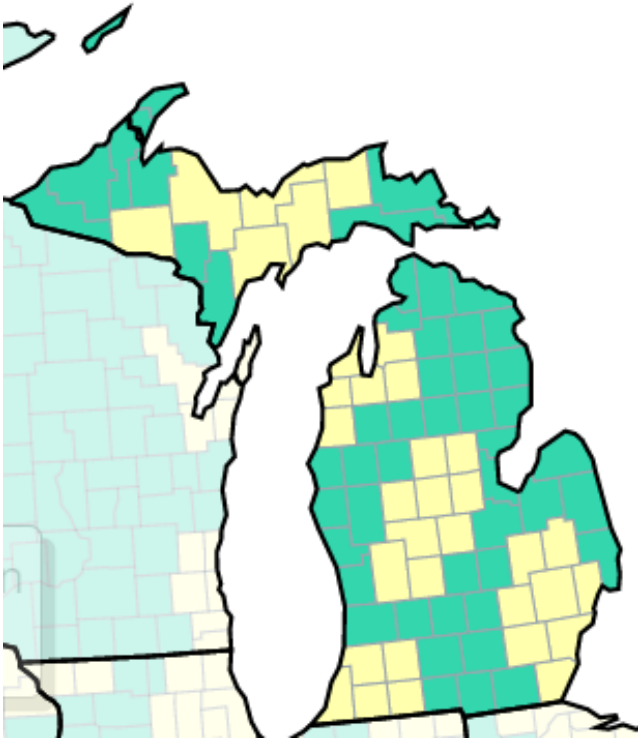




MI COVID RESPONSE DATA AND MODELING UPDATE

January 17, 2023

As of Jan 12, No Michigan Counties are at High COVID-19 Community Level



- In the US, 14% 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
- 34 Michigan counties are currently at Medium level (41%). This represents 71% of the population
- 49 Michigan counties are currently at Low level (59%). This represents 29% of the population

Percent of Counties This Week

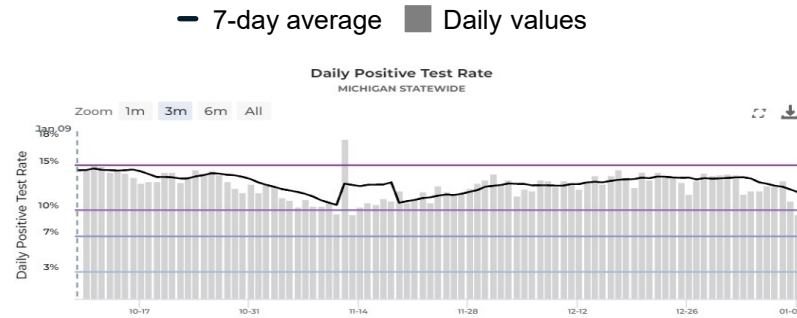
	United States	Michigan	Percent of MI Population
Low	48%	59%	29%
Medium	38%	41%	71%
High	14%	0%	0%

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

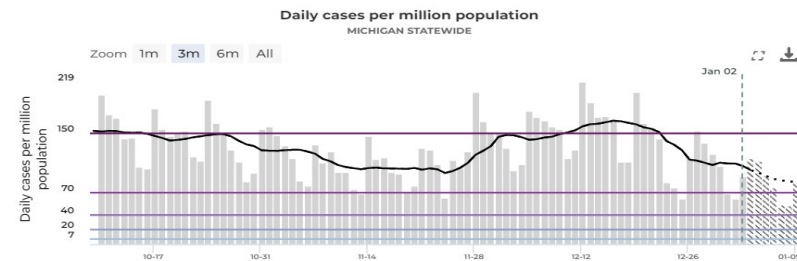
Recent statewide COVID trends are plateaued

