

Statewide Key Messages

The average weekly rate of heat-related illness (HRI) emergency department (ED) visits **this season to date is 1.9 per 100,000 population.**

This week (September 22-28, 2024):

- There were **53* HRI ED visits** (0.05% of total ED visits), with a rate of **0.4 per 100,000 population.** (Figure 4)
- The rate was highest among **males aged 65+ years (1.2 per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Northeastern NC** (NC DETECT Region 1) and **Southeastern NC** (NC DETECT Region 2)(**0.7 per 100,000 population**).
- The most frequent heat related diagnosis code was **heat syncope (n =14).** (Table 1)
- The maximum heat index ranged from **79.1 to 97.3°F** at Raleigh-Durham International Airport. (Figure 3)
- There were **4** days when the minimum temperature did not drop below 70°F.

Figure 2 is not provided this week due to small numbers.

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

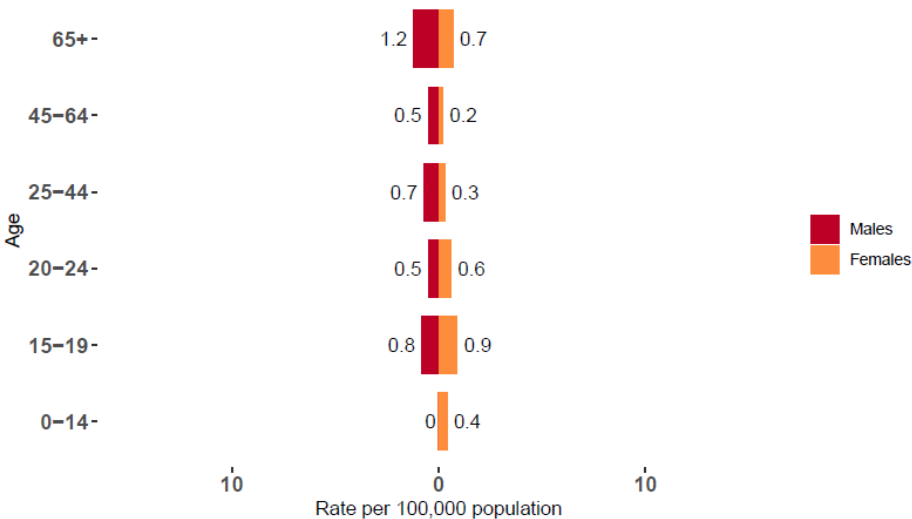


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 27 [‡])	Percent [†]
Heat Exhaustion	11	40.7
Heat Syncope	14	51.9
Other Effects	2	7.4

§ Definitions of heat-related illness severity categories:

<https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>

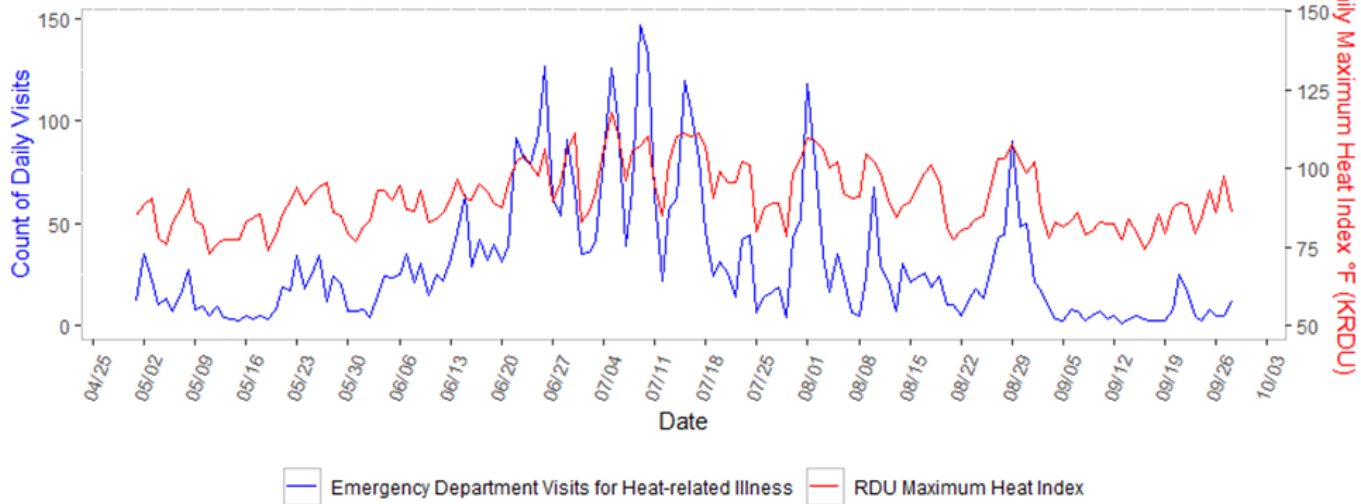
‡ Missing severity data = 26

† May not total 100 due to rounding

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

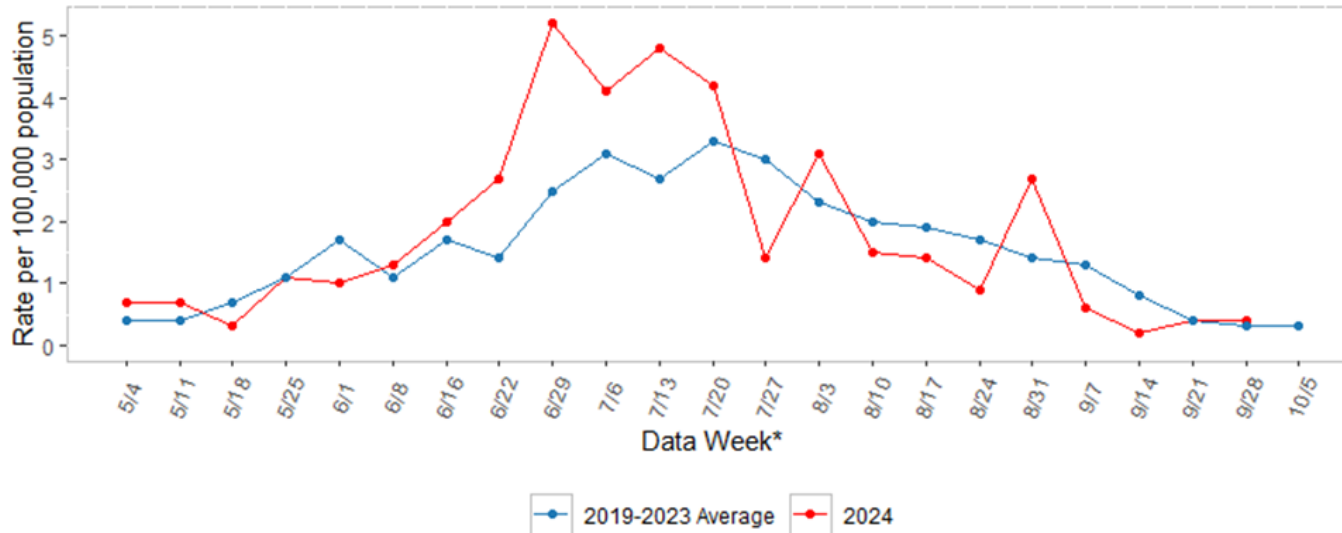
*The 53 total HRI ED visits includes 8 visits that were missing county of residence and are excluded from the regional reports.

**Figure 3. Count of Emergency Department Visits for Heat-related Illness and Max Heat Index
North Carolina: May 1 - September 28, 2024**



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: 2024 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-Week-Log-2022-2023.pdf>.

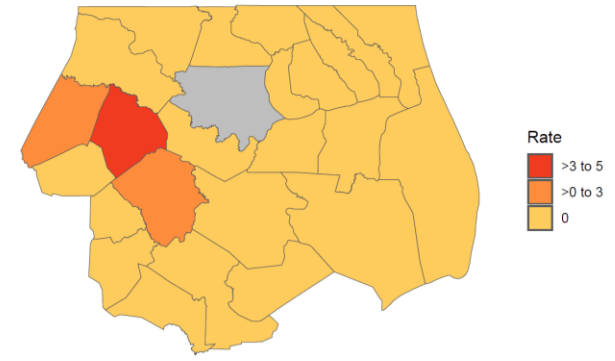
Northeastern NC (NC DETECT Region 1) Key Messages

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

This week (September 22-28, 2024):

- There were **7 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 65+ years (2.5 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Edgecombe County (4.1 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =1)** and **heat syncope (n =1)**. (Table 1)
- The maximum heat index ranged from **82.3 to 97.5°F** at Pitt-Greenville Airport. (Figure 3)
- There were **2 days** when the minimum temperature did not drop below 70°F.

Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Northeastern NC (NC DETECT 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. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Northeastern NC (NC DETECT Region 1): May 1 - September 28, 2024

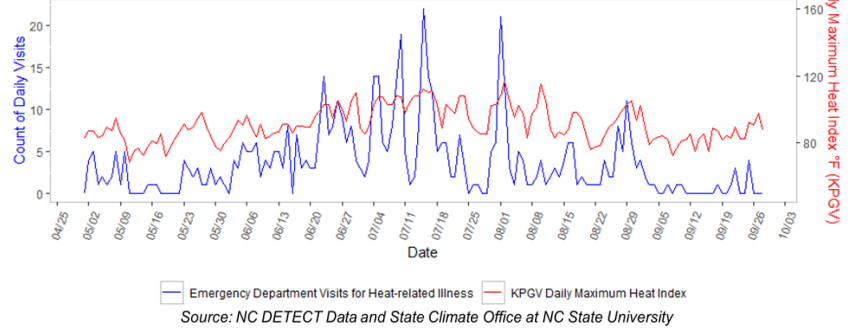


Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age Northeastern NC (NC DETECT Region 1)

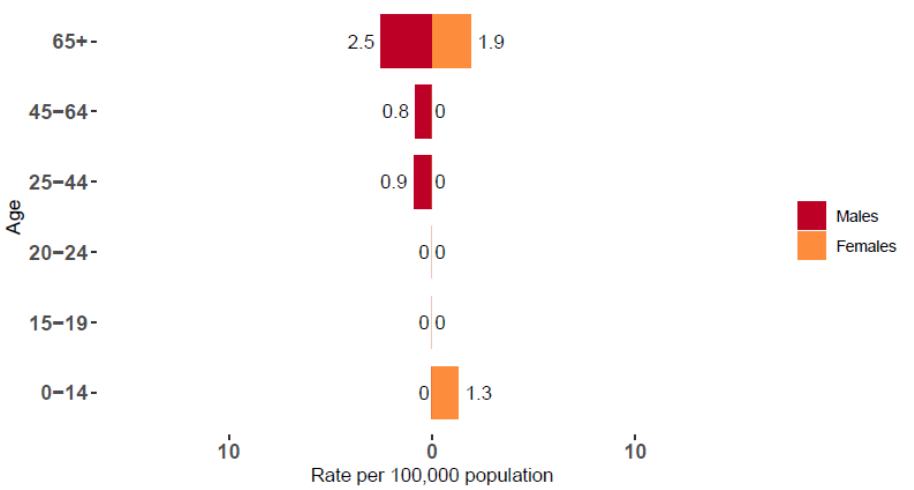


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 2 [†])	Percent [†]
Heat Exhaustion	1	50
Heat Syncope	1	50

§ Definitions of heat-related illness severity categories: <https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>
[‡] Missing severity data = 5
[†] May not total 100 due to rounding
^{||} other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

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

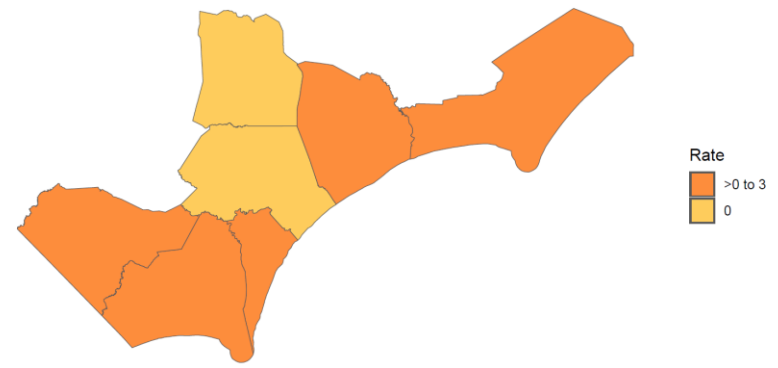
Southeastern NC (NC DETECT Region 2) Key Messages

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 22-28, 2024):

- There were **6 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 65+ years (2.8 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Columbus County (2 per 100,000 population)**. (Figure 2)
- The maximum heat index ranged from **82.7 to 94°F** at Wilmington International Airport. (Figure 3)
- There were **4 days** when the minimum temperature did not drop below 70°F.

Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Southeastern NC (NC DETECT 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. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Southeastern NC (NC DETECT Region 2): May 1 - September 28, 2024

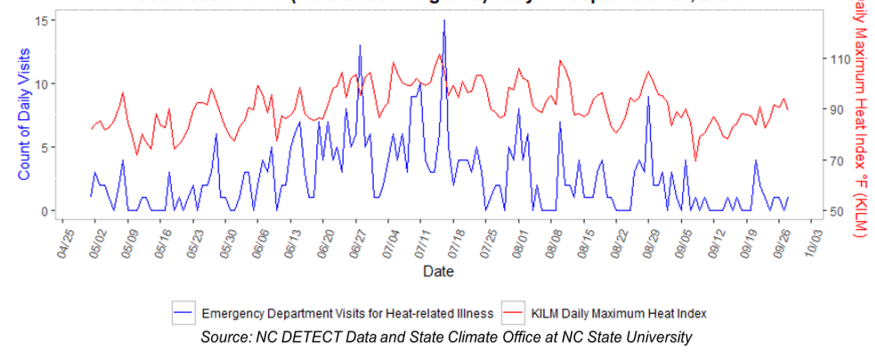


Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age Southeastern NC (NC DETECT Region 2)

