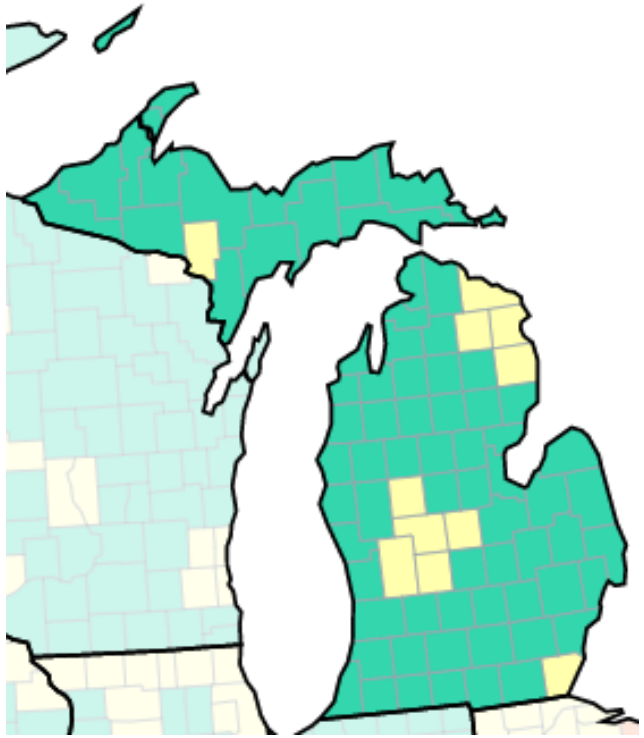
MI COVID RESPONSE DATA AND MODELING UPDATE

November 29, 2022

As of Nov 24, No Michigan Counties are at High COVID-19 Community Level



- In the US, 4% of counties have high risk for medically significant disease and healthcare strain
- In Michigan, 0% (0/83) of counties are at high risk. This represents 0% of the population
- 11 Michigan counties are currently at Medium level (13%). This represents 11% of the population
- 72 Michigan counties are currently at Low level (87%). This represents 89% of the population

Percent of Counties This Week

	United States	Michigan	Percent of MI Population
Low	78%	87%	89%
Medium	18%	13%	11%
High	4%	0%	0%

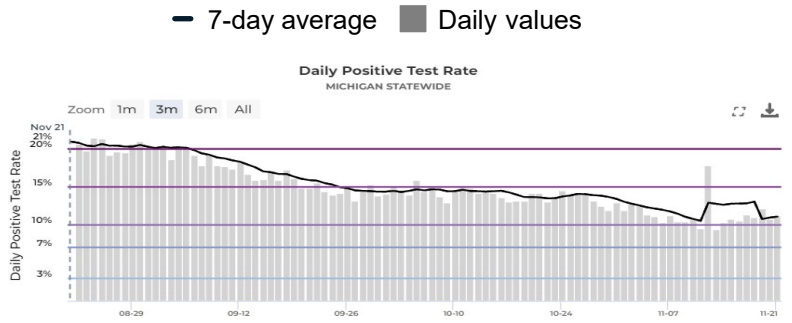
Low	Medium	High
• Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• Wear a mask indoors in public • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms • Additional precautions may be needed for people at high risk for severe illness

Source: CDC COVID-19 Community Levels https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=CommunityLevels

