North Carolina Statewide Weekly Heat-related Illness Surveillance Report

September 7-13, 2025

Statewide Key Messages

The average weekly rate of heat-related illness (HRI) emergency department (ED) visits **this season to date is 2.7 per 100,000 population.**

This week (September 7-13, 2025):

- There were **29* HRI ED visits (**0.03% of total ED visits), with a **rate of 0.3 per 100,000 population**
- The rate was highest among **males** aged **65+ years (0.6 per 100,000 population)** (Figure 1)
- The rate of HRI ED visits was highest in the **Northeast** and **Southeast** (**0.5 per 100,000 population**), (Figure 2; Region 3)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 7; 46.7%)** (Table 1)
- The maximum daily heat index ranged from **74.1** to **80.8°F** at Raleigh-Durham International Airport (Figure 3)
- The daily minimum temperature was below 70 on all **7** days this week.

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

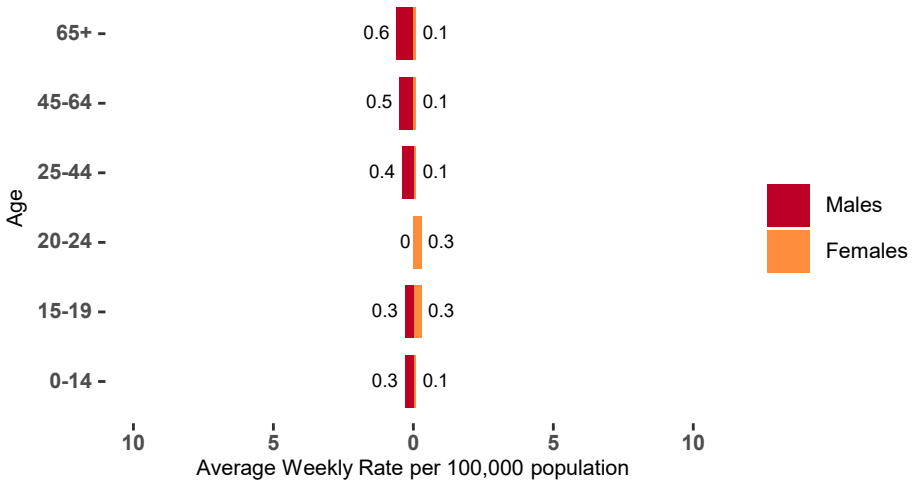
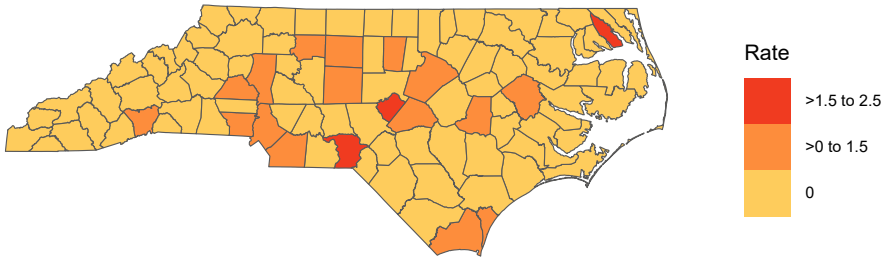


Figure 2. Rate of Heat-related Illness Emergency Department Visits per 100,000 Population



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=15[‡])	Percent[†]
Heat Stroke	0	0.0
Heat Exhaustion	7	46.7
Heat Syncope	3	20.0
Heat Cramps	2	13.3
Other Effects[‖]	3	20.0

