

The Health of Michigan's Children—COVID and Beyond

Sarah Lyon-Callo, PhD, MS

Director, Bureau of Epidemiology and Population Health
Michigan Department of Health and Human Services

MSU Health Policy Forum

May 23, 2022

Acknowledgements

- COVID Data and Modeling Team: Dr. Emily Martin, Dr. Marisa Eisenberg, Dr. Vikas Parek, Umich MiStartMap team, Dr. Natasha Bagdasarian, Joseph Coyle, Dr. Robert Orellana, James Collins, Abigail Cheney, CSI Team at MDHHS
- Immunizations: Joseph Coyle, Dr. Ryan Malosh, Ryan de la Rambelje, MDHHS Immunization Epidemiology Team
- MDHHS Child Lead Prevention Lead teams; Mary Franks, Dr. Anthony Oliveri, CLPP staff

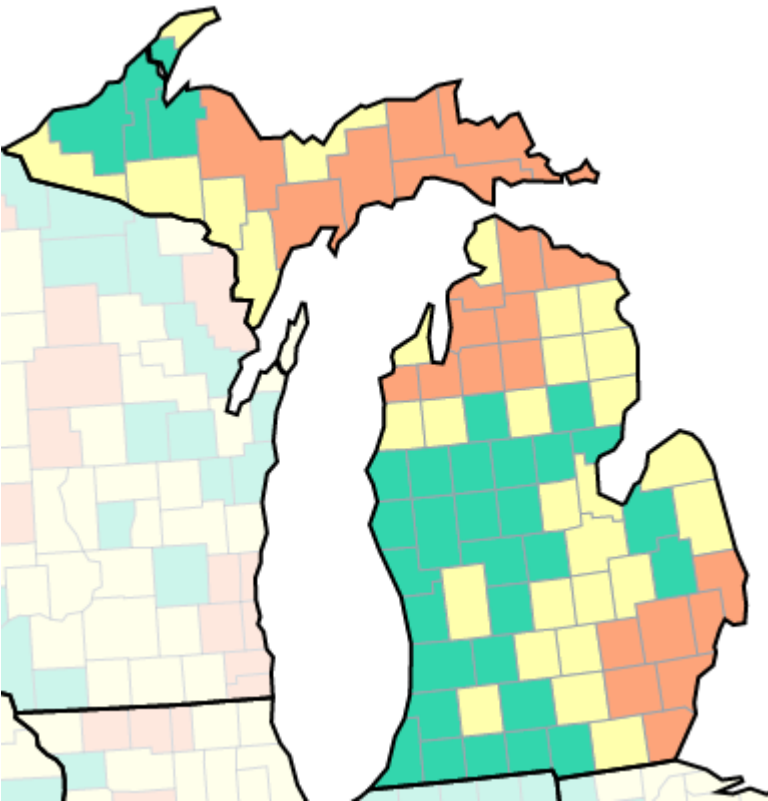
Status: 22 Michigan Counties at High COVID-19 Community Level

Counties categorized as High have case rates greater than 200 per 100,000 population and the Health Service Area COVID hospital admissions above 10 per 100,000 population

- 26% of Michigan counties are at high risk, more than 50% of the state's population
- 36% of Michigan counties are currently at Medium level

Percent of Counties

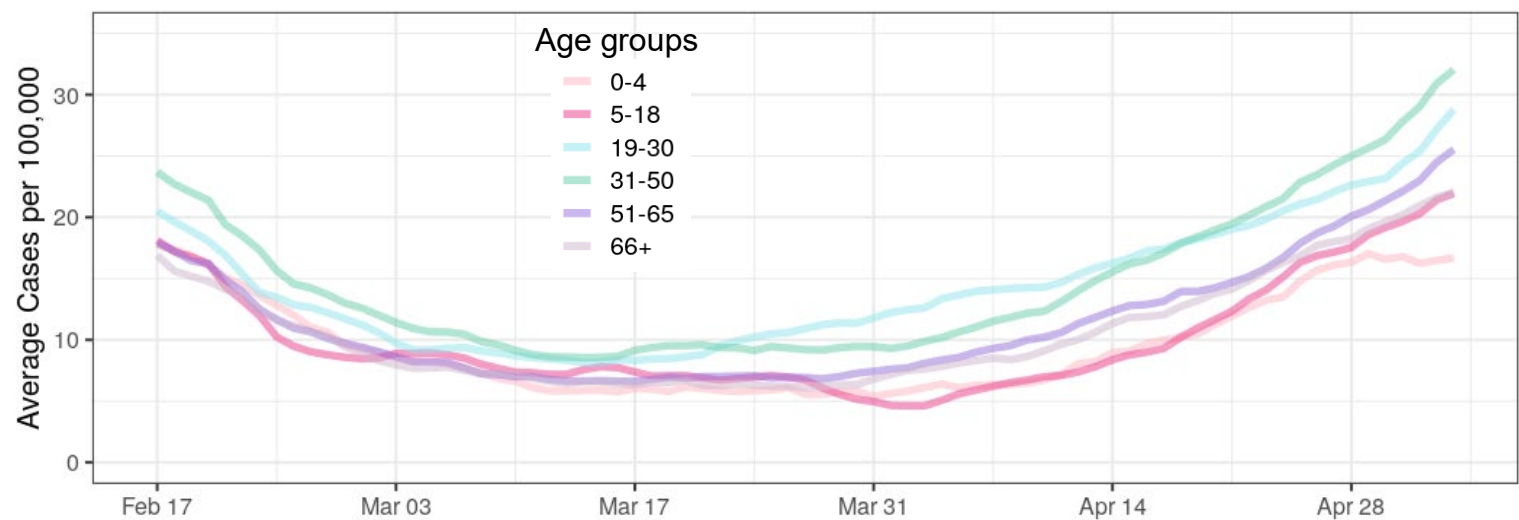
	United States	Michigan
Low	76%	38%
Medium	15%	36%
High	9%	26%



