

Ottawa County COVID-19 Epidemiology

February 10, 2022

Data as of February 5, 2022, unless otherwise indicated

Executive Summary

- **Transmission in Michigan and the US remains elevated, but is improving**
- **Ottawa community transmission levels remain elevated, but are improving**
 - This past week positivity declined to 25.3%, elevated, but lower than 33% seen last week.
 - Weekly case counts **decreased** 47% (-25% two weeks ago), from 3,093 two weeks ago to 1,568 last week.
 - Cases among children **decreased** 59% (-27% two weeks ago), from 674 two weeks ago to 278 last week.
 - The Omicron variant continues to be detected through clinical and wastewater surveillance.
- **Ottawa area and regional hospitals are experiencing elevated, but declining numbers of COVID-19 patients**
 - In Ottawa County, 17% of all available beds and 27% of all ICU beds are occupied by COVID-19 patients.*
 - One Ottawa-area hospital employed Emergency Department diversion last week.**
 - More area hospitals are returning to usual care strategies and reinitiating elective procedures.
 - Adequate staffing remains a challenge for many hospitals in the region, and therapeutics may be in short supply.
- **Pediatric hospitalization rates in the US and in Michigan are showing signs of improvement.**
 - Although improving, regional pediatric hospitalization census remains elevated.
- **Of Ottawa County residents aged 5+, 63.3% 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.

**Emergency Department diversion may have the following [impacts](#): 1) delayed ambulance turnaround, 2) delayed treatment, 3) increasing short- and long-term mortality rates, 4) lost hospital revenue, 5) increased costs for more ICU care that would have been preventable with timely healthcare access.

Ottawa County Metrics by Week

Metric	Goal	Week Ending				
		8-Jan-22	15-Jan-22	22-Jan-22	29-Jan-22	5-Feb-22
Positivity (All Ages)	<8%	34.8%	35.5%	35.2%	33.0%	25.3%
Weekly Cases (All Ages)	<147	3235	3727	4074	3093	1568
Weekly Cases in Children (0-17 years of age)	NA	443	636	925	674	278
Total Deaths (All Ages)	0	16	13	16	10	10
CDC Risk Transmission Level	Moderate	High	High	High	High	High

Due to reduced quality, hospitalization data has been removed from this visualization.

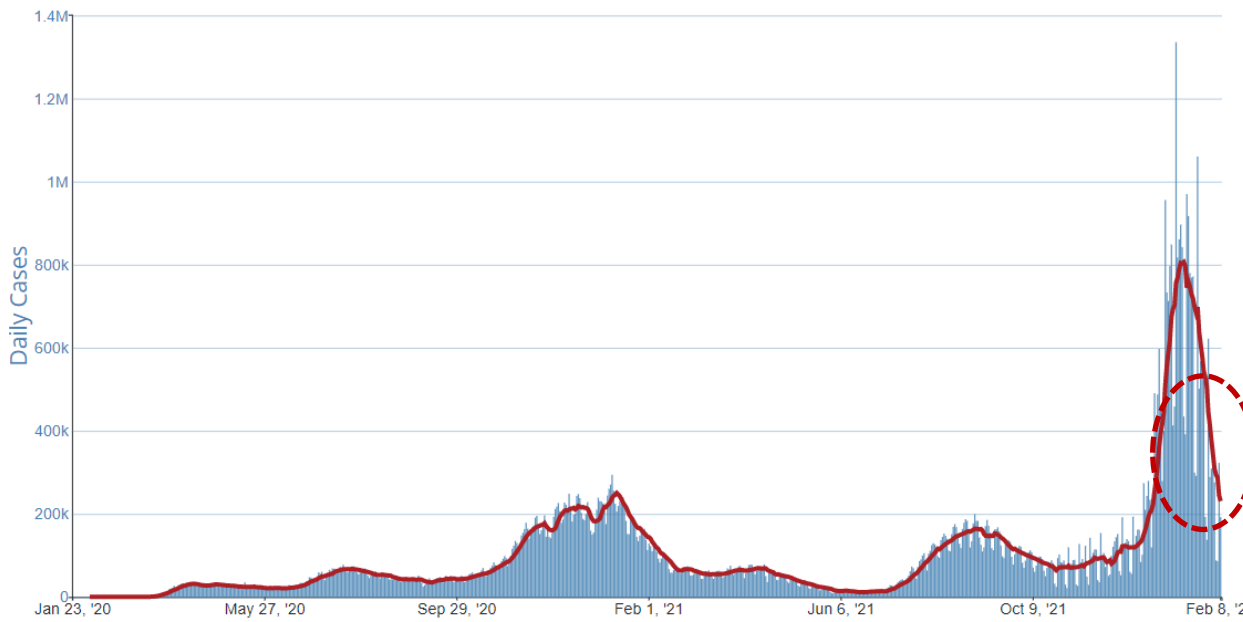
*Test positivity data is currently unavailable due to technical issues being experienced by the MI Safe Start Map.

Hospitalization and/or death may occur after initial infection, meaning the number of hospitalizations and deaths from recent weeks may increase.

Case Trends in the USA and Michigan

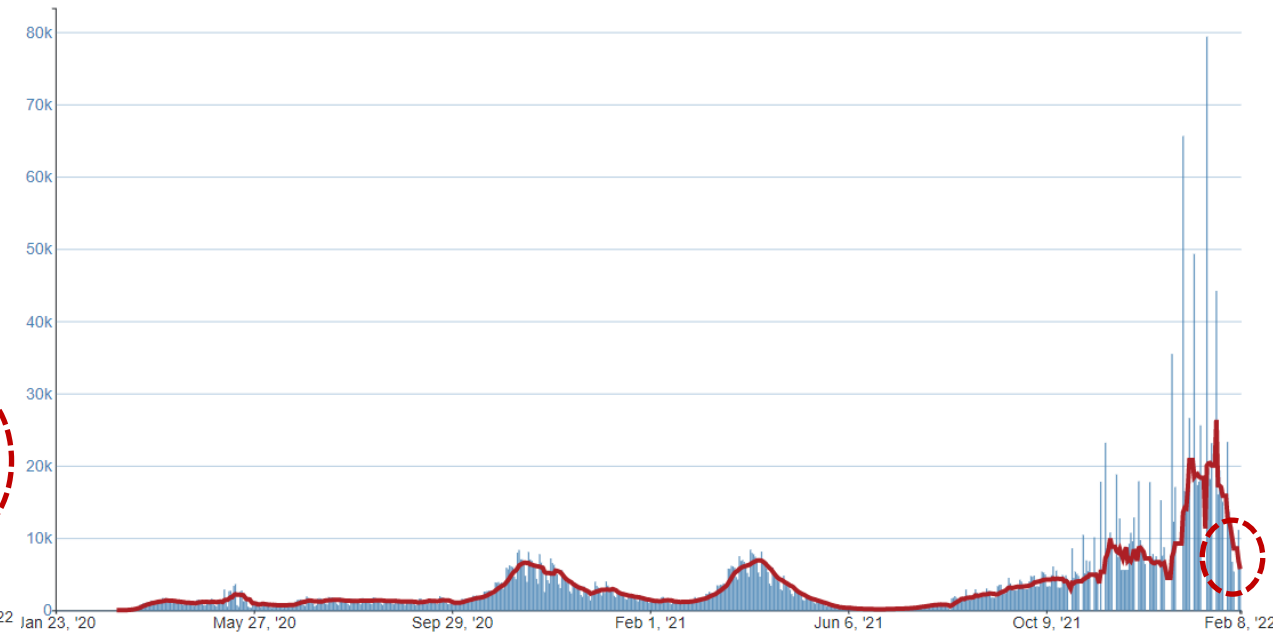
USA

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



Daily case counts in the US and Michigan are declining.

Source: https://covid.cdc.gov/covid-data-tracker/#trends_dailycases

Data through February 8, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

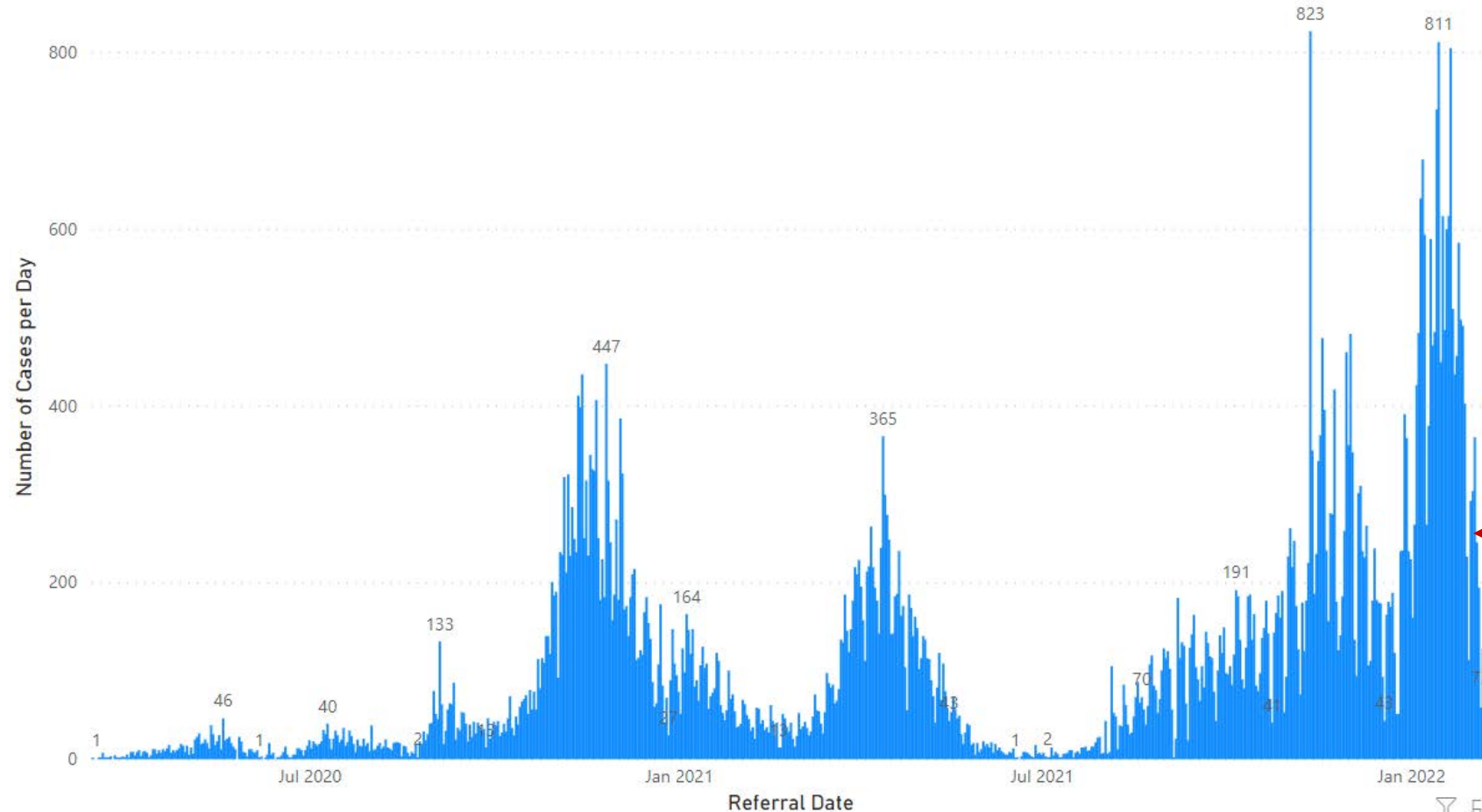
Media

Science Roundup

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – February 9, 2022

Epidemiological Curve



Total Number of Cases
72,813

Currently the 7-day average is **138 cases per day**, much lower than the 297 cases per day seen at a similar time last week.

1 in every 18 people in Ottawa County was counted as a case from January 1 – February 9, 2022.

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, 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

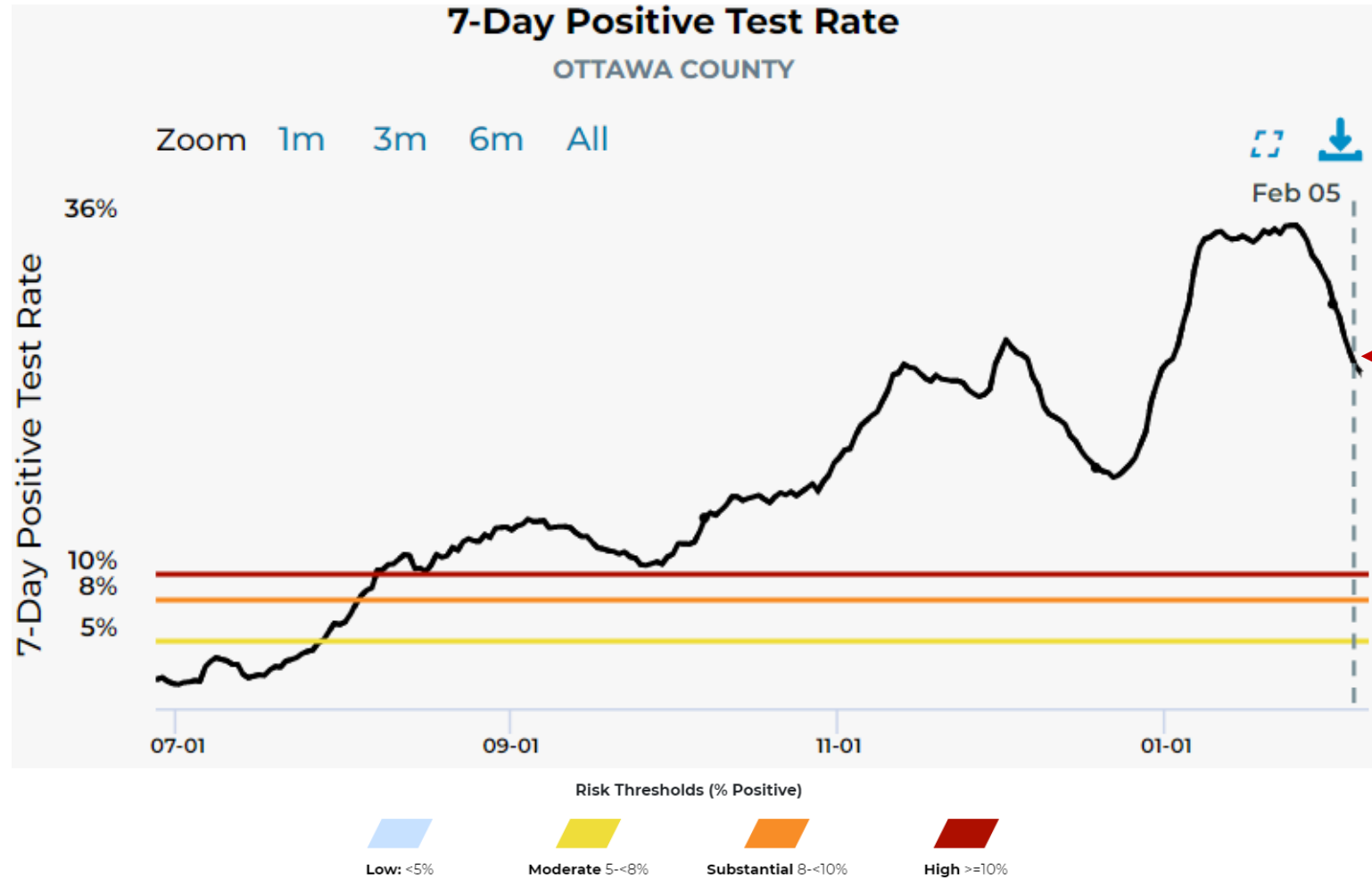
Other

Media

Science Roundup

Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, July 1, 2021 – February 5, 2022



Test positivity has been in decline for two weeks, recently falling to 25.3%.

