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Climate Change, Health and Equity:

A Guide For Local Health Departments

Climate Change, Health and Equity: A Guide for Local Health Departments

Linda Rudolph MD, MPH
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INTRODUCTION



Center for
Climate Change & Health

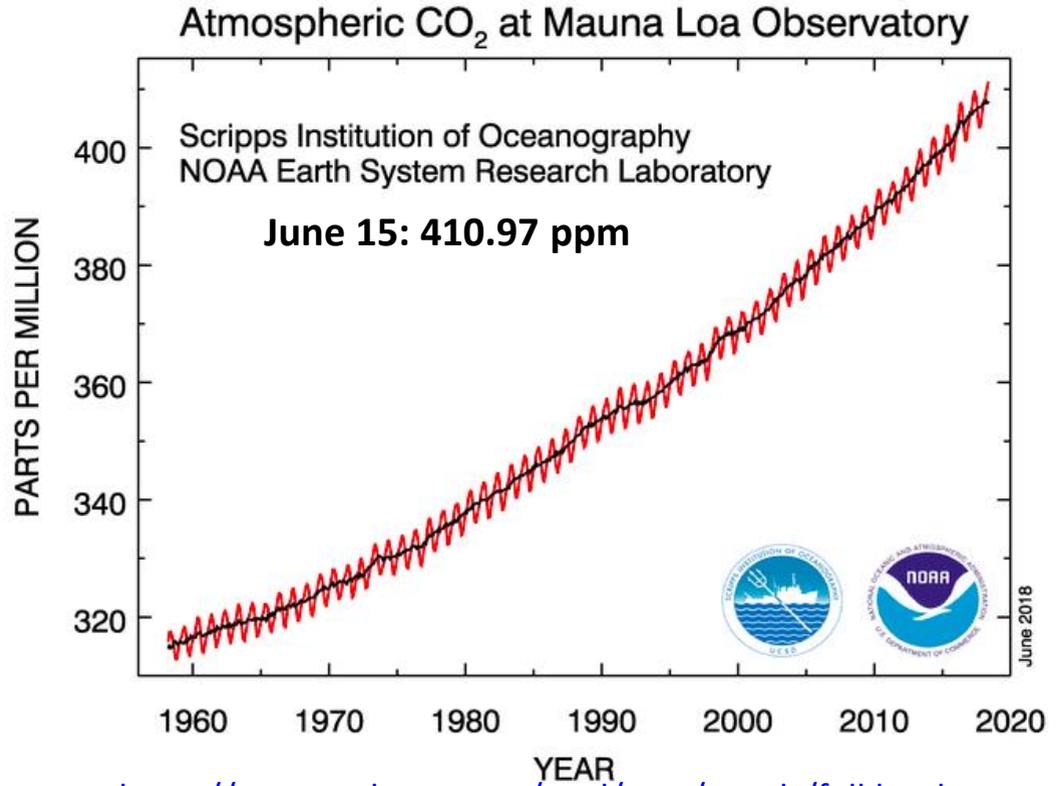


Thank you.

- American Public Health Association
- Centers for Disease Control and Prevention
- California Department of Public Health
- The Kresge Foundation

- Savannah North, MPH and Laura Buckley, MPH
- Many contributors and reviewers

- The local health departments that have taken up the challenge to protect health in the era of climate change



<https://www.esrl.noaa.gov/gmd/ccgg/trends/full.html>

Harvey Breaks Continental US Record For Rainfall

Weather Gets Weird as Record Rainfall Follows Record Drought

Maryland Records First Heat-Related Death Of 2018

The heat is back on high: May smashes US temperature records

**TO SAFEGUARD HUMAN HEALTH WE
NEED TO MAINTAIN THE HEALTH OF THE
PLANET ON WHICH WE DEPEND**



Image: Getty Images

Why Local Health Departments?

