North Carolina Statewide Weekly Heat-related Illness Surveillance Report
July 6-July 12, 2025

Statewide Key Messages

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

This week (July 6-July 12, 2025):

- There were **550* HRI ED visits** (0.55% of total ED visits), with a **rate of 5.2 per 100,000 population**
- The rate was highest among **males** aged **20-24 years (13.1 per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in the **Foothills** (**8.5 per 100,000 population**). (Figure 2; Region 6)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 181; 56%)** (Table 1)
- The maximum daily heat index ranged from **86.2** to **108.6°F** at Raleigh-Durham International Airport (Figure 3)
- There were **7** days when the minimum temperature was above 70°F

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

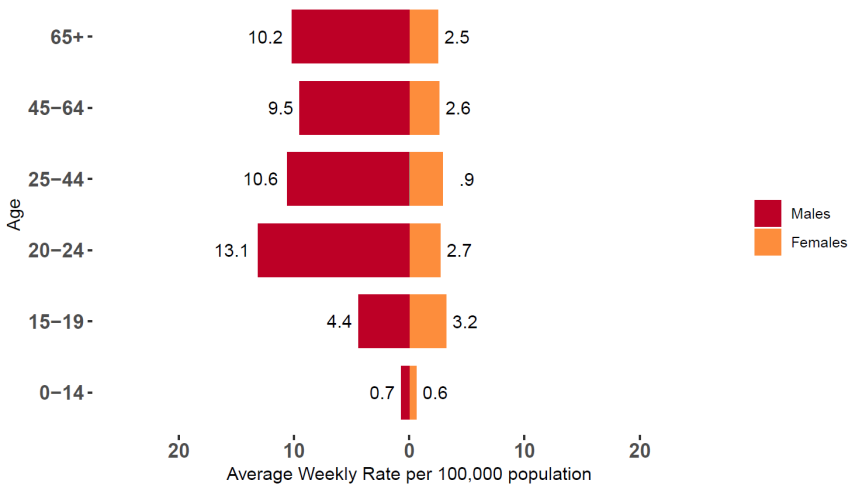
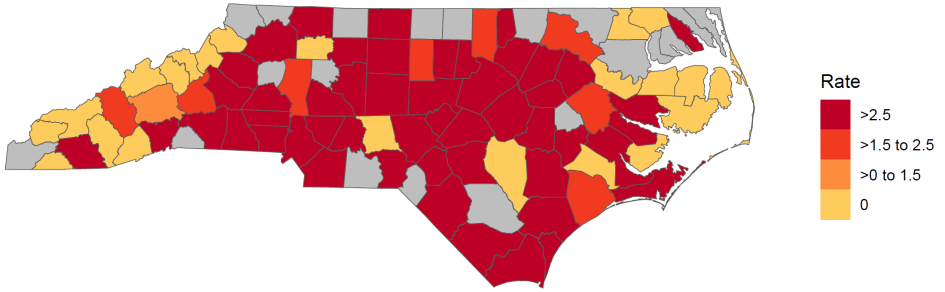


Figure 2. Rate of Heat−related Illness Emergency Department Visits per 100,000 Population



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

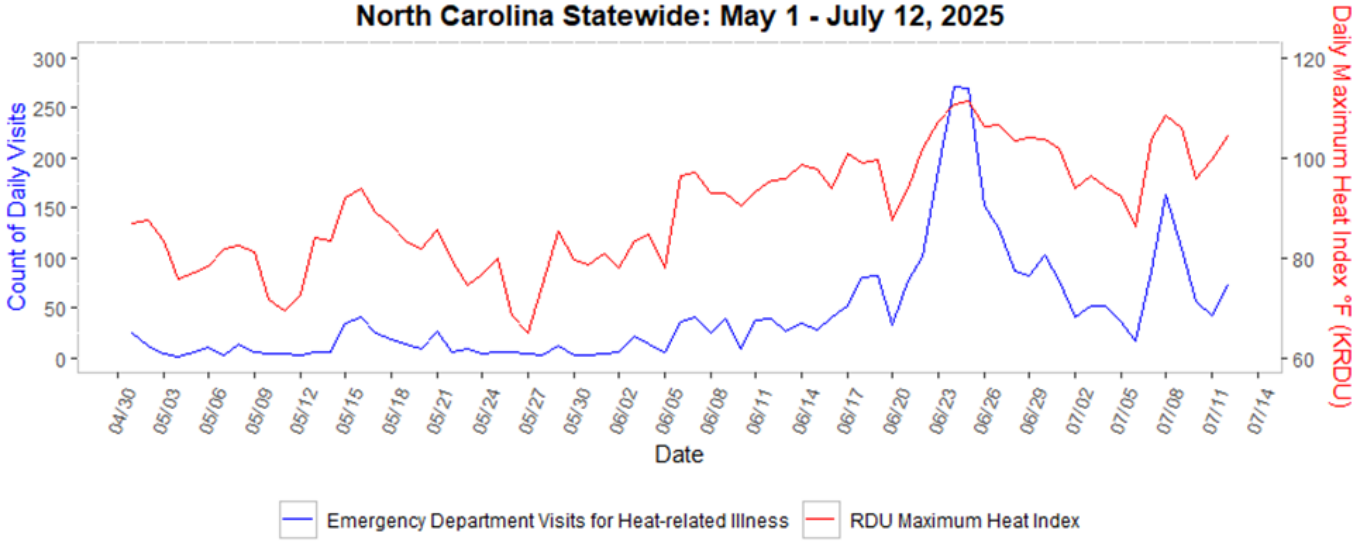
Table 1. Heat-related illness ED visits by Severity

