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6. AUTHOR(S) Kiara D. Scatliffe-Carrion, MPH, Alexis L. Maule, PhD, John F. Ambrose, PhD MPH				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Defense Centers for Public Health - Aberdeen (DCPH-A) [Formerly Army Public Health Command (APHC)] Aberdeen Proving Ground – Edgewood Area, MD 21010-5403				8. PERFORMING ORGANIZATION REPORT NUMBER TIP NO. 028-0524
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14. ABSTRACT This technical information paper summarizes findings of routine surveillance for reportable heat illnesses (heat exhaustion and heat stroke) among Department of Defense (DoD) Service members, conducted by the U.S. Army Public Health Center, now known as the Defense Centers for Public Health–Aberdeen (DCPH-A). This document serves as an historical archive for monthly Army heat illness reports published between 2019 and 2022 and also highlights DCPH-A findings for all DoD Services from 2023.				
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TIP NO. 028-0524

HEAT ILLNESSES: SUMMARY OF MILITARY HEALTH SURVEILLANCE REPORTS, 2019–2023

This technical information paper summarizes findings of routine surveillance for reportable heat illnesses (heat exhaustion and heat stroke) among Department of Defense (DoD) Service members, conducted by the U.S. Army Public Health Center, now known as the Defense Centers for Public Health–Aberdeen (DCPH-A). This document serves as an historical archive for monthly Army heat illness reports published between 2019 and 2022 and also highlights DCPH-A findings for all DoD Services from 2023.

1. BACKGROUND

- a. The military has long recognized the threat of heat-related illnesses to Service members. Heat casualties in the military are also referred to as exertional heat illnesses (EHI) because they usually result from a combination of troops' exposure to hot and humid conditions during training, field activities, operational environments, and vigorous physical activities (Reference 1, 2). The importance of preventing heat casualties is reflected in a robust military doctrinal manual, last updated in 2022 (Reference 3).
- b. Though EHI include a range of conditions, including heat cramps, sunburn, and dehydration, the most severe EHI are heat exhaustion and heat stroke (References 1–3). The Armed Forces Health Surveillance Division (AFHSD) publishes surveillance case definitions for heat exhaustion and heat stroke to include in heat illness health surveillance reporting (Reference 4). The AFHSD has indicated that rates of heat stroke and heat exhaustion among Service members generally declined during 2018–2022. In 2022, Service members at highest risk were those younger than age 20, those in combat-specific occupations, males, Marine Corps and Army personnel, and recruit trainees (Reference 5).
- c. Each year, military health surveillance data are reported monthly from April through September as primary months of concern. Past Army-specific surveillance data have shown that approximately 1,500 heat illnesses are reported each year, resulting in thousands of annual lost or restricted duty days (Reference 6). High heat is a primary EHI hazard; most EHI occur between May and September when the outside temperature is over 75 degrees Fahrenheit (°F). While rates of Army heat illnesses have consistently peaked in July, cases have occurred throughout the year.
- d. Because temperature is not the only meteorological factor that can increase risk of EHI, the military uses the Wet Bulb Globe Temperature (WBGT) which integrates temperature with measurements of sunlight, humidity, and wind speed (References 2, 3). Both the military and public health organizations have recognized risks associated with rising temperatures over the past decade (References 7–9). According to the Occupational Safety and Health Administration (OSHA), climate change is increasing the frequency and intensity of extreme heat events, as well as average daytime and nighttime temperatures. Past Army data indicate many Army installations, especially those in the South and Southeast, frequently experience high heat days. Many of these locations are training sites

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where Service members are required to engage in rigorous physical activities. Recruits at these sites who may not be acclimated may thus be at higher risk of heat illness. (References 1–3, 10).

e. Given the risk of severe casualties, routine surveillance of heat illnesses is needed to identify occurrence of cases outside expected patterns and to inform illness and injury prevention opportunities. While heat stroke and heat exhaustion have been reportable conditions since 2010, the under-reporting of cases in passive reporting systems has limited the efficiency and accuracy of surveillance data. In response to these limitations, the DCPH-A established an internal Weather-Related Injury Repository (WRIR) to support associated monthly surveillance products.

- (1) The WRIR is a comprehensive data set maintained by the DCPH-A for the surveillance of weather-related injuries (both heat illness and cold weather-related injuries) among Service members. WRIR captures both selected ICD-10-CM codes in medical encounter records from the Military Health System (MHS) Data Repository (MDR) and the weather-related medical event reports submitted through the Disease Reporting System internet (DRSi) using Reportable Medical Event (RME) case definitions established by the AFHSD (References 4, 11). The WRIR was initiated in 2014 for the Army, expanded to the Navy, Marine Corps, and Air Force in 2015, and as of 2023, includes the Space Force. Weekly updates of the data provide opportunities for timely surveillance activities, and reviews of prior years' data provide the opportunity to analyze trends.
- (2) The WRIR includes six main data sources: military medical treatment facility (MTF) hospital admissions, MTF outpatient encounters, medical event reports, purchased care hospital admissions, purchased care encounter records, and in-theater medical records. Records included in the WRIR are for Active Duty, trainee, and Reserve and Guard Service members. Non-Service member beneficiaries and retirees are excluded.

f. The data for this document are obtained from the WRIR. Service members are counted as an incident case if they have an initial encounter for heat stroke or heat exhaustion within the calendar year. Consistent with the AFHSD case definition, Service members are considered an incident case only once per calendar year.

g. DCPH-A heat illness surveillance reports are published from April through September of each year. Prior to 2023, the monthly reports included only Army Service members (provided in Appendices B–F for years 2019–2022, respectively). In 2023, the reports expanded to include Navy, Air Force, Space Force, and Marine Corps Service members (Appendix F). The findings below summarize overall DoD Service data for 2023.

h. NOTE: Since the end of 2023, there has been an important change in how medical encounter data are being transferred and processed between the MHS GENESIS electronic health record and the Military Health Data Repository (DHA Public Health's main source of data). This higher-level change resulted in a large gain in medical encounter data, and access to a huge backlog of data as far back as 2021. As a result, the number of identified heat illness cases since that change is now higher. Although estimated rates increased due to this systematic change, overall trends remained nearly unchanged.

2. FINDINGS

a. Based on the new dataset from 2023, there were 3,722 heat illnesses diagnosed among DoD Service members in calendar year 2023 (3,213 heat exhaustion cases, 509 heat stroke cases). Figures 1–4 show the heat illness case counts for each Service. Most cases occurred among Soldiers (n=2,324, 62.4%) (Figure 1) and Marines (n=677, 18.2%) (Figure 2). Of the 3,722 heat illness cases, 370 were hospitalized; 161 of the hospitalizations were due to heat exhaustion, and 209 were due to heat stroke. Most heat illnesses were diagnosed among junior enlisted Service members (n=2,671, 71.8%) and Service members under the age of 25 (n=2,413, 64.8%).

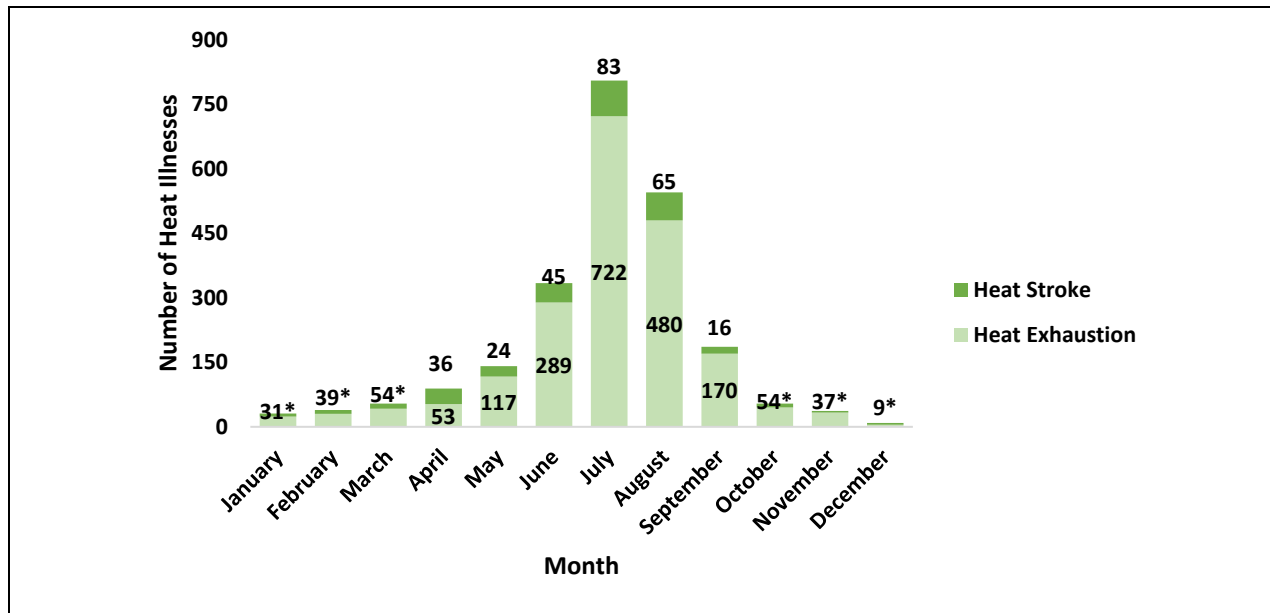


Figure 1. Number of Heat Illnesses, U.S. Army, 2023

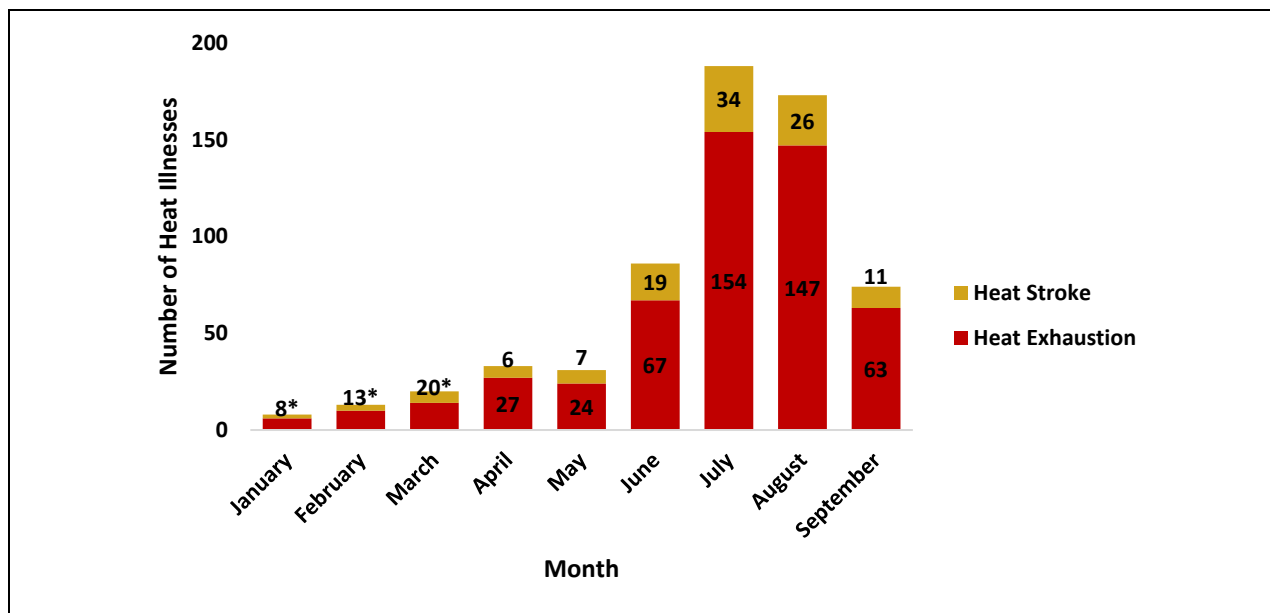


Figure 2. Number of Heat Illnesses, U.S. Marine Corps, 2023

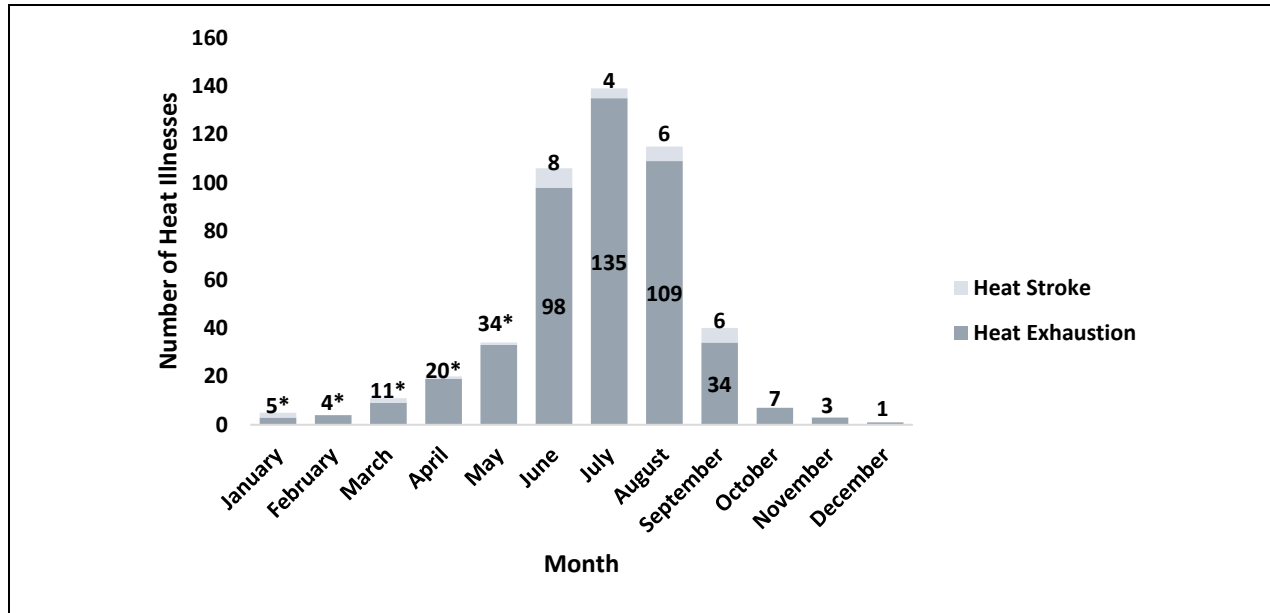


Figure 3. Number of Heat Illnesses, U.S. Air Force and U.S. Space Force, 2023

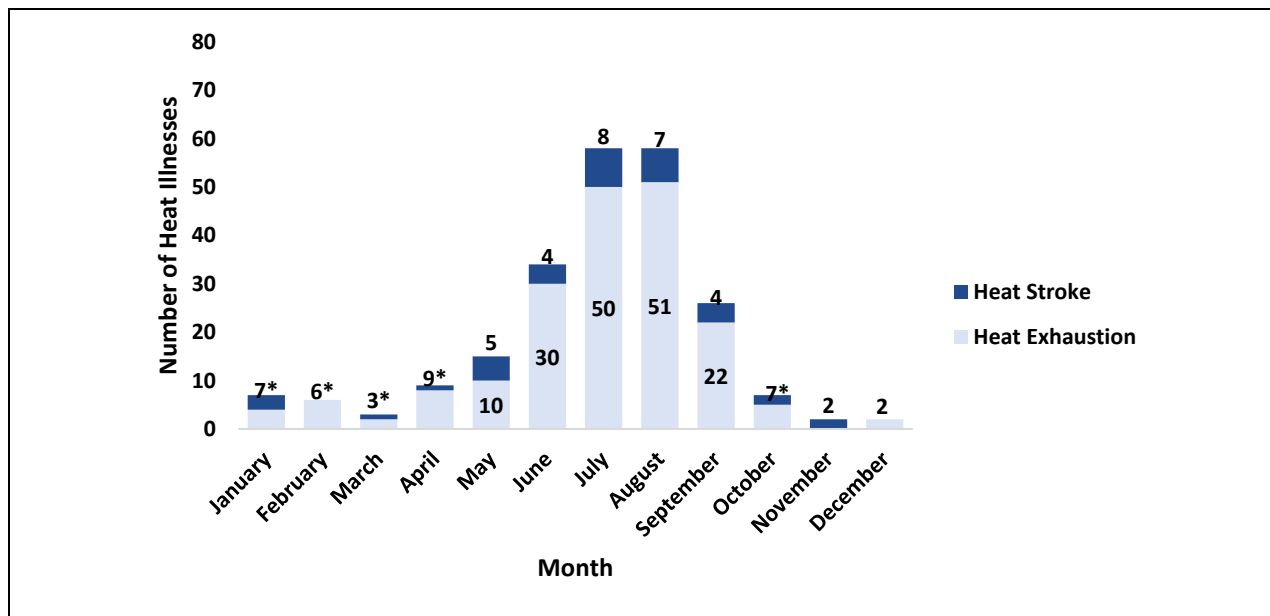


Figure 4. Number of Heat Illnesses, U.S. Navy, 2023

*Sum of heat stroke and heat exhaustion counts

c. Rates of heat illness among DoD Service members in 2023 were estimated using denominator data from the Military Health System Management Analysis and Reporting Tool, known as M2 (Reference 12). During the 2023 calendar year, the rate of heat illnesses in DoD Service members increased sharply from May to July 2023, before decreasing first in August 2023, and then again sharply in September 2023 (Figure 5).

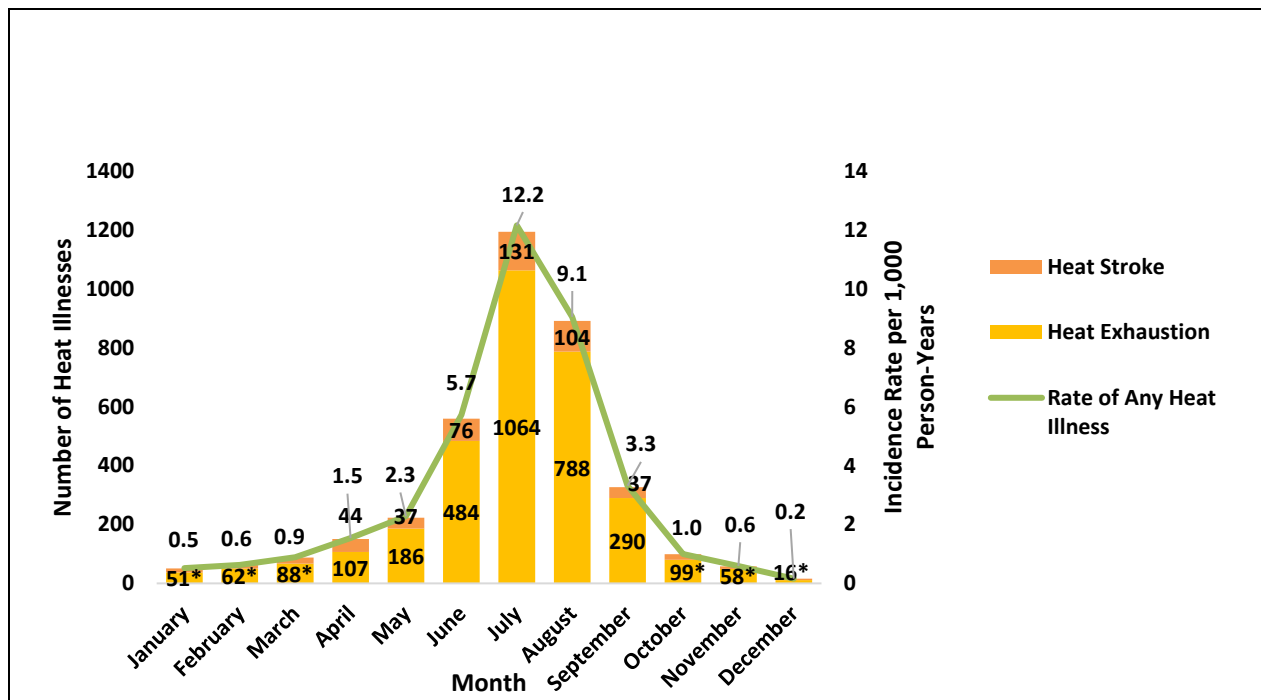


Figure 5. Incident Cases and Rates of Heat Illnesses, DoD Service Members, 2023

- d. As indicated in Figure 5, heat illnesses primarily occurred during July, with 1,195 heat illnesses diagnosed (1,064 heat exhaustion cases and 131 heat stroke cases). This equated to an incidence rate of 12.2 cases of heat illness per 1,000 person-years. August had the next highest rate of military heat illness, followed by June.
- e. Figure 6 shows the July heat illness rates for DoD Service members in the last 5 years. An assessment of linear trend is not appropriate for the data distribution (i.e., check-shaped).
- (1) The second highest rates shown were in July 2019, followed by a significant drop in July 2020. This decrease is consistent with operational changes made in response to the COVID-19 pandemic. In 2020, many field activities were delayed or completely halted, reducing both the number of Service members exposed and the amount of time they were exposed to heat and vigorous training activities. The reduction of exposures and associated EHI cases was most substantial at training installations, as recruits in military populations have historically been at greatest risk of EHI (Reference 2, 3). In addition, recruit engagement occurred only after quarantine periods which may have resulted in longer periods for recruits to acclimatize to metrological conditions at training locations, which may have reduced their heat illness risk.
 - (2) The return to pre-pandemic operational procedures has been gradual. The operational changes made in response to COVID-19 may have had a protective effect on heat illness. While Figure 6 shows July heat illness rates have been rising since 2020, it is not known whether rates will return to or exceed those observed prior to the COVID-19 pandemic.

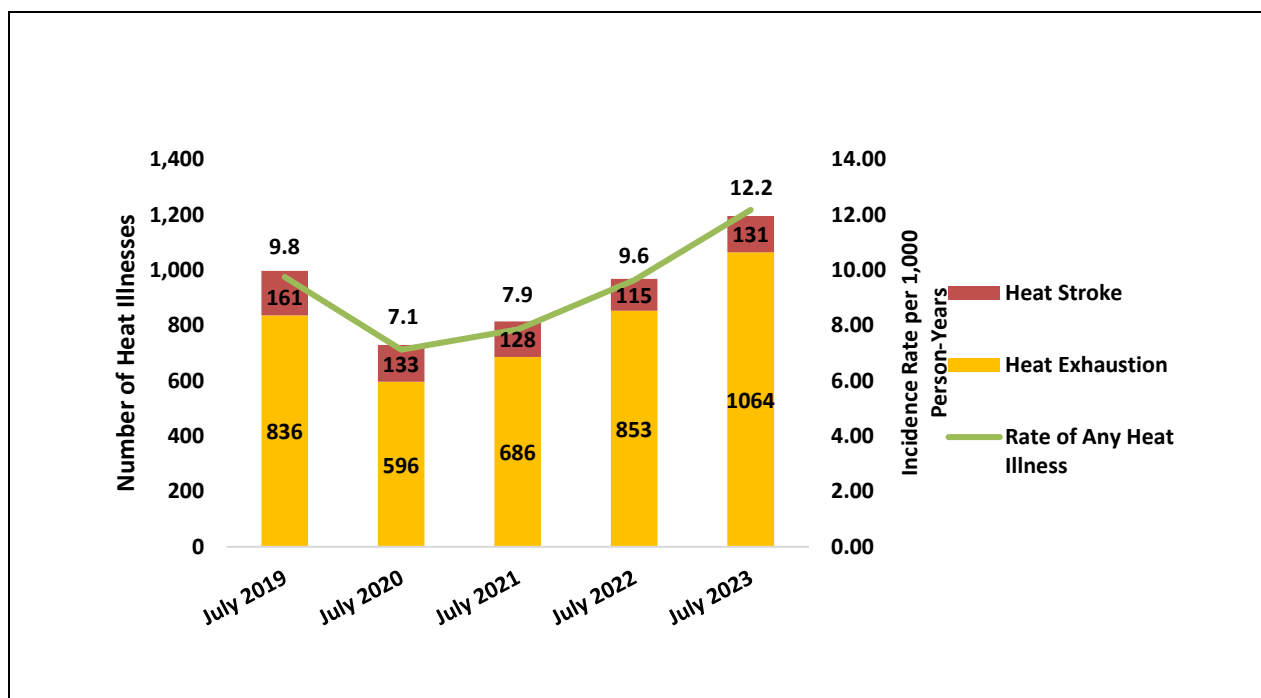


Figure 6. Incident Cases and Rates of Heat Illnesses, DoD Service Members, Month of July, 2019–2023

3. RECOMMENDATIONS AND FUTURE EFFORTS

- a. Heat illnesses, including the full range of EHI, are preventable. Given the operational impacts and possibility of hospitalization and even deaths, military leaders and Service members are required to undergo annual training each March (Reference 3) to maintain familiarity with types of EHI and symptoms, as well as risk factors, prevention measures, and actions to take to facilitate appropriate and timely treatment. Service members and unit leader are encouraged to use the DCPH-A *Heat Illness Prevention Guide for Service Members* (Reference 2) as a quick reference for primary actions to take to reduce heat illness risk. Primary actions include the following:
 - (1) Be aware of individual heat illness risk factors; minimize them when possible. Some personal factors can predispose a Service member to becoming a heat casualty.
 - (a) Service members and their leaders should be aware of personal risk profiles. Some heat illness risk factors, such as prior heat illness and genetic predisposition (e.g., Sickle cell trait), cannot be modified.
 - (b) Some risk factors may be avoidable or reduced, such as use of alcohol or certain medications the day before strenuous activity on days exceeding 75°F.
 - (c) Other personal characteristics such as being overweight, or inadequate aerobic fitness, should be factored into the need to gradually acclimate to both meteorological conditions and physical activity.

- (d) Primary actions to take during strenuous activities in warm or hot climates include avoiding dehydration by following military water consumption guidelines (avoiding overconsumption of water to prevent hyponatremia, another potentially fatal condition) and wearing proper clothing and sun protection.
- (2) Unit leaders should implement operational risk management strategies to reduce heat illness risk to unit members.
- (a) Ensure Service members are taking proper self-care measures to prevent heat illness, including staying hydrated and wearing proper clothing and sun protection.
 - (b) Monitor the WBGT and follow military drinking water and rest/activity guidelines. Understand how additional gear can add to heat stress.
 - (c) Even though military WBGT risk categories emphasize extremely-high and high-risk days at higher temperatures, aim to reduce the amount and frequency of physical activity in climates greater than 75°F. Especially avoid strenuous activity during consecutive high-risk days. Consider conducting strenuous physical activities during cooler times of the day (e.g., early morning, evening, or at night). Factor in adequate recovery times between strenuous activities on high-risk days.
- b. Continued surveillance of heat illness among Service members is critical to help inform leaders and medical communities as to trends, and especially to flag changes to expected rates in order to investigate potential causes and mitigation measures. Future heat illness reports will contain U.S. Coast Guard data in addition to those from the other Services. In addition to publishing the DCPH-A monthly reports, the *Medical Surveillance Monthly Report (MSMR)* will publish the annual updated DoD heat surveillance reports in its April volumes.

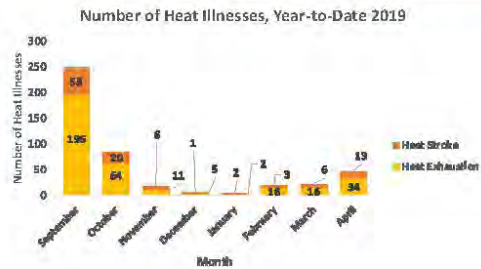
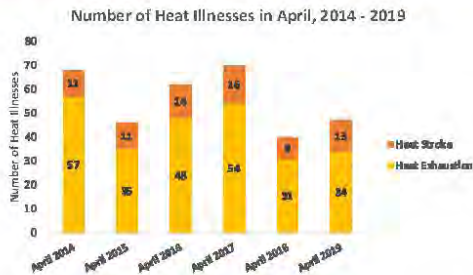
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TIP No. 028-0254

**APPENDIX B
2019 HEAT ILLNESS REPORTS**

The 2019 Heat Illness Reports begin on the next page.



In April 2019, 47 heat illnesses were diagnosed (34 heat exhaustion cases, 13 heat stroke cases). This is the third lowest number of heat illnesses for April months between 2014 and 2019 and represents an 18% increase in cases compared to April 2018. However, April 2019 represents the third highest month for heat strokes (n=13) in April months between 2014 and 2019. Of note, Fort Benning accounted for 57% (n=27) of all cases of heat illness diagnosed in April. Junior Enlisted (JE) Service Members (SM) had the greatest burden of both heat illness types, accounting for 70% (n=24) of heat exhaustion cases and 46% (n=6) of heat strokes. Senior enlisted (SE) SMs and Commissioned Officers (COs) both accounted for 15% (n=5 for both ranks) each of heat exhaustion cases. SE SMs accounted for 23% (n=3) of heat stroke cases while COs accounted for 31% (n=4) of heat stroke cases. There were seven hospitalizations due to heat illness in April; JE SMs accounted for 71% (n=5) of the hospitalizations while COs accounted for 29% (n=2). Four of the seven hospitalizations were due to heat strokes. April 2019 also represents the third lowest month for hospitalizations for April months between 2014 and 2019.

Table 1: Locations where Heat Illnesses were Diagnosed - April 2019

Region	Installation	Number of Heat Illnesses
Atlantic	Ft. Benning	27
	Ft. Bragg	7
	Ft. Campbell	3
	Ft. Lee	1
	Ft. Stewart	2
Central	Guantanamo Bay	1
	Ft. Leonard Wood	1
	Ft. Polk	1
	Ft. Rucker	1
	Schofield Barracks	2
Pacific	U.S. Army Garrison Yongsan	1

Information displayed in this report is from the Defense Health Agency (DHA) Army Sentinel Heat Illness Database. The database is a composite of the data across Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 2: Timeliness of Reporting - April 2019

Region	Installation	Number of Heat Illnesses Entered in DRSI within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	18	23	78	1	3	2
	Ft. Bragg	2	6	33	2	14	7
	Ft. Campbell	1	1	100	2	2	2
	Ft. Rucker	1	1	100	2	2	2
	Ft. Stewart	1	1	100	2	2	2
Central	Ft. Polk	1	1	100	1	1	1
Pacific	Korea	0	1	0	4	4	4

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.

Minimum Days- The least number of days noted for a heat illness to be reported.

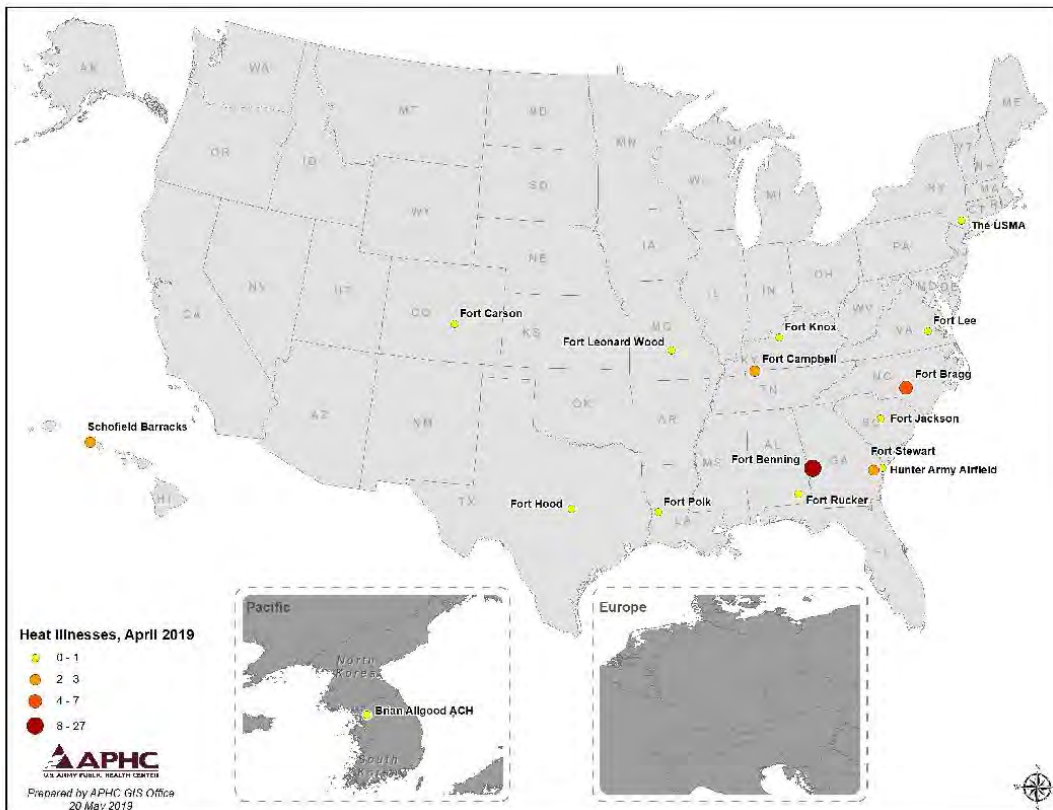
Maximum Days- The highest number of days noted for a heat illness to be reported.

Mean Days- The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSI.



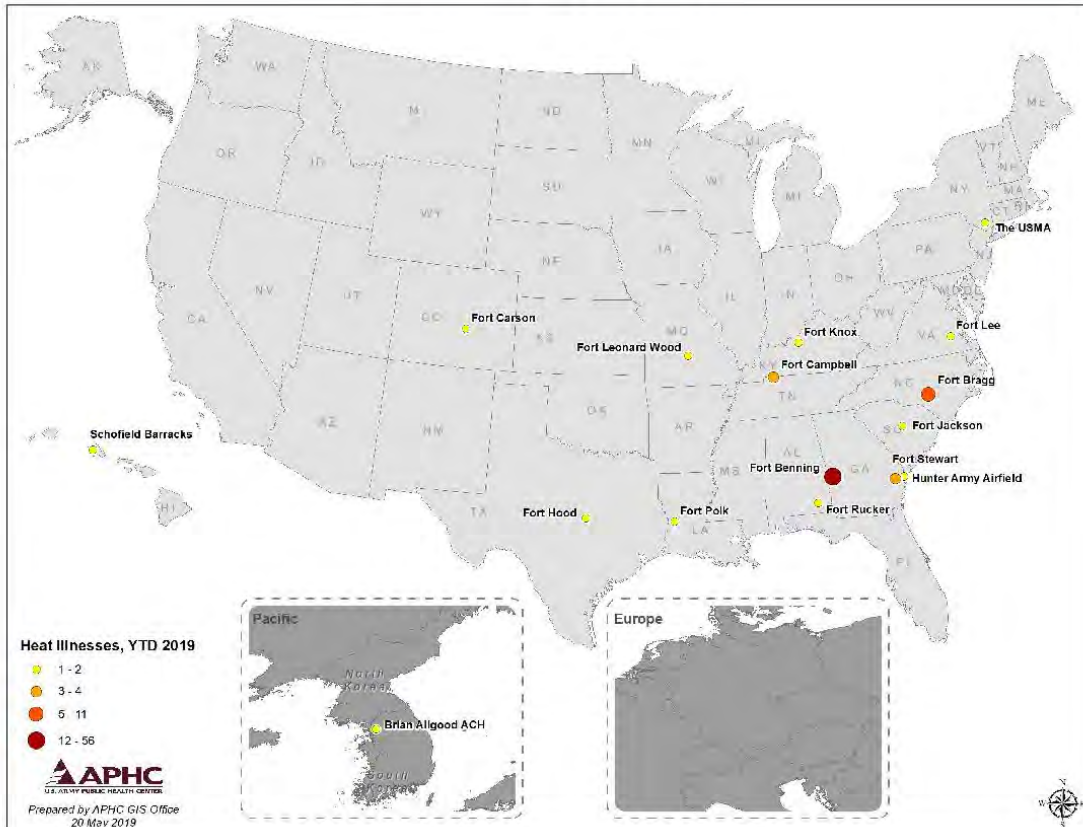
Heat Illnesses, April 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

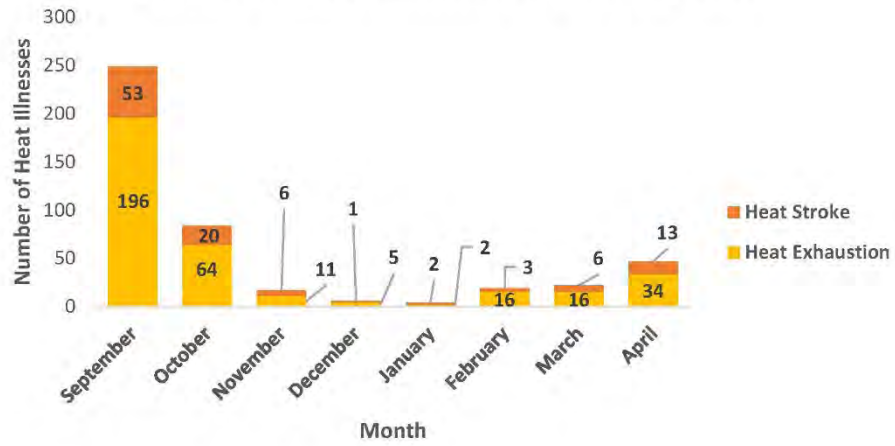


Heat Illnesses, 2019 Year-to-Date

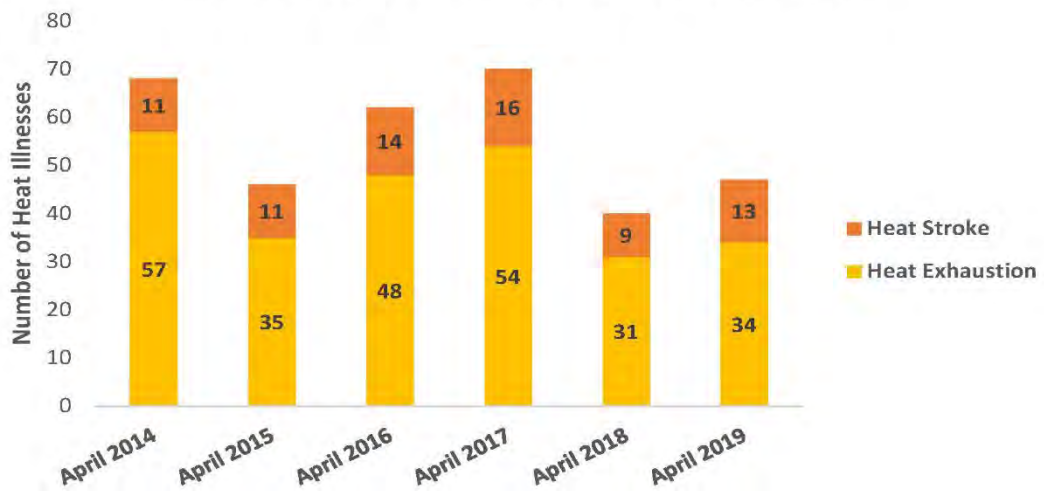


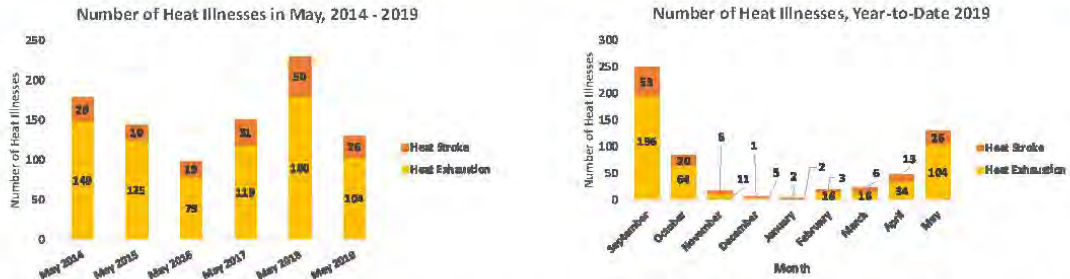
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

Number of Heat Illnesses, Year-to-Date 2019



Number of Heat Illnesses in April, 2014 - 2019





In May 2019, 130 heat illnesses were diagnosed (104 heat exhaustion cases, 26 heat stroke cases). This is the second lowest number of heat illnesses for May months between 2014 and 2019, and represents a 43% decrease in cases when compared to May 2018. Ft. Benning reported the most heat illnesses in May 2019 (n=37, 28%) and also had the highest number of heat illnesses to date in 2019 (n=96, 40%). Junior Enlisted (JE) Service Members (SM) had the greatest burden of heat illnesses, accounting for 72% (n=94) of the cases. Senior enlisted (SE) SMs accounted for 17% (n=22) of all heat illnesses, Commissioned Officers (COs) accounted for 8% (n=11), Cadets accounted for 1% (n=1), and all other ranks accounted for 2% (n=2) of heat illnesses. There were ten hospitalizations due to heat illness in May; JE SMs accounted for 60% (n=6) of the hospitalizations, SE SMs accounted for 30% (n=3), and COs accounted for 10% (n=1). Seven of the ten hospitalizations were due to heat exhaustion. May 2019 also represents the highest month for hospitalizations for May months between 2014 and 2019.

Table 1: Locations where Heat Illnesses were Diagnosed - May 2019

Region	Installation	Number of Heat Illnesses	Region	Installation	Number of Heat Illnesses
Atlantic	Ft. Benning	37	Central	Ft. Hood	1
	Ft. Bragg	28		Ft. Irwin	2
	Ft. Campbell	18		Ft. Leonard Wood	2
	Ft. Jackson	8		Ft. Polk	7
	Ft. Lee	4		Ft. Riley	3
	Ft. Rucker	3		Ft. Sill	1
	Joint (AF) Base Langley-Eustis	2		Pacific	ACH Brian Allgood
	U.S. Military Academy	1	Joint (AF) Base Lewis-McChord		1
Unknown	Unknown	10	Schofield Barracks	1	

Data as of 18 June 2019.

Information displayed in this report is from the Defense Health Agency (DHA) Army Satellite Heat Illness Database. The database is a composite of five data sources: Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 2: Timeliness of Reporting - May 2019

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	21	32	66	1	6	3
	Ft. Bragg	0	26	0	3	19	7
	Ft. Campbell	10	14	71	1	7	2
	Ft. Jackson	3	5	60	1	7	3
	Ft. Rucker	1	3	33	2	4	3
Central	Ft. Hood	1	1	100	1	1	1
	Ft. Irwin	1	1	100	2	2	2
	Ft. Leonard Wood	1	1	100	2	2	2
	Ft. Polk	4	5	80	0	3	1
	Ft. Riley	2	2	100	1	1	1
	Ft. Sill	1	1	100	1	1	1
Pacific	Camp Casey	0	1	0	5	5	5
	Ft. Lewis	1	1	100	1	1	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

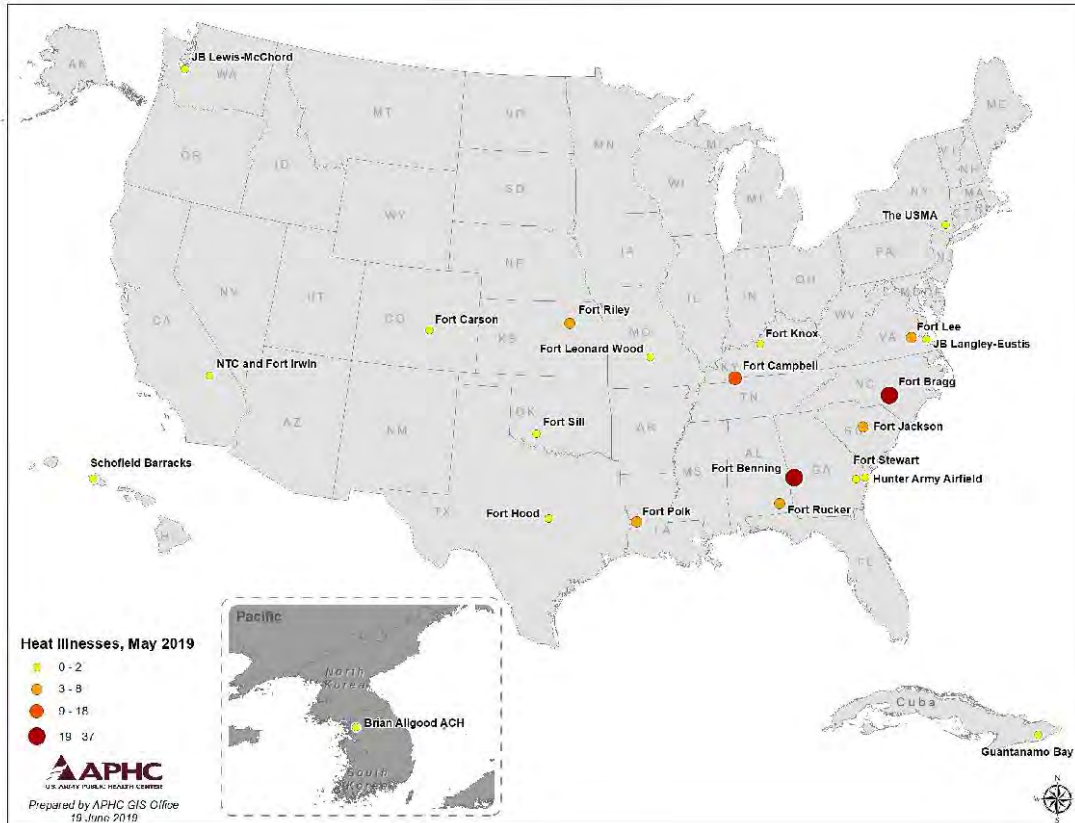
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi.



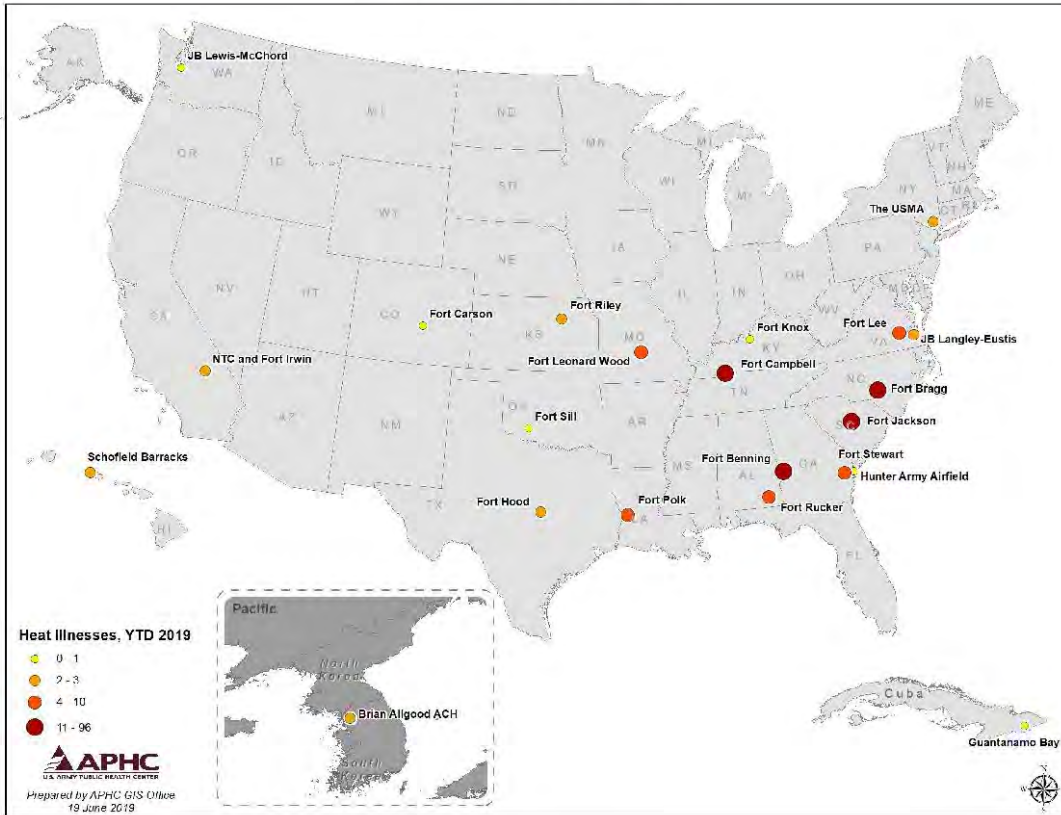
Heat Illnesses, May 2019



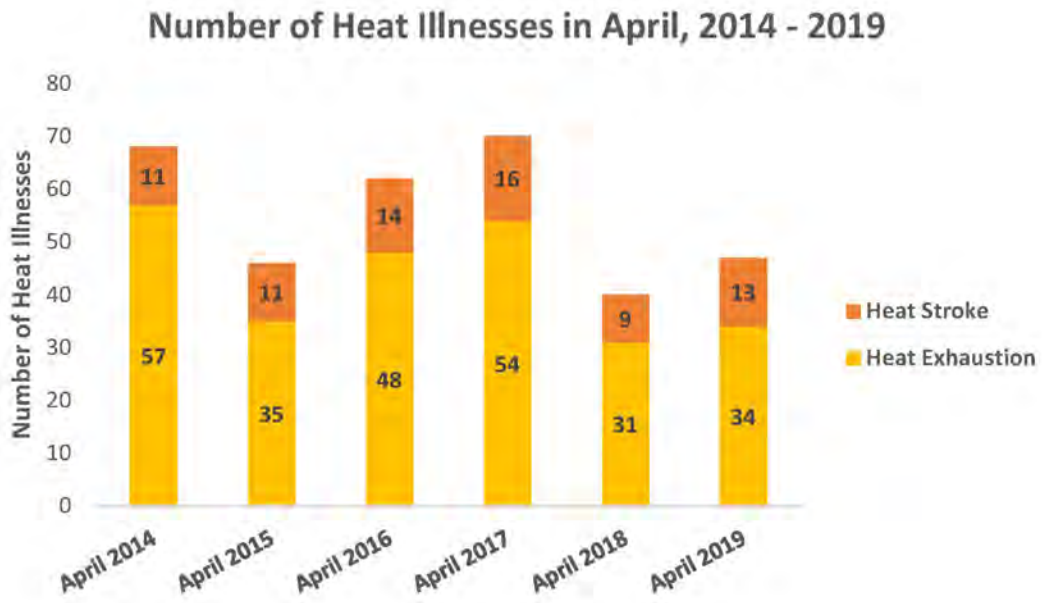
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

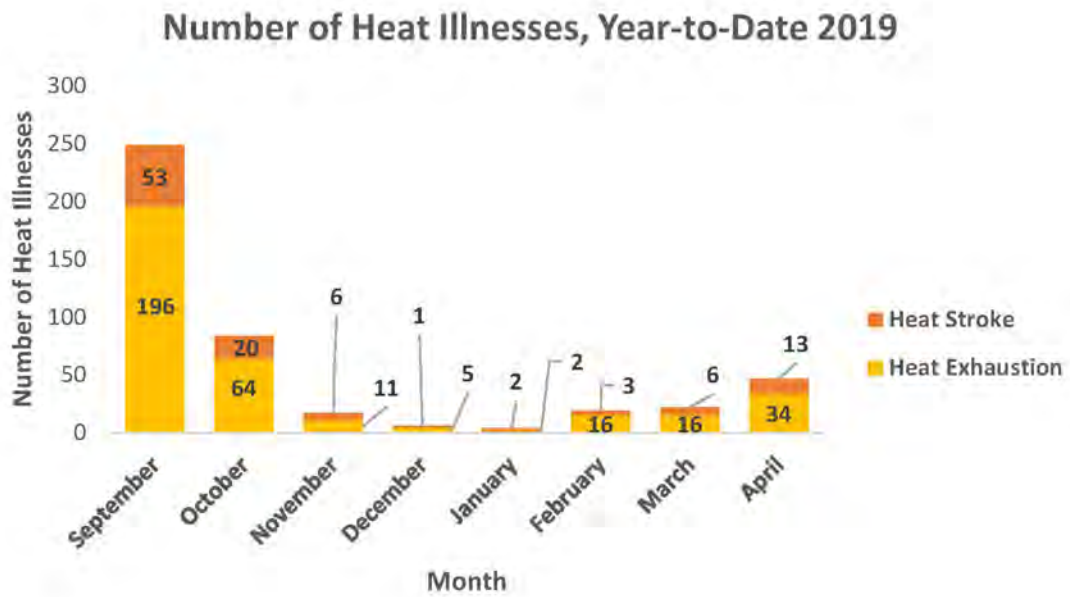


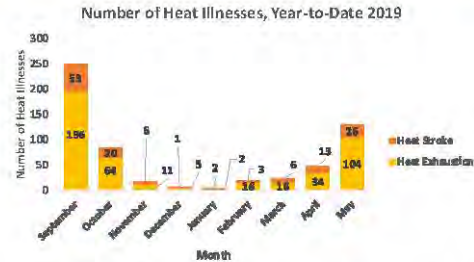
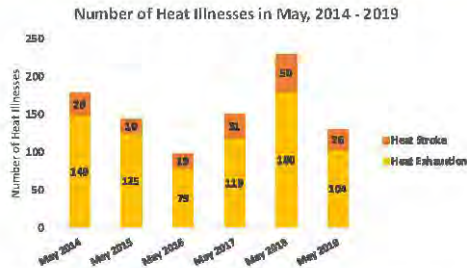
Heat Illnesses, 2019 Year-to-Date



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.







In May 2019, 130 heat illnesses were diagnosed (104 heat exhaustion cases, 26 heat stroke cases). This is the second lowest number of heat illnesses for May months between 2014 and 2019, and represents a 43% decrease in cases when compared to May 2018. Ft. Benning reported the most heat illnesses in May 2019 (n=37, 28%) and also had the highest number of heat illnesses to date in 2019 (n=96, 40%). Junior Enlisted (JE) Service Members (SM) had the greatest burden of heat illnesses, accounting for 72% (n=94) of the cases. Senior enlisted (SE) SMs accounted for 17% (n=22) of all heat illnesses, Commissioned Officers (COs) accounted for 8% (n=11), Cadets accounted for 1% (n=1), and all other ranks accounted for 2% (n=2) of heat illnesses. There were ten hospitalizations due to heat illness in May; JE SMs accounted for 60% (n=6) of the hospitalizations, SE SMs accounted for 30% (n=3), and COs accounted for 10% (n=1). Seven of the ten hospitalizations were due to heat exhaustion. May 2019 also represents the highest month for hospitalizations for May months between 2014 and 2019.

Table 1: Locations where Heat Illnesses were Diagnosed - May 2019

Region	Installation	Number of Heat Illnesses	Region	Installation	Number of Heat Illnesses
Atlantic	Ft. Benning	37	Central	Ft. Hood	1
	Ft. Bragg	28		Ft. Irwin	2
	Ft. Campbell	18		Ft. Leonard Wood	2
	Ft. Jackson	8		Ft. Polk	7
	Ft. Lee	4		Ft. Riley	3
	Ft. Rucker	3		Ft. Sill	1
	Joint (AF) Base Langley-Eustis	2		Pacific	ACH Brian Allgood
	U.S. Military Academy	1	Joint (AF) Base Lewis-McChord		1
Unknown	Unknown	10	Schofield Barracks	1	

Date as of 28 June 2019.

