

# North Carolina Heat Report

## May 1-September 30, 2016



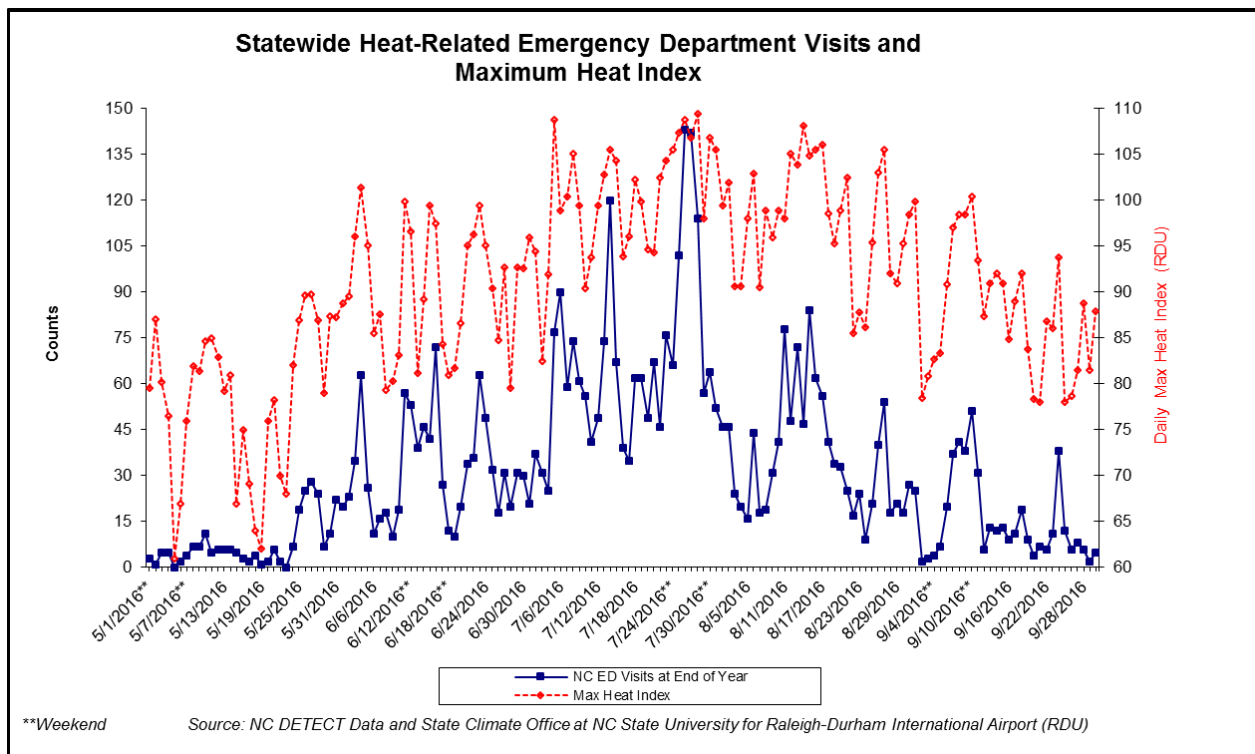
### 2016 Season Summary

- ☀ Daily maximum heat indices ranged from below 70°F in May to 109.4°F in July (median = 91°F) at Raleigh-Durham International Airport (RDU) (Figure 1)
- ☀ During the July heatwave (July 24-28), 567 emergency department visits for heat-related illnesses were observed, and daily maximum heat indices of 105.5°F – 109.4°F were recorded at RDU (Figure 1)

