Maryland Responds to the Health Impacts of Climate Change

How changes in weather could affect your health

As our climate changes, scientists predict that extreme weather events will become more common, more severe and longer lasting, which may erode recent progress Maryland has made on air quality. We are already seeing some of these changes and they are having an effect on human health, directly and indirectly.

- Hotter weather and extended heat waves mean a greater risk of health-related events, such as heat stroke, dehydration and heart attacks.

- An earlier start of spring means a longer pollen season, while wetter weather may increase mold levels in homes. Both of these negatively impact people suffering from allergies.

- More storms may damage infrastructure and reduce healthy living conditions directly (contaminating groundwater supplies) or indirectly (loss of adequate housing in coastal communities).

- More snow and ice events and heavy rains in the fall and winter may increase risk of injuries and motor vehicle accidents.

WHAT IS MARYLAND DOING TO RESPOND TO THESE IMPACTS?

With grant support from the U.S. Centers for Disease Control and Prevention, the Maryland Department of Health and the Maryland Commission on Climate Change are working closely with vulnerable communities, as well as federal, state and local agencies to assess and prepare for the impacts of climate change on public health. Certain communities may be more vulnerable to climate change because of their location or lack of resources.

Under the Clean Air Act, the Maryland Department of the Environment is charged to protect public health from air pollution. Over the past five years, Maryland's air quality has improved significantly.[1] Climate change will add new challenges to this effort.

1 http://mde.maryland.gov/programs/Air/Documents/MDCleanAirProgress2017.pdf

HOW WILL THIS AFFECT YOU?

- Air pollution can get worse with higher temperatures, one of the impacts of climate change.

- Increased greenhouse gases contribute to climate change and can increase air pollution and respiratory problems.

- Weather can affect your health directly (for example, heat stroke, heart attack, sunburn or slipping on wet pavement) or indirectly (higher temperatures leads to more ozone, which can worsen asthma).

- While it is hard to predict exactly how a changing climate will affect your family's health, we know that changes in Maryland's climate will probably be worse for people with pre-existing medical conditions (such as allergies and asthma) or groups who are otherwise vulnerable like children, seniors or the poor.

- Vector-borne diseases — such as Lyme Disease from ticks, and encephalitis and West Nile from mosquitoes — may increase, due to longer, higher temperatures and increased precipitation associated with climate change.
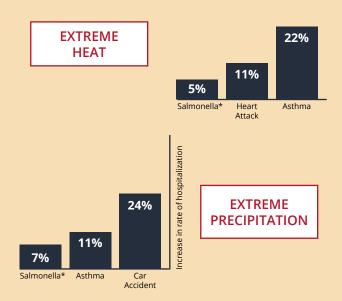
Maryland's balanced approach to climate change includes improvements to the economy, new and retained jobs and continued progress in reducing greenhouse gas emissions.

WHAT IS THE STATE OF HEALTH AND CLIMATE IN MARYLAND?

Maryland is already experiencing impacts to human health due to climate change.
In 2016, the Maryland Department of Health and the University of Maryland - School of Public Health developed the *Maryland Climate and Health Profile Report*. The following information from the report is based on data and predictions from multiple sources in Maryland.

EXTREME WEATHER EVENTS: MARYLAND 2000-2012

EXTREME HEAT

	5%	11%	22%
	Salmonella*	Heart Attack	Asthma

Increase in rate of hospitalization

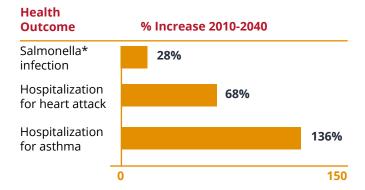| 7%	11%	24%	
Salmonella*	Asthma	Car Accident	

EXTREME PRECIPITATION

Realized change between 2000 and 2012 in negative health outcomes for exposure to extreme weather events in Maryland during summer months.

Based on hospitalization data for Maryland during 2000-2012: Summertime extreme heat and precipitation events increased the rate of hospitalization for asthma in Maryland by 22% and 11%, respectively.

In Baltimore City, exposure to extreme heat events increased risk of hospitalization for asthma by 37% during summer months.

*Incidence of salmonella associated with extreme weather events for coastal communities only.

Projected change in negative health outcomes by 2040 during extreme heat events in Maryland during summer months: [2]

Health Outcome	% Increase 2010-2040
Salmonella* infection	28%
Hospitalization for heart attack	68%
Hospitalization for asthma	136%

0 — 150

Asthma can be related to extreme heat events. By 2040, Maryland will likely see more than a 136% increase in hospitalization for asthma.[2]

WHAT CAN YOU DO TO PROTECT YOUR HEALTH?

- Create an emergency plan and evacuation route for you and your family, including plans for family members with specific health needs; prepare an emergency supply kit.
- Check for updates during extreme weather (snow, ice, flooding) before traveling at: mema.maryland.gov.
- During hotter weather, check on vulnerable neighbors and family members and follow health department recommendations to prevent dehydration and heat stroke.
- Know where the cooling centers are in your area, so you can access relief during heat waves.
- Check the Air Quality Index (bit.ly/2tr1xqE) to ensure time outdoors is safe for vulnerable populations.
- Learn more by reviewing the Maryland Climate and Health Profile Report at: https://bit.ly/mdclimateresources.

For more information, including meeting calendars and contact information, please visit the Maryland Commission on Climate Change website at: www.mde.maryland.gov/mccc

MARYLAND COMMISSION ON **CLIMATE CHANGE**