

The background of the slide features a warm sunset scene. The top portion is a bright orange and yellow gradient where the sun is setting, creating a lens flare effect. Below this, a dark horizontal band contains the title text. The lower half of the slide shows silhouettes of rolling mountains in shades of brown and orange, with the sky transitioning from a deep orange to a dark brown at the bottom.

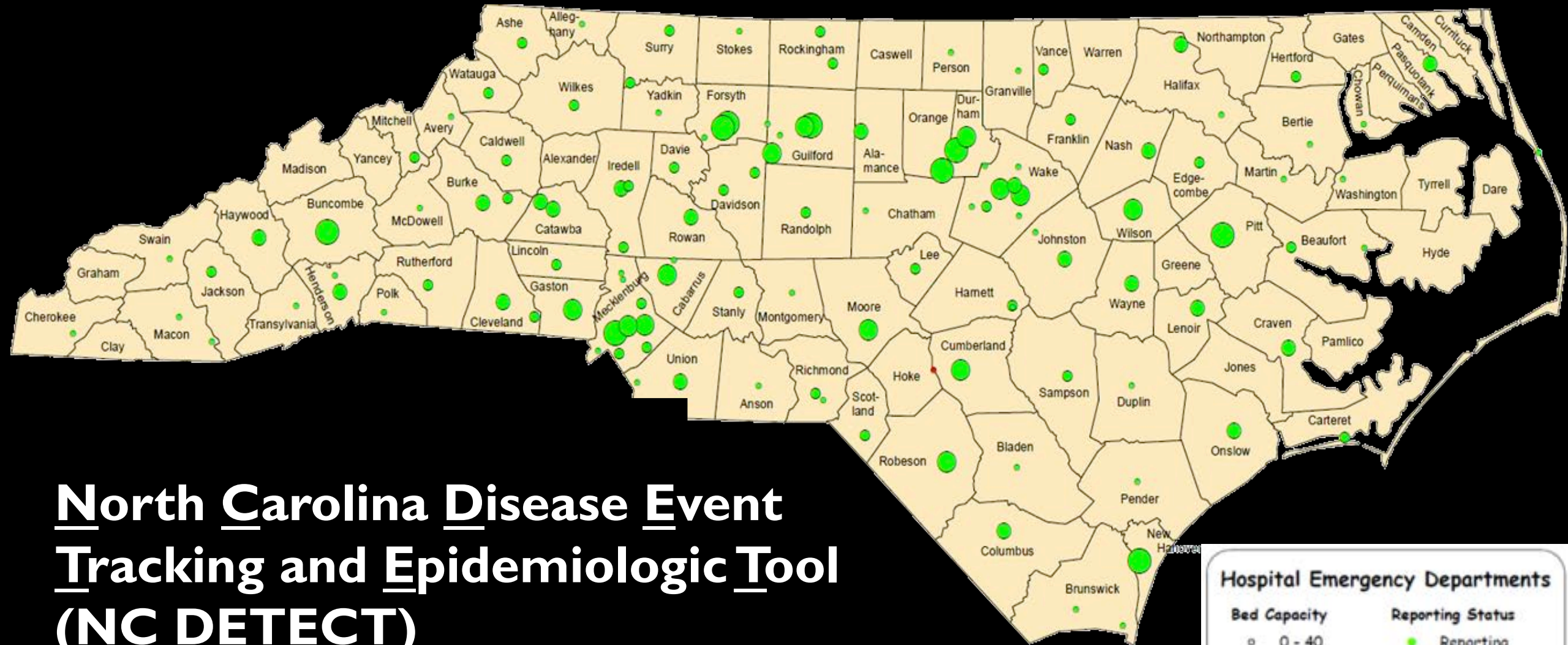
Heat-Health Vulnerability in North Carolina: The Heat – Health Vulnerability Tool (*HHVT*)

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NOAA funded Carolina Integrated Science & Assessments (CISA) team

University of North Carolina at Chapel Hill



North Carolina Disease Event Tracking and Epidemiologic Tool (NC DETECT)

