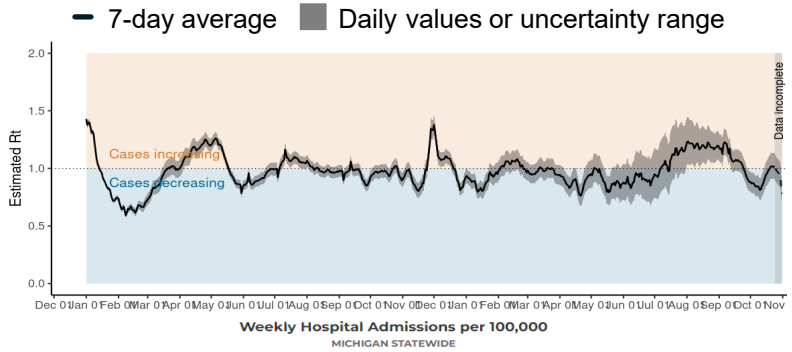
MI COVID RESPONSE DATA AND MODELING UPDATE

November 7, 2023

Recent statewide trends show COVID is plateaued

Statewide trends

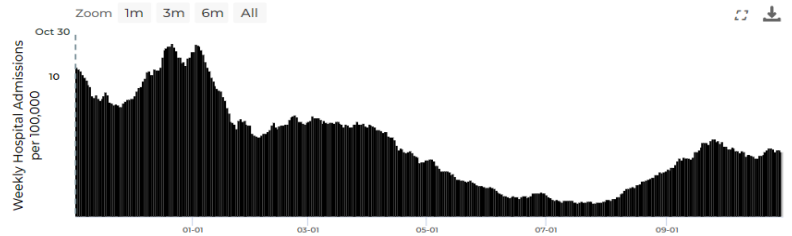
Reproductive Number, R_t



Current: 1.02

Last Week: 1.03

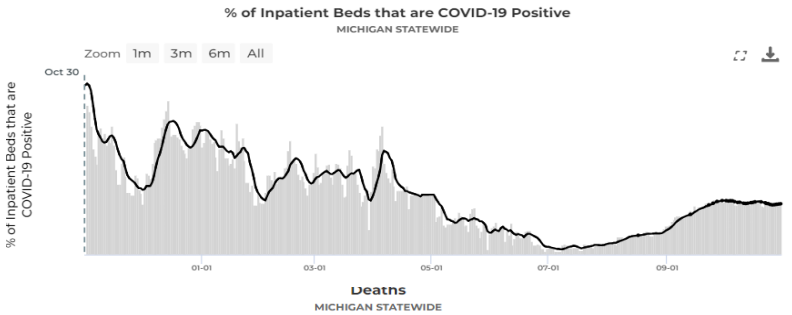
Hospital Admissions



Current: 4.8

Last Week: 5.1

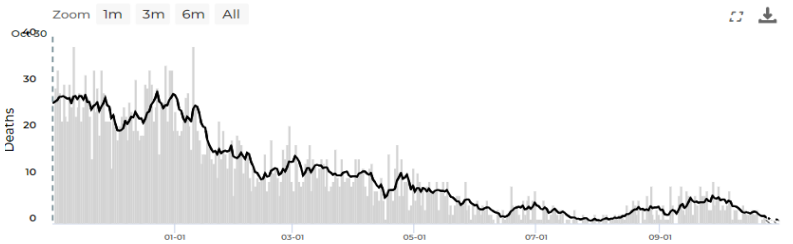
Daily hospitalization rate, %



Current: 2.3%

Last Week: 2.3%

Deaths



Current: 0.16

Last Week: 0.19

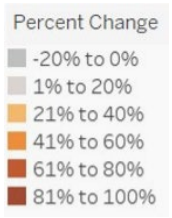
- The reproductive number (R_t) in Michigan is near 1 indicating cases are plateaued.
- There has been a daily average of 4.8 hospital admissions per 100,000 Michiganders. This is a slight decrease from last week.
- The percent of inpatient beds with COVID-19 positive patients (2.3%) are similar to last week. Current hospitalization indicators remain below what was reported at this time last year.
- Deaths are a lagging indicator but remain similar to rates from last week.

