

Ottawa County COVID-19 Epidemiology

April 21, 2022

Data as of April 16, 2022, unless otherwise indicated

Executive Summary

- **Transmission in Michigan and the US remains low, but may be increasing**
- **Ottawa community transmission levels remain low, but may be increasing**
 - This past week positivity **increased** to 11.9%, from 7.6% seen two weeks ago.
 - Weekly case counts **increased** 44% (+1% two weeks ago), from 124 two weeks ago to 178 last week.
 - Cases among children **increased** 38% (-24% two weeks ago), from 13 two weeks ago to 18 last week.
 - The Omicron variant remains the predominate local strain; the first Omicron subvariant BA.2 reported in Ottawa County was detected in a clinical sample collected March 6, 2022.
- **Ottawa-area and regional hospitals have improved capacity**
 - In Ottawa County, 2% of all available beds and 7% of all ICU beds are occupied by COVID-19 patients.*
 - No Ottawa-area hospital employed Emergency Department diversion last week.
 - All Ottawa hospitals are utilizing usual care strategies.
 - No Ottawa-area hospitals reported critical staffing challenges over the last nine weeks.
- **Pediatric hospitalization rates in the US and in Michigan remain low**
 - Regional pediatric hospitalization census remained below the pandemic average the last five weeks.
- **Of Ottawa County residents aged 5+, 62.8% have completed at least their primary vaccination 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.

Ottawa County Metrics by Week

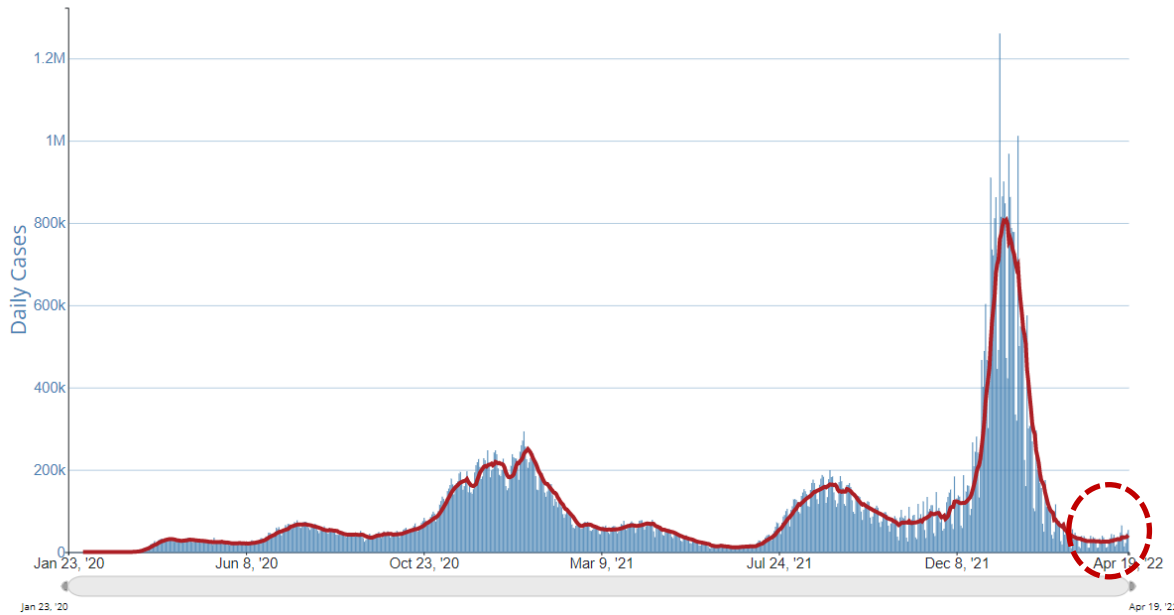
Metric	Goal	Week Ending				
		19-Mar-22	26-Mar-22	2-Apr-22	9-Apr-22	16-Apr-22
Positivity (All Ages)	NA	5.1%	5.4%	5.3%	7.6%	11.9%
Weekly Cases (All Ages)	<592	121	148	123	124	178
Weekly Cases in Children (0-17 years of age)	NA	20	13	17	13	18
Total Deaths (All Ages)	0	3	3	0	0	0
CDC COVID-19 Community Level (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.

Case Trends in the USA and Michigan

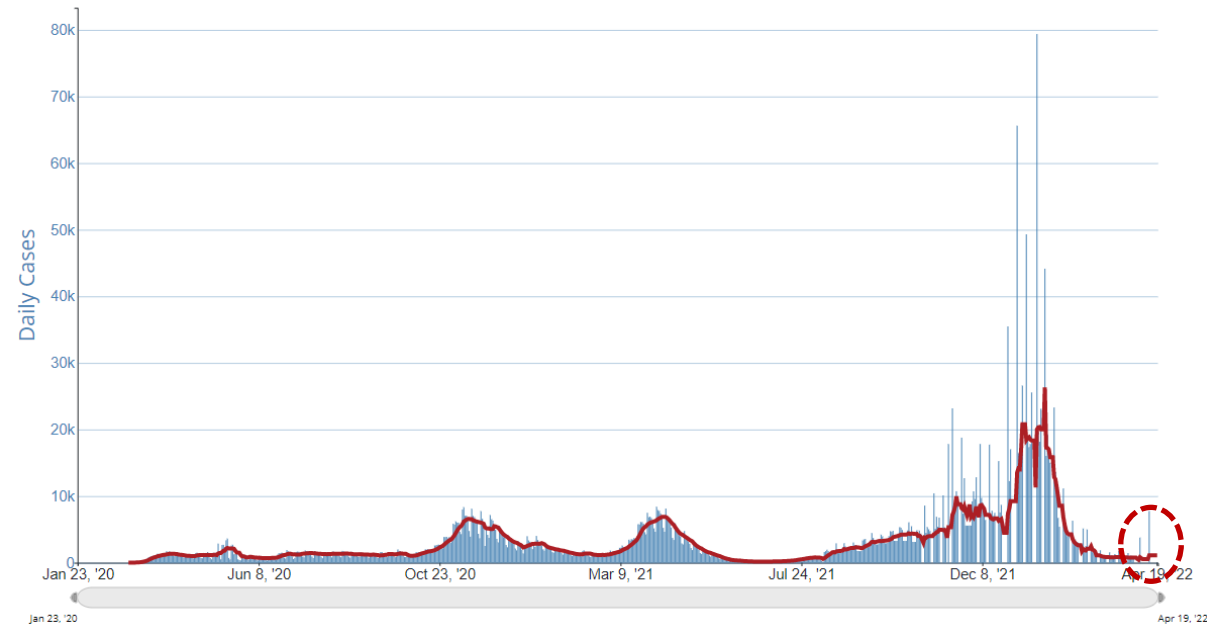
USA

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 much lower than previous times in the pandemic.

Note: Use of at home tests 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

Data through April 19, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

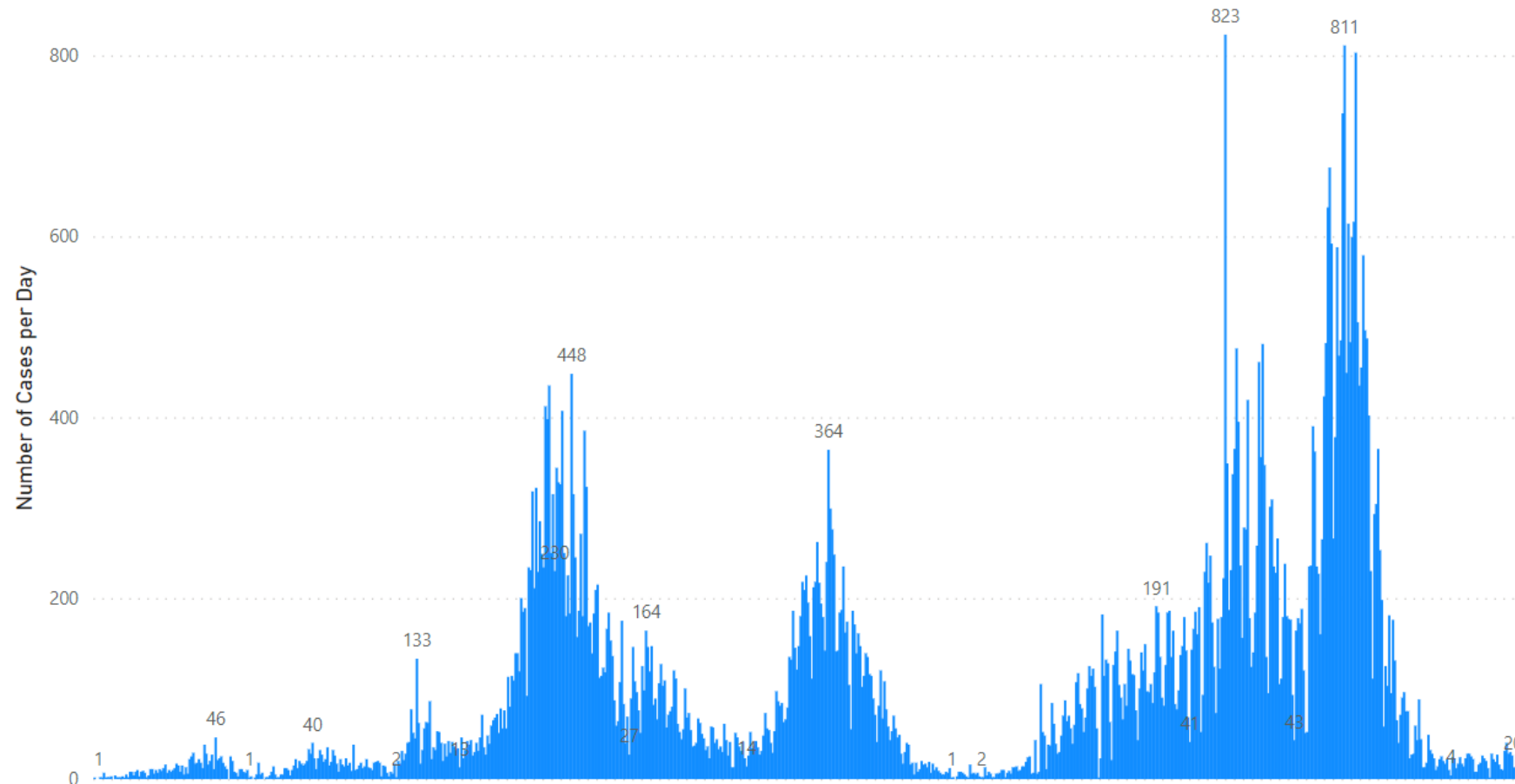
Other

Media

Science
Roundup

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – April 20, 2022
Epidemiological Curve



Total Number of Cases
75,079

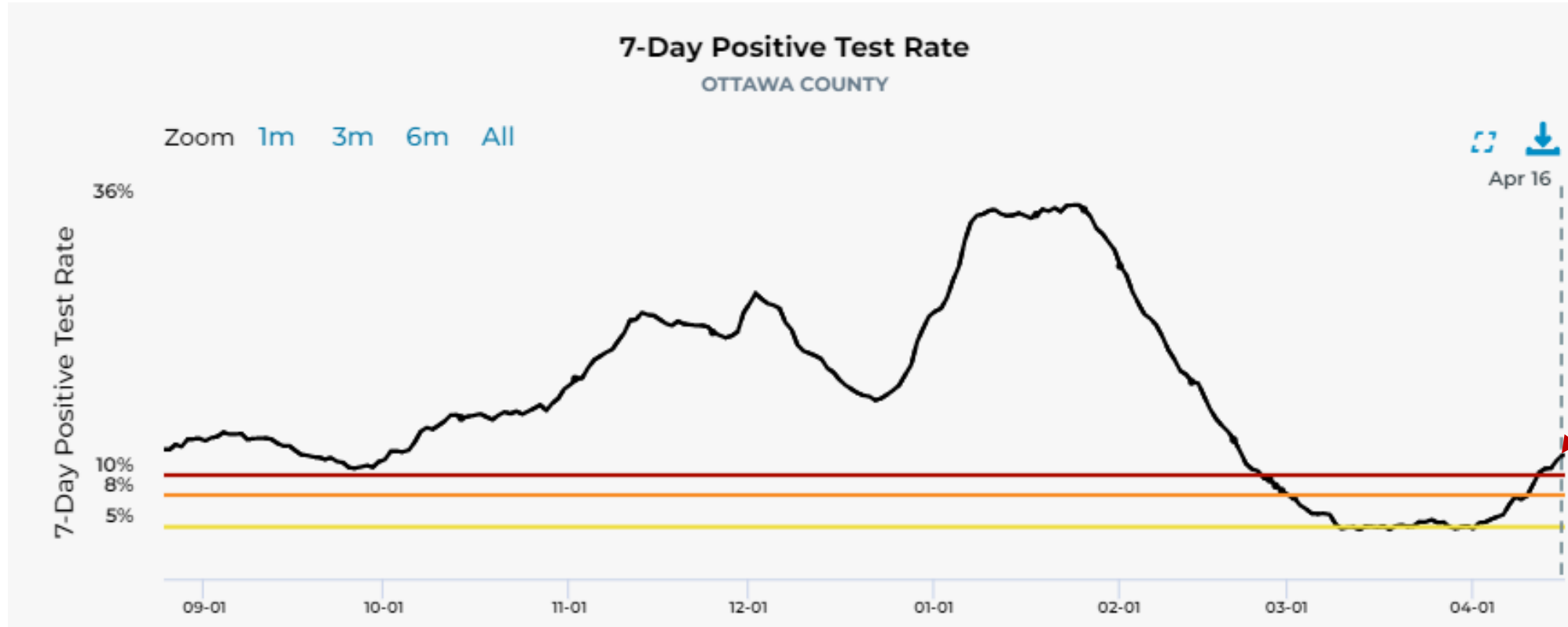
Currently the 7-day average is **26 cases per day**, similar to the 21 cases per day seen at last week at this time.

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

Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, September 1, 2021 – April 16, 2022



Test positivity has been increasing for the last 2 weeks, reaching **11.9% last week.**

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

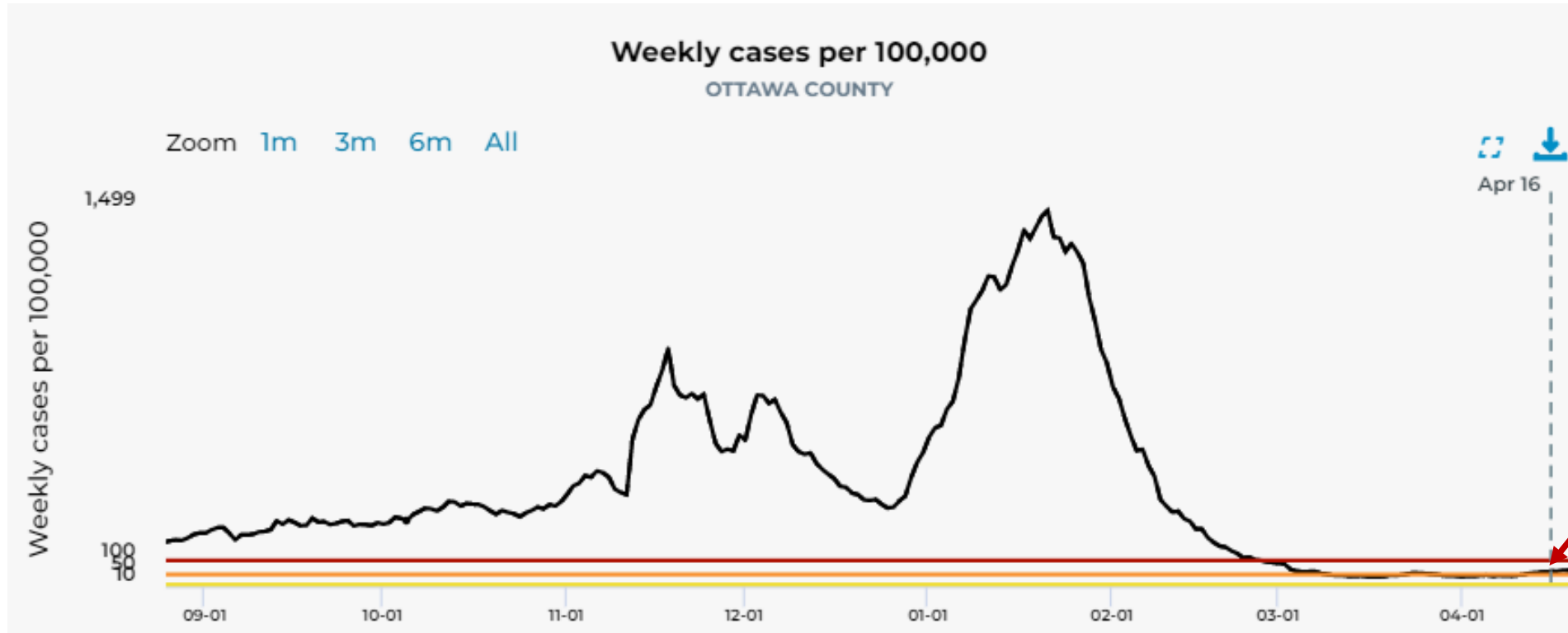


Note: Testing in Ottawa County has continued to decline over the last 4 weeks, with over 2,400 tests in week 12 and declining to about 1,600 tests last week (week 15): [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](https://www.arcgis.com) & <https://www.mistartmap.info/mism-indicators?area=county%3Aottawa>. Use of at-home tests likely reduces the number of positive tests reported to Public Health, resulting in an artificially deflated number of cases.

