North Carolina Statewide Weekly Heat-related Illness Surveillance Report

August 17-23, 2025

Statewide Key Messages

The average weekly rate of heat-related illness (HRI) emergency department (ED) visits **this season to date is 3 per 100,000 population.**

This week (August 17-23, 2025):

- There were **142* HRI ED visits (**0.1% of total ED visits), with a **rate of 1.3 per 100,000 population**
- The rate was highest among **males** aged **25-44 years (2.9 per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in the **Northeast** and **Sandhills** (**2 per 100,000 population**), (Figure 2; Region 3)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 36; 54.5%)** (Table 1)
- The maximum daily heat index ranged from **80** to **97.6°F** at Raleigh-Durham International Airport (Figure 3)
- There were **5** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age

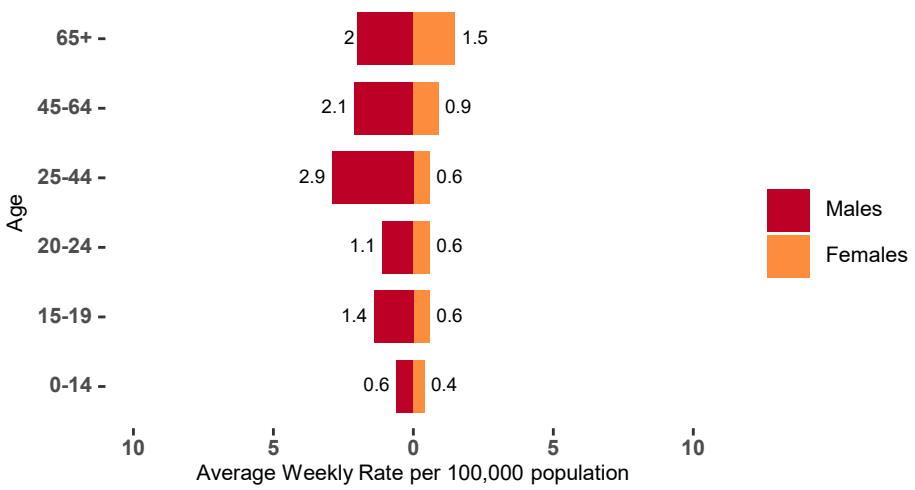
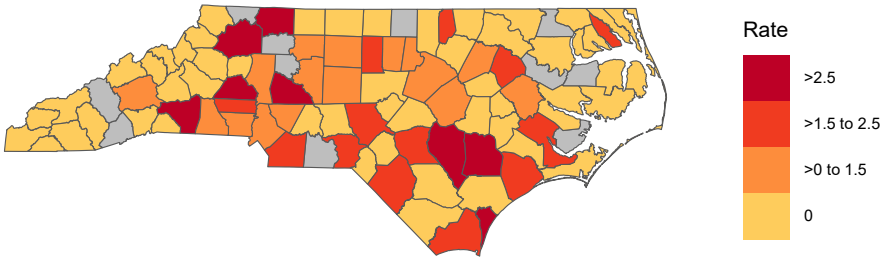


Figure 2. Rate of Heat-related Illness Emergency Department Visits per 100,000 Population



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

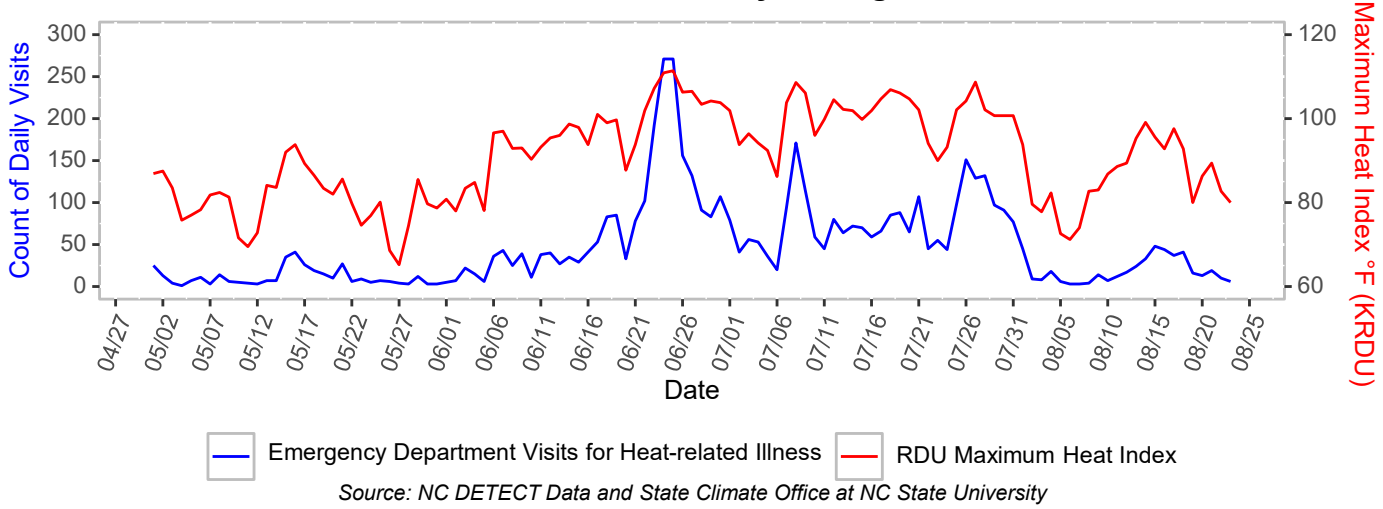
Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 66‡)	Percent†
Heat Exhaustion	36	54.5
Heat Syncope	12	18.2
Heat Cramps	1	1.5
Other Effects‖	17	25.8

