

Ottawa County COVID-19 Epidemiology

November 18, 2021

Data as of November 13, 2021, unless otherwise indicated

Executive Summary

- **Transmission in both the US and Michigan is increasing**
- **Ottawa community transmission has reached pandemic highs**
 - Positivity increased to 25.5% last week (highest in pandemic). The goal is to be less than 8%*.
 - Weekly case counts in Ottawa increased 46%, from 1,331 two weeks ago to 1,938 last week.
 - Cases among children increased 41%, from 344 two weeks ago to 484 last week.
- **Ottawa area and regional hospitals continue to see many COVID-19 patients**
 - In Ottawa County, 25% of all available beds and 35% of ICU beds are occupied by COVID-19 patients.**
 - Regional healthcare systems are extremely strained and asking for the community to take preventive action.
- **Pediatric hospitalizations across the US have plateaued, but hospitalizations among children in Michigan continue to increase.**
 - At a large West Michigan healthcare system, weekly hospital census for children with COVID-19 reached the highest level seen through the pandemic two weeks ago, and remained elevated last week.
- **Of Ottawa County residents aged 5+, 56% are completely vaccinated**

*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.

**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.

Public Health Recommendations

- **Get vaccinated**
- **Stay home when sick & get tested**
- **Wear your mask in public indoor places**

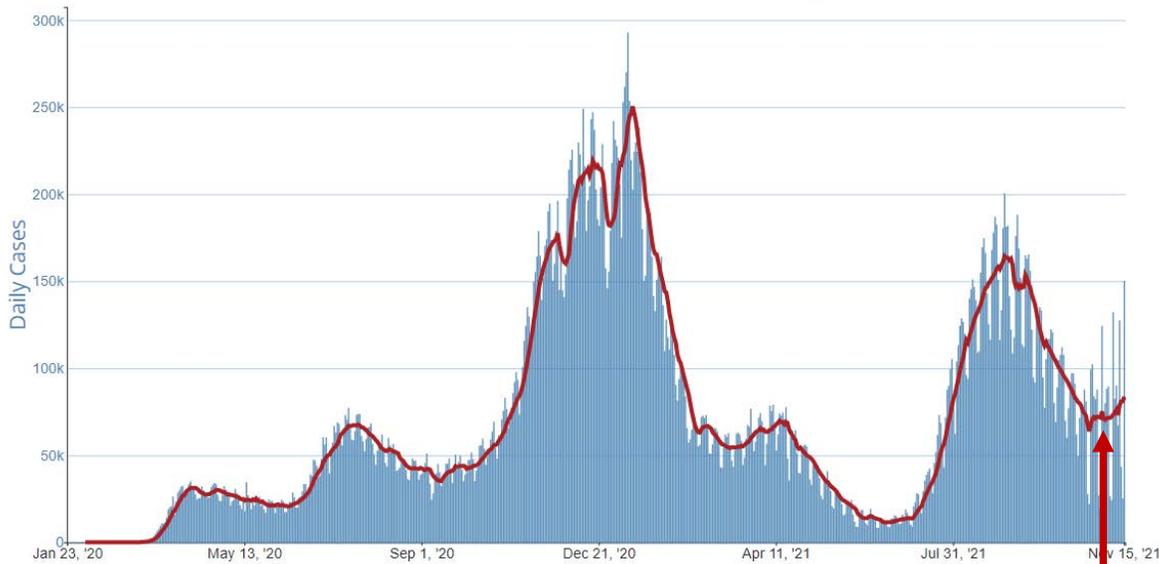
Ottawa County Metrics by Week

Metric	Goal	Week Ending				
		16-Oct-21	23-Oct-21	30-Oct-21	6-Nov-21	13-Nov-21
Positivity (All Ages)	<8%	16.0%	16.0%	17.3%	21.2%	25.5%
Weekly Cases (All Ages)	<147	958	848	933	1331	1938
Weekly Cases in Children (0-17 years of age)	NA	199	163	219	344	484
Total COVID-19 Hospitalizations (All Ages)	0	34	32	28	30	27
Total Deaths (All Ages)	0	8	9	7	8	13
CDC Risk Transmission Level	Moderate	High	High	High	High	High

Case Trends in the USA and Michigan

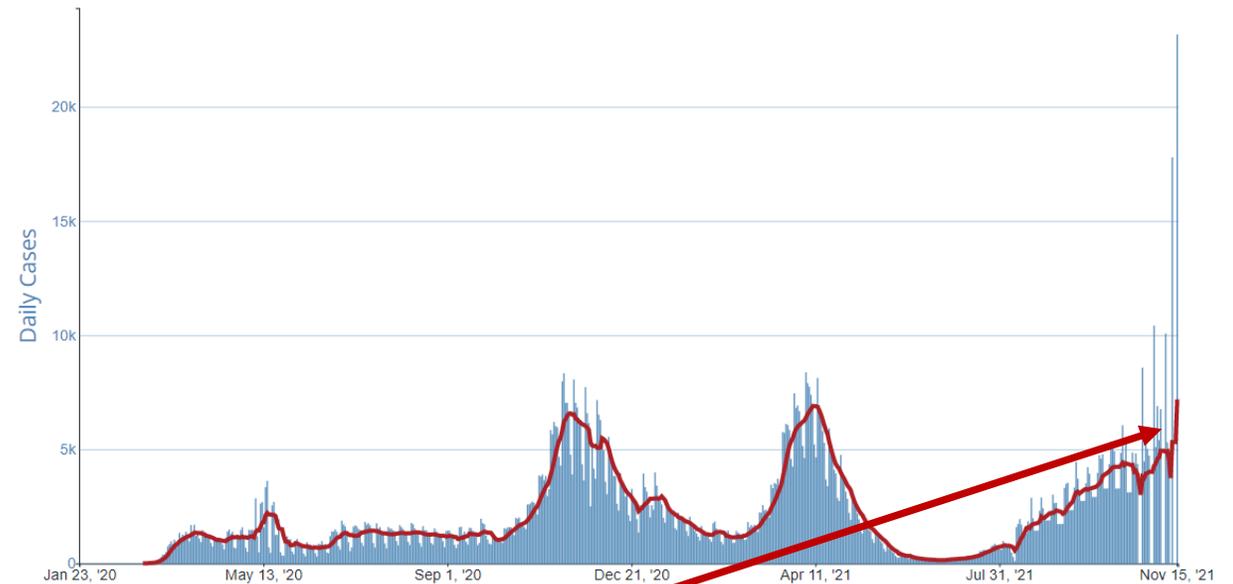
USA

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

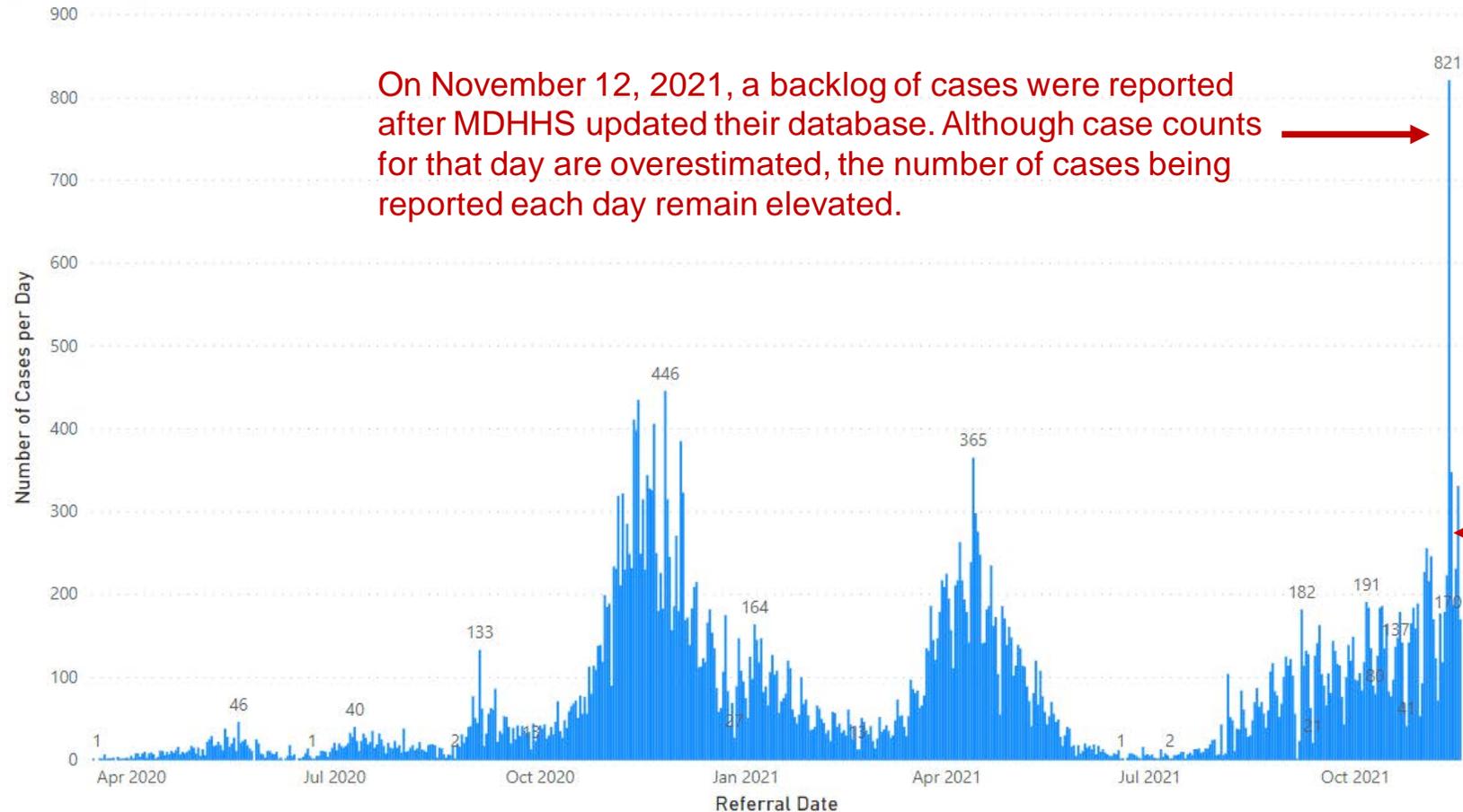


The US and Michigan are both experiencing increasing trends.

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – November 17, 2021

Epidemiological Curve



Total Number of Cases
46,142

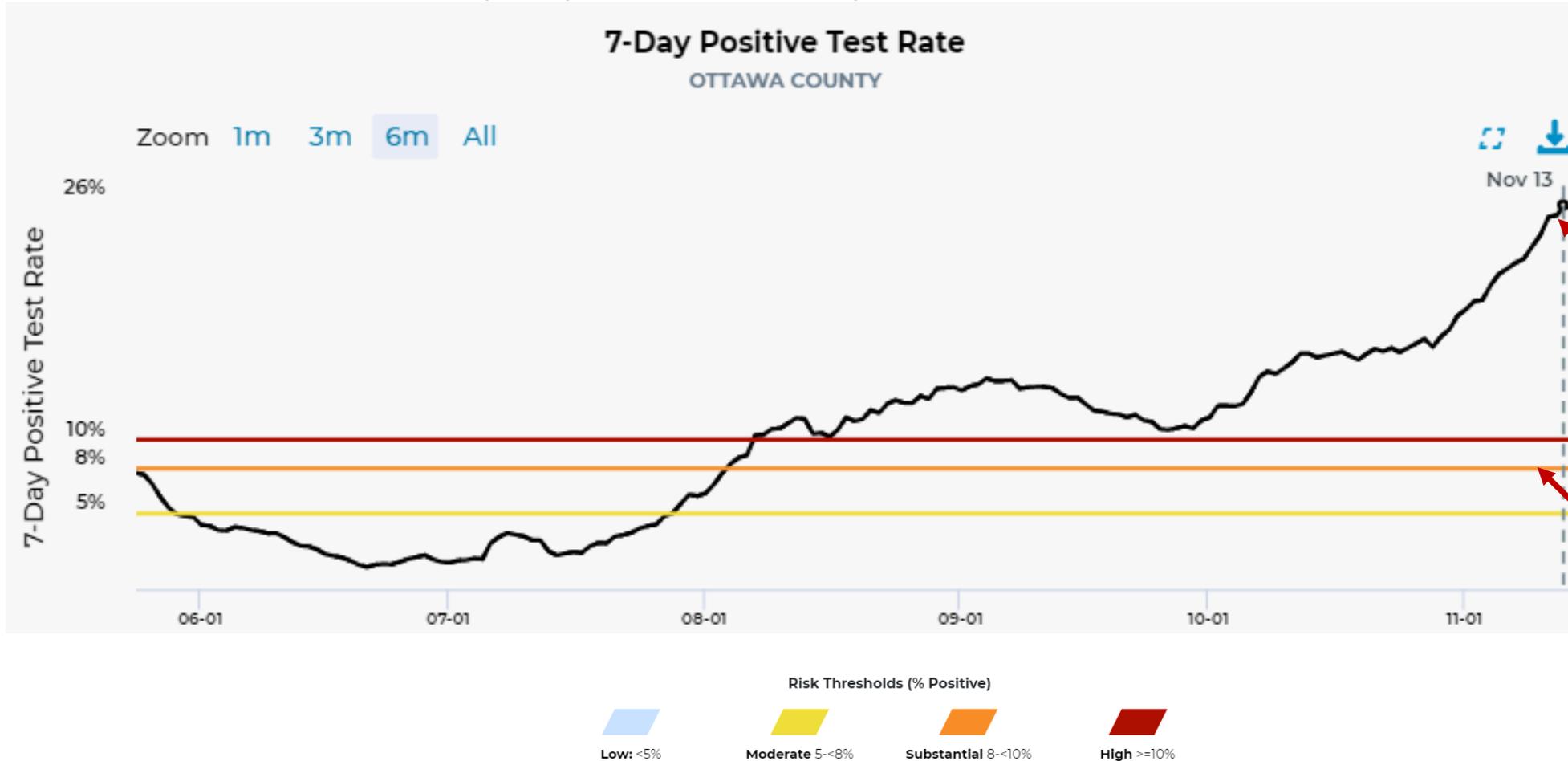
Currently the 7-day average is **295 cases per day**, higher than the 155 cases per day seen at a similar time last week. From week to week, cases **increased 46%** over the last 2 full weeks.

