

Ottawa County COVID-19 Epidemiology

September 22, 2021

Data as of September 18, 2021, unless otherwise indicated

Executive Summary

- **The US may be seeing a decrease in cases, while Michigan continues to increase**
- **Ottawa community transmission may be increasing for all ages**
 - Positivity decreased over the last 2 weeks from 13.5% to 11.8%. The goal is to be less than 5%.
 - Ottawa had 710 total cases reported last week, 10.4% more cases than the 643 reported the week prior.
 - Cases among children increased about 11% last week, from 148 two weeks ago to 165 last week.
- **Ottawa area and regional hospitals are seeing more COVID patients**
 - In Ottawa County, 10% of all beds are occupied by COVID-19 patients.*
 - Staffing is a challenge for many health systems.
- **Pediatric hospitalizations across the US may be improving, but some areas continue to see very high hospitalization rates in children**
- **Over 59% of eligible Ottawa County residents are completely 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.

Ottawa County Metrics by Week

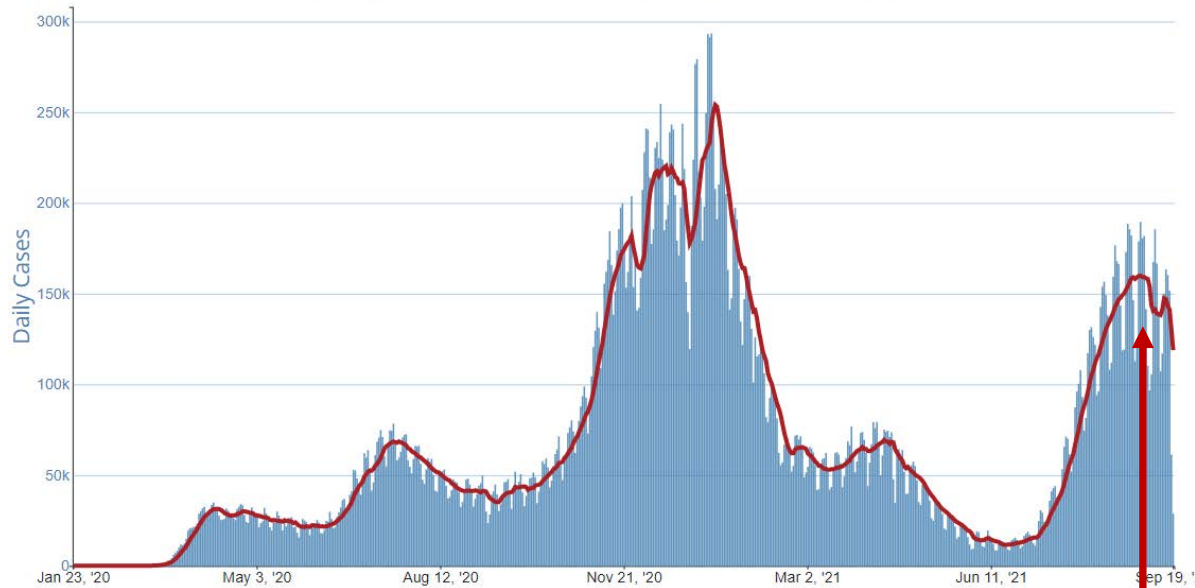
Metric	Goal	Week Ending				
		21-Aug-21	28-Aug-21	4-Sep-21	11-Sep-21	18-Sep-21
Positivity (All Ages)	<5%	11.9%	12.6%	14.0%	13.5%	11.8%
Weekly Cases (All Ages)	<30	425	538	687	643	710
Weekly Cases in Children (0-17 years of age)	TBD	60	88	134	148	165
Total COVID-19 Hospitalizations (All Ages)	0	25	19	25	16	19
Total Deaths (All Ages)	0	1	3	4	6	5
CDC Risk Transmission Level	Low	High	High	High	High	High

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

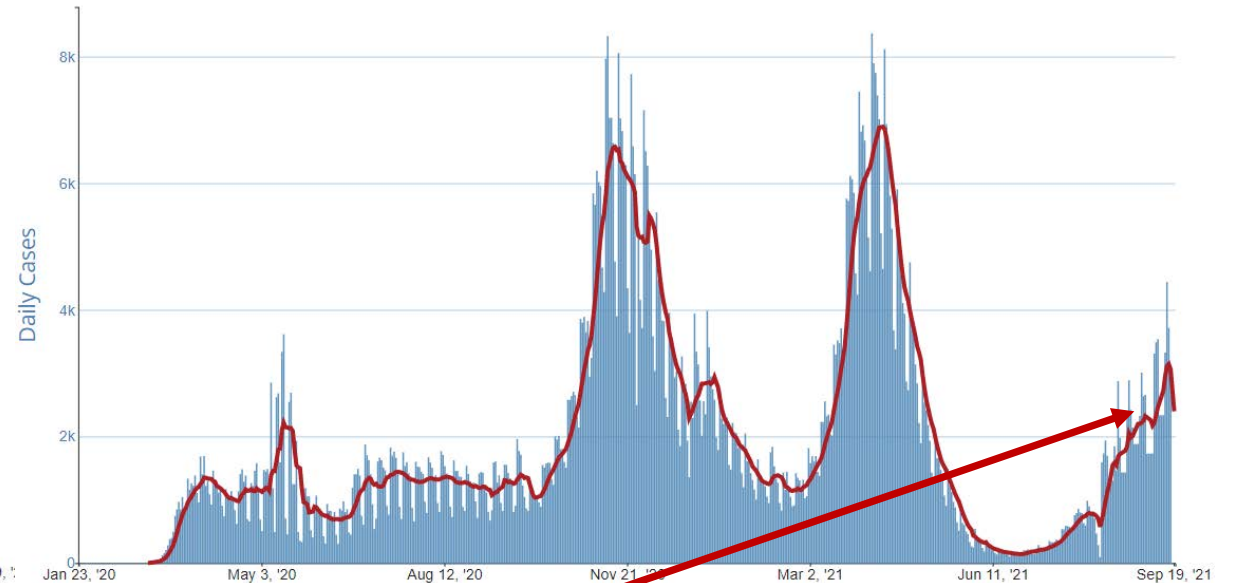
USA

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



Michigan

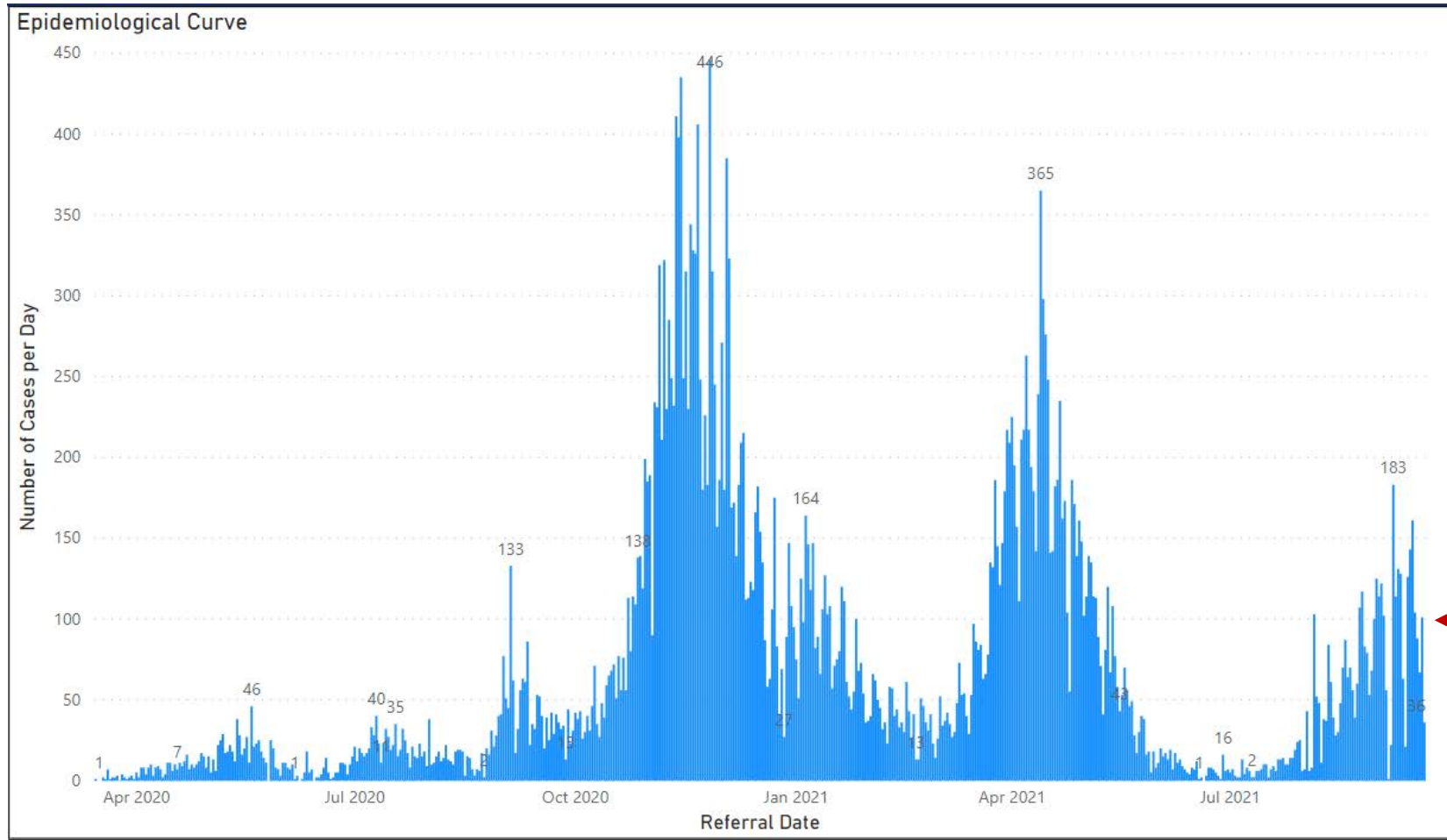
Daily Trends in Number of COVID-19 Cases in Michigan Reported to CDC



The US may be decreasing while Michigan continues trending up.

