

# Ottawa County COVID-19 Epidemiology

June 02, 2022

*Data as of May 28, 2022, unless otherwise indicated*

# Executive Summary

- **Transmission in the US and in Michigan may be slowing**
- **Ottawa County transmission may be slowing**
  - This past week positivity **decreased** slightly to 23.5%, from 23.8% seen two weeks ago.
  - Weekly case counts **decreased** 20% (-1% two weeks ago), from 542 two weeks ago to 432 last week.
  - Cases among children **decreased** 10% (+7% two weeks ago), from 61 two weeks ago to 55 last week.
  - COVID-19 wastewater signals in Holland/Zeeland **are trending down**.
  - Ottawa remains in the LOW CDC Community Level.
- **Ottawa-area and regional hospitals have adequate capacity**
  - In Ottawa County, 2% of all available beds and 0% of all ICU beds are occupied by COVID-19 patients.\*
  - Ottawa County hospitals are utilizing usual care strategies, are reporting adequate staffing, and are minimizing Ottawa County ED diversion.
- **Pediatric hospitalization rates in the US and in Michigan remain relatively low**
  - Regional pediatric hospitalization census fell below pandemic average last week.
- **Of Ottawa County residents aged 5+, 63% 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 disease. However, it is expected that 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, detected trends generally correlate with case rates, therefore wastewater readings are displayed alongside countywide incidence rates in this report.

# Ottawa County Metrics by Week

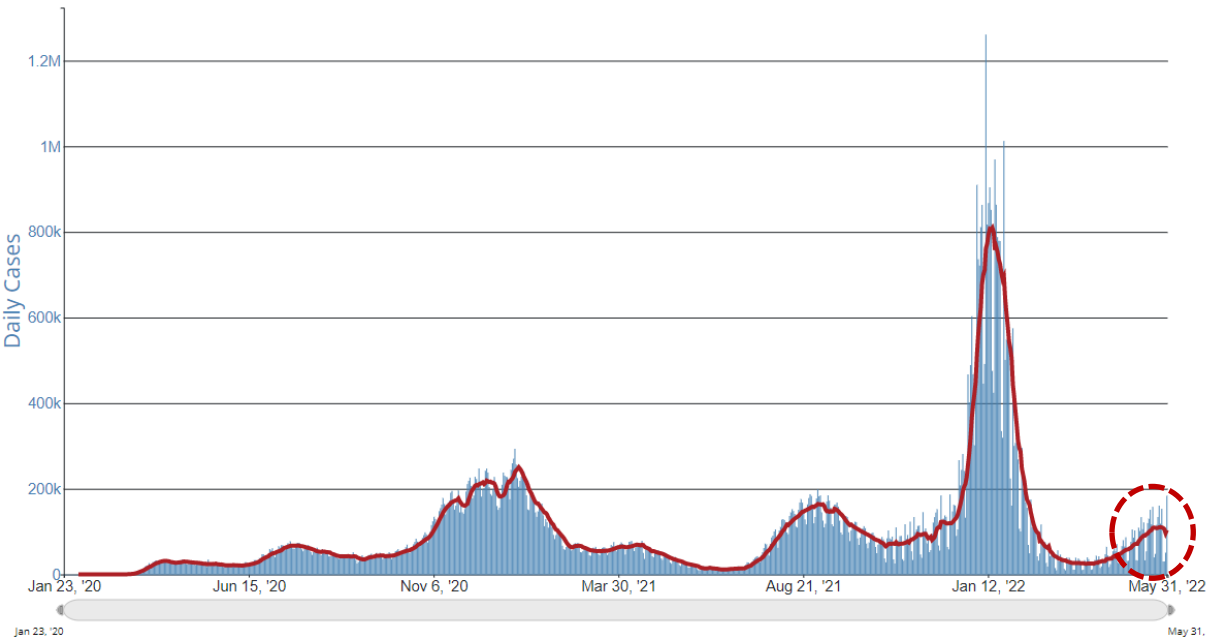
Metric	Goal	Week Ending				
		30-Apr-22	7-May-22	14-May-22	21-May-22	28-May-22
Positivity (All Ages)	NA	16.3%	20.1%	22.9%	23.8%	23.5%
Weekly Cases (All Ages)	<592	313	467	550	542	432
Weekly Cases in Children (0-17 years of age)	NA	42	51	57	61	55
Total Deaths (All Ages)	0	2	3	1	1	0
CDC COVID-19 Community 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

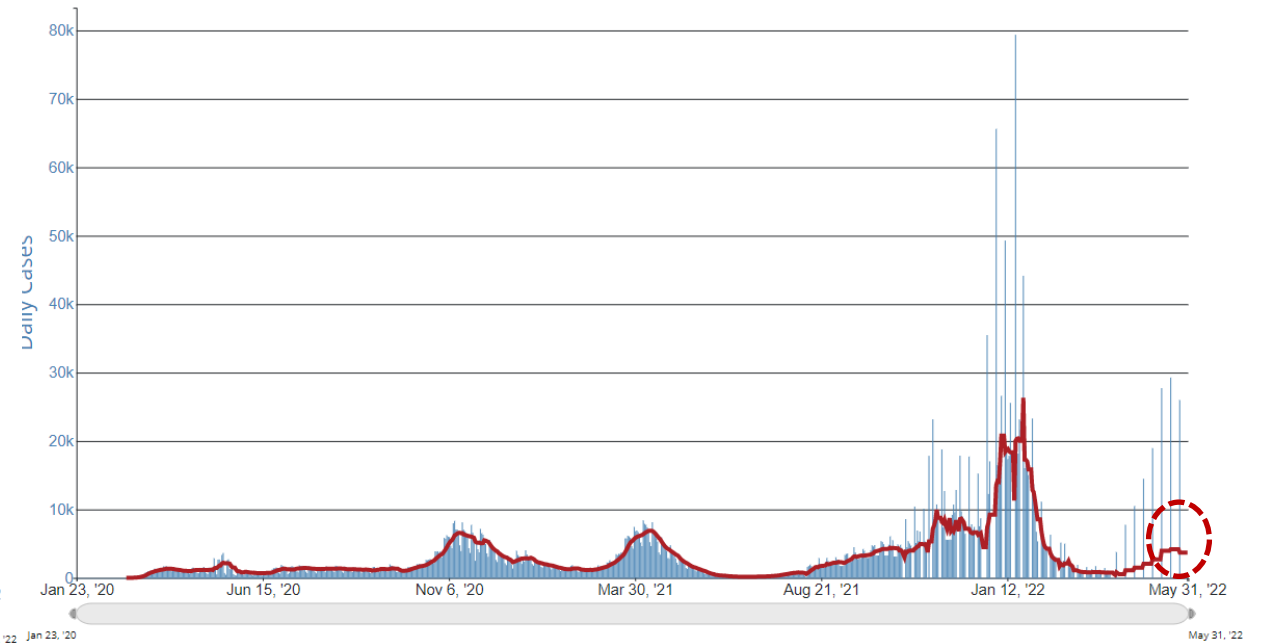
## USA

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 lower than previous surges.  
**Recent uptrends in the US and Michigan may have slowed.**

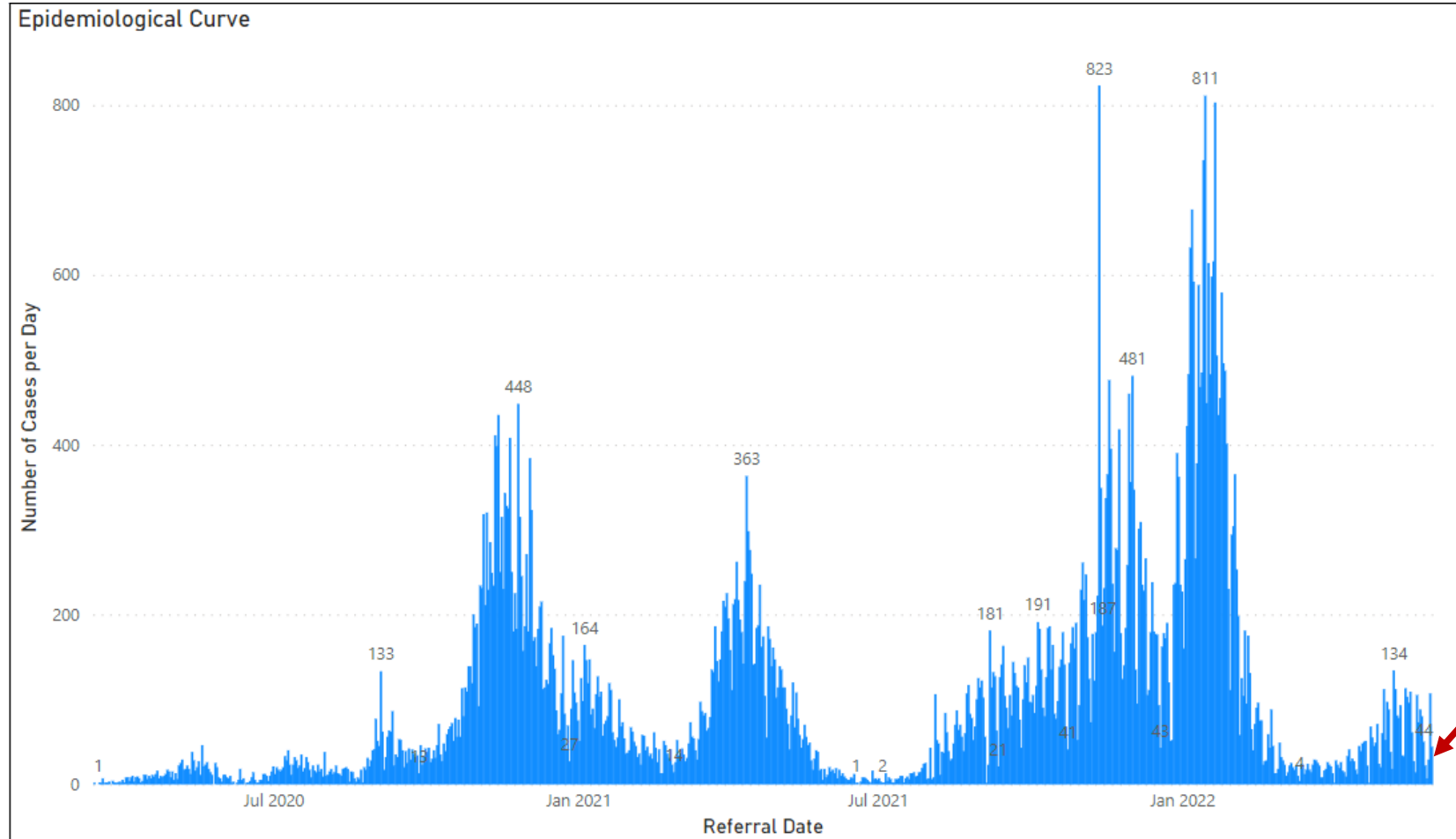
**Note:** Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in an artificially deflated number of cases.

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

Data through May 31, 2022

# Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – June 01, 2022



Total Number of Cases  
**77,754**

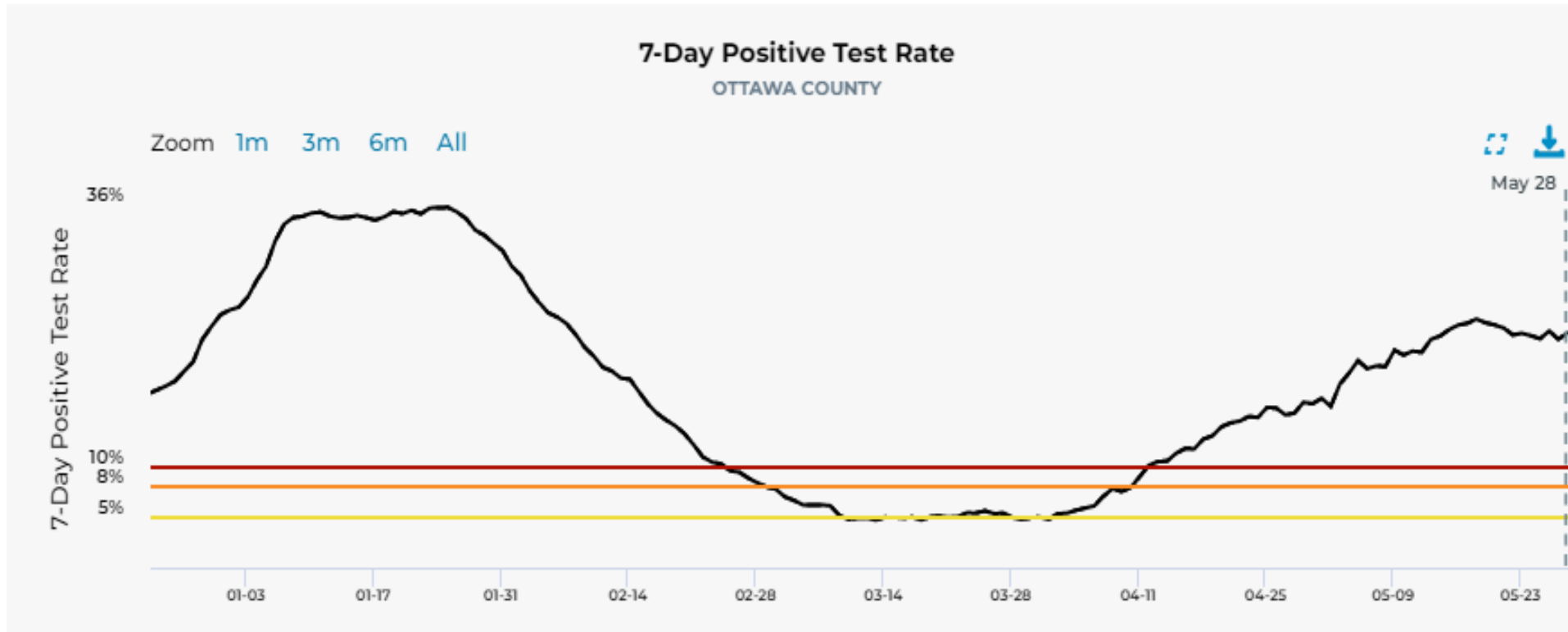
Currently, the 7-day average is about **48 cases per day**, a decrease compared to the 61 cases per day reported last week at this time.

