

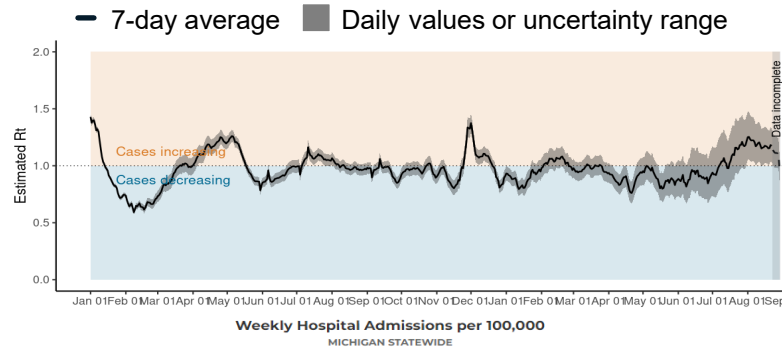
MI COVID RESPONSE DATA AND MODELING UPDATE

September 5, 2023

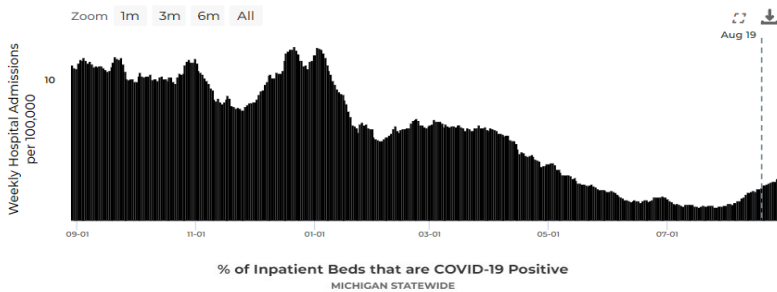
Recent statewide trends show COVID is steadily increasing

Statewide trends

Reproductive Number, R_t



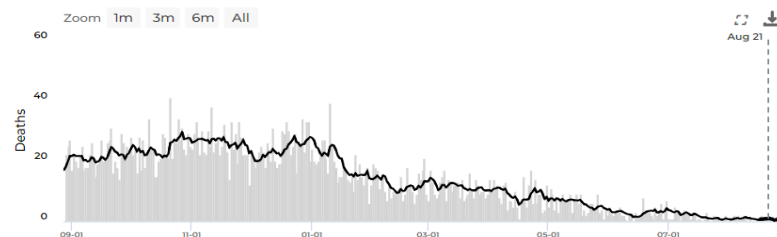
Hospital Admissions*



Daily hospitalization rate, %



Deaths



- The reproductive number (R_t) in Michigan is above 1 indicating cases are increasing.
- There has been a daily average of 3.3 hospital admissions per 100,000 Michiganders. This is the fifth consecutive week of increases.
- The percent of inpatient beds with COVID-19 positive patients (1.2%) are steadily increasing since mid-July.
- Deaths are a lagging indicator but remain similar to rates from last week.

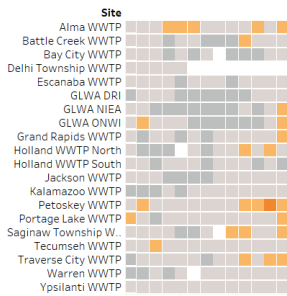
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Wastewater



— 7-day average ■ Daily values

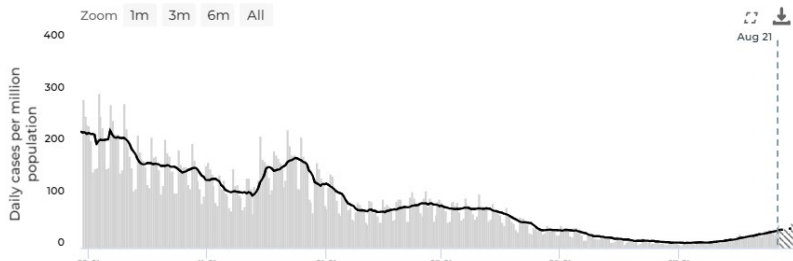


Current: 42% of sites are above 20% baseline threshold

Last Week: 17% of sites are above 20% baseline threshold

- 42% (8/19) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week.