Low	Medium	High
<ul style="list-style-type: none">• Stay up to date with COVID-19 vaccines• Get tested if you have symptoms	<ul style="list-style-type: none">• If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions• Stay up to date with COVID-19 vaccines• Get tested if you have symptoms	<ul style="list-style-type: none">• Wear a mask indoors in public• Stay up to date with COVID-19 vaccines• Get tested if you have symptoms• Additional precautions may be needed for people at high risk for severe illness

Source: https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=Michigan&data-type=

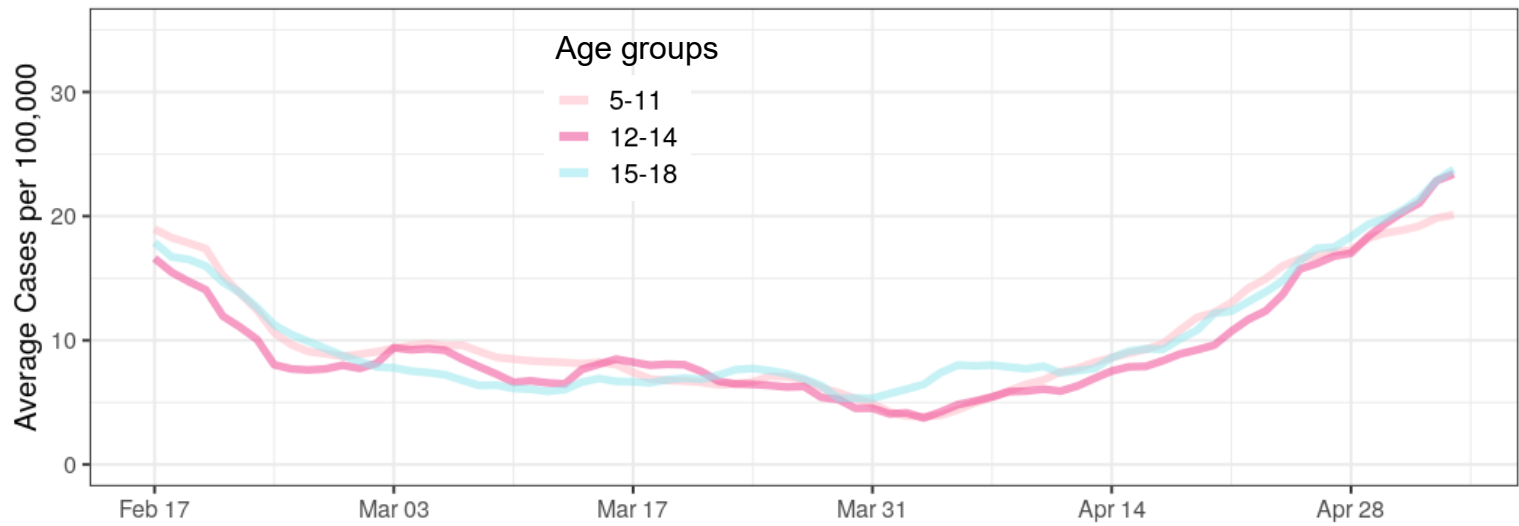
Case rates increase in the school-aged population statewide



Case rates in 5–18-year-olds are lower than rates in 19–50-year-olds

Case rates among school-aged populations continue to increase along with other age groups

