

MI COVID Indicators

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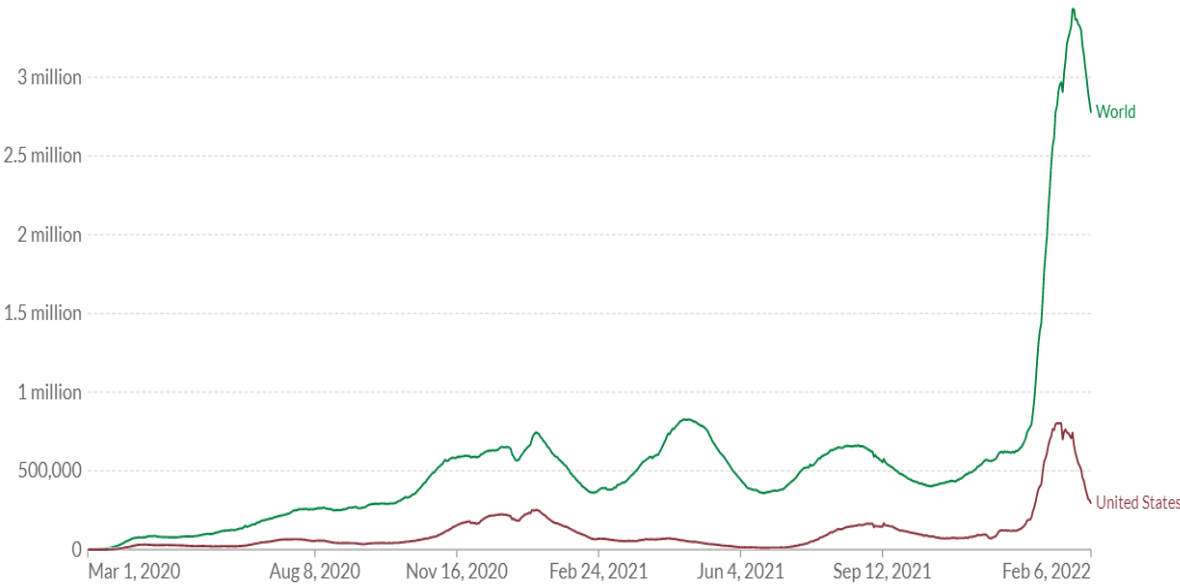
February 11, 2022

Global and National Trends

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.

LINEAR LOG



Source: Johns Hopkins University CSSE COVID-19 Data

CC BY

Globally, 395,609,522 cases and 5,742,044 deaths (Data* through 2/7)

- Globally, cases are declining

United States: Reported cases (7-day average) have decreased nearly 40% since the prior week[†]

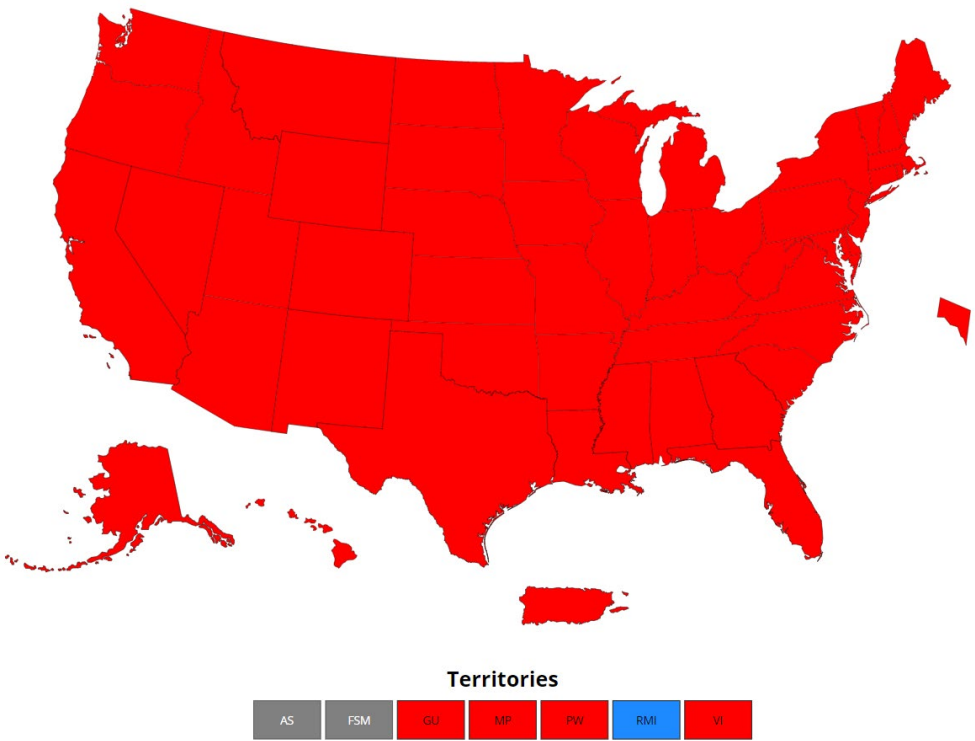
- However, the U.S., and all 50 states, remain at High transmission level (**660.2** cases/100,000 in last 7 days; last week: 1,144.9 cases per/100,000)

Most Midwestern states are declining

- Minnesota and Indiana have the highest case rates *in Midwest* ; Michigan has returned to mid-December case rates and mid-November hospitalization occupancy**

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

Level of Community Transmission of COVID-19, by State/Territory



Current Trends and Projections

Prevent Death and Severe Outcomes

Protect Healthcare Capacity

Keep Vital Infrastructure Functioning



New Cases

Feb 03 - Feb 09

291.6
weekly cases per
100,000 population



29,122
weekly cases

Weekly cases per 100,000

MICHIGAN STATEWIDE

Zoom 1m 3m 6m All

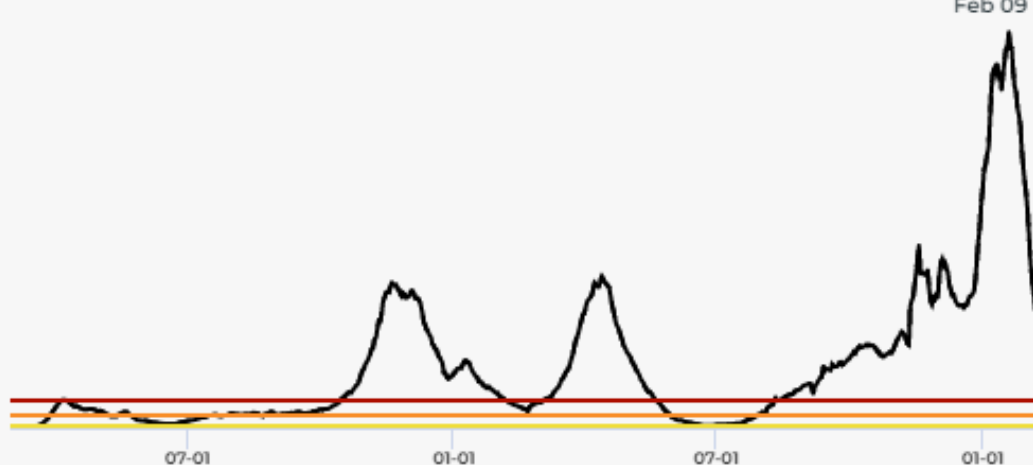


Feb 09

Weekly cases per 100,000

1,467

100
50
10



Hospital Capacity

Feb 03 - Feb 09

13.4%
beds for COVID

250.3
beds per million
with COVID

2k
beds per million
(COVID + non-
COVID)

% of Inpatient Beds that are COVID-19 Positive

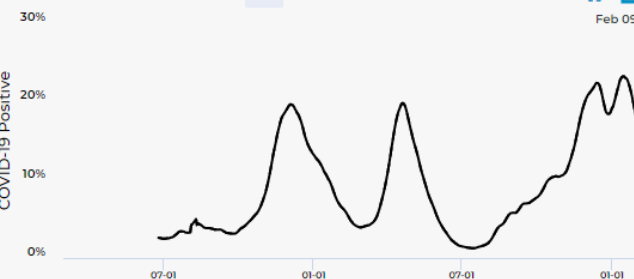
MICHIGAN STATEWIDE

Zoom 1m 3m 6m All



Feb 09

% of Inpatient Beds that are
COVID-19 Positive



Test Positivity

Feb 03 - Feb 09

16.1%
positive tests



2.9k
daily tests
administered
per million

4 weeks
Jan 07 - Feb 04

7-Day Positive Test Rate

MICHIGAN STATEWIDE

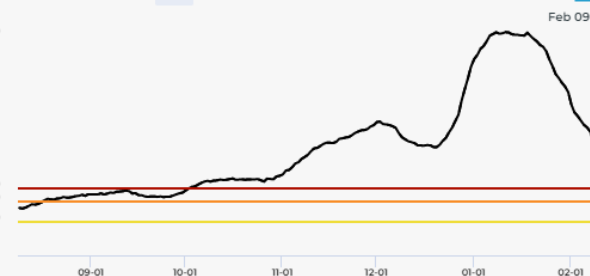
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Feb 09