Severity[§]	Number (N = 323[‡])	Percent[†]
Heat Cramps	12	3.7
Heat Exhaustion	181	56
Heat Stroke	5	1.5
Heat Syncope	31	9.6
Other Effects[‖]	94	29.1

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 227
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

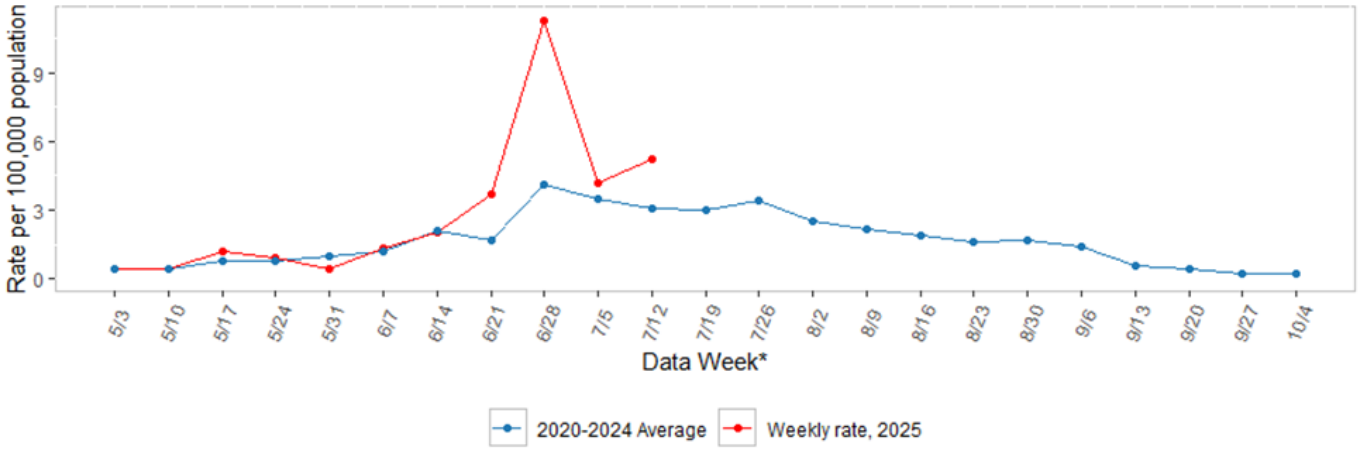
*The 550 total HRI ED visits includes 32 visits that were missing county of residence. These 32 visits are excluded from the regional reports

Figure 3. Emergency Department Visits for Heat-related Illness and Max Heat Index
North Carolina Statewide: May 1 - July 12, 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 NC (Region 1)
July 6-July 12, 2025

Southeast NC (Region 1) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.6 per 100,000 population.**

This week (July 6-July 12, 2025):

- There were **45** HRI ED visits (0.5% of total ED visits), with a rate of **5.1 per 100,000 population**
- The rate was highest among **males aged 25-44 years (13.5 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Craven County (8.9 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 18; 66.7%)** (Table 1)
- The maximum daily heat index ranged from **88.1 to 103.2°F** at Wilmington International Airport (Figure 3)
- There were **7** 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)

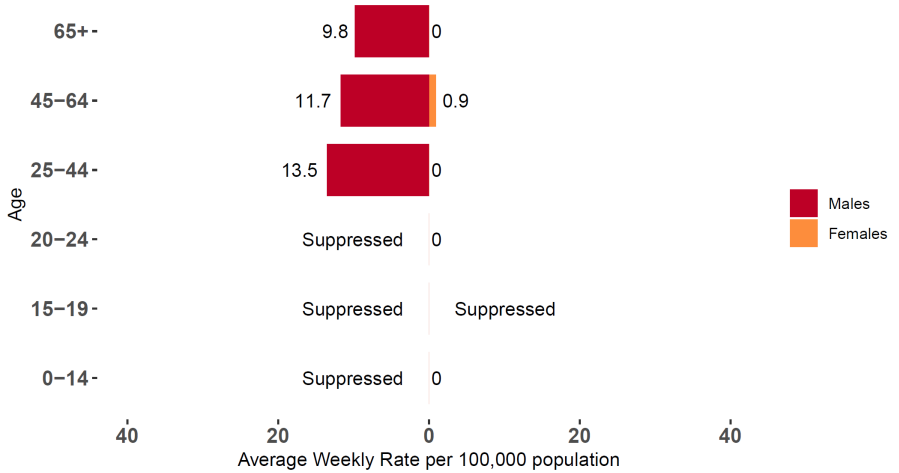
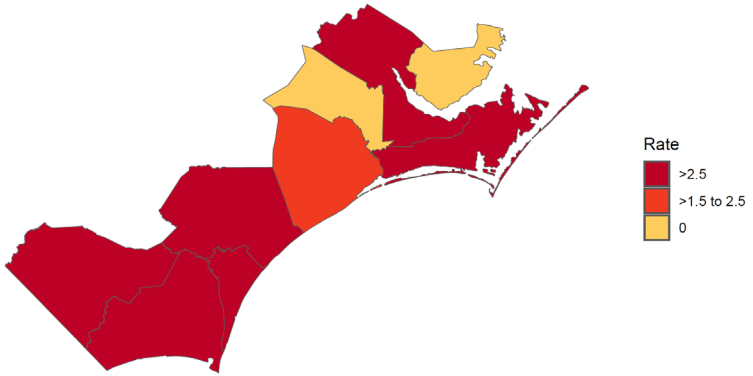
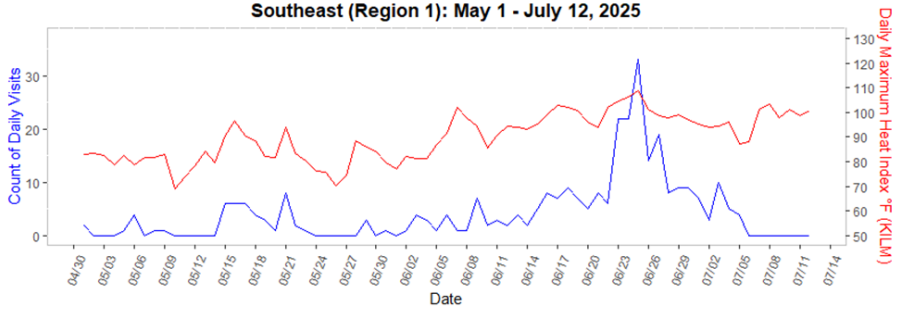


