

# 9/27 ARCCA Learning Session: Advancing the Climate Health Connection

## Remaining Questions Answered

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**What specific climate-health activities and initiatives are your agency or organization promoting in your jurisdiction (or statewide/nationwide)? Are there any specific best practices, lessons learned, or cautionary tales you can share?**

### Judy Robinson, Sustainability Manager, County of Sacramento:

Sacramento County has chosen the route of Active Design (health and the built environment measures) that also advance climate adaptation, resiliency and improved health. [Active Design is explained in the Introduction page 3 and Appendix D of the guidelines discusses Active Design in more detail.](#) This approach supports many of the state plans and policies that incorporate Health In All Policies, Safeguarding California Implementation Action Plan-Health Chapter, and numerous others. This Active Design work adopted by Sacramento County, in collaboration with Design 4 Active Sacramento has received state, national and international recognition for best practices. It also brings together sectors of land use, transportation and health – many of which have never previously worked with health before. Health at the table is the new norm!

### Linda Helland, Climate Change and Health Equity Program Lead, Office of Health Equity, California Department of Public Health:

Here is a summary of the broad initiatives in which we are engaged at the CA Department of Public Health Climate Change and Health Equity Program (CCHEP):

#### 1. Integrate health and equity into climate change mitigation strategies

- a. AB 32 Scoping Plan Update
  - i. Wrote a comprehensive 10-page Public Health Analysis at the request of Air Resources Board (ARB)
  - ii. Participate on sector-specific working groups, including the Transportation, Green Buildings/Energy Efficiency, Natural and Working Lands, Water, and Waste sectors, providing input and direction in drafting Sector chapters
  - iii. Staffed 7 community workshops hosted by EJAC members across the state
- b. Health Impact Assessment (HIA) of composting organic waste as a GHG reduction strategy
  - i. Participate in a CDPH-led HIA of the potential health benefits or harms of diverting organic waste to new closed composting facilities in contrast to landfills, in collaboration with ARB, CalRecycle, and CDFA
- c. Review and score Affordable Housing and Sustainable Communities grant applications
- d. Participate in Climate Action Team sub-groups (Coastal, Research)

#### 2. Integrate health and equity in climate change adaptation strategies

- a. *Safeguarding California: Reducing the Risk*
  - i. Engaged with public and state sectors for input to inform [Safeguarding California: Reducing Climate Risk](#) in 2014 and to inform the Public Health Chapter of *Safeguarding California: Implementation Action Plans*.
  - ii. Wrote the [Public Health Chapter](#) of the [Safeguarding California: Implementation Action Plans](#), and providing updates on implementation status

- iii. Collaborate with CRNA on environmental justice and health equity engagement strategy for 2017 *Safeguarding California*
    - iv. Write the Public Health Chapter of 2017 *Safeguarding California*
  - b. *Executive Order B-30-15 Technical Advisory Group (TAG)*
    - i. Participate in TAG to guide state agencies to address climate change adaptation in infrastructure and investment decisions. Participate in Metrics sub-TAG.
    - ii. Facilitate the Equity and Vulnerable Populations sub-TAG to write guidance for state agencies to promote equity for vulnerable populations as they integrate climate change adaptation into infrastructure and investment plans
  - c. [Building Resilience Against Climate Effects in California \(CalBRACE\)](#)
    - i. Federally-funded health equity and climate change adaptation program that developed Climate and Health Profile Reports for all 58 California Counties, forecasting climate impacts (extreme heat, sea level rise, wildfires, drought and air quality) and health risks
    - ii. Developed vulnerability assessment reports for 11 counties, characterizing locations and communities vulnerable to climate impacts
    - iii. Provide technical assistance to 11 counties on planning for public health impacts and increasing resilience to climate change
- 3. Communications to address climate change and improve health equity**
  - a. State Climate Action Team – Public Health Workgroup (CAT-PHWG)
    - i. Host quarterly public meetings to explore topics of climate change and health equity (sign up here for information: [https://www.arb.ca.gov/listserv/listserv\\_ind.php?listname=ab32publichealth](https://www.arb.ca.gov/listserv/listserv_ind.php?listname=ab32publichealth))
    - ii. The October 18<sup>th</sup> meeting will discuss mental health and climate change
  - b. Local Health Department Communications Campaigns
    - i. Collaborated with San Luis Obispo County Public Health Department on the [Outsideln SLO: We Take Health and Climate Change Personally](#) climate change and health communications campaign about health co-benefits of climate action
    - ii. Providing support to Kings and Mendocino Counties to adapt and replicate the *Outsideln* campaign
    - iii. [Published Climate Change and Health Equity Issue Brief](#) providing an overview of climate change, health, and equity for health professionals
    - iv. Developed Spanish-language climate change and health equity materials
    - v. Published [statement](#) on the public health and equity implications of the COP21 Paris Climate Agreement
  - c. Delivered 18 presentations across California and the US on climate change and health equity in 2015-16
- 4. Support state, local, and other partners to address climate change and health equity**
  - a. Serve as Proposal Review Team Lead and Technical Manager for 4<sup>th</sup> Assessment Research Project 5A
  - b. Participate in committees of the [Bay Area Regional Health Inequities Initiative](#) pertaining to climate change and health
  - c. Collaborate with the Chronic Disease and Health Promotion Center of CDPH to address climate change in health programs (nutrition, physical activity, injury prevention).

