

# Ottawa County COVID-19 Epidemiology

June 30, 2022

*Data as of June 25, 2022, unless otherwise indicated*

# Executive Summary

- **Transmission has flattened in the US and in Michigan**
- **Ottawa County transmission has also flattened**
  - Test positivity **increased slightly** to 20.3% this past week compared to 20.1% two weeks ago.
  - Weekly case counts **increased** 7% (-15% two weeks ago), from 342 two weeks ago to 360 last week.
  - Cases among children **remained the same** (-23% two weeks ago), at 31.
  - COVID-19 wastewater signals in Holland/Zeeland are mixed but may be increasing; Spring Lake/Grand Haven may be declining, and Allendale is flat.
  - Wastewater testing continues to identify signals suggestive of Omicron subvariant BA.4/5.
  - Ottawa remains in the LOW CDC Community Level.
- **Ottawa-area and regional hospitals have adequate capacity**
  - In Ottawa County, 1% of all available beds and 0% of all ICU beds are occupied by COVID-19 patients.\*
- **Pediatric hospitalization rates in the US are increasing, but are relatively low and declining in Michigan**
  - Regional pediatric hospitalization census remains low.
- **Of Ottawa County residents aged 5+, 63.4% are fully 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.

# Limitations

- **Case Counts, Case Rates, and Test Positivity**

With the widescale availability of at-home antigen tests for COVID-19, which are not reported or included in public health surveillance data, the case counts and case rates in this report underestimate the true burden of this disease. However, it is expected that increasing and decreasing trends reflect the relative amount of transmission in the community.

- **Wastewater Surveillance**

Wastewater samples are collected from specific geographic sites in the county and may not reflect COVID-19 burden across the entire county population. However, increases and decreases in detected trends generally correlate with case rates, therefore wastewater readings are displayed alongside countywide incidence rates in this report.

# Ottawa County Metrics by Week

Metric	Goal	Week Ending				
		28-May-22	4-Jun-22	11-Jun-22	18-Jun-22	25-Jun-22
Positivity (All Ages)	NA	23.3%	24.4%	20.3%	20.1%	20.3%
Weekly Cases (All Ages)	<592	452	418	395	342	360
Weekly Cases in Children (0-17 years of age)	NA	55	40	40	31	31
Total Deaths (All Ages)	0	3	2	1	2	0
CDC COVID-19 Community Level (New)	Low	Low	Low	Low	Low	Low

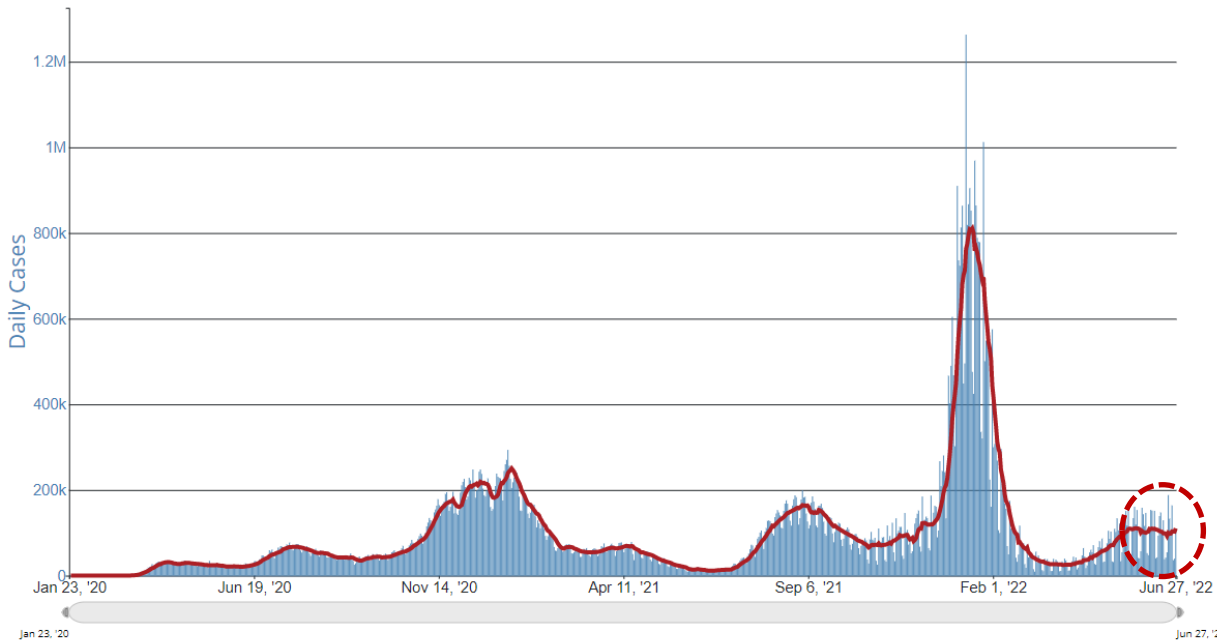
Please note that with updated CDC Community Risk Transmission levels, metrics and/or metric thresholds/goals may change.

**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. 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

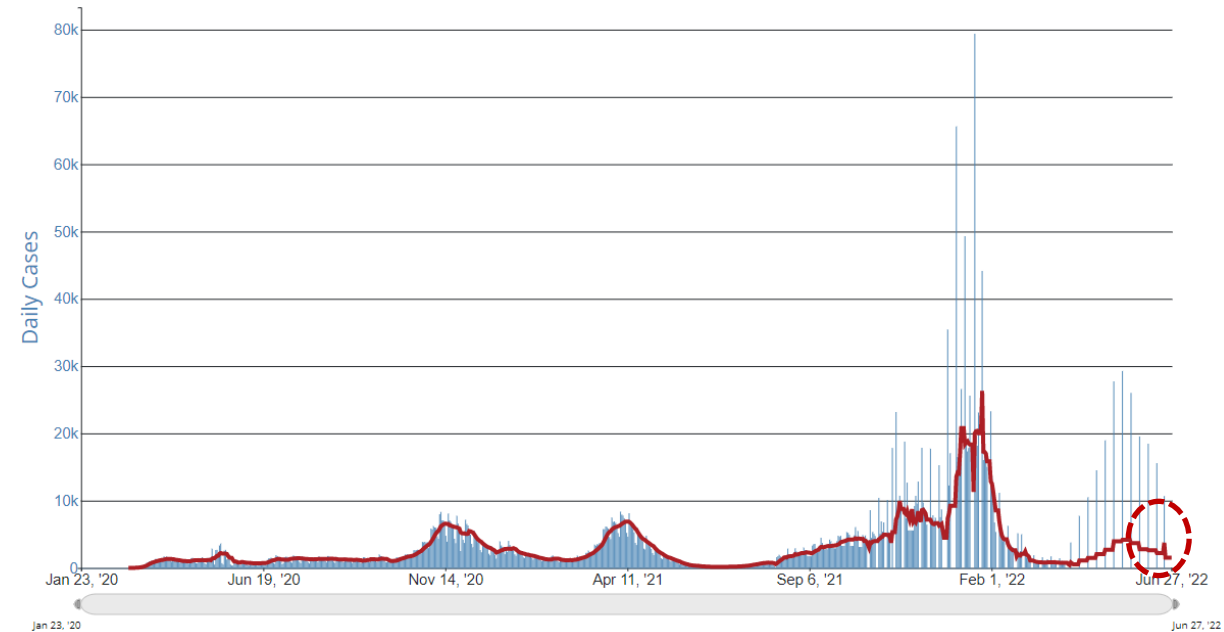
## USA

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 remain lower than previous surges and are currently flat or declining.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in an artificially deflated number of cases.

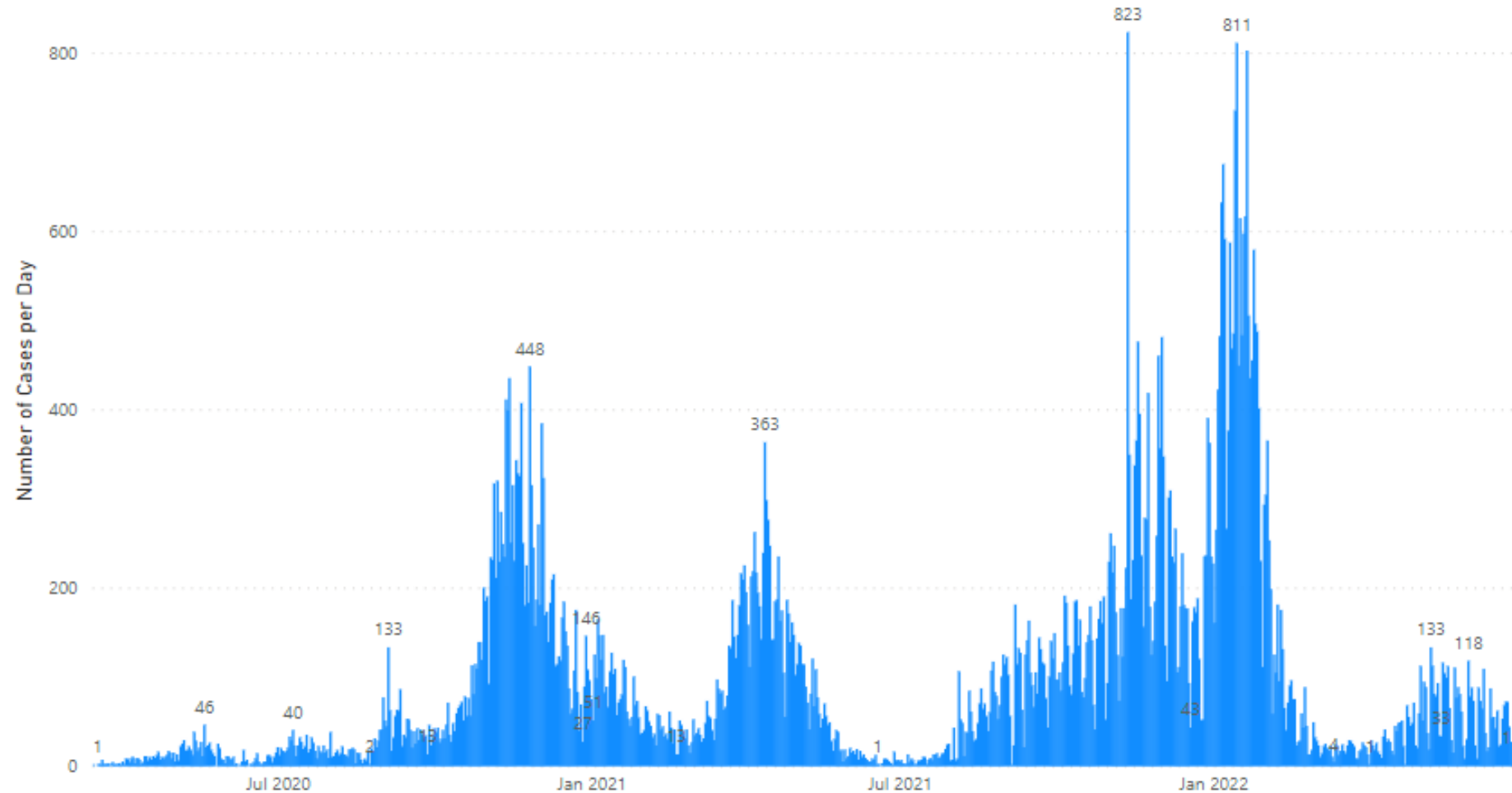
**Source:** [https://covid.cdc.gov/covid-data-tracker/#trends\\_dailycases](https://covid.cdc.gov/covid-data-tracker/#trends_dailycases)

Data through June 27, 2022

# Case Trends in Ottawa County

## COVID-19 Cases by Day, Ottawa County, March 15, 2020 – June 30, 2022

Epidemiological Curve



Total Number of Cases  
**79,279**

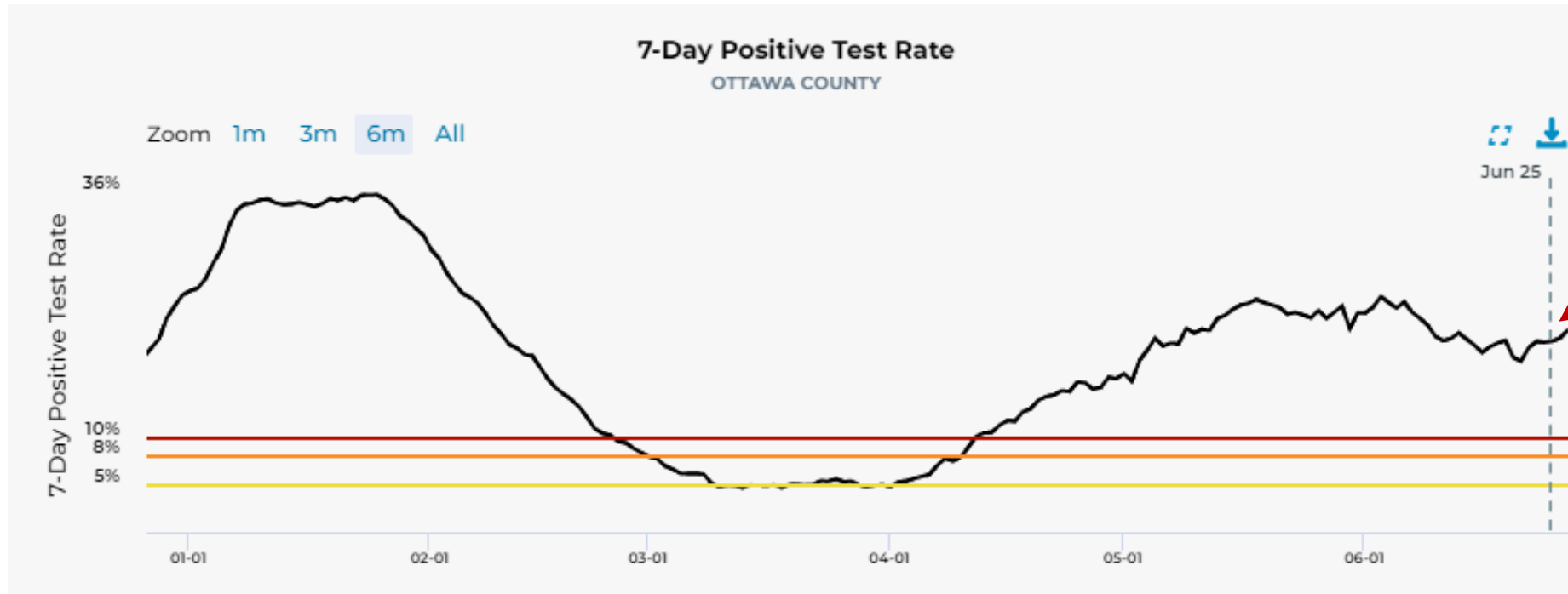
Currently, the 7-day average is just over **38 cases per day**, a decrease from the approximately 46 cases seen last week at this same time.

