MI COVID RESPONSE DATA AND MODELING UPDATE

April 12, 2022

Executive Summary

Situational Awareness

- Global and National Trends show continued spread of Omicron BA.2 lineage
  - While cases in western Europe are either plateauing or declining, the U.S. experienced an increase in cases
- As of March 31st, 99% of Michigan Counties at Low COVID-19 Community Levels
- 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 greater than 70%
- COVID+ census in hospitals, hospital admission, ICU utilization, and pediatric census is plateaued and, in some areas, starting to increase

Public Health Response

- Current case rates and hospitalizations, and increased access to mitigation, indicate Michigan continues in a post-surge recovery phase
- Vaccinations and Boosters administration remains a critical component during the recovery phase

Epidemiologic Surveillance: Key Messages

Global and National Trends show continued spread of Omicron BA.2 lineage

- While cases in western Europe are either plateauing or declining, the U.S. experienced an increase in cases
- Deaths in Hong Kong were primarily among those who were older and unvaccinated

As of March 31st, 99% 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”

Case rates in Michigan are plateauing, with some counties showing potential signs of increase or plateau

- The proportion of BA.2 in the U.S. and Michigan continues to rise
- 30% of SWEEP sites saw an increase in the most recent week and another 35% of sites saw a plateau in trends
- Case trends are increasing working younger working adults (20-29 and 30-39) and for Asian/Pacific Islanders

Hospitalization Metrics in Michigan are plateauing or beginning to increase

- Two thirds of age groups saw increases for COVID-19 hospital admissions this week
- COVID+ hospital census plateaued over the past 2 weeks and has shown a slight increase (+3%) over the past few days

Guiding Principles

To prioritize **equity** in each of the following objectives

01

Prevent death and severe outcomes

Prioritize uptake of vaccinations and booster doses.

Protect the most vulnerable

- Mitigate risks in congregate settings using all available tools.

Maximize early access to testing and therapeutics.

02

Protect health care capacity (from hospitals to first responders to LTFS)

Reduce community spread during a surge through all available tools.

Reduce severity of cases, need for ICU/ventilators through vaccines and therapeutics.

03

Keep vital infrastructure (schools, corrections) functioning safely, while planning for recovery

Establish a new normal at every phase of the pandemic.

- Utilizing all available tools and the concept of "risk budget".

Provide tools to the public to protect themselves.

- Including OTC testing and instructions for isolation and contact tracing.

MDHHS
Michigan Department of Health & Human Services

Ongoing response to COVID-19 cycle

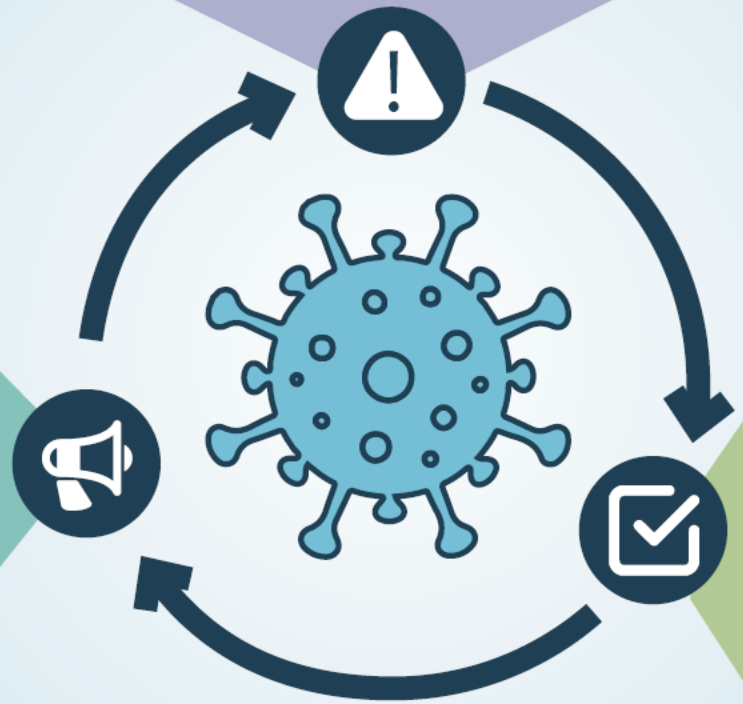
MDHHS
Michigan Department of Health & Human Services

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

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.

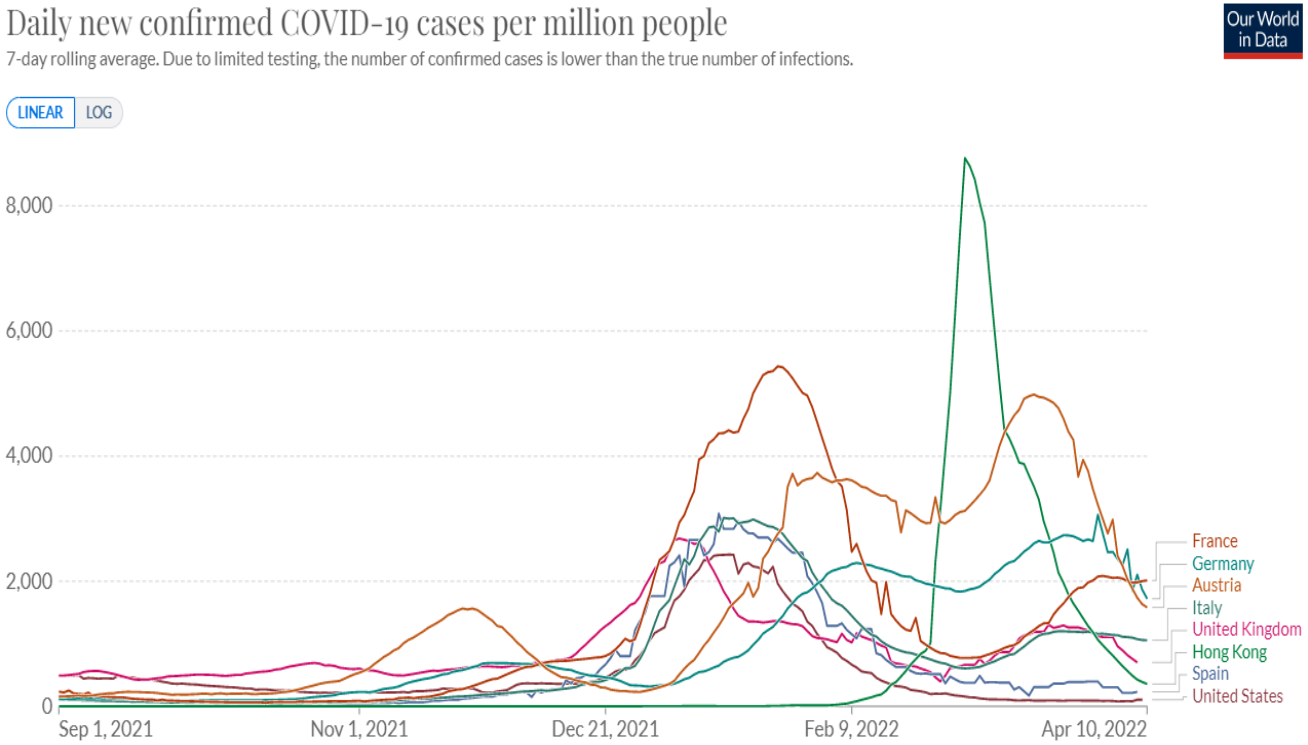
Recovery (Post-Surge)

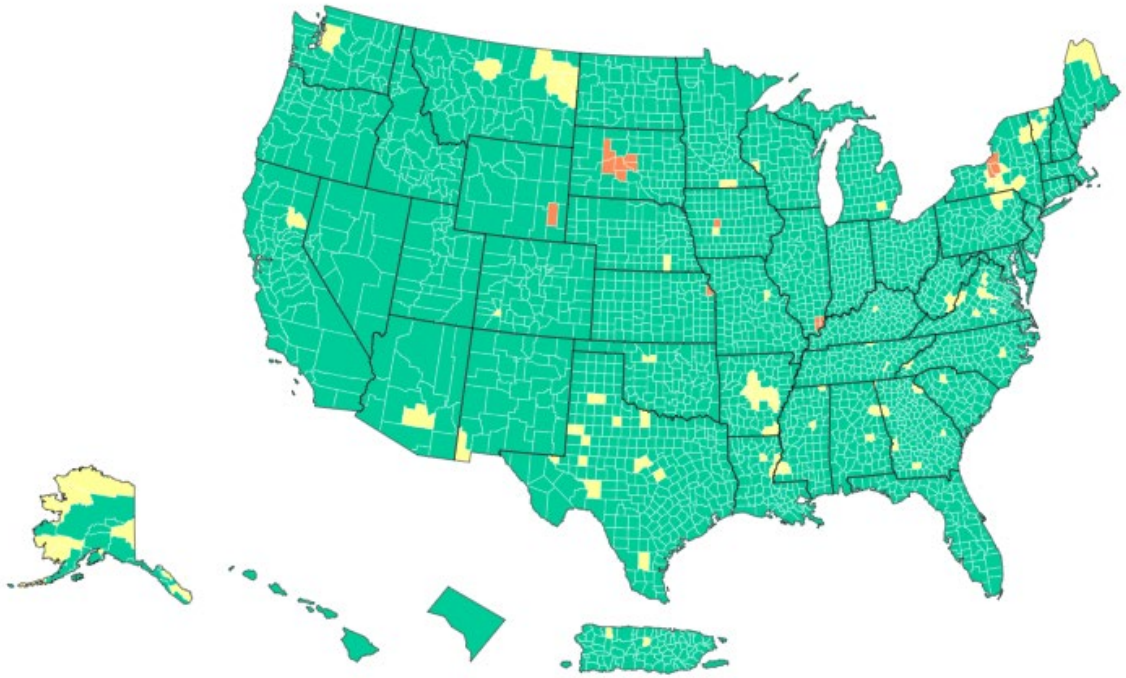
Expect to remain in this phase for longer periods as COVID-19 evolves.

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.

Global and National Trends





Globally, 498,154,313 cases and 6,176,420 deaths (Data* through 4/9/2022)

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

United States: Reported cases (7-day average) have increased over 8% since the prior week¶

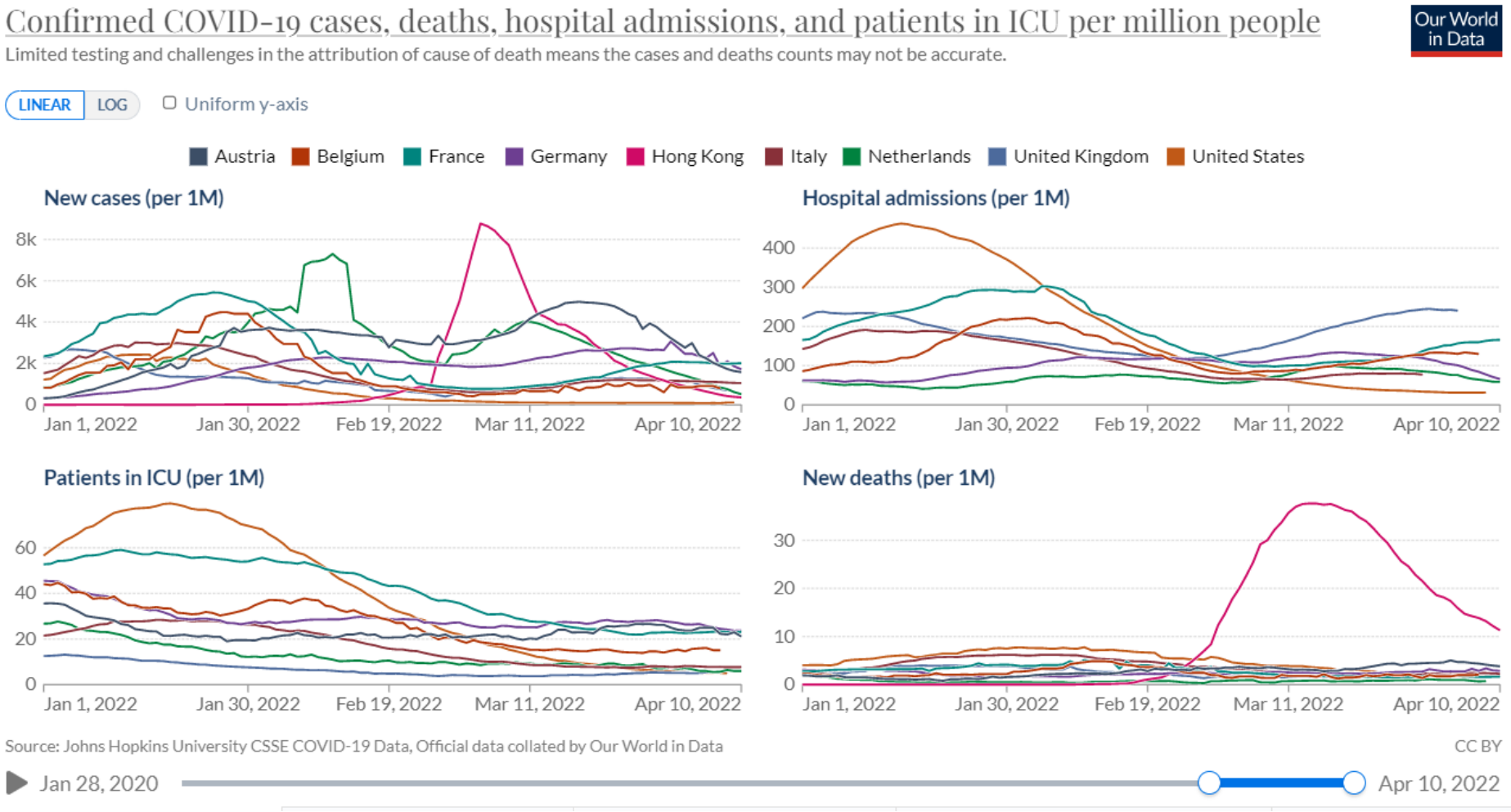
- In the U.S., the case rate is 59.4 cases/100,000 in last 7 days (last week: 55 cases per/100,000)

All Region 5 (Midwest) states have plateaued

- Illinois and Wisconsin have the highest case rates *in Region 5* (4/8)

Source: * Johns Hopkins Coronavirus Resource Center; ¶ CDC COVID Data Tracker Weekly Review; † CDC COVID Data Tracker – CDC recently updated their methodology for reporting case rates

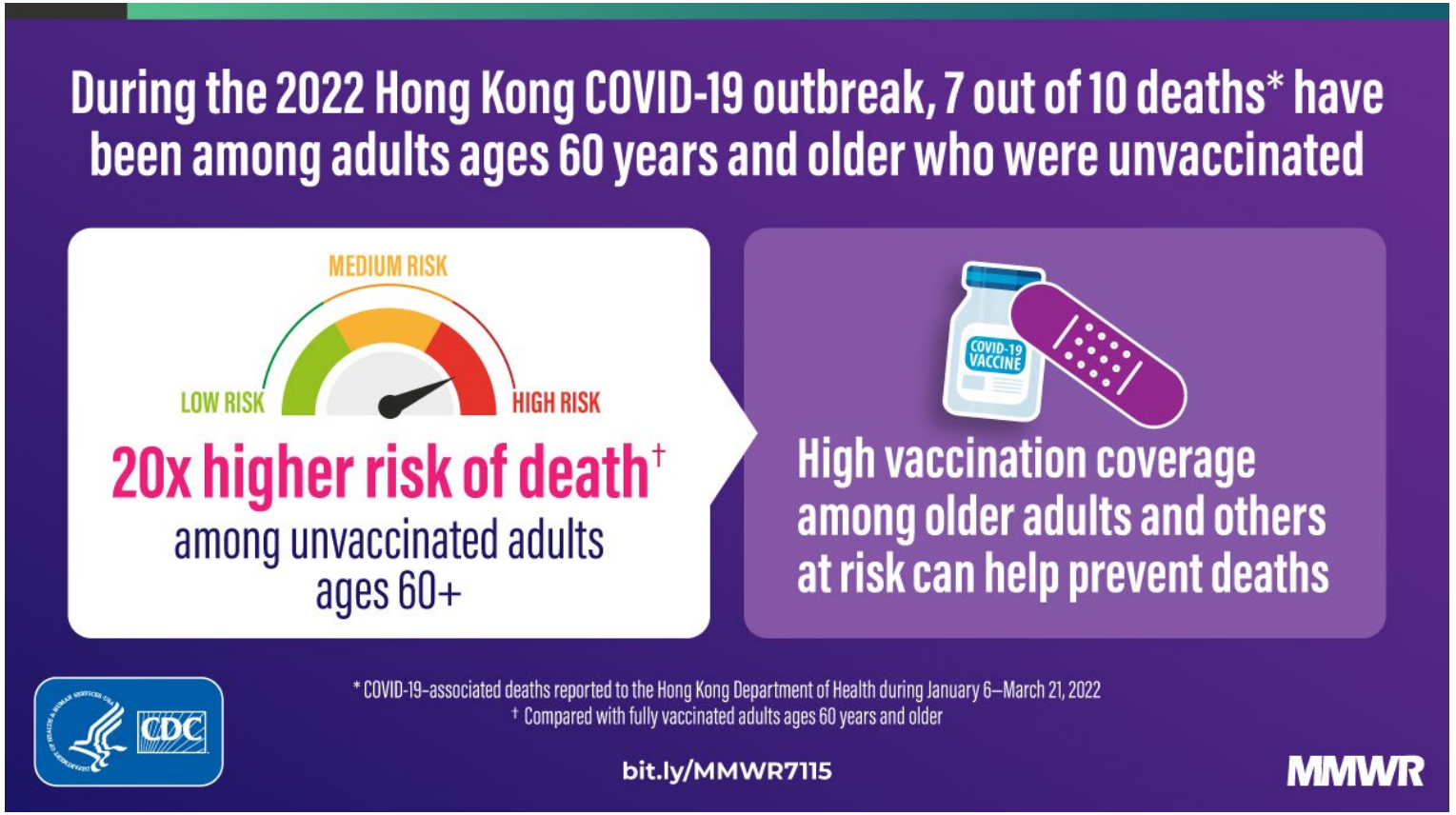
We are Closely Monitoring Epidemiology of the Omicron BA.2 sub-lineage



- Many countries in Europe are experiencing a surge attributed to the BA.2 lineage of Omicron
  - There is an increase in cases and hospital admissions but yet to see increases in lagging indicators (e.g., ICUs and deaths); lone exception is Hong Kong

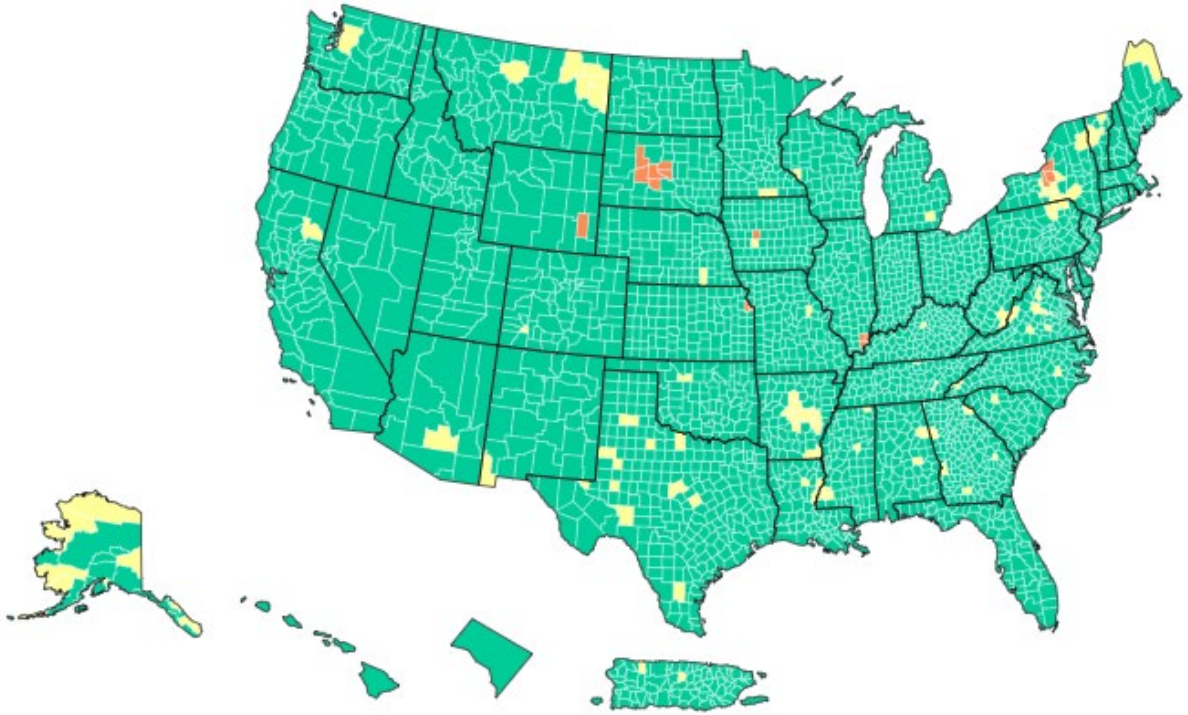
During the Omicron Wave, the Risk of Death was Highest Among Older Unvaccinated Adults

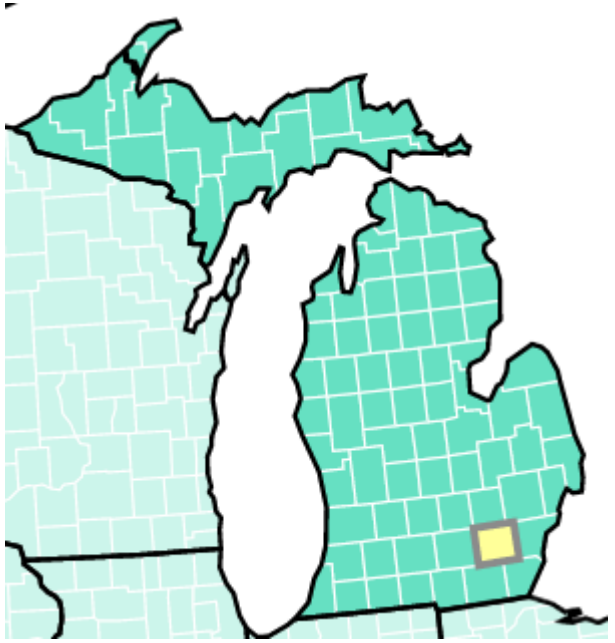
- During January–March 2022, reported COVID-19–associated deaths rose rapidly in Hong Kong which was attributed the Omicron wave
- During that time, those older than 60 had lower vaccination coverage than younger age groups
- Among these deaths, 96% occurred in persons aged ≥60 years; within this age group, the risk for death was 20 times lower among those who were fully vaccinated compared with those who were unvaccinated
- Efforts to identify and address gaps in age-specific vaccination coverage can help prevent high mortality from COVID-19, especially in older adults



Source: Smith DJ, Hakim AJ, Leung GM, et al. COVID-19 Mortality and Vaccine Coverage — Hong Kong Special Administrative Region, China, January 6, 2022–March 21, 2022. MMWR Morb Mortal Wkly Rep. ePub: 8 April 2022. DOI: http://dx.doi.org/10.15585/mmwr.mm7115e1

