

Michigan Public Health

The Last 50 Years

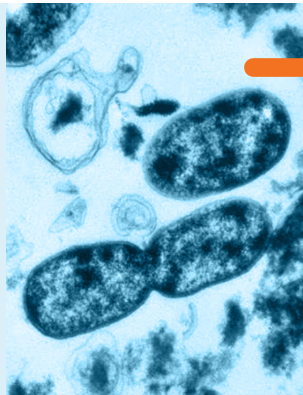
Public health is a complex system that protects citizens from unsafe or hazardous conditions and provides ways to promote good health and prevent disease. This timeline highlights just some of the key milestones, initiatives and progress that have been made in public health over the past five decades in Michigan.

1965 Local Health Departments

New legislation made it mandatory that all Michigan counties establish a local health department.

1968 Pontiac Fever

In coordination with the Oakland County Health Department, the then Michigan Department of Public Health (MDPH) identified a new disease, called Pontiac Fever, now known to be a form of legionellosis.



1974-8 Polybrominated Biphenyls

The Clinical Chemistry Section together with multiple federal partners oversaw human health studies on individuals potentially exposed to polybrominated biphenyls (PBBs) after the inadvertent mix-up of cattle feed and FireMaster (containing PBBs) in 1973. During this time the laboratory analyzed more than 5,000 human specimens for exposure to this chemical.



1970s

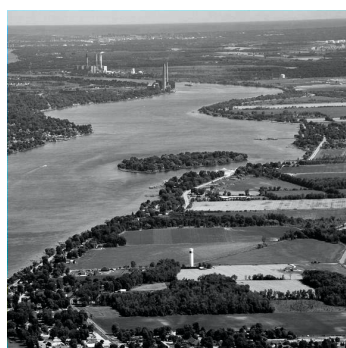
Bureau of Epidemiology and Population Health

Top 10 Leading Causes of Death in the 1970s*

- ① Heart disease
- ② Cancer
- ③ Stroke
- ④ Unintentional injuries
- ⑤ Pneumonia and flu
- ⑥ Diabetes mellitus
- ⑦ Chronic liver disease and cirrhosis
- ⑧ Certain conditions originating in the perinatal period
- ⑨ Emphysema and chronic bronchitis/COPD
- ⑩ Atherosclerosis

1970 Fish Advisory

MDPH, in partnership with the Michigan Department of Natural Resources, issued its first fish consumption advisory for mercury in the St. Clair River.



1976 PBB Study

The *Michigan Long-Term PBB Study* was launched to study possible long-term health effects on those Michigan residents potentially exposed to PBBs in 1973. The cohort established at that time continues to be monitored via a partnership with Emory University.



1978 Public Health Code

Following a long tradition of university-governmental cooperation, the University of Michigan School of Public Health faculty and students helped to create a new Michigan State Public Health Code (Act 368 of 1978), which became a model for other states.

1980s

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- ③ Stroke
- ④ Unintentional injuries
- ⑤ Emphysema and chronic bronchitis/COPD
- ⑥ Pneumonia and flu
- ⑦ Diabetes mellitus
- ⑧ Chronic liver disease and cirrhosis
- ⑨ Atherosclerosis
- ⑩ Suicide



1980s Eat Safe Fish Program

The Environmental Chemistry Section expanded the testing of fish from Michigan waterbodies, including the Great Lakes and inland lakes, for polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs) and mercury. This testing is part of the Eat Safe Fish Program.

1982 New Rabies Vaccine

Developed and licensed a new rabies vaccine - only the second licensed vaccine in the U.S.

1983 Bureau of HIV/STI

HIV Surveillance System implemented.

1987 Michigan Behavioral Risk Factor Surveillance System

The Michigan Behavioral Risk Factor Surveillance System (BRFSS) was established. These surveys act as the only source of state-specific, population-based estimates of the prevalence of various behaviors, medical conditions and preventive health care practices among Michigan adults.

Interesting fact

From 1987 to 2022, Michigan BRFSS completed 226,449 adult interviews, and these survey results are used by public health agencies, academic institutions, non-profit organizations and others to develop and evaluate programs that promote the health of Michigan citizens.

1987 Newborn Screening

Public Act 14 of 1987 mandated expansion of Michigan's Newborn Screening Program panel to add three disorders.

Interesting fact

Through 2021, more than 7.6 million infants have been screened with more than 7,700 diagnosed with one of the 57 disorders on Michigan's newborn screening blood spot panel.



1987 HIV Treatment

AZT (azidothymidine), a lifesaving drug for HIV treatment, was approved by the Food and Drug Administration (FDA).

1987 Michigan Pregnancy Risk Assessment Monitoring System

Michigan was among the first of several states to partner with the Centers for Disease Control and Prevention (CDC) to deploy a new tool - the Michigan Pregnancy Risk Assessment Monitoring System (MI PRAMS) - designed to gain insight into the lives of women before and during pregnancy as well as the first few postpartum months.

Interesting fact

Since the project's inception, approximately 100,000 Michigan mothers have been randomly selected to take the PRAMS survey, with 60,000 choosing to complete the survey and share their stories. Collectively, these survey responders speak for the experience of the more than 4 million Michigan residents who had a pregnancy ending in live birth between 1988 and 2022.