### Key Emergency Department Data

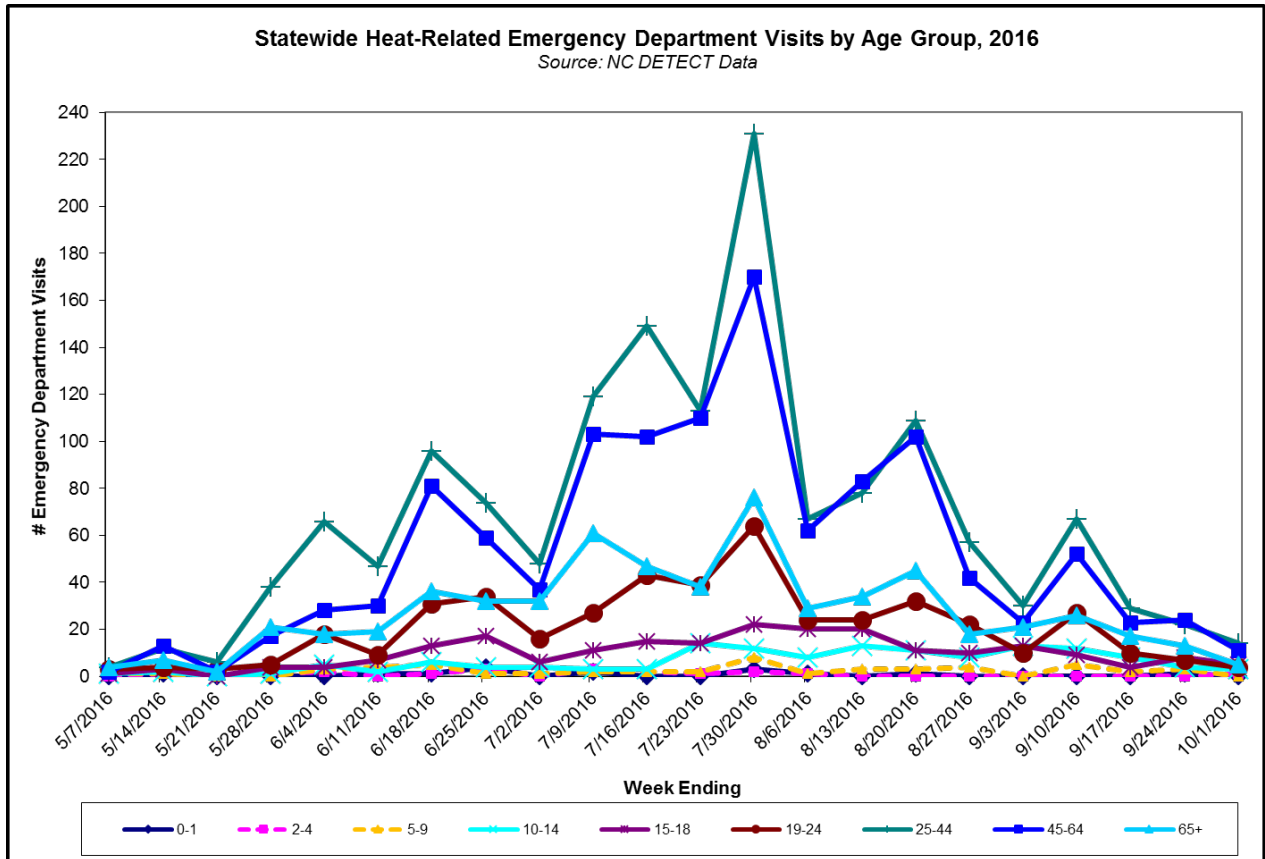
- ☀ Approximately 4,847 heat-related illnesses were identified in emergency department visit records, 43% more than last summer
- ☀ 73% of emergency department visits were among males (Table 1)
- ☀ The number of emergency department visits for heat-related illness was highest among 25-34 year olds (Figure 2)
- ☀ Approximately one-quarter of all persons aged 65 and older who visited the emergency department for a heat-related illness were hospitalized (Table 3)
- ☀ Common references in emergency department visit notes were for working outside (e.g., construction, farming, landscaping), recreation (e.g., yard work, student athletics, outdoor exercise), and living or working in a building without air conditioning
- ☀ Most emergency department visits were seen in hospitals in the Piedmont and Coastal regions, with approximately 14% of these in hospitals in the Sandhills sub-region<sup>1</sup>

**Figure 1.** Emergency department visits for heat-related illness and daily maximum heat index (RDU airport), 5/1/16 to 9/30/16, North Carolina.



<sup>1</sup>The Sandhills sub-region is comprised of the following counties from the Piedmont and Coastal regions: Bladen, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Richmond, Robeson, and Scotland.

**Figure 2.** Emergency department visits for heat-related illness by age group, 5/1/16 to 9/30/16, North Carolina.



**Table 1.** Emergency department visits for heat-related illness by sex, 5/1/16 to 9/30/16, North Carolina.

Sex	N (%)
Male	3,555 (73)
Female	1,290 (27)
<b>Total</b>	<b>4,845*</b>

\*Two persons seen in the emergency department for heat-related illness were of unknown sex