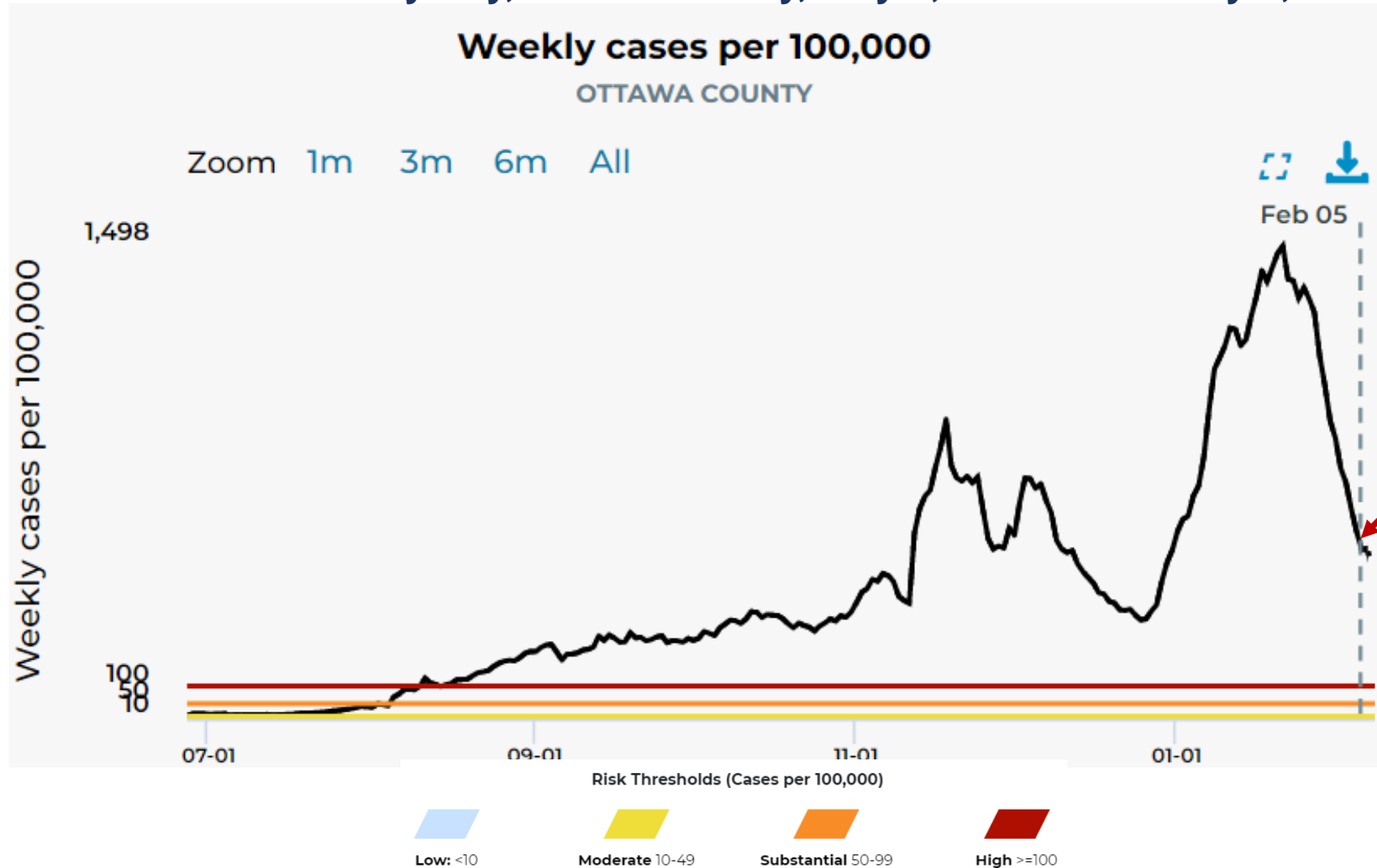
The goal is to have less than 8% of tests coming back positive.

Note: Testing in Ottawa County has remained stable with at least 6000-11,000 tests each week: [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](https://www.arcgis.com/apps/insights/index.html?appid=71111111111111111111111111111111) & <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, July 1, 2021 – February 9, 2022

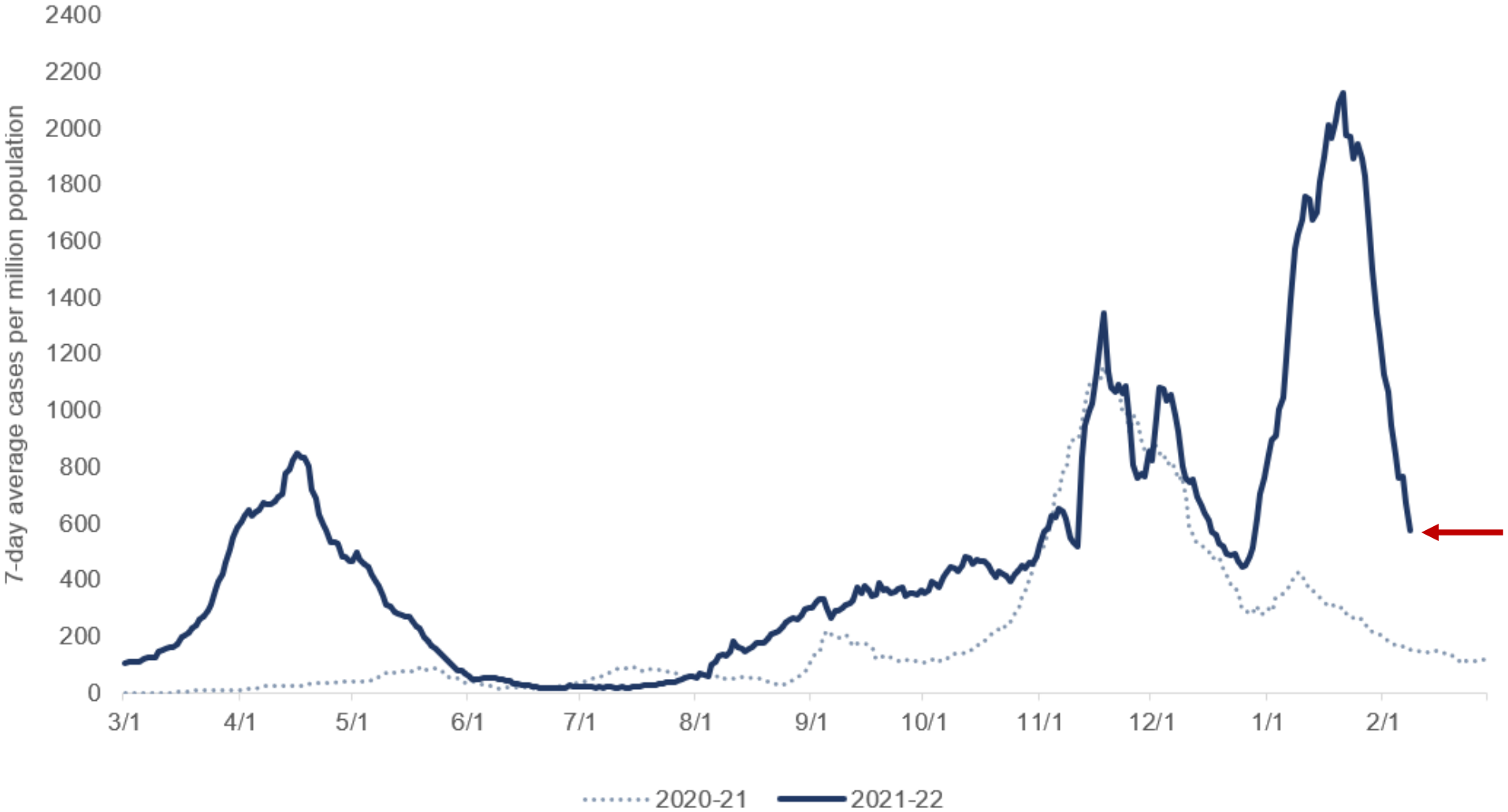


Case rates decreased to 536 cases per week per 100,000 population (down from 1,111 the week prior).

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 Time Trends – Annual Comparison of Case Rates

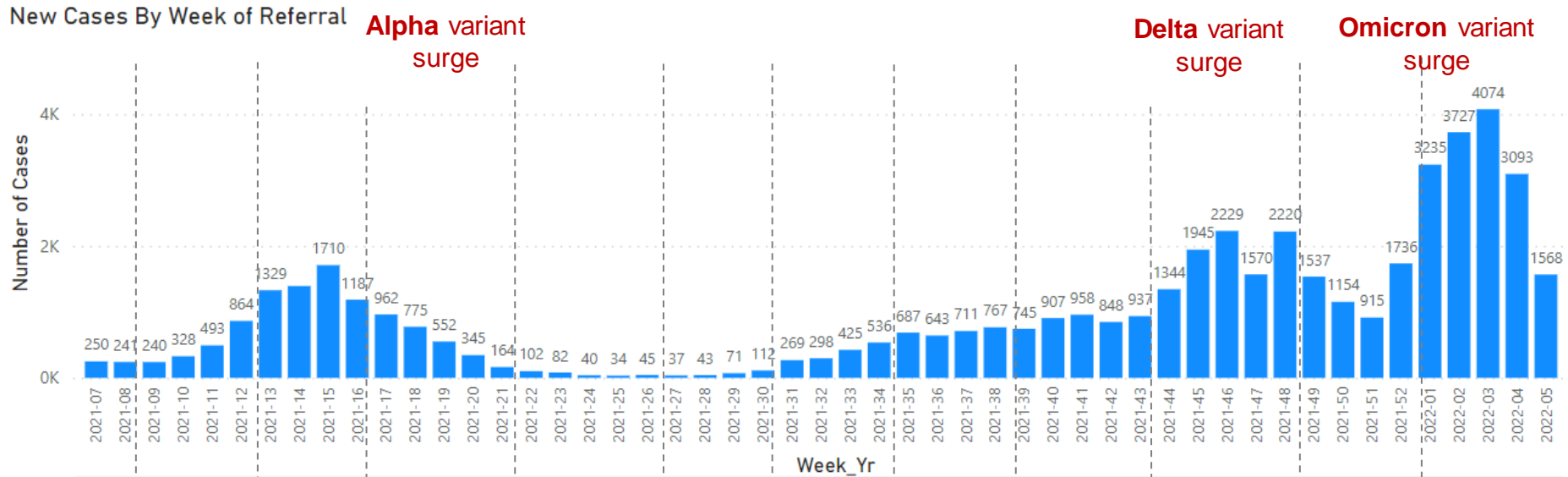


Through much of the late fall of 2021 case rates tracked similarly to 2020. After the first of the year 2022, rates increased sharply, deviating from trends observed in past year. However, rates are currently falling and may decline to levels observed last year at this time.

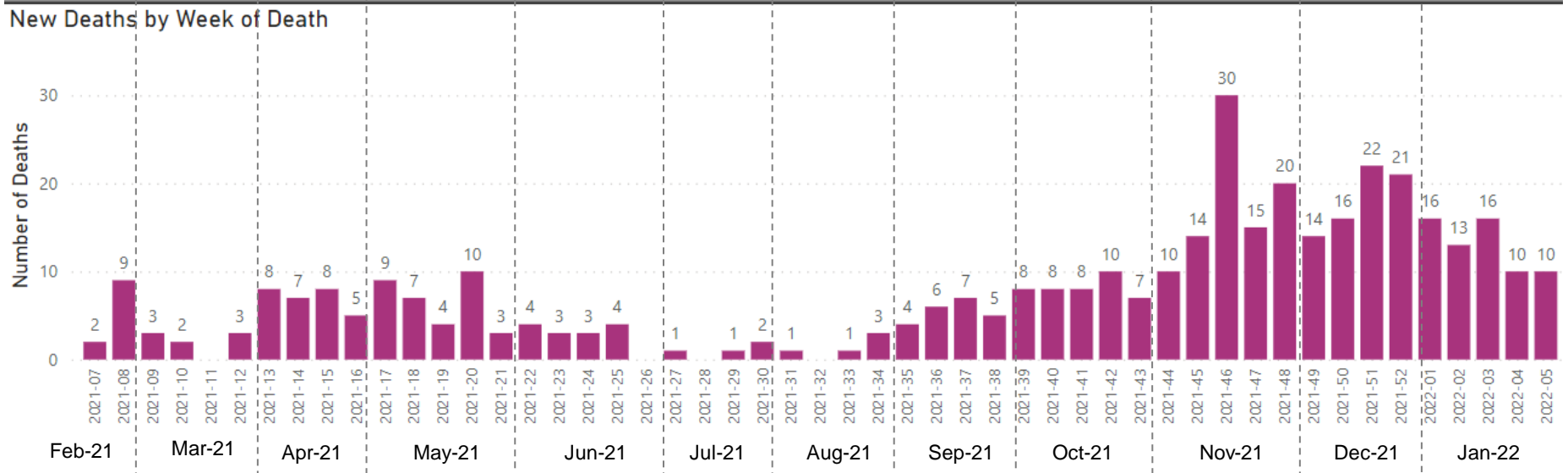
Source: Internal Data

Data through February 9, 2022

Ottawa County – Cases & Deaths by Week, All Ages



The weekly number of cases **decreased 47%** from week 4 to week 5.



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 **12 deaths per week**.

Due to reduced quality, hospitalization data has been removed from this visualization.

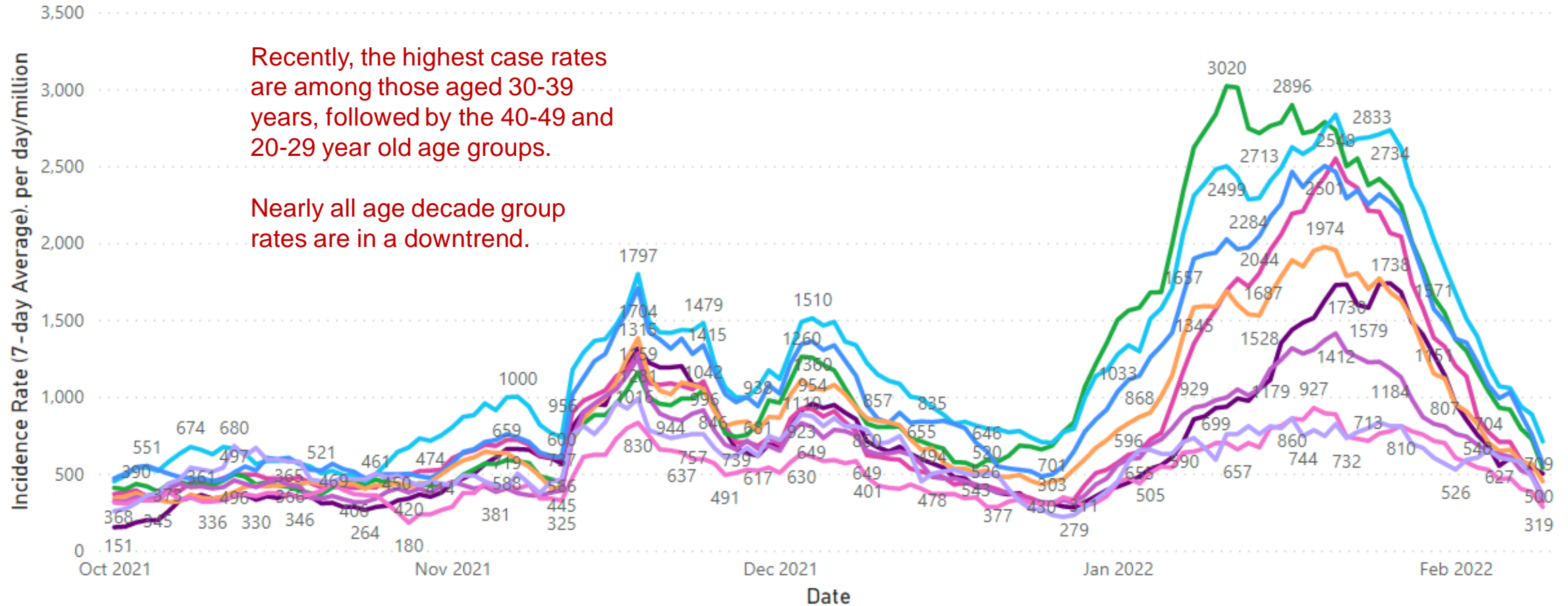
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age Decade

COVID-19 Case Rates by Age, October 2021 – February 9, 2022

Incidence Rate (7-day Average)

rategroup ● 0-9 ● 10-19 ● 20-29 ● 30-39 ● 40-49 ● 50-59 ● 60-69 ● 70-79 ● 80+



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

Ottawa County - Case Rate Trends – by Age Decade

Daily new confirmed and probable cases per day per million by age group (daily average per week)

Week 5 (January 30, 2022 – February 5, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	20.3	550.9	-61%
10-19	30.7	693.4	-56%
20-29	42.0	928.6	-49%
30-39	38.1	1063.9	-52%
40-49	32.7	985.5	-45%
50-59	22.3	639.0	-51%
60-69	20.4	626.9	-28%
70-79	9.6	463.5	-39%
80+	6.7	602.8	-10%

As shown on the previous slide, the **highest** case rates last week were among those **30-39**, followed by those **40-49** and **20-29** years.

