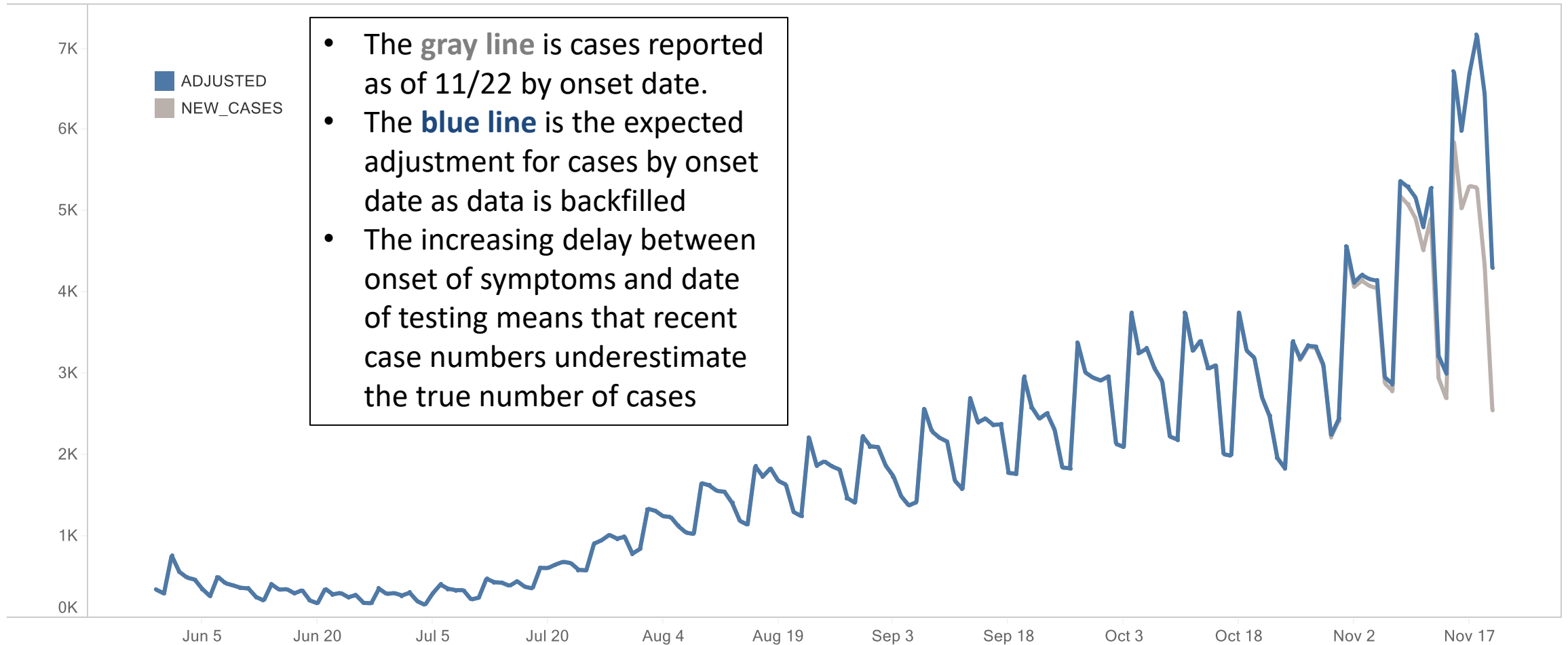
[Dashboard](#) | [CDC](#) | [MI Start Map](#) for most recent data by reporting date



- Most recent data using referral date show highest daily case count ever

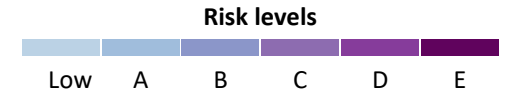
# Michigan Lag-adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of November 22, 2021 (-2 days)



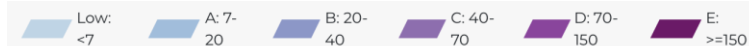
# Confirmed and probable case indicators

Table Date: 11/22/2021 (7 days from date table was produced: 11/15/2021)

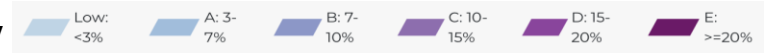


|                 | CDC Transmission Risk Level | Absolute Cases (per million) | CDC Case Trend             | Average Percent Positivity | Positivity Trend | Tests (per million) | % IP Beds Occupied by COVID-19 Cases | % Occupied IP Beds Trend | Absolute Deaths (per million) | Death Trend     |
|-----------------|-----------------------------|------------------------------|----------------------------|----------------------------|------------------|---------------------|--------------------------------------|--------------------------|-------------------------------|-----------------|
| Detroit         | High                        | 458.8                        | elevated incidence growth  | 14.4                       | Increase - 4wk   | 5236.9              | 15.3                                 | Increase - 18wk          | 4.2                           | Increase - 1wk  |
| Grand Rapids    | High                        | 625.3                        | elevated incidence growth  | 23.9                       | Increase - 4wk   | 4647.2              | 22.3                                 | Increase - 4wk           | 5.3                           | Increase - 2wk  |
| Kalamazoo       | High                        | 534.8                        | elevated incidence growth  | 21.0                       | Increase - 4wk   | 3873.5              | 18.7                                 | Increase - 3wk           | 6.6                           | Increase - 1wk  |
| Saginaw         | High                        | 554.5                        | elevated incidence growth  | 21.0                       | Increase - 4wk   | 3647.5              | 16.9                                 | Increase - 3wk           | 9.3                           | Decrease - 1wk  |
| Lansing         | High                        | 613.9                        | elevated incidence growth  | 19.6                       | Increase - 4wk   | 3879.4              | 22.7                                 | Increase - 3wk           | 9.3                           | Increase - 1wk  |
| Traverse City   | High                        | 559.0                        | elevated incidence growth  | 20.9                       | Decrease - 1wk   | 2924.5              | 18.4                                 | Increase - 2wk           | 12.9                          | Increase - 1wk  |
| Jackson         | High                        | 662.4                        | elevated incidence growth  | 24.4                       | Increase - 21wk  | 4493.7              | 30.4                                 | Increase - 2wk           | 10.4                          | Increase - 1wk  |
| Upper Peninsula | High                        | 545.9                        | elevated incidence plateau | 17.8                       | Decrease - 1wk   | 2975.6              | 13.3                                 | Increase - 3wk           | 5.6                           | <20 wkly deaths |
| Michigan        | High                        | 519.7                        | elevated incidence growth  | 17.4                       | Increase - 4wk   | 4746.4              | 17.2                                 | Increase - 18wk          | 5.8                           | Increase - 1wk  |

Cases



Positivity



Special Populations

National Comparison

Spread

Severity

Public Health Response

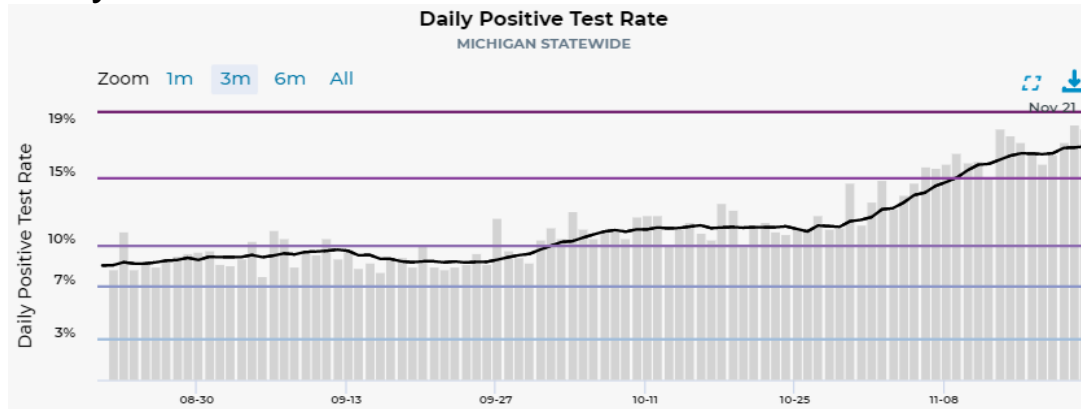
Other Indicators

Science Roundup

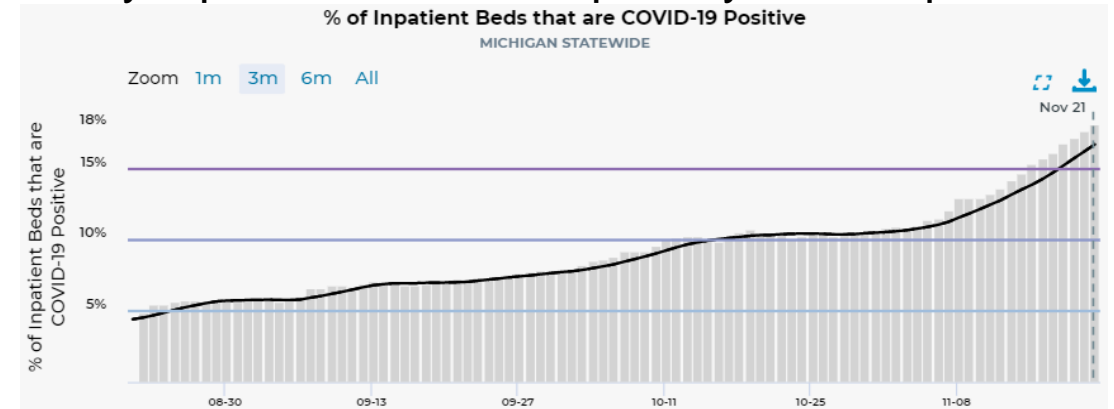
# Time Trends – Positivity, Case Rates, Hospitalizations, Deaths

➤ Core COVID-19 indicators show that transmission is increasing, and burden remains high in Michigan

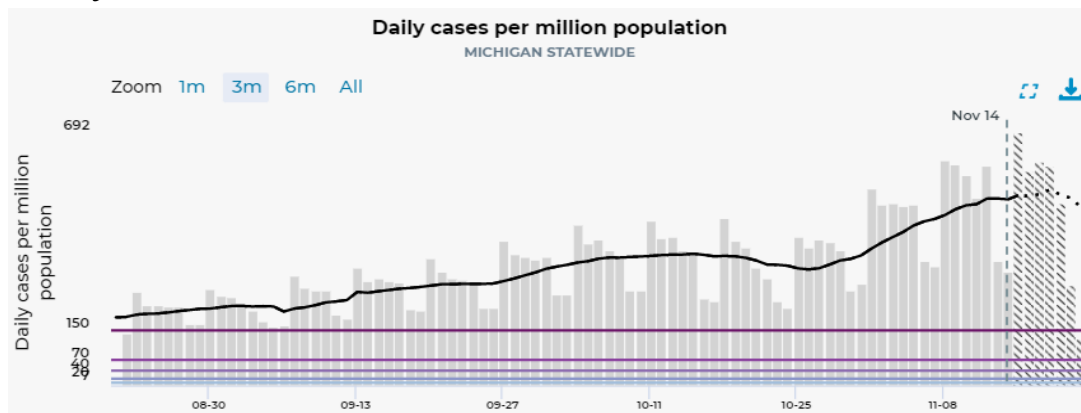
## Daily Positive Test Rate



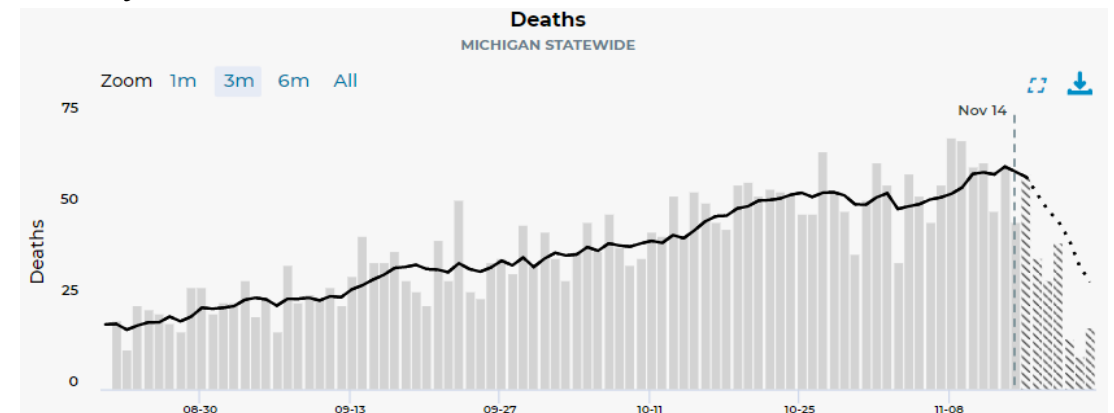
## Daily Inpatient Beds Occupied by COVID patients



## Daily Case Rate

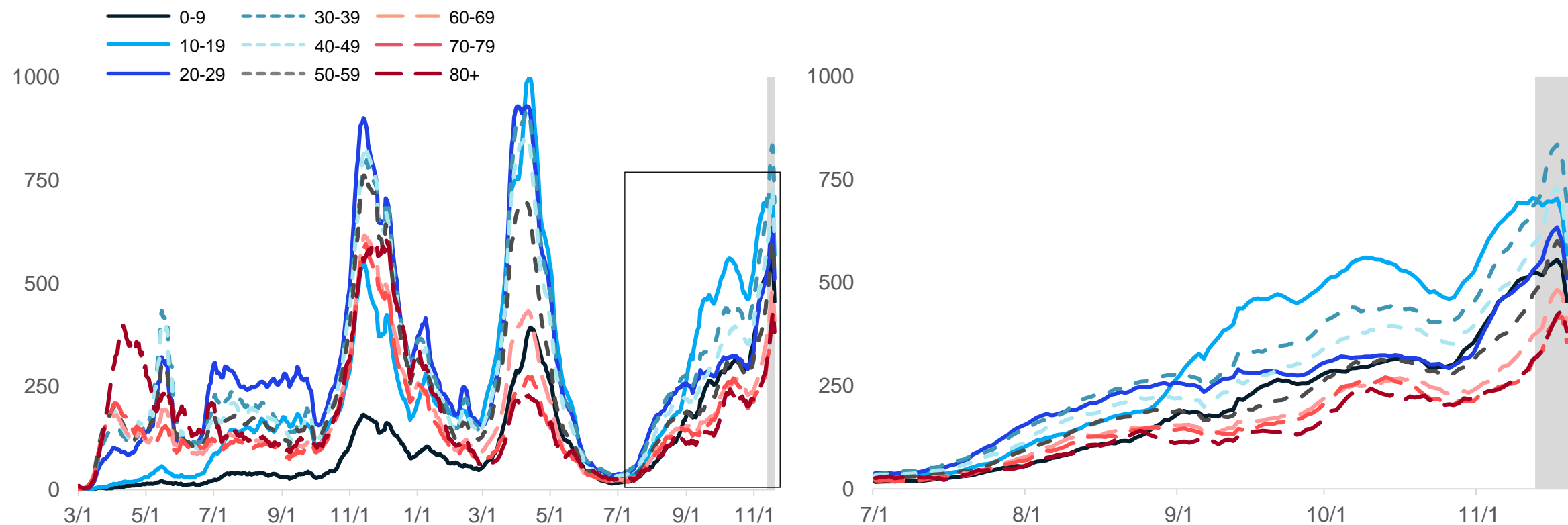


## Daily Deaths



# 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 most age groups are increasing
- Case rates by onset date for all age groups are between 310 and 680 cases per million (through 11/15)
- Case rates are highest for **30-39-year-olds this week**, but cases for 50-59 saw the largest one-week increase in cases

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

# Number of Cases and Case Rates by Age Group, data as of Nov 22

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

| Age Group     | Average† daily cases | Average† Daily Case Rate | One Week % Change (Δ #)* |
|---------------|----------------------|--------------------------|--------------------------|
| 0-9           | 608.7                | <b>528.0</b>             | +8% (+44)                |
| <b>10-19</b>  | <b>844.4</b>         | <b>672.9</b>             | <b>-1% (-5)</b>          |
| 20-29         | 696.4                | <b>504.8</b>             | +6% (+42)                |
| 30-39         | 823.9                | <b>679.1</b>             | +14% (+98)               |
| 40-49         | 699.4                | <b>593.1</b>             | +17% (+100)              |
| 50-59         | 641.7                | 475.2                    | +20% (+109)              |
| 60-69         | 479.0                | 375.5                    | +20% (+79)               |
| 70-79         | 246.0                | 320.8                    | +25% (+49)               |
| 80+           | 128.1                | 309.4                    | +19% (+20)               |
| <b>Total¶</b> | <b>5,190.9</b>       | <b>519.7</b>             | <b>+12% (+535.4)</b>     |

† Rolling 7-day average; ¶ Total may not reflect state due to missing age data

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

Source: MDHHS – Michigan Disease Surveillance System

- Trend numbers and comparisons are being impacted by longer backfill times – the data in this table are comparing the two time points from the most recent data file
- Average daily number of cases (844.4) is highest for 10-19.
- Average daily case rate (679.1 case/mil) are highest for those aged 30-39
- The 50-59 and 40-49 age groups saw an increase of 100+ cases compared to last week
- The greatest percent change (+25%) was among those 70-79 years
- Case rates for all age groups under 50 are higher than the state

# Overview of metrics for individuals < 12 and <18

| Region          | Population (<12 yrs) | Population (<18 yrs) | Cumulative Case Count (<12 yrs) | 7-day Average Daily Case Count (<12 yrs) | 7-day Average Daily Case Rate per Million (<12 yrs) | 7-day Average Daily Pediatric Hospitalization Count (<18 yrs)* | 7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs) * | 7-day Average Daily Death Count (<12 yrs) | 30-day Average Daily Death Count (<12 yrs) |
|-----------------|----------------------|----------------------|---------------------------------|--|---|--|--|---|--|
| Detroit         | 735529               | 1134247              | 52548                           | 401.9                                    | 546.4   | 28.4   | 25.0   | 0.0                                       | 0.00                                       |
| Grand Rapids    | 230120               | 350652               | 19674                           | 164.3                                    | 714.0   | 14.0   | 39.9   | 0.1                                       | 0.07                                       |
| Kalamazoo       | 140422               | 214801               | 10128                           | 77.1                                     | 549.1   | 2.3  | 10.7   | 0.0                                       | 0.00                                       |
| Saginaw         | 78759                | 122834               | 6549                            | 45.0                                     | 571.4   | 1.0  | 8.1  | 0.0                                       | 0.00                                       |
| Lansing         | 78140                | 119915               | 6520                            | 70.6                                     | 903.5   | 2.6  | 21.7   | 0.0                                       | 0.03                                       |
| Traverse City   | 53099                | 83462                | 3453                            | 32.7                                     | 615.8   | 0.0  | 0.0  | 0.1                                       | 0.03                                       |
| Jackson         | 41274                | 64091                | 3431                            | 26.0                                     | 629.9   | 0.3  | 4.7  | 0.0                                       | 0.00                                       |
| Upper Peninsula | 34645                | 53875                | 3443                            | 25.9                                     | 747.6   | 0.4  | 7.4  | 0.0                                       | 0.00                                       |
| Michigan        | 1391988              | 2143877              | 105851                          | 843.9                                    | 606.3   | 49.0   | 22.9   | 0.3                                       | 0.13                                       |

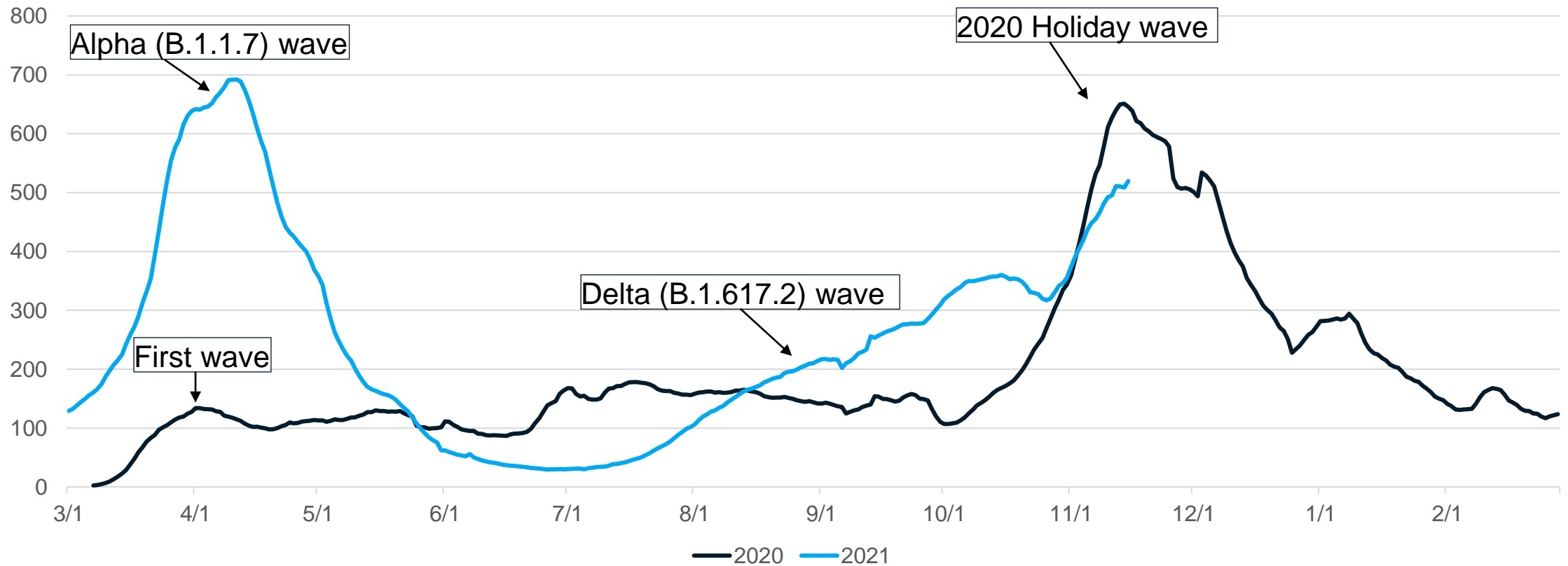
- Each day more than 844 children under age 12 become infected with COVID-19, 140 more than last week
- Pediatric case rates increased to 606.3 cases/million (last week: 506.0 cases/million)
- Pediatric (<18) hospital census\* is averaging approximately 49 per day (last week: 48 per day)

Note: Data as of 11/15; case data 11/8, hospitalization data 11/15. Hospitalization data is for pediatric patients (<18); \* includes only confirmed COVID-19

# Time Trends – Annual Comparison

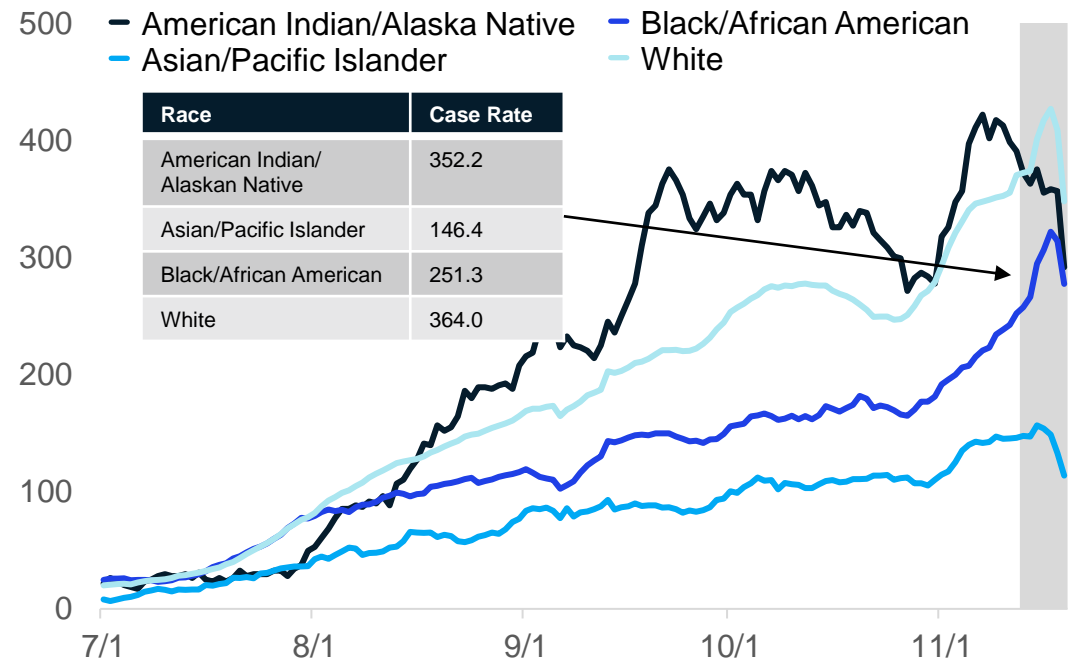
- Case rates are now at the same level as this time last year.
- Trend is now roughly following the same trajectory of the exponential curve we experienced as last fall.

