



Climate & Health Adaptation Workshops

Extreme Heat & Weather Vulnerability *October 26th, 2022*

IMPORTANT INFORMATION!

- For those who have joined via phone before logging in on your computer...
 - To sync your online and phone presence, click on the audio icon (should look like a headset)
 - Select "switch to phone audio" or "phone call" and follow the directions that come up on your screen
 - When your phone and online presence are synced, the audio icon should look like a phone



Thank You!

To the grants that supported these workshops...



CDC-RFA-EH16-1602 CDC-RFA-EH17-1702 CDC-RFA-EH21-2101 CDC-RFA-EH22-2202

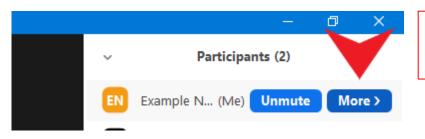
...and to the planning team that brought these workshops to life!

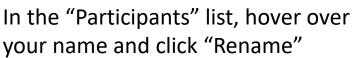
- Neil Muscatiello
- Faith Schottenfeld
- Kristen Vacca
- Laura Agnew
- Sarah Ravenhall
- Cristina Dyer-Drobnack



Before We Begin...

- This session is being recorded and will be emailed out to all registrants, and be uploaded onto NYSACHO's webpage
- Please remain **muted** to limit background noise
- At any time during the session, share your thoughts, feedback, and questions using the chat box, or Zoom's "reactions"!
- Please rename yourself to include your name and county/affiliation





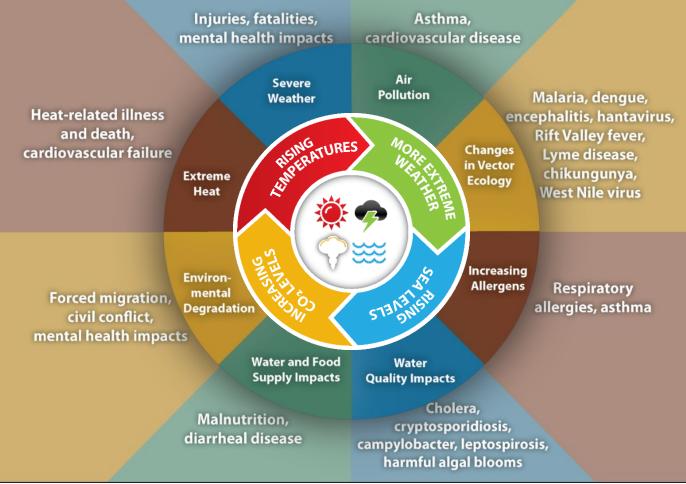


October 26, 2022

9:05 – 10:00 AM	Content Overview
10:00 – 10:15 AM	Break
10:15 – 11:25 AM	Breakout Sessions
11:25 AM – 12:00 PM	Report Out



Impact of Climate Change on Human Health



Source: Centers for Disease Control and Prevention, Climate and Health Program

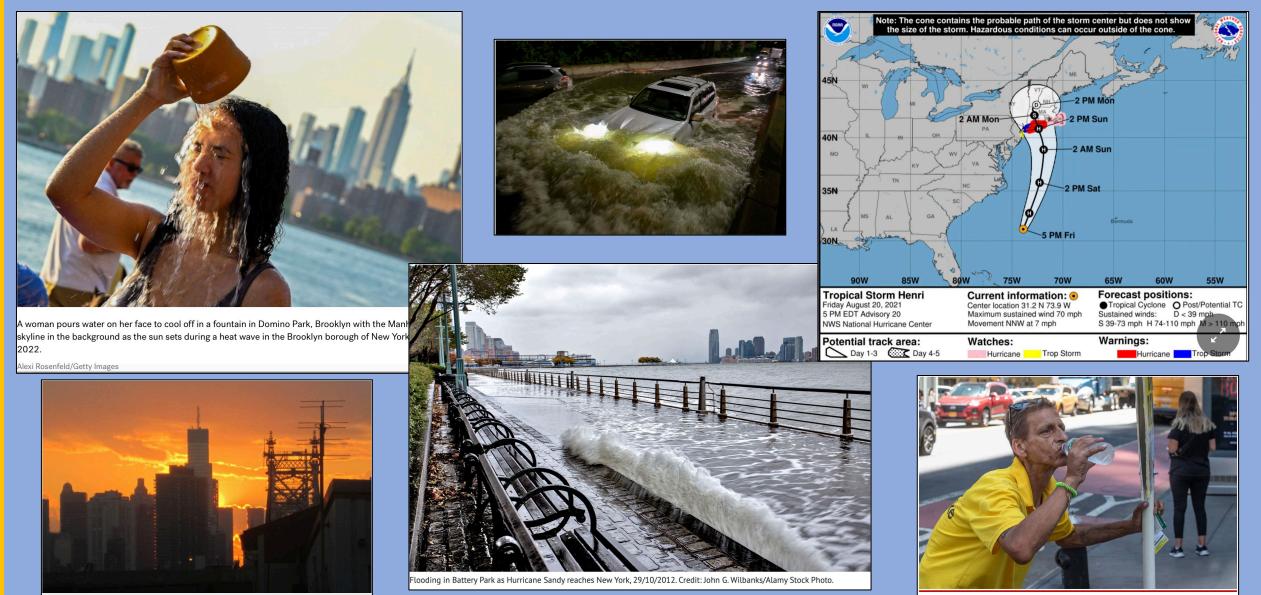


Addressing Extreme Heat in Westchester County:

An Institutional-level Early Warning Plan

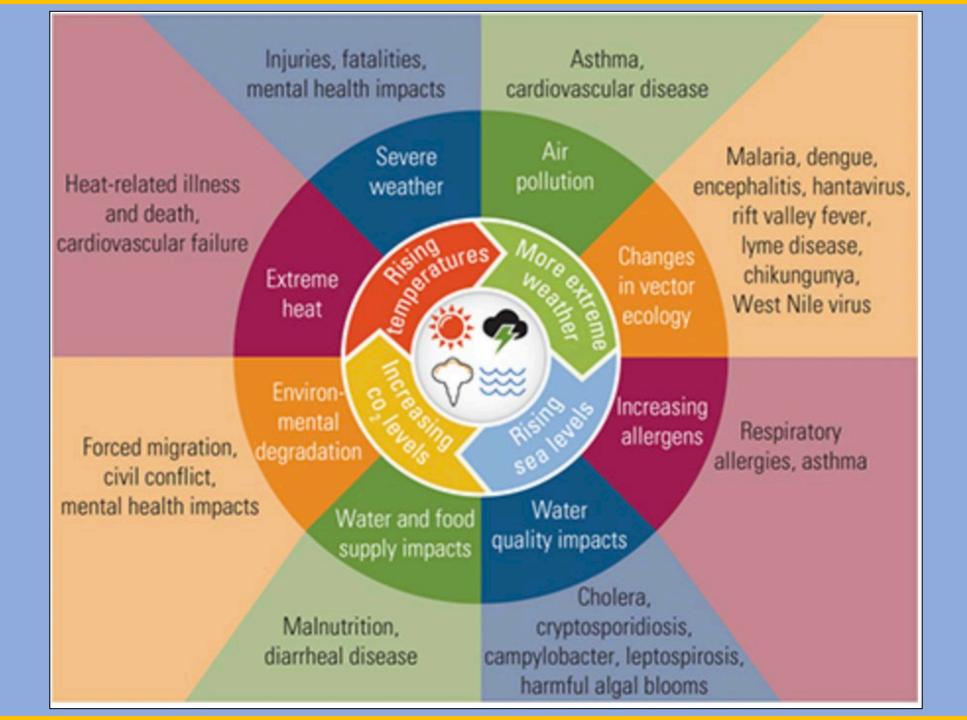
Anjali Sauthoff October 26, 2022

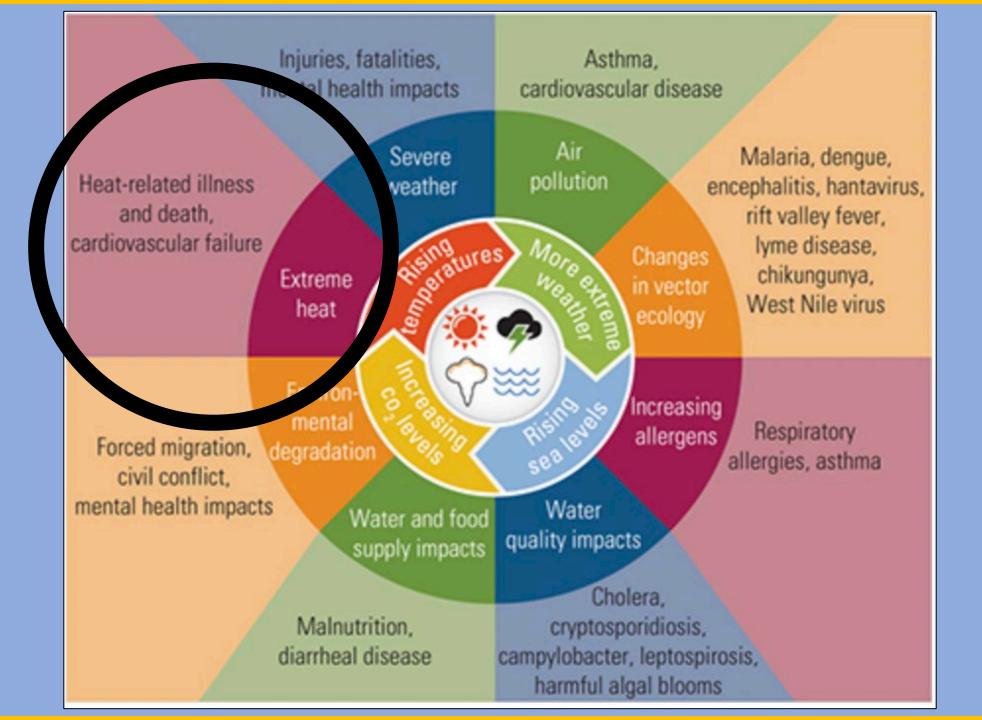
Expected Climate Impacts in NYS



Temperatures rose to 94 degrees Saturday afternoon. J.C.Rice for NY Post

Queens heat wave. Photo: Chris Goldberg





NYS DEC: Extreme Temperatures

Extreme heat days: those with maximum temperatures at or above 90°F in northern portions of the state and those with maximum temperatures at or above 95°F in southern portions.

Heat waves: periods of three or more consecutive days with maximum temperatures at or above 90°F.

Extreme cold days: those with maximum temperatures at or below 32°F in southern areas and those with minimum temperatures at or below 0°F in northern areas.

Observed: The frequency of cold waves has decreased across the contiguous U.S since the early 1900s, while the frequency of heat waves has increased since the mid-1960s.

Projected: The total annual number of individual hot days, and the annual frequency and duration of heatwaves in New York State are expected to increase as the century progresses. The number of extreme cold days, of either of the above two definitions, will likely decrease.