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population Southeast (Region 1)



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 - July 12, 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 = 27‡)	Percent†
Heat Exhaustion	18	66.7
Heat Syncope	1	3.7
Other Effects‖	8	29.6

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html

‡ Missing severity data = 18

† 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 Central NC (Region 2)
July 6-July 12, 2025

North Central NC (Region 2) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.4 per 100,000 population.**

This week (July 6-July 12, 2025):

- There were **105** HRI ED visits (0.6% of total ED visits), with a rate of **4.9 per 100,000 population**
- The rate was highest among **males aged 65+ years (13.7 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Rockingham County (8.7 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 30; 54.5%)** (Table 1)
- The maximum daily heat index ranged from **76.5 to 100.2°F** at Piedmont Triad 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
North Central (Region 2)

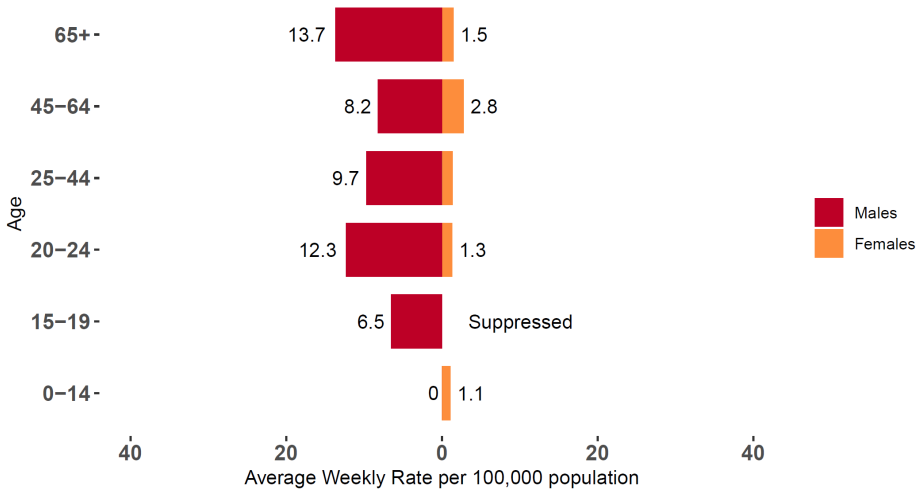
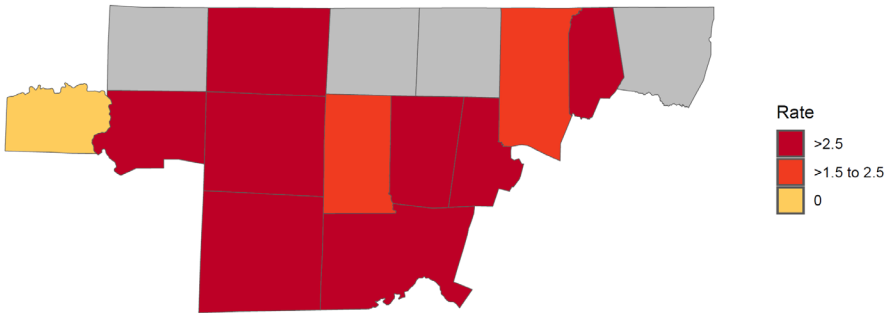
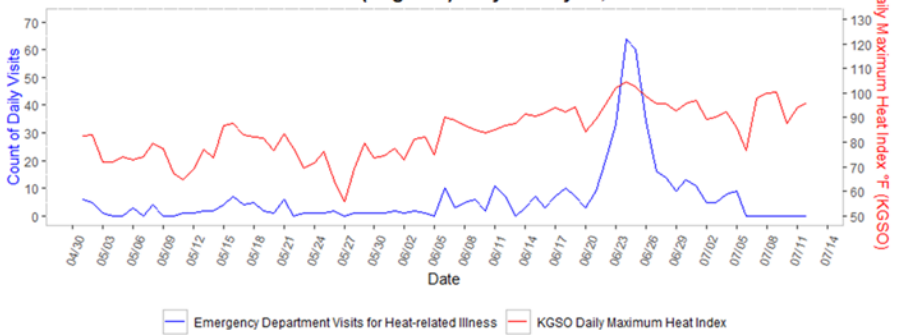