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

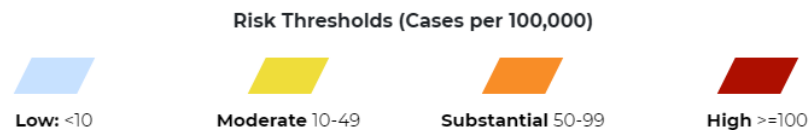
Case Rates in Ottawa County – All Ages

COVID-19 Cases by Day, Ottawa County, September 1, 2021 – April 16, 2022



Case rates **remained low at 60** cases per week per 100,000 population (but **higher than 42** 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 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

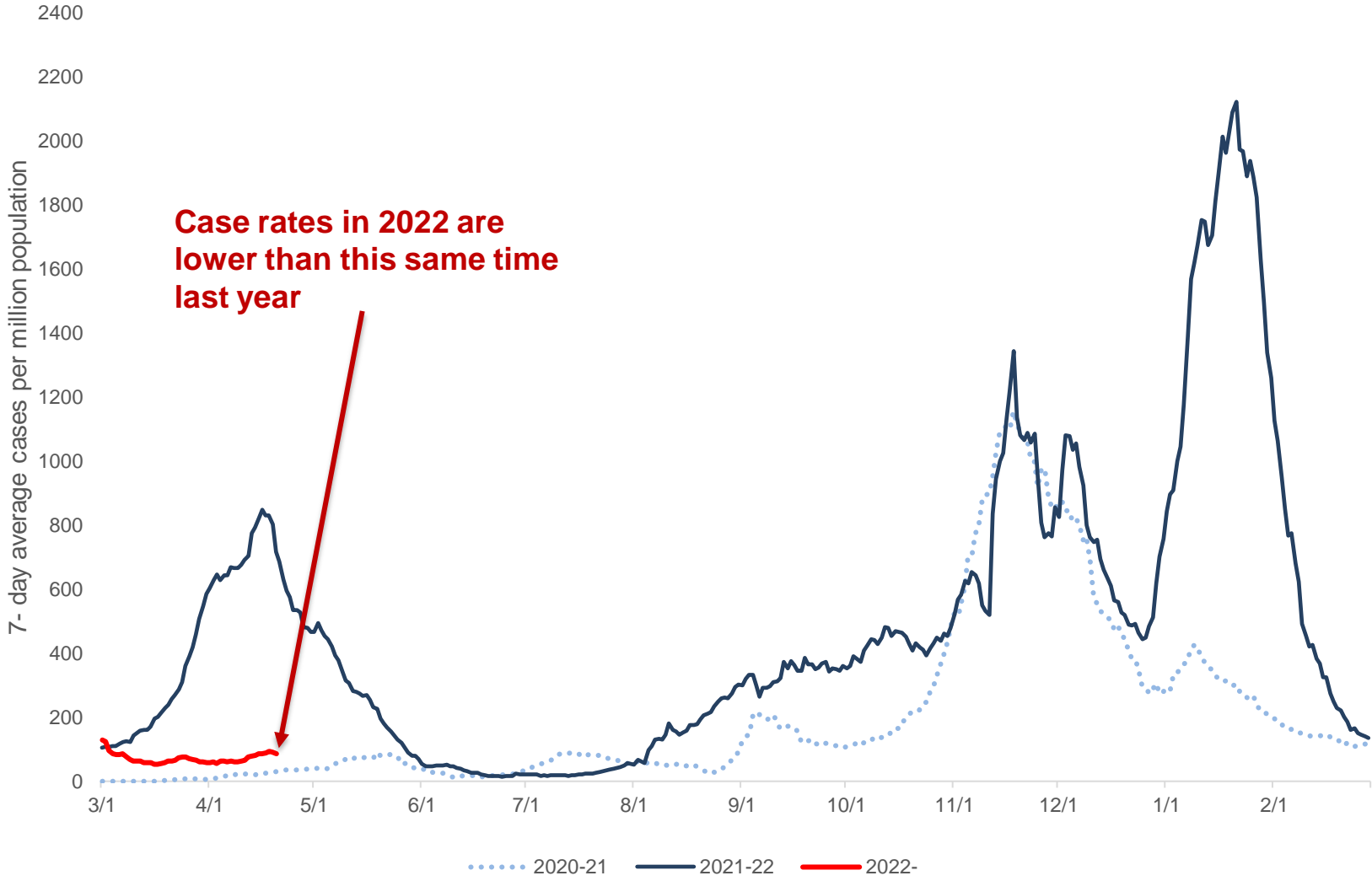
Risk Levels

Other

Media

Science Roundup

Ottawa County Time Trends – Annual Comparison of Case Rates



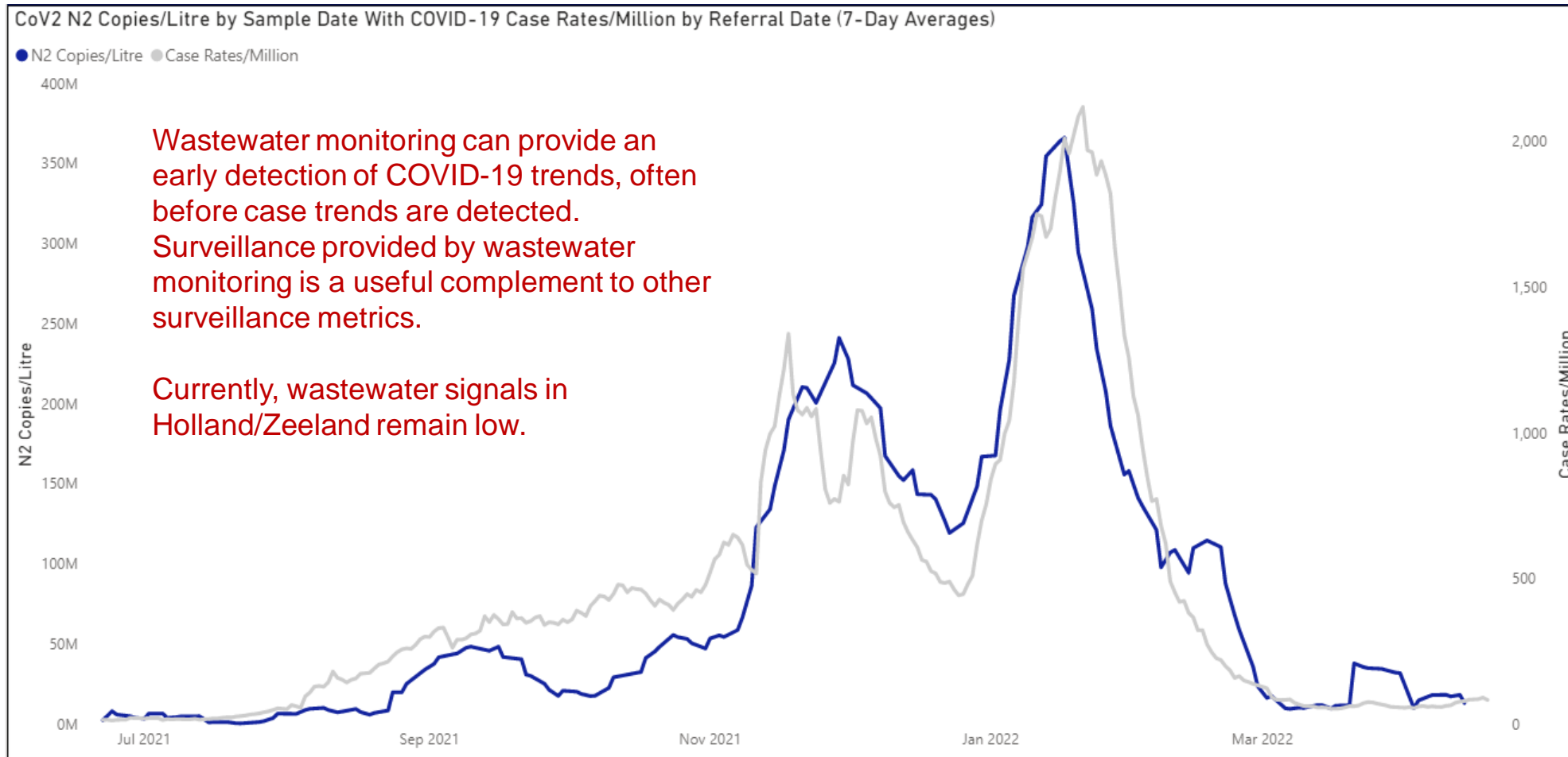
Case rates in 2022 are lower than this same time last year

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

Source: Internal Data

Data through April 21, 2022

Ottawa County Wastewater Surveillance



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.

Note: Use of at home tests 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: 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 April 14, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

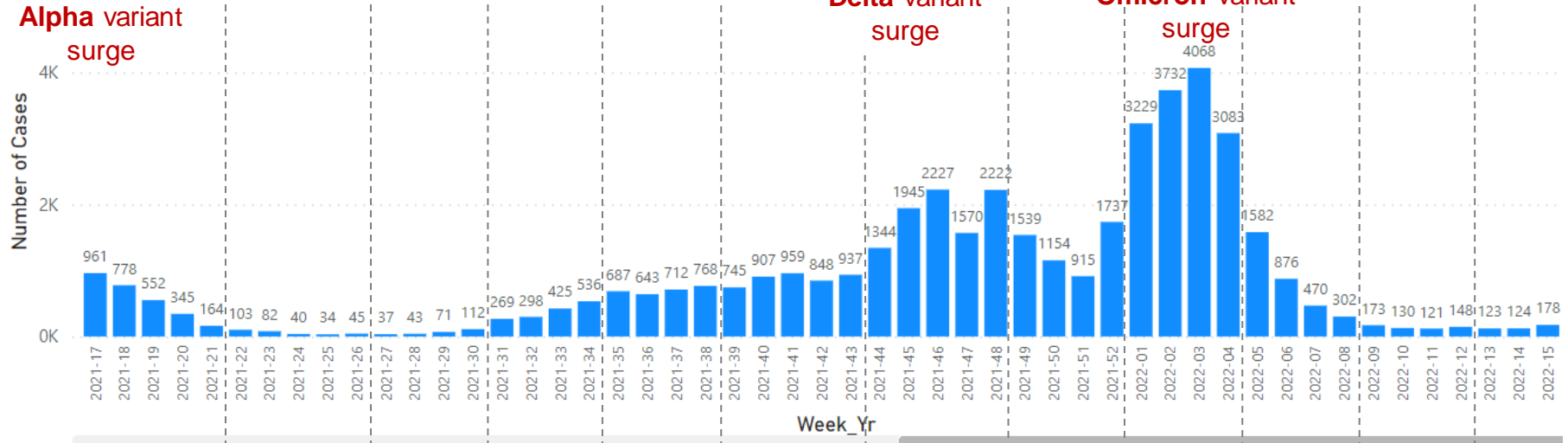
Other

Media

Science
Roundup

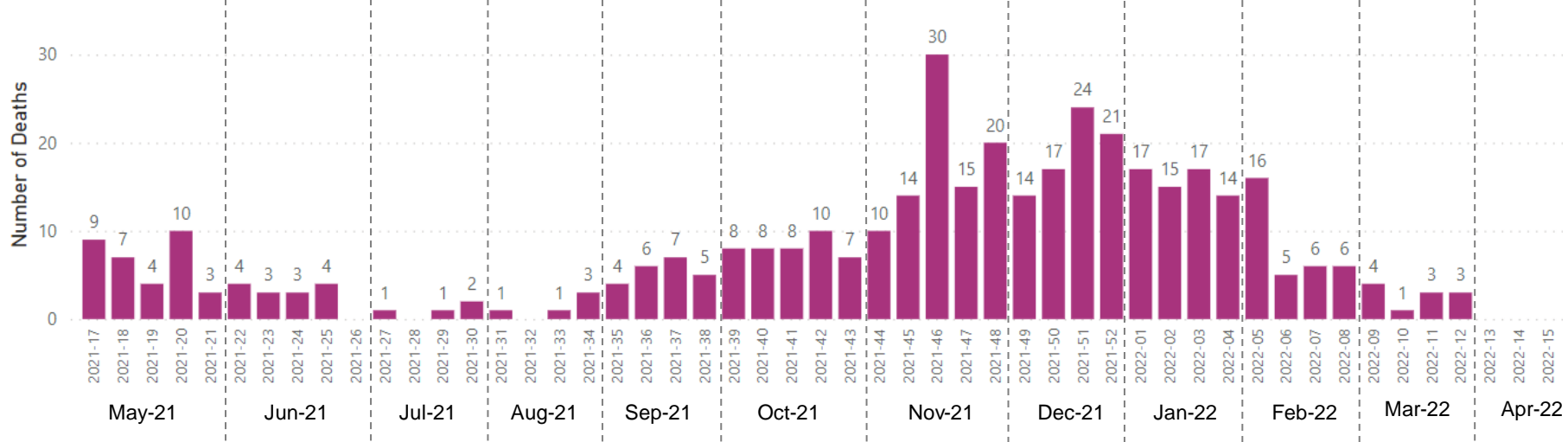
Ottawa County – Cases & Deaths by Week, All Ages

New Cases By Week of Referral



The weekly number of **cases increased 44%** from week 14 to week 15.

New Deaths by Week of Death



Weekly COVID-19 **deaths have declined**. Current weekly average of deaths over the last 4 weeks stands at about **2 deaths per week**.

