Climate Change Work in Contra Costa

- Goals of Public Health Climate Change Working Group
  - Advocate for Health outcomes as recognized consequences of Climate Change impacts
  - Identify vulnerable communities in Contra Costa
  - Advocate for mitigation and adaptation measures that maximize health co-benefits
  - Advocate for prioritization of vulnerable communities in Climate Change mitigation and adaptation planning efforts
Co-Benefits of Climate Change Efforts

- Reduce vehicle miles traveled
  - Increase physical activity
  - Reduce chronic disease
  - Improve mental health

- Reduce emissions through land use changes
  - Increase local access to essential services
  - Enhance safety

- Reduce residential building energy use
  - Reduce household energy costs
  - Promote healthy homes
  - Create local green jobs

- Urban greening
  - Reduce temperature and urban heat island health effects
  - Reduce air pollution and noise

- More sustainable local food systems
  - Increase access to healthy, fresh foods
  - Reduce cardiovascular disease
  - Increase local social cohesion
  - Increase resilience
GHG Reduction Strategy

1. Energy Efficiency and Conservation
2. Renewable Energy
3. Land Use and Transportation
4. Solid Waste
5. Water Conservation
6. Government Operations
Health Co-benefit Methodology

Health Criteria

• Healthy Food
• Physical Activity
• Outdoor Air Quality
• Indoor Air Quality
• Improved Access
• Green Space
• Job Creation
• Climate Risk Adaptation
• Healthy Equity

Priority Outcomes

• Walking and Biking
• Public Transportation
• Infill Development
• Healthy Equity
Climate Change Quick Guides

**GUIDE 01**

**Taking Action on Climate Change for Health**

**Climate Change: What’s Public Health Got to Do With It?**

- **What is Climate Change?**
  - Global warming refers to the rise in global average temperature near Earth’s surface. It is not one of climate change, which refers to major changes in temperature, precipitation, or wind patterns that last for a long time.

- **Human activities release a large amount of greenhouse gases into the atmosphere; some of these gases remain in the atmosphere longer than the greenhouse gases that are released into the atmosphere.**

- **Why is Climate Change Important?**
  - Climate change is an immediate and compelling health issue for public health professionals, who can and must act in the face of environmental change. Public health professionals have a professional responsibility to address climate change and its consequences, just as forensics or infectious disease experts are compelled to respond to new and emerging threats.

**How Does Climate Change Affect Public Health?**

Climate change can have both direct and indirect effects on public health.

- **Direct effects** include changes in disease incidence and mortality, such as increased heat-related mortality and increased incidence of vector-borne diseases.

- **Indirect effects** include changes in social determinants of health, such as changes in access to clean water and food, and changes in the availability and quality of health care services.

**Mitigation**

Reducing greenhouse gases from human activities is one of the ways to address climate change. Examples include:

- Reducing energy consumption in buildings and transportation
- Increasing use of renewable energy sources
- Improving energy efficiency in appliances and vehicles
- Planting trees and other vegetation to capture carbon

**Barriers to Action**

Barriers to action include:

- Lack of public awareness and understanding
- Lack of political will and funding
- Complexity of the issue

**Spotlight on Santa Clara County**

The Santa Clara County Health Services Department (SCCH) is committed to taking action on climate change to protect public health. They have developed a Climate Action Plan to address the health impacts of climate change and to take action to reduce greenhouse gas emissions.

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**GUIDE 02**

**Taking Action on Climate Change for Health and Equity Co-Benefits of Addressing Climate Change**

**Health Co-benefits**

Health co-benefits of climate change mitigation and adaptation strategies include:

- Improved air quality
- Reduced exposure to heat waves
- Improved access to healthy food
- Reduced risk of severe weather events

**Mitigation**

Reduction of greenhouse gas emissions can have co-benefits for public health and the environment. Examples include:

- Improved air quality from reduced emissions of air pollutants
- Reduced exposure to heat waves from reduced emissions of greenhouse gases
- Improved access to healthy food from reduced emissions of air pollutants

**Spotlight on Alameda County**

The Alameda County Health Services Department (ACHSD) is committed to taking action on climate change to protect public health. They have developed a Climate Change Action Plan to address the health impacts of climate change and to take action to reduce greenhouse gas emissions.

