

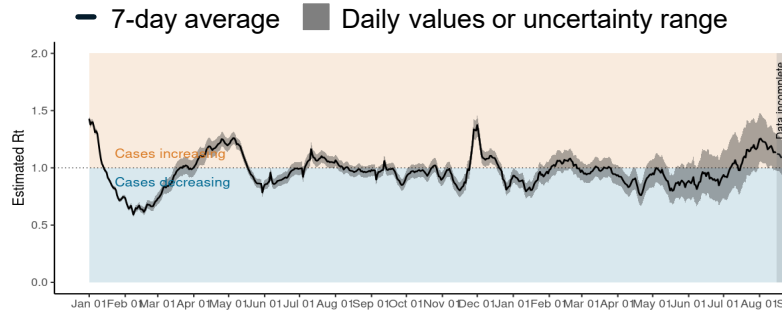
# **MI COVID RESPONSE DATA AND MODELING UPDATE**

August 29, 2023

# Recent statewide trends show COVID is steadily increasing

## Statewide trends

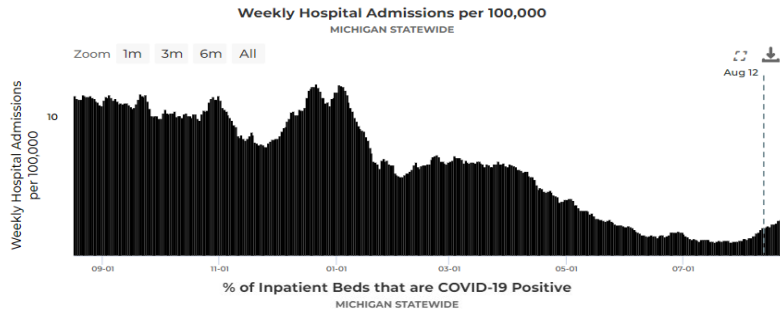
### Reproductive Number, $R_t$



Current: 1.13

Last Week: 1.14

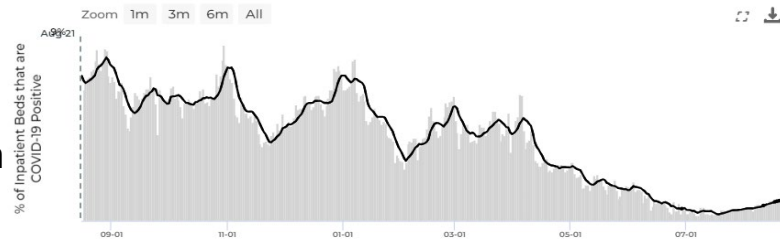
### Hospital Admissions\*



Current: 2.7

Last Week: 2.3

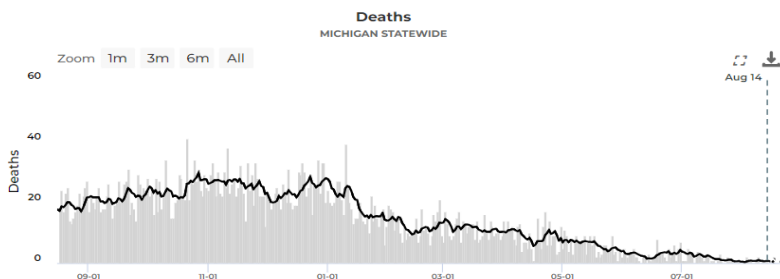
### Daily hospitalization rate, %



Current: 1.1%

Last Week: 0.9%

### Deaths



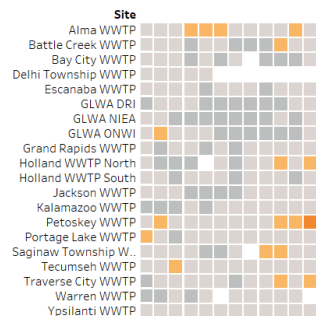
Current: 0.07

Last Week: 0.06

- The reproductive number ( $R_t$ ) in Michigan is above 1 indicating cases are increasing.
- There has been a daily average of 2.7 hospital admissions per 100,000 Michiganders. This is the fourth consecutive week of increases.
- The percent of inpatient beds with COVID-19 positive patients (1.1%) are steadily increasing since mid-July.
- Deaths are a lagging indicator but remain similar rates from last week.