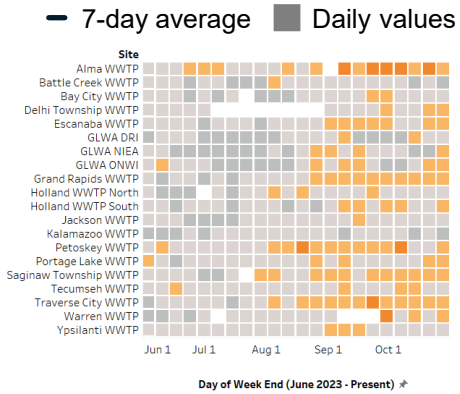
Source: https://mistartmap.info/; MiStartMap data did not update this week due to ending of PHE; data feeds will resume shortly

Recent statewide trends show COVID is plateaued

Statewide trends

Wastewater



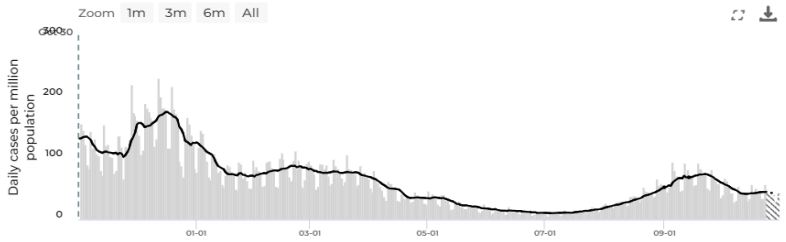


Current: 60% of sites are above 20% baseline threshold

Last Week: 40% of sites are above 20% baseline threshold

- 60% (12/20) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week.

Daily cases per million

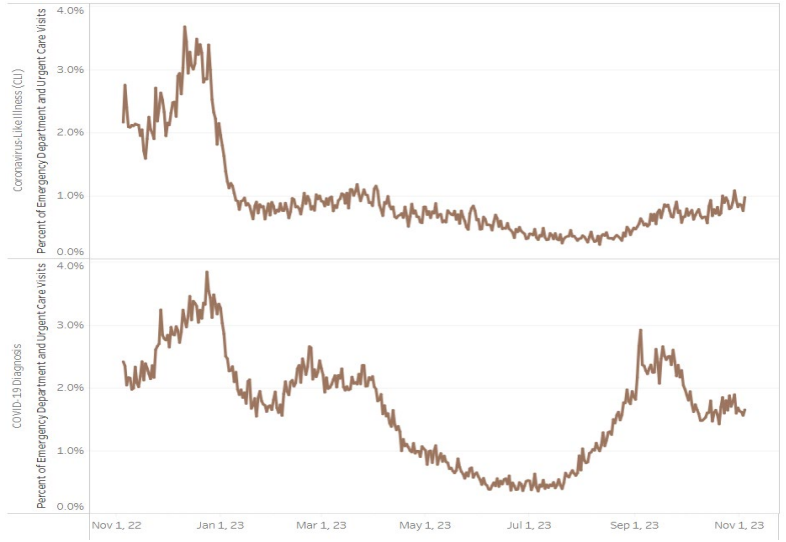


Current: 44.7

Last Week: 45.1

- Reported case rates are plateaued compared to last week.