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 76
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

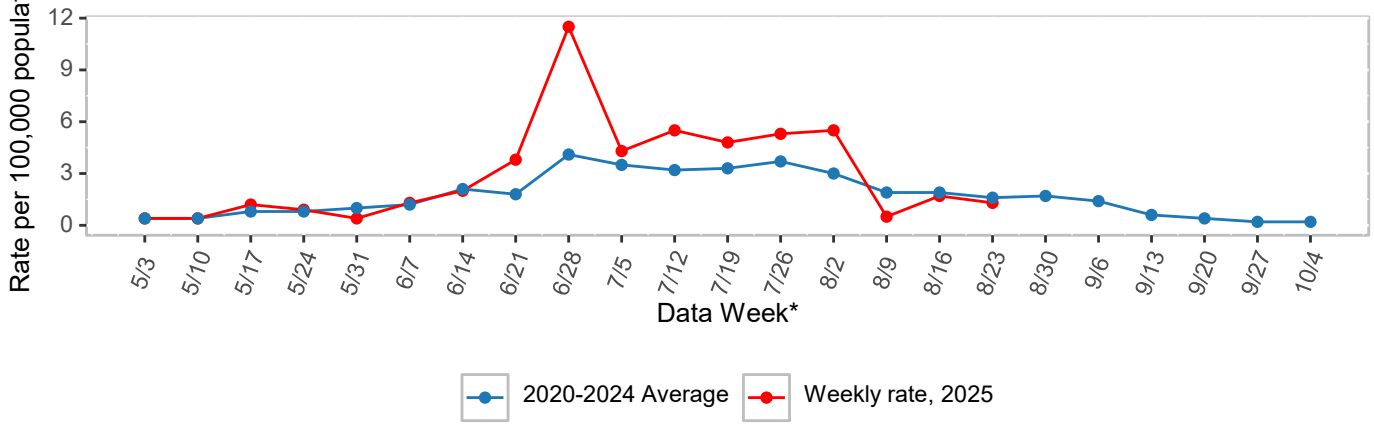
*The 142 total HRI ED visits includes 13 visits that were missing county of residence. These 13 visits are excluded from the regional reports.

Figure 3. Emergency Department Visits for Heat-related Illness and Max Heat Index
North Carolina Statewide: May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Figure 4. Rate of Emergency Department Visits for Heat-related Illness
North Carolina: 2025 Compared to Historical Average



Week ending dates may vary by a few days for earlier years.
For data week definitions see https://ndc.services.cdc.gov/wp-content/uploads/MMWR-Weeks-Calendar_2024-2025.pdf

North Carolina Weekly Heat-related Illness Surveillance Report: Southeast (Region 1)

August 17-23, 2025

Southeast (Region 1) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.7 per 100,000 population.**

This week (August 17-23, 2025):

- There were **16** HRI ED visits (0.2% of total ED visits), with a rate of **1.8 per 100,000 population**
- The rate was highest among **males** aged **25-44 years (5.4 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **New Hanover County (2.6 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 5; 50%)** (Table 1)
- The maximum daily heat index ranged from **83.8 to 97.6°F** at Wilmington International Airport (Figure 3)
- There were **6** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
Southeast (Region 1)