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

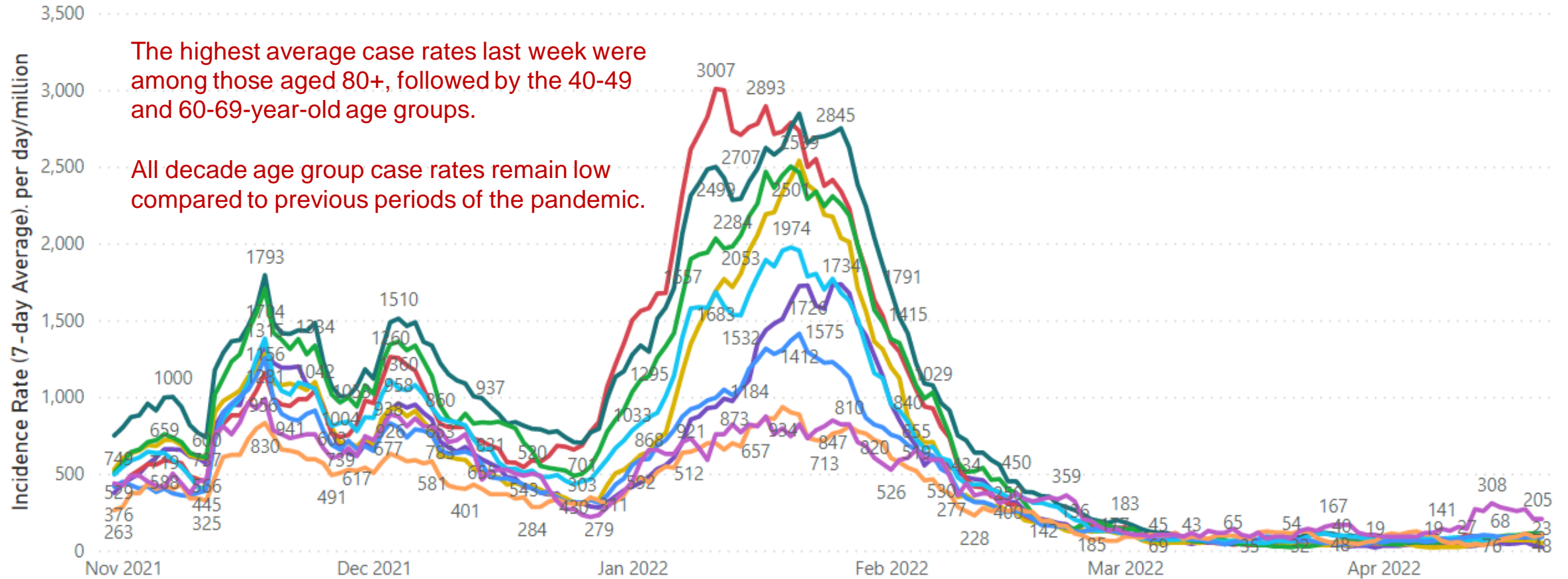
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age Decade

COVID-19 Case Rates by Age, November 2021 – April 20, 2022

Incidence Rate (7-day Average)

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



Note: Use of at home tests 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

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 15 (April 10, 2022 – April 16, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	1.6	42.6	22%
10-19	3.0	67.7	249%
20-29	3.6	78.9	9%
30-39	3.0	83.7	17%
40-49	3.3	99.1	64%
50-59	2.9	82.0	0%
60-69	3.0	92.1	50%
70-79	1.7	82.8	71%
80+	3.0	269.5	91%

Please note that low case counts may make case rates unstable, reducing reliability. At this time, be cautious using this data to inform decisions.

The recent increase in cases among those 70-79 and 80+ may be due to increased cases in Long-Term Care during Week 15.

Age groups with highest average case rates last week:

- 80+
- 40-49
- 60-69

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

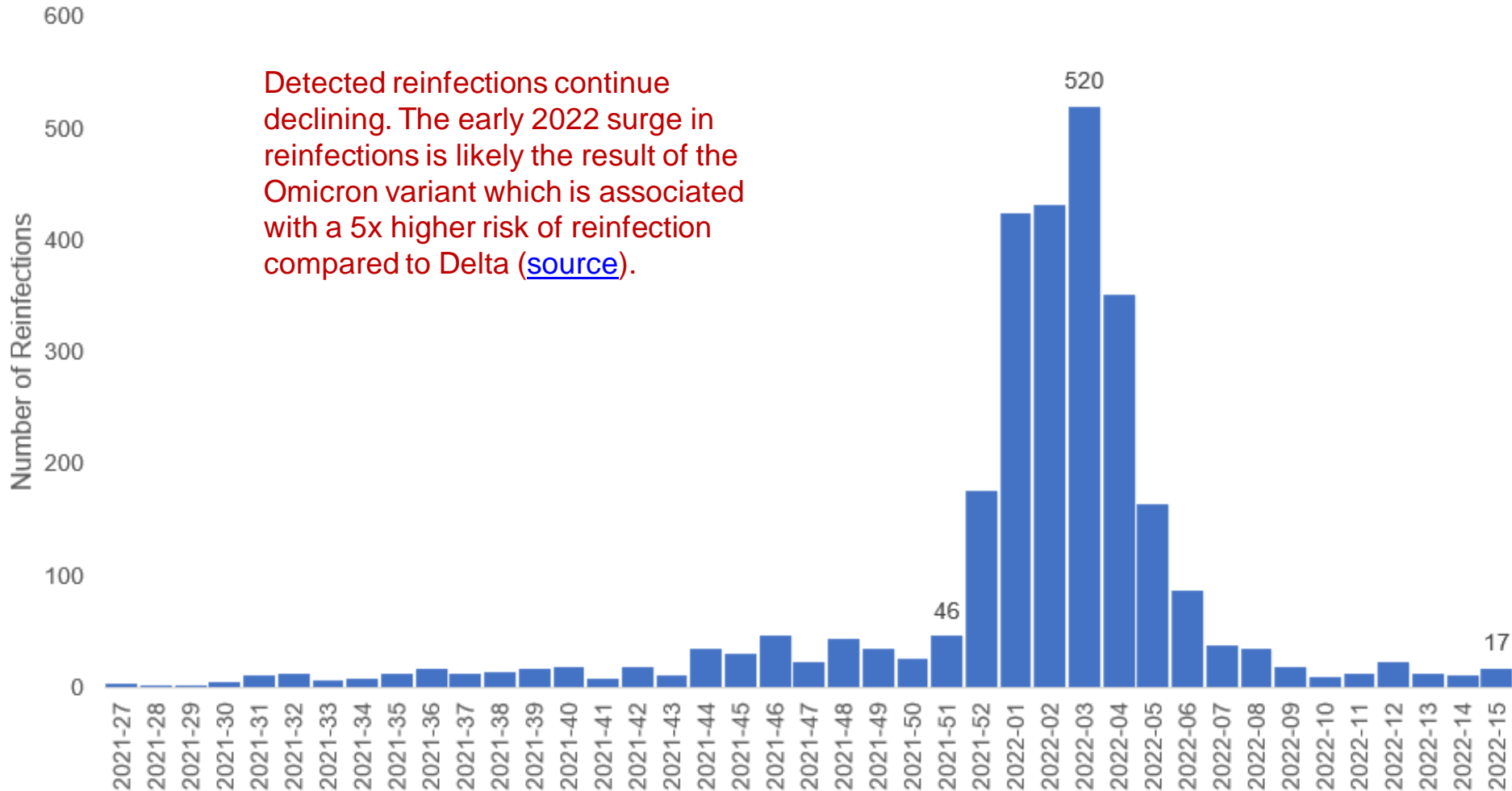
- 10-19
- 80+
- 70-79

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 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 April 20, 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. Use of at home tests 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 April 20, 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
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	1525	99%	214	44%	1739	90%
8-Jan-22	2791	83%	443	107%	3234	86%
15-Jan-22	3094	11%	636	44%	3730	15%
22-Jan-22	3146	2%	923	45%	4069	9%
29-Jan-22	2412	-23%	674	-27%	3086	-24%
5-Feb-22	1304	-46%	277	-59%	1581	-49%
12-Feb-22	693	-47%	183	-34%	876	-45%
19-Feb-22	381	-45%	89	-51%	470	-46%
26-Feb-22	240	-37%	62	-30%	302	-36%
5-Mar-22	140	-42%	33	-47%	173	-43%
12-Mar-22	104	-26%	26	-21%	130	-25%
19-Mar-22	101	-3%	20	-23%	121	-7%
26-Mar-22	135	34%	13	-35%	148	22%
2-Apr-22	106	-21%	17	31%	123	-17%
9-Apr-22	111	5%	13	-24%	124	1%
16-Apr-22	160	44%	18	38%	178	44%

Adults

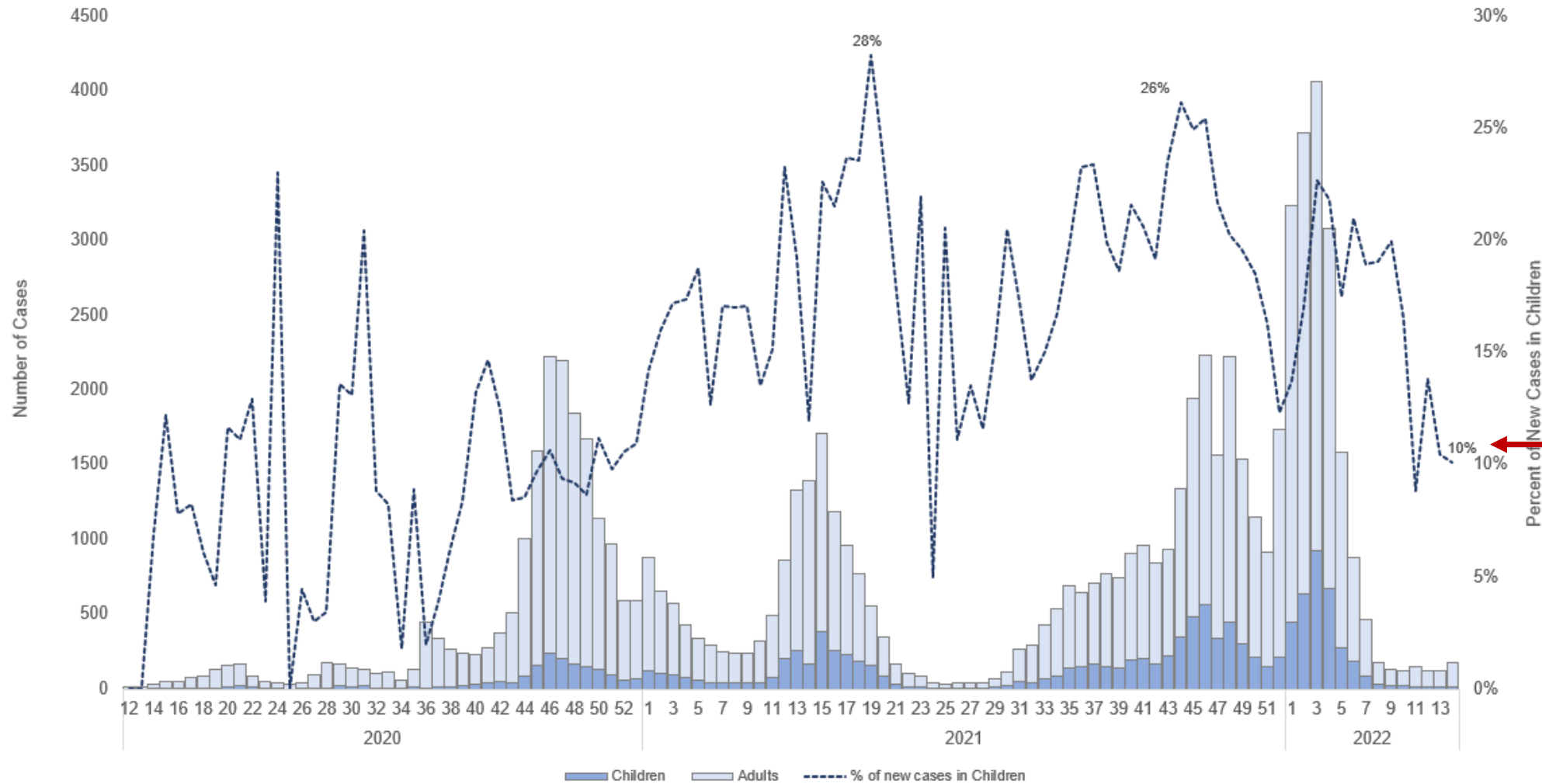
Children

Weekly case counts among **children increased 38%** last week, and cases in **adults increased 44%**.

Note: Use of at home tests 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 Weekly Case Counts and % in Children (0-17)



During Week 15 in 2022, children made up 10% of cases reported, lower compared to other times of the pandemic, and lower compared with recent weeks.

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

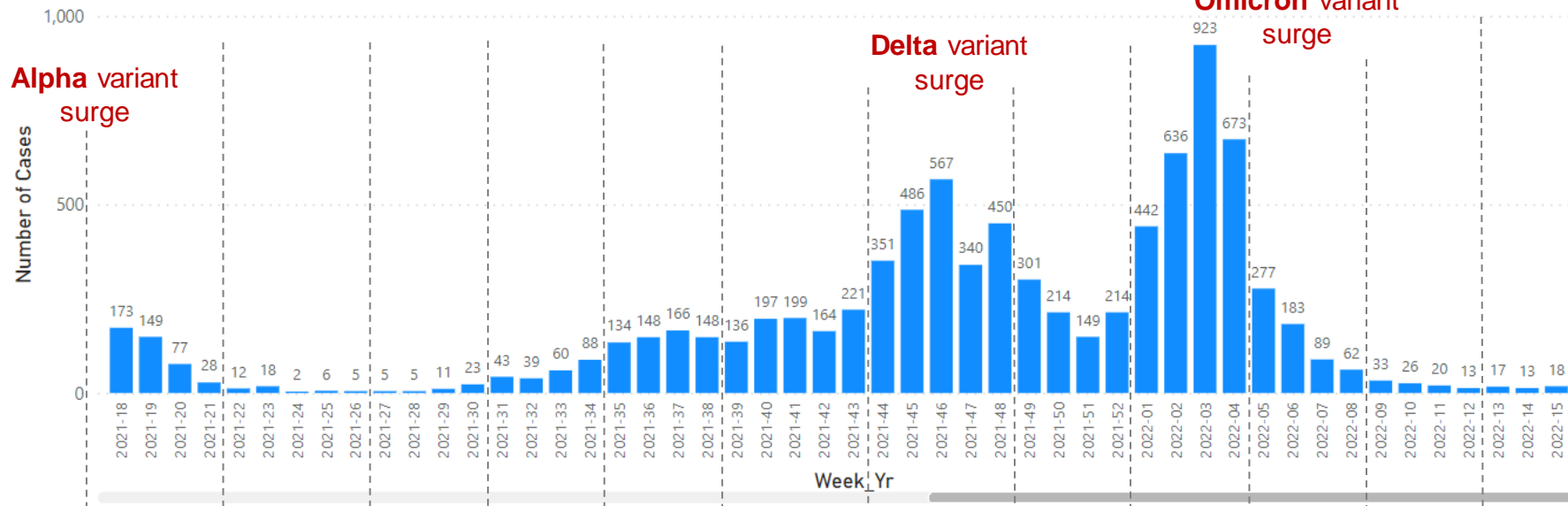
Note: Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case counts.

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

Data through Week 15, 2022

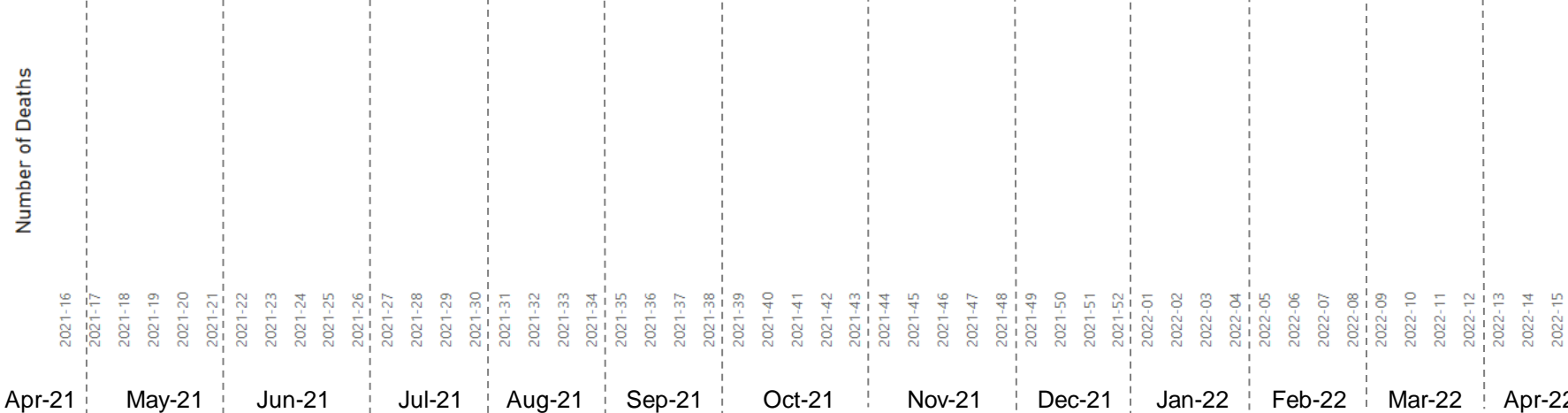
Ottawa County – Cases & Deaths by Week Among Children (0-17 years)

New Cases By Week of Referral



The weekly number of cases among children **increased 38%** from week 14 to week 15.

