MI COVID RESPONSE DATA AND MODELING UPDATE

September 19, 2023

Recent statewide trends show COVID is steadily increasing

Statewide trends



- The reproductive number (R_t) in Michigan is above 1 indicating cases are increasing.
- There has been a daily average of 4.4 hospital admissions per 100,000 Michiganders. This is the seventh consecutive week of increases.
- The percent of inpatient beds with COVID-19 positive patients (1.8%) are steadily increasing since mid-July.
- Deaths are a lagging indicator, but rates remain similar to last week.

Recent statewide trends show COVID is steadily increasing

Statewide trends



Sep 1 22

Nov 1 22

May 1 23

Sep 1 23

 65% (11/17) of wastewater sentinel sites have reported levels that are 20% or higher than baseline threshold levels this week.

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

 COVID-19 diagnoses and COVID-like illness (CLI) in emergency departments and urgent cares saw increases last week. Currently, both metrics remain below what was reported at this time last year.

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



- Case counts increased in SNF residents (126 to 206) and in SNF staff (181 to 232) since last week [left graphic]
- The number of SNF facilities reporting 3 or more cases increased compared to last week (12 to 23) [right graphic] Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

Update through September 11, 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, May 28 – Sep 16 (NOWCAST)

Weighted and Nowcast Estimates in United States for 2-Week Periods in 5/28/2023 – 9/16/2023

Nowcast Estimates in United States for 9/3/2023 – 9/16/2023



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.
B.4.1, B.A.3 and their sublineages (except BA.1.1 and Its sublineages) are aggregated with B.1.5.20, Except BA.2.12.1, B.A.2.75, XBB and their sublineages B.A.2 sublineages are aggregated with BA.2.7.5.2, CH.1.1 and BN.1, BA.2.75, URB and their sublineages B.A.2 sublineages are aggregated with BA.2.7.5.2, CH.1.1 and BN.1, BA.2.75, XBB and their sublineages (BA.5 are aggregated with BA.2.7.5.2, CH.1.1 and BN.1, BA.2.75, XBB and their sublineages of A.5.3 are aggregated to BA.5. Except BA.2.75.2, CH.1.1 and BN.1, BA.2.75, URB are aggregated to XBB.5.5.1, XBB.1.5.1, YBB.1.5.1, YBB.1.5.2, Sublineages of XBB.1 are aggregated to XBB.1.5.1, XBB.1.5.1, YBB.1.5.1, YBB.1.42, 2 are aggregated to XBB.1.5.1, Except FE.1.1, sublineages of XBB.1.5 are aggregated to XBB.1.5.1, XBB.1.5.1, XBB.1.5.1, YBB.1.142, 2 are aggregated to XBB.1.5.1, XBB.1.142, 2 are aggregated to XBB.1.5.1, XBB.1.142, 2 are aggregated to XBB.1.5.1, XBB.1.5.1, YBB.1.5.1, Y

National Distribution

- 100% of the VOCs currently circulating in the U.S. are Omicron
- Nowcast estimates project that EG.5 (24.5%, 95% P.I. 22.5-26.6%) is the most prevalent, while FL.1.5.1 comprise of approximately 13.7% of infections (95% P.I. 9.8-18.7%), and XBB.1.16 comprise of 10.2% of infections (95% P.I. 8.4-11.7%) while all other lineages are estimated to comprise of less than 10% during the week ending on September 19.

Distribution in Michigan

- Since August 1, there have been 155 VOC specimens sequenced and reported to MDHHS
- 100% of specimens sequenced are Omicron
 - Since August 1, a majority of specimens sequenced and reported have been identified as XBB or one of the child lineages; currently 32.3% 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: <u>COVID-19 Scenario Modeling Hub</u>. 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).



Projected Incident Hospitalization by Epidemiological Week and by Scenario for Round 17

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: <u>COVID-19 Scenario Modeling Hub</u>. 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).



Projected Incident Death by Epidemiological Week and by Scenario for Round 17

Shaded regions = ensemble model projections starting 4/16/23; 50%, 80%, 90%, and 95% uncertainty ranges from dark to light

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

40%

20%

0%

Vaccination Up-to-Date Coverage

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:

- Up-to-date coverage is highest among Non-٠ Hispanic (NH) White (17.4%), followed by NH Asian, Native Hawaiian or Pacific Islander Race (16.9%), NH American Indian (15.9%), and NH Black or African American races (10.3%).
- Up-to-date coverage is at 11.7% for Hispanics ٠ 60%



Percent of the Total Population Who Are Up to Date with COVID-19 Vaccines

Islands

^{**}NH = non-Hispanic Note: Now include all those 6 months and older in calculations