North Carolina Statewide Weekly Heat-related Illness Surveillance Report

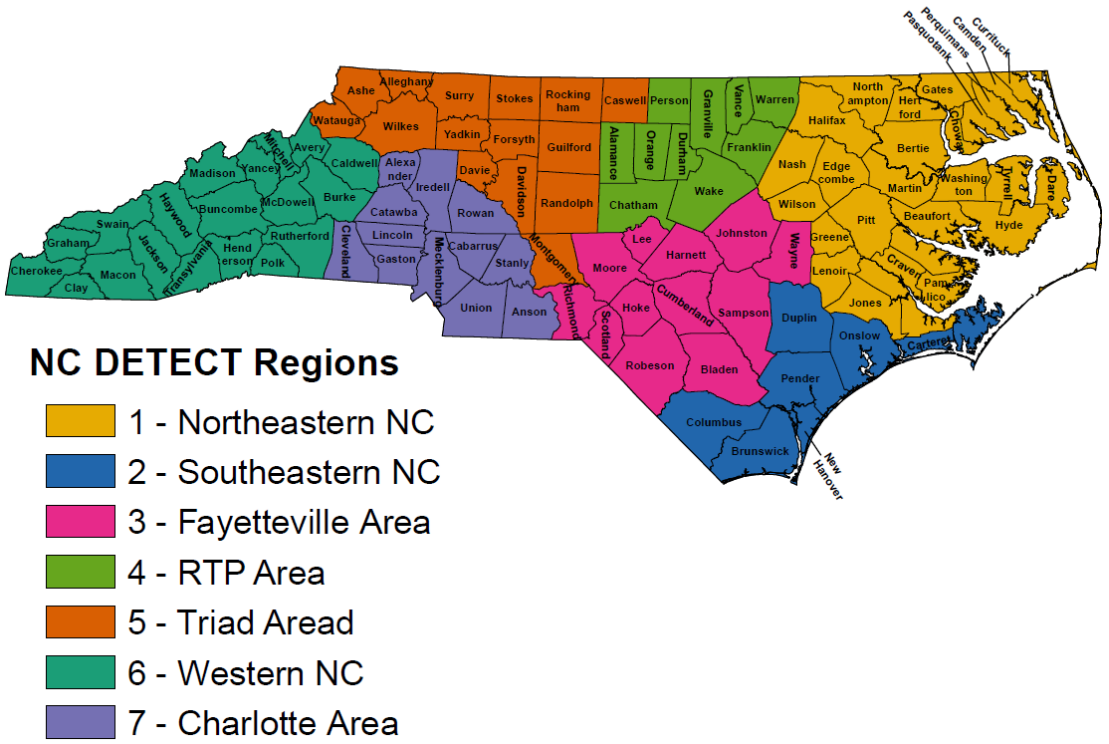
About the data

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:

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



NC DETECT Regions

- 1 - Northeastern NC
- 2 - Southeastern NC
- 3 - Fayetteville Area
- 4 - RTP Area
- 5 - Triad Aread
- 6 - Western NC
- 7 - Charlotte Area

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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Statewide Key Messages

The average weekly rate of heat-related illness (HRI) emergency department (ED) visits **this season to date is 0.7 per 100,000 population.**

This week (May 1-4, 2024):

- There were **73 HRI ED visits** (0.13% of total ED visits), with a **rate of 0.7 per 100,000 population.**
- The rate was highest among **males** aged **65+ years (1.6 per 100,000 population**). (Figure 1)
- The rate of HRI ED visits was highest in the **Fayetteville Area**) (**1.3 per 100,000 population**). (Figure 2; NC DETECT Region 3).
- The most frequent heat related diagnosis code was **heat exhaustion (n =17).** (Table 1)
- The maximum heat index ranged from **77.6** to **90.6°F** at Raleigh-Durham International Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