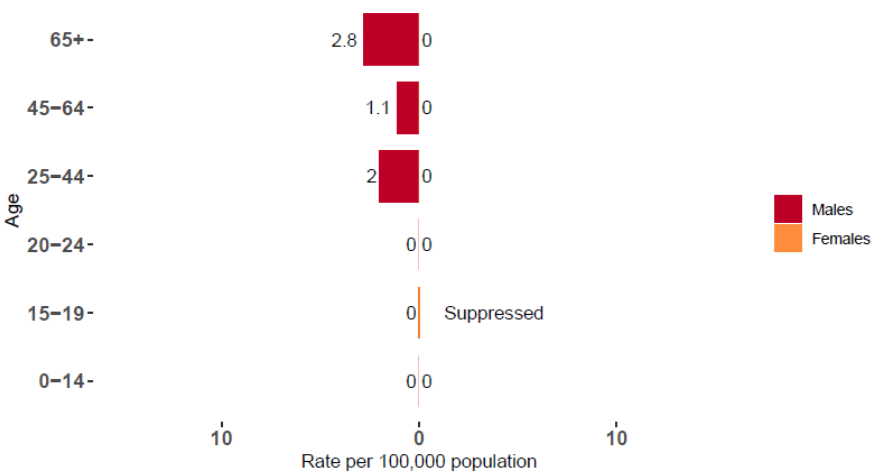


Table 1 is not provided for the Southeastern NC this week because all HRI visits had unknown or missing severity information.

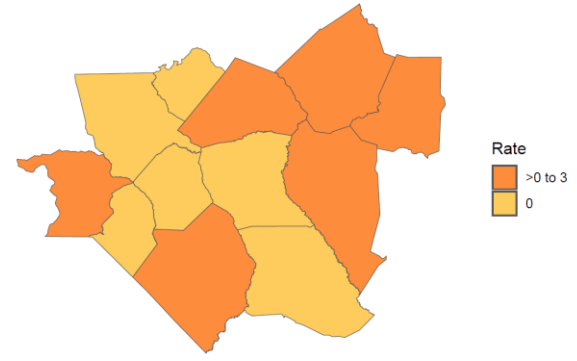
Fayetteville Area (NC DETECT Region 3) Key Messages

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

This week (September 22-28, 2024):

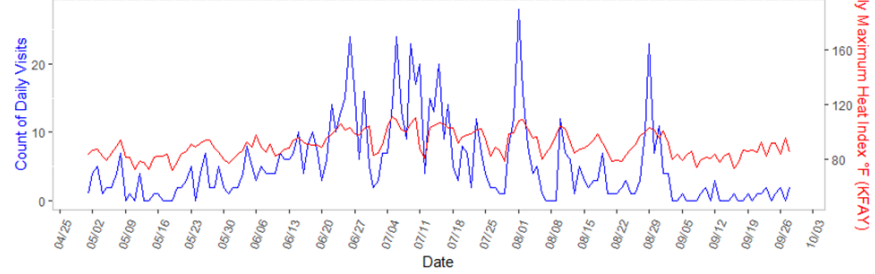
- There were **8 HRI ED visits** (0.1% of total ED visits), with a rate of **0.6 per 100,000 population**.
- The rate was highest among **males aged 25-44 years (1.7 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Wayne County (2.6 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis codes were **heat exhaustion (n =2)** and **heat syncope (n =2)**. (Table 1)
- The maximum heat index ranged from **82.9 to 96°F** at Fayetteville Regional Airport. (Figure 3)
- There were **4 days** when the minimum temperature did not drop below 70°F.

Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Fayetteville Area (NC DETECT 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. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Fayetteville Area (NC DETECT Region 3): May 1 - September 28, 2024



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

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age Fayetteville Area (NC DETECT Region 3)