Information displayed in this report is from the Defense Health Agency (DHA) Army Satellite Heat Illness Database. The database is a composite of the data sources: Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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 Contact us: APHC Disease Epidemiology Division

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Table 2: Timeliness of Reporting - May 2019

Region	Installation	Number of Heat Illnesses Entered in DRSI within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	21	32	66	1	6	3
	Ft. Bragg	0	26	0	3	19	7
	Ft. Campbell	10	14	71	1	7	2
	Ft. Jackson	3	5	60	1	7	3
	Ft. Rucker	1	3	33	2	4	3
Central	Ft. Hood	1	1	100	1	1	1
	Ft. Irwin	1	1	100	2	2	2
	Ft. Leonard Wood	1	1	100	2	2	2
	Ft. Polk	4	5	80	0	3	1
	Ft. Riley	2	2	100	1	1	1
Pacific	Ft. Sill	1	1	100	1	1	1
	Camp Casey	0	1	0	5	5	5
	Ft. Lewis	1	1	100	1	1	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

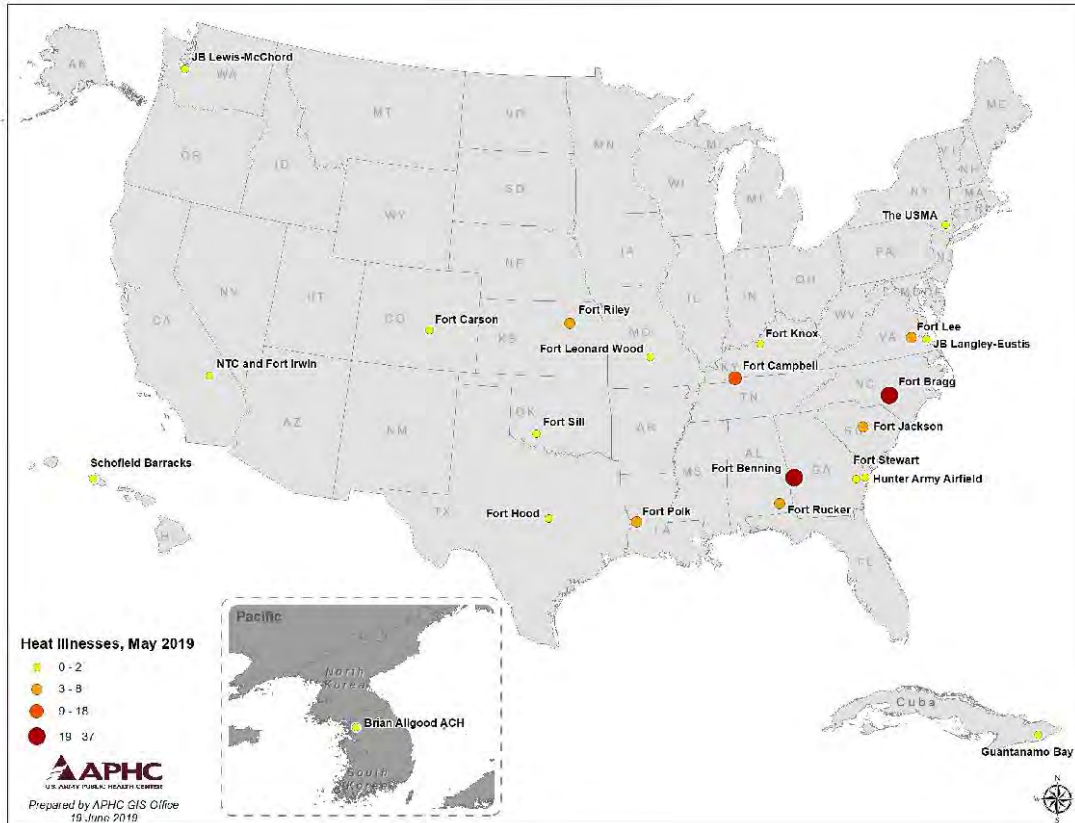
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSI.



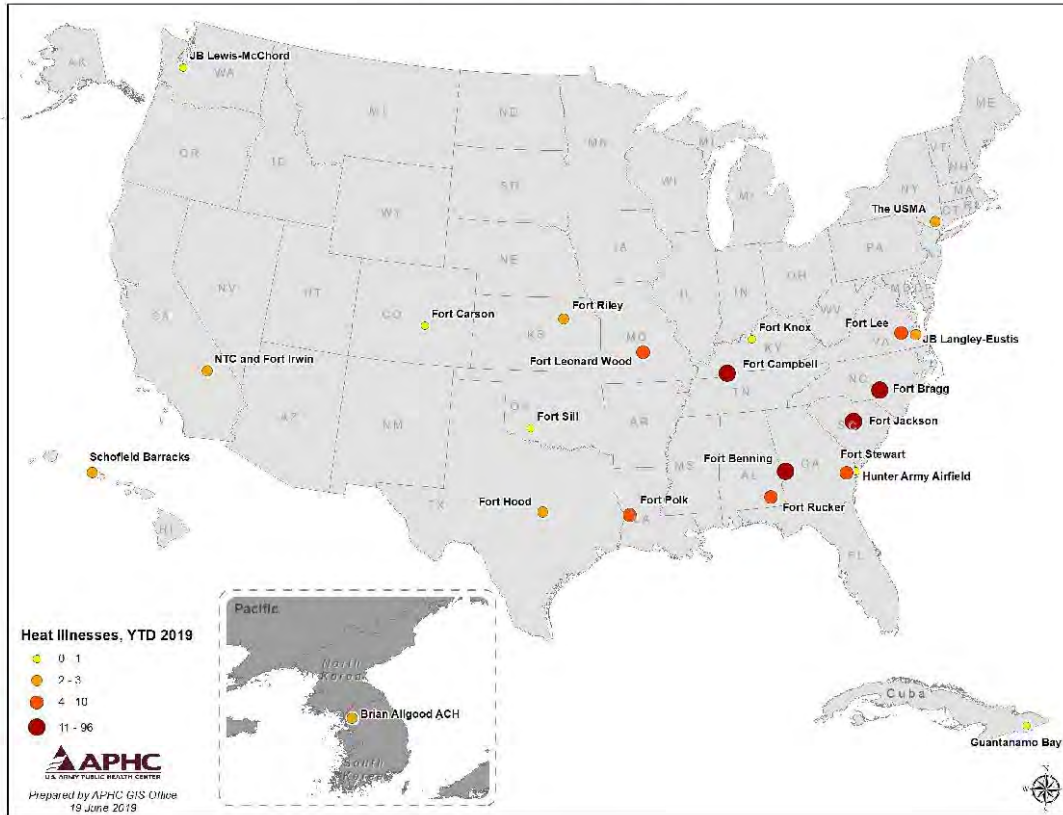
Heat Illnesses, May 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

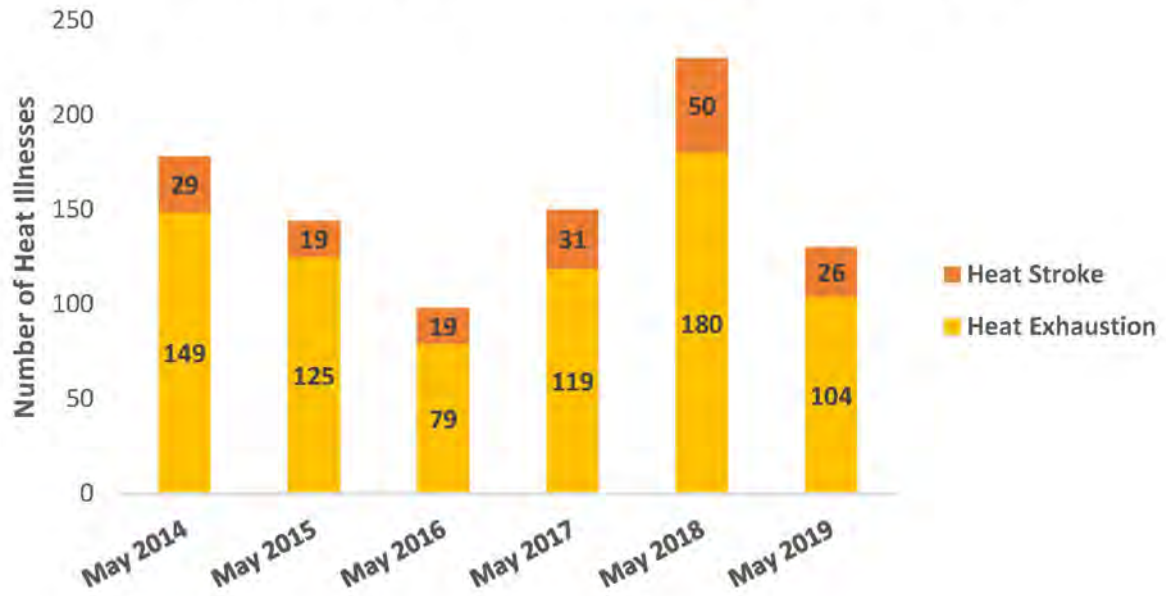


Heat Illnesses, 2019 Year-to-Date

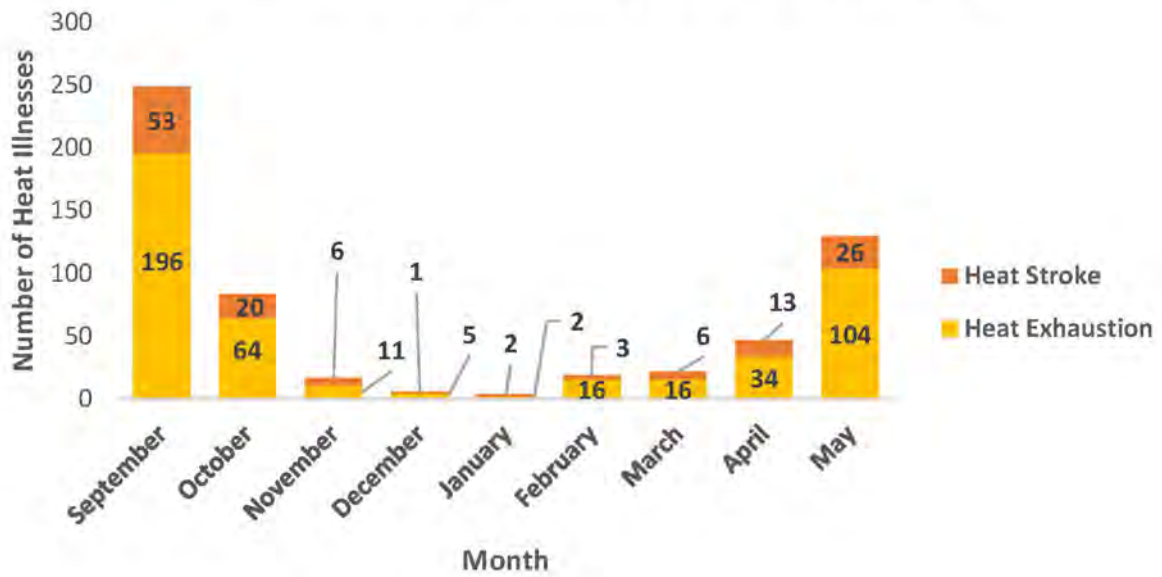


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

Number of Heat Illnesses in May, 2014 - 2019

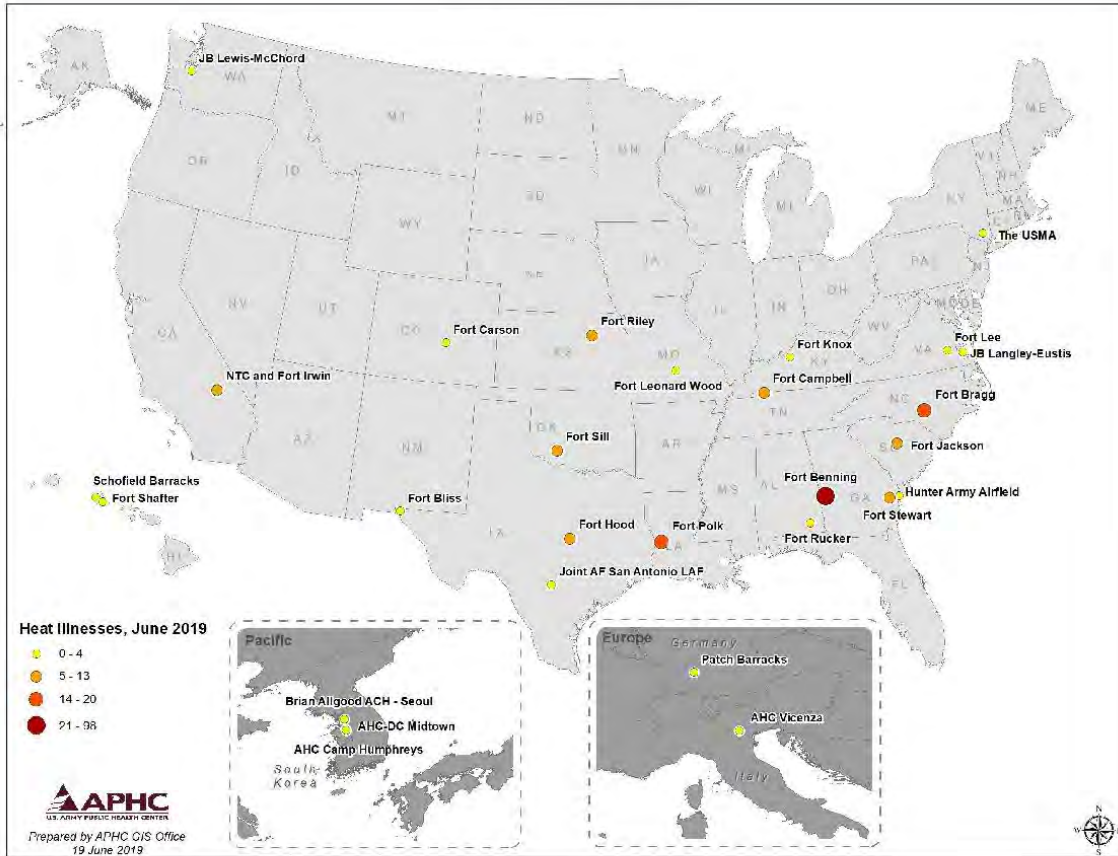


Number of Heat Illnesses, Year-to-Date 2019





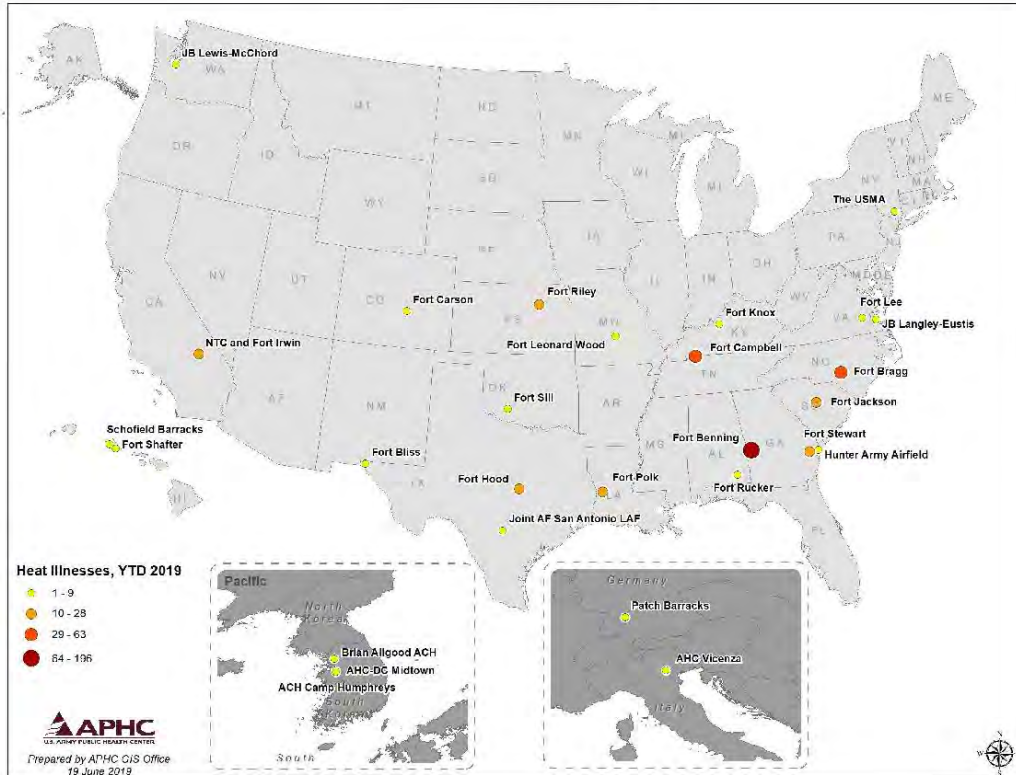
Heat Illnesses, June 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

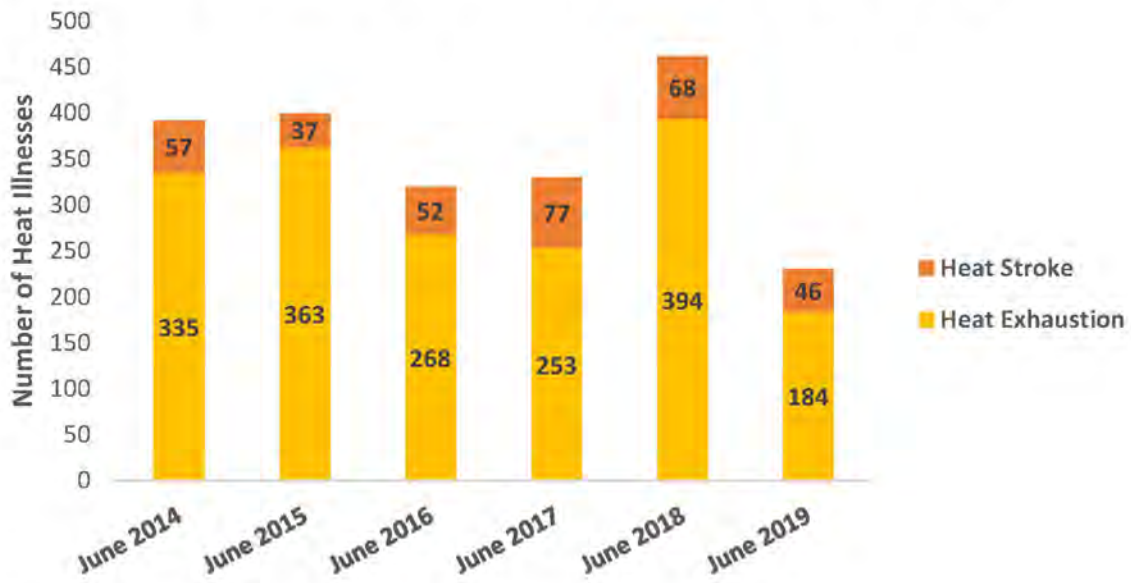


Heat Illnesses, 2019 Year-to-Date

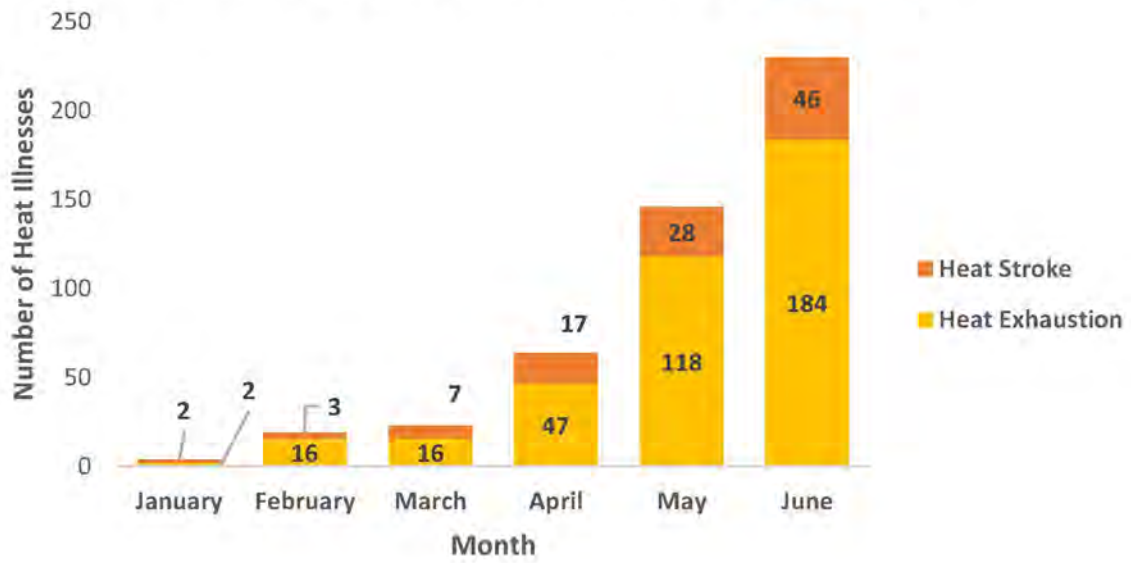


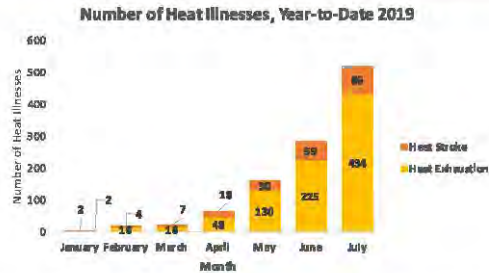
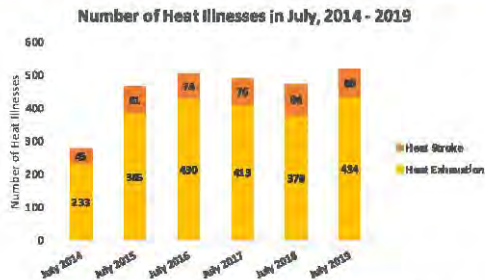
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

Number of Heat Illnesses in June, 2014 - 2019



Number of Heat Illnesses, Year-to-Date 2019





In July 2019, 520 heat illnesses were diagnosed (434 heat exhaustion cases, 86 heat stroke cases). This is the highest number of heat illnesses for July months between 2014 and 2019, and represents a 10% increase in cases compared to July 2018. Ft. Benning continues to account for a high proportion of heat illnesses, representing 25% (n=132) of all heat illnesses reported in July 2019; Ft. Benning also had the highest number of heat illnesses to date in 2019 (n=332, 31%). Junior Enlisted (JE) Service Members (SM) had the greatest burden of heat illnesses, accounting for 76% (n=396) of the cases in July 2019. During July 2019, Senior enlisted (SE) SMs accounted for 14% (n=72) of all heat illnesses; Commissioned Officers accounted for 6% (n=30); Cadets accounted for 3% (n=15); and all other ranks accounted for 1% (n=7). There were 14 hospitalizations in July 2019; JE SMs accounted for 86% (n=12) of the hospitalizations and SE SMs accounted for 14% (n=2); nine of the hospitalizations were due to heat exhaustion. The highest numbers of hospitalizations for July months between 2014 and 2019 were diagnosed in 2015 and 2019; 14 hospitalizations were diagnosed in both 2015 and in 2019.

Table 1: Locations where Heat Illnesses were Diagnosed - July 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Eglin Air Force Base	0	1	1
	Ft. Belvoir	0	1	1
	Ft. Benning	90	42	132
	Ft. Bragg	20	4	24
	Ft. Campbell	21	9	30
	Ft. Gordon	1	0	1
	Ft. Jackson	36	1	37
	Ft. Knox	26	5	31
	Ft. Lee	11	0	11
	Ft. Rucker	6	0	6
	Ft. Stewart	8	0	8
	Joint (AF) Base Langley- Eustis	14	0	14
	Joint (ANF) McGuire-Dix-Lakehurst	2	0	2
U.S. Military Academy	5	3	8	

Data as of 21 August 2019.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 1: Locations where Heat Illnesses were Diagnosed - July 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Central	Ft. Bliss	1	0	1
	Ft. Carson	1	1	2
	Ft. Hood	29	4	33
	Ft. Huachuca	1	0	1
	Ft. Irwin	4	1	5
	Ft. Leonard Wood	34	3	37
	Ft. Polk	64	4	68
	Ft. Riley	5	0	5
	Ft. Sill	17	2	19
	Ft. Stewart	8	0	8
	Joint (AF) San Antonio LAF-RAF-FSH	9	0	9
Europe	AHC Vilseck	3	0	3
Pacific	ACH Brian Allgood-Seoul	1	0	1
	Camp Humphreys	1	1	2
	Ft. Shafter	0	1	1
	Ft. Wainwright	1	0	1
	Joint (AF) Base Lewis-McChord	2	2	4
	Schofield Barracks	2	0	2
Unknown	Unknown Locations	19	1	20



Table 2: Timeliness of Reporting - July 2019

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	69	116	59	0	19	3
	Ft. Belvoir	1	1	100	2	2	2
	Ft. Bragg	1	21	5	2	27	10
	Ft. Campbell	1	14	7	2	13	8
	Ft. Eustis	12	12	100	0	2	1
	Ft. Jackson	2	25	8	1	10	5
	Ft. Knox	4	15	27	1	16	7
	Ft. Lee	0	1	0	15	15	15
	Ft. Rucker	3	3	100	1	2	2
	Ft. Stewart	2	2	100	1	2	2
	U.S. Military Academy	4	5	80	0	5	2
Central	Ft. Hood	19	19	100	1	2	1
	Ft. Irwin	1	3	33	1	17	7
	Ft. Leonard Wood	7	7	100	1	2	2
	Ft. Polk	56	66	85	0	3	1
	Ft. Riley	2	3	67	0	3	1
	Ft. Sam Houston	2	8	25	1	8	4
	Ft. Sill	10	10	100	0	1	1
Pacific	Brian Allgood ACH-Seoul	1	1	100	1	1	1
	Camp Humphreys	0	1	0	5	5	5
	Ft. Lewis	4	4	100	1	2	2

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days- The least number of days noted for a heat illness to be reported.

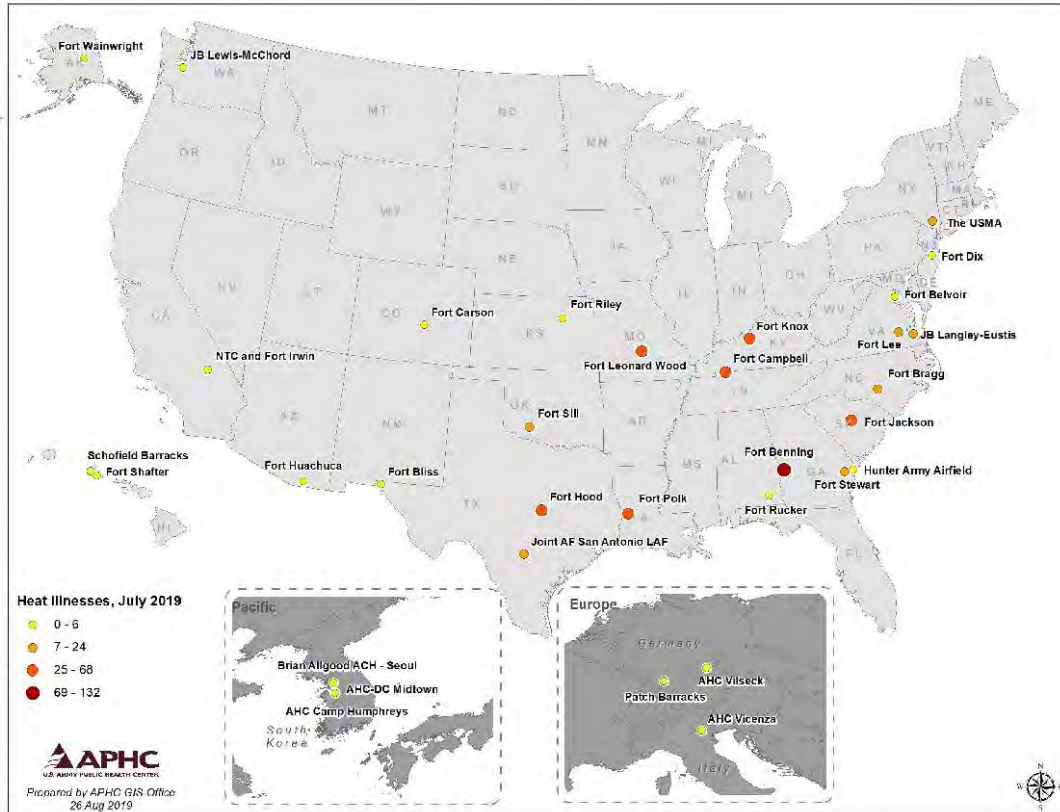
Maximum Days- The highest number of days noted for a heat illness to be reported.

Mean Days- The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi.



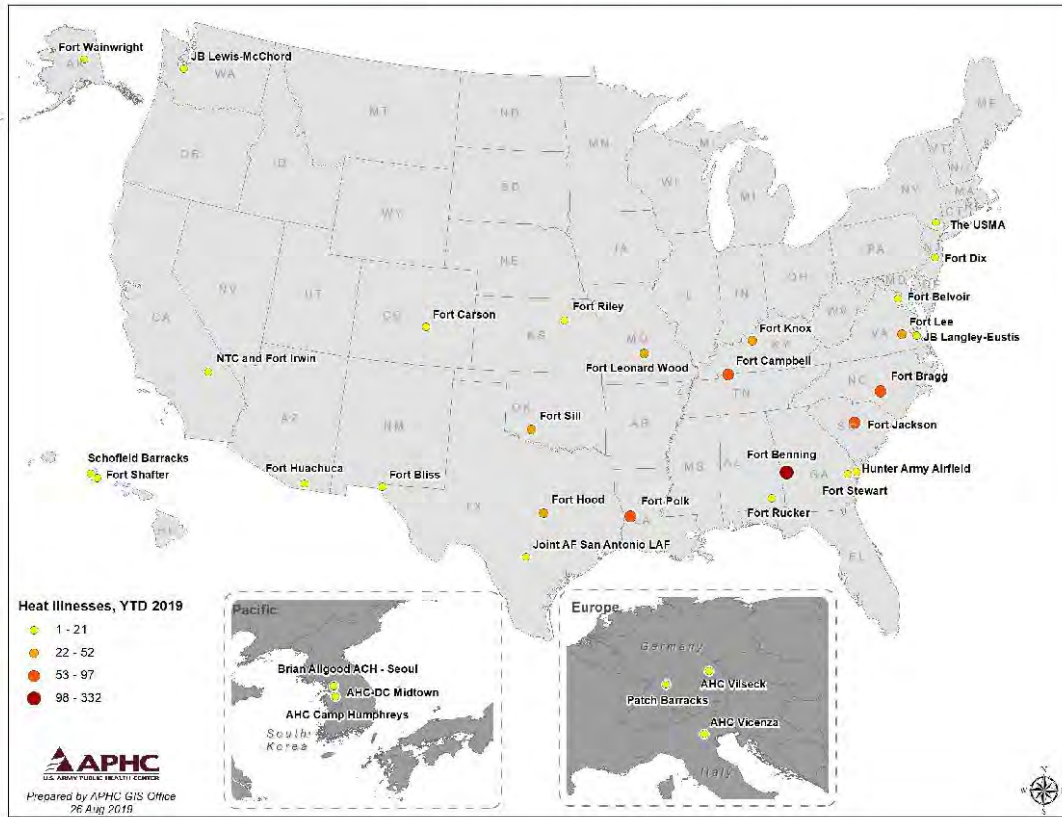
Heat Illnesses, July 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

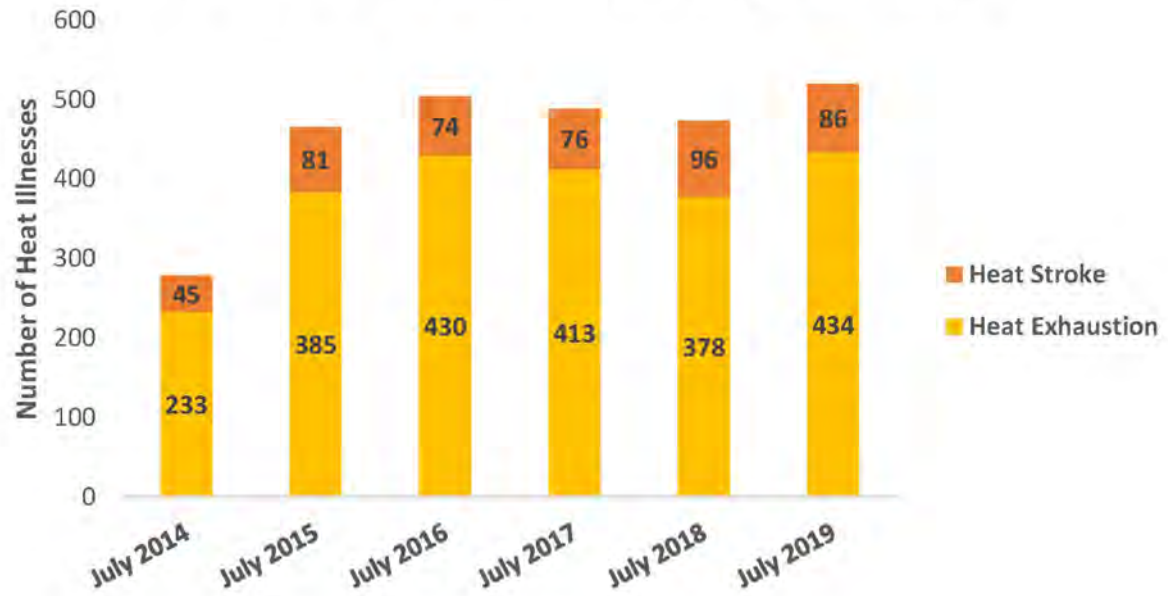


Heat Illnesses, 2019 Year-to-Date

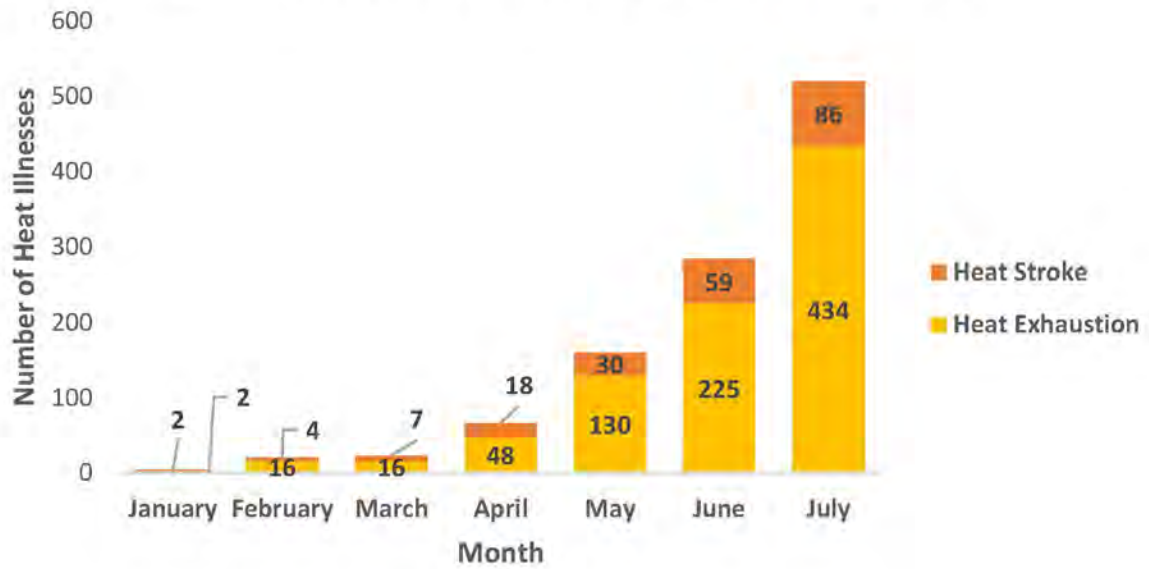


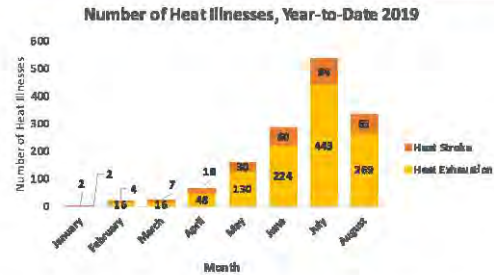
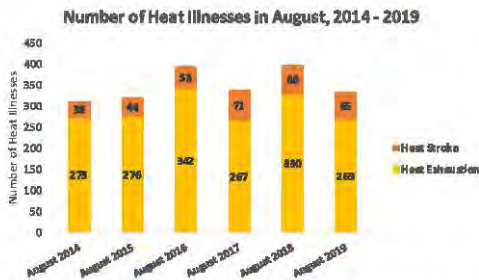
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

Number of Heat Illnesses in July, 2014 - 2019



Number of Heat Illnesses, Year-to-Date 2019





In August 2019, 334 heat illnesses were diagnosed (269 heat exhaustion cases, 65 heat stroke cases). This represents a 16% decrease in cases from August 2018. Ft. Benning continues to account for a high proportion of heat illnesses, representing 46% (n=155) of all heat illnesses reported in August 2019; Ft. Benning also had the highest number of heat illnesses to date in 2019 (n=487, 34%). Junior Enlisted (JE) Service Members (SM) had the greatest burden of heat illnesses, accounting for 81% (n=272) of the cases in August 2019. Senior enlisted (SE) SMs accounted for 10% (n=32) of all heat illnesses; Commissioned Officers (CO) accounted for 8% (n=28); and Cadets accounted for 1% (n=2). There were 9 hospitalizations in August 2019; JE SMs accounted for 67% (n=6) of the hospitalizations and SE SMs accounted for 22% (n=2); COs accounted for 11% (n=1) of hospitalizations. Fifty-six percent (n=5) of hospitalizations were due to heat exhaustion, and 44% (n=4) were due to heat stroke. August 2018 and 2019 represent the second lowest number of hospitalizations for August months between 2014 and 2019 with nine hospitalizations each.

Table 1: Locations where Heat Illnesses were Diagnosed - August 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	123	32	155
	Ft. Bragg	14	2	16
	Ft. Campbell	31	9	40
	Ft. Drum	0	1	1
	Ft. Gordon	1	0	1
	Ft. Jackson	6	3	9
	Ft. Knox	0	1	1
	Ft. Stewart	7	2	9
	Joint (AF) Base Langley-Eustis	2	0	2
U.S. Military Academy	1	0	1	
Central	Ft. Bliss	3	1	4
	Ft. Carson	2	0	2

Data as of 19 September 2019.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of the data across the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 1: Locations where Heat Illnesses were Diagnosed - August 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Central	Ft. Hood	22	3	25
	Ft. Irwin	0	1	1
	Ft. Leonard Wood	8	1	9
	Ft. Polk	19	0	19
	Ft. Riley	7	2	9
	Ft. Sill	9	3	12
	Joint (AF) Base San Antonio LAF-RAF-FSH	2	0	2
Pacific	Camp Casey	3	1	4
	Camp Humphreys	1	1	2
	Ft. Shafter	0	1	1
	Joint (AF) Base Lewis-McChord	2	0	2
	Schofield Barracks	1	1	2
Unknown	Unknown Locations	5	0	5



Table 2: Timeliness of Reporting - August 2019

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	101	130	78	0	4	2
	Ft. Bragg	2	15	13	2	21	8
	Ft. Campbell	24	30	80	1	8	2
	Ft. Eustis	2	2	100	1	1	1
	Ft. Jackson	2	9	22	2	5	4
	Ft. Knox	2	2	100	1	2	2
	Ft. Stewart	2	3	67	1	6	3
Central	Ft. Hood	12	12	100	1	1	1
	Ft. Leonard Wood	8	8	100	1	2	1
	Ft. Polk	18	18	100	0	1	1
	Ft. Riley	8	8	100	0	1	1
	Ft. Sam Houston	1	1	100	1	1	1
	Ft. Sill	6	6	100	0	2	1
Pacific	Camp Casey	0	4	0	3	8	6
	Camp Humphreys	1	1	100	2	2	2
	Ft. Lewis	2	2	100	1	1	1
	Tripler AMC	1	1	100	1	1	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

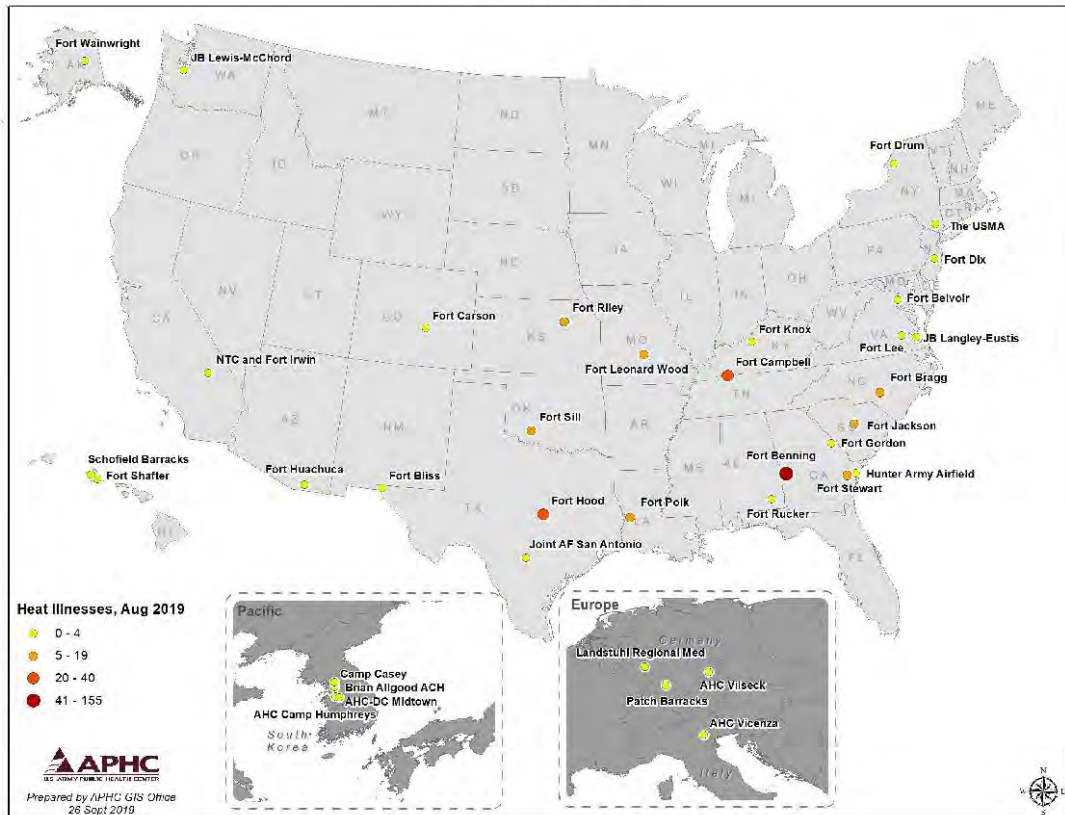
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi.



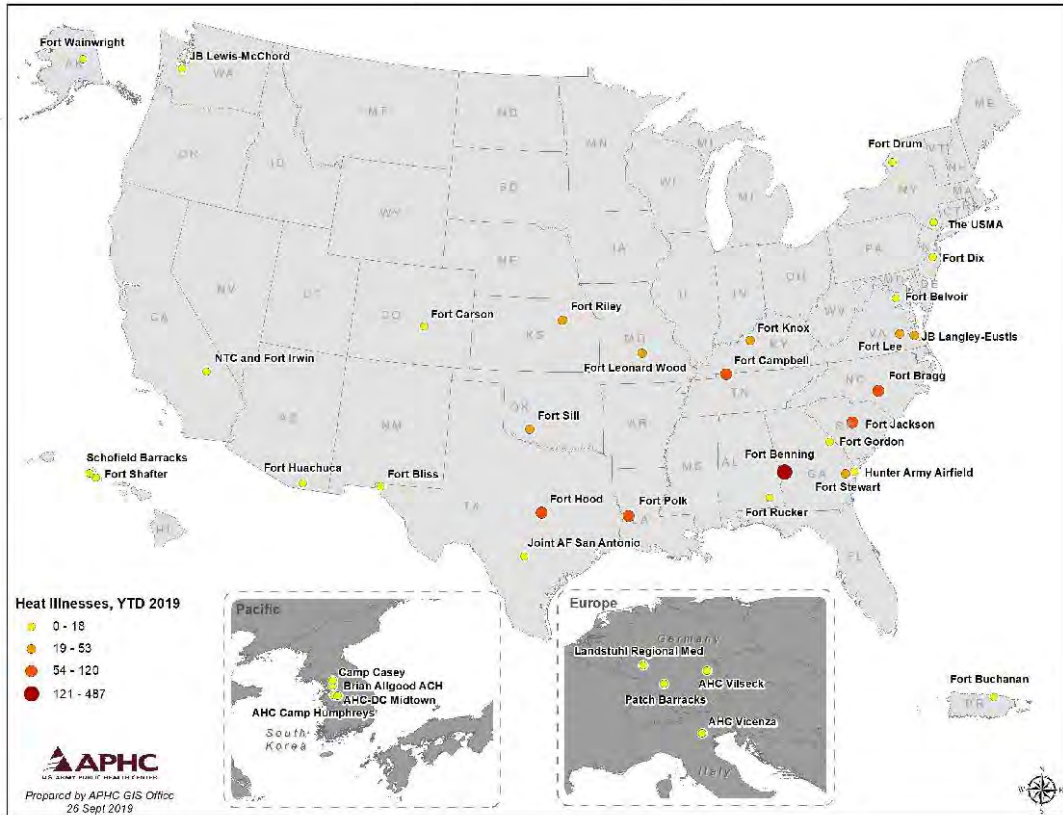
Heat Illnesses, August 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

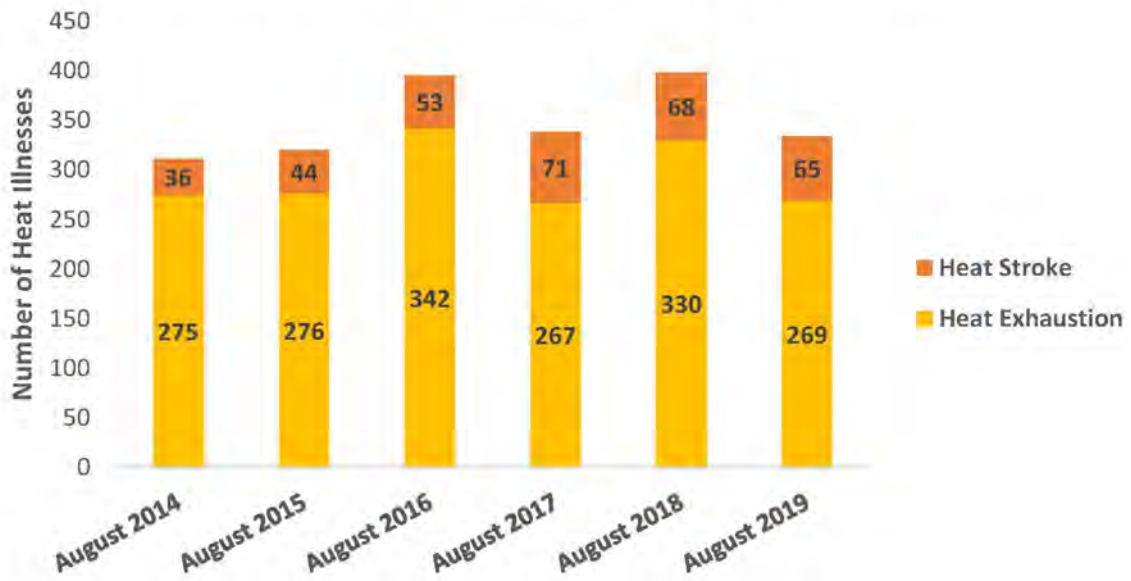


Heat Illnesses, 2019 Year-to-Date

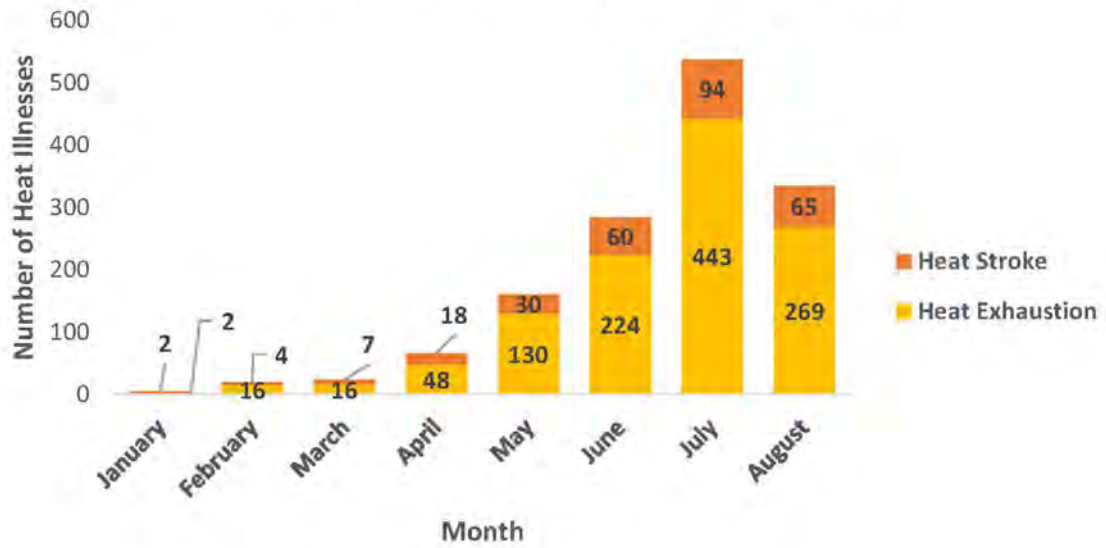


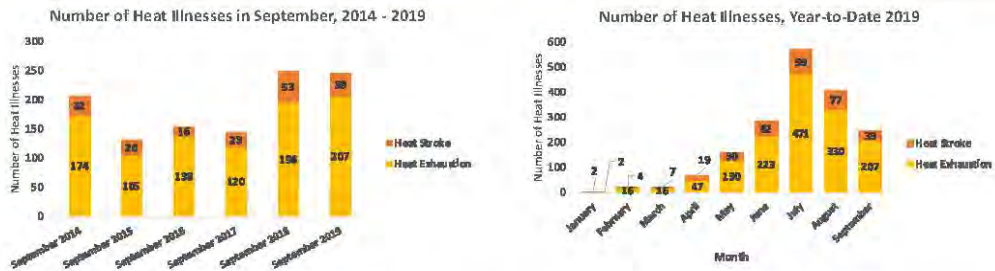
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

Number of Heat Illnesses in August, 2014 - 2019



Number of Heat Illnesses, Year-to-Date 2019





In September 2019, 246 heat illnesses were diagnosed (207 heat exhaustion cases, 39 heat stroke cases), only a 1% decrease in cases from September 2018. Ft. Benning continues to account for a high proportion of heat illnesses, accounting for 37% (n=92) of all heat illnesses reported in September 2019. Ft. Benning also had the highest number of heat illnesses to date in 2019 (n=581, 33%). Junior Enlisted (JE) Service Members (SM) had the greatest burden of heat illnesses, accounting for 76% (n=186) of the cases in September 2019. Senior enlisted (SE) SMs accounted for 16% (n=39) of all heat illnesses; Commissioned Officers (CO) accounted for 8% (n=20); and all other ranks, SMs who are not JE SMs, SE SMs, COs, or Cadets, accounted for less than 1% (n=1). There were 4 hospitalizations in September 2019. JE SMs accounted for 75% (n=3) of the hospitalizations, and COs accounted for 25% (n=1). Seventy-five percent (n=3) of hospitalizations were due to heat exhaustion, and 25% (n=1) were due to heat stroke. September 2014, September 2018, and September 2019 represent the third lowest number of hospitalizations for September months between 2014 and 2019 with four hospitalizations each.

