

Ottawa County COVID-19 Epidemiology

March 17, 2022

Data as of March 12, 2022, unless otherwise indicated

Executive Summary

- **Transmission in Michigan and the US continues to decline**
 - CDC recently introduced new community risk levels (learn more [here](#)).
- **Ottawa community transmission levels continue to decline**
 - This past week positivity declined to 4.9%, lower than 6.3% seen two weeks ago.
 - Weekly case counts **decreased** 24% (-43% two weeks ago), from 172 two weeks ago to 131 last week.
 - Cases among children **decreased** 21% (-47% two weeks ago), from 33 two weeks ago to 26 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, 5% of all available beds and 7% of all ICU beds are occupied by COVID-19 patients.*
 - No Ottawa-area hospitals employed Emergency Department diversion over the last five weeks.
 - For the first time in 2022, all Ottawa hospitals have returned to usual care strategies.
 - No Ottawa-area hospitals reported critical staffing challenges over the last four weeks.
- **Pediatric hospitalization rates in the US and in Michigan are improving**
 - Regional pediatric hospitalization census has fallen to the pandemic average.
- **Of Ottawa County residents aged 5+, 62.4% 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				
		12-Feb-22	19-Feb-22	26-Feb-22	5-Mar-22	12-Mar-22
Positivity (All Ages)	NA	19.5%	14.1%	9.5%	6.3%	4.9%
Weekly Cases (All Ages)	<592	876	469	302	172	131
Weekly Cases in Children (0-17 years of age)	NA	183	89	62	33	26
Total Deaths (All Ages)	0	5	6	6	4	1
CDC COVID-19 Community Level (New)	Low	-	-	-	Low	Low

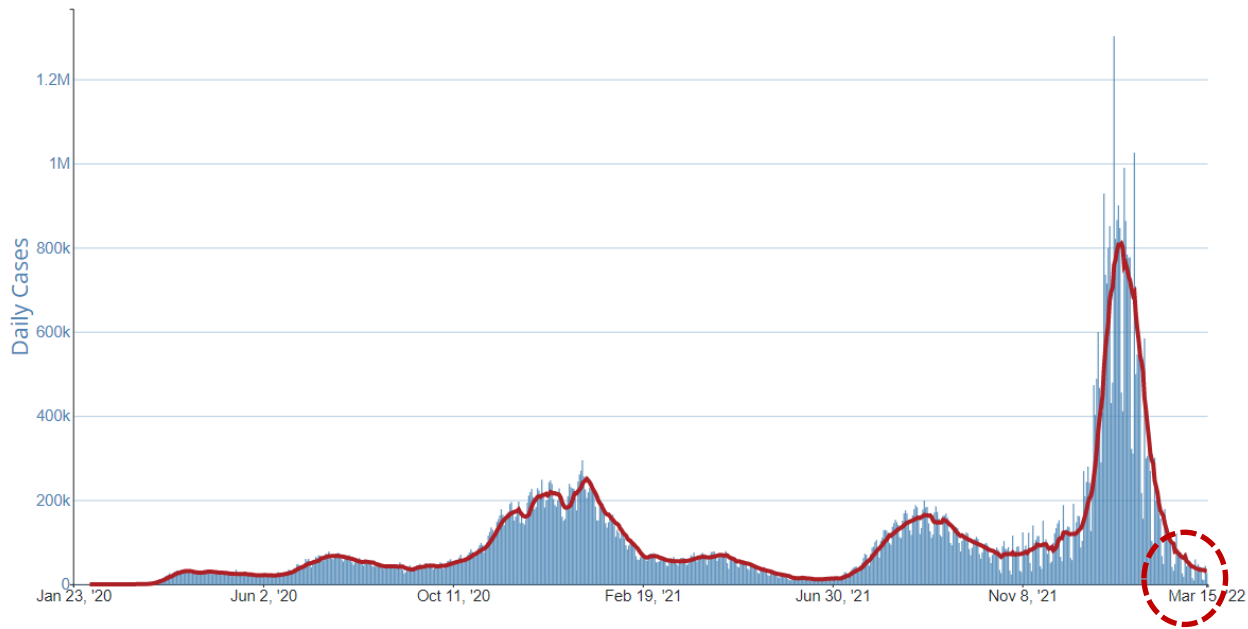
Please note that with updated CDC Community Risk Transmission levels, metrics and/or metric thresholds/goals may change.

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

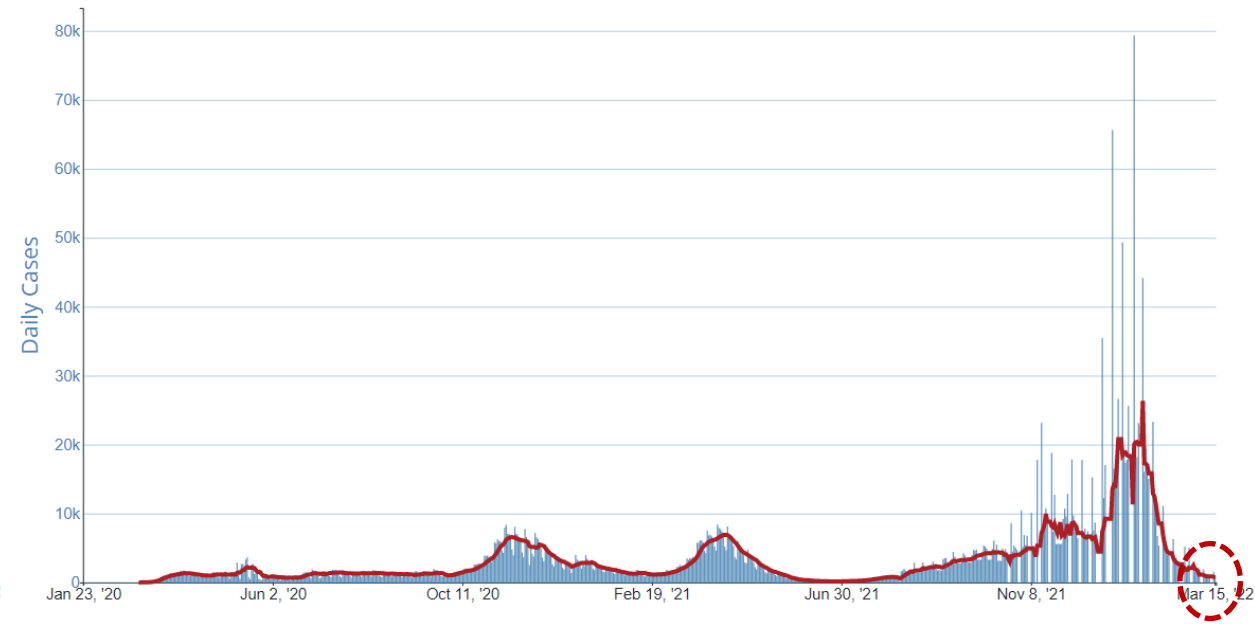
USA

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 are declining.

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 March 15, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

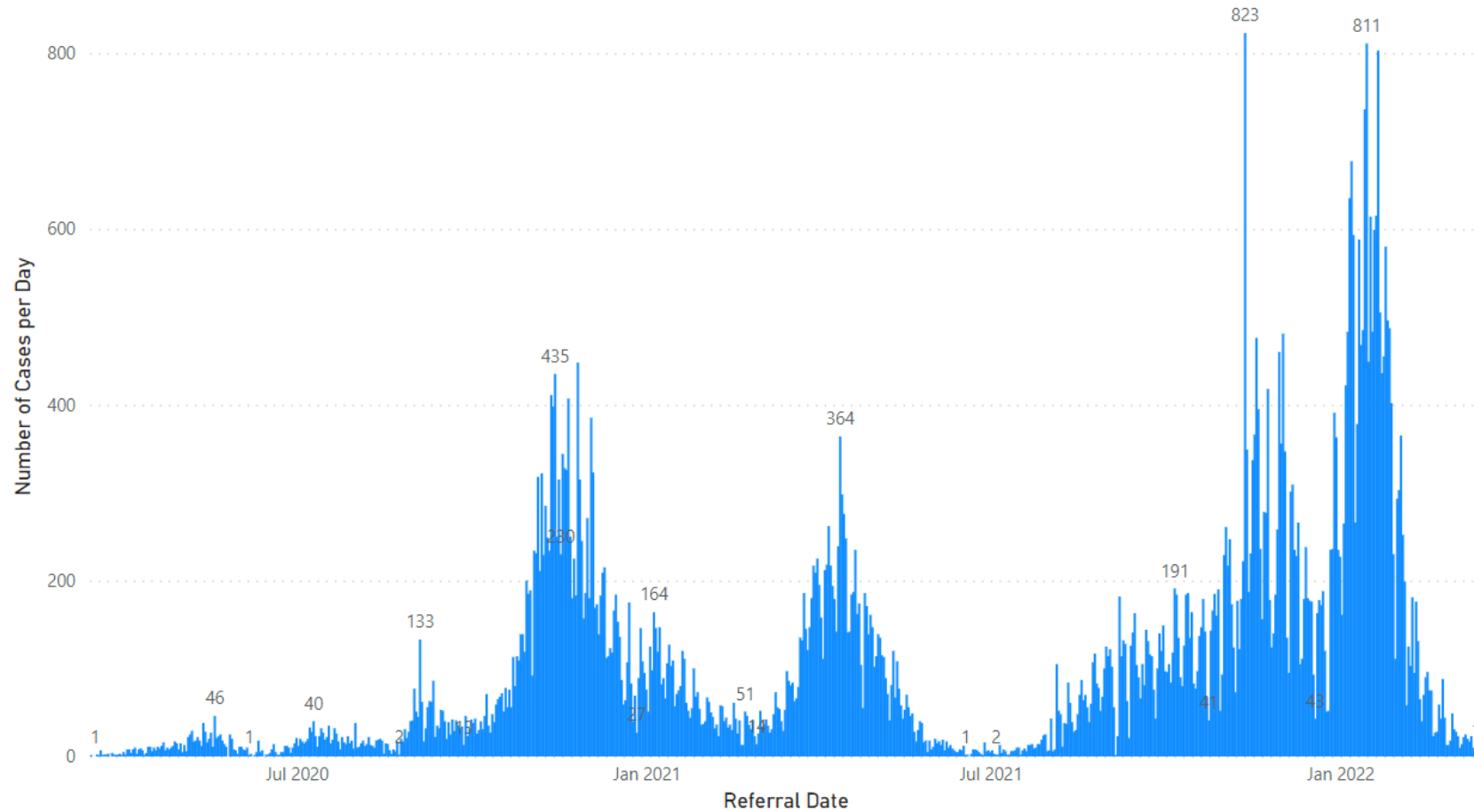
Media

Science
Roundup

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – March 16, 2022

Epidemiological Curve



Total Number of Cases
74,362

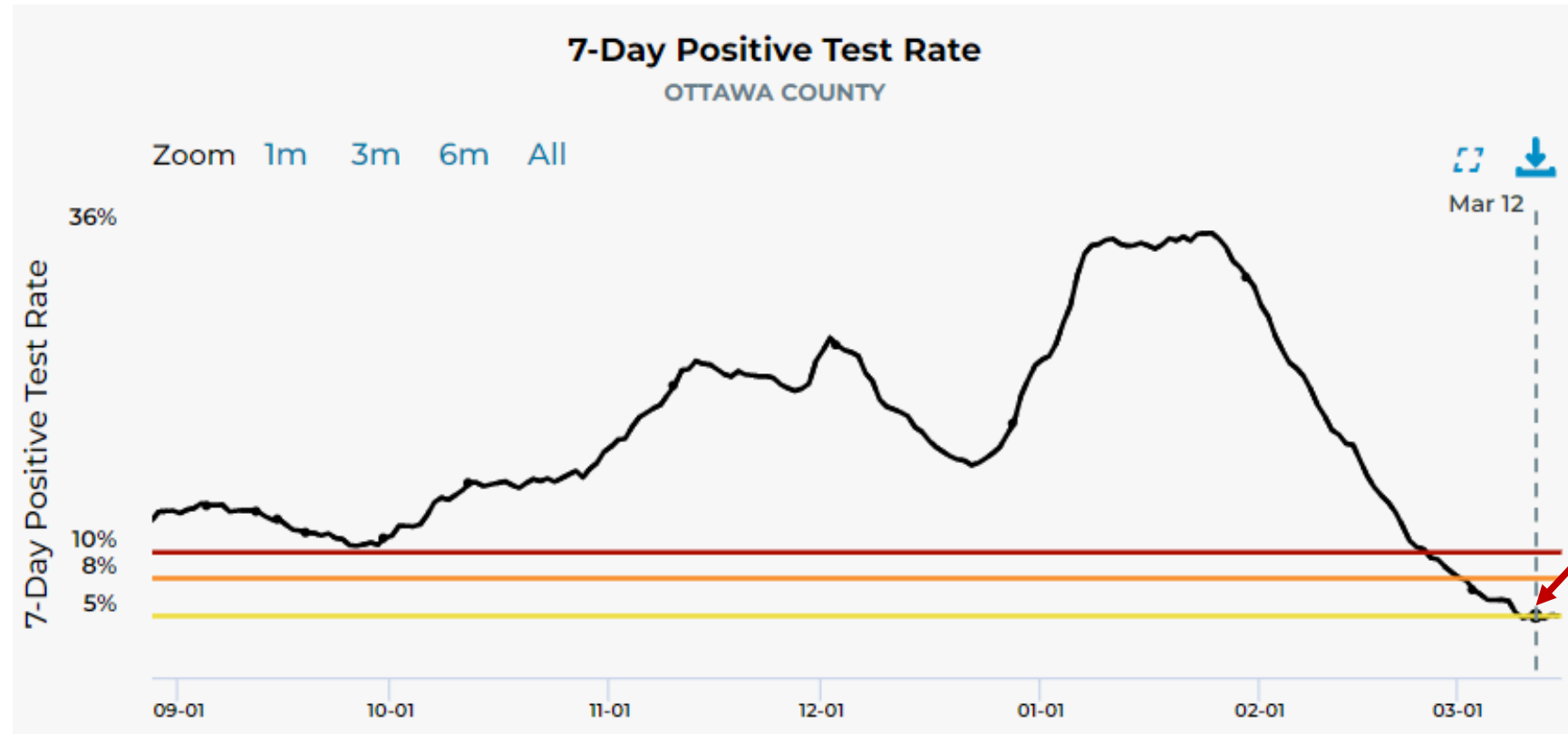
Currently the 7-day average is **15 cases per day**, lower than the 19 cases per day seen at a similar time last week. →

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 – March 12, 2022



Test positivity has been in decline for six weeks, **recently falling to 4.9%**.