## Statewide trends

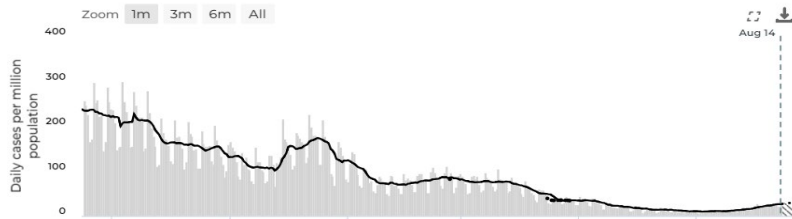
## Wastewater



Last Week: 5% of sites are above 20% baseline threshold

- 17% (3/18) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week.

## Daily cases per million



Current: 26.9  
Last Week: 22.4

- Reported case rates have increased compared to last week. Case rates have gradually increased since early July.

## Syndromic Surveillance



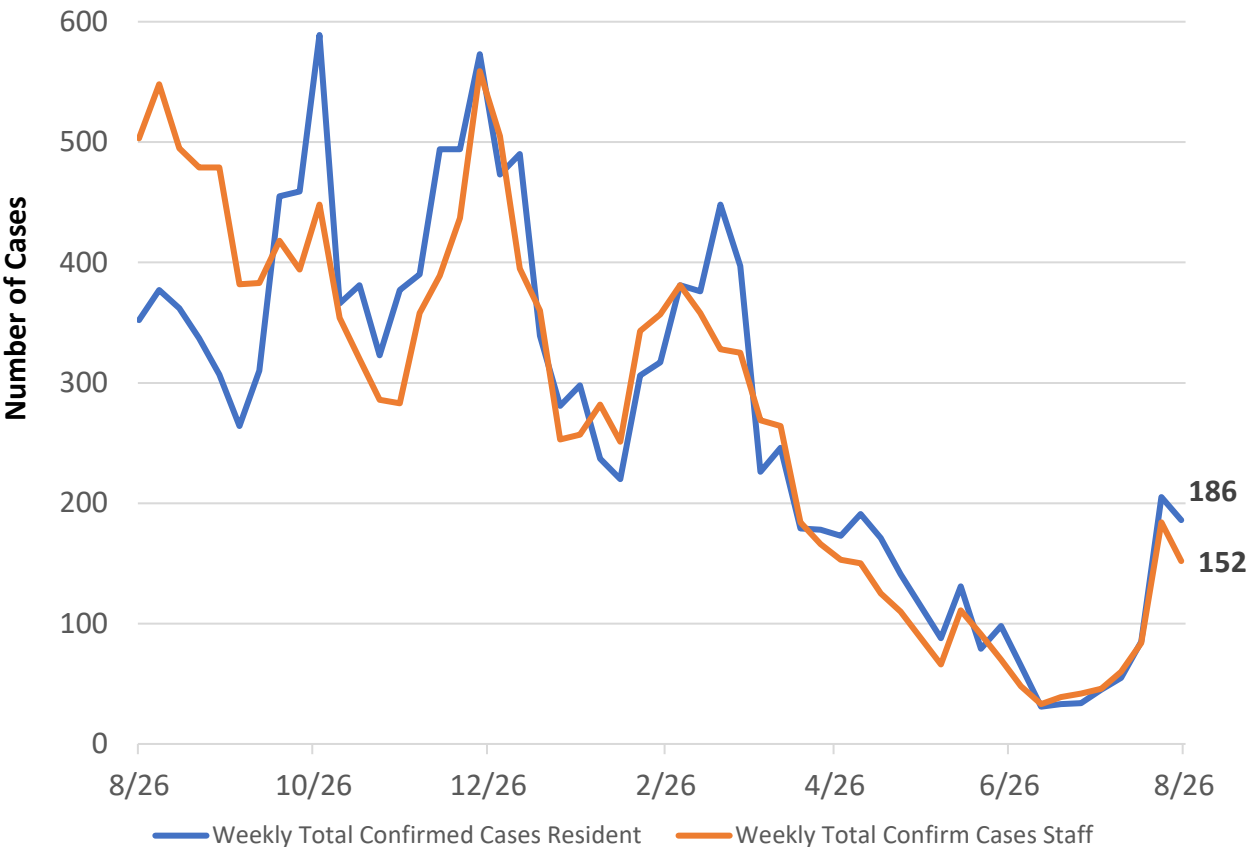
Coronavirus-Like-Illness (CLI)  
Current: 0.3%  
Last Week: 0.4%