7-Day Positive Test Rate

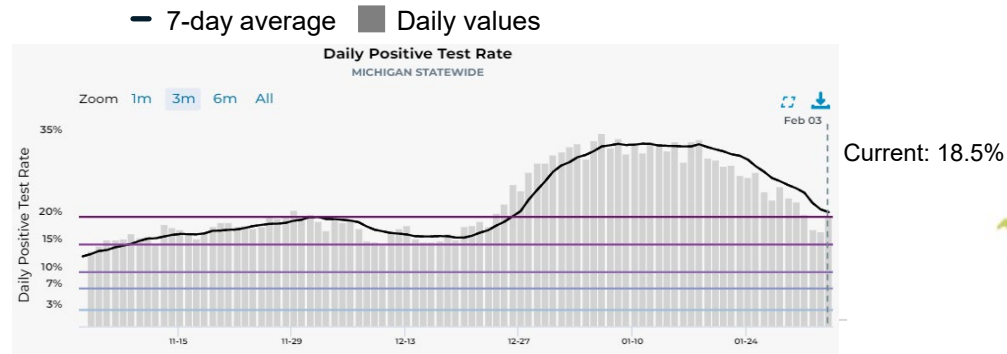
33%
10%
8%
5%



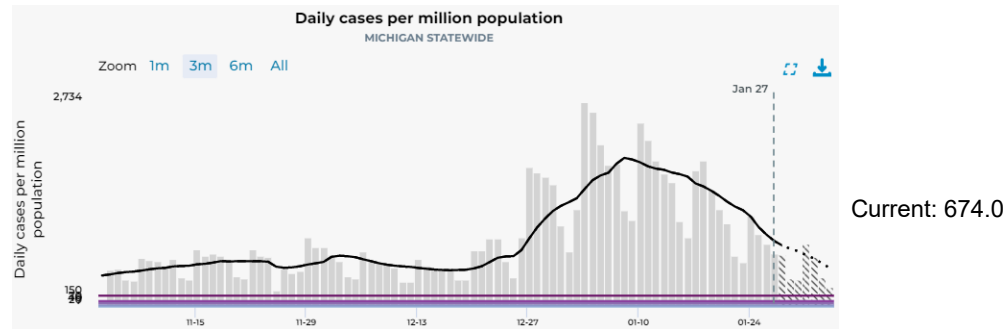
Recent statewide trends

Statewide trends

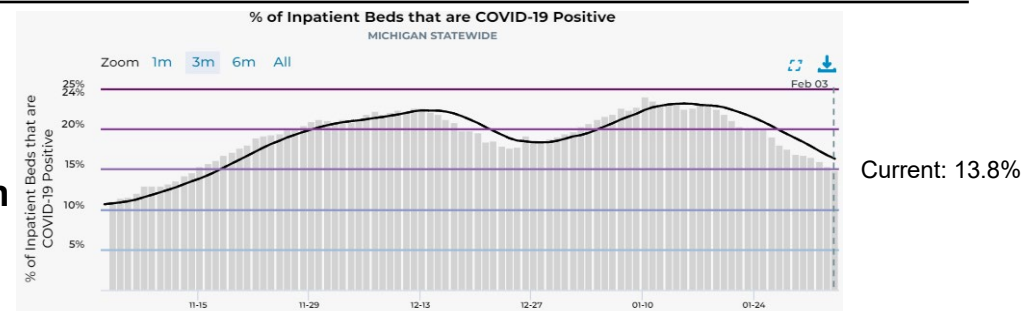
Positivity, %



Daily cases per million



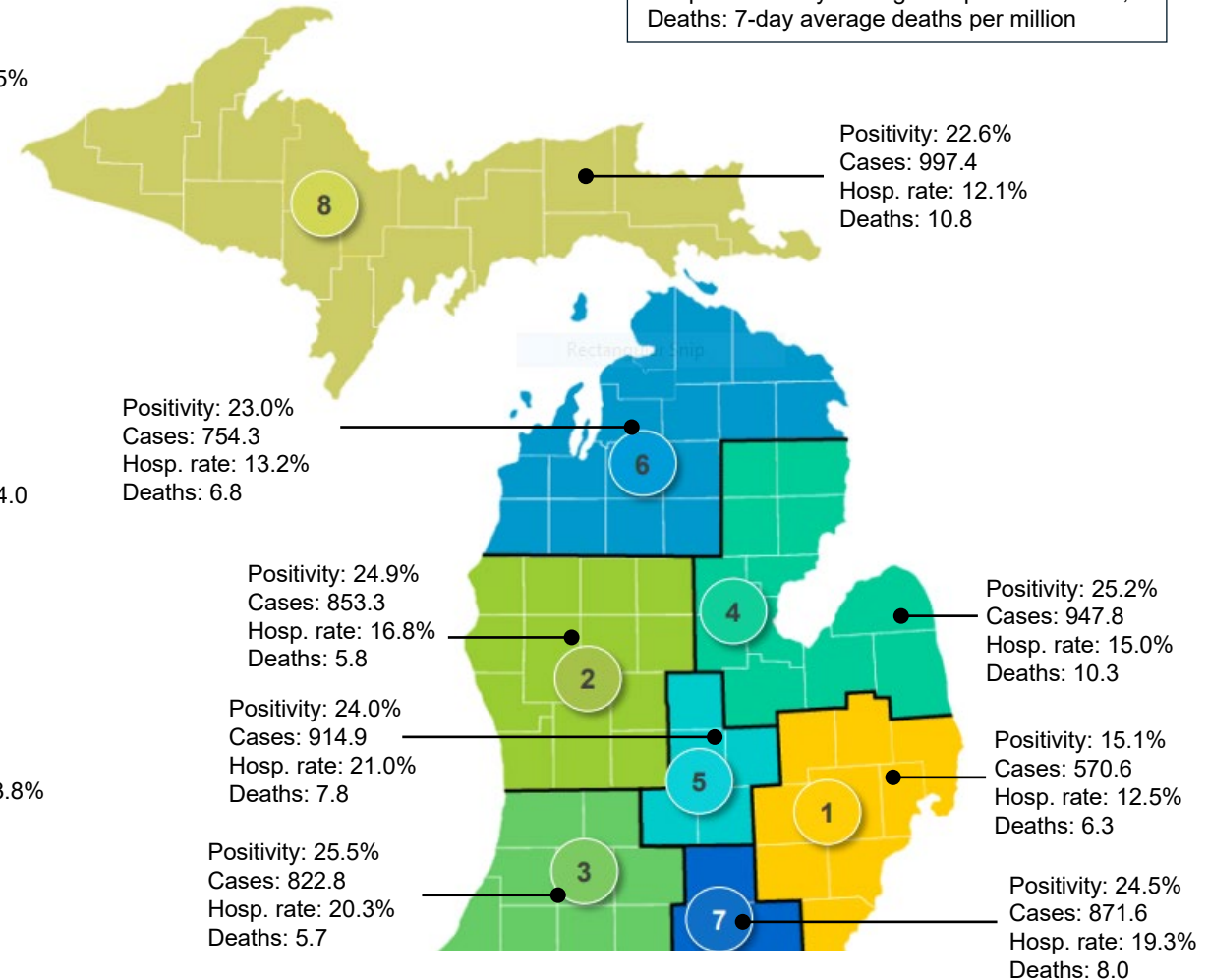
Daily hospitalization rate, %



Source: <https://mistartmap.info/>

MERC Regional breakdown: Positivity, cases, hospitalization rate, and deaths

Positivity: 7-day average positivity, %
Cases: 7-day average cases per million
Hosp. rate: 7-day average hospitalization rate, %
Deaths: 7-day average deaths per million