Syndromic Surveillance



Coronavirus-Like-Illness (CLI)

Current: 1.0%

Last Week: 0.9%

COVID-19 Diagnosis

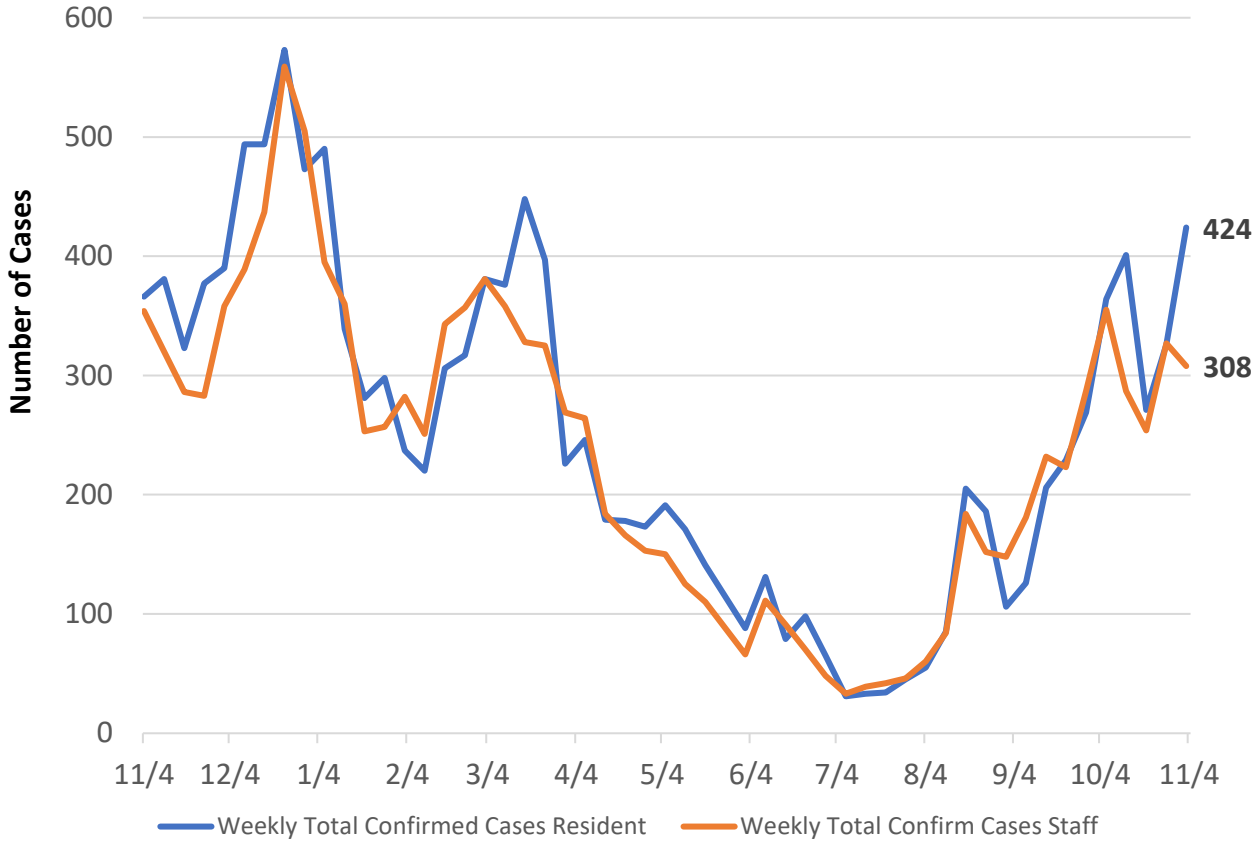
Current: 1.6%

Last Week: 1.7%

- COVID-19 diagnoses in emergency departments and urgent cares are plateaued compared to last week. Current COVID-19 syndromic indicators remain below what was reported at this time last year.

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 11/4/2022 to 11/03/2023



Number of SNFs with 3 or more Confirmed Cases 11/4/2022 to 11/03/2023

- Case counts increased in SNF residents (326 to 424) but decreased in SNF staff (327 to 308) since last week [left graphic]
- The number of SNF facilities reporting 3 or more increased compared to last week (35 to 40) [right graphic]