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population
North Central (Region 2)



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 - July 12, 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 = 55‡)	Percent†
Heat Cramps	3	5.5
Heat Exhaustion	30	54.5
Heat Stroke	1	1.8
Heat Syncope	9	16.4
Other Effects‖	12	21.8

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 50
† 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)
July 6-July 12, 2025

Northeastern NC (Region 3) Key Messages

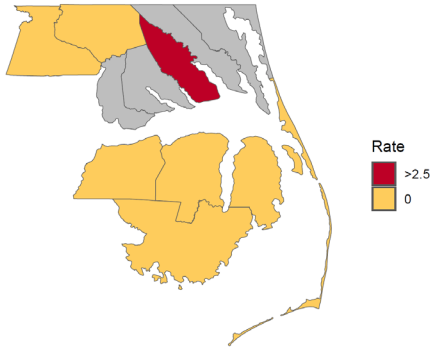
The average weekly rate of heat-related illness emergency department visits **this season to date is 3.9 per 100,000 population**

This week (July 6-July 12, 2025):

- There were **7** HRI ED visits (0.3% of total ED visits), with a rate of **3.6 per 100,000 population**
- The rate of HRI ED visits was highest in **Pasquotank County (4.9 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **other effects (n = 4; 66.7%)** (Table 1)
- The maximum daily heat index ranged from **101.1 to 111.1°F** at Pitt-Greenville Airport (Figure 3)
- There were **7** days when the minimum temperature was above 70°F

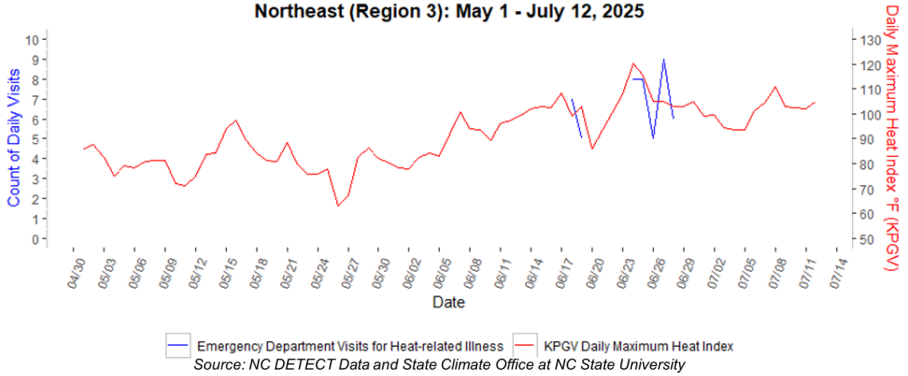
Figure 1 is not provided for the Northeast region this week due to the small number of ED visits for heat-related illness.

Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population
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 - July 12, 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 = 6‡)	Percent†
Heat Exhaustion	2	33.3
Other Effects‖	4	66.7

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 1
† 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 NC (Region 4)
July 6-July 12, 2025

South Central NC (Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.4 per 100,000 population**

This week (July 6-July 12, 2025):

- There were **129** HRI ED visits (0.5% of total ED visits), with a rate of **5 per 100,000 population**
- The rate was highest among **males aged 20-24 years (15.2 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Davidson County (11.1 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 44; 53.7%)** (Table 1)
- The maximum heat daily index ranged from **89.4 to 101.5°F** at Charlotte/Douglas International Airport (Figure 3)
- There were **7** 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)