Table 1: Locations where Heat Illnesses were Diagnosed - September 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Eglin Air Force Base	1	0	1
	Ft. Benning	69	23	92
	Ft. Bragg	16	5	21
	Ft. Campbell	18	5	23
	Ft. Gordon	3	0	3
	Ft. Jackson	15	0	15
	Ft. Knox	1	0	1
	Ft. Lee	1	0	1
	Ft. Rucker	4	0	4
	Ft. Stewart	8	0	8
	Hunter Army Airfield	1	0	1
	Joint (AF) Base Langley-Eustis	2	0	2
Joint (AN) Base Myer-Henderson Hall	1	0	1	

Date as of 28 October 2019.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 1: Locations where Heat Illnesses were Diagnosed - September 2019

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Central	Ft. Bliss	1	0	1
	Ft. Hood	5	1	6
	Ft. Huachuca	2	0	2
	Ft. Irwin	5	0	5
	Ft. Leonard Wood	3	1	4
	Ft. Polk	25	1	26
	Ft. Riley	5	2	7
	Ft. Sill	14	0	14
	Joint (AF) Base San Antonio LAF-RAF-FSH	2	0	2
Pacific	Ft. Shafter	0	1	1
	Luke Air Force Base	1	0	1
Unknown	Unknown Locations	4	0	4



Table 2: Timeliness of Reporting - September 2019

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	79	82	96	0	5	1
	Ft. Bragg	3	16	19	0	8	5
	Ft. Campbell	17	17	100	0	2	1
	Ft. Eustis	1	1	100	1	1	1
	Ft. Jackson	3	3	100	0	0	0
	Ft. Gordon	2	2	100	1	2	2
	Ft. Rucker	1	1	100	1	1	1
Central	Ft. Hood	3	3	100	0	1	0
	Ft. Irwin	2	2	100	1	1	1
	Ft. Leonard Wood	2	2	100	0	0	0
	Ft. Polk	21	21	100	0	1	0
	Ft. Riley	6	7	86	0	5	2
	Ft. Sam Houston	2	2	100	0	2	1
	Ft. Sill	3	3	100	0	0	0

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

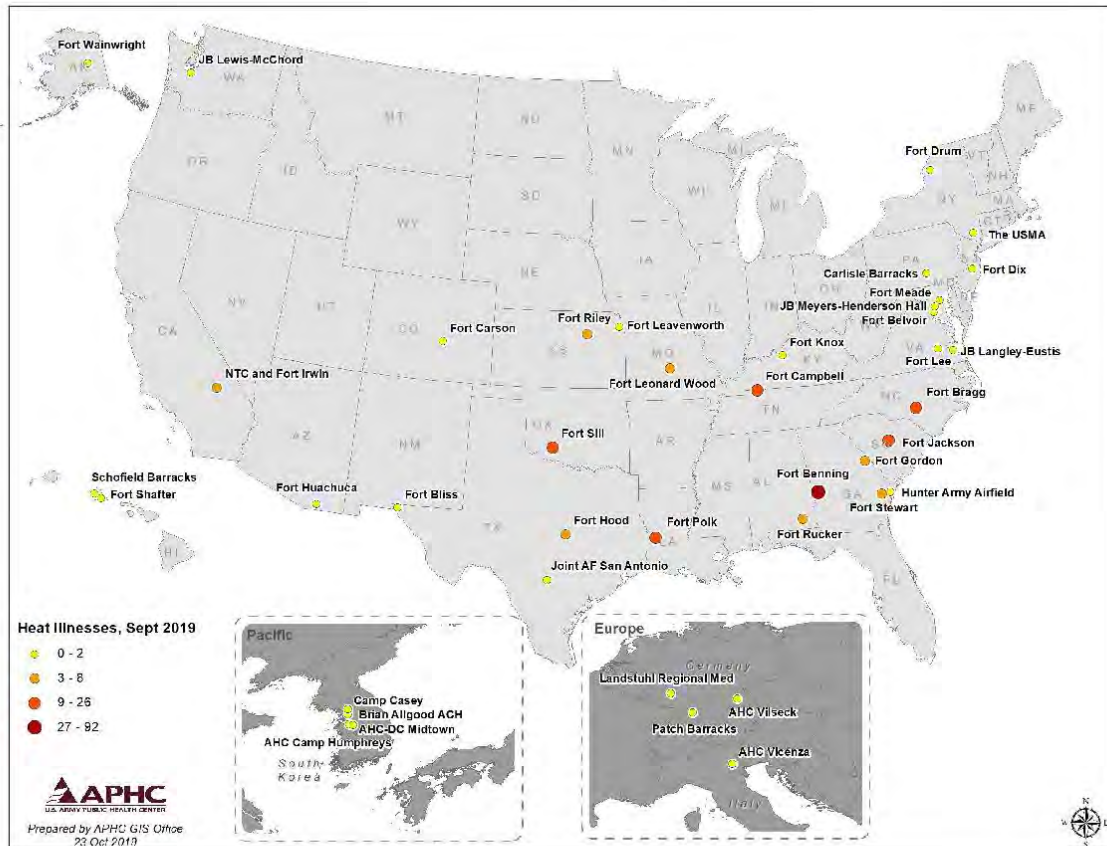
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



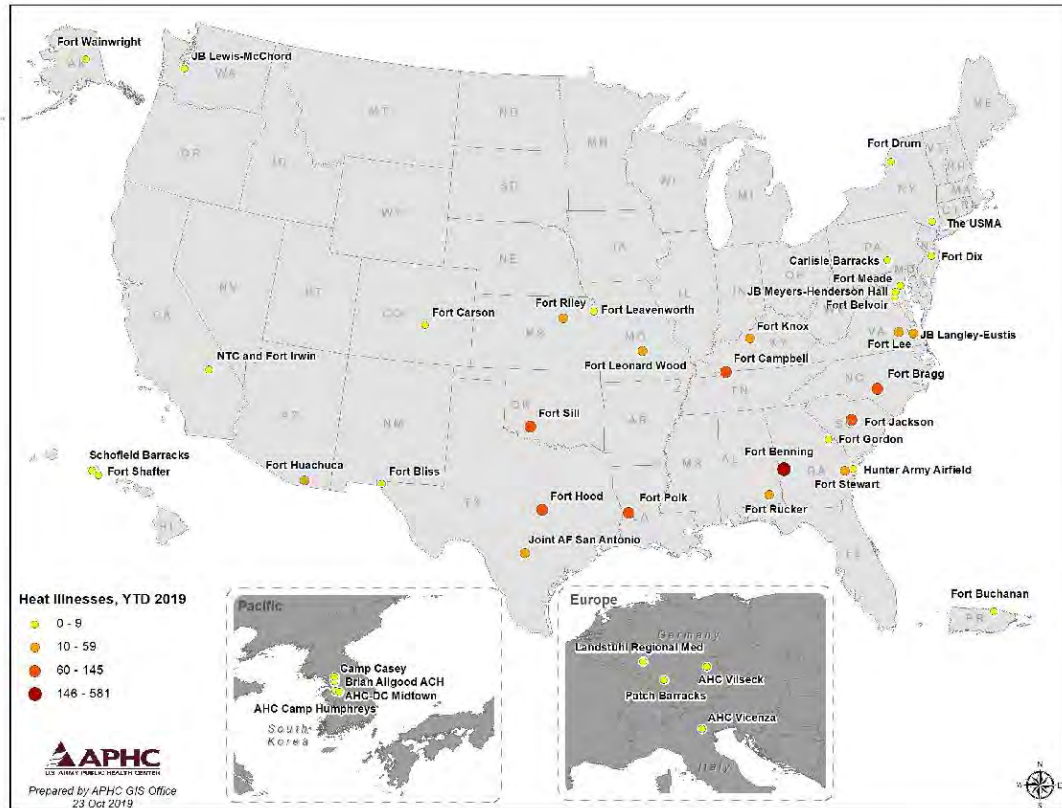
Heat Illnesses, September 2019



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

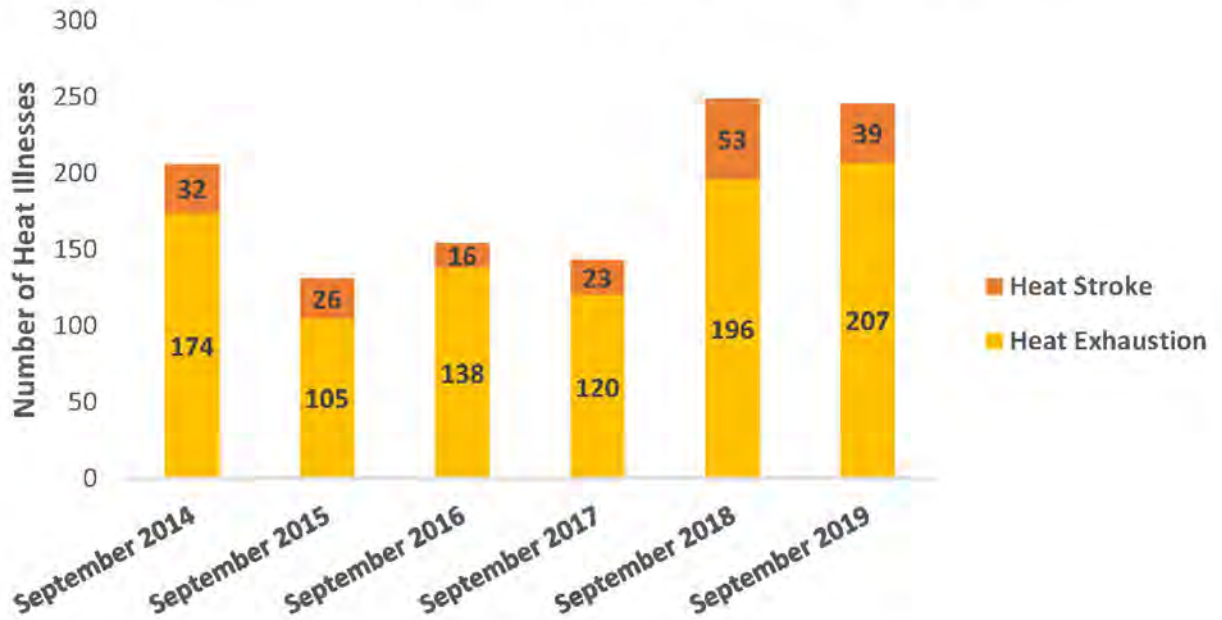


Heat Illnesses, Year-to-Date 2019

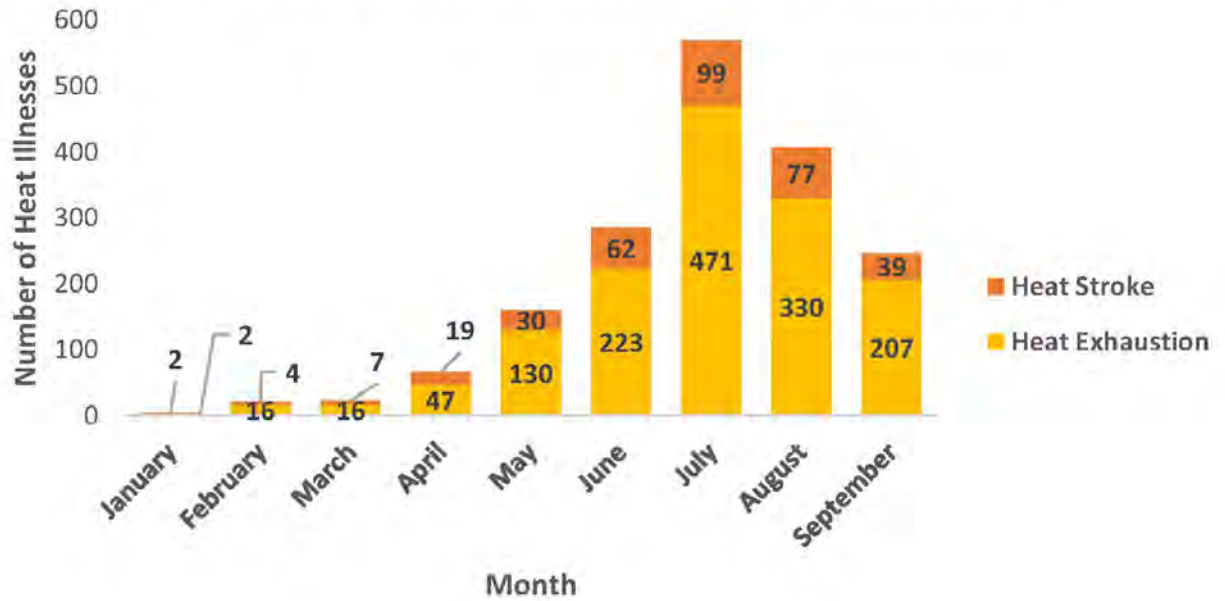


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in September, 2014 - 2019



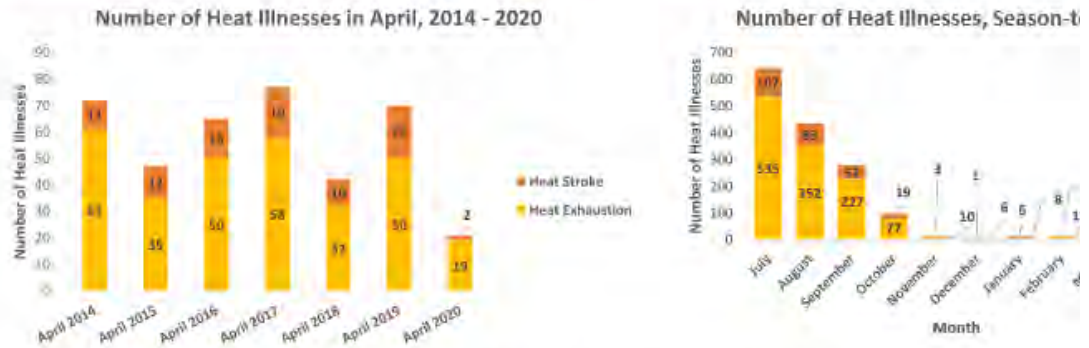
Number of Heat Illnesses, Year-to-Date 2019



TIP No. 028-0254

**APPENDIX C
2020 HEAT ILLNESS REPORTS**

The 2020 Heat Illness Reports begin on the next page.



In April 2020, 21 heat illnesses were diagnosed (19 heat exhaustion cases, 2 heat stroke cases); this is the lowest number of heat illnesses for April months between 2014 and 2020. There were 70% fewer cases in April 2020 when compared to April 2017. Ft. Benning accounted for 76% of all heat illnesses (n=16) reported in April 2020. Ft. Benning also had the highest number of heat illnesses to date for the season, accounting for 31% (n=481) of 1,572 reported cases. Junior Enlisted (JE) Service Members were disproportionately affected, accounting for 81% (n=17) of the cases in April 2020. Commissioned Officers (CO) and Senior Enlisted (SE) SM accounted for 5% (n=1) of all heat illnesses. There were no heat illness-related hospitalizations in April 2020.

There have been 1,572 heat illness cases (1,282 heat exhaustion cases, 290 heat strokes) reported since the beginning of the heat illness season, which started in July 2019. Additionally, there were 20 hospitalizations due to heat exhaustion and 1 hospitalization due to heat stroke.

Table 1: Locations where Heat Illnesses were Diagnosed - April 2020

Region	Installation	Heat Exhaustion	Heat Stroke	Total Heat Illnesses
Atlantic	Ft. Benning	14	2	16
	Ft. Jackson	2	0	2
	Ft. Stewart	1	0	1
	Guantanamo Bay	1	0	1
Pacific	Schofield Barracks	1	0	1



Table 2: Timeliness of Reporting - April 2020

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days	Maximum Days
Atlantic	Ft. Benning	13	16	81	1	4
	Ft. Jackson	0	2	0	4	4

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

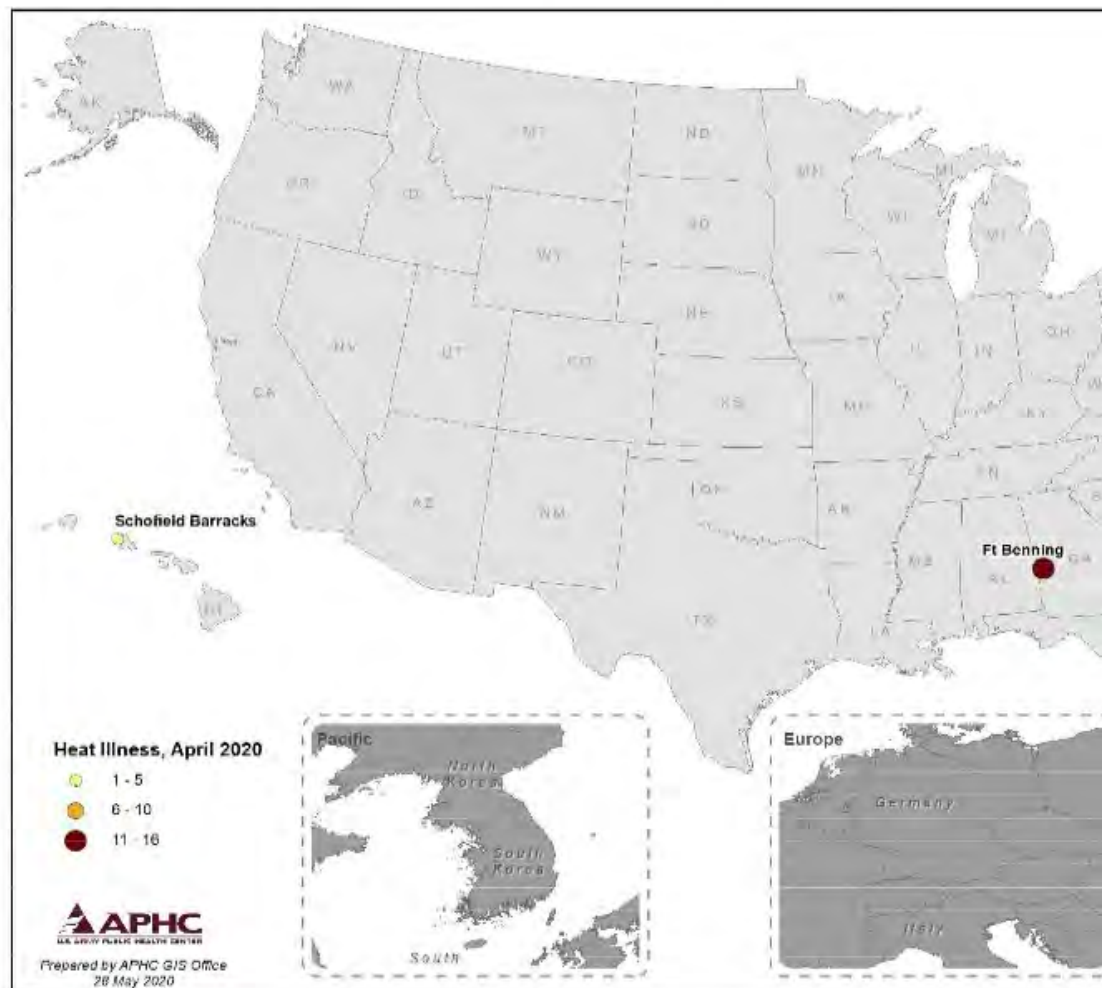
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in tab



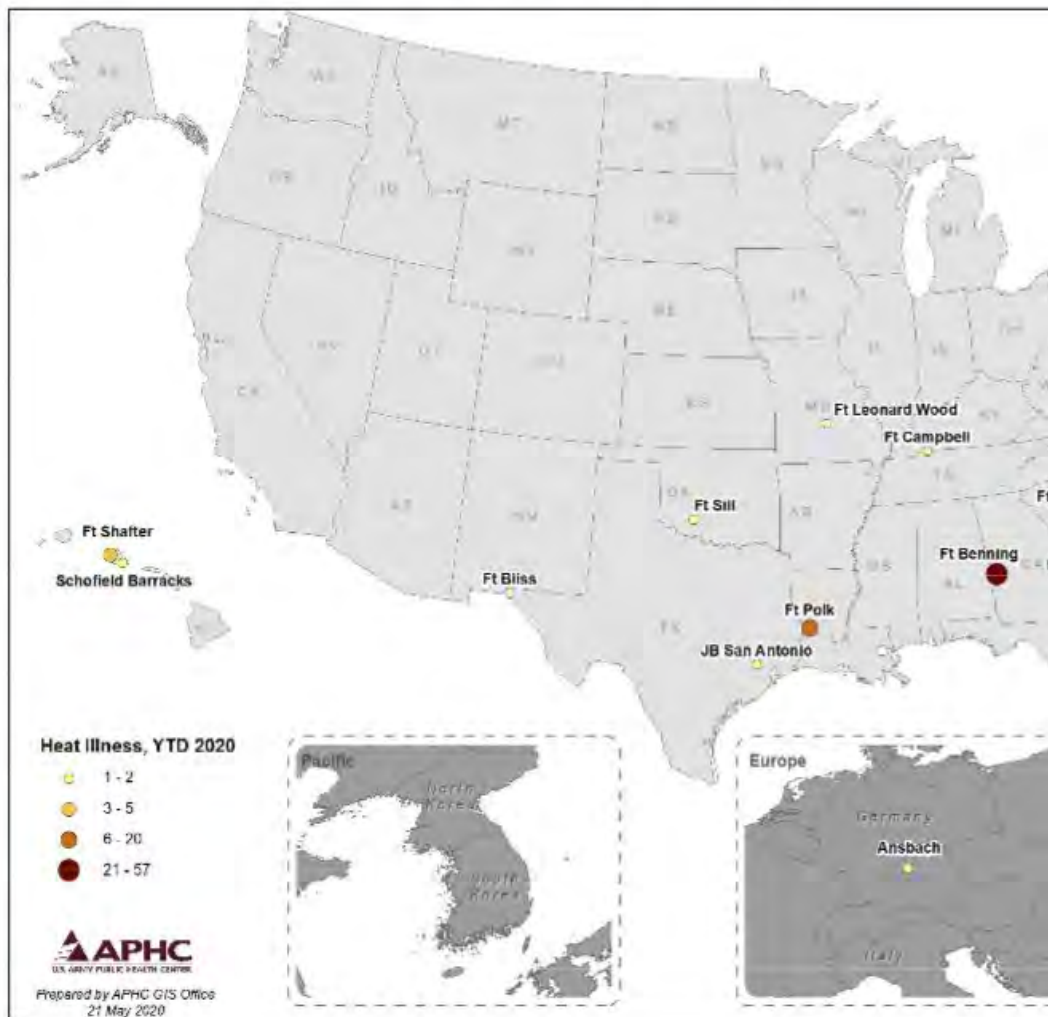
Heat Illnesses, April 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



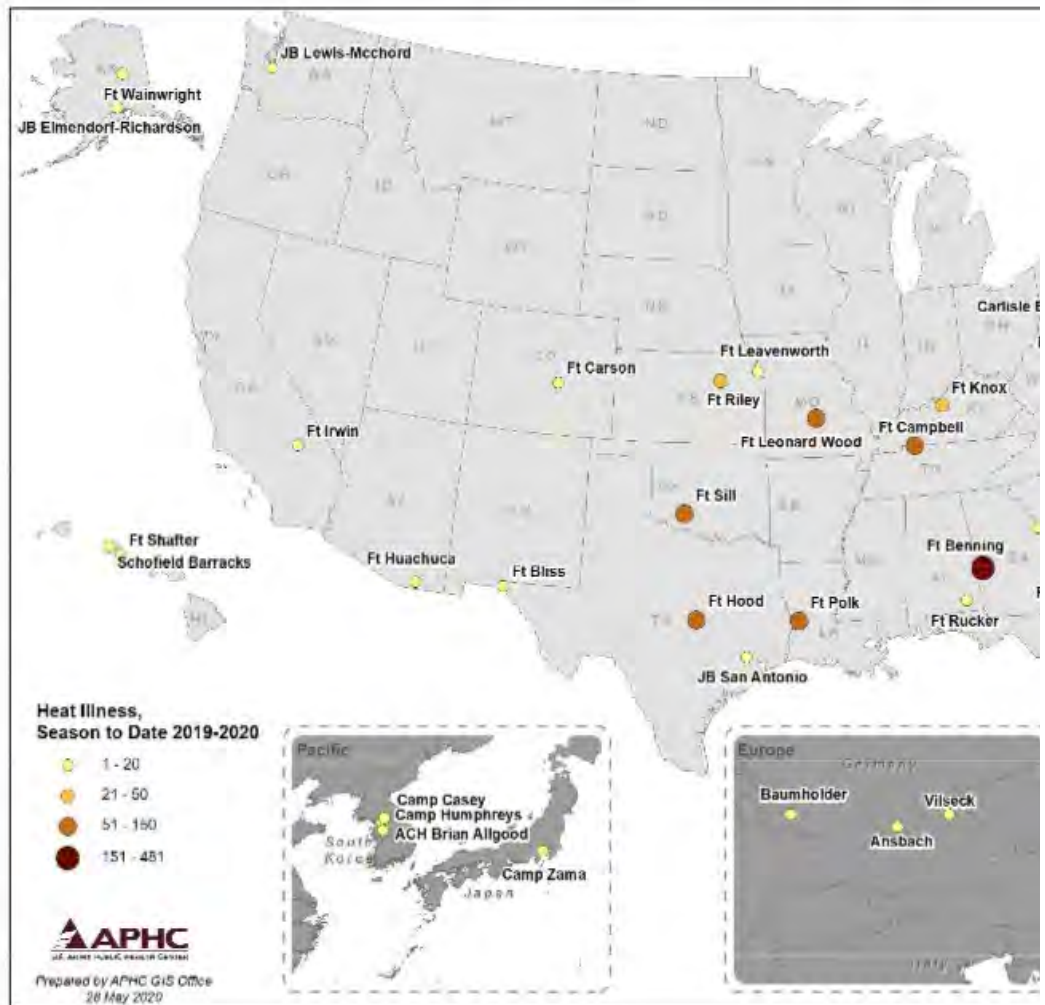
Heat Illnesses, Year-to-Date 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



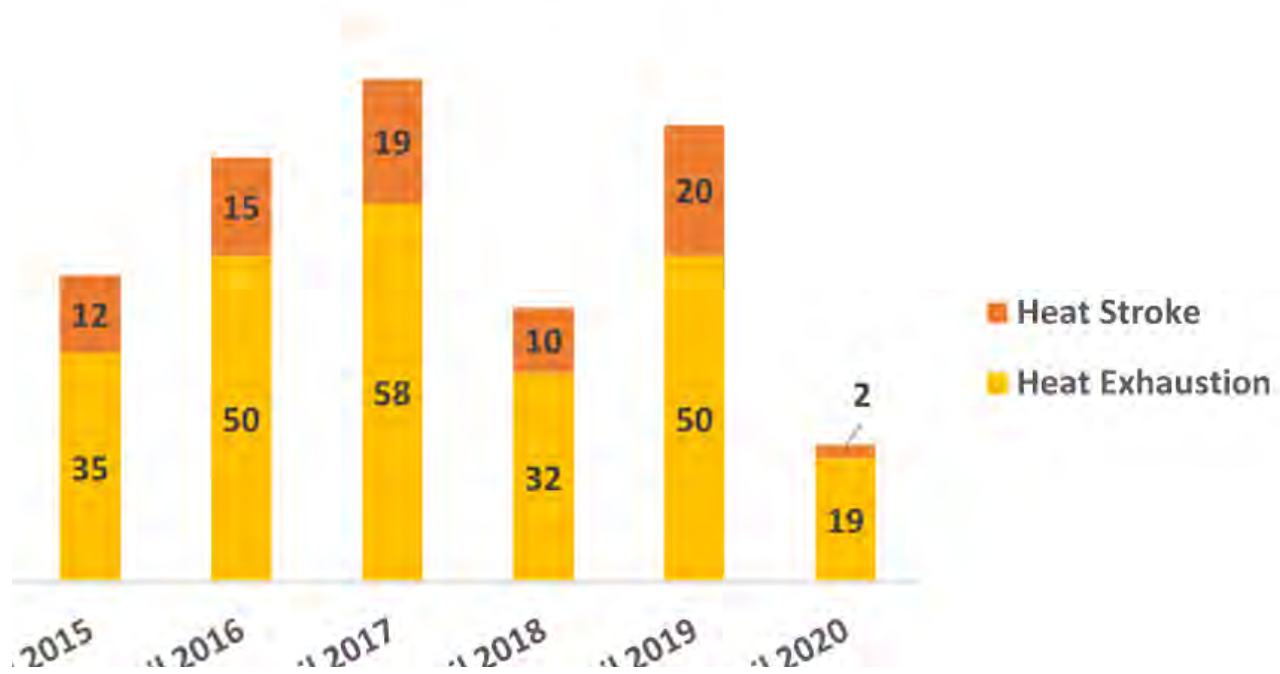
Heat Illnesses, Season-to-Date 2019-2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

The 2019-2020 heat season began 1 July 2019.

Number of Heat Illnesses in April, 2014 - 2020

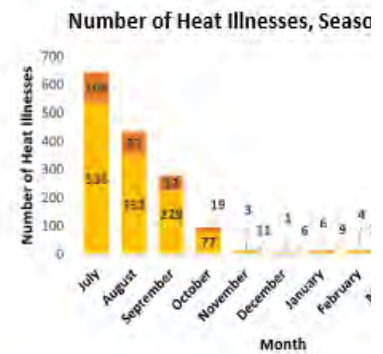
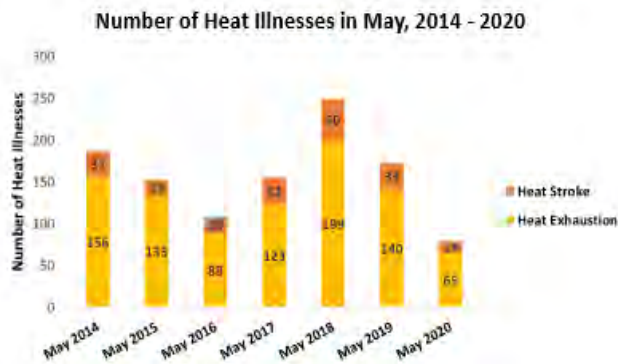


Number of Heat Illnesses, Season-to-Date 2019-2020





Heat illnesses pose a significant threat to the medical readiness of Soldiers. Military leaders should remain vigilant of weather patterns, and ensure that Soldiers are equipped with the resources and knowledge to prevent heat illness. EXORD 148-19, Heat Injury and Illness Prevention for 2019 - 2020 has been published and is available [here](#) (it provides references for heat illness prevention policies and guidelines, and aims to ensure that leaders and Soldiers can prevent, recognize, and quickly treat heat illnesses when they are occurring. Additionally, the EXORD includes recommendations and protective measures that can be taken to reduce the occurrence of heat illness.



In May 2020, 79 heat illnesses were diagnosed (65 heat exhaustion cases, 14 heat stroke cases); this is the lowest for May months between 2014 and 2020. There were 54% fewer cases in May 2020 when compared to May 2018. Ft. Benning also had the highest number of heat illnesses in May 2020, accounting for 37% of all heat illnesses (n=29) reported in May 2020. Ft. Benning also had the highest number of heat illnesses of the season, accounting for 31% (n=510) of 1,658 reported cases. Junior Enlisted (JE) Service Members (SMs) were most affected, accounting for 75% (n=59) of the cases in May 2020. Commissioned Officers (COs) and Senior Enlisted (SE) SMs accounted for 11% (n=9) of all heat illnesses; all other SMs accounted for 3% of total heat illness (n=2). There were three hospitalizations in May 2020; one hospitalization was due to heat exhaustion while the other two were due to heat stroke.

There have been 1,658 heat illness cases (1,352 heat exhaustion cases, 306 heat strokes) reported since the beginning of the season, which began in July 2019, to the end of May 2020. This represents a 4% increase compared to last season (n=1,595) for the same time period. Additionally, there have been 46 hospitalizations since the beginning of the season; 25 hospitalizations have been due to heat stroke and 21 hospitalizations have been due to heat exhaustion. JE SMs accounted for 69.6% (n=33) of hospitalizations; SE SMs accounted for 19.6% (n=9); COs accounted for 8.7% (n=4), while all other ranks accounted for 2.1% (n=1). In the same period last season, there were 44 hospitalizations.



Table 1: Locations where Heat Illnesses were Diagnosed - May 2020

Region	Installation	Heat Exhaustion	Heat Stroke	Total Heat Illnesses
Atlantic	Eglin Air Force Base	1	0	
	Ft. Benning	21	8	
	Ft. Bragg	6	1	
	Ft. Campbell	3	3	
	Ft. Drum	1	0	
	Ft. Rucker	4	0	
	Ft. Stewart	1	0	
Central	Ft. Hood	3	0	
	Ft. Leonard Wood	2	0	
	Ft. Polk	4	0	
	Ft. Sill	5	2	
	Goodfellow Air Force Base	1	0	
	Joint Base (AF) San Antonio	1	0	
	McGregor Range	1	0	
Pacific	Joint Base (AF) Elmendorf-Richardson	1	0	
	Schofield Barracks	4	0	
Unknown	Unknown	6	0	



Table 2: Timeliness of Reporting - May 2020

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days
Atlantic	Ft. Benning	16	25	64	1
	Ft. Bragg	0	4	0	6
	Ft. Campbell	6	6	100	1
	Ft. Rucker	0	1	0	3
Central	Ft. Hood	2	2	100	1
	Ft. Polk	4	4	100	0
	Ft. Sam Houston	0	1	0	3
	Ft. Sill	5	5	100	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

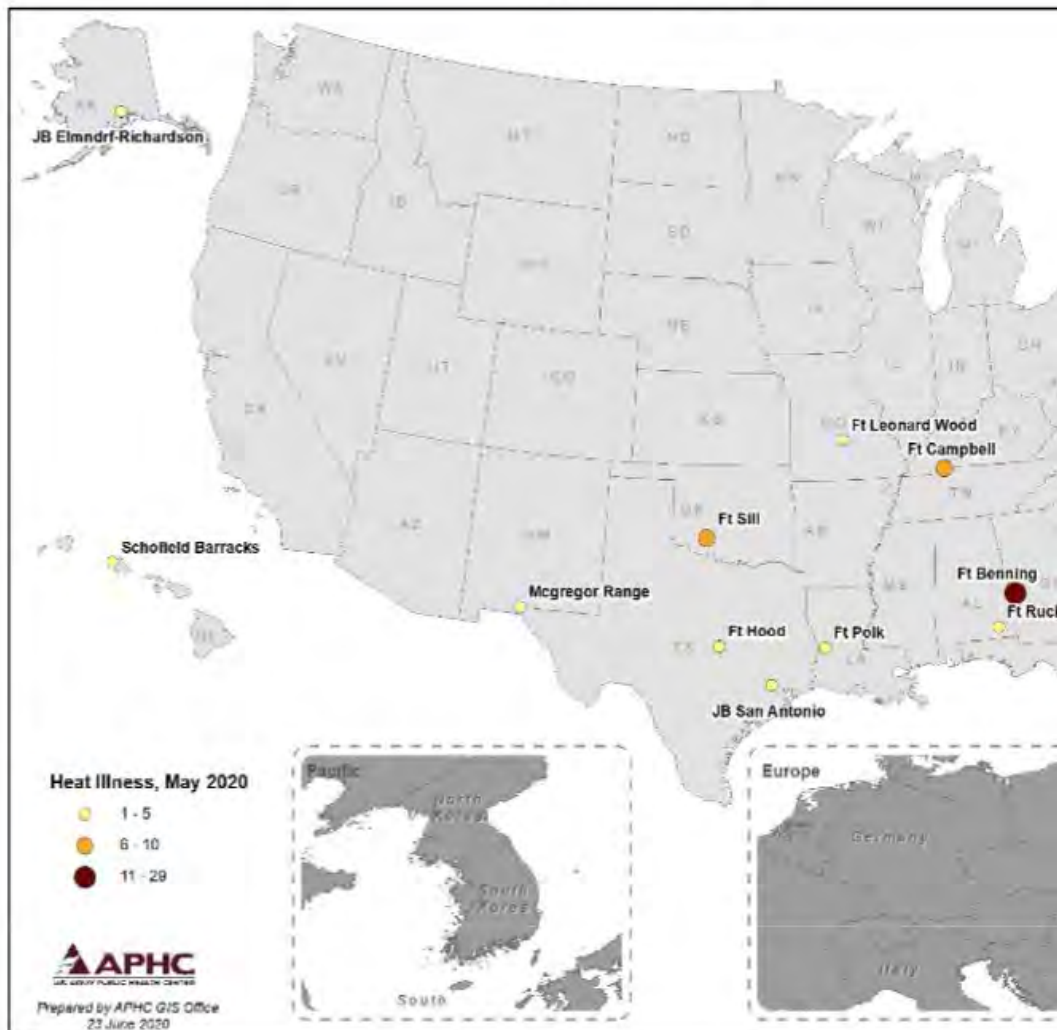
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in t



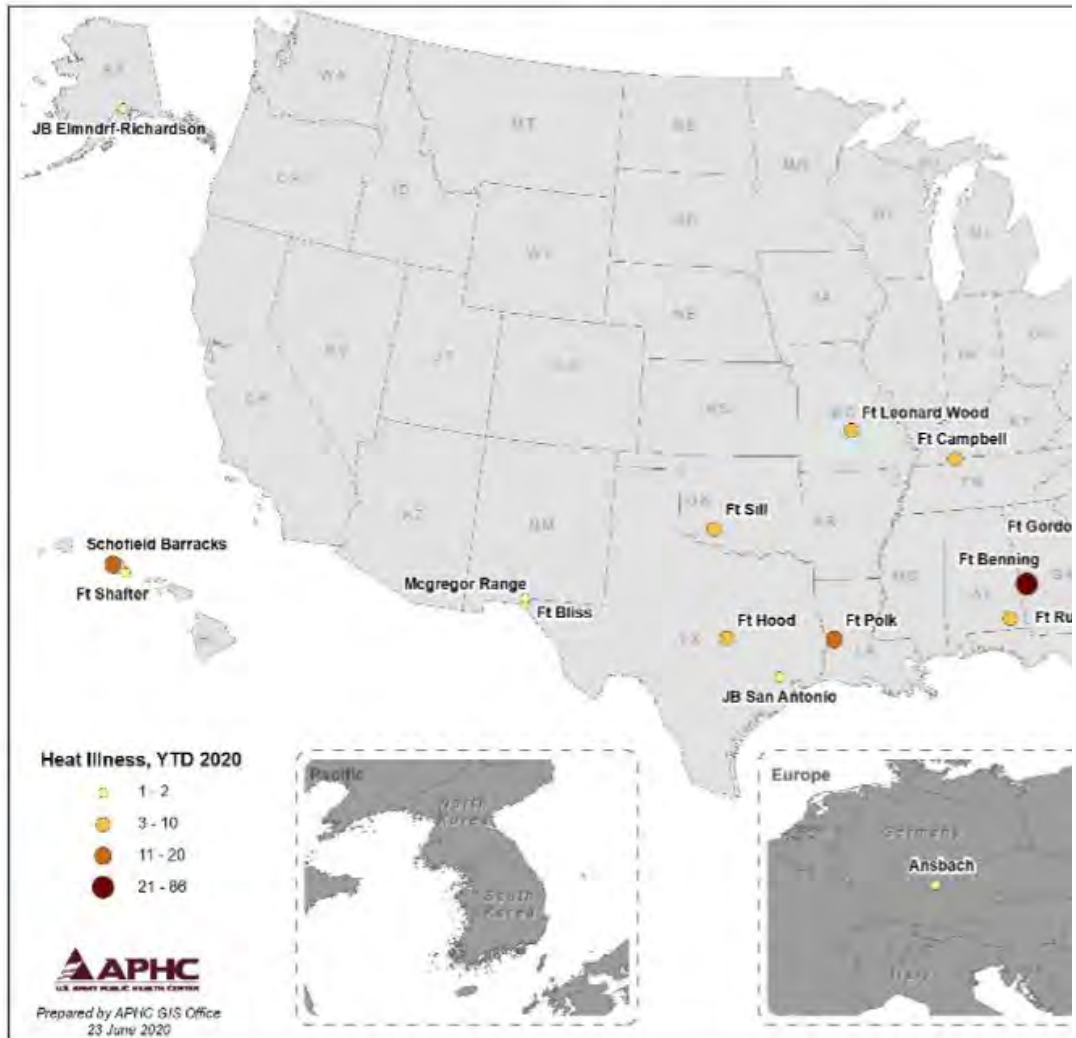
Heat Illnesses, May 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



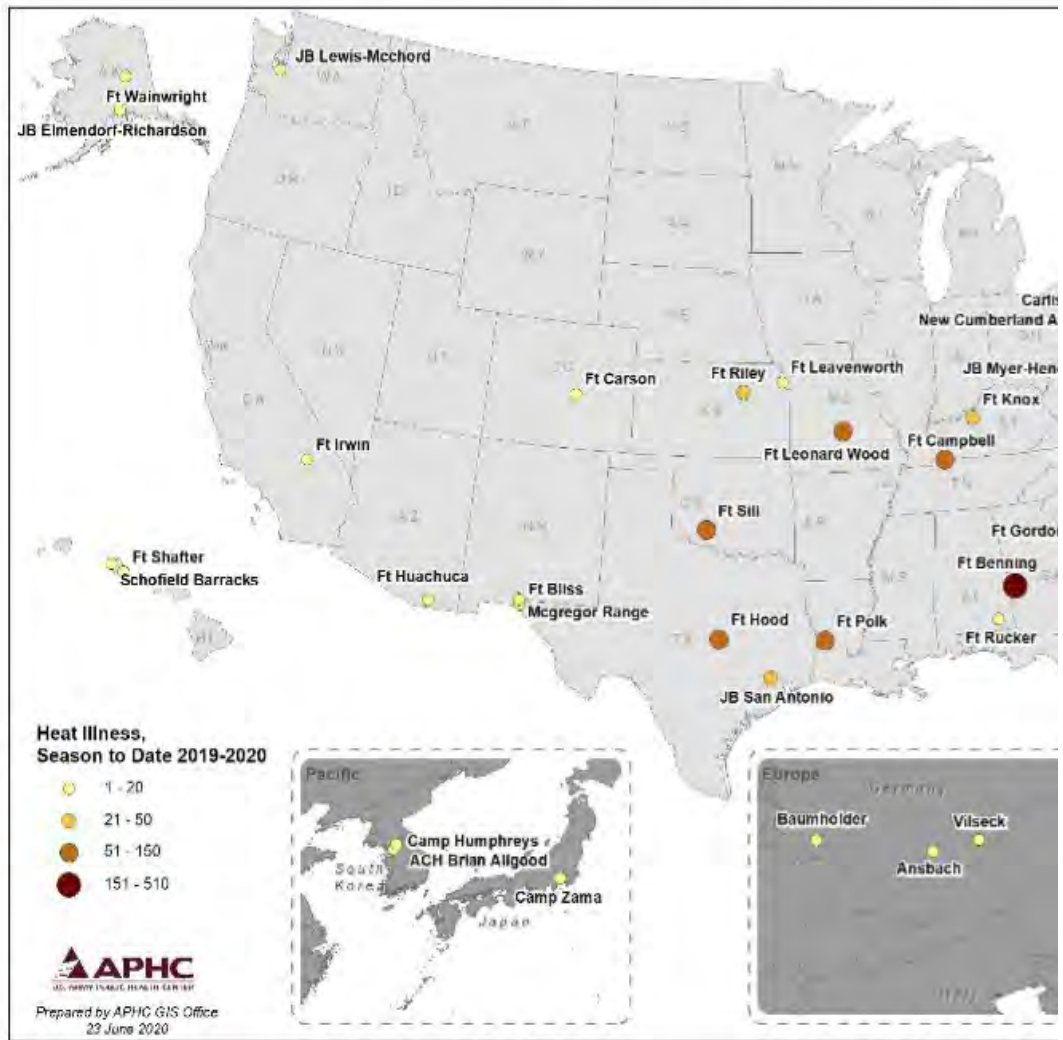
Heat Illnesses, Year-to-Date 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

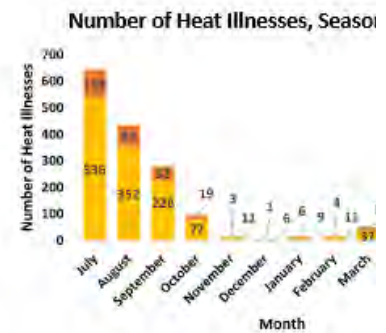
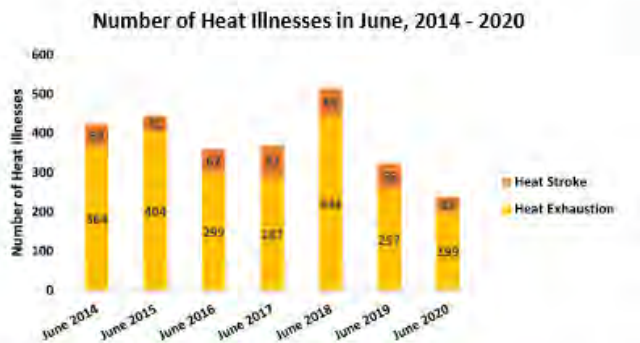


Heat Illnesses, Season-to-Date 2019-2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

The 2019-2020 heat season began 1 July 2019.



In June 2020, 238 heat illnesses were diagnosed (199 heat exhaustion cases, 39 heat stroke cases); this is the lowest number of heat illnesses for June months between 2014 and 2020. There were 26% fewer cases in June 2020 when compared to June 2018. Ft. Benning accounted for 29% of all heat illnesses (n=70) reported in June 2020. Ft. Benning also had the highest number of heat illnesses to date for the season, accounting for 30% (n=580) of 1,572 reported cases. Junior Enlisted (JE) Service Members were disproportionately affected, accounting for 76% (n=181) of the cases in June 2020. Senior Enlisted (SE) Service Members and Commissioned Officers (COs) accounted for 8% (n=1), and two other SMS accounted for less than 1% of all heat illnesses. In June 2020, 11 heat illness-related hospitalizations occurred in June 2020, and 63% (n=5) were among JE SMS; five hospitalizations were for heat exhaustion and one was for heat stroke.

There have been 1,905 heat illness cases (1,559 heat exhaustion cases, 346 heat strokes) reported since the beginning of the current heat illness season, which started in July 2019. Additionally, there were 24 hospitalizations due to heat exhaustion and one hospitalization due to heat stroke.



Table 1: Locations where Heat Illnesses were Diagnosed - June 2020

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	54	16	70
	Ft. Bragg	26	6	32
	Ft. Campbell	17	8	25
	Ft. Drum	1	0	1
	Ft. Jackson	4	0	4
	Ft. Knox	1	0	1
	Ft. Lee	1	0	1
	Ft. Rucker	4	0	4
	Ft. Stewart	16	0	16
	Joint (AF) Base Langley-Eustis	9	0	9
Central	Ft. Bliss	2	0	2
	Ft. Carson	2	0	2
	Ft. Hood	13	4	17
	Ft. Leonard Wood	8	1	9
	Ft. Polk	9	0	9
	Ft. Riley	7	0	7
	Ft. Sill	6	1	7
	Joint (AF) San Antonio LAF-RAF-FSH	2	0	2
Europe	AHC Vicenza	1	0	1
Pacific	Camp Casey	2	0	2
	Camp Humphreys	0	1	1
	Joint (AF) Base Lewis-McChord	2	1	3
	Schofield Barracks	3	0	3
Unknown	Unknown	9	1	10



Table 2: Timeliness of Reporting - June 2020

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days
Atlantic	Ft. Benning	33	50	66	1
	Ft. Bragg	1	22	5	1
	Ft. Campbell	11	21	52	1
	Ft. Eustis	9	9	100	0
	Ft. Jackson	1	3	33	1
	Ft. Rucker	1	1	100	2
	Ft. Stewart	9	9	100	1
Central	Ft. Hood	4	5	80	1
	Ft. Leonard Wood	5	5	100	1
	Ft. Polk	8	8	100	0
	Ft. Riley	1	1	100	1
	Ft. Sill	2	4	50	0
Pacific	Camp Casey	0	2	0	6
	Camp Humphreys	0	1	0	15
	Ft. Lewis	3	3	100	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

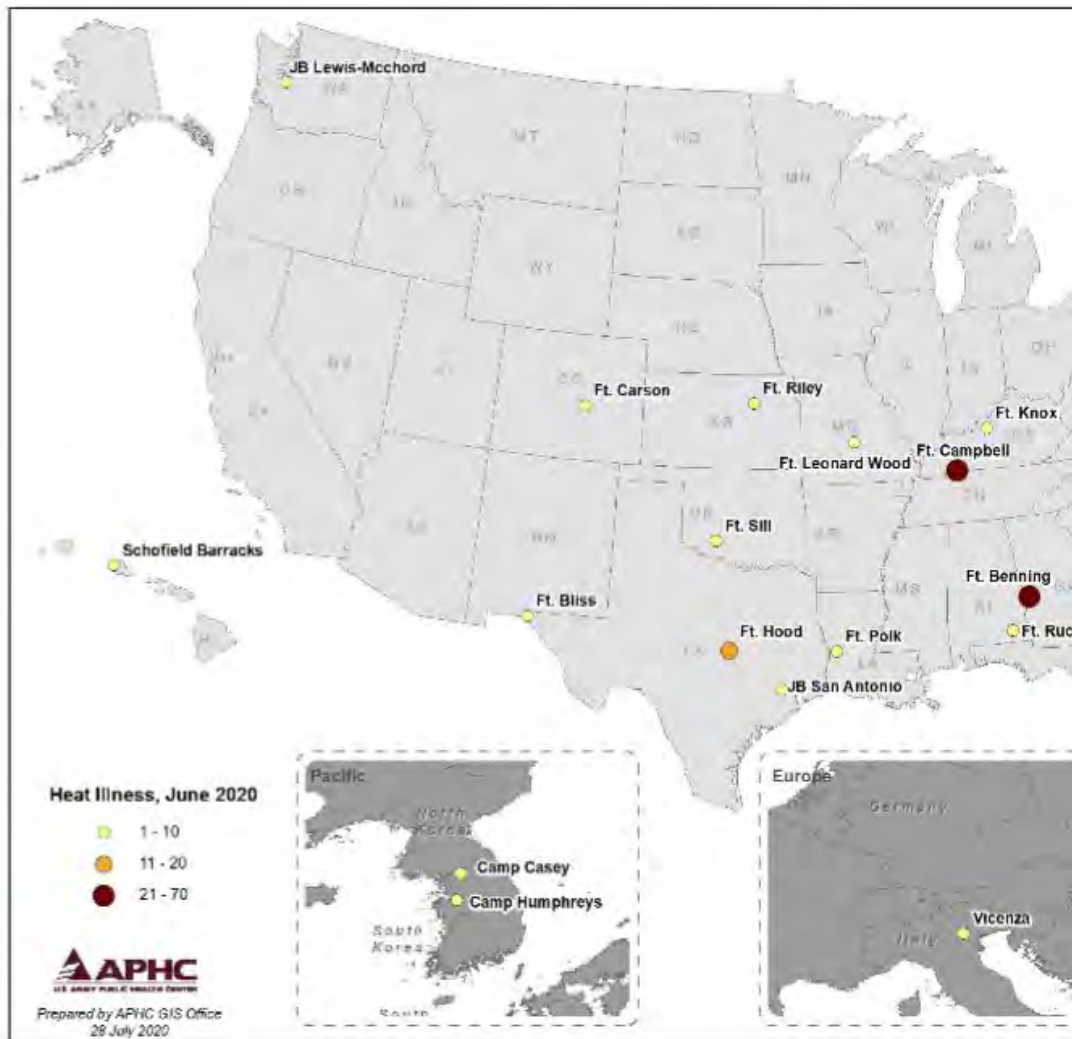
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses June be different than those reported in tab



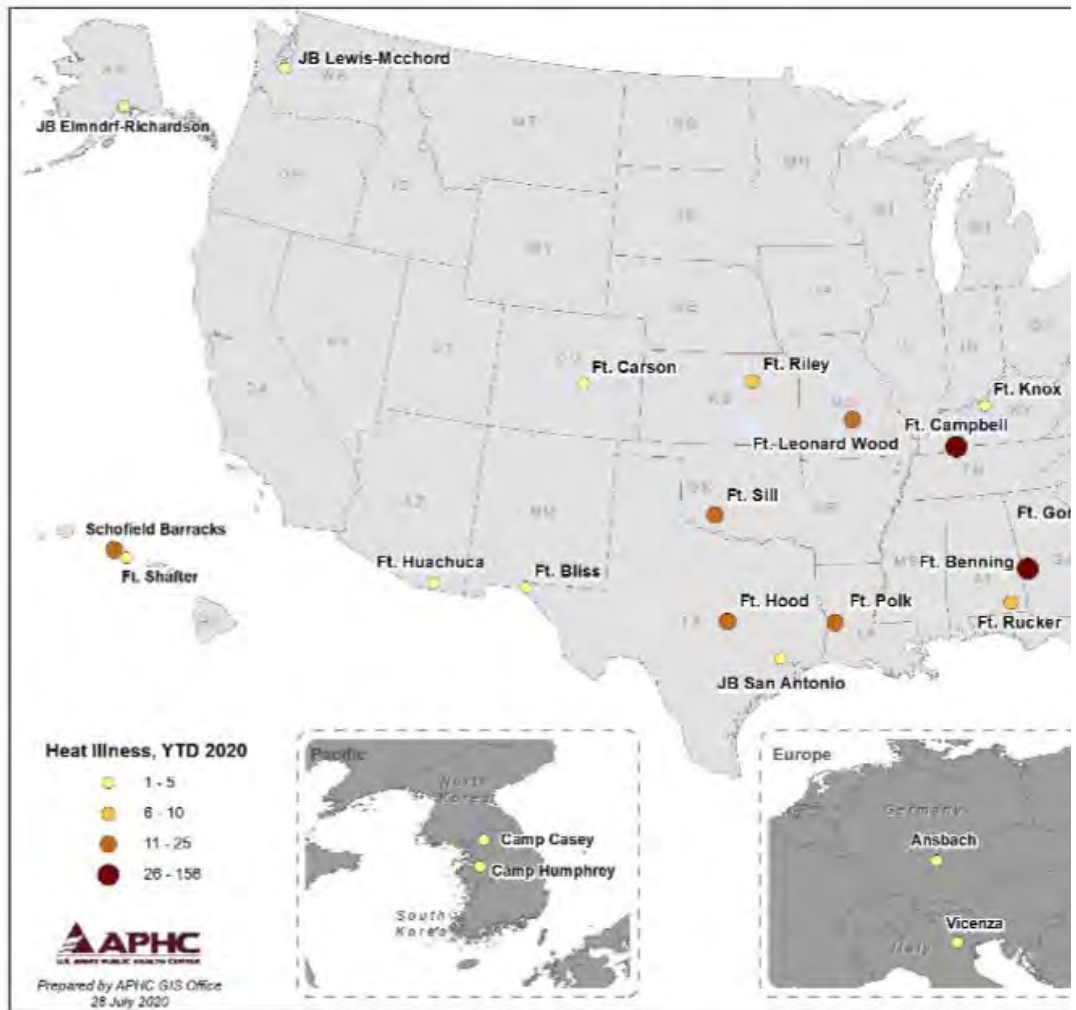
Heat Illnesses, June 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



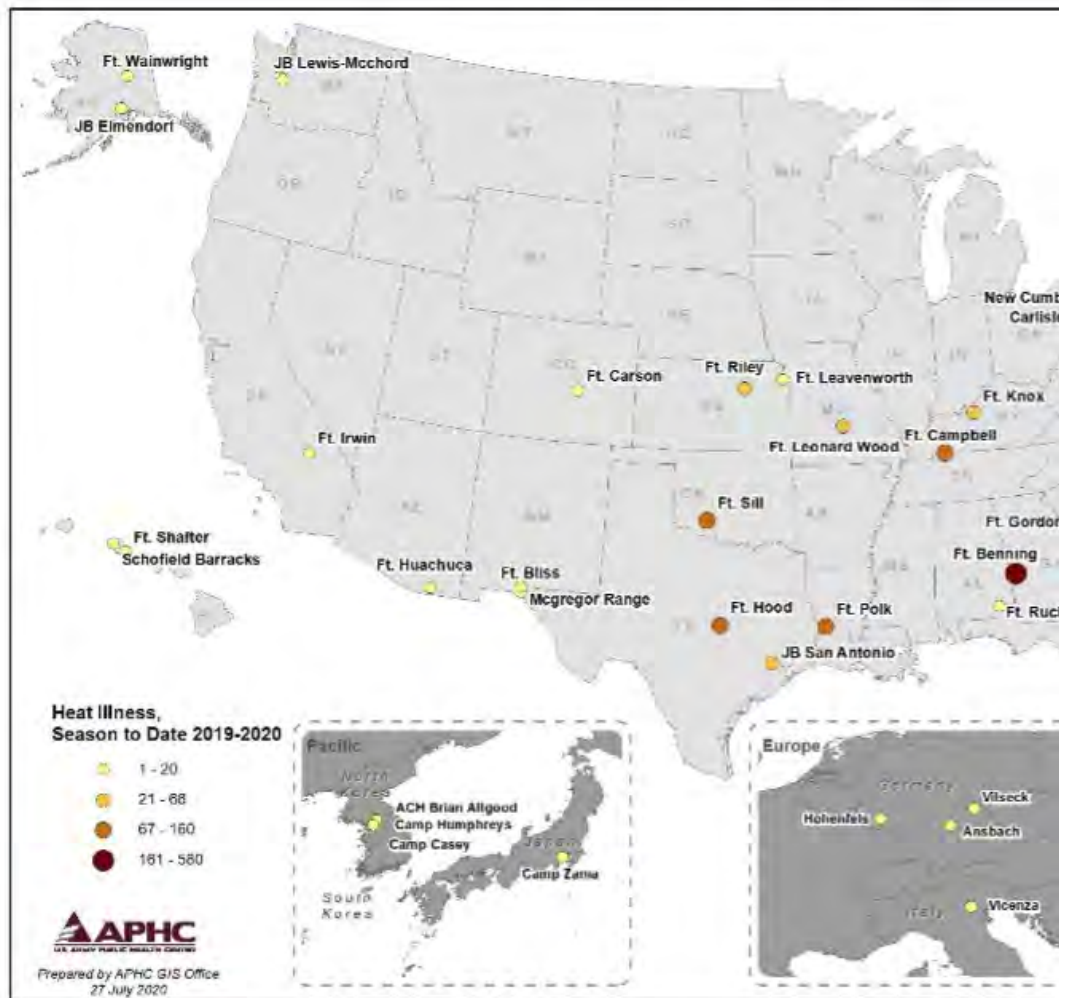
Heat Illnesses, Year-to-Date 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



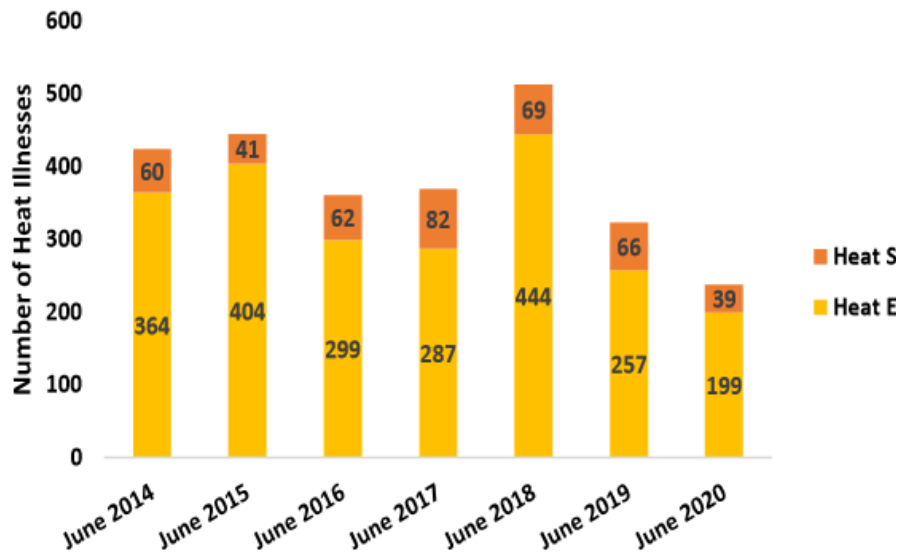
Heat Illnesses, Season-to-Date 2019-2020

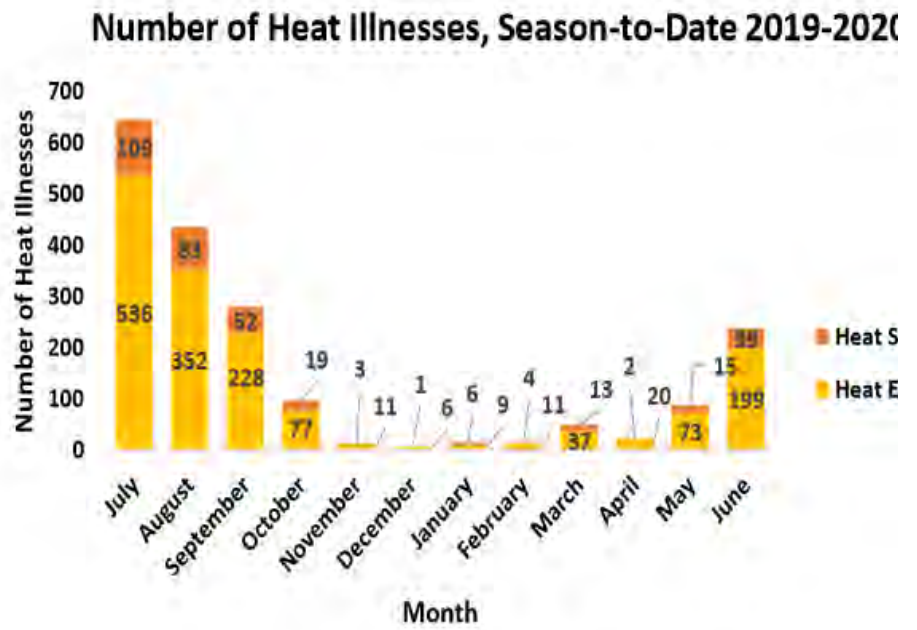


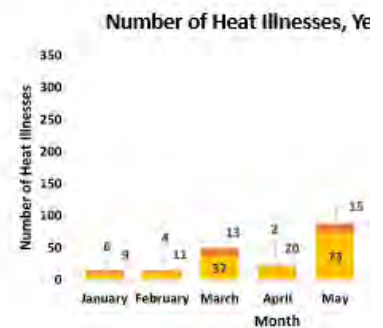
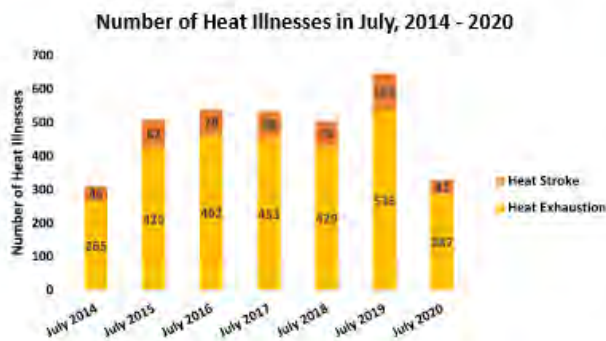
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

The 2019-2020 heat season began 1 July 2019.

