

North Carolina Statewide Weekly Heat-related Illness Surveillance Report September 21-30, 2025

NC DETECT

Note: this report includes three additional days to end the 2025 Heat Season

Statewide Key Messages

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

This reporting period (September 21-30, 2025):

- There were 91* HRI ED visits (.06% of total ED visits), with a rate of 0.9 per 100,000 population
- The rate was highest among males aged 20-24 years (1.9 per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in the **North Coastal Plain** (1.2 per 100,000 population), (Figure 2; Region 5)
- The most frequent heat related diagnosis code was heat exhaustion (n = 29; 58%) (Table 1)
- The maximum daily heat index ranged from 71 to 96.1°F at Raleigh-Durham International 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

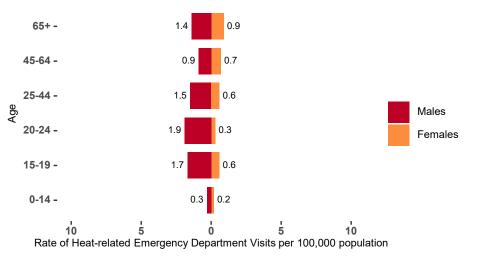
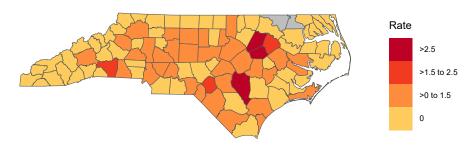


Figure 2. Rate of Heat-related Illness Emergency Department Visits per 100,000 Population



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=50 [‡])	Percent [†]
Heat Stroke	1	2.0
Heat Exhaustion	29	58.0
Heat Syncope	10	20.0
Heat Cramps	1	2.0
Other Effects	9	18.0

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 41
- † May not total 100 due to rounding

^{*}The 91 total HRI ED visits includes 6 visits that were missing county of residence. These 6 visits are excluded from the regional reports.

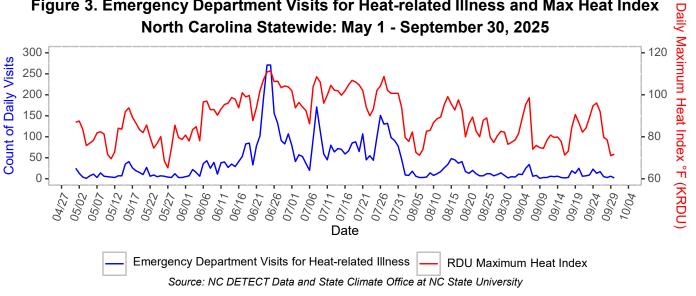


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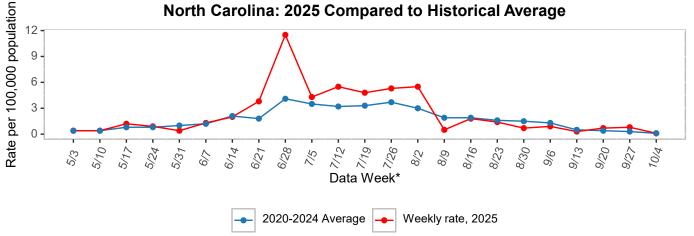
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Note: this report includes three additional days to end the 2025 Heat Season

Figure 3. Emergency Department Visits for Heat-related Illness and Max Heat Index North Carolina Statewide: May 1 - September 30, 2025







*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) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



Southeast (Region 1) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is 2.9 per 100,000 population.

This reporting period (September 21-30, 2025):

- There were 8 HRI ED visits (0.07% of total ED visits), with a rate of 0.9 per 100,000 population
- The rate was highest among males aged 25-44 years (2.7 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Carteret County (1.5 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis code was heat exhaustion (n = 2; 40%) (Table 1)
- The maximum daily heat index ranged from 77.1 to 97.4°F at Wilmington 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 Southeast (Region 1)

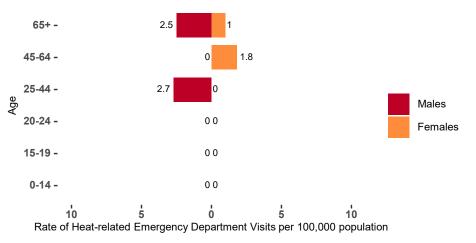
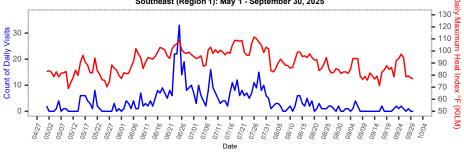