Hospital Emergency Departments

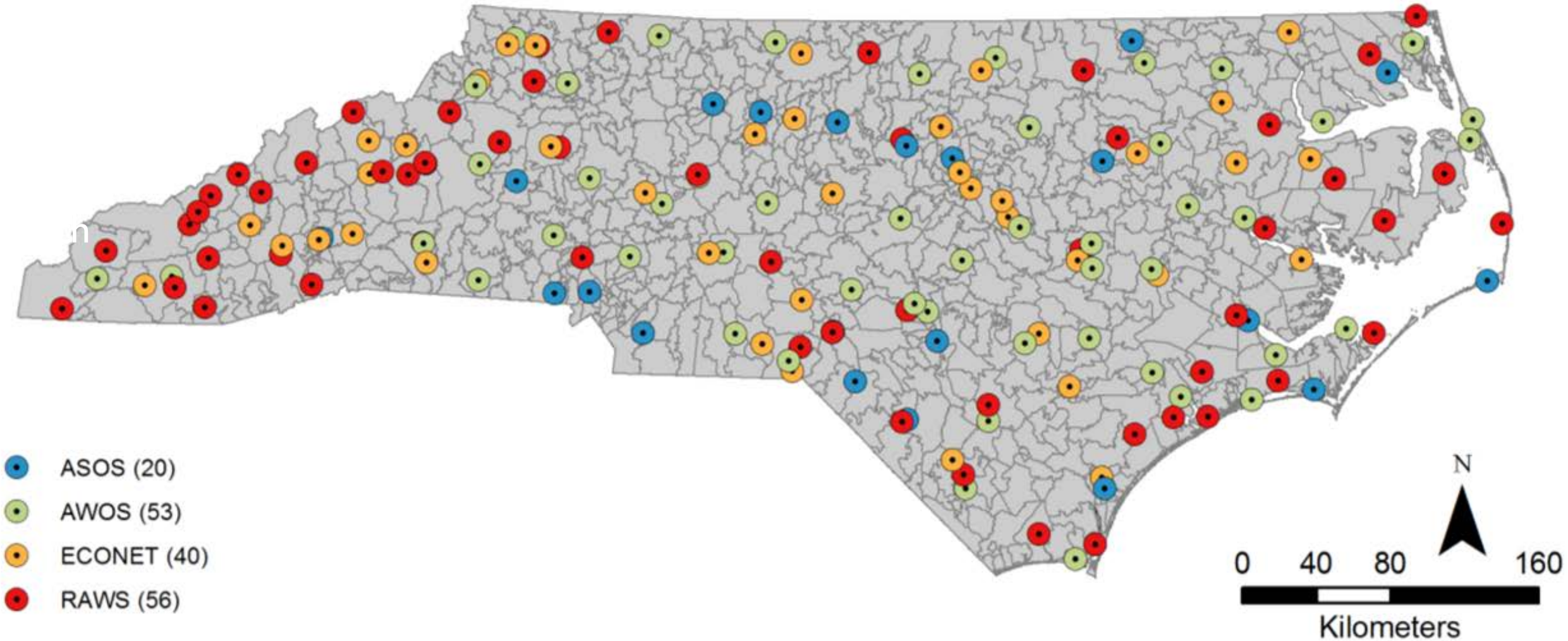
Bed Capacity	Reporting Status
○ 0 - 40	● Reporting
○ 41 - 70	● Not Reporting
○ 71 - 110	○ County
○ 111 - 300	
○ more than 300	

A red sign with white text that reads "EMERGENCY" and "ENT" is visible in the background. The sign is slightly tilted and has a white arrow pointing left. A blue rectangular box is overlaid on the sign, containing text.

NC- DETECT (2007 – 2012)

- Age
- Gender
- Date and Time of Visit
- All diagnostic codes(992)
- Billing address zip code/County