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

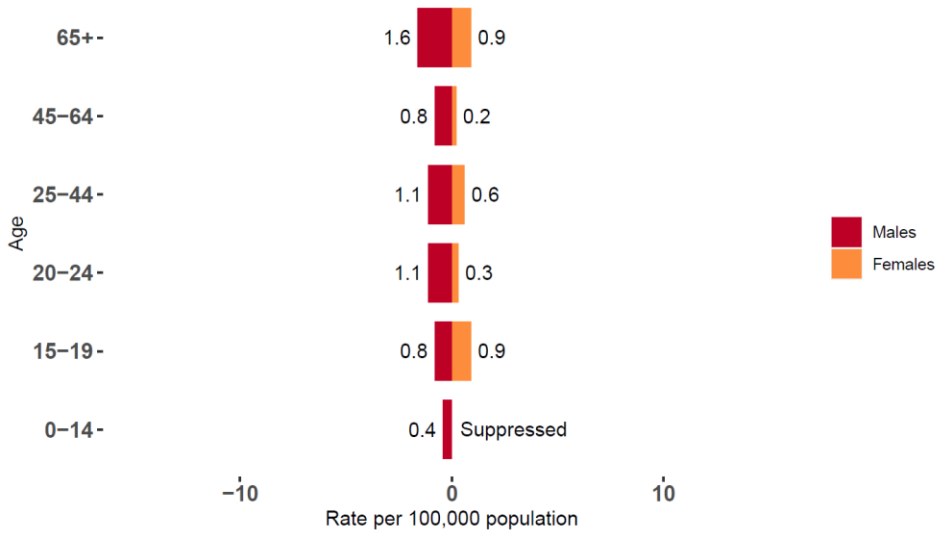
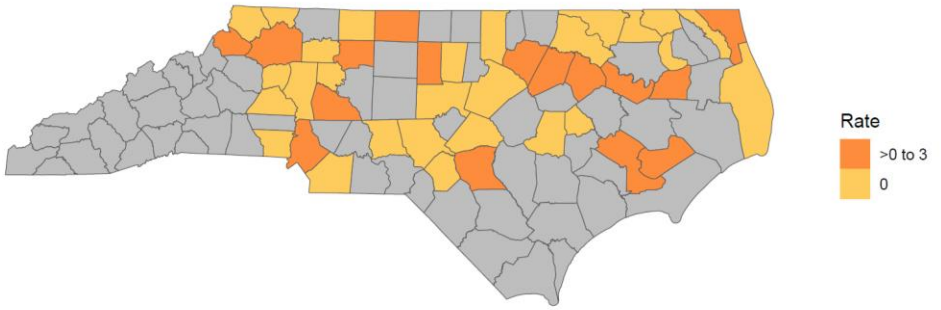


Figure 2. Rate of Heat–Related Illness Emergency Department Visits per 100,000 Population



Counties in gray have been suppressed for confidentiality due to small numbers

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N =42‡)	Percent†
Heat Exhaustion	17	40.5
Heat Stroke	2	4.8
Heat Syncope	12	28.6
Other Effects‖	11	26.2

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

‡ Missing severity data = 31

† 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 3. Emergency Department Visits for Heat-related Illness and Max Heat Index
May 1 - May 4, 2024

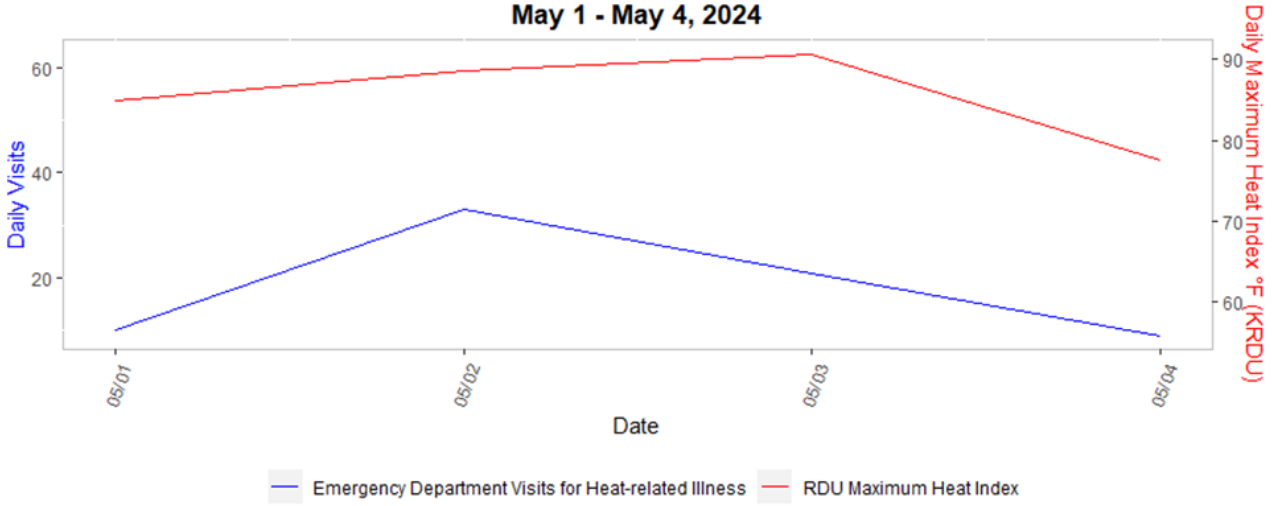
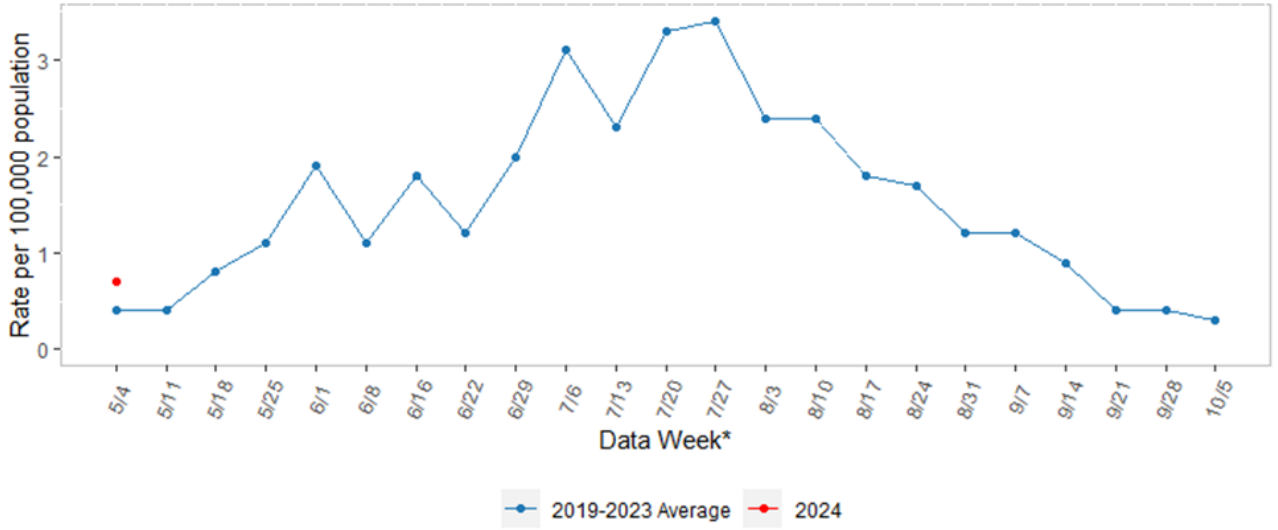