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

Update through October 30, 2023

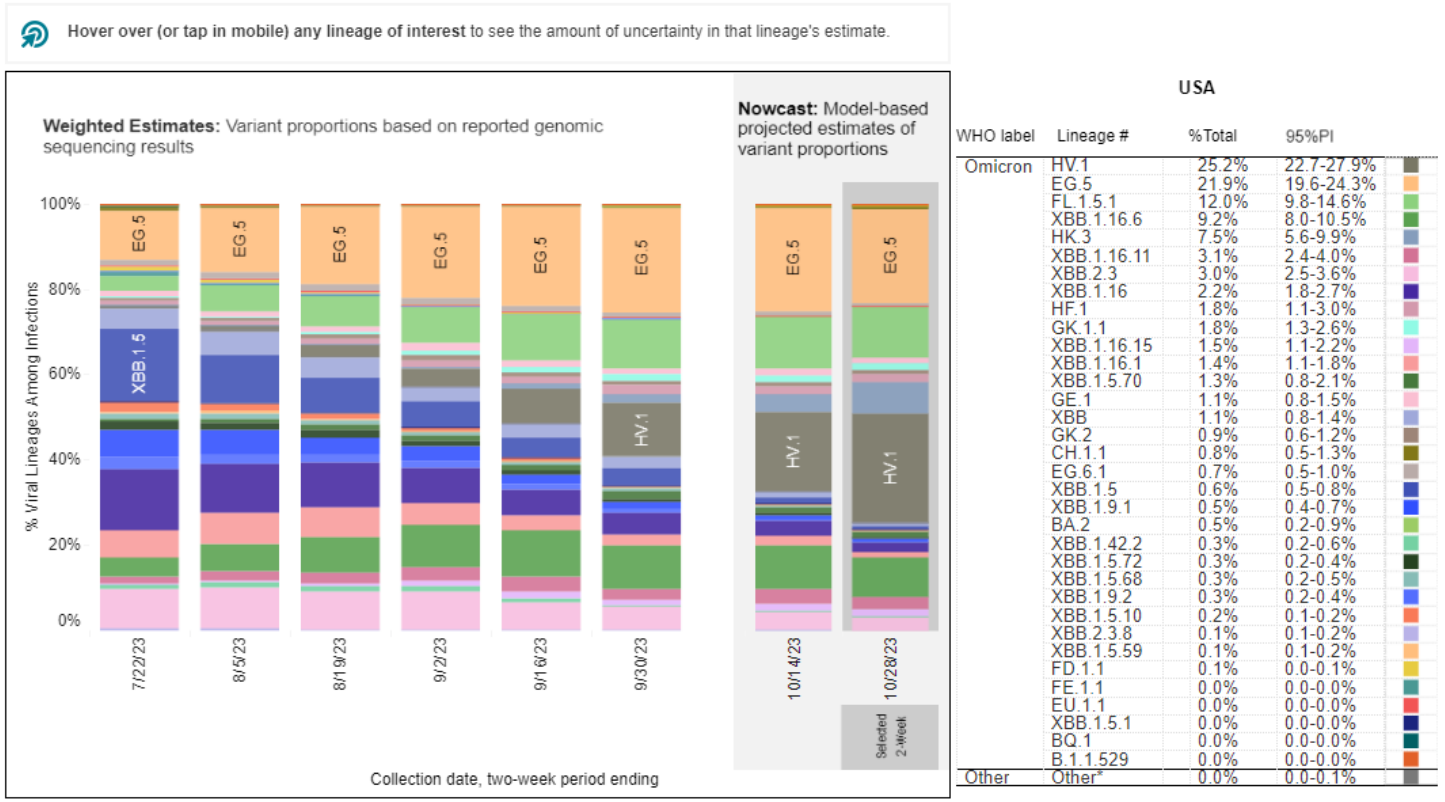
Note: The data are from weekly reporting by facilities with bed occupancy of at least 13 beds.
Source: Data is now provided through NHSN, data prior to May 19 was from Michigan EM Resource

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, Jul 9 – Oct 28 (NOWCAST)

Weighted and Nowcast Estimates in United States for 2-Week Periods in 7/9/2023 – 10/28/2023