Current Trends and Projections

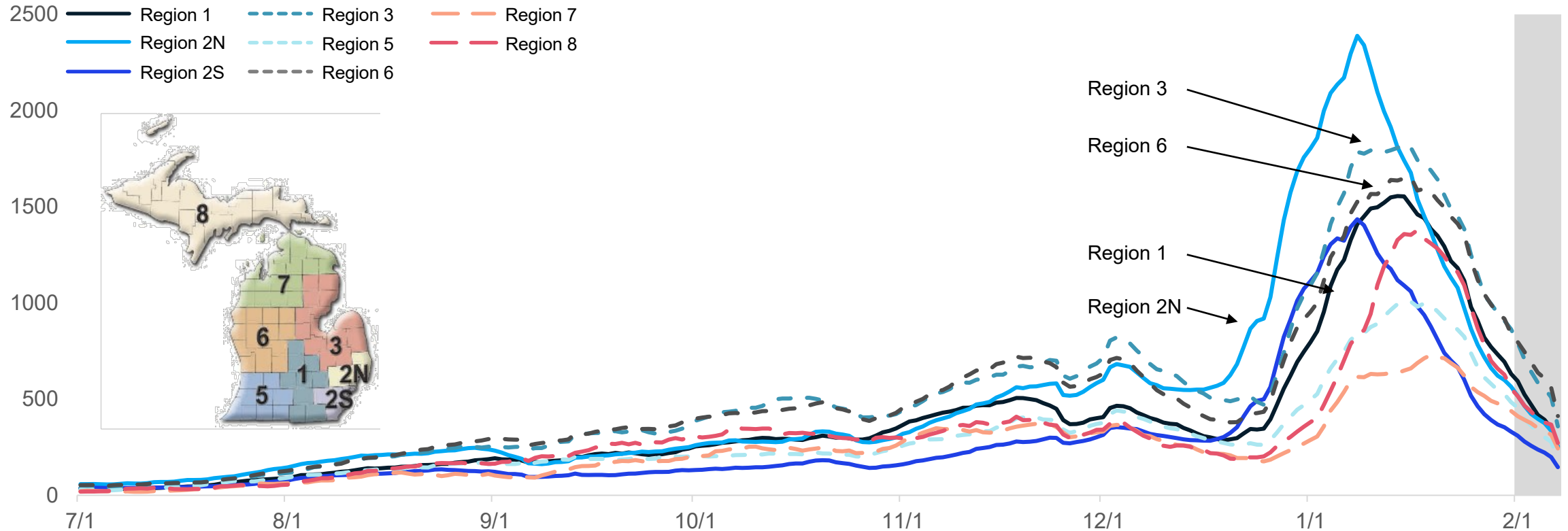
Prevent Death and Severe Outcomes

Protect Healthcare Capacity

Keep Vital Infrastructure Functioning

Case Rate Trends by Emergency Preparedness Region

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



- Case rate trends for all preparedness regions are declining
- Case rates by onset date for all preparedness regions are between 330 and 865 cases per million (through 1/31)
- Case rates are highest in Region 3, followed by Region 6, 1, and 2N

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

Current Trends and Projections

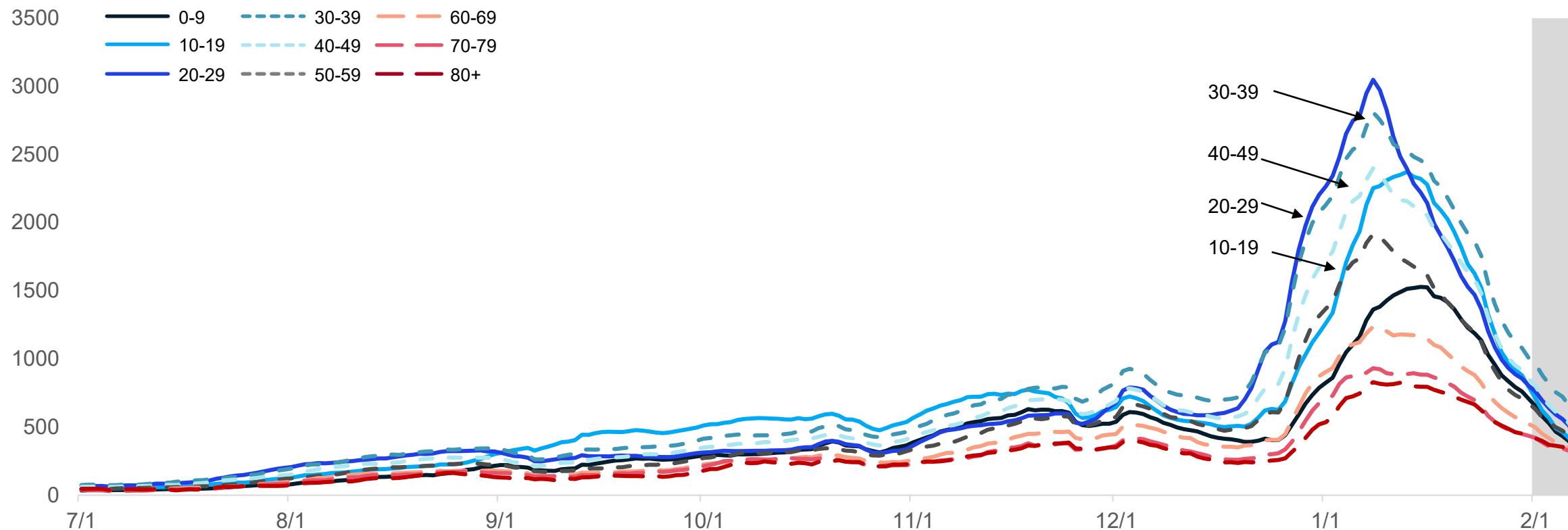
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Case Rate Trends by Age Group

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



- Case rate trends for all age groups saw decreases over the past week
- Case rates by onset date for all age groups are between 435 and 1,010 cases per million (through 1/31)
- Case counts and case rates are highest for 30-39-year-olds this week, followed by 40-49, 20-29, and 10-19

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

Current Trends and Projections

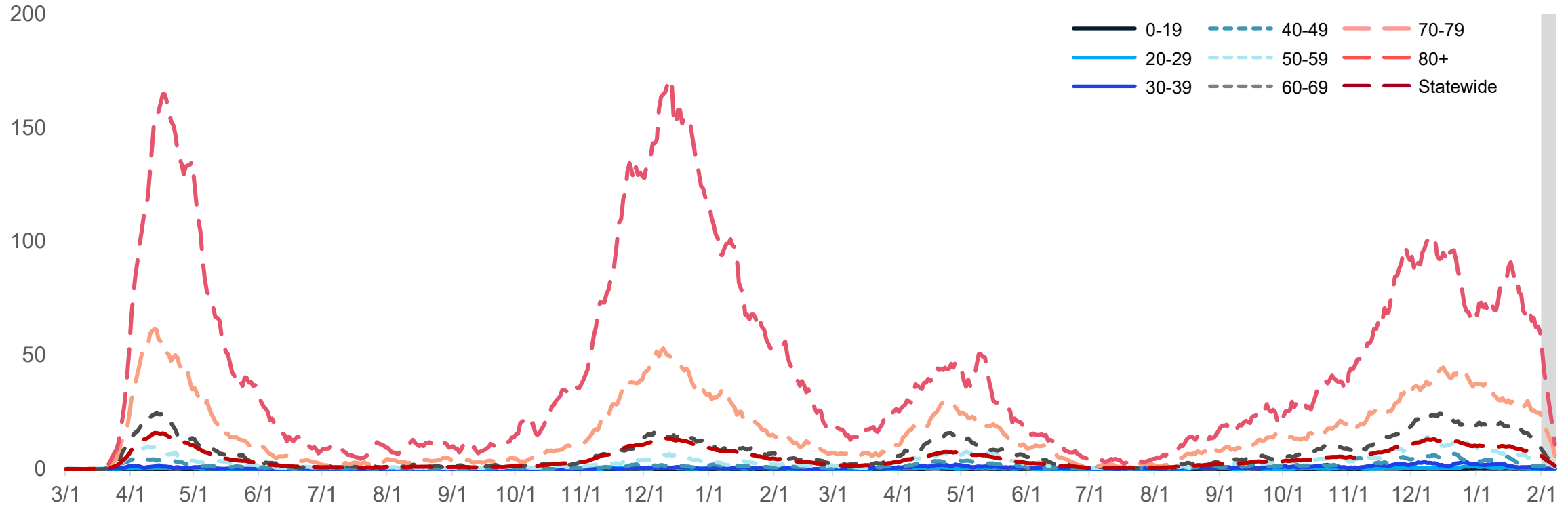
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Average daily death rates, by age group

Daily COVID-19 deaths in confirmed and probable cases per million by age group (7 day rolling average)



- Deaths are a lagging indicator
- Through 1/31, the 7-day avg. death rate is 50 daily deaths per million people for those over the age of 80