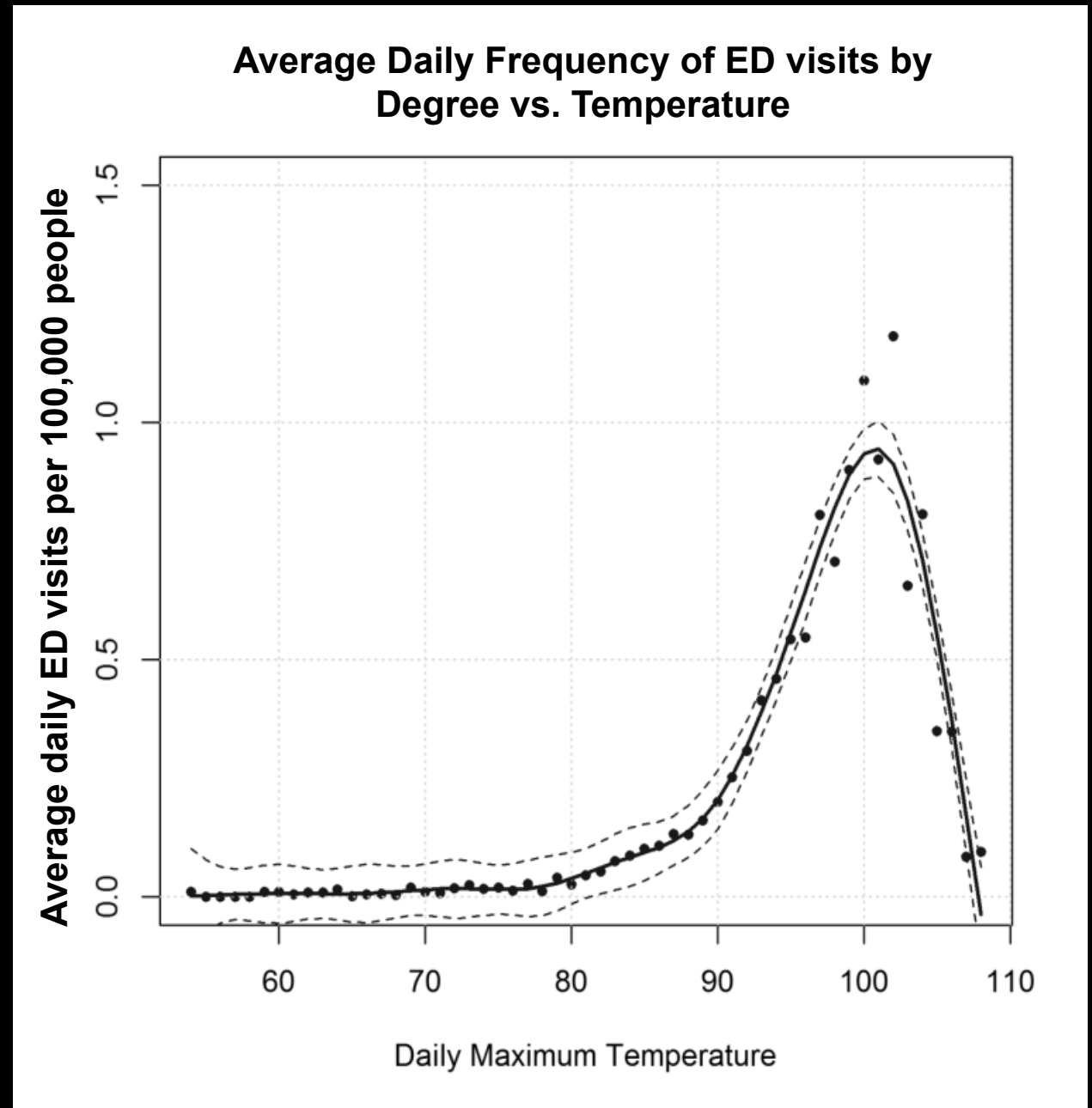
ED visit linked to the daily maximum temperature at the nearest weather station.