Statewide trends

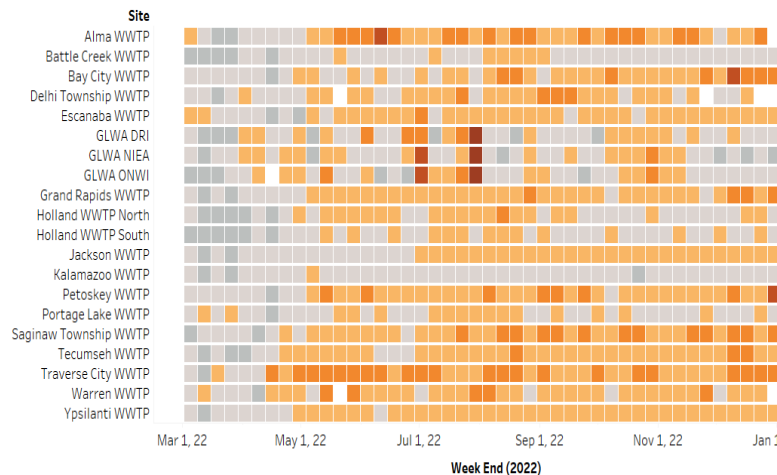
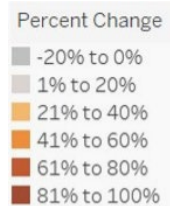
Positivity, %



Daily cases per million



Wastewater

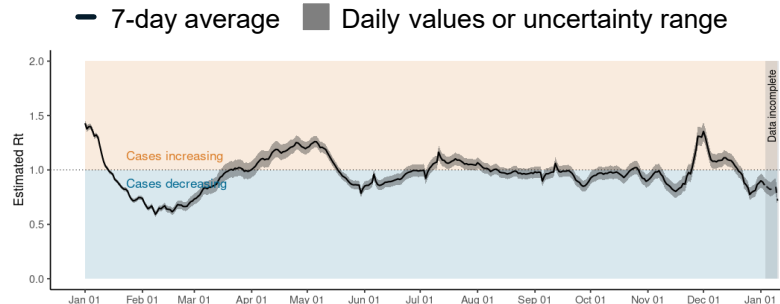


- Test percent positivity, is slightly down compared to last week
- Case rates have increased since last week, but general trend the past several weeks is a slight decline
- 5 counties are currently showing increases in cases and an additional 8 reported an elevated incidence plateau in case rates (via mistartmap.info as of 1/12/23, data through 1/2/23)
- 52% (9/17) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week