- d. Advise others on health equity considerations in climate change work (UC Davis Environmental Health Science Center Community Stakeholder Advisory Committee, Tracking Implementation Advisory Group for the California Environmental Health Tracking Program, local health departments, etc.)

**Some resources and tools were shared on the webinar. Can you provide links to those and are there others you can recommend for local/regional government staff and adaptation practitioners?**

**Allison Crimmins, Environmental Scientist, Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency:**

- USGCRP Climate and Health Assessment: <https://health2016.globalchange.gov>
- USGCRP Climate and Health Assessment downloads page: <https://health2016.globalchange.gov/downloads>
- EPA Climate Change Impacts website: <https://www.epa.gov/climate-impacts>
- Factsheet/infographic on vulnerabilities to climate impacts on health at different lifestages: <https://www.epa.gov/climate-impacts/factsheet-how-will-climate-change-affect-my-health>
- Eight population of concern factsheets: <https://www.epa.gov/climate-impacts/factsheets-climate-change-health-and-populations-concern>
- Online climate and health quiz: <https://www.epa.gov/climate-impacts/quiz-how-much-do-you-know-about-health-impacts-climate-change>
- Clickable map for impacts and resources by state: <https://www.epa.gov/climate-impacts/climate-change-and-human-health-risks-your-state>
- EPA Climate Change Indicators Report: <https://www.epa.gov/climate-indicators>
- EPA Climate Change Indicators Report/ section on understanding the link between climate and health: <https://www.epa.gov/climate-indicators/understanding-connections-between-climate-change-and-human-health>
- EPA report on US benefits of global mitigation: <https://www.epa.gov/cira>
- And be on the lookout for an extreme heat guidebook and other outreach materials for populations of concern.

**Judy Robinson, Sustainability Manager, County of Sacramento:**

- Safeguarding California Implementation Action Plan <http://resources.ca.gov/climate/safeguarding/>
- US EPA <https://www.epa.gov/soakuptherain/trees-help-reduce-runoff> and <https://www3.epa.gov/otaq/nearroadway.htm>
- California Health Disadvantage Index Tool <http://phasocal.org/ca-hdi/>
- Cal Adapt <http://cal-adapt.org/>

## David Rouse, Managing Director of Research and Advisory Services, American Planning Association:

The American Planning Association (APA) conducts applied, policy-relevant research through our three national centers for planning (links provided): [Green Communities](#), [Hazards Planning](#), and [Planning and Community Health](#). A FEMA-funded report prepared by the Hazards Planning Center, [Planning for Post-Disaster Recovery: Next Generation](#), addresses health and social recovery as part of planning for long-term recovery after a disaster. My sense is that planners are just beginning to understand and address the connections between these issues.

I mentioned the Rockefeller Foundation's [100 Resilient Cities](#) initiative on the webinar. This international network includes Berkeley, Los Angeles, Oakland, and San Francisco in California. The Foundation's [Resilience Framework](#) (prepared by ARUP Associates) includes "effective safeguards to human health and life (that rely) on integrated health facilities and services, and responsive emergency services" as one of 12 characteristics of a resilient city. Rockefeller's approach to resilience addresses "chronic stresses," which "weaken the fabric of a city on a day-to-day or cyclical basis," and "acute shocks," which are "sudden, sharp events that threaten a city" (e.g., earthquakes, floods). I see chronic stresses as being analogous to the social determinants of health (e.g., poverty, unemployment); climate change both contributes to these stresses and is projected to result in more frequent and severe extreme weather events that will affect health (floods, heat waves, etc.).

