

# SUMMARY CLIMATE AND HEALTH REPORT

July 2019



## INTRODUCTION

Climate change continues to present a major global issue challenging the stability of our communities, quality of life, and human health. Although climate change is a shared threat, not all communities are impacted equally; communities experiencing the brunt of the effects mirror those experiencing health inequities. Communities of color, non-English speakers, low-income communities, residents with pre-existing medical conditions, and the very young and elderly are often most impacted by climate change.

Dane County faces these same challenges with the impacts from our changing climate. The Climate and Health Report was produced by Public Health Madison & Dane County (PHMDC) to provide data driven information to Dane County residents concerning the current and projected climate changes to our community and potential risk to community and individual health. The following sections of this document summarize the main points of the [Climate and Health Report](#).

### What is Climate Change?

Climate change can be defined as significant changes of climate including temperature, rain, snow, sleet, hail, and weather patterns over an extended period of time; usually over years to decades. Examples of climate change would be the measure of higher than average winter temperature, the reduction in average length of time the Yahara Lakes are frozen during the winter months, wetter than average Spring season, or increased summer temperatures.

## STATE AND COUNTY CLIMATE CHANGE IMPACTS

Wisconsin is becoming warmer and wetter; especially across the western and south central regions of the state. By 2050, the projected statewide annual average temperatures are likely to warm by approximately 6 to 7°F, this can be higher in urban areas compared to rural areas or less developed areas.

Increasing temperatures and prolonged number of seasonal days with high daily temperature can increase the potential risk of death, heat related injury, increased air pollution and pollen, promote drought conditions, and impact agricultural production.

From 1950 to 2006, precipitation increased in Dane County up to 7 inches. These changes in precipitation and weather patterns increase the likely of heavy rain and flooding events that could result in loss of life, damaged housing and public infrastructure, reduced food supplies and drinking water quality, and financial insecurity and crop yields in agricultural communities due to crop damage, top soil loss, and soil erosion. A recent example was the flooding of Dane County in 2018 that caused over \$150 million in damage to private residences, businesses, and public infrastructure. In winter months, heavy precipitation events may result in hazardous travel conditions, increased traffic accidents, infrastructure damage, and loss of life from hypothermia and carbon monoxide poisoning.

Warmer days and longer seasons increase insect activity allowing ticks, fleas, and mosquitoes to expand their range areas and increase the potential of human exposure to diseases such as Lyme disease and West Nile Virus. More precipitation and flood events in spring and summer will create a greater risk of standing water in ditches, ponds, and flooded areas where mosquitoes can breed resulting in a greater risk of human exposure.

The severity of risk from the impacts of climate change are not equally experienced. Typically, front line communities are the most vulnerable and have less access to the means of recovery from climate change related events including flooding, severe storms, heat related illness, and potential exposure to vector-borne disease.

## NEXT STEPS

To combat the effects of climate change, we must focus on promoting health and racial equity through climate justice. In other words, the realization that there is an intersection between health equity and climate change. In concept, climate justice recognizes climate change as a human and civil rights issue in addition to a public and community health issue.

To achieve these goals, local, state, and national partnerships need to be developed with stakeholders already working to address climate change while insuring the inclusiveness of those representing frontline communities in this process. In recent years, partnerships at the local and state level have become increasingly important in terms of developing strategies to combat climate change impacts in Dane County communities. Several local city and county level plans have been produced and work continues to further expand and implement these efforts.