North Carolina Heat Report

September 19 – 25, 2021

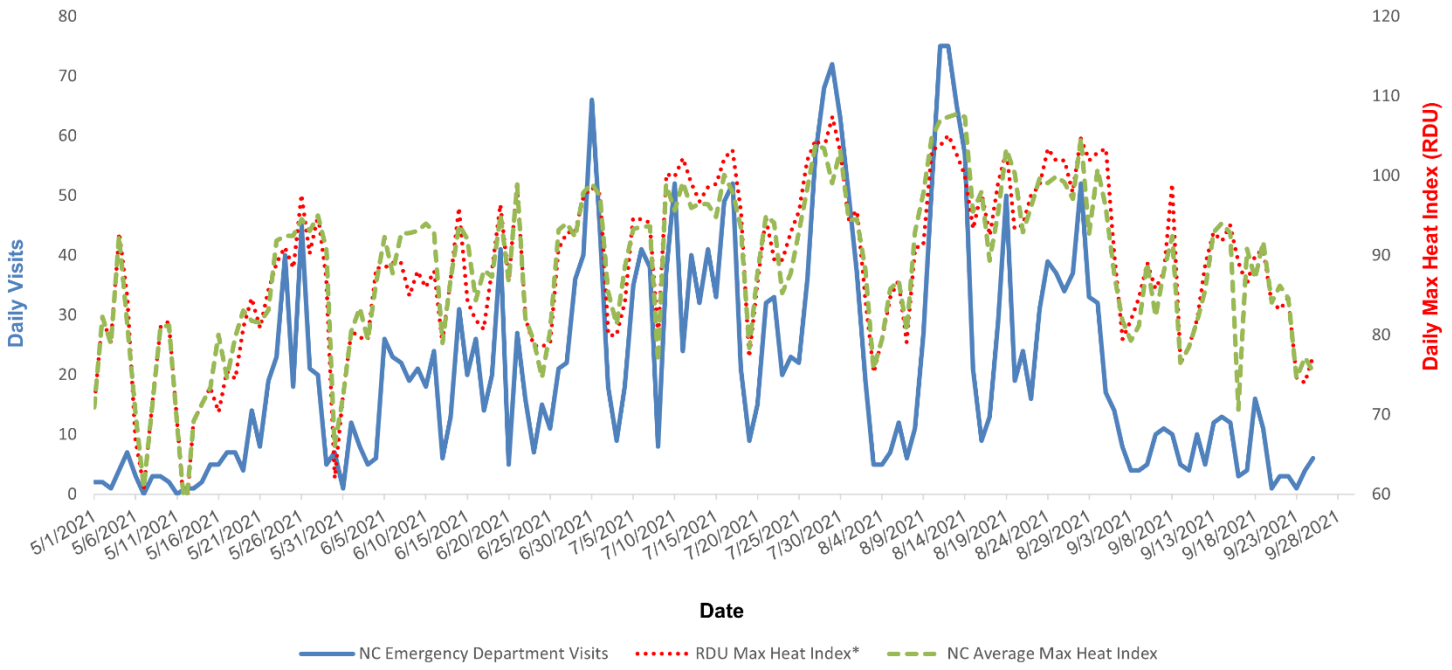
This Week

- Daily maximum heat indices ranged from 74°F to 91°F (median = 83°F) at Raleigh-Durham International Airport (RDU)
- 29 emergency department visits for heat-related illness were observed (Figure 1)
  - 59% of visits were for males, most were between ages 45 and 64.
  - The most frequent heat related diagnosis code was Heat Exhaustion (Table 2)
  - Most visits were seen in hospitals in the Piedmont (52%) and Coastal (48%) regions
  - 21% of visits were seen in hospitals in the Sandhills sub-region[1]
- This week the proportion of emergency department visits for heat-related illness was 0.03%, similar to the historical average (Figure 2)

Season to Date (September 2021)

- 3117 emergency department visits for heat-related illness have been identified (Figure 1)
- Common activities preceding illness are working outdoors and recreation

Figure 1. Emergency Department Visits for Heat-Related Illness and Maximum Heat Index -- North Carolina, May 1- September 25, 2021



Source: NC DETECT Data and State Climate Office at NC State University
Max Heat Index is for Raleigh-Durham International Airport (RDU). NC Average Max Heat Index is for emergency department visit location.

[1]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.