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

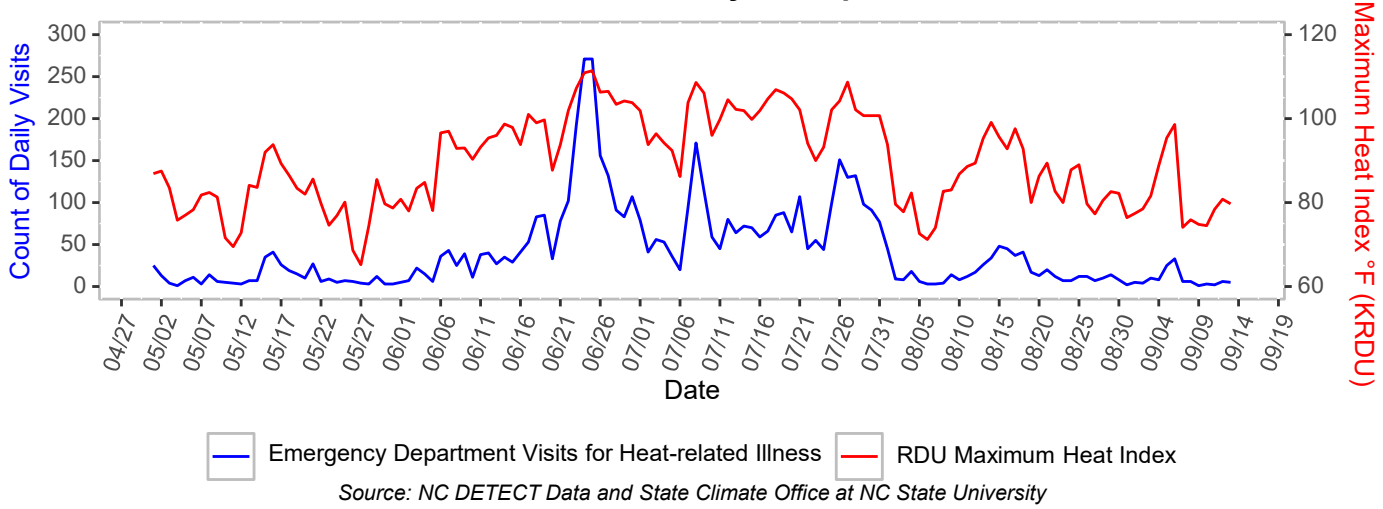
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

‡ Missing severity data = 14

† May not total 100 due to rounding

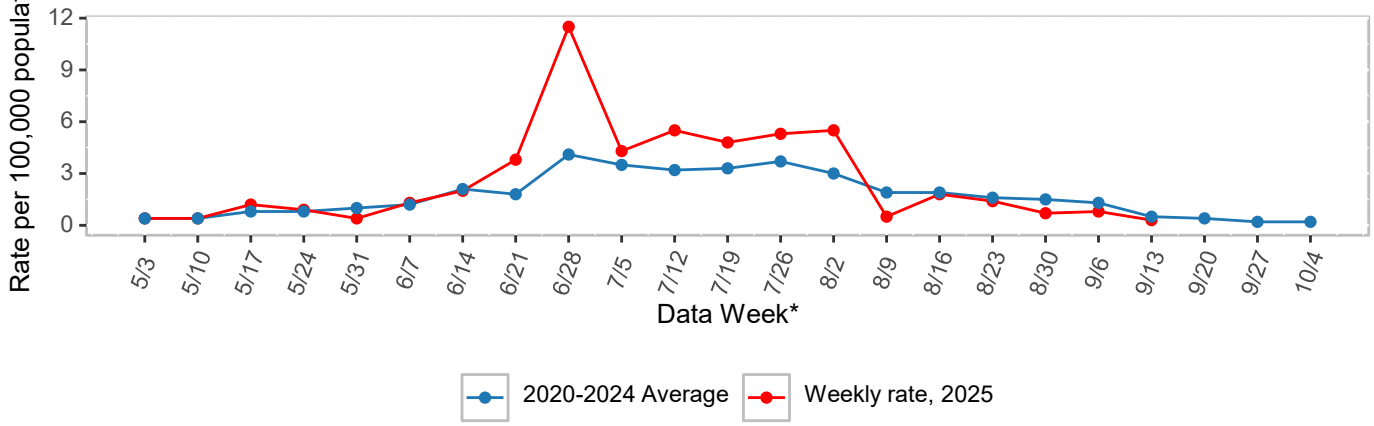
*The 29 total HRI ED visits includes 2 visits that were missing county of residence. These 2 visits are excluded from the regional reports.

Figure 3. Emergency Department Visits for Heat-related Illness and Max Heat Index
North Carolina Statewide: May 1 - September 13, 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)

September 7-13, 2025

Southeast (Region 1) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 3.2 per 100,000 population.**

This week (September 7-13, 2025):

- There were **2** HRI ED visits (0.02% of total ED visits), with a rate of **0.2 per 100,000 population**
- The rate was highest among **females** aged **45-64 years (0.9 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Brunswick County (0.7 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **other effects (n = 1; 100%)** (Table 1)
- The maximum daily heat index ranged from **75.8 to 93.6°F** at Wilmington International 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
Southeast (Region 1)