Please note that this visualization may change as CDC Community Transmission levels, metrics and/or metric thresholds/goals change.

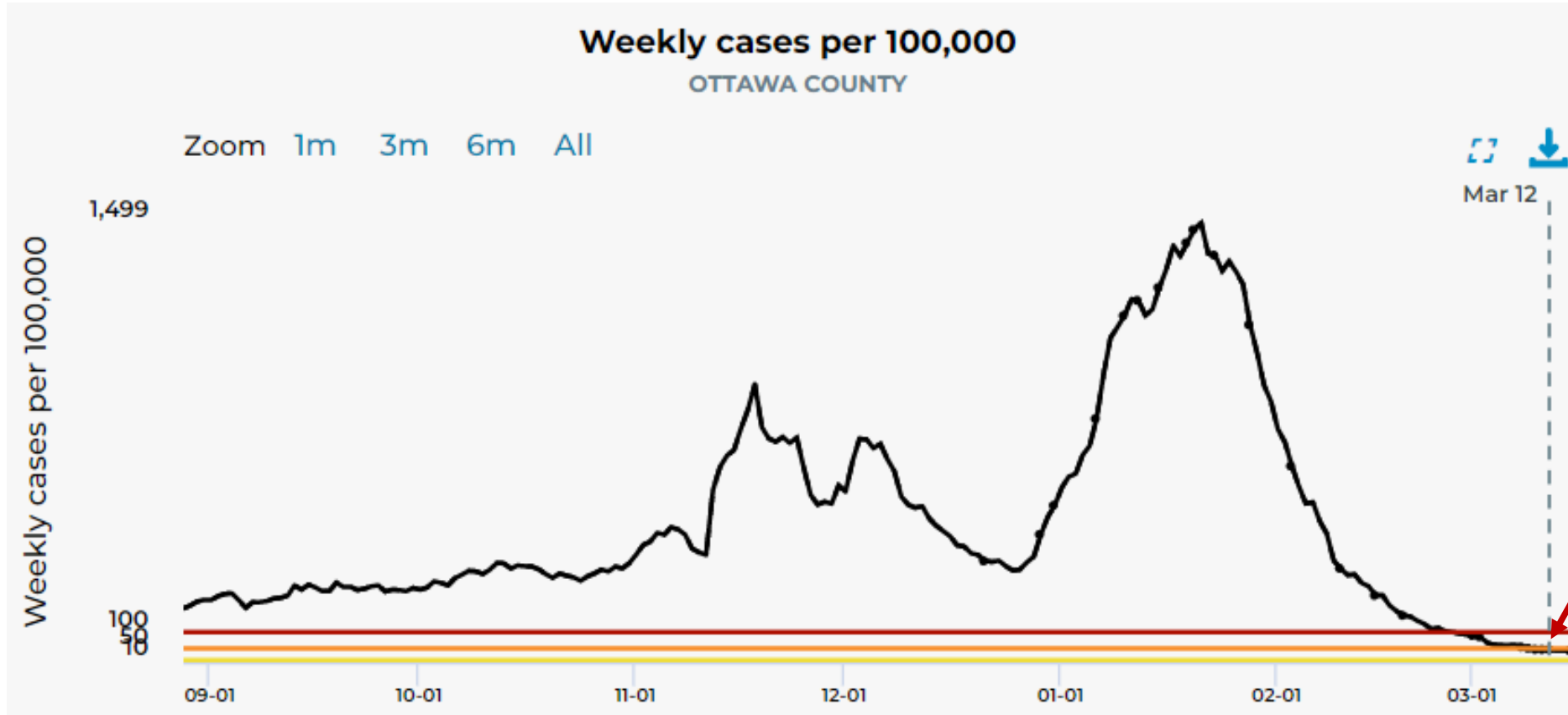


Note: Testing in Ottawa County has declined over the last 4 weeks, peaking at nearly 5,000 tests in week (week 6) and declining to about 1,800 tests last week (week 10): [Testing Results | Ottawa County Covid-19 Case Summary Data \(arcgis.com\)](#) & <https://www.mistartmap.info/mism-indicators?area=county%3Aottawa>. 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 – March 12, 2022



Case rates decreased to 44 cases per week per 100,000 population (down from 59 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

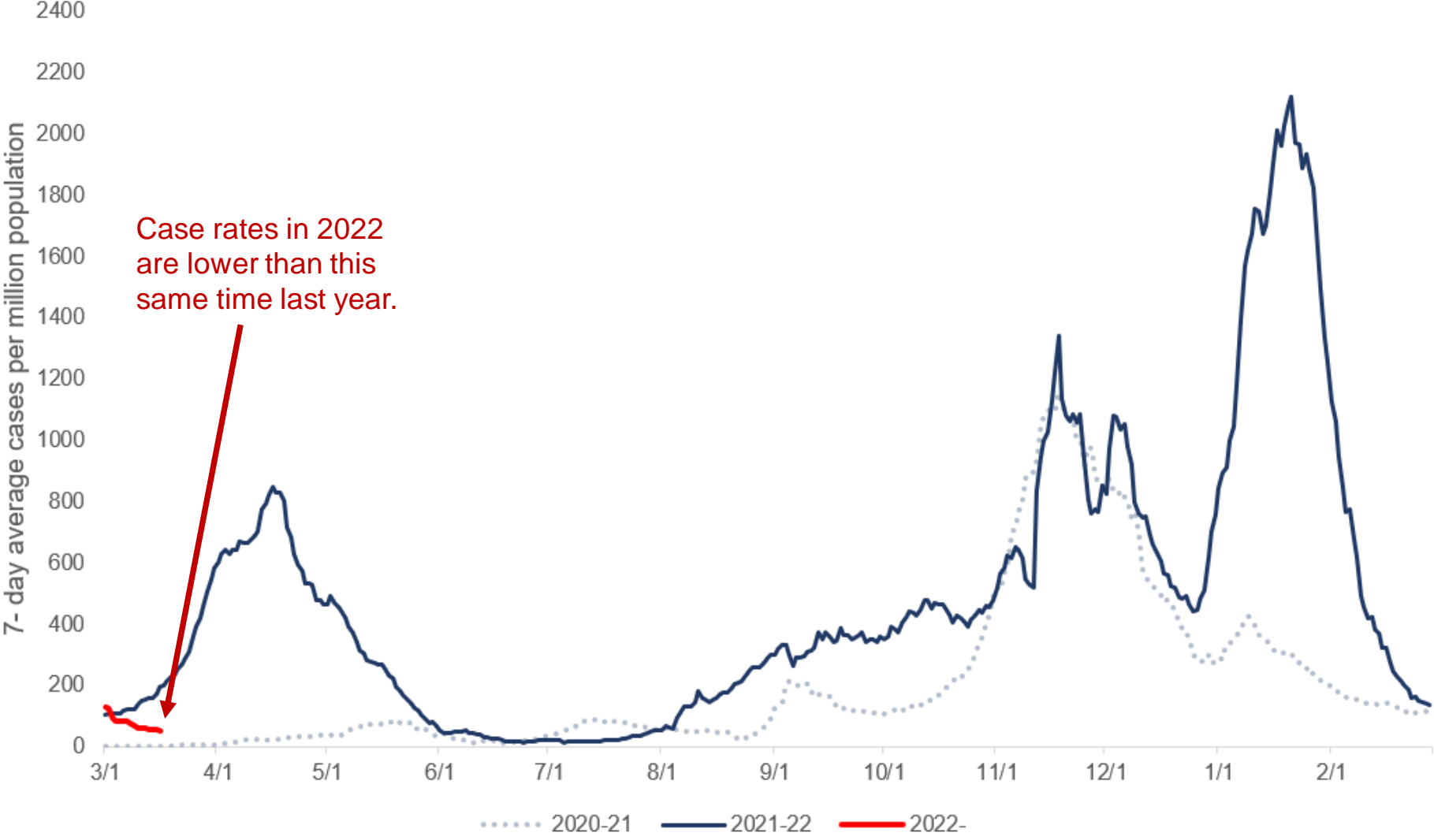
Risk Levels

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.

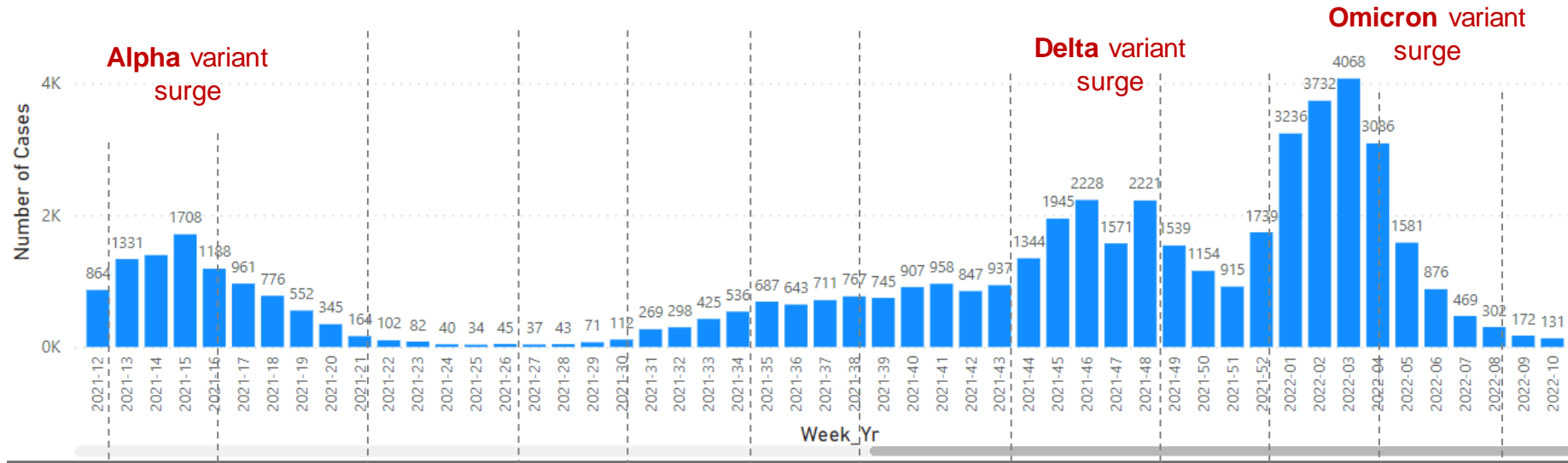
Note: Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

Source: Internal Data

Data through March 16, 2022

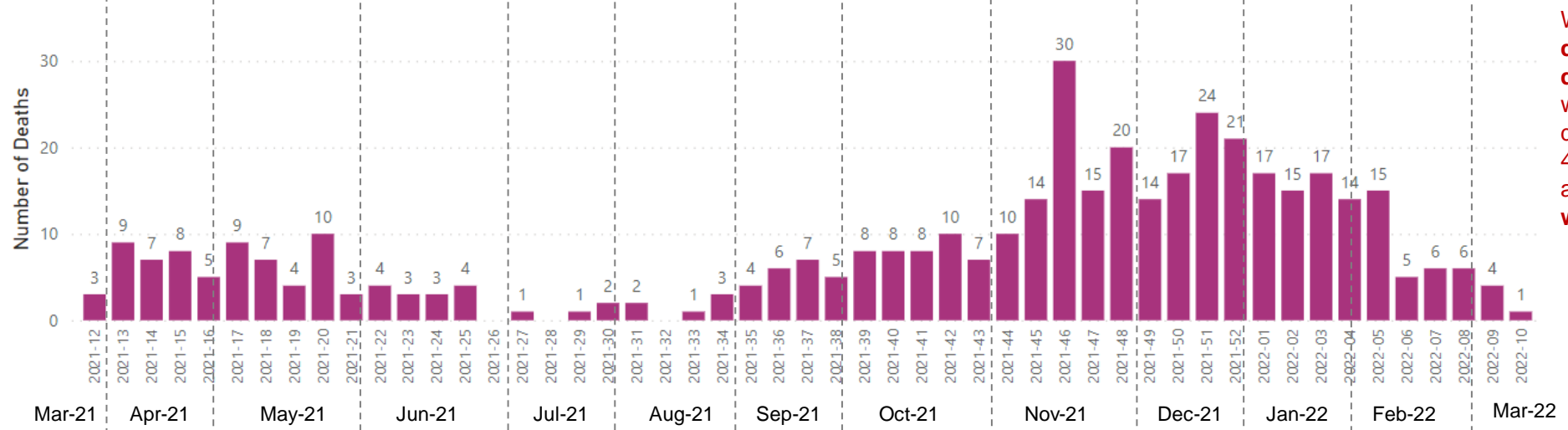
Ottawa County – Cases & Deaths by Week, All Ages

New Cases By Week of Referral



The weekly number of cases **decreased 24%** from week 9 to week 10.

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 **4 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.

