

Ottawa County COVID-19 Epidemiology

January 5, 2023

Data as of December 31, 2022, unless otherwise indicated.

Executive Summary

- **Weekly reported cases in the US and in Michigan are stable and relatively low**
- **Ottawa County transmission signals are comparatively stable**
 - Last week positivity **increased slightly** to 12.6%, from 12.5% two weeks ago.
 - Weekly case counts **decreased** 26% (-32% two weeks ago), from 216 two weeks ago to 159 last week.
 - Cases among children **decreased** 50% (-35% two weeks ago), from 22 two weeks ago to 11 last week.
 - COVID-19 wastewater signals in Ottawa County **are mixed, but all three sites have recently spiked or been elevated**. In Holland/Zeeland the latest signal **declined from a recent spike**; Grand Haven/Spring Lake is **steadily increasing**; Allendale's latest signal showed a **decline after a substantial increase**.
 - Based on national data, a variety of Omicron subvariants are likely circulating.
 - Ottawa's CDC Community Level is **LOW** as of January 5, 2023.
 - Ottawa's CDC Transmission Level is **HIGH** as of January 5, 2023.
- **Ottawa-area and regional hospitals have adequate capacity**
 - In Ottawa County, 6% 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 remain relatively low in Michigan**
 - Regional COVID-19 pediatric hospitalization census remains low compared to the late 2021 and early 2022 Omicron surge.
- **Of Ottawa County residents aged 6 months and older, 61.5% have received their primary vaccine series.**

*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

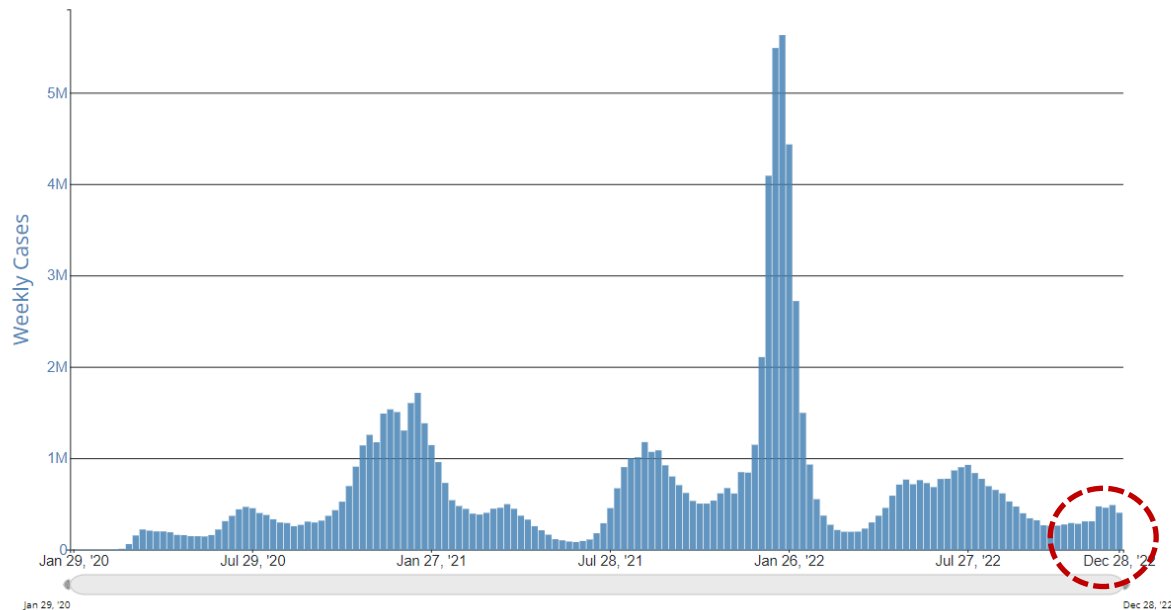
Metric	Goal	Week Ending				
		3-Dec-22	10-Dec-22	17-Dec-22	24-Dec-22	31-Dec-22
Positivity (All Ages)	NA	11.7%	13.0%	14.3%	12.5%	12.6%
Weekly Cases (All Ages)	<592	185	248	318	216	159
Weekly Cases in Children (0-17 years of age)	NA	13	24	34	22	11
Total Deaths (All Ages)	0	2	3	5	0	1
CDC COVID-19 Community Level (New)	Low	Low	Low	Low	Low	Low

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

Weekly Case Trends in the USA and Michigan

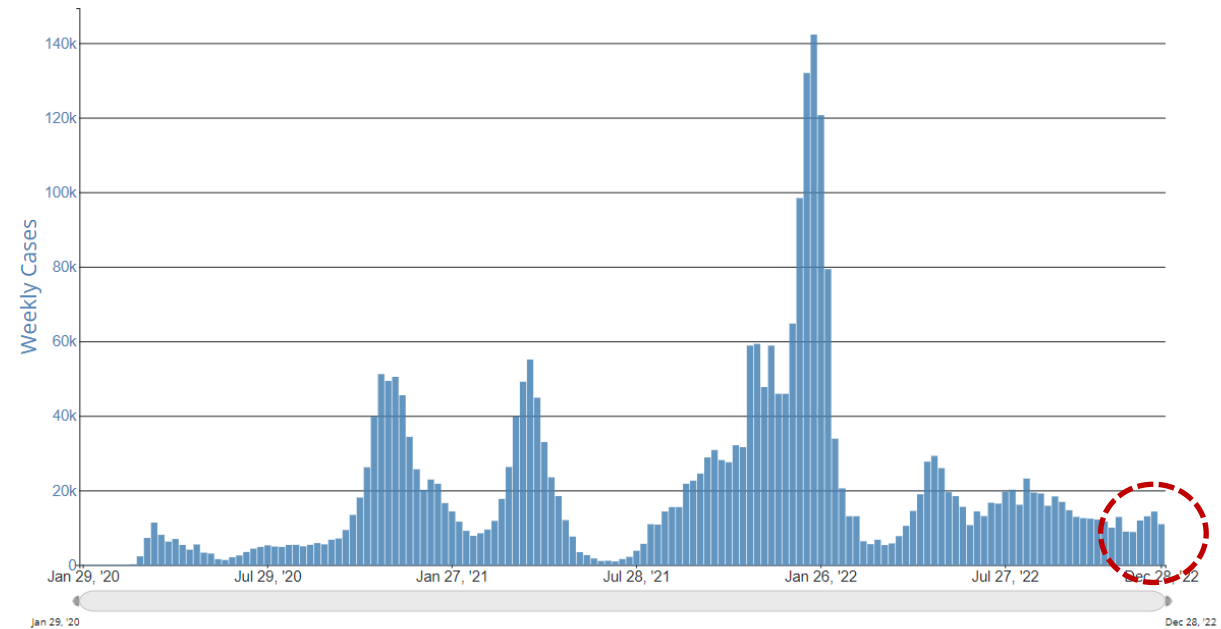
USA

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



Michigan

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



Weekly case counts in the US and Michigan remain lower than previous surges and are stable but may be increasing.

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

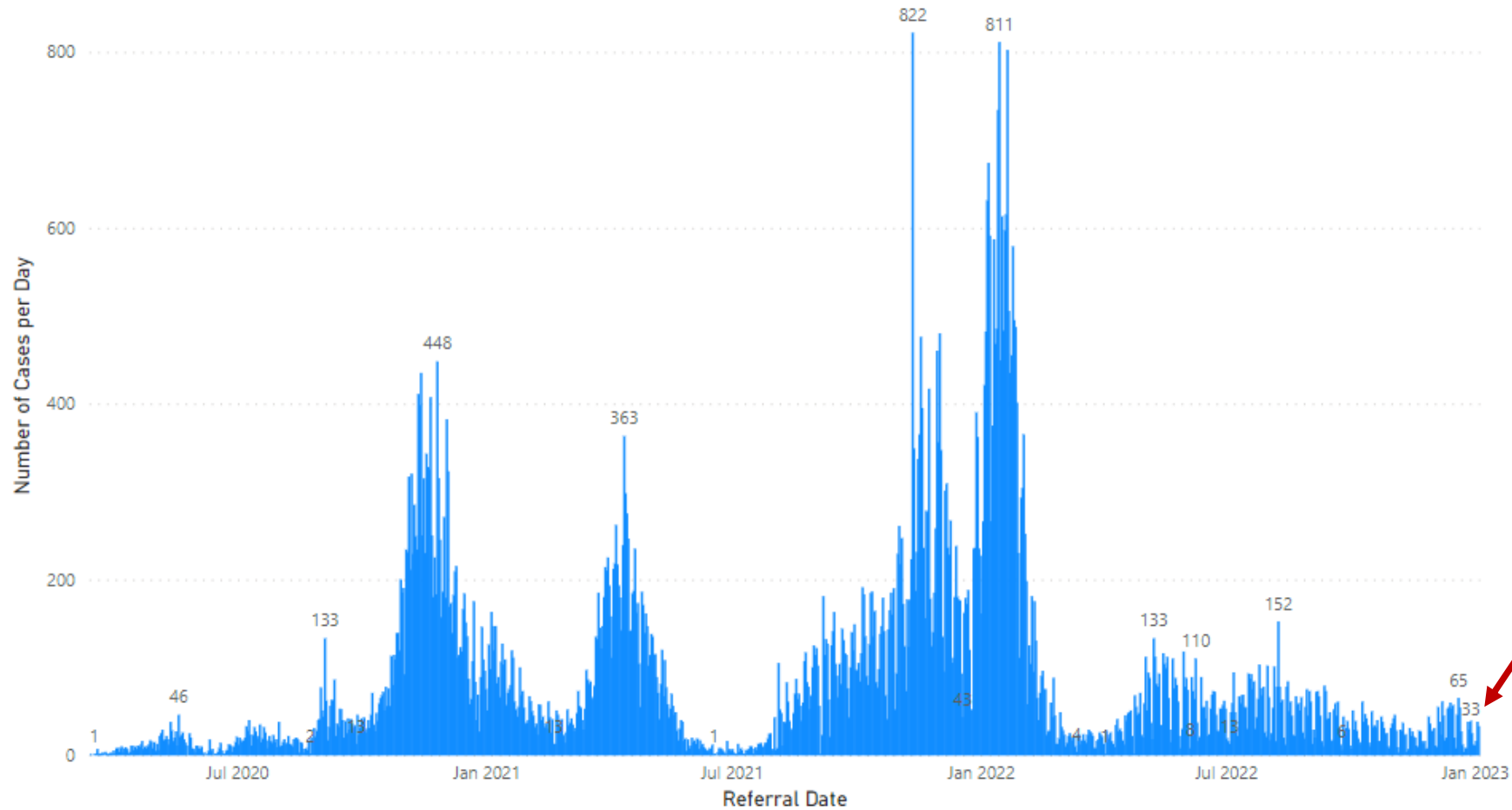
Source: https://covid.cdc.gov/covid-data-tracker/#trends_dailycases

Data through December 28, 2022

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – January 4, 2023

Epidemiological Curve



Total Number of Cases
86,710

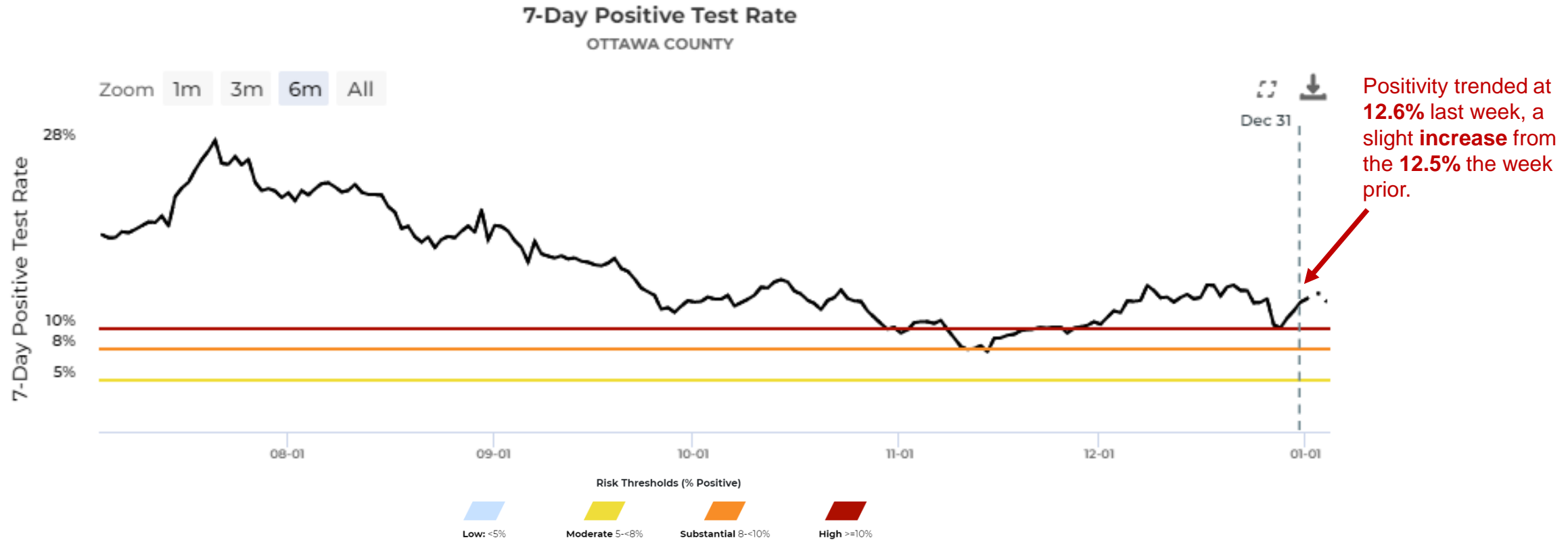
Currently, the 7-day average is approximately **25 cases per day**, a decrease from the approximately **38 cases per day** seen two weeks ago.