Case Trends in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – September 20, 2021



Total Number of Cases
36,930

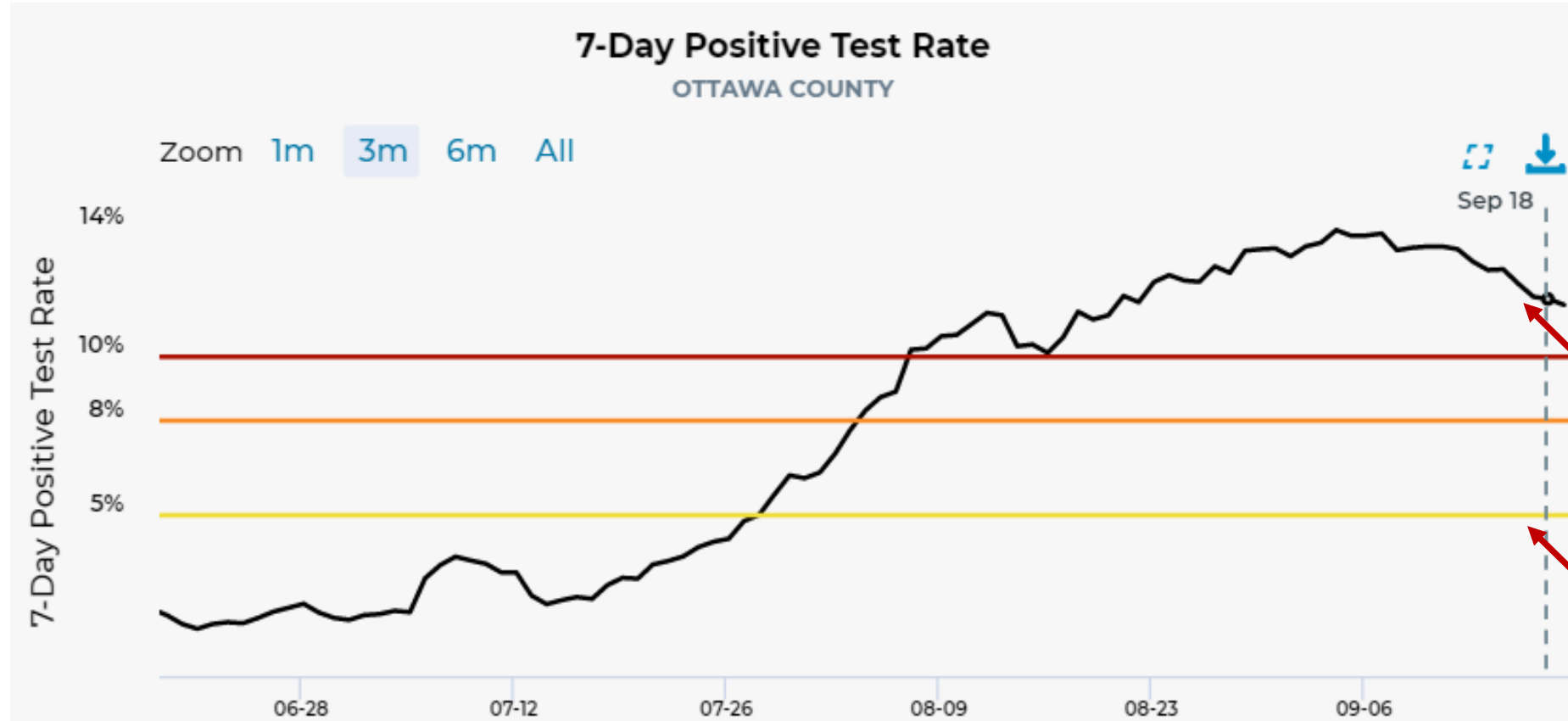
Currently the 7-day average is **100 cases per day**, up from 90 per day last week. From week to week, cases increased 10.4%.

Note: Through the Fall of 2021, reports from local stores of a large grocery chain and a national pharmacy chain indicate that supplies of at-home COVID-19 tests are sold out in 1-2 days, suggesting high demand. 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: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Test Positivity in Ottawa County

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – September 18, 2021



Test positivity may be decreasing, falling to 11.8% as of September 18, 2021.

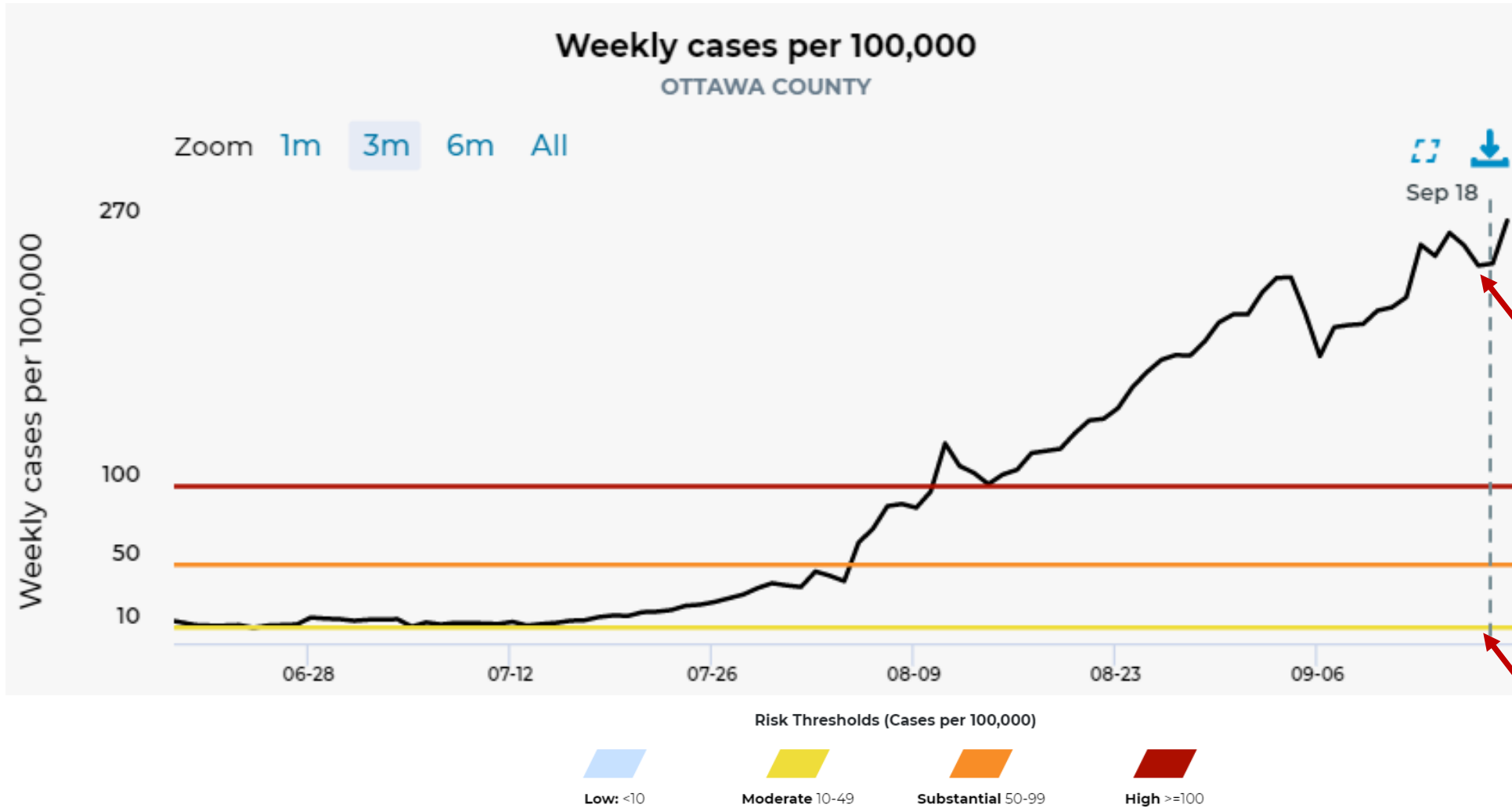
The goal is to have less than 5% of tests coming back positive.