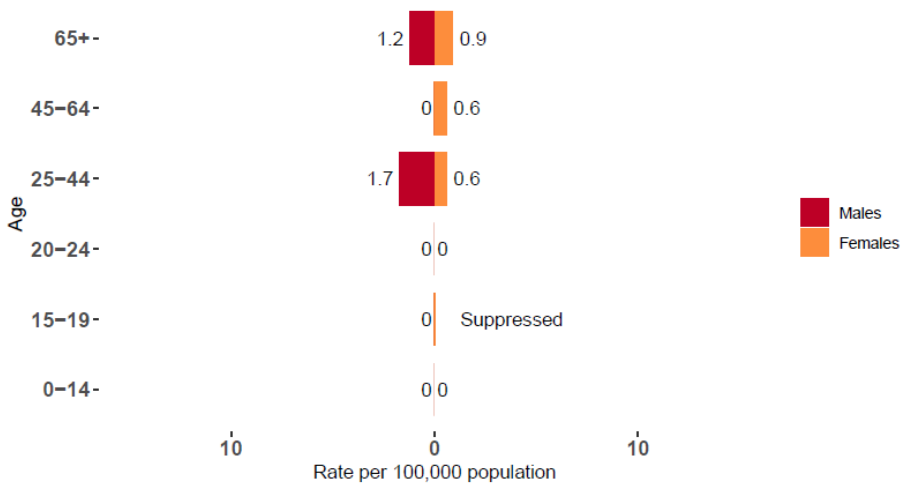


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 5 [‡])	Percent [†]
Heat Exhaustion	2	40
Heat Syncope	2	40
Other Effects	1	20

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

RTP Area (NC DETECT Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **1.4 per 100,000 population**.

This week (September 22-28, 2024):

- There were **8 HRI ED visits** (0% of total ED visits), with a rate of **0.4 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 **Durham County (1.2 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat syncope (n =5)**. (Table 1)
- The maximum heat index ranged from **79.1 to 97.3°F** at Raleigh-Durham International Airport. (Figure 3)
- There were **4 days** when the minimum temperature did not drop below 70°F.

Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population RTP Area (NC DETECT Region 4)

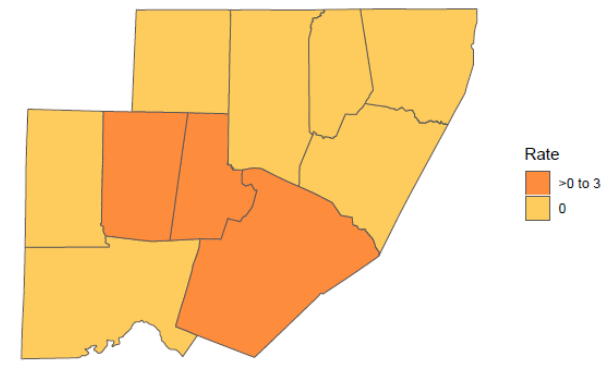


Figure 3. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index RTP Area (NC DETECT Region 4): May 1 - September 28, 2024

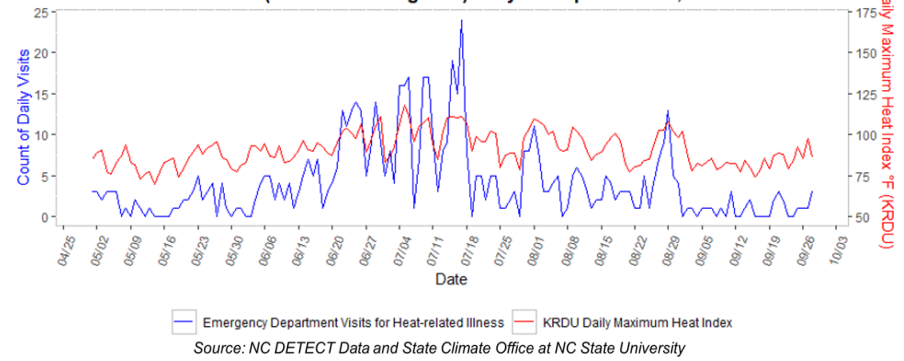


Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age RTP Area (NC DETECT Region 4)

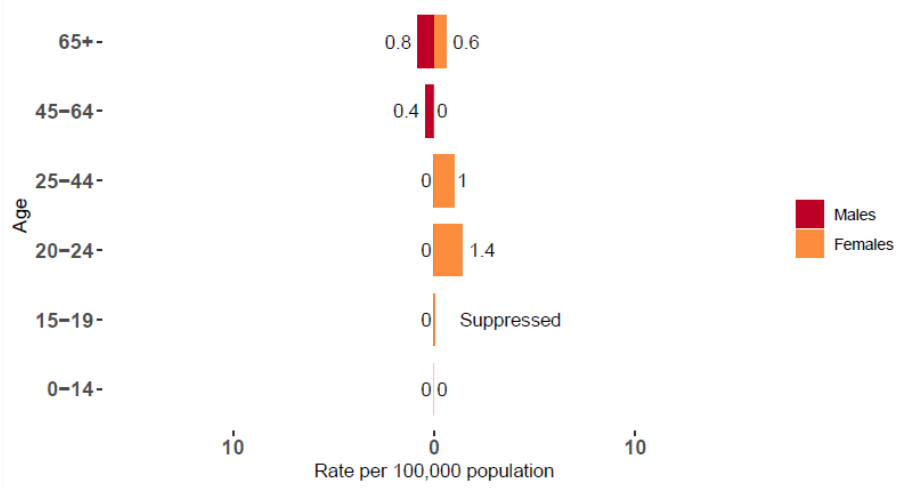


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 8 [†])	Percent [†]
Heat Exhaustion	3	37.5
Heat Syncope	5	62.5

