

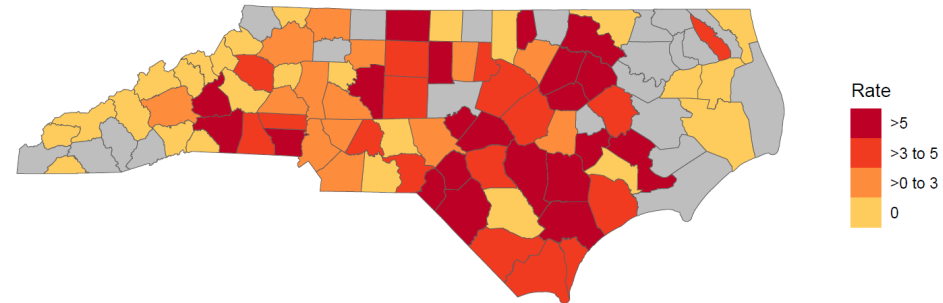
Statewide Key Messages

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

This week (July 14-20, 2024):

- There were **452* HRI ED visits** (0.46% of total ED visits), with a **rate of 4 per 100,000 population.**
- The rate was highest among **males aged 25-44 years (9.4 per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in the **Northeastern NC) (7.5 per 100,000 population).** (Figure 2; NC DETECT Region 1)
- The most frequent heat related diagnosis code was **heat exhaustion (n =159).** (Table 1)
- The maximum heat index ranged from **90.2 to 111°F** at Raleigh-Durham International Airport. (Figure 3)
- There were **7 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



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

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

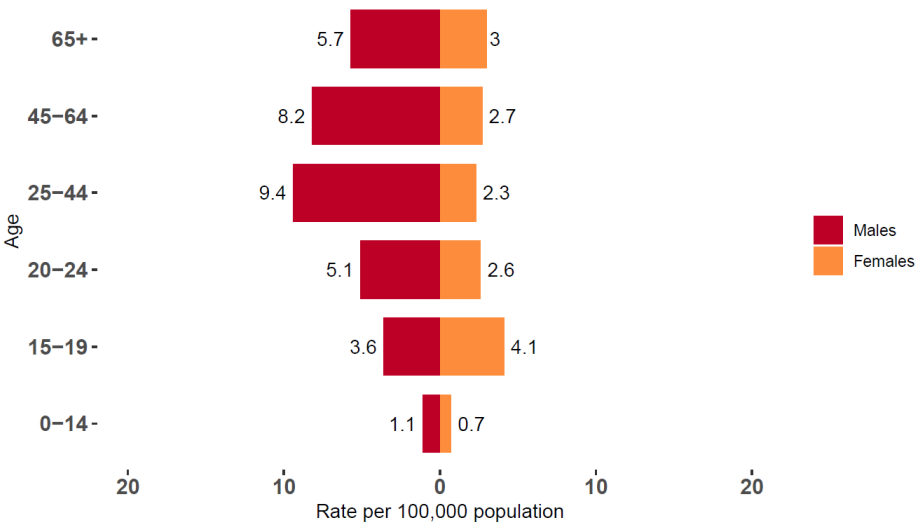


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 285 [†])	Percent [†]
Heat Cramps	9	3.2
Heat Exhaustion	159	55.8
Heat Stroke	8	2.8
Heat Syncope	26	9.1
Other Effects	83	29.1

§ Definitions of heat-related illness severity categories:

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

‡ Missing severity data = 167

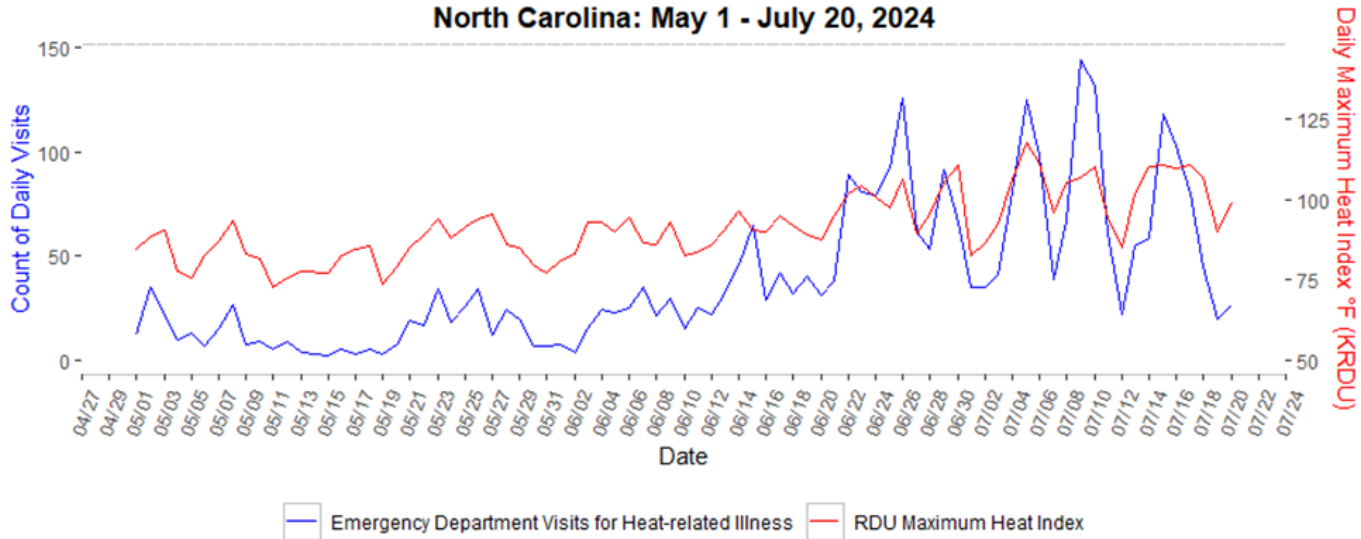
† May not total 100 due to rounding

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

*The 452 total HRI ED visits includes 33 visits that were missing county of residence and are excluded from the regional reports.

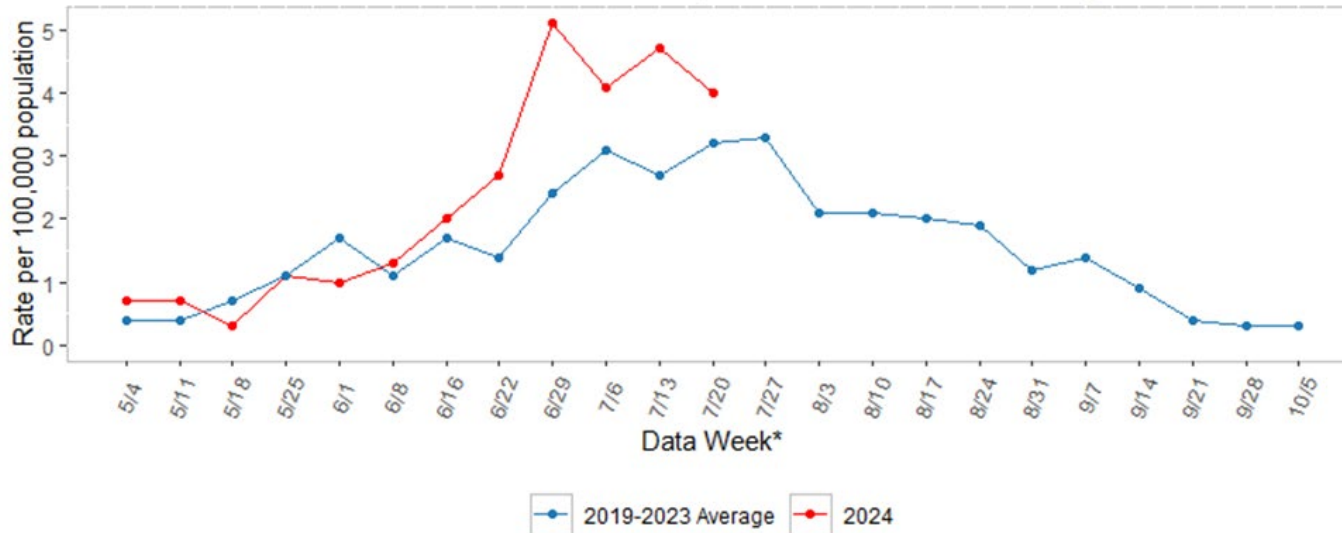


Figure 3. Count of Emergency Department Visits for Heat-related Illness and Max Heat Index
North Carolina: May 1 - July 20, 2024



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>.

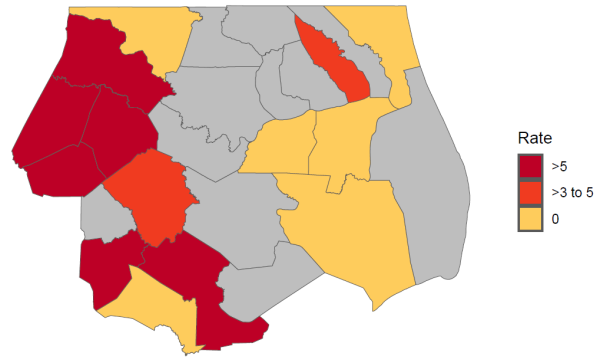
Northeastern NC (NC DETECT Region 1) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **3.3 per 100,000 population**.