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

Current Trends and Projections

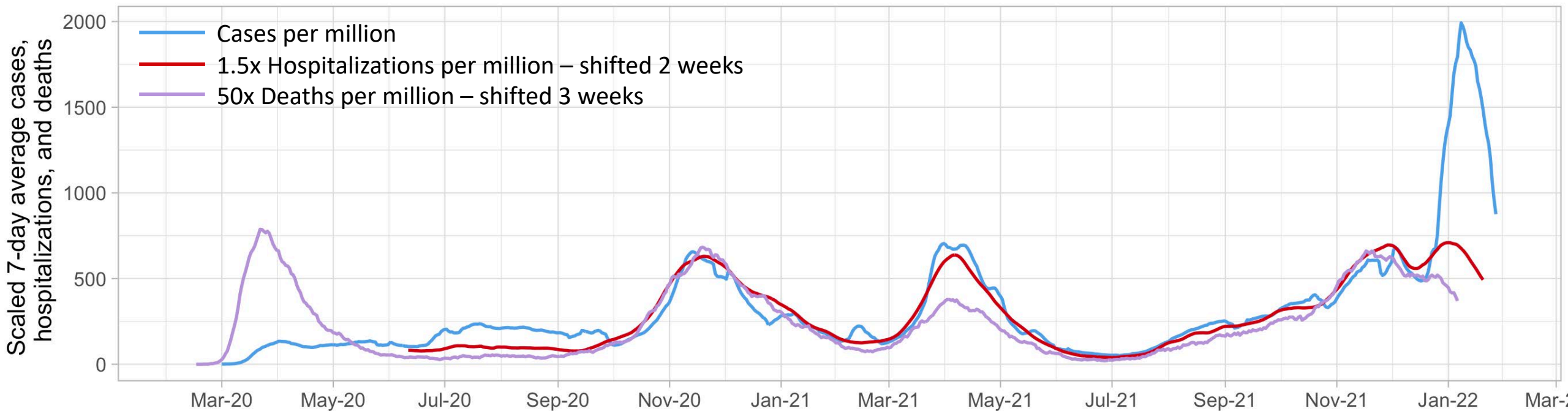
Prevent Death and Severe Outcomes

Protect Healthcare Capacity

Keep Vital Infrastructure Functioning

Cases, hospitalizations and deaths change together—but lagged by up to 3 weeks

- Hospitalizations remain high, but appear to be showing a lower trend than cases, and potentially moving toward a decline
- Deaths also remain high but lower than would be expected based on previous surges, and appear to be plateauing or declining (will depend on data backfill)



Source: MDSS and EM Resource data

Current Trends and Projections

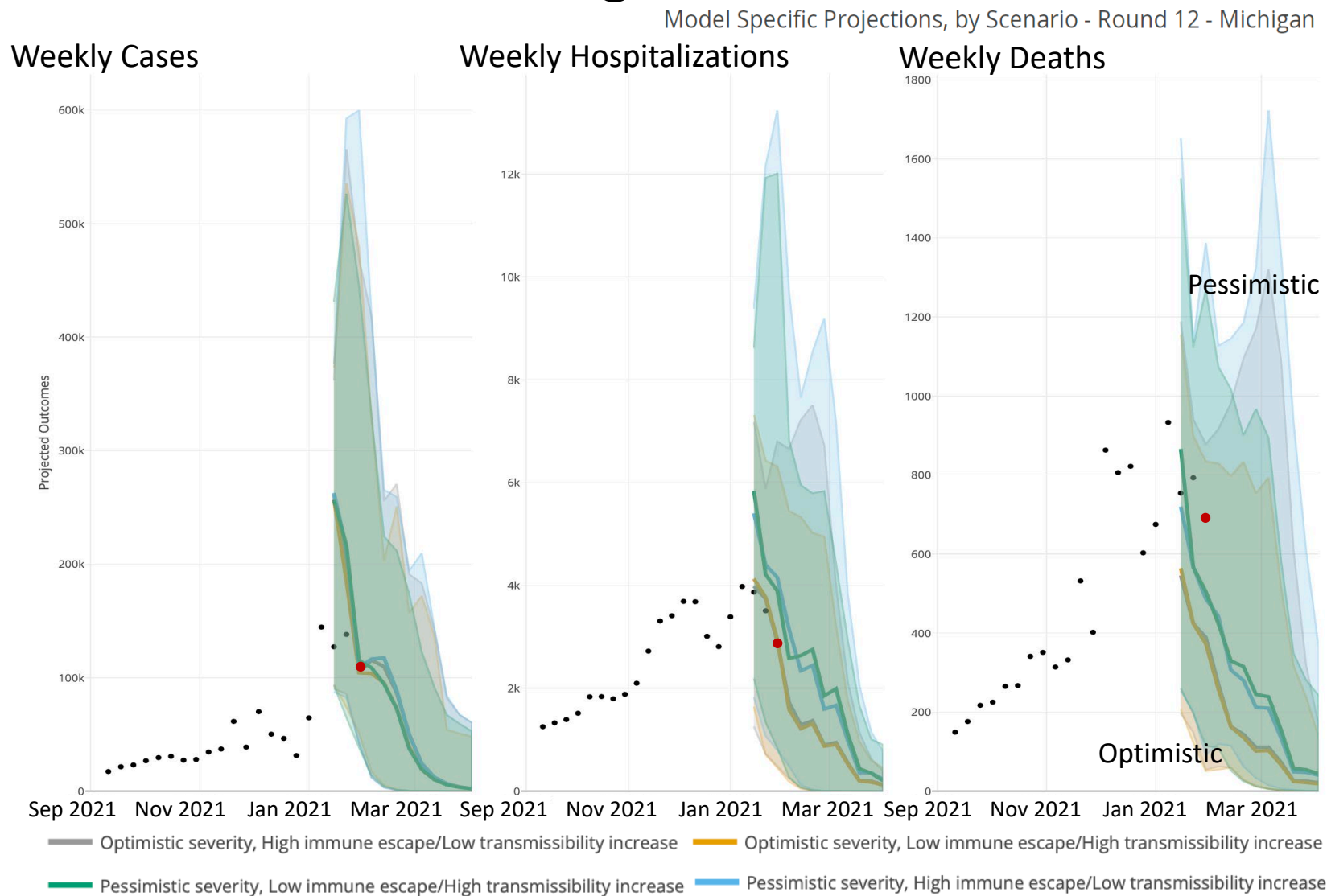
Prevent Death and Severe Outcomes

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Keep Vital Infrastructure Functioning

Where are we headed: models project potential for decreases in cases, hospitalizations, and deaths for Michigan

- Updated Model Scenarios (Round 12)
- Suggest we are declining or soon to decline for all three metrics, though in some scenarios there is potential for a second peak in hospitalizations and deaths (in the 95% confidence intervals)
- Cases and hospitalizations appear consistent with all four scenarios
- Deaths appear more consistent with the more pessimistic scenarios so far
- All projections suggest that cases, hospitalizations and deaths will still be high over the coming weeks, even if declining



Source: [COVID Modeling Scenario Hub](#). Uncertainty levels: 95%

Current Trends and Projections

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Response to COVID-19 in MI

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.

Vaccines

Protect against severe outcomes

Boosters are more important than ever, and available for individuals 12+

Masks, Distancing & Ventilation

Prevent spread

Well-fitting, high-quality masks in all indoor public or crowded settings are more important than ever



