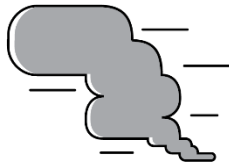
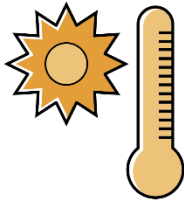


2010-2020

Regional Climate and Health Monitoring Report



Public Health Advisory Committee
January 18th, 2022

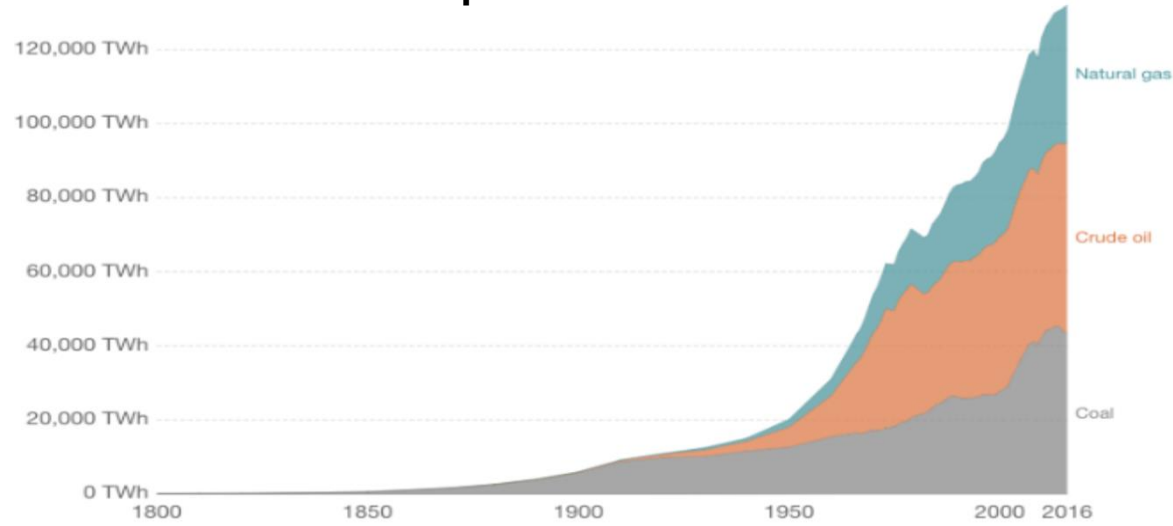
Overview

- Climate Change Overview
- Health Impacts
- Solutions and Division Climate Agenda

Climate Change Overview

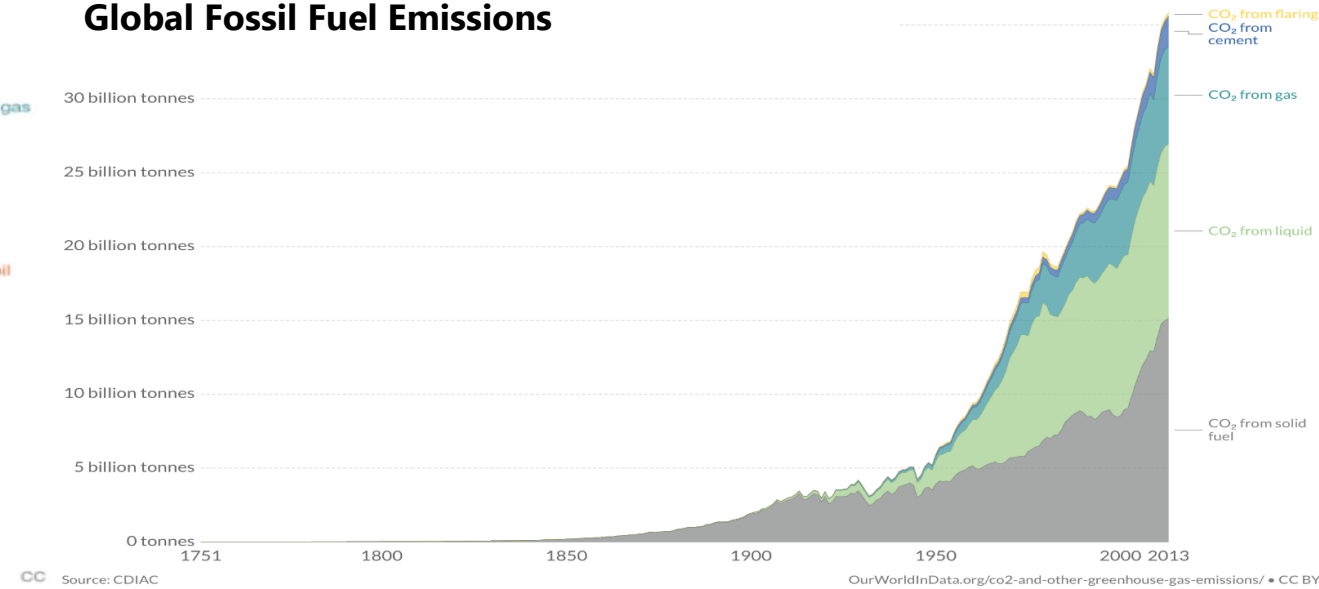


Global Fossil Fuel Consumption



Source: Vaclav Smil (2017). Energy Transitions: Global and National Perspective & BP Statistical Review of World Energy