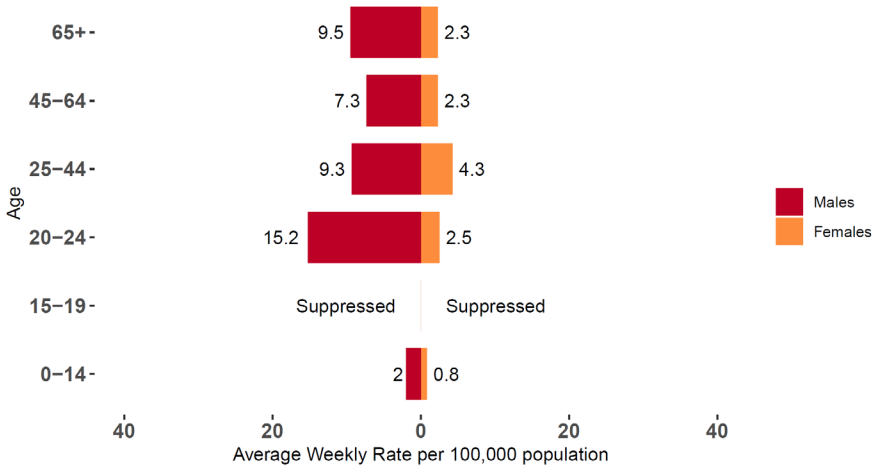
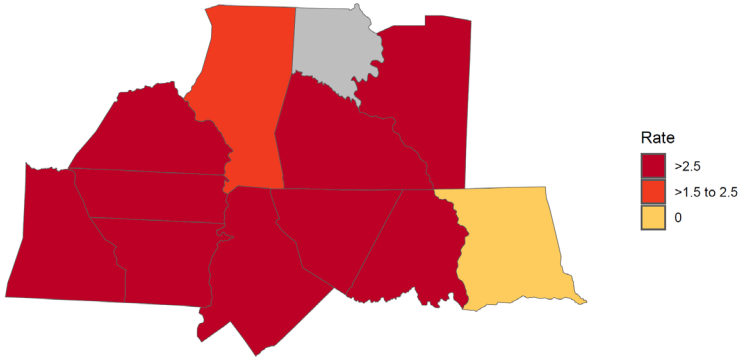
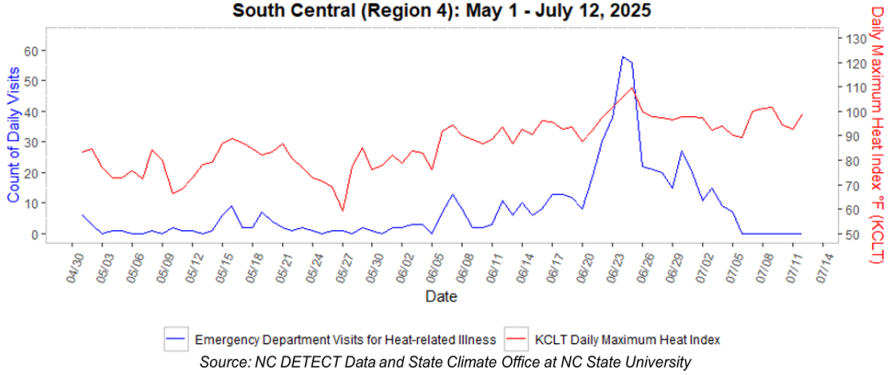


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population South Central (Region 4)



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 - July 12, 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 = 82[‡])	Percent[†]
Heat Cramps	5	6.1
Heat Exhaustion	44	53.7
Heat Stroke	8	9.8
Heat Syncope	25	30.5
Other Effects[‖]	5	6.1

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html

‡ Missing severity data = 47

† 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 Coastal Plain Area (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 (July 6-July 12, 2025):

- There were **111** HRI ED visits (0.6% of total ED visits), with a rate of **5.1 per 100,000 population**
- The rate was highest among **males aged 20-24 years (19.7 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Beaufort County (13.5 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 40; 58%)** (Table 1)
- The maximum daily heat index ranged from **86.7 to 107.4°F** at Rocky Mount-Wilson Regional Airport (Figure 3)
- There were **7** 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)

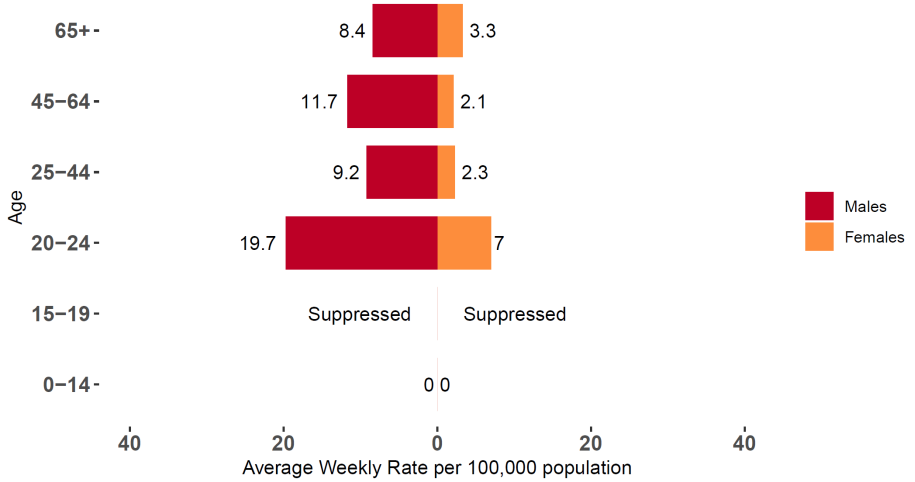
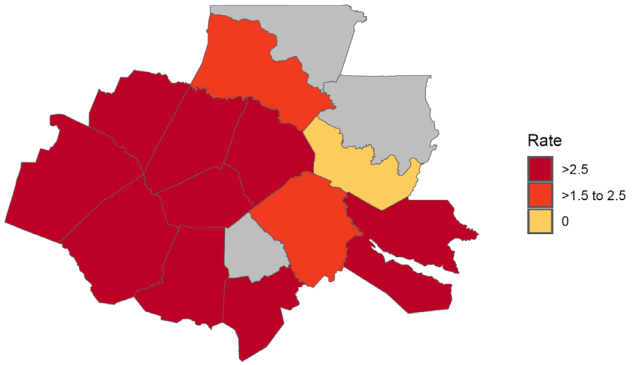
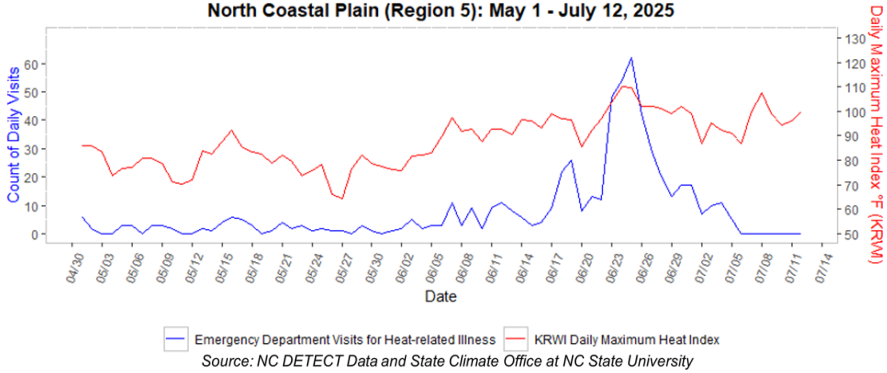