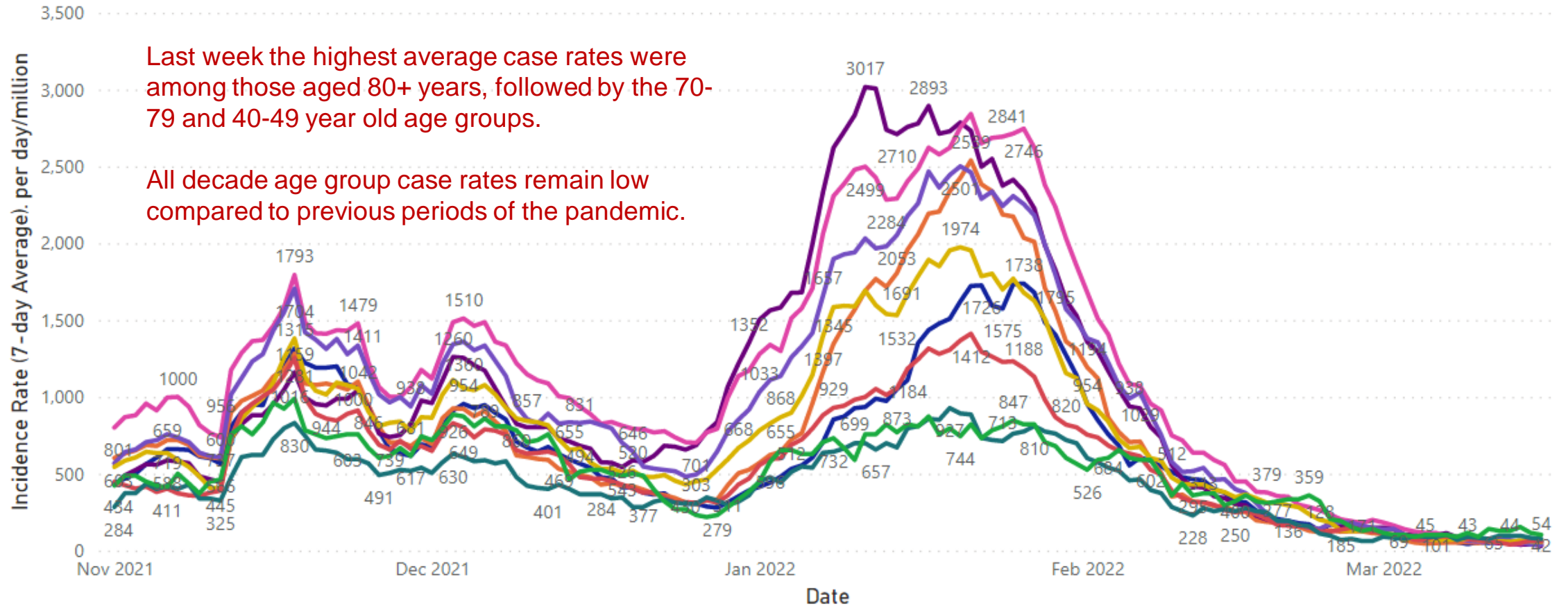
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age Decade

COVID-19 Case Rates by Age, November 2021 – March 16, 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 10 (March 6, 2022 – March 12, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	2.1	58.1	-29%
10-19	2.7	61.2	35%
20-29	2.1	47.3	-57%
30-39	2.0	55.8	-52%
40-49	2.4	73.2	6%
50-59	2.1	61.4	-21%
60-69	1.7	52.5	-30%
70-79	1.9	90.1	0%
80+	1.4	128.5	25%

Age groups with highest average case rates last week:

- 80+
- 70-79
- 40-49

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

- 10-19
- 80+
- 40-49

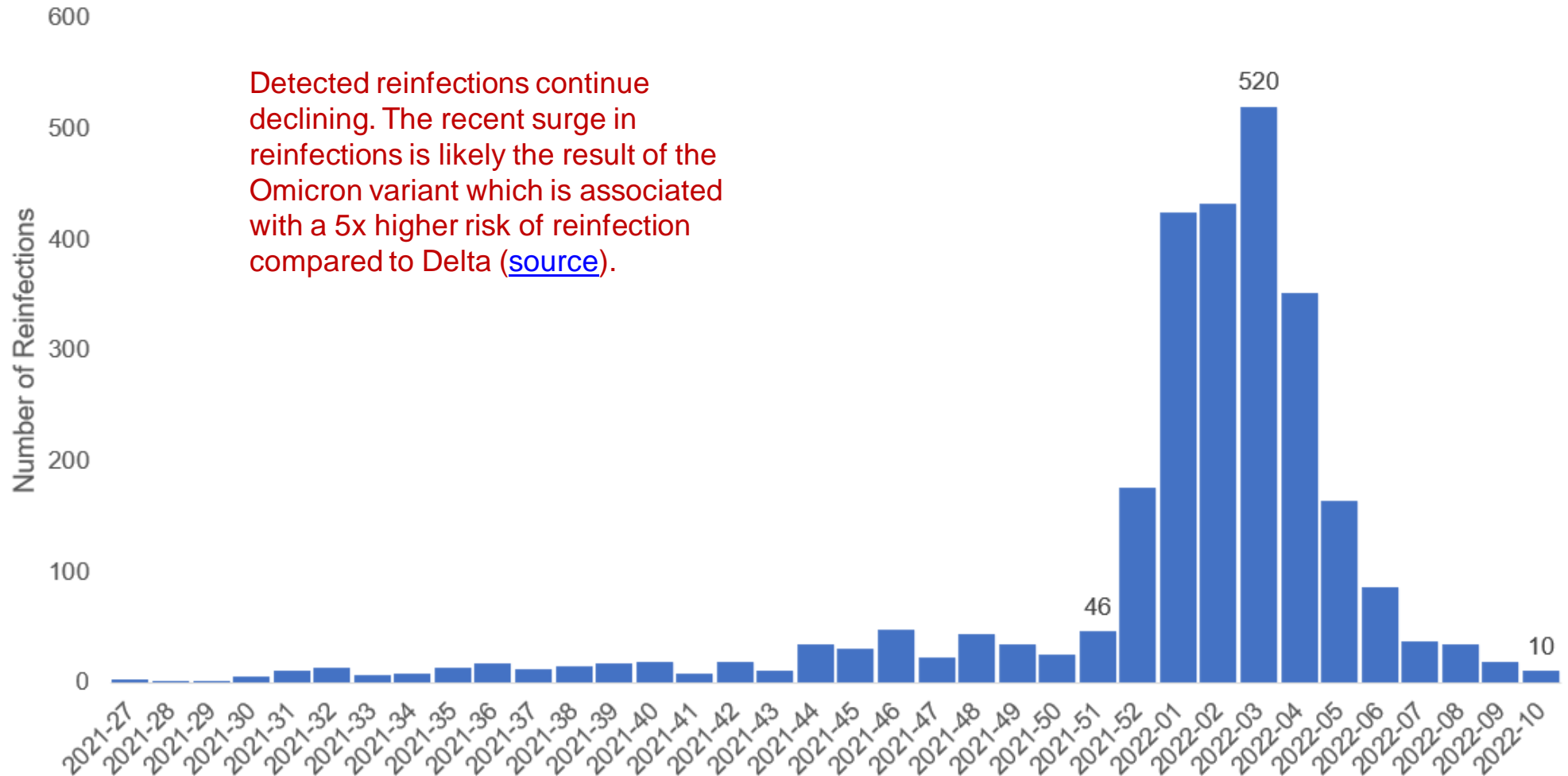
Please note that low case counts may make case rates unstable, reducing reliability. Be cautious using this data to inform decisions.

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 March 16, 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 March 16, 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	3145	2%	923	45%	4068	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	380	-45%	89	-51%	469	-46%
26-Feb-22	240	-37%	62	-30%	302	-36%
5-Mar-22	139	-42%	33	-47%	172	-43%
12-Mar-22	105	-24%	26	-21%	131	-24%

Adults

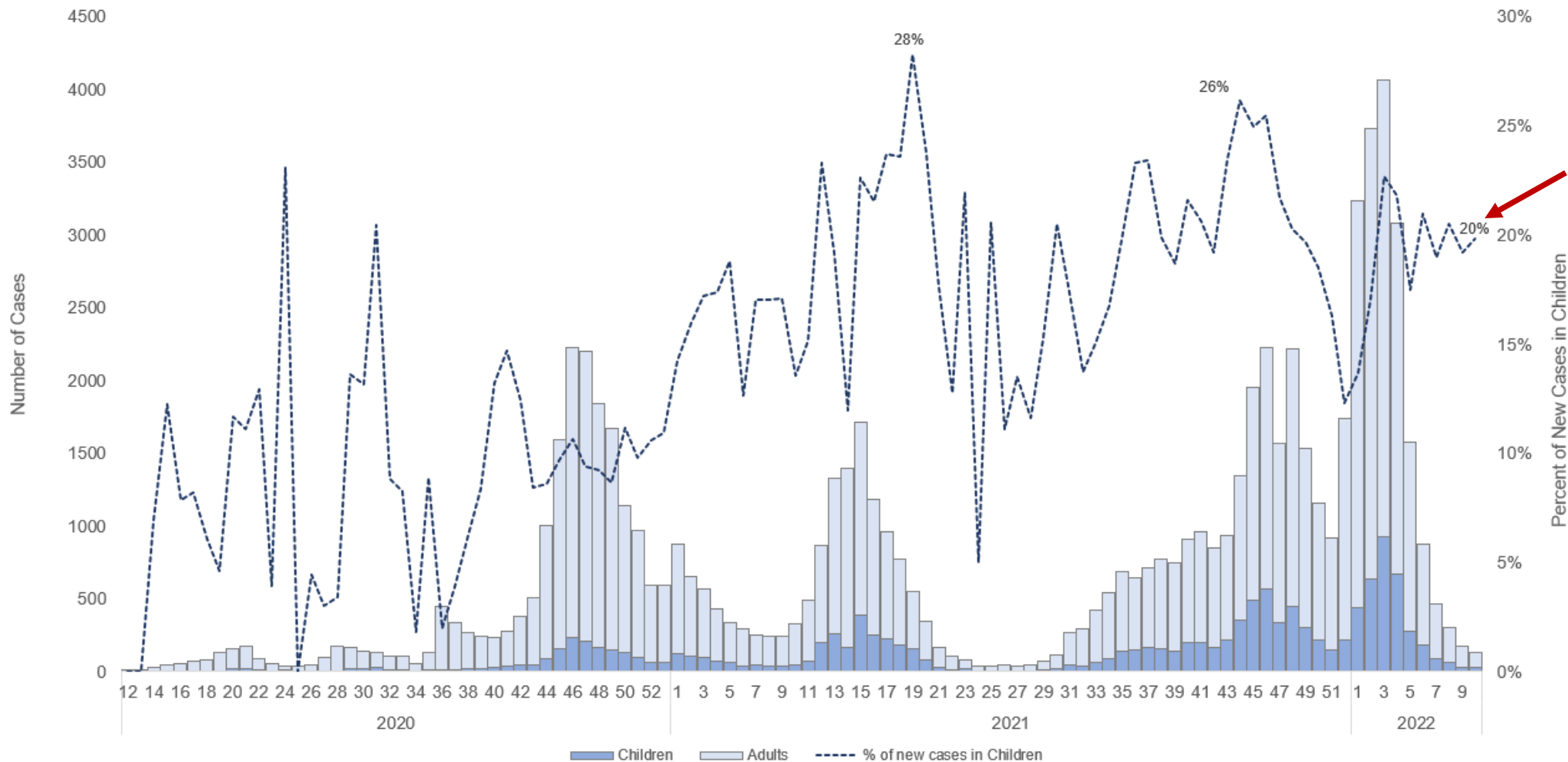
Children

Weekly case counts among **children decreased 21%** last week, and cases in **adults decreased 24%**.

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 10 in 2022, children made up **20%** of cases reported, elevated compared to other times of the pandemic, but consistent with recent weeks.

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

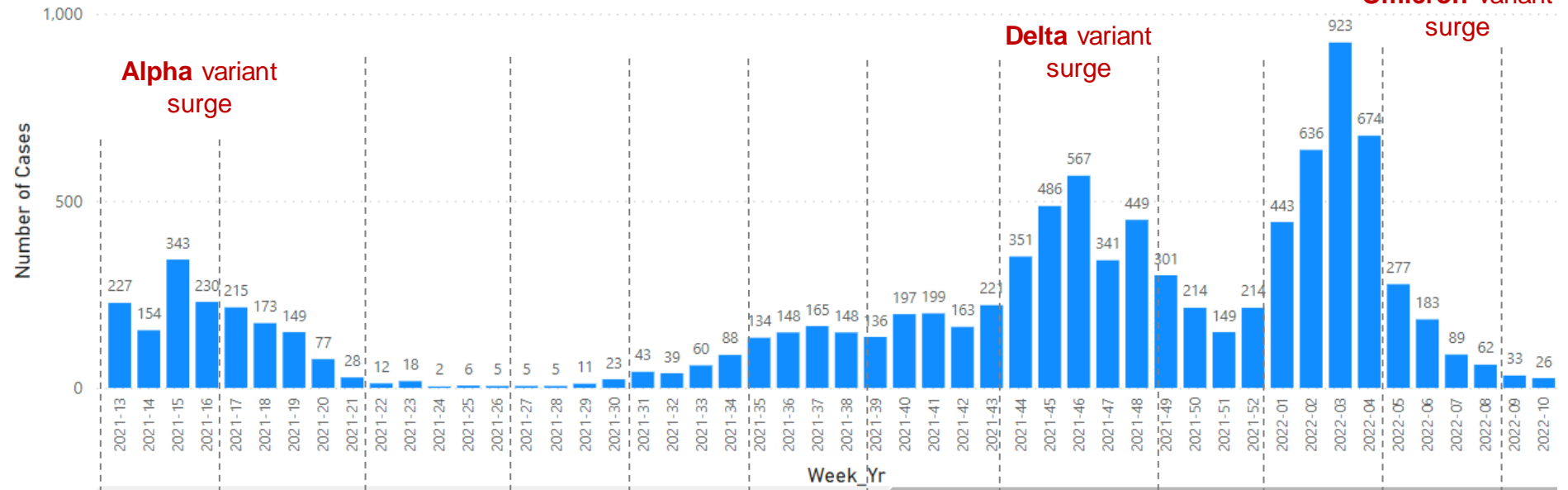
Note: Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case counts.

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

Data through Week 10, 2022

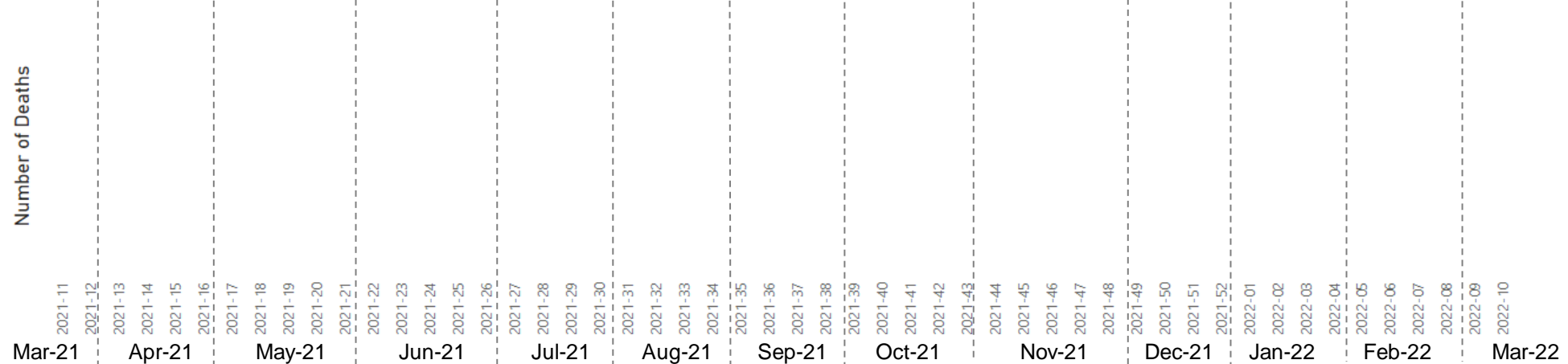
Ottawa County – Cases & Deaths by Week Among Children (0-17 years)

New Cases By Week of Referral



The weekly number of cases among children decreased 21% from week 9 to week 10.