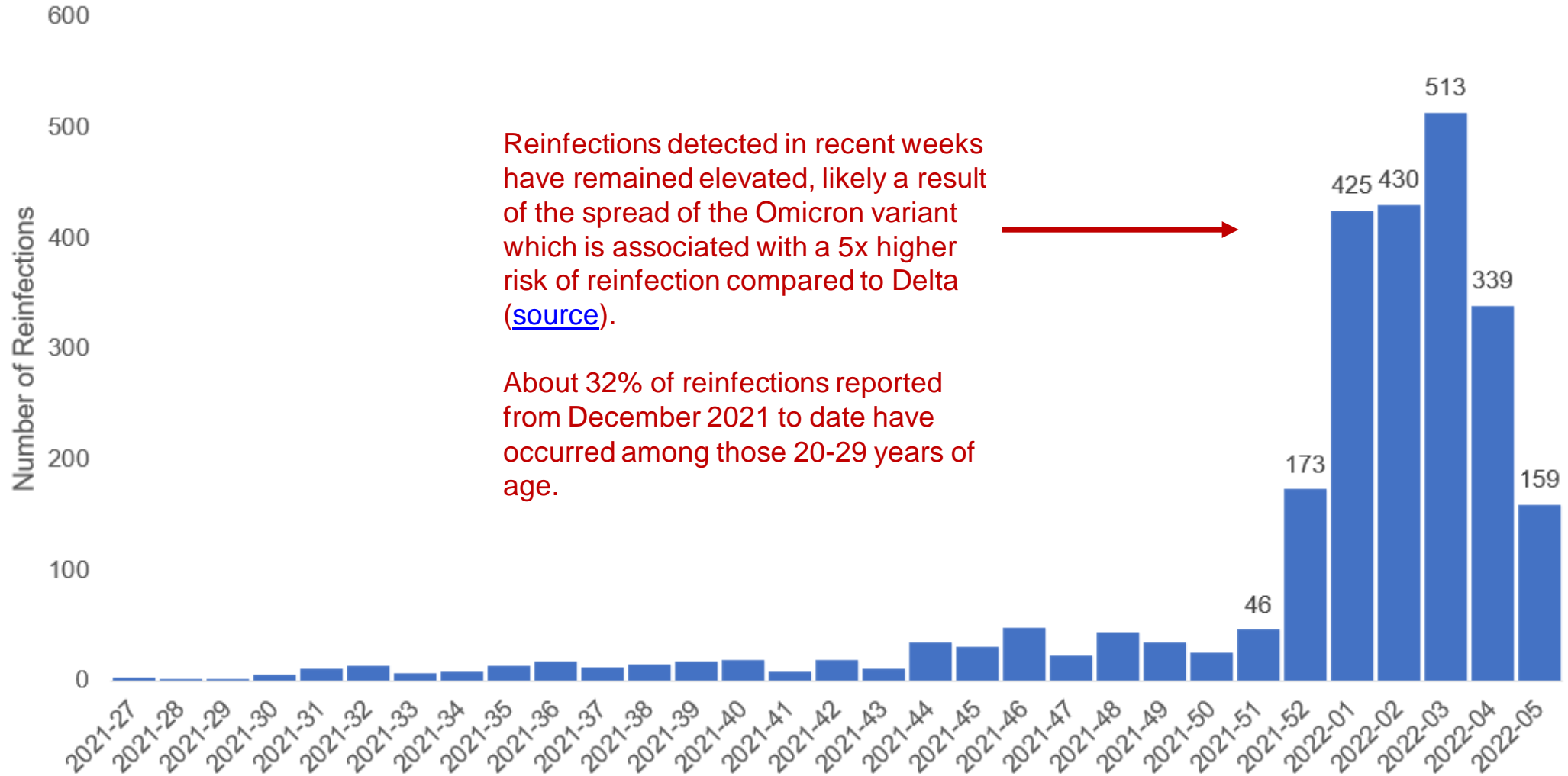
The **largest week to week decreases** (week 4 to week 5) were among those **aged 0-9** (-61%) and **10-19** (-56%) years.

Notes: Average daily cases is calculated by summing the weekly total number of cases and dividing by seven. Cases counted in weeks of interest reflect referral date.

Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System; CDC Wonder 2020 population

Data as February 9, 2022

Ottawa County – Reinfections by Week



Notes: *For the purposes of this slide a reinfection is considered any Ottawa County resident who was reported two or more times as a confirmed or probable case, with at least 90 days between each referral date. This definition utilizes only cases reported to public health. The gold-standard for determining reinfection includes the variant detected in each infection; comprehensive data on the variant detected are not available for most cases.

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

Data as of February 9, 2022

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
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	1771	44%	450	32%	2221	41%
11-Dec-21	1236	-30%	302	-33%	1538	-31%
18-Dec-21	940	-24%	214	-29%	1154	-25%
25-Dec-21	766	-19%	149	-30%	915	-21%
1-Jan-22	1522	99%	214	44%	1736	90%
8-Jan-22	2792	83%	443	107%	3235	86%
15-Jan-22	3091	11%	636	44%	3727	15%
22-Jan-22	3149	2%	925	45%	4074	9%
29-Jan-22	2419	-23%	674	-27%	3093	-24%
5-Feb-22	1290	-47%	278	-59%	1568	-49%

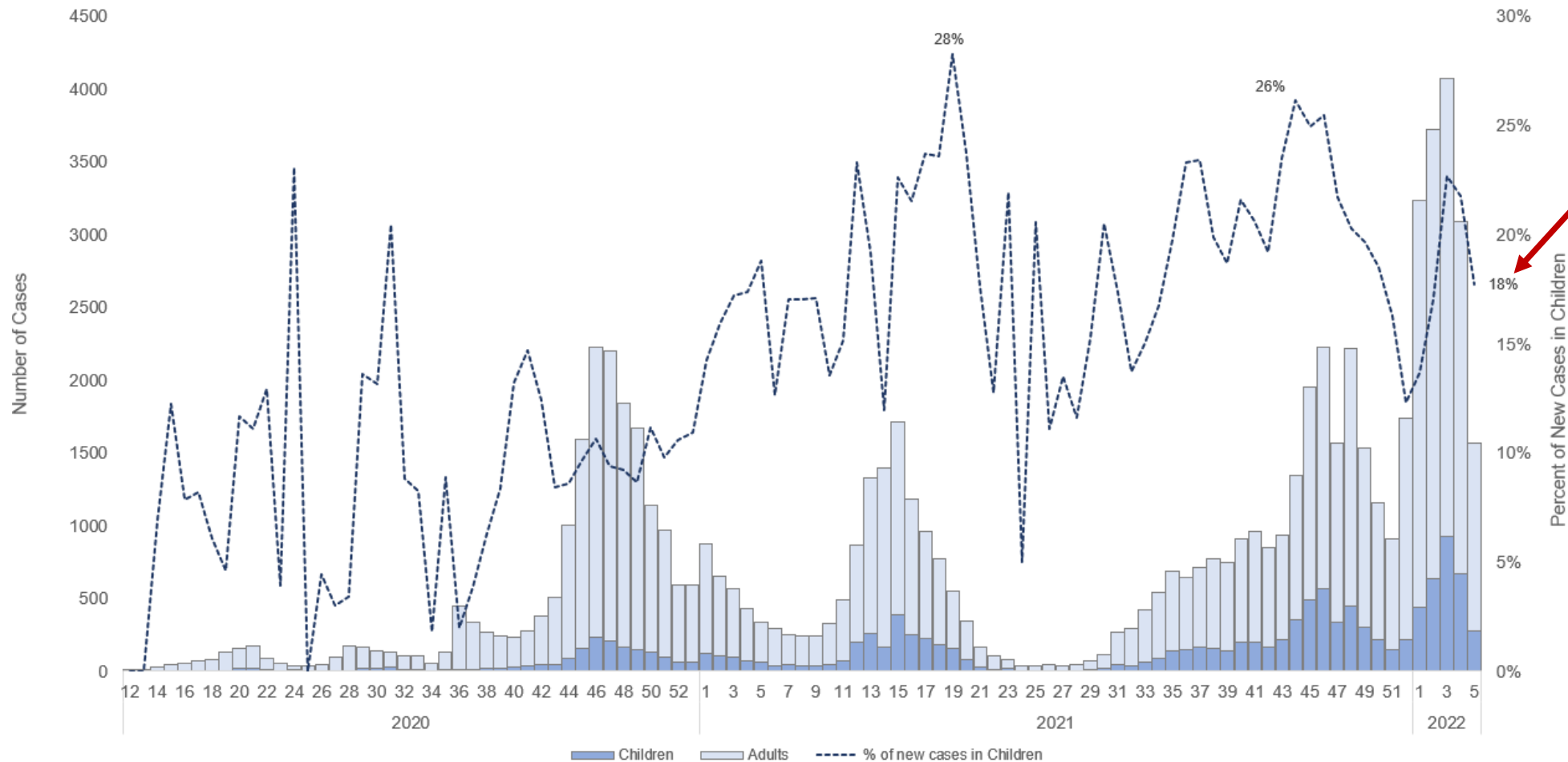
Weekly case counts among **children decreased 59%** last week, and cases in **adults decreased 47%**.

Adults

Children

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

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

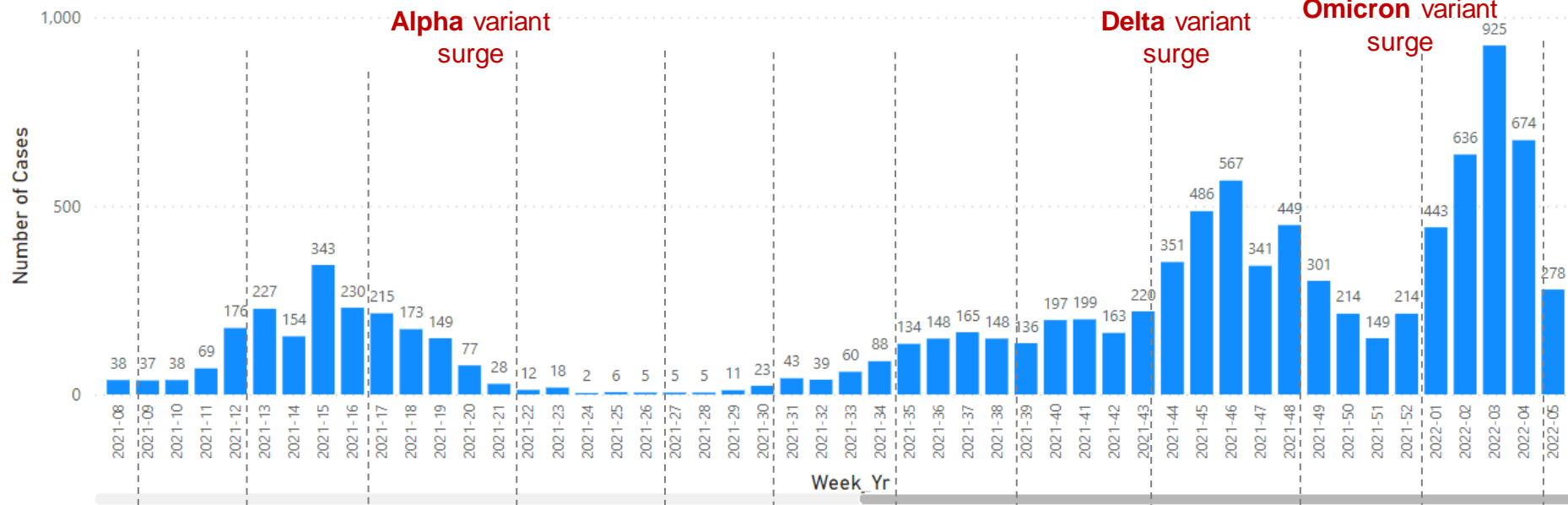


During week 5 in 2022, children made up **18%** of cases reported, elevated compared to other times of the pandemic but lower than previous weeks.

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

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

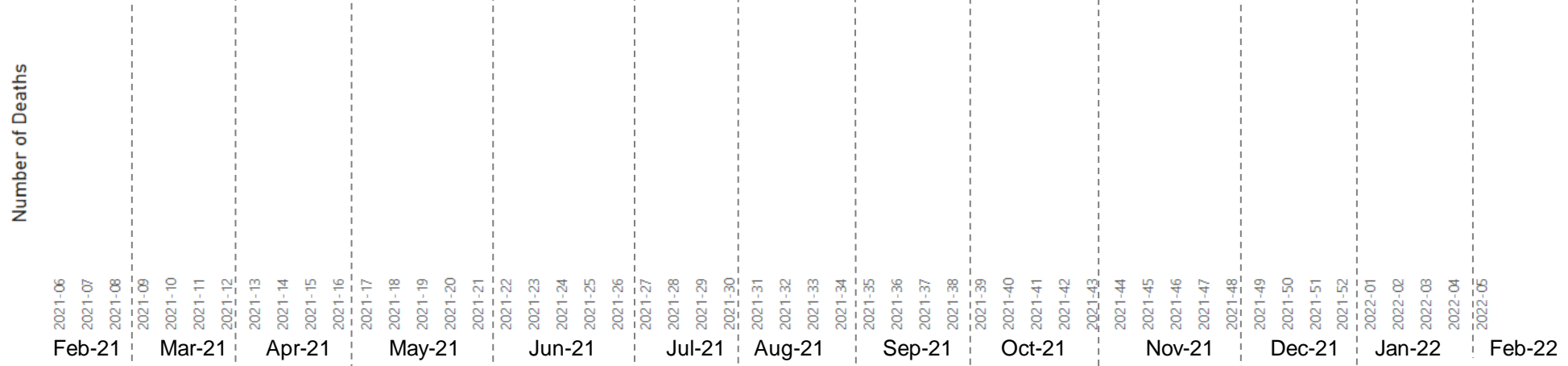
New Cases By Week of Referral



The weekly number of cases among children decreased 59% from week 4 to week 5.

Due to reduced quality, hospitalization data has been removed from this visualization.

