MI COVID RESPONSE DATA AND MODELING UPDATE

NOTE: All data as of June 22 unless otherwise noted

June 23, 2021

Executive summary

Percent Positivity is down 31% and **Case Rate** is down 39% since last week. Positivity $(1.3\%, \downarrow 0.8\%)$ and case rates 17.0, $\downarrow 15.0$) have decreased for ten weeks

Michigan has the 23rd highest number of cases (\downarrow 10), and 45th highest case rate (\downarrow 10) in the last 7 days (source: CDC COVID Data Tracker)

Percent of inpatient beds occupied by individuals with COVID has decreased 28% since last week and is decreasing for eight weeks. There are 2.0% (\$\dagger\$1.3%) inpatient beds occupied by COVID-19 patients.

Michigan has the 29th highest inpatient bed utilization (\downarrow 9), and the 31st highest adult ICU bed utilization (\downarrow 14) in the country (source: US HHS Protect)

Deaths have decreased 44% since last week. There were 90 COVID deaths between Jun 9 and June 15, and the **Death** Rate is 1.3 deaths per million residents (\downarrow 1.2)

Michigan has the 6th highest number of deaths (\uparrow 2), and 8th highest death rate (\uparrow 7) in the last 7 days (source: CDC COVID Data Tracker)

The 7-day average state testing rate has increased to 1,440.8 tests/million/day (\downarrow 208.5). Daily diagnostic tests (PCR) is 14.3K per day (\downarrow 2.1), and the weekly average for PCR and antigen tests conducted in Michigan is 31.7K (\uparrow 4.2K).

9.29 million COVID-19 vaccine doses reported to CDC, 4.61 million people have completed their vaccine series

Global and National Comparisons

What we see today (data through 6/22):

- Globally, 179,093,146 cases and 3,880,341 deaths
- Countries with the highest number of cases are U.S. (33,564,660), India (29,977,861), and Brazil (18,054,653)
- Within the U.S., California (3,704,005), Texas (2,975,787) and Florida (2,316238) lead the nation in total cases
- CDC Data tracker currently lists Michigan, along with 42 other states and jurisdictions, at moderate transmission level
- Michigan currently has identified 12,491 variants of concern (VOC)
 - Cumulatively, the vast majority are B.1.1.7 (11,295 which is 94%).
 - Other VOCs include B.1.351 (.6%), B.1.427, B.1.429 (2.4%), P.1 (2.1%)(3.4%) and B.1.617.2(.3%)
 - In the 4 most recent weeks,
 - 90.5% of specimens were Alpha (B.1.1.7)
 - 0.4% were Beta (B.1.351)
 - 2.4% were Epsilon (B.1.427, B.1.429)
 - 2.1% were Gamma (P.1)
 - 0.98% were Delta (B.1.617.2)

Key Messages: COVID-19 Spread

Statewide positivity has decreased to 1.3%

- One week decrease of 31% (vs. 35% decrease last week)
- Decreasing for ten weeks (93% decrease since April 8 high)
- Positivity is declining in all MERC regions, and is below 2% in all regions

Case rate (17.0 cases/million) is decreasing in the state (last week: 30.2 cases/million)

- One week decrease of 39% (vs. 49% decrease last week)
- Decreasing for over two months (98% decrease since April 11 high)
- Cases per million are declining in all MERC regions
- Select variants in Michigan: 11,783 confirmed Alpha (B.1.1.7); 72 confirmed Beta (B.1.351); 306 confirmed Epsilon (B.1.427/ B.1.429); 265 confirmed Gamma (P.1); and 32 confirmed Delta (B.1.617.2)

Number of active outbreaks is down 42% from last week

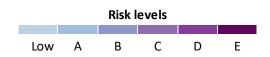
Reported school outbreaks have decreased 35% since last week (77 to 50)

Spread

- High schools continue to experience the highest number of outbreaks (28) among K-12 settings
- In the past week, no new sports cases or clusters have been identified in the K-12 setting

Confirmed and probable case indicators

Table Date: 6/22/2021 (7 days from date table was produced: 6/15/2021)



	Overall Risk Level	Absolute Cases (per million)	CDC Case Trend	Average Percent Positivity	Positivity Trend	Tests (per million)	Occupied by COVID-19 Cases	% Occupied IP Beds Trend	Absolute Deaths (per million)	Death Trend
Detroit	В	16.7	decline [72 days]	1.1	Decrease -	1505.4	1.9	Decrease - 8wk	1.4	Decrease - 7wk
Grand Rapids	С	20.1	decline [66 days]	1.6	Decrease - 9wk	1459.9	2.7	Decrease - 8wk	0.7	<20 wkly deaths
Kalamazoo	В	21.9	decline [67 days]	1.8	Decrease - 9wk	1313.0	3.1	Decrease - 8wk	1.5	<20 wkly deaths
Saginaw	В	12.6	decline [69 days]	1.3	Decrease - 9wk	1089.2	1.2	Decrease - 8wk	1.4	<20 wkly deaths
Lansing	В	14.1	decline [73 days]	1.2	Decrease - 9wk	1102.1	3.0	Decrease - 8wk	1.2	<20 wkly deaths
Traverse City	A	11.6	decline [70 days]	1.0	Decrease - 6wk	1073.3	1.4	Increase - 1wk	0.6	<20 wkly deaths
Jackson	A	13.2	decline [69 days]	1.5	Decrease - 9wk	1543.0	1.7	Decrease - 8wk	1.4	<20 wkly deaths
Upper Peninsula	A	16.0	decline [67 days]	0.6	Decrease - 9wk	1359.4	0.2	Decrease - 2wk	1.9	<20 wkly deaths
Michigan	В	17.0	decline [70 days]	1.3	Decrease - 10wk	1440.8	2.0	Decrease - 8wk	1.3	Decrease - 7wk
Cases	Low: <7	A: 7- 20 B: 20- 40	C: 40- 70	D: 70- 150 E: >=150		Positi	vity Low:	A: 3- 7% B: 7- 10%	C: 10- 15% D:	15- % E: >=20%