Figure 2. Average Weekly Rate of Heat–Related Illness Emergency Department Visits per 100,000 Population
North Coastal Plain (Region 5)



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 - July 12, 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 = 69[‡])	Percent[†]
Heat Cramps	2	2.9
Heat Exhaustion	40	58
Heat Stroke	1	1.4
Heat Syncope	4	5.8
Other Effects[‖]	22	31.9

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 42
† 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-Illness Surveillance Report: Foothills (Region 6)
July 6-July 12, 2025

Foothills Area (Region 6) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.8 per 100,000 population.**

This week (July 6-July 12, 2025):

- There were **40** HRI ED visits (0.8% of total ED visits), with a rate of **8.5 per 100,000 population**
- The rate was highest among **males aged 45-64 years (19.5 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Burke County (15.9 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 14; 66.7%)** (Table 1)
- The maximum daily heat index ranged from **92.4 to 101.7°F** at Morganton-Lenoir 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
Foothills (Region 6)

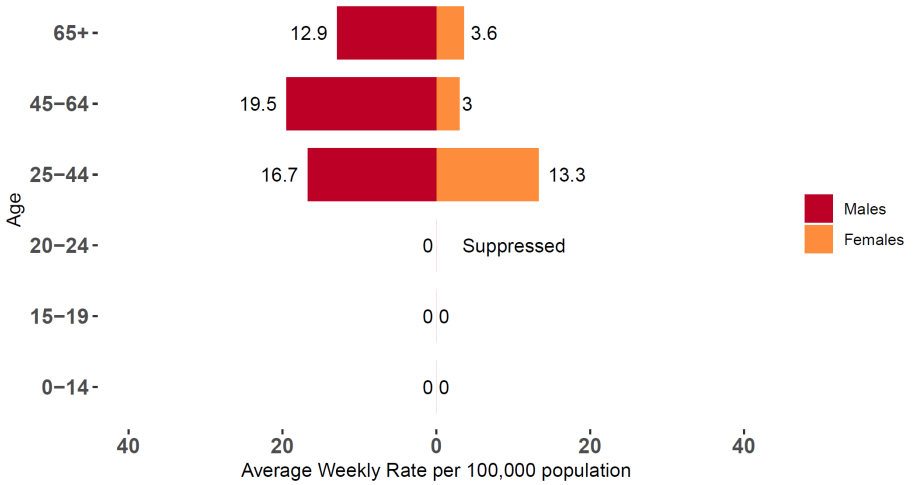
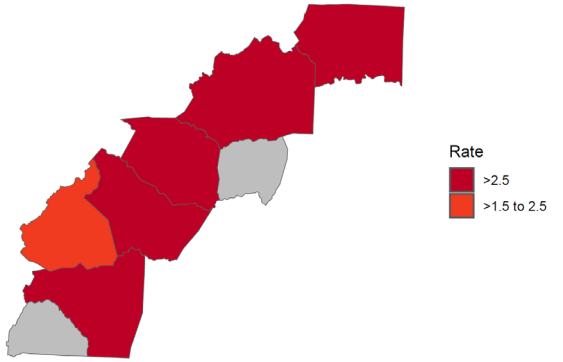
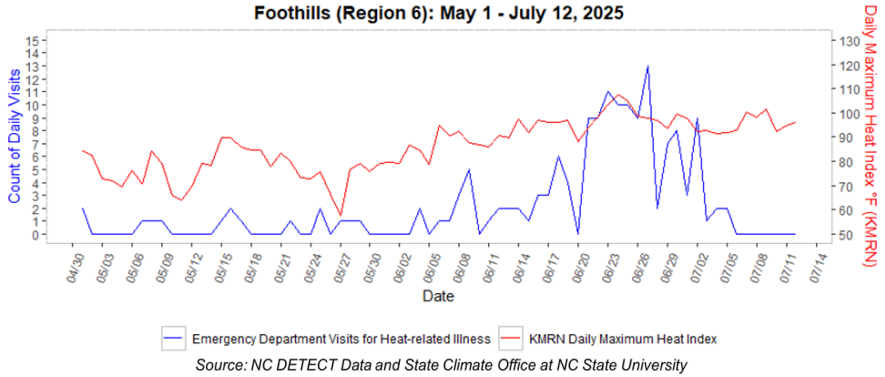