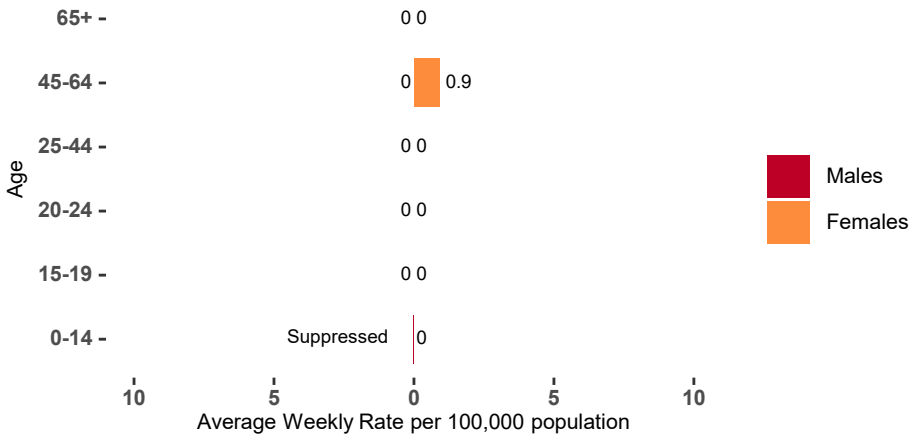
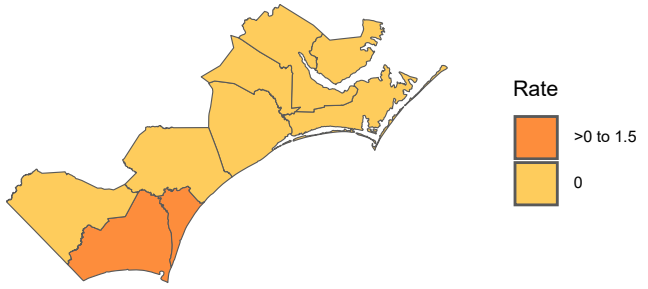
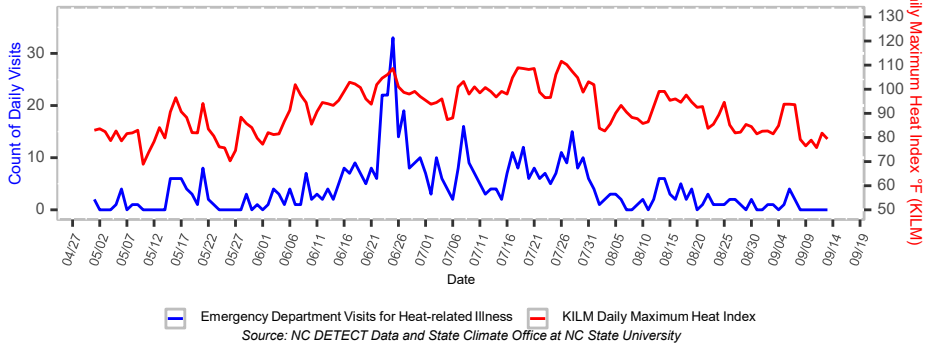


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Southeast (Region 1)



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 - September 13, 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 Stroke	0	0.0
Heat Exhaustion	0	0.0
Heat Syncope	0	0.0
Heat Cramps	0	0.0
Other Effects[‖]	1	100.0

§ 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 = 1

† May not total 100 due to rounding

North Carolina Weekly Heat-related Illness Surveillance Report: North Central (Region 2)

September 7-13, 2025

North Central (Region 2) 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 week (September 7-13, 2025):

- There were **6** HRI ED visits (0.03% of total ED visits), with a rate of **0.3 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 **Forsyth County (0.8 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 2; 100%)** (Table 1)
- The maximum daily heat index ranged from **70.4 to 80°F** at Piedmont Triad International 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
North Central (Region 2)