## 7- day rolling average of Rates 2020 vs 2021

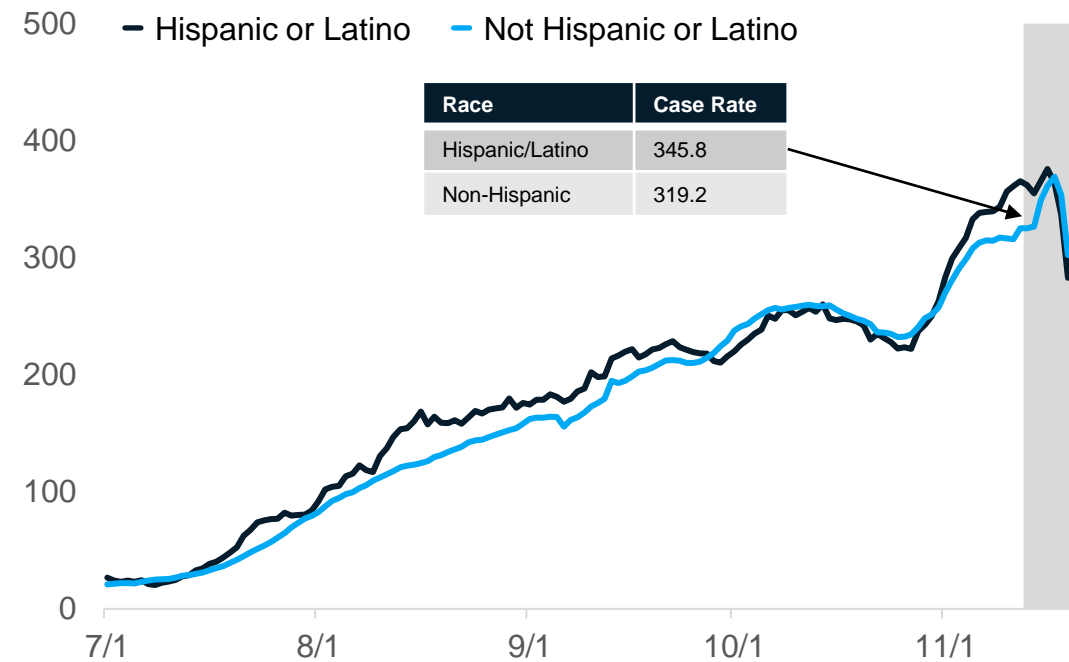


# Case Rates by Reported Racial and Ethnic Group

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



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



Updates since last week:

- Cases per million are increasing for most reported racial and ethnic groups, but the delay in reporting is impacting trend analysis
- The high number of cases with missing race/ethnicity data, and those multiracial or other are also impacting the case rates shown here
- In the past 30 days, 26% (↑1%) of race data and 35% (↑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

# Number of Weekly Reported Outbreaks: *New Format*

Number of outbreak investigations by site type, week ending Nov 18

| Site type                     | Outbreaks by ongoing/new classification, # |     |       | Visibility <sup>1</sup> |
|-------------------------------|--|-----|-------|-------------------------|
|                               | Ongoing                                    | New | Total |                         |
| K-12 SCHOOL                   | 470  | 140 | 610   | ●                       |
| SNF/LTC/OTHER ASSISTED LIVING | 125  | 46  | 171   | ●                       |
| OTHER                         | 66   | 23  | 89    | ●                       |
| CHILDCARE/YOUTH PROGRAM       | 29   | 17  | 46    | ●                       |
| CORRECTIONS                   | 11   | 4   | 15    | ●                       |
| HEALTHCARE                    | 8  | 5   | 13    | ●                       |
| COLLEGE/UNIVERSITY            | 9  | 0   | 9     | ●                       |
| SHELTERS                      | 8  | 1   | 9     | ●                       |
| TOTAL                         | 726  | 236 | 962   |                         |

- Easier to identify outbreak
- Harder to identify outbreak

Total number of active outbreaks is **962** with 162 new outbreaks identified

K-12 schools reported the greatest number of new outbreaks and clusters (140) this week.

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

NOTE: Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.  
NOTE (10/4): MDHHS adopted the new [CSTE school cluster and outbreak definition](#) which impacts how transmissions within school-sponsored settings are reported to the health department  
NOTE (11/22): The local health department weekly outbreak reporting survey was streamlined to focus on congregate settings where patients/staff might be more at risk for infection and/or experience severe outcomes from infection. This was in an effort to prioritize limited local health department capacity to populations for which the biggest public health impact could be made.

Source: LHD Weekly Sitreps

# K-12 school clusters and outbreaks, recent and ongoing, week ending Nov 18

Number of reported outbreaks/clusters increased since last week (566 to 610), with increases in Pre K-Elementary (274 to 315), and Middle/Jr High (127 to 146). High Schools decreased (164 to 148). Administration is steady (at 1).

| Region    | Number of reported cases, # | # Ongoing - Excluding New | # New | Number of outbreaks | Range of cases per outbreak |
|-----------|-----------------------------|---------------------------|-------|---------------------|-----------------------------|
| Region 1  | 1,406                       | 166                       |       | 136                 | 2-70                        |
| Region 2n | 377                         | 21                        |       | 61                  | 3-42                        |
| Region 2s | 397                         | 251                       |       | 59                  | 2-46                        |
| Region 3  | 2,534                       | 129                       |       | 148                 | 3-83                        |
| Region 5  | 222                         | 53                        |       | 42                  | 3-22                        |
| Region 6  | 548                         | 164                       |       | 100                 | 2-41                        |
| Region 7  | 256                         | 19                        |       | 27                  | 2-32                        |
| Region 8  | 486                         | 88                        |       | 37                  | 3-41                        |
| Total     | 6,226                       | 891                       |       | 610                 | 2-83                        |

| Grade level            | Number of reported cases, # | # Ongoing - Excluding New | # New | Number of outbreaks | Range of cases per outbreak |
|------------------------|-----------------------------|---------------------------|-------|---------------------|-----------------------------|
| Pre-school - elem.     | 2,302                       | 464                       |       | 315                 | 2-55                        |
| Jr. high/middle school | 1,445                       | 235                       |       | 146                 | 2-67                        |
| High school            | 2,475                       | 192                       |       | 148                 | 3-83                        |
| Administrative         | 4                           | 0                         |       | 1                   | 4                           |
| Total                  | 6,226                       | 891                       |       | 610                 | 2-77                        |

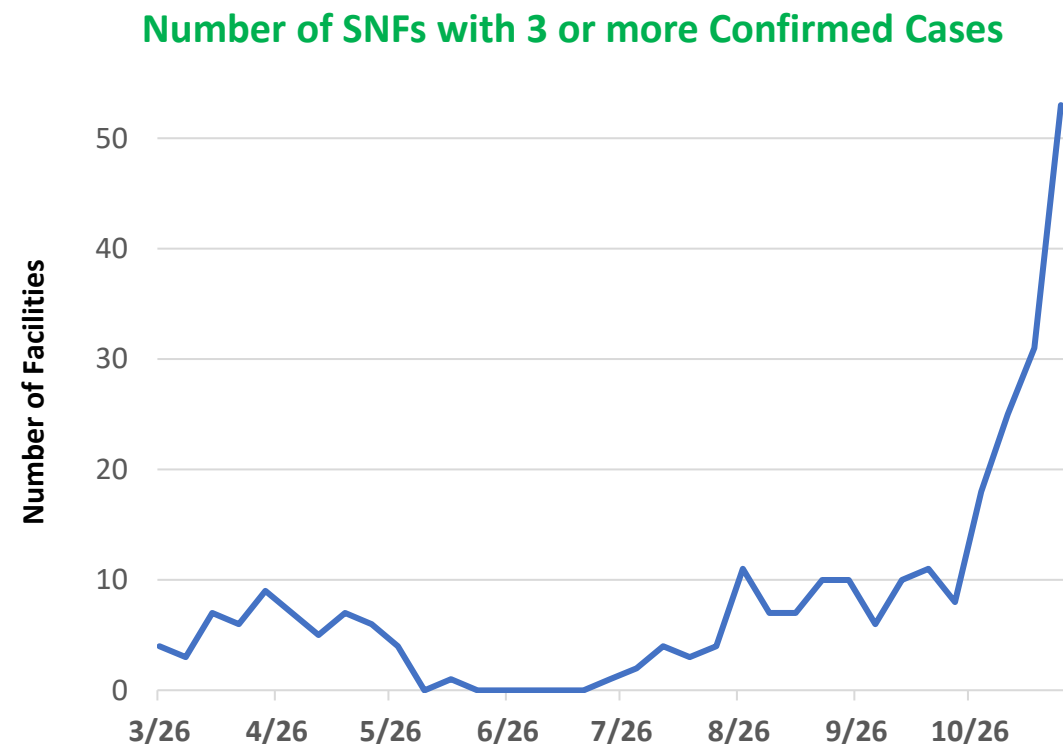
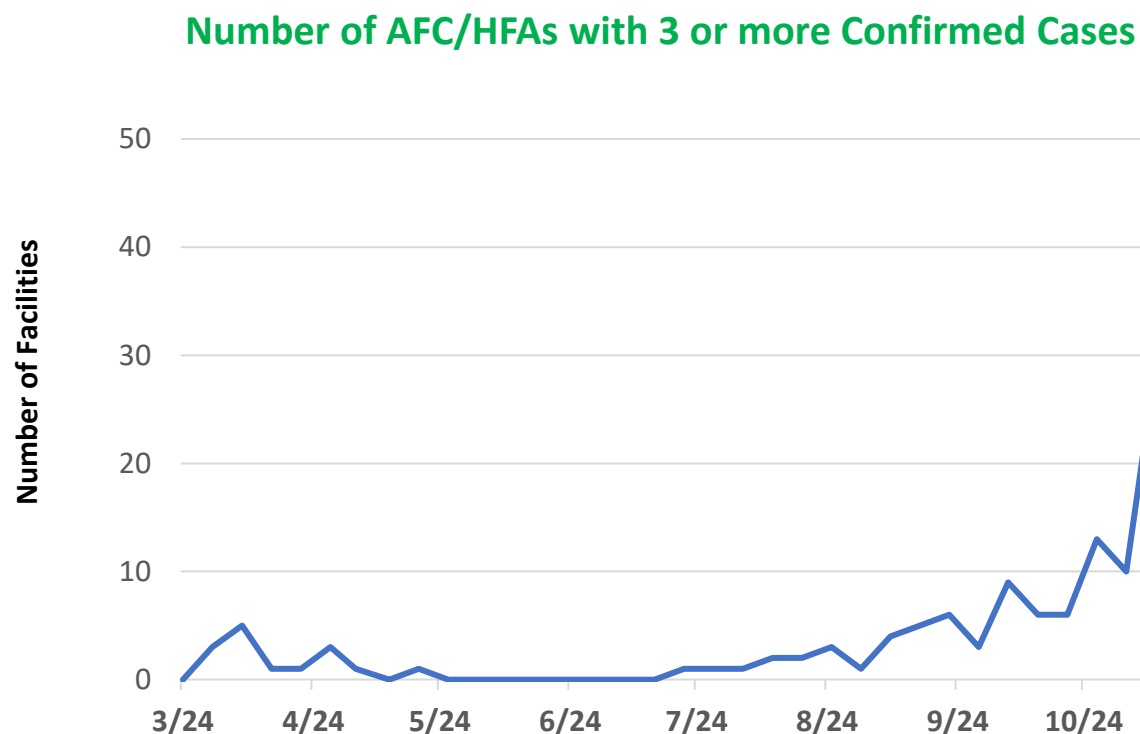
Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way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

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

Source: LHD Weekly Sitreps



# Reported Outbreaks within Long Term Care Facilities: Adult Foster Care, Homes for the Aged, and Skilled Nursing Cases



## Updates since last week:

- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period has increased from lows near 0 in June and July to 30 facilities.

COVID-19 outbreaks within Long-Term Care Facilities are defined as three or more cases with an epidemiological linkage by place and time indicating a shared exposure outside of a household ([https://www.michigan.gov/coronavirus/0,9753,7-406-98163\\_98173\\_102057---,00.html](https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173_102057---,00.html) and [https://www.michigan.gov/coronavirus/0,9753,7-406-98163\\_98173-526911--,00.html](https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-526911--,00.html))

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

Special Populations

National  
Comparison

Spread

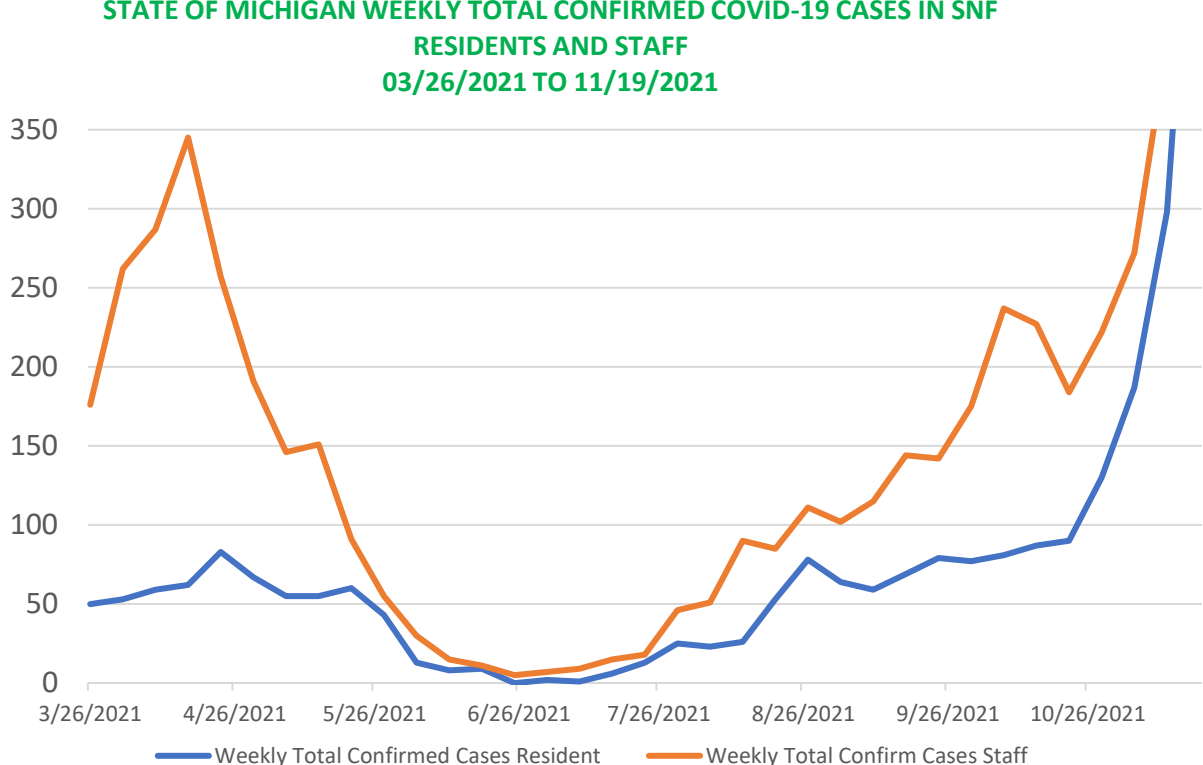
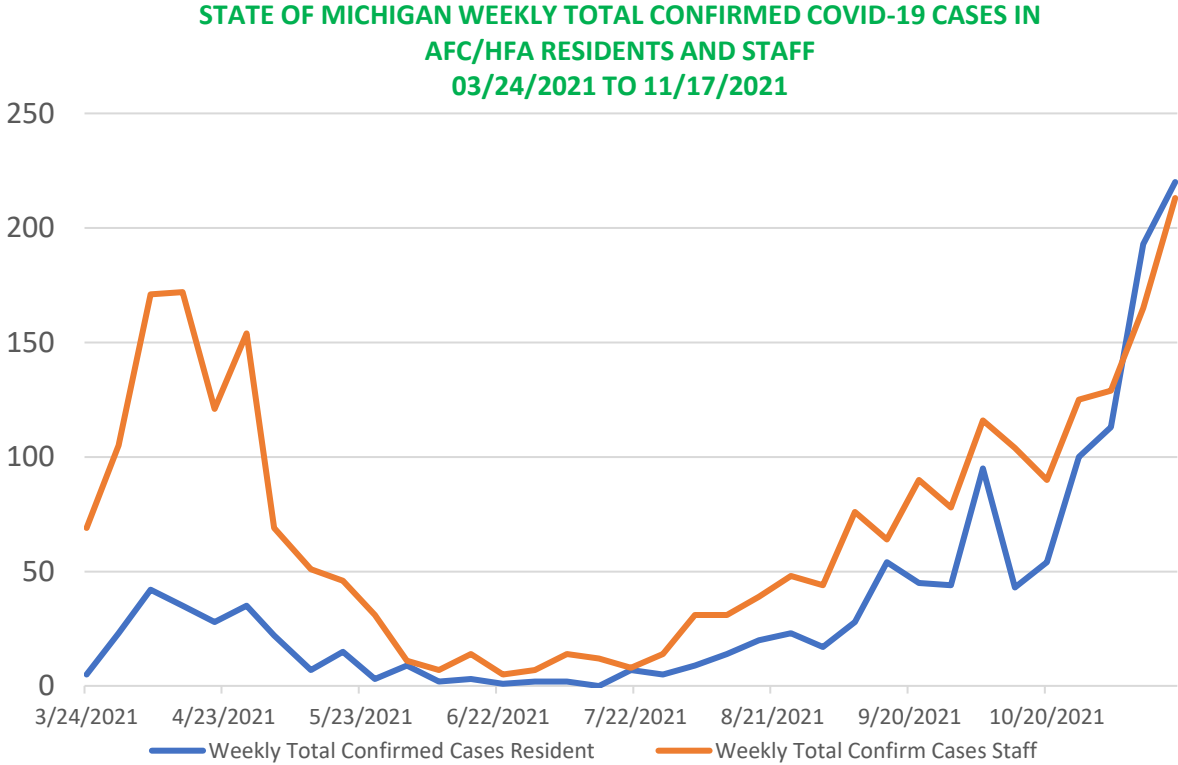
Severity

Public Health  
Response

Other  
Indicators

Science  
Roundup

# Reported Cases within Long Term Care Facilities: Adult Foster Care, Homes for the Aged, and Skilled Nursing Cases for Residents and Staff



## Updates since last week:

- Since June/July, there have been general increases in the number of weekly reported COVID cases within LTCF among both residents and staff
- Since the availability of vaccination, there have been more cases among staff than residents until recently

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

# Update on breakthrough cases



# Potential COVID-19 Vaccination Breakthrough Cases

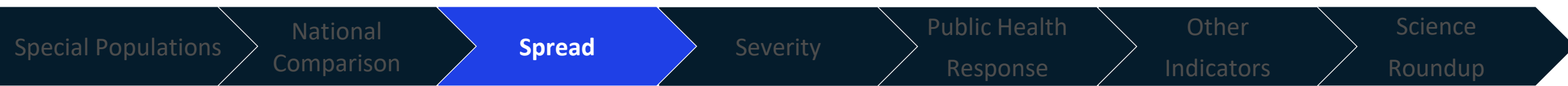
Michigan part of CDC's nationwide investigation ([COVID-19 Vaccine Effectiveness | CDC](#))

## Michigan Data (1/1/21 through 11/12/21):

- **87,810 cases met criteria based on a positive test 14 or more days after being fully vaccinated**
- **Approximately 1.7% of people who were fully vaccinated met this case definition**
  - **Includes 1,029 deaths (899 in persons ages 65 years or older)**
  - **2,250 cases were hospitalized**

## COVID-19 Vaccines Work

- Research provides evidence that COVID-19 vaccines are effective at preventing COVID-19.
- COVID-19 vaccination helps protect adults and children ages 5 years and older from getting sick or severely ill with COVID-19 and helps protect those around them.
- To receive the most protection, adults and children ages 5 years and older should receive all recommended doses of a COVID-19 vaccine.
- Some people who are fully vaccinated against COVID-19 will still get sick because no vaccine is 100% effective. Experts continue to monitor and evaluate how often this occurs, how severe their illness is, and how likely a vaccinated person is to spread COVID-19 to others.



# Cumulative COVID-19 Cases by Vaccination Status, Michigan, Jan 15 – Nov 12

| Fully Vaccinated People (5,108,132)   |  |  |
|---|--|--|
| Cases   | Hospitalization  | Deaths   |
| Percent of Cases In People Not Fully Vaccinated<br>(594,655 / 682,465)<br><b>87.1%</b>          | Percent of Hospitalizations In People Not Fully Vaccinated<br>(15,496 / 17,746)<br><b>87.3%</b>            | Percent of Deaths In People Not Fully Vaccinated<br>(7,023 / 8,052)<br><b>87.2%</b>          |
| <b>594,655</b><br>Total Cases Not Fully Vaccinated  | <b>15,496</b><br>Total Hospitalized Not Fully Vaccinated   | <b>7,023</b><br>Total Deaths Not Fully Vaccinated  |
| Total Breakthrough Cases<br><b>87,810</b>   | Total Breakthrough Hospitalizations<br><b>2,250</b>  | Total Breakthrough Deaths<br><b>1,029</b>  |
| <b>1.719%</b><br>Percent of Fully Vaccinated People who Developed COVID-19 (87,810 / 5,108,132) | <b>0.044%</b><br>Percent of Fully Vaccinated People Who Were Hospitalized for COVID-19 (2,250 / 5,108,132) | <b>0.020%</b><br>Percent of Fully Vaccinated People Who Died of COVID-19 (1,029 / 5,108,132) |
| <b>12.9%</b><br>Percent of Cases Who Were Fully Vaccinated (87,810 / 682,465)                   | <b>12.7%</b><br>Percent of Hospitalizations Who Were Fully Vaccinated (2,250 / 17,746)                     | <b>12.8%</b><br>Percent of Deaths Who Were Fully Vaccinated (1,029 / 8,052)                  |
| Total Cases: <b>682,465</b>   | Total Hospitalizations: <b>17,746</b>  | Total Deaths: <b>8,052</b>   |

Michigan Disease Surveillance System may underestimate the frequency of COVID-19 hospitalizations:

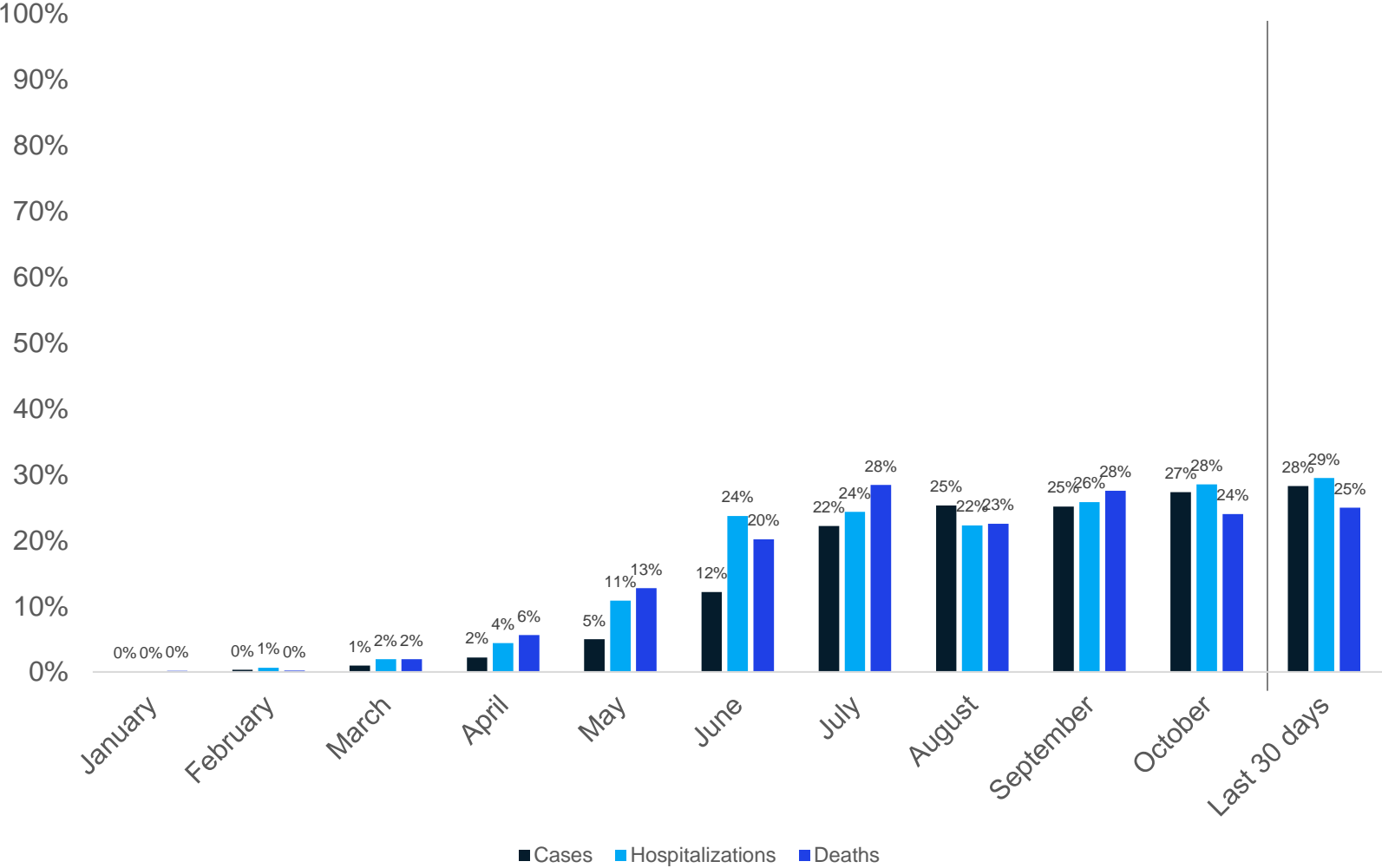
- Case investigation and follow-up is more difficult for individuals who get hospitalized (e.g., they are too ill to speak to investigators, don't answer their phone, or otherwise).
- These hospitalizations include individuals who are hospitalized for issues other than COVID19 (the same as breakthrough COVID-19).
- Individuals who get hospitalization will lag after infection and may occur after case investigation.