Daily cases per million

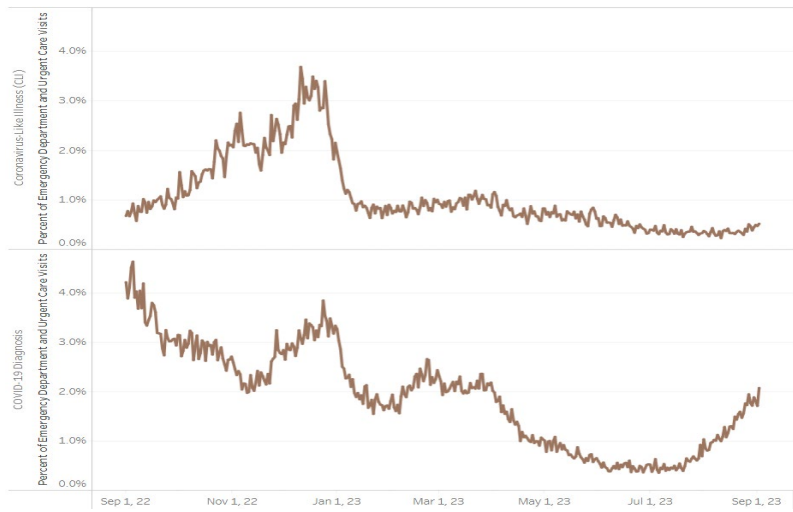


Current: 34.6

Last Week: 26.9

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

Syndromic Surveillance



Coronavirus-Like-Illness (CLI)