Figure 4. Rate of Emergency Department Visits for Heat Related Illness
-- North Carolina, 2024 Compared to Historical Average



North Carolina Weekly Heat-related Illness Surveillance Report: Northeastern NC (NC DETECT Region 1)
May 1-4, 2024

Northeastern NC (NC DETECT Region 1) 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 (May 1-4, 2024):

- There were **8** HRI ED visits (0.1% of total ED visits), with a rate of **0.9 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 **Nash County (1.1 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 **82.5 to 87.1°F** at Pitt-Greenville Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

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

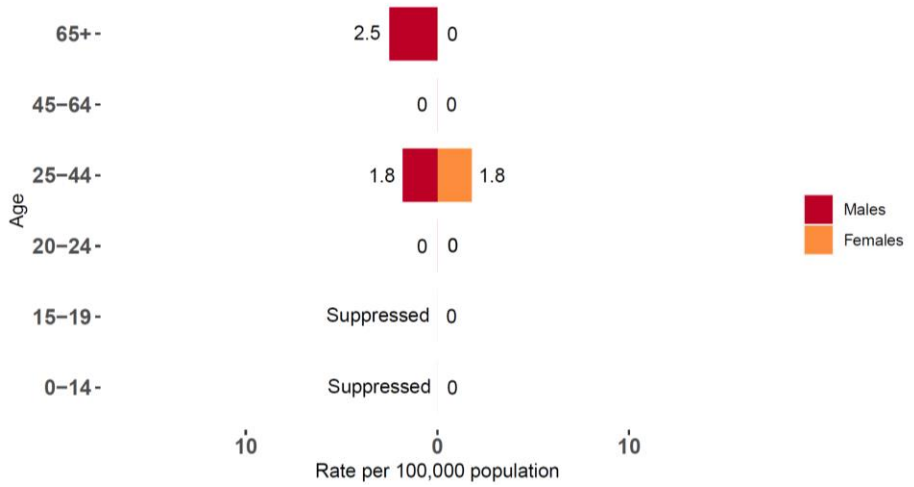
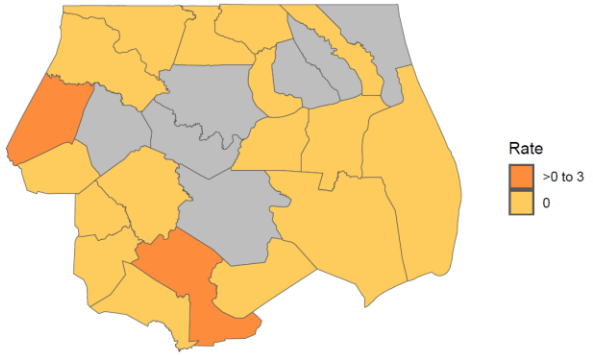
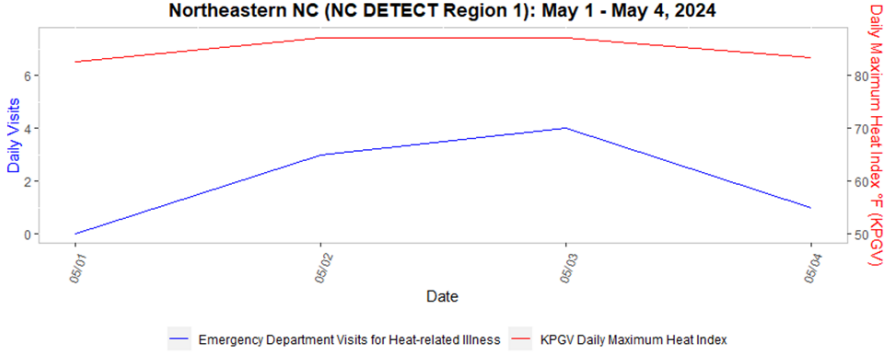