Recent statewide trends are plateaued

Statewide trends

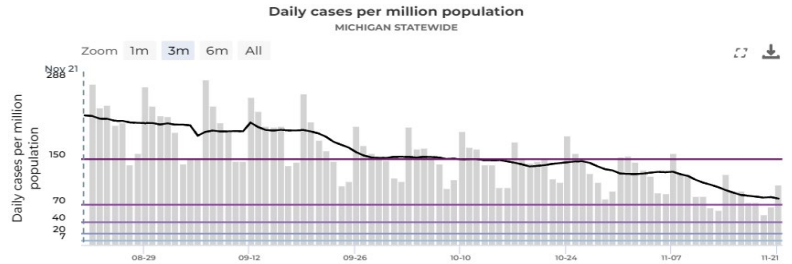
Positivity, %



Current: 11.1%

Last Week: 12.8%

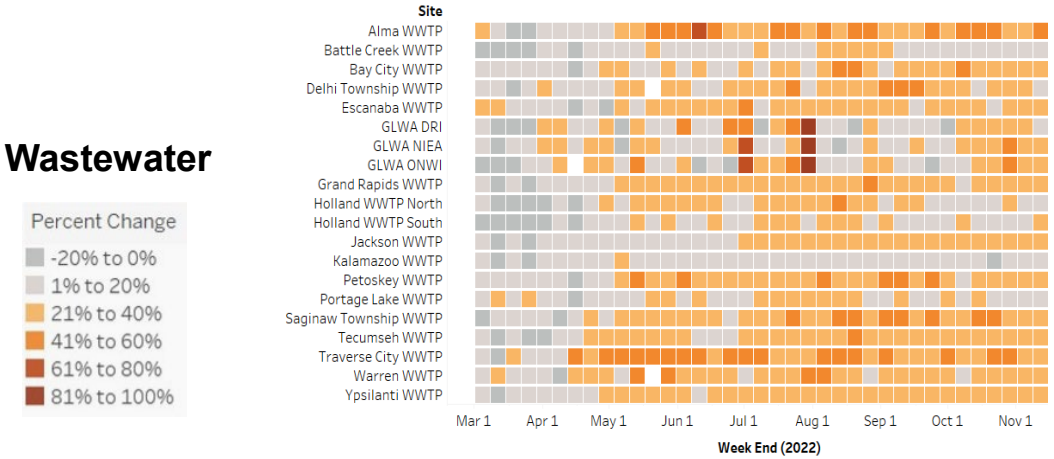
Daily cases per million



Current: 91.2

Last Week: 116.9

Wastewater



Current: 70% of sites are above 20% baseline threshold

Last Week: 75% of sites are above 20% baseline threshold

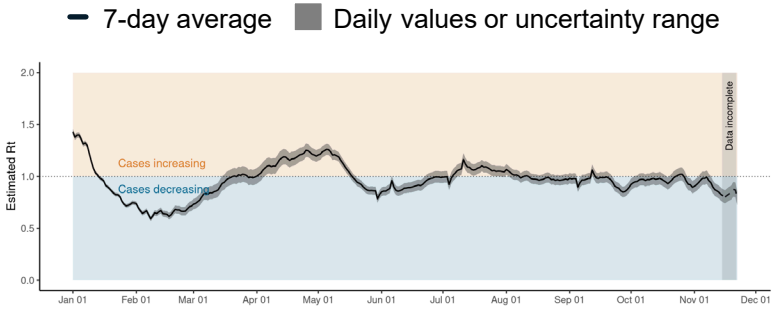
- The two core indicators, test percent positivity, and case rates, are steady over several weeks and slightly down over the past week
- 5 counties are currently showing increases in cases and an additional 3 reported an elevated incidence plateau in case rates (via mistartmap.info as of 11/25/22, data through 11/14/22)
- 70% (14/20) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week