Nowcast Estimates in United States for 10/15/2023 – 10/28/2023



USA

WHO label	Lineage #	%Total	95%PI
Omicron	HV.1	25.2%	22.7-27.9%
	EG.5	21.9%	19.6-24.3%
	FL.1.5.1	12.0%	9.8-14.6%
	XBB.1.16.6	9.2%	8.0-10.5%
	HK.3	7.5%	5.6-9.9%
	XBB.1.16.11	3.1%	2.4-4.0%
	XBB.2.3	3.0%	2.5-3.6%
	XBB.1.16	2.2%	1.8-2.7%
	HF.1	1.8%	1.1-3.0%
	GK.1.1	1.8%	1.3-2.6%
	XBB.1.16.15	1.5%	1.1-2.2%
	XBB.1.16.1	1.4%	1.1-1.8%
	XBB.1.5.70	1.3%	0.8-2.1%
	GE.1	1.1%	0.8-1.5%
	XBB	1.1%	0.8-1.4%
	GK.2	0.9%	0.6-1.2%
	CH.1.1	0.8%	0.5-1.3%
	EG.6.1	0.7%	0.5-1.0%
	XBB.1.5	0.6%	0.5-0.8%
	XBB.1.9.1	0.5%	0.4-0.7%
	BA.2	0.5%	0.2-0.9%
	XBB.1.42.2	0.3%	0.2-0.6%
	XBB.1.5.72	0.3%	0.2-0.4%
	XBB.1.5.68	0.3%	0.2-0.5%
	XBB.1.9.2	0.3%	0.2-0.4%
	XBB.1.5.10	0.2%	0.1-0.2%
	XBB.2.3.8	0.1%	0.1-0.2%
	XBB.1.5.59	0.1%	0.1-0.2%
	FD.1.1	0.1%	0.0-0.1%
	FE.1.1	0.0%	0.0-0.0%
	EU.1.1	0.0%	0.0-0.0%
	XBB.1.5.1	0.0%	0.0-0.0%
	BQ.1	0.0%	0.0-0.0%
	B.1.1.529	0.0%	0.0-0.0%
Other	Other*	0.0%	0.0-0.1%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.
# 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, XBB and their sublineages, BA.2 sublineages are aggregated with BA.2. Except BA.2.75.2, CH.1.1 and BN.1, BA.2.75 sublineages are aggregated with BA.2.75. 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 the lineages shown and their sublineages, sublineages of XBB are aggregated to XBB. Except XBB.1.5.1,XBB.1.5.10,FD.2,EU.1.1,XBB.1.5.68 and XBB.1.5.70 sublineages of XBB.1.5 are aggregated to XBB.1.5. Except FL.1.5.1, sublineages of XBB.1.9.1 are aggregated to XBB.1.9.1. Except XBB.1.16.1,XBB.1.16.11,XBB.1.16.15 sublineages of XBB.1.16 are aggregated to XBB.1.16, sublineages of XBB.1.42.2 are aggregated to XBB. Except FE.1.1, sublineages of XBB.1.18.1 are aggregated to XBB. For all the other lineages listed, their sublineage are aggregated to the listed parental lineages respectively. Previously, FL.1.5.1, GE.1, EG.6.1 and HV.1, FD.1.1, XBB.2.3.8, HF.1, GK.2, GK.1.1, HK.3 was aggregated to XBB.1.9.1, XBB.2.3.10, XBB.1.9.2, XBB.1.5.15, XBB.2.3, XBB.1.16.13, XBB.1.5.70 and XBB.1.9.2.5.1.1 respectively. Lineages BA.2.75.2, XBB, XBB.1.5 , XBB.1.5.1, XBB.1.5.10, FD.2, XBB.1.9.1, XBB.1.9.2, XBB.1.16, XBB.1.16.1, XBB.2.3, BN.1, BA.4.6, BF.7, BF.11, BA.5.2.6 ,BQ.1.1, EU.1.1, XBB.1.5.68, FE.1.1, EG.5, XBB.1.5.72 , FL.1.5.1, GE.1 EG.6.1,XBB.1.16.11, FD.1.1, XBB.1.5.70, XBB.2.3.8, HV.1, XBB.1.42.2, GK.2, HF.1, XBB.1.16.15, GK.1.1 and HK.3 contain the spike substitution R346T.