Notes: Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in an artificially lower 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, April 1, 2022 – December 31, 2022



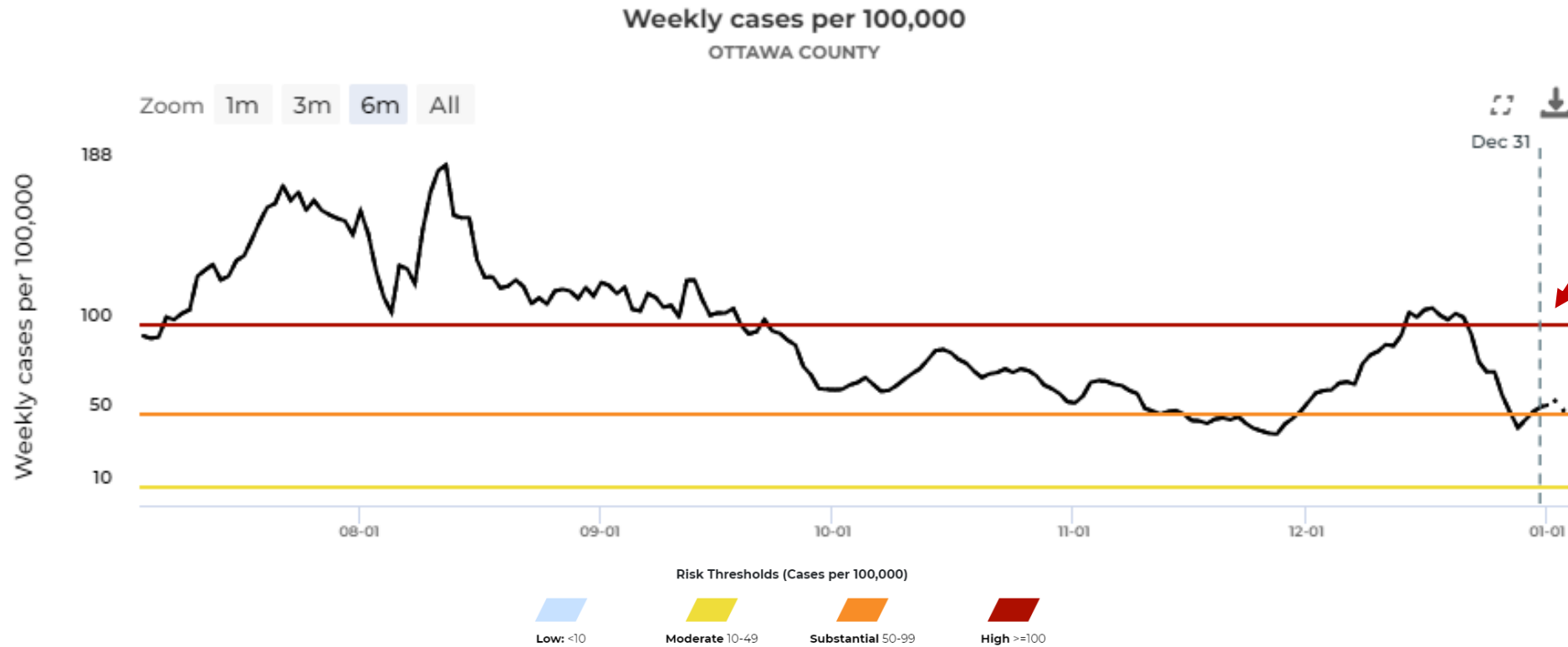
This visualization may change as CDC Community Transmission levels, metrics and/or metric thresholds/goals change.

Notes: 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 lower number of cases. Positivity displayed here may be obtained from MDHHS and may differ slightly from positivity obtained from CDC.

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

Case Rates in Ottawa County – All Ages

COVID-19 Cases by Day, Ottawa County, April 1, 2022 – December 31, 2022



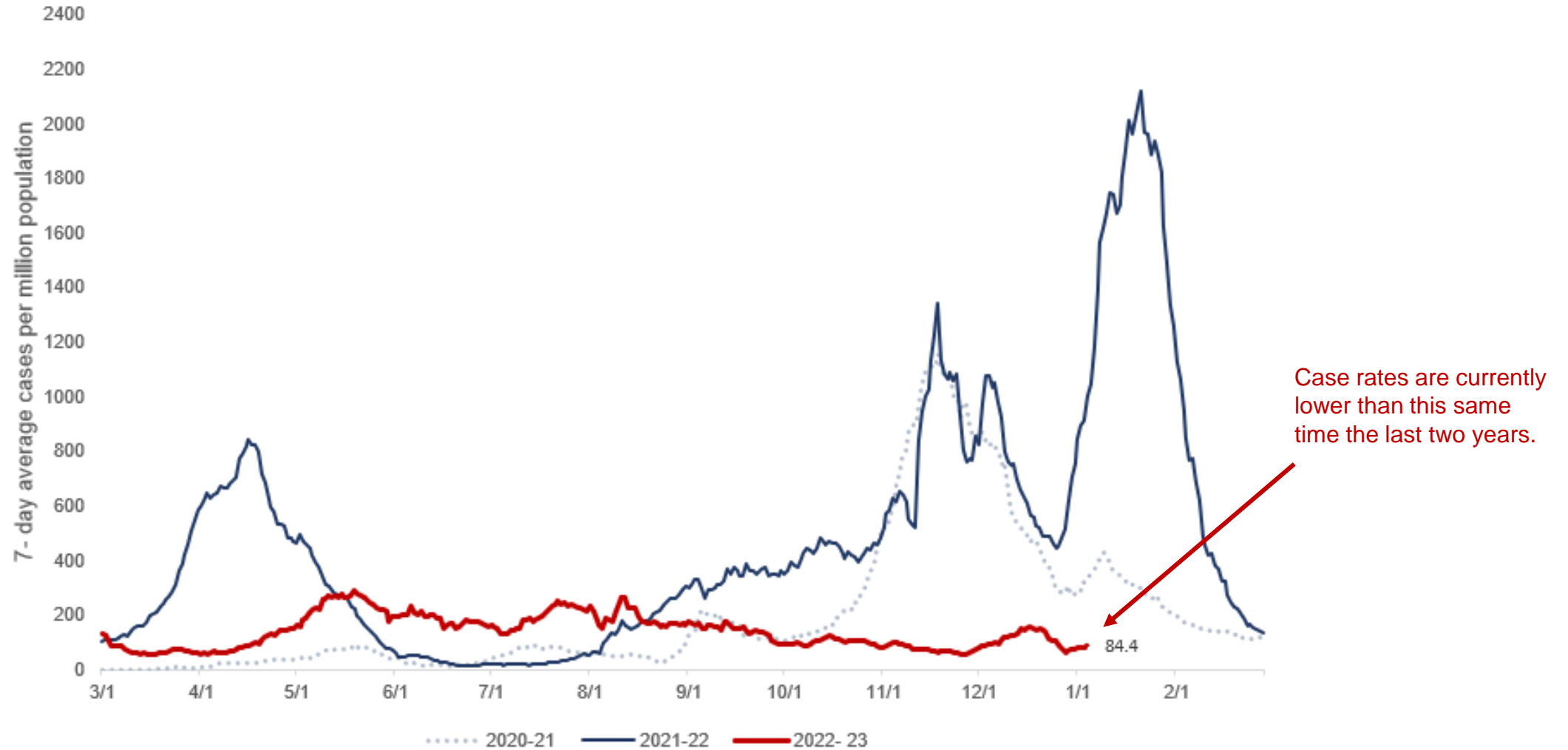
Last week, case rates trended at **54.4** cases per week per 100,000 population (**lower than the 73.7** the week prior).

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

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

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

Ottawa County Trends – Comparison of Case Rates by Year



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

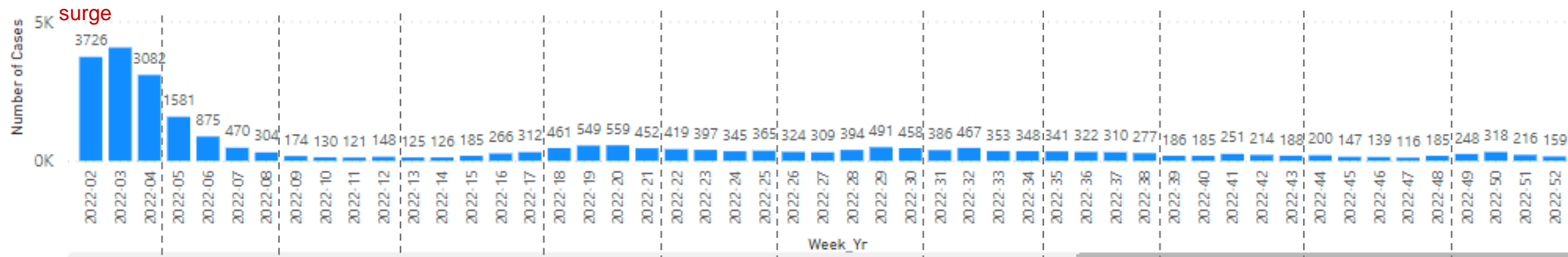
Source: Internal Data

Data through January 4, 2023

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

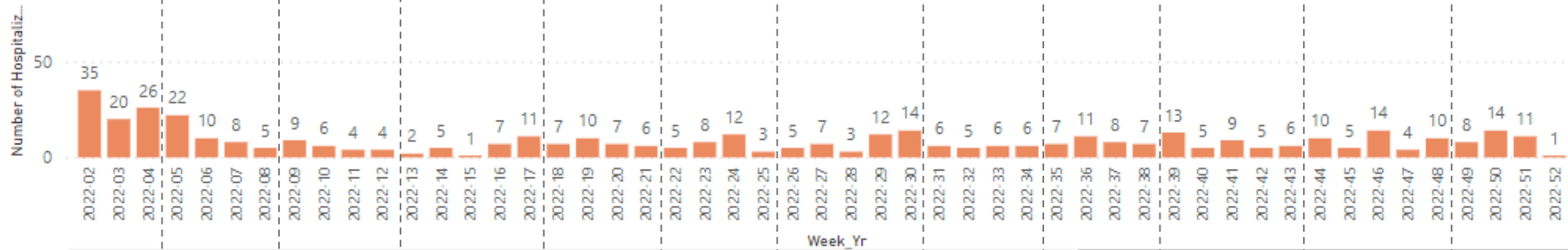
New Cases By Week of Referral

Omicron variant



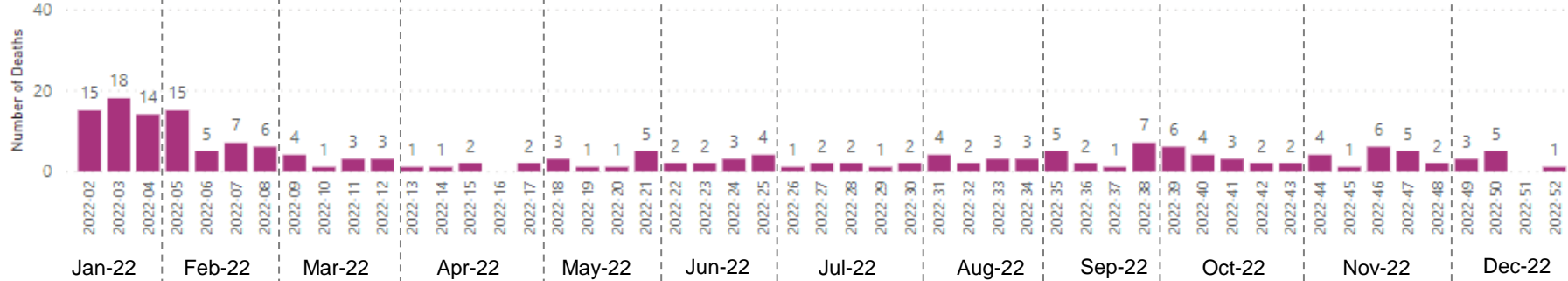
The weekly number of cases decreased 26% from week 51 to week 52.

New Hospitalizations by Week of Admission



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

New Deaths by Week of Death



Hospitalization data include all Ottawa County cases that have ever been hospitalized for COVID-19 or COVID-19 related complications. These data do not include Urgent Care visits, Emergency Department visits, or multiple hospitalizations for a single case.