# Trends in Breakthrough Cases, Hospitalizations, and Deaths

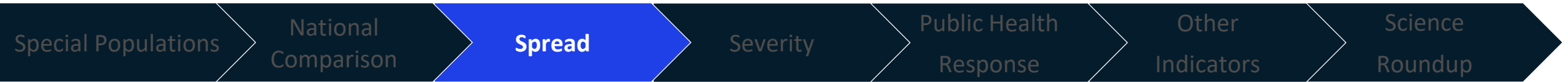
- 54.4% of the population is fully vaccinated yet only account for ~25-29% of cases, hospitalizations, and deaths
- As the fully vaccinated population has increased, so have the percent of breakthrough incidents; but breakthrough burden remains lower

In the last 30 days (Oct 14- Nov 12), 30,906 (28%) of 109,455 cases, 454 (29%) of 1,540 hospitalizations, and 151 (25%) of 605 deaths were among fully vaccinated individuals

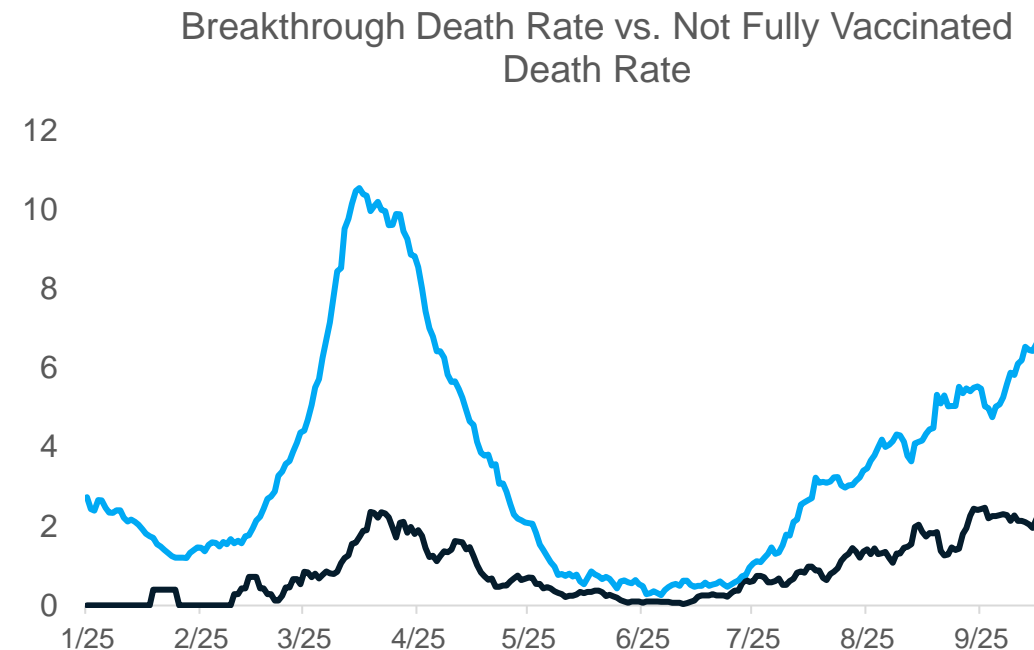
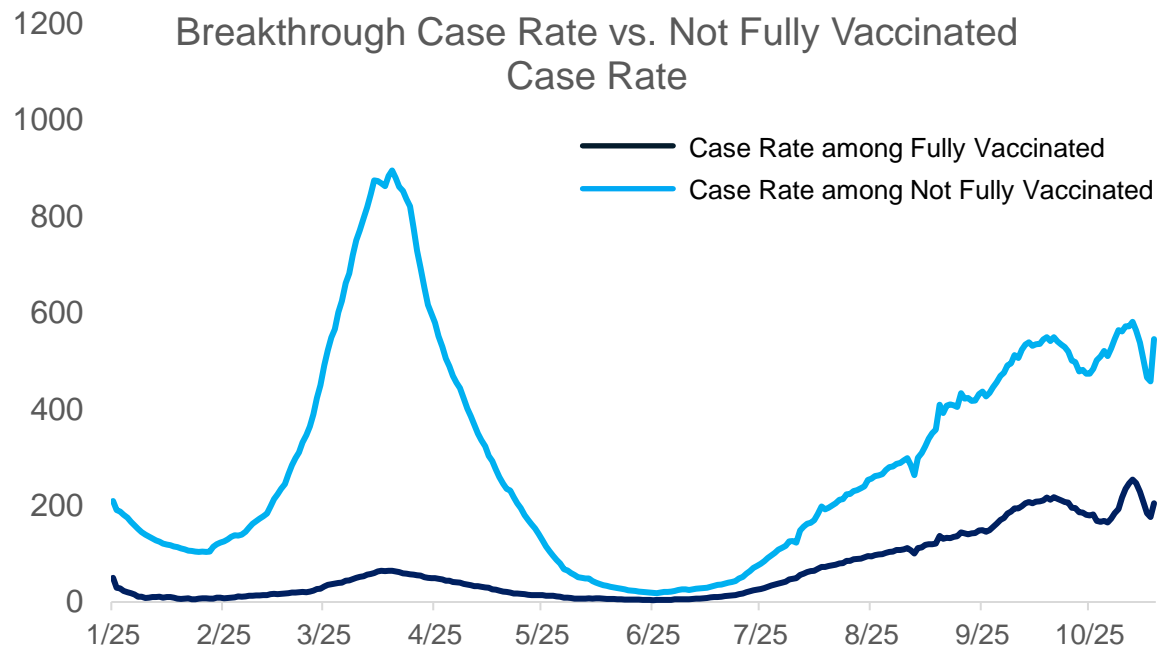


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- Case investigation and follow-up is more difficult for individuals who get hospitalized (e.g., they are too ill to speak to investigators, don't answer their phone, or otherwise).
- These hospitalizations include individuals who are hospitalized for issues other than COVID19 (the same as breakthrough COVID-19).
- Individuals who get hospitalization will lag after infection and may occur after case investigation.



# Crude COVID-19 Vaccination Breakthrough Cases and Deaths Rates



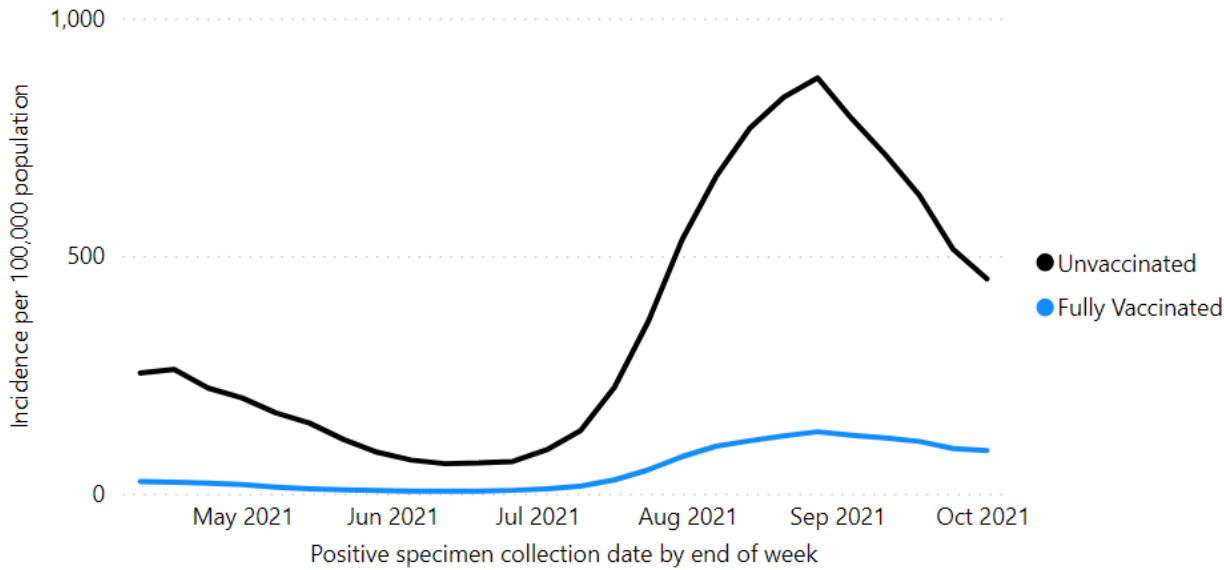
- Trends over time show that both case and death rates among the Fully Vaccinated are lower than the Not Fully vaccinated rates in Michigan
- The *proportion* of breakthrough cases and deaths among all cases and deaths has shown some increases as more people become fully vaccinated
  - However, the risk of infection and death remains significantly lower among the fully vaccinated



# National Age-Standardized Rates of COVID-19 Cases and Deaths by Vaccination Status

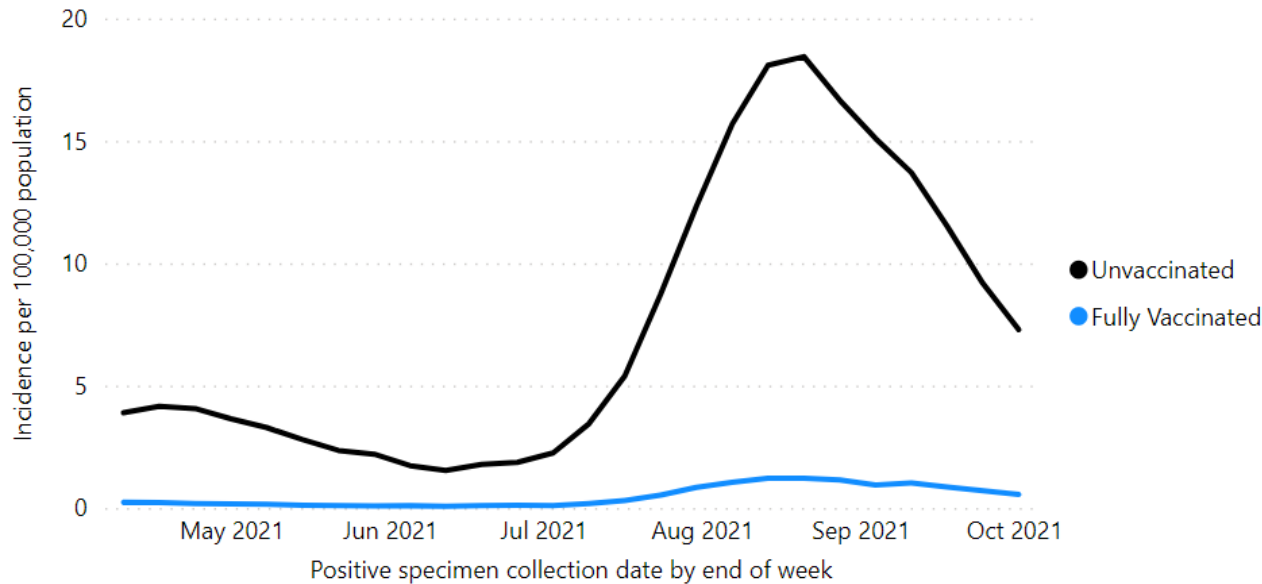
Rates of COVID-19 Cases by Vaccination Status

April 04 - October 02, 2021 (24 U.S. jurisdictions)



Rates of COVID-19 Deaths by Vaccination Status

April 04 - October 02, 2021 (20 U.S. jurisdictions)



In September, unvaccinated persons had:

5.8X

Risk of Testing Positive for COVID-19

AND

14X

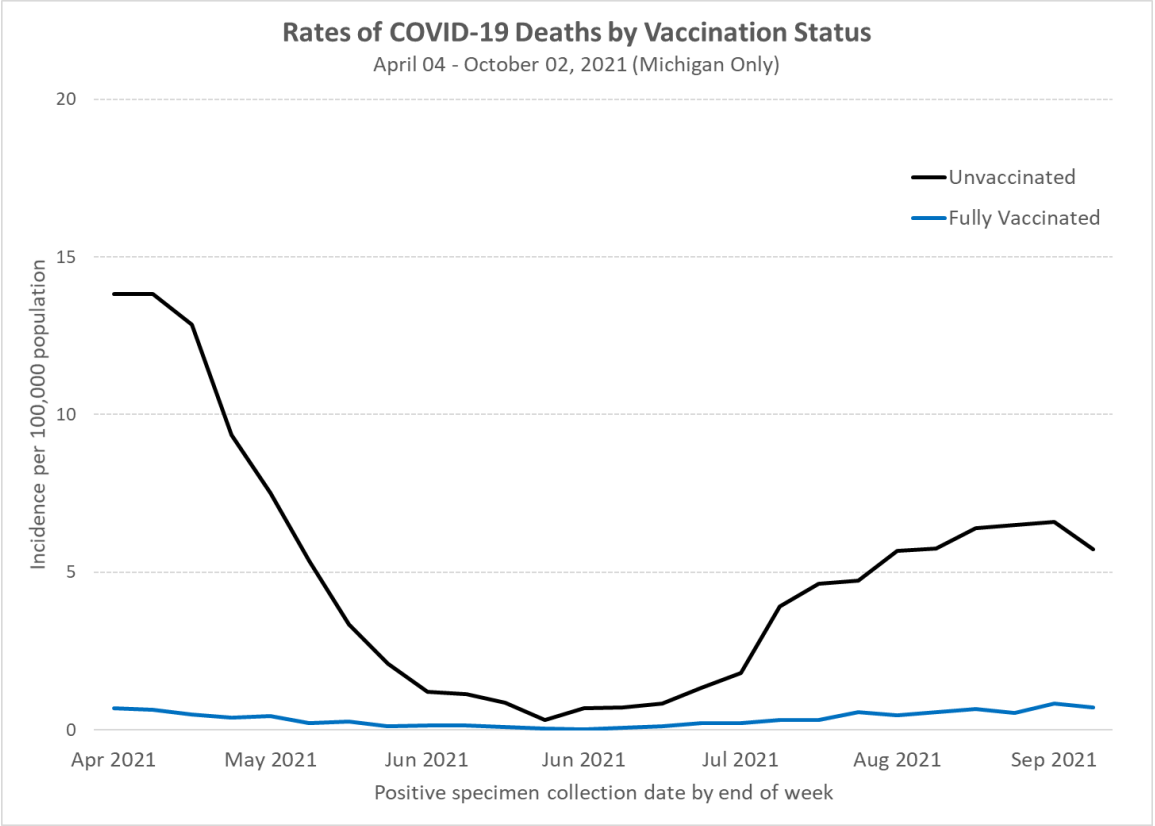
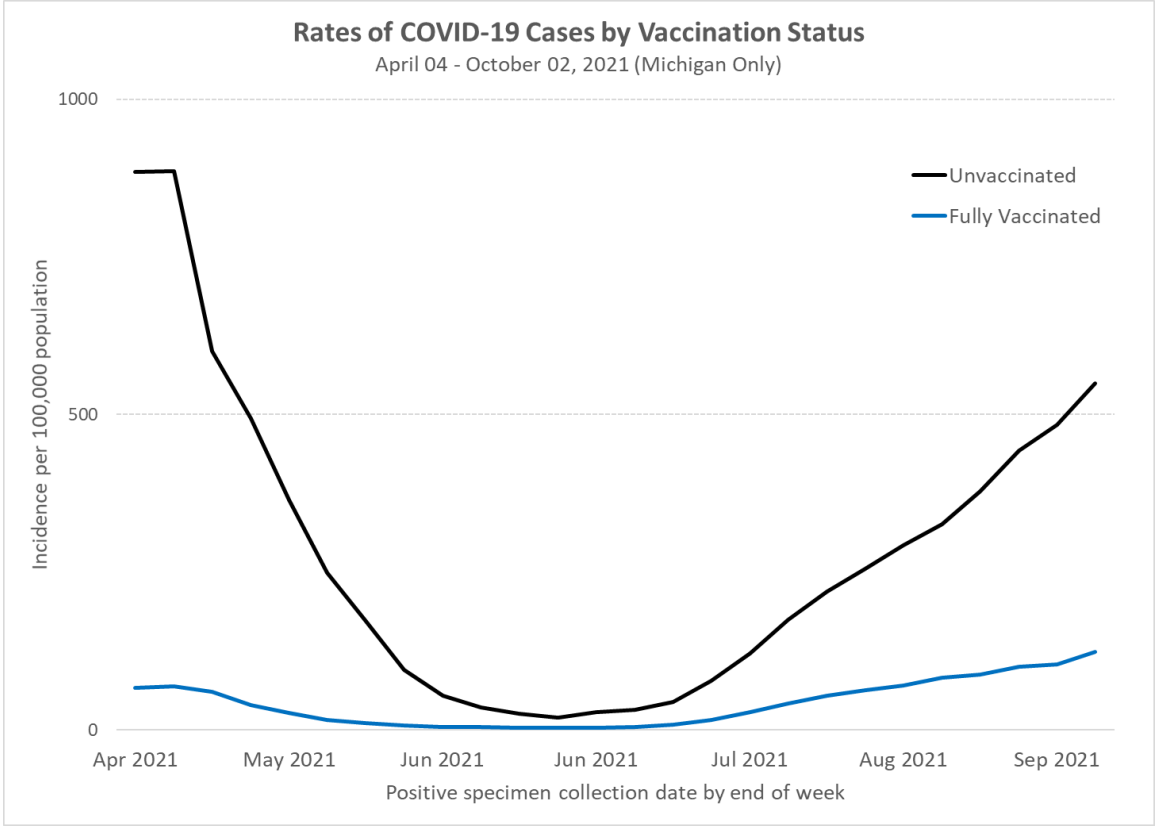
Risk of Dying from COVID-19

compared to fully vaccinated persons

**Footnotes:** Incidence rates were age-standardized using the 2000 U.S. Census standard population; and rates are not adjusted for time since vaccination, underlying conditions, or other demographic factors besides age. | Incidence rate ratios for the past one month were calculated by dividing the average weekly incidence rates among unvaccinated people by that among fully vaccinated people.



# Michigan Age-Standardized Rates of COVID-19 Cases and Deaths by Vaccination Status



In September, unvaccinated persons had:

**4.4 X**

Risk of Testing Positive for COVID-19

AND

**9.3 X**

Risk of Dying from COVID-19

compared to fully vaccinated persons

**Footnotes:** Incidence rates were age-standardized using the 2000 U.S. Census standard population; and rates are not adjusted for time since vaccination, underlying conditions, or other demographic factors besides age. Incidence rate ratios for the past one month were calculated by dividing the average weekly incidence rates among unvaccinated people by that among fully vaccinated people.



# Key Messages: Healthcare Capacity and COVID Severity

Emergency Department visits, Hospital Admissions, and Hospital Census are all increasing

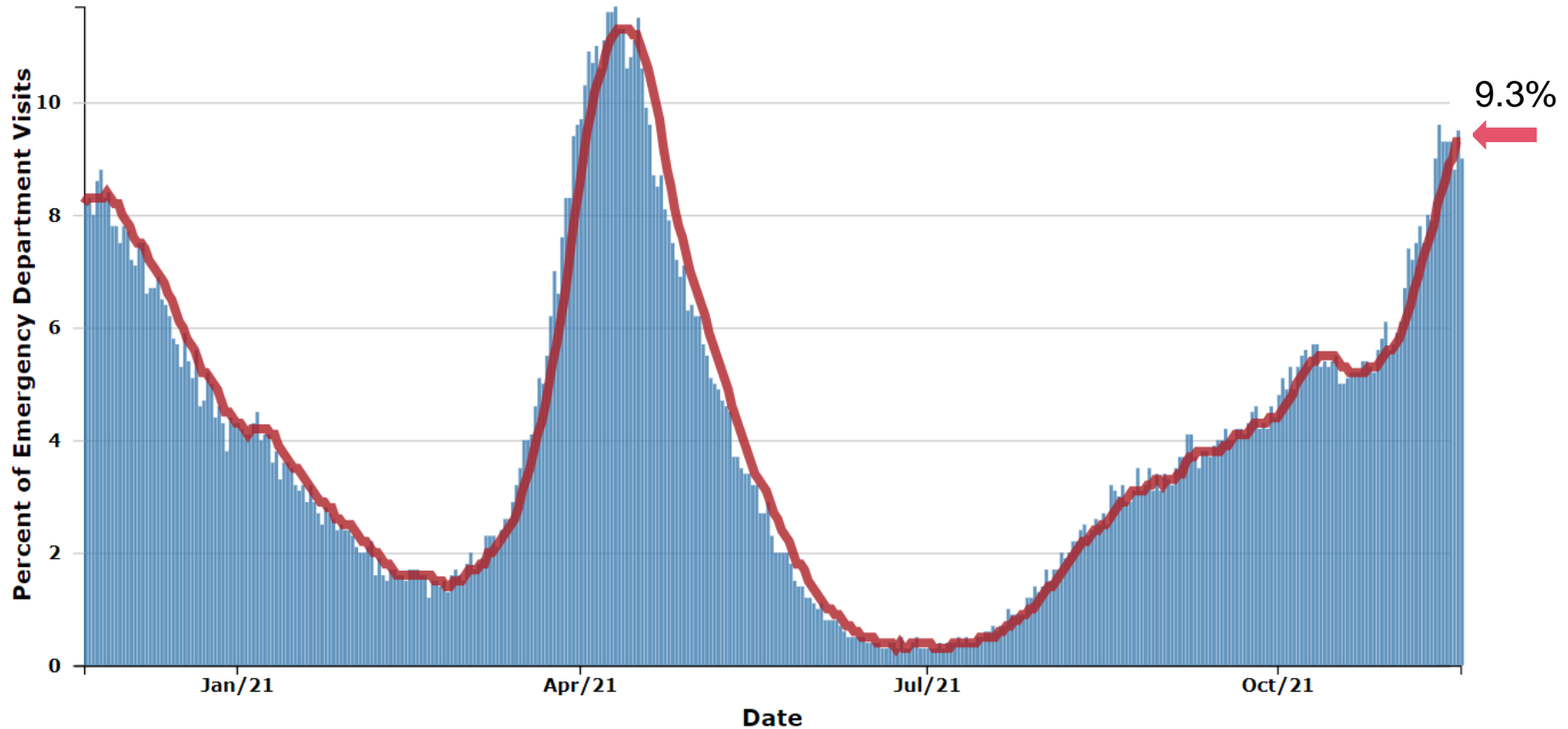
- 9.3% of ED visits are for COVID diagnosis (up from 7.5% last week)
- Hospital admissions for most age groups have increased from last week
- Hospital census has increased 21% since last week (vs. 14% increase week prior)
- Seven regions have increasing trends in hospital census this week (exception Region 8)
  - All Regions outside the Southeast have exceeded their spring wave peaks (Regions 1,3,5,6,7,8)
  - Six regions now have greater than 300/Million population hospitalized; Two more than 400/Million
- Overall, volume of COVID-19 patients in intensive care has increased 23% (vs. 13% increase last week)

