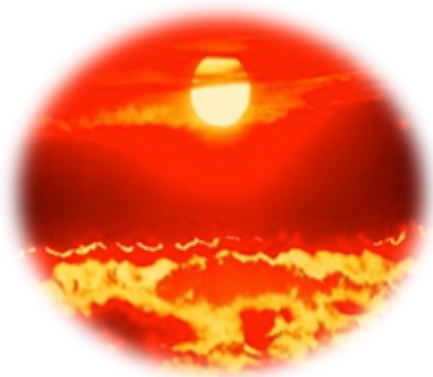


Northeast Regional Heat Collaborative

Lowering Our Heat Advisory Threshold to Protect Public Health



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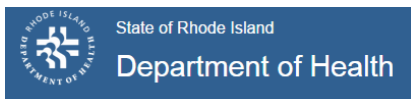
May 25, 2017

Purpose For Our Work

The Northeast Regional Heat Collaborative is working together to conduct research, improve the effectiveness of heat risk communication strategies, and protect public health.

NERHC Partners

- Rhode Island Department of Health
- New Hampshire Department of Health and Human Services
- Maine Department of Health and Human Services
- Vermont Department of Health
- Brown University: School of Public Health
- The Centers for Disease Control and Prevention
- The National Weather Service



Background

Heat is a major public health threat, even in New England.

In the US, more people die from extreme heat than all other extreme weather events combined.



Background

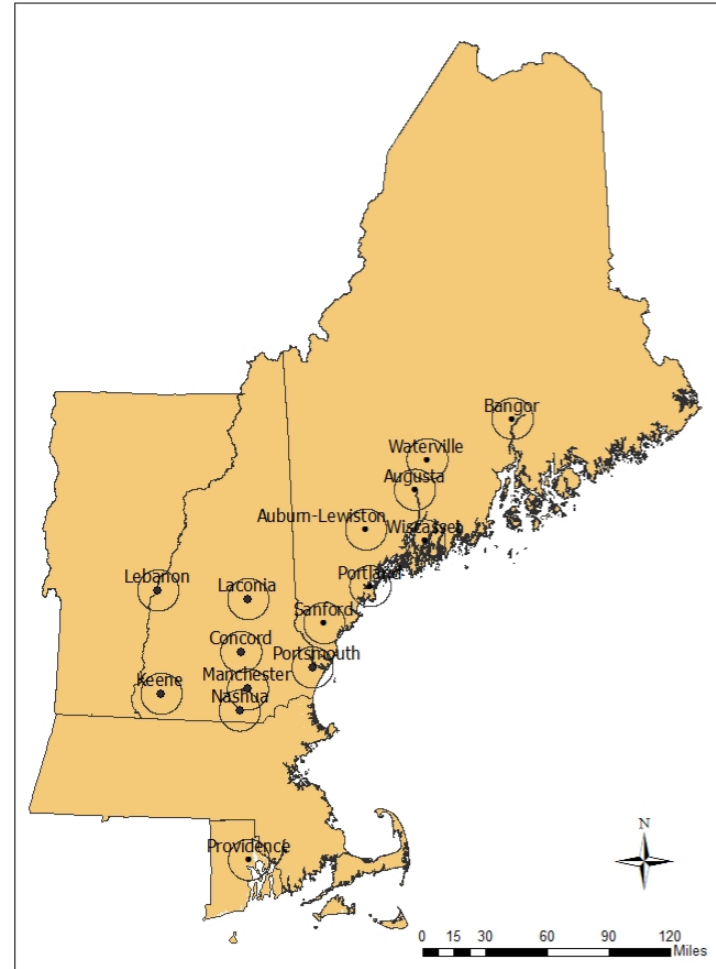
At risk populations include:

- **Older adults**
- **Children**
- **People of color**
- **Low income**
- **People with chronic diseases**
- **Those taking certain medications**
- **Outdoor workers/athletes**
- **Socially isolated individuals**
- **People without access to AC**



Northeast Regional Heat Collabor

Examining the Impact of
Heat Index on
Emergency Department
Visits and Deaths in the
Northeast



Study Areas for Northeast Heat-Health Analysis

Research Questions

- How does heat index impact health?
- Are heat advisories optimal for protecting public health in the Northeast?
- What can state and local health agencies and other partners do to reduce risk?

