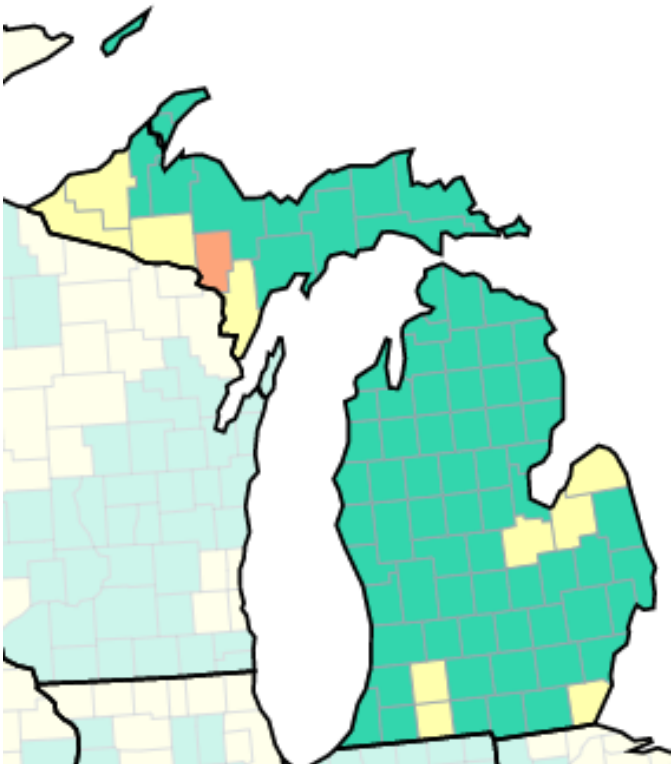




MI COVID RESPONSE DATA AND MODELING UPDATE

December 6, 2022

As of Dec 1st, 1 Michigan County is at High COVID-19 Community Level



- In the US, 6% of counties have high risk for medically significant disease and healthcare strain
- In Michigan, 1% (1/83) of counties are at high risk. This represents less than 1% of the population
- 10 Michigan counties are currently at Medium level (12%). This represents 8% of the population
- 72 Michigan counties are currently at Low level (87%). This represents 92% of the population

Percent of Counties This Week

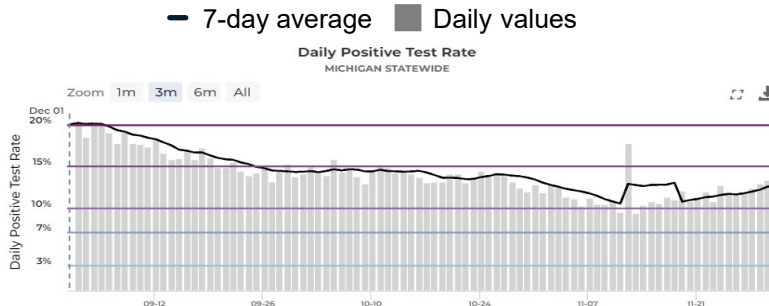
	United States	Michigan	Percent of MI Population
Low	69%	87%	92%
Medium	25%	12%	8%
High	6%	0%	<1%

Low	Medium	High
<ul style="list-style-type: none">• Stay up to date with COVID-19 vaccines• Get tested if you have symptoms	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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

