

# CLIMATE CHANGES HEALTH:

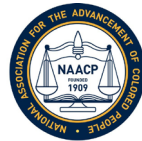
ENSURING ENVIRONMENTAL  
JUSTICE UNDERLIES PUBLIC  
HEALTH'S CLIMATE CHANGE WORK

A SUMMIT PROCEEDINGS REPORT | OCTOBER 2018



**Acknowledgments:**

The summit, analyses of summit findings, and resulting report have been made possible with contributions from the Graham Sustainability Institute at University of Michigan, the Turner Foundation, and the Union of Concerned Scientists. This work was convened by the American Public Health Association Environment Section’s Environmental Justice Subcommittee. We would like to express gratitude to Pamela Worth at the Union of Concerned Scientists for her careful review and feedback on this report. The summit was coordinated by dedicated representatives from the following organizations:



**Suggested Citation:**

Sampson, N. Hollis, A., Thomas, J., Shattuck, S., Latshaw, M., Harris, G., Price, C., Shafiei, F, Varga, M., Miller-Travis, V. & Lee, C. (2018). *Climate Changes Health: Ensuring Environmental Justice Underlies Public Health’s Climate Change Work*. Washington D.C.: American Public Health Association - Environmental Justice Subcommittee.

# CLIMATE JUSTICE AS A PUBLIC HEALTH ISSUE

Leading public health organizations, including the American Public Health Association (APHA), the U.S. Centers for Disease Control and Prevention, and the World Health Organization, all consider climate change among the most significant contemporary threats to public health.<sup>1-3</sup> Research draws attention to diverse climate-related health concerns (Table 1) dependent on localized climate projections and effectiveness of local and global

adaptation and mitigation strategies that may be preventative. Public health professionals play a key role in identifying and intervening to ensure quality of life and health equity in changing and uncertain climates.<sup>4,5</sup> Within government agencies, academia, and communities, they ask: How can health promotion, environmental epidemiology, health care, and policymaking prevent climate-related disease and disability?

Longtime efforts of environmental justice (EJ) leaders and scholars clearly document disparate patterns of cumulative environmental exposure and adverse health outcomes by race and income that are exacerbated by climate change.<sup>6</sup> Given public health's commitment to health equity and social justice, attention to EJ must be central in public health's climate-related work.

“We want to link these conversations that so many advocates, researchers, academics – so many people living in communities that are vulnerable – are having right now about the direct link between threats undermining public health and climate change.”

~ Vernice Miller-Travis, Summit Facilitator

The Environmental Protection Agency (EPA) documents various ways that marginalized populations may be at greater risk to climate-related health effects—from not having access to linguistically- and culturally-appropriate public health warnings to having less ability to relocate in emergency situations.<sup>7</sup> For example, in regard to extreme heat, it is well understood that those with pre-existing chronic conditions,

**Table 1. Public Health Impacts associated with Global Climate Change**

WEATHER EVENT	HEALTH EFFECTS	POPULATIONS MOST AFFECTED
Heat waves	Heat stress	Children less than 5 years old, elderly 65 years old and older, elderly living alone, people with cardiorespiratory disease, communities of color &/or environmental justice communities
Extreme precipitation events (tornado, rain, hurricane, flooding)	Injuries, drowning, vector, food-, & water-borne diseases	Multiple populations at risk, coastal and low-lying land dwellers, environmental justice communities
Sea level rise	Injuries, drowning, water & soil salinization, ecosystem & economic disruption	Coastal, environmental justice communities
Ecosystem migration	Food & water shortages, malnutrition	Environmental justice communities, elderly, children
Ongoing or widespread weather events (e.g. drought)	Mass population movement, international conflict	Multiple populations at risk
Increases in ground-level ozone, airborne allergens, & other pollutants	Respiratory disease exacerbation (COPD, asthma, allergic rhinitis, bronchitis)	Elderly, children, people with respiratory disease
Climate change generally; extreme events	Mental health	Young, displaced, agricultural sector, environmental justice communities

Source: Adapted from the Centers for Disease Control & Prevention (CDC)

poor access to transportation, low health literacy, and those living in older housing stock—factors often disproportionately experienced within frontline communities—are particularly susceptible to adverse health effects.<sup>8,9</sup> Vulnerability assessments, which map out cumulative climate-related

social and environmental stressors, are a common public health tool for identifying those most at risk.<sup>10</sup>

Many organizations advocate for climate planning that acknowledges disparities. However, disparities are not systematically reflected in public policy, nor are they always considered

or fully integrated into local or national long-term sustainability planning. As introduced below, many advocacy organizations are leading efforts to achieve climate justice in public health and other sectors.

## ORGANIZATIONS LEADING THE CHARGE FOR CLIMATE JUSTICE

*The National Association for the Advancement of Colored People (NAACP)*

Founded in 1909, the NAACP is the nation's oldest, largest, and most widely recognized civil rights organization. It has more than half a million members and supporters throughout the U.S. and the world—the premier advocate for civil rights in their communities, leading grassroots campaigns for equal opportunity and conducting voter mobilization. The mission of the NAACP is to ensure the political, educational, social, and economic equality of rights of all persons and to eliminate race-based discrimination, and it engages in a number of activities in the climate and energy justice arena.

In 2009, the NAACP created its Environmental and Climate Justice Program to support community leadership in addressing environmental injustice, including the proliferation of climate change, which has a disproportionate impact on communities of color and low-income communities in the U.S. and worldwide. The Environmental and Climate Justice Program works at

addressing the many practices that are harming communities nationwide and worldwide and the policies needed to rectify these impacts and advance a society that fosters sustainable, cooperative, regenerative communities that uphold all rights for all people in harmony with the earth. In practice, this entails the provision of resources and support to organizations working to reduce greenhouse gas emissions, a shift to efficient and clean energy sources, and building capacity for policy advocacy, particularly at the state level. Many of their resources and toolkits can be found here: <http://www.naacp.org/climate-justice-resources/>.