This week (July 14-20, 2024):

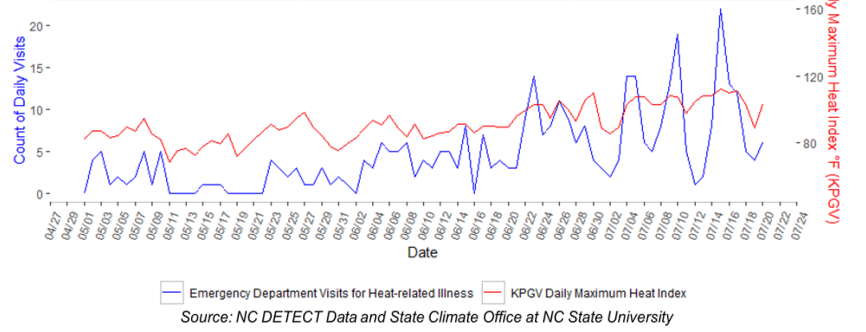
- There were **70 HRI ED visits** (0.7% of total ED visits), with a rate of **7.5 per 100,000 population**.
- The rate was highest among **males aged 25-44 years (13.7 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Edgecombe County (14.3 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =23)**. (Table 1)
- The maximum heat index ranged from **89.2 to 112.2°F** at Pitt-Greenville Airport. (Figure 3)
- There were **7 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 - July 20, 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 Northeastern NC (NC DETECT Region 1)

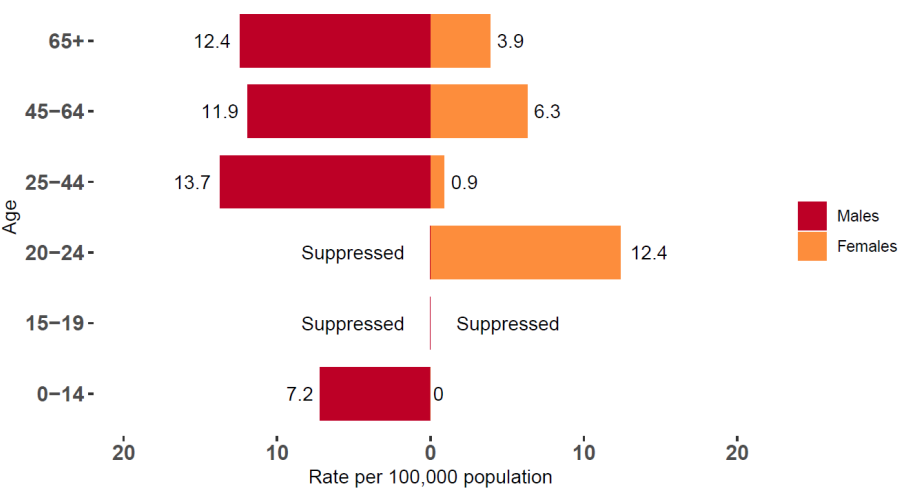


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 34 [‡])	Percent [†]
Heat Cramps	1	2.9
Heat Exhaustion	23	67.6
Heat Syncope	1	2.9
Other Effects	9	26.5

§ Definitions of heat-related illness severity categories: <https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>
[‡] Missing severity data = 36
[†] May not total 100 due to rounding
^{||} other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

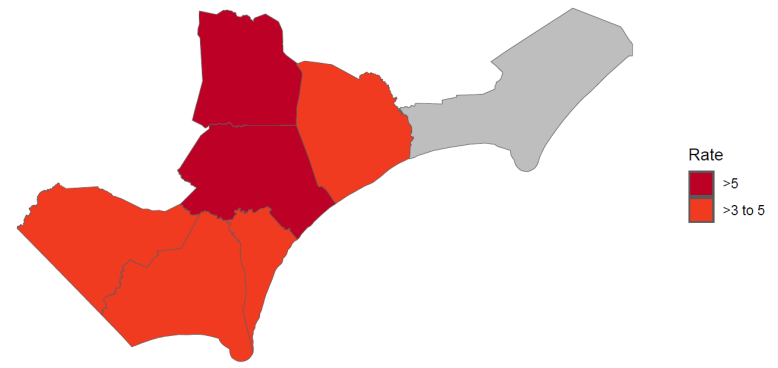
Southeastern NC (NC DETECT Region 2) Key Messages

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

This week (July 14-20, 2024):

