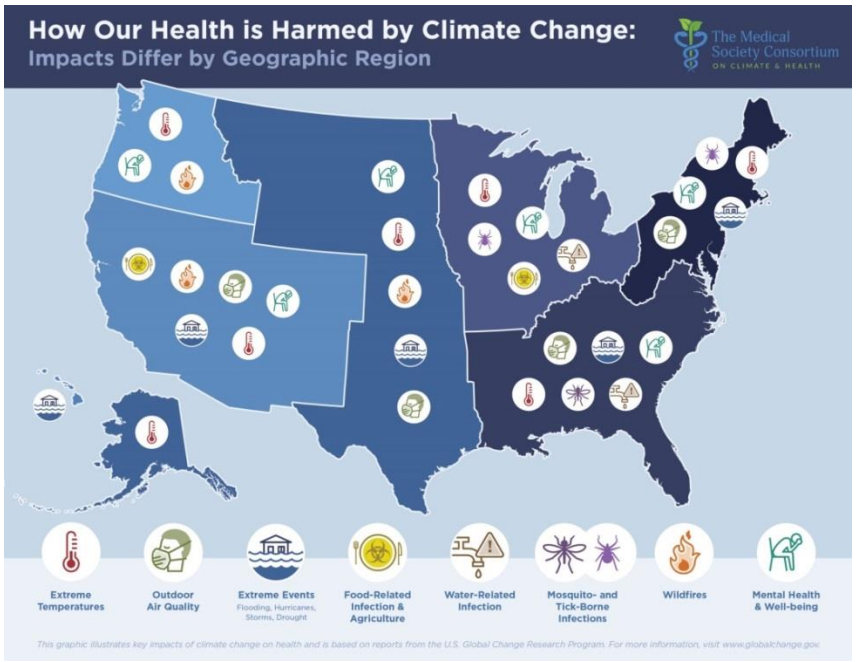
How Will Climate Change Affect Health in the Midwest Region of the United States?

Minnesota, Wisconsin, Michigan, Iowa, Illinois, Indiana, Ohio, and Missouri



Climate change is real and largely caused by humans.[1]

- How do we know? The global average surface temperature has warmed about 1.87 degrees F (1.04 degrees C) since 1880, while the oceans have warmed and become more acidic, land and sea ice has melted, and sea levels have risen. These changes are primarily caused by rising levels of atmospheric carbon dioxide released by fossil fuel combustion and other forms of heat-trapping pollution. Naturally occurring long-term climate cycles have actually helped to limit the warming during this period.

Climate change is bad for us and our community in a number of ways.

- In the **Midwest** region, **climate change is contributing to extreme temperatures, water-related infection, food-related infection and agriculture problems, tick-borne infections and worse mental health and well-being.**[2,3] Pollen season is coming 2-4 weeks earlier, reducing air quality. These effects pose direct and indirect threats to human health and the elderly, children, the poor, and the chronically ill are particularly vulnerable.

We need to act now to protect the health of our community's most vulnerable members — including our children, our seniors, people with chronic illnesses, and the poor — because our climate is already changing, and people are already being harmed.

- Physicians, both individually and collectively, are encouraged to advocate for climate change adaptation and mitigation policies. Moving to clean renewable energy sources will leave our air and our water cleaner, creating nearly immediate health benefits and helping to limit climate change.
- Physicians and the health care sector should be part of the solution, not only by speaking out, but also by implementing environmentally sustainable and energy-efficient practices.

Taking action creates a "win-win" situation for us because, in addition to dealing with climate change, most of these actions will benefit our health too.

- The Lancet Commission report on Health and Climate Change states that "tackling climate change could be the greatest global health opportunity of the 21st century."[4]
- For example, switching from dirty fossil fuel-generated electricity to clean energy sources will reduce air pollution and lower rates of respiratory and cardiovascular illness that are exacerbated by air pollution.
- Using active transportation like walking or cycling to make short trips can improve cardiovascular health.
- Planting trees and installing green roofs reduces the urban heat island effect, lessening heat-related illness risk.
- Eating less meat and more locally grown fruits and vegetables reduces carbon pollution and promotes better cardiovascular health.

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[1] Headings in bold from Maibach E, Nisbet M, Weathers M. (2011) Conveying the Human Implications of Climate Change: A Climate Change Communication Primer for Public Health Professionals. Fairfax, VA: George Mason University Center for Climate Change Communication.

[2] Sarfaty M, Gould RJ, Maibach E. Medical Alert! Climate Change is Harming Our Health. Medical Society Consortium on Climate & Health. 2017. Accessed at https://medsocietiesforclimatehealth.org/wp-content/uploads/2017/03/medical_alert.pdf Accessed at https://health2016.globalchange.gov/

[3] U.S. Global Change Research Program. The Impacts of Climate Change on Human Health in the United States. 2016. Accessed at

[4] Watts N et al. Health and climate change: policy responses to protect public health. *Lancet.* 2015. Vol. 386, No. 10006, p1861–1914.