**Notes:** Use of at home tests since late 2021 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

# Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, January 1, 2022 – June 25, 2022



Positivity trended slightly higher at **20.3%** last week compared to the **20.1%** the week prior.

This visualization may change as CDC Community Transmission levels, metrics and/or metric thresholds/goals change.



**Note:** Testing data and can be found at the following sources: [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](#) & [MI Safe Start Map](#). Use of at-home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in an artificially deflated number of cases.

**Source:** [MI Safe Start Map-Ottawa County](#)

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

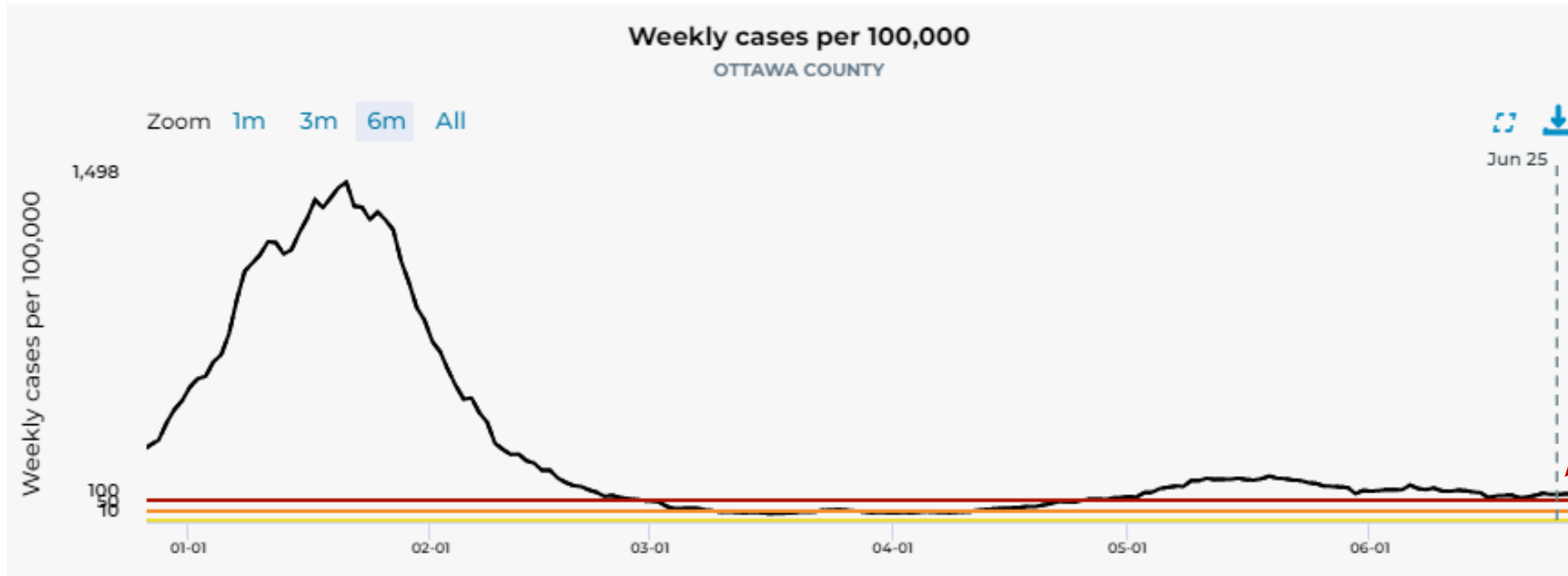
Other

Media

Science Roundup

# Case Rates in Ottawa County – All Ages

## COVID-19 Cases by Day, Ottawa County, January 1, 2022 – June 25, 2022



Case rates **remained low at 123** cases per week per 100,000 population (**higher than 114.1** the week prior).

Please note that with updated CDC Community Transmission levels, metrics and/or metric thresholds/goals may change.



**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

**Source:** [MI Safe Start Map-Ottawa County](#)

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

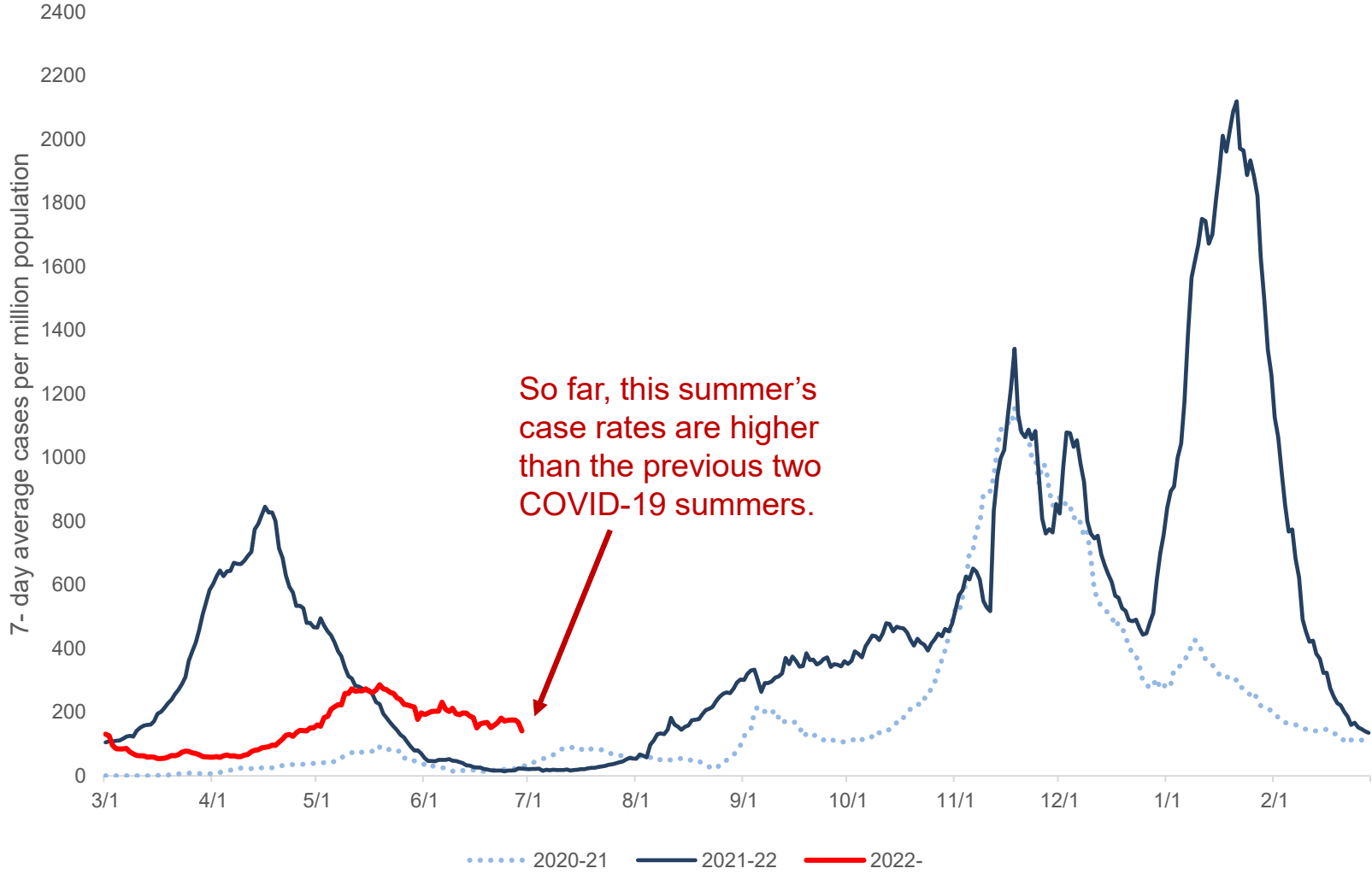
Other

Media

Science Roundup



# Ottawa County Time Trends – Annual Comparison of Case Rates



So far, this summer's case rates are higher than the previous two COVID-19 summers.

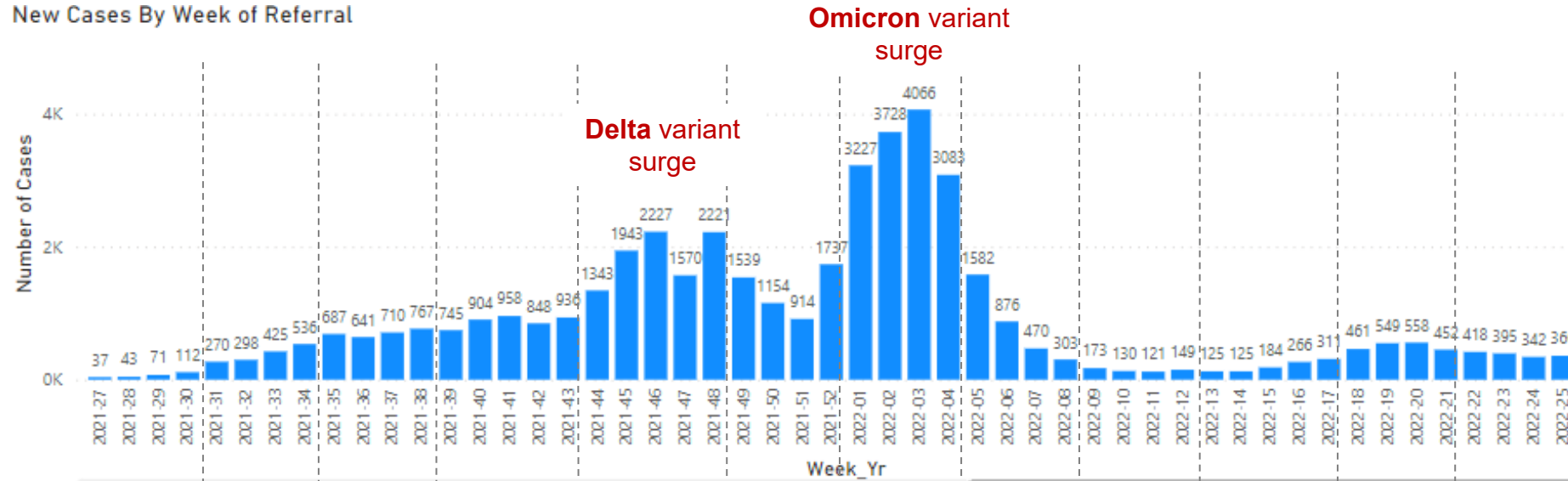
**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

**Source:** Internal Data

Data through June 29, 2022

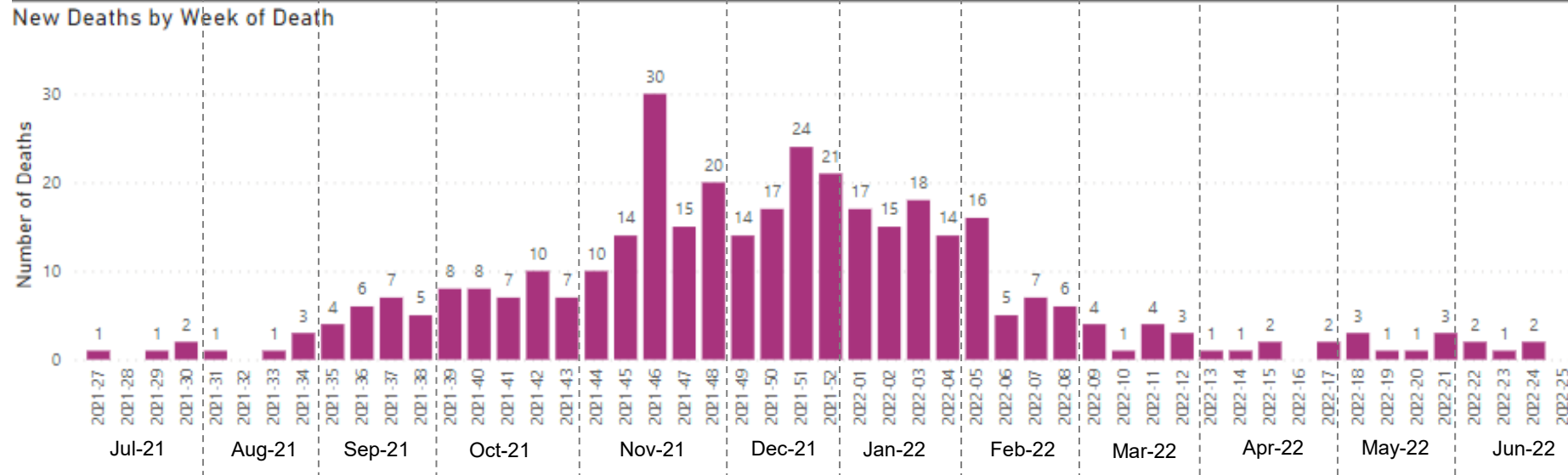
# Ottawa County – Cases & Deaths by Week, All Ages

New Cases By Week of Referral



The weekly number of **cases increased 7%** from week 24 to week 25.

New Deaths by Week of Death



Weekly COVID-19 **deaths remain low**. The current weekly average number of deaths over the last 4 weeks is **1-2 deaths per week**.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated number of cases.

