

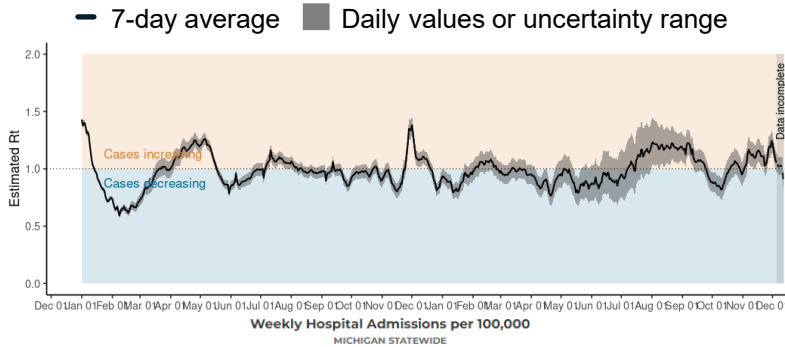
MI COVID RESPONSE DATA AND MODELING UPDATE

December 19, 2023

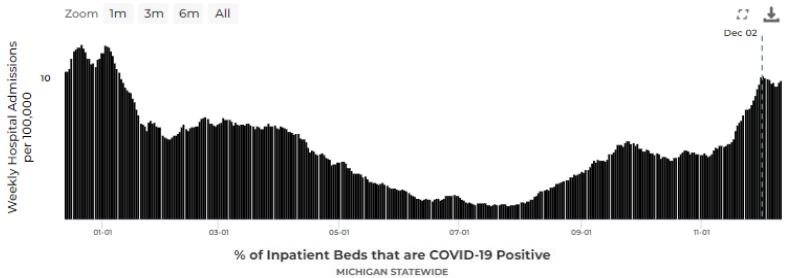
Recent statewide trends show COVID is elevated and increasing

Statewide trends

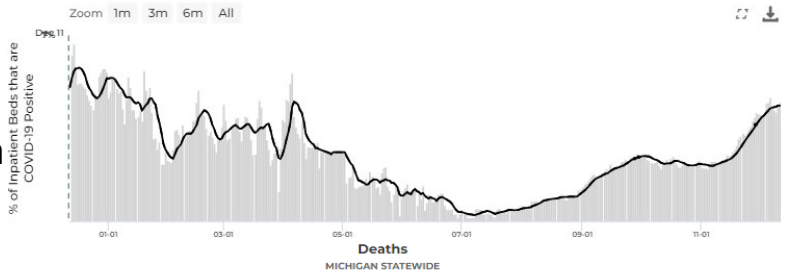
Reproductive Number, R_t



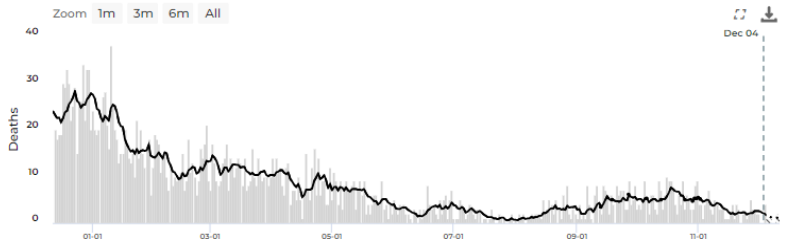
Hospital Admissions



Daily hospitalization rate, %



Deaths

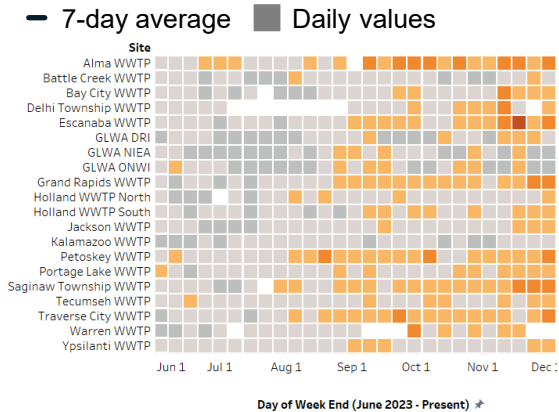


- The reproductive number (R_t) in Michigan is just above 1 indicating cases are moderately increasing.
- There has been a daily average of 10.3 hospital admissions per 100,000 Michiganders. This is steady from last week.
- The percent of inpatient beds with COVID-19 positive patients (4.5%) are increasing from last week.
- Deaths are a lagging indicator but remain similar to rates from last week.