Figure 2. Rate of Heat–Related Illness Emergency Department Visits per 100,000 Population
Northeastern NC (NC DETECT Region 1)



Counties in gray have been suppressed for confidentiality due to small numbers

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Northeastern NC (NC DETECT Region 1): May 1 - May 4, 2024



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 Exhaustion	2	66.7
Heat Syncope	1	33.3

§ 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

North Carolina Weekly Heat-related Illness Surveillance Report: Southeastern NC (NC DETECT Region 2)
May 1-4, 2024

Southeastern NC (NC DETECT Region 2) Key Messages

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

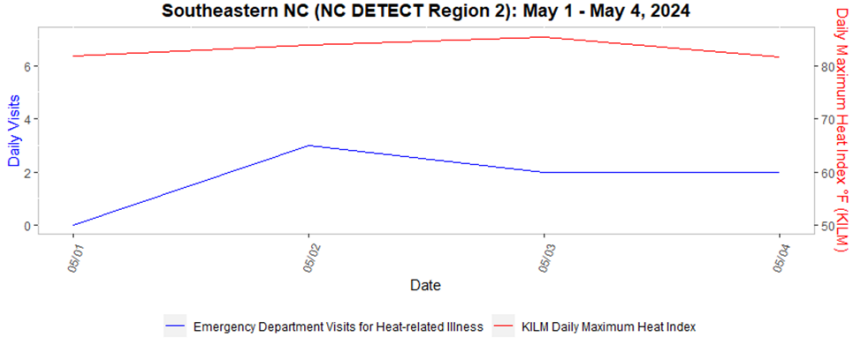
This week (May 1-4, 2024):

- There were **7** HRI ED visits (0.2% of total ED visits), with a rate of **0.9 per 100,000 population.**
- 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 **heat exhaustion (n =2**). (Table 1)
- The maximum heat index ranged from **81.7 to 85.4°F** at Wilmington International Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

Figure 1 is not provided for Southeastern NC this week due to small numbers

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

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Southeastern NC (NC DETECT Region 2): May 1 - May 4, 2024



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 Exhaustion	2	66.7
Other Effects‖	1	33.3

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 4
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified

North Carolina Weekly Heat-related Illness Surveillance Report: Fayetteville Area (NC DETECT Region 3)
May 1-4, 2024

Fayetteville Area (NC DETECT Region 3) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 1.3 per 100,000 population.**

This week (May 1-4, 2024):

- There were **17** HRI ED visits (0.2% of total ED visits), with a rate of **1.3 per 100,000 population.**
- The rate was highest among **males** aged **65+ years (4.6 HRI ED visits per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Robeson County (1.7 per 100,000 population).** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =5**). (Table 1)
- The maximum heat index ranged from **82.6 to 87.4°F** at Fayetteville Regional Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