Death rate has decreased to 5.8 daily deaths/million residents (down from 4.0 deaths/million last week)

- Trends for daily average deaths are increasing for most reported racial and ethnic groups
- Currently, American Indian/Alaskan Natives have the highest death rate (9.1 deaths/million)
- In the past 30 days, the proportion of deaths among those over 60 is steadily increasing



# Michigan Trends in Emergency Department (ED) Visits for Diagnosed COVID-19

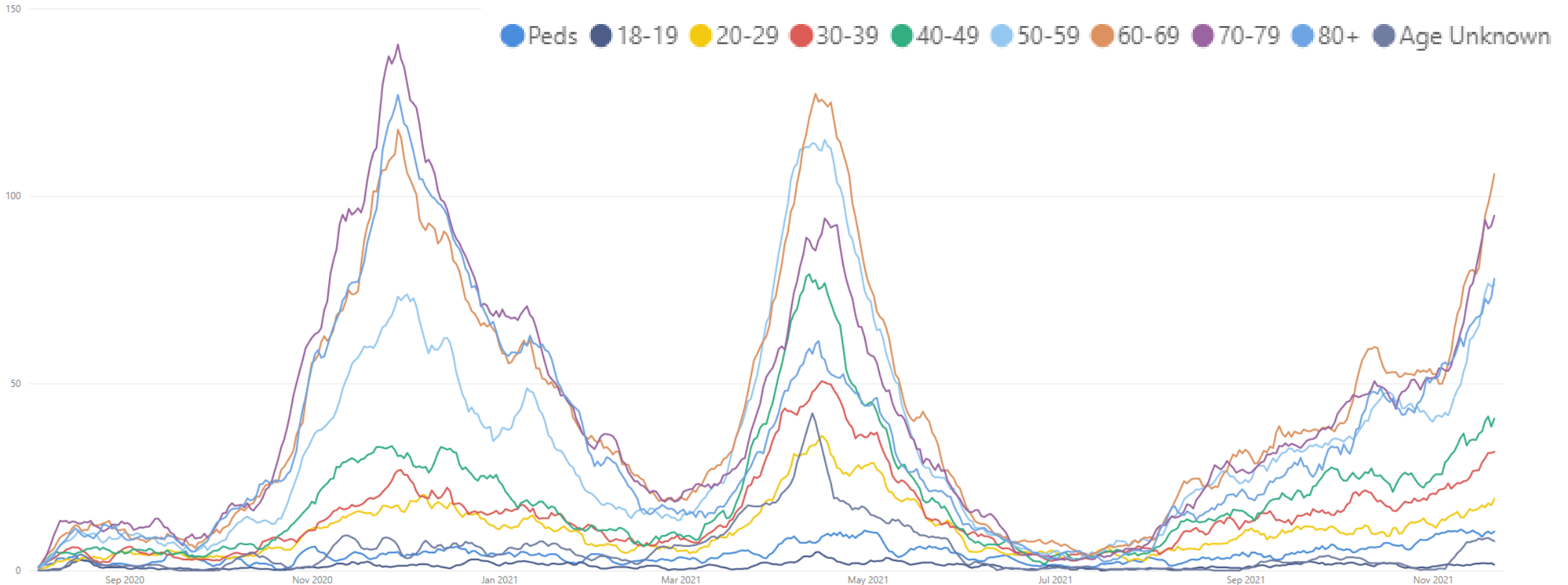


- Trends for ED visits have increased to 9.3% since last week (up from 7.5%)
- Trends for all age groups are increasing
- Over past week, those 50-64 years saw highest number of avg. daily ED CLI visits (12.5%), but those between 40+ all above state average

Source: <https://covid.cdc.gov/covid-data-tracker/#ed-visits>; data extracted on 10/18/2021



# Average Hospital Admissions Are Increasing for all Age Groups

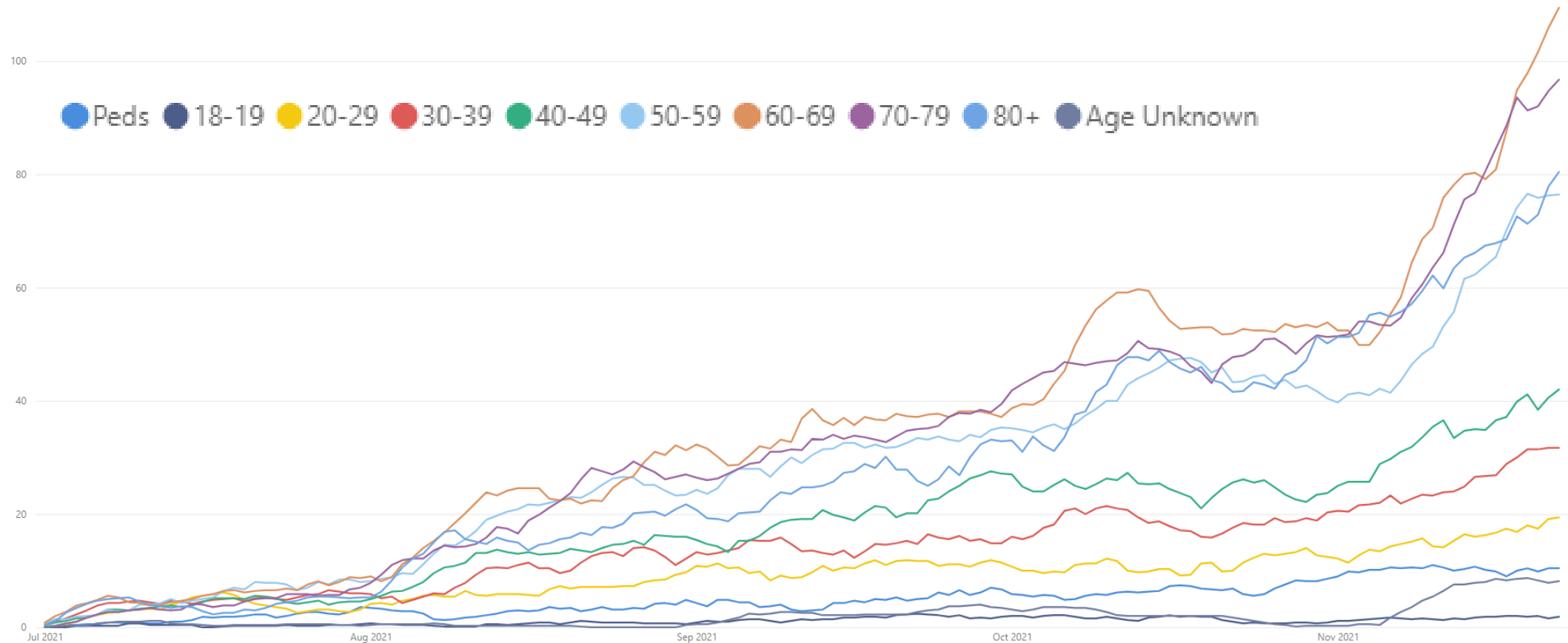


- Trends for daily average hospital admissions have increased 23% since last week (vs. 25% increase prior week)
- Nearly all age groups saw increases this week with largest increases in those between 60 and 69 years (38%, +30)
- More than 70 daily hospital admissions was seen for each of the age groups of 50-59, 60-69, 70-79, and 80+

Source: CHECC & EM Resource



# Average Hospital Admissions by Age Groups



- Trends for daily average hospital admissions have increased 23% since last week (vs. 25% increase prior week)
- Nearly all age groups saw increases this week with largest increases in those between 60 and 69 years (38%, +30)
- More than 70 daily hospital admissions was seen for each of the age groups of 50-59, 60-69, 70-79, and 80+

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      | 7.3  | 5.2                                     | 0% (+0)                 |
| 12-17     | 3.9  | 5.1                                     | +17% (+1)               |
| 18-19     | 1.9  | 7.0                                     | 0% (+0)                 |
| 20-29     | 19.4   | 14.1                                    | +19% (+3)               |
| 30-39     | 31.7   | 26.1                                    | +19% (+5)               |
| 40-49     | 42.0   | 35.6                                    | +20% (+7)               |
| 50-59     | 76.4   | 56.6                                    | +20% (+13)              |
| 60-69     | 109.4  | 85.8                                    | +38% (+30)              |
| 70-79     | 96.7   | 126.1                                   | +20% (+16)              |
| 80+       | 80.4   | 194.2                                   | +19% (+13)              |
| Total¶    | 477.3  | 47.8                                    | +23% (+88)              |

- Through November 22, there were an average of 477.3 hospital admissions per day due to COVID-19, which is an increase from last week (↑23%, +88)
- Most age groups saw increases this week, with largest increases in age groups older than 50
- The largest one-week increases were among those 60-69 (+30, +38%)
- More than 70 daily hospital admissions was seen for those aged 50-59, 60-69, 70-79, and 80+
- Average daily hospital admission rate (194.2 hospital admissions/million) are highest for those aged 80+

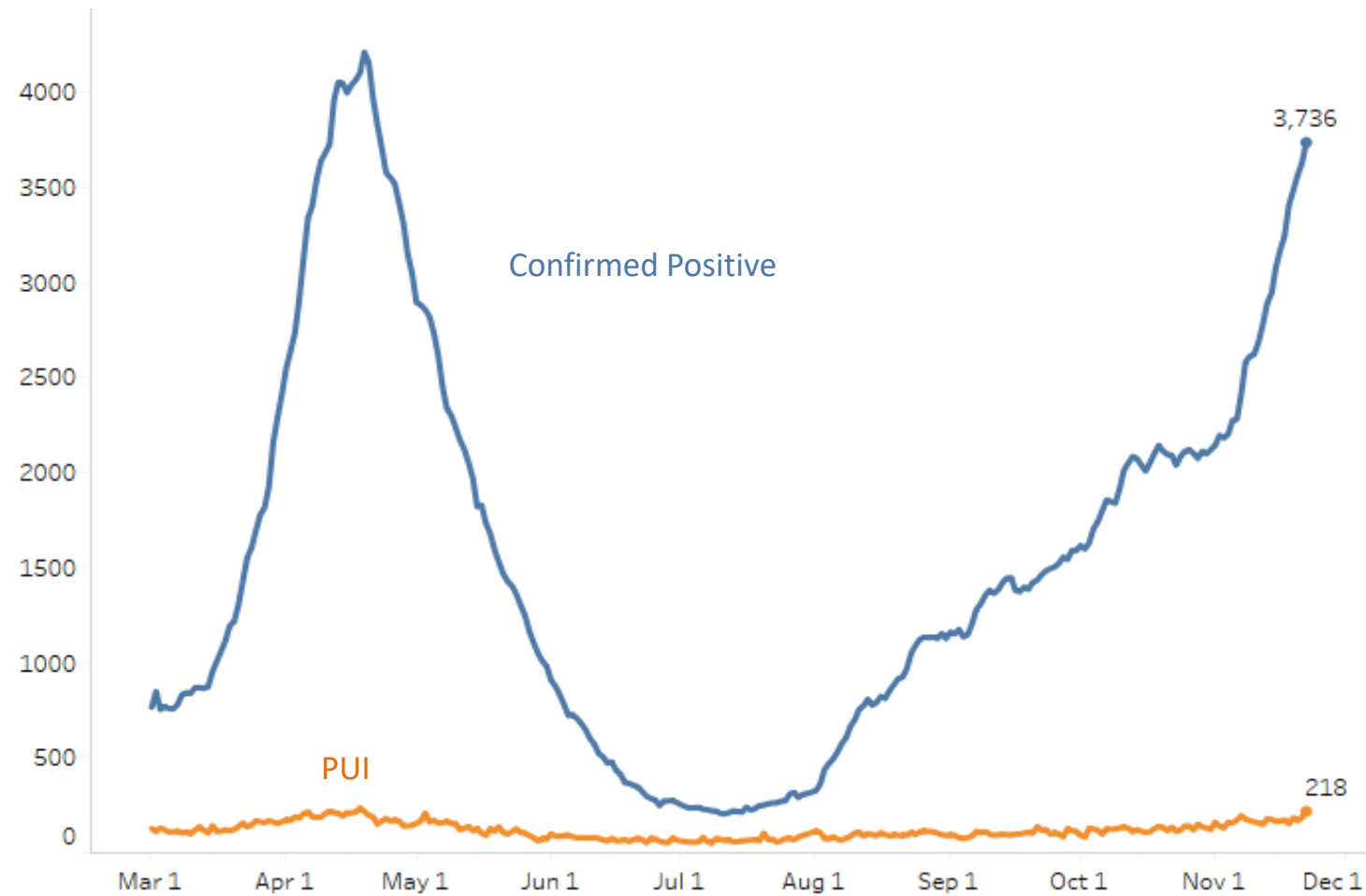
Note: for some age groups, small changes in number of hospitalization admissions can cause large change in One Week Percent Change

\* 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



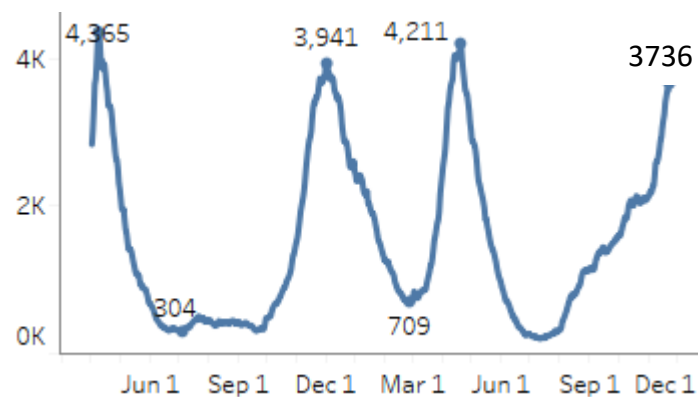
# Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 3/1/2021 – 11/22/2021  
Confirmed Positive & Persons Under Investigation (PUI)



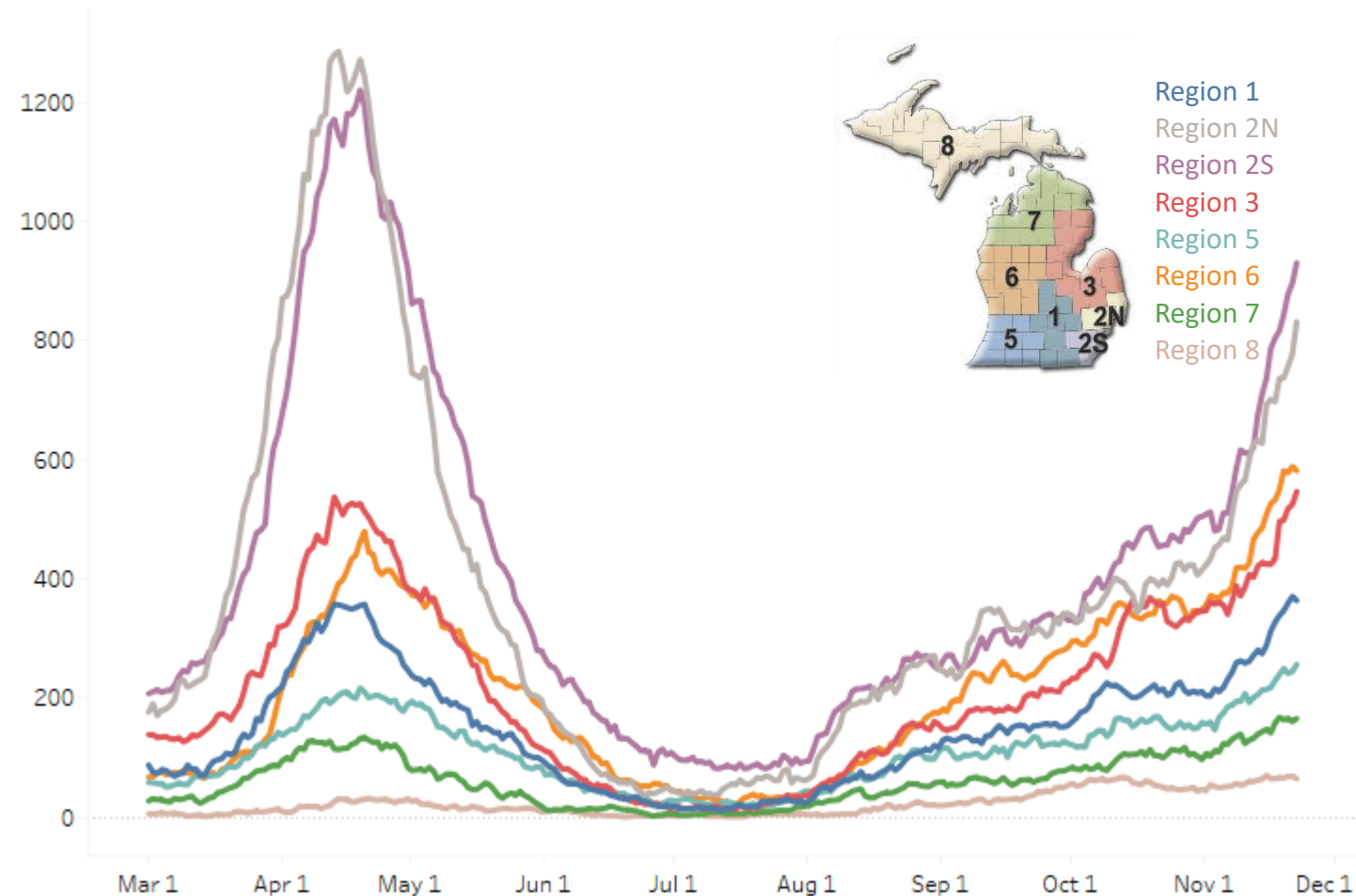
The COVID+ census in hospitals has increased by 21% in the past week (previous week was 14% growth). Census is now at ~90% of the spring peak.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



# Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 3/1/2021 – 11/22/2021  
Confirmed Positive by Region



The census of hospitalized COVID+ patients has increased across all regions except Region 8. All Regions outside the Southeast have exceeded their spring wave peaks (Regions 1,3,5,6,7,8)

6 regions now have greater than 300/Million population hospitalized. Regions 2S and 3 now have greater than 400/Million population hospitalized.

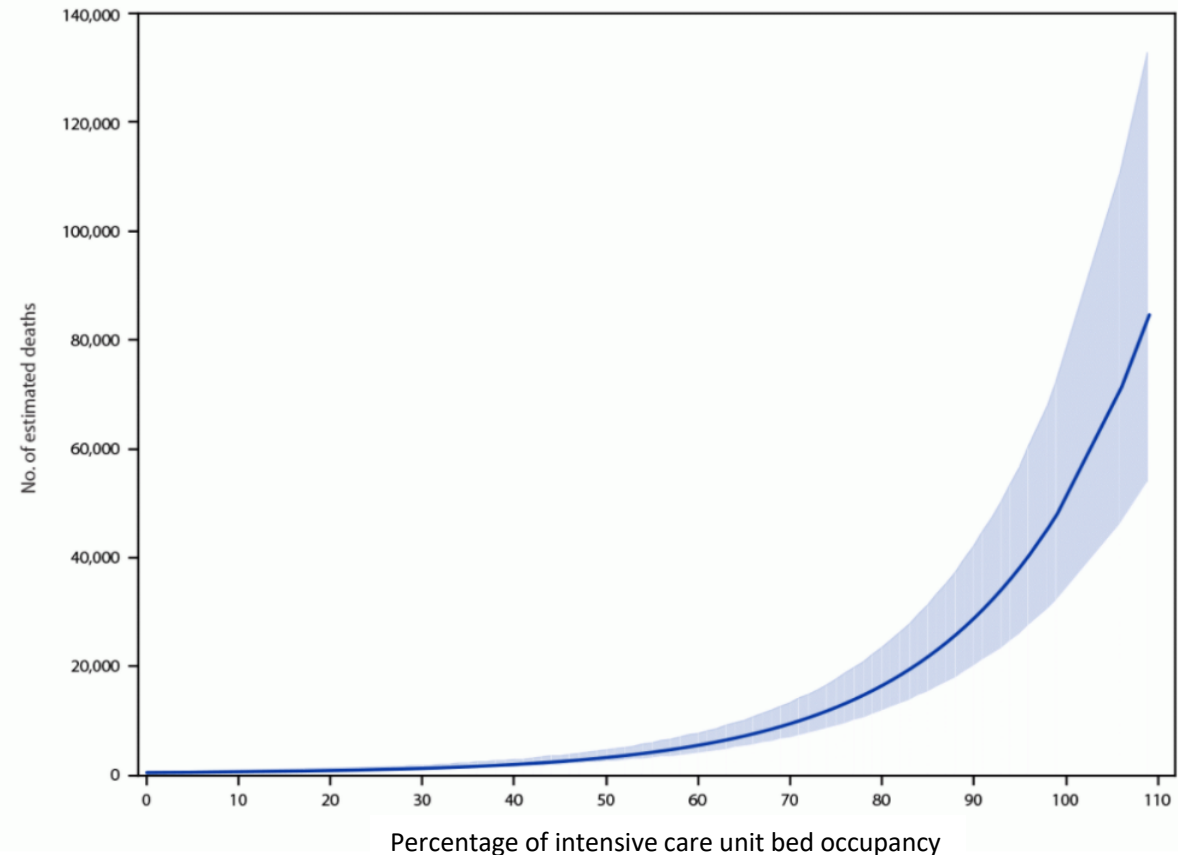
| Region    | COVID+ Hospitalizations (% Δ from last week) | COVID+ Hospitalizations / MM |
|-----------|--|------------------------------|
| Region 1  | 363 (26%)                                    | 336/M                        |
| Region 2N | 831 (20%)                                    | 375/M                        |
| Region 2S | 930 (26%)                                    | 417/M                        |
| Region 3  | 546 (28%)                                    | 482/M                        |
| Region 5  | 256 (20%)                                    | 269/M                        |
| Region 6  | 581 (14%)                                    | 396/M                        |
| Region 7  | 165 (18%)                                    | 330/M                        |
| Region 8  | 64 (-8%)                                     | 206/M                        |

# Impact of Hospital Strain on Excess Deaths During COVID-19 Pandemic – United States, July 2020–July 2021

## National Estimates

- This report highlights the conditions of hospital strain between July 2020–July 2021
  - Includes the presence of B.1.617.2 (Delta) variant,
- Intensive care unit (ICU) bed use at **75% capacity** is associated with an estimated additional **12,000 excess deaths** 2 weeks later
- When hospitals exceed **100% ICU bed capacity**, **80,000 excess deaths** would be expected 2 weeks later
- State, local, tribal, and territorial leaders should evaluate ways to reduce strain on public health and health care infrastructures,
  - Implementing interventions to reduce overall disease prevalence (e.g., vaccination and other prevention strategies)
  - Ways to expand or enhance hospital capacity during times of high disease prevalence.