Number of Heat Illnesses in June, 2014 - 2020







In July 2020, 328 heat illnesses were diagnosed (287 heat exhaustion cases, 41 heat stroke cases). This is the second lowest number of heat illnesses for July months between 2014 and 2020; the lowest number of cases was recorded in 2014 (n=311). Ft. Benning accounted for 33% of all heat illnesses reported in July 2020. Ft. Benning also had the highest number of heat illnesses to date for the calendar year, accounting for 33% of all reported cases. Cadets and Junior Enlisted (JE) Service Members (SMs) were disproportionately affected, accounting for 80% of the cases in July 2020. Senior Enlisted (SE) SMs accounted for 14% (n=47), and Commissioned Officers (COs) accounted for 10% (n=36); a Warrant Officer and two SMs of unknown status accounted for 2% of all heat illnesses. Five heat illnesses occurred in July 2020, and 80% (n=4) were among Cadets and JE SMs; two hospitalizations were due to heat exhaustion and 12 to heat stroke.

There have been 779 heat illness cases (658 heat exhaustion cases, 121 heat strokes) reported since the beginning of the calendar year. Of these 779 cases, 21 were hospitalized; 9 hospitalizations were due to heat exhaustion and 12 to heat stroke.



Table 1: Locations where Heat Illnesses were Diagnosed - July 2020

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number
Atlantic	Ft. Benning	84	24	
	Ft. Bragg	25	4	
	Ft. Campbell	25	5	
	Ft. Drum	1	0	
	Ft. Gordon	3	0	
	Ft. Jackson	12	0	
	Ft. Lee	8	0	
	Ft. Rucker	1	0	
	Ft. Stewart	5	0	
	Hunter Army Airfield	2	0	
	Joint (AF) Base Langley-Eustis	2	0	
	Joint (AN) Base Myer-Henderson Hall	1	0	
	U.S. Military Academy	3	4	
Central	Ft. Bliss	3	0	
	Ft. Hood	19	0	
	Ft. Irwin	4	0	
	Ft. Leonard Wood	19	2	
	Ft. Polk	10	1	
	Ft. Riley	4	0	
	Ft. Sill	22	0	
	Joint (AF) San Antonio LAF-RAF-FSH	1	0	
Pacific	AHC Camp Casey-Tongduchon	1	0	
	Ft. Shafter	1	0	
	Joint (AF) Base Lewis-Mcchord	3	0	
	Joint (AF) Base Elmendorf-Richardson	1	0	
Unknown	Non-Army and Unknown Locations	27	1	



Table 2: Timeliness of Reporting - July 2020

Region	Installation	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Minimum Days
Atlantic	Ft. Benning	61	80	76	
	Ft. Bragg	0	18	0	
	Ft. Campbell	8	16	50	
	Ft. Eustis	2	2	100	
	Ft. Gordon	0	1	0	
	Ft. Jackson	0	5	0	
	Ft. Rucker	0	1	0	
	U.S. Military Academy	4	6	67	
Central	Ft. Hood	7	8	88	
	Ft. Irwin	1	1	100	
	Ft. Leonard Wood	9	11	82	
	Ft. Polk	10	10	100	
	Ft. Sill	8	9	89	
Pacific	Ft. Lewis	2	3	67	
	Joint (AF) Base Elmendorf-Richardson	1	1	100	
	USAHC Camp Casey	0	1	0	

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

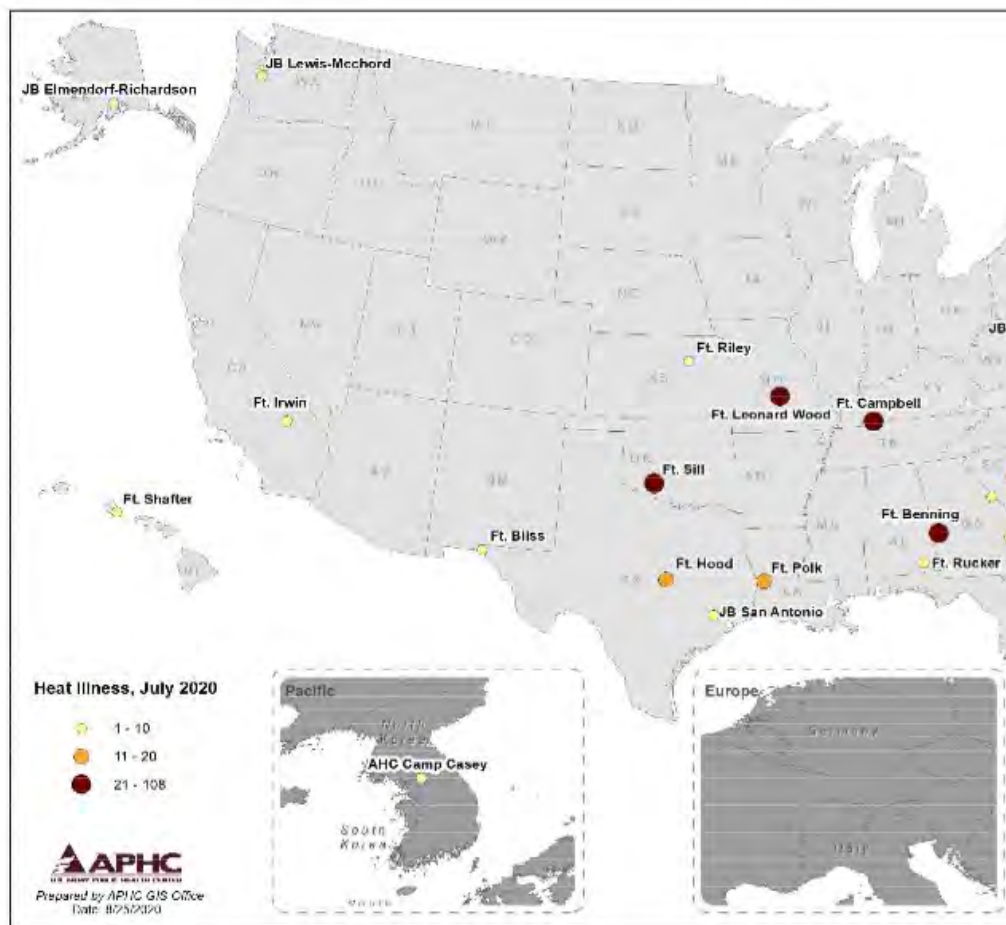
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses July be different than those reported in tabl



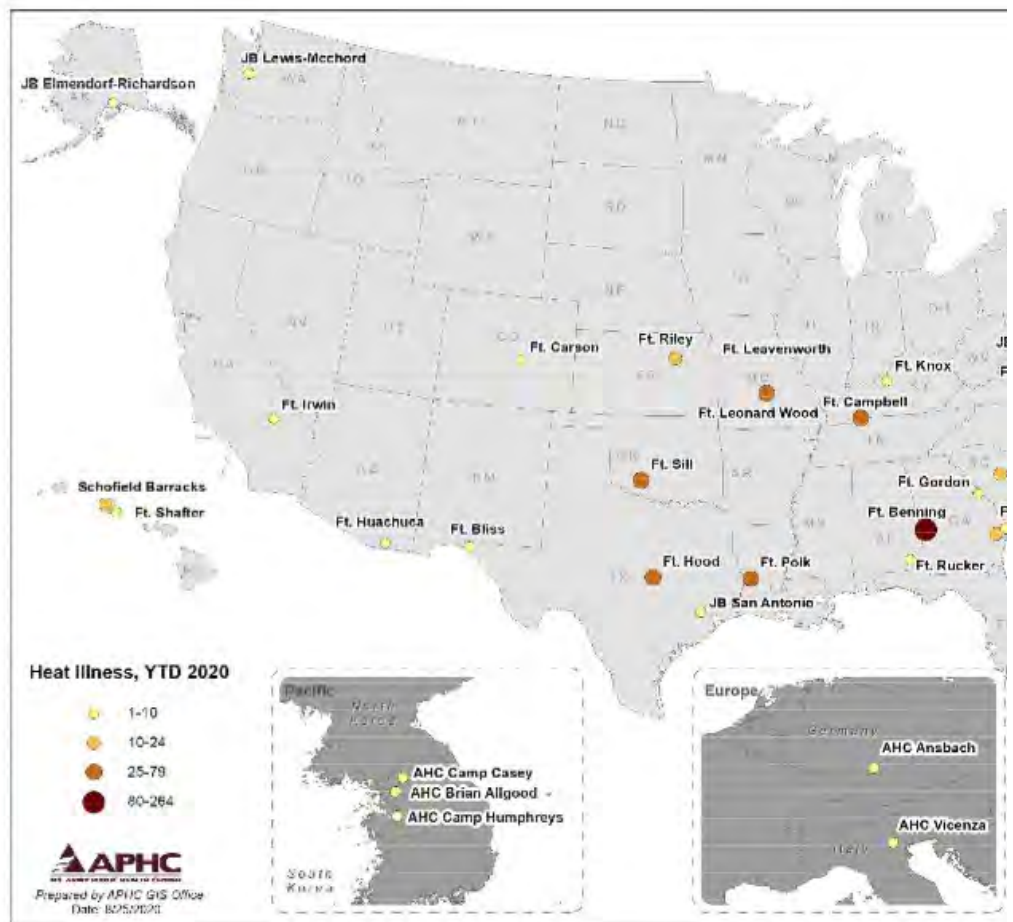
Heat Illnesses, July 2020



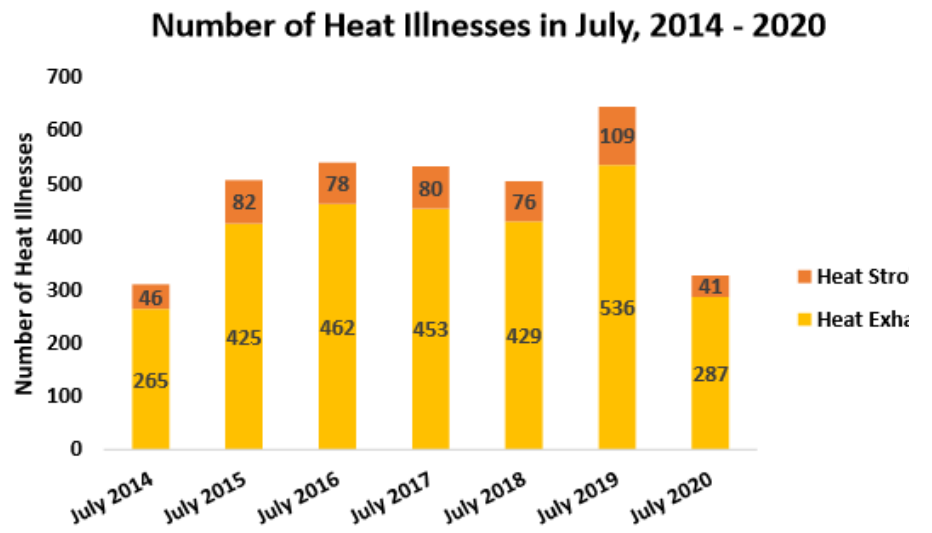
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

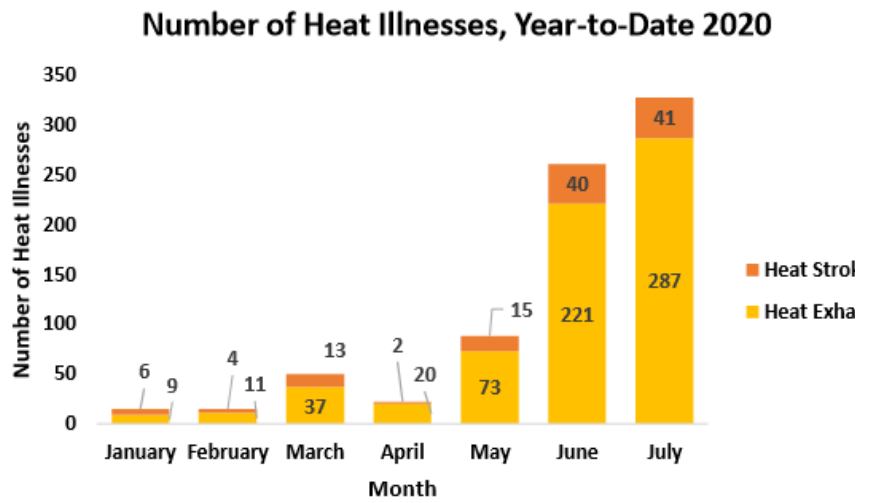


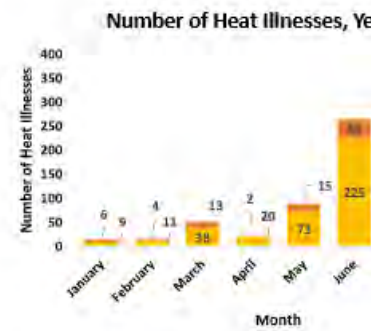
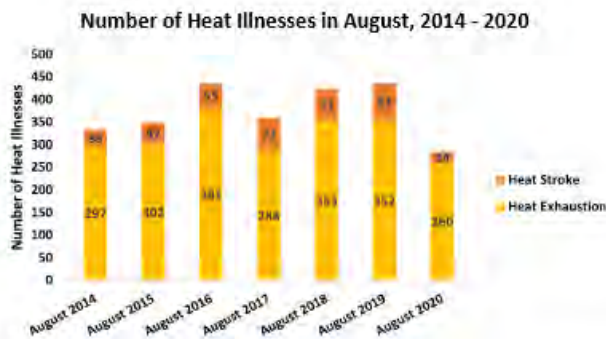
Heat Illnesses, Year-to-Date 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.







In August 2020, 284 heat illnesses were diagnosed (260 heat exhaustion cases, 24 heat stroke cases). This is the lowest number of heat illnesses for August months between 2014 and 2020; the highest numbers of cases were recorded in 2016 and 2019 (both years). There were 35% fewer cases in August 2020 when compared to August 2019. Additionally, 23% fewer cases were recorded in August 2020 when compared to July 2020. Ft. Benning accounted for 26% of all heat illnesses (n=75) in August 2020. Cadets and junior enlisted (JE) Service members (SMs) accounted for 78% (n=221) of the cases in August 2020. Senior enlisted (SE) SMs accounted for 14% (n=41), and Commissioned Officers (COs) accounted for 8% (n=22). Eight heat illnesses occurred in August 2020, and 75% (n=6) were among enlisted SMs; three hospitalizations were due to heat stroke.

There have been 1,108 heat illness cases (959 heat exhaustion cases, 149 heat strokes) diagnosed since the beginning of the calendar year; 30 (3%) of these were hospitalizations. Ft. Benning, Ft. Bragg, and Ft. Campbell accounted for almost 50% of all heat illnesses diagnosed in 2020.



Table 1: Locations where Heat Illnesses were Diagnosed - August 2020

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number
Atlantic	Aberdeen Proving Ground	1	0	
	Ft. Belvoir	1	0	
	Ft. Benning	67	8	
	Ft. Bragg	11	4	
	Ft. Campbell	12	1	
	Ft. Jackson	14	0	
	Ft. Knox	1	0	
	Ft. Lee	2	0	
	Ft. Rucker	7	0	
	Ft. Stewart	6	0	
	Joint (AF) Base Langley-Eustis	2	0	
Central	West Point	2	0	
	Ft. Bliss	12	0	
	Ft. Carson	1	0	
	Ft. Hood	9	2	
	Ft. Irwin	41	6	
	Ft. Leonard Wood	13	0	
	Ft. Polk	25	0	
	Ft. Riley	1	0	
	Ft. Sill	8	0	
Joint (AF) San Antonio LAF-RAF-FSH	1	0		
Europe	AHC Grafenwoehr	1	0	
	AHC Hohenfels	0	1	
	AHC Vilseck	1	0	
	Camp Bondsteel	1	0	
	Landstuhl Regional Medical Center	1	0	
AHC Brno Allied South	2	0		



Table 2: Timeliness of Reporting - August 2020

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 48 Hours	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 48 Hours	Min D
Atlantic	Ft. Benning	33	65	51	
	Ft. Bragg	1	10	10	
	Ft. Campbell	2	2	100	
	Ft. Eustis	2	2	100	
	Ft. Jackson	0	4	0	
	Ft. Rucker	1	2	50	
	Ft. Stewart	0	1	0	
Central	Ft. Hood	4	4	100	
	Ft. Irwin	3	26	12	
	Ft. Leonard Wood	2	2	100	
	Ft. Polk	20	20	100	
	Ft. Sam Houston	0	1	0	
	Ft. Sill	1	2	50	
Europe	AHC Grafenwoer	1	1	100	
	AHC Hohenfels	1	1	100	
Pacific	Camp Humphreys	2	2	100	
	Joint Base (AF) Elmendorf-Richardson	1	1	100	

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

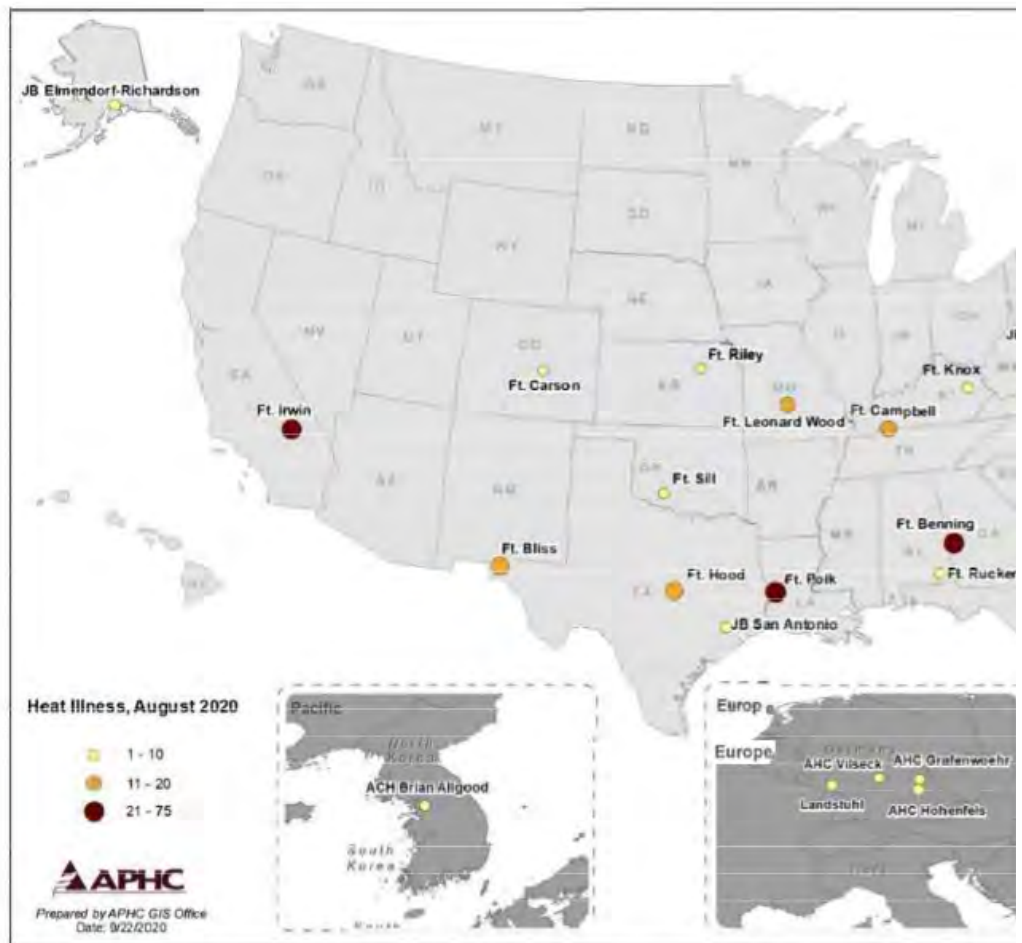
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses July be different than those reported in tabl



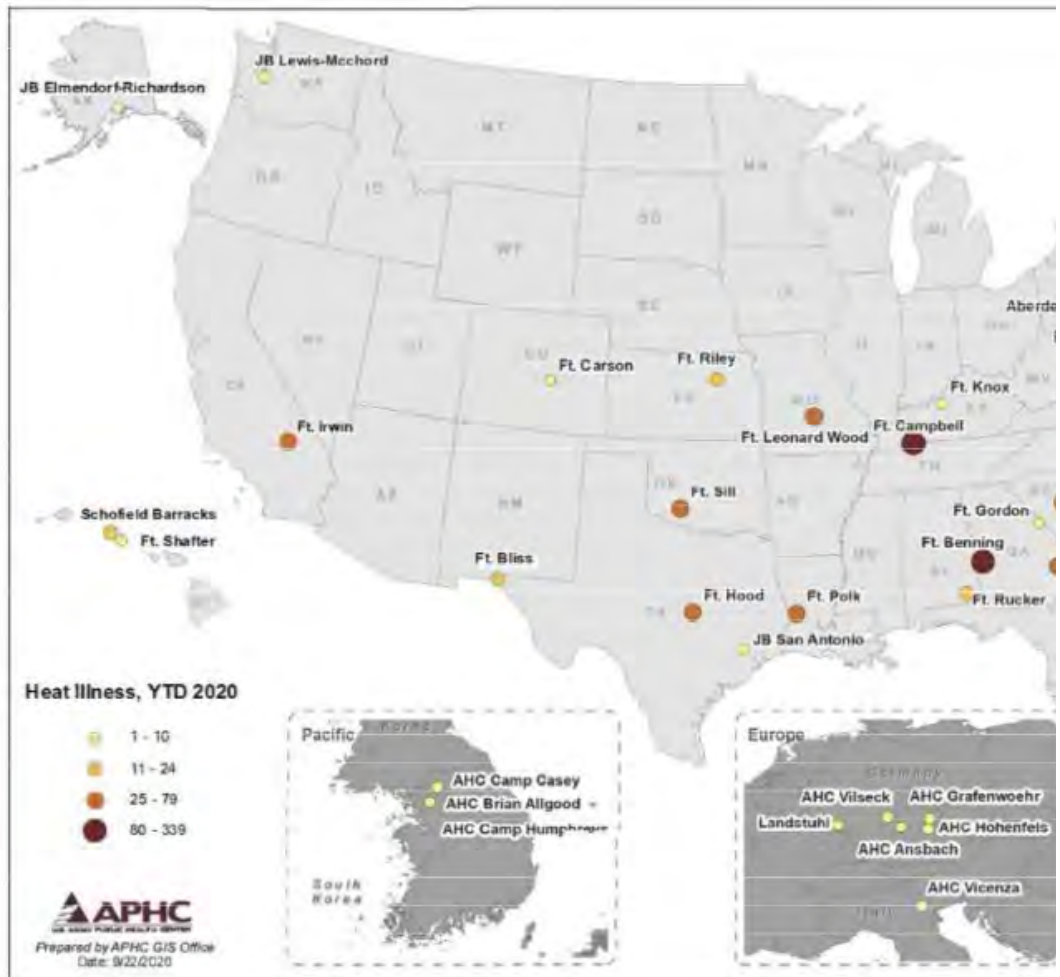
Heat Illnesses, August 2020



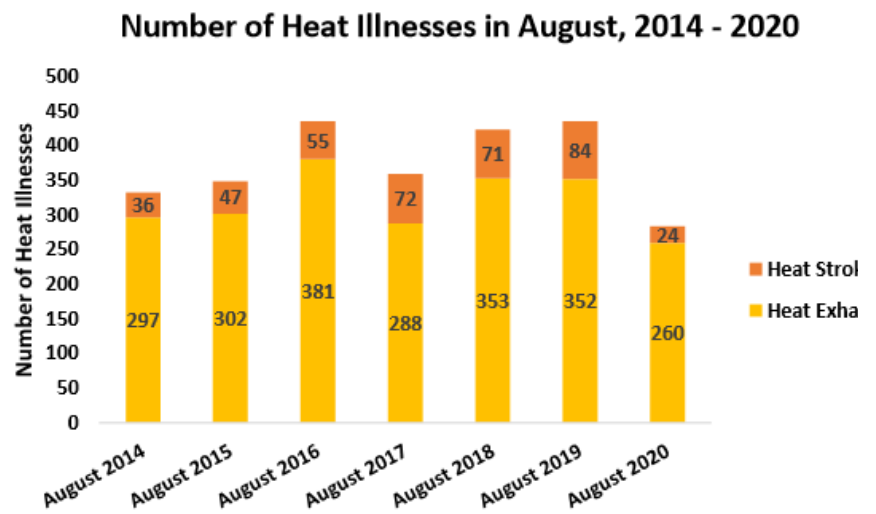
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

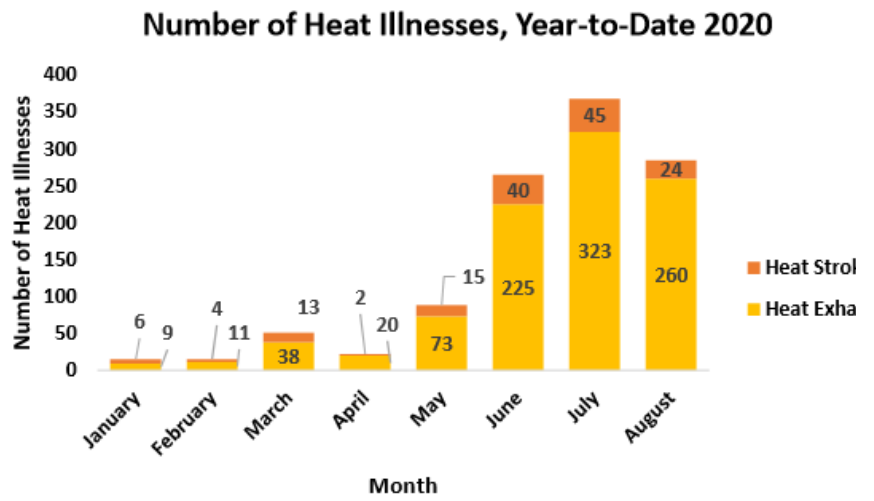


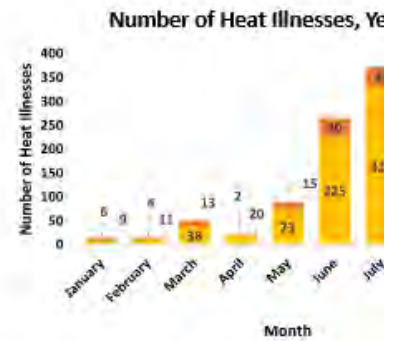
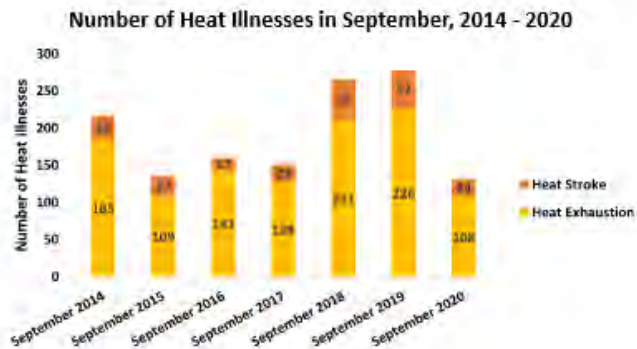
Heat Illnesses, Year-to-Date 2020



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.







In September 2020, 132 heat illnesses were diagnosed (108 heat exhaustion cases, 24 heat stroke cases). This is a 53% decrease in the number of heat illnesses for September months between 2014 and 2020; the highest number of cases was recorded in September 2019. Ft. Benning accounted for 41% (n=54) of the 132 heat illnesses diagnosed in September 2020. Junior enlisted (JE) Service members (SMs) accounted for 73% (n=97) of the 132 heat illnesses diagnosed in September 2020, senior enlisted (SE) SMs accounted for 16% (n=21), and Commissioned Officers (COs) accounted for 11%. One Service member was unknown. Two heat illness-related hospitalizations occurred in September 2020 - one for heat exhaustion and the other to heat stroke; the hospitalizations occurred among a JE SM and CO.

There have been 1,273 heat illness cases (1,100 heat exhaustion cases, 173 heat strokes) diagnosed since the start of the fiscal year; 30 (2%) of these were hospitalizations. There were 58% fewer cases recorded in September 2020 when compared to August 2020. Ft. Benning, Ft. Bragg, and Ft. Campbell accounted for almost half (n=591, 47%) of all heat illnesses diagnosed in August 2020.



Table 1: Locations where Heat Illnesses were Diagnosed - September 20

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Num
Atlantic	Ft. Benning	37	17	
	Ft. Bragg	9	4	
	Ft. Campbell	5	1	
	Ft. Jackson	4	0	
	Ft. Knox	1	0	
	Ft. Lee	1	0	
	Ft. Rucker	2	0	
	Ft. Stewart	1	0	
	Joint (AF) Base Langley-Eustis	2	0	
Central	Ft. Bliss	2	0	
	Ft. Hood	3	0	
	Ft. Irwin	1	2	
	Ft. Leonard Wood	4	0	
	Ft. Polk	18	0	
	Ft. Sill	2	0	
	Joint (AF) San Antonio LAF-RAF-FSH	1	0	
Pacific	ACH Brian Allgood-Seoul	1	0	
	AHC-DC Midtown-Pyongtaek	1	0	
Unknown	Unknown	13	0	
Total		108	24	



Table 2: Timeliness of Reporting - September 2020

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days	Min D
Atlantic	Ft. Benning	10	40	25	
	Ft. Bragg	1	6	17	
	Ft. Campbell	4	4	100	
Central	Ft. Hood	1	1	100	
	Ft. Irwin	1	1	100	
	Ft. Leonard Wood	1	1	100	
	Ft. Polk	13	13	100	

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days= The least number of days noted for a heat illness to be reported.

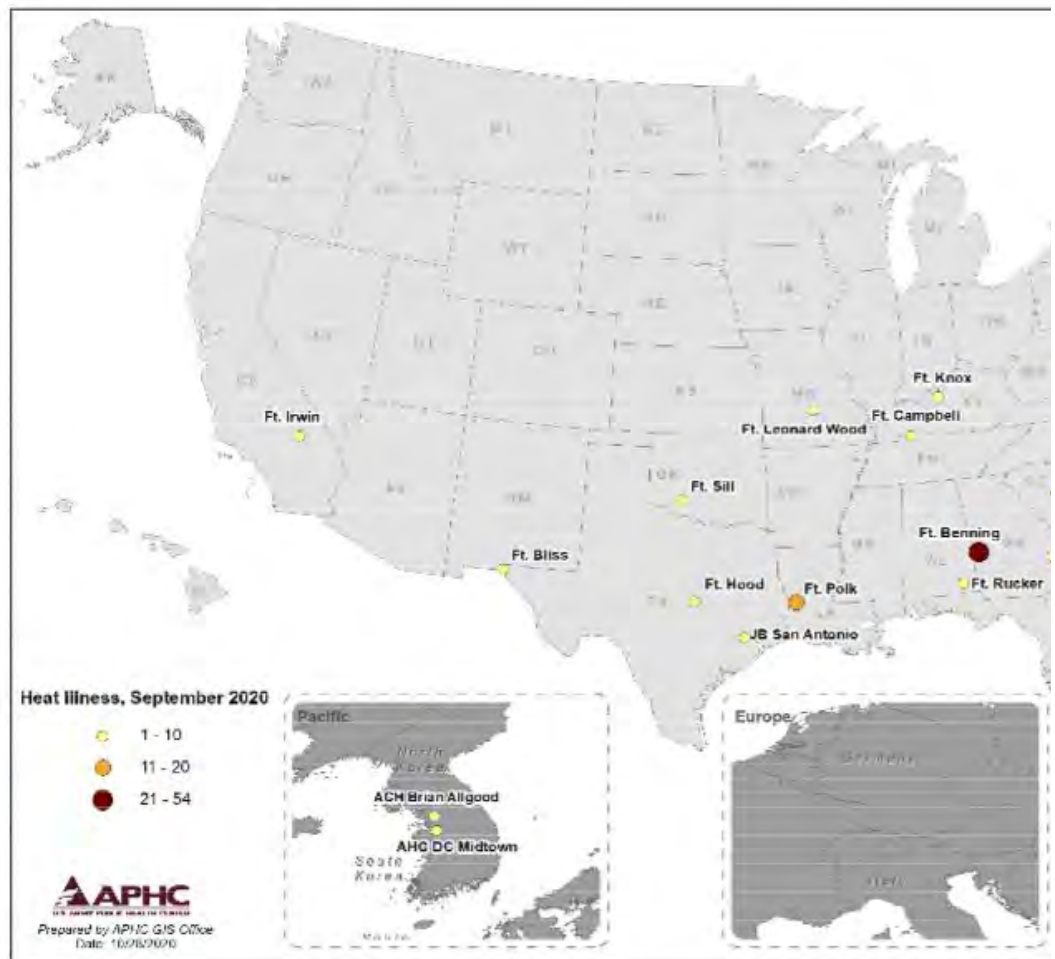
Maximum Days= The highest number of days noted for a heat illness to be reported.

Mean Days= The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of heat illnesses in table 2 may be different from those



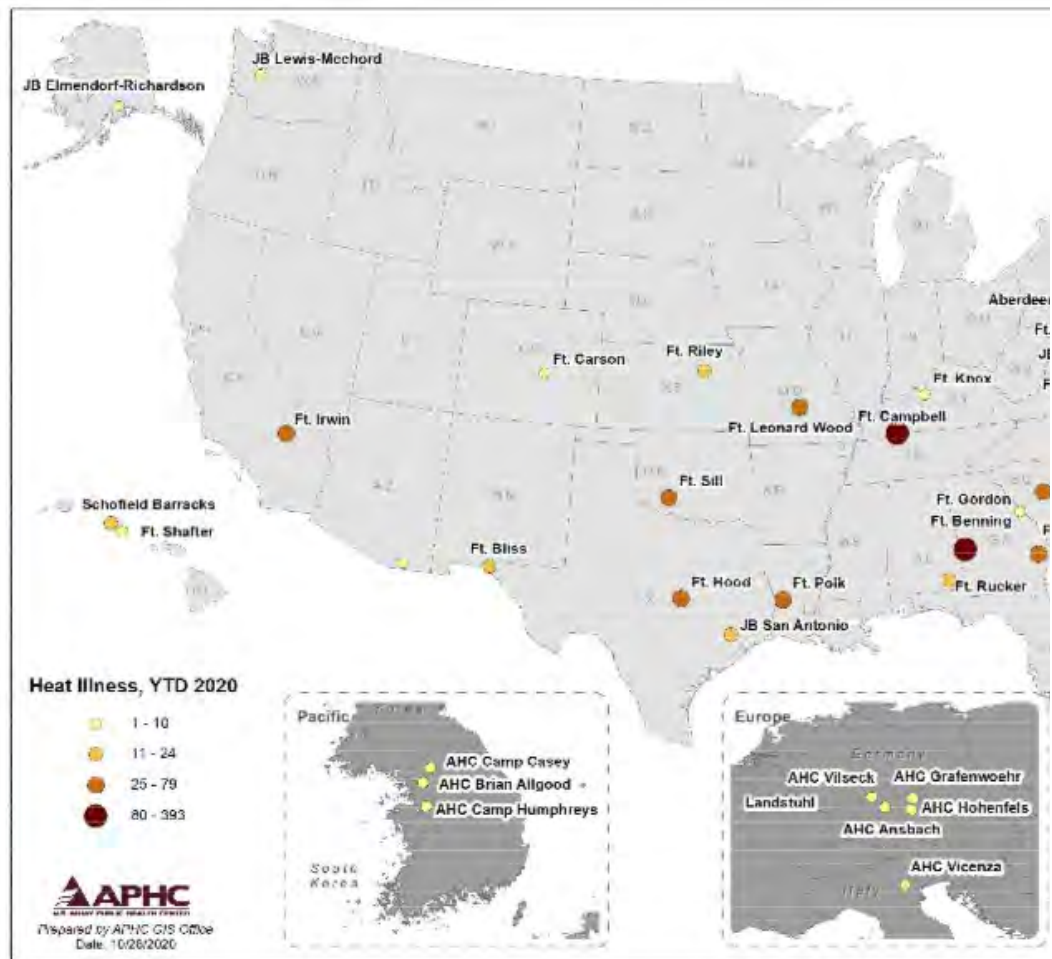
Heat Illnesses, September 2020



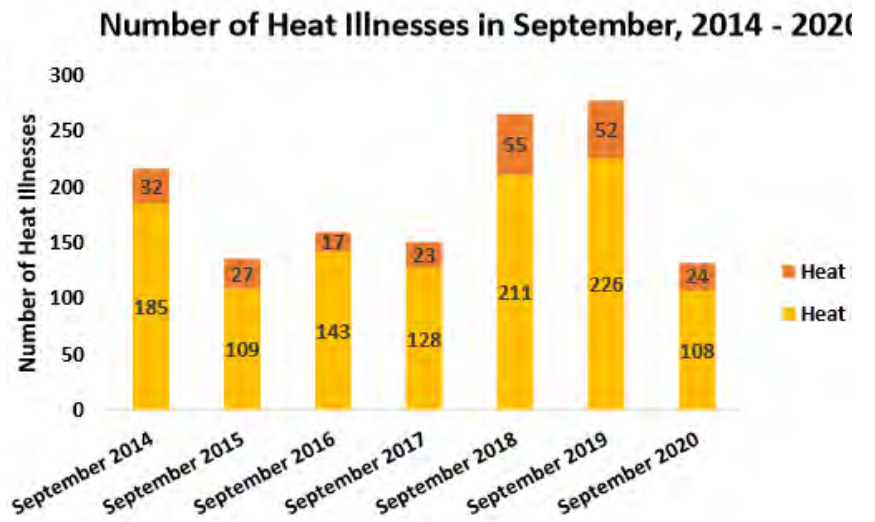
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



Heat Illnesses, Year-to-Date 2020

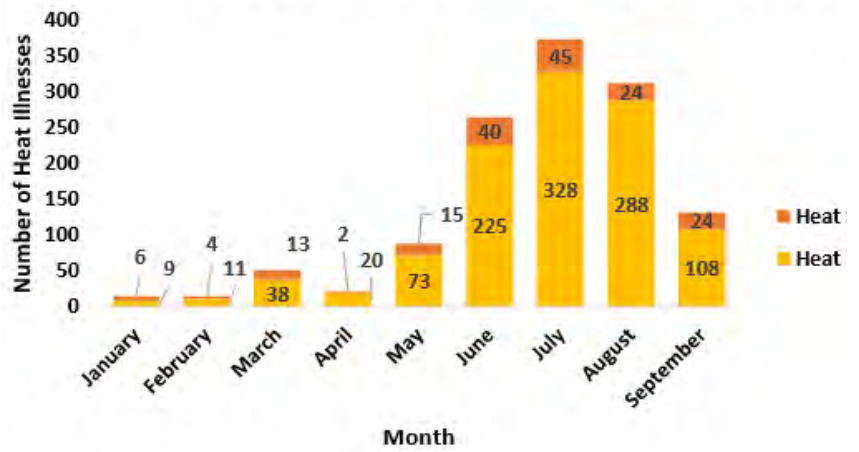


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.





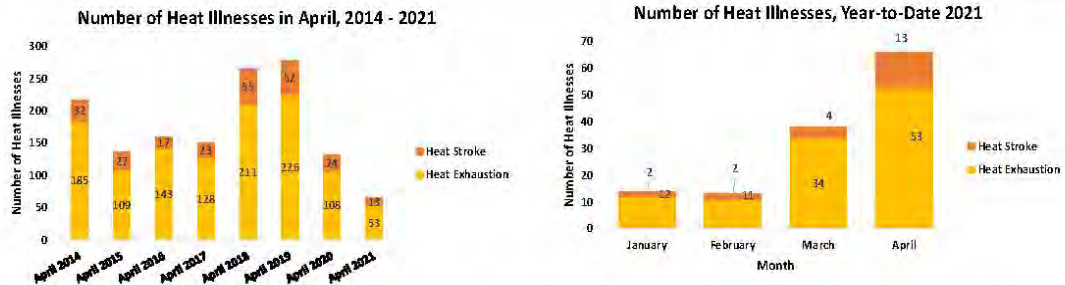
Number of Heat Illnesses, Year-to-Date 2020



TIP No. 028-0254

**APPENDIX D.
2021 HEAT ILLNESS REPORTS**

The 2021 Heat Illness reports begin on the next page.



In April 2021, 66 heat illnesses were diagnosed (53 heat exhaustion cases, 13 heat stroke cases); this is the lowest number of heat illness for April months between 2014 and 2021. There were 50% fewer cases in April 2021 when compared to April 2020 (n=132). Ft. Benning and Ft Polk accounted for 35% (n=23) and 18% (n=12), respectively, of all heat illnesses reported in April 2021. Ft. Benning also had the highest number of heat illnesses to date for the season, accounting for 42% (n=55) of 131 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 82% (n=54) of cases in April 2021. Senior enlisted SMs accounted for 12% (n=8) of cases, and Commissioned Officers accounted for 5% (n=3); the rank of one SM was unknown. Additionally, one heat illness-related hospitalization due to heat stroke occurred in April 2021.

There have been 131 heat illness cases (110 heat exhaustion cases, 21 heat strokes) diagnosed since the beginning of this calendar year; 2% (n=3) of the SMs were hospitalized and two of the hospitalizations were due to heat stroke. There were 74% more heat illness cases recorded in April 2021 when compared to March 2021. Ft. Benning and Ft. Polk accounted for more than half (n=72, 55%) of all heat illnesses diagnosed in 2021.

Data as of 19 May 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - April 2021

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	15	8	23
	Ft. Bragg	1	3	4
	Ft. Campbell	2	1	3
	Ft. Jackson	1	0	1
	Ft. Rucker	1	0	1
	Ft. Stewart	1	0	1
	Joint (AF) Base Langley-Eustis	1	0	1
Central	U.S. Military Academy	1	0	1
	Ft. Bliss	2	0	2
	Ft. Hood	6	0	6
	Ft. Huachuca	1	0	1
	Ft. Leonard Wood	1	0	1
	Ft. Polk	12	0	12
	Ft. Sill	1	0	1
Pacific	Joint (AF) Base San Antonio LAF-RAF-FSH	2	0	2
	Ft. Shafter	0	1	1
Pacific	Schofield Barracks	2	0	2
Unknown	Unknown/Non-Army Locations	3	0	3
Total		53	13	66



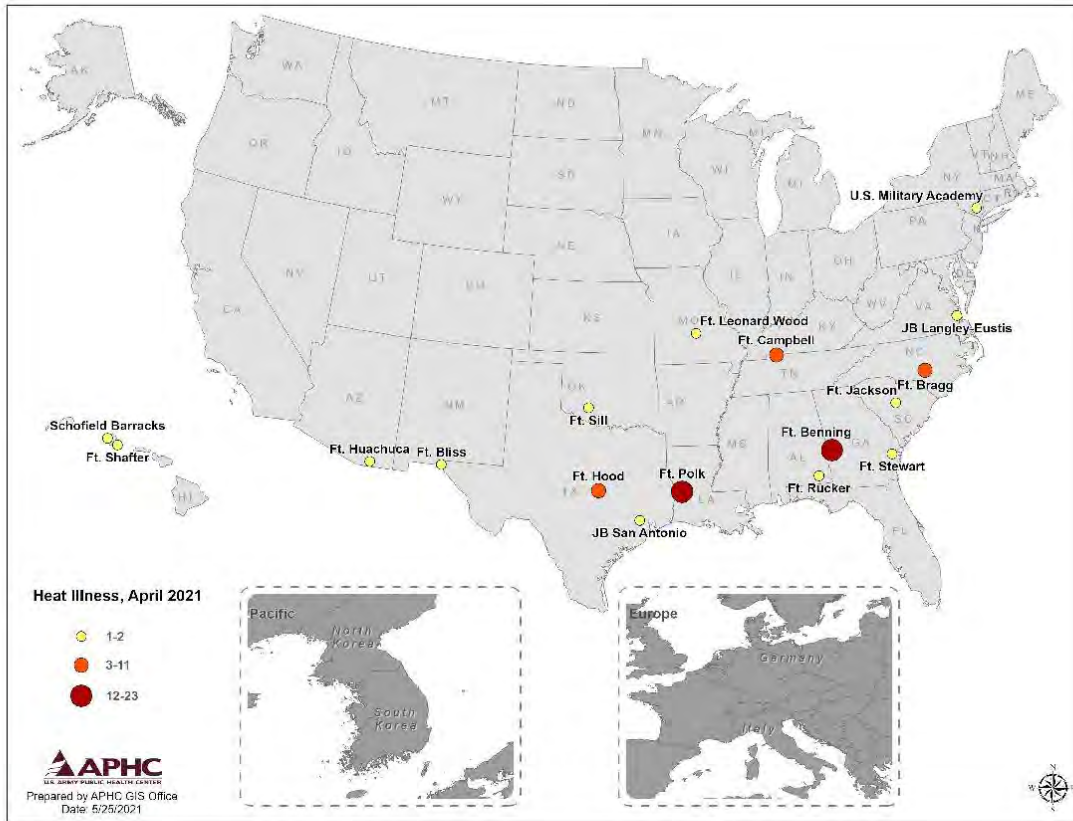
Table 2: Timeliness of Reporting - April 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Campbell	1	1	100	1	1	1
	Ft. Benning	10	17	59	1	5	2
	Ft. Bragg	0	4	0	13	23	16
Central	Ft. Polk	11	11	100	0	2	1
	Ft. Sam Houston	0	2	0	16	16	16
	Ft. Hood	2	2	100	2	2	2
	Ft. Leonard Wood	1	1	100	1	1	1
	Ft. Sill	0	1	0	3	3	3
Pacific	Tripler Army Medical Center	0	1	0	6	6	6

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.
Minimum Days: The least number of days noted for a heat illness to be reported.
Maximum Days: The highest number of days noted for a heat illness to be reported.
Mean Days: The average number of days for a heat illness to be reported.
 This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



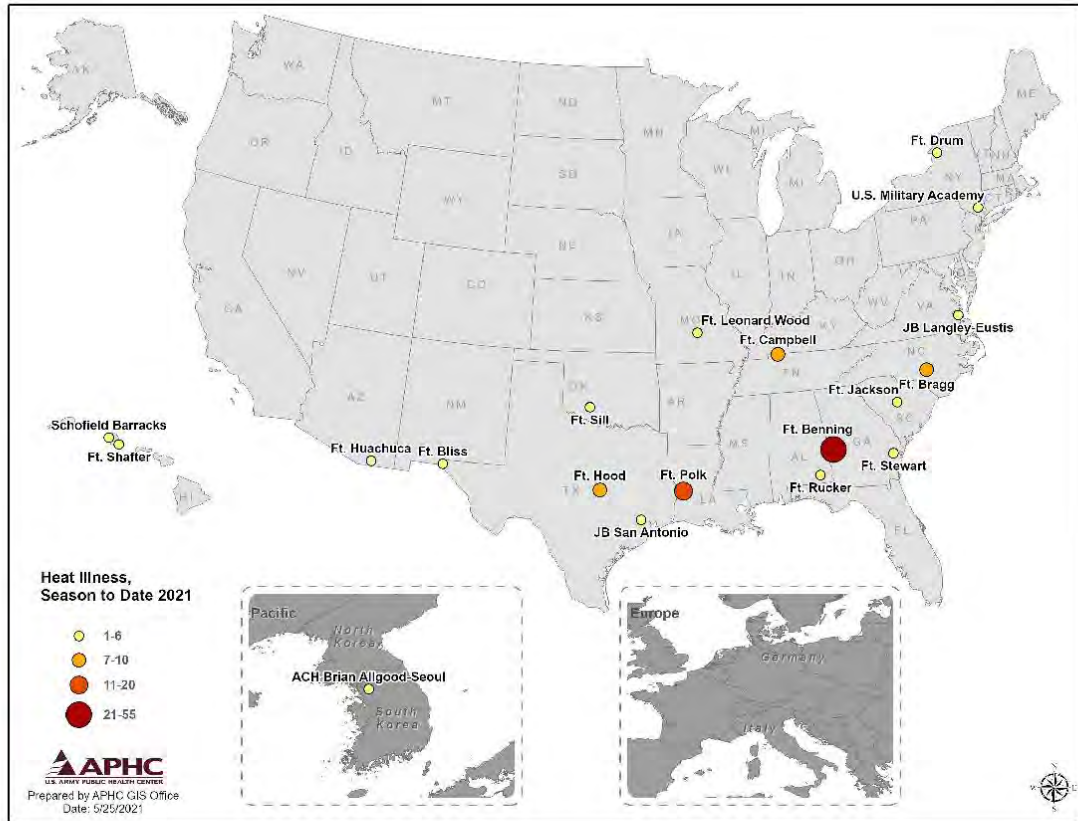
Heat Illnesses, April 2021



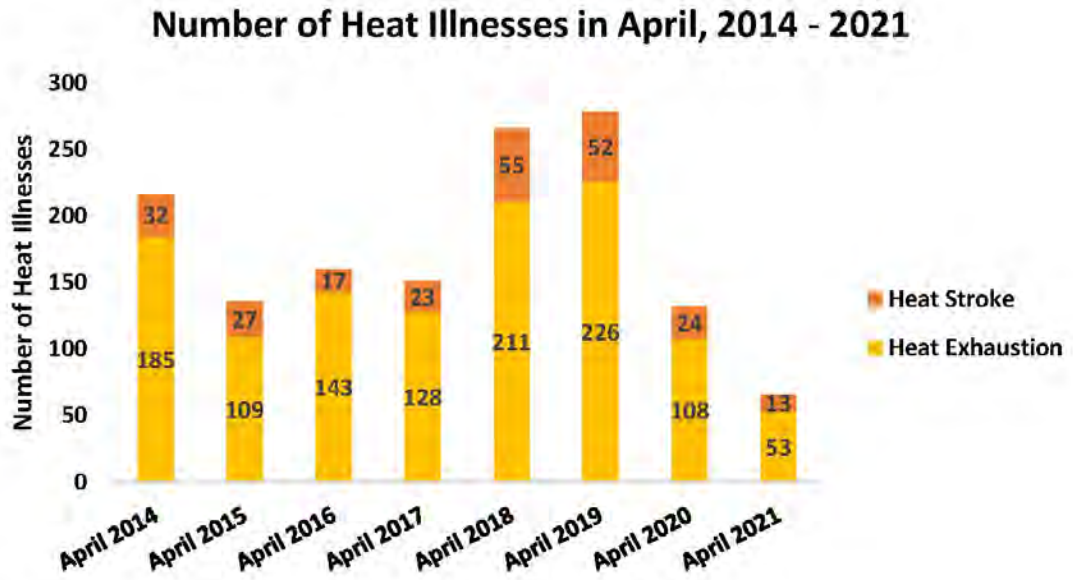
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

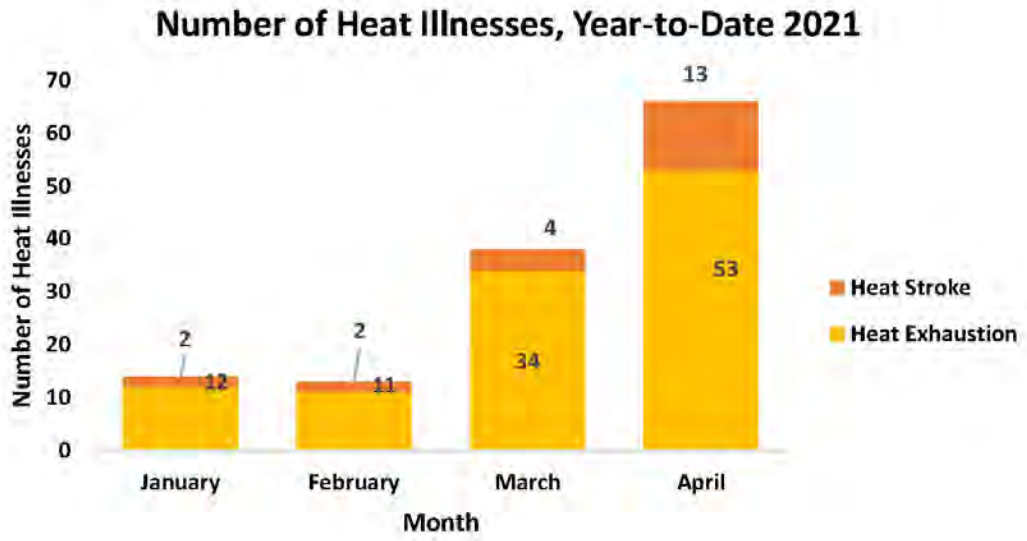


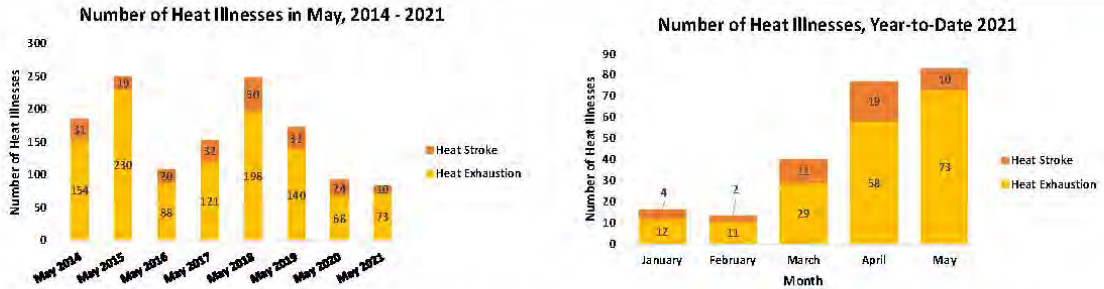
Heat Illnesses, Year-to-Date 2021



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.