Note: As of November 2021, reports from local stores of a large grocery chain and a national pharmacy chain indicate that supplies of at-home COVID-19 tests remain in high demand. 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, OCDPH has received reports of parents refusing COVID-19 testing for their children ill with respiratory symptoms, which may further deflate case data. 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

Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, June 1, 2021 – November 13, 2021



Test positivity reached 25.5% on November 13, 2021.

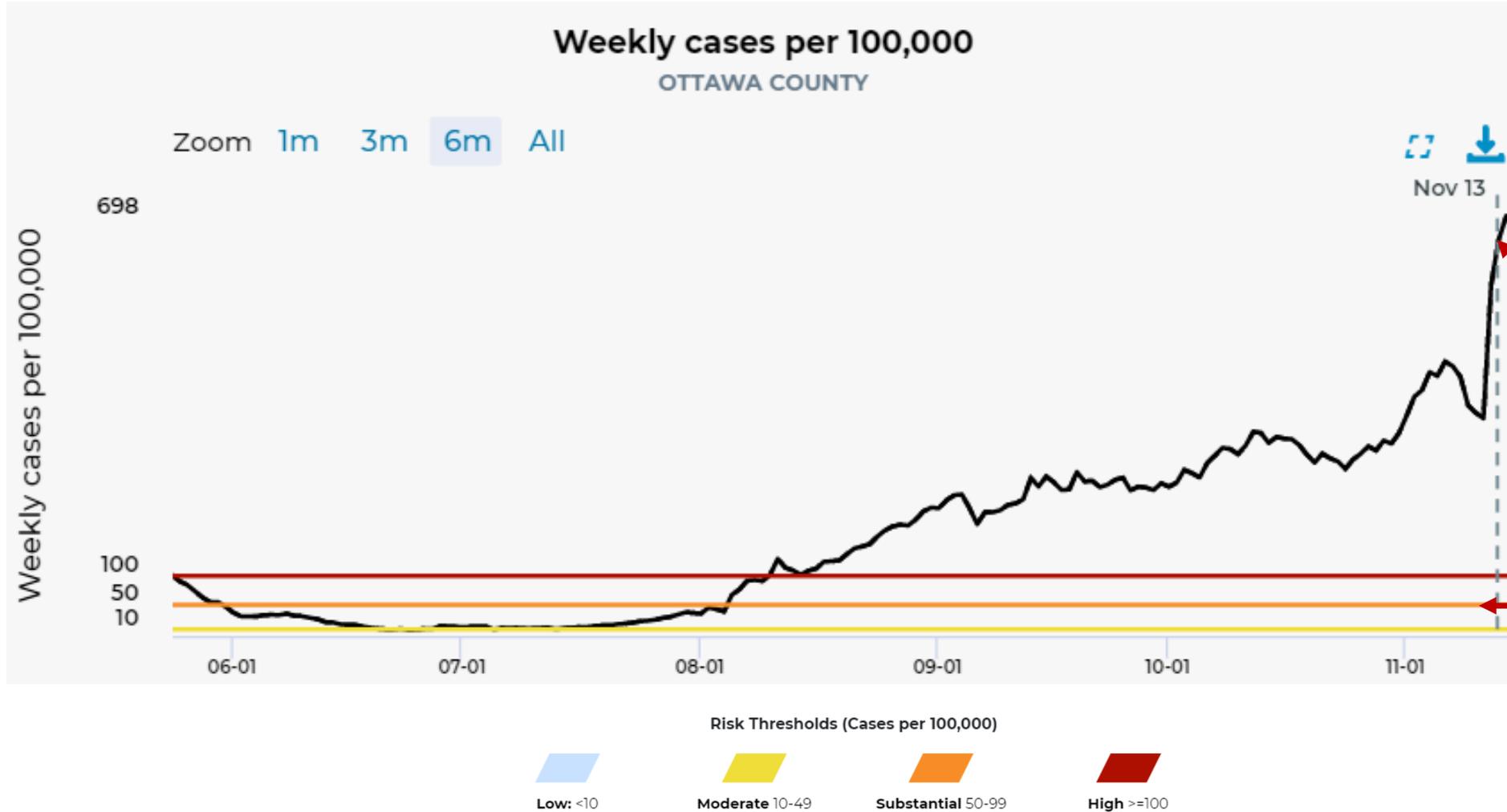
The goal is to have less than 8% of tests coming back positive.

Note: Testing in Ottawa County has remained stable with 6000-8000 tests conducted each week over the last 3 months: [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](https://arcgis.com)

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 – November 13, 2021



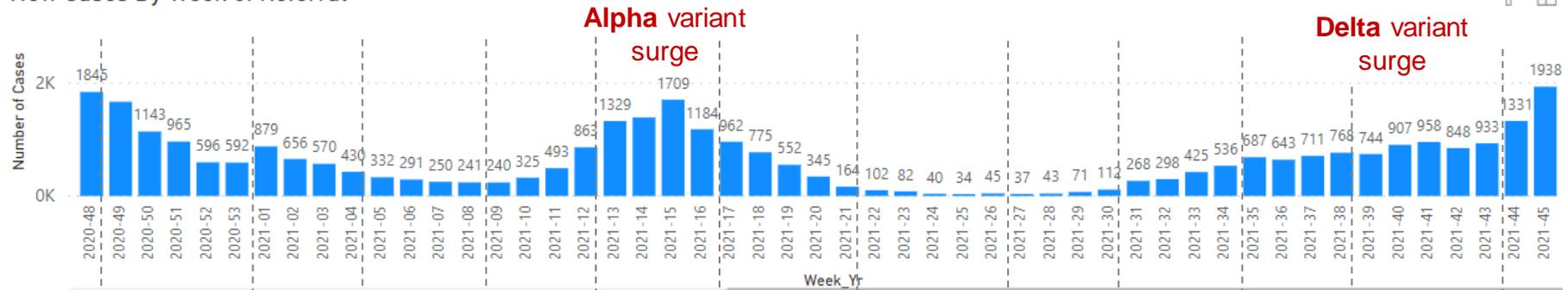
Case rates increased to 659 cases per week per 100,000 population (up from 455 the week prior).

The goal is to have less than 50 cases per week per 100,000 population. In Ottawa County, this would be about 21 cases per day or less.

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

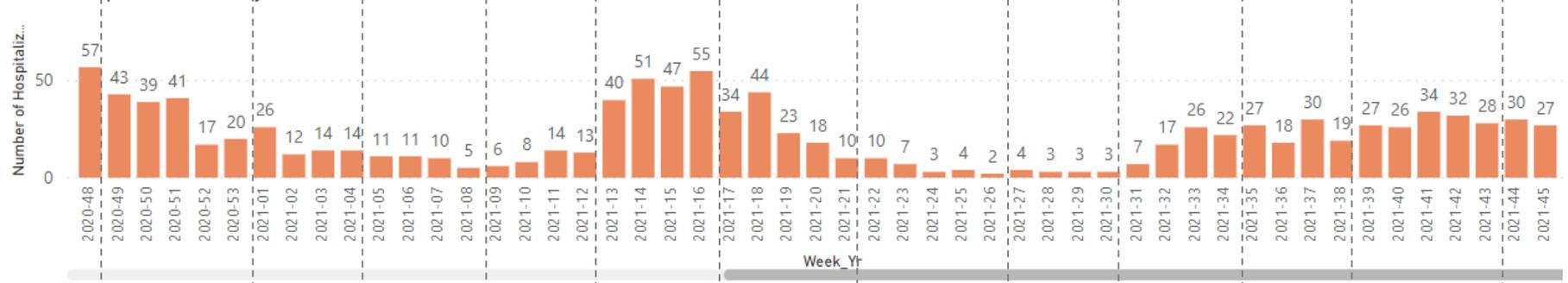
Ottawa County - Cases, Hospitalizations, & Deaths by Week, All Ages

New Cases By Week of Referral



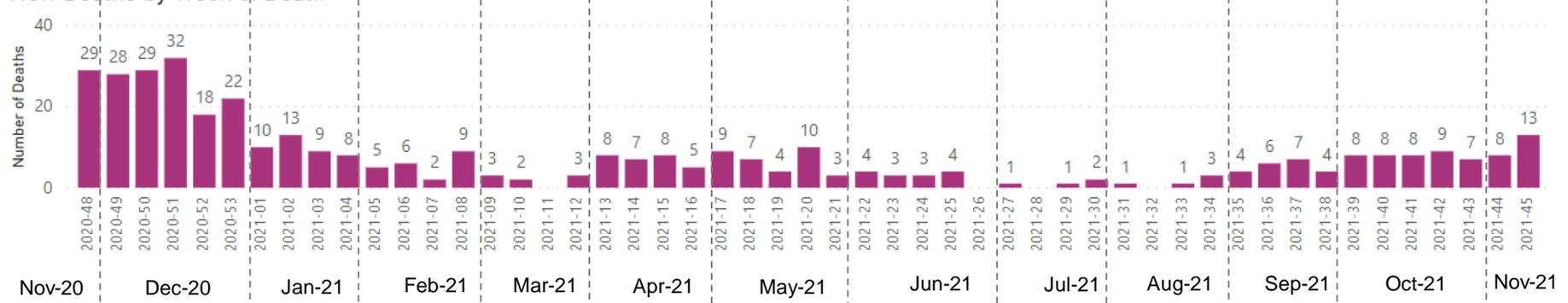
The weekly number of **cases** increased 46% last week.

New Hospitalizations by Week of Admission



The weekly number of **hospitalizations** has been increasing with an average of about **29 cases hospitalized** each week over the last month.

New Deaths by Week of Death



Weekly COVID-19 **deaths** are reaching levels experienced in the spring 2021 wave. Current weekly average of deaths over the last 4 weeks stands at about **9 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	684	-11%	163	-18%	847	-12%
30-Oct-21	714	4%	219	34%	933	10%
6-Nov-21	987	38%	344	57%	1331	43%
13-Nov-21	1454	47%	484	41%	1938	46%

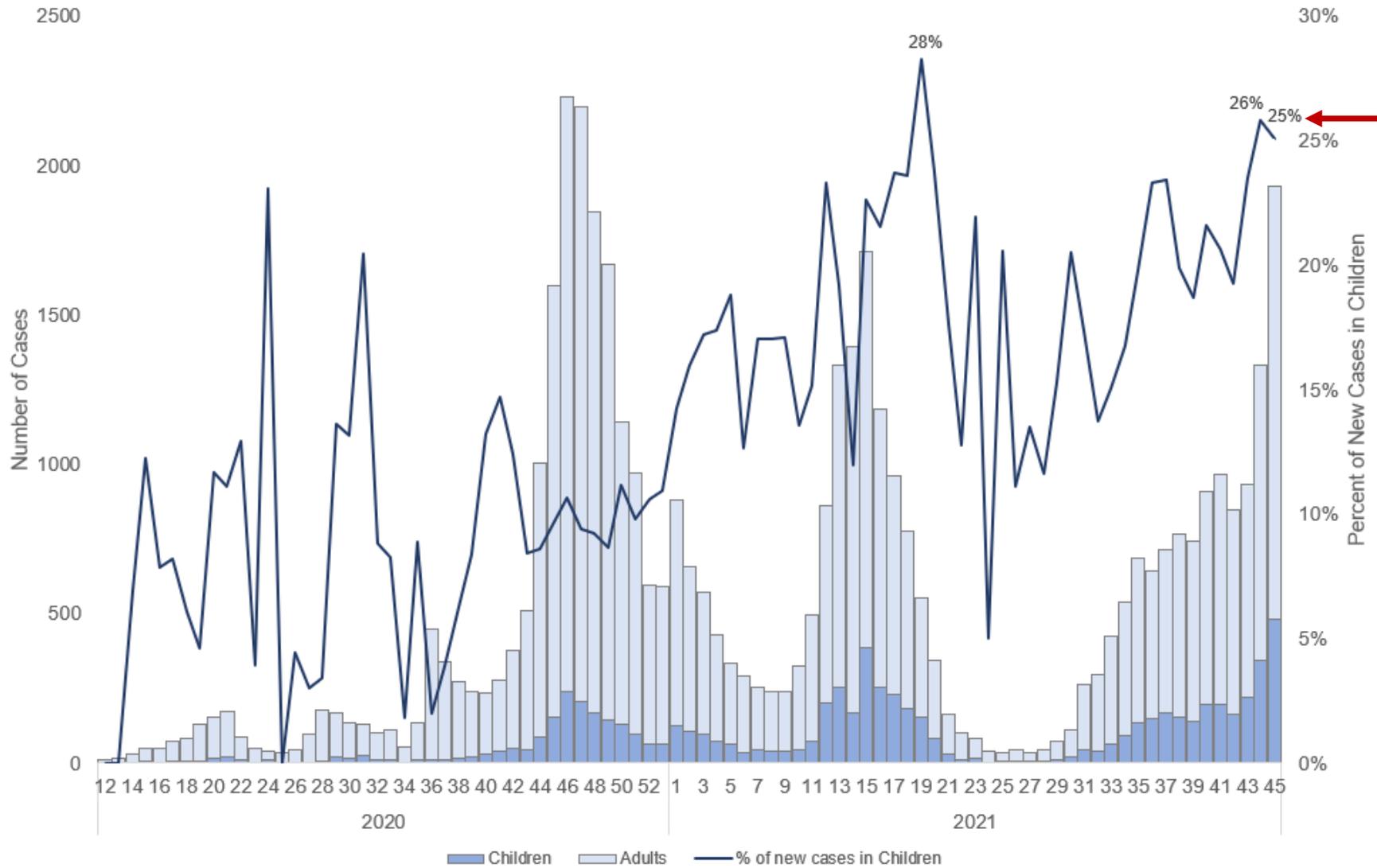
Adults

Children

Weekly case counts among children increased 41% last week, and cases in adults increased 47%.