New Deaths by Week of Death



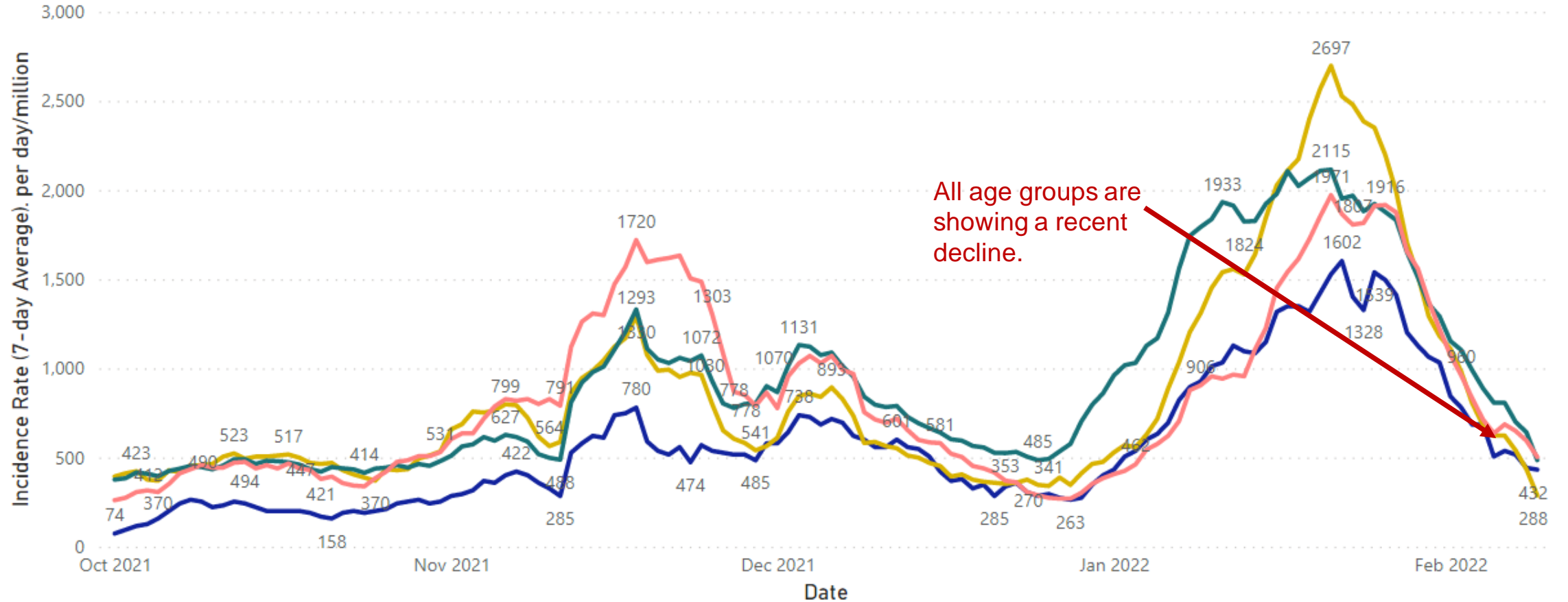
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, October 2021 – February 9, 2022

Incidence Rate (7-day Average)

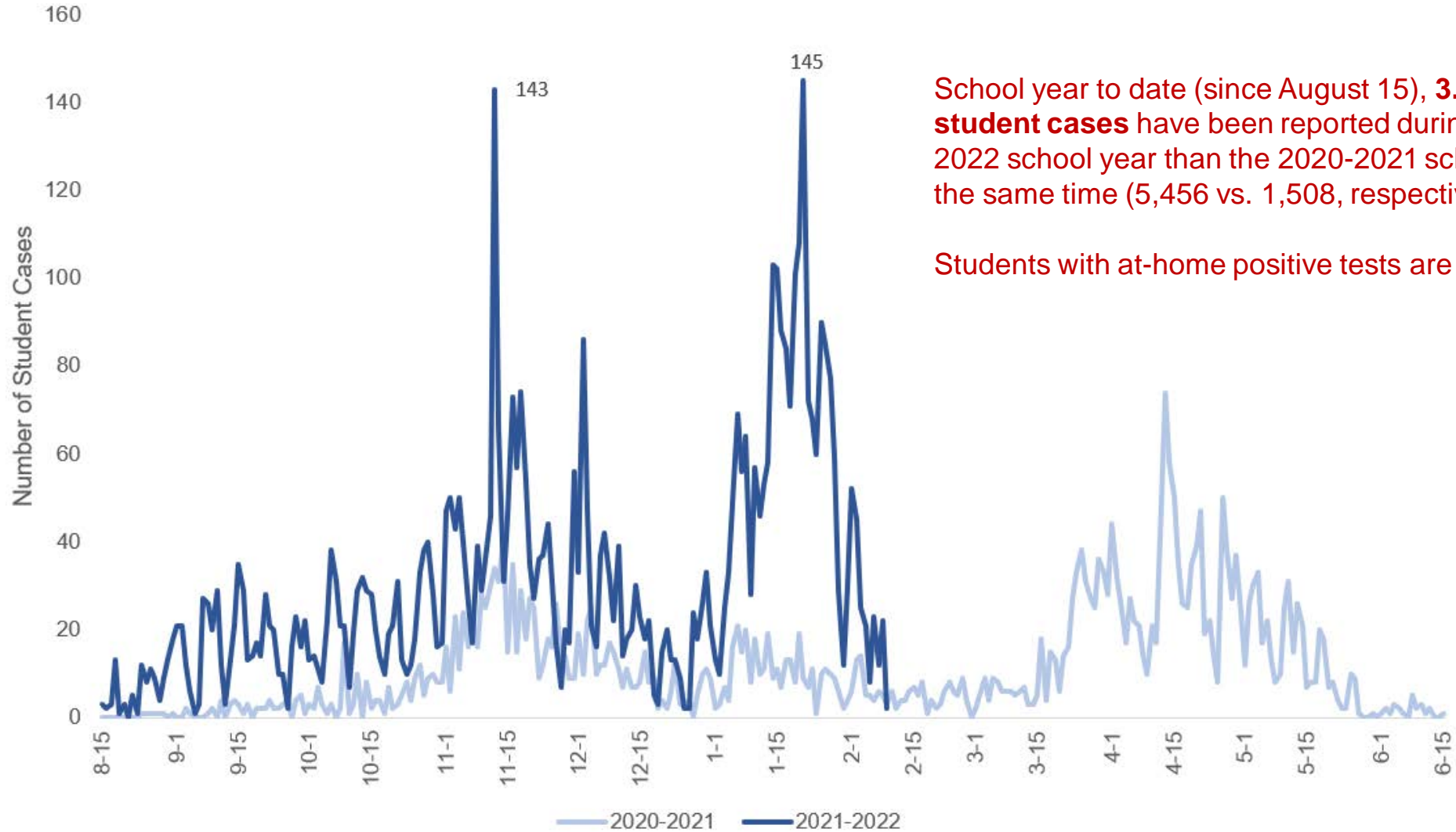
rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



Erratum: In early February 2022, a data issue was identified and resolved that resulted in an increase in the case rate for children 0-3 years of age, and a slight decrease for children 4-11 years of age.

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

Ottawa County Cases in PreK-12 School Students



School year to date (since August 15), **3.6x more student cases** have been reported during the 2021-2022 school year than the 2020-2021 school year at the same time (5,456 vs. 1,508, respectively).

Students with at-home positive tests are not included.

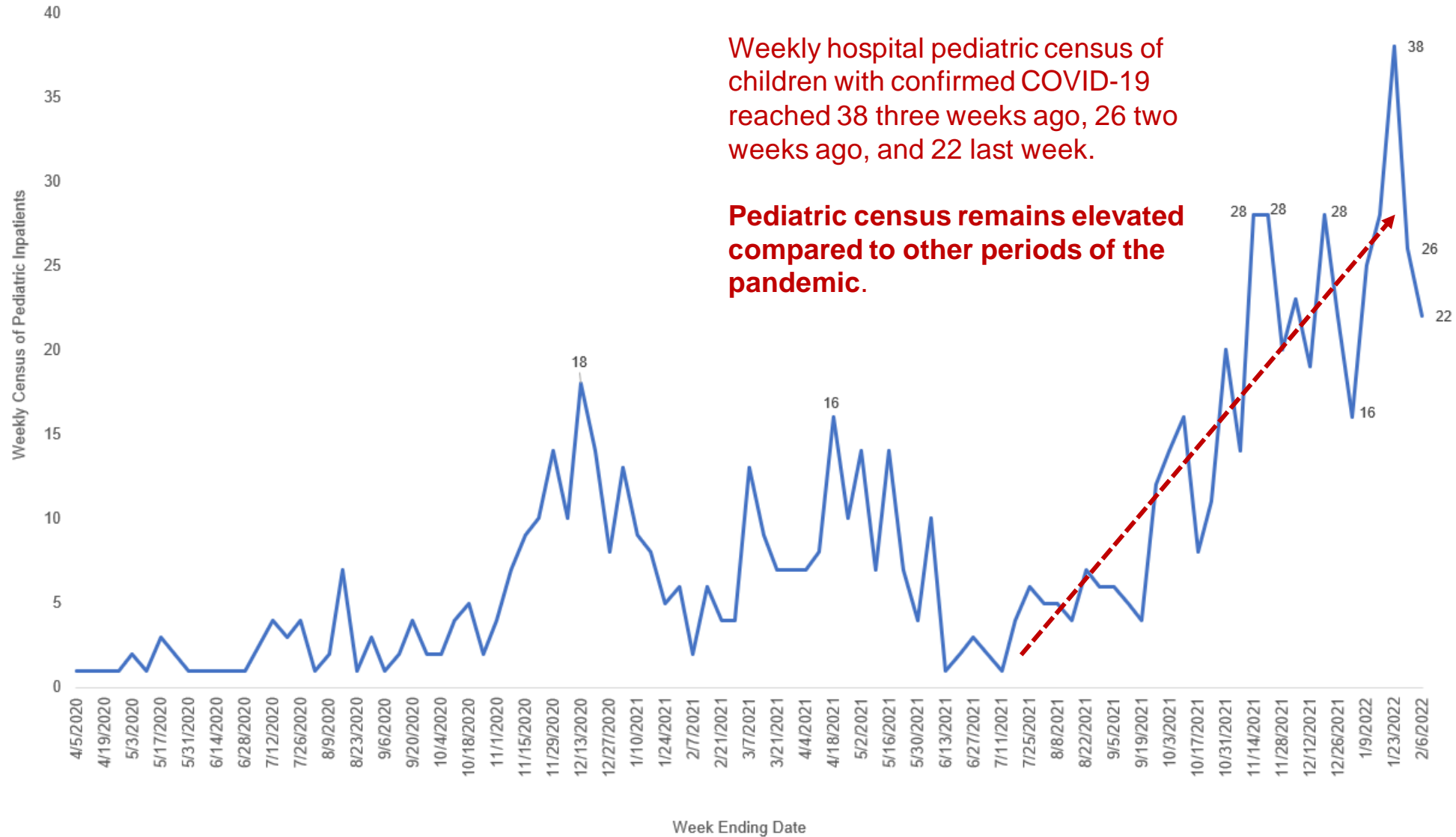
Method: Includes PreK-12 students known to attend a school in Ottawa County who are classified as a confirmed or probable case of COVID-19.

Note: Data may change as information is updated and methods are refined. Cases reported in 2022 will likely increase. The peak of 143 cases reported on November 12, 2021 is the result of a database update by MDHHS that reported a backlog of cases from the previous days.

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

Data through February 9, 2022

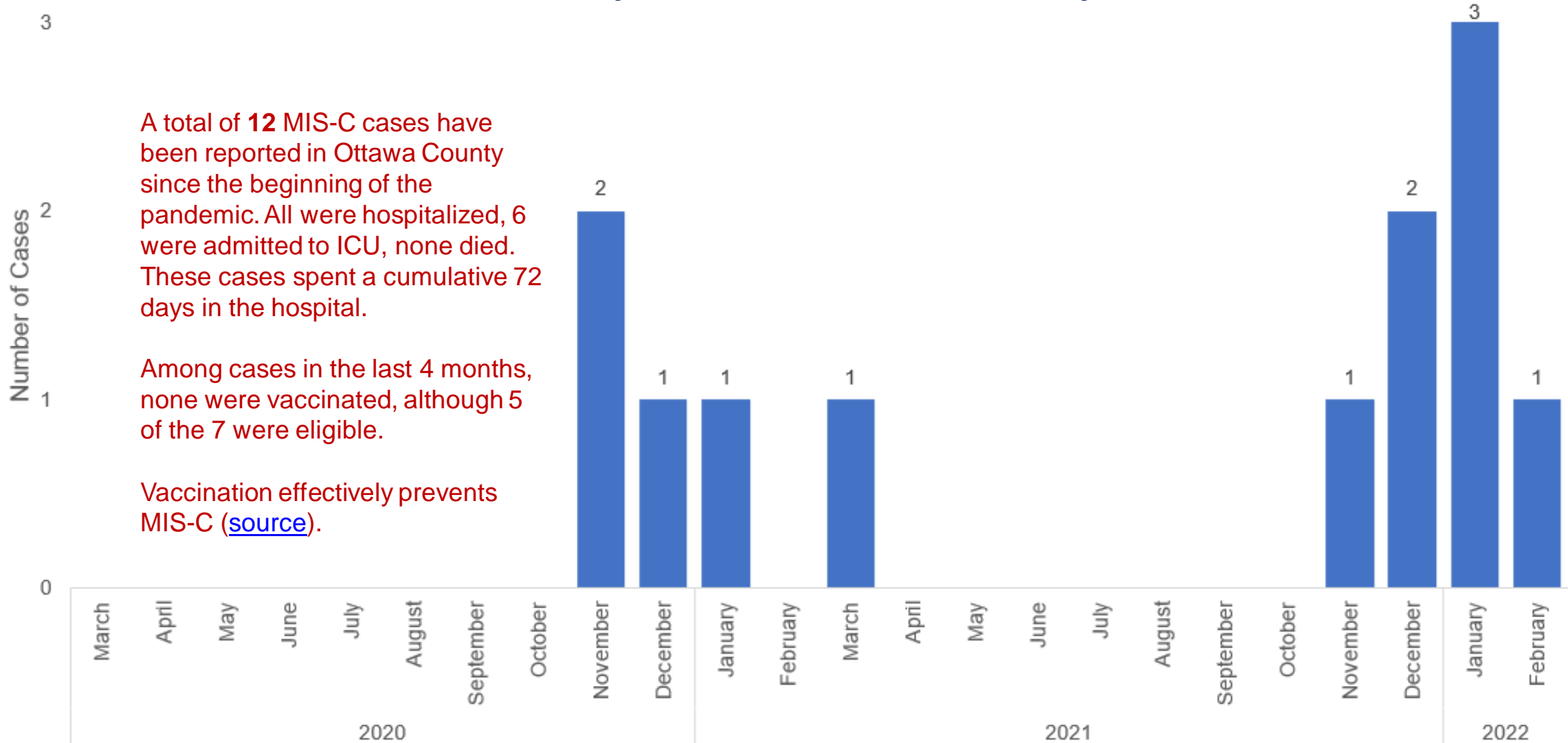
Weekly Hospital Pediatric Census – A Regional Healthcare System



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 February 6, 2022

Ottawa County MIS-C* Cases by Month



A total of **12** MIS-C cases have been reported in Ottawa County since the beginning of the pandemic. All were hospitalized, 6 were admitted to ICU, none died. These cases spent a cumulative 72 days in the hospital.

Among cases in the last 4 months, none were vaccinated, although 5 of the 7 were eligible.

Vaccination effectively prevents MIS-C ([source](#)).

Notes: Includes confirmed and probable cases.