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

Case Rates in Ottawa County – All Ages

COVID-19 Cases by Day, Ottawa County, March 15, 2020 – September 18, 2021



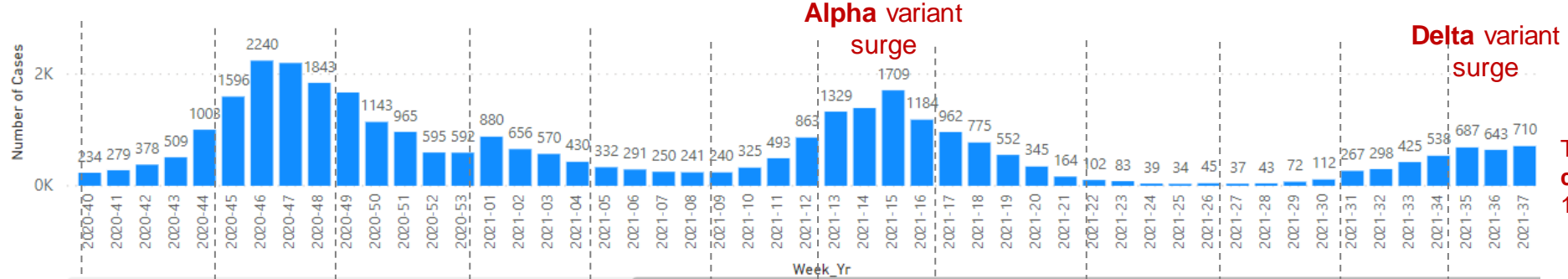
Case rates remain at or above 200 cases per week per 100,000 population.

The goal is to have less than 10 cases per week per 100,000 population. In Ottawa County, this would be 4 cases per day or less.

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

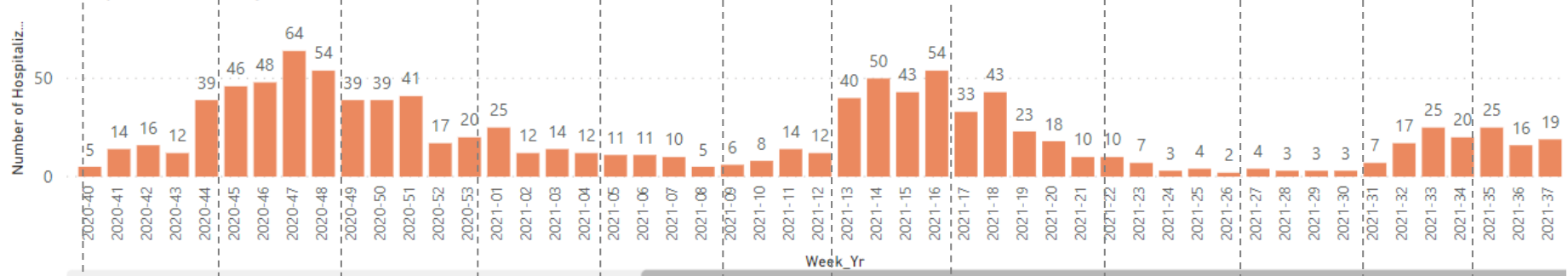
Ottawa County - Cases, Hospitalizations, & Deaths by Week, All Ages

New Cases By Week of Referral



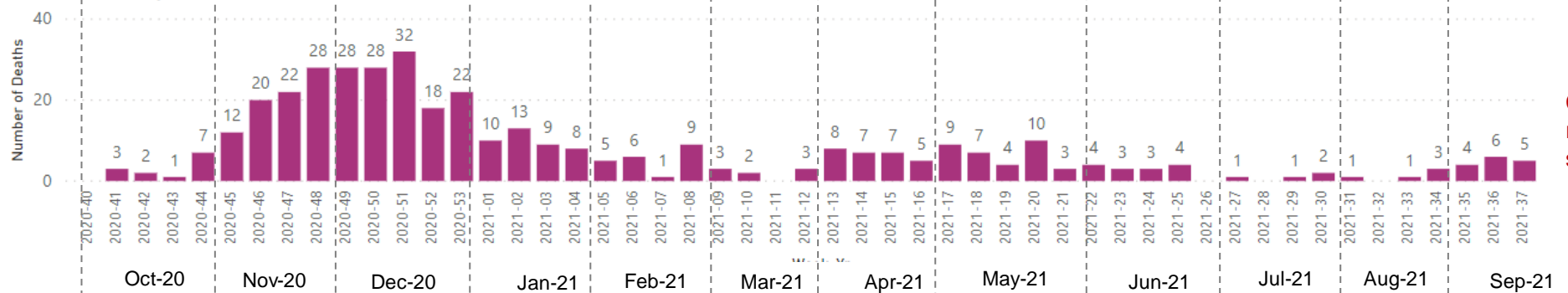
The weekly number of **cases** increased 10.4% last week.

New Hospitalizations by Week of Admission



The weekly number of **hospitalizations** has been relatively stable with an average of 20 cases hospitalized each week over the last month.

New Deaths by Week of Death



COVID-19 **deaths** remain low but are slowly increasing.

Hospitalizations and deaths in recent weeks may increase as data is updated.

Hospitalizations are likely **underestimated** because:

- (i) Hospitalization status is obtained only by manual review, and
- (ii) Hospitalization may occur after public health interview.

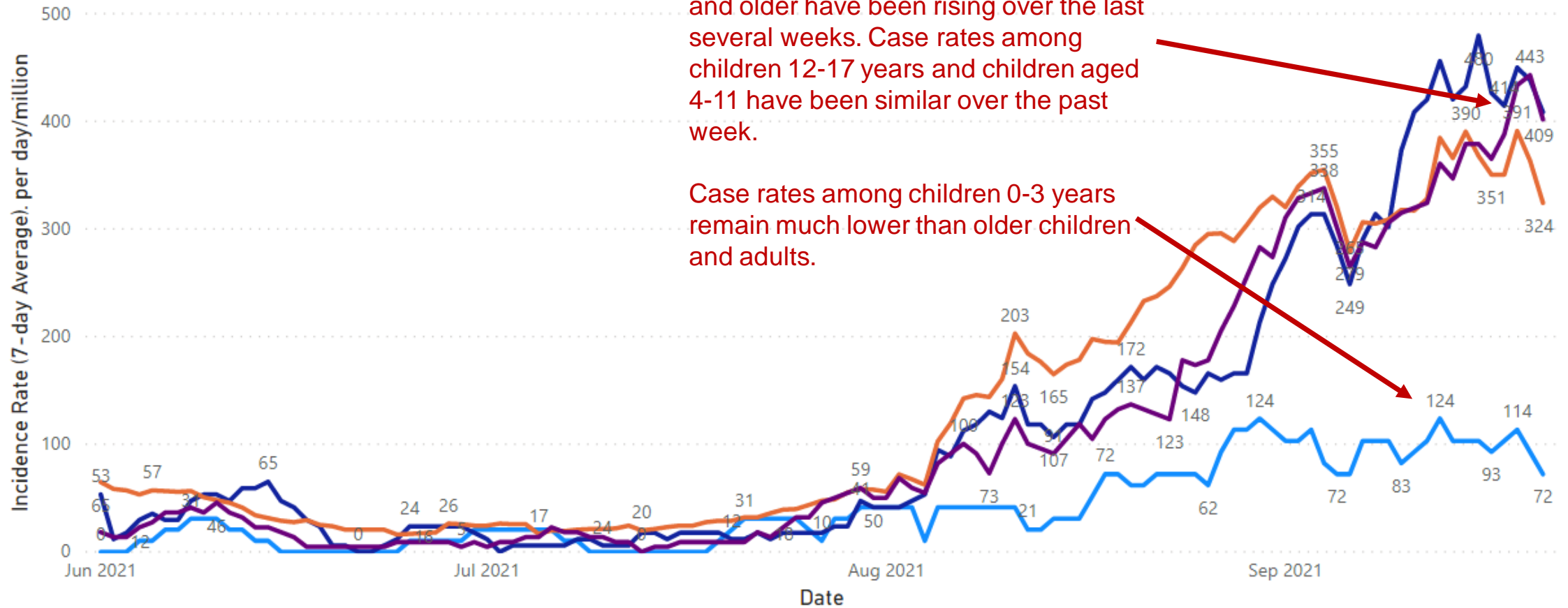
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County - Case Rate Trends – by Age