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

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



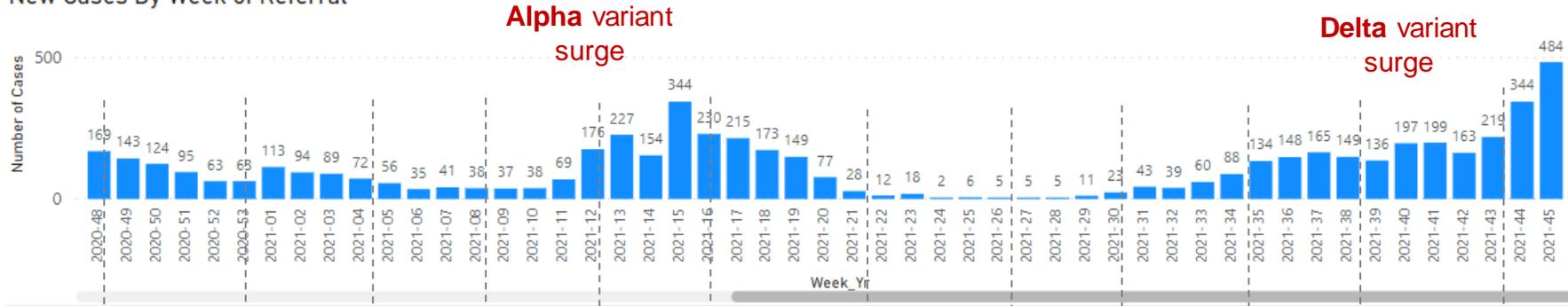
Children make up an increasing proportion of cases reported. This past week, **25% of cases were in children**, the third highest of any week through the entire pandemic. Last week was also 2 consecutive weeks with 25% or more cases among children.

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

Data through Week 45, 2021

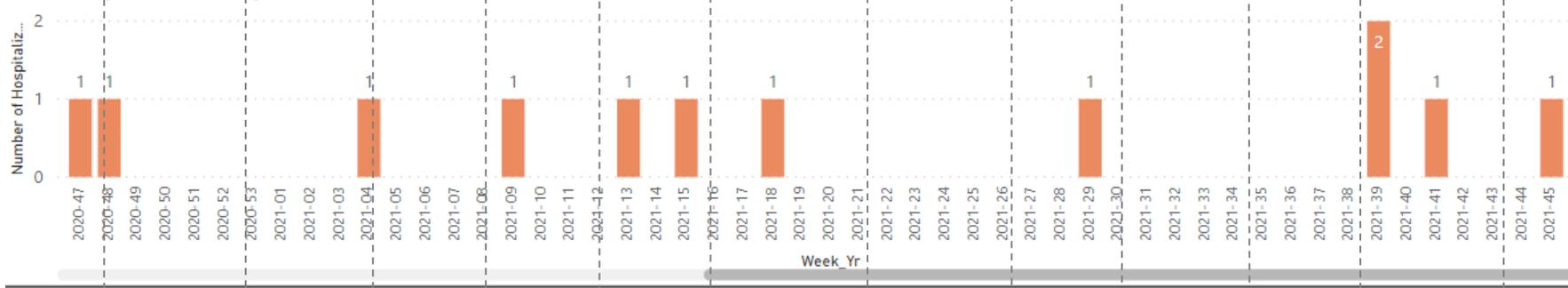
Ottawa County - Cases, Hospitalizations, & Deaths by Week Among Children (0-17 years)

New Cases By Week of Referral



The weekly number of cases among children **increased 41%** in the last 2 full weeks.

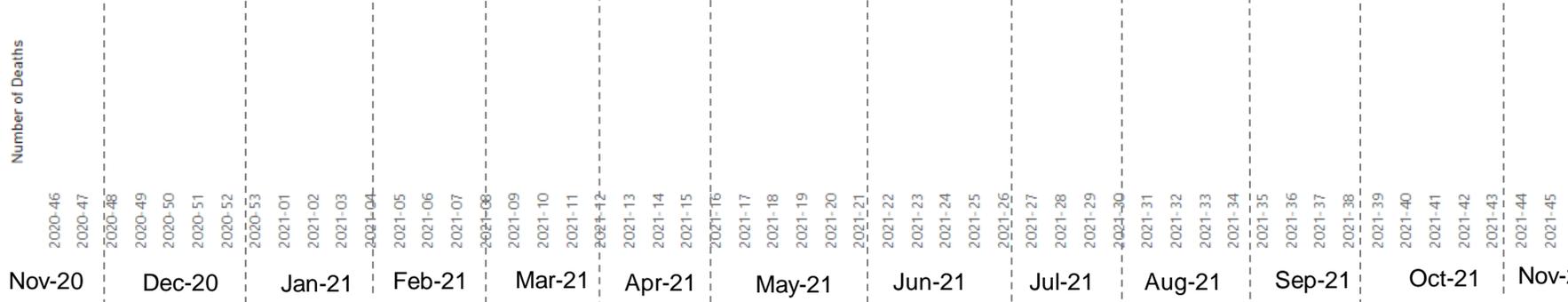
New Hospitalizations by Week of Admission



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.

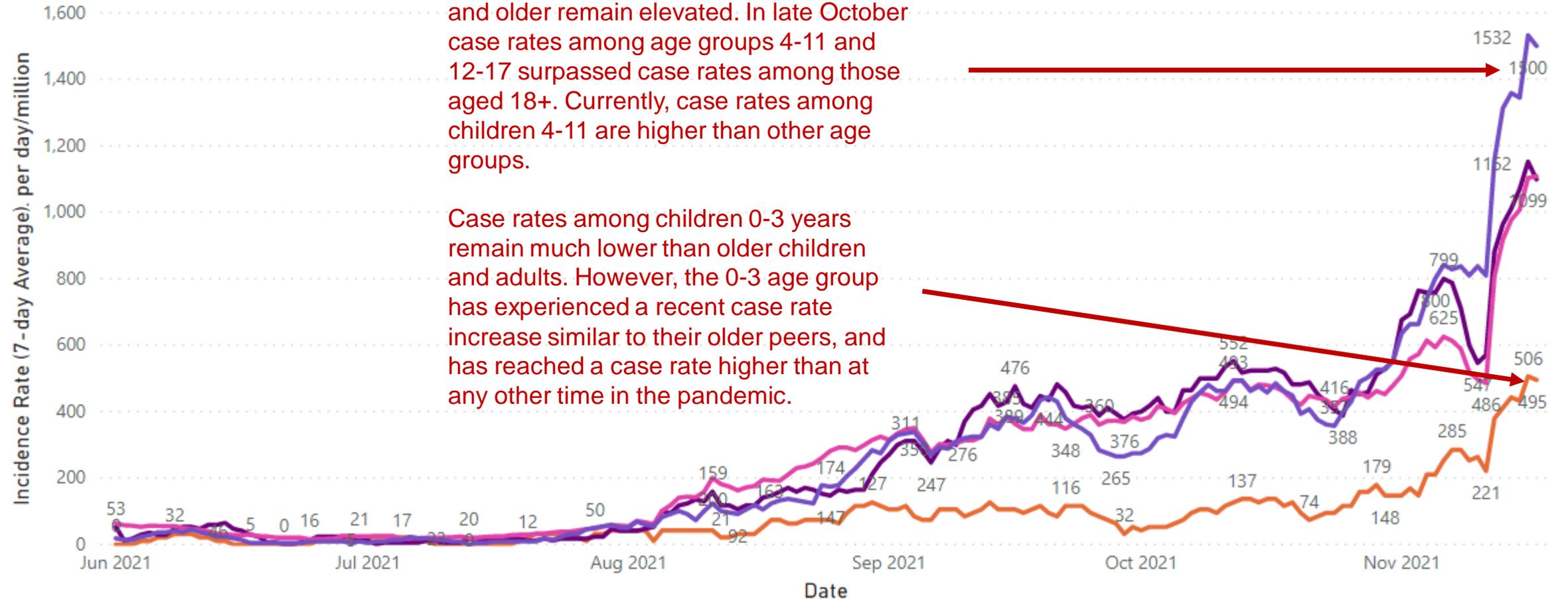
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, June 2021 – November 17, 2021

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



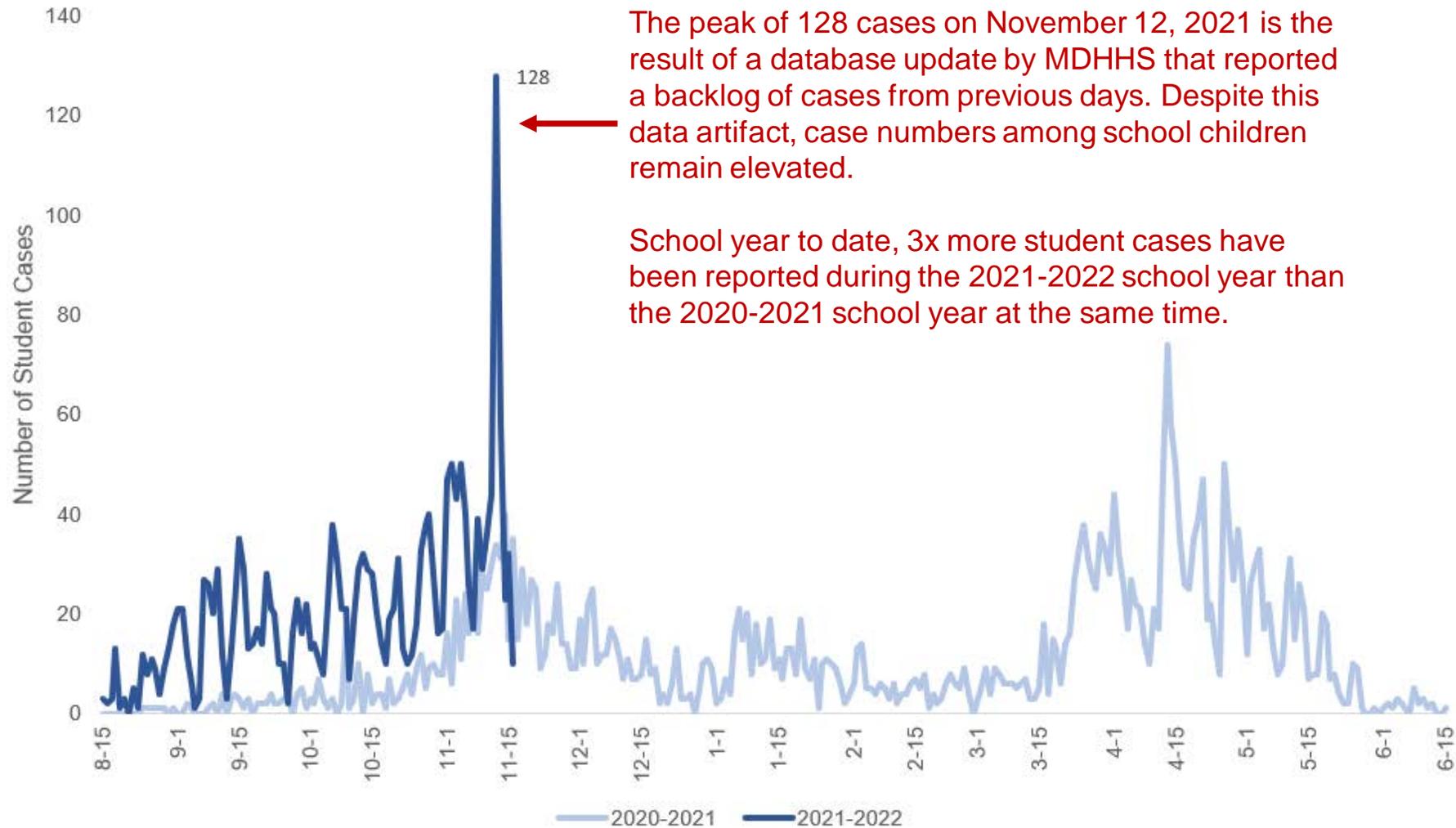
Case rates among children aged 4 years and older remain elevated. In late October case rates among age groups 4-11 and 12-17 surpassed case rates among those aged 18+. Currently, case rates among children 4-11 are higher than other age groups.

Case rates among children 0-3 years remain much lower than older children and adults. However, the 0-3 age group has experienced a recent case rate increase similar to their older peers, and has reached a case rate higher than at any other time in the pandemic.