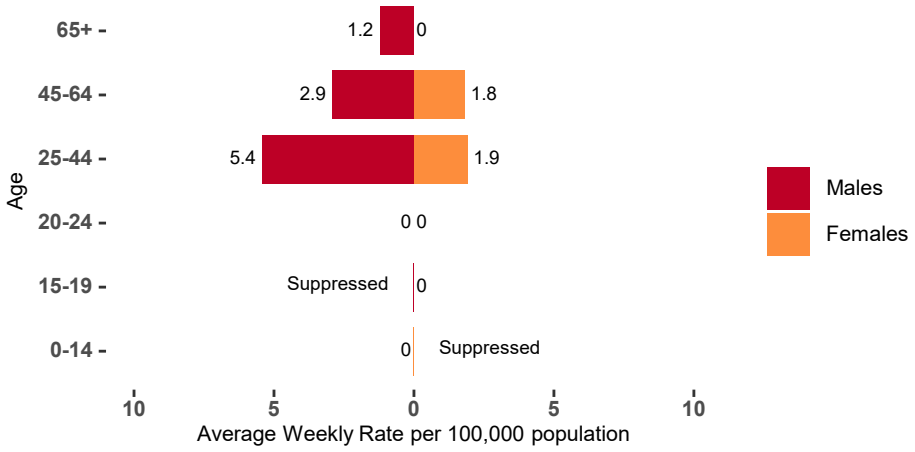
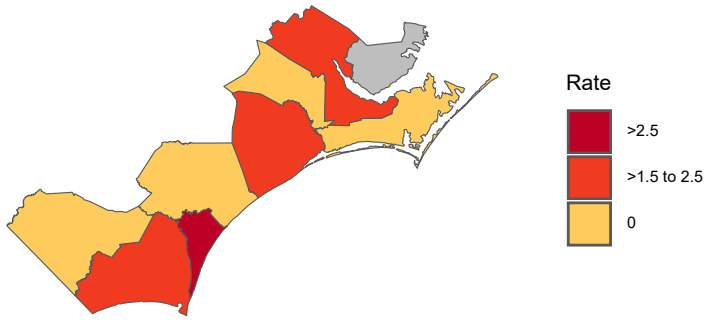
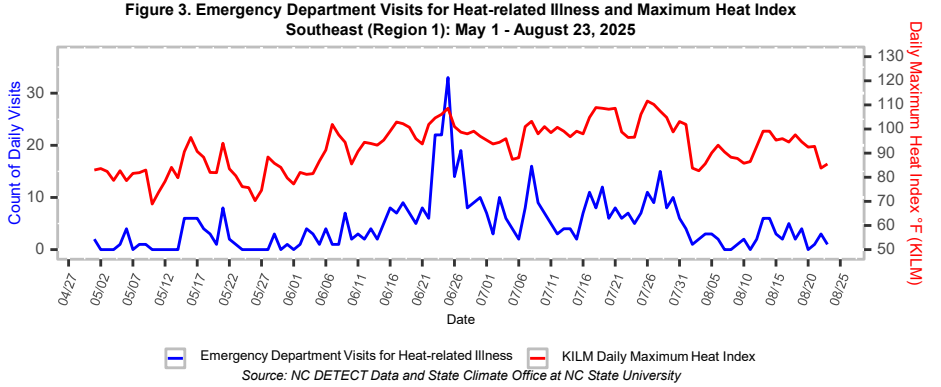


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Southeast (Region 1)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Southeast (Region 1): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 10‡)	Percent†
Heat Exhaustion	5	50
Heat Syncope	1	10
Heat Cramps	1	10
Other Effects‖	3	30

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 6
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Central (Region 2) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.5 per 100,000 population.**

This week (August 17-23, 2025):

- There were **19** HRI ED visits (0.1% of total ED visits), with a rate of **0.9 per 100,000 population**
- The rate was highest among **males** aged **65+ years (2.5 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Vance County (2.4 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 6; 60%)** (Table 1)
- The maximum daily heat index ranged from **78.6 to 94.7°F** at Piedmont Triad International Airport (Figure 3)
- There were **3** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
North Central (Region 2)

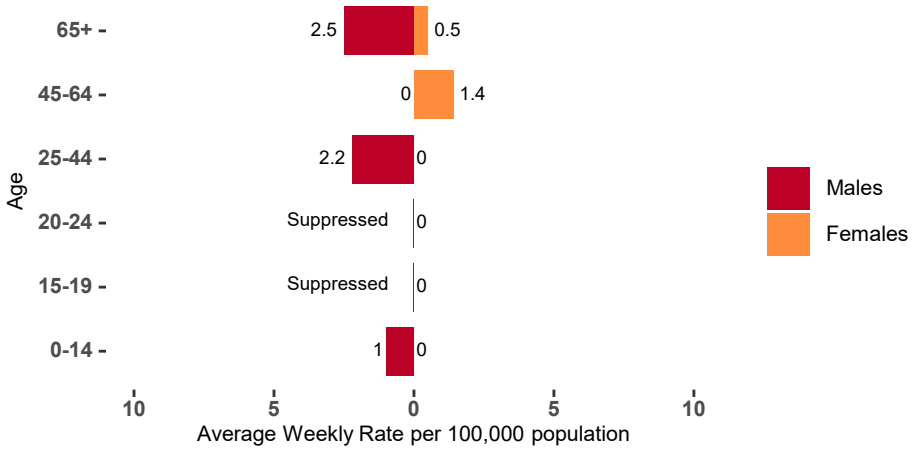
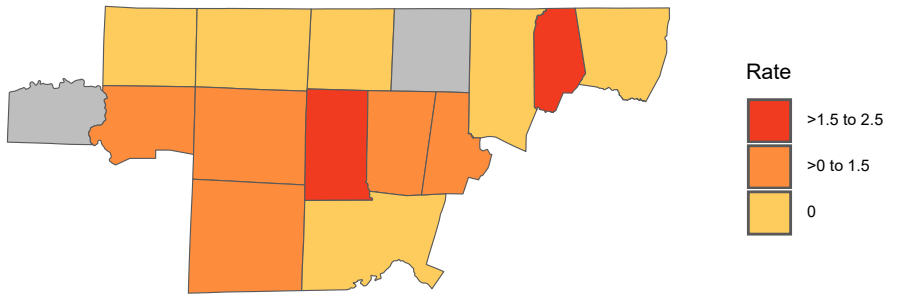
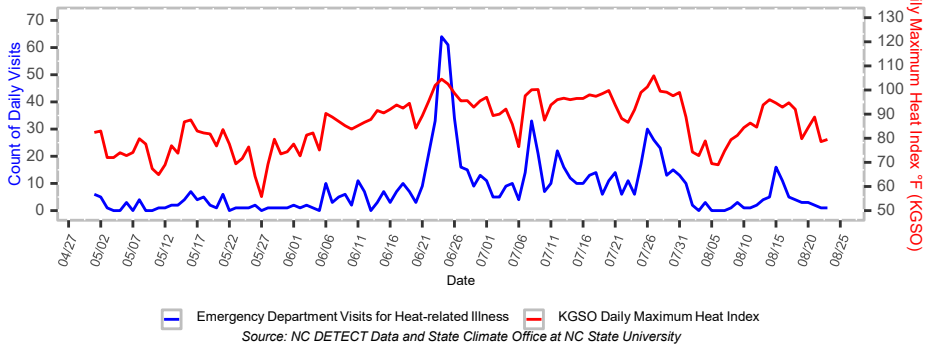