COVID-19 Case Rates by Age, includes School-Aged, June 2021 – September 21, 2021

Incidence Rate (7-day Average)

rategroup ● 0-3 ● 12-17 ● 18+ ● 4-11



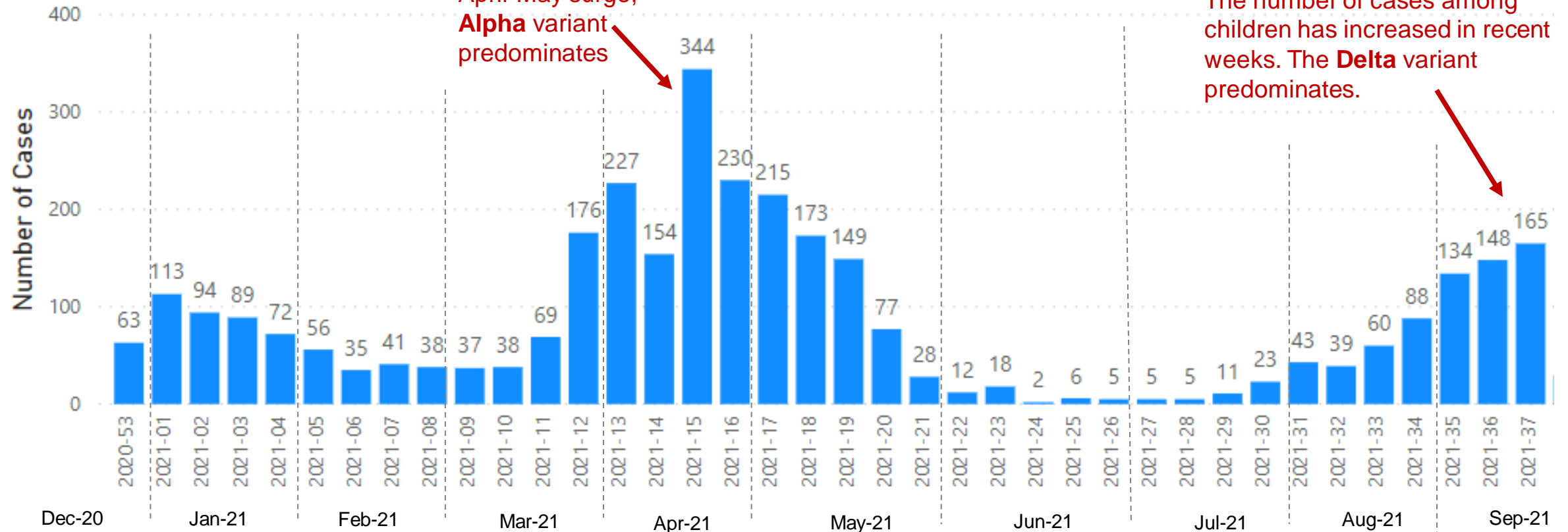
Case rates among children aged 4 years and older have been rising over the last several weeks. Case rates among children 12-17 years and children aged 4-11 have been similar over the past week.

Case rates among children 0-3 years remain much lower than older children and adults.

Ottawa County Weekly Case Counts – Children (0-17)

COVID-19 Cases Among Minors (0-17 years), by Week, December 2020 – September 18, 2021

New Cases by Week



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

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
3-Jul-21	40		5		45	
10-Jul-21	32	-20%	5	0%	37	-18%
17-Jul-21	38	19%	5	0%	43	16%
24-Jul-21	61	61%	11	120%	72	67%
31-Jul-21	89	46%	23	109%	112	56%
7-Aug-21	224	152%	43	87%	267	138%
14-Aug-21	259	16%	39	-9%	298	12%
21-Aug-21	365	41%	60	54%	425	43%
28-Aug-21	450	23%	88	47%	538	27%
4-Sep-21	553	23%	134	52%	687	28%
11-Sep-21	495	-10%	148	10%	643	-6%
18-Sep-21	545	10%	165	11%	710	10%

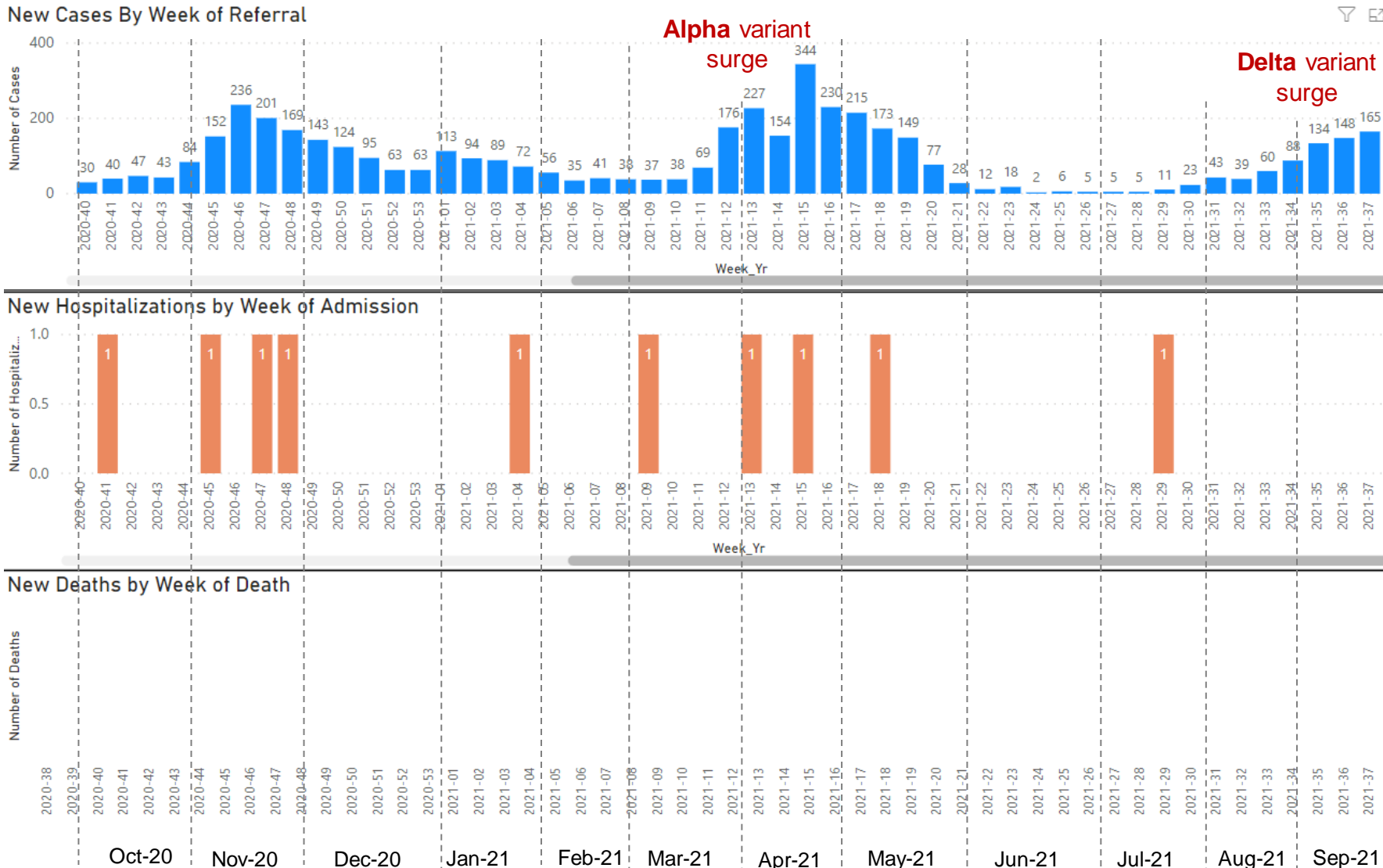
Adults

Children

Cases among children increased 11% last week, while cases in adults increased 10%.

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

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



The weekly number of cases among children continues to increase, with an 11.4% increase in weekly case counts over the last 2 weeks.

Hospitalizations are likely **underestimated** because:

- Hospitalization status is obtained only by manual review, and
- Hospitalization may occur after public health interview.

Through the 2020-2021 school year nearly all school-aged children were in environments with:

- universal masking
- cohorting
- online learning
- social distancing
- mandatory quarantine for all close contacts
- testing (for high school athletes)

These mitigation strategies likely reduced case counts and hospitalizations among children.

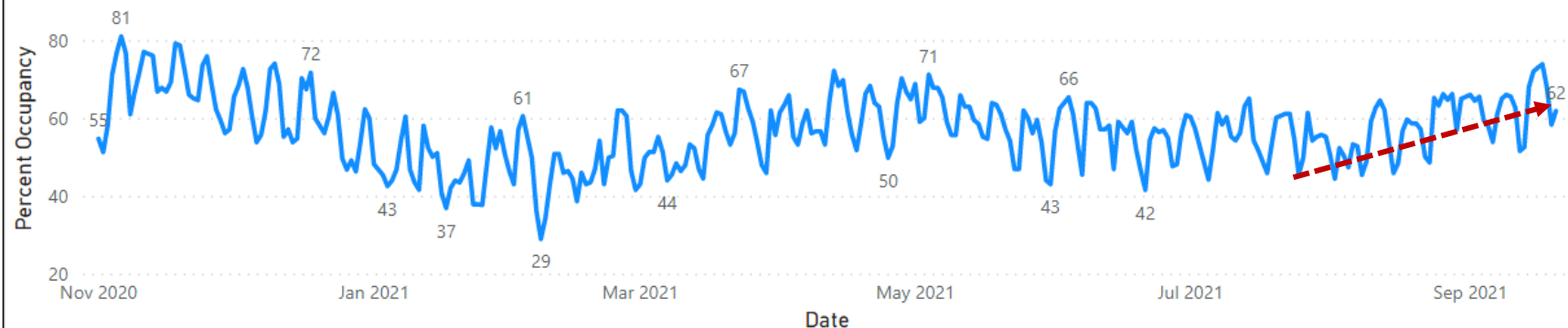
Source: Michigan Department of Health and Human Services, Michigan Disease Surveillance System

Ottawa County Hospital Capacity – All Beds

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

Percent Occupancy by Date and County

County ● Ottawa



Total hospital bed occupancy is increasing. The proportion of beds occupied by COVID-19 patients is **slowly increasing**.