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.

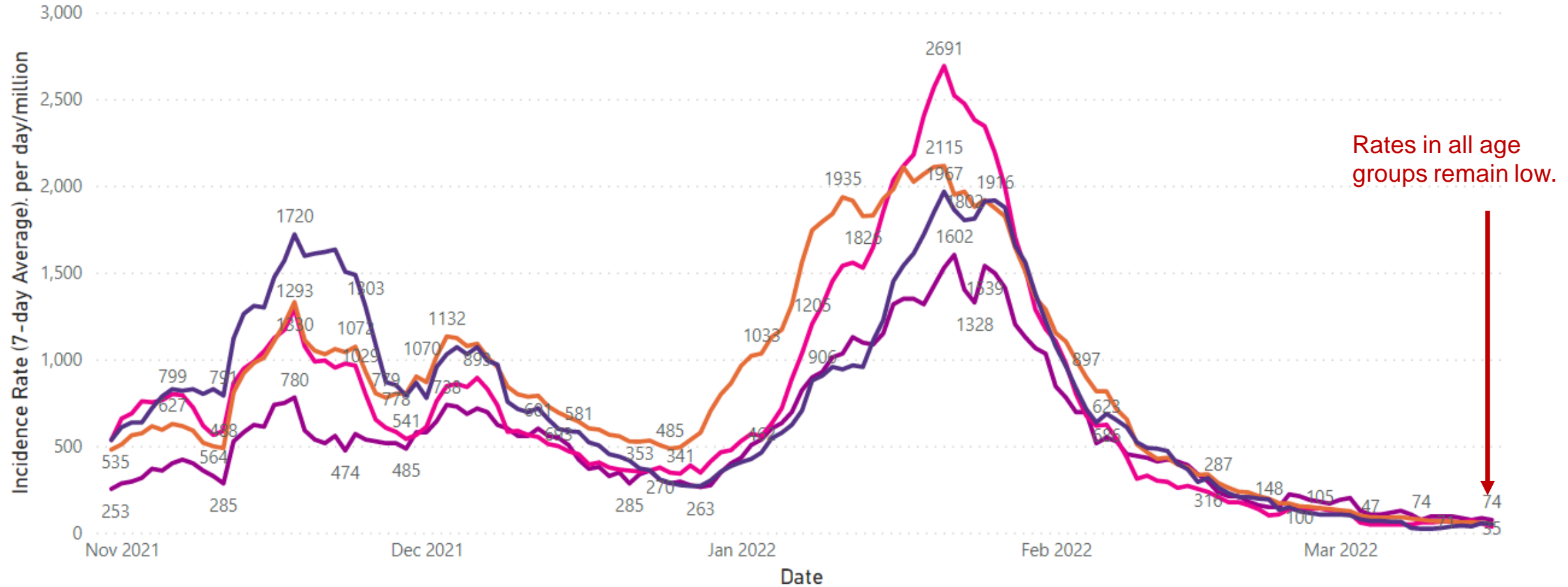
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, November 2021 – March 16, 2022

Incidence Rate (7-day Average)

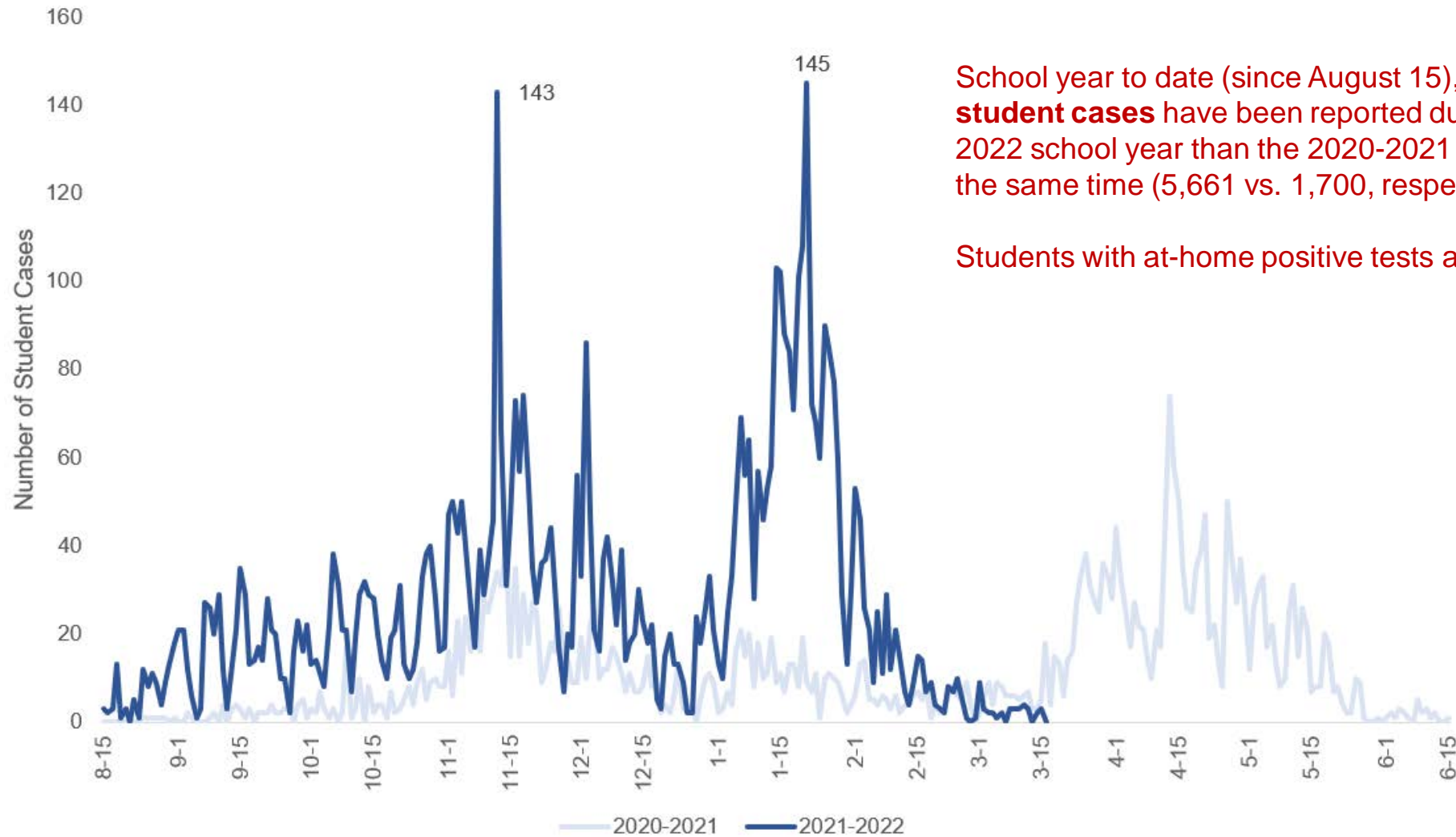
rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



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 Cases in PreK-12 School Students



School year to date (since August 15), **3.3x more student cases** have been reported during the 2021-2022 school year than the 2020-2021 school year at the same time (5,661 vs. 1,700, respectively).

Students with at-home positive tests are not included.

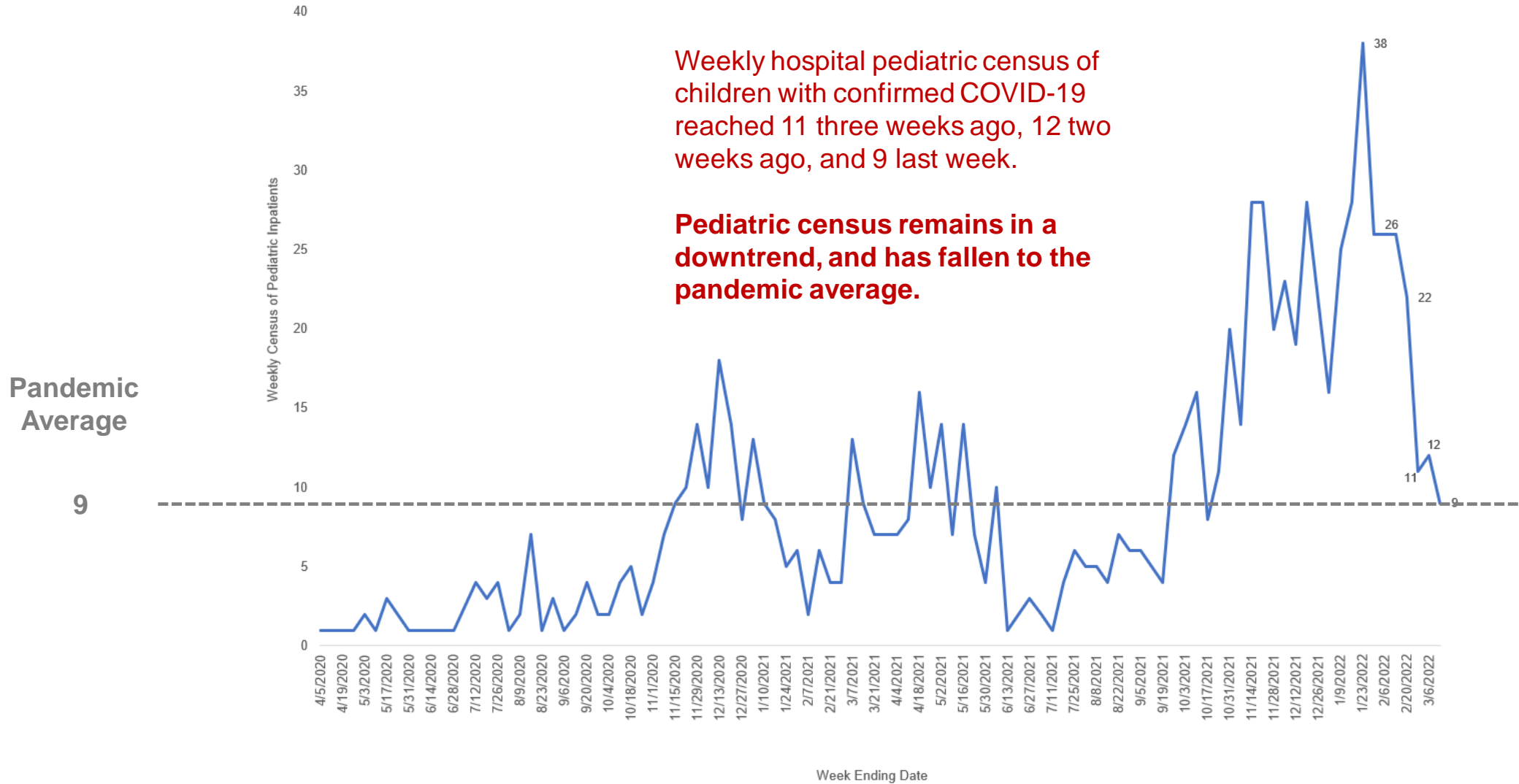
Method: Includes PreK-12 students known to attend a school in Ottawa County who are classified as a confirmed or probable case of COVID-19.

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 March 16, 2022

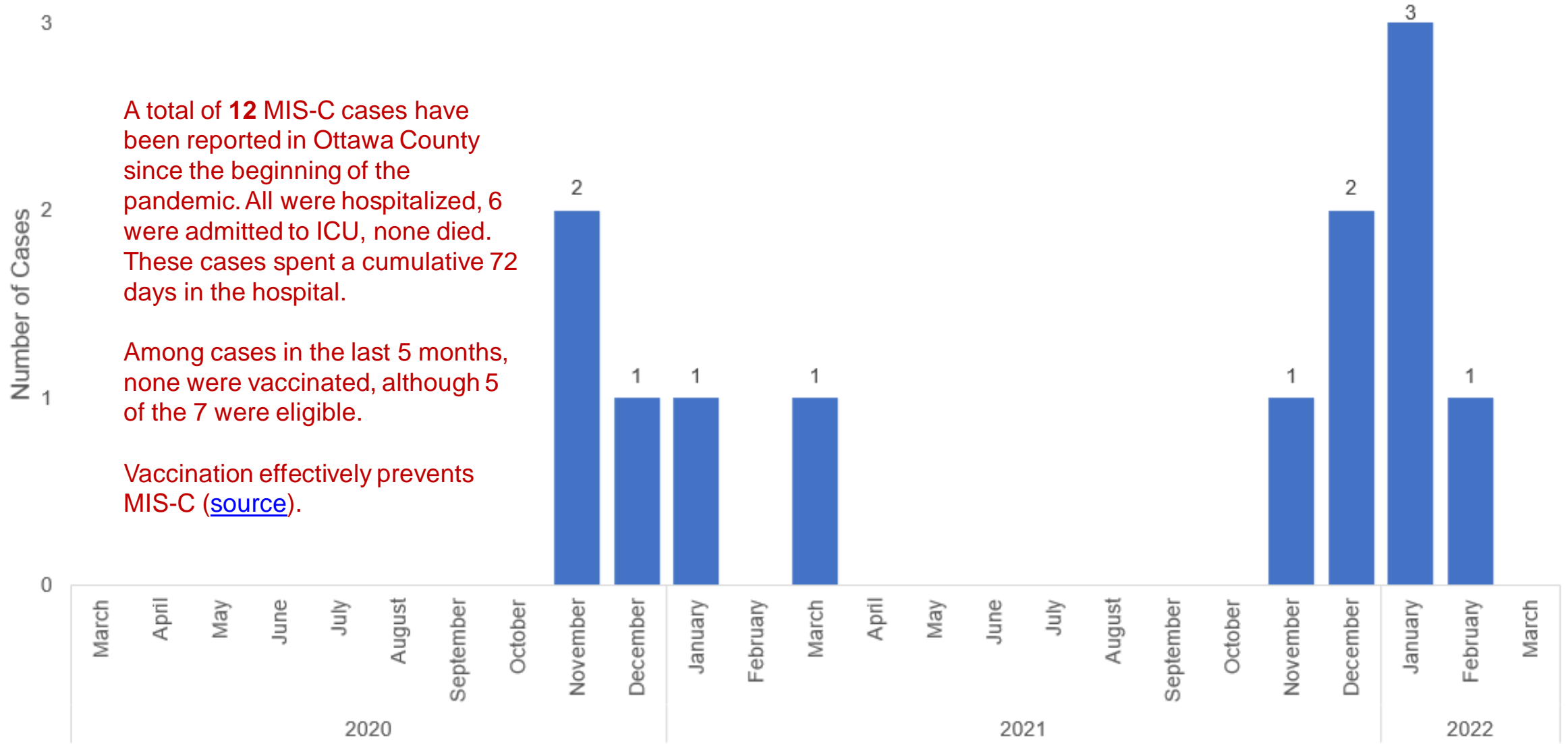
Weekly Hospital Pediatric Census – A Regional Healthcare System