Tests

Prevent spread

We encourage testing before gatherings, with symptoms, and after exposure

Treatment

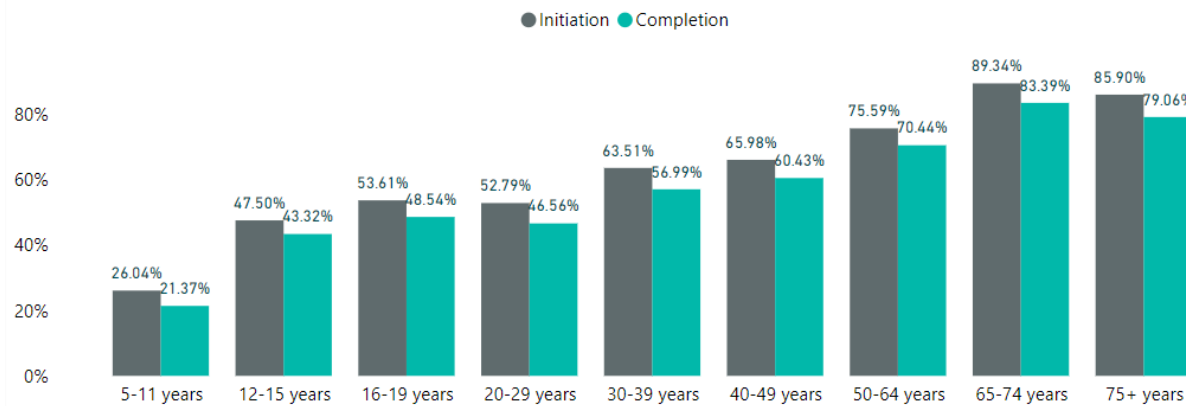
Protect against severe outcomes

Oral antivirals and monoclonal antibody infusions are available

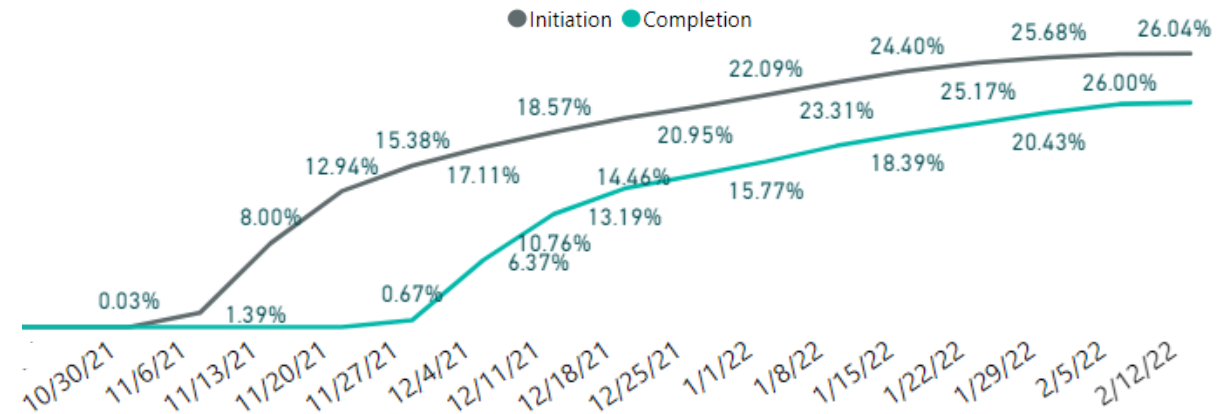
Vaccinations and Boosters

- Over 14.8 million COVID-19 vaccine doses have been administered in Michigan
 - Over 6.5 million Michiganders have received at least one dose (65.4%)
 - Over 5.8 million Michiganders have completed a primary series (58.5%)
 - Nearly 2.9 million additional/booster doses have been administered in Michigan
 - 49.2% of the fully vaccinated population has received a booster
 - 72.7% of the fully vaccinated population 65 years of age or older has received a booster