Comparing new CDC school thresholds to MI levels

Case Rate*†

<u>*</u>	Low	А	В	С	D		E	
Σ	<7	7-19	20-39	40-69	70-149		≥150	
		Î			*Michigan uses new cases / million / day			ĺ
نِ	Lo	w	Moderate Transmission		Substantial Transmission	ł	High	
CDC		<10 10-49 (14.3/mi) (14.3 -71.4 cases/million)			50-99 (71.4 -142.9 cases/million)		≥100 .9/million)	

[†] CDC uses cases / 100,000 / week (conversion to MI metrics in paratheses)

Other

Indicators

Percent Positivity

	Low	А	В	С	D	E	
2	<3%	3-7%	7-10%	10-15%	15-20%	≥20%	\geq

C	Low	Moderate	Substantial	High	
13	<5%	5%-7.9%	8%-9.9%	10%	>

sources: https://mistartmap.info/

https://www.cdc.gov/coronavirus/2019-

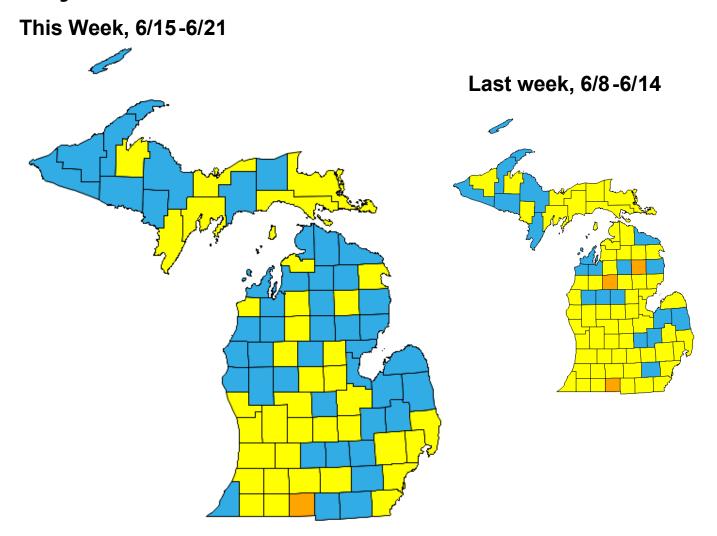
ncov/community/schools-childcare/indicators.html

Overview of metrics for individuals <12 years

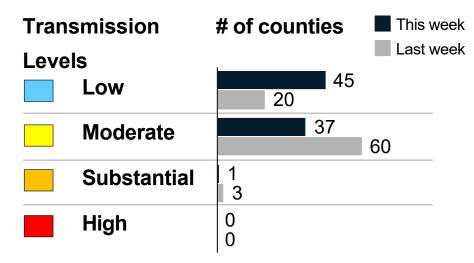
	Region	Population (<12 yrs)	Population (<18 yrs)	Cumulative Case Count (<12 yrs)	7-day Average Daily Case Count (<12 yrs)	7-day Average Daily Case Rate per Million (<12 yrs)	7-day Average Daily Pediatric Hospitalization Count (<18 yrs)	7-day Average Daily Pediatric Hospitalization Rate per Million (<18 yrs)
1	Detroit	735529	1134247	28565	10.6	14.4	14.0	12.3
2	Grand Rapids	230120	350652	9764	3.6	15.6	2.9	8.3
3	Kalamazoo	140422	214801	5291	2.4	17.1	2.4	11.2
4	Saginaw	78759	122834	3251	0.9	11.4	0.0	0.0
5	Lansing	78140	119915	3125	0.6	7.7	2.6	21.7
6	Traverse City	53099	83462	1544	0.3	5.6	0.0	0.0
7	Jackson	41274	64091	1488	0.1	2.4	0.3	4.7
8	Upper Peninsula	34645	53875	1399	0.3	8.7	0.0	0.0
99	Michigan	1391988	2143877	54473	18.7	13.4	22.1	10.3

Note: Data as of 6/22; case data 6/15, hospitalization data 6/22. Hospitalization data is for pediatric patients (<18)

Adjusted* CDC Transmission Levels, 6/15-6/21



Spread



Updates since last week:

45 of 83 counties met low transmission classification, a 25 county increase

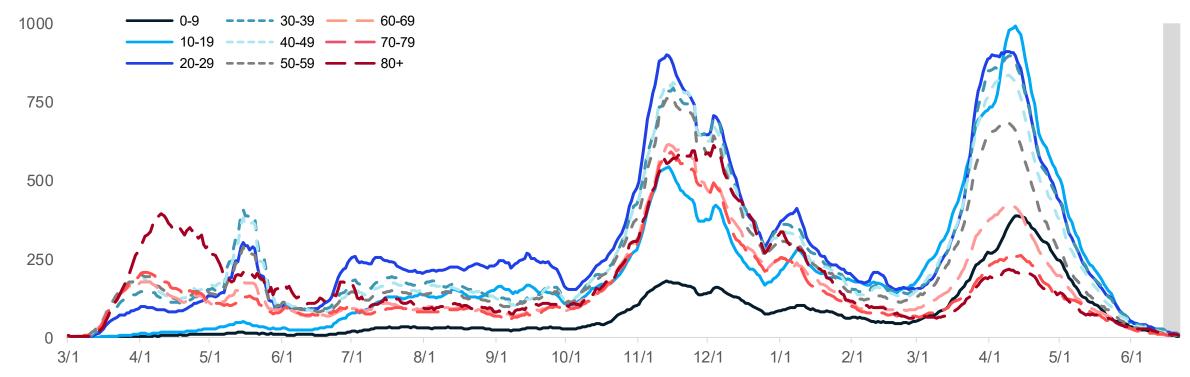
37 of 83 counties met moderate transmission classification, a 23 county decrease

1 of 83 counties met substantial transmission classification, 2 county decrease

^{*}Source: SEOC Testing Results – Excluding MDOC; MDSS – Cases by onset date incorporating 7-day reporting lag

Age group: average new daily cases

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



- Case rates for all age groups by decade are decreasing
- Case rates for all age groups are between 10 and 30 cases per million

Spread

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

Age group: average new daily cases and daily case rate

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#)	% Change since 4/11/21* (Δ #)
0-9	14.9	12.9	-43% (-11)	-97% (-423)
10-19	21.7	17.3	-47% (-19)	-98% (-1,214)
20-29	30.0	21.7	-39% (-19)	-98% (-1,225)
30-39	31.1	25.7	-26% (-11)	-97% (-1,055)
40-49	21.3	18.0	-41% (-15)	-98% (-951)
50-59	19.4	14.4	-41% (-13)	-98% (-889)
60-69	16.4	12.9	-32% (-8)	-97% (-522)
70-79	8.3	10.8	-33% (-4)	-96% (-195)
80+	6.0	14.5	-48% (-6)	-93% (-84)
Total¶	170.9	17.0	-39% (-106)	-98% (-6,596)

Spread

- Avg. daily number of cases (31) and avg. daily case rate (25.7 cases/mil) are currently highest for 30-39
- Case rates for all age groups are between 10 and 30 cases per million
- Since April 11, case rates have decreased more than 93% for all age groups, with state overall down 98%

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

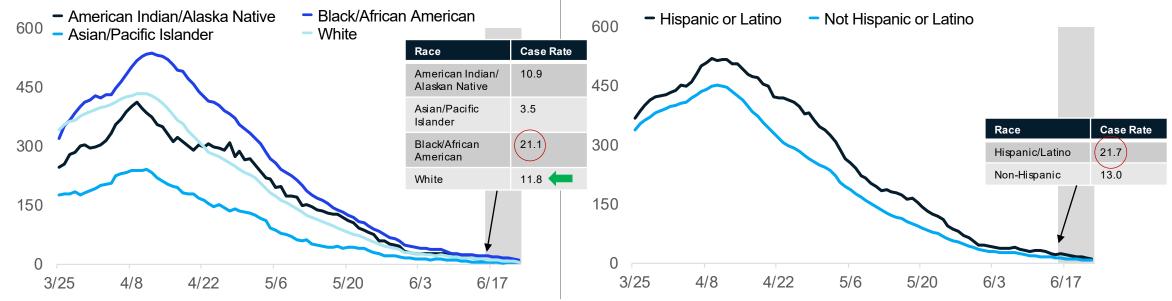
^{*} Highest 7-day avg. following spring 2021 surge

[¶]Total may not reflect state due to missing age data

Average daily new cases per million people by race and ethnicity

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

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



Updates since last week:

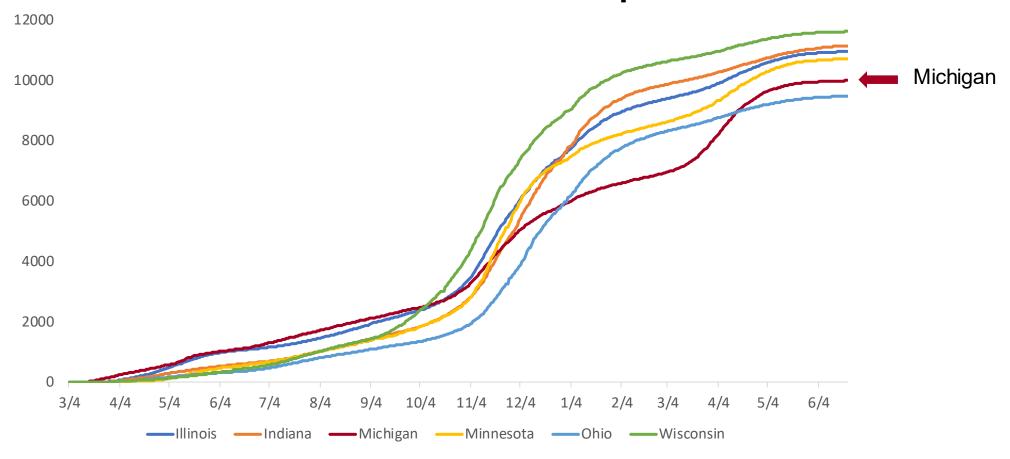
- Cases per million are decreasing for all races and ethnicities
- Blacks/African Americans, and Hispanic/Latinos have the highest case rates