FIGURE. Estimated number of excess deaths\* 2 weeks after corresponding percentage of adult intensive care unit bed occupancy — United States, July 2020–July 2021



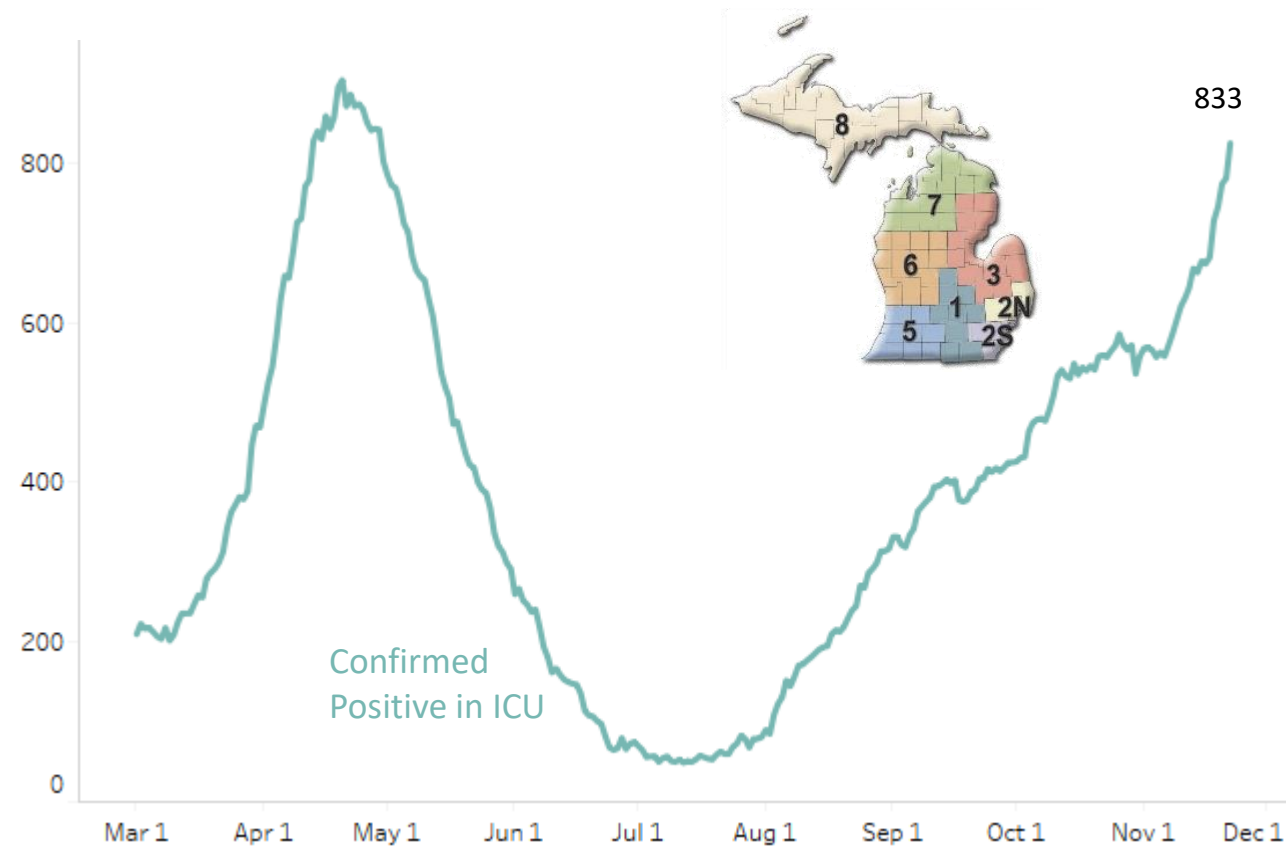
\* Upper and lower boundaries of shaded area indicate 95% CIs.

Source: French G, Hulse M, Nguyen D, et al. Impact of Hospital Strain on Excess Deaths During the COVID-19 Pandemic — United States, July 2020–July 2021. MMWR Morb Mortal Wkly Rep 2021;70:1613–1616. DOI: <http://dx.doi.org/10.15585/mmwr.mm7046a5>



# Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 11/22/2021  
Confirmed Positive in ICUs



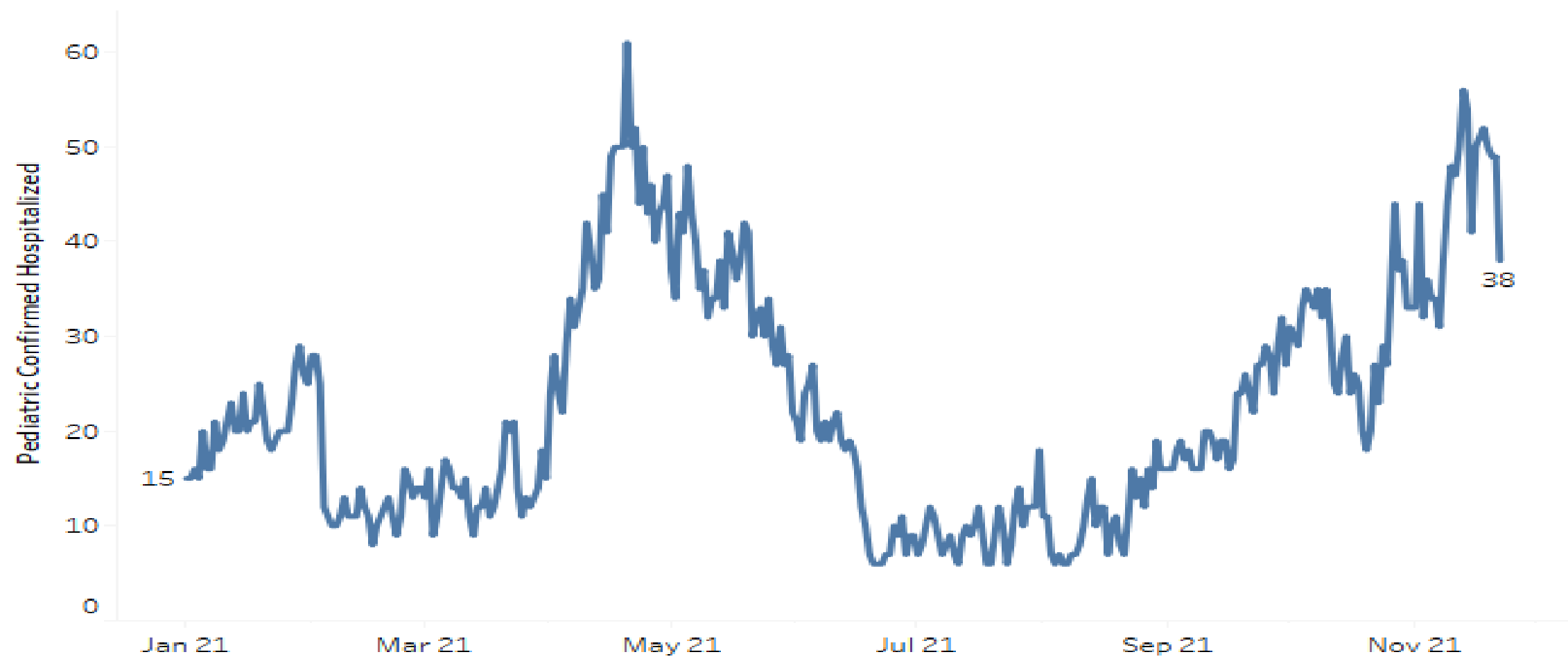
Overall, the census of COVID+ patients in ICUs has increased 23% from last week. ICU census is now >90% of the spring peak.

Regions 1, 2S, 3, 6, and 7 have overall adult ICU occupancy greater than or equal to 85%. Regions 1, 6 and 7 have greater than 40% of their adult ICU beds occupied with COVID+ patients.

| Region    | Adult COVID+ in ICU (% Δ from last week) | Adult ICU Occupancy | % of Adult ICU beds COVID+ |
|-----------|--|---------------------|----------------------------|
| Region 1  | 85 (23%)                                 | 90%                 | 43%                        |
| Region 2N | 142 (19%)                                | 76%                 | 25%                        |
| Region 2S | 188 (29%)                                | 88%                 | 27%                        |
| Region 3  | 125 (17%)                                | 92%                 | 36%                        |
| Region 5  | 56 (22%)                                 | 77%                 | 29%                        |
| Region 6  | 144 (24%)                                | 89%                 | 48%                        |
| Region 7  | 69 (47%)                                 | 90%                 | 49%                        |
| Region 8  | 24 (26%)                                 | 73%                 | 38%                        |

# Statewide Hospitalization Trends: Pediatric COVID+ Census

Hospitalization Trends 1/1/2021 – 11/22/2021  
Pediatric Hospitalizations, Confirmed + PUI



# Multisystem Inflammatory Syndrome in Children (MIS-C)

## Michigan Surveillance

- Higher community transmissions is followed by higher incidence of MIS-C cases
- Many of those who experience MIS-C in Michigan are admitted to intensive care, school age, and are Black/African American

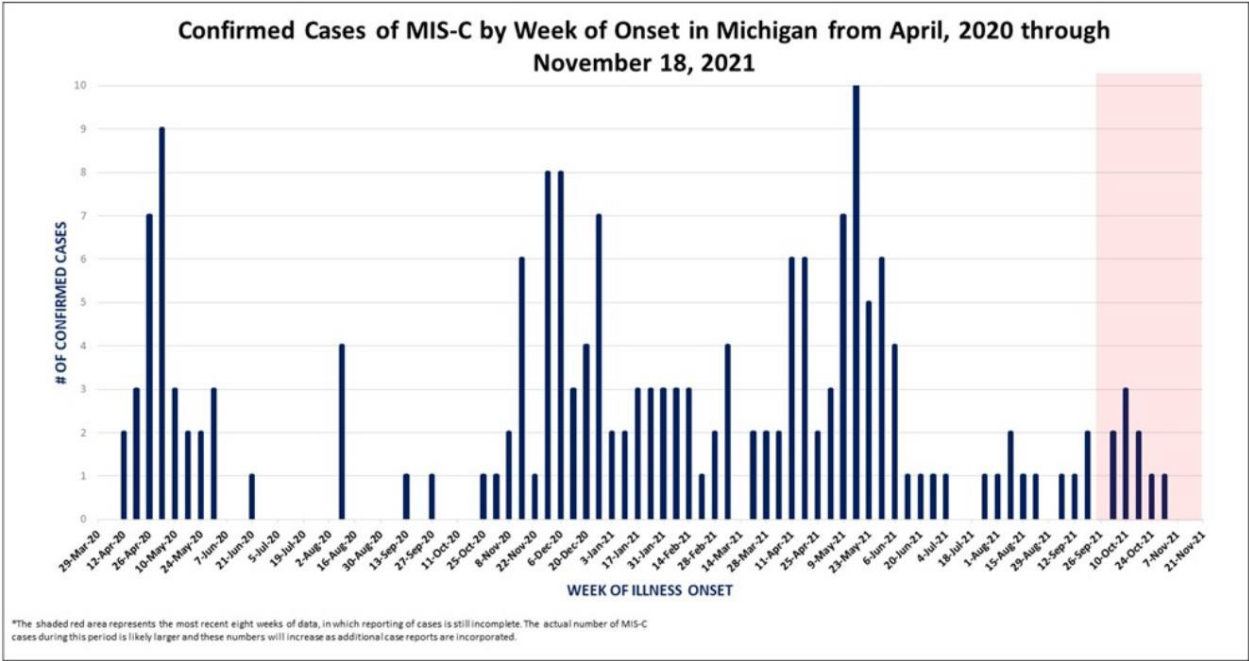
Multisystem Inflammatory Syndrome in Children (MIS-C) Michigan Data Summary 11/18/2021

| # Cases Confirmed and Reported to CDC* | 183                   |
|--|-----------------------|
| MIS-C associated Deaths                | 5 or fewer            |
| Cases admitted to ICU                  | 129 (70.5%)           |
| Onset Date Range                       | 4/14/20 to 11/02/2021 |
| Age Range                              | 0-20 years            |

\*Meets CDC Case definition  
<https://emergency.cdc.gov/han/2020/han00432.asp>

DEMOGRAPHIC INFORMATION (N=183)

| Age Group | Count  | %     | Race                   | Count | %     |
|-----------|--------|-------|------------------------|-------|-------|
| 0-4 yrs   | 48     | 26.2% | Black/African American | 76    | 41.5% |
| 5-10 yrs  | 74     | 40.5% | Caucasian              | 79    | 43.2% |
| >10 yrs   | 61     | 33.3% | All Others / Unknown   | 28    | 15.3% |
| Gender    | Counts | %     | Ethnicity              | Count | %     |
| Male      | 107    | 58.5% | Not Hispanic or Latino | 133   | 72.7% |
| Female    | 76     | 41.5% | Hispanic or Latino     | 14    | 7.6%  |
| Unknown   | 0      | 0.0%  | Unknown                | 36    | 19.7% |

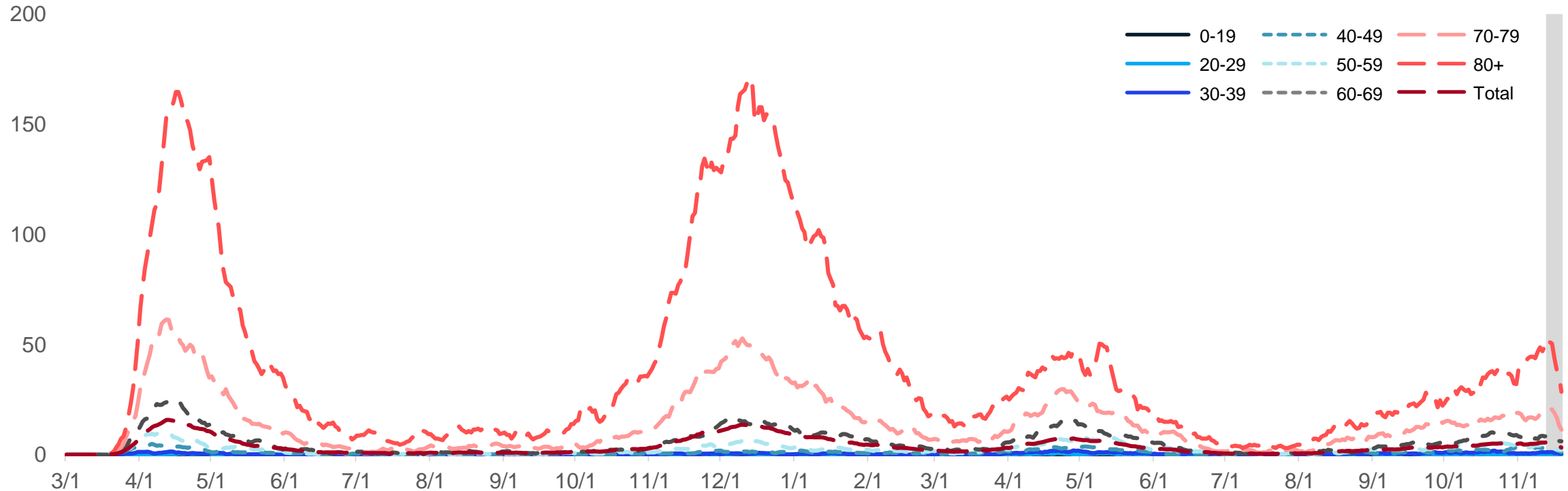


Source: [MDHHS and MIS-C Data and Reporting](#)



# Average and total new deaths, by age group

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



- Through 11/15, the 7-day avg. death rate is more than 50 daily deaths per million people for those over the age of 80
- COVID-19 death rates for those 80+ now are higher than the death rates during the Alpha (B.1.1.7) surge but not as high as the first two surges

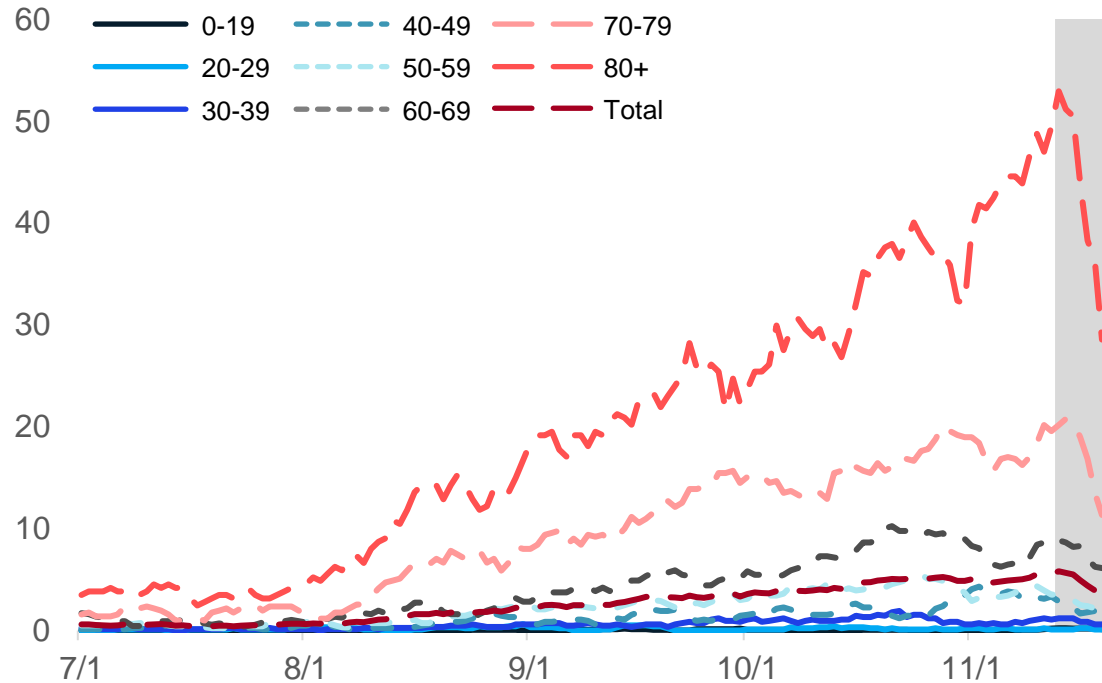
Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.

Source: MDHHS – Michigan Disease Surveillance System (MDSS)



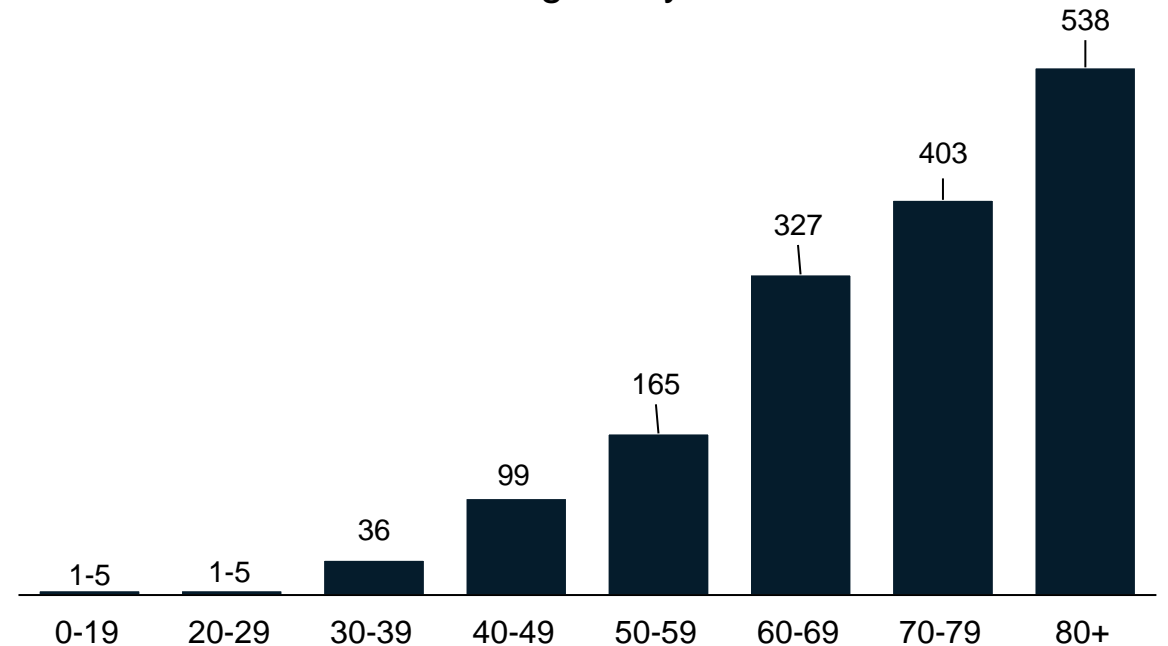
# Average and total new deaths, by age group

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 11/22/2021)

- 20% of deaths below age sixty



- Through 11/15, the 7-day avg. death rate is more than 50 daily deaths per million people for those over the age of 80
- In the past 30 days, the proportion of deaths among those over 60 is steadily increasing

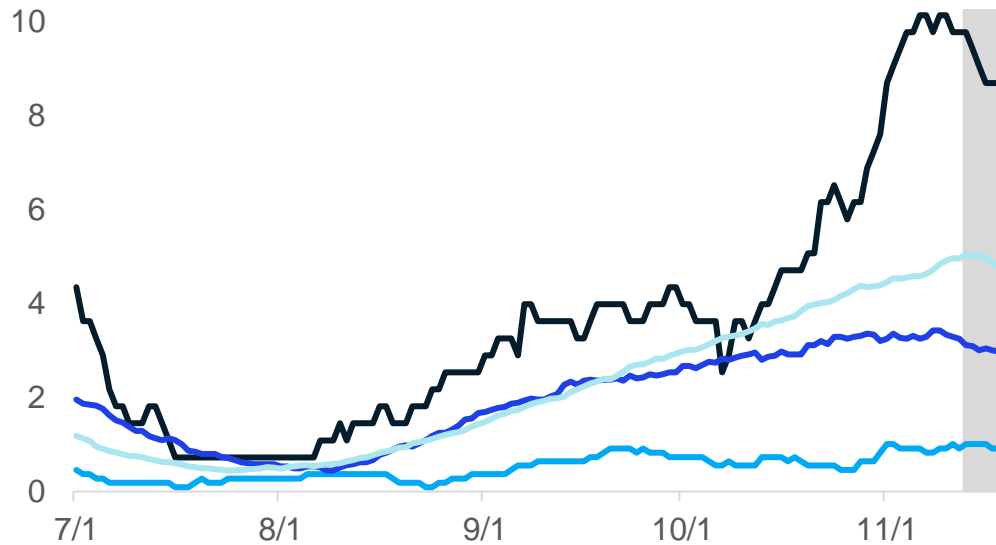
Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.  
Source: MDHHS – Michigan Disease Surveillance System (MDSS)



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

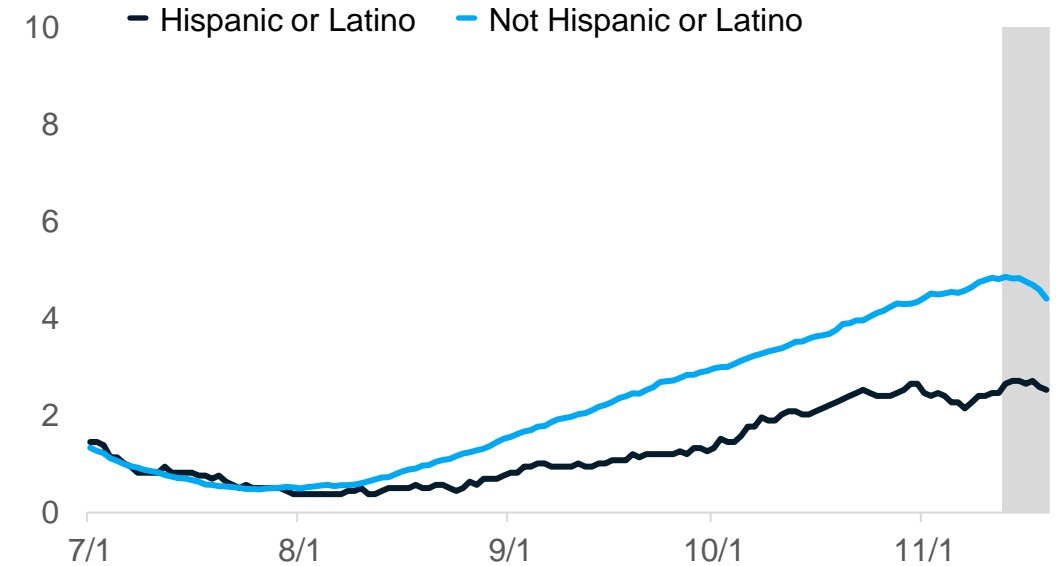
Average daily deaths per million people by race

— American Indian/Alaska Native — Black/African American  
— Asian/Pacific Islander — White



Average daily deaths per million people by ethnicity

— Hispanic or Latino — Not Hispanic or Latino



- Deaths are lagging indicator of other metrics
- Overall trends for daily average deaths are increasing for most reported races and ethnicities
- Currently, American Indian/Alaskan Natives have the highest death rate (9.1 deaths/million)

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



# Key Messages: Public Health Response

## COVID-19 Vaccination

- 11,950 first doses administered each day (7-day rolling average); total administrations increasing
- Over 5.4 million people (54.4% of the population) in the state are fully vaccinated

## COVID-19 Boosters

- Over 1.2 million people have received an additional/booster dose in Michigan

## Pediatric Vaccination

- Interactive dashboard now includes pediatrics vaccination doses (live updates effective 11/5)
- 87,029 administrations in 5- to 11-year-olds as of 11/19