Vulnerable Populations

- Low-income
- Pregnant women
- Older adults
- Occupational groups
- People with pre-existing medical conditions
- People with disabilities
- Geographic location
- Children
- Indigenous
- Unhoused



Low-income populations may be exposed to climate change threats because of socioeconomic factors. For example, people who cannot afford air conditioning are more likely to suffer from unsafe indoor air temperatures.



Pregnant women are sensitive to health risks from extreme weather such as hurricanes and floods. These events can affect their mental health and the health of their unborn babies by contributing to low birthweight or preterm birth.



Older adults may have limited ability to cope with extreme weather if, for example, they have difficulty accessing cooling centers or other support services during a heat wave. Heat-related deaths are most commonly reported among adults aged 65 and over.



Occupational groups such as first responders and construction workers face more frequent or longer exposure to climate change threats. For example, extreme heat and diseasecarrying insects and ticks particularly affect outdoor workers.



People with pre-existing medical conditions, such as asthma, are particularly sensitive to climate change impacts on air quality. People who have diabetes or who take medications that make it difficult to regulate body temperature are sensitive to extreme heat.



People with disabilities face challenges preparing for and responding to extreme weather events. For example, emergency or evacuation instructions are often not accessible to people with learning, hearing, or visual disabilities.



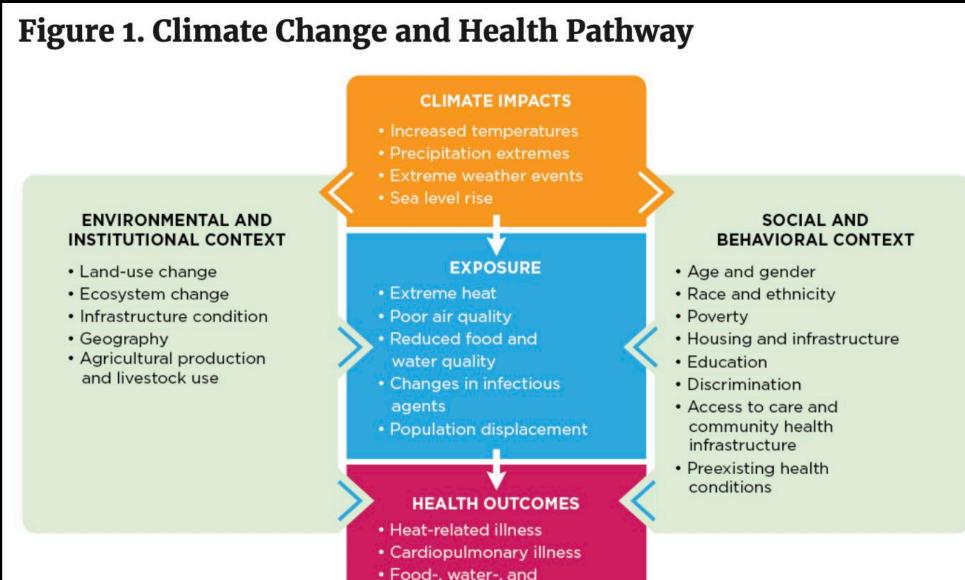
People in certain locations may be exposed to climate change threats, such as droughts, floods, or severe storms, that are specific to where they live. For example, people living by the coast are at increased risk from hurricanes, sea level rise, and storm surge.



Children are more sensitive to respiratory hazards than adults because of their lower body weight, higher levels of physical activity, and still-developing lungs. Longer pollen seasons may lead to more asthma episodes.

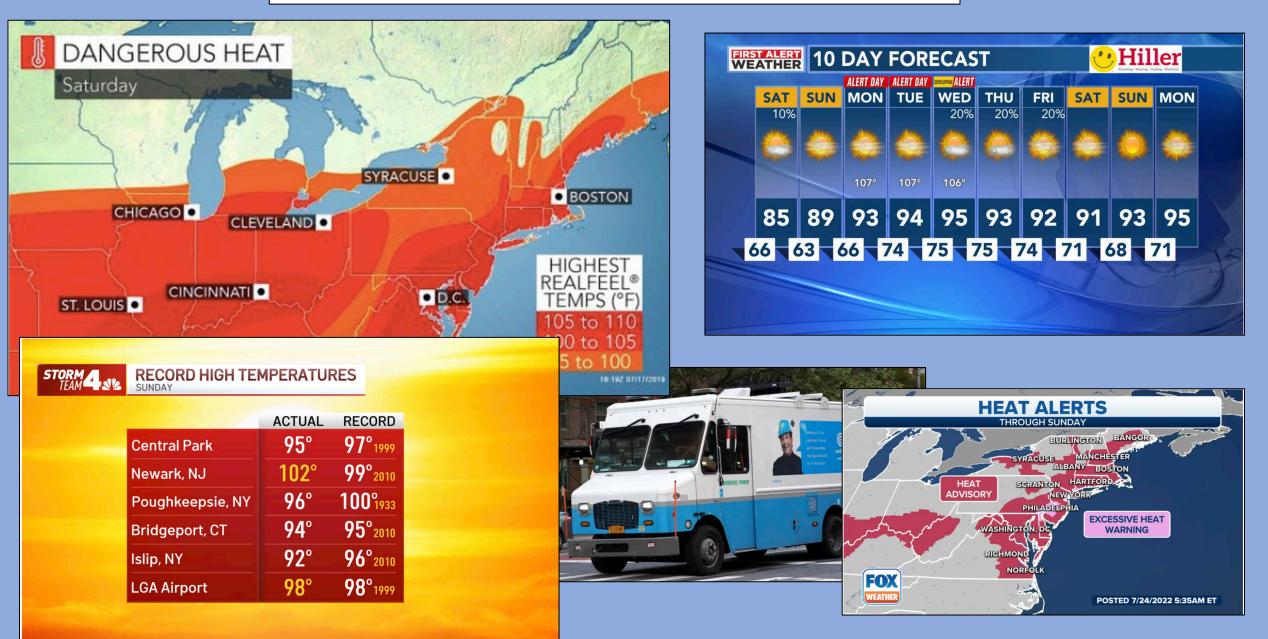


Indigenous people who rely on subsistence food have limited options to adapt to climate change threats to traditional food sources. Rising temperatures and changes in the growing season affect the safety, availability, and nutritional value of some traditional foods and medicinal plants.



