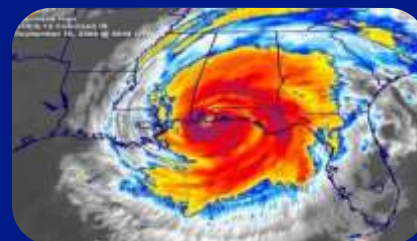


Building evidence for health effects of climate change





Shubhayu Saha
Climate and Health Program
Centers for Disease Control and Prevention




- Future climate and potential public health risk
- Translating climate science for public health practice
- Capacity building across health departments




Third US National Climate Assessment



National Climate Assessment


   GlobalChange.gov

 SEARCH

Highlights

Explore highlights of the National Climate Assessment including an Overview, the report's 12 overarching findings, and a summary of impacts by region.

→ EXPLORE HIGHLIGHTS



CLIMATE
CHANGE
IMPACTS
IN THE
UNITED STATES

Full Report

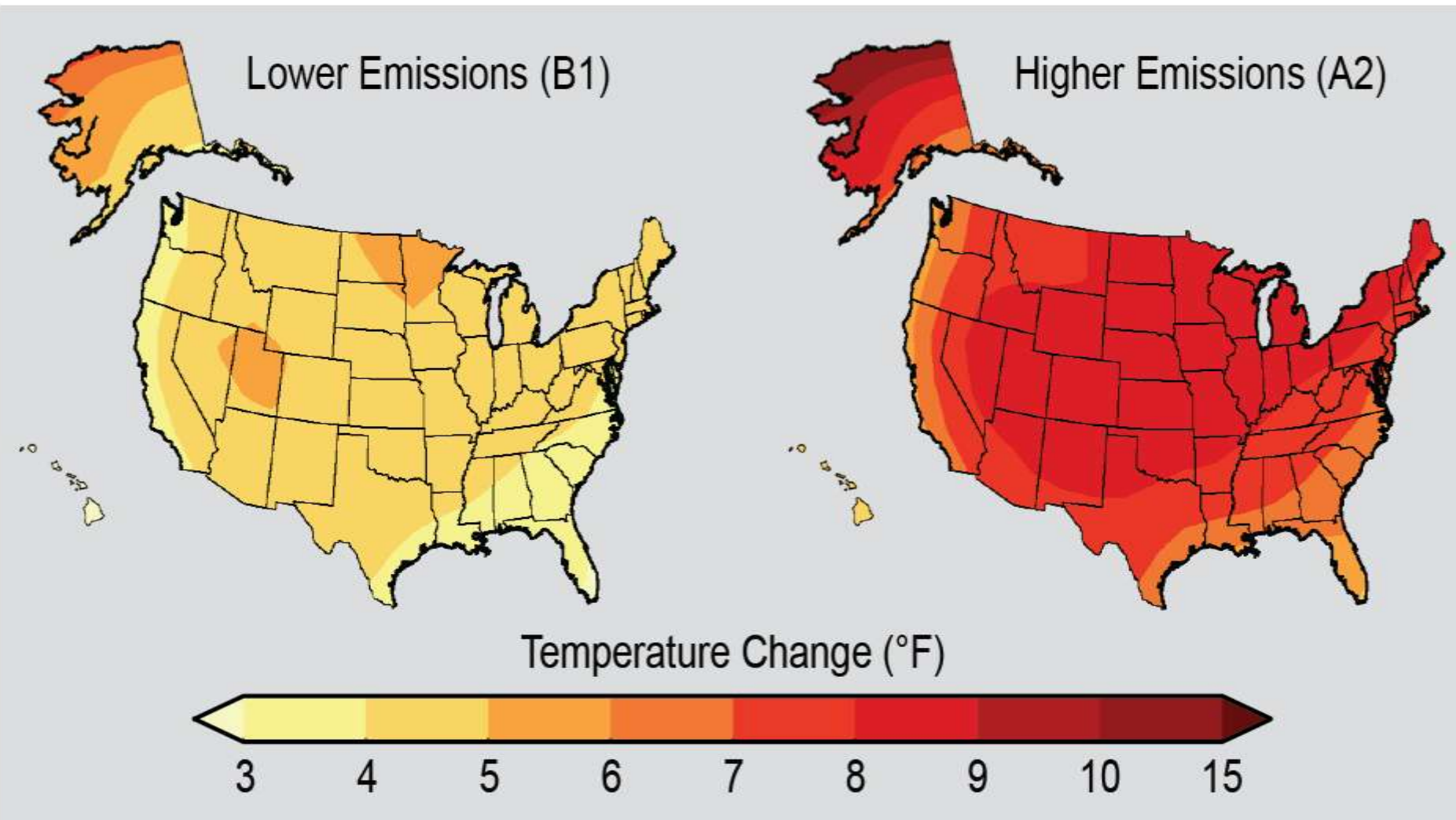
Explore the entire report covering our changing climate, regions, cross sector topics, and response strategies in full detail.