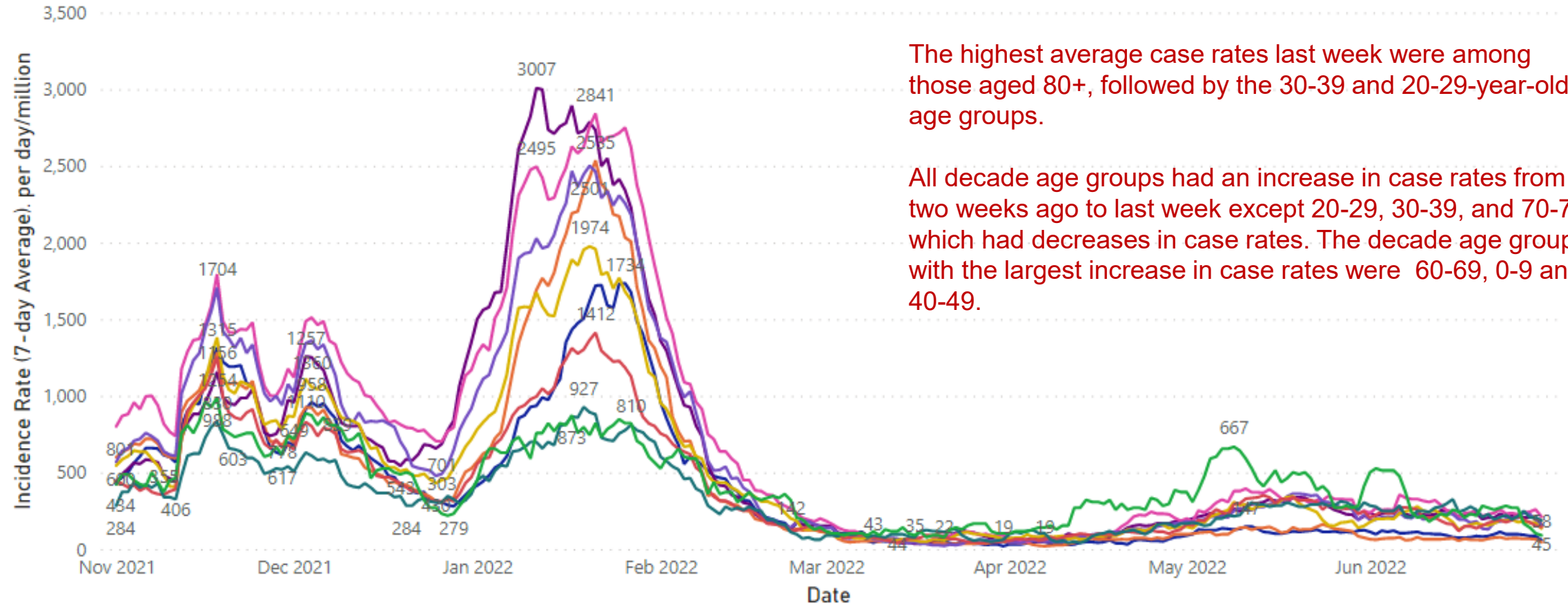
**Source:** Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County - Case Rate Trends – by Age Decade

## COVID-19 Case Rates by Age, November 2021 – June 30, 2022

Incidence Rate (7-day Average)

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



The highest average case rates last week were among those aged 80+, followed by the 30-39 and 20-29-year-old age groups.

All decade age groups had an increase in case rates from two weeks ago to last week except 20-29, 30-39, and 70-79 which had decreases in case rates. The decade age groups with the largest increase in case rates were 60-69, 0-9 and 40-49.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

Data as of June 30, 2022

# 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 25 (June 19, 2022 – June 25, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	3.6	96.9	25%
10-19	3.1	70.9	16%
20-29	9.6	211.6	-7%
30-39	8.3	231.3	-3%
40-49	6.7	202.2	20%
50-59	6.6	188.4	18%
60-69	6.1	188.4	26%
70-79	4.0	193.7	-30%
80+	3.0	269.5	17%

**Age groups with highest average case rates last week:**

1. 80+
2. 30-39
3. 20-29

**Age groups with largest week-over-week increase in case rates:**

1. 60-69
2. 0-9
3. 40-49

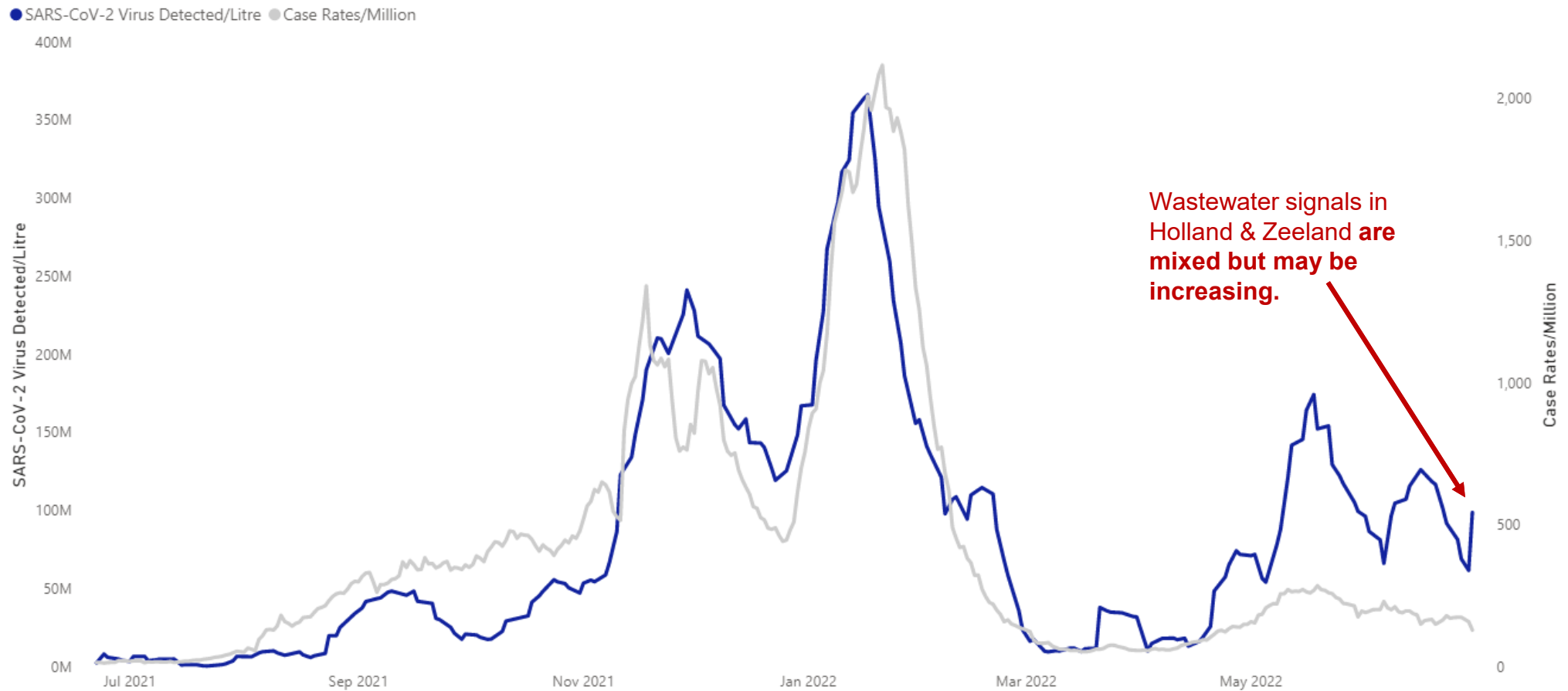
**Notes:** Average daily cases is calculated by summing the weekly total number of cases and dividing by seven. Cases counted in weeks of interest reflect referral date. Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

Data as June 30, 2022

# Holland-Zeeland Wastewater Surveillance

SARS-CoV-2 Virus Detected/Litre by Sample Date With COVID-19 Case Rates/Million by Referral Date (7-Day Averages)



**Data Interpretation:** The **blue line** on the graph shows the 7-day average levels of SARS-CoV-2 virus (N2 markers) detected in wastewater sampled from treatment plants in Holland & Zeeland. The **gray line** on the graph represents the 7-day average COVID-19 case rates/million for all of Ottawa County by referral date.

**Notes:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates. Display of wastewater data may change as analytical methods are refined. An outlier data point from Zeeland collected June 23, 2022 was removed from data analysis while the sample is being retested.

**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))

**Additional Information:** [Michigan COVID-19 Wastewater Surveillance Pilot Project \(arcgis.com\)](https://arcgis.com), [Coronavirus - Sentinel Wastewater Epidemiology Evaluation Project \(SWEET\) \(michigan.gov\)](https://michigan.gov)

Data through June 30, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

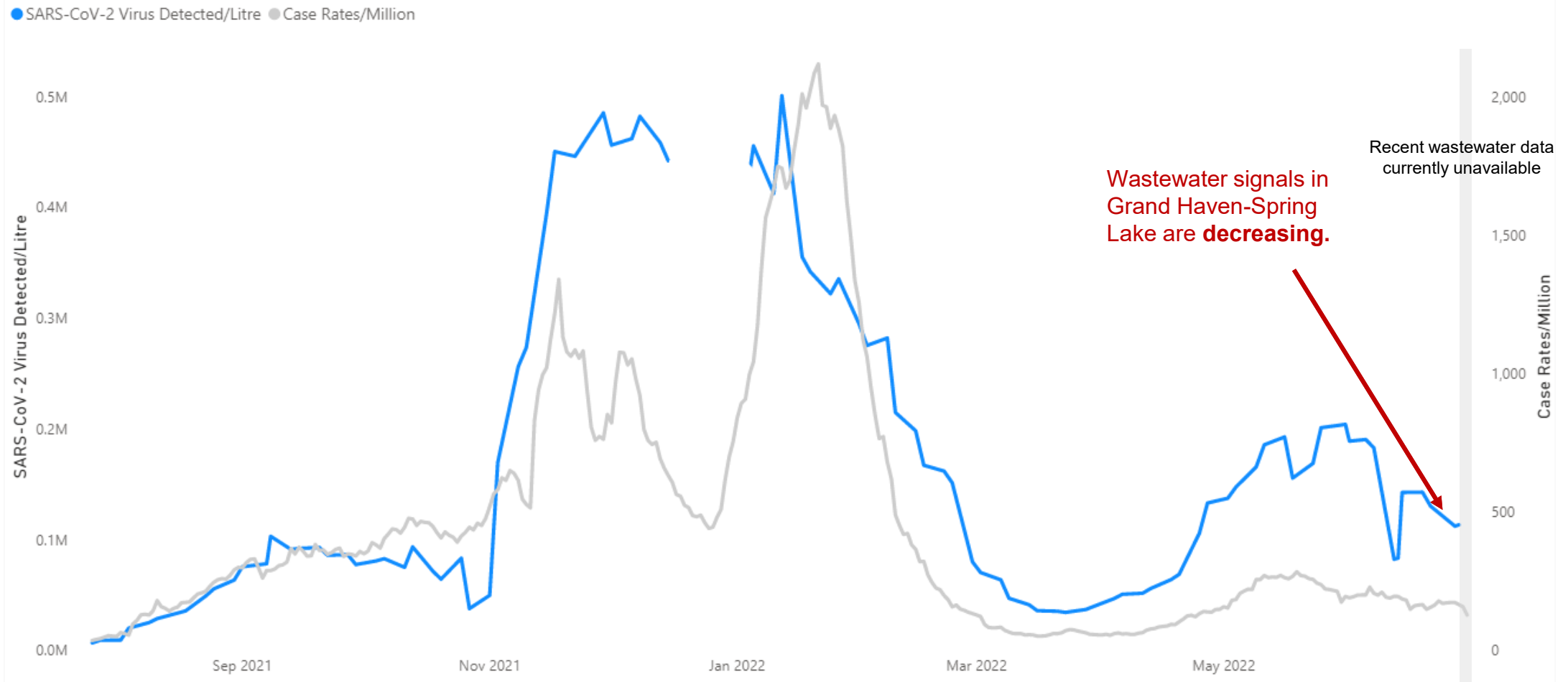
Other

Media

Science  
Roundup

# Grand Haven-Spring Lake Wastewater Surveillance

SARS-CoV-2 Virus Detected/Litre by Sample Date With COVID-19 Case Rates/Million by Referral Date (7-Day Averages)



**Data Interpretation:** The **blue line** on the graph shows the 7-day average levels of SARS-CoV-2 virus (N2 markers) detected in wastewater sampled from the treatment plant in Grand Haven-Spring Lake. The **gray line** on the graph represents the 7-day average COVID-19 case rates/million for all of Ottawa County by referral date.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates. Display of wastewater data may change as analytical methods are refined.

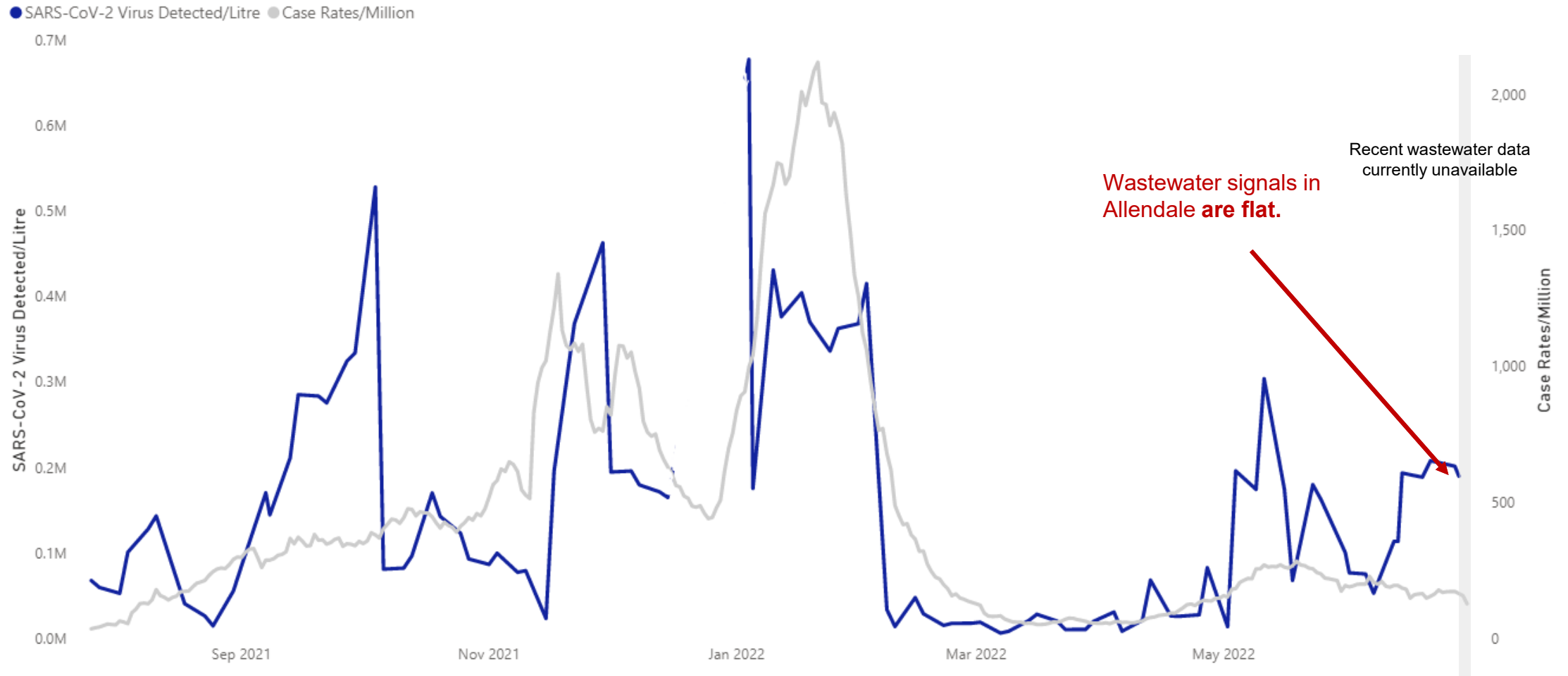
**Source:** Grand Valley State University Annis Water Resources Institute as part of the MDHHS SEWER-Network, Richard Rediske, Ph.D. ([rediske@gvsu.edu](mailto:rediske@gvsu.edu))

**Additional Information:** [Michigan COVID-19 Wastewater Surveillance Pilot Project \(arcgis.com\)](https://arcgis.com), [Coronavirus - Sentinel Wastewater Epidemiology Evaluation Project \(SWEEP\) \(michigan.gov\)](https://michigan.gov)

Data through June 28, 2022

# Allendale Wastewater Surveillance

SARS-CoV-2 Virus Detected/Litre by Sample Date With COVID-19 Case Rates/Million by Referral Date (7-Day Averages)



**Data Interpretation:** The **blue line** on the graph shows the 7-day average levels of SARS-CoV-2 virus (N2 markers) detected in wastewater sampled from the treatment plant in Allendale. The **gray line** on the graph represents the 7-day average COVID-19 case rates/million for all of Ottawa County by referral date.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates. Display of wastewater data may change as analytical methods are refined.