As of April 7th, No Michigan Counties at High COVID-19 Community Levels





Percent of Counties

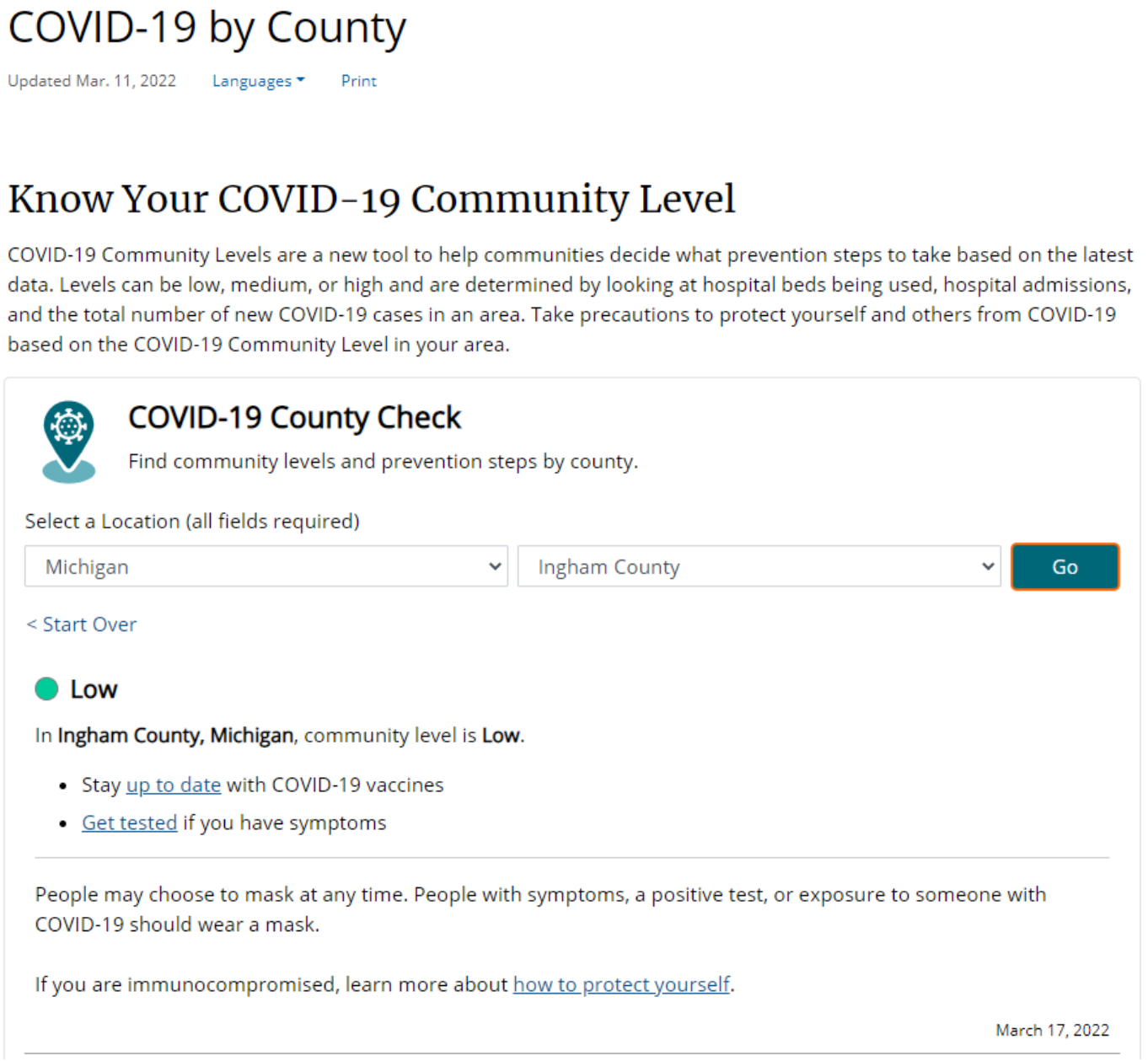
	United States	Michigan
Low	96%	99%
Medium	4%	1%
High	<1%	0%

- 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

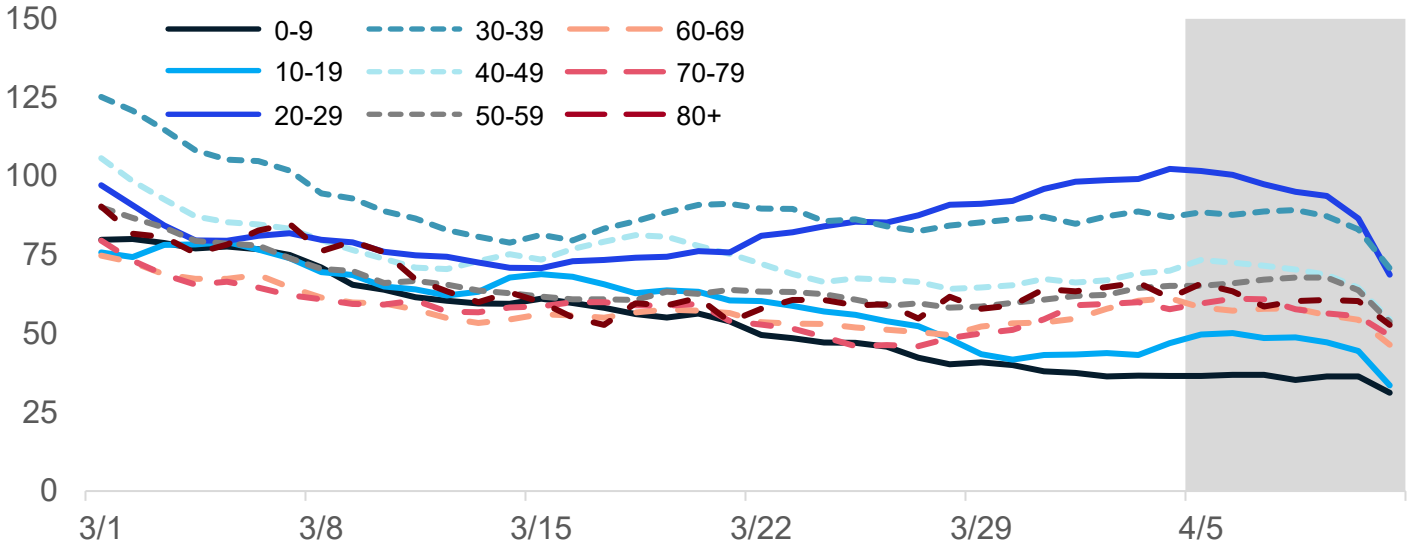
Link: https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html

- 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)



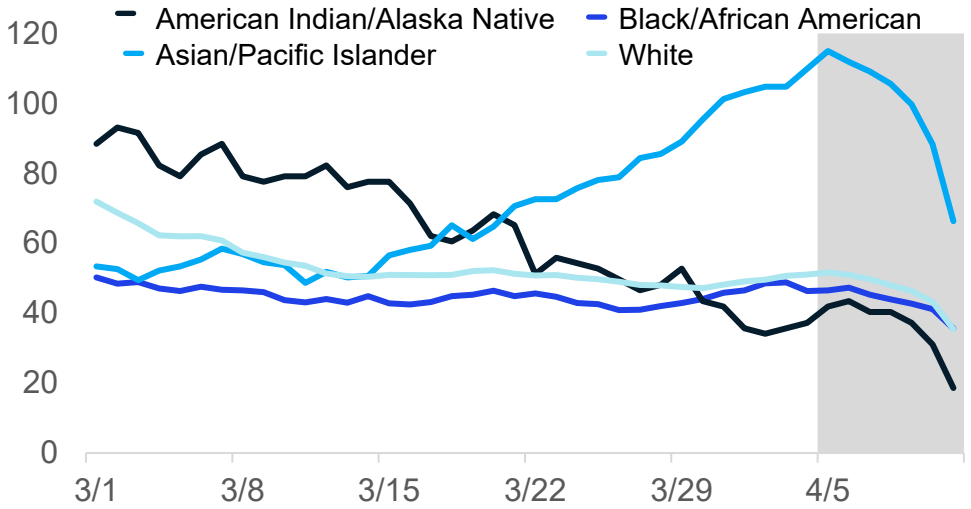
Case rate are plateauing for all reported ages, races and ethnic groups

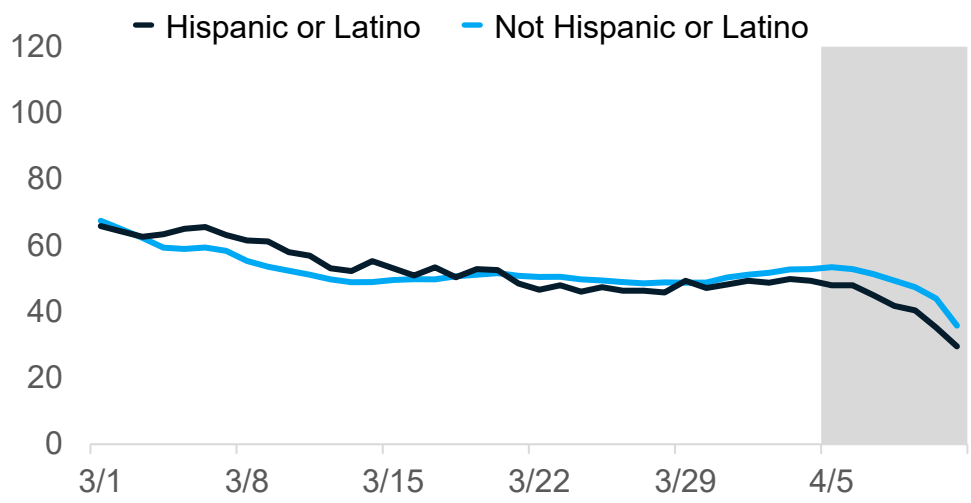
Daily new confirmed and probable cases per million by age group (7-day rolling average)



- Case rates by onset date for all age groups are between 36.6 and 102.3 cases per million (through 4/4)
- Case counts and case rates are highest for 20-29-year-olds this week, followed by 30–39-year-olds and the 40–49-year age groups

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



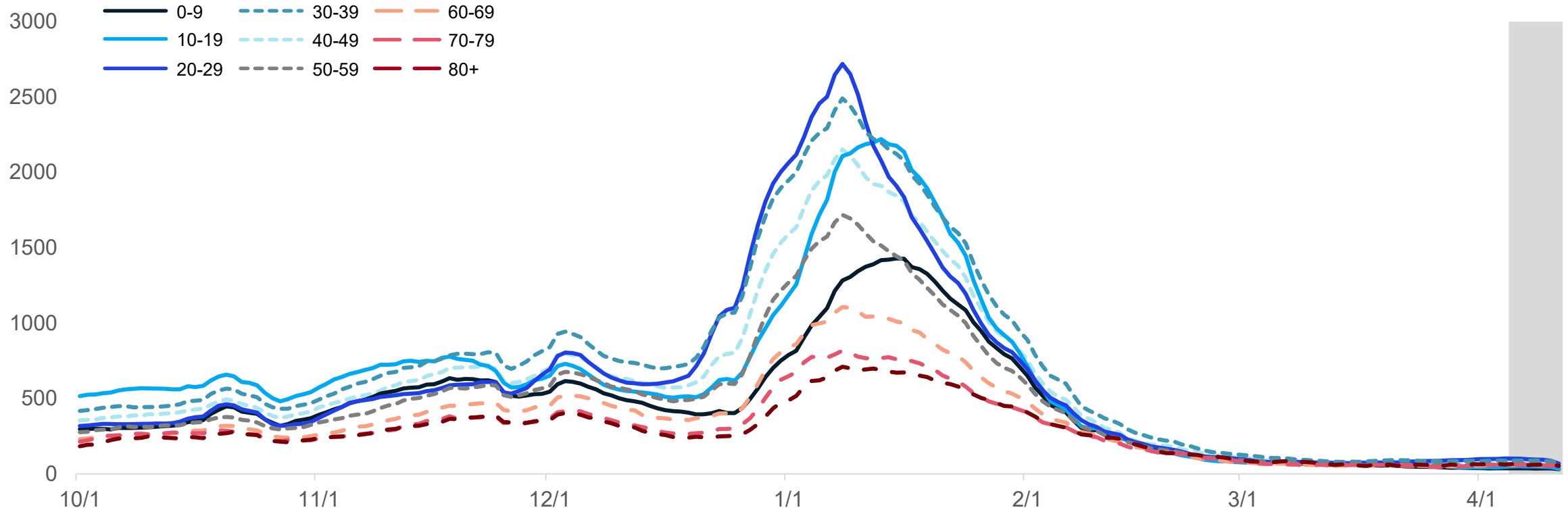


- Case rates are highest for Asian/Pacific Islander populations (109.9 cases/million)

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Case Rate Trends by Age Group

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

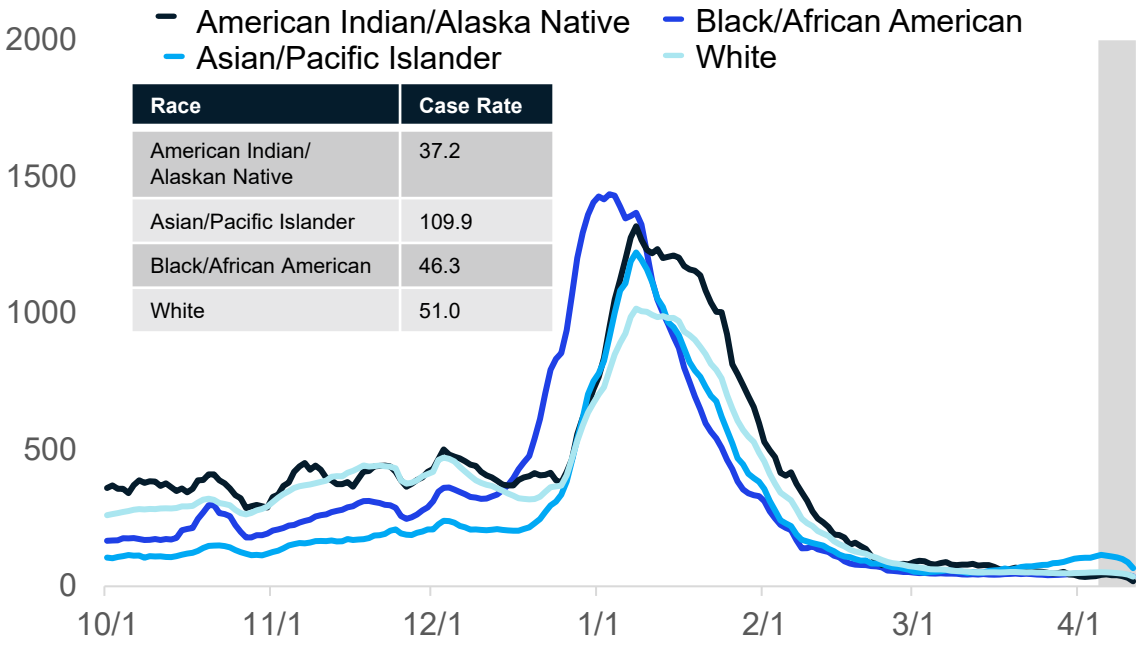


- Case rate trends for all age groups experienced a plateau over the last week
- Case rates by onset date for all age groups are between 36.6 and 102.3 cases per million (through 4/4/22)
- Case counts and case rates are highest for 20-29-year-olds this week, followed by 30–39 and the 40-49 age groups

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

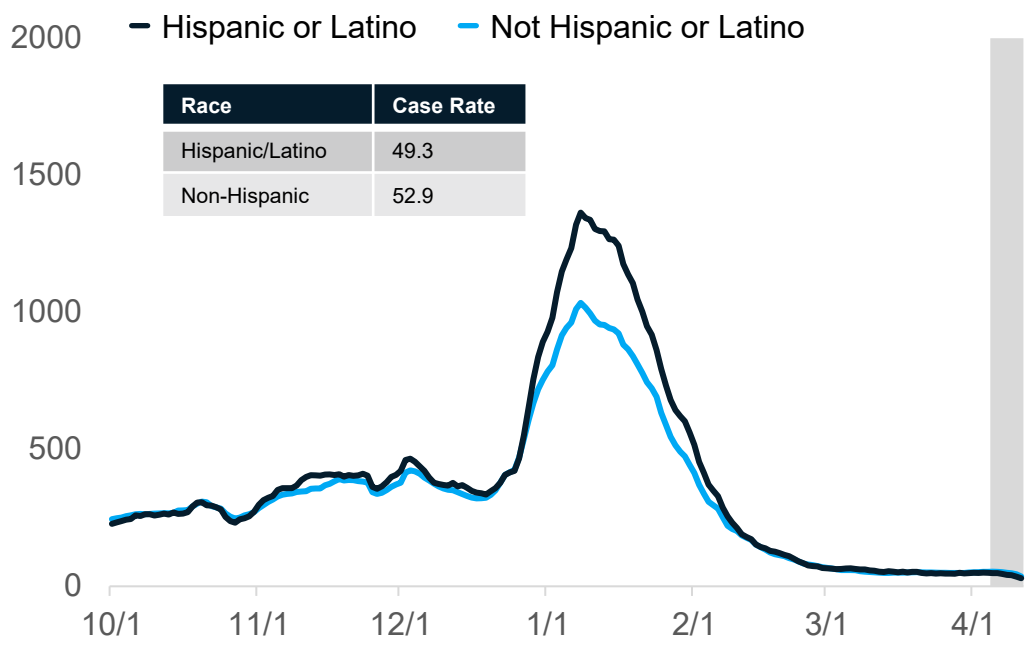
Case Rates by Reported Racial and Ethnic Group

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



Race	Case Rate
American Indian/ Alaskan Native	37.2
Asian/Pacific Islander	109.9
Black/African American	46.3
White	51.0

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



Race	Case Rate
Hispanic/Latino	49.3
Non-Hispanic	52.9

Updates since last week:

- Cases per million are plateauing for all reported racial and ethnic groups, except Asian/Pacific Islander which appear to be increasing
- In the past 30 days, 19.1% (↓ 0.7%) of race data and 24.4% (↓ 0.9%) ethnicity data was either missing or reported as unknown

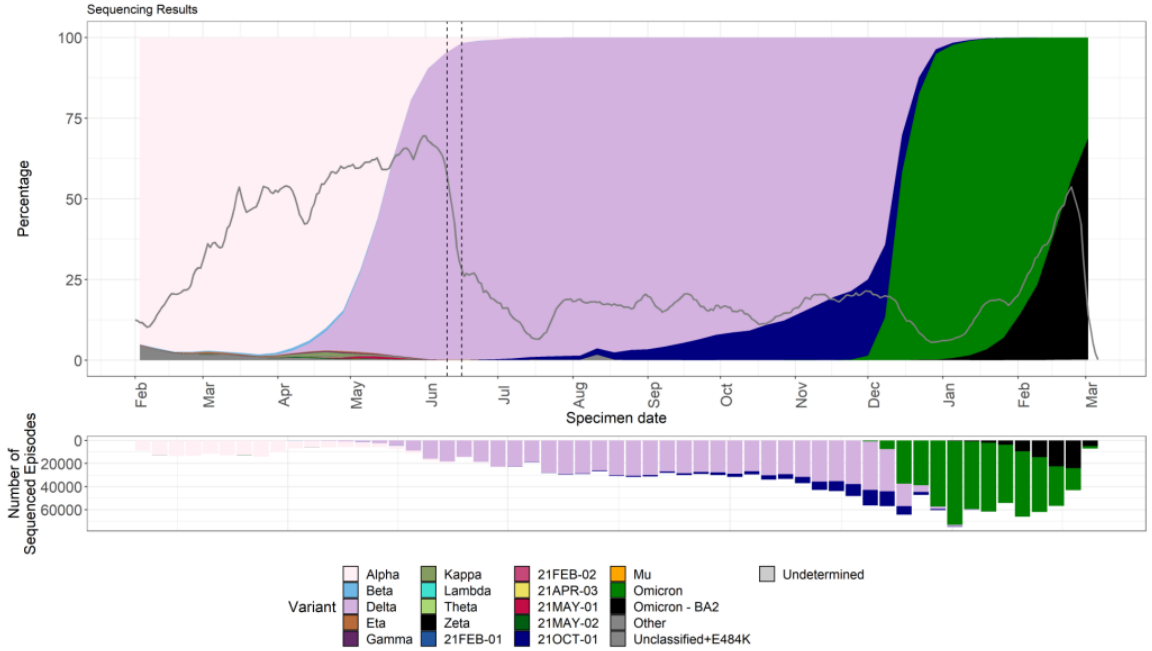
Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

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

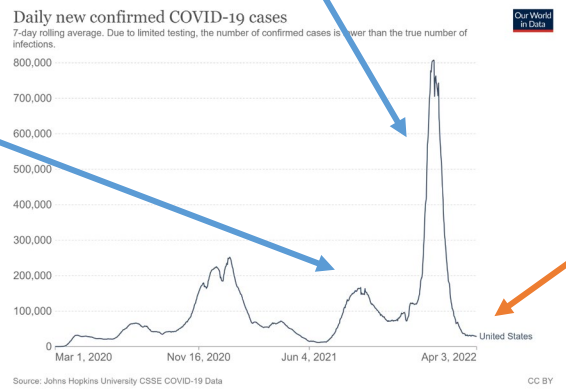
Figure 2. Variant prevalence of available sequenced cases for England from 1 February 2021 as of 8 March 2022
(Find accessible data used in this graph in underlying data. Dashed lines indicate period incorporating issue at a sequencing site. Grey line indicates proportion of cases sequenced.)



https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060337/Technical-Briefing-38-11March2022.pdf

Understanding new variants – Omicron BA.1 vs BA.2

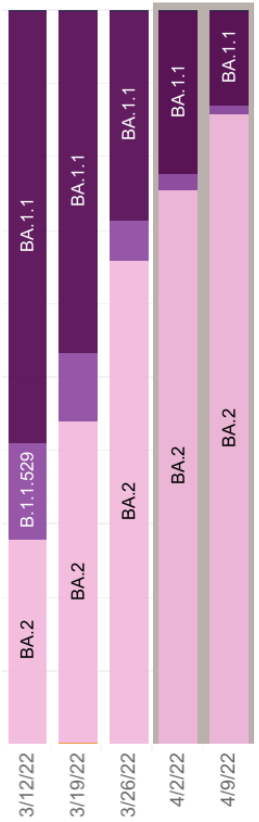
Delta → Omicron BA.1 → Omicron BA.2



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 12 – Apr 9 (NOWCAST)



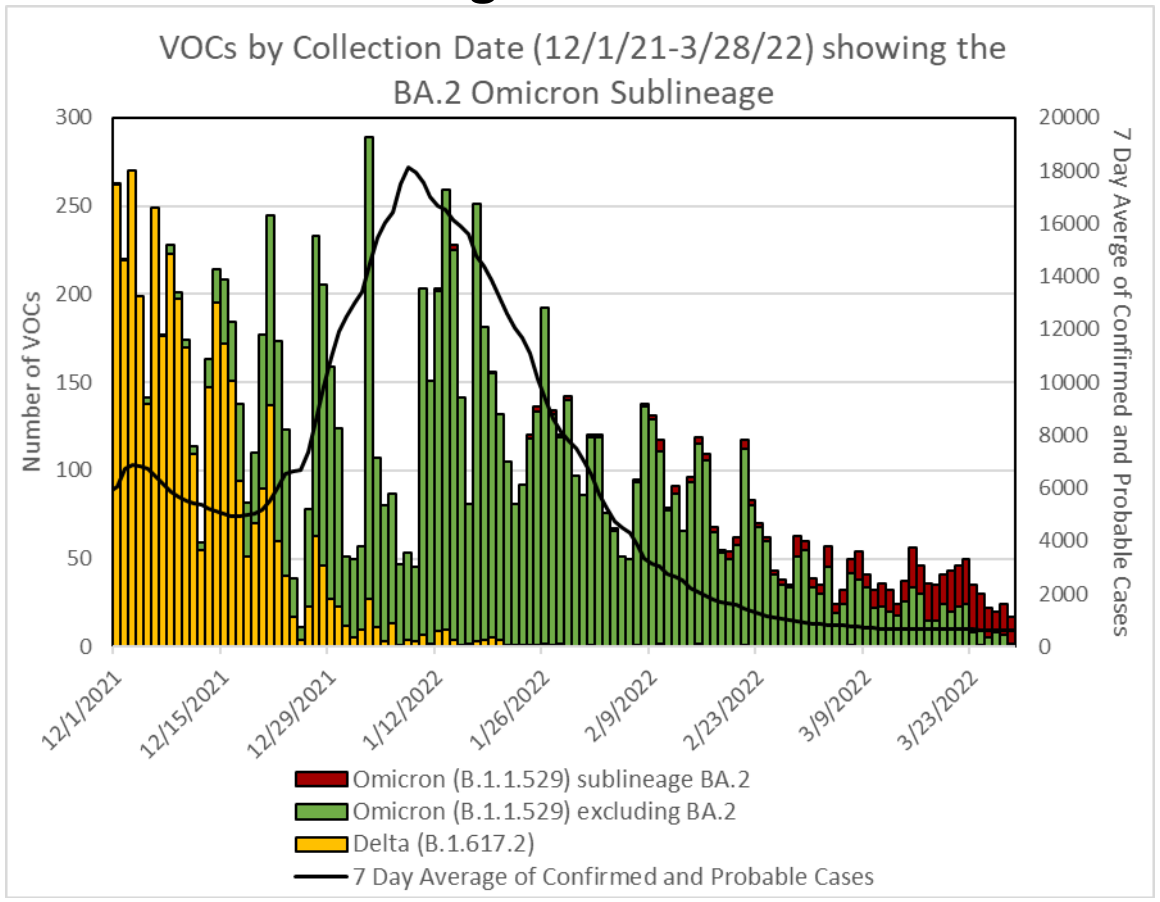
USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	BA.2	VOC	85.9%	83.6-87.8%
	BA.1.1	VOC	13.1%	11.3-15.2%
	B.1.1.529	VOC	1.0%	0.8-1.3%
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, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA.1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region.