→ EXPLORE THE REPORT

<http://nca2014.globalchange.gov/>

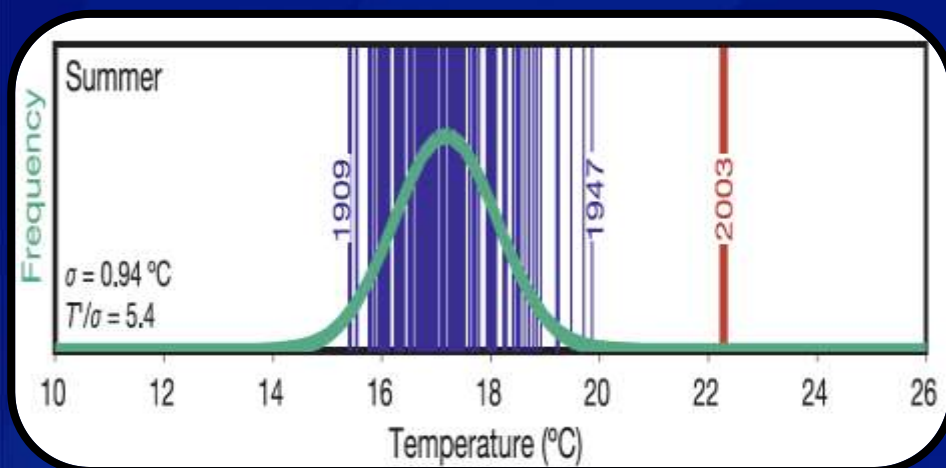
Third US National Climate Assessment – temperature

Projected Temperature Change



Heat Waves Impact Human Health

European Heat Wave of 2003



Excess Mortality

UK	2,091
Italy	3,134
France	14,802
Portugal	1,854
Spain	4,151
Switzerland	975
Netherlands	1,400-2,200
Germany	1,410
TOTAL	29,817-30,617

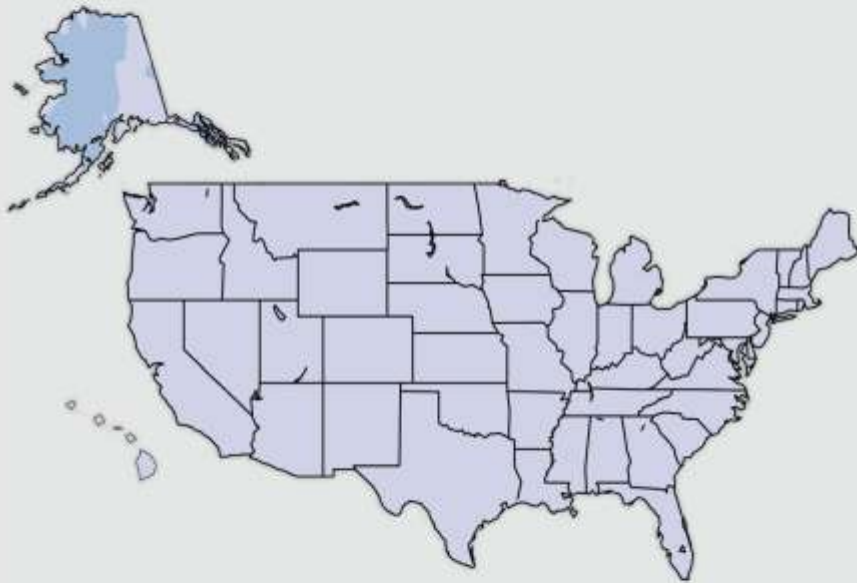
Vandentorren et al. *Am J Public Health* 2004; 94(9):1518-20.

Haines et al. *Public Health* 2006;120:585-96.