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
North Central (Region 2)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
North Central (Region 2): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 10‡)	Percent†
Heat Exhaustion	6	60
Heat Syncope	3	30
Other Effects‖	1	10

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 9
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Carolina Weekly Heat-related Illness Surveillance Report: Northeast (Region 3)

August 17-23, 2025

Northeast (Region 3) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 4 per 100,000 population.**

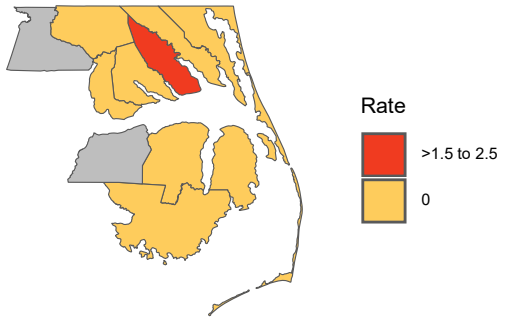
This week (August 17-23, 2025):

- There were **4** HRI ED visits (0.2% of total ED visits), with a rate of **2 per 100,000 population**
- The rate of HRI ED visits was highest in **Pasquotank County (2.5 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat syncope (n = 1; 100%)** (Table 1)
- The maximum daily heat index ranged from **84.1 to 102.8°F** at Pitt-Greenville Airport (Figure 3)
- There were **4** days when the minimum temperature was above 70°F.

Figure 1 is not provided for the Northeast this week due to the small number of ED visits for heat-related illness

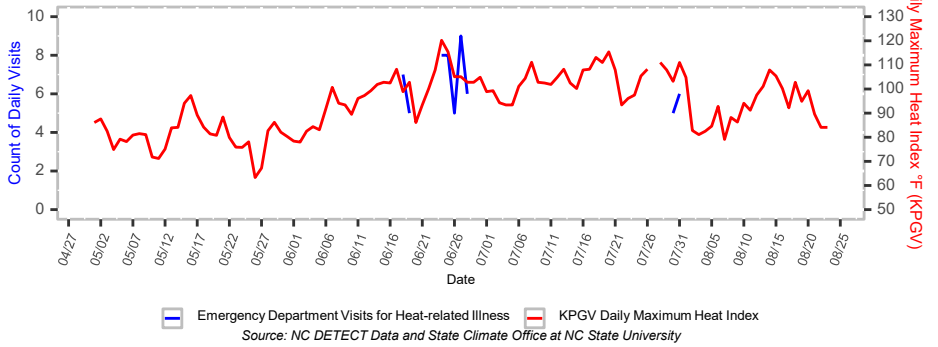
Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Populati

Northeast (Region 3)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Northeast (Region 3): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 1‡)	Percent†
Heat Syncope	1	16

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

‡ Missing severity data = 3

† May not total 100 due to rounding

‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Carolina Weekly Heat-related Illness Surveillance Report: South Central (Region 4)

August 17-23, 2025

South Central (Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.6 per 100,000 population.**

This week (August 17-23, 2025):

- There were **38** HRI ED visits (0.1% of total ED visits), with a rate of **1.5 per 100,000 population**
- The rate was highest among **males** and **females** aged **20-24 years (2.5 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Rowan County (3.4 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 8; 44.4%)** (Table 1)
- The maximum daily heat index ranged from **82.3 to 98.4°F** at Charlotte/Douglas International Airport (Figure 3)
- There were **6** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
South Central (Region 4)