Current: 0.5%

Last Week: 0.3%

COVID-19 Diagnosis

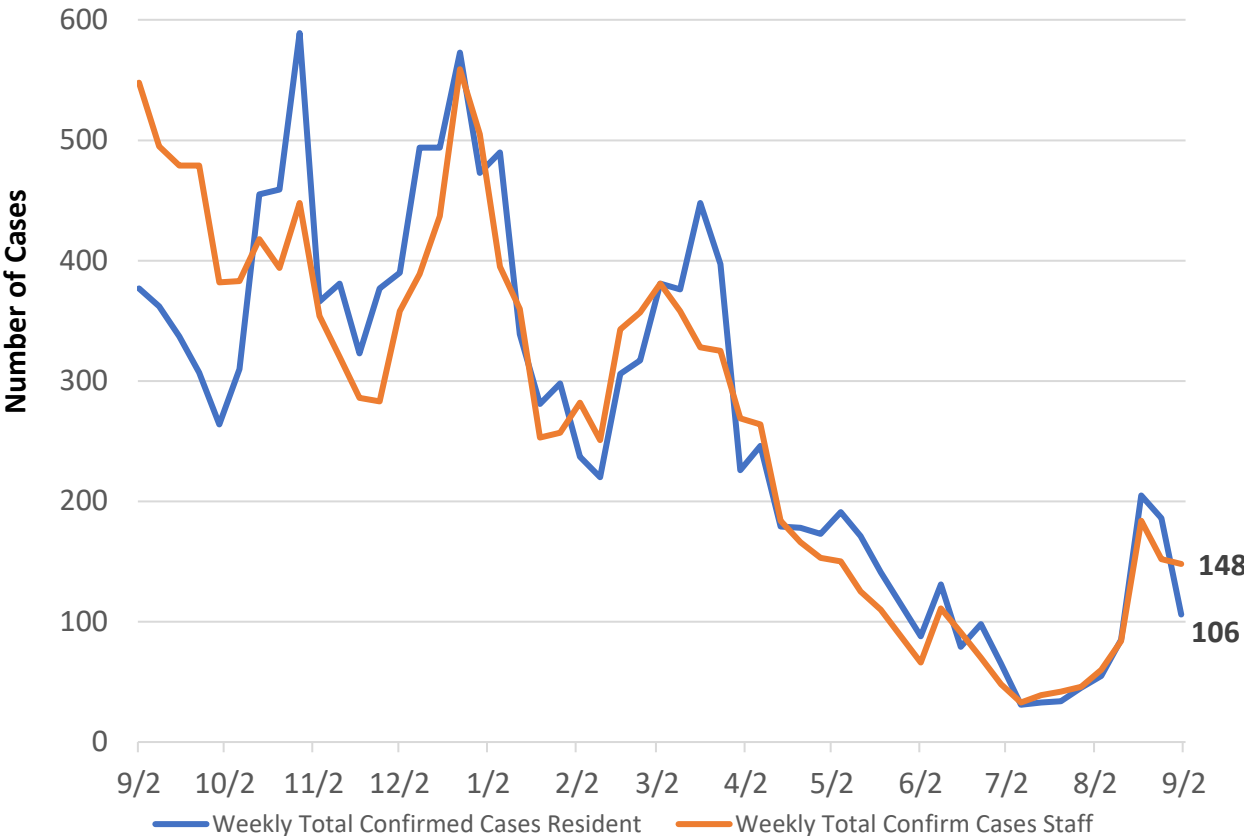
Current: 2.1%

Last Week: 1.5%

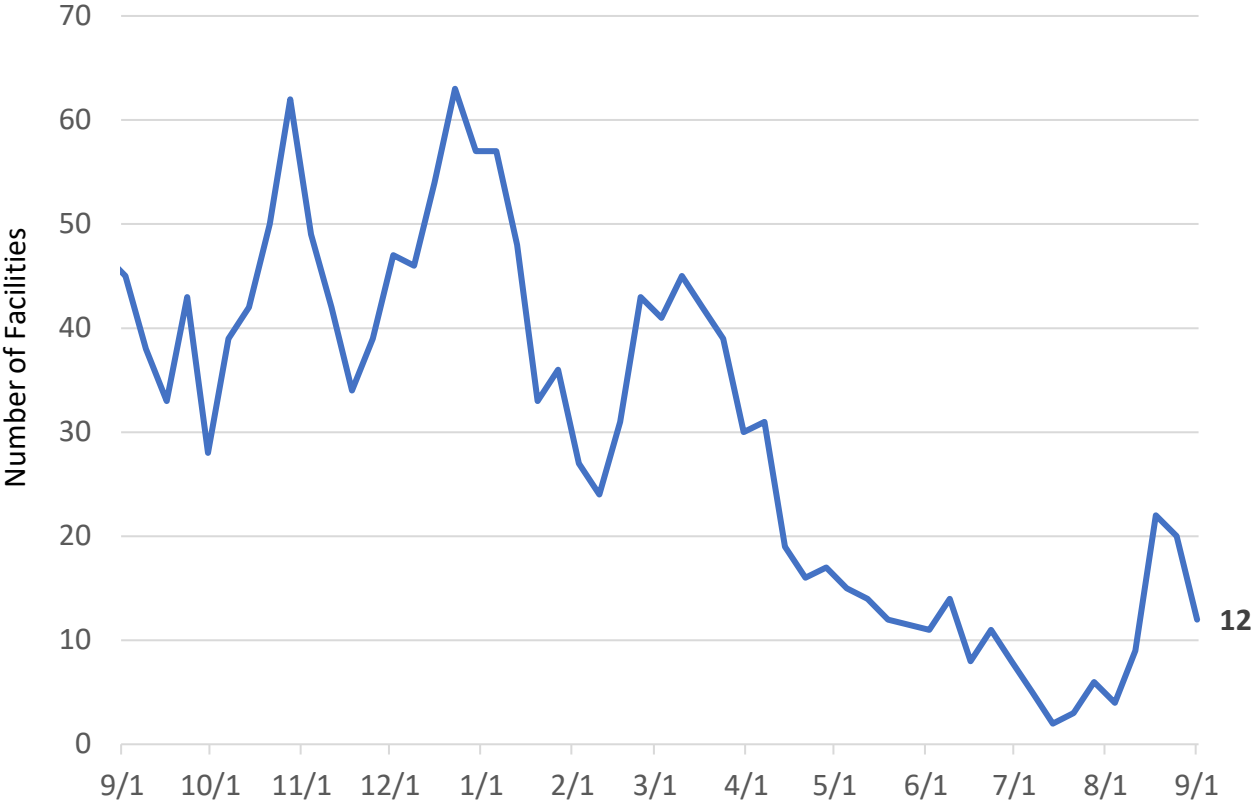
- COVID-19 diagnoses in emergency departments and urgent cares saw increases last week. Current COVID-19 diagnosis levels remain below that reported at this time last year.