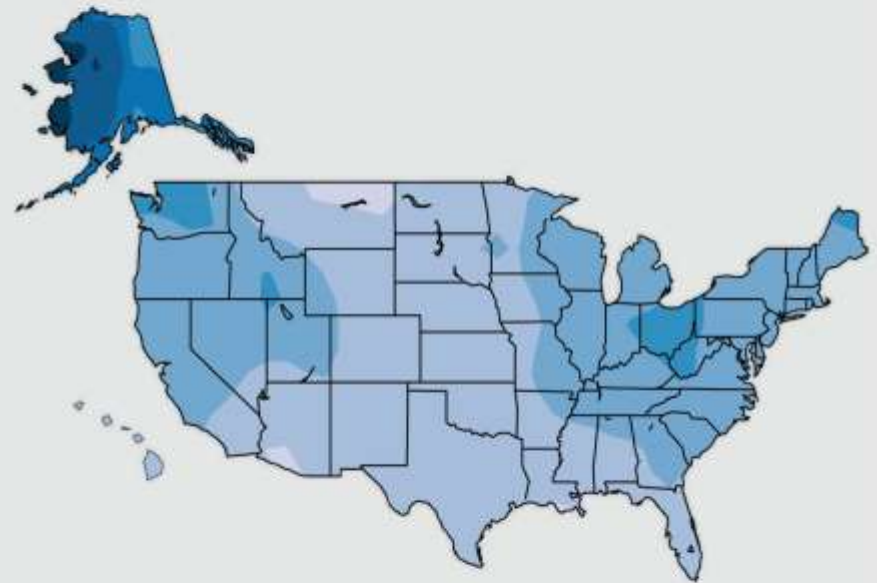
Third US National Climate Assessment – heavy precipitation

Projected Change in Heavy Precipitation Events

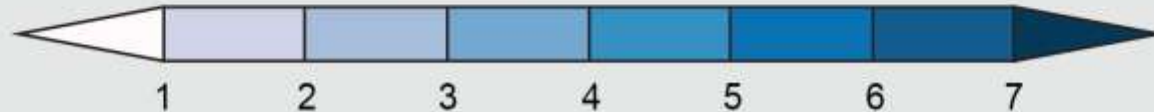
Rapid Emissions Reductions (RCP 2.6)



Continued Emissions Increases (RCP 8.5)



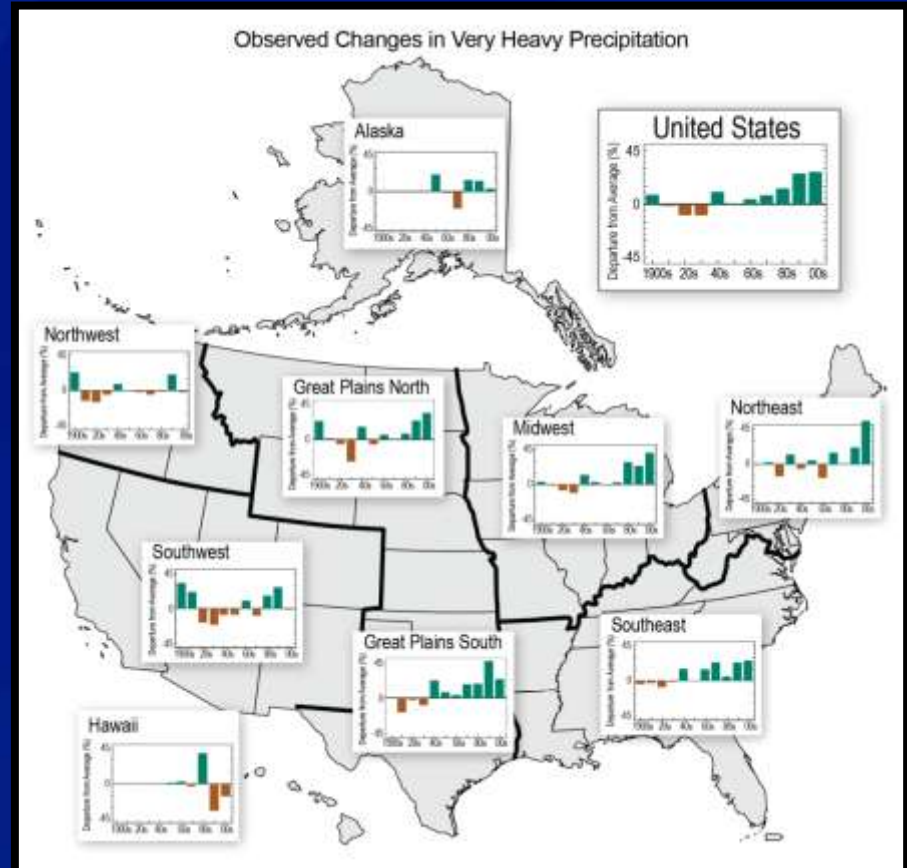
Future Change Multiplier



Extreme Precipitation Events Impact Human Health: Waterborne Disease

67% of waterborne disease outbreaks preceded by precipitation above 80th percentile (across 50 year climate record)

