



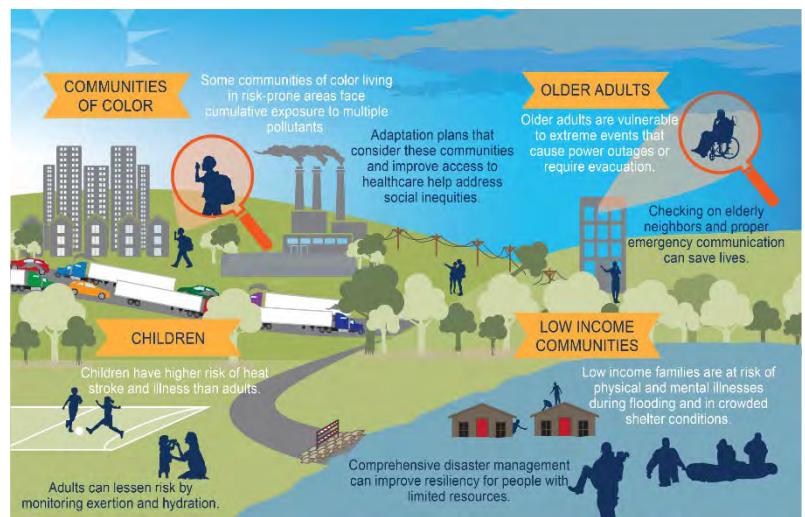
Building Capacity to Address Impacts of Climate Change on Health Inequities in New Jersey

Summary of a June 24, 2019 Convening co-hosted by the New Jersey Climate Change Alliance and the New Jersey Society for Public Health Education

Background

Extensive research points to the fact that while the health of all people living in the United States will be affected by climate change, the health of some populations will be affected more than others, including people who are low-income, some communities of color, immigrant populations, people with limited English proficiency, Indigenous people, older residents and children, people with disabilities and compromised health and mental health conditions, and others.^{1,2}

In December 2017, the New Jersey Climate Change Alliance, through the facilitation of Rutgers University, issued a [Climate and Health Profile Report](#) following technical guidance of Step 1 of the Building Resilience Against Climate Effects (BRACE) framework of the U.S. Centers for Disease Control and Prevention’s Climate Ready States and Cities Program.³ Development of the Profile Report was guided by a cross-sector workgroup of Alliance participants and others. The report was originally issued in draft and was finalized after comments were received on it via email and during a day-long public workshop at Rutgers University. The report concludes that “the most effective and efficient approach to protect the public health of New Jerseyans from changing climate conditions is to build consideration of changing climate conditions and the anticipated impact and consequences of those conditions into existing public health programs and systems, rather than creating a new overlay of initiatives on top of existing public health programs and



United States Environmental Protection Agency

¹ USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. <http://dx.doi.org/10.7930/JOR49NQX>.

² USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

³ CDC’s Building Resilience Against Climate Effects Framework (BRACE). Available at: <https://www.cdc.gov/climateandhealth/BRACE.htm>

services. Additional work is needed, however, to ensure whether a reliance on existing public health systems and programs is sufficiently protective of the populations and communities that are most vulnerable to changing climate conditions.”⁴

Health equity means that *everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.*⁵

The American Public Health Association points out several key messages with regard to populations that experience the greatest health impacts from changing climate conditions:

- *People in low-income communities and communities of color generally experience greater burdens from preexisting health conditions which increase susceptibility to climate-related health threats. These communities are often historically disenfranchised, lacking the political and economic power and voice to ensure that decision makers take their perspectives, needs, and ideas fully into account;*
- *Climate change and health inequities share the same root causes. The same systems (e.g. transportation, food and agriculture, energy) that are major sources of climate pollution also shape the living conditions that comprise the social determinants of health;*
- *Addressing climate change and health inequities requires transformational change in our systems and communities. Many climate solutions offer tremendous health benefits and opportunities to promote greater equity, which are vital to increasing climate resilience.*⁶

To draw attention to the disproportionate impact that climate change has on the health of certain populations and communities in New Jersey, the [New Jersey Climate Change Alliance](#) (NJCCA) and the New Jersey Society for Public Health Education (NJSOPHE), with support from the Energy Foundation, collaborated to host an all-day convening on June 24, 2019 to develop an *agenda for action* on climate change and health equity in New Jersey. This document provides a summary of the recommendations for action that were discussed among participants at the of the June 24 convening. **It is important to note that the recommendations included do not necessarily represent the positions of NJSOPHE, the NJ Climate Change Alliance, nor Rutgers University – rather, this report is a summary of the discussions of the June 24 convening.**