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

Data as of November 17, 2021

Ottawa County Cases in PreK-12 School Students



The peak of 128 cases on November 12, 2021 is the result of a database update by MDHHS that reported a backlog of cases from previous days. Despite this data artifact, case numbers among school children remain elevated.

School year to date, 3x more student cases have been reported during the 2021-2022 school year than the 2020-2021 school year at the same time.

Method: Includes PreK-12 students known to attend a school in Ottawa County who are classified as a confirmed or probable case of COVID-19.

Note: Data may change as information is updated and methods are refined. Cases reported in 2021 will likely increase.

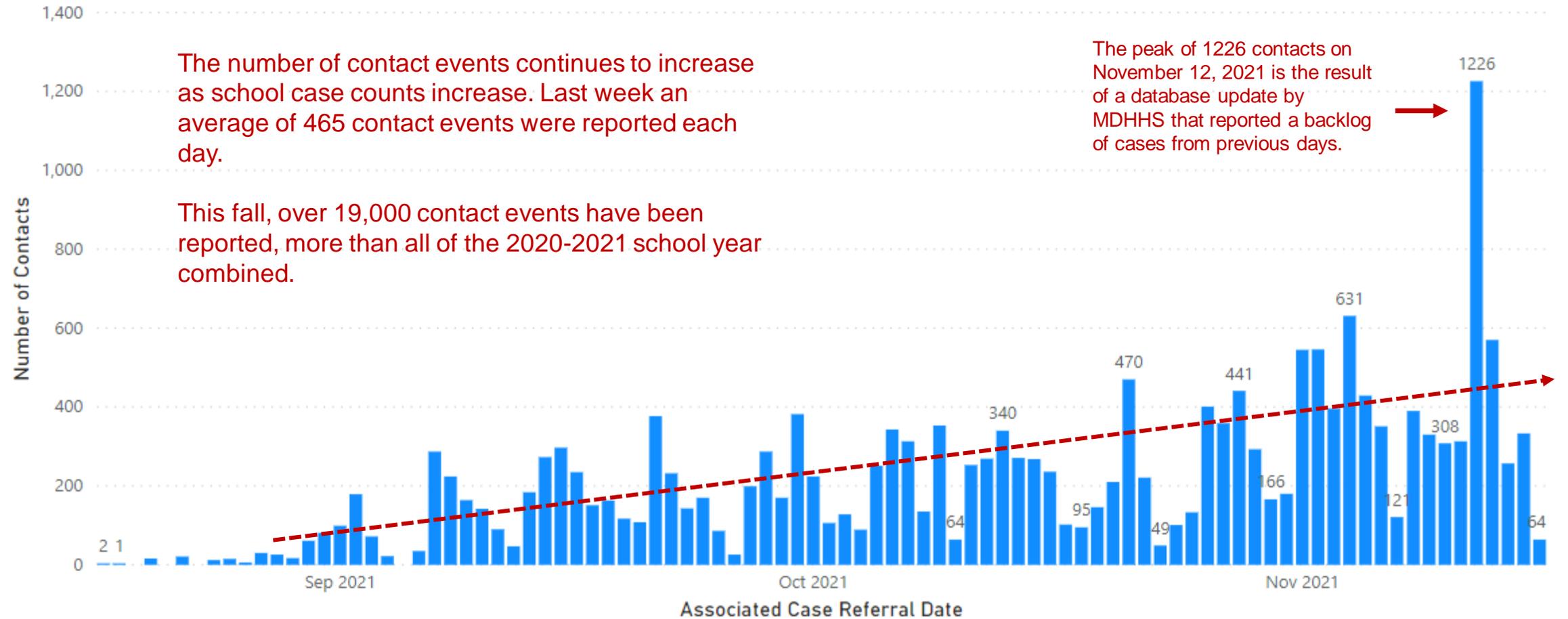
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System; Internal data systems

Data through November 16, 2021

Ottawa County PreK-12 School Contact Events

Contact Events by Day, Ottawa County, August 14, 2021 – November 16, 2021

Contacts by Case Referral Date



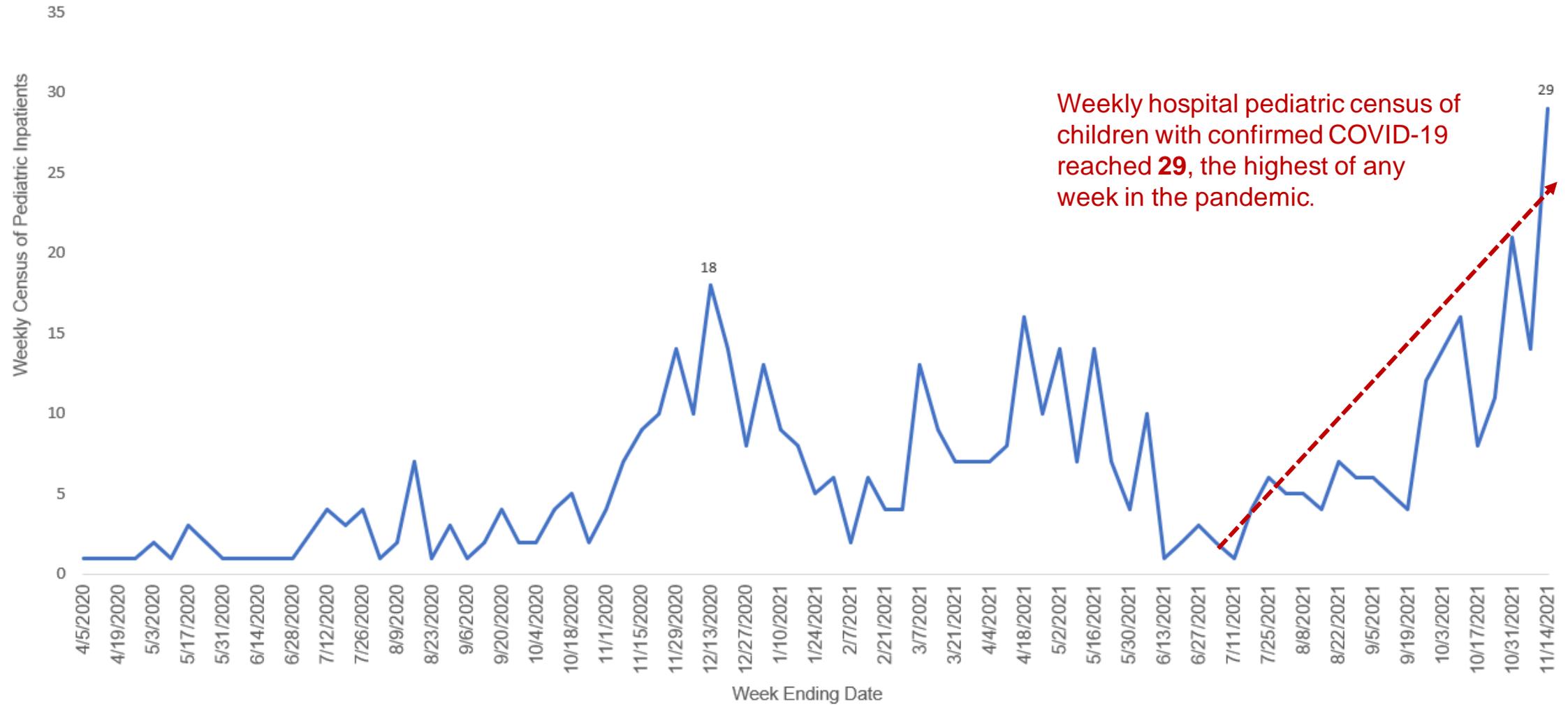
Method: Includes staff and student contact events to confirmed or probable case of COVID-19 in PreK-12 schools in Ottawa County.

Note: Duplicate events may be present.

Source: Internal data systems

Data through November 16, 2021

Weekly Hospital Pediatric Census – A Regional Healthcare System



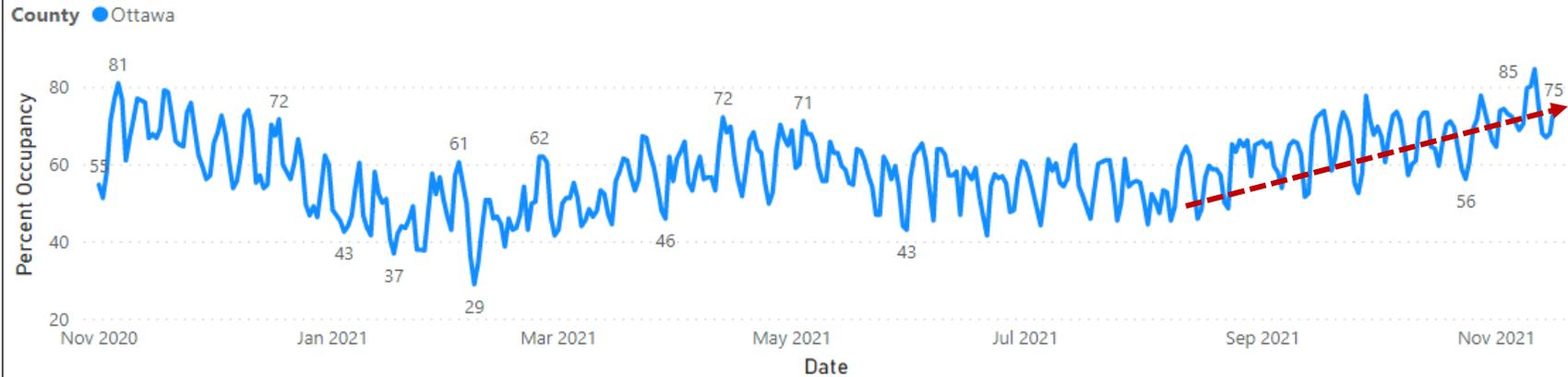
Note: Data above includes persons younger than 18 years of age with confirmed COVID-19 hospitalized at a large regional healthcare system. Patients may be listed in more than one week. Data may change as information is updated. Includes patients that reside in counties across the region, including Ottawa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

Data through November 14, 2021

Ottawa County Hospital Capacity – All Beds

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

Percent Occupancy by Date and County



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

Percent Occupancy by Date and County



Total hospital bed occupancy is **increasing**, as is the proportion of beds occupied by COVID-19 patients.

Currently **25%** of all inpatient beds are occupied by COVID-19 patients.

Source: EMResources

Data through November 16, 2021

Ottawa County Hospital Capacity – ICU Beds

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

Percent Occupancy by Date and County



Overall ICU bed occupancy **remains elevated**.

The proportion of ICU beds occupied by COVID-19 patients is **increasing**. Currently, **35%** of ICU beds are occupied by COVID-19 patients.

COVID ICU Bed Occupancy (COVID Patients Only, Confirmed and Suspected)

Percent Occupancy by Date and County

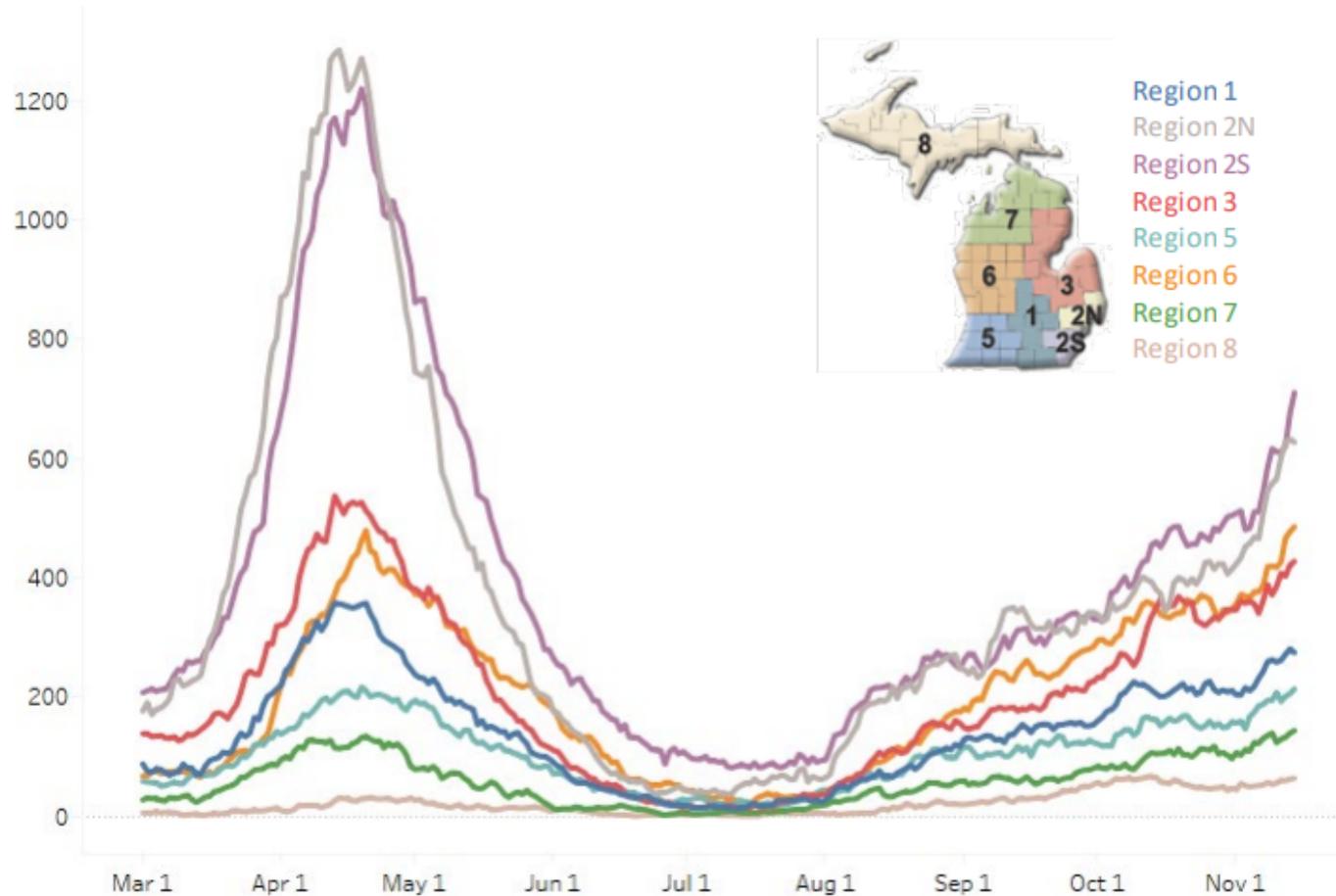


Data through November 16, 2021

Source: EMResources

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 3/1/2021 – 11/14/2021
Confirmed Positive by Region



The census of COVID+ patients have increased across all regions. Region 2S had the fastest growth this week.