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

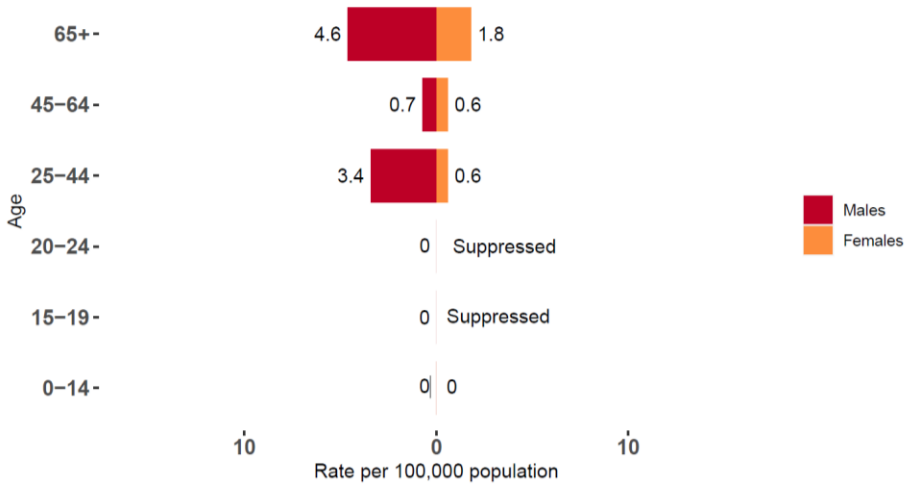
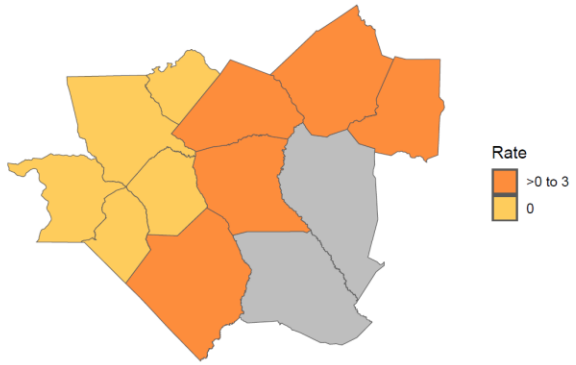
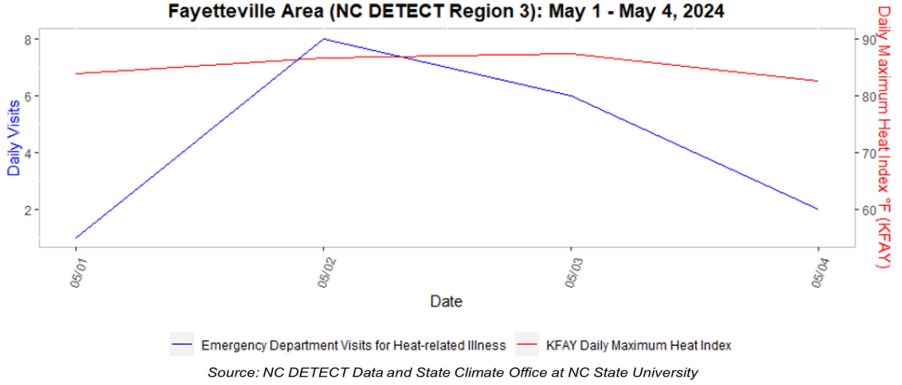


Figure 2. Rate of Heat–Related Illness Emergency Department Visits per 100,000 Population
Fayetteville Area (NC DETECT Region 3)



Counties in gray have been suppressed for confidentiality due to small numbers

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



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

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 14‡)	Percent†
Heat Exhaustion	5	35.7
Heat Stroke	2	14.3
Heat Syncope	2	14.3
Other Effects‖	5	35.7

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

North Carolina Weekly Heat-related Illness Surveillance Report: RTP Area (NC DETECT Region 4)
May 1-4, 2024

RTP Area (NC DETECT Region 4) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 0.5 per 100,000 population.**

This week (May 1-4, 2024):

- There were **10** HRI ED visits (0.1% of total ED visits), with a rate of **0.5 per 100,000 population.**
- The rate was highest among **females** aged **65+ years (2.4 HRI ED visits per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Alamance County (1.2 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 **77.6 to 90.6°F** at Raleigh-Durham International Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

