

# Public Health Summary

## 2021 Oregon Climate Change Adaptation Framework

The [2021 Oregon Climate Adaption Framework](#) (Framework) was developed by a workgroup comprised of 24 State agencies, coordinated by the Oregon Department of Land Conservation and development (DLCD). The Framework explores the impacts of climate change in Oregon and identifies how state agencies can effectively respond to them.

Oregon Health Authority (OHA) Public Health Division (PHD) prepared this public health summary to introduce the framework, its relevance to public health and to highlight the important cross connections between health and other sectors. Climate adaptation strategies are organized into six themes within the Framework:

THEME	GOAL
<b>ECONOMY</b>	<i>Promote resilient, innovative, and inclusive Oregon economies that addresses climate change challenges and opportunities.</i>
<b>NATURAL WORLD</b>	<i>Support robust functioning of Oregon’s terrestrial, aquatic, coastal, and marine ecosystems as the climate changes.</i>
<b>BUILT ENVIRONMENT AND INFRASTRUCTURE</b>	<i>Ensure Oregon buildings, utilities, and infrastructure are resilient to extreme weather and climate change.</i>
<b>PUBLIC HEALTH</b>	<i>Reduce climate-related health risks and promote Oregon community resilience, especially among people and communities who are disproportionately affected.</i>
<b>CULTURAL HERITAGE</b>	<i>Research, plan for, and adapt to the impacts of climate change on Oregon’s cultural landscapes.</i>
<b>SOCIAL RELATIONSHIPS AND SYSTEMS</b>	<i>Create equitable, livable, and engaged Oregon communities in response to the impacts of climate change.</i>

The Framework also emphasizes five administrative actions necessary to achieve integrated climate change adaptation, with one of them being to:

***Use best practices in diversity, equity, and inclusion to ensure the state targets future investments where they are needed most.***

OHA led planning subgroups on both *Public Health* and *Climate Equity*. The Climate Equity work led to the development of a new [Climate Equity Blueprint](#), which is included as Part Five of the Framework.

Below is a table that summarizes climate effects, health risks, priority populations, and example public health actions. For more information on climate and health impacts and vulnerabilities, please see the [Climate and Health in Oregon 2020 Report](#).

Climate Effects	Health Risks	Priority Populations	Example Action
<b>Cross-cutting effects</b>			
<b>Economic instability, Impacts to workers, Food insecurity</b>	<ul style="list-style-type: none"> <li>– Mental health effects</li> <li>– Poor nutrition</li> <li>– Chronic diseases including heart disease and respiratory diseases</li> <li>– Heat-related illness</li> </ul>	<ul style="list-style-type: none"> <li>• Tribal and indigenous communities</li> <li>• Farmworker communities</li> <li>• Fishing, timber, and farming communities</li> <li>• Rural communities</li> </ul>	In response to <a href="#">Executive Order 20-04</a> , OHA will partner with the Oregon Occupational Safety and Health Administration (OR-OSHA) to develop a proposal for standards to protect workers from exposure to wildfire smoke and excessive heat.
<b>Mental health, Substance use, Violence</b>	<ul style="list-style-type: none"> <li>– Post-traumatic stress (PTSD)</li> <li>– Depression, anxiety</li> <li>– Suicide</li> <li>– Drug overdose</li> <li>– Domestic violence</li> </ul>	<ul style="list-style-type: none"> <li>• Youth</li> <li>• Communities of color</li> <li>• Tribal and indigenous communities</li> <li>• Rural communities</li> <li>• Women and children</li> </ul>	In response to <a href="#">Executive Order 20-04</a> , OHA will study the impacts of climate change on youth depression and mental health in Oregon.
<b>Housing, Displacement, Migration</b>	<ul style="list-style-type: none"> <li>– Disaster-related injuries</li> <li>– Asthma and respiratory disease</li> <li>– Heat-related illness</li> <li>– Toxic exposures</li> </ul>	<ul style="list-style-type: none"> <li>• Low-income communities</li> <li>• Communities of color</li> <li>• People experiencing homelessness</li> <li>• Coastal communities</li> </ul>	OHA’s 5-year state health improvement plan (2020-2025), <a href="#">Healthier Together Oregon</a> , calls for addressing economic drivers of health which include elements related to housing and climate resilience.
<b>Climate hazards</b>			
<b>Storms, floods, landslides and sea-level rise</b>	<ul style="list-style-type: none"> <li>– Injuries</li> <li>– Toxic exposures</li> <li>– Displacement</li> <li>– Disruptions in medical care</li> <li>– Mental health effects</li> </ul>	<ul style="list-style-type: none"> <li>• People dependent on medical equipment that requires electricity</li> <li>• Socially isolated</li> <li>• Older adults</li> <li>• Coastal communities</li> <li>• Children and pregnant women</li> </ul>	OHA partnered with the Oregon Department of Transportation (ODOT) to conduct a case study: <a href="#">How Tillamook Weathered the Storm: A Case Study on Creating Climate Resilience on Oregon’s North Coast</a> . The project involved interviewing state and local transportation and health leaders to document lessons learned.