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 9/2/2022 to 9/1/2023



Number of SNFs with 3 or more Confirmed Cases
9/2/2022 to 9/1/2023



- Case counts decreased in SNF residents (186 to 106) and in SNF staff (152 to 148) since last week [left graphic]
- The number of SNF facilities reporting 3 or more cases decreased since last week (20 to 12) [right graphic]

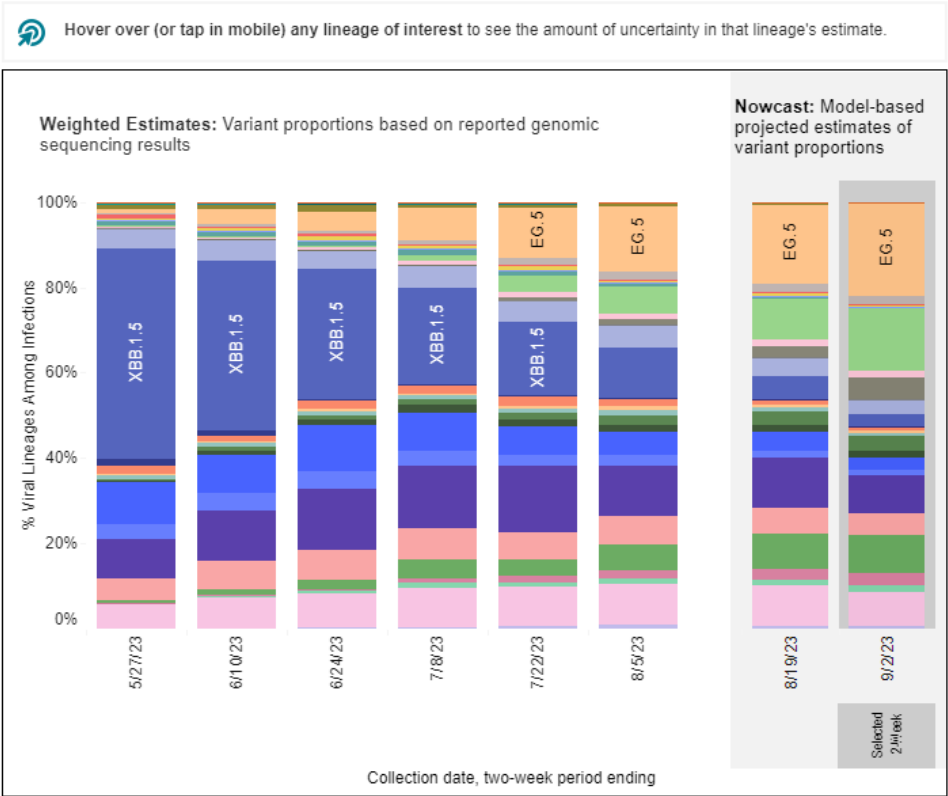
Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

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, May 14 – Sep 2 (NOWCAST)

Weighted and Nowcast Estimates in United States for 2-Week Periods in 5/14/2023 – 9/2/2023