The New Jersey Climate Change Alliance (The Alliance) is a network of organizations that, since 2011, has come together to advance science-informed climate solutions for New Jersey. Facilitated by the Rutgers Climate Institute and the Rutgers Bloustein School of Planning & Public Policy, the Alliance conducts outreach and education to decision-makers, practitioners and the general public, links scientists to policymakers to inform practice, develops tools and guidance that can be used by planners and decision-makers, leads collaborative demonstration projects, and assesses evidence based state and

⁴ Moran, D., J. Whytlaw, J. Herb, M. Kaplan, J. Madrigano, and P. Kinney. 2017. New Jersey Climate and Health Profile Report. New Jersey Climate Adaptation Alliance. New Brunswick, NJ: Rutgers University.

⁵ Braveman P, Arkin E, Orleans T, Proctor D, and Plough A. What is Health Equity? And What Difference Does a Definition Make? Princeton, NJ: Robert Wood Johnson Foundation. 2017.

⁶ Rudolph, L., Harrison, C., Buckley, L. & North, S. (2018). Climate Change, Health, and Equity: A Guide for Local Health Departments. Oakland, CA and Washington D.C., Public Health Institute and American Public Health Association.

local policy options. The [New Jersey Society for Public Health Education](#) (NJSOPHE) is a professional organization of health educators that promotes, encourages, and contributes to the advancement of the health of all people through education by encouraging study, improving practices, and elevating standards in the field of public health education. Since 1984, NJ SOPHE has served as a professional conduit for health educators across the state to convene, network across various work settings and public health specialties, share research in peer-reviewed journals, and partner with other non-profit, governmental, private, faith-based organizations, academic, and healthcare entities on public health issues.

Overview of the Day

More than 60 participants were invited to join the day-long convening at Rutgers University on June 24, 2019 from a variety of sectors including public health, health systems, community-based organizations, environmental justice and social justice organizations, natural resource, environmental and energy non-governmental organizations, state and local agencies, community planners and utility operators. The convening was not designed as a conference; rather, it was specifically designed as a “conversation” among diverse, cross sector leaders to begin the work of developing a long term action agenda of addressing the challenges that are specific to health equity and climate change.

The focus of the June 24 convening focused on ways in which sources of global warming emissions and impacts from changing climate conditions, such as flooding, sea level rise, changes in precipitation and increases in temperature, worsen social, economic and physical conditions that support health and well-being, also known as the *social determinants of health* (see image), for certain populations. For this reason, the scope of the convening included presentations and discussions on both sources of climate emissions and the impacts of climate change. Additionally, the scope of the convening included health and well-being to ensure that mental health was included as a consideration in the definition of “health.”



Social Determinants of Health. Courtesy of the Equity and Social Justice Initiative, King County, Washington

The day began with a panel that provided an overview of the most recent science-informed climate change trends and projections for New Jersey, a summary of anticipated impacts to health and a review of the 2017 Climate and Health Profile Report. A second panel provided participants with an understanding of the intersection of climate change and health equity through presentations on health equity, a discussion on the ways in which climate change exacerbates cumulative impacts on health, and benefits of conducting assessments of climate and equity in communities. A third panel discussed opportunities and challenges for mobilizing climate action within health care systems in New Jersey. Following a networking lunch, a panel of leading New Jersey public health professionals outlined “big ideas” for discussion among all participants during the afternoon interactive workshop sessions.

During the course of the afternoon, participants moved throughout the room to different discussion tables to offer their thoughts on key challenges and opportunities facing New Jersey regarding health equity and climate change. In each juncture, participants were asked to identify short-term and mid-term actions that are needed, challenges, opportunities, resources available and needed, and champions who could lead efforts forward.

