MI COVID RESPONSE DATA AND MODELING UPDATE

September 28, 2021

Executive Summary

Michigan remains at <u>High Transmission</u>

Percent positivity (8.8%) is steady from last week (8.8% last week)

Case rate (246.3 cases/million) is increasing for three months (234.4 last week)

Michigan has 49th lowest number of cases (43rd last week), and 27th lowest case rate (15th last week) in the last 7 days

99% of positive tests available for sequencing in Michigan were **Delta variant** in the last 4 weeks

Percent of inpatient beds occupied by individuals with COVID (7.4%) is increasing for 10 weeks (up from 7.0% last week)

Michigan has 17th lowest inpatient bed utilization (12th last week) and 13th lowest adult ICU bed utilization (13th last week)

Death rate (2.8 deaths/million) is increasing for eight weeks (2.3 last week). There were 194 COVID deaths between Sep 14-Sep 20

Michigan has the 30th lowest number of deaths (T26th last week), and T7th lowest death rate (T7th last week) in the last 7 days

7-day average **state testing rate** increased to 3,978.9 tests/million/day. **Daily diagnostic tests (PCR)** is 34.2K per day.

10.57 million **COVID-19 vaccine** doses administered, 52.2% of population is fully vaccinated (5.21 million people)

Science Round Up

Ridge regression model projects continued increases for cases and deaths in Michigan although case trends may be slowing

CDC models project plateau or slowed increases in cases, hospitalizations, and deaths in Michigan

In Michigan, pediatric admissions are increasing and over 50% of children hospitalized have no reported underlying conditions

CDC data show that case rates among children are higher in counties where school districts do not have mask policies

CDC V-SAFE Reports show 3rd dose side effects are comparable to 2nd dose and extremely rare

Global and National Comparisons

Globally, 231,931,317 cases and 4,749,880 deaths (Data* through 9/27/21)

- Countries with the highest case count are U.S. (42,932,211), India (33,678,786), and Brazil (21,351,972)
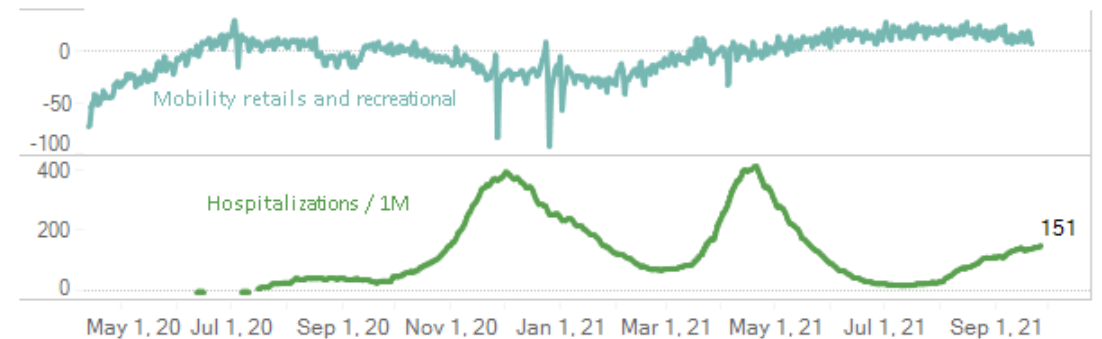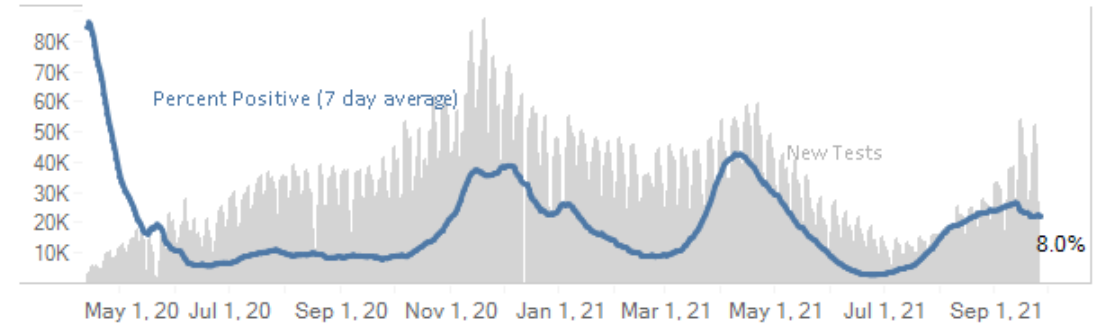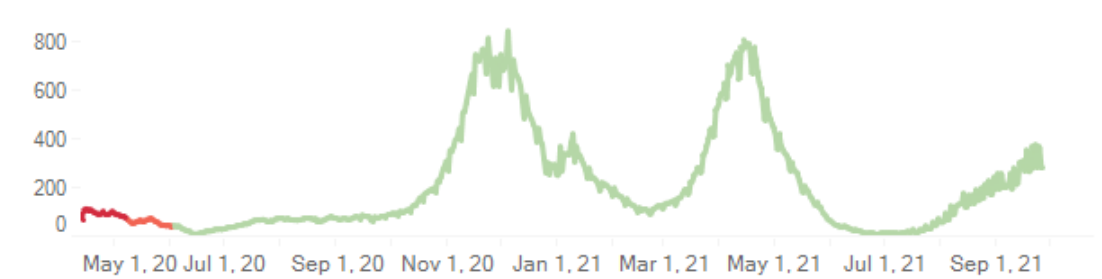
United States: Nearly all US jurisdictions have High community transmission¶

- California and Connecticut are Substantial
- Puerto Rico and Northern Mariana Islands are Moderate
- Weekly rates of cases and hospitalizations due to COVID-19 have recently increased in children ages 11 years and younger. The increases come as many schools across the country have resumed in-person learning
- 7-day moving average of daily new cases decreased 17.1% compared with previous 7-day moving average
- Percent positivity has decreased from the previous week, now at 7.6%. The number of PCR tests performed has increased.

Midwest states maintain High transmission levels†

- Some indication of slowing

Source: * Johns Hopkins Coronavirus Resource Center; ¶ CDC COVID Data Tracker Weekly Review; † CDC COVID Data Tracker

National Comparison | Spread | Severity | Public Health Response | Other Indicators | Science Round-up

State Comparisons: Ohio and Indiana

Ohio Confirmed New Cases / 1M (7 days average)

Indiana Confirmed New Cases / 1M (7 days average)

Percent Positive (7 day average)

New Tests

11.6%

12.3%

Mobility retails and recreational

Hospitalizations / 1M

308

291

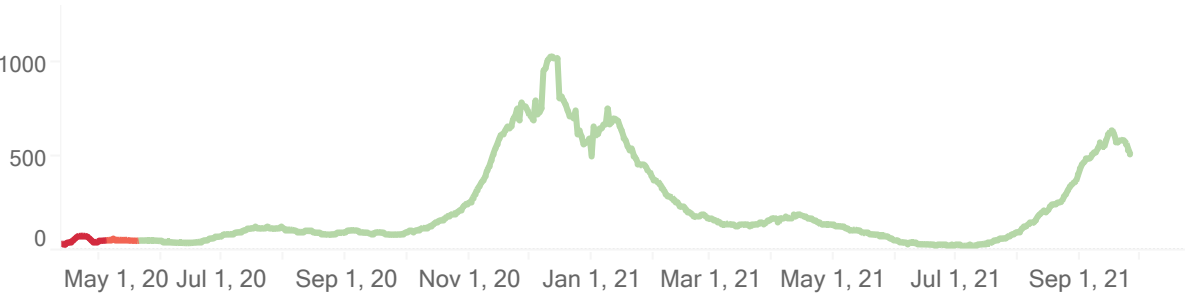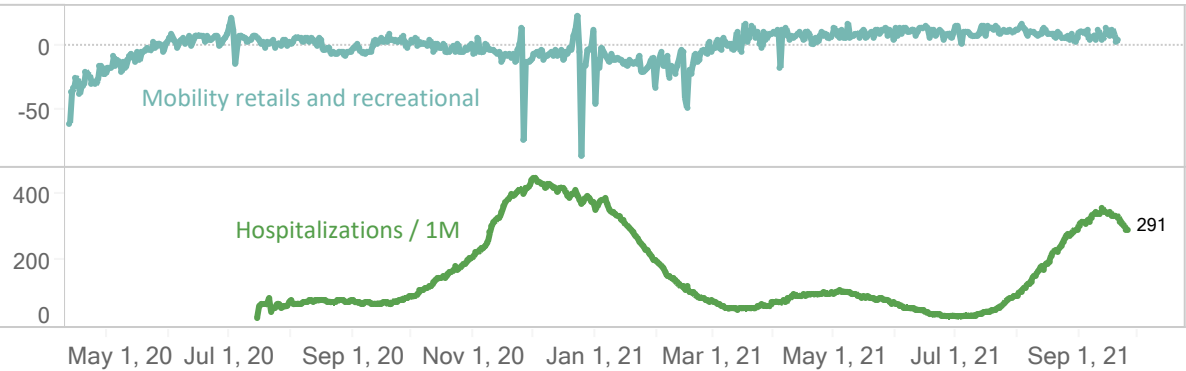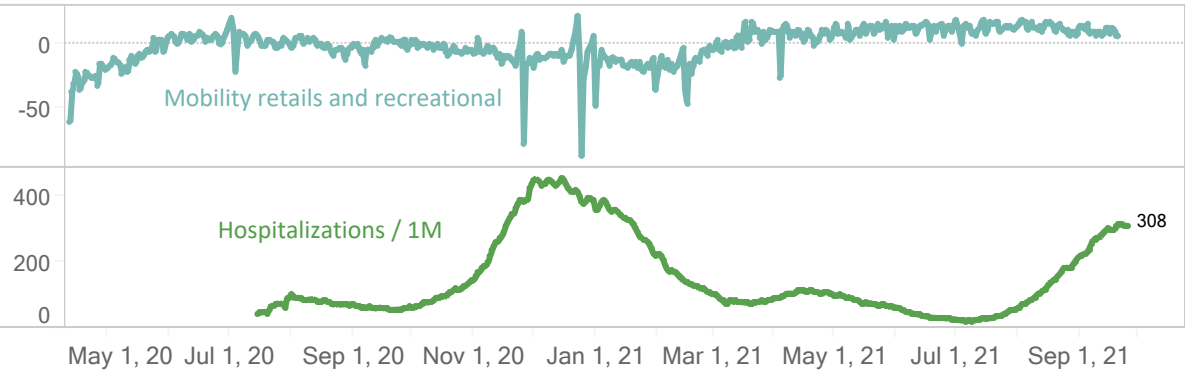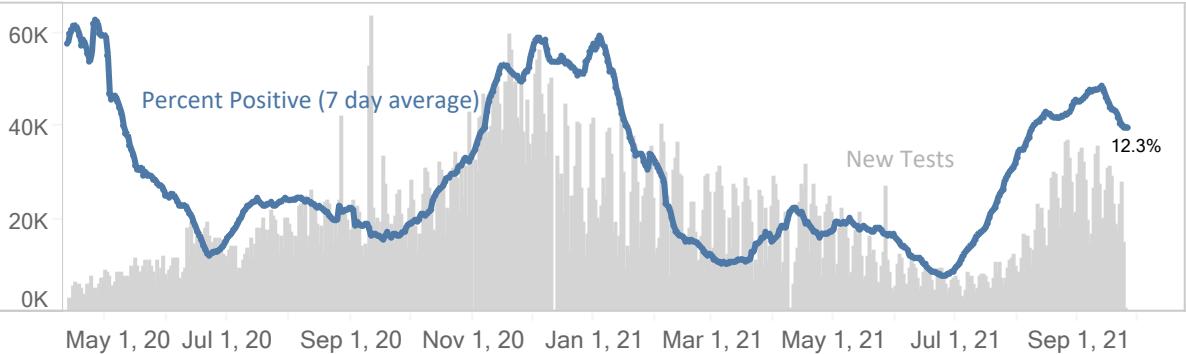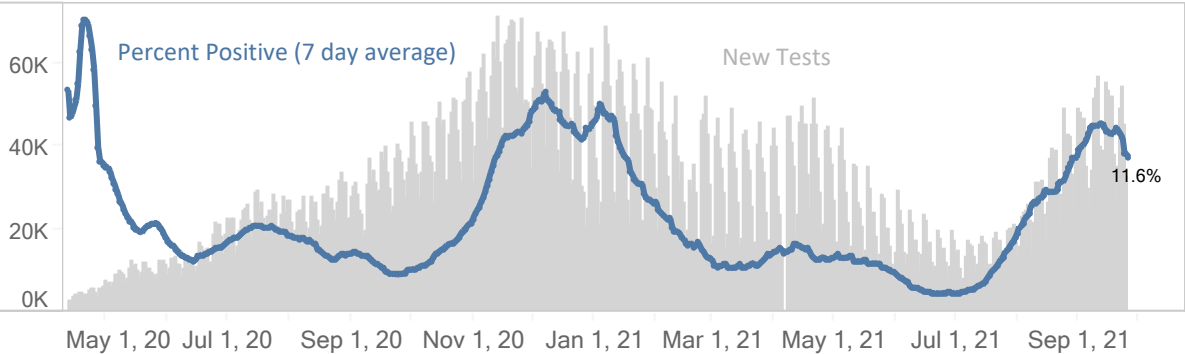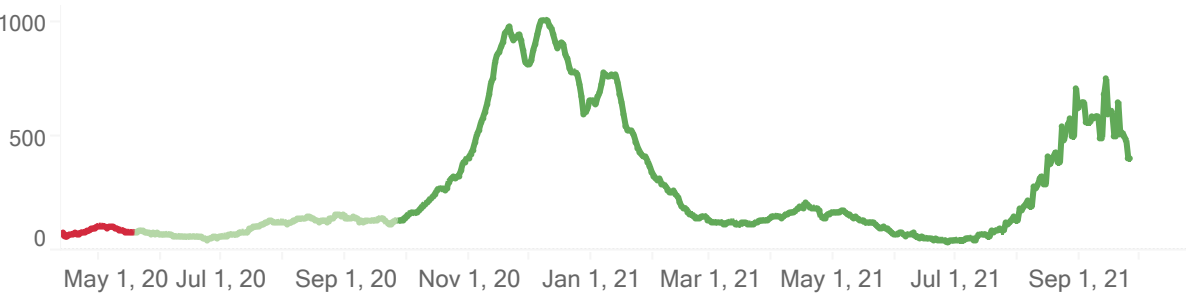# State Comparisons: Wisconsin and Michigan

Wisconsin Confirmed New Cases / 1M (7 days average)

Michigan Confirmed New Cases / 1M (7 days average)

Percent Positive (7 day average) — New Tests — 8.7%

Percent Positive (7 day average) — New Tests — 8.0%

Mobility retails and recreational

Hospitalizations / 1M — 202

Mobility retails and recreational

Hospitalizations / 1M — 151
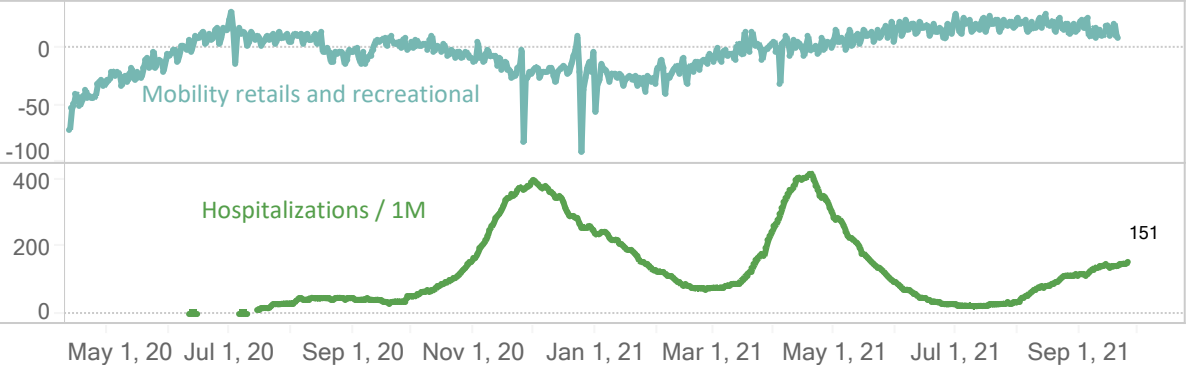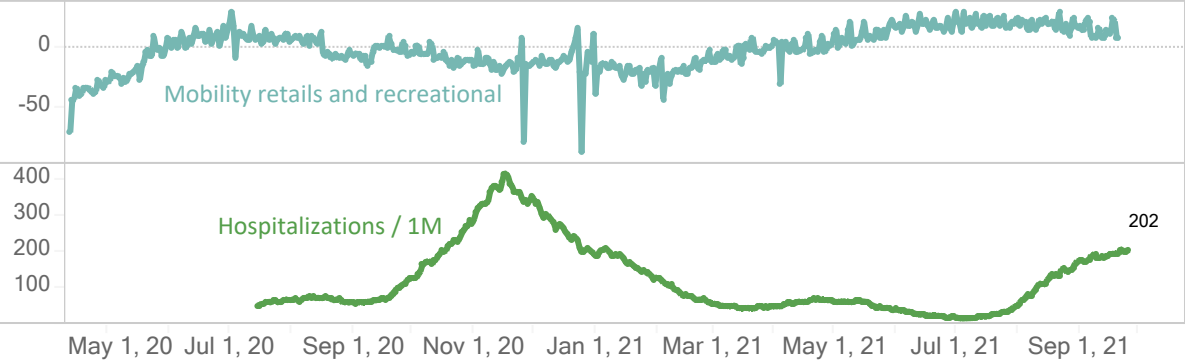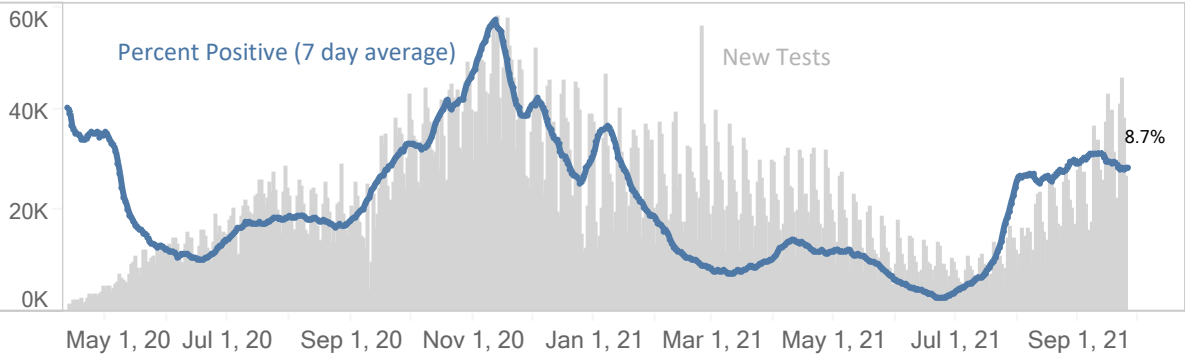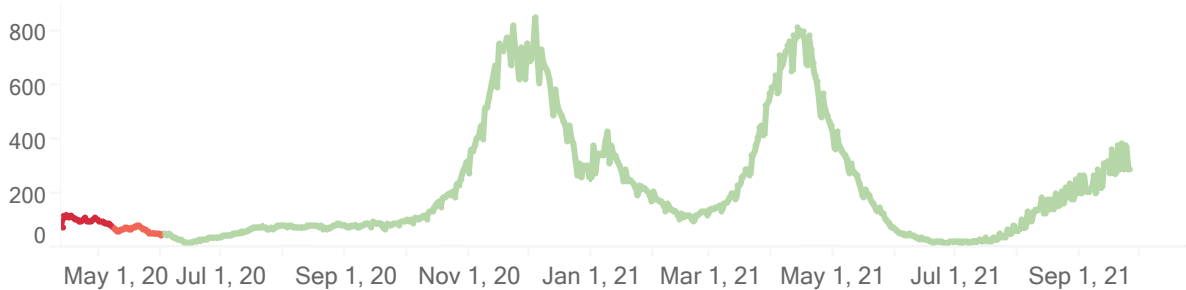
State Comparisons: Illinois and Minnesota

Illinois Confirmed New Cases / 1M (7 days average)

Minnesota Confirmed New Cases / 1M (7 days average)
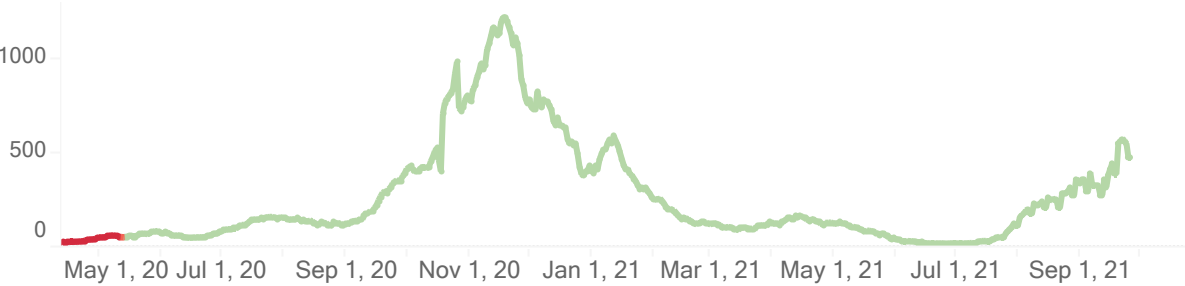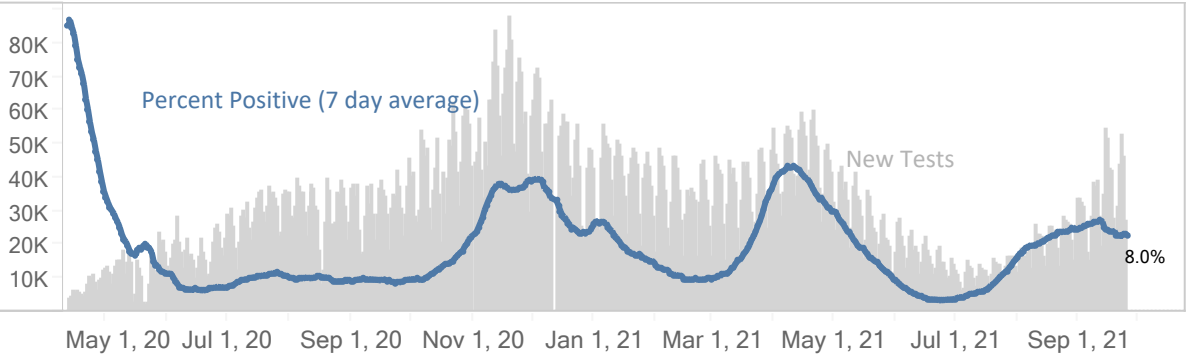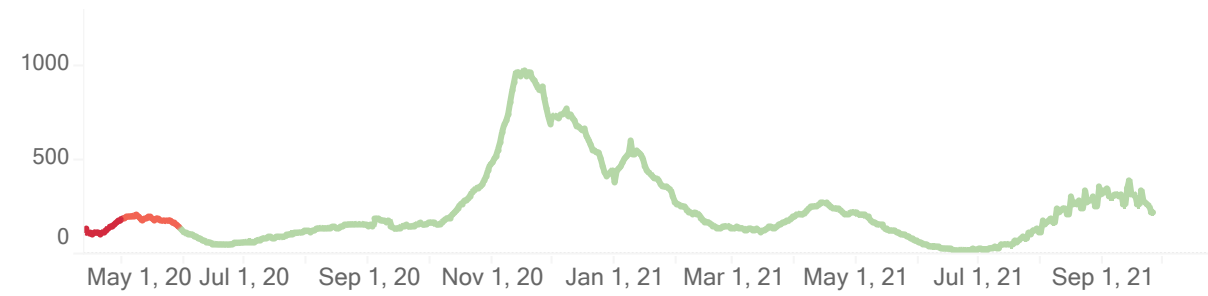
Percent Positive (7 day average) — New Tests — 3.2%