Recent statewide trends show COVID is elevated and increasing

Statewide trends

Wastewater

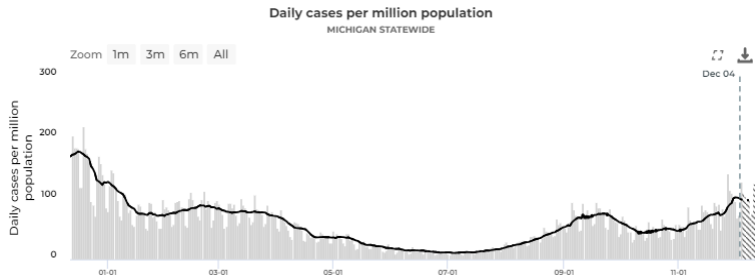


Current: 74% of sites are above 20% baseline threshold

Last Week: 78% of sites are above 20% baseline threshold

- 74% (14/19) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week.

Daily cases per million

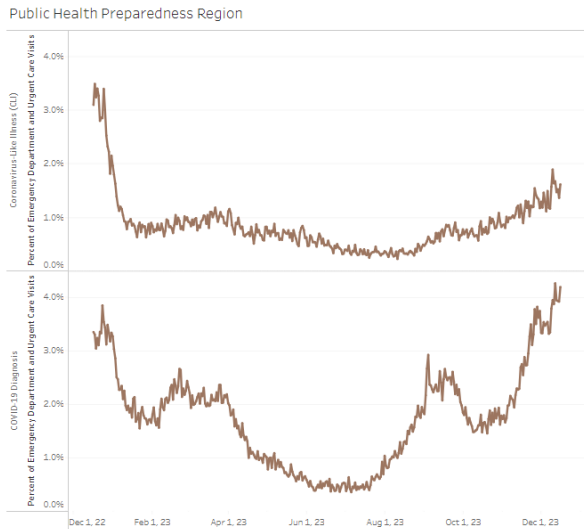


Current: 98.4

Last Week: 91.6

- Reported case rates increased from last week.

Syndromic Surveillance



Coronavirus-Like-Illness (CLI)