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

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

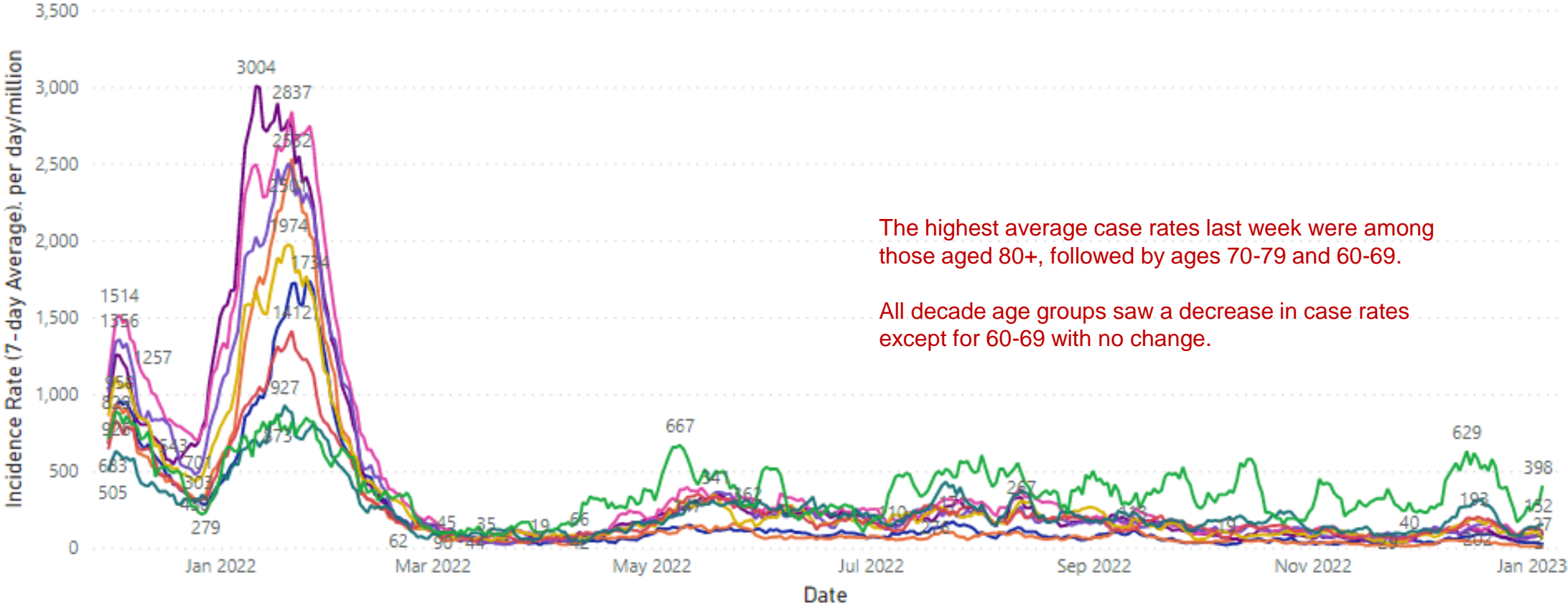
Data as of January 4, 2023

Ottawa County Case Rate Trends by Age Decade

COVID-19 Case Rates by Age, December 2021 – January 4, 2023

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 ages 70-79 and 60-69.

All decade age groups saw a decrease in case rates except for 60-69 with no change.

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

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

Data as of January 4, 2023

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 52 (December 25, 2022 – December 31, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	1.3	35.0	-47%
10-19	0.4	9.7	-57%
20-29	2.7	59.9	-18%
30-39	2.7	75.6	-47%
40-49	2.4	73.2	-41%
50-59	3.3	94.3	-8%
60-69	4.0	122.7	0%
70-79	2.7	131.3	-5%
80+	3.0	269.5	-30%

Age groups with highest average case rates last week:

- 80+
- 70-79
- 60-69

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

- All age groups decreased except 60-69
- 60-69 had no change in case rates

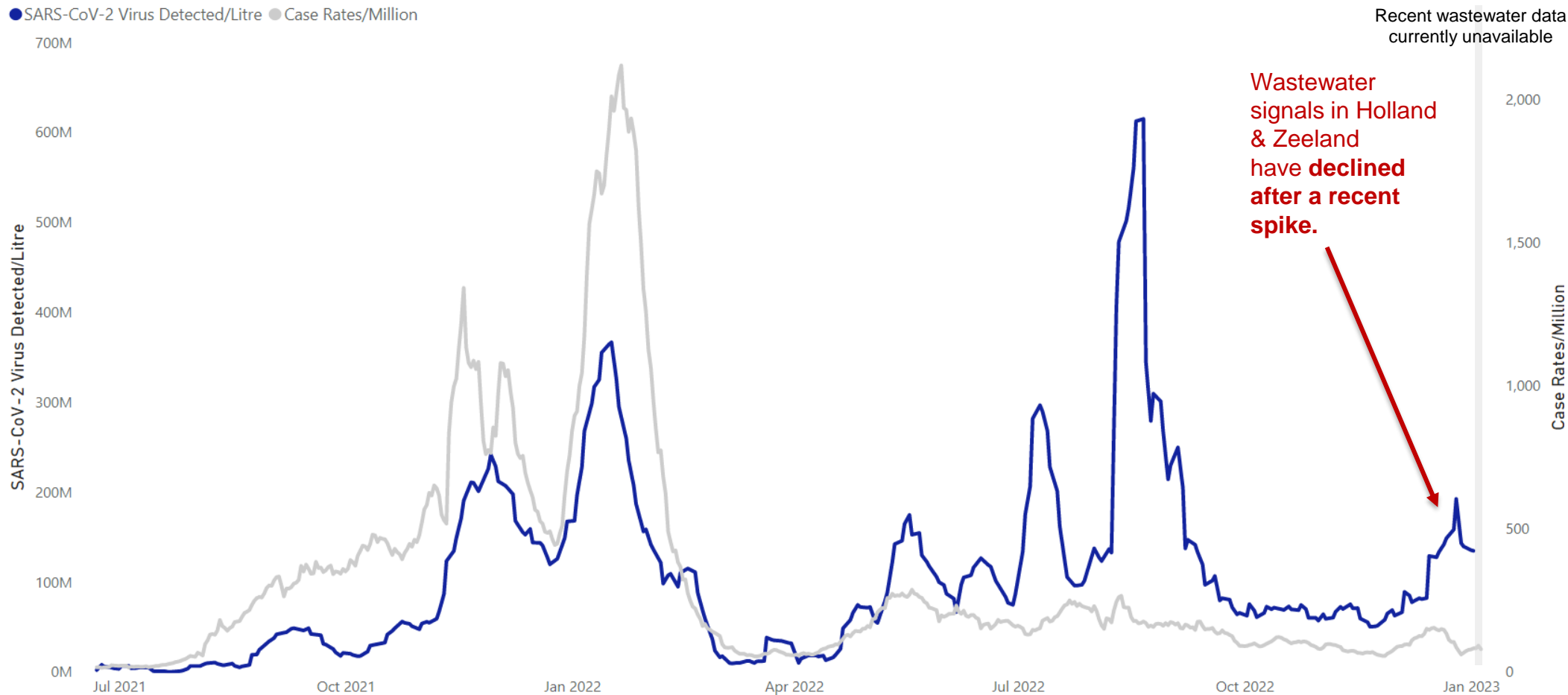
Notes: Average daily cases is calculated by summing the weekly total number of cases and dividing by seven. Cases counted in weeks of interest reflect referral date. Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially lower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

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

Data as of January 4, 2023

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. A data point from Zeeland collected June 23, 2022, was removed from data analysis as an extreme outlier.

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

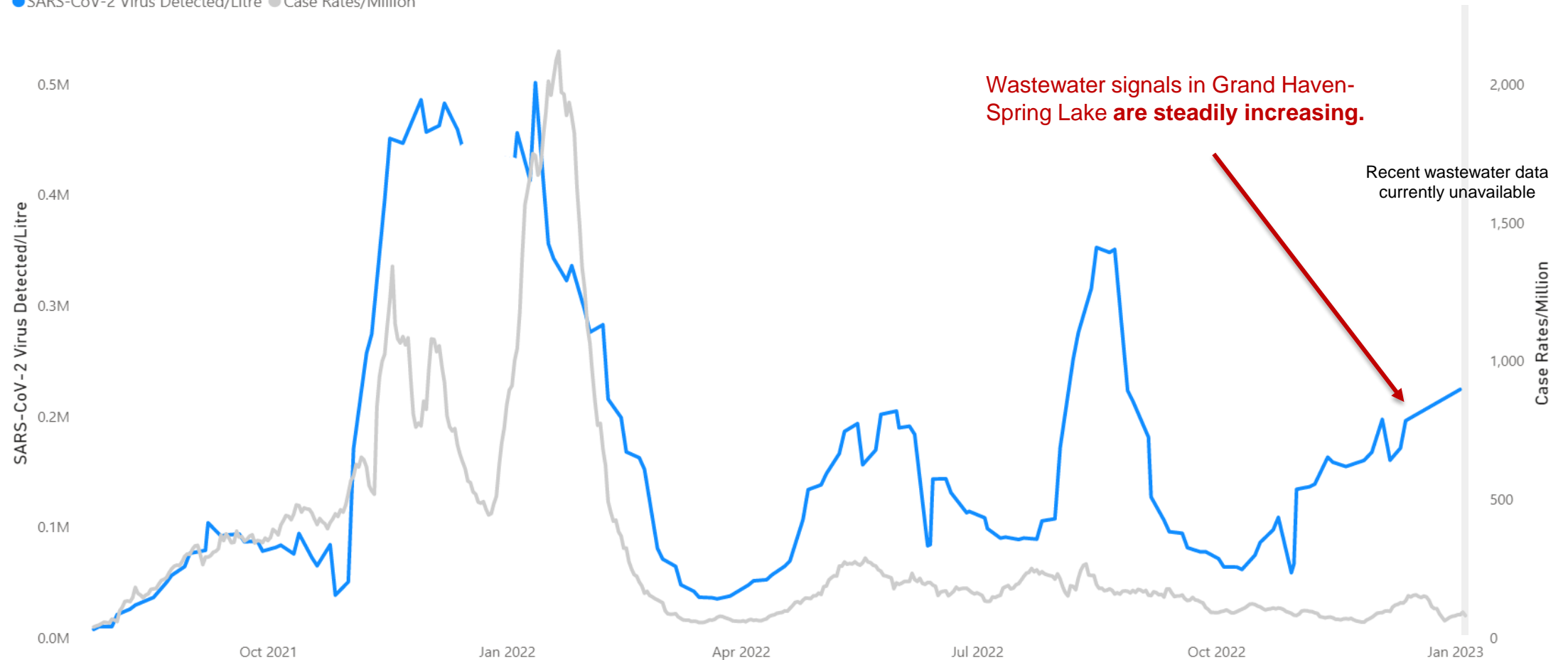
Additional Information: [Michigan COVID-19 Wastewater Surveillance Pilot Project \(arcgis.com\)](https://arcgis.com), [Coronavirus - Sentinel Wastewater Epidemiology Evaluation Project \(SWEEP\) \(michigan.gov\)](https://michigan.gov)

Data through January 2, 2023

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)

● SARS-CoV-2 Virus Detected/Litre ● Case Rates/Million



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. (redisker@gvsu.edu)

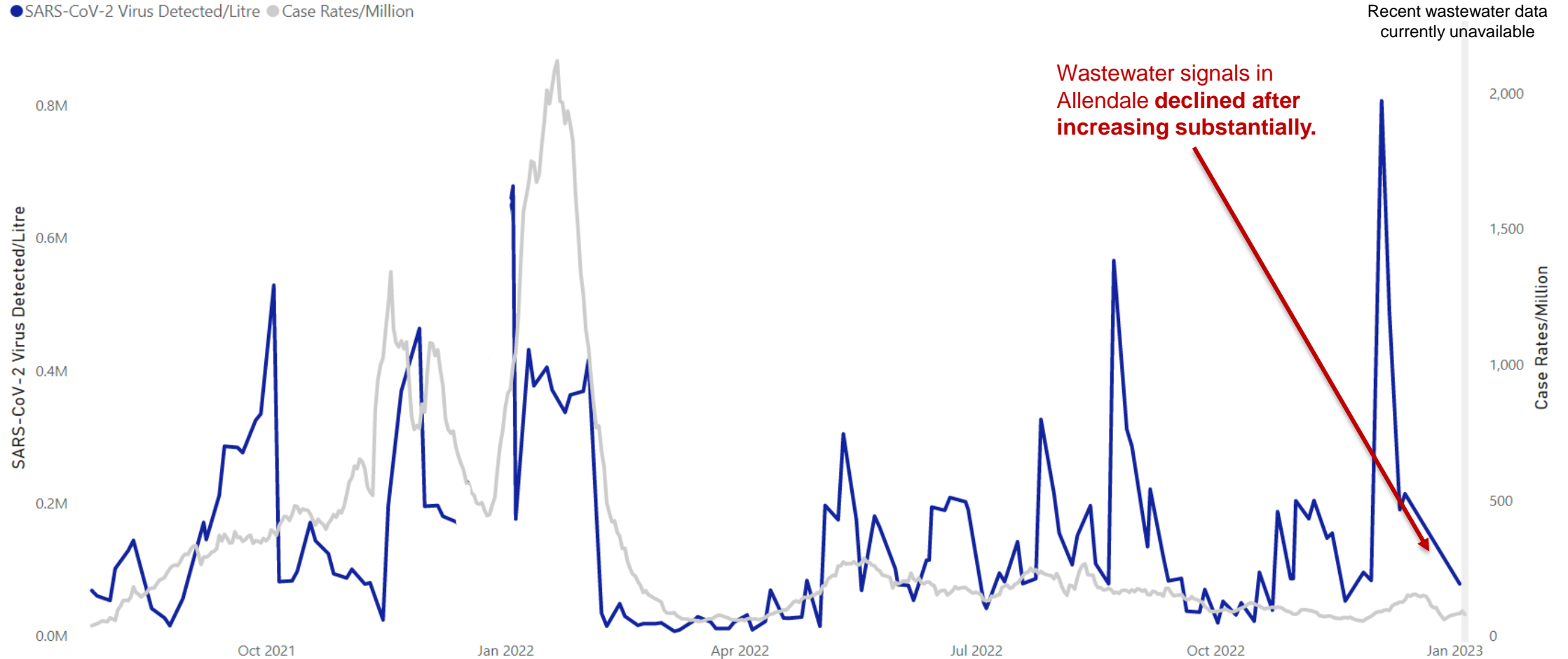
Additional Information: [Michigan COVID-19 Wastewater Surveillance Pilot Project \(arcgis.com\)](https://arcgis.com), [Coronavirus - Sentinel Wastewater Epidemiology Evaluation Project \(SWEET\) \(michigan.gov\)](https://michigan.gov)

Data through January 3, 2023

Allendale Wastewater Surveillance

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

● SARS-CoV-2 Virus Detected/Litre ● Case Rates/Million



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)

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 January 3, 2023

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science
Roundup

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
22-Oct-22	191	-15%	23	-8%	214	-15%
29-Oct-22	171	-10%	17	-26%	188	-12%
5-Nov-22	184	8%	16	-6%	200	6%
12-Nov-22	135	-27%	12	-25%	147	-27%
19-Nov-22	128	-5%	11	-8%	139	-5%
26-Nov-22	102	-20%	14	27%	116	-17%
3-Dec-22	172	69%	13	-7%	185	59%
10-Dec-22	224	30%	24	85%	248	34%
17-Dec-22	284	27%	34	42%	318	28%
24-Dec-22	194	-32%	22	-35%	216	-32%
31-Dec-22	148	-24%	11	-50%	159	-26%

Weekly case counts among **children decreased 50%** last week, and cases in **adults decreased 24%**.