Recent statewide COVID trends are plateaued

Statewide trends

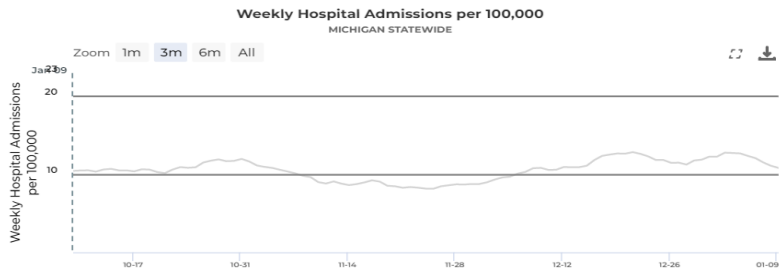
Reproductive Number, R_t



Current: 0.86

Last Week: 0.77

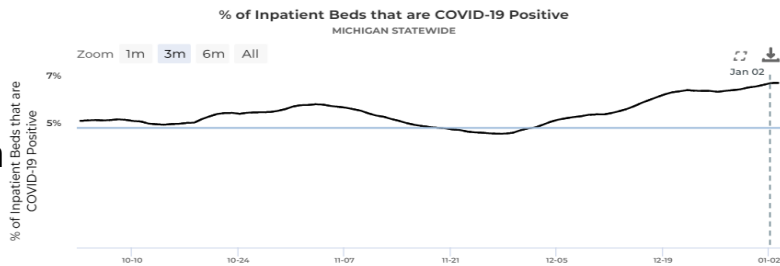
Hospital Admissions



Current: 10.8

Last Week: 12.8

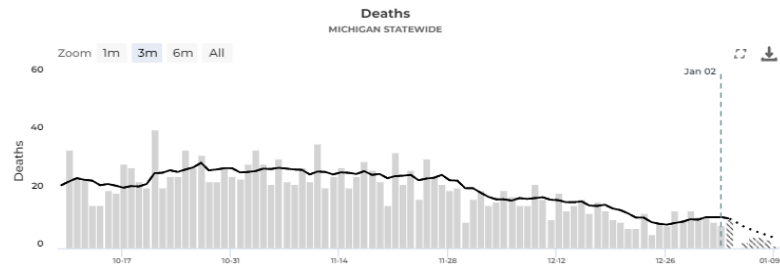
Daily hospitalization rate, %



Current: 6.5%

Last Week: 6.9%

Deaths



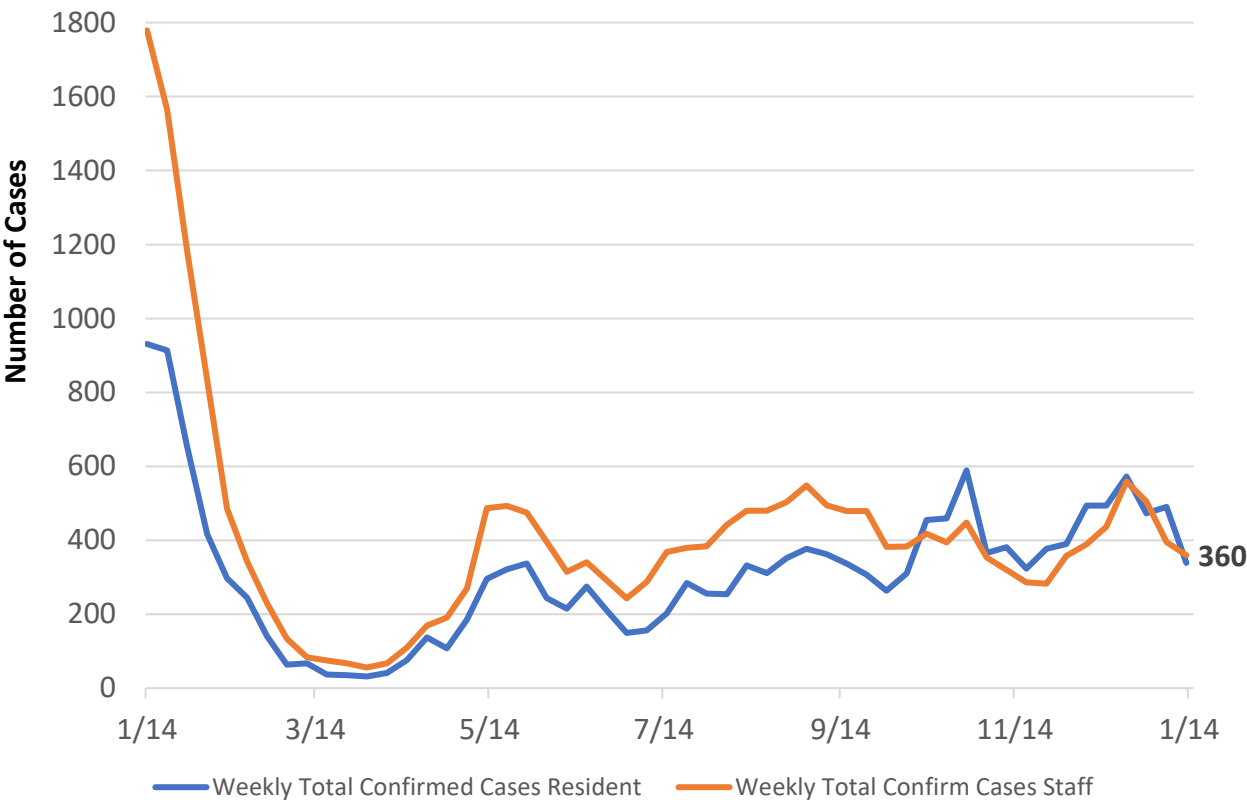
Current: 1.0

Last Week: 0.2