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population
Foothills (Region 6)



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 - July 12, 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 = 21[‡])	Percent[†]
Heat Cramps	1	4.8
Heat Exhaustion	14	66.7
Heat Stroke	1	4.8
Heat Syncope	1	4.8
Other Effects[‖]	4	19

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 19
† 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)
July 6-July 12, 2025

Sandhills Area (Region 7) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.1 per 100,000 population.**

This week (July 6-July 12, 2025):

- There were **68** HRI ED visits (0.6% of total ED visits), with a rate of **5.3 per 100,000 population**
- The rate was highest among **males aged 25-44 years (13.1 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Richmond County (11.7 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 20; 48.8%)** (Table 1)
- The maximum daily heat index ranged from **83.2 to 108.4°F** at Fayetteville Regional/Grannis Field Airport (Figure 3)
- There were **7** 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)

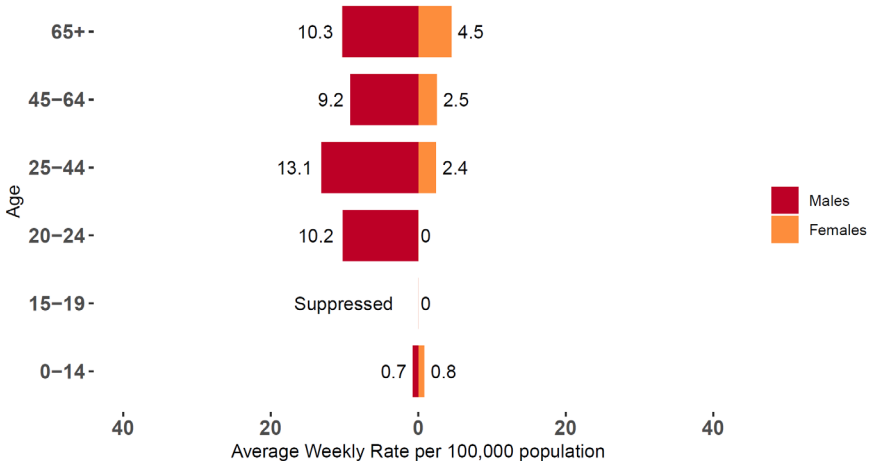
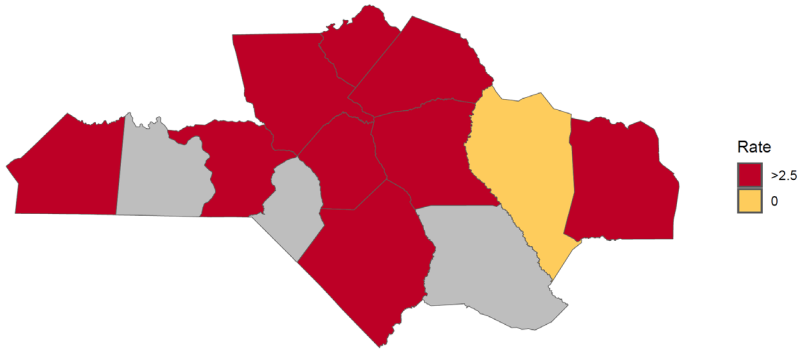
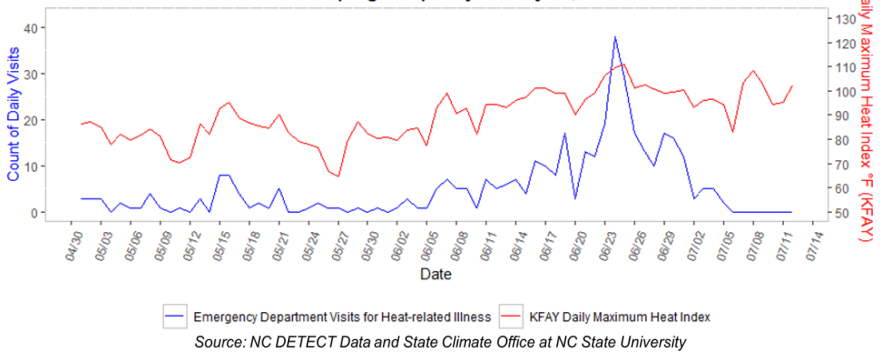


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population Sandhills (Region 7)



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 - July 12, 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 = 41‡)	Percent†
Heat Cramps	1	2.4
Heat Exhaustion	20	48.8
Heat Stroke	2	4.9
Heat Syncope	5	12.2
Other Effects‖	13	31.7

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html

‡ Missing severity data = 27

† 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: Mountains (Region 8)
July 6-July 12, 2025

Mountain Area (Region 8) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 0.8 per 100,000 population.**

This week (July 6-July 12, 2025):

- There were **13** HRI ED visits (0.2% of total ED visits), with a rate of **1.6 per 100,000 population**
- The rate was highest among **males aged 25-44 years (4.3 HRI ED visits per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in **Henderson County (4.3 per 100,000 population)** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 4; 80%)** (Table 1)
- The maximum daily heat index ranged from **80 to 91.8°F** at Asheville Regional Airport (Figure 3)
- The daily minimum temperature was below 70 °F on all **7** days this week