Adults

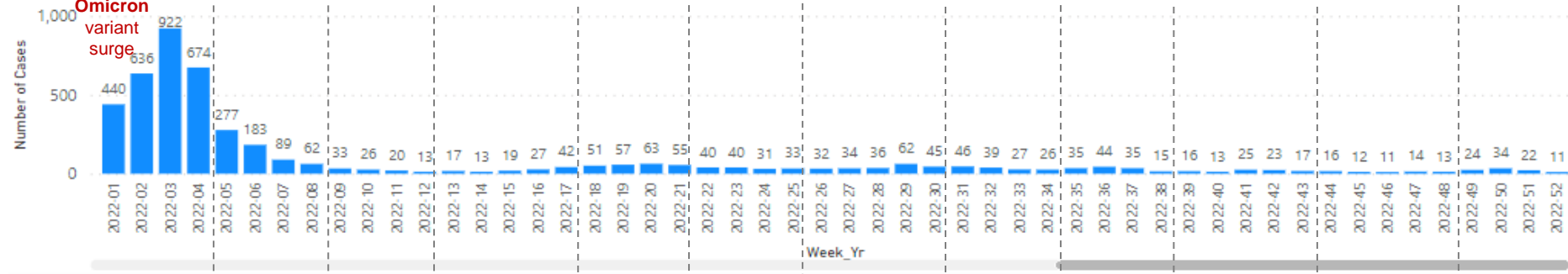
Children

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

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

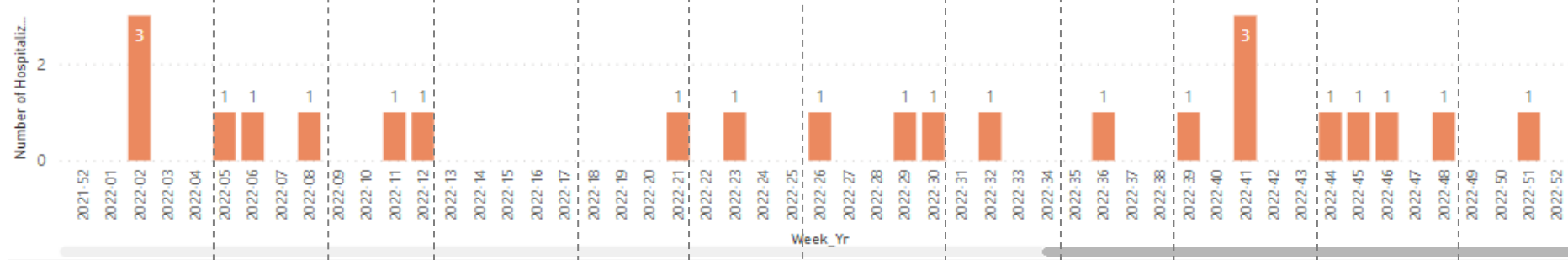
Ottawa County – Cases, Hospitalizations, & Deaths by Week Among Children (0-17 years)

New Cases By Week of Referral



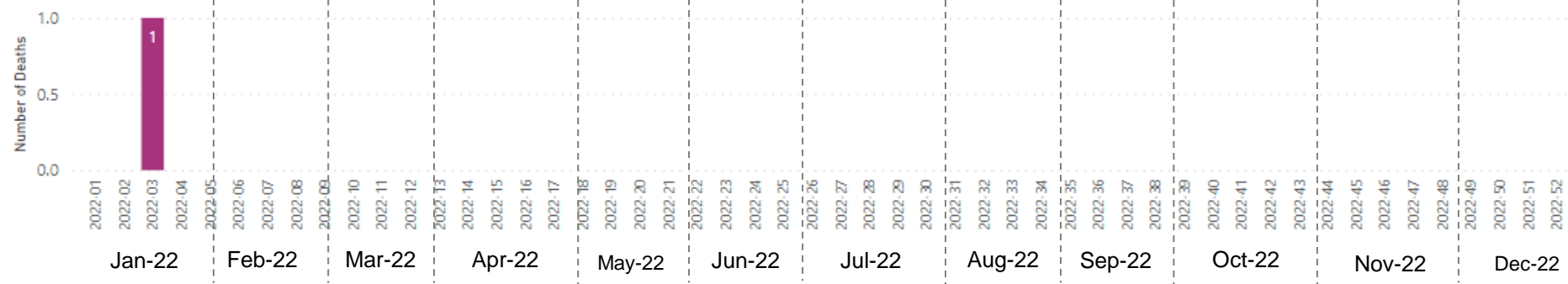
The weekly number of cases among children **decreased 50%** from week 51 to week 52.

New Hospitalizations by Week of Admission



Hospitalization data include all Ottawa County cases that have ever been hospitalized for COVID-19 or COVID-19 related complications. These data do not include Urgent Care visits, Emergency Department visits, or multiple hospitalizations for a single case.

New Deaths by Week of Death



The first COVID-19 associated death in a child occurred in January of 2022. The death certificate was completed in June of 2022.

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

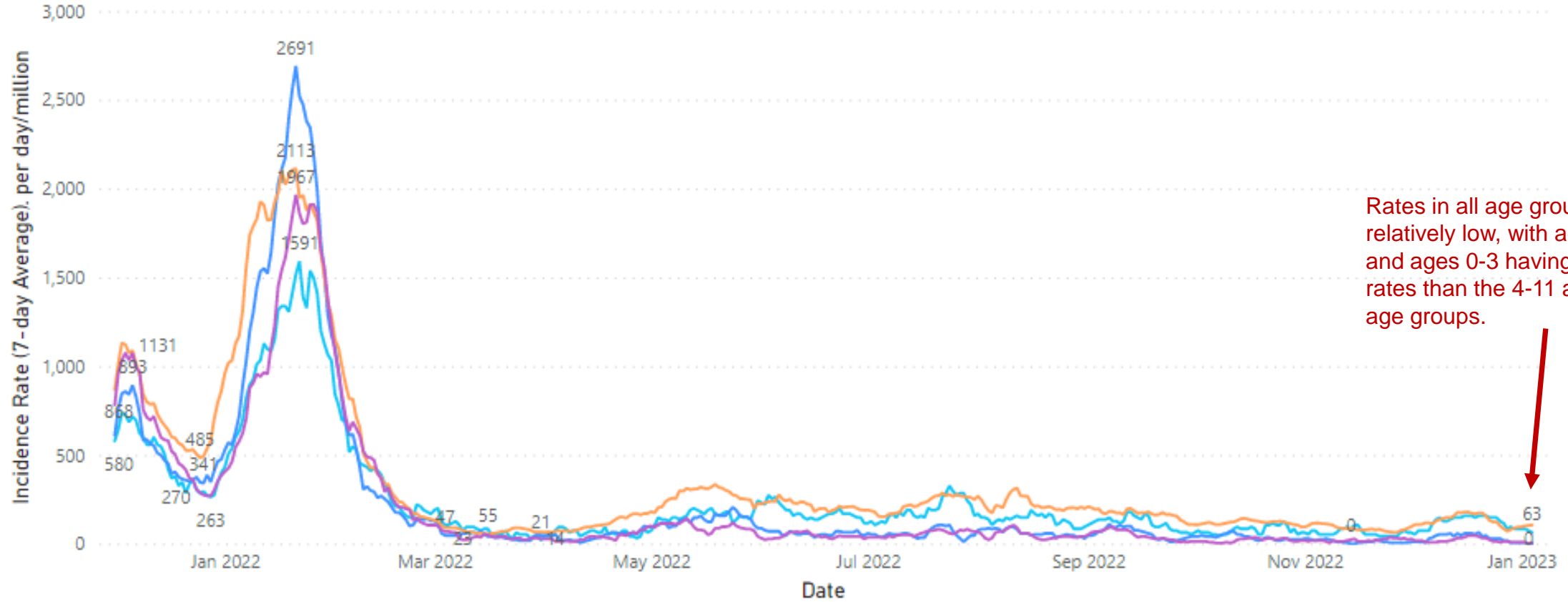
Data as of January 4, 2023

Ottawa County – Case Rate Trends by Age

COVID-19 Case Rates by Age, includes School-Aged, December 2021 – January 4, 2023

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



Rates in all age groups remain relatively low, with adults 18+ and ages 0-3 having higher rates than the 4-11 and 12-17 age groups.