## Linda Helland, Climate Change and Health Equity Program Lead, Office of Health Equity, California Department of Public Health:

- [Georgetown Climate Center Adaptation Clearinghouse](#)
- [US Climate And Health Alliance](#) has [searchable resource database](#)
- CDPH [Climate Action for Health](#) has guidance for integrating public health issues into climate action plans and other local land use plans.
- Climate communications:
  - Key climate messages of the National Climate Assessment  
<http://nca2014.globalchange.gov/highlights/report-findings/human-health#intro-section-2> :
    - Key Message: Wide-ranging Health Impacts  
Climate change threatens human health and well-being in many ways, including impacts from increased extreme weather events, wildfire, decreased air quality, threats to mental health, and illnesses transmitted by food, water, and disease-carriers such as mosquitoes and ticks. Some of these health impacts are already underway in the United States.
    - Key Message: Most Vulnerable at Most Risk  
Climate change will, absent other changes, amplify some of the existing health threats the nation now faces. Certain people and communities are especially vulnerable, including children, the elderly, the sick, the poor, and some communities of color.
    - Key Message: Prevention Provides Protection  
Public health actions, especially preparedness and prevention, can do much to protect people from some of the impacts of climate change. Early action provides the largest health benefits. As threats increase, our ability to adapt to future changes may be limited.

- Key Message: Responses Have Multiple Benefits  
Responding to climate change provides opportunities to improve human health and well-being across many sectors, including energy, agriculture, and transportation. Many of these strategies offer a variety of benefits, protecting people while combating climate change and providing other societal benefits.
- The old standard 4 key messages from Ed Maibach and co are still guiding lights to us <http://www.climatechangecommunication.org/wp-content/uploads/2016/04/Climate-Communication-Primer-for-Public-Health-Professionals-1.pdf>:
  - 1. Climate change is real and human caused.
  - 2. Climate change is bad for us and for our community in a number of ways.
  - 3. We need to start taking action now to protect the health of our community’s most vulnerable members — including our children, our seniors, people with chronic illnesses, and the poor — because our climate is already changing and people are already being harmed. [Our top priorities for protecting people’s health from our changing climate are (list your organization’s top three priorities here).]
  - 4. Taking action creates a “win-win” situation for us because, in addition to dealing with climate change, most of these actions will benefit our health too.
- And we are looking at EcoAmerica’s new guide, “15 Steps to Create Effective Climate Communications” <http://ecoaffect.org/2016/06/22/new-ecoamerica-guide-15-steps-to-create-effective-climate-communications/>:
  - 1. Start with people, stay with people. Make it clear to your audience that you understand their perspective and care about their concerns.
  - 2. Connect on common values. Create rapport by showing that you honor and share the values they hold dear, such as family, community, and health.
  - 3. Acknowledge ambivalence. Not everyone is equally concerned about climate change. Give them the space to hold their own opinions.
  - 4. Make it real. Point out local, tangible climate impacts to make the issue more personal and help motivate people to action.
  - 5. Emphasize solutions. Explain that affordable, effective climate solutions, such as clean wind and solar energy, are already here.
  - 6. Inspire and empower. Let your audience know that they can make a real difference in a multitude of ways.
  - 7. Focus on personal benefit. Show that climate action doesn’t equate to personal sacrifice – instead, it saves money and creates a better, healthier world.
  - 8. End with your “ask.” Encourage your audience to turn the information you’ve given them into action, and offer ways for them to do so.
  - 9. Sequence matters. Start off personal and relevant, and move from impacts to solutions for optimal results.
  - 10. Describe, don’t label. Avoid using climate jargon – stick to familiar language that paints a clear, vivid picture.
  - 11. Have at least 1 powerful fact from a trusted messenger. Too many facts can get overwhelming, but one or two memorable statements from someone the audience trusts adds credibility.