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

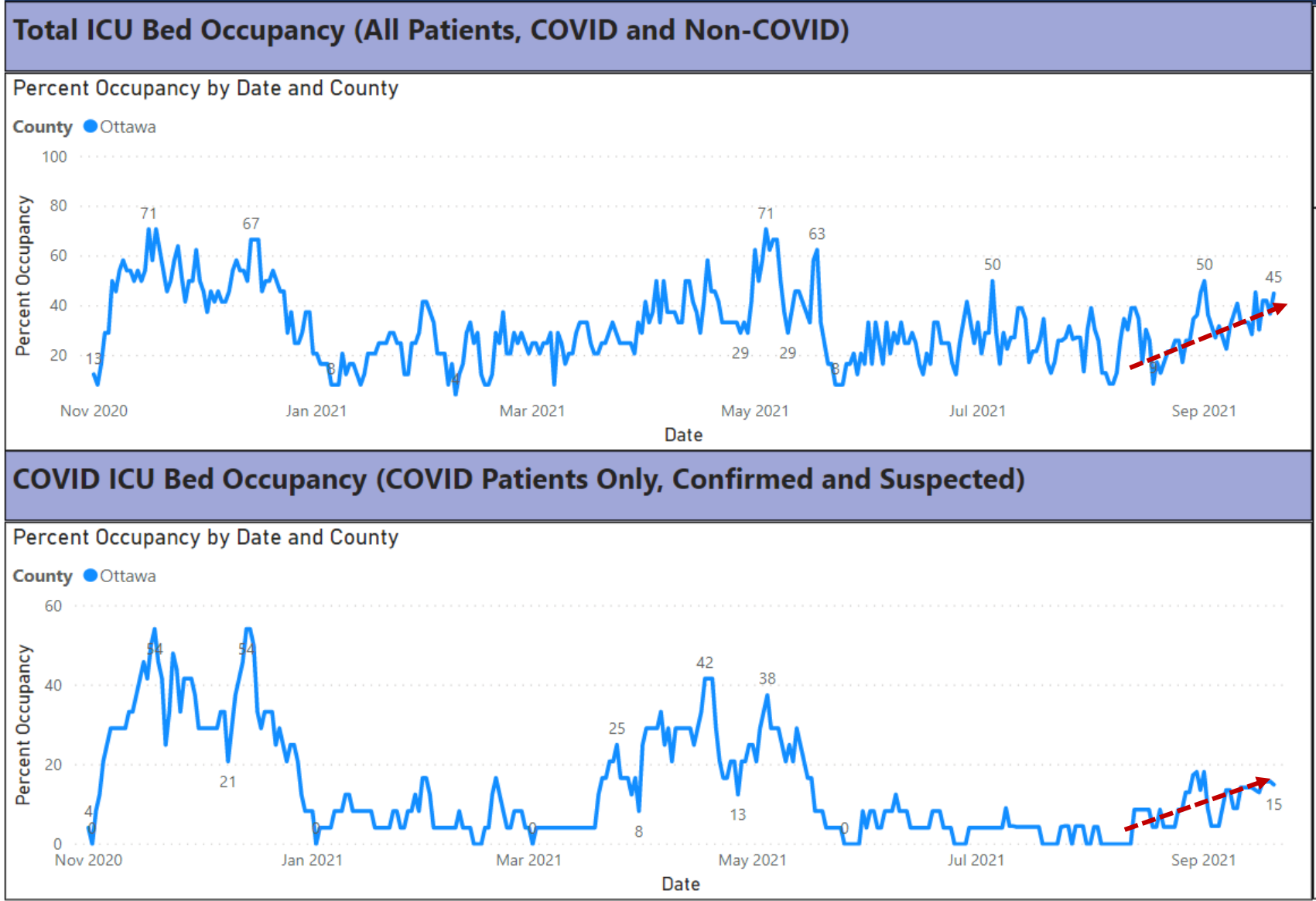
Percent Occupancy by Date and County

County ● Ottawa



Currently **10%** of all inpatient beds are occupied by COVID-19 patients.

Ottawa County Hospital Capacity – ICU Beds



Overall ICU bed occupancy is showing **increases**.

The proportion of ICU beds occupied by COVID patients remained steady between **13-15%** over the last week.

Source: EMResources

Data through September 20, 2021

Pediatric Hospitalization Rates – USA and Select States

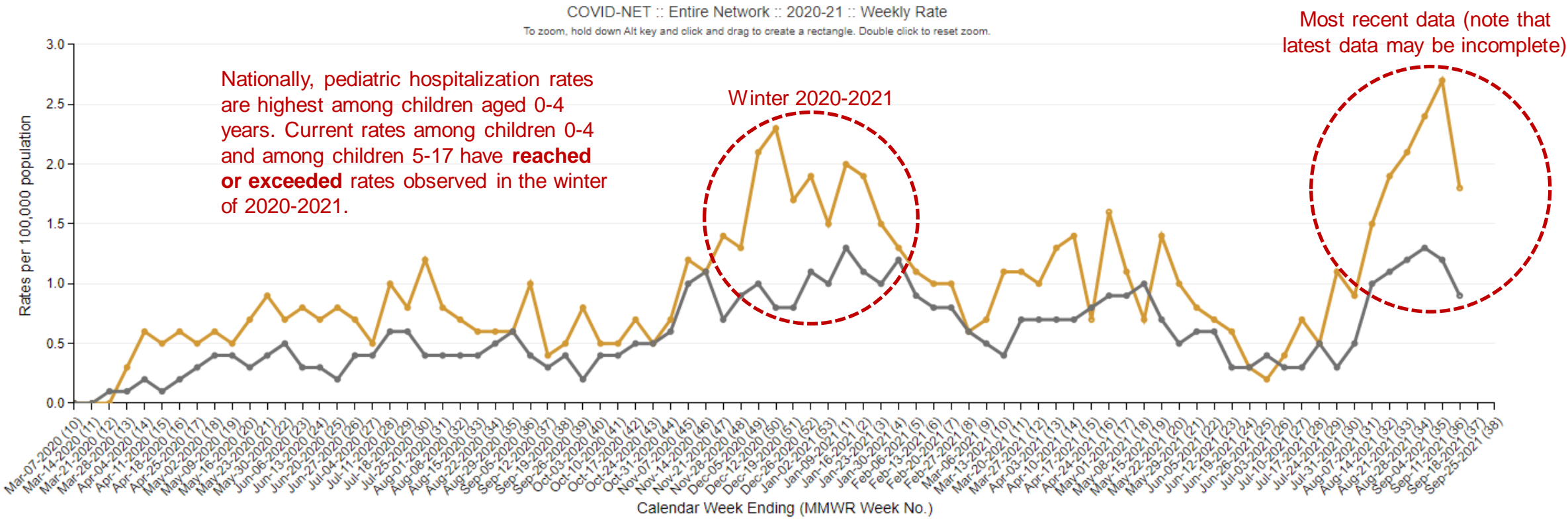


Pediatric hospitalization rates across the United States may be slowing, but some southern states such as Georgia continue to experience very high rates. Michigan currently has lower pediatric hospitalization rates than past waves, but rates may be increasing.