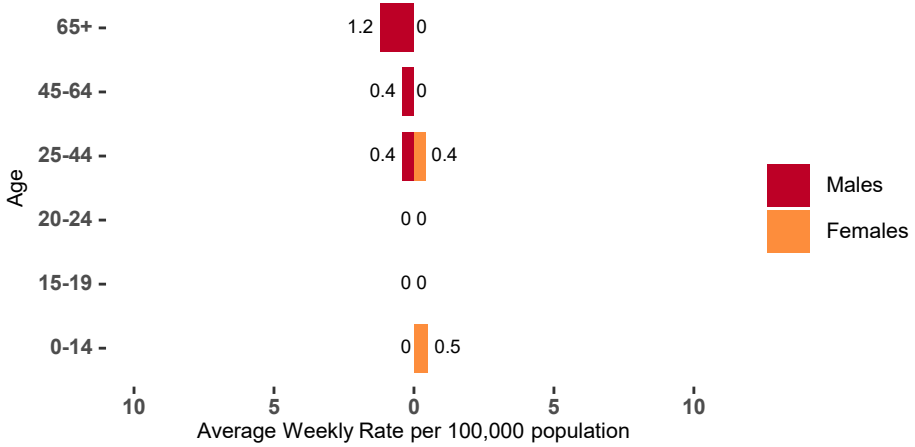
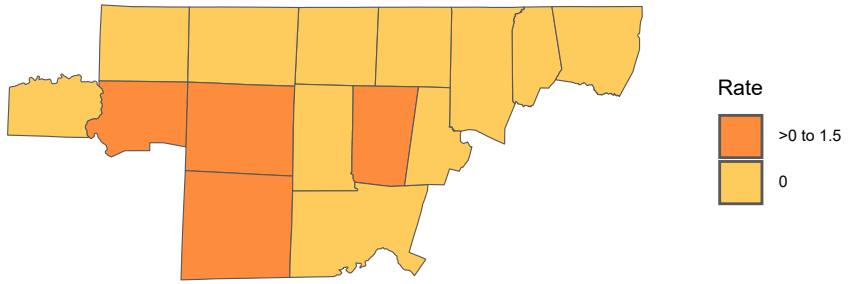
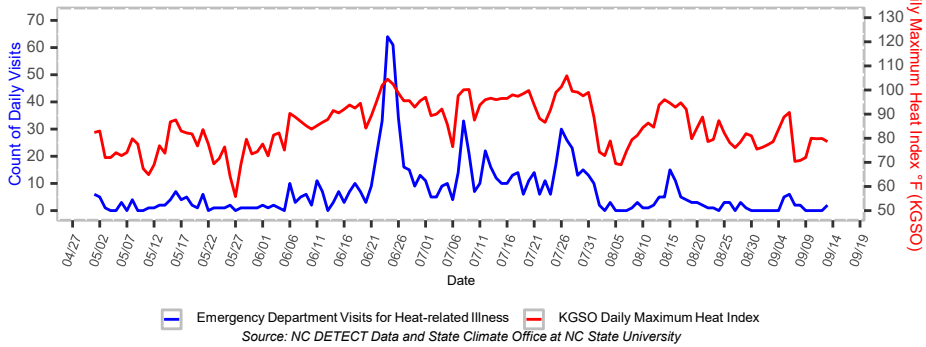


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
North Central (Region 2)



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 - September 13, 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=2‡)	Percent†
Heat Stroke	0	0.0
Heat Exhaustion	2	100.0
Heat Syncope	0	0.0
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

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

‡ Missing severity data = 4

† May not total 100 due to rounding

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

September 7-13, 2025

Northeast (Region 3) Key Messages

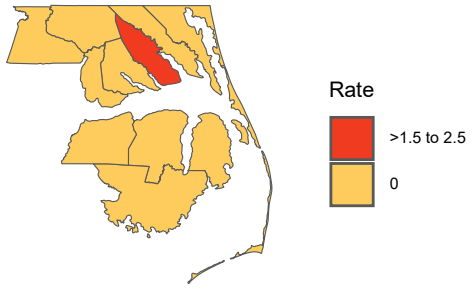
The average weekly rate of heat-related illness emergency department visits **this season to date is 3.6 per 100,000 population.**

This week (September 7-13, 2025):

- There was **1** HRI ED visit (0.05% of total ED visits), with a rate of **0.5 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 exhaustion (n = 1; 100%)** (Table 1)
- The maximum daily heat index ranged from **73.2 to 82.4°F** at Pitt-Greenville Airport (Figure 3)
- The daily minimum temperature was below 70 °F on all **7** days this week.

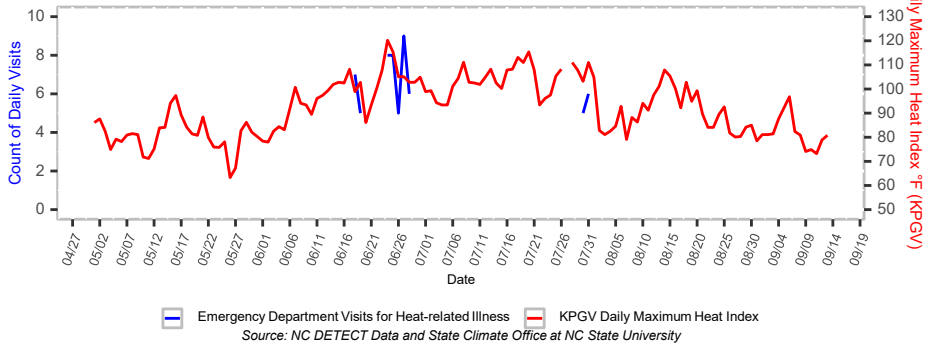
Figure 1 is not provided for the Northeast this week due to the small number of ED visits for heat-related illnesses.