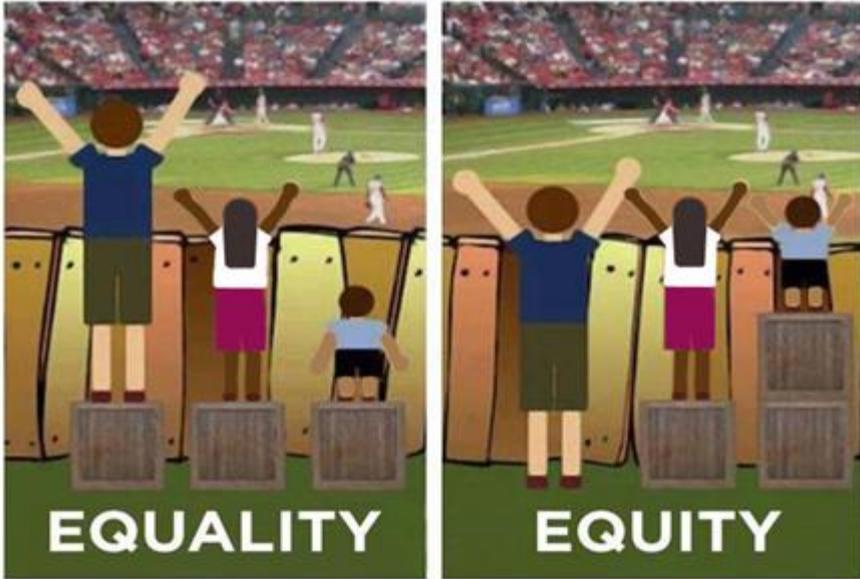
Climate change is a health emergency.

- Core PH values: *“humans have a right to the resources necessary for health... people and their physical environment are interdependent.”*
- LHDs are on the front lines, work in impacted communities
- LHDs are the only local government entity with a duty to protect health
- LHDs provide a trusted and credible voice
- LHDs have a proven track record of succeeding against powerful forces to protect health



LHDs are an essential part of the response to climate change.

Climate Change and Health Equity: The Climate Gap



"Social injustice is killing people on a grand scale."

WHO Commission on the Social Determinants of Health, 2008

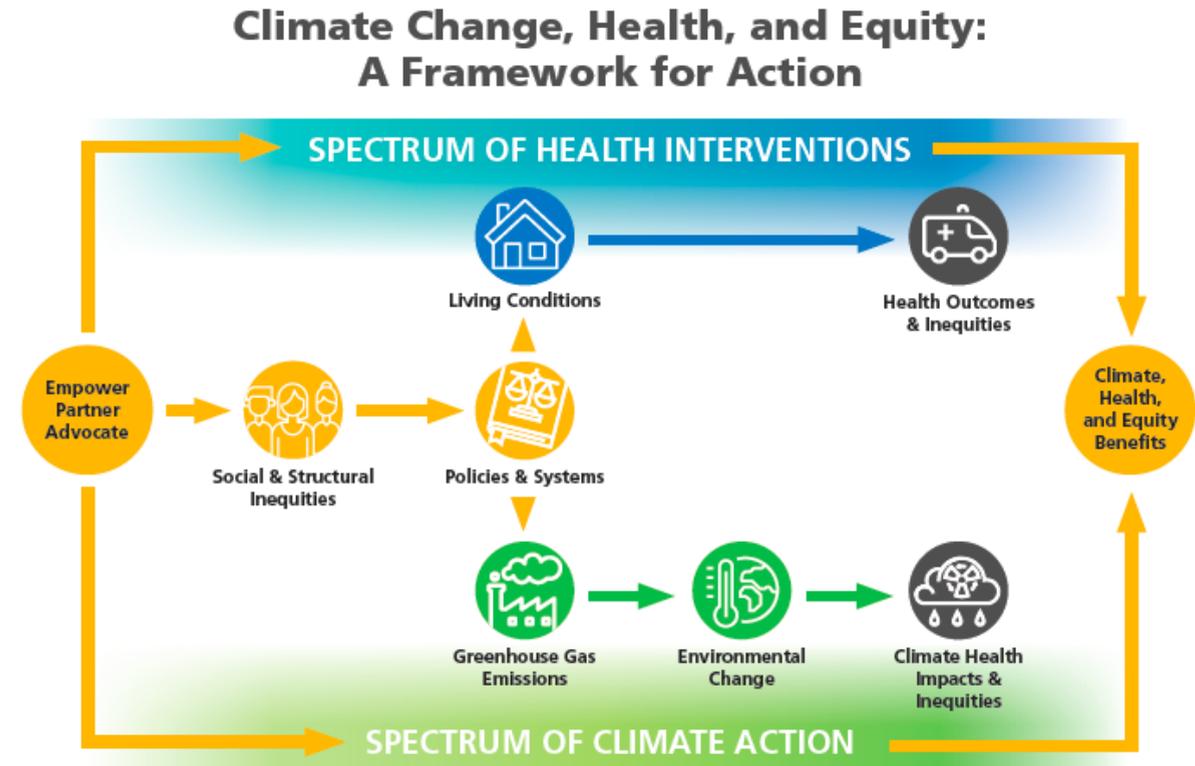
"...climate change is a 'threat multiplier'... [that] will intensify the challenges of global instability, hunger, poverty and conflict."

