

## Built Environment and Transportation Connections to Climate Change: San Diego County Public Health Services Case Story



This is one in a series of Climate and Health Case Stories that highlight how public health departments in California are responding to climate change as an emerging public health issue.

### Climate Change and Health in San Diego County

San Diego County with more than 3 million people is the most heavily urbanized region in the state. For this county that is located on the border with Mexico in the South Coast Region, it is

*“We know that climate change will affect people’s health in our region. That’s why the county is working with the National Weather Service to better understand our local weather conditions and how to proactively respond to weather extremes to protect the health and well-being of all San Diegans”*

*-Wilma J. Wooten, MD, MPH  
County of San Diego  
Public Health Officer*

projected that climate change will increase the risk of heat waves, air pollution, wildfires, drought, vector borne diseases, and flooding and storm surges from sea level rise and flash flooding. These effects will have a significant impact on public health and disproportionately affect the area’s most vulnerable populations, including children, the elderly, people with chronic diseases, outdoor workers, people living in poverty, and some communities of color.

Wildfire risk has increased in the area evidenced by the 2007 San Diego County Firestorm, which lasted from October 21 to November 9, 2007, and consumed approximately 369,000 acres or about 13% of the county’s total land mass.

Additionally, the fires destroyed an estimated 1,600 homes. This event resulted in evacuation of approximately 515,000 people including over 2,200 medical patients representing the largest evacuation in California history. The San Diego Health and Human Services Agency mobilized 1,490 staff to assist with response efforts.



### Leveraging Existing Structures and Resources

In San Diego County, governments collaborate with universities, philanthropic institutions, nonprofits, and businesses to develop policies, plans, and programs that address climate change. San Diego County Public Health Services (SDCPHS), a division of the Health and Human Services Agency, while working to identify strategies to address climate change started to raise awareness through its existing planning and activities for chronic disease prevention, health equity and emergency preparedness. These activities were implemented through the work of staff in the division’s Chronic Disease and Health Equity (CDHE) Unit.

## Transportation and Land Use Planning

The Health and Human Services Agency and San Diego Association of Governments (SANDAG) have embedded public health into planning and implementation activities for transportation and land use.

By working on active transportation issues, the health department has been able to engage with and raise awareness around the health and environmental impacts of the built environment.

In its initial approach to climate change planning, SDCPHS leveraged existing relationships with organizations and collaboratives already participating in climate change work. Through engagement in ongoing healthy transportation and food systems initiatives, CDHE's work was supported by the Centers for Disease Control and Prevention's (CDC) Community Transformation (CTG) and the Communities Putting Prevention to Work grants. These grants built capacity and partnerships for a policy, systems, and environmental approach that emphasized high-impact projects with significant co-benefits, reducing greenhouse gas (GHG) emissions and increasing physical activity. Co-benefits were promoted through education, policies, system change, and planning work.

The SDCPHS relationship with the San Diego Association

of Governments (SANDAG), the metropolitan planning organization (MPO), provided the opportunity to bring a strong public health equity perspective to regional transportation and land-use planning. SANDAG started considering and integrating a health conscious approach around a decade ago and is one of four MPOs chosen by the US Department of Transportation for its white paper, *Metropolitan Area Transportation Planning for Healthy Communities*. This white paper identifies integrated and flexible approaches to how MPOs and their partners can successfully consider aspects of health during the transportation planning process.

In SANDAG's healthy communities planning, SDCPHS brought expertise and knowledge on health benefits and policy. The focus was associated with active transportation and other built environment strategies to promote chronic disease prevention and health equity. The strategies are outlined in SANDAG's first *Public Health White Paper*, which integrates public health policy issues and performance measures in the *San Diego Forward: The Regional Plan*, to help achieve its goal of "Healthy Communities and Environment" (See Resources section). Through this relationship, the department is bringing a health perspective to GHG emissions reduction strategies.

SDCPHS is participating in work on the *2015 San Diego County Multi-Jurisdictional Hazard Mitigation Plan*. The department is also coordinating climate change, and climate and health-related efforts with the San Diego Foundation's Climate Initiative and the San Diego Regional Climate Collaborative.

## Key Questions

- What is the public health role in planning for climate change and mobilization?
- How can public health meaningfully address this emerging issue with limited resources?
- How can public health effectively integrate climate change into current and future health programs and planning?
- How will staff be trained to address climate change in their work?