Heavy precipitation events projected to occur more frequently

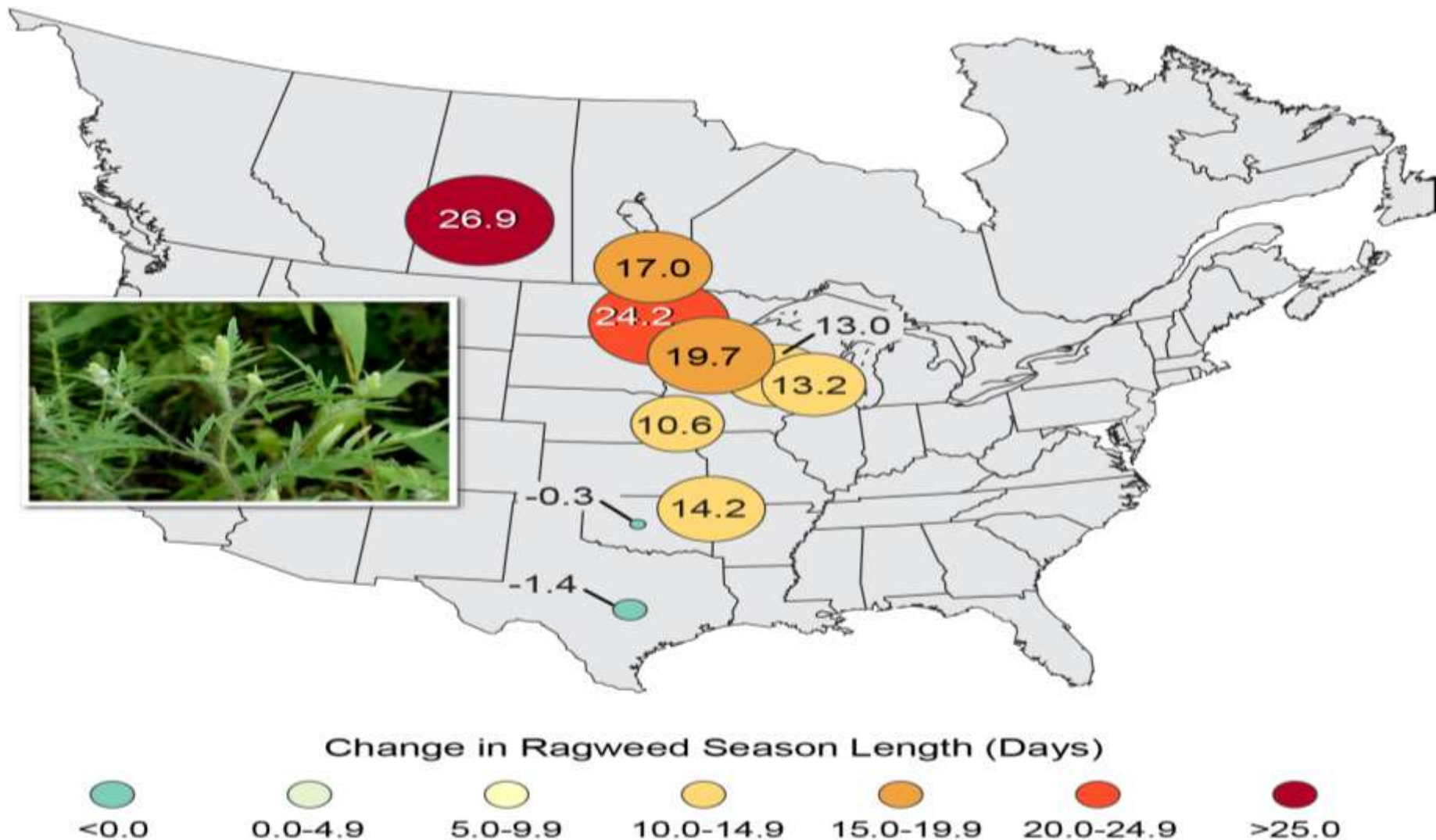


Observed Increases in Very Heavy Precipitation
(heaviest 1% of all events) 1901 to 2011

Curriero, Patz, et al, 2001.