Nowcast Estimates in United States for 8/20/2023 – 9/2/2023



USA			
WHO label	Lineage #	%Total	95%PI
Omicron	EG.5	21.5%	19.0-24.3%
	FL.1.5.1	14.5%	10.5-19.6%
	XBB.1.16.6	9.2%	7.6-11.0%
	XBB.1.16	8.9%	7.8-10.3%
	XBB.2.3	8.1%	7.0-9.2%
	HV.1	5.1%	3.3-7.9%
	XBB.1.16.1	5.0%	4.2-6.0%
	XBB.1.5.70	3.5%	2.6-4.7%
	XBB	3.3%	2.7-4.1%
	XBB.1.5	3.1%	2.6-3.7%
	XBB.1.9.1	3.0%	2.5-3.5%
	XBB.1.16.11	2.8%	1.8-4.5%
	EG.6.1	1.8%	1.2-2.7%
	GE.1	1.6%	1.1-2.4%
	XBB.1.5.72	1.6%	1.2-2.1%
	XBB.1.42.2	1.3%	0.7-2.3%
	XBB.1.9.2	1.1%	0.9-1.3%
	XBB.1.5.10	0.9%	0.7-1.2%
	XBB.1.5.68	0.8%	0.5-1.1%
	XBB.2.3.8	0.7%	0.4-1.2%
	FD.1.1	0.6%	0.4-0.8%
	FE.1.1	0.5%	0.3-0.8%
	XBB.1.5.59	0.4%	0.3-0.6%
	CH.1.1	0.4%	0.3-0.6%
	EU.1.1	0.1%	0.1-0.2%
	XBB.1.5.1	0.0%	0.0-0.1%
	BA.2.12.1	0.0%	0.0-0.1%
	BA.5	0.0%	0.0-0.0%
	BQ.1	0.0%	0.0-0.0%
	FD.2	0.0%	0.0-0.0%
	B.1.1.529	0.0%	0.0-0.1%
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.4.8, 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.1.16.6 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 sublineages are aggregated to the listed parent lineages respectively. Previously, FL.1.5.1, GE.1, EG.6.1 and HV.1, FD.1.1, XBB.2.3.8 was aggregated to XBB.1.9.1, XBB.2.3.10, XBB.1.9.2, XBB.1.5.16 and XBB.2.3 respectively. Lineages BA.2.75.2, XBB, XBB.1.5, 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.4.8, 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 and XBB.1.42.2 contain the spike substitution R346T.

National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that EG.5 (21.5%, 95% P.I. 19.0-24.3%) is the most prevalent, while FL.1.5.1 comprise of approximately 14.5% of infections (95% P.I. 10.5-19.6%), while all other lineages are estimated to comprise of less than 10% during the week ending on September 2.
- 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

