



Climate Action for Health Equity in Detroit:

Updates and Suggestions for Decision Makers and Residents

The M-LEEaD Center's Community Engagement Core (CEC) increases awareness and understanding of environmental health research.

Stakeholder Advocacy Board members include:

- Community Health and Social Services
- Detroit Health Department
- Detroit Hispanic Development Corporation
- Detroiters Working for Environmental Justice
- Eastside Community Network
- Ecology Center
- Green Door Initiative
- Henry Ford Health System
- MDHHS
- Michigan Environmental Justice Coalition
- Sierra Club
- We the People of Detroit

Alison Walding
Project Manager
Community Engagement Core
walison@umich.edu

How does climate change affect health equity in Detroit?

Climate change affects all of us. Some communities experience greater impacts than others. Addressing the impacts for those who are most affected by climate change is crucial for achieving health equity and climate justice.

Here are some ways climate change impacts Detroit residents:



As **heatwaves** become more common, people without access to air conditioning are at risk of heat-related illness and death. This is especially true for older adults, people with chronic conditions, and people who work outdoors. ^{6 13}



As **extreme precipitation** becomes more frequent, the risk of flooding, flood-related illness, stress and death increases. Flooding in the U.S. is more likely to affect low-income communities and communities of color. ^{6 7}



As **temperatures** increase, air pollution gets worse. Many low-income communities and communities of color are in areas with high levels of air pollution. They already experience high rates of asthma, heart disease, and other chronic diseases. These conditions will get worse with increased air pollution. ^{6 8}



Extreme weather events can create major issues with transportation, food access, and power outages. Detroit communities already struggling with limited access to these services are likely to be hardest hit. ^{9 10 11 12}





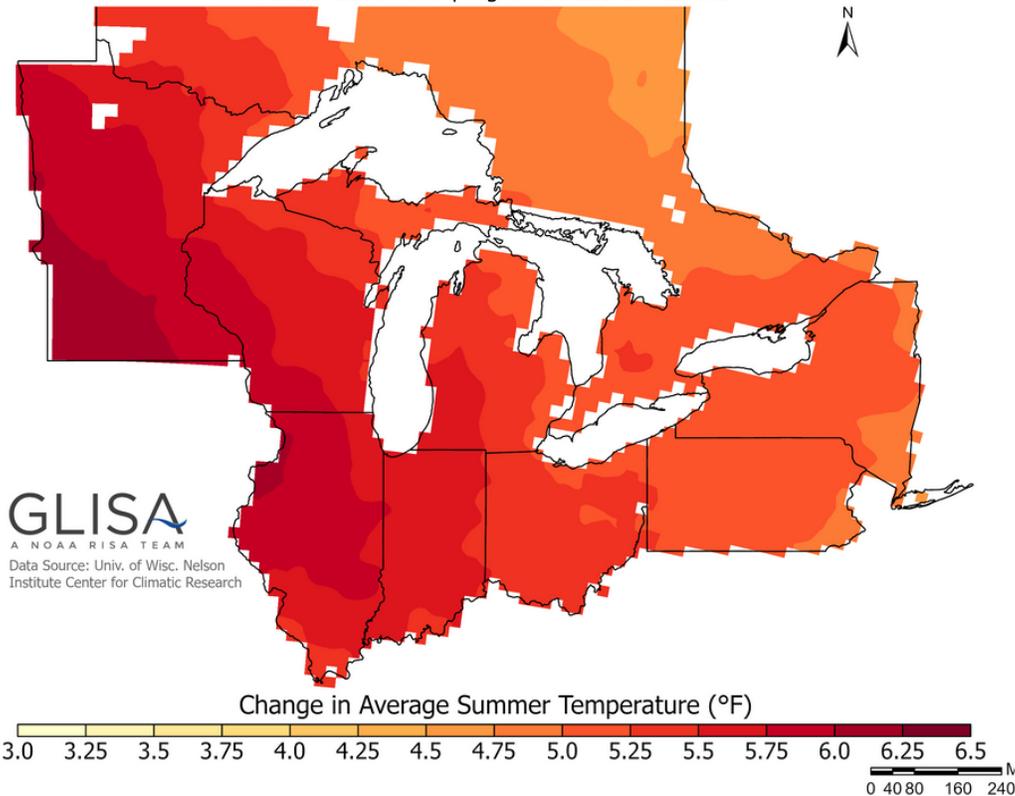
How is Climate Change Impacting the Great Lakes Region?