## Vaccine Coverage in Urban and Rural Counties

- Counties at all levels of urbanicity are experiencing increases in case rate but cases rates are higher in more rural areas
- Disparities in vaccine coverage within age groups is greater for younger ages and in non-metro areas



# Average daily doses administered increase (data through 11/22/2021)

16,287,540 doses delivered to providers and  
12,476,069 doses administered\*

MI 7-day rolling average ending November 17th

- 42,714 total doses/day on average<sup>†</sup> (39,846 on 11/10)
- 11,950 first doses/day on average<sup>†</sup> (9,892 on 11/10)

Total primary series doses in month of November were  
most frequently administered<sup>¶</sup> by:

Pharmacies (148,504)

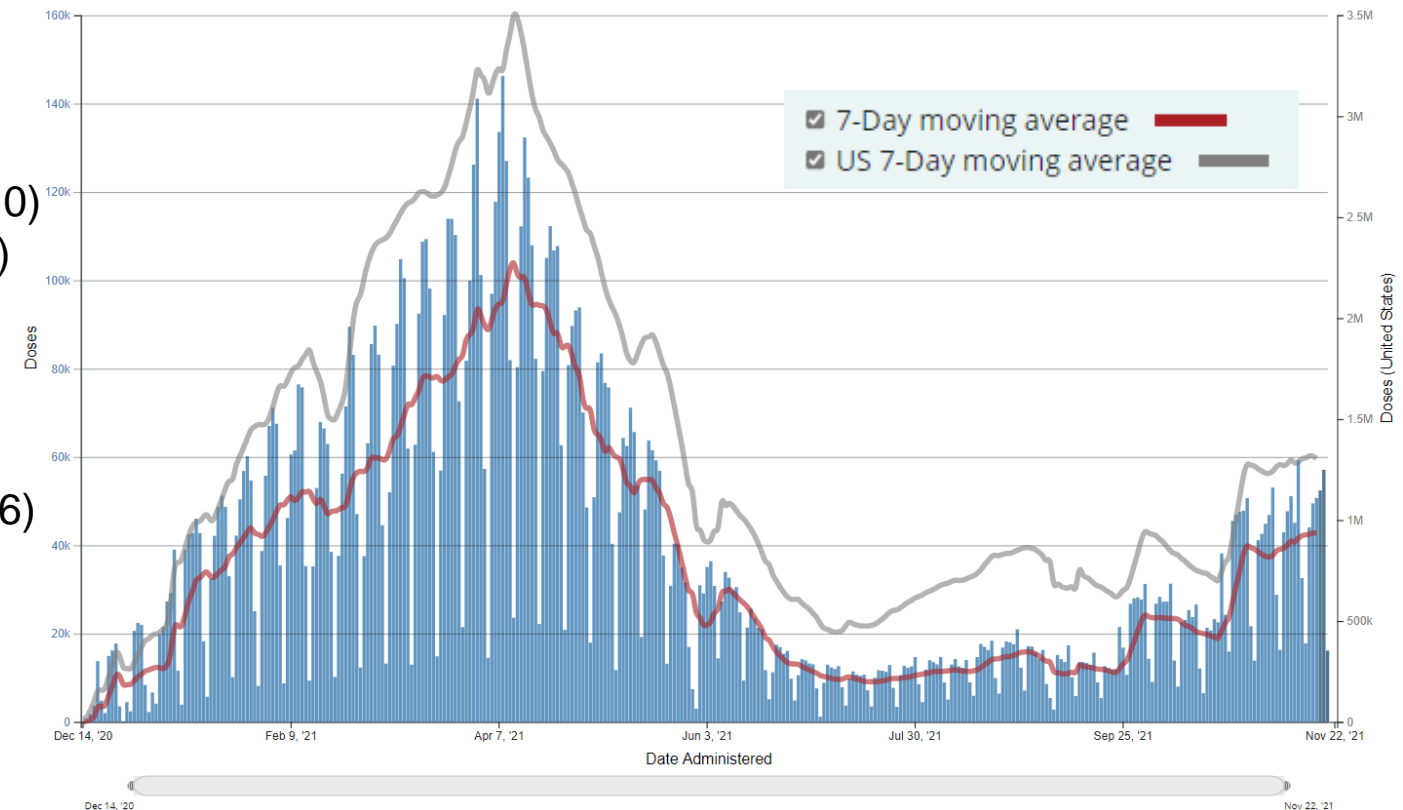
LHD (123,054) pediatrics (16,312), and hospitals (9,246)

Family practice (7,371) and FQHCs (5,570)

Third Doses

- 1,334,552 third doses administered as of 11/22

Daily Count of Total Doses Administered and Reported to CDC by Date Administered, Michigan



Source: \*[CDC COVID Data Tracker > Vaccinations in the US](#), <sup>†</sup> [CDC COVID Data Tracker > Vaccination Trends](#); <sup>¶</sup> [MCIR COVID-19 Vaccine Dashboard](#)



# 5.4 Million Michiganders fully vaccinated and 54.4% of total population fully vaccinated

5.4 million people in the state are fully vaccinated\*

85.5% of people aged 65 and older have completed the series (↑0.3%)\*

60.6% of total population initiated (↑1%)\*

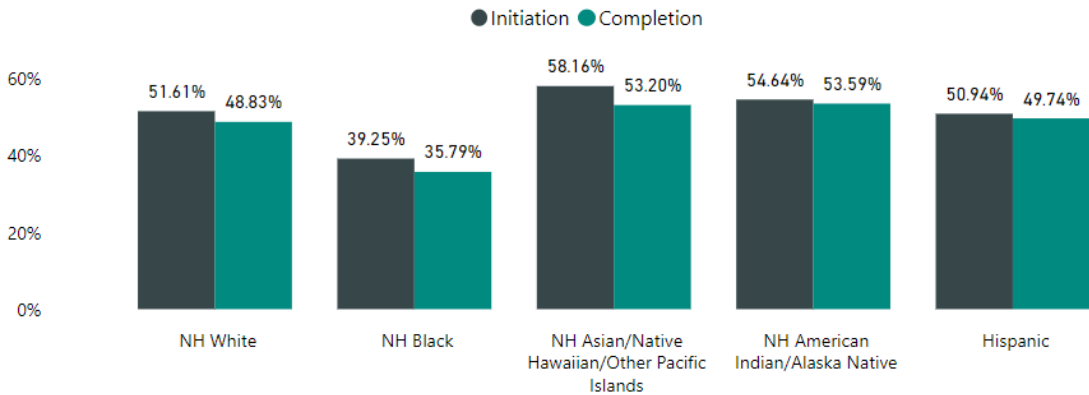
Race/Ethnicity¶ for those 12 years and older:

- Initiation coverage highest among those of Non-Hispanic (NH) Asian, Native Hawaiian or Pacific Islander Race (58.2%), then NH American Indian (54.6%), NH White (51.6%), NH Black or African American Races (39.3%).
- Initiation is at 50.9% for those of Hispanic ethnicity
- Completion follows the same pattern
- 12.7% data missing or unknown

Vaccination Coverage in Michigan as of 11/22/21

| Age Group        | % At Least One Dose | % Fully Vaccinated | Number Fully Vaccinated |
|------------------|---------------------|--------------------|-------------------------|
| Total Population | 60.6%               | 54.4%              | 5,428,268               |
| ≥ 12 years       | 69.2%               | 63.2%              | 5,428,044               |
| ≥ 18 years       | 71.4%               | 65.2%              | 5,116,378               |
| ≥ 65 years       | 92.6%               | 85.5%              | 1,509,261               |

Coverage by Race\*



\*Data suppressed for Race/Ethnicity-by-Age populations smaller than 50 and/or where the number of vaccinated persons is 10 or less.


Source: \*[CDC COVID Data Tracker > Vaccinations in the US](#), ¶ [MCIR COVID-19 Vaccine Dashboard](#)

# Booster Administration Update

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

Nearly 50% of fully vaccinated persons in Michigan aged 65+ have received a booster dose

CDC | Data as of: November 22, 2021 6:00am ET. Posted: Monday, November 22, 2021 2:04 PM ET

Download Data 

| State/Territory/Federal Entity ↕ | People with a Booster Dose by State of Residence ↕ | Percent of Fully Vaccinated People with a Booster Dose by State of Residence ↕ | People 65+ with a Booster Dose by State of Residence ↕ | Percent of Fully Vaccinated Population 65+ with a Booster Dose ↕ |
|----------------------------------|--|--|--|--|
| California                       | 4,477,817  | 18.1   | 2,126,689  | 42.9   |
| Texas                            | 2,550,743  | 16.2   | 1,215,222  | 39.3   |
| Florida                          | 2,314,213  | 17.7   | 1,517,208  | 38.6   |
| New York State                   | 1,654,308  | 12.5   | 871,102  | 30.5   |
| Illinois                         | 1,647,912  | 21.3   | 850,285  | 48.4   |
| Ohio                             | 1,420,227  | 23   | 823,940  | 47.3   |
| Michigan                         | 1,341,545  | 24.7   | 736,869  | 48.8   |
| Virginia                         | 1,144,888  | 20.8   | 583,850  | 48.4   |
| New Jersey                       | 1,066,184  | 17.8   | 537,672  | 41   |
| Washington                       | 989,734  | 20.1   | 539,951  | 49.3   |
| Pennsylvania                     | 986,965  | 12.4   | 561,561  | 25.4   |
| Minnesota                        | 967,297  | 27.6   | 508,311  | 58.8   |
| Massachusetts                    | 966,956  | 19.8   | 485,573  | 45.4   |
| Wisconsin                        | 900,779  | 26.1   | 495,252  | 52.6   |
| Colorado                         | 893,328  | 24.7   | 408,825  | 55.3   |
| Maryland                         | 866,138  | 21.4   | 433,542  | 49.4   |
| Georgia                          | 789,242  | 15.1   | 440,200  | 36   |
| Tennessee                        | 684,524  | 20.4   | 398,431  | 42.8   |
| Arizona                          | 683,733  | 17.3   | 399,119  | 37.3   |
| North Carolina                   | 672,039  | 11.9   | 357,763  | 24.7   |

Now over 1.3 million Michiganders with a booster dose

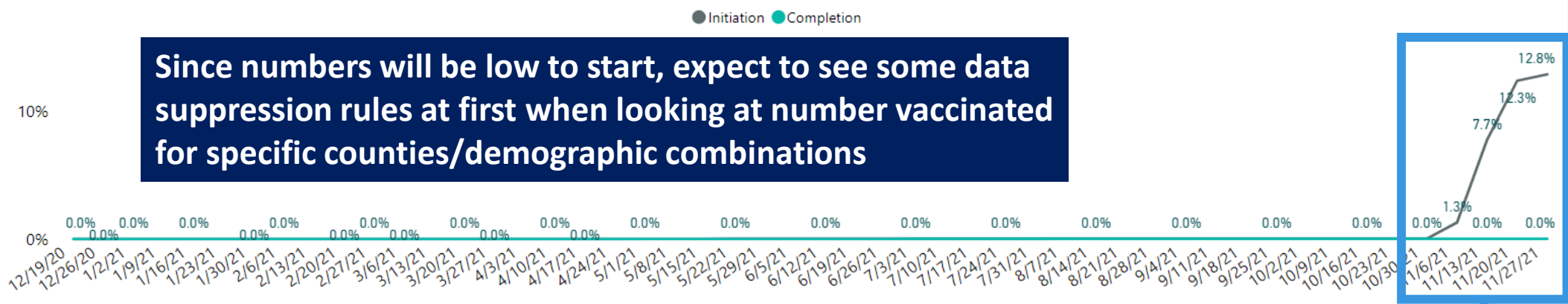
Michigan is the 10<sup>th</sup> biggest state in population, but ranks 7<sup>th</sup> in terms of total COVID booster administrations  
Michigan also ranks high in terms of booster administration rate, especially compared to other populous states

|                   |                |                                   |                                 |                              |                      |          |         |                |                    |            |
|-------------------|----------------|-----------------------------------|---------------------------------|------------------------------|----------------------|----------|---------|----------------|--------------------|------------|
| Vaccine Delivered | Delivery Trend | Primary Series Doses Administered | Primary Series Doses by Vaccine | Primary Series Doses Metrics | Additional / Booster | Coverage | Age/Sex | Race/Ethnicity | Enrolled Providers | Learn More |
|-------------------|----------------|-----------------------------------|---------------------------------|------------------------------|----------------------|----------|---------|----------------|--------------------|------------|

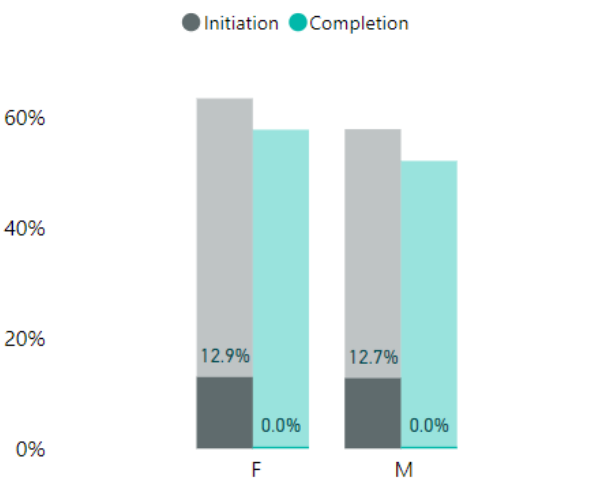
# COVID Vaccine Coverage

Dashboard Updated: November 23, 2021. "Completion" is the percentage of Michigan residents receiving 2 doses of Pfizer or Moderna or 1 dose of J&J. "Initiation" is the percentage who have received either 1 or more doses of ANY vaccine. See the "Learn More" page to learn how percentages

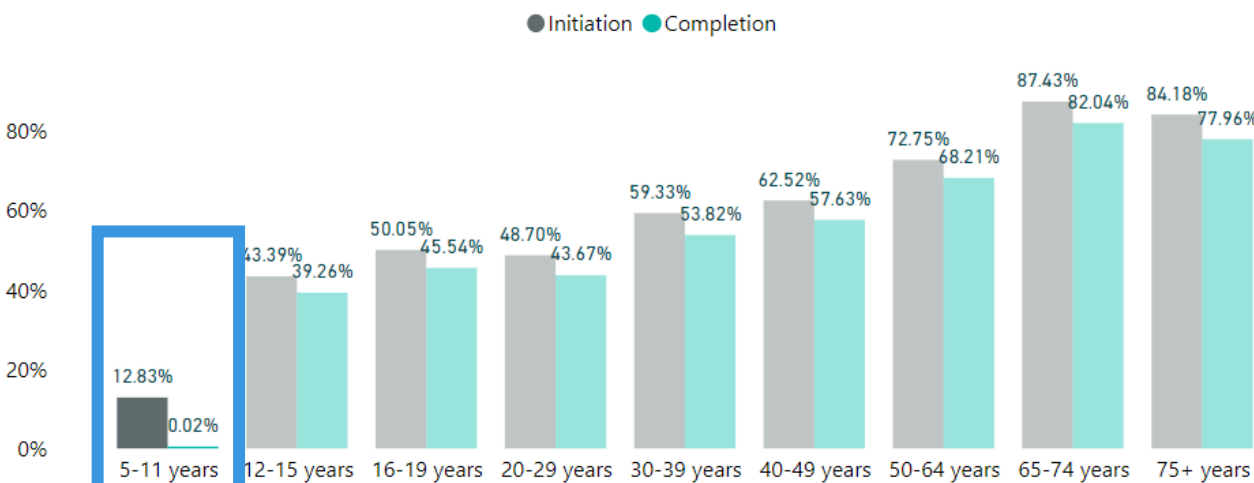
## Cumulative Coverage by Week Ending Date



## COVID Vaccine Coverage by Sex



## COVID Vaccine Coverage by Age Group

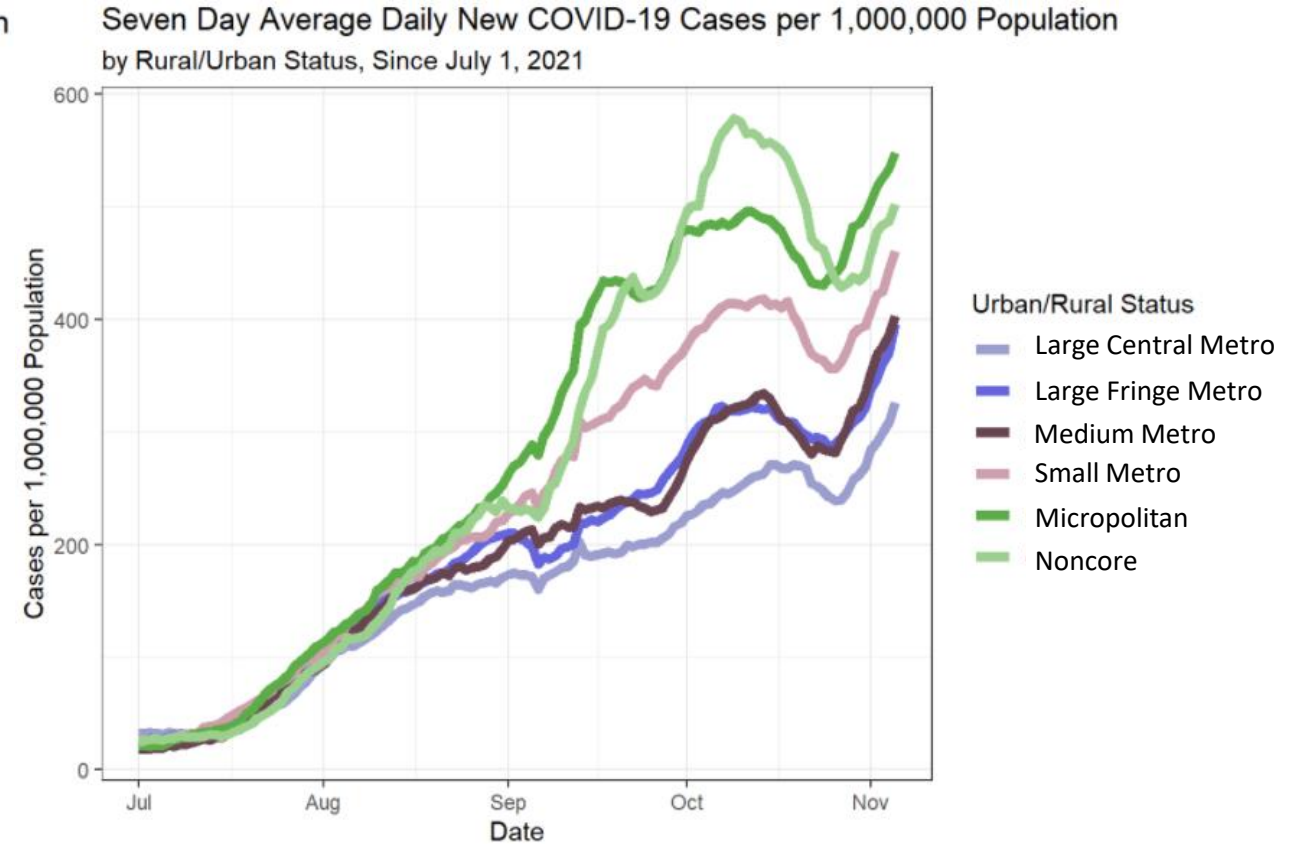
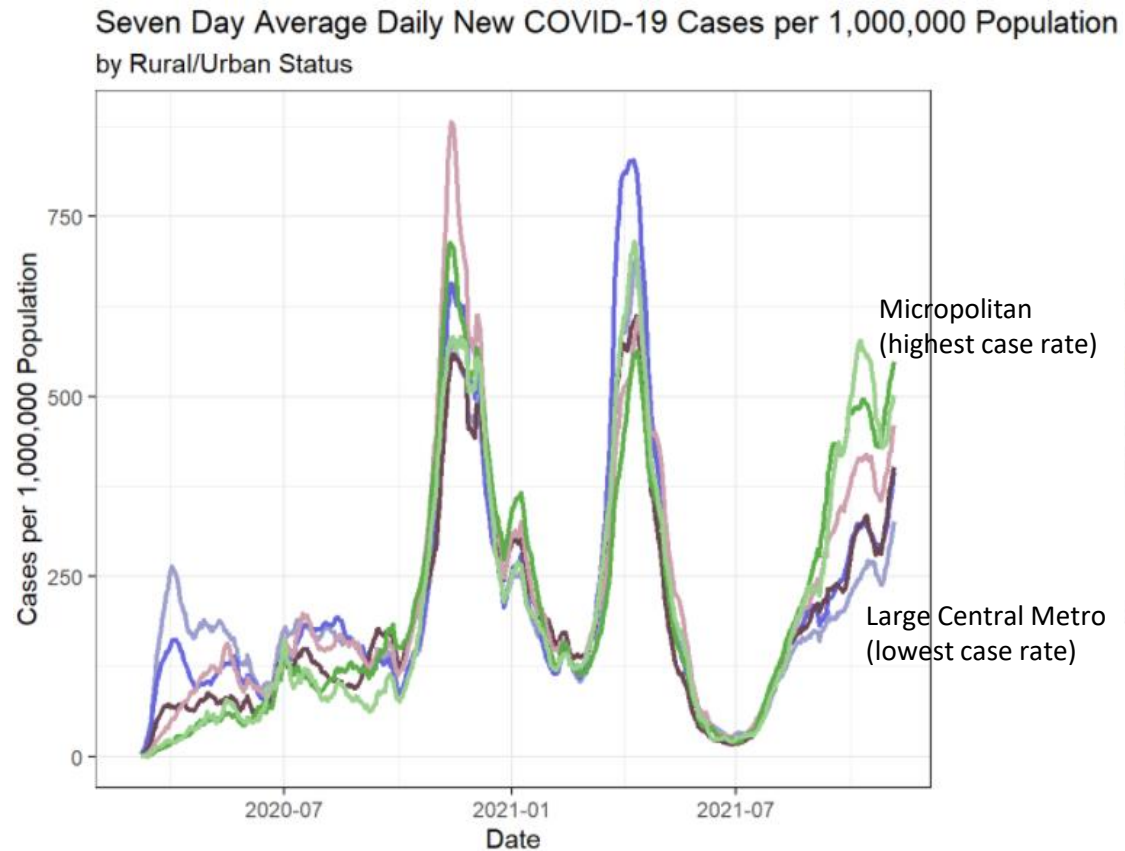


5- to 11-year-old initiation and completion trends now available

Data are refreshed Tuesdays and Friday afternoons

105,955 administrations in 5- to 11-year-olds as of 11/23

# Average Daily Case Rates per Million Population by County Urbanicity Classification



## Key Messages

- Counties at all levels of urbanicity are experiencing increases in case rate
- A gradient with the most populous counties have lower rates than the least populous counties with the highest reported case rates