COVID-19 Diagnosis  
Current: 1.5%  
Last Week: 1.0%

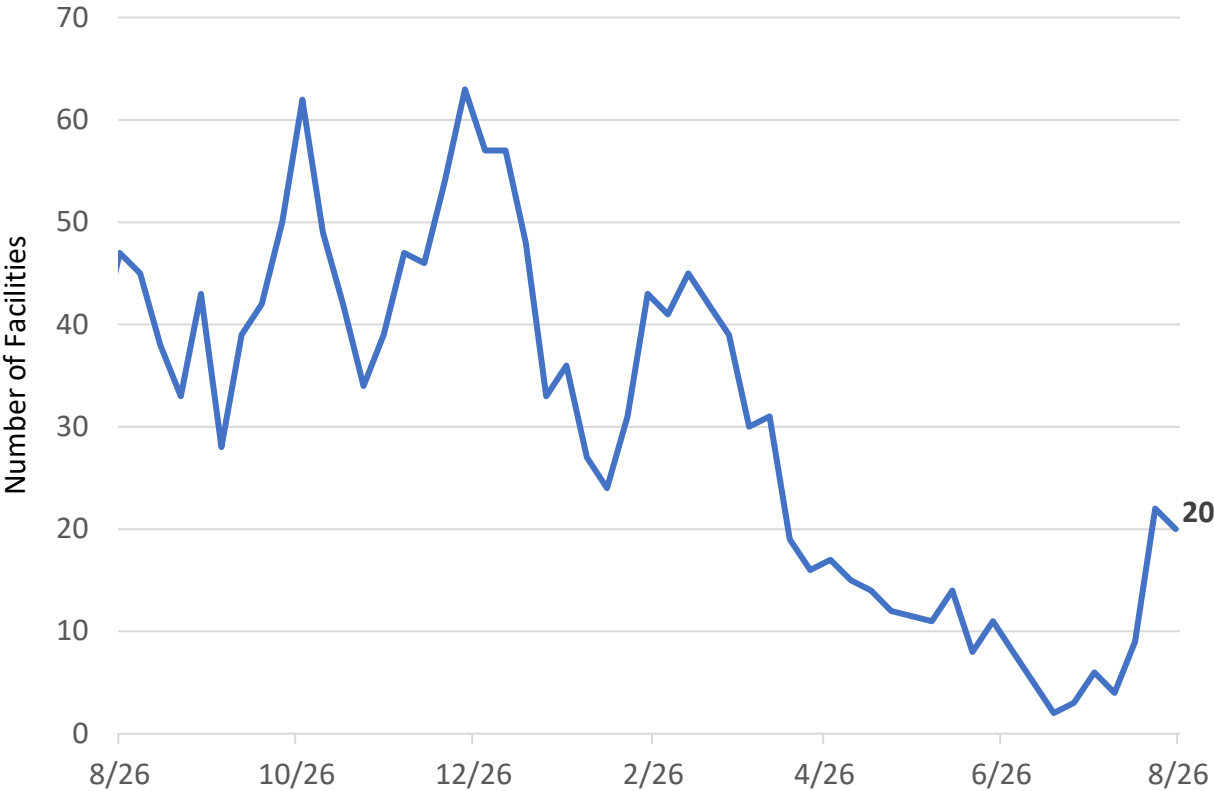
- COVID-19 diagnoses in emergency departments and urgent cares saw increases last week. Current levels remain below that reported at this time last year.