**Source:** Grand Valley State University Annis Water Resources Institute as part of the MDHHS SEWER-Network, Richard Rediske, Ph.D. ([redisker@gvsu.edu](mailto:redisker@gvsu.edu))

**Additional Information:** [Michigan COVID-19 Wastewater Surveillance Pilot Project \(arcgis.com\)](https://arcgis.com), [Coronavirus - Sentinel Wastewater Epidemiology Evaluation Project \(SWEEP\) \(michigan.gov\)](https://michigan.gov)

Data through June 28, 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
16-Apr-22	165	46%	19	46%	184	46%
23-Apr-22	239	45%	27	42%	266	45%
30-Apr-22	269	13%	42	56%	311	17%
7-May-22	410	52%	51	21%	461	48%
14-May-22	492	20%	57	12%	549	19%
21-May-22	487	-1%	62	9%	549	0%
28-May-22	393	-19%	55	-11%	448	-18%
4-Jun-22	364	-7%	40	-27%	404	-10%
11-Jun-22	353	-3%	40	0%	393	-3%
18-Jun-22	304	-14%	31	-23%	335	-15%
25-Jun-22	329	8%	31	0%	360	7%

Adults

Children

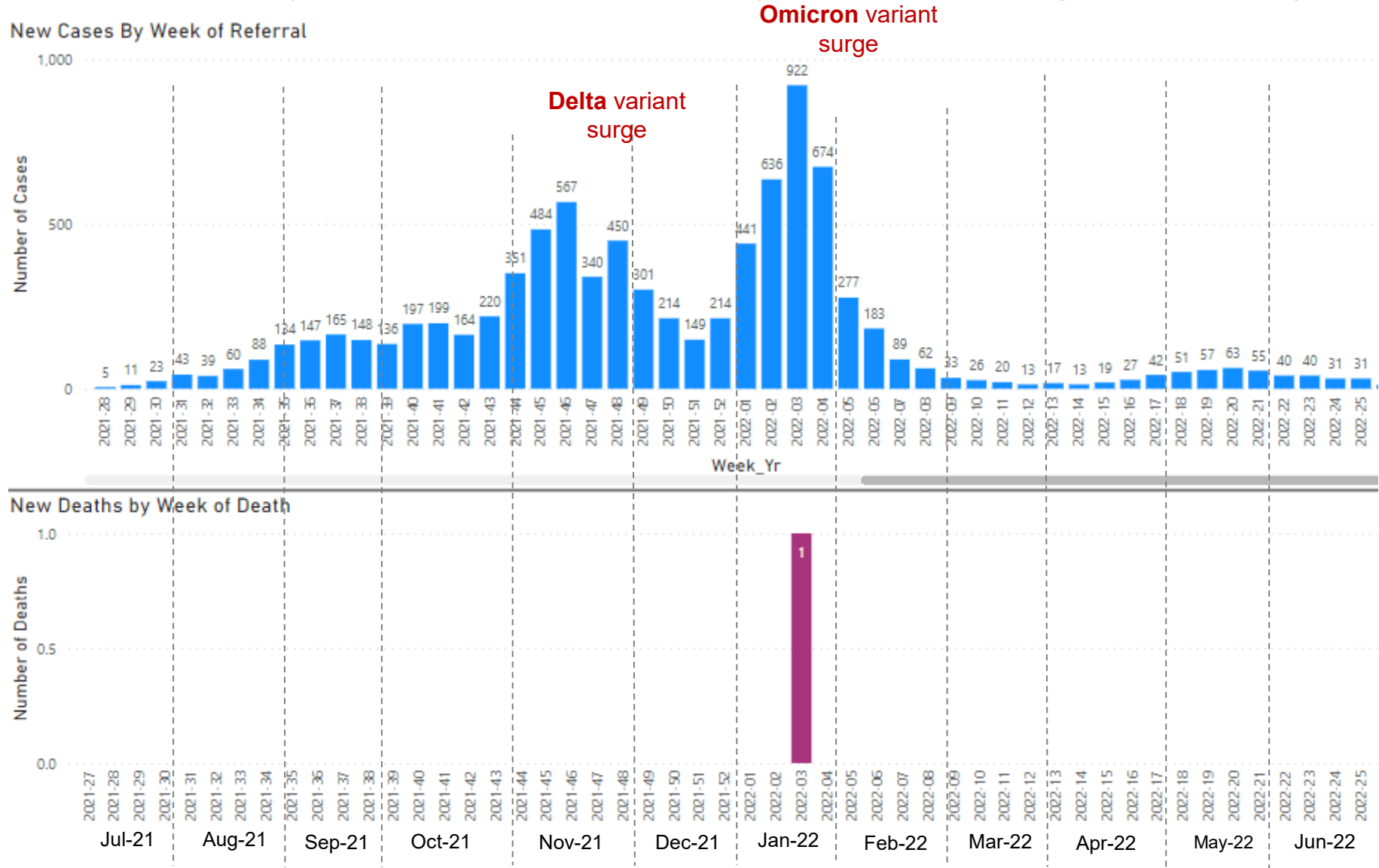
Weekly case counts among **children** remained the same last week, and cases in **adults** increased **8%**.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case counts.

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



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



The weekly number of cases among children **remained the same** from week 24 to week 25.

The first COVID-19 associated death in a child occurred in January of 2022. The death was identified as a COVID-19 associated death in June of 2022, after the death certificate was completed.

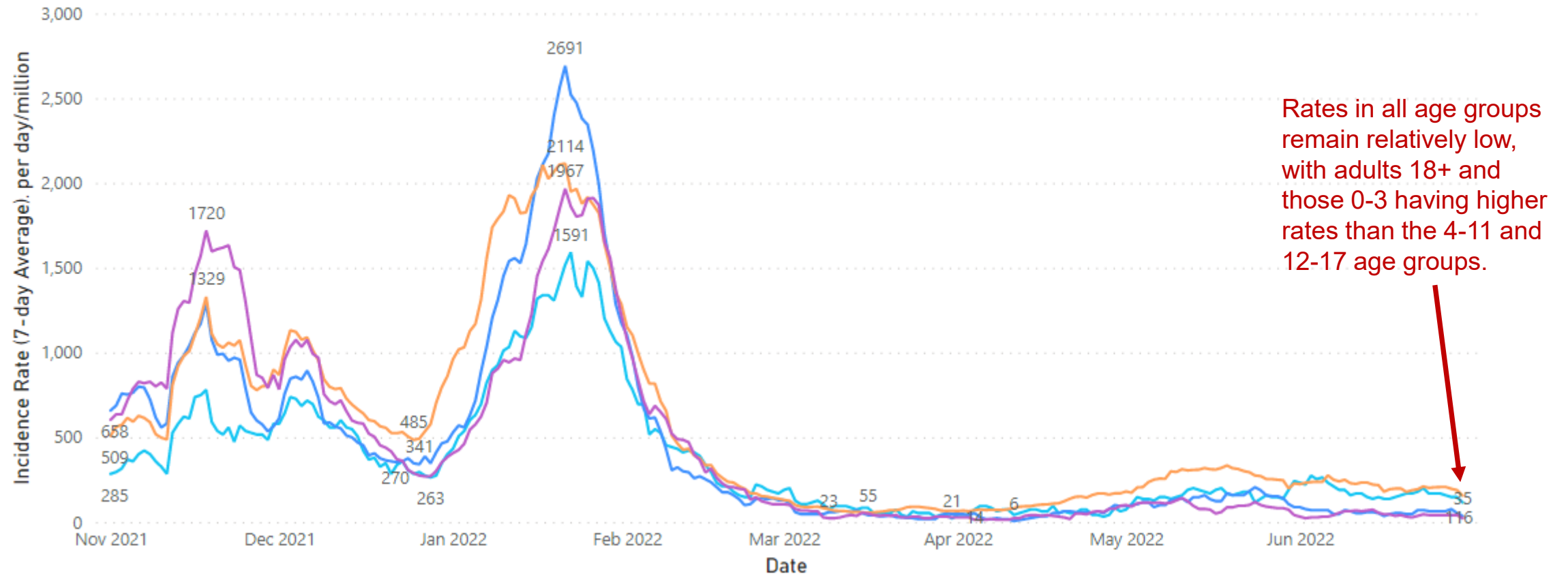
**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case counts.  
**Source:** Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, November 2021 – June 30, 2022

