



CONFERENCE REPORT

2015 HHS Climate Justice Conference: **Responding to Emerging Health Effects**

U.S. Department of Health and Human Services
National Institute of Environmental Health Sciences

June 8-9, 2015 • Research Triangle Park, North Carolina

Table of Contents

Health Impacts of Climate Change on Vulnerable Communities	3
Stakeholder Perspectives	4
Federal Efforts Promote Climate Justice	5
U.S. Department of Health and Human Services (HHS)	5
U.S. Department of Justice (DOJ)	5
U.S. Department of Housing and Urban Development (HUD)	5
National Institute for Occupational Safety and Health (NIOSH)	6
Environmental Protection Agency (EPA)	7
Breakout Discussions	7
Policy Development and Dissemination	7
Education and Training	8
Research and Data Collection, Analysis, and Utilization	8
Services	9
Climate Resilience Data and Tools	10

Unless otherwise noted, photos courtesy of Steve McCaw.



The U.S. Department of Health and Human Services (HHS) convened a Climate Justice Conference at the National Institute of Environmental Health Sciences (NIEHS) in Research Triangle Park, North Carolina, on June 8 - 9, 2015. The purpose of the meeting was to engage federal staff and stakeholders in discussions about the health effects of climate change as they relate to vulnerable populations, or “climate justice,” as well as community challenges and priorities, federal activities, and new resources and tools. The meeting was designed to encourage all stakeholders to share both identified areas of need and promising approaches and opportunities for collaboration that will address climate justice. Participants included community members; academics and students; public and occupational health professionals and advocates; and federal, state, and local government employees.

Health Impacts of Climate Change on Vulnerable Communities

Based on scientific evidence from the Third National Climate Assessment by the U.S. Global Change Research Program and from reports by the Intergovernmental Panel on Climate Change, HHS considers climate change to be one of the top public health challenges of our time.

Climate change, caused primarily by carbon pollution, threatens the health and well-being of Americans in many ways, from increasing the risk of asthma attacks and other respiratory illnesses to changing the spread of certain vector-borne diseases. Some of these health impacts are already underway in the United States and climate change will, absent other changes, amplify some of the existing health threats the Nation now faces.

Higher temperatures can lead to greater amounts of ground-level

ozone and particulate matter. Breathing ozone and particulate matter can lead to irritation of airways and worsen bronchitis, emphysema, asthma, and even heart disease. Warming temperatures and carbon pollution can also cause higher levels of pollen and mold that can trigger asthma attacks.

While climate change is occurring globally, its impacts are felt locally. The impacts are influenced by the interaction of geographic, social, and economic factors. Children, older adults, outdoor workers, and those with asthma and other chronic diseases face an increased risk of harm.

Equity is essential in the transformations needed to reduce the severity of climate change impacts. There is a need to ensure that adaptation mechanisms promote health and well-being in all communities and don't worsen existing disparities.

Stakeholder Perspectives

Representatives from community groups and environmental justice advocates provided unique perspectives and front-line examples of how climate change is impacting vulnerable communities and how their groups are mobilizing to educate and empower communities to take action.

From their presentations and the ensuing discussions, a number of stakeholder needs were identified:

- Community engagement should be a priority in all decision and policymaking processes from the beginning.
- Maintaining communication between decision-makers and stakeholders is critical.
- Evaluation is an important part of the process to ensure that policies, decisions, activities, and programs are achieving their goals, including a review of how the policy impacts low-income communities and communities of color.
- Communities of color and others most impacted by climate change should be leading the efforts to adapt, helped by government resources that target such communities.
- Community-based participatory research and other mechanisms should be used to empower climate justice communities.

[CASE STUDY]



Destruction of the New Jersey shoreline caused by Hurricane Sandy.

FEMA/Liz Roll

Hurricane Sandy

Hurricane Sandy, which hit the New York and New Jersey coastline in 2012 killing, injuring, and displacing thousands, was particularly devastating for working class, immigrant families, many of whom were renters with no insurance, often spoke a language other than English, and typically had little or no safety net resources. Make the Road New York (MRNY) is working with a wide coalition of private and public partners, including federal agencies and community groups, to provide language-appropriate legal assistance and relief, to advocate for just policies for renters and for affordable rebuilding, and to provide training for low-income and immigrant workers who lost their livelihoods. Arturo Archila of MRNY emphasized the need to break down racial and economic barriers to working together, to address climate justice issues.