Modeling: expect continuing increases in cases

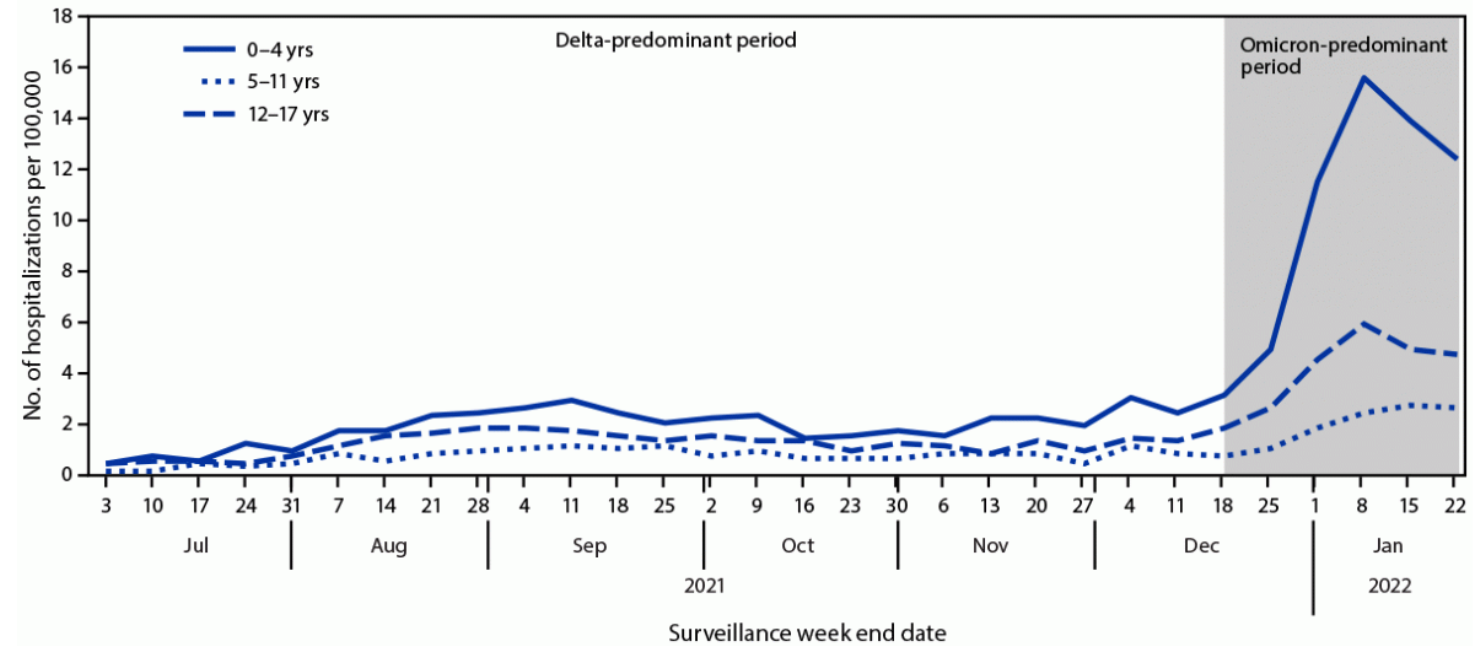


Sources: MDSS case data as of 5/16/2022 (data through 5/4/22), line charts use statewide age group population; <https://mi-school-covid.dataepi.org/>

COVID-19 Hospitalization of Children and Adolescents during the Omicron Surge

- COVID-19 can cause severe illness in children and adolescents.
- The Omicron peak (7.1 per 100,000 children) was four times that of the Delta peak (1.8), with the largest increase observed in children aged 0-4 years.

FIGURE. Weekly COVID-19–associated hospitalization rates* among children and adolescents aged 0–17 years, by age group — COVID-NET, 14 states,† July 3, 2021–January 22, 2022