Data last updated April 12, 2022
Source: MDSS
¶ Sequence specimens are from the most recent week by onset date which may change as more specimens are sent in

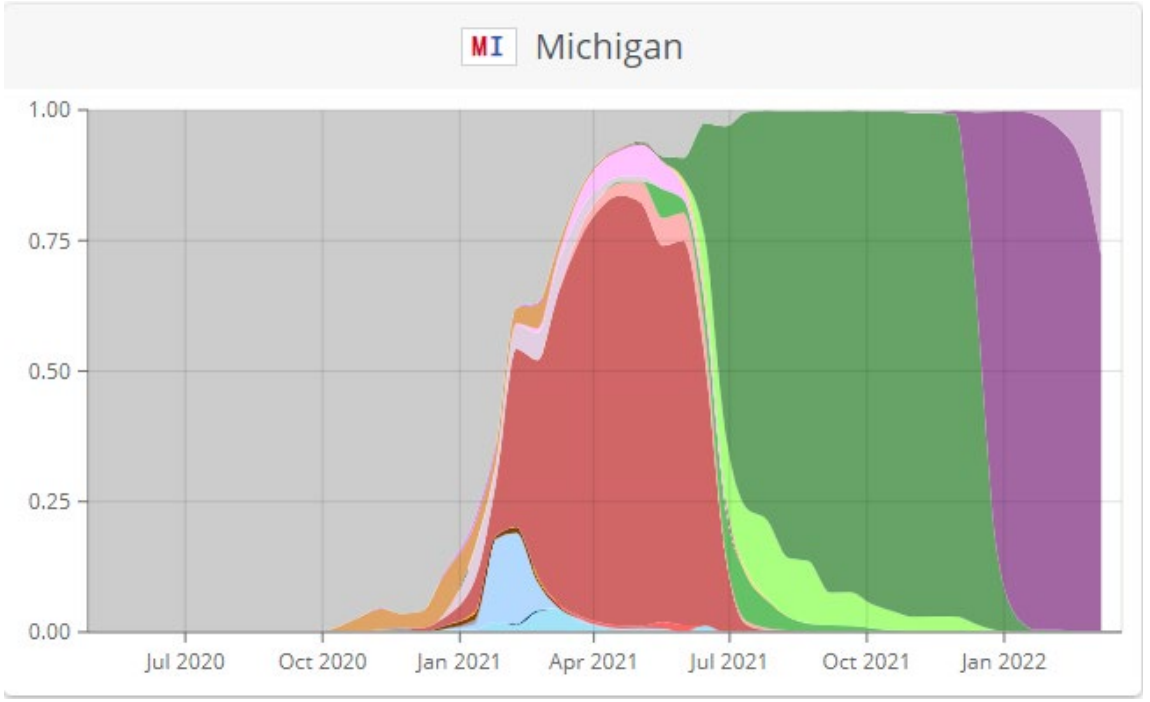
VOC Distribution in Michigan



- Since March 4, there have 2,999 VOC specimens sequenced
- Cumulatively, 490 Omicron BA.2 specimens identified from 40 counties and City of Detroit

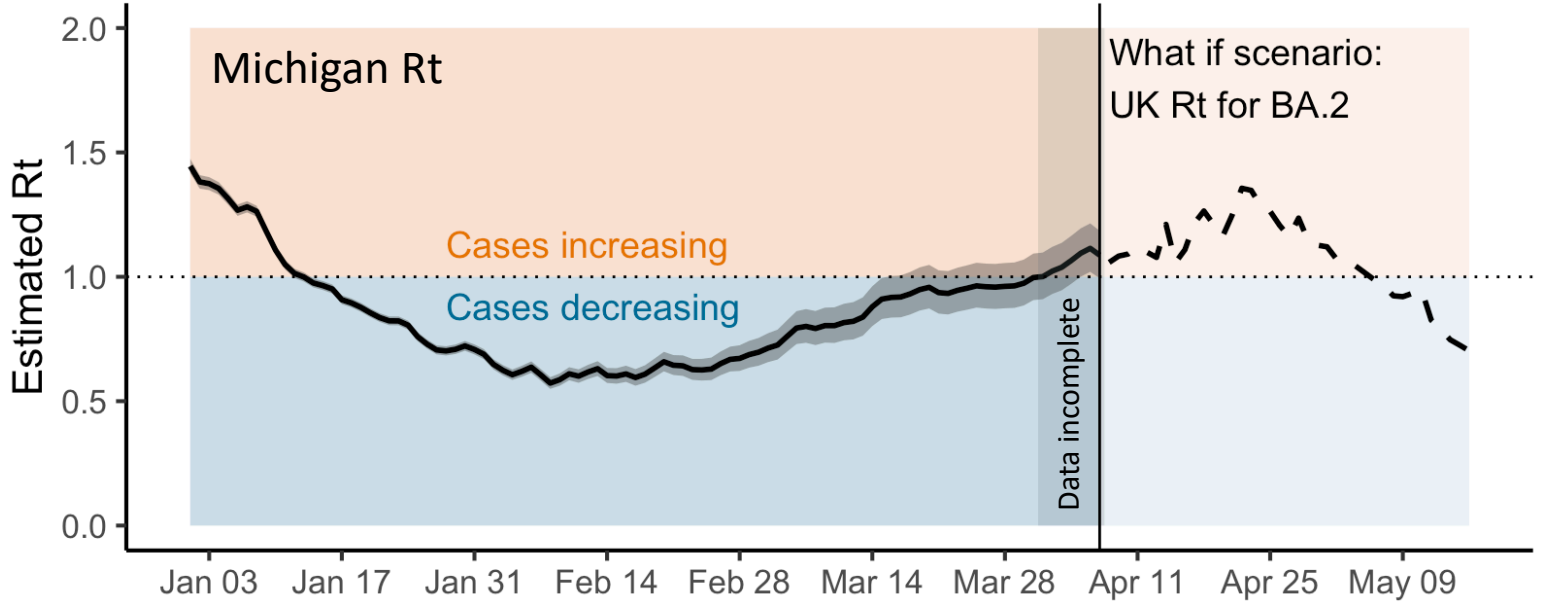
BA.2 National and State Update

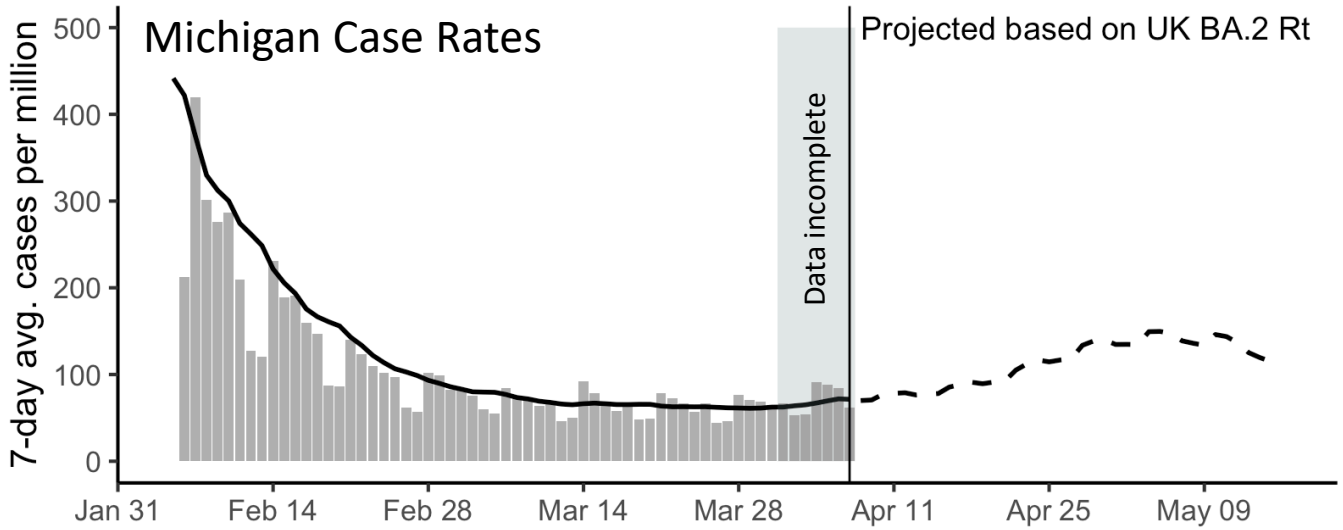
- Nowcasting data estimates that 72.2% of specimens sequenced now are BA.2 in the U.S.
  - Within Region 5 (IL, IN, MI, MN, OH, WI) it's estimated at 67.4%
  - In Michigan, over 50% of VOC specimens sequenced were BA.2, the first time the majority of specimens were BA.2 in the state



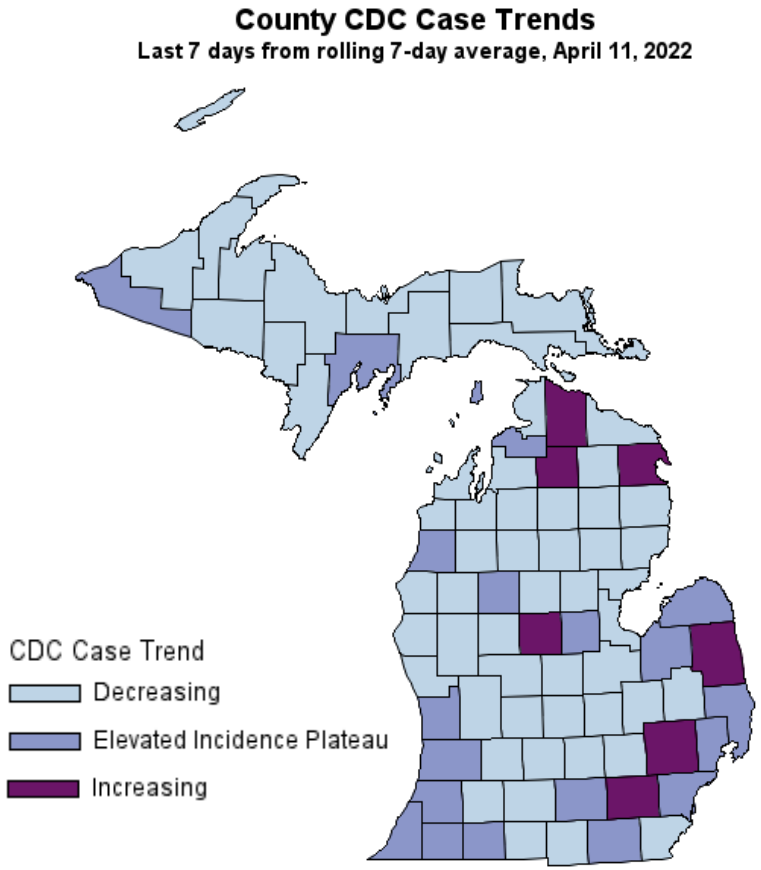
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060337/Technical-Briefing-38-11March2022.pdf

Case rates in Michigan are plateauing, projections based on UK suggest a coming increase, although not to the levels of BA.1 wave





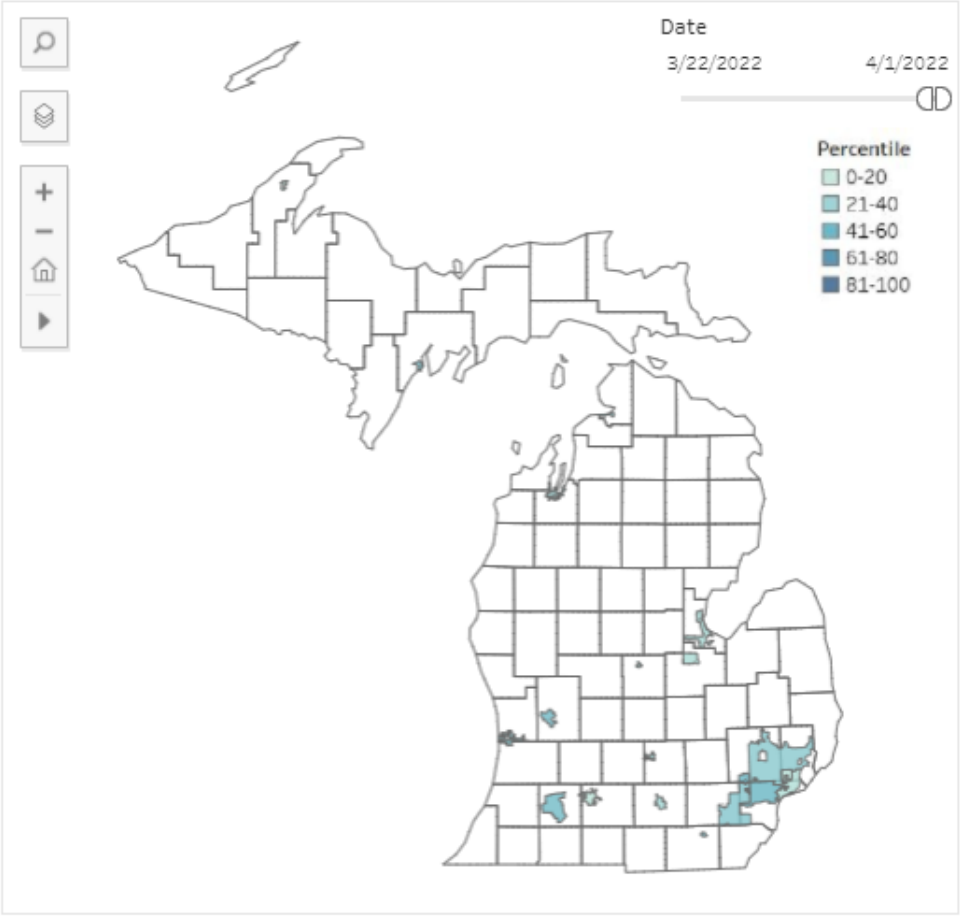
Seven counties currently showing increases and 19 in elevated incidence plateaus (via mistartmap.info as of 4/11/22, data through 4/3/22).



Sources: MDSS cases plotted by onset date as for 4/8/22, UK case rates from Our World in Data. Projections are a what-if scenario supposing Michigan's transmission levels (Rt) follow the UK's Rt for the BA.2 wave.

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.



Site	Sewershed Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	1	3/28/2022	
Battle Creek WWTP	51093	0	3/28/2022	
Bay City WWTP	34000	0	3/31/2022	
Delhi Township WWTP	22500	1	3/24/2022	
Escanaba WWTP	12600	31	3/28/2022	
GLWA Detroit River Interce..	492000	75	3/23/2022	
GLWA North Interceptor-	1482000	52	3/23/2022	
GLWA Oakwood-	840600	76	3/23/2022	
Grand Rapids WWTP	265000	34	3/31/2022	
Holland WWTP North	45606	0	3/30/2022	
Holland WWTP South	36912	0	3/30/2022	
Jackson WWTP	90000	37	3/31/2022	
Kalamazoo WWTP	150000	1	3/31/2022	
Petoskey WWTP	7900	2	3/31/2022	
Portage Lake WWTP	14000	29	3/28/2022	
Saginaw Township WWTP	40000	0	3/31/2022	
Tecumseh WWTP	8680	12	4/1/2022	
Traverse City WWTP	45000	3	3/31/2022	
Warren WWTP	135000	0	3/22/2022	
Ypsilanti WWTP	330000	37	3/31/2022	

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 4/6/2022. 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

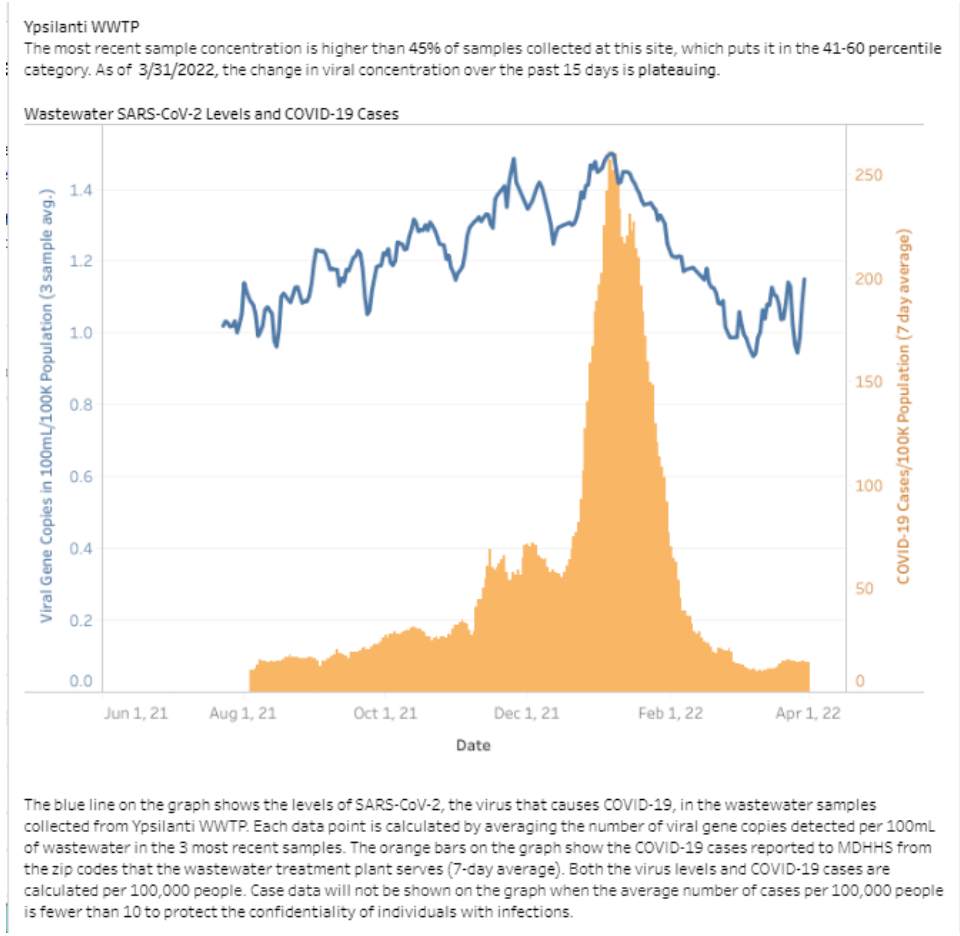
- 35% (7/20) of sentinel sites are showing declines in the previous 15-days
- 30% (6/20) of sentinel sites are showing increasing trends over last 15-days
- The remaining 35% of sites have plateaued over the last 15 days.

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

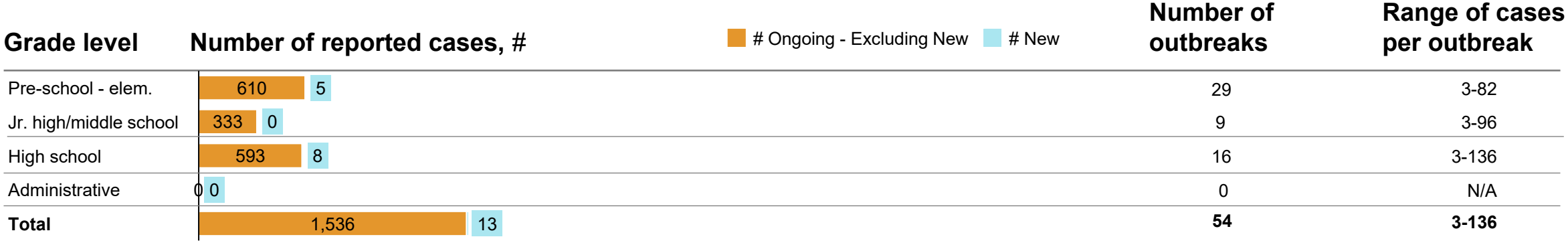


Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

Vital Infrastructure: K-12 school clusters and outbreaks, week ending April 7

Number of reported outbreaks/clusters decreased slightly since last week (68 to 54), 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	66	0	3	6-35
Region 2n	3	0	1	3
Region 2s	144	13	22	3-23
Region 3	960	0	20	3-136
Region 5	0	0	0	N/A
Region 6	155	0	5	3-56
Region 7	208	0	3	6-120
Region 8	0	0	0	N/A
Total	1,536	13	**54**	**3-136**



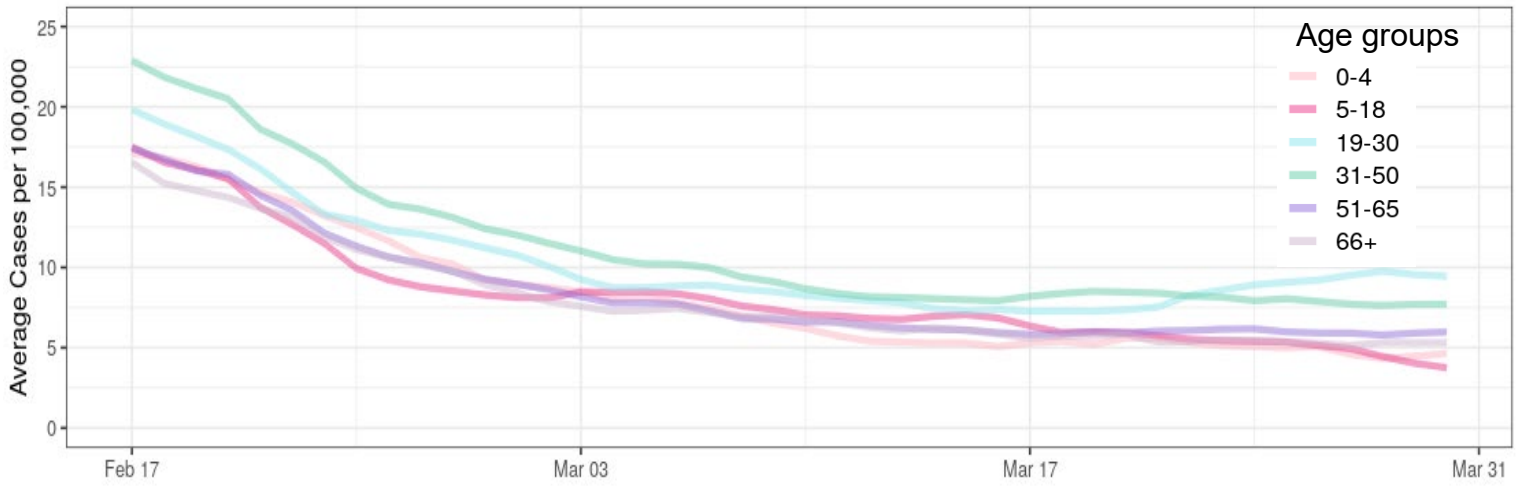
Grade level	Number of reported cases, #		Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	610	5	29	3-82
Jr. high/middle school	333	0	9	3-96
High school	593	8	16	3-136
Administrative	0	0	0	N/A
Total	1,536	13	**54**	**3-136**

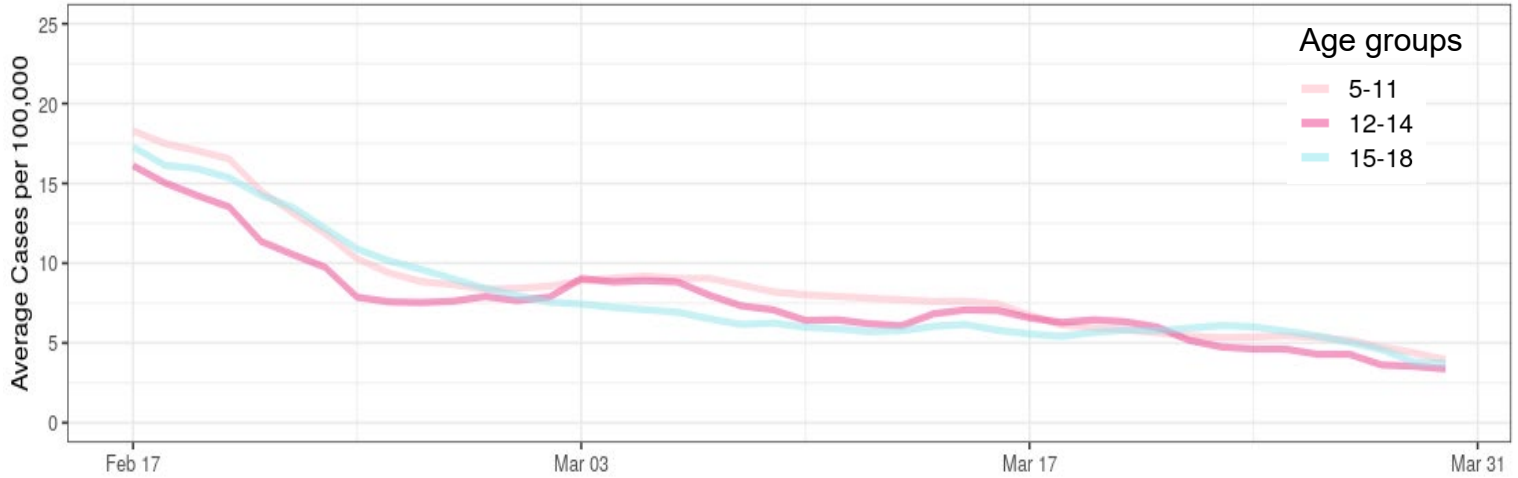
Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way 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

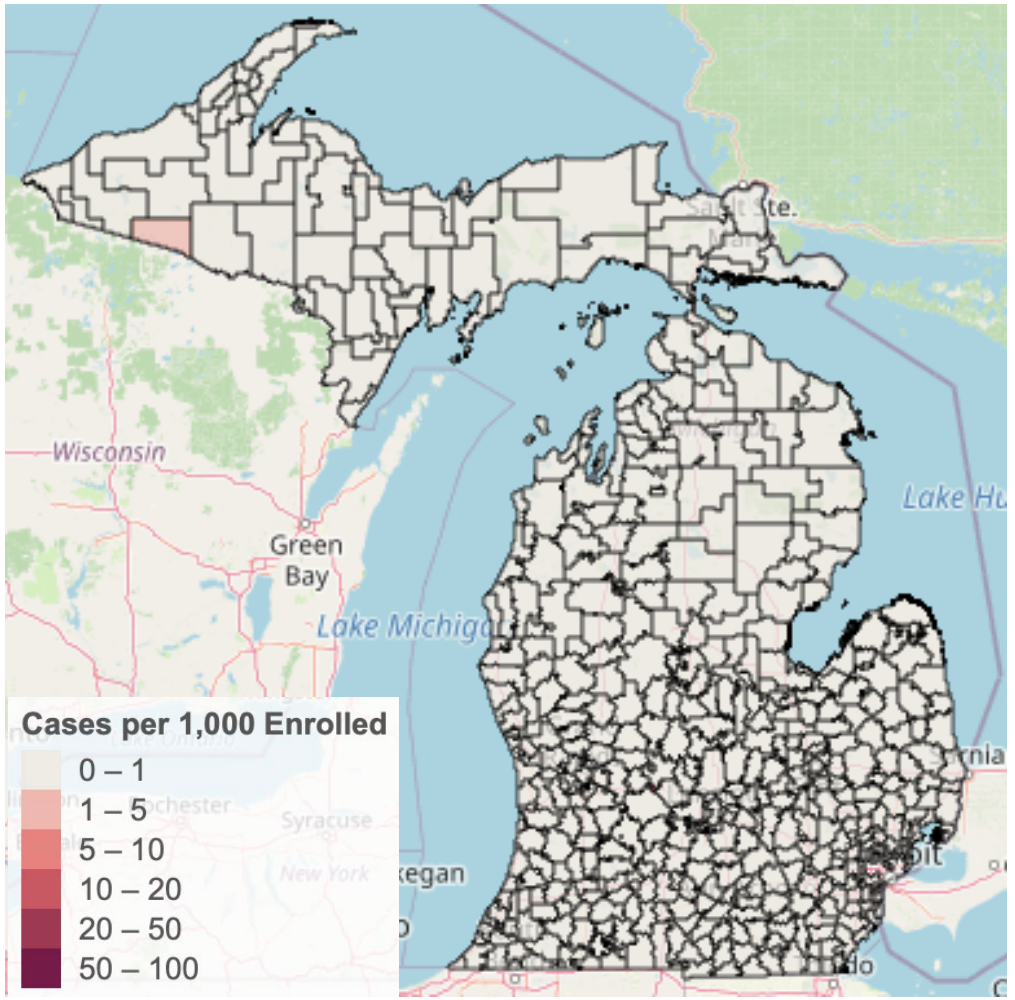
Source: LHD Weekly Sitreps

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

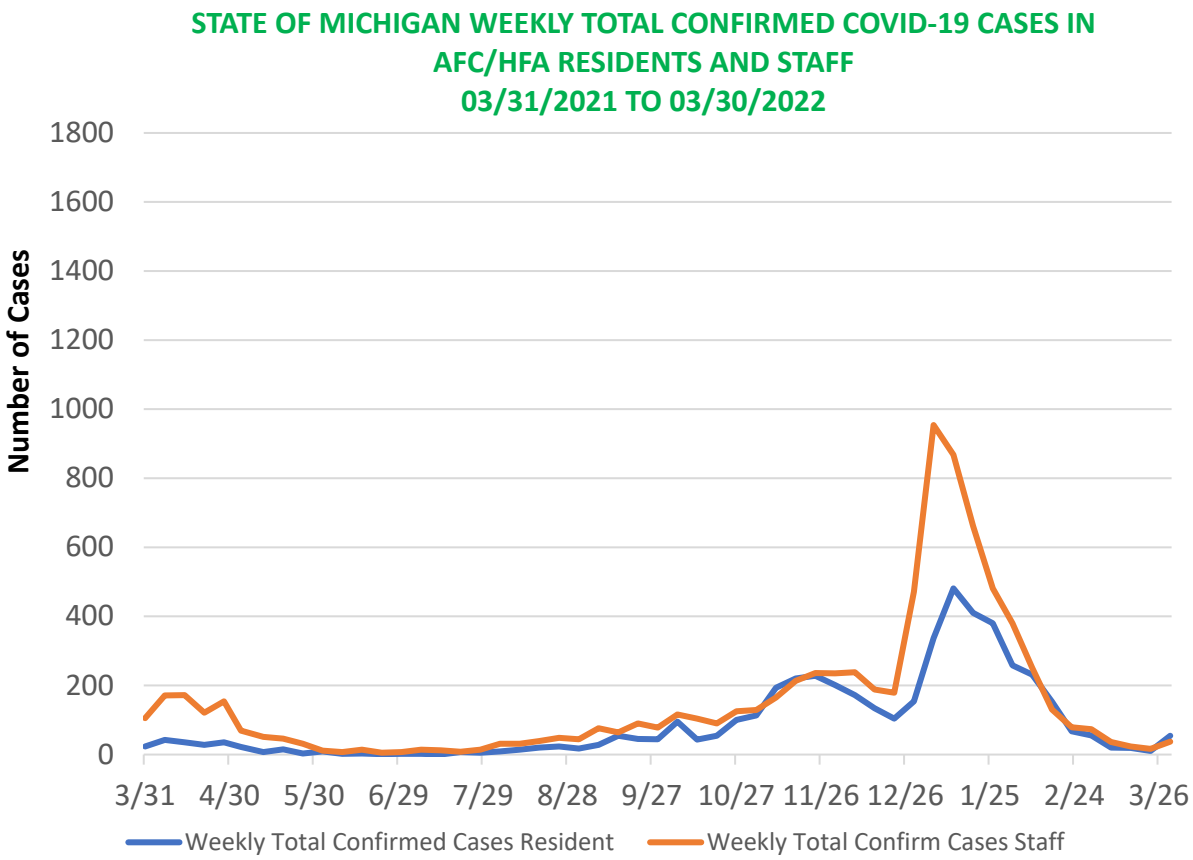


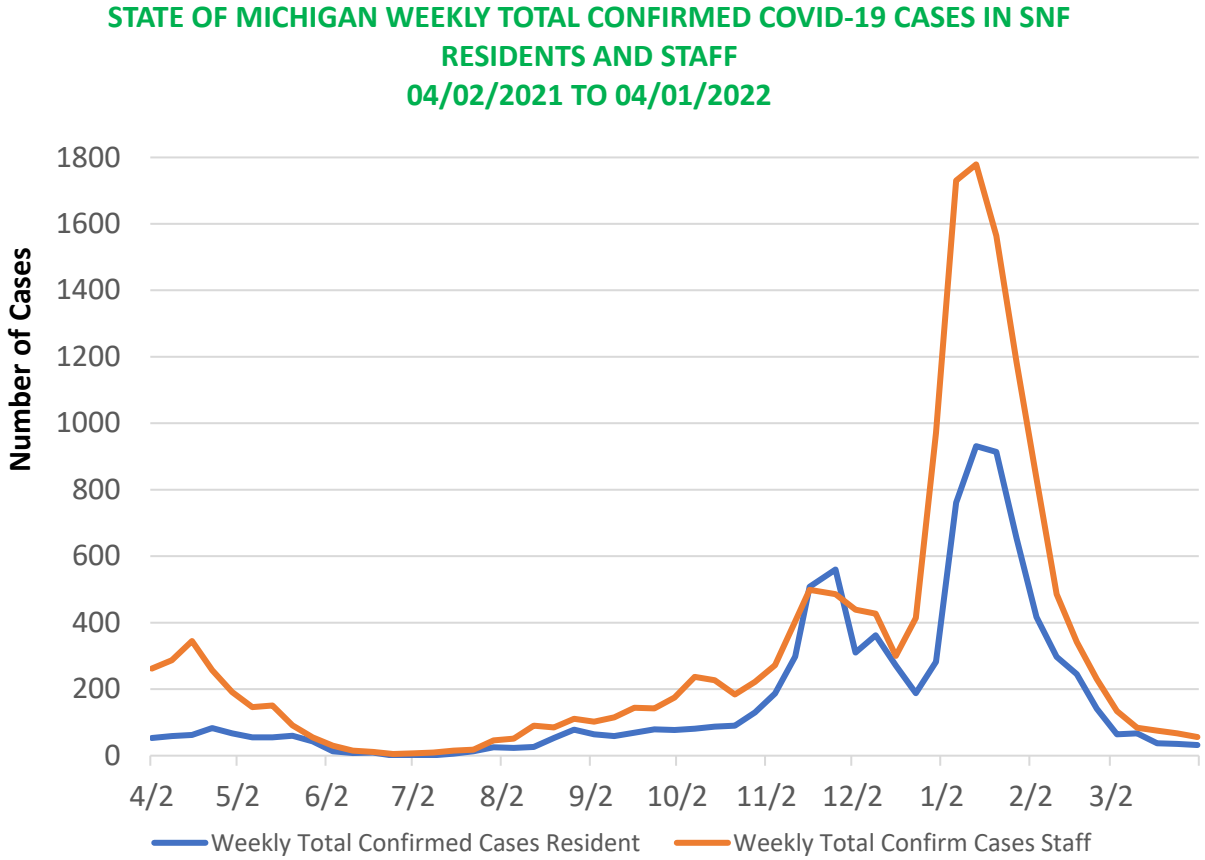




Sources: MDSS case data as of 4/4/2022 (data through 3/30/22), line charts use statewide age group population, map uses ISD enrolled populations from EOG mask tracker data.

Cases continue are plateaued or increasing in staff and residents in Long Term Care Facilities



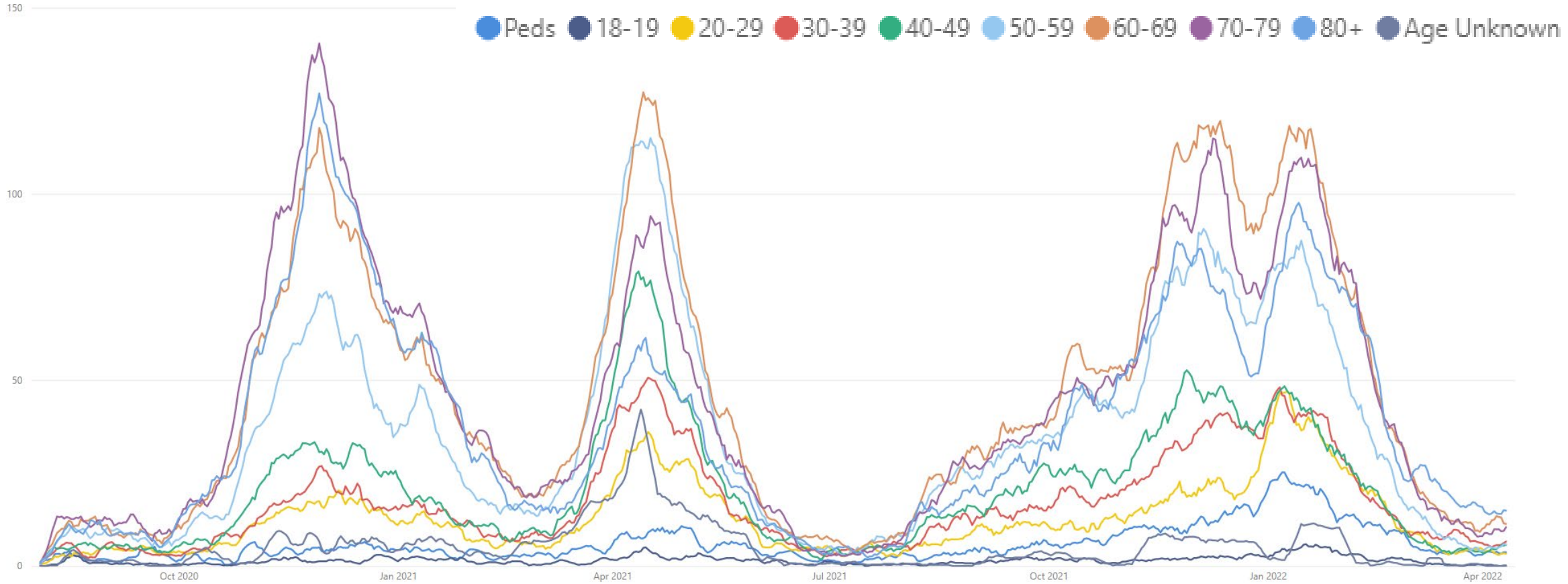


- Case counts in residents are plateaued in AFC/HFA (53) but increased in SNFs (41)
- Case counts in staff increased in both AFC/HFA (45) and SNF (67)

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

The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Hospital admissions due to COVID-19 are Low but Increasing



- Trends for daily average hospital admissions increased (+10%) since last week (vs. -9% prior week)
- Two thirds of age groups saw increases this week
- Fewer than 15 daily hospital admissions was seen for every age groups

Source: CHECC & EM Resource

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	3.1	2.3	+22% (+1)
12-17	0.6	0.8	-43% (-<1)
18-19	0.1	0.5	-50% (-<1)
20-29	3.3	2.4	-21% (-1)
30-39	6.6	5.4	+18% (+1)
40-49	5.7	4.8	+48% (+2)
50-59	**5.7**	**4.2**	+8% (+<1)
60-69	**11.3**	**8.8**	+1% (+<1)
70-79	**10.4**	**13.6**	+24% (+2)
80+	**14.9**	**35.9**	+7% (+1)
Total¶	**61.7**	**5.4**	**+10% (+6)**

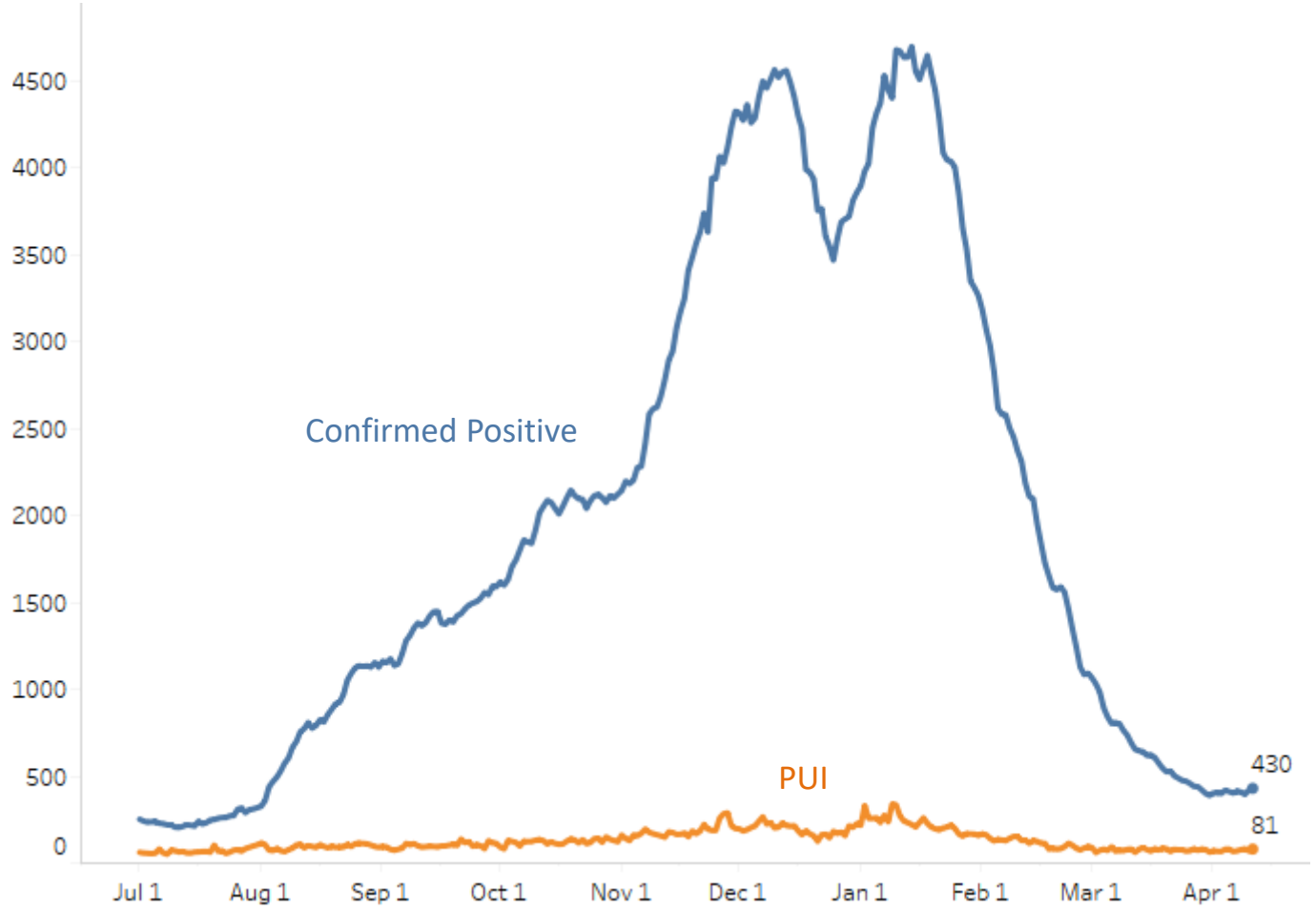
* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Hospital Admission data reflects date data was submitted
Source: CHECC and EM Resource

- Through April 11, there were an average of 61.7 hospital admissions per day due to COVID-19; an increase from last week (+10%, +6)
- Two thirds of age groups saw increases this week
- The largest one-week count increase was among those 70-79 years (+2)
- Average daily hospital admission count (14.9 hospital admissions per day) and average daily hospital admission rate (35.9 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

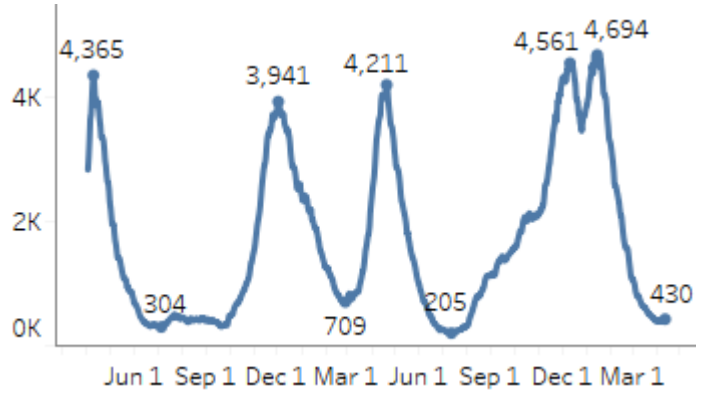
Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 7/1/2021 – 4/11/2022
Confirmed Positive & Persons Under Investigation (PUI)