- Traditional knowledge, values, and culture should be valued and integrated into the development of resilience strategies.
- The National Association for the Advancement of Colored People report “Equity in Building Resilience in Adaptation Planning” provides a sample list of indicators of vulnerability and resilience for consideration as decision-makers work on climate change adaptation plans.

Federal Efforts Promote Climate Justice

Representatives from several federal agencies involved in building climate resilience and promoting climate justice provided brief summaries of related policies, programs, and activities.

U.S. Department of Health and Human Services (HHS)

HHS works with multiple partners on climate change initiatives and activities, many of which are part of the President’s Climate Action Plan.

- Sustainable and Climate Resilient Health Care Facilities Initiative—a public-private collaborative effort to help such facilities prepare for climate change
- Climate-Ready States & Cities Initiative—a initiative led by the Centers for Disease Control and

Prevention to help states and cities partner with local and national climate scientists to understand the potential climate changes in their areas, as well as develop and use models to predict health impacts, monitor health effects, and identify those most vulnerable to those effects

- Climate Change Subcommittee of the President’s Task Force on Environmental Health Risks and Safety Risks to Children—co-led with the U.S. Environmental Protection Agency (EPA) and the Department of Homeland Security, an interagency effort to identify and increase awareness of how children’s health is particularly vulnerable to the impacts of climate change
- State, Local and Tribal Leaders Task Force on Climate Preparedness and Resilience— HHS is working to address recommendations made by this group.

U.S. Department of Justice (DOJ)

A number of civil rights laws are relevant to issues of climate justice. Some of these include:

- Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, or national origin in programs and activities that receive federal financial assistance

- Fair Housing Act
- Age Discrimination Act
- Americans with Disabilities Act
- Section 504 of the Rehabilitation Act
- Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency,” under which federal programs must be accessible to those with limited English proficiency

U.S. Department of Housing and Urban Development (HUD)

HUD has a number of efforts to increase energy efficiency and renewable energy in the affordable housing sector and to encourage states and localities to engage with and address the risks faced by vulnerable populations.

- [*Sustainable Housing Initiative*](#)— supports the construction and rehabilitation of green affordable housing, recognizing that affordable homes should be located close to transportation, jobs, and schools and designed to maximize health and environmental benefits
- [*National Disaster Resilience Competition*](#)—a \$1 billion competition to support innovative resilience projects at the local level, encouraging communities to adopt policy changes and activities that plan for the impacts of extreme weather and climate change and to

rebuild affected areas to be better prepared for the future

The agency also works to ensure that rebuilding and recovery processes protect and offer benefits to workers and residents. HUD has put together materials about healthy homes for post-natural disaster restoration and rebuilding. These materials can be found at: http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/disasterrecovery

National Institute for Occupational Safety and Health (NIOSH)

Certain worker groups such as low-income workers, migrant workers, and day laborers are vulnerable to the impacts of climate change because they are disproportionately exposed to hazards such as extreme heat and poor air quality. Workers involved in disaster response, rescue, and cleanup have more exposure to risky conditions as the frequency and severity of extreme weather events and wildfires increase. To address the impact of climate change on workers, NIOSH has formalized a climate change initiative that will develop and promote research and guidance on a variety of climate change-related topics, including heat stress and disaster response. More information is available at [Climate Change and Occupational Safety and Health](#).

[CASE STUDY]



(Photo courtesy of John Schimp)

Elizabeth Yeampierre, Director, UPROSE (left) and Dr. Linda Birnbaum, Director, NIEHS (right)

Sunset Park

Sunset Park is a maritime community in New York City overwhelmingly populated by people of color and working class families. Due to historical industrial uses such as waste facilities, power plants, and brownfields, it clusters some of the city's most toxic and polluting land uses. Due to the neighborhood's location, it is extremely vulnerable to flood surges that are more likely with climate change, and have the potential to create a "toxic soup" when they occur.