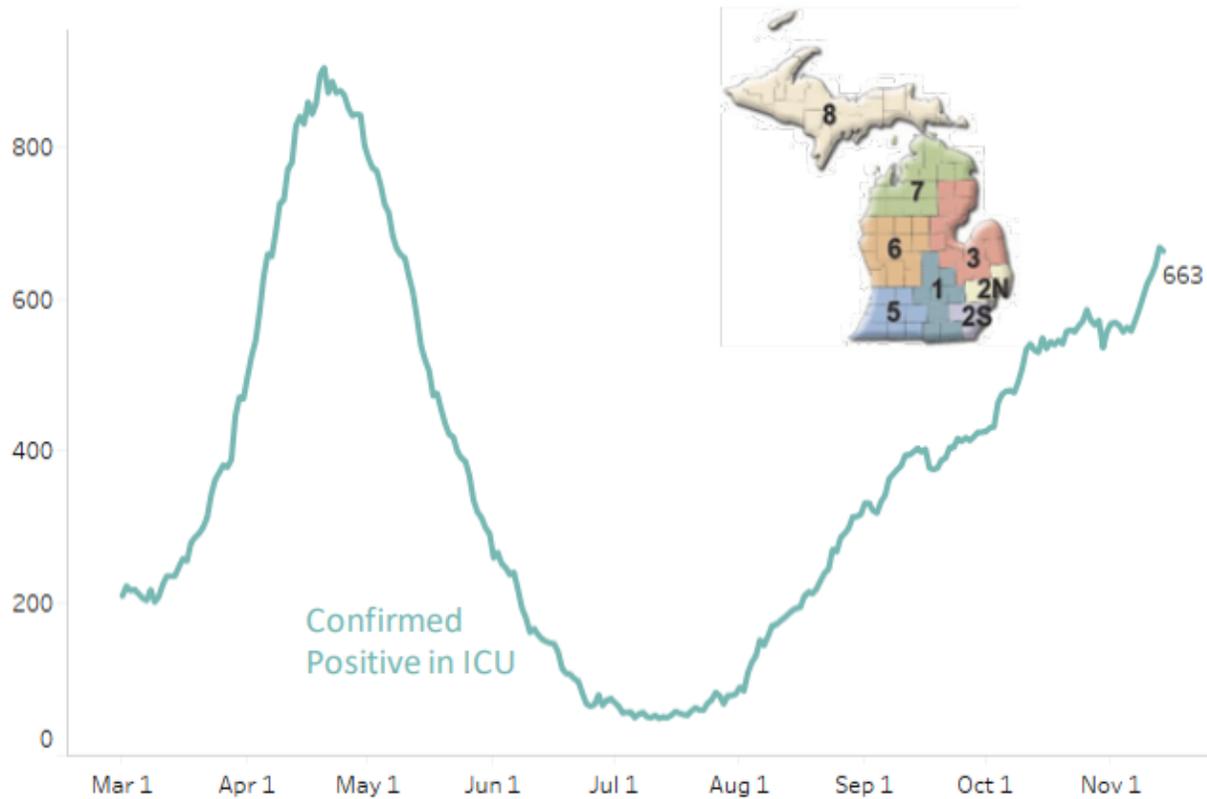
Regions 2S, 3, and 6 now have greater than 300 people hospitalized per Million population.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	274 (6%)	253/M
Region 2N	627 (15%)	283/M
Region 2S	710 (21%)	319/M
Region 3	427 (10%)	377/M
Region 5	213 (10%)	223/M
Region 6	485 (16%)	331/M
Region 7	143 (6%)	286/M
Region 8	63 (13%)	202/M

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20211116_Data_and_modeling_update_vMEDIA_741480_7.pdf

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 11/14/2021
Confirmed Positive in ICUs



Overall, the census of COVID+ patients in ICUs has increased 13% from last week. 7/8 Regions experienced growth.

Regions 1, 3, and 7 have overall adult ICU occupancy greater than or equal to 85%. Regions 1, 3, 6, 7 and 8 have more than 30% of ICU beds filled with COVID+ patients. Region 6 has >40% of 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	69 (41%)	93%	36%
Region 2N	119 (6%)	83%	21%
Region 2S	146 (11%)	84%	21%
Region 3	107 (26%)	91%	31%
Region 5	46 (2%)	77%	25%
Region 6	110 (10%)	83%	41%
Region 7	47 (-2%)	88%	33%
Region 8	19 (12%)	70%	30%

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20211116_Data_and_modeling_update_vMEDIA_741480_7.pdf

Pediatric Hospitalization Rates – USA, Georgia, Michigan

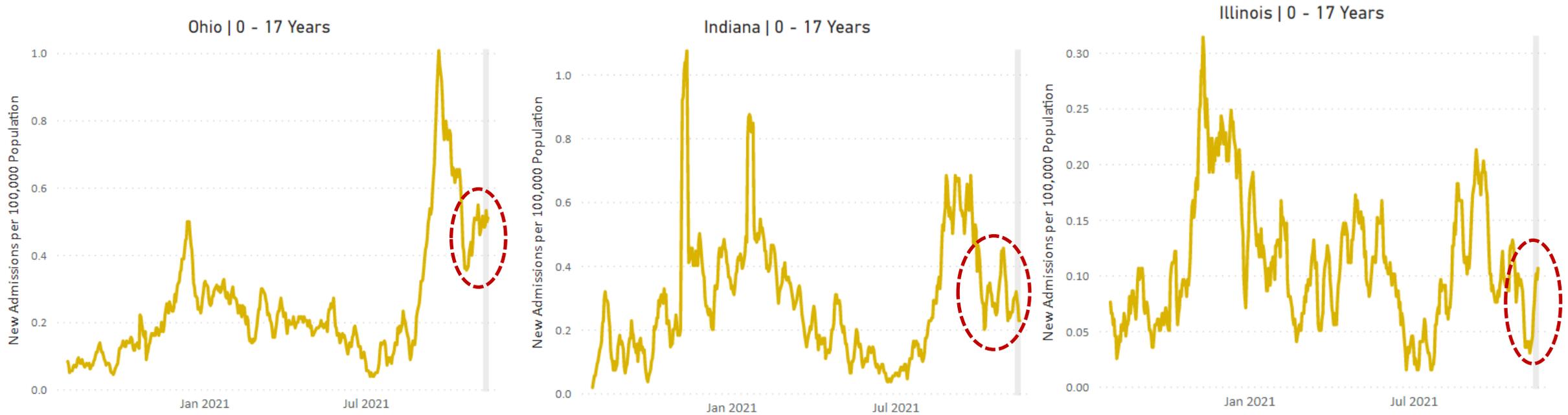


Pediatric hospitalization rates across the United States may be rebounding after a substantial decline. Most southern states (such as Georgia) have decreased substantially. Michigan pediatric hospitalization rates continue to increase, reaching some of the highest rates experienced through the entire pandemic.

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

Accessed November 17, 2021

Pediatric Hospitalization Rates – Select Midwest States

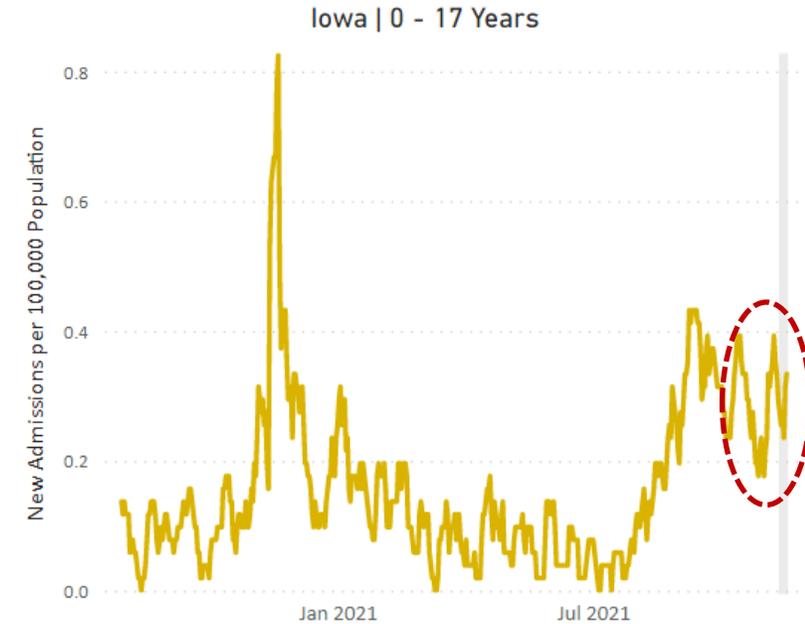
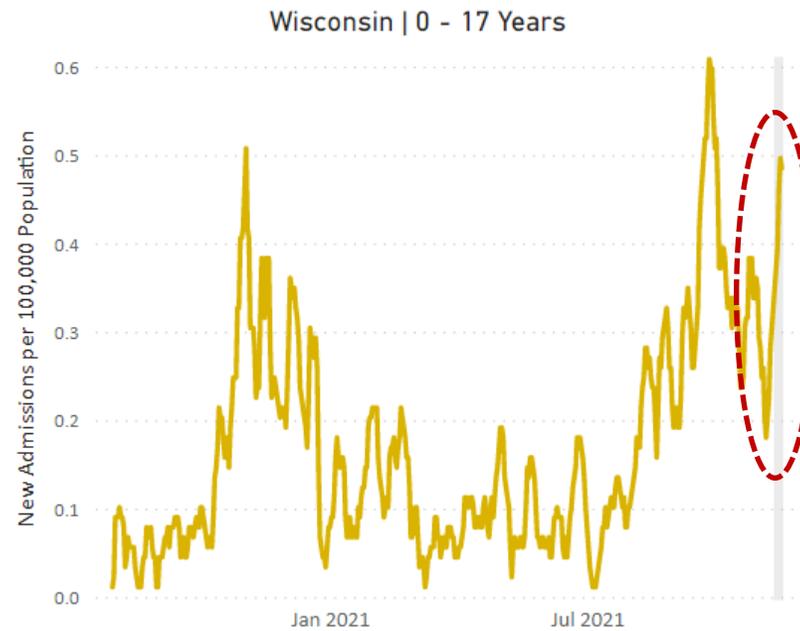
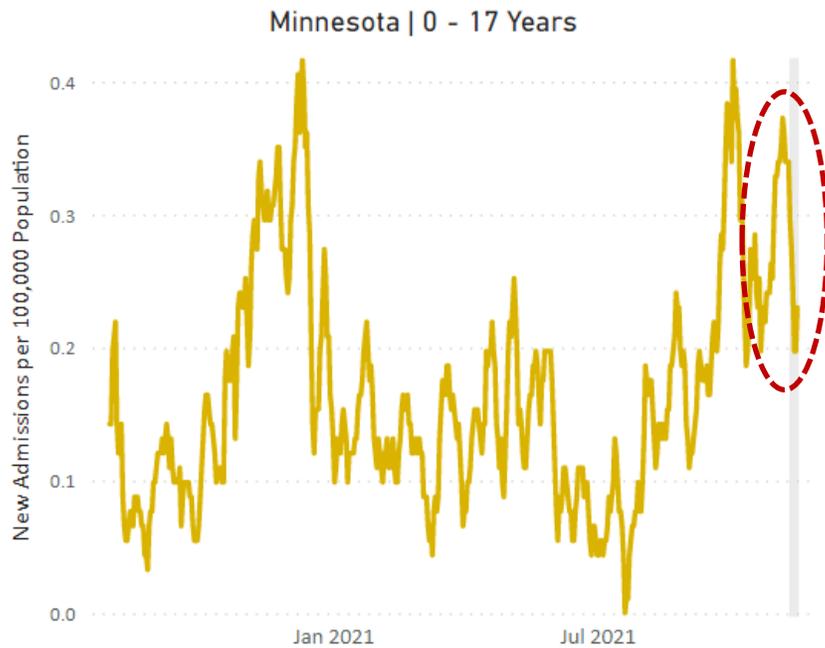


Pediatric hospitalization rates in some states across the Midwest are elevated. Ohio remains higher than usual and is showing a recent rebound. Indiana has plateaued while Illinois pediatric hospitalization rates may be rebounding.