Data

Study Period

- May 1-September 30
- RI (2005-2012); ME (2001-2010); & NH (2000-2009)

Study Area

- Towns within 10 miles of a NOAA weather station (ME, NH), and all of RI
- Population included 60% of ME, 66% of NH, and 100% of RI
(**an estimated 2.7 million people**)

Exposure

- Daily maximum heat index

Outcome

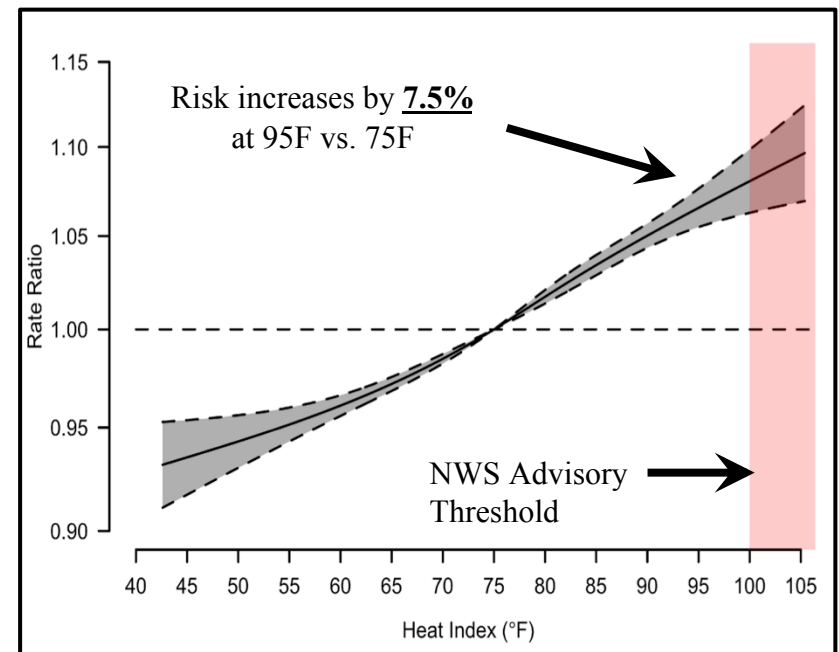
- Counts of daily all-cause and heat-specific emergency department (ED) visits
- Counts of daily all-cause deaths

Results- All Cause ED Visits

Over one week following a day with a max HI of 95°F (as compared to 75°F)

- Risk for all cause ED visits increases by **7.5%***
- **784** excess all cause ED visits*

*Annually, during warm season (May-Sept)

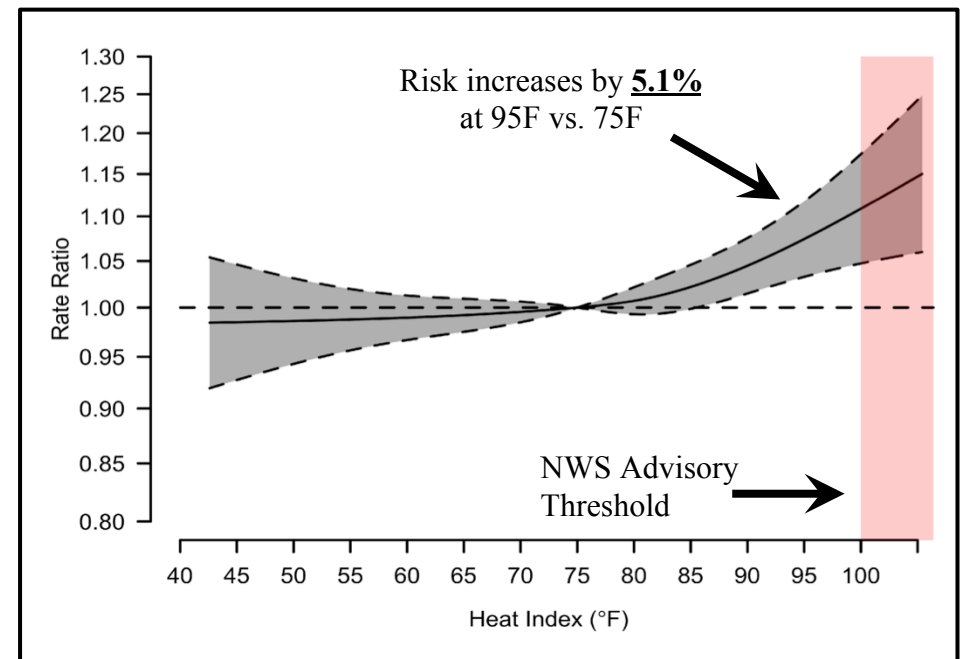


Results- All Cause Deaths

Over one week following a day with a max HI of 95°F (as compared to 75°F)

- Risk of death increases by **5.1%***
- Excess deaths- **22***

*Annually, during warm season (May-Sept)



Results- Seasonal ED Impacts

Annual excess all-cause ED visits occurring in the Study Area:

→ Between HI 90°F and 95°F- 1343/year*

→ Between HI 95°F and 100°F- 552/year*

→ At or above HI 100°F- 232/year*

*Annually, during warm season (May-Sept)

For more information: Environmental Research, *Heat-related morbidity and mortality in New England: Evidence for local policy*. 2017