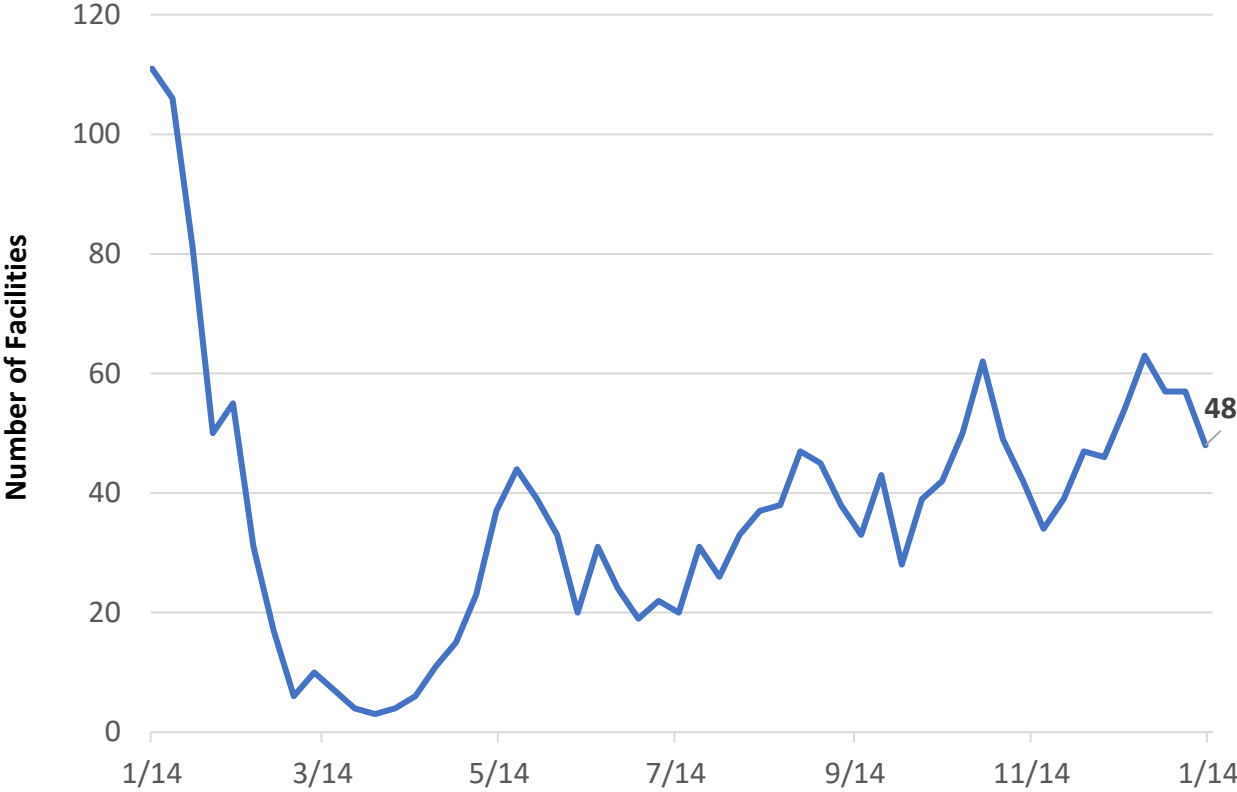
- The reproductive number (R_t) in Michigan is just below 1 indicating slight decline
- There are an average of 10.8 hospital admissions per 100,000 Michiganders day which is a decrease from last week
- The percent of inpatient beds that have patients diagnosed with COVID-19 have seen a slight decrease from the past week
- Deaths are a lagging indicator but are plateaued some over the past week