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 January 4, 2023

USA & MI

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Risk Levels

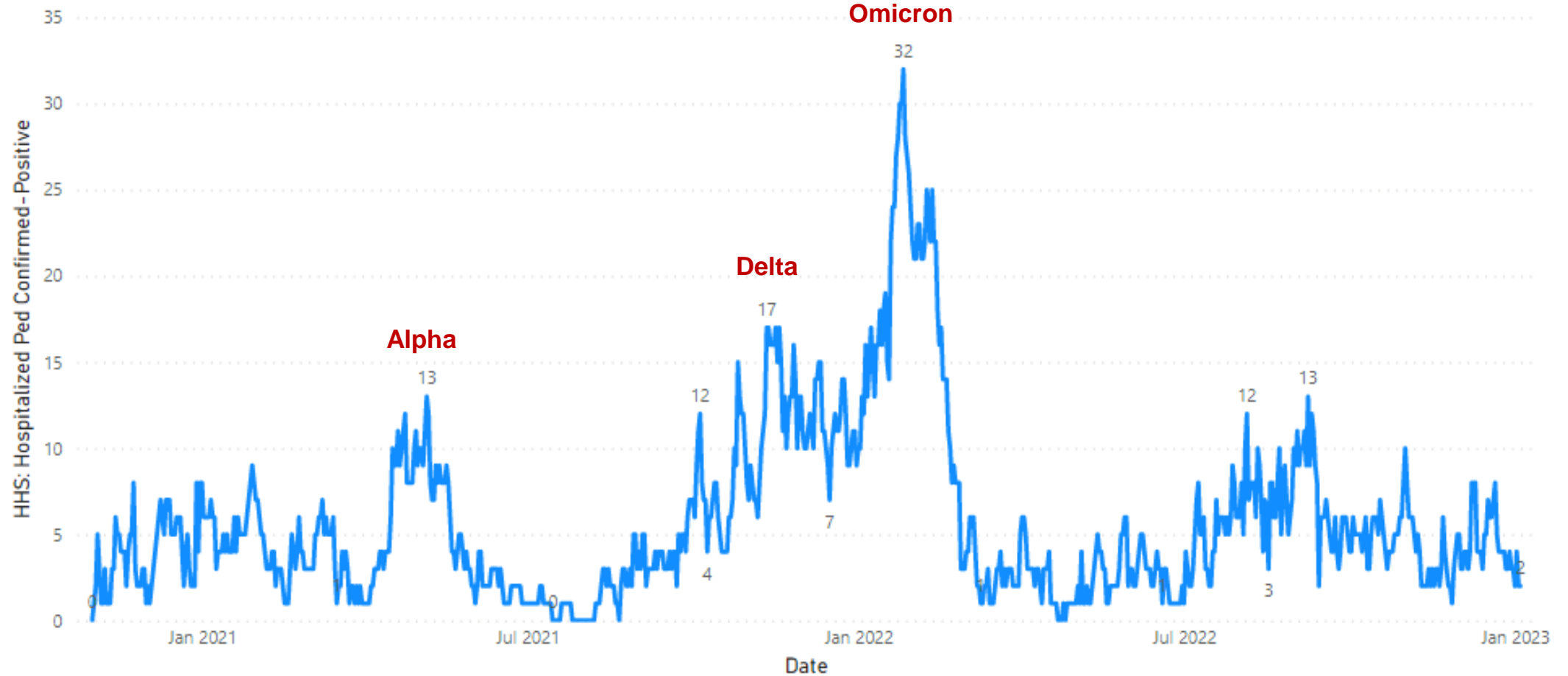
Other

Media

Science Roundup

Daily Hospital Pediatric Census – West Michigan

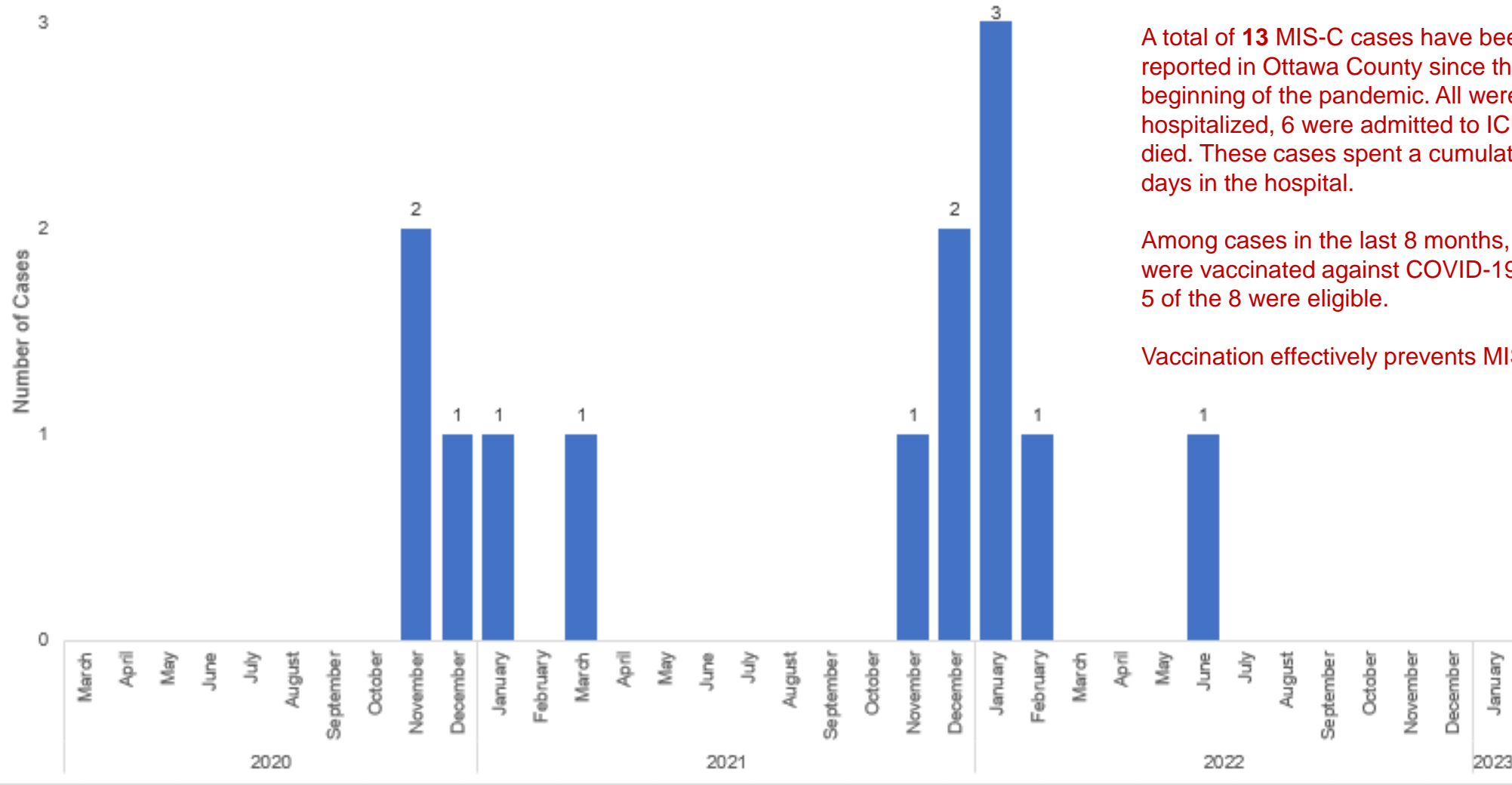
HHS: Hospitalized Ped Confirmed-Positive by Date



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

Data through January 4, 2023

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>

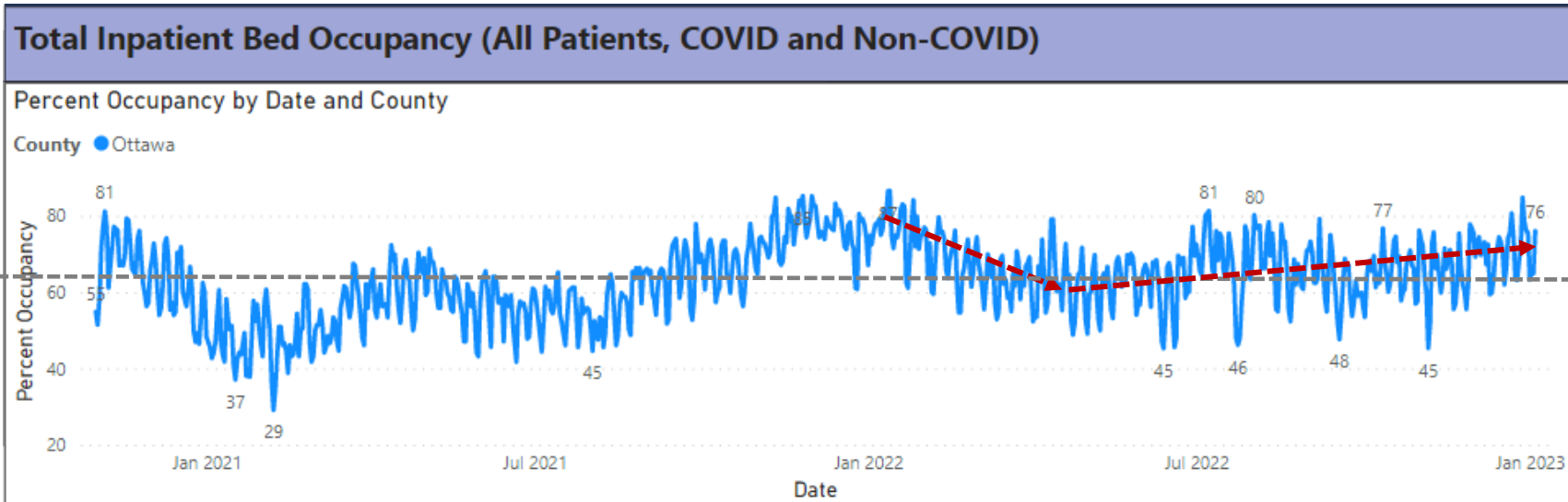
**Sources: [MMWR](#) & [The Lancet](#)

Data through January 4, 2023

Ottawa County Hospital Capacity – All Beds

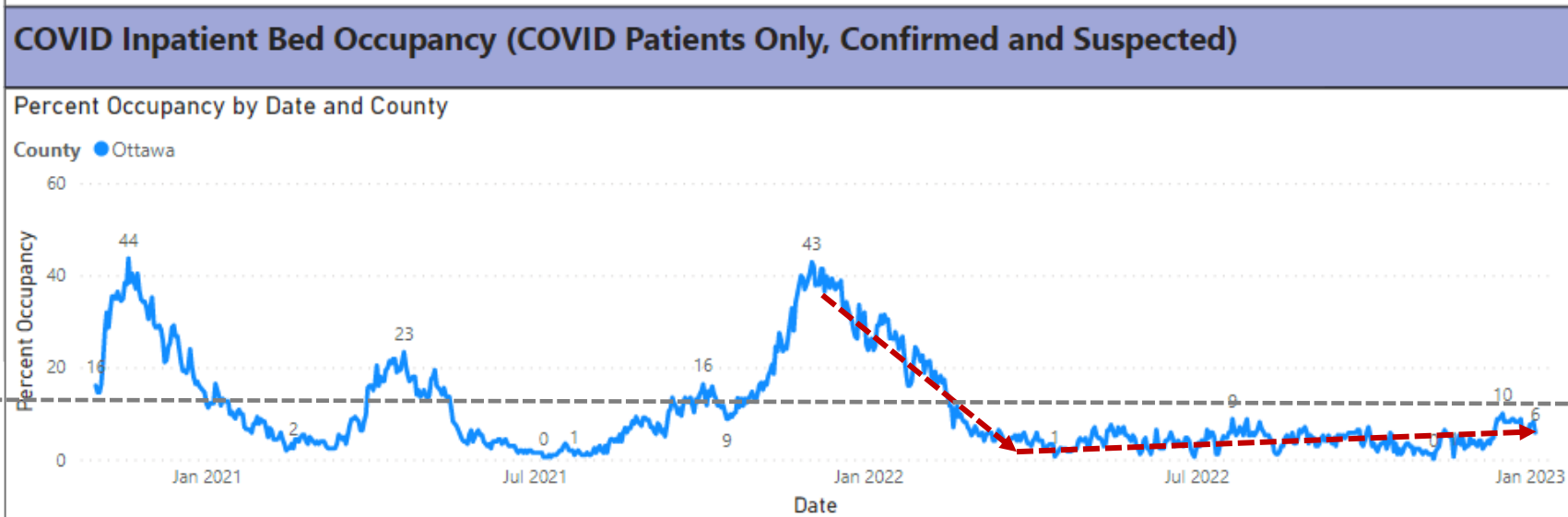
Pandemic Average

63%



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

11%



Currently **6%** of all inpatient beds are occupied by COVID-19 patients.

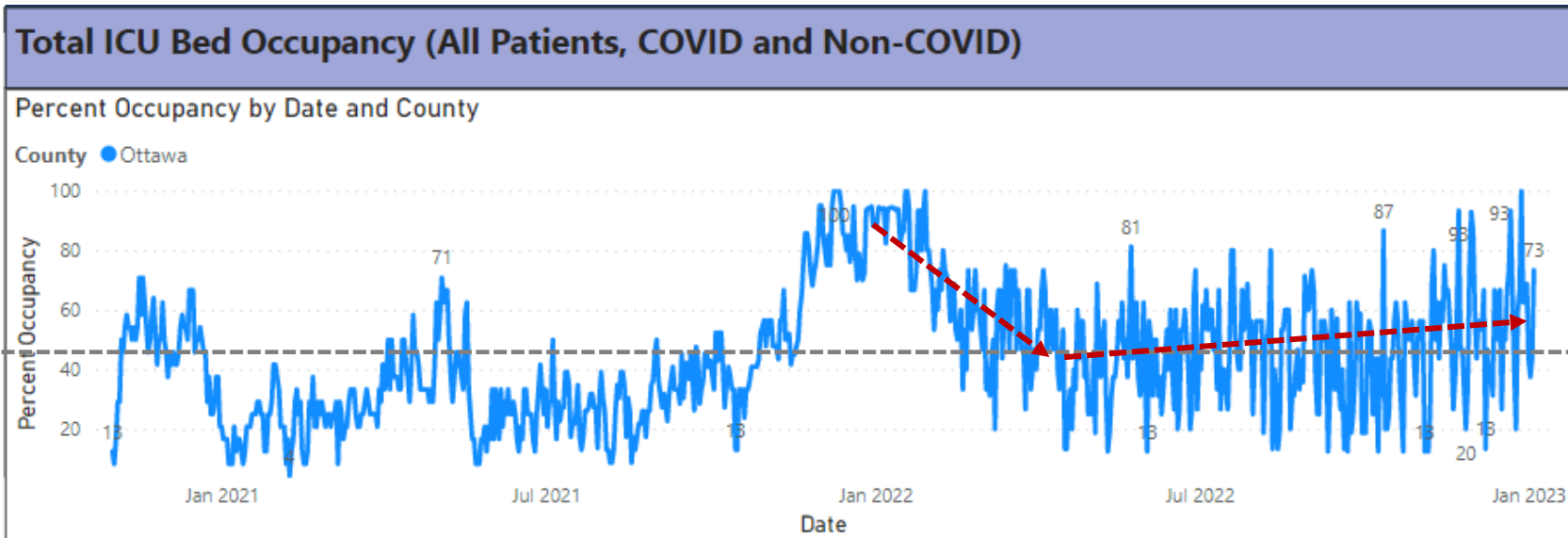
Source: EMResources

Data through January 4, 2023

Ottawa County Hospital Capacity – ICU Beds

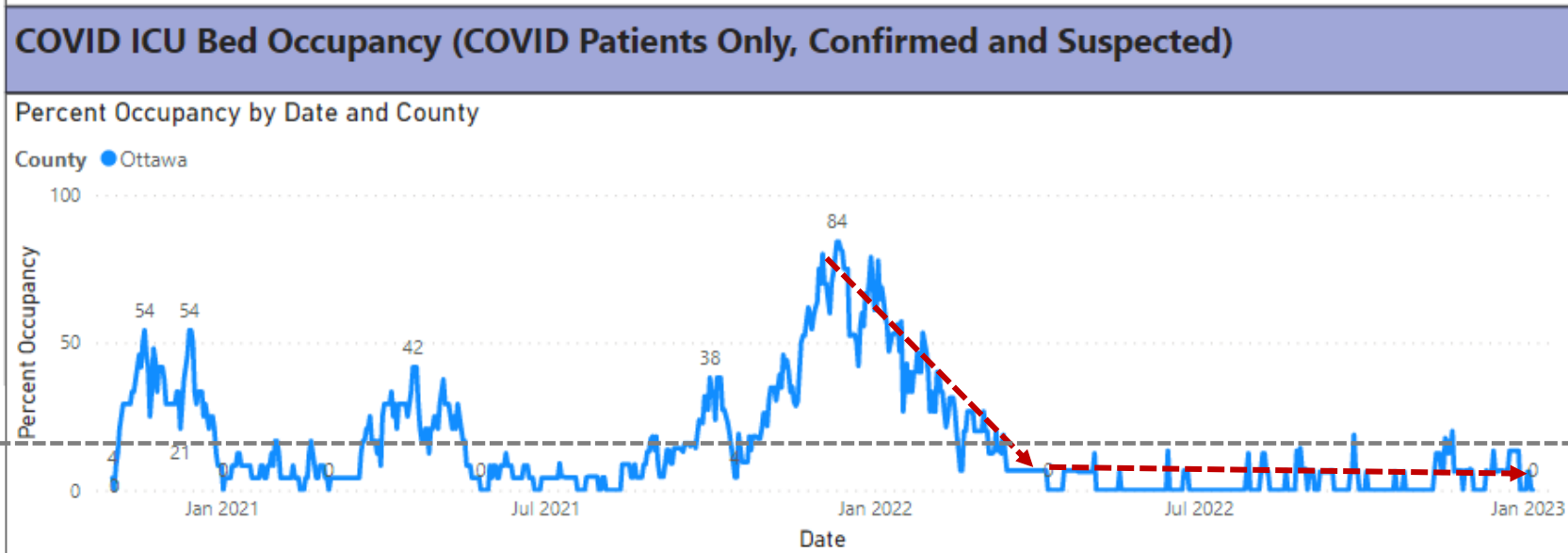
Pandemic Average

42%



Total ICU bed occupancy varies considerably by day. Lately, ICU bed occupancy is **above the pandemic average**

