

# Ottawa County COVID-19 Epidemiology

December 29, 2021

*Data as of December 25, 2021, unless otherwise indicated*

# Executive Summary

- **Transmission in the US is increasing and remains elevated in Michigan**
- **Ottawa community transmission levels remain elevated**
  - Positivity remained stable at 18.0% last week. The goal is to be less than 8%.
  - Weekly case counts in Ottawa decreased 21%, from 1,161 two weeks ago to 913 last week.
  - Cases among children decreased 29%, from 214 two weeks ago to 152 last week.
  - The future impact of Omicron on local transmission is unknown.
- **Ottawa area and regional hospitals are experiencing high numbers of COVID-19 patients**
  - In Ottawa County, 29% of all available beds and 65% of all ICU beds are occupied by COVID-19 patients.\*
  - Regional healthcare systems are extremely strained and asking for the community to take preventive action.
  - Ottawa County hospitals are repurposing patient care areas and using adaptive staffing strategies.
  - Some area hospitals are intermittently employing Emergency Department diversion, which occurs when a hospital and its emergency room are overloaded and cannot safely accept additional patients brought in by ambulance.
  - Mercy Health Muskegon will receive a 17-person federal medical team.
  - There are some shortages of monoclonal antibody medication.
- **Pediatric hospitalization rates in the US have reached some of the highest levels of the pandemic to date; hospitalizations among children in Michigan continue to increase.**
- **Of Ottawa County residents aged 5+, 59.8% are completely vaccinated**

\*Some hospitals in Ottawa County immediately transfer acutely ill adults or children to regional hospitals that offer a higher level of care. This practice may reduce the proportion of beds occupied by COVID-19 patients in Ottawa and increase bed occupancy in urban centers with large hospitals, such as Kent County.

# Ottawa County Metrics by Week

Metric	Goal	Week Ending				
		27-Nov-21	4-Dec-21	11-Dec-21	18-Dec-21	25-Dec-21
Positivity (All Ages)	<8%	23.1%	26.4%	21.6%	18.2%	18.0%
Weekly Cases (All Ages)	<147	1570	2222	1538	1161	913
Weekly Cases in Children (0-17 years of age)	NA	341	450	302	214	152
Total COVID-19 Hospitalizations (All Ages)	0	65	46	55	46	28
Total Deaths (All Ages)	0	15	19	13	13	12
CDC Risk Transmission Level	Moderate	High	High	High	High	High

# Public Health Recommendations

- **Get vaccinated (start series or get booster)**
- **Stay home when sick & get tested**
- **Wear your mask in public indoor places**
- **November 2021 MDHHS Advisory:**

As such, on November 19, 2021, MDHHS is issuing the following advisory on the use of face masks. **This advisory takes effect immediately and remains in effect until further notice.**

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

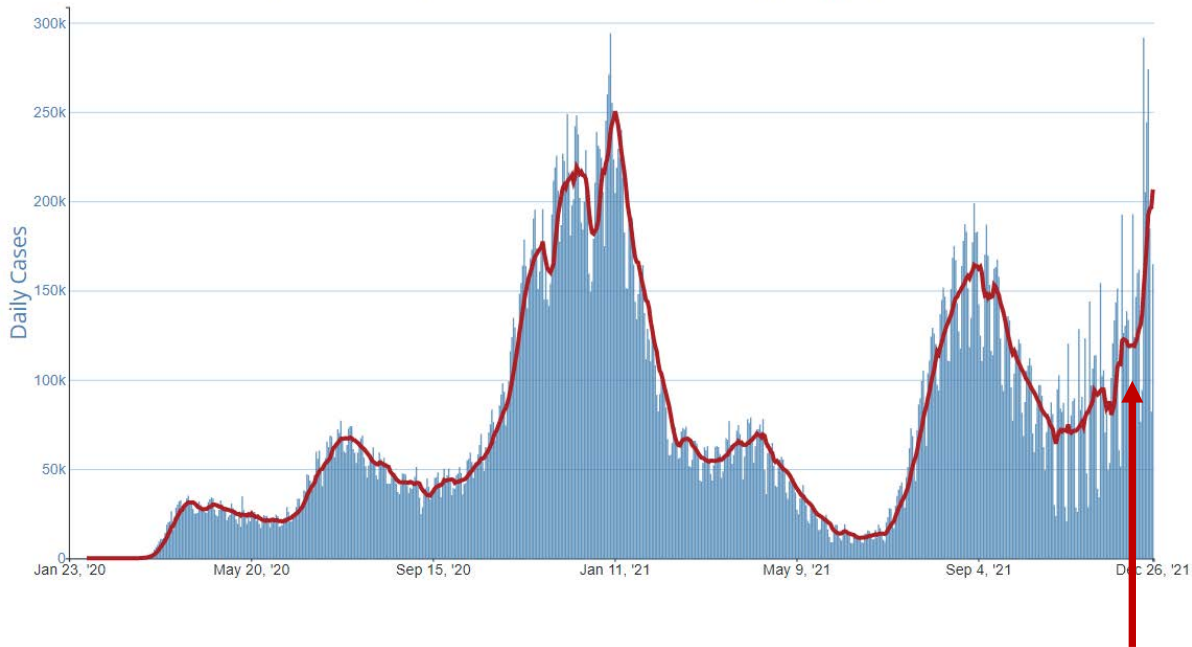
## **Public Health Advisory:**

- (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 gatherings.

# Case Trends in the USA and Michigan

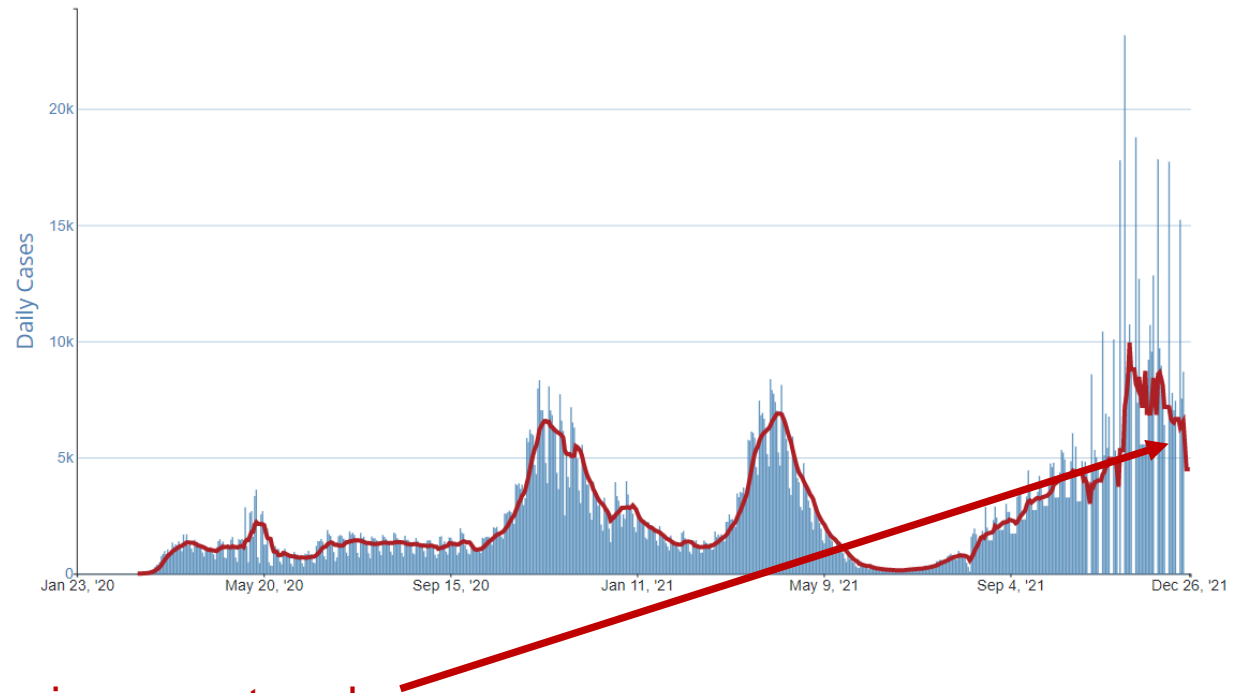
## USA

Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC



## Michigan

Daily Trends in Number of COVID-19 Cases in Michigan Reported to CDC

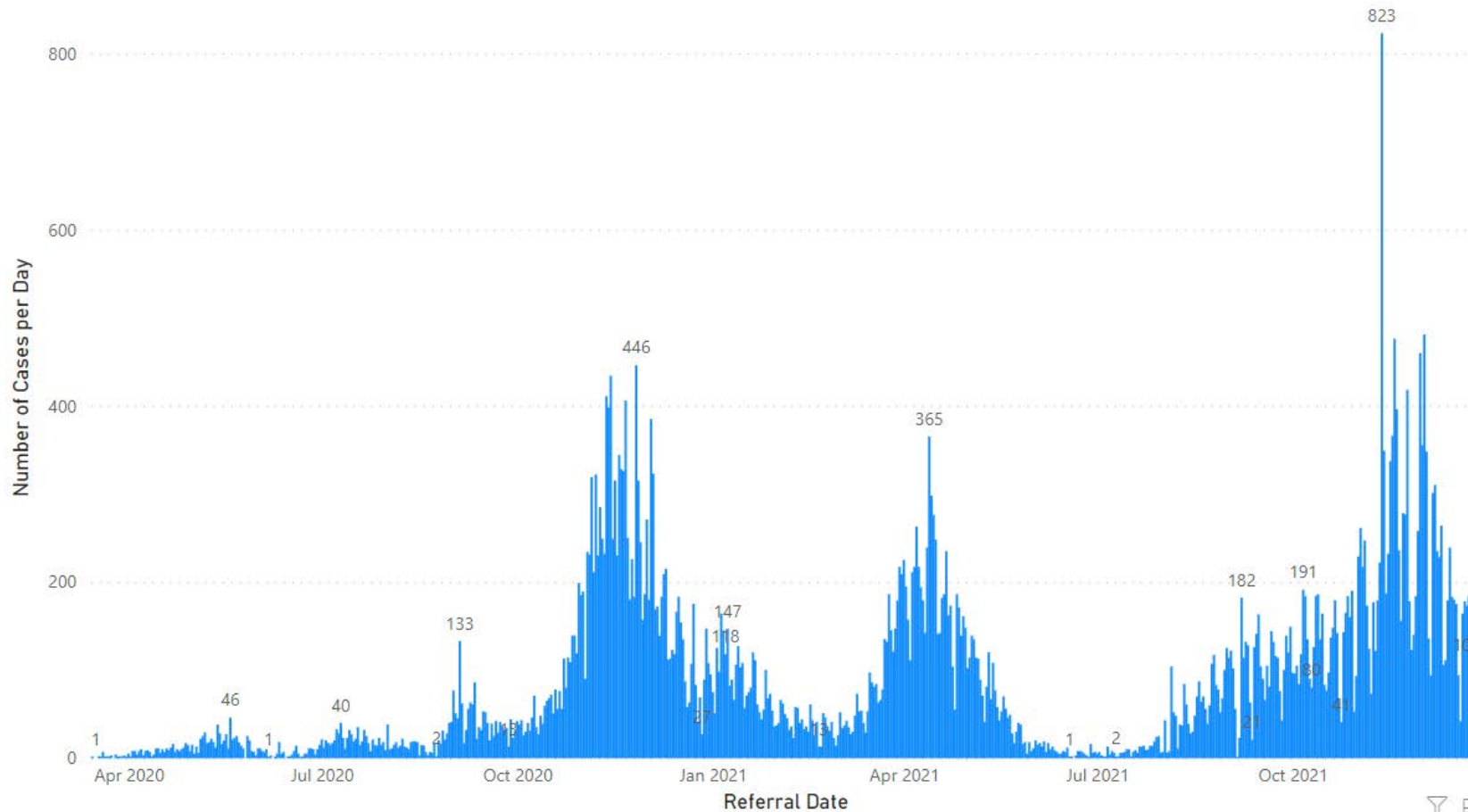


The US is experiencing an uptrend while Michigan's case numbers may be plateauing or decreasing.

# Case Trends in Ottawa County

## COVID-19 Cases by Day, Ottawa County, March 15, 2020 – December 28, 2021

Epidemiological Curve



Total Number of Cases  
**55,268**

Currently the 7-day average is **131 cases per day**, similar to the 132 cases per day seen at a similar time last week.

**Notes:** Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in an artificially deflated number of cases. Additionally, ODCPH has received reports of parents refusing COVID-19 testing for their children ill with respiratory symptoms, and hospitals forgoing confirmatory COVID-19 testing and relying on self-reported positive at-home tests to direct clinical care. On November 12, 2021, MDHHS updated their database resulting in a backlog of cases being reported in one day.

**Source:** Michigan Department of Health and Human Services, Michigan Disease Surveillance System

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

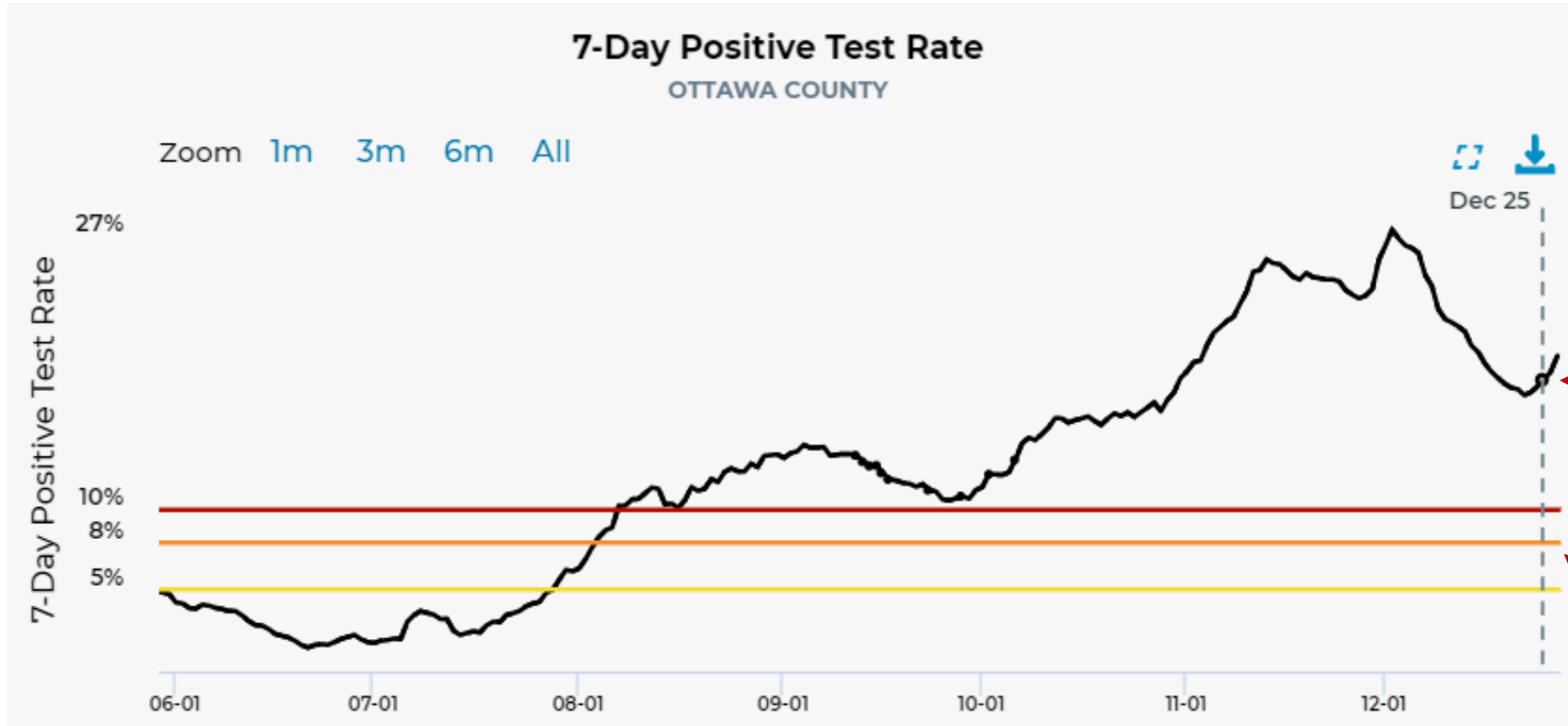
Other

Media

Science Roundup

# Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, June 1, 2021 – December 25, 2021



Test positivity remained at about 18.0% as of December 25, 2021.