- 12. Ditch doom and gloom. Though climate change is a serious and urgent threat, it's more motivating to talk about what can be and is being done about it.
- 13. Use stories to strengthen engagement. Personal stories – especially your own story – help make climate messages more relevant and vivid.
- 14. Stay above the fray. Don't get sidetracked by arguments, finger pointing, or quibbling over details – focus on the big picture.
- 15. Message discipline is critical. Keep to your talking points, and be sure to tailor your message to your audience.

## **What will be the implications of SB 1000 in promoting the climate-health connection?**

### **Linda Helland, Climate Change and Health Equity Program Lead, Office of Health Equity, California Department of Public Health:**

Great question. It is definitely a win for environmental justice communities. SB 1000 will add to the required elements of the general plan an environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged communities, as defined, within the area covered by the general plan of the city, county, or city and county, if the city, county, or city and county has a disadvantaged community. The bill would also require the environmental justice element, or related environmental justice goals, policies, and objectives integrated in other elements, to identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities, as specified, identify objectives and policies to promote civil engagement in the public decision-making process, and identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities. The bill would require the environmental justice element, or the environmental justice goals, policies, and objectives in other elements, to be adopted or reviewed upon the adoption or next revision of 2 or more elements concurrently on or after January 1, 2018. By adding to the duties of county and city officials, this bill would impose a state-mandated local program.

Among many other requirements, local jurisdictions are to do the following “if they have a disadvantaged community”: (A) Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity.

It is not yet clear to me if low income communities that face health inequities due to poverty and exclusion, but are NOT burdened by sources of pollution such as factories, ports, refineries, etc, will qualify as “disadvantaged communities” requiring jurisdictions to have an EJ element. If the definition excludes these more rural, low income communities facing health disadvantage, it will be unfortunate.

## **What is your take on the need to provide bus shelter in rural/desert disadvantaged communities where extreme heat is part of daily living?**

### **Judy Robinson, Sustainability Manager, County of Sacramento:**

I believe that bus shelters need to be provided in all communities, rural and urban, and especially in disadvantaged communities. The shelters should be properly designed to provide shelter from heat and rain, as well as a place to sit, lighting, transparent panels and other design features to ensure/provide safety. Personally, having wifi especially in rural areas would be helpful from safety and to communicate with the transit provider(s) on when the bus is coming or to report problems and emergencies.

### **Linda Helland, Climate Change and Health Equity Program Lead, Office of Health Equity, California Department of Public Health:**

I agree with the above, and would add that part of California's climate investments should be to provide additional improvements to public transit for low income and disadvantaged communities. This could be in the form of more frequent bus service (perhaps in smaller buses), the ability to know in real time when the bus is coming, and also support to things like van pools, walking and bicycling infrastructure and subsidies (i.e., providing economic incentives to travel via transit, walking and cycling). In order to make walking and cycling viable, routes must be shaded by mature trees so that people don't overheat. Shade should also be provided at bus shelters (not only built structures but also trees).

## **How can we build a better bridge between science and policy to ensure that policies reflect the best available information/science?**

### **David Rouse, Managing Director of Research and Advisory Services, American Planning Association:**

Bringing science to policy at the federal, state, and local levels is critical to promote decision-making based on sound information. At APA we regularly work with university partners with the goal of taking academic research forward for use by planning practitioners. Meta analysis is needed to synthesize and distill the results of different studies to conclusions that can inform and address policy issues of concern. There is also a need for "translation" of scientific jargon into language the public and decision-makers understand and can relate to. While climate change and global warming can be controversial, there is acceptance across the political spectrum of the need to prepare for extreme weather events, improve health, and save energy.

## **Can you discuss the economic considerations of this climate-health discussion? Do you have suggestions for how we can leverage private sector financing and investment to create healthy, resilient communities?**

**Linda Helland, Climate Change and Health Equity Program Lead, Office of Health Equity, California Department of Public Health:**

We are working with partners to utilize the [Integrated Transport and Health Impact Model \(ITHIM\)](#) to quantify health impacts of policies that shift behavior from driving to walking, bicycling and transit. The model quantifies health benefits (that vastly dwarf increases in injuries from increased walking and biking), greenhouse gas emissions, and dollar costs or benefits of the population-level health improvements.