Pediatric Covid Hospitalization Trends



Multisystem Inflammatory Syndrome in Children

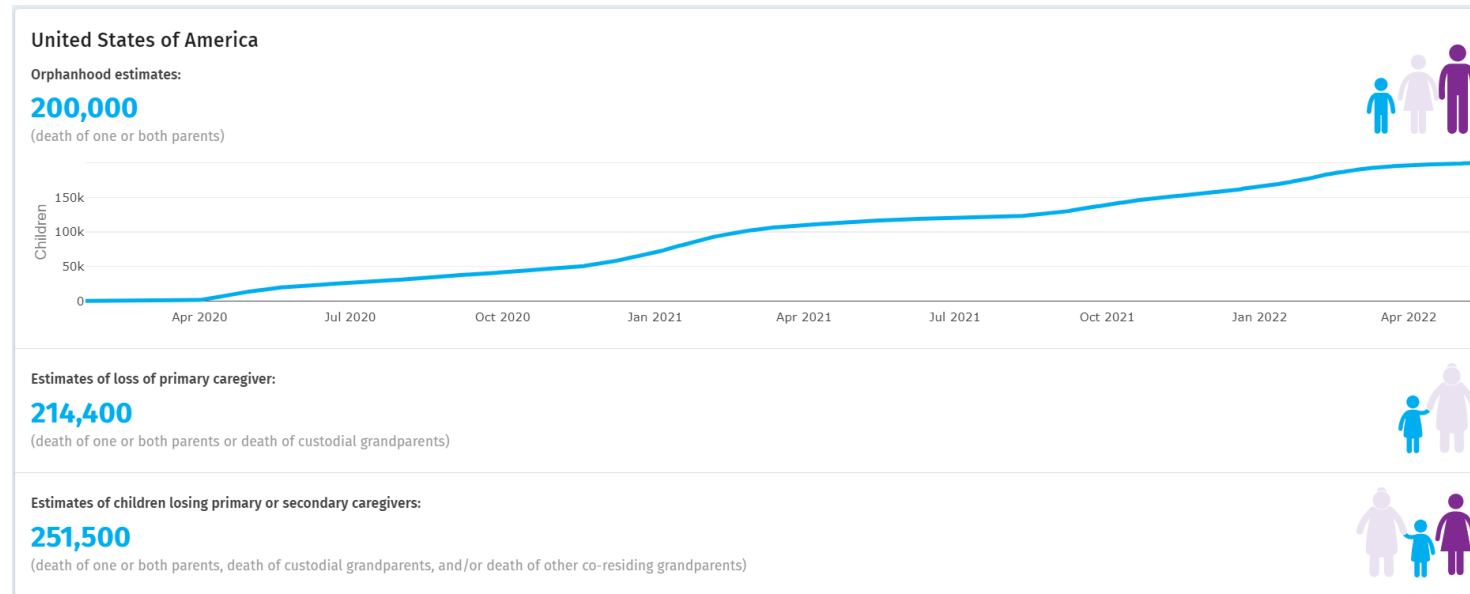
- 293 Michigan children diagnosed
- Severe events: 65% cases seen in ICU
- Disparity:
 - 36% Black or African American children
 - 8% Hispanic or Latino children

Hospitalization Trends 1/1/2021 – 5/16/2022
Michigan Pediatric Hospitalizations, Confirmed



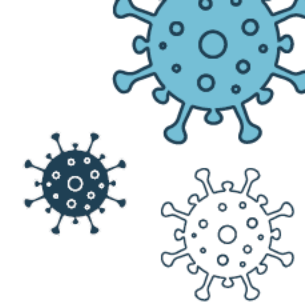
Other Severe Events: Loss of parents/caregivers

- More than 5M children worldwide affected by COVID-19-associated orphanhood and caregiver death
- Est. quarter of a million US children lost primary or secondary caregiver during pandemic
- Non-White children lost caregiving adults at higher rates than their White peers
- Treglia et al: “...tragedy poses a threat to short and long-term outcomes for that child, warranting immediate and sustained mobilization of support to promote resilience.”



Sources: Unwin HJ, et al. More than 5.2 million children affected by global surges in COVID-associated orphanhood and caregiver death. *Lancet Child & Adolescent Health* 2022, published online Feb 24. <https://tinyurl.com/orphanhood-calculator>; Treglia, D., Cutuli, J. J., Arasteh, K., J. Bridgeland, J.M., Edson, G., Phillips, S., Balakrishna, A. (2021). Hidden Pain: Children Who Lost a Parent or Caregiver to COVID-19 and What the Nation Can Do to Help Them. COVID Collaborative.

Make a COVID-19 Plan



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



Make a plan for vaccination or learn if you are eligible for boosters.

- Ages 5 and older can get vaccinated.
- Ages 12 and older can get the booster.
- Ages 50 and older, or 12 and older and moderately to severely immunocompromised, can schedule a second booster.



Learn more about vaccines and whether you're up to date at Michigan.gov/COVIDVaccine.



Keep a supply of well-fitting masks.

Masks are helpful tools to reduce COVID-19 transmission, especially if:

- You are unwell or test positive for COVID-19.
- You have been exposed to someone with COVID-19.
- You are concerned about the risk of transmission in a particular setting. Respect that others may have a risk different than yours.



Learn more about masking at Michigan.gov/MaskUp.



Keep a supply of over-the-counter COVID-19 tests.

Tests are useful for early detection of COVID-19, especially if:

- You have symptoms of or have been exposed to COVID-19.
- You are traveling or will be attending a large or unmasked gathering. Test before and after attending large events.



Over-the-counter tests are available at libraries and schools through MIbackpack, also through federal distribution programs.

Learn more about COVID-19 testing at Michigan.gov/COVIDTest.



Learn if you are eligible for COVID-19 therapeutics.

- Talk to a primary care provider about whether you are eligible for preventative antibodies or for COVID-19 antiviral treatment if you become infected.



Learn more about COVID-19 therapeutics at Michigan.gov/COVIDTherapy.