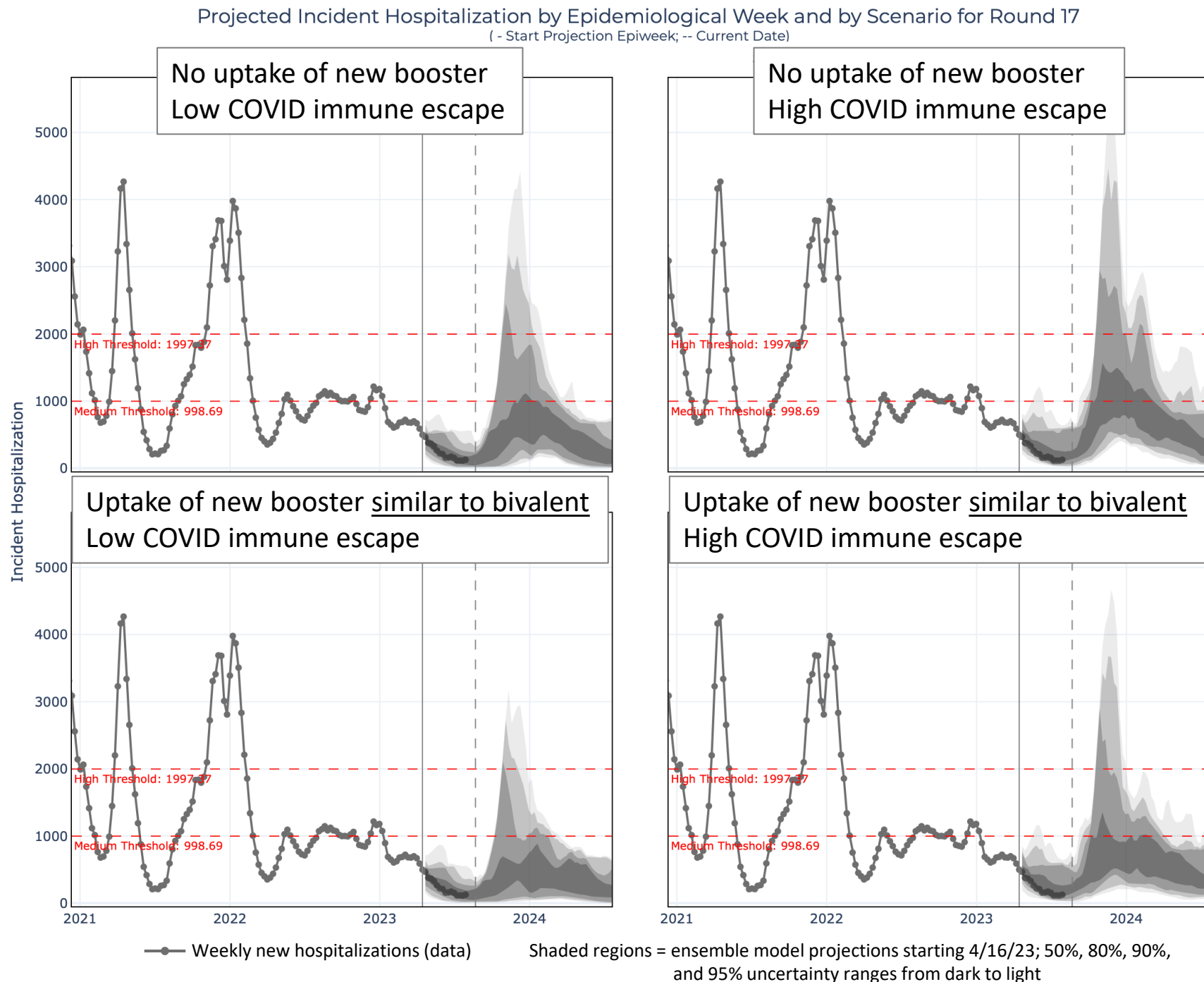
Distribution in Michigan

- Since July 1, there have been 188 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
 - Since July 1, a majority of specimens sequenced and reported have been identified as XBB or one of the child lineages; currently 16.5% of specimens have been identified as XBB.1.16, the highest of any of the XBB lineages in Michigan

