

Ottawa County COVID-19 Epidemiology

August 18, 2022

Data as of August 13, 2022, unless otherwise indicated.

Executive Summary

- **Transmission in the US and in Michigan may be increasing**
- **Ottawa County transmission signals are mixed**
 - Last week positivity **decreased** to 23.1%, from 24.1% two weeks ago.
 - Weekly case counts **increased** 20% (-18% two weeks ago), from 375 two weeks ago to 449 last week.
 - Cases among children **decreased** 24% (+2% two weeks ago), from 46 two weeks ago to 35 last week.
 - COVID-19 wastewater signals in Ottawa County are **increasing** in Holland/Zeeland and Grand Haven/Spring Lake. Wastewater signals are **mixed** in Allendale.
 - Based on national data and local clinical variant sampling, the Omicron subvariant BA.5 likely predominates.
 - Ottawa's CDC Community Level is LOW.
- **Ottawa-area and regional hospitals have adequate capacity**
 - In Ottawa County, 3% of all available beds and 0% of all ICU beds are occupied by COVID-19 patients.*
- **Pediatric hospitalization rates in the US are increasing, but are relatively low and stable in Michigan**
 - Regional pediatric hospitalization census remains low but may be increasing slightly.
- **Of Ottawa County residents aged 6 months and older, 60% are fully vaccinated.**

*Some hospitals in Ottawa County immediately transfer acutely ill adults or children to regional hospitals that offer a higher level of care. This practice may reduce the proportion of beds occupied by COVID-19 patients in Ottawa and increase bed occupancy in urban centers with large hospitals, such as Kent County.

Limitations

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

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

- **Wastewater Surveillance**

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

Ottawa County Metrics by Week

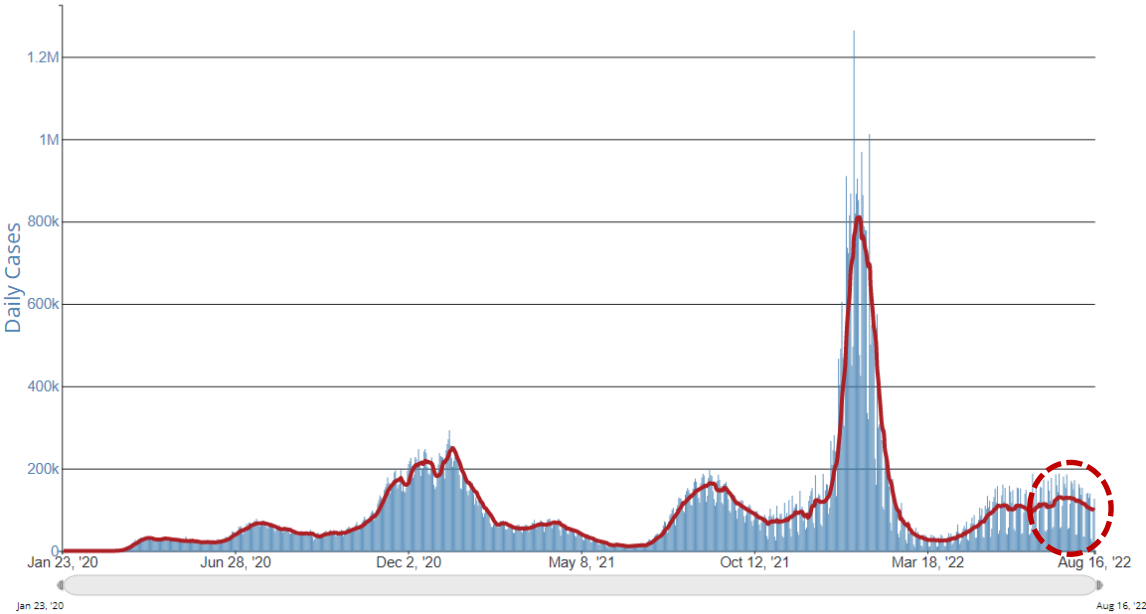
Metric	Goal	Week Ending				
		16-Jul-22	23-Jul-22	30-Jul-22	6-Aug-22	13-Aug-22
Positivity (All Ages)	NA	23.7%	26.0%	23.3%	24.1%	23.1%
Weekly Cases (All Ages)	<592	392	492	458	375	449
Weekly Cases in Children (0-17 years of age)	NA	38	62	45	46	35
Total Deaths (All Ages)	0	3	0	2	4	1
CDC COVID-19 Community 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

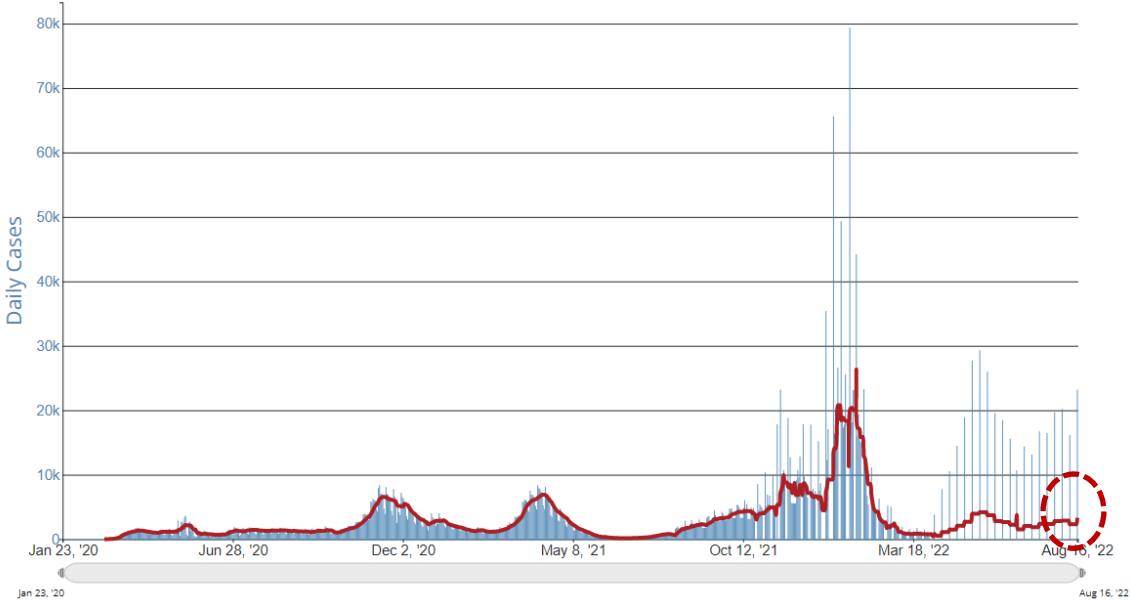
USA

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 lower than previous surges but may be increasing.

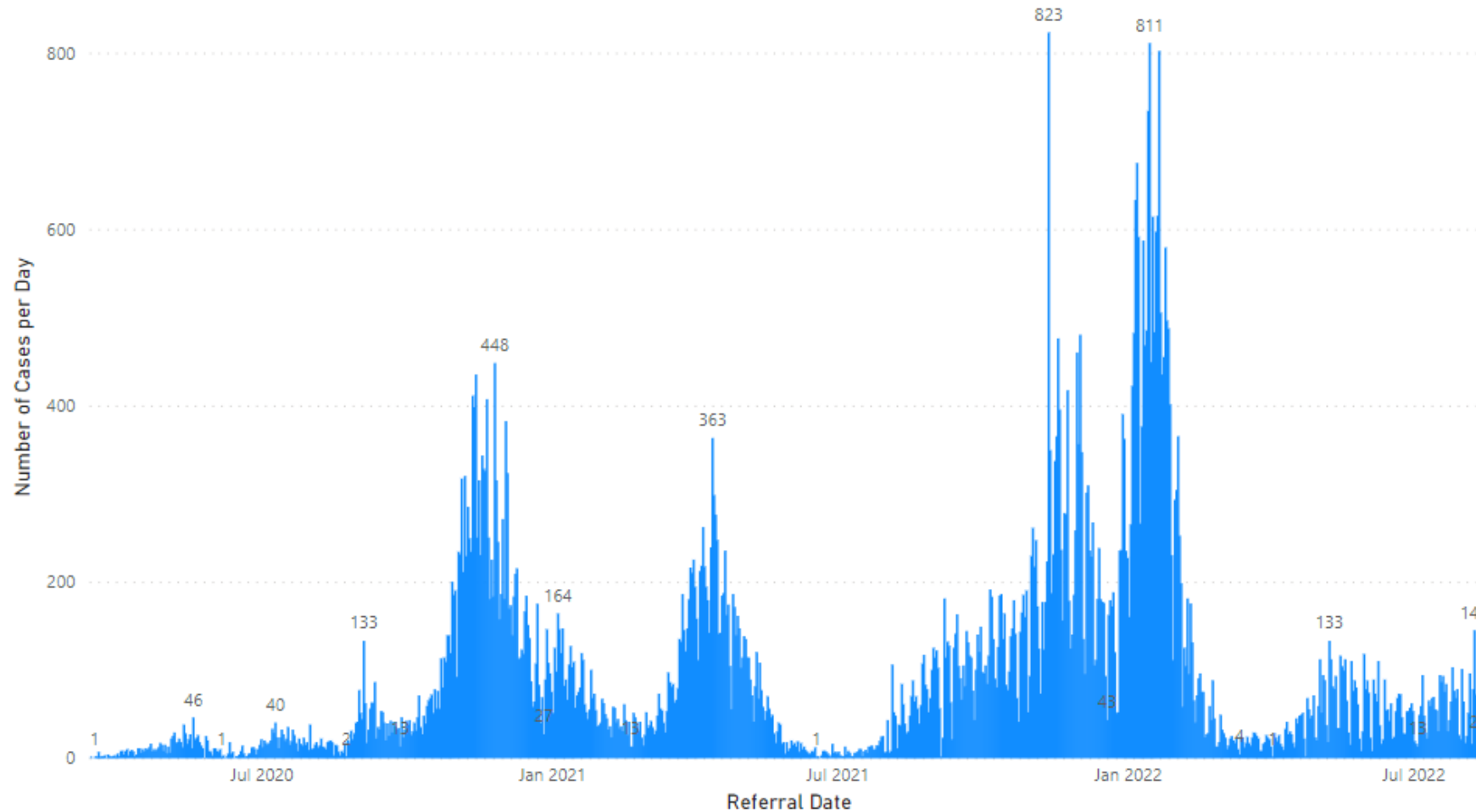
Note: Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in an artificially lower number of cases.
Source: https://covid.cdc.gov/covid-data-tracker/#trends_dailycases

Data through Aug 16, 2022

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – August 17, 2022

Epidemiological Curve



Total Number of Cases
82,077

Currently, the 7-day average is **46 cases per day**, a **decrease** from the approximately **50 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

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

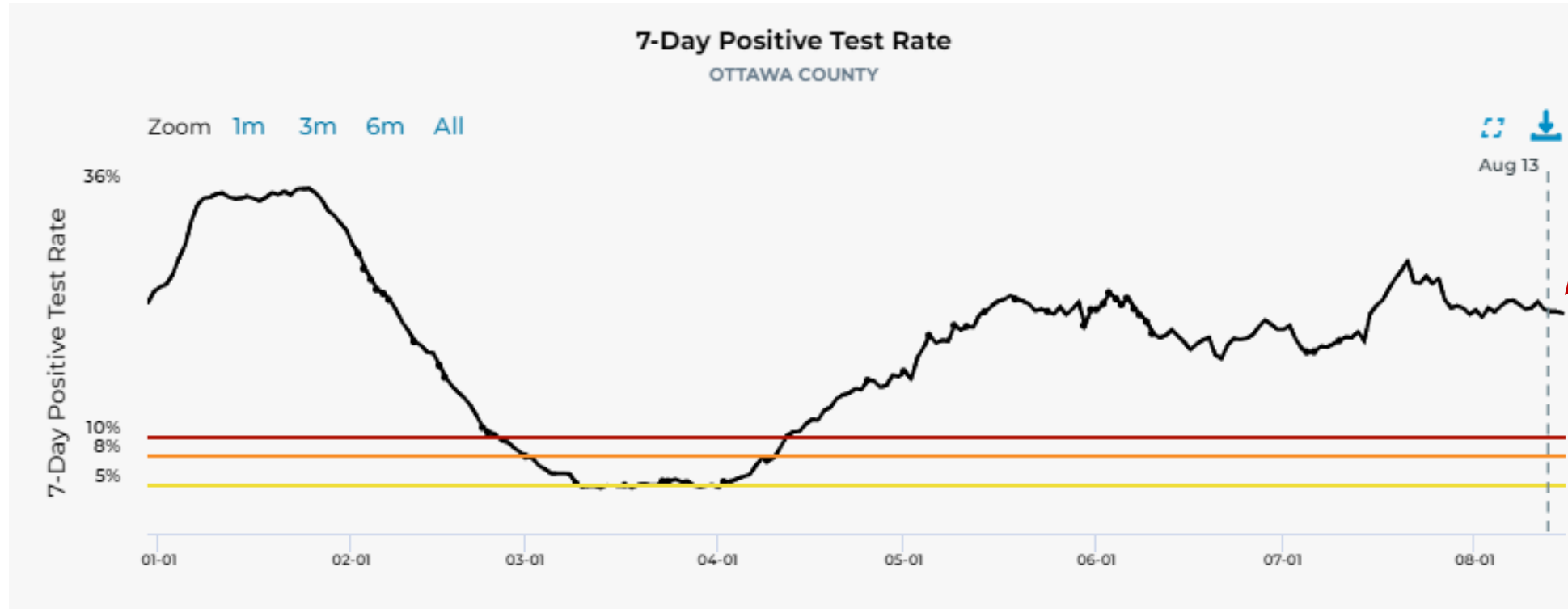
Other

Media

Science Roundup

Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, January 1, 2022 – August 13, 2022



Positivity trended slightly lower at **23.1%** last week compared to the **24.1%** the week prior.