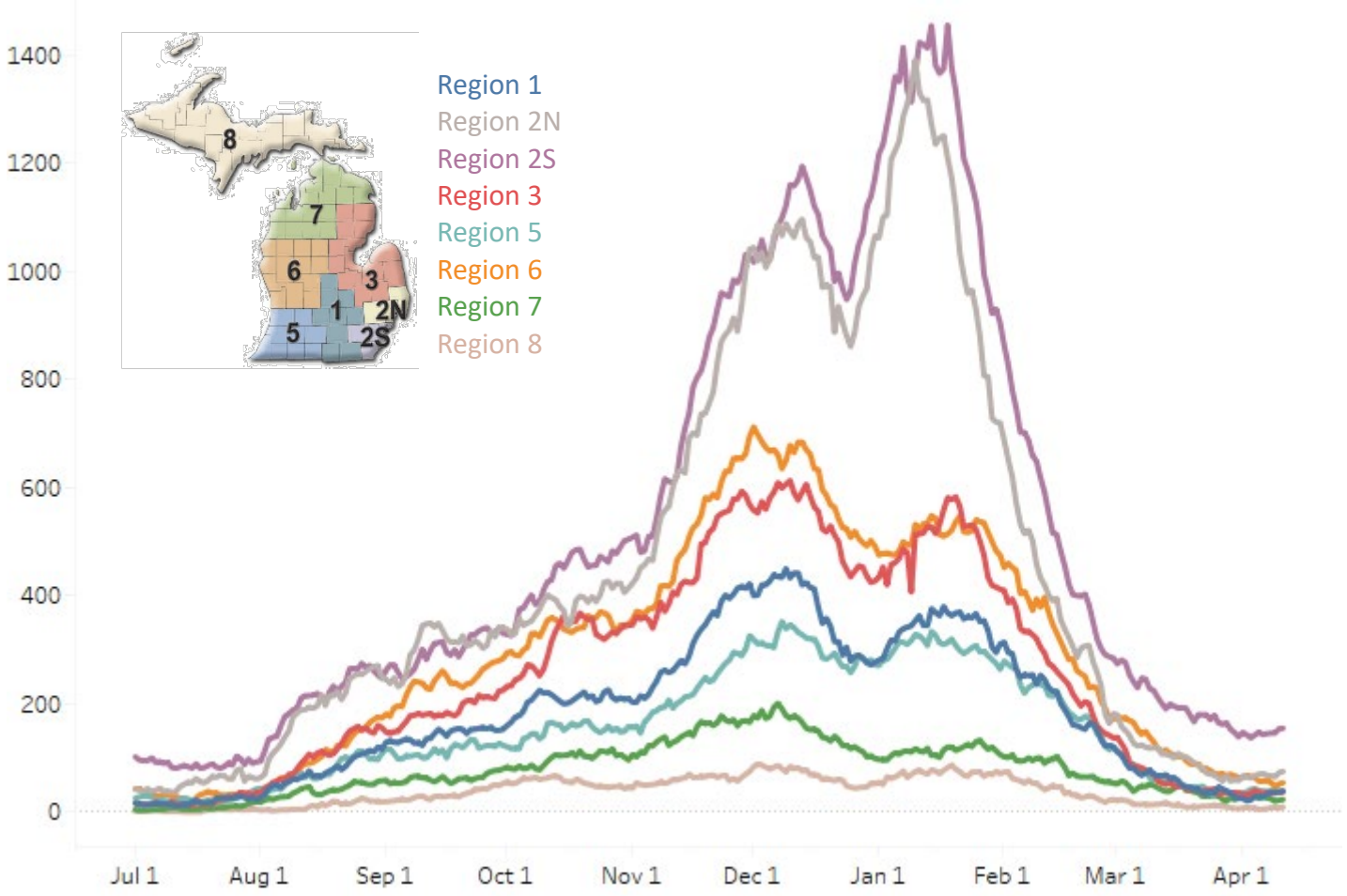
The COVID+ census in hospitals has flattened over the past two weeks and has shown a slight increase over the past few days. Overall the census is up ~3% from last week.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)



Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 4/11/2022
Confirmed Positive by Region



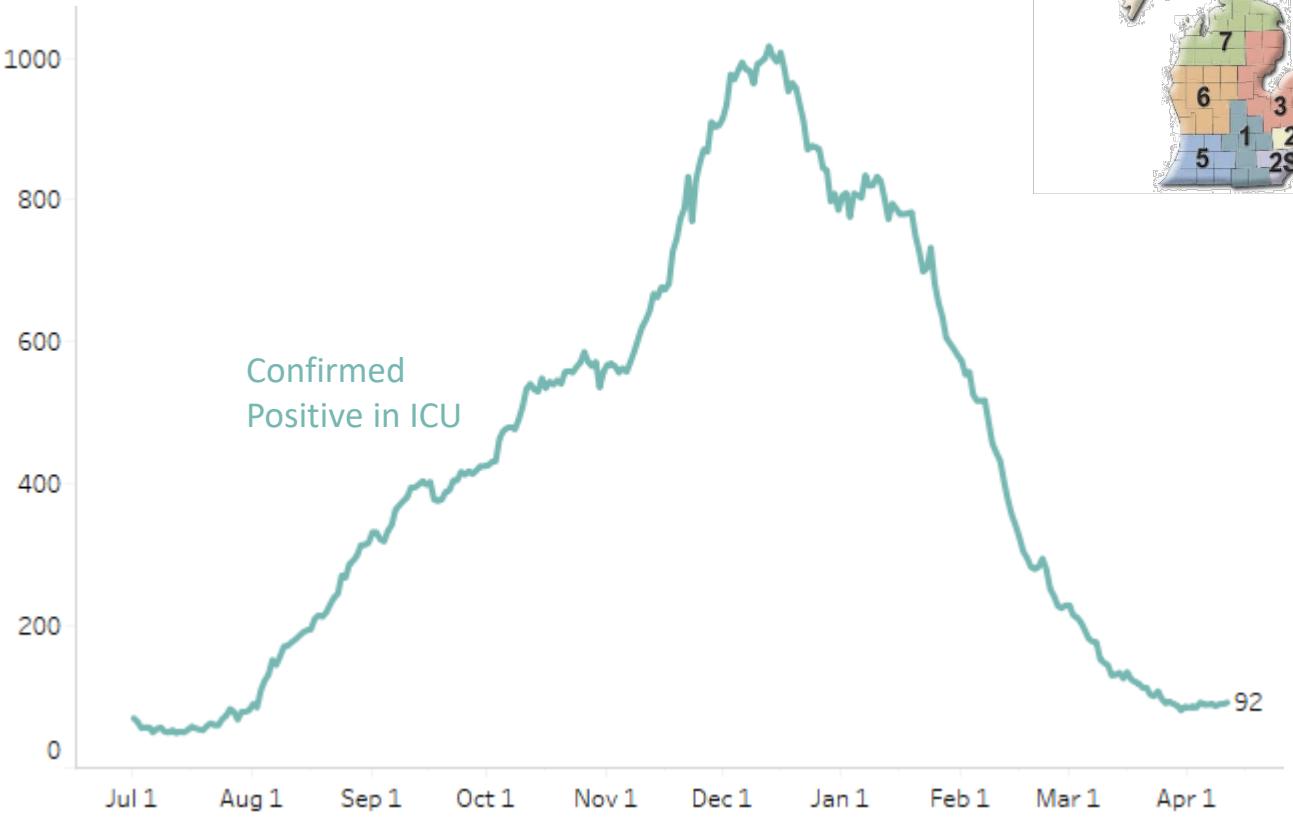
This week hospitalizations have decreased in Regions 3, 5, 6, and 7. Hospitalizations have increased in Regions 1, 2N, 2S, and in Region 8.

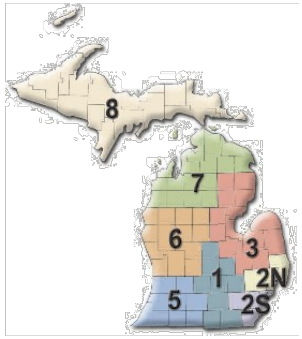
.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	39 (34%)	36/M
Region 2N	75 (12%)	34/M
Region 2S	155 (9%)	70/M
Region 3	37 (-5%)	33/M
Region 5	38 (-10%)	40/M
Region 6	54 (-16%)	37/M
Region 7	23 (-21%)	46/M
Region 8	9 (29%)	29/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 4/11/2022
Confirmed Positive in ICUs



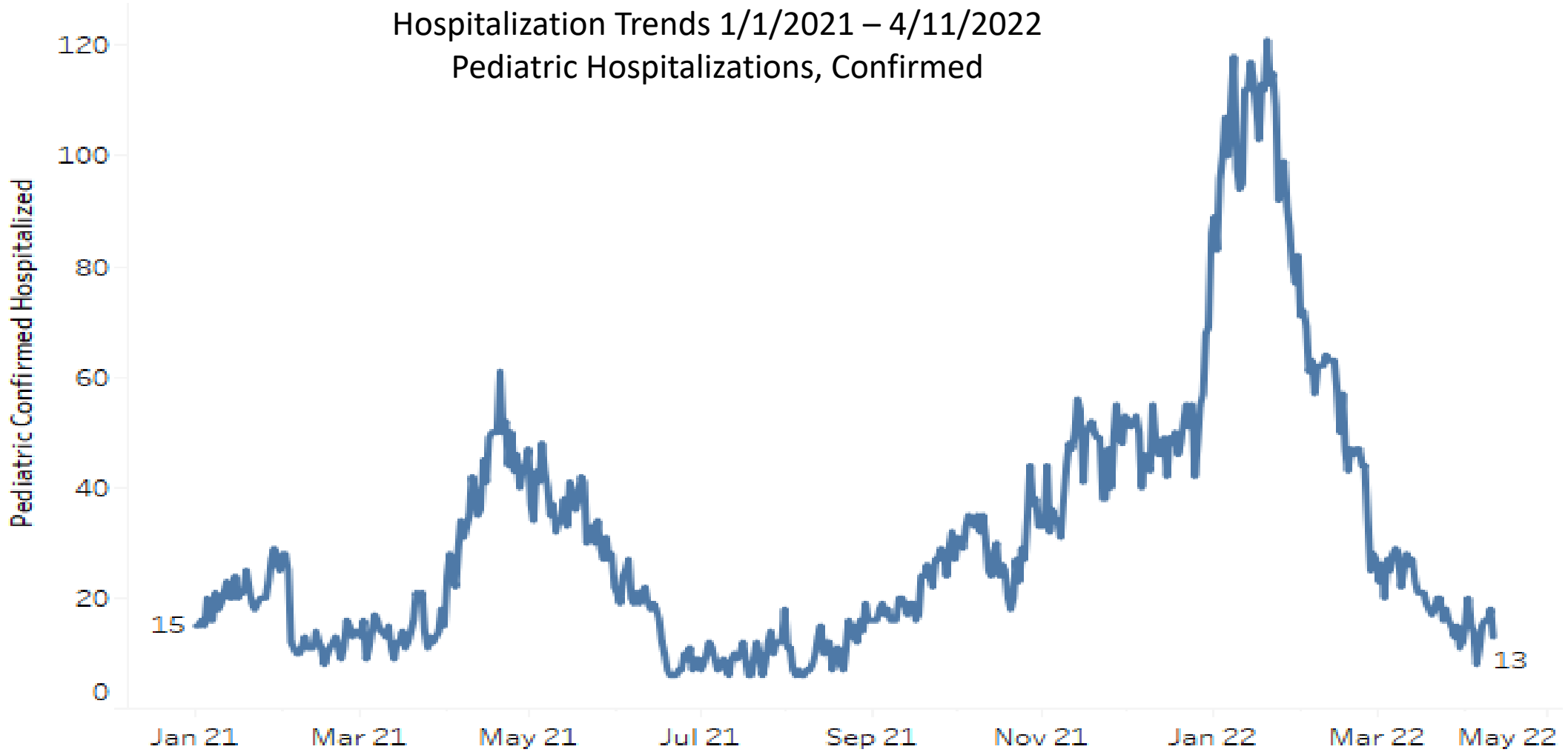


Overall, the census of COVID+ patients in ICUs has remained stable vs. the week prior. There are 92 patients with COVID in our ICUs. Region 1 and 2N saw a large increase while most other regions were flat or declined.

All regions have 6% 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	6 (200%)	77%	3%
Region 2N	18 (64%)	70%	3%
Region 2S	40 (-13%)	75%	6%
Region 3	9 (0%)	81%	3%
Region 5	5 (0%)	68%	3%
Region 6	7 (-30%)	74%	3%
Region 7	6 (-33%)	83%	4%
Region 8	1 (0 last week)	55%	1%

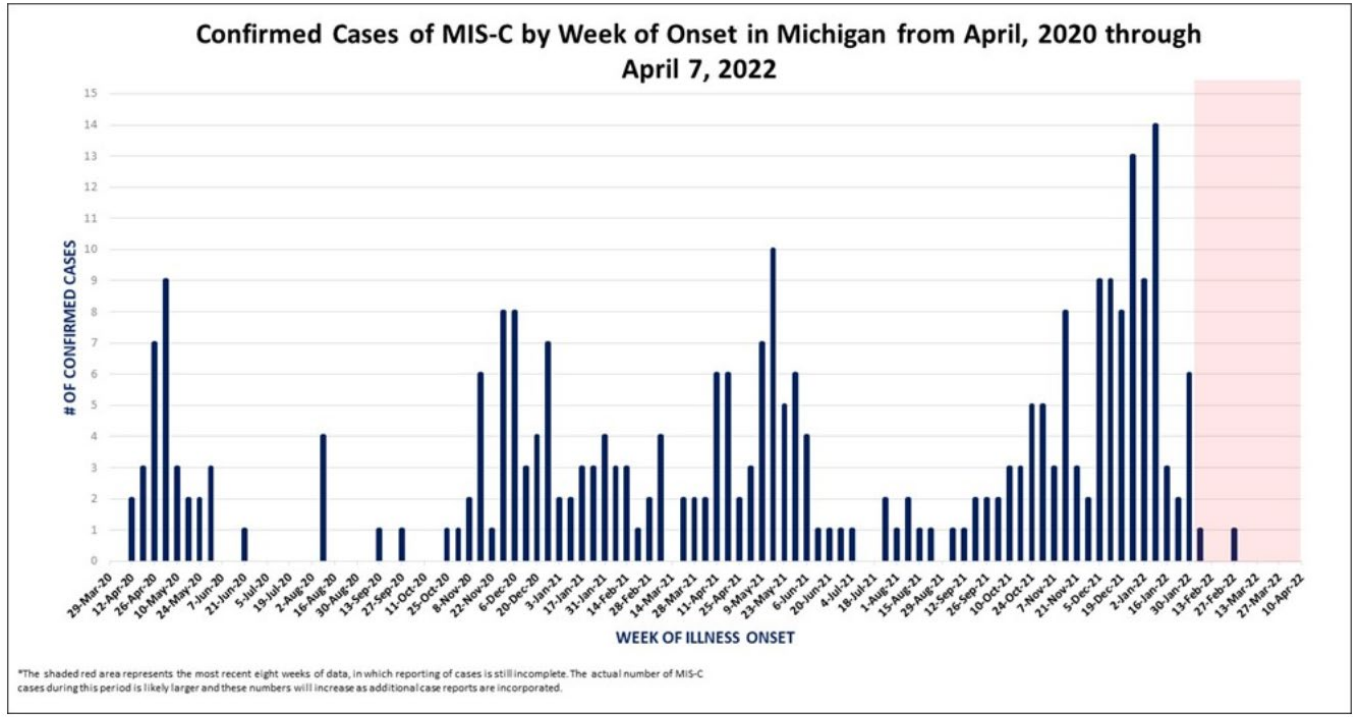
Statewide Hospitalization Trends: Pediatric COVID+ Census



Multisystem Inflammatory Syndrome in Children (MIS-C)

Michigan Surveillance

- Higher community transmissions is followed by higher incidence of MIS-C cases
- 287 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
- 65.5% children with MIS-C are treated in the ICU



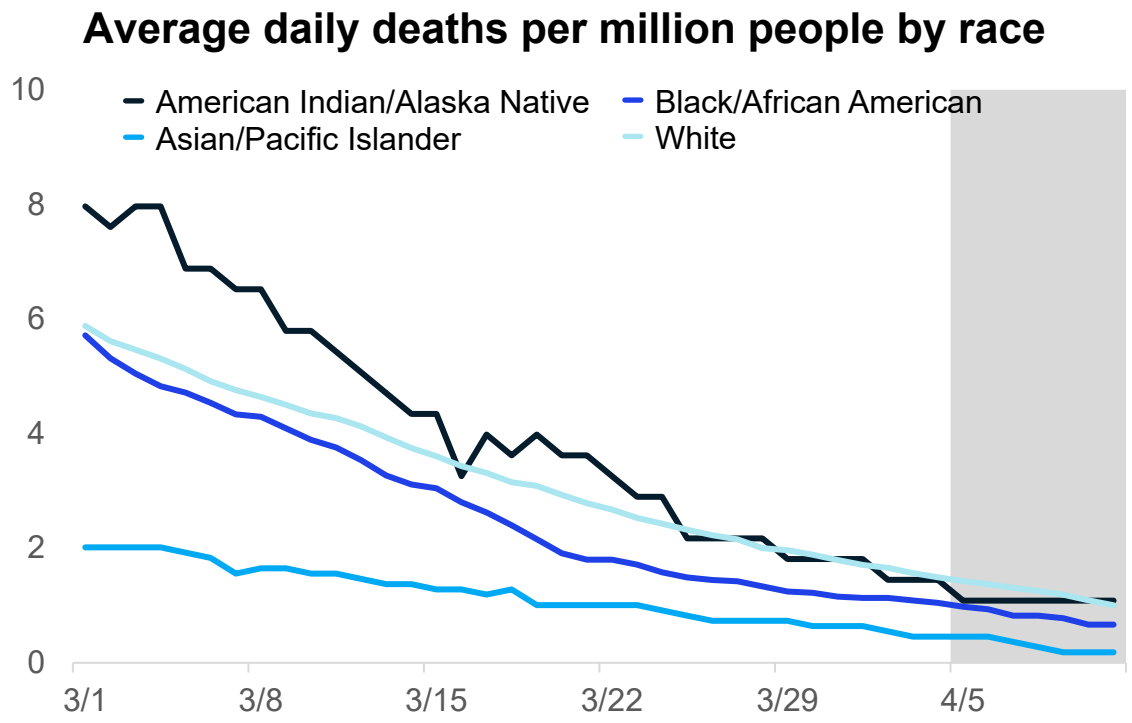
Red shading indicates the expected reporting lag for new cases. Cases with onset dates in this time period may not have been detected or reported yet.

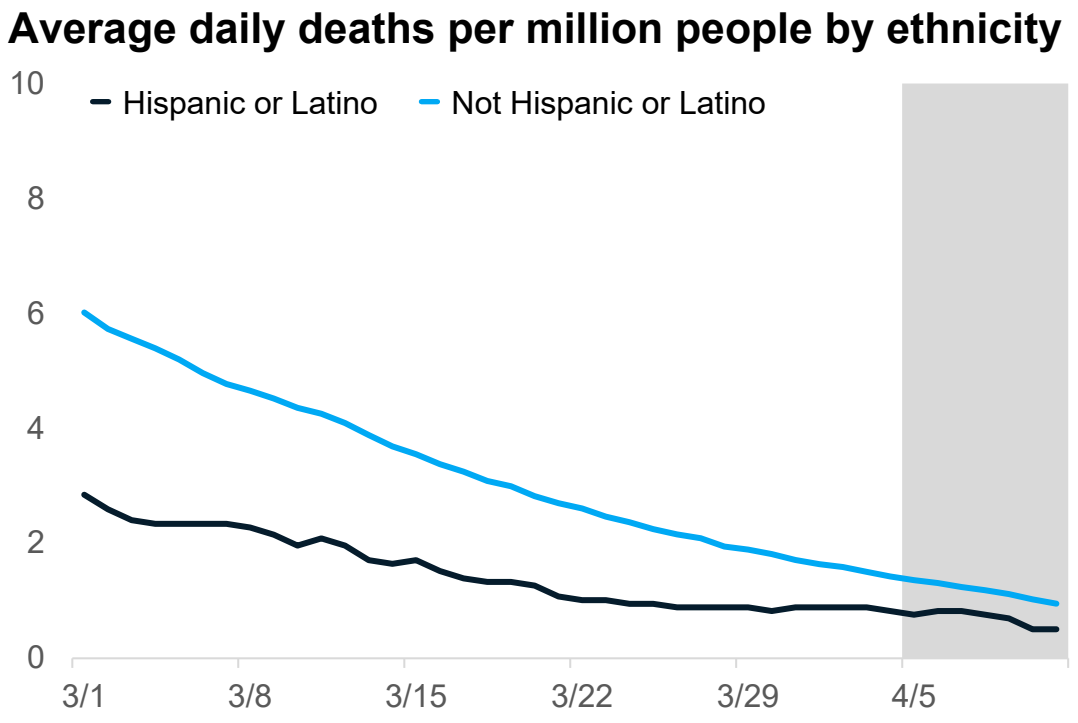
DEMOGRAPHIC INFORMATION (N=287)

Age Group	Count	%	Race	Count	%
<1 yrs	10	3.5%	Black/African American	104	36.2%
1-4 yrs	66	23.0%	Caucasian	136	47.4%
5-11 yrs	141	49.1%	All Others / Unknown	47	16.4%
12-15 yrs	51	17.8%			
16-20 yrs	19	6.6%			
Gender	Counts	%	Ethnicity	Count	%
Male	178	62.0%	Not Hispanic or Latino	215	74.9%
Female	109	38.0%	Hispanic or Latino	23	8.0%
Unknown	0	0.0%	Unknown	49	17.1%

Source: MDHHS and MIS-C Data and Reporting; Data through 4/4

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



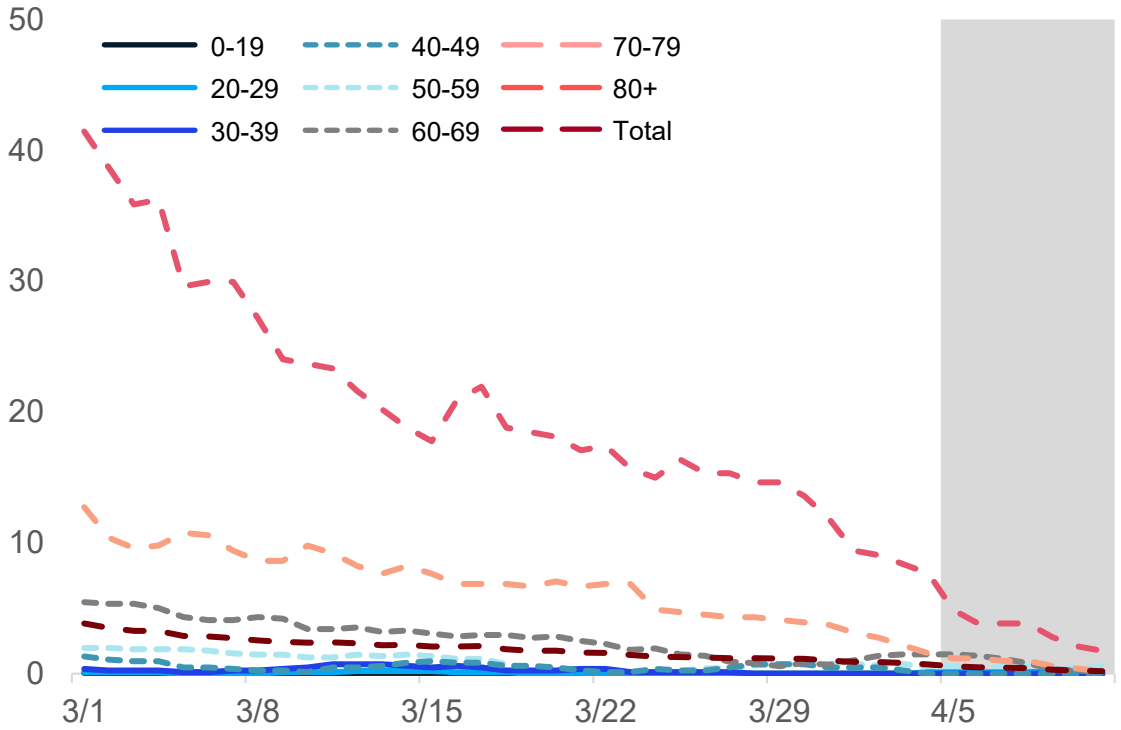


- Deaths are lagging indicator of other metrics
- Currently, Whites have the highest death rate (1.49 deaths/million)

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

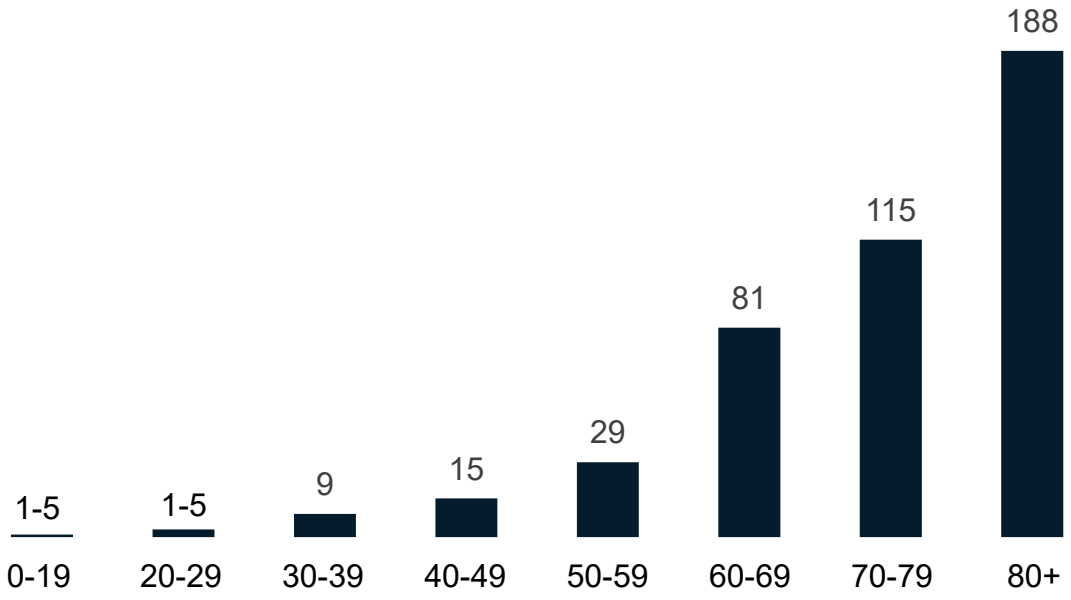
Average and total new deaths, by age group

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 4/4/2022)

- 31.3% of deaths below age sixty



- Through 4/4, the 7-day avg. death rate is less 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 31.3%

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

Harm Reduction: Key Messages

Currently in Recovery Phase of Michigan COVID-19 response cycle and most counties are at the low CDC Covid Community Level:

- Stay up to date on vaccine and get tested if feeling ill
- Empowering community members to make best choices for their individual circumstances

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

- 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
- Vaccination coverage has increased modestly with greatest increases in the percent who have received a booster dose
- MDHHS now has an additional tab for booster coverage data on the vaccine dashboard
- COVID-19 vaccinations remain safe and effective to prevent spread and severe disease
  - Cardiac Complications was Significantly Higher after SARS-CoV-2 Infection than after mRNA COVID-19 Vaccination
- CDC authorization of 2nd booster has increased number of booster doses administered just one day after CDC announcement

Additional Tools 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
- Individuals who recently tested positive for COVID-19 should avoid exposing other individuals when traveling

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.