New Deaths by Week of Death



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

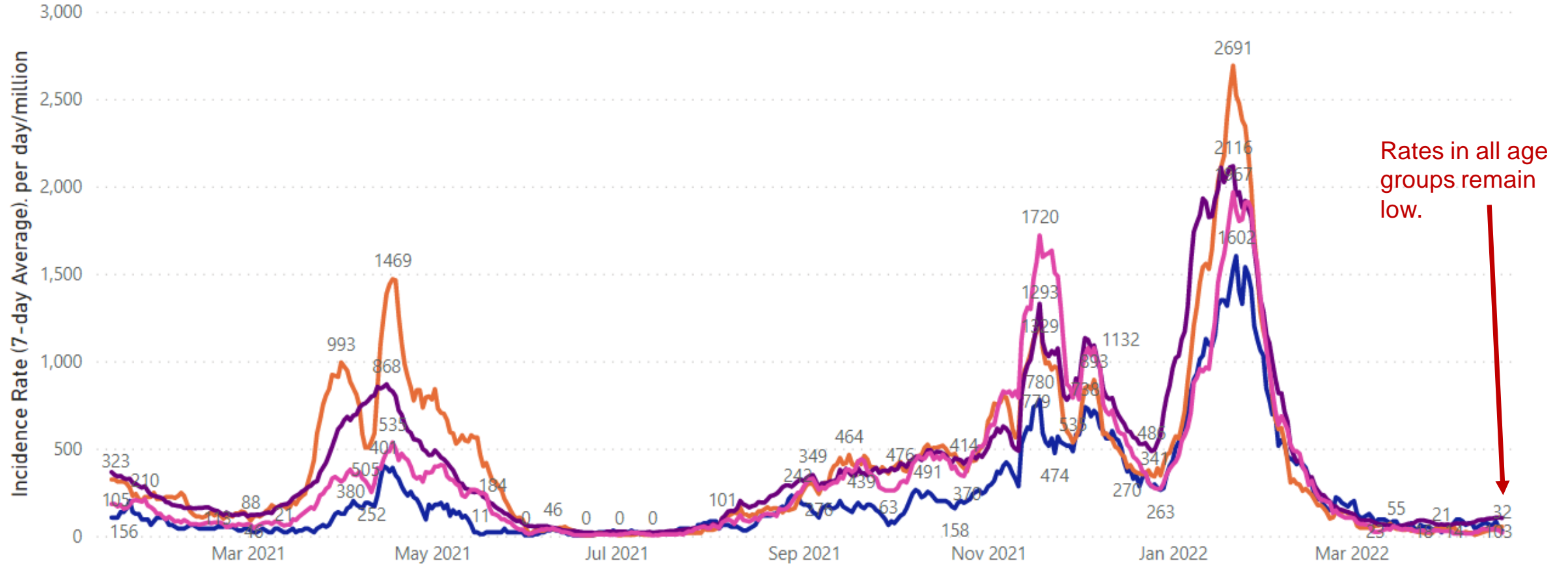
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, November 2021 – April 20, 2022

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



Rates in all age groups remain low.

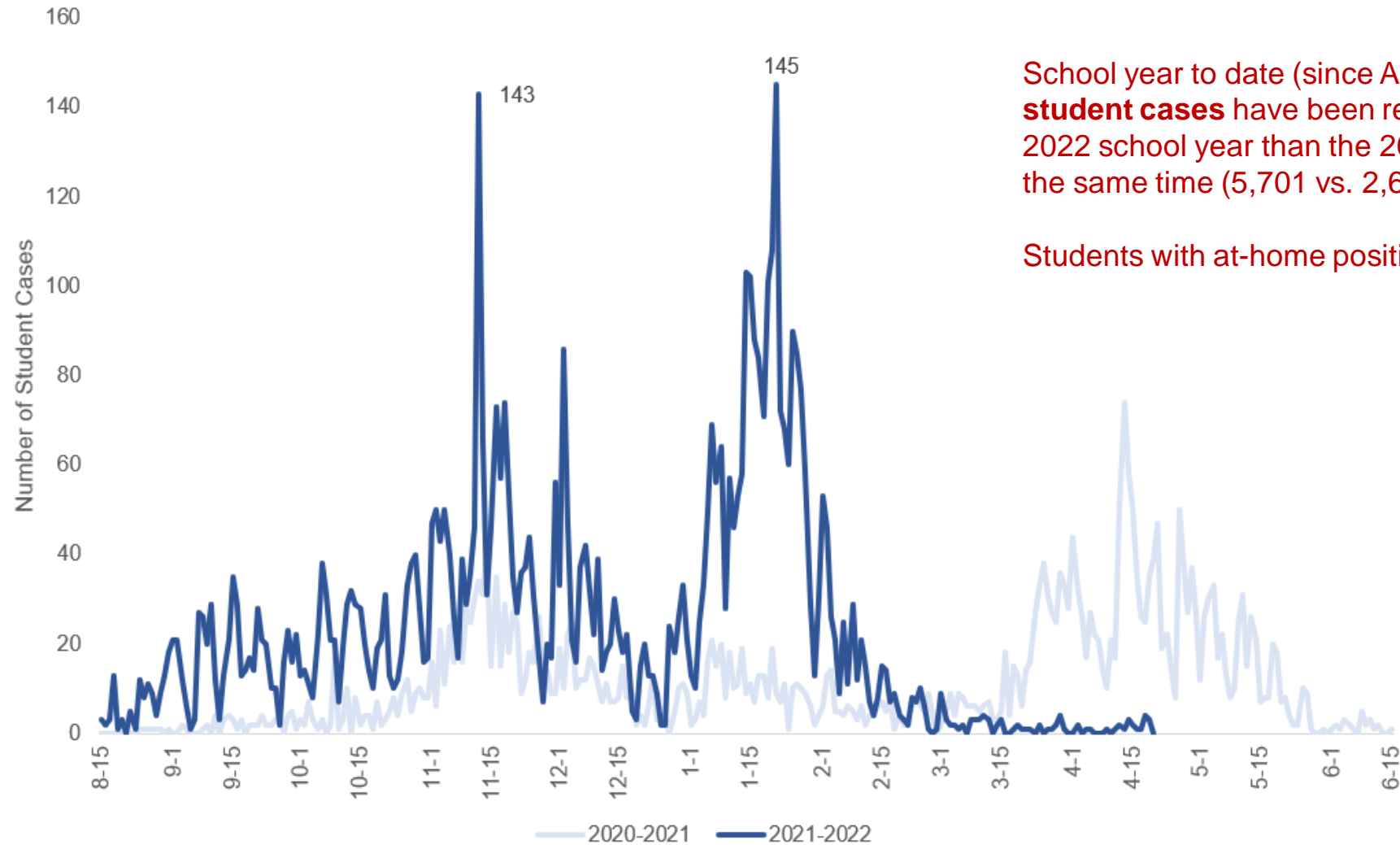


Note: Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

Data as of April 20, 2021

Ottawa County Cases in PreK-12 School Students



School year to date (since August 15), **2.1x more student cases** have been reported during the 2021-2022 school year than the 2020-2021 school year at the same time (5,701 vs. 2,688, respectively).

Students with at-home positive tests are not included.

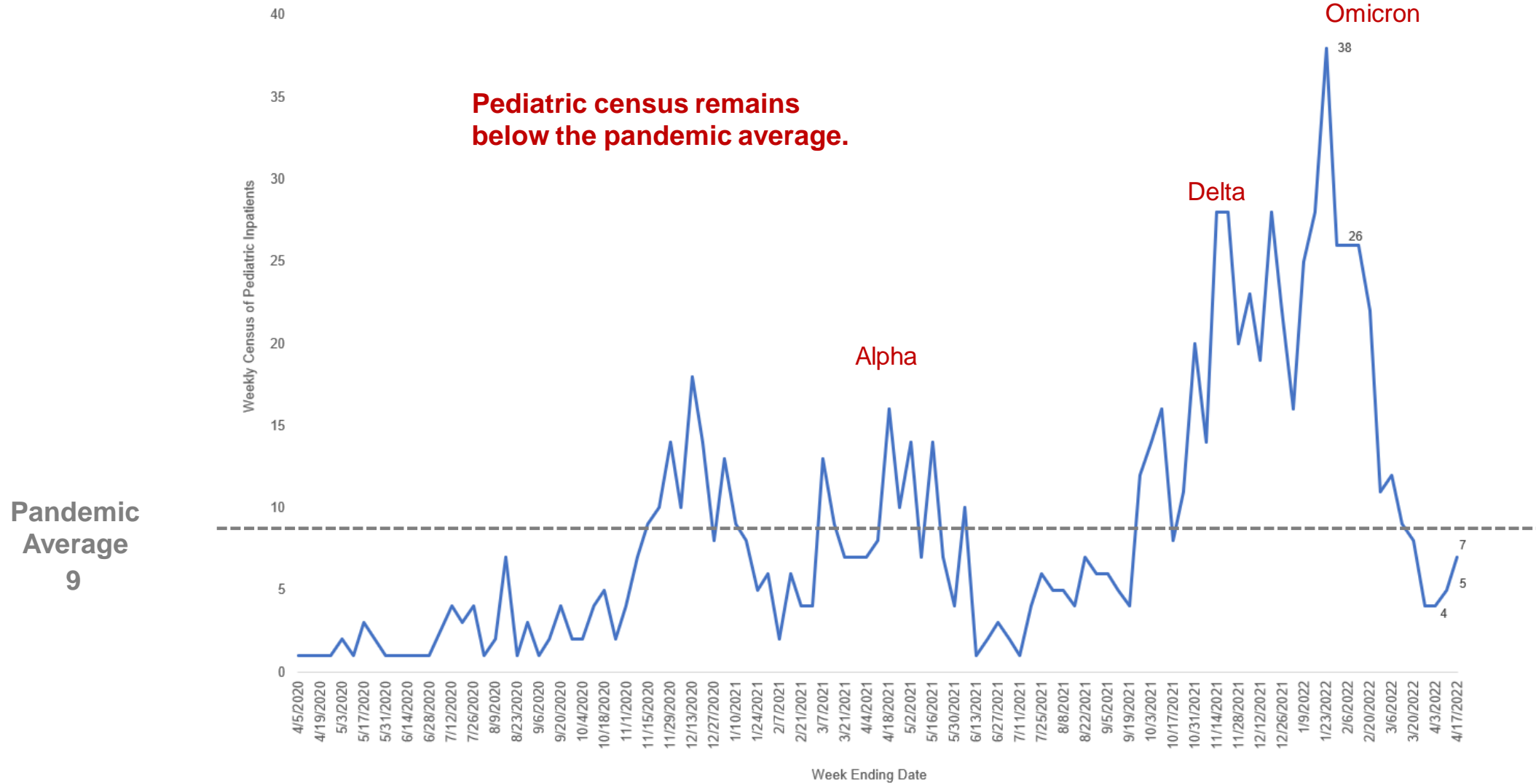
Method: Includes PreK-12 students known to attend a school in Ottawa County who are classified as a confirmed or probable case of COVID-19.

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. Use of at home tests 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; Internal data systems

Data through April 20, 2022

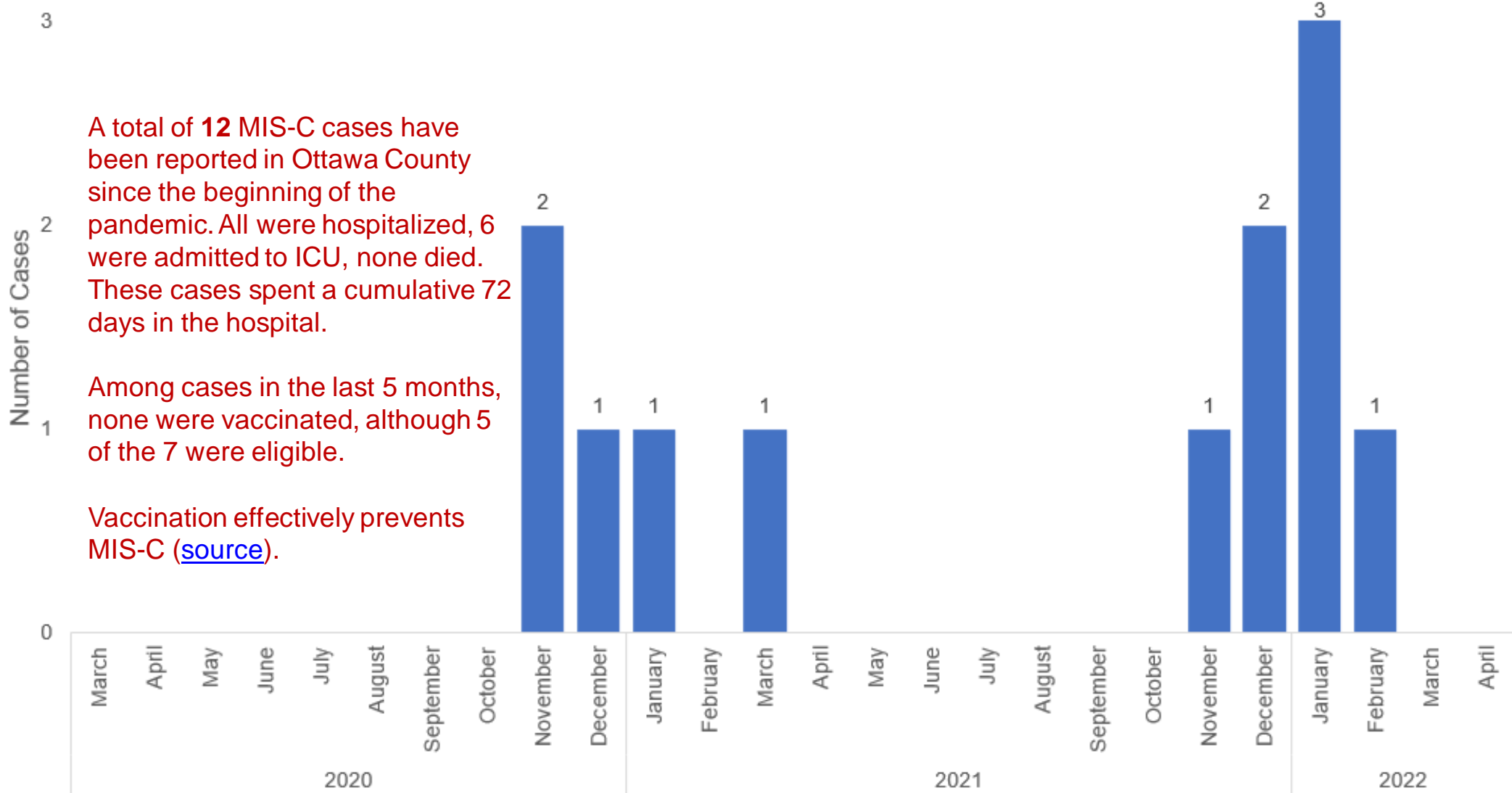
Weekly Hospital Pediatric Census – A Regional Healthcare System



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 April 17, 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 5 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 April 20, 2022