- vector-borne disease
- Mental health consequences and stress

Typical Extreme Heat Warnings





NEW YORK MEDICAL COLLEGE

A MEMBER OF THE TOURO COLLEGE AND UNIVERSITY SYSTEM





George Latimer Westchester County Executive



Institutional level—more targeted messaging for vulnerable populations



exp imate change threats ocioeconomic factors. For ole who cannot afford air ng are more likely to suffer Insafe indoor air temperatures.



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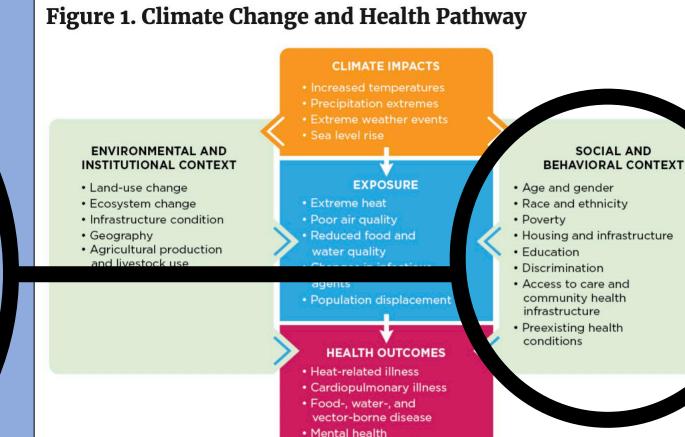


Figure 1 shows how climate change can affect people by changing their exposure to health threats (moving from top to bottom) and by influencing the environmental, institutional, social, and behavioral factors that affect a person's or community's health (moving through the boxes on the sides).

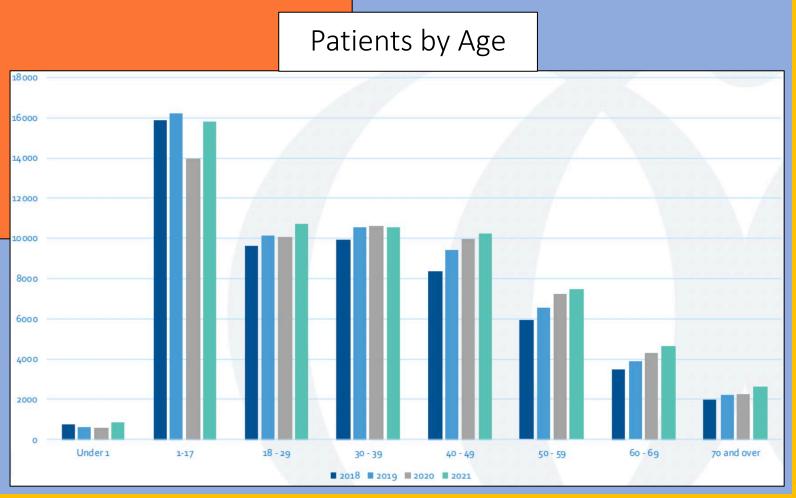
consequences and stress

SOCIAL AND

Patients of Open Door Family Medical Center

62,903 patients in 2021:

- Patients best served in a language other than English: 71%
- Hispanic or Latino/a: 79%
- Black/African American: 6%
- Uninsured: 36%
- Medicaid/CHIP/Public: 47%
- Medicare: 4.5%
- Private: 12%



Goal

Develop a method to more precisely target specific vulnerable populations at an institutional level with relevant extreme heat warnings What can we leverage?

1. 96% of all Open Door patients have cell phones

2. COVID communication platform—text messaging

Methods

- Background research
- Considerations: text fatigue, what defines success? Awareness? Health outcome data?
- Developed messaging—text messaging, flyers, video monitors
- Healthcare provider discussion with vulnerable patients
- Gaps—occupation, building level data (i.e. floor)

Timing of Text Messaging

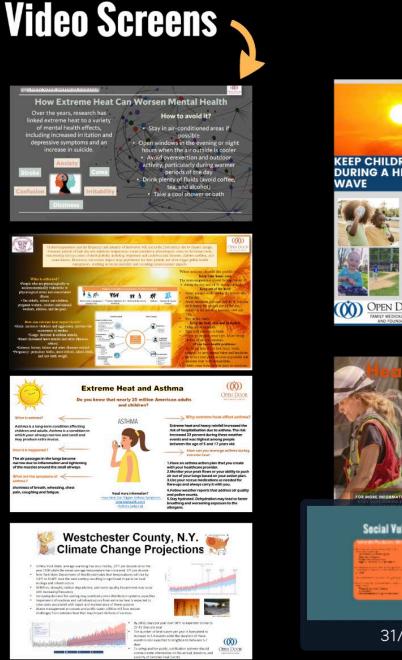
Beginning the Alert

- Heat information from the National Weather Service
- Extreme Caution Notification to vulnerable groups
- Danger Notification to all groups