UPROSE, a community empowerment organization has launched the Sunset Park Climate Justice and Community Resiliency Center, NYC's first grassroots-led, bottom-up, climate adaptation and community resiliency planning project. The project has utilized community-based research to help the Sunset Park community:

- Organize block by block warning systems
- Facilitate community-based resiliency planning
- Help businesses become climate adaptable
- Develop renewable energy facilities, and
- Promote stormwater management infrastructure



Chip Hughes, Director, Worker Training Program, NIEHS

Environmental Protection Agency (EPA)

A representative from EPA Region 4 provided a regional perspective of the agency's climate change efforts. The Southeast Regional Interagency Working Group on Environmental Justice, established in March 2012, works to resolve and advance regional environmental justice concerns and build new partnerships. The working group developed a Climate Change Adaptation Implementation Plan that focuses on populations that suffer health disparities and live in hazardous areas. The effort aims to increase adaptive capacity and resilience to climate change through federal and state partnerships, and through promoting and distributing climate change information and tools.

- [Resources for Local Officials and Community Members](#) is

an EPA online directory for local government officials and community members seeking to address complex environmental challenges — including climate change — at the local level.

Breakout Discussions

Over the course of the two-day workshop, participants engaged in breakout discussions around four strategic elements described in the 2012 HHS Environmental Justice Strategy and Implementation Plan: policy development and dissemination; education and training; research and data collection, analysis, and utilization; and services. Breakout groups were charged with identifying high priority needs in each area, and also encouraged to provide their own perspective on how such needs might best be met. The sections below contain highlights of these discussions.

Policy Development and Dissemination

This discussion focused on the need for vulnerable communities to play an integral role in climate change policy development and dissemination. Access to and true inclusion in decision-making processes is critical. Such access needs to occur from the beginning, during planning and design,

through to implementation and evaluation. Participants raised a number of obstacles to such access, and suggested ways to facilitate community engagement at its fullest level.

Traditional means of public participation (public hearings, scholarly writings) aren't necessarily conducive to the needs and abilities of environmental justice communities. Changes in this area could include:

- Locating meetings where people live, work, or worship
- Holding meetings at times of day when working people can attend
- Providing transportation and child care
- Conducting meetings in the native language of the population and at an appropriate literacy level to aid in understanding

Communities are seeking more transparency in policy development. This requires decision-makers to share power by opening up the process. Changes in this area could include:

- Not only allowing community participation, but also valuing and applying community and traditional cultural knowledge through citizen science and other mechanisms
- Reframing climate change issues to be more relatable to the community
- Providing training to government officials and decision-makers on



Dr. John Balbus, Senior Advisor, NIEHS (right) and Dr. Wanda Jones, Principal Deputy Assistant Secretary for Health, HHS



Omega Wilson, WERA (right) talking with conference participant



Dr. Jalonne White-Newsome, WE ACT

how to effectively engage with communities on climate change

- Building “champions” within communities to act as liaisons
- Providing feedback on how community input has influenced the policymaking process

Communities are seeking resources that enable communities to better participate in the policy process. These could include:

- More support for local and state working groups
- New grant-making and funding mechanisms that are simpler and easier compared to existing processes, and that are available for use by smaller groups and projects
- Data and mapping tools (particularly those that integrate current public health indicators with climate change) and technical assistance that will help communities to assess their own vulnerability and risk

Education and Training

Workers, particularly low-income and

minority workers who live and work in communities disproportionately affected by environmental hazards, are extremely vulnerable to climate change impacts. Discussion topics included worker training, safety and health; emergency preparedness and response training; and general community resilience training and education.