Current: 1.6%

Last Week: 1.6%

COVID-19 Diagnosis

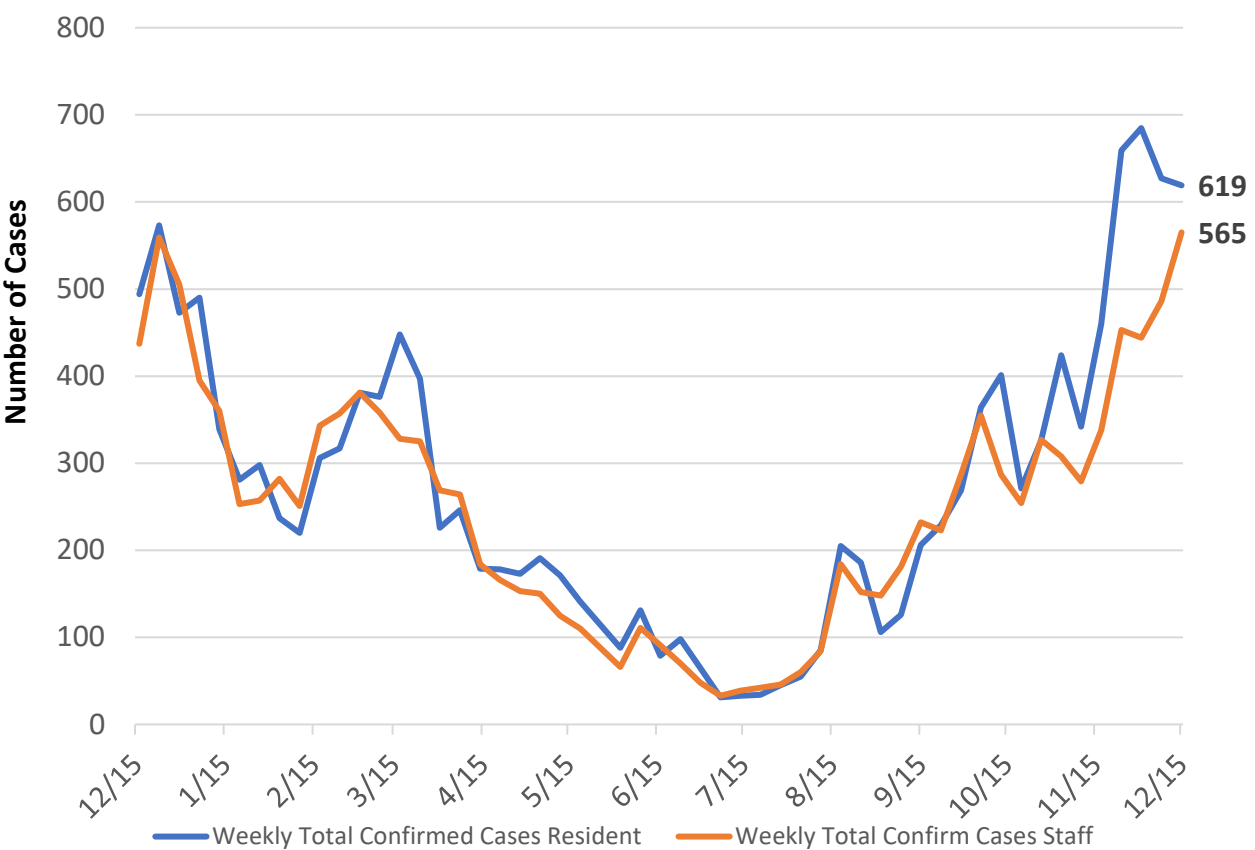
Current: 4.2%

Last Week: 3.6%

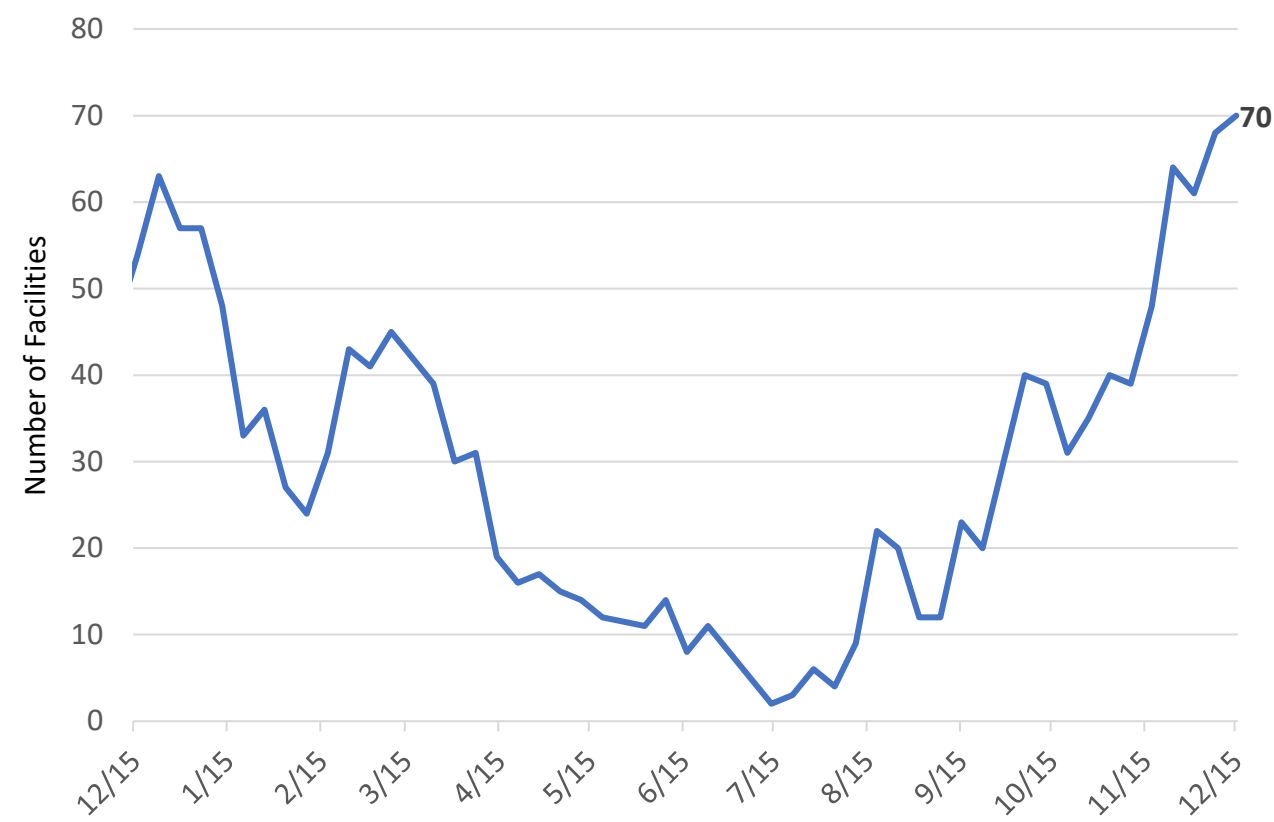
- COVID-19 diagnoses in emergency departments and urgent cares are higher than last week.

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 12/16/2022 to 12/15/2023



Number of SNFs with 3 or more Confirmed Cases
12/16/2022 to 12/15/2023