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

Data as of June 30, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

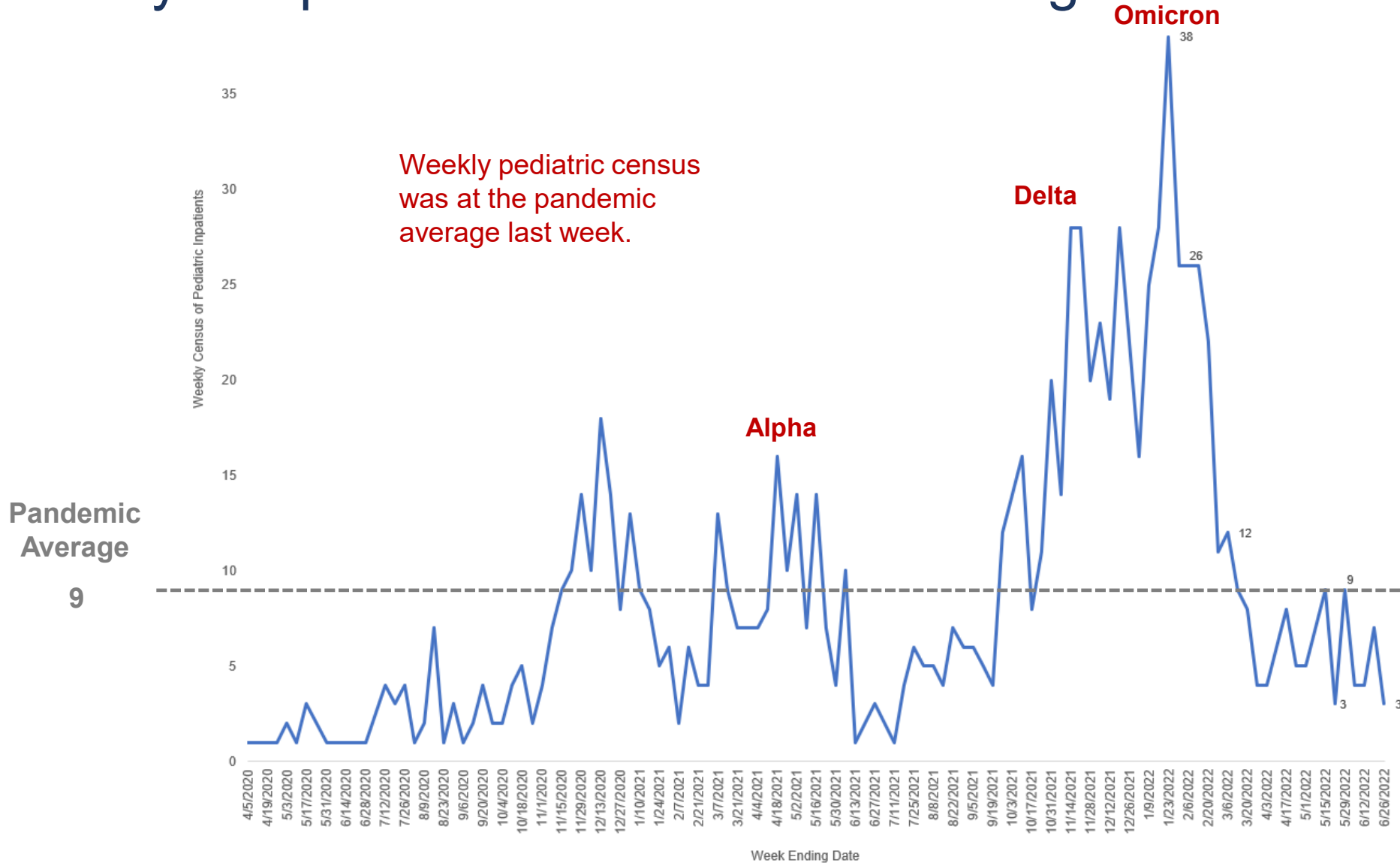
Risk Levels

Other

Media

Science Roundup

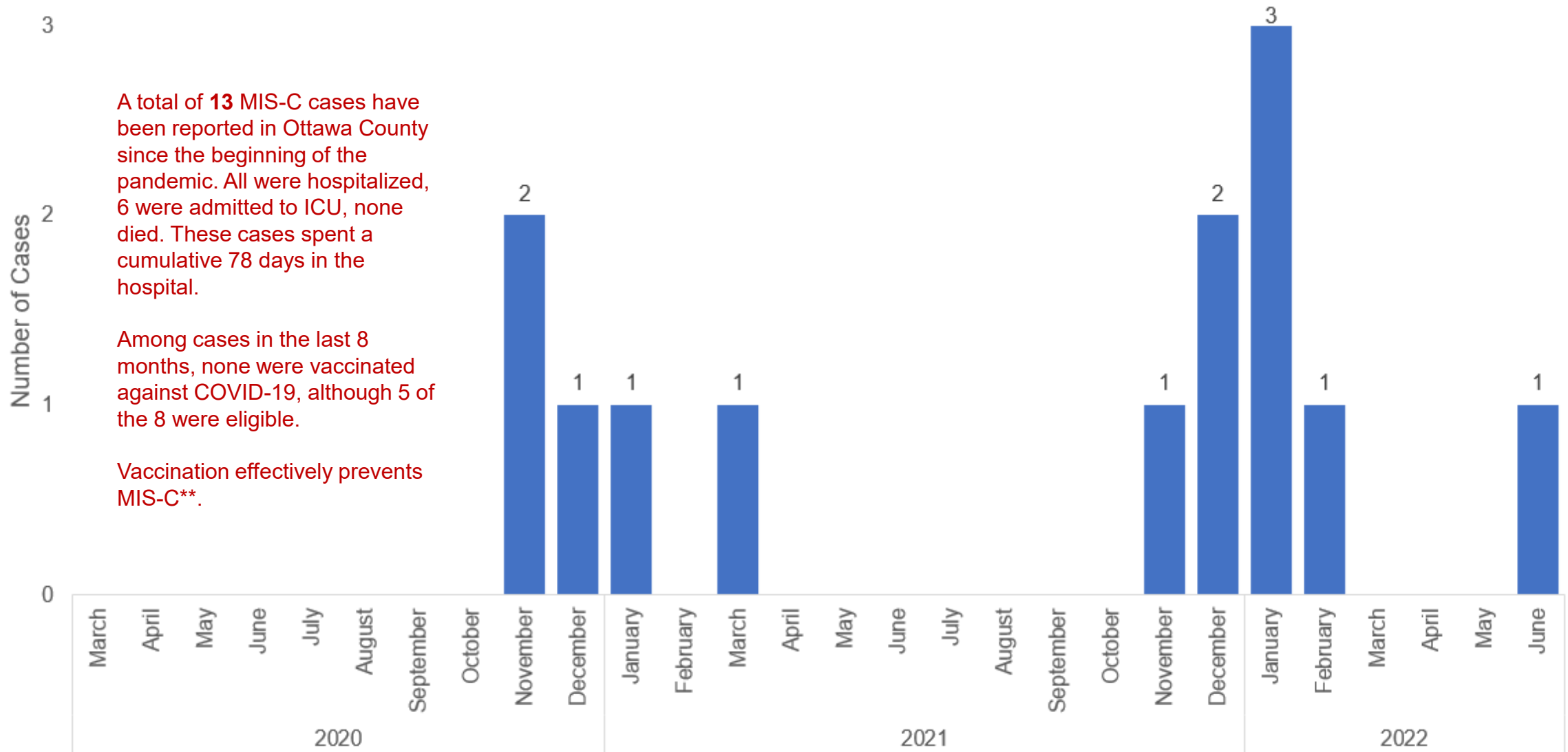
# Weekly Hospital Pediatric Census – A Regional Healthcare System



**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 June 19, 2022

# Ottawa County MIS-C\* Cases by Month



A total of **13** 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 78 days in the hospital.

Among cases in the last 8 months, none were vaccinated against COVID-19, although 5 of the 8 were eligible.

Vaccination effectively prevents MIS-C\*\*.

**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>

\*\*Sources: [MMWR](#) & [The Lancet](#)

Data through June 30, 2022

# Ottawa County Hospital Capacity – All Beds

## Hospital Inpatient Bed Occupancy - By County

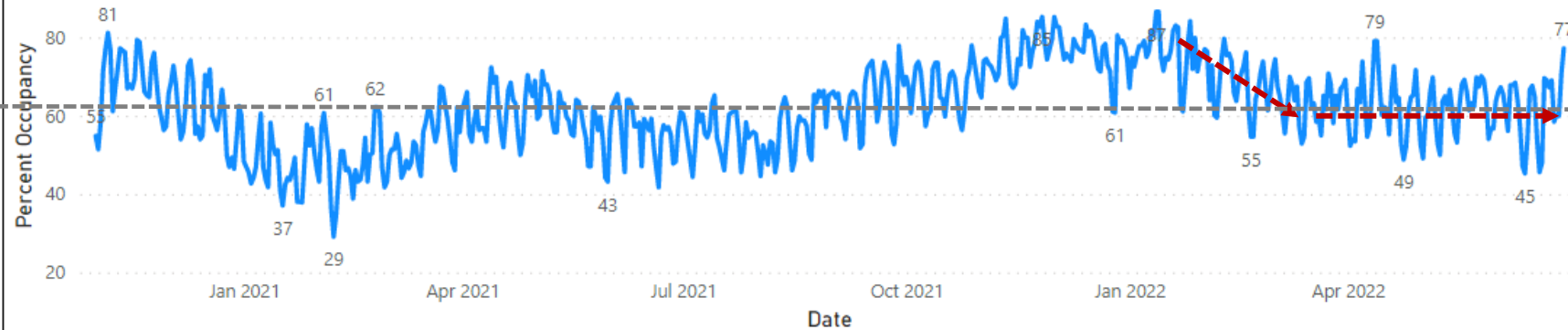
### Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Pandemic Average

62%

Percent Occupancy by Date and County

County ● Ottawa



Total hospital bed occupancy is **slightly above the pandemic average**.

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

13%

Percent Occupancy by Date and County

County ● Ottawa

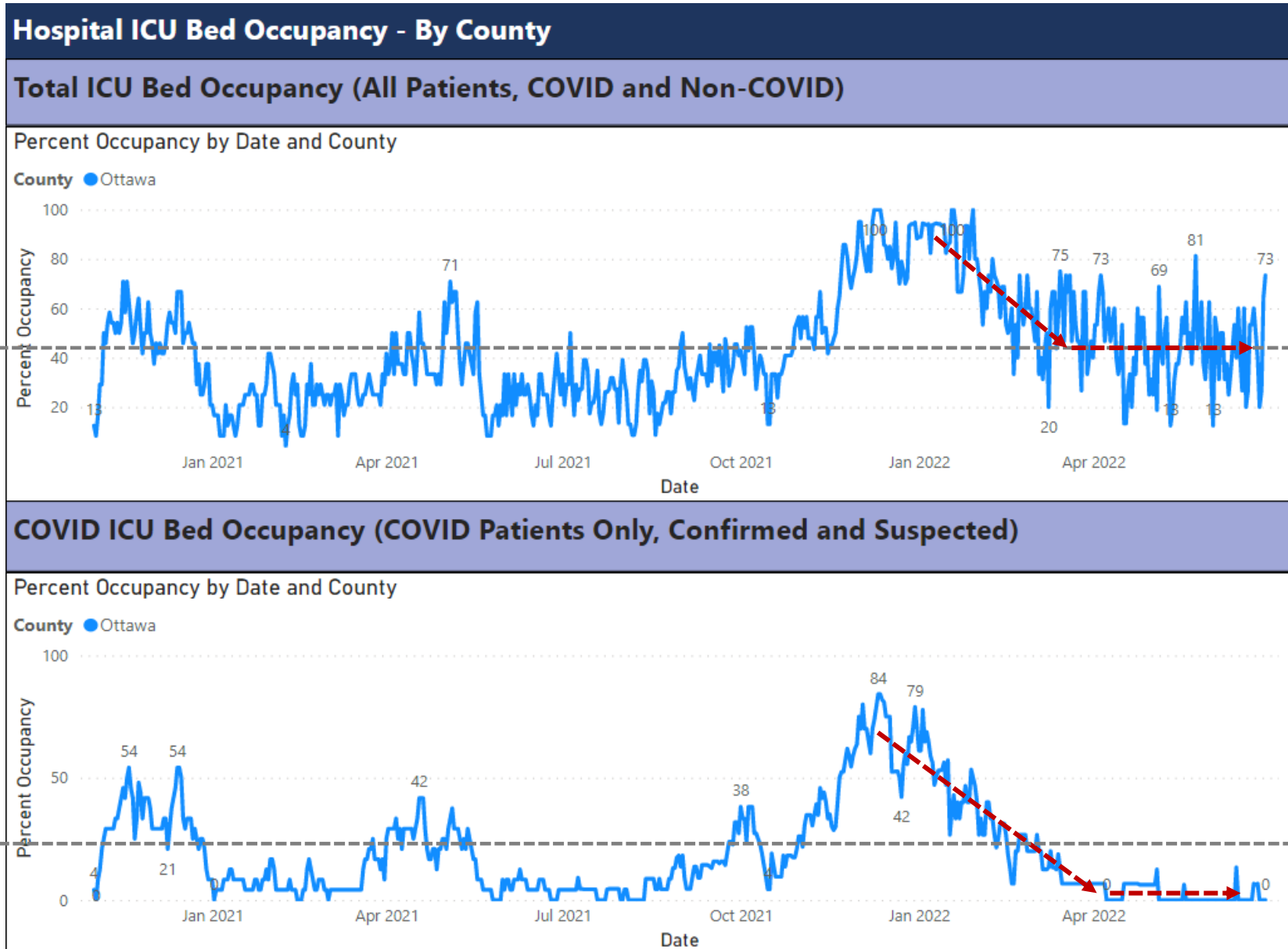


Currently **1%** of all inpatient beds are occupied by COVID-19 patients.

Source: EMResources

Data through June 22, 2022

# Ottawa County Hospital Capacity – ICU Beds



Total ICU bed occupancy is **currently at 73%** but has been trending near the pandemic average of 42% over the past two months.

The proportion of ICU beds occupied by COVID-19 patients is **below the pandemic average**. Currently, **0%** of ICU beds are occupied by COVID-19 patients.

Source: EMResources

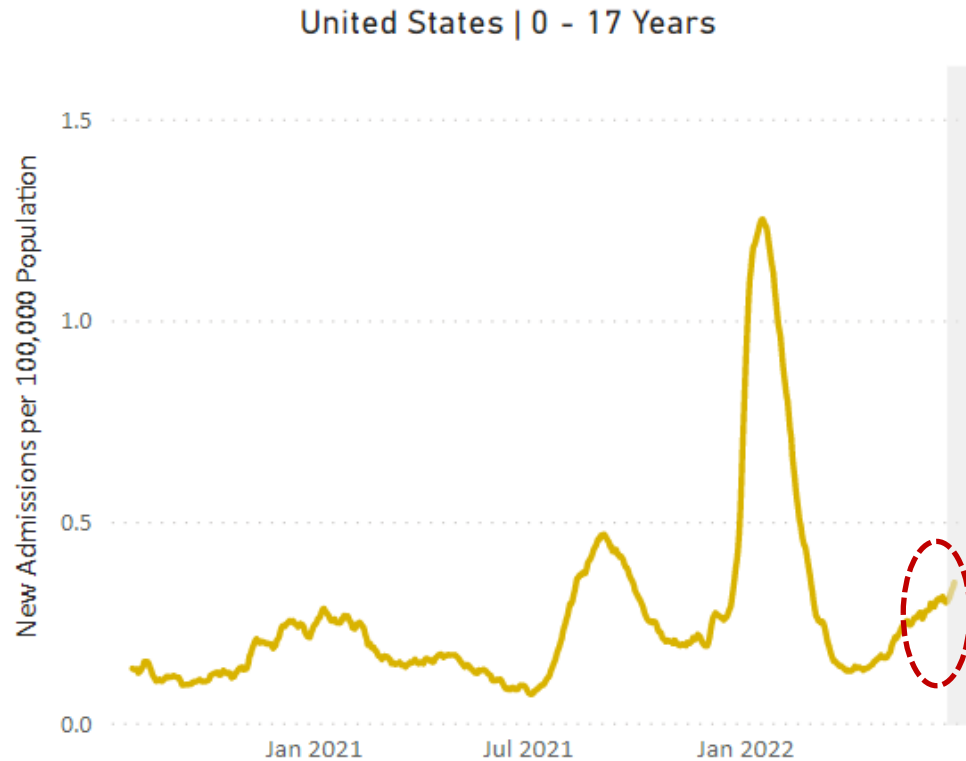
Data through June 29, 2022







# Pediatric Hospitalization Rates – USA, Michigan



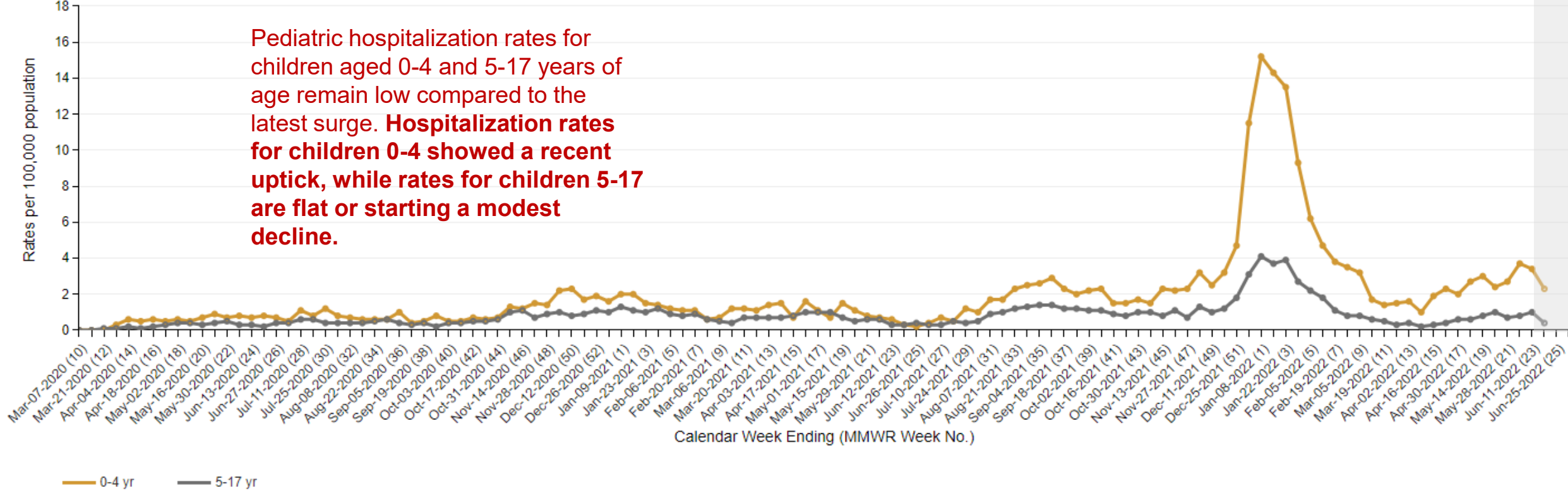
Pediatric hospitalization rates across the US continue increasing. **Rates in Michigan may be declining.**

# Pediatric Hospitalization Rates by Age Group – USA

COVID-NET :: Entire Network :: 2020-21 :: Weekly Rate  
 To zoom, hold down Alt key and click and drag to create a rectangle. Double click to reset zoom.