In May 2021, 83 heat illnesses were diagnosed (73 heat exhaustion cases, 10 heat stroke cases); this is the lowest number of heat illness for May months between 2014 and 2021. There were 10% fewer cases in May 2021 when compared to May 2020 (n=92). Ft. Benning and Ft Jackson accounted for 41% (n=34) and 11% (n=9), respectively, of all heat illnesses reported in May 2021. Ft. Benning also had the highest number of heat illnesses to date for the year, accounting for 41% (n=93) of 229 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 70% (n=58) of cases in May 2021. Senior enlisted SMs accounted for 17% (n=14) of cases, and Commissioned Officers accounted for 12% (n=10); the rank of one SM was unknown. Additionally, two heat illness-related hospitalizations (one heat exhaustion and one heat stroke) occurred in May 2021.

There have been 229 heat illness cases (183 heat exhaustion cases, 46 heat strokes) diagnosed since the beginning of this calendar year; 3% (n=6) of the SMs were hospitalized and five of the hospitalizations were due to heat stroke. There were 8% more heat illness cases recorded in May 2021 when compared to April 2021. Ft. Benning and Ft. Polk accounted for almost half (n=110, 48%) of all heat illnesses diagnosed in 2021.

Data as of 21 June 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 1: Locations where Heat Illnesses were Diagnosed - May 2021

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	31	3	34
	Ft. Bragg	4	1	5
	Ft. Campbell	1	1	2
	Ft. Gordon	1	0	1
	Ft. Jackson	9	0	9
	Ft. Rucker	5	0	5
	Ft. Stewart	1	0	1
Central	Ft. Bliss	1	1	2
	Ft. Hood	2	0	2
	Ft. Irwin	1	0	1
	Ft. Riley	2	0	2
	Ft. Sill	3	1	4
Pacific	Camp Humphreys	0	1	1
	Ft. Wainwright	0	1	1
	Schofield Barracks	4	0	4
Unknown	Unknown/Non-Army Locations	8	1	9
Total		73	10	83



Table 2: Timeliness of Reporting - May 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	7	17	41	1	7	3
	Ft. Bragg	0	1	0	8	8	8
	Ft. Campbell	1	1	100	0	0	0
	Ft. Rucker	0	5	0	3	3	3
Central	Ft. Hood	1	1	100	1	1	1
	Ft. Irwin	0	1	0	8	8	8
	Ft. Riley	1	2	50	2	4	3
	Ft. Sill	3	3	100	1	2	1
Pacific	Camp Humphreys	0	1	0	6	6	6
	Ft. Wainwright	0	1	0	5	5	5

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days: The least number of days noted for a heat illness to be reported.

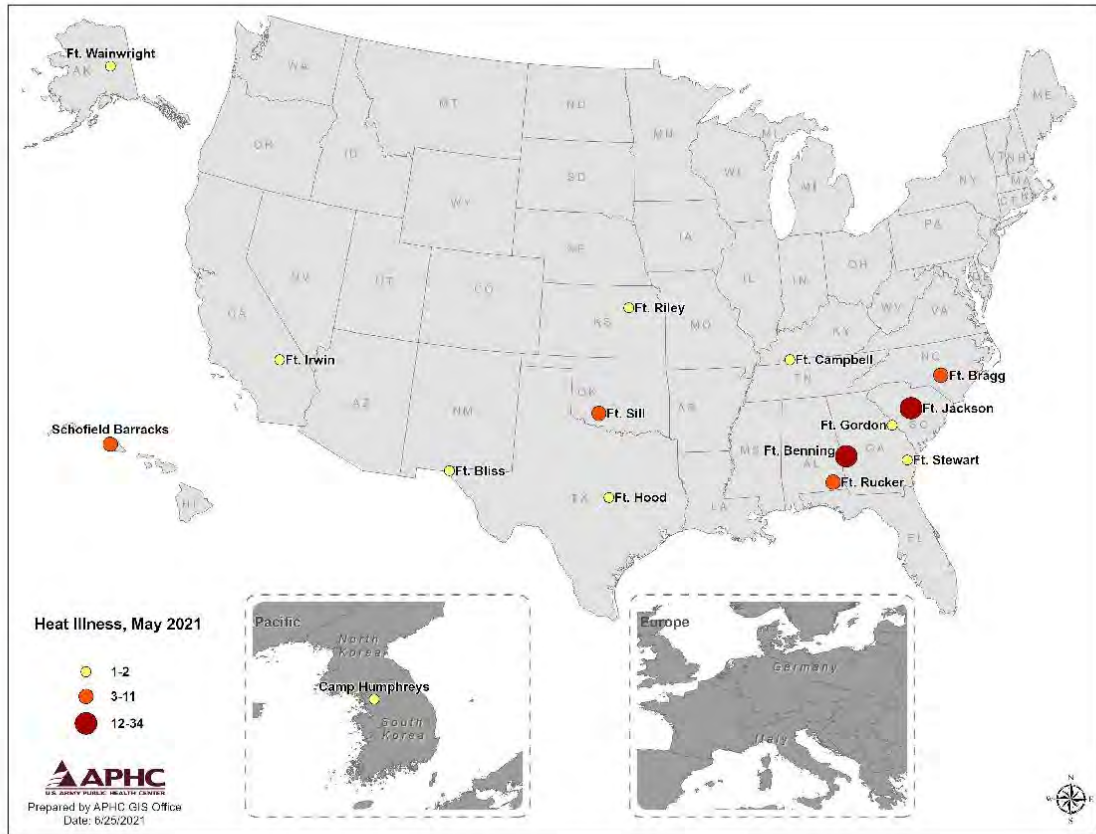
Maximum Days: The highest number of days noted for a heat illness to be reported.

Mean Days: The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



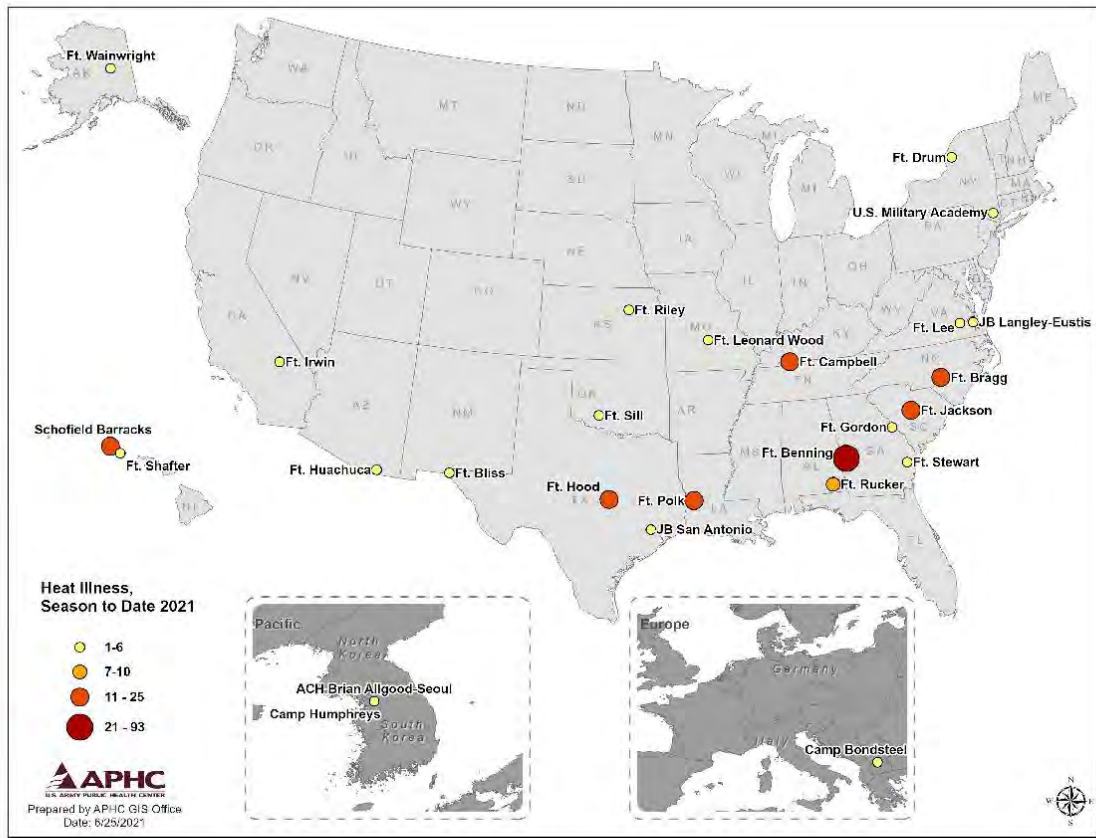
Heat Illnesses, May 2021



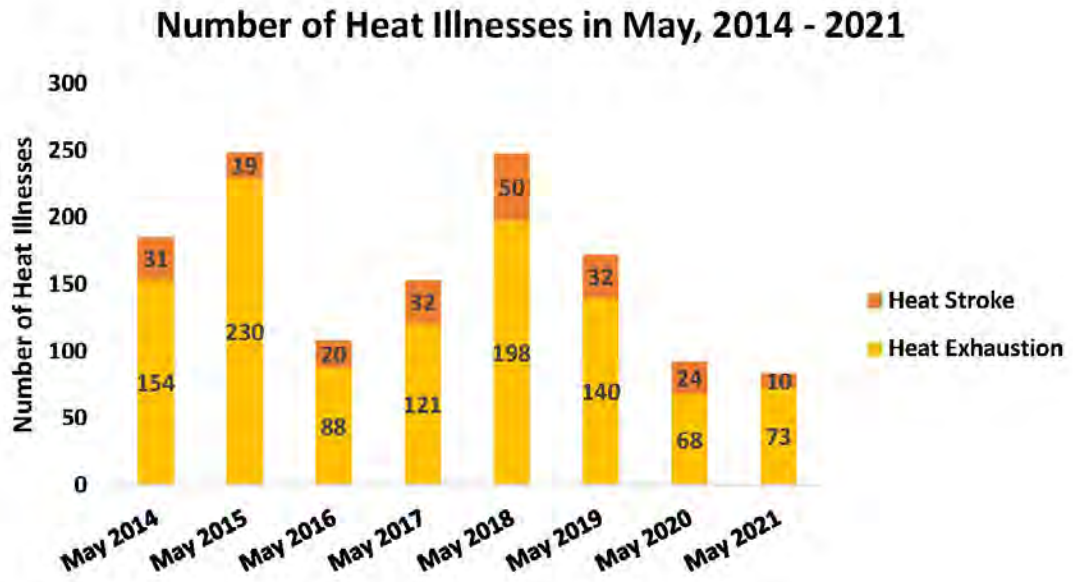
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



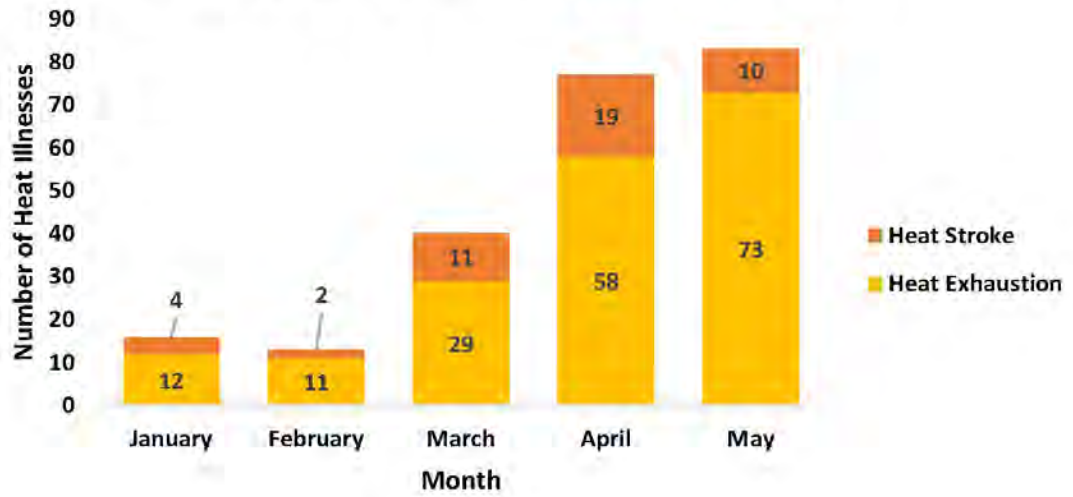
Heat Illnesses, Year-to-Date 2021

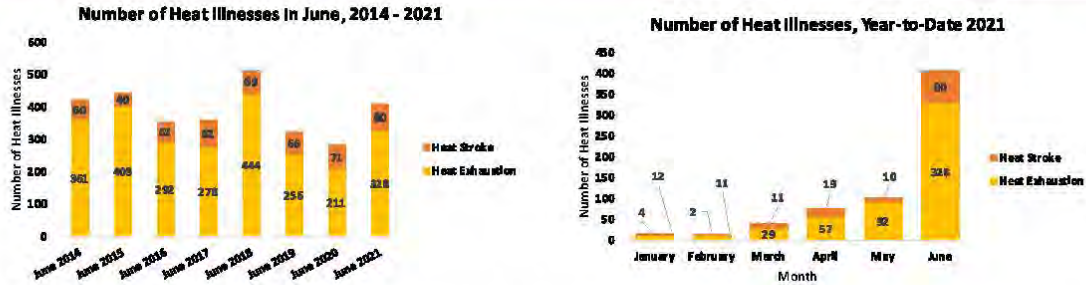


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.



Number of Heat Illnesses, Year-to-Date 2021





In June 2021, 408 heat illnesses were diagnosed (328 heat exhaustion cases, 80 heat stroke cases); this is one of the highest number of heat illness cases for June months between 2014 and 2021. There were 45% more cases in June 2021 when compared to June 2020 (n=282). Ft. Benning, Ft Polk, and Ft. Campbell accounted for more than half 43% (n=231, 57%) of all heat illnesses reported in June 2021. Ft. Benning also accounted for the highest number of heat illnesses to date in 2021 (n=168, 26%). Junior enlisted Service members (SMs) were disproportionately affected, accounting for 70% (n=287) of cases in June 2021. Senior enlisted SMs accounted for 20% (n=83) of cases, Commissioned Officers accounted for 7% (n=29), and Cadets accounted for 1% (n=4); the ranks of five SMs were unknown. Additionally, four heat illness-related hospitalizations (one due to heat exhaustion and three to heat stroke) occurred in June 2021.

There have been 655 heat illness cases (529 heat exhaustion cases, 126 heat strokes) diagnosed since the beginning of this calendar year; 2% (n=11) of the SMs were hospitalized and nine of the hospitalizations were due to heat stroke. The number of heat illness cases quadrupled from May 2021 to June 2021, and Ft. Benning, Ft. Polk, and Ft Campbell also accounted for more than half (n=357, 55%) of all heat illnesses diagnosed in 2021.

Data as of 21 June 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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For more information: APHC Heat Illness Prevention
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Table 1: Locations where Heat Illnesses were Diagnosed - June 2021

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. A.P. Hill	1	0	1
	Ft. Benning	59	15	74
	Ft. Bragg	14	10	24
	Ft. Campbell	18	37	55
	Ft. Drum	2	1	3
	Ft. Jackson	7	0	7
	Ft. Knox	6	0	6
	Ft. Lee	1	0	1
	Ft. Rucker	10	1	11
	Ft. Stewart	5	0	5
	Joint (AF) Base Langley-Eustis	3	0	3
Walter Reed National Military Medical Center	4	0	4	
U.S. Military Academy	6	1	7	
Central	Ft. Bliss	4	0	4
	Ft. Hood	16	2	18
	Ft. Irwin	16	0	16
	Ft. Leonard Wood	3	2	5
	Ft. Polk	101	1	102
	Ft. Riley	2	0	2
	Ft. Sill	18	1	19
Joint (AF) San Antonio LAF-RAF-FSH	3	1	4	
Europe	AHC Grafenwoehr	0	1	1
	AHC Hohenfels	1	0	1
Pacific	ACH Brian Allgood-Seoul	2	0	2
	Ft. Shafter	0	1	1
	Joint (AF) Base Lewis-McChord	2	0	2
Unknown	Unknown/Non-Army Locations	24	6	30
Total		328	80	408



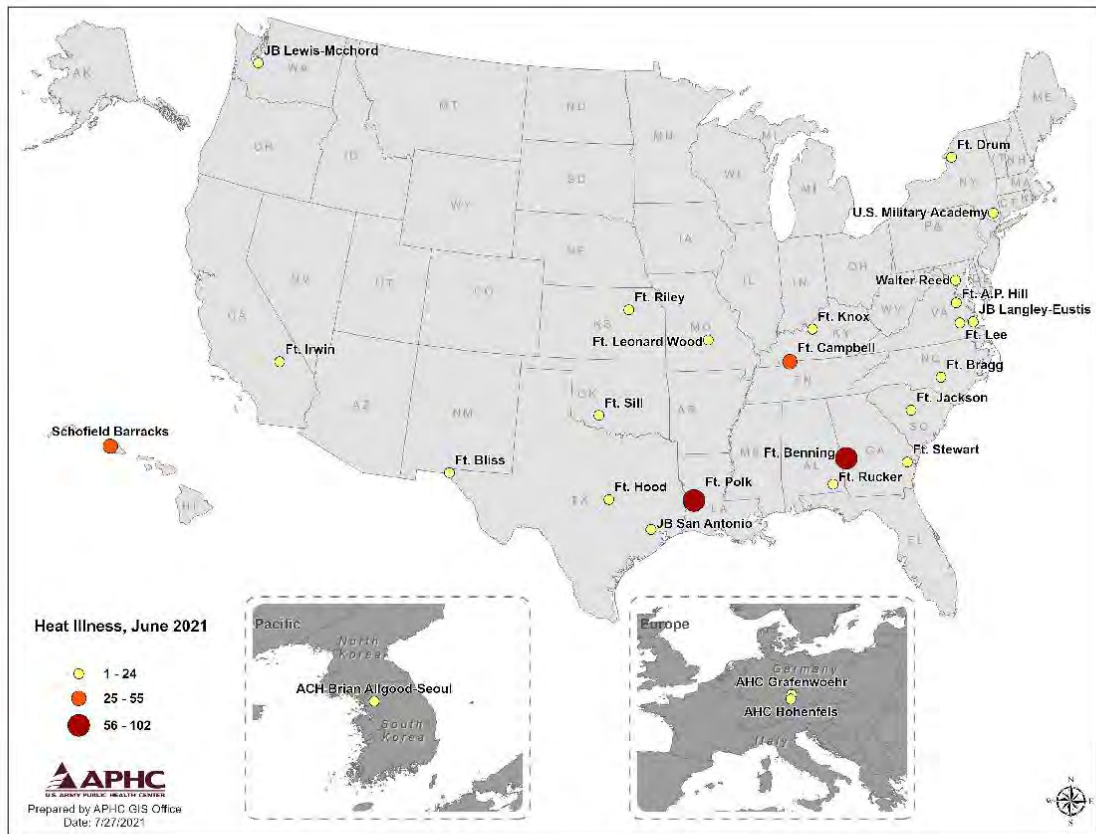
Table 2: Timeliness of Reporting - June 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	19	66	29	1	9	4
	Ft. Bragg	0	18	0	6	25	14
	Ft. Campbell	27	45	60	1	4	2
	Ft. Drum	2	2	100	1	1	1
	Ft. Eustis	3	3	100	0	2	1
	Ft. Knox	4	4	100	0	1	1
	Ft. Rucker	1	1	100	1	1	1
	U.S. Military Academy	5	5	100	0	1	1
Central	Ft. Hood	12	13	92	0	3	1
	Ft. Irwin	9	16	56	0	4	2
	Ft. Leonard Wood	2	5	40	2	4	3
	Ft. Polk	93	95	98	0	3	1
	Ft. Riley	1	1	100	1	1	1
	Ft. Sam Houston	0	3	0	4	4	4
	Ft. Sill	2	7	29	0	7	4
Europe	AHC Grafenwoehr	1	1	100	0	0	0
	AHC Hohenfels	1	1	100	0	0	0
Pacific	Ft. Lewis	2	2	100	1	1	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.
Minimum Days= The least number of days noted for a heat illness to be reported.
Maximum Days= The highest number of days noted for a heat illness to be reported.
Mean Days= The average number of days for a heat illness to be reported.
 This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



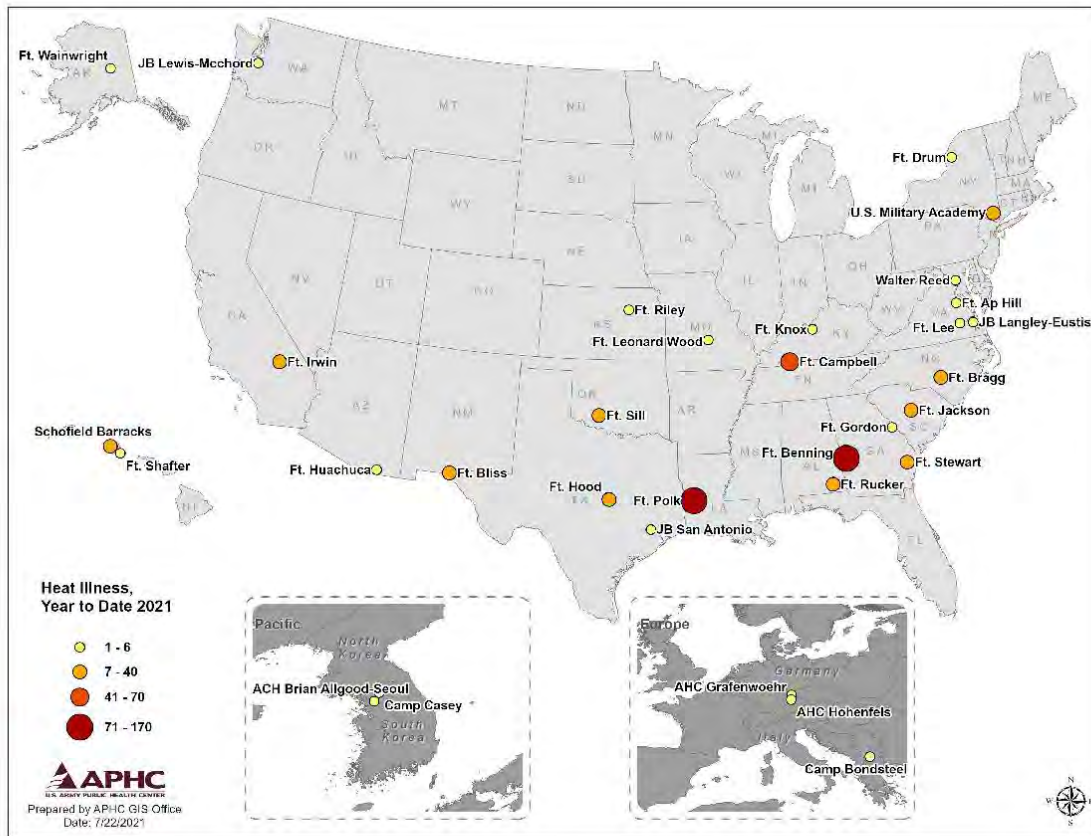
Heat Illnesses, June 2021



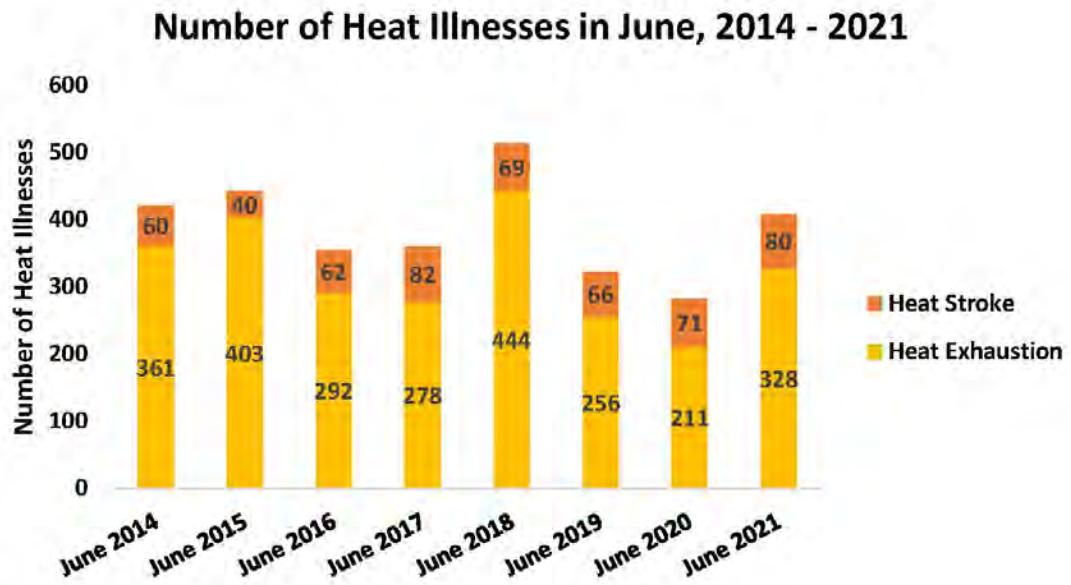
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



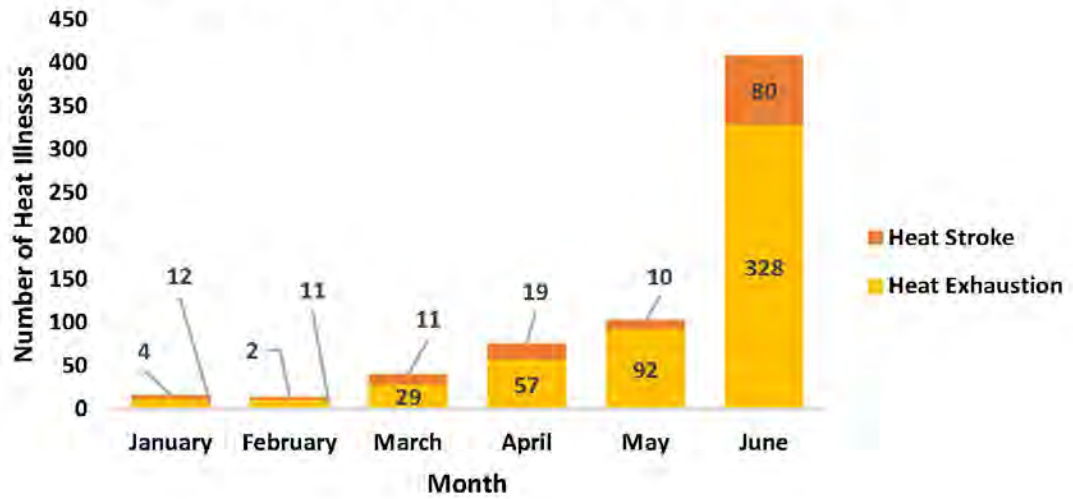
Heat Illnesses, Year-to-Date 2021

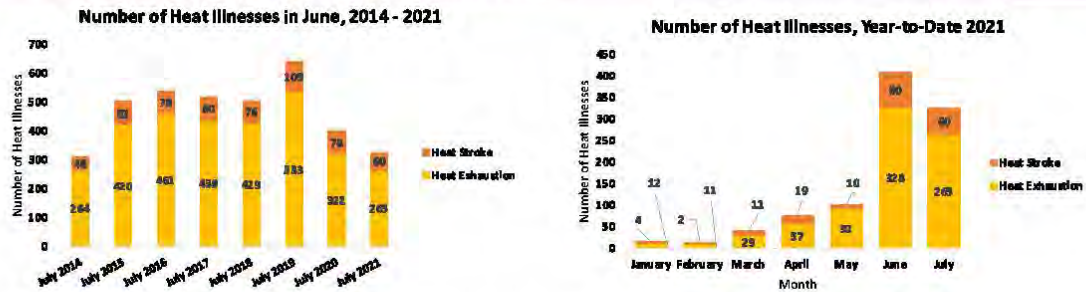


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.



Number of Heat Illnesses, Year-to-Date 2021





In July 2021, 325 heat illnesses were diagnosed (265 heat exhaustion cases, 60 heat stroke cases); this is the second lowest number of heat illness cases for June months between 2014 and 2021. The lowest number of cases was documented in 2014. There were 19% fewer cases in July 2021 when compared to July 2020 (n=400). Ft. Benning, Ft. Jackson, and Ft. Polk accounted for almost half (n=159) of all heat illnesses reported in July 2021. Ft. Benning also accounted for a quarter of the total number of heat illnesses to date in 2021 (n=266). Junior enlisted Service members (SMs) were disproportionately affected, accounting for 75% (n=243) of cases in July 2021. Senior enlisted SMs accounted for 11% (n=36) of cases, Commissioned Officers accounted for 7% (n=21), and Cadets accounted for 4% (n=13); the ranks of 12 SMs were not reported. Additionally, six heat illness-related hospitalizations (all six due to heat stroke) occurred in July 2021.

There have been 1,051 heat illness cases (859 heat exhaustion cases, 192 heat strokes) diagnosed since the beginning of this calendar year; 2% (n=21) of the SMs were hospitalized and 17 of the hospitalizations were due to heat stroke. There were 32% fewer heat illnesses recorded in July 2021 when compared to June 2021, and Ft. Benning, Ft. Polk, Ft. Bragg, and Ft. Campbell also accounted for almost half (n=509, 48%) of all heat illnesses diagnosed in 2021.

Date as of 21 July 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - July 2021

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. A.P. Hill	1	0	1
	Ft. Belvoir	2	0	2
	Ft. Benning	77	23	100
	Ft. Bragg	9	14	23
	Ft. Campbell	13	12	25
	Ft. Drum	1	0	1
	Ft. Jackson	32	0	32
	Ft. Knox	12	2	14
	Ft. Meade	1	0	1
	Ft. Rucker	1	0	1
	Ft. Stewart	5	1	6
	Joint (AF) Base Langley-Eustis	4	0	4
	Joint (AN) Base Myer-Henderson Hall	1	0	1
U.S. Military Academy	8	1	9	
Walter Reed National Military Medical Center	1	0	1	
Central	Ft. Bliss	1	0	1
	Ft. Hood	11	1	12
	Ft. Irwin	26	0	26
	Ft. Leonard Wood	4	0	4
	Ft. Polk	27	0	27
	Ft. Riley	8	0	8
	Ft. Sill	11	0	11
Europe	Landstuhl Regional Medical Center	0	1	1
Pacific	ACH Brian Allgood-Seoul	1	1	2
	AHC Camp Humphreys-Pyongtaek	1	0	1
	AHC-DC Midtown-Pyongtaek	1	0	1
	Schofield Barracks	1	0	1
Unknown	Unknown/Non-Army Locations	5	4	9
Total		265	60	325



Table 2: Timeliness of Reporting - July 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	39	84	46	1	18	5
	Ft. Bragg	9	18	50	1	13	3
	Ft. Campbell	11	16	69	1	6	2
	Ft. Eustis	3	3	100	0	1	1
	Ft. Jackson	6	9	67	1	4	2
	Ft. Knox	8	9	89	0	6	1
	Ft. Stewart	1	1	100	1	1	1
	U.S. Military Academy	5	5	100	1	1	1
Central	Ft. Hood	5	5	100	1	2	2
	Ft. Irwin	26	26	100	1	2	1
	Ft. Leonard Wood	3	4	75	2	4	3
	Ft. Polk	27	27	100	0	2	1
	Ft. Riley	3	8	38	1	13	5
	Ft. Sill	3	3	100	0	1	1
Pacific	Camp Humphreys	0	1	0	4	4	4
	Ft. Lewis	1	1	100	2	2	2

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Minimum Days- The least number of days noted for a heat illness to be reported.

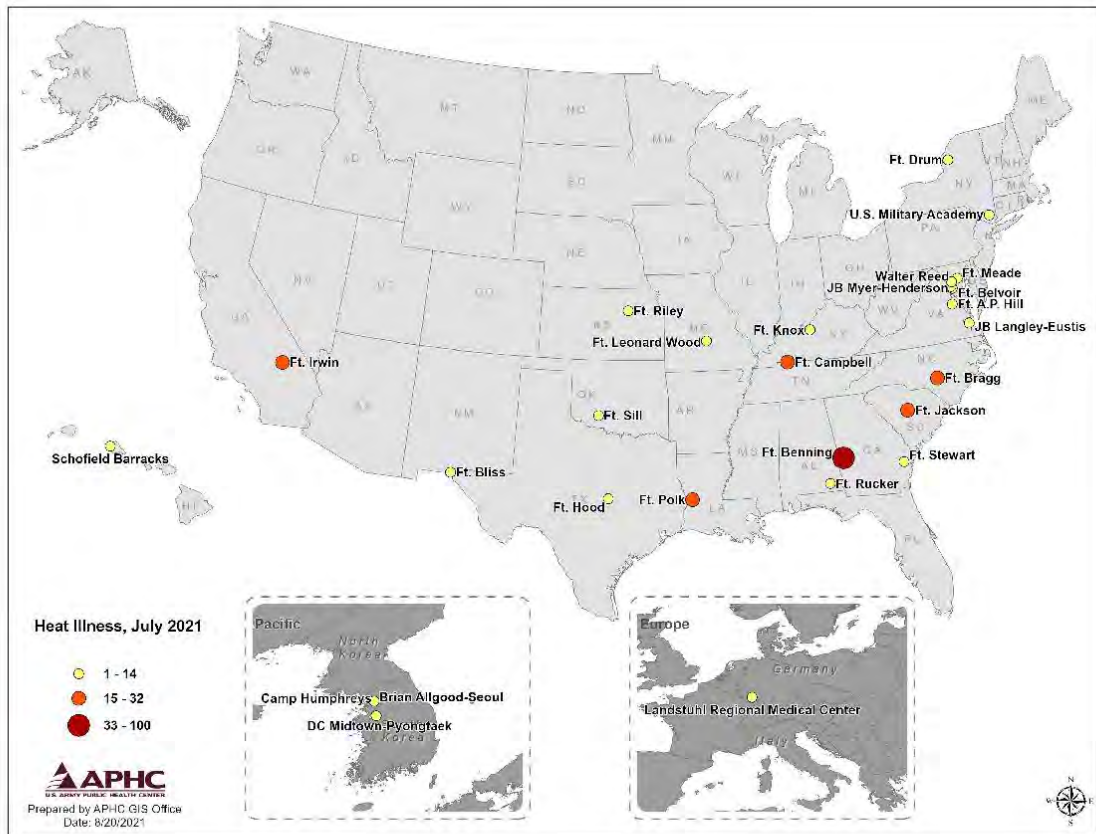
Maximum Days- The highest number of days noted for a heat illness to be reported.

Mean Days- The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



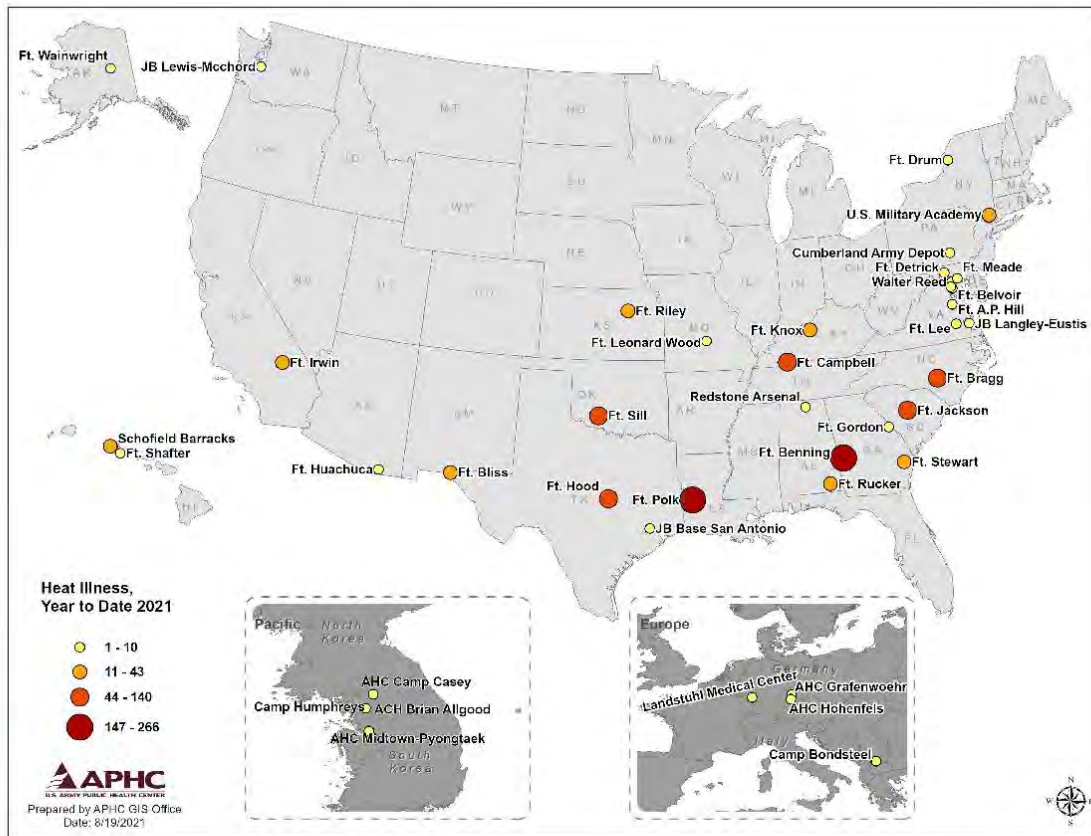
Heat Illnesses, July 2021



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



Heat Illnesses, Year-to-Date 2021

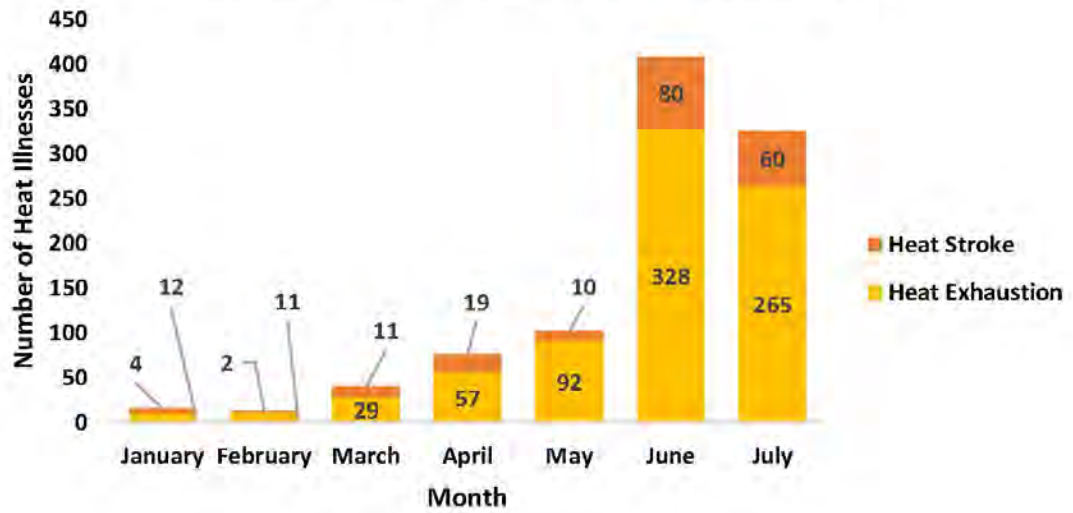


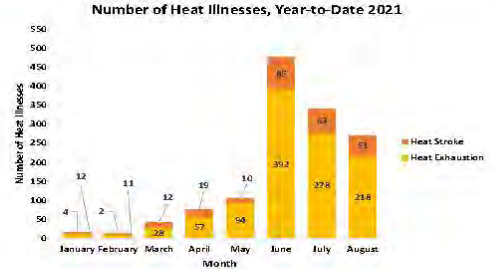
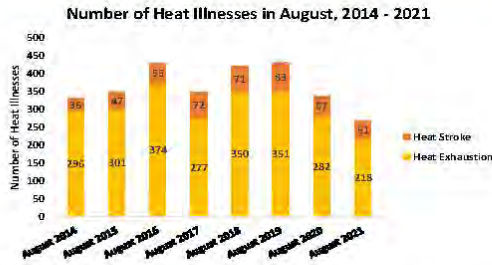
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in June, 2014 - 2021



Number of Heat Illnesses, Year-to-Date 2021





In August 2021, 269 heat illnesses were diagnosed (218 heat exhaustion cases, 51 heat stroke cases); this is the lowest number of heat illness cases for August months between 2014 and 2021. The highest number of cases was documented in 2019. There were 21% fewer cases in August 2021 when compared to August 2020 (n=339). Ft. Benning and Ft Jackson accounted for over half (n=161, 60%) of all heat illnesses reported in August 2021. Ft. Benning also accounted for over a quarter of the total number of heat illnesses to date in 2021 (n=380). Junior enlisted Service members (SMs) were disproportionately affected, accounting for 74% (n=200) of cases in August 2021. Senior enlisted SMs accounted for 17% (n=45) of cases, and Commissioned Officers accounted for 8% (n=22); the ranks of 2 SMs were unknown. Additionally, five heat illness-related hospitalizations (three due to heat stroke) occurred in August 2021.

There have been 1,336 heat illness cases (1,090 heat exhaustion cases, 246 heat strokes) diagnosed since the beginning of this calendar year; 2% (n=25) of the SMs were hospitalized and 19 of the hospitalizations were due to heat stroke. There were 21% fewer heat illnesses recorded in August 2021 when compared to July 2021, and Ft. Benning, Ft. Polk, and Ft. Campbell also accounted for almost half (n=655, 49%) of all heat illnesses diagnosed in 2021.

Data as of 15 August 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - August 2021

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Camp Shelby	0	1	1
	Carlisle Barracks	1	0	1
	Ft. Benning	90	24	114
	Ft. Bragg	16	6	22
	Ft. Campbell	9	6	15
	Ft. Jackson	45	2	47
	Ft. Knox	4	0	4
	Ft. Lee	2	0	2
	Ft. Rucker	3	1	4
	Ft. Stewart	0	5	5
	Joint (AF) Base Langley-Eustis	1	0	1
Central	Ft. Hood	17	2	19
	Ft. Irwin	1	0	1
	Ft. Leonard Wood	5	0	5
	Ft. Polk	16	0	16
	Ft. Riley	3	0	3
	Ft. Sill	1	0	1
Pacific	Ft. Shafter	0	2	2
	Joint (AF) Base Lewis-Mcchord	1	0	1
	Schofield Barracks	1	0	1
Unknown	Unknown/Non-Army Locations	2	2	4
Total		218	51	269



Table 2: Timeliness of Reporting - August 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSI within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	26	119	22	1	9	4
	Ft. Bragg	4	21	19	1	25	8
	Ft. Campbell	4	4	100	1	1	1
	Ft. Eustis	1	1	100	0	0	0
	Ft. Jackson	42	42	100	0	2	2
	Ft. Knox	3	3	100	0	0	0
	Ft. Rucker	1	2	50	2	3	3
Central	Ft. Hood	16	16	100	1	2	1
	Ft. Irwin	0	1	0	5	5	5
	Ft. Leonard Wood	2	5	40	0	6	3
	Ft. Polk	15	15	100	0	1	1
	Ft. Riley	2	3	67	2	8	4
	Ft. Sill	1	1	0	8	8	8
Pacific	Ft. Lewis	1	1	100	1	1	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.

Minimum Days: The least number of days noted for a heat illness to be reported.

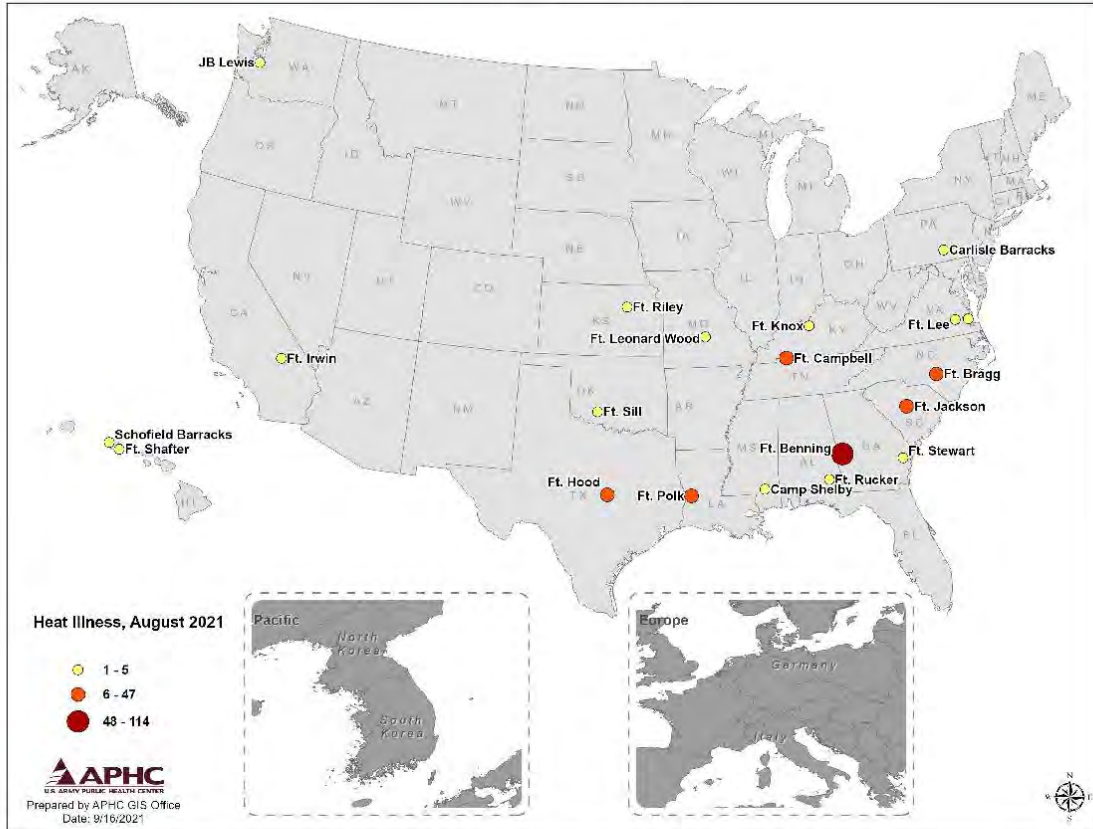
Maximum Days: The highest number of days noted for a heat illness to be reported.

Mean Days: The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSI; therefore, the total number of illnesses may be different than those reported in table 1.



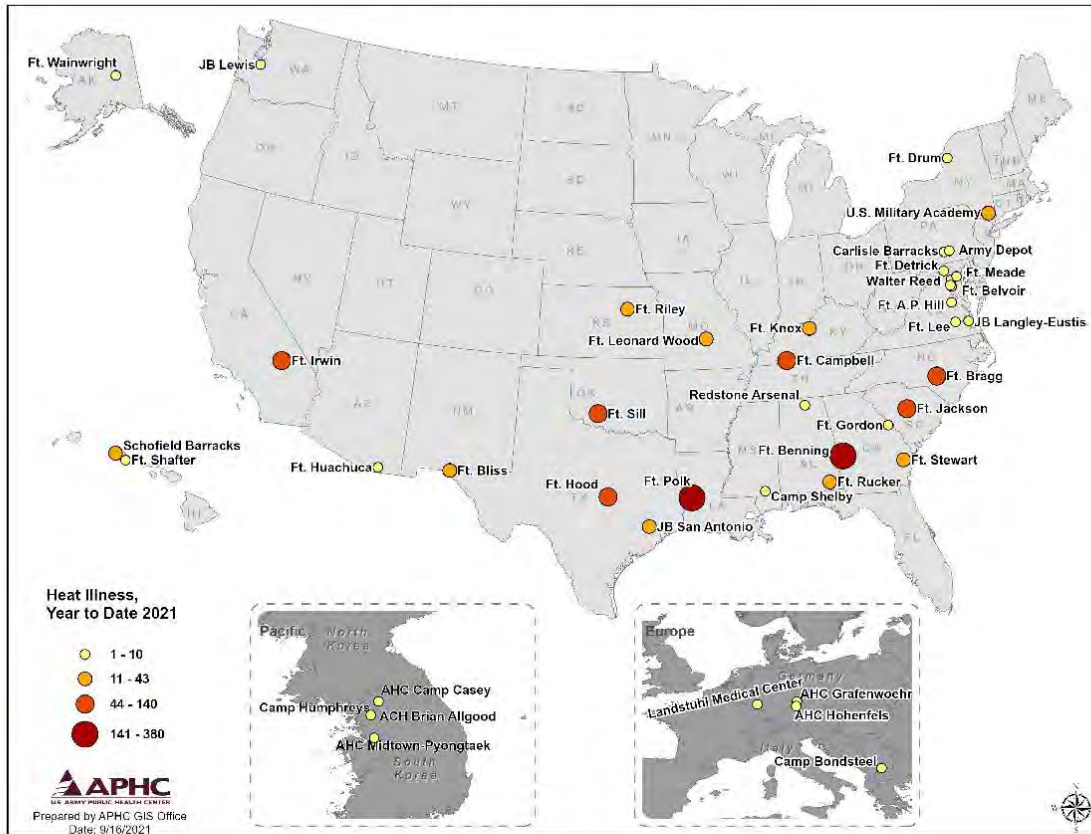
Heat Illnesses - August 2021



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

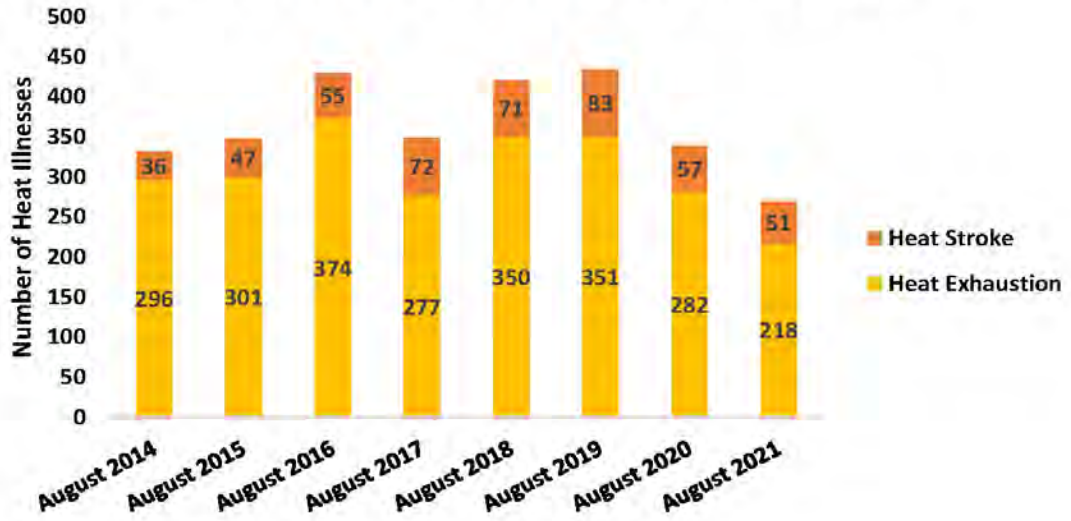


Heat Illnesses - Year-to-Date 2021

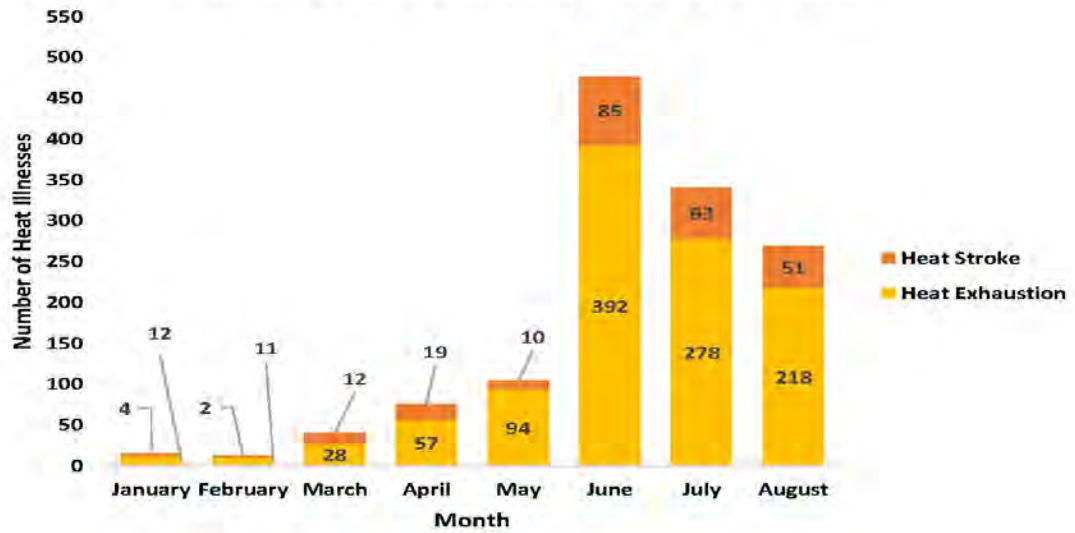


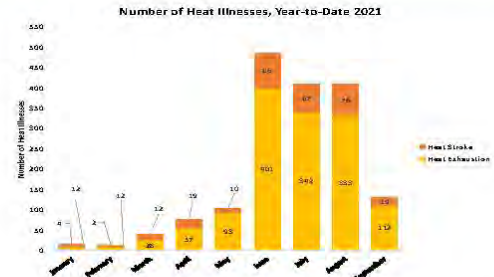
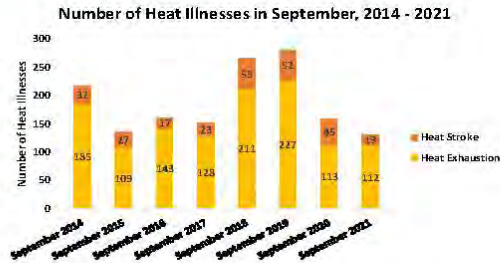
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in August, 2014 - 2021



Number of Heat Illnesses, Year-to-Date 2021





In September 2021, 131 heat illnesses were diagnosed (112 heat exhaustion cases, 19 heat stroke cases); this is the lowest number of heat illness cases for September months between 2014 and 2021. The highest number of cases was documented in 2019. There were 17% fewer cases in September 2021 when compared to September 2020 (n=158). Ft. Benning accounted for half (n=66, 50%) of all heat illnesses reported in September 2021. Ft. Benning also accounted for over a quarter of the total number of heat illnesses to date in 2021 (n=475). Junior enlisted Service members (SMs) were disproportionately affected, accounting for 80% (n=105) of cases in September 2021. Senior enlisted SMs and Commissioned Officers both accounted for 9% (n=12) of cases, and Warrant Officers accounted for 2% (n=2). Additionally, one heat illness-related hospitalization (due to heat stroke) occurred in September 2021.

There have been 1,685 heat illness cases (1,390 heat exhaustion cases, 295 heat strokes) diagnosed since the beginning of this calendar year; 2% (n=29) of the SMs were hospitalized and 22 of the hospitalizations were due to heat stroke. There were 68% fewer heat illnesses recorded in September 2021 when compared to August 2021, and Ft. Benning, Ft. Polk, and Ft. Campbell also accounted for almost half (n=781, 46%) of all heat illnesses diagnosed in 2021.