COVID-19 Cases Among Staff and Residents in Long Term Care Facilities

STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN SNF
RESIDENTS AND STAFF
01/14/2022 TO 01/13/2023



Number of SNFs with 3 or more Confirmed Cases
01/14/2022 TO 01/13/2023



- Case counts decreased in SNF residents (490 to 339) in SNF staff (395 to 360) since last week [left graph]
- The number of SNF facilities reporting 3 or more cases has declined since last week (57 to 48) [right graph]
- Currently, **27%** of SNFs are reporting **nursing shortages** and **28%** of SNFs are reporting **aide shortages**, which is plateaued since end of July

Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

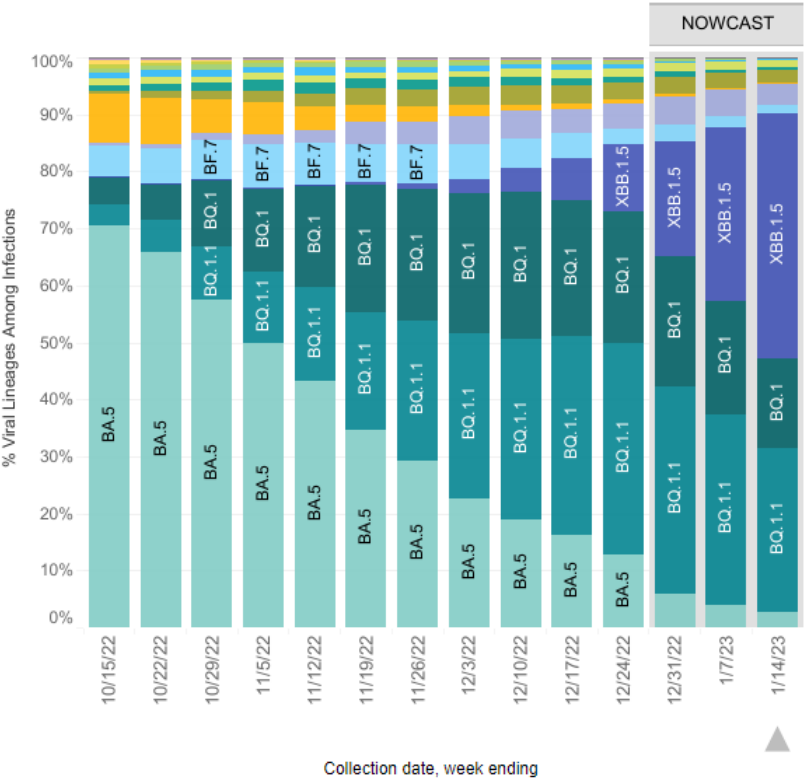
The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan: XBB.1.5 sublineage increasing the fastest SARS-CoV-2 Variants Circulating in the United States, Oct 9 – Jan 14 (NOWCAST)

United States: 1/8/2023 – 1/14/2023 NOWCAST

United States: 10/9/2022 – 1/14/2023

USA					
WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	XBB.1.5	VOC	43.0%	26.4-61.1%	
	BQ.1.1	VOC	28.8%	20.5-38.7%	
	BQ.1	VOC	15.9%	11.0-22.2%	
	XBB	VOC	3.9%	3.0-5.1%	
	BA.5	VOC	2.6%	1.8-3.7%	
	BN.1	VOC	2.1%	1.5-3.1%	
	BF.7	VOC	1.4%	0.9-2.1%	
	BA.2.75	VOC	1.3%	0.8-1.9%	
	BA.5.2.6	VOC	0.5%	0.3-0.8%	
	BA.2	VOC	0.2%	0.1-0.4%	
	BF.11	VOC	0.2%	0.1-0.3%	
	BA.4.6	VOC	0.1%	0.1-0.2%	
	BA.2.75.2	VOC	0.1%	0.0-0.1%	
	BA.1.1	VOC	0.0%	0.0-0.0%	
	BA.4	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*		0.0%	0.0-0.0%	