U.S. Secretary of Defense Chuck Hagel

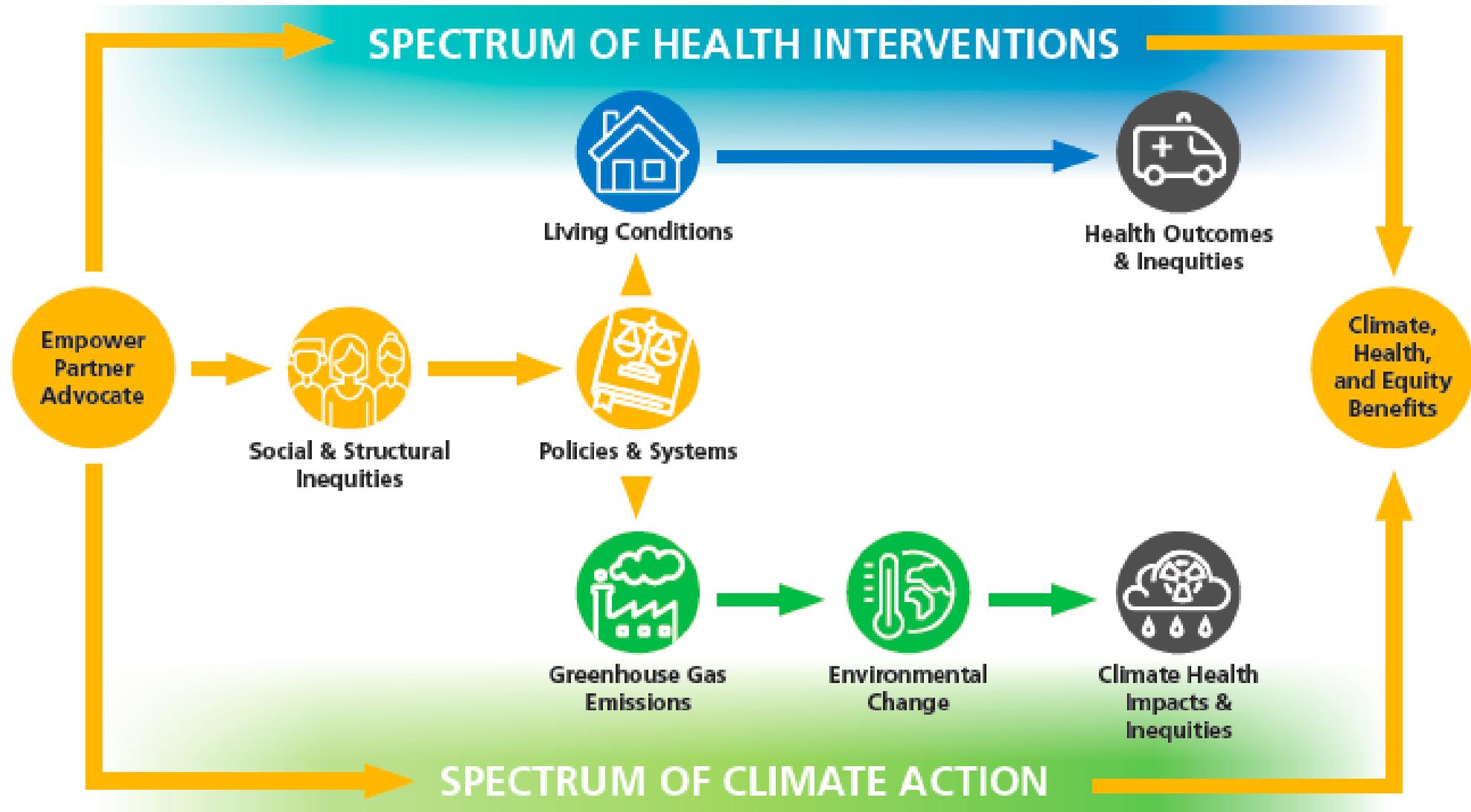


Climate Change, Health, and Equity

- **Health Equity and Climate Change**
 - Climate change and health equity
 - Intergenerational Inequity
 - Global Climate Inequities
 - Climate Vulnerability and Resilience
- **Race, Ethnicity, and Climate Change**
 - African Americans
 - Native Americans and Alaska Natives
 - Latinos/Hispanics/Latinx
 - Native Hawaiians and Pacific Islanders
- **Community Climate Resilience**
- **What LHDs Can Do**



Climate Change, Health, and Equity: A Framework for Action





HEALTH IMPACTS OF CLIMATE CHANGE

- Potentially catastrophic for human survival
- Undermine the last half-century of gains in development and global health
- A medical emergency