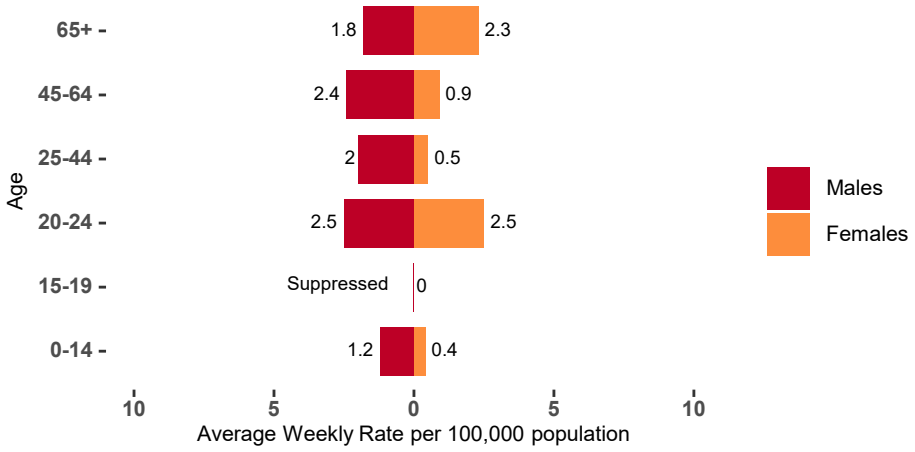
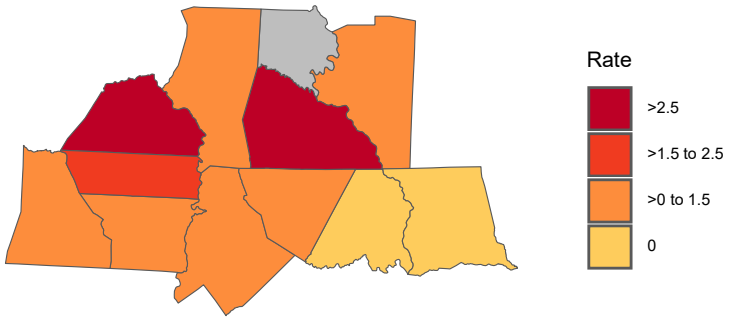
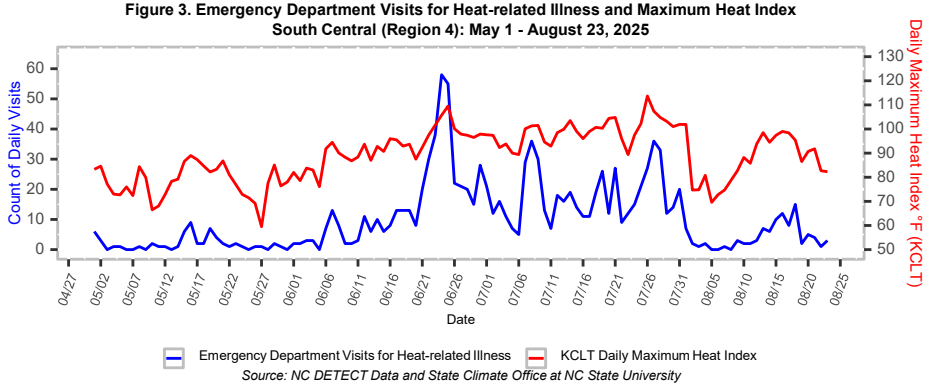


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
South Central (Region 4)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
South Central (Region 4): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity[§]	Number (N = 18[‡])	Percent[†]
Heat Exhaustion	8	44.4
Heat Syncope	3	16.7
Other Effects[‖]	7	38.9

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 20
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Carolina Weekly Heat-related Illness Surveillance Report: North Coastal Plain (Region 5)

August 17-23, 2025

North Coastal Plain (Region 5) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.8 per 100,000 population.**

This week (August 17-23, 2025):

- There were **16** HRI ED visits (0.1% of total ED visits), with a rate of **0.7 per 100,000 population**
- The rate was highest among **males** aged **45-64 years (2.2 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Edgecombe County (2 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 4; 57.1%)** (Table 1)
- The maximum daily heat index ranged from **81.6 to 94.7°F** at Rocky Mount-Wilson Regional Airport (Figure 3)
- There were **4** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
North Coastal Plain (Region 5)

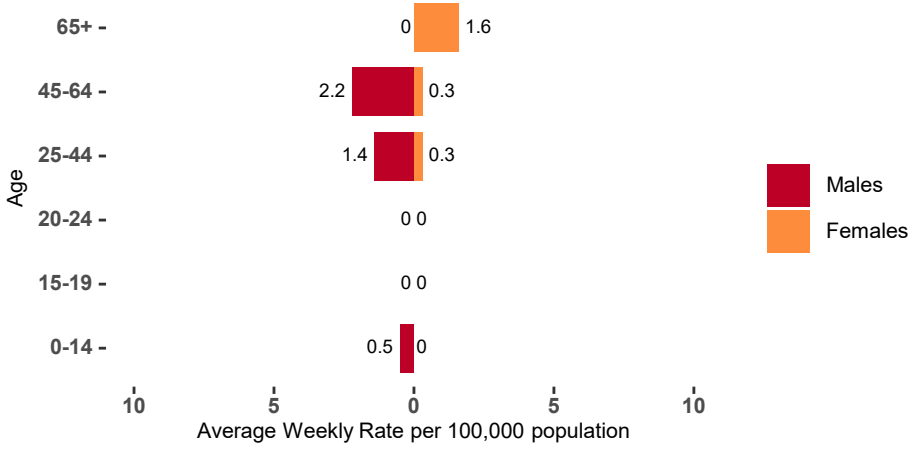
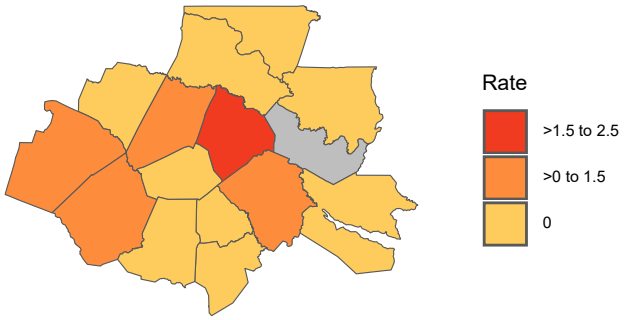
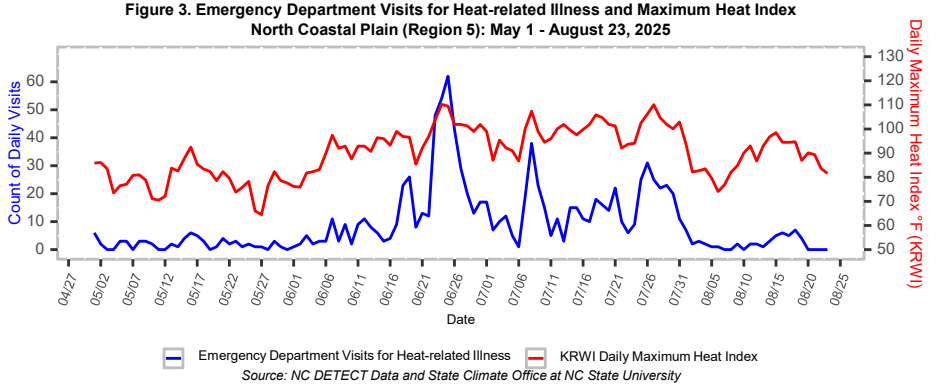