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- Case rates of Hispanic and Blacks are about follow those of Non-Hispanics and Whites by about one week
- In the past 30 days, 15% (↓1%) of race data and 19% (↔) 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

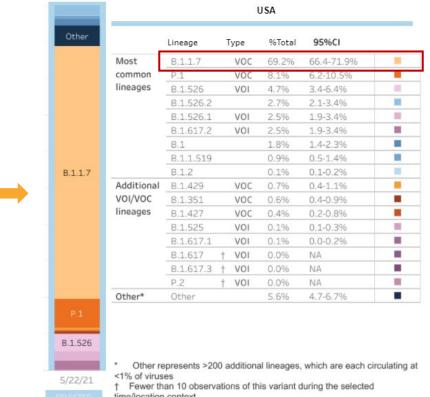
Cumulative COVID-19 Case Rates: Midwest Comparison



- Cumulative incidence per 100,000 cases in Michigan has been lower than other states in the Midwest following spring 2020 surge
- Michigan's mitigation policies helped control the spread of SARS-CoV-2 relative to other states in the Midwest, particular during surge in November and December
- The current trajectory in Michigan has brought us into the range of cumulative case rates of our Midwest neighbors

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

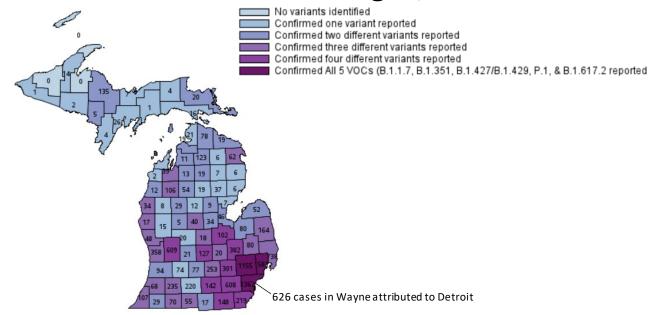
SARS-CoV-2 Variants Circulating in the United States, May 9 – May 22



Data last updated June 22, 2021

Source: https://covid.cdc.gov/covid-data-tracker/#variant-proportions and MDSS

Variants of Concern in Michigan, Jun 22



Variant	MI Reported Cases¶	# of Counties	CDC est. prevalence
B.1.1.7 (alpha)	11,783*	80	81.5%
B.1.351 (beta)	72	22	0.5%
B.1.427/B.1.429 (epsilon)	306	43	1.0%
P.1 (gamma)	265	29	3.0%
B.1.617.2 (delta)	32	8	0.2%

* 533 cases within MDOC; ¶ 155 cases with county not yet determined

time/location context

Variants, transmissibility, severity, and vaccine effectiveness

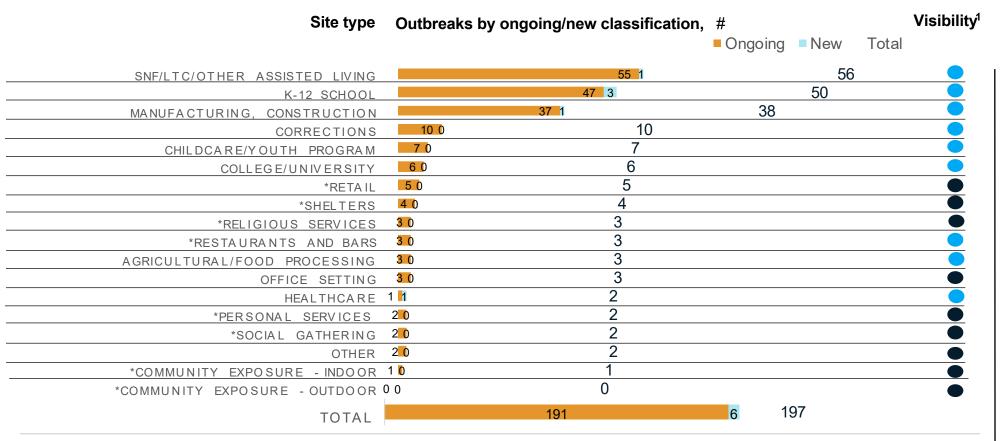
Strain	New WHO nomenclature	Transmissibility	Immune Invasiveness	Increased Severity	Vaccine effective at disease reduction?
Ancestral		-	-	-	✓
B.1.1.7	Alpha	~50% increased transmission	-	Increased hospitalizations and death	√
B.1.351	Beta	~50% increased transmission	Reduced susceptibility to antibody treatment	-	✓
P.1	Gamma	-	Reduced susceptibility to antibody treatment	-	✓
B.1.427/B.1.429	Epsilon	~20% increased transmissibility	Modest decrease in susceptibility to monoclonal antibody treatment	-	√
B.1.617.2	Delta	> 50% increased transmission	Reduced susceptibility to antibody treatment	Increased hospitalizations and death	✓

Source: CDC https://www.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fvariant-info.html World Health Organization, accessed June 8, 2021. https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/

Other

Indicators

Number of outbreak investigations by site type, week ending Jun 17



Easier to identify outbreakHarder to identify outbreak

Total number of active outbreaks is **down 42%** from previous week

Following K-12 schools (3), new outbreaks were reported in LTCF/SNF (1), manufacturing/construction (1), and healthcare setting types (1).

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

Other

Indicators

^{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

K-12 school outbreaks, recent and ongoing, week ending Jun 17

Number of reported outbreaks decreased since last week (77 to 50) including decreases in High Schools (39 to 28), Middle/Jr High (19 to 8), and Pre K-Elementary (19 to 12). Only Administrative saw an increase (0 to 2).