	NWS	He	at Ir	ndex			Те	empe	rature	e (°F)							
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
(%)	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
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	95	86	93	100	108	117	127										- J
	100	87	95	103	112	121	132										and a second
	Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity																
Caution Extreme Caution Danger Extreme Danger																	
(NOAA's National Weather Service, 2019)																	









Presenter: Samantha Betty

Preliminary Evaluation

SWOT Analysis

- Quick notification time
- Cost effective
- Direct communication with patients
- Encourages risk mitigating behaviors
- Bilingual



- Scalability
- Diverse target population
- Educates patients
- Prevents heat-related illnesses
- Model to emulate

Evaluation, Cont'd

Open Door

- Staff capacity
- Patient feedback
- Healthcare provider feedback
- Resources, support, training
- Health outcomes

Other CBOs

- What is already being done
- Opportunities for partnership
- Extension to other climate impacts (i.e. vector, food, water-borne diseases, mold, flooding, etc.) ?

Thank You, Thank You Thank You

- Lindsay Farrell, Executive Director Open Door Family Medical Center
- Grace Battaglia, Denise Egan, Open Door Family Medical Center
- Dr. Michael Shakarjian, Assistant Professor for the Public Health Programs at New York Medical College's School of Health Sciences and Practice
- Peter McCart, Westchester County Director of Energy and Sustainability, Climate Crisis Task Force

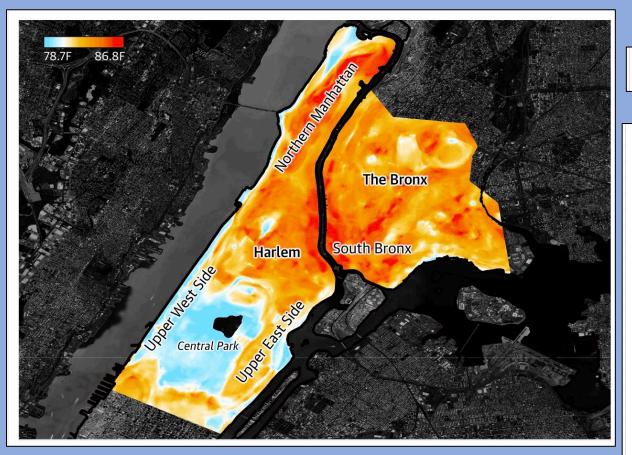




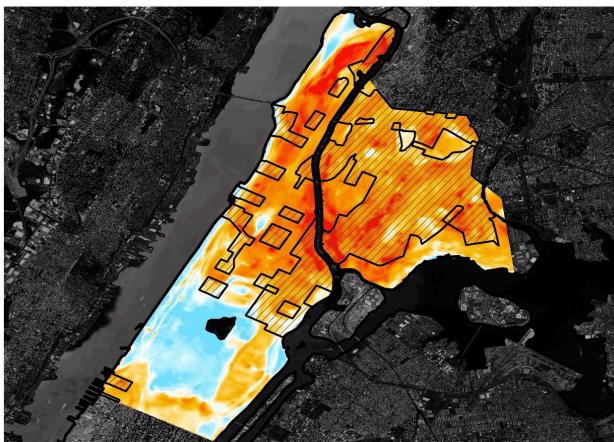
George Latimer Westchester County Executive



Afternoon temperatures in parts of Manhattan and the Bronx on 24 July 2022



Areas where more than 25% of households live in poverty



Guardian graphic. Sources: CAPA Strategies, US Census Bureau.

Rockland County Cooling Centers

Eric Medina, MPA – Dir. Emergency Preparedness, Rockland County Dept. of Health Chris Jensen – Program Coordinator, Rockland County Office of Fire and Emergency Services

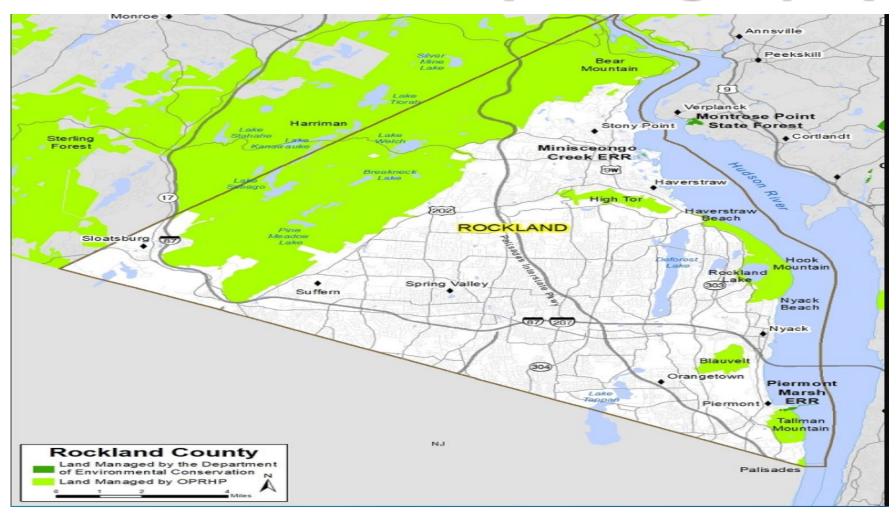
October 26, 2022

Rockland County Demographics

- Total population of Rockland County:
 - 325,789 (as of 2019 Census estimate)
- Rockland County third-most densely populated county outside NYC (after Nassau and neighboring Westchester Counties, respectively)
- The County has the largest Jewish population per capita of any U.S. county, with 31.4%, or 90,000 residents, being Jewish