Recent data may be incomplete

Pediatric hospitalization rates for children aged 0-4 and 5-17 years of age remain low compared to the latest surge. **Hospitalization rates for children 0-4 showed a recent uptick, while rates for children 5-17 are flat or starting a modest decline.**



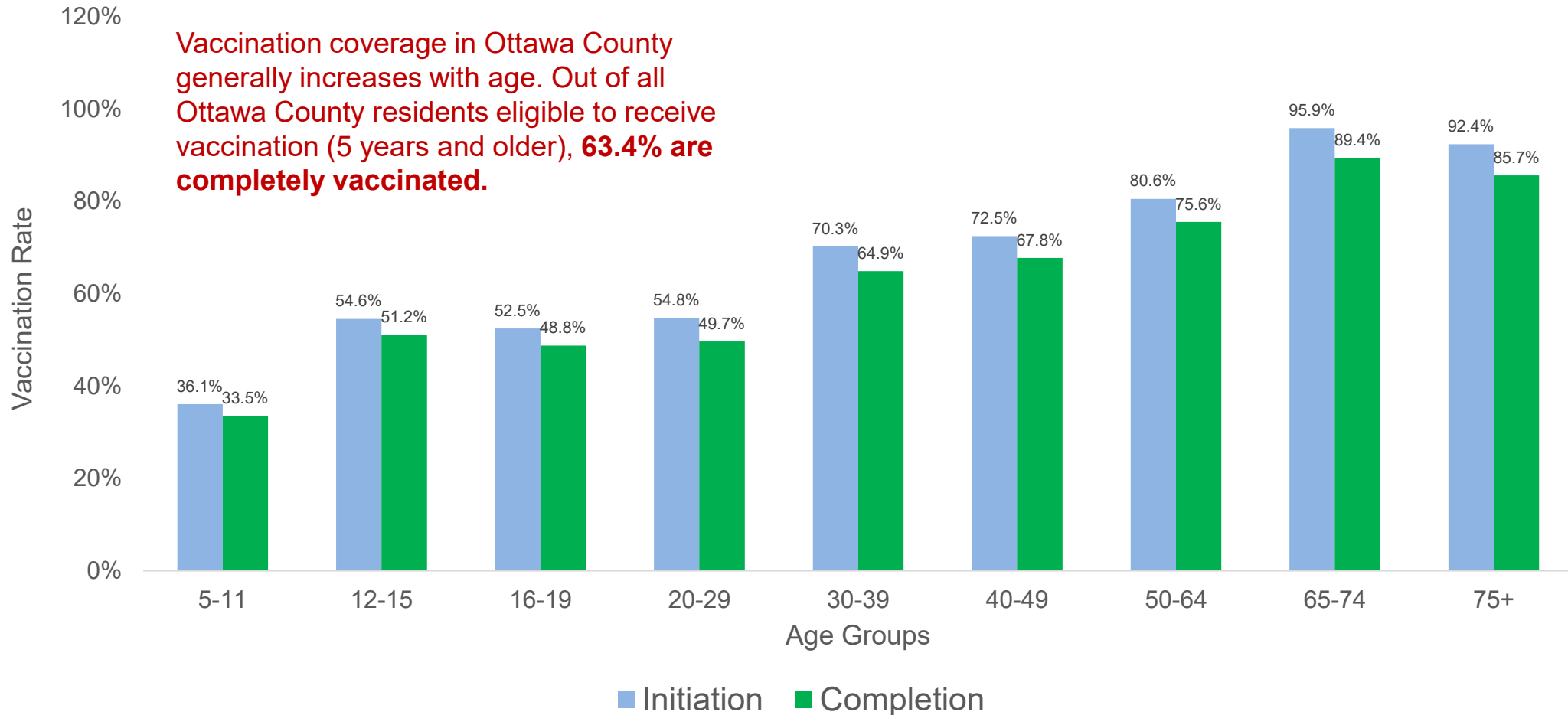
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case 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 June 30, 2022

# Vaccination Coverage by Age



**Notes:**

Completion is the percentage of people receiving at least 2 doses of Pfizer or Moderna or 1 dose of J&J. Children aged 6 months to 4 years to be included in future reports.

Source: <https://www.michigan.gov/coronavirus/resources/covid-19-vaccine/covid-19-dashboard>

Data through June 29, 2022

# Cumulative Cases by Vaccination Status, Ottawa County, January 15, 2021 – June 29, 2022

Fully Vaccinated People (173,924)	
Cases	Deaths
Percent of Cases in People Not Fully Vaccinated (37,964 / 59,160) <b>64.2%</b>	Percent of Deaths in People Not Fully Vaccinated (295 / 458) <b>64.4%</b>
Total Cases Not Fully Vaccinated <b>37,964</b>	Total Deaths Not Fully Vaccinated <b>295</b>
Total Breakthrough Cases <b>21,196</b>	Total Breakthrough Deaths <b>163</b>
Percent of Fully Vaccinated People who Developed COVID-19 (21,196 / 173,924) <b>12.2%</b>	Percent of Fully Vaccinated People who Died of COVID-19 (163 / 173,924) <b>0.09%</b>
Percent of Cases who were Fully Vaccinated (21,196 / 59,160) <b>35.8%</b>	Percent of Deaths who were Fully Vaccinated (163 / 458) <b>35.6%</b>
Total Cases <b>59,160</b>	Total Deaths <b>458</b>

**Note:**

Fully vaccinated is defined as 2 or more doses of an mRNA vaccination or at least one dose of J&J.

**Sources:**

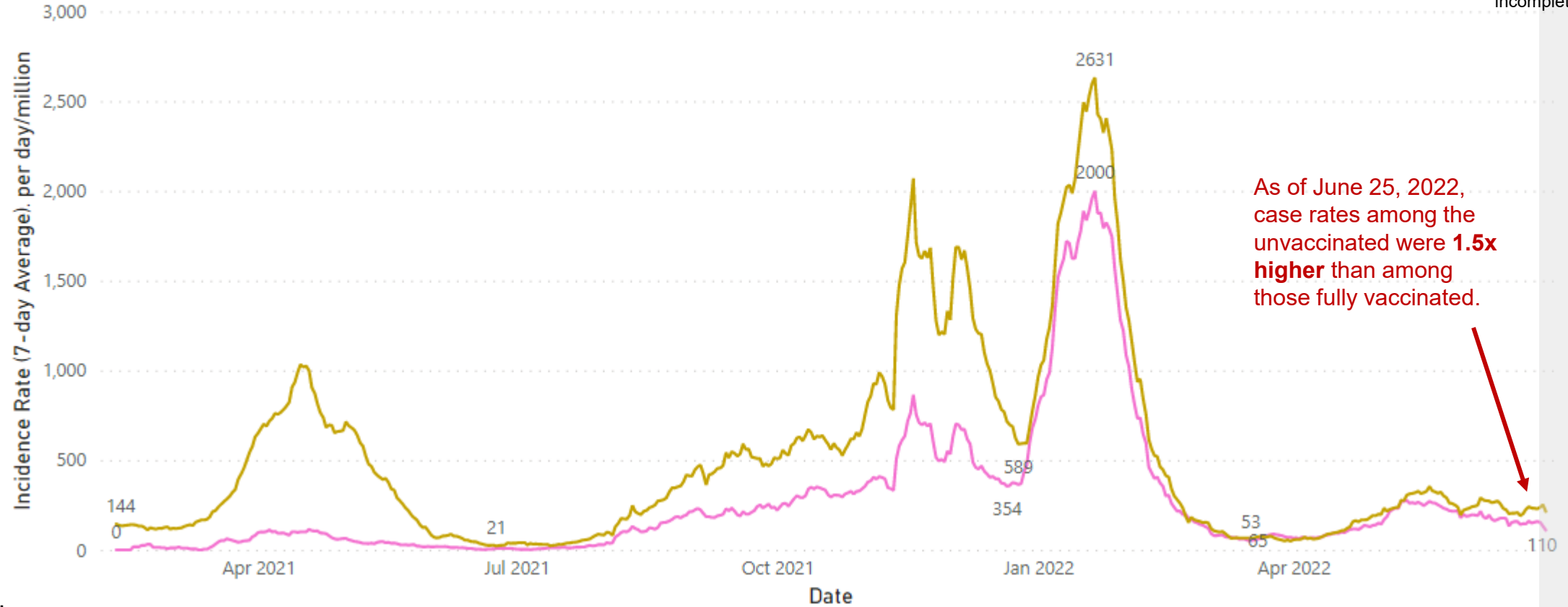
Michigan Department of Health and Human Services, Michigan Disease Surveillance System  
MDHHS COVID-19 Dashboard: <https://www.michigan.gov/coronavirus/resources/covid-19-vaccine/covid-19-dashboard>

# Ottawa County COVID-19 Vaccination Breakthrough Case Trends

Incidence Rate (7-day Average)

rategroup ● Fully Vaccinated ● Unvaccinated

Recent data may be incomplete



As of June 25, 2022, case rates among the unvaccinated were **1.5x higher** than among those 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. Fully vaccinated is defined as 2 or more doses of an mRNA vaccination or at least one dose of J&J.

**Note:** Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates. Children aged 6 months to 4 years to be included in future reports.

## Sources:

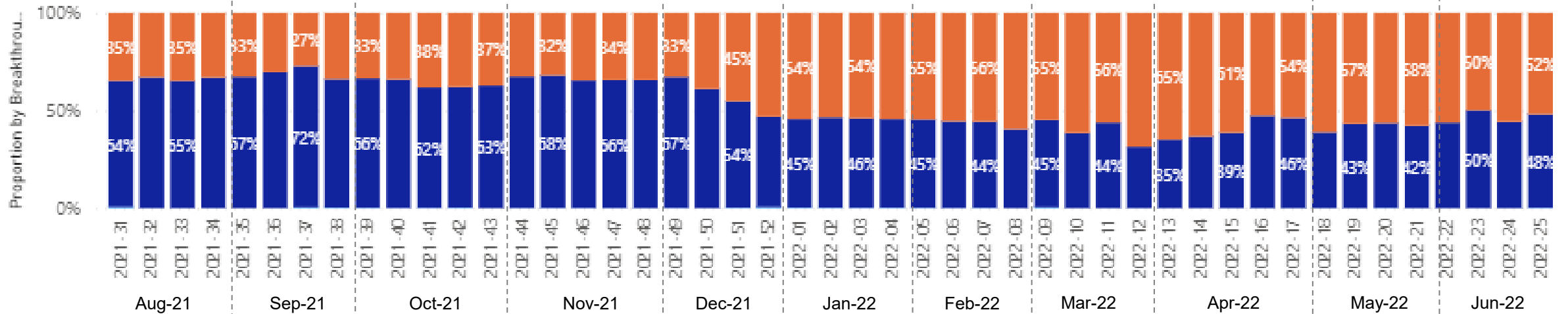
Michigan Department of Health and Human Services, Michigan Disease Surveillance System  
MDHHS COVID-19 Dashboard: <https://www.michigan.gov/coronavirus/stats>

# Ottawa County COVID-19 Vaccination Breakthrough Case Trends

## By Week

Breakthrough Proportions by Week

Vaccine\_Breakthrough ● NO ● YES

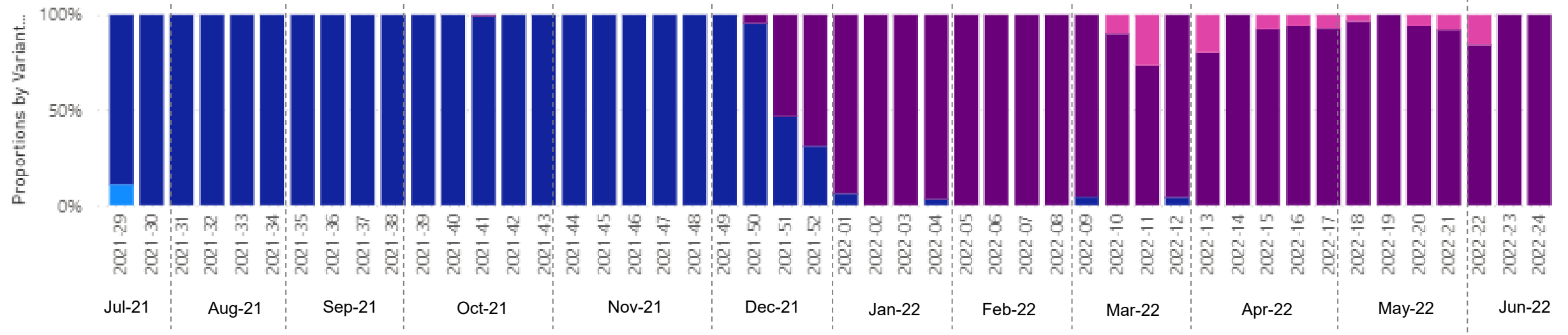


Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name Alpha Delta Gamma Omicron Omicron BA.2