From Nick Watts

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60854-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60854-6/fulltext)

Health Impacts of Climate Change

- Climate Change 101
- Heat
- Wildfires
- Drought
- Wildfires
- Air Quality
- Allergens
- Sea level rise
- Storms and Flooding
- Nutrition and Food Security



POLICY RESPONSES FOR HEALTH

“Responding to climate change could be the **greatest global health opportunity** of the 21st century”



[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60854-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60854-6/fulltext)

Health Benefits of Addressing Climate Change

- Transportation
- Energy & Fossil Fuels
- Agriculture and Food Systems
- Urban Greening & Green Infrastructure
- Potential Harms of Climate Action



Climate Change and Public Health Programs

- Maternal, Child, Adolescent and Families
- Clinical Services
- Infectious and Communicable Disease
- Environmental Health Services
- Chronic Disease and Injury Prevention and Control
- Public Health Emergency Preparedness



Maternal, Child, Adolescent & Family Health

“Climate change poses threats to human health, safety, and security, and children are uniquely vulnerable to these threats. The effects of climate change on child health include: physical and psychological sequelae of weather disasters; increased heat stress; decreased air quality; altered disease patterns of some climate-sensitive infections; and food, water, and nutrient insecurity in vulnerable regions. The social foundations of children’s mental and physical health are threatened by the specter of far-reaching effects of unchecked climate change, including community and global instability, mass migrations, and increased conflict. Given this knowledge, failure to take prompt, substantive action would be an act of injustice to all children.”

– American Academy of Pediatrics, 2015

Why you should care

Infants, children, adolescents, and pregnant mothers (MCH for short) are among the most vulnerable to climate change. Moreover, the consequences of adverse climate impacts are farther reaching for them, and climate change poses a tremendous threat to the fair treatment of future generations. Fortunately, climate action offers a multitude of MCH cobenefits. And, because MCH programs directly engage with communities, they are well-positioned to promote climate resilience and have a voice with the moral authority to do so.

Heightened vulnerability to climate change

Infants, Children and Youth

Infants, children and youth can face greater vulnerability to climate change impacts due to their distinct biologically-based sensitivities, exposures, and limited adaptive capacity.¹ As a result, infants, children and youth experience more—and more severe—climate change-related health impacts, including injury, illness, mental health consequences, and mortality, as follows:

Biological sensitivity and susceptibility² Innate physiological, anatomical, and developmentally-based behavioral differences make infants and children—especially those under 5—more vulnerable to climate impacts. As a result, they face higher risks for heat-related illness and death,^{3,4} increased allergy, asthma, and other illnesses from ozone and toxic particulate air pollution,⁵ more and more severe zoonotic, water, and food-

Climate Change & PH Functions

- Assessment and Surveillance
- Organizational Capacity
- Greening Local Health Departments
- Community Engagement and Intersectoral Collaboration

The Human Health Effects of Rail Transport of Coal Through Multnomah County, Oregon
A Health Analysis and Recommendations for Further Action



Health Assessment and Evaluation



Heat Vulnerability Index by Census Block Group
San Francisco, CA



Philadelphia Department of Public Health (PDPH)
Health Bulletin
Health tips and news for the community

Department of Public Health
CITY OF PHILADELPHIA
LIFE • LIBERTY • AND YOU™

Climate Change in Philadelphia

Urban Heat Island Reduction for Los Angeles County



Climate and Health Communications

Original: We often look forward to changes of season, but if you have diabetes, you need to be extra careful when temperatures climb dramatically. Extreme heat can affect your blood sugar control.

Modified: We often look forward to changes of season, but if you have diabetes, you need to be extra careful when temperatures climb dramatically. *Climate change is making extreme heat days far more common.* Extreme heat can affect your blood sugar control.

Original: Effective immediately, County Public Health Services is issuing a water contact advisory for The Cove at Lake California. Health advisory signs will be posted this week that advise recreational users to use caution and avoid contact with water in these designated areas...Increased water temperatures, slow moving water and excessive nutrients or organic matter cause cyanobacteria and some algae to rapidly multiply and form HABs.

Modified: Effective immediately, County Public Health Services is issuing a water contact advisory for The Cove at Lake California. Health advisory signs will be posted this week that advise recreational users to use caution and avoid contact with water in these designated areas... Increased water temperatures *due to climate change*, slow moving water and excessive nutrients or organic matter cause cyanobacteria and some algae to rapidly multiply and form HABs.

COMING SOON!



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