

MICOM: A partnership to improve public health

MICOM is a new CDC-funded center for at the University of Michigan School of Public Health, in partnership with the Michigan Department of Health and Human Services. MICOM provides analytic and communication tools for data-driven decision-making and infectious disease response and prevention.

MICOM supports local, state and federal partners, including health departments, schools, and community groups by providing critical data and communication tools for strategic planning and emergency response. MICOM is one of 13 members of the CDC Insight Network across the US.

What we do



Providing insight that is relevant to your community

MICOM creates tools to provide hyper-local information and models to make local, state, and national data relevant to individual communities. *Example: Vaccination rates in census tracts with high social vulnerability.*



Improving access to real-time information

MICOM assists local, state and community partners in modernizing their data systems to support emergency response. *Example: Building interactive analysis dashboards for local health departments and community organizations.*



Understanding new threats using novel data

By partnering with scientists and experts across the state, MICOM can rapidly develop analytics for novel data and provide rapid information on emerging pathogens. *Example: Validating monitoring for emerging pathogens in wastewater.*



Operational support for emergency response

MICOM is ready to provide trained staff, subject matter experts, and analytic support to state and local jurisdictions in an emergency. *Example: MICOM has supported responses to COVID-19, influenza, and hepatitis A at federal, state and local levels.*

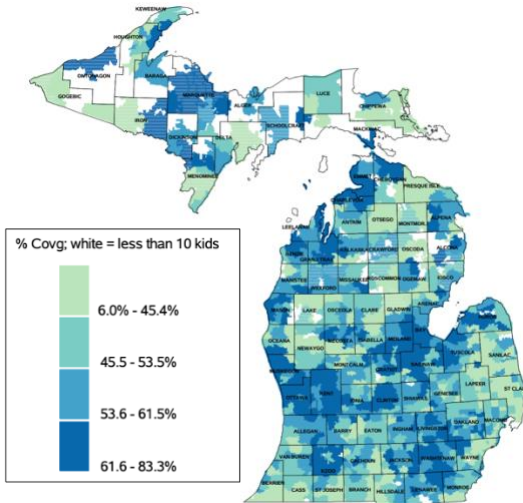
How MICOM Can Support Decision Makers

- Our experienced modeling and analytics team can provide early, local estimates for Michigan communities about developing public health threats.
- Our advisory core includes experts in bacteria, fungi, water, sanitation and hygiene, genomics, clinical infectious diseases, public health response, biostatistics, online communications, pandemic response, and vaccines.
- A Health Equity core provides a focus on reducing disparities across all initiatives.
- We have existing agreements with local, state and federal stakeholders and established participation in national surveillance programs, giving us timely access to information in an emergency.

Examples: Public health threats in Michigan

We can help to generate insights from data for a wide range of public health threats. Here are a few examples of the kinds of areas where we can contribute data analytics, forecasts, and insights.

Childhood Vaccine Coverage (3/2023)



Childhood vaccine coverage in Michigan is at the lowest levels in over a decade

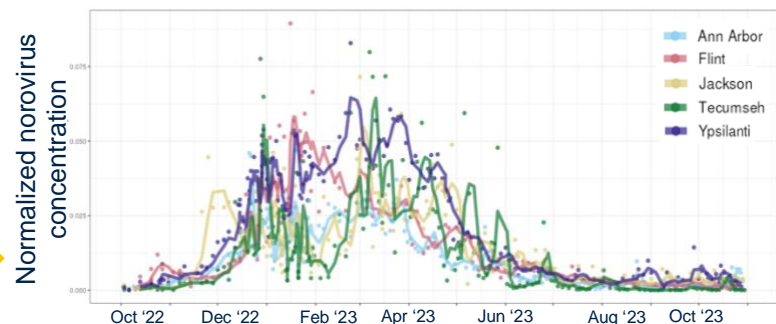
- Childhood vaccination rates have dropped since the pandemic, with more than half of Michigan counties now below 70% coverage.
- Coverage this low puts our communities at higher risk of outbreaks of measles, polio, hepatitis A, and other infectious diseases.
- MICOM developed a vaccine data platform for local health departments, MI Lighthouse, which we are now expanding to childhood vaccines to enable local health departments to better prioritize vaccine clinics.

← 43133142 series coverage by zip code in children 19-35 months. ([Source link](#))

Wastewater monitoring

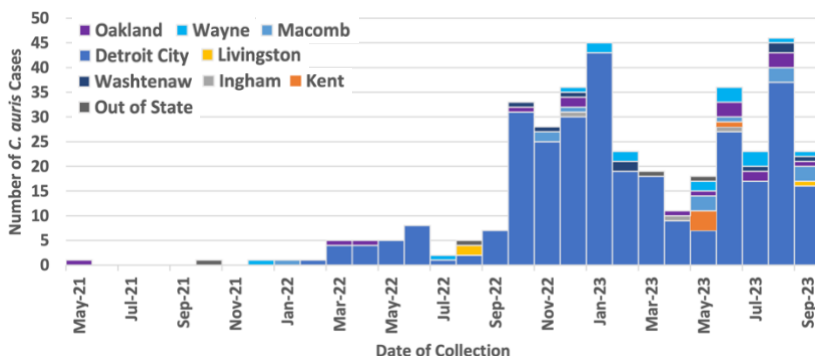
The MICOM wastewater lab tracks a range of pathogens in wastewater from five Southeast Michigan communities, and develops wastewater dashboards and analytics to inform local public health decision making.

Norovirus levels over the past year across five communities. More info at um.wastewatermonitoring.dataepi.org



Candida auris: a drug-resistant healthcare associated infection spreading across Michigan

C. auris is a fungus that is often drug resistant and causes serious infections. Almost 400 cases have been detected in Michigan as of September 2023. As one of our first projects since receiving CDC funding, MICOM is beginning to develop monitoring and prediction tools for *C. auris* based on healthcare facility transfer networks, mobility, and wastewater.



← *C. auris* cases in Michigan were first detected in Oakland, Wayne, Macomb, and Detroit City, but have since been detected in an increasing range of counties (Livingston, Washtenaw, Ingham, and Kent). ([Source link](#))

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