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

Accessed September 21, 2021

Pediatric Hospitalization Rates by Age Group – USA

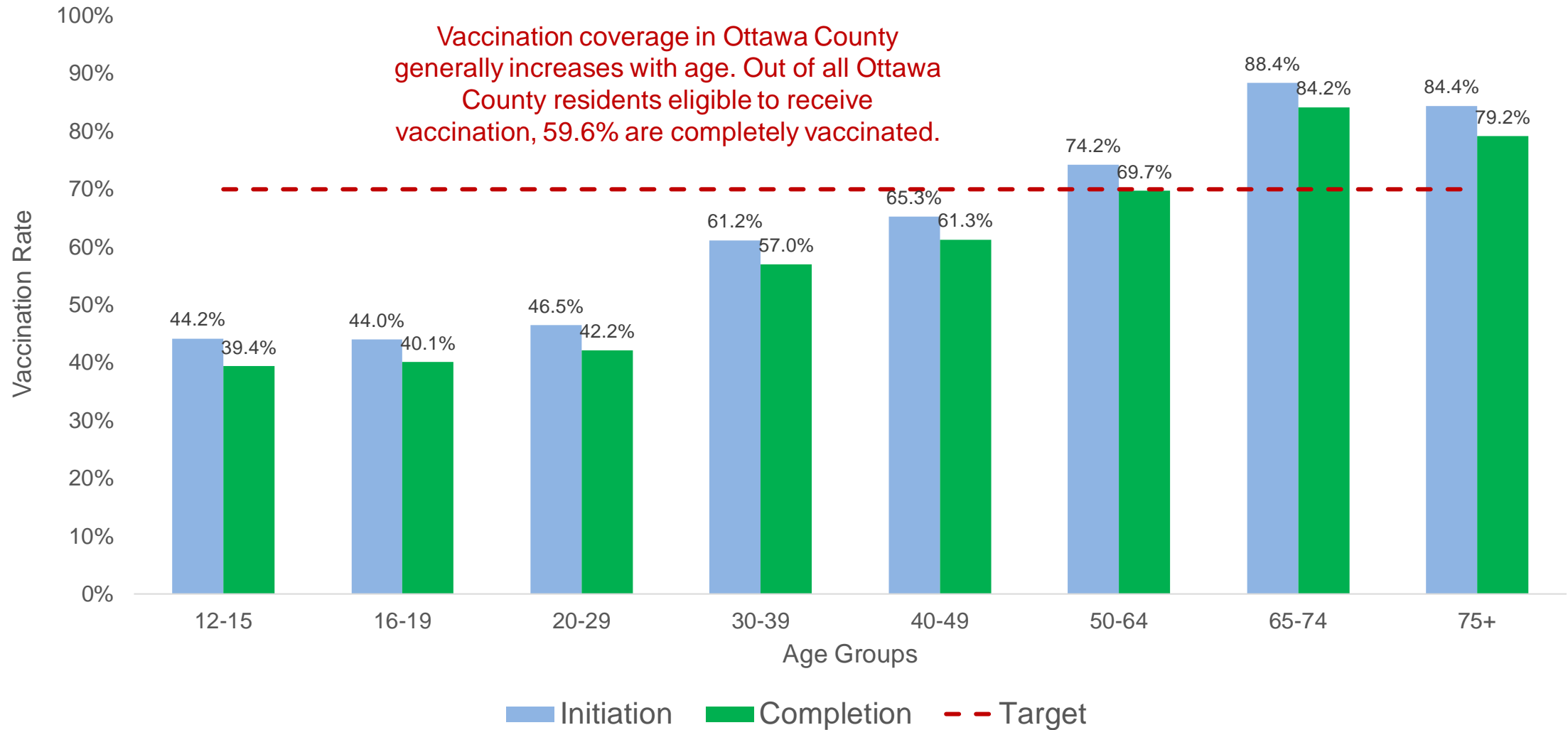


The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each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

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

Accessed September 22, 2021

Vaccination Coverage by Age



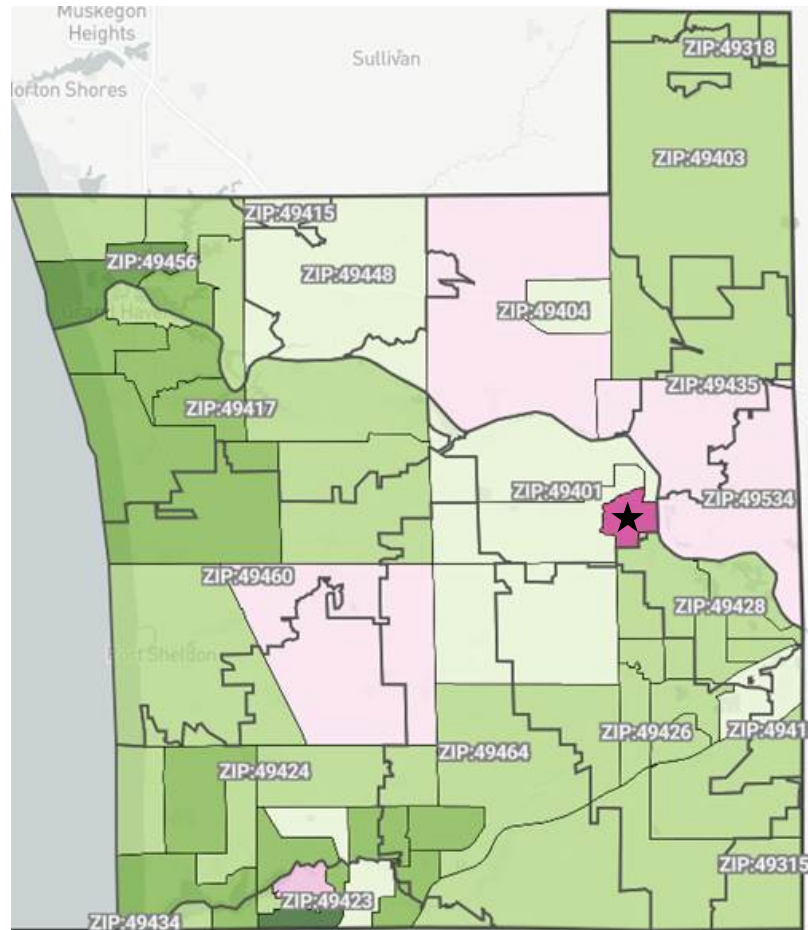
Source: https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Data through September 18, 2021

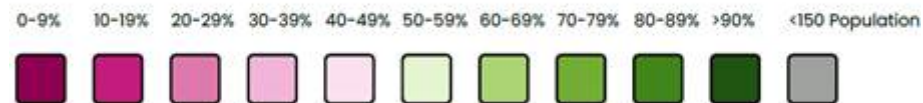
Vaccination Coverage by Place of Residence

Fully vaccinated: % Ages 16+ years

Vaccination rates vary across Ottawa County, but most areas have at least 40% of the population aged 16+ completely vaccinated.



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



★ 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.

Source: MI-Lighthouse Internal Dashboard

Cumulative Cases by Vaccination Status, Ottawa County, January 15, 2021 – September 18, 2021

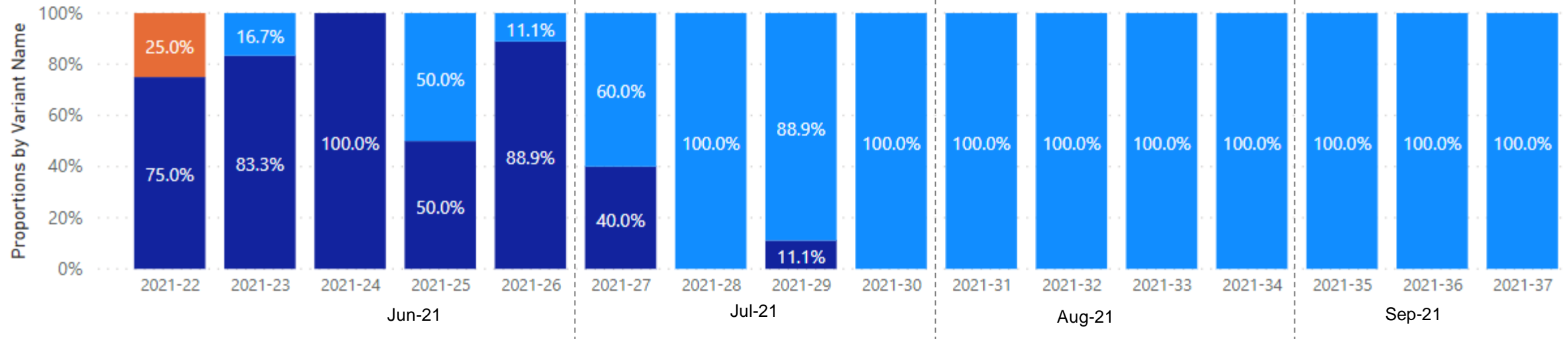
Fully Vaccinated People (146,044)		
Cases	Hospitalizations	Deaths
Percent of Cases in People Not Fully Vaccinated (15,446 / 16,747) 92.2%	Percent of Hospitalizations in People Not Fully Vaccinated (519 / 587) 88.4%	Percent of Deaths in People Not Fully Vaccinated (100 / 118) 84.7%
Total Cases Not Fully Vaccinated 15,446	Total Hospitalized Not Fully Vaccinated 519	Total Deaths Not Fully Vaccinated 100
Total Breakthrough Cases 1,301	Total Breakthrough Hospitalizations 68	Total Breakthrough Deaths 18
Percent of Fully Vaccinated People who Developed COVID-19 (1,301 / 146,044) 0.891%	Percent of Fully Vaccinated People who were Hospitalized for COVID-19 (68 / 146,044) 0.047%	Percent of Fully Vaccinated People who Died of COVID-19 (18 / 146,044) 0.012%
Percent of Cases who were Fully Vaccinated (1,301 / 16,747) 7.8%	Percent of Hospitalizations who were Fully Vaccinated (68 / 587) 11.6%	Percent of Deaths who were Fully Vaccinated (18 / 118) 15.3%
Total Cases 16,747	Total Hospitalizations 587	Total Deaths 118

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

Variants – Clinical Samples from Ottawa County Residents

Variant Proportions by Week

Variant Name ● Alpha ● Delta ● Gamma



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, indicating that **Delta** became the predominate variant in Ottawa County.