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

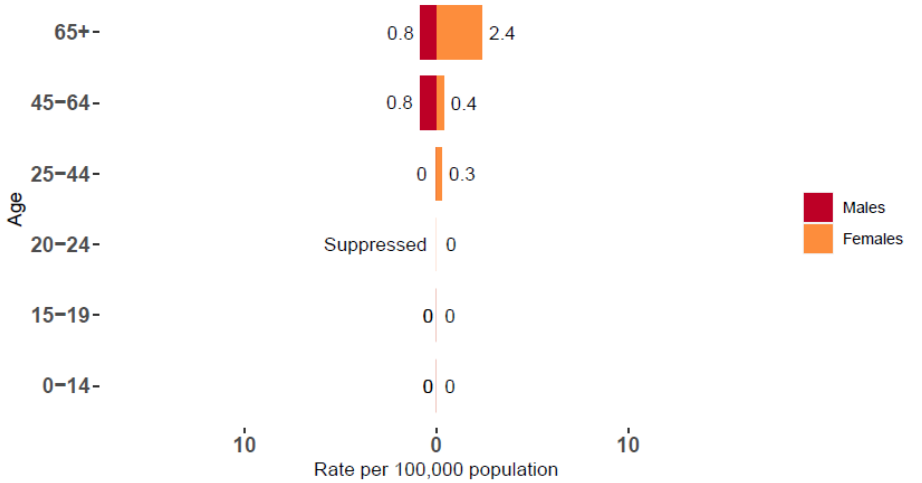
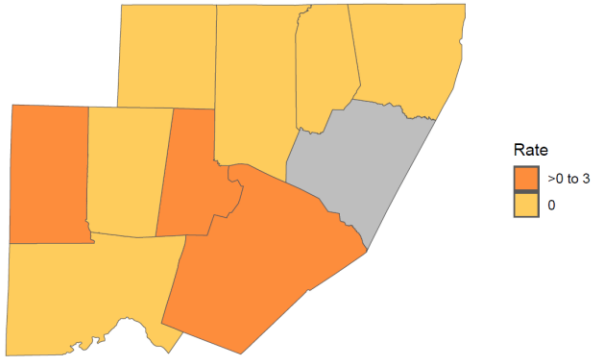
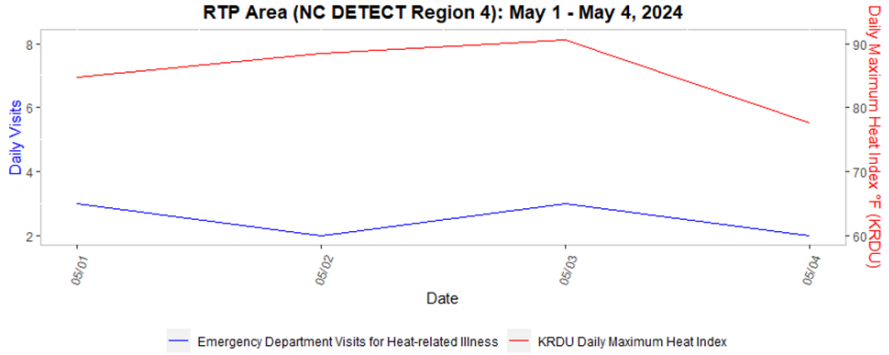


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
RTP Area (NC DETECT Region 4)



Counties in gray have been suppressed for confidentiality due to small numbers

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



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 Exhaustion	1	25
Heat Syncope	3	75

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 6
† 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 0.9 per 100,000 population.**

This week (May 1-4, 2024):

- There were **15** HRI ED visits (0.2% of total ED visits), with a rate of **0.9 per 100,000 population.**
- The rate was highest among **males** aged **65+ years (2.2 HRI ED visits per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Davidson County (1.8 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 **69.1 to 85.5°F** at Smith Reynolds Airport. (Figure 3)
- There were **0** days 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)

