

Getting Involved in Climate Change Planning

OPPORTUNITIES FOR PUBLIC HEALTH



Climate change has serious implications for our health, with our most vulnerable populations expected to suffer most. This fact sheet describes the major health effects of climate change and shows how public health advocates can get involved to help stem the risks.



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Law & policy innovation for the common good.

Major Health Risks From Climate Change

The health implications of climate change are significant, ranging from increases in injuries and fatalities caused by severe weather events to the spread of infectious disease, as well as rising rates of respiratory and cardiovascular disease related to worsening air pollution. Some of the health risks scientists predict:

Heat Waves



Climate change will likely increase the frequency and magnitude of heat waves in California.¹ For example, the average duration of a heat wave is expected to increase from a few weeks to over a month.² The elderly, infants, socially isolated people, people with pre-existing illnesses, and those who lack access to air conditioning or cooling spaces face the greatest risk during heat waves.³ The health impacts include heat stroke,

heat exhaustion, the worsening of existing medical conditions such as cardiovascular and respiratory diseases,⁴ and death.

While exact projections of future mortality rates are unavailable, public health authorities do know that during the past 15 years heat waves have caused more deaths in California than all other natural disasters combined.⁵

Air Quality



California already has some of the worst air quality in the nation, and increased temperatures promise to degrade air quality further. Indeed, researchers anticipate that higher temperatures could seriously threaten the state's ability to meet state and federal air quality standards and could offset many of the gains that have been made through air pollution control efforts.⁶

For example, heat boosts the production of ozone, the primary ingredient of smog. Scientists forecast

that climate change will cause significant increases in average ozone concentrations, exacerbate peak ozone levels, and lengthen the ozone-producing season.⁷ Ozone aggravates the poor health of people already suffering from respiratory conditions such as asthma and emphysema, and recent studies suggest that increased exposure to ozone and other air pollutants can actually initiate cardiovascular and lung disease.⁸

Infectious Diseases



Scientists predict an increase in the range, frequency, and spread of infectious diseases due to the projected increases in temperatures associated with climate change.⁹ For example, as certain areas become warmer, disease carriers (also known as “vectors,” such as ticks, mosquitoes, and rodents) will begin to populate regions that were once too cool to be hospitable. The vector-borne diseases of most concern in California are hantavirus, Lyme disease, and West Nile virus.¹⁰

Water-borne diseases also pose a likely health threat. Climate change is expected to alter historical precipitation patterns and produce heavier rainfalls, which could overwhelm sewage treatment facilities, resulting in contaminated drinking water that exposes the public to water-borne infectious illnesses.¹¹

1 Drechsler DM, Motalebi N, Kleeman M, et al. *Public Health-Related Impacts of Climate Change in California*. PIER Research Report CEC-500-2005-197-SF. Sacramento, CA: California Energy Commission, 2006.

2 *Id.*

3 Semenza JC, Rubin CH, Falter KH, et al. “Heat-Related Deaths during the July 1995 Heat Wave in Chicago.” *New England Journal of Medicine*, 335(2):84–90, 1996.

4 McGeehin MA and Mirabelli M. “The Potential Impacts of Climate Variability and Change on Temperature-Related Morbidity and Mortality in the United States.” *Environmental Health Perspectives* 109:185–189, 2001.

5 Messner S, Miranda KG, et al. *Climate Change-Related Impacts in the San Diego Region by 2050*. PIER Research Report CEC-500-2009-027-D. Sacramento, CA: California Energy Commission, 2009.

6 Millstein DE and Harley RA. *Impact of Climate Change on Photochemical Air Pollution in Southern California*. PIER Research Report CEC-500-2009-021-D. Sacramento, CA: California Energy Commission, 2009.

7 U.S. Environmental Protection Agency. “Climate Change and Air Quality” in *Our Nation's Air*, 2010. Available at: www.epa.gov/airtrends/2010/report/climatechange.pdf.

8 Srebot et al. “Ozone and Cardiovascular Injury.” *Cardiovascular Ultrasound*, 7:30, 2009.

9 Greer A, Ng V, and Fishman D. “Climate Change and Infectious Disease in North America: The Road Ahead.” *Canadian Medical Association Journal*, 178(6): 715–722, 2008.

10 Drechsler DM, Motalebi N, Kleeman M, et al. *Public Health-Related Impacts of Climate Change in California*. PIER Research Report CEC-500-2005-197-SF. Sacramento, CA: California Energy Commission, 2006.