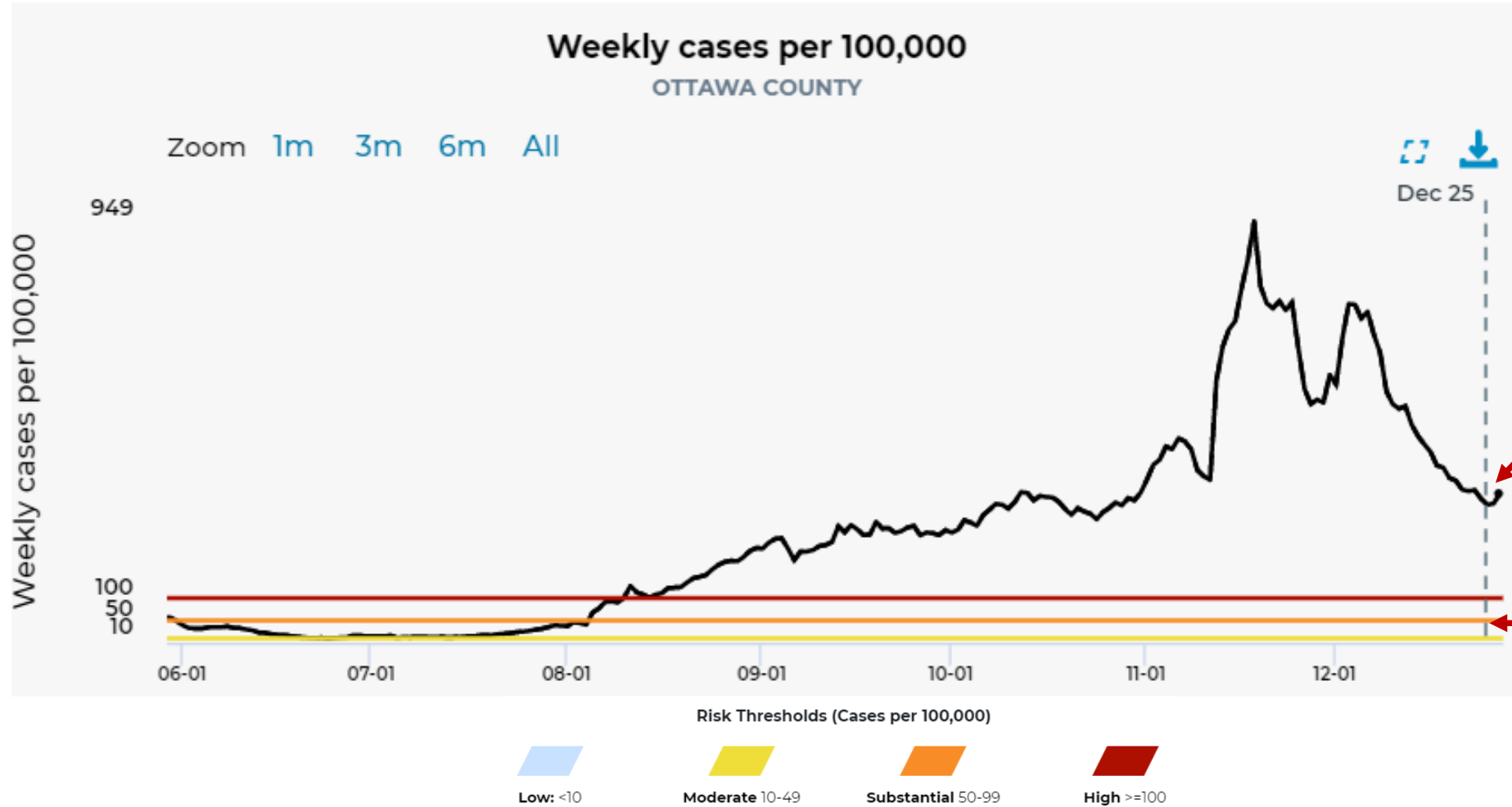
The goal is to have less than 8% of tests coming back positive.

Note: Testing in Ottawa County has remained stable with at least 6000-10,000 tests each week: [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](https://www.arcgis.com/apps/indicators?area=county%3Aottawa) & <https://www.mistartmap.info/mism-indicators?area=county%3Aottawa>

Source: <https://www.mistartmap.info/cdc-indicators?area=county%3Aottawa>

# Case Rates in Ottawa County – All Ages

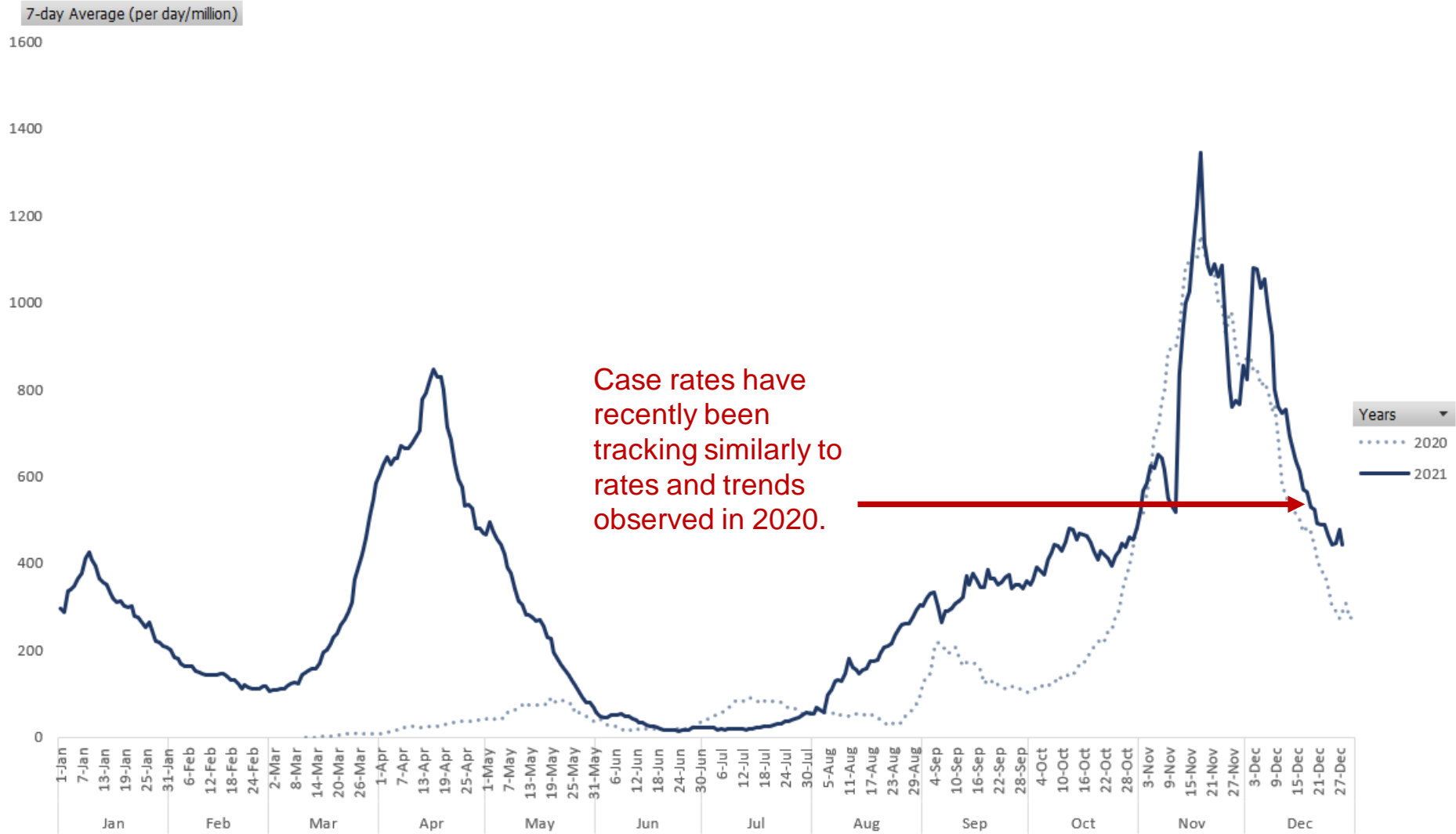
COVID-19 Cases by Day, Ottawa County, June 1, 2021 – December 25, 2021



Source: <https://www.mistartmap.info/cdc-indicators?area=county%3Aottawa>



# Ottawa County Time Trends – Annual Comparison

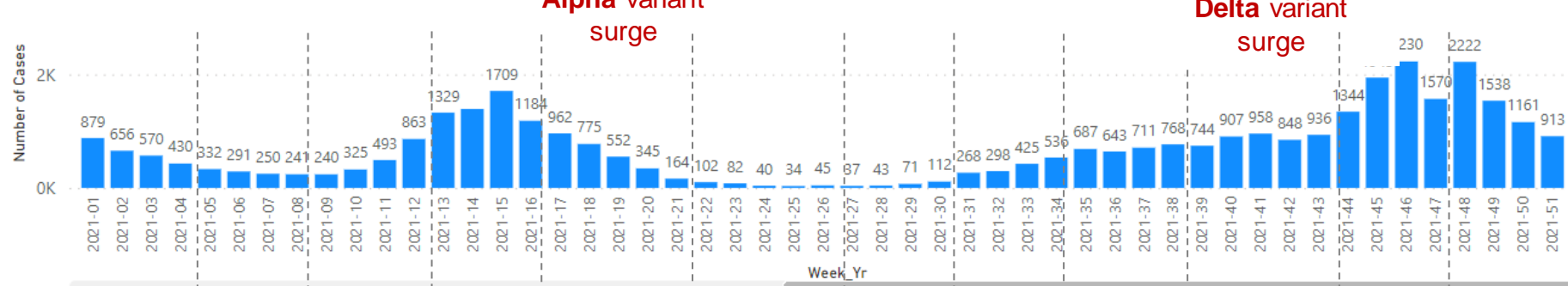


Source: Internal Data

Data through December 28, 2021

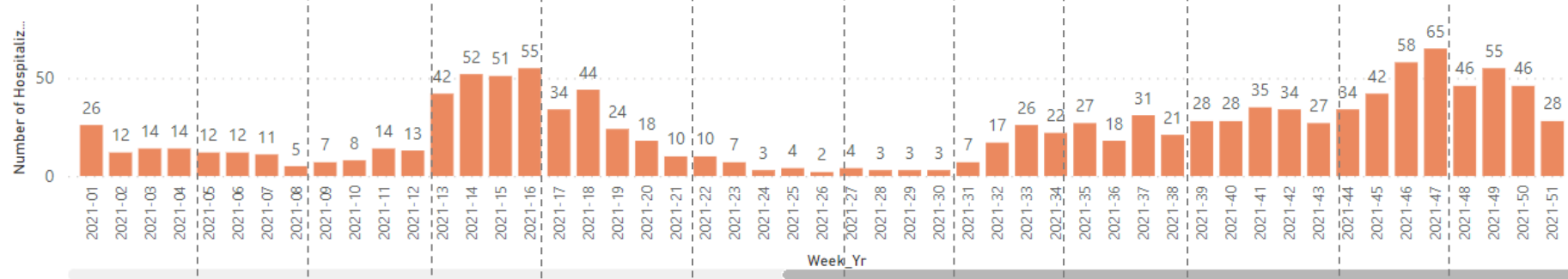
# Ottawa County - Cases, Hospitalizations, & Deaths by Week, All Ages

New Cases By Week of Referral



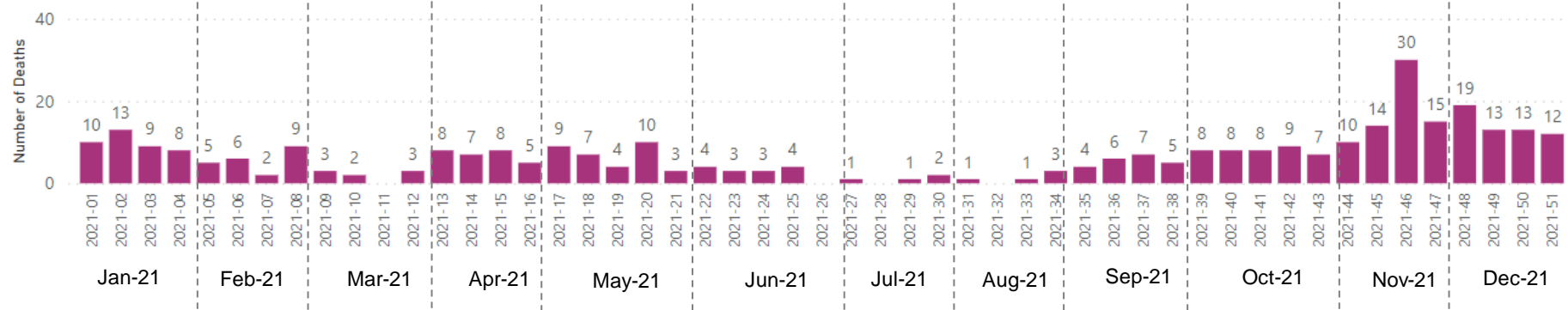
The weekly number of **cases decreased 21%** from week 50 to week 51.

New Hospitalizations by Week of Admission



The weekly number of **hospitalizations** remains elevated with an average of about **44 cases hospitalized** each week over the last month.

New Deaths by Week of Death



Weekly COVID-19 **deaths have exceeded** levels experienced in the spring 2021 wave. Current weekly average of deaths over the last 4 weeks stands at about **14 deaths per week**.

Hospitalizations and deaths in recent weeks may increase as data is updated.

Hospitalizations are likely **underestimated** because:

- (i) Hospitalization status is obtained only by manual review, and
- (ii) Hospitalization may occur after public health interview.

Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County Weekly Case Counts and % Change, by Age

Week Ending	Adults (18+)		Children (0-17 years)		Total	
	Number	% Change from Previous Week	Number	% Change from Previous Week	Number	% Change from Previous Week
3-Jul-21	40		5		45	
10-Jul-21	32	-20%	5	0%	37	-18%
17-Jul-21	38	19%	5	0%	43	16%
24-Jul-21	60	58%	11	120%	71	65%
31-Jul-21	89	48%	23	109%	112	58%
7-Aug-21	224	152%	43	87%	267	138%
14-Aug-21	259	16%	39	-9%	298	12%
21-Aug-21	365	41%	60	54%	425	43%
28-Aug-21	449	23%	88	47%	537	26%
4-Sep-21	553	23%	134	52%	687	28%
11-Sep-21	496	-10%	148	10%	644	-6%
18-Sep-21	547	10%	165	11%	712	11%
25-Sep-21	620	13%	149	-10%	769	8%
2-Oct-21	608	-2%	136	-9%	744	-3%
9-Oct-21	714	17%	197	45%	907	22%
16-Oct-21	765	7%	199	1%	958	6%
23-Oct-21	685	-10%	163	-18%	848	-11%
30-Oct-21	716	5%	219	34%	935	10%
6-Nov-21	991	38%	351	60%	1342	44%
13-Nov-21	1463	48%	487	39%	1950	45%
20-Nov-21	1662	14%	568	17%	2230	14%
27-Nov-21	1229	-26%	341	-40%	1570	-30%
4-Dec-21	1772	44%	450	32%	2222	42%
11-Dec-21	1236	-30%	302	-33%	1538	-31%
18-Dec-21	947	-23%	214	-29%	1161	-25%
25-Dec-21	761	-20%	152	-29%	913	-21%

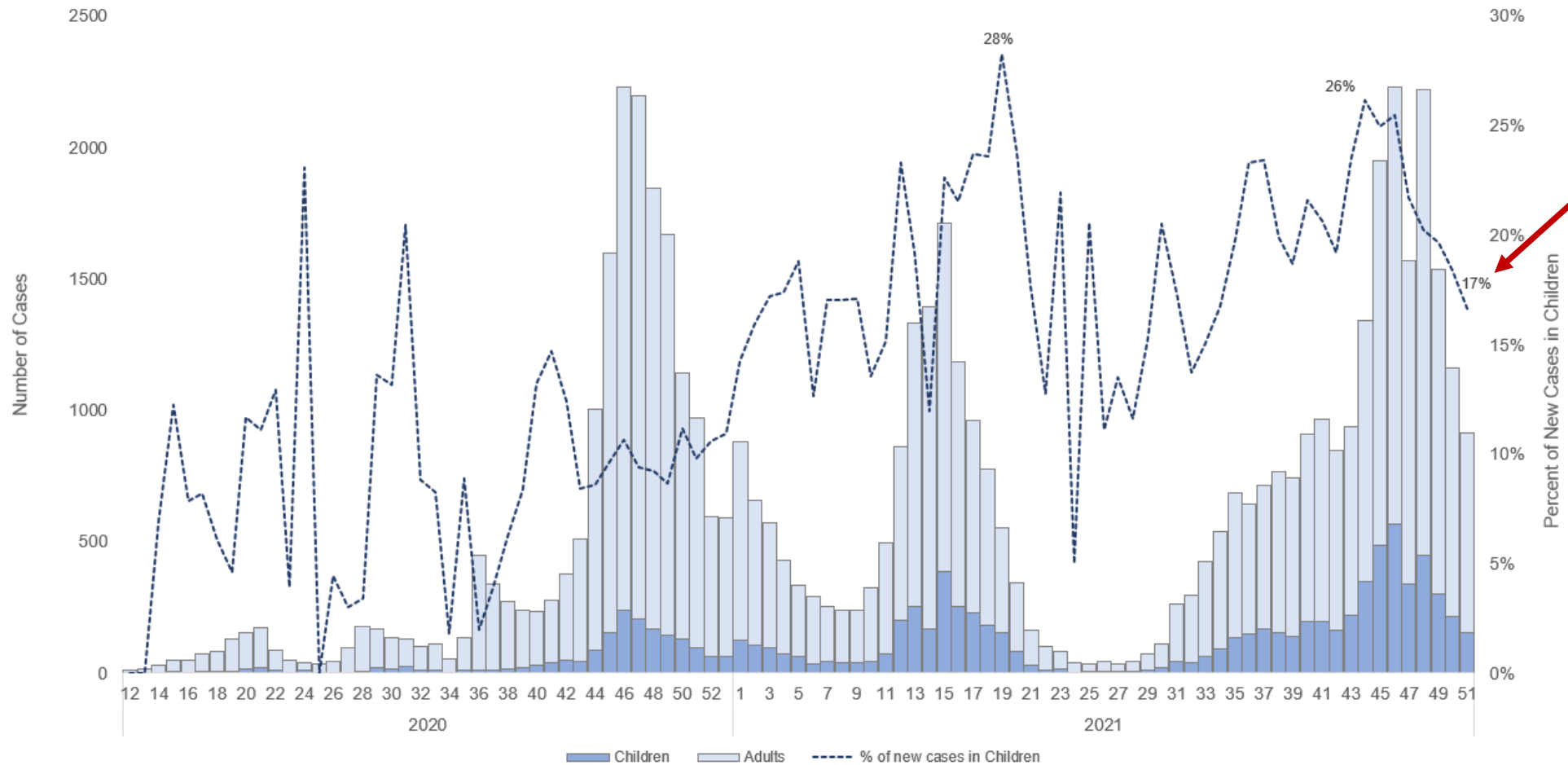
Weekly case counts among children decreased 29% last week, and cases in adults decreased 20%.

Adults

Children

Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County Weekly Case Counts and % in Children (0-17)

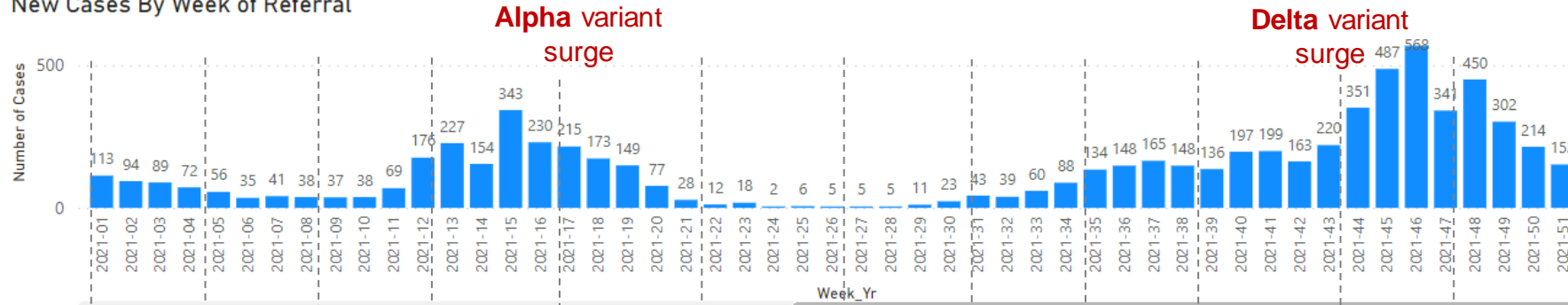


During week 51, children made up **17%** of cases reported, lower than recent highs.

For comparison, children aged 0-17 make up about **23.5%** of the population in Ottawa County.

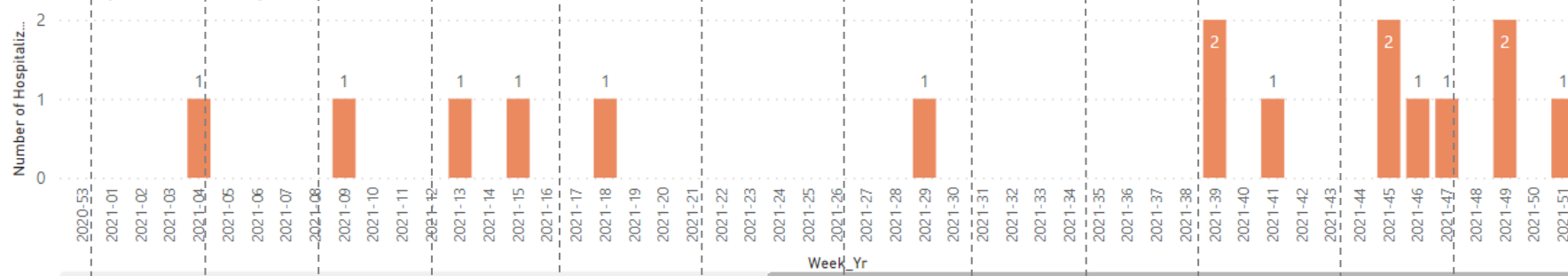
# Ottawa County - Cases, Hospitalizations, & Deaths by Week Among Children (0-17 years)

New Cases By Week of Referral



The weekly number of cases among children **decreased 29%** from week 50 to week 51.

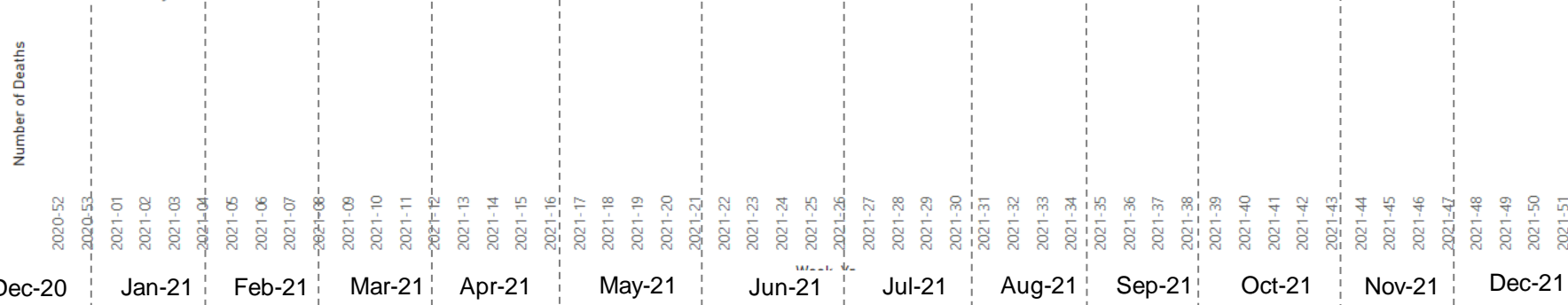
New Hospitalizations by Week of Admission



Hospitalizations are likely **underestimated** because:

- (i) Hospitalization status is obtained only by manual review, and
- (ii) Hospitalization may occur after public health interview.

New Deaths by Week of Death



Through the 2020-2021 school year nearly all school-aged children were in environments with:

- universal masking
- cohorting
- online learning
- social distancing
- mandatory quarantine for all close contacts
- testing (for high school athletes)

These mitigation strategies likely reduced case counts and hospitalizations among children.

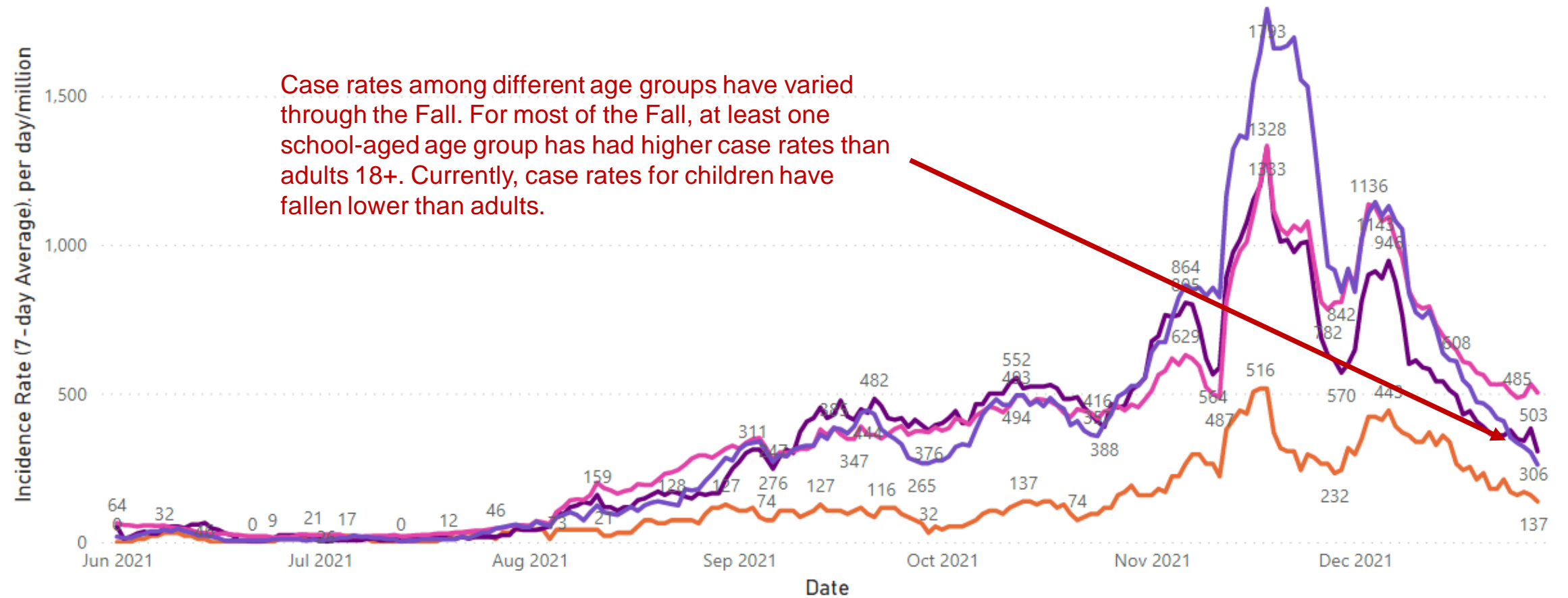
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, June 2021 – December 28, 2021

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11

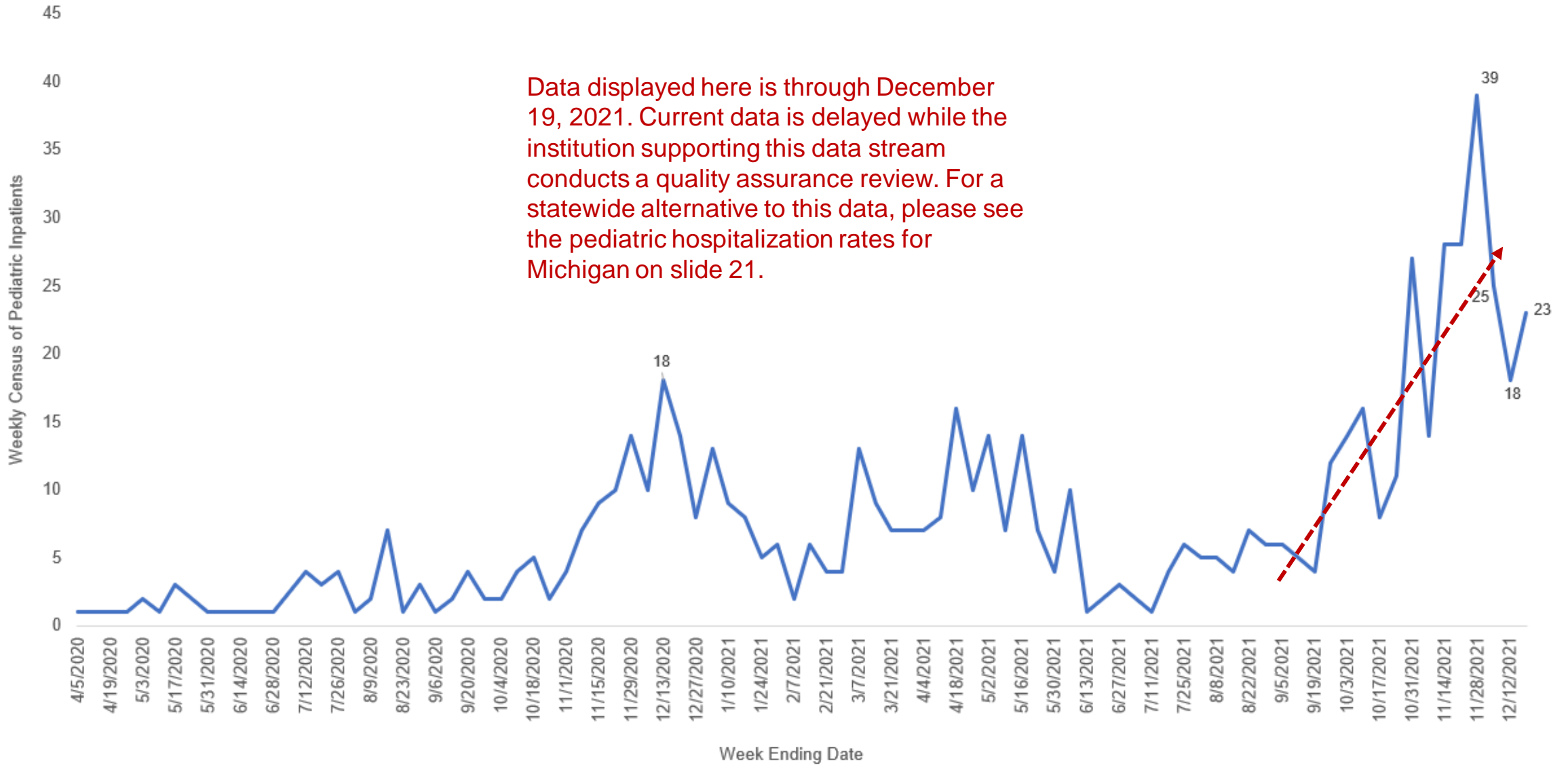


Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Data as of December 28, 2021