National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that HV.1 (25.2%, 95% P.I. 22.7-27.9%) is the most prevalent, while EG.5 comprise of approximately 21.9% of infections (95% P.I. 19.6-24.3%), and FL.1.5.1 comprise of approximately 12.0% of infections (95% P.I. 9.8-14.6%), while all other lineages are estimated to comprise of less than 10% during the week ending on October 28.

Distribution in Michigan

- Since September 1, there have been 381 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
  - Since September 1, a majority of specimens sequenced and reported have been identified as XBB or one of the child lineages; currently 26.5% of specimens have been identified as EG.5, the highest of any of the XBB lineages in Michigan

95% P.I. = 95% prediction interval
Data last updated Nov 7, 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

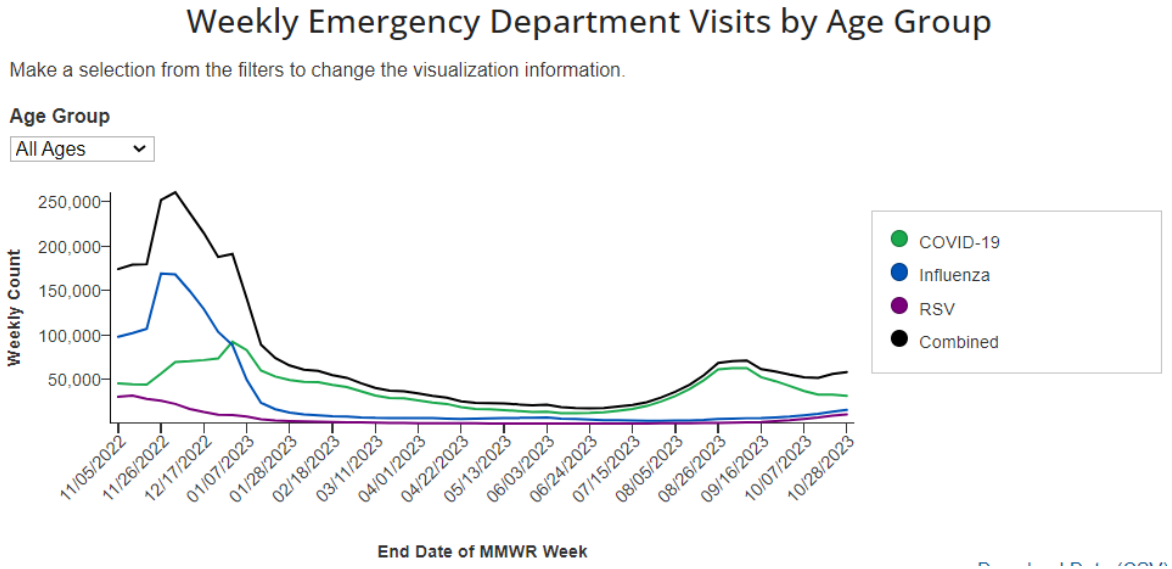
National Surveillance for Respiratory Diseases: Important to Remain Vigilant

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

The most recent number of national ED visits for all three respiratory illnesses combined are increasing from the previous week

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

For most of 2023, COVID-19 has contributed to the majority of ED visits compared to influenza and RSV; however, the past week has seen COVID consisting of around 55% of ED visits for these three respiratory illnesses (down from 60%)