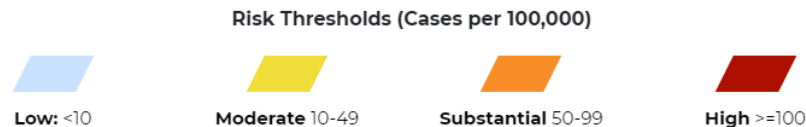
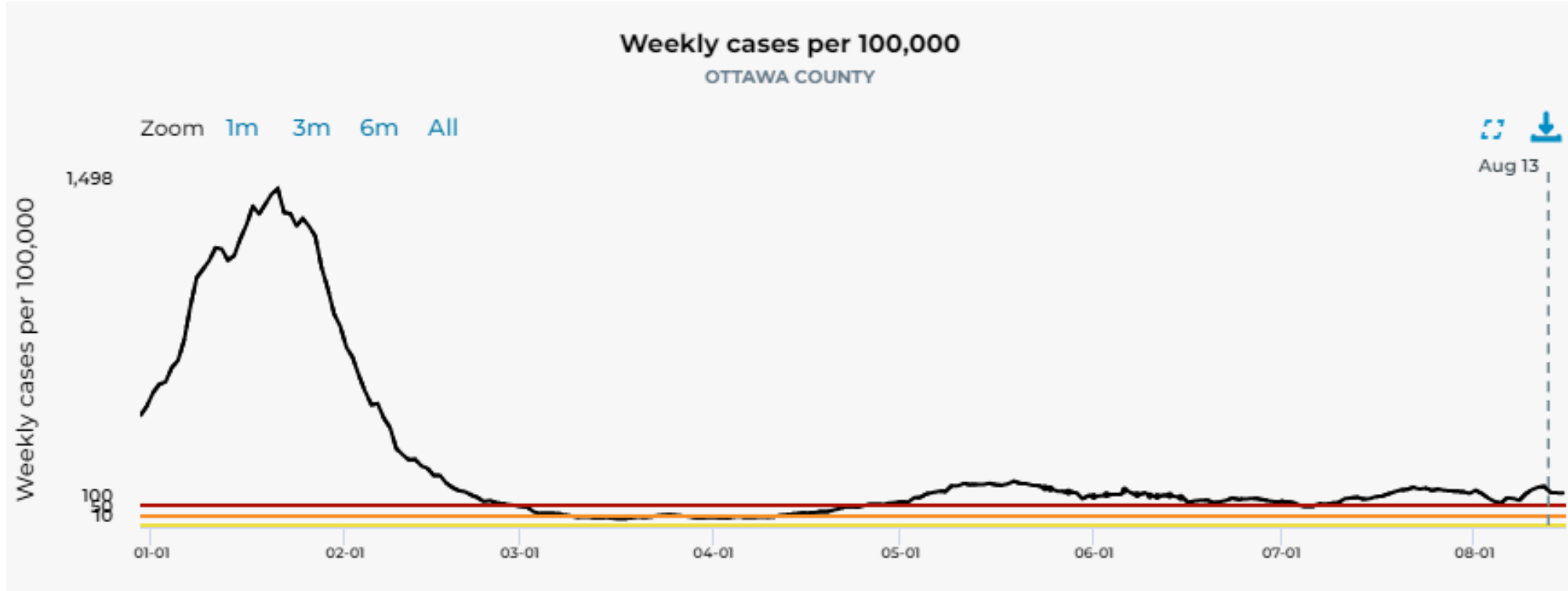
This visualization may change as CDC Community Transmission levels, metrics and/or metric thresholds/goals change.

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

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

Case Rates in Ottawa County – All Ages

COVID-19 Cases by Day, Ottawa County, January 1, 2022 – August 13, 2022



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 Time Trends – Annual Comparison of Case Rates



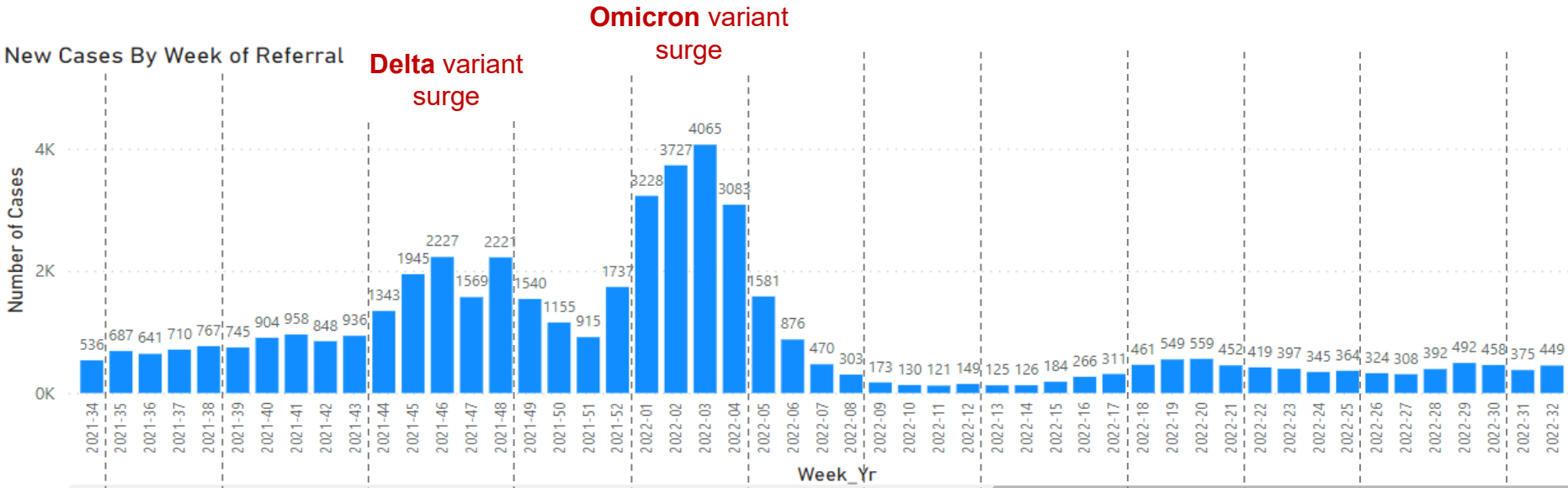
Case rates are **currently lower** than this same time last year, but rates have been higher than last year for the past three months.

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.

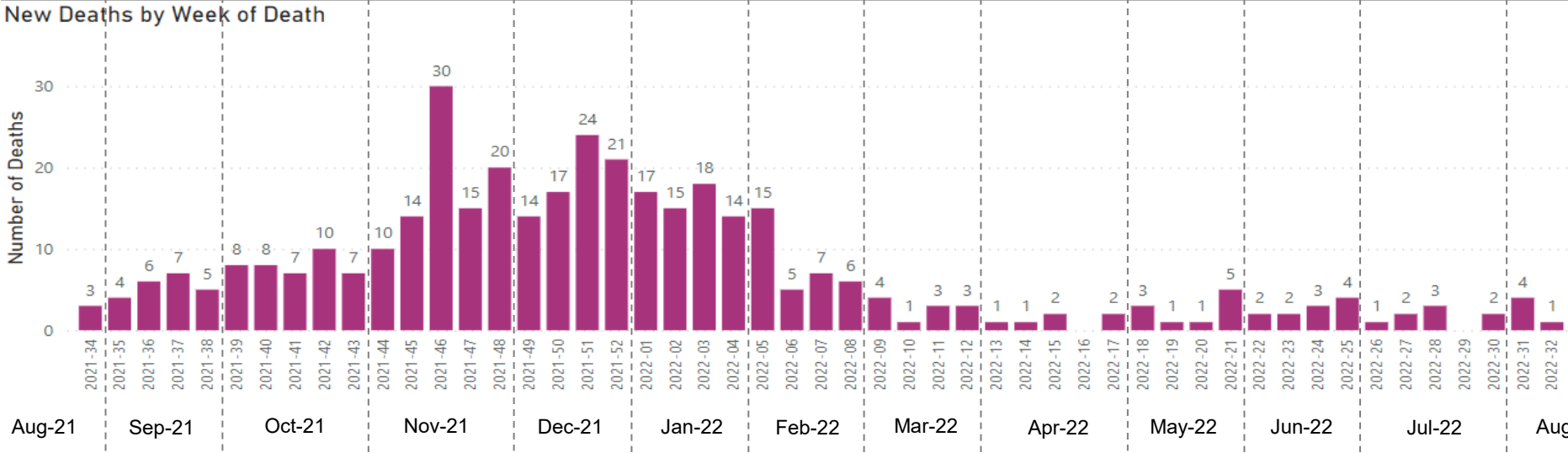
Source: Internal Data

Data through Aug 17, 2022

Ottawa County – Cases & Deaths by Week, All Ages



The weekly number of cases increased 20% from week 31 to week 32.



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

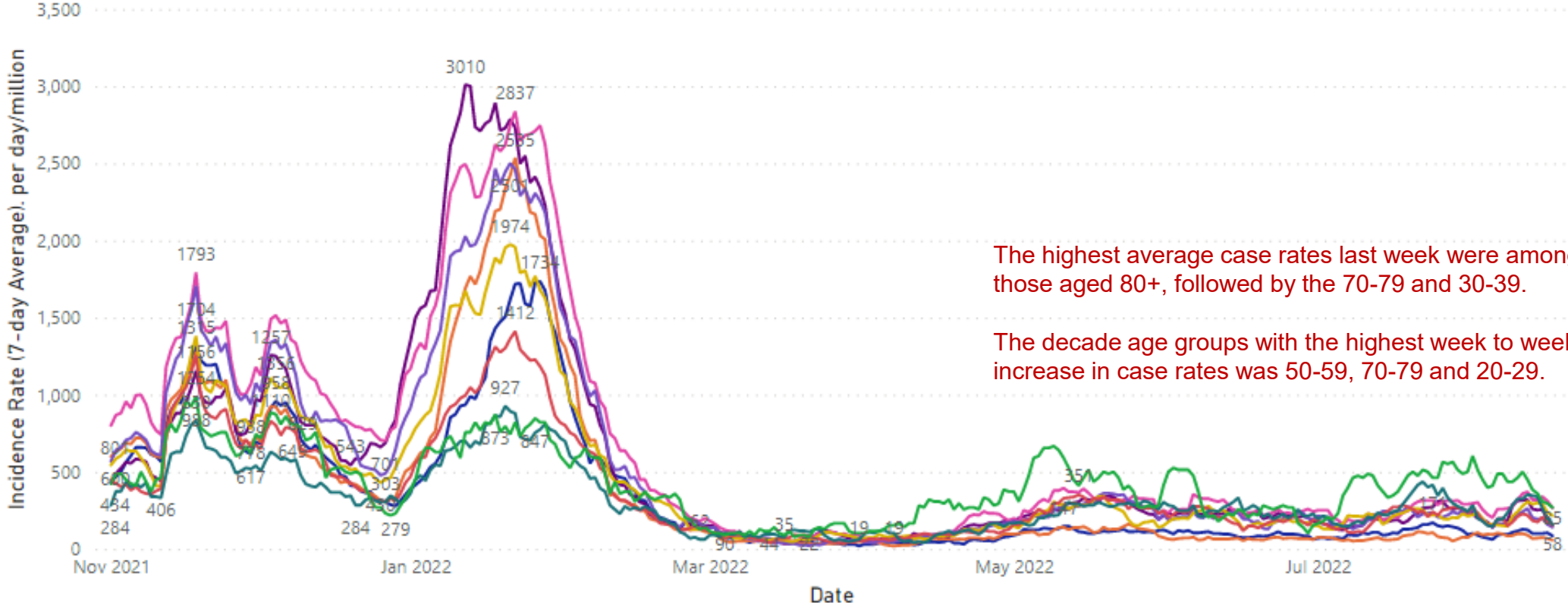
Note: Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in artificially lower number of cases.
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County Case Rate Trends by Age Decade

COVID-19 Case Rates by Age, November 2021 – August 17, 2022

Incidence Rate (7-day Average)

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



The highest average case rates last week were among those aged 80+, followed by the 70-79 and 30-39.

The decade age groups with the highest week to week increase in case rates was 50-59, 70-79 and 20-29.

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 Aug 17, 2022

Ottawa County Case Rate Trends by Age Decade

Daily new confirmed and probable cases per day per million by age group (daily average per week)
Week 32 (August 7, 2022 – August 13, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	3.7	100.7	13%
10-19	2.9	64.6	-37%
20-29	11.7	258.9	32%
30-39	11.4	318.9	25%
40-49	6.7	202.2	20%
50-59	10.1	290.7	87%
60-69	6.0	184.1	-5%
70-79	7.1	345.8	79%
80+	4.1	371.9	-24%

Age groups with highest average case rates last week:

- 80+
- 70-79
- 30-39

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

- 50-59
- 70-79
- 20-29

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.

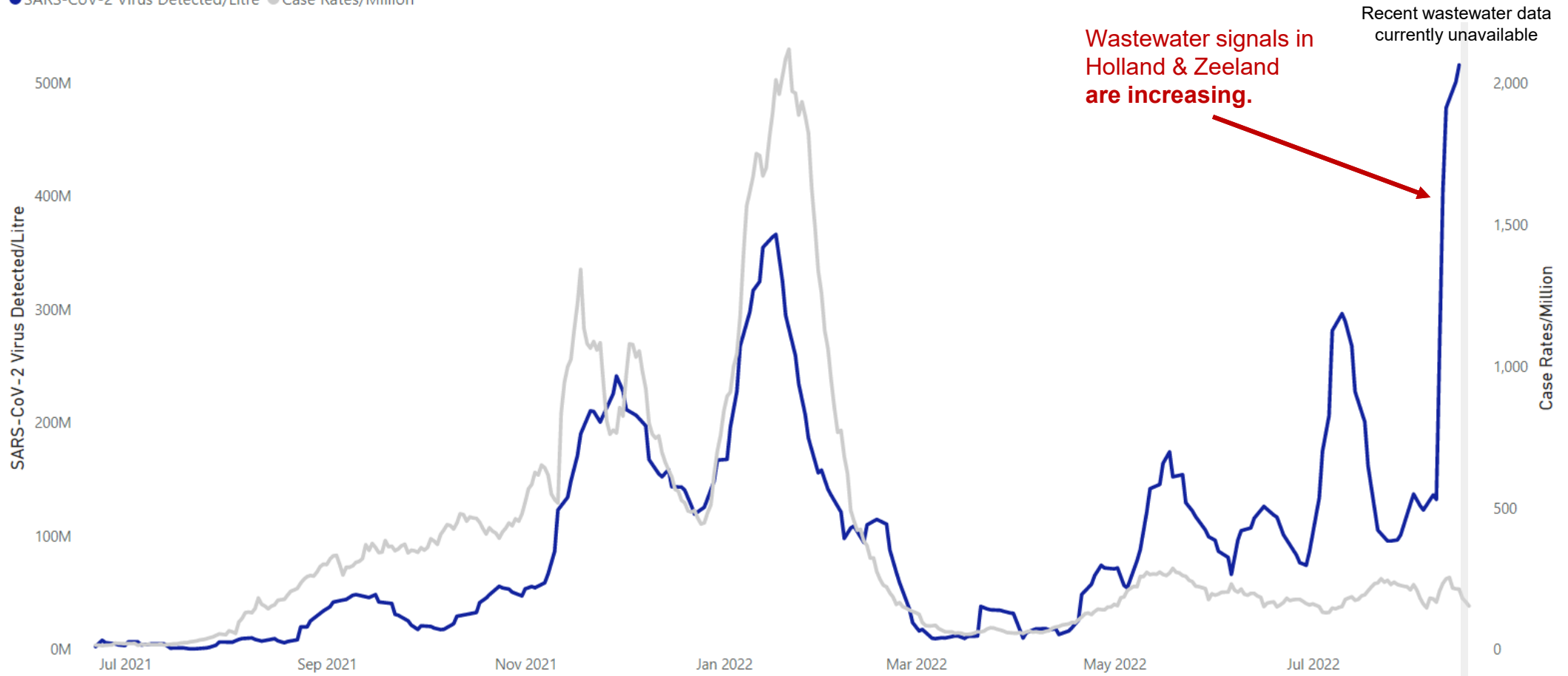
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System; CDC Wonder 2020 population