Data as of 21 September 2021.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - September 2021

Region	Installation/Medical Treatment Facility	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Belvoir	2	0	2
	Ft. Benning	57	9	66
	Ft. Bragg	8	5	13
	Ft. Campbell	3	2	5
	Ft. Jackson	8	0	8
	Ft. Knox	1	0	1
	Ft. Rucker	1	0	1
	Ft. Stewart	2	0	2
Central	Ft. Bliss	1	0	1
	Ft. Hood	6	1	7
	Ft. Irwin	3	0	3
	Ft. Leonard Wood	3	0	3
	Ft. Polk	5	1	6
	Ft. Sill	4	1	5
	Joint (AF) Base San Antonio LAF-RAF-FSH	2	0	2
Europe	AHC Grafenwoehr	1	0	1
Pacific	Schofield Barracks	2	0	2
Unknown Locations	Unknown	3	0	3
Total		112	19	131



Table 2: Timeliness of Reporting - September 2021

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSI within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 2 Business Days	Minimum Days	Maximum Days	Mean Days
Atlantic	Ft. Benning	7	55	13	1	12	5
	Ft. Bragg	0	10	0	7	25	12
	Ft. Campbell	2	2	100	1	1	1
	Ft. Jackson	5	5	100	0	1	1
Central	Ft. Hood	6	6	100	1	2	1
	Ft. Irwin	0	3	0	3	5	4
	Ft. Leonard Wood	1	3	33	1	5	4
	Ft. Polk	6	6	100	0	1	1
	Ft. Sam Houston	0	2	0	4	9	7
	Ft. Sill	3	3	100	1	2	1

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.

Minimum Days: The least number of days noted for a heat illness to be reported.

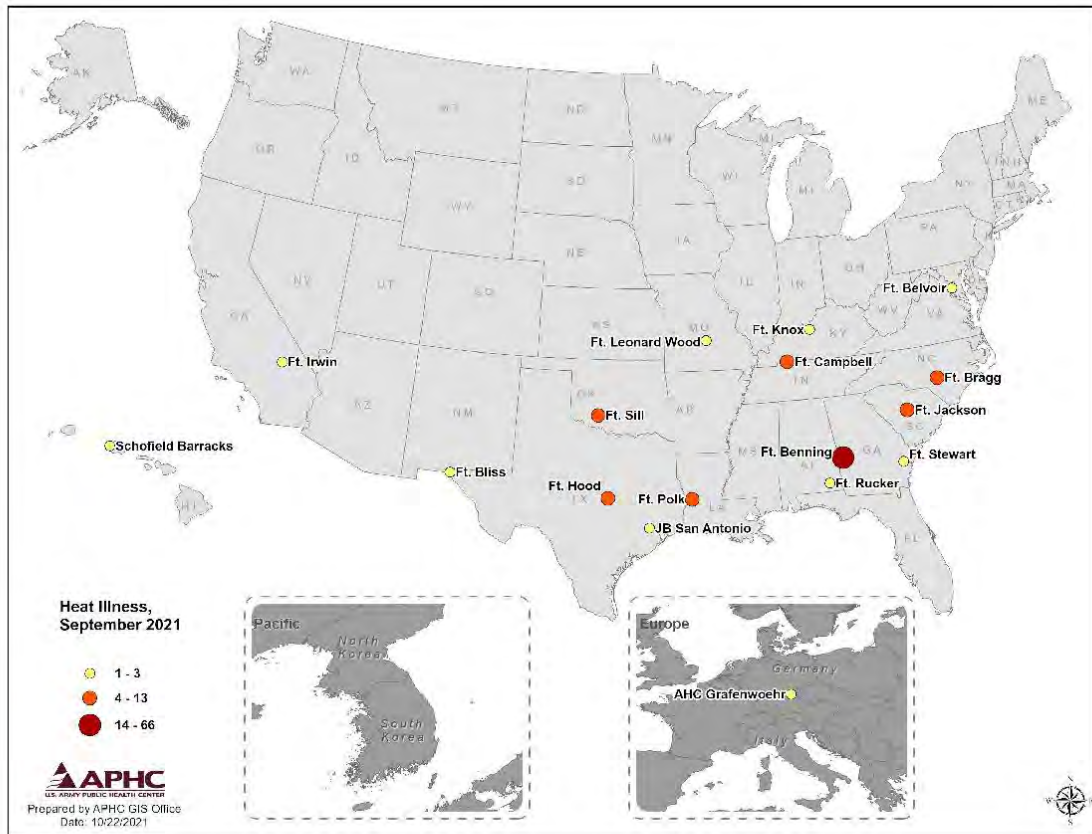
Maximum Days: The highest number of days noted for a heat illness to be reported.

Mean Days: The average number of days for a heat illness to be reported.

This table only displays data for cases that were extracted from DRSI; therefore, the total number of illnesses may be different than those reported in table 1.



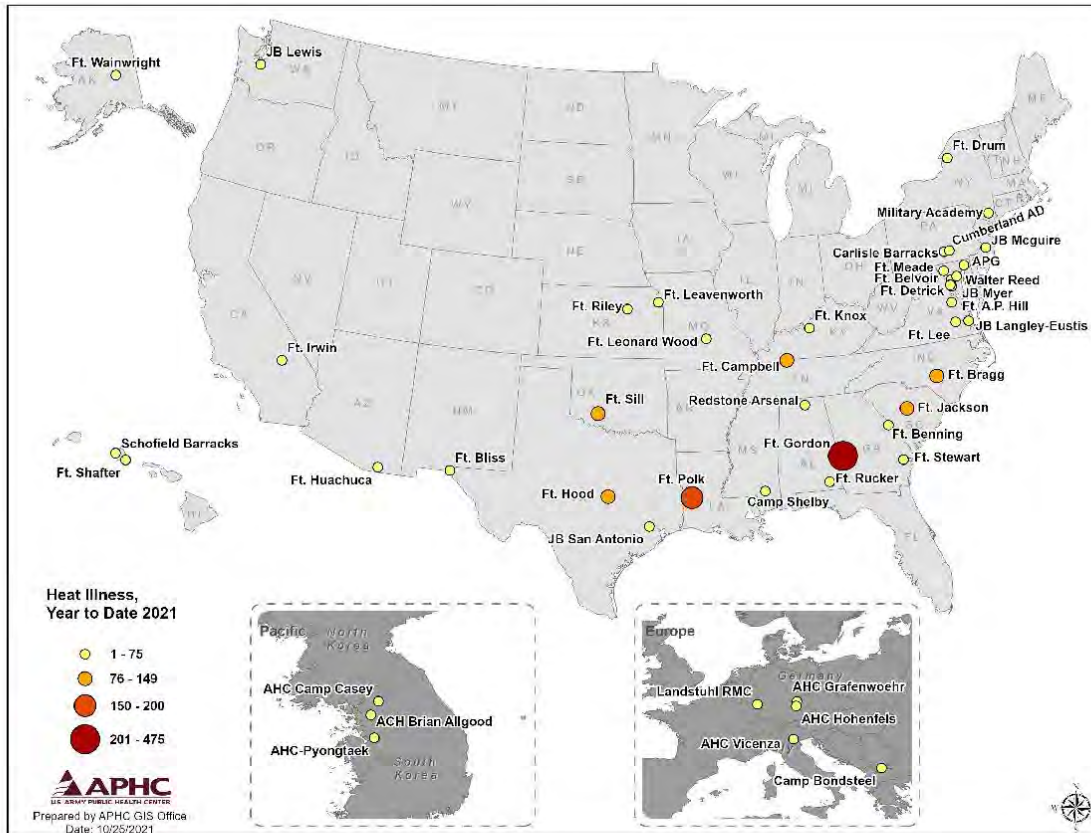
Heat Illnesses - September 2021



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

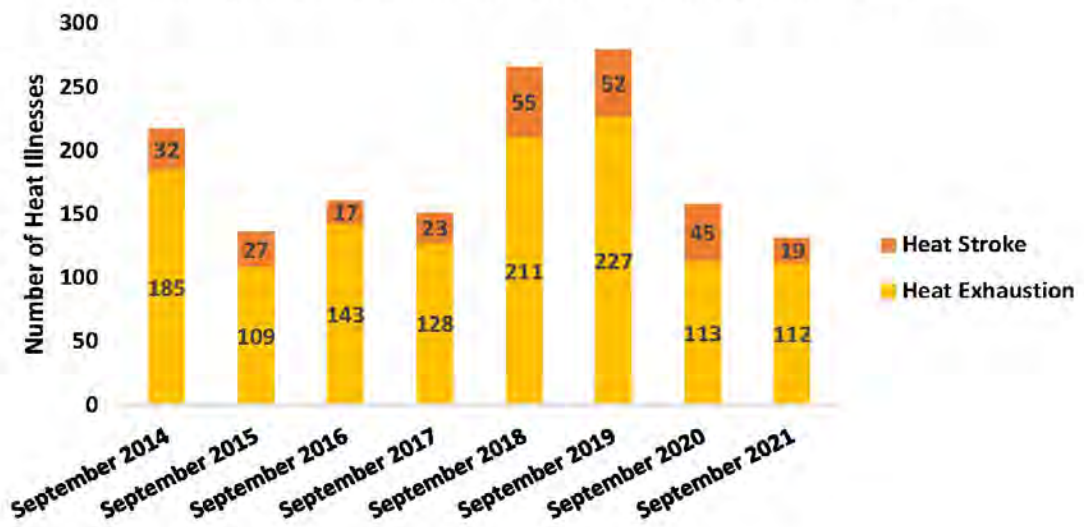


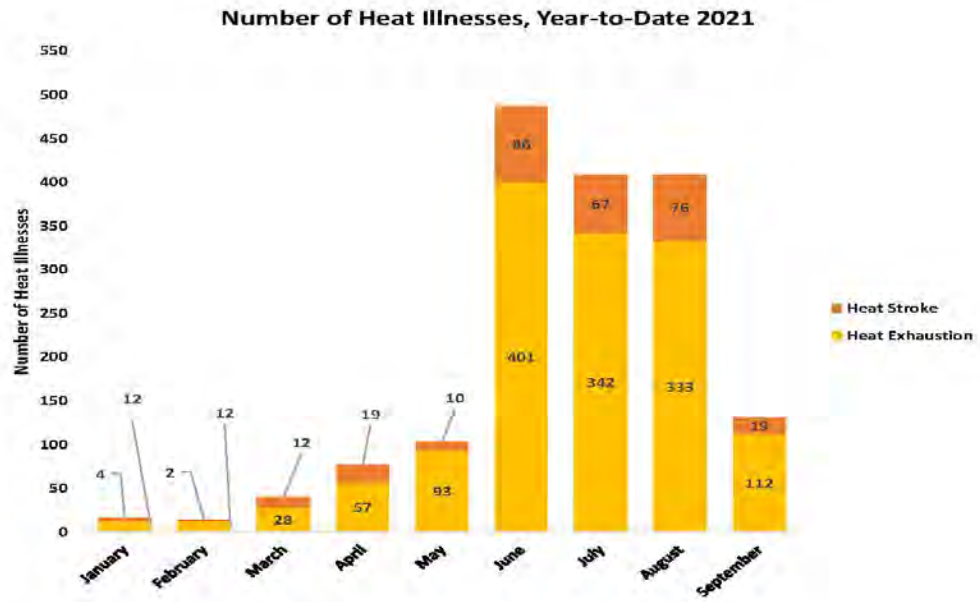
Heat Illnesses - Year-to-Date 2021



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in September, 2014 - 2021

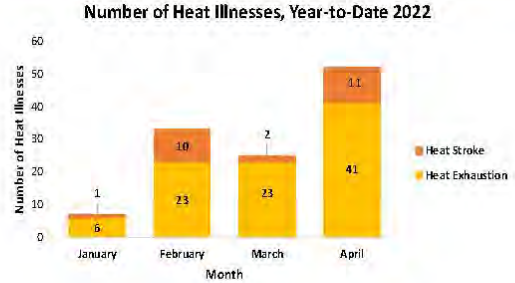
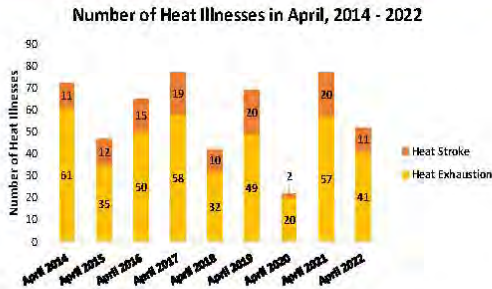




TIP No. 028-0254

**APPENDIX E
2022 HEAT ILLNESS REPORTS**

The 2022 Heat Illness Reports begin on the next page.



In April 2022, 52 heat illnesses were diagnosed (41 heat exhaustion cases, 11 heat stroke cases); this is lower than the number of heat illnesses for April 2021. There were 24% fewer cases in April 2022 when compared to April 2021 (n=77). Ft. Benning and Ft. Bragg accounted for over 60% (n=32) of all heat illnesses diagnosed in April 2022. Ft. Benning also had the highest number of heat illnesses to date for the year, accounting for 44% (n=52) of 117 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 67% (n=35) of cases in April 2022. Senior enlisted SMs accounted for 21% (n=11) of cases, and Commissioned Officers accounted for 12% (n=6). Additionally, one heat illness-related hospitalization due to heat exhaustion occurred in April 2022.

There have been 117 heat illness cases (93 heat exhaustion cases, 24 heat strokes) diagnosed since the beginning of this calendar year; one hospitalization occurred due to heat exhaustion. There number of heat illnesses more than doubled from March 2022 to April 2022. Ft. Benning and Ft. Bragg accounted for more than half (n=66, 56%) of all heat illnesses diagnosed in 2022.

Data as of 31 May 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - April 2022

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	19	3	22
	Ft. Bragg	7	3	10

Installations where less than 10 cases were diagnosed are not shown.



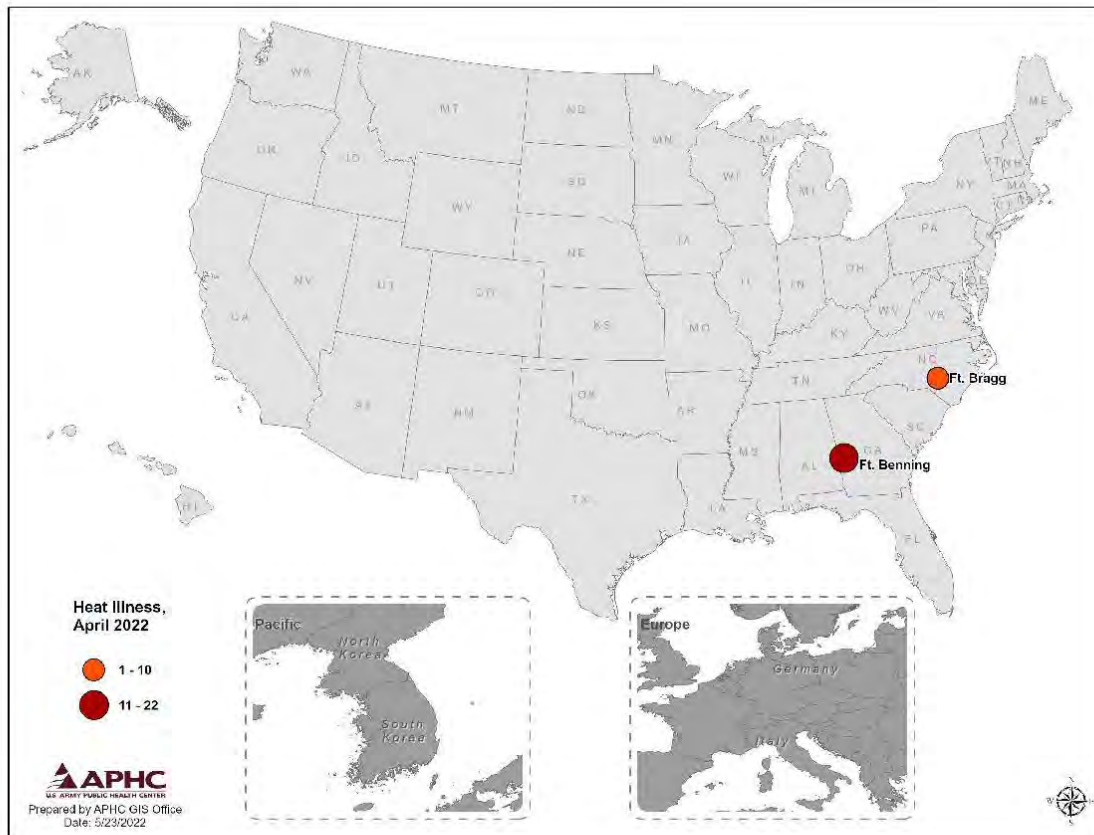
Table 2: Timeliness of Reporting - April 2022

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days
Atlantic	Ft. Benning	16	16	100
	Ft. Bragg	0	10	0

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis. Installations where less than 10 cases were diagnosed are not shown. This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



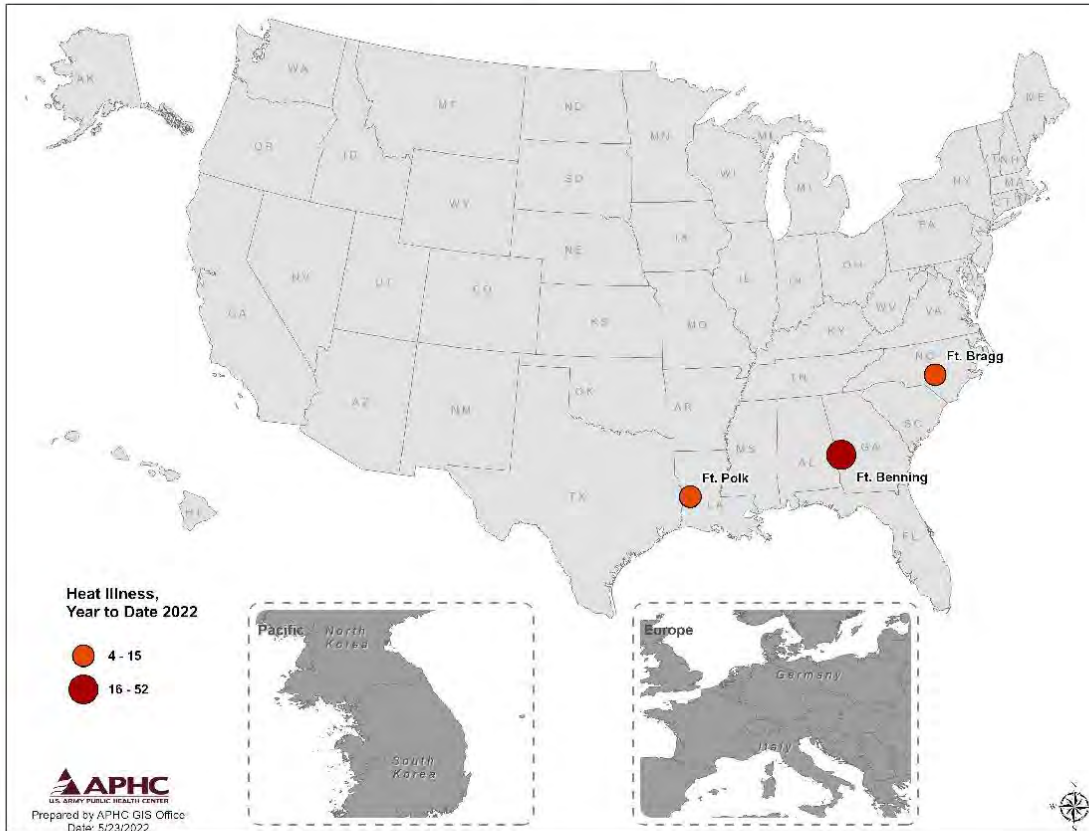
Heat Illnesses, April 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

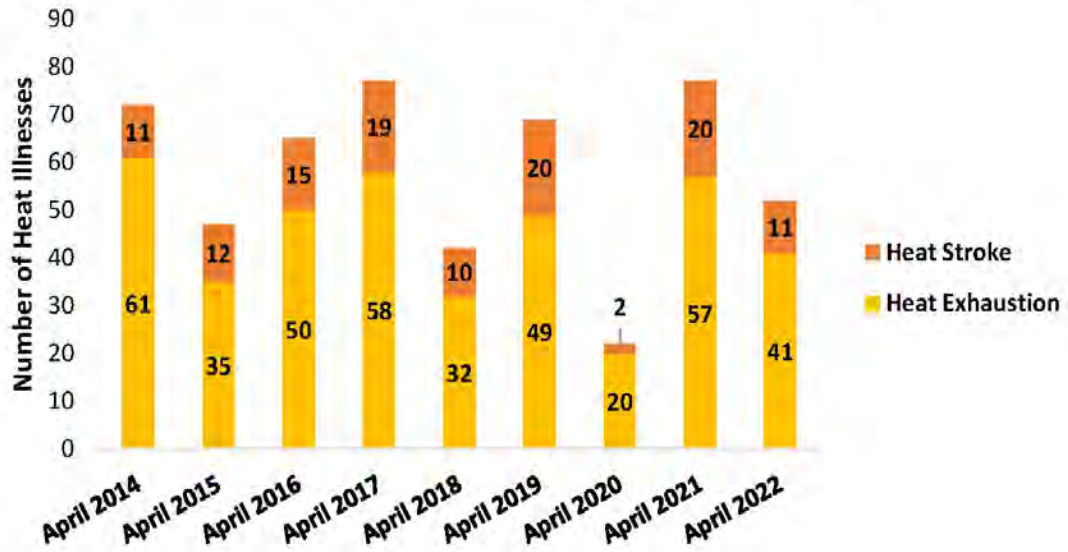


Heat Illnesses, Year-to-Date 2022

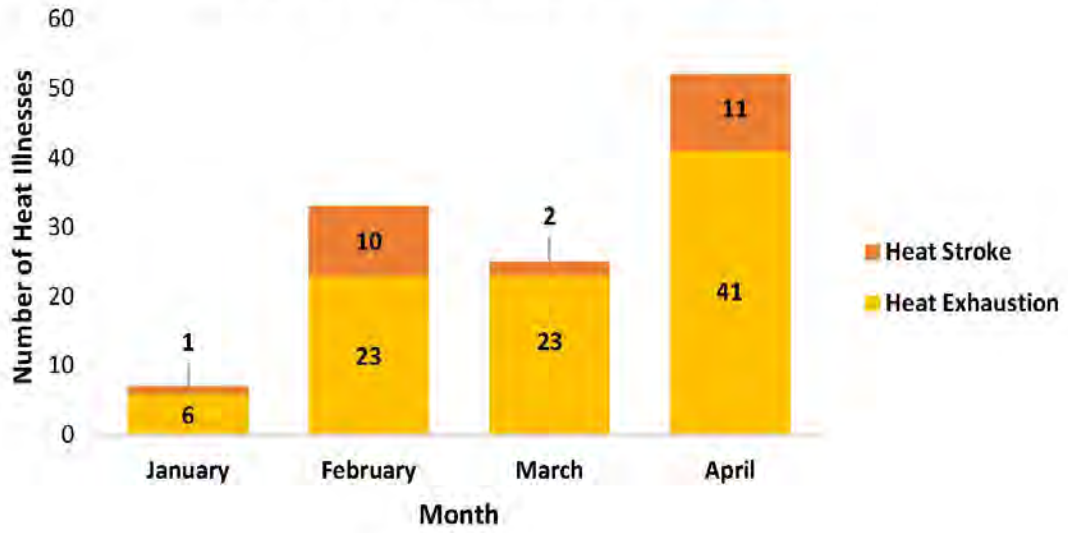


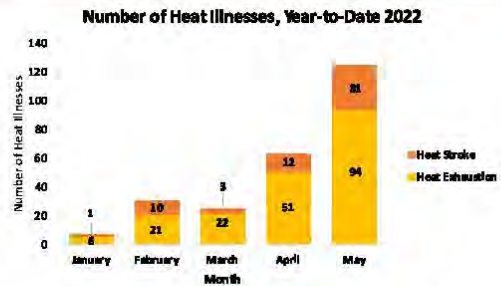
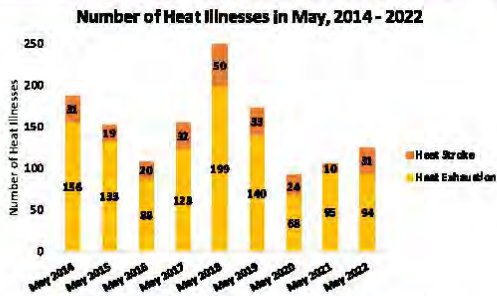
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in April, 2014 - 2022



Number of Heat Illnesses, Year-to-Date 2022





In May 2022, 125 heat illnesses were diagnosed (94 heat exhaustion cases, 31 heat stroke cases); this is higher than the number of heat illnesses for May 2021. There were 19% more cases in May 2022 when compared to May 2021 (n=105). Ft. Benning, Ft. Campbell, and Ft. Bragg accounted for over 60% (n=76) of all heat illnesses diagnosed in May 2022. Ft. Benning also had the highest number of heat illnesses to date for the year, accounting for 38% (n=96) of 251 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 70% (n=87) of cases in May 2022. Senior enlisted SMs accounted for 21% (n=26) of cases, Commissioned Officers accounted for 7% (n=9), Warrant Officers accounted for 2% (n=2), and one Cadet was affected. Additionally, one hospitalization due to heat stroke occurred in May 2022.

There have been 251 heat illness cases (194 heat exhaustion cases, 57 heat strokes) diagnosed since the beginning of this calendar year; three hospitalizations have occurred. Two hospitalizations were due to heat exhaustion and one was due to heat stroke. The number of heat illnesses almost doubled from April 2022 to May 2022. Ft. Benning, Ft. Campbell, and Ft. Bragg accounted for more than 60% (n=152) of all heat illnesses diagnosed in 2022.

Data as of 14 June 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

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Table 1: Locations where Heat Illnesses were Diagnosed - May 2022

Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Ft. Benning	35	9	44
Ft. Bragg	3	8	11
Ft. Campbell	13	8	21

Installations where less than 10 cases were diagnosed are not shown.



Table 2: Timeliness of Reporting - May 2022

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSI within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 2 Business Days
Atlantic	Ft. Benning	33	35	94
	Ft. Campbell	5	18	28

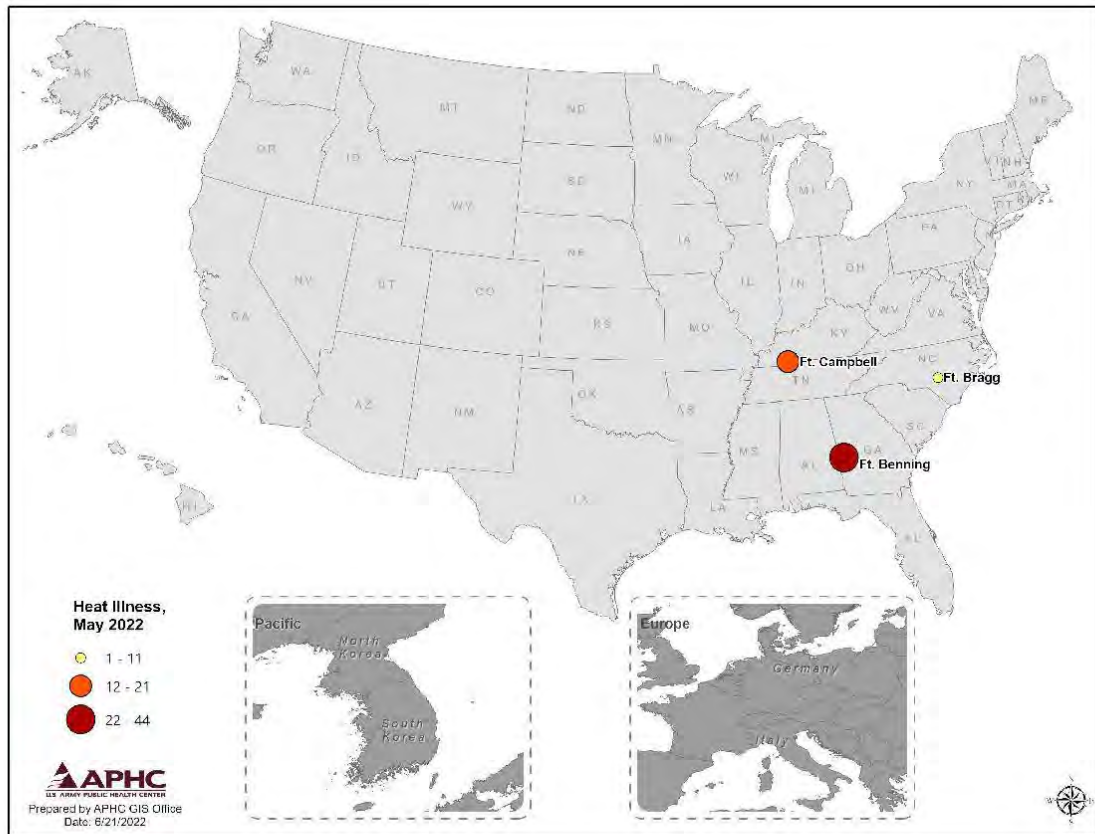
DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.

Installations where less than 10 cases were diagnosed are not shown.

This table only displays data for cases that were extracted from DRSI; therefore, the total number of illnesses may be different than those reported in table 1.



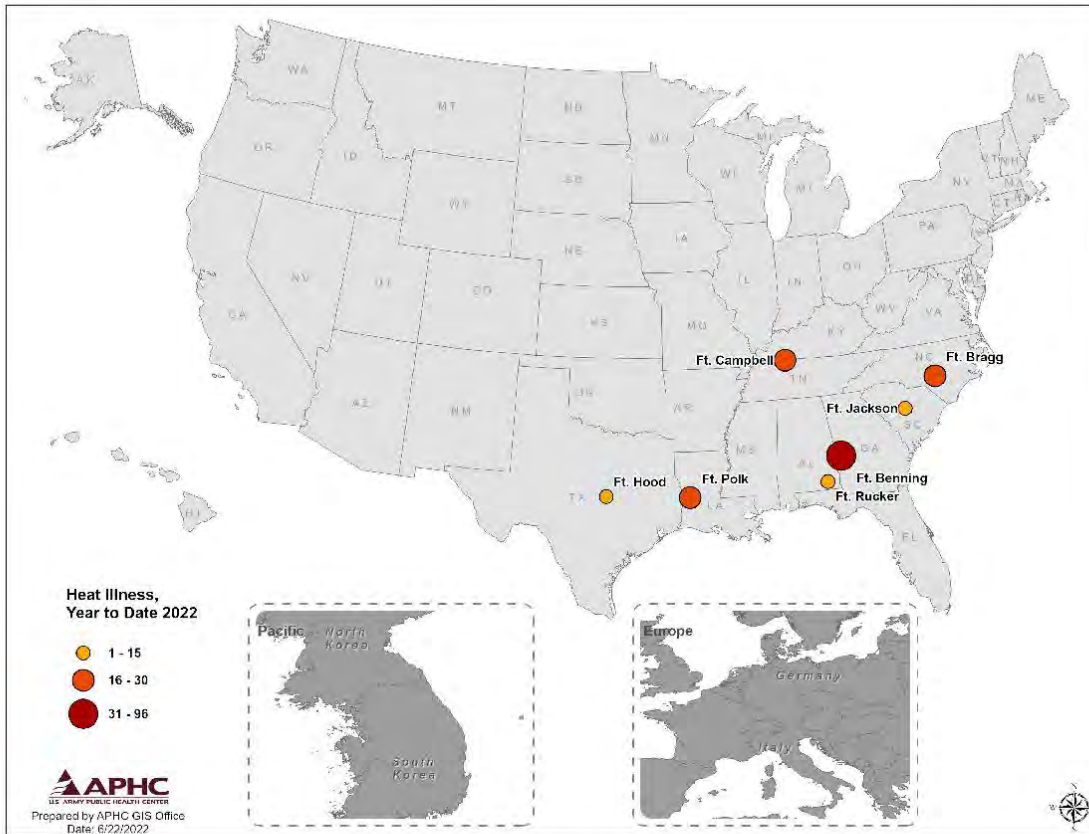
Heat Illnesses, May 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

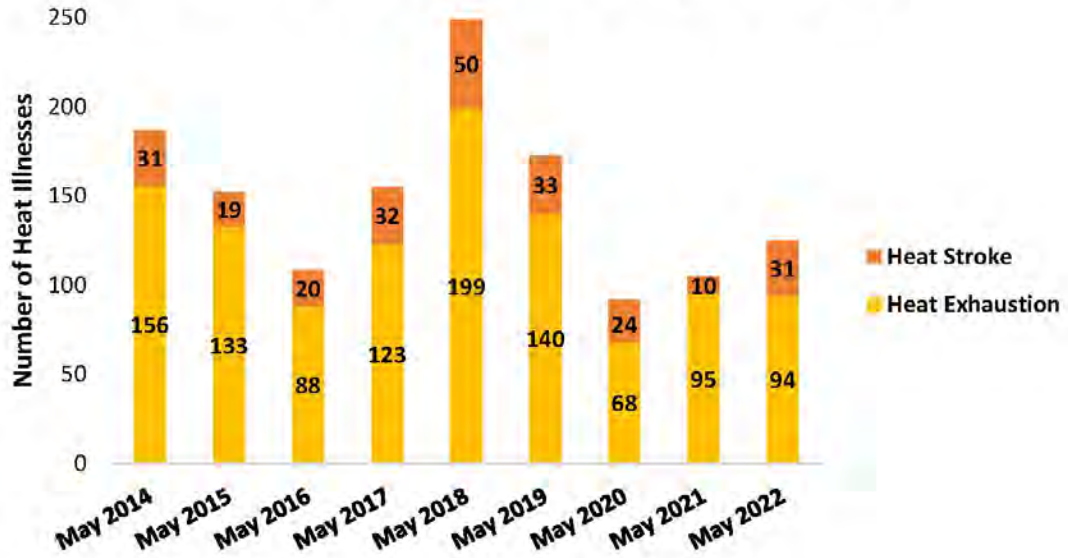


Heat Illnesses, Year-to-Date 2022

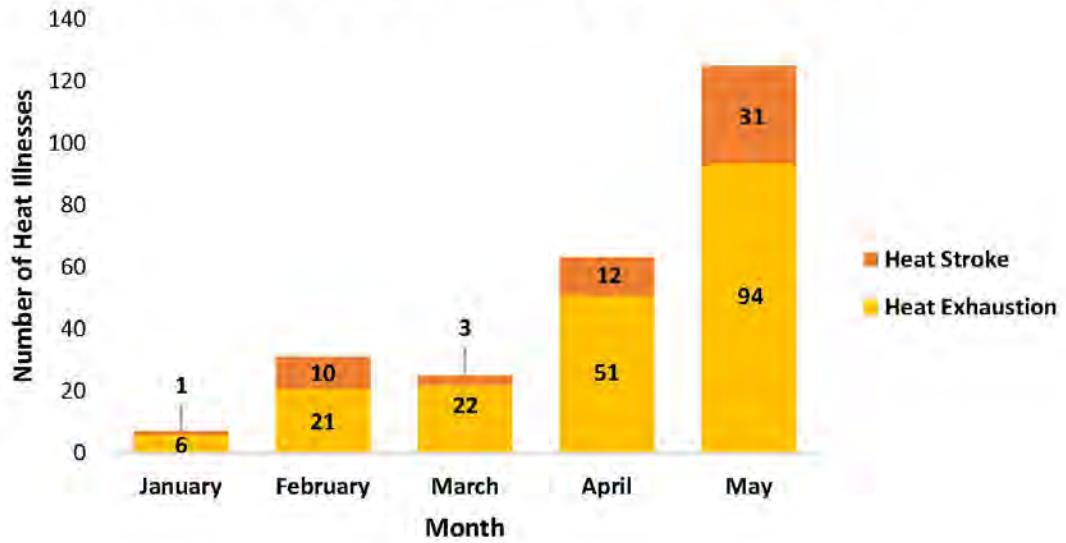


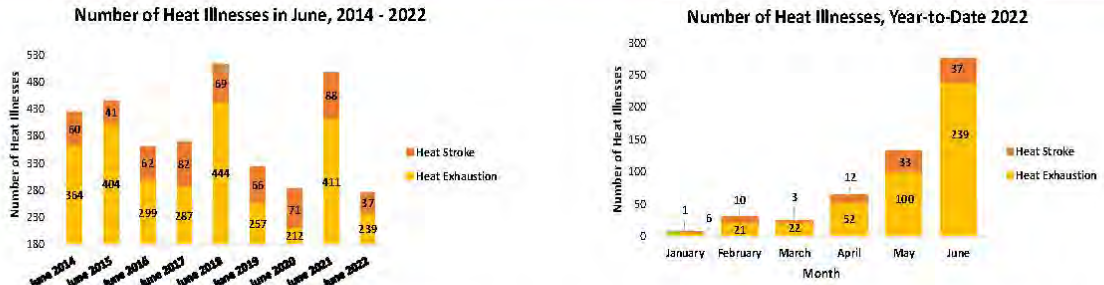
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in May, 2014 - 2022



Number of Heat Illnesses, Year-to-Date 2022





In June 2022, 276 heat illnesses were diagnosed (239 heat exhaustion cases, 37 heat stroke cases); this is lower than the number of heat illnesses for June 2021. There were 45% fewer cases in June 2022 when compared to June 2021 (n=499). Ft. Benning, Ft. Jackson, and Ft. Campbell accounted for almost 60% (n=162) of all heat illnesses diagnosed in June 2022. Ft. Benning also had the highest number of heat illnesses to date for the year, accounting for 35% (n=188) of 536 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 75% (n=208) of cases in June 2022. Senior enlisted SMs accounted for 12% (n=32) of cases, Commissioned Officers accounted for 9% (n=26), and one Cadet was affected; four of the 276 cases were of unknown rank. Additionally, three hospitalizations in June 2022 were due to heat stroke and one was due to heat exhaustion.

There have been 536 heat illness cases (440 heat exhaustion cases, 96 heat strokes) diagnosed since the beginning of this calendar year; seven hospitalizations have occurred. Three hospitalizations were due to heat exhaustion and four were due to heat stroke. The number of heat illnesses more than doubled from May 2022 to June 2022. Ft. Benning, Ft. Jackson, and Ft. Campbell accounted for almost 60% (n=306) of all heat illnesses diagnosed in 2022.

Data as of 19 July 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

[Click on images to enlarge](#)

For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - June 2022

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	87	5	92
	Ft. Bragg	9	8	17
	Ft. Campbell	14	11	25
	Ft. Jackson	43	2	45
Central	Ft. Irwin	22	2	24

Installations where less than 10 cases were diagnosed are not shown.



Table 2: Timeliness of Reporting - June 2022

Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days
Atlantic	Ft. Benning	52	85	61
	Ft. Bragg	1	17	6
	Ft. Campbell	22	22	100
	Ft. Jackson	10	26	38
Central	Ft. Irwin	20	24	83

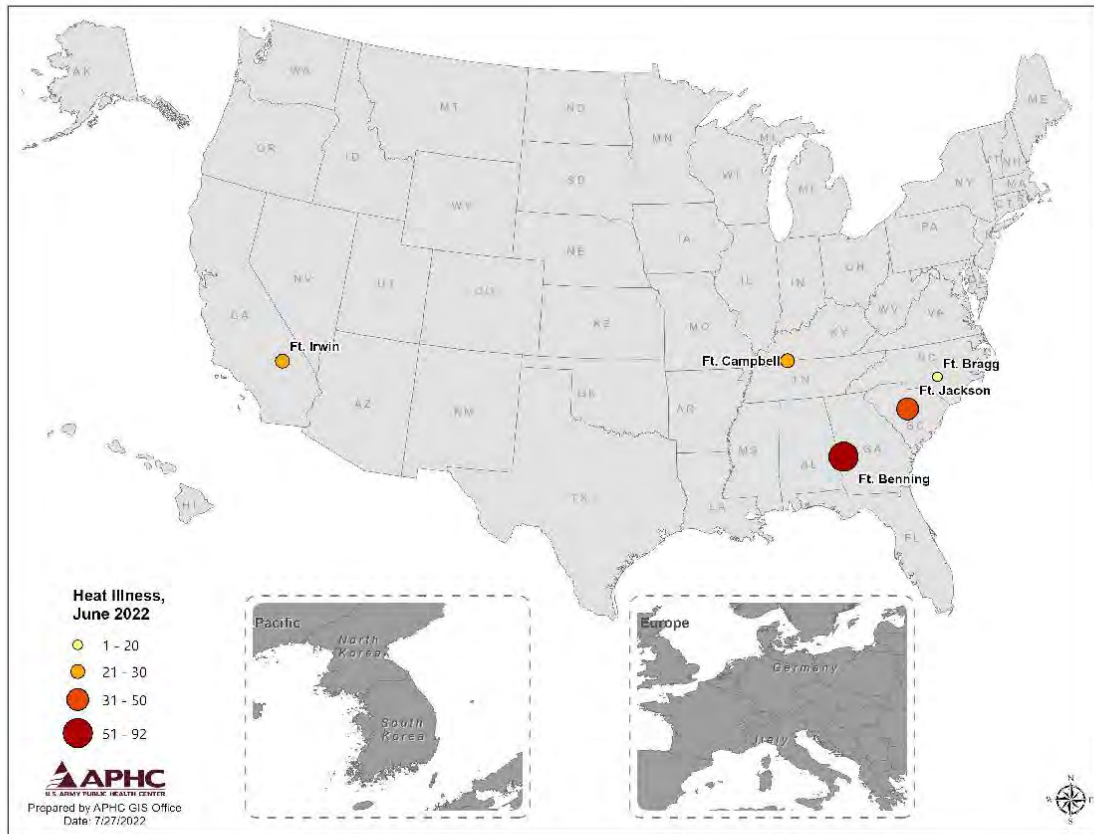
DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis.

Installations where less than 10 cases were diagnosed are not shown.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



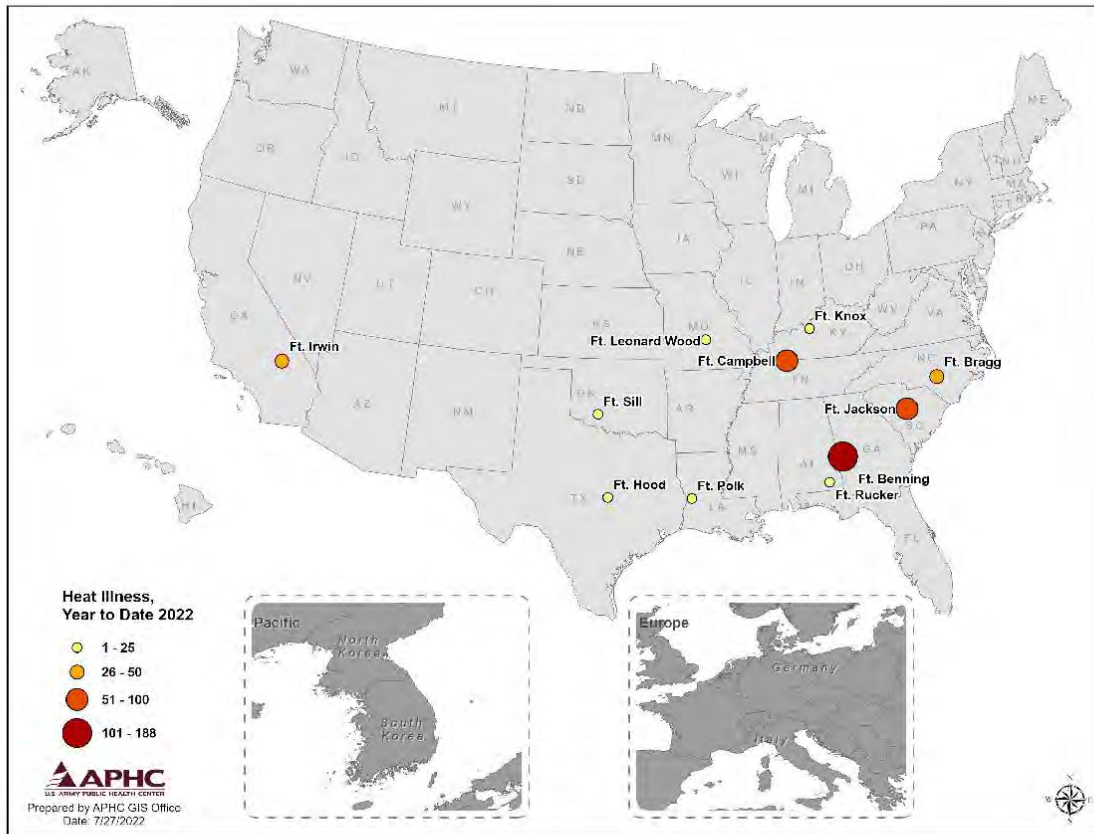
Heat Illnesses, June 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

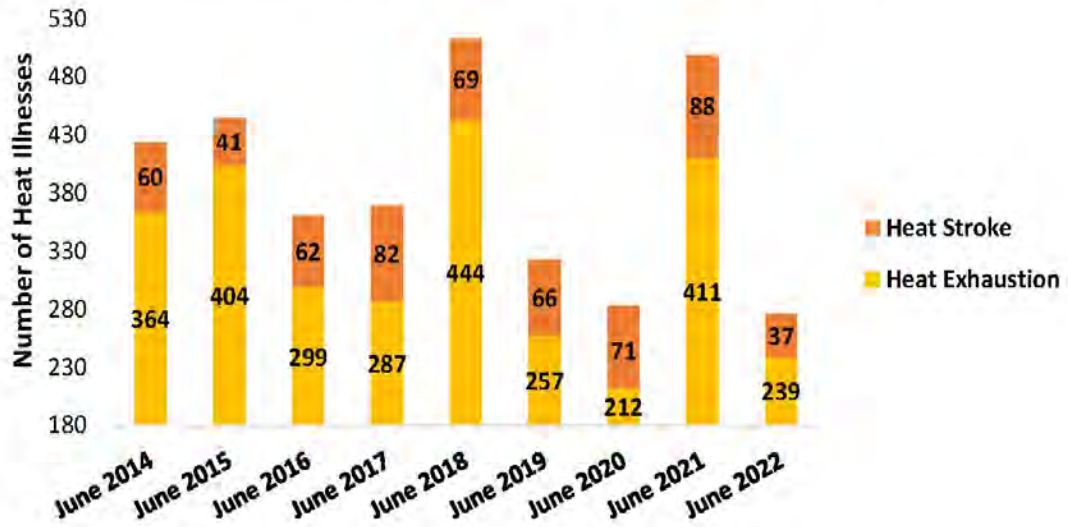


Heat Illnesses, Year-to-Date 2022

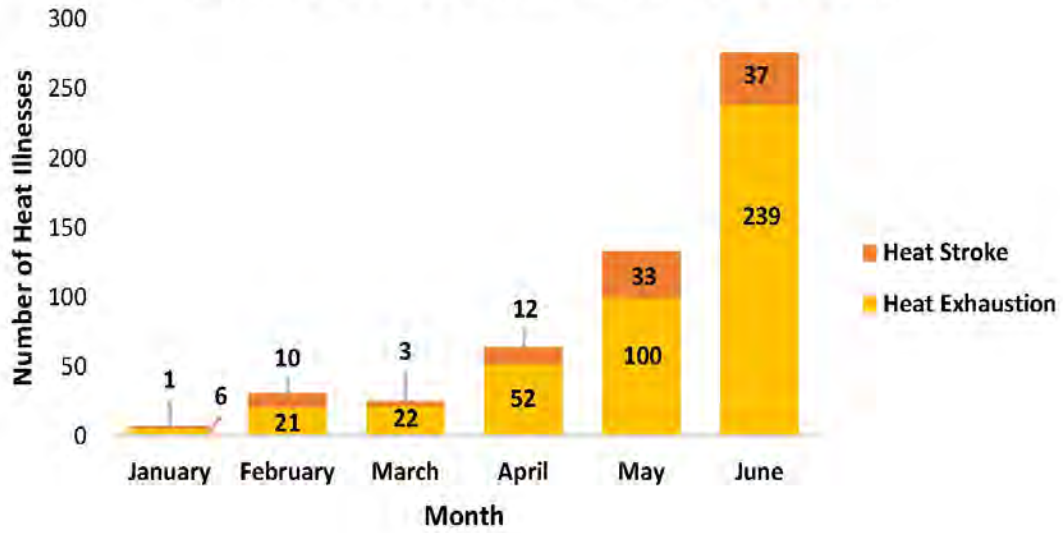


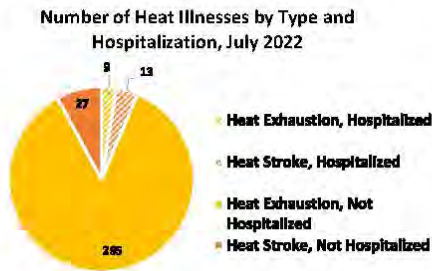
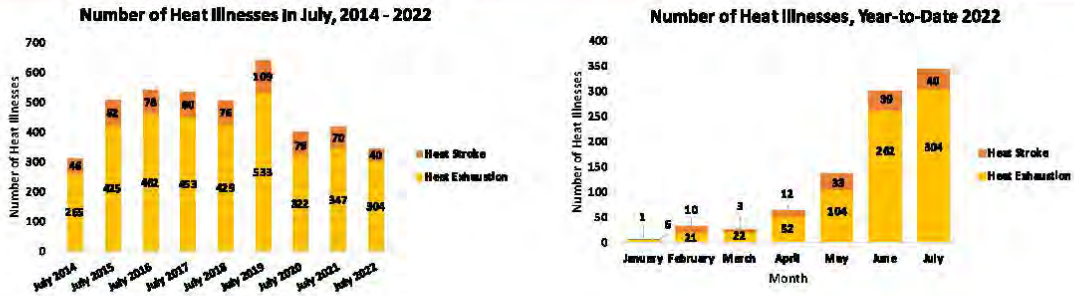
This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in June, 2014 - 2022



Number of Heat Illnesses, Year-to-Date 2022





In July 2022, 344 heat illnesses were diagnosed (304 heat exhaustion cases, 40 heat stroke cases); this is the lowest number of heat illnesses recorded in July months since 2014. There were 18% fewer cases in July 2022 when compared to July 2021 (n=417). Ft. Benning, Ft. Jackson, and Ft. Bragg accounted for 50% (n=171) of all heat illnesses diagnosed in July 2022. Ft. Benning also had the highest number of heat illnesses to date for the year, accounting for 30% (n=267) of 919 reported cases. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 71% (n=244) of cases in July 2022. Senior enlisted SMs accounted for 16% (n=55) of cases, commissioned officers accounted for 4% (n=15), cadets accounted for 2% (n=7), and warrant officers accounted for 1% (n=2); 22 of the 344 cases were of unknown rank. There were 22 hospitalizations reported in July 2022; 9 were due to heat exhaustion and 13 were due to heat stroke. Please note that the number of hospitalizations reported has increased dramatically as a more accurate and timely hospitalization variable has been identified from our data source.

There have been 919 heat illness cases (778 heat exhaustion cases, 141 heat strokes) diagnosed since the beginning of this calendar year; 79 hospitalizations have occurred. Twenty-six hospitalizations were due to heat exhaustion and 53 were due to heat stroke. The number of heat illnesses more than doubled from May 2022 to July 2022. Ft. Benning, Ft. Jackson, and Ft. Campbell accounted for over 50% (n=476) of all heat illnesses diagnosed in 2022.

Data as of 17 August 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEB), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

[Click on images to enlarge](#)

For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - July 2022

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	72	7	79
	Ft. Bragg	31	9	40
	Ft. Campbell	23	11	34
	Ft. Jackson	50	1	51
	Ft. Knox	13	1	14
Central	Ft. Hood	25	4	29
	Ft. Polk	21	1	22

Installations where less than 10 cases were diagnosed are not shown.



Table 2: Timeliness of Reporting - July 2022

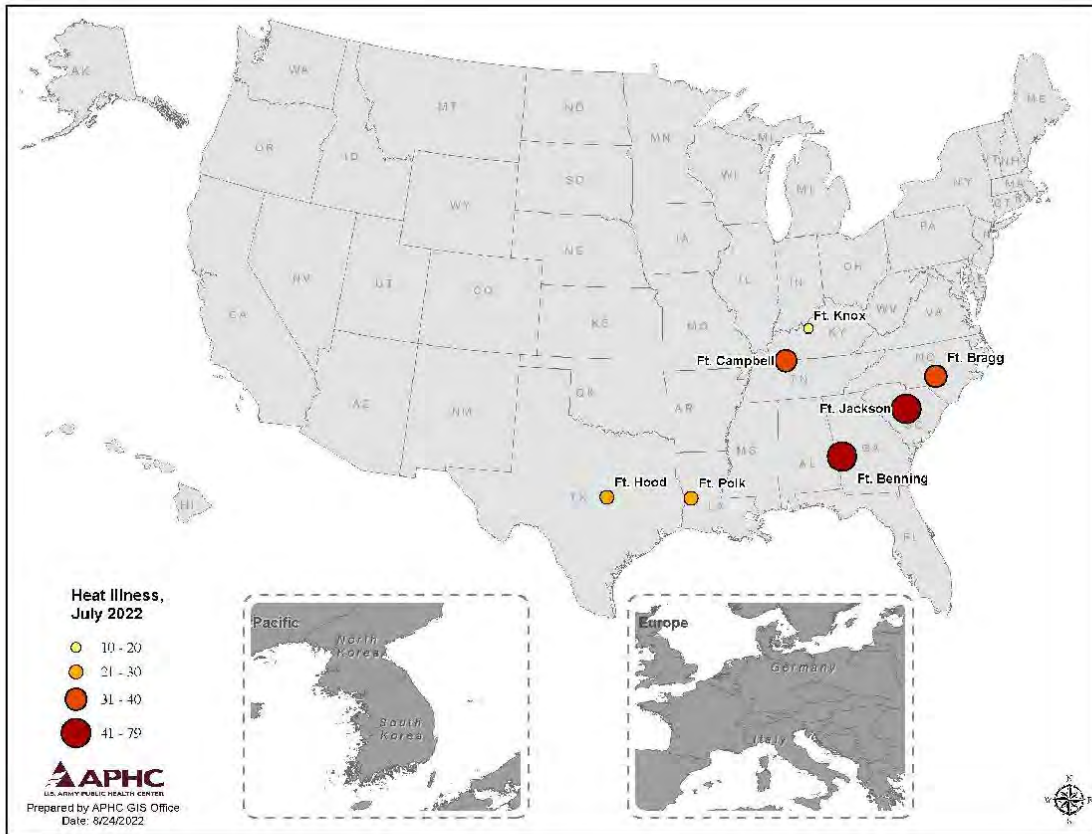
Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSI within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 2 Business Days
Atlantic	Ft. Benning	41	76	54
	Ft. Bragg	3	37	8
	Ft. Campbell	22	24	92
	Ft. Jackson	16	39	41
Central	Ft. Hood	19	27	70
	Ft. Polk	21	22	95

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis.
Installations where less than 10 cases were diagnosed are not shown.

This table only displays data for cases that were extracted from DRSI; therefore, the total number of illnesses may be different than those reported in table 1.