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 March 13, 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 March 16, 2022

Ottawa County Hospital Capacity – All Beds

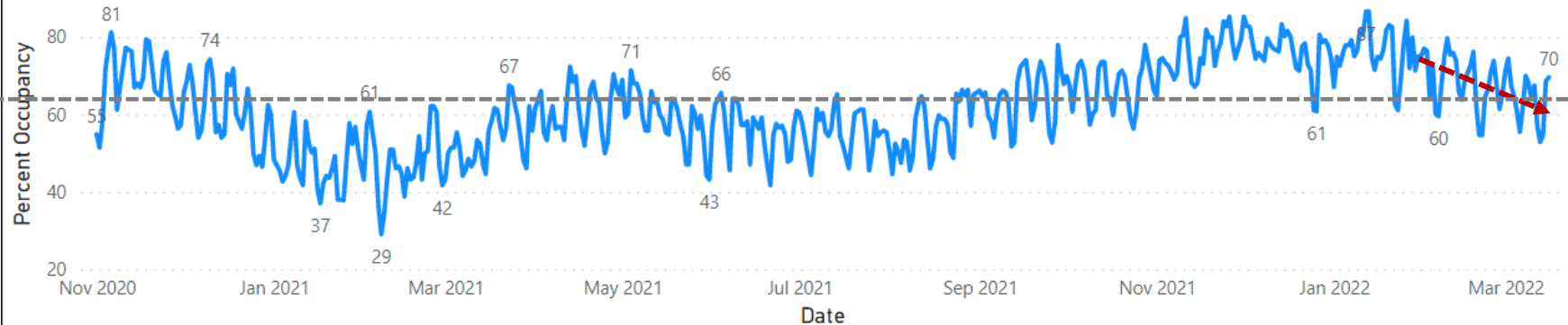
Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Pandemic Average

62%

Percent Occupancy by Date and County

County ● Ottawa



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

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

14%

Percent Occupancy by Date and County

County ● Ottawa



Currently **5%** of all inpatient beds are occupied by COVID-19 patients. The proportion of beds occupied by COVID-19 patients is in a downtrend, after peaking in early December 2021.

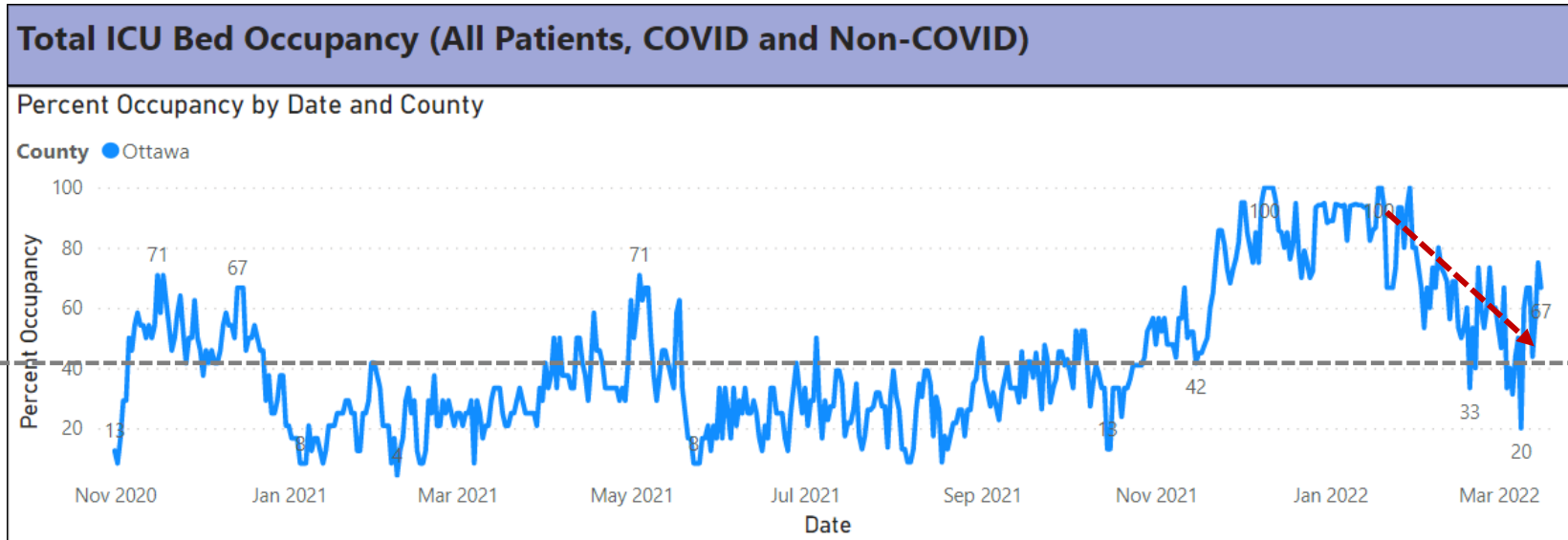
Source: EMResources

Data through March 16, 2022

Ottawa County Hospital Capacity – ICU Beds

Pandemic Average

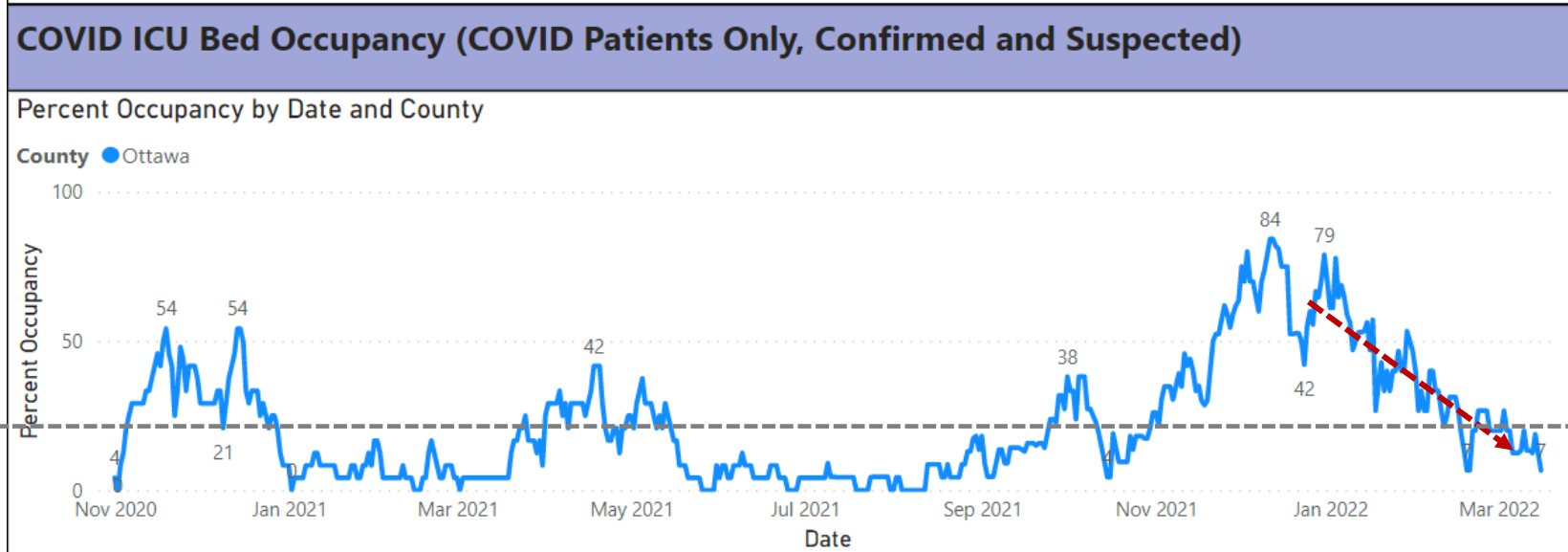
41%



Overall ICU bed occupancy is **67%**, higher than 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%

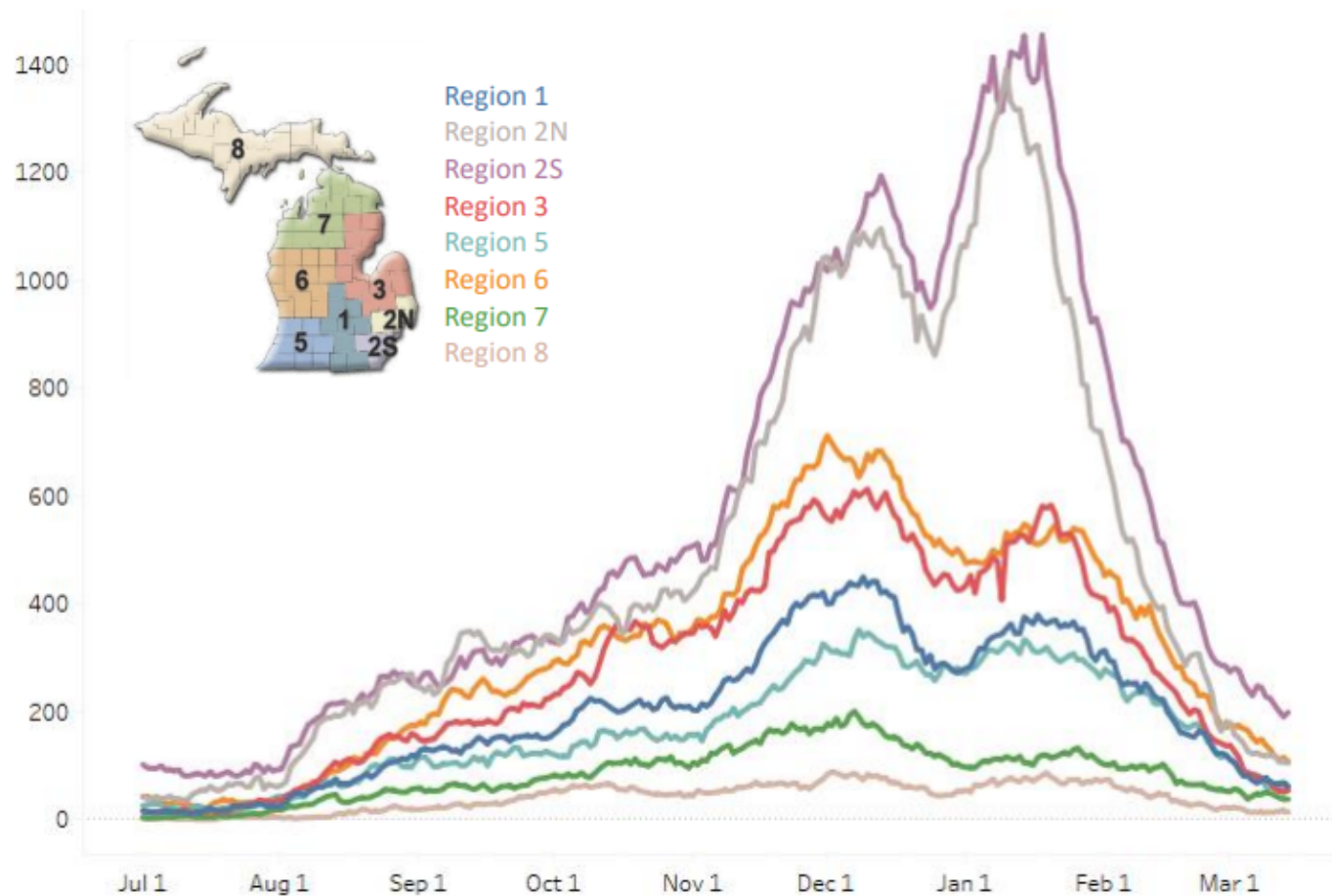


Source: EMResources

Data through March 16, 2022

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 3/14/2022
Confirmed Positive by Region



This week hospitalizations have decreased or remained flat in all regions.

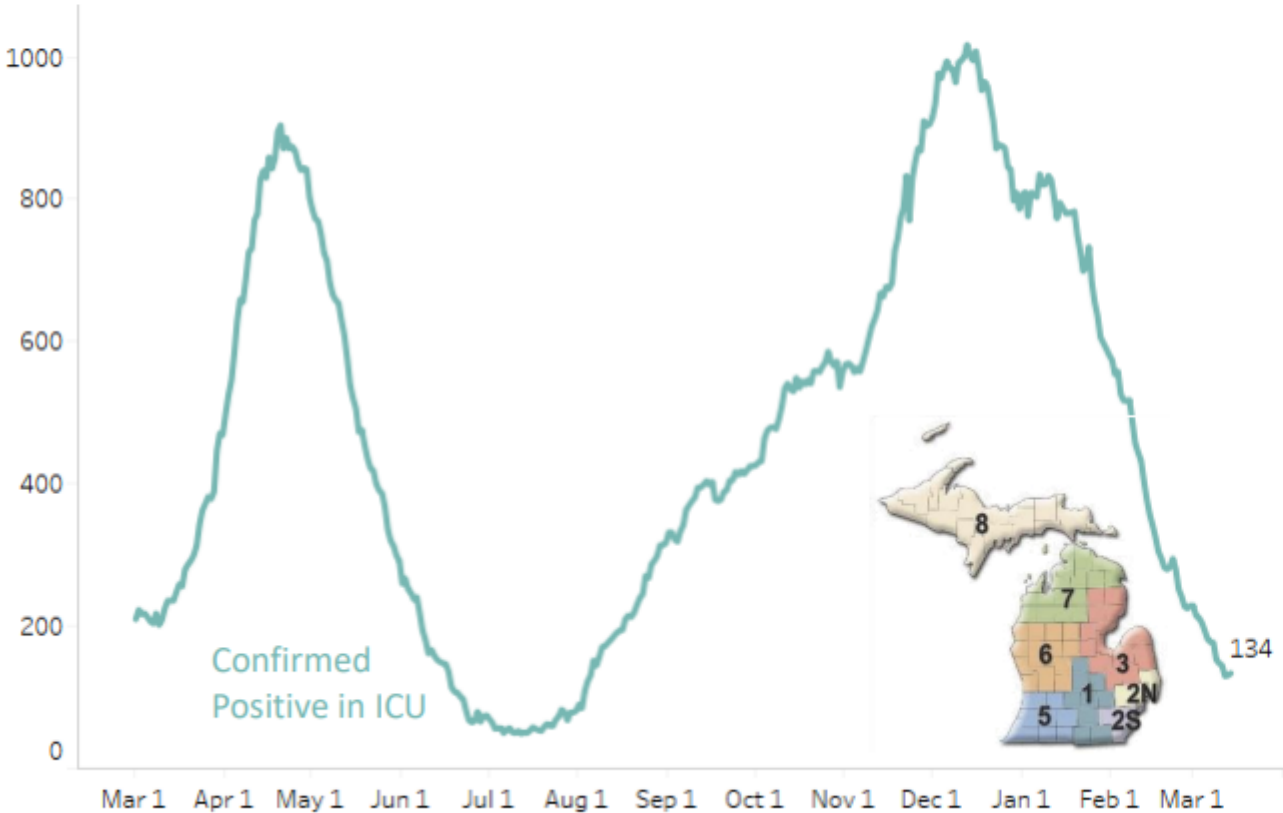
All regions have fewer than 90/Million population hospitalized with COVID.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	62 (-9%)	57/M
Region 2N	105 (-15%)	47/M
Region 2S	199 (-19%)	89/M
Region 3	54 (-34%)	48/M
Region 5	61 (-23%)	64/M
Region 6	108 (-25%)	74/M
Region 7	38 (-21%)	76/M
Region 8	14 (0%)	45/M

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220316_MI_COVID_RESPONSE_DATA_AND_MODELING_UPDATE_750015_7.pdf

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 3/14/2022
Confirmed Positive in ICUs



Overall, the volume of COVID+ patients in ICUs has decreased by 25% from last week (previous week was down by 22%). All regions show decreasing trends in ICU census except Region 8, which has increased by 2 patients overall.