Data as August 17, 2022

Holland-Zeeland Wastewater Surveillance

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

● 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 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 August 15, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

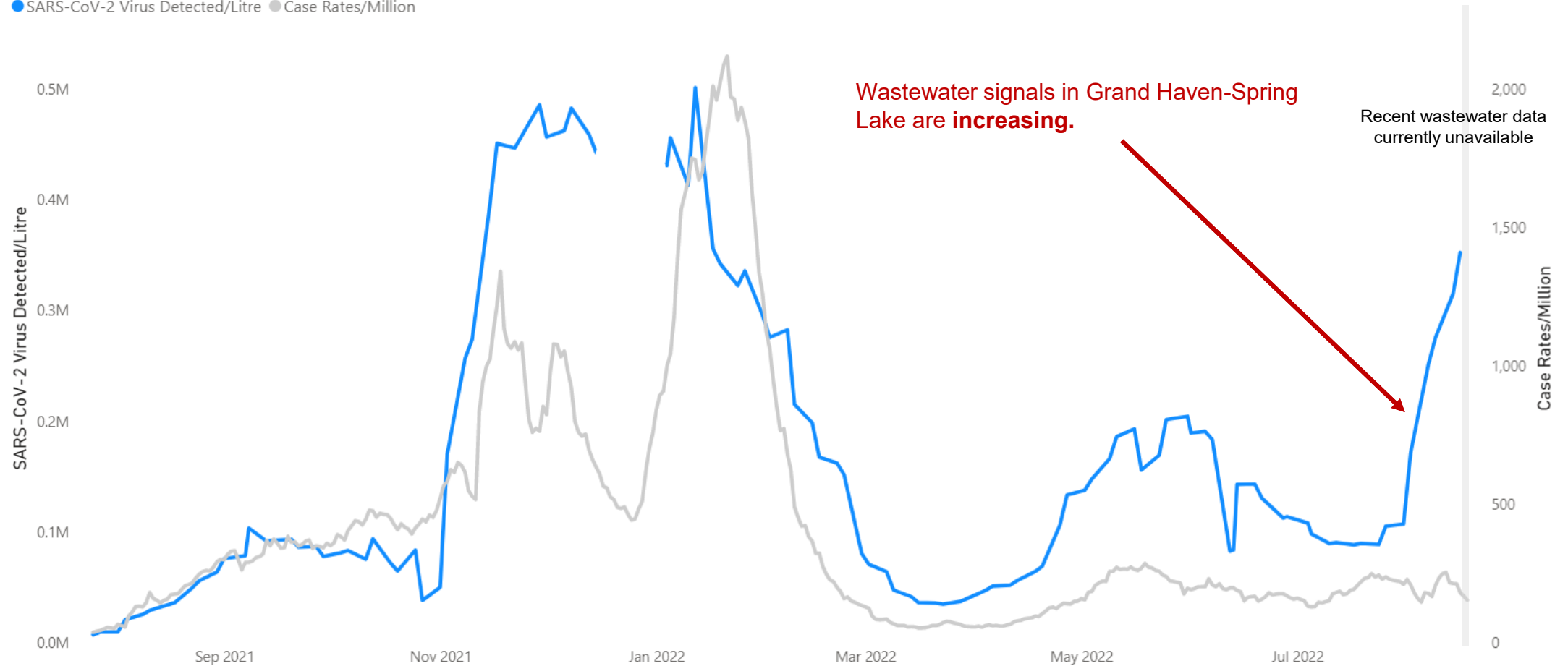
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Grand Haven-Spring Lake Wastewater Surveillance

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 \(SWEEP\) \(michigan.gov\)](https://michigan.gov)

Data through August 16, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

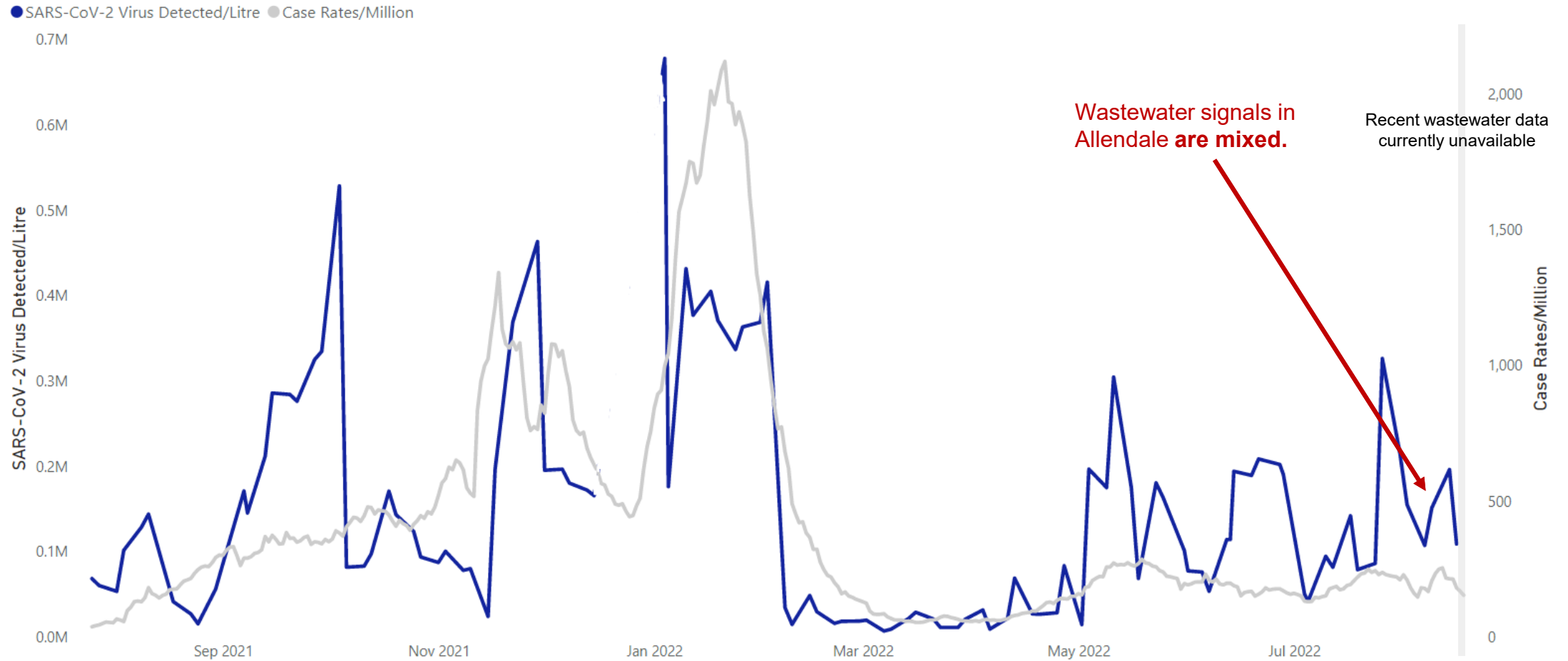
Other

Media

Science
Roundup

Allendale Wastewater Surveillance

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



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

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

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

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 August 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-Jun-22	379	-5%	40	-27%	419	-7%
11-Jun-22	357	-6%	40	0%	397	-5%
18-Jun-22	314	-12%	31	-23%	345	-13%
25-Jun-22	331	5%	33	6%	364	6%
2-Jul-22	292	-12%	32	-3%	324	-11%
9-Jul-22	274	-6%	34	6%	308	-5%
16-Jul-22	354	29%	38	12%	392	27%
23-Jul-22	430	21%	62	63%	492	26%
30-Jul-22	413	-4%	45	-27%	458	-7%
6-Aug-22	329	-20%	46	2%	375	-18%
13-Aug-22	414	26%	35	-24%	449	20%

Weekly case counts among **children** decreased **24%** last week, and cases in **adults** increased **26%**.

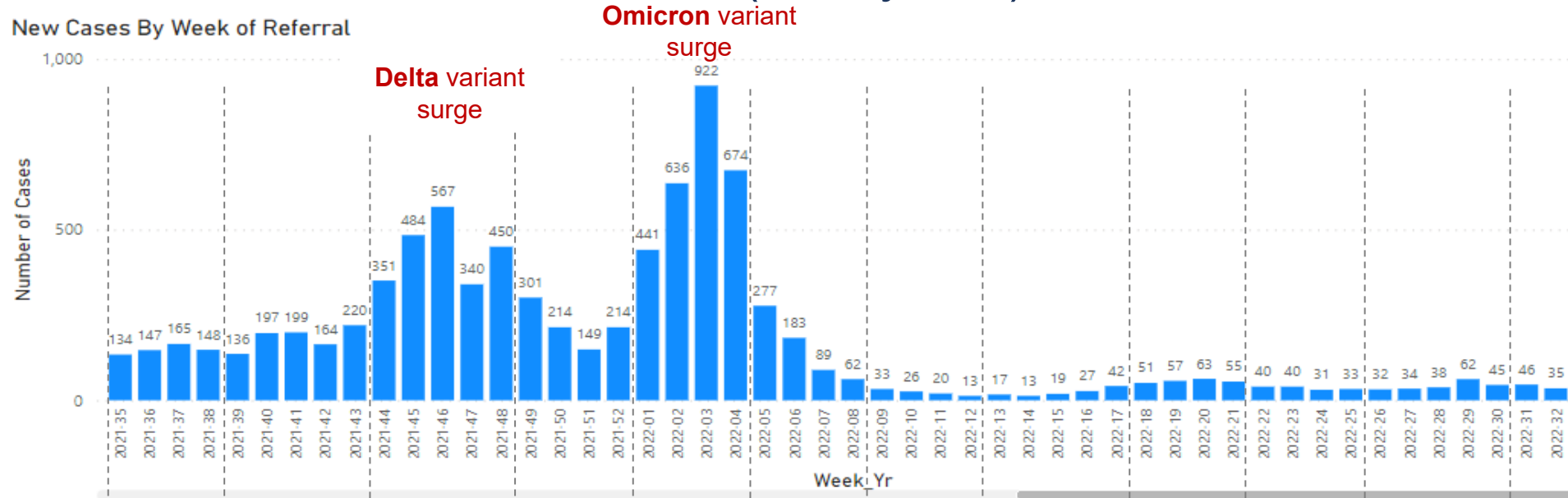
Adults

Children

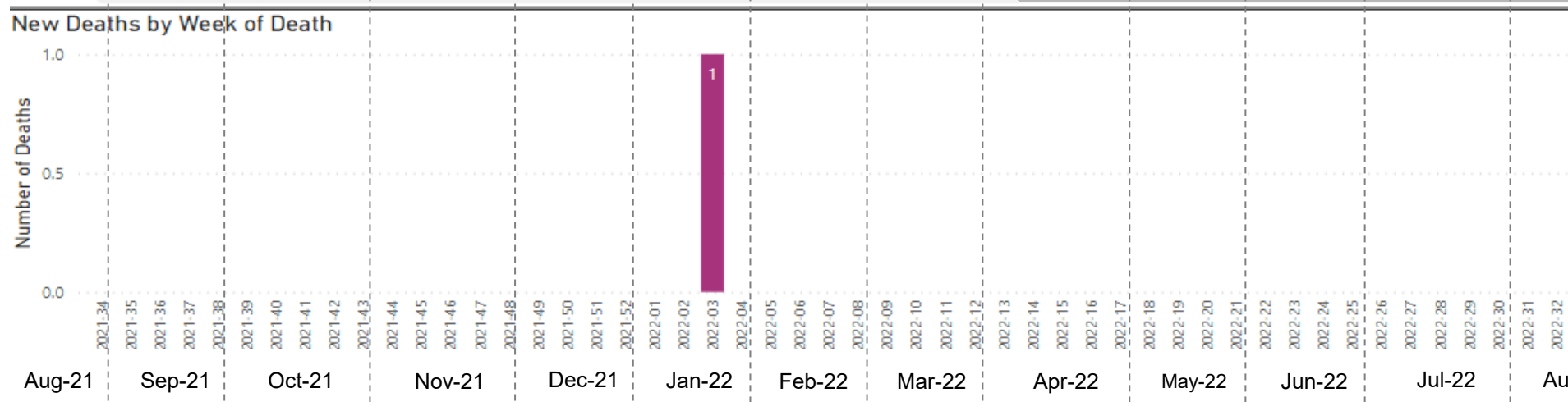
Note: Use of at home tests since late 2021 likely reduces the number of positive tests reported to Public Health, resulting in an artificially lower number of cases.

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

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



The weekly number of cases among children **decreased 24%** from week 31 to week 32.