*WE ACT for Environmental Justice (West Harlem Environmental Action or WE ACT)*

WE ACT for Environmental Justice was started in 1988 when three community leaders saw that environmental racism was rampant in their West Harlem neighborhood, and demanded community-driven political change. Today, the organization has grown to more than 16 staff members and 2 locations, NYC and Washington, D.C. WE ACT's mission is to build healthy communities by ensuring that people of color and/or low-income residents participate meaningfully in the creation of sound and fair environmental health and protection policies and practices. WE ACT envisions a community that has:

1. informed and engaged residents who participate fully in decision-making on key issues that impact their health and community;
2. strong and equal environmental protections; and
3. increased health through community-based participatory research and evidence-based campaigns.

Recognizing climate change as the “great multiplier” of existing inequities in frontline communities, WE ACT has initiated many local and national efforts to achieve climate justice. Since 2008, at the national level, WE ACT's Federal Policy Office has coordinated the Environmental Justice Leadership Forum on Climate Change (EJ Forum), a national coalition of 40+ environmental justice organizations working together to advance climate justice and impact policy to ensure the protection and promotion of communities of color and low-income communities throughout the U.S. This network amplifies efforts to support the Clean Power Plan and other policies that address greenhouse gas emissions in ways that recognize the disproportionate environmental burden on communities of color, and/or low-income people. Learn more about the EJ Forum here: <https://www.weact.org/campaigns/ejforum/>.

## KEY TERMS

**Climate Justice:** Affirms the rights of communities dependent on natural resources for their livelihood and cultures to own and manage the same in a sustainable manner, and is opposed to the commodification of nature and its resources.<sup>11</sup>

**Environmental Justice:** The fair treatment and meaningful involvement of all people regardless of race, color,

national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.<sup>12</sup>

**Environmental Racism:** Structural or institutional discrimination that may include, for instance:<sup>13</sup>

1. Greater probability of exposure to environmental hazards;
2. Uneven negative impacts of environmental procedures;
3. Uneven negative impacts of environmental policies;
4. Intentional targeting and zoning of toxic facilities in minority communities; and
5. Little access to or insufficient maintenance of environmental amenities, for example, parks for minority communities.

## ABOUT THE SUMMIT

Understanding climate change's disproportionate threats to health and recognizing existing efforts to address these threats, the APHA Environment Section's Environmental Justice (EJ) Subcommittee and national EJ leaders planned a pre-conference summit at the 2017 APHA Annual Meeting—Climate Changes Health: Ensuring Environmental Justice Underlies Public Health's Climate Change Work. This event was guided by the following objectives:

- To hear lessons learned from EJ leaders working to address climate change;
- To increase knowledge of EJ among public health experts working towards climate adaptation;
- To share perspectives, data, tools, approaches, and resources with public health leaders that can inform local climate planning efforts in ways that prioritize EJ issues;
- To develop new partnerships between community groups and public health professionals; and
- To develop recommendations for APHA and the public health community working to address climate change in ways that acknowledge and prioritize EJ.

With approximately 115 EJ leaders and public health practitioners, scholars, science and health advocates, funders, and students in attendance to advance work towards climate justice, the day included:

1. storytelling from EJ leaders about lessons learned in their climate change work;
2. lightning talks to share data, tools, and resources;
3. facilitated roundtable work sessions; and
4. two keynote speakers.

Vernice Miller-Travis of Skeo facilitated the day's events. Keynote speakers included Richard Moore and Dr. Mildred McClain—both longstanding, accomplished, and respected EJ

leaders. Mr. Moore is the Founder of the Southwest Network for Environmental and Economic Justice and the Chair of the EPA's National Environmental Justice Advisory Council (NEJAC). Dr. Mildred McClain is the co-founder and Executive Director of Harambee House/Citizens for Environmental Justice, a member of the NEJAC, and the recipient of the APHA 2017 Damu Smith Environmental Achievement Award.

The planning team chose to focus on the Southeastern U.S. in inviting speakers to share their regional stories and as a practical decision to ensure costs for transportation and hotel could be covered. Attendees heard from the following community leaders about their frontline climate justice work:

- Reverend Brendolyn Jenkins Boseman (The Imani Group, Inc., Aiken, SC)
- Dr. P. Qasimah Boston (Children's Mental Health System of Care Expansion, Tallahassee, FL)
- Sherise Brown (Co-Chair, Turner Field Community Benefits Coalition, Atlanta, GA)
- Miaisha Mitchell (Tallahassee Food Network, Tallahassee, FL)

### *Hosted by Spelman College*

Founded in 1881, Spelman College is one of 107 Historically Black Colleges and Universities (HBCU) in the U.S. Given its rich history, mission for social change, and robust campus sustainability initiatives, Spelman College was an appropriate venue to hold the Atlanta-based meeting.



Through lightning presentations, presenters described a variety of applied approaches—from synthesis of local climate-related policies across the U.S., to examples of local adaptation and mitigation programs, to best practices in youth leadership. Speakers represented academia, community-based organizations, and federal agencies, with representatives from the CDC’s Climate-Ready States and Cities Initiative and the National Weather Service.

Youth were central to this summit. The planning committee included youth representatives, and while demographics were not collected from summit participants, approximately half of the room self-identified as youth when asked to raise their hands at the summit. Additionally, to ensure active participation by youth, funding was acquired to cover the cost of five \$500 travel scholarships, which went to undergraduate and graduate students from campuses across the country. Youth were also asked to facilitate a series of afternoon roundtables, alongside policymakers, funders, and nationally recognized organizers.