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 - September 13, 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 Stroke	0	0.0
Heat Exhaustion	1	100.0
Heat Syncope	0	0.0
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

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

‡ Missing severity data = 0

† May not total 100 due to rounding

South Central (Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 2.3 per 100,000 population.**

This week (September 7-13, 2025):

- There were **6** HRI ED visits (0.02% of total ED visits), with a rate of **0.2 per 100,000 population**
- The rate was highest among **males** aged **45-64 years (0.9 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Catawba County (0.6 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat syncope** and **heat cramps (n = 2; 40%)** (Table 1)
- The maximum daily heat index ranged from **73.5 to 82.7°F** at Charlotte/Douglas International 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
South Central (Region 4)

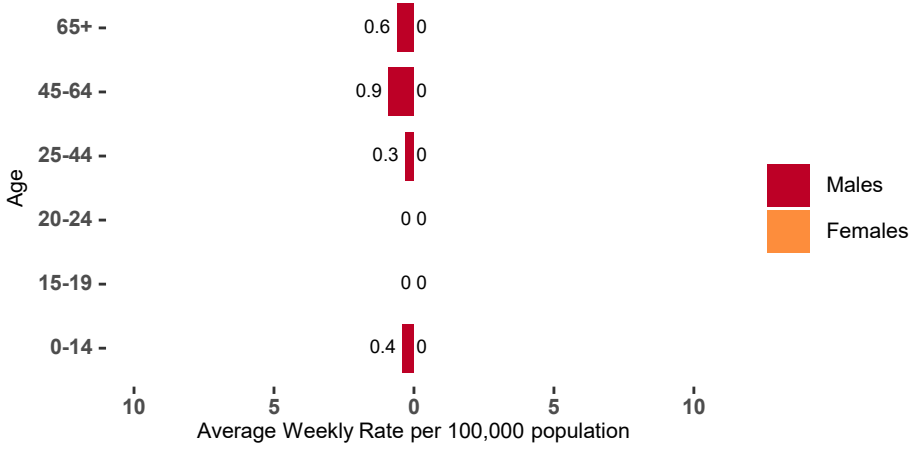
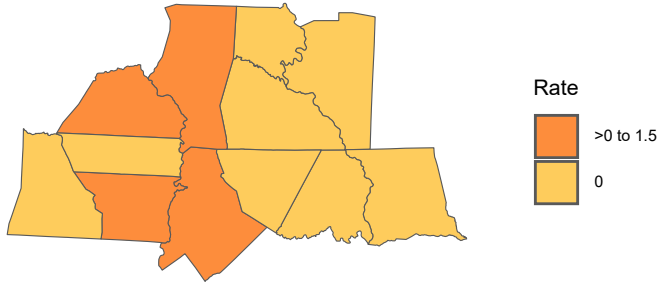
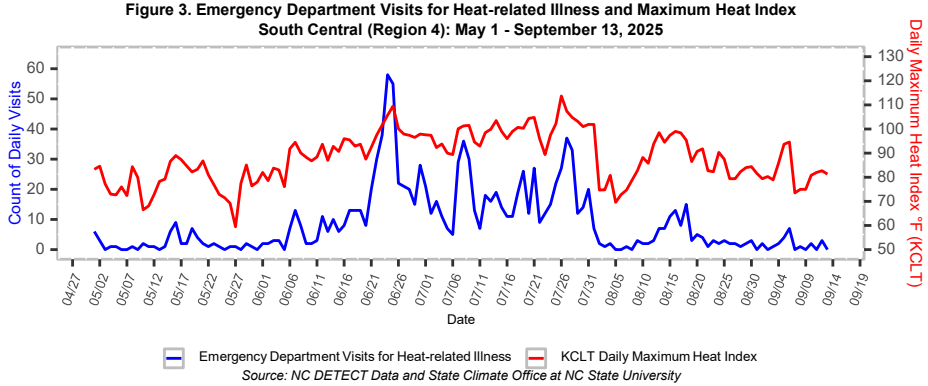