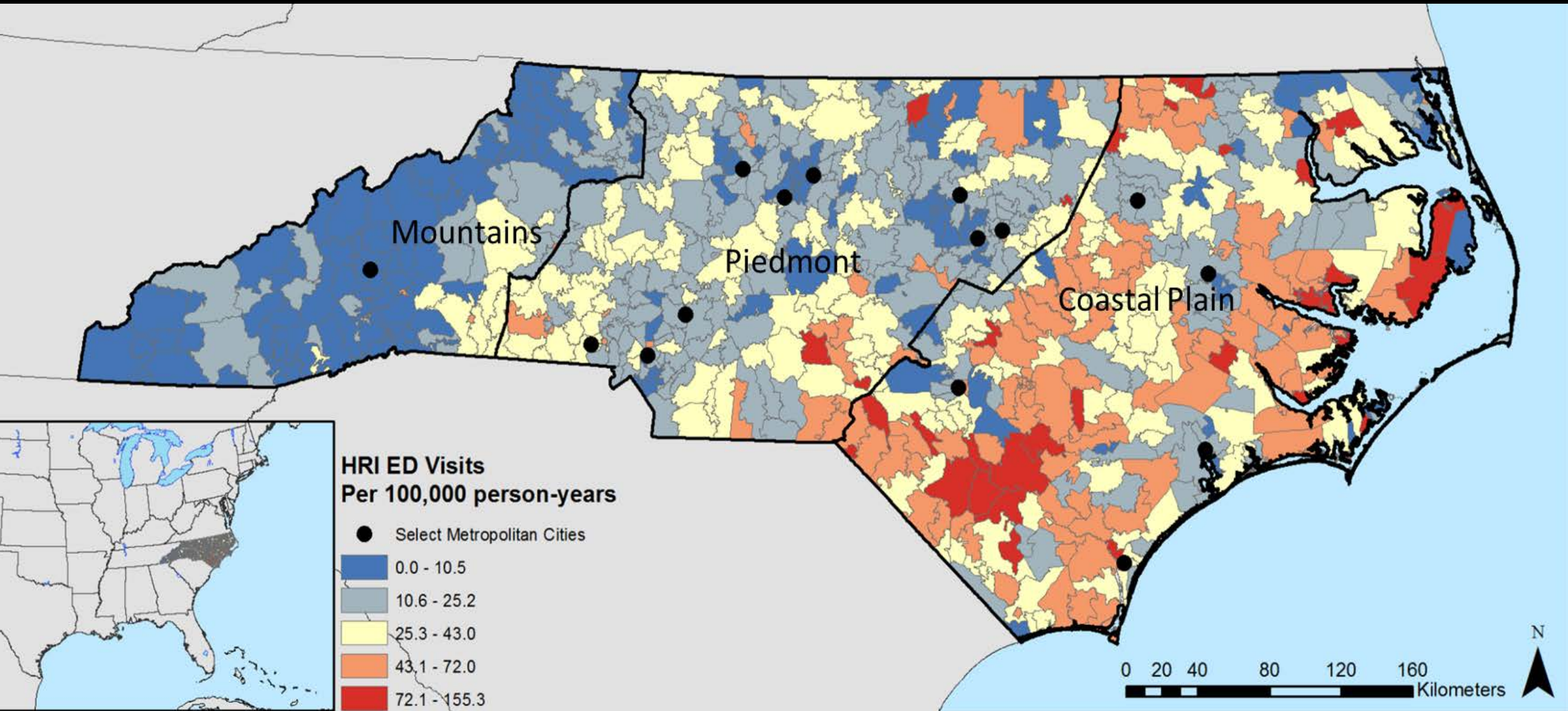


Methodology

HRI rates are adjusted for the frequency of temperature observations → Average daily HRI ED Visits Per 100,000 people

More ED visits on abnormally hot (95 to 100F) days but marked decrease in HRI rates at the highest temperatures (greater than 100F)