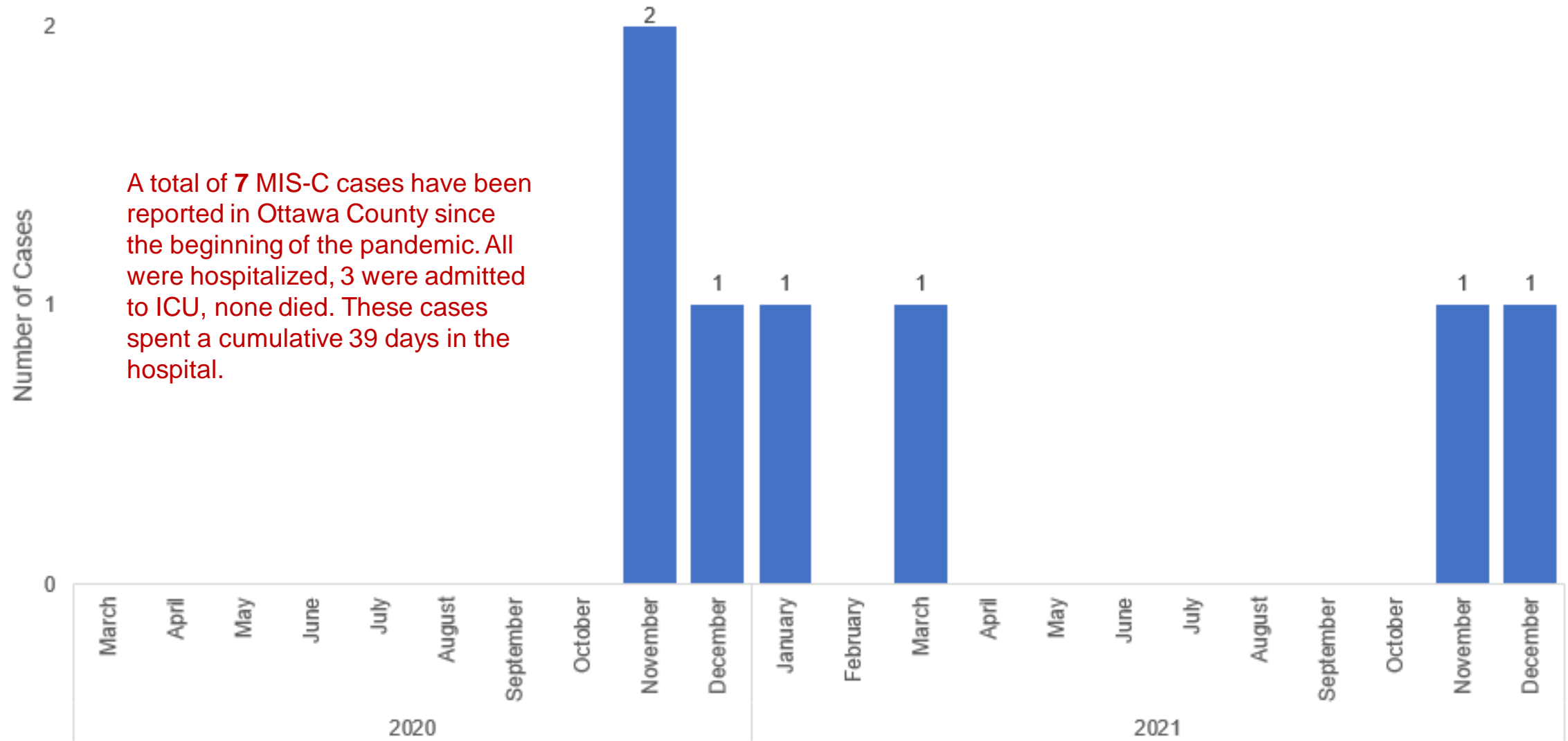
# Weekly Hospital Pediatric Census – A Regional Healthcare System



**Note:** Data above includes persons younger than 18 years of age with confirmed COVID-19 hospitalized at a large regional healthcare system. Patients may be listed in more than one week. Data may change as information is updated. Includes patients that reside in counties across the region, including Ottawa County.

Data through December 19, 2021

# Ottawa County MIS-C Cases by Month



A total of 7 MIS-C cases have been reported in Ottawa County since the beginning of the pandemic. All were hospitalized, 3 were admitted to ICU, none died. These cases spent a cumulative 39 days in the hospital.

Notes: Includes confirmed and probable cases. For more details on MIS-C please visit: <https://www.cdc.gov/mis/index.html>

Data through December 29, 2021

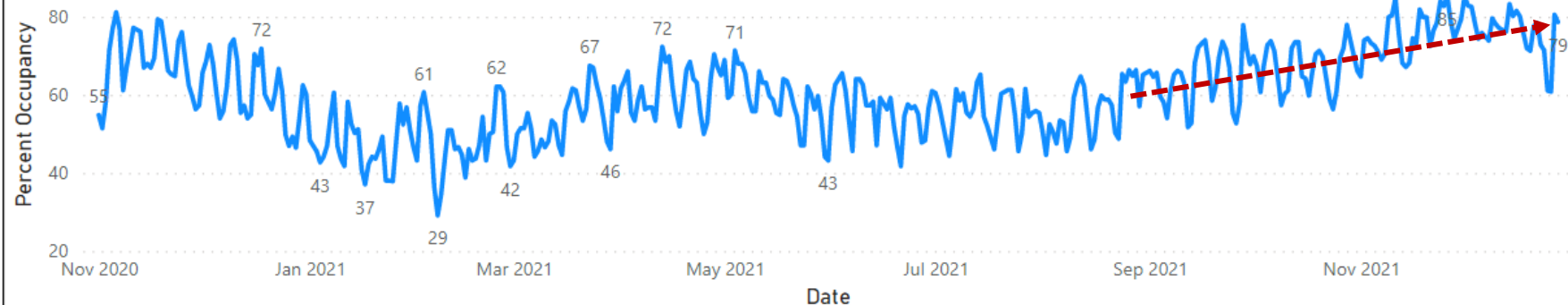


# Ottawa County Hospital Capacity – All Beds

## Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Percent Occupancy by Date and County

County ● Ottawa



## COVID Inpatient Bed Occupancy (COVID Patients Only, Confirmed and Suspected)

Percent Occupancy by Date and County

County ● Ottawa



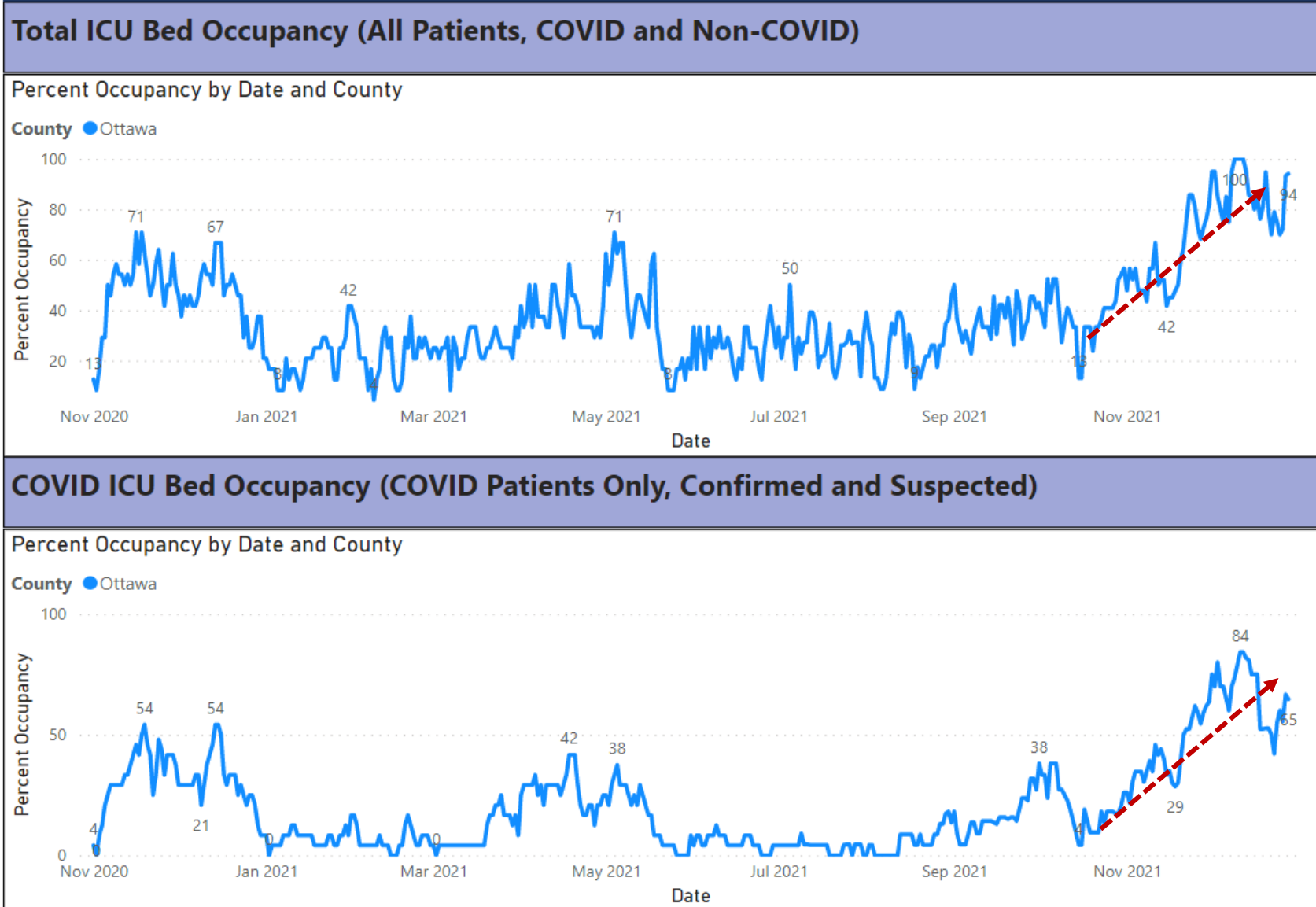
Total hospital bed occupancy **may be plateauing but remains elevated**, as is the proportion of beds occupied by COVID-19 patients.

Currently **29%** of all inpatient beds are occupied by COVID-19 patients.

Source: EMResources

Data through December 28, 2021

# Ottawa County Hospital Capacity – ICU Beds



Overall ICU bed occupancy **remains elevated (94%)**.

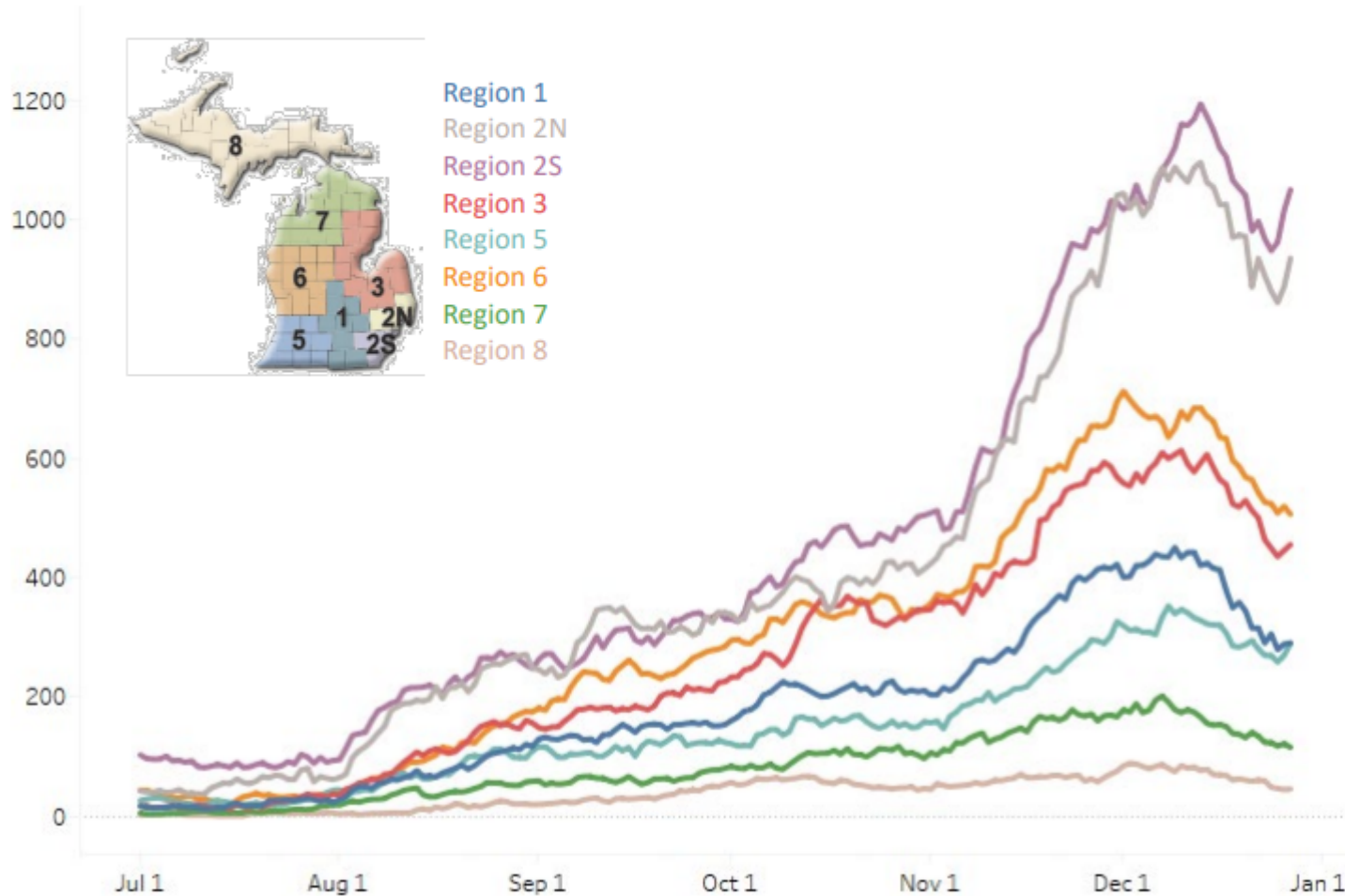
The proportion of ICU beds occupied by COVID-19 patients also **remains elevated**. Currently, **65%** of all ICU beds are occupied by COVID-19 patients.