Recent statewide trends are plateaued with outlook of potential increases

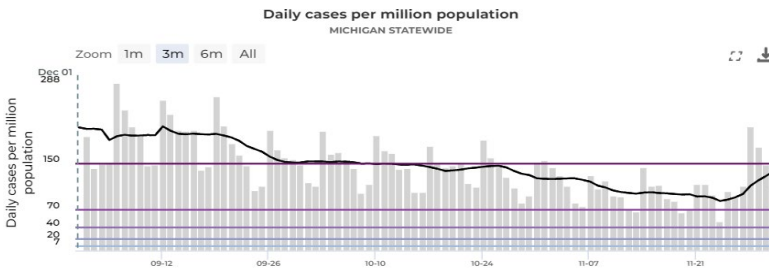
Statewide trends

Positivity, %



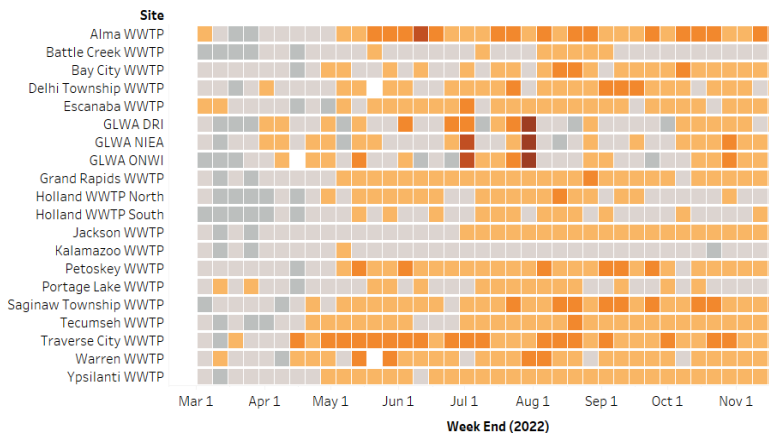
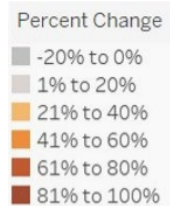
Current: 12.7%
Last Week: 11.1%

Daily cases per million



Current: 87.8
Last Week: 91.2

Wastewater



Current: 65% of sites
are above 20%
baseline threshold

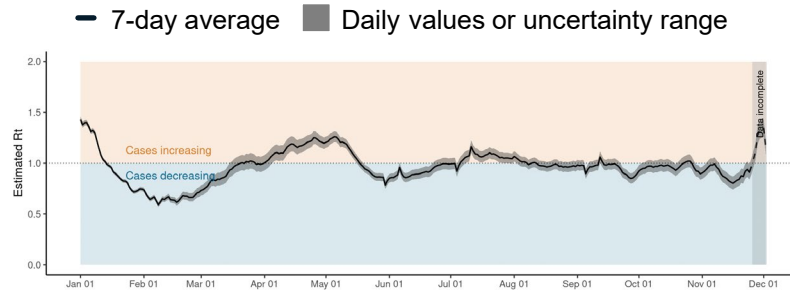
Last Week: 70% of
sites are above 20%
baseline threshold

- The two core indicators, test percent positivity, and case rates, are steady over several weeks
 - Positivity is slightly up whereas case rates are slightly down (not considering 7-day lag)
- 25 counties are currently showing increases in cases and an additional 19 reported an elevated incidence plateau in case rates (via mistartmap.info as of 12/2/22, data through 11/24/22)
- 65% (13/20) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week