---

## PURPOSE OF THIS REPORT

This report is a synthesis of what we—the planning team—learned at the summit alongside participants. Similar to the summit, this report brings together local and scientific experts, and builds from cross-pollination across disciplines, sectors, and communities. It is written for diverse audiences, including EJ leaders, local planners, public health professionals, as well as those in other related sectors, and students of public health, EJ, and climate change.

To generate the contents of this report, the planning team reviewed notes, tweets, evaluation data, videos, and transcripts from the summit. We asked summit participants to share their takeaways in real time in a shared online space or through handwritten notes on a sticky wall. During afternoon roundtables, facilitators shared some of their lessons learned and participants were asked to respond to specific prompts, including:

*What recommendations do you have to ensure public health is effectively addressing climate justice? Consider challenges that must be addressed, new opportunities that must be pursued, and partnerships that should be created, dissolved, or uplifted.*  
*What is the current role of \_\_\_\_\_ (e.g., funders, policymakers, youth) in ensuring public health is effectively addressing climate justice? Related to what you heard from this facilitator and the work that you do, what recommendations do you have to ensure public health is effectively addressing climate justice?*

Miller-Travis, as the facilitator, debriefed with participants regularly,

and planning team members synthesized these notes based on what they heard throughout the day. The report was co-written after several meetings to discuss key themes for each section below. An accompanying video was created to further advance the findings of the summit and the work of the people in the room: <https://www.youtube.com/watch?v=a3og4RX9bzs>

Thirty-five summit attendees completed evaluation surveys of the summit. Using a 1-5 Likert scale, the evaluation asked attendees to share their experience and the impact of the summit, with statements like “The summit helped me reflect on my work related to climate justice more deeply,” and those about each segment of the summit, “The roundtable sessions led to productive discussions and practical recommendations.” Short-answer questions were included to ask respondents what they found most and least valuable about the summit. Evaluation findings are threaded throughout the following synthesis where appropriate.

---

## PERSPECTIVES FROM THE FRONTLINES

Throughout the day, summit participants heard from diverse leaders, mostly organizers working towards climate, environmental, and social justice in their communities. Many themes emerged. Overall and in evaluation data, the planners heard that networking and the “incredible diversity of participants”—academic, community leaders from grass-top and grassroots organizations, youth, elders, and agency representatives—



“Fired up. Fired up. I want you to be fired up...because this ain’t no sprint. This is a marathon. This is a long-distance run.”

~ Dr. McClain’s address to the summit



were the most valuable aspects of the summit. On evaluation forms, participants (n=36) strongly agreed that the morning panel of community leaders sharing their stories increased their knowledge of the experience of frontline communities (4.7, on average, on a 5-point scale) and will inform the work they do to address climate justice (4.6, on average, on a 5-point scale). Several respondents said the stories provided inspiration to better connect their current work to climate justice.

Richard Moore started the day by sharing his stories, calling on participants to be honest and transparent in their climate justice work. He explained that advisory committees are useful structures but that members of frontline communities are experts in climate change and should be leaders in the work—not just advisors. He also reminded the participants of the value of intergenerational work and recognizing the contributions of our elders. He noted that many strategies for adapting to climate change do not necessarily require new technologies or sophisticated research but, in fact, are simple things that we have historically engaged in, such as weatherizing our homes.

Panelists Reverend Jenkins Boseman, Dr. Boston, Brown, and Mitchell shared experiences and advice that

comes from their years of advocating for community benefits agreements, more equitable food systems, and policies to protect environmental health. They explained that words and how we use them matter. The story that they tell about climate justice is not the “back story,” but should be recognized in mainstream conversations around climate change and health as the “front story.” They explained that professionals commonly use terms such as urban renewal, blight, and, more recently, resilience, that can be loaded. In telling stories of climate justice, the panelists emphasized that mental and emotional components of climate change should not be underestimated. Particularly, they

“The backstory is the **FRONT** story.”

~ Dr. P. Qasimah Boston

noted that as communities are displaced due to climate change, they also lose intergenerational social support networks in the process. Climate change is an issue multiplier, and as such, those most vulnerable experience compounded adverse effects on their well-being.

They also recognized the power

of policy and partnerships. Community-academic partnerships, intergenerational partnerships, and regional or national coalitions are needed, as well as new innovative strategies. Finally, they said, in simple terms, frontline communities and those most vulnerable to climate change need resources—specifically money—to build capacity, advocate, and address health effects.

Dr. Mildred McClain wrapped up the day. Similar to Moore, she emphasized that we know what climate justice looks like and have some tools and resources in place that can be lifted up, whether that be agency efforts (e.g., CDC’s Climate Ready States and Cities) or community-driven programs described by panelists. She urged participants, as a collective, to do a better job listening to frontline communities and identifying, preparing, and moving people into elected positions who reflect the values and concerns of these communities. She called for those present to lift up leaders who can mobilize to address climate justice through the development and enforcement of effective policies, particularly at state and local levels. Through integration of prose, singing, and lecture, she energized summit participants in a call to action at the end of the day.

## POLICY PERSPECTIVES

Throughout the summit, attendees heard that climate change is an issue multiplier, exacerbating mental illness, violence, and adverse effects of gentrification, for example. Vulnerable populations suffer greater burdens from climate change impacts than those with greater power, money, and resources. Strong leadership is needed to advance work towards federal policies, like the Clean Power Plan, and international accords, such as the Paris Agreement. The conversation was largely U.S.-centric, but with recognition that international perspectives on climate justice would further enhance this dialogue.