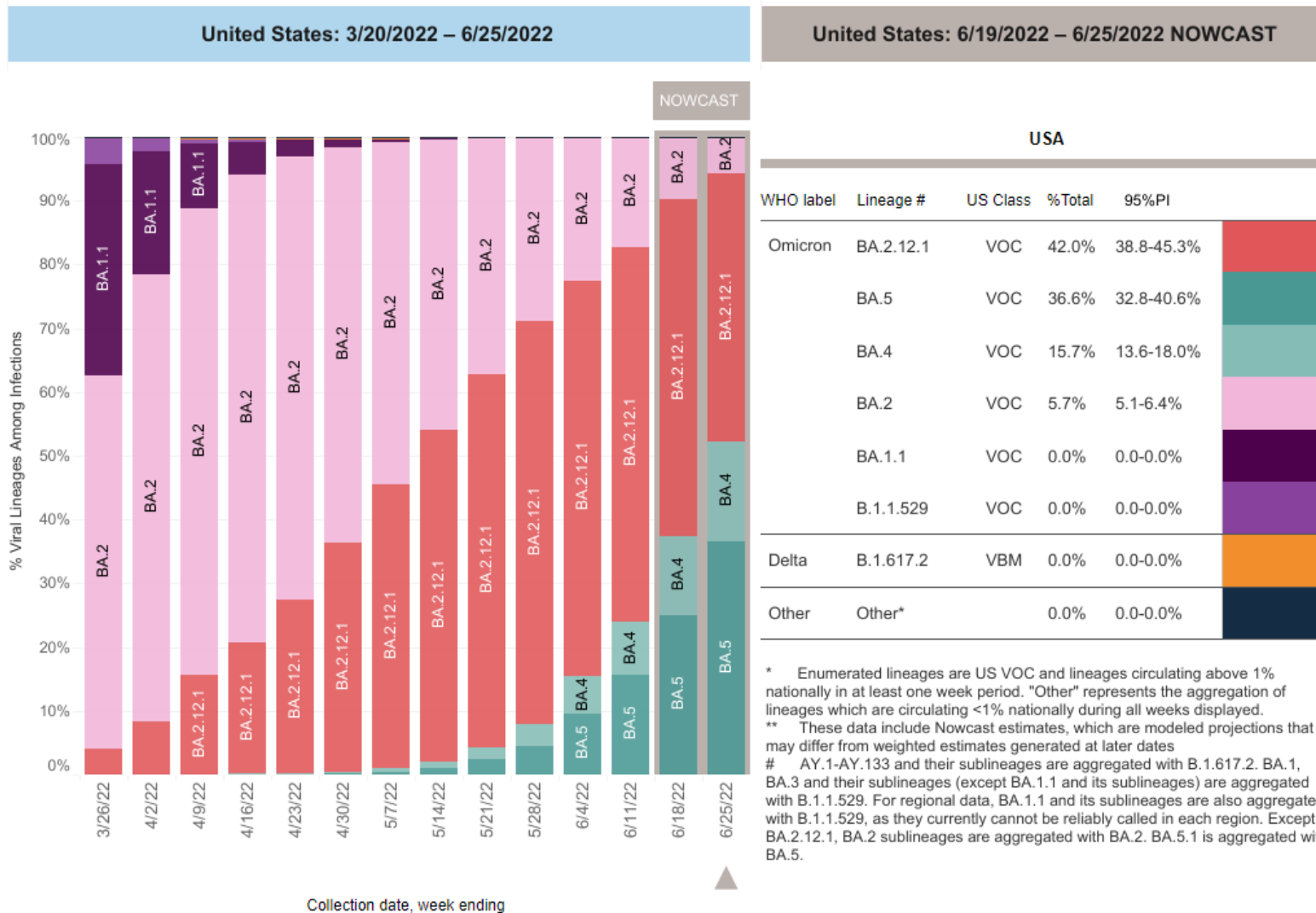


In June of 2021, most clinical samples\* submitted for variant testing were identified as the **Alpha** variant. By the end of July 2021, all clinical samples tested were identified as the **Delta** variant. From late July through early December 2021 all clinical samples submitted for variant testing were identified as 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, including the BA.2 variant.

\* 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 100% of all clinical samples collected in the United States the week ending June 25, 2022.

Omicron subvariants are also circulating, with BA.2 variants predominating, and BA.4/5 emerging.



# Variants – Wastewater Sampling – Holland/Zeeland

Y = Detected  
N = Not Detected

Sample Date	Site	Delta	Omicron
04/20/2022	North Holland	N	N
04/21/2022	Zeeland	N	N
04/24/2022	North Holland	N	N
04/25/2022	Zeeland	N	N
04/27/2022	North Holland	N	Y
04/28/2022	Zeeland	N	Y
05/01/2022	North Holland	N	Y
05/02/2022	Zeeland	N	Y
05/08/2022	North Holland	N	N
05/09/2022	Zeeland	N	Y
05/11/2022	North Holland	N	N
05/12/2022	Zeeland	N	N
05/15/2022	North Holland	N	Y
05/16/2022	Zeeland	N	N
05/18/2022	North Holland	N	Y
05/19/2022	Zeeland	N	Y
05/22/2022	North Holland	N	Y
05/23/2022	Zeeland	N	Y
05/25/2022	North Holland	N	Y
05/26/2022	Zeeland	N	N
05/29/2022	North Holland	N	Y
05/30/2022	Zeeland	N	Y
06/01/2022	North Holland	N	Y
06/02/2022	Zeeland	Y	Y
06/05/2022	North Holland	Y	Y
06/06/2022	Zeeland	Y	Y
06/08/2022	North Holland	Y	Y
06/09/2022	Zeeland	Y	Y
06/16/2022	North Holland	N	Y
06/16/2022	Zeeland	N	Y

The **Delta** variant was consistently detected in Holland and Zeeland wastewater samples through all of November and December of 2021 (data not displayed here).

The **Omicron** variant has been detected in wastewater in Holland and Zeeland since early January 2022 (January through early April not displayed here), with renewed, frequent detection in May and June 2022.

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))

# Variants – Wastewater Sampling – Grand Haven/Spring Lake

N =Not Detected  
Y =Detected  
 =Not Tested

Date	Sample Name	Delta	Epsilon	Alpha	Omicron
4/20/2022	Grand Haven Spring Lake Wastewater	N	N	N	Y
4/25/2022	Grand Haven Spring Lake Wastewater				Y
4/27/2022	Allendale Wastewater Treatment Plant				Y
5/4/2022	Allendale Wastewater Treatment Plant				Y
5/4/2022	Grand Haven Spring Lake Wastewater				Y
5/9/2022	Allendale Wastewater Treatment Plant				Y
5/9/2022	Grand Haven Spring Lake Wastewater				Y
5/11/2022	Allendale Wastewater Treatment Plant				Y
5/11/2022	Grand Haven Spring Lake Wastewater				Y
5/16/2022	Allendale Wastewater Treatment Plant				Y
5/18/2022	Grand Haven Spring Lake Wastewater				Y
5/23/2022	Allendale Wastewater Treatment Plant				Y
5/25/2022	Allendale Wastewater Treatment Plant				Y
5/25/2022	Grand Haven Spring Lake Wastewater				Y
5/31/2022	Allendale Wastewater Treatment Plant				Y
6/12/2022	Allendale Wastewater Treatment Plant				Y

The **Omicron** variant was consistently detected in Grand Haven, Spring Lake, and Allendale wastewater samples since January 2022.

Although not displayed here, in early May 2022, signals suggestive of BA.4/5 were detected in Ottawa County. Since then, increasing concentrations of potential BA.4/5 have been noted across Ottawa County.

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

# COVID-19 Community Levels

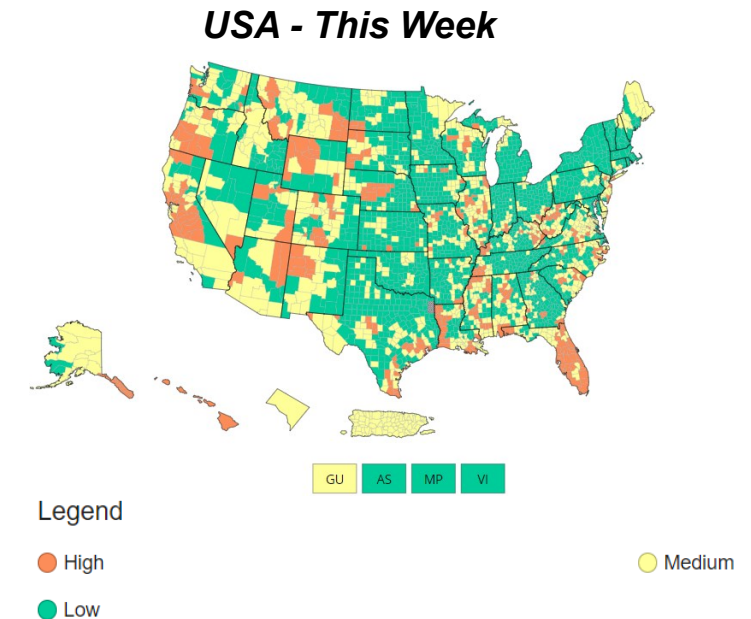
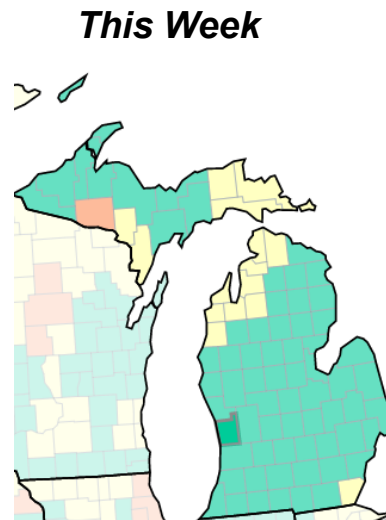
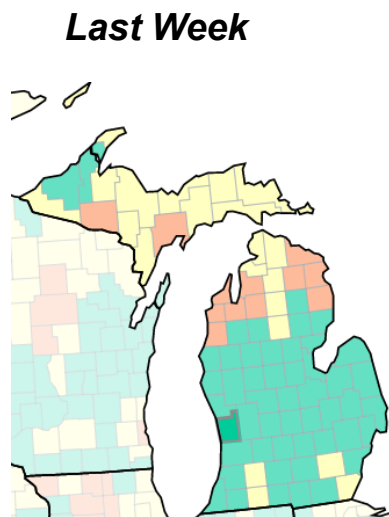
COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds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

Note: The COVID-19 community level is determined by the higher of the new admissions and inpatient beds metrics, based on the current level of new cases per 100,000 population in the past 7 days.

Source: <https://www.cdc.gov/coronavirus/2019-ncov/science/community-levels.html>

# CDC Community Levels – Ottawa County

- Current Community Level in Ottawa – **LOW**
- Current Data:
  - Case Rate (per 100k pop 7-day total) = **92.18**
  - COVID-19 Hospital Admissions (per 100K pop 7-day total) = **3.7**
  - COVID-19 Inpatient Hospital Bed Utilization (7-day average) = **3.2%**



Source: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html>

Data updated by CDC  
on Jun 29, 2022

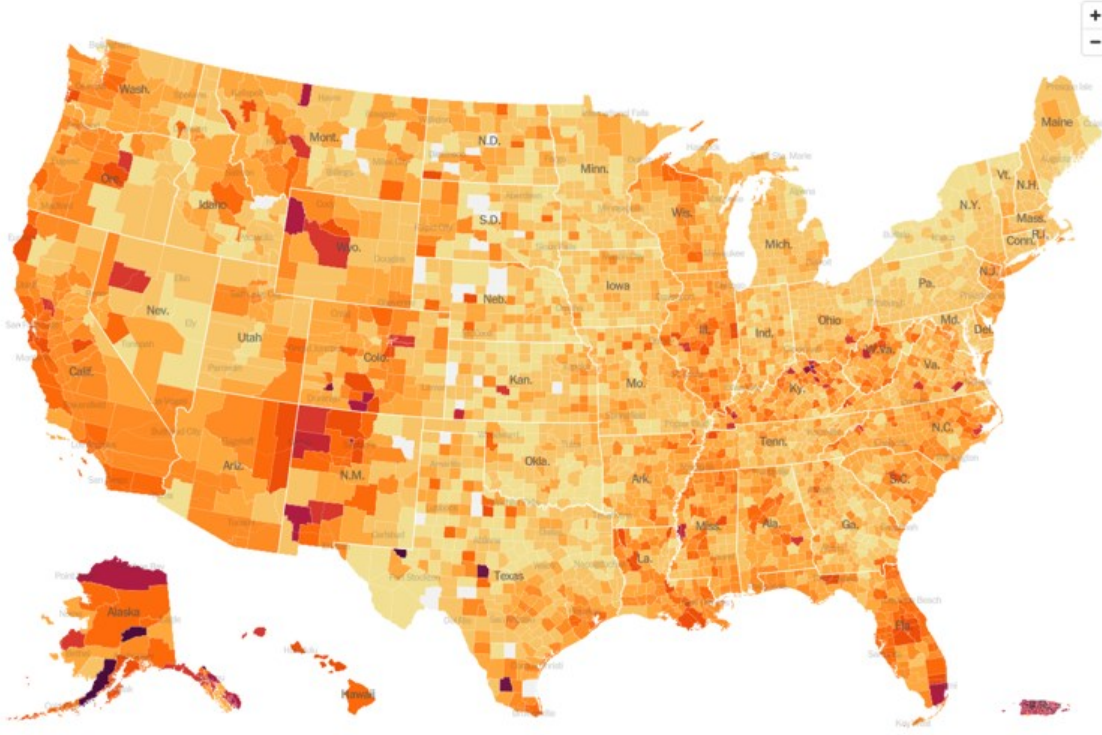
# COVID-19 Case Rates by County Across the US

*Last Week*

*This Week*

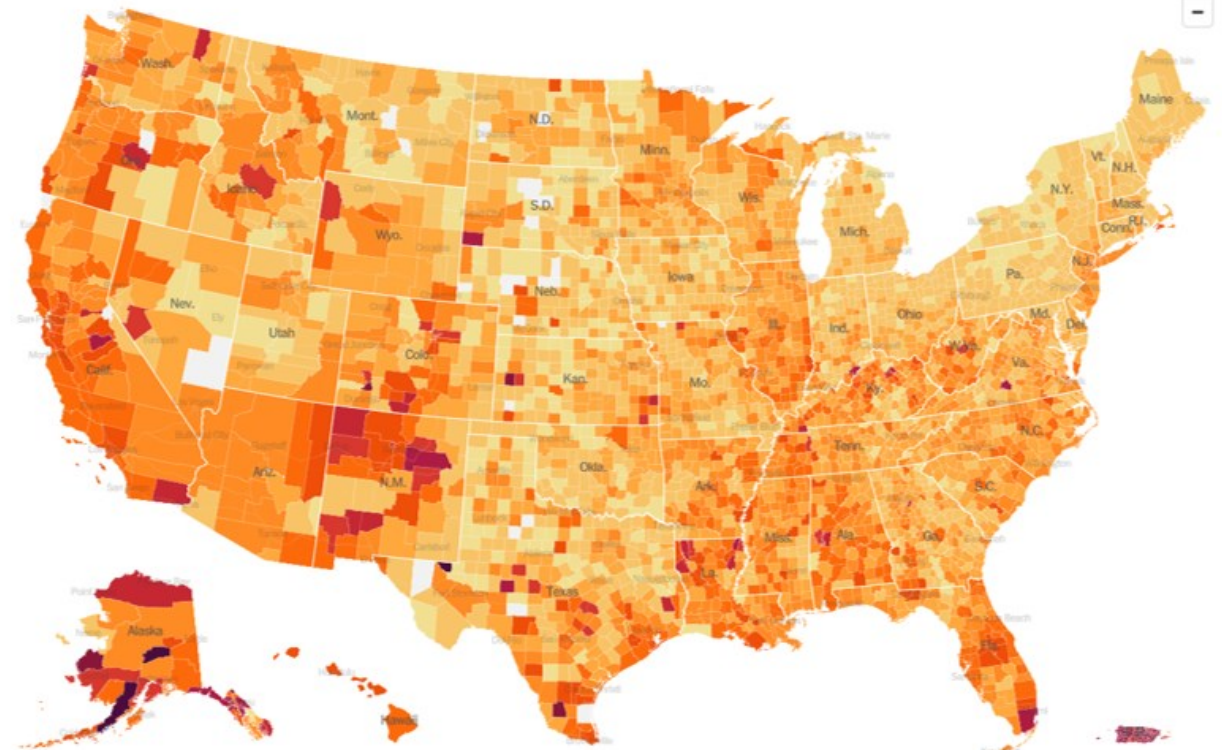
Hot spots

AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK  
10 30 50 70 100 250  
FEW OR NO CASES



Hot spots

AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK  
10 30 50 70 100 250  
FEW OR NO CASES



Case rates in some areas across the nation remain elevated.