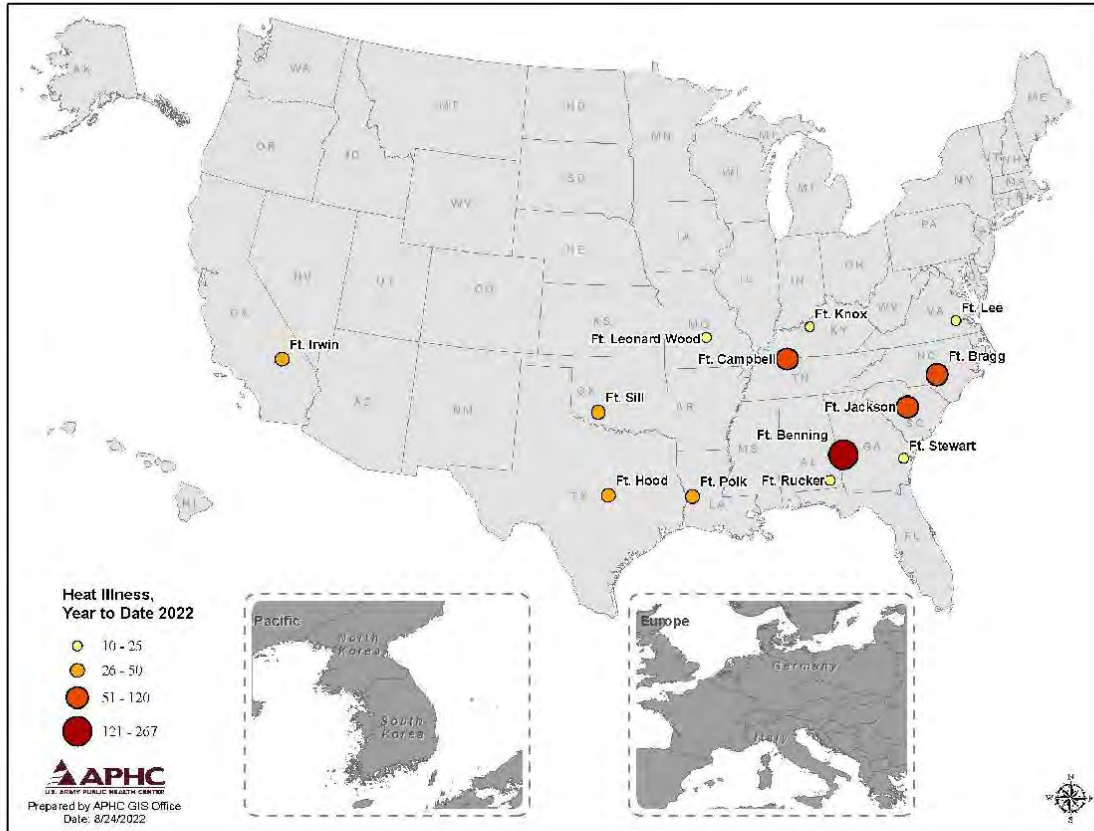
Heat Illnesses, July 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.

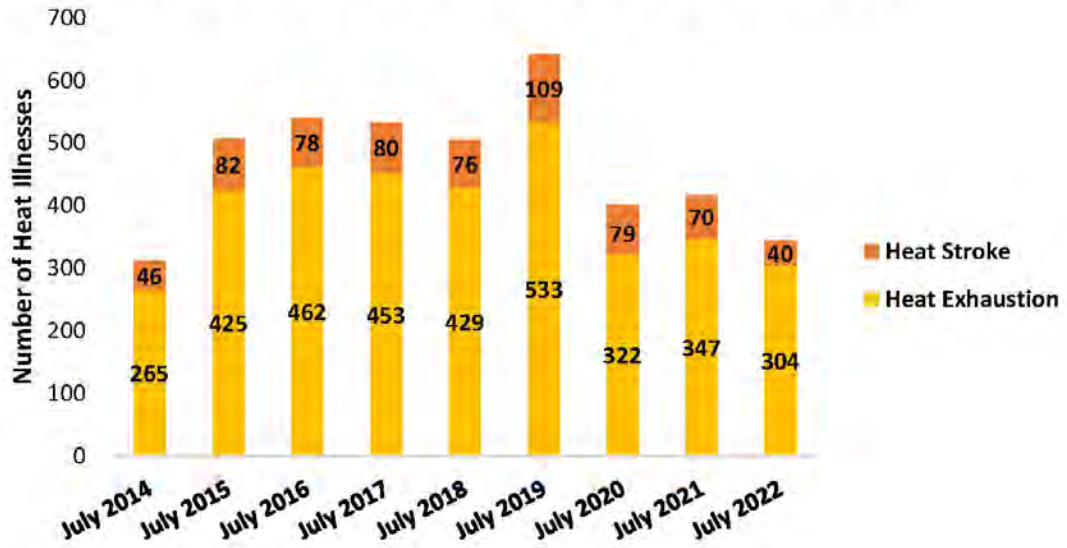


Heat Illnesses, Year-to-Date 2022

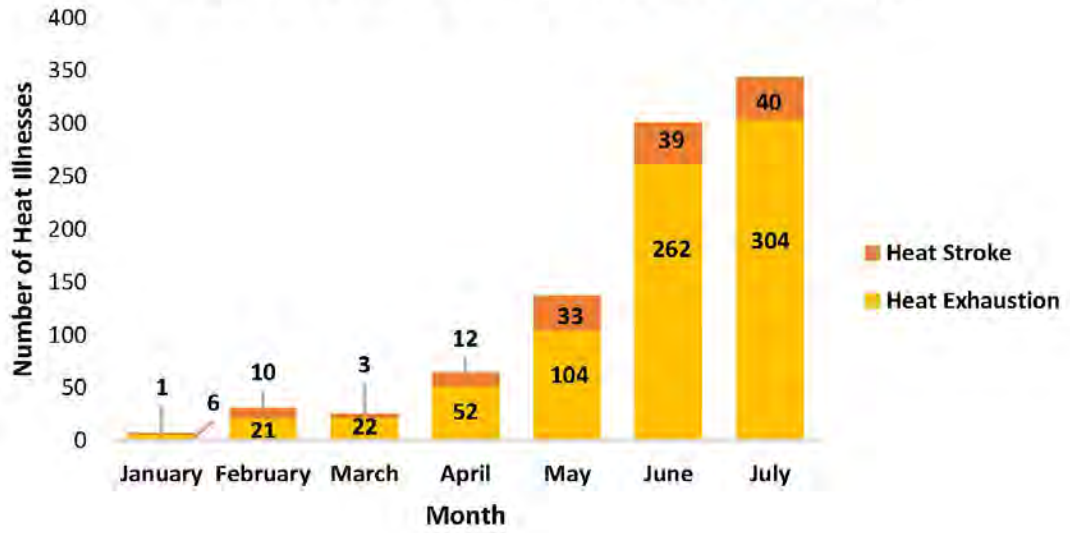


This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Number of Heat Illnesses in July, 2014 - 2022



Number of Heat Illnesses, Year-to-Date 2022



Number of Heat Illnesses by Type and Hospitalization, July 2022

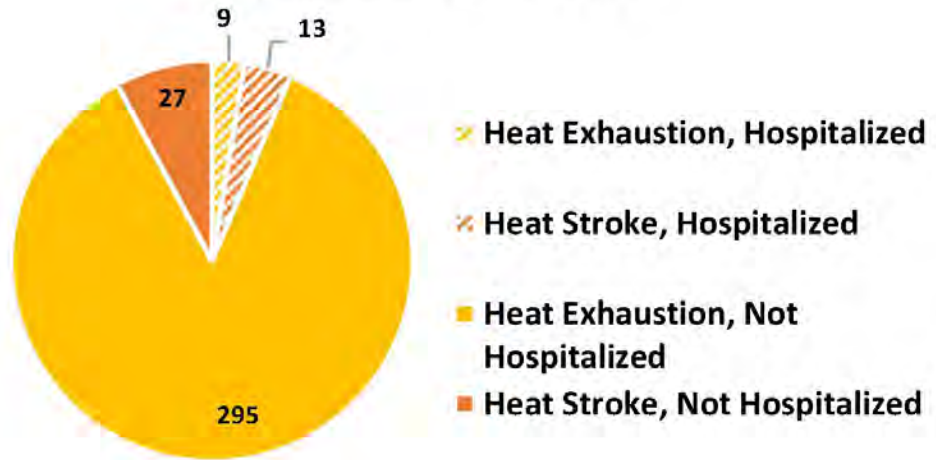




Figure 1: Number of Heat Illnesses in August, 2014 - 2022

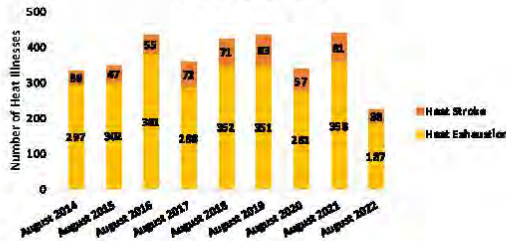
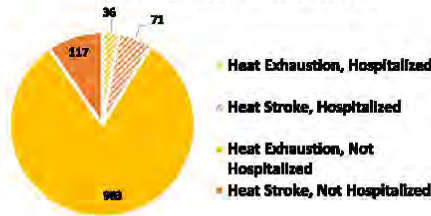


Figure 2: Number of Heat Illnesses, Year-to-Date 2022



Figure 3: Number of Heat Illnesses by Type and Hospitalization, Year-to-Date 2022



In August 2022, 225 heat illnesses were diagnosed (187 heat exhaustion cases, 38 heat stroke cases); this is the lowest number of heat illnesses recorded in August months during the reporting timeframe (Figure 1). There were 49% fewer cases in August 2022 when compared to August 2021 (n=439). Ft. Benning, Ft. Bragg, and Ft. Jackson accounted for 53% (n=120) of all heat illnesses diagnosed in August 2022. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 64% (n=144) of cases in August 2022. Senior enlisted SMs accounted for 20% (n=46) of cases, commissioned officers accounted for 7% (n=16), cadets accounted for 3% (n=7), and warrant officers accounted for <1% (n=1); 11 of the 225 cases were of unknown rank.

There were 24 hospitalizations reported in August 2022; 7 were due to heat exhaustion and 17 were due to heat stroke. Please note that the number of hospitalizations reported has increased dramatically compared to the August 2021 published report as a more accurate and timely hospitalization variable has been identified from our data source.

There have been 1,207 heat illness cases (1,019 heat exhaustion cases, 188 heat strokes) diagnosed since the beginning of this calendar year; 107 hospitalizations have occurred (Figure 2). Thirty-six hospitalizations were due to heat exhaustion and 71 were due to heat stroke (Figure 3). The number of heat illnesses decreased by 44% from July 2022 to August 2022. Ft. Benning had the highest number of heat illnesses to date for the year, accounting for 27% (n=327) of 1,207 reported cases. Ft. Benning, Ft. Jackson, and Ft. Bragg accounted for over 50% (n=605) of all heat illnesses diagnosed in 2022.

Date as of 28 September 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of five data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ambulatory/Professional Encounter Record (CAPEP), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

[Click on images to enlarge](#)

For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Locations where Heat Illnesses were Diagnosed - August 2022

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	55	2	57
	Ft. Bragg	20	20	40
	Ft. Campbell	6	4	10
	Ft. Jackson	23	0	23
Central	Ft. Hood	14	2	16
	Ft. Polk	19	0	19

Installations where less than 10 cases were diagnosed are not shown.



Table 2: Timeliness of Reporting - August 2022

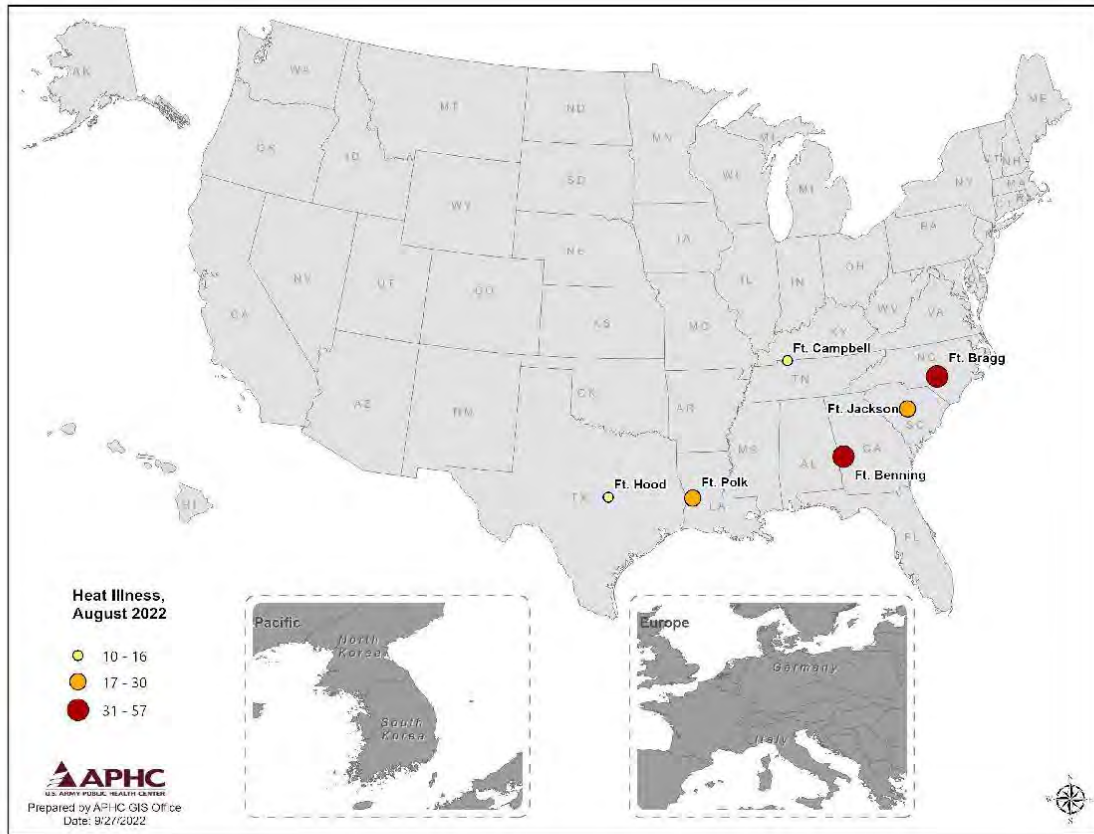
Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSi within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSi within 2 Business Days
Atlantic	Ft. Benning	54	55	98
	Ft. Bragg	6	38	16
	Ft. Jackson	7	19	37
Central	Ft. Hood	10	14	71
	Ft. Polk	16	17	94

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSi within two business days of diagnosis. Installations where less than 10 cases were diagnosed are not shown.

This table only displays data for cases that were extracted from DRSi; therefore, the total number of illnesses may be different than those reported in table 1.



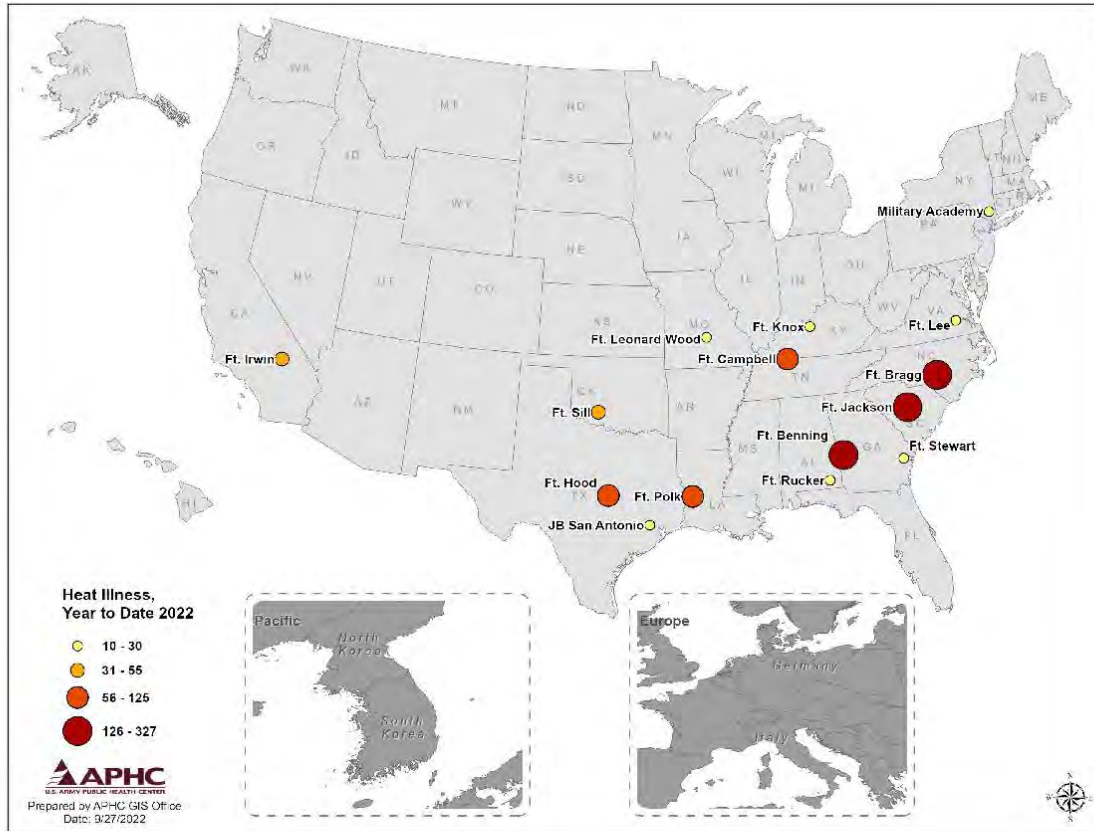
Heat Illnesses, August 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



Heat Illnesses, Year-to-Date 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Figure 1: Number of Heat Illnesses in August, 2014 - 2022

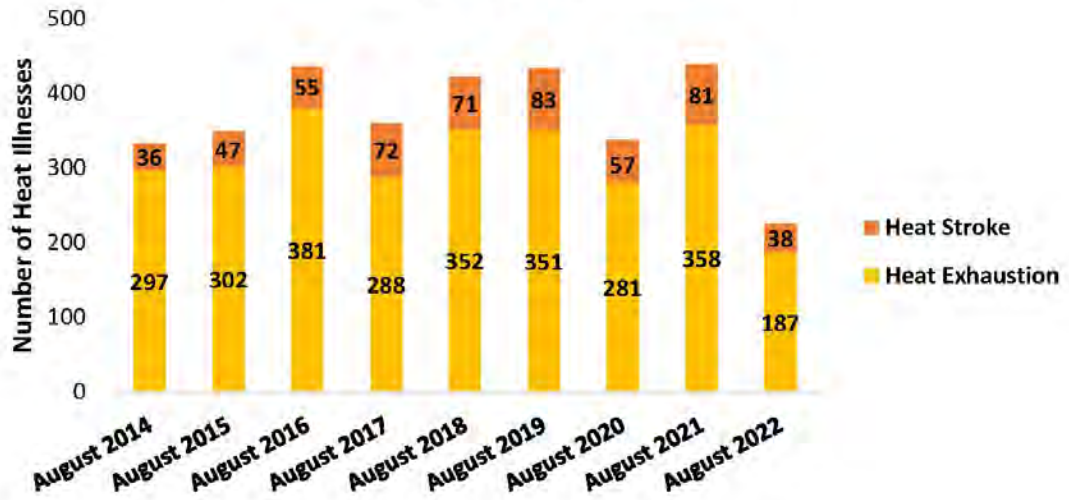


Figure 2: Number of Heat Illnesses, Year-to-Date 2022

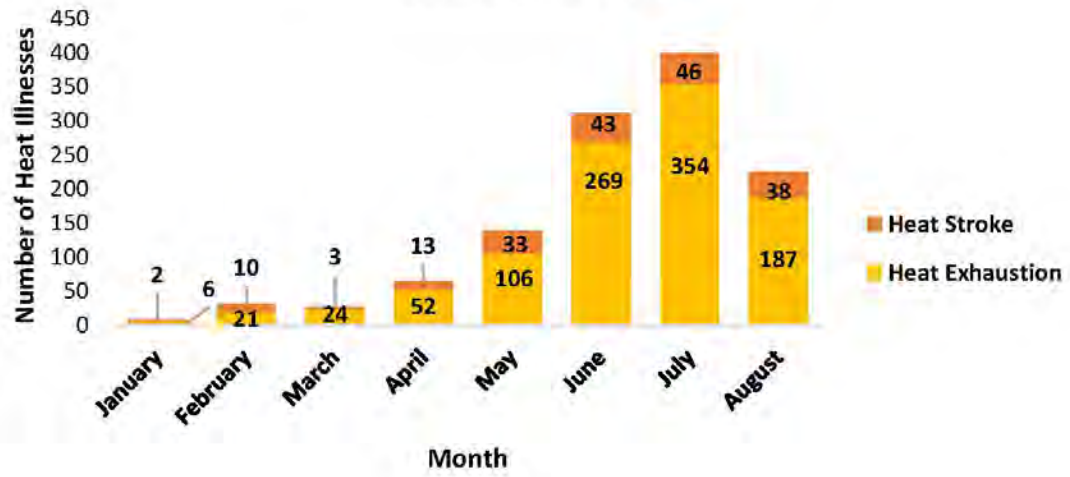
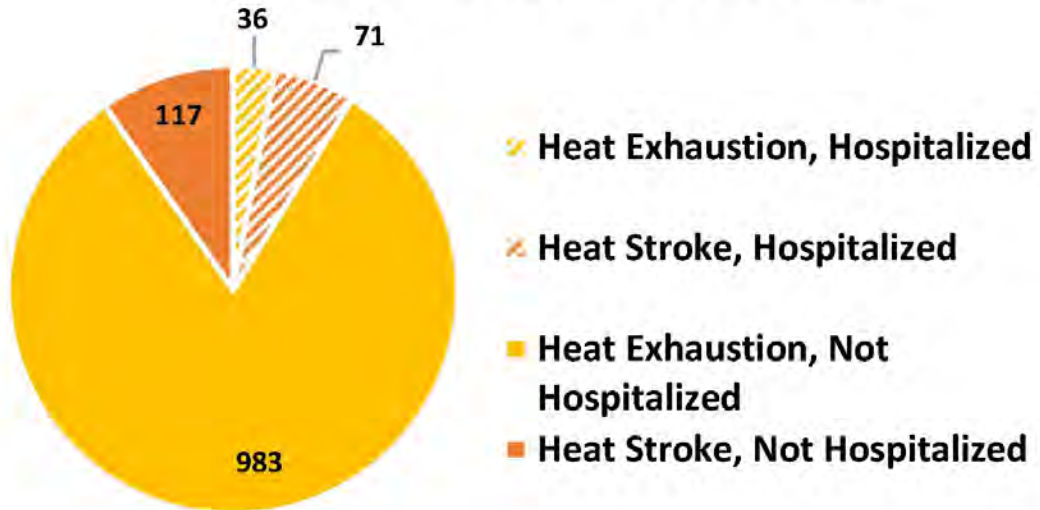


Figure 3: Number of Heat Illnesses by Type and Hospitalization, Year-to-Date 2022





In September 2022, 106 heat illnesses were diagnosed (89 heat exhaustion cases, 17 heat stroke cases); this is the lowest number of heat illnesses recorded in September months during the reporting timeframe (Figure 1). There were 35% fewer cases in September 2022 when compared to September 2021 (n=164). Ft. Jackson, Ft. Benning, and Ft. Irwin accounted for over 50% (n=54) of all heat illnesses diagnosed in September 2022. Junior enlisted Service members (SMs) were disproportionately affected, accounting for 69% (n=73) of cases in September 2022. Senior enlisted SMs accounted for 9% (n=10) of cases, commissioned officers accounted for 8% (n=8), and a cadet accounted for 1% (n=1); 13 of the 106 cases were of unknown rank.

There were 19 hospitalizations reported in September 2022; 7 were due to heat exhaustion and 12 were due to heat stroke. Please note that the number of hospitalizations reported has increased dramatically compared to the August 2021 published report as a more accurate and timely hospitalization variable has been identified from our data source.

There have been 1,347 heat illness cases (1,140 heat exhaustion cases, 207 heat strokes) diagnosed since the beginning of this calendar year, of which 128 were hospitalized (Figure 2). Forty-three hospitalizations were due to heat exhaustion and 85 were due to heat stroke (Figure 3). The number of heat illnesses decreased by 57% from August 2022 to September 2022. Ft. Benning had the highest number of heat illnesses to date for the year, accounting for 26% (n=345) of 1,347 reported cases. Ft. Benning, Ft. Jackson, Ft. Bragg, and Ft. Campbell accounted for over 56% (n=765) of all heat illnesses diagnosed in 2022.

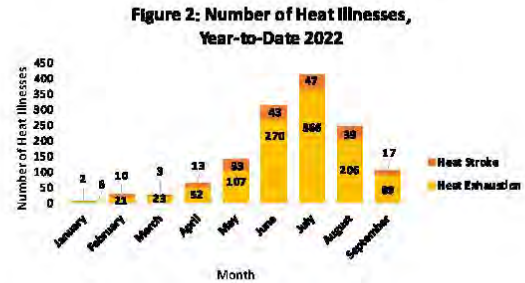
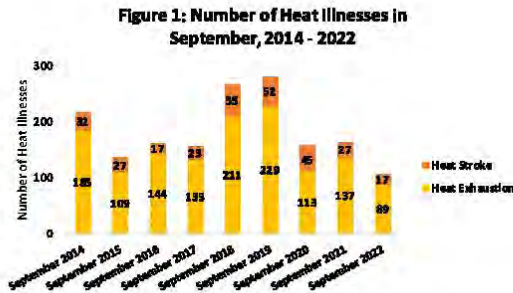
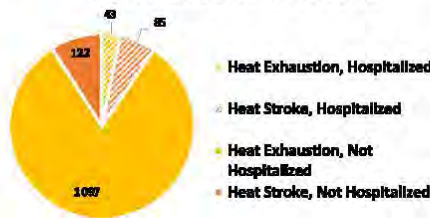


Figure 3: Number of Heat Illnesses by Type and Hospitalization, Year-to-Date 2022



Click on Images to enlarge

Data as of 19 October 2022.

Information displayed in this report is from the Defense Health Agency's Weather-Related Injury Repository. The database is a composite of the data sources: the Disease Reporting System Internet (DRSI), Comprehensive Ammunition/Professional Encounter Record (CAPER), Standard Inpatient Data Record (SIDR), TRICARE Encounter Data (TED), and Theater Medical Data Store (TMDS). All cases are Army Service Members.

For more information: APHC Heat Illness Prevention
 Contact us: APHC Disease Epidemiology Program

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Table 1: Installations where Heat Illnesses were Diagnosed - September 2022

Region	Installation	Heat Exhaustion	Heat Stroke	Total Number of Heat Illnesses
Atlantic	Ft. Benning	13	2	15
	Ft. Bragg	3	8	11
	Ft. Jackson	26	0	26
Central	Ft. Irwin	11	2	13
	Ft. Polk	13	0	13

Installations where less than 10 cases were diagnosed are not shown.



Table 2: Timeliness of Reporting - September 2022

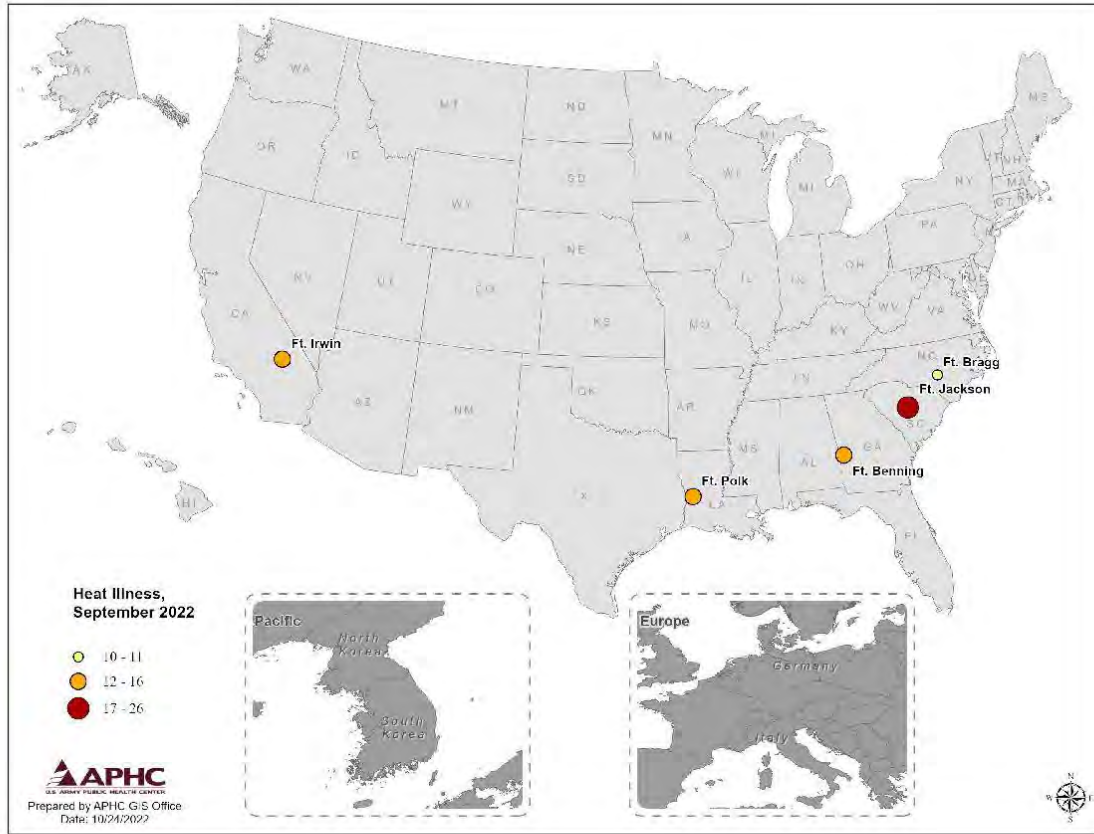
Region	Installation/Medical Treatment Facility	Number of Heat Illnesses Entered in DRSI within 2 Business Days	Total Number of Heat Illnesses	Percentage of Heat Illnesses Entered in DRSI within 2 Business Days
Atlantic	Ft. Benning	15	15	100
	Ft. Bragg	1	10	10
	Ft. Jackson	8	20	40
Central	Ft. Polk	11	12	92

DA Pam 40-11 requires that most reportable medical events, including heat illnesses, be entered in DRSI within two business days of diagnosis. Installations where less than 10 cases were diagnosed are not shown.

This table only displays data for cases that were extracted from DRSI; therefore, the total number of illnesses may be different than those reported in table 1.



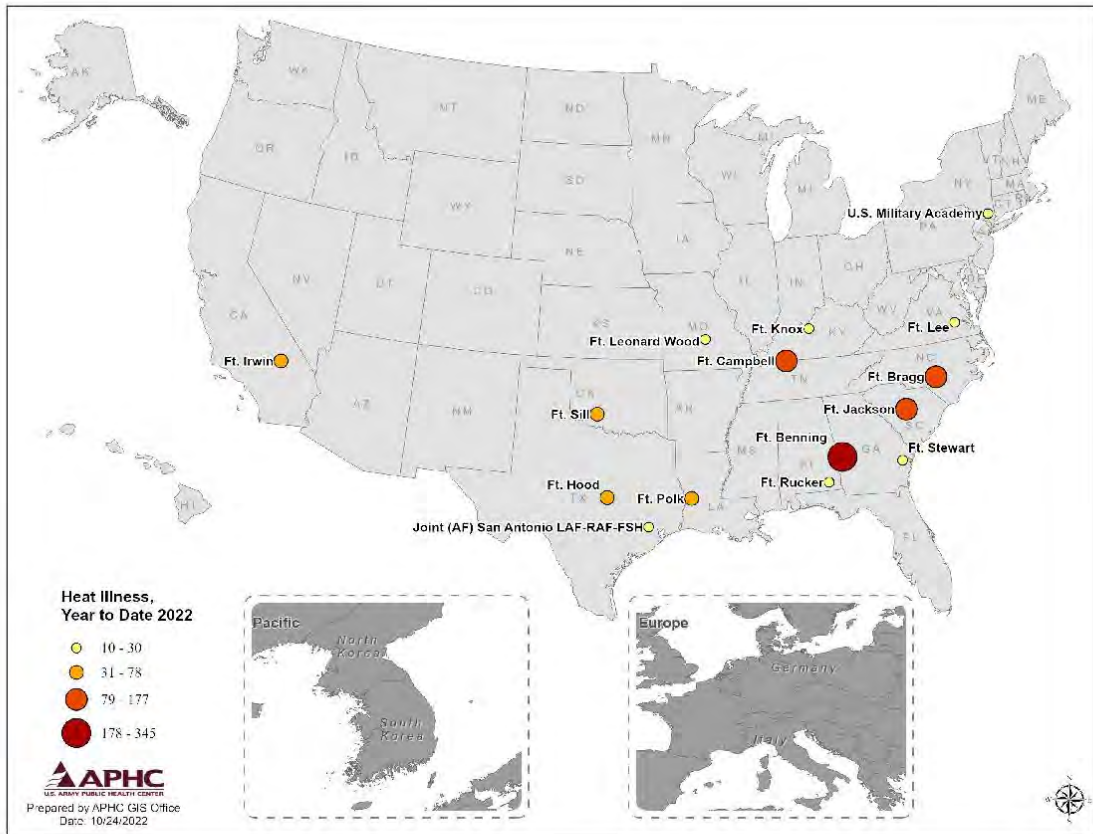
Heat Illnesses by Installation, September 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base installations.



Heat Illnesses by Installation, Year-to-Date 2022



This map only represents cases diagnosed at, diagnosed near, or reported by Army and Joint Base Installations.

Figure 1: Number of Heat Illnesses in September, 2014 - 2022

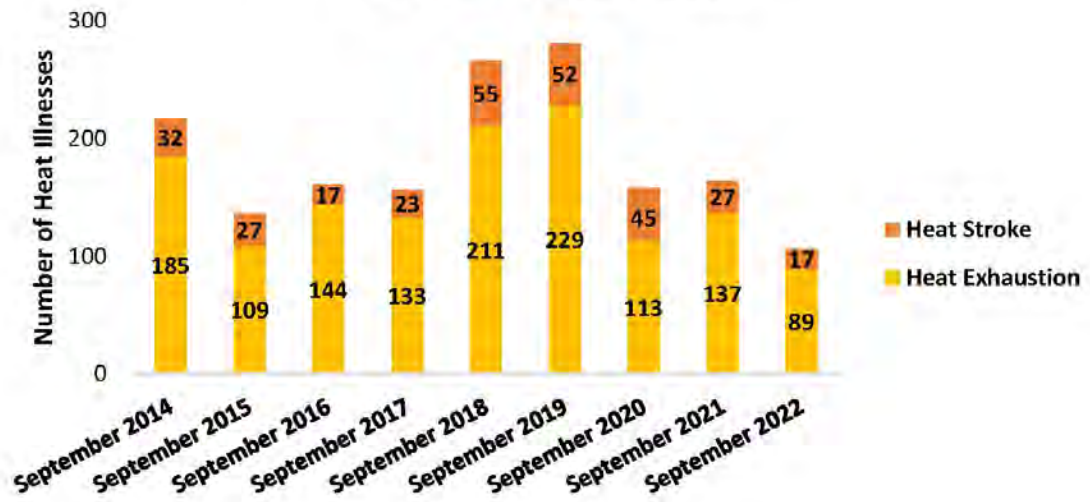


Figure 2: Number of Heat Illnesses, Year-to-Date 2022

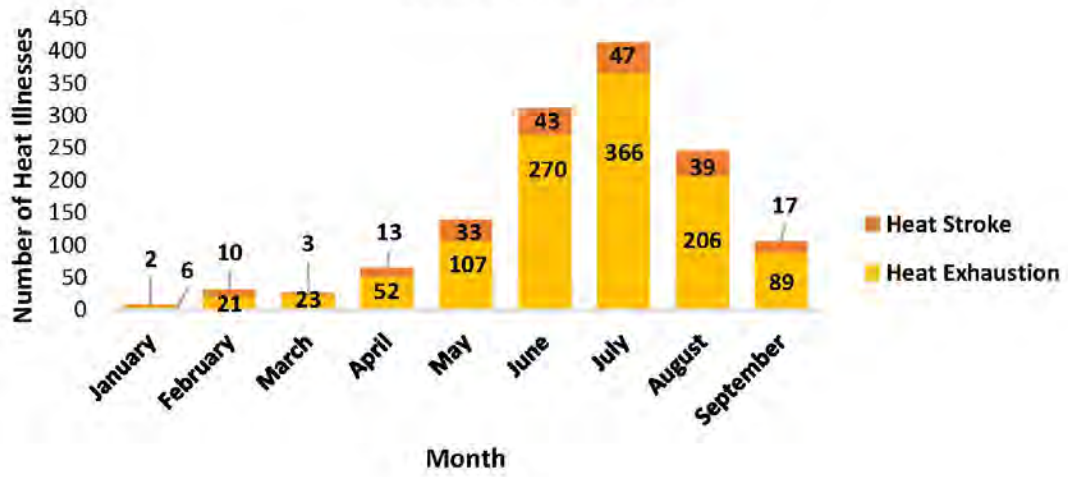
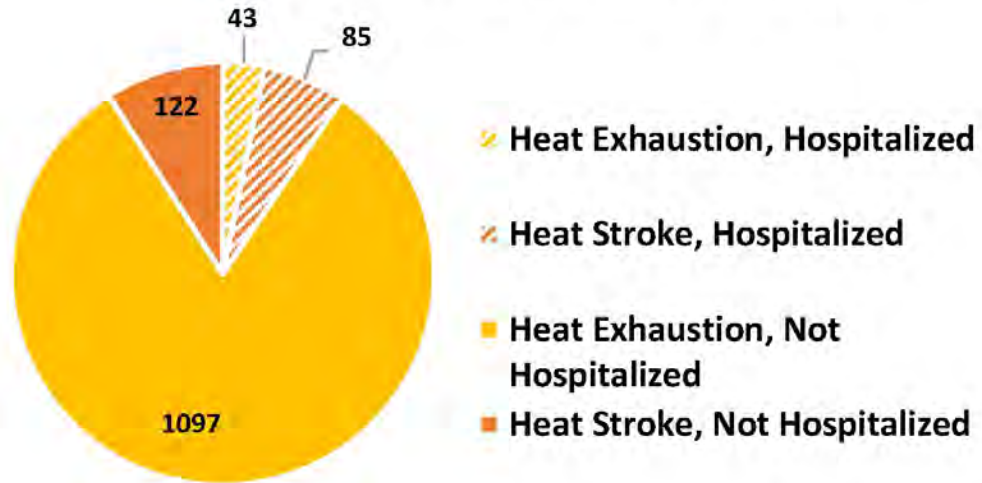


Figure 3: Number of Heat Illnesses by Type and Hospitalization, Year-to-Date 2022



TIP No. 028-0254

**APPENDIX F
2023 HEAT ILLNESS REPORTS**

The 2023 Heat Illness Reports begin on the next page.



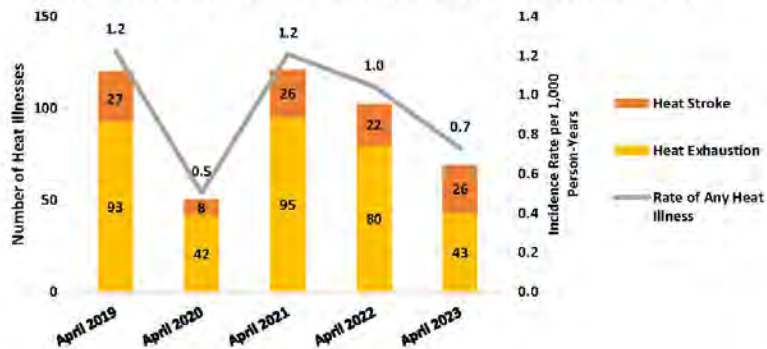
DoD Heat Illness Report

April 2023



This report serves to describe incident heat illness cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency's Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify heat illnesses are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for a heat illness within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of April, Active Duty DoD Service Members, 2019 - 2023



In April 2023, 69 heat illnesses (43 heat exhaustion cases, 26 heat stroke cases) were diagnosed among AD DoD SMs. The incidence rate of any heat illness in DoD SMs for April 2023 was 0.7 cases of heat illness per 1,000 person-years. After heat illness rates hit a 5-year low in April 2020, the rate in April months rose to 1.2 cases per 1,000 person-years in 2021 and has decreased through April 2023 (Figure 1). The rate of heat illnesses in DoD SMs has steadily increased during the current calendar year, from January 2023 to April 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



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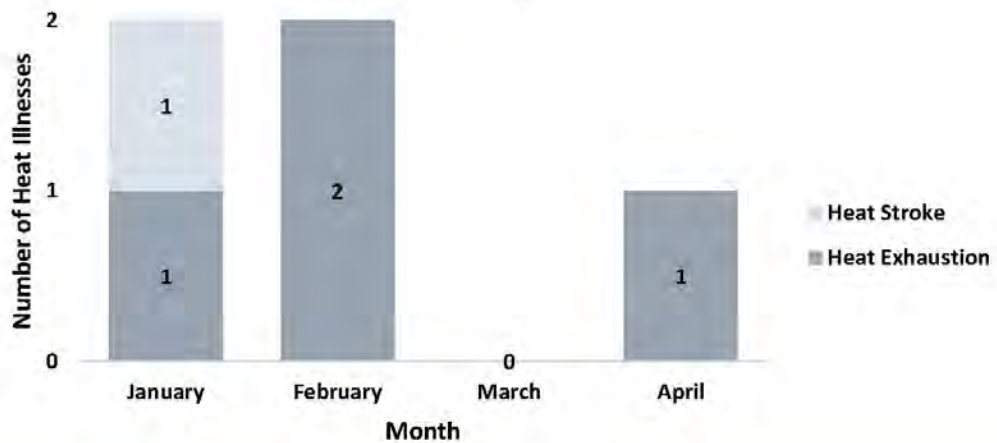
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023

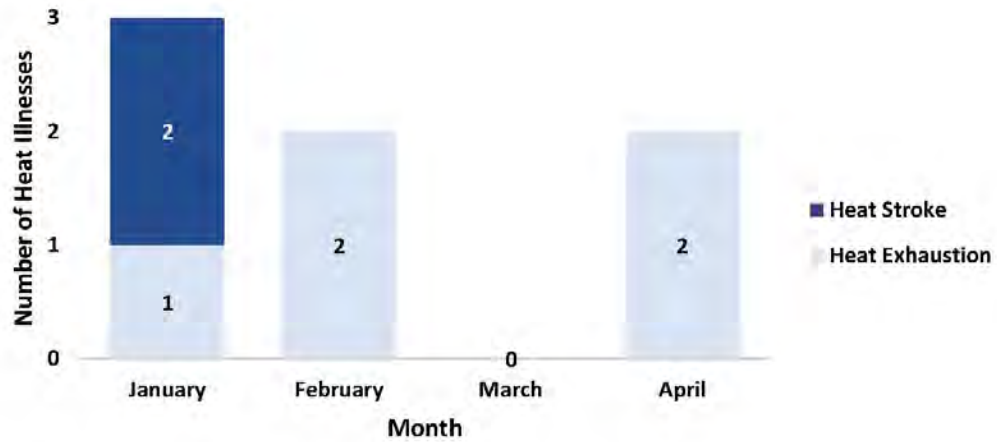


Note: Due to small numbers, rates are not calculated for each service.

[For more information: DCPH-A Heat Illness Prevention](#)
[Contact us: DCPH-A Disease Epidemiology Program](#)

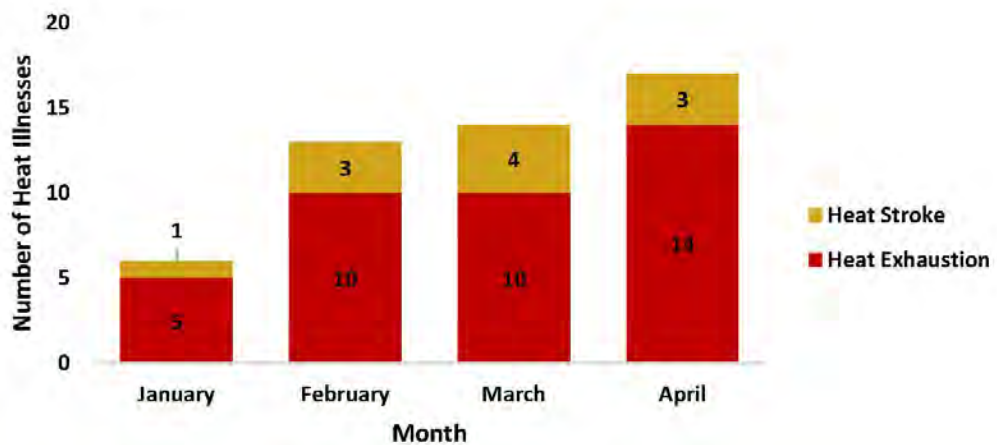
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023



Note: Due to small numbers, rates are not calculated for each service.

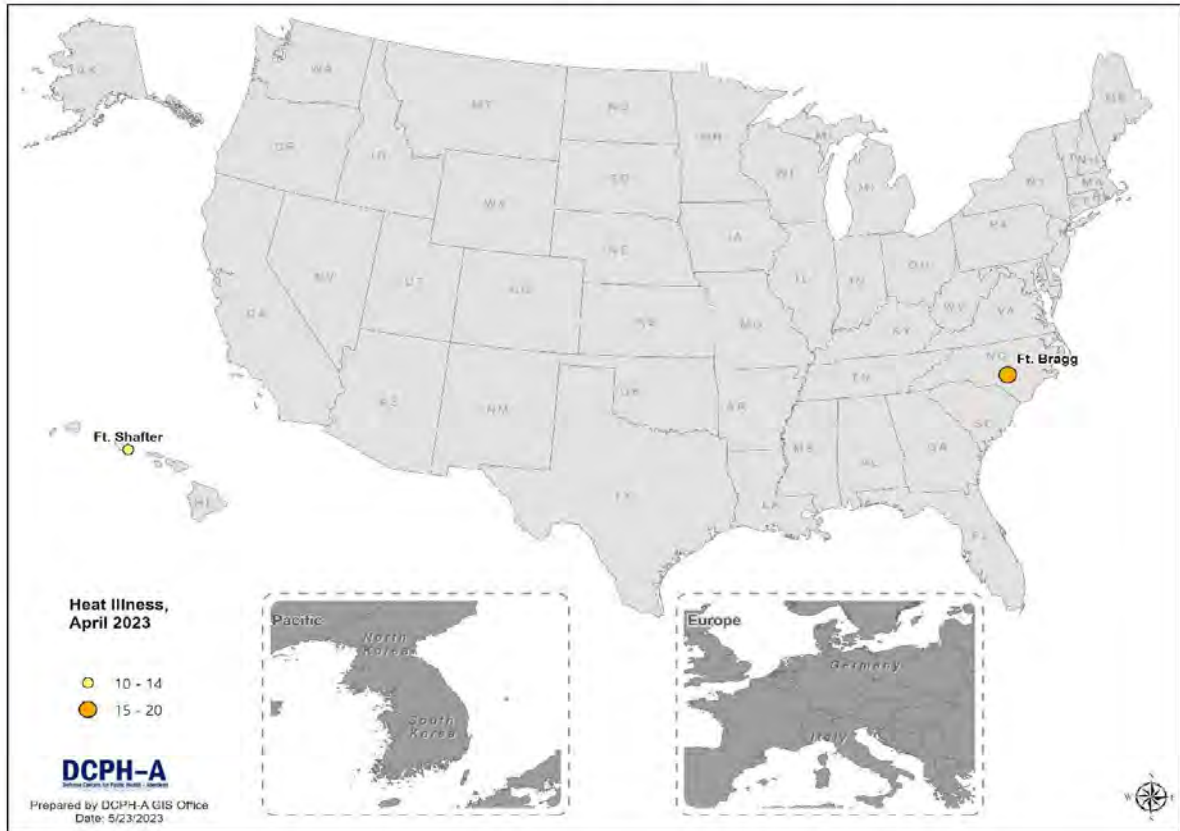
[For more information: DCPH-A Heat Illness Prevention](#)
[Contact us: DCPH-A Disease Epidemiology Program](#)

**Table 1: Heat Illnesses, by Service, Year-To-Date 2023**

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	123	5	7	50
Heat Exhaustion	80	4	5	39
Heat Stroke	43	1	2	11
Heat Illness Hospitalizations				
Heat Exhaustion	12	0	0	4
Heat Stroke	21	0	1	6
Rank				
Trainee	1	0	1	0
Junior Enlisted (E1-E4)	76	3	2	34
Senior Enlisted (E5-E9)	24	1	1	7
Officer (O1-O10)	13	0	1	5
Warrant Officer (W1-W5)	0	0	0	0
Unknown	9	1	2	4
Sex				
Female	21	1	1	3
Male	97	0	1	38
Age Group (Years)				
<25	68	3	5	41
25-34	50	1	2	9
35-44	4	1	0	0
45+	1	0	0	0

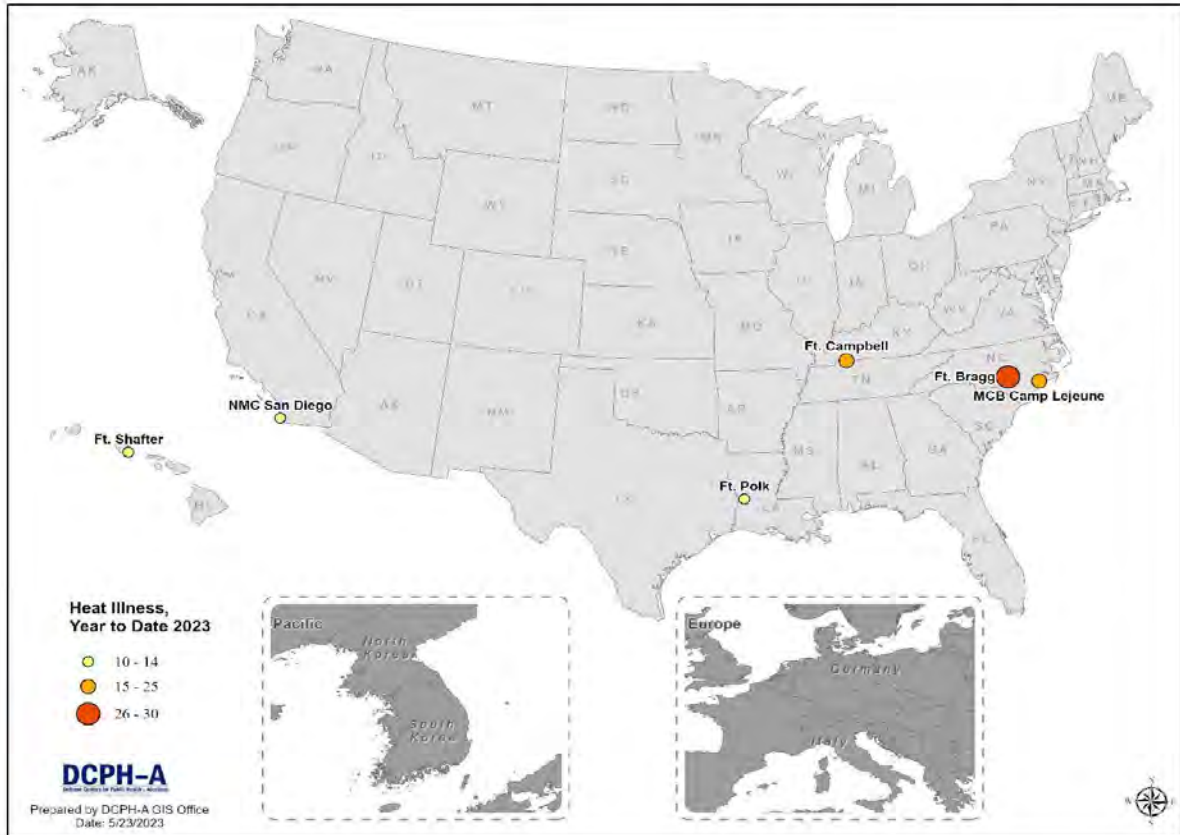
For more information: [DCPH-A Heat Illness Prevention](#)
 Contact us: [DCPH-A Disease Epidemiology Program](#)

Map 1: Heat Illnesses by Installation, April 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

Map 2: Heat Illnesses by Installation, Year-to-Date 2023

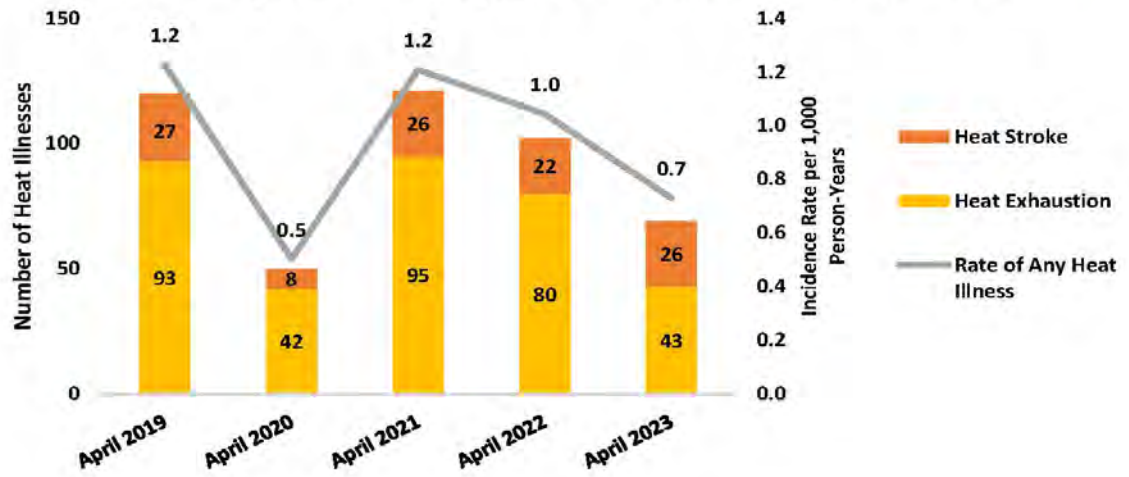


Installations where the total number of diagnosed cases were less than 10 are not shown.