Rockland County Geography





Northeast Weather

Columbia Climate School Climate, Earth, and Society

State of the Planet

AGRICULTURE CLIMATE EARTH SCIENCES ECOLOGY ENERGY HEALTH SUSTAINABILITY

CLIMATE, PRESS RELEASE

Why the U.S. Northeast Coast Is a Global Warming Hot Spot

Heat Linked to Rising Ocean Temperatures, Altered Wind Patterns

BY KEVIN KRAJICK | SEPTEMBER 23, 2021

f 😏 🔄 🕂 💵 💷 Comments

From Maine to Delaware, the coastal U.S. Northeast is heating faster than most regions of North America, and a new study shows why. It links the outsize heating to unusually fast-rising temperatures in the North Atlantic Ocean, and alterations in wind patterns that are now tending to send the warmth to the U.S. coast instead of the other way. The research appears this week in the journal Nature Climate Change.

As a result of the changes, not only are Northeastern winters getting warmer, as long projected by climate models, but significant and rapid summer warming is happening as well. "Some of the biggest populations centers in the U.S. are suffering the greatest degree of warming," said lead author Ambarish Karmalkar, a professor of geosciences at the University of Massachusetts, Amherst. "This warming is being driven both by equally rapid trends in the Atlantic Ocean and by changes in atmospheric circulation patterns."



FOX Weathe

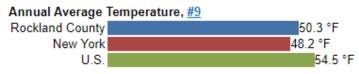
ORIGINALLY PUBLISHED BY: Heat Advisories remain in effect across the Northeast and New England as oppressive heat and humidity refuse to release their grip on the region.

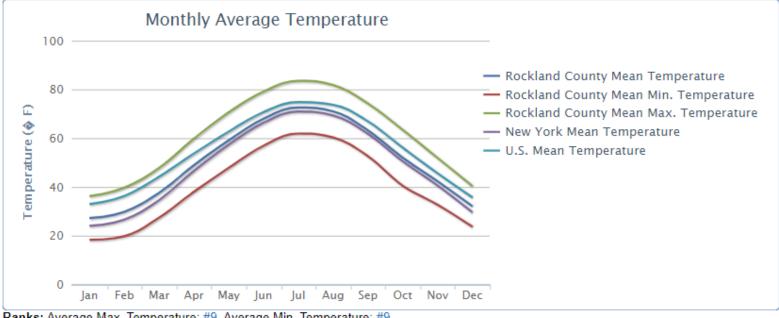
Millions of Americans from the Jersey Shore to Bangor, Maine, are at risk of heat-related illnesses as temperatures climb into the



Rockland County Average Temperature*

Average Temperature





Ranks: Average Max. Temperature: #9, Average Min. Temperature: #9

Rockland County

Rockland County Average Humidity*

72.95%

New York 75.60% U.S. 77.52% Monthly Average Humidity 90 - Rockland County 80 - New York - U.S. (Average of All Locations) Humidity (%) 70 60 50 40 Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb

Rockland County

Humidity

Rockland County

Annual Average Humidity, #55

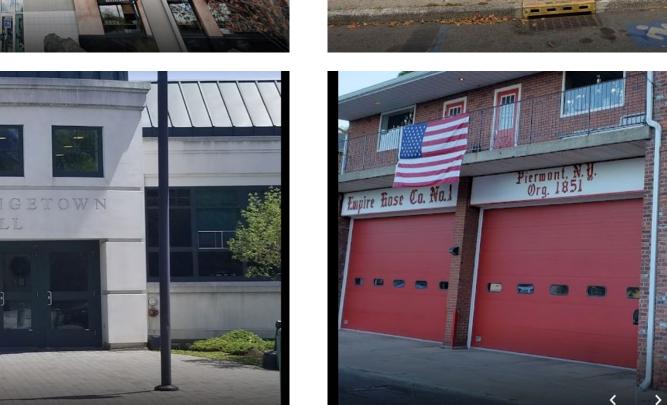
* USA.COM

Rockland County Government Make-Up

- Divided into <u>5</u> Towns:
 - Clarkstown, Haverstraw, Orangetown, Ramapo and Stony Point
 - Villages (18)

Airmont	Chestnut Ridge	Grand View-on-Hudson
Haverstraw	Hillburn	Kaser
Montebello	New Hempstead	New Square
Nyack	Piermont	Pomona
Sloatsburg	Spring Valley	Suffern
Upper Nyack	Wesley Hills	West Haverstraw









Types of Cooling Centers

- Use of various commercial, community and government sites:
 - Community Centers: Central Nyack, Haverstraw, Hillburn, Nanuet, Stony Point, Congers, New City
 - Government Buildings:
 - Town Halls (Haverstraw, Orangetown, Ramapo)
 - Village Halls (Airmont, Haverstraw, Nyack, Piermont, Pomona, Sloatsburg, Suffern, Wesley Hills, West Haverstraw and Hillburn)
 - Senior Center (Nyack)
 - Police Department (Orangetown)
 - Fire Department (Piermont)
 - Senior Center (Ramapo)
 - Commercial Space:
 - Palisades Mall (Nyack)
 - Arts Center:
 - Ramapo Arts Center



Cooling Centers Pros Cons

• At least one Center located in each Town/Village	Centers do not provide "full" care services; not considered overnight shelters or homeless shelters
Mostly Government Buildings	 Shortened hours (mostly day "Summer" hours)
Locations do not change every year	 Not opened during holiday (July 4th)
Locations are used daily	 Need to call each Center each year to confirm hours of operation
 Government locations can promote other public services (Senior programs, health issues, etc.) 	 No interactive opportunities for people at sites



Rockland County Cooling Centers

- Future Plans:
 - Increase number of Centers based on GIS County demographic factors (age, home ownership, poverty levels, etc.)
 - Investigating the use of additional Libraries, Senior Centers and non-for-profit organizations to increase number of locations throughout the County.