* Swabs from Ottawa County residents that tested positive for COVID-19 by PCR

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

CDC Community Risk Transmission Levels & Metrics

Indicator - If the two indicators suggest different transmission levels, the higher level is selected	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days	0-9.99	10-49.99	50-99.99	≥ 100
Percentage of NAATs ¹ that are positive during the past 7 days	0-4.99%	5-7.99%	8-9.99%	≥ 10.0%

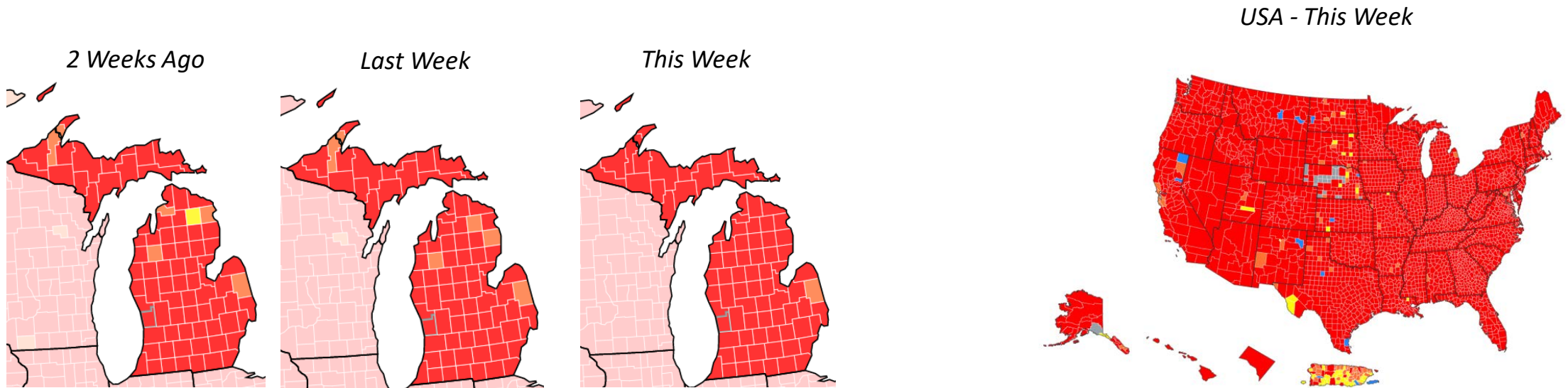
↑
Ottawa's goal is to be in the Low category

↑
Ottawa is in the High category right now

Source: <https://covid.cdc.gov/covid-data-tracker/#county-view>

CDC Community Transmission Risk Levels – Ottawa County

- Current Risk Level in Ottawa – **HIGH** (for last 5+ weeks)
- Current Data:
 - Positivity = 11.24%
 - Case Rate = 251.17 cases per week per 100,000