All regions have 11% or fewer of ICU beds filled with COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	11 (-21%)	70%	6%
Region 2N	13 (-38%)	65%	2%
Region 2S	51 (-20%)	74%	7%
Region 3	14 (-30%)	87%	5%
Region 5	8 (-27%)	64%	5%
Region 6	20 (-33%)	71%	8%
Region 7	14 (-18%)	71%	11%
Region 8	3 (200%)	58%	5%

Source: MDHHS Data and Modelling: https://www.michigan.gov/documents/coronavirus/20220316_MI_COVID_RESPONSE_DATA_AND_MODELING_UPDATE_750015_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 **show continued improvement.**

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

Accessed March 16, 2022

Pediatric Hospitalization Rates – Select Midwest States



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

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

Accessed March 16, 2022

Pediatric Hospitalization Rates – Select Midwest States



Pediatric hospitalization rates in Minnesota, Wisconsin, and Iowa are declining.

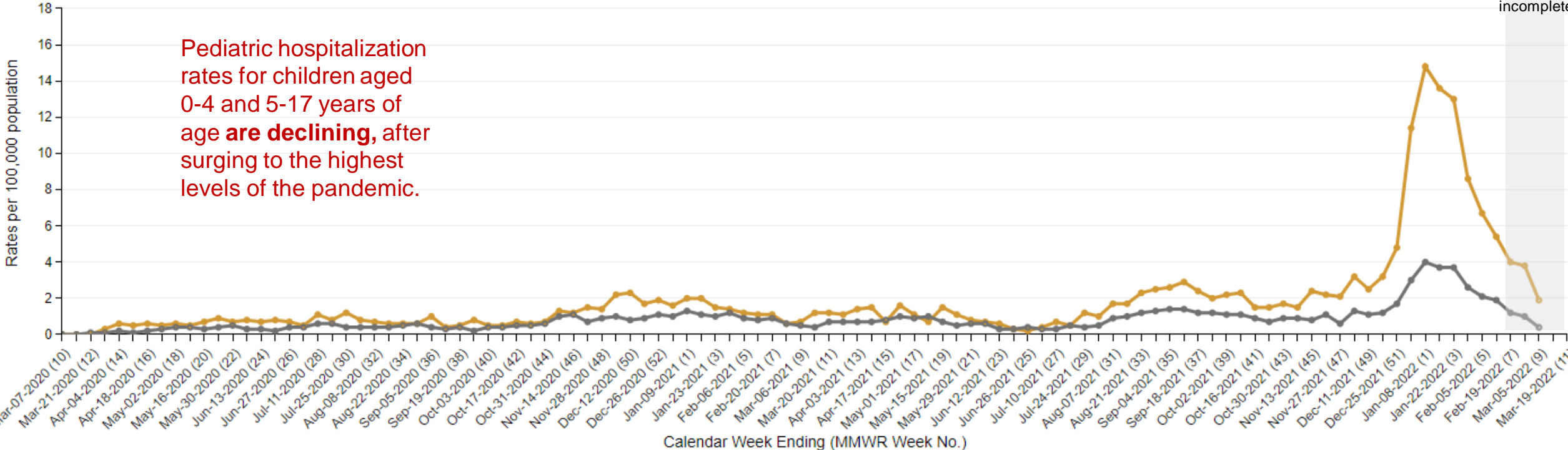
Source: <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

Accessed March 16, 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



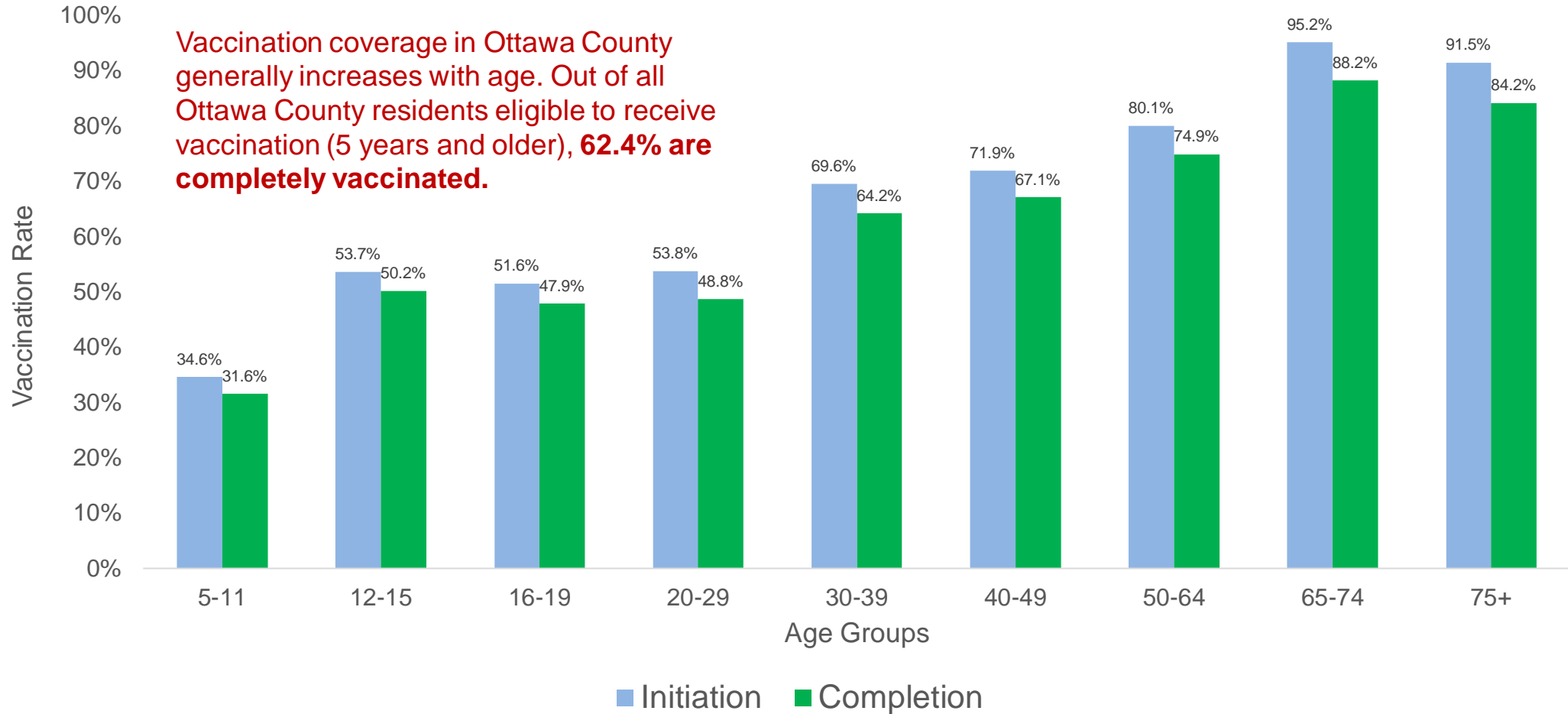
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case 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 March 17, 2022

Vaccination Coverage by Age



Notes:

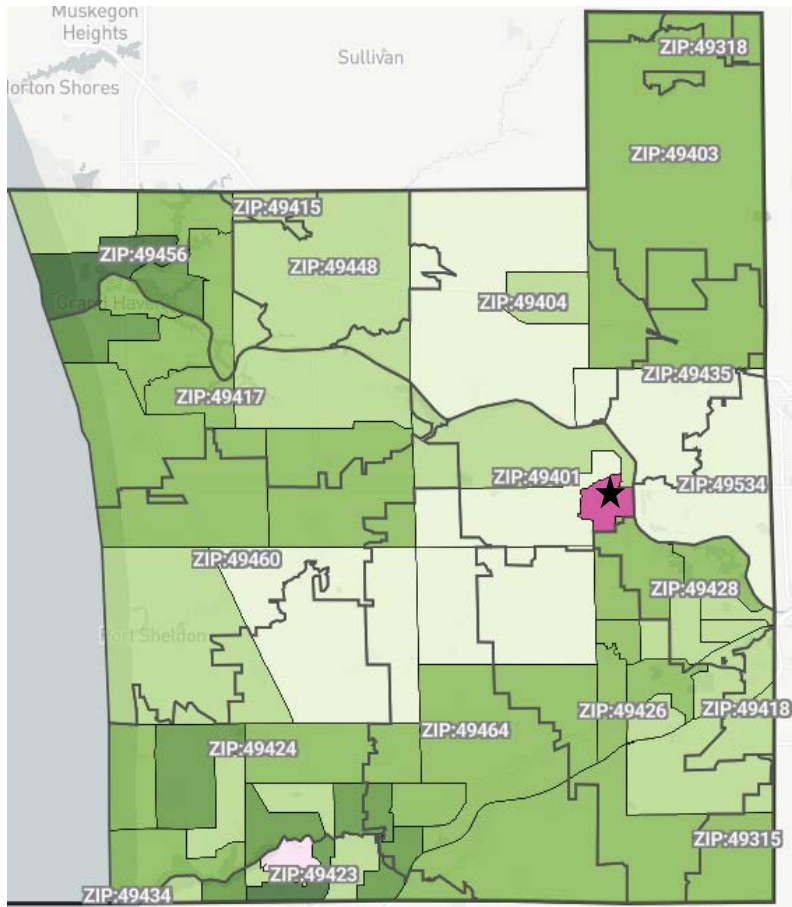
Completion is the percentage of people receiving at least 2 doses of Pfizer or Moderna or 1 dose of J&J.

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

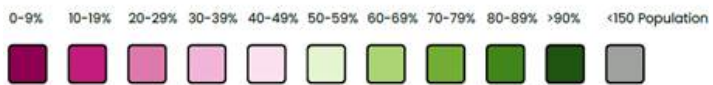
Data through March 15, 2022

Vaccination Coverage by Place of Residence

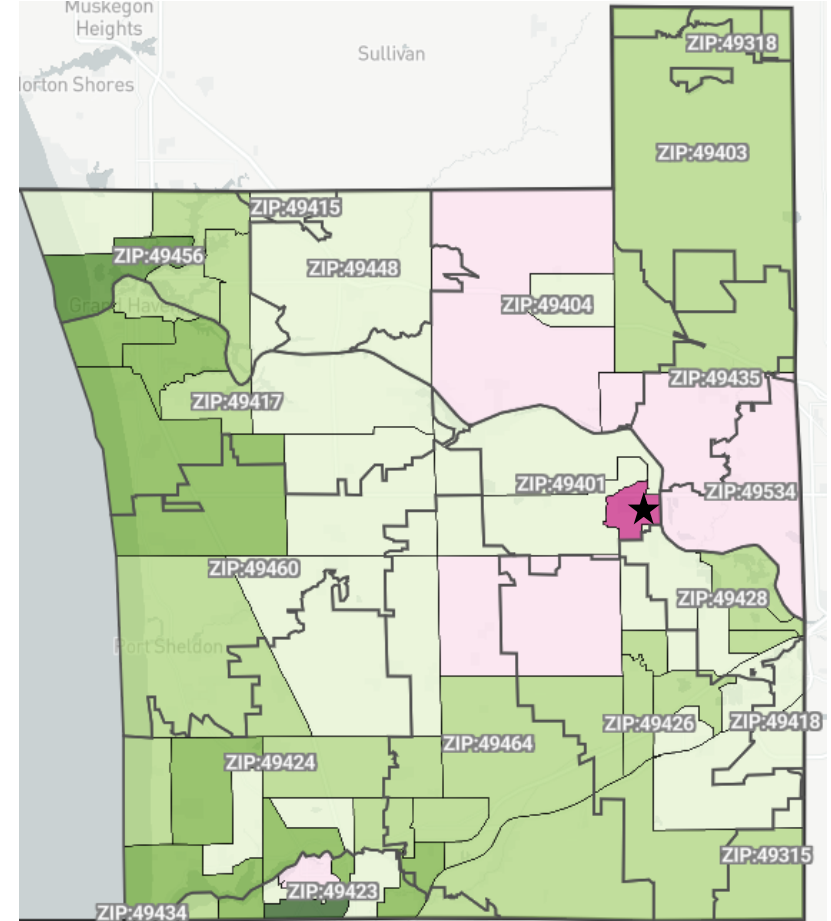
Fully vaccinated: % Ages 16+ years



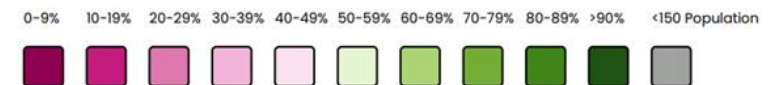
Color coded by: Fully Vaccinated (% Ages 16+)