<https://doi.org/10.1016/j.envres.2017.02.005>



Heat Advisory Policy

Previous National Weather Service Thresholds for New England

HEAT ADVISORY

100° - 104°F

higher

HEAT WARNING

105°F and above

HEAT WAVE

3 consecutive days 90°F or

(daytime heat indices for 2 or more hours)

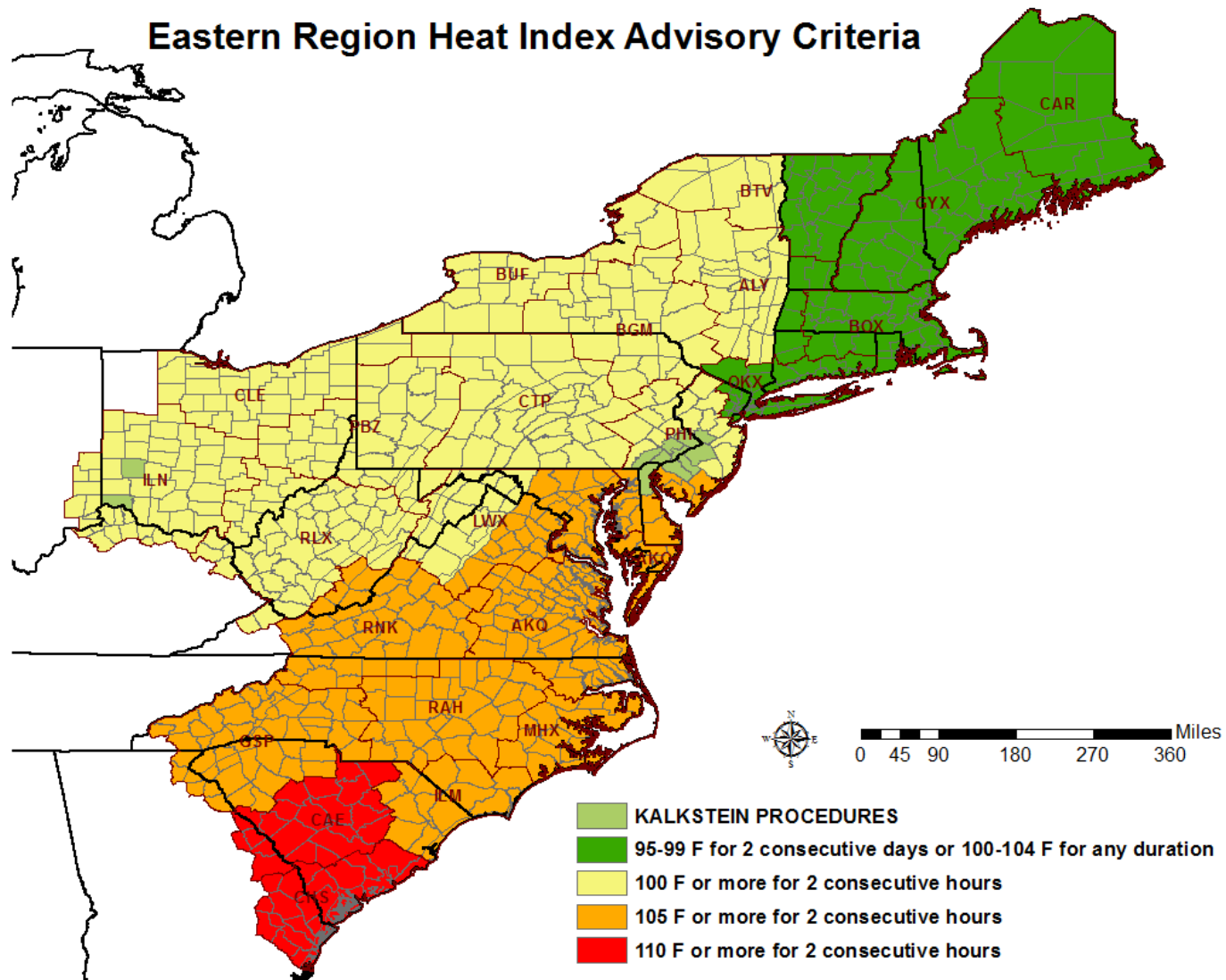
New Heat Advisory Threshold for New England

Forecast for heat index of at least 100°F to 104°F for any length of time or
Heat index of 95°F to 99°F for two consecutive days

New Heat Advisory Policy



Eastern Region Heat Index Advisory Criteria



- KALKSTEIN PROCEDURES
- 95-99 F for 2 consecutive days or 100-104 F for any duration
- 100 F or more for 2 consecutive hours
- 105 F or more for 2 consecutive hours
- 110 F or more for 2 consecutive hours

Next Steps

Collaborate with our local NWS offices, news meteorologists, and public health partners to develop consistent, improved, and targeted heat risk communication strategies and toolkits for the New England region.

Thank you!

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