Source: <https://covid.cdc.gov/covid-data-tracker/#county-view>

Data as of September 19, 2021

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

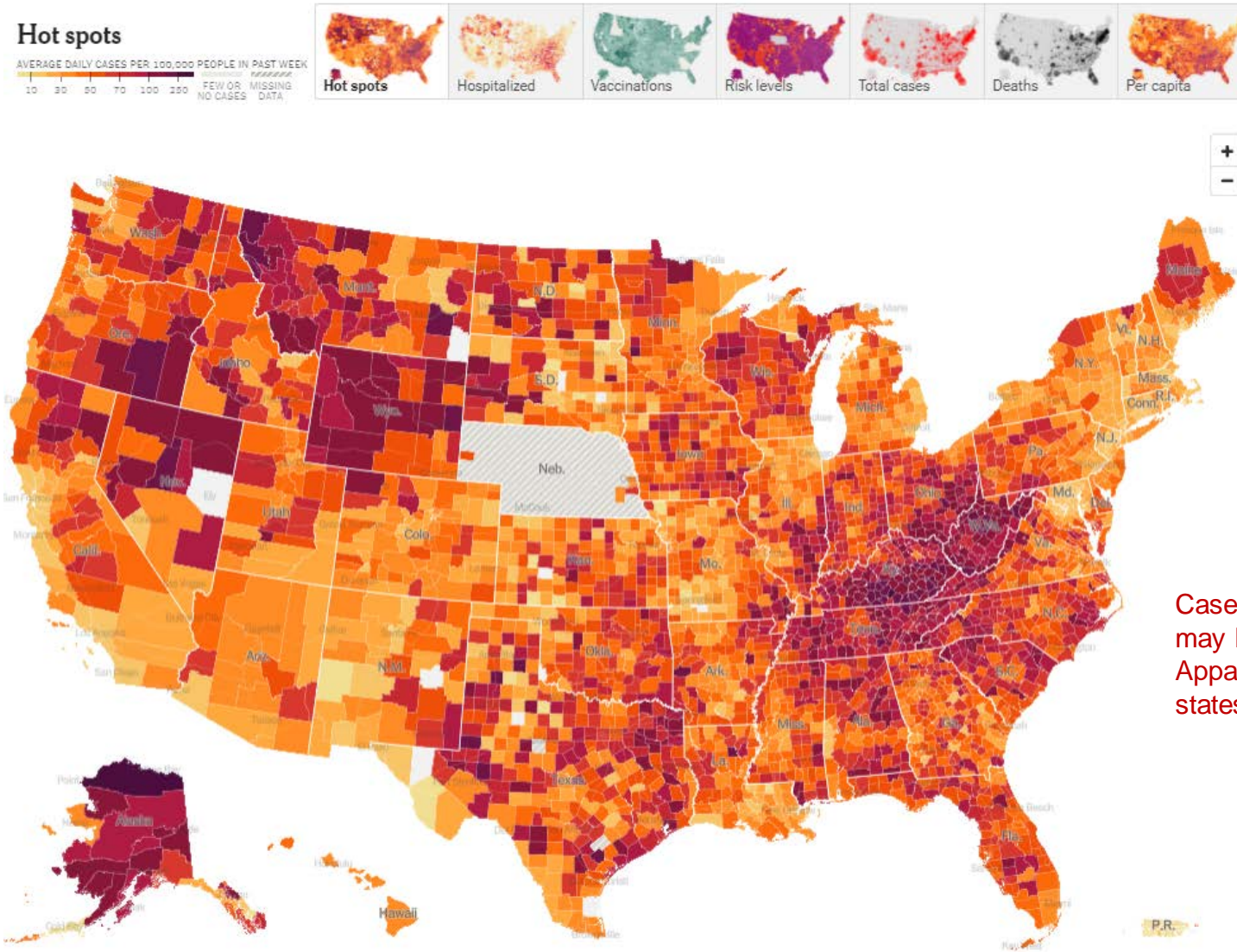
Risk Levels

Other

Media

Science
Roundup

COVID-19 Case Rates by County Across the US



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

Accessed September 21, 2021

USA & MI

Spread

Children

Hospitalizations

Vaccinations

Variants

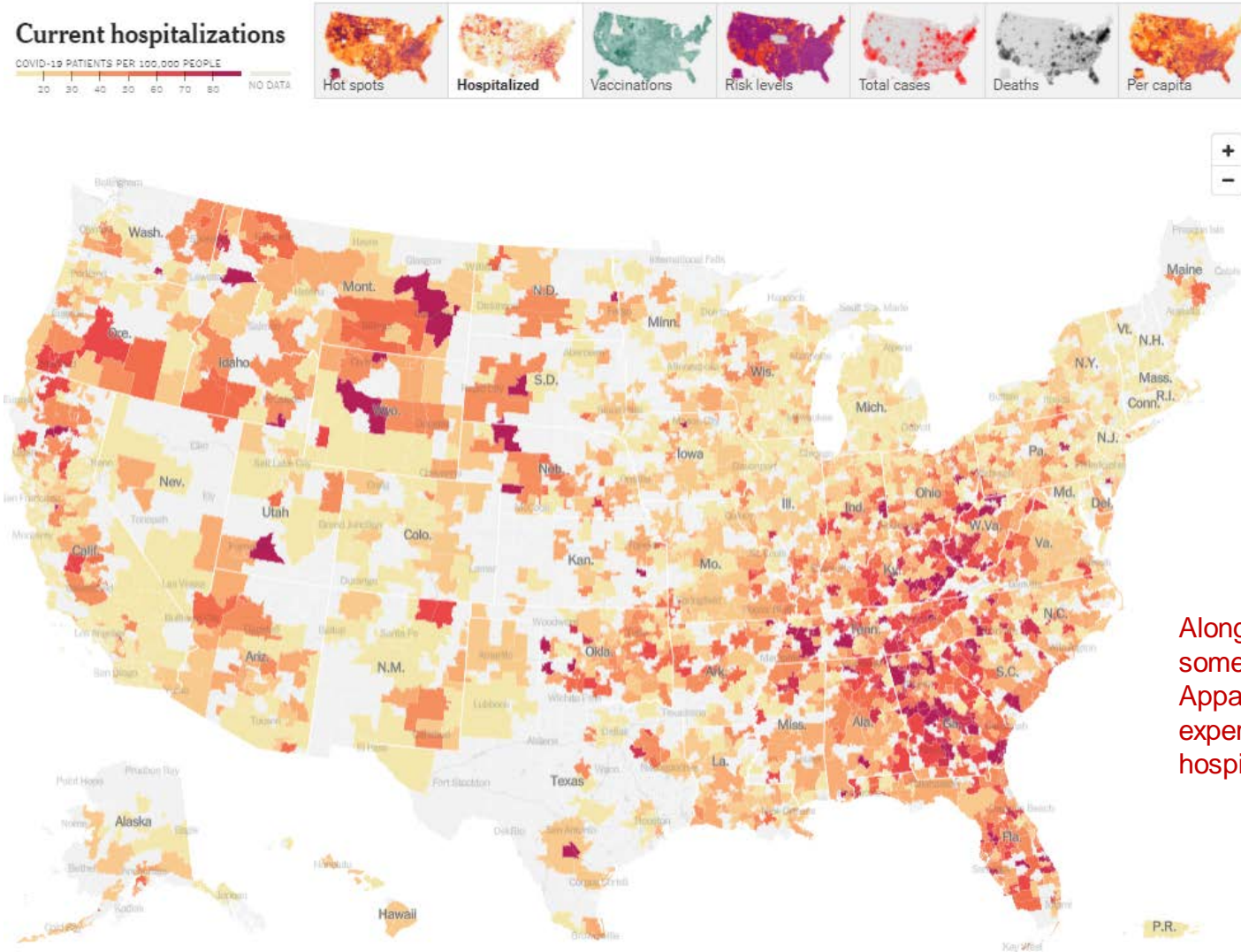
Risk Levels

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COVID-19 Hospitalization Rates by County Across the US



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

Accessed September 21, 2021

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States and Michigan Counties with School Masking Requirements

- **States/Districts (18):** California, Connecticut, Delaware, Hawaii, Illinois, Kentucky, Louisiana, Massachusetts, New Mexico, New Jersey, New York, Nevada, Oregon, Pennsylvania, Rhode Island, Virginia, Washington, & Washington D.C.
- **Michigan Counties (21):**
 - **PreK/K-6:** Allegan, Dickinson, Kalamazoo, Kent, Marquette, Ottawa
 - **K-12:** Antrim, Benzie, Berrien, Berry, Charlevoix, Eaton, Emmet, Genesee, Ingham, Iron, Leelanau, Oakland, Otsego, Washtenaw, and Wayne

Note: List may not be comprehensive

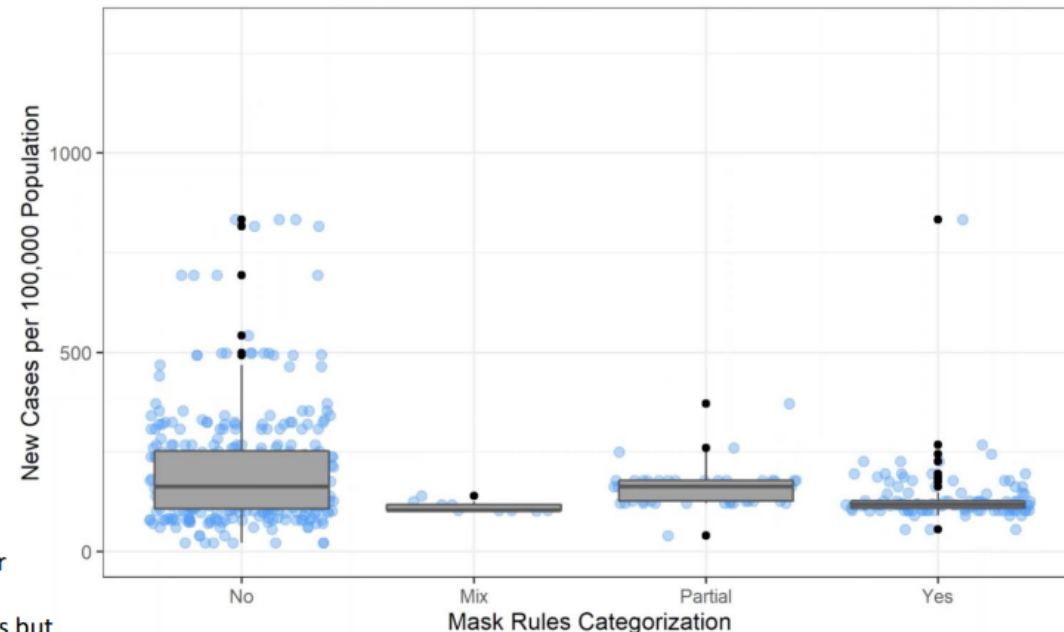
MDHHS Suggests Counties without Mask Rules are Seeing Higher Case Rates

School reopening: cases in children are increasing and case rates are higher in counties where school districts without masking

- Over the course of school reopening period (Aug 18 – Sep 8, from earliest to latest first day of school), the largest % increases have been among those <18 years
- Case rate range is higher in counties where school districts do not have mask rules

	Age group					
	0-11	12-18	19-30	31-50	51-65	>65
Change in 7-day avg. new cases during school reopening period (Aug 18 – Sep 8)	+57%	+96%	+12%	+5%	-2%	+3%

[2021-09-10] Michigan - COVID-19 Cases in School Aged Children [0-18]
7 Day Sum of New Cases per 100,000 Population



Each blue dot is one school district, assigned the case number for its associated county
Case data as of 9/13/2021



Data Sources: MDSS/MDHHS, Executive Office of Governor
School District Mask Policy. Mask rules categories: Yes – Mandatory masking in all K-12 schools; Partial – All schools but not all K-12 grades (e.g., K-6); Mix – Not all schools, regardless of K-12 grades; No – No mask policies (includes unknown)

Source: https://www.michigan.gov/documents/coronavirus/20210914_Data_and_modeling_update_vFINAL_735520_7.pdf

COVID-19 News Headlines

Local doctors encouraged that kids 5-11 could soon get COVID-19 vaccine

<https://www.woodtv.com/covid-19-vaccine/local-doctors-encouraged-that-kids-5-11-could-soon-get-covid-19-vaccine/>

LOCAL NEWS

Pfizer vaccine trial data for younger children comes as Michigan sees increase in school outbreaks

—
One West Michigan doctor says a vaccine for children ages 5 to 11 could mean different quarantine guidelines and fewer outbreaks.

<https://www.wzzm13.com/article/news/local/pfizer-vaccine-trial-data-for-younger-children-comes-as-michigan-sees-increase-in-school-outbreaks/69-db047c87-403e-45eb-8850-afa0377c8738>

Last fall, COVID-19 ravaged Michigan's college campuses. This fall, K-12 is under siege.

Updated: Sep. 17, 2021, 2:53 p.m. | Published: Sep. 17, 2021, 9:00 a.m.



Michigan Gov. Gretchen Whitmer said Friday, Jan. 8, that she wants K-12 schools to resume in-person learning by March 1. (MLive File Photo)



By Alesza Burriaburr@mlive.com



<https://www.mlive.com/public-interest/2021/09/last-fall-covid-19-ravaged-michigans-college-campuses-this-fall-k-12-is-under-siege.html>

PFIZER AND BIONTECH ANNOUNCE POSITIVE TOPLINE RESULTS FROM PIVOTAL TRIAL OF COVID-19 VACCINE IN CHILDREN 5 TO 11 YEARS

Monday, September 20, 2021 - 06:45am

<https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-positive-topline-results>

Science Roundup

ORIGINAL ARTICLE

Protection of BNT162b2 Vaccine Booster against Covid-19 in Israel

Yinon M. Bar-On, M.Sc., Yair Goldberg, Ph.D., Micha Mandel, Ph.D., Omri Bodenheimer, M.Sc., Laurence Freedman, Ph.D., Nir Kalkstein, B.Sc., Barak Mizrahi, M.Sc., Sharon Alroy-Preis, M.D., Nachman Ash, M.D., Ron Milo, Ph.D., and Amit Huppert, Ph.D.

<https://www.nejm.org/doi/full/10.1056/NEJMoa2114255>

← In an Israeli study, the rate of confirmed infection among people 60 years and older was 11.3 times lower among those who received a booster shot.

Comparative Effectiveness of Moderna, Pfizer-BioNTech, and Janssen (Johnson & Johnson) Vaccines in Preventing COVID-19 Hospitalizations Among Adults Without Immunocompromising Conditions — United States, March–August 2021

Early Release / September 17, 2021 / 70

https://www.cdc.gov/mmwr/volumes/70/wr/mm7038e1.htm?s_cid=mm7038e1_w

← A CDC published study found that there is variation in levels of protection by COVID-19 vaccination brand, but all three available vaccines provide substantial protection against hospitalization.