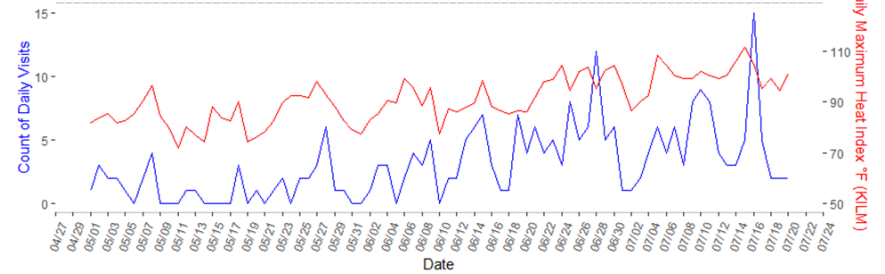
- There were **34** HRI ED visits (0.5% of total ED visits), with a rate of **4.2 per 100,000 population**.
- The rate was highest among **males aged 25-44 years (15.1 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Pender County (6.5 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =12)**. (Table 1)
- The maximum heat index ranged from **94.5 to 111.4°F** at Wilmington International Airport. (Figure 3)
- There were **7** 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 - July 20, 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 Southeastern NC (NC DETECT Region 2)

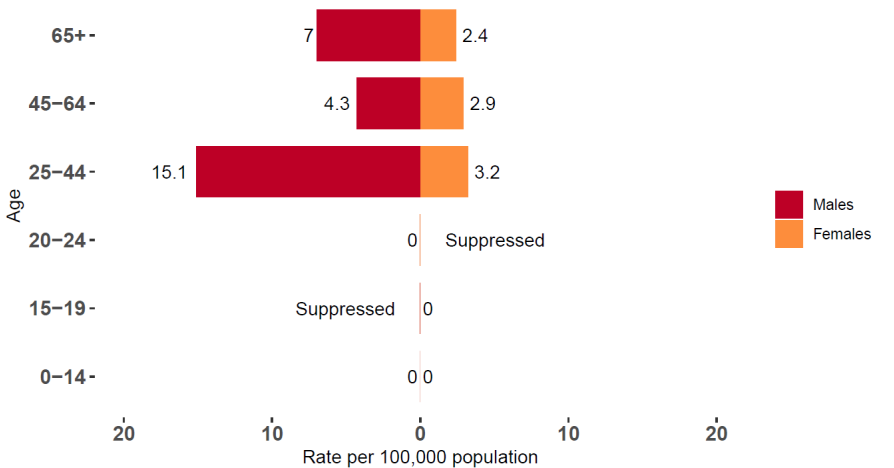


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 22 [‡])	Percent [†]
Heat Exhaustion	12	54.5
Heat Stroke	1	4.5
Heat Syncope	1	4.5
Other Effects	8	36.4

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

‡ Missing severity data = 12

† May not total 100 due to rounding

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

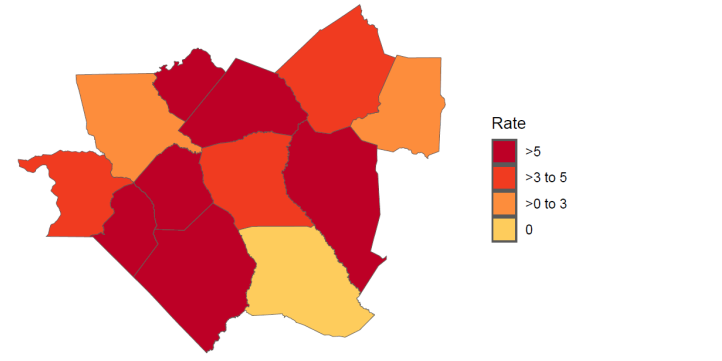
Fayetteville Area (NC DETECT Region 3) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **3.4 per 100,000 population**.

This week (July 14-20, 2024):

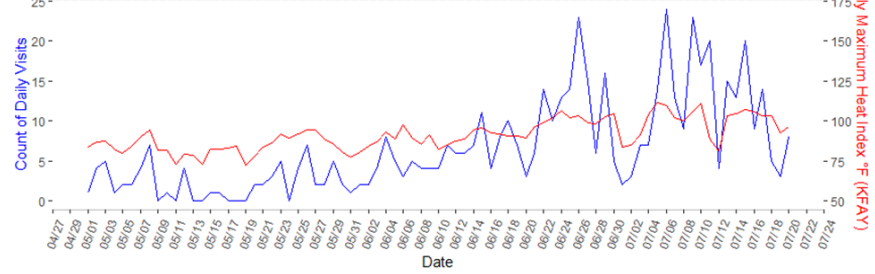
- There were **72 HRI ED visits** (0.6% of total ED visits), with a rate of **5.5 per 100,000 population**.
- The rate was highest among **males aged 45-64 years (13.1 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Scotland County (14.6 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =24)**. (Table 1)
- The maximum heat index ranged from **92.2 to 107°F** at Fayetteville Regional Airport. (Figure 3)
- There were **7 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 - July 20, 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)