Recent statewide trends are plateaued with outlook of potential increases

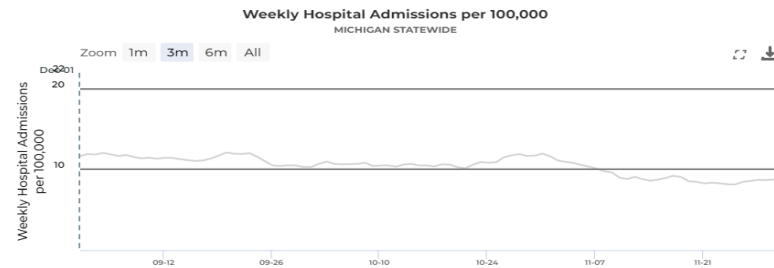
Statewide trends

Reproductive Number, R_t



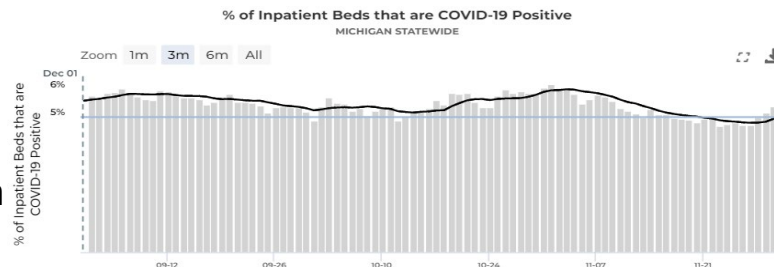
Current: 1.16
Last Week: 0.78

Hospital Admissions



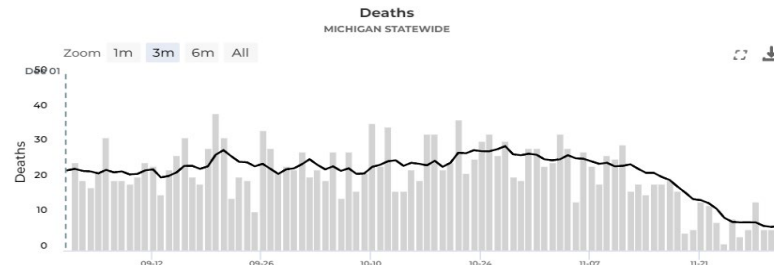
Current: 8.8
Last Week: 8.8

Daily hospitalization rate, %



Current: 5.0%
Last Week: 4.9%

Deaths

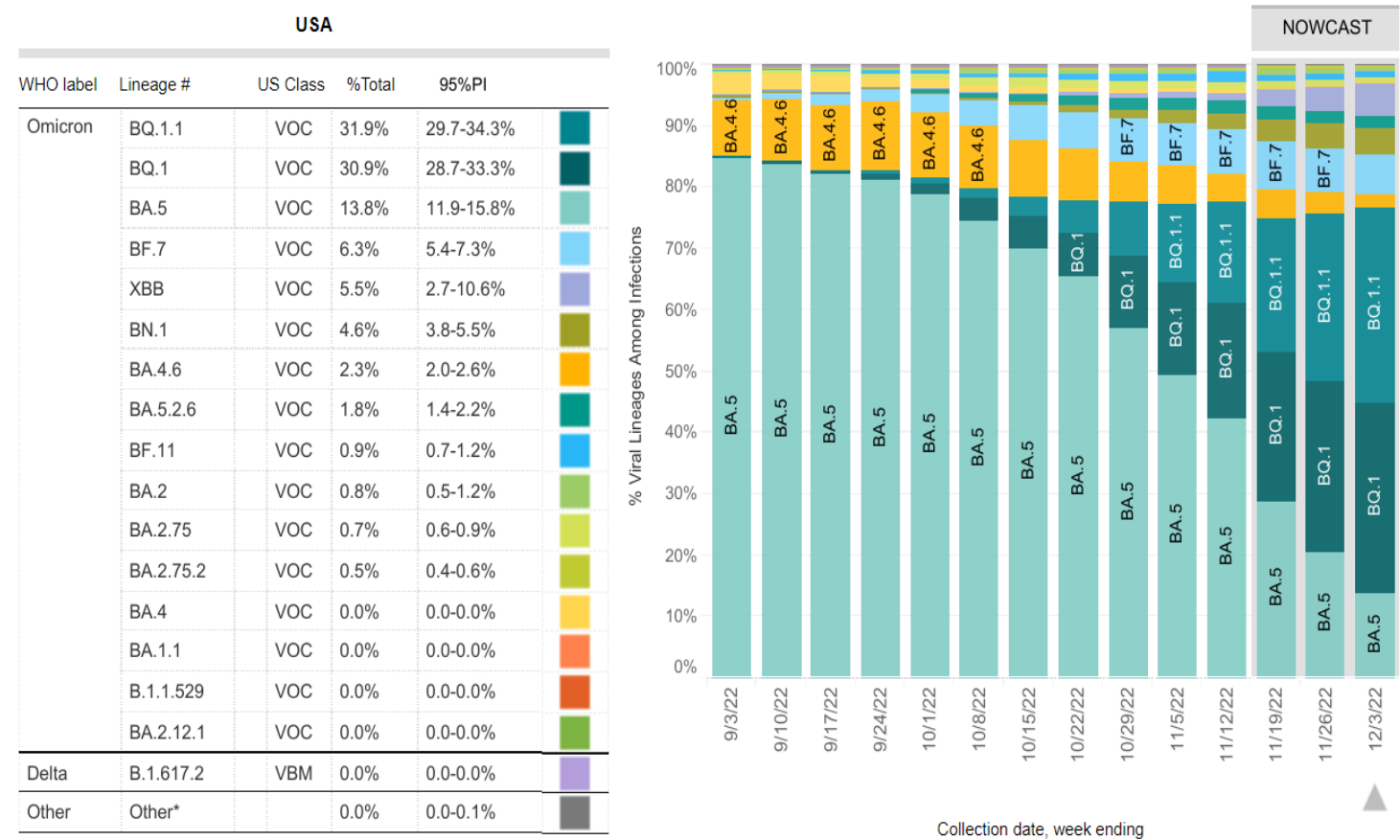


Current: 0.8
Last Week: 1.7

- The reproductive number (R_t) in Michigan is currently above 1 indicating potential increase, however data is incomplete
- There are an average of 8.8 hospital admissions per 100,000 Michiganders day which is steady from last week
- The percent of inpatient beds that have patients diagnosed with COVID-19 have seen a slight increase for past week
- Deaths are a lagging indicator but remain steady compared to last week

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, Aug 28 – Dec 3 (NOWCAST)



National Distribution

- 100% of the VOC currently circulating in the U.S. are Omicron
- Nowcast estimates project that BA.5 sublineages of BQ.1.1 (31.9%) and BQ.1 (30.9%) are most prevalent during the weekend ending on December 3

Distribution in Michigan

- Since November 1, there have 1,096 VOC specimens sequenced
- 100% of specimens sequenced are Omicron
 - Since November 1, 88% of specimens sequenced and reported (n=969) have been identified as BA.5; of which 10.1% of those specimens are BF.7 (n=98), 7.8% have been identified as BQ.1 (n=76), and 11.7% as BQ.1.1 (n=113)

* 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.

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*
69.1% of total population have initiated the primary series*

Race/Ethnicity[†] for those 6 months and older:

- Up-to-date coverage is highest among those of Non-Hispanic (NH) White (12.7%), then NH Asian, Native Hawaiian or Pacific Islander Race (10.3%), then NH American Indian (9.2%), NH Black or African American Races (6.2%).
- Initiation is at 7.2% for those of Hispanic ethnicity