# 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 8/26/2022 to 8/25/2023



Number of SNFs with 3 or more Confirmed Cases  
8/26/2022 to 08/25/2023



- Case counts decreased in SNF residents (205 to 186) and in SNF staff (184 to 152) since last week [left graphic]
- The number of SNF facilities reporting 3 or more cases decreased since last week (22 to 20) [right graphic]

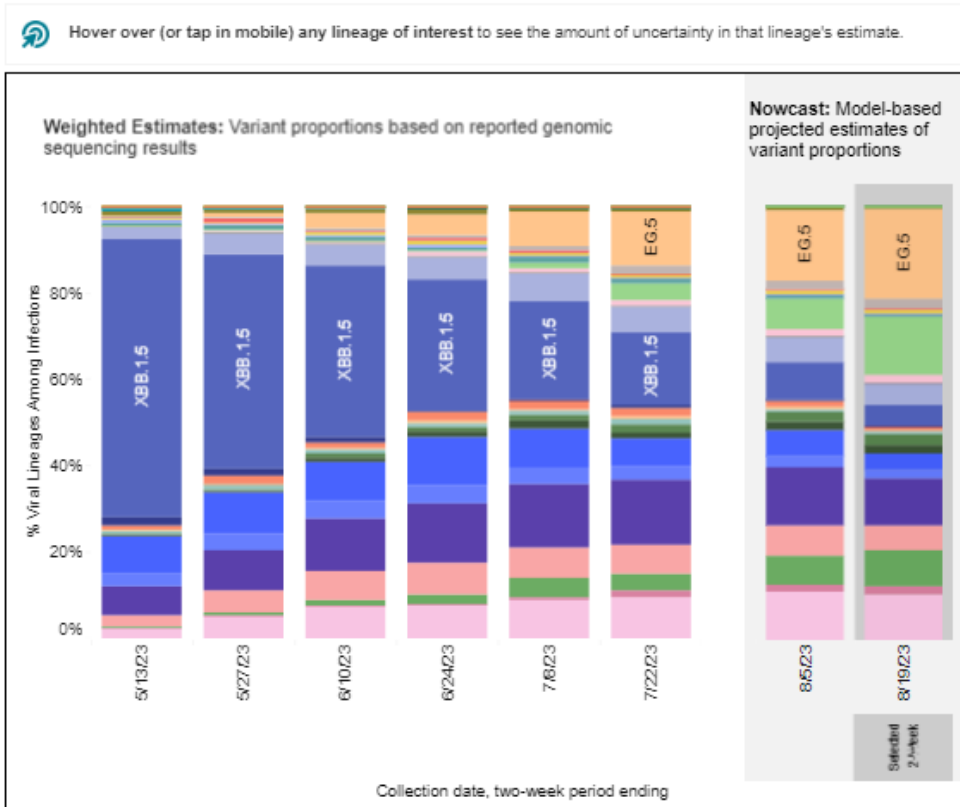
Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

# 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, Apr 30 – Aug 19 (NOWCAST)

Weighted and Nowcast Estimates in United States for 2-Week Periods in 4/30/2023 – 8/19/2023

Nowcast Estimates in United States for 8/6/2023 – 8/19/2023



USA			
WHO label	Lineage #	%Total	95%PI
Omicron	EG.5	20.6%	17.8-23.8%
	FL.1.5.1	13.3%	9.4-18.4%
	XBB.1.16	10.7%	9.2-12.4%
	XBB.2.3	10.6%	8.6-13.0%
	XBB.1.16.6	8.0%	6.4-10.1%
	XBB.1.16.1	5.9%	5.1-6.9%
	XBB	5.1%	4.0-6.4%
	XBB.1.5	4.7%	4.0-5.6%
	XBB.1.9.1	4.1%	3.5-4.8%
	XBB.1.5.70	2.4%	1.7-3.4%
	EG.6.1	2.3%	1.6-3.3%
	XBB.1.16.11	1.9%	1.1-3.4%
	XBB.1.5.72	1.9%	1.5-2.4%
	XBB.1.9.2	1.8%	1.4-2.3%
	GE.1	1.8%	1.1-2.7%
	XBB.1.5.10	1.0%	0.7-1.4%
	FE.1.1	0.9%	0.5-1.5%
	FD.1.1	0.8%	0.5-1.4%
	CH.1.1	0.8%	0.5-1.2%
	XBB.1.5.68	0.6%	0.4-1.0%
	XBB.1.5.59	0.4%	0.3-0.8%
	EU.1.1	0.2%	0.1-0.3%
	XBB.1.5.1	0.1%	0.1-0.1%
	BA.2.12.1	0.0%	0.0-0.2%
Other	BA.2	0.0%	0.0-0.0%
	FD.2	0.0%	0.0-0.0%
	BA.5	0.0%	0.0-0.0%
	BQ.1	0.0%	0.0-0.0%
	BQ.1.1	0.0%	0.0-0.0%
	Other*	0.1%	0.0-0.1%