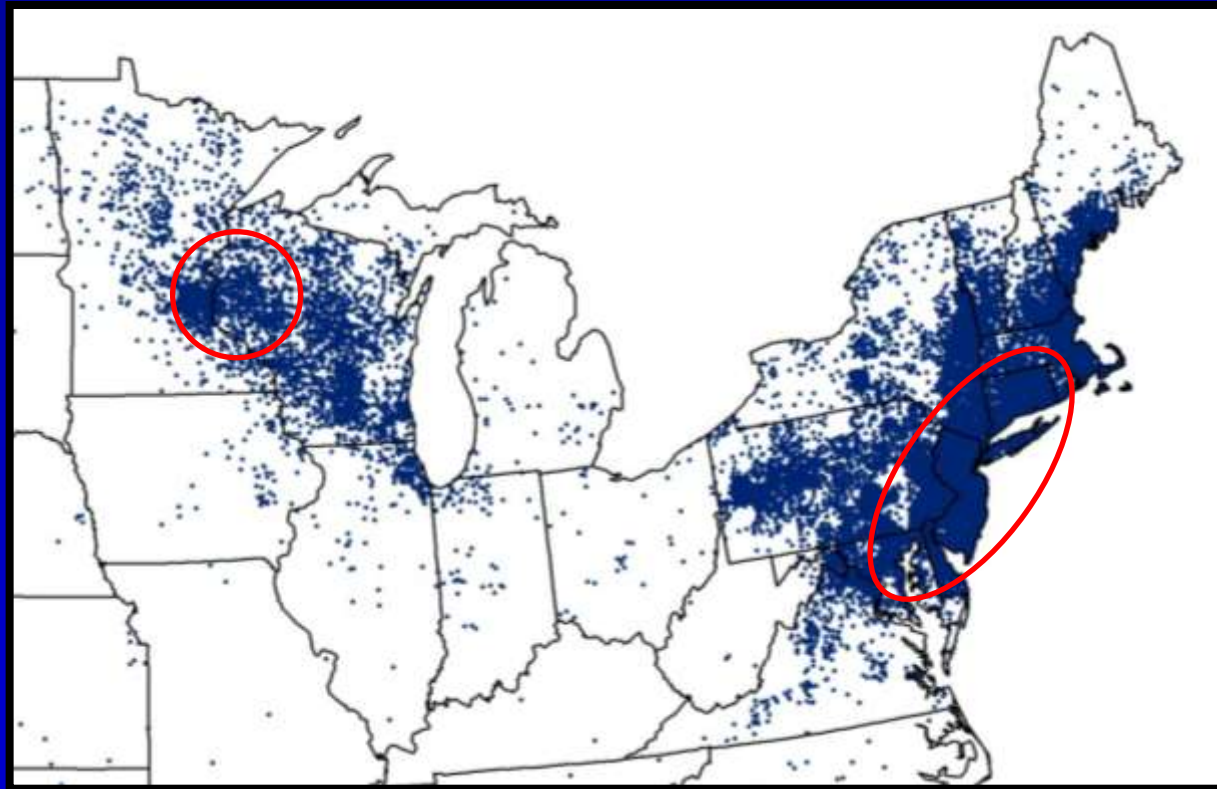
Source: Walsh et al. 2013: *Draft NCA Report, Chapter 2*

Changes in Ragweed pollen season



Ziska L, Knowlton K, Rogers C, Dalan D, Tierney N, Elder MA, et al. 2011. Recent warming by latitude associated with increased length of ragweed pollen season in central North America. *Proceedings of the National Academy of Sciences* 108(10):4248-4251.

Lyme Disease Case Distribution Change in the United States



1996

CDC's Environmental Public Health Tracking Network

CDC Home



Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™

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National Environmental Public Health Tracking Program

Environmental Public Health Tracking is the ongoing collection, integration, analysis, interpretation, and dissemination of data from environmental hazard monitoring, and from human exposure and health effects surveillance.

Explore data on the [Tracking Network](#) or check out what's new and coming soon.



New Successes
Check out our new success stories

Replay 

GO 

- Cancer Control
- Tracking in Action
- New Success 

Information, Tools, & Resources

What's New and Coming Soon

Check out the latest developments and plans for the Tracking Network.