Percent Positive (7 day average) — New Tests — 7.3%

Mobility retails and recreational

Hospitalizations / 1M — 129

Hospitalizations / 1M — 134
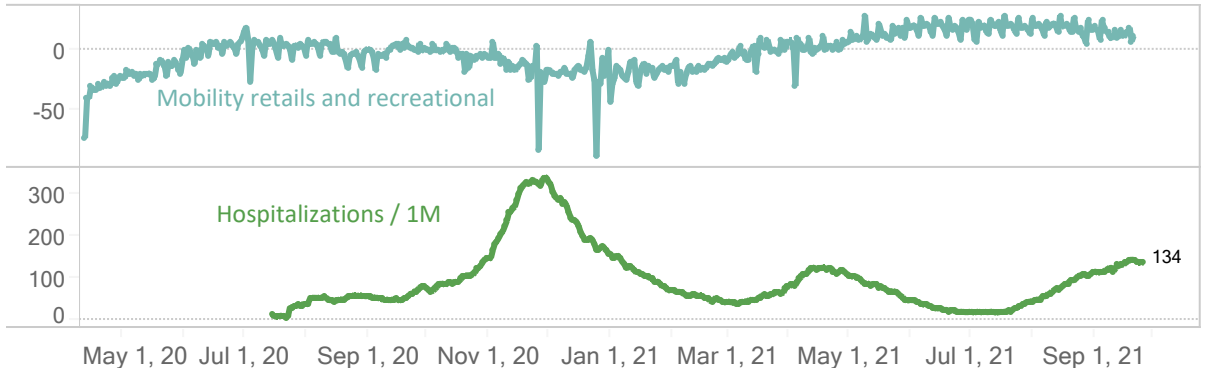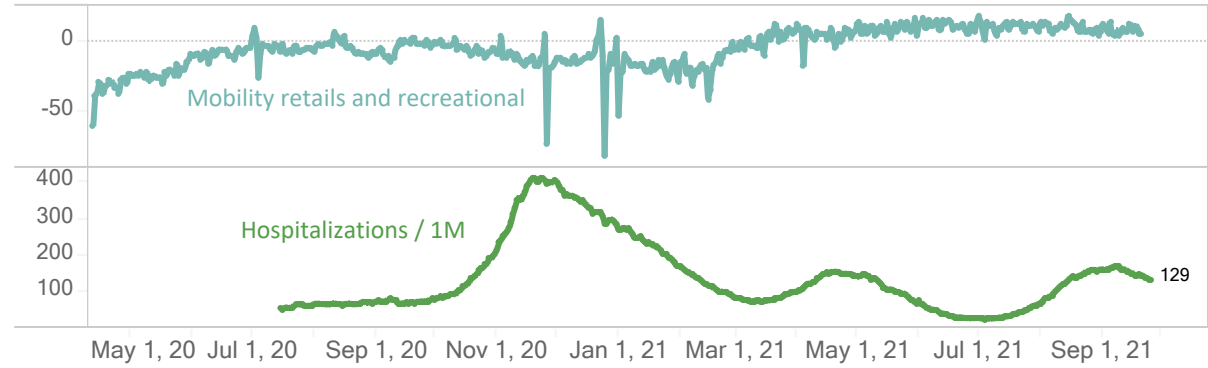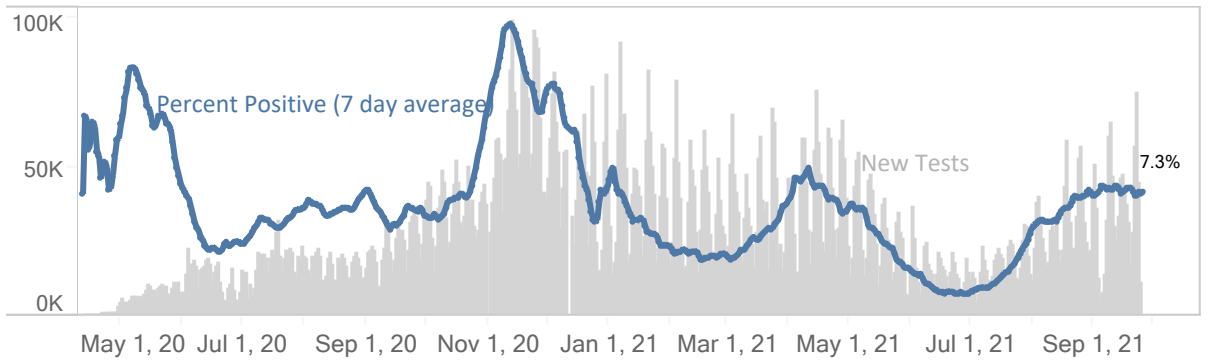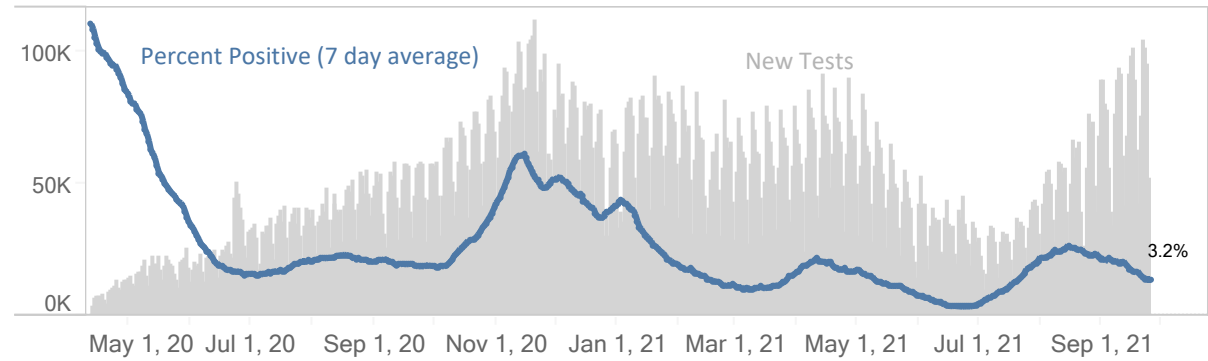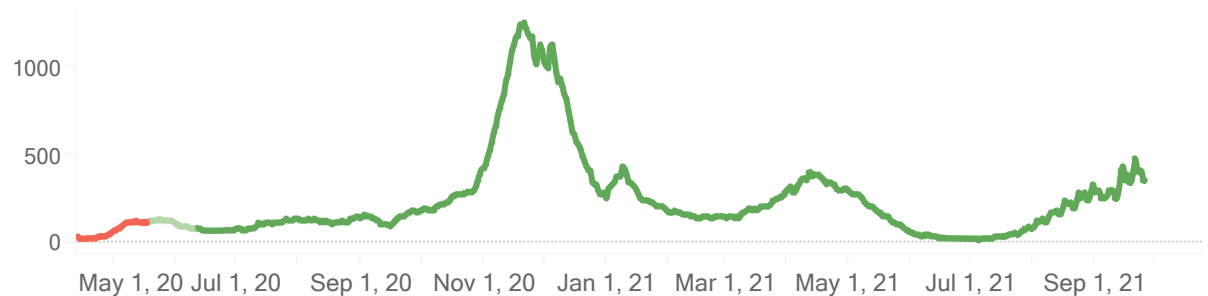
Key Messages: COVID-19 Burden Among Younger Ages Remains High

Statewide positivity is steady at 8.8% (last week: 8.8%)

- This is a 9% decline since recent peak on September 12

- Positivity is decreasing in three of the MERC regions (Detroit, Kalamazoo, Lansing)

- Positivity in six regions is above 10%

Case rate has increased to 246.3 cases/million (last week: 234.4 cases/million)

- Increasing for three months (June 26 low)
- Cases per million are plateaued or decreasing in most MERC regions; trend numbers are being impacted by backfill times
- 10-19-years-olds are experiencing the greatest case burden (521.0 daily cases; 415.2 cases/mil) while those 0-9 saw largest growth (+10%)
- Each day nearly 370 children under age 12 become infected with COVID-19, 50 more children per day than last week
- Daily average pediatric (<18) hospital census is approximately 25

Michigan is at High Transmission level

- All counties in Michigan are at high transmission level

- CDC recommends all individuals, regardless of vaccination status, should mask indoors

- The U.S. is at high transmission level (200.8 cases/100,000 in last 7 days) with 52 states/territories in substantial or high transmission

Number of active outbreaks is up 9% from last week
- 168 new outbreaks were identified in the past week
- K-12 reported the most total outbreaks (289) and new outbreaks (105) this week

Confirmed and probable case indicators
Table Date: 9/27/2021 (7 days from date table was produced: 9/20/2021)
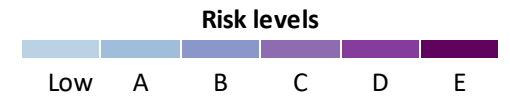
	CDC Transmission Risk Level	Absolute Cases (per million)	CDC Case Trend	Average Percent Positivity	Positivity Trend	Tests (per million)	% IP Beds Occupied by COVID-19 Cases	% Occupied IP Beds Trend	Absolute Deaths (per million)	Death Trend
Detroit	High	186.5	elevated incidence plateau	6.5	Decrease - 2wk	4145.7	6.2	Increase - 2wk	2.2	Increase - 1wk
Grand Rapids	High	319.7	elevated incidence plateau	12.4	Increase - 1wk	4239.9	10.1	Increase - 10wk	3.4	Increase - 2wk
Kalamazoo	High	268.7	decline [7 days]	11.1	Decrease - 2wk	3386.9	9.5	Increase - 1wk	3.0	<20 wkly deaths
Saginaw	High	346.4	elevated incidence plateau	13.8	Increase - 3wk	3342.4	7.3	Decrease - 1wk	4.0	<20 wkly deaths
Lansing	High	262.7	decline [7 days]	8.6	Decrease - 1wk	3118.8	10.4	Increase - 1wk	2.7	<20 wkly deaths
Traverse City	High	293.4	elevated incidence plateau	11.2	Increase - 6wk	3038.7	7.5	Decrease - 1wk	4.9	<20 wkly deaths
Jackson	High	320.4	decline [6 days]	13.6	Increase - 13wk	3610.8	16.0	Increase - 4wk	3.3	<20 wkly deaths
Upper Peninsula	High	468.4	elevated incidence plateau	11.9	Increase - 10wk	3350.9	8.1	Increase - 2wk	3.8	<20 wkly deaths
Michigan	High	246.3	elevated incidence plateau	8.8	plateau - 1wk	3978.9	7.4	Increase - 10wk	2.8	Increase - 8wks
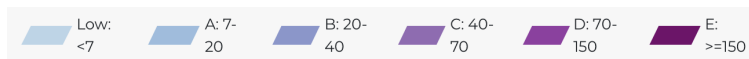
National Comparison   **Spread**   Severity   Public Health Response   Other Indicators   Science Round-up

Time Trends – Positivity, Case Rates, Hospitalizations, Deaths

➢ Early indicators show Delta surge may be slowing but burden remains high

Daily Positive Test Rate
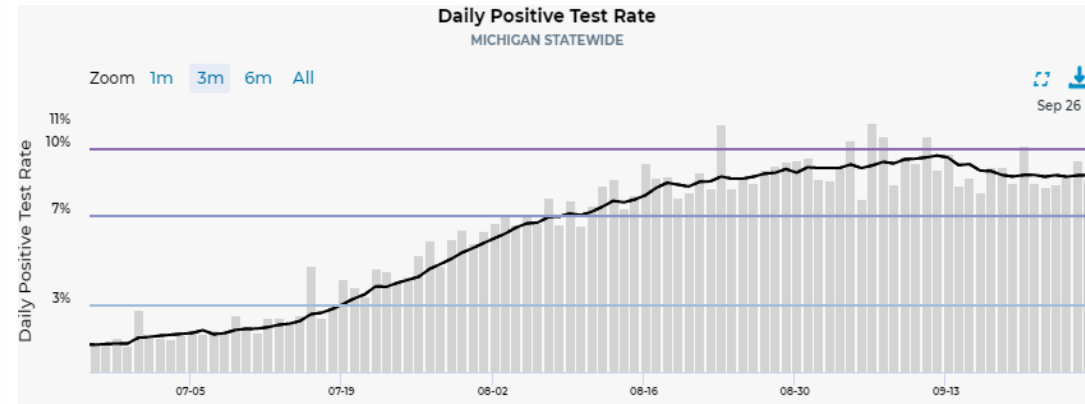
Daily Inpatient Beds Occupied by COVID patients
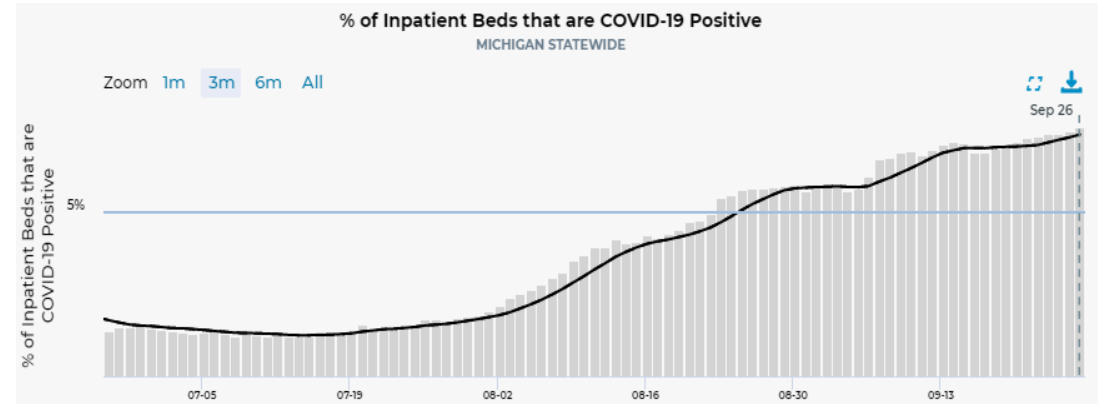
Daily Case Rate
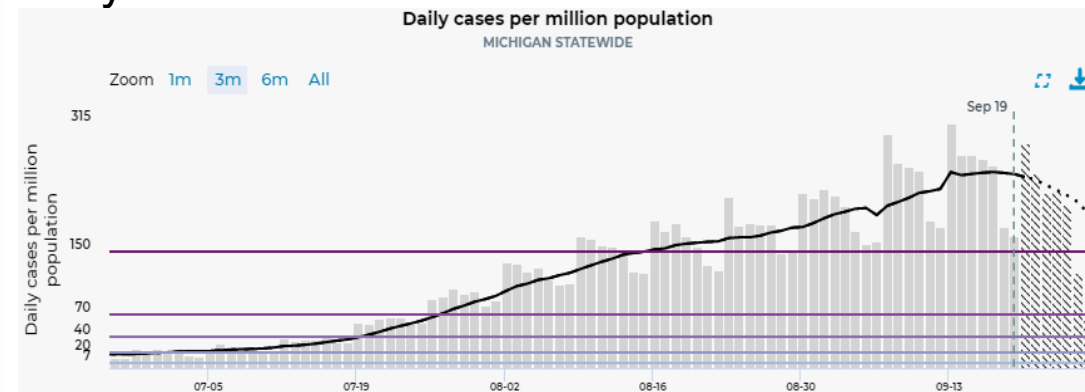
Daily Deaths
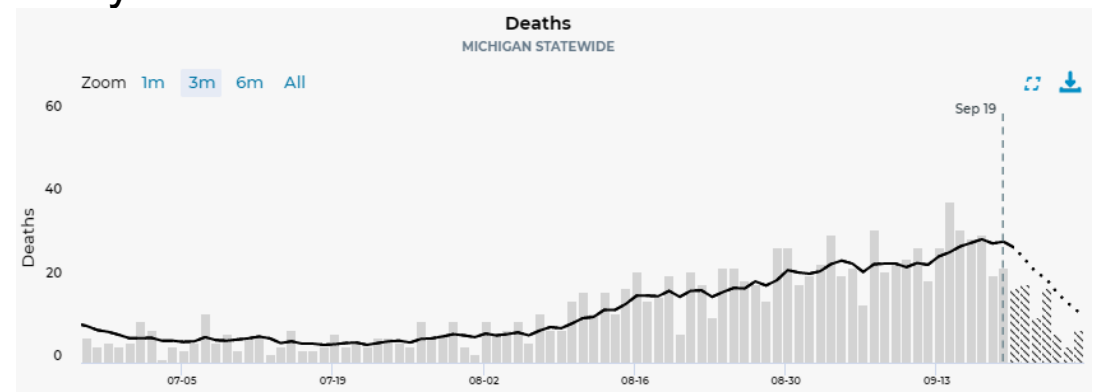
Michigan Lag adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of September 27, 2021 (-2 days)
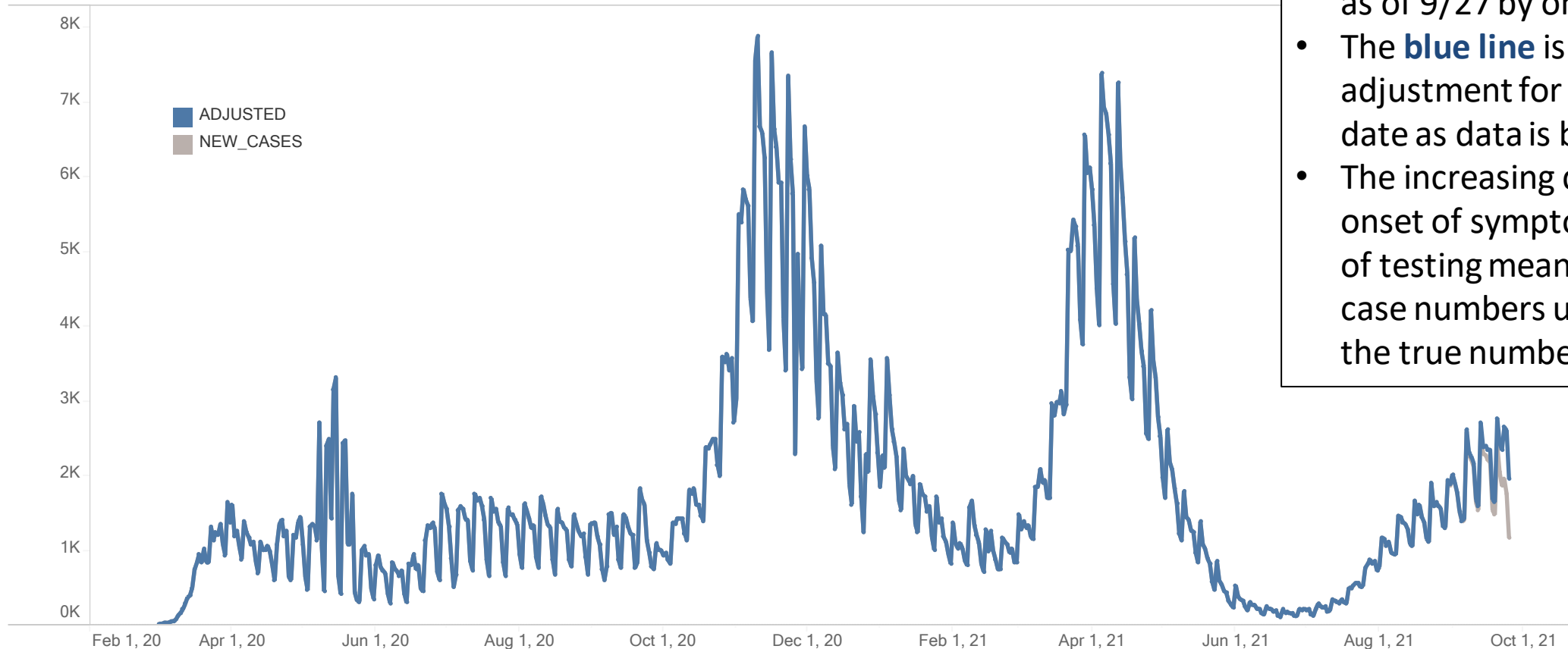
- The **gray line** is cases reported as of 9/27 by onset date.
- The **blue line** is the expected adjustment for cases by onset date as data is backfilled
- The increasing delay between onset of symptoms and date of testing means that recent case numbers underestimate the true number of cases

Overview of metrics for individuals < 18

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs) *	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	35302	161.7	219.8	19.7	17.4	0
Grand Rapids	230120	350652	12505	73.0	317.2	4.7	13.4	0
Kalamazoo	140422	214801	6778	31.1	221.5	0.7	3.3	0
Saginaw	78759	122834	4122	29.3	372.0	0.4	3.3	0
Lansing	78140	119915	4014	21.1	270.0	0.3	2.5	0
Traverse City	53099	83462	2031	16.9	318.3	0.0	0.0	0
Jackson	41274	64091	1976	14.4	348.9	0.0	0.0	0
Upper Peninsula	34645	53875	2034	21.4	617.7	0.0	0.0	0
Michigan	1391988	2143877	68852	369.4	265.4	25.9	12.1	0

- Each day more than 370 children under age 12 become infected with COVID-19, 50 more children per day than last week
- Pediatric case rates have increased from 227.4 to 265.4
- Pediatric (<18) hospital census* is averaging approximately 25 per day

Note: Data as of 9/27; case data 9/20, hospitalization data 9/27. Hospitalization data is for pediatric patients (<18); * includes only confirmed COVID-19

Overview of metrics for individuals < 18: Key changes from last week

MERC Region	Pediatric Case Rate – One Week % Change (Δ Rate)¶	Pediatric Hospitalization Rate – One Week % Change (Δ Rate)†
Detroit	28% (+49)	51% (+6)
Grand Rapids	10% (+30)	38% (+4)
Kalamazoo	-16% (-41)	-49% (-3)
Saginaw	16% (+51)	313% (+3)
Lansing	35% (+70)	-86% (-15)
Traverse City	8% (+23)	-100% (-1)
Jackson	26% (+73)	ND§ (+0)
Upper Peninsula	13% (+72)	-100% (-2)
Michigan¶	**17% (+38)**	**26% (+3)**

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: Case data - Michigan Disease Surveillance System (MDHHS), Hospitalization data - EM Resource

- Each day more than 370 children under age 12 become infected with COVID-19, 50 more children per day than last week
- Pediatric case rates have increased from 227.4 to 265.4
- Pediatric (<18) hospital census* is averaging approximately 25 per day
- Previous documents incorrectly summed pediatric confirmed COVID+19 hospitalization census with pediatric confirmed and suspect COVID-19 hospitalization census; past correct pediatric slides can be found in the appendix

Note: Data as of 9/27; case data 9/20, hospitalization data 9/27. Hospitalization data is for pediatric patients (<18)

* Includes only confirmed COVID-19; ¶ Case Rate change compares data from 9/20 to 9/13; †Hospitalization Rate change compares 9/27 to 9/20 and these data now only compare hospitalizations with confirmed COVID-19 diagnosis; § Not divisible with denominator of 0