### National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that EG.5 (20.6%, 95% P.I. 17.8-23.8%) is the most prevalent, while FL.1.5.1 comprise of approximately 13.3% of infections (95% P.I. 9.4-18.4%), XBB.1.16 comprise of 10.7% of infections (95% P.I. 9.2-12.4%), and XBB.2.3 comprise of 10.6% of infections (95% P.I. 8.6-13.0%), while all other lineages are estimated to comprise of less than 10% during the week ending on August 19.
- The BA.2.86 lineage, identified in Israel and Denmark, was recently identified in Michigan. This is likely a branch lineage of BA.2 and contains a number of new mutations

### Distribution in Michigan

- Since June 1, there have been 176 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
  - Since May 1, a majority of specimens sequenced and reported have been identified as XBB or one of the child lineages; currently 33.5% of specimens have been identified as XBB.1.5, the highest of any of the XBB lineages in Michigan

95% P.I. = 95% prediction interval

Data last updated Aug 23, 2023

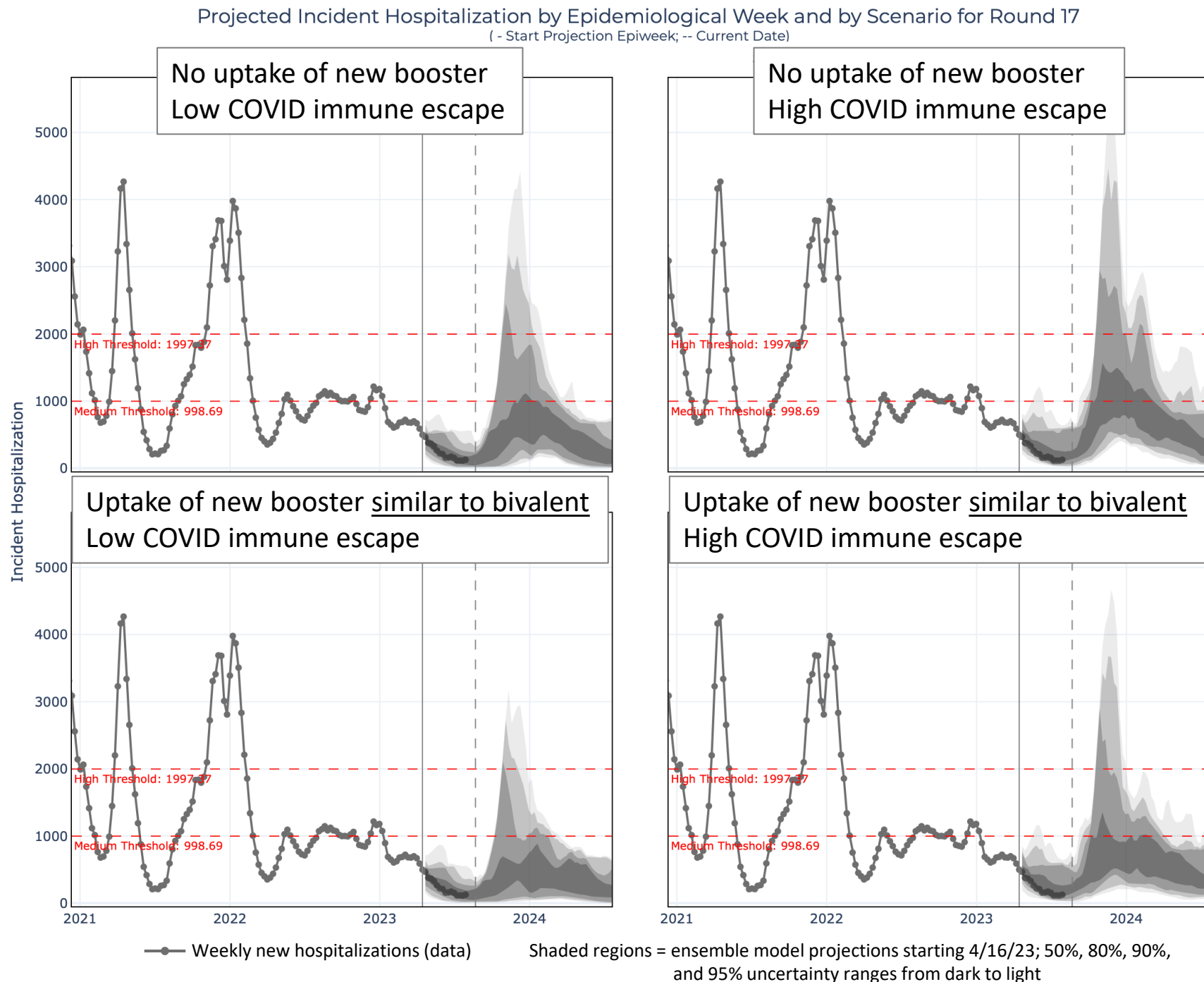
Source: CDC COVID Data Tracker: Genomic Surveillance and Michigan's MDSS; sequence data may take up to four weeks to process and get reported back to health departments