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

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

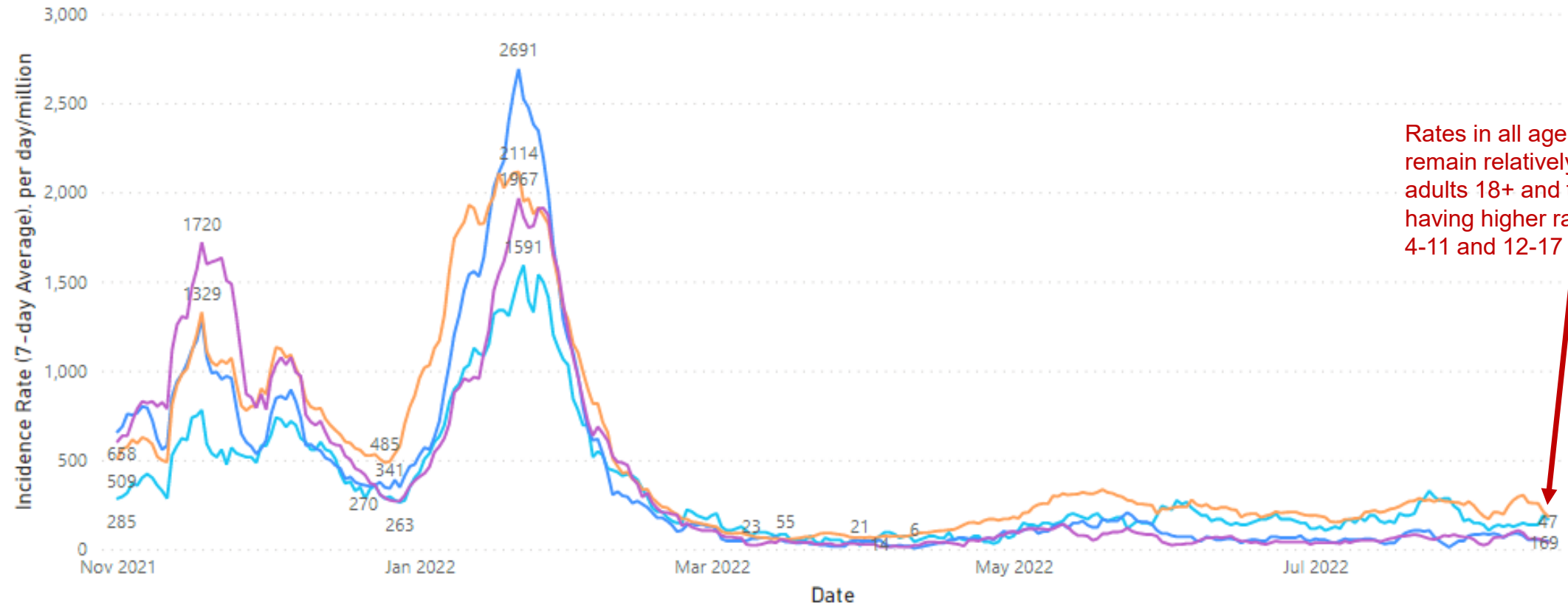
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, November 2021 – August 17, 2022

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 those 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 Aug 17, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

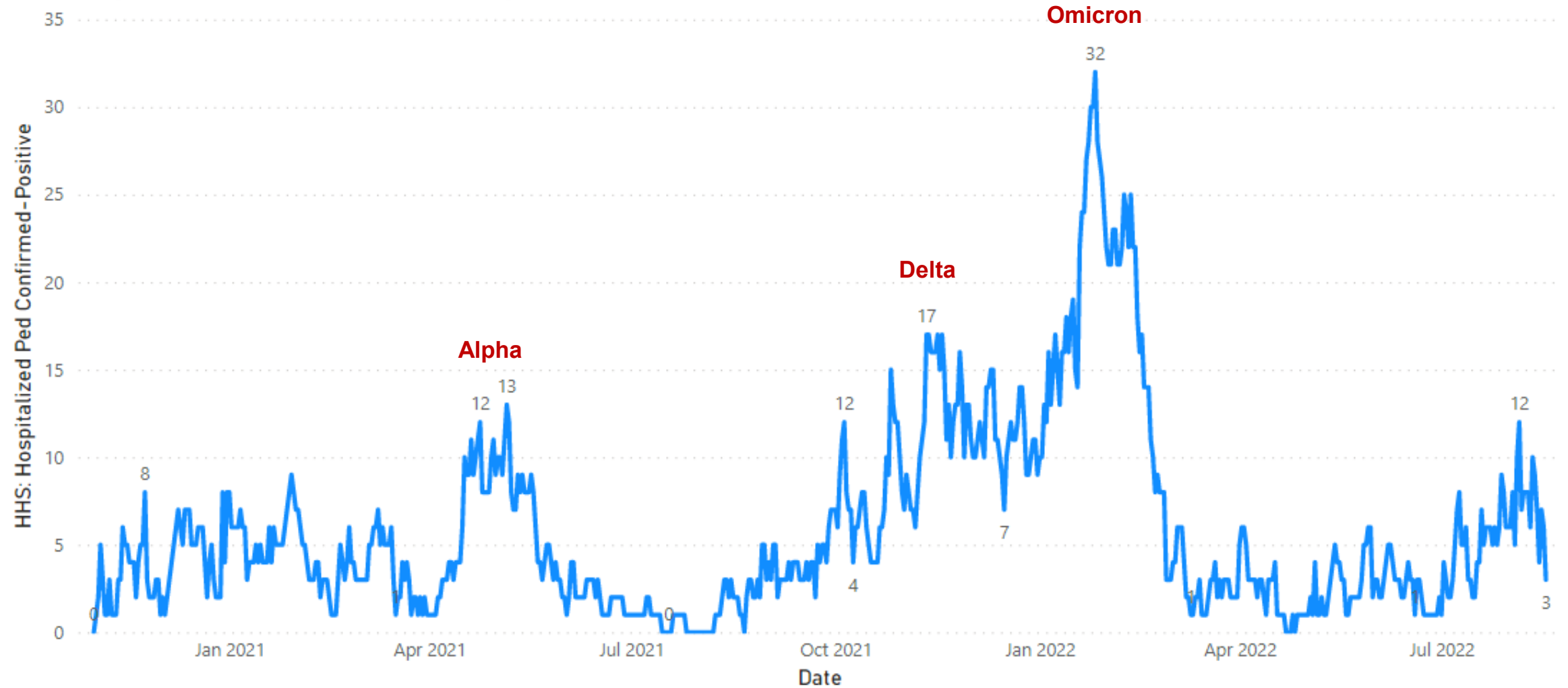
Other

Media

Science Roundup

Daily Hospital Pediatric Census – West Michigan

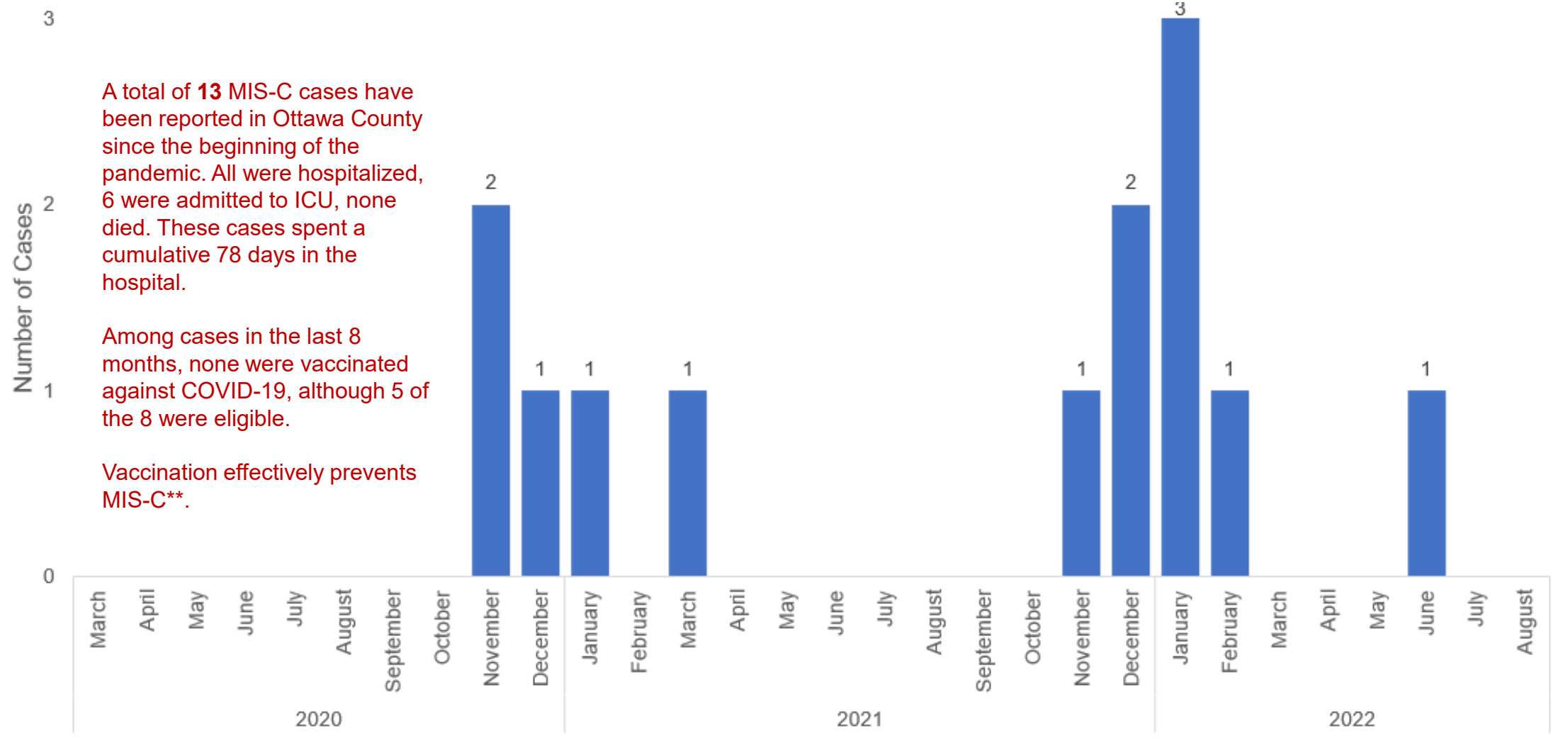
HHS: Hospitalized Ped Confirmed-Positive by Date



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 Aug 17, 2022

Ottawa County MIS-C* Cases by Month



A total of **13** MIS-C cases have been reported in Ottawa County since the beginning of the pandemic. All were hospitalized, 6 were admitted to ICU, none died. These cases spent a cumulative 78 days in the hospital.

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

Vaccination effectively prevents MIS-C**.

Notes: Includes confirmed and probable cases.

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

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

Data through August 17, 2022

Ottawa County Hospital Capacity – All Beds

Hospital Inpatient Bed Occupancy - By County

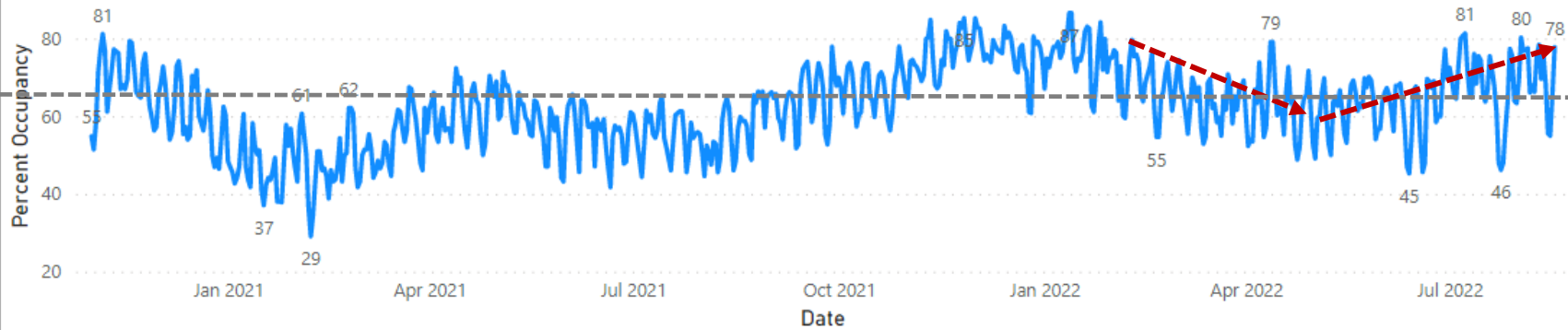
Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Pandemic Average

Percent Occupancy by Date and County

County ● Ottawa

62%



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

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

Percent Occupancy by Date and County

County ● Ottawa

12%

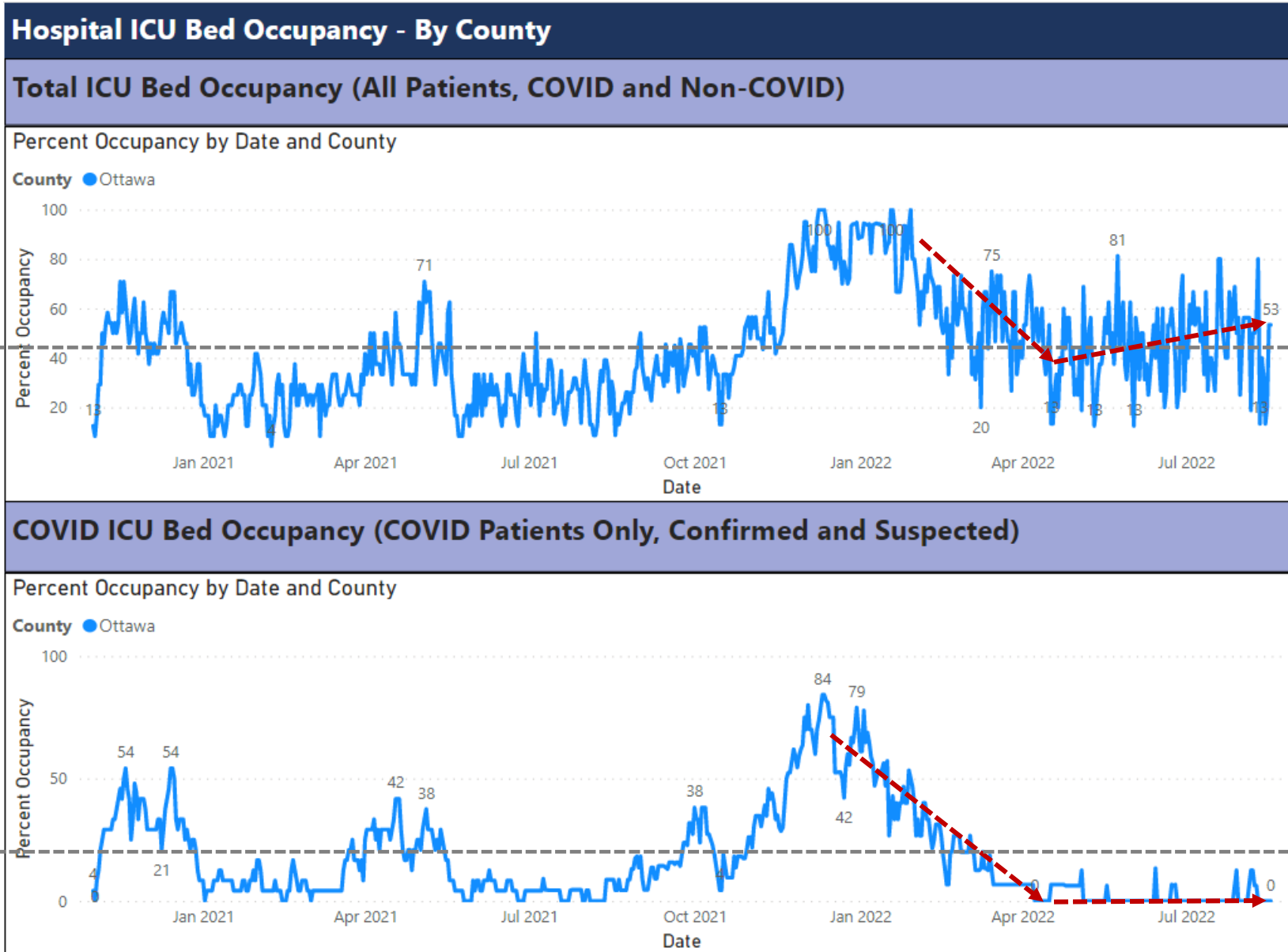


Currently **3%** of all inpatient beds are occupied by COVID-19 patients.

