Climate Change in Michigan and the Public Health Response

Prepared by the Michigan Climate and Health Adaptation Program (MICHAP)

This fact sheet highlights some of the major ways that Michigan's climate is changing, shows how those changes might affect human health, and outlines how MICHAP is working to prepare the public health system to adapt.

The climate is changing in the Great Lakes Region

Between 1951 and 2017:

The average annual temperature has increased by 2.3 °F.

The total annual precipitation (snow, ice, rain) has increased by 14%.

Source: GLISA, 2019, glisa.umich.edu/climate-change-in-the-great-lakes-region-references/

How can climate change harm health?

Increasing temperatures and rising amounts of precipitation can affect human health in different ways.

Heat Harm: Heat strains the heart and lungs and can increase the risk of dying for people with cardiovascular disease. Heat can worsen air quality, which increases the risk of respiratory illness.

Spread of Disease: Warmer winters and more frost-free days allow disease-carrying insects and rodents to survive and expand their range.

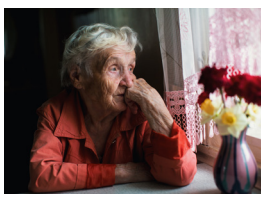
Threats to Water Quality: More frequent heavy rain events can increase flooding and stress the infrastructure that provides safe drinking water. Warming water temperatures, fertilizer runoff and sewer overflows pollute rivers and lakes, and can cause harmful algal blooms.

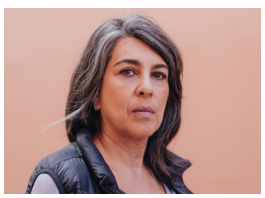
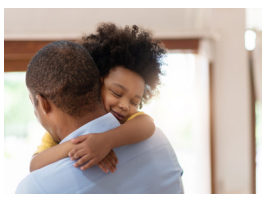
Disruptions to Well-Being: Living through natural disasters can cause both short-term and long-term impacts on mental health. Uncertainty about the future can cause anxiety and depression.

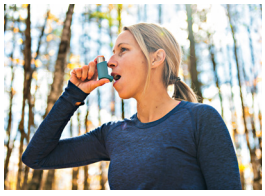
Who is most likely to be harmed by climate change?

Impacts from climate change can affect the health of anyone in our community, but some groups of people are at greater risk. The people most likely to be harmed are:

- Children
- Outdoor workers
- Pregnant people
- Older adults
- People with chronic illnesses and allergies
- People who are disabled
- People living in poverty

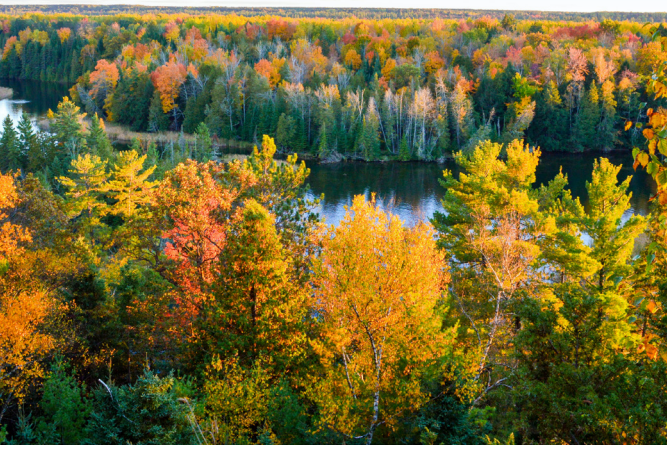





MICHAP supports the development of a public health system that is ready to deal with climate change.

Our Mission

MICHAP is building the capacity of Michigan's public health system by *investigating* climate-driven health risks, *identifying* needs for improving climate-related decision making across sectors, and collaboratively *implementing* climate adaptation strategies.



MICHAP supports a public health system that is ready for climate change by:

Providing technical assistance: MICHAP develops and provides training and tools to local public health departments and others on how communities can adapt to climate change and protect health.

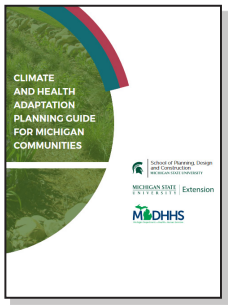
Researching health disparities: MICHAP tracks and analyzes how climate change affects vulnerable and underserved populations.

Monitoring and evaluating interventions: MICHAP carries out evaluations that inform how to improve health services and research, such as tick and mosquito surveillance at local health departments.

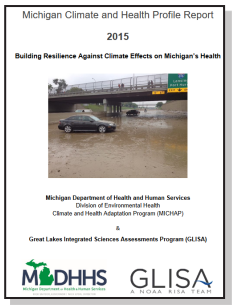
Supporting Health-in-All policies (HiAP) to implement climate action to protect health: HiAP is an approach that considers policymaking across sectors to improve health for all. Examples include municipal planning that considers climate and health in Detroit, Marquette and Kalamazoo.

Working with partners and communities to strengthen emergency preparedness: MICHAP develops health education materials to help Michiganders prepare for climate change and coordinates with state partners to improve emergency response.

For more information:



The Climate and Health Adaptation Guide for Michigan Communities (URL: bit.ly/ClimateHealthAdaptation) created with the Michigan State University School of Planning, Design and Construction.



The Michigan Climate and Health Profile Report (URL: bit.ly/GLISA-ClimateHealthProfile), created with Great Lakes Integrated Sciences Assessments Program (GLISA).

Questions about our program? Call 1-800-648-6942

Visit the MICHAP website at Michigan.gov/ClimateandHealth for fact sheets, tools and other information.

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