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Southeast (Region 1)



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 - September 30, 2025



Emergency Department Visits for Heat-related Illness KILM Daily Maximum Heat Index
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 Stroke	0	0.0
Heat Exhaustion	2	40.0
Heat Syncope	1	20.0
Heat Cramps	1	20.0
Other Effects	1	20.0

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

 $\|$ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

‡ Missing severity data = 3

† May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: North Central (Region 2) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



North Central (Region 2) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is 2 per 100,000 population.

This reporting period (September 21-30, 2025):

- There were 12 HRI ED visits (0.04% of total ED visits), with a rate of 0.6 per 100,000 population
- The rate was highest among females aged 65+ years (1.5 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Granville County (0.8 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis code was heat exhaustion (n = 5; 71.4%) (Table 1)
- The maximum daily heat index ranged from 67.9 to 90°F at Piedmont Triad International Airport (Figure 3)
- The daily minimum temperature was below 70°F on all **10** days this reporting period.

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

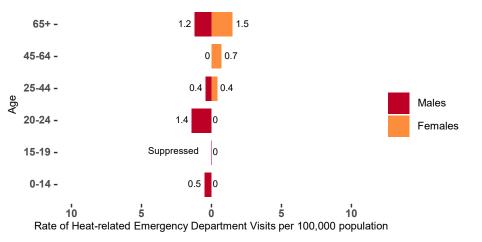
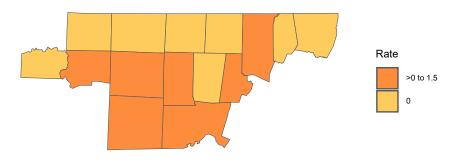


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population North Central (Region 2)



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 - September 30, 2025

130 May 1 - September 30, 2025

140 Maximum Heat Index North Central (Region 2): May 1 - September 30, 2025

140 Maximum Heat Index North Central (Region 2): May 1 - September 30, 2025

150 May 1 - September 30

Emergency Department Visits for Heat-related Illness KGSO Daily Maximum Heat Index
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 Stroke	0	0.0
Heat Exhaustion	5	71.4
Heat Syncope	2	28.6
Heat Cramps	0	0.0
Other Effects	0	0.0

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 5
- † May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: Northeast (Region 3) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



Northeast (Region 3) Key Messages

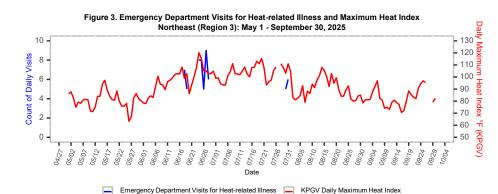
The average weekly rate of heat-related illness emergency department visits this season to date is 3.1 per 100,000 population.

This reporting period (September 21-30, 2025):

- There was 1 HRI ED visit (0.03% of total ED visits), with a rate of
 0.5 per 100,000 population
- The most frequent heat related diagnosis code was heat syncope (n = 1; 100%) (Table 1)
- The maximum daily heat index ranged from 79.1 to 96.8°F at Pitt-Greenville Airport (Figure 3)
- There were **3** days when the minimum temperature was above 70°F. *Weather station data was missing on 9/27 and 9/28.

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

Figure 2 is not provided for the Northeast this week due to the small number of ED visits for heat-related illnesses.



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 Stroke	0	0.0
Heat Exhaustion	0	0.0
Heat Syncope	1	100.0
Heat Cramps	0	0.0
Other Effects	0	0.0

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 0
- † May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: South Central (Region 4) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



South Central (Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is 2.1 per 100,000 population.

