MI COVID RESPONSE DATA AND MODELING UPDATE

April 5, 2022

Executive Summary

CDC COVID-19 Community Levels

- As of March 31st, 89% of Michigan Counties at Low COVID-19 Community Levels

Harm Reduction

- Current case rates and hospitalizations, and increased access to mitigation, indicate Michigan continues in a post-surge recovery phase
- Statewide recommendations on universal masking dialed down in recovery. Support individuals making informed choices about their own masking decisions
- Individuals at risk of severe outcomes had higher prevalence of COVID-19 infection in Michigan; vaccination, testing and treatments need to be available to individuals with these conditions
- Unvaccinated people aged 12 and older had greater risks of testing positive and dying in January and February

Situational Awareness

- Nationally, and in Michigan, most metrics are plateauing at near 1-year lows
  - We are closely monitoring the emergence of the Omicron BA.2 wave in Europe to determine threat
- Michigan is seeing an increase in BA.2 with the limited number of specimens being sequenced
  - Nationally, the proportion of specimens sequenced as BA.2 is now greater than 50%
- A greater number of wastewater facilities are reporting plateaus or increases this week compared to previous weeks
- Transmission within settings like schools and long-term care facilities are declining but this decline is slowing
- COVID+ census in hospitals, hospital admission, ICU utilization, and pediatric census is declining or plateaued

CDC COVID-19 Community Levels: Key Messages

As of March 31st, 89% of Michigan Counties at Low COVID-19 Community Levels

- Nationally and within the state, the proportion of counties at low continue to increase
- This week no Michigan counties were classified as "high"

CDC Community Levels and COVID-19 prevention strategies are available here

- Levels for each individual county can be viewed at the link above
- Guidance is provided for individual, household and community leaders at all three levels

Case rates in parts of Michigan are no longer at a steady decline

- Statewide data are showing potential signs of plateau
- From MiStartMap: 20 counties are currently showing an increasing or plateauing trend

As of March 31st, No Michigan Counties at High COVID-19 Community Levels
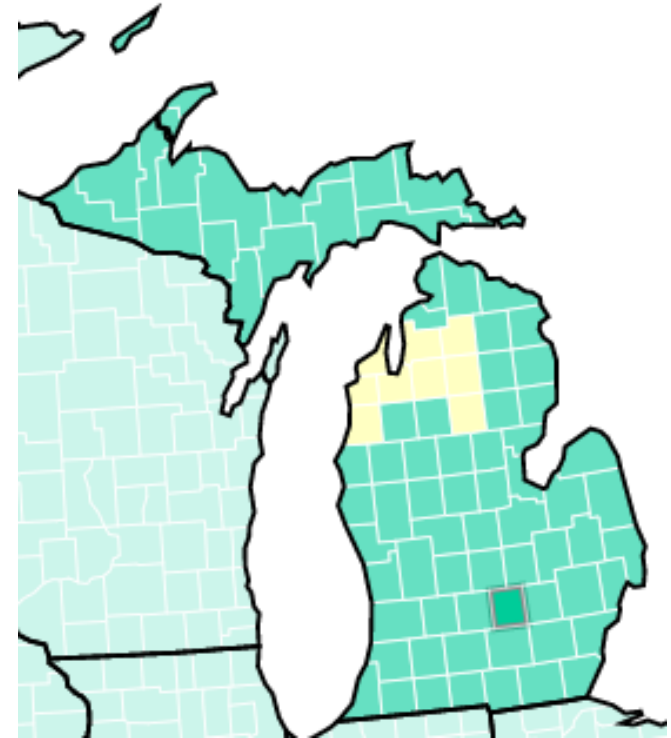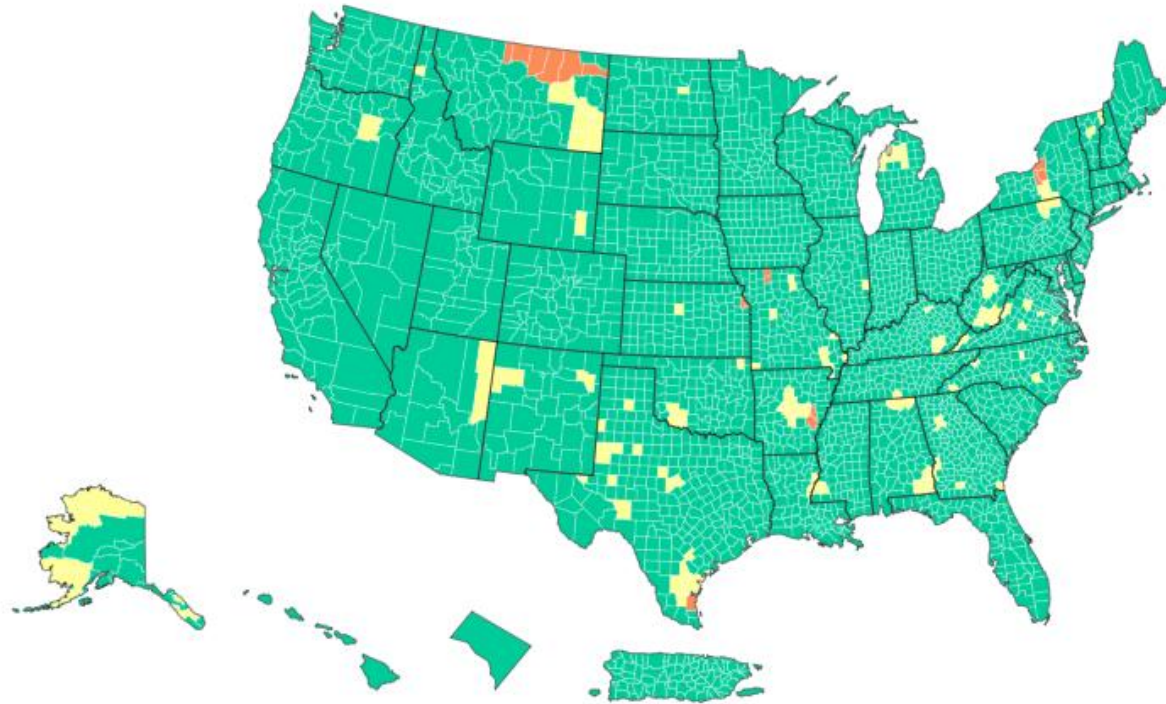
Percent of Counties

	United States	Michigan
Low	95%	89%
Medium	5%	11%
High	<1%	0%

- In the US, <1% of counties have high risk for medically significant disease and healthcare strain; in Michigan, 0% of counties are at high risk.
- CDC will release COVID-19 Community Levels on Thursdays or Fridays (link: https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html)

CDC new COVID-19 Community Levels are Publicly Available

Link: https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html

- Easy to access dashboard available on the CDC's website
  - Filter by State and County to get level
  - Or download nationwide database to view all U.S. counties

- Updated at least once weekly (Thursday or Friday)

COVID-19 by County

Updated Mar. 11, 2022   Languages ▾   Print

Know Your COVID–19 Community Level

COVID-19 Community Levels are a new tool to help communities decide what prevention steps to take based on the latest data. Levels can be low, medium, or high and are determined by looking at hospital beds being used, hospital admissions, and the total number of new COVID-19 cases in an area. Take precautions to protect yourself and others from COVID-19 based on the COVID-19 Community Level in your area.

COVID-19 County Check
Find community levels and prevention steps by county.

Select a Location (all fields required)

| Michigan ▾ | Ingham County ▾ | Go |

< Start Over

🟢 **Low**

In **Ingham County, Michigan**, community level is **Low**.

- Stay up to date with COVID-19 vaccines
- Get tested if you have symptoms

People may choose to mask at any time. People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a mask.

If you are immunocompromised, learn more about how to protect yourself.

March 17, 2022

Case rates in Michigan are plateauing, with some counties showing potential signs of increase or plateau
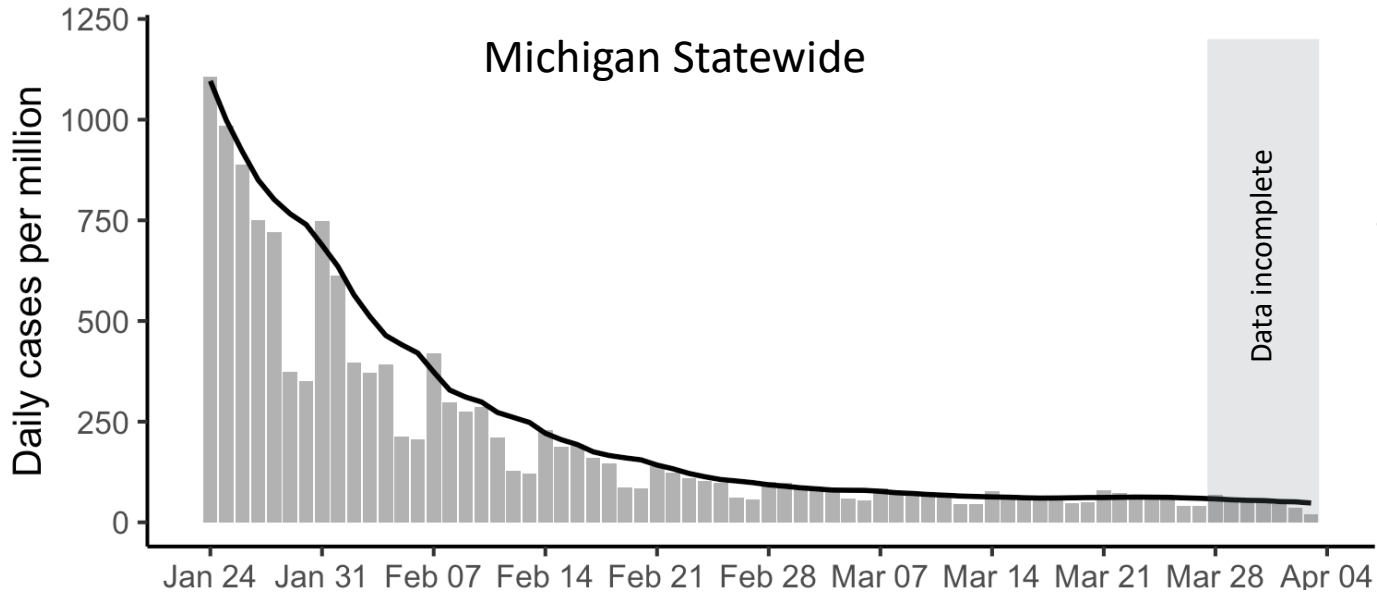
Four counties currently showing increases and 16 in elevated incidence plateaus (via mistartmap.info as of 4/4/22, data through 3/27/22).

County CDC Case Trends
Last 7 days from rolling 7-day average, April 4, 2022
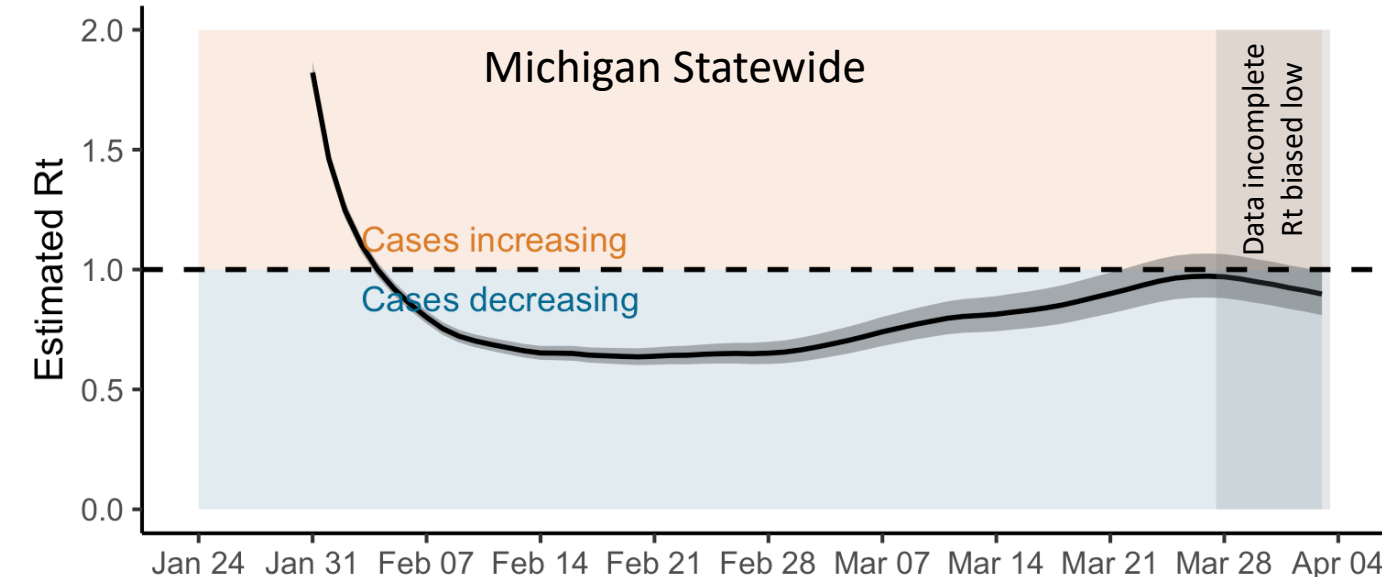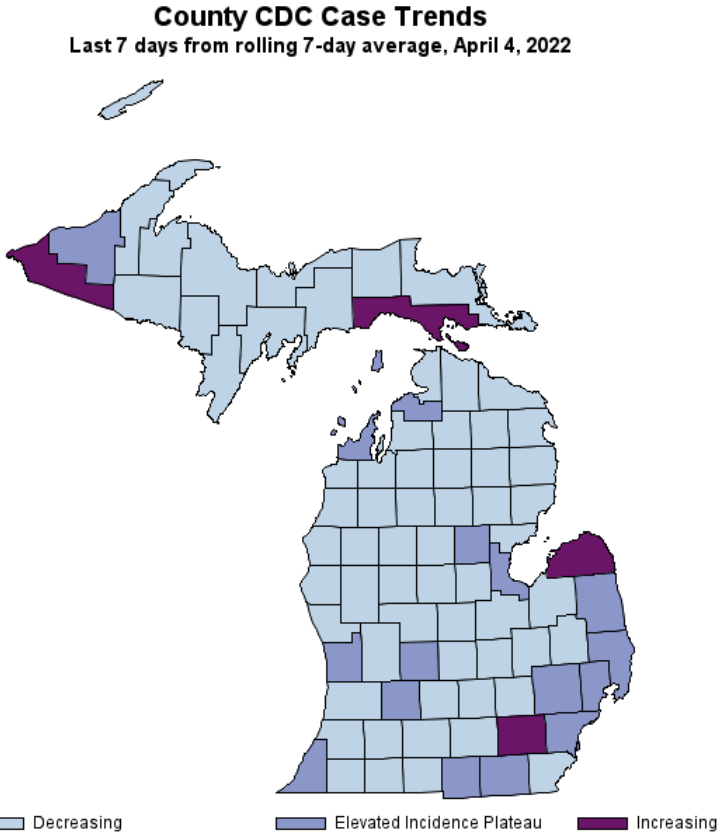
CDC Case Trend — Decreasing | Elevated Incidence Plateau | Increasing

Sources: MDSS cases plotted by onset date, if available (otherwise lab specimen collection date or referral date are used).

Harm Reduction: Key Messages

The Michigan COVID-19 response cycle can be broken down into three key phases (Recovery, Readiness, Response)

- Current case rates and hospitalizations, and increased access to vaccines, testing and therapies, indicate Michigan continues in a post-surge recovery phase of the cycle

Masking is still an important component of our layered mitigation strategies

- Statewide recommendations on universal masking has been dialed down in the recovery phase, and at this time we support individuals making informed choices about their own masking decisions

Vaccinations and Boosters administration remains a critical component during the recovery phase,

- MDHHS now has an additional tab for booster coverage data on the vaccine dashboard
- Unvaccinated people in Michigan had 2.9 times the risk of testing positive for COVID-19 in February compared to people up to date on their vaccination
  — In January, unvaccinated people in Michigan had 2.7 times the risk of testing positive for COVID-19 and 25 times the risk of dying from COVID-19 compared to people up to date on their vaccination
- There remain opportunities to inform parents about the benefits and safety of adult and child COVID-19 vaccines
- CDC authorization of 2nd booster has increased number of booster doses administered just one day after CDC announcement

Additional Resources to Empower Individuals to Reduce COVID-19 Burden

- Federal website www.COVID.gov assists COVID positive residents find treatment
- SARS-CoV-2 Testing Can Help Reduce the Spread of COVID-19
- Following COVID Safety Reminders for Spring Break Can Help Reduce Burden for Yourself and Your Community

Ongoing response to COVID-19 cycle

Response (Surge)

A surge means rapid response by local and state public health.

- Increased supplies for testing, masking and medications.
- Increased masking, testing and social distancing efforts.

Readiness (Pre-Surge)

A surge is expected due to a new variant, local outbreak, seasonal changes.

Expect increased illness severity and overwhelmed hospital capacity.

- Educate public regarding new risks.
- Ensure enough supplies of tests, masks and medications.
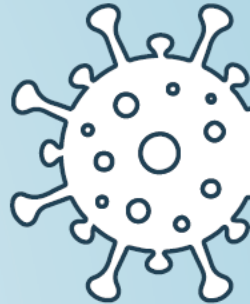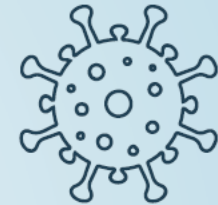
Recovery (Post-Surge)

Expect to remain in this phase for longer periods as COVID-19 evolves.

Monitor conditions that may lead to surges, such as a new variant.

- Encourage vaccines to decrease COVID-19 risks.
- Strengthen community support with local stakeholders.
- Empower community members to make best choices for individual situations.

Understanding Personal and Household Risk

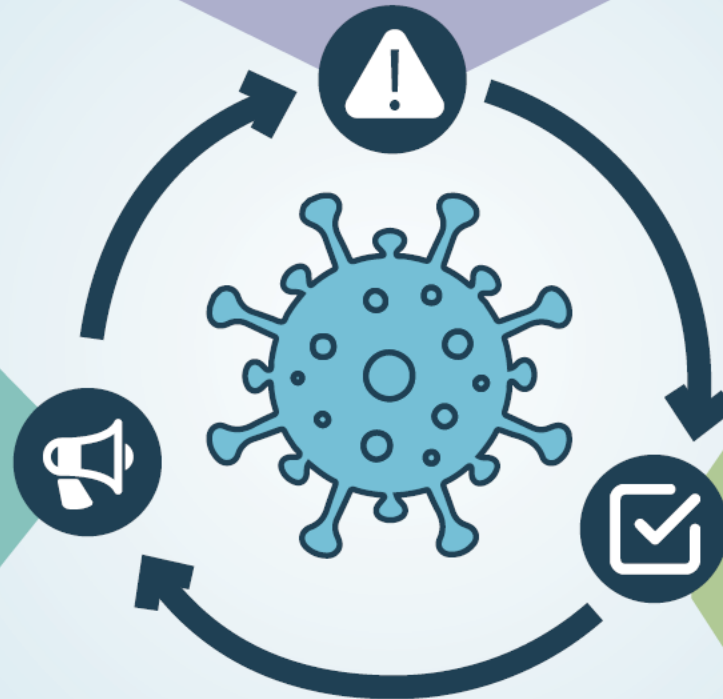Protect yourself from COVID-19 by understanding levels of risk, practicing good hygiene and hand washing, staying home when sick, and staying up to date with vaccinations. Masking is a personal and local community choice. Know your risk; know that others may have a risk different from yours. Respect the choice.

Masking is a proven way to reduce your risk of COVID-19.

When making decisions about risk, consider the setting, your vaccination status and current level of community transmission in addition to the personal and family risk factors* noted below.

	Lower Risk Settings ←		→ **Higher Risk Settings**
	Outdoor Distanced Spaces (Parks, Trails, Large patios)	**Outdoor Crowded Spaces** (Concerts, Theme parks, etc...)	**Indoor Distanced Spaces** (Social distancing ability self-controlled)	**Indoor Crowded Spaces** (Poorly ventilated and/or social distancing not in personal control)
Lower Risk — Up to date on vaccine, without risk factors				
Up to date on vaccine, with risk factors				
Unvaccinated, without risk factors				
Higher Risk — Unvaccinated, with risk factors				

Up to Date on vaccine includes any booster doses as defined by the CDC. Additionally, individuals who have tested positive for COVID-19 in the past 90 days would fall into similar risk categories as those who are up to date on vaccination.

***Risk factors** include older adults (60+) and those who have serious chronic medical conditions like heart disease, diabetes or lung disease (at any age), and those who live in high-risk congregate settings (like nursing homes, corrections facilities and shelters). If you live with others who have risk factors, consider their health in addition to your personal health.