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.

Tests

Prevent spread

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

Treatment

Protect against severe outcomes

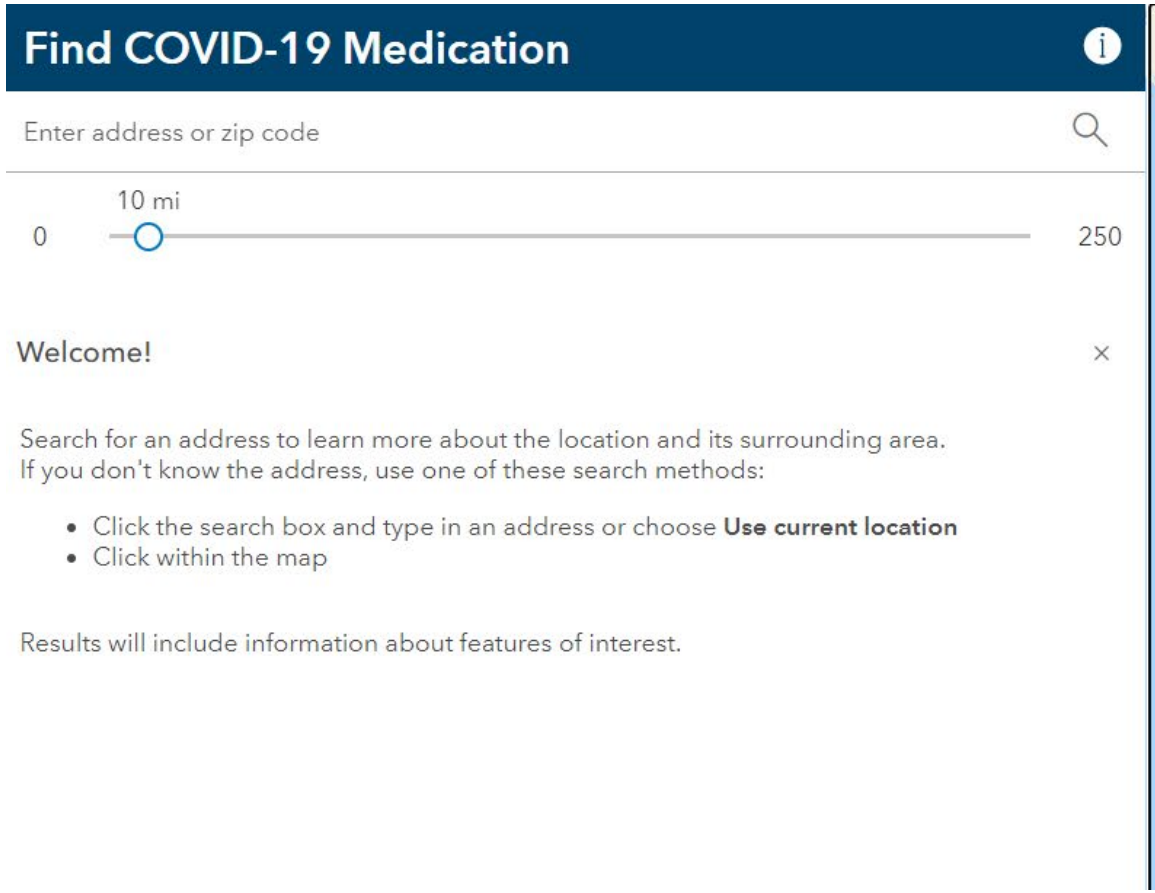
Oral antivirals and monoclonal antibodies can reduce the risk of hospitalization and death from COVID-19.

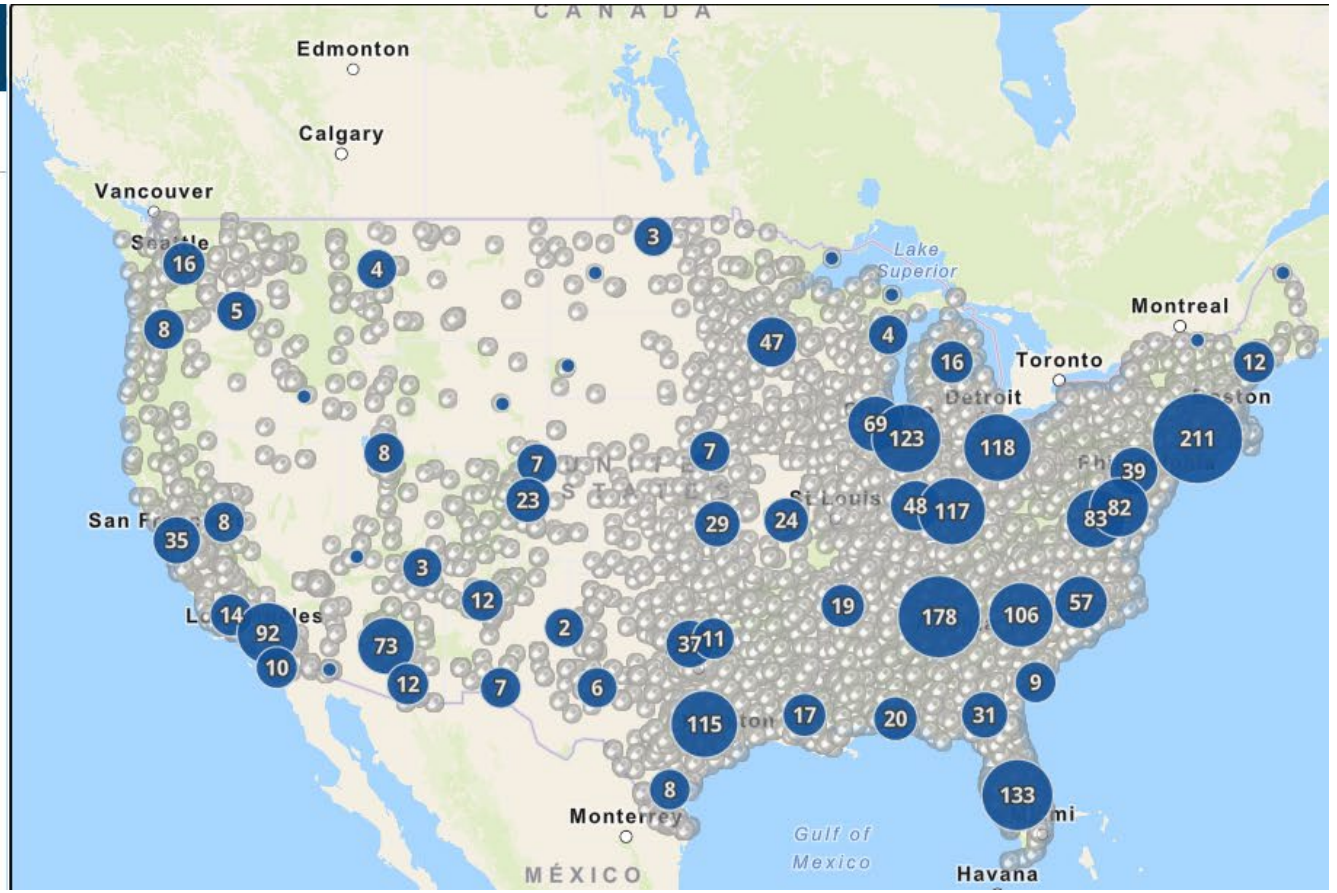
Federal website assists COVID positive residents find treatment

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





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.

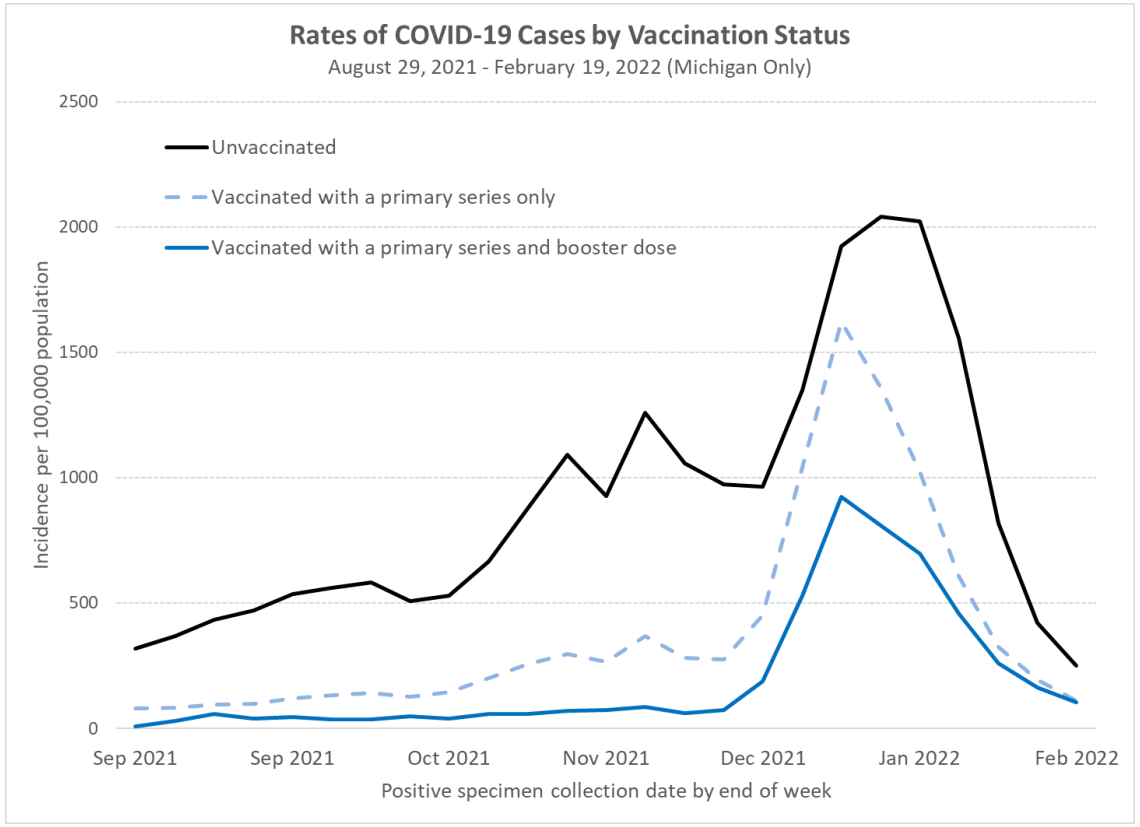
If you simply feel more comfortable wearing a mask.

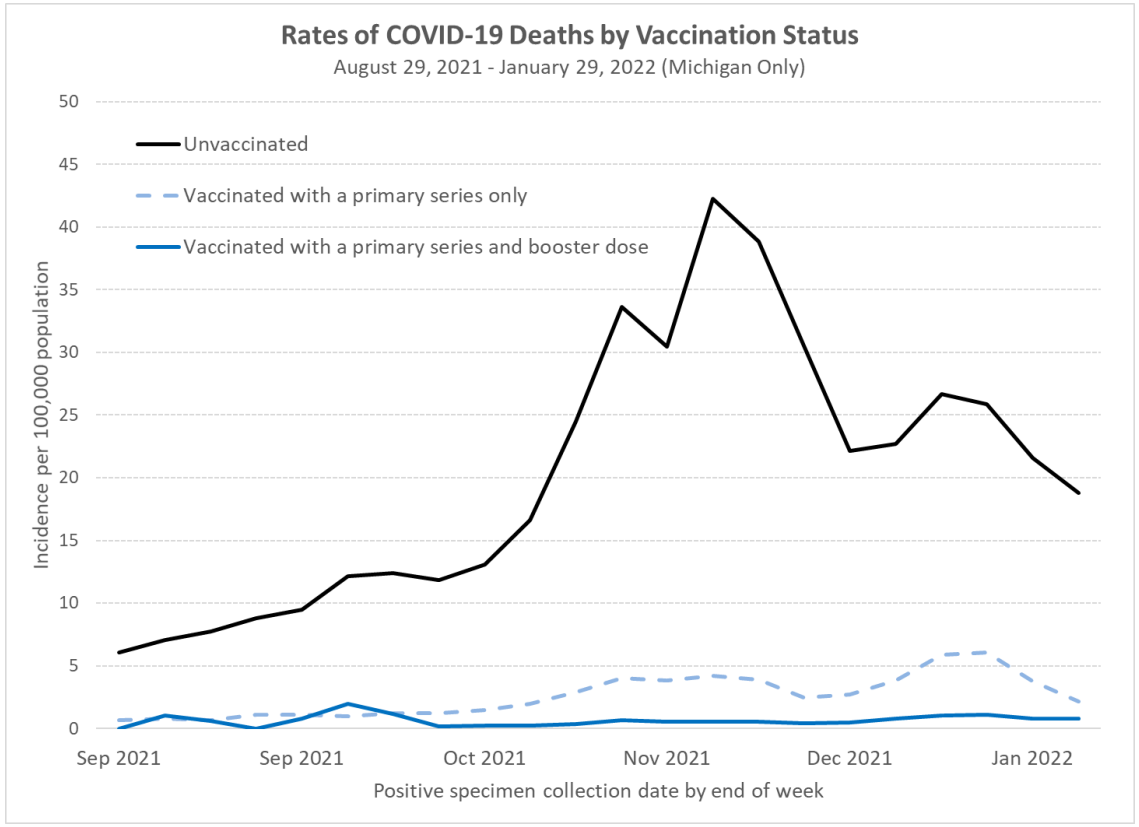
Considerate Mask Use

- 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

Source: CDC COVID-19 Information for Specific Groups of People https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/index.html

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





Unvaccinated people aged 12 years and older had:

2.7 X
Risk of Testing Positive for COVID-19

AND

25 X
Risk of Dying from COVID-19

in January, and

2.9 X
Risk of Testing Positive for COVID-19

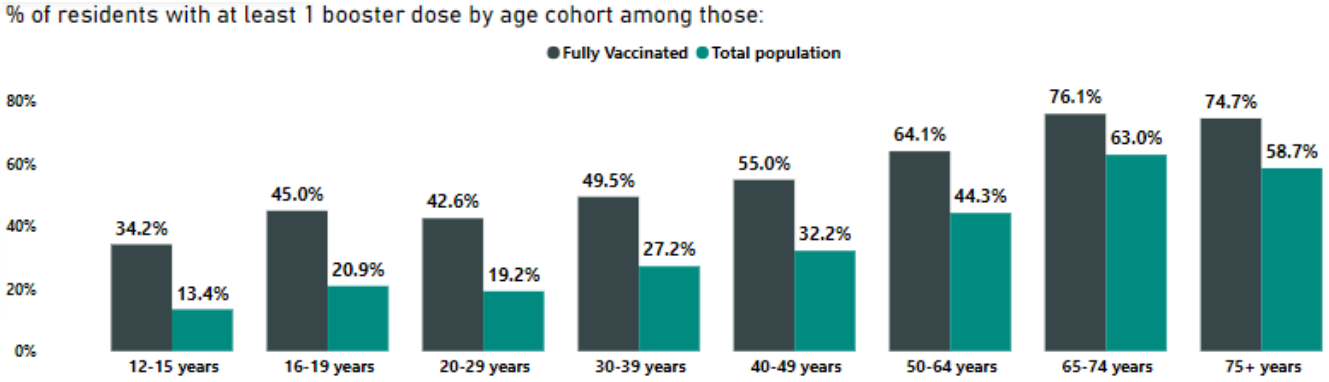
in February,* compared to people vaccinated with a primary series and a booster dose.**

*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.

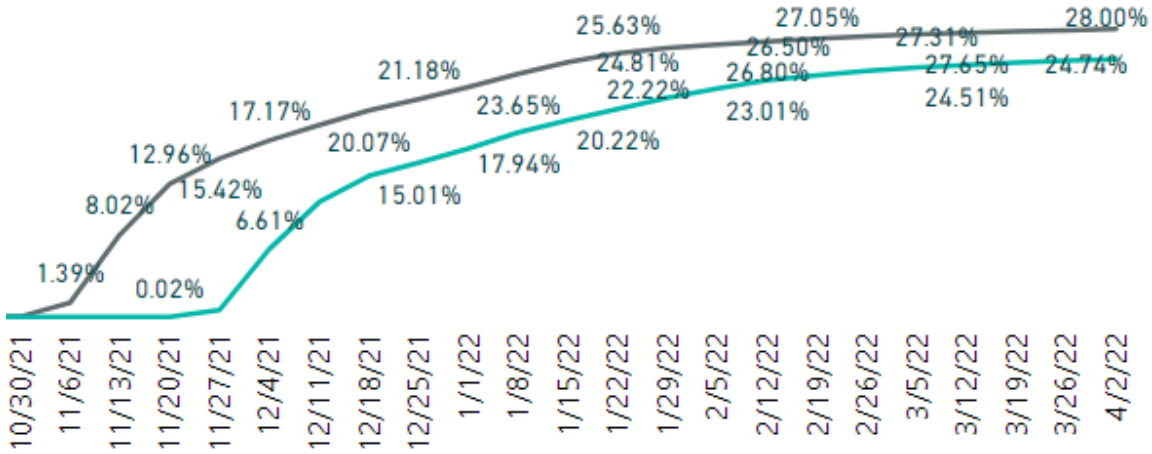
Vaccinations and Boosters

- Over 15.6 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 (59.9%)
  - Over 3.2 million additional/booster doses have been administered in Michigan
    - 53.8% of the fully vaccinated population has received a booster
    - 76.2% 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

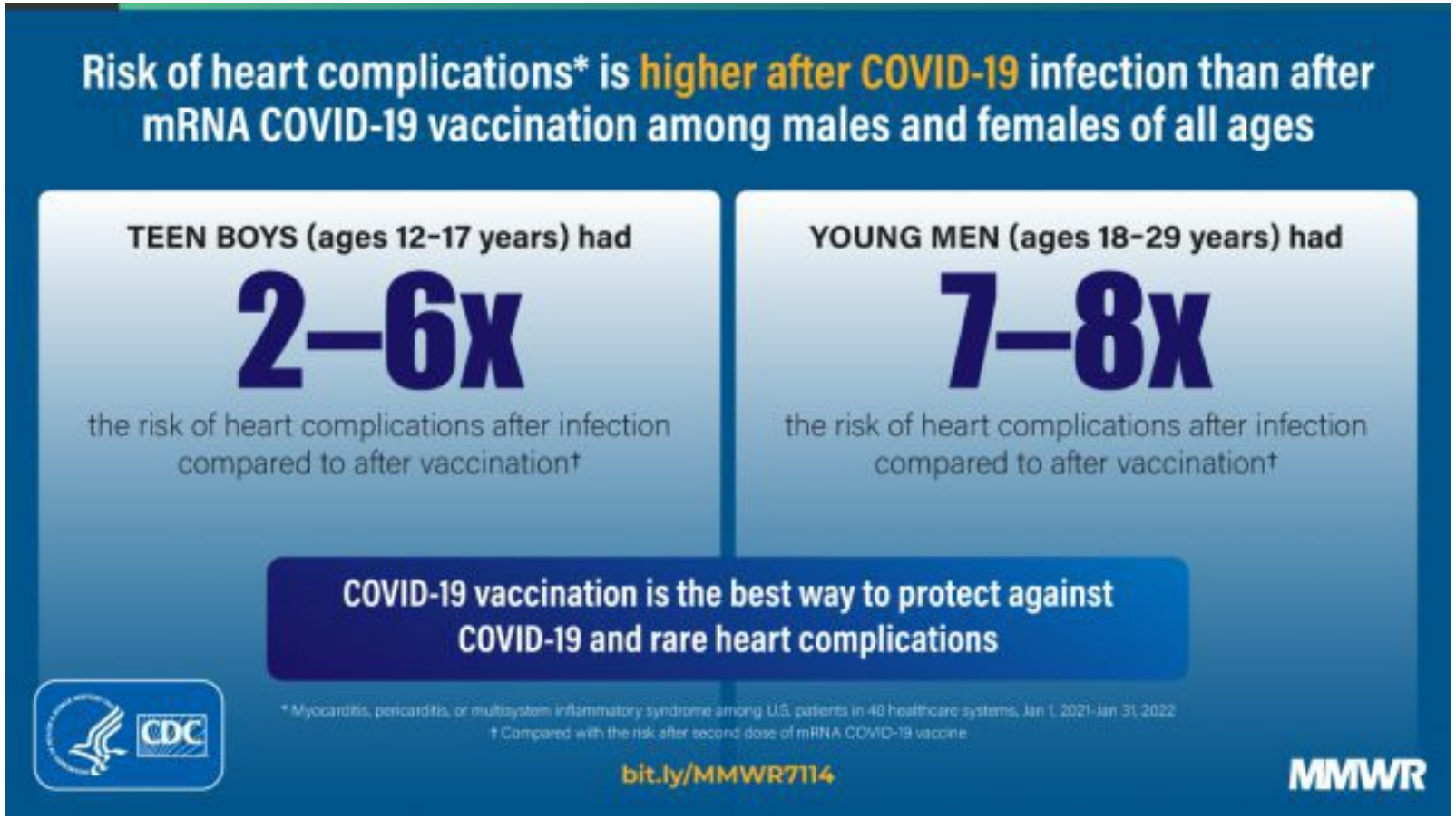


https://covid.cdc.gov/covid-data-tracker/#vaccinations
https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Cardiac Complications was Significantly Higher after SARS-CoV-2 Infection than after mRNA COVID-19 Vaccination

- Data from 40 health care systems participating in a large network found that the risk for cardiac complications was significantly higher after SARS-CoV-2 infection than after mRNA COVID-19 vaccination for both males and females in all age groups

- These findings support continued use of recommended mRNA COVID-19 vaccines among all eligible persons aged ≥5 years



Source: Rader B, Gertz A, Iuliano AD, et al. Use of At-Home COVID-19 Tests — United States, August 23, 2021–March 12, 2022. MMWR Morb Mortal Wkly Rep 2022;71:489–494. DOI: http://dx.doi.org/10.15585/mmwr.mm7113e1

Vaccines Delivered | Delivery Trend | Primary Series Doses Administered | Primary Series Doses by Vaccine | Primary Series Doses Metrics | Additional/ Booster | Coverage | Age/ Sex | Race/ Ethnicity | Enrolled Providers | Learn More

COVID Vaccination - Booster Coverage by County

Dashboard Updated: April 6, 2022. People who are 12 and up age and are fully vaccinated 5 months past in case of mRNA vaccines and 2 months past in case of J&J vaccines are eligible to get a Booster dose.