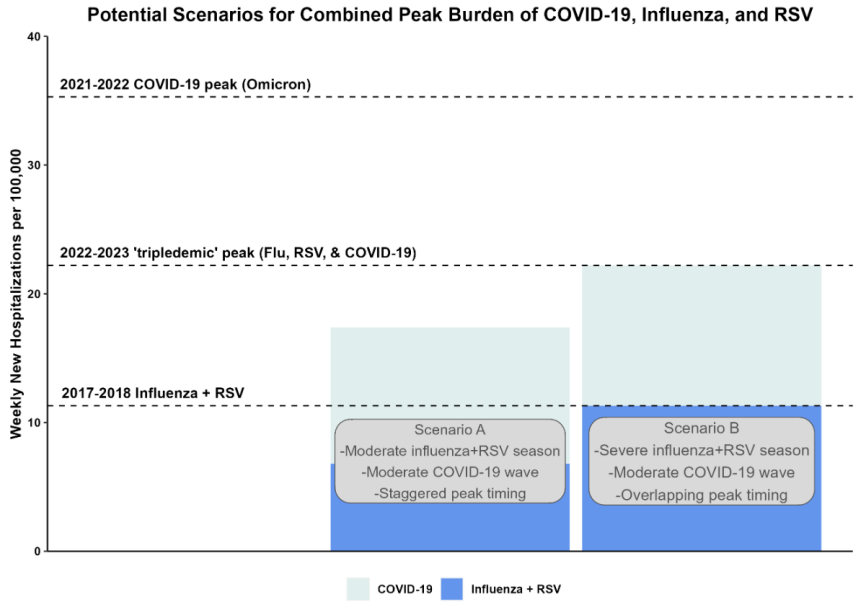


Respiratory Disease Season Outlook¶ (bottom graphic)

This season is likely to bring a moderate COVID-19 wave, causing around as many hospitalizations at the peak as occurred at last winter's peak

However, the total number of hospitalizations due to all three pathogens this year is expected to be higher than what was experienced prior to the pandemic with only influenza and RSV (example shown in the lowest dashed line)

Two hypothetical scenarios for peak hospital burden from these three respiratory illnesses illustrate how the additional burden of a moderate COVID-19 wave during a moderate respiratory disease season (left bar) or a severe influenza/RSV season (right bar) may strain hospital capacity



Source: *CDC NCIRD Surveillance: Emergency Department Visits; ¶CDC Center for Forecasting and Outbreak Analytics: Respiratory Disease Season Outlook

Vaccination Coverage Against COVID-19 is Low

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

Federal requirements no longer mandate vaccination reporting to state (i.e., MDHHS) and national entities; therefore, vaccine coverage reported here is likely underestimated

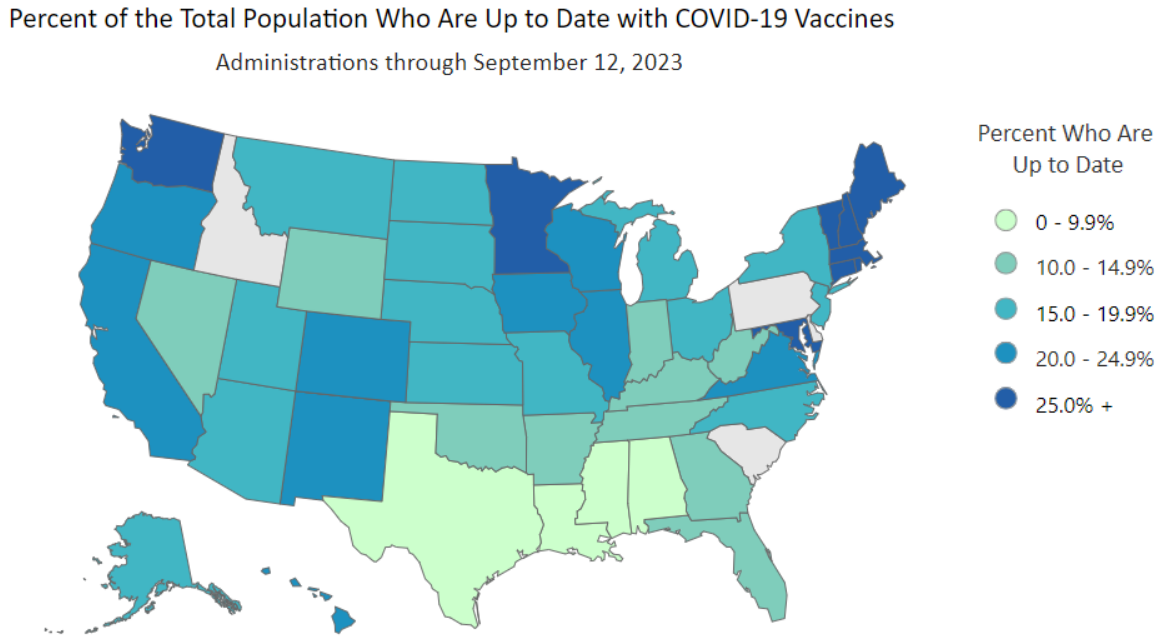
Vaccination Coverage with 2022-2023 Bivalent Booster Formulation (upper right graphic)