About the Program

Learn about our history, our vision, and the details of the Tracking Program

Connect With Us

Follow us on Twitter and Facebook, contact our grantees, learn about upcoming meetings

Explore Data

Access the Tracking Network portal for info by location, environments, and health effects

Grantees and Partnerships

Learn about our partnerships and grantees

Resource Library

Check out webinars, publications, and data resources

YouTube Video

CDC's Tracking Network: Working Towards a Healthier Planet for Healthier People

Success Stories

Find out more about our Tracking Program success stories

[National Environmental Public Health Tracking Program](#)

National Environmental Public Health Tracking Program

National Public Health Week: Get Out Ahead

See how the Florida Tracking Program worked to prevent mercury exposure by creating and distributing an easy-to-carry wallet card that informs about healthy fish consumption

[More...](#)

National Public Health Week

National Public Health Week is finally here! Be healthy from the start. The first steps in



share



CDC's EPHT – Climate Change module


Climate Change

▼

Extreme Heat Days and Events

Dates of extreme heat days

☐ Show only data about children



trackingsupport@cdc.gov

▼ One County

▼ Alabama

☒ Autauga

☐ Baldwin

☐ Barbour

☐ Bibb

☐ Blount

☐ Bullock

☒ Show Counties

Clear Geography

☐ 2003

☐ 2004

☐ 2005

☐ 2006

☐ 2007

☐ 2008

☐ 2009

☒ 2010

Clear Time

▼ Advanced Options (Required)

▼ Heat Metric

☒ Daily Maximum Temperature

☐ Daily Heat Index

▼ Advanced Options (Select One)