Source: EMResources

Data through December 28, 2021

# Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 6/1/2021 – 12/27/2021  
Confirmed Positive by Region



While most regions remain at lower levels of COVID+ hospital census compared to last week, several regions show increasing trends over the past few days. Regions 2N and 2S show significant increasing recent trends in the last 2-3 days.

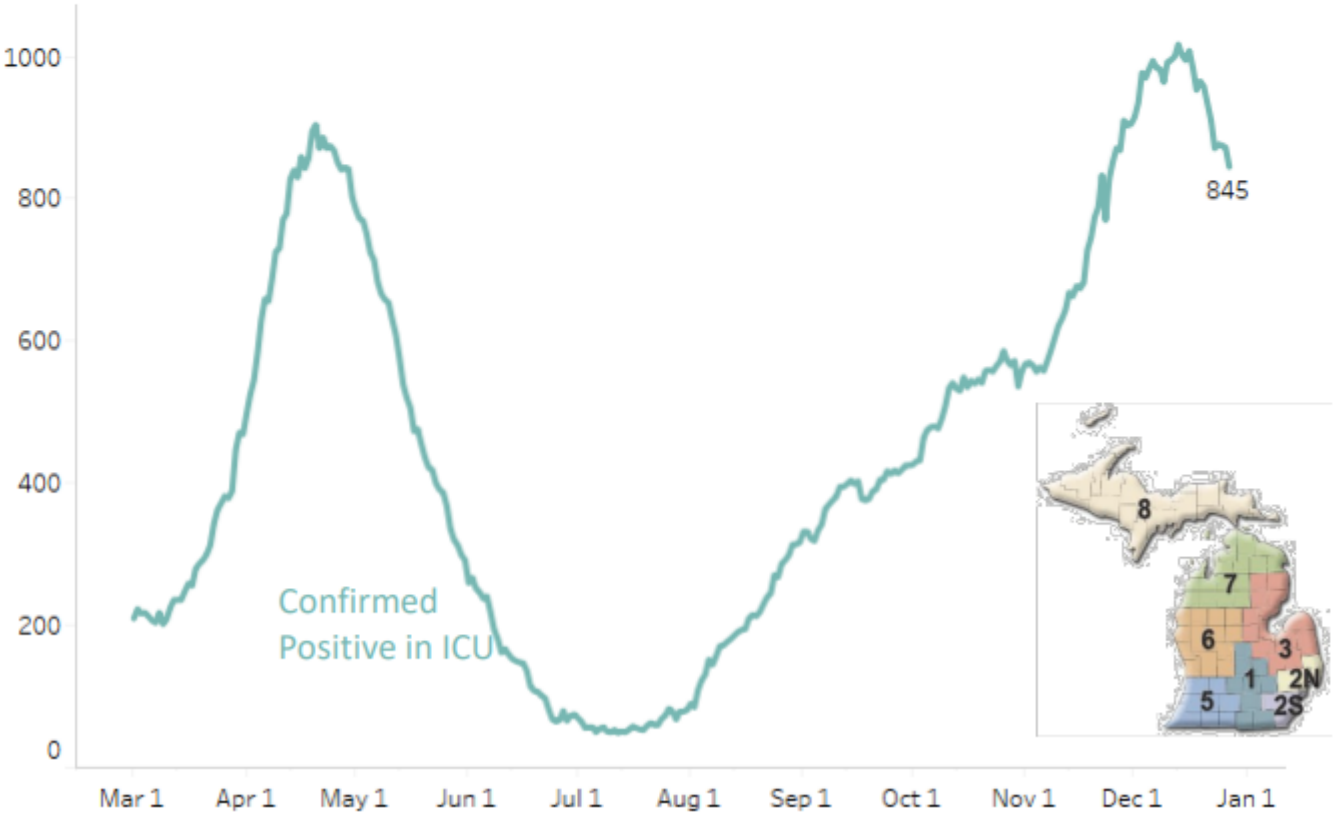
All regions except Regions 1, 7 and 8 continue to have greater than 300 hospitalizations/M. Regions 2N, 2S, and 3 have greater than 400 hospitalizations/M.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	290 (-16%)	268/M
Region 2N	935 (-4%)	422/M
Region 2S	1050 (1%)	471/M
Region 3	455 (-14%)	401/M
Region 5	289 (1%)	303/M
Region 6	506 (-11%)	345/M
Region 7	115 (-12%)	230/M
Region 8	45 (-25%)	145/M

Source: MDHHS Data and Modelling: [https://www.michigan.gov/documents/coronavirus/20211228\\_Data\\_and\\_modeling\\_update\\_vMEDIA\\_744471\\_7.pdf](https://www.michigan.gov/documents/coronavirus/20211228_Data_and_modeling_update_vMEDIA_744471_7.pdf)

# Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 12/27/2021  
Confirmed Positive in ICUs



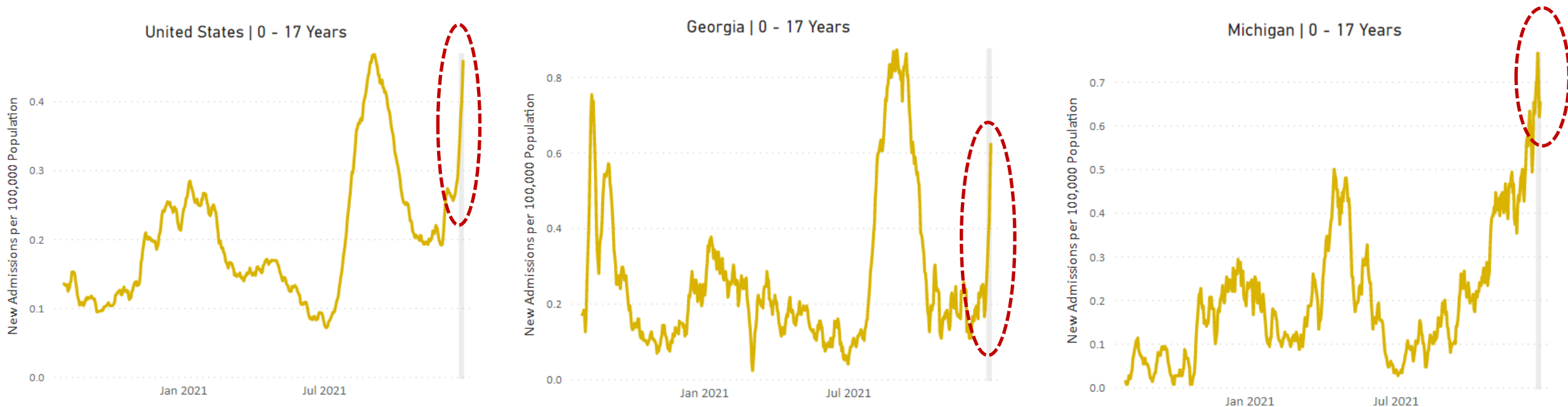
Overall, the census of COVID+ patients in ICUs has decreased 12% from last week. Census in ICUs has decreased in all regions except for Region 3.

All regions except for Regions 1, 2N, and 8 have overall adult ICU occupancy greater than or equal to 85%, with Regions 3 and 6 at or above 90% occupancy. Regions 1, 2S, 3, 6, and 7 have at least 30% of ICU beds filled with COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	Adult ICU Occupancy	% of Adult ICU beds COVID+
Region 1	62 (-34%)	80%	30%
Region 2N	158 (-16%)	77%	27%
Region 2S	232 (-3%)	87%	33%
Region 3	142 (2%)	93%	41%
Region 5	41 (-21%)	87%	28%
Region 6	137 (-17%)	90%	49%
Region 7	58 (-3%)	88%	41%
Region 8	15 (-25%)	68%	24%

Source: MDHHS Data and Modelling: [https://www.michigan.gov/documents/coronavirus/20211228\\_Data\\_and\\_modeling\\_update\\_vMEDIA\\_744471\\_7.pdf](https://www.michigan.gov/documents/coronavirus/20211228_Data_and_modeling_update_vMEDIA_744471_7.pdf)

# Pediatric Hospitalization Rates – USA, Georgia, Michigan



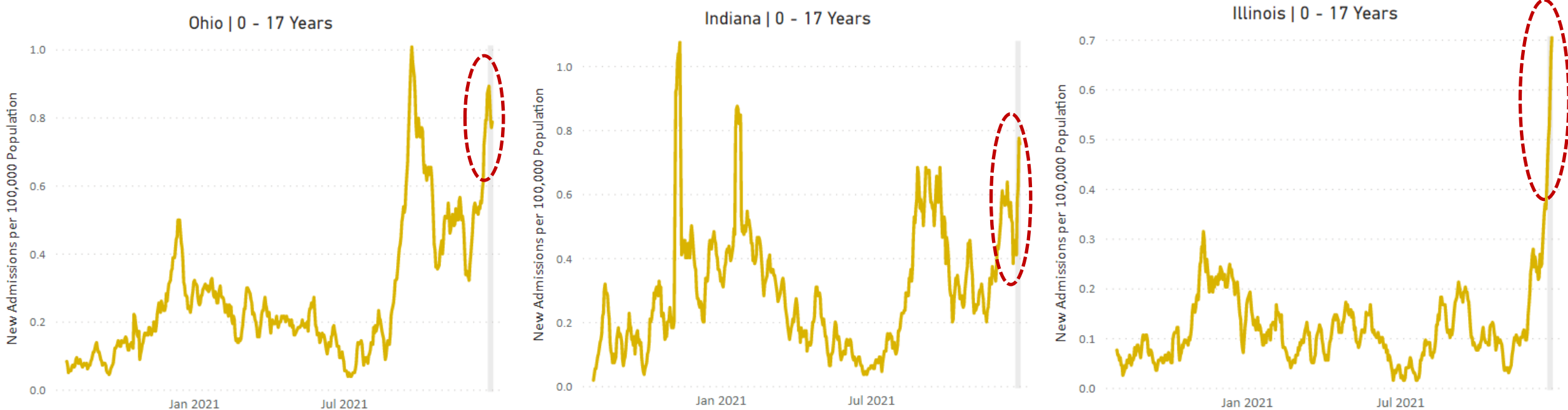
Pediatric hospitalization rates across the United States are increasing after a substantial decline. Many southern states (such as Georgia) are also seeing recent increases. **Michigan pediatric hospitalization rates have reached some of the highest levels of the pandemic to date.**

Source: <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

Accessed December 29, 2021



# Pediatric Hospitalization Rates – Select Midwest States

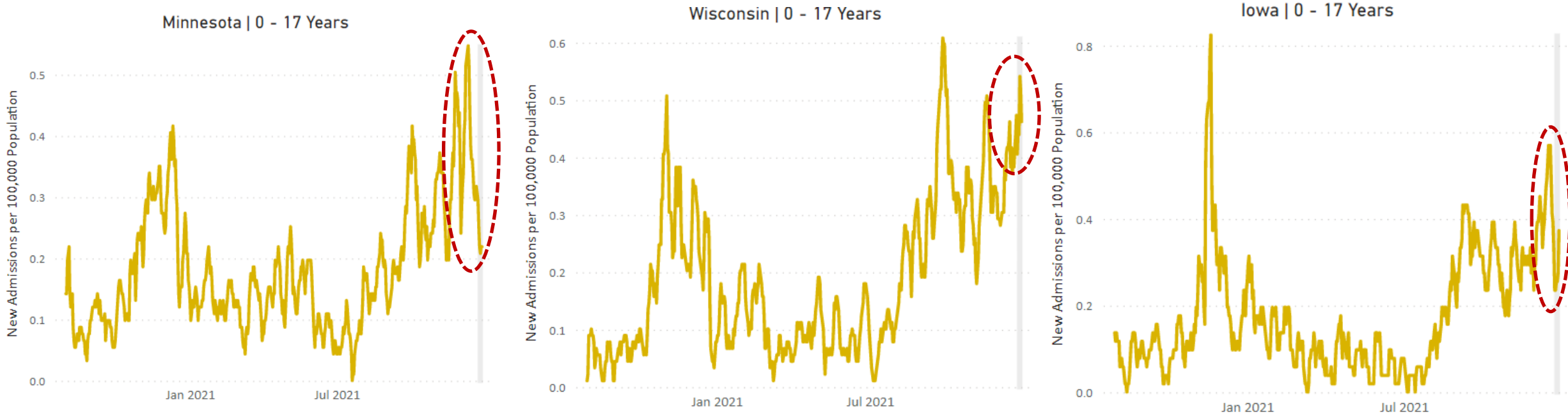


Ohio, Indiana, and Illinois are all experiencing substantial increases in pediatric hospitalization. Illinois has reached pandemic highs.

Source: <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

Accessed December 29, 2021

# Pediatric Hospitalization Rates – Select Midwest States

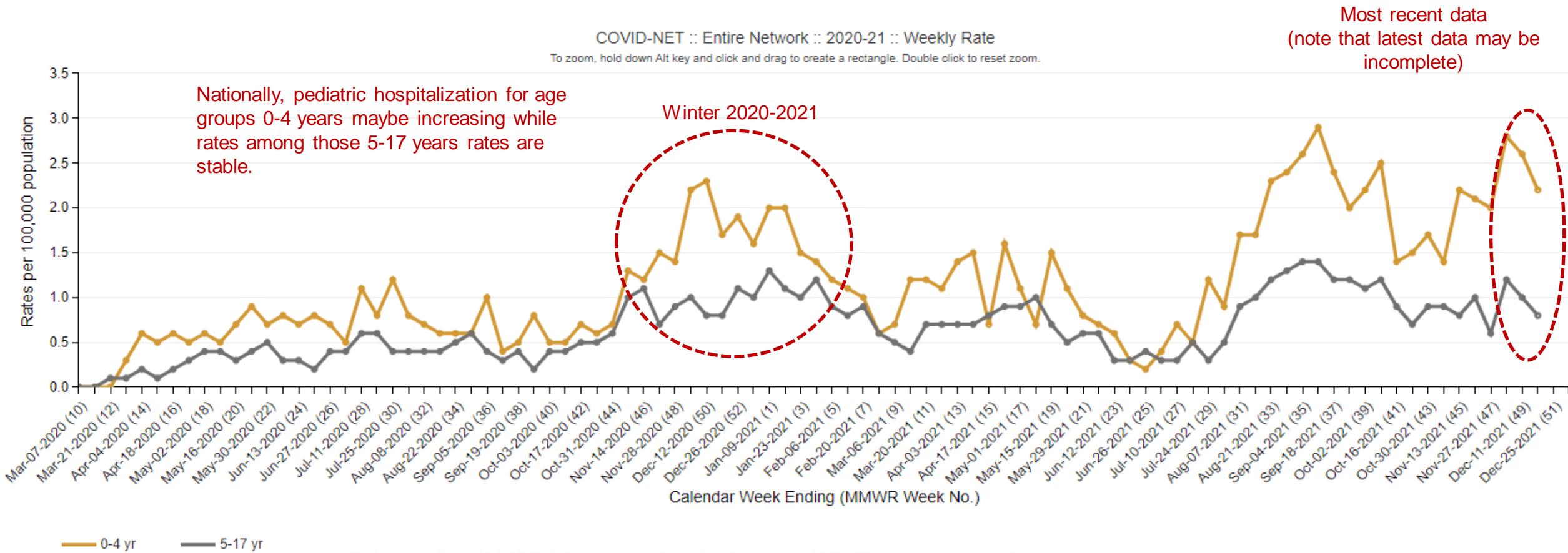


Pediatric hospitalization rates in Minnesota, Wisconsin, and Iowa remain elevated, and some are showing signs of increase.