Updated Booster Coverage

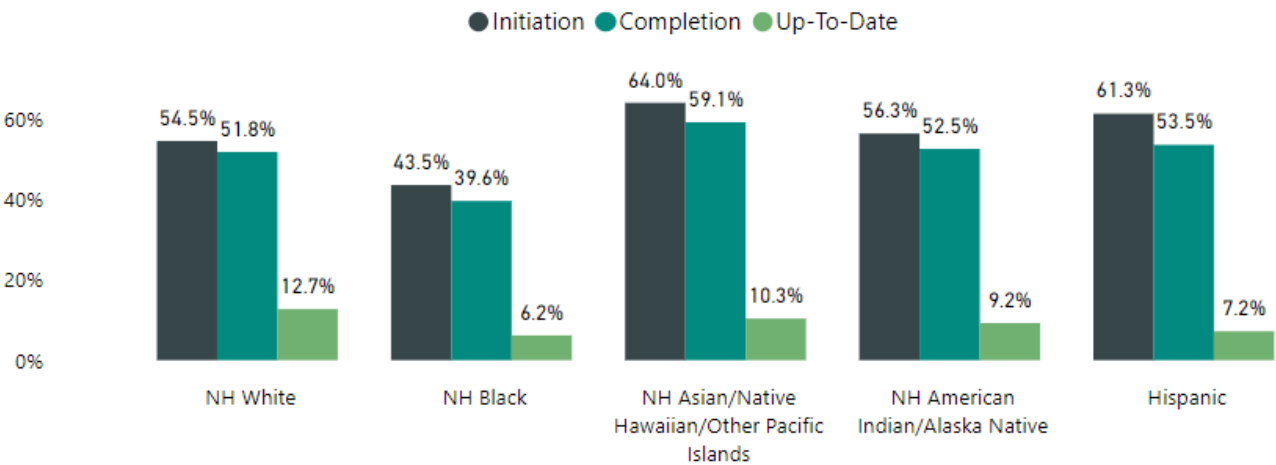
The percentage of Michiganders who have received the updated (bivalent) booster is higher than national percentages for all reported age groups
37.1% of the population 65 years of age or older has received an updated (bivalent) booster
14.2% of Michiganders ages 5 years and older have received their 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	69.1%	62.0%	NA	NA	6,193,737
≥ 5 years	73.0%	65.6%	14.2%	12.7%	6,181,933
≥ 12 years	76.9%	69.2%	15.4%	13.8%	5,949,607
≥ 18 years	79.1%	71.2%	16.4%	14.7%	5,583,222
≥ 65 years	95.0%	91.0%	37.1%	32.6%	1,607,373