Many participants repeatedly noted a pressing need for local and state strategies in a time when federal response under the current administration is threatening environmental protection. These sentiments echoed Miller-Travis' words that set the tone for the day, "The cavalry may not be coming, but help is on the way." Participants agreed that policy advocacy is needed to ensure everyone is at the table for this work, inequities are addressed in cross-sector ways, money is appropriated accordingly, and leaders are accountable in developing, implementing, and enforcing policies to address climate injustice.



### #APHACS17: Tweets from Attendees



**Augusta Williams** @awilliams91 · 4 Nov 2017

We lack enlightened leaders, so today's goal @ [#APHACS17](#) is to answer "what are we going to do" to make [#EJ](#) heart of climate change work



**Natasha DeJarnett** @DrDeJarnett · 4 Nov 2017

The calvary may not be coming, but help is on the way - via [@KingdomLiving4u](#) [#APHACS17](#) [#APHA2017](#) [#ClimateChangesHealth](#)



**Jeni Miller** @JeniMiller · 4 Nov 2017

Richard Moore: [#environmentaljustice](#) IS about health, and inseparable from [#economicjustice](#). [#APHACS17](#)



**Julian Rodríguez Drix** @JulianDrix · 4 Nov 2017

Keynote from Richard Moore of Los Jardines Institute took us to Environmental Justice church this morning! [#apha2017](#) [#APHACS17](#)

### Vital Role of State & Local Government

Summit participants explained that state and local governments should address climate justice directly. Structurally this may entail clearly defined sustainability or climate change committees or commissions, specifically focused on climate justice, and involving local educators, public health workers, researchers, business, community activists, youth, and elders to guide and monitor progress while staying accountable to the community.

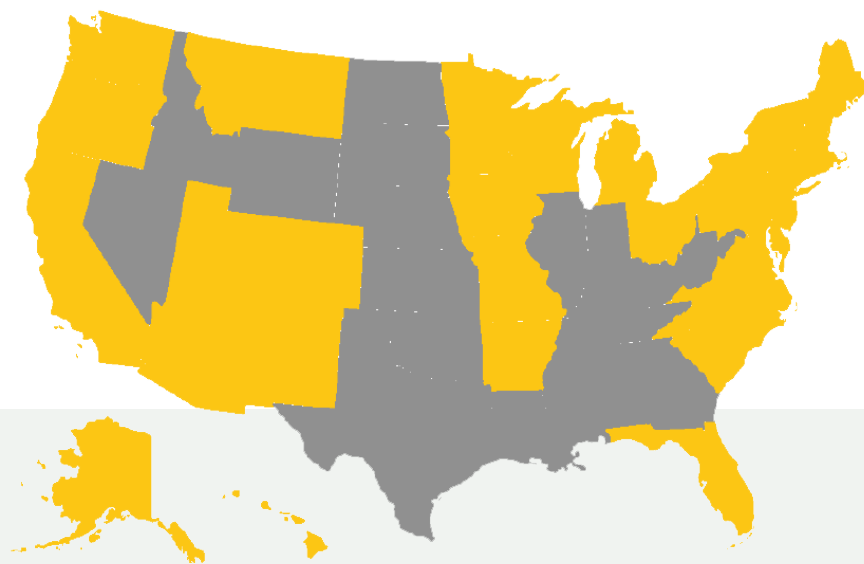
Mayors and town administrators can provide strong leadership on energy efficiency, renewable energy, climate change preparedness, and addressing the social justice issues exacerbated by climate change effects. Clearly enforced mandates are essential.

Government leaders should work with local businesses to consider vulnerability assessments and to develop policies that address EJ. Through mandates and allocation of adequate resources, state and local agencies should fund staff responsible for implementing climate action plans and educate their workforce (e.g., public health nurses, mental health counselors, emergency personnel) about climate change impacts in marginalized communities. This will help to adequately prepare, monitor, and remedy climate injustice. While local and state agencies are increasingly doing more with less, many argue that acknowledgement of climate change is a strategic long-term commitment that often already aligns with existing work.

“While there may be some people who want to debate whether or not climate change and global warming are real, there are other people whose lives have been completely destroyed by the impact of our changing climate. We have to recognize that the government is not coming to help you...The cavalry may not be coming, but help is on the way.”

~ Vernice Miller-Travis, summit facilitator





## ADDRESSING CLIMATE JUSTICE THROUGH POLICY

Many state or local policies exist in the U.S. to address climate change, EJ, and the intersection of these issues. Some summit participants were decision-makers or agency staff that work to implement or enforce relevant policies, while others were policy advocates. Suggestions emerged asking for continued expansion of interagency efforts and improved representation from frontline communities in policymaking processes to set priorities. Policies cannot achieve climate justice if they are solely driven by economic factors; cumulative social and physical environmental risk and protective factors must be considered. Further, speakers and participants spoke frequently of the need to identify strong future leaders early and support their rising up into elected positions to implement policies that address climate injustice.

*As reported by Liz Geltman during the summit lightning talks, in November 2017, 33 states (seen here in yellow) had Climate Action Plans in place. Climate justice advocates question how this will lead to disparities across the country if plans are not in place, funded, or implemented systematically.*

In the U.S., California has addressed these issues most comprehensively, as illustrated by a host of relevant policies:

- SB 535 – Appropriates 25% of Greenhouse Gas Reduction Fund to disadvantaged communities.
- AB 617 – Mandates establishment of community-focused air toxics program.
- SB 673 – Calls for incorporating cumulative impacts in environmental permitting process.
- SB 685 – Establishes water as a human right.
- SB 1000 – Requires consideration of EJ in general plans.