Source: <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

Accessed December 29, 2021

# Pediatric Hospitalization Rates by Age Group – USA



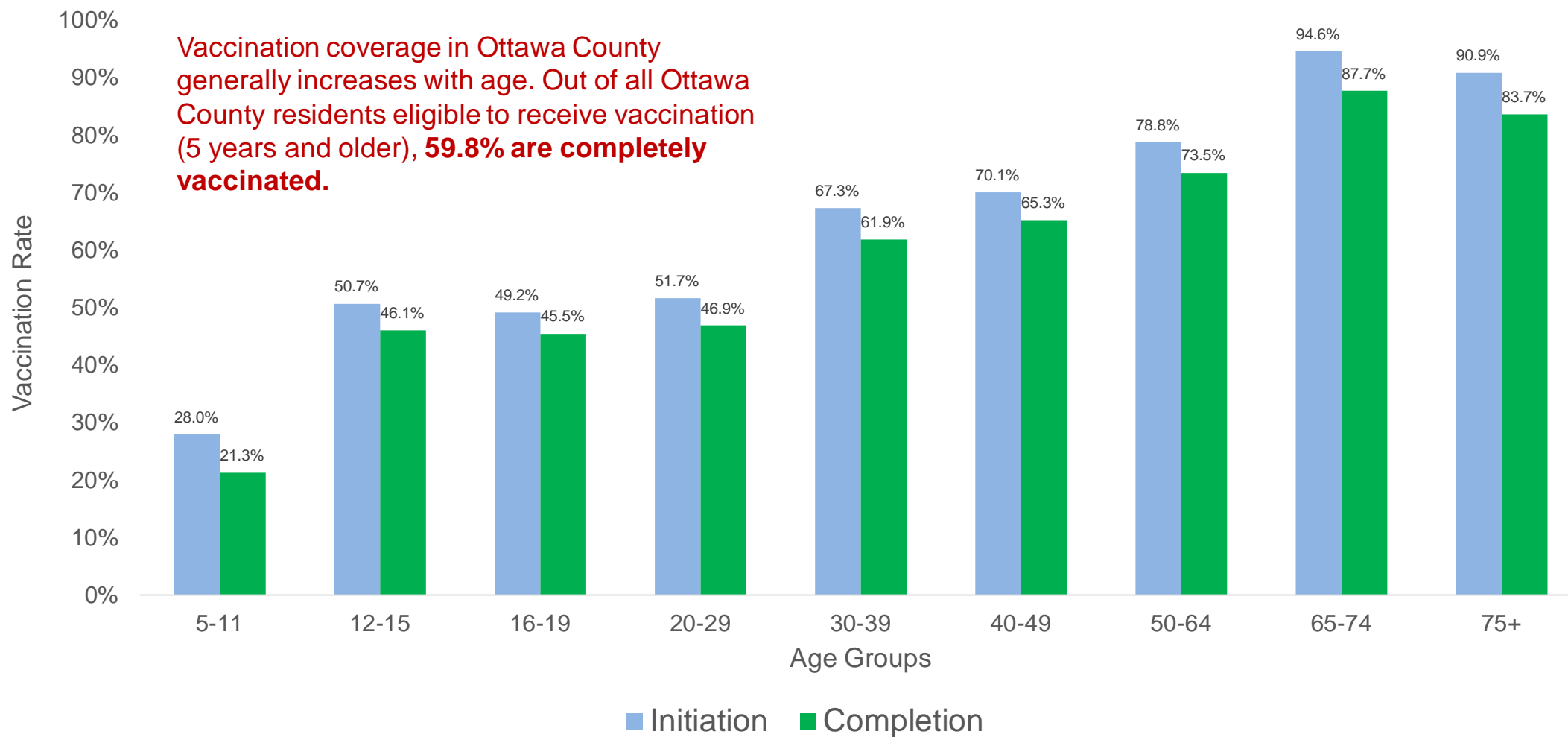
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each week, prior case counts and rates are updated accordingly. COVID-NET conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in children (less than 18 years of age) and adults. COVID-NET covers nearly 100 counties in the 10 Emerging Infections Program (EIP) states (CA, CO, CT, GA, MD, MN, NM, NY, OR, TN) and four Influenza Hospitalization Surveillance Project (IHSP) states (IA, MI, OH, and UT). Incidence rates (per 100,000 population) are calculated using the National Center for Health Statistics' (NCHS) vintage 2019 bridged-race postcensal population estimates for the counties included in the surveillance catchment area. The rates provided are likely to be underestimated as COVID-19 hospitalizations might be missed due to test availability and provider or facility testing practices.

Source: <https://covid.cdc.gov/covid-data-tracker/#covidnet-hospitalization-network>

Accessed December 29, 2021



# Vaccination Coverage by Age



**Note:**

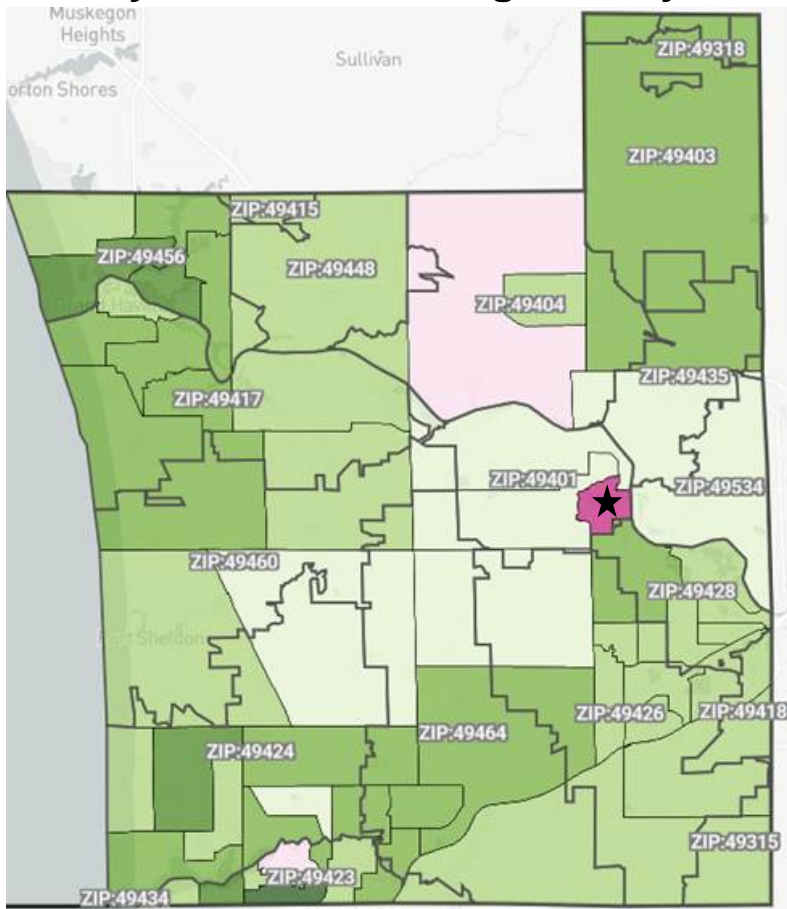
Completion is the percentage of people receiving 2 doses of Pfizer or Moderna or 1 dose of J&J.

Source: [https://www.michigan.gov/coronavirus/0,9753,7-406-98178\\_103214\\_103272-547150--,00.html](https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html)

Data through December 28, 2021

# Vaccination Coverage by Place of Residence

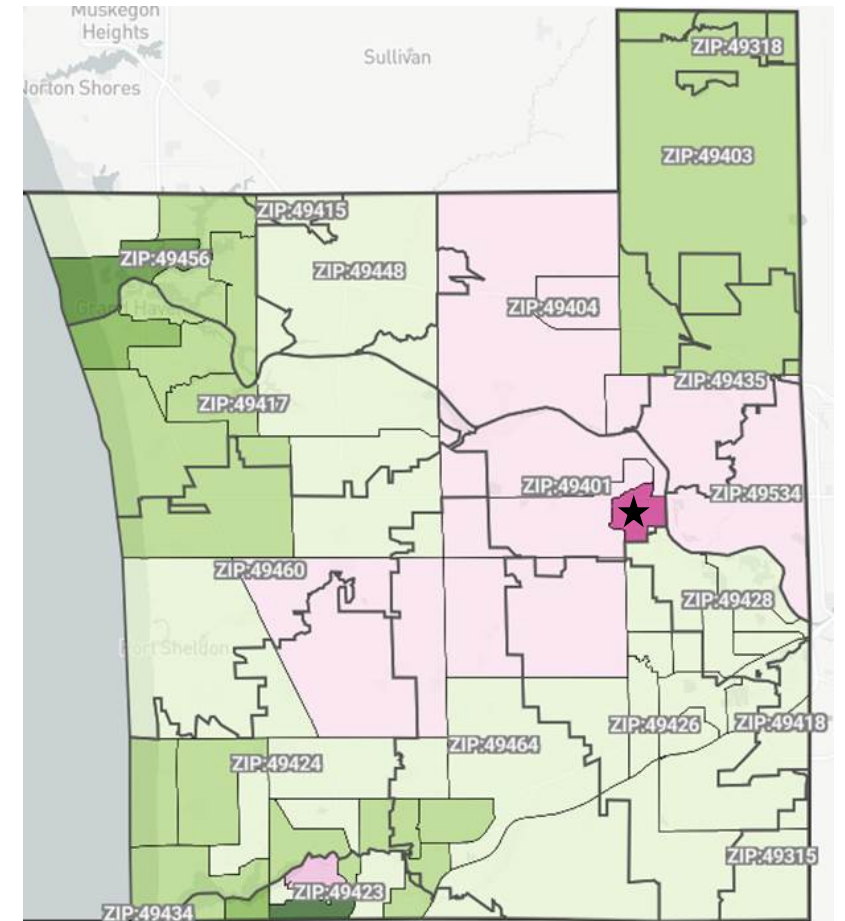
Fully vaccinated: % Ages 16+ years



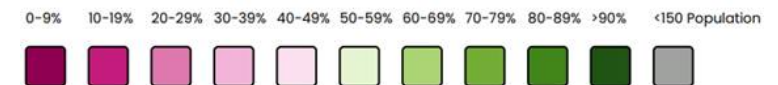
Color coded by: Fully Vaccinated (% Ages 16+)



Fully vaccinated: % Total Population



Color coded by: Fully Vaccinated (% Population)



Vaccination rates vary across Ottawa County, but most areas have at least 50% of the population aged 16+ completely vaccinated (left).

When considering the entire population (not just those aged 16+), there are pockets of the county with much higher and much lower vaccination rates (right).

★ The vaccination rate for this census tract is likely underestimated because census estimates in this tract may be inflated by seasonal students at a large university.

# Cumulative Cases by Vaccination Status, Ottawa County, January 15, 2021 – December 25, 2021

Fully Vaccinated People (162,754 )		
Cases	Hospitalizations	Deaths
Percent of Cases in People Not Fully Vaccinated (27,020 / 34,830) <b>77.6%</b>	Percent of Hospitalizations in People Not Fully Vaccinated (947 / 1186) <b>79.8%</b>	Percent of Deaths in People Not Fully Vaccinated (201 / 293) <b>68.6%</b>
Total Cases Not Fully Vaccinated <b>27,020</b>	Total Hospitalized Not Fully Vaccinated <b>947</b>	Total Deaths Not Fully Vaccinated <b>201</b>
Total Breakthrough Cases <b>7,810</b>	Total Breakthrough Hospitalizations <b>239</b>	Total Breakthrough Deaths <b>92</b>
Percent of Fully Vaccinated People who Developed COVID-19 (7,810 / 162,754) <b>4.799%</b>	Percent of Fully Vaccinated People who were Hospitalized for COVID-19 (239 / 162,754) <b>0.147%</b>	Percent of Fully Vaccinated People who Died of COVID-19 (92 / 162,754) <b>0.057%</b>
Percent of Cases who were Fully Vaccinated (7,810 / 34,830) <b>22.4%</b>	Percent of Hospitalizations who were Fully Vaccinated (239 / 1186) <b>20.2%</b>	Percent of Deaths who were Fully Vaccinated (92 / 293) <b>31.4%</b>
Total Cases <b>34,830</b>	Total Hospitalizations <b>1186</b>	Total Deaths <b>293</b>

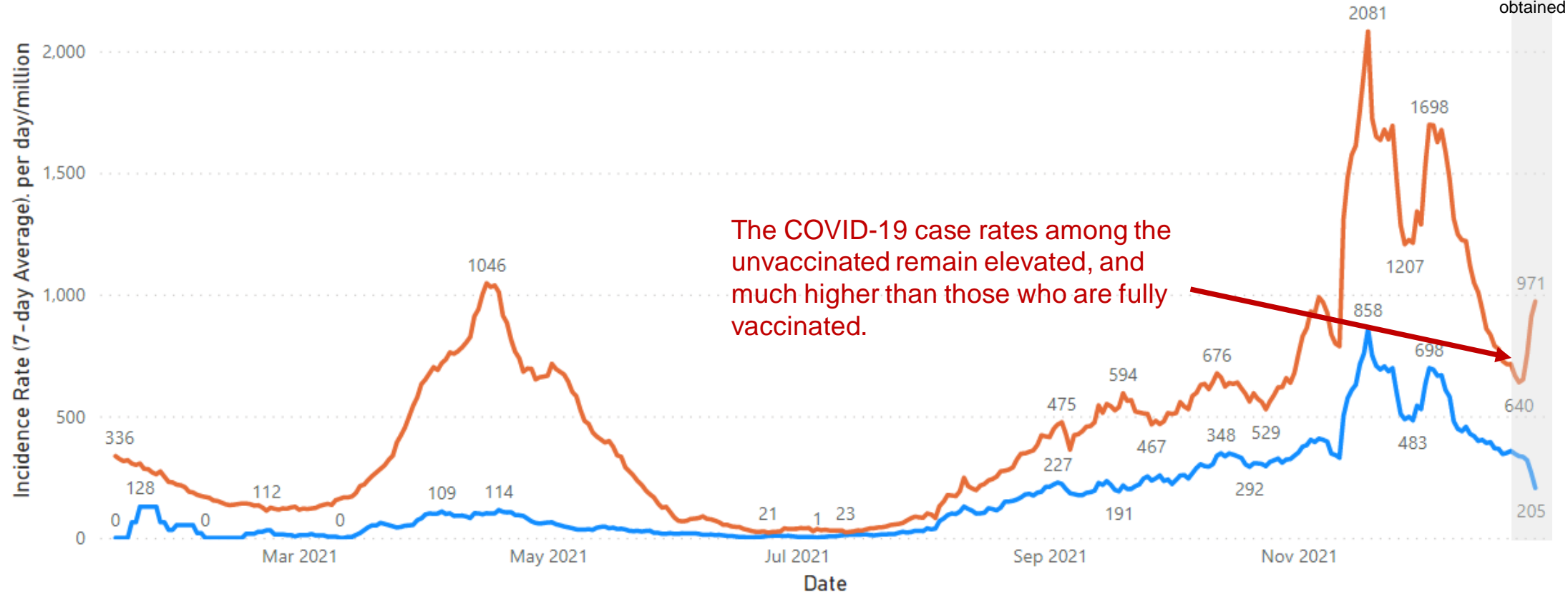
Sources:  
Michigan Department of Health and Human Services, Michigan Disease Surveillance System  
MDHHS COVID-19 Dashboard: [https://www.michigan.gov/coronavirus/0,9753,7-406-98178\\_103214\\_103272-547150--,00.html](https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html)

# Ottawa County COVID-19 Vaccination Breakthrough Case Trends

Incidence Rate (7-day Average)

rategroup ● Fully Vaccinated ● Unvaccinated

Data in shaded area may be updated as new information is obtained



The COVID-19 case rates among the unvaccinated remain elevated, and much higher than those who are fully vaccinated.