Number of Range of cases

Region	Number of reported cases,#	# Ongoing - Excluding New # New	outbreaks	peroutbreak
Region 1	70 0		9	3-17
Region 2n	16 5		10	2-3
Region 2s	3 3		2	3-3
Region 3	412 0		18	4-67
Region 5	30 0		3	2-23
Region 6	180 0		8	6-48
Region 7	0 0		0	0
Region 8	0 0		0	0
Total	711 8		50	2-67

Grade level	Number of reported cases,#	# Ongoing - Excluding New # New	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	93 3		12	2-23
Jr. high/middle schoo	ol 2 <mark>1</mark> 2		8	2-7
High school	591 0		28	2-67
Administrative	6 3		2	3-6
Total	711 8		50	2-67

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.

Spread

Source: LHD Weekly Sitreps

Science

Key Messages: COVID-19 and Healthcare Capacity and COVID Severity

Hospitalizations and ICU utilization are decreasing

- COVID-like illness (CLI) has fallen to 0.4% (vs. 0.7% last week)
- Hospital admissions are decreasing statewide and for most age groups
- 146 MIS-C cases have been identified in Michigan
- Hospitalizations down 33% since last week (vs. 33% decline week prior)

Spread

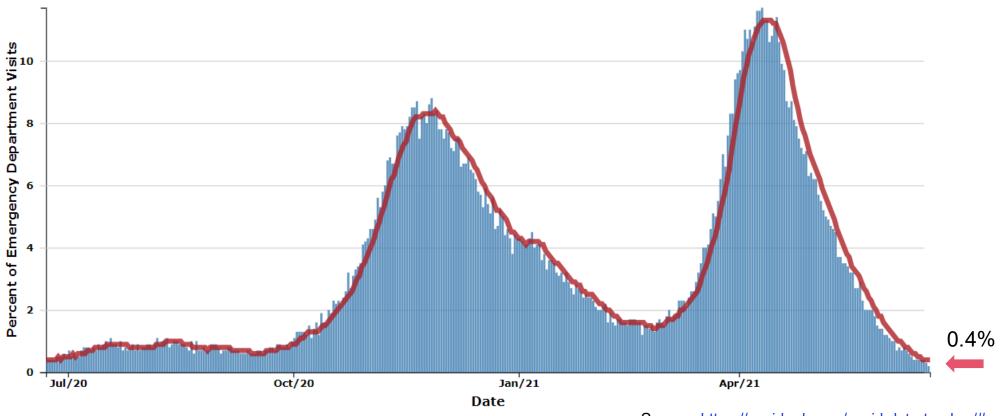
- All regions are showing decreases trends in hospitalization trends this week
- Volume of COVID-19 patients in intensive care has decreased 34% since last week (vs. 25% decline week prior)

Death rate has decreased to 1.3 daily deaths per million people

- 44% decrease since last week (vs. 22% decrease last week)
- 83% decrease since April 24 peak
- Proportion of deaths among those under 60 years of age slightly declined from the prior week

Michigan Trends in Emergency Department Visits for COVID-19-Like Illness (CLI)

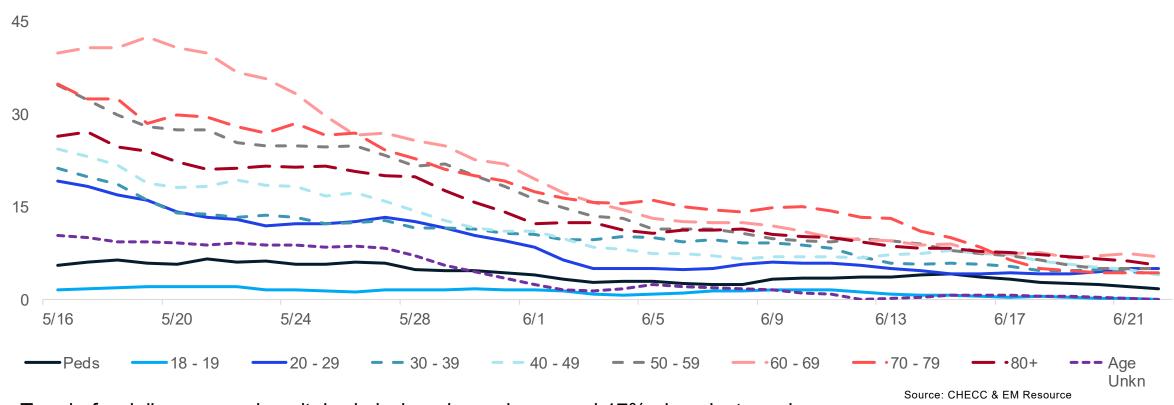
Percentage of Emergency Department visits with Diagnosed COVID-19 in Michigan, All Ages



Source: https://covid.cdc.gov/covid-data-tracker/#ed-visits

Spread

Average Hospital Admissions by Age



Trends for daily average hospital admissions have decreased 17% since last week

Spread

- Trends within most age groups are decreasing
- Over the past week, those 70-79 have seen the highest number of avg. daily hospital admissions (13 admissions)

Average Hospital Admissions by Age

Confirmed COVID-19 Hospital Admissions by Age Group - Statewide Rolling Weekly Average