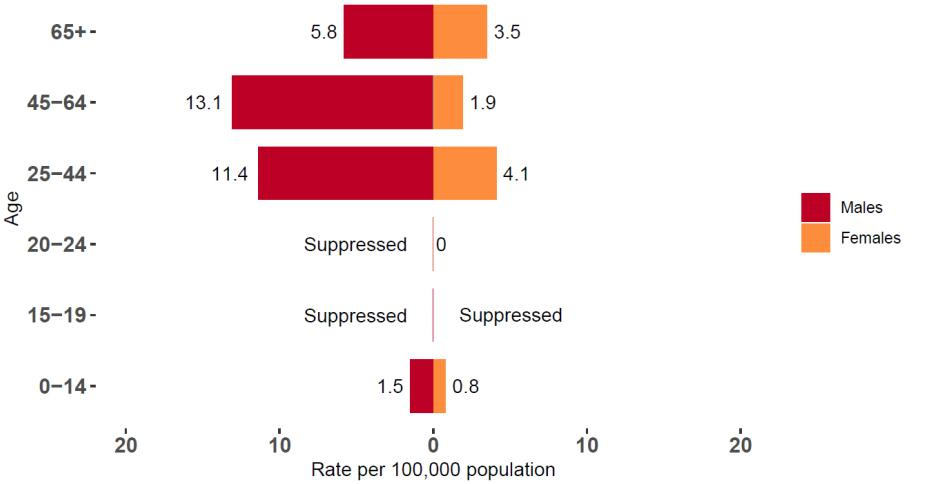


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 45 [‡])	Percent [†]
Heat Cramps	4	8.9
Heat Exhaustion	24	53.3
Heat Stroke	1	2.2
Heat Syncope	2	4.4
Other Effects	14	31.1

§ 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

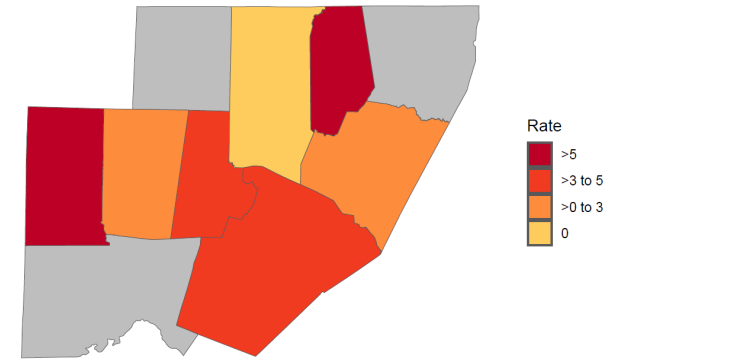
RTP Area (NC DETECT Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits this season to date is **1.7 per 100,000 population**.

This week (July 14-20, 2024):

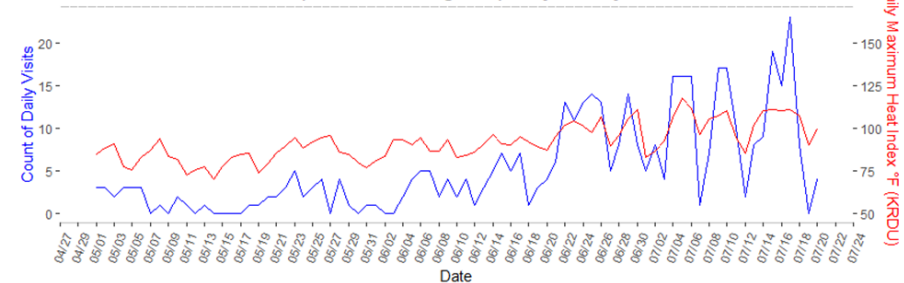
- There were **78 HRI ED visits** (0.5% of total ED visits), with a rate of **3.7 per 100,000 population**.
- The rate was highest among **males aged 25-44 years (8 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Vance County (11.8 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =35)**. (Table 1)
The maximum heat index ranged from **90.2 to 111°F** at Raleigh-Durham International Airport. (Figure 3)
There were **7 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)



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 RTP Area (NC DETECT Region 4): May 1 - July 20, 2024



Emergency Department Visits for Heat-related Illness KRDU 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 = 65 [‡])	Percent [†]
Heat Cramps	2	3.1
Heat Exhaustion	35	53.8
Heat Stroke	1	1.5
Heat Syncope	8	12.3
Other Effects	19	29.2

§ Definitions of heat-related illness severity categories:

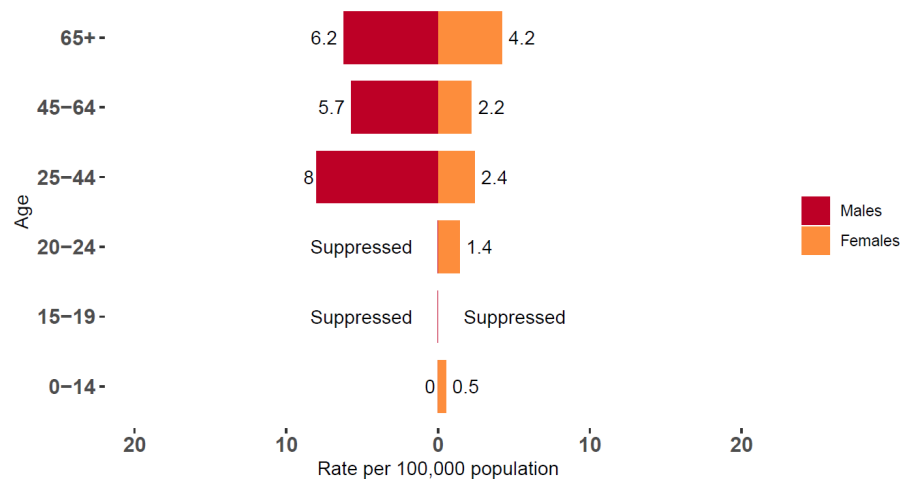
<https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>

‡ Missing severity data = 13

† May not total 100 due to rounding

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

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



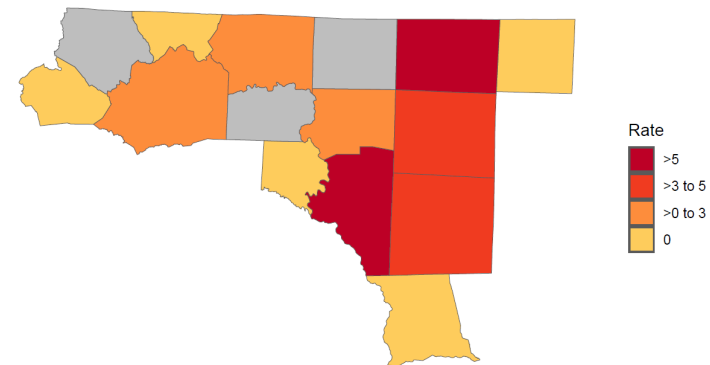
Triad Area (NC DETECT Region 5) Key Messages

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

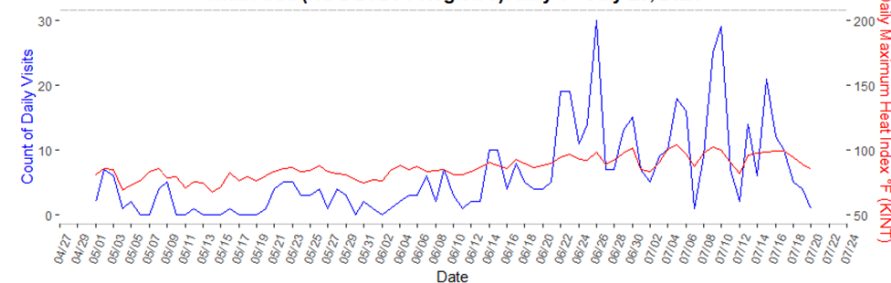
This week (July 14-20, 2024):

- There were **59 HRI ED visits** (0.4% of total ED visits), with a rate of **3.4 per 100,000 population**.
- The rate was highest among **males aged 45-64 years (9.3 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **Davidson County (5.9 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =22)**. (Table 1)
- The maximum heat index ranged from **85.5 to 99°F** at Smith Reynolds Airport. (Figure 3)
- There were **7 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 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 - July 20, 2024



Emergency Department Visits for Heat-related Illness KINT 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 = 33 [‡])	Percent [†]
Heat Exhaustion	22	66.7
Heat Stroke	1	3
Heat Syncope	4	12.1
Other Effects	6	18.2

§ Definitions of heat-related illness severity categories:

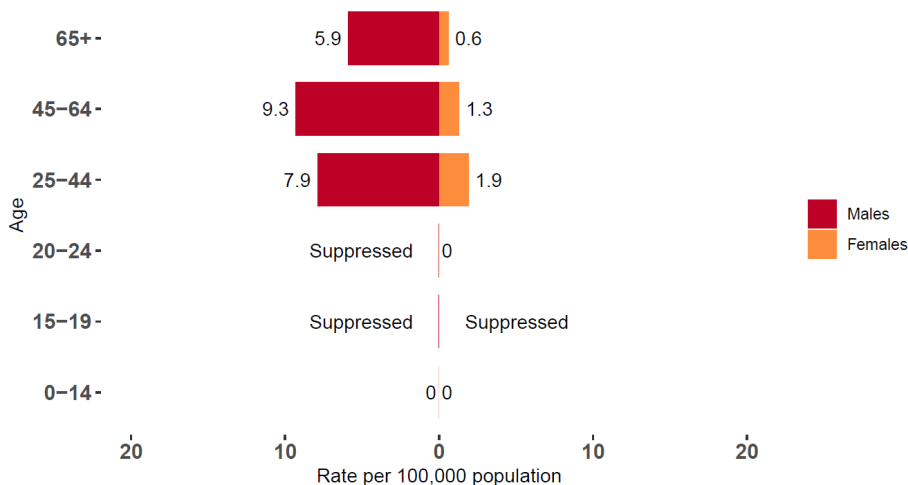
<https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>