**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*

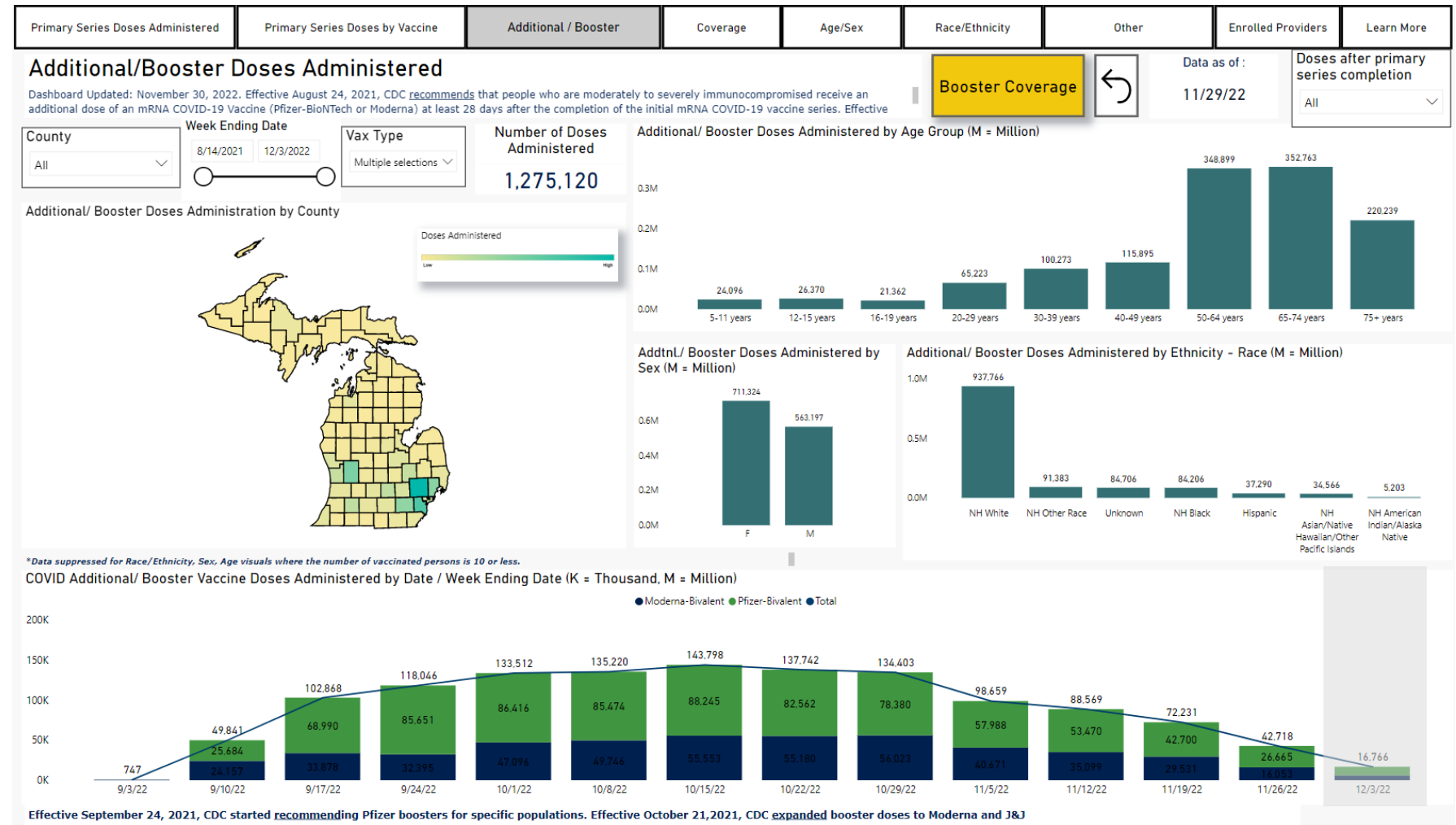


Source: *[CDC COVID Data Tracker > Vaccinations in the US](#), [†] [MCIR COVID-19 Vaccine Dashboard](#)

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 11/29[†], 1,275,120 Michiganders had received their bivalent booster
- Note: the data for the week ending 12/3 would have been incomplete on the date the dashboard was last refreshed (11/29) 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

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, 14.2% of those 5 and older have received their bivalent vaccine; and 37.1% of those over 65 years have received their bivalent booster



An updated (bivalent) COVID-19 booster provides *additional protection* against symptomatic COVID-19 illness*

COVID-19 spread has increased during the last two winters; stay up to date with COVID-19 vaccination

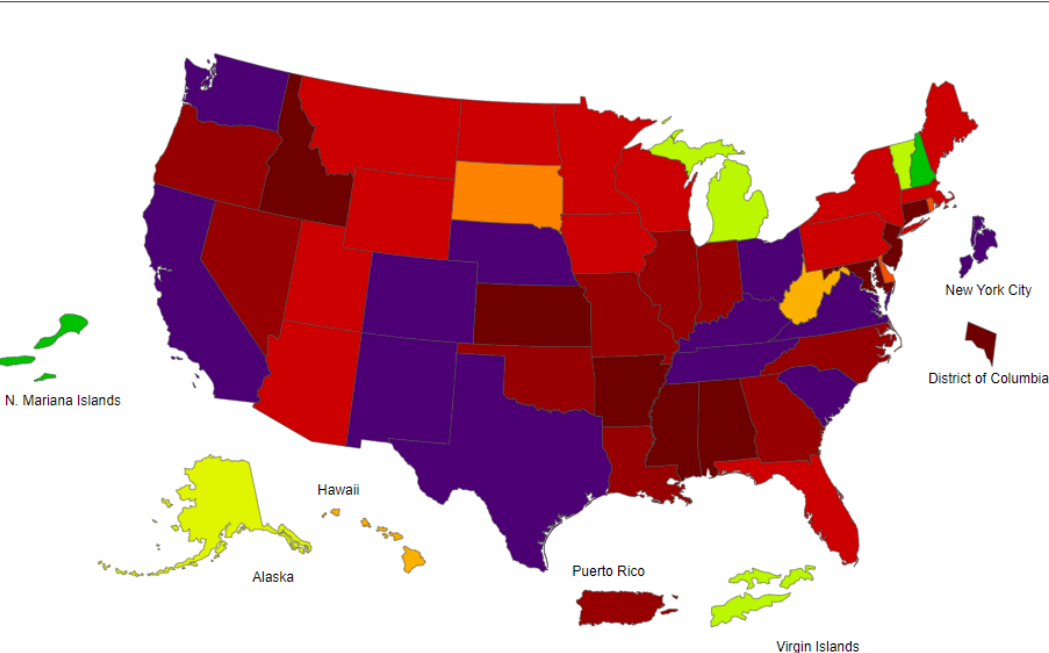
* Among immunocompetent adults with COVID-19-like symptoms, the vaccination status of 121,687 adults with a positive COVID-19 test was compared to that of 238,939 adults with a negative COVID-19 test