MDHHS
Michigan Department of Health & Human Services

Visit Michigan.gov/Coronavirus for current COVID-19 information.

When to Wear a Well-Fitting Mask

Please be respectful of others' choices.

MDHHS recommends mask use in the following settings:

During Isolation and Quarantine.
- Those with COVID-19 infection and their contacts should wear a mask when around others.

When you are in a congregate setting.
- Long term care, health care or correctional facility.

When you are in an area with a local or federal mask policy.
- Counties, schools, businesses or other settings may have mask policies.

You might also consider masking in these settings:

If you, or those around you, are at high risk for infection or severe disease.
- Immunocompromised or have other medical conditions that increase risk.
- Unvaccinated.

If you feel the risk of exposure is high.
- Crowded indoor settings; a potential for unvaccinated individuals.

If you simply feel more comfortable wearing a mask.
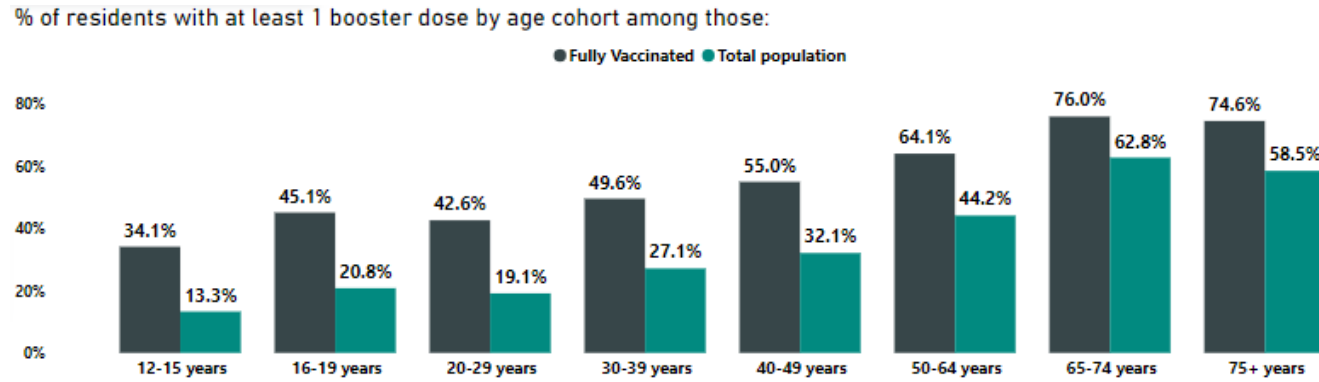
Considerate Mask Use

- Masking is one of the most considerate things you can do for other vulnerable members of your community
  - Extra precautions are needed to protect our friends, neighbors, and loved ones who are at increased risk of severe illness.
  - People who are at increased risk of severe illness—and family, friends, and coworkers who spend time with them—should consider taking extra precautions even when the COVID-19 Community Level is low.
  - These precautions can include wearing masks and getting tested before gathering together
  - If you think you are at increased risk of severe COVID-19, talk to your healthcare provider about the precautions you should take
- Be respectful of others decision to wear a mask, regardless of the reason
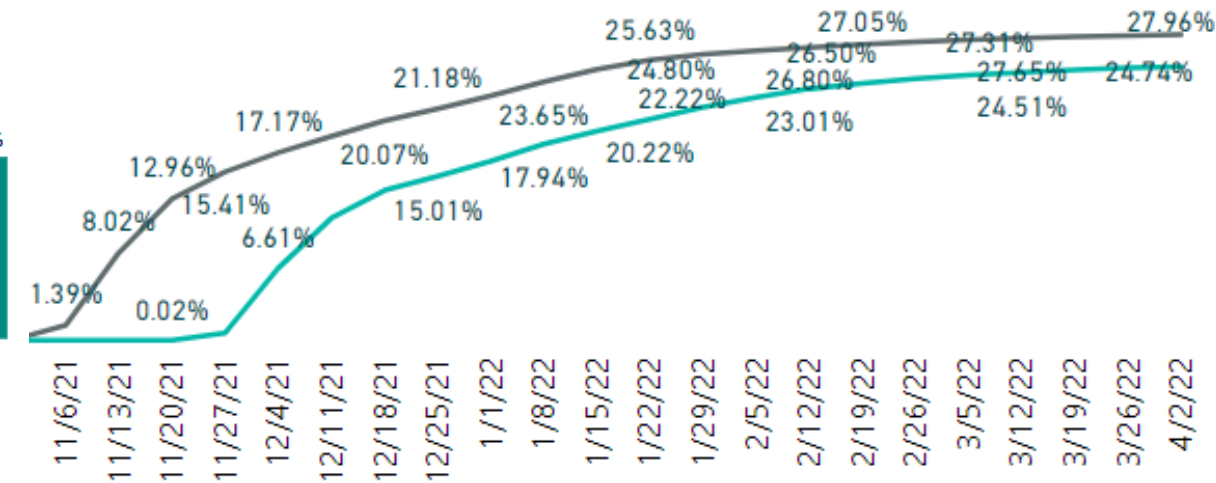
Vaccinations and Boosters

- Over 15.5 million COVID-19 vaccine doses have been administered in Michigan
  - Over 6.6 million Michiganders have received at least one dose (66.7%)
  - Over 5.9 million Michiganders have completed a primary series (59.8%)
  - Over 3.2 million additional/booster doses have been administered in Michigan
    - 53.7% of the fully vaccinated population has received a booster
    - 76% of the fully vaccinated population 65 years of age or older has received a booster

Booster Coverage by Age Cohort

Initiation and Completion Trends in 5–11-year-olds

% of residents with at least 1 booster dose by age cohort among those:

Legend: ■ Fully Vaccinated ● Total population

Age cohort	Fully Vaccinated	Total population
12-15 years	34.1%	13.3%
16-19 years	45.1%	20.8%
20-29 years	42.6%	19.1%
30-39 years	49.6%	27.1%
40-49 years	55.0%	32.1%
50-64 years	64.1%	44.2%
65-74 years	76.0%	62.8%
75+ years	74.6%	58.5%

Initiation and Completion Trends (5–11-year-olds):

Top line (initiation): 1.39%, 8.02%, 12.96%, 15.41%, 17.17%, 20.07%, 21.18%, 23.65%, 25.63%, 24.80%, 22.22%, 26.50%, 27.05%, 26.80%, 27.31%, 27.65%, 27.96%

Bottom line (completion): 0.02%, 6.61%, 15.01%, 17.94%, 20.22%, 23.01%, 24.51%, 24.74%

Dates: 11/6/21, 11/13/21, 11/20/21, 11/27/21, 12/4/21, 12/11/21, 12/18/21, 12/25/21, 1/1/22, 1/8/22, 1/15/22, 1/22/22, 1/29/22, 2/5/22, 2/12/22, 2/19/22, 2/26/22, 3/5/22, 3/12/22, 3/19/22, 3/26/22, 4/2/22

https://covid.cdc.gov/covid-data-tracker/#vaccinations
https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

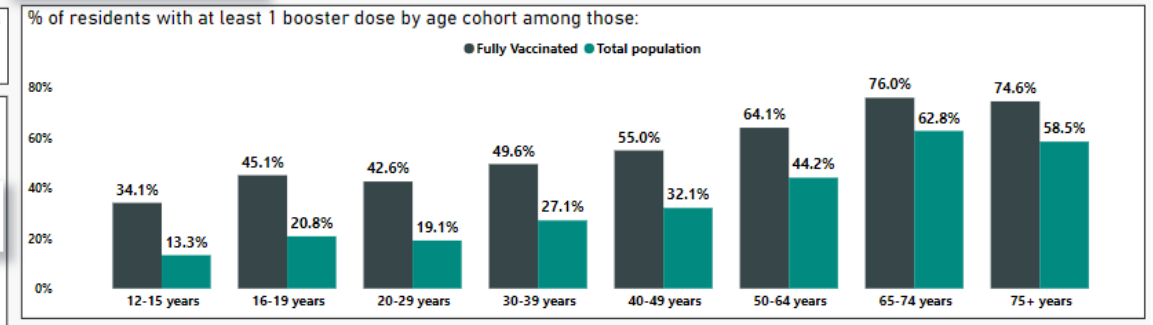Current Trends and Projections | **Prevent Death and Severe Outcomes** | Protect Healthcare Capacity | Keep Vital Infrastructure Functioning
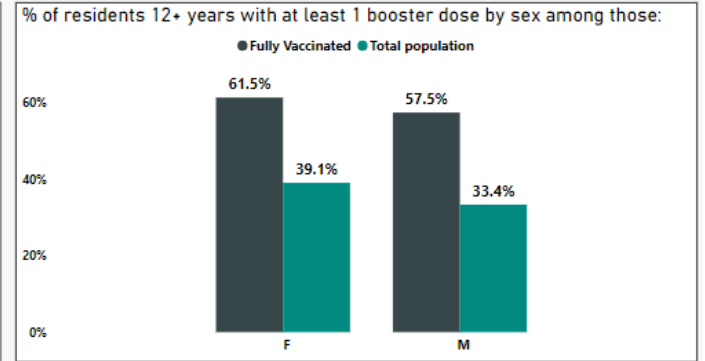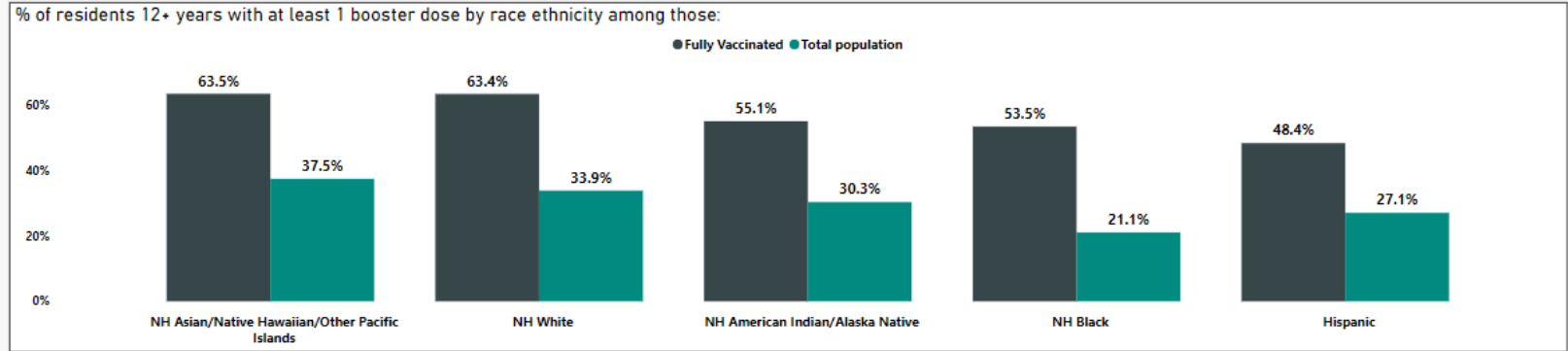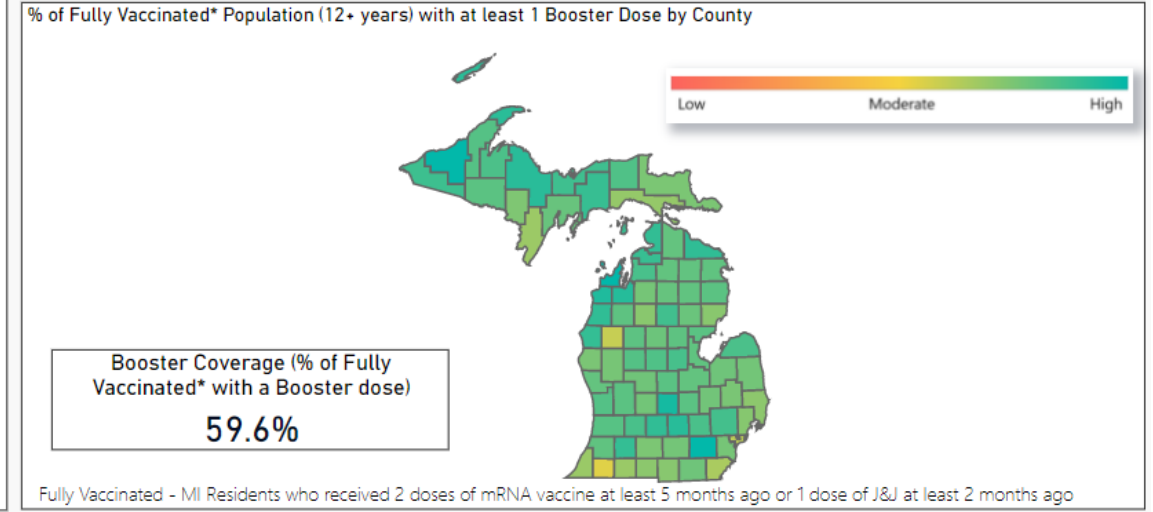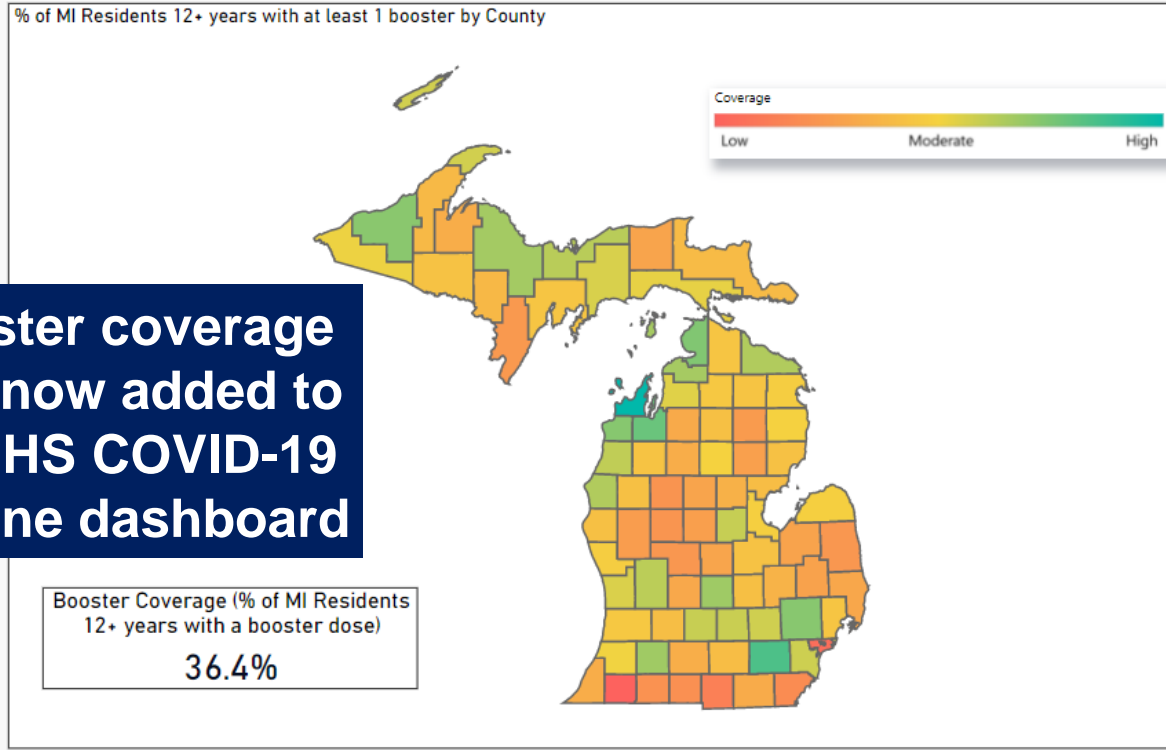
Booster coverage data now added to MDHHS COVID-19 vaccine dashboard

Completed vaccination among Skilled Nursing Residents and Staff is plateauing

86.6% of SNF residents are fully vaccinated; 34 of 53 states/territories

83.0% of SNF staff are fully vaccinated, 43 of 53 states/territories

1.8% of SNF staff are partially vaccinated

Week ending 11/7, 63.6% of staff initiated COVID-19 vaccine, compared to 82.4% the week ending 1/30 (nearly a 30% increase)

https://data.cms.gov/covid-19/covid-19-nursing-home-data

https://www.cdc.gov/nhsn/covid19/ltc-vaccination-dashboard.html
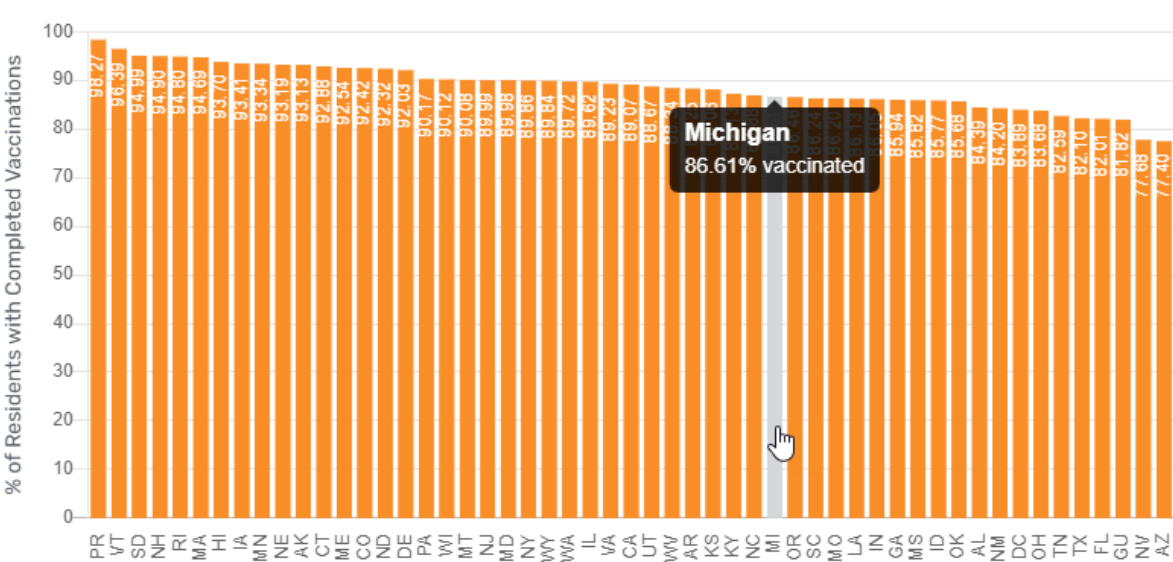
Percentage of Staff in Nursing Homes with Completed Vaccination and Receiving Additional Primary or Booster Dose by Week in Michigan is plateauing
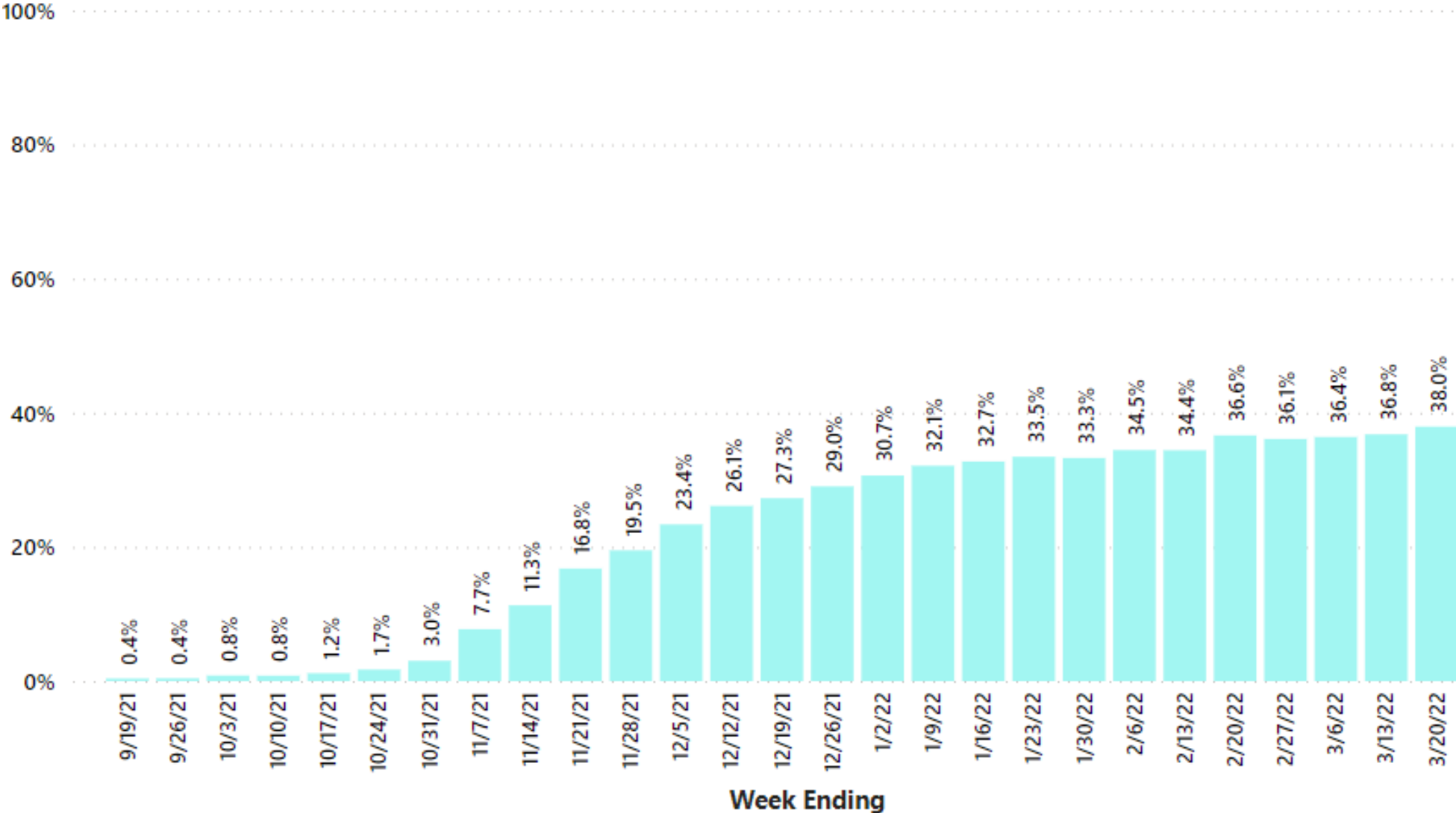
CDC Authorizes 2nd Booster for those moderately to severely immunocompromised or those 50 years of age and above

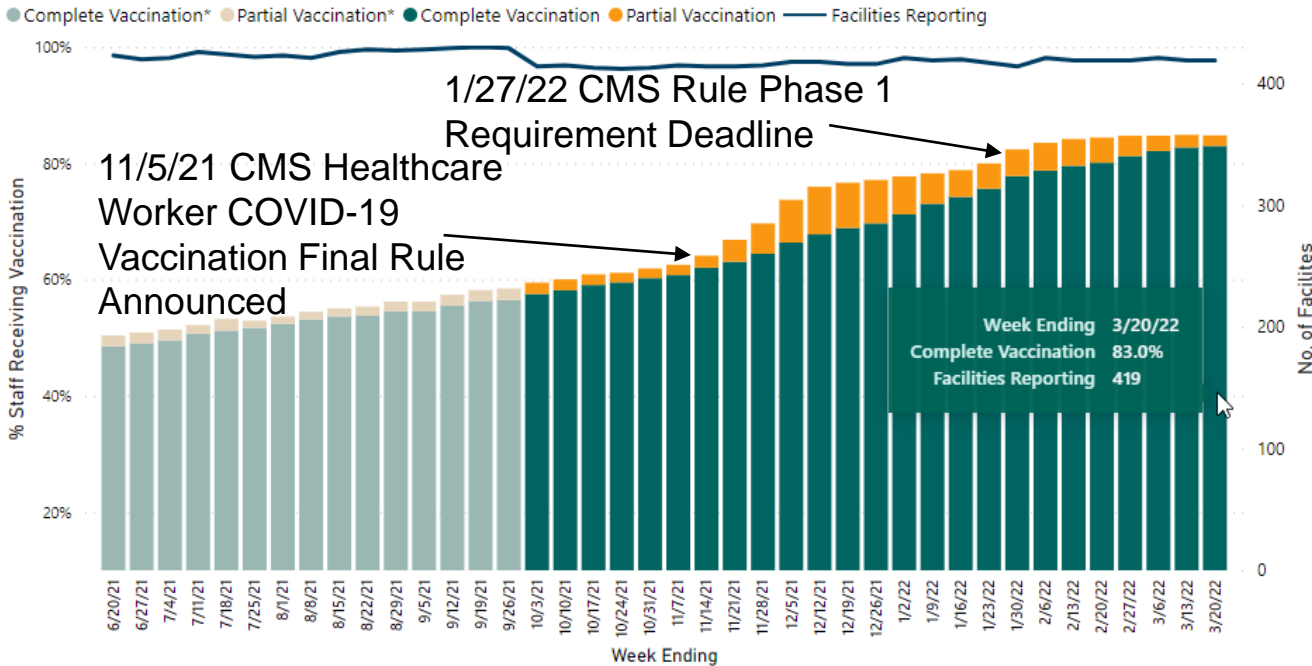Four months after receipt of a first booster dose of Pfizer BioNTech, Moderna or Janssen (Johnson & Johnson), the following are now authorized and individuals may choose to receive:

- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine or Moderna COVID-19 vaccine may be administered to individuals 50 years of age and older.

- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine may be administered to moderately or severely immunocompromised individuals 12 years of age and older.

- A second booster dose of the Moderna COVID-19 vaccine may be administered to moderately or severely immunocompromised individuals 18 years of age and older.

The CDC definition for Up to Date on COVID-19 Vaccine is not changed:

- A person is up to date with their COVID-19 vaccination if they have received **all recommended doses in the primary series and one booster when eligible**. Getting a second booster is not necessary to be considered up to date at this time.

CDC Authorization of 2nd Booster has Increased Number of Booster Doses Administered just one day after CDC Announcement

Total # of Additional/Booster Doses Administered by Week

COVID Additional/ Booster Vaccine Doses Administered by Date / Week Ending Date (K = Thousand, M = Million)

Legend: ● J&J ● Moderna ● Pfizer ● Total
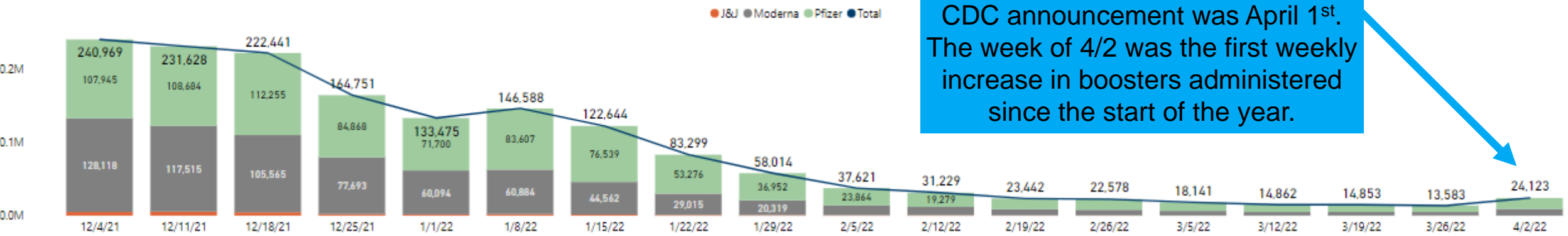
CDC announcement was April 1st. The week of 4/2 was the first weekly increase in boosters administered since the start of the year.

Week Ending	Total	Pfizer	Moderna
12/4/21	240,969	107,945	128,118
12/11/21	231,628	108,684	117,515
12/18/21	222,441	112,255	105,565
12/25/21	164,751	84,868	77,693
1/1/22	133,475	71,700	60,094
1/8/22	146,588	83,607	60,884
1/15/22	122,644	76,539	44,562
1/22/22	83,299	53,276	29,015
1/29/22	58,014	36,952	20,319
2/5/22	37,621	23,864	
2/12/22	31,229	19,279	
2/19/22	23,442		
2/26/22	22,578		
3/5/22	18,141		
3/12/22	14,862		
3/19/22	14,853		
3/26/22	13,583		
4/2/22	24,123		

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

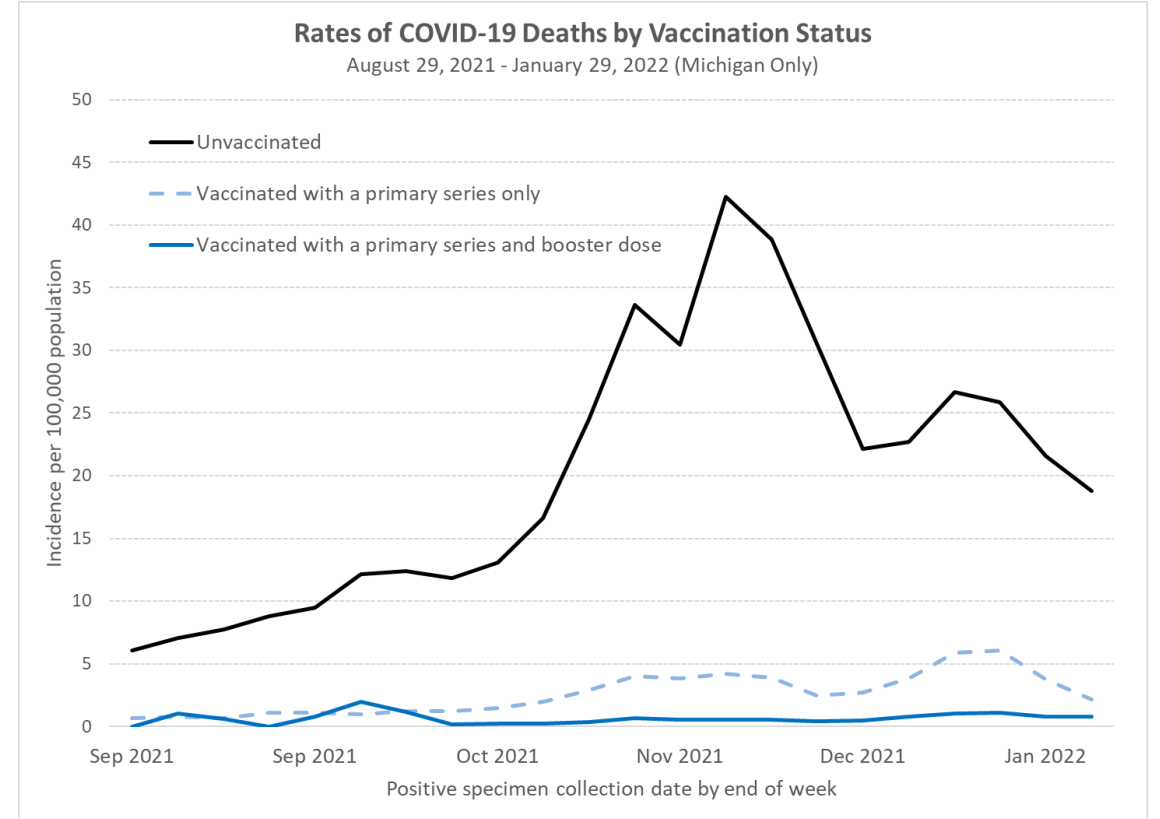**Total # of Additional/Booster Doses Administered by Week, for persons aged 50 and older**

COVID Additional/ Booster Vaccine Doses Administered by Date / Week Ending Date (K = Thousand, M = Million)

Legend: ● J&J ● Moderna ● Pfizer ● Total
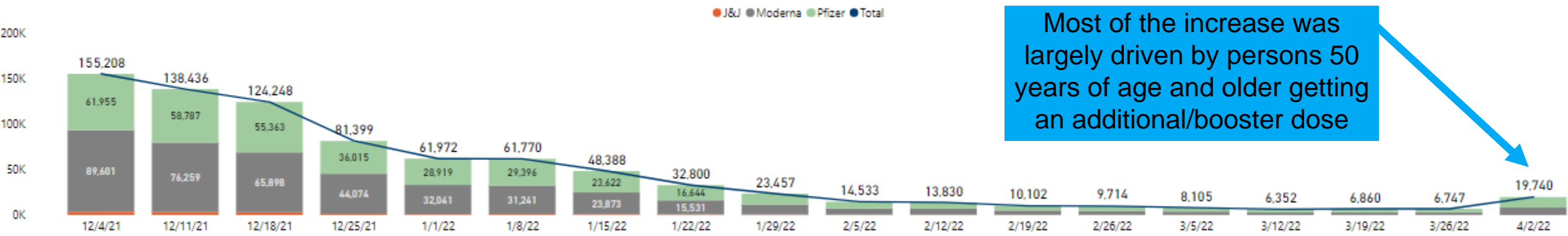
Most of the increase was largely driven by persons 50 years of age and older getting an additional/booster dose

Week Ending	Total	Pfizer	Moderna
12/4/21	155,208	61,955	89,601
12/11/21	138,436	58,787	76,259
12/18/21	124,248	55,363	65,898
12/25/21	81,399	36,015	44,074
1/1/22	61,972	28,919	32,041
1/8/22	61,770	29,396	31,241
1/15/22	48,388	23,622	23,873
1/22/22	32,800	16,644	15,531
1/29/22	23,457		
2/5/22	14,533		
2/12/22	13,830		
2/19/22	10,102		
2/26/22	9,714		
3/5/22	8,105		
3/12/22	6,352		
3/19/22	6,860		
3/26/22	6,747		
4/2/22	19,740		

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

Unvaccinated people in Michigan had 2.9 times the risk of testing positive for COVID-19 in February compared to people up to date on their vaccination

Rates of COVID-19 Cases by Vaccination Status
August 29, 2021 - February 19, 2022 (Michigan Only)

- Unvaccinated
- Vaccinated with a primary series only
- Vaccinated with a primary series and booster dose

Incidence per 100,000 population

Rates of COVID-19 Deaths by Vaccination Status
August 29, 2021 - January 29, 2022 (Michigan Only)

- Unvaccinated
- Vaccinated with a primary series only
- Vaccinated with a primary series and booster dose

Incidence per 100,000 population

Positive specimen collection date by end of week

Unvaccinated people aged 12 years and older had:

2.7 X	AND	25 X	in January, and
Risk of Testing Positive for COVID-19		*Risk of Dying from COVID-19*	

2.9 X	in February,* compared to people vaccinated with a primary series and a booster dose.**
Risk of Testing Positive for COVID-19	

*These data reflect cases among persons with a positive specimen collection date through February 19, 2022, and deaths among persons with a positive specimen collection date through January 29, 2022.
Please note that these provisional data are subject to change. **Data on immune status are unavailable, thus an additional dose in an immunocompromised person cannot be distinguished from a booster dose.

ISSUE BRIEF
COVID-19 RAPID RESPONSE SURVEY FINDINGS

THE LINK BETWEEN PARENTS' AND CHILDREN'S VACCINATION IN DETROIT

MARCH 2022
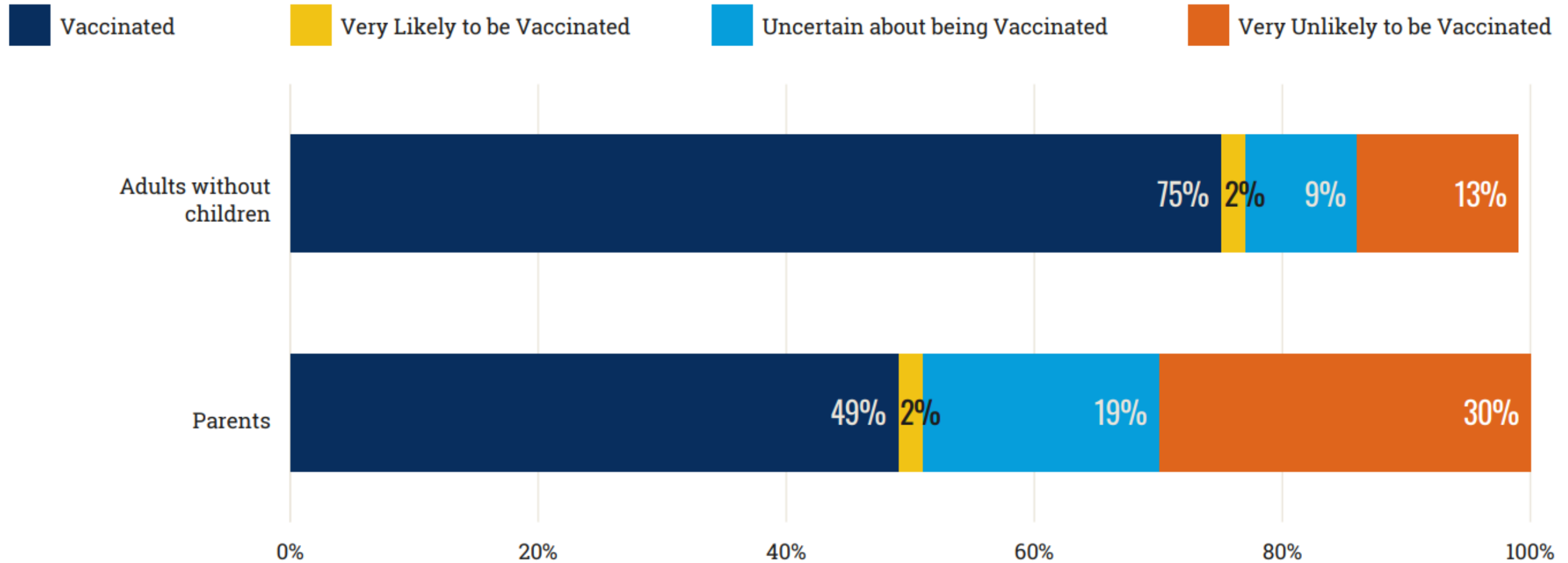BY LYDIA WILEDEN

DETROIT METRO AREA COMMUNITIES STUDY

https://detroitsurvey.umich.edu/wp-content/uploads/2022/03/DMACS-Brief-parent-child-vaccinations-March2022.pdf

OVERVIEW

This report is part of a series of reports highlighting findings from the most recent survey of the Detroit Metro Area Communities Study (DMACS). The survey was fielded between November 3 and December 15, 2021, and captures the views of a representative sample of 1,900 Detroit residents. This report focuses on the vaccination status of parents—defined as adults living with one or more children under the age of 18 for whom they have custody—and how parents' willingness to vaccinate is associated with the vaccination status of their children. It also highlights parents' reasons for avoiding vaccination, trust in the vaccine generally and for kids specifically, and perceptions of how safe social activities are during the pandemic. It extends our August 2021 findings that showed adults living with children were more hesitant about getting the COVID-19 vaccine than other adults. Results have been weighted to reflect the population of the City of Detroit.
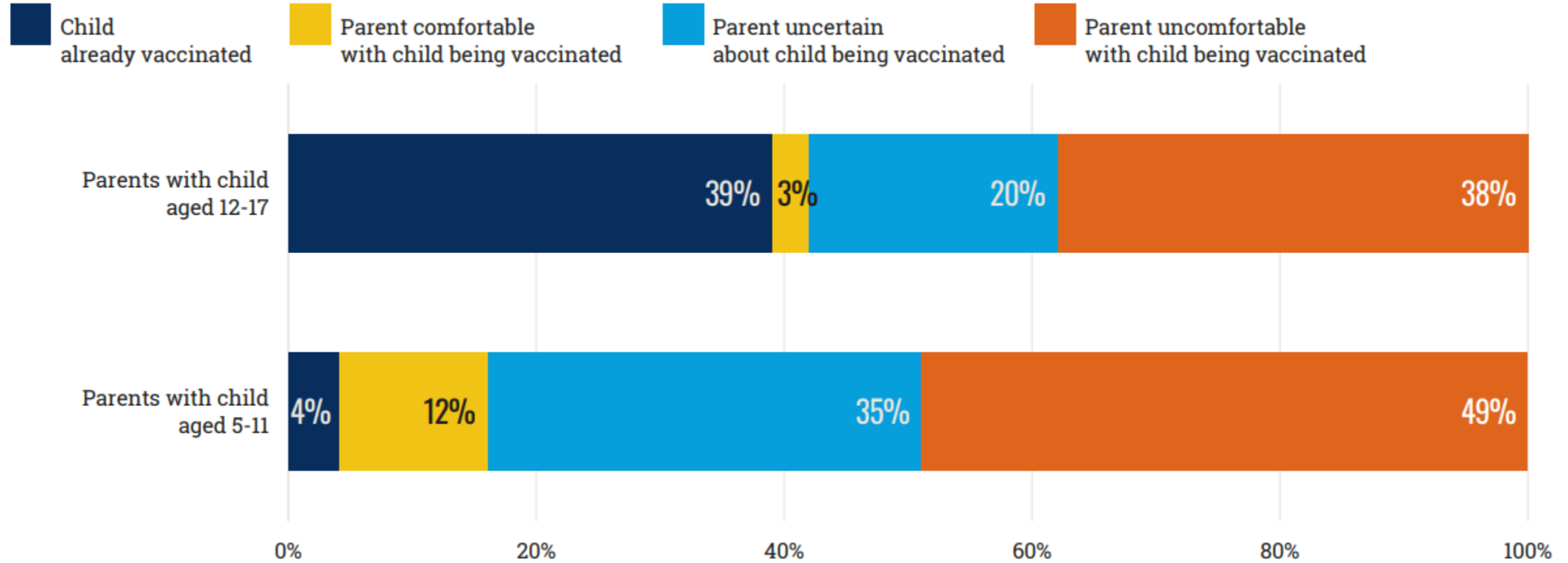
PARENTS ARE LESS LIKELY TO BE VACCINATED AND ARE MORE HESITANT ABOUT GETTING THE COVID-19 VACCINE[1]

