



Understanding the local health impacts of climate change in Multnomah County

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Our climate work story

- **Led by Environmental Health Services**
 - Policy Analyst at .5 FTE
 - Analytical support from Health Assessment & Evaluation
- **Collaborations with County Sustainability Office, Emergency Management and community-based organizations**
- **Grantee of Oregon Public Health Division's Climate and Health Program, funded through Centers for Disease Control and Prevention's Climate Ready States and Cities Initiative (CRSCI)**

Our climate work story

Education and outreach:

- Informational meetings with CAP Steering Committee
- Invite CDC for presentation to colleagues
- Co-host a Climate Justice summit

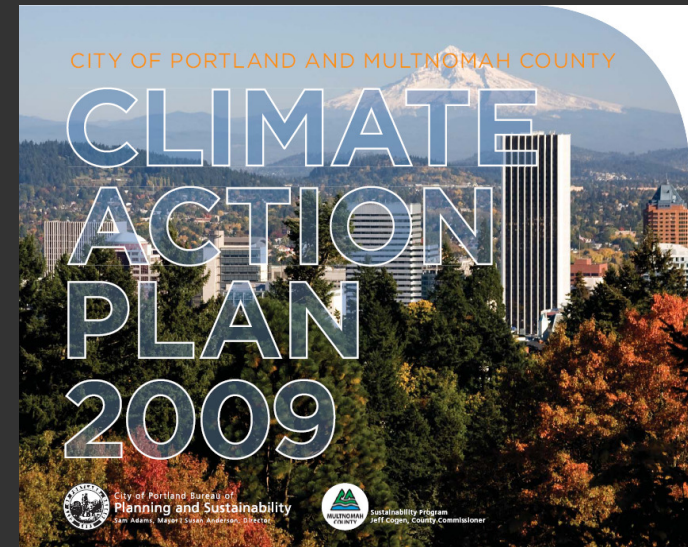
Policy advocacy:

- Get a seat at the table
- Get language around health equity, PH impacts in our local Climate Action Plan

Our climate work story

Some results:

- A Climate Action Plan, passed into Resolution in October 2009
- Political support
- An adaptation mandate from the County Commissioners
- Stakeholder buy-in to the planning process



Eight Goal Action Areas

1

BUILDINGS AND ENERGY

2

URBAN FORM AND MOBILITY

3

CONSUMPTION AND SOLID WASTE

4

URBAN FORESTRY AND NATURAL SYSTEMS

5

FOOD AND AGRICULTURE

6

COMMUNITY ENGAGEMENT

7

CLIMATE CHANGE PREPARATION

8

LOCAL GOVERNMENT OPERATIONS

Health highlights – Emphasizing Co-Benefits

4 URBAN FORESTRY AND NATURAL SYSTEMS

Increase Portland's tree canopy by 1/3



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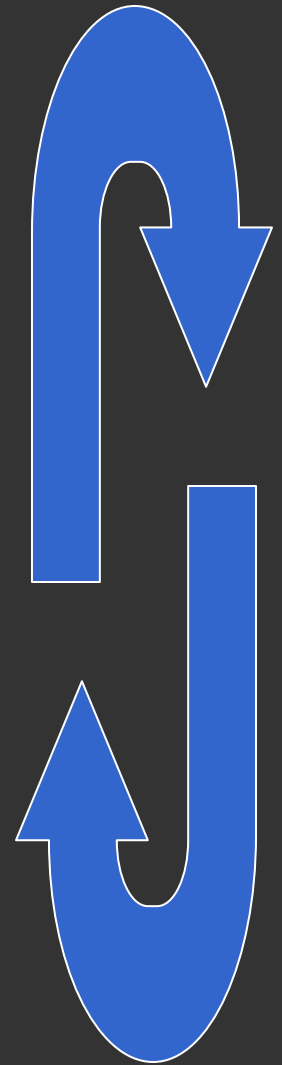


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Co-benefit data collection

- % of food service ingredients at hospitals, schools that are locally sourced
- # of Safe Routes to Schools programs implemented
- # of businesses that adopt bike parking and bike-to-work policies
- # of mosquito species monitored
- # of Food and Vegetable vouchers used at Farmer's Markets by WIC clients*





