

Environmental health is a component of public health that focuses on the relationship between humans and their natural and built environments and climate change is a serious threat to both human and environmental health.<sup>1</sup> Rising temperatures associated with climate change lead to more frequent heat waves that increase the risk of stroke, dehydration, respiratory illnesses, and cardiovascular illnesses.<sup>2</sup> Extreme weather is another negative consequence of climate change that impacts health. These changes in weather patterns contribute to major environmental effects like heat waves, but also result in wildfires, increased flooding, and storms that cause damage to natural and physical environments, including human-caused climate change that is melting and shrinking glacier ice much sooner than projected – threatening the death and extinction of some animal life that depend on these environments. Severe and unusual changes in temperature and weather also physically threaten and cause damage to infrastructure and personal property. Furthermore, rising temperatures and extreme weather directly affects air-quality, contaminates our water and food supply, and increases the risk of vector-borne diseases (e.g. Lyme Disease, Malaria, Zika Virus, West Nile Virus).<sup>2</sup>

## Climate Change and Public Health

Climate change exacerbates local and global inequities that burden populations who are at higher risk including those with pre-existing health conditions, low-income communities, communities of color, Native and Tribal communities, pregnant women, young children, and older adults.<sup>2</sup> For example, these populations are more likely to be affected by poor air quality that causes respiratory illnesses, as well as experience other consequential effects of climate change that increase their morbidity and mortality from aggravated cardiovascular illnesses, aggravated respiratory illnesses, and water contamination.

## Accredited Health Departments in Action

Health departments (HDs) play an essential role in the health of the communities they serve. Many accredited health departments seek to continuously improve their performance by expanding their scope to include emerging public health issues like climate change – according to Annual Reports submitted to PHAB from 2015 - 2020, 39.6% of accredited health departments (109) reported conducting work related to climate change and 10.2% of accredited health departments (28) provided specific examples of that work. Let's examine some examples of the phenomenal and innovative work of accredited health departments related to climate change!

- Assessment and identification of the jurisdiction's climate-related hazards to determine the HD's strengths and vulnerabilities, and to identify the populations at risk. These results were used to build a social media toolkit that is used during climate-related events and to build local emergency preparedness plans.
- Leveraged local partnerships to develop a tracking system to assess and calculate carbon emissions from fleet vehicles, electricity, natural gas, and water. The results from the tracking system will be used in HD's Climate Action Plan to reduce greenhouse gas and carbon emissions.
- Creation of a stakeholder group to identify the health effects of climate change, which will be used to develop the HD's strategic plan. Through partnership and development of the stakeholder group, stakeholders identified health departments as having an important role in the coordination of activities and a structure to support collaboration.
- In a HD whose municipality is within one of the worst major U.S. cities for air pollution, they are placing sensors to track, monitor, and capture air quality data. This data will be used to suggest behavior change, provide evidence for policy and institutional changes, and generate alerts that can be used for making decisions by local stakeholders.
- The Governor expanded authority and added the Department of Public Health as a new member of a subcommittee that is working to address the impact of climate change on health, review and update the state's Climate Change Adaptation and Preparedness Plan, ensure the state is capable of mitigating the risk of climate change, and ensure the state's resilience to climate change.

<sup>1</sup> American Public Health Association. (n.d.). Environmental Health. <https://www.apha.org/topics-and-issues/environmental-health>

<sup>2</sup> American Public Health Association. (2016). Health Impacts of Climate Change. Climate Nexus. [https://climatehealthconnect.org/wp-content/uploads/2018/10/Guide\\_Section4.pdf](https://climatehealthconnect.org/wp-content/uploads/2018/10/Guide_Section4.pdf)

# Climate Change



## What's Next?

PHAB encourages health departments to evaluate how climate change may have already negatively affected their jurisdiction and consider how this may escalate in the future. Through this work, health departments can help mitigate the effects of climate change on the communities they serve.