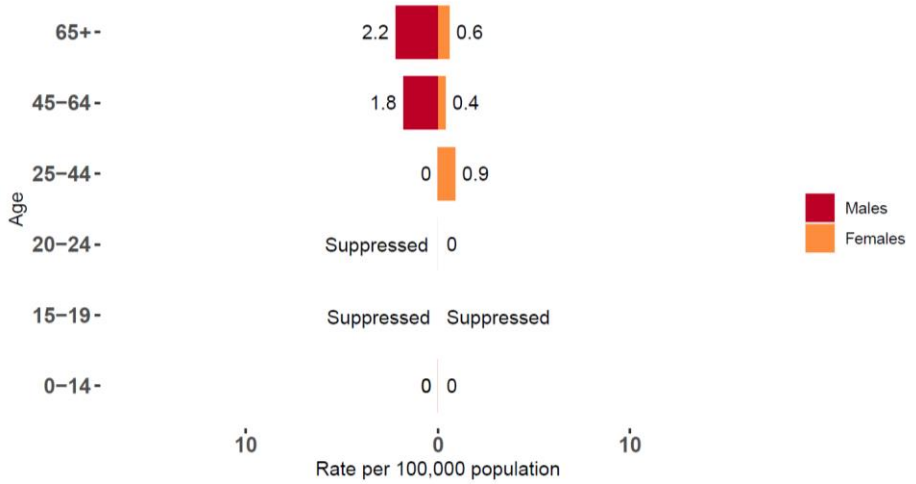
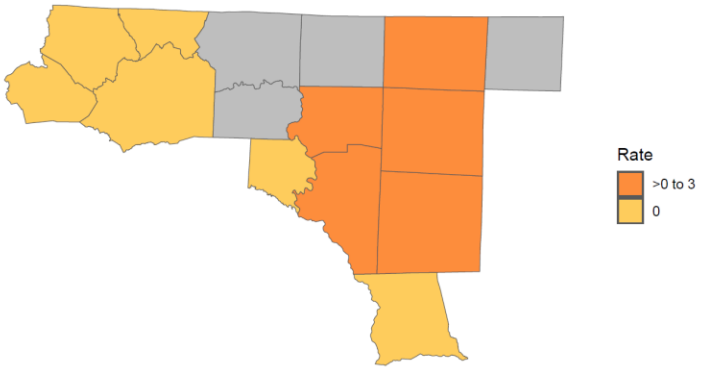
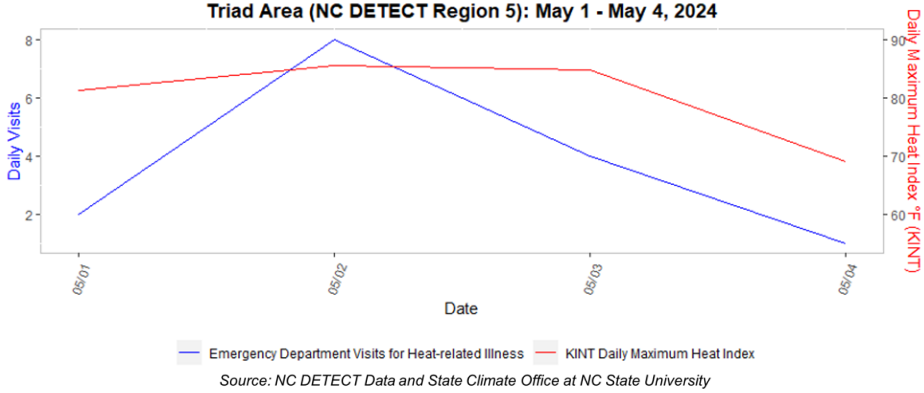


Figure 2. Rate of Heat–Related Illness Emergency Department Visits per 100,000 Population Triad Area (NC DETECT Region 5)



Counties in gray have been suppressed for confidentiality due to small numbers

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index Triad Area (NC DETECT Region 5): May 1 - May 4, 2024



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

Table 1. Heat-related illness ED visits by Severity

Severity§	Number (N = 10‡)	Percent†
Heat Exhaustion	3	30
Heat Syncope	5	50
Other Effects‖	2	20

§ 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

Western NC (NC DETECT Region 6) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 0.2 per 100,000 population.**

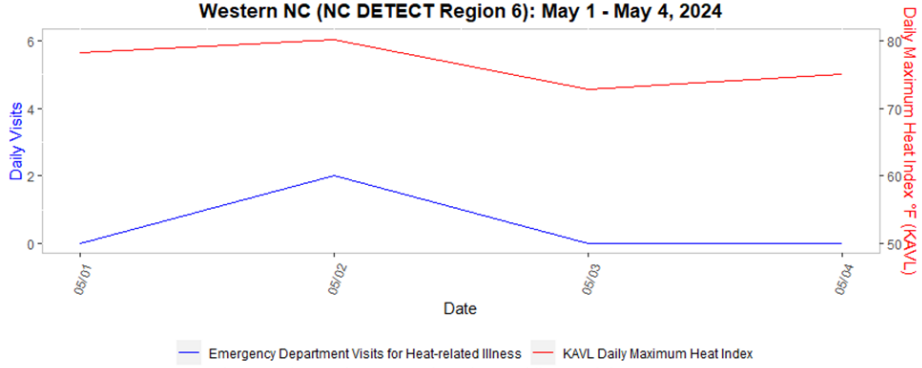
This week (May 1-4, 2024):

- There were **2** HRI ED visits (0.04% of total ED visits), with a rate of **0.2 per 100,000 population.**
- The maximum heat index ranged from **72.9 to 80.2°F** at Asheville Regional Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

Figure 1 is not provided for Western NC this week due to small numbers

Figure 1 is not provided for Western NC this week due to small numbers

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Western NC (NC DETECT Region 6): May 1 - May 4, 2024



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

Table 1 is not provided for Western NC this week due to small numbers

Charlotte Area (NC DETECT Region 7) Key Messages

The average weekly rate of heat-related illness emergency department visits **this season to date is 0.5 per 100,000 population.**

This week (May 1-4, 2024):

- There were **14** HRI ED visits (0.1% of total ED visits), with a rate of **0.5 per 100,000 population.**
- The rate was highest among **males** aged **25-44 years (1.4 HRI ED visits per 100,000 population).** (Figure 1)
- The rate of HRI ED visits was highest in **Cleveland County (1 per 100,000 population).** (Figure 2)
- The most frequent heat related diagnosis code was **heat exhaustion (n =4**). (Table 1)
- The maximum heat index ranged from **72.7 to 85.4°F** at Charlotte/Douglas International Airport. (Figure 3)
- There were **0** days when the minimum temperature did not drop below 70°F.