CLIMATE CHANGE PREPARATION

2030 Objective 17: Adapt successfully to a changing climate.

Assess climate-related vulnerabilities

Develop an adaptation plan

***Integrate adaptive interventions in
Portland Comp Plan and CAP
Revisions 2013***

Monitor and evaluate



Assessment project outcomes

- Determine the local impacts to the public's health, especially for vulnerable populations
- Determine current and needed interventions to prevent further exacerbation of these impacts
- Empower impacted persons and agencies with a findings to continue current interventions and to develop a pathway to implement new interventions

CDC BRACE Framework

(Building resilience against climate effects)

Step 1: Forecasted Impacts and Vulnerability Assessment: (January 31, 2012)

Step 2: Health Risk Assessment: (In Process)

Step 3: Intervention Assessment (In Process)

Step 4: Health Adaptation Planning and Implementation (September 2012)

Step 5: Evaluation (December 2012)

BRACE...the nutshell version

- Get your local climate projections, slim them down (*+/- 5-8 degrees increase in annual summer temps = hotter summer days*)
- Brainstorm health outcomes
- Collect data on health indicators
- Project climate-related morbidity and mortality
- List health interventions
- Assess capacity to deliver intervention
- Brainstorm new ideas, needed resources to help adapt to changes / identify current initiatives
- Develop a plan and monitor