Michigan at High Transmission Level

[Dashboard | CDC | MI Start Map](#) **for most recent data by reporting date**

Weekly cases per 100,000
MICHIGAN STATEWIDE

Zoom 1m 3m 6m All

Sep 26
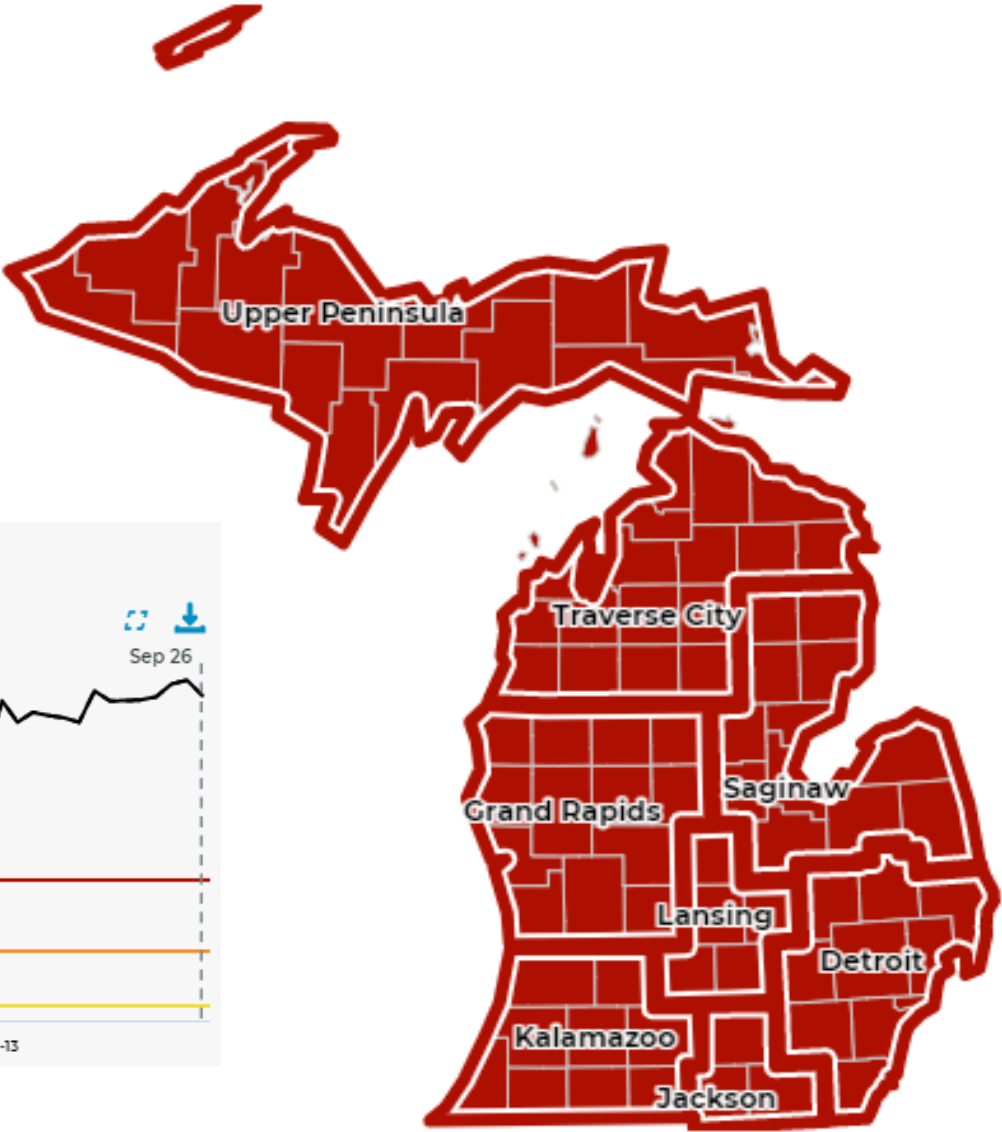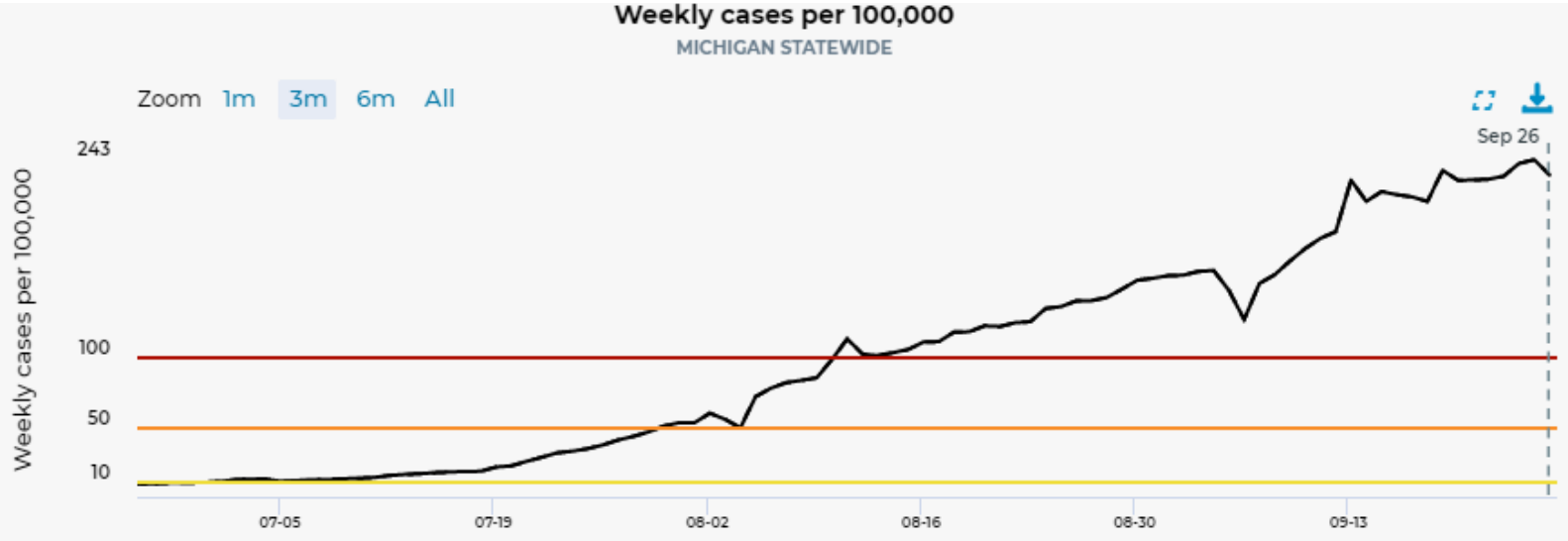
Source: MI Start Map; data through 9/27/2021

Case Rate Trends by Age Group

Daily new confirmed and probable cases per million by age group (7-day rolling average)

Legend: 0-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+
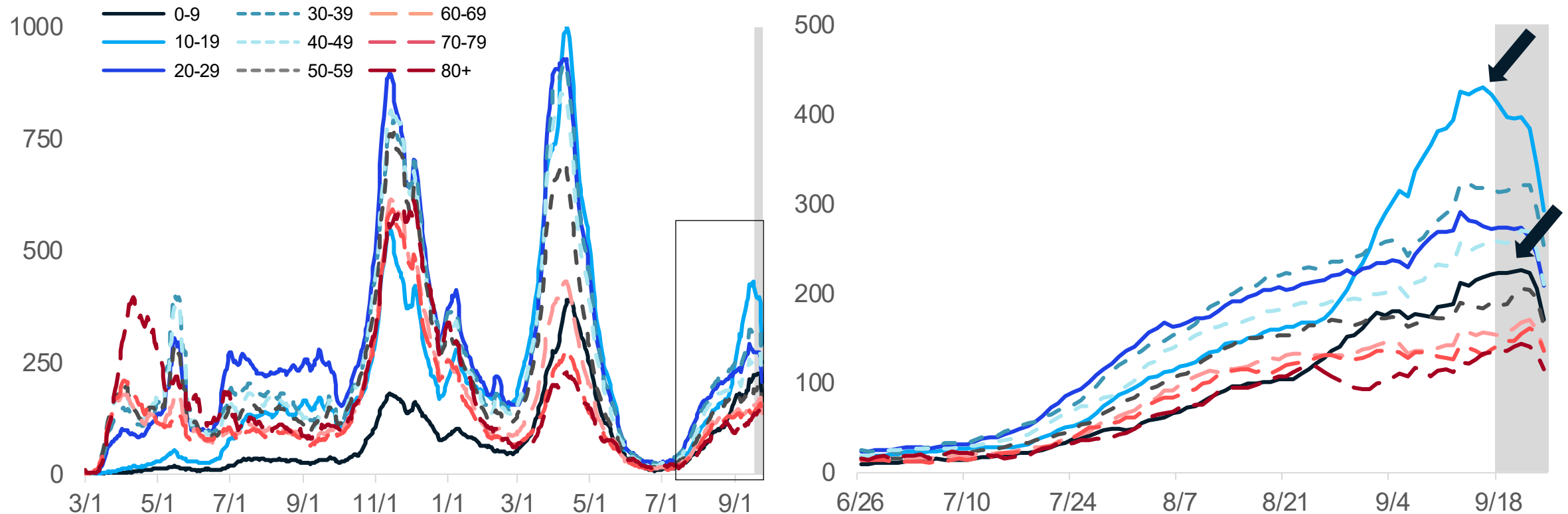
- Case rate trends for all age groups are slowing and are decreasing for some age groups
- Case rates for all age groups are between 130 and 415 cases per million (through 9/20)
- Case rates are highest for 10-19-year-olds followed by 30-39, 20-29, 40-49, and 0-9

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

National Comparison | Spread | Severity | Public Health Response | Other Indicators | Science Round-up

Number of Cases and CaseRates by Age Group

Daily new confirmed and probable cases per million by age group (7-day rolling average)

Age Group	Average† daily cases	Average† Daily Case Rate	One Week % Change (Δ #)
0-9	271.6	235.6	10% (+25)
10-19	521.0	415.2	-4% (-20)
20-29	366.3	265.5	-9% (-35)
30-39	379.1	312.5	-4% (-15)
40-49	299.4	253.9	-2% (-5)
50-59	256.9	190.2	-1% (-2)
60-69	193.1	151.4	-6% (-12)
70-79	106.4	138.8	-4% (-4)
80+	53.0	128.0	4% (+2)
Total¶	2,462.1	246.3	+5% (+114)

† Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

- Trend number are being impacted by longer backfill times and data suggest case trends are slowing

- Largest one-week growth among those 0 to 9 years of age (10%, +25 cases/day)

- Average daily number of cases (521.0) and avg. daily case rate (415.2 case/mil) are highest for those aged 10-19

- Case rate trends are *decreasing* for most age groups, with largest decline among 20–29-year-olds (-9%, -35 cases/day)

- Case rates for age groups 10-19, 20-29, 30-39, and 40-49 are all higher than the state

- Case rates bottomed out on June 26, 2021

Case Rates by Reported Racial and Ethnic Group

Daily new confirmed and probable cases per million (7 day rolling average) by race category

Legend: American Indian/Alaska Native, Black/African American, Asian/Pacific Islander, White

Race	Case Rate
American Indian/Alaskan Native	296.4
Asian/Pacific Islander	74.2
Black/African American	134.9
White	188.2
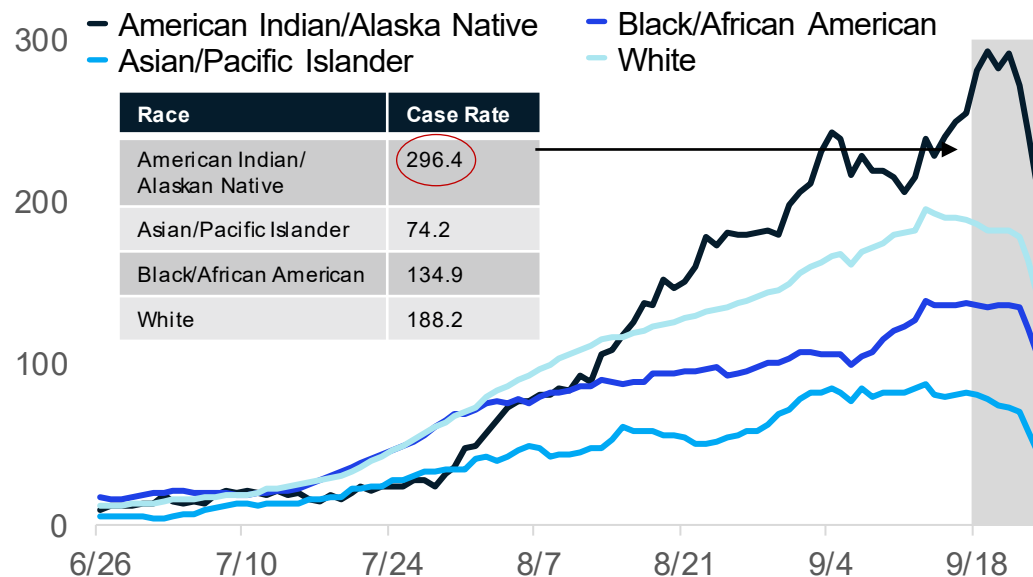
Daily new confirmed and probable cases per million (7 day rolling average) by ethnicity category

Legend: Hispanic or Latino, Not Hispanic or Latino

Race	Case Rate
Hispanic/Latino	192.7
Non-Hispanic	181.3
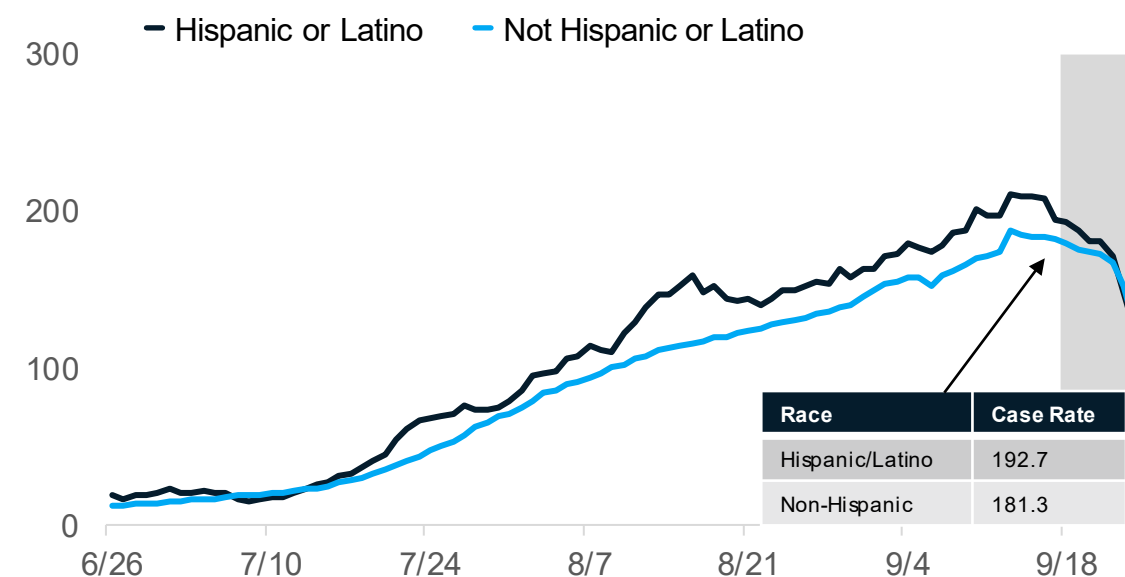
Updates since last week:

- Cases per million are _decreasing_ for most races and ethnicities
- The high number of cases with missing race/ethnicity data, and those multiracial or other are impacting the case rates shown here
- **American Indian/Alaskan Native have the highest case rates**
- In the past 30 days, 22% (↑1%) of race data and 26% (↔) ethnicity data was either missing or reported as unknown

Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

National Comparison | **Spread** | Severity | Public Health Response | Other Indicators | Science Round-up

Identified COVID-19 Cases Caused by All Variants of Concern (VOC) in US and Michigan

Variants Circulating in United States, Sep 17 – Sep 25 (NOWCAST)

USA

WHO label	Lineage #	US Class	%Total	95%PI	
Alpha	B.1.1.7	VBM	0.0%	0.0-0.2%	
Beta	B.1.351	VBM	0.0%	0.0-0.2%	
Gamma	P.1	VBM	0.0%	0.0-0.2%	
Delta	B.1.617.2	VOC	98.4%	97.1-99.5%	
	AY.1	VOC	0.1%	0.0-0.5%	
	AY.2	VOC	0.1%	0.0-0.5%	
Iota	B.1.526	VBM	0.0%	0.0-0.2%	
Kappa	B.1.617.1	VBM	0.0%	0.0-0.2%	
Mu	B.1.621	VBM	0.1%	0.0-0.2%	
N/A	B.1.1.194		0.4%	0.0-1.0%	
Other	Other*		1.0%	0.2-2.2%	

* Enumerated lineages are VOI/VOC/VBM or are circulating >1% in at least one HHS region during at least one two week period. "Other" represents lineages which are circulating <1% nationally during all weeks displayed.
** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
\# Sublineages of P.1, B.1.351 and B.1.621 are aggregated with the parent lineage and included in parent lineage's proportion. Q.1-Q.8 are aggregated with B.1.1.7. AY.3-AY.25 and their sublineages are aggregated with B.1.617.2.

B.1.617.2

9/18/21

Data last updated Sep 27, 2021
Source: https://covid.cdc.gov/covid-data-tracker/#variant-proportions and MDSS

Variants of Concern in Michigan, Sep 27

Legend:
- No variants identified
- Confirmed one variant reported
- Confirmed two different variants reported
- Confirmed three different variants reported
- Confirmed All 4 VOCs (B.1.1.7, B.1.351, P.1, & B.1.617.2) reported

796 cases in Wayne attributed to Detroit
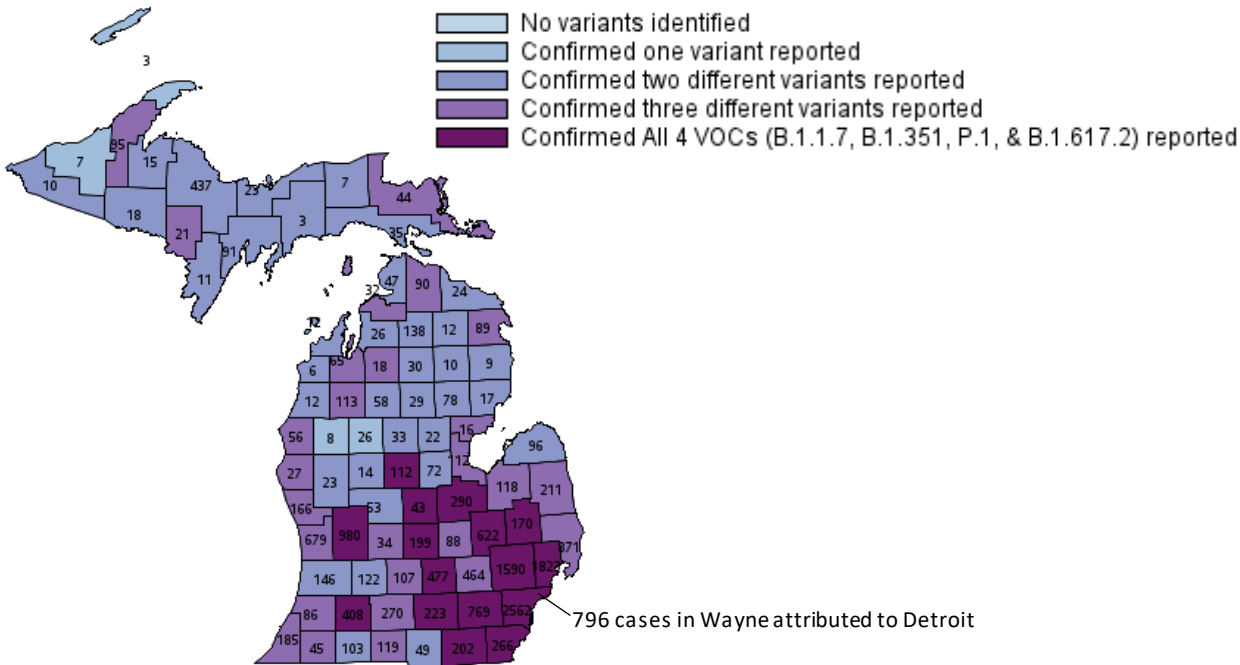
Variant	MI Reported Cases¶	# of Counties	% Specimens in last 4 wks
B.1.1.7 (alpha)	13,667*†	81	0%
B.1.351 (beta)	88	24	0%
P.1 (gamma)	336	35	0.2%
B.1.617.2 (delta)	**3,492 (↑707)**	**81 (↑1)**	**99.8%**

* 534 cases within MDOC; ¶ 44 cases with county not yet determined; † 31 duplicate results removed

Identified COVID-19 Delta Variants by County

Last week (Sep 20, 2021)

This week (Sep 27, 2021)

Data last updated Sep 27, 2021
Source: MDSS

National Comparison | **Spread** | Severity | Public Health Response | Other Indicators | Science Round-up

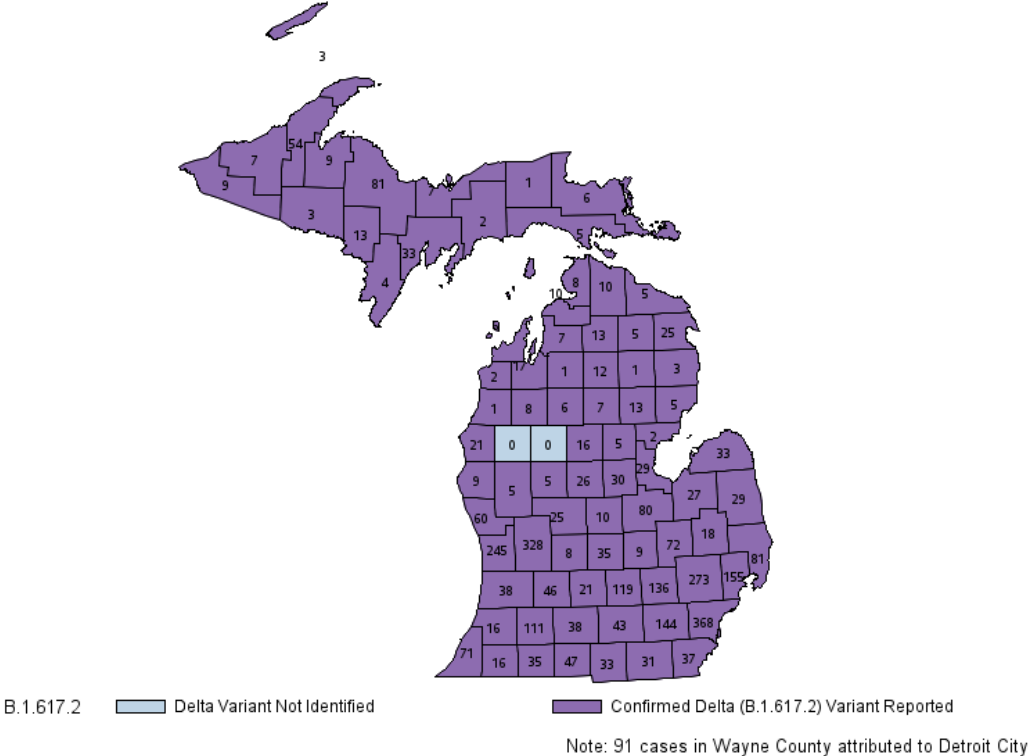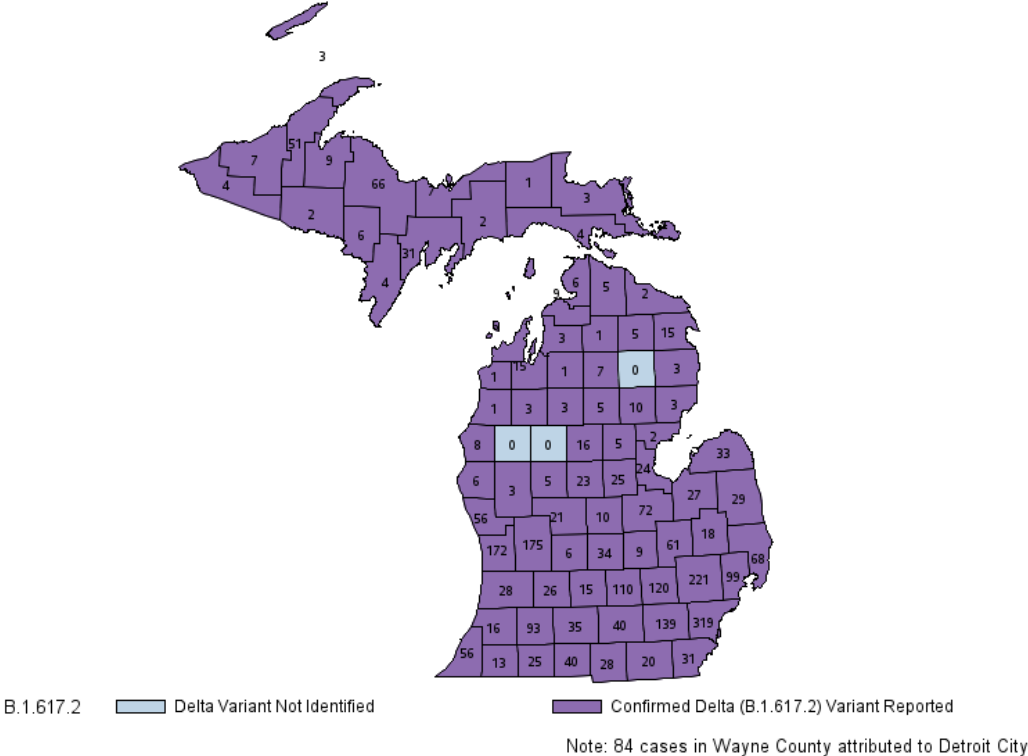# Update to SARS-CoV-2 Variant Classifications and Tracking

CDC introduces Variants Being Monitored (VBM)

- The US government SARS-CoV-2 Interagency Group (SIG) added a new class of SARS-CoV-2 variants designated as VBM
- This class includes variants that are no longer detected or are circulating at very low levels **in the United States**, and do not pose a significant or imminent risk to public health **in the US**
  - Alpha (B.1.1.7), Beta (B.1.351), and Gamma (P.1) have been reclassified from VOCs to VBMs
  - Epsilon (B.1.427/B.1.429), Eta (B.1.525), Iota (B.1.526), Kappa (B.1.617.1), Mu (B.1.621), Zeta (P.2), and B.1.617.3 have also been reclassified as VBMs
- Currently, only Delta (B.1.617.2) and its sublineages (AY) remain VOCs in the US
- Currently, there are no Variants of Interest (VOIs) or Variants of High Consequence (VOHC) in the US