Source: https://mistartmap.info/

Recent statewide trends are plateaued

Statewide trends

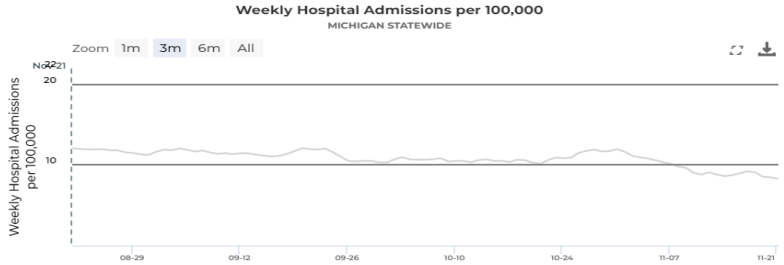
Reproductive Number, R_t



Current: 0.78

Last Week: 0.88

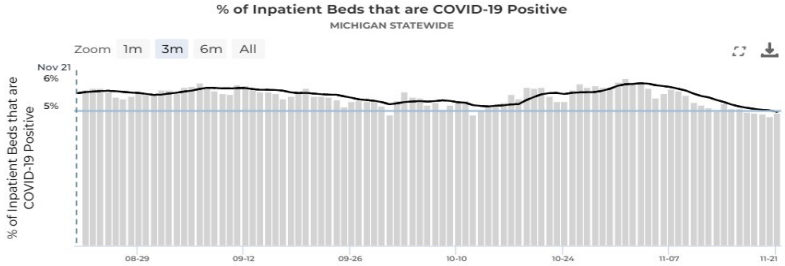
Hospital Admissions



Current: 8.8

Last Week: 9.2

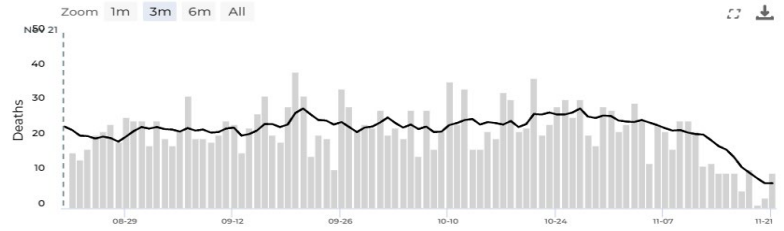
Daily hospitalization rate, %



Current: 4.9%

Last Week: 5.1%

Deaths



Current: 1.7

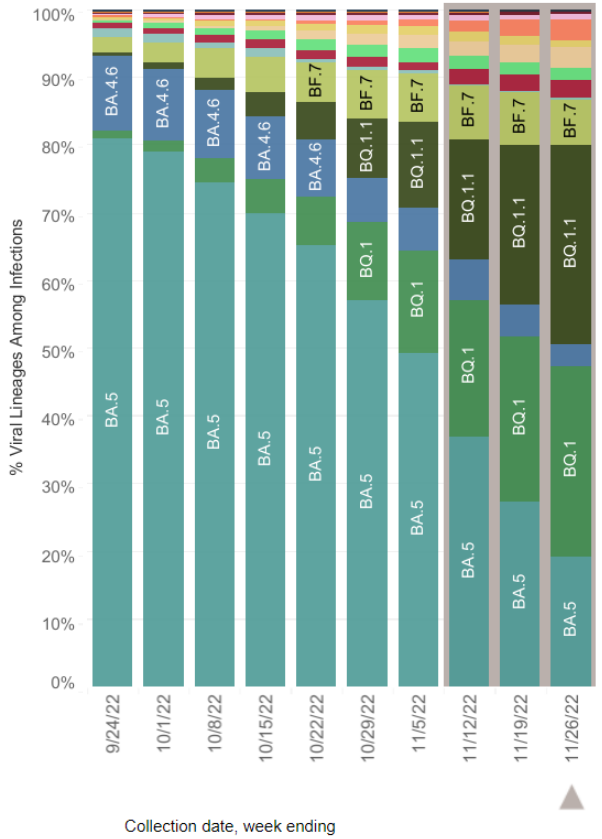
Last Week: 1.3

- The reproductive number (R_t) in Michigan is near 1 indicating that case trends are plateaued
- There are an average of 8.8 hospital admissions per 100,000 Michiganders day which is slightly lower than last week
- The percent of inpatient beds that have patients diagnosed with COVID-19 have seen a slight decrease for past week
- Deaths are a lagging indicator bur remain steady compared to last week

Source: https://mistartmap.info/

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan: Predominately BA.5 and BA.4 sublineages

SARS-CoV-2 Variants Circulating in the United States, Sep 18 – Nov 26 (NOWCAST)