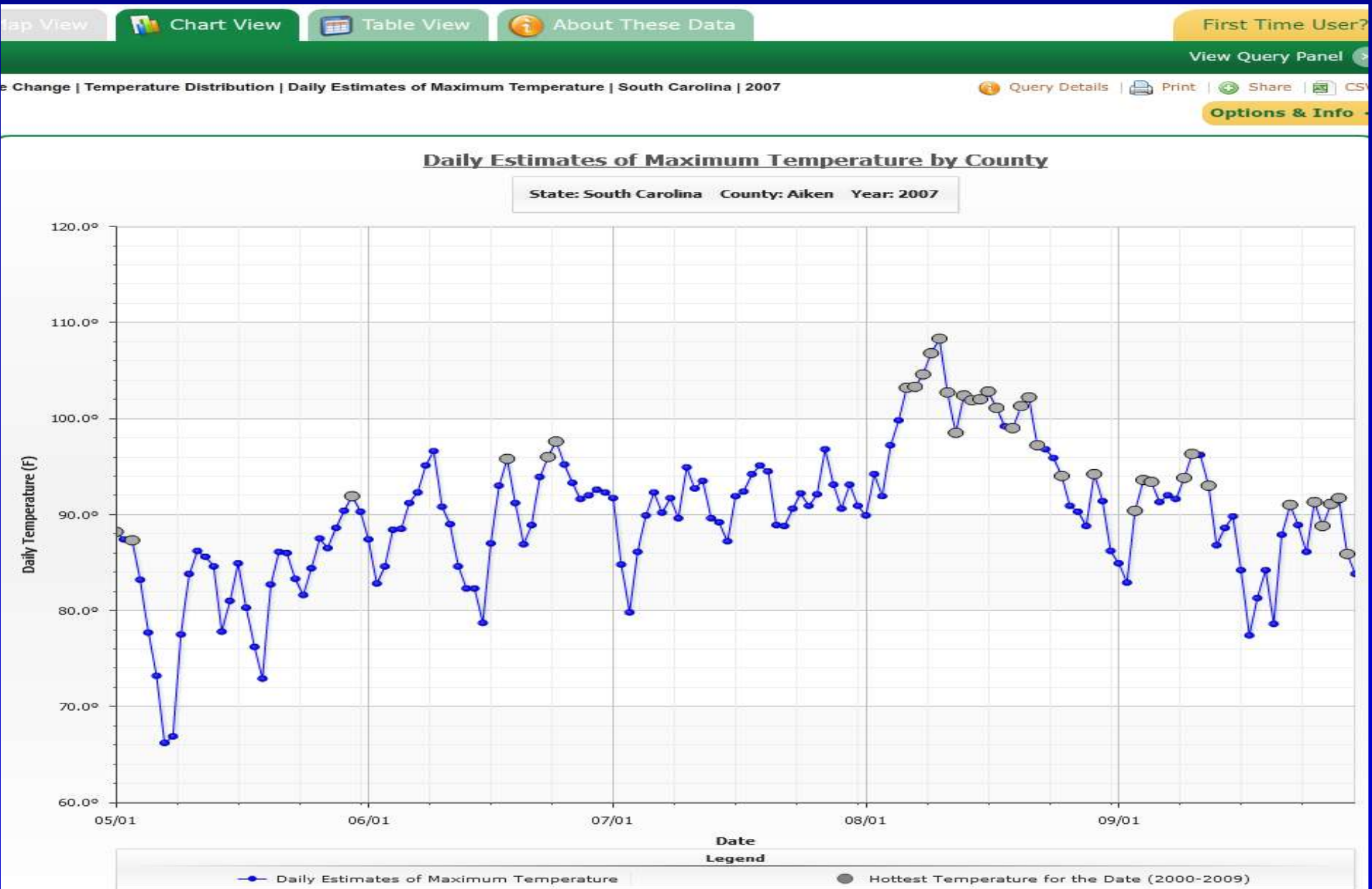
► Absolute Threshold

► Relative Threshold

Clear Options

Run Query

CDC EPHT: Historical daily summer temperature by county



CDC Climate and Health program



Centers for Disease Control and Prevention
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SEARCH

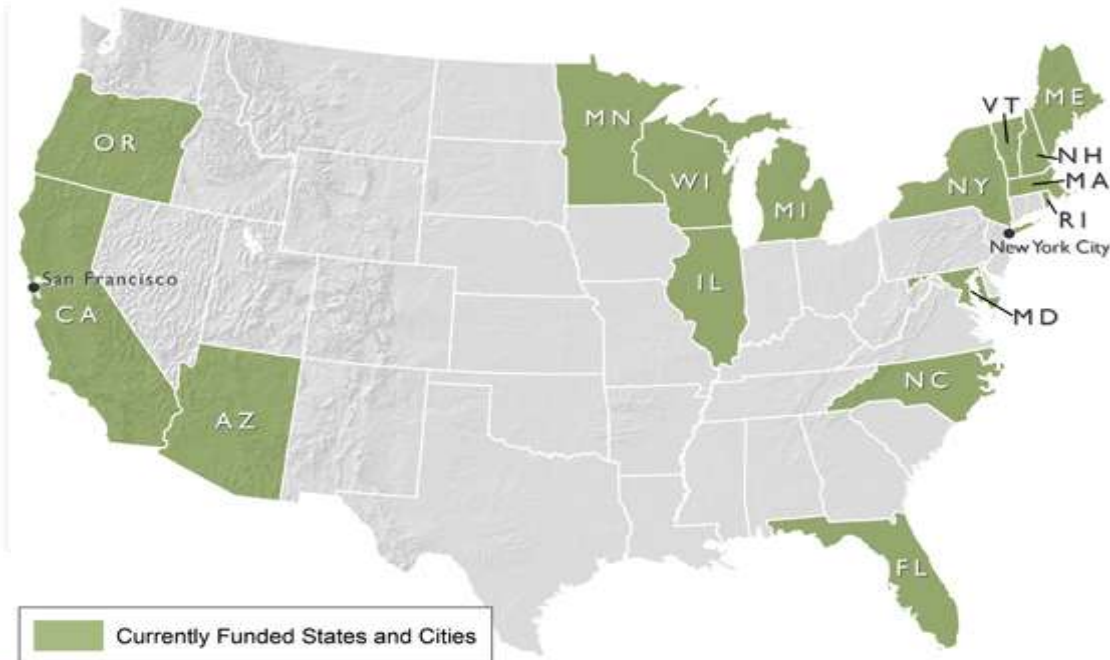


CDC A-Z INDEX ▾

Climate and Health

Recommend Tweet Share

Climate change is any significant variation in temperature, precipitation, wind, or other type of weather that lasts for decades or longer. Evidence suggests that the world's climate is becoming warmer, increasing the potential for extreme weather events around the world. Stronger tropical cyclones, longer and more intense heat waves, more frequent and severe droughts, heavier and more frequent precipitation events, flooding, sea level increases, and additional air pollution are some of the potential consequences of the climate becoming warmer. [More »](#)