WHO introduces Variants Under Monitoring (VUM)

- Formerly called "Alerts for Further Monitoring"
- A SARS-CoV-2 variant with genetic changes that are suspected to affect virus characteristics with some indication that it may pose a future risk, but evidence of phenotypic or epidemiological impact is currently unclear, requiring enhanced monitoring and repeat assessment pending new evidence
- A previously designated VOI or VOC which has conclusively demonstrated to no longer pose a major added risk to **global** public health compared to other circulating SARS-CoV-2 variants, can be reclassified
  - There are 14 variants classified as VUMs by the WHO including Epsilon, Kappa, Iota, and Eta
- Currently, WHO continues to classify Alpha, Beta, Gamma, and Delta as VOCs
- Currently, WHO lists Lambda (C.37) and Mu (B.1.621) as VOIs

➢ *Both organizations continue to monitor SARS-CoV-2 variants and assess threats to public health. Variants may be escalated or deescalated based on the emerging scientific evidence.*

Data last updated Sep 27, 2021
Source: CDC and WHO

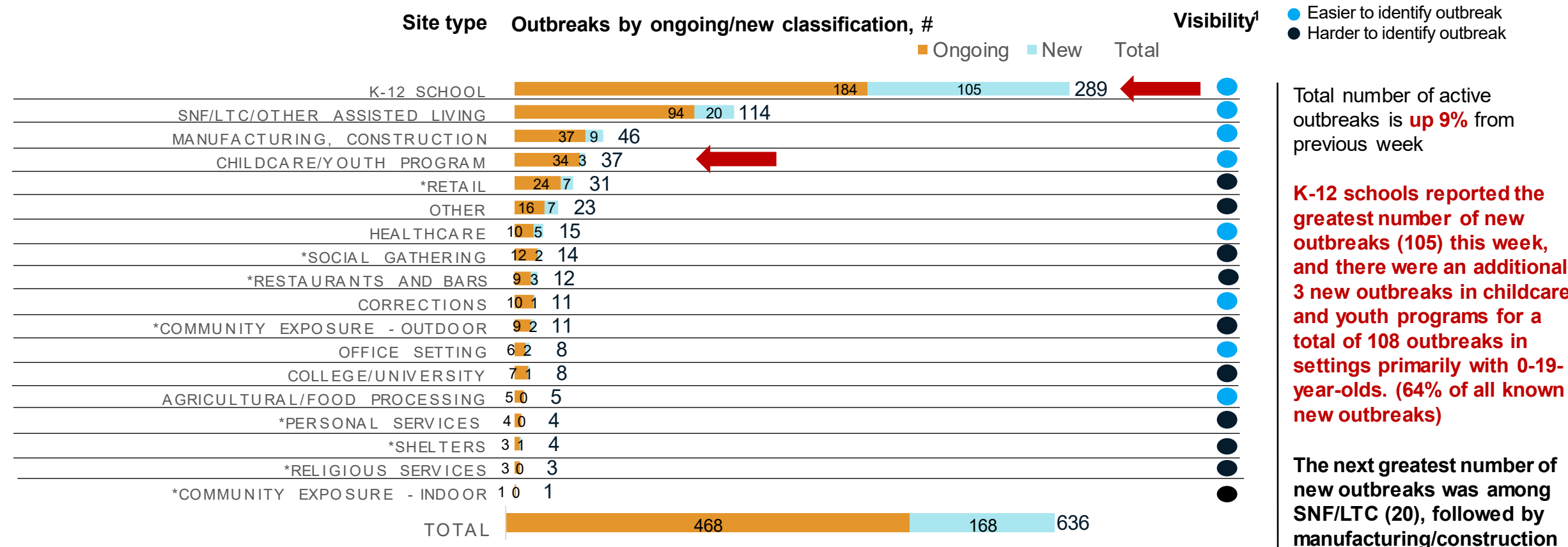National Comparison | **Spread** | Severity | Public Health Response | Other Indicators | Science Round-up

Number of Outbreaks Reported has Increased

Number of outbreak investigations by site type, week ending Sep 23

Site type	Outbreaks by ongoing/new classification, #	Visibility[1]

Legend: ■ Ongoing ■ New Total

Site type	Ongoing	New	Total	Visibility
K-12 SCHOOL	184	105	289	●
SNF/LTC/OTHER ASSISTED LIVING	94	20	114	●
MANUFACTURING, CONSTRUCTION	37	9	46	●
CHILDCARE/YOUTH PROGRAM	34	3	37	●
*RETAIL	24	7	31	●
OTHER	16	7	23	●
HEALTHCARE	10	5	15	●
*SOCIAL GATHERING	12	2	14	●
*RESTAURANTS AND BARS	9	3	12	●
CORRECTIONS	10	1	11	●
*COMMUNITY EXPOSURE - OUTDOOR	9	2	11	●
OFFICE SETTING	6	2	8	●
COLLEGE/UNIVERSITY	7	1	8	●
AGRICULTURAL/FOOD PROCESSING	5	0	5	●
*PERSONAL SERVICES	4	0	4	●
*SHELTERS	3	1	4	●
*RELIGIOUS SERVICES	3	0	3	●
*COMMUNITY EXPOSURE - INDOOR	1	0	1	●
TOTAL	468	168	636	

Total number of active outbreaks is **up 9%** from previous week

K-12 schools reported the greatest number of new outbreaks (105) this week, and there were an additional 3 new outbreaks in childcare and youth programs for a total of 108 outbreaks in settings primarily with 0-19-year-olds. (64% of all known new outbreaks)

The next greatest number of new outbreaks was among SNF/LTC (20), followed by manufacturing/construction (9), retail and other (7 each), and nine other settings with at least 1 new outbreak in the last week.

1. Based on a setting's level of control and the extent of time patrons/residents spend in the particular setting, different settings have differing levels of ability to ascertain whether a case derived from that setting

NOTE: Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.

Source: LHD Weekly Sitreps

K-12 school outbreaks, recent and ongoing, week ending Sep 23

Number of reported outbreaks increased since last week (218 to 289), including increases in High Schools (88 to 107), Middle/Jr High (46 to 68), and Pre K-Elementary (79 to 110). Only Administrative declined (5 to 4).

Region	Number of reported cases, #	Number of outbreaks	Range of cases per outbreak
Region 1	234 / 72	58	2-18
Region 2n	50 / 59	27	2-20
Region 2s	101 / 50	26	2-19
Region 3	365 / 175	70	2-42
Region 5	116 / 9	22	2-31
Region 6	194 / 133	47	2-44
Region 7	46 / 17	12	3-12
Region 8	113 / 95	27	2-29
Total	1,219 / 610	**289**	**2-44**

Legend: ■ # Ongoing - Excluding New   ■ # New

Grade level	Number of reported cases, #	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	349 / 255	110	2-32
Jr. high/middle school	261 / 140	68	2-16
High school	596 / 213	107	2-44
Administrative	13 / 2	4	2-9
Total	1,219 / 610	**289**	**2-44**

Legend: ■ # Ongoing - Excluding New   ■ # New

Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.
Source: LHD Weekly Sitreps

Update on surveillance with the K-12 setting and school cluster and outbreak definition

- As of 9/27/2021, MDHHS is utilizing the latest definitions for measuring outbreaks and clusters of COVID-19 in K-12 schools in accordance with the [Council of State and Territorial Epidemiologists standards](#)

- Surveillance case definitions are often modified over time as the epidemic evolves and more evidence are collected to better inform future surveillance practices and standards

- The new definition from CSTE has separate criteria for defining an outbreak and a cluster associated with a school setting while the previous definition **ONLY** included an outbreak definition
  - **Outbreaks** rely on confirming exposure linkages between cases
  - While **clusters** account for school cases where a definitive exposure linkage has not been established.
  - The previous outbreak definition threshold was 2 cases, while the new outbreak and cluster definitions requires 3 or more cases OR having multiple cases comprising at least 10% of a core school group.

- Previously, MDHHS reported out school related outbreaks only
- The new definition will not be applied to retrospective data
- Utilizing the new surveillance definition, MDHHS now reports both outbreaks and clusters in aggregate

- For consistency and transparency in public reporting, both clusters and outbreaks will be reported in aggregate as there are numerous barriers to identifying epidemiological or exposure linkages between cases, including:
  - Limited resources to perform comprehensive case investigations at the local level
  - Availability of school resources to participate in the case investigation process
  - Public engagement with investigators in the case investigation process

Key Messages: Healthcare Capacity and COVID Severity

Hospitalizations and ICU utilization are increasing

- 3.9% of ED visits are for COVID diagnosis (up from 3.5% last week)
- Hospital admissions are increasing for most age groups this week
- Hospital census has increased 9% (vs. plateau week prior)
- All regions experienced **increasing** trends in hospital census this week
  - Hospitalization for COVID-19 is highest in Regions 3, 6, 7, and 8
  - Most growth is in Regions 6, 7, and 8
- Volume of COVID-19 patients in intensive care has increased 6% since last week (vs. 3% decrease last week)

Death rate has increased to 2.8 daily deaths/million residents (up from 2.3 deaths/million last week)

- One week percent change is up 8% (vs. up 9% last week)
- Death rate has increased eight weeks (547% increase since Jul 22 low)
- 30-day proportion of deaths among those under 60 years of age is steady from the prior week

Michigan Trends in Emergency Department (ED) Visits for Diagnosed COVID-19

Percentage of Emergency Department visits with Diagnosed COVID-19 in Michigan, All Ages

3.9%
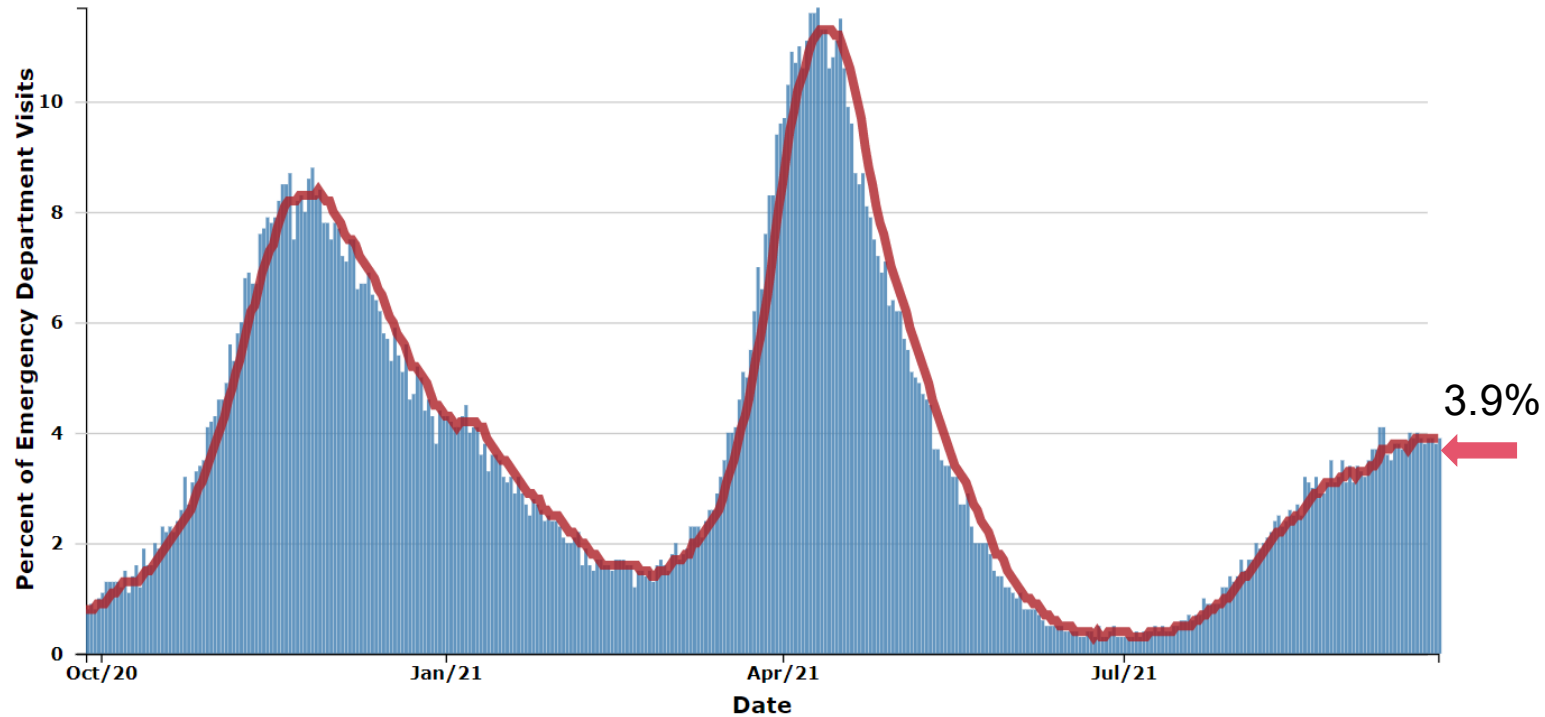
- Trends for ED visits have increased to 3.9% since last week (3.5% week prior)
- Trends vary by age groups with most age groups seeing an increase
- Over past week, those 40-49 years saw highest number of avg. daily ED CLI visits (5.2%), but those between 25 and 74 all above state average

Average Hospital Admissions by Age Group
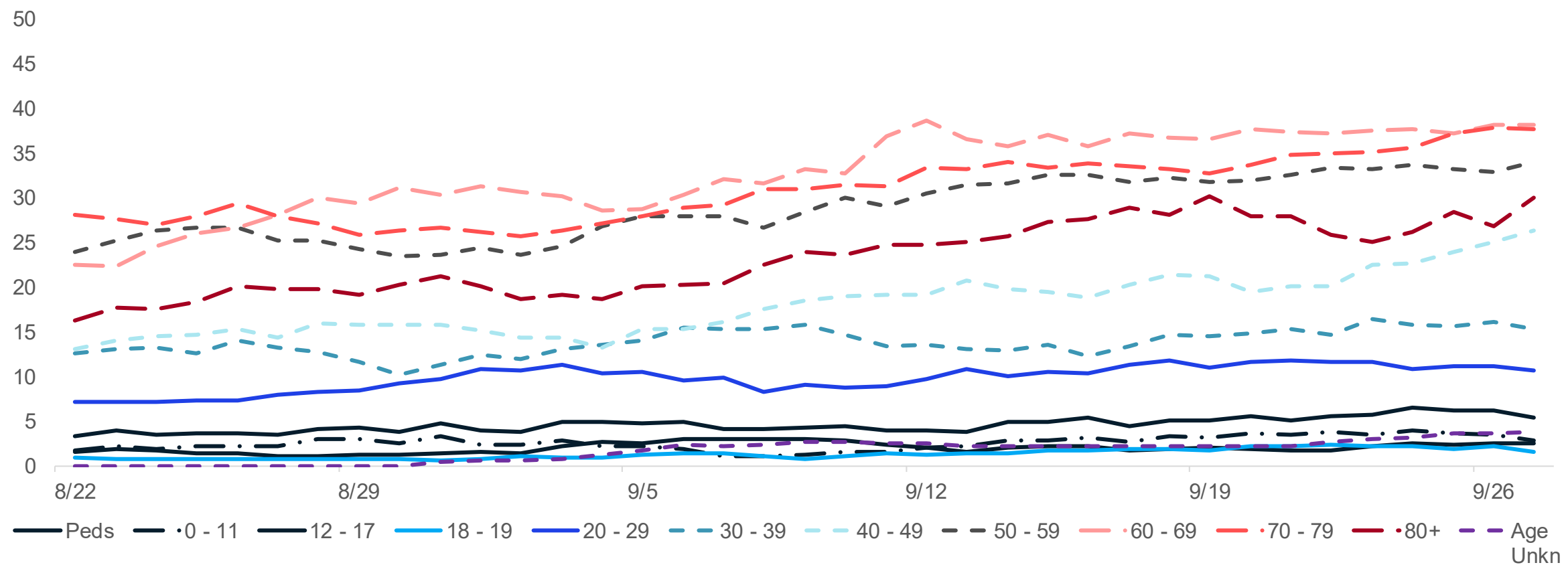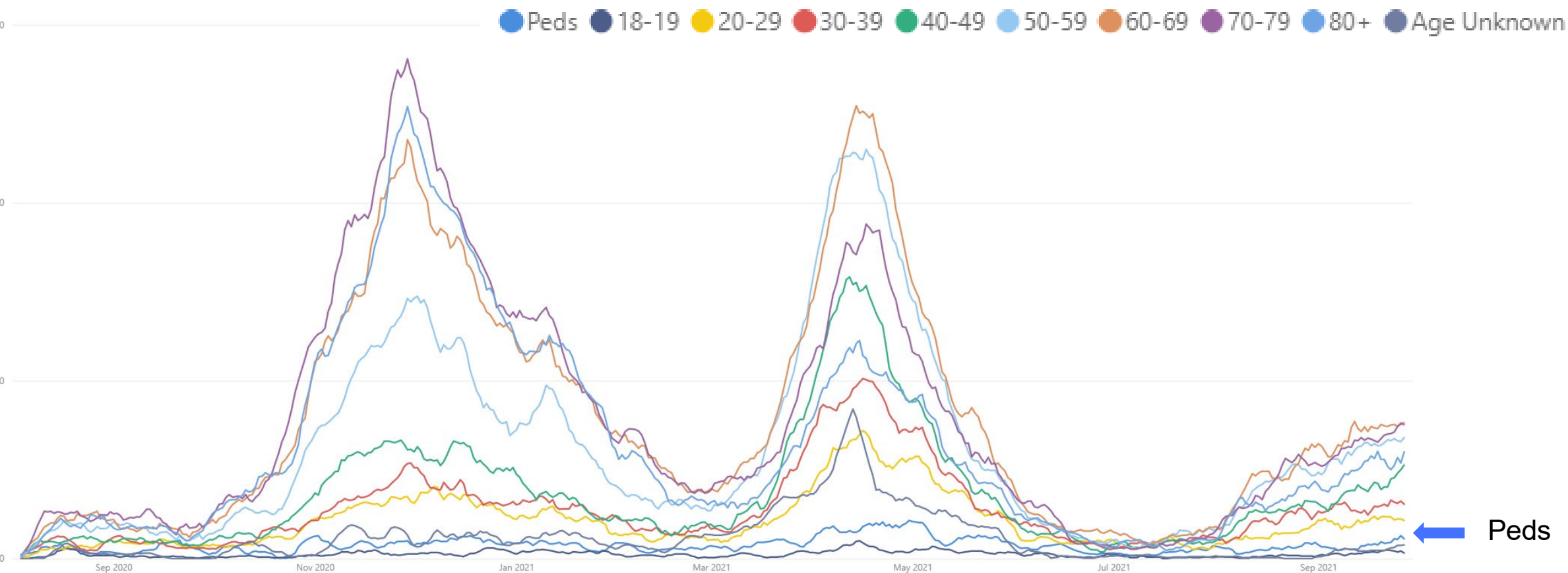

- Trends for daily average hospital admissions have increased 8% since last week (vs. 5% increase prior week)
- Most age groups experienced a one week increase in daily hospital admissions
- Over the past week, those 60-69 years have seen the highest number of avg. daily hospital admissions (38 admissions)

National Comparison | Spread | **Severity** | Public Health Response | Other Indicators | Science Round-up

Average Hospital Admissions by Age Group

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- Most age groups experienced a one week increase in daily hospital admissions
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Source: CHECC & EM Resource

Number of Hospital Admissions and Admission Rates are Increasing for Most Age Groups

Daily new hospital admission per million by age group (7 -day rolling average)

Age Group	Average† daily number of hospital admissions	Average† Daily Hospital Admission Rate*	One Week % Change (Δ#)
0-11	2.9	2.1	-23% (-1)
12-17	2.6	3.4	**38% (+1)**
18-19	1.6	6.0	-27% (-1)
20-29	10.7	7.8	-9% (-1)
30-39	15.3	12.6	3% (+<1)
40-49	26.3	**22.3**	**35% (+7)**
50-59	34.0	**25.2**	7% (+2)
60-69	**38.1**	**29.9**	1% (+<1)
70-79	37.7	**49.2**	12% (+4)
80+	30.0	**72.4**	8% (+2)
Total¶	**203.0**	**20.3**	**8% (+16)**

* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Hospital Admission data reflects date data was submitted
Source: CHECC and EM Resource

- Through September 27, there were an average of 203 hospital admissions per day due to COVID-19, which is 16 (8%) more than last week

- The largest one-week percent change in admissions was among those 12-17 years of age (38%) and this accounts for ~1 additional COVID hospital admission per day

- The largest on week change in number of admissions was among those 40-49 years of age (+7)

- Average number of daily hospital admissions (38) are highest for those aged 60-69

- Average daily hospital admission rate (72.4 hospital admissions/million) are highest for those aged 80+

Note: for some age groups, small changes in number of hospitalization admissions can cause large change in One Week Percent Change

Statewide Hospitalization Trends: Total COVID+ Census
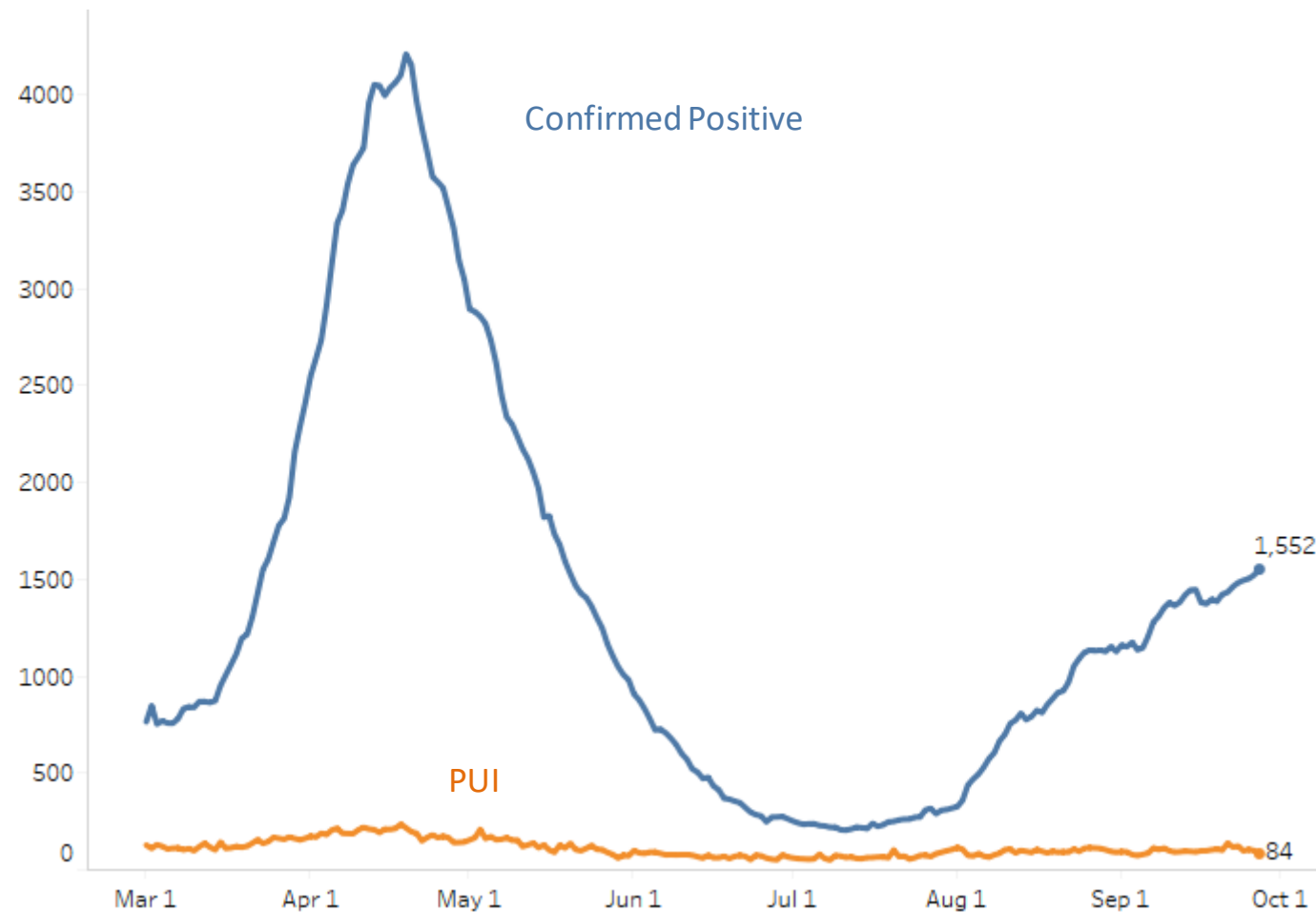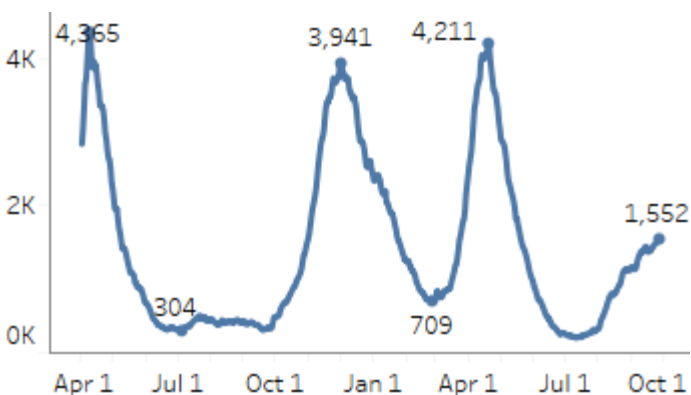
Hospitalization Trends 3/1/2021 – 9/27/2021
Confirmed Positive & Persons Under Investigation (PUI)