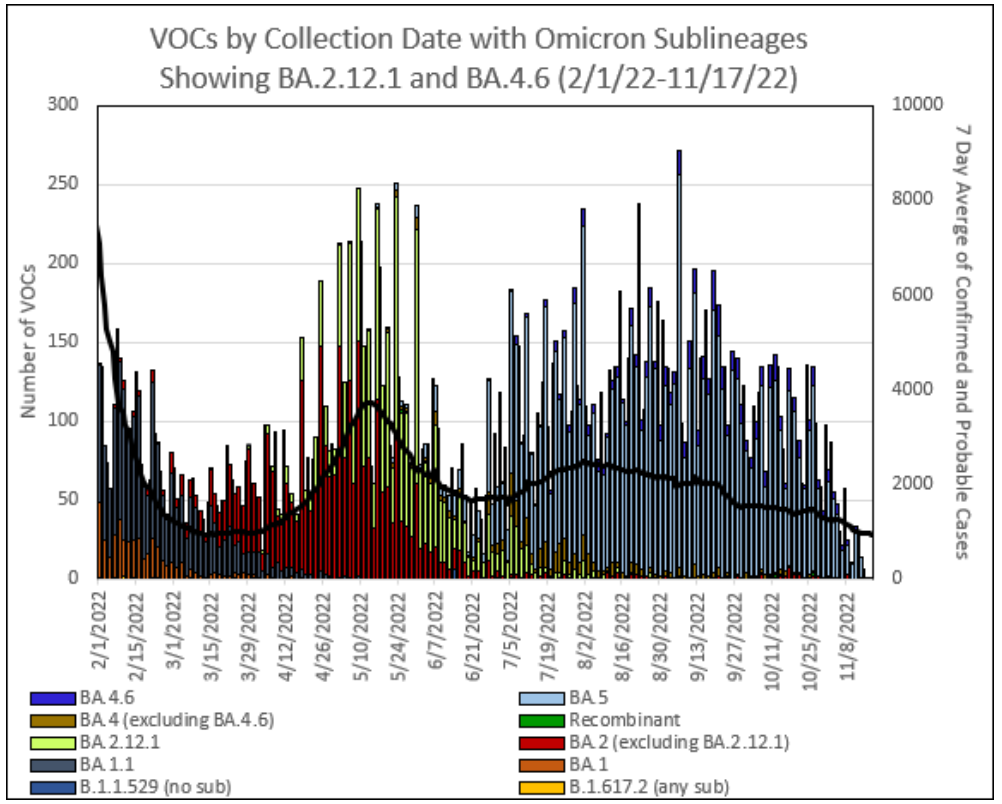


USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BQ.1.1	VOC	29.4%	27.0-31.9%
	BQ.1	VOC	27.9%	25.5-30.5%
	BA.5	VOC	19.4%	17.1-21.9%
	BF.7	VOC	7.0%	6.2-8.0%
	BA.4.6	VOC	3.3%	2.9-3.8%
	XBB	VOC	3.1%	1.5-6.0%
	BN.1	VOC	2.9%	2.3-3.8%
	BA.2.75	VOC	2.6%	2.0-3.5%
	BA.5.2.6	VOC	1.8%	1.5-2.2%
	BF.11	VOC	1.1%	0.8-1.4%
	BA.2	VOC	0.8%	0.5-1.1%
	BA.2.75.2	VOC	0.6%	0.4-0.7%
	BA.4	VOC	0.0%	0.0-0.1%
	BA.1.1	VOC	0.0%	0.0-0.0%
	B.1.1.529	VOC	0.0%	0.0-0.0%
	BA.2.12.1	VOC	0.0%	0.0-0.0%
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%
Other	Other*		0.1%	0.0-0.1%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of 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
# BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. Except BA.2.12.1, BA.2.75, BA.2.75.2, BN.1,XBB and their sublineages, BA.2 sublineages are aggregated with BA.2. Except BA.4.6, sublineages of BA.4 are aggregated to BA.4. Except BF.7, BF.11, BA.5.2.6, BQ.1 and BQ.1.1, sublineages of BA.5 are aggregated to BA.5. For all the lineages listed in the above table, their sublineages are aggregated to the listed parental lineages respectively. Previously, XBB was aggregated with other. Lineages BA.2.75.2, XBB, BN.1, BA.4.6, BF.7, BF.11, BA.5.2.6 and BQ.1.1 contain the spike substitution R346T.

VOC Distribution in Michigan



- Since October 15, there have 1,987 VOC specimens sequenced
- 100% of specimens sequenced are Omicron
  - Since October 15, 87% of specimens sequenced and reported (n=1,736) have been identified as BA.5; of which 9.1% of those specimens are BF.7 (n=159), 5.1% have been identified as BQ.1 (n=89), and 6.4% as BQ.1.1 (n=111)

Data last updated Nov 28, 2022
Source: CDC COVID Data Tracker: Genomic Surveillance and Michigan's MDSS; sequence data may take up to four weeks to process and get reported back to health departments

Over 6.1 Million Michiganders have completed the primary series – 62% of the total population

Vaccination Coverage

Over 6.1 million people in the state are fully vaccinated*

91.0% of people aged 65 and older have completed the primary series*

69.0% of total population have initiated the primary series*

Race/Ethnicity¶ for those 6 months and older:

- Initiation coverage is highest among those of Non-Hispanic (NH) Asian, Native Hawaiian or Pacific Islander Race (64.0%), then NH American Indian (56.3%), NH White (54.5%), NH Black or African American Races (43.5%).
- Initiation is at 61.2% for those of Hispanic ethnicity