The percentage of all Michiganders who are up to date with their COVID-19 vaccines is 18.6%

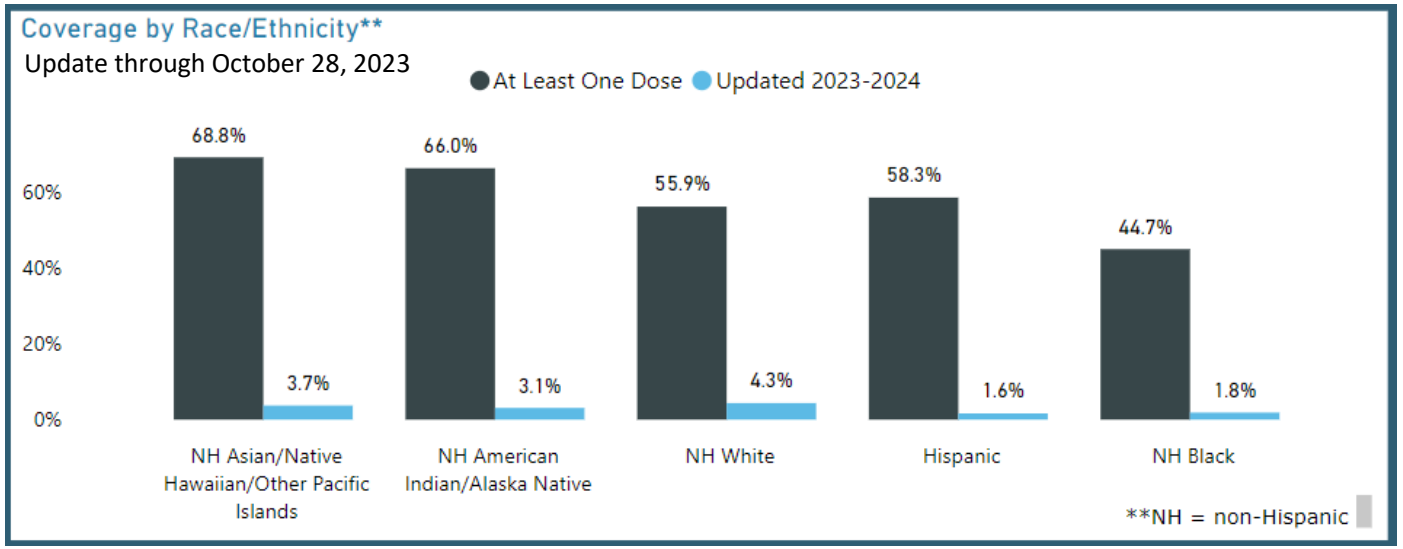
47.5% of the population 65 years of age or older are up to date with their COVID-19 vaccines

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 (4.3%), followed by NH Asian, Native Hawaiian or Pacific Islander Race (3.7%), NH American Indian (3.1%), and NH Black or African American races (1.8%).
- Up-to-date coverage is at 1.6% for Hispanics



*This shows the percentage of all residents of all ages



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

MDHHS
Michigan Department of Health & Human Services

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.*

MDHHS
Michigan Department of Health & Human Services

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. *Multiple options available.*	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 	*Multiple options available.*	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.