**Method:**

Daily case counts were obtained from the MDSS and summarized by referral date. Cases were compared to data from the State of Michigan immunization database to confirm COVID-19 vaccination status. Counts of persons completely vaccinated in Ottawa County were compiled from the Michigan COVID-19 vaccination dashboard. The total population denominator was obtained from CDC Wonder; the 2019 population estimate was used. Daily COVID-19 case rates were calculated and averaged over the previous 7 days; a rate of cases per day per million population was used. Cases ineligible for vaccination are included in this data. On December 22, 2021 this figure was updated to compare fully vaccinated and unvaccinated persons, to align more closely with [CDC data](#); partially vaccinated persons were excluded.

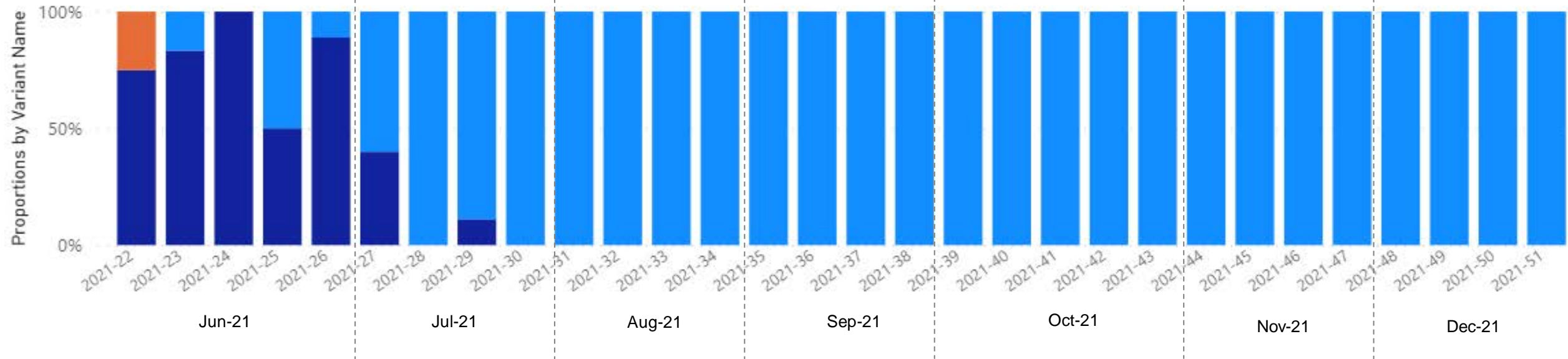
**Sources:**

Michigan Department of Health and Human Services, Michigan Disease Surveillance System  
 MDHHS COVID-19 Dashboard: [https://www.michigan.gov/coronavirus/0,9753,7-406-98178\\_103214\\_103272-547150--,00.html](https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html)

# Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name ● Alpha ● Delta ● Gamma



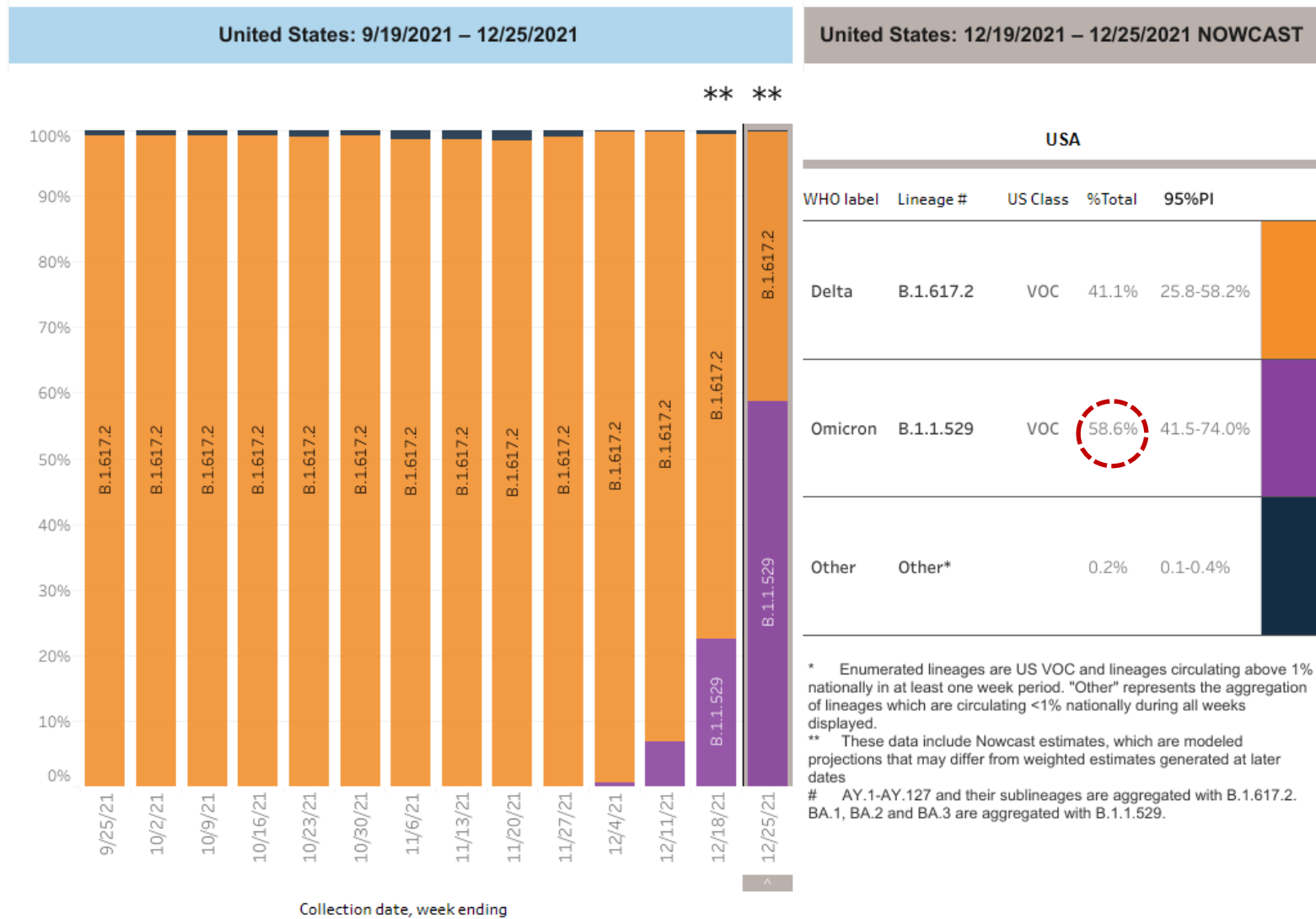
In June of 2021, most clinical samples\* submitted for variant testing came back as the **Alpha** variant. By the end of July 2021, all clinical samples tested were returned as the **Delta** variant. Since late July 2021 all clinical samples submitted for variant testing came back positive for the **Delta** variant, indicating that **Delta** remains the predominate variant in Ottawa County. Currently, there is little local evidence of any newly emerging variant. However, surveillance for the **Omicron** variant is underway which will likely result in local detection of **Omicron**.

\* Swabs from Ottawa County residents that tested positive for COVID-19 by PCR

Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System



# Variants – Clinical Samples from Across the USA



The **Omicron** variant is estimated to account for as much as **58.6%** of clinical samples collected in the United States as of December 25, 2021.

Source: CDC: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

# Variants – Wastewater Sampling – Holland/Zeeland

Sample Date	Site	Wuhan (parental)	Alpha	Beta	Gamma	Delta	Epsilon
10/3/2021	North Holland	Y	N	N	N	Y	N
10/4/2021	Zeeland	N	N	N	N	Y	N
10/6/2021	North Holland	N	N	N	N	N	N
10/7/2021	Zeeland	N	N	N	N	Y	N
10/10/2021	North Holland	N	N	N	N	Y	N
10/11/2021	Zeeland	N	N	N	N	Y	N
10/17/2021	North Holland	Y	N	N	N	Y	N
10/18/2021	Zeeland	N	N	N	N	Y	N
10/20/2021	North Holland	Y	N	N	N	N	N
10/21/2021	Zeeland	N	N	N	N	Y	N
10/24/2021	North Holland	N	N	N	N	Y	N
10/25/2021	Zeeland	N	N	N	N	Y	N
10/27/2021	North Holland	N	N	N	N	Y	N
10/28/2021	Zeeland	N	N	N	N	Y	N
10/31/2021	North Holland	N	N	N	N	Y	N
11/1/2021	Zeeland	N	N	N	N	Y	N
11/3/2021	North Holland	N	N	N	N	Y	N
11/4/2021	Zeeland	N	N	N	N	Y	N
11/7/2021	North Holland	N	N	N	N	Y	N
11/8/2021	Zeeland	N	N	N	N	Y	N
11/10/2021	North Holland	N	N	N	N	Y	N
11/11/2021	Zeeland	N	N	N	N	Y	N
11/14/2021	North Holland	Y	N	N	N	Y	N
11/15/2021	Zeeland	N	N	N	N	Y	N
11/17/2021	North Holland	N	N	N	N	Y	N
11/18/2021	Zeeland	N	N	N	N	N	N
11/21/2021	North Holland	N	N	N	N	Y	N
11/22/2021	Zeeland	N	N	N	N	N	N
11/24/2021	North Holland	N	N	N	N	Y	N
11/24/2021	Zeeland	N	N	N	N	Y	N
11/28/2021	North Holland	N	N	N	N	Y	N
11/29/2021	Zeeland	N	N	N	N	Y	N
12/1/2021	North Holland	N	N	N	N	N	N
12/2/2021	Zeeland	N	N	N	N	Y	N
12/5/2021	North Holland	N	N	N	N	Y	N
12/6/2021	Zeeland	N	N	N	N	Y	N
12/8/2021	North Holland	N	N	N	N	Y	N
12/9/2021	Zeeland	N	N	N	N	Y	N
12/12/2021	North Holland	N	N	N	N	Y	N
12/13/2021	Zeeland	N	N	N	N	Y	N
12/15/2021	North Holland	N	N	N	N	Y	N
12/16/2021	Zeeland	N	N	N	N	Y	N

Y = Detected  
N = Not Detected

The **Delta** variant was consistently detected in Holland and Zeeland wastewater samples through all of October and November 2021 as well as much of December 2021. This data indicate that the Delta variant has remained the known dominant variant in Ottawa County. Surveillance is ongoing for the **Omicron** variant, which is very likely present in the community. Expect detection in wastewater as validated tests become available.

Source: Hope College Global Water Research Institute as part of the MDHHS SEWER-Network, Aaron Best, Ph.D. ([best@hope.edu](mailto:best@hope.edu))

# CDC Community Risk Transmission Levels & Metrics

Indicator - If the two indicators suggest different transmission levels, the higher level is selected	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days	0-9.99	10-49.99	50-99.99	≥ 100
Percentage of NAATs <sup>1</sup> that are positive during the past 7 days	0-4.99%	5-7.99%	8-9.99%	≥ 10.0%

Ottawa's goal is to be in the Moderate category\*

Ottawa is in the High category right now

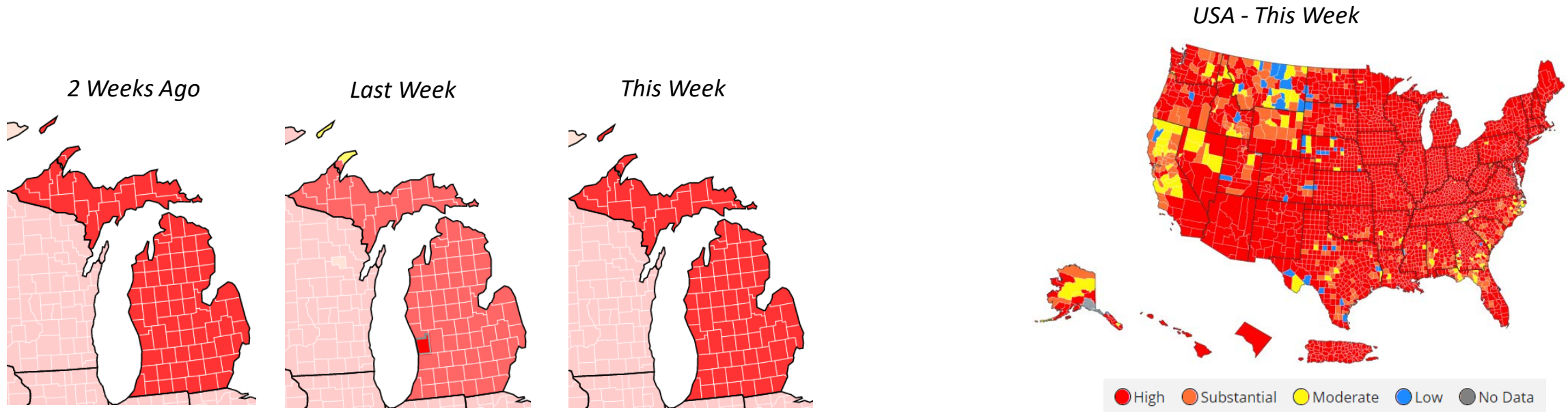
\*After further analysis of Ottawa County case rate data, positivity data, and CDC Community Transmission Levels, on October 8, 2021 the Ottawa County Department of Public Health (OCDPH) relaxed one of the criteria that may be used to rescind the current school mask order. The criterion that set a threshold of a CDC Community Transmission Level of Low for 7 consecutive days was changed to a threshold of Moderate for 14 consecutive days.