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

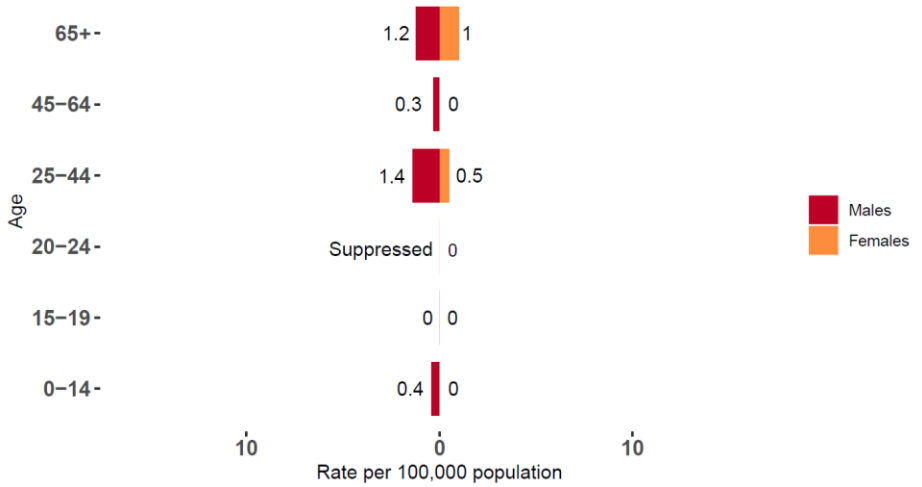
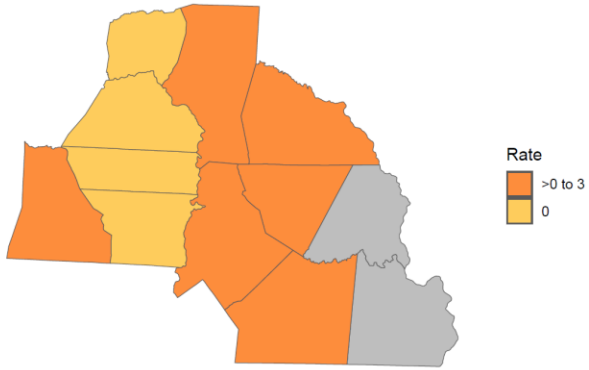
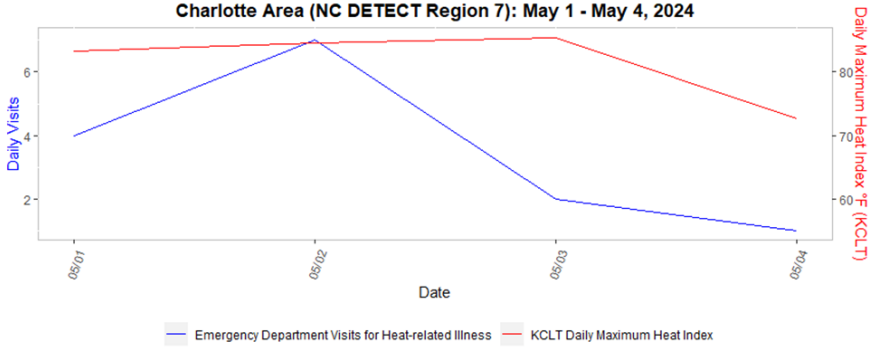


Figure 2. Rate of Heat-Related Illness Emergency Department Visits per 100,000 Population
Charlotte Area (NC DETECT Region 7)



Counties in gray have been suppressed for confidentiality due to small numbers

Figure 3. Emergency Department Visits for Heat-related Illness and Maximum Heat Index
Charlotte Area (NC DETECT Region 7): May 1 - May 4, 2024



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 Exhaustion	4	50
Heat Syncope	1	12.5
Other Effects‖	3	37.5

§ Definitions of heat-related illness severity categories: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html
‡ Missing severity data = 6
† May not total 100 due to rounding
‖ other effects include heat fatigue, heat edema, other effects of heat and light, and other effects unspecified