It must be noted that these have emerged through sometimes divided and complex policy processes and outcomes, typically initiated after longtime community organizing efforts.

Although not explicitly focused on climate justice, many states have been working to address cumulative risks and impacts, which may be exacerbated in notable ways by climate change. For instance, in 2008, the statute authorizing the Minnesota Pollution Control Agency to issue air permits was amended to include a unique requirement to analyze and consider “cumulative levels and effects of past and current environmental pollution from all sources on the environment and residents of the geographic area within which the facility’s emissions are likely to be deposited.” Other states have been having similar policy conversations nationwide.

At the federal level, in consultation with EJ leaders, Senator Cory Booker (D-NJ) and Congressman Raul Ruiz (D-CA36) introduced The Environmental Justice Act of 2017. Though not made into law, the bill is an example of federal decision-makers and EJ leaders working together to craft policy.

## THE ROLE OF YOUTH

At the summit, the conversation about youth centered on:

1. the value of intergenerational learning, and
2. the role youth can play in fostering community engagement.

Intergenerational coalitions are successful because different age groups bring their respective experience, connections, wisdom, innovation, and passion. These relationships do not arise overnight, but take patience and understanding from all groups. Once people from different generations are comfortable with one another, they can then begin to collaborate.

Resources should be expended to support the development of these relationships, including providing space to interact over time and learn together and from one another. Mentoring can provide an opportunity for these relationships to develop, but the dynamic should not be limited to young people learning from elders unidirectionally. Storytelling and oral history can play a role in building trust and respect.

Climate justice requires sincere engagement with communities experiencing the impacts of climate change, including community members of all ages. Young people represent communities they are from when working with grass-tops organizations and governmental agencies—sometimes without the competing priorities that older generations may face, such as caregiving. Many young people are available to work on issues about which they are passionate, although,



*Top: Student volunteers check in participants at the summit. Bottom: Samantha Shattuck and Kathy Tran present about their work as members of the National Environmental Justice Advisory Council Youth Perspectives Workgroup on Climate Change.*

they may lack financial resources to do so. Often, they are engaged in the educational system and may have access to unique opportunities to work with people outside their community, serving to make vital links. Youth who are students can bridge gaps between community colleges and universities with the community by participating in or leading collaborative research or preparing grant applications for foundation or governmental funding opportunities. One summit participant suggested that a way to better connect public health and climate justice efforts would be to recruit Ph.D. students from communities most impacted by climate change.

Respondents of the evaluation survey added that this event helped them build new connections with others in the field, both their youth peers and elders who may serve as collaborators or mentors. One respondent suggested the summit could have used more youth engagement, with more opportunities for them to speak on the agenda. Youth

were represented by the National Environmental Justice Advisory Council Youth Perspectives Workgroup on Climate Change during a 10-minute lightning talk on youth engagement and as facilitators during the afternoon roundtable discussion. A respondent who identified themselves as an educator said they will use what they learned at the summit about EJ to inform their courses on ecology and other environmental studies.

## FUNDING CLIMATE JUSTICE

Summit participants spoke with program officers from two national foundations during roundtables and generated recommendations for improving funding of climate justice work:

- Avoid repeatedly funding the “usual suspects,” or grassstops rather than grassroots. Philanthropy must create equal access for grassroots organizations working to address climate justice rather than only mainstream organizations that may be tokenistic or failing in diversifying their workforce. Many grassroots organizations have innovative strategies to address climate justice but struggle to form relationships with funders over time or to have adequate grant writing capacity. Tailor funding announcements accordingly and help organizations to develop proposals and diversify their funding stream.
- Fund human resources, including time for steering committee members, advisory groups, planning committees, or other structures that allow for representation from frontline communities, as well as students and participatory researchers.

- Fund policy advocacy. Support grassroots leaders in identifying, training, and reaching their local and statewide leaders who have the knowledge, skills, and power to address climate injustice locally or regionally.
- Fund disaster response efforts that fill in gaps of local or federal programs. Often the most vulnerable populations cannot access programs such as FEMA, which may deny household claims without proper documentation or may entail a reimbursement process when low-income families cannot pay up front. Funding for “slow-moving disasters,” such as recurrent flooding, may be needed.
- Fund K-12 educational programs focused on environmental health, EJ, or climate change. Educators may not have the capacity, knowledge, or power to build this into their state-mandated curricula. Funding may be needed to support extracurricular opportunities.
- Create spaces and encourage partnerships that leverage expertise and resources. In doing so, bring together leaders who may not typically be thought of as leaders. Value the integration of social movements and networks towards a collective impact.
- Expedite funding opportunities. In these times, with decreasing federal support to address climate change, generally, foundations can play a role in addressing the urgency of climate justice. Similarly, support and fund dissemination of the work in real or near-real time in accessible or direct ways, such as technical assistance to develop infographics.

Underlying these suggestions, summit participants called for integrated systems approaches in which climate and health funders work together. They noted examples of specific projects or efforts that should be funded, including regional climate change initiatives, neighborhood-level environmental health programming, and youth EJ academies.



*Building Equity and Alignment for Impact (BEA) provides one model for rethinking philanthropy related to climate justice issues that was referenced multiple times during the summit. BEA “brings together dynamic grassroots organizing groups, effective national green organizations, and innovators in philanthropy to advance the progress of the environmental movement towards a just transition and directly confront powerful polluters.” Their approach is responsive to several recommendations heard by summit participants, as they work to address funding disparities that exist between national green groups and the grassroots organizing sector. Learn more: <http://bea4impact.org>*

## RECOMMENDATIONS FOR PUBLIC HEALTH PROFESSIONALS

Given this summit launched within APHA Environment Section’s EJ Subcommittee, a major objective was to ensure lessons learned could inform the work of public health professionals moving forward. APHA declared 2017 their ‘Year of Climate Change,’ which entailed monthly themes (e.g., Climate Justice and Health, Clean Energy), webinars, and resources. Appropriately, the annual meeting was centered on the theme of ‘Creating the Healthiest Nation: Climate Changes Health.’ APHA’s efforts elevated climate change as a priority public health issue and helped all members to see how their work may be connected to this issue. When asked to brainstorm strategies that could improve public health’s efforts to address climate change with attention to EJ, they generated the following themes and specific suggestions.