# Model projections: fall/winter increase in Michigan hospitalizations expected

- Most simulations suggest similar hospitalizations as last fall/winter (dark shaded region)
- However, the range of model simulations includes larger surges (similar to 2021-22 fall/winter surge)
- Increased booster uptake reduces the potential for higher surges

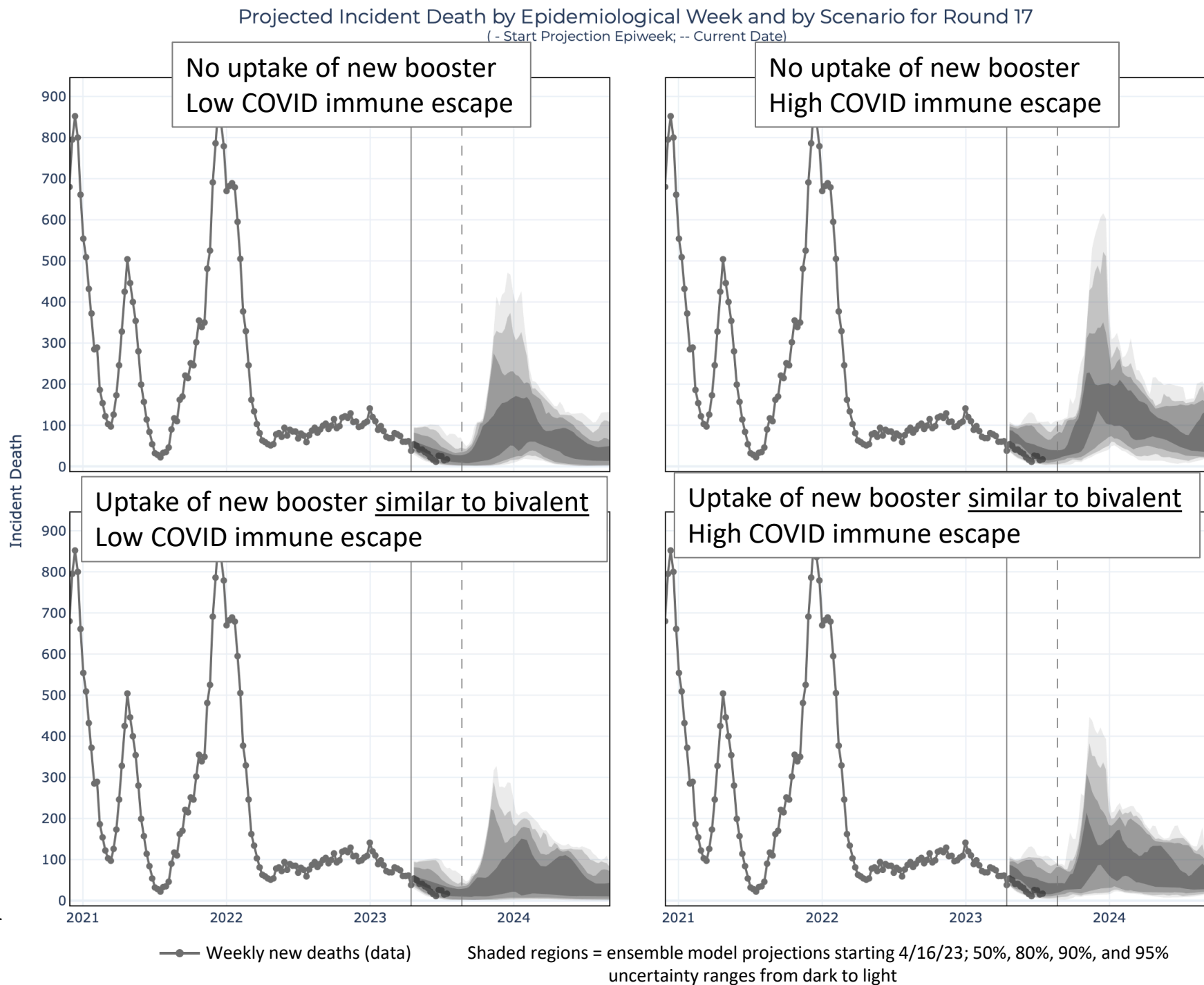
Source: [COVID-19 Scenario Modeling Hub](#). Scenarios shown range from no booster (top row) to moderate uptake (similar to first booster; bottom row), and low and high immune escape of new variants (left and right columns).