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**GUIDE 03**

**Taking Action on Climate Change for Health**

**Climate Change Will Not Affect All Communities in the Same Way**

- **Some communities are more vulnerable to the health impacts of climate change than others.**
  - Factors that contribute to vulnerability include:
    - Socioeconomic status
    - Access to health care services
    - Infrastructure and public services
    - Natural and built environments

- **Mitigation Strategies Can Support Health Equity Efforts**
  - By addressing the root causes of health inequities, mitigation strategies can help reduce health disparities among different communities.

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**GUIDE 04**

**Taking Action on Climate Change for Health**

**How Public Health Can Address Climate Change**

Public health professionals have an important role to play in addressing climate change. Examples include:

- Engaging in public health planning and decision-making
- Developing and implementing climate change adaptation strategies
- Collaborating with other sectors to address climate change

**Barriers to Action**

Barriers to action include:

- Lack of public awareness and understanding
- Lack of political will and funding
- Complexity of the issue

**Spotlight on Santa Clara County**

The Santa Clara County Health Services Department (SCCH) is committed to taking action on climate change to protect public health. They have developed a Climate Action Plan to address the health impacts of climate change and to take action to reduce greenhouse gas emissions.

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**GUIDE 05**

**Taking Action on Climate Change for Health**

**Getting Involved in Climate Change Action Planning**

- **Understanding Climate Change**
  - Climate change is the long-term change in global or regional climate patterns. It is primarily caused by human activities, such as burning fossil fuels and deforestation.

- **Barriers to Action**
  - Lack of public awareness and understanding
  - Lack of political will and funding
  - Complexity of the issue

**Spotlight on Alameda County**

The Alameda County Health Services Department (ACHSD) is committed to taking action on climate change to protect public health. They have developed a Climate Change Action Plan to address the health impacts of climate change and to take action to reduce greenhouse gas emissions.

**www.barhii.org**
Climate Change Vulnerability in Contra Costa County: A Focus on Heat
<table>
<thead>
<tr>
<th>Category</th>
<th>Vulnerability Factor</th>
<th>Data Source</th>
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<td>Biological</td>
<td>Percent of population under 5</td>
<td>US Census, 2007–2011 American Community Survey</td>
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<tr>
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<td>Percent of population over 65</td>
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<tr>
<td>Medical</td>
<td>Asthma hospitalization and ED visit rate</td>
<td>California Office of Statewide Health Planning and Development, 2009–2011</td>
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<td>Percent of households without access to a vehicle</td>
<td>US Census, 2007–2011 American Community Survey</td>
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<td>Average daily transit pickups</td>
<td>Metropolitan Transportation Commission, 2009</td>
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<td>Living Conditions</td>
<td>Percent treeless area</td>
<td>US Department of the Interior, National Land Cover Database, 2001</td>
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<td>Percent impervious surface</td>
<td>US Department of the Interior, National Land Cover Database, 2006</td>
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<td>Percent households without air conditioning</td>
<td>CA Department of Public Health, 2009 California Energy Survey, provided by Pacific Institute</td>
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<td></td>
<td>Portion of daily maximum 8 hour ozone concentration over federal standard</td>
<td>CalEnviroScreen analysis of CA Air Resources Board, 2007–2009</td>
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Figure 21: Average Z-Scores Of Heat Vulnerability Indicators By Census Tract, Showing An Equal Number Of Census Tracts In Each Category.
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</table>
Bay Area Climate & Energy Resilience Project

- Regional Needs Assessment (Kresge/JPC)
- Health Gap: Resources vs. Needs
- Bringing PEOPLE Into Regional Climate Adaptation Planning
Climate Readiness Institute

- Academics + Practitioners
- Health 1 of 5 Focus Areas
- Bay Area Health Department Climate Working Group
- Funders Roundtable