Ottawa County Hospital Capacity – All Beds

Hospital Inpatient Bed Occupancy - By County

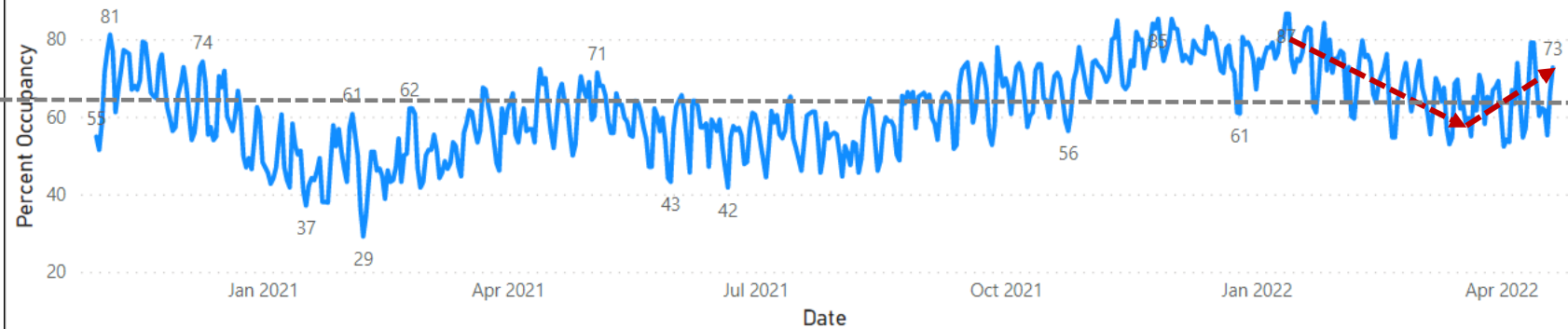
Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Pandemic Average

62%

Percent Occupancy by Date and County

County ● Ottawa



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

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

14%

Percent Occupancy by Date and County

County ● Ottawa

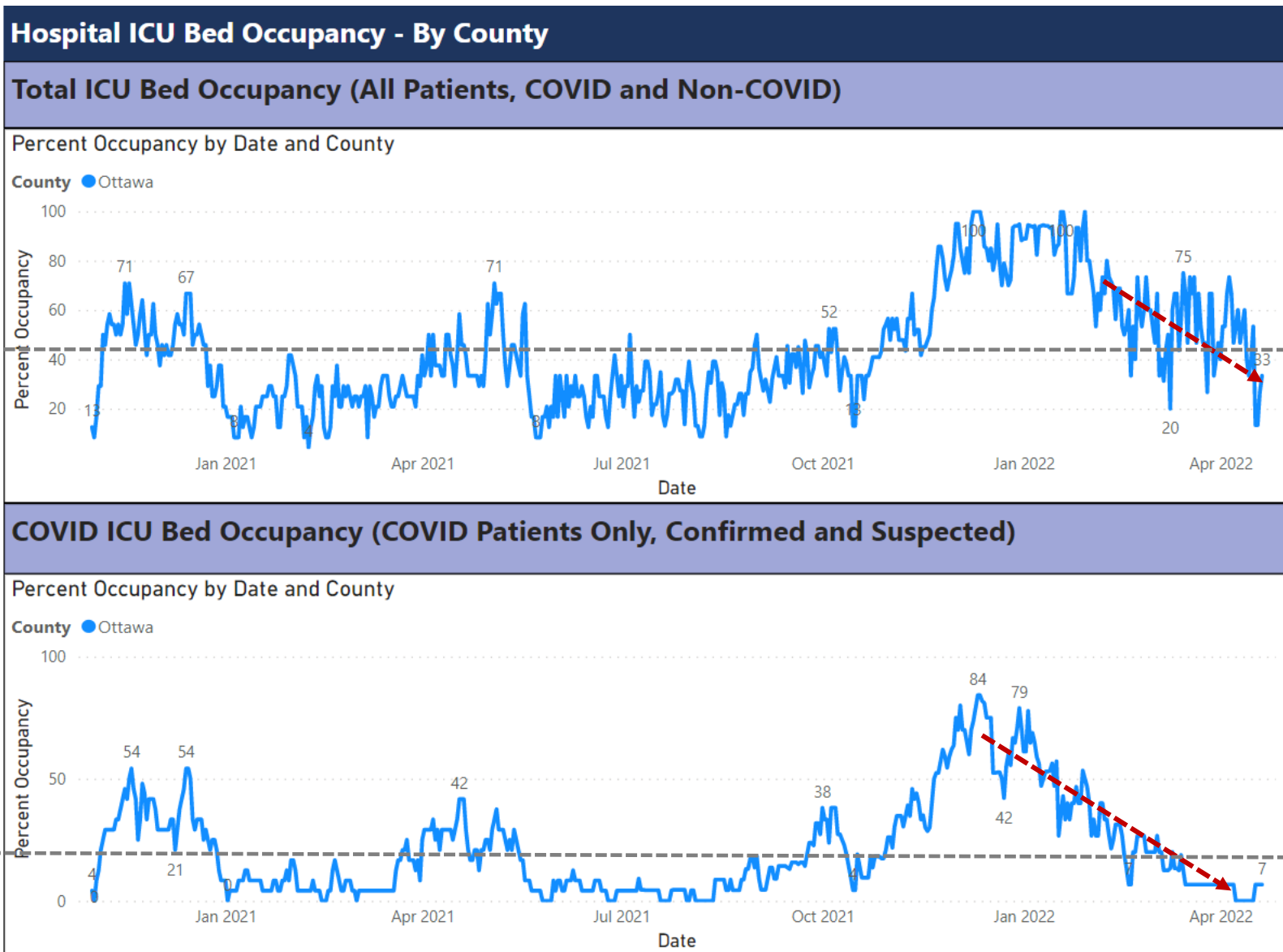


Currently **2%** of all inpatient beds are occupied by COVID-19 patients. The proportion of beds occupied by COVID-19 patients has plateaued, after a prolonged downtrend since December 2021.

Source: EMResources

Data through April 20, 2022

Ottawa County Hospital Capacity – ICU Beds



Pandemic Average

41%

Overall ICU bed occupancy is below the pandemic average.

The proportion of ICU beds occupied by COVID-19 patients is below the pandemic average. Currently, 7% of all ICU beds are occupied by COVID-19 patients.

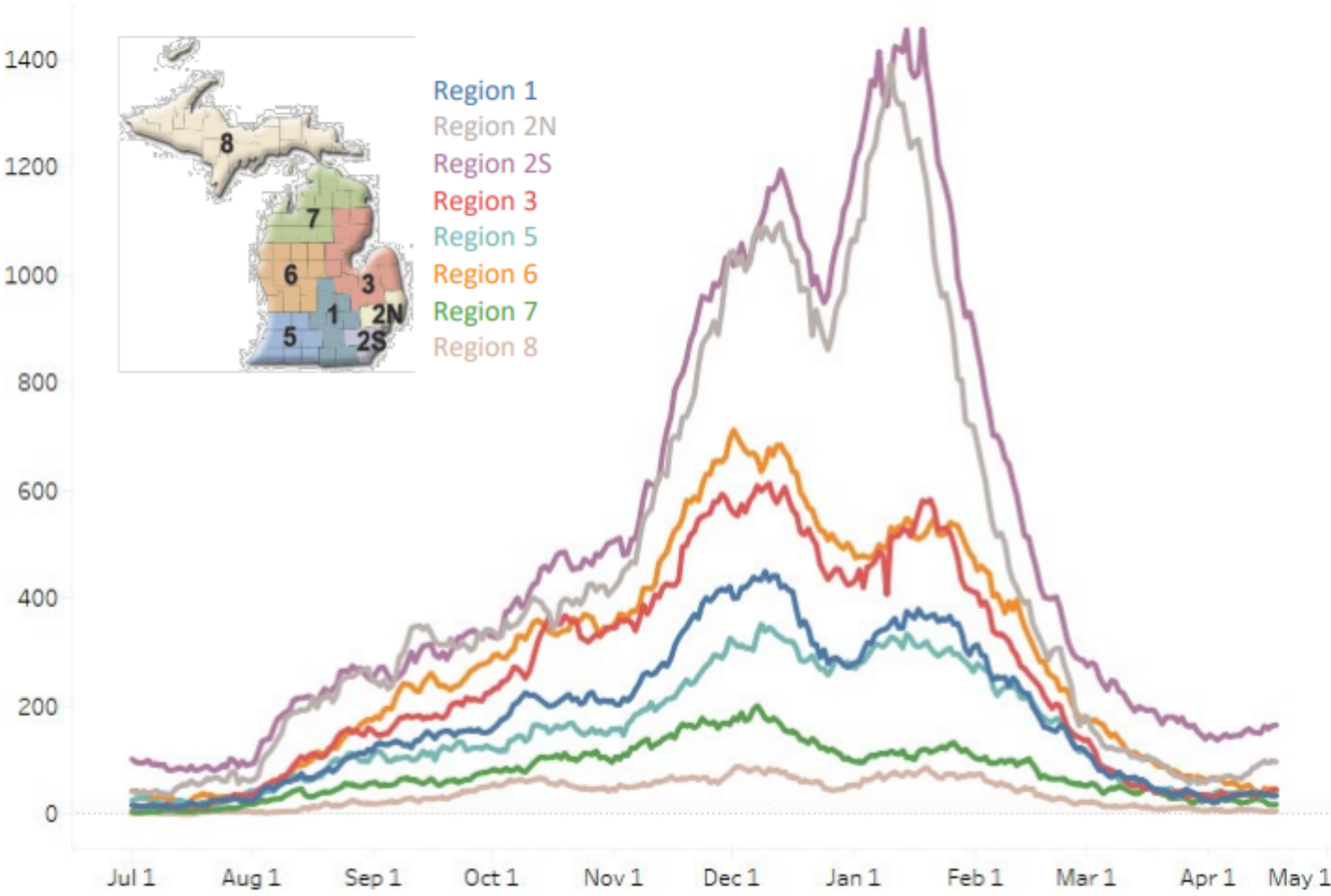
21%

Source: EMResources

Data through April 20, 2022

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 4/18/2022
Confirmed Positive by Region



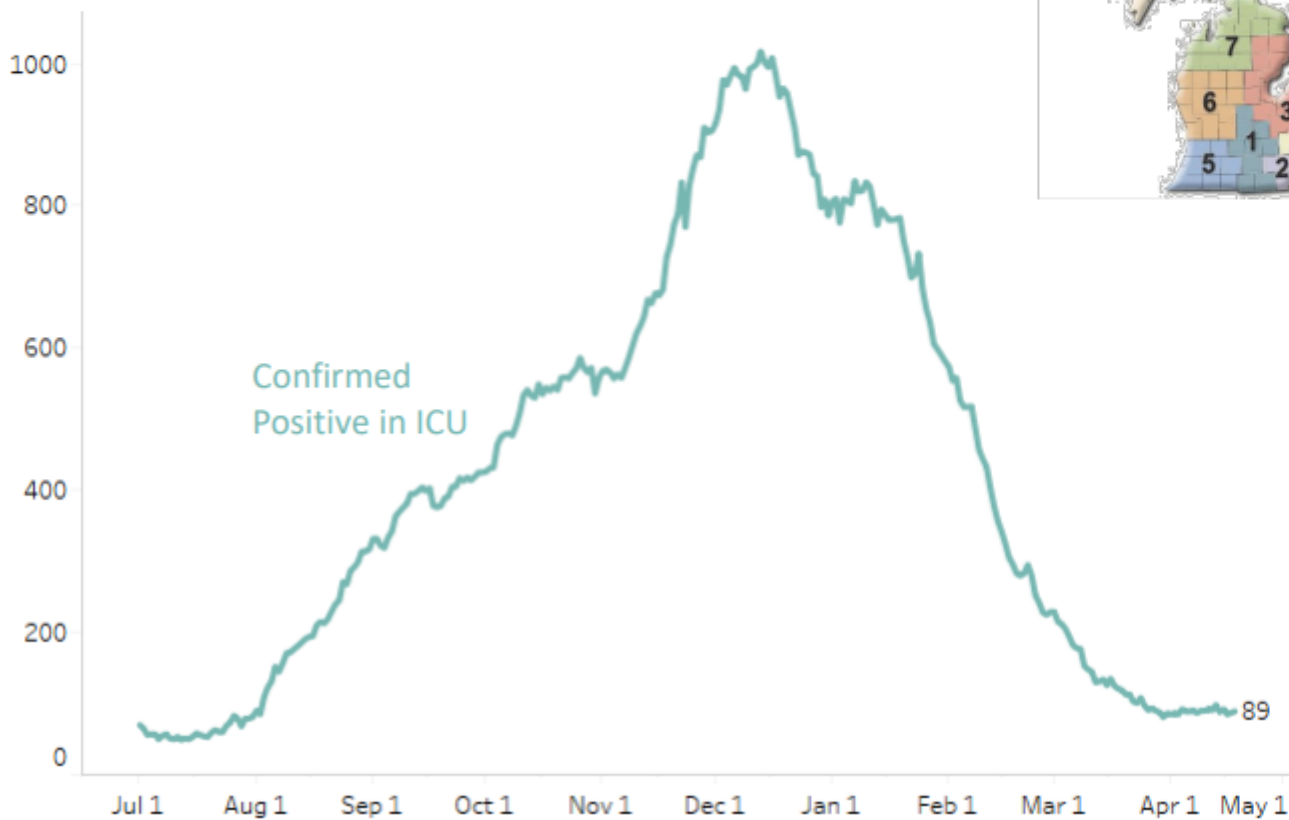
This week the COVID+ hospital census has decreased in Regions 1, 5, 6, 7, and 8. The COVID+ census has increased in Regions 2N, 2S, and 3.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	34 (-13%)	31/M
Region 2N	97 (29%)	44/M
Region 2S	165 (6%)	74/M
Region 3	46 (24%)	41/M
Region 5	35 (-8%)	37/M
Region 6	44 (-19%)	30/M
Region 7	18 (-22%)	36/M
Region 8	6 (-33%)	19/M

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220419_Data_and_modeling_update_vDRAFT_751214_7.pdf

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 4/18/2022
Confirmed Positive in ICUs



Overall, the census of COVID+ patients in ICUs is down 3% vs last week and essentially flat over the past 2 weeks. There are less than 100 COVID+ patients in ICU beds across the state.

All regions have 5% or fewer ICU beds filled with COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	8 (33%)	81%	4%
Region 2N	16 (-11%)	74%	3%
Region 2S	37 (-8%)	80%	5%
Region 3	8 (-11%)	85%	3%
Region 5	8 (60%)	67%	5%
Region 6	6 (-14%)	76%	3%
Region 7	5 (-17%)	71%	3%
Region 8	1 (0%)	52%	1%

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220419_Data_and_modeling_update_vDRAFT_751214_7.pdf

Pediatric Hospitalization Rates – USA, Georgia, Michigan

United States | 0 - 17 Years



GA | 0 - 17 Years



MI | 0 - 17 Years



Pediatric hospitalization rates across the US, in Georgia, and in Michigan **remained low**.

Pediatric Hospitalization Rates – Select Midwest States

OH | 0 - 17 Years



IN | 0 - 17 Years



IL | 0 - 17 Years



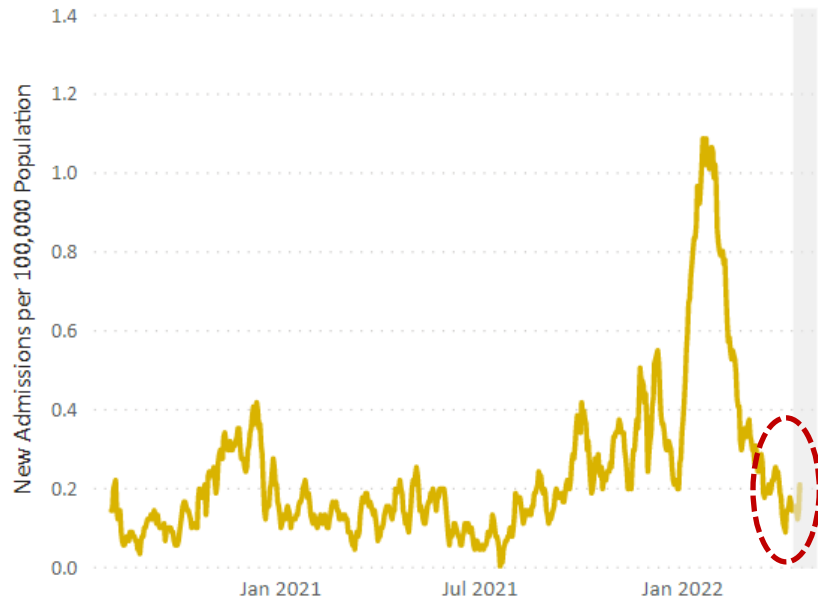
Ohio, Indiana, and Illinois are all showing relatively low pediatric hospitalization rates.