Source: EMResources

Data through Aug 17, 2022

Ottawa County Hospital Capacity – ICU Beds



Pandemic Average

42%

Total ICU bed occupancy is **above the pandemic average**

18%

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

Source: EMResources

Data through Aug 17, 2022

USA & MI

Spread

Children

Hospitalizations

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Risk Levels

Other

Media

Science Roundup

Ottawa County Age-Standardized Rates of COVID-19 Cases, Hospitalizations, & Deaths by Vaccination Status

Unvaccinated people aged 5 years and older had:

3.6x

Risk of Becoming a COVID-19 Case

AND

3.3 x

Risk of Dying from COVID-19

7.7 x

Risk of Being Hospitalized for COVID-19

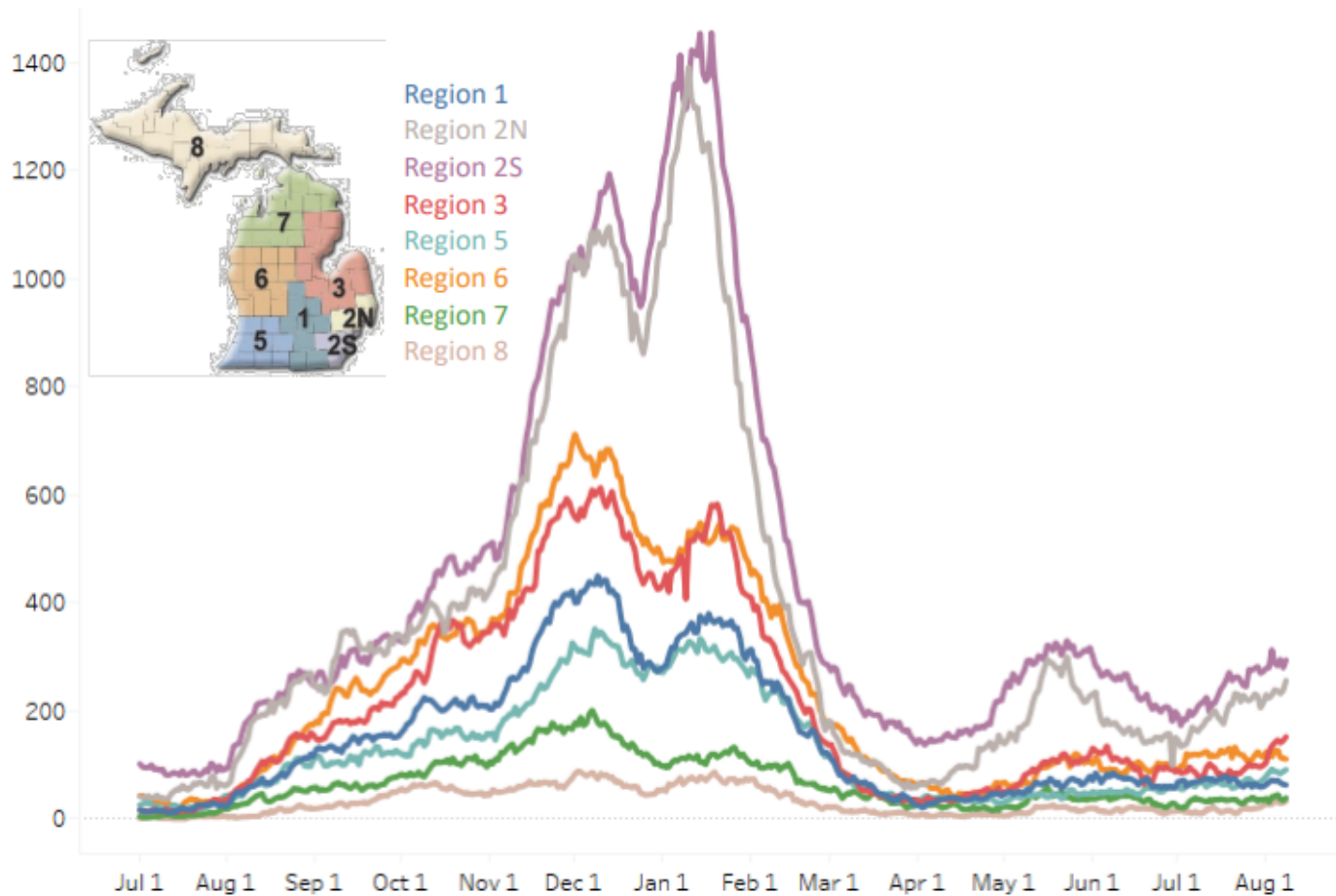
in July 2022, compared to people vaccinated with at least a primary series.

Notes: For comparison to the nation please see: <https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status>

Methods: Both probable and confirmed cases were included, denominators were obtained from CDC Wonder (2019), and standardized population is 2000 US population. Methods may be refined, resulting in updated data.

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 8/8/2022
Confirmed Positive by Region



This week hospitalizations have increased in Regions 2N, 2S, 3, 5, 7 and 8. Hospitalizations have decreased or remained flat in Regions 1 and 6.

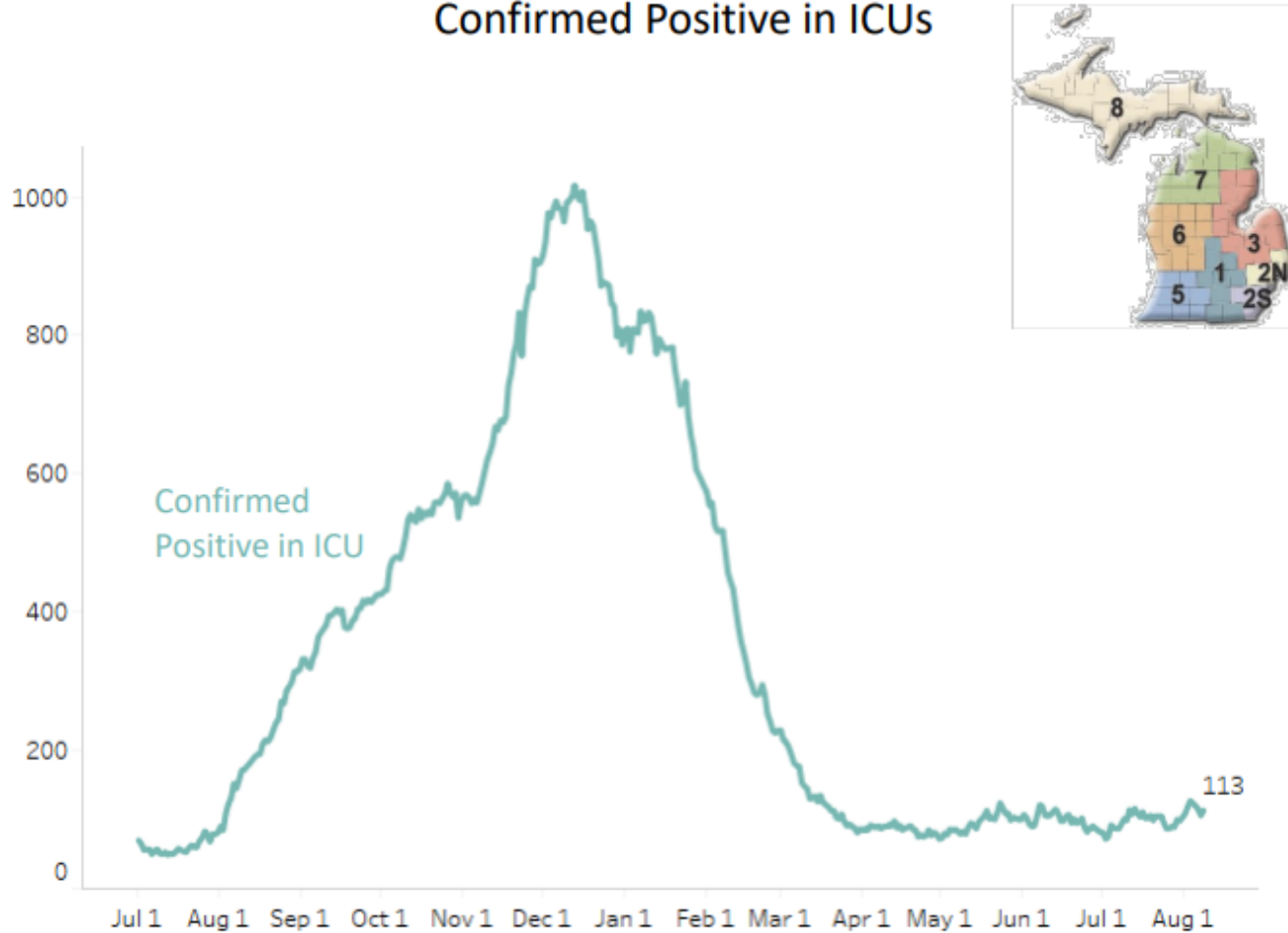
Regions 2N, 2S, 3, and 8 have greater than 100/Million population hospitalized with COVID.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	63 (0%)	58/M
Region 2N	256 (11%)	116/M
Region 2S	294 (5%)	132/M
Region 3	152 (46%)	134/M
Region 5	91 (15%)	95/M
Region 6	111 (-10%)	76/M
Region 7	39 (3%)	78/M
Region 8	33 (18%)	106/M

Source: MDHHS Data and Modelling: [MI COVID response Data and modeling update \(michigan.gov\)](https://www.michigan.gov/mdhhs/0,4570,7-323_7-324_7-325_7-326_7-327_7-328_7-329_7-330_7-331_7-332_7-333_7-334_7-335_7-336_7-337_7-338_7-339_7-340_7-341_7-342_7-343_7-344_7-345_7-346_7-347_7-348_7-349_7-350_7-351_7-352_7-353_7-354_7-355_7-356_7-357_7-358_7-359_7-360_7-361_7-362_7-363_7-364_7-365_7-366_7-367_7-368_7-369_7-370_7-371_7-372_7-373_7-374_7-375_7-376_7-377_7-378_7-379_7-380_7-381_7-382_7-383_7-384_7-385_7-386_7-387_7-388_7-389_7-390_7-391_7-392_7-393_7-394_7-395_7-396_7-397_7-398_7-399_7-400_7-401_7-402_7-403_7-404_7-405_7-406_7-407_7-408_7-409_7-410_7-411_7-412_7-413_7-414_7-415_7-416_7-417_7-418_7-419_7-420_7-421_7-422_7-423_7-424_7-425_7-426_7-427_7-428_7-429_7-430_7-431_7-432_7-433_7-434_7-435_7-436_7-437_7-438_7-439_7-440_7-441_7-442_7-443_7-444_7-445_7-446_7-447_7-448_7-449_7-450_7-451_7-452_7-453_7-454_7-455_7-456_7-457_7-458_7-459_7-460_7-461_7-462_7-463_7-464_7-465_7-466_7-467_7-468_7-469_7-470_7-471_7-472_7-473_7-474_7-475_7-476_7-477_7-478_7-479_7-480_7-481_7-482_7-483_7-484_7-485_7-486_7-487_7-488_7-489_7-490_7-491_7-492_7-493_7-494_7-495_7-496_7-497_7-498_7-499_7-500_7-501_7-502_7-503_7-504_7-505_7-506_7-507_7-508_7-509_7-510_7-511_7-512_7-513_7-514_7-515_7-516_7-517_7-518_7-519_7-520_7-521_7-522_7-523_7-524_7-525_7-526_7-527_7-528_7-529_7-530_7-531_7-532_7-533_7-534_7-535_7-536_7-537_7-538_7-539_7-540_7-541_7-542_7-543_7-544_7-545_7-546_7-547_7-548_7-549_7-550_7-551_7-552_7-553_7-554_7-555_7-556_7-557_7-558_7-559_7-560_7-561_7-562_7-563_7-564_7-565_7-566_7-567_7-568_7-569_7-570_7-571_7-572_7-573_7-574_7-575_7-576_7-577_7-578_7-579_7-580_7-581_7-582_7-583_7-584_7-585_7-586_7-587_7-588_7-589_7-590_7-591_7-592_7-593_7-594_7-595_7-596_7-597_7-598_7-599_7-600_7-601_7-602_7-603_7-604_7-605_7-606_7-607_7-608_7-609_7-610_7-611_7-612_7-613_7-614_7-615_7-616_7-617_7-618_7-619_7-620_7-621_7-622_7-623_7-624_7-625_7-626_7-627_7-628_7-629_7-630_7-631_7-632_7-633_7-634_7-635_7-636_7-637_7-638_7-639_7-640_7-641_7-642_7-643_7-644_7-645_7-646_7-647_7-648_7-649_7-650_7-651_7-652_7-653_7-654_7-655_7-656_7-657_7-658_7-659_7-660_7-661_7-662_7-663_7-664_7-665_7-666_7-667_7-668_7-669_7-670_7-671_7-672_7-673_7-674_7-675_7-676_7-677_7-678_7-679_7-680_7-681_7-682_7-683_7-684_7-685_7-686_7-687_7-688_7-689_7-690_7-691_7-692_7-693_7-694_7-695_7-696_7-697_7-698_7-699_7-700_7-701_7-702_7-703_7-704_7-705_7-706_7-707_7-708_7-709_7-710_7-711_7-712_7-713_7-714_7-715_7-716_7-717_7-718_7-719_7-720_7-721_7-722_7-723_7-724_7-725_7-726_7-727_7-728_7-729_7-730_7-731_7-732_7-733_7-734_7-735_7-736_7-737_7-738_7-739_7-740_7-741_7-742_7-743_7-744_7-745_7-746_7-747_7-748_7-749_7-750_7-751_7-752_7-753_7-754_7-755_7-756_7-757_7-758_7-759_7-760_7-761_7-762_7-763_7-764_7-765_7-766_7-767_7-768_7-769_7-770_7-771_7-772_7-773_7-774_7-775_7-776_7-777_7-778_7-779_7-780_7-781_7-782_7-783_7-784_7-785_7-786_7-787_7-788_7-789_7-790_7-791_7-792_7-793_7-794_7-795_7-796_7-797_7-798_7-799_7-800_7-801_7-802_7-803_7-804_7-805_7-806_7-807_7-808_7-809_7-810_7-811_7-812_7-813_7-814_7-815_7-816_7-817_7-818_7-819_7-820_7-821_7-822_7-823_7-824_7-825_7-826_7-827_7-828_7-829_7-830_7-831_7-832_7-833_7-834_7-835_7-836_7-837_7-838_7-839_7-840_7-841_7-842_7-843_7-844_7-845_7-846_7-847_7-848_7-849_7-850_7-851_7-852_7-853_7-854_7-855_7-856_7-857_7-858_7-859_7-860_7-861_7-862_7-863_7-864_7-865_7-866_7-867_7-868_7-869_7-870_7-871_7-872_7-873_7-874_7-875_7-876_7-877_7-878_7-879_7-880_7-881_7-882_7-883_7-884_7-885_7-886_7-887_7-888_7-889_7-890_7-891_7-892_7-893_7-894_7-895_7-896_7-897_7-898_7-899_7-900_7-901_7-902_7-903_7-904_7-905_7-906_7-907_7-908_7-909_7-910_7-911_7-912_7-913_7-914_7-915_7-916_7-917_7-918_7-919_7-920_7-921_7-922_7-923_7-924_7-925_7-926_7-927_7-928_7-929_7-930_7-931_7-932_7-933_7-934_7-935_7-936_7-937_7-938_7-939_7-940_7-941_7-942_7-943_7-944_7-945_7-946_7-947_7-948_7-949_7-950_7-951_7-952_7-953_7-954_7-955_7-956_7-957_7-958_7-959_7-960_7-961_7-962_7-963_7-964_7-965_7-966_7-967_7-968_7-969_7-970_7-971_7-972_7-973_7-974_7-975_7-976_7-977_7-978_7-979_7-980_7-981_7-982_7-983_7-984_7-985_7-986_7-987_7-988_7-989_7-990_7-991_7-992_7-993_7-994_7-995_7-996_7-997_7-998_7-999_800)