Source: UM COVID Cases and Urban/Rural Status + CDC NCHS county classification

Special Populations

National  
Comparison

Spread

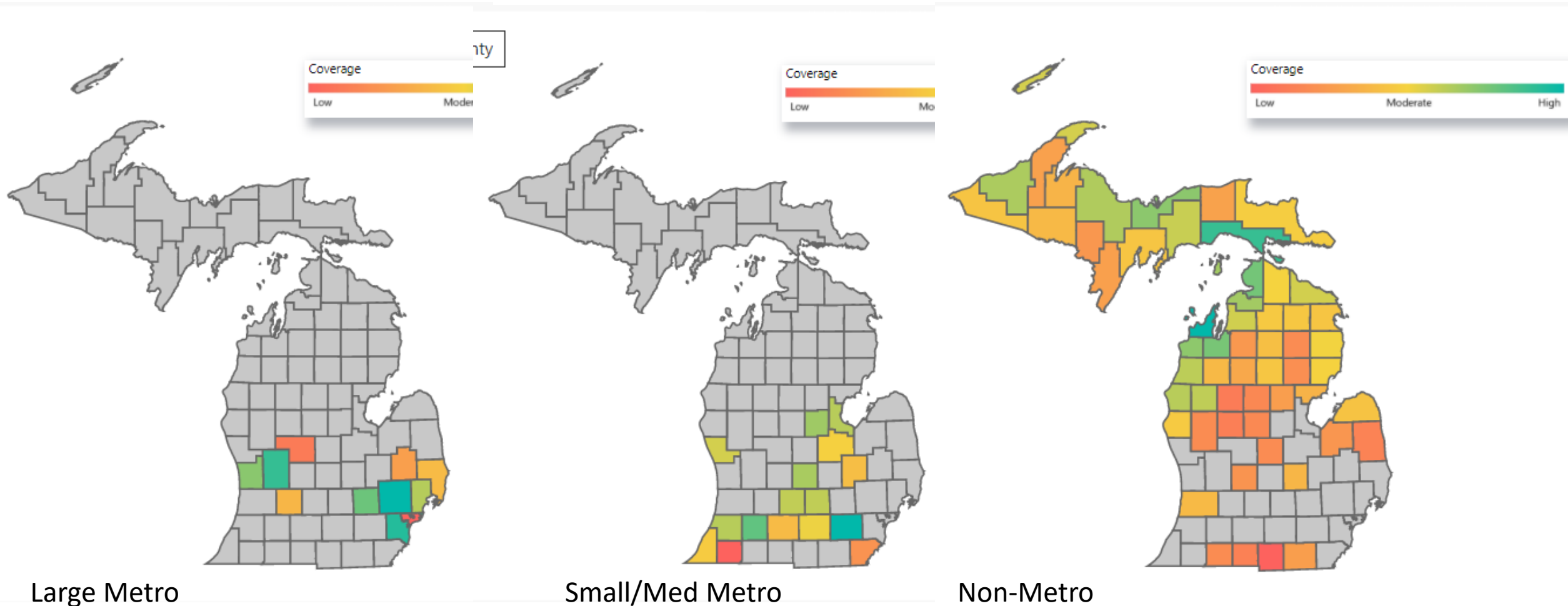
Severity

Public Health  
Response

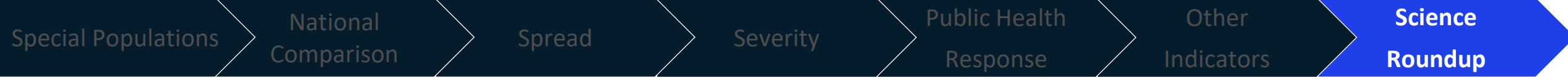
Other  
Indicators

Science  
Roundup

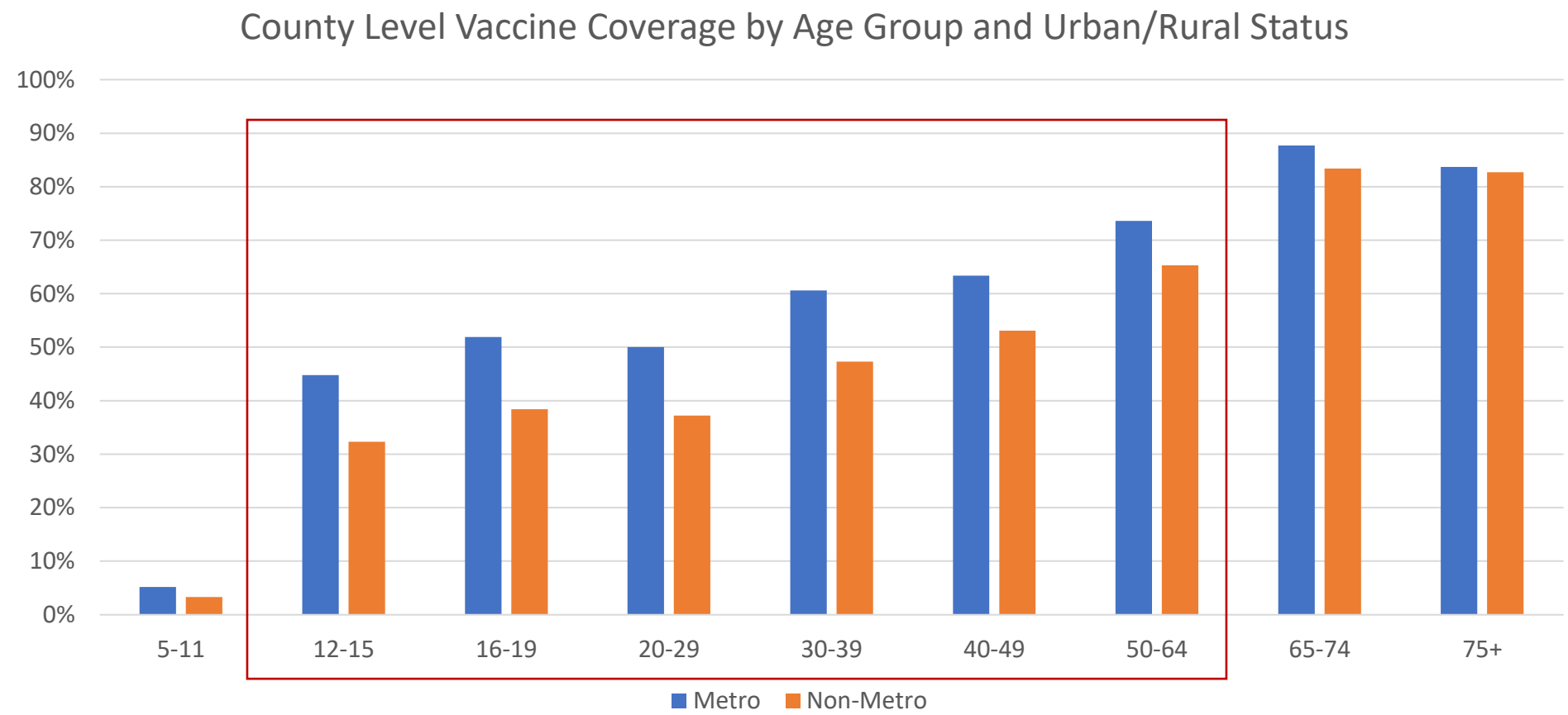
# There is a range of coverage regardless of urban/rural classification



Source: MCIR and NCHS Urban-Rural Classification



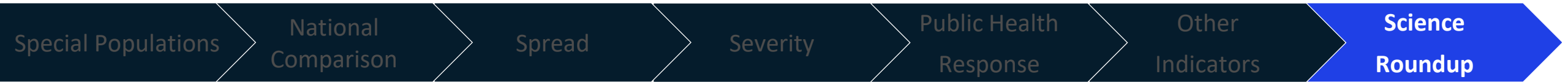
# Older adults in rural areas have similar coverage but younger ages have lower vaccination coverage



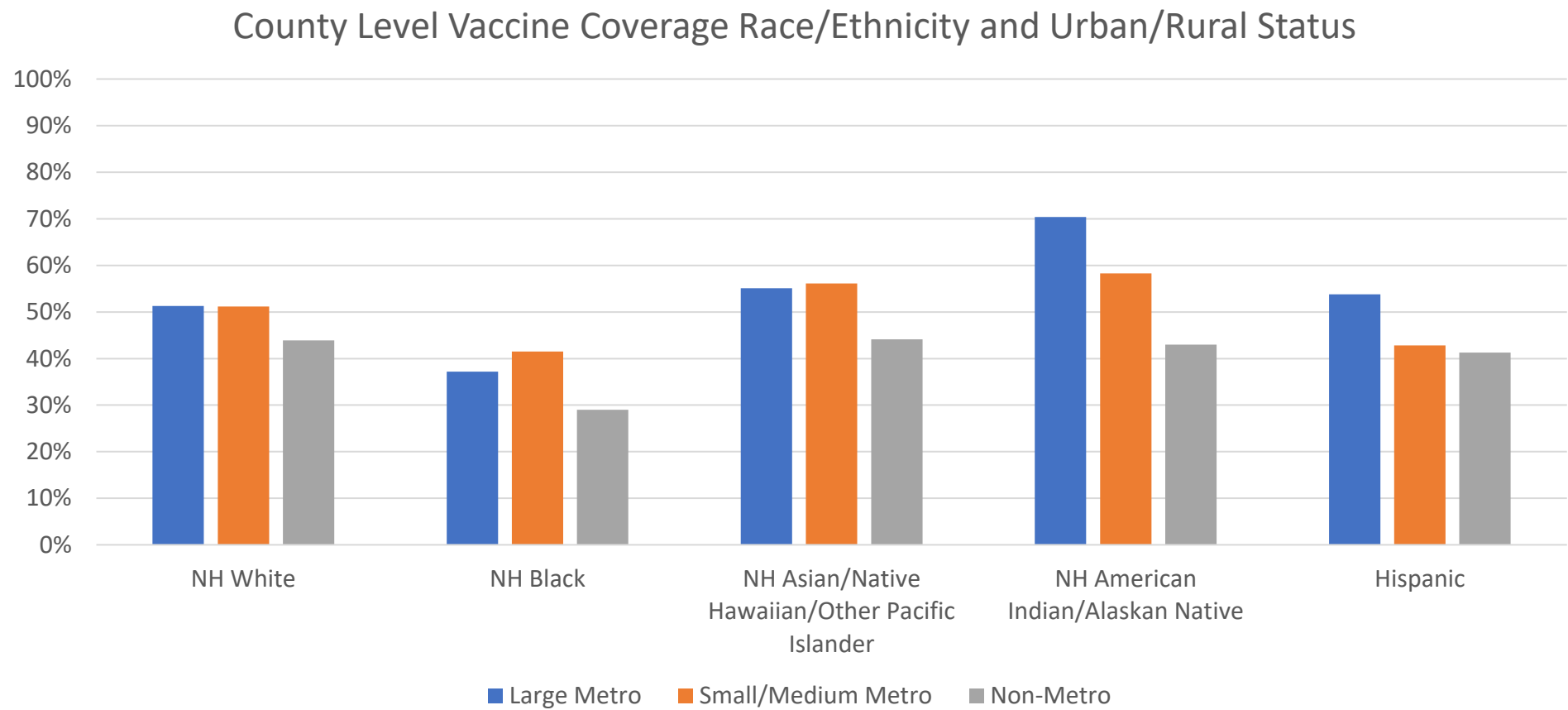
## Key Messages

- Vaccine coverage increases with older age, but vaccine coverage is lower in non-metro counties compared with metro counties
- Disparities in vaccine coverage within age groups is greater for younger ages

Source: MCIR and NCHS Urban-Rural Classification



# Vaccine Coverage by in Non-Metro Counties is Lower than Metro Counties, Regardless of Race or Ethnicity



## Key Messages

- Vaccine coverage is below 70% for nearly all races and ethnicities
- Vaccine coverage is lower in non-metro counties compared with metro counties, regardless of race or ethnicity

Source: MCIR and NCHS Urban-Rural Classification

# Key Messages: Science Round Up

**Mobility is at pre-pandemic levels**

**Transmission levels indicate cases expected to increase**

**Influenza is increasing**

- Outbreak at University of Michigan; seeing increase in emergency department visits for influenza like illness in Michigan.
- We are within the 2021-2022 influenza season
- There is still time to benefit from getting an annual influenza vaccine

**Hospitals under pressure**

- Hospital census has returned to spring peak levels and is rising
- Hospitals reporting in media that majority of those in hospital and ICU are unvaccinated

**MDHHS issues face mask Public Health Advisory due to rising case rates**

- There are several ways to enjoy holiday traditions and protect your health

National Comparison

Spread

Severity

Public Health  
Response

Other  
Indicators

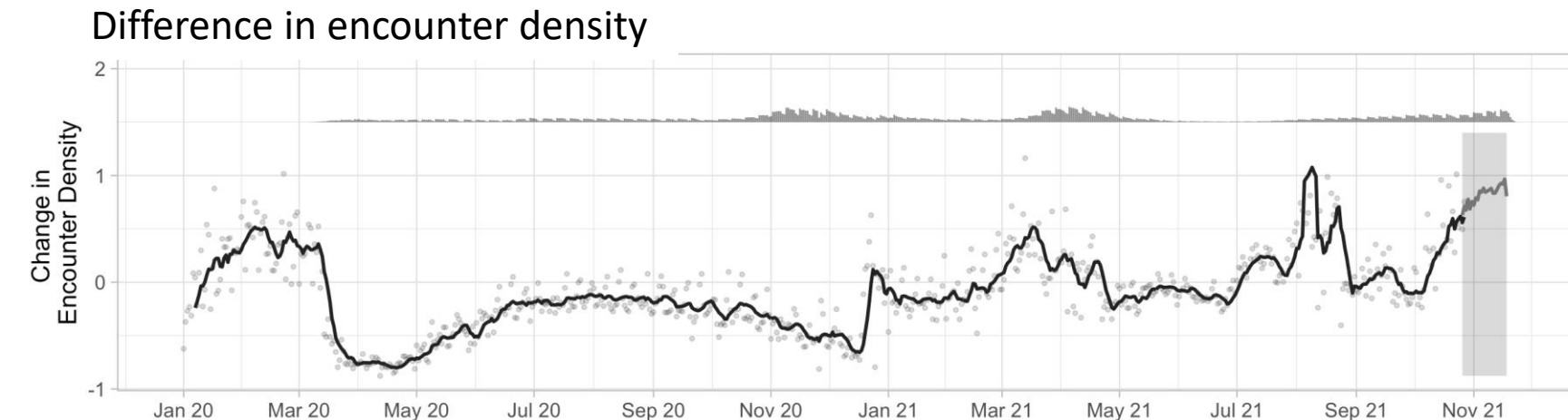
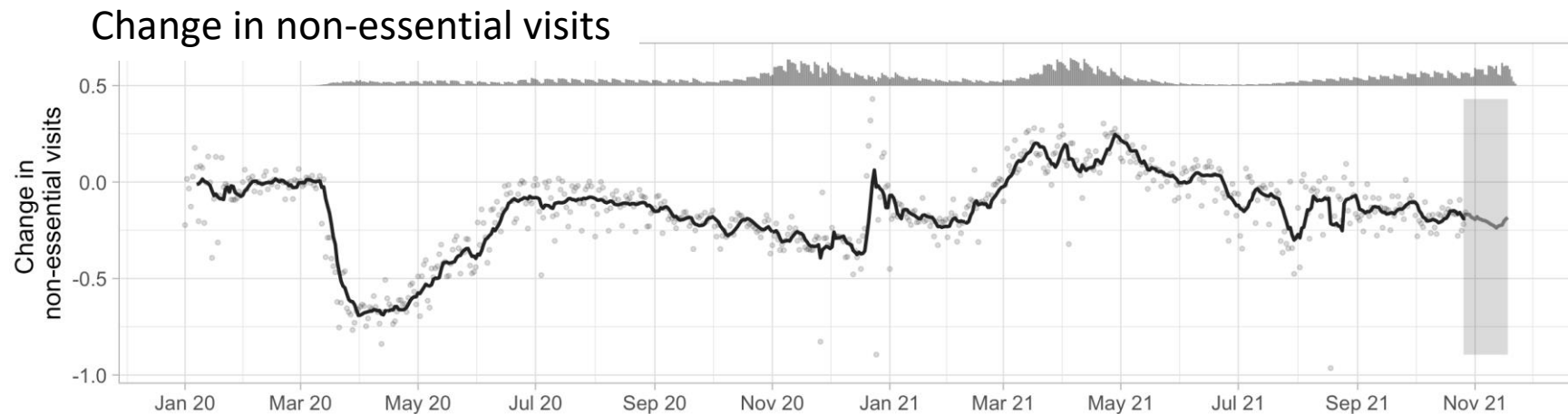
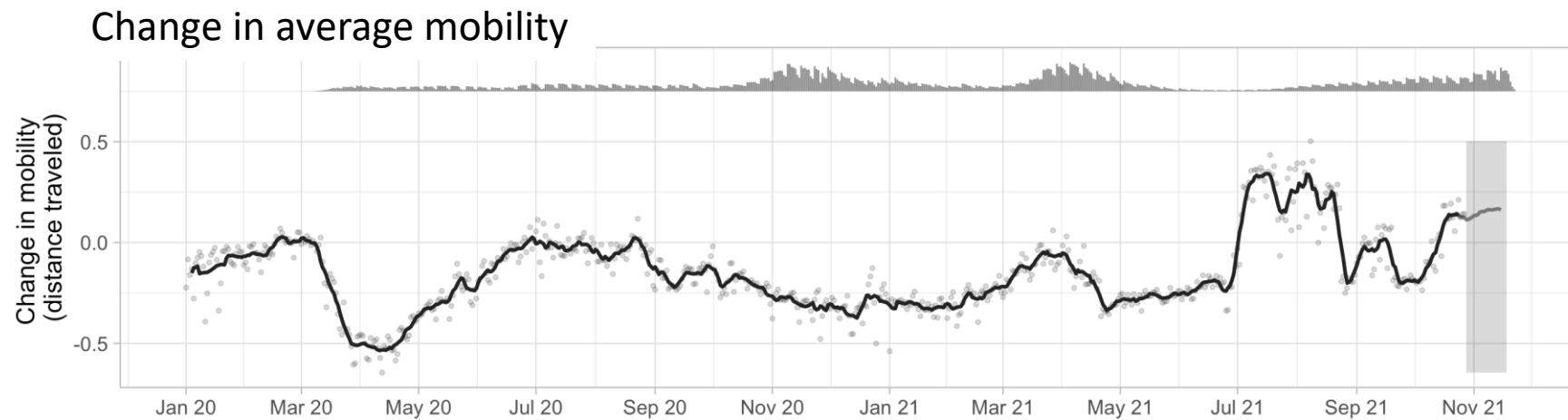
Science  
Round-up

# Unacast mobility patterns in MI

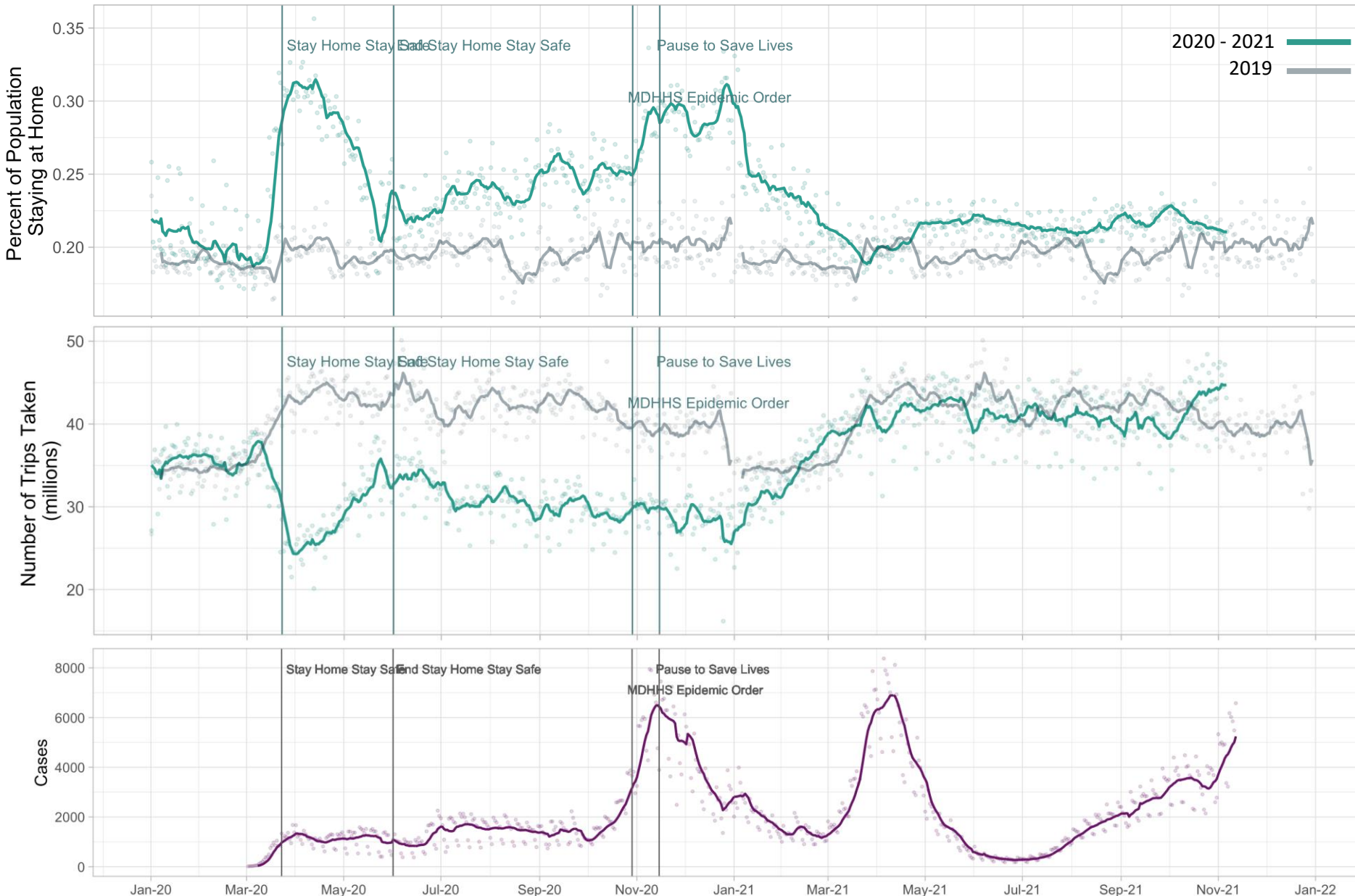
- Average mobility and encounter density are both above pre-pandemic baseline levels and plateaued or increasing
- Number of non-essential visits is similar to or below baseline and fairly stable
- Cases shown as bars at top of each chart



Unacast social distancing data as of 11/22/21. Dots and solid black line show metrics and 7-day average data. Grey line and shaded region shows the 7-day average using more recent, less stable data (4-day lookback vs. 26-day lookback).



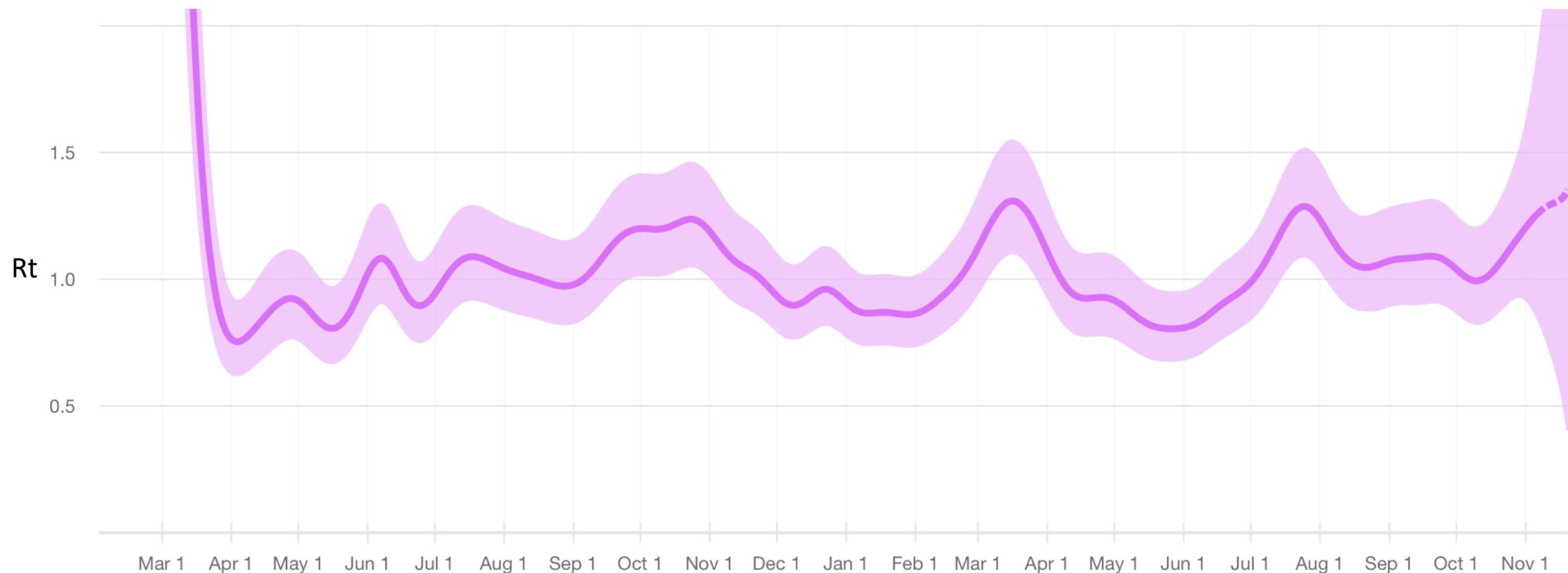
# How many people are staying at home in Michigan?