# Models project that deaths will also increase over fall/winter, similar levels to last year

- Across all scenarios, deaths were projected to be lower than the 2021-22 fall/winter peak
- Increased booster uptake reduces the potential for larger surges in weekly deaths

Source: [COVID-19 Scenario Modeling Hub](#). Scenarios shown range from no booster (top row) to moderate uptake (similar to first booster; bottom row), and low and high immune escape of new variants (left and right columns).



# Nearly 20% of Michiganders are Up to Date with COVID-19 Vaccines

Percent of the Total Population Who Are Up to Date with COVID-19 Vaccines  
Administrations through July 31, 2023

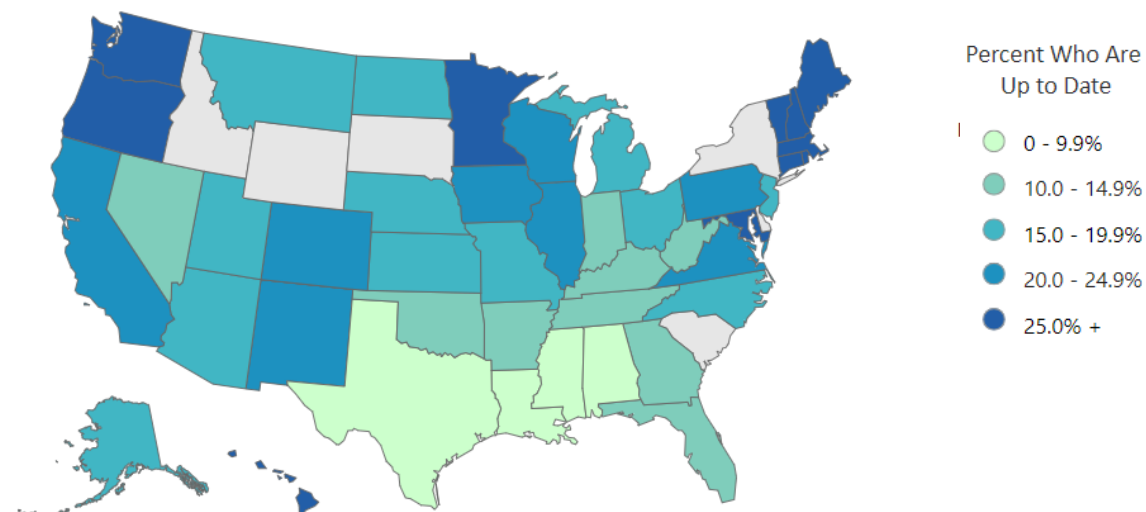
## Vaccination Up-to-Date Coverage

The percentage of all Michiganders who are up to date with their COVID-19 vaccines is 19.3%

51.4% of the population 65 years of age or older are up to date with their COVID-19 vaccines

## Race/Ethnicity<sup>¶</sup> for those 6 months and older:

- Up-to-date coverage is highest among Non-Hispanic (NH) White (16.7%), followed by NH Asian, Native Hawaiian or Pacific Islander Race (16.2%), NH American Indian (12.9%), and NH Black or African American races (9.7%).
- Up-to-date coverage is at 11.5% for Hispanics



\*This shows the percentage of all residents of all ages

## Coverage by Race\*

Update through August 8, 2023

