



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 Health Department created a Climate and Health Program with funding from the Centers for Disease Control and Prevention (CDC). The program launched a strategic planning process to assess current climate health risks, identify populations who are especially vulnerable, determine the potential impacts of climate change on public health and inform adaptation strategies. The program's findings have informed NYC's climate health policies and initiatives including OneNYC, the citywide sustainability and equity plan, and NYC Cool Neighborhoods, the citywide heat sustainability plan.

Climate Projections Summary

The New York City Panel on Climate Change (NPCC) — which is composed of climate change scientists, academics and private sector practitioners — regularly reviews local level climate data to improve the accuracy of climate projections. 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 Report](#).

Climate Hazards and Health Impacts

The Climate and Health Program focuses on the following 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 hazards such as cold weather, 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 in NYC was published in a health chapter of a [2015 NPCC report](#).

Online Data Resources

The Health Department's web-based [Environment and Health Data Portal](#) provides neighborhood reports on indicators of climate-related hazards, vulnerability and health impacts, as well as other information about indicators of weather-related illness and heat vulnerability in NYC.

Climate Adaptation Resources

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. The Health Department participates in multi-agency planning efforts 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. The Health Department's Climate and Health Program also conducts surveillance and research, and partners with academic researchers and experts to better understand climate and health in NYC.

Research and Reports from the NYC Health Department's Climate and Health Program

Climate Change and Health

- [New York City Panel on Climate Change 2015 Report — Chapter 5: Public Health Impacts and Resiliency](#) (2015)

Allergy and Asthma

- [The Associations Between Daily Spring Pollen Counts, Over-the-Counter Allergy Medication Sales, and Asthma Syndrome Emergency Department Visits in New York City, 2002-2012](#) (2015)
- [The Association of Tree Pollen Concentration Peaks and Allergy Medication Sales in New York City: 2003-2008](#) (2011)

Coastal Storms

- [Health Effects of Coastal Storms and Flooding in Urban Areas: a Review and Vulnerability Assessment](#) (2013)

Cold and Winter Weather

- [Burden and Risk Factors for Cold-Related Illness and Death in New York City](#) (2018)

Extreme Heat

- [Awareness, Risk Perception, and Protective Behaviors for Extreme Heat and Climate Change in New York City](#) (2018)
- [Hot Weather Impacts on New York City Restaurant Food Safety Violations and Operations](#) (2018)
- [Excess Mortality Attributable to Extreme Heat in New York City, 1997-2013](#) (2016)
- [A Case-Only Study of Vulnerability to Heat Wave-Related Mortality in New York City \(2000-2011\)](#) (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)
- [Summer Heat and Mortality in New York City: How Hot Is Too Hot?](#) (2010)
- [Vital Signs: 2006 Heat Wave Investigation Report](#) (2006)

Power Outages

- [Power Outage Preparedness and Concern among Vulnerable New York City Residents](#) (2018)
- [Health impacts of citywide and localized power outages in New York City](#) (2018)

NYC Resiliency and Planning Initiatives in which the Climate and Health Program Contributed

- [One City: Built to Last — New York City's plan for strong and just city](#) (Ongoing)
- [Cool Neighborhoods NYC — New York City's heat resiliency plan](#) (Ongoing)
- [NYC Hazard Mitigation Plan — Actions New York City can take to reduce risks](#) (Ongoing)
- [New York City Panel on Climate Change — Advisory body to New York City examining impacts of climate change](#) (Ongoing)
- [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)