§ Definitions of heat-related illness severity categories: <https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>
[‡] Missing severity data = 0
[†] May not total 100 due to rounding
^{||} other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

Triad Area (NC DETECT Region 5) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **1.8 per 100,000 population**.

This week (September 22-28, 2024):

- There were **5 HRI ED visits** (0% of total ED visits), with a rate of **0.3 per 100,000 population**.
- The rate was highest among **females aged 0-14 years (1.4 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Davidson County (1.2 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat syncope (n =2)**. (Table 1)
- The maximum heat index ranged from **75.9 to 89.4°F** at Smith Reynolds Airport. (Figure 3)
- There was **1 day** when the minimum temperature did not drop below 70°F.

Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age Triad Area (NC DETECT Region 5)

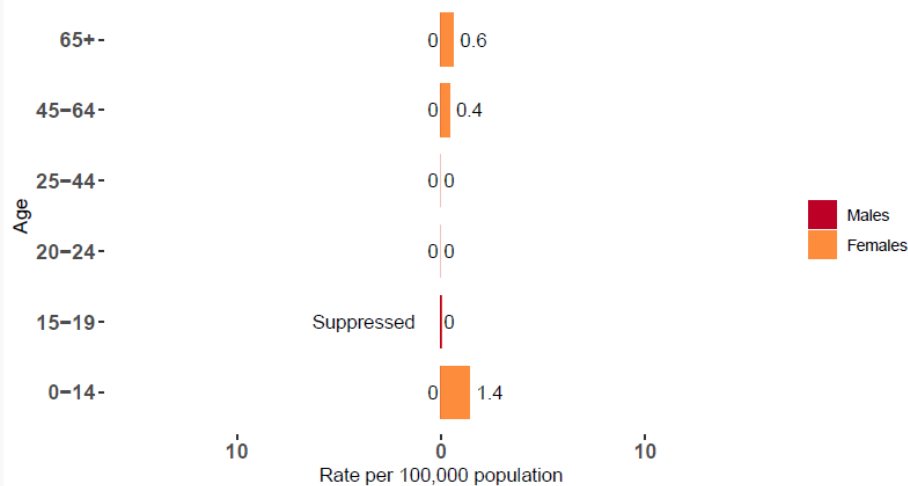
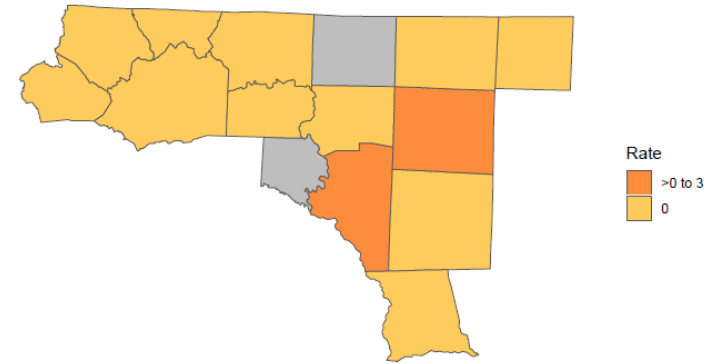


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Triad Area (NC DETECT Region 5)



Rates based on counts between 1-4 are suppressed for counties with less than 500 total ED visits, as shown in gray.
Figure 3. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Triad Area (NC DETECT Region 5): May 1 - September 28, 2024

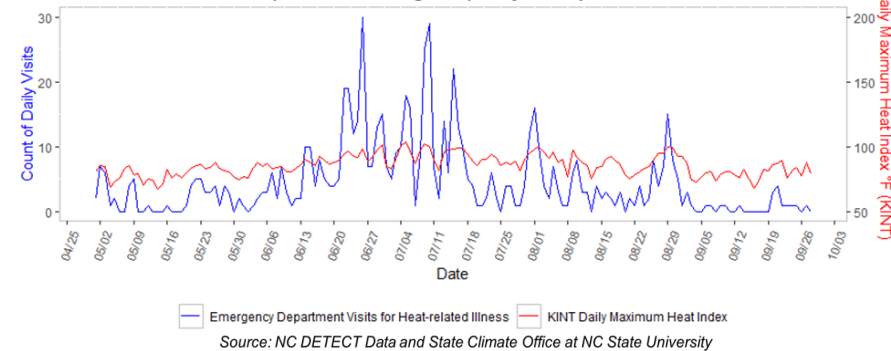


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 2 [‡])	Percent [†]
Heat Syncope	2	100