COVID-19 Vaccines for Children and Teens

What Parents and Caregivers Need to Know

Everyone ages 5 years and older should get vaccinated against COVID-19

COVID-19 Vaccination Prevents Infection and Severe Disease in Children

2 doses of Pfizer-BioNTech COVID-19 vaccine reduced 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)

During Omicron surge, COVID-19–associated hospitalization rates in children 5–11 years were approximately 2X as high among unvaccinated as among vaccinated children (Marks et al)

- NH Black children represented largest group of unvaccinated children
- Children with diabetes and obesity were more likely to experience severe COVID-19

Increasing COVID-19 vaccination coverage in children and pregnant persons, particularly among racial and ethnic minority groups, can prevent COVID-19–associated hospitalization and severe outcomes



COVID-19 vaccination* among pregnant people is associated with

60% ↓
about 60% reduced risk of COVID-19 hospitalization in babies younger than 6 months old

People who are pregnant, may become pregnant, or are breastfeeding should get vaccinated against COVID-19

bit.ly/MMWR7107e3

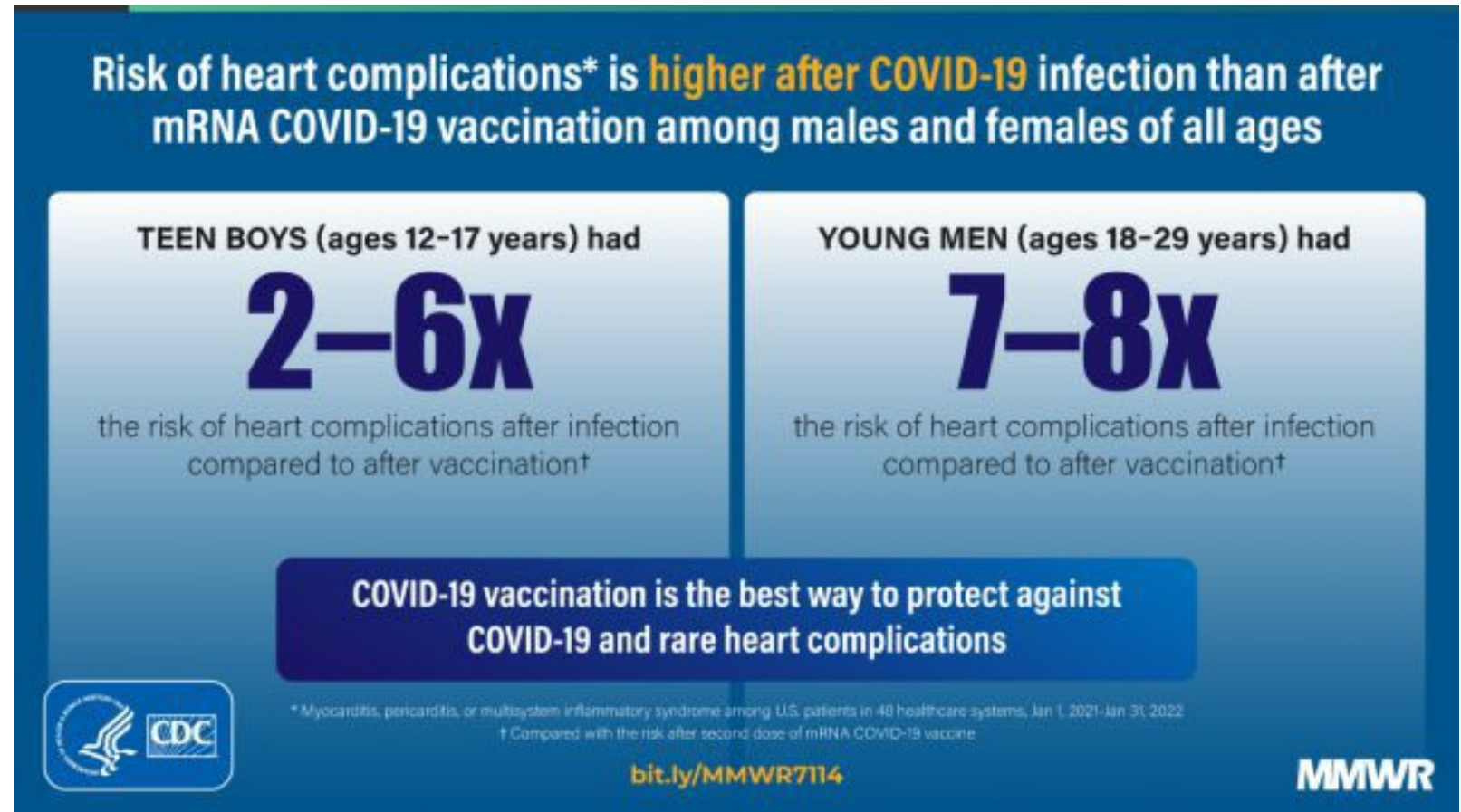
Test-negative, case-control study among infants at 20 pediatric hospitals in 17 states during July 1, 2021–January 17, 2022.
* Completed a 2-dose primary mRNA COVID-19 vaccination series during pregnancy (dose 1 before pregnancy and dose 2 during, or both doses during)