<b>Wildfire</b>	<ul style="list-style-type: none"> <li>– Respiratory diseases</li> <li>– Cardiovascular diseases</li> <li>– Cancer</li> <li>– Injuries</li> <li>– Displacement</li> <li>– Toxic exposures</li> <li>– Mental health effects</li> </ul>	<ul style="list-style-type: none"> <li>• People with pre-existing conditions</li> <li>• Outdoor workers</li> <li>• Children, pregnant women</li> <li>• Older adults</li> <li>• Rural communities</li> <li>• Tribal communities</li> </ul>	<p>In 2019, OHA published <a href="#">More Days with Haze: How Oregon is Adapting to the Public Health Risks of Increasing Wildfires</a>. The report, based on 2018 interviews with Oregon public health officials, identifies ways in which the public health system is adapting to the increasing severity of wildfires and opportunities for future climate adaptation.</p>
<b>Infectious disease</b>	<ul style="list-style-type: none"> <li>– Lyme disease</li> <li>– West Nile disease</li> <li>– Fungal diseases</li> <li>– Shigellosis</li> </ul>	<ul style="list-style-type: none"> <li>• Outdoor workers</li> <li>• Outdoor recreationalists</li> <li>• People experiencing homelessness</li> <li>• Tribal communities</li> <li>• Rural communities</li> </ul>	<p>In 2016, OHA developed a guidance document for public health officials to use <a href="#">weather and environmental data with syndromic surveillance data</a> to quickly assess the correlation between weather factors or air quality measures and health outcomes including infectious disease.</p>
<b>Drought, water security, and water quality hazards</b>	<ul style="list-style-type: none"> <li>– Mental health effects</li> <li>– Dehydration</li> <li>– Toxic exposures</li> <li>– Diminished living conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Low-income communities</li> <li>• Tribal communities</li> <li>• Rural communities</li> <li>• Farming and farmworker communities</li> <li>• Coastal communities</li> </ul>	<p>In 2017, OHA partnered with members of the <a href="#">Confederated Tribes of Warm Springs on a digital storytelling project</a> that documented climate-driven changes in water quality in rivers and water shortages on the reservation. OHA has also <a href="#">assessed the issue of water insecurity in Oregon</a>.</p>
<b>Extreme heat</b>	<ul style="list-style-type: none"> <li>– Heat-related illness and death</li> <li>– Violence</li> </ul>	<ul style="list-style-type: none"> <li>• People with pre-existing conditions</li> <li>• Outdoor workers</li> <li>• Outdoor athletes</li> <li>• People without air conditioning or housing</li> <li>• People living in urban heat islands</li> <li>• Children, pregnant women</li> <li>• Low-income communities</li> <li>• Communities of color</li> </ul>	<p>OHA contributed to the <a href="#">State of Oregon’s 2020 Natural Hazard Mitigation Plan</a>. For the first time, the plan will include a chapter on extreme heat. Inclusion makes the state eligible for Federal Emergency Management Agency funding for mitigation actions that reduce identified risks.</p>
<b>Air quality and allergens</b>	<ul style="list-style-type: none"> <li>– Ozone / “smog”</li> <li>– Airborne pollens</li> <li>– Airborne molds</li> </ul>	<ul style="list-style-type: none"> <li>• Low-income communities</li> <li>• Communities of color</li> <li>• Communities near highway and industrial facilities</li> <li>• Outdoor workers</li> <li>• People with pre-existing conditions</li> <li>• Farmworker communities</li> </ul>	<p>In 2018, OHA prepared a <a href="#">Climate Change and Public Health in Oregon Policy Paper</a> at the request of the Oregon Governor’s Carbon Policy Office. The paper identifies communities most affected by health risks of climate hazards and co-pollutants of greenhouse gas emissions.</p>