16%

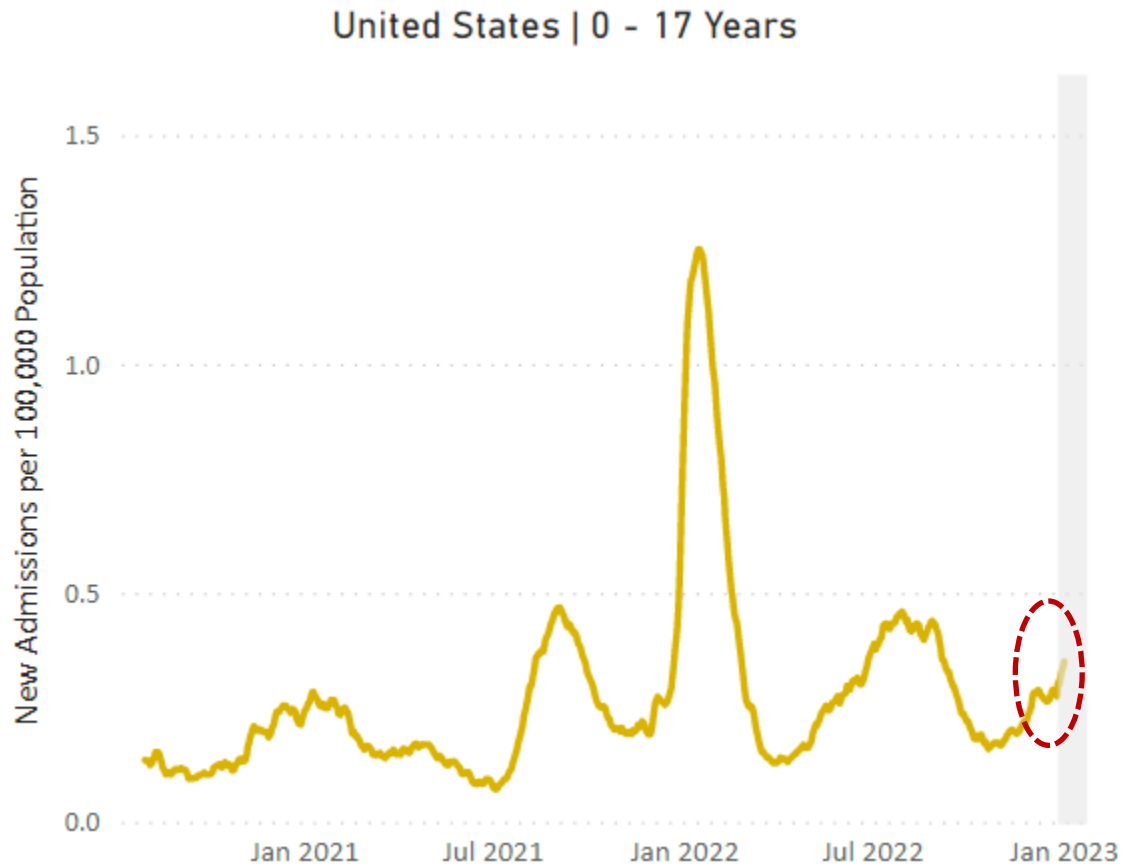


The proportion of ICU beds occupied by COVID-19 patients is **below the pandemic average**. Currently, **0%** of ICU beds occupied by COVID-19 patients.

Source: EMResources

Data through January 4, 2023

Pediatric Hospitalization Rates – USA, Michigan



Pediatric COVID-19 hospitalization rates across the US and Michigan are showing recent **increases**.

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

Accessed January 5, 2023

USA & MI

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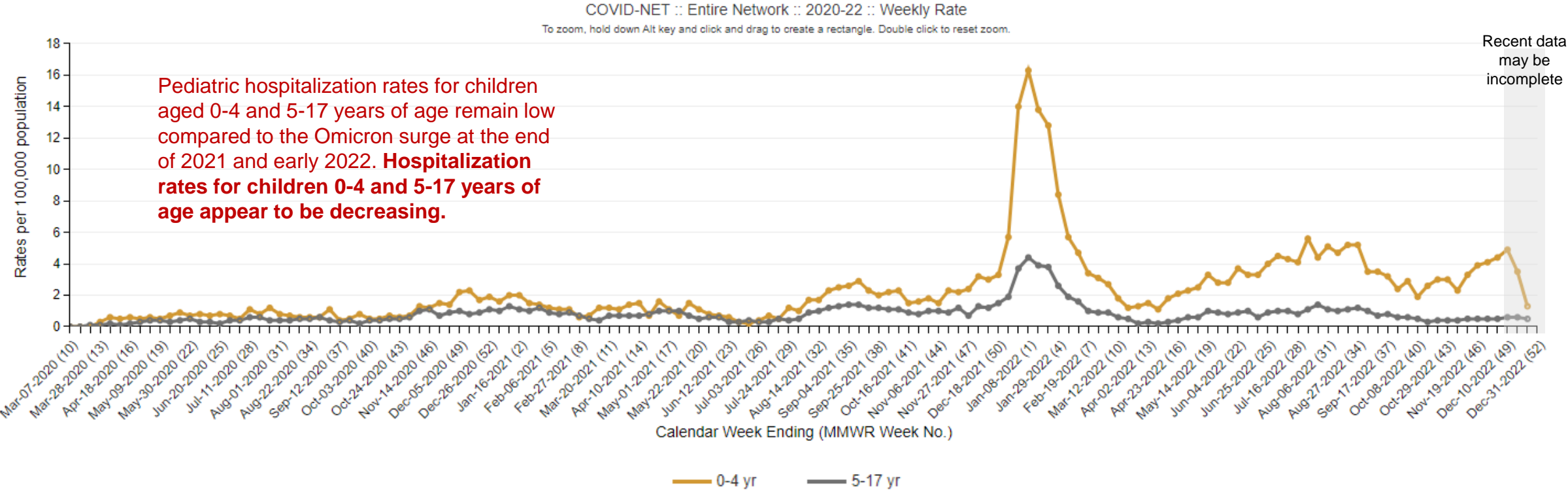
Risk Levels

Other

Media

Science
Roundup

Pediatric Hospitalization Rates by Age Group – USA



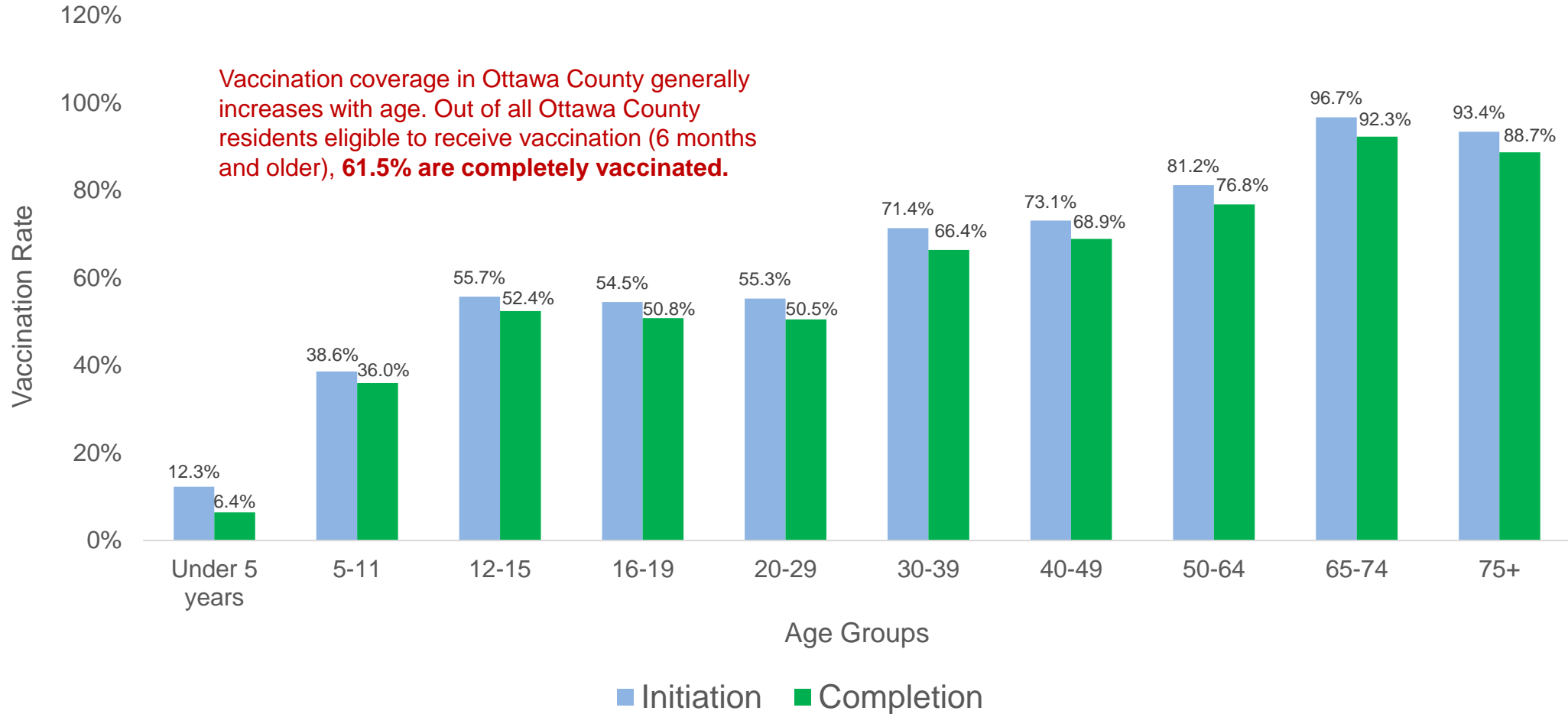
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case 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 January 5, 2023

Vaccination Coverage by Age (Primary Series Only)



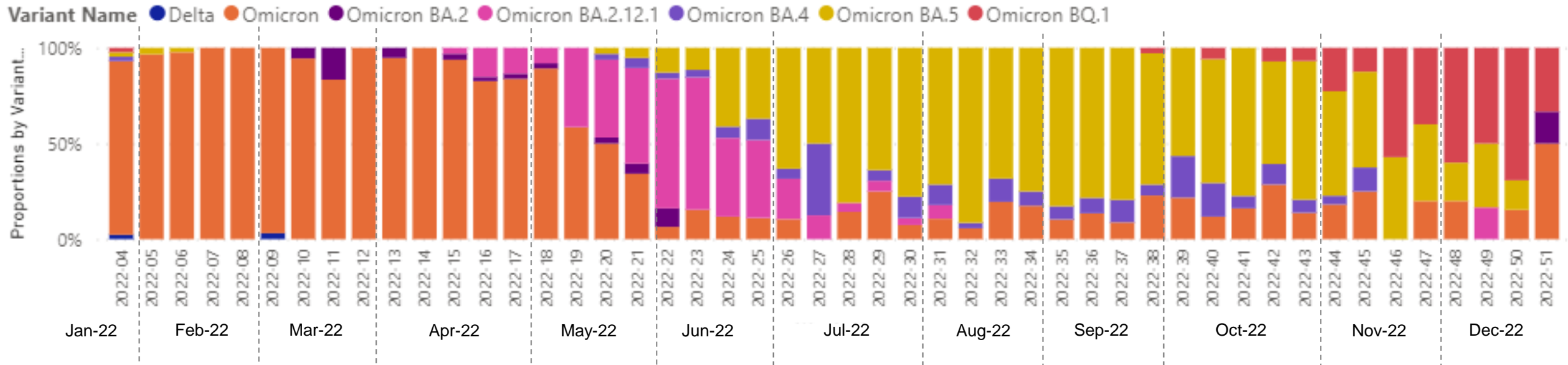
Notes: Completion is the percentage of people receiving at least 2 doses of Pfizer or Moderna or 1 dose of J&J. NovaVax doses are not included here.

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

Data through January 4, 2023

Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week



By the end of July 2021 through early December 2021, all clinical samples* tested were identified as the **Delta** variant (data not displayed here).