§ Definitions of heat-related illness severity categories:

<https://www.cdc.gov/niosh/topics/heatstress/heatreillness.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

Western NC (NC DETECT Region 6) Key Messages

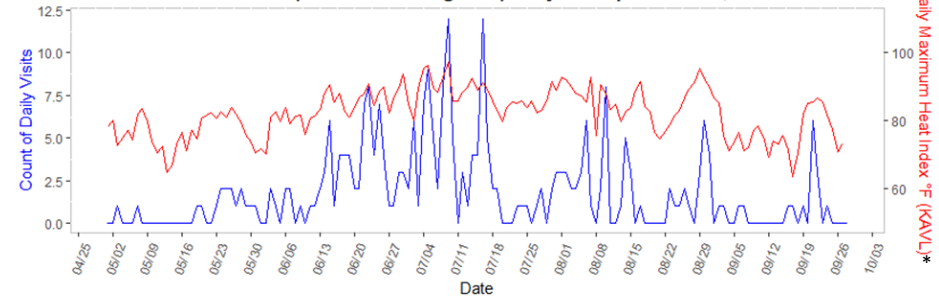
The average weekly rate of heat-related illness emergency department visits **this season to date** is **1.2 per 100,000 population**.

This week (September 22-28, 2024):

- There were **4 HRI ED visits** (0% of total ED visits), with a rate of **0.4 per 100,000 population**.
- The rate was highest among **females aged 65+ years (0.8 HRI ED visits 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 most frequent heat related diagnosis code was **heat exhaustion (n =2)**. (Table 1)
- The maximum heat index ranged from **62.4 to 83.7°F** at the NC ECONet weather station in Mills River. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

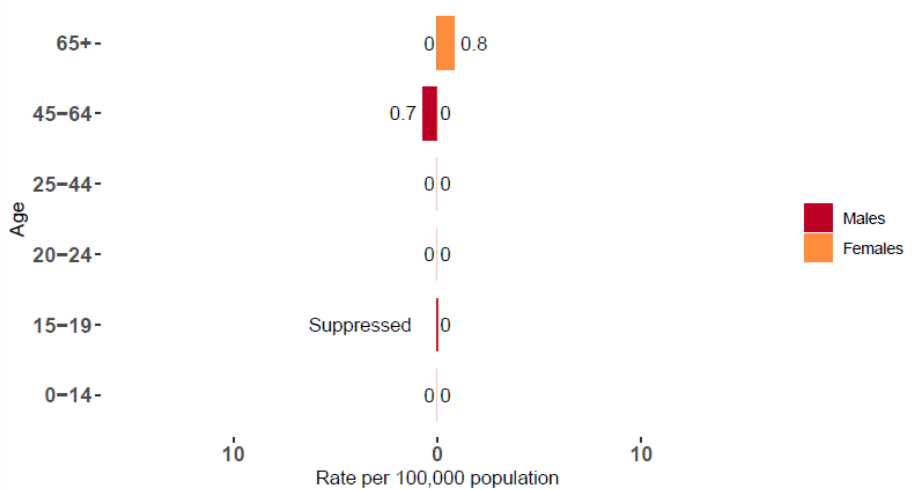
Figure 2 is not provided for Western NC this week due to small numbers.

Figure 3. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Western NC (NC DETECT Region 6): May 1 - September 28, 2024



Source: NC DETECT Data and State Climate Office at NC State University
*The NC ECONet weather station in Mills River (FLET) was used for 9/22-9/28.

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



Severity [§]	Number (N = 2 [‡])	Percent [†]
Heat Exhaustion	2	100

§ Definitions of heat-related illness severity categories: <https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>
[‡] Missing severity data = 2
[†] May not total 100 due to rounding
^{||} other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

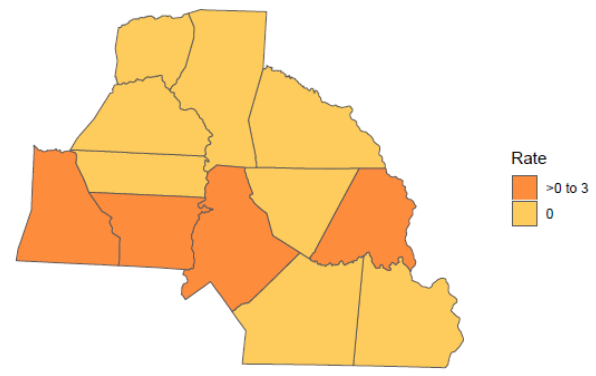
Charlotte Area (NC DETECT Region 7) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **1.6 per 100,000 population**.