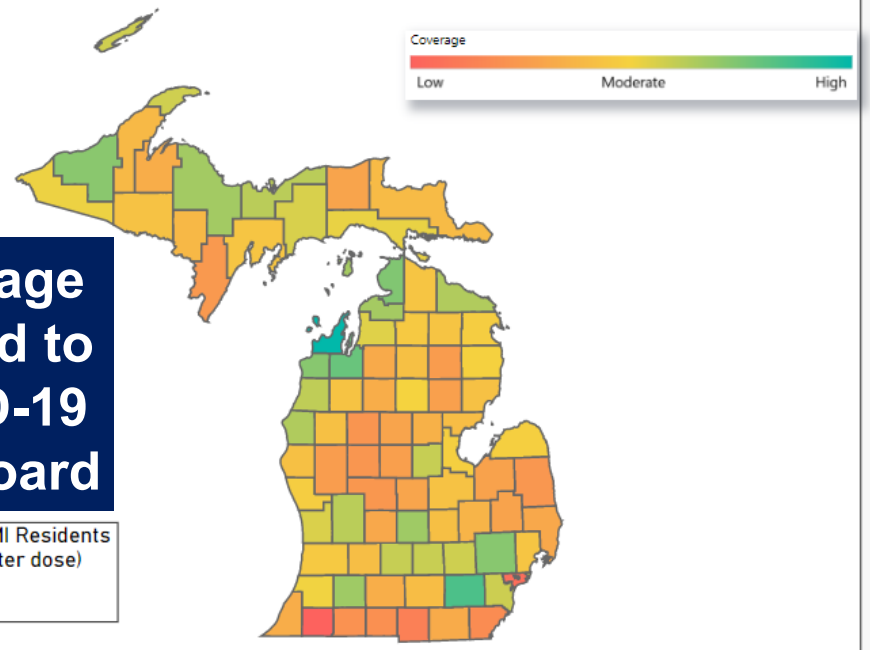
Additional/ Booster Administrations Trend | Michigan | Sex: All | Core-Based Areas: All | Area Categorization: All

County: All | Age Group: All | Ethnicity Race: All

Residents Boosted	Fully Vaccinated*	MI Residents 12+ years
3,133,586	5,256,086	8,592,777

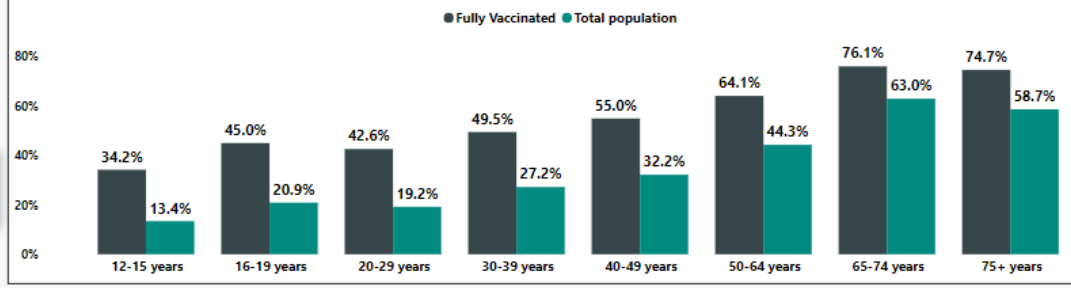
Booster coverage data now added to MDHHS COVID-19 vaccine dashboard

% of MI Residents 12+ years with at least 1 booster by County

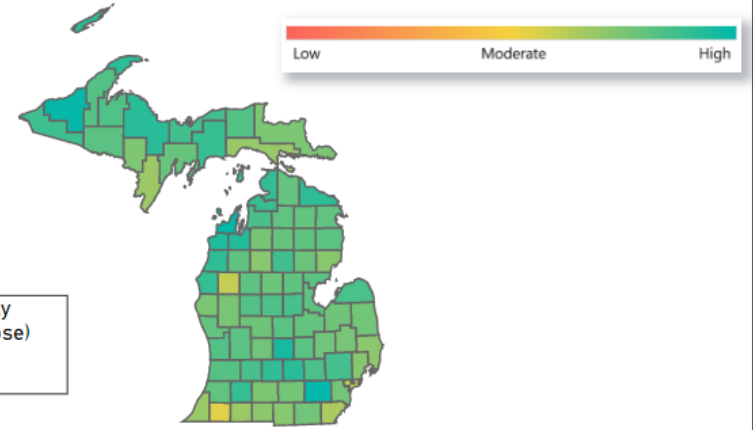


Booster Coverage (% of MI Residents 12+ years with a booster dose)
36.5%

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



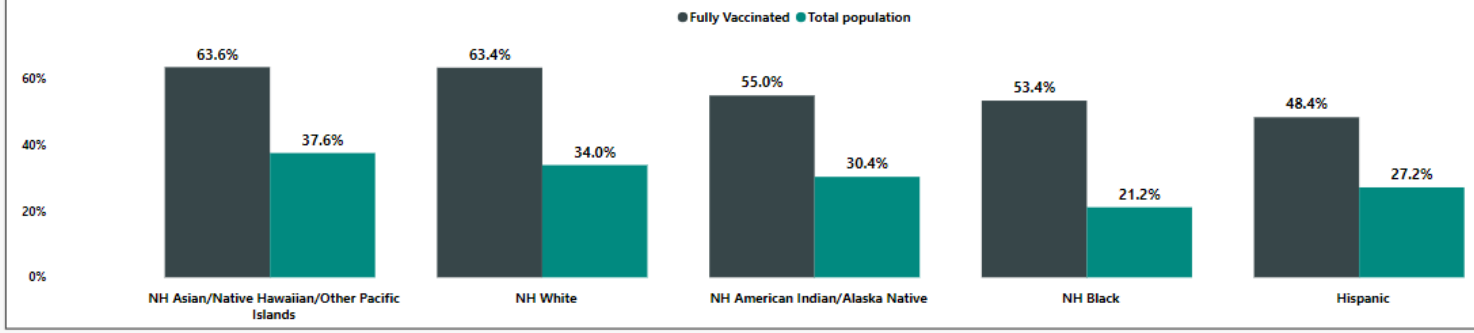
% of Fully Vaccinated* Population (12+ years) with at least 1 Booster Dose by County



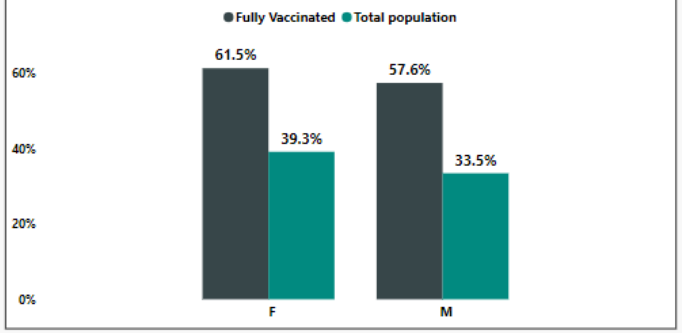
Booster Coverage (% of Fully Vaccinated* with a Booster dose)
59.6%

Fully Vaccinated - MI Residents who received 2 doses of mRNA vaccine at least 5 months ago or 1 dose of J&J at least 2 months ago

% of residents 12+ years with at least 1 booster dose by race ethnicity among those:



% of residents 12+ years with at least 1 booster dose by sex among those:



https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

Vaccine is effective; less than 50% of eligible children have completed COVID-19 vaccination

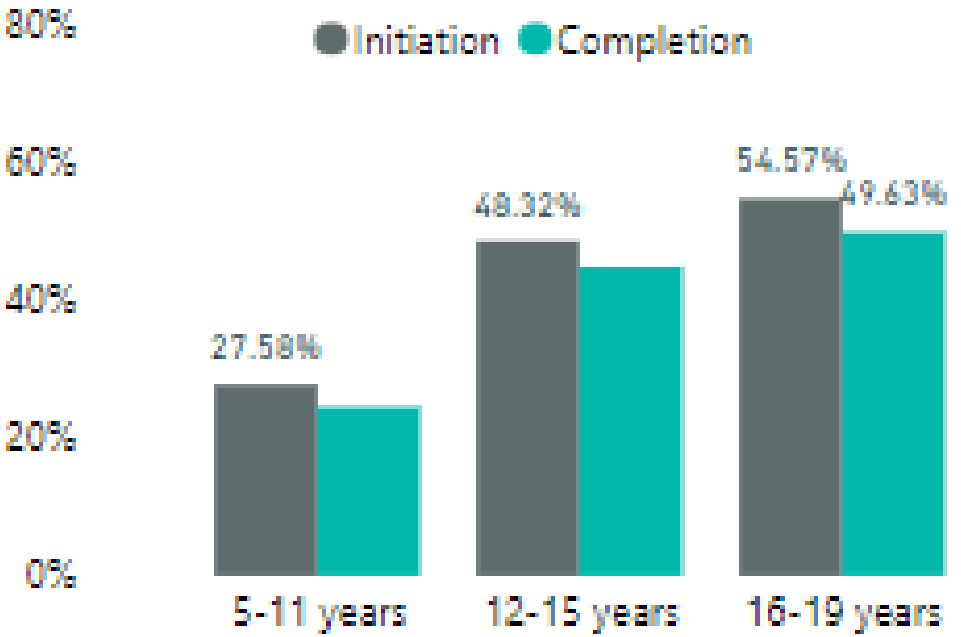
Receipt of 2 doses of Pfizer-BioNTech COVID-19 vaccine has been shown to be effective in preventing infection with the SARS-CoV-2 B.1.617.2 (Delta) variant in persons aged ≥12 years. Two doses also reduced the risk of Omicron infection by 31% among children aged 5–11 years and by 59% among persons aged 12–15 years. (Fowlkes et al 2022)

202,325 of 825,545 Michigan children 5-11 years have completed the COVID-19 vaccine series; more than 600,000 children are eligible for vaccination

222,397 of 497,959 children 11-15 years have completed the series; more than 275,000 children eligible

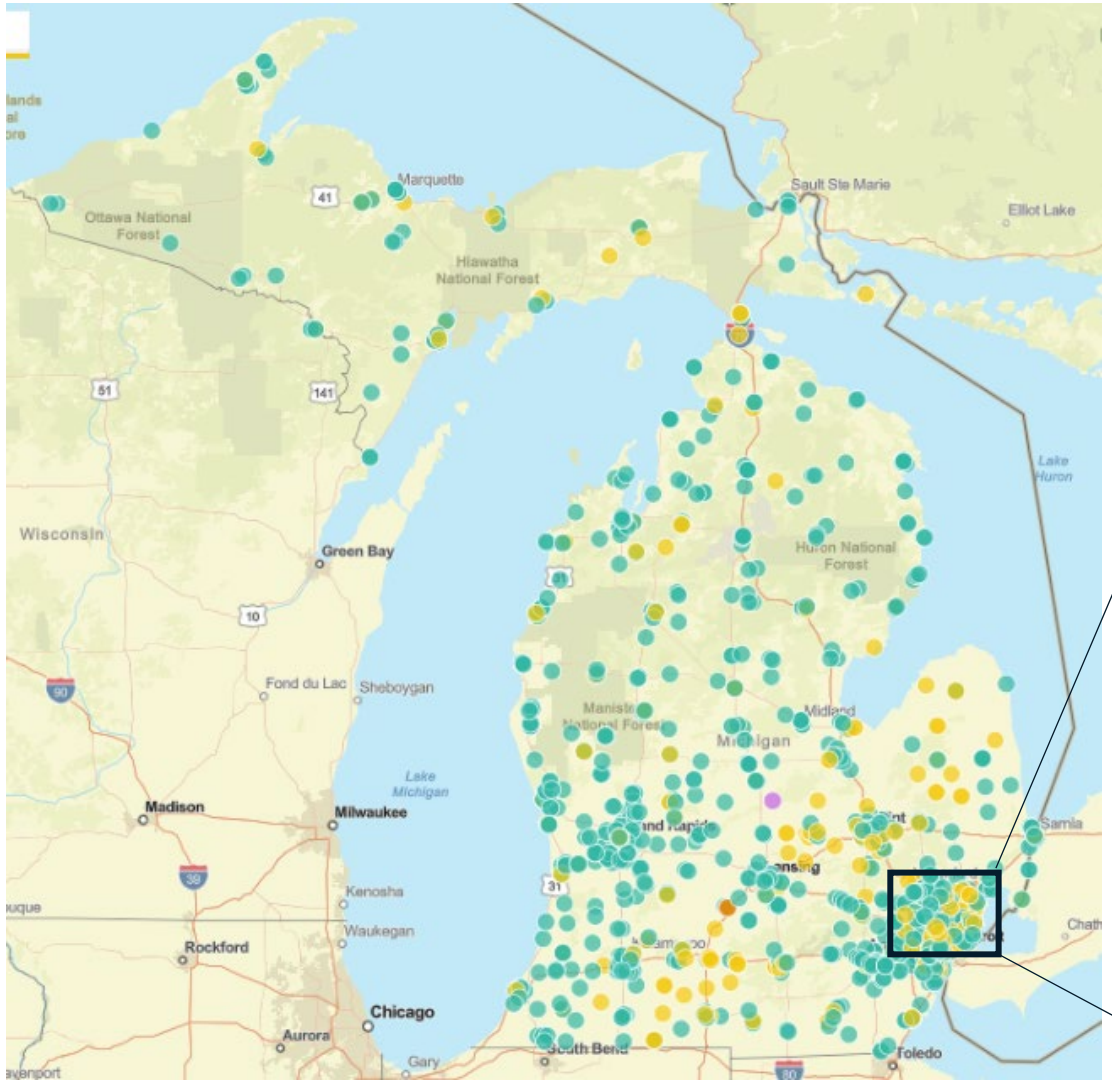
257,339 of 517,739 children 16-19 years have completed the series; more than 260,000 children eligible

Cumulative COVID Vaccine Coverage by Age Group
Michigan, Week Ending 3/19/22



Sources: Fowlkes AL, Yoon SK, Lutrick K, et al. Effectiveness of 2-Dose BNT162b2 (Pfizer BioNTech) mRNA Vaccine in Preventing SARS-CoV-2 Infection Among Children Aged 5–11 Years and Adolescents Aged 12–15 Years — PROTECT Cohort, July 2021–February 2022. MMWR Morb Mortal Wkly Rep. ePub: 11 March 2022. DOI: http://dx.doi.org/10.15585/mmwr.mm7111e1
https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

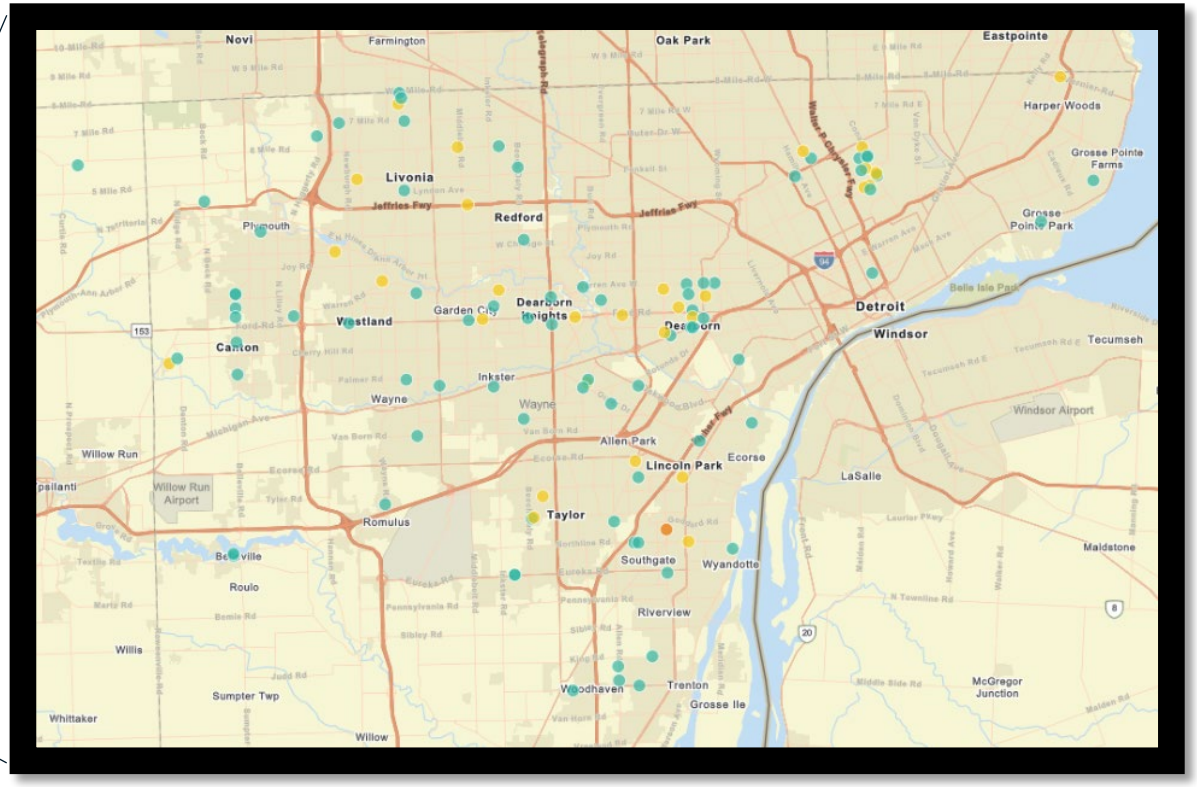
Vaccines for Children (VFC) Program Providers Enrolled for COVID-19 Vaccine with focused effort to reach VFCs not yet enrolled for COVID-19 vaccinations



VFC providers are important access points for children

916 VFC Providers Enrolled to provide COVID-19 vaccine

131 in the City of Detroit and Wayne County



Green sites are those VFC providers who are enrolled to administered COVID-19 vaccine; yellow sites are VFC providers who are not yet enrolled to administer COVID vaccine

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.

Michigan currently has over **2.5 million** adult COVID vaccine doses:

- 1.03 million Pfizer
- 1.2 million Moderna
- 0.27 million J&J

If you are interested in an additional/booster dose, you should not feel the need to wait.

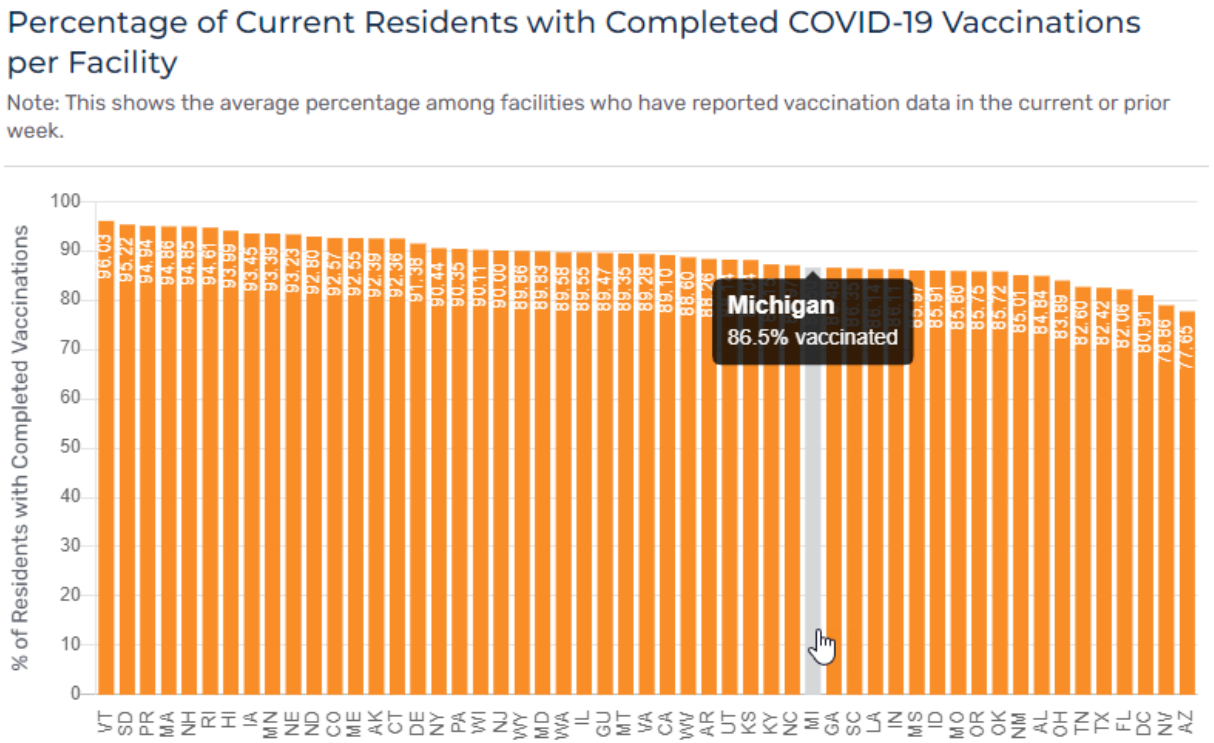
Completed vaccination among Skilled Nursing Residents and Staff is plateauing

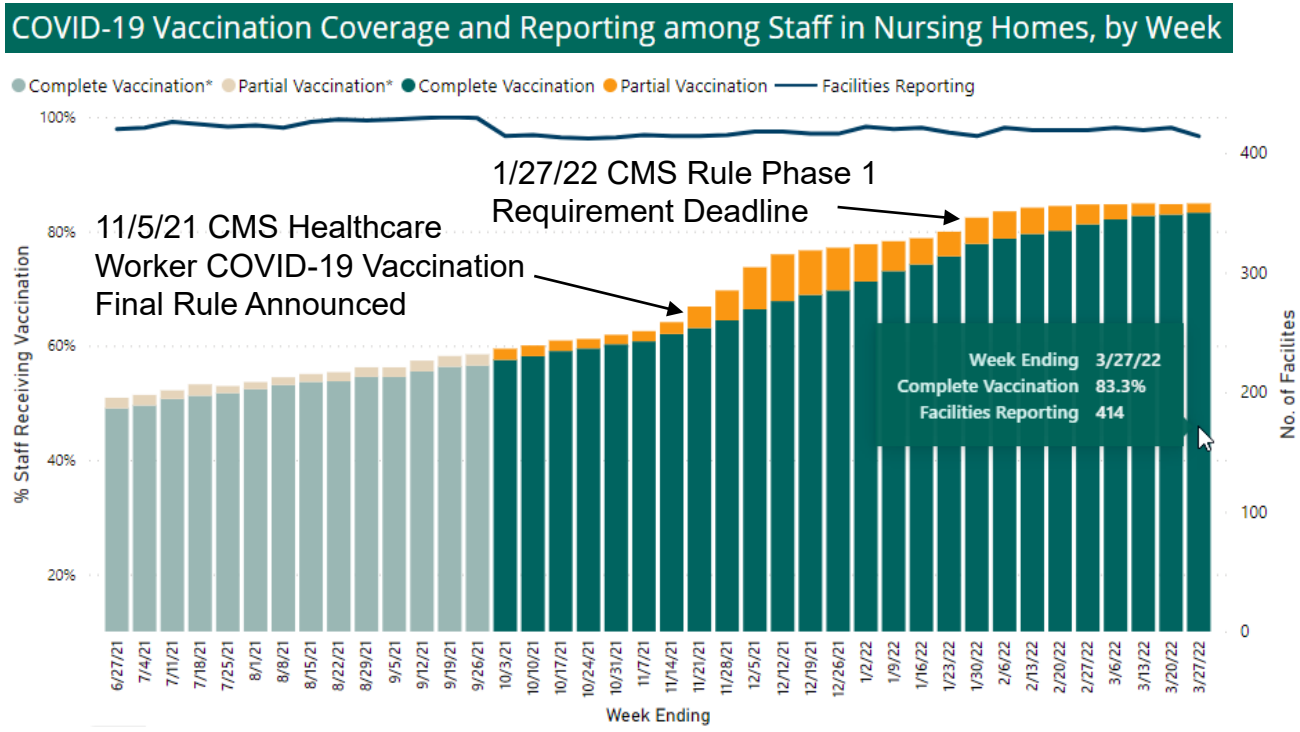
86.5% of SNF residents are fully vaccinated; 35 of 53 states/territories