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

Accessed November 17, 2021

Pediatric Hospitalization Rates – Select Midwest States

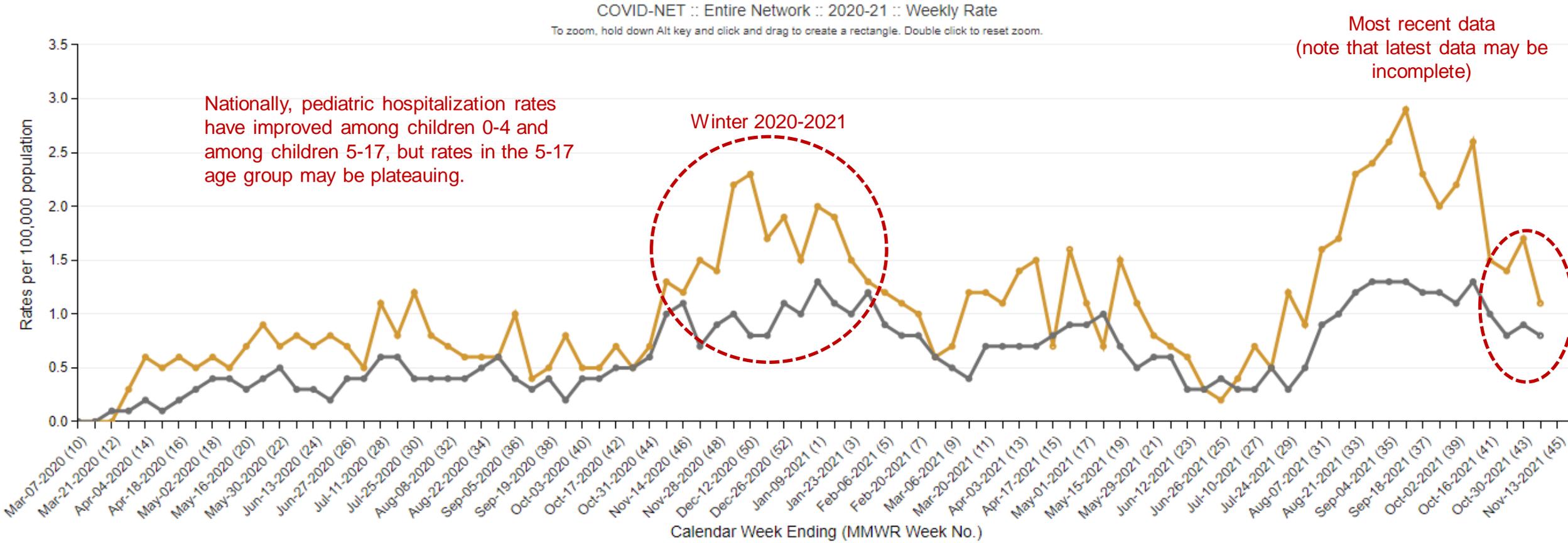


Pediatric hospitalization rates in Minnesota, and Wisconsin remain elevated, with Iowa showing a general plateau.

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

Accessed November 17, 2021

Pediatric Hospitalization Rates by Age Group – USA

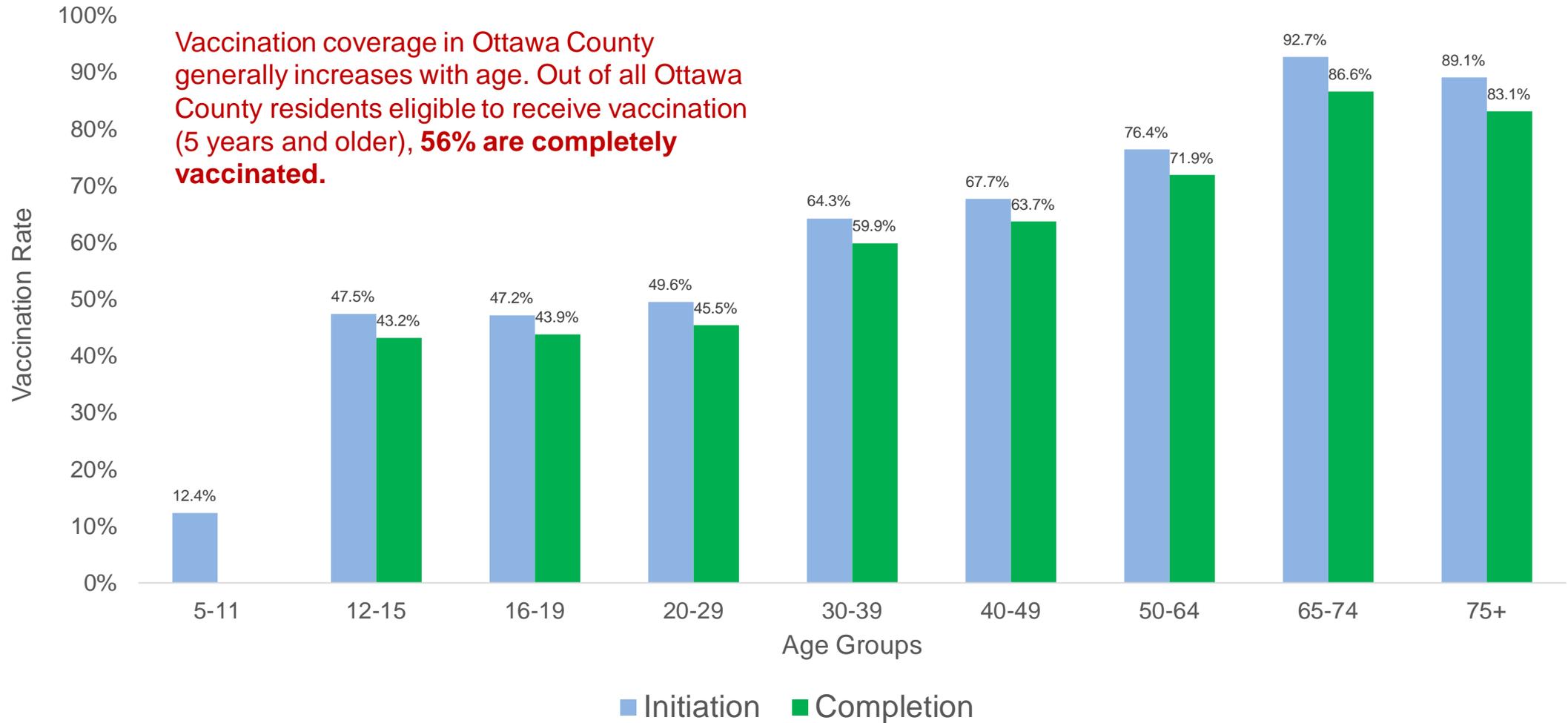


The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each 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 November 17, 2021

Vaccination Coverage by Age

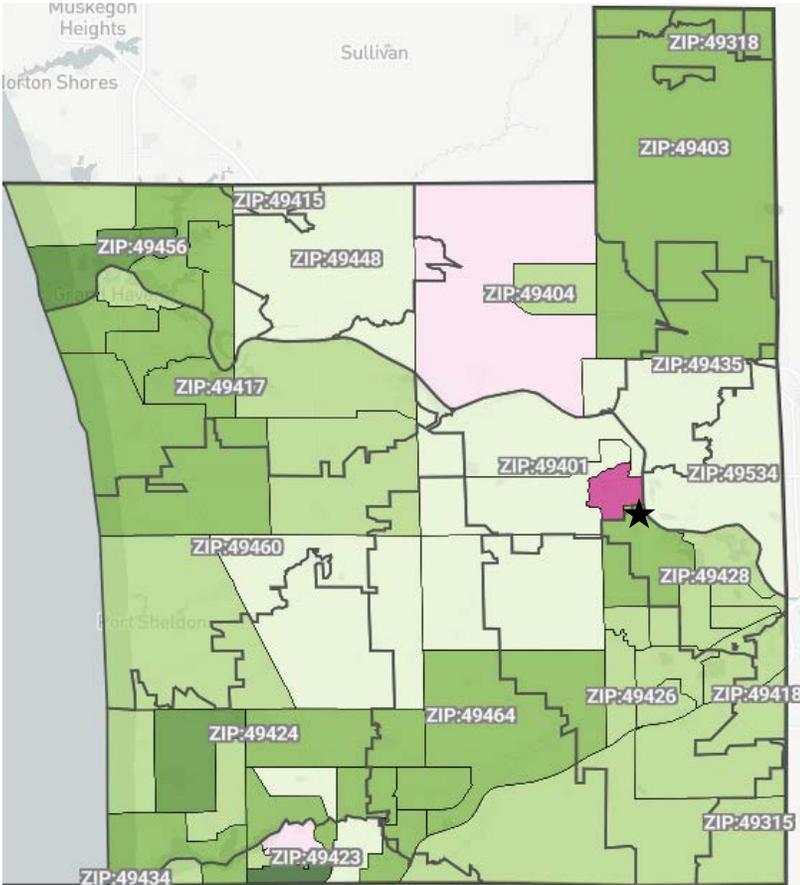


Source: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

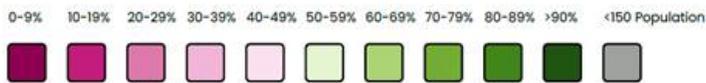
Data through November 17, 2021

Vaccination Coverage by Place of Residence

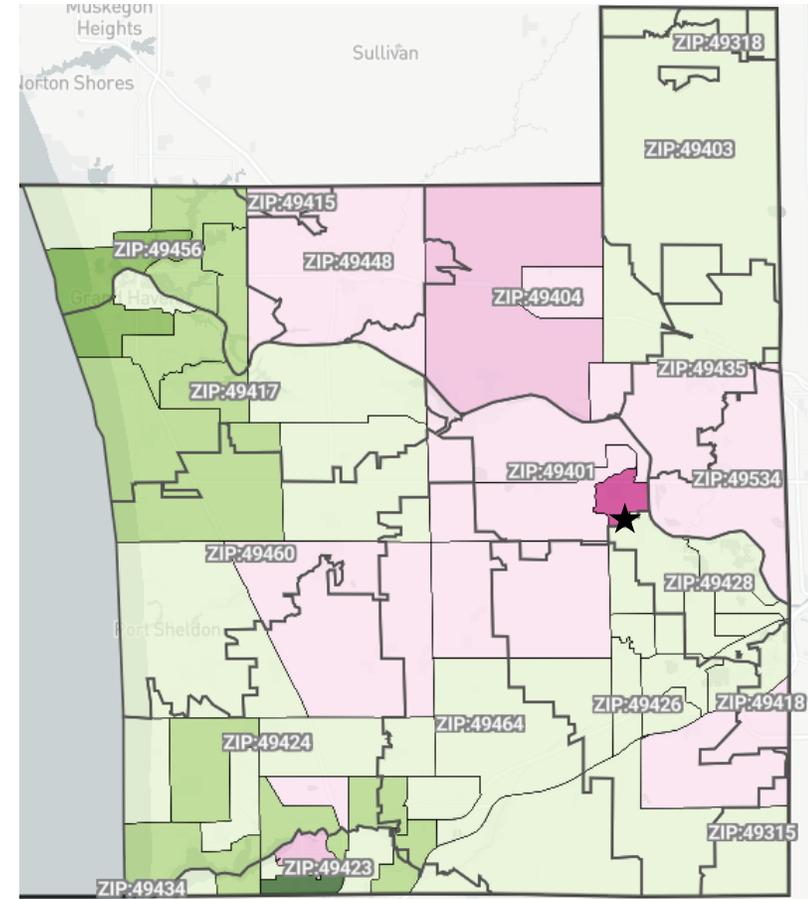
Fully vaccinated: % Ages 16+ years



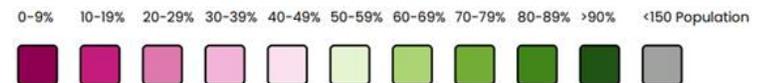
Color coded by: Fully Vaccinated (% Ages 16+)



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.