Table 1. Visits by sex and age group - September 19 – September 25, 2021

	N=29*	(%)†
Sex		
Male	17	(59)
Female	12	(41)
Age		
0-14	2	(7)
15-18	2	(7)
19-24	1	(3)
25-44	8	(28)
45-64	8	(28)
65+	8	(28)

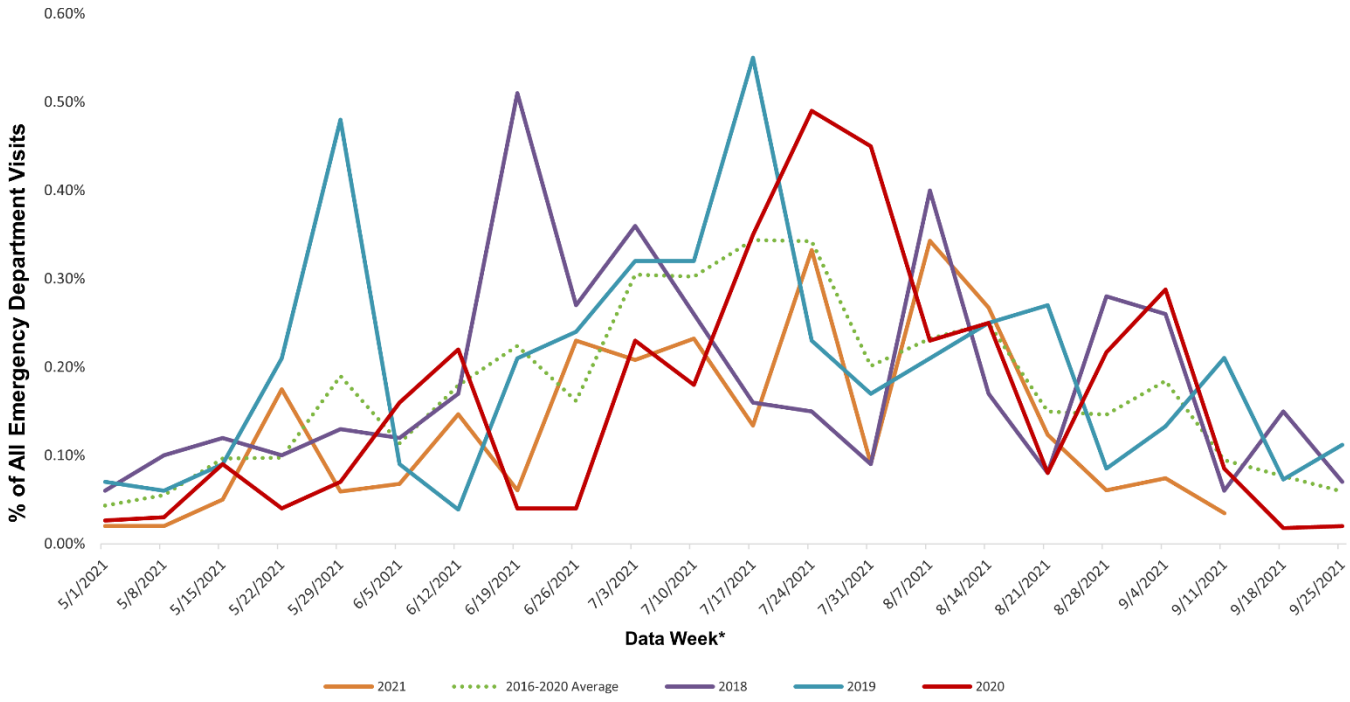
Table 2. Visits by severity – September 19 – September 25, 2021

	N=13‡	(%)†
Severity§		
Heat Exhaustion	8	(62)
Heat Syncope	3	(23)
Other Effects	2	(15)

*n may vary from weekly total visits † may not total 100 due to rounding ‡ missing severity data =16 § definitions of heat related illness categories https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html ǁ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

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 cramp', 'heat exhaustion', 'heat stroke', and 'sun 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 for more information.

Figure 2. Percent of Total Emergency Department Visits for Heat-Related Illness -- North Carolina, 2021 Compared to Historical Average



*Data begins 05/01/2015 to 2021 reporting period. Week ending dates may vary by a few days for earlier years. For data week definitions see https://wwwn.cdc.gov/nndss/downloads.html. Hospitals transitioned from the ICD-9-CM diagnosis code standard to ICD-10-CM in 2015. This transition may impact the number of emergency department visits with a heat related illness diagnosis. *Source: NC DETECT*

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.