The COVID+ census in hospitals has has increased 9% from the previous week.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 3/1/2021 – 9/27/2021
Confirmed Positive by Region

Region 1
Region 2N
Region 2S
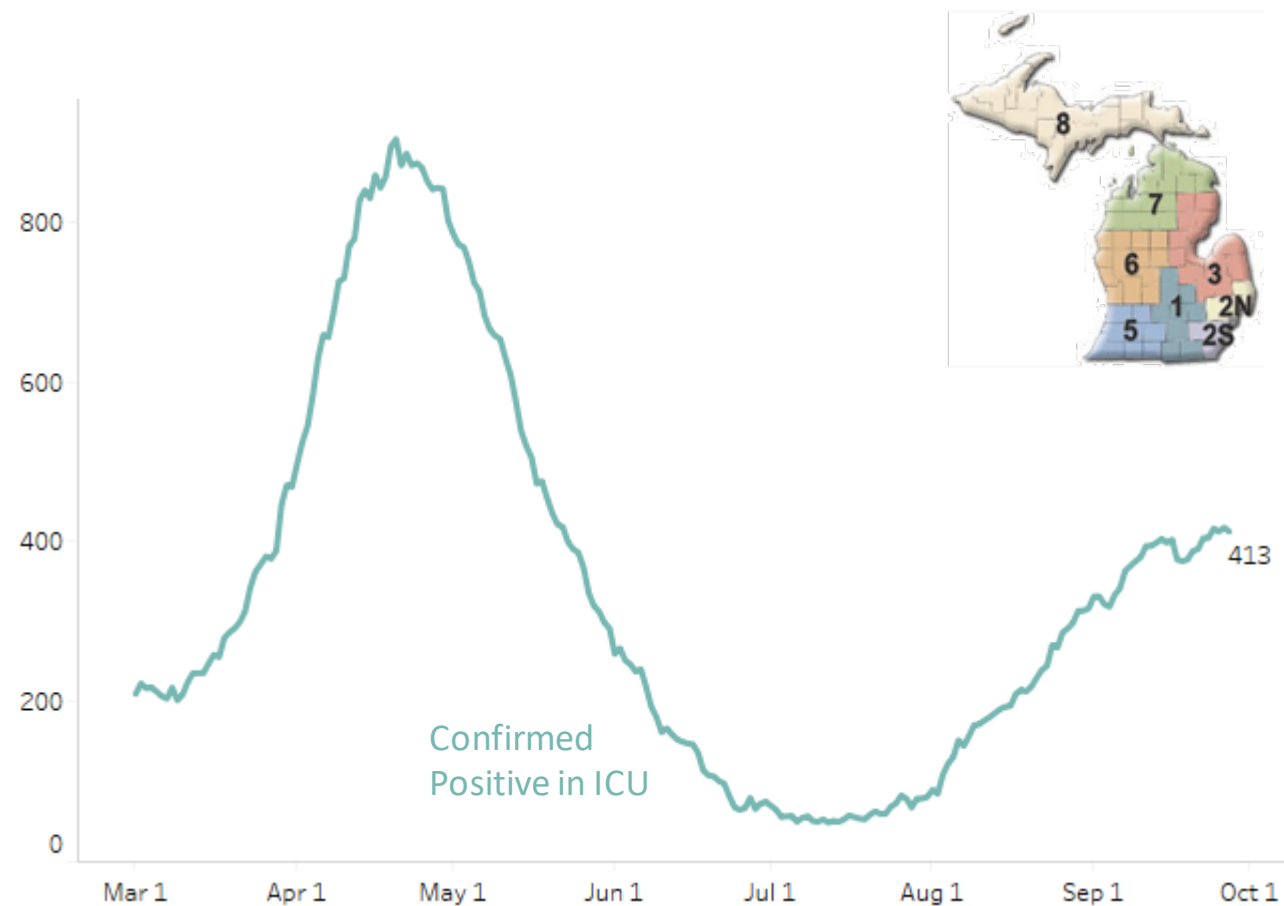Region 3
Region 5
Region 6
Region 7
Region 8
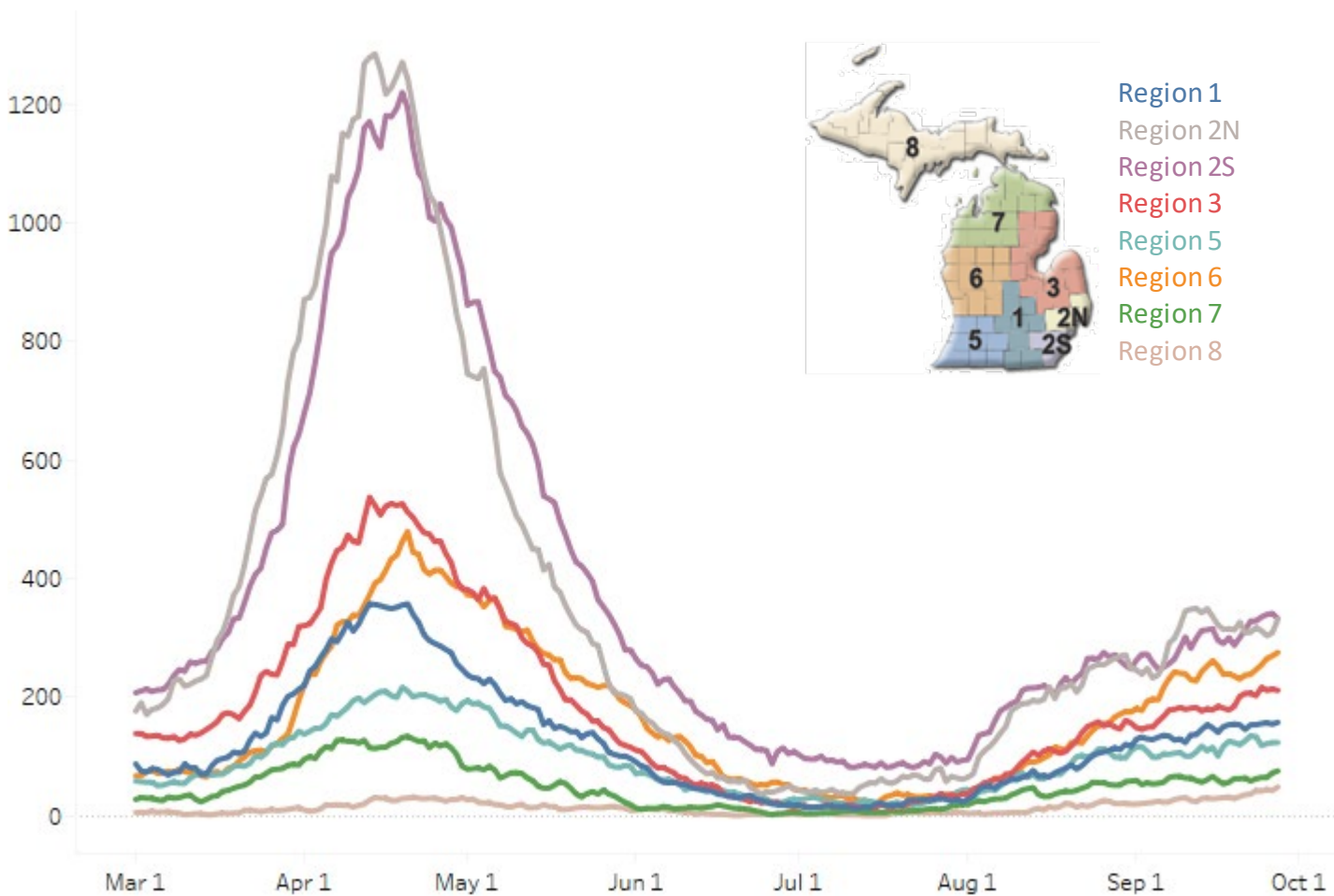
The census of COVID+ patients in hospitals has increased in each region from last week. Regions 6, 7 and 8 have experienced the largest increases from last week.

Regions 3, 6, 7, and 8 have greater than 150/M population hospitalized.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	157 (3%)	145/M
Region 2N	331 (2%)	149/M
Region 2S	332 (11%)	149/M
Region 3	211 (5%)	186/M
Region 5	123 (3%)	129/M
Region 6	275 (20%)	187/M
Region 7	75 (21%)	150/M
Region 8	48 (50%)	154/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 9/27/2021
Confirmed Positive in ICUs

Overall, the census of COVID+ patients in ICUs has increased by 6% from last week.

Regions 6 and 7 had the largest increases this week. There are small decreases in Regions 1, 2S, 5 and 8.

Region 1 and 3 have ICU occupancy of 90% and Region 6 now has >30% of all ICU beds occupied with COVID+ patients.

| Region	Adult COVID+ in ICU (% Δ from last week)	Adult ICU Occupancy	% of Adult ICU beds COVID+
Region 1	47 (-2%)	90%	27%
Region 2N	81 (7%)	72%	15%
Region 2S	84 (-2%)	80%	12%
Region 3	53 (6%)	90%	15%
Region 5	31 (-11%)	75%	17%
Region 6	73 (30%)	80%	31%
Region 7	33 (27%)	83%	23%
Region 8	11 (-8%)	65%	18%

Confirmed Positive in ICU

413

Average and total new deaths, by age group

Daily COVID-19 deaths in confirmed and probable cases per million by age group (7 day rolling average)

Legend:
- 0-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+
- Total
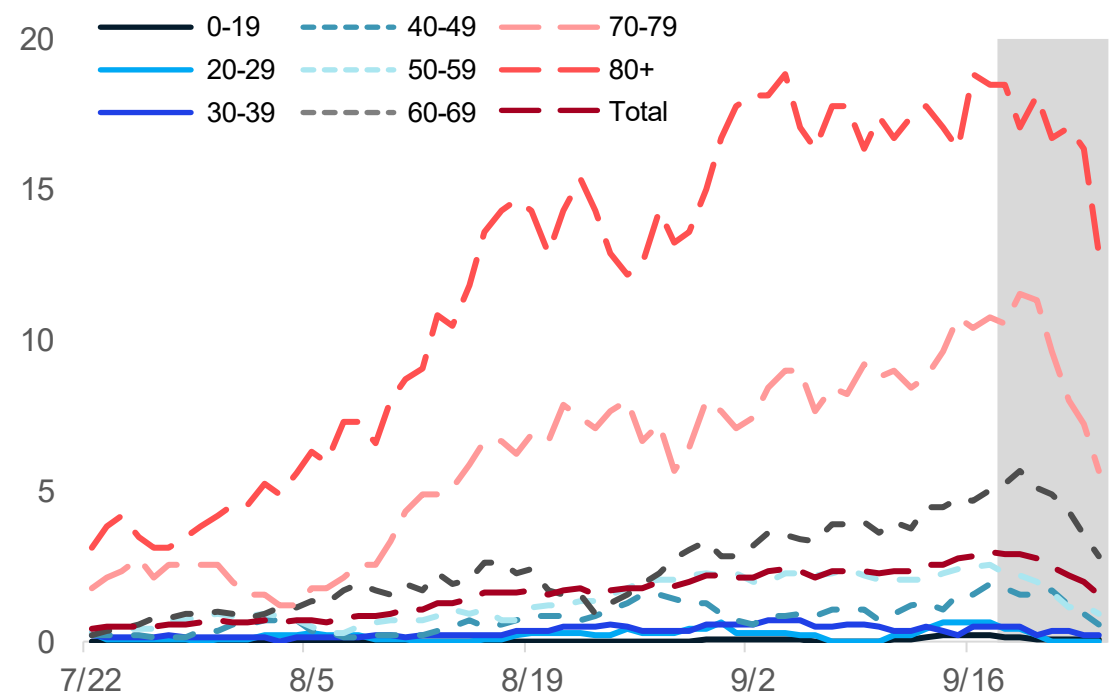
Total COVID-19 deaths in confirmed and probable cases by age group (past 30 days, ending 9/20/2021)

- 23% of deaths below age sixty

| Age group	Deaths
0-19	1-5
20-29	12
30-39	16
40-49	43
50-59	88
60-69	146
70-79	192
80+	212
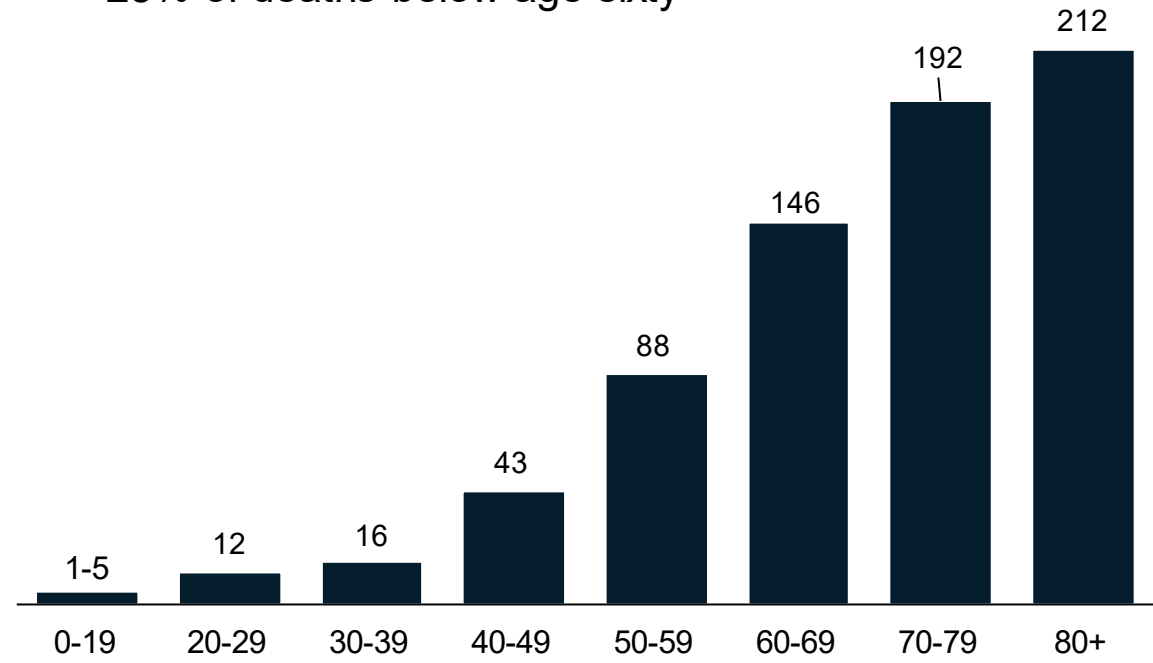
- Overall trends for daily average deaths are increasing since last week
- Through 9/20, the 7-day avg. death rate is more than 10 daily deaths per million people for those over the age of 70

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System (MDSS)

30-day rolling average daily deaths per million people by race and ethnicity

Average daily deaths per million people by race
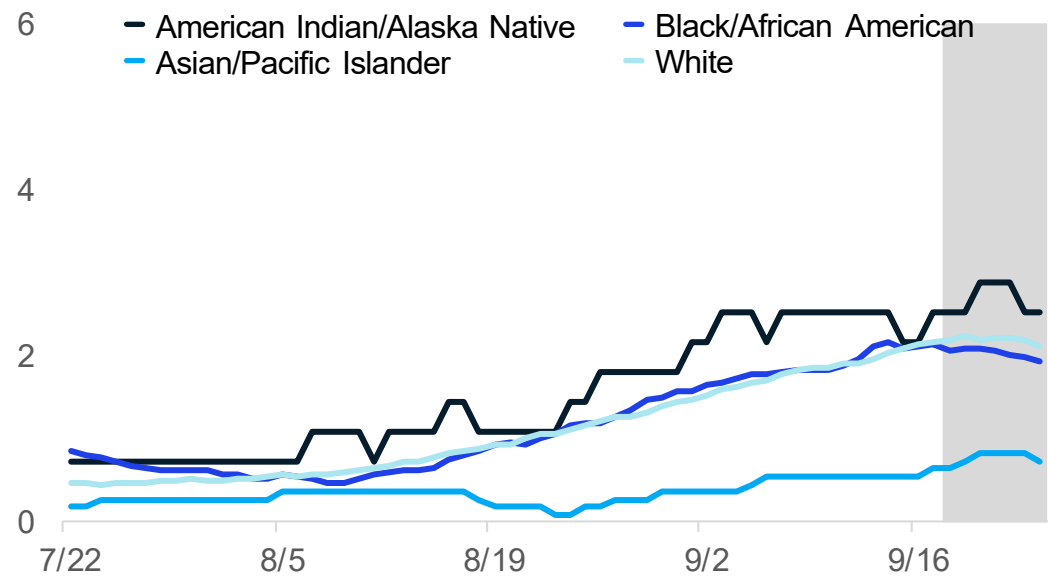
Average daily deaths per million people by ethnicity

- Deaths are a lagging indicator
- Death rates are increasing for most reported racial and ethnic groups
- Currently, American Indian/Alaskan Natives have the highest death rate

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
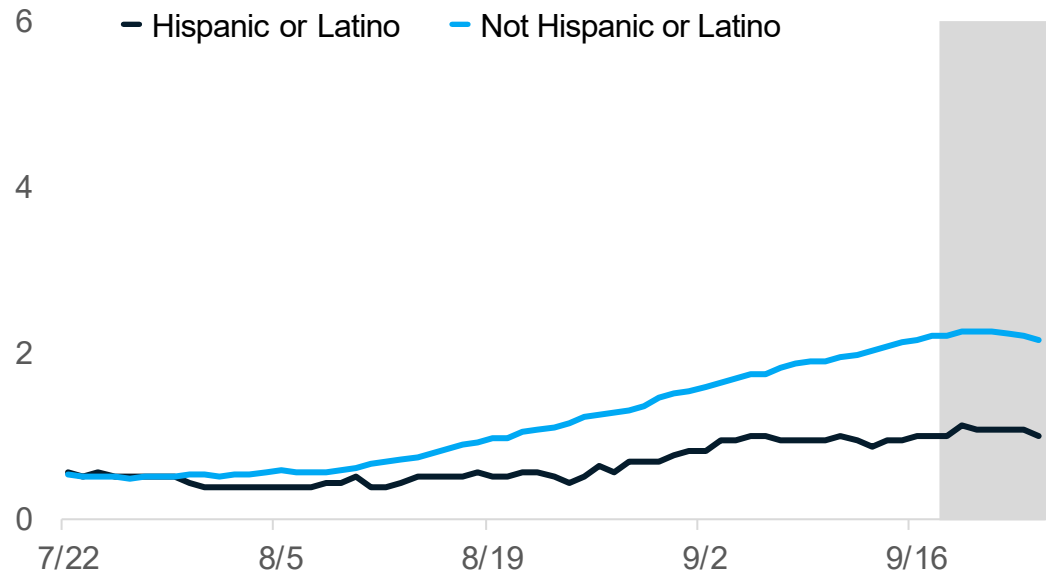Source: MDHHS – Michigan Disease Surveillance System

Key Messages: Public Health Response

COVID-19 Vaccination

- 4,723 first doses administered each day (7-day rolling average*)

- Most administered frequently by pharmacies, local health departments, and hospitals

- More than 68K third doses administered since third dose recommendation for immunocompromised individuals

- More than 5.2 million people (52.2%) in the state are fully vaccinated

- Less than 1% of people who were fully vaccinated experienced vaccine breakthrough

- Trends over time show that both case and death rates among the Fully Vaccinated are lower than the Not Fully vaccinated rates in Michigan

- Older age groups in Michigan have had higher vaccine coverage and lower case rates during the Delta surge and the previous Alpha (B.1.1.7) surge compared with younger age groups

National Comparison | Spread | Severity | **Public Health Response** | Other Indicators | Science Round-up

Average Daily Doses Administered (data through 9/27/2021)

13,491,490 doses delivered to providers and 10,568,980 doses administered*

MI 7-day rolling average ending September 22
- 11,083 total doses/day on average [†]
- 4,723 first doses/day on average [†]

Total primary series doses (between 9/9-9/25) were most frequently administered[¶] by:
Pharmacies (26.7K)
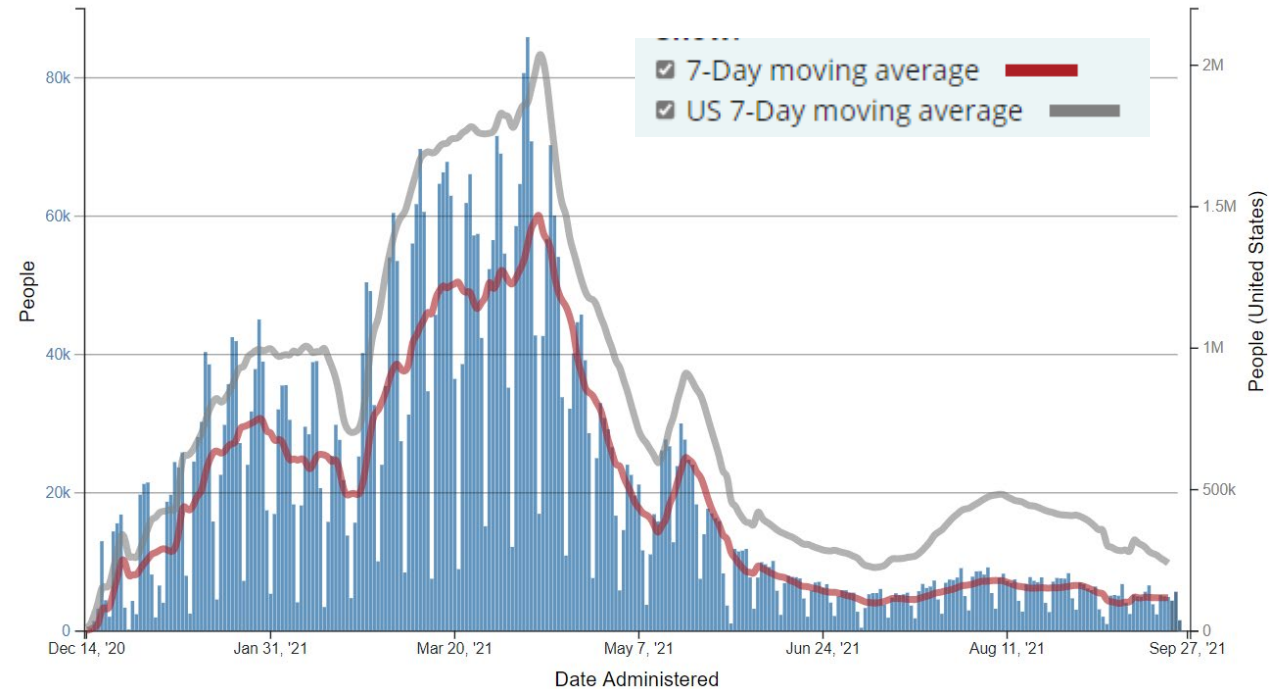LHD (2.6K) and hospitals (2.3K)
Family practice (1.8K), FQHCs (1.4K), and Pediatric (491)

Third Doses
- 68,235 third doses administered to date

Daily Count of People Receiving Dose 1 Reported to CDC by Date Administered, Michigan

- 7-Day moving average
- US 7-Day moving average

National Comparison | Spread | Severity | **Public Health Response** | Other Indicators | Science Round-up

5.2 Million Michiganders fully vaccinated and 52.2% of total population fully vaccinated

Vaccination Coverage in Michigan as of 9/27/21

5.21 million people in the state are fully vaccinated*

83.8% of people aged 65 and older have completed the series (+0.3%)*

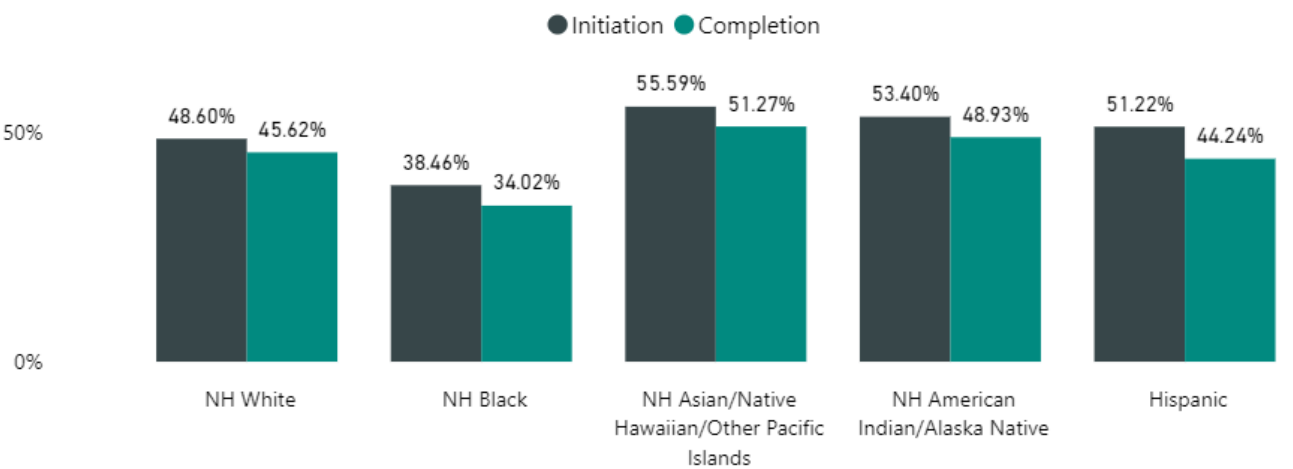**56.9% of total population initiated (+0.4%)***

Race/Ethnicity¶ for those 12 years and older:

- Initiation coverage highest among those of Non-Hispanic (NH) Asian, Native Hawaiian or Pacific Islander Race (55.6%), then NH American Indian (53.4%), NH White (48.6%), NH Black or African American Races (38.5%).