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

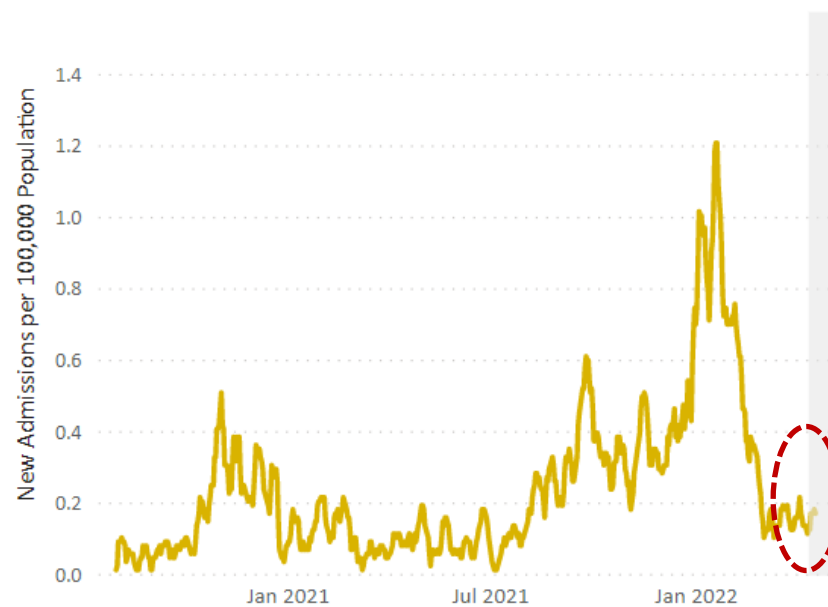
Accessed April 21, 2022

Pediatric Hospitalization Rates – Select Midwest States

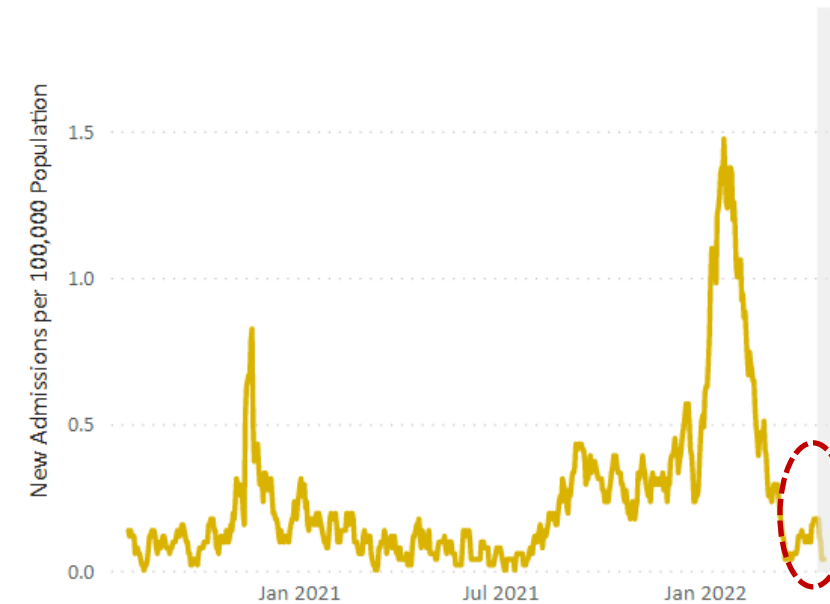
MN | 0 - 17 Years



WI | 0 - 17 Years



IA | 0 - 17 Years



Pediatric hospitalization rates in Minnesota, Wisconsin, and Iowa are low compared to other times in the pandemic.

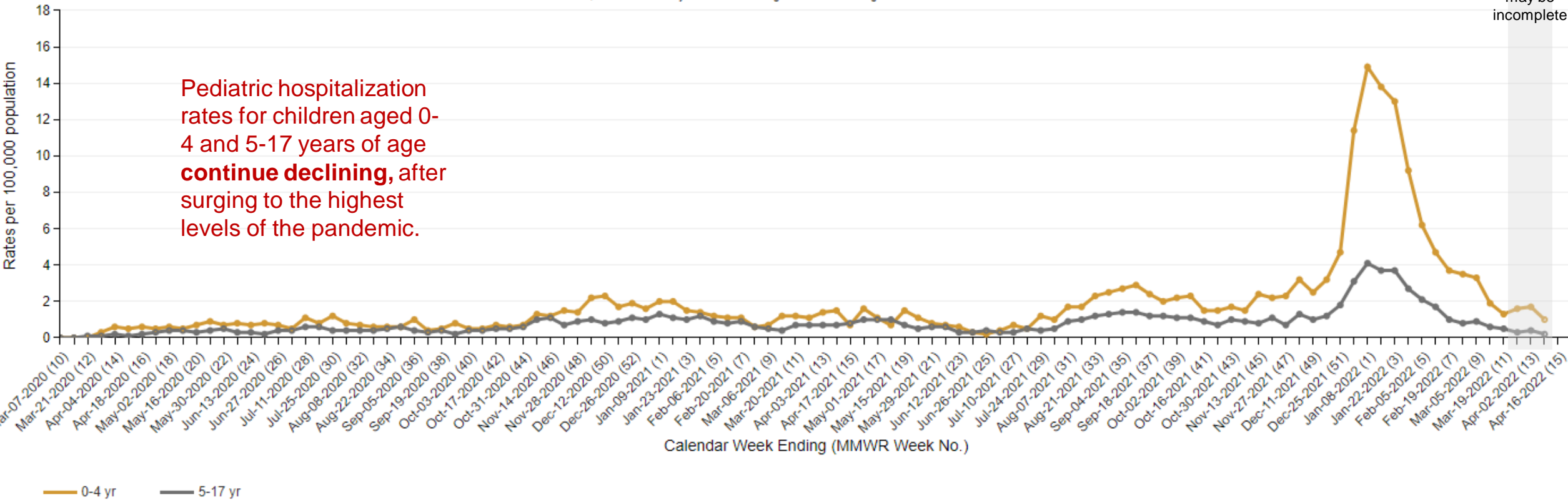
Source: <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

Accessed April 21, 2022

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



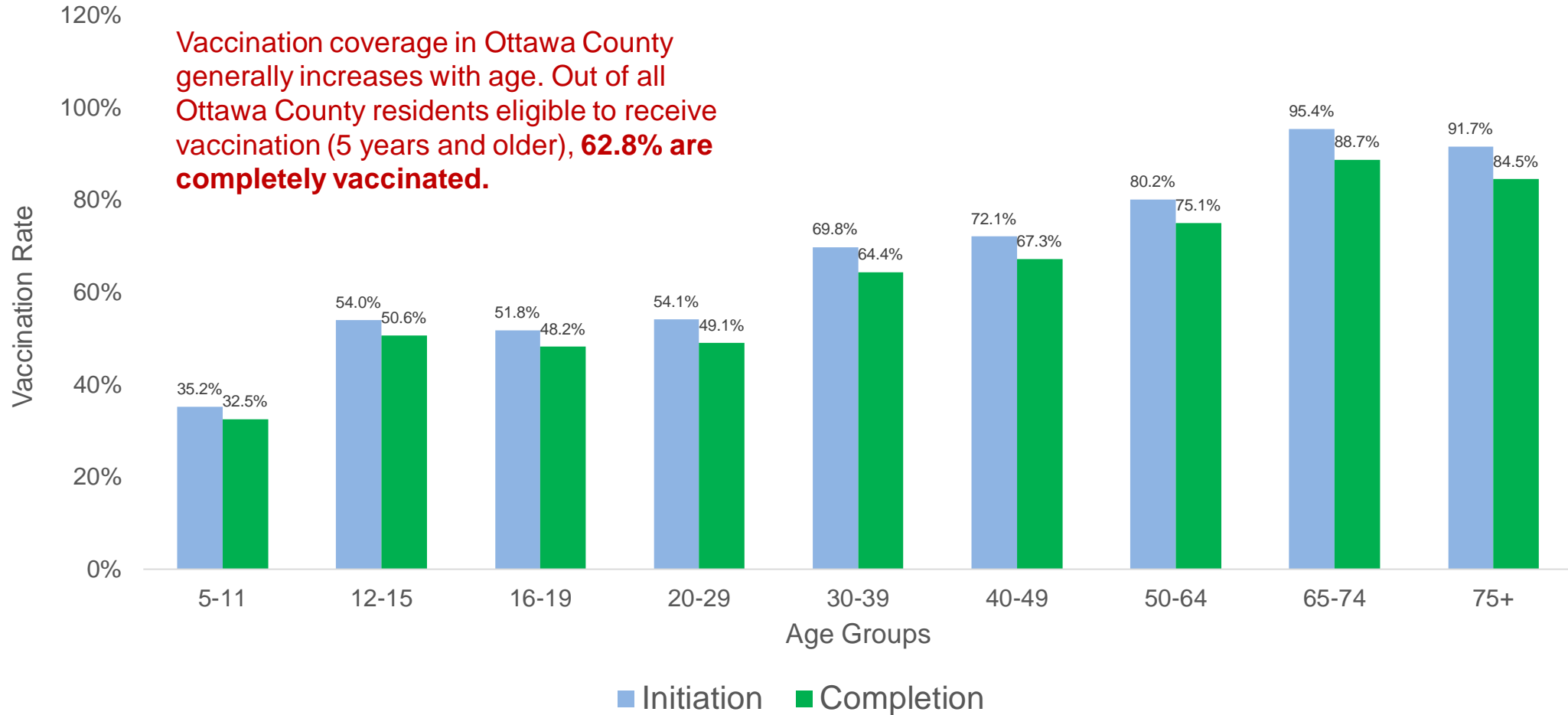
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case 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 April 21, 2022

Vaccination Coverage by Age



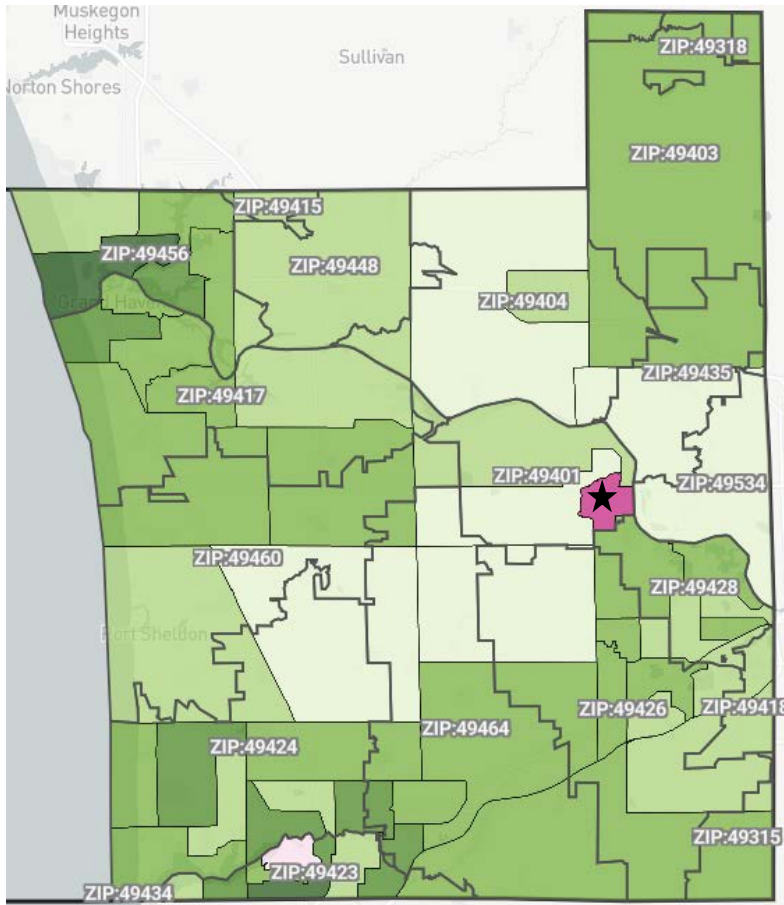
Notes:
Completion is the percentage of people receiving at least 2 doses of Pfizer or Moderna or 1 dose of J&J.

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

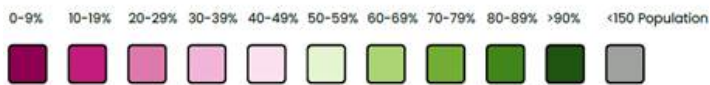
Data through April 16, 2022

Vaccination Coverage by Place of Residence

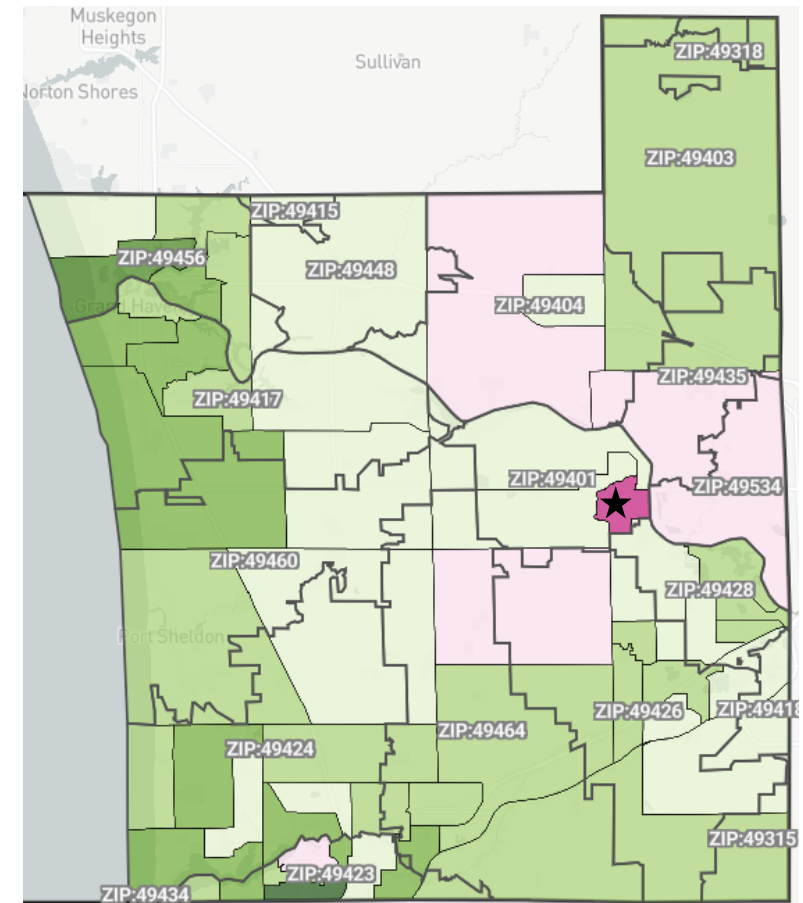
Fully vaccinated: % Ages 16+ years



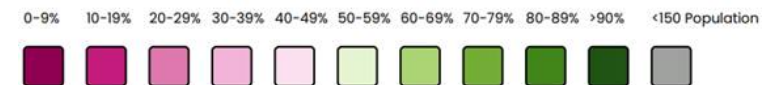
Color coded by: Fully Vaccinated (% Ages 16+)