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 8/8/2022
Confirmed Positive in ICUs



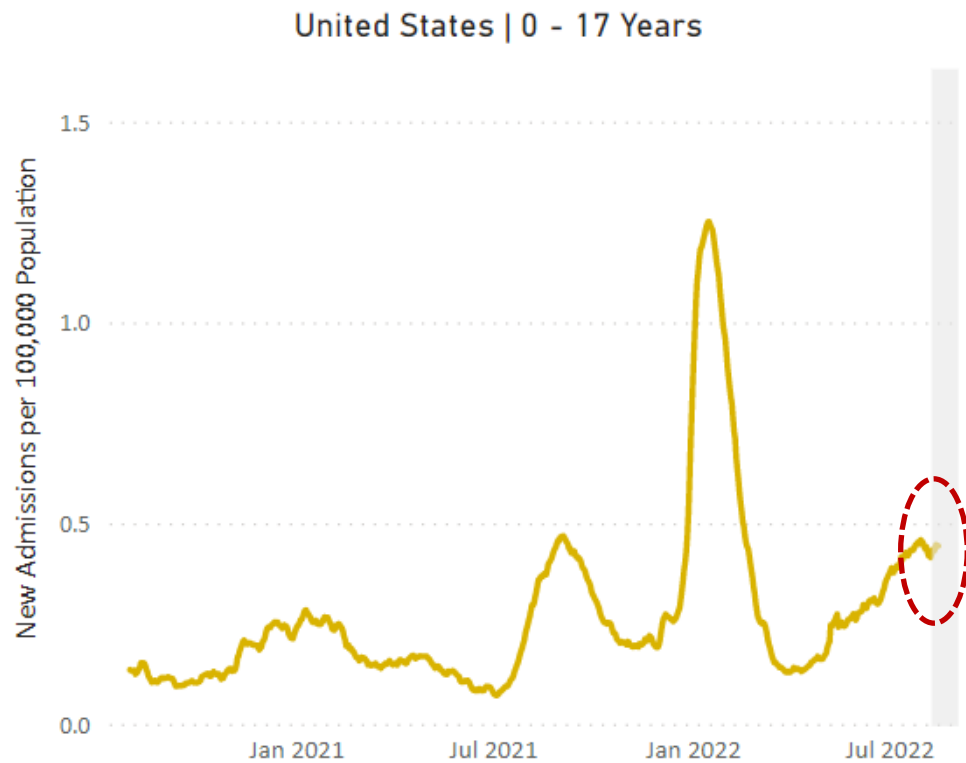
Overall, the volume of COVID+ patients in ICUs has increased by 5% from last week. There are 113 COVID+ patients in ICU beds across the state.

ICU occupancy is at or below 85% in all regions except Region 3. Regions 1, 5, and 7 have more than 5% of ICU beds occupied by COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	12 (71%)	75%	7%
Region 2N	26 (-13%)	67%	5%
Region 2S	27 (-31%)	77%	4%
Region 3	12 (200%)	86%	4%
Region 5	13 (160%)	69%	8%
Region 6	12 (50%)	73%	5%
Region 7	9 (13%)	80%	7%
Region 8	2 (-71%)	56%	3%

Source: MDHHS Data and Modelling: [MI COVID response Data and modeling update \(michigan.gov\)](https://michigan.gov/michigan/mdhhs/covid19)

Pediatric Hospitalization Rates – USA, Michigan



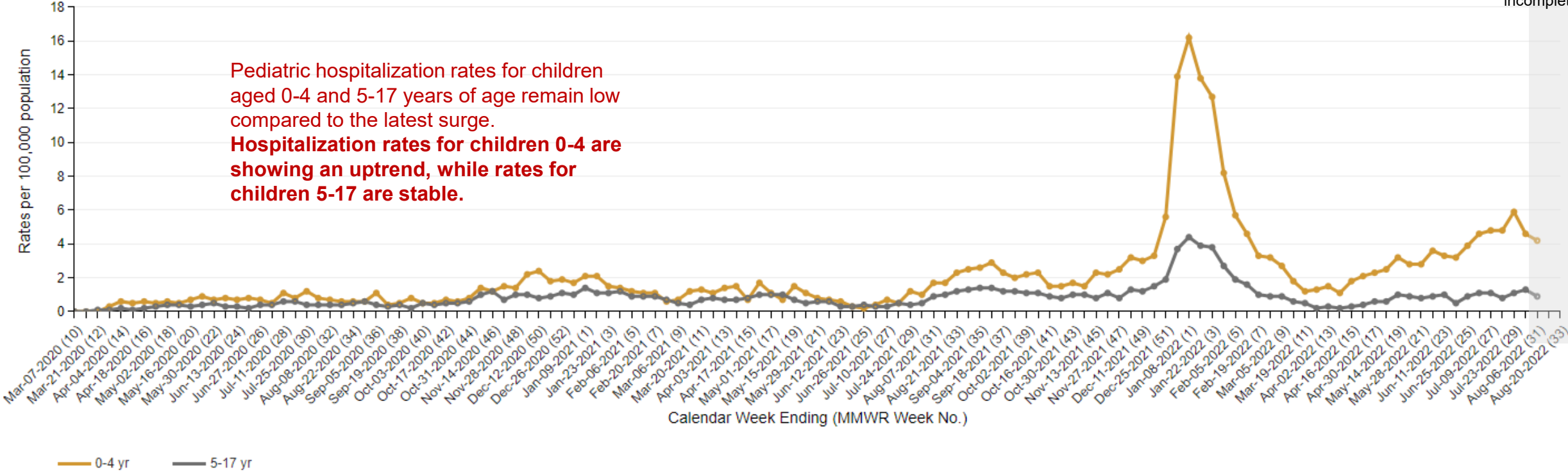
Pediatric hospitalization rates across the US continue increasing. **Rates in Michigan may also be increasing.**

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



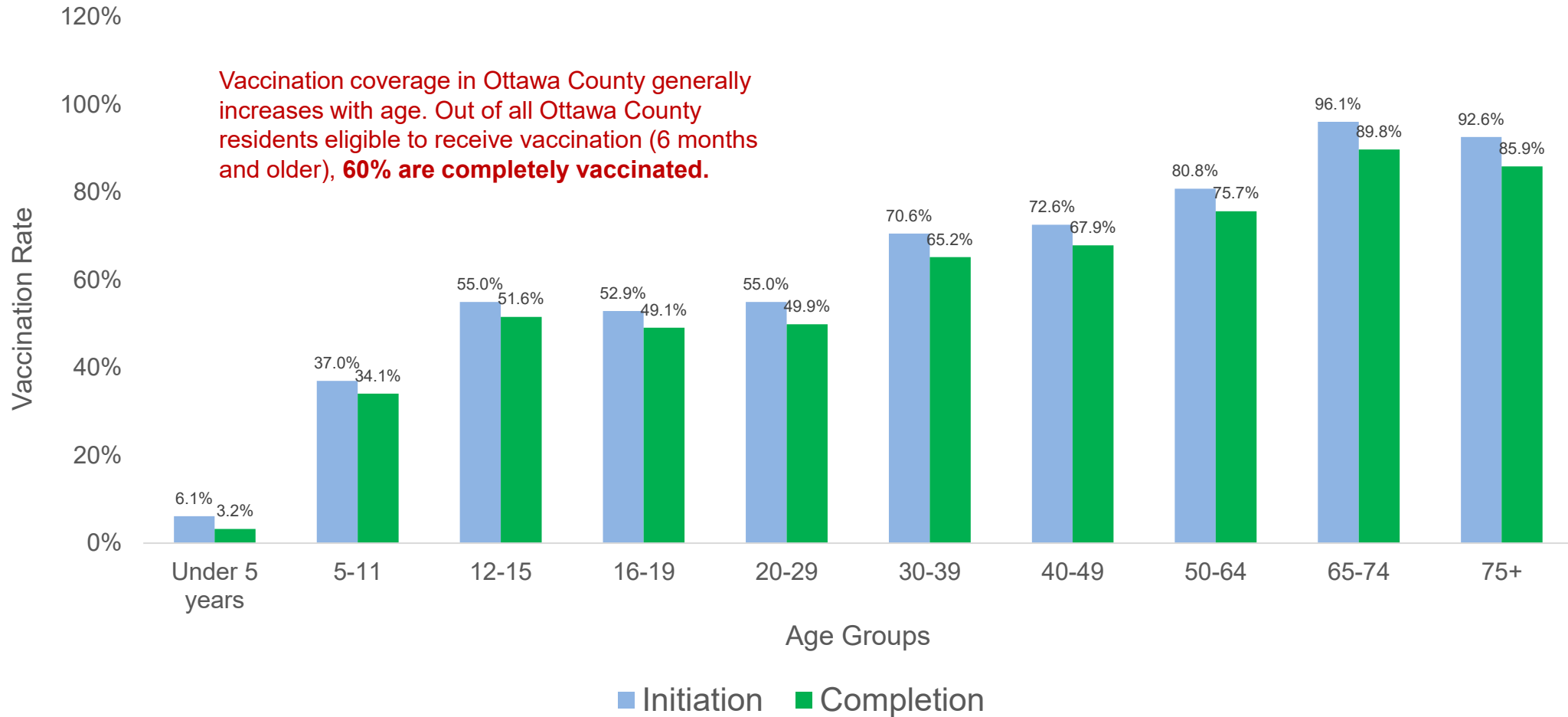
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case 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 Aug 18, 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/resources/covid-19-vaccine/covid-19-dashboard>

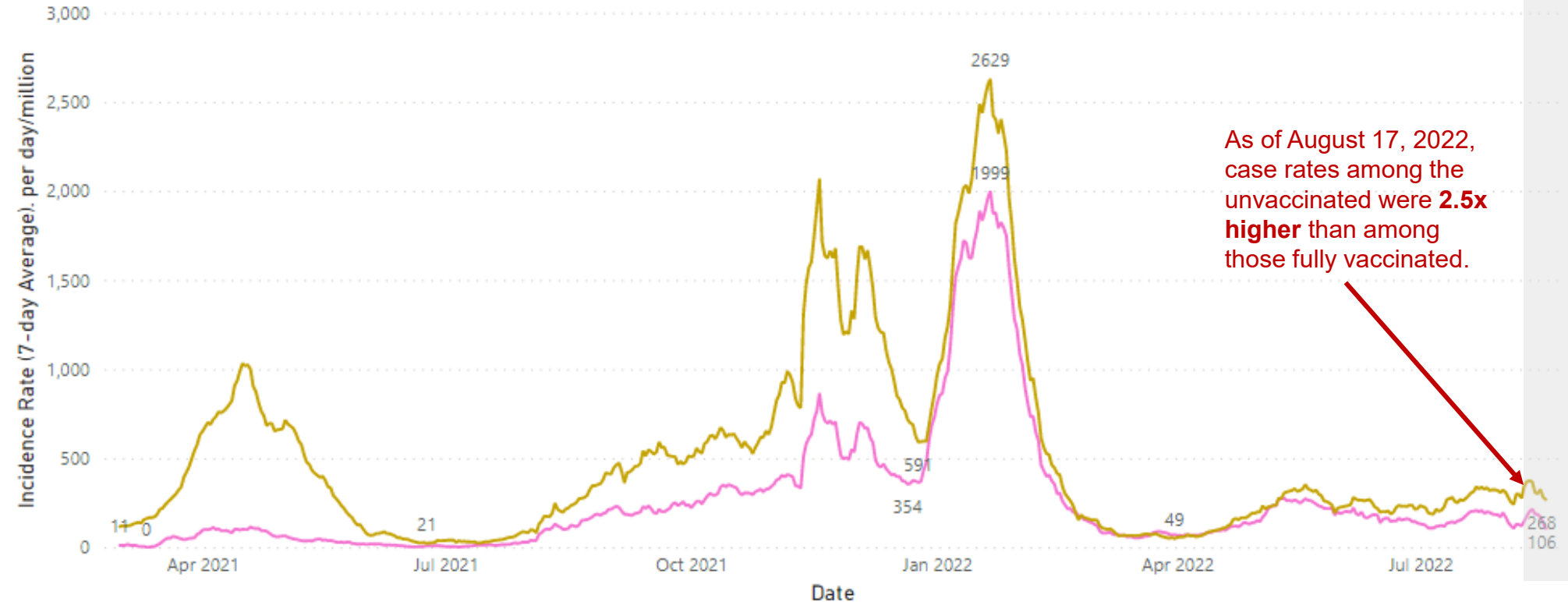
Data through August 17, 2022

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

Recent data may be incomplete

Incidence Rate (7-day Average)

rategroup ● Fully Vaccinated ● Unvaccinated



As of August 17, 2022, case rates among the unvaccinated were **2.5x higher** than among those fully vaccinated.