**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, January 1, 2022 – May 28, 2022



Although test positivity has been increasing for the last 7 weeks, **the long-term uptrend may be slowing with positivity falling slightly to 23.3% last week.**

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 \(arcgis.com\)](https://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>

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

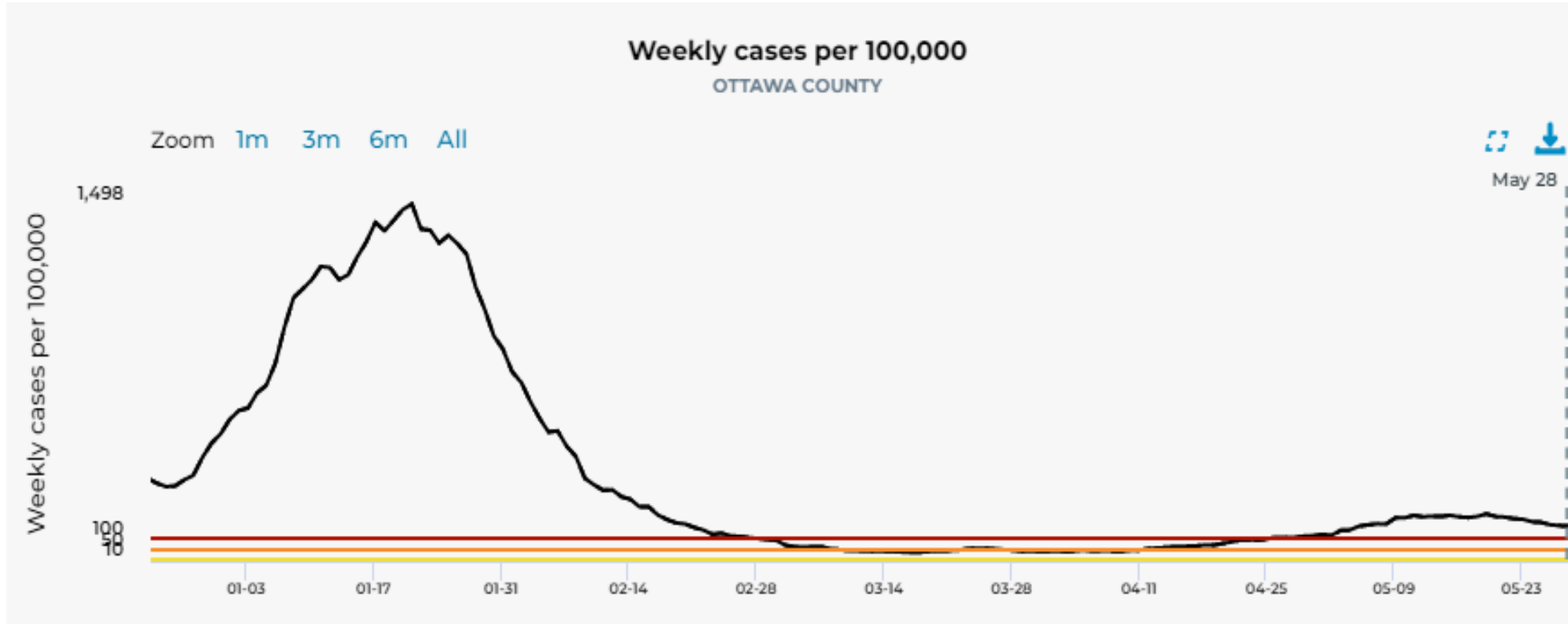
Other

Media

Science  
Roundup

# Case Rates in Ottawa County – All Ages

## COVID-19 Cases by Day, Ottawa County, January 1, 2022 – May 28, 2022



Case rates **remained low at 148** cases per week per 100,000 population (**lower than 185.4** the week prior).



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

Risk Thresholds (Cases per 100,000)



Low: <10



Moderate 10-49



Substantial 50-99



High >=100

**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>

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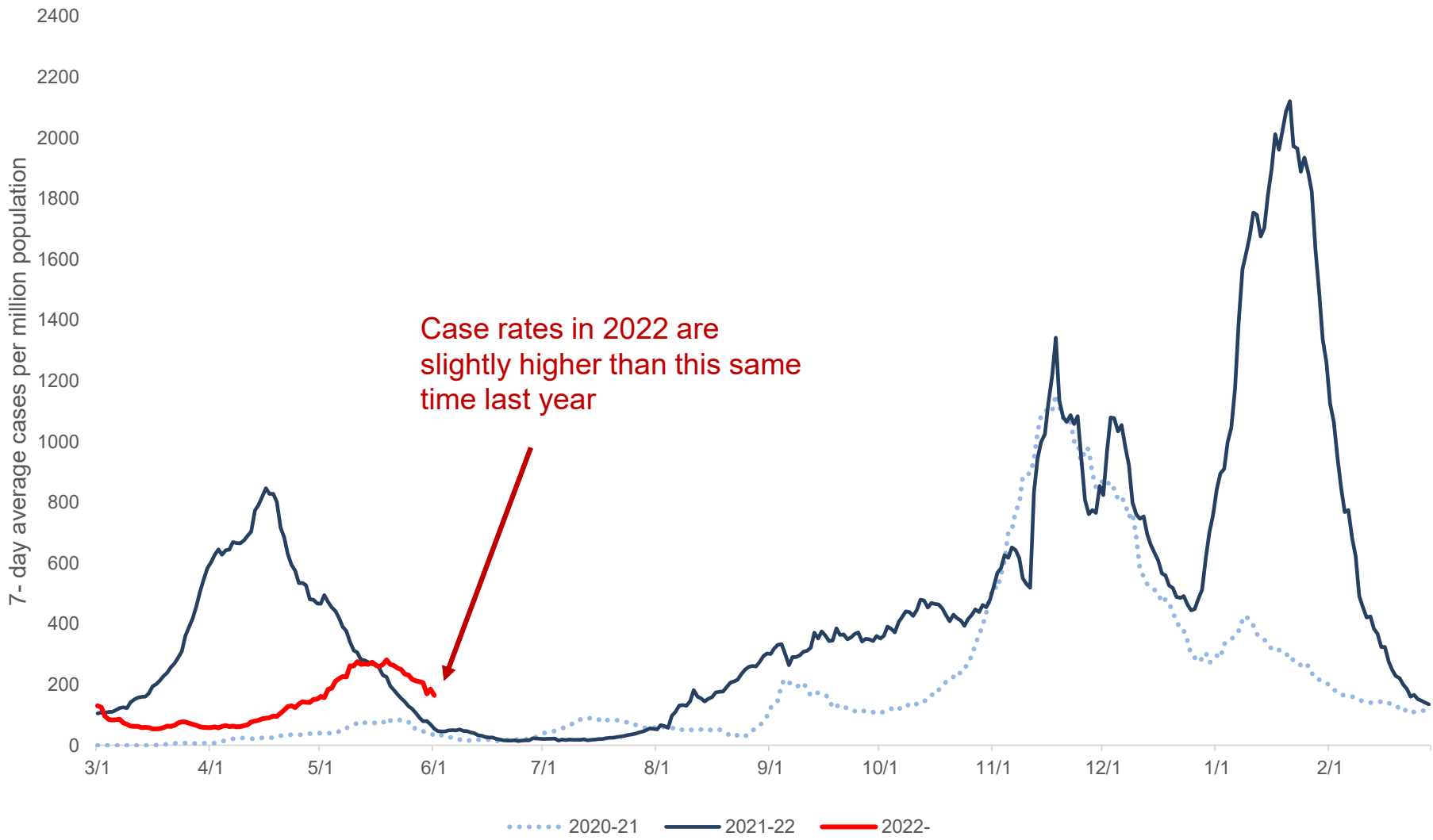
Other

Media

Science Roundup



# Ottawa County Time Trends – Annual Comparison of Case Rates



Case rates in 2022 are slightly higher than this same time last year

..... 2020-21    — 2021-22    — 2022-

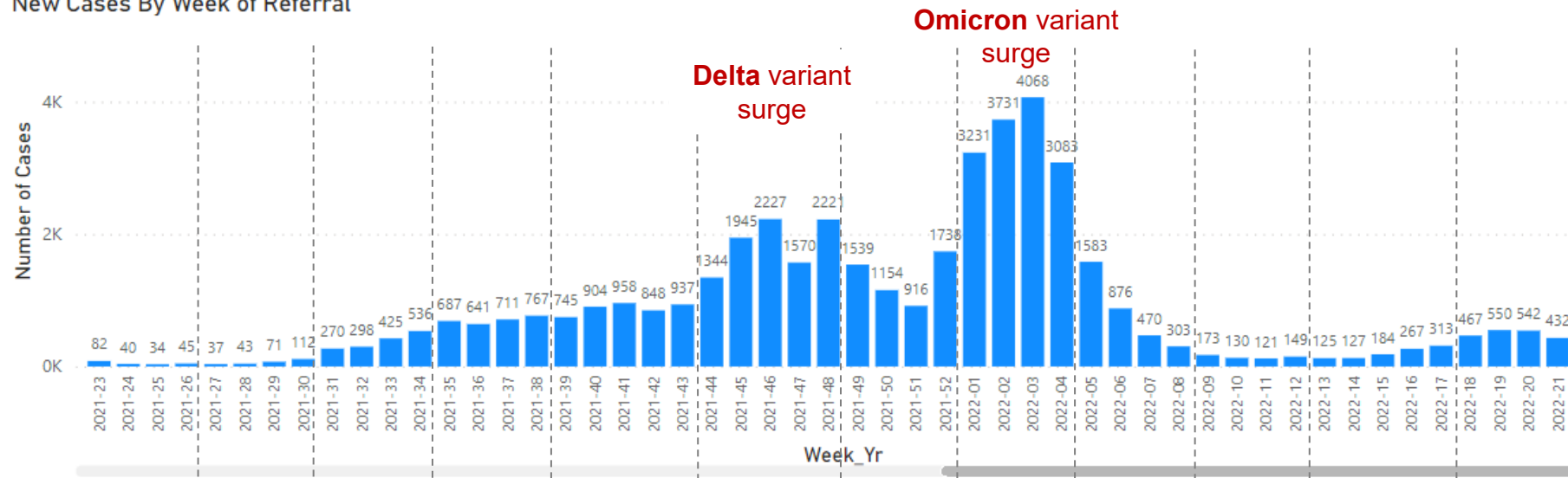
**Note:** Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

**Source:** Internal Data

Data through June 01, 2022

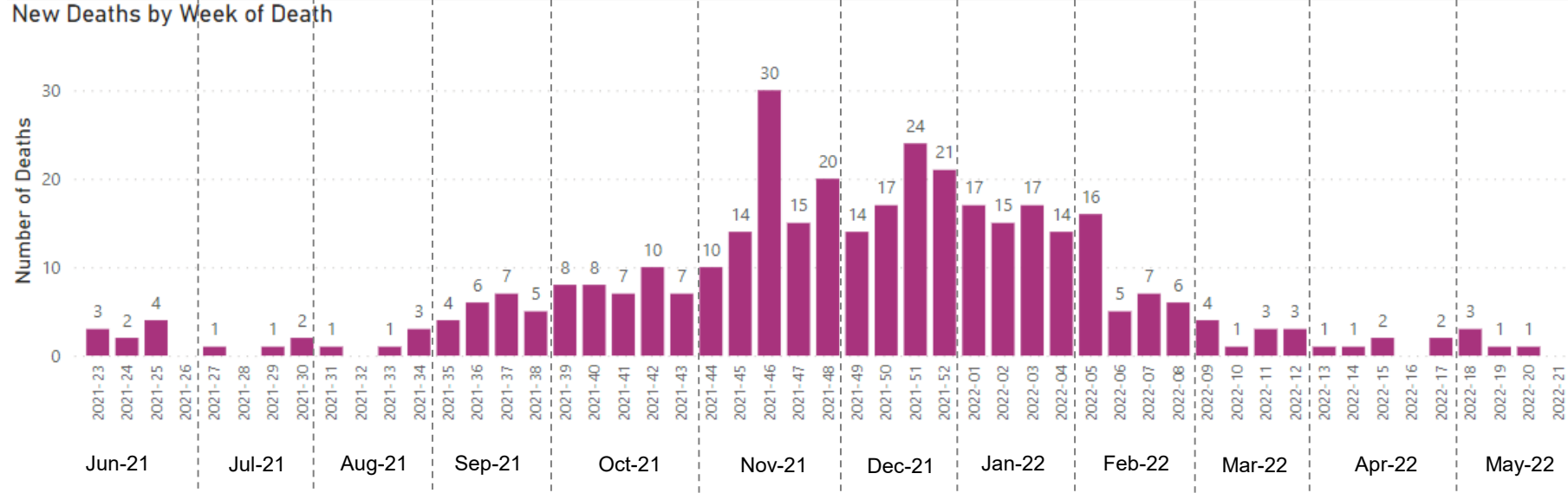
# Ottawa County – Cases & Deaths by Week, All Ages

New Cases By Week of Referral



The weekly number of **cases decreased 20%** from week 20 to week 21.

New Deaths by Week of Death



Weekly COVID-19 **deaths have decreased.** The current weekly average number of deaths over the last 4 weeks stands at about **1 death 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.