This week (September 22-28, 2024):

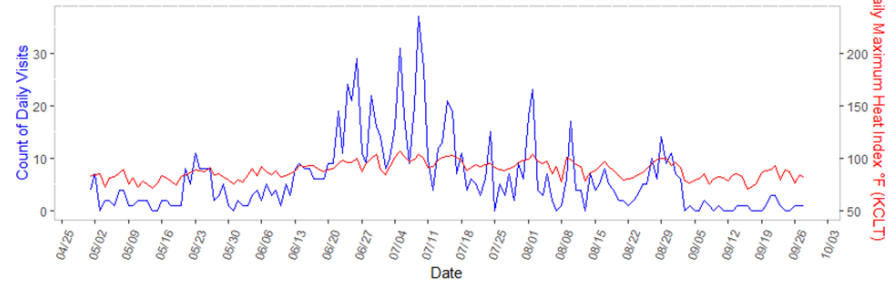
- There were **7 HRI ED visits** (0% of total ED visits), with a rate of **0.3 per 100,000 population**.
- The rate was highest among **males aged 20-24 years and males aged 65+ years (1.2 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Stanly County (1.6 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat syncope (n=3)**. (Table 1)
- The maximum heat index ranged from **76.4 to 92.6°F** at Charlotte/Douglas International Airport. (Figure 3)
- There were **4 days** when the minimum temperature did not drop below 70°F.

Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population Charlotte Area (NC DETECT 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. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Charlotte Area (NC DETECT Region 7): May 1 - September 28, 2024



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

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

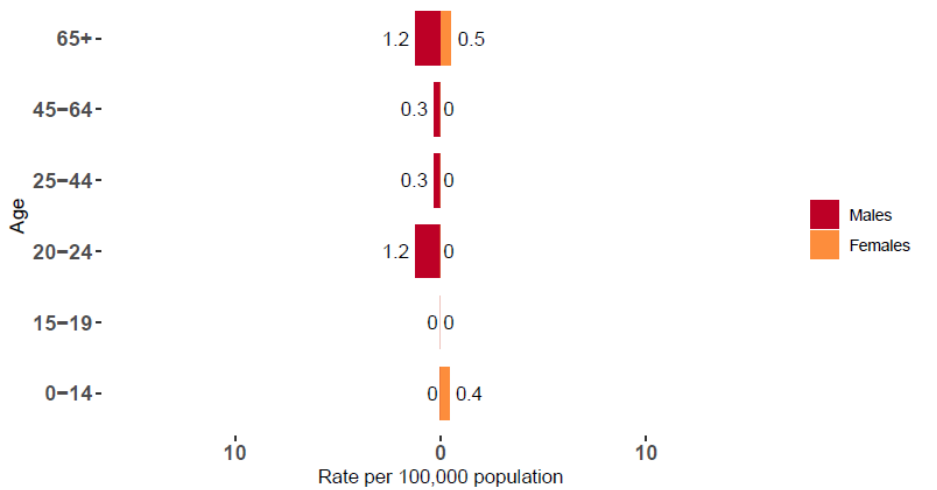


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 5 [‡])	Percent [†]
Heat Exhaustion	1	20
Heat Syncope	3	60
Other Effects	1	20

§ Definitions of heat-related illness severity categories: <https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>
[‡] Missing severity data = 2
[†] May not total 100 due to rounding
^{||} other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

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. One weather station from each NC DETECT region was selected to represent the climate data for each region. The weather station locations and their corresponding regions are as follows:

Pitt-Greenville Airport (PGV) – Northeastern (NC DETECT Region 1), Wilmington International Airport (ILM) – Southeastern (NC DETECT Region 2), Fayetteville Regional Airport (FAY) – Fayetteville Area (NC DETECT Region 3), Raleigh-Durham International Airport (RDU) – RTP Area (NC DETECT Region 4), Smith Reynolds Airport (INT) – Triad Area (NC DETECT Region 5), Asheville Regional Airport (AVL) – Western Area (NC DETECT Region 6), Charlotte/Douglas International Airport (CLT) – Charlotte Area (NC DETECT Region 7). During 9/22/24-9/28/24, maximum heat index and minimum temperature data were obtained from the NC ECONet weather station in Mills River (FLET) for Western NC (NC DETECT 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).

The data in this report is summarized by NC DETECT Region.