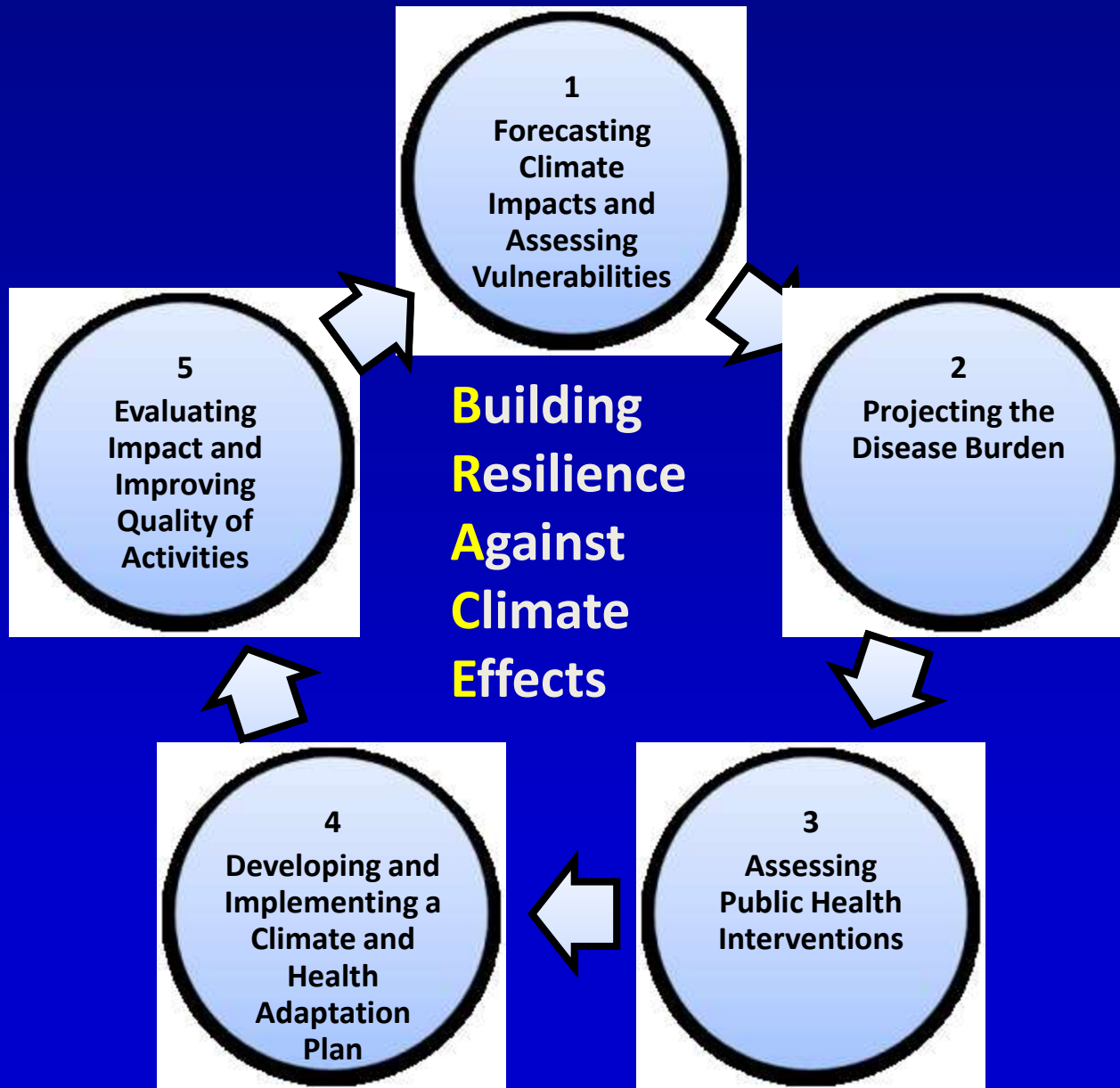


Climate and Public Health Topics

- [About Our Program](#)
- [CDC Climate-Ready States and Cities Initiative](#)
- [CDC Policy](#)
- [Health Effects](#)
- [Partners](#)
- [Environmental Health Topics](#)

CDC's Building Resilience Against Climate Effects (BRACE) Framework

Changes occurring in the world's climate are affecting our health and wellbeing, and will have even greater impacts in the future. Although scientific understanding of the effects of climate change is still emerging, there is a pressing need to prepare for potential health risks. A wide variety of scientific information indicates that climate change is already affecting human health and the environment. The health impacts of climate change are expected to be more severe in the future. The BRACE Framework is a tool to help states and cities assess their vulnerability to climate change and develop strategies to build resilience.



Thank you

Shubhayu Saha

Climate and Health program
Centers for Disease Control and Prevention
ssaha@cdc.gov
770.488.0783