Overarching Themes

Participants in the June 24 convening identified several overarching, consistent themes as well as a set of more specific recommendations. The New Jersey Climate Change Alliance and NJSOPHE hope to work together in 2020 along with other partners to review the specific recommendations from the June 24 convening and, informed by those recommendations as well as other sources of information and voices throughout New Jersey to advance efforts to promote initiatives that connect climate change with health equity. In general, the overarching themes reinforce the recommendations of the 2017 Climate and Health Profile Report. In general, both the 2017 Climate and Health Profile Report and the June 24 convening offer the perspective that making health equity a core desired goal of science-informed action on reducing greenhouse gas emissions and advancing resilience to changing climate conditions can ensure that state and local climate policy generates opportunities to create communities that are healthier, more equitable, more prosperous and vibrant.

An underlying theme of the June 24 convening is that intersecting climate change and health equity goals generates synergistic outcomes that create a society that is not only *healthier, more resilient* and *environmentally sustainable*, but a society that is *just*, in which opportunity is available to all, and risks are equitably shared.

OVERARCHING THEMES

- 1. Act now** – While ongoing research and analysis is needed to continue to better understand the disease burden and impacts that changing climate conditions will have on the health of New Jerseyans, especially on our most vulnerable populations, more than enough evidence is available now to understand the threat facing the health of our residents to undertake decisive and immediate action. Other states have launched comprehensive climate change and public health programs through partnerships with state and local agencies, the public health community, frontline and community based organizations, academic institutions and health systems. NJSOPHE, the New Jersey Climate Change Alliance and other partners are launching a statewide working group to advance actions outlined in this summary starting in 2020.
- 2. Make equity a priority** - While the health of all New Jerseyans is and will continue to be affected by changing climate conditions, the health of certain populations and communities is and will continue to be disproportionately affected by changing climate conditions. State and local climate emissions reductions and resilience policies and programs need to be managed in ways that recognize and prioritize the distinct needs of the most vulnerable populations. Participants in the June 24 convening discussed that, to prioritize the needs of the most vulnerable populations, it is necessary for state and local policies to acknowledge that certain populations and communities are, indeed, disproportionately affected both by changing climate conditions as well as by the sources of global warming emissions and that a priority of policy should be to address the distinct needs of those populations and communities.

Many participants in the June 24 convening extended their recommendations to call for minimum mandates that would require a focused attention of state climate policy on populations that are most affected by sources of global warming emissions and changing climate conditions so as to improve social determinants of health for targeted populations and communities. Examples identified at the convening include: ensuring affordable, quality, resilient and efficient housing and access to low carbon transportation options for populations whose health will be most affected by climate change. Other examples included expanding programs that provide affordable energy upgrades to minimize the “heat” or “eat” challenge faced by some populations whose health is most affected by changing climate conditions. Other examples included expanding clean energy workforce opportunities that not only provide training but that link to creation of “living wage” jobs.

3. Address root causes - Climate change exacerbates social, economic and environmental conditions that contribute substantially to health and well-being. Examples of conditions that affect health include quality of housing, access to healthy foods and recreational opportunities, access to quality schools and living wage jobs, transportation mobility, exposure to environmental pollution and stressors, social support networks and community safety. These factors are distributed unevenly across populations, effectively determining length and quality of life and causing health inequities. Addressing social determinants of health is not only important for improving overall health, but also for reducing health disparities that are often rooted in social and economic disadvantages. Participants in the June 24 meeting discussed the concept that addressing the exacerbating effect of climate change goes beyond addressing climate impacts on vulnerable populations and must involve addressing the root causes of health inequities.

4. Engage communities and involve voices - The populations whose health is most affected by changing climate conditions are the same populations that have historically been disenfranchised from having a strong voice in decision-making processes. Participants in the June 24 meeting called for new models of civic engagement that are community-led and designed to deliver climate mitigation (emissions reduction) and resilience (adaptation to changing climate conditions) benefits while also improving health outcomes for populations that have historically had inequitable access to systems and conditions that support health and well-being. Participants in the June 24 meeting discussed examples of community empowered climate planning initiatives in states such as California, New York, and Rhode Island as examples where health equity and community-based planning are interested with shared goals of improving climate and health outcomes.

In addition to engaging communities, participants in the June 24 convening discussed the need for innovative state and local public policy processes that ensure adequate involvement of traditionally underrepresented populations. Some participants pointed to the wide ranging impacts of climate change on society as necessitating a highly inclusive approach to public policy development, one that departs from traditional “top-down,” government led mechanisms and, instead, relies on strategies that ensure upfront participatory involvement of populations and communities that have been most affected by health inequities.