Rural Urban Commuting Areas (RUCA) Classification

Metropolitan

Rural Metropolitan

Rural Town

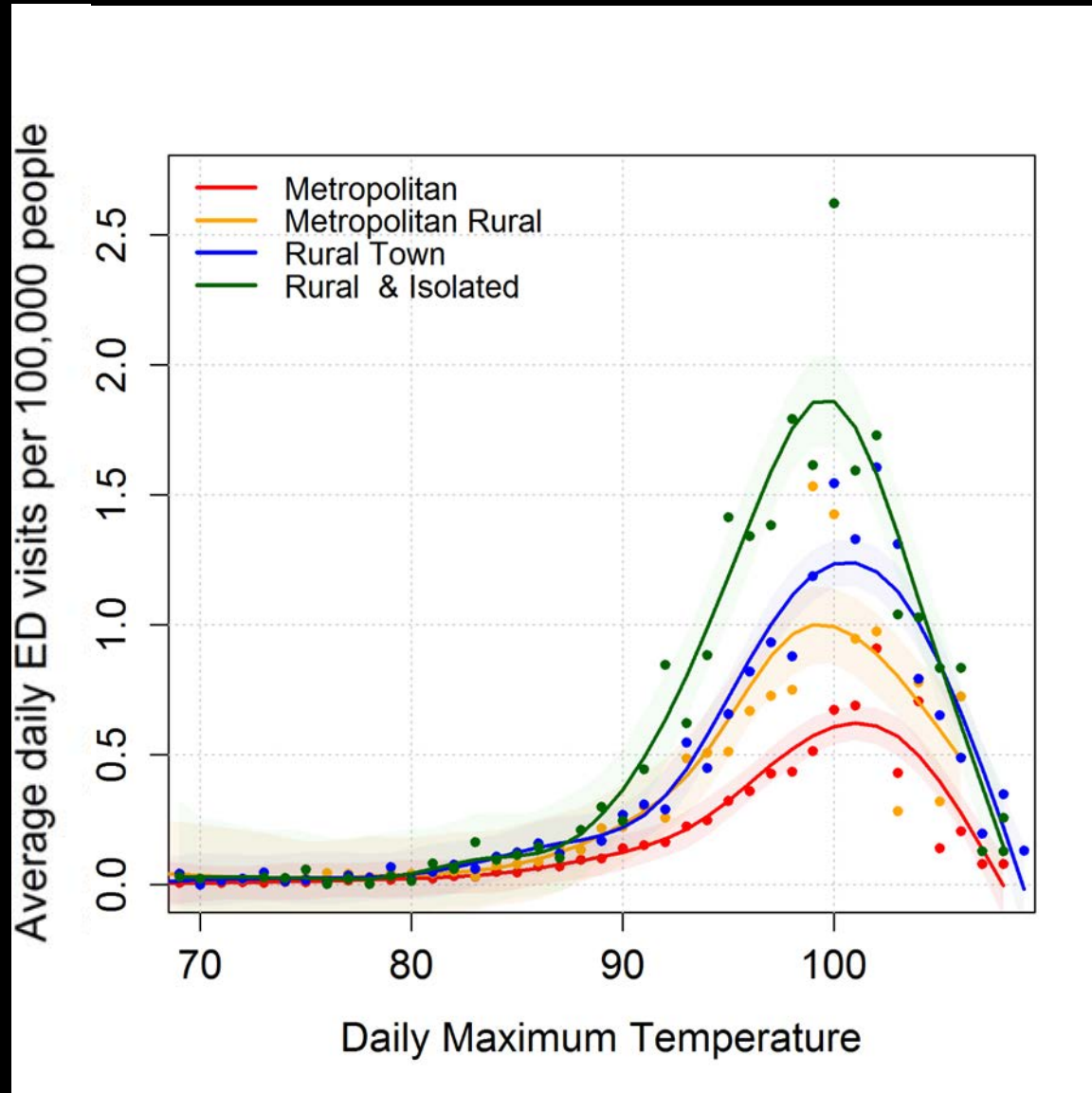
Rural Isolated



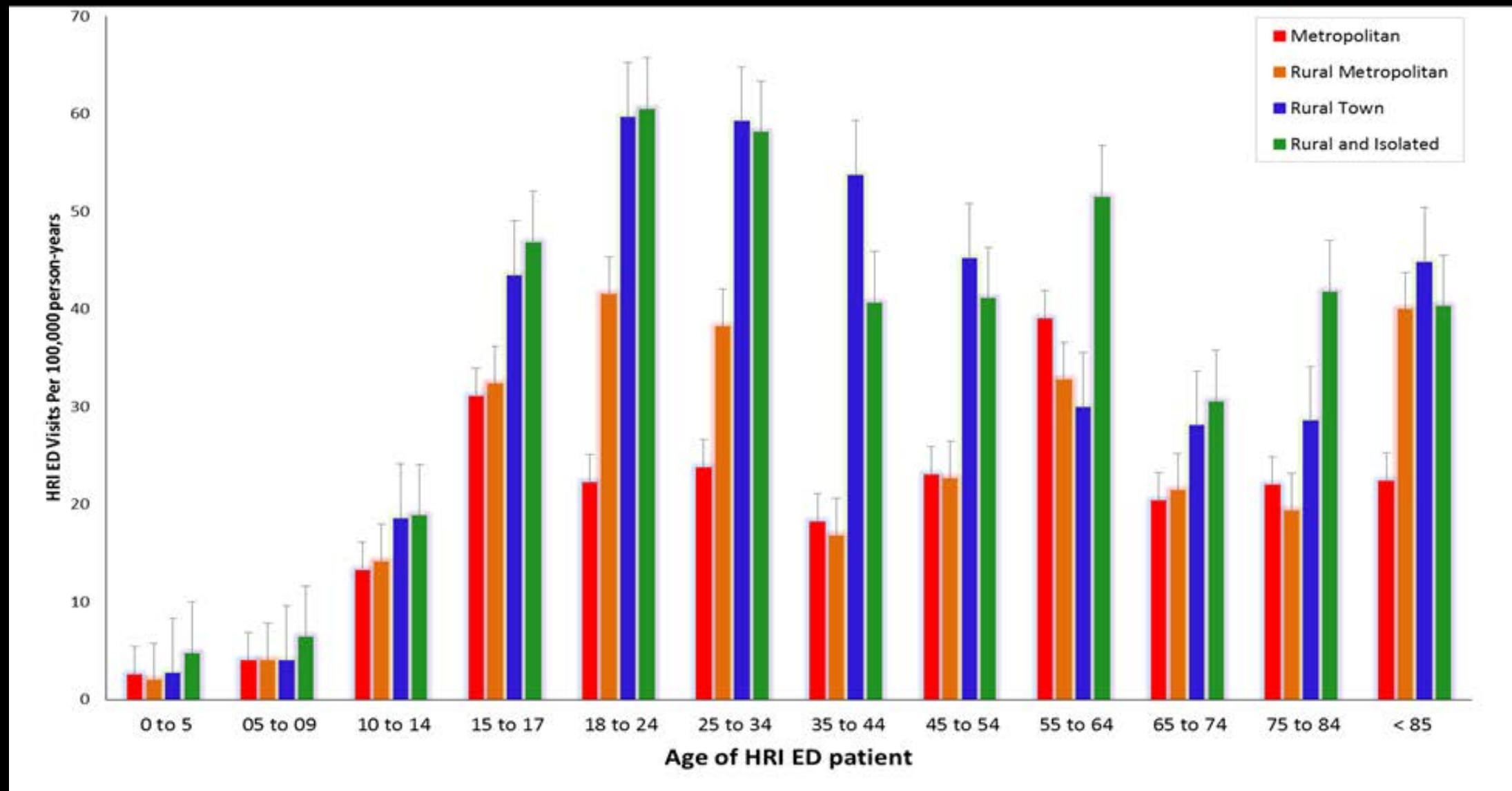
Most Urban

Most Rural

Detailed Rural Urban Commuting Areas Differences



Rural Urban Commuting Areas -- Demographic

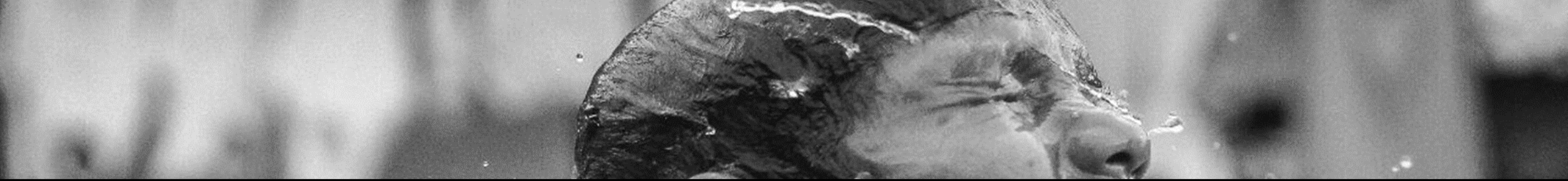


Summary

Heat-related illness is greatest in:



- **Abnormally Hot (90 to 100°F)**
 - *Not the exceptionally hot (greater than 100°F)*
- **Rural locations**
 - *Not the urban locations*
- **18 to 44 male demographic**
 - *Not the elderly or very young*