*MIS-C is a rare but serious condition affecting children, associated with recent COVID-19 infection. For more details on MIS-C please visit: <https://www.cdc.gov/mis/index.html>

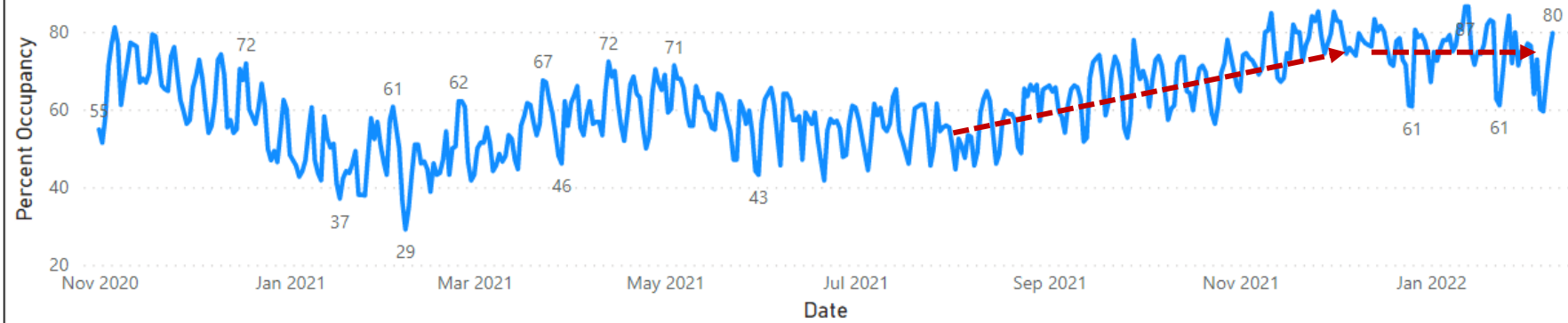
Data through February 9, 2022

Ottawa County Hospital Capacity – All Beds

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

Percent Occupancy by Date and County

County ● Ottawa



Total hospital bed occupancy **remains elevated.**

Currently **17%** of all inpatient beds are occupied by COVID-19 patients. The proportion of beds occupied by COVID-19 patients is in a downtrend.

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

Percent Occupancy by Date and County

County ● Ottawa



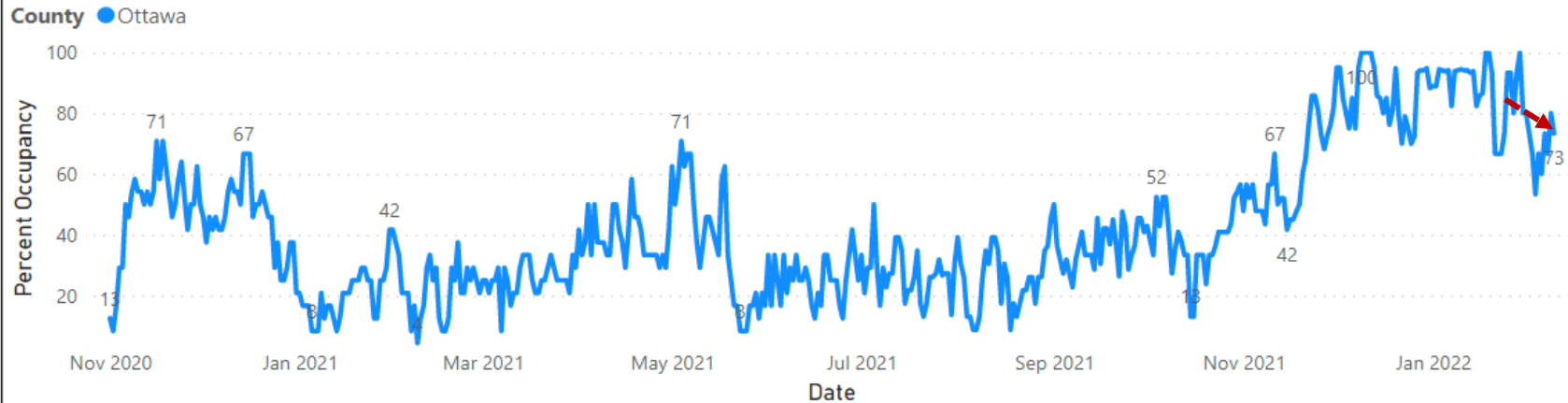
Source: EMResources

Data through February 9, 2022

Ottawa County Hospital Capacity – ICU Beds

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

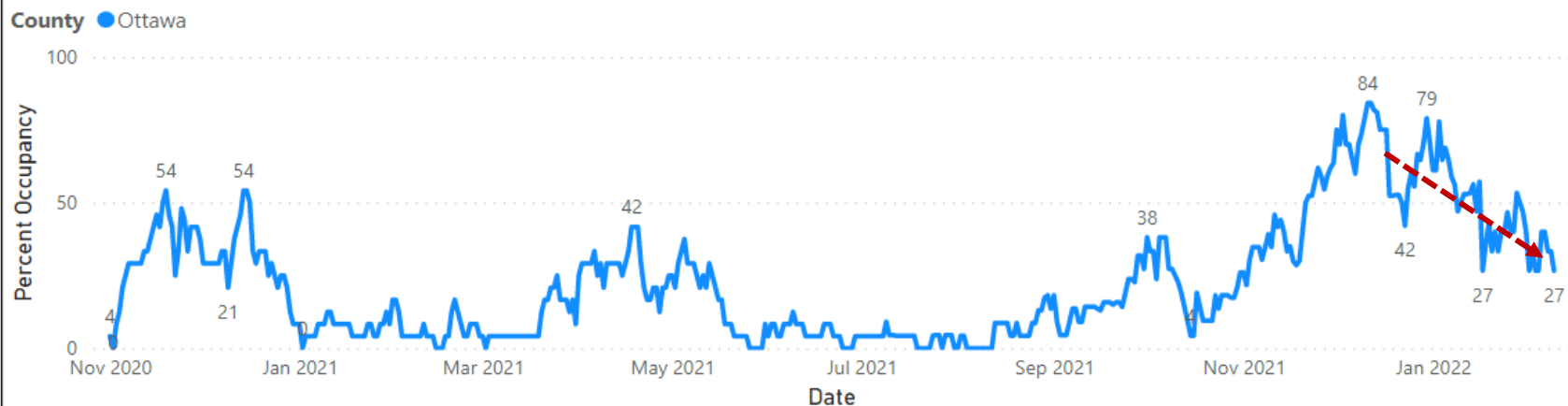
Percent Occupancy by Date and County



Overall ICU bed occupancy **remains elevated (73%)**.

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

Percent Occupancy by Date and County



The proportion of ICU beds occupied by COVID-19 patients also **remains elevated**. Currently, **27%** of all ICU beds are occupied by COVID-19 patients, but a downtrend is observed.

Source: EMResources

Data through February 9, 2022

Spectrum Health Hospitalized COVID-19 Patients

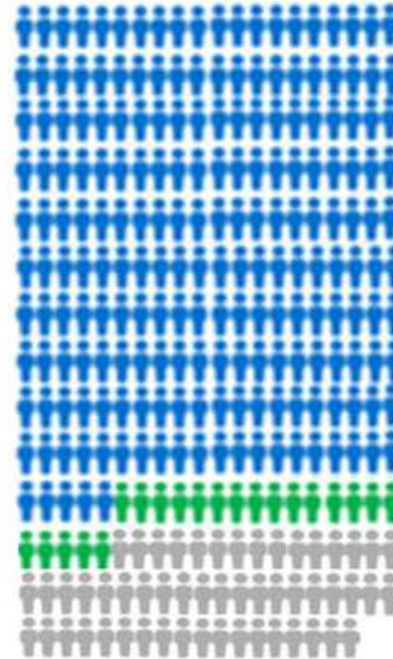
Spectrum Health COVID-19 Hospitalizations



February 8, 2022

Spectrum Health currently has 278 hospitalized COVID-19 patients. Of these, 205 (74%) are unvaccinated, 20 (7%) are vaccinated*, and 53 (19%) are up to date**.

Vaccinated and up to date patients are, on average, 11 years older (68 vs 57) and have an average of 5 co-morbidities compared to 3 for unvaccinated patients.



Of those 278 patients, 65 are currently in the ICU. Of these, 51 (79%) are unvaccinated, 4 (6%) are vaccinated, and 10 (15%) are up to date.



Of those 65 ICU patients, 34 are on ventilators. Of these, 28 (82%) are unvaccinated, 1 (3%) is vaccinated, and 5 (15%) are up to date.

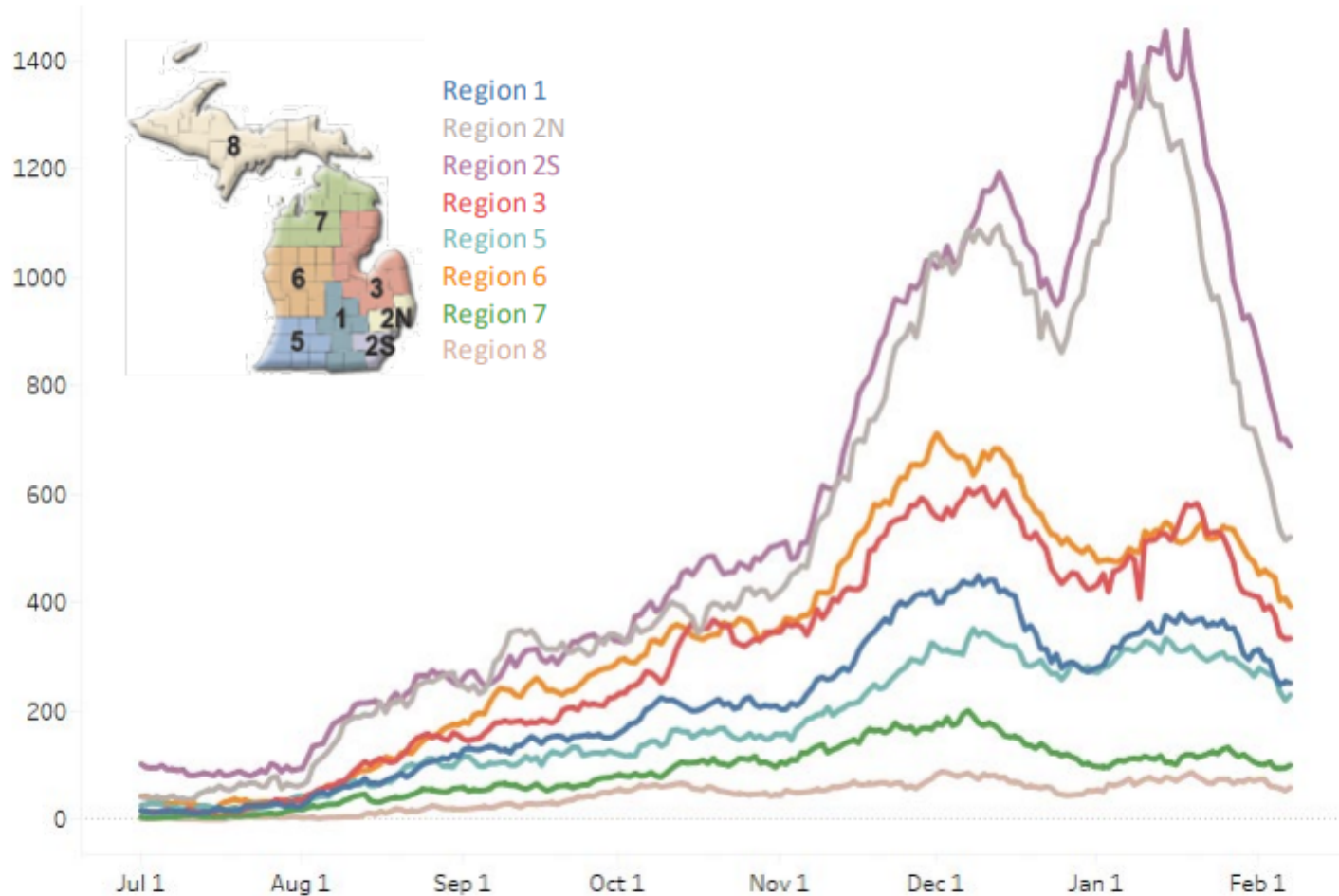


Data includes pediatric and adult COVID-19 positive inpatients across all Spectrum Health Hospitals.
*Vaccinated means a person has received their primary series of COVID-19 vaccines.
**Up to date means a person has received all recommended COVID-19 vaccines, including any booster dose(s) when eligible.

Source: <https://www.facebook.com/spectrumhealth/photos/a.126445034231/10159021171639232/>

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 2/7/2022
Confirmed Positive by Region



This week hospitalizations have decreased in all regions.

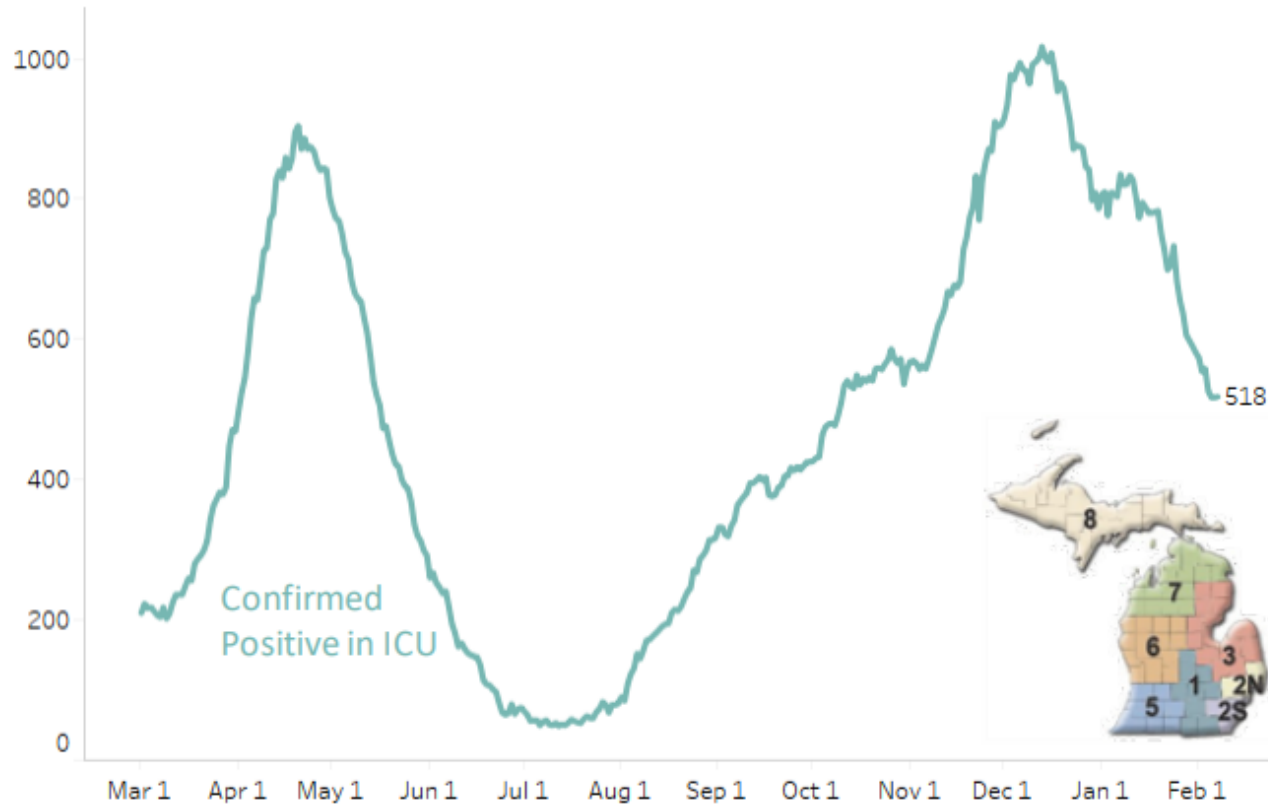
All regions except Region 2S have fewer than 300 hospitalizations/M (Region 2S has 309/M).

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	252 (-19%)	233/M
Region 2N	521 (-28%)	235/M
Region 2S	688 (-24%)	309/M
Region 3	334 (-19%)	295/M
Region 5	230 (-13%)	241/M
Region 6	393 (-17%)	268/M
Region 7	100 (-6%)	200/M
Region 8	59 (-17%)	190/M

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220208_Data_and_modeling_update_vPRESENT_747716_7.pdf

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 2/7/2022
Confirmed Positive in ICUs



Overall, volume of COVID+ patients in ICUs has decreased by 11% from last week (previous week was down by 6%). While most regions show decreasing or flat trend, ICU census in Regions 1 has increased from last week.