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
North Coastal Plain (Region 5)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
North Coastal Plain (Region 5): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity[§]	Number (N = 7[‡])	Percent[†]
Heat Exhaustion	4	57.1
Other Effects[‖]	3	42.9

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

‡ Missing severity data = 9

† May not total 100 due to rounding

‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

Foothills (Region 6) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.9 per 100,000 population.**

This week (August 17-23, 2025):

- There were **6** HRI ED visits (0.1% of total ED visits), with a rate of **1.3 per 100,000 population**
- The rate was highest among **males** aged **25-44 years (3.7 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Rutherford County (3.1 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 3; 100%)** (Table 1)
- The maximum daily heat index ranged from **77.6 to 98.9°F** at Morganton-Lenoir Airport (Figure 3)
- There were **2** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
Foothills (Region 6)

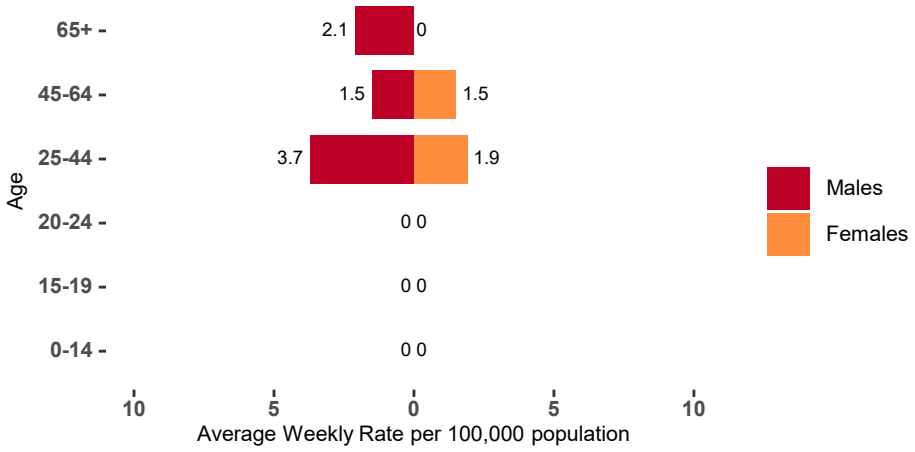
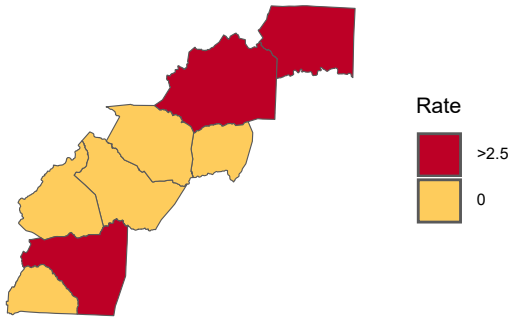
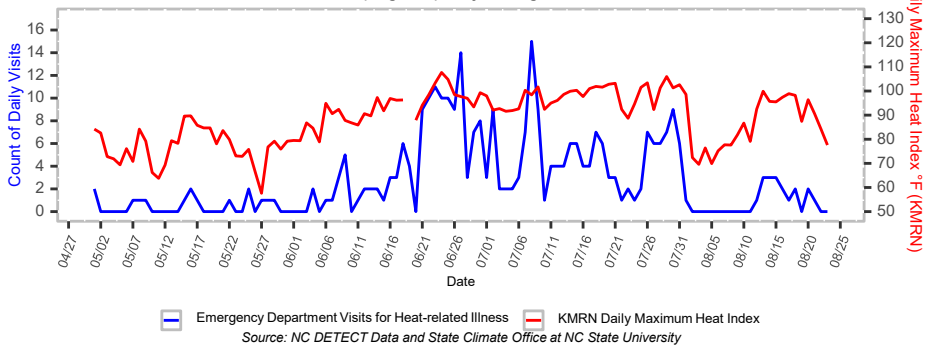


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Popula
Foothills (Region 6)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Foothills (Region 6): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 3‡)	Percent†
Heat Exhaustion	3	56

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 3
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Carolina Weekly Heat-related Illness Surveillance Report: Sandhills (Region 7)

August 17-23, 2025

Sandhills (Region 7) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.5 per 100,000 population.**

This week (August 17-23, 2025):