- Case counts decreased in SNF residents (627 to 618) but increased in SNF staff (486 to 565) since last week [left graphic]
- The number of SNF facilities reporting 3 or more cases increased compared to last week (68 to 70) [right graphic]

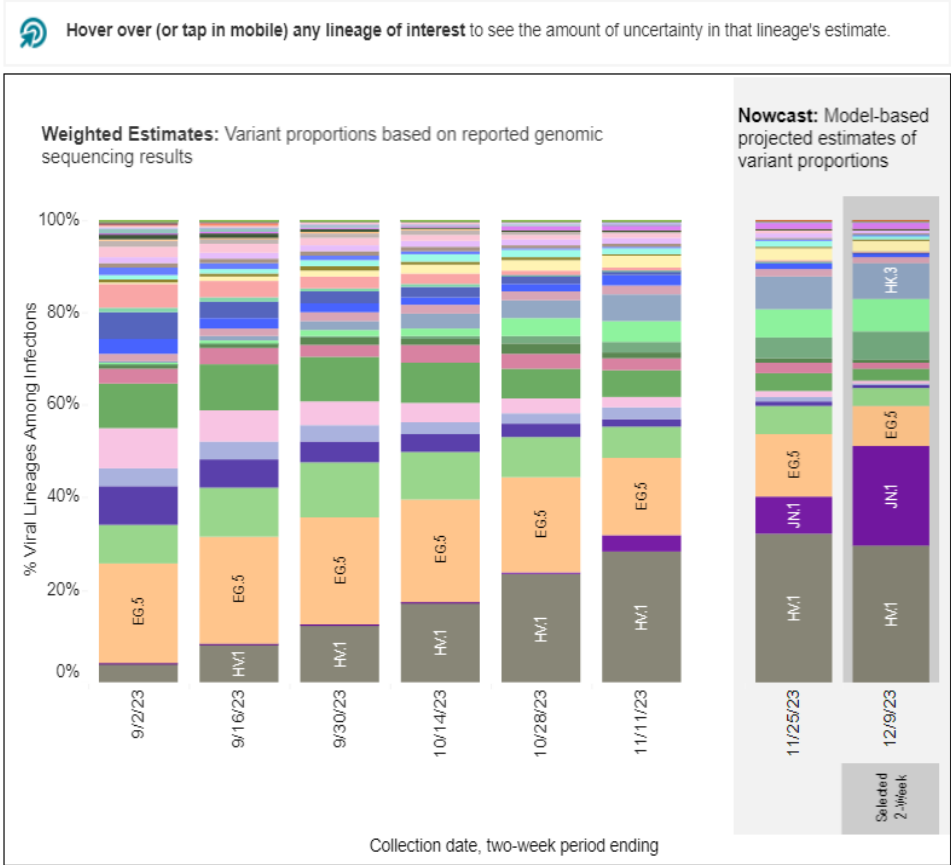
Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan: Omicron lineages continue to evolve; all competing for predominance