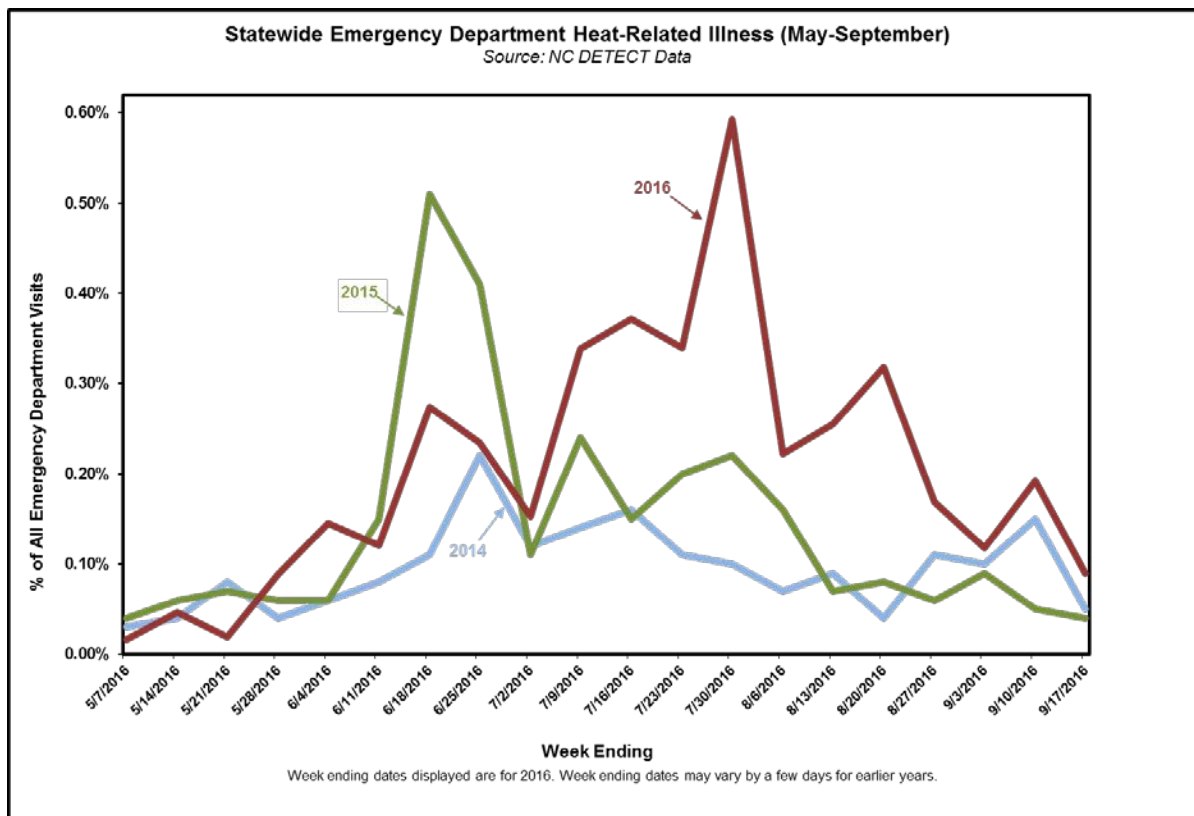
**Table 2.** Emergency department visits for heat-related illness by age group, 5/1/16 to 9/30/16, North Carolina.

Age group (yrs)	N (%)
0-14	254 (5)
15-18	259 (5)
19-24	534 (11)
25-34	916 (19)
35-44	801 (17)
45-54	769 (16)
55-64	602 (12)
65+	712 (15)
<b>Total</b>	<b>4,847</b>

**Table 3.** Number of hospital admissions from heat-related illness emergency department visits by age group, 5/1/16 to 9/30/16, North Carolina.

Age group (yrs)	Admitted to hospital N (% of age group)	Discharged from emergency department N (% of age group)	Other/Unknown N (% of age group)	Total
0-14	11 (4)	222 (87)	21 (8)	254
15-18	10 (4)	231 (89)	18 (7)	259
19-24	33 (6)	461 (86)	40 (7)	534
25-34	69 (8)	757 (83)	90 (10)	916
35-44	78 (10)	654 (82)	69 (9)	801
45-54	108 (14)	589 (77)	72 (9)	769
55-64	105 (17)	441 (73)	56 (9)	602
65+	175 (25)	481 (68)	56 (8)	712

**Figure 3.** Emergency department visits for heat-related illness for selected years, 2014 to 2016, North Carolina.



NOTE: Emergency department visit records and maximum heat indices were obtained from NC DETECT and the State Climate Office at NC State University, respectively. Heat-related illness is captured through a near real-time keyword search for ‘heat,’ ‘hot,’ ‘hyperthermia,’ ‘heat exhaustion,’ and ‘heat stroke’ in chief complaint or triage notes of emergency department records or a diagnosis code for heat-related illness. These figures present an estimate of the number of emergency department visits for heat-related illness. Please contact [lauren.thie@dhhs.nc.gov](mailto:lauren.thie@dhhs.nc.gov) for more information.

Disclaimer: The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is an advanced, statewide public health surveillance system. NC DETECT is funded with federal funds by North Carolina Division of Public Health (NC DPH), Public Health Emergency Preparedness Grant (PHEP), and managed through a collaboration between NC DPH and the University of North Carolina at Chapel Hill Department of Emergency Medicine’s Carolina Center for Health Informatics (UNC CCHI). The NC DETECT Data Oversight Committee does not take responsibility for the scientific validity or accuracy of methodology, results, statistical analyses, or conclusions presented. The NC DETECT Data Oversight Committee (DOC) includes representatives from the NC DPH, UNC NC DETECT Team and NC Hospital Association.