National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that BA.2 recombinant sublineage XBB.1.5 (43.0%, 95% P.I. 26.4-61.1%), as well as the BA.5 sublineages of BQ.1.1 (28.8%, 95% P.I. 20.5-38.7%), and BQ.1 (15.9%, 95% P.I. 11.0-22.2%) are most prevalent during the week ending on January 14

Distribution in Michigan

- Since December 1, there have 1,671 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
 - Since December 1, 90.5% of specimens sequenced and reported (n=1,513) have been identified as BA.5; of which 11.5% of those specimens are BF.7 (n=174), 20.9% have been identified as BQ.1 (n=316), and 41.4% as BQ.1.1 (n=627);
- Twenty-one cases of XBB.1.5 identified in Michigan and has been detected in 6 of the 8 preparedness regions

* 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. Except XBB.1.5, sublineages of XBB are aggregated to XBB. For all the lineages listed in the above table, their sublineages are aggregated to the listed parental lineages respectively. Previously, XBB.1.5 was aggregated to XBB. Lineages BA.2.75.2, XBB, XBB.1.5, BN.1, BA.4.6, BF.7, BF.11, BA.5.2.6 and BQ.1.1 contain the spike substitution R346T.

95% P.I. = 95% prediction interval

Data last updated January 17, 2023

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 6.2 Million Michiganders have completed the primary series – 62.2% of the total population

Vaccination Coverage

Over 6.2 million people in MI have completed the primary series*

91.3% of people aged 65 and older in MI have completed the primary series*

69.3% of the total MI 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 (14.8%), then NH Asian, Native Hawaiian or Pacific Islander Race (13.4%), then NH American Indian (11.1%), NH Black or African American Races (7.7%).
- Initiation is at 9.0% 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

43.1% of the population 65 years of age or older has received an updated (bivalent) booster

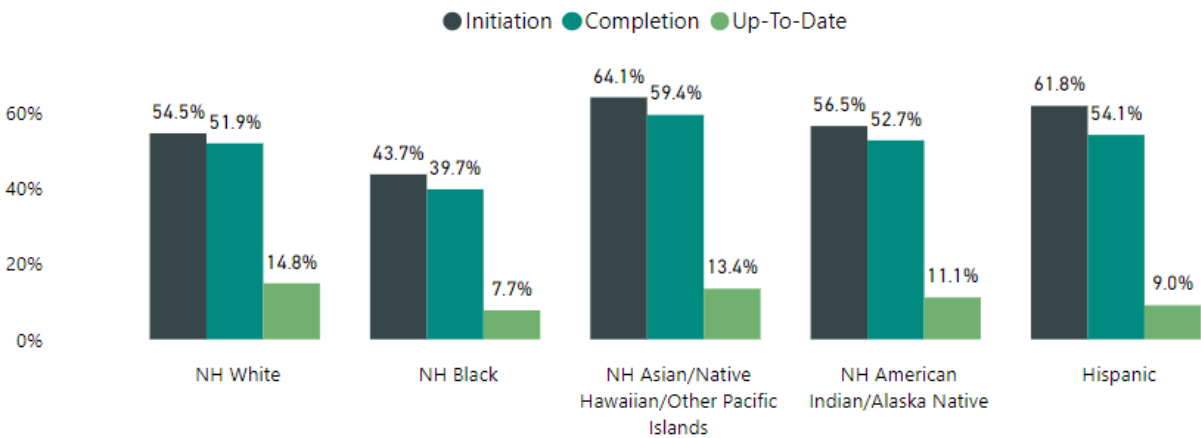
17.1% of Michiganders ages 5 years and older have received their updated (bivalent) booster dose