SARS-CoV-2 Variants Circulating in the United States, Aug 26 – Dec 9 (NOWCAST)

Weighted and Nowcast Estimates in United States for 2-Week Periods in 8/20/2023 – 12/9/2023

Nowcast Estimates in United States for 11/26/2023 – 12/9/2023



USA			
WHO label	Lineage #	%Total	95%PI
Omicron	HV.1	29.6%	26.6-32.7%
	JN.1	21.4%	15.1-29.4%
	EG.5	8.8%	7.6-10.1%
	HK.3	7.7%	6.3-9.2%
	JD.1.1	7.2%	5.8-8.8%
	JG.3	6.2%	4.6-8.2%
	FL.1.5.1	3.8%	3.4-4.4%
	XBB.1.16.6	2.3%	1.8-3.0%
	JF.1	2.3%	1.7-3.1%
	BA.2.86	1.6%	1.0-2.5%
	XBB.1.16.11	1.3%	0.9-1.8%
	XBB.1.9.1	1.1%	0.6-2.1%
	HF.1	1.1%	0.7-1.6%
	GK.1.1	0.9%	0.7-1.2%
	XBB.1.5.70	0.7%	0.5-1.0%
	XBB.1.16.15	0.7%	0.4-1.0%
	XBB.2.3	0.6%	0.5-0.8%
	XBB.1.16	0.5%	0.3-0.8%
	XBB	0.5%	0.4-0.6%
	GE.1	0.3%	0.2-0.5%
	GK.2	0.3%	0.2-0.4%
	XBB.1.16.1	0.2%	0.1-0.3%
	EG.6.1	0.1%	0.1-0.2%
	XBB.1.5	0.1%	0.1-0.2%
	CH.1.1	0.1%	0.1-0.2%
	XBB.1.42.2	0.1%	0.0-0.1%
	XBB.1.5.68	0.1%	0.0-0.1%
Other	XBB.2.3.8	0.1%	0.0-0.2%
	XBB.1.9.2	0.0%	0.0-0.1%
	XBB.1.5.72	0.0%	0.0-0.0%
	XBB.1.5.59	0.0%	0.0-0.0%
	XBB.1.5.10	0.0%	0.0-0.0%
Other	FD.1.1	0.0%	0.0-0.0%
	XBB.1.5.1	0.0%	0.0-0.0%
Other	Other*	0.1%	0.0-0.2%

National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that HV.1 (29.6%, 95% P.I. 26.6-32.7%) is the most prevalent, while JN.1, a BA.2.86 sub-lineage, comprise of approximately 21.4% of infections (95% P.I. 15.1-29.4%), while all other lineages are estimated to comprise of less than 10% during the week ending on December 9.