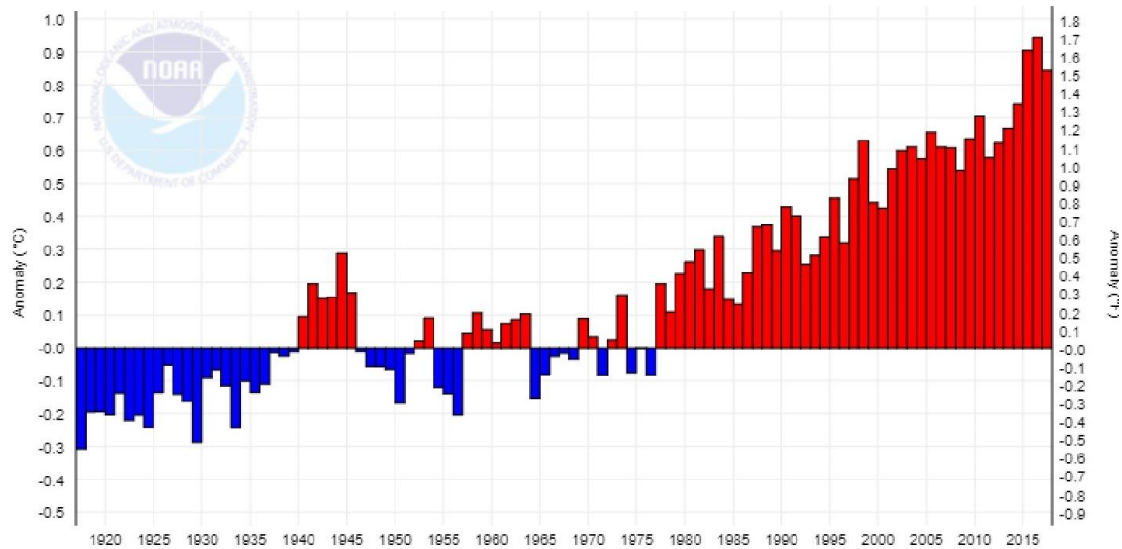
Global Fossil Fuel Emissions



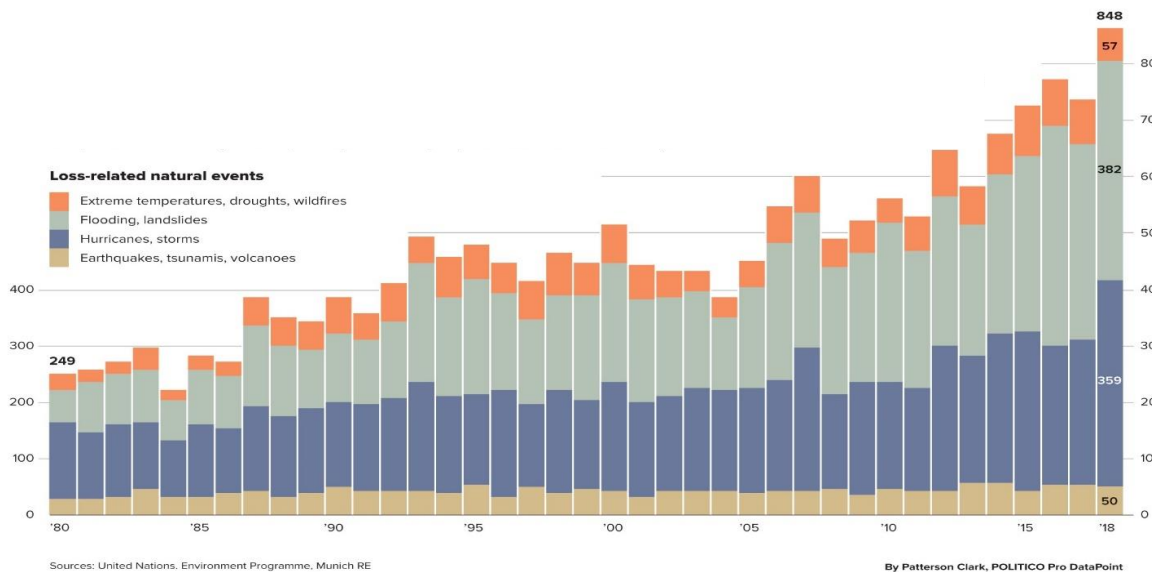
CC Source: CDIAC

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

Global Average Temperature



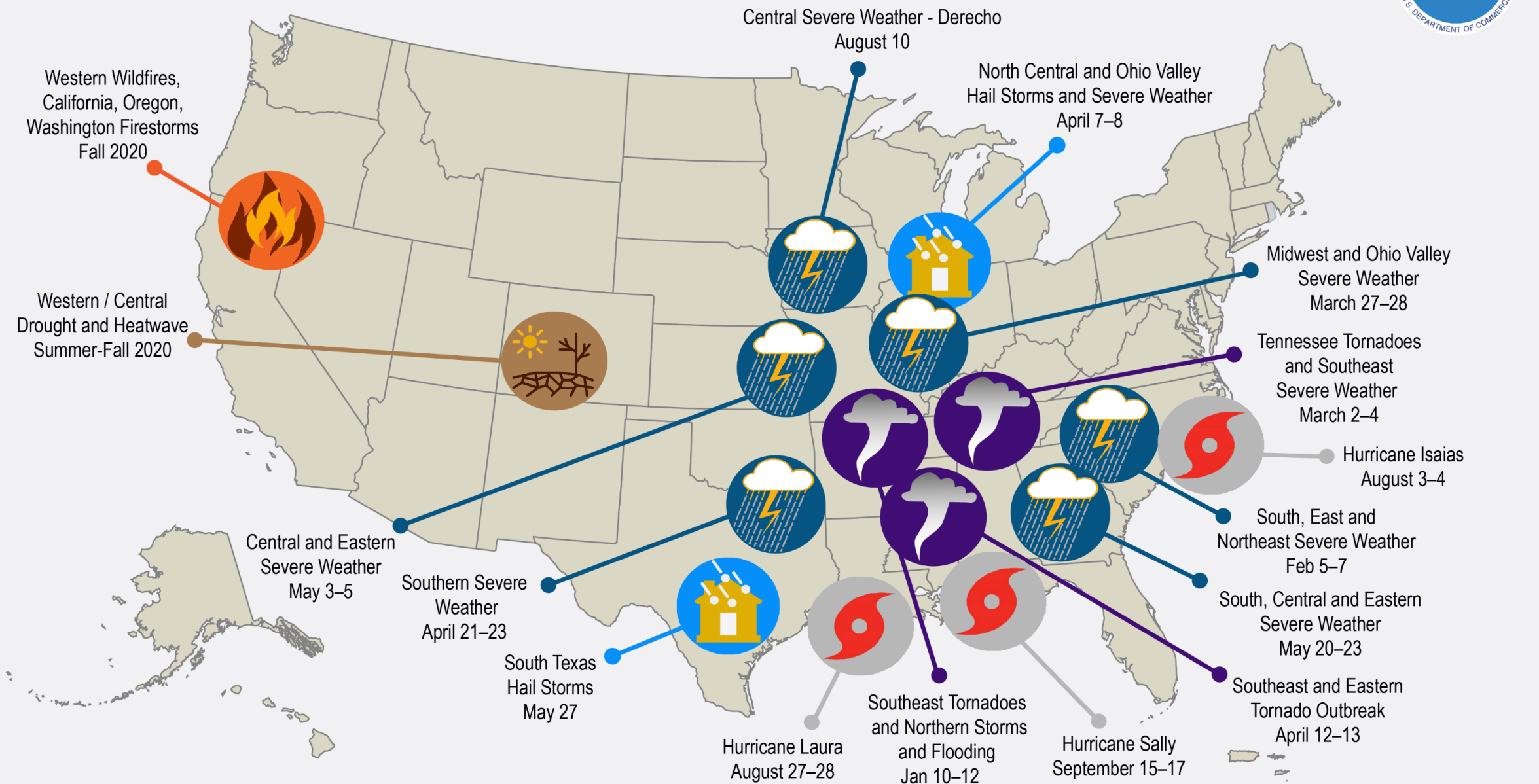
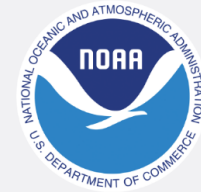
Global Environmental Disasters



Sources: United Nations, Environment Programme, Munich RE

By Patterson Clark, POLITICO Pro DataPoint

U.S. 2020 Billion-Dollar Weather and Climate Disasters



Source: <https://www.ncdc.noaa.gov/billions/>

*This map denotes the approximate location for each of the **16 separate billion-dollar weather and climate disasters** that impacted the United States **from January–September 2020**.*



SCIENCE & ENVIRONMENT

Report: Climate change is making health problems worse for Portland area residents

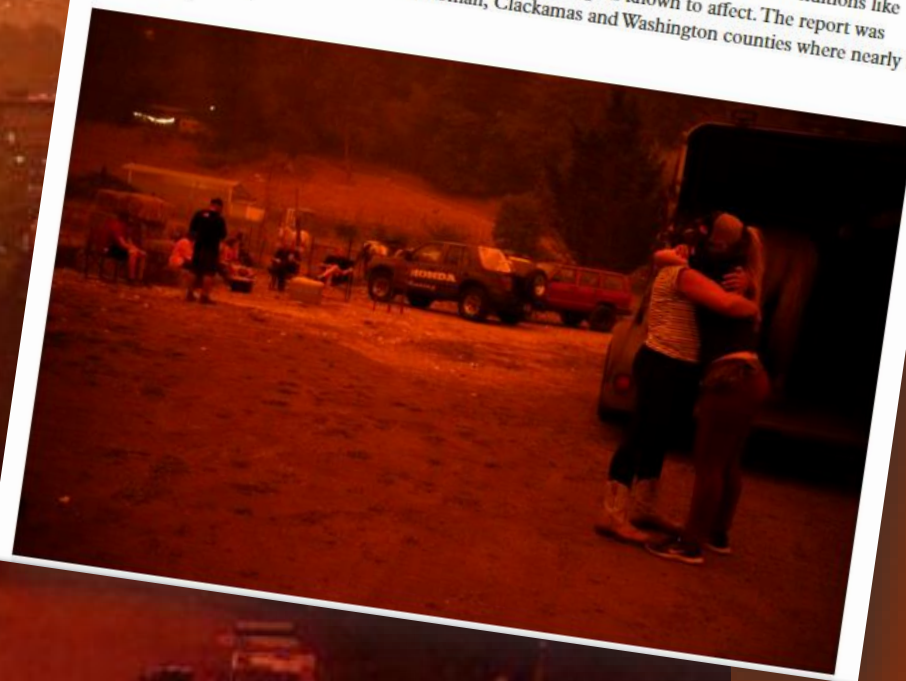


By Monica Samayoa (OPB)

Nov. 4, 2021 3:42 p.m.

Wildfires, extreme heat waves, air pollution, snowstorms, and drought are just some of the extreme weather events Oregon has gone through the last couple of years. A new report from the three Portland metro area counties shines a light at how climate change is impacting the health of the state's most populous region.

The [Regional Climate and Health Monitoring Report](#) provides data for 12 health conditions like asthma and heat stress, which span areas that climate change is known to affect. The report was completed by health officials from Multnomah, Clackamas and Washington counties where nearly 2 million people live.



National Academies of Medicine

Climate Conversations: Decarbonizing the Health Sector



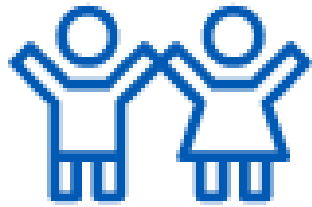
“Health care is the only sector that lives by the Hippocratic Oath: **do no harm.**”

“**The greenest hospital is the one we don’t build** because we are addressing the reasons people are sick in the first place.”