MMWR



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



Less than 50% of eligible children have completed COVID-19 vaccination; initiation is flat

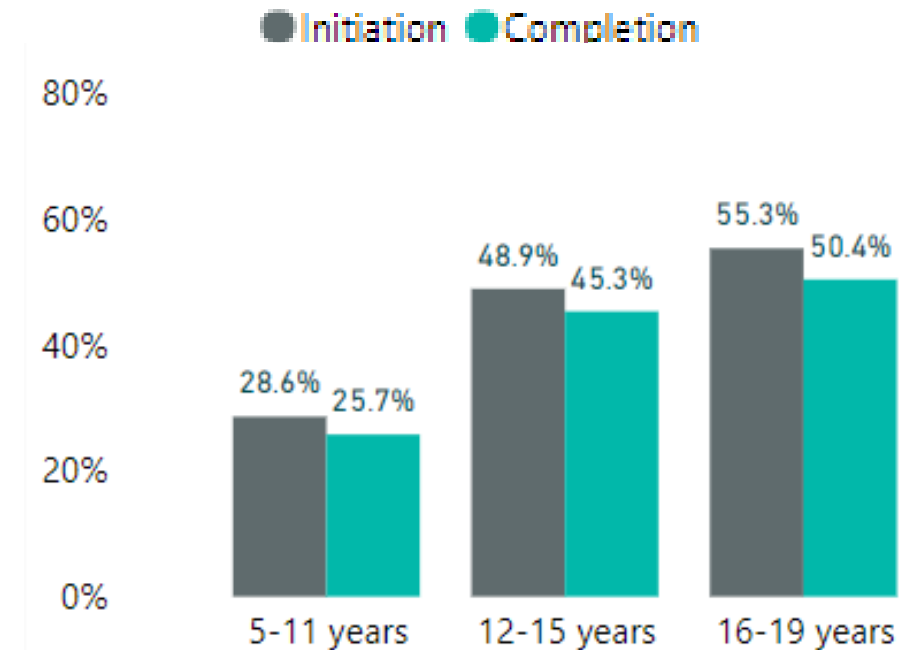
Over 16 million COVID-19 vaccine doses have been administered in Michigan

Initiation of child vaccination is flat since beginning of 2022

Michigan status

- 28.6% of 5-11 year olds have begun their vaccination; more than 589,000 children are eligible for vaccination but have not initiated
- 48.9% of 12-15 year olds have started the series; more than 254,000 children have not started
- 55.3% of 16-19 year olds have initiated, 230,000 children have not started.

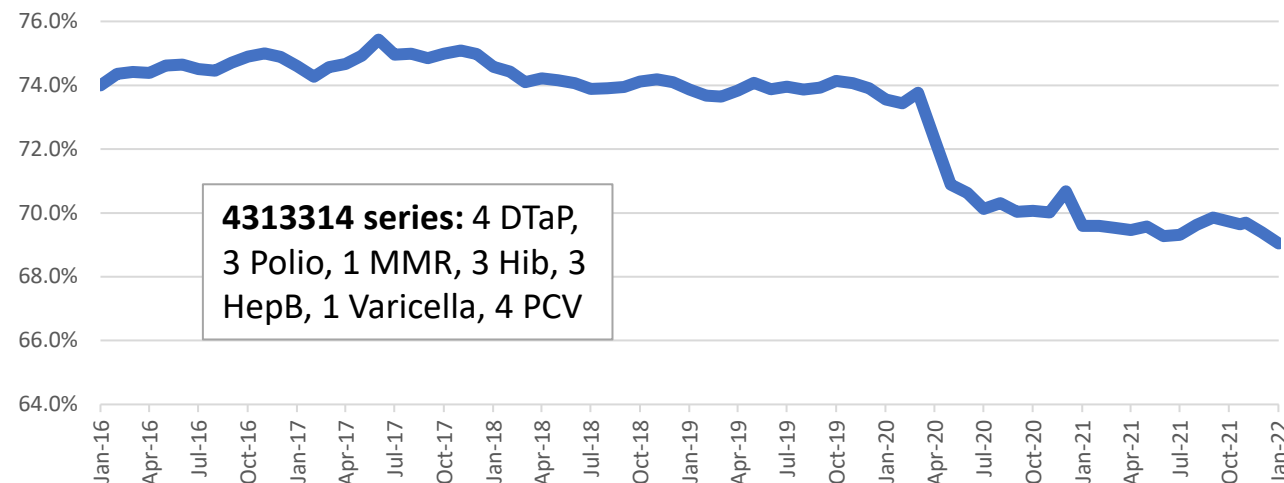
Cumulative COVID Vaccine Coverage by Age Group
Michigan, Week Ending 5/21/22