Thank You!

Eric Medina - medinae@co.rockland.ny.us 845-364-2660

Chris Jensen - jensenc@co.rockland.ny.us 845-364-8902

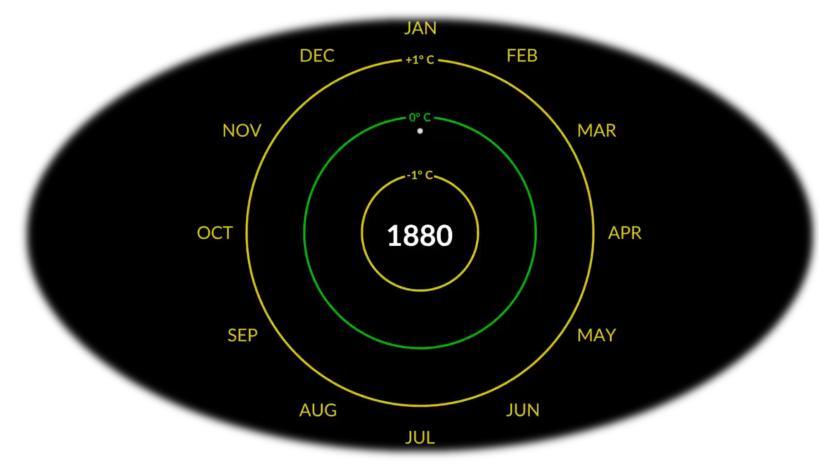




Questions?

Use the chat box or use the "raise your hand" feature to ask your question(s)!

Break ^(c) Return at 10:10 AM!



This visualization from NASA shows monthly global temperature anomalies (changes from an average) between the years 1880 and 2021. Whites and blues indicate cooler temperatures, while oranges and reds show warmer temperatures.



October 26, 2022

Breakout Rooms

Rooms for Counties with LHDs & Partners

- Broome
- Chautauqua
- Cortland
- Dutchess
- Erie
- Oswego
- Saratoga
- Schenectady
- Schoharie
- Schuyler

- Seneca
- St. Lawrence
- Wayne
- Westchester
- Wyoming, Monroe and Genesee
- Delaware, Otsego and Greene
- Essex and Franklin
- Rockland and Putnam



Breakout Rooms (cont.)

Group Discussion Room

- Chenango
- Fulton
- Jefferson
- Montgomery
- Oneida
- Rensselaer
- Saratoga

- Schoharie
- Steuben
- Ulster
- Washington
- NYCDOHMH
- Others (DEC, NYSDOH, PA, HHS, etc.)



October 26, 2022

Instructions for Breakout Rooms

- Identify a recorder who will be responsible for completing the report out slide for your group
- Within the Google Slide Deck, navigate to the slide designated for your breakout room
- Use the questions within the discussion guide to help guide your conversations
- Use the last 10-minutes of your breakout session to complete your group's report out slide

If you need assistance at any point during the breakout session, click the "ASK FOR HELP" button in Zoom!



Climate & Health Adaptation Workshop: Extreme Heat & Weather Vulnerability

Breakout Session Report Out

BROOME COUNTY

What climate adaptation activity(s) did your group focus on?

Identifying mitigation strategies for heat for at risk populations.

Who are your partners for this activity? COAD (Community Organizations Active in Disasters)(Churches)

Libraries, Senior Centers, Community Centers, Local Transit, Local Media

What are your next steps?

Work with our partners to ensure heat emergencies is an identified risk and potential emergency.

Ensure the resources are known to the at risk populations.

Work with our partners to make their locations appealing during heat events.

Identifying and contacting the at risk population.

What kind of assistance/support do you need?

Identify key holders within the partner organizations in order to obtain buy in for the programs.

CORTLAND COUNTY

What climate adaptation activity(s) did your group focus on?

Increasing Cooling center access, particularly outside city and transit from rural areas

Who are your partners for this activity?

ATI, Mayors/Supervisors, SUNY, Public Schools, First Transit, JM McDonald, McAvoy Campus, Homer Center for the Arts, Cortland Repertory Theater, TC3 Extension, Health Department, Libraries, Emergency Management, Hospital, Ambulance Svcs, faith based organizations, CAG, PIO

What are your next steps?

Talk to identified partners, discuss red cross staffing expectations/concerns, contracts/ site visits

What kind of assistance/support do you need?

FUNDING :), maybe prioritization from leadership (city, county, municipality)

Data about unmet need always asked- without data difficult to persuade action

Formalized agreements/ plans

SARATOGA COUNTY

What climate adaptation activity(s) did your group focus on?

Cooling and heating sites for unhoused people

Who are your partners for this activity?

Saratoga County has recently developed a year round, 24-hour housed shelter. City Council and Stewarts joined in this effort. We believe that if there were community health centers involved, it would provide counseling for the residents of this housing regarding mental health, addiction awareness, etc.

What are your next steps?

The steps that have been taken so far for this housing site are essential for the homeless community in Saratoga County, especially considering the extreme summer and winter conditions. A year-round site has not existed in the area before this point. As environmental health specialists, we could monitor the water and food conditions to ensure the safety of the public. As a LHD, public safety is our highest importance.