The Heat-Health Vulnerability Tool



Web-Based Heat-Health Vulnerability Tool (HHVT)

Inputs NWS maximum temperature forecasts and translates these values into predictions of the number of cases of heat illness.

- County or region level
- Demographic/socioeconomic group (e.g. adult males, those in poverty etc.)

Heat Health Vulnerability Tool

Select a county:
Bladen County

Select a model:
Isolated Rural (Per Capita Degree)

Category
 PerCapitaDegree
 Upper / Lower
Choose a display color: Red

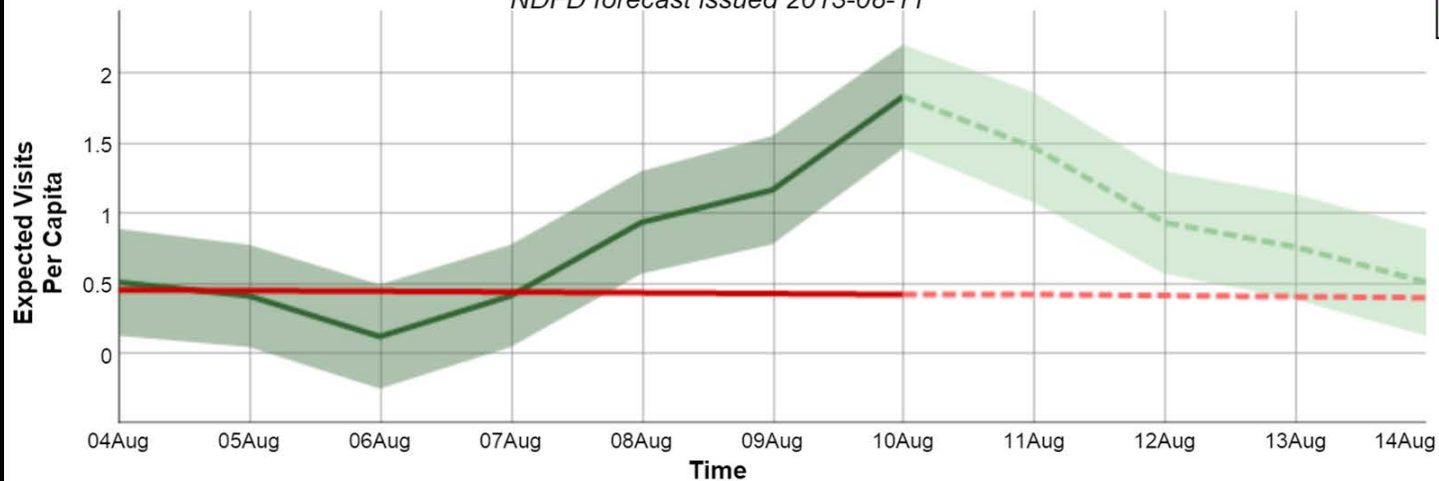
Choose a valid forecast date:
August 10 2013