This reporting period (September 21-30, 2025):

- There were 17 HRI ED visits (0.04% of total ED visits), with a rate of 0.7 per 100,000 population
- The rate was highest among males aged 15-19 years (2.4 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Cleveland County (1.5 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis code was **heat** exhaustion (n = 5; 62.5%) (Table 1)
- The maximum daily heat index ranged from 69.8 to 93°F at Charlotte/Douglas International 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 South Central (Region 4)

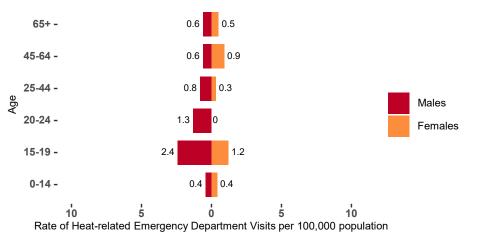
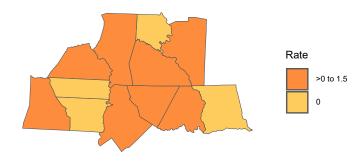


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population South Central (Region 4)



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 - September 30, 2025

130 Maximum Heat Index South Central (Region 4): May 1 - September 30, 2025

130 Maximum Heat Index South Central (Region 4): May 1 - September 30, 2025

130 Maximum Heat Index South Central (Region 4): May 1 - September 30, 2025

130 Maximum Heat Index South Central (Region 4): May 1 - September 30, 2025

Emergency Department Visits for Heat-related Illness KCLT Daily Maximum Heat Index Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N=8 [‡])	Percent [†]
Heat Stroke	0	0.0
Heat Exhaustion	5	62.5
Heat Syncope	2	25.0
Heat Cramps	0	0.0
Other Effects	1	12.5

§ 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



North Carolina Weekly Heat-related Illness Surveillance Report: North Coastal Plain (Region 5) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



North Coastal Plain (Region 5) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is 2.2 per 100,000 population.

This reporting period (September 21-30, 2025):

- There were **26** HRI ED visits (0.09% of total ED visits), with a rate of **1.2 per 100,000 population**
- The rate was highest among males aged 20-24 years (4.2 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Nash County (3.7 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis code was **heat** exhaustion (n = 10; 62.5%) (Table 1)
- The maximum daily heat index ranged from 75 to 96.9°F at Rocky Mount-Wilson Regional 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 North Coastal Plain (Region 5)

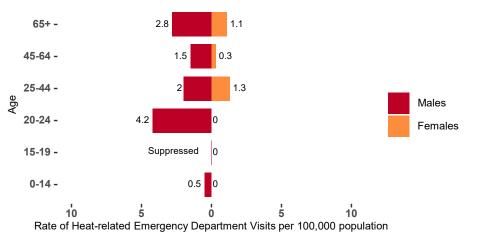
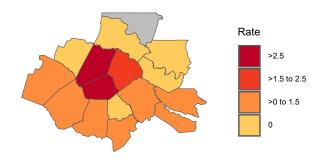


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population North Coastal Plain (Region 5)



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

Emergency Department Visits for Heat-related Illness KRWI Daily Maximum Heat Index
Source: NC DETECT Data and State Climate Office at NC State University

Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N=16 [‡])	Percent [†]
Heat Stroke	0	0.0
Heat Exhaustion	10	62.5
Heat Syncope	1	6.2
Heat Cramps	0	0.0
Other Effects	5	31.2

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 10
- † May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: Foothills (Region 6) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



Foothills (Region 6) 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 reporting period (September 21-30, 2025):

- There were **5** HRI ED visits (0.08% of total ED visits), with a rate of **1.1 per 100,000 population**
- The rate was highest among females aged 65+ years (1.8 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Rutherford County (2.3 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis codes were heat exhaustion, heat syncope, and heat cramps (n = 1; 33.3%) (Table 1)
- The maximum daily heat index ranged from **68.8 to 90.9°F** at Morganton-Lenoir Airport (Figure 3)
- The daily minimum temperature was below 70°F on all 10 days this reporting period. *Weather station data was missing on 9/27 and 9/28

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

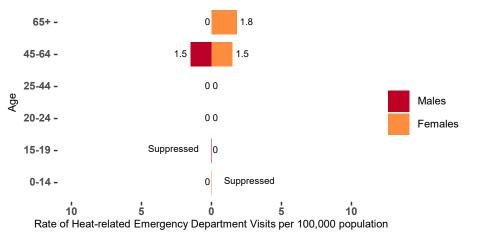
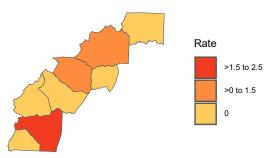


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Foothills (Region 6)



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

Emergency Department Visits for Heat-related Illness KMRN Daily Maximum Heat Index 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 Stroke	0	0.0
Heat Exhaustion	1	33.3
Heat Syncope	1	33.3
Heat Cramps	0	0.0
Other Effects	1	33.3

