



New York City Climate and Health Profile

Overview

New York City (NYC) faces serious public health risks from extreme weather events such as heat waves and coastal storms. With climate change, the severity of these risks will increase. In 2010 the New York City Department of Health (DOHMH) created a Climate and Health Program with funding from the Centers for Disease Control and Prevention (CDC). From 2010-2013, the program launched a strategic planning process to assess current climate health risks, identify populations that are especially vulnerable, determine the potential impacts of climate change on public health, and inform adaptation strategies. Since the launch of the CDC-funded work, NYC has adopted climate health policies and initiatives into OneNYC, the city wide sustainability plan dedicated to health equity and protection for the city's most vulnerable residents.

Climate projections summary

The New York City Panel on Climate Change (NPCC), composed of climate change scientists, academics, and private sector practitioners, regularly reviews local level climate data to improve the accuracy of climate projections and helps CHP to ensure that public health is considered in broader climate change planning and implementation activities. According to NPCC, NYC will experience higher temperatures and rising sea levels, as well as more frequent and intense extreme weather events – such as heat waves, heavy rainstorms, and coastal flooding. Annual temperatures are projected to increase by 4°F to 5.5°F, and heat waves will increase in number and severity in the next few decades. A detailed discussion of NYC's potential future climate risks can be found in NPCC's [Climate Risk Information 2013 Report](#).

Climate-sensitive health impacts

The Climate and Health Program is focusing on the following set of priority climate hazards: heat waves and rising average summer temperatures, increased severity of flooding from coastal storms, and power outages due to extreme weather. These hazards pose significant risks to health in NYC, and strong evidence from the NPCC indicates these risks will worsen in the future. The program also works on other climate-sensitive hazards such as pollen and air pollution.

The Climate and Health Program contributed to an assessment of the potential health impacts of climate hazards and identification of vulnerable populations was published in a health

chapter of a [2015 NPCC report](#). DOHMH's web-based Environment and Health Data Portal provides [neighborhood reports](#) on indicators of climate-related hazards, vulnerability and health impacts.

Rationale for potential collaborations identified

Protecting public health under a changing climate requires collaboration with other agencies and sectors such as housing, infrastructure, social services, and emergency management. Extreme weather impacts health through a number of pathways, such as power outages, damage to housing, and transportation disruptions. DOHMH participates in multi-agency planning efforts, such as OneNYC, that use policies and programs to make the city's buildings, systems and infrastructure more sustainable and resilient in ways that can protect public health. Moreover, studying climate change and its health impacts requires specialized expertise. The Climate and Health Program partners with academic researchers and participates in NPCC along with experts in climate science and other fields. Informing the public, particularly vulnerable populations, about climate risks and protecting public health from extreme weather events involves many government agencies and service providers. The Climate and Health Program partners share information about climate health risks and how to prepare for climate-related events. The Climate and Health Program also conducts outreach to service providers and community groups working to improve resilience of vulnerable populations.

Climate & Health Research and Reports (Climate and Health Program Co-Authors)

- [A case-only study of vulnerability to heat wave-related mortality in New York City \(2000-2011\)](#) (2015)
- [Drinking water turbidity and emergency department visits for gastrointestinal illness in New York City, 2002-2009](#) (2015)
- [Heat-related deaths in New York City, 2013](#) (2014)
- [Heat illness and deaths — New York City, 2000–2011](#) (2013)
- [Extreme heat awareness and protective behaviors in New York City](#) (2013)
- [Health effects of coastal storms and flooding in urban areas: a review and vulnerability assessment](#) (2013)
- [The association of tree pollen concentration peaks and allergy medication sales in New York City: 2003-2008](#) (2011)
- [Summer heat and mortality in New York City: how hot is too hot? \(2010\)](#)
- [Vital Signs: 2006 Heat Wave Investigation Report](#) (2006)

Climate Change Adaptation, Resilience and Sustainability (Climate and Health Program Contribution)

- [New York City Panel on Climate Change 2015 Report – Chapter 5: Public Health Impacts and Resiliency](#) (2015)
- [OneNYC – New York City's sustainability and resiliency plan](#) (2015)

- [New York City Emergency Management 2014 NYC Hazard Mitigation Plan](#) (2014)
- [NYC Special Initiative on Rebuilding and Resiliency – Post-Hurricane Sandy initiative to rebuild and increase the resilience of New York City’s infrastructure and buildings](#) (2013)

For General and Provider Resources, visit the Climate and Health Program’s [Heat Illness and Heat Waves](#).