Distribution in Michigan

- Since October 15, there have been 331 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
 - Since October 15, a majority of specimens sequenced and reported have been identified as XBB or one of the child lineages; currently 23.9% of specimens have been identified as HV.1, the highest of any of the XBB lineages in Michigan

95% P.I. = 95% prediction interval

Data last updated Dec 12, 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

Surveillance for Respiratory Diseases: Important to Remain Vigilant

Michigan Emergency Department Visits for COVID-19, Influenza and RSV* (top graphic)

The most recent number of ED visits in Michigan for all three respiratory illnesses combined are moderately higher than the previous week

The current number of ED visits for all three respiratory illness combined is higher than what we saw during the summer but lower than this time last year (December 2022)

For most of 2023, COVID-19 has contributed to the majority of ED visits compared to influenza and RSV; in Michigan, the past week has seen COVID consisting of around 64% of ED visits for these three respiratory illnesses (down from 72%).

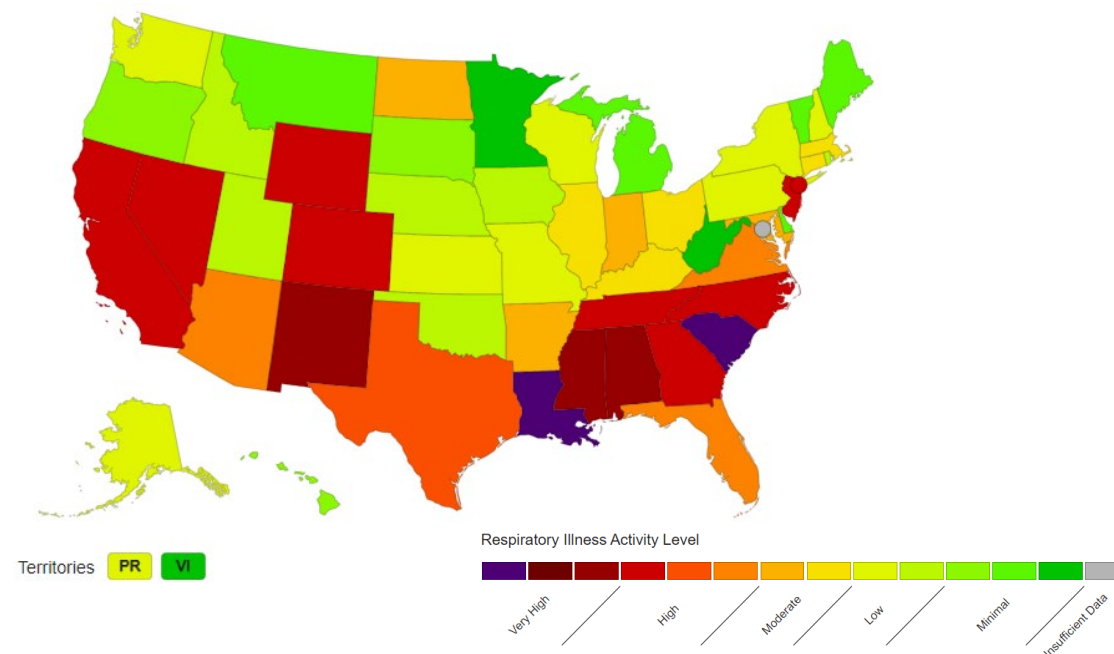
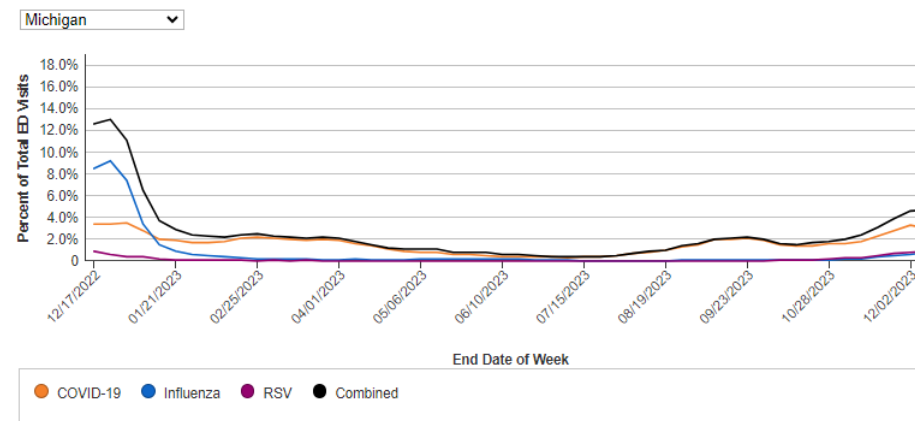
National Respiratory Season Outlook† (bottom graphic)