Health Impacts

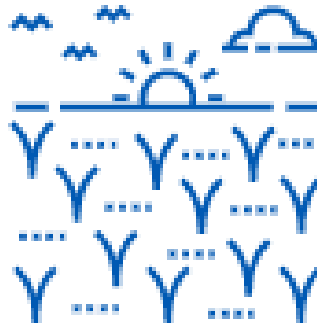


Unequal Impacts



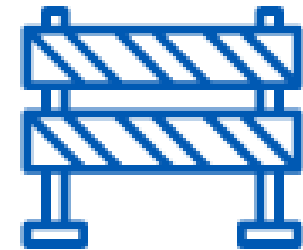
**...that are more
sensitive**

- Youth
- People with pre-existing conditions
- People who are pregnant



**...that are more
exposed**

- Low-income and BIPOC groups displaced or living in areas of disinvestment
- Outdoor workers
- Rural and frontline communities

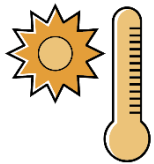


**...that face greater
barriers**

- Older adults
- People with disabilities

Report Overview

The Regional Climate and Health Monitoring report is a collection of **baseline data** for **Clackamas**, **Multnomah**, and **Washington** Counties on **12 health indicators** influenced by climate change.



Extreme Heat

Heat-related Emergency
Department Visits

Heat-related
Hospitalizations

Heat-related Deaths



Air Quality

Asthma-like
Emergency
Department Visits

Allergic Disease
Emergency
Department Visits



Mental Health

Climate Anxiety

Depression

Amplifying Effects



Vector-Borne Disease

Lyme Disease

West Nile Virus



Communicable Disease

Salmonella

Campylobacteriosis

Tuberculosis



Extreme Weather

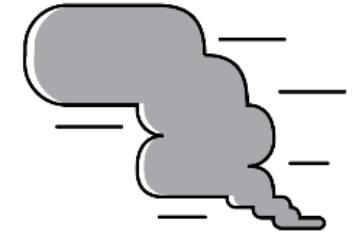
Extreme Weather-
related injuries

Extreme Weather-
related Deaths

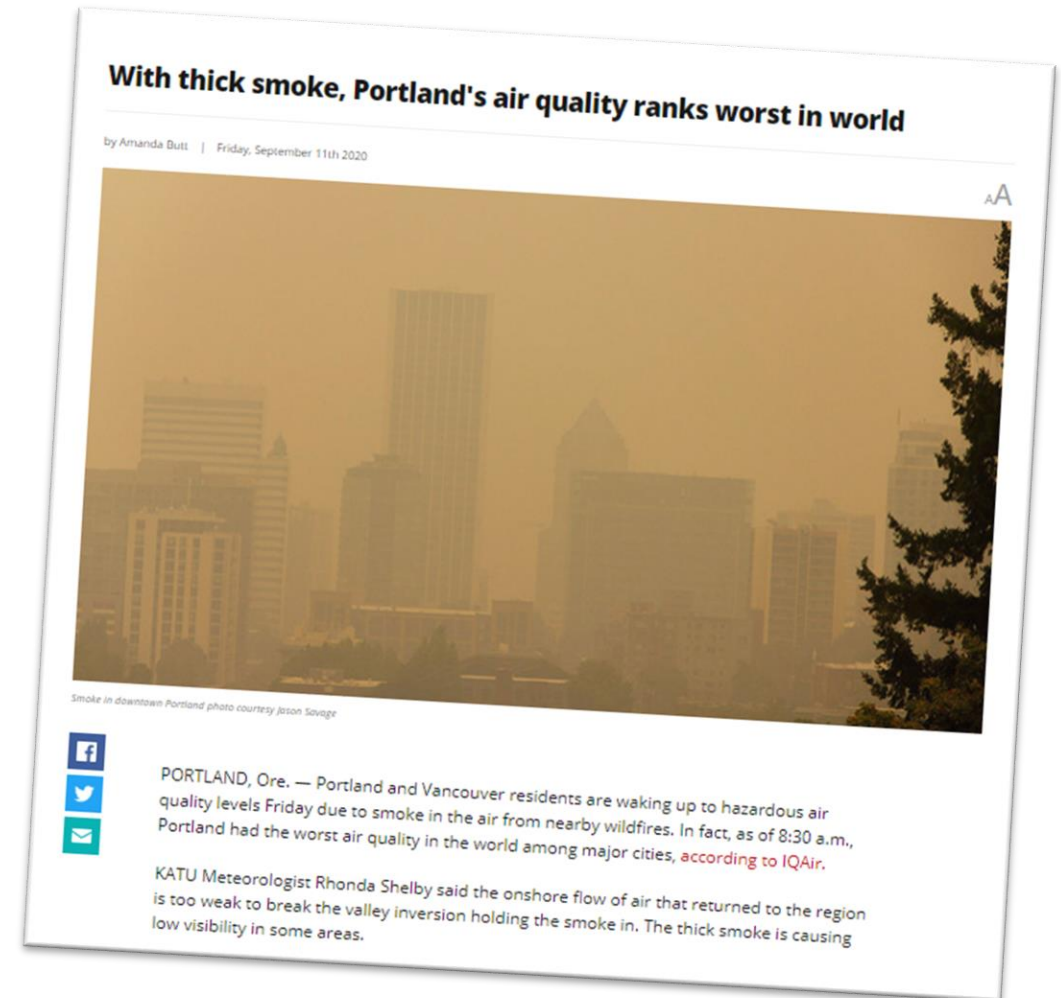
Key Takeaways

- **Health conditions related to poor air quality and extreme heat** are affecting the largest amount of people in the region.
- **Few apparent long term trends.** In 2020 was unusual. Coinciding with the COVID-19 pandemic, several heat, air quality, and foodborne communicable disease health outcomes decreased in counts.
- **Acute events lead to major impacts.** Specific climate-related events caused spikes in health outcomes, like the 2020 wildfires.
- **We need ways to measure mental health impacts.** There is a need for more robust and consistent tracking systems for mental health related impacts.

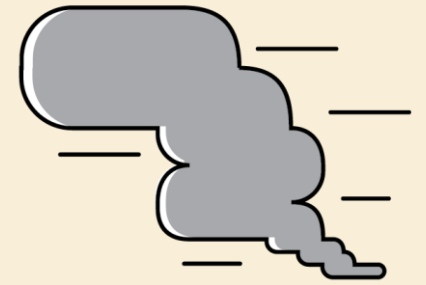
Air Quality



- Warmer and drier conditions increase the length and severity of wildfire seasons.
- The particulate matter (PM) from wildfire smoke can enter the deepest parts of our lungs creating and making worse health conditions.
- In 2012, 963 wildfires burned more than 1.2 million acres in Oregon, causing an estimated 226 premature deaths, 92 hospital admissions, and 1,986 ER visits. The costs with these losses and health care visits is totaled at **\$2.1B**

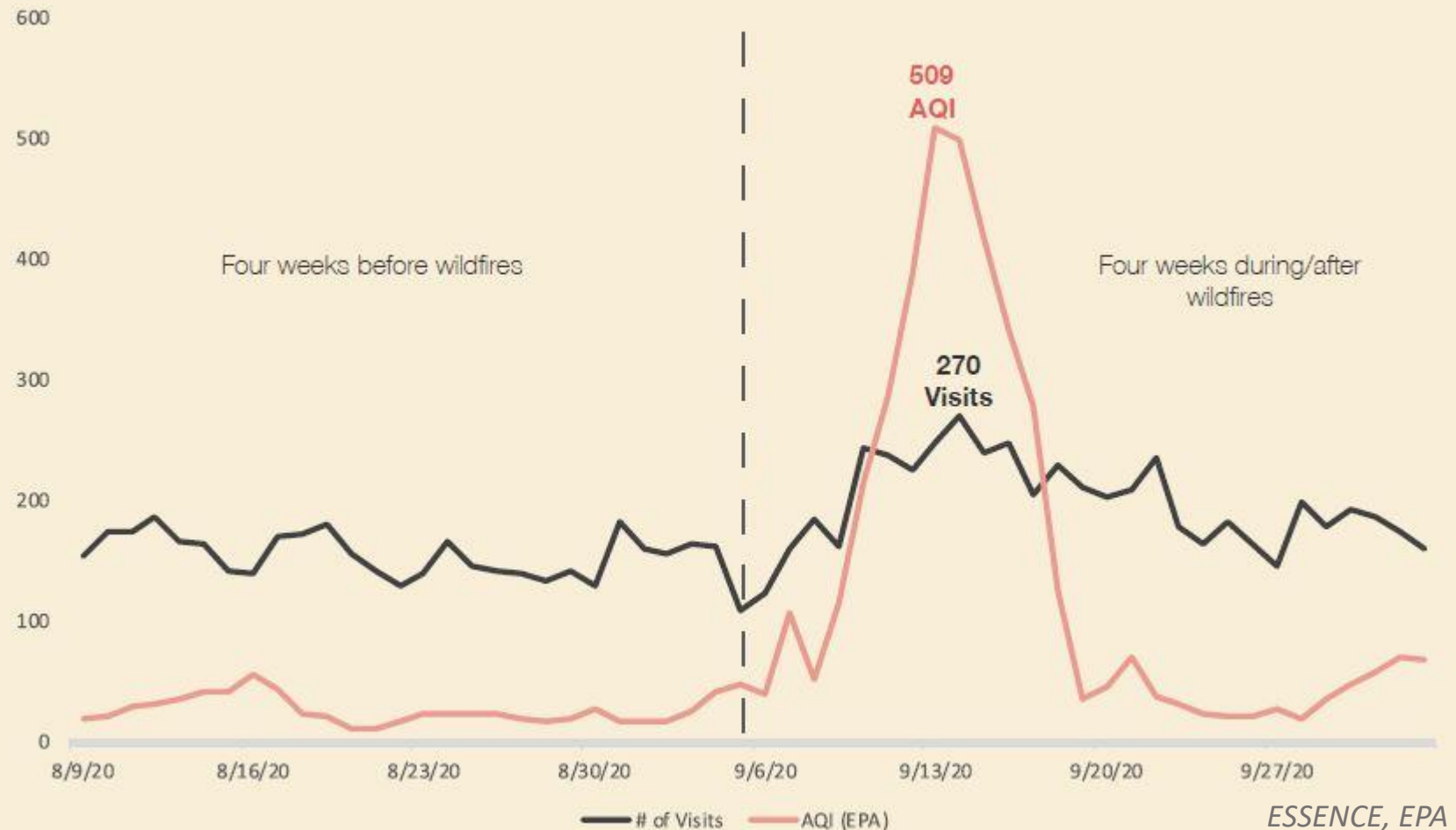


Climate Event Impacts 2020 Wildfire Season



Despite an overall decrease of asthma-like symptoms visits for the year of 2020, there were direct increases in ED visits in response to the September wildfires.

Average daily visits increased by **29%** the four weeks during/after the wildfire in comparison to the four weeks before.



Mental Health and Climate Change



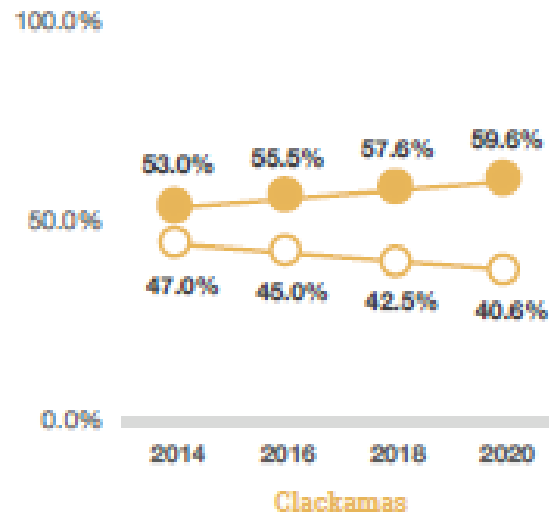
Different types and lengths of climate change events can create a range of mental health impacts:

- **Short and acute events** that last a few hours to a few weeks like heatwaves, extreme storms, or wildfires
- **Long periods of extended climate change events** like drought or recovery periods from acute events
- **Ongoing direct or indirect exposure** to the hazards of climate change like rising temperatures, rising sea levels, and other global and regional threats

Mental Health and Climate Change Landscape

Estimated Percentage of People Worried about Global Warming

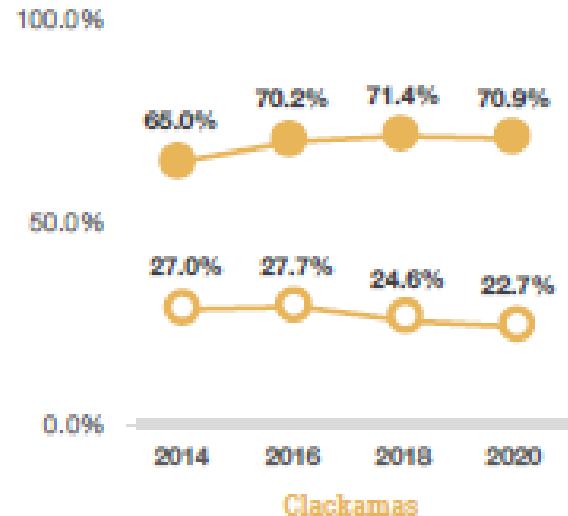
Yale Climate Opinion Survey



- Somewhat/Very Worried about global warming
- Not Very/Not at all Worried about global warming

Estimated Percentage of People Who Think Global Warming Will Harm Future Generations

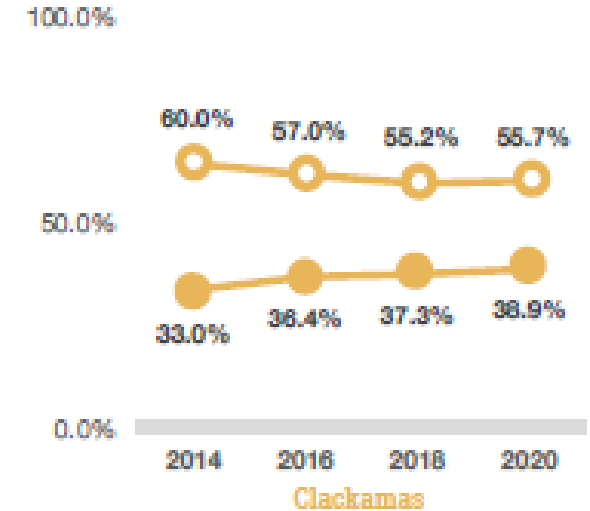
Yale Climate Opinion Survey



- Think global warming will hurt future generations a moderate/great deal
- Think global warming will hurt future generations a little/not at all

Estimated Percentage of People Who Think Global Warming Will Cause Personal Harm

Yale Climate Opinion Survey

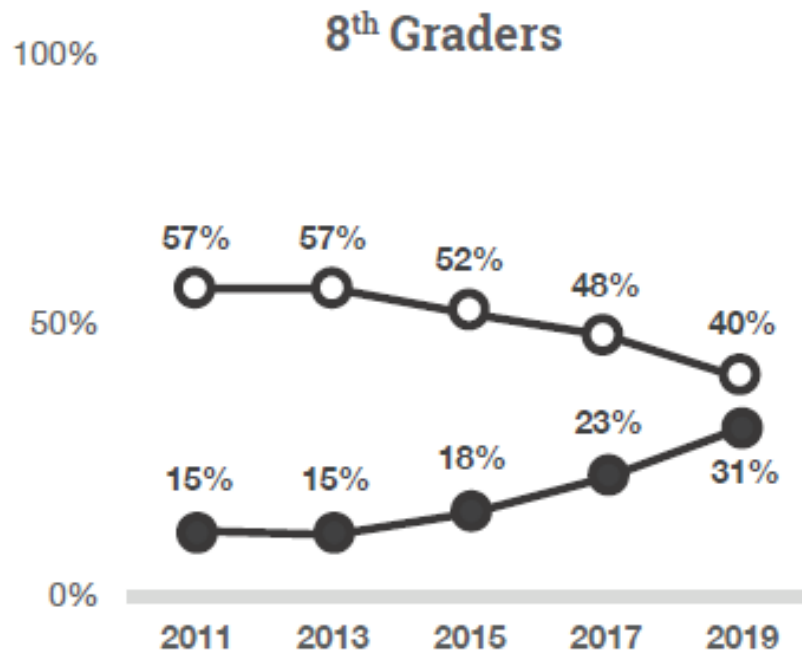


- Think global warming will cause a moderate/great deal of personal harm
- Think global warming will cause a little/no personal harm

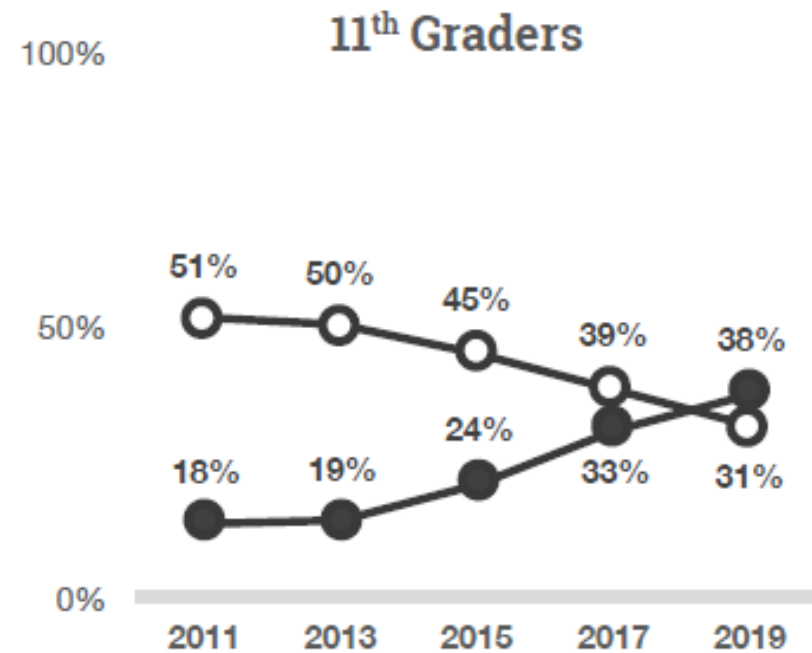
Mental Health and Climate Change Landscape

Student Self-Rating of General Emotional and Mental Health

Oregon Healthy Teen Survey

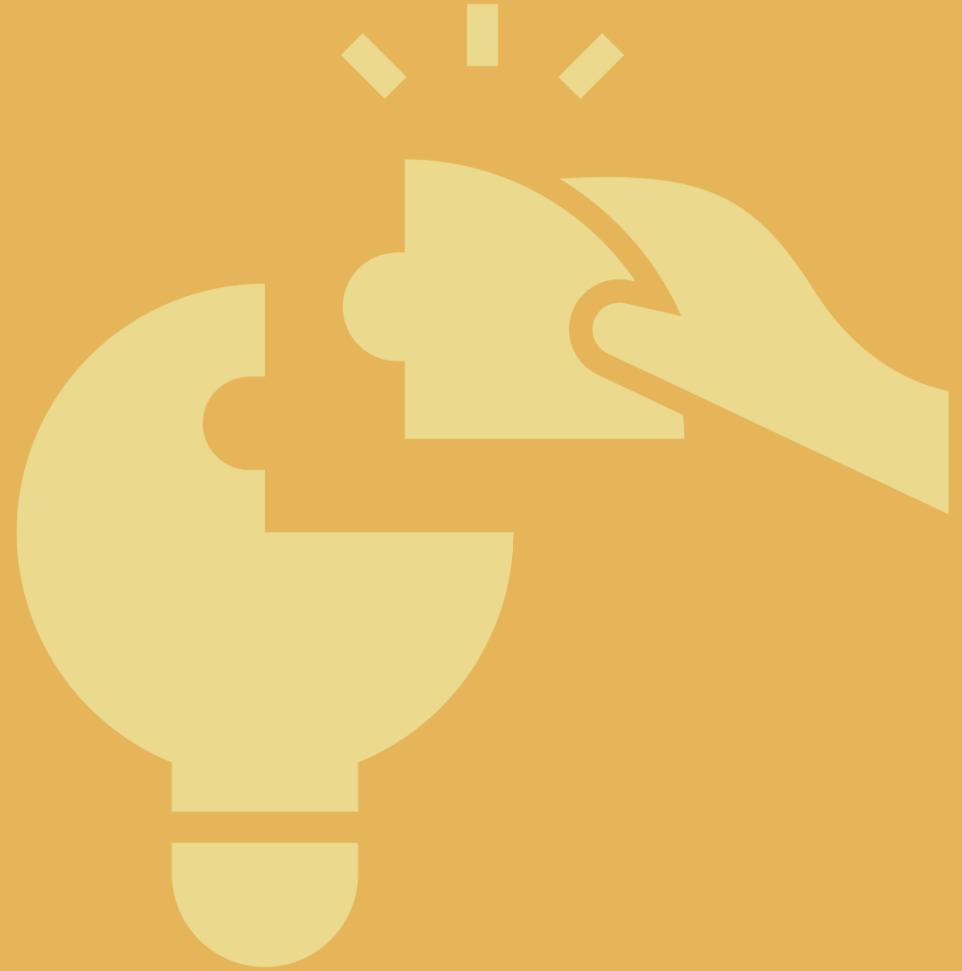


● Reported **fair or poor** emotional and mental health



○ Reported **excellent or very good** emotional and mental health

Solutions + Division Climate Agenda



Public Health Modernization

- 2021-2023 deliverables:
 - Local or regional health equity assessment
 - Local or regional all-hazards preparedness plan with community partners
 - **Local or regional climate adaptation plan**

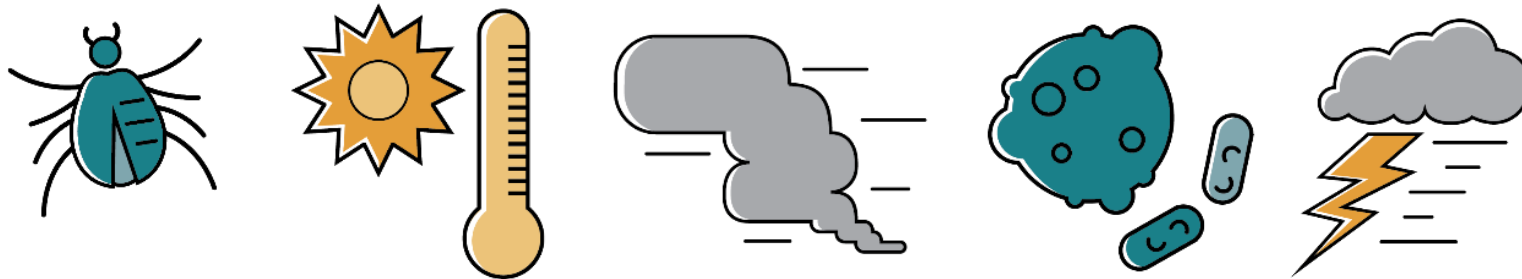


Clackamas County Public Health Division

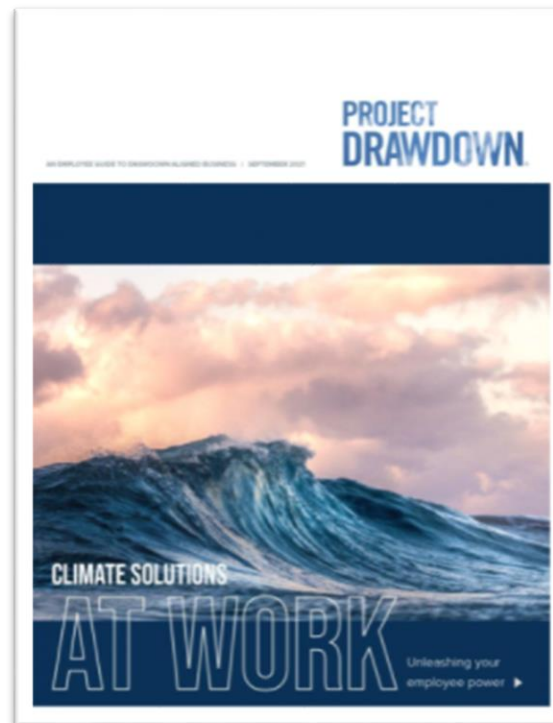
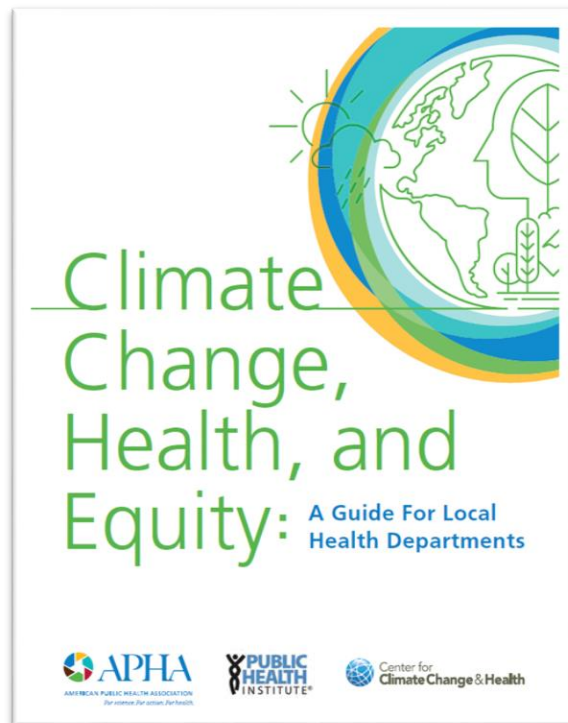
Climate *draft* work plan

- Build capacity and alignment in the public health division and H3S to address climate change
 - Climate and health literacy training
 - New staff/roles
 - H3S department coordination
- Develop a division priority agenda
 - Integrate climate and health lens across departments
 - Develop climate and health policy agenda
 - Deepen community partnerships to build climate resilience
 - Engaging in regional climate efforts
- Continue engaging with the Climate Exchange and Climate Action Plan

Comments? Questions? Ideas?



Resources



Resources

The screenshot shows the 'CLIMATE ACTION PLAN' section of a website. It features a navigation bar with links: SUSTAINABILITY, CLIMATE ACTION PLAN, ADVISORY TASK FORCE, PROJECT RESOURCES, NEWSLETTERS, TIMELINE, ACTIONS WE'RE TAKING, WHAT YOU CAN DO, and YOUTH AND CLIMATE CHANGE. The main heading is 'Climate Action Plan'. Below it, a goal statement reads: 'Goal: By 2023, a Climate Action Plan is adopted for our community with specific recommendations to reach the goal of being carbon neutral by 2050.' A green button labeled 'ANSWERS TO CLIMATE CROSSWORD PUZZLE IN #MYCLACKCO' is visible. The text continues: 'Climate change threatens our long-term health, prosperity and safety — in Clackamas County, in Oregon, and across the planet. Together, the Board of County Commissioners has called for action. The goal above was first approved by the Board of County Commissioners in 2019 and reaffirmed in 2021. We've set our sights on being carbon neutral by 2050, which means reducing our greenhouse gas emissions to the point where we can capture as much as we emit. Meeting this goal gives us a chance to limit warming and avoid the worst impacts of global change. Locally, a zero-emissions way of living and doing business can help us be healthier and more economically resilient. We know this is a big goal. It means clean energy, less waste and using less fossil fuels. To us, success starts with a plan that is meaningful, data-driven, transparent and includes the diverse members of our community.'

Clackamas County Climate Action Plan

The screenshot shows the 'CLIMATE for HEALTH' website. It features the logo and a paragraph: 'Our Climate for Health program partners with America's leading health associations and institutions to make climate change a top national health priority. Through Climate for Health, ecoAmerica helps national organizations:'. A bulleted list follows: '• Demonstrate Visible Climate Leadership', '• Create Climate Literate Health Professionals', '• Engage All Constituencies', and '• Accelerate Collective Action'. Below the list, it says 'Visit our Climate for Health [website](#).' Two video thumbnails are shown: 'Teaming Up for Climate Solutions: ACSM and ecoAmerica' and 'Our Children, Our Future'. Both videos have play buttons and a 'vimeo' logo. The video player interface shows a progress bar and a 'vimeo' logo.

EcoAmerica Climate for Health (And free online ambassador training!)