ADULTS' VACCINATION BY PARENTAL STATUS

■ Vaccinated   ■ Very Likely to be Vaccinated   ■ Uncertain about being Vaccinated   ■ Very Unlikely to be Vaccinated

Adults without children: 75% | 2% | 9% | 13%

Parents: 49% | 2% | 19% | 30%

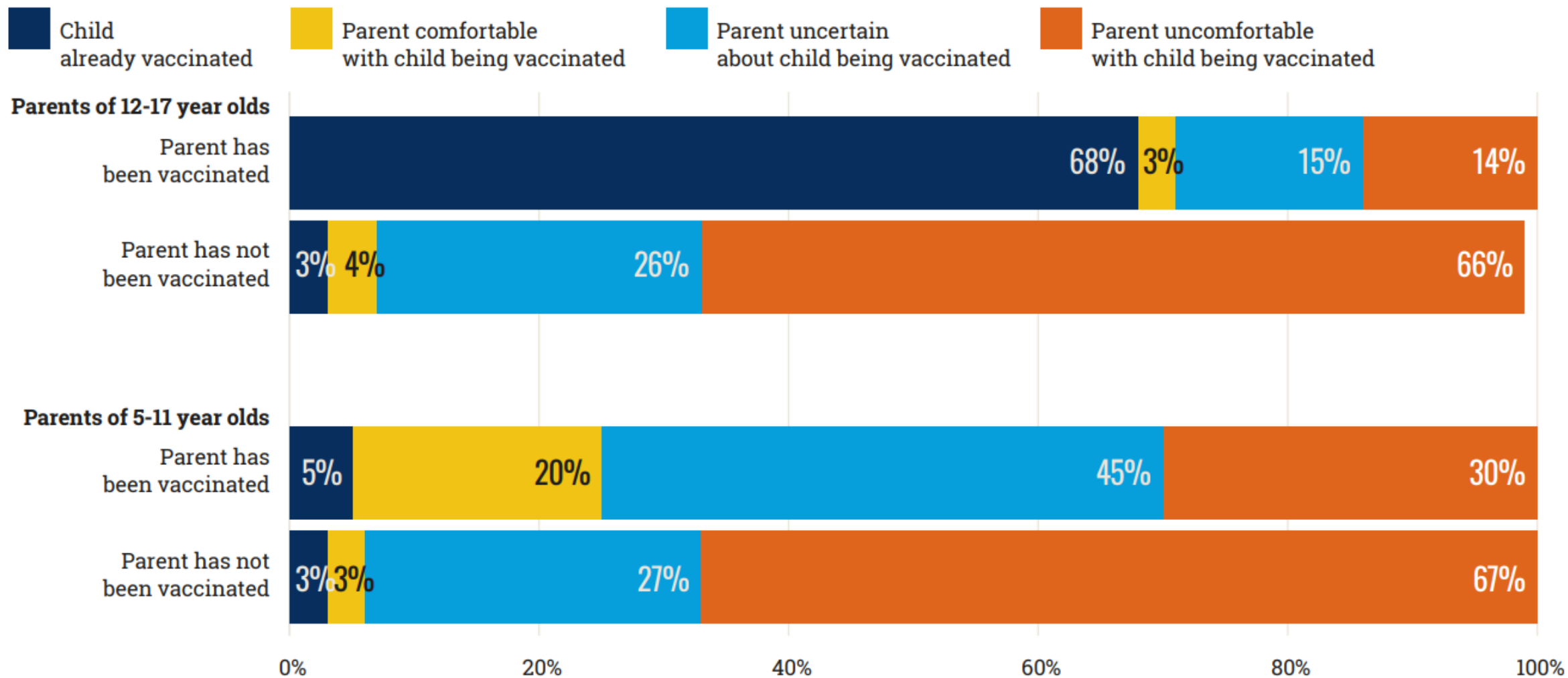0%   20%   40%   60%   80%   100%

UPTAKE OF VACCINES FOR KIDS REMAINS LOW AND MANY PARENTS ARE HESITANT TO HAVE THEIR CHILDREN VACCINATED

PARENTS' COMFORT VACCINATING CHILDREN

- Child already vaccinated
- Parent comfortable with child being vaccinated
- Parent uncertain about child being vaccinated
- Parent uncomfortable with child being vaccinated

Parents with child aged 12-17
- 39%
- 3%
- 20%
- 38%

Parents with child aged 5-11
- 4%
- 12%
- 35%
- 49%

0%　20%　40%　60%　80%　100%

UNVACCINATED PARENTS ARE LESS LIKELY TO HAVE THEIR CHILDREN VACCINATED

PARENTS' COMFORT VACCINATING CHILDREN BY PARENT VACCINE STATUS

- Child already vaccinated
- Parent comfortable with child being vaccinated
- Parent uncertain about child being vaccinated
- Parent uncomfortable with child being vaccinated

Parents of 12-17 year olds

Parent has been vaccinated
68% | 3% | 15% | 14%

Parent has not been vaccinated
3% | 4% | 26% | 66%

Parents of 5-11 year olds

Parent has been vaccinated
5% | 20% | 45% | 30%

Parent has not been vaccinated
3% | 3% | 27% | 67%

0%   20%   40%   60%   80%   100%

Federal website assists COVID positive residents find treatment

COVID-19 resources available on federal website: COVID.gov

Test-to-Treat program simplifies access to COVID treatment: Find a Test-to-Treat location near you
- If you have COVID-19 symptoms, do not wait to get treated
- You must take oral COVID-19 medication within 5 days of your first COVID-19 symptoms
- Use the tool to find a location that is right for you

SARS-CoV-2 Testing Can Help Reduce the Spread of COVID-19

- Testing for SARS-CoV-2 has become more accessible, including through at-home rapid COVID-19 antigen tests
- At home test use increased during the Delta and Omicron-predominant periods
- COVID-19 testing identifies opportunities for appropriate treatment and public health response
- Testing is most effective when used in concert with other mitigation measures including quarantine and isolation, consistently and correctly wearing masks, and staying up to date with COVID-19 vaccination
- **Providing reliable and low-cost/free at-home test kits could assist with continued prevention efforts**
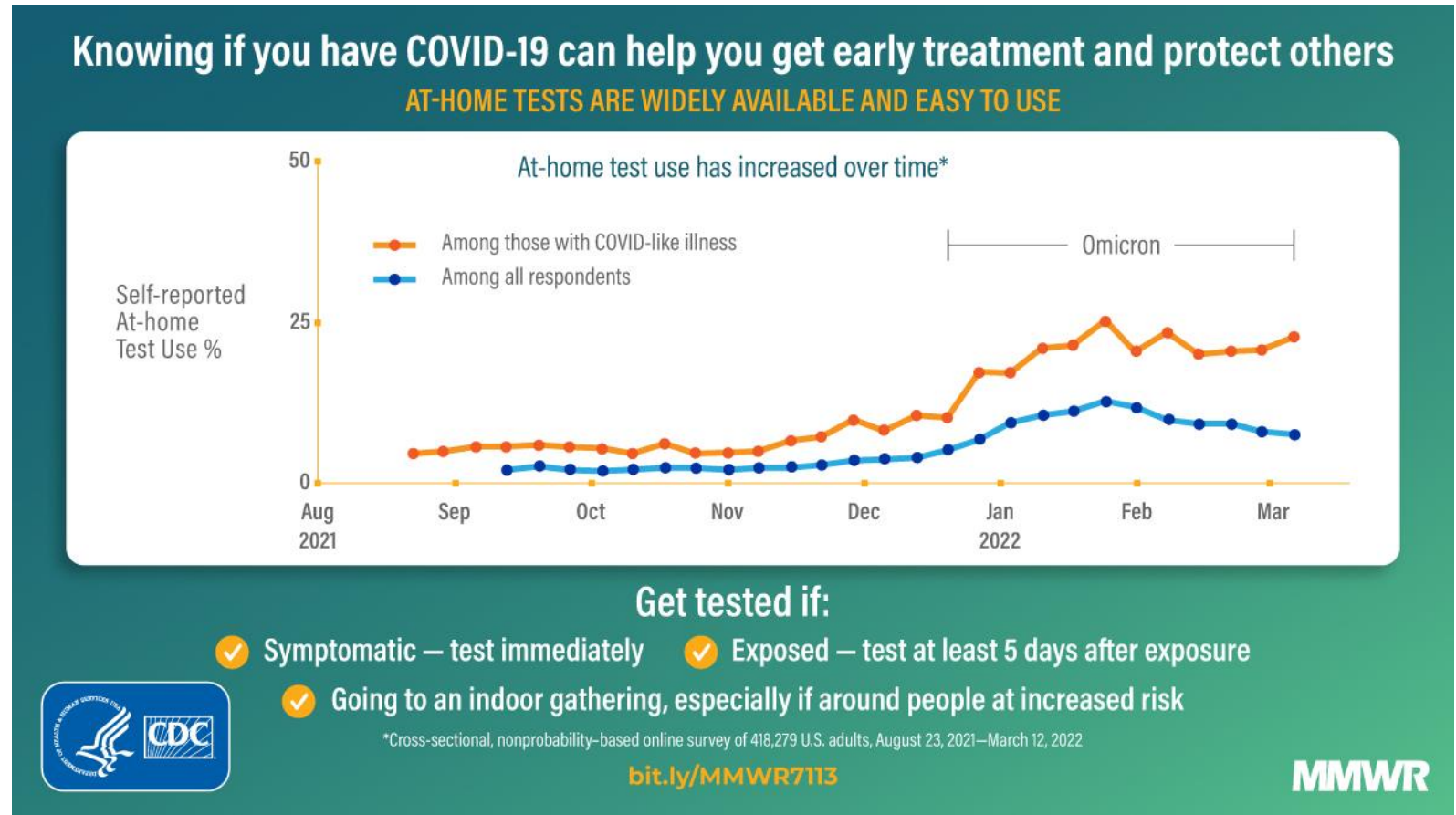
COVID Safety Reminders for Spring Break

Travel Considerations:
- Do **NOT** travel if you are sick or awaiting COVID test results or a close contact recommended to quarantine.
- Check your destination's **CDC Community Levels** (COVID-19 by County | CDC) and travel requirements
- Remember **masking** is still required on public transportation and indoor transportation hubs (airports, train stations)
- **Vaccinate** or boost before travel Coronavirus - COVID-19 Vaccine (michigan.gov)
- **Testing** is widely available
  - Find a Test Near You Search Results (solvhealth.com)
  - Reorder over-the-counter tests through federal, Mi Backpack, or Rockefeller programs Coronavirus - Test (michigan.gov)
- Discuss these factors and safety plans with travel companions

Returning Considerations:
- Test 3-5 days after returning home
- Avoid contact with elderly or immunocompromised loved ones for 10 days after returning

SAFER TRAVEL CHECKLIST

☑ MAKE SURE YOU ARE FULLY VACCINATED AGAINST COVID-19 BEFORE YOU TRAVEL.

☑ CHECK THE TRAVEL REQUIREMENTS OF THE STATE OR COUNTRY YOU ARE VISITING.

☑ PACK AND WEAR FACEMASKS.

☑ GRAB HAND SANITIZER IN CASE YOU CAN'T WASH HANDS WITH SOAP AND WATER.

Epidemiologic Surveillance: Key Messages

- Nationally, case rates declines are slowing and the Omicron BA.2 surge is continuing in several European countries
  - We are closely monitoring epidemiology of the Omicron BA.2 sub-lineage
    - In the United States, the proportion of specimens sequenced as BA.2 has increased > 70% while the total specimens sequenced have decreased
    - Michigan is also seeing an increase in BA.2 with the limited number of specimens being sequenced

- Sixty-five percent (13/20) of Michigan sentinel wastewater surveillance sites are showing increases or plateaus in COVID-19 in the previous 15-days

- Case rates are beginning to plateau for all reported ages, races and ethnic groups
  - Modest increases seen among those aged 20–29-years-old and Asian/Pacific Islander
  - Case rates among school aged children are also plateauing
  - Long-term care settings have seen a decline in the number of cases and clusters reported to MDHHS

- Michigan COVID+ hospital admissions, census, and ICU capacity are plateauing for many regions and age groups
  - Highest number of weekly MIS-C cases reported after omicron surge

- New findings from Adolescent Behaviors and Experience Survey: More than half of high school students surveyed found it more difficult to complete their schoolwork (66%) and experienced emotional abuse by a parent or other adult in their home (55%) during the COVID-19 pandemic. Overall, students experienced insecurity via parental job loss (29%), personal job loss (22%), and hunger (24%)
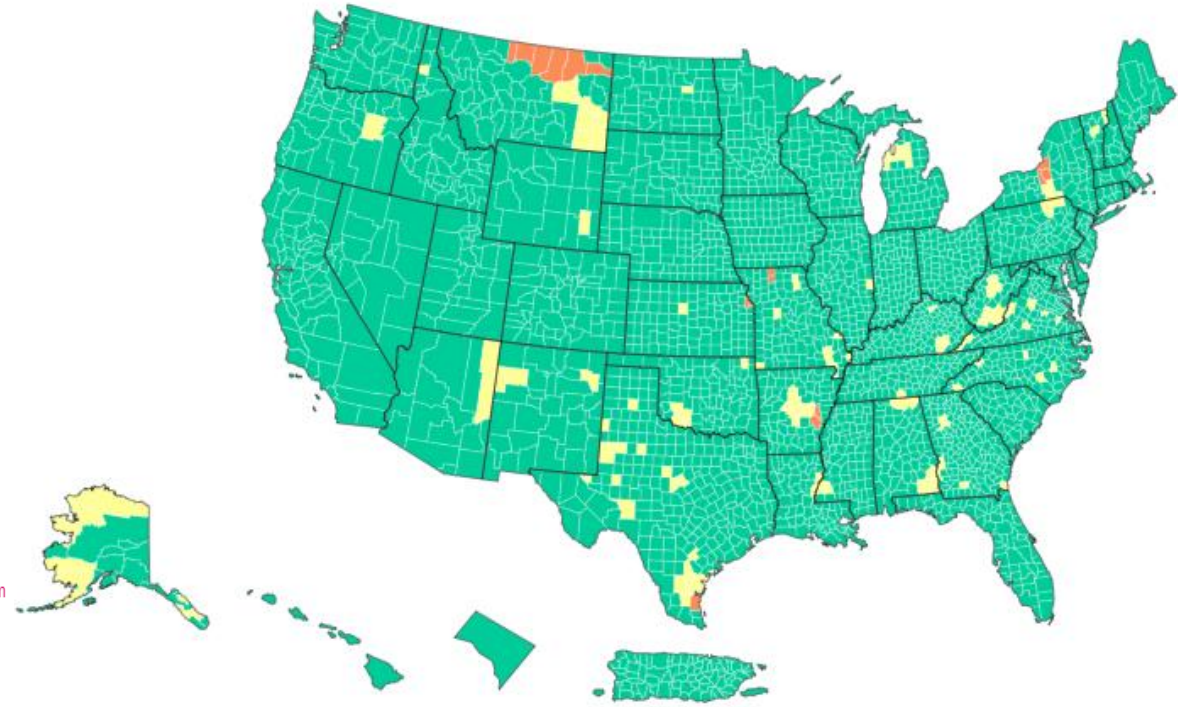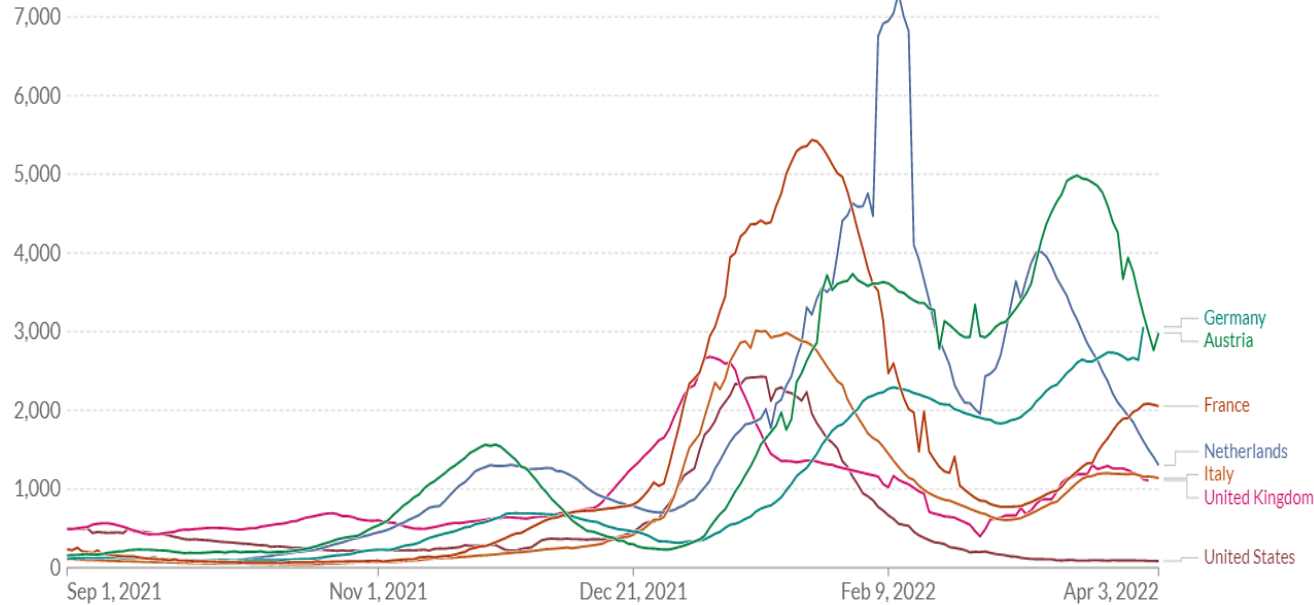
Global and National Trends

Daily new confirmed COVID-19 cases per million people
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World in Data

LINEAR LOG

Germany
Austria
France
Netherlands
Italy
United Kingdom
United States

Sep 1, 2021   Nov 1, 2021   Dec 21, 2021   Feb 9, 2022   Apr 3, 2022

Globally, 491,572,015 cases and 6,153,596 deaths (Data* through 4/4/2022)

- Case rates appear to be declining or plateauing in most European countries following second Omicron wave

United States: Reported cases (7-day average) have decreased over 5.82% since the prior week¶

- In the U.S., the case rate is 55 cases/100,000 in last 7 days (last week: 58.2 cases per/100,000)
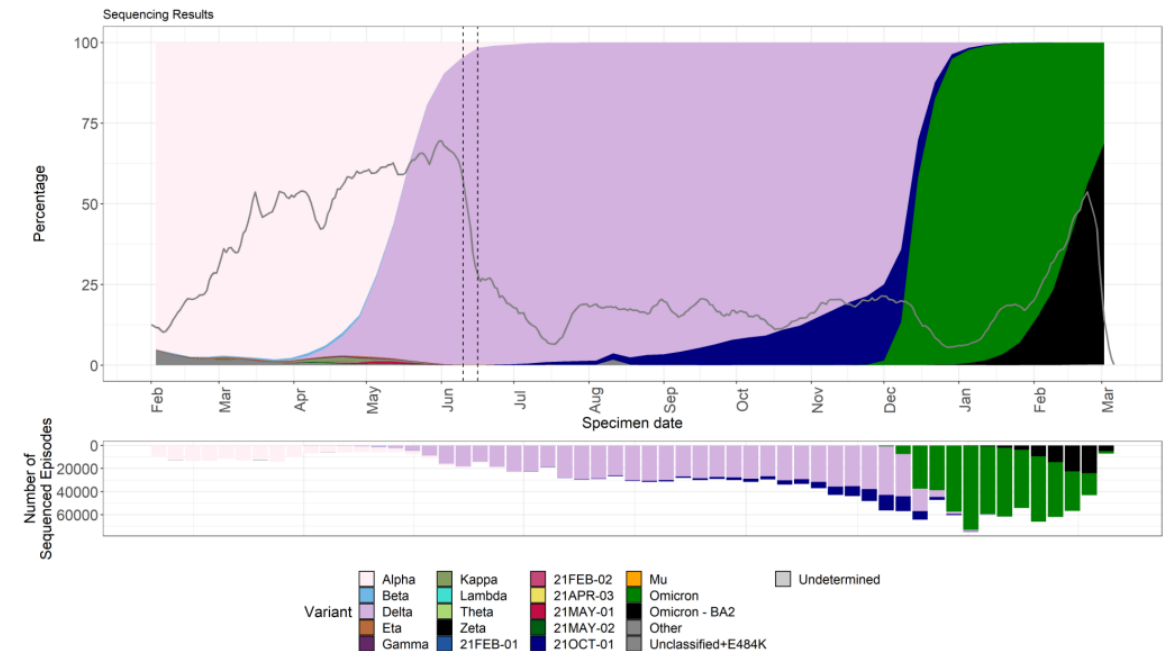
All Region 5 (Midwest) states have plateaued