The amount of respiratory illness (fever plus cough or sore throat) causing people to seek healthcare is elevated or increasing across most areas of the country. In Michigan, respiratory illness activity level is minimal.

The U.S. is experiencing elevated RSV activity, particularly among young children. COVID-19 activity remains elevated overall and is increasing in areas like the Midwest. Seasonal influenza activity is elevated and increasing in most parts of the country, with the southeast, south-central and west coast regions of the country reporting the highest levels of activity.

Weekly Emergency Department Visits by Viral Respiratory Illness Type and State, as a Percent of All Emergency Department Visits

Make a selection from the filters to change the visualization information.



Vaccination Coverage Against COVID-19 is Low but Increasing

Vaccination continues to remain the best way to protect yourself and your loved ones against serious outcomes from COVID-19

Vaccination Administration with 2022-2023 Bivalent Booster Formulation (upper right graphic) in Michigan

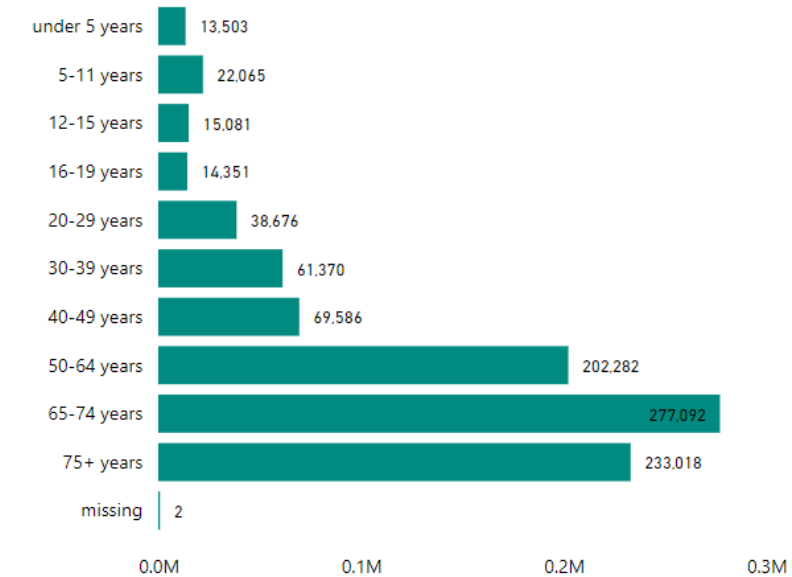
There have been 277,092 doses of 2023 Moderna, Novavax, and Pfizer formulations administered to Michiganders 65 to 74 years, the highest of any group; followed by those 75 years and older (233K) and 50-64 years (202K). Less than 15,000 doses have been administered to those under 5 years of age.