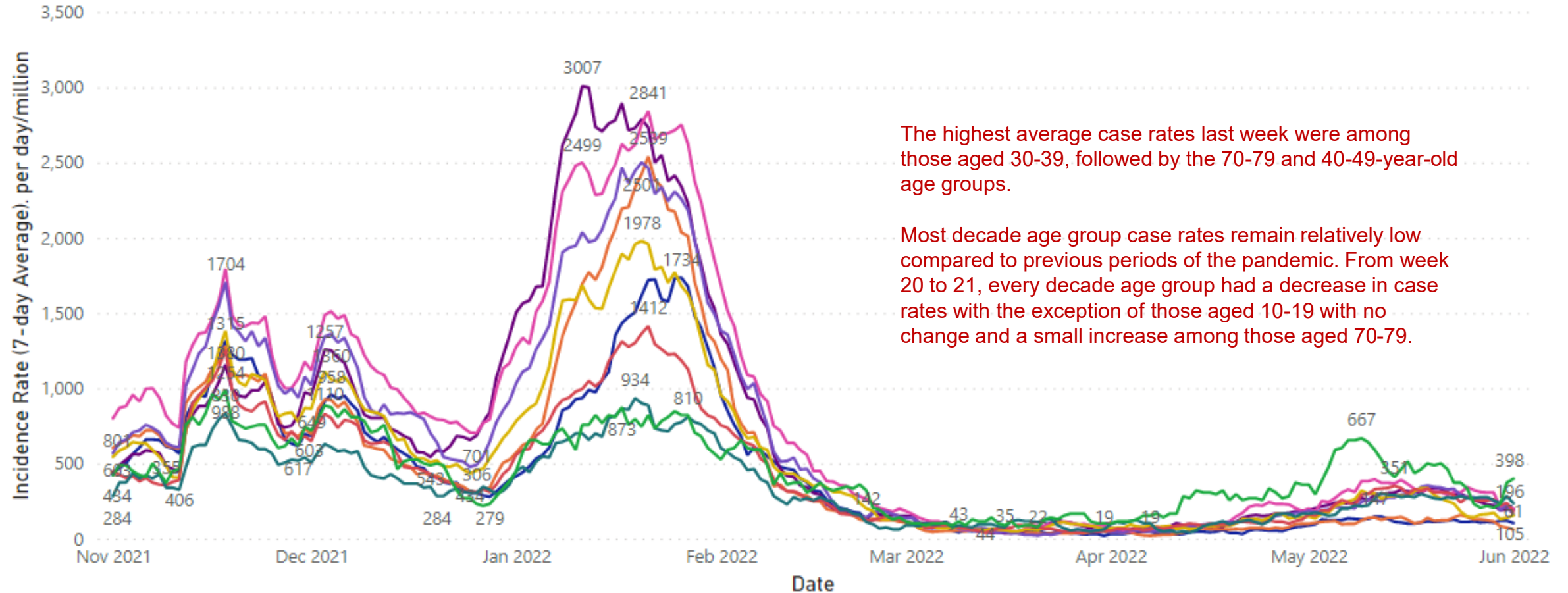
**Source:** Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Ottawa County - Case Rate Trends – by Age Decade

## COVID-19 Case Rates by Age, November 2021 – June 01, 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 30-39, followed by the 70-79 and 40-49-year-old age groups.

Most decade age group case rates remain relatively low compared to previous periods of the pandemic. From week 20 to 21, every decade age group had a decrease in case rates with the exception of those aged 10-19 with no change and a small increase among those aged 70-79.

**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 June 01, 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 21 (May 22, 2022 – May 28, 2022)

Age Decade (Years)	Average Daily Cases	Average Daily Case Rate	One Week % Rate Change
0-9	4.1	112.4	-3%
10-19	5.4	122.6	0%
20-29	10.1	224.2	-32%
30-39	10.9	303.0	-1%
40-49	8.7	262.4	-22%
50-59	5.7	163.7	-39%
60-69	8.3	254.4	-17%
70-79	5.7	276.6	5%
80+	2.4	218.3	-56%

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

- 30-39
- 70-79
- 40-49

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

- 70-79

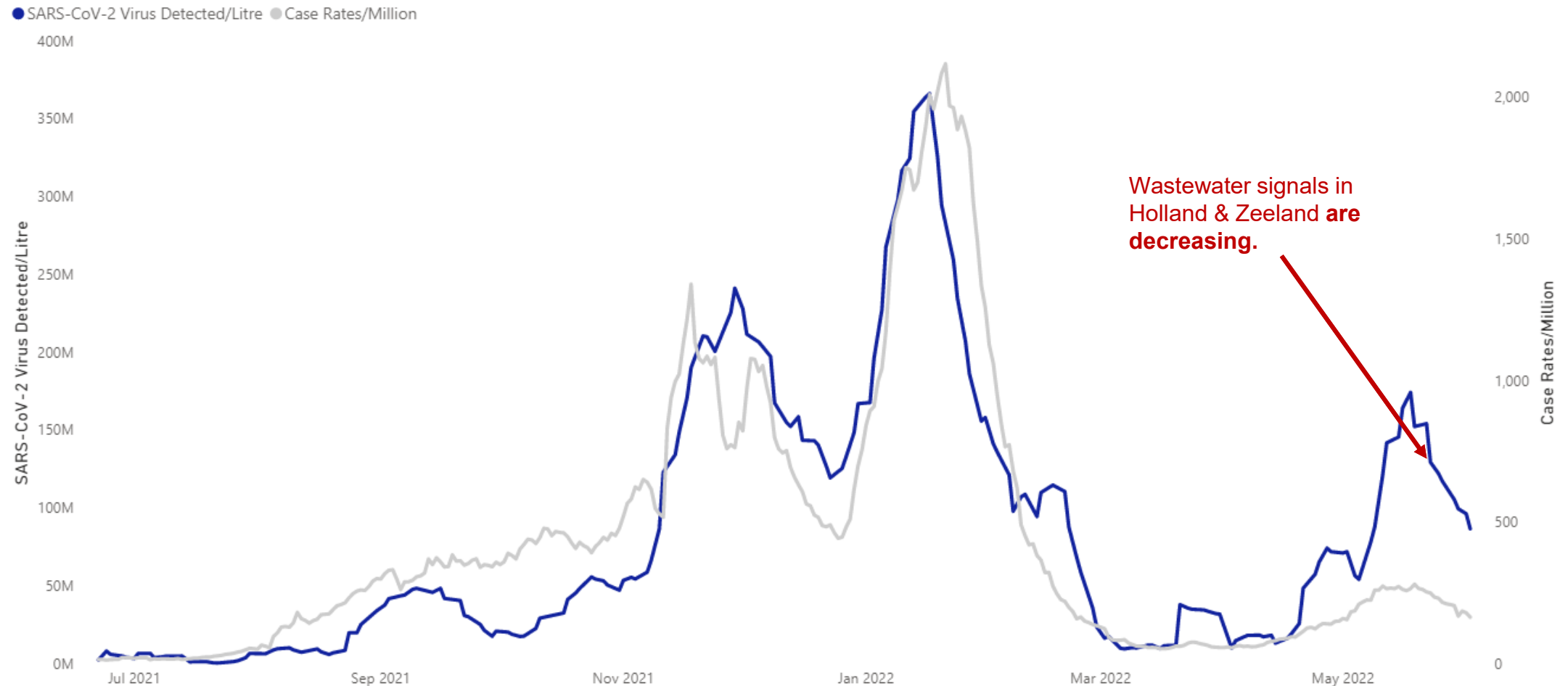
**Notes:** Average daily cases is calculated by summing the weekly total number of cases and dividing by seven. Cases counted in weeks of interest reflect referral date. Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case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

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

Data as June 1, 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)



Wastewater signals in Holland & Zeeland are decreasing.

**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](mailto:best@hope.edu))

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

Data through May 31, 2022

USA & MI

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# 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
26-Mar-22	137	36%	13	-35%	150	24%
2-Apr-22	108	-21%	17	31%	125	-17%
9-Apr-22	113	5%	13	-24%	126	1%
16-Apr-22	165	46%	19	46%	184	46%
23-Apr-22	240	45%	27	42%	267	45%
30-Apr-22	270	13%	42	56%	312	17%
7-May-22	415	54%	51	21%	466	49%
14-May-22	488	18%	57	12%	545	17%
21-May-22	481	-1%	61	7%	542	-1%
28-May-22	377	-22%	55	-10%	432	-20%

Adults

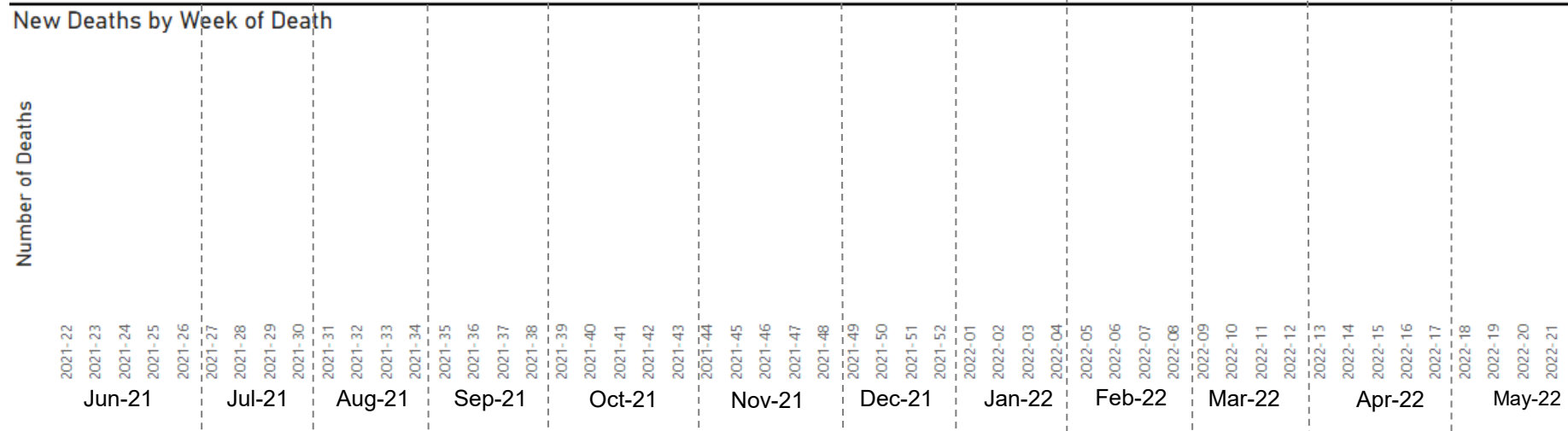
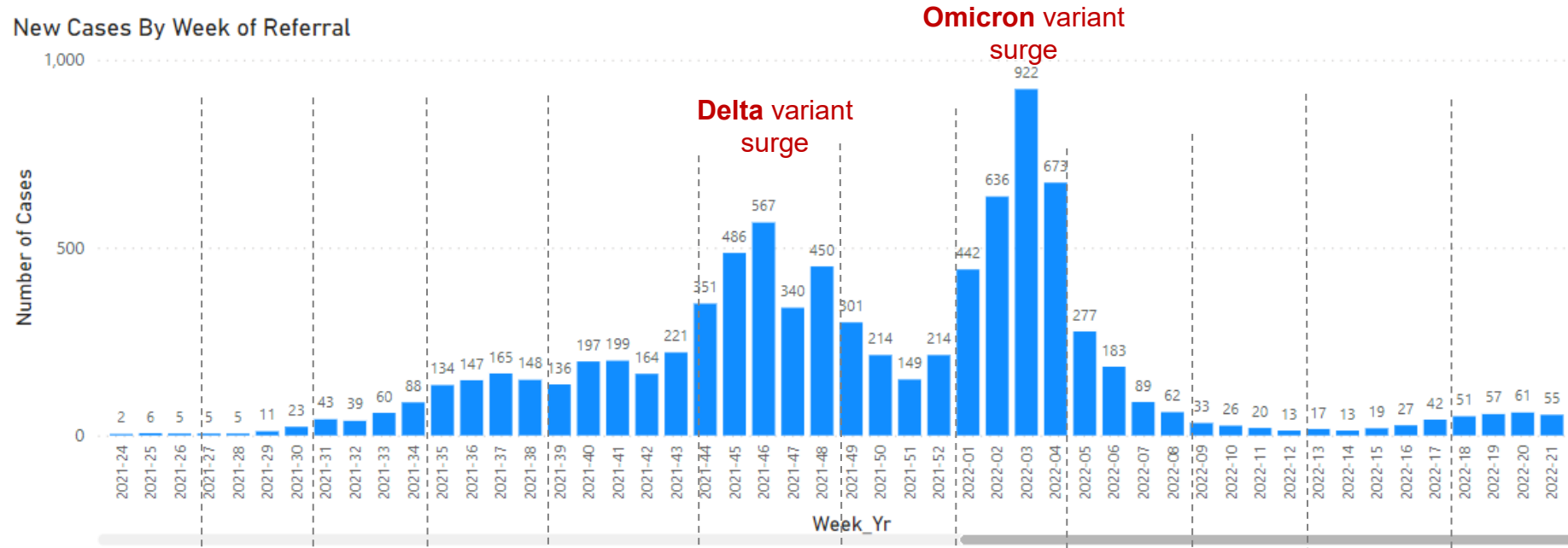
Children

Weekly case counts among **children decreased 10%** last week, and cases in **adults decreased 22%**.

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



The weekly number of cases among children **decreased 10%** from week 20 to week 21.

**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

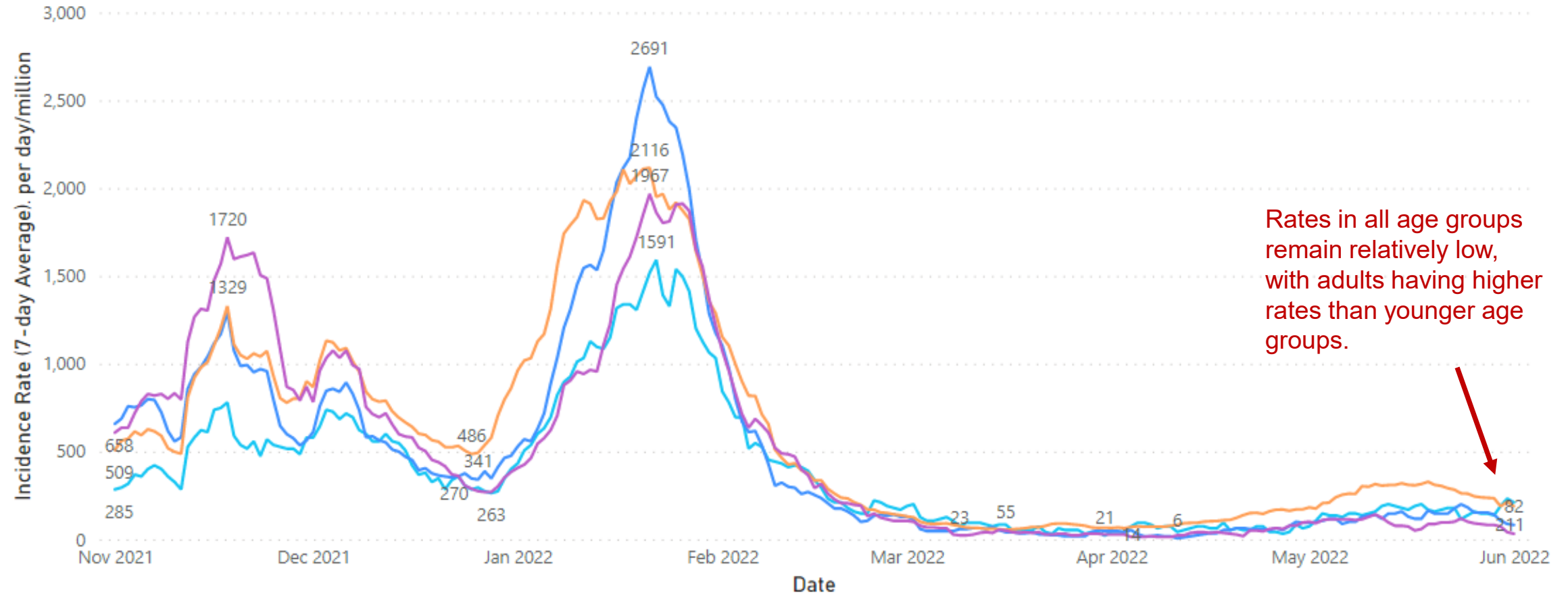


# Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, November 2021 – June 01, 2022

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



Rates in all age groups remain relatively low, with adults having higher rates than younger age groups.