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 – April 16, 2022

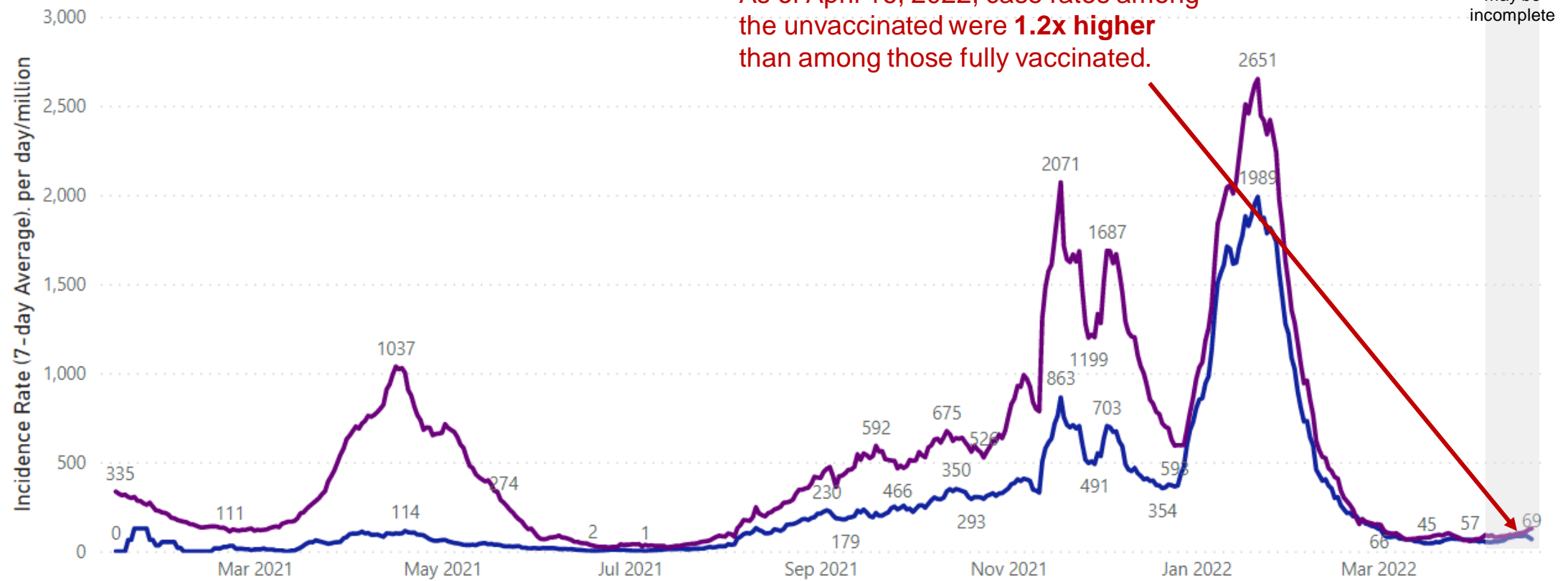
Fully Vaccinated People (172,121)	
Cases	Deaths
Percent of Cases in People Not Fully Vaccinated (36,182 / 54,928) 65.9%	Percent of Deaths in People Not Fully Vaccinated (287 / 441) 65.1%
Total Cases Not Fully Vaccinated 36,182	Total Deaths Not Fully Vaccinated 287
Total Breakthrough Cases 18,746	Total Breakthrough Deaths 154
Percent of Fully Vaccinated People who Developed COVID-19 (18,746 / 172,171) 10.9%	Percent of Fully Vaccinated People who Died of COVID-19 (154 / 172,171) 0.09%
Percent of Cases who were Fully Vaccinated (18,746 / 54,928) 34.1%	Percent of Deaths who were Fully Vaccinated (154 / 441) 35%
Total Cases 54,928	Total Deaths 441

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



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 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

Sources:

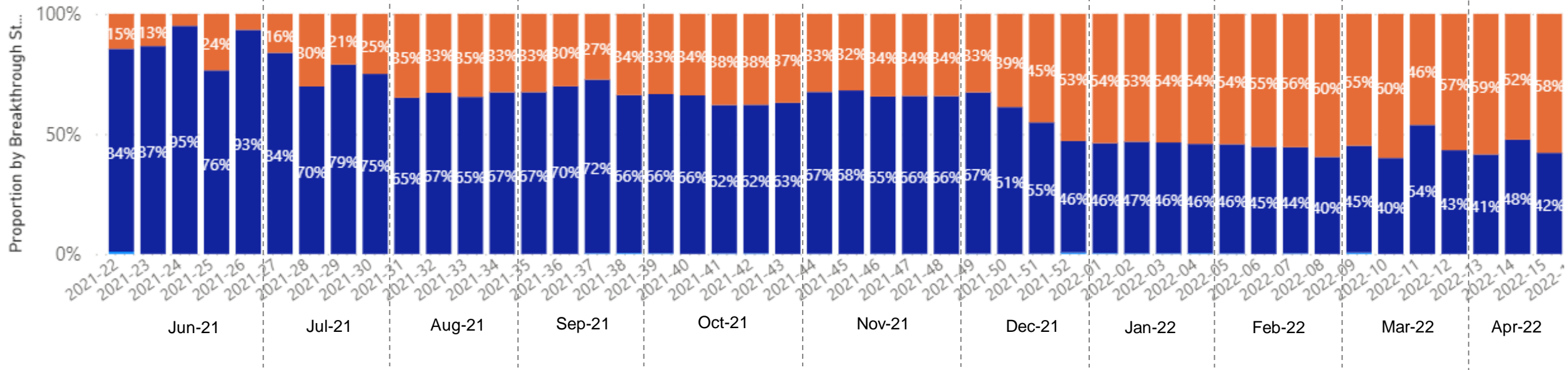
Michigan Department of Health and Human Services, Michigan Disease Surveillance System
 MDHHS COVID-19 Dashboard: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

By Week

Breakthrough Proportions by Week

Vaccine_Breakthrough ● NO ● YES



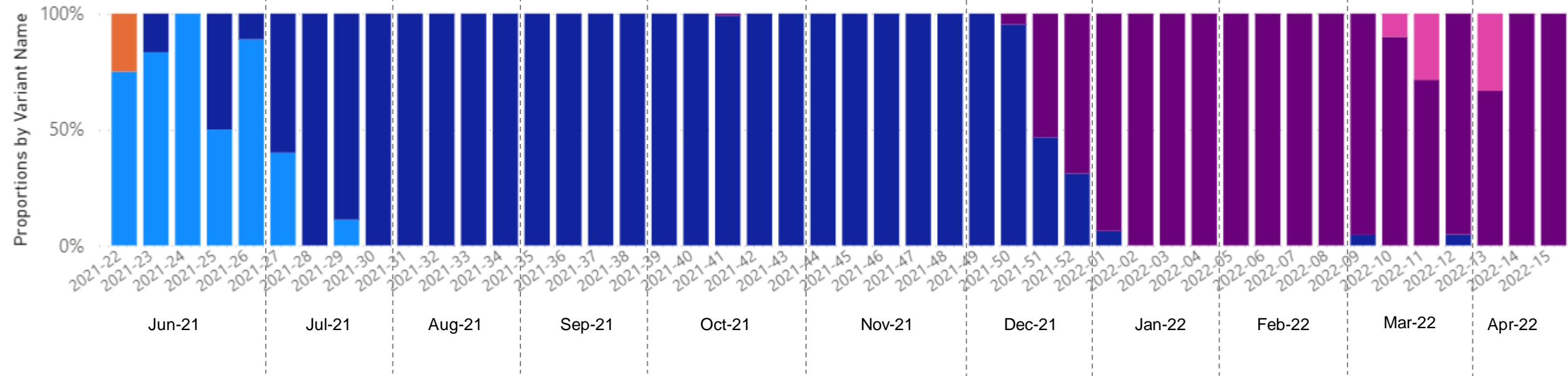
Through the Delta wave, which was most pronounced August through early December of 2021, about 34% of all cases reported to public health were breakthrough cases. At the end of 2021 and into 2022, the proportion of vaccine breakthrough cases increased to roughly 54% of cases reported each week. Weekly 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 ● Omicron BA.2

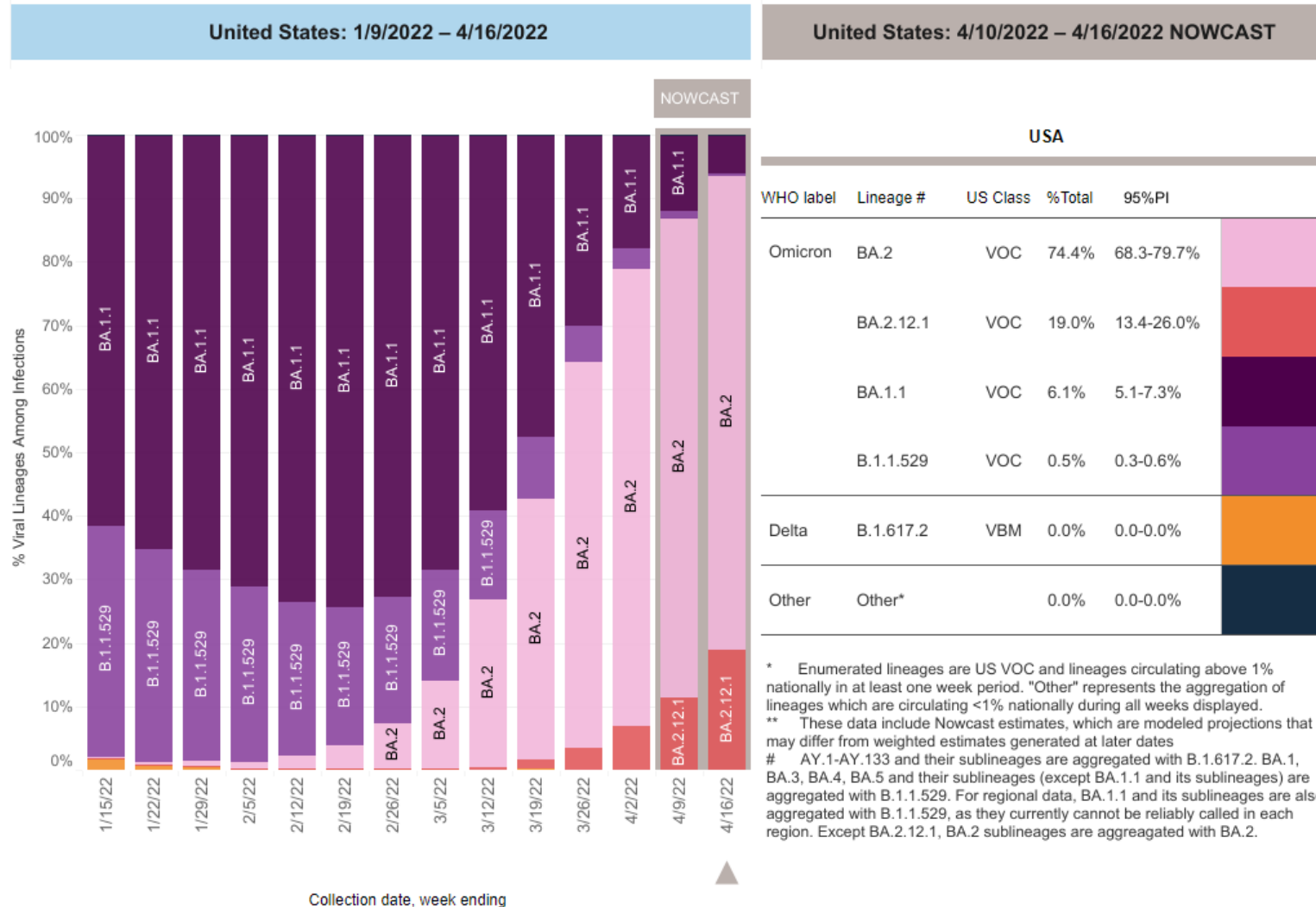


In June of 2021, most clinical samples* submitted for variant testing came back as the **Alpha** variant. By the end of July 2021, all clinical samples tested were returned as the **Delta** variant. From late July through early December 2021 all clinical samples submitted for variant testing came back 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.

* 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

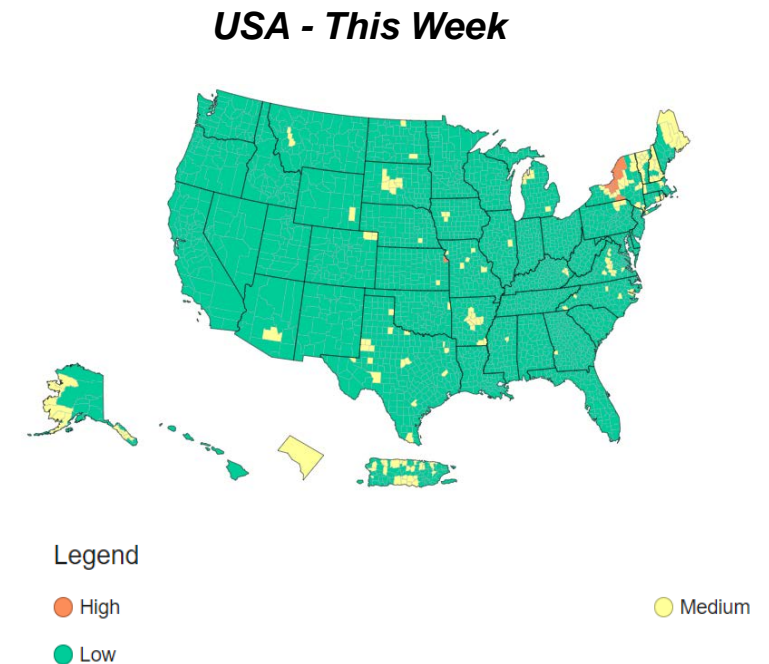
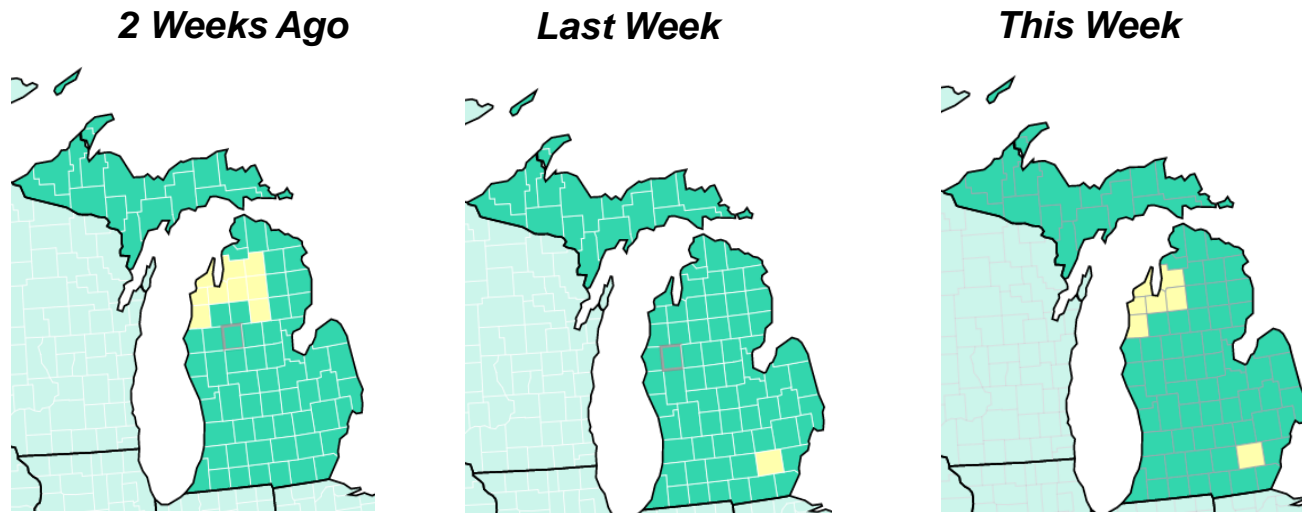


The **Omicron** variant is estimated to account for close to 100% of all clinical samples collected in the United States the week ending April 16, 2022.

Omicron subvariants are also circulating, but their impact on transmission in near-term is unknown.