11 *Id.*

Climate change may well be the greatest threat to human health in this century, even outpacing the sickness and death caused by tobacco addiction and obesity. Many think the health impacts of climate change will only be experienced by people living in developing countries, but this is not true: climate scientists predict widespread effects in California.

Who will suffer most? The elderly, children, and poor – populations that already face a disproportionate burden of negative health effects due to environmental pollution, limited access to health care, and tight financial resources.

The good news is that, by getting involved in climate change policy initiatives, public health advocates have a prime opportunity not only to mitigate the future health effects of global climate change but also to advance policies that can help people live healthier lives in their own communities today.

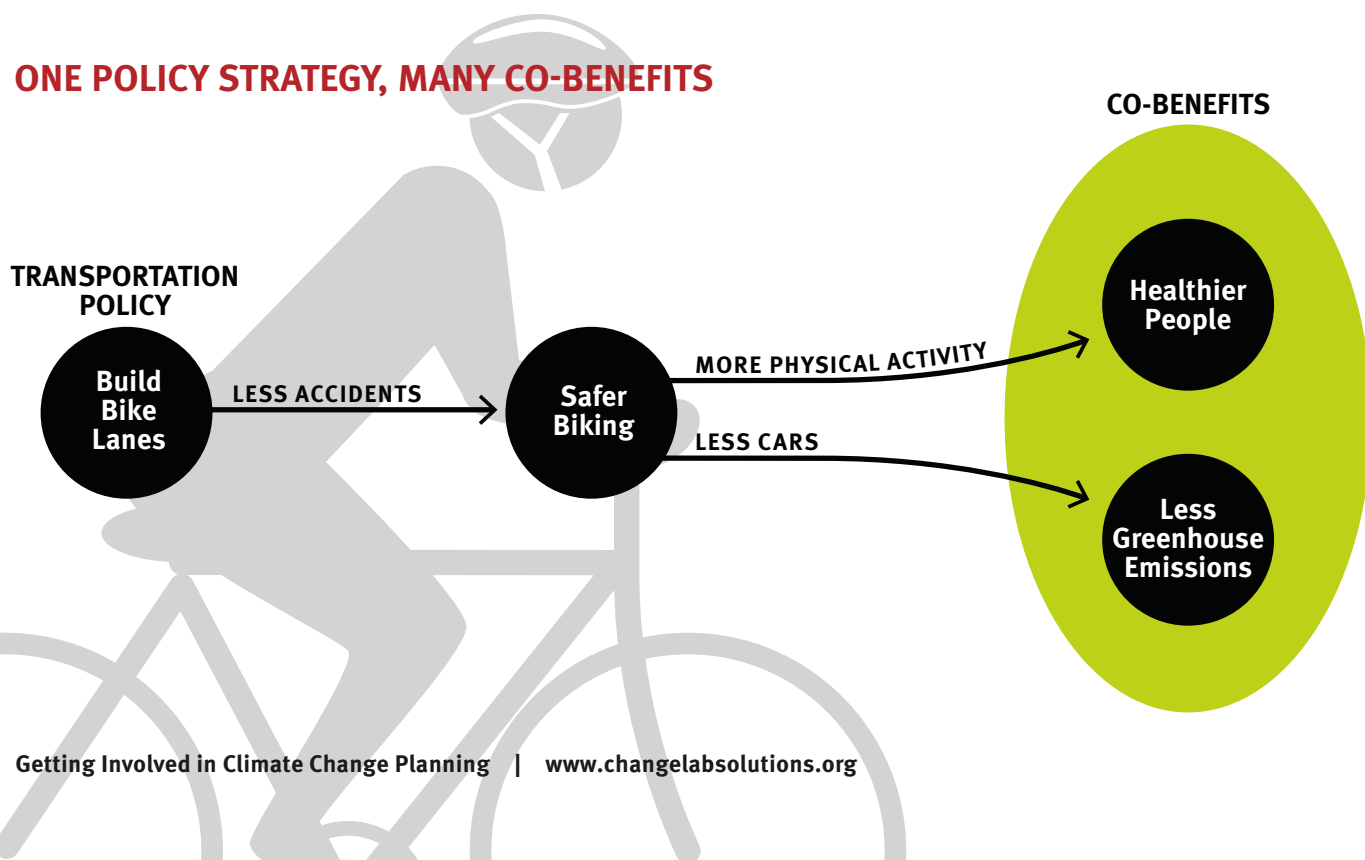
Public health practitioners are already working to promote policies to combat diabetes, obesity, and other chronic diseases – and many of these strategies can also help reduce greenhouse gas emissions and help combat global warming.