- There were **26** HRI ED visits (0.2% of total ED visits), with a rate of **2 per 100,000 population**
- The rate was highest among **males** aged **25-44 years (4.8 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Duplin County (8.2 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 6; 54.5%)** (Table 1)
- The maximum daily heat index ranged from **82.3 to 101°F** at Fayetteville Regional/Grannis Field Airport (Figure 3)
- There were **5** days when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
Sandhills (Region 7)

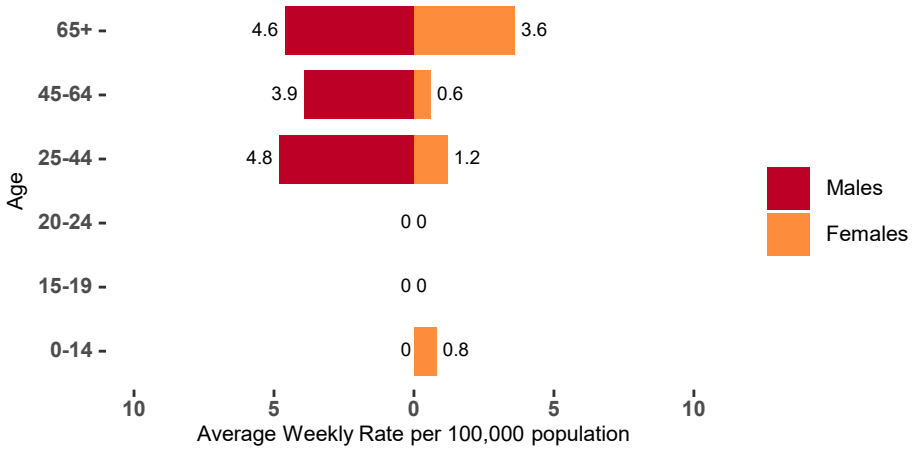
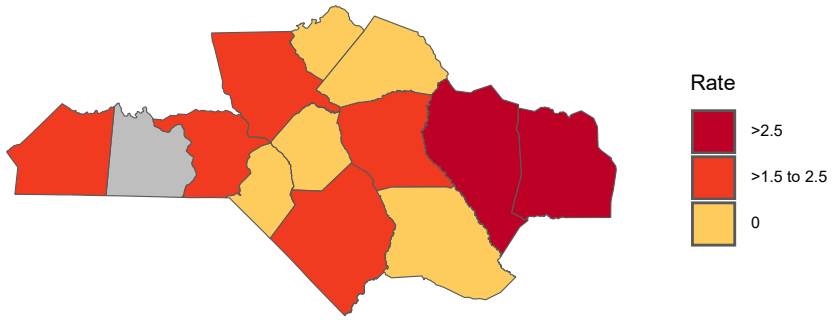
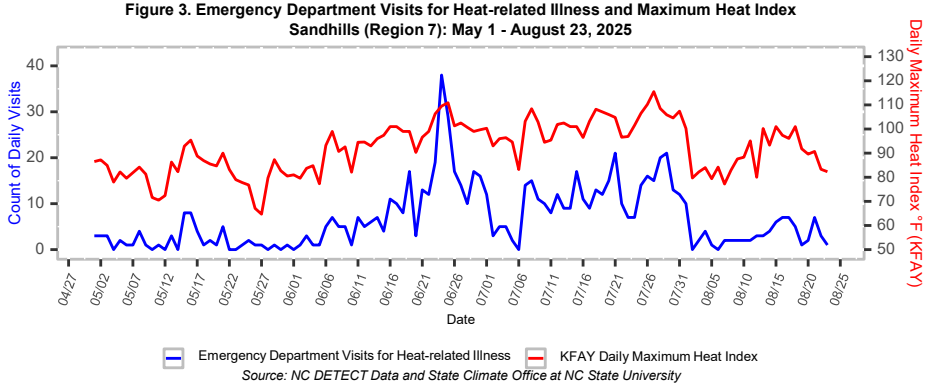


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Sandhills (Region 7)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Sandhills (Region 7): May 1 - August 23, 2025



Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 11‡)	Percent†
Heat Exhaustion	6	54.5
Heat Syncope	3	27.3
Other Effects‖	2	18.2

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/heat-stress/about/illnesses.html
‡ Missing severity data = 15
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

Mountains (Region 8) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 1.1 per 100,000 population.**

This week (August 17-23, 2025):

- There were **4** HRI ED visits (0.1% of total ED visits), with a rate of **0.5 per 100,000 population**
- The rate was highest among **males** aged **65+ years (1.2 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Buncombe County (0.4 per 100,000 population**) (Figure 2)
- The maximum daily heat index ranged from **75.5 to 91.8°F** at Asheville Regional Airport (Figure 3)
- There was **1** day when the minimum temperature was above 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age
Mountains (Region 8)