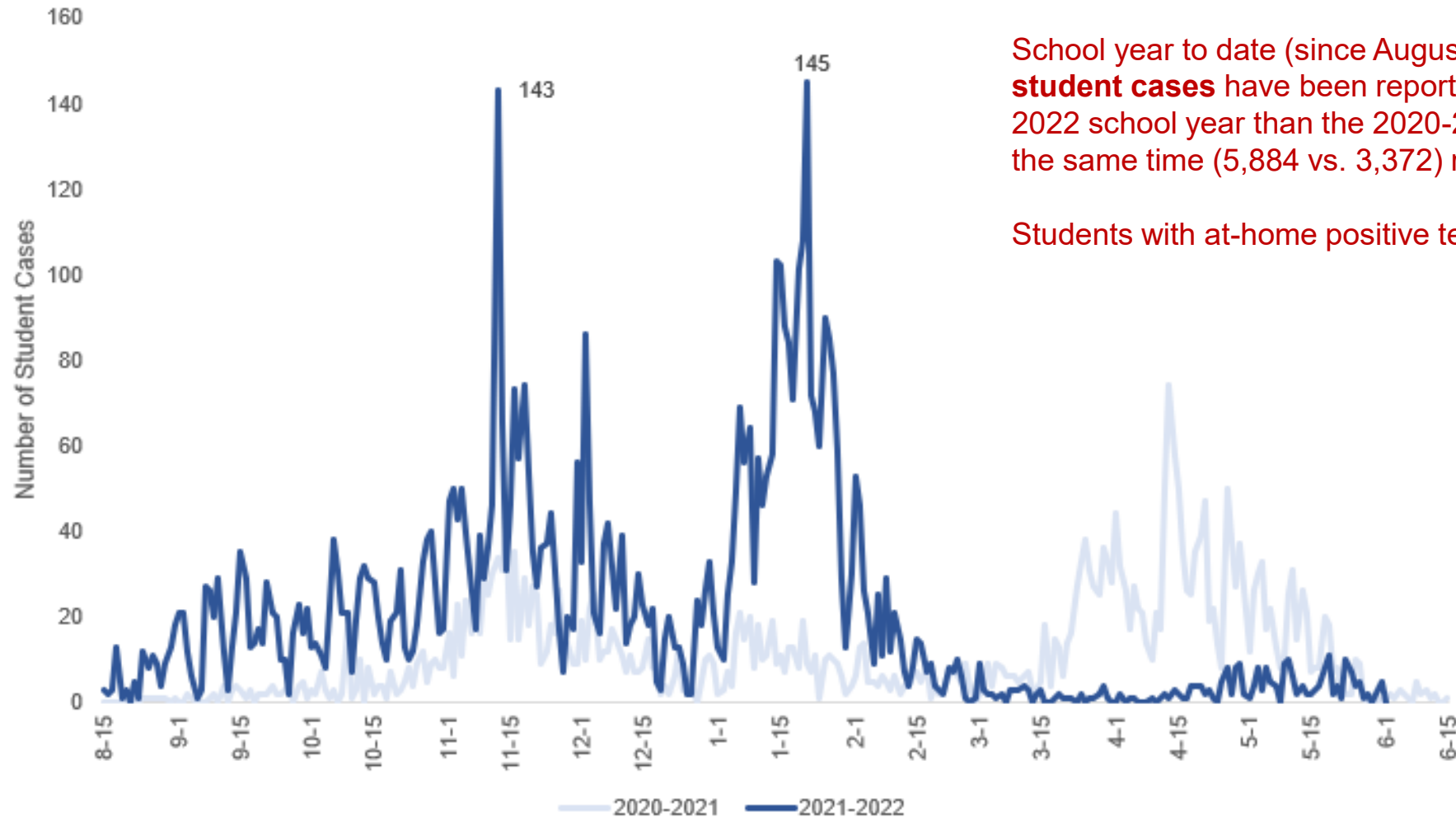
**Note:** Use of at home tests likely reduces the number of positive tests reported to Public Health, resulting in artificially deflated case rates.

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

Data as of June 01, 2022



# Ottawa County Cases in PreK-12 School Students



School year to date (since August 15), **1.7x more student cases** have been reported during the 2021-2022 school year than the 2020-2021 school year at the same time (5,884 vs. 3,372) respectively).

Students with at-home positive tests are not included.

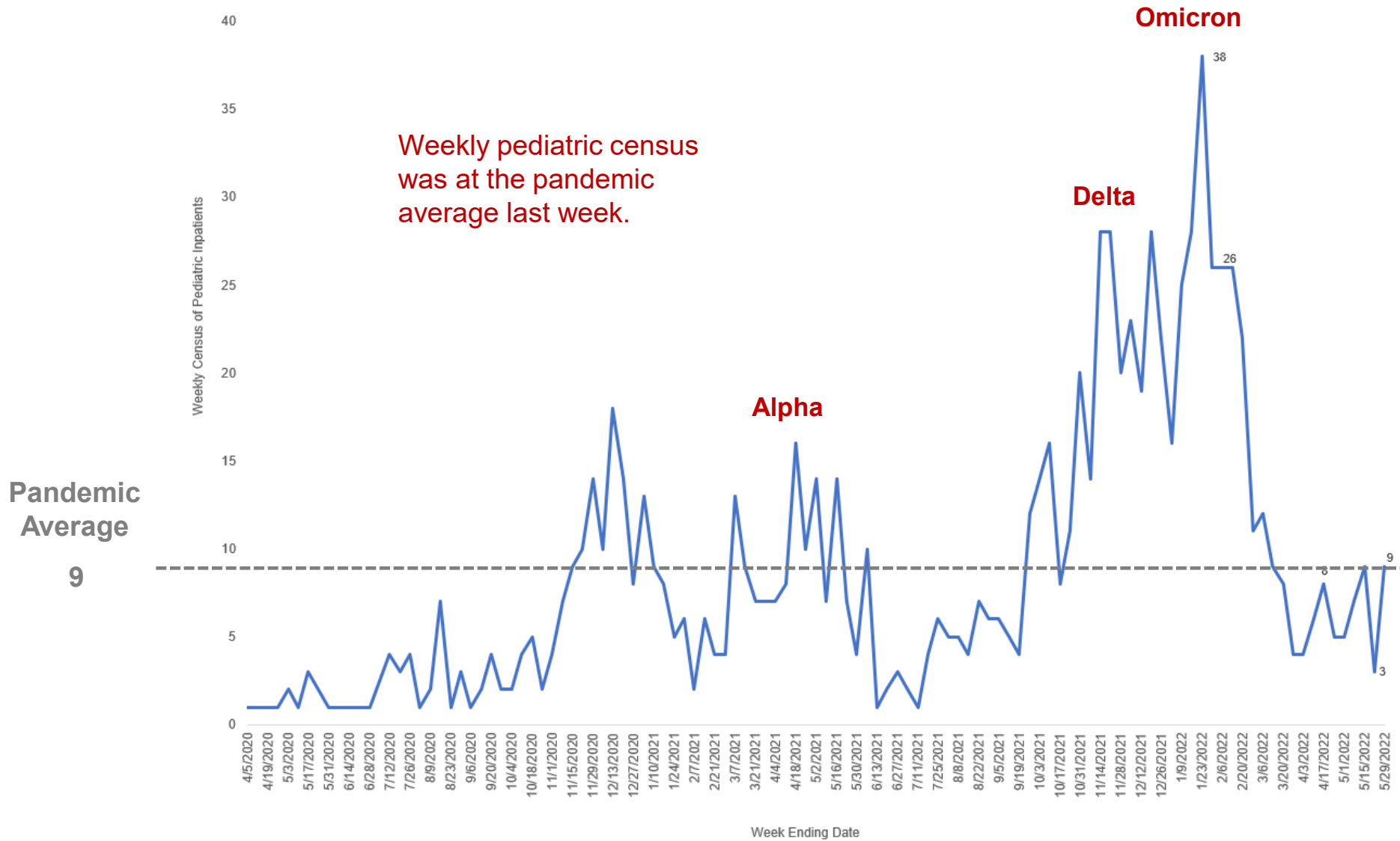
**Method:** Includes PreK-12 students known to attend a school in Ottawa County who are classified as a confirmed or probable case of COVID-19.

**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 June 1, 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 May 29, 2022

# Ottawa County Hospital Capacity – All Beds

## Hospital Inpatient Bed Occupancy - By County

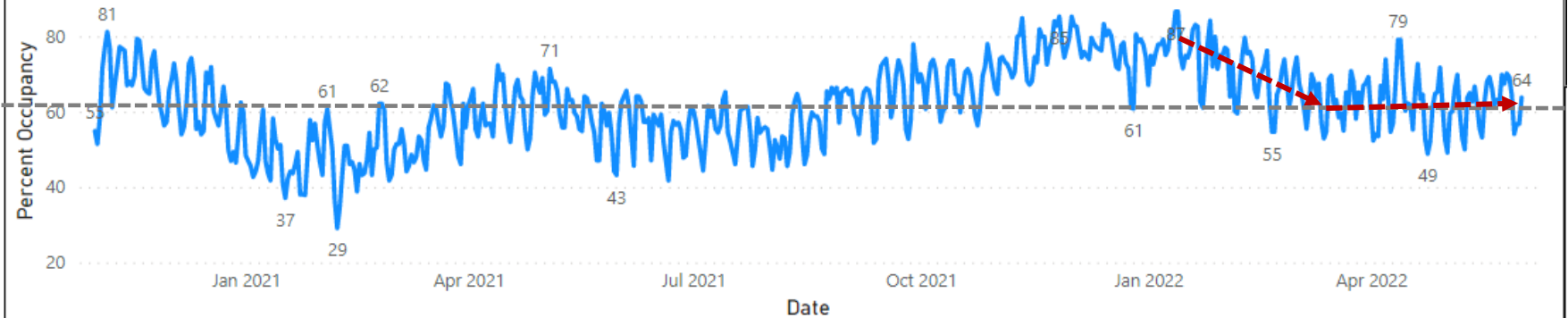
### Total Inpatient Bed Occupancy (All Patients, COVID and Non-COVID)

Pandemic Average

62%

Percent Occupancy by Date and County

County ● Ottawa



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

Currently **2%** of all inpatient beds are occupied by COVID-19 patients.

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

13%

Percent Occupancy by Date and County

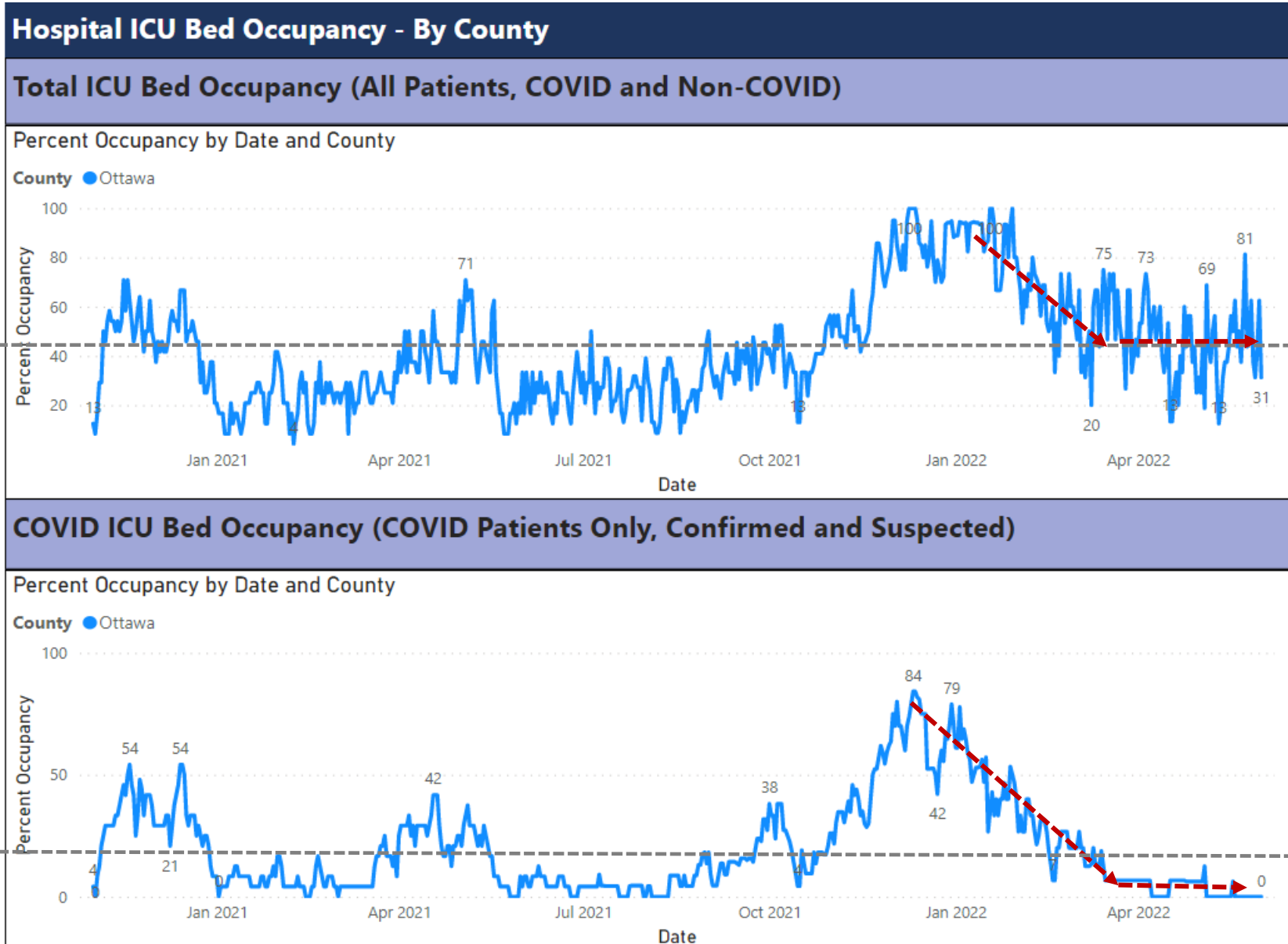
County ● Ottawa



Data through June 01, 2022

Source: EMResources

# Ottawa County Hospital Capacity – ICU Beds



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, 0% of ICU beds are occupied by COVID-19 patients.