## INTERAGENCY ADAPTATION STRATEGIES prioritized in the *Public Health* section

*Actively engage with priority communities in a coordinated and well-resourced way* so that underrepresented voices are centered in the development of climate policies, programs and public investments.

*Work with partner agencies on policies to improve and protect air quality and water security* on the basis of health and environmental data, implement health-based standards, and remain proactive in identifying emerging contaminants, vectors, and diseases of concern related to climate change.

*Increase the diversity of the State's workforce engaged in climate work* to reflect the State of Oregon's population and to ensure effective climate adaptation.

*Resource Oregon's public health system* to address new and emerging threats to health caused by climate change.

*Analyze and communicate the impacts of proposed climate investments* so decision-makers are informed about associated long-term health costs and benefits

*Support community-driven and place-based climate adaptations* by providing technical assistance, resources, training, and tools for community partners.

*Consider opportunities outlined in the Climate Equity Blueprint* and the forthcoming OHA study on climate change, mental health, and youth.

### 2021 IMPLEMENTATION UPDATES

- As part of a State initiative underway since 2013 to modernize Oregon's public health system, the 2021 legislature is considering new investments to support community based organizations and the governmental public health system in building climate resilience and addressing environmental health concerns. More information is available at:
  - [Public Health Modernization – Environmental Health: A Foundational Investment in Environmental Justice and Equity](#)
- [Healthier Together Oregon](#) is the 2020–2024 State Health Improvement Plan intended to guide the work of everyone in the state – governmental and non-governmental, in and out of the health sector. Community priorities drive the plan and include work focused on climate change.

OHA's Climate and Health Program understands social relationships and systems to be a key component of climate resilience. The program has been leading a [Social Resilience Project](#) and has identified several intersections between the climate adaptation strategies prioritized in the Public Health section and the Social Relationships and Systems section of the Framework, summarized on the next page.

## **INTERAGENCY ADAPTATION STRATEGIES** prioritized in the *Social Relationships and Systems* section

### *Identify “Impacted Communities”*

- Use community-based participatory research (CBPR) to engage meaningfully with a wide variety of populations.
- Ground-truth findings with qualitative data to ensure that any limitations and assumptions are modified on the basis of local lived experiences.

### *Build capacity of community based organizations and create more opportunities to participate in decision making*

- Provide targeted and coordinated assistance and engagement with communities identified as “most impacted” through the building and maintaining of trusting relationships with community leaders.
- Create accessible, culturally relevant communications and user-friendly tools, informed by community needs. Incorporate strategies that build social capital.

### *Use DEI best practices in state decision-making*

- Implement recommendations made during production of the Climate Equity Blueprint.
- Invest in the State workforce’s community engagement and bridging skills. A workforce with the experience and skills to meet communities where they are and convene people from different social groups will increase an organization’s ability to strengthen community resilience.
- Increase transparency and accountability on how community priorities are reflected in state policies and plans, how the state’s decision-support tools are responsive to community-expressed needs, and how impacted communities are involved in the designing and delivering of the State’s climate change programs.

### *Leverage the statewide land use planning program*

- Develop land use planning guidance based on Oregon’s Statewide Land Use Planning Goals to help cities and counties mainstream climate science and engagement of diverse communities into their planning, permitting, and operations.
- Provide cities and counties with decision support tools that help them prioritize and select adaptation actions that achieve long-term, equitable outcomes.

### *Focus natural disaster mitigation activities on climate change and equity*

- Invest in climate-aware local hazard mitigation planning that is aligned with other local planning efforts, advancing cross-sector collaboration and investment in strategies that achieve multiple community goals within their respective jurisdictions.

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