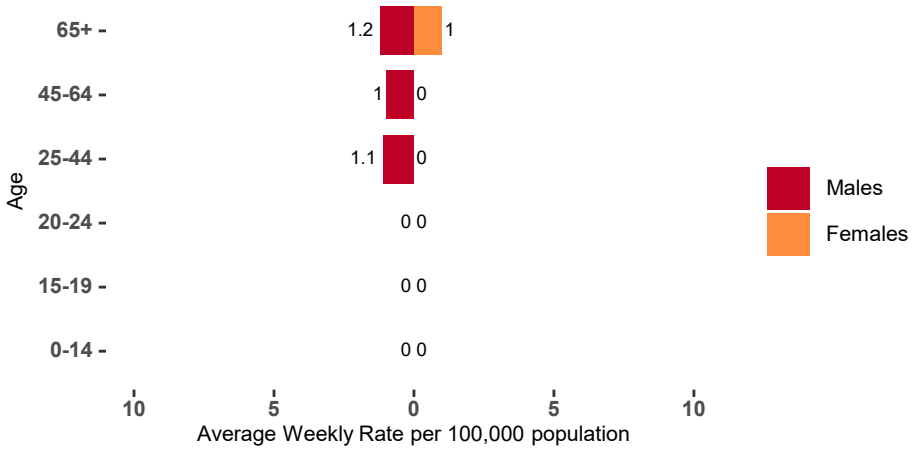
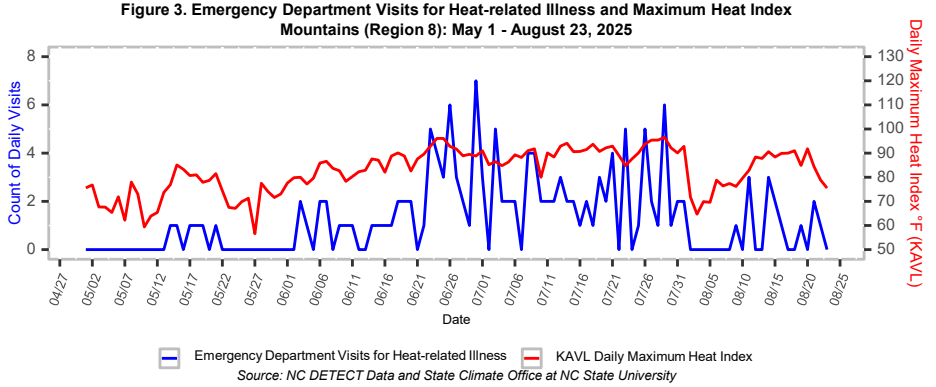


Figure 2 is not provided for the Mountains this week due to the small number of ED visits for heat-related illness

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Mountains (Region 8): May 1 - August 23, 2025

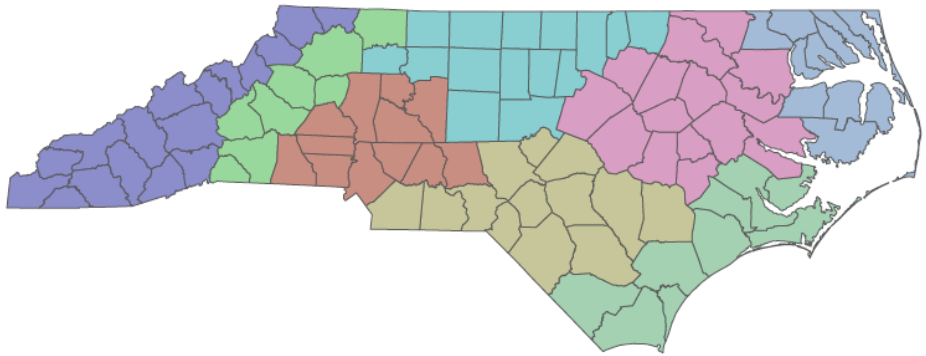


Source: NC DETECT Data and State Climate Office at NC State University

Table 1 is not provided for the Mountains this week due to the small number of ED visits for heat-related illness

North Carolina HRI Surveillance Regions

(updated for 2025 to match the new Heat Health Alert System regions)



1. Southeast
2. North Central
3. Northeast
4. South Central
5. North Coastal Plain
6. Foothills
7. Sandhills
8. Mountains

About the data

The heat-related illness data in the report is from NC DETECT. NC DETECT is a statewide public health syndromic surveillance system, funded by the NC Division of Public Health (NC DPH) Federal Public Health Emergency Preparedness Grant and managed through collaboration between NC DPH and the UNC-CH Department of Emergency Medicine's Carolina Center for Health Informatics. The NC DETECT Data Oversight Committee is not responsible for the scientific validity or accuracy of methodology, results, statistical analyses, or conclusions presented.

Climate data

The maximum heat index and minimum temperature data in this report are from the North Carolina State Climate Office. The Raleigh-Durham International Airport weather station (RDU) was selected to represent the climate data for the statewide report. One weather station from each region was selected to represent the climate data for each region. The weather station locations and their corresponding regions are as follows:
Wilmington International Airport (ILM) – Southeast (Region 1), Piedmont Triad Airport (GSO) – North Central (Region 2), Pitt-Greenville Airport (PGV) – Northeast (Region 3), Charlotte/Douglas International Airport (CLT) – South Central (Region 4),
Rocky Mount-Wilson Regional Airport (RWI) – North Coastal Plain (Region 5), Morganton-Lenoir Airport (MRN) – Foothills (Region 6), Fayetteville Regional/Grannis Field Airport (FAY) – Sandhills (Region 7), Asheville Regional Airport (AVL) – Mountains (Region 8). During 6/19, climate data was obtained from the NC School of Science and Math - Morganton (MORG) EcoNet weather station (Foothills, Region 6).

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