Participants described specific training resources, including the National Institute of Environmental Health Sciences (NIEHS) Worker Training Program Climate Change Vulnerability Assessment, mental health resiliency training, and NIOSH health disparities and climate change training efforts. Improvements recommended in this area include:

- Engaging first responders in local communities
- Building relationships with local stakeholders — including faith-based organizations — that can act as trusted messengers of climate change information
- Developing training materials that are tailored to the audience in terms of literacy, language, culture,

and beliefs

- Creating a national registry of trained workers and resources from occupational and environmental health clinics
- Working to build mental health resiliency among workers and residents
- Incorporating climate justice into K-12 curricula to educate and engage youth on climate justice issues
- Supporting programs at historically black colleges and universities on climate change to help develop research around climate change and justice

Research and Data Collection, Analysis, and Utilization

Discussions focused on the conduct of climate and health research, including data collection, analysis, and use, and its application to climate justice concerns.

Ethical, legal, and social issues, including cultural sensitivity, are important to consider when conducting research with communities. Participants emphasized that it is important for



Sandra Howard, Senior Environmental Health Advisor, OASH, HHS



Dr. Wanda Jones, Principal Deputy Assistant Secretary for Health, HHS



Naeema Muhammad, North Carolina Environmental Justice Network

academic researchers to consider the time needed to establish relationships in communities before any research is conducted. Issues surrounding the collection, analysis, and utilization of climate and health data include: scale (applicability of local data to larger settings); data literacy (the need for communities to understand the data and its limitations); the use of the various research resources to collect and share data (public health tracking systems and GIS mapping tools); and the importance of considering cumulative exposures, impacts, and risks. Beyond the research phase, effective communication, translation, and dissemination of the results is critically important. Potential strategies to improve research include:

- Using mechanisms such as community engaged research (CEnR) and citizen science to help empower communities to generate useful information
- Including heat related illness and injuries in electronic health records
- Expanding funding partnerships to work with public-private organizations and philanthropic

foundations

- Prioritizing multidisciplinary partnerships that involve organizations that already have strong ties with the community of study
- Educating peer review panels on CEnR principles or including CEnR experts on peer review panels

Services

A general consensus of this breakout was that a holistic approach is needed to ensure that climate resilience services are provided in an equitable way, one that extends the discussions beyond HHS activities. For instance, resilient infrastructure, not only for healthcare facilities but also for such needs as electricity, communication, and food storage and dissemination are important to consider in planning for emergency preparedness. Participants discussed a need to achieve more equitable distributions of assistance in the face of limited local resources for addressing climate change. To help with this, it is important for state and local government agencies to better coordinate and share information,

particularly on community health impact assessments. Suggestions for improvement of climate resilience services include:

- HHS and other federal agencies working to provide community-based organizations with the technical and financial resources to put climate resiliency plans into action
- Increasing health care access and availability in rural areas
- Creating partnerships to facilitate the sharing of best practices and lessons learned
- Promoting community-led strategies to address climate justice issues
- Improving federal communication mechanisms such as website interfaces to make them more user-friendly
- Making use of social media, listservs, blogs, and podcasts to reach communities



Climate Resilience Data and Tools

To help communities better understand the health impacts of climate change and become more resilient to these impacts, federal agencies have collaborated to develop online climate change and health tools and resources. Workshop participants were encouraged to attend hands-on sessions to familiarize themselves with some of these tools.

U.S. Climate Resilience Toolkit has 30 publicly accessible tools to provide resources and a framework for understanding and addressing the climate issues that impact people and their communities. The human health section of the toolkit organizes tools around five types of health issues: extreme heat, extreme events, increased levels of air pollutants, changing ecosystems and infectious diseases, and building healthcare sector resilience. Tools will continue to be added as they are developed.

Sustainable and Climate Resilient Health Care Facilities Toolkit provides a five-element framework for healthcare facility resilience with checklists and resources, a compendium of resources and case studies. The maps and visualization tools contained on these sites can help communities and policy makers better understand vulnerabilities, risks and benefits of interventions.

Building Resilience Against Climate Effects (BRACE) is a five-step process that allows health officials to develop strategies and programs to help communities prepare for the health effects of climate change. Part of this effort involves incorporating complex atmospheric data and both short- and long-

range climate projections with epidemiologic analysis into public health planning and response activities. BRACE enables health officials to more effectively anticipate, prepare for, and respond to a range of climate sensitive health impacts, particularly among the most vulnerable populations.