- Initiation is at 51.2% for those of Hispanic ethnicity

- Completion follows the same pattern

- 18.7% data missing or unknown

Age Group	% At Least One Dose	% Fully Vaccinated	Number Fully Vaccinated
Total Population	56.9%	**52.2%**	5,210,719
≥ 12 years	66.1%	60.6%	5,210,601
≥ 18 years	68.2%	62.8%	4,924,946
≥ 65 years	88.3%	83.8%	1,478,924

Coverage by Race*

Initiation ● Completion

	NH White	NH Black	NH Asian/Native Hawaiian/Other Pacific Islands	NH American Indian/Alaska Native	Hispanic
Initiation	48.60%	38.46%	55.59%	53.40%	51.22%
Completion	45.62%	34.02%	51.27%	48.93%	44.24%

National Comparison · Spread · Severity · **Public Health Response** · Other Indicators · Science Round-up

Potential COVID-19 Vaccination Breakthrough Cases

Michigan part of CDC's nationwide investigation ([COVID-19 Breakthrough Case Investigations and Reporting | CDC](#))

Michigan Data (1/1/21 through 9/21/21):

- **30,867 cases met criteria based on a positive test 14 or more days after being fully vaccinated**

- **Less than 1% of people who were fully vaccinated met this case definition**
  - **Includes 417 deaths (368 in persons ages 65 years or older)**
  - **1,211 cases were hospitalized**

- Vaccine breakthrough cases are expected. COVID-19 vaccines are effective and are a critical tool to bring the pandemic under control; however, no vaccine is 100% effective at preventing illness. Some fully vaccinated people will get sick, and some will even be hospitalized or die from COVID-19. However, there is evidence that vaccination may make illness less severe for those who are vaccinated and still get sick. The risk of infection, hospitalization, and death are all much lower in vaccinated people compared to unvaccinated.

- More than 181 million people in the United States have been fully vaccinated as of September 20, 2021. CDC is monitoring these cases among vaccinated persons and evaluating trends in order to better understand who is at risk for severe COVID-19 following vaccine breakthrough infection. Vaccinated people have also experienced asymptomatic infections.

- Current data suggest that COVID-19 vaccines authorized for use in the United States offer protection against most SARS-CoV-2 variants circulating in the United States.

Update on breakthrough cases

Cumulative COVID-19 Cases by Vaccination Status, Michigan, Jan 15 – Sep 21

Fully Vaccinated People (4,853,633)		
Cases	**Hospitalization**	**Deaths**
Percent of Cases In People Not Fully Vaccinated (469,291 / 500,158) **93.8%**	Percent of Hospitalizations In People Not Fully Vaccinated (12,980 / 14,191) **91.5%**	Percent of Deaths In People Not Fully Vaccinated (5,311 / 5,728) **92.7%**
469,291 Total Cases Not Fully Vaccinated	**12,980** Total Hospitalized Not Fully Vaccinated	**5,311** Total Deaths Not Fully Vaccinated
Total Breakthrough Cases **30,867**	Total Breakthrough Hospitalizations **1,211**	Total Breakthrough Deaths **417**
0.636% Percent of Fully Vaccinated People who Developed COVID-19 (30,867 / 4,853,633)	**0.025%** Percent of Fully Vaccinated People Who Were Hospitalized for COVID-19 (1,211 / 4,853,633)	**0.009%** Percent of Fully Vaccinated People Who Died of COVID-19 (417 / 4,853,633)
6.2% Percent of Cases Who Were Fully Vaccinated (30,867 / 500,158)	**8.5%** Percent of Hospitalizations Who Were Fully Vaccinated (1,211 / 14,191)	**7.3%** Percent of Deaths Who Were Fully Vaccinated (417 / 5,728)
Total Cases: **500,158**	Total Hospitalizations: **14,191**	Total Deaths: **5,728**

Michigan Disease Surveillance System may underestimate the frequency of COVID-19 hospitalizations:
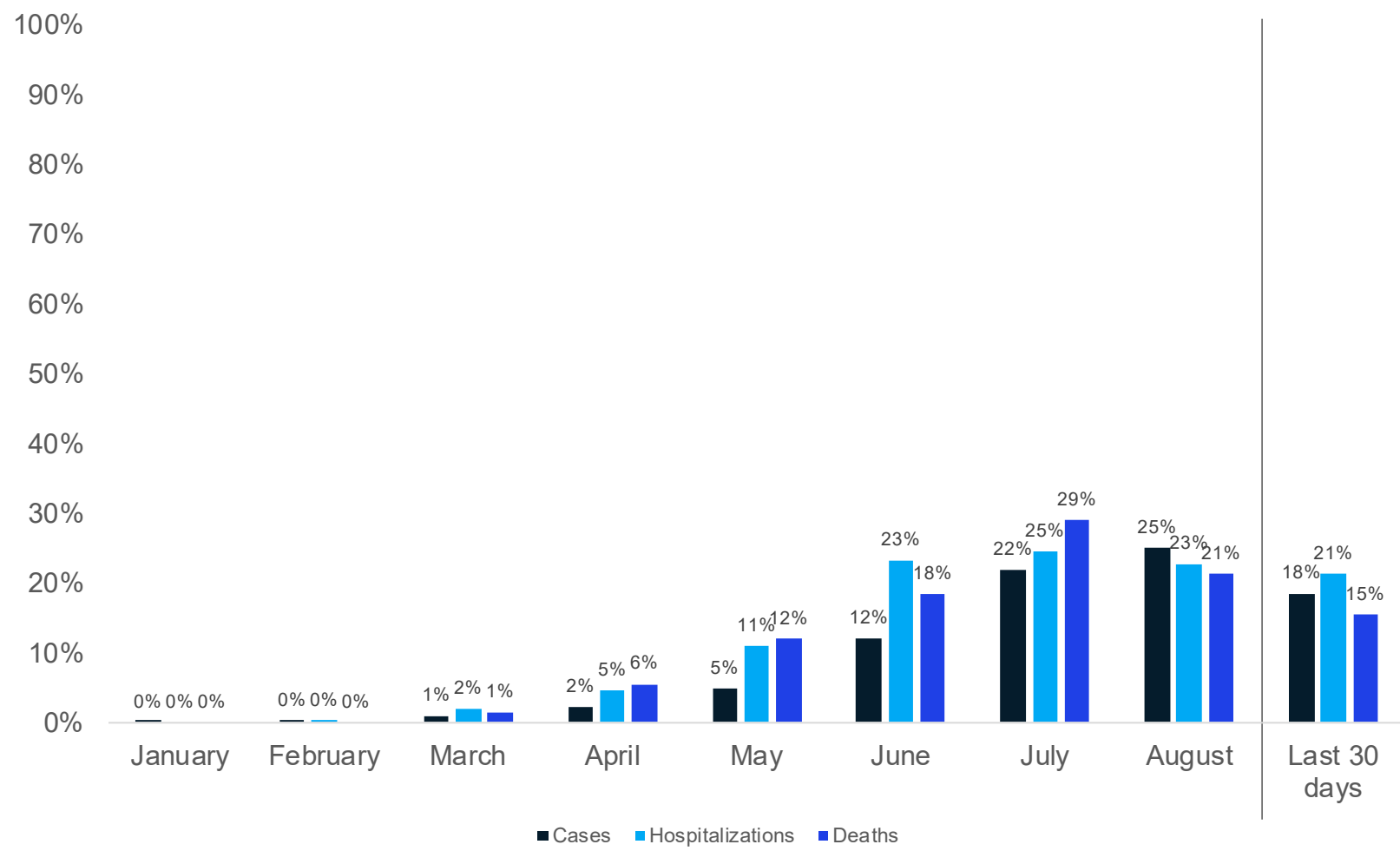
- Case investigation and follow-up is more difficult for individuals who get vaccinated (e.g., they are too ill to speak to investigators, don't answer their phone, or otherwise).
- These hospitalizations include individuals who are hospitalized for issues other than COVID19 (the same as breakthrough COVID-19).
- Individuals who get hospitalization will lag after infection and may occur after case investigation.

Trends in Breakthrough Cases, Hospitalizations, and Deaths

- 52.2% of the population is fully vaccinated yet only account for ~20-25% of cases, hospitalizations, and deaths

- As the fully vaccinated population has increased, so have the percent of breakthrough incidents; but breakthrough burden remains lower

In the last 30 days (Aug 23 – Sep 21), 12,497 (18%) of 67,673 cases, 263 (21%) of 1,238 hospitalizations, and 45 (15%) of 292 deaths were among fully vaccinated individuals
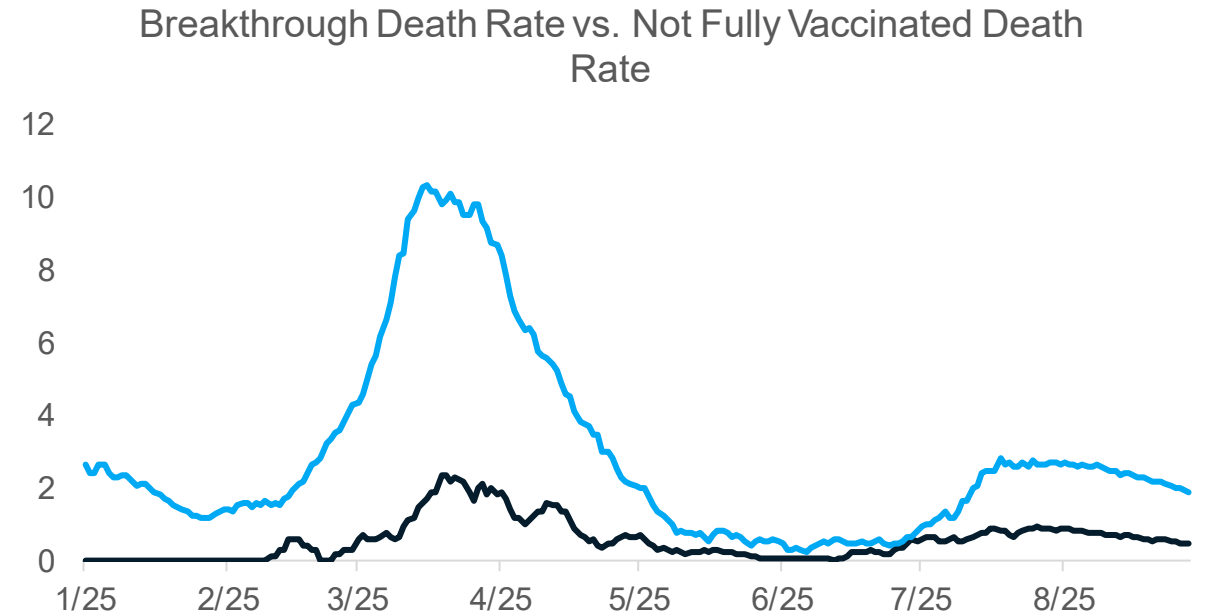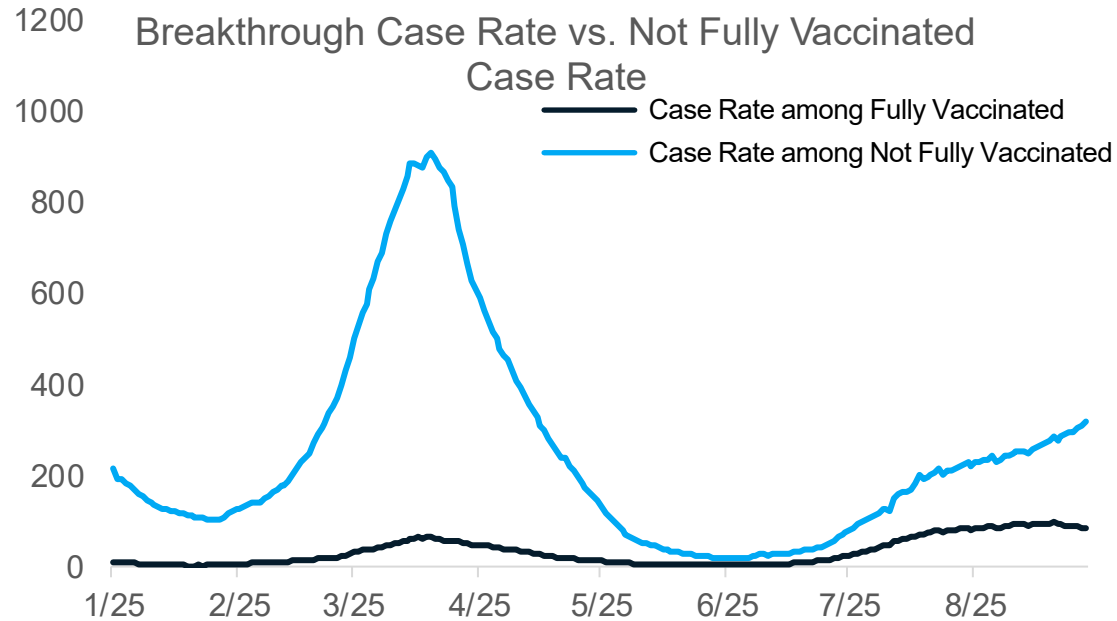

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- Case investigation and follow-up is more difficult for individuals who get vaccinated (e.g., they are too ill to speak to investigators, don't answer their phone, or otherwise).
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National Comparison | Spread | Severity | **Public Health Response** | Other Indicators | Science Round-up

COVID-19 Vaccination Breakthrough Cases and Deaths

Breakthrough Case Rate vs. Not Fully Vaccinated Case Rate

Breakthrough Death Rate vs. Not Fully Vaccinated Death Rate

- Case Rate among Fully Vaccinated
- Case Rate among Not Fully Vaccinated

- Trends over time show that both case and death rates among the Fully Vaccinated are lower than the Not Fully vaccinated rates in Michigan

- The *proportion* of breakthrough cases and deaths among all cases and deaths has shown some increases as more people become fully vaccinated

  - However, the risk of infection and death remains significantly lower among the fully vaccinated
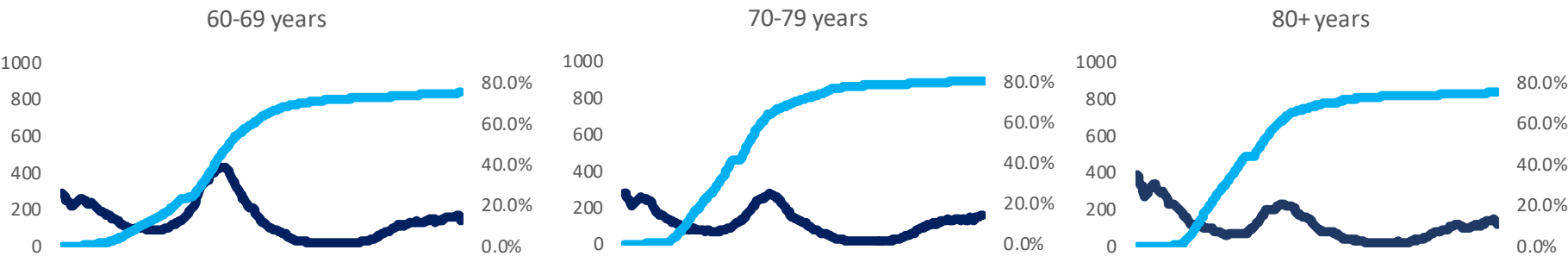
National Comparison | Spread | Severity | **Public Health Response** | Other Indicators | Science Round-up

Comparing Vaccine Coverage and Case Rate Trends (Dec 19-Sept 24)

— Vaccine coverage (%)
— Case rate per million (7-day rolling average)

Vaccine Coverage and Case Rates for Younger Ages

20-29 years   30-39 years   40-49 years   50-59 years
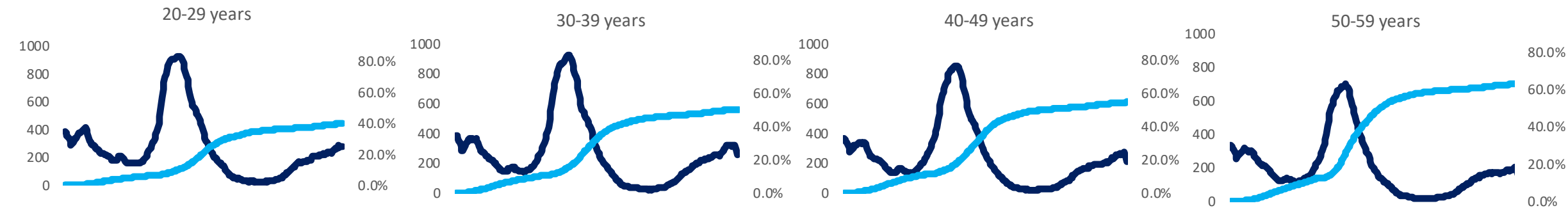
Vaccine Coverage and Case Rates for Older Ages
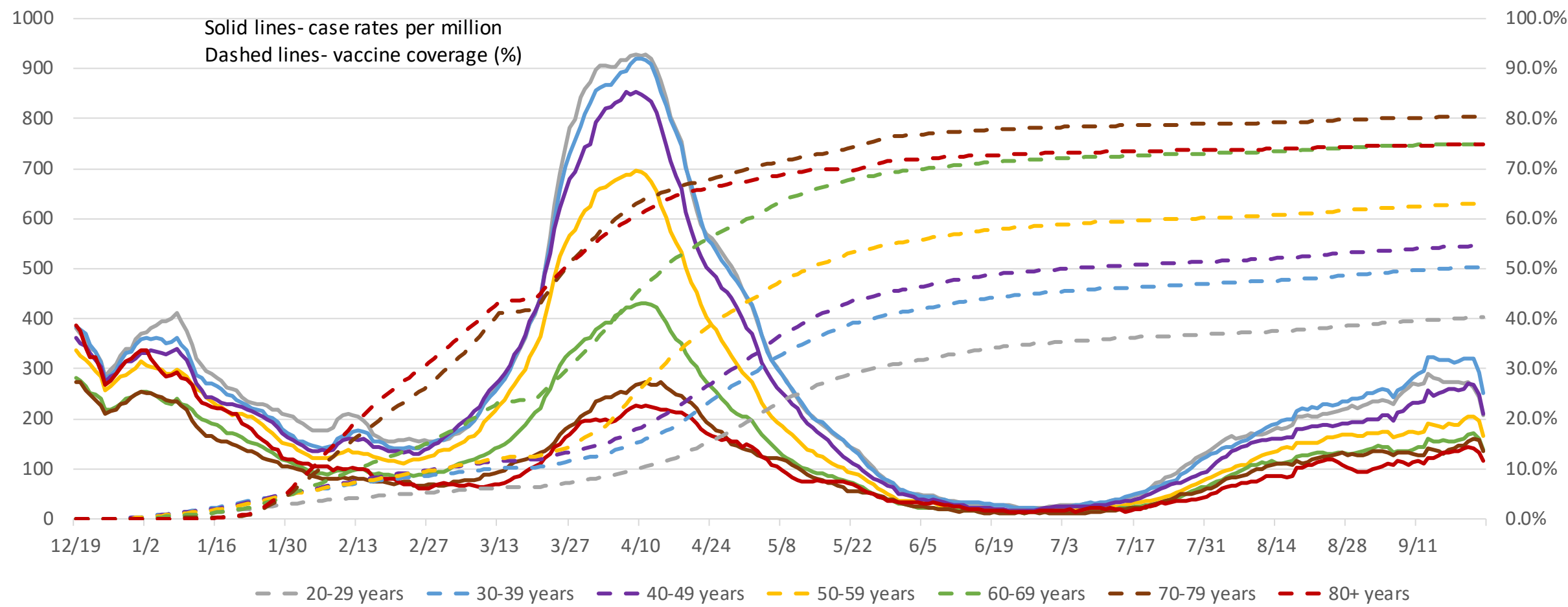

60-69 years   70-79 years   80+ years

- Michigan is experiencing another surge due to the Delta (B.1.617.2) variant

- COVID-19 vaccination increases with increasing age

- Risk of COVID-19 illness increases as age increases[1], yet the older age groups in Michigan have had lower case rates during the Delta surge and the previous Alpha (B.1.1.7) surge compared with younger age groups

1. CDC. COVID-19 Risks and Vaccine Information for Older Adults. https://www.cdc.gov/aging/covid19/covid19-older-adults.html

National Comparison | Spread | Severity | **Public Health Response** | Other Indicators | Science Round-up

Comparing Vaccine Coverage and Case Rate Trends (Dec 19-Sept 17)

Solid lines- case rates per million
Dashed lines- vaccine coverage (%)

Legend: 20-29 years, 30-39 years, 40-49 years, 50-59 years, 60-69 years, 70-79 years, 80+ years

- Michigan is experiencing another surge due to the Delta (B.1.617.2) variant
- COVID-19 vaccination increases with increasing age
- Risk of COVID-19 illness increases as age increases[1], yet the older age groups in Michigan have had lower case rates during the Delta surge and the previous Alpha (B.1.1.7) surge compared with younger age groups

National Comparison   Spread   Severity   **Public Health Response**   Other Indicators   Science Round-up

Science Round Up

Deeper look at trends: What happening in other states and what is projected for Michigan

- Average daily incidence per 100,000 cases in Michigan is currently lower than other Midwestern states experiencing a surge in delta cases
- Ridge regression model projects continued increases for cases and deaths in Michigan although case trends may be slowing
- CDC models project plateau or slowed increases in cases, hospitalizations, and deaths in Michigan

What do we know about COVID in children and schools

- Children can experience severe health outcomes from COVID-19 including MIS-C and Hospitalization
  - In Michigan, hospitalizations for those 0-17 years are not at all-time highs but are increasing since July
  - In Michigan, over 50% of children hospitalized have not reported underlying conditions
- Many of those who experience MIS-C in Michigan are admitted to intensive care, school age, and are Black/African American
- Cases in children are increasing and case rates are higher in counties where school districts without masking

What do we know about COVID-19 vaccine safety

- CDC V-SAFE Reports show 3rd dose side effects are comparable to 2nd dose
- Early data out of Israel show that myocarditis events remain rare after the third dose

Deeper look at trends: What is happening in other states and COVID forecasts for Michigan

COVID-19 Case Rates: Midwest Comparison (Cumulative Cases per 100K)

- Average daily incidence per 100,000 cases in Michigan is currently lower than other Midwestern states experiencing a surge in delta cases