Updated Booster Coverage

The percentage of Michiganders who have received the updated (bivalent) booster is higher than national percentages for all reported age groups

36.1% of the population 65 years of age or older has received an updated (bivalent) booster

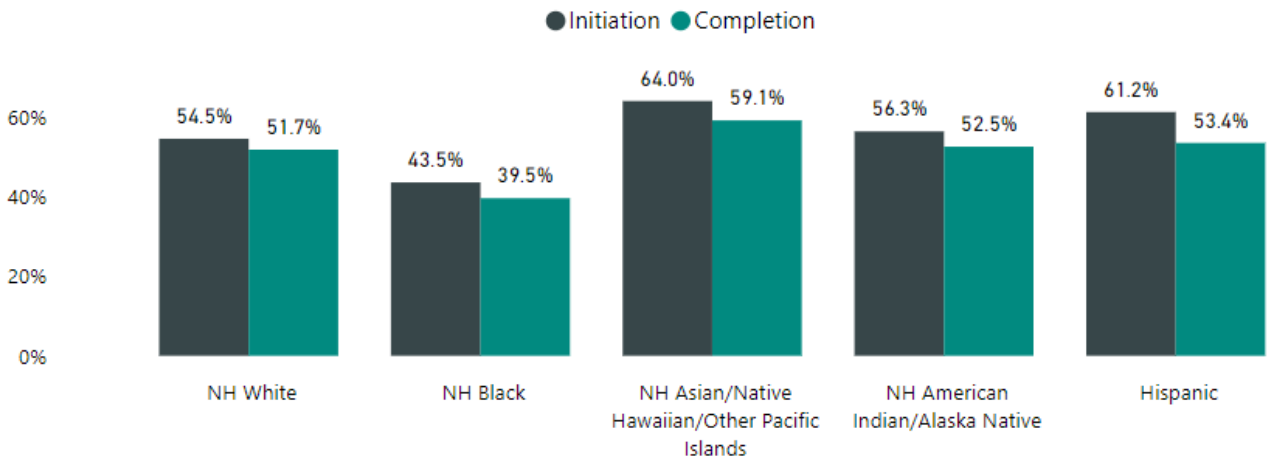
13.7% of Michiganders ages 5 years and older have received their updated (bivalent) booster dose

Vaccination Coverage in Michigan as of 11/25/2022

Age Group	% At Least One Dose	% Completed Primary Series	% Updated Booster**	U.S. % Boosted**	Primary Series Total
Total Population	69.0%	62.0%	NA	NA	6,190,377
≥ 5 years	72.9%	65.6%	13.7%	12.1%	6,178,884
≥ 12 years	76.9%	69.2%	14.9%	13.1%	5,946,861
≥ 18 years	79.1%	71.2%	15.9%	13.9%	5,580,638
≥ 65 years	95.0%	91.0%	36.1%	31.3%	1, 606,692

**This shows the percentage of all residents ages 5 years and older in a jurisdiction (state, territory, national) with an updated (bivalent) booster dose. Non-residents who received vaccine are attributed to their jurisdiction of residence.

Coverage by Race*



Source: *CDC COVID Data Tracker > Vaccinations in the US, ¶ MCIR COVID-19 Vaccine Dashboard