Graph

Piedmont/Coastal Plain Rural Metropolitan (Male 18-45 years old) Model for Robeson County at Lumberton Municipal Airport (KLBT)

Observations from 2013-08-04 through 2013-08-10

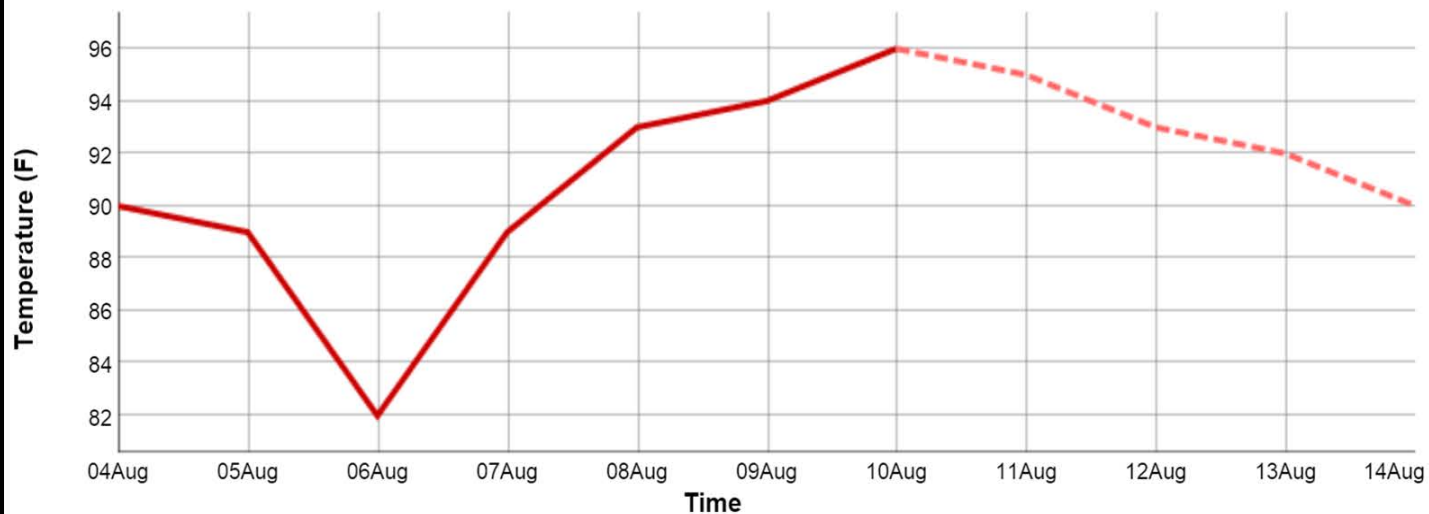
NDFD forecast issued 2013-08-11



Maximum Temperature for Robeson County at Lumberton Municipal Airport (KLBT)