5. Expand the role of public health – The public health community in New Jersey has not played as expansive a role in advancing state and local climate policy solutions as public health

agencies in other states. At the June 24 meeting, participants discussed the strong qualifications of local health departments to lead local climate change planning efforts. However, participants were concerned about the under capacity of the public health community to lead cross-sector efforts that link climate change and health equity at the state and local level; many pointed to the need for increased support for local public health departments, some suggestions included seeking support from hospital systems, private funders, and a review of the adequacy of the current system of funding for local public health in New Jersey. Participants discussed the value of the public health community to link health equity and climate change and advance cross sector solutions in state and local planning and decision-making including on issues such as hazard mitigation and emergency management; local air and environmental quality; access to affordable and clean transportation options; considering health in open space, building codes and community design; development of systems to ensure adequate access to affordable, resilient and efficient housing; availability of fresh and healthy foods including during climate events; and others. Participants in the June 24 meeting emphasized the need to educate decision-makers, particularly legislators, about the impact that climate change is having on health and the need to more comprehensively consider the health benefits of climate action as part of legislative and regulatory action.

6. Advance integrated solutions – Improving public health outcomes, especially for populations most affected by sources of climate emissions and impacts from climate change is not a “one sector” solution. Participants in the June 24 meeting indicated that improvements in public health will only come from cross sector strategies that aim to intersect health equity considerations as part of climate-related planning and policies in sectors such as transportation, housing, energy, as well as in design of planning for resilience and adaptation. In doing so, participants discussed the concept of considering health equity as part of all state and local climate efforts from the broadest perspective, including energy planning, transportation, waste and food systems, and housing and community development and design, among others.

7. Rely on, but enhance, current planning systems – A recommendation in the 2017 Climate and Health Profile Report and reinforced at the June 24 convening is the prioritization of health impacts of climate change in current state and local planning systems rather than create new climate and health planning bureaucracies. While participants voiced optimism about the concept of integrating climate change and health equity considerations into current planning systems, they also indicated that doing so would involve significant leadership and commitment. Participants specifically pointed to:

- a. The State Health Improvement Plan (SHIP)
- b. County Health Improvement Plans
- c. Municipal and county master plans
- d. State and county hazard mitigation plans
- e. Hospital Systems’ Community Health Needs Assessments

Integrating climate change and health equity considerations into these planning systems would involve collaboration with the climate science community to “downscale” global climate projections to generate understandable and actionable projections that be used for planning and decision-making by communities, public health practitioners, health systems and others in New Jersey. Participants in the June 24 meeting noted that making such data available in easily accessible

formats is critically important to support state and local planning efforts such as using such data to develop temperature vulnerability assessments with identification of vulnerable populations and neighborhoods to identify priority areas for cooling centers, water features, open space and increased urban canopy or identifying future flood prone areas in relationship to vulnerable populations or areas with contamination to inform local master, hazard mitigation, and public health planning.

Participants in the June 24 convening also discussed how use of localized climate projections can also inform state and local policy in other ways such as prioritizing expenditures of public climate resources to benefit vulnerable populations, ensuring that state and local codes include provisions for air-cooling systems of communal areas for senior living facilities; supporting efforts of housing and social service agencies to integrate extreme heat assessments and education into healthy home programs; and supporting the development of community-led resilience and climate planning.

Participants in the June 24 convening discussed several types of gaps in various planning processes at the state and local levels that can lead to increased “siloes” among sectors, and disenfranchisement of historically underrepresented populations in civic processes both of which contribute to the effect of climate change exacerbating current health inequities. These gaps include:

- Limited role for public health voices to be involved in “sector specific” planning, such as state and local planning for transportation, environment, resilience, land use, hazard mitigation, among others;
- Limited involvement of residents in certain types of planning, such as lack of resident engagement in development of local hazard mitigation plans;
- Limited integration of hospital Community Health Needs Assessments (CHNAs) with overall community-based plans aimed at addressing social determinants of health as well as limited integration of current and future environmental conditions in hospital CHNAs; and
- Limited consideration of future climate conditions and/or health impacts to vulnerable populations, including from sources of global warming emissions, as part of plan development, such as in transportation and/or air quality planning.