Regions 2S and 3 have ICU occupancy greater than 85%.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	45 (10%)	83%	23%
Region 2N	100 (-16%)	72%	18%
Region 2S	138 (-7%)	86%	20%
Region 3	79 (-14%)	92%	25%
Region 5	40 (3%)	76%	22%
Region 6	71 (-21%)	81%	26%
Region 7	26 (-4%)	80%	20%
Region 8	19 (-21%)	73%	30%

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220208_Data_and_modeling_update_vPRESENT_747716_7.pdf

Pediatric Hospitalization Rates – USA, Georgia, Michigan

United States | 0 - 17 Years



Georgia | 0 - 17 Years



Michigan | 0 - 17 Years



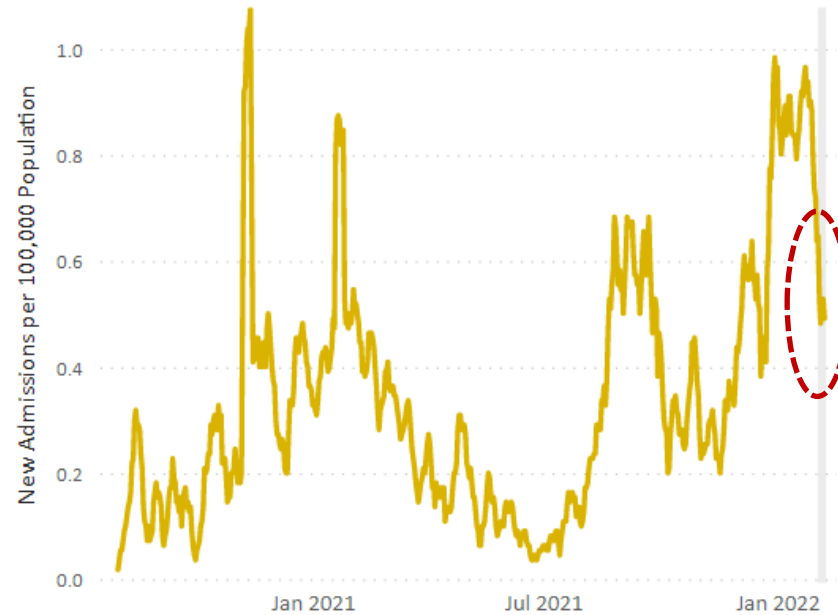
Pediatric hospitalization rates across the US, in Georgia, and in Michigan **remain elevated but are showing signs of improvement.**

Pediatric Hospitalization Rates – Select Midwest States

Ohio | 0 - 17 Years



Indiana | 0 - 17 Years



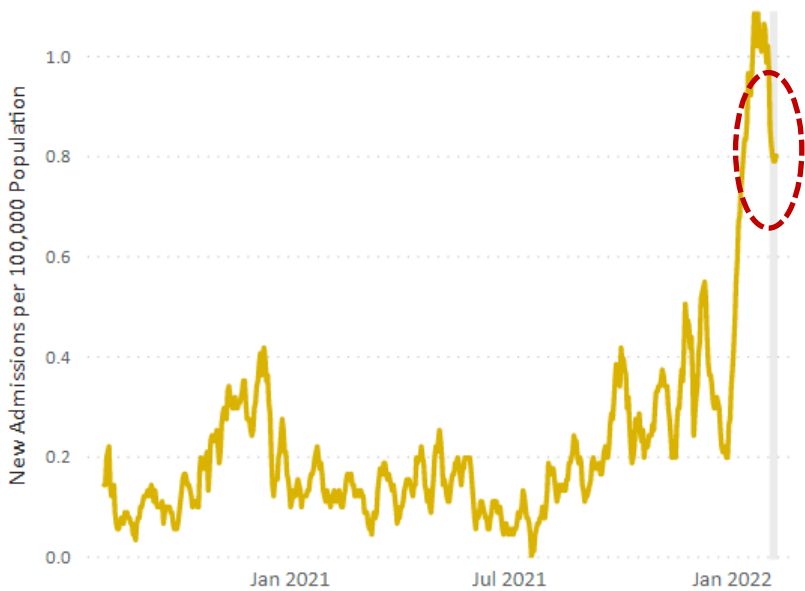
Illinois | 0 - 17 Years



Ohio, Indiana, and Illinois are all showing signs of improving pediatric hospitalization rates.

Pediatric Hospitalization Rates – Select Midwest States

Minnesota | 0 - 17 Years



Wisconsin | 0 - 17 Years



Iowa | 0 - 17 Years

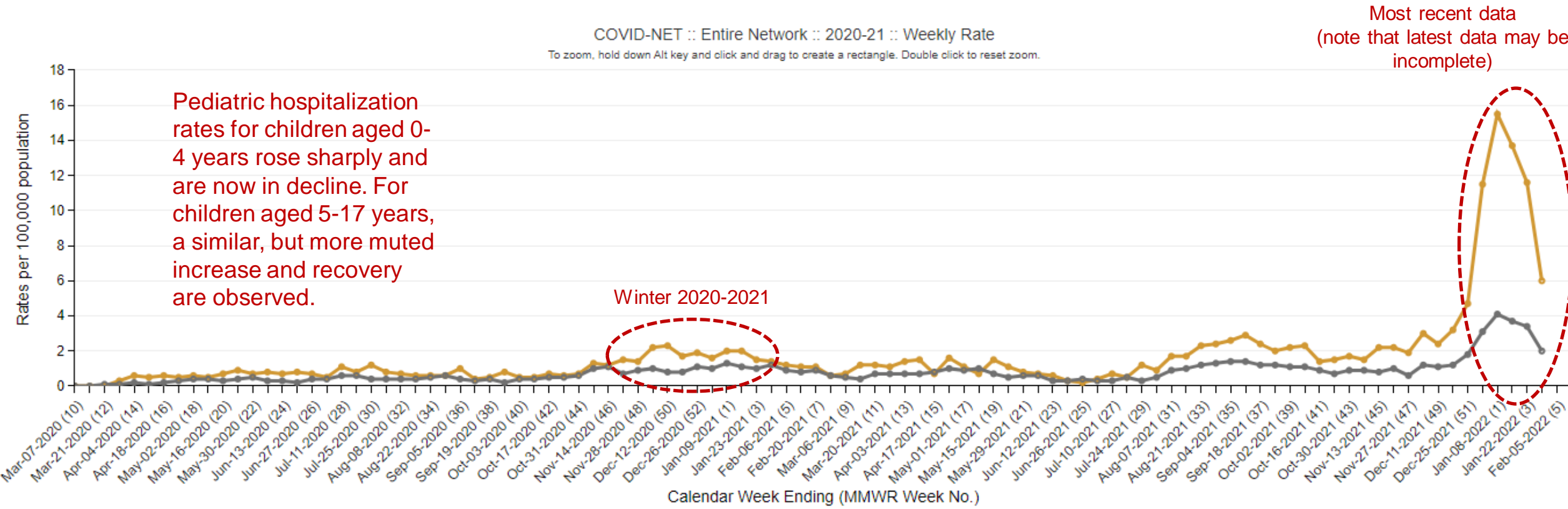


Pediatric hospitalization rates in Minnesota, Wisconsin, and Iowa remain elevated but are showing declines.

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

Accessed February 10, 2022

Pediatric Hospitalization Rates by Age Group – USA



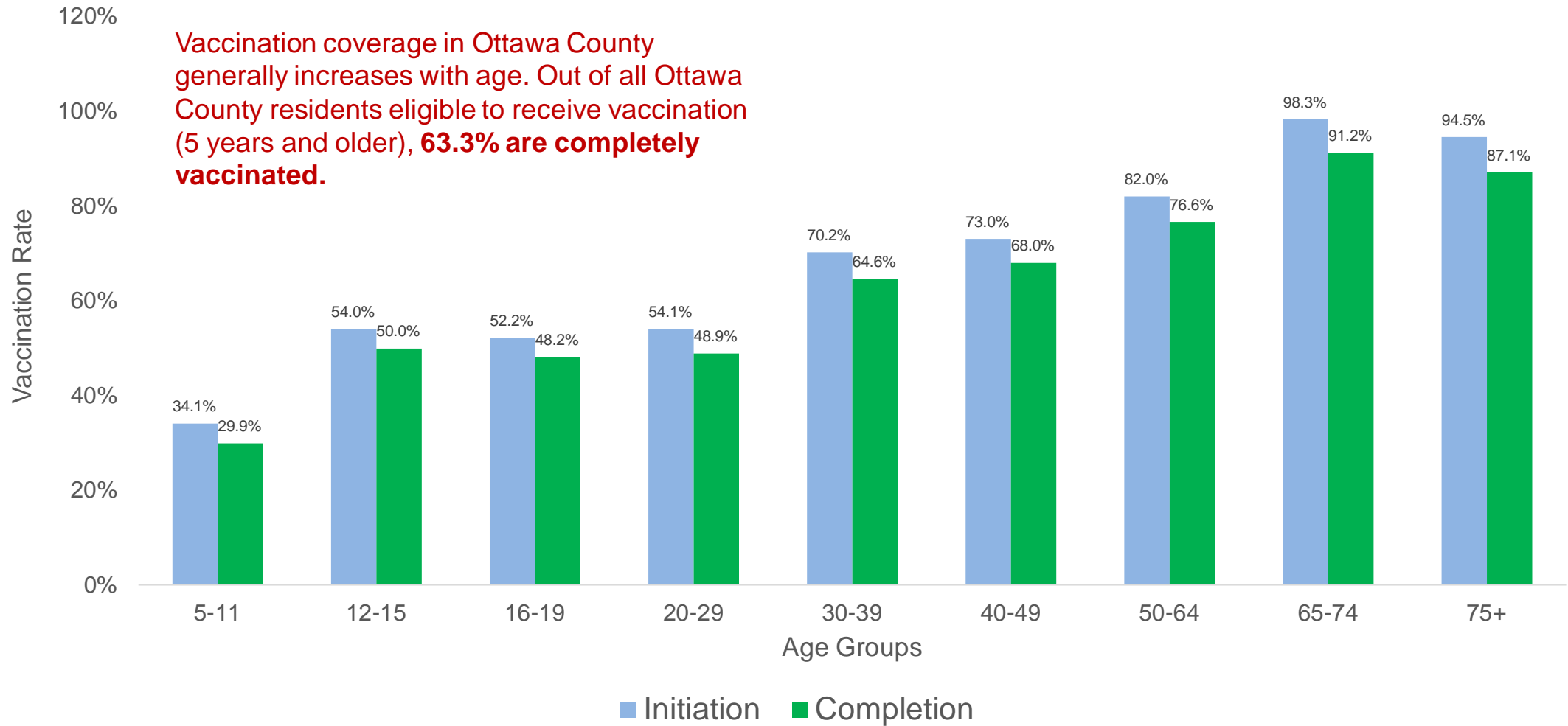
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case identification and reporting might increase around holidays or during periods of increased hospital utilization. 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 2020 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.

Starting MMWR week 48, MD data are temporarily removed from weekly rate calculations.

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

Accessed February 10, 2022

Vaccination Coverage by Age



Note:

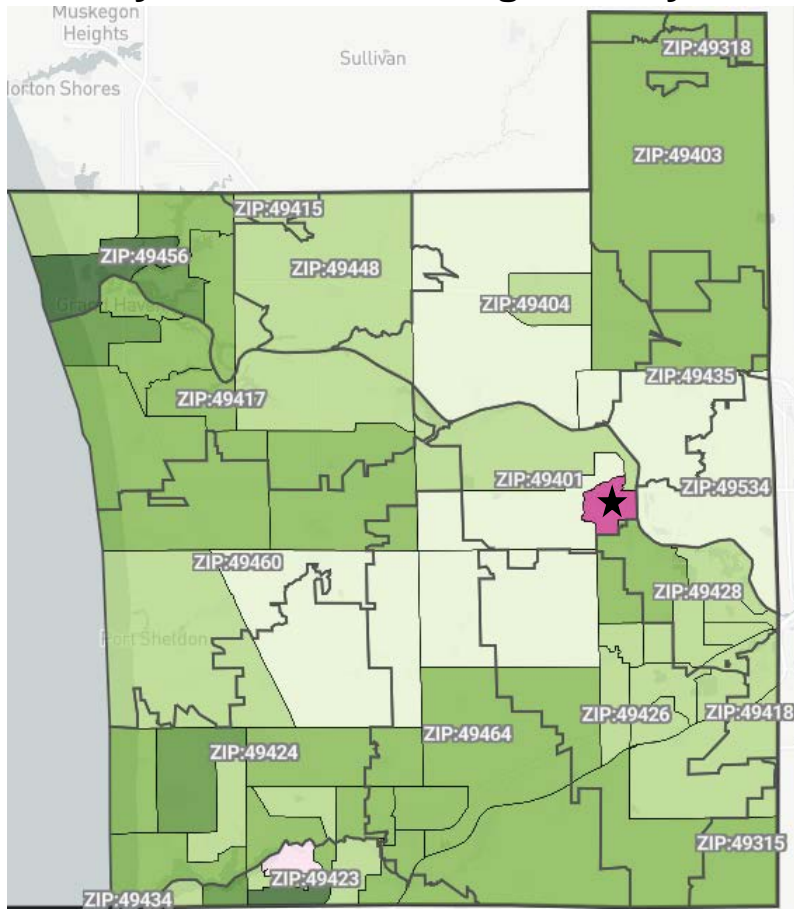
Completion is the percentage of people receiving 2 doses of Pfizer or Moderna or 1 dose of J&J.

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

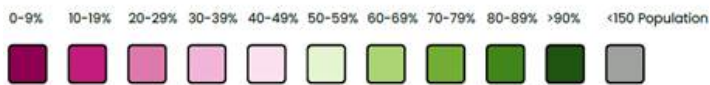
Data through February 8, 2022

Vaccination Coverage by Place of Residence

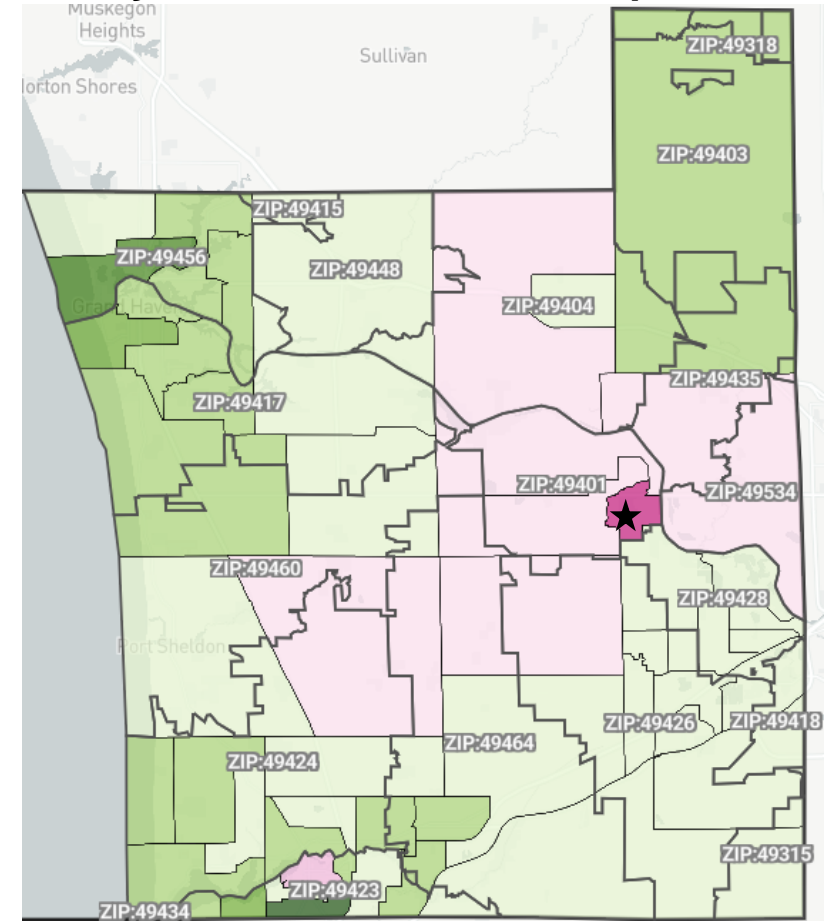
Fully vaccinated: % Ages 16+ years



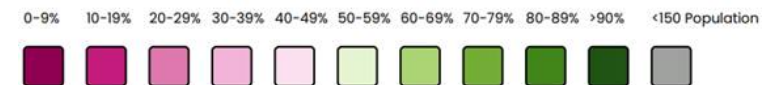
Color coded by: Fully Vaccinated (% Ages 16+)