‡ 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

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



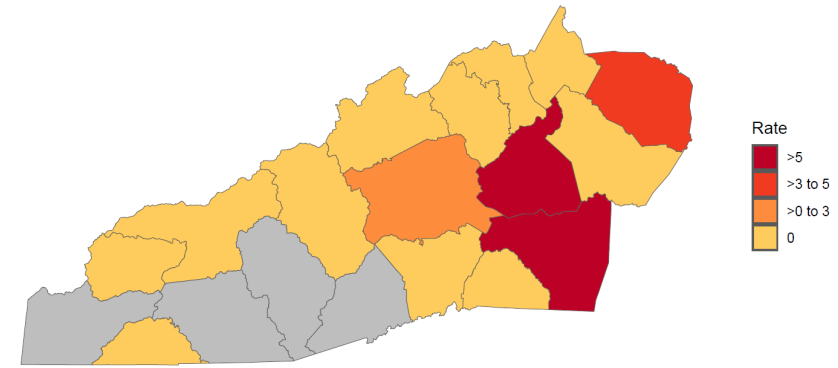
Western NC (NC DETECT Region 6) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date** is **1.5 per 100,000 population**.

This week (July 14-20, 2024):

- There were **28 HRI ED visits** (0.3% of total ED visits), with a rate of **2.8 per 100,000 population**.
- The rate was highest among **males aged 45-64 years (9.7 HRI ED visits per 100,000 population)**. (Figure 1)
- The rate of HRI ED visits was highest in **McDowell County (13.4 per 100,000 population)**. (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n=8)**. (Table 1)
- The maximum heat index ranged from **79.8 to 92.6°F** at Asheville Regional Airport. (Figure 3)
- There were **0** 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 Western NC (NC DETECT 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. Count of Emergency Department Visits for Heat-related Illness and Maximum Heat Index Western NC (NC DETECT Region 6): May 1 - July 20, 2024

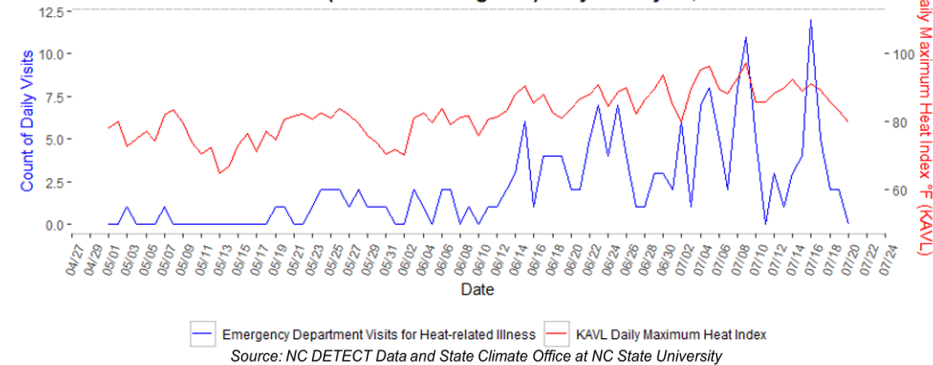


Figure 1. Rate of Heat-Related Illness Emergency Department Visits by Sex and Age Western NC (NC DETECT Region 6)

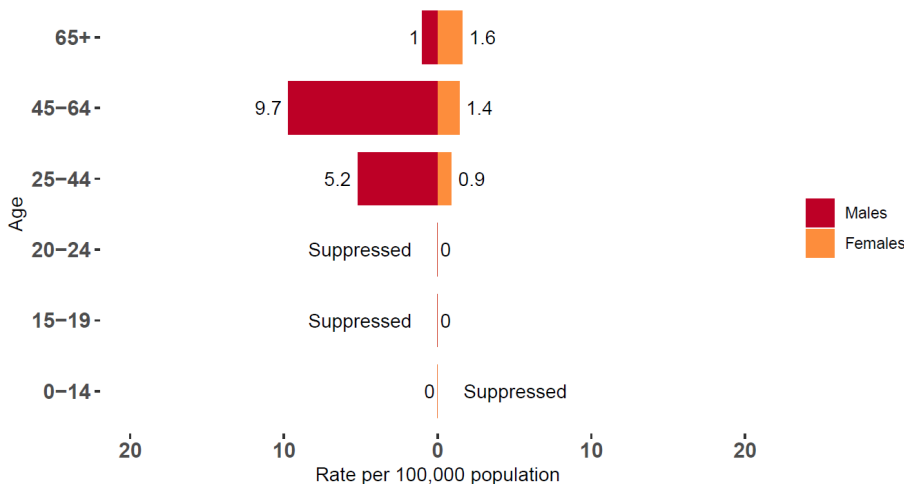


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 16 [‡])	Percent [†]
Heat Cramps	1	6.2
Heat Exhaustion	8	50
Heat Stroke	3	18.8
Heat Syncope	2	12.5
Other Effects	2	12.5