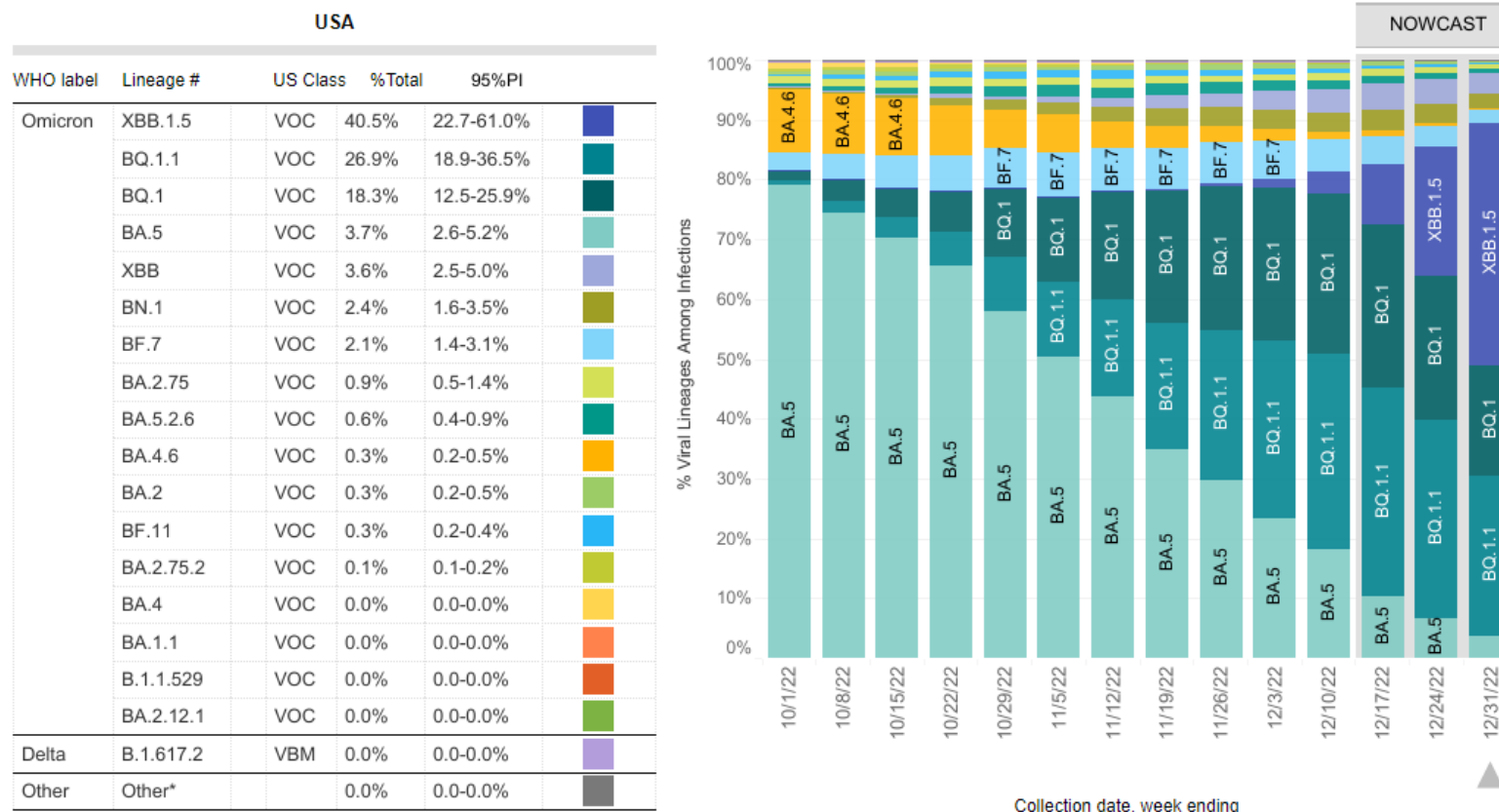
In mid-December 2021, the first **Omicron** positive sample was collected in an Ottawa County resident, and **Omicron** continues to be detected through 2022, with more recent additions of the **Omicron subvariants** such as BQ.1 (first detected in clinical samples in late September 2022). Additional **Omicron subvariants** may be detected in clinical samples in the months ahead.

* 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

United States: 12/25/2022 – 12/31/2022 NOWCAST | United States: 9/25/2022 – 12/31/2022



The **Omicron** variant and its subvariants are estimated to account for more than 99% of all clinical samples collected in the United States the week ending December 31, 2022.

The BA.5 subvariant has been supplanted by other Omicron subvariants such as BQ.1.1, BQ.1, XBB.1.5, and others.

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
 ** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
 # BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. Except BA.2.12.1, BA.2.75, BA.2.75.2, BN.1, XBB and their sublineages, BA.2 sublineages are aggregated with BA.2. Except BA.4.6, sublineages of BA.4 are aggregated to BA.4. Except BF.7, BF.11, BA.5.2.6, BQ.1 and BQ.1.1, sublineages of BA.5 are aggregated to BA.5. Except XBB.1.5, sublineages of XBB are aggregated to XBB. For all the lineages listed in the above table, their sublineages are aggregated to the listed parental lineages respectively. Previously, XBB.1.5 was aggregated to XBB. Lineages BA.2.75.2, XBB, XBB.1.5, BN.1, BA.4.6, BF.7, BF.11, BA.5.2.6 and BQ.1.1 contain the spike substitution R346T.

COVID-19 Community Levels

TABLE 1. COVID-19 Community Levels, Indicators, and Thresholds

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%

Please note that the Community Levels indicators for hospital admission and occupancy shown here apply to COVID-19 patients only.

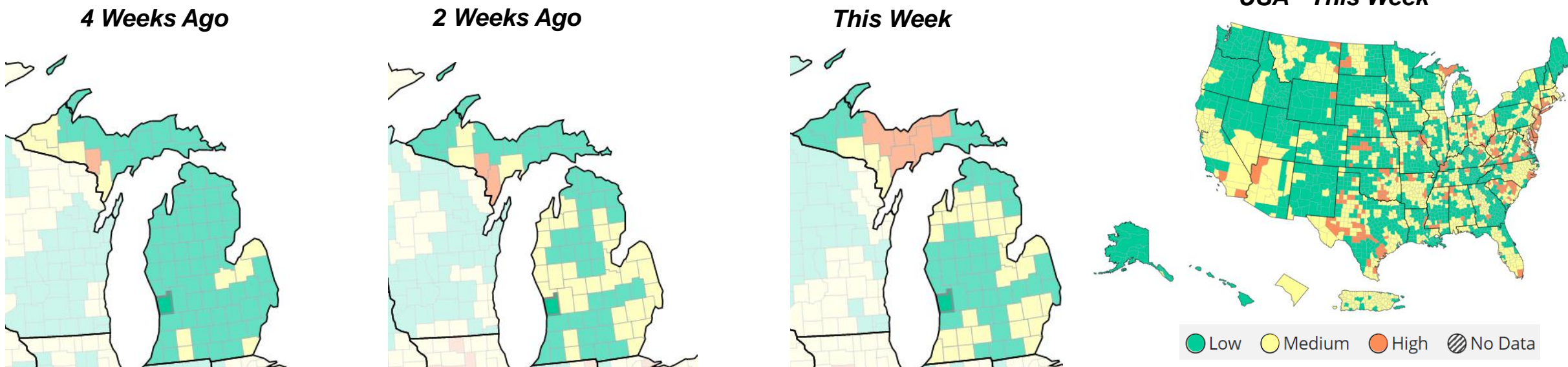
While Ottawa County COVID-19 admissions and hospital occupancy have remained <10% for many months, reducing infections and preventing hospitalizations for/with COVID-19 is important to ensure capacity in local hospitals that may be facing substantial occupancy challenges from RSV, influenza, and other conditions.

The COVID-19 community level is determined by the higher of the *new admissions* and *inpatient beds occupied* 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**
 - Ottawa and Michigan's CDC Community Levels can be viewed on the [CDC website](#) and on the [MI Safe Start Map](#).
- Current Data:
 - New COVID-19 Hospital Admissions (per 100K pop 7-day total) = **3.4**
 - Percent of staffed inpatient beds in use by patients with COVID-19 (7-day average) = **6.1%**




Data updated by CDC on January 5, 2023.
Ottawa Hospitalization data as of January 3, 2023.

Source: [CDC COVID Data Tracker: Community Levels](#)

COVID-19 Community Transmission Levels

Determining Transmission Risk

If the two indicators suggest different transmission levels, the higher level is selected

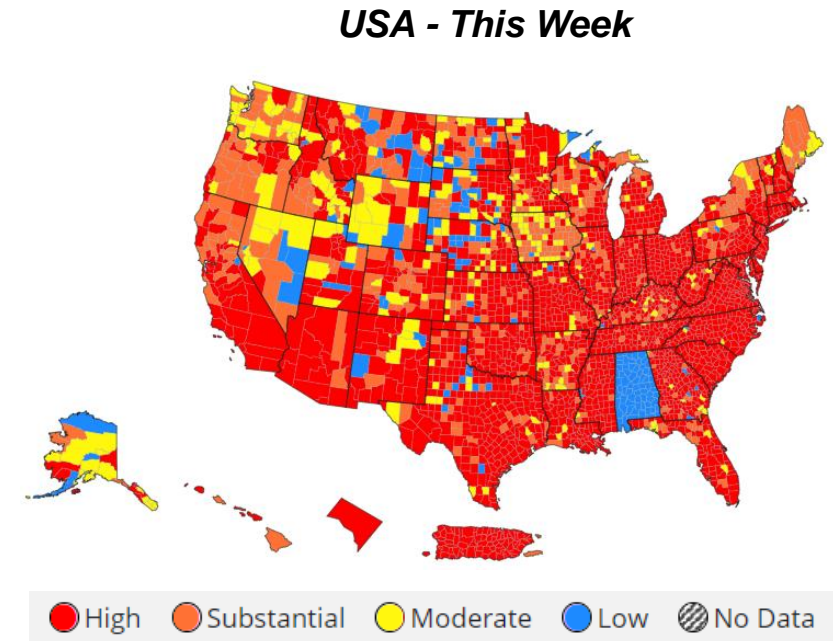
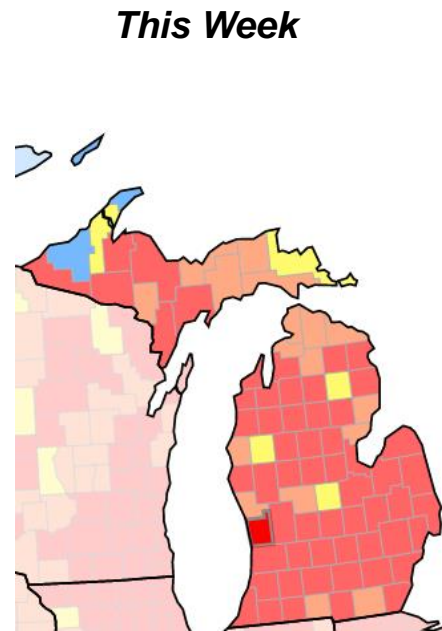
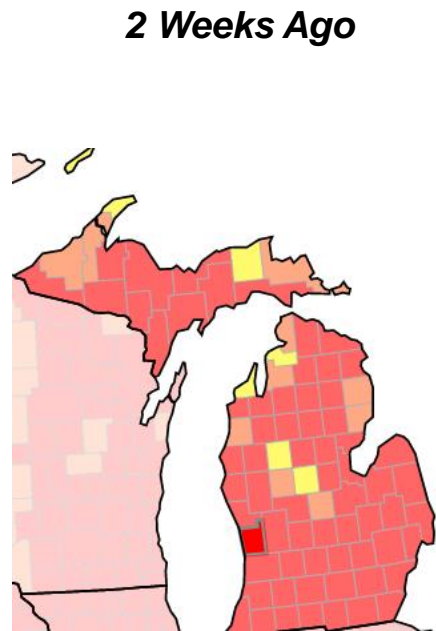
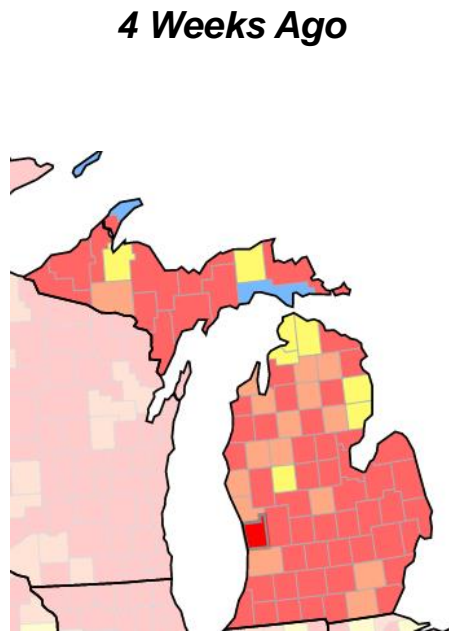


	Low	Moderate	Substantial	High
New cases per 100,000 persons in the past 7 days*	<10	10-49.99	50-99.99	≥ 100
Percentage of positive NAATs tests during the past 7 days**	<5%	5-7.99%	8-9.99%	≥ 10.0%

Source: https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&data-type=Risk

CDC Community Transmission Levels – Ottawa County

- Current Community Transmission Level in Ottawa – **HIGH**
 - Ottawa and Michigan’s CDC Community Transmission Levels can be viewed on [CDC’s website](#) and on the [MI Safe Start Map](#).
- Current Data:
 - Case Rate (per 100k pop 7-day total) = **58.3**
 - Percent Test Positivity (last 7 days) = **13.2%**



Data updated by CDC on January 5, 2023.
Rate data for Ottawa through January 4, 2023.
Positivity data for Ottawa through January 2, 2023.