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

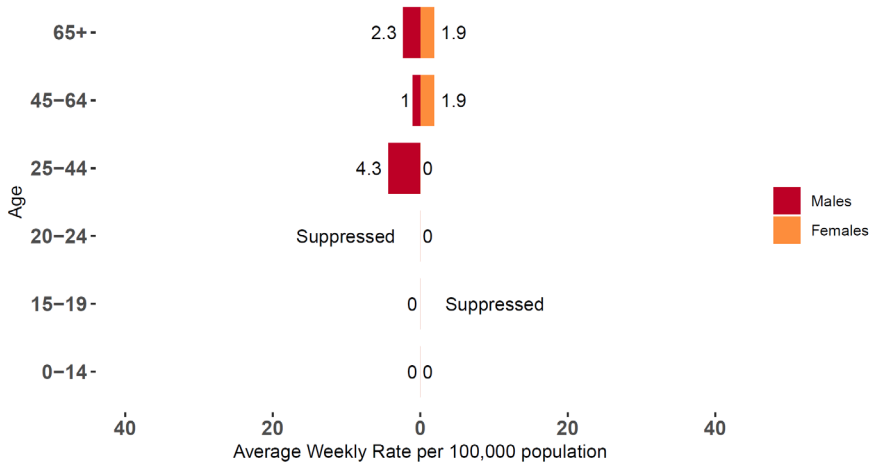
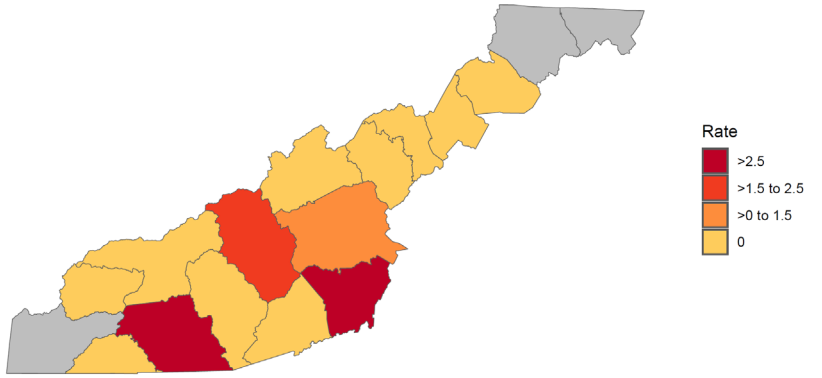
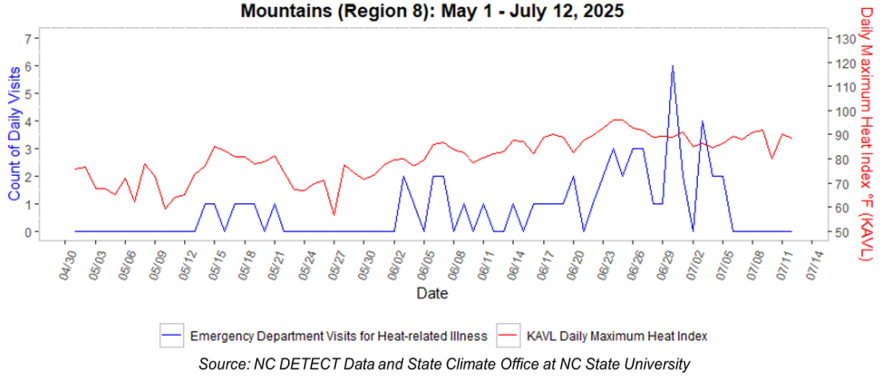


Figure 2. Average Weekly Rate of Heat−Related Illness Emergency Department Visits per 100,000 Population
Mountains (Region 8)



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
Mountains (Region 8): May 1 - July 12, 2025



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

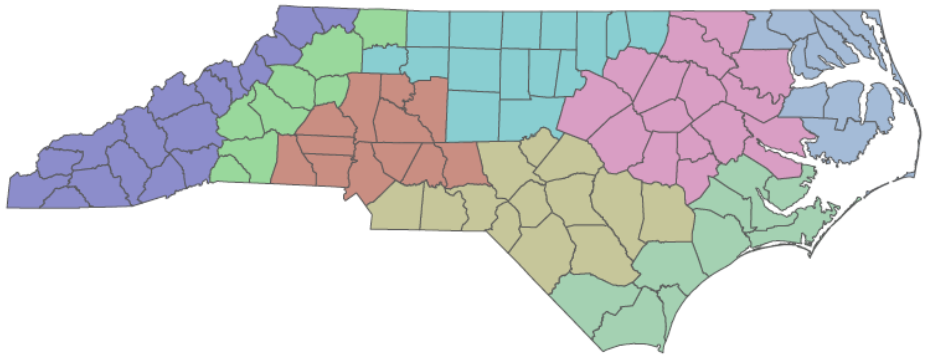
Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 5‡)	Percent†
Heat Exhaustion	4	80
Heat Syncope	1	20

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 8
† 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 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).

The NCDHHS Climate and Health Program is supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $500,000 annually with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government. Award No. (Award No. 6NUE1EH001449-03-02).