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 – February 5, 2022

Fully Vaccinated People (172,278)	
Cases	Deaths
Percent of Cases in People Not Fully Vaccinated (35,305 / 52,267) 67.5%	Percent of Deaths in People Not Fully Vaccinated (261 / 394) 66.2%
Total Cases Not Fully Vaccinated 35,305	Total Deaths Not Fully Vaccinated 261
Total Breakthrough Cases 16,962	Total Breakthrough Deaths 127
Percent of Fully Vaccinated People who Developed COVID-19 (16,962 / 172,278) 9.9%	Percent of Fully Vaccinated People who Died of COVID-19 (127 / 172,278) 0.074%
Percent of Cases who were Fully Vaccinated (16,962 / 52,267) 32.5%	Percent of Deaths who were Fully Vaccinated (127 / 394) 32.2%
Total Cases 52,267	Total Deaths 394

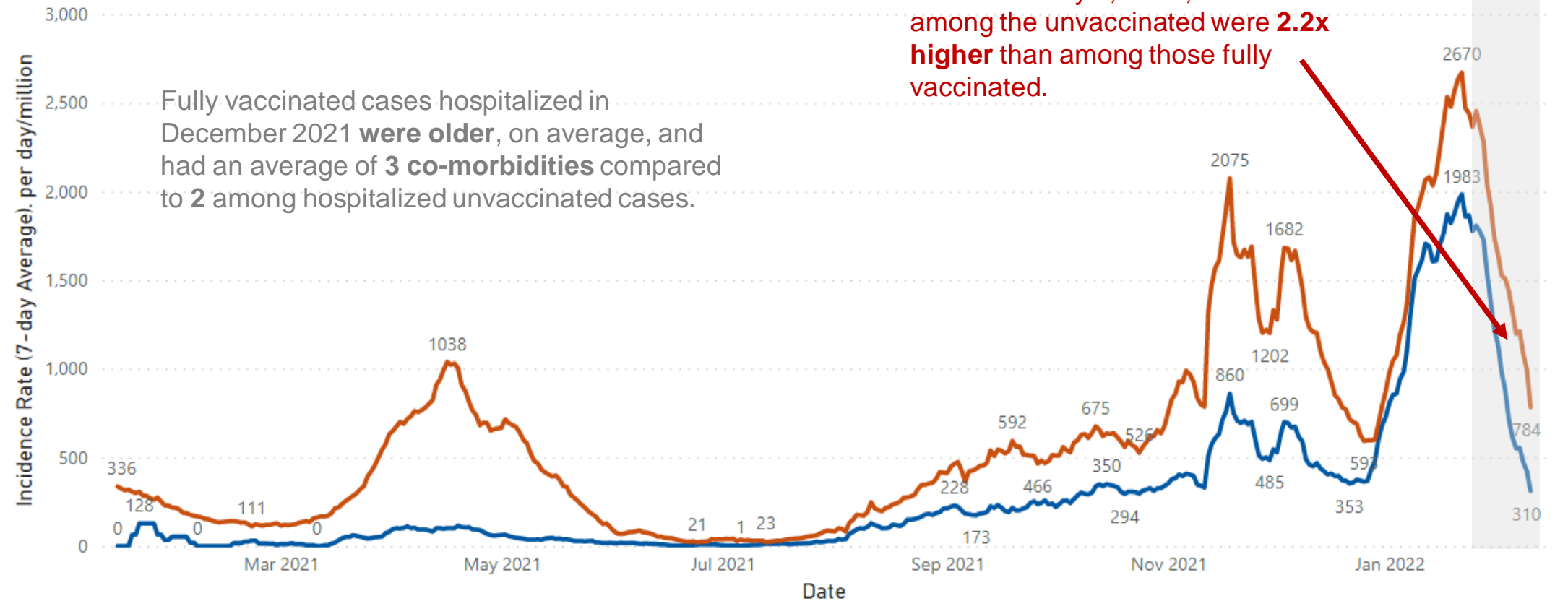
Due to reduced quality, hospitalization data has been removed from this visualization.

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 ● Unvaccinated



As of February 5, 2022, case rates among the unvaccinated were **2.2x higher** than among those fully vaccinated.

Recent data may be incomplete

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:

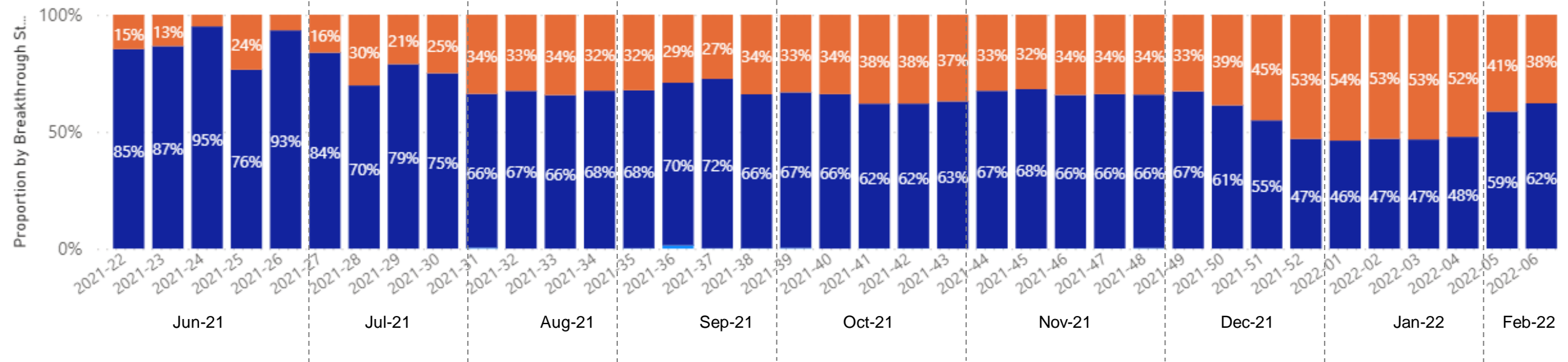
Michigan Department of Health and Human Services, Michigan Disease Surveillance System
 MDHHS COVID-19 Dashboard: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

By Week

Breakthrough Proportions by Week

Vaccine_Breakthrough ● NO ● YES



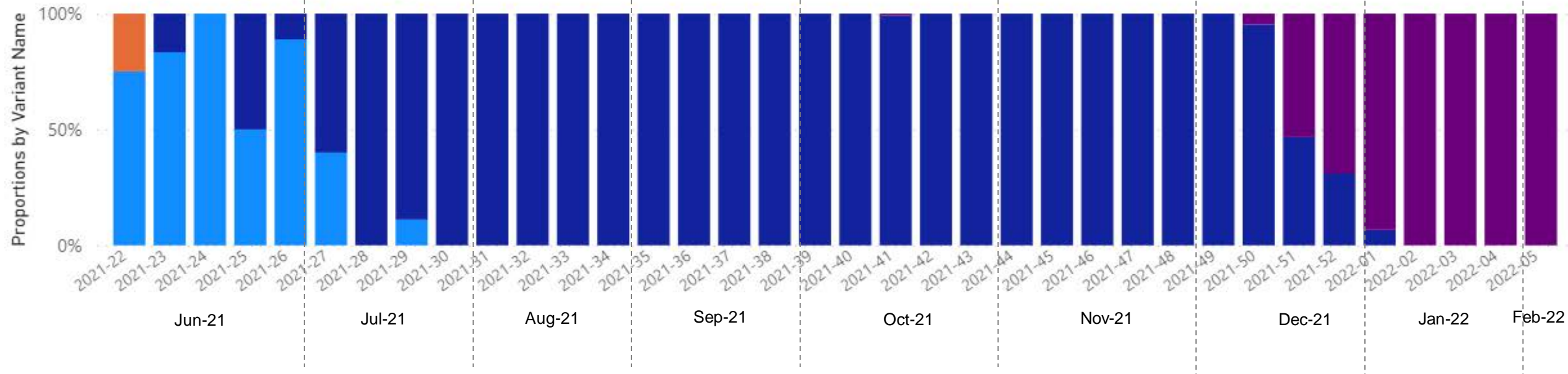
Through the Delta wave, which was most pronounced August through early December of 2021, about 34% of all cases reported to public health were breakthrough cases. At the end of 2021 and into 2022, the proportion of vaccine breakthrough cases increased to roughly 49% of cases reported each week. Weekly breakthrough rates observed in Ottawa County are similar to [other geographies reporting this same data](#).

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

Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name ● Alpha ● Delta ● Gamma ● Omicron



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. From late July through early December 2021 all clinical samples submitted for variant testing came back positive for the **Delta** variant. In mid-December 2021, the first **Omicron** positive samples were collected in an Ottawa County resident, and **Omicron** continues to be detected into 2022 (along with **Delta** in wastewater).

* Swabs from Ottawa County residents that tested positive for COVID-19 by PCR; only a small proportion of all COVID-19 positive tests are tested for variants.

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 **96.4%** of clinical samples collected in the United States as of February 5, 2022.

Variants – Wastewater Sampling – Grand Haven/Spring Lake

N =Not Detected
Y =Detected
 =Not Tested

Sample Date	Site	Wuhan (parental)	Delta	Epsilon	Alpha	Suggestive Omicron Signature
1/4/2022	Manhole 4340 on 48th	N	N	N		Y
1/4/2022	Grand Haven Spring Lake Wastewater	N	Y	N		Y
1/4/2022	Grand Haven Township and Local Station	N	Y	Y		Y
1/5/2022	Allendale WWTP	N	Y	N		Y
1/10/2022	Allendale WWTP	N	Y	Y		Y
1/10/2022	GVSU Weed Living Center	N	N	N		Y
1/10/2022	GVSU South E	N	N	N		Y
1/10/2022	Grand Haven Spring Lake Wastewater	N	Y	N		Y
1/12/2022	Allendale WWTP	N	Y	Y		Y
1/19/2022	Allendale WWTP	N	Y	N		Y
1/19/2022	Grand Haven Spring Lake Wastewater	N	Y	N		Y
1/19/2022	Spring Lake Station	N	Y	N		Y
1/24/2022	Manhole 4340 on 48th	N	N	N		Y
1/24/2022	GVSU South E	N	N	N		Y
1/24/2022	Grand Haven Spring Lake Wastewater	N	N	N		Y
1/24/2022	Grand Haven Township and Local Station	N	Y	N		Y
1/24/2022	Grand Haven Municipal Station	N	Y	N		Y
1/24/2022	Spring Lake Station	N	Y	N		Y
1/24/2022	Allendale WWTP	N	N	N		Y
1/26/2022	Grand Haven Municipal Station	N	N	N		Y
1/31/2022	Manhole 4340 on 48th	N	N	N		Y
1/31/2022	Allendale WWTP	N	Y	N		Y
1/31/2022	Grand Haven Spring Lake Wastewater	N	Y	N		Y
1/31/2022	Spring Lake Station	N	Y	N		Y
2/2/2022	Allendale WWTP	N	Y	N		Y
2/2/2022	Grand Haven Spring Lake Wastewater	N	N	N		Y
2/2/2022	Grand Haven Township and Local Station	N	N	N		Y
2/2/2022	Grand Haven Municipal Station	N	N	N		Y



The **Omicron** variant was consistently detected in Grand Haven, Spring Lake, and Allendale wastewater samples through January and into February of 2022. While **Delta** has been intermittently detected as well, Omicron likely remains the dominant variant in Ottawa County.

Source: MDHHS SEWER Network grant and the Annis Water Resources Institute at GVSU

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%

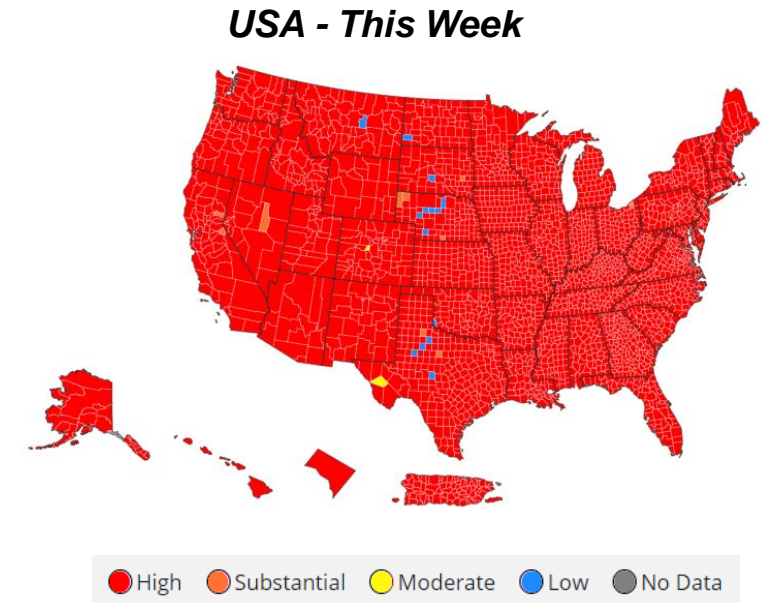
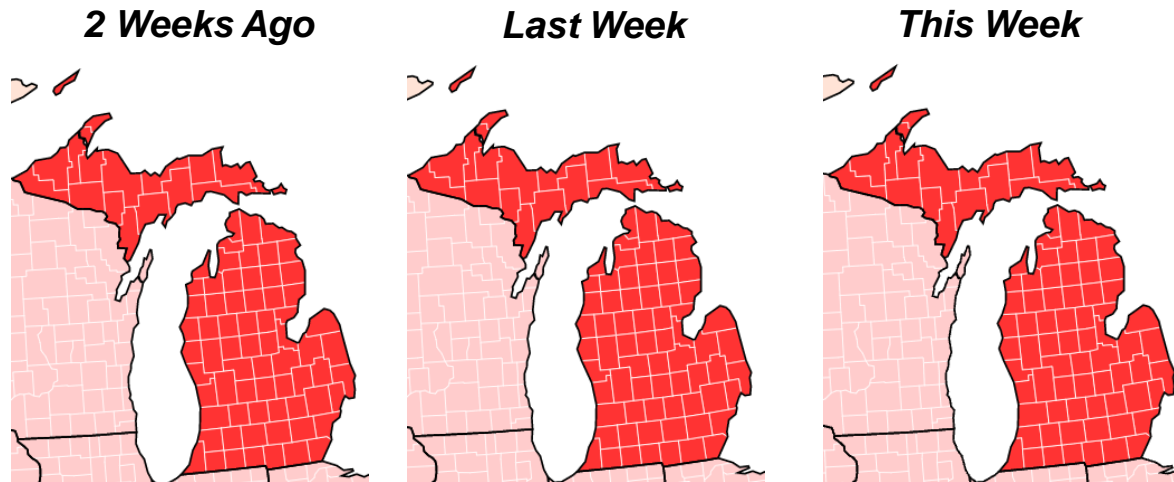
Ottawa's goal is to be in the Moderate category*

Ottawa is in the High category right now

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 **25+** weeks)
- Current Data:
 - Positivity = 23.89%
 - Case Rate = 557.52 cases per week per 100,000



Data through February 8, 2022
for case rates and through
February 6, 2022 for positivity.