Source: [CDC COVID Data Tracker: Community Transmission](#)

COVID-19 Case Rates by County Across the US

Two Weeks Ago

This Week

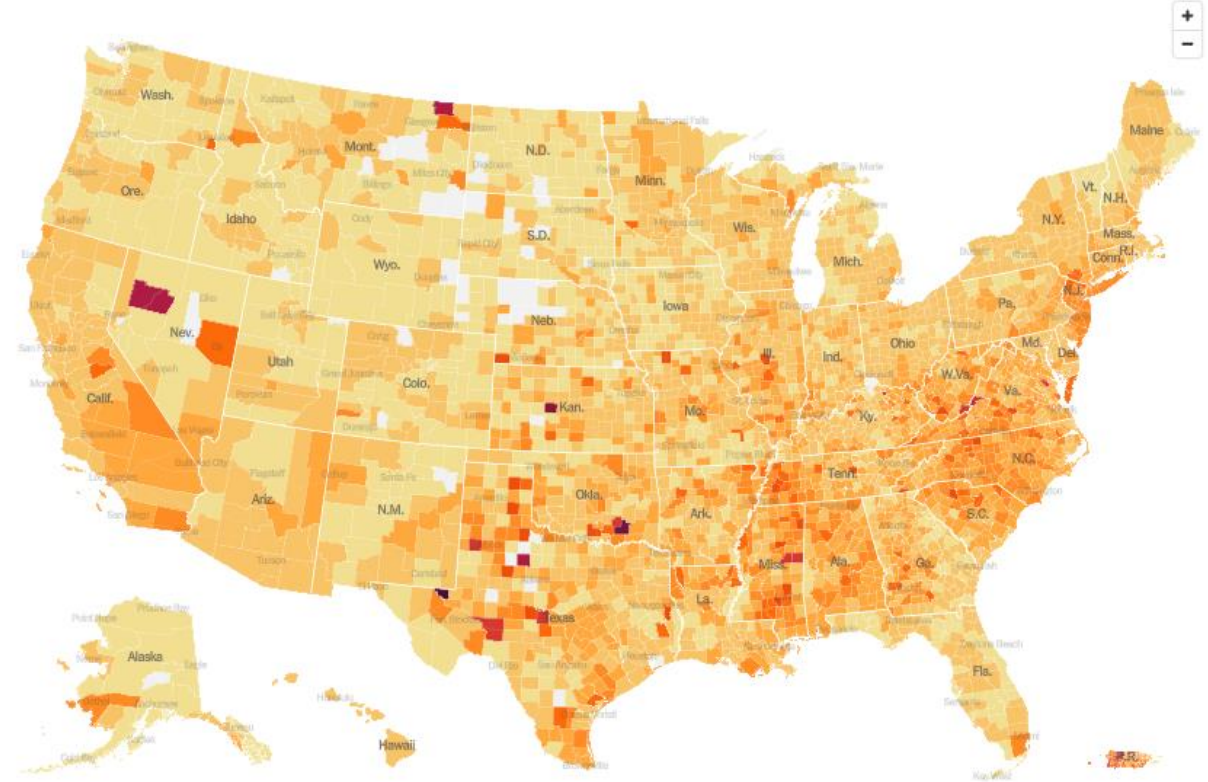
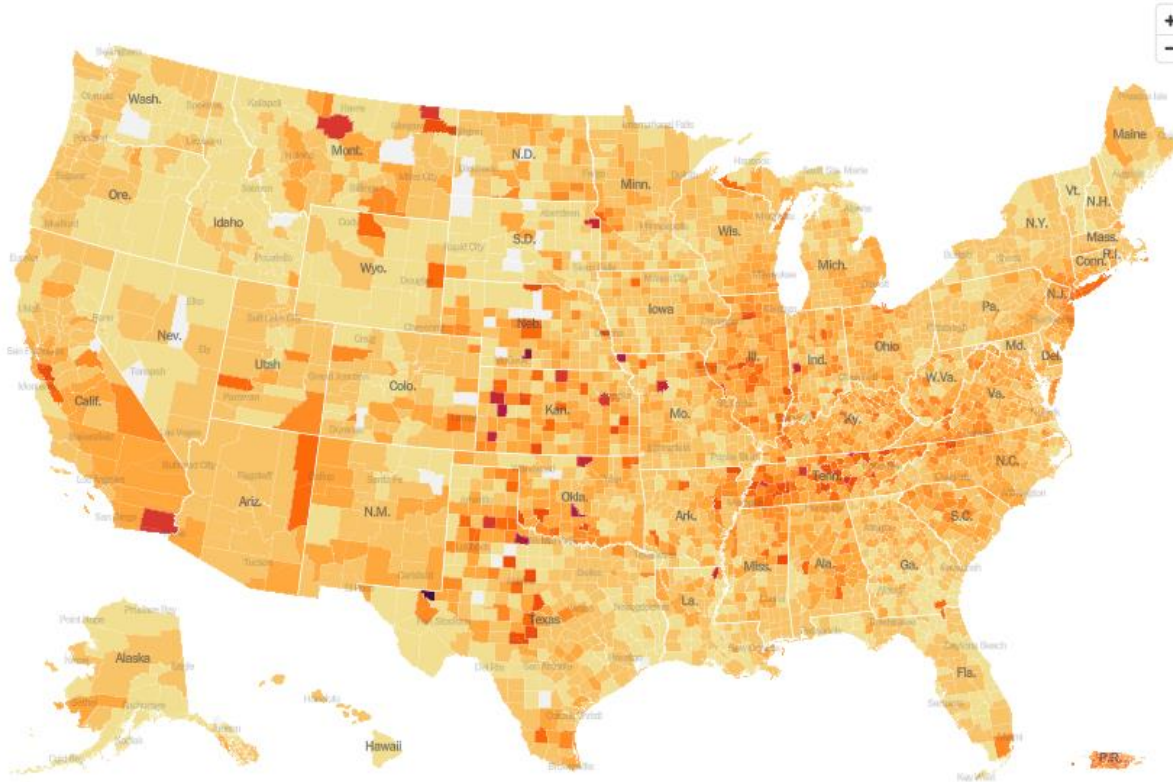
Hot spots

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



Hot spots

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



Case rates may be increasing in some areas across the nation.

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

Accessed January 5, 2023

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

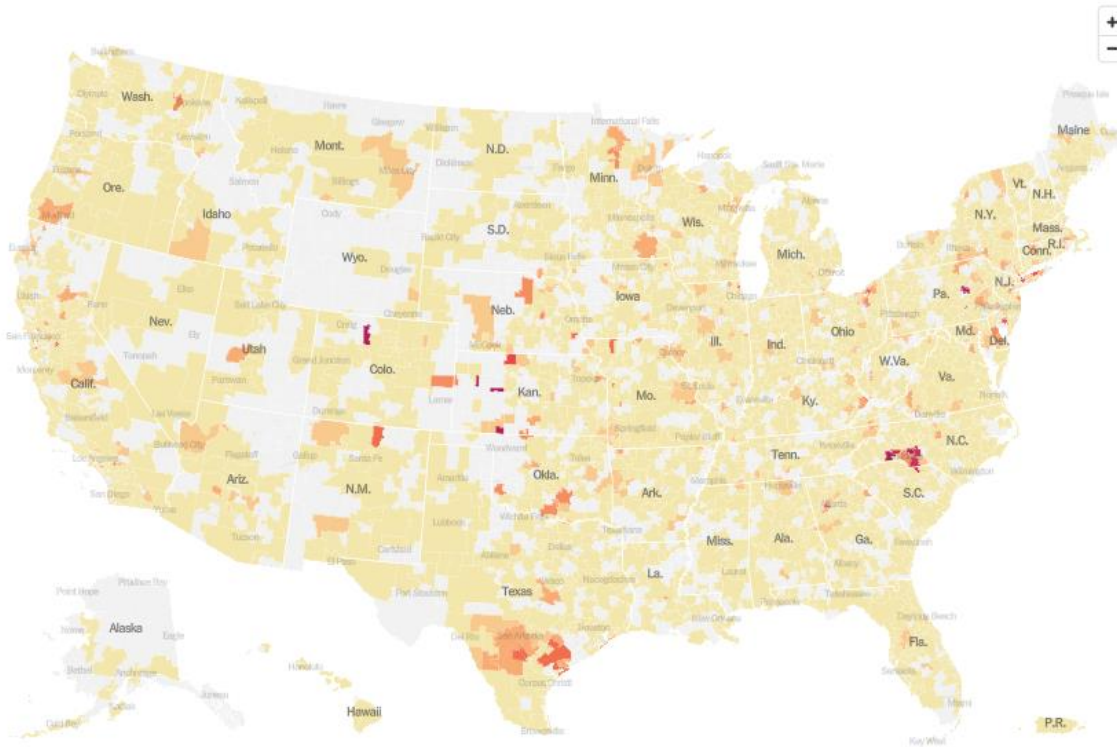
Science Roundup

COVID-19 Hospitalization Rates by County Across the US

Two Weeks Ago

Current hospitalizations

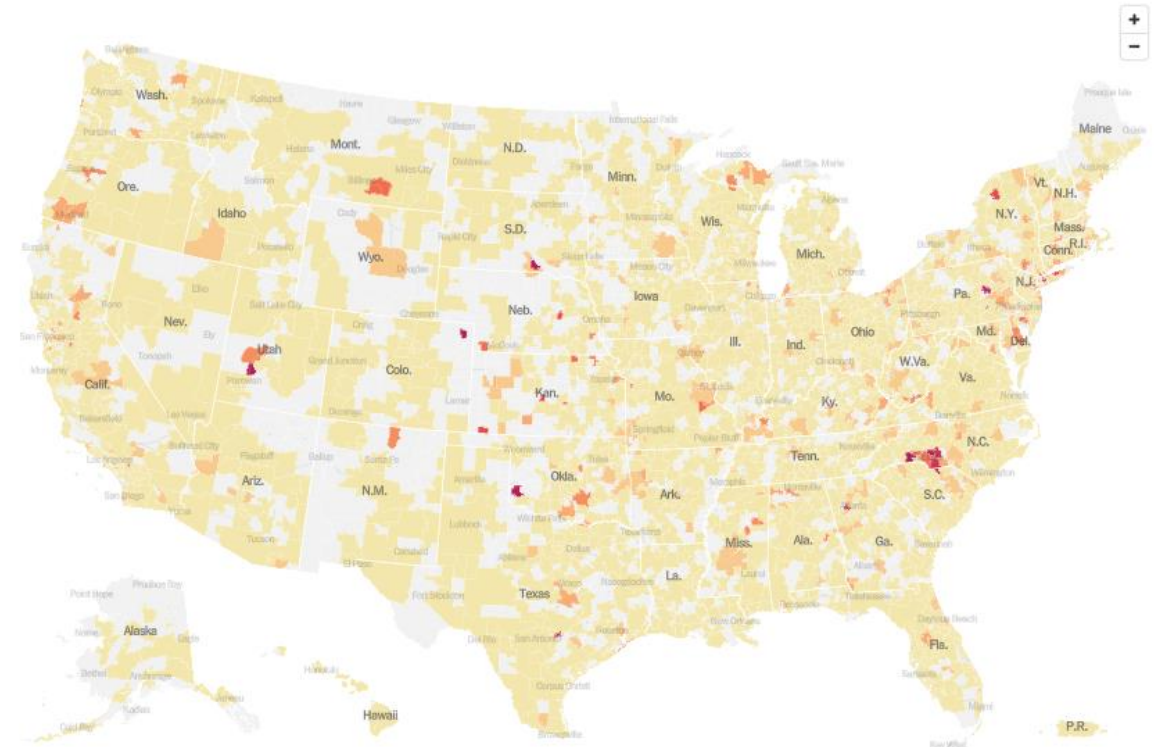
COVID-19 PATIENTS PER 100,000 PEOPLE
20 30 40 50 60 70 80 NO DATA



This Week

Current hospitalizations

COVID-19 PATIENTS PER 100,000 PEOPLE
20 30 40 50 60 70 80 NO DATA



Hospitalization rates remain relatively low across most of the nation but may be increasing in some areas.

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

Accessed January 5, 2023

USA & MI

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Hospitalizations

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Media

Science Roundup

COVID-19 News Headlines

Flu and RSV on the decline but Covid hospitalizations rise

<https://www.nbcnews.com/health/health-news/flu-rsv-decline-covid-hospitalizations-rise-rcna63706>

NIH launched Home Test to Treat, a pilot COVID-19 telehealth program

<https://www.nih.gov/news-events/news-releases/nih-launches-home-test-treat-pilot-covid-19-telehealth-program>

XBB.1.5 may be 'most transmissible subvariant of Omicron to date,' scientist warn

<https://www.cnn.com/2023/01/04/health/public-health-concerned-xbb/index.html>

Michigan COVID cases decline for third straight week

<https://michiganadvance.com/blog/michigan-covid-cases-decline-for-third-straight-week/>

Science Roundup

Long-term cardiovascular outcomes in COVID-19 survivors among non-vaccinated population: A retrospective cohort study from the TriNetX US collaborative networks

<https://www.sciencedirect.com/science/article/pii/S2589537022003492>



This cohort study looking at non-vaccinated individuals found that among the non-vaccinated study participants, the 12-month risk of incidental cardiovascular diseases is substantially higher in those who had COVID-19 compared to those who did not.

VV116 versus Nirmatrelvir-Ritonavir for Oral Treatment of Covid-19

https://www.nejm.org/doi/full/10.1056/NEJMoa2208822?query=featured_home



This study on adults with mild-to-moderate COVID-19 with risk for severe disease progression found that among study participants, early administration of oral VV116 was noninferior to Nirmatrelvir-Ritonavir with respect to the time to sustained clinical recovery, with fewer safety concerns.

Association of SARS-CoV-2 Spike Protein Antibody Vaccine Response With Infection Severity in Patients With Cancer

A National COVID Cancer Cross-sectional Evaluation

<https://jamanetwork.com/journals/jamaoncology/fullarticle/2799615>



This study found levels of the SARS-CoV-2 spike protein to be negatively correlated with risk of breakthrough infection and hospitalization among participants. These findings suggest that antibody testing among patients with cancer allows for the identification of the lowest level of antibody-derived protection against COVID-19, thus, enabling appropriate modifications to prevention and/or treatment plans.

Early Estimates of Bivalent mRNA Vaccine Effectiveness in Preventing COVID-19-Associated Emergency Department or Urgent Care Encounters and Hospitalizations Among Immunocompetent Adults – VISION Network, Nine States, September-November 2022

https://www.cdc.gov/mmwr/volumes/71/wr/mm715152e1.htm?s_cid=mm715152e1_w



This study found bivalent booster doses provided additional protection against COVID-19-associated emergency department/urgent care visits and hospitalizations among participants who previously received 2, 3, or 4 monovalent vaccine doses. In addition, due to the waning of monovalent vaccine immunity, effectiveness of bivalent vaccines was observed to be higher with as more time passed since last monovalent dose.