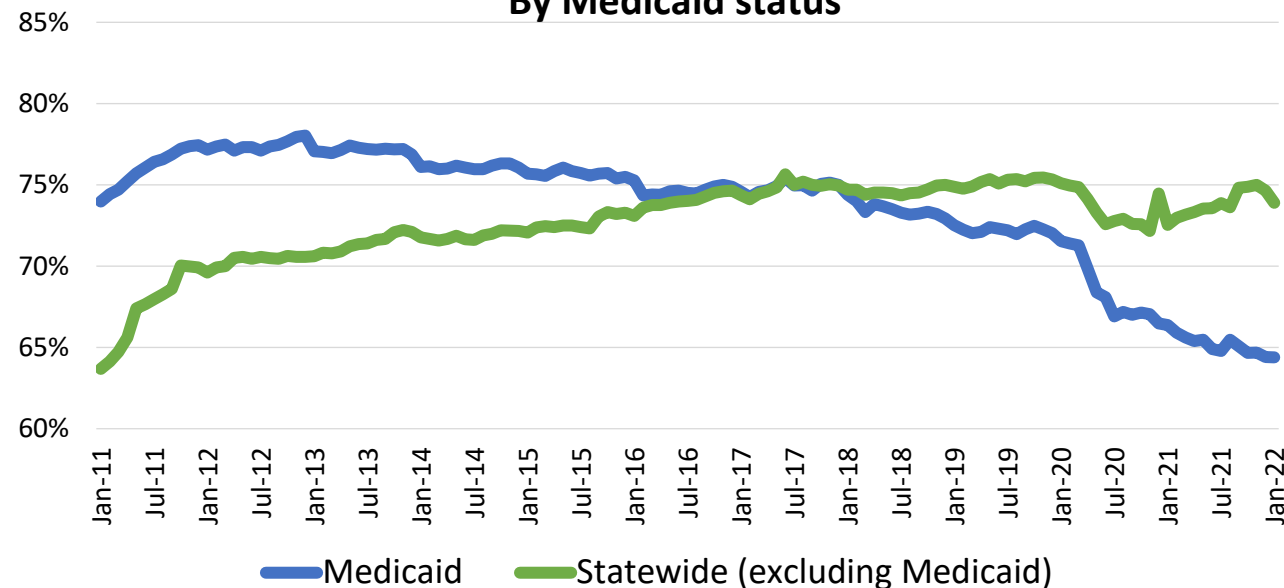
Pandemic Impact on Preventive Health Care: Childhood immunization rates have been negatively impacted by the pandemic – especially among the Medicaid population

- Childhood vaccination coverage decreased from 74% to less than 70% since the start of the COVID pandemic
- Childhood vaccination rates have not returned to pre-pandemic levels
- Childhood vaccine coverage in the Medicaid population has been decreasing compared to the non-Medicaid population; this decrease accelerated during the pandemic