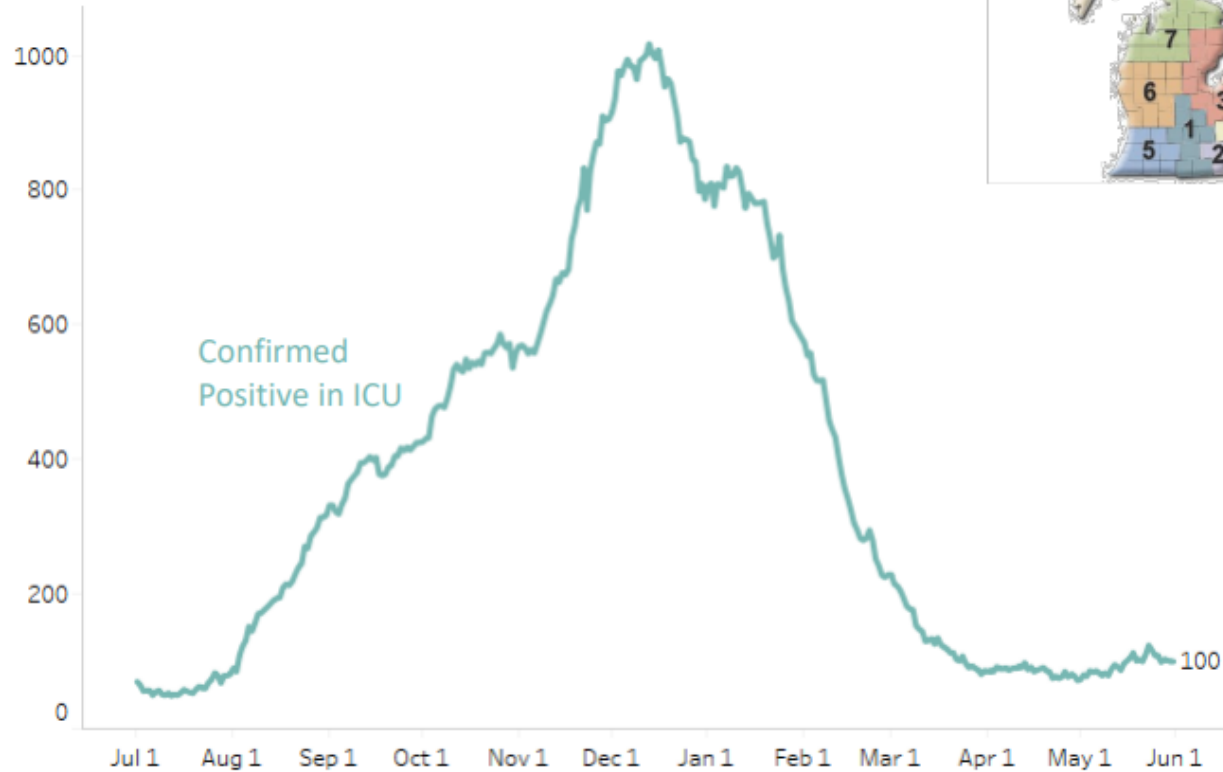
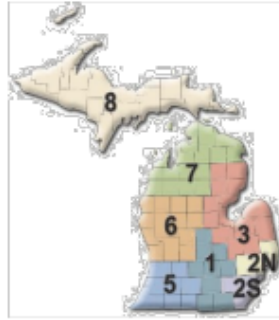
Source: EMResources

Data through June 01, 2022



# Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 5/31/2022  
Confirmed Positive in ICUs



Overall, the census of COVID+ patients in ICUs has decreased by 19% from last week. There are 100 COVID+ patients in ICU beds across the state.

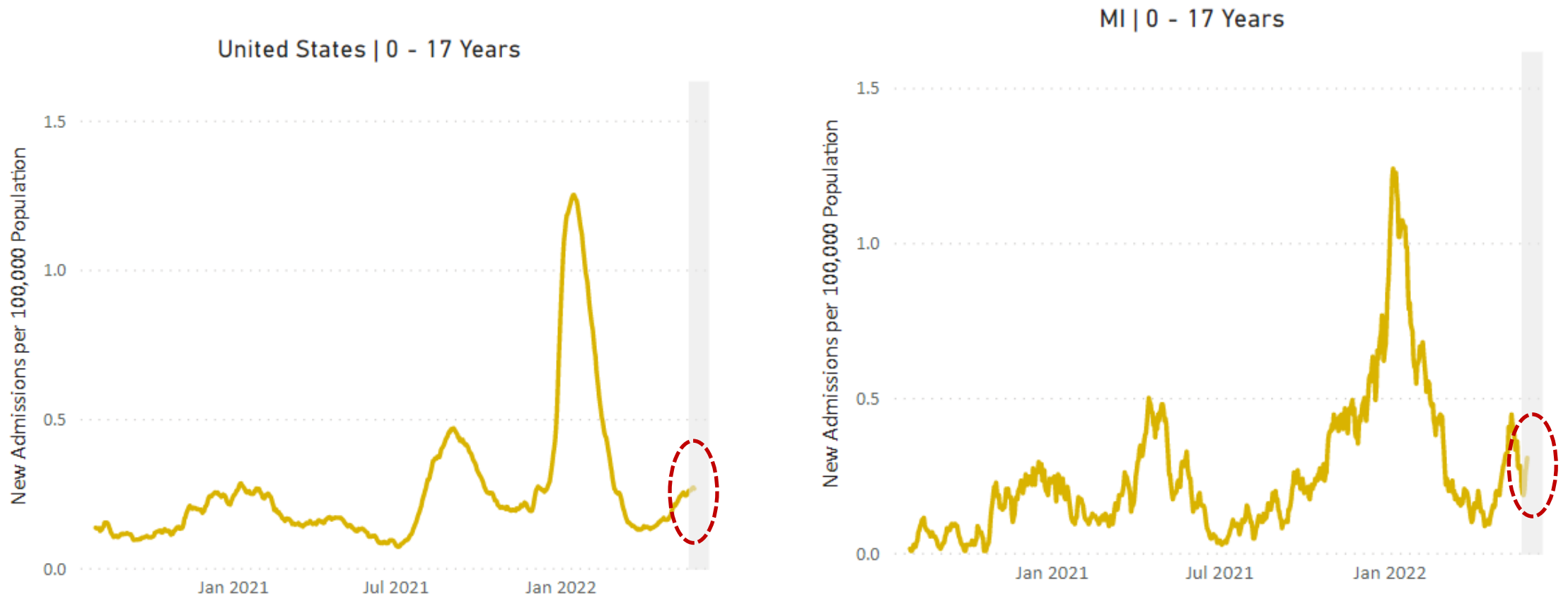
COVID+ ICU census has decreased in all regions except Region 8 (total 5 patients).

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	6 (-40%)	85%	3%
Region 2N	29 (-12%)	68%	5%
Region 2S	34 (-13%)	79%	5%
Region 3	11 (-21%)	91%	3%
Region 5	4 (-50%)	70%	2%
Region 6	5 (-50%)	73%	2%
Region 7	6 (-14%)	82%	4%
Region 8	5 (200%)	62%	8%

Source: MDHHS Data and Modelling: [MI COVID response Data and modeling update \(michigan.gov\)](https://michigan.gov/michigan/0,4570,7-293_14287_14288_14289_14290_14291_14292_14293_14294_14295_14296_14297_14298_14299_14300_14301_14302_14303_14304_14305_14306_14307_14308_14309_14310_14311_14312_14313_14314_14315_14316_14317_14318_14319_14320_14321_14322_14323_14324_14325_14326_14327_14328_14329_14330_14331_14332_14333_14334_14335_14336_14337_14338_14339_14340_14341_14342_14343_14344_14345_14346_14347_14348_14349_14350_14351_14352_14353_14354_14355_14356_14357_14358_14359_14360_14361_14362_14363_14364_14365_14366_14367_14368_14369_14370_14371_14372_14373_14374_14375_14376_14377_14378_14379_14380_14381_14382_14383_14384_14385_14386_14387_14388_14389_14390_14391_14392_14393_14394_14395_14396_14397_14398_14399_14400_14401_14402_14403_14404_14405_14406_14407_14408_14409_14410_14411_14412_14413_14414_14415_14416_14417_14418_14419_14420_14421_14422_14423_14424_14425_14426_14427_14428_14429_14430_14431_14432_14433_14434_14435_14436_14437_14438_14439_14440_14441_14442_14443_14444_14445_14446_14447_14448_14449_14450_14451_14452_14453_14454_14455_14456_14457_14458_14459_14460_14461_14462_14463_14464_14465_14466_14467_14468_14469_14470_14471_14472_14473_14474_14475_14476_14477_14478_14479_14480_14481_14482_14483_14484_14485_14486_14487_14488_14489_14490_14491_14492_14493_14494_14495_14496_14497_14498_14499_14500_14501_14502_14503_14504_14505_14506_14507_14508_14509_14510_14511_14512_14513_14514_14515_14516_14517_14518_14519_14520_14521_14522_14523_14524_14525_14526_14527_14528_14529_14530_14531_14532_14533_14534_14535_14536_14537_14538_14539_14540_14541_14542_14543_14544_14545_14546_14547_14548_14549_14550_14551_14552_14553_14554_14555_14556_14557_14558_14559_14560_14561_14562_14563_14564_14565_14566_14567_14568_14569_14570_14571_14572_14573_14574_14575_14576_14577_14578_14579_14580_14581_14582_14583_14584_14585_14586_14587_14588_14589_14590_14591_14592_14593_14594_14595_14596_14597_14598_14599_14600_14601_14602_14603_14604_14605_14606_14607_14608_14609_14610_14611_14612_14613_14614_14615_14616_14617_14618_14619_14620_14621_14622_14623_14624_14625_14626_14627_14628_14629_14630_14631_14632_14633_14634_14635_14636_14637_14638_14639_14640_14641_14642_14643_14644_14645_14646_14647_14648_14649_14650_14651_14652_14653_14654_14655_14656_14657_14658_14659_14660_14661_14662_14663_14664_14665_14666_14667_14668_14669_14670_14671_14672_14673_14674_14675_14676_14677_14678_14679_14680_14681_14682_14683_14684_14685_14686_14687_14688_14689_14690_14691_14692_14693_14694_14695_14696_14697_14698_14699_14700_14701_14702_14703_14704_14705_14706_14707_14708_14709_14710_14711_14712_14713_14714_14715_14716_14717_14718_14719_14720_14721_14722_14723_14724_14725_14726_14727_14728_14729_14730_14731_14732_14733_14734_14735_14736_14737_14738_14739_14740_14741_14742_14743_14744_14745_14746_14747_14748_14749_14750_14751_14752_14753_14754_14755_14756_14757_14758_14759_14760_14761_14762_14763_14764_14765_14766_14767_14768_14769_14770_14771_14772_14773_14774_14775_14776_14777_14778_14779_14780_14781_14782_14783_14784_14785_14786_14787_14788_14789_14790_14791_14792_14793_14794_14795_14796_14797_14798_14799_14800_14801_14802_14803_14804_14805_14806_14807_14808_14809_14810_14811_14812_14813_14814_14815_14816_14817_14818_14819_14820_14821_14822_14823_14824_14825_14826_14827_14828_14829_14830_14831_14832_14833_14834_14835_14836_14837_14838_14839_14840_14841_14842_14843_14844_14845_14846_14847_14848_14849_14850_14851_14852_14853_14854_14855_14856_14857_14858_14859_14860_14861_14862_14863_14864_14865_14866_14867_14868_14869_14870_14871_14872_14873_14874_14875_14876_14877_14878_14879_14880_14881_14882_14883_14884_14885_14886_14887_14888_14889_14890_14891_14892_14893_14894_14895_14896_14897_14898_14899_14900_14901_14902_14903_14904_14905_14906_14907_14908_14909_14910_14911_14912_14913_14914_14915_14916_14917_14918_14919_14920_14921_14922_14923_14924_14925_14926_14927_14928_14929_14930_14931_14932_14933_14934_14935_14936_14937_14938_14939_14940_14941_14942_14943_14944_14945_14946_14947_14948_14949_14950_14951_14952_14953_14954_14955_14956_14957_14958_14959_14960_14961_14962_14963_14964_14965_14966_14967_14968_14969_14970_14971_14972_14973_14974_14975_14976_14977_14978_14979_14980_14981_14982_14983_14984_14985_14986_14987_14988_14989_14990_14991_14992_14993_14994_14995_14996_14997_14998_14999_15000)