Race/Ethnicity[†] for those 6 months and older with 2023-2024 Vaccine Formulation (lower right)

- Up-to-date coverage is highest among Non-Hispanic (NH) White (10.2%), followed by NH Asian, Native Hawaiian or Pacific Islander Race (9.7%), NH American Indian (7.9%), and NH Black or African American races (5.1%).
- Up-to-date coverage is at 4.6% for Hispanics

Effective September 24, 2021, CDC started recommending Pfizer boosters for specific populations. Effective October 21, 2021, CDC expanded booster doses to Moderna and J&J

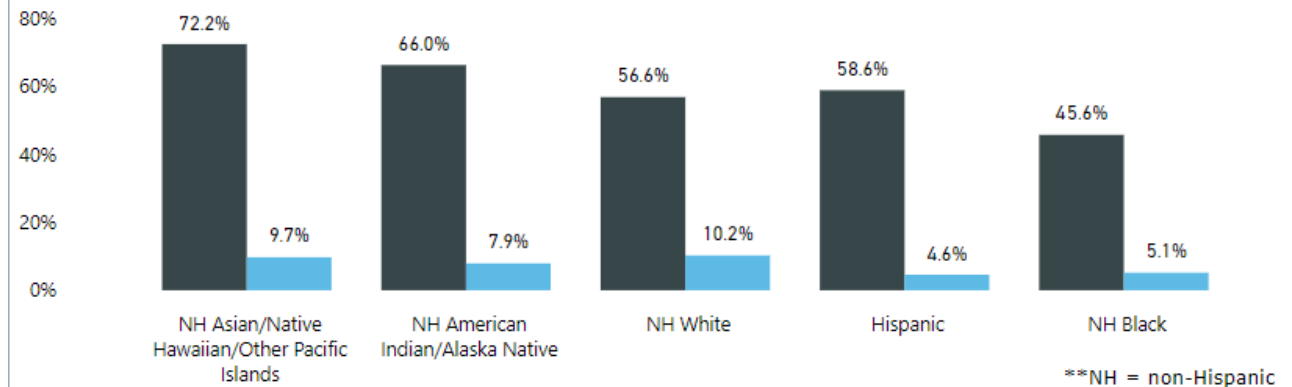
Doses Administered by Age Group (M = Million)



Coverage by Race/Ethnicity^{**}

Update through December 9, 2023




● At Least One Dose ● Updated 2023-2024





Fall and Winter Virus Season





Stop the spread of viruses by washing hands, covering coughs and sneezes, and staying home if feeling unwell.

	VACCINES	PROTECTIVE ANTIBODIES	TESTING	THERAPEUTICS
INFLUENZA 	Available for ages 6 months and up.	N/A	Available in clinical settings.	Available.
COVID-19 	Available for ages 6 months and up.	N/A	At-home tests or tests in clinical settings.*	Available.
RSV 	Available for ages 60 years and up or for pregnant people.	Available for infants.	Recommended for certain high-risk groups.	Limited; only for certain high-risk groups.

Speak to your health care provider or visit Michigan.gov/COVIDFluRSV for more information.

**Order free at-home tests at COVIDTests.org.*

Fall 2023 Vaccines

	WHAT ARE THE OPTIONS?	WHO IS ELIGIBLE?	HOW WELL DO THEY WORK?	WHEN SHOULD I GET IT?
INFLUENZA 	Vaccine targets four strains of seasonal flu.	6 months and older.	Reduces the risk of going to the doctor by 53%.	October is ideal, as protection wanes over a season.
COVID-19 	Updated vaccine targets XBB, an omicron variant. <i>Multiple options available.</i>	6 months and older.	Last fall, the COVID-19 vaccine provided 40-60% effectiveness against severe disease.	Protection against severe disease: Get now. Recently infected? Consider delaying the vaccine for three months from symptom onset or positive test based on personal risk.
RSV 	<i>Multiple options available.</i>	60 years and older. Pregnant people.	82-86% efficacy against severe disease.	Now, based on consultation with health care provider. Approved for pregnant people 32-36 weeks gestation.
RSV PROTECTIVE ANTIBODY 	Note: This is not a vaccine, but a proactive medication that provides antibodies.	All infants younger than 8 months and high-risk infants 8-19 months.	Reduces risk of hospitalizations and health care visits by approximately 80%.	Will be available soon. Protection lasts at least 5 months.