4313314 Vaccine Coverage for children 19-35 months, January 2016 - January 2022

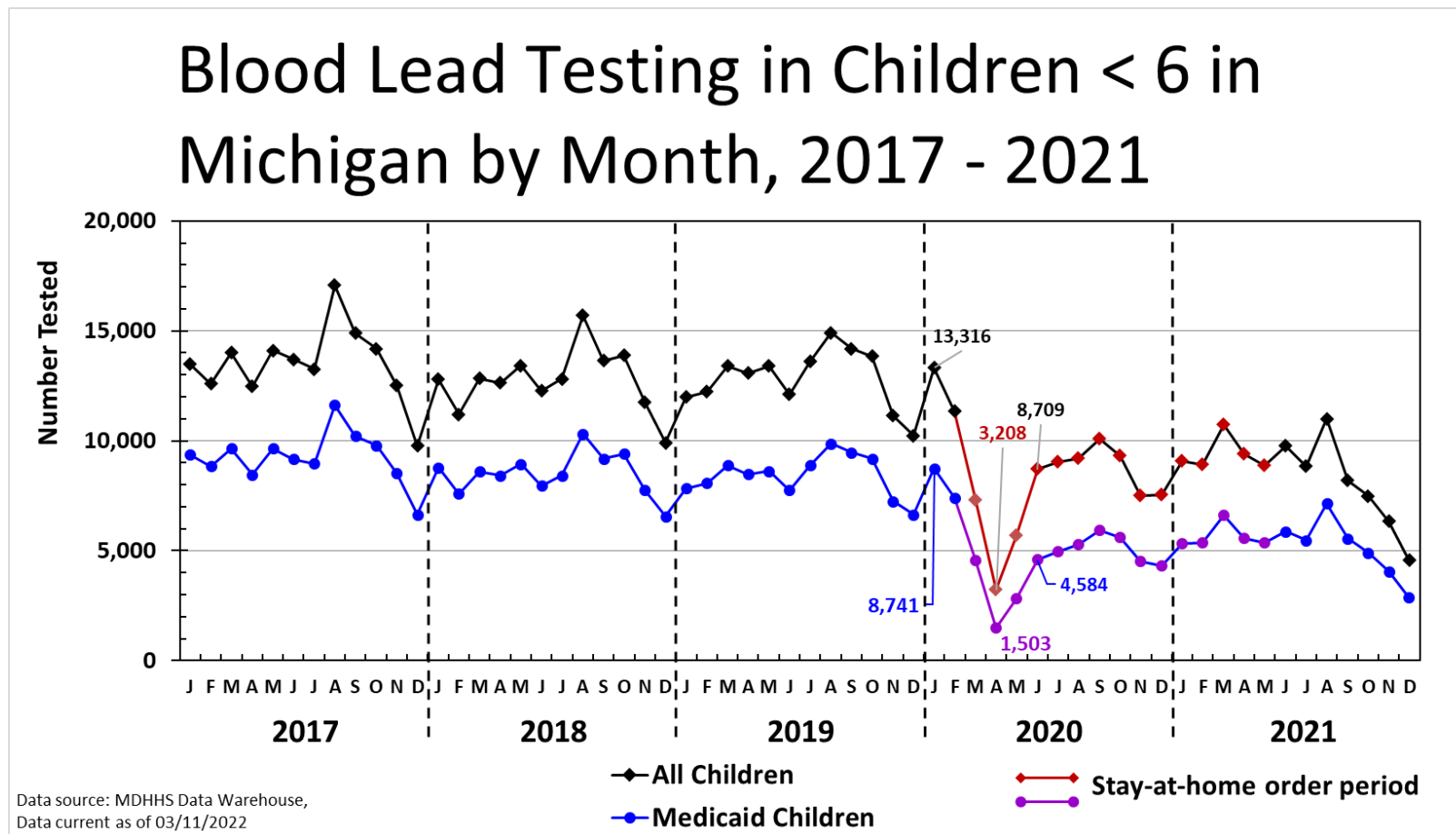


4313314 Vaccine Coverage for children, 19-35 months, January 2011 - January 2022
By Medicaid status



Pandemic Impact on Preventive Health Care: Blood lead testing

- Clinic closures, shortages of staff, testing supplies
 - LeadCare II Test Kit Reagent Recall (November 2020)
- Higher impact in Black, Hispanic/Latinx communities
- Impact
 - 13,316 fell to 3,208 monthly tests;
 - Back to around 9-10K
 - Medicaid disparity continues



Adolescent Behaviors and Experiences Survey – Mental health and well being of high schoolers during COVID-19 Pandemic

- CDC conducted the one-time, online Adolescent Behaviors and Experiences Survey (ABES) during January– June 2021 to assess high school student behaviors and experiences during the COVID-19 pandemic. Highlights:
 - **Substance Use:** 31.6% of students reported current use of any tobacco product, alcohol, or marijuana or current misuse of prescription opioids.
 - **Mental Health:** Overall, 37.1% of students experienced poor mental health during the pandemic. During the 12 months before the survey, 44.2% experienced persistent feelings of sadness or hopelessness, 19.9% had seriously considered attempting suicide, and 9.0% had attempted suicide.
 - **Perceived Racism:** 35.6% reported perceived racism. Perceived racism was highest among Asian (63.9%), Black (55.2%), and multiracial students (54.5%). Students who reported perceived racism had higher prevalence of poor mental health (38.1%); difficulty concentrating, remembering, or making decisions (44.1%); and not feeling close to persons at school (40.7%).
 - **Disruptions in School and Home Life:** Two thirds of students found it more difficult to complete their schoolwork and more than half experienced emotional abuse by a parent or other adult in their home. Students experienced insecurity via parental job loss (29%), personal job loss (22%), and hunger (24%).
- **Findings from ABES during the COVID-19 pandemic can help guide parents, teachers, school administrators, community leaders, clinicians, and public health officials in decision-making for student support and school health programs.**

Thank you

- CDC Covid Data: <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>
- MDHHS data and recommendations: [Michigan.gov/coronavirus](https://www.michigan.gov/coronavirus)
- MDHHS Immunization data:
<https://www.michigan.gov/coronavirus/resources/covid-19-vaccine>
and <https://www.michigan.gov/mdhhs/adult-child-serv/childrenfamilies/immunization>
- MiStartMap Covid Data: <https://www.mistartmap.info/cdc-indicators>
- Lead Data: <https://www.michigan.gov/mileadsafe>