bit.ly/mm7148e1
NOVEMBER 22, 2022

MMWR

It's National Influenza Vaccination Week

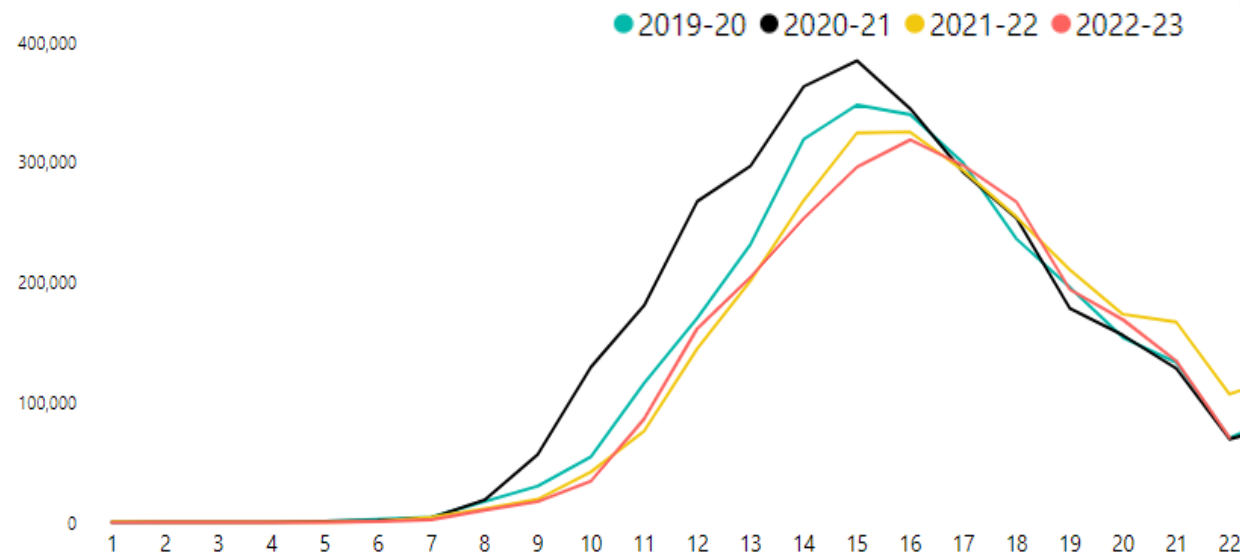
2022-23 Influenza Season Week 47 ending Nov 26, 2022



ILI Activity Level



Administration Trend Compared to Past Seasons



- The U.S. is experiencing an earlier than normal influenza season with activity is high in most of the U.S. and is increasing in Michigan
- Seasonal flu vaccination coverage in Michigan is lagging previous years with 2.5 million Michiganders vaccinated for influenza through 11/26/2022 (67.8% towards the 4 million goal set for the 2022-23 flu season)
- All Michiganders should pursue seasonal influenza vaccination BEFORE Influenza Activity in Michigan catches up to the rest of the U.S., especially older adults and children who are at greatest risk of severe flu complications

<https://www.cdc.gov/flu/resource-center/nivw/activities.htm>

<https://www.cdc.gov/flu/weekly/index.htm>

<https://www.michigan.gov/difs/news-and-outreach/press-releases/2022/12/05/mdhhs-recognizes-national-influenza-vaccination-week-dec-5-9>

<https://www.michigan.gov/flu/surveillance>

<https://www.michigan.gov/flu/flu-dashboard>