

Maryland Health Professionals for a Healthy Climate



Climate Change is Dangerous to Our Health: A Maryland Overview

Climate change is impacting our health here and now. Harmful effects aggravated by climate change include: increases in heart and lung disease, adverse pregnancy outcomes, heat-related illness, infectious disease, food-borne illness, and mental health issues. Additionally, access to care can be disrupted during increasingly frequent severe weather events and power outages.

CLIMATE IMPACTS & VULNERABILITIES IN MARYLAND:



More than **3,000 miles** of coastline

4th most vulnerable state to sea level rise



Especially increased risks from **heat, precipitation, and drought** over the next 30 years



3.2 degrees warmer in 2021 than 1970
By 2050: On track for **~50 days/year** with **105+ degree heat index**

Maryland has a diverse geography from its ocean shore to the mountains of Western Maryland, all of which have specific vulnerabilities to climate change. There are densely populated cities where people experience urban heat island effect, and a robust agricultural sector responding to changes in the growing season and temperature extremes. Baltimore is experiencing increased sewage overflows during and after storms and severe flooding is anticipated across city centers.

The main contributor to climate change is the burning of fossil fuels for energy, transportation, and industry. **Burning fossil fuels increases health hazards** through climate instability and the pollution it generates. Pollutants like ozone and PM2.5 degrade air quality, contributing to a range of health problems. Marylanders experience local air pollution near fossil fuel burning facilities, as well as **the impacts of wildfire smoke** that may have traveled long distances. Long-term exposure to particulate matter is a risk factor for heart disease, the leading cause of death in the United States ([EPA](#)).

Fortunately, Maryland is leading the way in climate solutions. We have the most ambitious greenhouse gas emissions reduction goals in the nation (60% by 2031), Governor Moore has committed to 100% clean energy generation by 2035, new laws make solar and wind energy more available, and stronger regulations in the transportation sector will reduce fossil fuel pollution.

GET INVOLVED!

Maryland health professionals have a unique opportunity to help advocate for policies to address the climate crisis and make our communities safer.

Many health groups have declared climate change a health emergency, including:

- American Academy of Pediatrics
- American College of Physicians
- American Medical Association
- American Public Health Association

A coalition of health professionals across Maryland is working to educate the public and support stronger policies. We need you.

Learn more at marylandclimateaction.com/climate-action-for-health-professionals

VULNERABLE POPULATIONS

While climate change creates risk for all Marylanders, certain populations are disproportionately impacted due to unequal exposure and their limited ability to respond to climate risks. These include children, older adults, [pregnant people](#), communities of color, low-wealth communities, people with disabilities and chronic health conditions, and those living in climate-sensitive geographies, such as rural, coastal, and flood-prone areas. Some of these vulnerabilities are due to unequal social structures and disparate access to opportunity. The following examples illustrate the disproportionate impacts climate change has on the health of certain populations.



All children deserve and need a safe and healthy environment to grow and develop. They need clean air to breathe, safe water to drink, nutritious food to eat, and healthy places to live, learn, and play. This is also true for pregnant people, as the additional stress on their body can make them more susceptible to climate-related impacts and affect birth outcomes.

Infants and children are especially vulnerable to environmental exposures because they breathe, eat, and drink more, in proportion to their body size, than do adults, and because their bodies and brains are still developing.

The following are specific climate-related hazards for children:

- Maryland kids miss school, and their caregivers miss work, on high heat days and from asthma exacerbations due to [poor outdoor air quality](#), including high concentrations of ground-level ozone. Approximately [53% of Maryland children](#) live in counties where ozone pollution is not monitored, or for which there are less than three years of data.
- Infants, toddlers, and young children are more susceptible to extreme heat due to [immature and less effective thermoregulation](#).
- High heat and increased air pollution [contribute to adverse birth outcomes](#), including preterm birth, low birthweight, and stillbirth.
- Climate change can disrupt familial and community stability, leading to increased mental health stresses with reduced access to care and a diminished sense of security and safety.
- Pregnant and postpartum women face [increased risk of PTSD and mental health effects](#) following harmful climate events.
- Infrastructure disruption can limit access to clean water and lead to infectious diseases due to sewage contamination of drinking water.
- A warming climate can [expand the range and prolong the persistence of disease-carrying vectors](#), such as the ticks that spread Lyme disease or mosquitoes that carry malaria and the Zika virus that impacts unborn children.



Persons with Disabilities and/or Chronic Health Conditions

Residents of our communities deal with a wide variety of visible and invisible disabilities and chronic health conditions. Some of the climate-related challenges they face are:

- Persons with visual, hearing, or cognitive disabilities may have [greater challenges in getting the information they need](#) about extreme weather events and safety resources.
- Some persons with disabilities find it [difficult to access cooling centers](#) and shelters, and those facilities may have difficulty in meeting their needs.
- Persons with mental health issues such as paranoia or anxiety disorders may find [going to a shelter difficult or impossible](#).
- Persons who take some psychotropic medications are [more vulnerable to heat stroke](#) and other heat-related illnesses when experiencing excessive heat.

Certain populations are disproportionately impacted due to unequal exposure and their limited ability to respond to climate risks.

Maryland employs approximately [350,000 agricultural workers](#) and [20,000 people in construction](#) across the state. Those that work in these and other outdoor professions are at a particular risk from increasing temperatures. This is especially true because there are not strong regulations or worker standards on heat to protect them.

Indoor air quality in office buildings and warehouses are also impacted by outdoor air quality and temperatures.

Climate-related impacts include:

- Farm workers are [20 times as likely](#) as other workers to die from heat stress.
- Workers of color, especially Hispanic workers, are disproportionately vulnerable to extreme heat. Hispanic individuals have accounted for [one-third of heat fatalities](#) since 2010, despite only representing approximately 17% of the U.S. workforce.
- Outdoor workers are more exposed to outdoor air pollutants like ozone, smoke, and carbon dioxide, leaving them at [greater risk of respiratory illness](#).



Workers



Climate change poses disproportionate impacts on marginalized communities, including people of color, exacerbating existing inequalities. These communities face unique challenges stemming from systemic factors including environmental and socioeconomic disparities, which increases their vulnerability to climate change.

- African-American and low-income communities in Maryland are [more likely to live in close proximity to industrial sources of air pollution](#), and experience [increased cancer risk, asthma, and cardiovascular disease](#) because of exposure to pollutants.

- Hispanic and African-American Marylanders are exposed to [over 10% greater concentrations of Particulate Matter 2.5 from transportation-related emissions](#) than the state average.
- [Urban flooding](#) is most harmful to minorities, low-income residents and those without access to disaster preparedness resources, and can [increase exposures to mold](#).

ADDRESSING HEALTH IMPACTS FROM CLIMATE CHANGE

We all can play a role in supporting the systemic changes needed to prevent and mitigate climate impacts on all Marylanders, particularly through policy. We can take steps to:



Raise awareness and encourage local officials to support policies that are committed to addressing environmental and health inequities.



Preserve and create green spaces to restore local ecosystems and get connected with your community.



Support sustainable and active modes of transportation like biking, walking, and public transportation.



Engage in advocacy that supports individuals who have been historically left out of climate solutions.



Promote the use of renewable energy and energy efficiency in your community.

The following organizations contributed to this fact sheet:

