County Health Rankings & Roadmaps

Webinar
Taking a local health and equity approach to climate change
December 12, 2023

countyhealthrankings.org

We value
Collaboration
Innovation
Integrity
Courage
Inclusion
Excellence

University of Wisconsin Population Health Institute
UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH

Support provided by
Robert Wood Johnson Foundation
Join the conversation

1. **Share** successes and lessons learned
2. **Offer** resources
3. **Build** knowledge
4. **Listen** for multiple perspectives
Climate and weather

Climate effects

Air pollution
Smog, wildfires and ground-level ozone affect breathing

Flooding
Standing water contains insects that transmit disease

Seasonal allergies
Longer pollen seasons aggravate lungs and affect breathing
Climate changes health

Who’s most at risk?

- Children
- Older adults
- Communities of color
- Low-income communities
Welcome

Dr. Vivek Shandas
Professor
Portland State University

What we will cover

- How does climate change impact our health?
- What is the link between climate and health inequities?
- How can communities make a difference?
Discussion group

**When:** Following the webinar

**What:** Share ideas, ask questions

**How:** Zoom

**Why:** Deepen learning

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A bit about me....
Policymakers often lack evidence on urban heat and its impacts.

Image source: CDC & ESMAP Cool Cities Primer

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**The climate age**

Projected Change in Number of Days Above 90°F Mid 21st Century, Higher Scenario (RCP8.5)

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**Source:** Yale e360, NOAA

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**The planet is heating up.**

Cities are heating up twice as fast.

Global average temperatures are increasing at a rate 2 times higher (1.6°C per century).

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**WHAT MAKES A HEAT WAVE SO EXPENSIVE?**

- DEATH
- MEDICAL
- ENERGY
- CRIME

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Policymakers often lack evidence on urban heat and its impacts.

Image source: CDC & ESMAP Cool Cities Primer

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**Climate Change & Human Health**

- Injuries, fatalities, mental health impacts
- Asthma, cardiovascular disease
- Heat-related illness and death, cardiovascular failure
- Severe Weather
- Air Pollution
- Malnutrition, diarrheal disease
- Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms
- Forged migration, civil conflict, mental health impacts
- Environmental Degradation
- Water and Food Supply Impacts
- Water Quality Impacts
- Changes in Vector Ecology
- Increasing Allergens
- Respiratory allergies, asthma
- Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus

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**Source:** CDC & ESMAP Cool Cities Primer
Clear evidence: July 1995

Figure 1. Number of heat-related deaths, by date of occurrence and race of decedent, and heat index, by date — Chicago, July 11-27, 1995.

Pacific Northwest: 26 Years later (June. 2021)

A Spike in Heat-Related Emergency Department Visits

In the Pacific Northwest

In 2019
In 2021

During the heat wave

Air temperatures and inequities

**Morning**

**Afternoon**

**Evening**

Communities living in the hottest parts of Portland include those with:
- Less Formal Education
- Limited English Proficiency
- Less likely to have Central Air Conditioning
- High Racial Diversity
- Extreme Poverty

White communities are more likely to have heat refuges, while communities with children are less likely.

Asian and Elderly Communities are less likely to have access to heat refuges.

Federal policies and heat

Source: Hoffman, Shandas, Pendleton, 2020
Redlining and landscape conditions

- Redlined communities had less trees and more impervious surfaces.
- Grade A communities were the coolest communities.
- Grade D communities were the hottest communities.

Disproportionate impacts of heat on communities

Confirmed hyperthermia deaths between June 24th-July 13th
2021 Oregon heatwave death toll

Confirmed hyperthermia deaths between June 24th-July 13th

Table 1. Summary of policy recommendations to increase primary prevention of heat exposure

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Target Population</th>
<th>Policy/Strategic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat wave screening at health care facilities to identify high-risk individuals</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Provide AC units to university students living in high-rise buildings.</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Encourage employers to ensure the availability of personal protective equipment (PPE) during extreme heat events.</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Implement outdoor work, or hot indoor work, to essential services</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Provide a heat-related outdoor activity checklist for young people to encourage physical activity during extreme heat events.</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
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<td>Provide heat-related outdoor activity checklists for young people to encourage physical activity during extreme heat events.</td>
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</tr>
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<td>Establish a heat-related emergency shelter system to provide resources to vulnerable individuals, especially in northern states with historically higher temperatures.</td>
<td>Immediate</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Establish municipal heat-related risk management plans focused on community engagement when selecting among other strategic interventions.</td>
<td>Short Term</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
<tr>
<td>Implement community engagement and outreach programs to increase awareness and reduce heat-related risks.</td>
<td>Short Term</td>
<td>Power and cooling infrastructure could be screened for resources to support AC access.</td>
</tr>
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<td>Improve the resilience of the electrical grid.</td>
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Excerpt from Portland’s response to the western north American heatwave: A brief report

Link to the article with this table will be included in the webinar resource guide.

Work with planners and emergency managers

[Image: Two people looking at a large map and discussing]

[Diagram: CAPA Heat Action Planning process]

1. CONTEXT & BACKGROUND
2. IMPLEMENTATION GUIDANCE
3. ADVISE
4. FACILITATE
5. MONITOR
6. ANALYZE
7. HAZARD ASSESSMENT
8. INTERVENTION STRATEGIES

Key steps:
- Stakeholder map
- Capacity assessment
- Policy scan
- Heat map
- Community engagement
- Place-based cooling strategies
- Heat equity metrics
- Sector-specific plans

CAPA: Holistic, Data-driven, Equity-focused
The [A, B, C, Ds of] the work ahead

- **A**cknowledge that we’re addressing decades of injustice in landscape planning
- **B**uild deeper understanding about the pathways that climate-induced events impact communities
- **C**enter those facing the ‘first and worst’ outcomes
- **D**ecision guidance uses systematic assessments and holistic perspectives

**CONTACT**

Vivek Shandas
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What Works for Health

Strategies to help communities reduce greenhouse gas emissions and mitigate the effects of climate change, including reducing individuals’ carbon footprints.

Questions?
Click on survey in the chat

Upcoming webinar:
January 16, 2024
Investigating new approaches to racial healing

Kevin Leacock, MPH
Program manager
Build Health Places Network
Discussion group

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