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

Accessed June 30, 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*

*This Week*

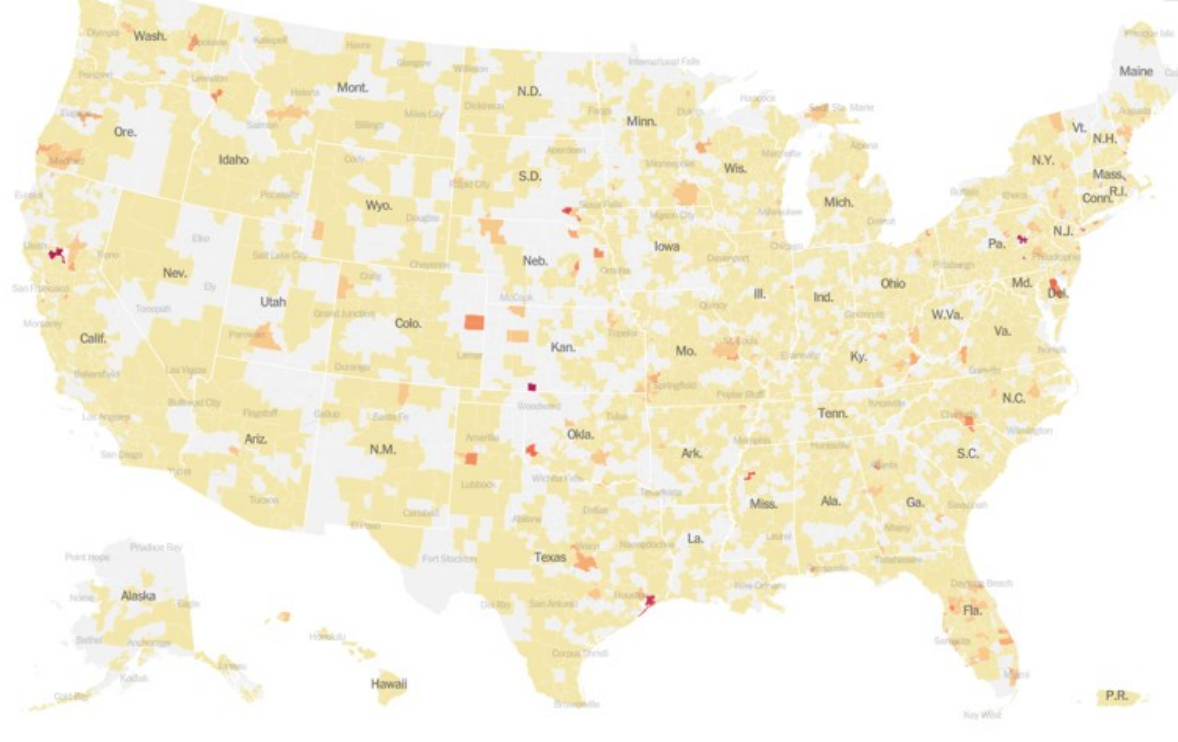
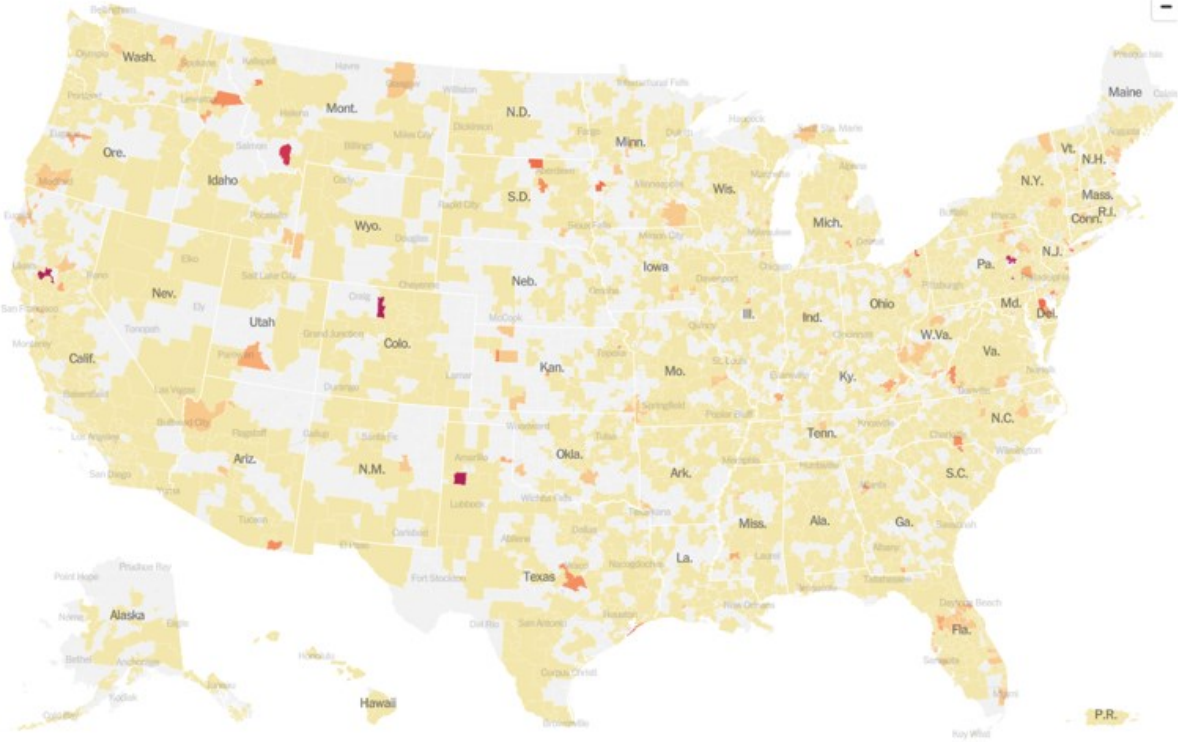
Current hospitalizations

COVID-19 PATIENTS PER 100,000 PEOPLE



Current hospitalizations

COVID-19 PATIENTS PER 100,000 PEOPLE



Hospitalization rates remain relatively low across the nation.

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

Accessed June 30, 2022

# Treatment Options for Non-hospitalized Adults With COVID-19

PATIENT DISPOSITION	PANEL'S RECOMMENDATIONS
<p>Does Not Require Hospitalization or Supplemental Oxygen</p>	<p>All patients should be offered symptomatic management (<b>AIII</b>).</p> <p>For patients who are at high risk of progressing to severe COVID-19,<sup>a</sup> use 1 of the following treatment options:</p> <p><b>Preferred Therapies</b> Listed in order of preference:</p> <ul style="list-style-type: none"> <li>• Ritonavir-boosted nirmatrelvir (Paxlovid)<sup>b,c</sup> (<b>AIIa</b>)</li> <li>• Remdesivir<sup>c,d</sup> (<b>BIIa</b>)</li> </ul> <p><b>Alternative Therapies</b> For use <i>ONLY</i> when neither of the preferred therapies are available, feasible to use, or clinically appropriate. Listed in alphabetical order:</p> <ul style="list-style-type: none"> <li>• Bebtelovimab<sup>e</sup> (<b>CIII</b>)</li> <li>• Molnupiravir<sup>c,f</sup> (<b>CIIa</b>)</li> </ul> <p>The Panel <b>recommends against</b> the use of dexamethasone<sup>g</sup> or other systemic corticosteroids in the absence of another indication (<b>AIII</b>).</p>
<p>Discharged From Hospital Inpatient Setting in Stable Condition and Does Not Require Supplemental Oxygen</p>	<p>The Panel <b>recommends against</b> continuing the use of remdesivir (<b>AIIa</b>), dexamethasone<sup>g</sup> (<b>AIIa</b>), or baricitinib (<b>AIIa</b>) after hospital discharge.</p>
<p>Discharged From Hospital Inpatient Setting and Requires Supplemental Oxygen</p> <p><i>For those who are stable enough for discharge but who still require oxygen<sup>h</sup></i></p>	<p>There is insufficient evidence to recommend either for or against the continued use of remdesivir or dexamethasone.</p>
<p>Discharged From ED Despite New or Increasing Need for Supplemental Oxygen</p> <p><i>When hospital resources are limited, inpatient admission is not possible, and close follow-up is ensured<sup>i</sup></i></p>	<p>The Panel recommends using dexamethasone 6 mg PO once daily for the duration of supplemental oxygen (dexamethasone use <b>should not exceed</b> 10 days) with careful monitoring for AEs (<b>BIII</b>).</p> <p>Since remdesivir is recommended for patients with similar oxygen needs who are hospitalized,<sup>j</sup> clinicians may consider using it in this setting. As remdesivir requires IV infusions for up to 5 consecutive days, there may be logistical constraints to administering remdesivir in the outpatient setting.</p>
<p><b>Rating of Recommendations:</b> A = Strong; B = Moderate; C = Weak  <b>Rating of Evidence:</b> I = One or more randomized trials without major limitations; IIa = Other randomized trials or subgroup analyses of randomized trials; IIb = Nonrandomized trials or observational cohort studies; III = Expert opinion</p>	

Source: <https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/clinical-management-summary/>

For more information on COVID-19 risk factors, see the CDC webpage: [Underlying Medical Conditions Associated With Higher Risk for Severe COVID-19](#)

# COVID-19 News Headlines

## Michigan COVID cases rise as state adds 14,353 cases, 174 deaths over last week

[Michigan COVID cases rise as state adds 14,353 cases, 174 deaths over last week \(detroitnews.com\)](#)

## West Michigan children under five get their COVID-19 vaccine

[West Michigan children under 5 get their COVID-19 vaccine | wzzm13.com](#)

## F.D.A. Advisers Recommend Updated Boosters Targeting Forms of Omicron

[FDA panel recommends redesigned Covid booster shots for the fall \(nbcnews.com\)](#)

## In only one Michigan county should people mask, the CDC says

[In only one Michigan county should people mask, the CDC says - mlive.com](#)

**The Omicron subvariants BA.4 and BA.5 have together become dominant in the U.S., the C.D.C. estimates.**

[The Omicron subvariants BA.4 and BA.5 have together become dominant in the U.S., the C.D.C. estimates. - The New York Times \(nytimes.com\)](#)



# Science Roundup

## Olfactory Dysfunction in Patients With Mild COVID-19 During Gamma, Delta, and Omicron Waves in Rio de Janeiro, Brazil

[Olfactory Dysfunction in Patients With Mild COVID-19 During Gamma, Delta, and Omicron Waves in Rio de Janeiro, Brazil | Global Health | JAMA | JAMA Network](#)

← A study conducted in Brazil found that individuals with mild COVID-19 infected during the Gamma and Omicron waves had lower odds of reporting olfactory dysfunction than individuals infected during the period of the original lineages due to overall decreased prevalence. The type of SARS-CoV-2 variant might be a risk factor for olfactory dysfunction, along with host genetic susceptibility.

## Severity and Incidence of Multisystem Inflammatory Syndrome in Children During 3 SARS-CoV-2 Pandemic Waves in Israel

[Severity and Incidence of Multisystem Inflammatory Syndrome in Children During 3 SARS-CoV-2 Pandemic Waves in Israel | Cardiology | JAMA | JAMA Network](#)

← A study conducted in Israel over a 16-week period of each pandemic wave to examine outcomes of multisystem inflammatory syndrome in children (MIS-C) during the Alpha, Delta, and Omicron variant waves found that MIS-C during the Omicron wave was less severe than during the Alpha or Delta waves of the COVID-19 pandemic.

## BNT162b2 Vaccine Effectiveness against Omicron in Children 5 to 11 Years of Age

[BNT162b2 Vaccine Effectiveness against Omicron in Children 5 to 11 Years of Age | NEJM](#)

← Using data from the largest health care organization in Israel, a study have found that two doses of the Pfizer vaccine afforded nearly 50% protection against symptomatic omicron infection in the few weeks after second dose, which was lower than that seen against delta. Greater protection in the youngest group was noted.

## Risk of severe COVID-19 disease in individuals with Down syndrome: a matched cohort study from a large, integrated health care system

[Risk of severe COVID-19 disease in individuals with Down syndrome: a matched cohort study from a large, integrated health care system | The Journal of Infectious Diseases | Oxford Academic \(oup.com\)](#)

← A cohort study to evaluate the risk of COVID-19 infection and severe COVID-19 disease in individuals with Down Syndrome (DS) during a pre-COVID-19 vaccination period found that while the risk of COVID-19 infection was lower for DS individuals, the risk of severe disease is 6 times higher in those with DS compared to those without DS.