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 2
- † May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: Sandhills (Region 7) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



Sandhills (Region 7) 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 reporting period (September 21-30, 2025):

- There were **15** HRI ED visits (0.08% of total ED visits), with a rate of **1.16 per 100,000 population**
- The rate was highest among males aged 25-44 years (3 HRI ED visits per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Sampson County (2.5 per 100,000 population) (Figure 2)
- The most frequent heat related diagnosis code was heat exhaustion (n = 5; 62.5%) (Table 1)
- The maximum daily heat index ranged from **72.4 to 98.6°F** at Fayetteville Regional/Grannis Field 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 Sandhills (Region 7)

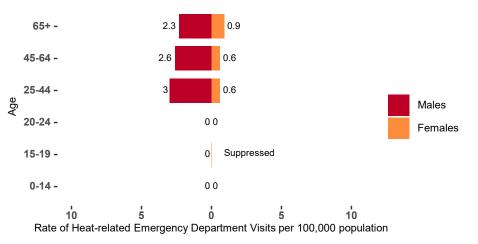
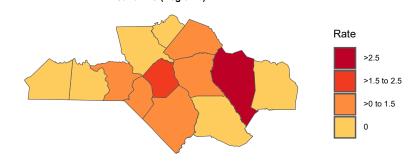


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Sandhills (Region 7)



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 - September 30, 2025

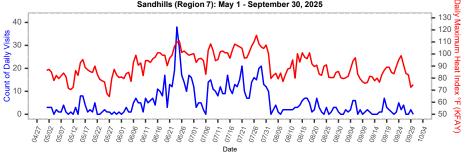


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N=8 [‡])	Percent [†]
Heat Stroke	1	12.5
Heat Exhaustion	5	62.5
Heat Syncope	1	12.5
Heat Cramps	0	0.0
Other Effects	1	12.5

§ Definitions of heat-related illness severity categories:

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

- ‡ Missing severity data = 7
- † May not total 100 due to rounding



North Carolina Weekly Heat-related Illness Surveillance Report: Mountains (Region 8) September 21-30, 2025

Note: this report includes three additional days to end the 2025 Heat Season



Mountains (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 reporting period (September 21-30, 2025):

- There was 1 HRI ED visit (0.01% of total ED visits), with a rate of
 0.13 per 100,000 population
- The rate was highest among males aged 45-64 years (1 HRI ED visit per 100,000 population) (Figure 1)
- The rate of HRI ED visits was highest in Buncombe County (0.2 per 100,000 population) (Figure 2)
- The maximum daily heat index ranged from 67.1 to 83.6°F at Asheville Regional Airport (Figure 3)
- The daily minimum temperature was below 70 °F on all 10 days this reporting period.

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

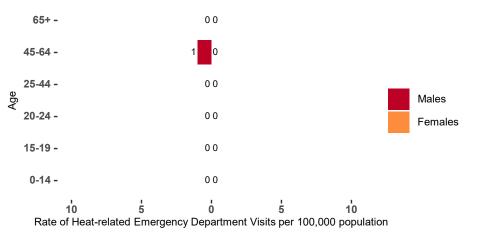
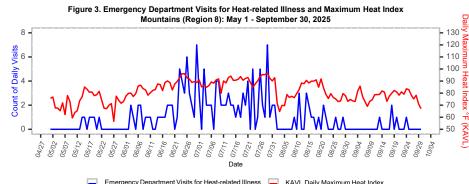


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Mountains (Region 8)



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



Emergency Department Visits for Heat-related Illness KAVL Daily Maximum Heat Index
Source: NC DETECT Data and State Climate Office at NC State University

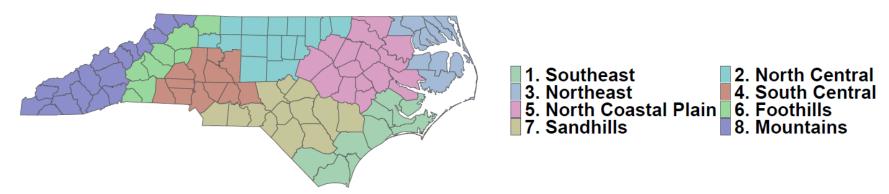
Table 1 is not provided for the Northeast this week due to the small number of ED visits for heat-related illnesses.





North Carolina HRI Surveillance Regions

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



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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