What kind of assistance/support do you need?

Additional community partnerships

SENECA COUNTY

What climate adaptation activity(s) did your group focus on?

Cooling Centers within our county.

Who are your partners for this activity?

No other partners were in our group. We chose to identify current locations of cooling centers and identify any potential areas that may need a cooling plan in the future. There are partners that have set up locations for cooling centers, they have not historically worked in conjunction with the LHD to establish these locations nor have the locations historically been advertised by the LHD during extreme heat events.

These partners would included our overnight children's camps, children's day camps, public swimming pools, and potentially nursing homes. At this time only one community center, a VFW, American Legion, and a library. None of these identified locations are on generator back up. It would be beneficial to have these locations added to a priority list for power restoration in the event of a power outage. Or to have the locations add generators. There is the potential for fire departments, the office for the aging, schools, community centers, and other government buildings to be added to this list of locations or to have times expanded depending on need. This would be ideal, as more of these locations have generators or the ability to provide larger space for families in need or separate locations for different populations in need.

What are your next steps?

Work with emergency management to have a permanent list of cooling centers posted on their website as well as any website that is associated with the county. Making the locations widely known and let people know that they are free and accessible. Find out what would be needed to add more locations to the listing for the 2023 summer and start to advertise these locations in advice of the summer months when need is high.

These locations could also be used as heating locations during winter months as well. With the rising cost to heat homes, it should be a concern that many households may not be able to afford the heating costs that will come with the cold temperatures.

What kind of assistance/support do you need?

The buy in of community centers, fire departments, the county supervisors, school districts, and other community associations that would help to get the locations set up during extreme heat events. Emergency management to help facilitate the use of federal funding if available through their department.

WAYNE COUNTY

What climate adaptation activity(s) did your group focus on?

- Respiratory illness populations planning
- Creating Cooling Place location lists with hours and acceptance rules
- A response team created as an AAR/IP Item from an event in 2017
 Who are your partners for this activity?
- PH, EM, PW, MH, DSS, Ofc of Aging, LE, Fire, Library, Schools, Faith Based orgs, Town Supervisors, **What are your next steps?**
- Formalize a County Response Plan from the AAR/IP findings and improvement work
- Work with local HC Facilities to understand and incorporate County Plan into Facility Emergency Plans
- Incorporate planning into current Asthma Outreach program
- Plan for effects on homebound elderly and plan a response
- Get more Partners and Stakeholders involved in planning and response What kind of assistance/support do you need?
- Involvement from legislative bodies
- Data on level of effects each degree or increase in heat has on populations planning purposes
 - Similar to the Winter Warning/Advisory Products from NWCH
- (funding and assistance needed) Staff Time, Communications Products, Focused response capabilities, Response Coordination for regional response to regional events, Formalized group required by state and managed at local level for planning and coordinating efforts similar to LEPCs

WAYNE COUNTY

1 Shared Focus

- a. Hospital was interested in volume increases in ED, In-Patient and Clinics that would be expected in a Heat Emergency
- b. Response plans and resources
- c. Expanding
- d. Seasonal / Intermittent depending on heat emergency frequency

2 Partnerships

- a. Asthma, Elderly and Other At Risk Populations groups
- **b.** EM, PW, MH, DSS, Ofc of Aging, LE, Fire, Library, Schools, Faith Based orgs, Town Supervisors
- c. SAA and local community groups

3. Opportunities & Challenges

- a. Established networks and partnerships
- b. Time, Resources especially people during a Public Health Emergency. Money (grant or otherwise) as monies are spent and allocated to PHE and current regulatory needs
- c. Incorporate Climate & WX Extremes in current planning as a new element to discuss for each similar to adding inclusion and diversity
- d. (funding and assistance needed) Staff Time, Communications Products, Focused response capabilities, Response Coordination for regional response to regional events, Formalized group required by state and managed at local level for planning and coordinating efforts similar to LEPCs

WESTCHESTER COUNTY

What climate adaptation activity(s) did your group focus on?

Expansion of public education and collaboration

"Be a Buddy" program

Who are your partners for this activity?

Government, academia, regional nonprofits

What are your next steps?

Explore Public Health Fellowship Program, capstone courses as avenues for focused collaboration

What kind of assistance/support do you need?

Dedicated public health funding for organizational capacity to address climate and health

ROCKLAND & PUTNAM

What climate adaptation activity(s) did your group focus on?

Rockland: Cooling Centers/Warming center

Putnam: not working on anything particularly, looking for the right action. **Who are your partners for this activity?**

Putnam: DOH, Soil & Water Conservation, Planning Dept., OSR, Liv Healthy Putnam Coalition

Rockland: Department of Aging, Community Organizations, community Partners, Communication through county execs office **What are your next steps?**

Putnam: choose single, focus-area to coordinate mitigation or adaptation Program. Collab with community action groups.

Rockland: Libraries, as a community center.

What kind of assistance/support do you need? Both: Financial, staff & community connections

GROUP DISCUSSION

What climate adaptation activity(s) did your group focus on?

Heat response planning

Communications and Partners

Who are your partners for this activity?

CCE, local universities, local parishes, CBOs (e.g. Kiwanis), local experts, local emergency managers, local/regional NWS office, internal LHD program partners, social service agencies/Medicaid, first responders (volunteer and paid), senior centers, Meals-on-Wheels, libraries **What are your next steps?**

Seeking out data sources that were discussed for decision-making; Meeting with medical community to identify shared objectives; Sharing information from today

What kind of assistance/support do you need? List of Contacts; Data