- Illinois and Michigan have the highest case rates *in Region 5* (4/4)

BA.2 UK Technical Report – March 11th

- BA.2 is >80% of the sequences in the UK

- Hospitalization rate is similar to BA.1

- Infection rate in household contacts is 14% with BA.2 vs 11% with BA.1 and in non household contacts is 5% with BA.2 vs 4% with BA.1

- Monitoring in highly infected (30%) and vaccinated population (95%) found that reinfection after BA.1 is possible but unclear how common. About 9% of all recent infections (end of February) are reinfections

SARS-CoV-2 variants of concern and variants under investigation in England: Technical briefing 38

Figure 2. Variant prevalence of available sequenced cases for England from 1 February 2021 as of 8 March 2022
(Find accessible data used in this graph in underlying data. Dashed lines indicate period incorporating issue at a sequencing site. Grey line indicates proportion of cases sequenced.)
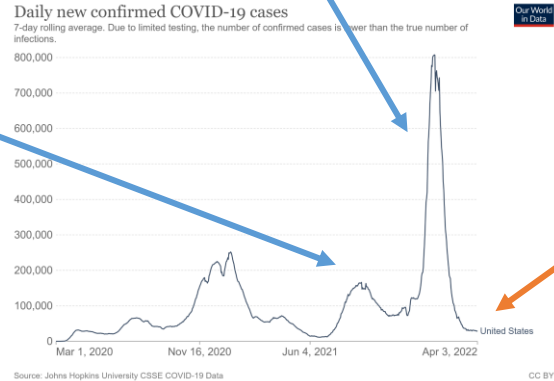
Understanding new variants – Omicron BA.1 vs BA.2

Delta > Omicron BA.1 > Omicron BA.2

Daily new confirmed COVID-19 cases
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World in Data

United States

Mar 1, 2020   Nov 16, 2020   Jun 4, 2021   Apr 3, 2022

Source: Johns Hopkins University CSSE COVID-19 Data   CC BY

Omicron BA.1	Omicron BA.2
Current Trend – Percent of Cases Decreasing	**Current Trend – Percent of Cases Increasing**
50% increase in transmission compared to Delta	30% increase in transmission compared to BA.1
Vaccine protection lower than Delta	Vaccine protection similar to BA.1
Less severe than Delta	Less severe than Delta / Similar to BA.1
Reinfections after Delta are possible	Reinfections after BA.1 are possible

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan

SARS-CoV-2 Variants Circulating in the United States, Mar 5 – Apr 2 (NOWCAST)

USA					
WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	BA.2	VOC	72.2%	68.1-75.9%	
	BA.1.1	VOC	25.3%	21.9-29.1%	
	B.1.1.529	VOC	2.5%	2.0-3.2%	
Delta	B.1.617.2	VOC	0.0%	0.0-0.0%	
Other	Other*		0.0%	0.0-0.0%	

*   Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
**   These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
#   AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1 and BA.3 are aggregated with B.1.1.529. For regional data, BA.1.1 is also aggregated with B.1.1.529, as it currently cannot be reliably called in each region.

Data last updated April 5, 2022
Source: MDSS
¶ Sequence specimens are from the most recent week by onset date which may change as more specimens are sent in

VOC Distribution in Michigan
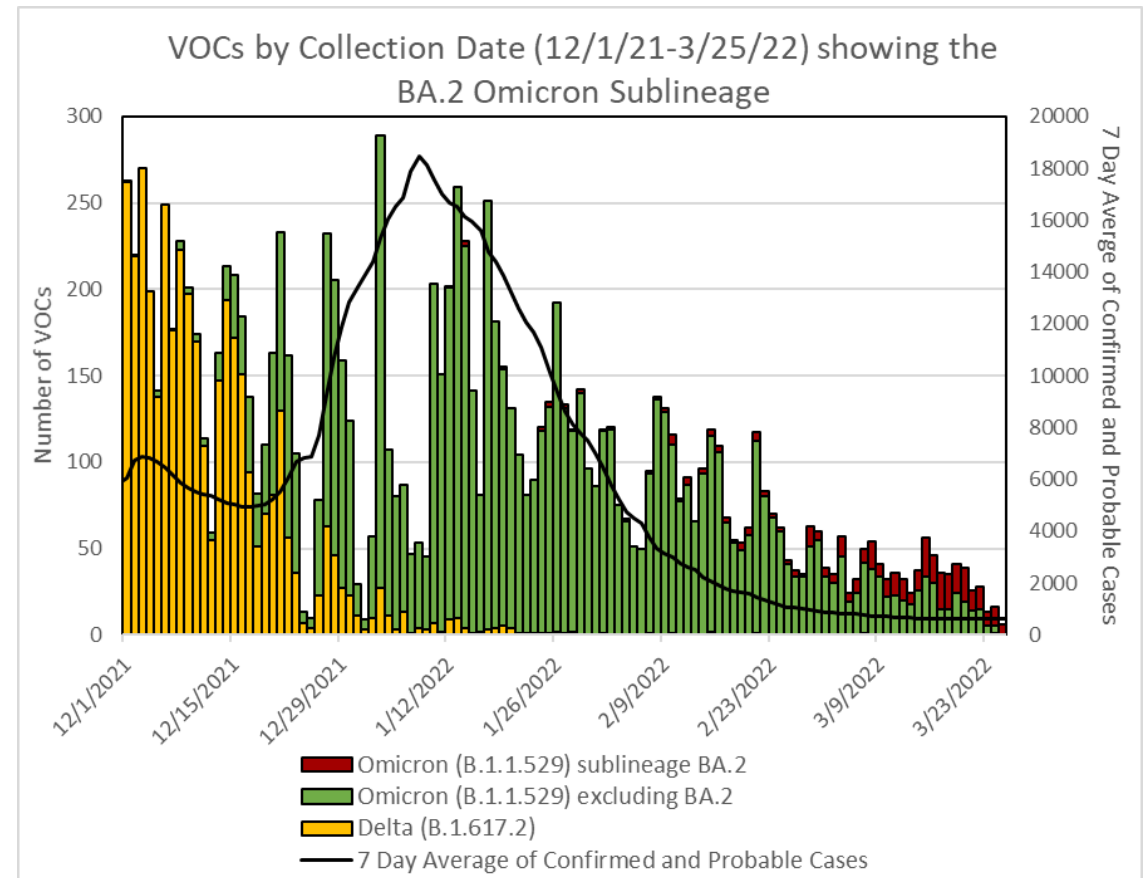
- Since March 1, there have 894 VOC specimens sequenced
- Cumulatively, 378 Omicron BA.2 specimens identified from 40 counties and City of Detroit

Michigan COVID-19 SWEEP Sentinel Wastewater Dashboard

The map below shows 20 sewershed sites in Michigan where wastewater is being monitored for the presence of SARS-CoV-2, the virus that causes COVID-19. These sentinel sites serve as a subset of wastewater surveillance in Michigan distributed across the Michigan Economic Recovery Council (MERC) Regions. Click on each site on the map to see wastewater and clinical case data over time. In the top right corner of the map, slide the white buttons to select the time period for which the site-specific percentile is calculated.
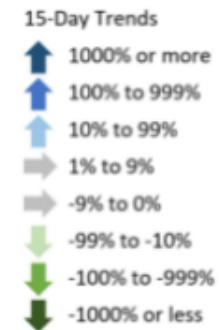
Date
3/15/2022   3/25/2022

Percentile
- ☐ 0-20
- ☐ 21-40
- ☐ 41-60
- ☐ 61-80
- ☐ 81-100
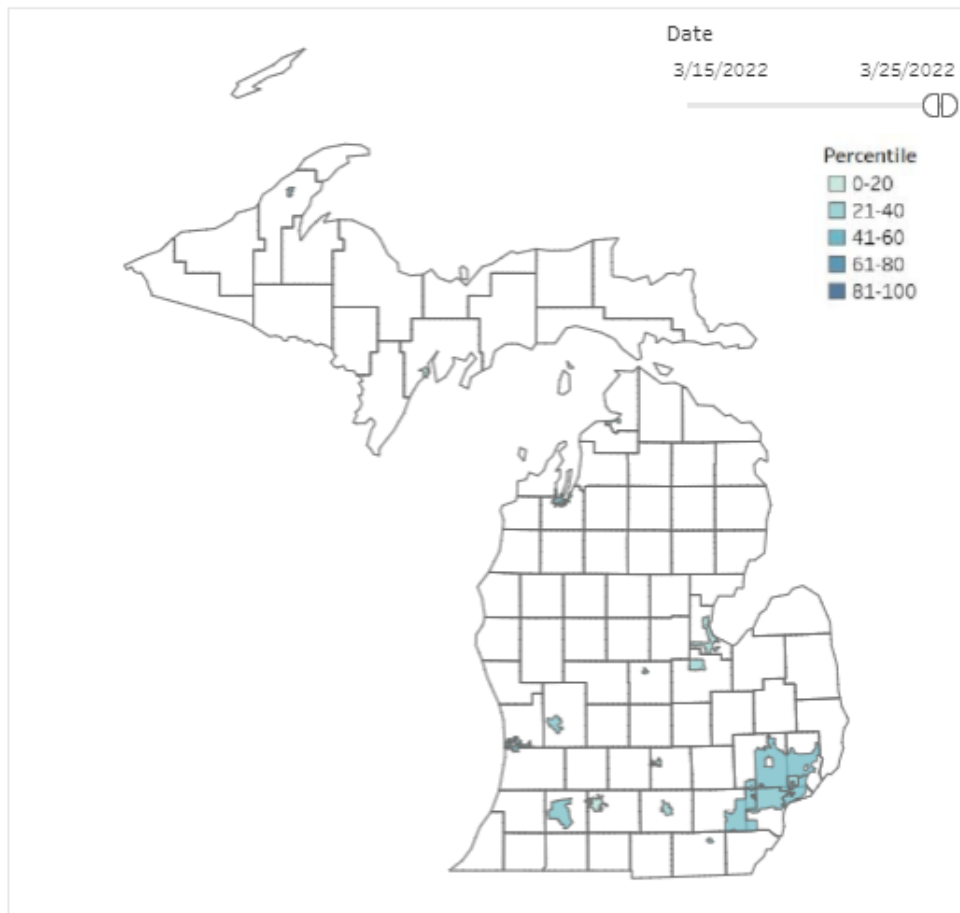
Site	Sewershed Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	0	3/21/2022	↓
Battle Creek WWTP	51093	0	3/23/2022	→
Bay City WWTP	34000	0	3/24/2022	↓
Delhi Township WWTP	22500	0	3/17/2022	→
Escanaba WWTP	12600	29	3/16/2022	↓
GLWA Detroit River Interce..	492000	74	3/16/2022	→
GLWA North Interceptor-	1482000	51	3/16/2022	→
GLWA Oakwood-	840600	75	3/16/2022	→
Grand Rapids WWTP	265000	33	3/24/2022	↑
Holland WWTP North	45606	0	3/23/2022	→
Holland WWTP South	36912	0	3/23/2022	→
Jackson WWTP	90000	36	3/24/2022	↑
Kalamazoo WWTP	150000	0	3/24/2022	↓
Petoskey WWTP	7900	1	3/24/2022	↓
Portage Lake WWTP	14000	27	3/16/2022	↑
Saginaw Township WWTP	40000	0	3/24/2022	↓
Tecumseh WWTP	8680	11	3/25/2022	↑
Traverse City WWTP	45000	2	3/24/2022	↑
Warren WWTP	135000	28	3/17/2022	↓
Ypsilanti WWTP	330000	36	3/24/2022	↑

Abbreviations: GLWA - Great Lakes Water Authority; WWTP - Waste Water Treatment Plant

Definitions and descriptions of data calculations can be found in the "About" tab.

Current results reflect data that were uploaded to MDHHS as of 3/30/2022. Labs are required to report test results to local partners within 24 hours. Data is subject to change as additional wastewater data and case data are received.

15-Day Trends
- ↑ 1000% or more
- ↑ 100% to 999%
- ↑ 10% to 99%
- ➡ 1% to 9%
- ➡ -9% to 0%
- ↓ -99% to -10%
- ↓ -100% to -999%
- ↓ -1000% or less

Sentinel Summary

- 35% (7/20) of sentinel sites are showing declines in the previous 15-days

- 30% (6/20) of sentinel sites are showing increasing trends over last 15-days

- The remaining 35% of sites have plateaued over the last 15 days.

Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

Interpreting Wastewater Should Be In Context with Other Indicators

- When levels of virus in wastewater are low, a modest increase overall in virus level can appear much larger as numbers are translated into percentages
  - This does not necessarily mean we will see major increases in transmission in the community

- When increases are seen within one wastewater site, public health officials compare with neighboring communities and other data sources to understand potential of surges
  - For example, the Ypsilanti WWTP saw increases in SARS-CoV-2 levels which correlated with increasing presence of Omicron BA.2 lineage and then followed by an increase in cases

Ypsilanti WWTP
The most recent sample concentration is higher than 27% of samples collected at this site, which puts it in the 21-40 percentile category. As of 3/24/2022, the change in viral concentration over the past 15 days is increasing.

Wastewater SARS-CoV-2 Levels and COVID-19 Cases

The blue line on the graph shows the levels of SARS-CoV-2, the virus that causes COVID-19, in the wastewater samples collected from Ypsilanti WWTP. Each data point is calculated by averaging the number of viral gene copies detected per 100mL of wastewater in the 3 most recent samples. The orange bars on the graph show the COVID-19 cases reported to MDHHS from the zip codes that the wastewater treatment plant serves (7-day average). Both the virus levels and COVID-19 cases are calculated per 100,000 people. Case data will not be shown on the graph when the average number of cases per 100,000 people is fewer than 10 to protect the confidentiality of individuals with infections.
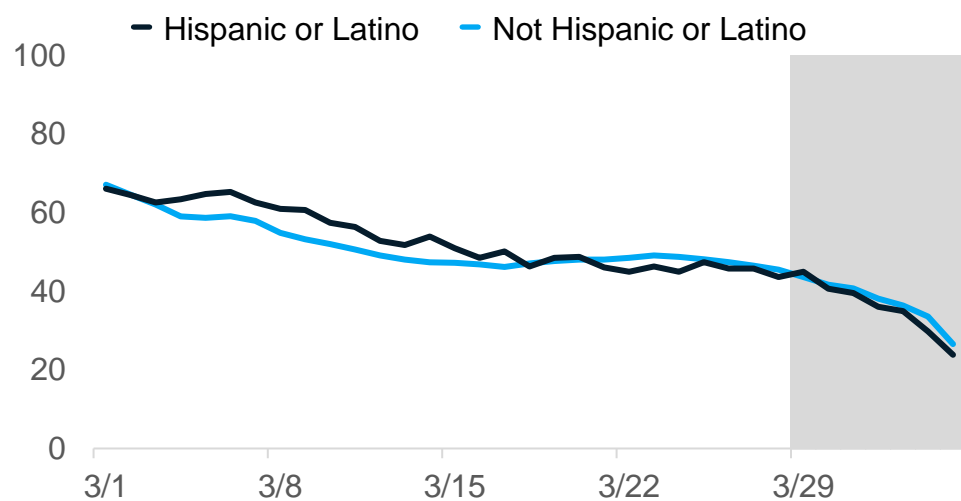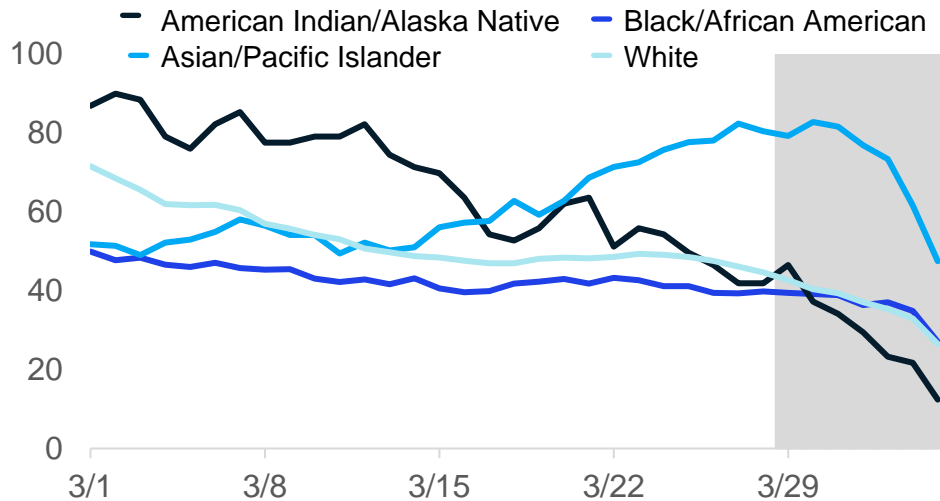
Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

Case rate are plateauing for all reported ages, races and ethnic groups

Daily new confirmed and probable cases per million by age group (7-day rolling average)

Legend: 0-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+
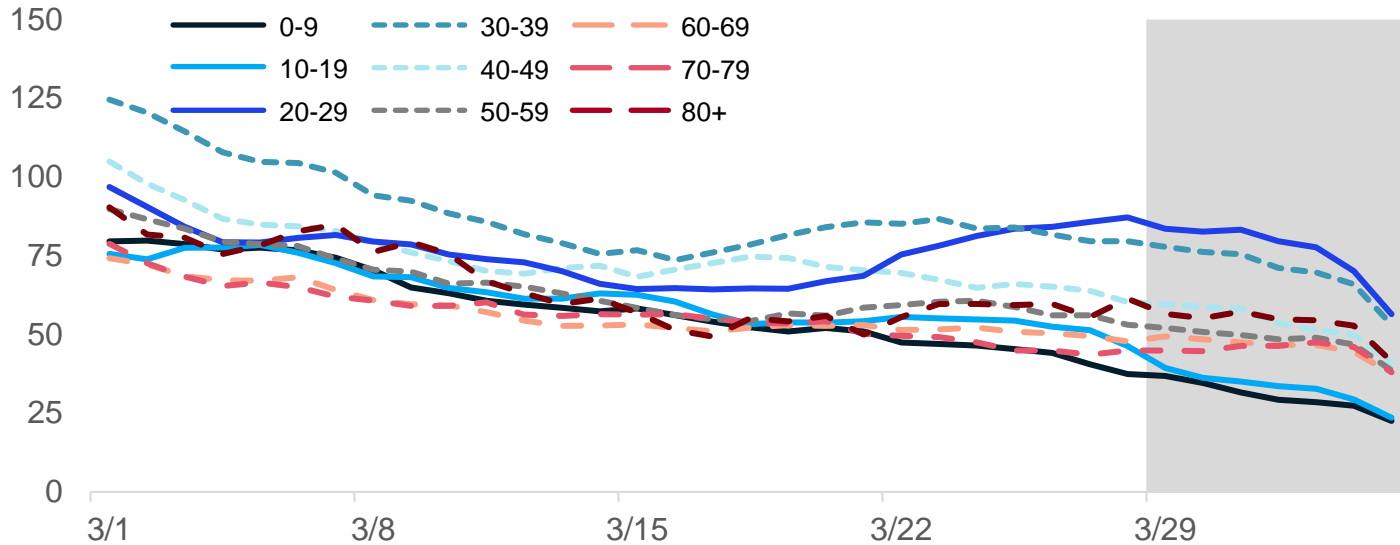
- Case rates by onset date for all age groups are between 37.5 and 87.2 cases per million (through 3/28)

- Case counts and case rates are highest for 20-29-year-olds this week, followed by 30–39-year-olds and the 80+ age groups

Daily new confirmed and probable cases per million (7 day rolling average) by race & ethnicity category


Legend: American Indian/Alaska Native, Black/African American, Asian/Pacific Islander, White

Legend: Hispanic or Latino, Not Hispanic or Latino

- Case rates are highest for Asian/Pacific Islander populations (80.5 cases/million)