(NEW) CDC Community Risk Levels – Ottawa County

- Current Risk Level in Ottawa – **LOW**
- Current Data:
 - Case Rate (per 100k pop 7-day total) = **53.11**
 - COVID-19 Hospital Admissions (per 100K pop 7-day total) = **0.5**
 - COVID Inpatient Hospital Bed Utilization (7-day average) = **2.9%**



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

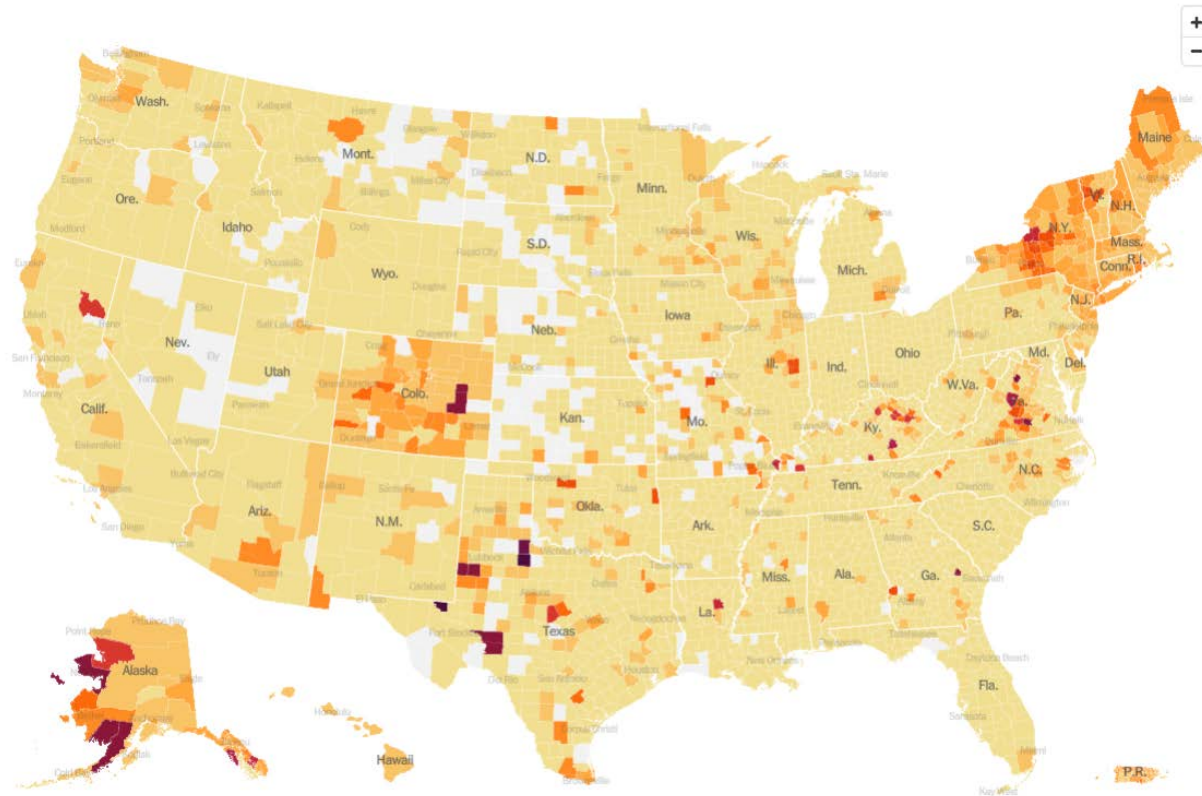
Data updated by CDC
on April 20, 2022

COVID-19 Case Rates by County Across the US

Last Week

Hot spots

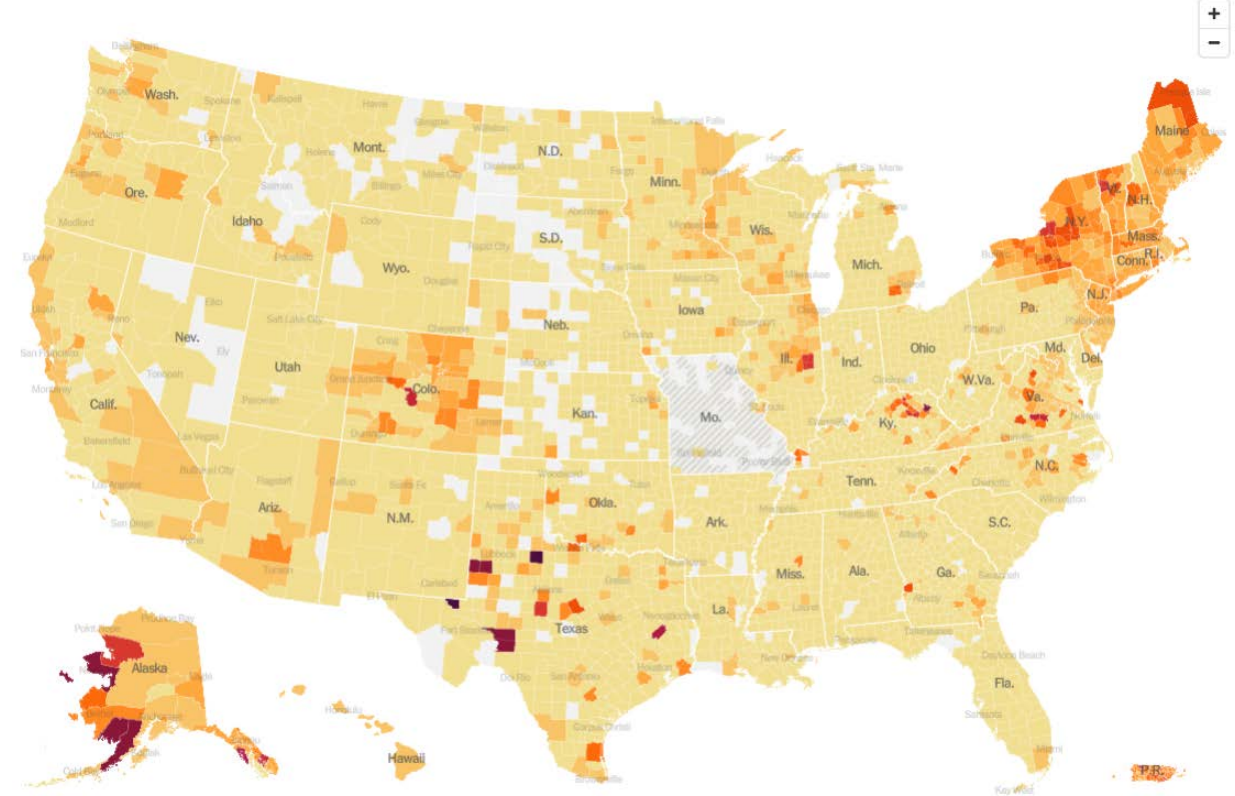
AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK
10 30 50 70 100 250 FEW OR NO CASES



This Week

Hot spots

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



Case rates remain low across the nation, but increases are noted in the northeast.

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

Accessed April 20, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

COVID-19 Hospitalization Rates by County Across the US

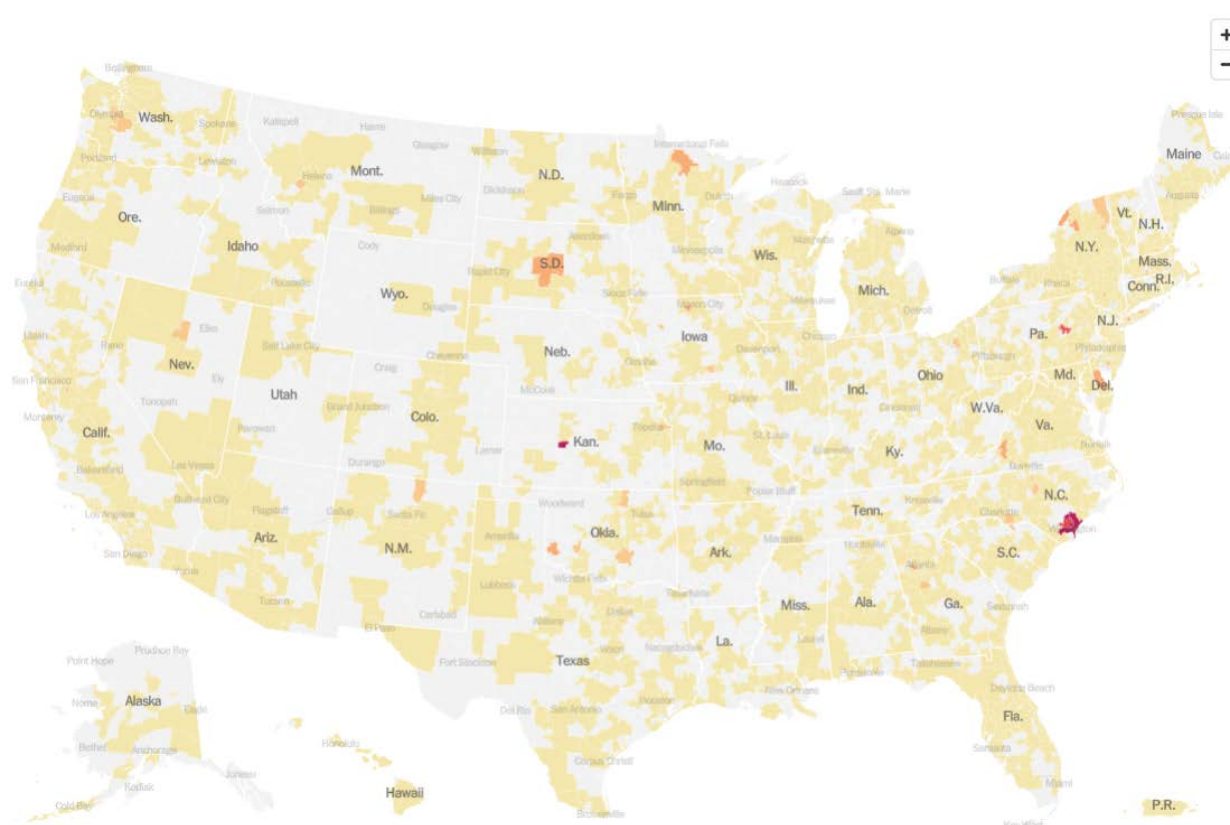
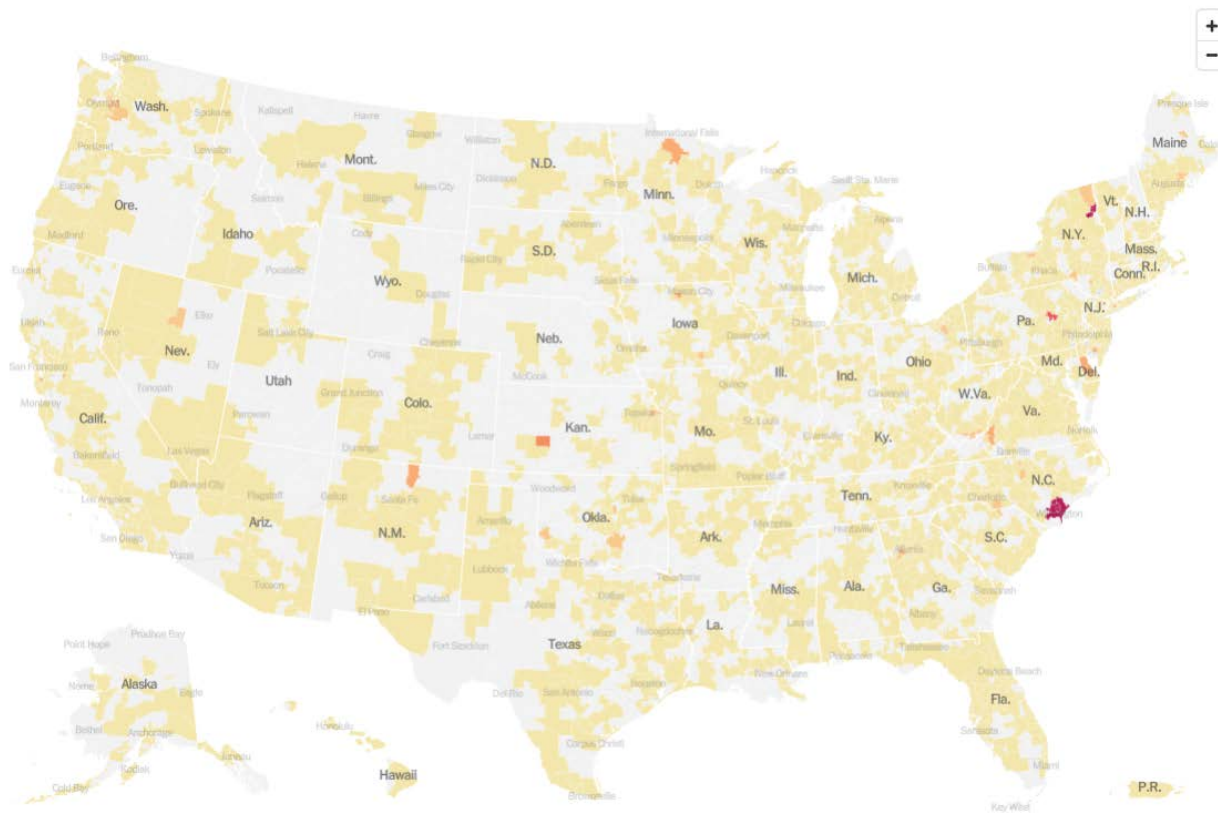
Last Week

This Week

Current hospitalizations



Current hospitalizations



Hospitalization rates remain low across the nation.

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

Accessed April 20, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

COVID-19 News Headlines

Michigan adds 10,474 cases, 78 deaths from COVID-19 over last week

[Michigan adds 10,474 cases, 78 deaths from COVID-19 over last week \(detroitnews.com\)](https://www.detroitnews.com/story/news/local/michigan/2022/04/18/michigan-adds-10474-cases-78-deaths-from-covid-19-over-last-week/7011117002/)

Federal Judge Strikes Down Mask Mandate for Planes and Public Transit

<https://www.nytimes.com/2022/04/18/us/politics/federal-mask-mandate-airplanes.html>

COVID outbreaks at Michigan schools infect 45 students, staff

[COVID outbreaks at Michigan schools infect 45 students, staff - mlive.com](https://www.mlive.com/news/ann-arbor/2022/04/covid-outbreaks-at-michigan-schools-infect-45-students-staff/)

Loosened mask policy, spring break coincide with University of Michigan COVID-19 surge

<https://www.mlive.com/news/ann-arbor/2022/04/loosened-mask-policy-spring-break-coincide-with-university-of-michigan-covid-19-surge.html>

Science Roundup

Association of SARS-CoV-2 Vaccination During Pregnancy With Pregnancy Outcomes

[Association of SARS-CoV-2 Vaccination During Pregnancy With Pregnancy Outcomes](#) | Neonatology | JAMA | JAMA Network

← A retrospective cohort study that included 157,521 deliveries in Sweden and Norway, found that SARS-CoV-2 vaccination during pregnancy was not significantly associated with an increased risk of adverse pregnancy outcomes.

SARS-CoV-2 Vaccination and Myocarditis in a Nordic Cohort Study of 23 Million Residents

[SARS-CoV-2 Vaccination and Myocarditis in a Nordic Cohort Study of 23 Million Residents](#) | Cardiology | JAMA Cardiology | JAMA Network

← Results of a cohort study that involved 23.1 million residents in four Nordic countries indicated that both first and second doses of the mRNA vaccines were associated with increased risk of myocarditis and pericarditis for some sex and age groups.

Predictors of severe illness in children with multisystem inflammatory syndrome after SARS-CoV-2 infection: a multicentre cohort study

<https://www.cmaj.ca/content/cmaj/194/14/E513.full.pdf>

← A study in Canada found that older age and a high initial level of serum ferritin predicted the need for ICU admission among children admitted to hospital with MIS-C.

Estimated Transmission Outcomes and Costs of SARS-CoV-2 Diagnostic Testing, Screening, and Surveillance Strategies Among a Simulated Population of Primary School Students

[Estimated Transmission Outcomes and Costs of SARS-CoV-2 Diagnostic Testing, Screening, and Surveillance Strategies Among a Simulated Population of Primary School Students](#) | Coronavirus (COVID-19) | JAMA Pediatrics | JAMA Network

← An analytic model of COVID-19 transmission in simulated US primary schools found that, test-to-stay strategies were associated with reduced quarantine time. Compared with no testing, weekly screening was associated with substantial reductions to in-school transmission when community incidence was high and had lower societal cost than remote instruction.