- Currently, Michigan has experienced 11.3K/100,000 cumulatively (~11%) while national seroprevalence suggests this is closer to 28%
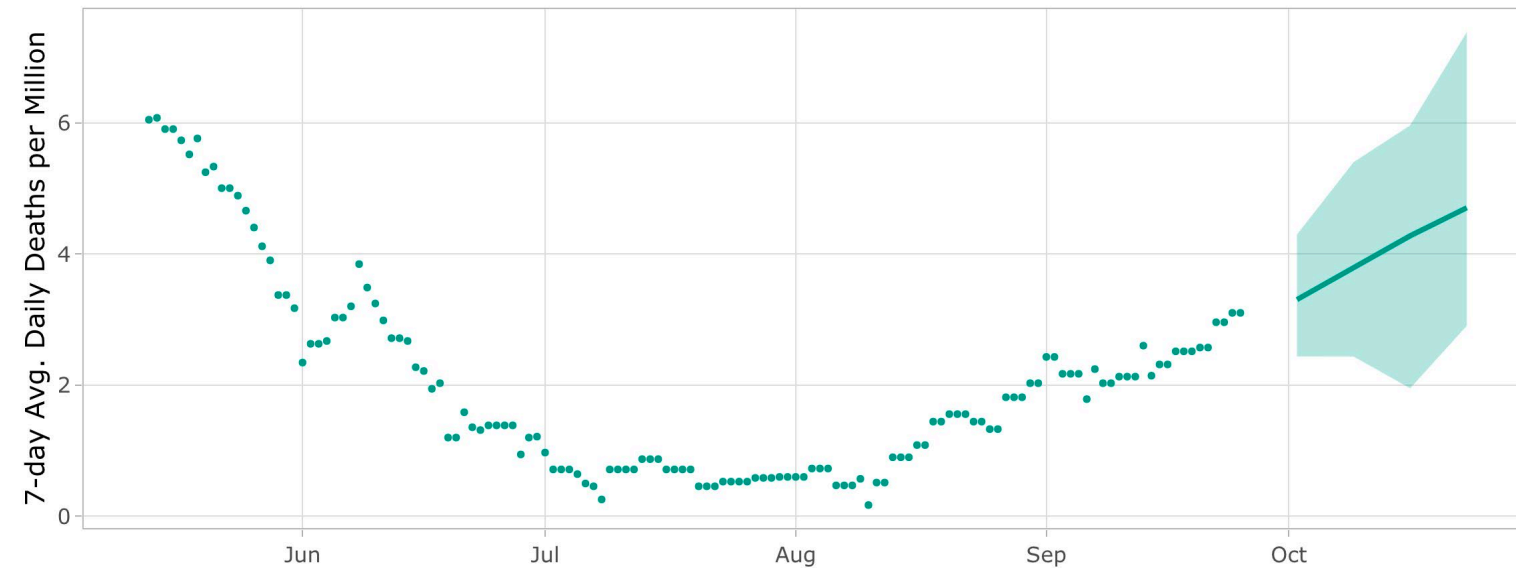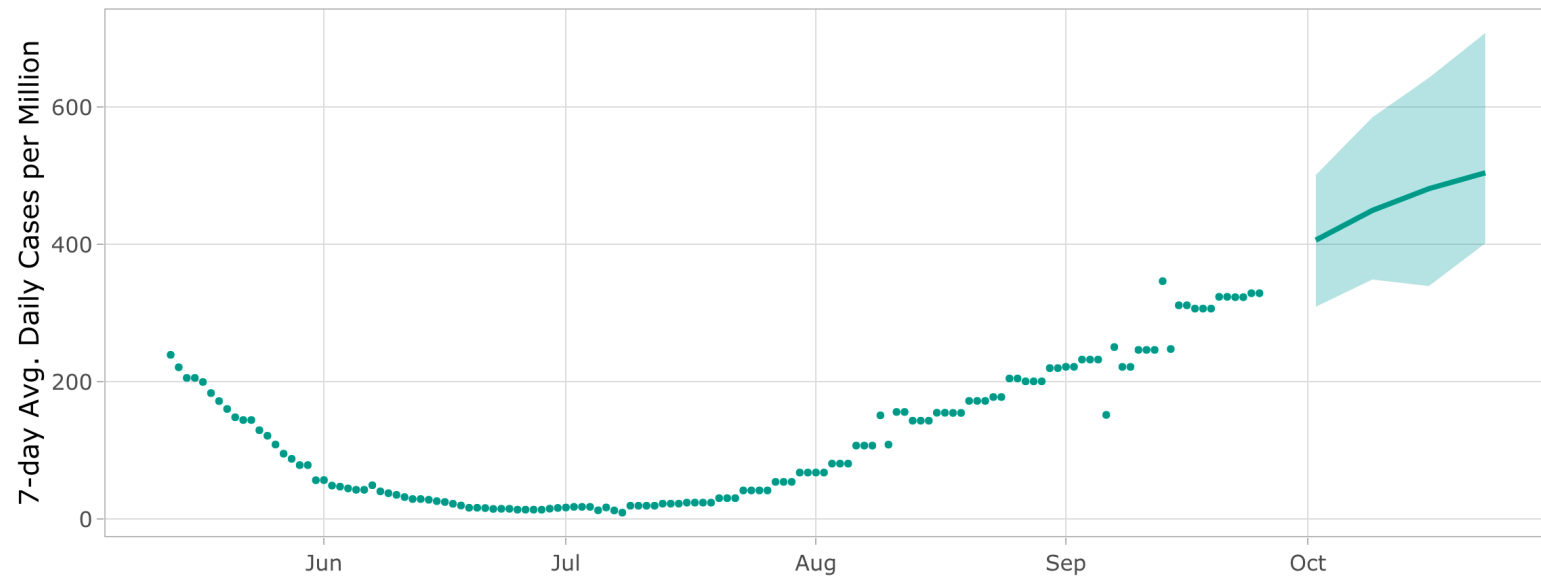
Cumulative cases of Covid-19, reported to CDC, in IL, IN, MI, MN, OH, and WI

Cumulative cases (per 100K), by number of days since .3 total cases (per 100K) first recorded.
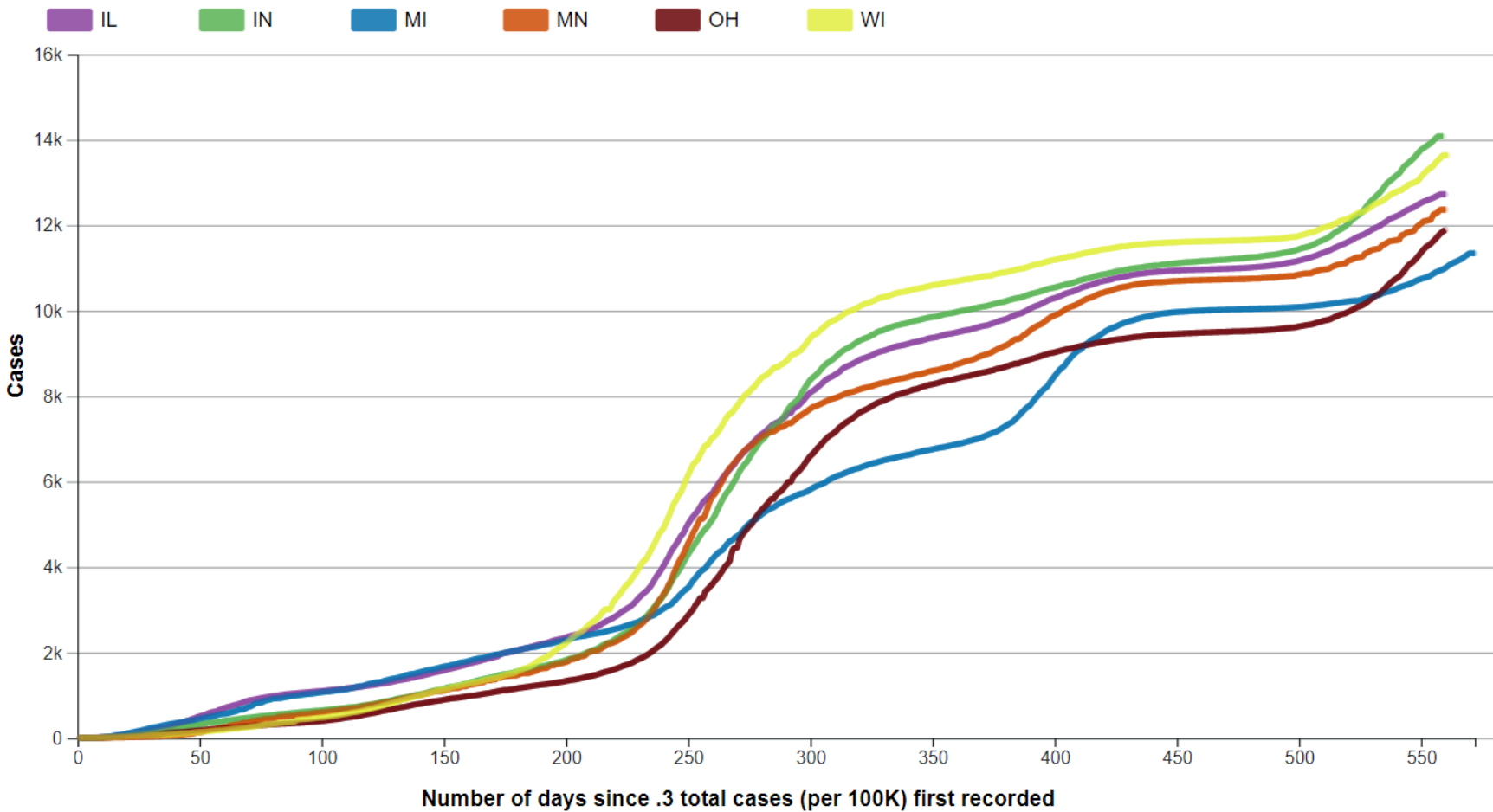
Source: CDC COVID Data Tracker – State Trend Comparison

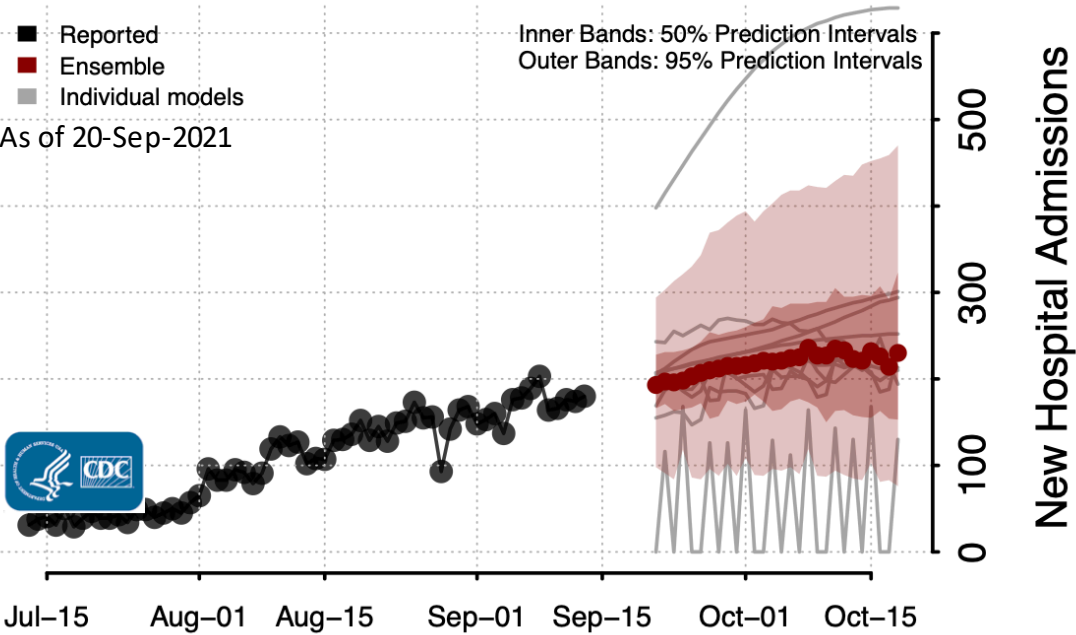# Ridge regression model projects continued increases for Michigan

- Model projects slowing increase in cases and continued increase in deaths
- Uncertainty ranges for cases and deaths include plateaus or continued increases

- Line is the ridge regression model projection, and the shaded region represents the 95% confidence region (2.5% and 97.5% quantiles).
- Projections are based on previous data on cases, hospitalizations, and deaths, as well as data on mobility and vaccinations.
- Cases are plotted by report date.
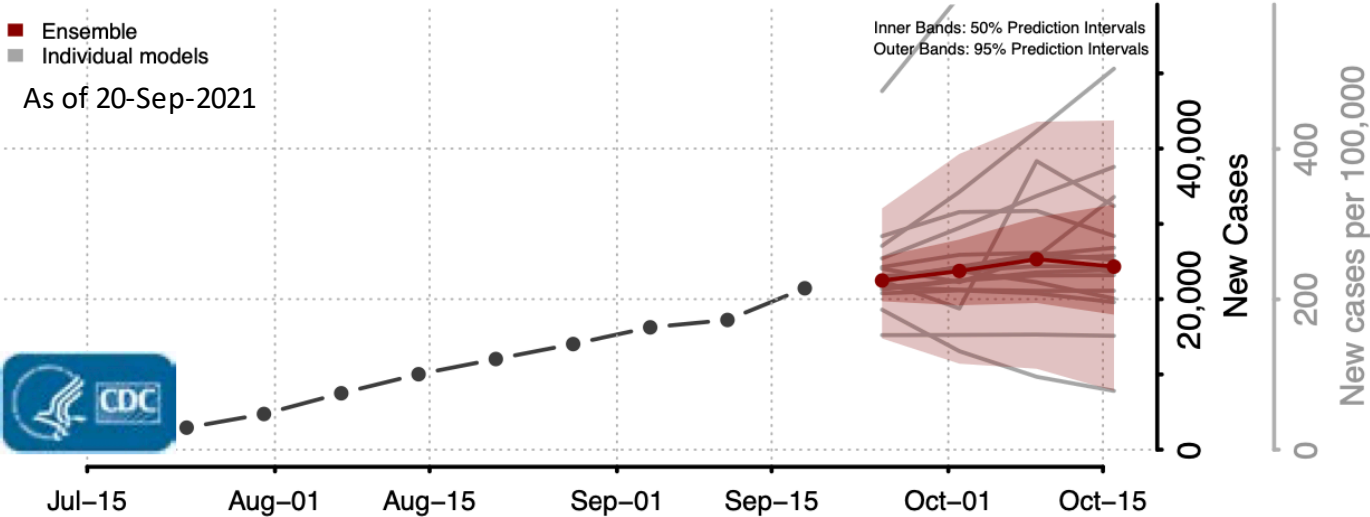- For full projections and comparison to other Midwest states, see dataepi.org

Sources: Data from MDHHS/JHU,
UM Ridge Regression Model

Michigan CDC model projections suggest plateau or slowed increases in cases, hospitalizations, and deaths
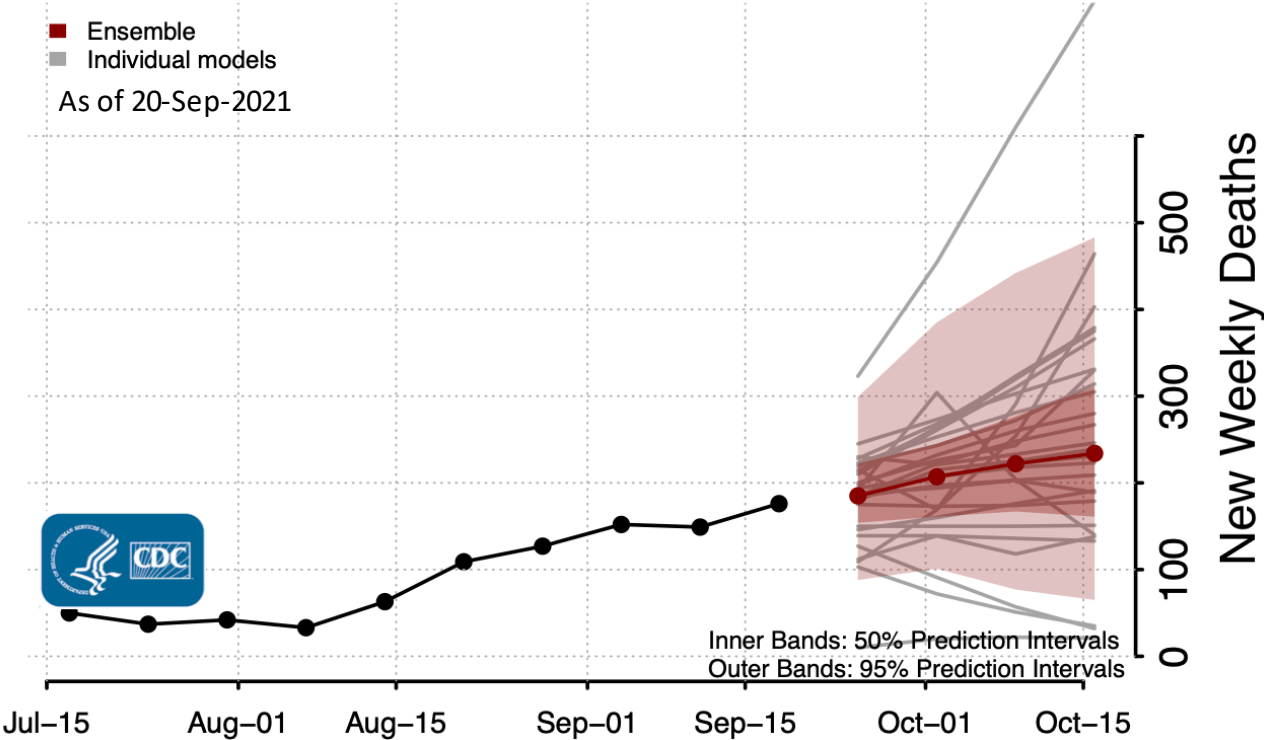
Data Sources: CDC mathematical model forecasting, CovidComplete Data Center model forecast evaluations. Individual models shown as grey lines, ensemble shown in red

Inpatient census is near spring peak levels

- Cases and COVID+ census have risen, though they are currently lower than spring peak

- However non-COVID care has increased since the spring surge

- Together, the overall inpatient census is near spring peak levels (see horizontal line)

Given the increase in non-COVID care, how do current cases translate to hospitalizations?

- Non-COVID census estimated based on average census levels over the last 30 days

- Assumes constant steady state case levels and hospitalization rate

- Translated case rate to inpatient census based on the case hospitalization rate and estimated length of stay over the last 30 days

- Note spring peak census levels occurred with lower non-COVID care levels

What do we know about COVID-19 impact on Michigan children and schools

SARS-CoV-2 can Negatively Impact Children Directly and Indirectly

- Children can experience severe health outcomes from COVID-19 including MIS-C and Hospitalization
  - Hospitalizations among children nationwide is trending down from all-time highs
  - In Michigan, hospitalizations for those 0-17 years are not at all-time highs but are increasing since July

United States Hospital Admissions | 0 -17 years

Michigan Hospital Admissions | 0 -17 years

Note: Gray bar indicates lag period where data may be updated

National Comparison | Spread | Severity | Public Health Response | Other Indicators | **Science Round-up**

SARS-CoV-2 can Negatively Impact Children Directly and Indirectly

- Children can experience severe health outcomes from COVID-19 including MIS-C and Hospitalization
  - Nationally, nearly half of children hospitalized have no reported underlying conditions[†]
  - In Michigan, 50% of children hospitalized have no reported underlying conditions

U.S. Pediatric Hospitalizations | Underlying Medical Conditions

Selected Underlying Medical Conditions
Includes data from March 1, 2020 – July 31, 2021

46.4%
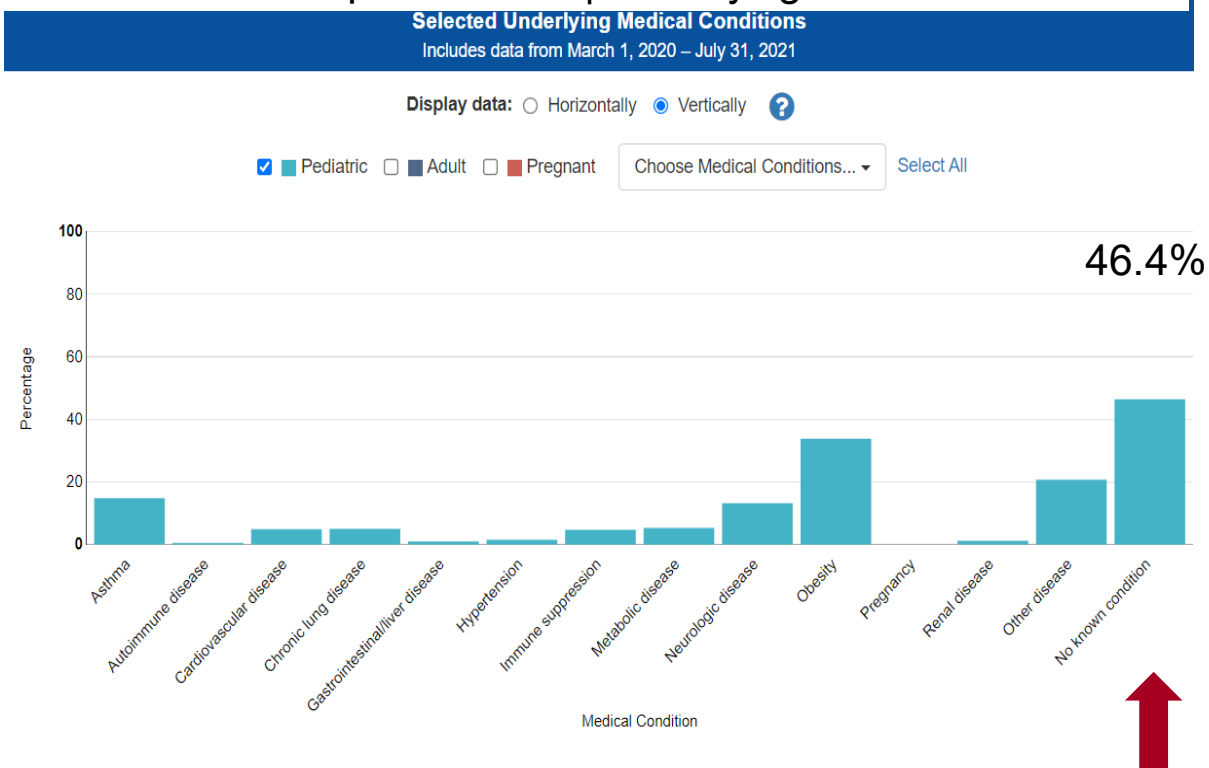
MI Pediatric Hospitalizations | Underlying Medical Conditions

Proportion of Medical Conditions Among Pediatric COVID-NET Cases (N=112)

50.0%
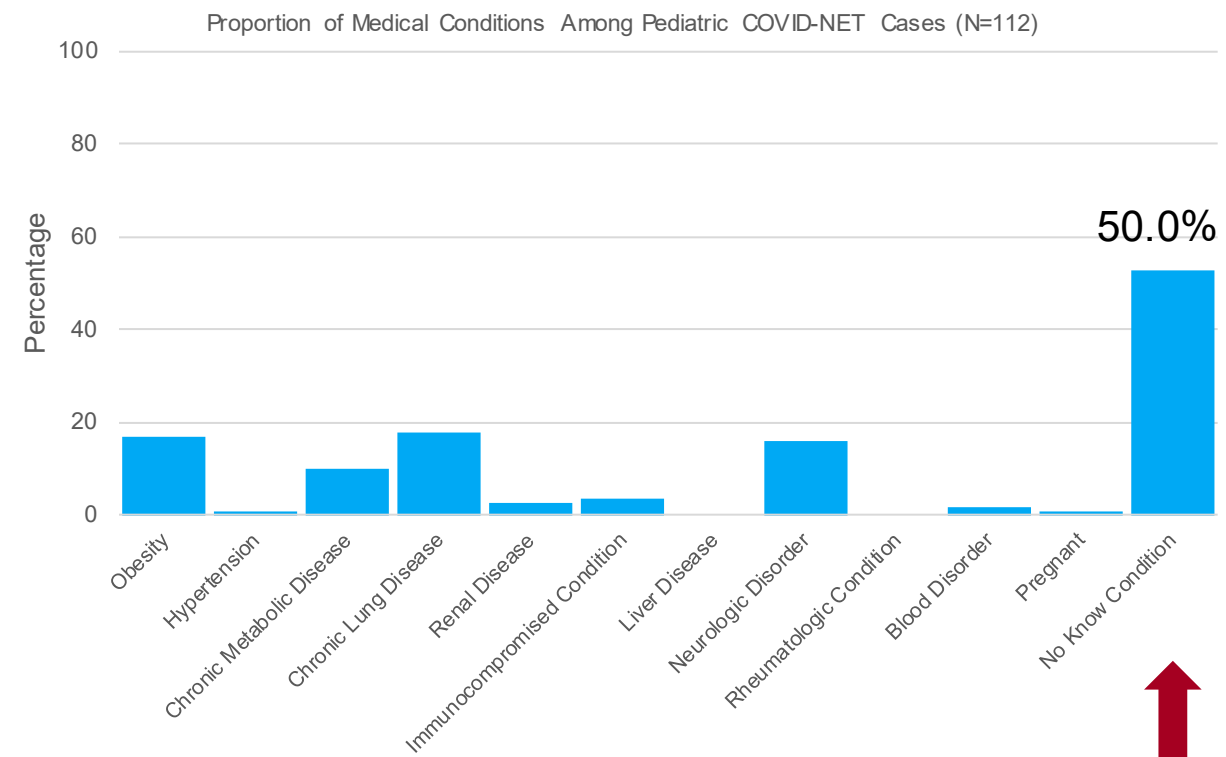
National Comparison | Spread | Severity | Public Health Response | Other Indicators | Science Round-up