Source: MI-Lighthouse Internal Dashboard

Cumulative Cases by Vaccination Status, Ottawa County, January 15, 2021 – November 13, 2021

Fully Vaccinated People (153,691)		
Cases	Hospitalizations	Deaths
Percent of Cases in People Not Fully Vaccinated (21,202 / 25,173) 84.2%	Percent of Hospitalizations in People Not Fully Vaccinated (676 / 846) 79.9%	Percent of Deaths in People Not Fully Vaccinated (144 / 191) 75.4%
Total Cases Not Fully Vaccinated 21,202	Total Hospitalized Not Fully Vaccinated 676	Total Deaths Not Fully Vaccinated 144
Total Breakthrough Cases 3,971	Total Breakthrough Hospitalizations 170	Total Breakthrough Deaths 47
Percent of Fully Vaccinated People who Developed COVID-19 (3,971 / 153,691) 2.584%	Percent of Fully Vaccinated People who were Hospitalized for COVID-19 (170 / 153,691) 0.111%	Percent of Fully Vaccinated People who Died of COVID-19 (47 / 153,691) 0.031%
Percent of Cases who were Fully Vaccinated (3,971 / 25,173) 15.8%	Percent of Hospitalizations who were Fully Vaccinated (170 / 191) 20.1%	Percent of Deaths who were Fully Vaccinated (47 / 191) 24.6%
Total Cases 25,173	Total Hospitalizations 846	Total Deaths 191

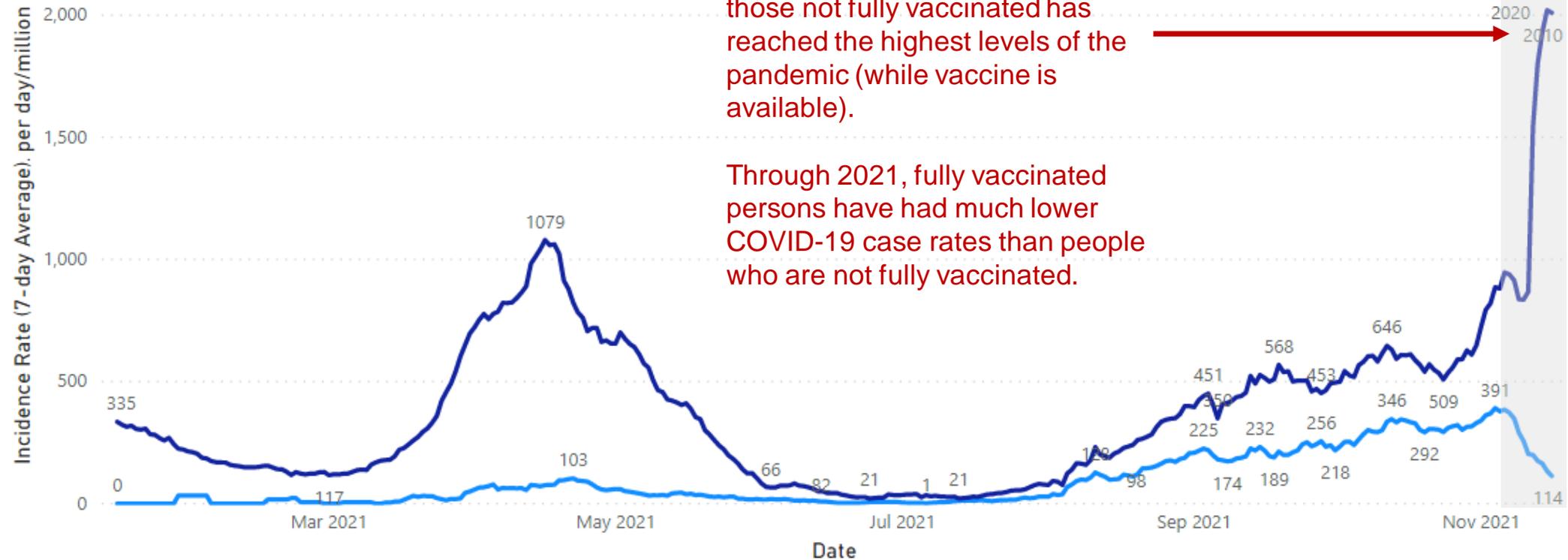
Sources:
Michigan Department of Health and Human Services, Michigan Disease Surveillance System
MDHHS COVID-19 Dashboard: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

Incidence Rate (7-day Average)

rategroup ● Fully Vaccinated ● Not Fully Vaccinated

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



The COVID-19 case rates among those not fully vaccinated has reached the highest levels of the pandemic (while vaccine is available).

Through 2021, fully vaccinated persons have had much lower COVID-19 case rates than people who are not 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.

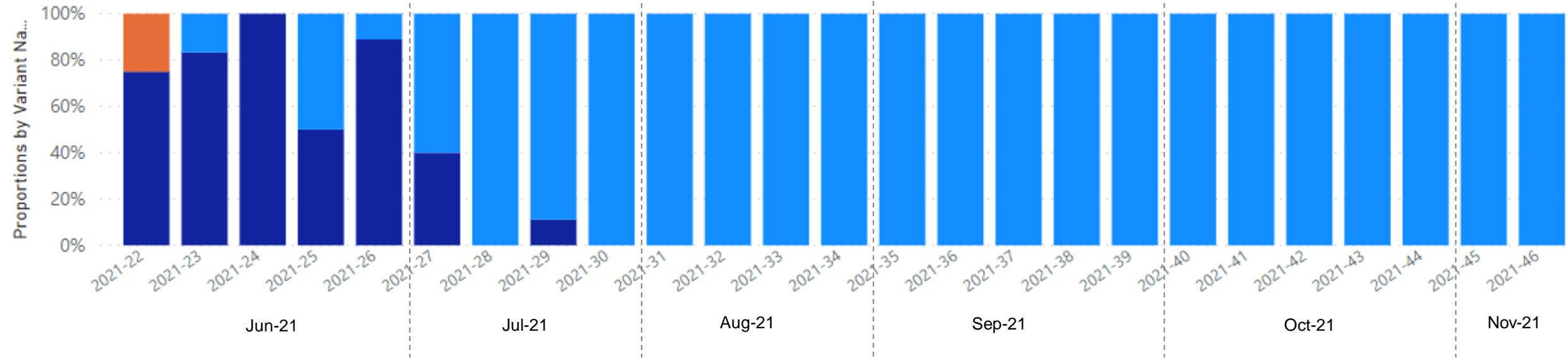
Sources:

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

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.

* 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 – Wastewater Sampling – Holland/Zeeland

Sample Date	Site	Wuhan (parental)	Alpha	Beta	Gamma	Delta	Epsilon
9/2/2021	North Holland	Y	N	N	N	N	N
9/3/2021	Zeeland	N	N	N	N	Y	N
9/6/2021	North Holland	Y	N	N	N	Y	N
9/7/2021	Zeeland	N	N	N	N	N	N
9/9/2021	North Holland	N	N	N	N	Y	N
9/10/2021	Zeeland	N	N	N	N	Y	N
9/14/2021	Zeeland	N	N	N	N	Y	N
9/16/2021	North Holland	N	N	N	N	N	N
9/21/2021	Zeeland	N	N	N	N	Y	N
9/22/2021	North Holland	N	N	N	N	N	N
9/23/2021	Zeeland	N	N	N	N	Y	N
9/26/2021	North Holland	Y	N	N	N	Y	N
9/29/2021	North Holland	N	N	N	N	Y	N
9/30/2021	Zeeland	N	N	N	N	Y	N
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
10/17/2021	North Holland	Y	N	N	N	Y	N
10/11/2021	Zeeland	N	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
10/24/2021	North Holland	N	N	N	N	Y	N
10/21/2021	Zeeland	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
11/3/2021	North Holland	N	N	N	N	Y	N
11/7/2021	North Holland	N	N	N	N	Y	N
11/1/2021	Zeeland	N	N	N	N	Y	N
11/4/2021	Zeeland	N	N	N	N	Y	N
11/8/2021	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 October and early November 2021, with no other variants detected in that same time frame. This data indicate that Delta remains the dominant variant in Ottawa County; with little evidence of Delta being supplanted by a competing variant.

Source: Hope College Global Water Research Institute as part of the MDHHS SEWER-Network, Aaron Best, Ph.D. (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 ¹ 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*

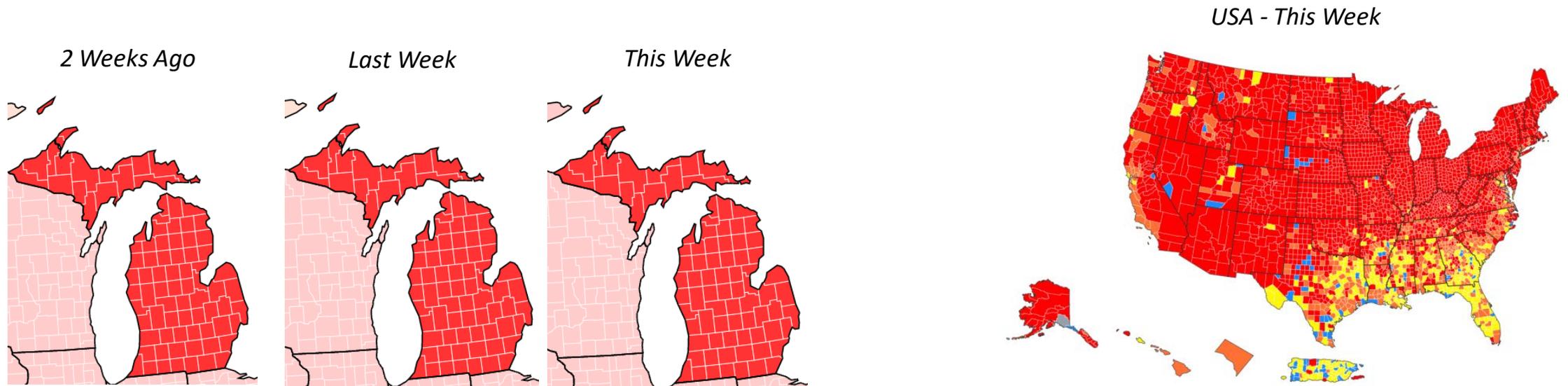
Ottawa is in the High category right now

*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 **13+** weeks)
- Current Data:
 - Positivity = 24.4%
 - Case Rate = 692.87 cases per week per 100,000



Data through November 14, 2021 for positivity and November 16, 2021 for case rates

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

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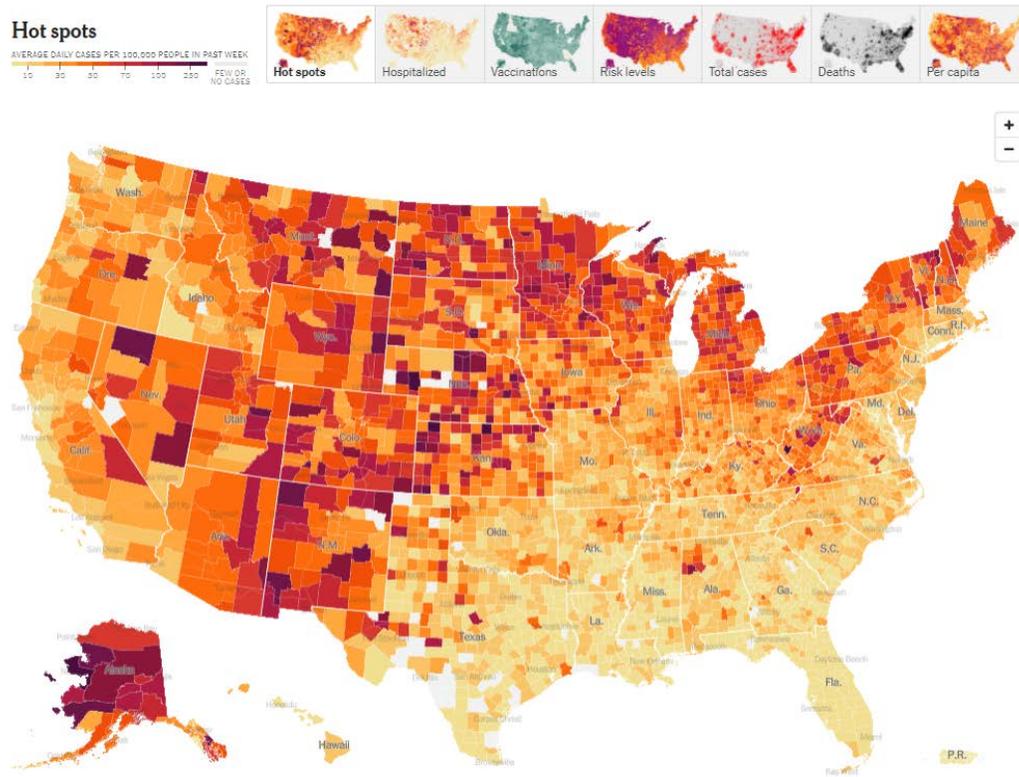
Other