Vaccination Coverage in Michigan as of 1/11/2023

Age Group	% At Least One Dose	% Completed Primary Series	% Updated Booster**	U.S. % Boosted**	Primary Series Total
Total Population	69.3%	62.2%	NA	NA	6,213,629
≥ 5 years	73.2%	65.8%	17.1%	15.9%	6,200,247
≥ 12 years	77.1%	69.4%	18.4%	17.1%	5,966,106
≥ 18 years	79.4%	71.4%	19.6%	18.2%	5,598,756
≥ 65 years	95.0%	91.3%	43.1%	39.0%	1, 611,626

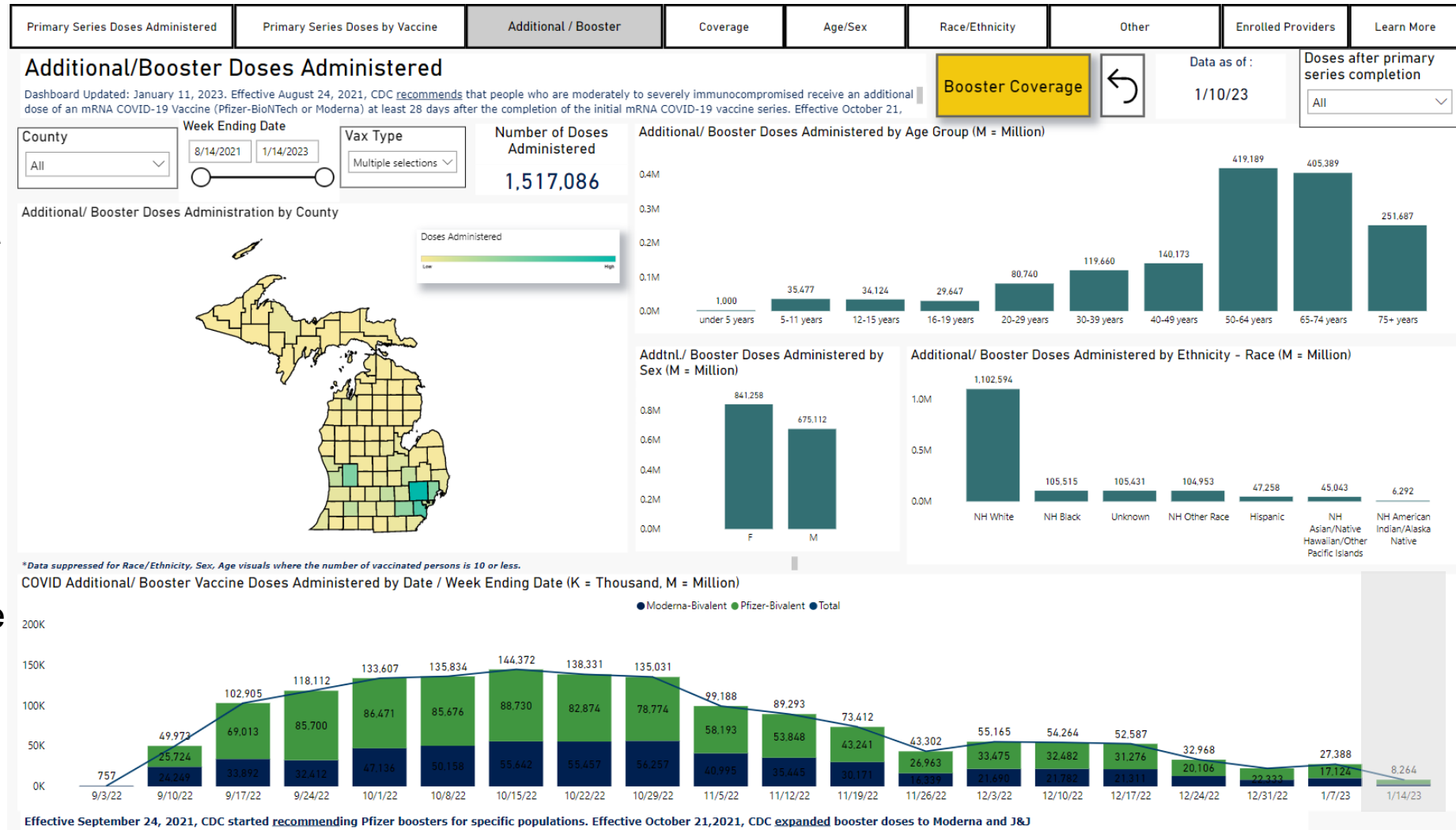
**This shows the percentage of all residents ages 5 years and older in a jurisdiction (state, territory, national) with an updated (bivalent) booster dose. Non-residents who received vaccine are attributed to their jurisdiction of residence.