Source: <https://covid.cdc.gov/covid-data-tracker/#county-view>



# CDC Community Transmission Risk Levels – Ottawa County

- Current Risk Level in Ottawa – **HIGH** (for last **19+** weeks)
- Current Data:
  - Positivity = 16.46%
  - Case Rate = 322.45 cases per week per 100,000

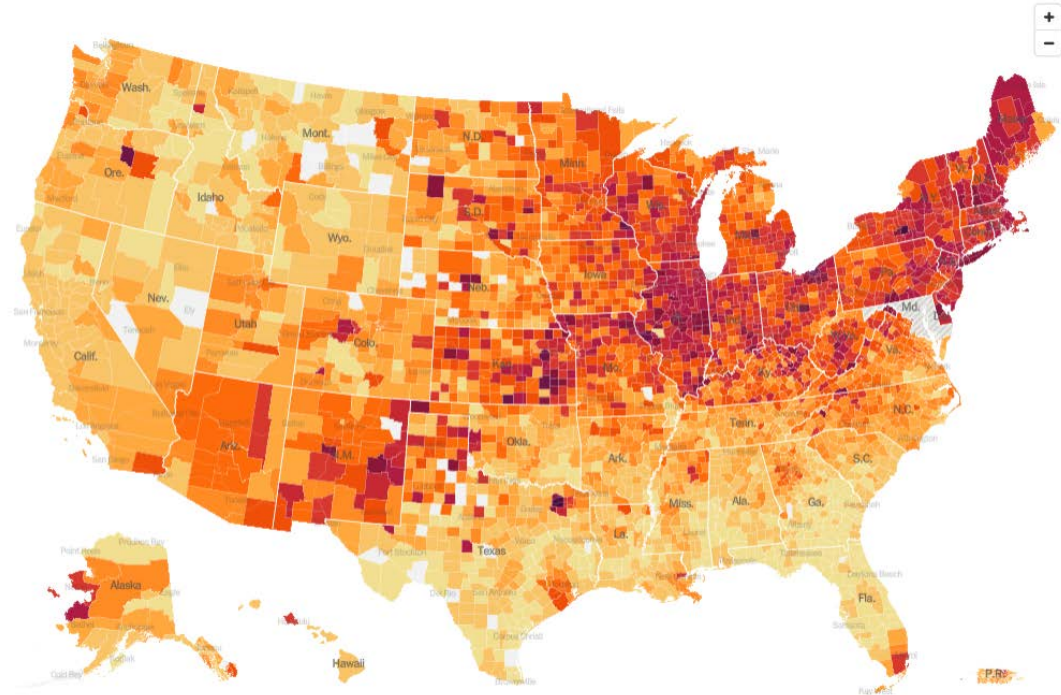


Data through December 25, 2021 for positivity and December 27, 2021 for case rates

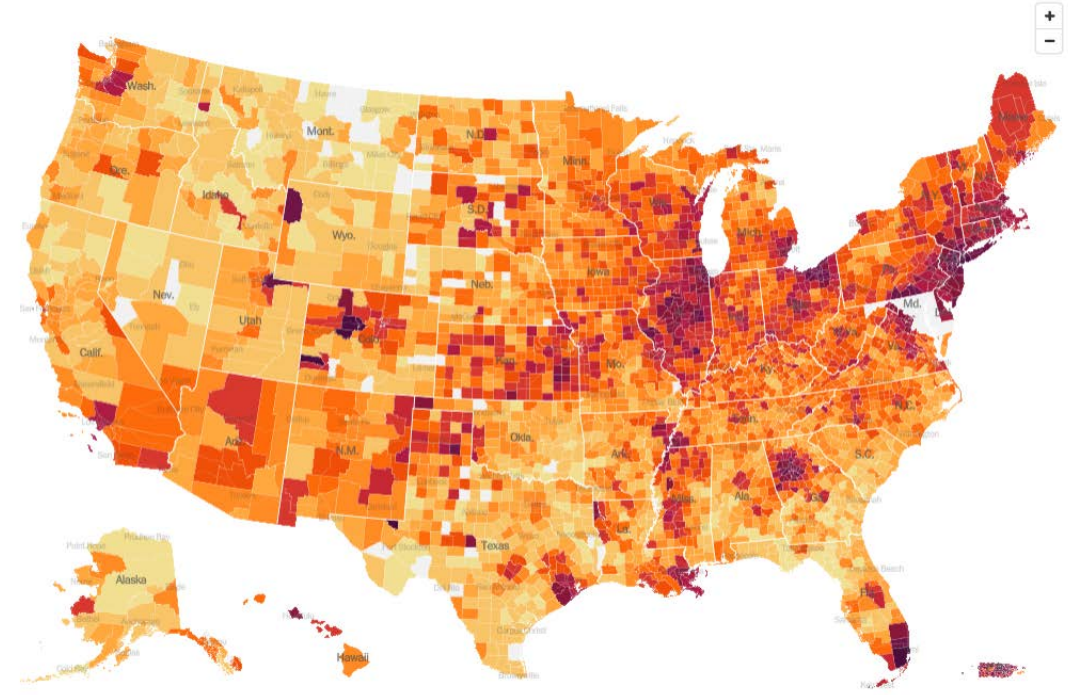
Source: <https://covid.cdc.gov/covid-data-tracker/#county-view>

# COVID-19 Case Rates by County Across the US

Last Week



This Week



Case rates may be worsening in some areas of the deep South after a period of substantial improvement. Case rates in western and midwestern states may be seeing improvement. New England continues to experience high rates, with some states seeing worsening trends. Michigan continues to display high case rates, but is seeing improvement.

Source: <https://www.nytimes.com/interactive/2021/us/covid-cases.html>

Accessed December 29, 2021

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup



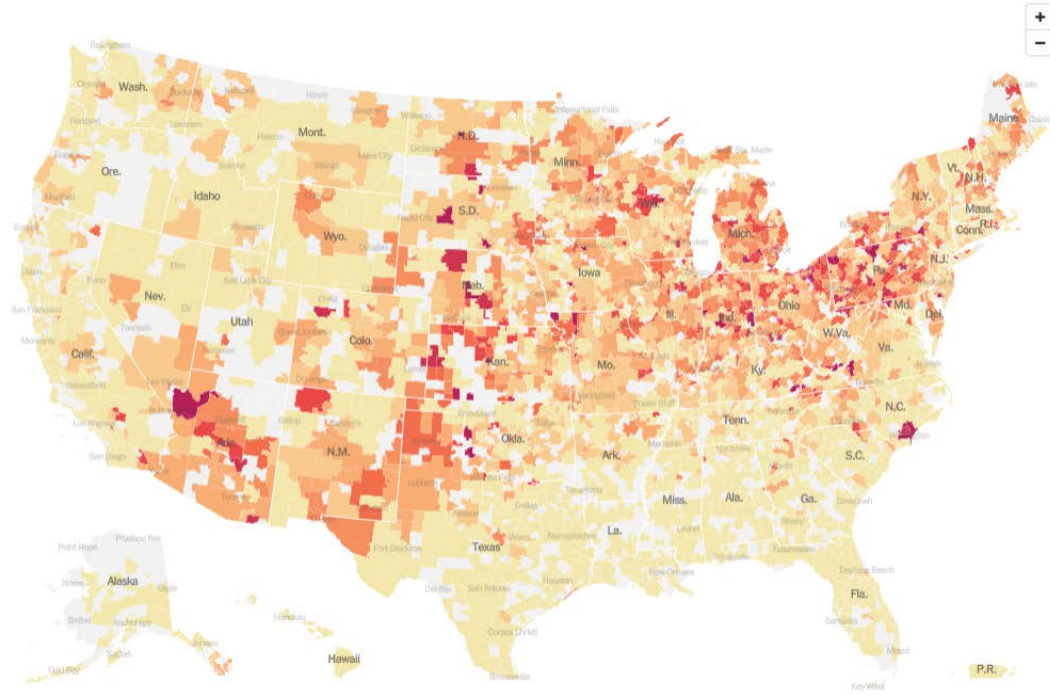
# COVID-19 Hospitalization Rates by County Across the US

Last Week

Current hospitalizations

COVID-19 PATIENTS PER 100,000 PEOPLE

20 30 40 50 60 70 80 NO DATA

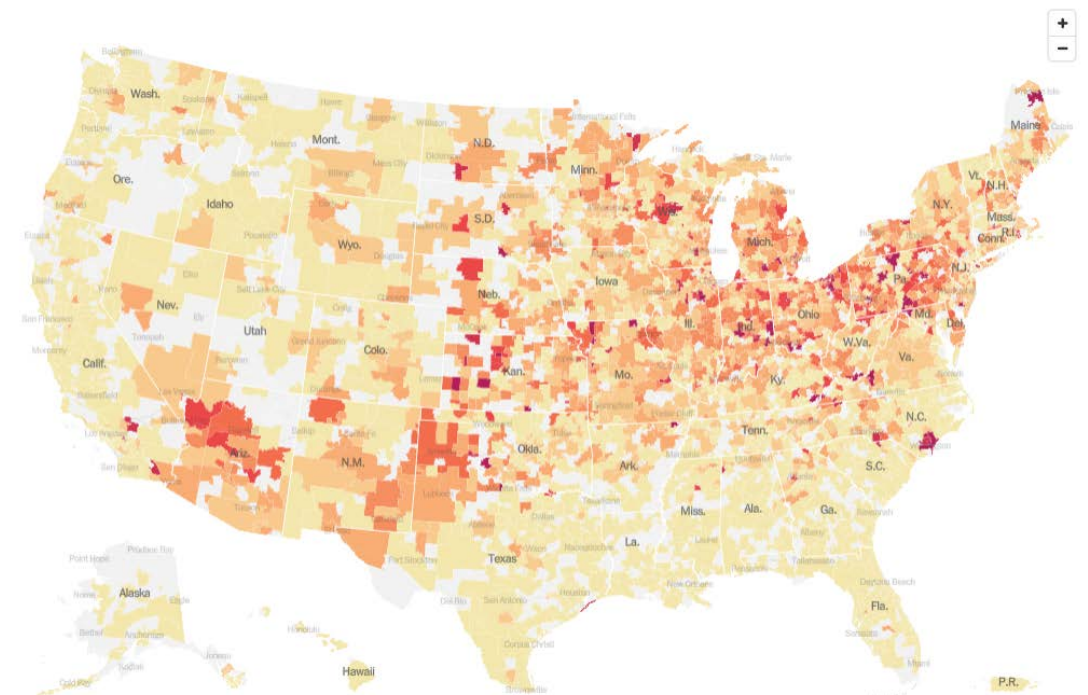


This Week

Current hospitalizations

COVID-19 PATIENTS PER 100,000 PEOPLE

20 30 40 50 60 70 80 NO DATA



Hospitalization rates remain lower in the South, while some western and midwestern states are experiencing elevated hospitalization rates. Pennsylvania continues showing high hospitalization rates. Michigan continues to experience elevated hospitalization rates this week.

Source: <https://www.nytimes.com/interactive/2021/us/covid-cases.html>

Accessed December 29, 2021

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# States and Michigan Counties with School Masking Requirements

- **States/Districts (18):** California, Connecticut, Delaware, Hawaii, Illinois, Louisiana, Maryland, Massachusetts, New Mexico, New Jersey, New York, Nevada, Oregon, Pennsylvania, Rhode Island, Virginia, Washington, & Washington D.C.
- **Michigan Counties (13):**
  - **PreK/K-6:** Kent, Marquette, Ottawa
  - **K-12:** Antrim, Benzie, Charlevoix, Emmet, Ingham, Leelanau, Oakland, Otsego, Washtenaw, and Wayne
- **Rescinded County Mask Mandates (8):**
  - Allegan, Barry, Berrien, Eaton, Iron, Dickinson (rescinded October 2021)
  - Kalamazoo, Genesee (rescinded December of 2021)
- **Ottawa County School Districts Retaining Mask Rules (5):**
  - Holland Public, West Ottawa Public, Black River, Grand Haven Public, & Spring Lake Public

**Notes:** List may not be comprehensive; because children aged 5-11 years are now eligible for vaccination, Ottawa and Kent County's PreK-6 mask mandate is scheduled for rescinding on January 2, 2022. Please see the next page for links to public notices for the five public school districts in Ottawa County that plan to retain mask rules into 2022.

# COVID-19 News Headlines

## Spectrum Health leaders hopeful after dip in COVID-19 patient numbers

<https://www.mlive.com/news/grand-rapids/2021/12/spectrum-health-leaders-hopeful-after-dip-in-covid-19-patient-numbers.html>

Health Care

## Pharmacies limit number of COVID-19 home tests customers can buy

[https://www.grandhaventribune.com/news/local/pharmacies-limit-number-of-covid-19-home-tests-customers-can-buy/article\\_084ae0b0-6668-11ec-9671-9b89b0e43bdb.html](https://www.grandhaventribune.com/news/local/pharmacies-limit-number-of-covid-19-home-tests-customers-can-buy/article_084ae0b0-6668-11ec-9671-9b89b0e43bdb.html)

## State of Michigan secures additional federal team to assist Mercy Health Muskegon with staffing *Teams at Beaumont Hospital - Dearborn, Spectrum Health in Grand Rapids and Covenant HealthCare in Saginaw extended for an additional 30 days*

<https://www.michigan.gov/coronavirus/0,9753,7-406-98158-574552--,00.html>

## Holland, Black River keeping mask policies in place

<https://www.hollandsentinel.com/story/news/education/2021/12/22/holland-black-river-keeping-mask-policies-place/8979879002/>

Public health

## Area schools make plans ahead of mask mandate expiration

[https://www.grandhaventribune.com/news/education/area-schools-make-plans-ahead-of-mask-mandate-expiration/article\\_c7adaf42-646a-5ae2-ac62-9972c0851024.html](https://www.grandhaventribune.com/news/education/area-schools-make-plans-ahead-of-mask-mandate-expiration/article_c7adaf42-646a-5ae2-ac62-9972c0851024.html)

## West Ottawa board votes to keep K-12 mask requirement in place

<https://www.hollandsentinel.com/story/news/education/2021/12/15/west-ottawa-board-votes-keep-k-12-mask-requirement-place/6505766001/>

# Science Roundup

## Early assessment of the clinical severity of the SARS-CoV-2 Omicron variant in South Africa

<https://www.medrxiv.org/content/10.1101/2021.12.21.21268116v1>

← Results from a preprint study out of South Africa suggest that there is lower hospitalization risk among those infected with Omicron.

## Report 49 - Growth, population distribution and immune escape of Omicron in England

<https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/report-49-Omicron/>

← An epidemiological report out of England suggests that reinfection may be more likely with the Omicron variant.

## Report 50 - Hospitalisation risk for Omicron cases in England

<https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/report-50-severity-omicron/>

← Data reported out of England suggest a reduced risk of hospitalization for Omicron vs Delta infections.

## Severity of Omicron variant of concern and vaccine effectiveness against symptomatic disease: national cohort with nested test negative design study in Scotland

[https://www.pure.ed.ac.uk/ws/portalfiles/portal/245818096/Severity\\_of\\_Omicron\\_variant\\_of\\_concern\\_and\\_vaccine\\_effectiveness\\_against\\_symptomatic\\_disease.pdf](https://www.pure.ed.ac.uk/ws/portalfiles/portal/245818096/Severity_of_Omicron_variant_of_concern_and_vaccine_effectiveness_against_symptomatic_disease.pdf)

← Research published out of Scotland showed that a third/booster dose offered substantial protection against the risk for symptomatic infection with the Omicron variant.

[Investigation of a SARS-CoV-2 B.1.1.529 \(Omicron\) Variant Cluster — Nebraska, November–December 2021 | MMWR \(cdc.gov\)](https://www.cdc.gov/mmwr/preview/mmwrhtml/inv0001a.htm)

<https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2021.26.50.2101147>

← A pair of reports, one from Nebraska and the other from Norway, suggest that Omicron may have an incubation period that is shorter than previous variants.