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
South Central (Region 4)



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 - September 13, 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 Stroke	0	0.0
Heat Exhaustion	1	20.0
Heat Syncope	2	40.0
Heat Cramps	2	40.0
Other Effects‖	0	0.0

§ 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 = 1

† May not total 100 due to rounding

North Coastal Plain (Region 5) 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 (September 7-13, 2025):

- There were **5** HRI ED visits (0.02% of total ED visits), with a rate of **0.2 per 100,000 population**
- The rate was highest among **females** aged **20-24 years (1.4 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Wayne County (0.9 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 2; 50%)** (Table 1)
- The maximum daily heat index ranged from **68.4 to 82.2°F** at Rocky Mount-Wilson 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
North Coastal Plain (Region 5)

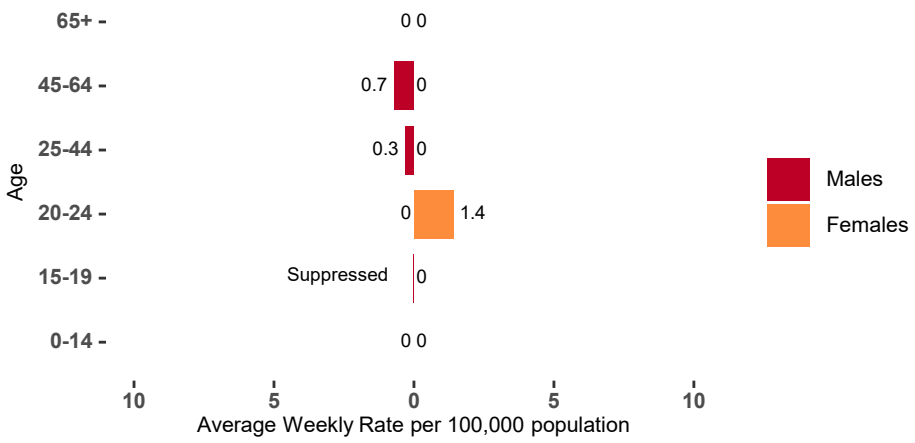
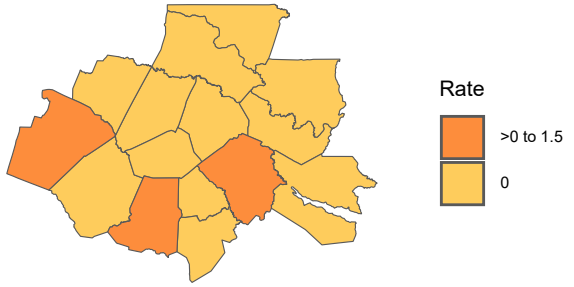
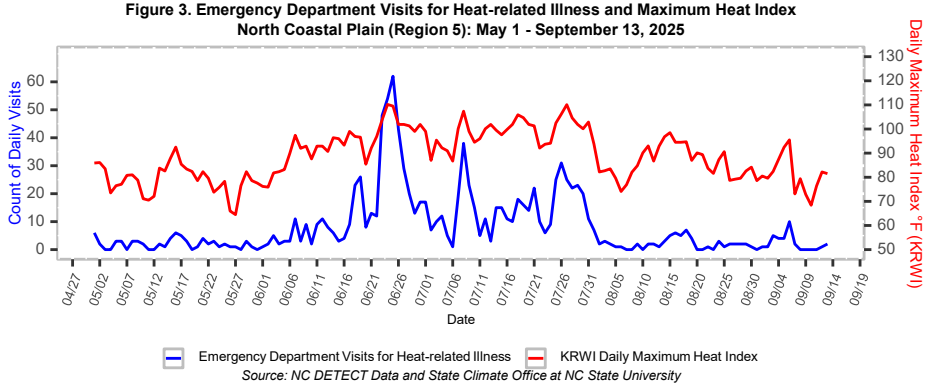


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
North Coastal Plain (Region 5)



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 - September 13, 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=4‡)	Percent†
Heat Stroke	0	0.0
Heat Exhaustion	2	50.0
Heat Syncope	1	25.0
Heat Cramps	0	0.0
Other Effects‖	1	25.0

§ 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 = 1

† May not total 100 due to rounding

The regional report for the Foothills is not provided this week due to zero ED visits for heat-related illnesses.