Climate projections

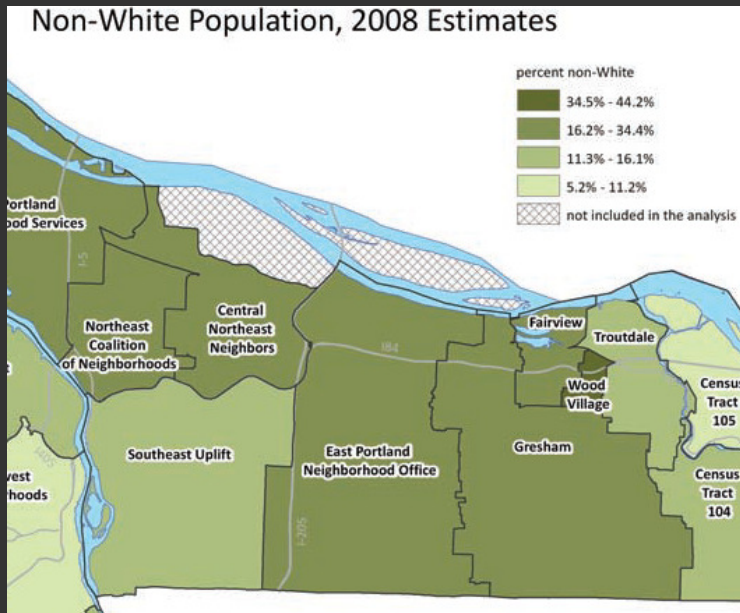
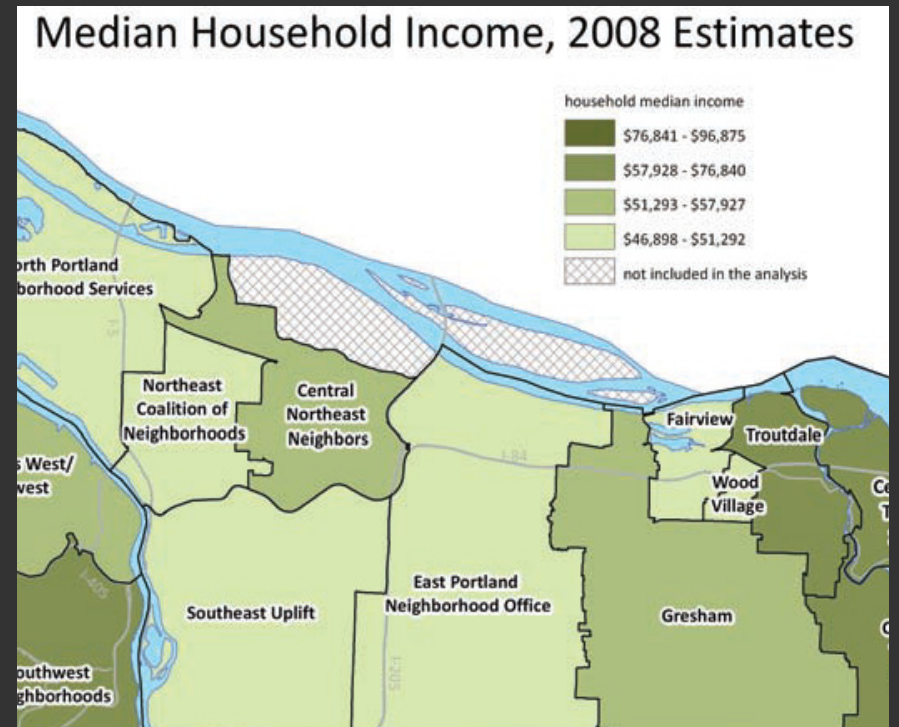
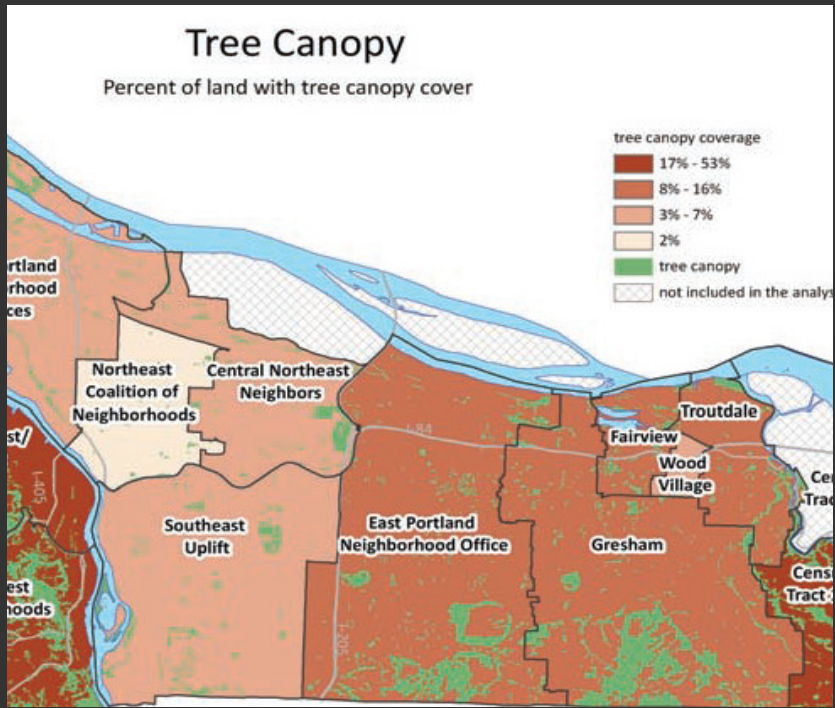
- Overall warming trend, with an increase of 5-10° F in summer;
- Wetter winters and drier summers, more rain in a shorter period of time;
- Snowpack loss in the Cascades of about 80% compared to current conditions and;
- Decreased urban air quality (high concentrations of ground-level ozone)

Climate and health impacts – Step One

Climate variable	Seasonal pattern of projected change, expected trend	Confidence	Health impact	Vulnerable population	Vulnerable region
Average Annual Temps	Warming in summer months, increasing	Moderate to High	Heat-Related illness	Older persons, persons with existing cardio conditions, persons who are obese, outdoor workers, homeless persons, etc.	Areas with high impervious surface and heat island effect, lower tree canopy coverage, near highways, industrial areas such as near I-5/I-205,

Data measures – Step Two


- Climate variables (e.g. temperature)
- Potential health impacts (asthma, heat-related illness)
- Potential data indicators (e.g., emergency room visits related to heat and respiratory illness)
- Social groups at high risk of these health outcomes (e.g., children, elders, people of color)
- Environmental features that contribute to the health outcomes identified above (e.g., urban heat island effect and air pollution)



Sample data maps

What's next?

- Gather, analyze data for current state of heat-related illness, respiratory illness/disease, and vector-borne disease
- Project impacts out 30 years
- Brainstorm policy, programmatic and capacity building interventions (home-visit asthma care, asthma syndromic surveillance, heat response system?)
- Focus groups with disproportionately impacted community members, vul pops



Thank you to Oregon Health
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