Method:

Daily case counts were obtained from the MDSS and summarized by referral date. Cases were compared to data from the State of Michigan immunization database to confirm COVID-19 vaccination status. Counts of persons completely vaccinated in Ottawa County were compiled from the Michigan COVID-19 vaccination dashboard. The total population denominator was obtained from CDC Wonder; the 2019 population estimate was used. Daily COVID-19 case rates were calculated and averaged over the previous 7 days; a rate of cases per day per million population was used. Cases ineligible for vaccination are included in this data. On December 22, 2021 this figure was updated to compare fully vaccinated and unvaccinated persons, to align more closely with [CDC data](#); partially vaccinated persons were excluded. Fully vaccinated is defined as 2 or more doses of an mRNA vaccination or at least one dose of J&J.

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

Sources:

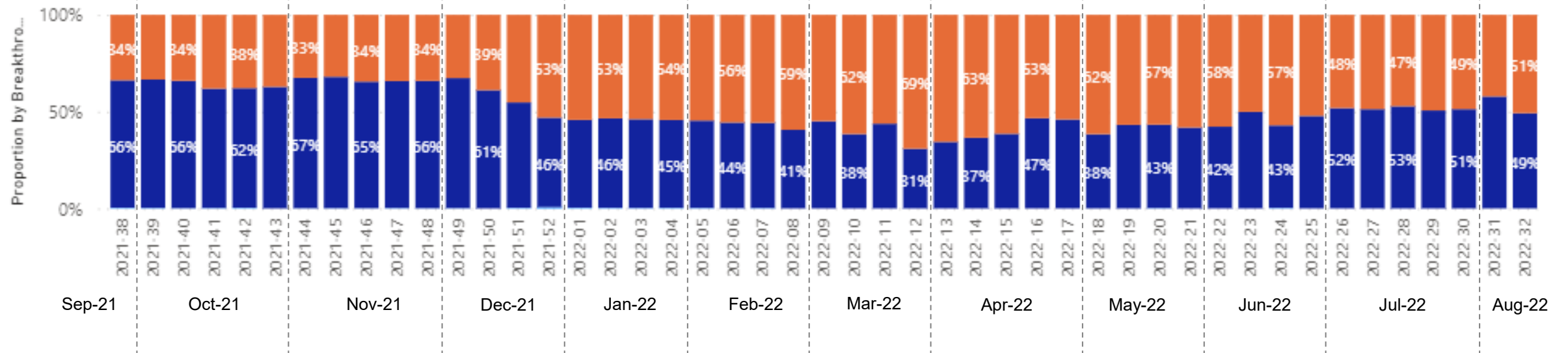
Michigan Department of Health and Human Services, Michigan Disease Surveillance System
 MDHHS COVID-19 Dashboard: <https://www.michigan.gov/coronavirus/stats>

Ottawa County COVID-19 Vaccination Breakthrough Case Trends

By Week

Breakthrough Proportions by Week

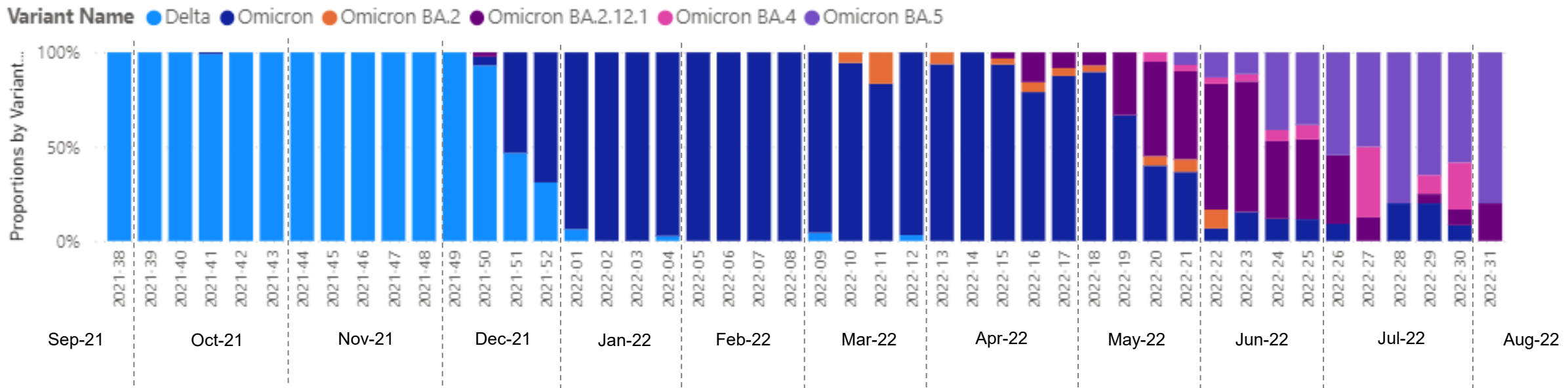
Vaccine_Breakthrough ● NO ● YES



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

Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

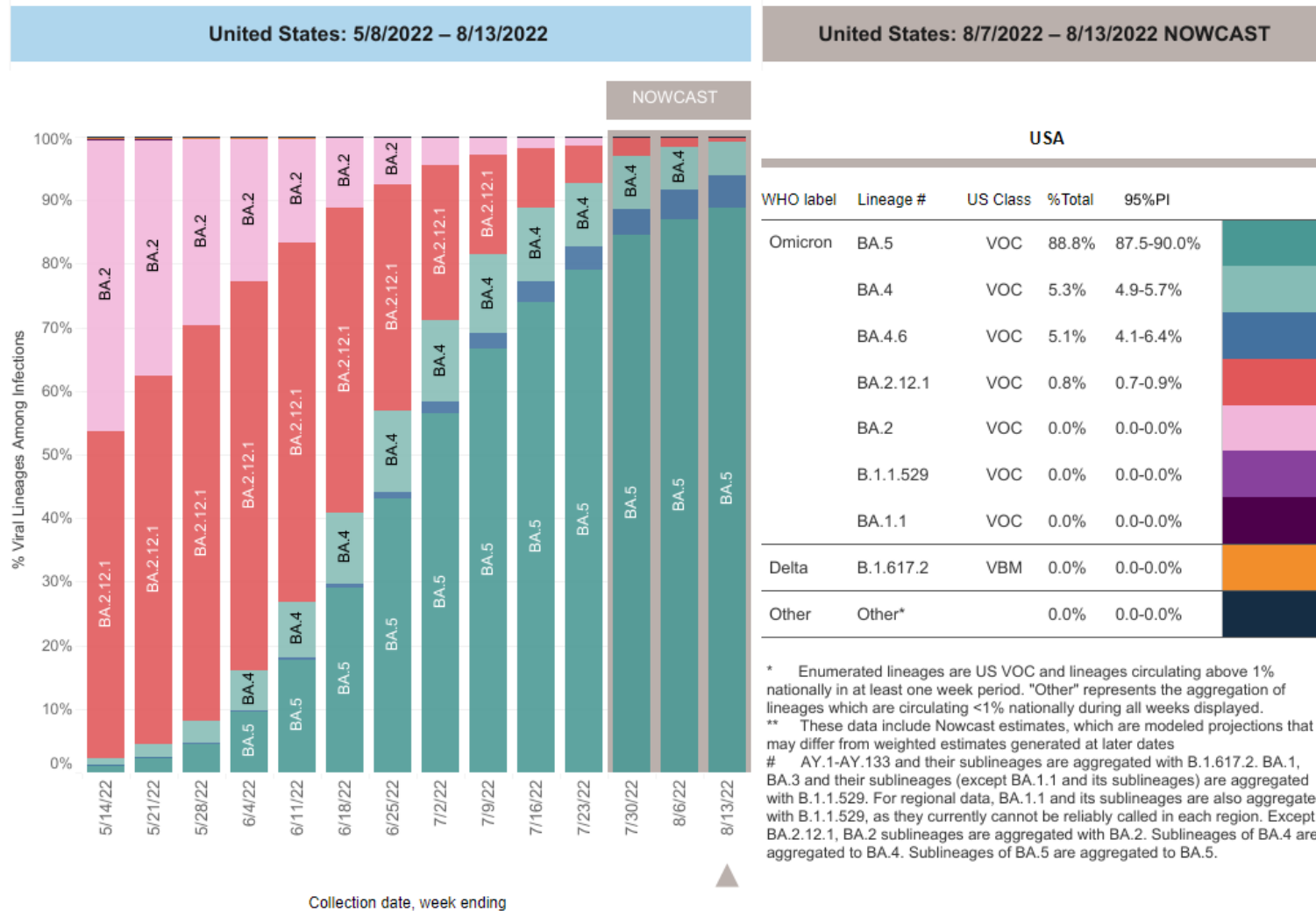


In June of 2021, most clinical samples* submitted for variant testing were identified as the **Alpha** variant. By the end of July 2021, all clinical samples tested were identified as the **Delta** variant and from late July through early December 2021, all clinical samples submitted for variant testing continued to be identified as the **Delta** variant. In mid-December 2021, the first **Omicron** positive sample was collected in an Ottawa County resident, and **Omicron** continues to be detected into 2022, with more recent additions of the **Omicron subvariants** BA.2.12.1 and BA.4/5 (first detected in clinical samples in late May 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 and its subvariants are estimated to account for 100% of all clinical samples collected in the United States the week ending August 13, 2022.

Newer Omicron subvariants are circulating, with BA.5 emerging as the dominant variant.

Variants – Wastewater Sampling – Holland/Zeeland

Sample Date	Site	Delta	Omicron
06/16/2022	Zeeland	N	Y
06/16/2022	North Holland	N	Y
06/26/2022	North Holland	N	Y
06/27/2022	Zeeland	N	Y
06/29/2022	North Holland	N	Y
06/30/2022	Zeeland	N	Y
07/03/2022	North Holland	N	Y
07/04/2022	Zeeland	N	Y
07/06/2022	North Holland	Y	Y
07/10/2022	North Holland	N	Y
07/11/2022	Zeeland	N	Y
07/13/2022	North Holland	N	Y
07/14/2022	Zeeland	N	Y
07/21/2022	Zeeland	N	Y
07/21/2022	North Holland	N	Y
07/24/2022	North Holland	Y	Y
07/25/2022	Zeeland	N	Y
07/27/2022	North Holland	Y	Y
07/28/2022	Zeeland	Y	Y
07/31/2022	North Holland	Y	Y
08/01/2022	Zeeland	N	Y
08/03/2022	North Holland	N	Y
08/04/2022	Zeeland	Y	Y
08/07/2022	North Holland	N	Y
08/08/2022	Zeeland	N	Y

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 detected in wastewater in Holland and Zeeland since early January 2022, with renewed, frequent detection through May (January through May not displayed here). Detection remains consistent through June, July and early parts of August.

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

COVID-19 Community Levels

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

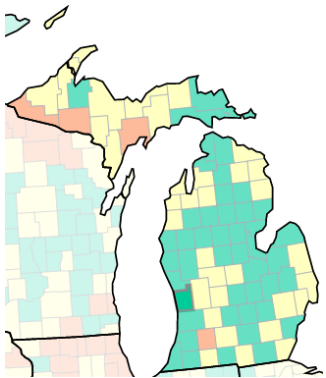
Note: The COVID-19 community level is determined by the higher of the new admissions and inpatient beds metrics, based on the current level of new cases per 100,000 population in the past 7 days.

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

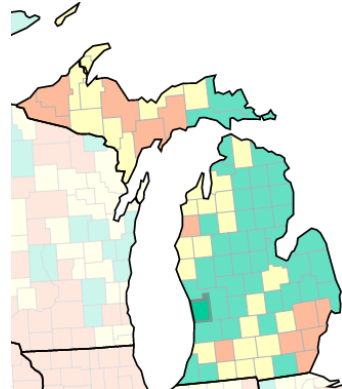
CDC Community Levels – Ottawa County

- Current Community Level in Ottawa – **LOW**
- Current Data:
 - Case Rate (per 100k pop 7-day total) = **120.96**
 - COVID-19 Hospital Admissions (per 100K pop 7-day total) = **3.7**
 - COVID-19 Inpatient Hospital Bed Utilization (7-day average) = **6.8%**

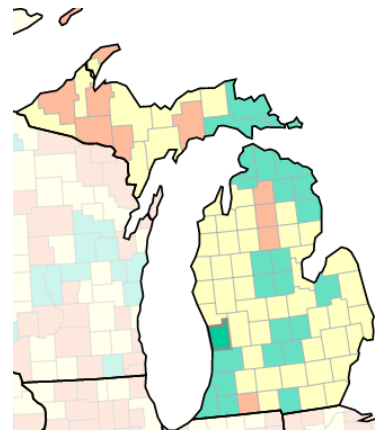
2 Weeks Ago



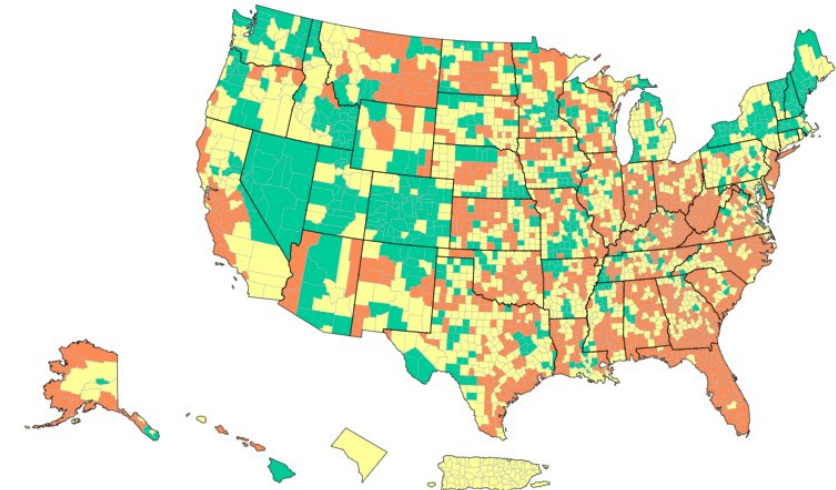
Last Week



This Week



USA - This Week



Legend

High

Low

Medium

Data updated by CDC
on Aug 17, 2022

Source: [CDC COVID Data Tracker: County View](#)