Sandhills (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 (September 7-13, 2025):

- There were **6** HRI ED visits (0.05% of total ED visits), with a rate of **0.5 per 100,000 population**
- The rate was highest among **males** aged **65+ years (2.3 HRI ED visits per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Richmond County (2.3 per 100,000 population**) (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n = 1; 100%)** (Table 1)
- The maximum daily heat index ranged from **75.7 to 83.2°F** at Fayetteville Regional/Grannis Field 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
Sandhills (Region 7)

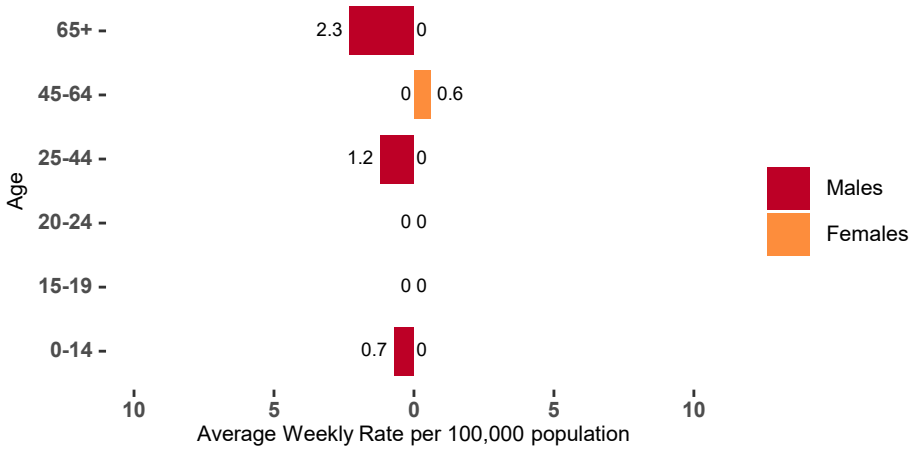
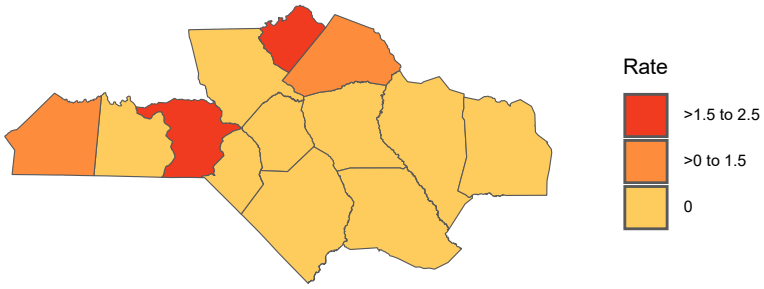
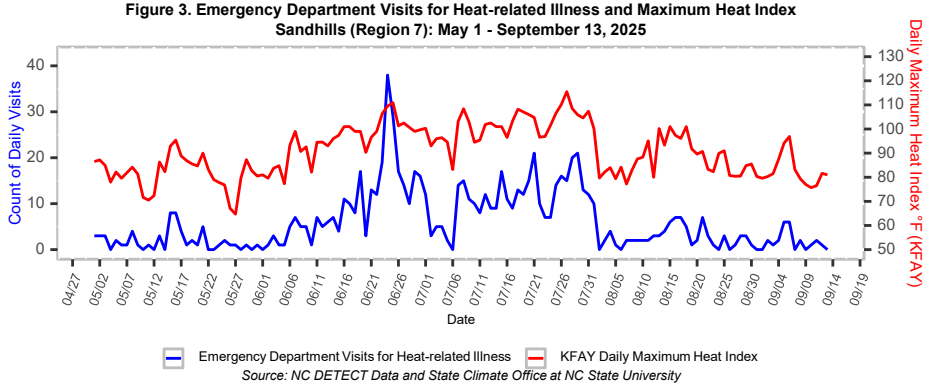


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Sandhills (Region 7)



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 - September 13, 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 Stroke	0	0.0
Heat Exhaustion	1	100.0
Heat Syncope	0	0.0
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

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

‡ Missing severity data = 5

† May not total 100 due to rounding

Mountains (Region 8) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 0.9 per 100,000 population.**

This week (September 7-13, 2025):

- There was **1** HRI ED visit (0.01% of total ED visits), with a rate of **0.1 per 100,000 population**
- The rate was highest among **females** aged **65+ years (1 HRI ED visit per 100,000 population**) (Figure 1)
- The rate of HRI ED visits was highest in **Henderson County (0.9 per 100,000 population**) (Figure 2)
- The maximum daily heat index ranged from **69 to 78.9°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)