83.3% of SNF staff are fully vaccinated, 45 of 53 states/territories

1.6% 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

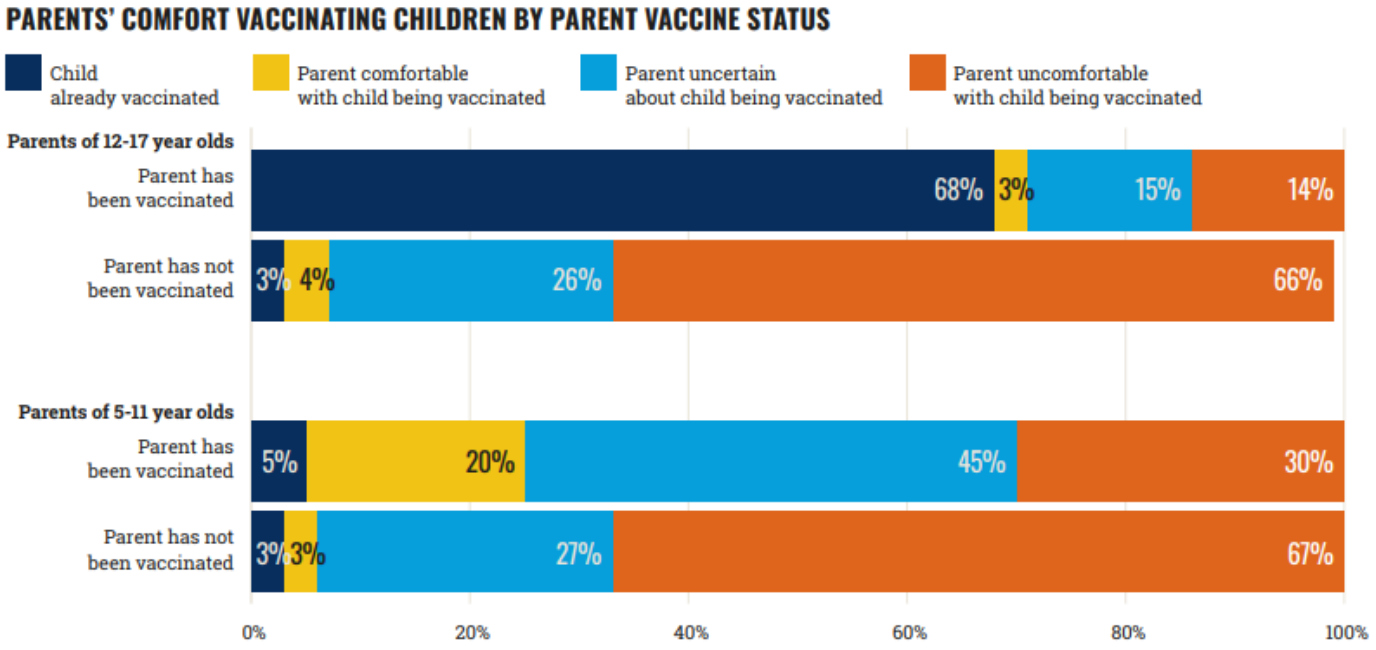
Source: https://www.cdc.gov/nhsn/covid19/ltc-vaccination-dashboard.html

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



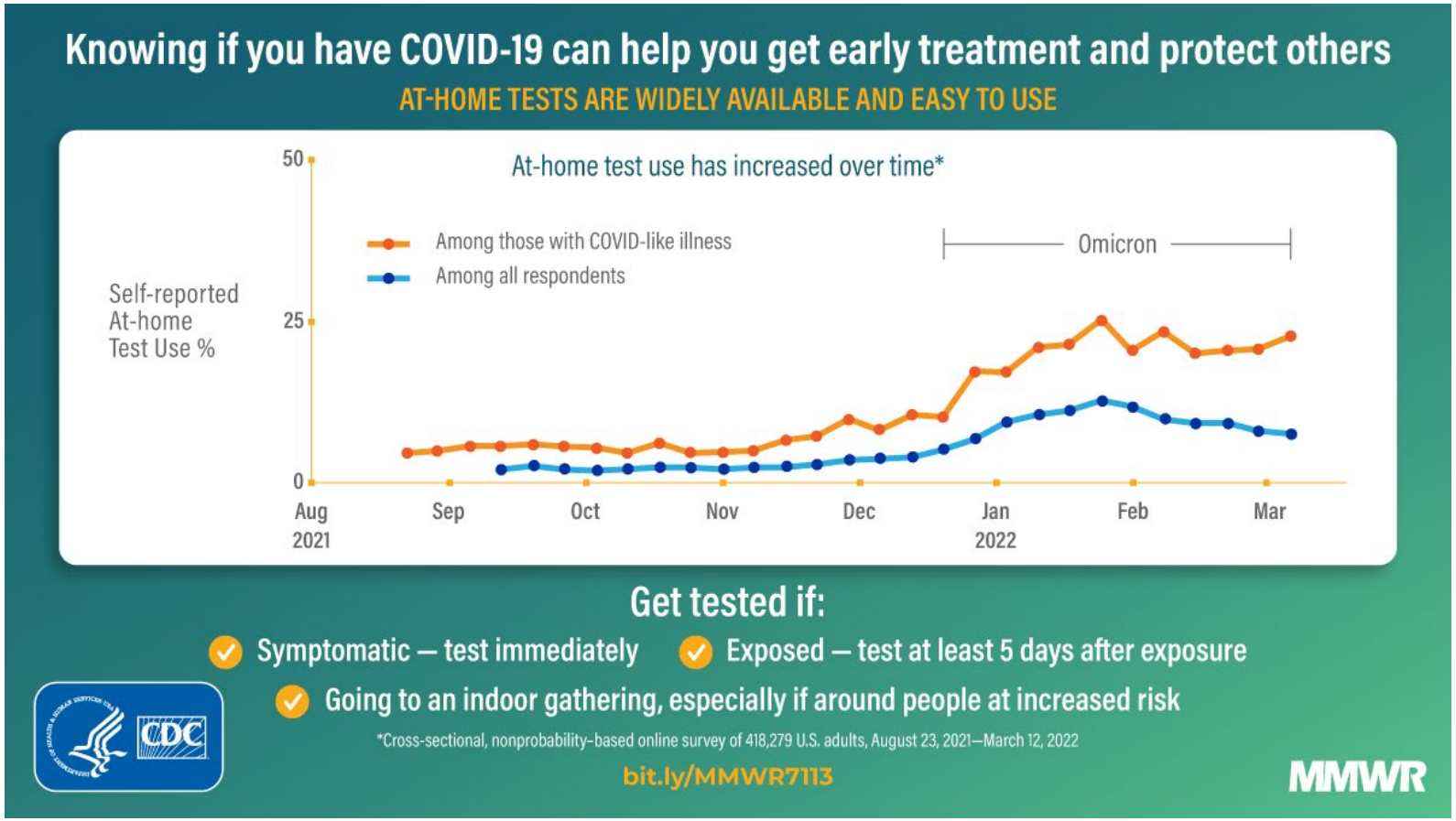
OVERVIEW

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.

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

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**



Source: Rader B, Gertz A, Iuliano AD, et al. Use of At-Home COVID-19 Tests — United States, August 23, 2021–March 12, 2022. MMWR Morb Mortal Wkly Rep 2022;71:489–494. DOI: http://dx.doi.org/10.15585/mmwr.mm7113e1

Cancel or reschedule your flight.

- If you reschedule, **do not travel until a full 10 days** after your positive test (if you don't have symptoms) or after the day your symptoms first appeared.

CS329783-A

Thanks for doing your part to help slow the spread of COVID-19.

www.cdc.gov/covid19travel

APPENDIX

Outpatient therapy now available for those with COVID-19. Supplies may be limited.

Eligibility guidelines ensure those with the highest risks have priority access to treatments.

Those at highest risk

Treatment window after symptoms appear:	Paxlovid PO 5 days	Sotrovimab IV 10 days	Remdesivir IV 7 days	Molnupiravir PO 5 days
• 75+ years old and not up to date* • Moderately or severely immunocompromised regardless of vaccine status	✓	✓	✓	✓ *If other therapies not available or appropriate*
• 65–74 years old and not up to date* with MI priority risk factor** • Pregnant and not up to date*	✓	✓	✓	✓ *If other therapies not available or appropriate*
• 65–74 years and not up to date* • Under 65 years old and not up to date* with MI priority risk factor**	✓	✓	✓	✓ *If other therapies not available or appropriate*
• 75+ years old and up to date* • 65–74 years old and up to date* with MI priority risk factor**	✓	*Not currently eligible*	*Not currently eligible*	✓ *If other therapies not available or appropriate*
• 65–74 years old and up to date* with CDC risk factors	*Not currently eligible*	*Not currently eligible*	*Not currently eligible*	✓
• 65–74 years old and up to date* • Younger than 65 years old and up to date* with CDC risk factors	*Not currently eligible*	*Not currently eligible*	*Not currently eligible*	✓

**Up to date means a person has received all recommended COVID-19 vaccines, including booster dose(s) when eligible (bit.ly/CDCStayUptoDate).*

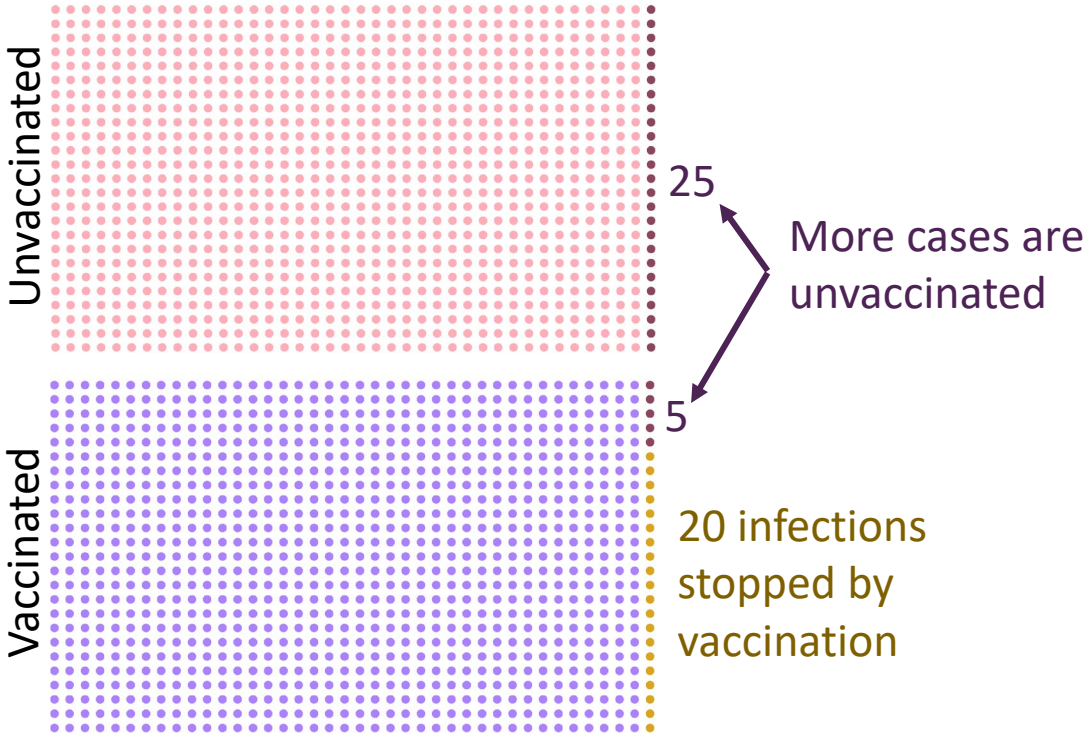
***MI priority risk factors include:*
Obesity (Body Mass Index >35), chronic respiratory disease, pregnancy (note: in pregnancy, molnupiravir should not be used and Paxlovid and remdesivir should be used with caution when sotrovimab is unavailable), chronic kidney disease (special considerations with Paxlovid), cardiovascular disease, and diabetes.

MDHHS
Michigan Department of Health & Human Services

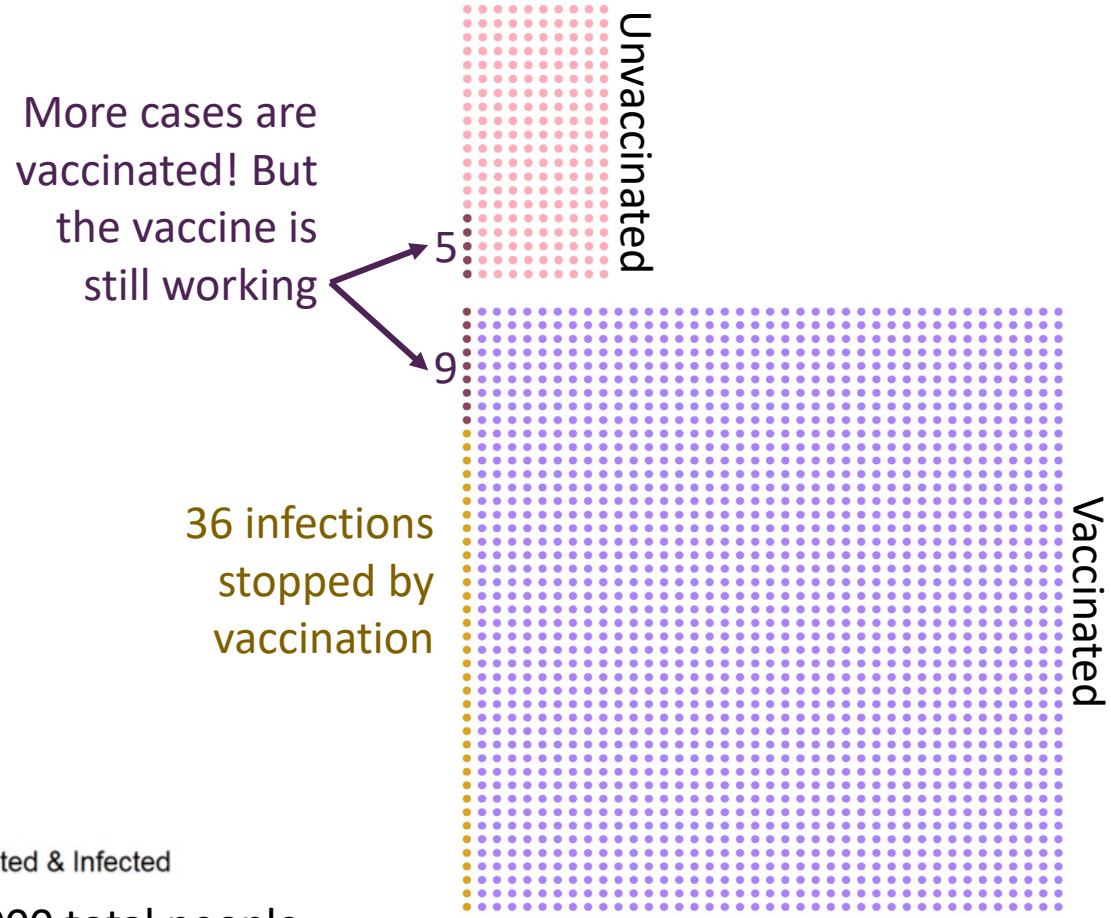
Talk to your health care provider or visit Michigan.gov/COVIDtherapy to learn more.

Understanding breakthrough cases: When more people are vaccinated, more cases will come from the vaccinated population—even if the vaccine is working

Scenario 1: 50% Vaccinated



Scenario 2: 90% Vaccinated

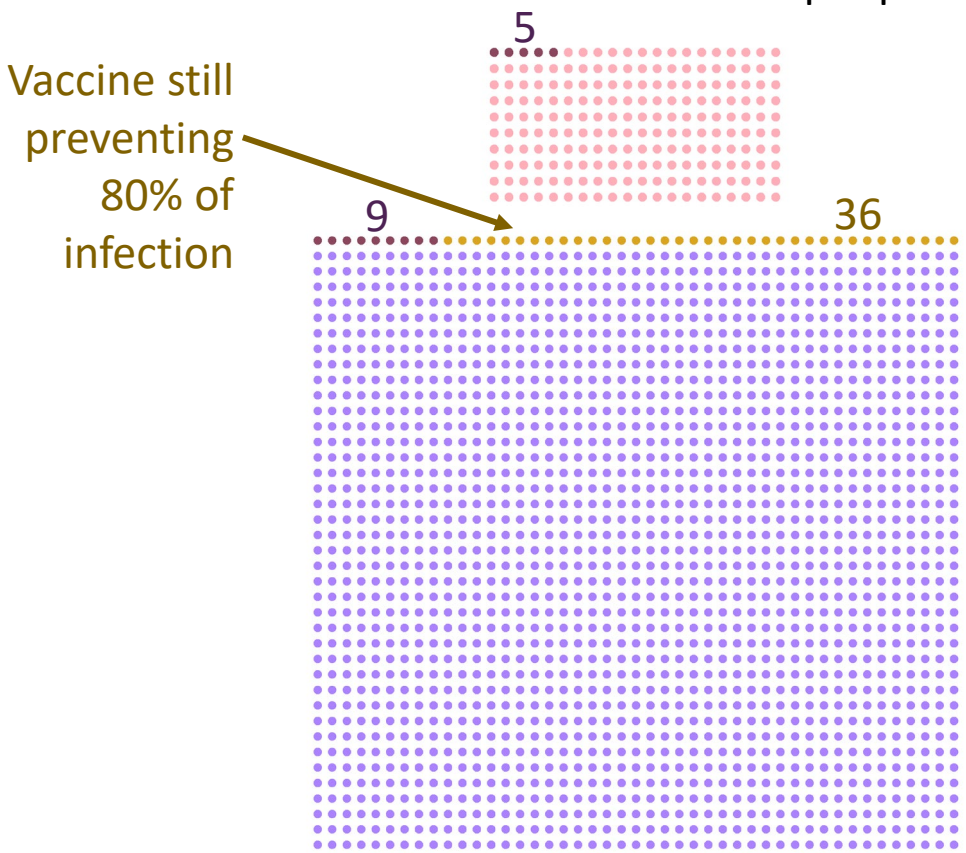


Unvaccinated · Unvaccinated & Infected · Prevented Infection · Vaccinated · Vaccinated & Infected

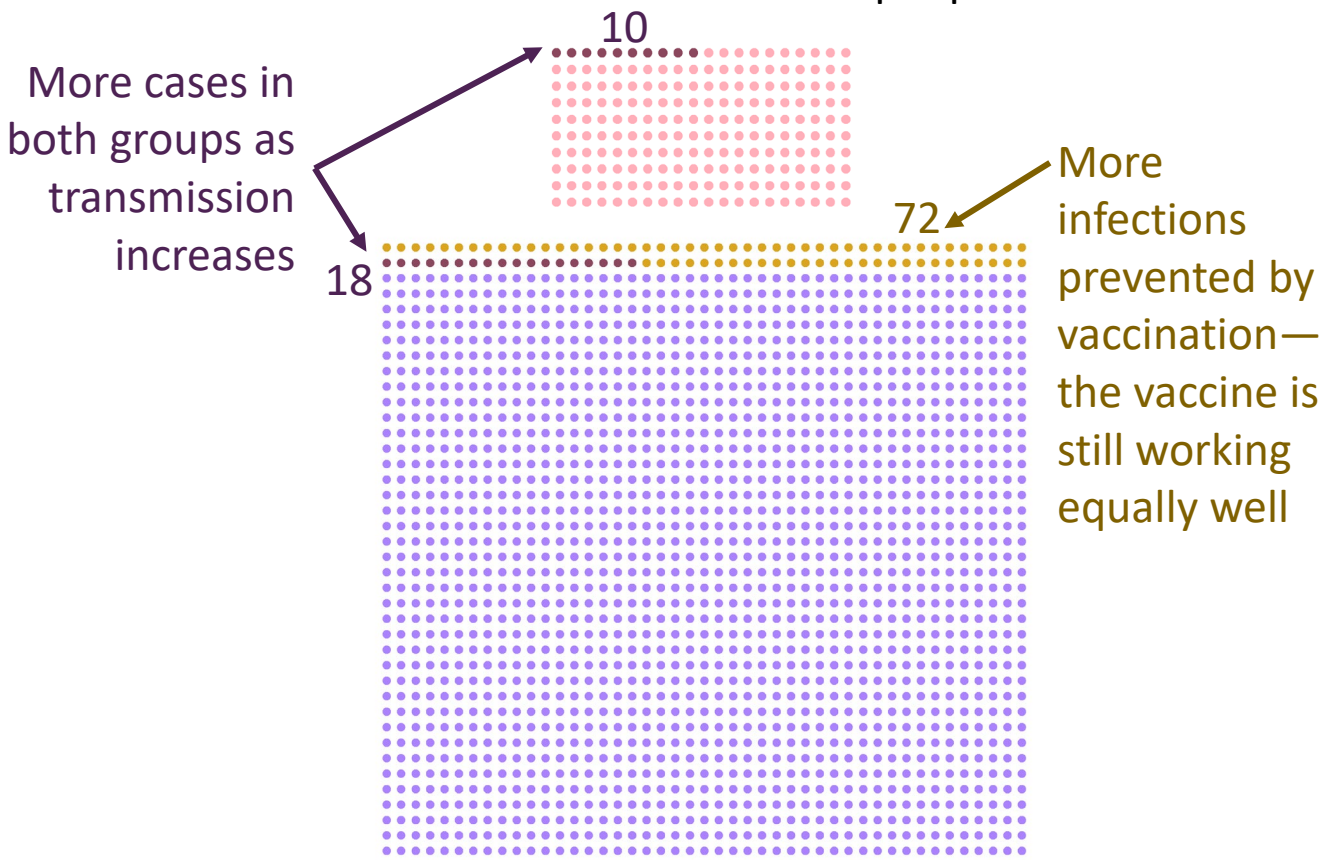
Both Scenarios: Vaccine reduces disease by 80%, 2.5% infection level, 2000 total people

Understanding breakthrough cases: as more people are infected, there will be more cases among both vaccinated and unvaccinated people

Scenario 2: 2.5% of unvaccinated people infected



Scenario 3: 5% of unvaccinated people infected



Unvaccinated · Unvaccinated & Infected · Prevented Infection · Vaccinated · Vaccinated & Infected

Both Scenarios: 90% Vaccinated, Vaccine reduces disease by 80%, 2000 total people

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

Sources: TSA mask extension https://www.tsa.gov/news/press/statements/2022/03/10/statement-regarding-face-mask-use-public-transportation