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

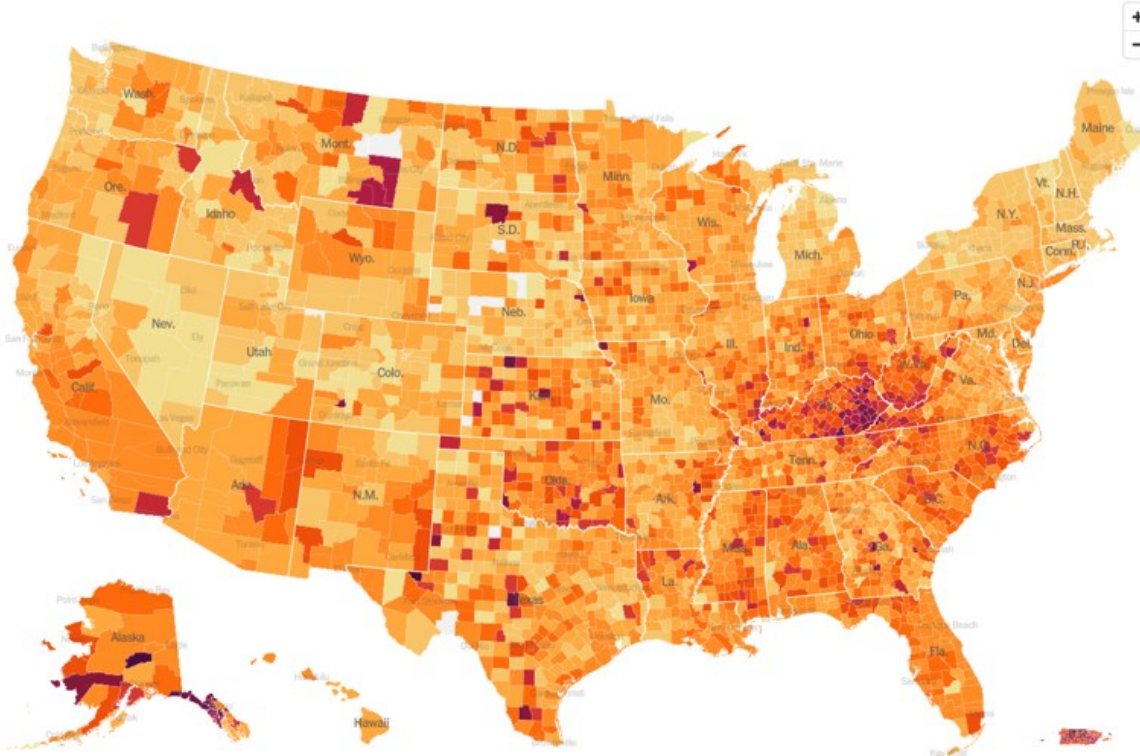
Science
Roundup

COVID-19 Case Rates by County Across the US

Last Week

Hot spots

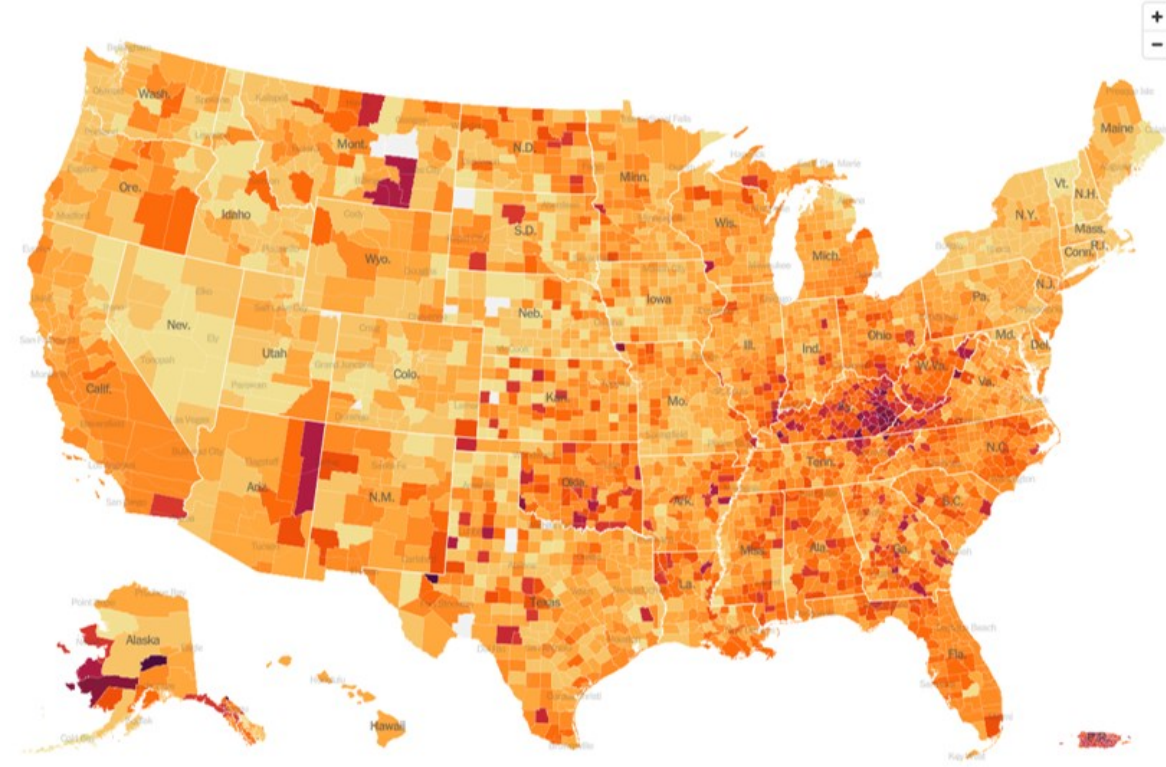
AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK
10 30 50 70 100 250 FEW OR NO CASES



This Week

Hot spots

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



Case rates across the nation
may be increasing.

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

Accessed Aug 18, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

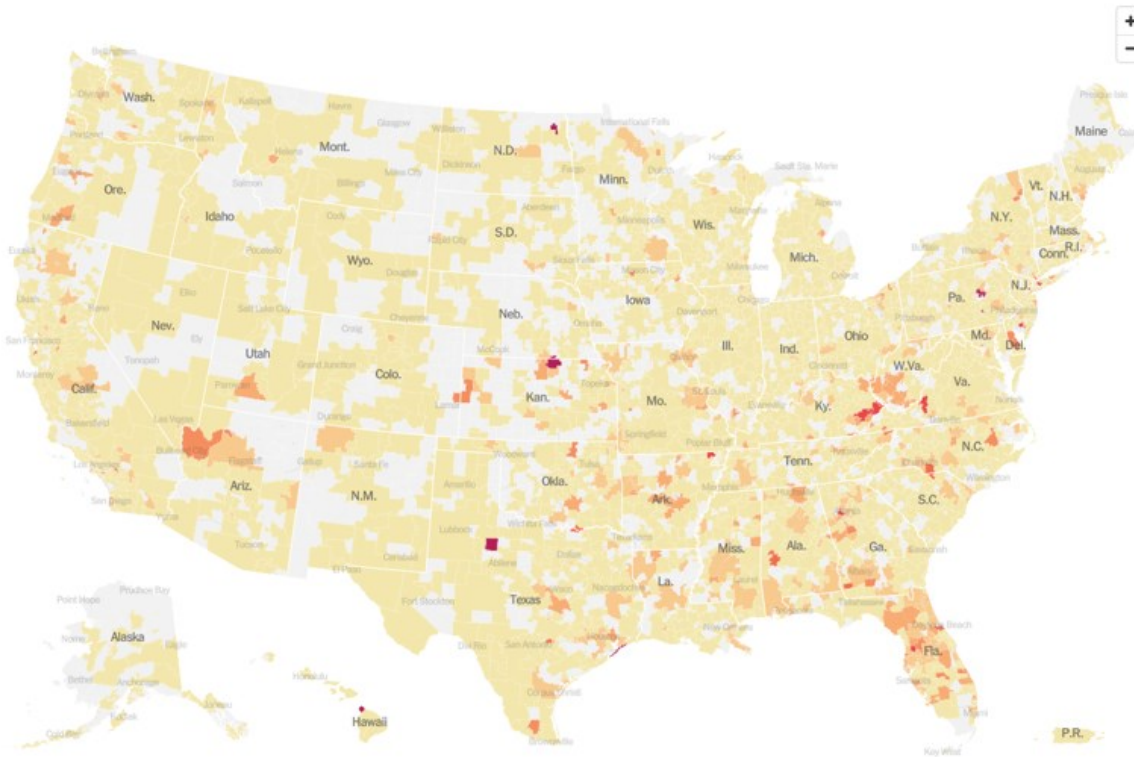
Science
Roundup

COVID-19 Hospitalization Rates by County Across the US

Last Week

Current hospitalizations

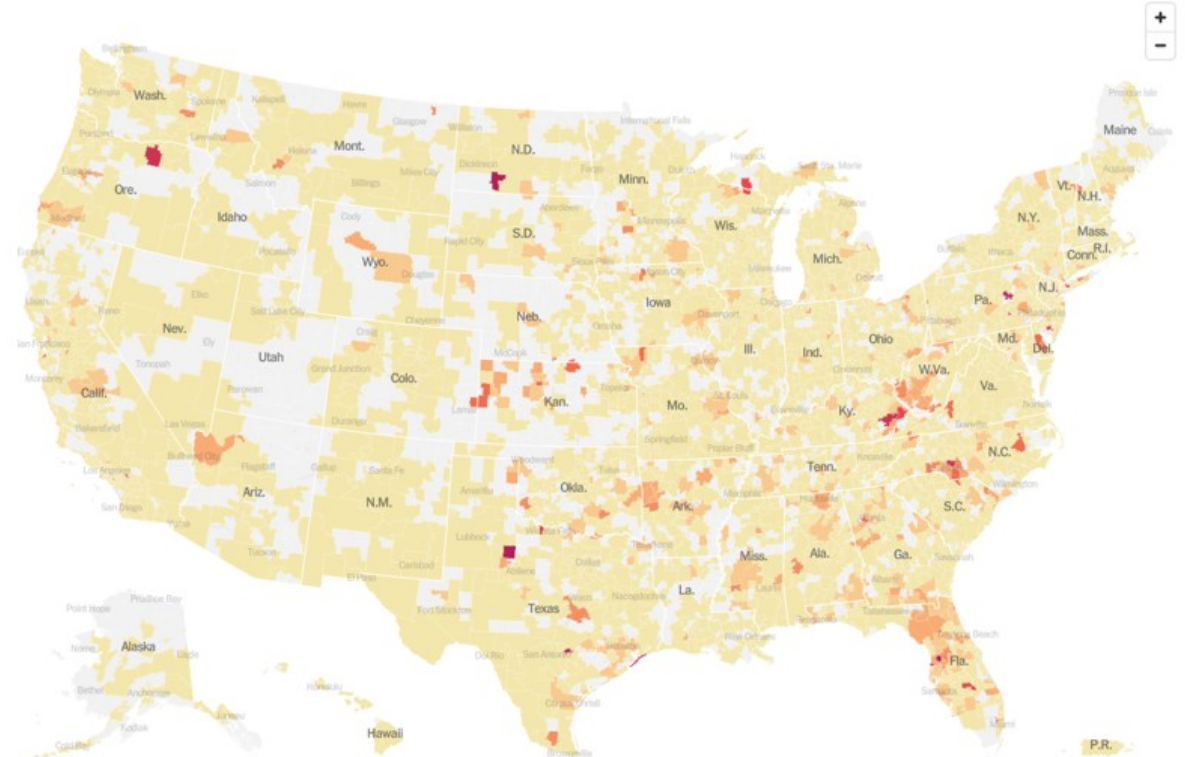
COVID-19 PATIENTS PER 100,000 PEOPLE
20 30 40 50 60 70 80 NO DATA



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, with increases in some areas.

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

Accessed Aug 18, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

Treatment Options for Non-Hospitalized Adults With COVID-19

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

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

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

COVID-19 News Headlines

Should we be concerned about parallel monkeypox and COVID surges?

[Should we be concerned about parallel monkeypox and COVID surges? - mlive.com](#)

CDC further relaxes COVID quarantine guidance

[CDC further relaxes COVID quarantine guidance - mlive.com](#)

WHO: World coronavirus cases fall 24%; deaths rise in Asia

[WHO: World coronavirus cases fall 24%; deaths rise in Asia - ABC News \(go.com\)](#)

Michigan reports 23,165 new COVID cases, 103 deaths over past week

[Michigan reports 23,165 new COVID cases, 103 deaths over past week \(clickondetroit.com\)](#)

Updated COVID boosters could be available in 3 weeks, White House predicts

[Updated COVID boosters could be available in 3 weeks, White House predicts - ABC News \(go.com\)](#)

Science Roundup

Awareness of SARS-CoV-2 Omicron Variant Infection Among Adults With Recent COVID-19 Seropositivity

[Awareness of SARS-CoV-2 Omicron Variant Infection Among Adults With Recent COVID-19 Seropositivity | Infectious Diseases | JAMA Network Open | JAMA Network](#)

← In this cohort study of 210 adults with evidence of recent SARS-CoV-2 infection during a regional Omicron surge, over half reported being unaware of any recent Omicron variant infection.

Comparison of Pregnancy and Birth Outcomes Before vs During the COVID-19 Pandemic

[Comparison of Pregnancy and Birth Outcomes Before vs During the COVID-19 Pandemic | Neonatology | JAMA Network Open | JAMA Network](#)

← A cohort study found that the number of live births decreased by 5.2% during the COVID-19 pandemic (March 2020 to April 2021) compared with the 14 months prior. While live-birth outcomes and mode of delivery remained stable, small but significant increases in pregnancy-related complications and maternal death during delivery hospitalization were observed.

Health Impairments in Children and Adolescents After Hospitalization for Acute COVID-19 or MIS-C

[Health Impairments in Children and Adolescents After Hospitalization for Acute COVID-19 or MIS-C | Pediatrics | American Academy of Pediatrics \(aap.org\)](#)

← A multicenter prospective cohort study conducted in 25 United States pediatric hospitals, found that over 1 in 4 children hospitalized with acute COVID-19 or MIS-C experienced persistent symptoms or activity impairment for at least 2 months. Findings of this study suggests patients with MIS-C and respiratory conditions, or obesity are at higher risk of prolonged recovery.

Symptom burden and immune dynamics 6 to 18 months following mild SARS-CoV-2 infection - a case-control study

[Symptom burden and immune dynamics 6 to 18 months following mild SARS-CoV-2 infection - a case-control study | Clinical Infectious Diseases | Oxford Academic \(oup.com\)](#)

← This prospective case-control study found a high burden of persisting symptoms after mild COVID-19 suggesting infection induced SARS-CoV-2 specific immune responses may influence long-term symptoms.