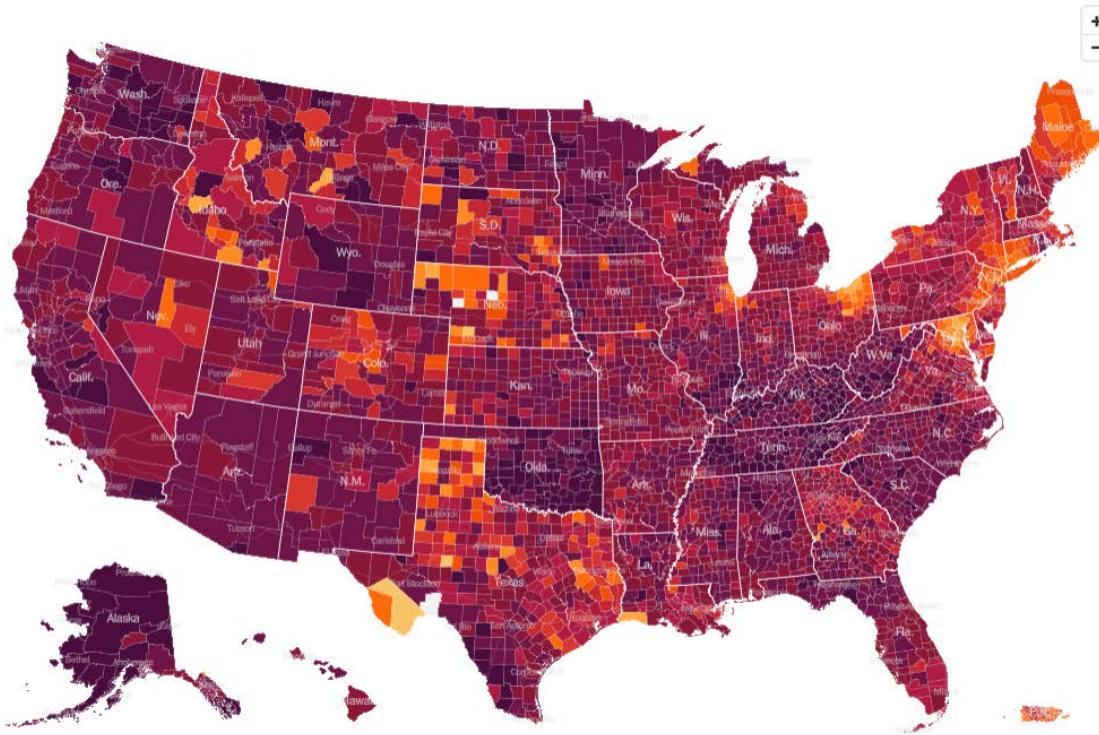
Source: <https://covid.cdc.gov/covid-data-tracker/#county-view>

COVID-19 Case Rates by County Across the US

Last Week

Hot spots

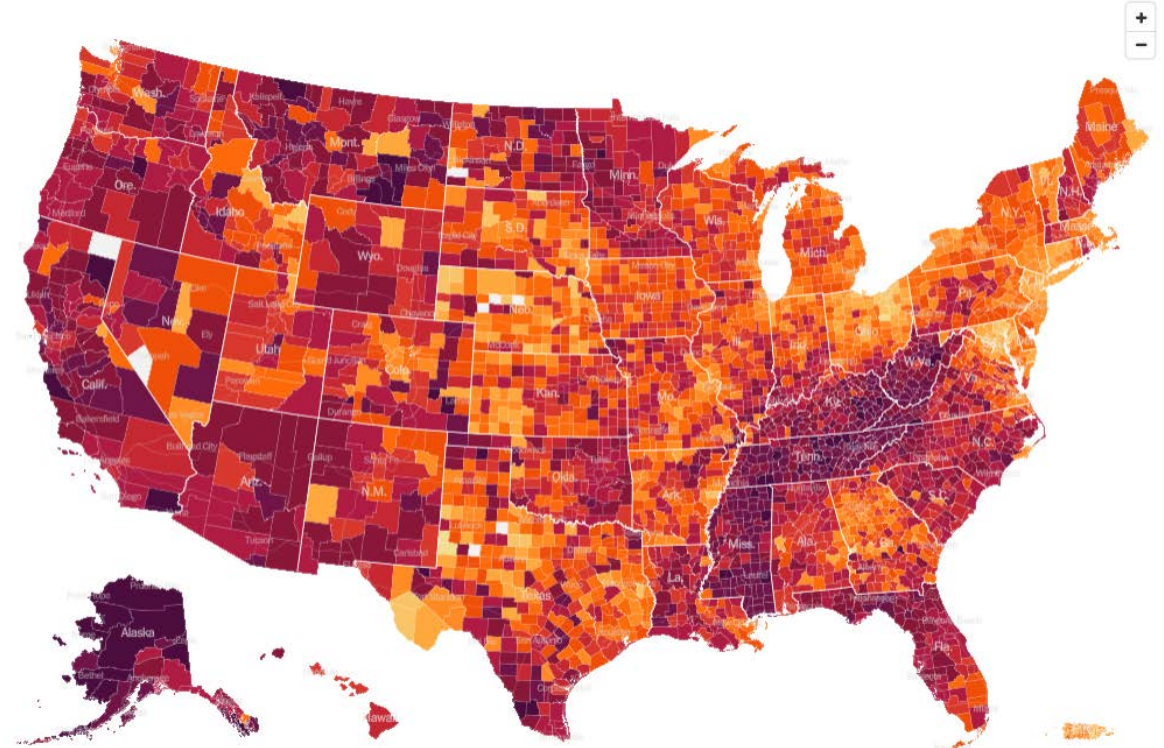
AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK
10 30 50 70 100 200 FEW OR NO CASES



This Week

Hot spots

AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK
10 30 50 70 100 200 FEW OR NO CASES



Case rates remain elevated across the nation, but declines are noted in many states.

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

Accessed February 10, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

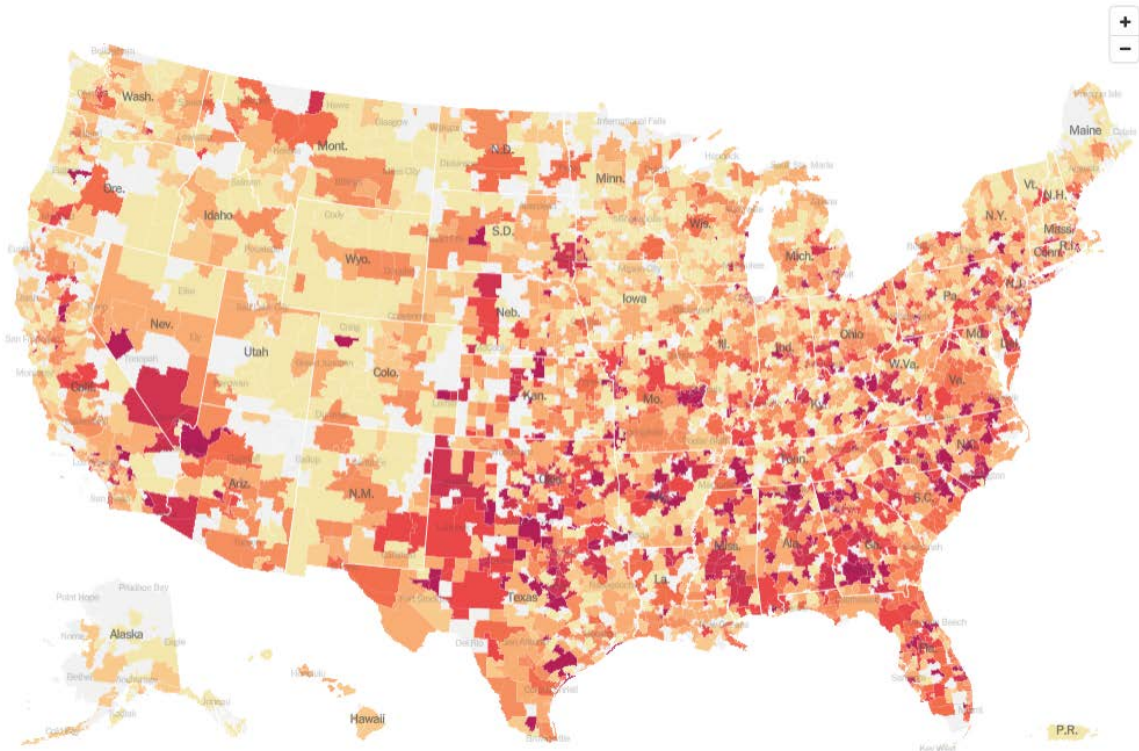
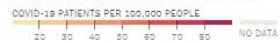
Media

Science
Roundup

COVID-19 Hospitalization Rates by County Across the US

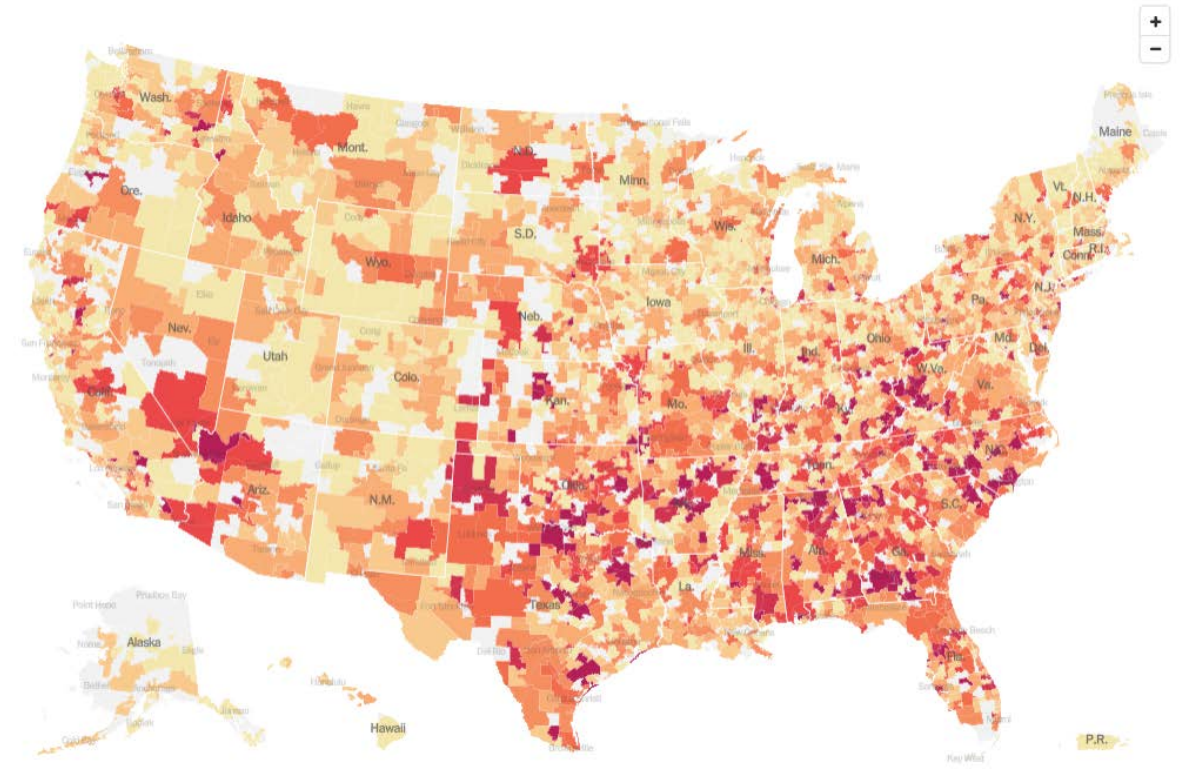
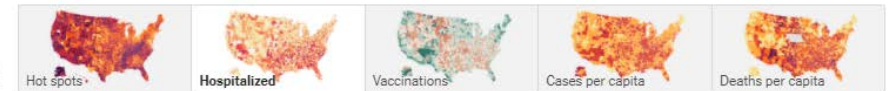
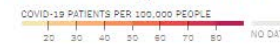
Last Week

Current hospitalizations



This Week

Current hospitalizations



Hospitalization rates are improving in many areas across the nation.

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

Accessed February 10, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

States and Michigan Counties with School Masking Requirements

- **States/Districts (15):** California, Connecticut, Delaware*, Hawaii, Illinois, Maryland, Massachusetts*, New Mexico, New Jersey*, New York, Nevada, Oregon*, Rhode Island*, Washington, & Washington D.C.
- **Michigan Counties (11):**
 - **PreK/K-6:** Marquette
 - **K-12:** Antrim, Benzie, Charlevoix, Emmet, Ingham, Leelanau, Oakland, Otsego, Washtenaw, and Wayne
- **Rescinded County Mask Mandates (10):**
 - Allegan, Barry, Berrien, Eaton, Iron, Dickinson (rescinded October 2021)
 - Kalamazoo, Genesee (rescinded December of 2021)
 - Ottawa, Kent (rescinded January of 2022)
- **Ottawa County School Districts Retaining Mask Rules (4):**
 - Holland Public, Black River, Grand Haven Public**, & Spring Lake Public**

*Deadlines set for rescinding state-level school mask rules: Delaware through March; Massachusetts Feb 28; New Jersey Mar 7; Oregon March 31; Rhode Island Mar 4.

**Transitioning or publicly considering transition to masks optional.

Note: Information is changing rapidly, lists may not be comprehensive or up-to-date.

Source for State/Districts: <https://www.nytimes.com/interactive/2021/us/cdc-mask-guidance-states.html>

COVID-19 News Headlines

Omicron surge easing in West Michigan: New cases down, experts 'cautiously optimistic'

<https://www.hollandsentinel.com/story/news/coronavirus/2022/02/05/omicron-surge-easing-west-michigan/6661325001/>

Total COVID-19 deaths top 30,000 while daily case average in Michigan drops to below 10,000 for first time in 2022

<https://www.mlive.com/public-interest/2022/02/total-covid-19-deaths-top-30000-while-daily-case-average-in-michigan-drops-to-below-10000-for-first-time-in-2022.html>

Education and public health

GHAPS, SLPS to change mask policies this month

https://www.grandhaventribune.com/news/education/ghaps-to-change-mask-policy-as-of-feb-28/article_04c358d7-d90e-56a6-9108-4dcfe17f3a12.html

New York joins several other U.S. states in rolling back mask mandates as infections fall.

<https://www.nytimes.com/2022/02/08/us/us-mask-mandates.html>

US plans to roll out initial 10 million Covid-19 vaccine doses for children under 5 after FDA authorization, CDC document says

<https://www.cnn.com/2022/02/09/health/covid-19-vaccine-rollout-children-under-5-cdc/index.html>

Michiganders who test positive for COVID-19 are urged to talk to their health care providers about treatment with oral medications

https://www.michigan.gov/mdhhs/0,5885,7-339-73970_71692_71696-576975--,00.html

Science Roundup

Report 49: Growth, population distribution and immune escape of Omicron in England*

<https://www.imperial.ac.uk/media/imperial-college/medicine/mrc-gida/2021-12-16-COVID19-Report-49.pdf>



A report out of the United Kingdom showed 2 doses of Pfizer provided less than ideal protection against symptomatic infection with Omicron, while 3 doses showed 54% vaccine effectiveness.

Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021

<https://www.cdc.gov/mmwr/volumes/71/wr/mm7106e1.htm>



A large case-control study conducted in California found that mask wearing was associated with a lower odds of testing positive for COVID-19, particularly among those wearing surgical masks or N95/KN95s.

Long-term cardiovascular outcomes of COVID-19

<https://www.nature.com/articles/s41591-022-01689-3>



Results from large cohort study on Veteran's Affairs patients found the burden of cardiovascular disease among survivors of acute COVID-19 was substantial.

Association of SARS-CoV-2 Infection With Serious Maternal Morbidity and Mortality From Obstetric Complications

<https://jamanetwork.com/journals/jama/fullarticle/2788985>



A study published in JAMA showed that COVID-19 infection was associated with higher mortality or serious morbidity from obstetric complications.