Temperatures are rising globally. In Michigan, this means:

- Heat waves are more frequent. In the next 50 years, summers in Michigan may feel like current-day Arkansas. Detroit could experience as many as 65 days per summer with high temperatures above 90°F, a large increase over the current average of just 13 days per summer.^{1 2}
- Extreme rainfall events are more frequent, especially in winter and spring. Frequency and intensity of severe storms will likely continue to increase.^{1 2}
- Alongside these extreme events, it may be drier overall with increasing periods of drought.³

Projected Change in Average Summer Temperature by Mid-Century

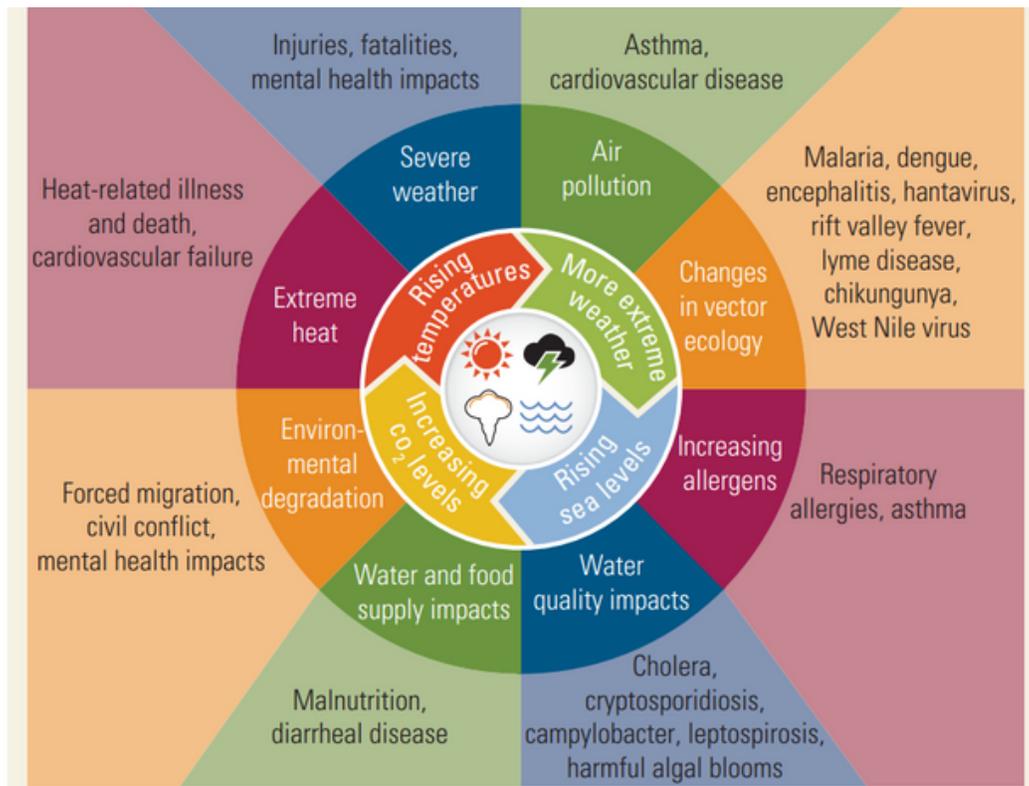
Period: 2040-2059 | Higher Emissions: RCP 8.5



Michigan summers could be about 5.0°F warmer by 2050.¹⁴

What health impacts of climate change can we expect?

Health risks are projected to increase this century under all future emissions scenarios (predicted amount of greenhouse gases).⁵



Patel, V., D. Chisholm., T. Dua, R. Laxminarayan, and M. E. Medina-Mora, editors. 2015. Mental, Neurological, and Substance Use Disorders. Disease Control Priorities, third edition, volume 4. Washington, DC: World Bank. doi:10.1596/978-1-4648-0426-7. License: Creative Commons Attribution CC BY 3.0 IGO

What can residents and decision makers do?

- Learn about climate change and its health risks. Encourage people to take action to reduce harmful effects of climate change.
- Encourage people to take action to reduce adverse effects of climate change. This includes plans to assure protections for those who are most vulnerable.
- Increase monitoring of climate-related health outcomes, such as heat-related hospital stays, injury or death from extreme weather events, and asthma-related outcomes and have a plan for responding to any increases.
- Decision makers should work closely with planners and public health professionals to assess health impacts of land use decisions that may affect urban heat islands, air quality, and storm water management. They should incorporate results into land use decisions to protect public health.

Please see http://mleead.umich.edu/Coec_Fact_Sheets.php for the citations included in this factsheet.

The University of Michigan Lifestage Environmental Exposures and Disease Center (M-LEEaD) Community Engagement Core (CEC) promotes collaboration among UM environmental health researchers and communities to advance knowledge of environmental health issues that affect community members in Detroit and Southeast Michigan.

Support for this research was provided by grant P30ES017885 from the National Institute of Environmental Health Sciences, National Institutes of Health.