- % Stay-at-home levels and number of trips taken/day are at or near 2019 levels
- Most recent data is 11/6/21 (data as of 11/15/21)

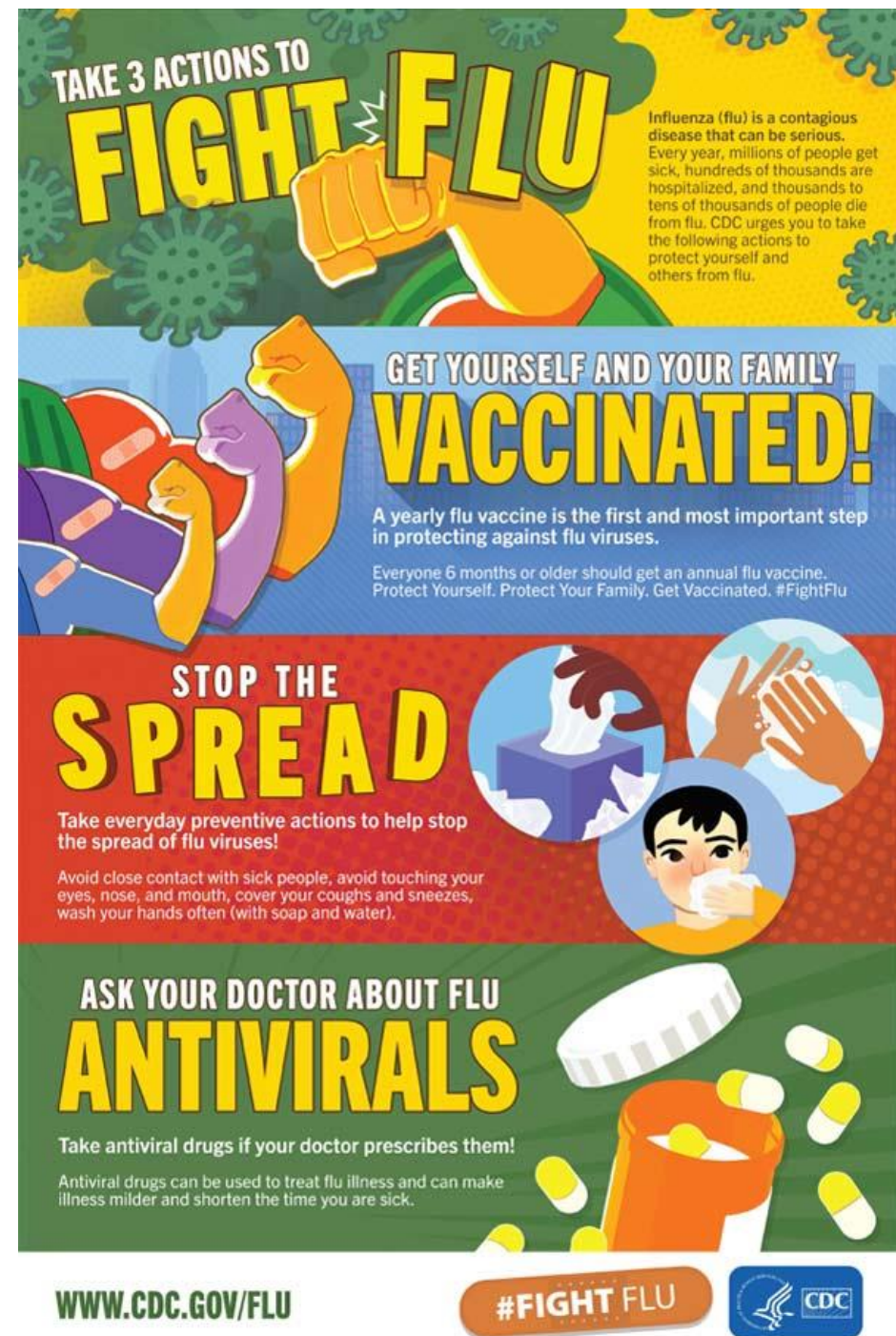
Data Source: [Bureau of Transportation Statistics](#)

Michigan's effective reproduction number has recently increased, reflecting increasing transmission and suggesting near-term growth in cases



# UM Student Influenza Cases

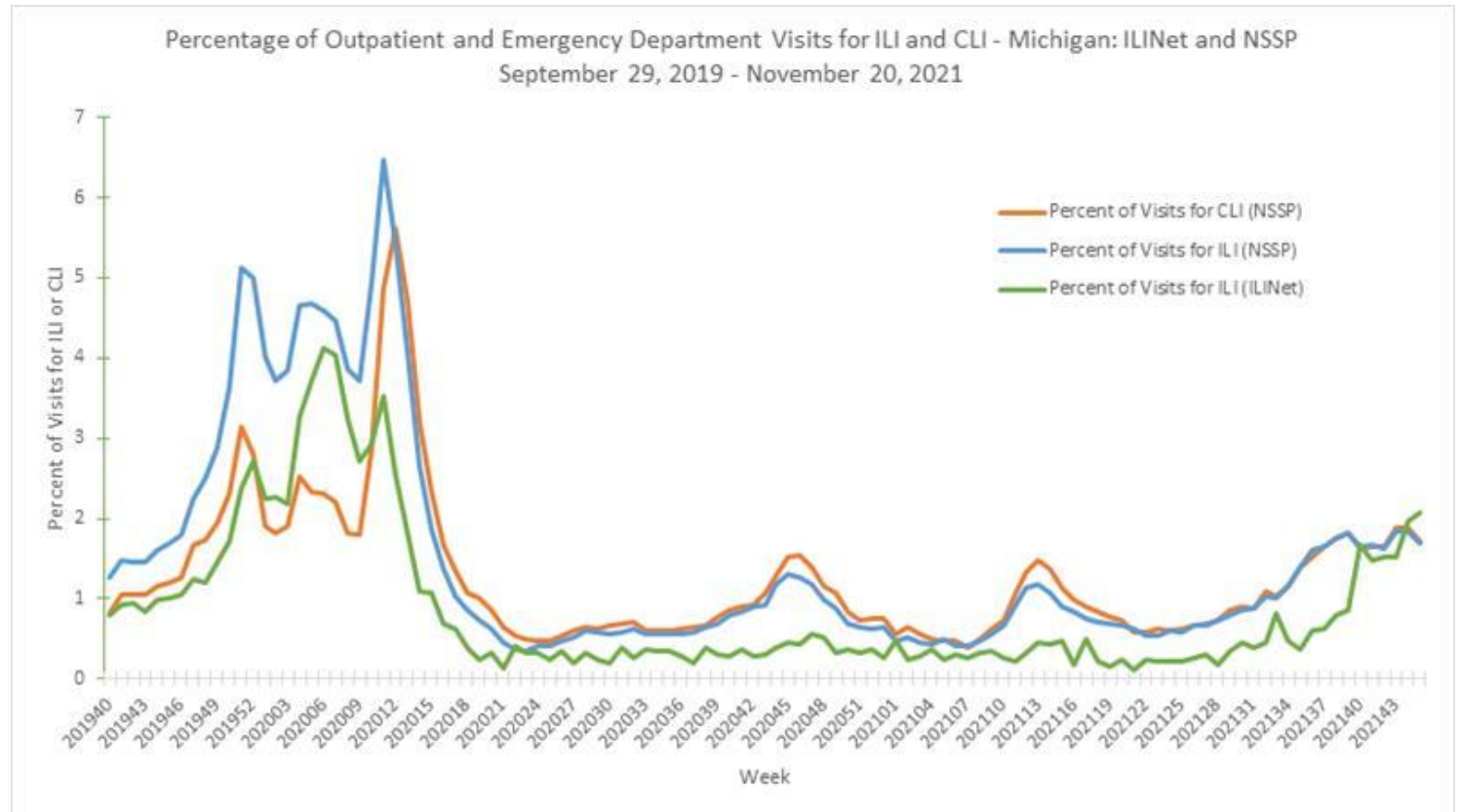
- 528 cases from October 6 through November 14 (including 313 cases the week of 11/8 and 198 the week of 11/1).
- Percent positivity ranging from 27%-37%
- 77% of cases in unvaccinated individuals. Influenza vaccine coverage is lower than last year in all age groups, including 18-24 year olds.
- This is among early outbreaks around the US after no influenza spread since March of 2020.
- CDC partnering with MDHHS, WCHD, and UM to evaluate vaccine effectiveness and the spread of influenza virus on campus.



# Influenza Like Illness in Emergency Department

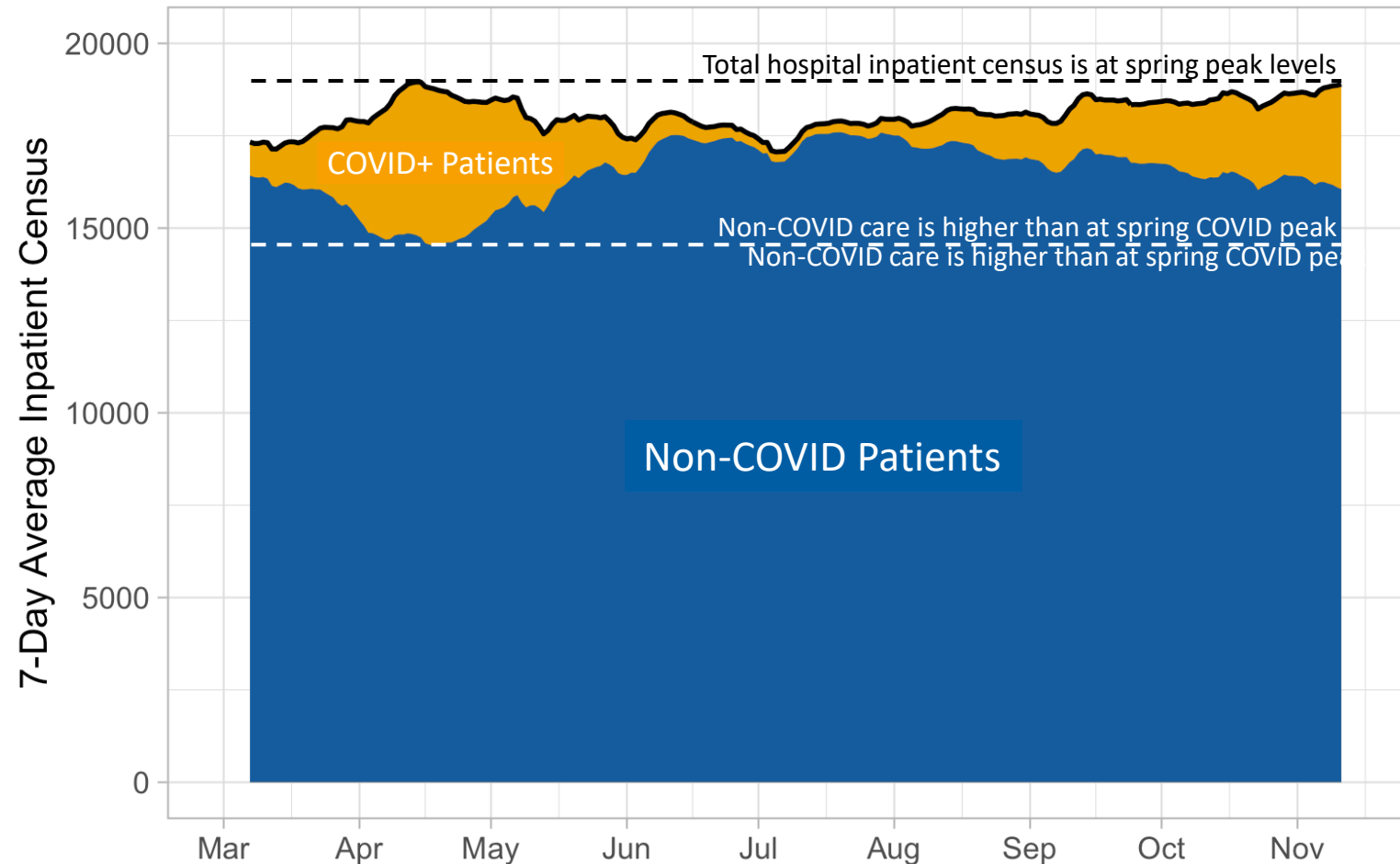
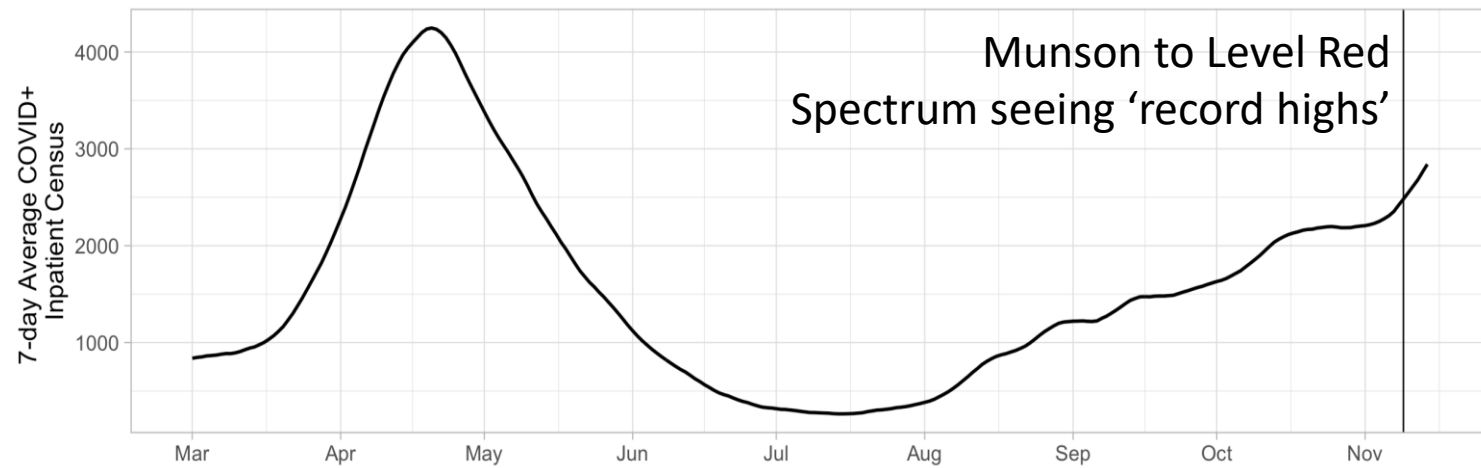
Percent of emergency department visits for influenza like illness in Michigan (green line) are higher this year than in the same weeks in 2019.

There is still time to benefit from getting an annual influenza vaccine. See [www.Michigan.gov/flu](http://www.Michigan.gov/flu) to find a site near you



# Hospital census has returned to spring peak levels and is rising

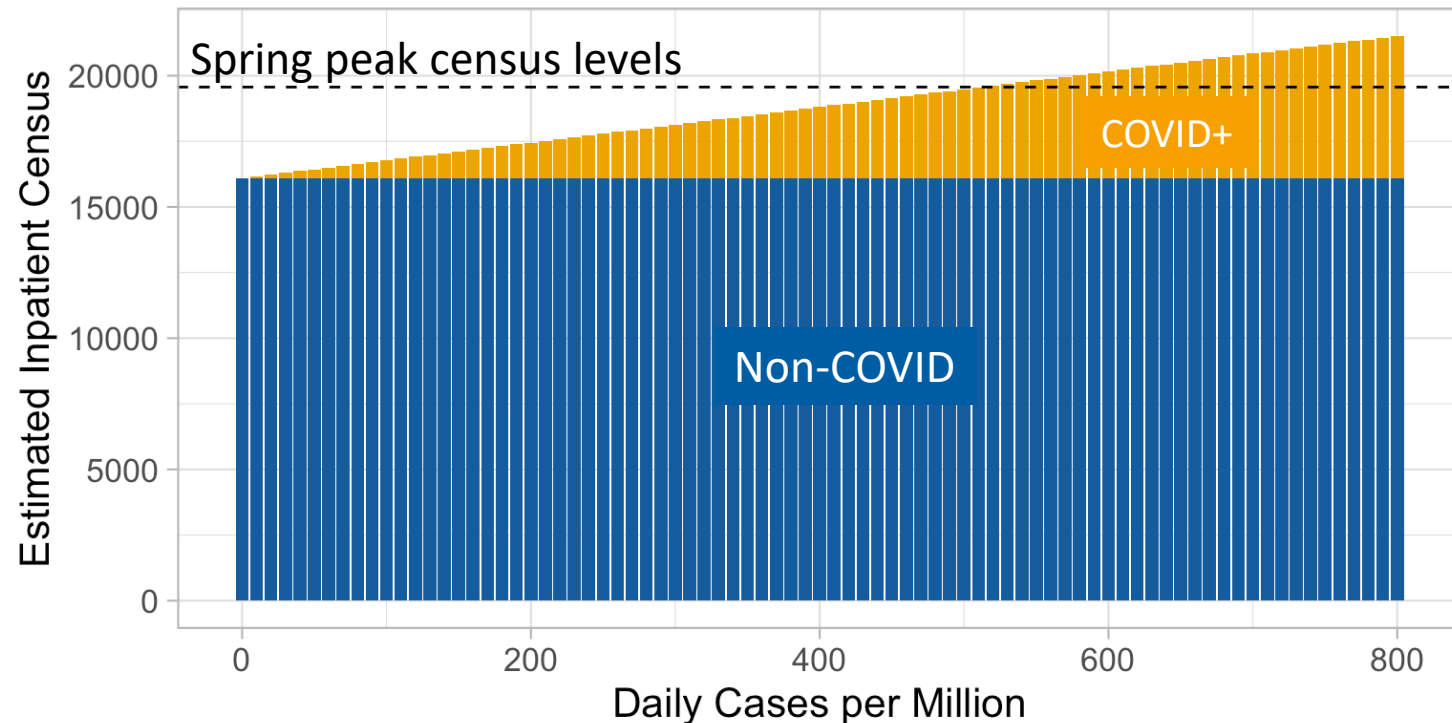
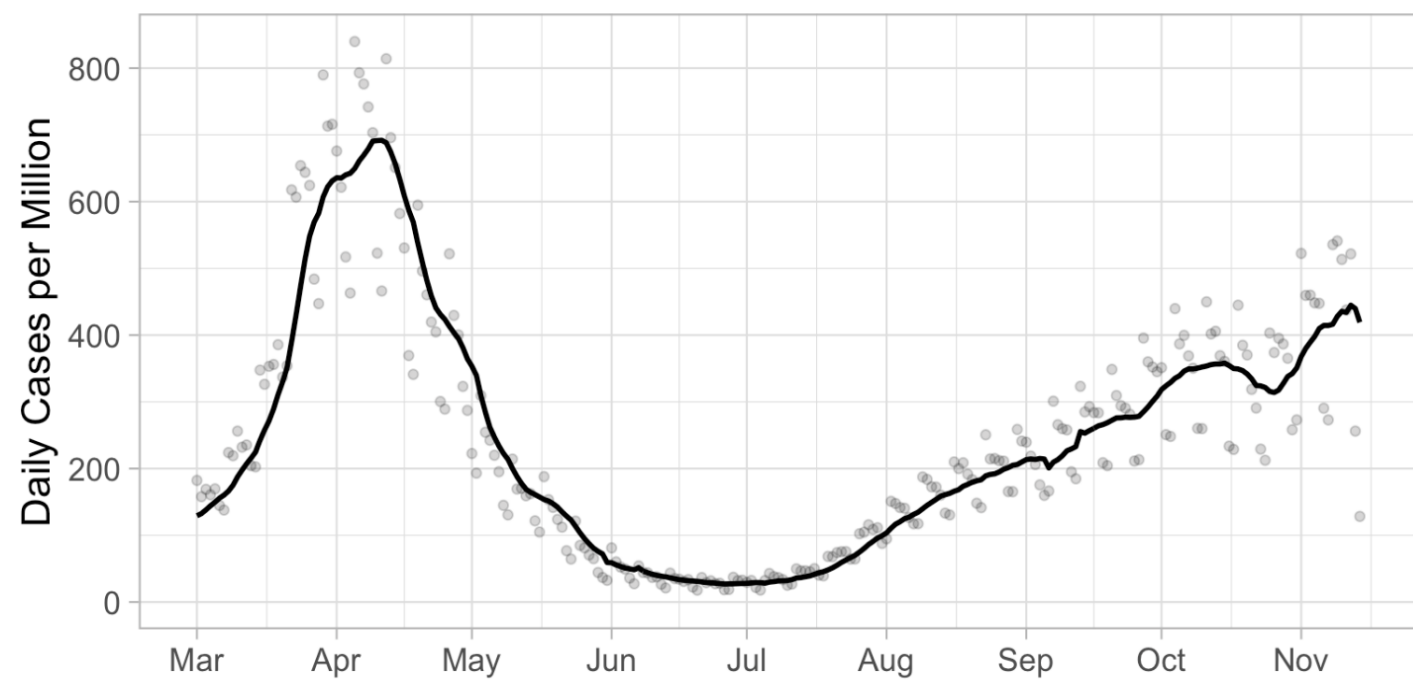
- Cases and COVID+ census are rising, though they are currently lower than spring peak
- However, non-COVID care is higher than during spring surge (white dashed line)
- Together, overall inpatient census is at spring peak levels (black dashed line)
- Likely to increase further if COVID and flu continue to grow



Data Sources: MDSS (case data as of 9/15/21), HHS Protect (hospital [admissions](#) and [inpatient census](#) data through 9/14/2021). New articles: [Munson](#), [Spectrum](#)

# Given the increase in non-COVID care, how do current cases translate to hospitalizations?

- Non-COVID census estimated based on average census levels over the last 30 days
- Assumes constant steady state case levels and hospitalization rate
- Translated case rate to inpatient census based on the case hospitalization rate and estimated length of stay over the last 30 days



Data Sources: MDSS (case data as of 11/15/21), HHS Protect (hospital [admissions](#) and [inpatient census](#) data through 11/14/2021)

# MDHHS issues face mask Public Health Advisory due to rising flu and COVID-19 cases

All Michiganders, regardless of vaccination status, should take the following actions to protect against COVID-19 and other respiratory illnesses:

- A** All persons in indoor public settings are advised to wear a face mask, regardless of their vaccination status.
- B** Public establishments are advised to implement masking policies and encourage compliance with such policies.
- C** Individuals who are not fully vaccinated or who are immunocompromised are advised to avoid large crowds or gathering.

## Public Health Advisory Issued 11/9/21

- While vaccination continues to be the most important public health action to end the COVID-19 pandemic, the surge in cases across Michigan has prompted the Michigan Department of Health and Human Services (MDHHS) to issue a public health advisory.
- Michigan is presently experiencing another wave of infection driven by the Delta variant, which is estimated to be twice as infectious as the original strain. The greatly increased infectiousness of the Delta variant has driven sharp increases in COVID-19 infections among both adults and children. In addition to COVID-19, Michigan is experiencing an uptick in cases of other respiratory illnesses, including influenza and respiratory syncytial virus (RSV). The widespread use of face masks would significantly reduce the spread of these viruses.

# Safer Ways to Celebrate Holidays

Holiday traditions are important for families and children. There are several ways to enjoy holiday traditions and protect your health. Many generations tend to gather to celebrate holidays. Here are some ways to celebrate the holidays more safely:



- The best way to minimize COVID-19 risk and keep your family and friends safer is to **get vaccinated** if you're eligible.
- If you are sick or have symptoms, don't host or attend a gathering.
- Regardless of vaccination status, all those aged 2 or older, you should **wear a mask in indoor public places** in areas of substantial or high SARS-CoV-2 transmission and in crowded, poorly ventilated outdoor areas.
- **Before a multihousehold gathering, consider taking a rapid antigen test**, regardless of whether you've been in contact with someone with COVID-19; if you test positive, stay home until you consult your provider and rule out any possibility of infecting others.
- Consider a setting where people can spread out and where there can be good ventilation.
- If you are traveling for a holiday event, follow domestic and international travel guidelines and public health recommendations.
- Practice healthy hygiene – e.g., proper respiratory etiquette, wash your hands frequently, and avoid touching your face.
- People who have a condition or are taking medications that weaken their immune system may not be fully protected even if they are fully vaccinated. They should continue to take all precautions recommended for unvaccinated people, including wearing a well-fitted mask, until advised otherwise by their healthcare provider.
- Visit the CDC COVID-19 [Safer Ways to Celebrate Holidays](#) and [Travel Guidelines](#) for more information on how to keep yourself and your loved ones safe this holiday season.

Source: CDC [Holiday Celebrations](#)