Coverage by Race*



Bivalent Administration

- FDA has authorized and CDC now recommends expanding the use of the updated bivalent COVID-19 vaccines to everyone over the age of 6 months.*
- As of 1/10[†], 1,517,086 Michiganders had received their bivalent booster
- Note: the data for the week ending 1/14 would have been incomplete on the date the dashboard was last refreshed (1/10)



● Moderna Bivalent ● Pfizer Bivalent

* [CDC Expands Updated COVID-19 Vaccines to Include Children Ages 6 Months through 5 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](#)

Two Years of U.S. COVID-19 Vaccines Have Prevented Millions of Infections, Hospitalizations, and Deaths; Bivalent Booster Provide Additional Protection Especially for Vulnerable Populations

- COVID-19 vaccines have been available since December 2020 with 660 million doses administered in the U.S. (source: CDC COVID Data Tracker)
- Nearly 81% has received at least 1 dose, 69% has completed the primary series, and 14% have received the updated bivalent booster
- The Commonwealth fund estimates that vaccination has had the cumulative effect of preventing an additional 119 million infections, 18 million hospitalizations and 3 million deaths
- Bivalent booster doses provided additional protection against COVID-19–associated emergency department/urgent care encounters and hospitalizations in persons who previously received 2, 3, or 4 monovalent vaccine doses
- Among immunocompetent adults aged ≥65 years hospitalized in one study, a bivalent booster dose provided 73% additional protection against COVID-19 hospitalization compared with past monovalent mRNA vaccination only
- **Key Message:** All persons should stay up to date with recommended COVID-19 vaccinations, including receiving a bivalent booster dose if eligible
 - To maximize protection against severe COVID-19 this winter season, vulnerable populations should receive a bivalent booster dose
 - Vaccination, along with additional prevention strategies including masking in indoor public settings, can further prevent spread of SARS-CoV-2 and other respiratory illnesses



Sources:

- Surie D, DeCuir J, Zhu Y, et al. Early Estimates of Bivalent mRNA Vaccine Effectiveness in Preventing COVID-19–Associated Hospitalization Among Immunocompetent Adults Aged ≥65 Years — IVY Network, 18 States, September 8–November 30, 2022. MMWR Morb Mortal Wkly Rep. ePub: 16 December 2022. DOI: <http://dx.doi.org/10.15585/mmwr.mm715152e2>
- Tenforde MW, Weber ZA, Natarajan K, et al. Early Estimates of Bivalent mRNA Vaccine Effectiveness in Preventing COVID-19–Associated Emergency Department or Urgent Care Encounters and Hospitalizations Among Immunocompetent Adults — VISION Network, Nine States, September–November 2022. MMWR Morb Mortal Wkly Rep. ePub: 16 December 2022. DOI: <http://dx.doi.org/10.15585/mmwr.mm715152e1>
- Fitzpatrick MC, Moghadas SM, Abhishek A, Galvani AP. Two Years of U.S. COVID-19 Vaccines Have Prevented Millions of Hospitalizations and Deaths. The Commonwealth Fund. December 13, 2022. <https://www.commonwealthfund.org/blog/2022/two-years-covid-vaccines-prevented-millions-deaths-hospitalizations>. Accessed December 19, 2022.