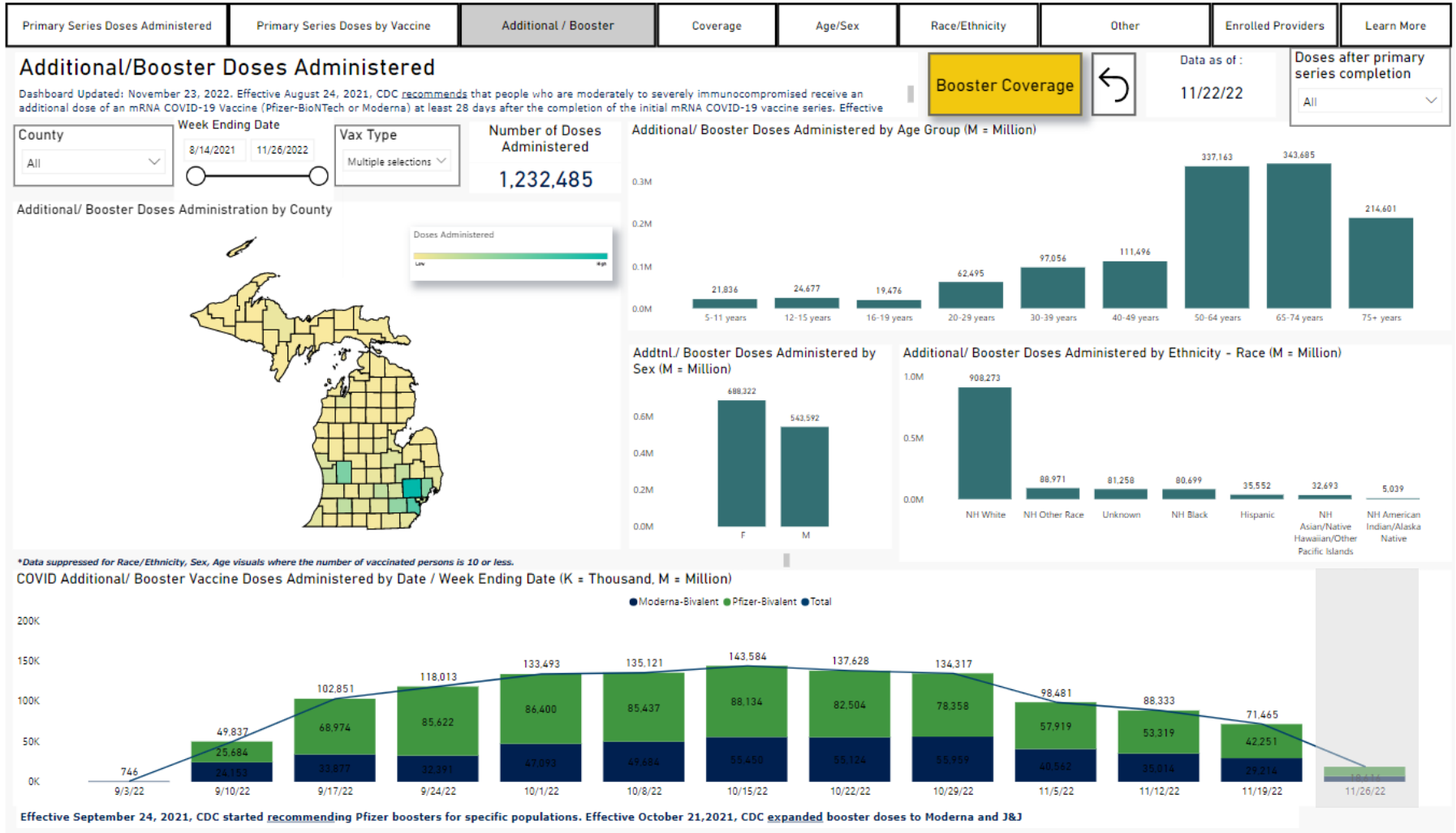
Note: Now include all those 6 months and older in calculations

Bivalent Administration

- **FDA has authorized and CDC now recommends expanding the use of the updated bivalent COVID-19 vaccines to children ages 5 through 11 years.***

- As of 11/22¶, 1,232,485 Michiganders had received their bivalent booster

- Note: the data for the week ending 11/26 would have been incomplete on the date the dashboard was last refreshed (11/22) and underreport the true administration for the week