1987 Sickle Cell Disease

Sickle cell disease (SCD) was added to the newborn screening panel. Since then, more than 2,200 people have been identified with SCD and connected to care, leveraging a longstanding collaboration with the Sickle Cell Disease Association of America - Michigan Chapter (SCDAA-MI).

1990s

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Top 10 Leading Causes of Death in the 1990s*

- ① Heart disease
- ② Cancer
- ③ Stroke
- ④ Emphysema and chronic bronchitis/COPD
- ⑤ Unintentional injuries
- ⑥ Pneumonia and flu
- ⑦ Diabetes mellitus
- ⑧ Suicide
- ⑨ Chronic liver disease and cirrhosis
- ⑩ Nephritis, nephrotic syndrome and nephrosis



1990 Ryan White Program

The Ryan White Program was founded, which funded centers of HIV care all around Michigan.

1996 Community Public Health Agency

MDPH became the Community Public Health Agency, and the Department of Mental Health became the Department of Community Health.



1996 PulseNet Program

The U.S. began the PulseNet Program to look at intestinal pathogen outbreaks and surveillance using molecular fingerprinting. Michigan hosted the Midwest Regional Lab where support through testing and expertise has been offered to other states across the region.

1997-8 Michigan Childhood Immunization Registry

Michigan launched the Michigan Childhood Immunization Registry (MCIR) that receives and tracks records from both public and private immunization providers throughout the state.



1999 Laboratory Response Network

The CDC established the Laboratory Response Network (LRN) as a way to respond to chemical and biological threats. During the 2011 anthrax attacks in the U.S., the Bureau of Labs (BOL) demonstrated the capabilities of being part of this system.



Interesting fact

The BOL serves as a Tier 1/Advanced Lab capable of performing the highest level of testing for both biological and chemical threat agents. This testing is provided to assist federal, state and local law enforcement agencies during testing needs of unknown substances, as well as to assist hospitals in identifying and confirming illnesses from high consequence or threat agents.

2000s

Bureau of Epidemiology and Population Health

Top 10 Leading Causes of Death in the 2000s*

- | | |
|---|---|
| ① Heart disease | ⑥ Diabetes mellitus |
| ② Cancer | ⑦ Alzheimer's disease |
| ③ Stroke | ⑧ Pneumonia and flu |
| ④ Emphysema and chronic bronchitis/COPD | ⑨ Nephritis, nephrotic syndrome and nephrosis |
| ⑤ Unintentional injuries | ⑩ Suicide |

2000 Surge-Capacity Lab

The Clinical Chemistry Section was designated by the CDC as one of 10 public health laboratories to be a surge-capacity laboratory for chemical threats.

2000 Bovine Tuberculosis

MDCH conducted intensive surveillance for bovine tuberculosis among people in Michigan and the risks for exposure to the disease in cattle, deer and other wildlife within the northeastern counties of Michigan.

Early 2000s Eat Safe Fish Program

The Eat Safe Fish Program expanded to include polybrominated diphenyl ethers (PDBEs).

Interesting fact

As of 2023, between 1,000 and 1,500 fish per year are analyzed for these chemicals and more.

2001 Terrorist Threats

MDCH staff were active participants in responding to the 2001 terrorist attacks, coordinating efforts and responses with local health departments, state police and federal agencies.

2002 Childhood Immunizations

In 1994, only 61% of Michigan's 2-year-olds had completed their childhood immunizations – the lowest in the nation. By 2002 that had risen to 81.6%. Michigan was sixth highest in the nation, due to a tremendous effort by health professionals, parent groups and politicians all across the state and tools such as the MCIR.

2002 Public Health Emergency Response

Michigan's Public Health Emergency Preparedness Program (PHEP), joined by the Hospital Preparedness Program (HPP), were established to take the existing pieces of the public health emergency response structure and merge them into a cohesive foundation.

2002 VRSA

BOL identified the first Vancomycin Resistant Staphylococcus aureus (VRSA) in the country.

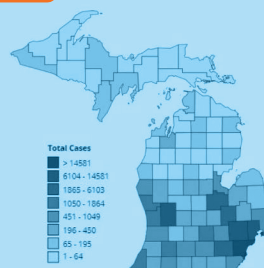


2003 Tuberculosis Genotyping

Michigan and California split a national contract for tuberculosis (TB) genotyping for the U.S. That contract lasted until 2017 when the BOL became the National Tuberculosis Molecular Surveillance Center where whole genome sequencing support is provided on all isolates of TB in the U.S.

2003 SARS Outbreak

MDCH coordinated with CDC's Border Health unit on surveillance for Severe Acute Respiratory Syndrome (SARS) due to the large outbreak across the border in Toronto during spring 2003 and the large number of health care workers that commuted between Ontario and southeast Michigan.



2004-5 Disease Surveillance Systems

Michigan introduced the Michigan Disease Surveillance System (MDSS) and the Michigan Syndromic Surveillance System (MSSS) to speed identification of reportable diseases and potential outbreaks.