**Representation** – Summit participants called for more diverse voices in public health to address climate change. In one participant’s words, this means “chang[ing] who owns the movement from white affluent technical experts to low-income communities of color, particularly women and children.” In practice, participants called for more diverse students and faculty addressing climate justice through scholarship. They also noted a need to ensure that frontline communities can participate in professional spaces, such as conferences including APHA’s Annual Meeting.

**Partnerships** – Summit participants recognized the opportunities and challenges of partnerships in climate justice work. They noted the need

for sustainable partnerships with recognizable end goals. They also recognized the burden partnerships can put on frontline communities: the number of meetings with various partners can grow overwhelming, and representatives from frontline communities are often not financially compensated for their contributions of time or expertise. Partnerships should focus on capacity building and entail active projects with short and long-term goals. They should be intergenerational and prioritize funding of students early in their career and frontline communities as leaders in the work.

**Framing Issues** – Summit participants discussed the ineffective ways that public health and other professionals frame climate change issues and how they must be proactive in bringing climate justice to the forefront more frequently and strongly. Participants stressed that so long as public health professionals continue to address Social Determinants of Health, they must keep social, physical, and built environments as a central component of this shared framework. Participants want to expose public health efforts that overlook EJ issues, while overemphasizing lifestyle factors that influence health. To do better in practice, for instance, this looks like physicians and other clinicians talking about climate change with colleagues and patients. It means finding ways to help energy experts and planners, for example, to recognize the health implications of their work with an understanding of climate justice. For many municipalities, participants thought this could be done through climate action plans, which could be disseminated more effectively or used more by public health departments.

“We’re committed to making sure the nation knows about the effects of climate change on health. If anyone doesn’t think this is a severe problem, they are fooling themselves.”

~ *Dr. Georges Benjamin,*  
*APHA Executive Director,*  
*The Washington Post*

Throughout the day, participants worked from a broad definition of climate justice and saw a clear need to help others recognize how climate change intersects with other social justice issues including housing, violence, gentrification, development, and immigration.

**Education & Training** – Summit participants had plentiful suggestions for improving the ways we teach and learn about climate justice diverse audiences—from K-12 settings to community colleges and universities to specific communities to policymakers. To begin, they argued that all students need a strong foundation in environmental health that ensures they can understand and communicate climate change in interdisciplinary ways. In doing so, youth need to understand the legacies of colonialism and racism in its historical and current forms—redlining, urban renewal, gentrification, etc.—as well as their impacts on health and people’s ability to deal with climate impacts. In practice, this may look like:

- Mobilization of K-12 teachers and university faculty in policy advocacy to ensure environmental health, climate change, and EJ are discussed in public schools;

- Funding to support job training programs that lead to sustainable development that is adaptive to climate change, as well as training and hiring of community members for emergency response positions;
- Conference sessions developed by and directed at young people to inform and organize on issues of climate justice;
- Teaching of specific advocacy skills, such as how to make public comments or file a Freedom of Information Act (FOIA) request; and
- Leadership training for youth and communities that builds capacity and appropriate representation for the movement, followed by opportunities for emerging leaders to attend conferences and professional meetings.

Specific successful programs to this end were also discussed, including the Allen University Environmental Justice Academy funded by the Department of Energy.

**Research** – With regard to climate-related health research, summit participants discussed the need for a paradigm shift in which institutions better address structural barriers that prevent the transfer of research findings to action in a timely matter. They asked: Are there ways to evaluate and prioritize research to generate impacts for climate justice locally and nationally? This means increased access to peer-reviewed literature, perhaps through increasing the number of open access publications or making research methods or data publicly available. The need to bring findings back to the community in community-friendly language and translate them into multiple languages remains. More specifically, there was also a call for more quantitative data to describe



the benefits of emerging clean technologies like solar energy and clean transportation. Participants explained that research should anticipate future climate-related impacts, ensuring local government and community leaders are not short-sighted but planning ahead 50 years. Finally, it was repeated that science is vital to climate justice, and public health researchers must advocate—perhaps more than ever before—for translation of rigorous science into evidence-based policies.

### **American Public Health**

**Association** – Summit participants were energized by APHA's work over the preceding year focused on climate change and found their many new resources to be valuable. In next steps, they emphasized a need for more opportunities for community leaders to engage in APHA's work to ensure these efforts translate into

climate justice and address the health of those most marginalized. There were several recommendations for how to best accomplish this:

- Development of a local steering committee representing communities where the APHA annual meeting is held to educate leadership and members on intersecting issues of environmental, social, and climate justice;
- Increased community representation at APHA in working with staff and leadership, and the Environment Section and EJ Subcommittee
- Removing barriers to membership and attendance at annual meetings for frontline communities by reducing/subsidizing the costs;
- Trainings and opportunities for scientists and communities to collaborate and advance knowledge

on climate justice, building on models such as the Detroit Urban Research Center's Community-Based Participatory Research Partnership Academy and utilizing resources such as the Scientist-Community Partnership guide and tools from the Union of Concerned Scientists; and

- Enhancing outreach to state and regional APHA-affiliates and public health departments by making climate change relatable to the health issues they or their local or state administrators prioritize, and training them to identify climate change impacts and solutions in collaboration with communities.