**David Rouse, Managing Director of Research and Advisory Services, American Planning Association:**

Many studies have demonstrated the financial benefits of investing in resilient communities upfront as opposed to paying the costs after the fact. The National Institute of Building Sciences' Multihazard Mitigation Council calculated a \$4 return on investment for every \$1 invested in disaster preparedness. The triple-bottom-line analysis conducted for Green City, Clean Waters (Philadelphia's Long-Term Control Plan Update) found a \$2.2 billion return on investment on \$1.01 billion invested in green stormwater infrastructure over a 40-year period; the benefits include about 140 fewer heat-related deaths. The problem is that the benefits accrue to society as a whole rather than to the "bottom line" of businesses and governments, making it difficult to monetize the returns. In the case of green stormwater infrastructure, stormwater fees that provide incentives for installing green infrastructure on private property are an emerging approach but more work needs to be done to determine financial feasibility for private development. I expect to see an increasing number of public-private partnerships involving health care providers and major employers to address escalating health care costs related to environment/lifestyle-related conditions and diseases (e.g., obesity and diabetes). The success of the LEED rating system (which includes points for healthy building features) is instructive; when it was first introduced it was widely viewed as an expensive add-on but gained market acceptance as the cost differential decreased and developers responded to demand for green buildings in major metropolitan markets.

**Allison Crimmins, Environmental Scientist, Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency:**

In response to the first question, I would suggest taking a look at EPA's CIRA (Climate Impacts and Risk Analysis) report, which looks at the economic benefits to the US of global mitigation actions. There is a section on health that includes valuation of impacts to air quality, extreme temperatures, labor, and water quality. Other sectors of interest may be infrastructure (bridges, roads, coastal property, etc) and water resources (inland flooding, drought). <https://www.epa.gov/cira>

**It is great that mental health was expressly included in the assessment. How was the major increase in people living with Alzheimer's disease and dementia addressed?**

**Allison Crimmins, Environmental Scientist, Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency:**

The first chapter of our report provides some context about underlying demographic, socioeconomic, and health trends, and how we expect those to change even before considering the impacts of climate change on



health. We note that currently, about 5 million Americans over 65 had Alzheimer’s disease in 2013, but that prevalence is expected to triple to 13.8 million by 2050. It’s important to understand that projected increase because people with cognitive impairments are particularly vulnerable to extreme weather events that require evacuation or other emergency responses. For example, almost half of deaths from Hurricane Katrina were people over age 75, while for Superstorm Sandy almost half were over age 65. It is this important to think about how we prepare for extreme weather events and communicate disaster information, particularly for people with disabilities, cognitive disorders, or other pre-existing medical conditions.

## **Did the assessment look at the mental health impacts of climate change denial and inaction (on behalf of decision-makers – government, adults, etc.), particularly for youth and groups directly experiencing climate change impacts?**

**Allison Crimmins, Environmental Scientist, Climate Change Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency:**

No, not directly. We do include a section on the threat of climate change as a stressor. This section looks at the mental health impacts of routinely being exposed to images, headlines, and risk messages. This type of environmental stressor is ongoing and part of a person’s everyday environment, but equally concerning are adverse impacts relating to people’s connections to place and identity, and consequent sense of loss and disconnection. Here is some text from the chapter:

About half of Americans reported being worried about climate change in a 2015 survey. However, these people tended to see climate change as a relatively distant threat: 36% said global warming would harm them personally, while more expected harm to come to people in other countries and to future generations. Public risk perceptions of the phenomenon and threat of climate change is associated with stigma, dread risk (such as a heightened fear of low-probability, high-consequence events), and uncertainty about the future.

It is important to note—especially in relation to adaptation considerations—that this chapter also includes a section on resilience and recovery.

Emerging evidence shows that individuals who are actively involved in climate change adaptation or mitigation actions experience appreciable health and well-being benefit from such engagement. These multiple psychological and environmental benefits do not necessarily minimize distress. However, when people do have distress related to relevant media exposure or to thinking about or discussing climate change, taking action to address the issue can buffer against distress. Such engagement both addresses the threat and helps manage the emotional responses as people come to terms with—and adjust their understandings and lives in the context of—climate change.

This is one of the rare instances in the report where climate change has the potential to have a *benefit* to health, particularly when taking action allows people to better connect with their communities, feel prepared, and increase social connections.