2005 HIV Monitoring

All HIV labs became reportable to public health to monitor health of those with HIV over time.

2005 Bureau of HIV/STI

Very early instances of drug-resistant gonorrhea were published by Michigan's BOL and public health departments.

2010s

Bureau of Epidemiology and Population Health

Top 10 Leading Causes of Death in the 2010s*

- ① Heart disease
- ② Cancer
- ③ Emphysema and chronic bronchitis/COPD
- ④ Stroke
- ⑤ Unintentional injuries
- ⑥ Alzheimer's disease
- ⑦ Diabetes mellitus
- ⑧ Nephritis, nephrotic syndrome and nephrosis
- ⑨ Pneumonia and flu
- ⑩ Suicide



2010s Eat Safe Fish Program

The Eat Safe Fish Program expanded to include per- and polyfluoroalkyl substances (PFAS).

2011 Newborn Screening

Newborn Screening began screening for severe combined immunodeficiency (SCID). These are a group of rare disorders caused by mutation in different genes that help to fight infections.

2012 PFOS Fish Advisory

The Michigan Department of Community Health issued one of the first PFOS fish consumption advisories in the nation.

2015 MDHHS

The Community Public Health Agency/Department of Community Health and the Department of Human Services became the Michigan Department of Health and Human Services.

2015 Influenza

The flu strain A included in the vaccine for multiple years was first isolated from a Michigan sample through a BOL partnership with the University of Michigan as part of the international Human Influenza project called HIVE.

2015 Healthy Families Upper Peninsula

Healthy Families Upper Peninsula, as part of Healthy Families America, began serving families with home visiting services to strengthen families and prevent child abuse and neglect. All six U.P. health departments partnered in this effort.

2017 Hepatitis A Outbreak

MDHHS worked with CDC and local health departments to respond to a national hepatitis A outbreak among homeless populations in Michigan.



2017 Newborn Screening

Newborn Screening began screening for a group of disorders called lysosomal storage disorders (LSD).

2017 Bureau of Epidemiology and Population Health

The Public Act 479 of 2016 was signed into law making maternal death reporting in Michigan a mandatory process for the purpose of capturing all maternal deaths that occur in the state. This law improved the quality of maternal death data and brought awareness to the importance of preventing death among women during or within one year of pregnancy.

2018 HIV Laws

Michigan modernized HIV laws including laws related to HIV testing, criminalization and reporting.

2018 Zika Testing

The BOL Virology section was designated as one of four National Zika Confirmatory Testing Reference Centers.



2018 Infectious Disease Training

Division of Infectious Disease introduced "Lab 101" courses for local health departments.

2018 PFAS Testing

Analytical Chemistry in the BOL developed an isotope dilution method for testing PFAS in water and serum.

2020s

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Top 10 Leading Causes of Death in the 2020s*

- ① Heart disease
- ② Cancer
- ③ COVID-19
- ④ Unintentional injuries
- ⑤ Emphysema and chronic bronchitis/COPD
- ⑥ Stroke
- ⑦ Alzheimer's disease
- ⑧ Diabetes mellitus
- ⑨ Nephritis, nephrotic syndrome and nephrosis
- ⑩ Chronic liver disease and cirrhosis

2020 COVID-19 Testing

BOL was the first laboratory in Michigan to test for COVID-19 and assist hospital and commercial labs with onboarding testing.



Interesting fact

The BOL performed more than 25,000 whole genome sequences and more than 100,000 samples during just one year of the pandemic. It shipped more than 18.5 million total viral transport media tubes and swabs from the warehouse to clinicians and sites across the state.

2020 Genetic Sequencing

The Division of Infectious Disease established a new Bioinformatic section for the computational analysis of genetic sequencing to assist state and local communities by providing rapid outbreak and surveillance data for emerging and evolving disease threats.

2020 HIV Ending the Epidemic

Wayne County including the City of Detroit was named as one of 48 U.S. counties that contributed to more than 50% of HIV diagnoses that occurred in 2016 and 2017, and received funding for the federal HIV Ending the Epidemic to reduce HIV cases by 90% by 2030.

2020 Michigan COVID-19 Recovery Surveillance Study

The University of Michigan MI CReSS study started to examine Michiganders' experiences with COVID-19.



2021 BOL Expansion

The BOL began its facility expansion.

2021 Hepatitis C

BOL became a National Hepatitis C Virus NAT Reference Center.

2021 Michigan Cancer and Research on the Environment Study

MI CARES study launched to examine cancer risk from environmental exposures.



2022 Sickle Cell Disease

Public Act 0166 Section 1990 appropriated \$2,500,000 to allocate to the SCDA-MI for a Sickle Cell Center of Excellence.

2020-3 COVID-19 Pandemic

MDHHS implemented the largest case investigation, contact tracing and vaccination programs in its 150-year history in response to the COVID-19 pandemic.



** Constraints of the Death Record data: It is important to note that over time, coding structures have changed as well as classification schemes, so the data from decade to decade cannot be compared exactly. However, this is our best representation of the data given the constraints of our historical recordings.*