# Decline in case rates slowing in the school-aged population statewide

- Case rates in 5–18-year-olds are similar to rates in 19–50-year-olds
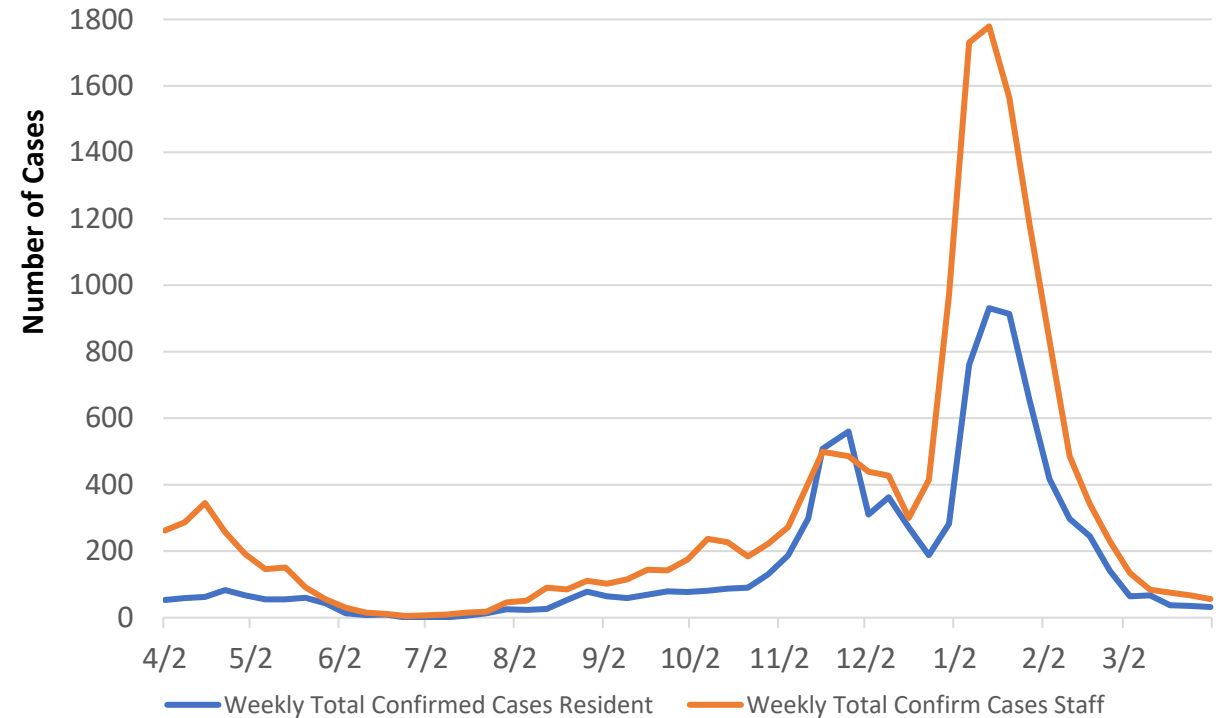- Case rates among all populations (school-aged and non) are plateauing
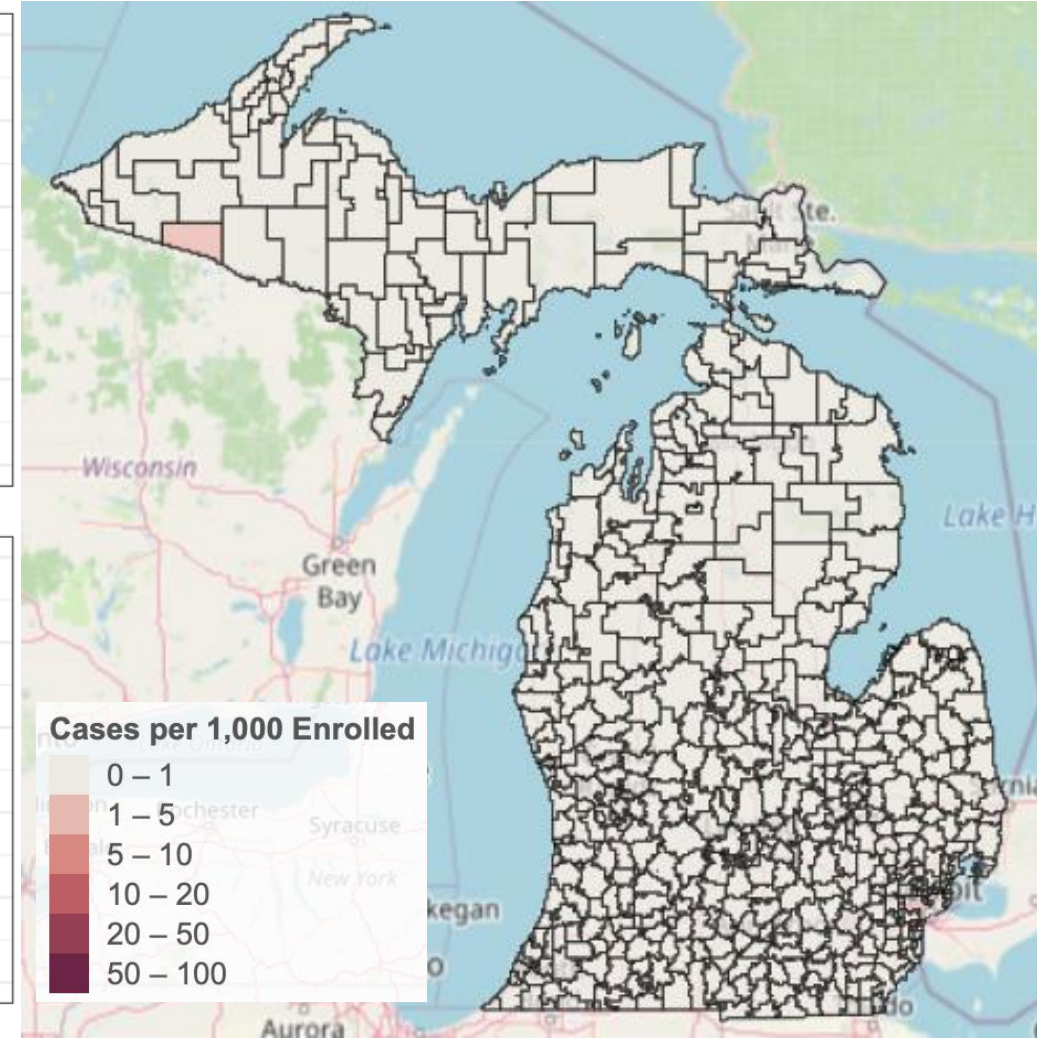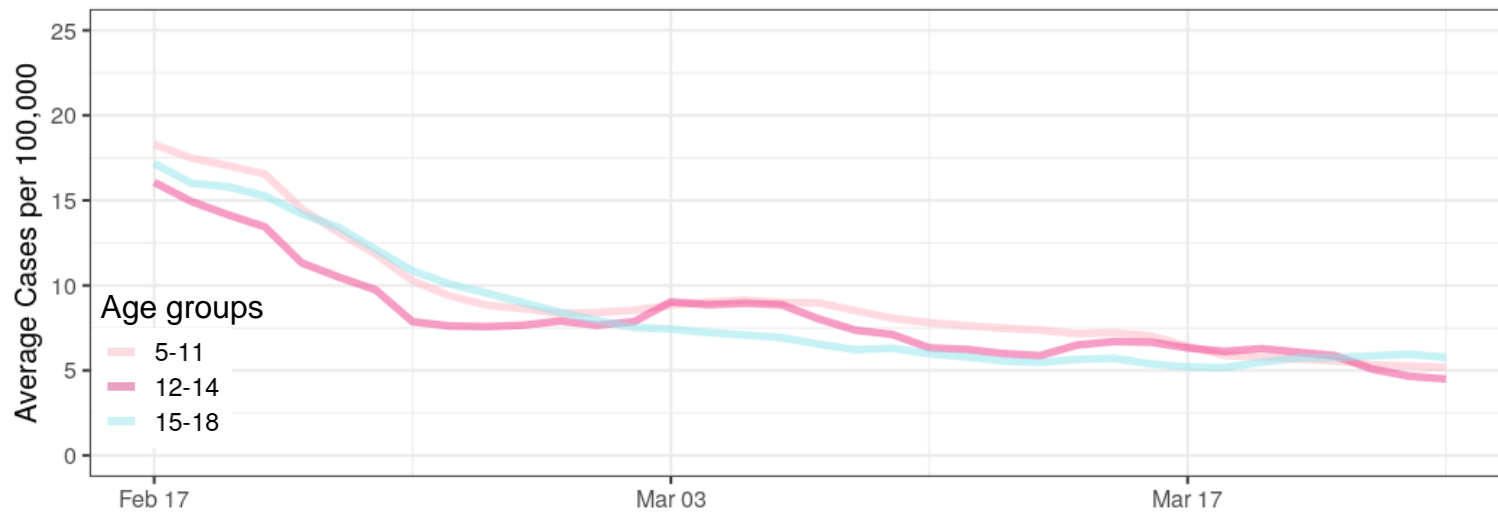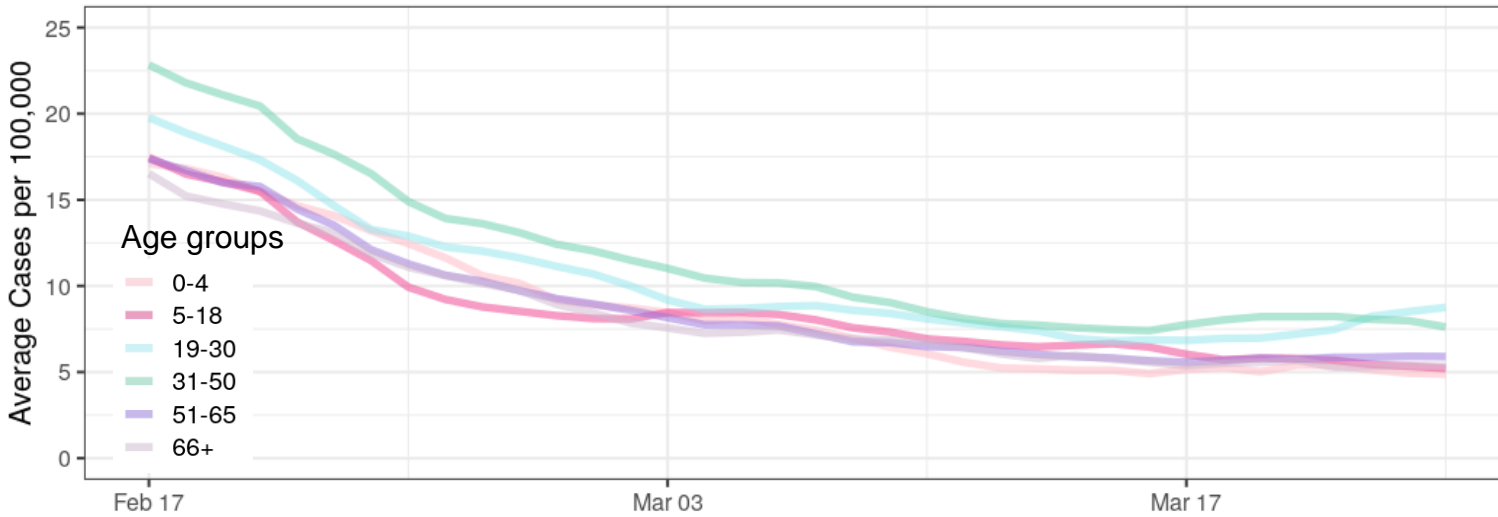
Cases continue to decline in staff and residents in Long Term Care Facilities

STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN AFC/HFA RESIDENTS AND STAFF 03/31/2021 TO 03/30/2022
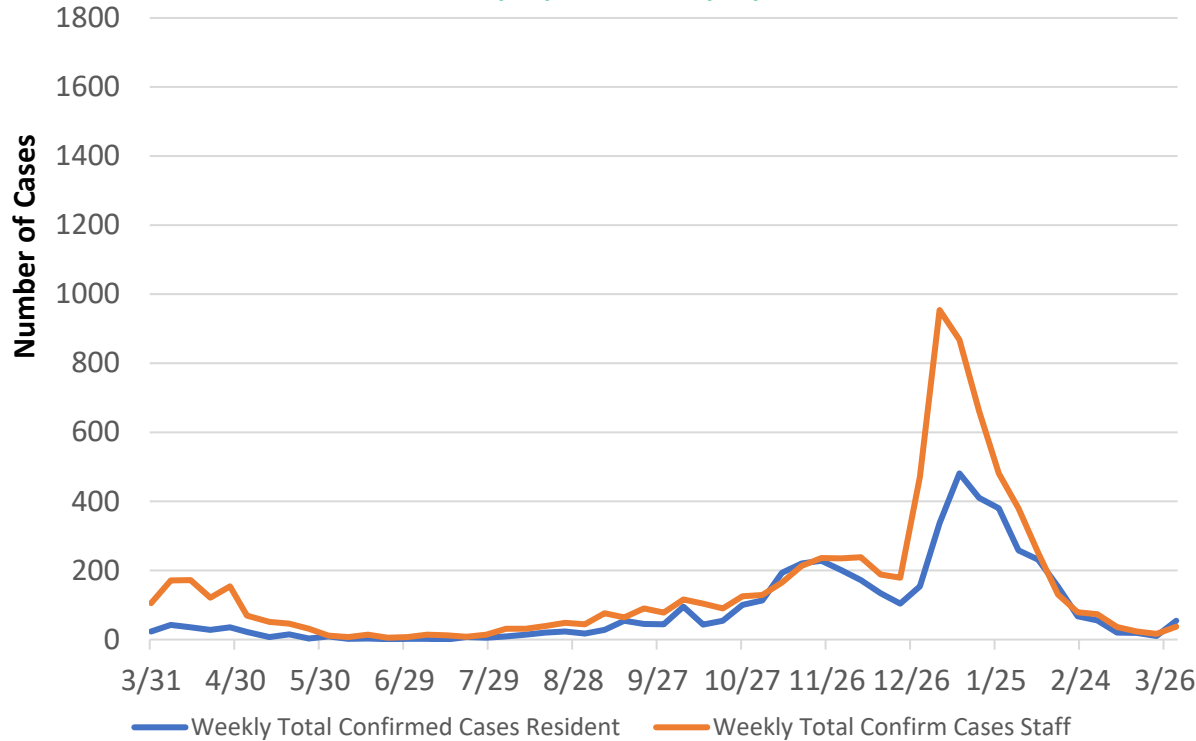
STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN SNF RESIDENTS AND STAFF 04/02/2021 TO 04/01/2022

- Case counts in residents increased in AFC/HFA (54) but continues to decrease, albeit at a slower pace, in SNFs (32)
- Case counts in staff increased in AFC/HFA (37) but continues to decrease, albeit at a slower pace, in SNF (56)
- For the first time, the number of cases among residents exceeds the number of cases among staff in AFC/HFA

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

35

Hospital admissions due to COVID-19 continue to decline
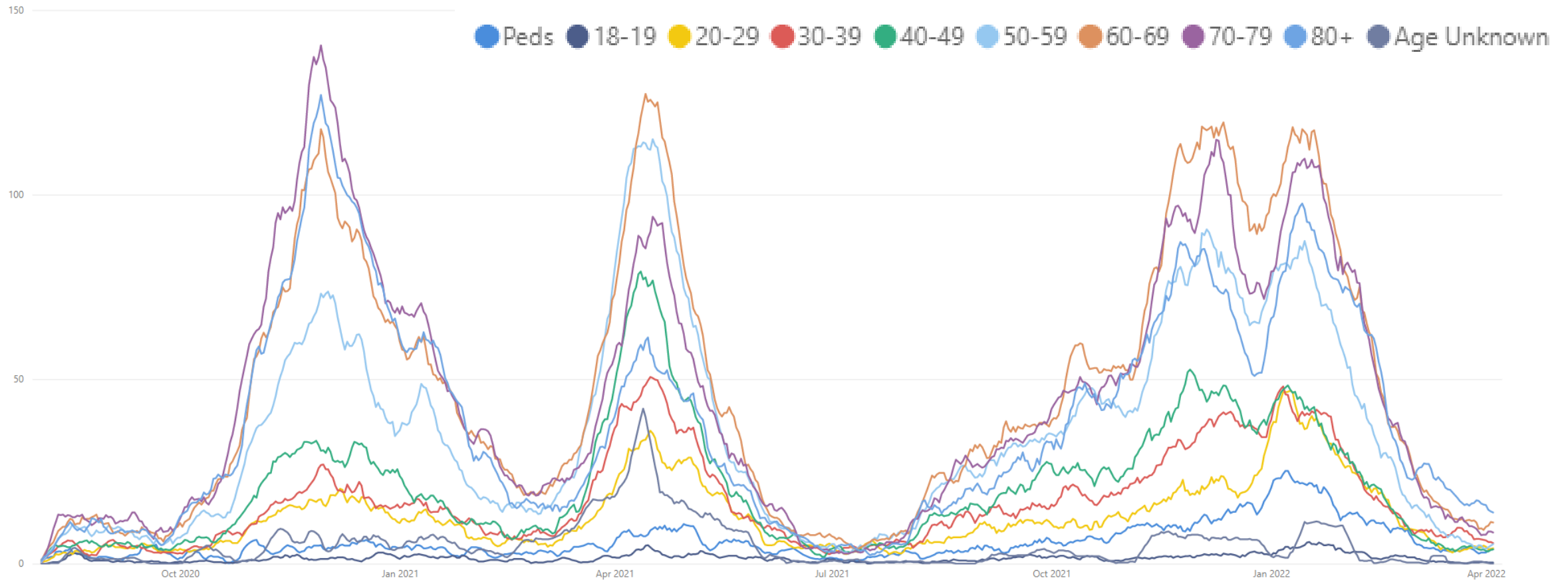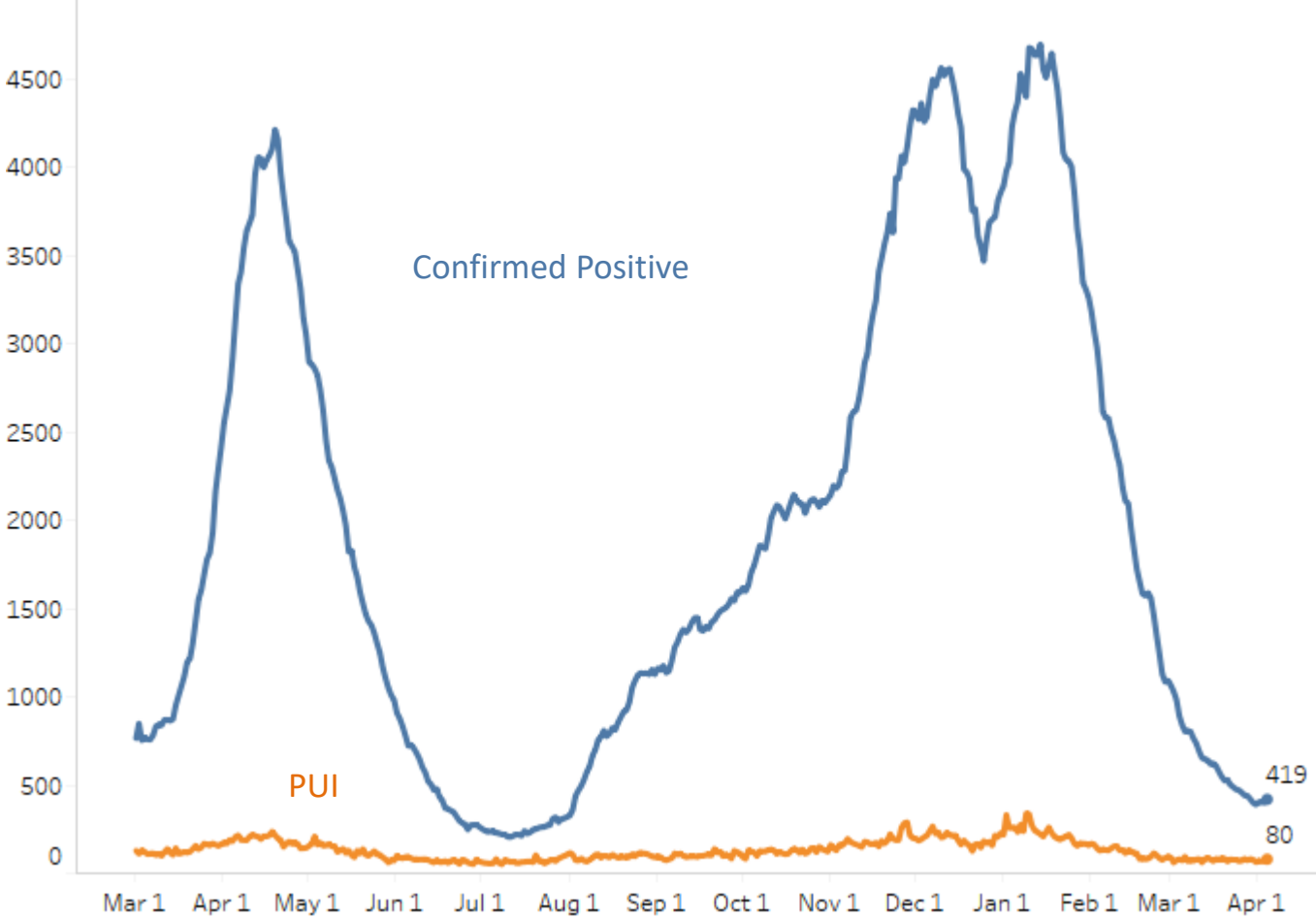

- Trends for daily average hospital admissions declined (-9%) since last week (vs. -10% prior week)
- About half of age groups saw declines this week
- Fewer than 15 daily hospital admissions was seen for every age groups

Source: CHECC & EM Resource

Hospitalization Trends 3/1/2021 – 4/4/2022
Confirmed Positive & Persons Under Investigation (PUI)

The COVID+ census in hospitals continues to decrease though it shows signs of flattening in the past few days. Census is down 14% from a week ago (previous week was down 17%) with a total census in hospitals of 419.