Age Group	Daily Avg Admissions	Average Daily Adm. Rate [†]	One Week % Change (#)	% Change since 4/14* (#)
Peds	1-5	0.9	-55% (-1-5)	-75% (-6)
18-19	1-5	0.5	-80% (-1-5)	-97% (-1-5)
20-29	1-5	3.6	17% (+1-5)	-85% (-29)
30-39	1-5	3.5	-29% (-1-5)	-91% (-44)
40-49	1-5	3.4	-50% (-1-5)	-95% (-74)
50-59	5.1	3.8	-36% (-1-5)	-96% (-109)
60-69	7.0	5.5	-22% (-1-5)	-95% (-121)
70-79	1-5	5.8	-56% (-6)	-95% (-81)
80+	5.6	13.5	-33% (-1-5)	-91% (-55)
Total¶	37.6	3.8	-37% (-22)	-94% (-563)

Spread

- Over the past week, nearly all age groups are seeing declines in hospital admissions for COVID-19 although with all age groups seeing fewer than 10 daily hospital admission
- Currently, there are approximately 38 daily hospital admissions for COVID-19
- Since the Apr 14 high, overall avg. daily hospital admissions for COVID-19 have decreased 94%

Other

Indicators

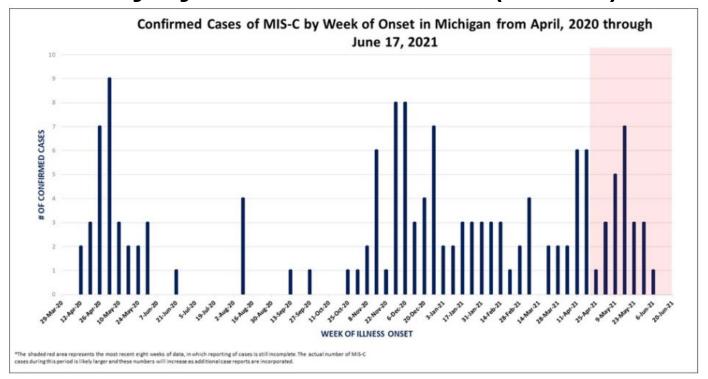
Note: Case information sourced from MDHHS and reflects date of onset of symptoms Source: MDHHS - Michigan Disease Surveillance System

[†] Rate per 1,000,000 MI residents

^{*} Highest 7-day avg. hosp. adm. following Spring 2021 surge

[¶] Total may not reflect state due to missing age data

Multisystem Inflammatory Syndrome in Children (MIS -C)



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.

Multisystem Inflammatory Syndrome in Children (MIS-C) Michigan Data Summary 6/17/2021

Maidsystem innaminatory syndrome in emidren (Mis-e) Miemgan Bata Sammary 6/17/2021					
# Cases Confirmed and Reported to CDC*	146				
MIS-C associated Deaths	5 or fewer				
Cases admitted to ICU	103 (70.6%)				
Onset Date Range	4/14/20 to 6/6/2021				
Age Range	0-20 years				

*Meets CDC Case definition

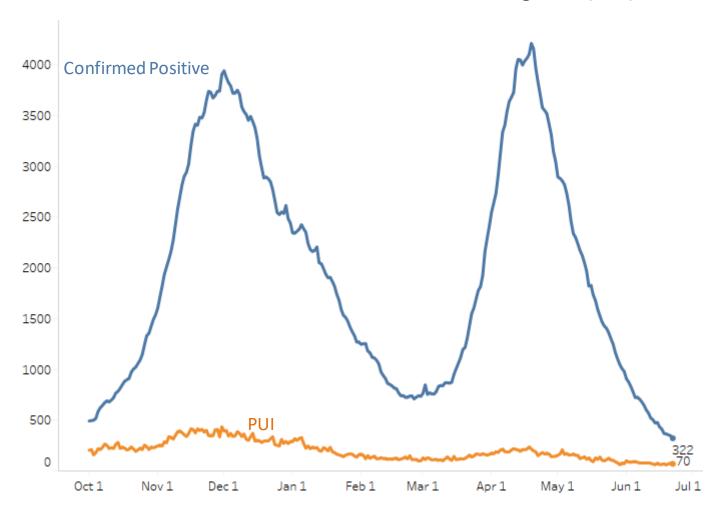
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Source: MDHHS - Michigan Disease Surveillance System and Michigan.gov/coronavirus dashboard

Science

Statewide Hospitalization Trends: Total COVID+ Census

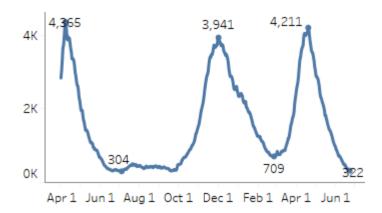
Hospitalization Trends 3/1/2021 – 6/22/2021 Confirmed Positive & Persons Under Investigation (PUI)



COVID+ census in hospitals continues to decline from the April 19th peak. This week is down 33% from the previous week (previous week was down 33%).