COVID Vaccine Coverage by Age Group



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

Current Trends and Projections

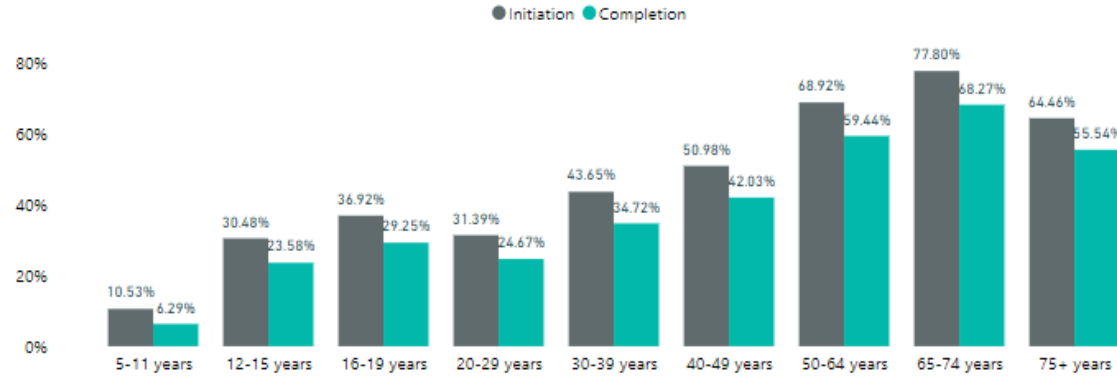
Prevent Death and Severe
Outcomes

Protect Healthcare Capacity

Keep Vital Infrastructure
Functioning

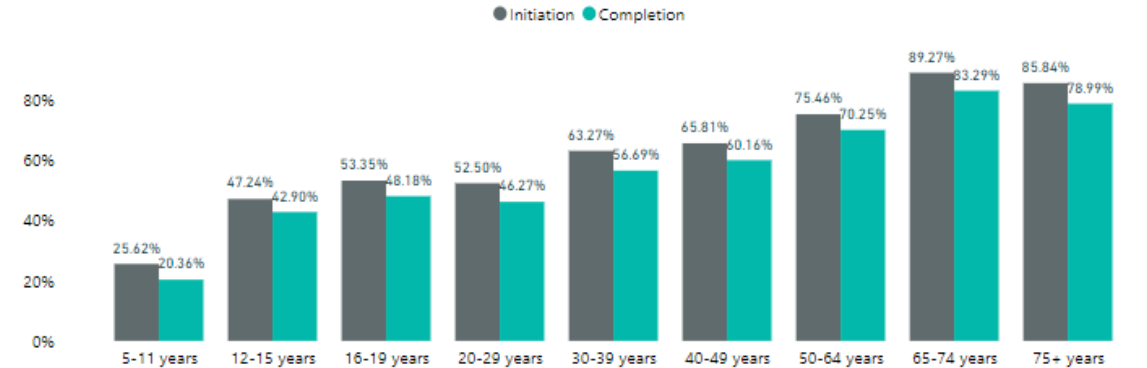
Detroit

COVID Vaccine Coverage by Age Group



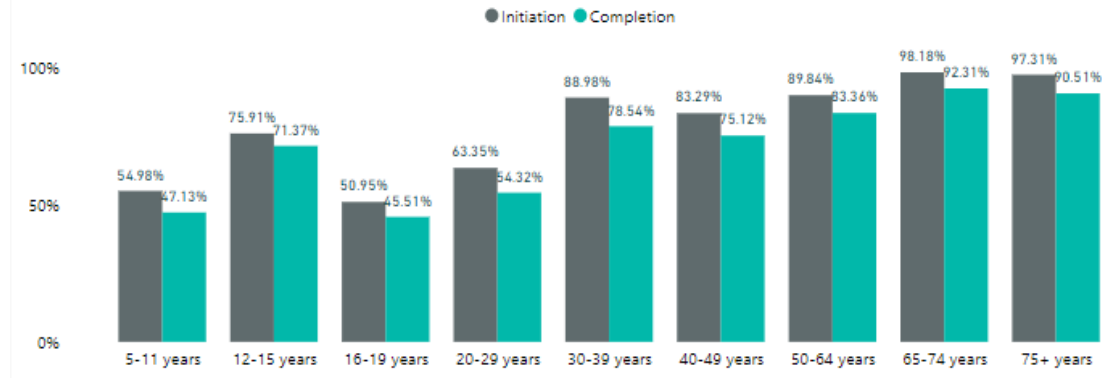
Statewide

COVID Vaccine Coverage by Age Group

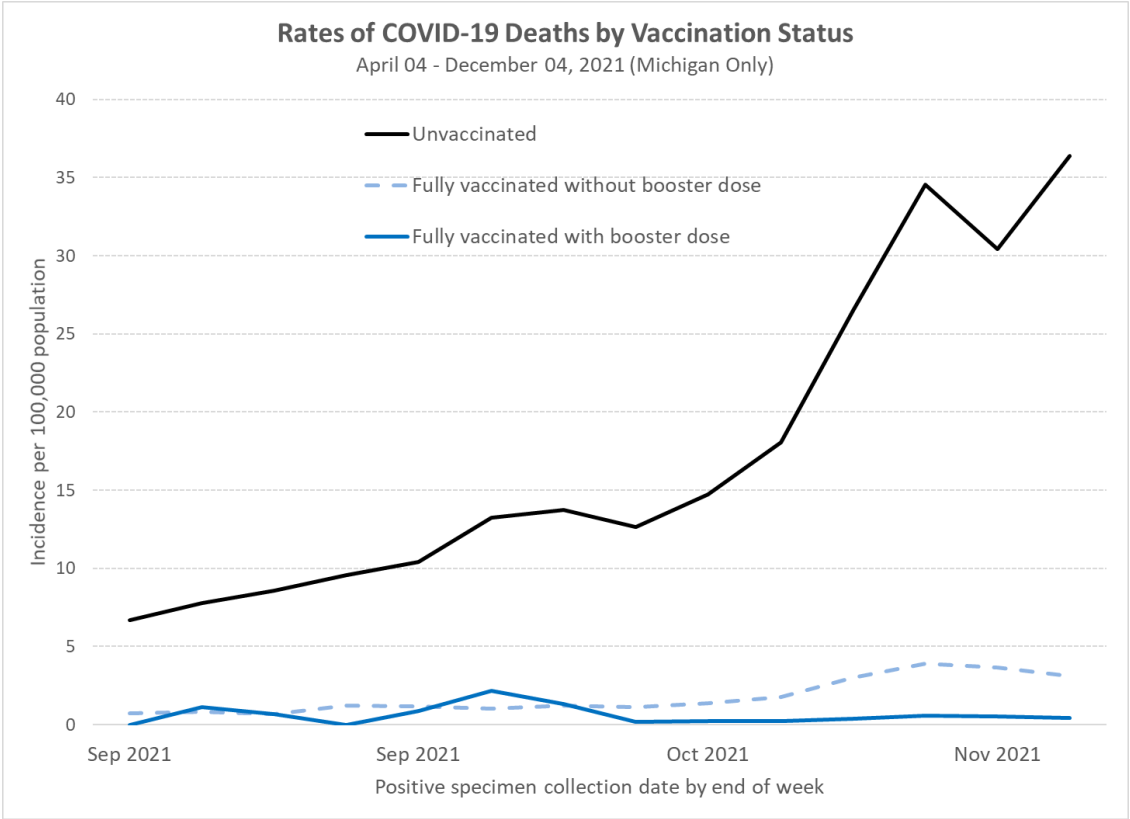
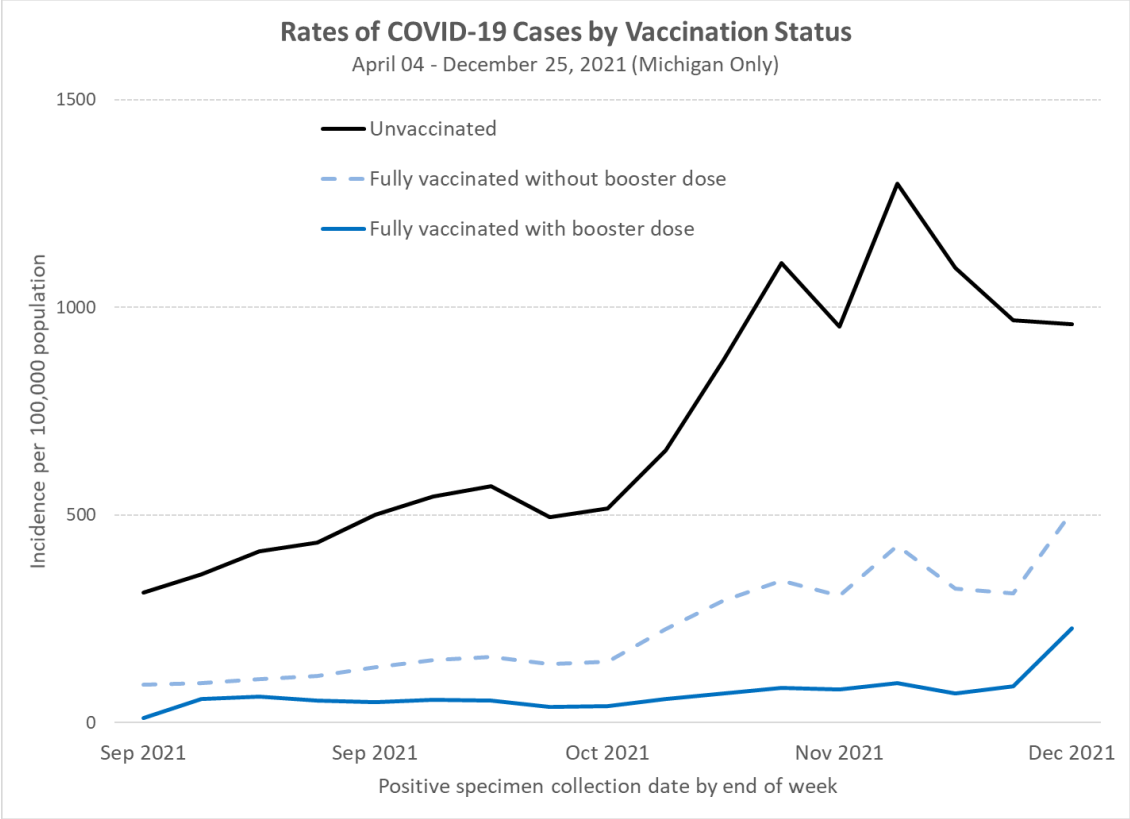


Washtenaw

COVID Vaccine Coverage by Age Group



Michigan Age-Standardized Rates of COVID-19 Cases and Deaths by Vaccination + Booster Status



In November, unvaccinated adults aged 18 years and older had:

11.7 X
Risk of Testing Positive for COVID-19

AND

59.2 X
Risk of Dying from COVID-19

compared to fully vaccinated adults with booster doses

Footnotes: Incidence rates were age-standardized using the 2000 U.S. Census standard population; and rates are not adjusted for time since vaccination, underlying conditions, or other demographic factors besides age. Incidence rate ratios for the past one month were calculated by dividing the average weekly incidence rates among unvaccinated people by that among fully vaccinated people.

Current Trends and Projections

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Face Mask and Respirator Use in Indoor Public Settings Prevents SARS-CoV-2 Infection

- Face masks or respirators (N95/KN95) effectively filter virus-sized particles
- Consistent use of a face mask/respirator was associated with reduced odds of SARS-CoV-2 positive result
- **Use of respirators with higher filtration capacity was associated with the most protection**
- Consistently wearing a face mask in indoor public settings protects against acquisition of SARS-CoV-2



Source: Andrejko KL, Pry JM, Myers JF, et al. Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021. MMWR Morb Mortal Wkly Rep. ePub: 4 February 2022. DOI: <https://doi.org/10.15585/mmwr.mm7106e1>

Current Trends and Projections

Prevent Death and Severe Outcomes

Protect Healthcare Capacity

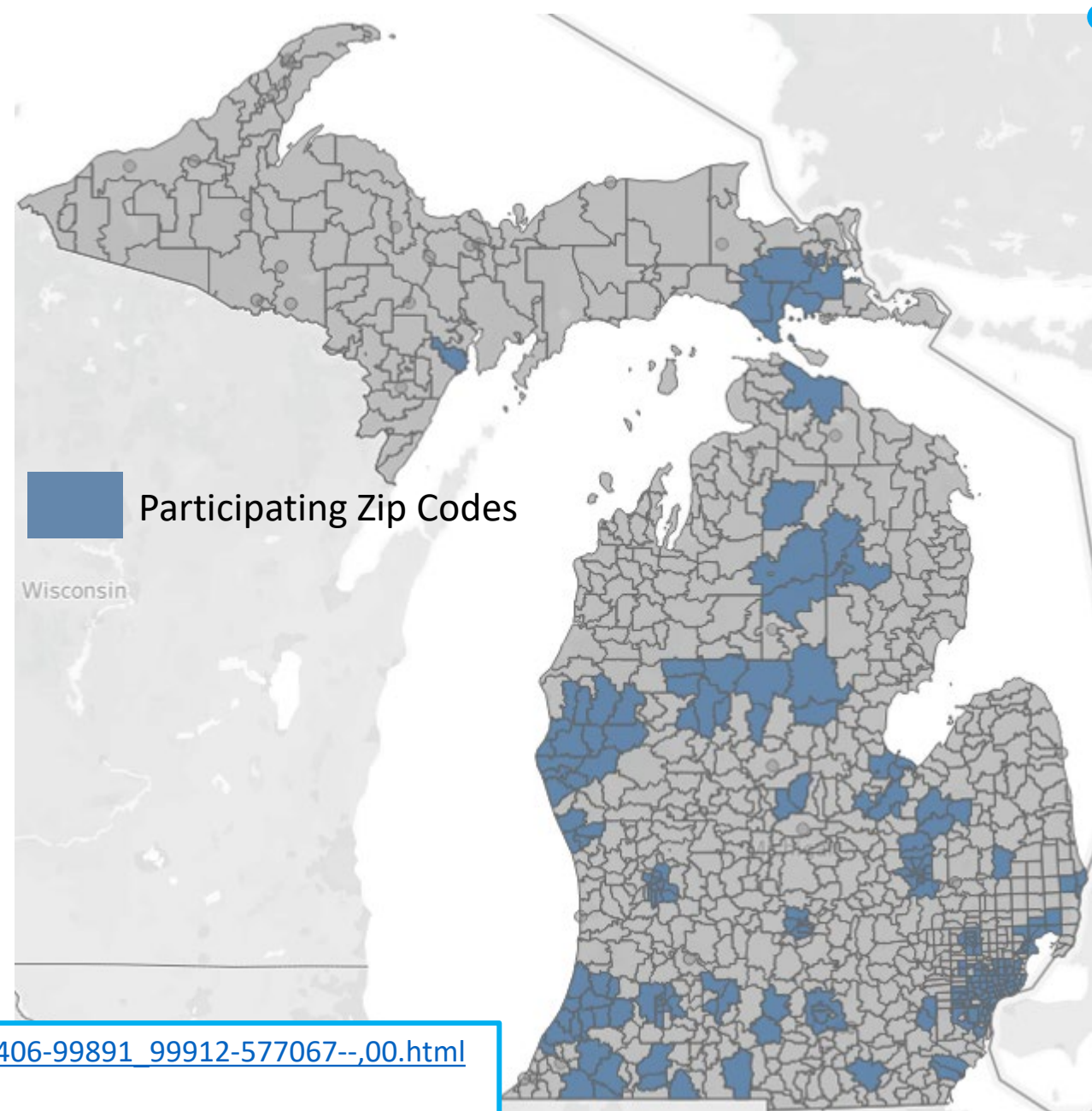
Keep Vital Infrastructure Functioning

Free Direct-to-Consumer OTC Tests Available for Michigan Residents in High SVI Zip Codes through Partnership with the Rockefeller Foundation



Get your **FREE**
at-home test kits!