# Pediatric Hospitalization Rates – USA, Michigan

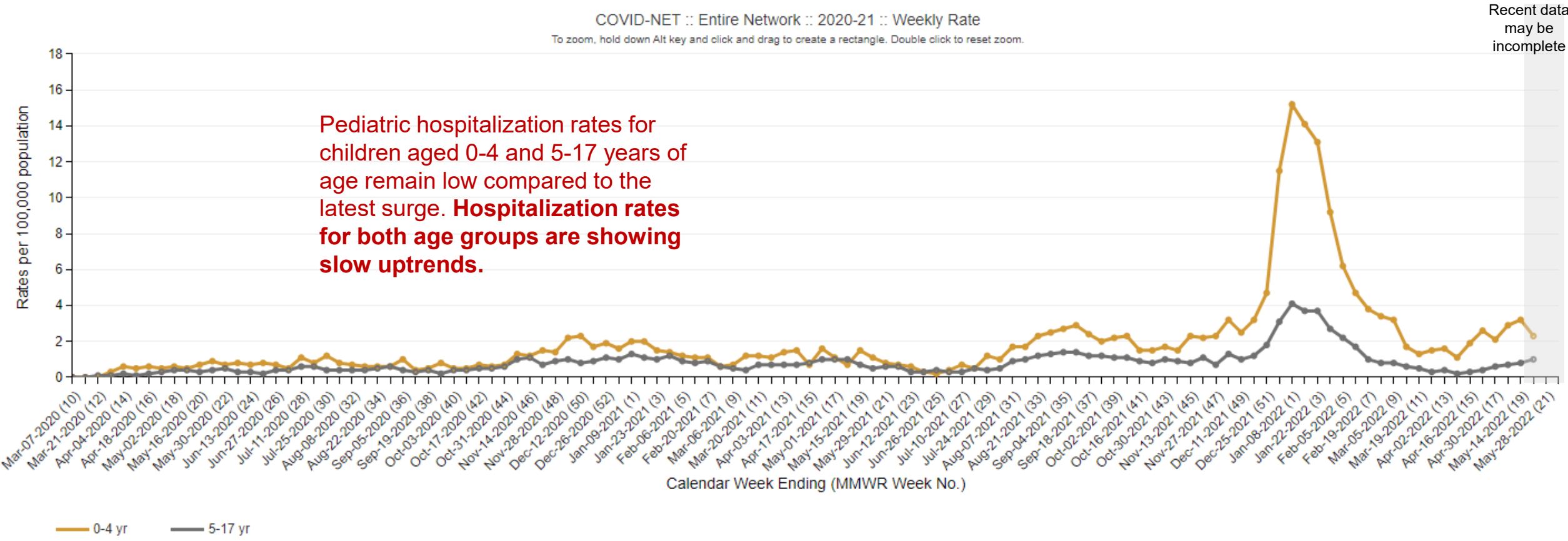


Pediatric hospitalization rates across the US continue increasing. **Rates in Michigan recently fell.**

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

Accessed June 01, 2022

# Pediatric Hospitalization Rates by Age Group – USA



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.

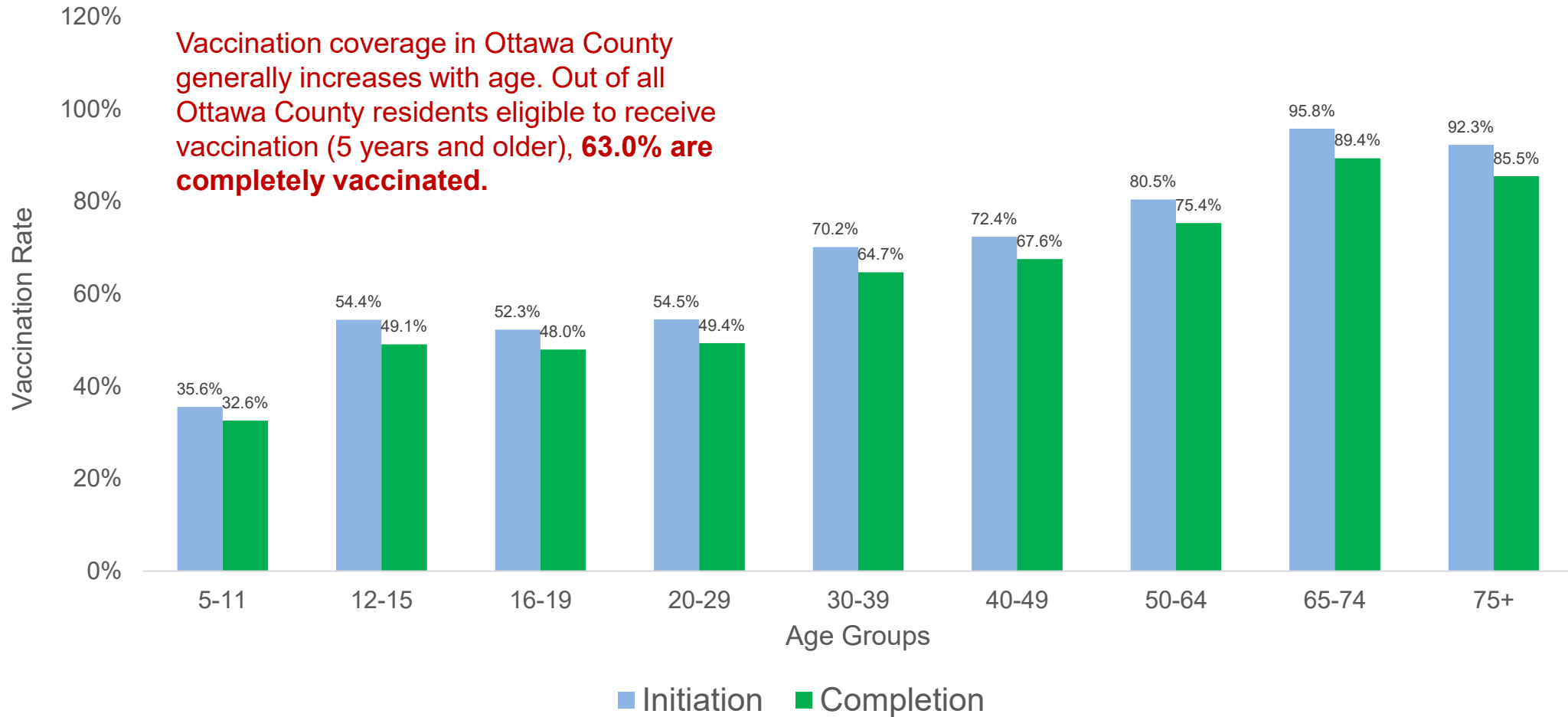
Starting MMWR week 48, MD data are temporarily removed from weekly rate calculations.

Source: <https://covid.cdc.gov/covid-data-tracker/#covidnet-hospitalization-network>

Accessed June 01, 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 June 01, 2022

# Cumulative Cases by Vaccination Status, Ottawa County, January 15, 2021 – May 28, 2022

Fully Vaccinated People (172,711)	
Cases	Deaths
Percent of Cases in People Not Fully Vaccinated (37,177 / 57,494) <b>64.7%</b>	Percent of Deaths in People Not Fully Vaccinated (292 / 449) <b>65.0%</b>
Total Cases Not Fully Vaccinated <b>37,177</b>	Total Deaths Not Fully Vaccinated <b>292</b>
Total Breakthrough Cases <b>20,317</b>	Total Breakthrough Deaths <b>157</b>
Percent of Fully Vaccinated People who Developed COVID-19 (20,317 / 172,711) <b>11.8%</b>	Percent of Fully Vaccinated People who Died of COVID-19 (157 / 172,711) <b>0.09%</b>
Percent of Cases who were Fully Vaccinated (20,317 / 57,494) <b>35.3%</b>	Percent of Deaths who were Fully Vaccinated (157 / 449) <b>35.0%</b>
Total Cases <b>57,494</b>	Total Deaths <b>449</b>

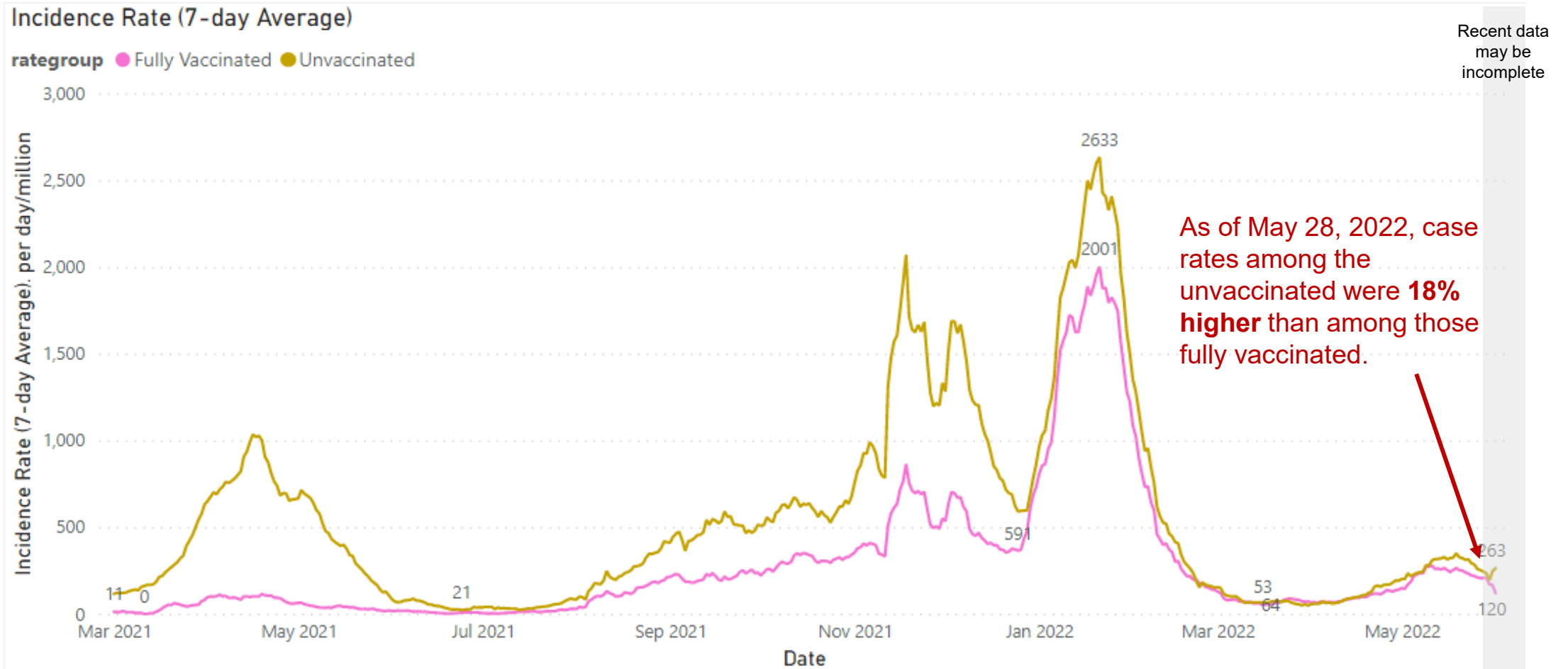
**Note:**

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

**Sources:**

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

# Ottawa County COVID-19 Vaccination Breakthrough Case Trends



## 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](https://www.cdc.gov/covid19/); 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.

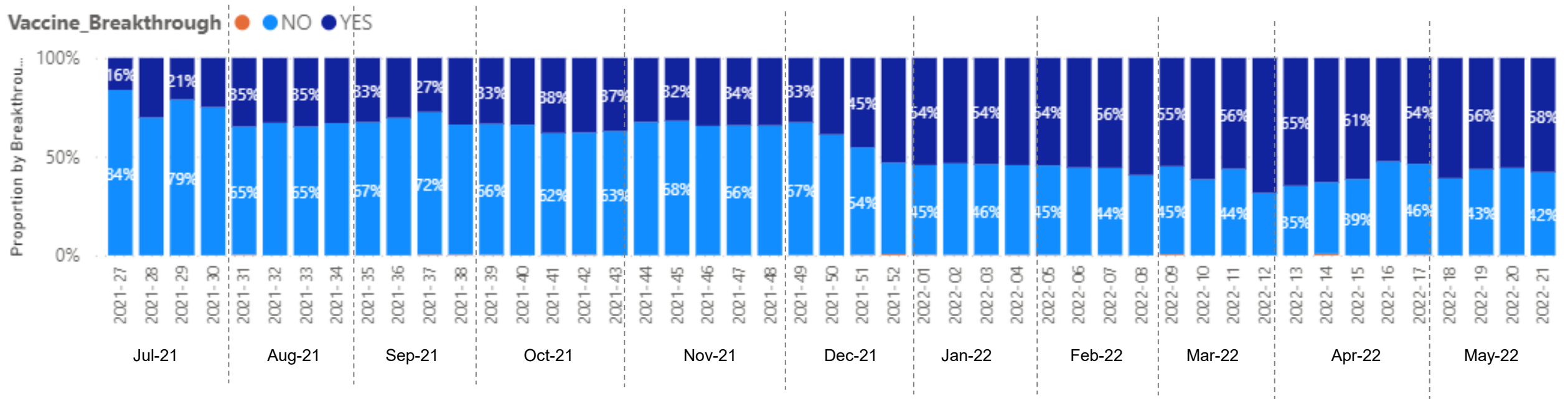
## Sources:

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](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