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

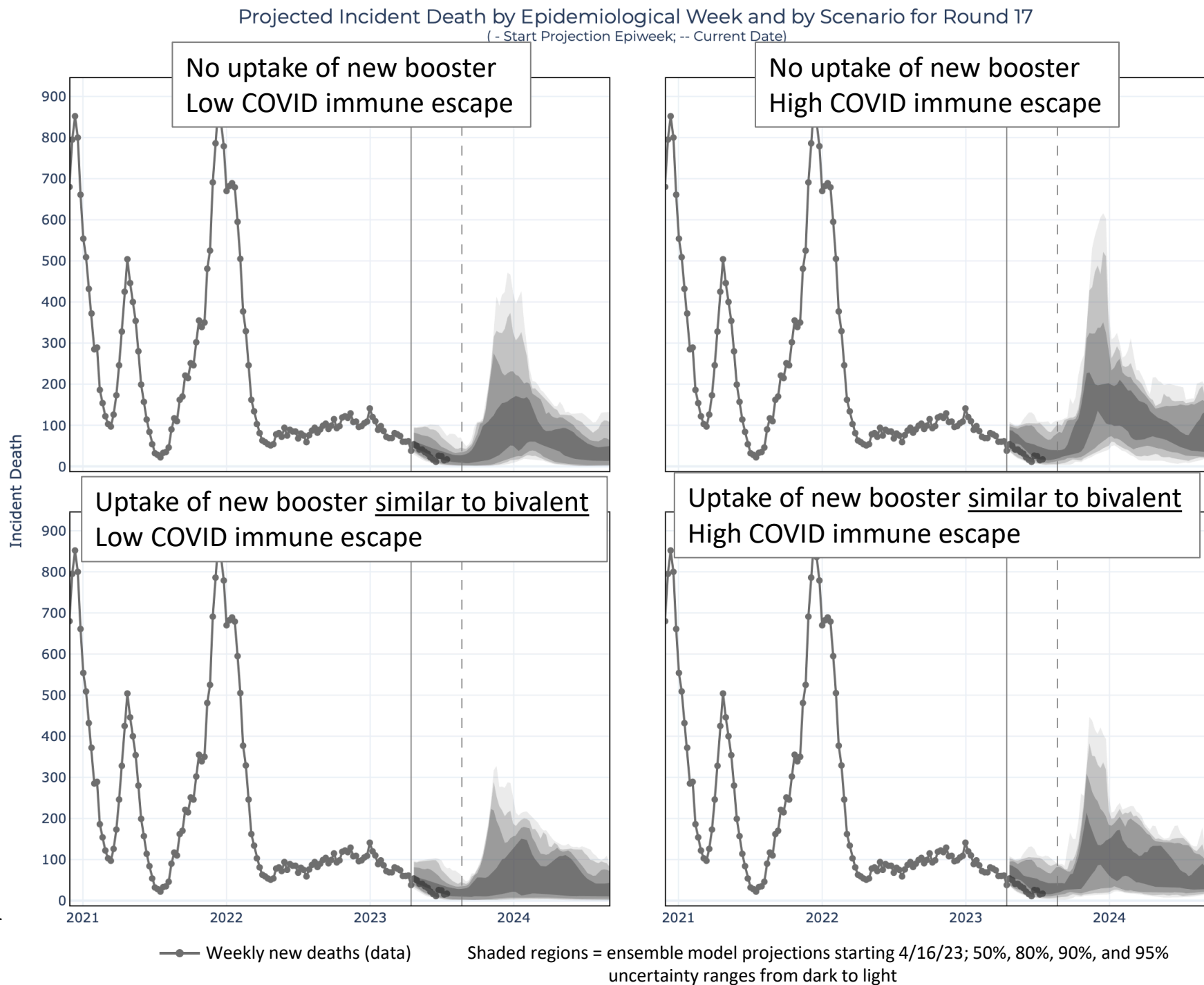
Source: [COVID-19 Scenario Modeling Hub](#). Scenarios shown range from no booster (top row) to moderate uptake (similar to first booster; bottom row), and low and high immune escape of new variants (left and right columns).



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

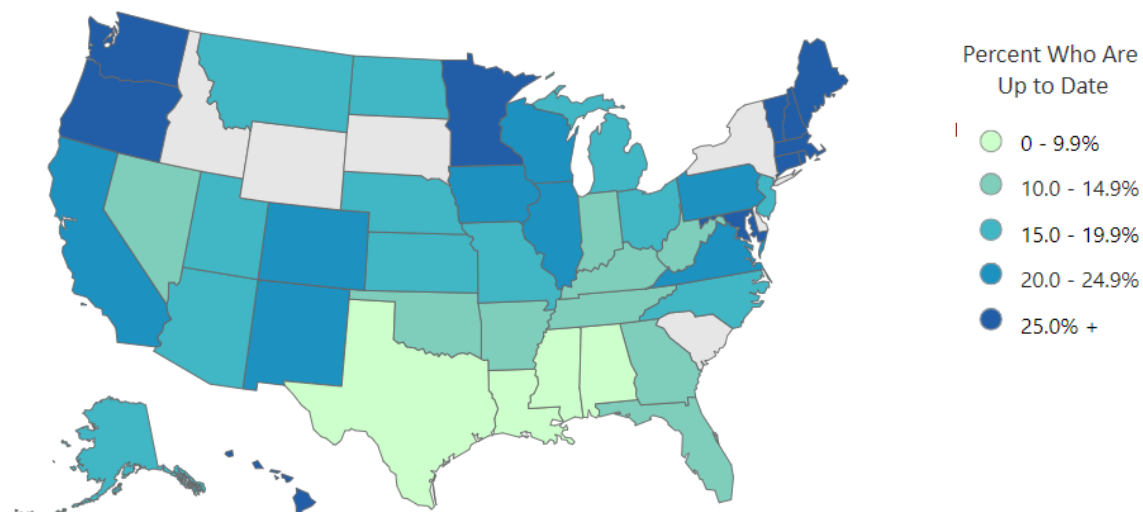
Vaccination Up-to-Date Coverage

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[¶] 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