We are offering free, rapid, at-home COVID-19 test kits to residents of eligible communities while supplies last. Enter your zip code to see if tests are available in your area:



- 250,000 test kits available at no cost
 - Over 92,000 tests already ordered
- Each order contains 5 test kits
- Currently 253 Zip codes can participate

Check Participating Zip Codes: https://www.michigan.gov/coronavirus/0,9753,7-406-99891_99912-577067--,00.html

Order Tests: <https://www.accesscovidtests.org/>

Current Trends and Projections

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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	Sotrovimab IV	Remdesivir IV	Molnupiravir PO
		5 days	10 days	7 days	5 days
 	75+ years old and not up to date* - Moderately or severely immunocompromised regardless of vaccine status	✓	✓	✓	✓ <i>If other therapies not available or appropriate</i>
	65–74 years old and not up to date* with MI priority risk factor** - Pregnant and not up to date*	✓	✓	✓	✓ <i>If other therapies not available or appropriate</i>
	65–74 years old and not up to date* - Under 65 years old and not up to date* with MI priority risk factor**	✓	✓	✓	✓ <i>If other therapies not available or appropriate</i>
	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	✓ <i>If other therapies not available or appropriate</i>
	65–74 years old and up to date* with <u>CDC risk factors</u>	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 <u>CDC risk factors</u>	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.



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

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Recommendations and Guidance when Testing Positive (including for At Home Tests)

COVID-19 Self-Testing Fast Facts

COVID-19 self-tests, also referred to as home tests or over-the-counter (OTC) tests, are one of many risk reduction measures, along with vaccination, masking, and physical distancing, that protect you and others by reducing the chances of spreading SARS-CoV-2, the virus that causes COVID-19.

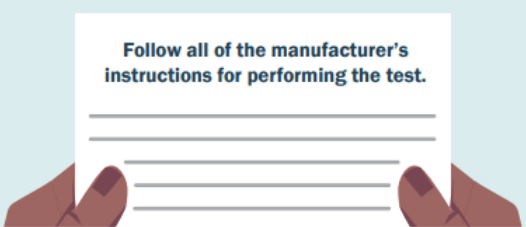


Self-tests can be taken at home or anywhere, are easy to use, and produce rapid results.

You can use self-tests, regardless of vaccination status, whether or not you have symptoms, or if you have had a known or unknown exposure.



Follow all of the manufacturer's instructions for performing the test.



Consider using a self-test immediately before indoor gatherings, if you develop symptoms, or if you feel you were exposed to someone with COVID-19 (testing 3-7 days after exposure is best).



A positive self-test result means that the test detected the virus, and you are very likely infected.

You do not need to get a PCR test to confirm this result, unless advised by your health care provider or public health personnel.

You should:

1. **NOTIFY** your close contacts* and ask them to **QUARANTINE** (see bit.ly/MiContainCOVID)
2. **ISOLATE** at home for a minimum of 5 days

If no symptoms or you are feeling better after 5 days, you can stop isolating, but must wear a well-fitting mask around others for an additional 5 days.

Testing again at day 5 is recommended. If testing is positive, or you still have symptoms on day 5, continue to isolate for a total of 10 days.



https://www.michigan.gov/documents/coronavirus/Self-Testing_Fast_Facts_v5_744280_7.pdf

IF YOU TEST POSITIVE FOR COVID-19

With the increase in COVID-19 cases in our state, you might not hear from the health department. We ask everyone to follow these steps to help stop the spread.



CONTAIN COVID
TEST. TRACE. PROTECT.
[MICHIGAN.GOV/CONTAINCOVID](https://michigan.gov/containcovid)

DID YOU TAKE YOUR COVID-19 TEST AT HOME?

Visit [Michigan.gov/ContainCOVID](https://michigan.gov/ContainCOVID) for more information about at-home testing.

ISOLATE RIGHT AWAY.

Isolation keeps someone who is infected with the virus away from others, even in their home. If you get a positive test result, tell your close contacts so they know to quarantine (see quarantine instructions below). If you downloaded the MI COVID Alert phone app, call 211 to get your PIN and anonymously alert close contacts. You could also use tellyourcontacts.org. If your child tests positive, notify their school.

Find out if you are eligible for COVID-19 therapies at [Michigan.gov/COVIDtherapy](https://michigan.gov/COVIDtherapy).

NOTIFY YOUR CLOSE CONTACTS IMMEDIATELY SO THEY CAN START TO QUARANTINE THEMSELVES.

Close contacts: People who were within 6 feet or less for at least 15 minutes in a 24-hour period.

Contagious: You can be contagious two days before symptoms appear (or two days before test date if positive and no symptoms), through the end of the isolation period.

IF YOU ARE ABLE TO PROPERLY WEAR A MASK COVERING YOUR NOSE AND MOUTH, YOU CAN RESUME NORMAL ACTIVITIES WHEN...

It has been five days since symptoms began or, if you don't have symptoms, five days since your positive test date. If you resume activities after day five, you must continue to wear a mask for an additional five days. If you are unable to wear a mask around others, even in your home, you should wait 10 days before resuming activities.

AND

You have been fever-free for 24 hours without taking fever-reducing medication.

AND

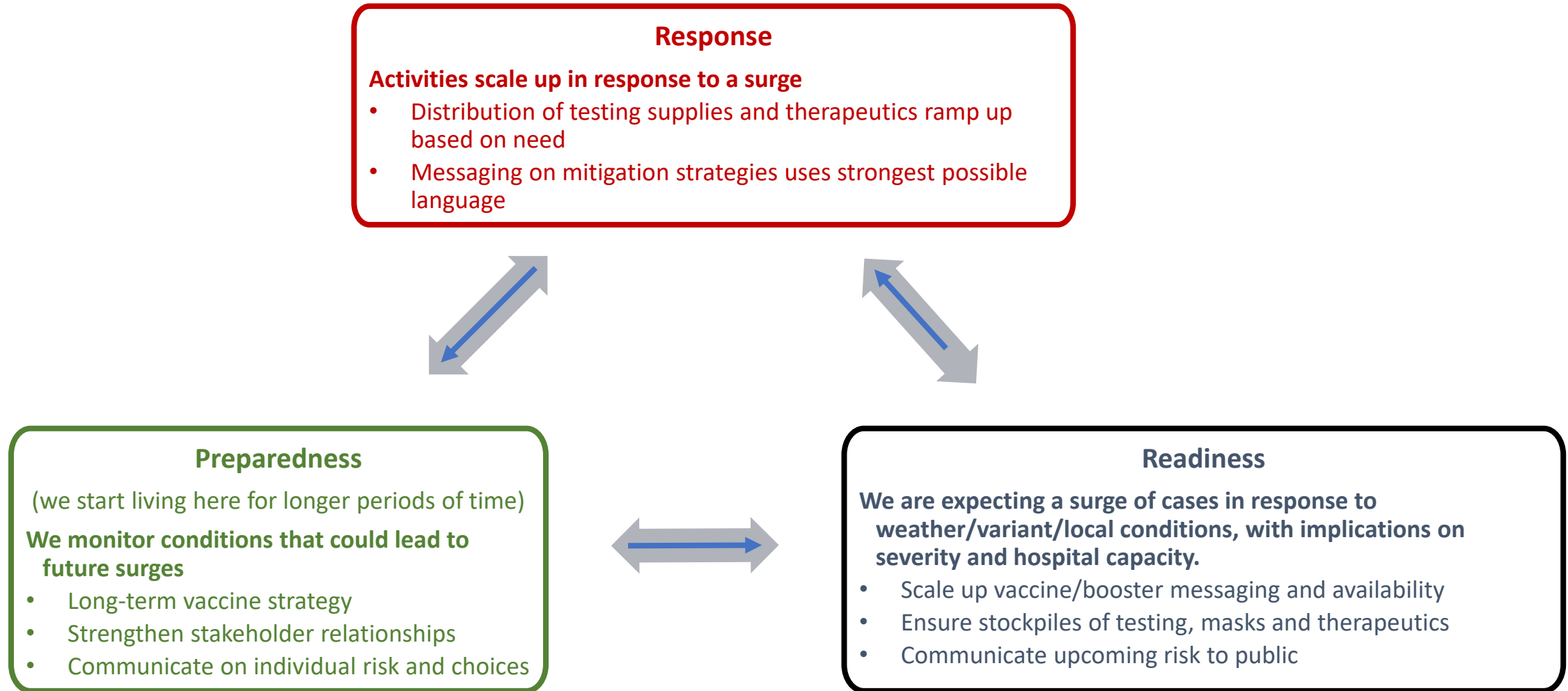
Other symptoms, like cough or shortness of breath, have improved.