This is true for a host of policies designed to curb urban sprawl and build vibrant neighborhoods. Making it safe and convenient for residents to walk and bicycle for daily errands, for instance, will encourage people to get out of their cars, promoting physical activity while reducing greenhouse gas emissions. Making it easier for communities to hold farmers' markets and getting more produce into corner stores brings healthy foods to poor and underserved areas (potentially lowering rates of obesity, diabetes, and heart disease) – and it decreases transportation-related pollution by expanding opportunities for local and regional growers.

We call these “co-benefits”: by taking one action to improve physical health, we gain other benefits to improve planetary health.

Improving public health will mitigate climate change, and fighting global warming will make people healthier.

ONE POLICY STRATEGY, MANY CO-BENEFITS



Next Steps

How can public health advocates plug into climate policy efforts? Here are four promising strategies:



Communicate the public health message. Global warming is harmful for *people* – not just penguins and polar bears. Public health professionals must convey the connections between climate change and health – to other public health practitioners, climate planners, policymakers, and the general public. This messaging must be rooted in larger policy campaigns aimed at changing community and institutional practices that contribute to global warming.



Begin work on climate change now. There's an immediate opportunity to bring a climate change focus into public health practitioners' work on transportation infrastructure and land use planning. Both areas have significant impact on climate change and public health, and working for complementary solutions has great potential to create more healthy and sustainable communities.

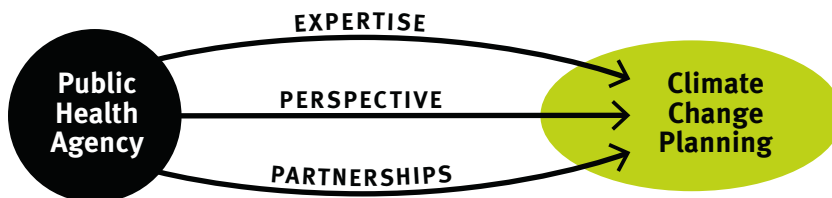


Advocate for and protect vulnerable populations. Social and economic justice are core public health values. Building on these principles, public health professionals must advocate for climate change policies that eliminate health disparities and improve neighborhood conditions, reduce overall pollution levels in overburdened communities, and protect those who will be most impacted by climate change.



Develop capacity to engage in this work. State and local public health agencies must devote resources establishing public health leadership and policy direction, provide training opportunities, and mobilize and coordinate involvement.

Public health practitioners have both a responsibility and an obligation to be at the forefront of efforts to prepare for and alert communities to these potential public health disasters.



The power of public health practice – its expertise, its perspective, and its partnerships – must be integrated more fully into climate change planning to influence political leaders and mobilize community support around innovative climate change policies. Public health leaders can focus attention on the widespread health impacts of climate change and call for immediate action to reverse current trends, in order to avoid the worst-case scenarios.

Improving public health will mitigate climate change, and fighting global warming will make people healthier. By approaching this public health crisis from many directions, we stand a better chance of making a real difference.

How We Can Help

To help public health practitioners and advocates become more involved in climate change planning, ChangeLab Solutions convened more than 150 leaders from major environmental groups, public health departments, universities, social justice campaigns, faith-based organizations, and more to exchange ideas on how to better engage public health networks and agencies in this work.

We released *An Action Plan for Public Health: Initial Recommendations for Involving Public Health in Climate Change Policy*, assessing public health's capacity to fully engage in climate change work. We also regularly offer trainings and presentations on this issue, available at: www.changelabsolutions.org.

To learn more about how California's public health community can get involved in climate change planning, see www.changelabsolutions.org.

ChangeLab Solutions is a nonprofit organization that provides legal information on matters relating to public health. The legal information in this document does not constitute legal advice or legal representation. For legal advice, readers should consult a lawyer in their state.

ChangeLab Solutions formerly existed under the name Public Health Law & Policy (PHLP). Any references to PHLP in this publication should now be understood to refer to ChangeLab Solutions.

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