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 – March 12, 2022

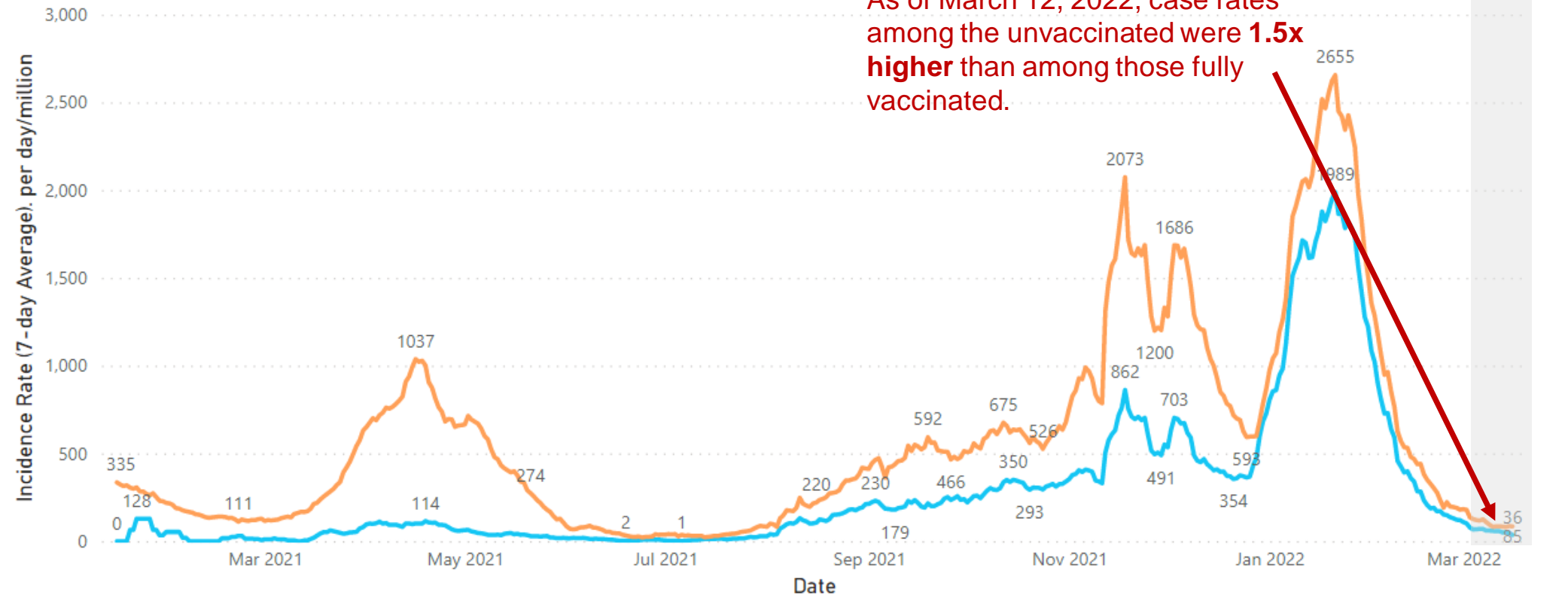
Fully Vaccinated People (171,033)	
Cases	Deaths
Percent of Cases in People Not Fully Vaccinated (35,956 / 54,230) 66.3%	Percent of Deaths in People Not Fully Vaccinated (285 / 433) 65.8%
Total Cases Not Fully Vaccinated 35,956	Total Deaths Not Fully Vaccinated 285
Total Breakthrough Cases 18,274	Total Breakthrough Deaths 148
Percent of Fully Vaccinated People who Developed COVID-19 (18,274 / 171,033) 10.7%	Percent of Fully Vaccinated People who Died of COVID-19 (148 / 171,033) 0.09%
Percent of Cases who were Fully Vaccinated (18,274 / 54,230) 33.7%	Percent of Deaths who were Fully Vaccinated (148 / 433) 34.2%
Total Cases 54,230	Total Deaths 433

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

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

Incidence Rate (7-day Average)

rategroup ● Fully Vaccinated ● Unvaccinated



As of March 12, 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 likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

Sources:

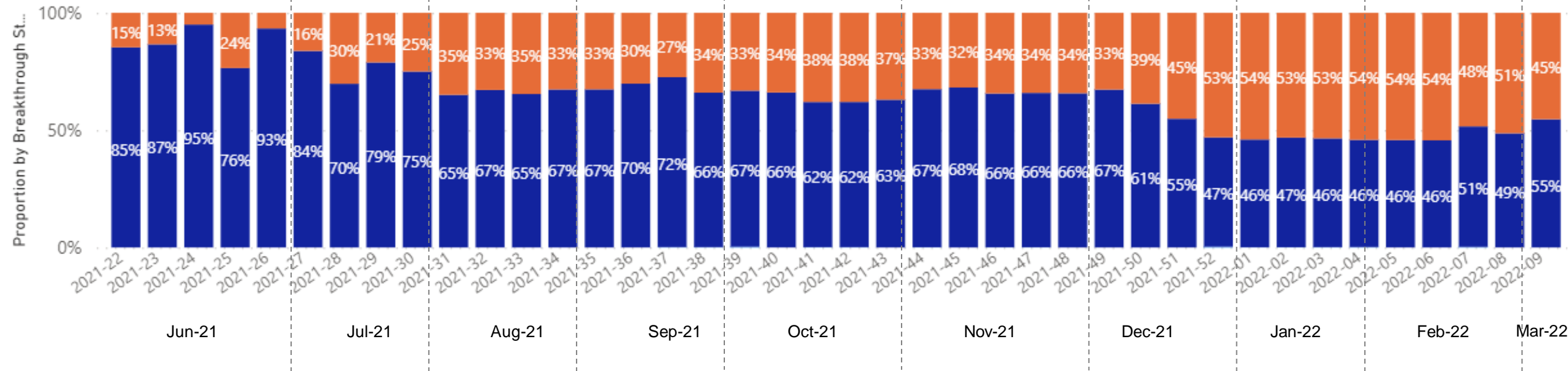
Michigan Department of Health and Human Services, Michigan Disease Surveillance System
 MDHHS COVID-19 Dashboard: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

By Week

Breakthrough Proportions by Week

Vaccine_Breakthrough ● NO ● YES



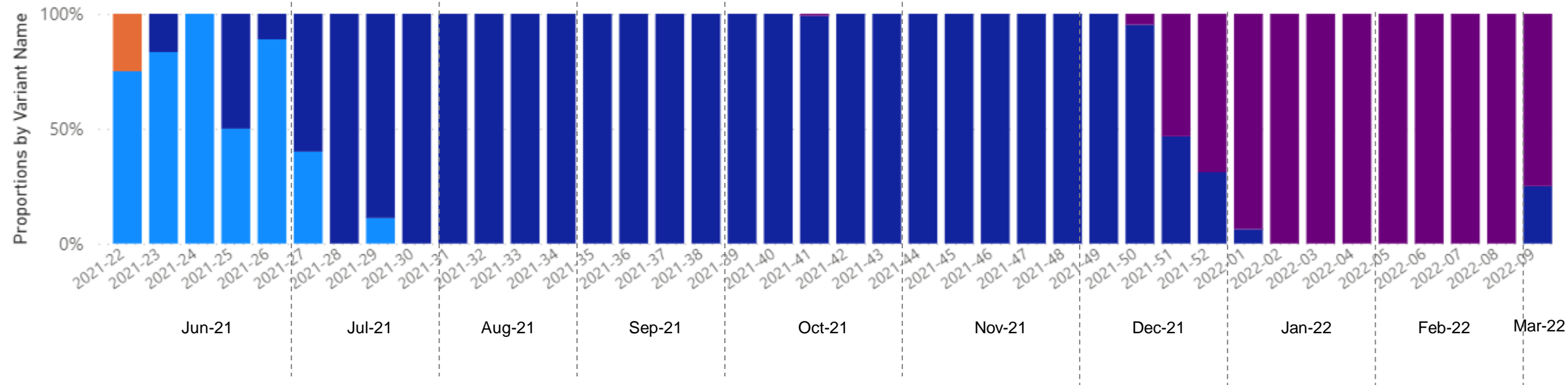
Through the Delta wave, which was most pronounced August through early December of 2021, about 34% of all cases reported to public health were breakthrough cases. At the end of 2021 and into 2022, the proportion of vaccine breakthrough cases increased to roughly 52% of cases reported each week. Weekly breakthrough rates observed in Ottawa County are similar to [other geographies reporting this same data](#).

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

Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name ● Alpha ● Delta ● Gamma ● Omicron



In June of 2021, most clinical samples* submitted for variant testing came back as the **Alpha** variant. By the end of July 2021, all clinical samples tested were returned as the **Delta** variant. From late July through early December 2021 all clinical samples submitted for variant testing came back positive for the **Delta** variant. In mid-December 2021, the first **Omicron** positive samples were collected in an Ottawa County resident, and **Omicron** continues to be detected into 2022.

* 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 March 12, 2022.

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

Variants – Wastewater Sampling – Holland/Zeeland

Sample Date	Site	Delta	Omicron
01/09/2022	North Holland	N	N
01/10/2022	Zeeland	N	Y
01/12/2022	North Holland	N	Y
01/13/2022	Zeeland	N	Y
01/16/2022	North Holland	N	Y
01/16/2022	North Holland	N	Y
01/17/2022	Zeeland	N	Y
01/23/2022	North Holland	N	Y
01/30/2022	North Holland	N	Y
01/31/2022	Zeeland	N	Y
02/06/2022	North Holland	N	Y
02/07/2022	Zeeland	N	N
02/13/2022	North Holland	N	Y
02/14/2022	Zeeland	N	Y
02/16/2022	North Holland	N	Y
02/17/2022	Zeeland	N	Y
2/20/2022	North Holland	N	Y
2/21/2022	Zeeland	N	Y
02/23/2022	North Holland	N	Y
02/24/2022	Zeeland	N	N
02/27/2022	North Holland	N	N
02/28/2022	Zeeland	N	N
03/02/2022	North Holland	N	N
03/03/2022	Zeeland	N	N
03/10/2022	Zeeland	N	N
03/13/2022	North Holland	N	N
03/14/2022	Zeeland	N	N

Y = Detected
N = Not Detected

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

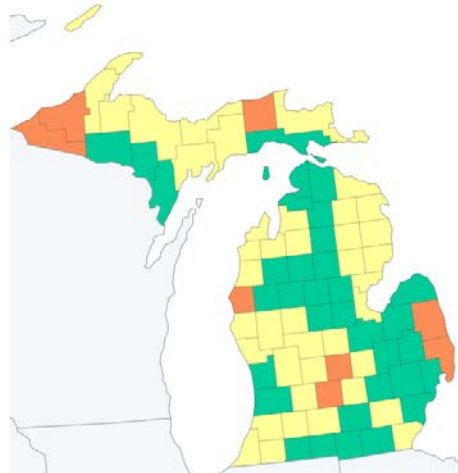
The **Omicron** variant has been consistently detected in wastewater in Holland and Zeeland since early January 2022, with very little detection over the last two weeks – corresponding to reduced case rates and test positivity.

Although **Omicron** was detected in Holland at other sampling sites in early March 2022, no detections were reported into mid-March (additional data not displayed here).

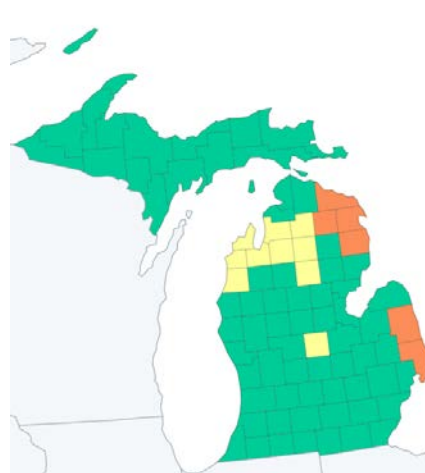
(NEW) CDC Community Risk Levels – Ottawa County

- Current Risk Level in Ottawa – **LOW**
- Current Data:
 - Case Rate (per 100k pop 7-day total) = **47.29**
 - COVID-19 Hospital Admissions (per 100K pop 7-day total) = **1.7**
 - COVID Inpatient Hospital Bed Utilization (7-day average) = **5.5%**