National Environmental Public Health Tracking Network contains a climate change module that provides information on extreme heat days and events, heat vulnerability, and health effects associated with extreme heat. The Network will also include information on precipitation and drought.

A new **Climate and Health Data Innovation Challenge Series** is sponsored by HHS, the National Institutes of Health, and Esri (a geographic information system software company), and is organized around four core information needs:

- Climate impact and co-benefit research questions
- Tools to support individual and community vulnerability analyses
- Apps and tools to show benefits of sustainable and healthy behaviors
- Apps and tools to support clinical and biomedical research facility climate resilience

The **President's Climate Data Initiative**, launched in spring 2015, is a call to America's top private-sector innovators to leverage open government data resources and other datasets to build tools that will make America's communities more resilient to climate change and to forge cross-sector partnerships to make those tools as useful as possible.



2015 HHS Climate Justice Conference: Responding to Emerging Health Effects

U.S. Department of Health and Human Services
National Institute of Environmental Health Sciences

111 T.W. ALEXANDER DRIVE, BUILDING 101 • RESEARCH TRIANGLE PARK, NORTH CAROLINA

JUNE 8-9, 2015

AGENDA

MONDAY, JUNE 8, 2015

8:00 a.m. **Registration** *Building 101, Lobby*

8:30–8:45 a.m. **Informal Networking**

8:45–9:00 a.m. **Welcome** *Rodbell ABC*

- Gwen Collman, Director, Division of Extramural Research and Training, National Institute of Environmental Health Sciences (NIEHS)
- Sandra Howard, Office of the Assistant Secretary for Health (OASH), U.S. Department of Health and Human Services
- Chip Hughes, Worker Training Program (WTP), NIEHS

9:00–9:30 a.m. **Keynote Speakers**

- Wanda Jones, Principal Deputy Assistant Secretary for Health, HHS
- John Balbus, Senior Advisor for Public Health, NIEHS

9:30–10:30 a.m. **Panel Presentation and Discussion**

TOPIC: Stakeholder Panel on Climate Justice Priorities

MODERATOR: Chip Hughes, NIEHS

PANEL:

- Jalonne White-Newsome, West Harlem Environmental Action, Inc. (WE ACT for Environmental Justice)
- Sacoby Wilson, University of Maryland
- Arturo Archila, Make the Road New York
- Naeemma Muhammad, North Carolina Environmental Justice Network
- Tom Hatley, Catalpa Institute

10:30–10:45 a.m. **Break**

10:45–11:45 a.m. **Panel Presentation and Discussion** *Rodbell ABC*

TOPIC: Federal Agency Initiatives on Climate Justice

MODERATOR: Mustafa Ali, Senior Advisor to the Administrator for Environmental Justice, U.S. Environmental Protection Agency (EPA)

PANEL:

- Sandra Howard, OASH, HHS
- Dylan de Kervor, Civil Rights Division, U.S. Department of Justice (DOJ)
- Sunaree Marshall, Office of Economic Resilience, U.S. Department of Housing and Urban Development (HUD)
- Joanna Watson, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC)
- Cynthia Peurifoy, EPA Region 4

11:45 a.m.–12: 45 p.m. **Climate Data and Tools Overview**

TOPIC: HHS Activities, Resources, and Tools

- John Balbus, NIEHS
- George Luber, CDC

12:45–1:00 p.m. **Charge to the Breakout Groups and Climate Resilience Toolkit Exploration Sessions**

- Chip Hughes, NIEHS

1:00–1:45 p.m. **Lunch on Your Own** *Cafeteria*

1:45–2:45 p.m. **Concurrent Sessions**

1:45–2:15 p.m. **Climate Resilience Toolkit Exploration—Session A** *A012 Computer Lab*

*Please sign up at the registration desk for one of the four session times.
Space limited to 24 people.*

LEAD: Mark Shimamoto, U.S. Global Change Research Program (USGCRP)

1:45–2:45 p.m. **Breakout Groups**

1) Policy Development and Dissemination *Rodbell B*

POSSIBLE TOPICS:

- a. HHS climate change priorities for 2015 and 2016
- b. Emergency preparedness and response mechanisms to address climate change impacts
- c. Building Resilience Against Climate Effects (BRACE) framework

CO-FACILITATORS

FEDERAL: Lorenzo Olivas, OASH Region 8 and George Luber, CDC

STAKEHOLDER: Jalonne White-Newsome, WE ACT for Environmental Justice

REPORT BACK: Kimberly Thigpen Tart, NIEHS

2) Education and TrainingExecutive Conference Room

POSSIBLE TOPICS:

- a. Worker training, safety and health
- b. Emergency preparedness and response training
- c. Community resilience training

CO-FACILITATORS

FEDERAL: Sharon Beard, NIEHS and Joanna Watson, NIOSH

STAKEHOLDER: Mark Catlin, Service Employees International Union (SEIU)

REPORT BACK: Ron Milam, OASH

3) Research and Data Collection, Analysis, and UtilizationRodbell A

POSSIBLE TOPICS:

- a. Asthma and air quality impacts
- b. Water access and quality
- c. Citizen science (empowerment, skill building, and competence)
- d. Mental health and sociological perspectives
- e. Native American health issues

CO-FACILITATORS

FEDERAL: Liam O’Fallon and Caroline Dilworth, NIEHS

STAKEHOLDER: Sacoby Wilson, University of Maryland and Omega Wilson, West End Revitalization Association, Inc. (WERA)

REPORT BACK: Symma Finn, NIEHS

4) Services Rodbell C

POSSIBLE TOPICS:

- a. Climate Data and Tools Initiative
- b. Sustainable and Climate Resilient Healthcare Facilities Initiative
- c. Community resilience
- d. Private sector approaches to health and vulnerability

CO-FACILITATORS

FEDERAL: Sharon Ricks, OASH Region 4 and John Balbus, NIEHS

STAKEHOLDER: Tanya Maslak, National Association of County and City Health Officials (NACCHO)

REPORT BACK: Kedesch Altidor-Dorcély, OASH Region 2

2:15–2:45 p.m. **Climate Resilience Toolkit Exploration—Session B**A012 Computer Lab

*Please sign up at the registration desk for one of the four session times.
Space limited to 24 people.*

LEAD: Mark Shimamoto, U.S. Global Change Research Program (USGCRP)

2:45–3:00 p.m.

Optional Break

3:00–4:30 p.m.

Concurrent Sessions (continued)

3:00–3:30 p.m. **Climate Resilience Toolkit Exploration—Session C**A012 Computer Lab

*Please sign up at the registration desk for one of the four session times.
Space limited to 24 people.*

LEAD: Mark Shimamoto, U.S. Global Change Research Program (USGCRP)

3:00–4:30 p.m. **Breakout Groups (continued)**

3:30–4:00 p.m. **Climate Resilience Toolkit Exploration—Session D**A012 Computer Lab

*Please sign up at the registration desk for one of the four session times.
Space limited to 24 people.*

LEAD: Mark Shimamoto, U.S. Global Change Research Program (USGCRP)

TUESDAY, JUNE 9, 2015

8:00 a.m.

RegistrationBuilding 101, Lobby

9:00–9:30 a.m.

KeynoteRodbell ABC

- Elizabeth Yeampierre, Executive Director, UPROSE
-

9:30–11:15 a.m.

Report Back from Breakout Groups and Climate Tools Exploration Sessions and Open Discussion

MODERATORS: Sandra Howard, OASH, Chip Hughes, NIEHS, and John Balbus, NIEHS

9:35 a.m.—**Policy Development and Dissemination** (Kimberly Thigpen Tart, NIEHS)

10:00 a.m.—**Education and Training** (Ron Milam, OASH)

10:25 a.m.—**Research and Data Collection, Analysis, and Utilization** (Symma Finn, NIEHS)

10:50 a.m.—**Services** (Kedesch Altidor-Dorcely, OASH)

11:15–11:45 a.m.

Closing/ Next Steps

- Sandra Howard, OASH, and Chip Hughes, NIEHS