Observations from 2013-08-04 through 2013-08-10

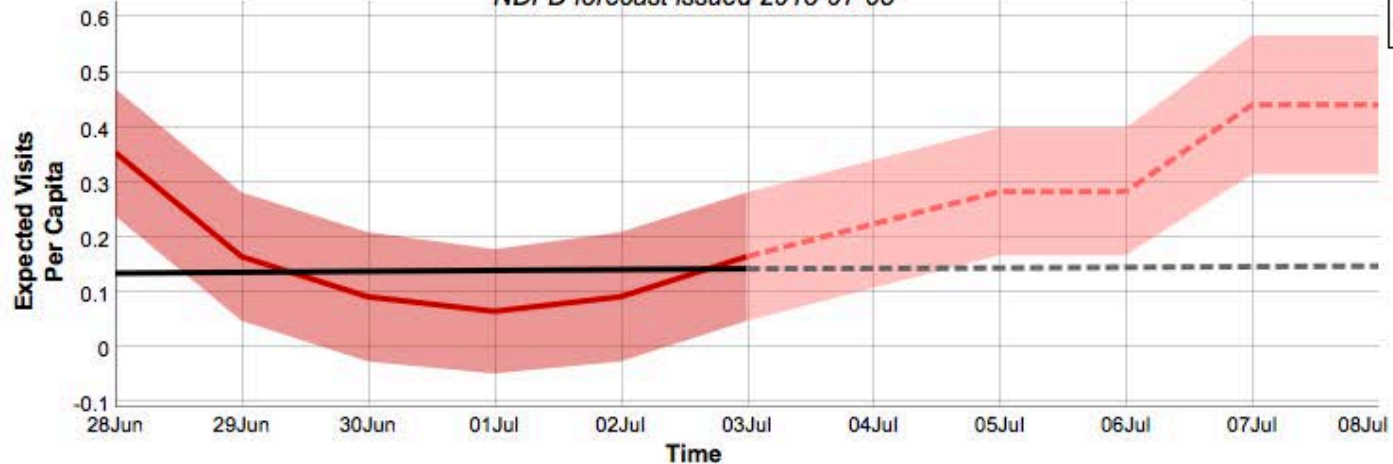
NDFD forecast issued 2013-08-11



Isolated Rural (Per Capita Degree) Model for Halifax County at Halifax-Northampton Regional Airport (KIXA)

Observations from 2013-06-28 through 2013-07-04

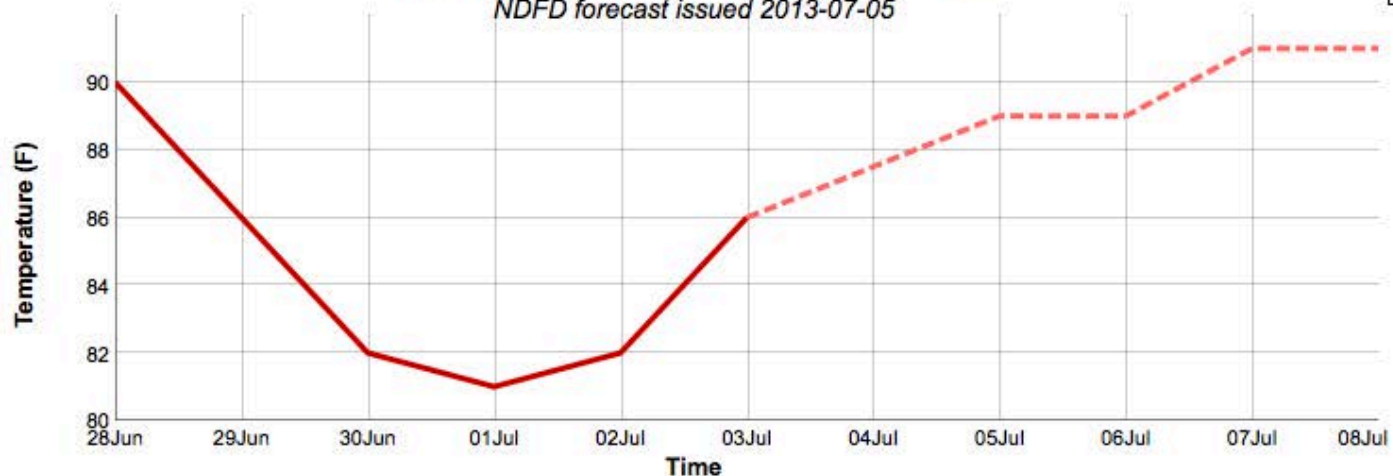
NDFD forecast issued 2013-07-05



Maximum Temperature for Halifax County at Halifax-Northampton Regional Airport (KIXA)

Observations from 2013-06-28 through 2013-07-04

NDFD forecast issued 2013-07-05



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The NC DETECT Data Oversight Committee does not take responsibility for the scientific validity or accuracy of methodology, results, statistical analyses or conclusions presented.

[Heat Health Vulnerability Tool--http://sercc.com/hhvt](http://sercc.com/hhvt)