With regard to the role of health care systems, June 24 participants pointed to several important roles that hospitals and health care systems can play in advancing solutions associated with climate change and public health goals:

- Evaluating their own contributions to global warming emissions and setting targets for reducing emissions consistent with global targets;
- Assessing the vulnerability of their own operations from changing climate conditions and the threat that such vulnerabilities may pose to local populations. For example, analysis by the New Jersey Climate Change Alliance identified that 13 of 147 hospitals in New Jersey are located within the current 100-year floodplain and current storm surge area which does not even include consideration of potential future risks;
- Factoring current and future environmental conditions into Community Health Needs Assessment Planning and undertaking community benefit programs that are designed to address social determinants of health that are or will be exacerbated by changing climate conditions.

8. Assess impacts – Participants in the June 24 convening discussed use of strategies to measure outcomes of state and local cross-sector climate-related actions on health equity in order to encourage adoption of state and local climate strategies that deliver outcomes that provide maximum co-benefits to advance health equity. Participants discussed use of tools such as Health Impact Assessment and equity impact assessment which subsequently led to a team conducting a rapid [Health Impact Assessment](#) on a draft of the state Energy Master Plan with a focus on health equity. Use of such tools is intended to gauge the extent to which certain policy and programmatic options may positively or negatively affect health equity and public health outcomes and, in doing so, provide planners, decision-makers and communities with the data they need to make informed choices about climate change actions that can deliver health equity benefits.

9. Undertake demonstration and pilot projects – During the June 24 meeting, participants discussed the significant effort that would be involved in undertaking many of the ideas discussed during the convening. Participants suggested that a “step in the right direction” would be to undertake demonstration and pilot projects that can serve to illustrate methods and benefits of novel approaches, build new collaborative partnerships, and offer recommendations for ways in which state and local public policies can support and provide incentives for such actions.

Participants in the June 24 convening discussed the need for guidance and best practices for public health practitioners, community-based organizations and others. Undertaking demonstration and pilot projects can guide collaborative development of guidance and best practices as well as inform comprehensive “scaling up” of practices for overall implementation. Examples of demonstration projects include:

- Using science-informed climate projections data for New Jersey to inform state and local planning that affects social determinants of health and health equity;
- Practice use of tools such as Health Impact Assessment and equity impact assessment to create replicable models for evaluating and prioritizing state policies and actions;
- Undertaking community based planning efforts to identify and implement strategies that address climate change and improve health equity;
- Developing replicable elements of health equity based climate change components for inclusion in state and local cross sector plans;
- Building partnerships with public health professionals to use science-informed climate data to implement public health education campaigns, including with clinicians, regarding impacts of climate change on health with a focus on impacts of vulnerable populations and actions to take to minimize impact;
- Creating new models of hospital Community Health Needs Assessment planning that more fully integrates consideration of current and future environmental conditions into planning for population health;

10. Leading with health equity benefits everyone – In general, the participants in the June 24 convening called for a transformational reframing of the climate change conversation in New Jersey to one that is grounded in an understanding that **all New Jerseyans benefit** when **health equity is a cornerstone** of decisive state and local action on climate change, both reducing emissions

that cause global warming and adapting to changing climate conditions. Participants in the June 24 convening discussed that building state and local climate action that are designed to deliverable measurable outcomes in health equity delivers improved outcomes overall: affordable, resilient and efficient housing; more affordable, low carbon transportation options; more access to nature even in our densest urban communities; cleaner air; creation of livable wage jobs in emerging climate-friendly sectors; among others. Participants discussed creating a vision where state and local discussions about climate policy solutions begin with health and health equity and where public health voices and community stakeholders contribute to leading the identification of climate change solutions. Participants discussed the valuable role of health care and hospital systems in New Jersey, not only as tremendous opportunities to reduce global warming emissions and undertake sustainable environmental practices, but to also ensure preparedness for future climate conditions and to integrate consideration of future climate considerations in planning for community health needs. In general, participants indicated a need to add new metrics and tools to the toolbox of climate solutions so that health equity is valued as a critical goal of decision-making. Overall, the June 24 participants found that factors that state and local solutions to address climate change can also improve the health of families and communities and reduce health inequities. In general, participants were optimistic and expressed general agreement that addressing climate change represents a significant opportunity to improve public health and advance health equity.

The New Jersey Climate Change Alliance and NJSOPHE are grateful for the support of the Energy Foundation in making the June 24, 2019 convening possible. The two organizations plan to take the ideas and energy generated at the forum to work together and with other partners throughout New Jersey to begin an effort in 2020 to build the ideas into action.