In general, summit participants ask that APHA continue and intensify their already robust efforts to address climate change, while working from a broadened definition that recognizes intersecting social justice issues.

## **MAKING CLIMATE JUSTICE THE FRONT STORY**

Events like the Climate Changes Health: Ensuring Environmental Justice Underlies Public Health's Climate Change Work summit provide a valuable arena to remind us of the great potential of public health. In next steps, we must:

- Advocate for statewide climate-related policies that address EJ, drawing on lessons learned among early adopters;
- Leverage the bi-directional value of intergenerational learning, as well as the potential of underrepresented youth to lead and connect key

representatives from communities, agencies, and academia;

- Shift funding paradigms to ensure grassroots organizations, particularly human capital, are valued and directly funded;
- Support partnerships between EJ leaders and public health by promoting venues for sharing local and scholarly expertise and directing resources to frontline communities where key solutions to climate change often already exist.

Among the lessons learned and recommendations generated at this day-long event, one message was clear: **conversations on climate change must put issues of justice and equity front and center.** It

is well documented that climate change is already exacerbating existing inequalities in environmental exposures and health conditions. Like with other public health issues, response to climate change often misses solutions when excluding the public from the scientific, risk communication, and policymaking processes. Public health professionals and scholars must integrate climate justice centrally into their work, particularly at the local level to counter currently insufficient federal efforts.

## CITATIONS

1. American Public Health Association (APHA). (2015). Public Health Opportunities to Address the Health Effects of Climate Change. [Policy Statement: 20157]. APHA: Washington D.C. Available at: <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/12/03/15/34/public-health-opportunities-to-address-the-health-effects-of-climate-change>
2. Hess, J.J., Schramm, P.J., & Lubet, G. (2014). Public health and climate change adaptation at the federal level: One agency's response to Executive Order 13514. *American Journal of Public Health*, 104(3), e22-e30.
3. Hales, S., Kovats, S., Lloyd, S., & Campbell-Lendrum, D. (2014). Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s. World Health Organization, Geneva.
4. Frumkin, H., J. Hess, G. Lubet, J. Malilay, and M. McGeehin, 2008: Climate change: The public health response. *American Journal of Public Health*, 98, 435-445.
5. Stults, M., & Meerow, S. (2017). Professional Societies and Climate Change. Kresge Foundation: Troy, MI. Available at: [http://kresge.org/sites/default/files/library/env1007-psreport-0117\\_revised\\_11917.pdf](http://kresge.org/sites/default/files/library/env1007-psreport-0117_revised_11917.pdf)
6. Lubet, G., K. Knowlton, J. Balbus, H. Frumkin, M. et al. (2014). "Ch. 9: Human Health" in *Climate Change Impacts in the United States: The Third National Climate Assessment*. J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 220-256.
7. Environmental Protection Agency. (2016). *Climate Change, Health, and Environmental Justice*. EPA 430-F-16-054. Available at: <https://www.epa.gov/sites/production/files/2016-10/documents/ej-health-climate-change.pdf>
8. Kovats R.S. & Hajat S. (2008). Heat stress and public health: A critical review. *Annual Review of Public Health*, 29, 41–55.
9. Sampson, N., Gronlund, C., Buxton, M., Catalano, L., White-Newsome, J., Conlon, K., O'Neill, M., McCormick, S., & Parker, E. (2013). Staying cool in a changing climate: Reaching vulnerable populations during heat events. *Global Environmental Change*, 23 (2), 475-482.
10. Intergovernmental Panel on Climate Change (IPCC), 2014. *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds). New York, NY: Cambridge University Press.
11. Core Principle 18, Bali Principles of Climate Justice. (2002). Available at: <http://www.ejnet.org/ej/bali.pdf>.
12. Executive Order 12898 of February 11, 1994. (1994). *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Washington DC: Federal Register.
13. Taylor, D. (2014). *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility*. New York University Press.

## ADDITIONAL RESOURCES: ARTICLES, REPORTS, TOOLKITS, & WEBSITES

In our summit registration questionnaire, we explained to participants: "We plan to generate and share a list of resources (e.g., reports, toolkits) that are particularly useful for community organizers, public health professionals, and scholars working on climate justice. Please list 1-2 materials that you think should be on this list." This yielded the following list, which is meant to be supplemental and not exhaustive. All weblinks were accessible as of August 2018.

1. Climate Access. (n.d.). *Climate Justice Resources*. Available at: <https://climateaccess.org/resource/collection/climate-justice-resources>.
2. Climate for Health. (2017). *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Available at: <http://climateforhealth.org/mental-health-impacts-report>.
3. Climate Justice Alliance. (2017). *Just Transition Principles*. Available at this [https://climatejusticealliance.org/wp-content/uploads/2018/06/CJA\\_JustTransition\\_Principles\\_final\\_hi-rez.pdf](https://climatejusticealliance.org/wp-content/uploads/2018/06/CJA_JustTransition_Principles_final_hi-rez.pdf).
4. Corso, L., Hunter, C., Briseno, L., Lubet, G., Bouye, K., & Hutchins, S. (2017). *Indicators of Climate Change in California: Environmental Justice Impacts Report*. Sacramento, CA: Office of Environmental Health Hazard Assessment. Available at: <https://oehha.ca.gov/climate-change/document/indicatorsclimate-change-california-environmental-justice-impacts-report>.
5. Cushing, L.J., Wander, M., Morello-Frosch, R., Pastor, M., Zhu, A., & Sadd, J. (2016). *A Preliminary Environmental Equity Assessment of California's Cap-and-Trade Program*. Available at: <https://dornsife.usc.edu/PERE/enviro-equity-CA-cap-trade>.