Confirmed Positive

PUI

419

80

Hospitalized COVID Positive Long Term Trend (beginning March 2020)

4,365   3,941   4,211   4,561   4,694

304   709   205   419

Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 4/4/2022
Confirmed Positive by Region

Region 1
Region 2N
Region 2S
Region 3
Region 5
Region 6
Region 7
Region 8

This week the COVID+ census has decreased in Regions 1, 3N, 2S, 6, and 8. The COVID+ census has increased in Regions 3, 5, and 7 which is a notable change in trajectory.

All regions have fewer than 65 hospitalizations/M.

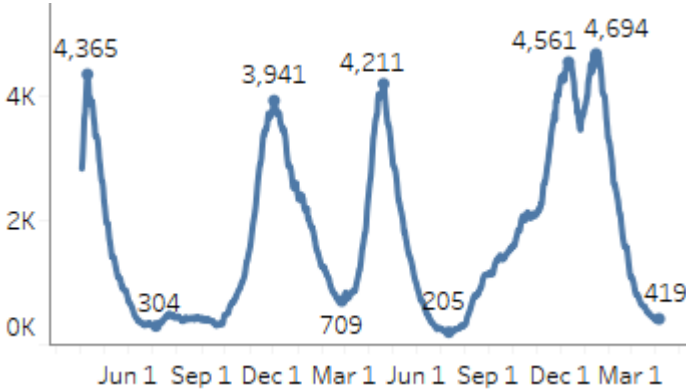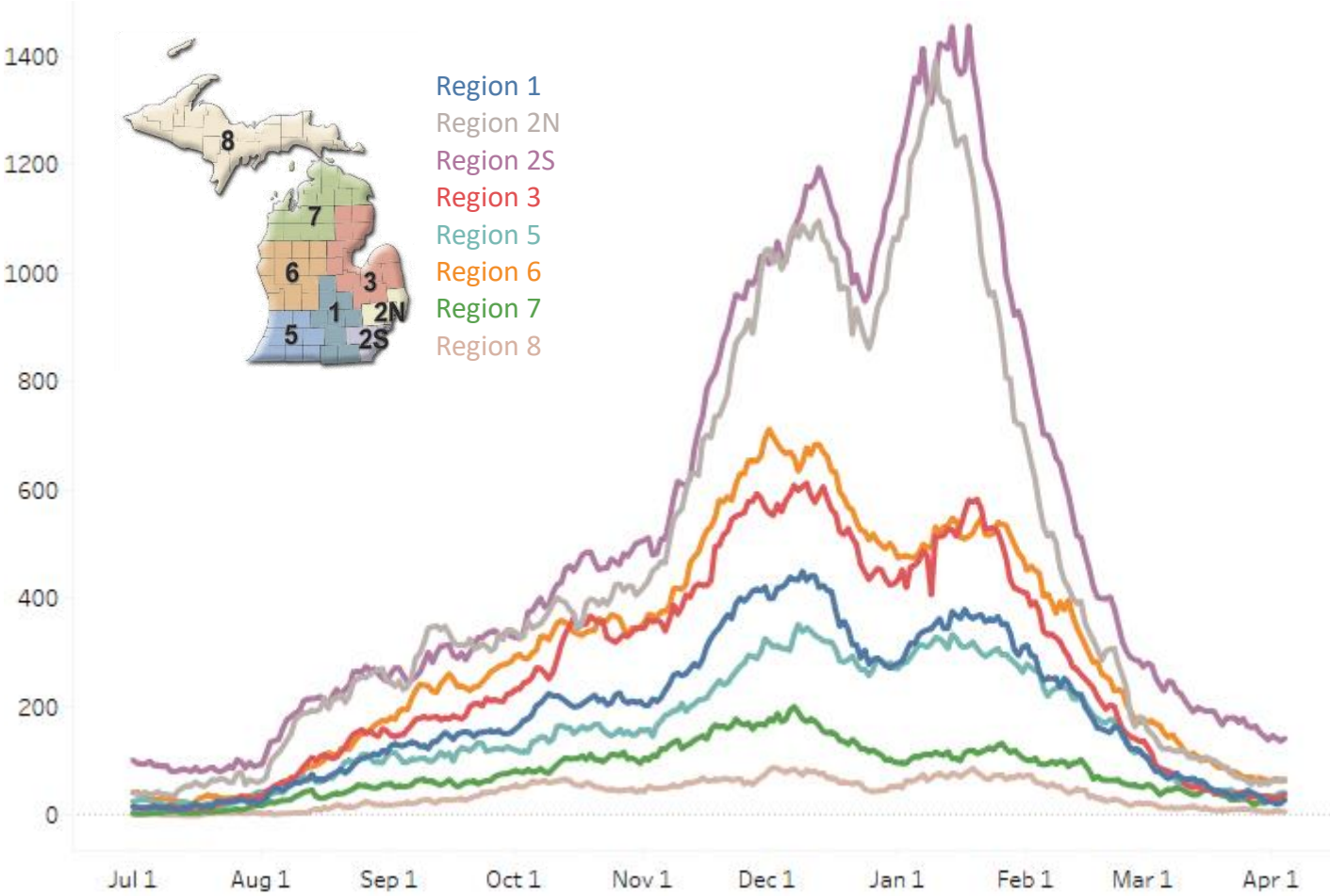| Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	29 (-26%)	27/M
Region 2N	67 (-1%)	30/M
Region 2S	142 (-14%)	64/M
Region 3	39 (18%)	34/M
Region 5	42 (14%)	44/M
Region 6	64 (-6%)	44/M
Region 7	29 (45%)	58/M
Region 8	7 (-22%)	22/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 3/1/2021 – 4/4/2022
Confirmed Positive in ICUs

Confirmed
Positive in ICU
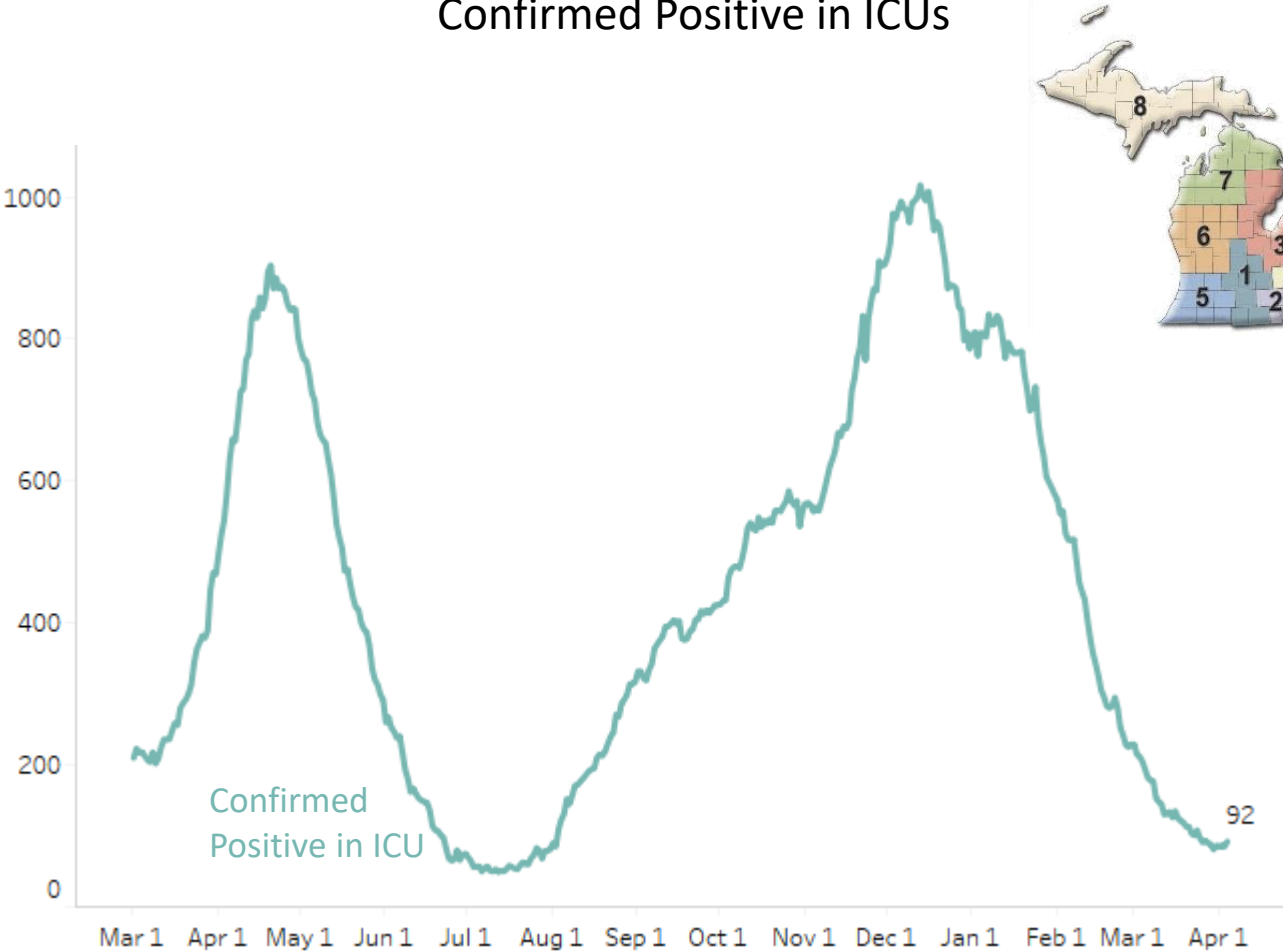
Overall, the census of COVID+ patients in ICUs has remained flat from last week (previous week was down by 20%). Several regions (2N, 2S, 6, 7) show increases this week.

All regions have 7% or fewer of ICU beds filled with COVID+ patients.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	2 (-67%)	69%	1%
Region 2N	11 (10%)	66%	2%
Region 2S	46 (7%)	75%	7%
Region 3	9 (-10%)	85%	3%
Region 5	5 (0%)	64%	3%
Region 6	10 (25%)	67%	4%
Region 7	9 (80%)	75%	7%
Region 8	0	56%	0%

Statewide Hospitalization Trends: Pediatric COVID+ Census

Hospitalization Trends 1/1/2021 – 4/4/2022
Pediatric Hospitalizations, Confirmed
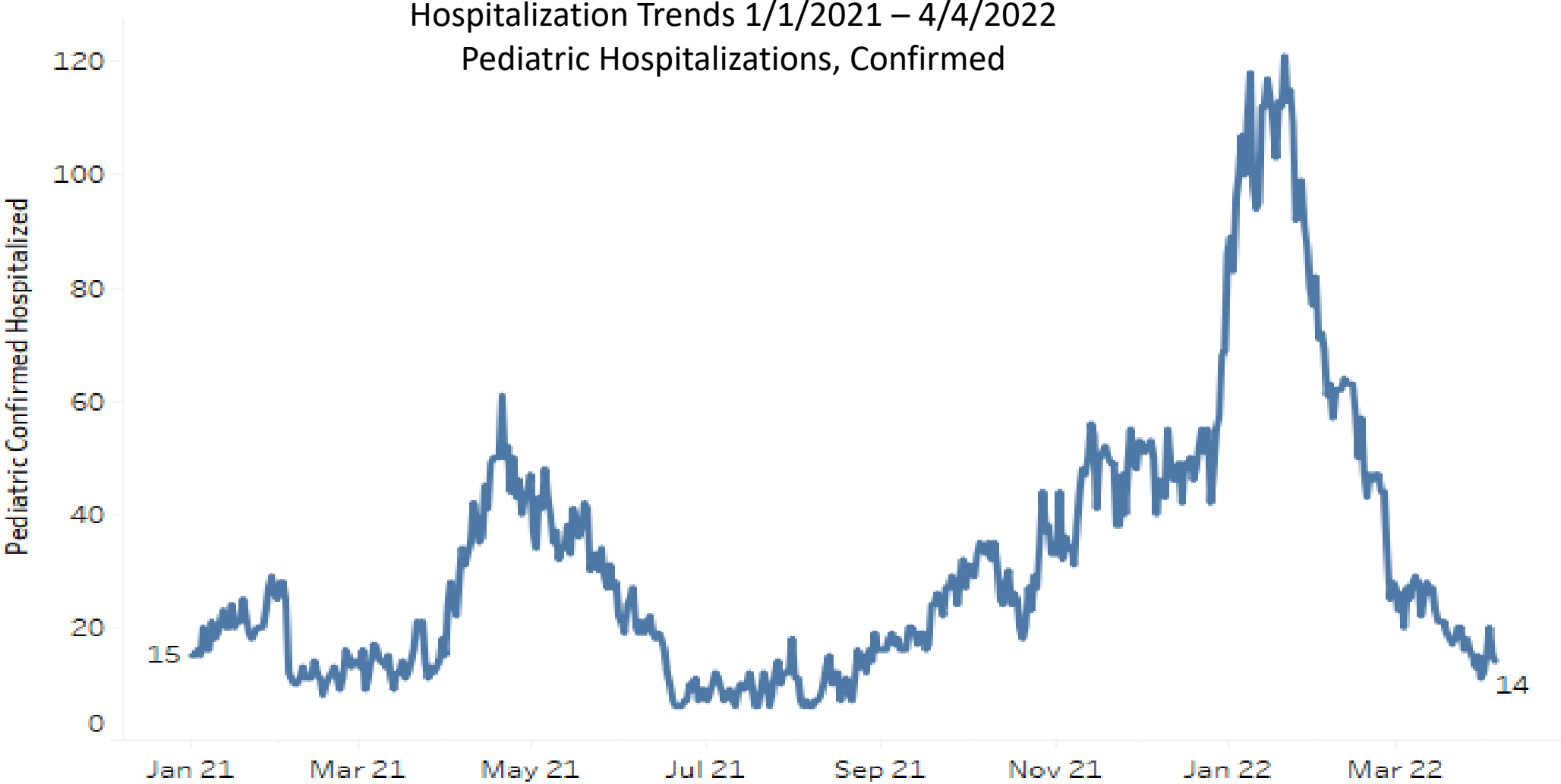
Multisystem Inflammatory Syndrome in Children (MIS-C)
Michigan Surveillance

- Higher community transmissions is followed by higher incidence of MIS-C cases

- 282 cases identified in Michigan: highest numbers have occurred after most recent omicron surge

- More than 70% of those children are elementary and pre-school aged

- Black/African American children are disproportionately impacted

- 70.4% children with MIS-C are treated in the ICU

Confirmed Cases of MIS-C by Week of Onset in Michigan from April, 2020 through March 17, 2022

*The shaded red area represents the most recent eight weeks of data, in which reporting of cases is still incomplete. The actual number of MIS-C cases during this period is likely larger and these numbers will increase as additional case reports are incorporated.
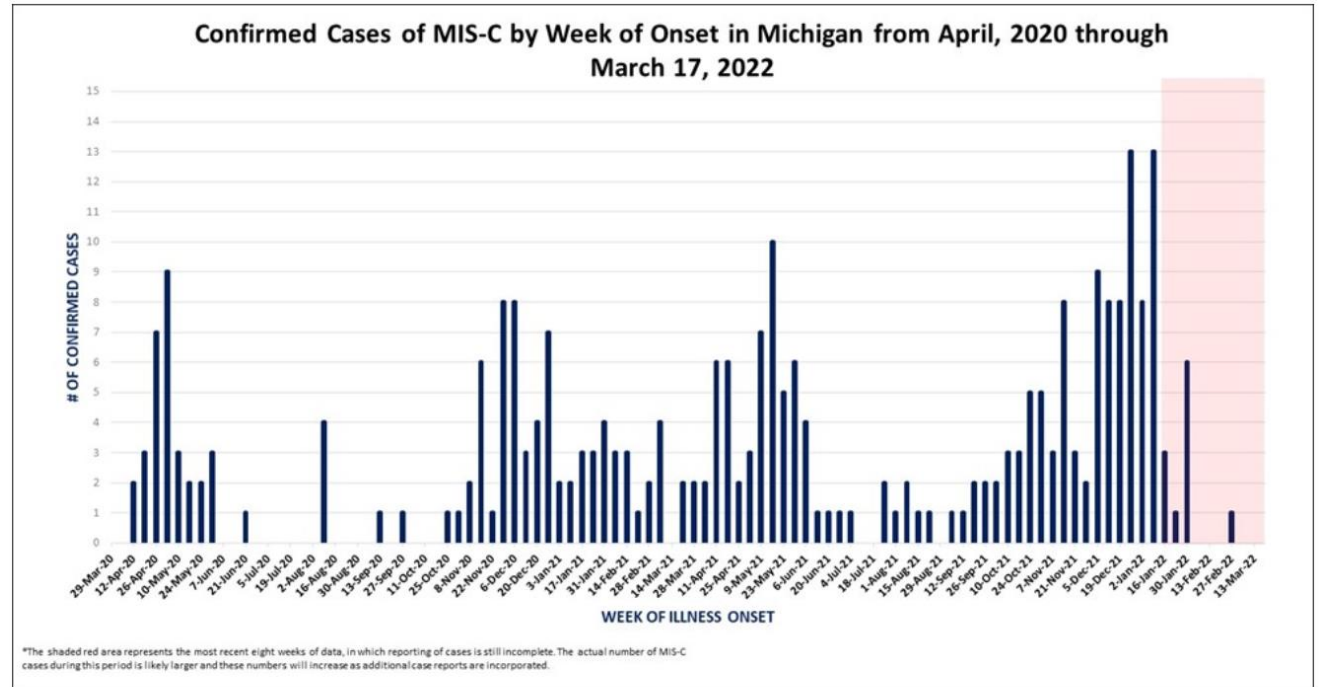
Red shading indicates the expected reporting lag for new cases. Cases with onset dates in this time period may not have been detected or reported yet.

DEMOGRAPHIC INFORMATION (N=282)

Age Group	Count	%	Race	Count	%
<1 yrs	10	3.6%	Black/African American	103	36.5%
1-4 yrs	65	23.1%	Caucasian	133	47.2%
5-11 yrs	138	48.9%	All Others / Unknown	46	16.3%
12-15 yrs	50	17.7%			
16-20 yrs	19	6.7%			
Gender	Counts	%	Ethnicity	Count	%
Male	176	62.4%	Not Hispanic or Latino	212	75.2%
Female	106	37.6%	Hispanic or Latino	23	8.1%
Unknown	0	0.0%	Unknown	47	16.7%

Protect Yourself, Protect Your Community

Vaccines
Protect against severe outcomes
Vaccines are available for ages 5 and up. Boosters are available for ages 12 and up.

Tests
Prevent spread
Over-the-counter tests allow for testing at home; an important addition to on-site antigen and PCR testing.

Masks, Distancing & Ventilation
Prevent spread
People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a mask. Masking may also be based on personal preference and informed by personal level of risk.
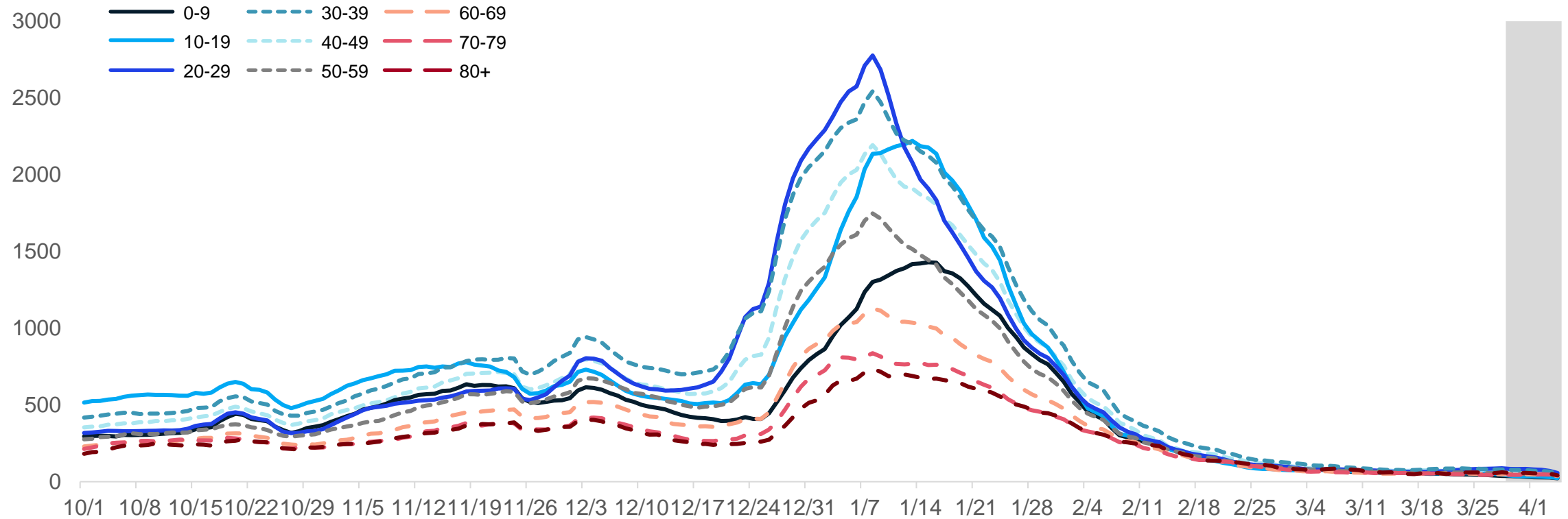
Treatment
Protect against severe outcomes
Oral antivirals and monoclonal antibodies can reduce the risk of hospitalization and death from COVID-19.