A 2014 report, *San Diego, 2050 is Calling. HOW WILL WE ANSWER?*, is part of an effort by the Climate Education Partners (CEP) to develop and implement a climate change education plan for the San Diego region. Having a wealth of organizations that work with local expert scientists, educators and a wide range of community leaders helps the department's staff learn about, prepare for, and respond to the impacts of a changing climate.

## Moving Forward

More recently, CTG's Safe Routes to Schools efforts decreased the risk of chronic disease, built community resilience, and reduced vehicular GHG emissions by promoting active transportation like biking, walking, and public transit. In addition, CTG promoted more integration of food systems planning in local general plans, to increase access to healthy food and benefits to the environment.



In 2014, CDHE leadership and staff formed a climate change learning group to coordinate the department's efforts to build its capacity and respond to climate change. Through the group, members have attended statewide climate events and participated in a 10-week climate change course provided by the University of California, San Diego. These activities helped the group build a strong foundation of knowledge, allowing the staff to more effectively engage in local climate change efforts. SDCPHS is also participating in California Department of Public Health's Building Resilience against Climate Effects (CalBRACE) program funded by the CDC. With representation by CDHE staff, this program is receiving technical assistance and funding to initiate adaptation planning and build capacity to address health issues related to climate change.

The nascent climate and health group is expanding its activities. As part of its participation in the CalBRACE project, staff developed a capacity building framework and work plan to continue to address climate change and adaption planning. Strategies include:

Strategy 1: Build CDHE and SDCPHS organizational capacity to support/guide development and implementation of SDCPHS Climate Action Plan and future climate action.

Strategy 2: Coordinate, develop and provide SDPHS general and division-specific, climate change training to increase knowledge, expertise and resources to address the health impacts of climate change.

Strategy 3: Promote local planning, land-use, transportation, water, food and energy policies that reduce carbon emissions, and support the design of healthy and sustainable communities.

Strategy 4: Establish, improve and maintain mechanisms for robust rapid surveillance of environmental conditions, climate-related illness, vulnerabilities, protective factors and adaptive capacities.

Strategy 5: Inform the general public about the nature of climate change, potential health effects, and the health-related benefits of reducing carbon emissions.

## Lessons Learned

- Many current public health partnerships and activities provide ample opportunity to address and raise awareness around climate change.
- It is fruitful to use a co-benefit framing to strengthen support for climate and related health efforts.
- Without dedicated staffing resources, climate change work can only go so far.
- Climate and health work cannot exist in a silo and is suited to public health's inter-sector philosophy. It is therefore important to establish and/or strengthen partnerships with other county departments and sectors outside of public health whose decisions may impact or benefit climate change *and* health outcomes.
- The public health sector must be persistent and committed to long-term engagement in the regional planning process, and keep in mind that the process is complicated, involving many partners, and many different priorities and interests.

## Resources

SANDAG [Public Health White Paper](#)

[www.sdforward.com/sites/sandag/files/Public Health White Paper.pdf](http://www.sdforward.com/sites/sandag/files/Public%20Health%20White%20Paper.pdf)

[San Diego, 2050 Is Calling. HOW WILL WE ANSWER?](#)

<http://www.sandiego.edu/2050/>

San Diego Public Health Department- [Chronic Disease and Health Equity \(CDHE\) Unit](#)

[http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/chronic\\_disease\\_health\\_disparities.html](http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/chronic_disease_health_disparities.html)

[San Diego Climate Collaborative](#)

<http://sdclimatecollaborative.org/>

[CalBRACE Project - California Department of Public Health, Office of Health Equity](#)

<http://www.cdph.ca.gov/programs/Pages/CalBRACE.aspx>

[Climate and Health Initiative - Centers for Disease Control and Prevention](#)

<http://www.cdc.gov/climateandhealth/brace.htm>

[Metropolitan Area Transportation Planning for Healthy Communities](#) PowerPoint

<http://www.trbairquality.org/files/2014/03/Plenary-Lyons.pdf>

[Metropolitan Area Transportation Planning for Healthy Communities](#) Website

[http://www.planning.dot.gov/healthy\\_communities\\_desc.asp](http://www.planning.dot.gov/healthy_communities_desc.asp)

[US Department of Transportation – Health in Transportation](#)

[http://www.fhwa.dot.gov/planning/health\\_in\\_transportation/](http://www.fhwa.dot.gov/planning/health_in_transportation/)

Photos: 2007 San Diego County Firestorm. Courtesy of San Diego County Public Health Services. Firestorm information provided by SDCPHS Public Health Officer Wilma J. Wooten, 7/22/14; and the *County of San Diego 2007 Firestorms After Action Report*.