Climate and Health Adaptation Plan

The effects of climate change already can be seen in Oregon’s marine environments, forestlands, agriculture, and transportation infrastructure. It is likely that more severe impacts from climate change will begin to affect the state, including the overall health of its residents. As part of a two-year collaboration, Benton County Health Department worked with the Oregon Health Authority Public Health Division to develop a climate change adaptation plan to protect the health of its community. The Centers for Disease Control’s five-step Building Resilience Against Climate Effects (BRACE) framework was implemented, which allowed Benton County to provide an overview of local climate change and health projections, and for the development of possible interventions that would allow communities and identified vulnerable populations to adapt to predicted changes.

Role of public health

The Benton County Health Department protects the health and well-being of everyone who lives, works, learns, and plays in Benton County, with a particular focus on preventing health problems before they occur. Much of what the county health department does contributes to the monitoring and assessment of health impacts related to climate change. The County health department is therefore ideally suited to engage, coordinate and plan adaptation strategies that address our local climate vulnerabilities.

Statewide risks to human health

- **Injury/Morbidity/Mortality**
  - Extreme weather and storm events
  - Rising temperatures

- **Water and Vector-borne Diseases**
  - Insect and pest outbreaks
  - Higher precipitation levels and flood events
  - Increased algal blooms due to warming waters
  - Changes in habitat and species

- **Respiratory Diseases**
  - Degraded air quality
  - Rising temperatures
  - Increased pollen counts
  - Increased mold exposure
  - Increases in wildfires

- **Malnutrition and Food Security**
  - Rising sea levels
  - Rising temperatures and drought events
  - Threatened food supplies

- **Mental Health**
  - Extreme weather threats and displacement
  - Economic stress
  - Environmental degradation
Climate risks and mitigation strategies

A central component of our planning process was the development of a Climate Change Health Risk Model. Local experts and stakeholders used the model to prioritize three main climate change risks, identify vulnerable populations, and draft potential mitigation strategies. The climate change risks most likely to impact Benton County include:

**Wildfire**
- Populations most affected by an increase in wildfires:
  - Individuals with pre-existing respiratory conditions
  - Homeless persons
  - Rural residents
  - Firefighters and forestry workers

**Heat**
- Populations most affected by the health impacts of extreme heat events:
  - Elderly and young persons
  - Low-income individuals
  - Homeless persons
  - Recreationists

**Precipitation and Flooding**
- Populations most affected by the health impacts of increases in precipitation and flooding:
  - Low-income individuals
  - Residents with well water
  - Residents in low-lying areas
  - Recreationalists
  - Elderly and young persons
  - Homeless persons

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**STEP 1**
Analyze trends to determine frequency, causation, and intensity of outbreaks and climate change events.

**STEP 2**
Identify targeted measures to protect those at highest risk of climate change events.

**STEP 3**
Communicate about how climate change can affect everyone through outreach events, news media releases, and social media.

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For more information and/or the full report, phone Benton County Health Department at 541-766-6835.

The Oregon Health Authority (OHA) is one of nine agencies across the country that received a grant from the Centers for Disease Control and Prevention’s National Center for Environmental Health (CDC-NCEH) as part of the Climate-Ready States and Cities Initiative. This program is intended to help agencies address the public health effects of climate change related events. The Climate and Public Health Program is part of the Public Health Division of the Oregon Health Authority.

This document can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request this publication in another format or language, contact: Climate and Health Program 971-673-0977 or TTY 971-673-0372.