6. Environmental Justice for All. (2017). EJ Tools. Available at: <https://ej4all.org/ej-tools>.
7. Gillis, J. (2017, July 6). Short Answers to Hard Questions About Climate Change. New York Times. Available at: <https://www.nytimes.com/interactive/2015/11/28/science/what-is-climate-change.html>.
8. Green 2.0. (n.d.). Home - Green 2.0.: Reports. Available at: <http://www.diversegreen.org/>.
9. Health Impact Project. (n.d.). Health Impact Project - Pew Trusts. Available at: <http://www.pewtrusts.org/en/projects/health-impact-project>.
10. Kelly, C., Costa, K., & Edelman, S. (2017). Safe, Strong, and Just Rebuilding After Hurricanes Harvey, Irma, and Maria: A Policy Road Map for Congress. Washington D.C.: Center for American Progress. Available at: <https://cdn.americanprogress.org/content/uploads/2017/10/02135613/HurricaneResponseReport4.pdf>.
11. Morello-Frosch, R., Pastor, M., Sadd, J., & Shonkoff, S.B. (2017). The Climate Gap Inequalities in How Climate Change Hurts Americans & How to Close the Gap. Available at: [https://dornsife.usc.edu/assets/sites/242/docs/The\\_Climate\\_Gap\\_Full\\_Report\\_FINAL.pdf](https://dornsife.usc.edu/assets/sites/242/docs/The_Climate_Gap_Full_Report_FINAL.pdf).
12. National Association for the Advancement of Colored People (NAACP). (n.d.). Environmental and Climate Justice Resource Organizations. Available at: <http://www.naacp.org/climate-justice-resources/resourceorganizations/>.
13. National Association for the Advancement of Colored People (NAACP). (2017). Coal Blooded Action Toolkit. Available at: <http://www.naacp.org/climate-justice-resources/coal-blooded/>.
14. National Wildlife Federation. (n.d.). EcoLeader Community: Climate Change . Available at: <http://www.nwfecoleaders.org/home>.
15. Office of Environmental Health Hazard Assessment. (2017). CalEnviroScreen 3.0. Sacramento, CA: Office of Environmental Health Hazard Assessment. Available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>.
16. Park, A. (2009). Everybody's Movement: Environmental Justice and Climate Change. Washington, DC: Environmental Support Center. Available at: <http://kresge.org/sites/default/files/Everybodys-movementclimate-social-justice.pdf>.
17. Petit, J. (2004). Climate justice: A new social movement for atmospheric rights. Institute for Development Studies, 35 (3), pp.102-106.
18. Rudolph, L., Gould, S., & Berko, J. (2015). Climate Change, Health, and Equity: Opportunities for Action. Oakland, CA: Public Health Institute. Available at: <http://climatehealthconnect.org/wpcontent/uploads/2017/03/Climate-Change-Health-and-Equity-Opportunities-for-Action.pdf>.
19. Rudolph, L. & Harrison, C.A. (2016). Physician's Guide to Climate Change, Health and Equity. Oakland, CA: Public Health Institute. Available at: <http://climatehealthconnect.org/wpcontent/uploads/2016/09/FullGuideTEMP.pdf>.
20. Schlosberg, D. & Collins, L. (2014). From environmental to climate justice: Climate change and the discourse of environmental justice. Wiley Interdisciplinary Reviews: Climate Change , 5 (3), pp.359-374.
21. Scroggins, J., Swartz, L., & Whidden, A. (2016). 6 Ways Climate Change Harms Health in California. Oakland, CA: Public Health Institute. Available at: <https://www.phi.org/resources/?resource=6-waysclimate-change-harms-health-in-california>.
22. Union of Concerned Scientists. (2016). Scientists-Community Partnership: A Scientist's Guide to Successful Collaboration. Available at: <http://www.ucsusa.org/sites/default/files/attach/2016/04/ucsscscientist-community-partnerships-2016.pdf>.
23. U.S. Commission on Civil Rights. (2016). Environmental Justice: Examining the Environmental Protection Agency's Compliance and Enforcement of Title VI and Executive Order 12,898. Washington D.C.: U.S. Commission on Civil Rights. Available at: [http://www.usccr.gov/pubs/Statutory\\_Enforcement\\_Report2016.pdf](http://www.usccr.gov/pubs/Statutory_Enforcement_Report2016.pdf).
24. U.S. Department of Homeland Security. (n.d.). Ready.gov. Available at: <https://www.ready.gov>.
25. U.S. Environmental Protection Agency. (2017). Community-Focused Exposure and Risk Screening Tool (C-FERST). Washington D.C.: U.S. Environmental Protection Agency. Available at: <https://www.epa.gov/c-ferst>.
26. U.S. Environmental Protection Agency. (2017). EJSCREEN: Environmental Justice Screening and Mapping Tool. Washington D.C.: U.S. Environmental Protection Agency. Available at: <https://www.epa.gov/ejscreen>.
27. U.S. National Aeronautics & Space Administration (NASA). (n.d.). Global Climate Change. Available at: <https://climate.nasa.gov/>.
28. WE ACT for Environmental Justice. (n.d.). EJ Leadership Forum on Climate Change. Available at: <https://www.weact.org/campaigns/ejforum/>.
29. Wisconsin Department of Health Services. (2016). Climate and Health Community Engagement Toolkit. Wisconsin: Wisconsin Department of Health Services. Available at: <https://www.dhs.wisconsin.gov/publications/p01637.pdf>.



## ENVIRONMENT SECTION