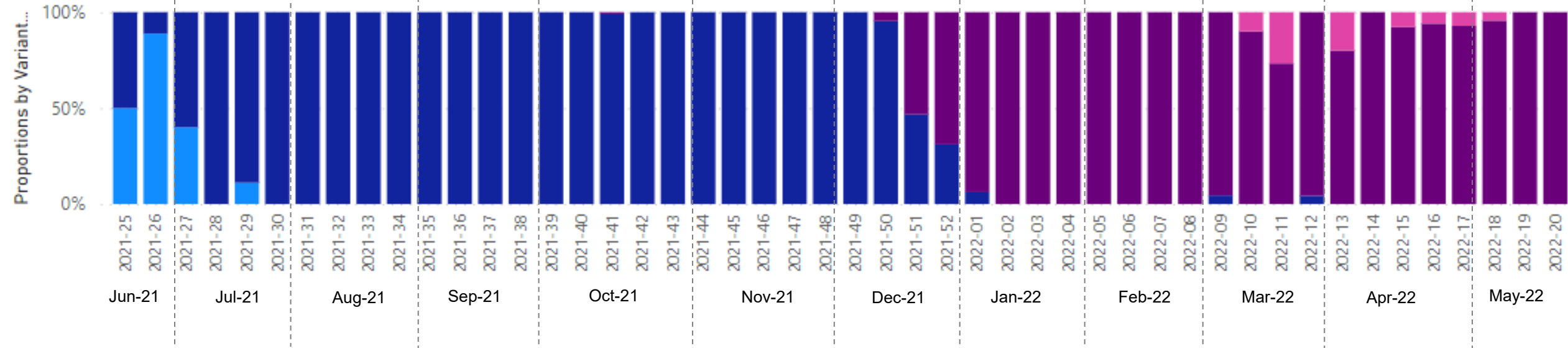


Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

# Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name ● Alpha ● Delta ● Gamma ● Omicron ● Omicron BA.2

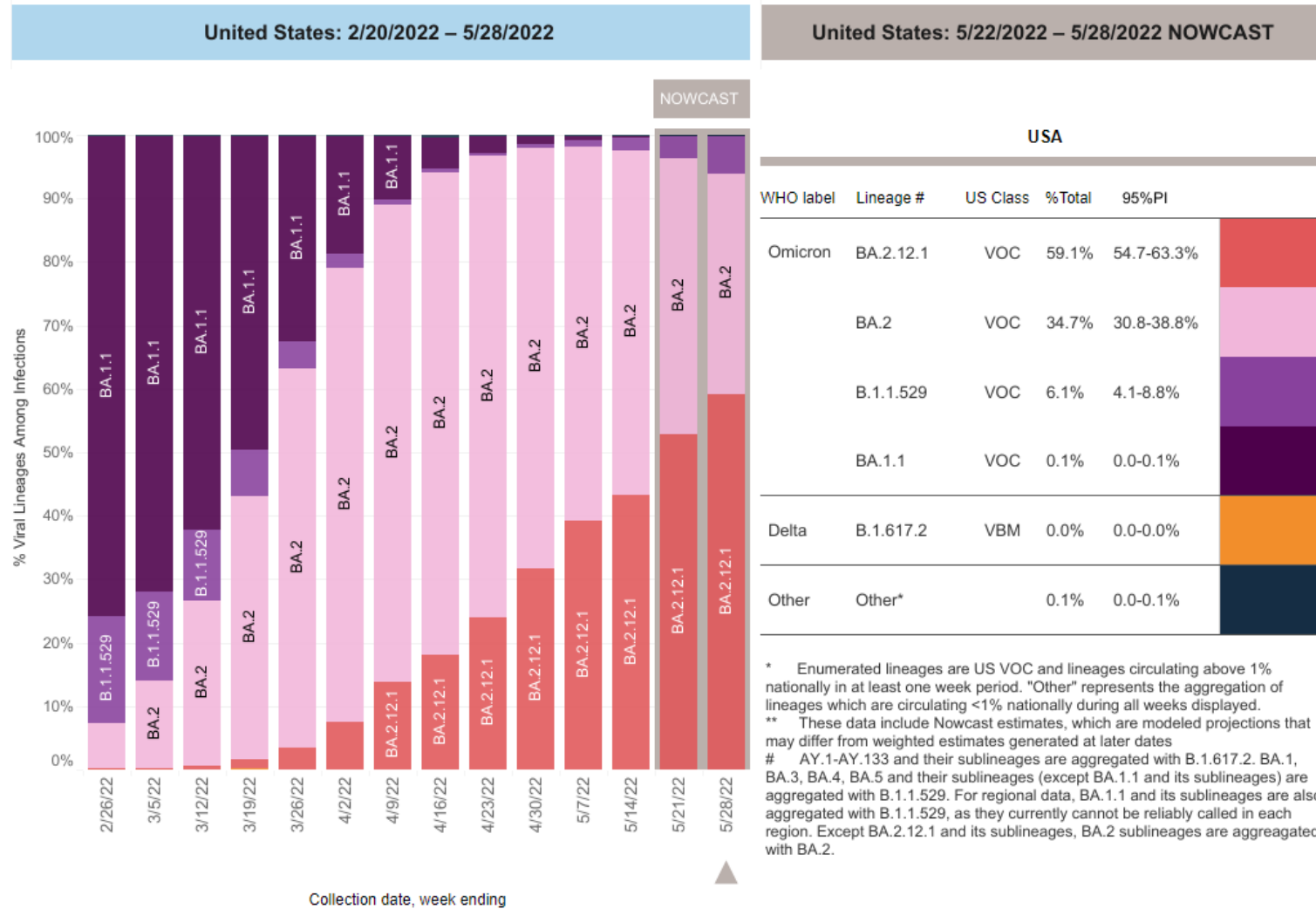


In June of 2021, most clinical samples\* submitted for variant testing were identified as the **Alpha** variant. By the end of July 2021, all clinical samples tested were identified as the **Delta** variant. From late July through early December 2021 all clinical samples submitted for variant testing were identified as the **Delta** variant. In mid-December 2021, the first **Omicron** positive samples were collected in an Ottawa County resident, and **Omicron** continues to be detected into 2022, including the BA.2 variant.

\* Swabs from Ottawa County residents that tested positive for COVID-19 by PCR; only a small proportion of all COVID-19 positive tests are tested for variants.

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

# Variants – Clinical Samples from Across the USA



The **Omicron** variant is estimated to account for nearly 100% of all clinical samples collected in the United States the week ending May 28, 2022.

Omicron subvariants are also circulating, with BA.2 variants predominating.

# Variants – Wastewater Sampling – Holland/Zeeland

Y = Detected  
N = Not Detected

Sample Date	Site	Delta	Omicron
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
03/17/2022	Zeeland	N	N
03/21/2022	Zeeland	N	Y
03/23/2022	North Holland	N	N
03/24/2022	Zeeland	N	N
03/27/2022	North Holland	N	N
04/03/2022	North Holland	N	N
04/04/2022	Zeeland	N	N
04/17/2022	North Holland	N	N
04/18/2022	Zeeland	N	N
04/20/2022	North Holland	N	N
04/21/2022	Zeeland	N	N
04/24/2022	North Holland	N	N
04/25/2022	Zeeland	N	N
04/27/2022	North Holland	N	Y
04/28/2022	Zeeland	N	Y
05/01/2022	North Holland	N	Y
05/02/2022	Zeeland	N	Y
05/08/2022	North Holland	N	N
05/09/2022	Zeeland	N	Y
05/11/2022	North Holland	N	N
05/12/2022	Zeeland	N	N
05/15/2022	North Holland	N	Y
05/16/2022	Zeeland	N	N
05/18/2022	North Holland	N	Y
05/19/2022	Zeeland	N	Y
05/22/2022	North Holland	N	Y
05/23/2022	Zeeland	N	Y
05/25/2022	North Holland	N	Y
05/26/2022	Zeeland	N	N

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

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

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

# Variants – Wastewater Sampling – Grand Haven/Spring Lake

Date	Sample Name	Delta	Epsilon	Alpha	Omicron
4/13/2022	Allendale Wastewater Treatment Plant	N	N	N	Y
4/20/2022	Grand Haven Spring Lake Wastewater	N	N	N	Y
4/25/2022	Grand Haven Spring Lake Wastewater				Y
4/27/2022	Allendale Wastewater Treatment Plant				Y
5/4/2022	Allendale Wastewater Treatment Plant				Y
5/4/2022	Grand Haven Spring Lake Wastewater				Y
5/9/2022	Allendale Wastewater Treatment Plant				Y
5/9/2022	Grand Haven Spring Lake Wastewater				Y
5/11/2022	Allendale Wastewater Treatment Plant				Y
5/11/2022	Grand Haven Spring Lake Wastewater				Y
5/16/2022	Allendale Wastewater Treatment Plant				Y
5/18/2022	Grand Haven Spring Lake Wastewater				Y
5/23/2022	Allendale Wastewater Treatment Plant				Y
5/25/2022	Allendale Wastewater Treatment Plant				Y
5/25/2022	Grand Haven Spring Lake Wastewater				Y
5/31/2022	Allendale Wastewater Treatment Plant				

N =Not Detected  
Y =Detected  
 =Not Tested

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

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



# COVID-19 Community Levels

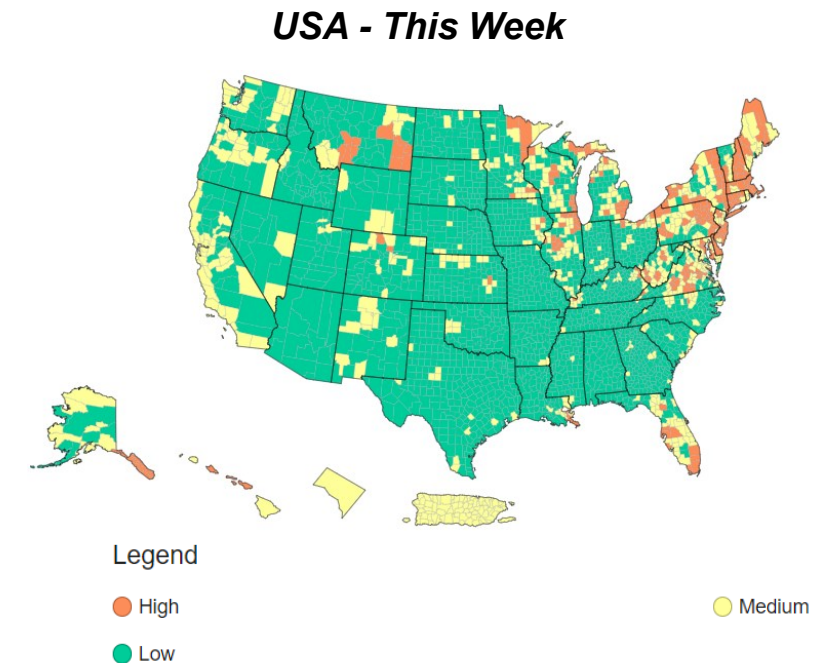
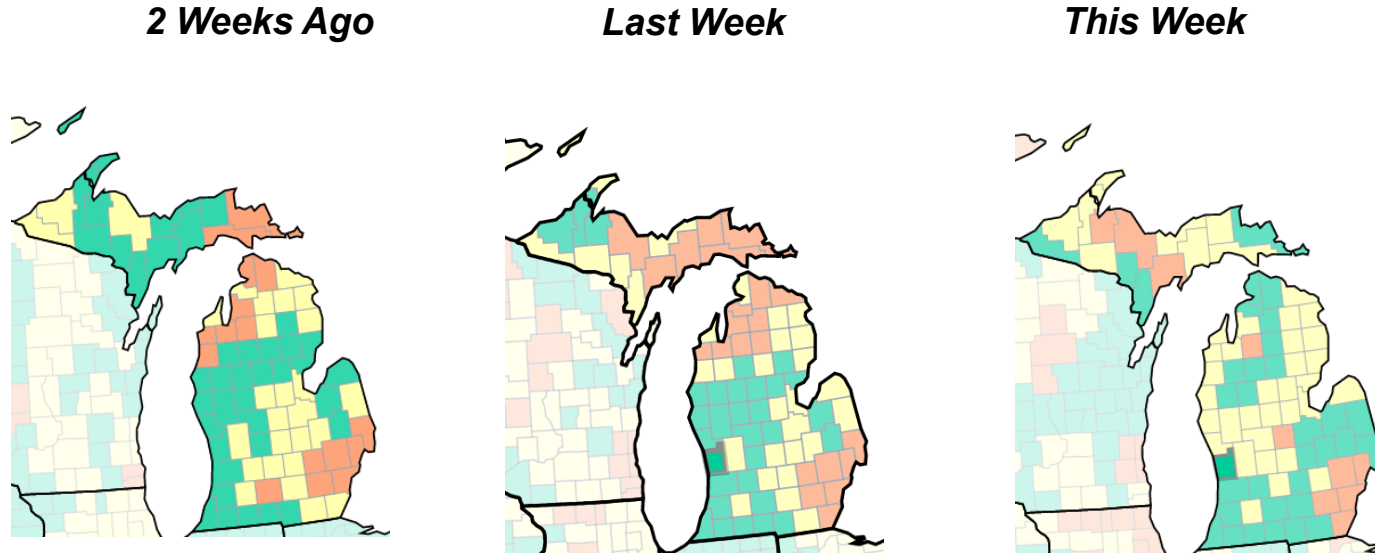
COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds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

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

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

# CDC Community Levels – Ottawa County

- Current Community Level in Ottawa – **LOW**
- Current Data:
  - Case Rate (per 100k pop 7-day total) = **136.72**
  - COVID-19 Hospital Admissions (per 100K pop 7-day total) = **2.2**
  - COVID-19 Inpatient Hospital Bed Utilization (7-day average) = **2.8%**