§ Definitions of heat-related illness severity categories:

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

‡ Missing severity data = 12

† May not total 100 due to rounding

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

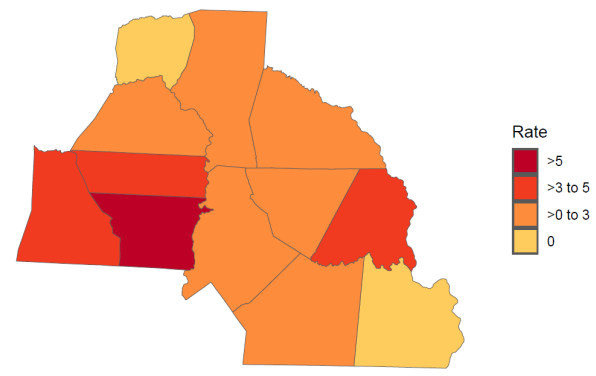
Charlotte Area (NC DETECT Region 7) Key Messages

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

This week (July 14-20, 2024):

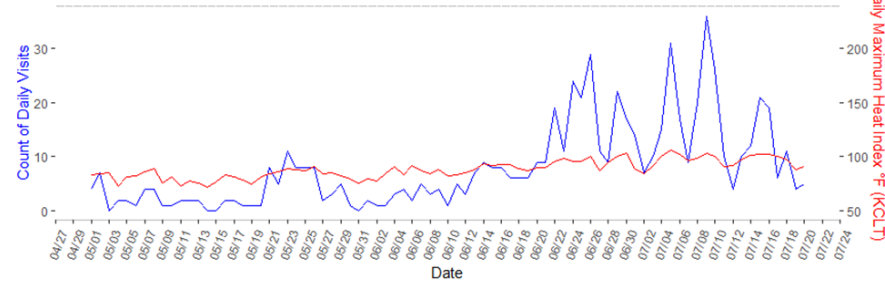
- There were **78 HRI ED visits** (0.3% of total ED visits), with a rate of **3 per 100,000 population.**
- The rate was highest among **males aged 25-44 years (6.5 HRI ED visits per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Gaston County (5.7 per 100,000 population).** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n=22)** and **other effects (n =22).** (Table 1)
- The maximum heat index ranged from **88.3 to 102.5°F** at Charlotte/Douglas International Airport. (Figure 3)
- There were **7 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 - July 20, 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 Charlotte Area (NC DETECT Region 7)

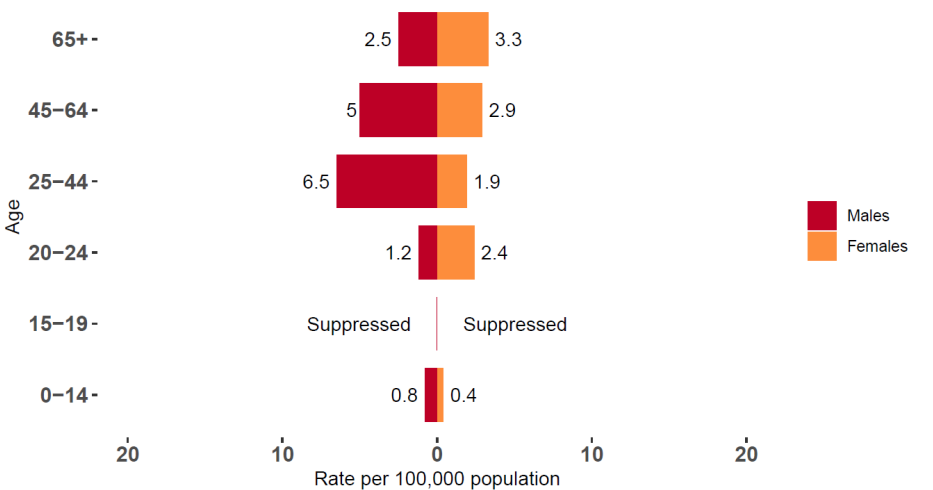


Table 1. Heat-related illness ED visits by Severity

Severity [§]	Number (N = 48 [‡])	Percent [†]
Heat Exhaustion	22	45.8
Heat Syncope	4	8.3
Other Effects	22	45.8

§ Definitions of heat-related illness severity categories:

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

‡ Missing severity data = 30

† 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)

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