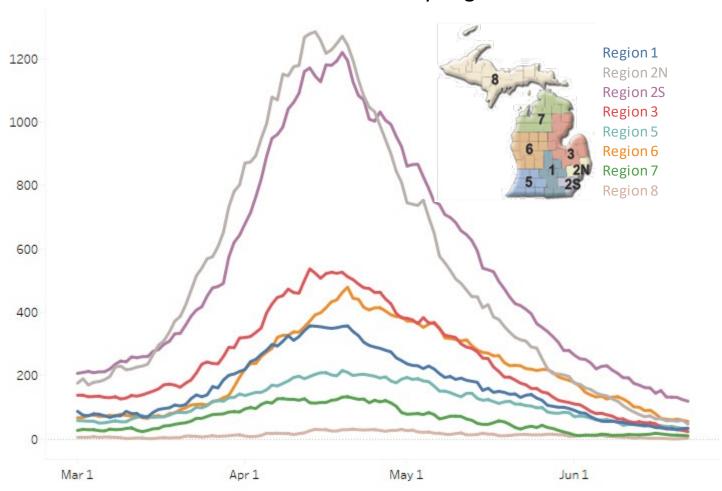
Hospitalizations are now near the minimum point of summer 2020.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 3/1/2021 – 6/22/2021 Confirmed Positive by Region

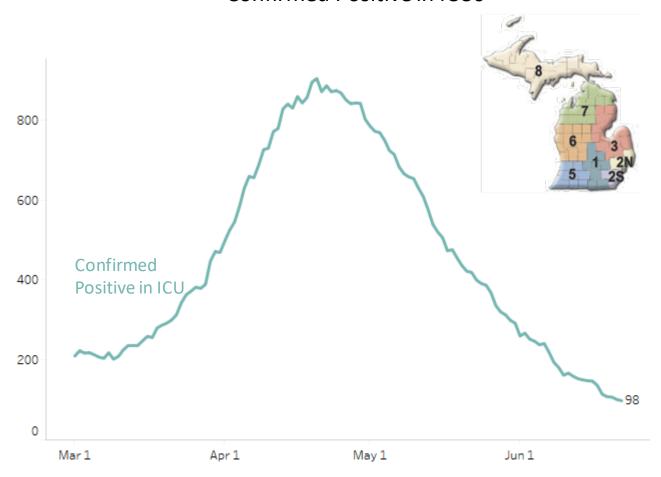


All regions show decreasing hospitalization trends this week.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	34 (-21%)	31/M
Region 2N	47 (-33%)	21/M
Region 2S	119 (-27%)	53/M
Region 3	23 (-55%)	20/M
Region 5	32 (-20%)	34/M
Region 6	55 (-38%)	37/M
Region 7	10 (-29%)	20/M
Region 8	2 (-33%)	6/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 6/22/2021 Confirmed Positive in ICUs



Overall, volume of COVID+ patients in ICUs has decreased 34% from last week, with 7 regions showing decreasing ICU census.

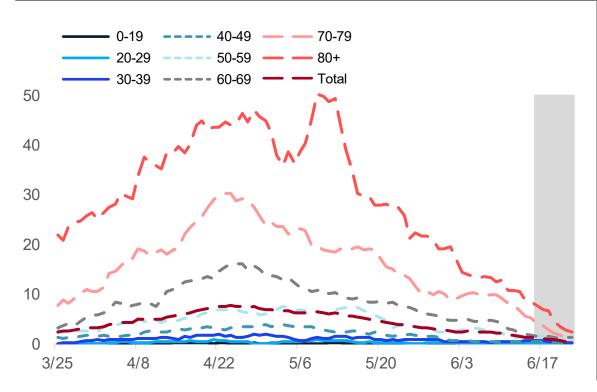
7/8 regions have 5% or less of ICU beds occupied with COVID patients.

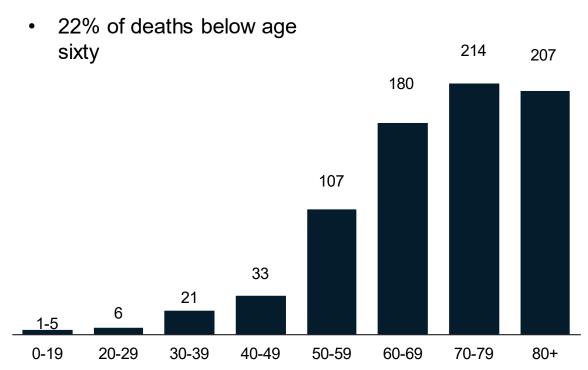
Region	Adult COVID+ in ICU (% Δ from last week)	Adult ICU Occupancy	% of Adult ICU beds COVID+
Region 1	10 (11%)	88%	5%
Region 2N	8 (-64%)	78%	1%
Region 2S	39 (-24%)	83%	5%
Region 3	8 (-43%)	87%	2%
Region 5	9 (29%)	67%	5%
Region 6	17 (-54%)	79%	7%
Region 7	7 (-13%)	65%	4%
Region 8	0 (-100%)	64%	0%

Average and total new deaths, by age group

Daily confirmed and probable deaths per million by age group (7 day rolling average)

Total confirmed and probable deaths by age group (past 30 days, ending 6/15/2021)





Overall trends for daily average deaths have decreased 44% since last week

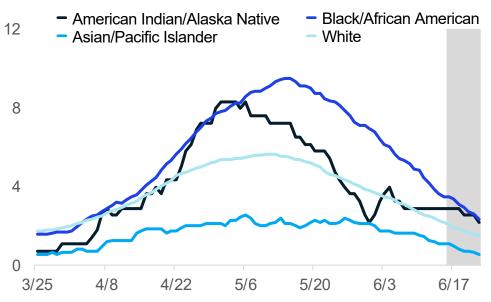
Spread

• Through 6/15, the 7-day avg. death rate is below 1.5 daily deaths per million people for those under the age of 60