APPENDIX

Case Rate Trends by Age Group

Daily new confirmed and probable cases per million by age group (7-day rolling average)

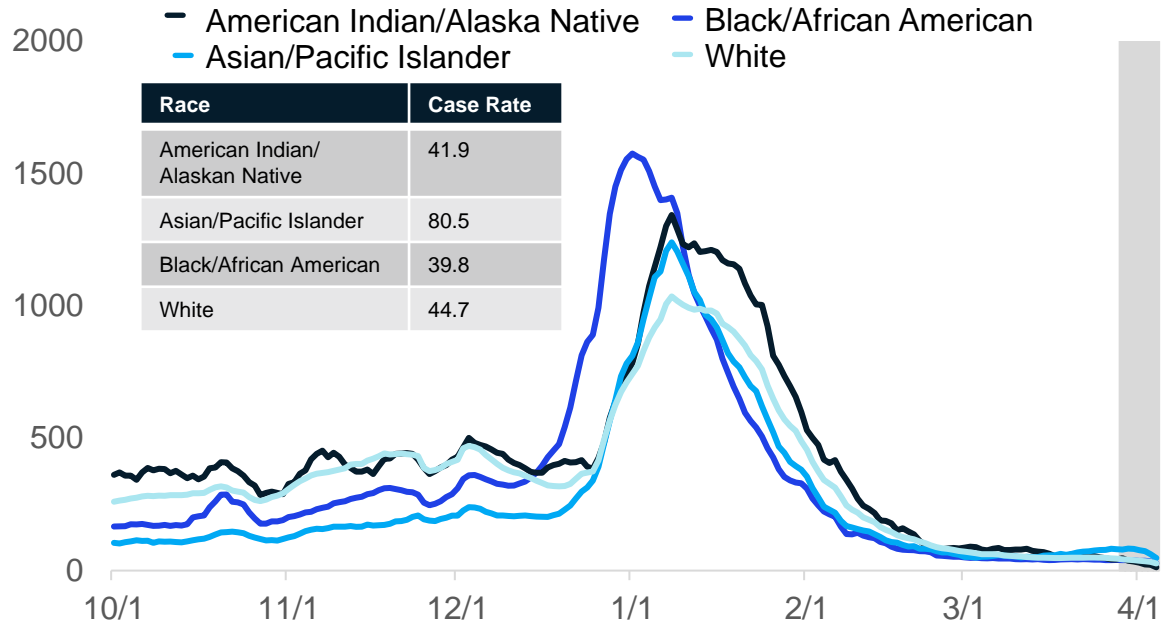- Case rate trends for all age groups experienced a plateau over the last week

- Case rates by onset date for all age groups are between 37.5 and 87.2 cases per million (through 3/28/22)

- Case counts and case rates are highest for 20-29-year-olds this week, followed by 30–39 and the 80+ age groups
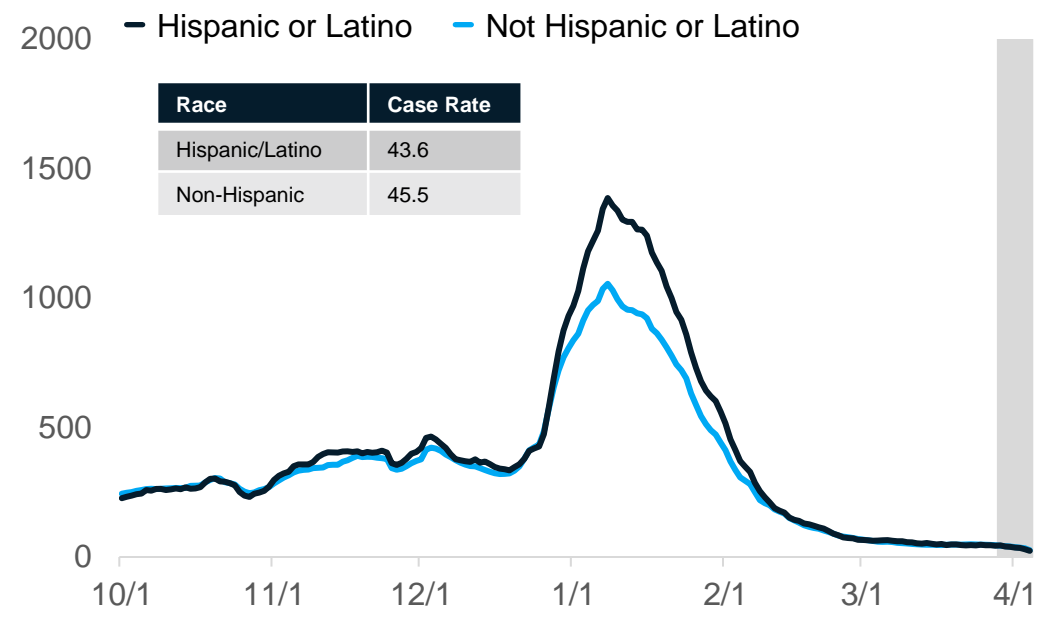
Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Case Rates by Reported Racial and Ethnic Group

Daily new confirmed and probable cases per million (7 day rolling average) by race category

Legend:
- American Indian/Alaska Native
- Black/African American
- Asian/Pacific Islander
- White

Race	Case Rate
American Indian/Alaskan Native	41.9
Asian/Pacific Islander	80.5
Black/African American	39.8
White	44.7

Daily new confirmed and probable cases per million (7 day rolling average) by ethnicity category

Legend:
- Hispanic or Latino
- Not Hispanic or Latino

| Race	Case Rate
Hispanic/Latino	43.6
Non-Hispanic	45.5

Updates since last week:

- Cases per million are plateauing for all reported racial and ethnic groups

- In the past 30 days, 19.8% (↑ 0.3%) of race data and 25.3% (↑ 0.3%) ethnicity data was either missing or reported as unknown
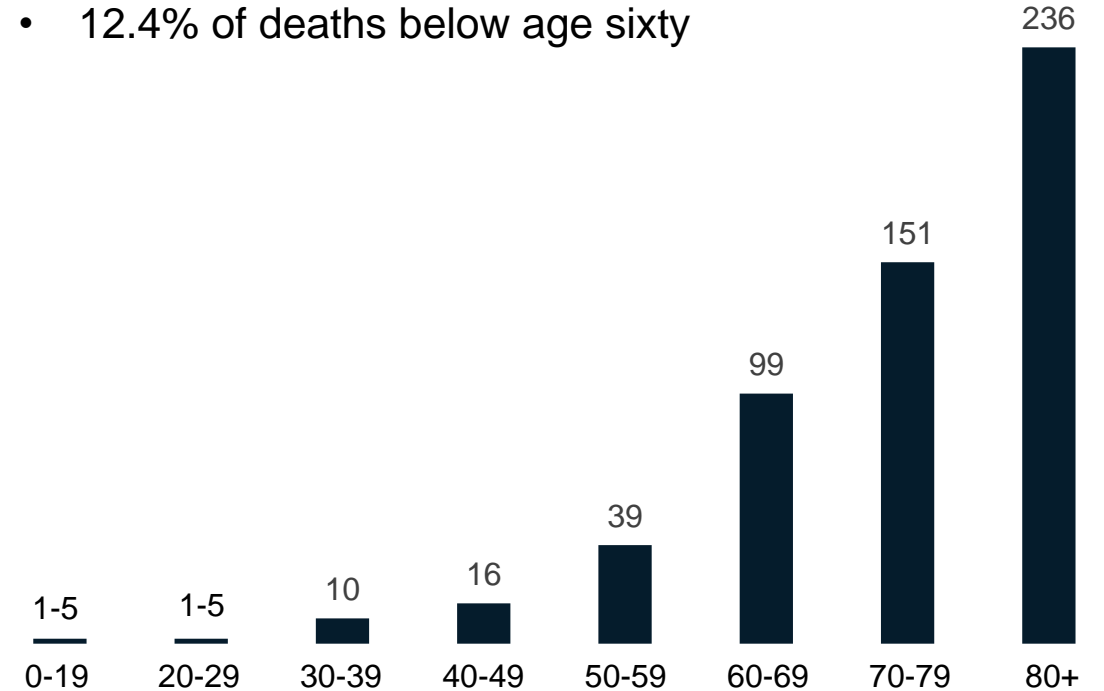
Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

Average and total new deaths, by age group

Daily COVID-19 deaths in confirmed and probable cases per million by age group (7 day rolling average)
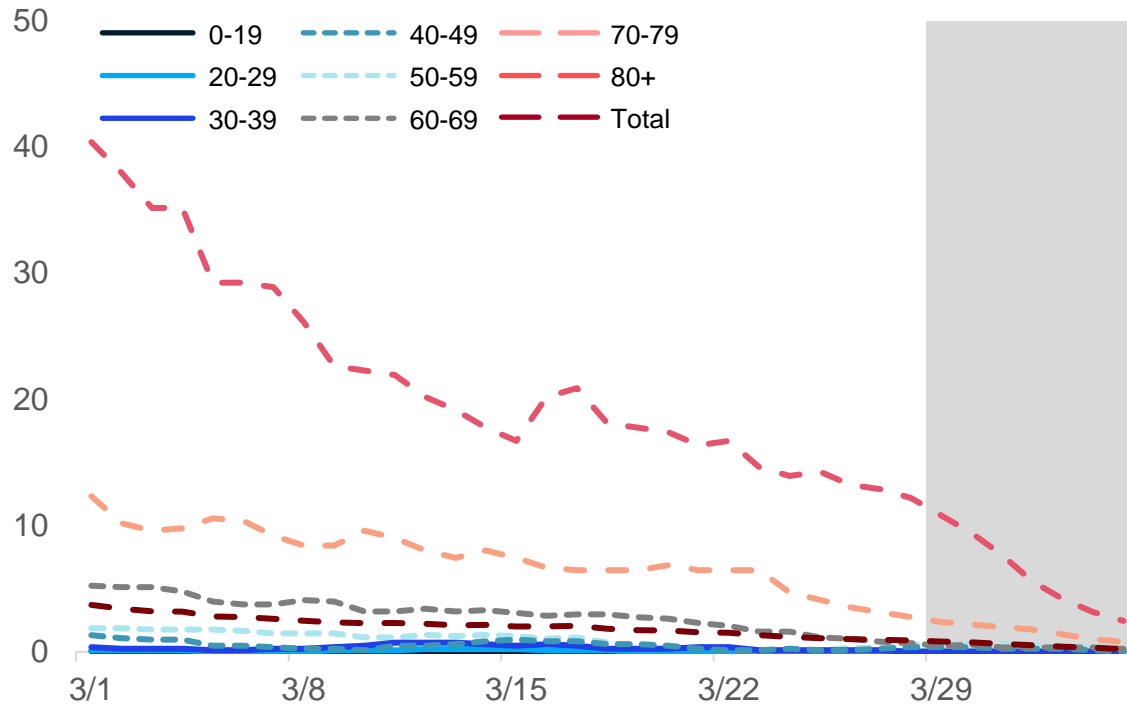
Total COVID-19 deaths in confirmed and probable cases by age group (past 30 days, ending 3/28/2022)

Legend:
- 0-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+
- Total

- 12.4% of deaths below age sixty

Total deaths by age group:
- 0-19: 1-5
- 20-29: 1-5
- 30-39: 10
- 40-49: 16
- 50-59: 39
- 60-69: 99
- 70-79: 151
- 80+: 236

- Through 3/28, the 7-day avg. death rate is more than 10 daily deaths per million people for those over the age of 80

- In the past 30 days, there were between 1 and 5 deaths among confirmed and probable COVID-19 cases under the age of 30

- 30-day proportion of deaths among those under 60 years of age is 12.4%

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System (MDSS)

Vital Infrastructure: K-12 school clusters and outbreaks, week ending March 31

Number of reported outbreaks/clusters decreased slightly since last week (79 to 68), with many ongoing outbreaks closing and fewer than 5 new outbreaks by grade level.

Region	Number of reported cases, #	Number of outbreaks	Range of cases per outbreak
Region 1	114 / 0	6	6-35
Region 2n	6 / 0	2	3
Region 2s	132 / 30	23	3-23
Region 3	1,154 / 4	22	3-153
Region 5	36 / 0	2	8-28
Region 6	423 / 3	9	3-145
Region 7	228 / 0	4	6-120
Region 8	0 / 0	0	N/A
Total	2,093 / 37	**68**	**3-153**

Legend: # Ongoing - Excluding New, # New

Grade level	Number of reported cases, #	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	706 / 15	36	3-82
Jr. high/middle school	442 / 13	13	3-96
High school	945 / 9	19	3-153
Administrative	0 / 0	0	N/A
Total	2,093 / 37	**68**	**3-153**

Legend: # Ongoing - Excluding New, # New

Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.
NOTE (10/4): MDHHS adopted the new CSTE school cluster and outbreak definition which impacts how transmissions within school-sponsored settings are reported to the health department
Source: LHD Weekly Sitreps

30-day rolling average daily deaths per million people by race and ethnicity

Average daily deaths per million people by race

- American Indian/Alaska Native
- Asian/Pacific Islander
- Black/African Ameri
- White

Average daily deaths per million people by ethnicity

- Hispanic or Latino
- Not Hispanic or Latino
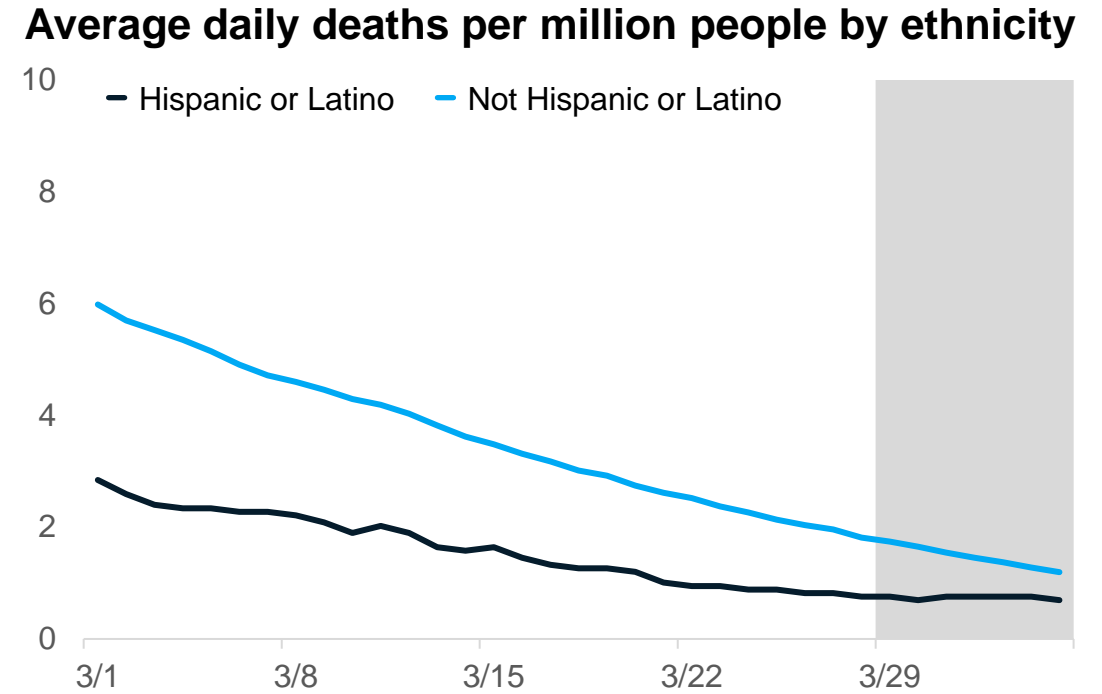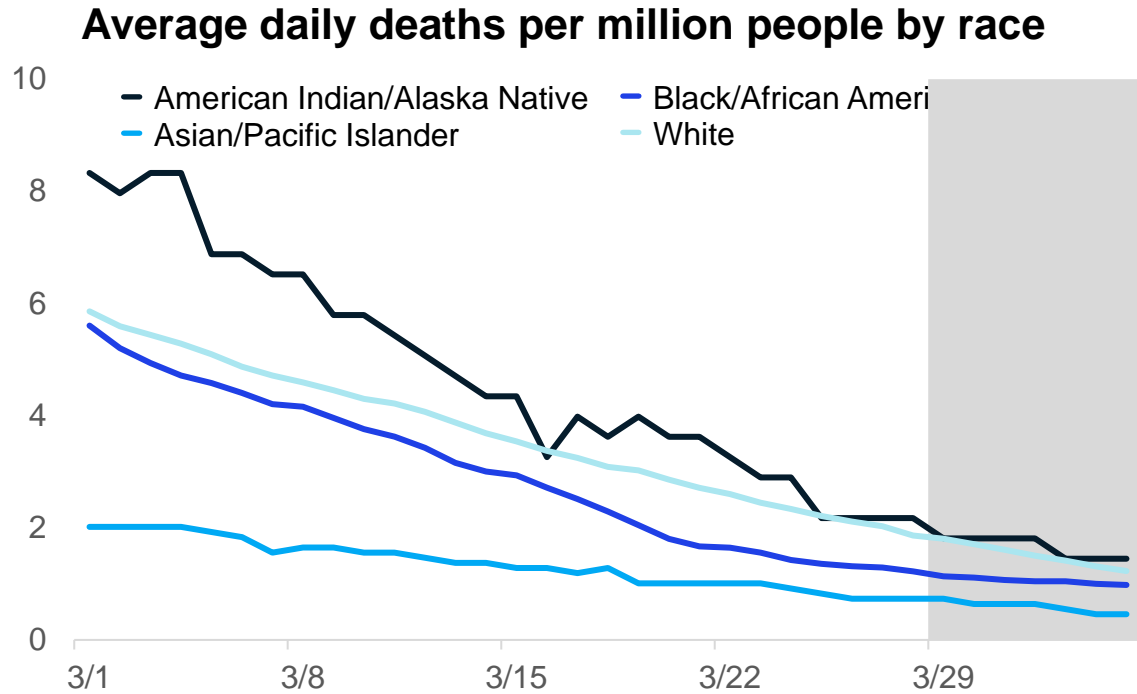
- Deaths are lagging indicator of other metrics

- Currently, American Indian/Alaska Natives have the highest death rate (2.17 deaths/million)

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

Hospital Admissions and Admission Rates by Age Group

Daily new hospital admission per million by age group (7-day rolling average)

Age Group	Average† daily number of hospital admissions	Average† Daily Hospital Admission Rate*	One Week % Change (Δ #)
0-11	2.6	1.8	+0% (+0)
12-17	1.0	1.3	+133% (+<1)
18-19	0.3	1.1	+0% (+0)
20-29	4.1	3.0	-9% (-<1)
30-39	5.6	4.6	-15% (-1)
40-49	3.9	3.3	-7% (-<1)
50-59	**5.3**	**3.9**	+16% (+1)
60-69	**11.1**	**8.7**	+0% (+0)
70-79	**8.4**	**11.0**	-9% (-1)
80+	**13.9**	**33.5**	-19% (-3)
Total¶	**56.1**	**4.9**	**-9% (-5)**

* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Hospital Admission data reflects date data was submitted
Source: CHECC and EM Resource

- Through April 4, there were an average of 56.1 hospital admissions per day due to COVID-19; a decrease from last week (-9%, -5)

- About half of age groups saw decreases this week

- The largest one-week count decrease was among those 80+ years (-3)

- Average daily hospital admission count (13.9 hospital admissions per day) and average daily hospital admission rate (33.5 hospital admissions/million) were highest among those aged 80+

- Fewer than 15 daily hospital admissions were seen for all age groups

Note: for some age groups, small changes in number of hospitalization admissions can cause large change in One Week Percent Change