Data updated by CDC on Jun 02, 2022

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

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

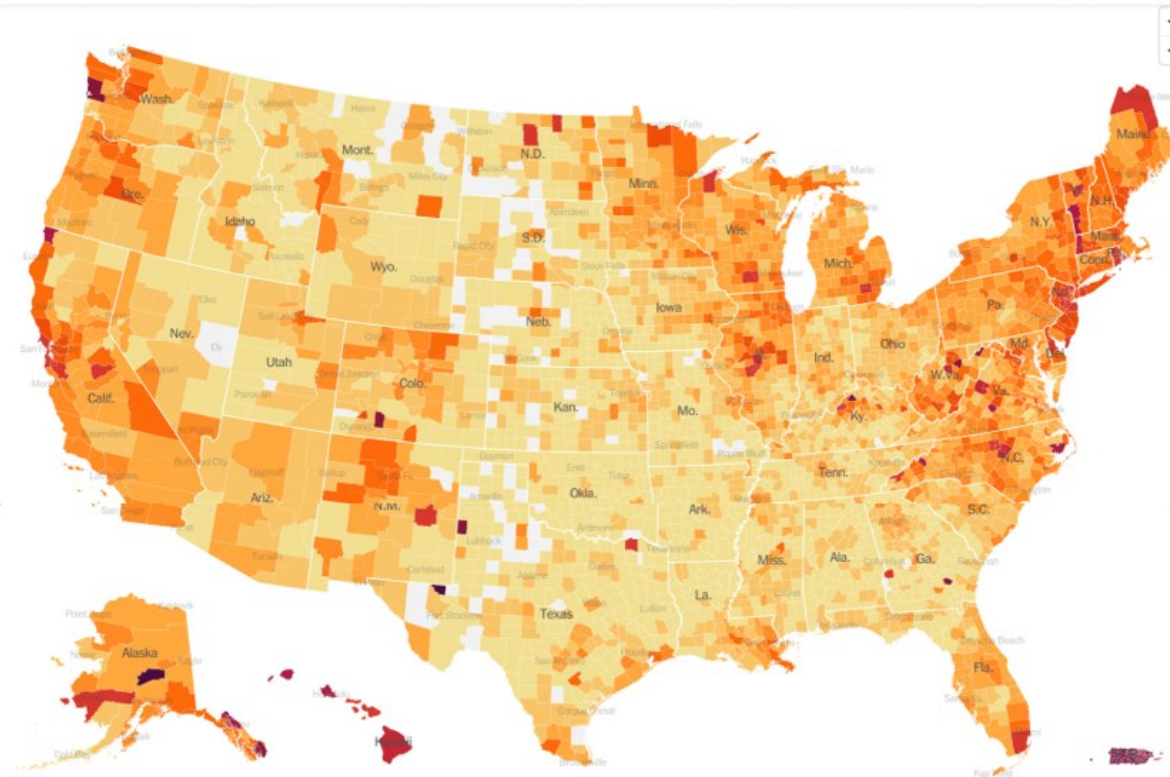
Other

Media

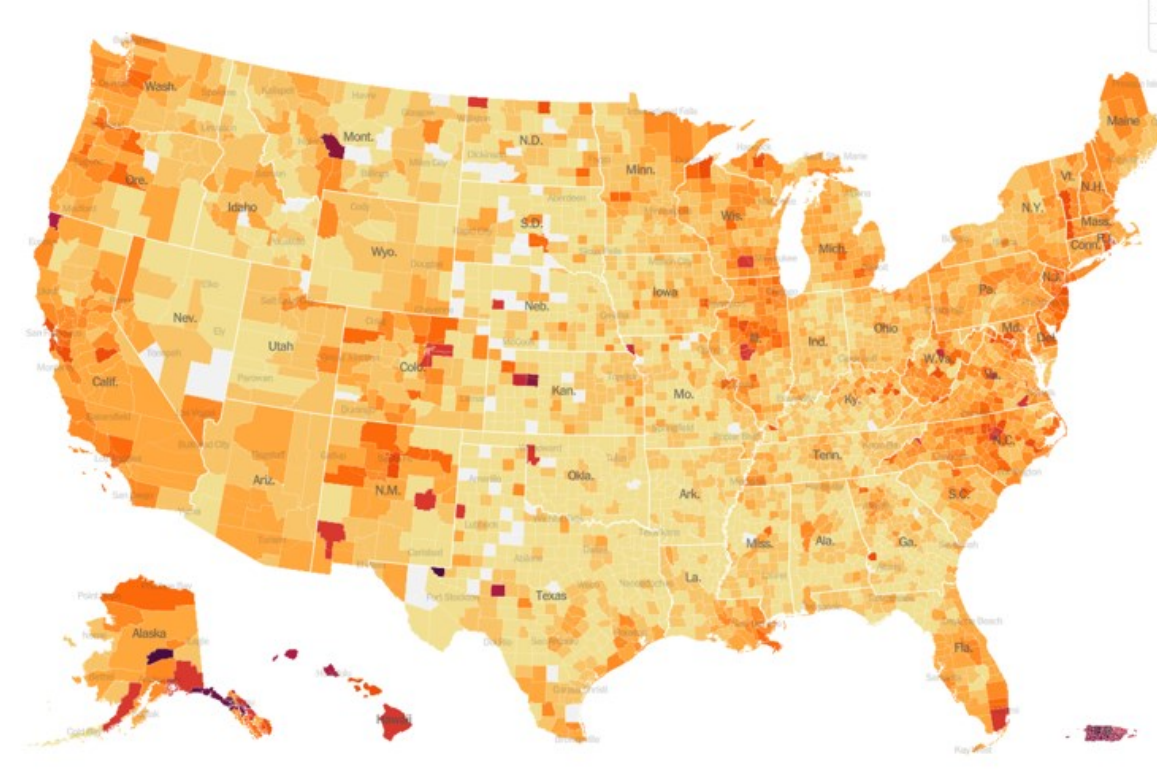
Science Roundup

# COVID-19 Case Rates by County Across the US

*Last Week*



*This Week*



Case rates may be flattening across the nation.

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

Accessed June 01, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science  
Roundup

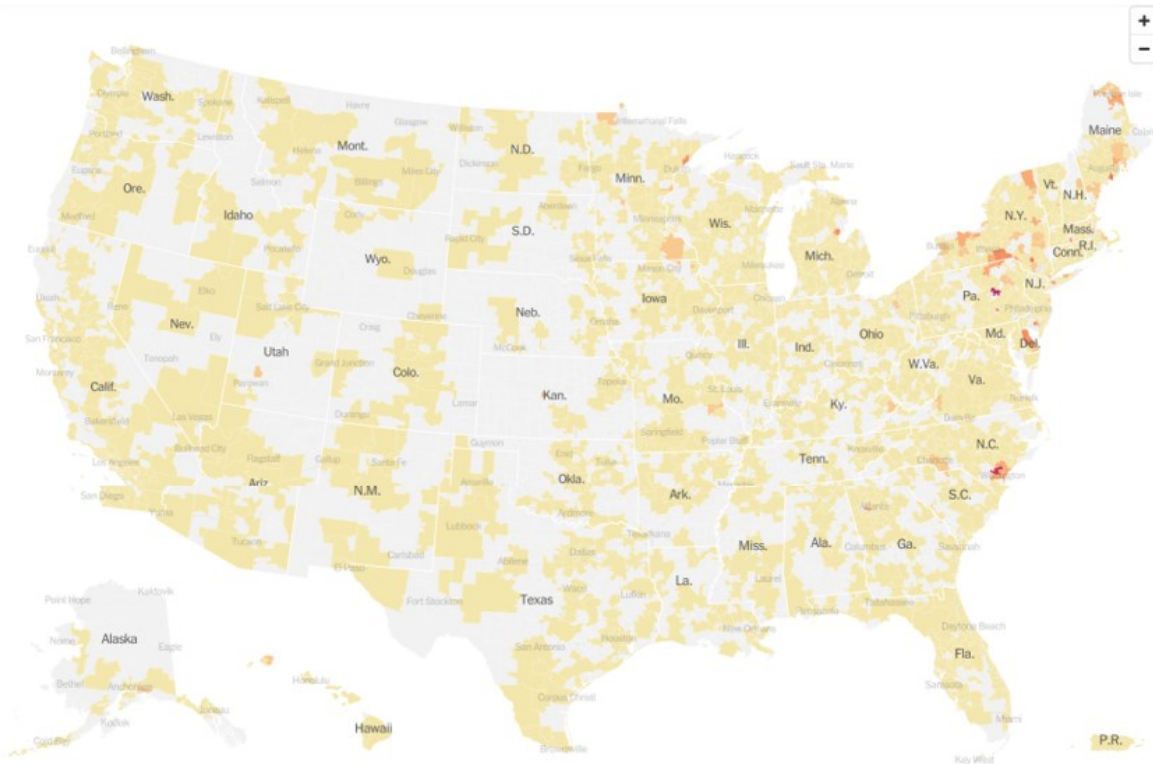


# COVID-19 Hospitalization Rates by County Across the US

*Last Week*

Hot spots

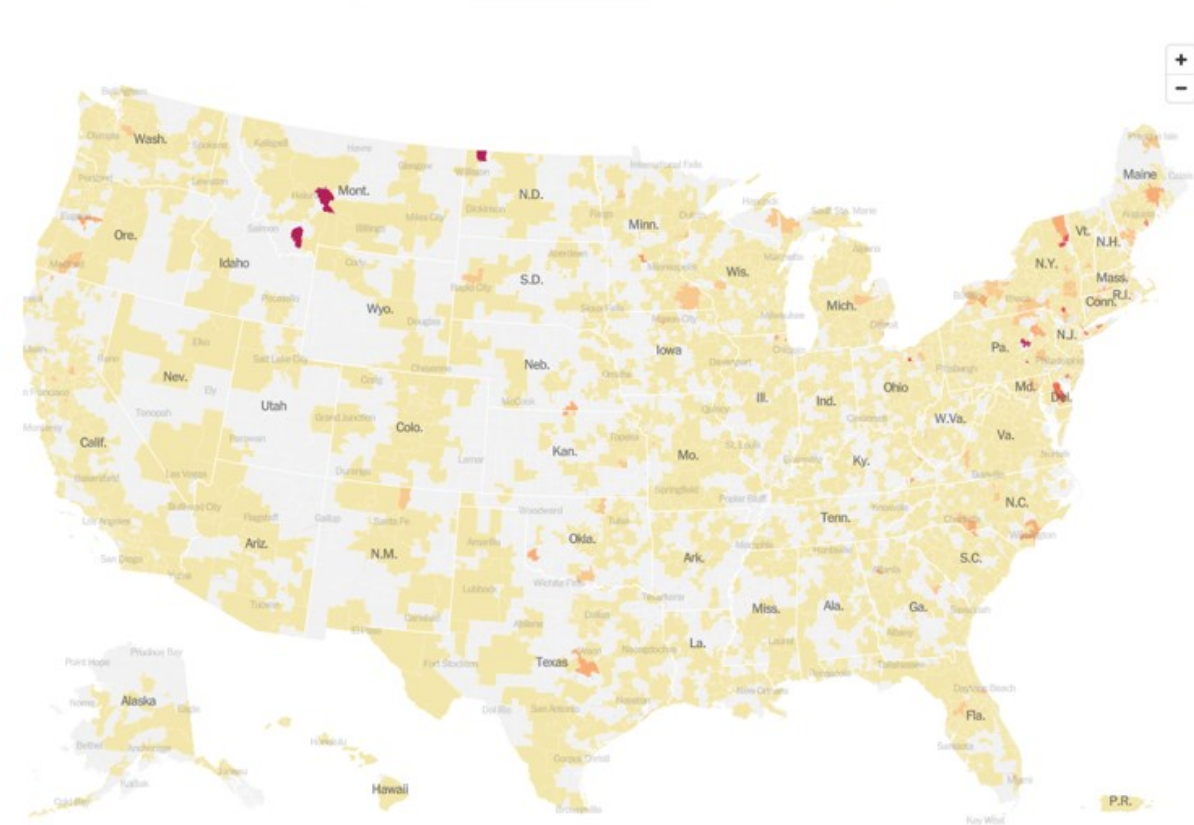
AVERAGE DAILY CASES PER 100,000 PEOPLE IN PAST WEEK  
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200  
FEW OR NO CASES



*This Week*

Current hospitalizations

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



Hospitalization rates remain low across the nation.

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

Accessed June 01, 2022

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

Risk Levels

Other

Media

Science Roundup

# COVID-19 News Headlines

## COVID outbreaks hit 69 students and staff across 16 Michigan schools

[COVID outbreaks hit 69 students and staff across 16 Michigan schools - mlive.com](https://www.mlive.com)

## FDA accepts Pfizer application for COVID vaccine in kids under 5, clearing way for June timeline

[FDA accepts Pfizer application for COVID vaccine in kids under 5, clearing way for June timeline - ABC News \(go.com\)](https://www.abcnews.com)

## Reported COVID-19 infection levels nearly 6 times higher than last Memorial Day

[Reported COVID-19 infection levels nearly 6 times higher than last Memorial Day - ABC News \(go.com\)](https://www.abcnews.com)

## Michigan adds 19,535 cases, 50 deaths from COVID-19 over last week

[Michigan adds 19,535 cases, 50 deaths from COVID-19 over last week \(detroitnews.com\)](https://www.detroitnews.com)

Watch Out for Fake COVID-19 Claims When Investing -- Investor Alert

[SEC.gov | Watch Out for Fake COVID-19 Claims When Investing -- Investor Alert](https://www.sec.gov)

# Science Roundup

## Association of Zip Code Vaccination Rate With COVID-19 Mortality in Chicago, Illinois

[Association of Zip Code Vaccination Rate With COVID-19 Mortality in Chicago, Illinois](#)  
[| Health Disparities](#) | [JAMA Network Open](#) | [JAMA Network](#)



A retrospective cohort study in Chicago found that low zip code-level vaccination rates were associated with more deaths during the Alpha and Delta waves compared to zip codes with higher vaccination coverage. They also concluded that inequitable vaccination coverage exacerbated existing racial and ethnic disparities in COVID-19 deaths.

## Mask wearing in community settings reduces SARS-CoV-2 transmission

[Mask wearing in community settings reduces SARS-CoV-2 transmission](#) | [PNAS](#)



Findings from a large study done across 92 regions in 6 continents found evidence that mask wearing is associated with a reduction in SARS-CoV-2 transmission.

## Impact of Gestational COVID-19 on Neonatal Outcomes

[Impact of Gestational COVID-19 on Neonatal Outcomes: Is Vert... : The Pediatric Infectious Disease Journal \(lww.com\)](#)



A prospective, observational and multicentric study involving 13 Spanish hospitals found that intrauterine transmission of SARS-CoV-2 is possible, although rare, with early postnatal transmission through direct contact with infected persons occurring more frequently.

## The prevalence of SARS-CoV-2 infection and uptake of COVID-19 antiviral treatments during the BA.2/BA.2.12.1 surge, New York City, April-May 2022

[The prevalence of SARS-CoV-2 infection and uptake of COVID-19 antiviral treatments during the BA.2/BA.2.12.1 surge, New York City, April-May 2022](#) | [medRxiv](#)



A preprint article reporting result from a cross-sectional survey of New York City (NYC) adult residents concluded that the true magnitude of NYC's Omicron (BA.2/BA.2.12.1) surge was vastly underestimated by routine SARS-CoV-2 surveillance.