2 Weeks Ago

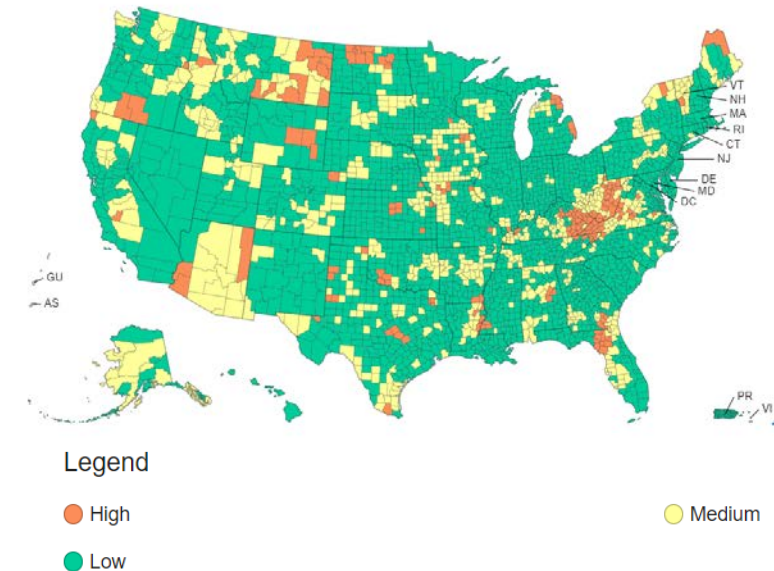


Last Week



This Week

USA - This Week



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

Data updated by CDC
on March 10, 2022

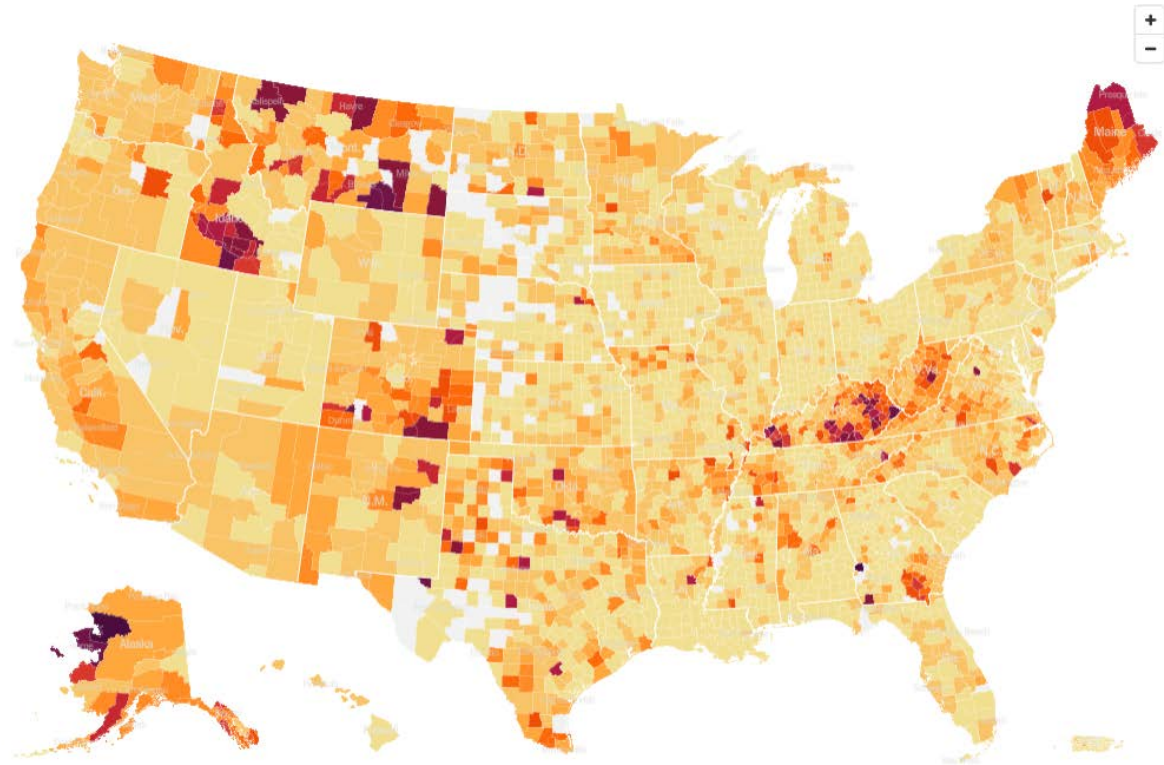
COVID-19 Case Rates by County Across the US

Last Week

Hot spots

AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 FEW OR NO CASES

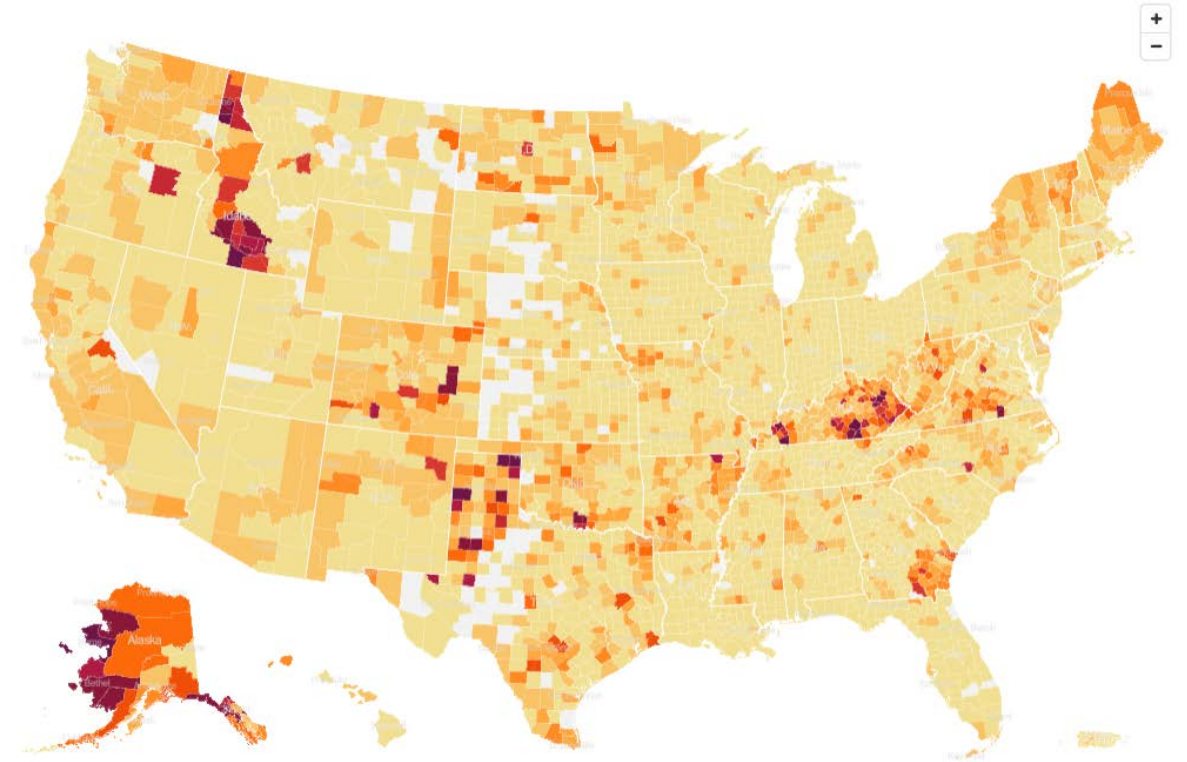


This Week

Hot spots

AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 FEW OR NO CASES



Case rates continue to improve across most of the nation.

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

Accessed March 17, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

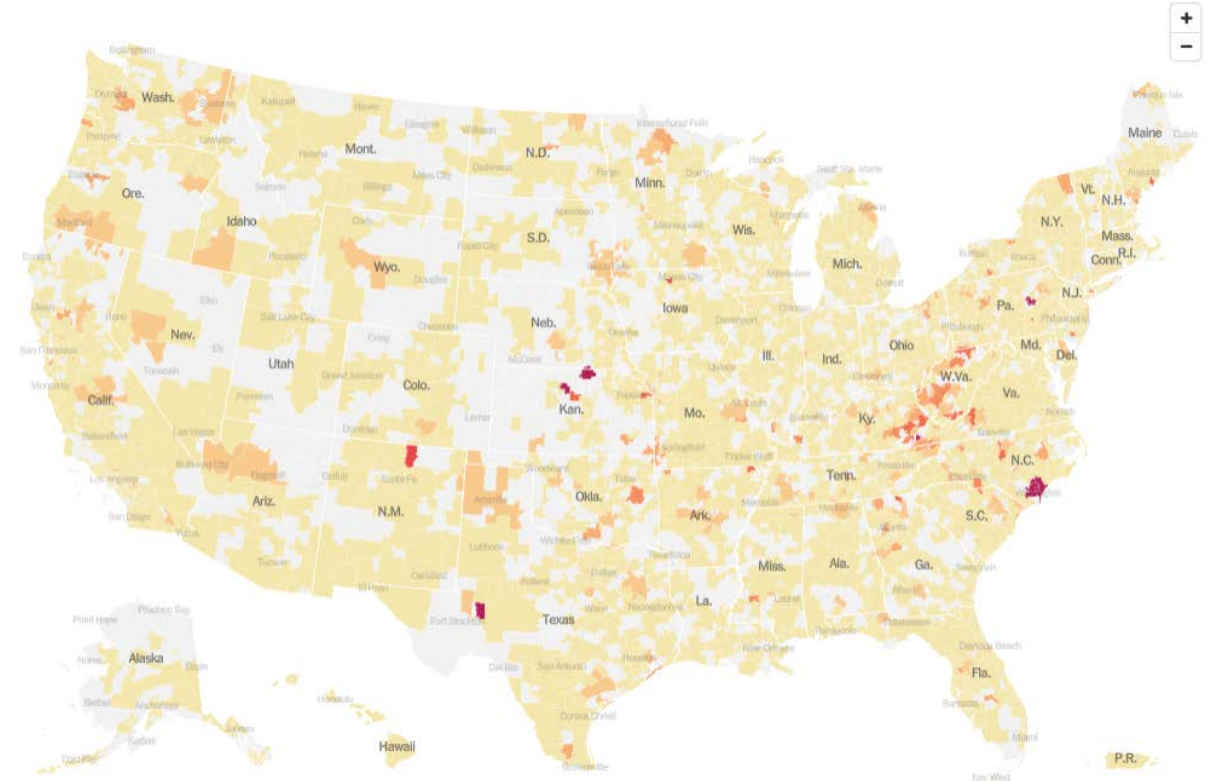
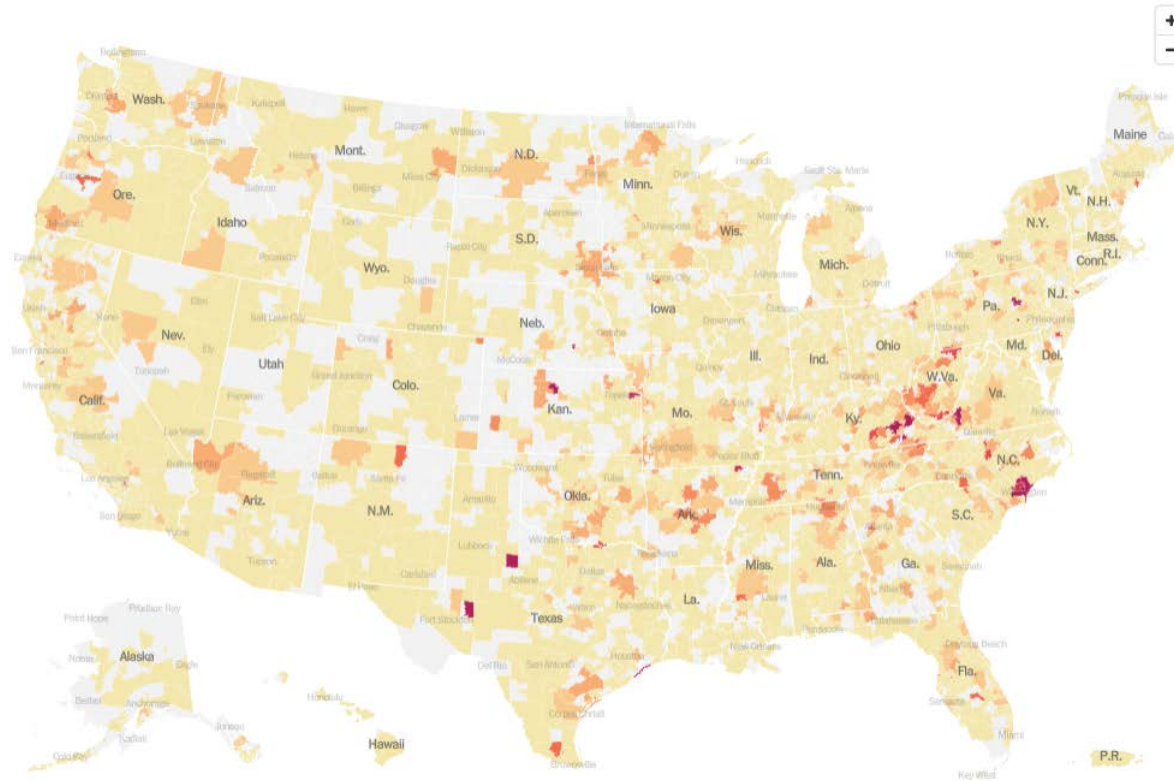
COVID-19 Hospitalization Rates by County Across the US

Last Week

This Week

Current hospitalizations

Current hospitalizations



Hospitalization rates continue to improve across the nation.

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

Accessed March 17, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

Status of School Mask Rules

Place	Status	Tentative Rescind Date
State		
California	Rescinded	-
Connecticut	Rescinded	-
Delaware	Rescinded	-
Hawaii	In place	March 25, 2022
Illinois	Rescinded	-
Maryland	Rescinded	-
Massachusetts	Rescinded	-
New Mexico	Rescinded	-
New Jersey	Rescinded	-
New York	Rescinded	-
Nevada	Rescinded	-
Oregon	Rescinded	-
Rhode Island	Rescinded	-
Washington	Rescinded	-
Washington D.C.	Rescinded	-
Michigan County		
No Counties with Mask Rules in Place		
Ottawa School District		
No School Districts with Mask Rules in Place		

Note: List may not be comprehensive or up-to-date.

As of March 17, 2022

COVID-19 News Headlines

Omicron surge waning as world marks 2 years of COVID

<https://www.wzzm13.com/article/news/nation-world/2-year-covid-anniversary/507-bcd3ea2e-e3bb-4ad0-a8fc-be86ed223787>

Public health shifting COVID-19 response to surveillance in current post-surge phase

<https://www.hollandsentinel.com/story/news/coronavirus/2022/03/10/ottawa-county-public-health-shifting-covid-19-focus-surveillance/9437562002/>

Science Roundup

Hospitalization of Infants and Children Aged 0–4 Years with Laboratory-Confirmed COVID-19 — COVID-NET, 14 States, March 2020–February 2022

<https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7111e2-H.pdf>

← Weekly COVID-19–associated hospitalization rates among U.S. infants and children aged 0–4 years have declined since the peak of January 8, 2022; peak rates during Omicron were approximately 5x those of the peak during Delta.

Effectiveness of 2-Dose BNT162b2 (Pfizer BioNTech) mRNA Vaccine in Preventing SARS-CoV-2 Infection Among Children Aged 5–11 Years and Adolescents Aged 12–15 Years — PROTECT Cohort, July 2021–February 2022

<https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7111e1-H.pdf>

← A CDC-published prospective cohort study found that two doses of Pfizer-BioNTech COVID-19 vaccine reduced the risk of Omicron infection among children aged 5-11 years and among persons aged 12-15 years.

Acute COVID-19 severity and mental health morbidity trajectories in patient populations of six nations: an observational study

<https://www.thelancet.com/action/showPdf?pii=S2468-2667%2822%2900042-1>

← A recent observational study found that acute COVID-19 illness severity was associated with mental morbidities up to 16 months after diagnosis.

Asthma and the Risk of SARS-CoV-2 Infection Among Children and Adolescents

<https://publications.aap.org/pediatrics/article/doi/10.1542/peds.2021-056164/185387/Asthma-and-the-Risk-of-SARS-CoV-2-Infection-Among>

← A study in North Carolina found that children with asthma have a similar SARS-CoV-2 infection risk as children without asthma.