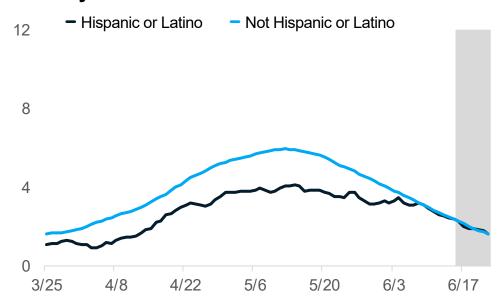
Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases. Source: MDHHS – Michigan Disease Surveillance System

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



Updates since last week:

- All racial and ethnic groups are seeing a decrease in COVID deaths
- · Blacks/African Americans have the most reported deaths per capita

Spread

Deaths are not adjusted for confounders (e.g., age, sex, comorbidities)

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

COVID-19 Vaccination

Administration

9th state in doses delivered, first doses provided and number of completed individuals (6/20/21)

78.8% adjusted administration ratio (excluding federal entities, <u>CDC channel portfolio</u> 6/10/2021)

127K doses last week: most frequently by pharmacies, local health departments, and hospitals

Coverage

61.9% of those 18+ have received first dose of vaccine

4,608,073 people in Michigan have completed series (4,220,924 last week)

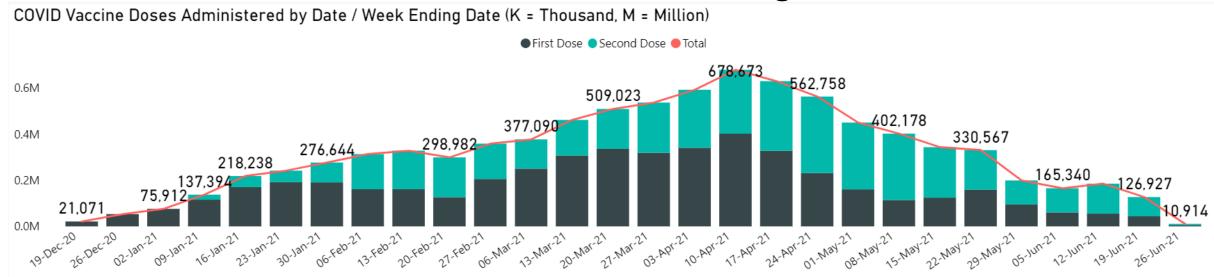
Spread

79.9% of people aged 65 or older have had first dose

Initiation highest among Asian, Native Hawaiian or Pacific Islander and American Indian/Alaskan Native individuals (MI Covid Vaccine Dashboard 6/8/21)

Less than 1% of Vaccinated Individuals Later Tested Positive for COVID -19 (Number of cases who are fully vaccinated (n= 7,135)

Doses Administered and Vaccination Coverage as of 6/22/21



- 11,376,755 doses delivered to providers in Michigan
- 9.28M doses Administered (CDC tracker)

78.8% adjusted administration ratio (excluding federal entities, CDC channel portfolio 6/10/2021) – up 0.4% from last week

127K doses administered last week

In 7 days, doses most frequently provided by

- Pharmacies (104K (decline)),
- LHD (19K) and hospitals (11K),
- FQHCs, family practice (4K) and pediatricians (2.6K)

Coverage Demographics as of 6/22/2021

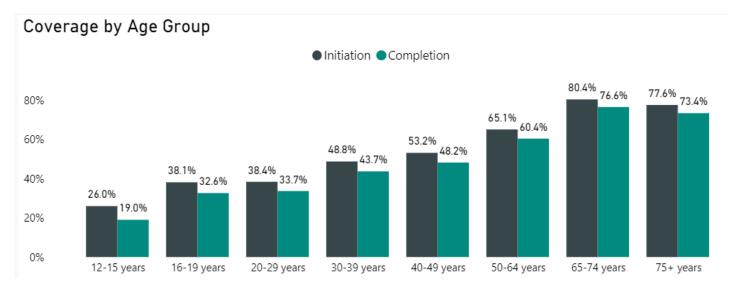
4,608,073 people completed series (CDC)

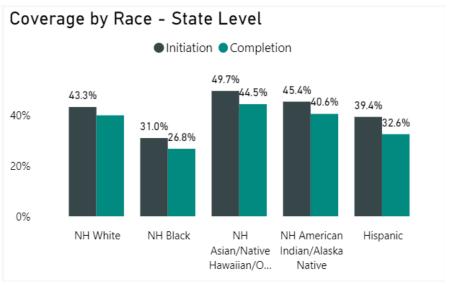
Age Group (Michigan dashboard)

- 43.3% people age 12-49 initiated vaccination (up <1% from last week)
- 71.7% people aged 50 or older have initiated their vaccine series;

Race/Ethnicity for 12 and older:

- Initiation coverage highest among those of Non-Hispanic (NH) Asian, Native Hawaiian or Pacific Islander Race, then NH American Indian, NH White, NH Black or African American Races.
- Initiation is at 39.4% for those of Hispanic ethnicity
- 22.3% data missing or unknown





Source: Michigan Coronavirus/Dashboard https://www.michigan.gov/coronavirus/0,9753,7-406-98178 103214-547150-,00.html

Public Health

Response

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 6/15/21):

- 7,135 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 180 deaths (163 persons age 65 years or older)
 - 447 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 vaccines are 100% effective at preventing illness in vaccinated people. There will be a small percentage of fully vaccinated people who still get sick, are hospitalized, or die from COVID-19.
- There is some evidence that vaccination may make illness less severe for those who are vaccinated and still get sick.
- To date, no unexpected patterns have been identified in the case demographics or vaccine characteristics among people with reported vaccine breakthrough infections.

Science Round Up

No Update this Week