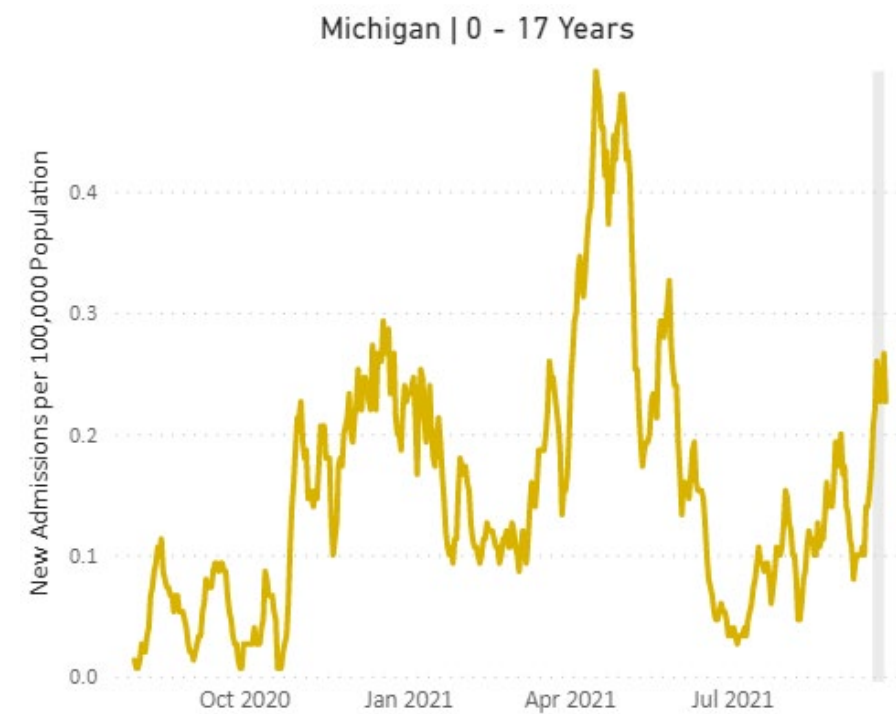# SARS-CoV-2 can Negatively Impact Children Directly and Indirectly

Multisystem Inflammatory Syndrome in Children (MIS-C)

- Higher community transmissions is followed by higher incidence of MIS-C cases
  - Many of those who experience MIS-C in Michigan are admitted to intensive care, school age, and are Black/African American

Multisystem Inflammatory Syndrome in Children (MIS-C) Michigan Data Summary 9/23/2021

# Cases Confirmed and Reported to CDC*	168
MIS-C associated Deaths	5 or fewer
Cases admitted to ICU	118 (70.2%)
Onset Date Range	4/14/20 to 8/26/2021
Age Range	0-20 years

*Meets CDC Case definition
https://emergency.cdc.gov/han/2020/han00432.asp

DEMOGRAPHIC INFORMATION (N=168)

Age Group	Count	%	Race	Count	%
0-4 yrs	44	26.2%	Black/African American	72	42.8%
5-10 yrs	68	40.5%	Caucasian	70	41.7%
>10 yrs	56	33.3%	All Others / Unknown	26	15.5%
Gender	Counts	%	Ethnicity	Count	%
Male	97	57.7%	Not Hispanic or Latino	119	70.8%
Female	71	42.3%	Hispanic or Latino	14	8.3%
Unknown	0	0.0%	Unknown	35	20.8%

Confirmed Cases of MIS-C by Week of Onset in Michigan from April, 2020 through September 23, 2021

*The shaded red area represents the most recent eight weeks of data, in which reporting of cases is still incomplete. The actual number of MIS-C cases during this period is likely larger and these numbers will increase as additional case reports are incorporated.
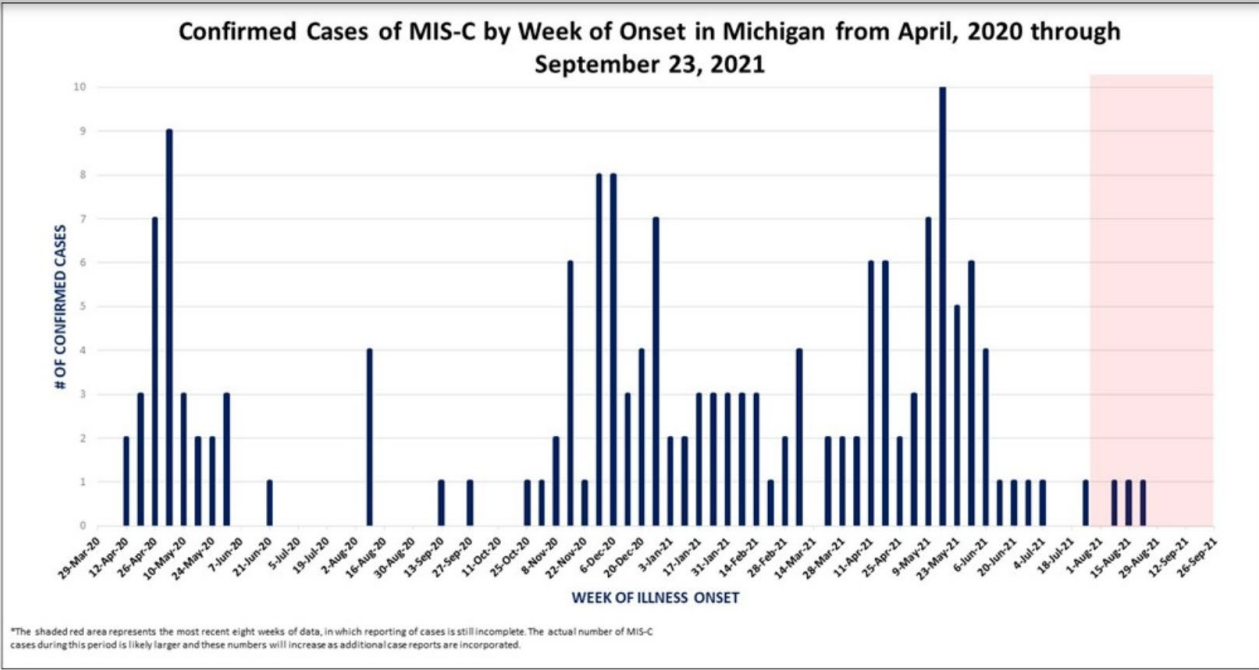
Red shading indicates the expected reporting lag for new cases. Cases with onset dates in this time period may not have been detected or reported yet.

National Comparison | Spread | Severity | Public Health Response | Other Indicators | **Science Round-up**

How to Reduce SARS-CoV-2 Transmission in Schools

- An estimated 1,801 (1.5%) schools have had closures attributed to SARS-CoV-2 between Aug 1 and Sep 17, 2021

- Counties without school mask policies experienced larger increases in pediatric COVID-19 case rates after the start of school compared with counties that had school mask requirements

- In Arizona, the adjusted odds of a school-associated COVID-19 outbreak in schools with no mask requirement were 3.5 times higher than those in schools with an early mask requirement

- CDC recommends universal indoor masking in K–12 schools regardless of community transmission levels, in addition to other multicomponent prevention strategies, including vaccination, screening testing, and physical distancing

Mask requirements in K-12 schools limited COVID-19 outbreaks

Schools without mask requirements were... **3.5x** more likely to have COVID-19 outbreaks... Compared with schools that started the year with mask requirements

*K–12 public noncharter schools in Maricopa and Pima Counties, AZ— July-August, 2021

bit.ly/MMWR92421
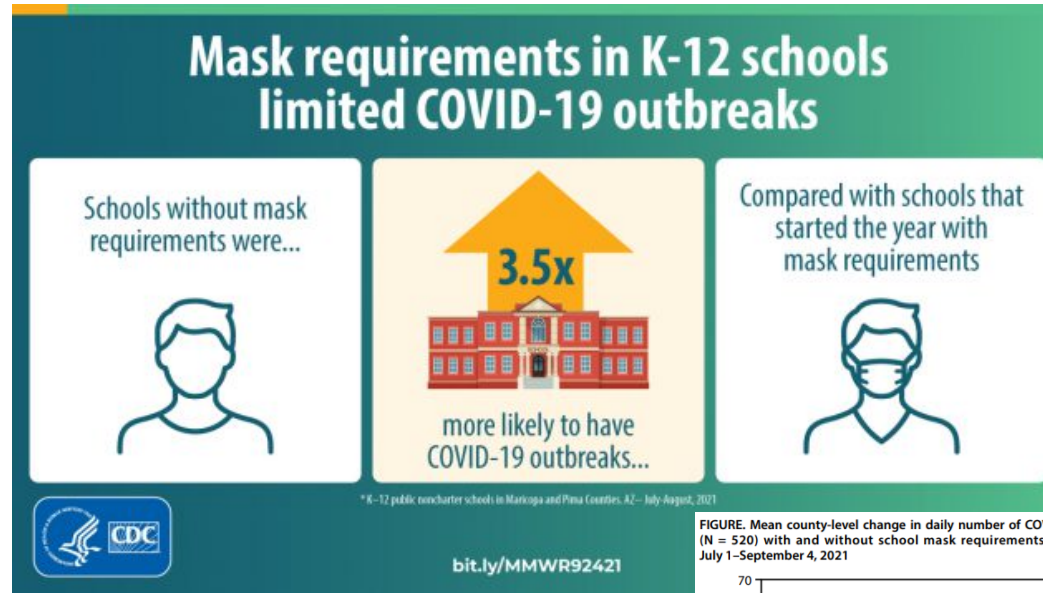
FIGURE. Mean county-level change in daily number of COVID-19 cases per 100,000 children and adolescents aged <18 years in counties (N = 520) with and without school mask requirements* before and after the start of the 2021–22 school year — United States, July 1–September 4, 2021
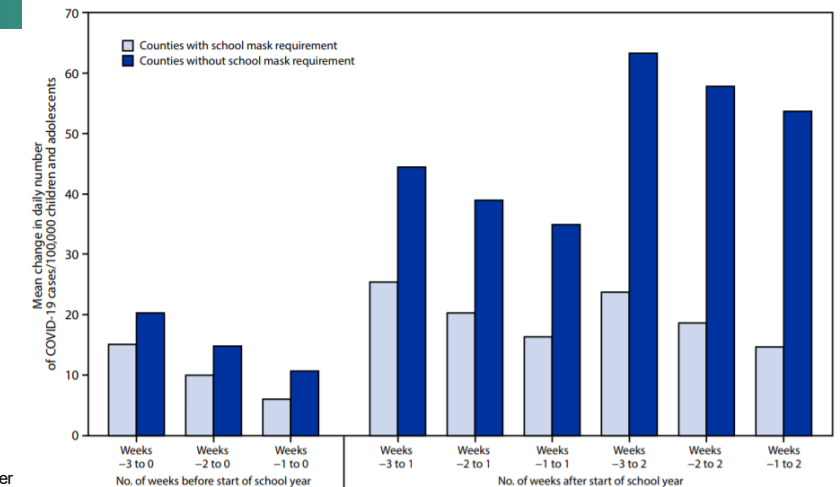
*Among 520 counties, 198 (38%) had a school mask requirement and 322 (62%) did not have a school mask requirement.

National Comparison | Spread | Severity | Public Health Response | Other Indicators | **Science Round-up**

MI School Districts and Mask Policy as of Sept 27, 2021

Yes – Any masking policy in some subset of school grades

No – No mask policies (includes unknown)

NUMBER OF SCHOOL DISTRICTS WITH MASK POLICIES IN K-12 SETTINGS

No, 282   Yes, 251
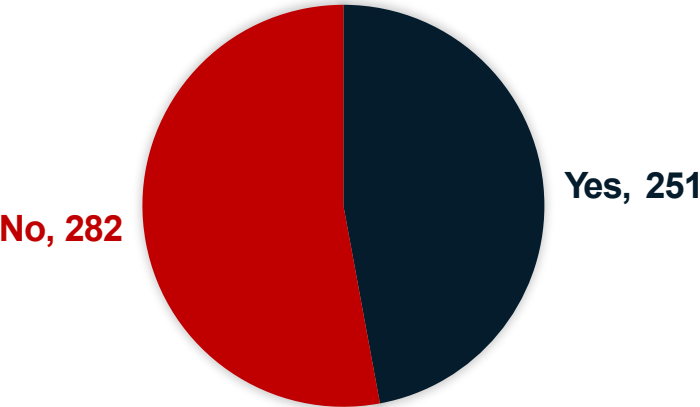
NUMBER OF STUDENTS* IN SCHOOL DISTRICTS WITH MASK POLICIES

No, 465151   Yes, 787657
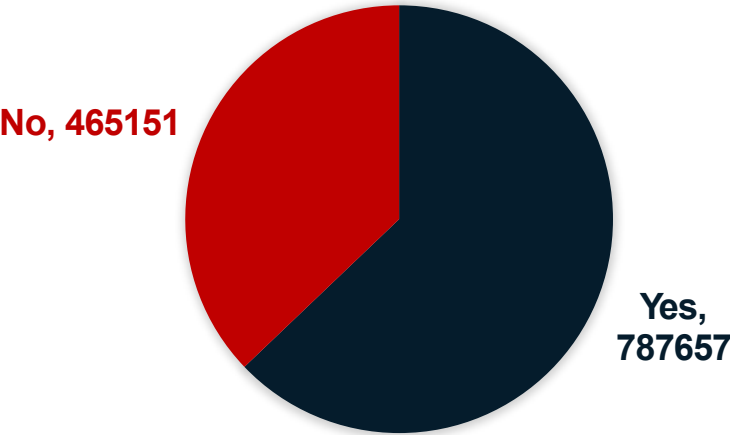
- 47% (251/533) of K-12 school districts have mask policies
- School districts with mask policies cover 63% (787,657/1,252,808) of K-12 students*
- Not all K-12 grades or students may be covered by masks polices; examples include policies for those through K-6, or only during higher levels of community transmission

* **Student size based on school enrollment numbers; Buses and public transportation are federally required to enforce mask mandates**

Source: Executive Office of Governor School District Mask Policy

What do we know about COVID-19 vaccine safety

FDA and CDC Advisory Committees:
3rd Dose Safety Data

CDC V-SAFE Reports show 3rd dose side effects are comparable to 2nd dose:

Comparison of reactions and health impact events reported at least once in days 0-7 after Pfizer-BioNTech vaccination, by dose
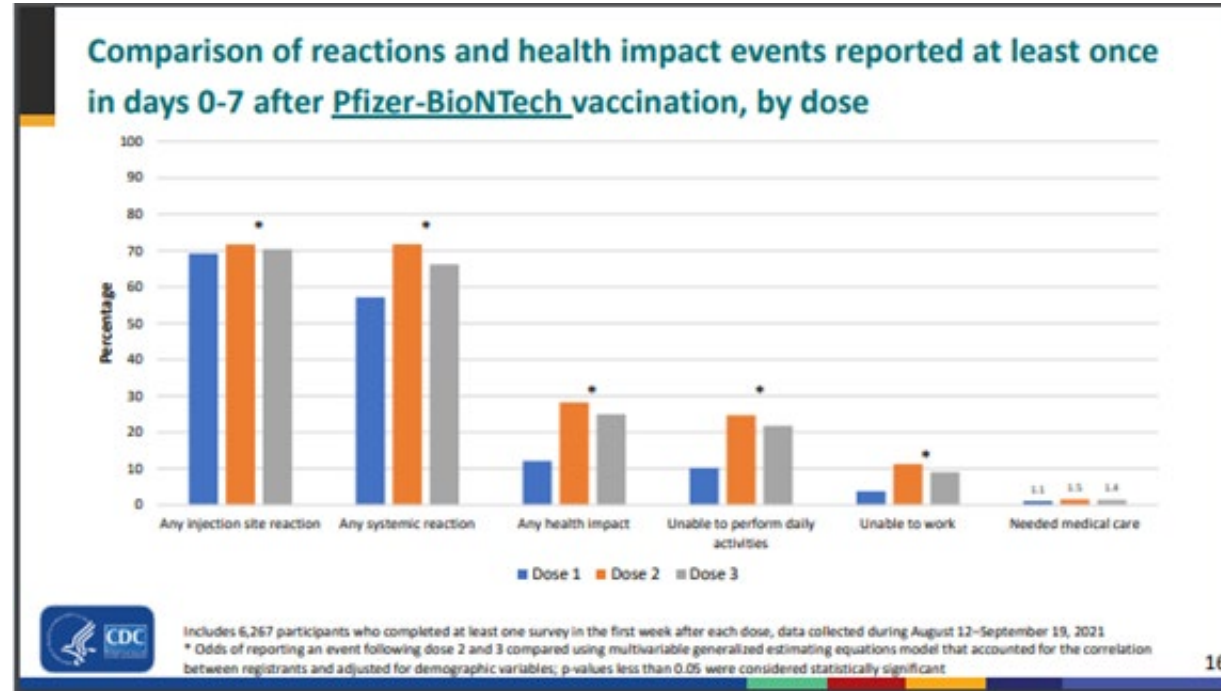
Israel national data shows myocarditis events are rare (1 case of myocarditis of 2,914,605 people, with no myocarditis under 30 years of age after 3rd dose)

Appendix

August 2, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	29139	25.0	34.0	11.0	9.7	0
Grand Rapids	230120	350652	9951	6.9	30.0	0.0	0.0	0
Kalamazoo	140422	214801	5405	5.9	42.0	1.4	6.5	0
Saginaw	78759	122834	3295	2.4	30.5	0.0	0.0	0
Lansing	78140	119915	3220	5.0	64.0	0.0	0.0	0
Traverse City	53099	83462	1569	1.9	35.8	0.1	1.2	0
Jackson	41274	64091	1512	1.6	38.8	0.0	0.0	0
Upper Peninsula	34645	53875	1424	1.4	40.4	0.0	0.0	0
Michigan	1391988	2143877	55561	50.4	36.2	12.6	5.9	0

August 9, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	29468	37.1	50.4	5.9	5.2	0
Grand Rapids	230120	350652	10042	11.6	50.4	0.3	0.9	0
Kalamazoo	140422	214801	5472	8.9	63.4	0.3	1.4	0
Saginaw	78759	122834	3327	4.1	52.1	0.1	0.8	0
Lansing	78140	119915	3261	4.3	55.0	0.0	0.0	0
Traverse City	53099	83462	1589	2.6	49.0	0.0	0.0	0
Jackson	41274	64091	1523	1.3	31.5	0.0	0.0	0
Upper Peninsula	34645	53875	1436	1.3	37.5	0.0	0.0	0
Michigan	1391988	2143877	56168	71.6	51.4	6.6	3.1	0

August 16, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	29870	47.1	64.0	7.0	6.2	0
Grand Rapids	230120	350652	10154	12.9	56.1	2.3	6.6	0
Kalamazoo	140422	214801	5571	13.0	92.6	0.3	1.4	0
Saginaw	78759	122834	3367	5.7	72.4	0.0	0.0	0
Lansing	78140	119915	3310	5.6	71.7	1.1	9.2	0
Traverse City	53099	83462	1617	3.4	64.0	0.3	3.6	0
Jackson	41274	64091	1546	2.4	58.1	0.1	1.6	0
Upper Peninsula	34645	53875	1454	2.1	60.6	0.1	1.9	0
Michigan	1391988	2143877	56944	92.7	66.6	11.3	5.3	0

August 23, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	30439	64.3	87.4	6.9	6.1	0
Grand Rapids	230120	350652	10348	22.1	96.0	1.6	4.6	0
Kalamazoo	140422	214801	5671	12.0	85.5	0.3	1.4	0
Saginaw	78759	122834	3405	4.6	58.4	0.0	0.0	0
Lansing	78140	119915	3385	8.4	107.5	0.4	3.3	0
Traverse City	53099	83462	1649	3.9	73.4	0.9	10.8	0
Jackson	41274	64091	1581	3.6	87.2	0.1	1.6	0
Upper Peninsula	34645	53875	1497	5.7	164.5	0.0	0.0	0
Michigan	1391988	2143877	58034	125.0	89.8	10.1	4.7	0

August 30, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	31121	76.7	104.3	10.6	9.3	0
Grand Rapids	230120	350652	10549	23.3	101.3	3.1	8.8	0
Kalamazoo	140422	214801	5803	15.7	111.8	0.3	1.4	0
Saginaw	78759	122834	3469	8.3	105.4	0.6	4.9	0
Lansing	78140	119915	3461	9.1	116.5	0.4	3.3	0
Traverse City	53099	83462	1696	5.0	94.2	0.1	1.2	0
Jackson	41274	64091	1612	3.4	82.4	0.1	1.6	0
Upper Peninsula	34645	53875	1529	4.4	127.0	0.0	0.0	0
Michigan	1391988	2143877	59297	146.0	104.9	15.3	7.1	0

September 6, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	32881	103.9	141.3	12.0	10.6	0.0
Grand Rapids	230120	350652	11305	44.1	191.6	3.6	10.3	0.1
Kalamazoo	140422	214801	6179	24.9	177.3	0.1	0.5	0.0
Saginaw	78759	122834	3671	13.7	173.9	0.3	2.4	0.0
Lansing	78140	119915	3705	16.4	209.9	1.6	13.3	0.0
Traverse City	53099	83462	1778	4.6	86.6	0.0	0.0	0.0
Jackson	41274	64091	1764	10.7	259.2	0.0	0.0	0.0
Upper Peninsula	34645	53875	1699	13.6	392.6	0.0	0.0	0.0
Michigan	1391988	2143877	63065	234.1	168.2	17.6	8.2	0.1

September 13, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	32881	103.9	141.3	12.0	10.6	0
Grand Rapids	230120	350652	11305	44.1	191.6	3.6	10.3	0
Kalamazoo	140422	214801	6179	24.9	177.3	0.1	0.5	0
Saginaw	78759	122834	3671	13.7	173.9	0.3	2.4	0
Lansing	78140	119915	3705	16.4	209.9	1.6	13.3	0
Traverse City	53099	83462	1778	4.6	86.6	0.0	0.0	0
Jackson	41274	64091	1764	10.7	259.2	0.0	0.0	0
Upper Peninsula	34645	53875	1699	13.6	392.6	0.0	0.0	0
Michigan	1391988	2143877	63065	234.1	168.2	17.6	8.2	0

September 20, 2021

Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)	7-day Average Daily Death Count (<12 yrs)
Detroit	735529	1134247	33953	126.0	171.3	13.1	11.5	0.0
Grand Rapids	230120	350652	11886	66.1	287.2	3.4	9.7	0.0
Kalamazoo	140422	214801	6496	36.9	262.8	1.4	6.5	0.1
Saginaw	78759	122834	3881	25.3	321.2	0.1	0.8	0.1
Lansing	78140	119915	3835	15.6	199.6	2.1	17.5	0.0
Traverse City	53099	83462	1897	15.7	295.7	0.1	1.2	0.0
Jackson	41274	64091	1860	11.4	276.2	0.0	0.0	0.0
Upper Peninsula	34645	53875	1856	18.9	545.5	0.1	1.9	0.0
Michigan	1391988	2143877	65752	316.6	227.4	20.6	9.6	0.3