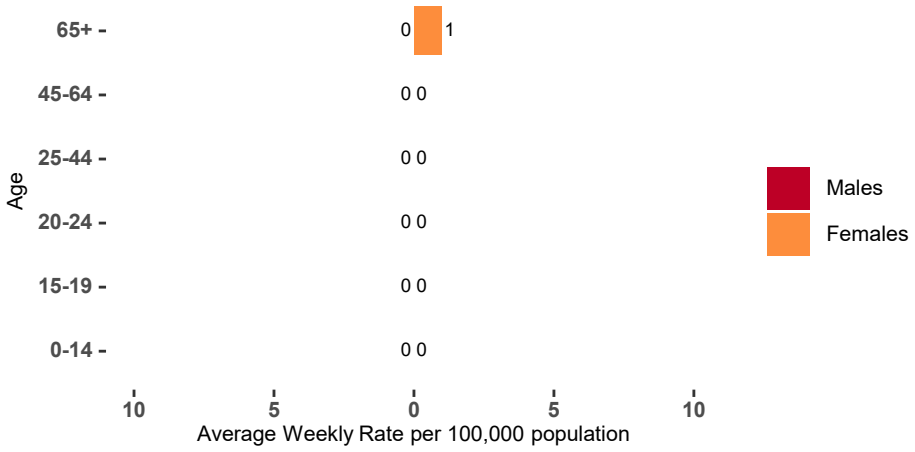
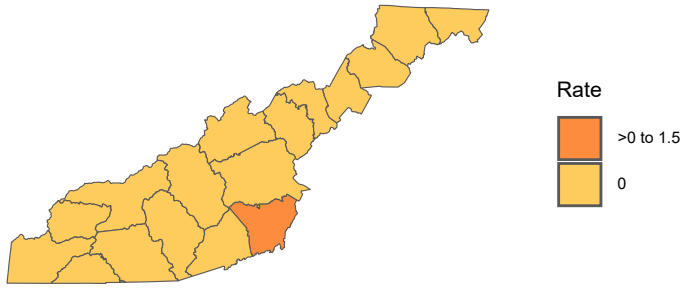
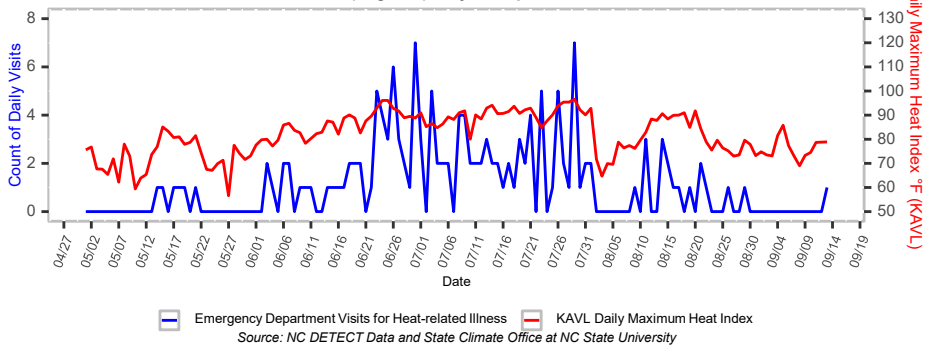


Figure 2. Average Weekly Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Mountains (Region 8)



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 - September 13, 2025

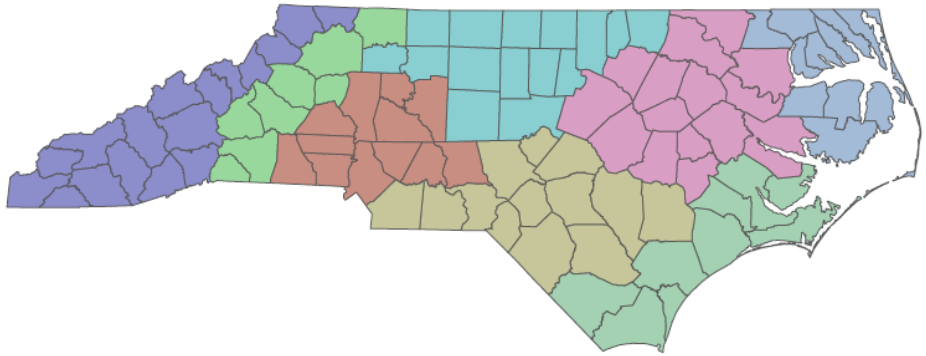


Source: NC DETECT Data and State Climate Office at NC State University

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

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).