Ready for Change:
Preparing Public Health Agencies for the Impacts of Climate Change

A presentation by the Climate Leadership Initiative
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Climate Leadership Initiative

The Climate Leadership Initiative is a social-science based global climate change research, education, and technical assistance consortium between The Resource Innovation Group, a 501 (c)3 non-profit, and the Institute for a Sustainable Environment at the University of Oregon.

CLI is part of the new Regional Integrated Sciences and Assessments program (NOAA’s RISA) for the Pacific Northwest (with OCCRI, Idaho, PSU, Washington).
Today’s Webinar

- Oregon Public Health Department Survey
- Public Health Mitigation
- Public Health Preparedness
- Future planning for workshops
Support Provided By

[Logos of various health organizations]
Public Health and Climate Change

- “Unequivocal” evidence that mean temperatures are rising

![Global Warming Projections](image)
## CDC Potential Health Impacts of Climate Change

<table>
<thead>
<tr>
<th>Weather Event</th>
<th>Health Effects</th>
<th>Population Most Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat waves</td>
<td>Heat stress</td>
<td>Extremes of age, athletes, people with respiratory disease</td>
</tr>
<tr>
<td>Extreme weather events, (rain, hurricane, tornado, flooding)</td>
<td>Injuries, drowning</td>
<td>Coastal, low-lying land dwellers, low SES</td>
</tr>
<tr>
<td>Droughts, floods, increased mean temperature</td>
<td>Vector-, food-and water-borne diseases</td>
<td>Multiple populations at risk</td>
</tr>
<tr>
<td>Sea-level rise</td>
<td>Injuries, drowning, water and soil salinization, ecosystem and economic disruption</td>
<td>Coastal, low SES</td>
</tr>
<tr>
<td>Drought, ecosystem migration</td>
<td>Food and water shortages, malnutrition</td>
<td>Low SES, elderly, children</td>
</tr>
<tr>
<td>Extreme weather events, droughts</td>
<td>Mass population movement, international conflict</td>
<td>General population</td>
</tr>
<tr>
<td>Increases in ground-level ozone, airborne allergens, and other pollutants</td>
<td>Respiratory disease exacerbations (COPD, asthma, allergic rhinitis, bronchitis)</td>
<td>Elderly, children, those with respiratory disease</td>
</tr>
<tr>
<td>Climate change generally; extreme events</td>
<td>Mental health</td>
<td>Young, displaced, agricultural sector, low SES</td>
</tr>
</tbody>
</table>

CDC Policy on Climate Change and Public Health: [http://www.cdc.gov/ClimateChange/policy.htm](http://www.cdc.gov/ClimateChange/policy.htm)
Public Health and Climate Change

- Already play a pivotal role protecting communities
- Foundations for preparedness are already present in existing programs
- Opportunity to act as role model and build awareness
Oregon Public Health Survey

● Objectives
  ● 1) assess current knowledge on health risks associated with climate change;
  ● 2) assess current level of preparation to manage climate change associated health risks; and
  ● 3) identify resource and training needs.

● Responses were received from 25 out of 35 counties with public health departments.
Oregon Public Health Survey: Results

- Global climate change is a serious or very serious problem
- Many are knowledgeable about public health and climate change
- Expectation that climate change will have greater impacts in the next twenty years
- There is a need for dedicated additional resources
Oregon Public Health Survey: Recommendations

- Education as a means of increasing climate change priorities
- Provide local projections and local risks
- Identify opportunities for building on current programs
- Provide training for public health employees
- Develop networks for collaboration
Guidebooks: Overview and Introduction

Leading By Example
Emission Reductions in Public Health Agencies
A Climate Masters Guide for the Public Health Sector
May 2010

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Leading by Example: 
Emissions Reductions in Public Health Agencies

- Carbon emissions reduction challenge
- Stewards of public dollars
- Role model
Leading by Example: Emissions Reductions in Public Health Agencies

- Capacity Assessment
- Green Building Design
- Reduce Energy Waste
- Alternative Energy Generation
- Employee and Visitor Transportation
- Food
- Purchasing and products
- Waste
- Water
- Outreach
Located in Portland, OR, the Providence Newberg Medical Center set the stage for green hospital construction in 2006, when engineers and architects met Oregon's stringent structural standards for hospitals while incorporating environmental building materials and achieving environmental design.
Alternative Energy Generation
Employee and Visitor Transportation

- Automoblies: 34%
- Light Trucks: 25%
- Other Trucks: 18%
- Aircraft: 9%
- Water: 4%
- Construction & Agriculture: 4%
- Pipelines: 3%
- Trains & Buses: 3%
Greenhouse gas emissions from food

- Red Meat: 30%
- Dairy Products: 18%
- Cereals/carbs: 11%
- Fruit/vegetables: 11%
- Chicken/fish/eggs: 11%
- Other: 10%
- Beverages: 9%
- Oils/sweets/condiments: 6%
Purchasing, products and waste
Water
Outreach and Template Policies

Sample Language: “Weather patterns affect just about everything in our lives – the ability to grow the food we eat, the kinds of infectious diseases and pests that can thrive in our region and affect our health, the amount of water we have for drinking and maintaining our property, and our experiences in keeping our homes and families safe from extreme weather.” 89
Example: Reduce Energy Waste

- Energy demand is on the rise
- Cutting waste, cuts costs
- Identify key areas to reduce usage
- Set realistic, short term goals
- Make quick changes and invest in long term solutions
- Ideas in Action: OHSU

Source: EIA 2006. Commercial Buildings
Ready for Change: Preparing Public Health Agencies For The Impacts of Climate Change

- Creating climate action plans
- Reducing risks and building resilience
- Employee and community recommendations
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- Extreme Heat
- Disease Patterns
- Water
- Food
- Air Quality
- Mental Health
- Communication
Extreme Heat

Utilize Your Cooling Center
Check On Friends and Loved Ones
NASA is working to develop an early warning system for disease outbreaks that combines data from environmental satellites with field work. This composite of land surface temperatures recorded between 1997 and 2000 was used to help monitor and predict the spread of West Nile Virus in the United States.
Water Quality

BOIL Advisory
Food
Sample language: In addition to doing everything we can to prevent the worst effects of global warming, we must also prepare for the effects we are already experiencing. Just like a responsible homeowner wouldn’t wait for a rainstorm to fix the hole in the roof, we can’t wait for the worst effects of climate change to reach us before we take action.
Example: Mental Health

- Studies from Katrina and 2004 Tsunami
- Health risks: PTSD, reduced productivity, suicide, stress
- Vulnerable populations: elderly, rural, low income, minority
- Steps to prepare the public
- Steps to prepare employees
- Ideas in Action: Project CREST
Integrated Health Preparedness Planning

- Develop whole systems approach
- Define limits and unintended consequences of human intervention
- Create adaptive and flexible management strategies
Summary: Next Steps

- Provide trainings for public health officials on climate change
- Continually improve guidebooks and workshops
- Train-the-trainers program for public health agencies
Those of us working in public health should recognize that climate disruption affects promoting good health for us all. There is an opportunity now for us to lead by example and take some responsibility for the impact on the Earth’s climate.

-Dr. Mel Kohn, Oregon Public Health Division
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Guidebooks: http://climlead.uoregon.edu/node/168