Media

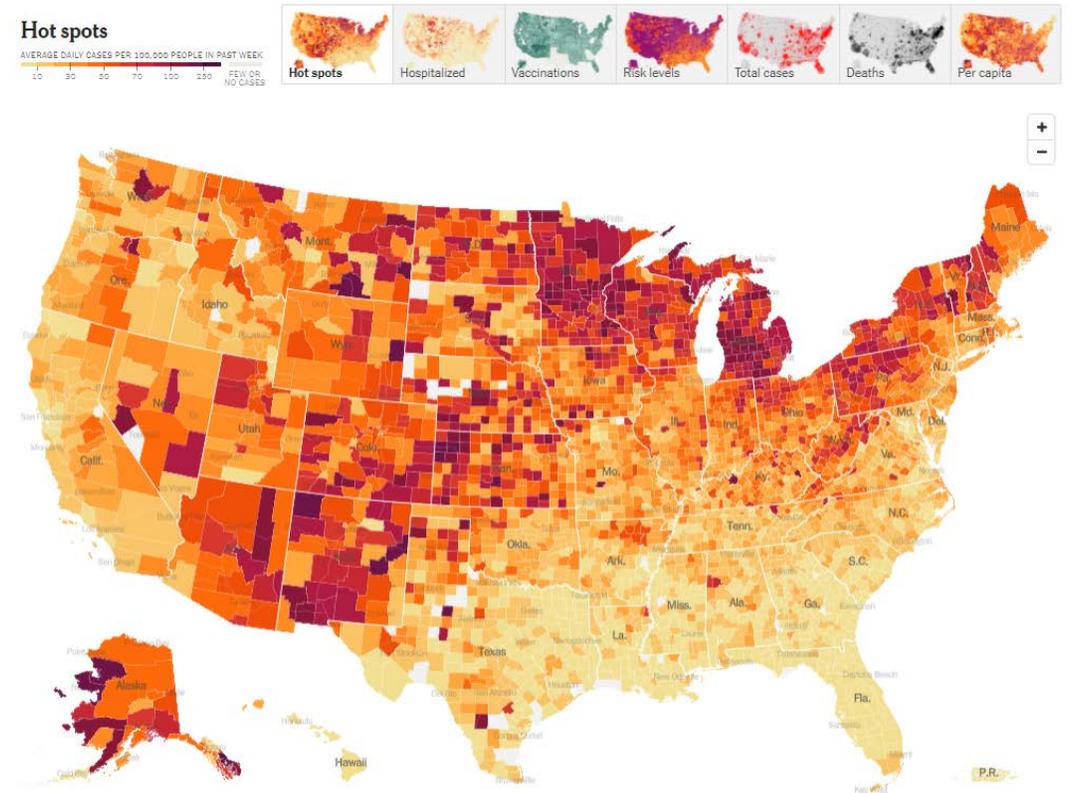
Science Roundup

COVID-19 Case Rates by County Across the US

Last Week



This Week



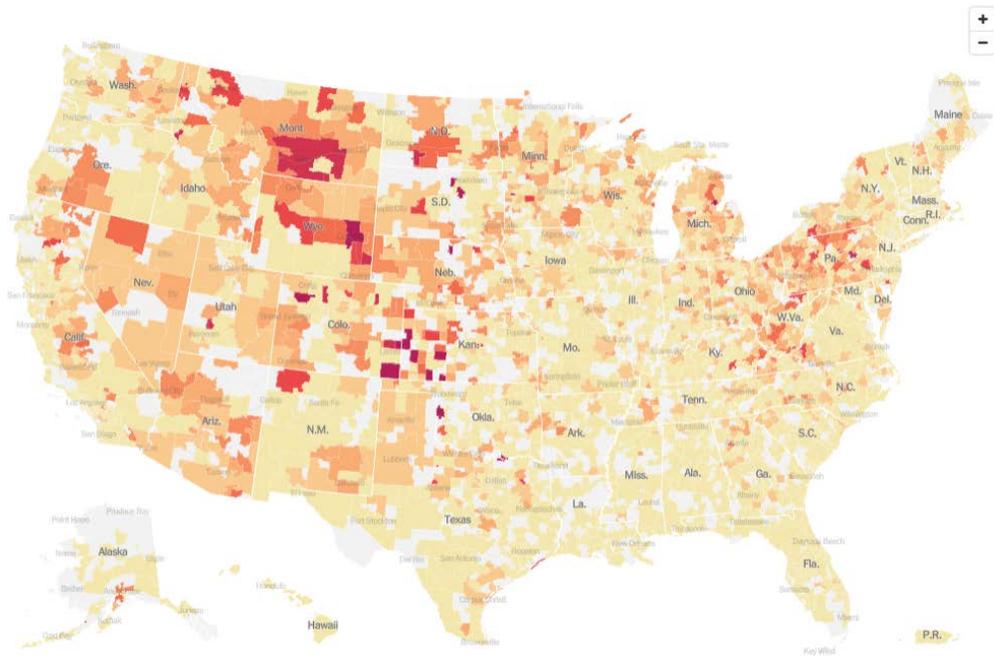
Case rates in the deep South have improved substantially and Appalachia remains stable. Many midwestern states, Alaska, the upper Midwest, and New England are experiencing elevated case rates. Michigan is experiencing particularly elevated case rates.

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

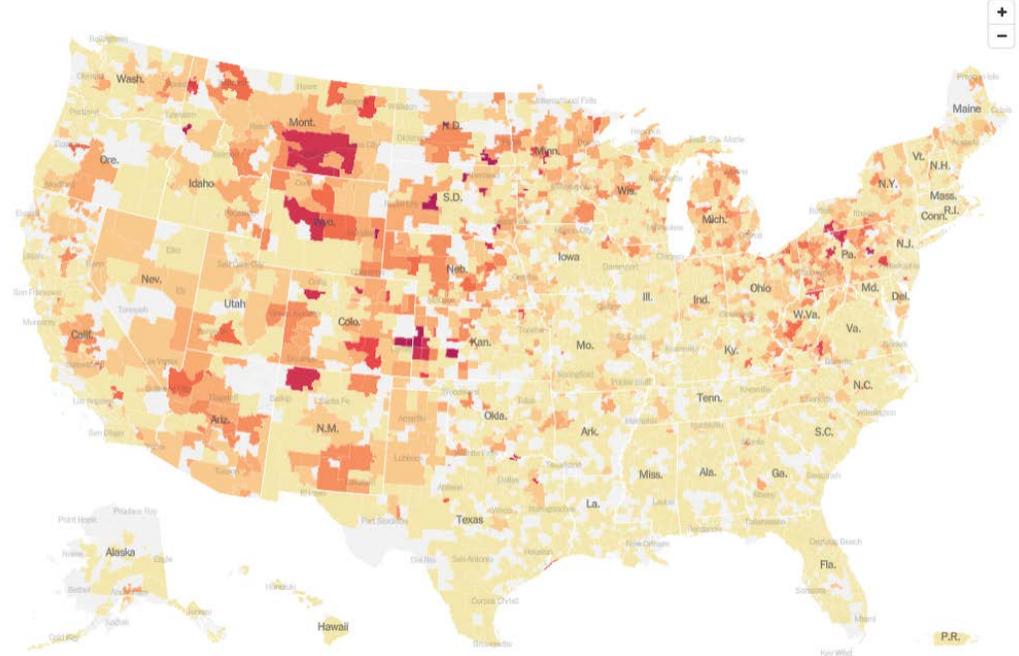
Accessed November 18, 2021

COVID-19 Hospitalization Rates by County Across the US

Last Week



This Week



Hospitalization rates continue to improve in the South and Appalachia, while some western states – particularly Montana and Wyoming – are experiencing elevated hospitalization rates. Pockets of Colorado and western Kansas are also seeing elevated hospitalizations. More areas in Michigan are seeing higher hospitalization rates this week.

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

Accessed November 18, 2021

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Science Roundup

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 (15):**
 - **PreK/K-6:** Kalamazoo, Kent, Marquette, Ottawa
 - **K-12:** Antrim, Benzie, Charlevoix, Emmet, Genesee, Ingham, Leelanau, Oakland, Otsego, Washtenaw, and Wayne
- **Rescinded County Mask Mandates (6):**
 - Allegan, Barry, Berrien, Eaton, Iron, Dickinson

Notes: List may not be comprehensive; because children aged 5-11 years are now eligible for vaccination, Ottawa County's PreK-6 mask mandate is scheduled for rescinding in early January 2022.

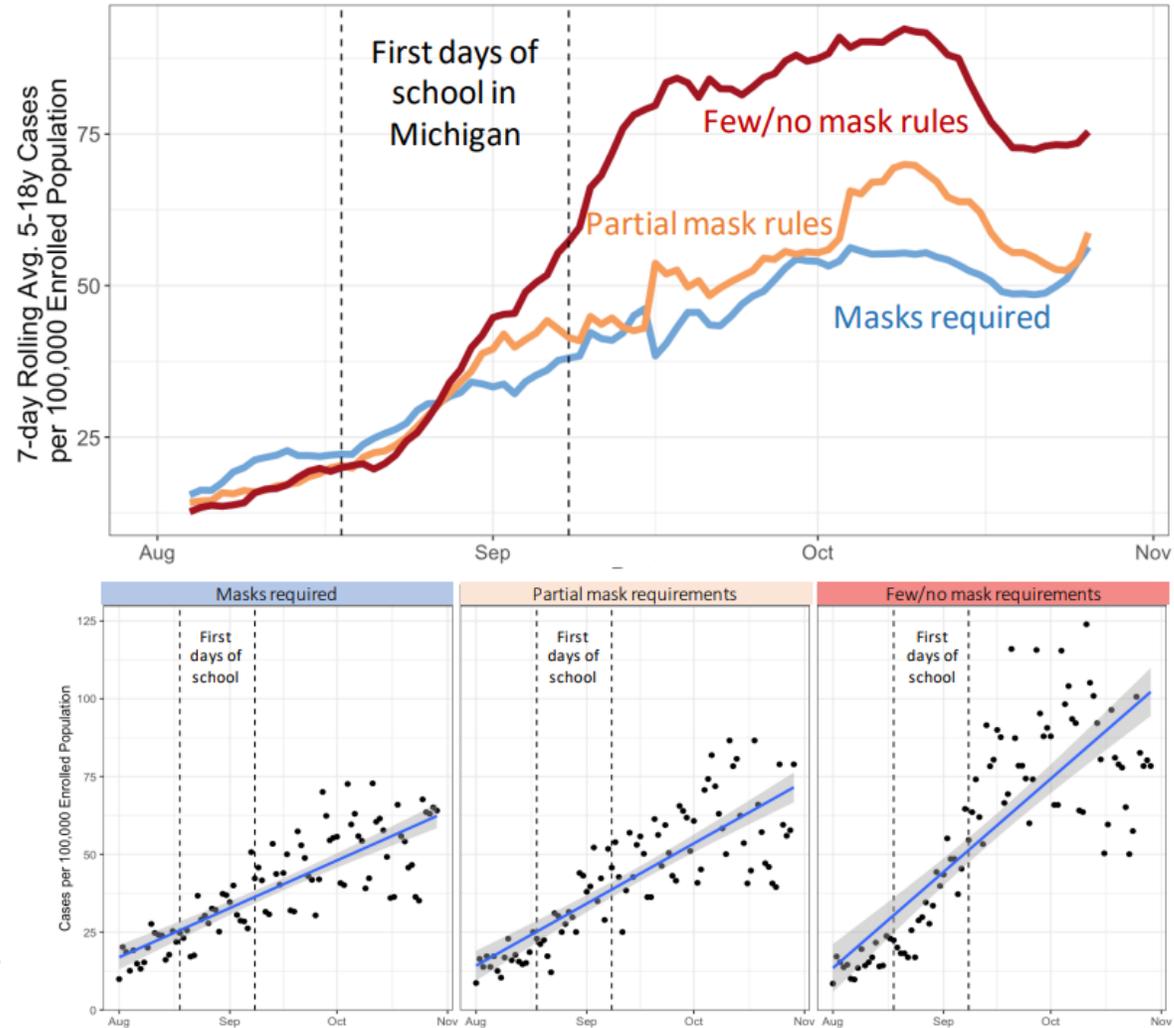
MDHHS Evaluation Shows Higher Case Rates in School Districts with Fewer Mask Rules

Districts without mask requirements are experiencing higher case rates

- 5–18-year-old school population case rates are higher and rose faster in districts without mask requirements
- Districts with complete or partial mask requirements have seen lower case rates with slower increases
- Note districts may change categories as mask rules change
- Note that districts with mask rules may also have other prevention measures (vaccination, testing, etc.) that reduce transmission levels



Masks required = mask required for all grades; Partial mask req. = tiered, some grades, based on vax status, staff only; Few/no req. = no req. or buses only. Blue line & shaded region is a linear trend fit. Data Sources: MDSS/MDHHS case data as of 10/29/21 geocoded to school district, EOG School District Mask Policy Tracker data. Note: Cases are among all 5-18 year olds, population is the school-enrolled population.



Source: https://www.michigan.gov/documents/coronavirus/20211109_Data_and_modeling_update_vFINAL_741084_7.pdf

COVID-19 News Headlines & Letters

LOCAL NEWS

West Michigan hospitals are 'overwhelmed' and 'at a tipping point'

The uptick in COVID cases and other illnesses has resulted in longer wait times, delays and visitor restrictions.

<https://www.wzzm13.com/article/news/local/health-care-professionals-in-west-michigan-say-they-are-at-a-tipping-point/69-acab012b-6375-464c-8199-198213ae88ed>

LOCAL NEWS

Local hospitals plead with community as capacities reach record highs

"The number one thing hospitals are asking is to please reconsider if you have not been vaccinated," said Jen VanSkiver.

<https://www.wzzm13.com/article/news/local/we-need-you-now-more-than-ever-local-hospitals-plead-with-community-as-capacities-reach-record-highs/69-9927da23-2248-4fc3-914a-cb33b6ba6f68>

CORONAVIRUS

Longer Thanksgiving breaks aim to support mental health amid pandemic struggles

<https://www.woodtv.com/health/coronavirus/several-school-districts-extend-thanksgiving-break-amid-covid-19-spike/>



Holland Hospital Letter to the Community

Our community is experiencing a period of increased serious illness taking a toll on Holland Hospital's team and resources, and the challenges we face impact the entire community.

[Letter to the Community](#) | [News](#) | [Holland Hospital](#)

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Research

Effectiveness of public health measures in reducing the incidence of covid-19, SARS-CoV-2 transmission, and covid-19 mortality: systematic review and meta-analysis

<https://www.bmj.com/content/375/bmj-2021-068302>



A systematic review of COVID-19 prevention measures found that mask-wearing and physical distancing are associated with reductions in COVID-19 case rates.

November 15, 2021

The Role of Face Masks in the Recognition of Emotions by Preschool Children

<https://jamanetwork.com/journals/jamapediatrics/article-abstract/2786226>



A research letter published in JAMA found that preschool children “recognized emotions on pictures better than has been reported in previous research, even with face masks”.

Risk factors for SARS-CoV-2 infection among health care workers

[https://www.ajicjournal.org/article/S0196-6553\(21\)00718-5/fulltext](https://www.ajicjournal.org/article/S0196-6553(21)00718-5/fulltext)



A French study of healthcare workers found that risk of COVID-19 infection was elevated if they had contact with relatives or other healthcare workers with COVID-19, close or prolonged contact with patients, and participated in aerosol generating procedures. Contact with COVID-19 patients was not associated with increased risk of COVID-19.