Moderna Bivalent Pfizer Bivalent

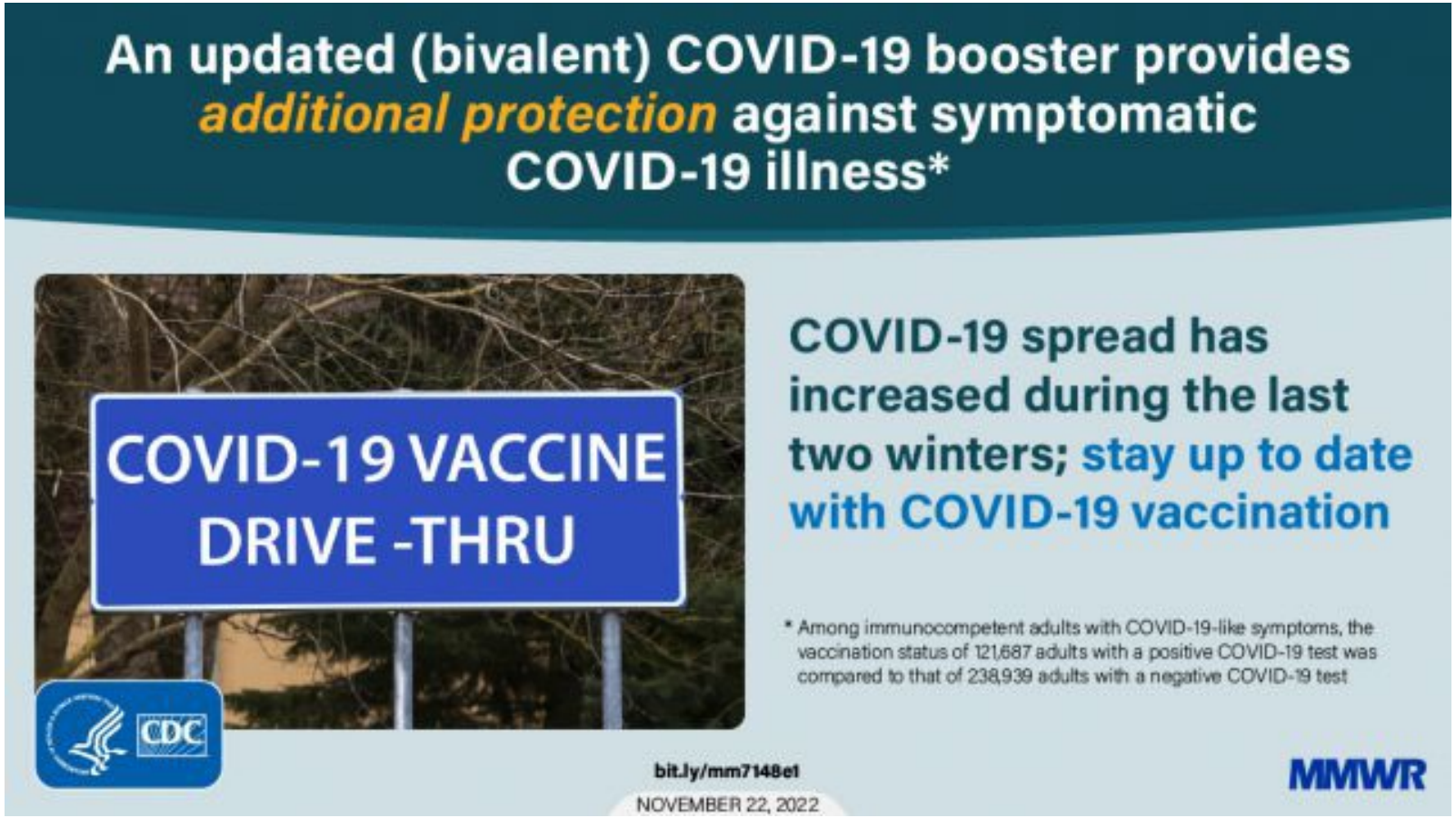
* Pfizer-BioNTech is now expanded for children ages 5 through 11 years, and Moderna is expanded for children and adolescents ages 6 through 17 years

¶ These data are updated every Wednesday on our COVID-19 vaccination Dashboard under Additional/Booster Administration Trends and then restricting the view to just Moderna and Pfizer bivalent doses 7

Sources: Michigan Coronavirus Vaccine Dashboard

Staying up to date with recommended COVID-19 vaccinations, including the bivalent booster, provides significant protection against SARS-CoV-2 infection

- Monovalent COVID-19 vaccines were less effective against symptomatic infection due to SARS-CoV-2 Omicron variant
- Updated bivalent boosters provided significant additional protection against symptomatic SARS-CoV-2 infection in those who had previously received monovalent vaccine doses
- All persons should stay up to date with recommended COVID-19 vaccinations, including bivalent booster doses for eligible persons
- Currently, 13.7% of those 5 and older have received their bivalent vaccine; and 36.1% of those over 65 years have received their bivalent booster



Source: Link-Gelles R, et al. Effectiveness of Bivalent mRNA Vaccines in Preventing Symptomatic SARS-CoV-2 Infection — Increasing Community Access to Testing Program, United States, September–November 2022. MMWR Morb Mortal Wkly Rep. ePub: 22 November 2022. DOI: http://dx.doi.org/10.15585/mmwr.mm7148e1