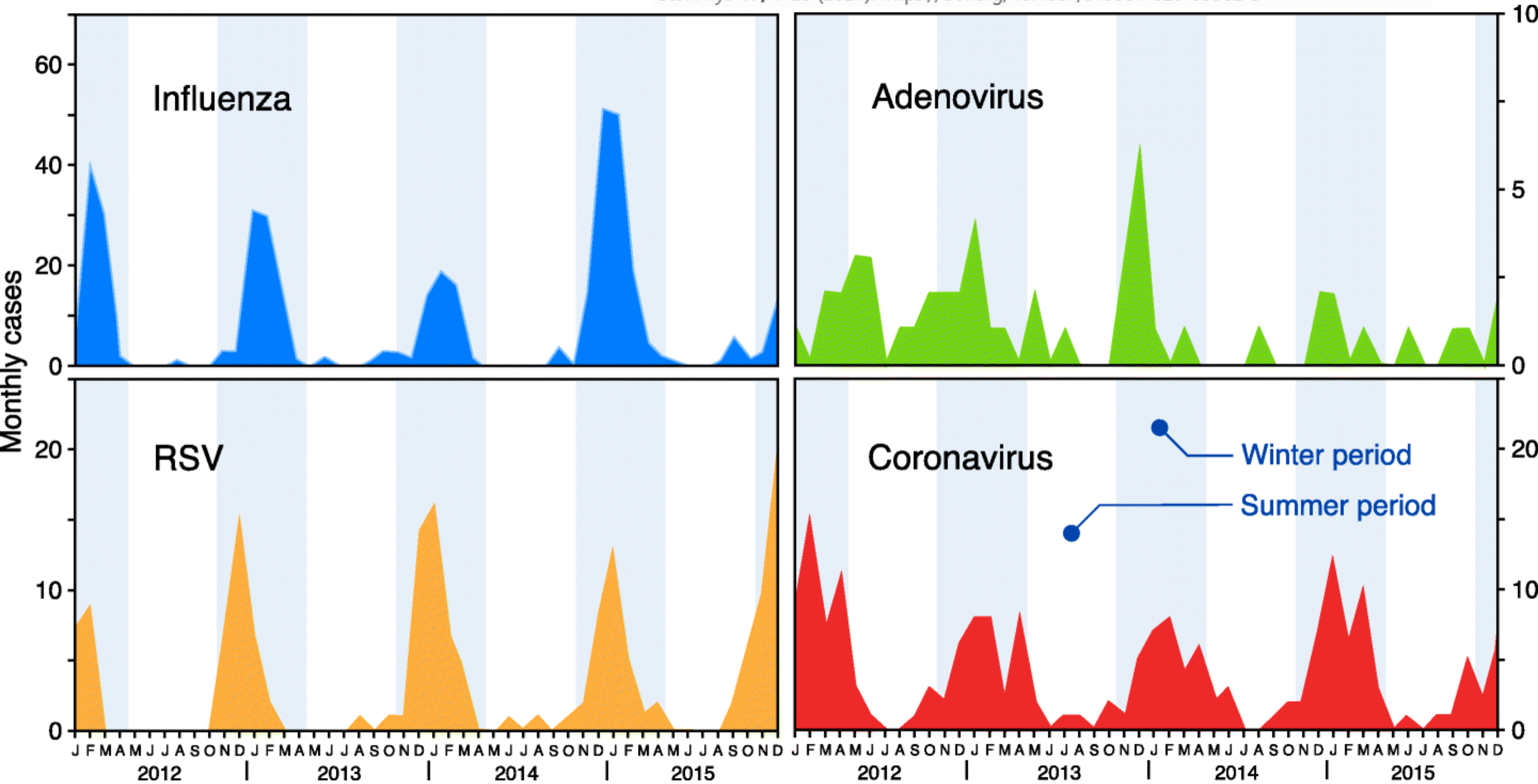
Questions? Dial 211 or call the MI COVID Hotline at 888-535-6136.

https://www.michigan.gov/documents/coronavirus/2020_MDH_HS_COVID_Tracing_IsolationGraphic_3.2_709657_7.pdf

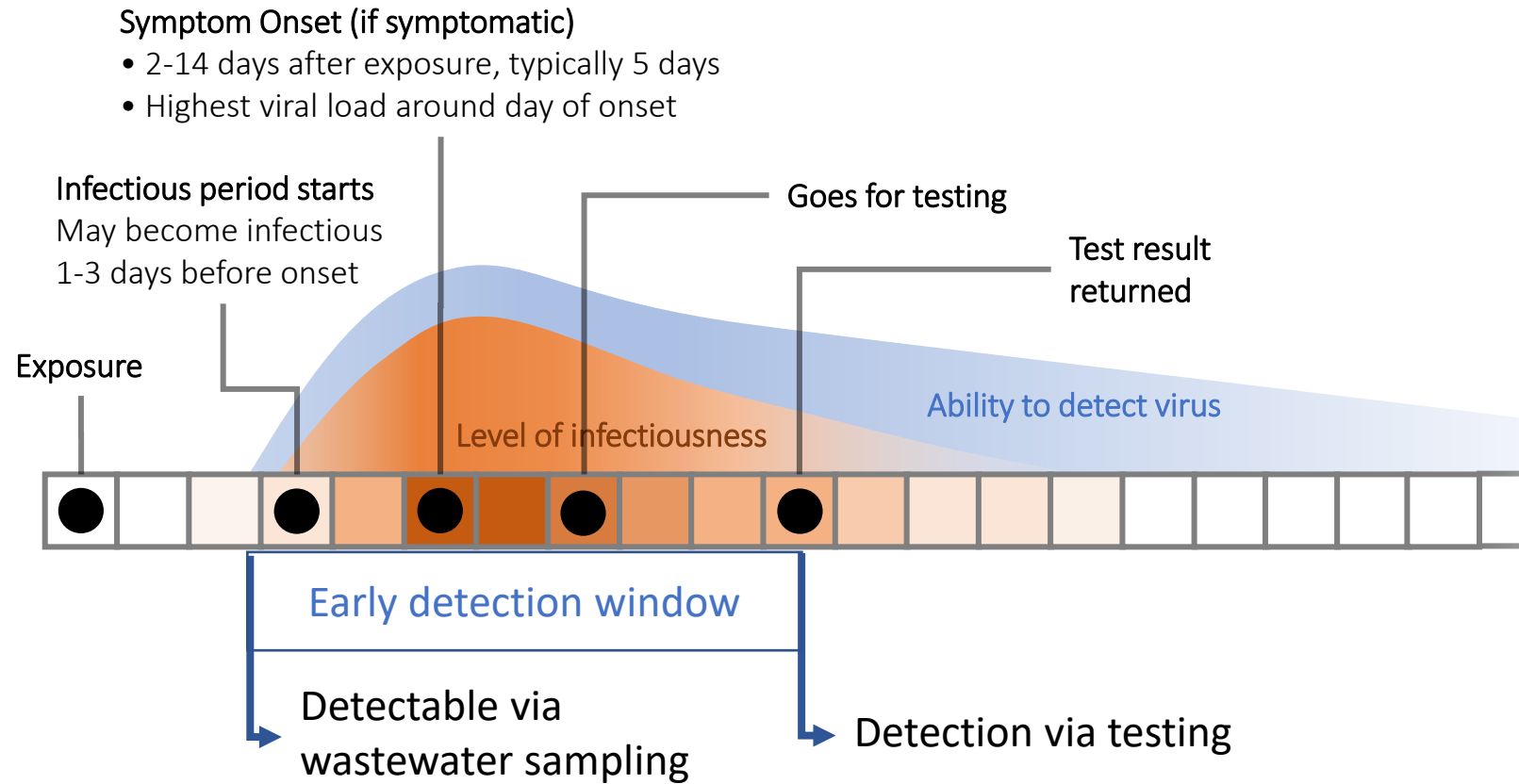
The future of COVID-19

Adapted from World Health Organization. (2021). Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the national level. World Health Organization. <https://apps.who.int/iris/handle/10665/345251>. License: CC BY-NC-SA 3.0 IGO





Wastewater can provide early warnings and a monitoring system for COVID in communities when testing is low



- Potential to detect clusters early
- Can detect asymptomatic and presymptomatic individuals
- Data not impacted by clinical testing behaviors/availability
- Has been used to detect, intervene and stop transmission—e.g. University of Arizona [1]

- However, wastewater does not capture all populations (e.g. individuals on septic tank systems)
- Can be difficult to directly compare concentrations across different locations due to differences in sampling and processing methods and underlying population sizes

Sources: [WHO transmission overview](#), [WHO isolation guidelines](#), [CDC isolation guidelines](#), [1] [Science 2020](#)

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Wastewater data correlates with case data at the community level

- Washtenaw County COVID-19 cases show matching time trends compared to normalized SARS-CoV-2 levels at the Ann Arbor and Ypsilanti wastewater treatment plants (Bakker/Wigginton labs, UM)
- Wastewater monitoring provides an alternate view of transmission levels in a community, and can capture some of the heterogeneity across the community

Data sources: mystartmap.info, [Bakker/Wigginton wastewater dashboard](https://www.bakkerwigginton.com/wastewater-dashboard), [MDHHS/EGLE wastewater data](https://mdhhs.michigan.gov/egle-wastewater-data)