MCB=Marine Corps Base

NMC=Naval Medical Center

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of April, Active Duty DoD Service Members, 2019 - 2023



For more information: [DCPH-A Heat Illness Prevention](#)
Contact us: [DCPH-A Disease Epidemiology Program](#)

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023





DoD Heat Illness Report

May 2023



This report serves to describe incident heat illness cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency’s Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify heat illnesses are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for a heat illness within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of May, Active Duty DoD Service Members, 2019 - 2023



In May 2023, 113 heat illnesses (89 heat exhaustion cases, 24 heat stroke cases) were diagnosed among AD DoD SMs. The incidence rate of any heat illness in DoD SMs for May 2023 was 1.2 cases of heat illness per 1,000 person-years. After heat illness rates decreased from May 2019 to May 2020, they rose through May 2022 before falling to 1.2 cases per 1,000 person-years in May 2023 (Figure 1). The rate of heat illnesses in DoD SMs has steadily increased during the current calendar year, from January 2023 to May 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



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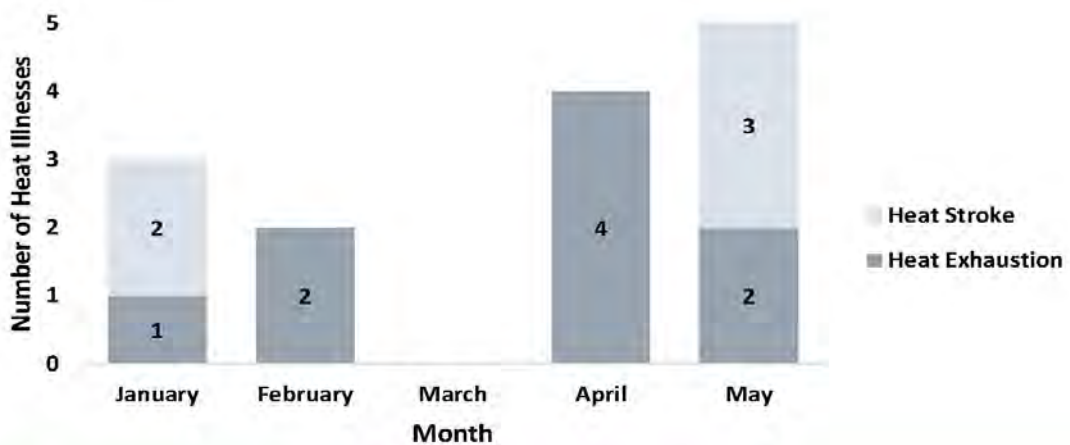
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023

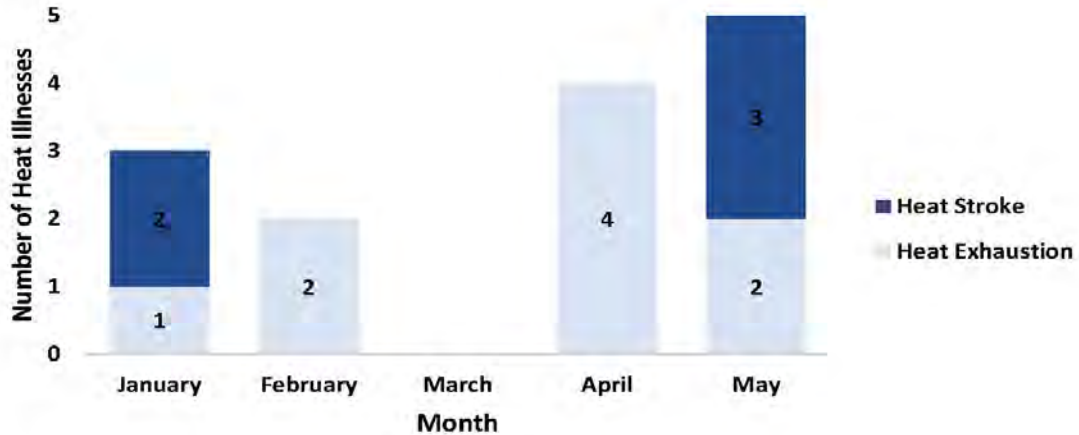


Note: Due to small numbers, rates are not calculated for each service.

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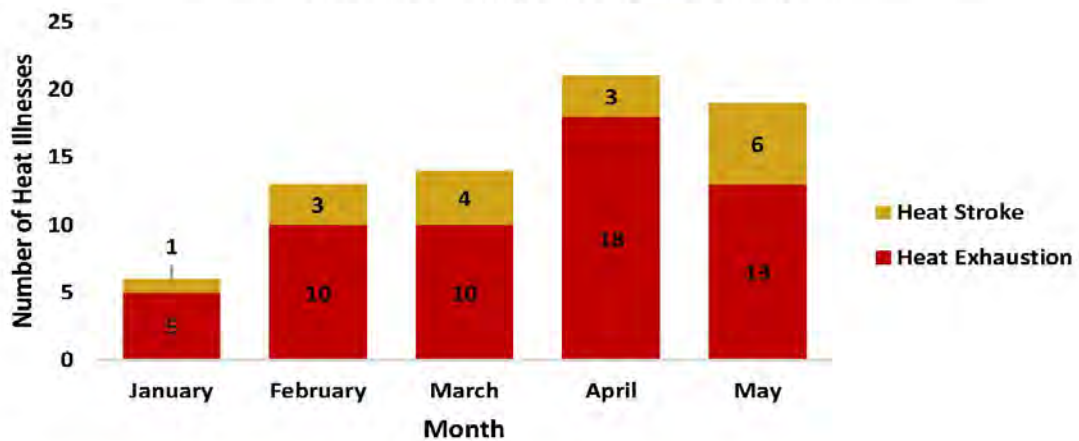
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023



Note: Due to small numbers, rates are not calculated for each service.

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**Table 1: Heat Illnesses by Service, Year-To-Date 2023**

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	218	15	14	73
Heat Exhaustion	156	13	9	56
Heat Stroke	62	2	5	17
Heat Illness Hospitalizations				
Heat Exhaustion	21	0	1	6
Heat Stroke	30	1	2	8
Rank				
Trainee	1	0	2	0
Junior Enlisted (E1-E4)	133	5	5	51
Senior Enlisted (E5-E9)	44	4	2	8
Officer (O1-O10)	18	1	1	8
Warrant Officer (W1-W5)	1	0	0	0
Unknown	21	5	4	6
Sex				
Female	33	1	3	5
Male	170	1	2	53
Age Group (Years)				
<25	133	8	11	62
25-34	76	6	2	10
35-44	7	1	1	1
45+	2	0	0	0

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Map 1: Heat Illnesses by Installation, May 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

Map 2: Heat Illnesses by Installation, Year-to-Date 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

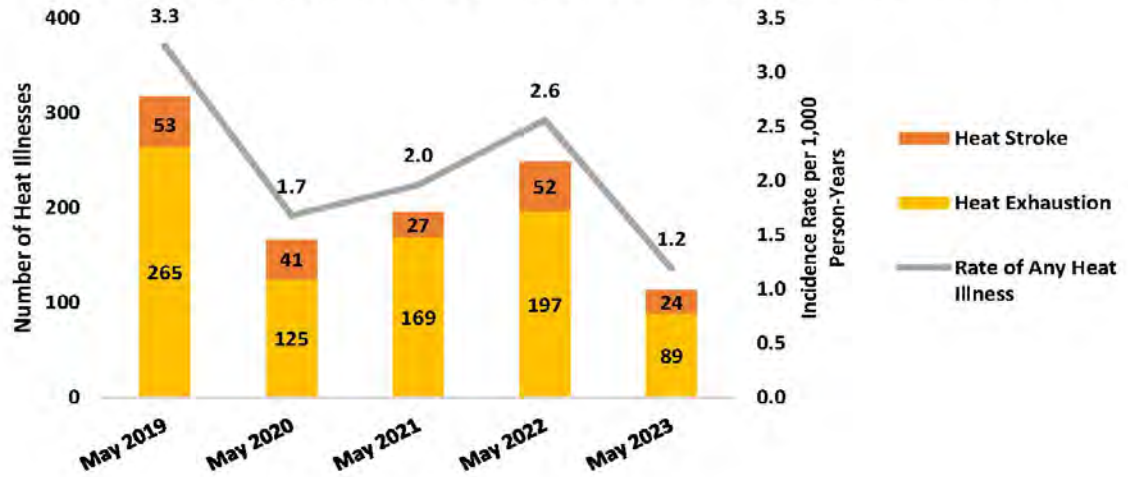
MCB=Marine Corps Base

NHC=Naval Health Clinic

NMC=Naval Medical Center

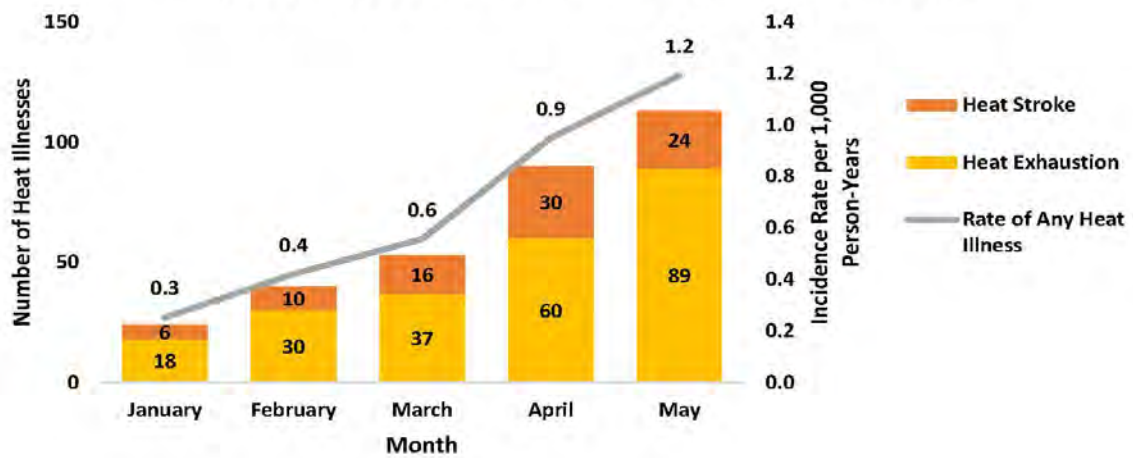


Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of May, Active Duty DoD Service Members, 2019 - 2023



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Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



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DoD Heat Illness Report

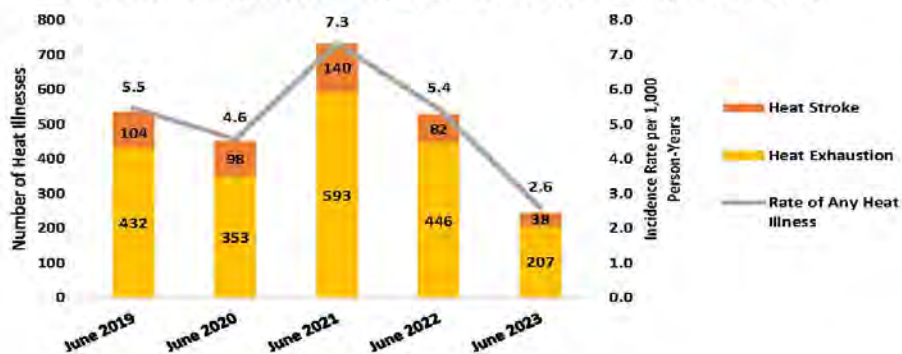
June 2023

DCPH-A

Defense Centers for Public Health - Aberdeen

This report serves to describe incident heat illness cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency's Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify heat illnesses are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for a heat illness within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of June, Active Duty DoD Service Members, 2019 - 2023



In June 2023, 245 heat illnesses (207 heat exhaustion cases, 38 heat stroke cases) were diagnosed among AD DoD SMs. The incidence rate of any heat illness in DoD SMs for June 2023 was 2.6 cases of heat illness per 1,000 person-years. After heat illness rates decreased from June 2019 to June 2020, they rose in June 2021 then ultimately decreased to 2.6 cases per 1,000 person-years in June 2023 (Figure 1). The rate of heat illnesses in DoD SMs has steadily increased during the current calendar year, from January 2023 to June 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



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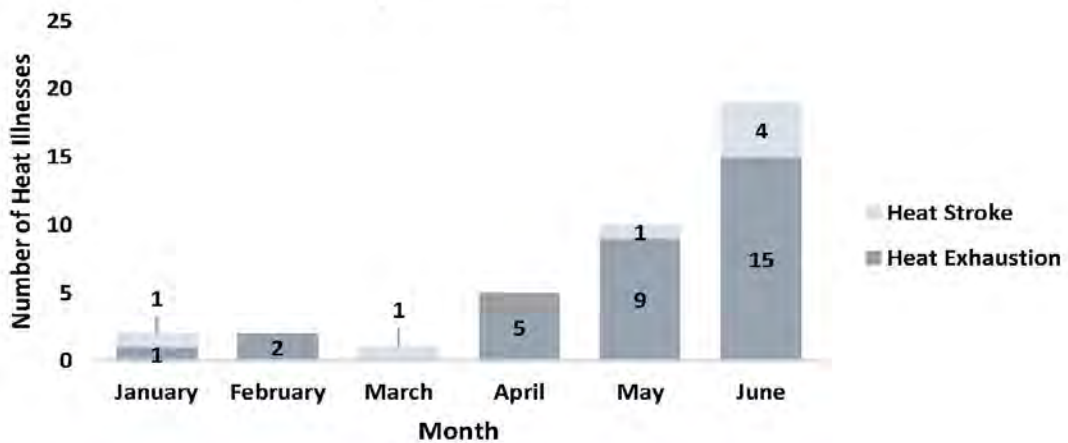
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023

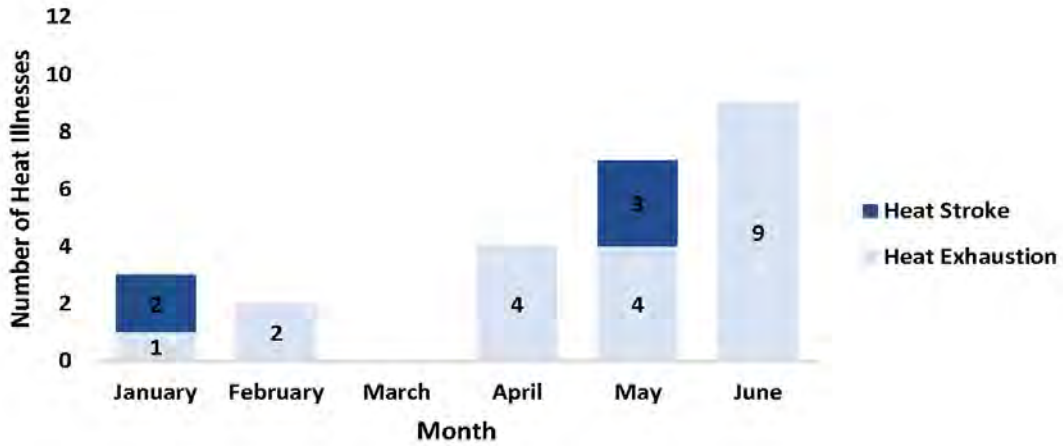


Note: Due to small numbers, rates are not calculated for each service.

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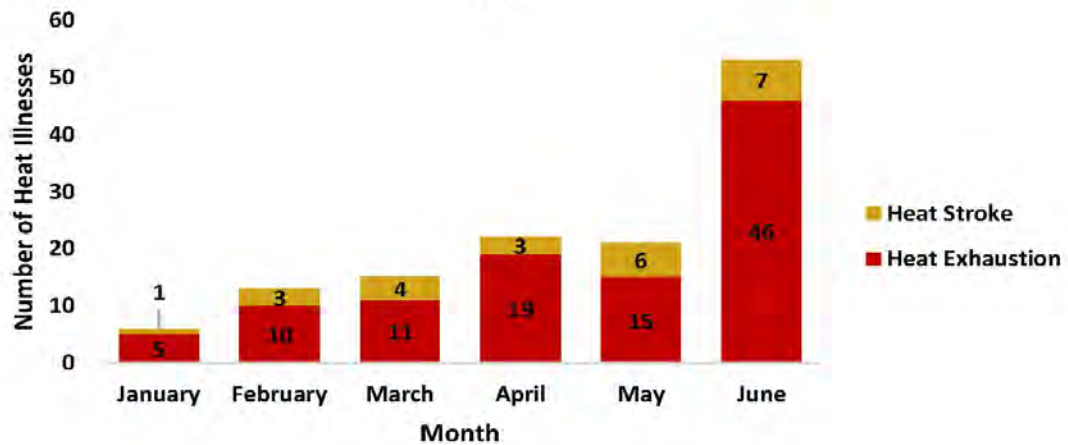
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023



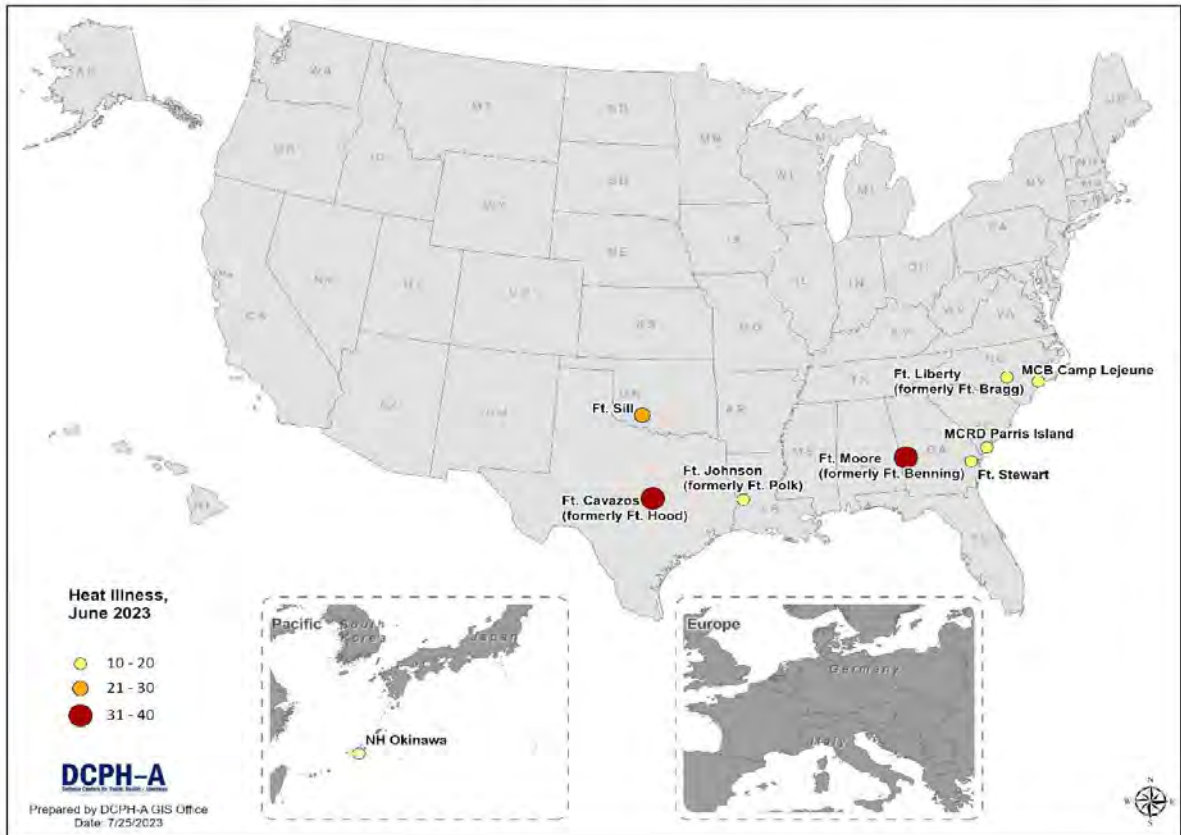
Note: Due to small numbers, rates are not calculated for each service.

**Table 1: Heat Illnesses by Service, Year-To-Date 2023**

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	398	39	25	130
Heat Exhaustion	307	32	20	106
Heat Stroke	91	7	5	24
Heat Illness Hospitalizations				
Heat Exhaustion	26	2	1	8
Heat Stroke	45	4	2	11
Rank				
Trainee	6	0	2	0
Junior Enlisted (E1-E4)	238	19	13	92
Senior Enlisted (E5-E9)	70	9	4	13
Officer (O1-O10)	31	1	1	9
Warrant Officer (W1-W5)	3	0	0	0
Unknown	50	10	5	16
Sex				
Female	76	2	3	10
Male	292	11	4	101
Age Group (Years)				
<25	249	19	18	107
25-34	124	15	5	20
35-44	21	5	1	3
45+	4	0	1	0

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Map 1: Heat Illnesses by Installation, June 2023



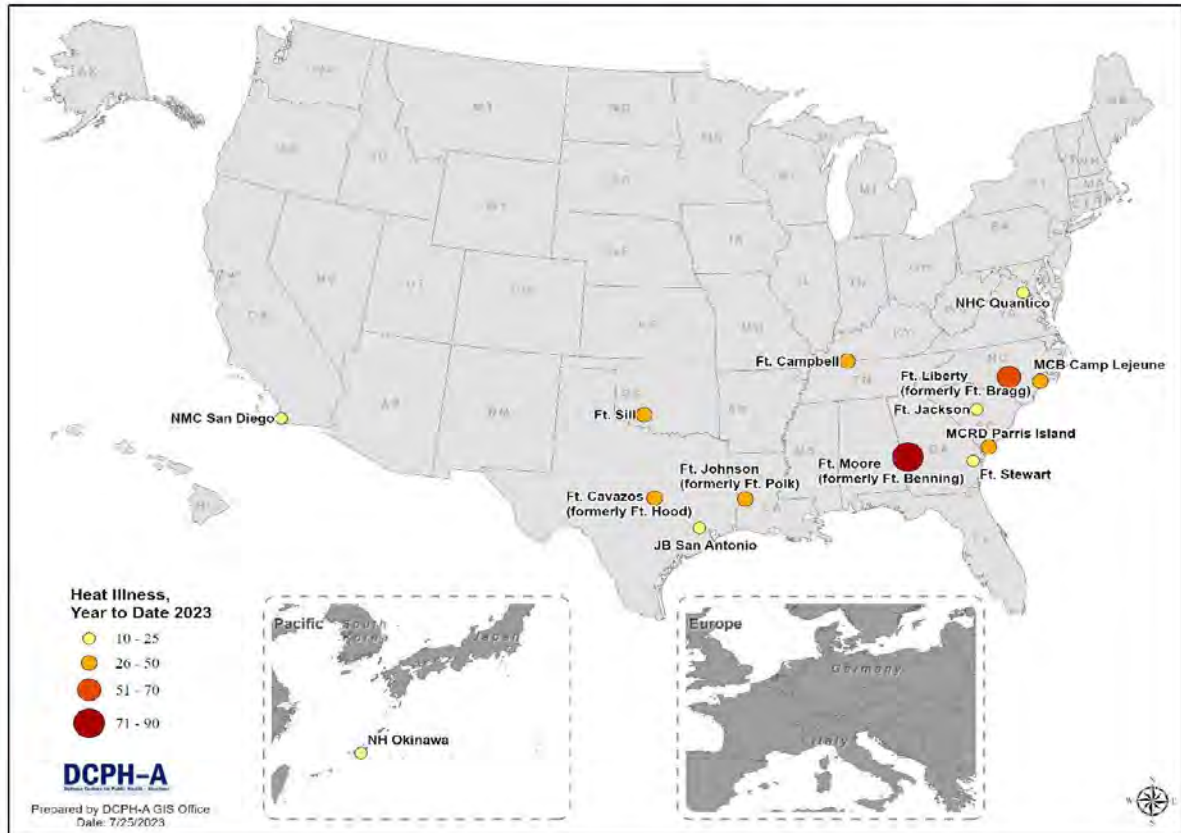
Installations where the total number of diagnosed cases were less than 10 are not shown.

MCB=Marine Corps Base

MCRD=Marine Corps Recruit Depot

NH=Naval Hospital

Map 2: Heat Illnesses by Installation, Year-to-Date 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

JB=Joint Base

MCB=Marine Corps Base

MCRD=Marine Corps Recruit Depot

NH=Naval Hospital

NHC=Naval Health Clinic

NMC=Naval Medical Center

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of June, Active Duty DoD Service Members, 2019 - 2023

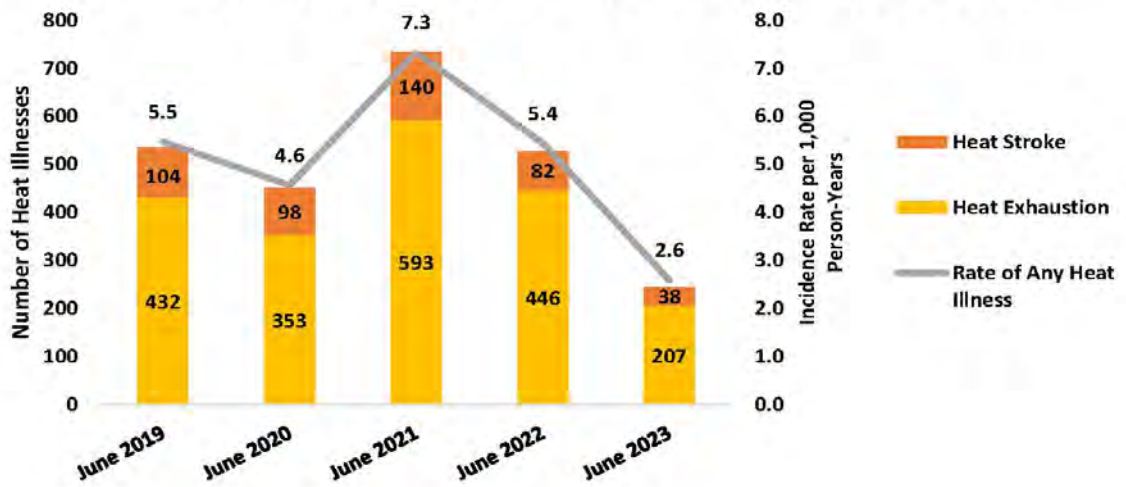
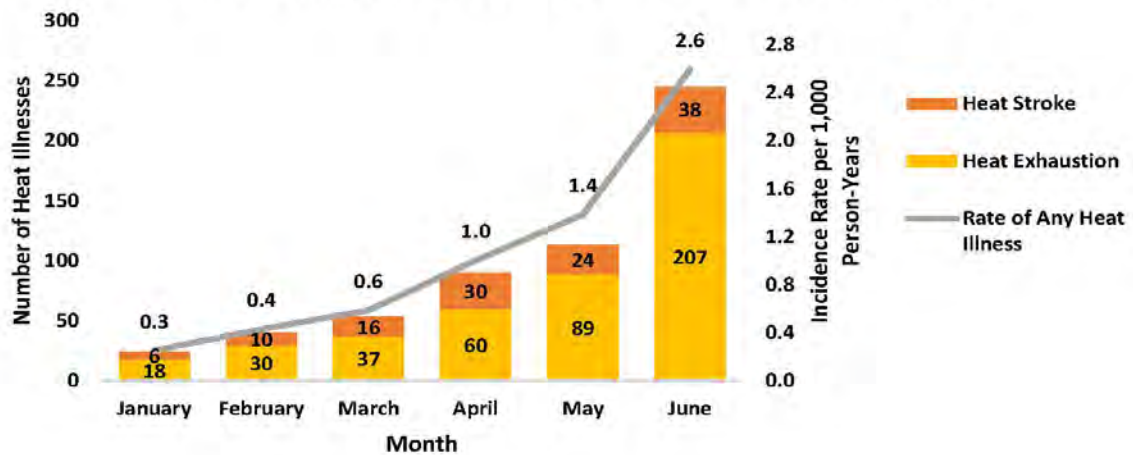


Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



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DoD Heat Illness Report

July 2023

DCPH-A

Defense Centers for Public Health - Aberdeen

This report serves to describe incident heat illness cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency's Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify heat illnesses are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for a heat illness within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of July, Active Duty DoD Service Members, 2019 - 2023



In July 2023, 587 heat illnesses (514 heat exhaustion cases, 73 heat stroke cases) were diagnosed among AD DoD SMs (Figure 1); 80 of the cases were hospitalized (42 heat exhaustion cases, 38 heat stroke cases) (data not shown). The incidence rate of any heat illness in DoD SMs for July 2023 was 6.2 cases of heat illness per 1,000 person-years. Heat illness rates in the last 5 years were highest in July 2019 before decreasing in July 2020. After slight increases through July 2022, the rate of heat illnesses decreased again in July 2023 (Figure 1). During the 2023 calendar year, the rate of heat illnesses in DoD SMs has increased sharply since May 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023

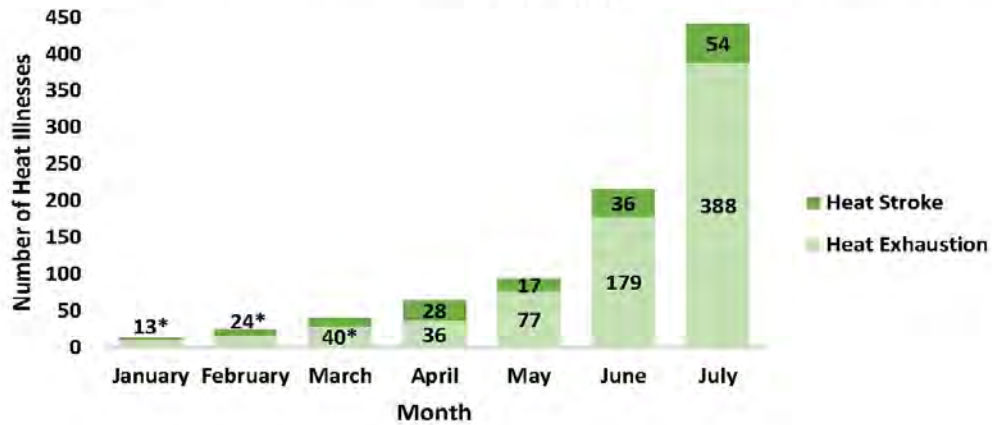


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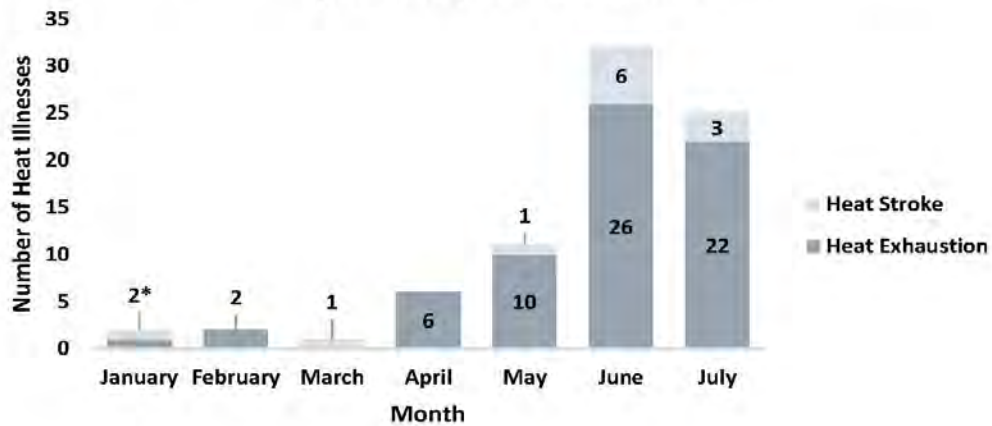
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts
 Note: Due to small numbers, rates are not calculated for each service.

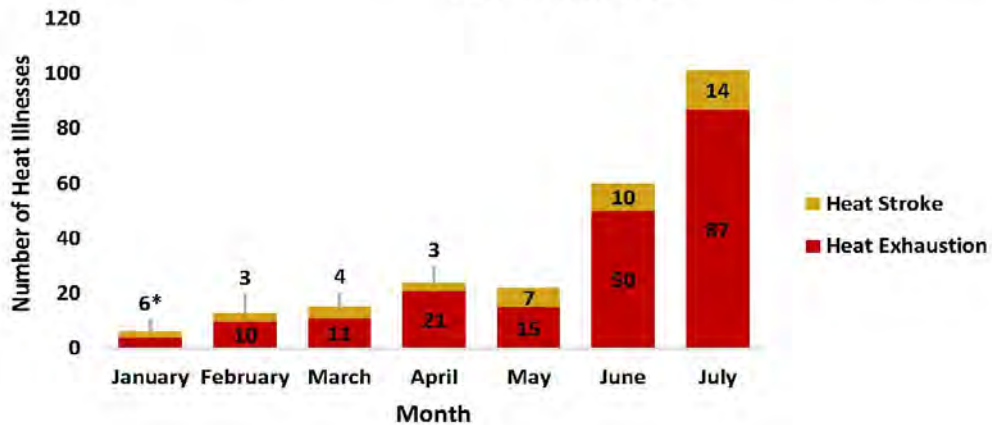
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts

Note: Due to small numbers, rates are not calculated for each service.



DoD Heat Illness Report
 July 2023
DCPH-A
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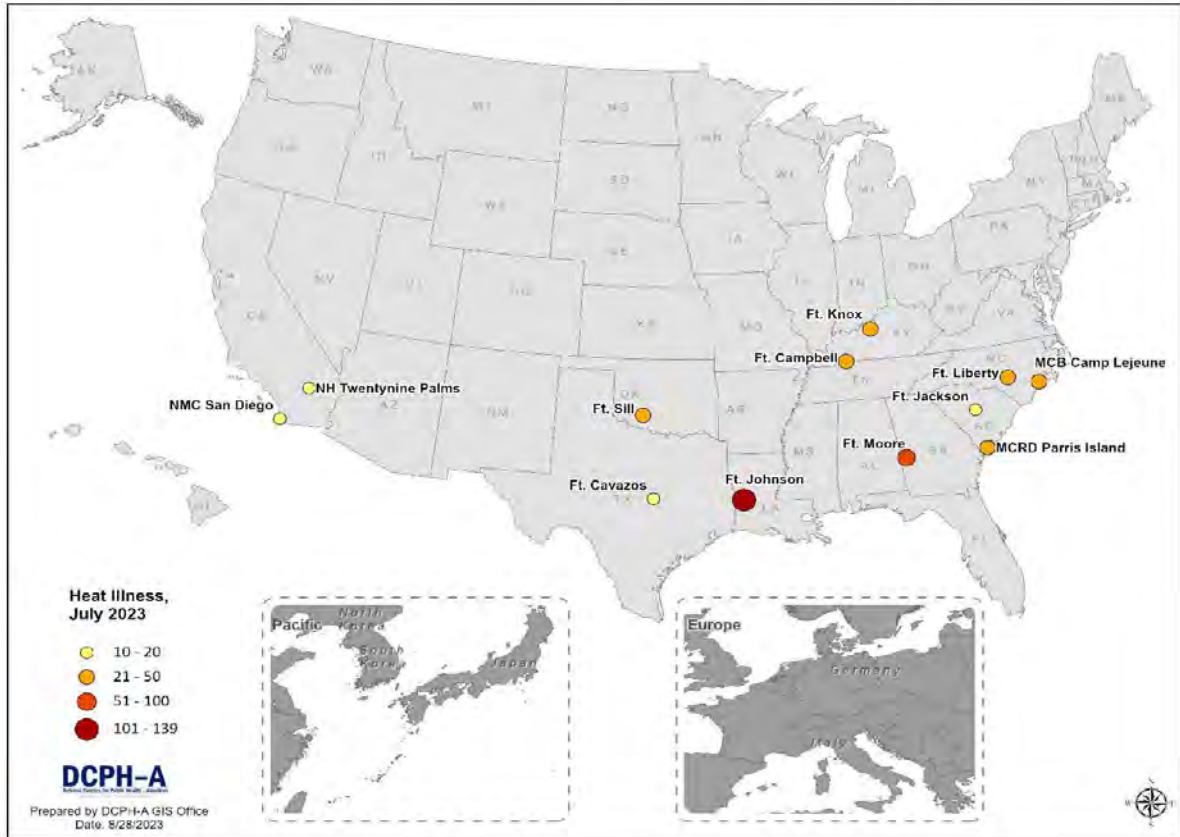
Table 1: Heat Illnesses by Service, Year-To-Date 2023

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	892	79	53	241
Heat Exhaustion	737	67	46	198
Heat Stroke	155	12	7	43
Heat Illness Hospitalizations				
Heat Exhaustion	48	3	2	26
Heat Stroke	85	5	2	17
Rank				
Trainee	48	0	7	0
Junior Enlisted (E1-E4)	536	39	25	183
Senior Enlisted (E5-E9)	157	20	7	20
Officer (O1-O10)	70	3	5	15
Warrant Officer (W1-W5)	3	0	0	0
Unknown	78	17	9	23
Sex				
Female	213	6	4	16
Male	631	27	8	188
Age Group (Years)				
<25	555	39	35	209
25-34	264	32	13	28
35-44	56	8	2	4
45+	17	0	3	0

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4

Map 1: Heat Illnesses by Installation, July 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

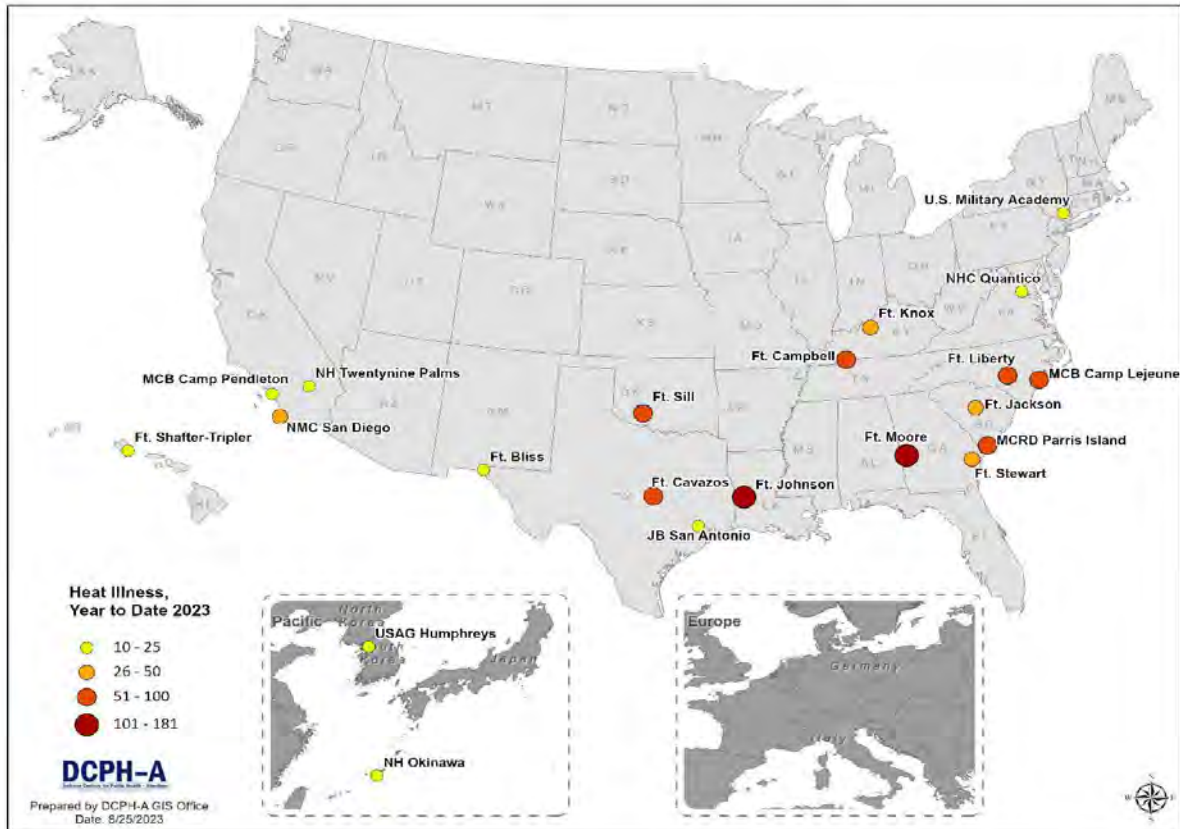
MCB=Marine Corps Base

MCRD=Marine Corps Recruit Depot

NH=Naval Hospital

NMC=Naval Medical Center

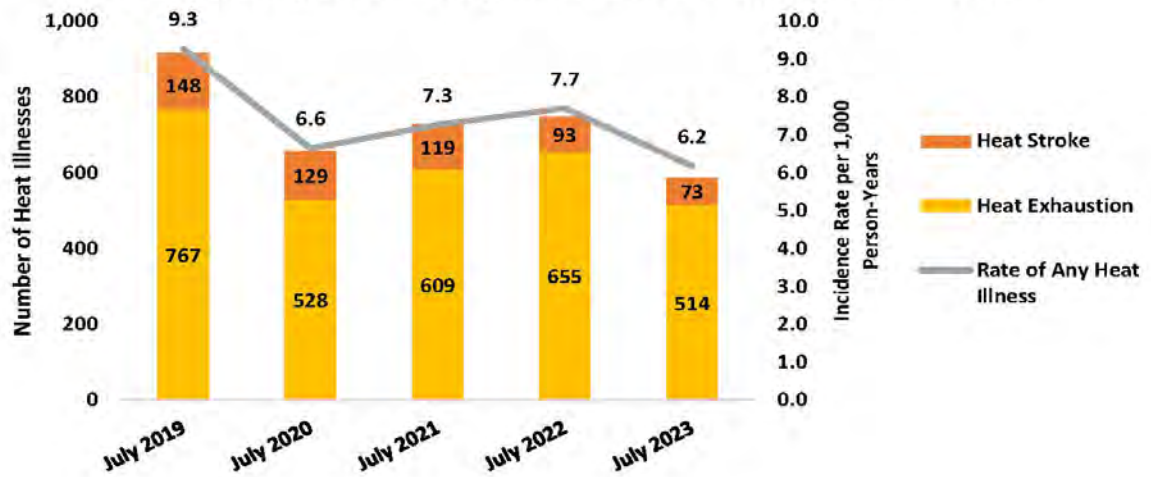
Map 2: Heat Illnesses by Installation, Year-to-Date 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

- JB=Joint Base*
- MCB=Marine Corps Base*
- MCRD=Marine Corps Recruit Depot*
- NH=Naval Hospital*
- NHC=Naval Health Clinic*
- NMC=Naval Medical Center*
- USAG=U.S. Army Garrison*

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of July, Active Duty DoD Service Members, 2019 - 2023



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Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023





DoD Heat Illness Report

August 2023

DCPH-A

Defense Centers for Public Health - Aberdeen

This report serves to describe incident heat illness cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency's Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify heat illnesses are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for a heat illness within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of August, Active Duty DoD Service Members, 2019 - 2023



In August 2023, 465 heat illnesses (411 heat exhaustion cases, 54 heat stroke cases) were diagnosed among AD DoD SMs (Figure 1); 55 of the cases were hospitalized (33 heat exhaustion cases, 22 heat stroke cases) (data not shown). The incidence rate of any heat illness in DoD SMs for August 2023 was 4.9 cases of heat illness per 1,000 person-years. Heat illness rates in the last 5 years were highest in August 2019 before decreasing in August 2020. After increasing through August 2021, the rate of heat illnesses decreased again in August 2022 and remained relatively stable in August 2023 (Figure 1). During the 2023 calendar year, the rate of heat illnesses in DoD SMs increased sharply from May to July 2023 before decreasing in August 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts

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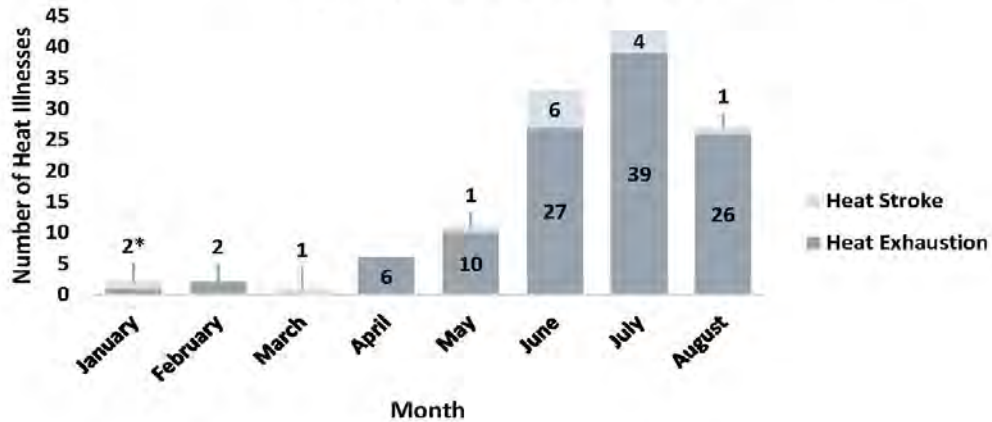
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts
 Note: Due to small numbers, rates are not calculated for each service.

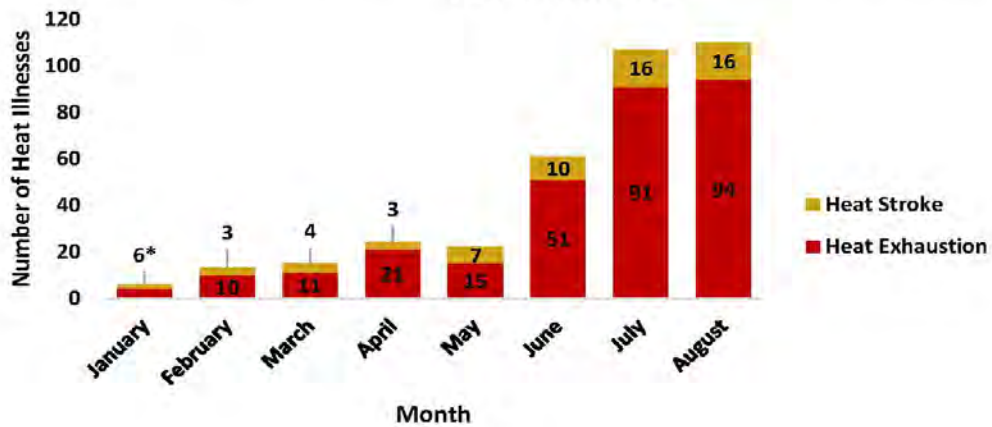
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023

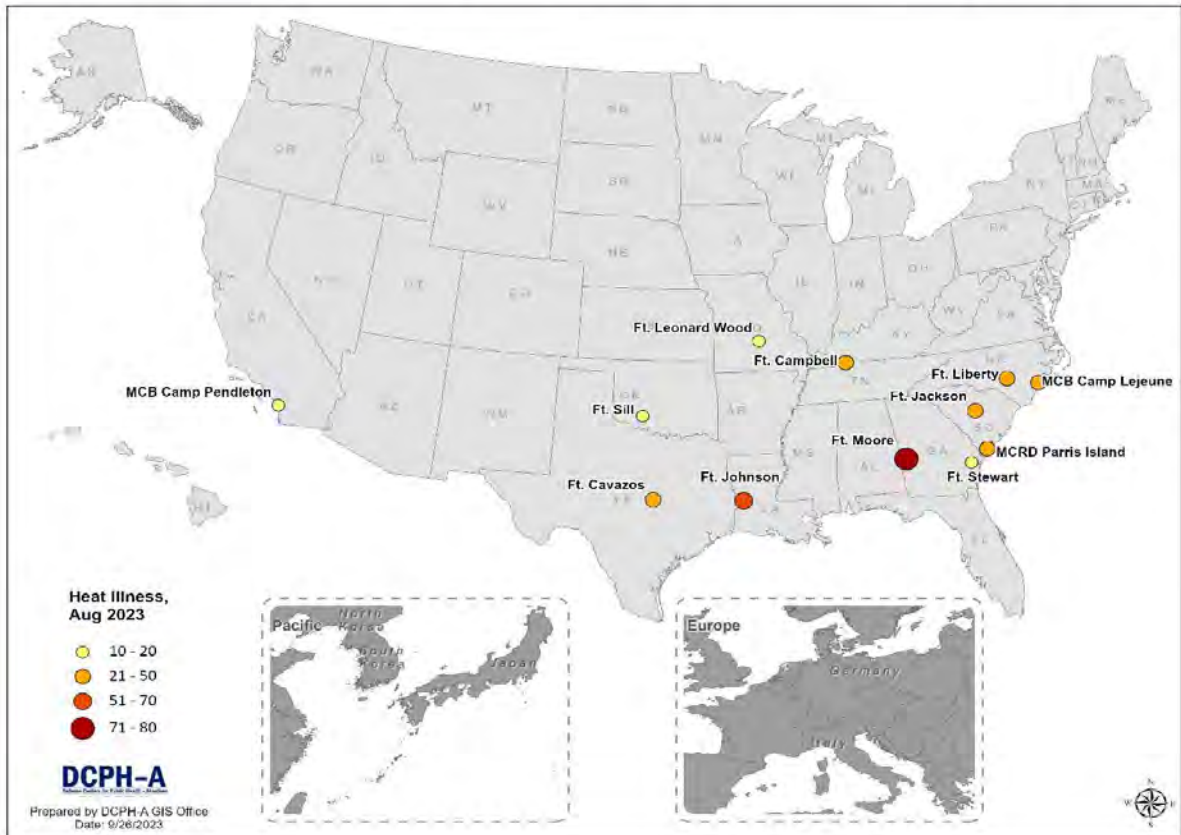


*Sum of heat stroke and heat exhaustion counts
 Note: Due to small numbers, rates are not calculated for each service.

Table 1: Heat Illnesses by Service, Year-To-Date 2023

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	1,262	125	83	358
Heat Exhaustion	1,069	111	72	297
Heat Stroke	193	14	11	61
Heat Illness Hospitalizations				
Heat Exhaustion	61	4	6	41
Heat Stroke	103	5	2	24
Rank				
Trainee	48	0	8	30
Junior Enlisted (E1-E4)	796	71	39	256
Senior Enlisted (E5-E9)	223	30	20	30
Officer (O1-O10)	98	7	7	17
Warrant Officer (W1-W5)	4	0	0	0
Unknown	93	17	9	25
Sex				
Female	290	8	8	25
Male	916	35	15	283
Age Group (Years)				
<25	786	59	50	307
25-34	376	52	26	46
35-44	78	11	4	5
45+	22	3	3	0

Map 1: Heat Illnesses by Installation, August 2023

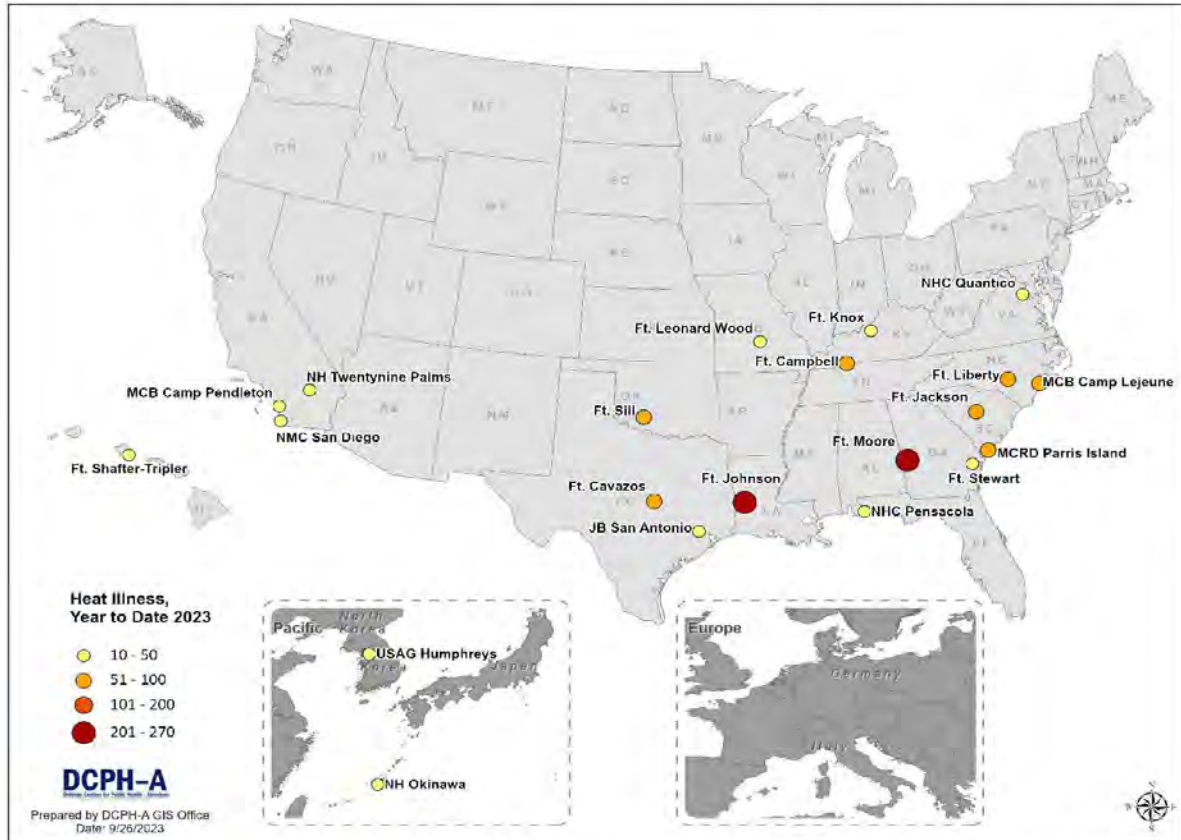


Installations where the total number of diagnosed cases were less than 10 are not shown.

MCB=Marine Corps Base

MCRD=Marine Corps Recruit Depot

Map 2: Heat Illnesses by Installation, Year-to-Date 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

- JB=Joint Base*
- MCB=Marine Corps Base*
- MCRD=Marine Corps Recruit Depot*
- NH=Naval Hospital*
- NHC=Naval Health Clinic*
- NMC=Naval Medical Center*
- USAG=U.S. Army Garrison*

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of August, Active Duty DoD Service Members, 2019 - 2023

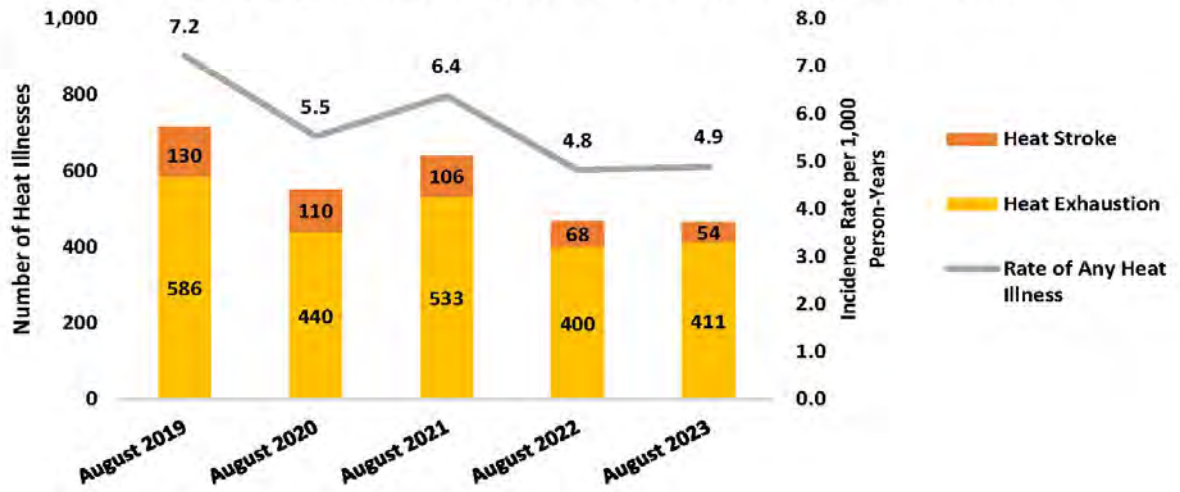
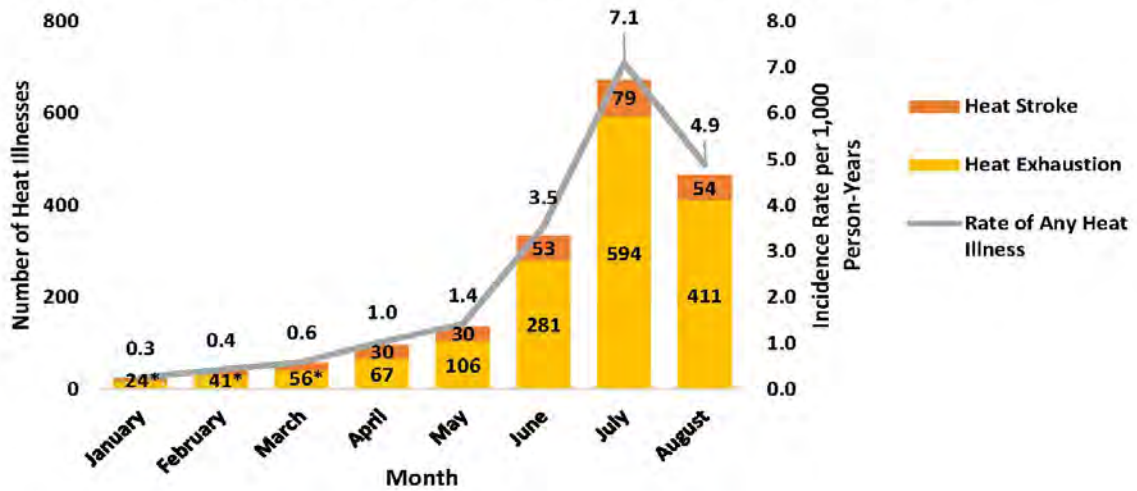


Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts



DoD Heat Illness Report

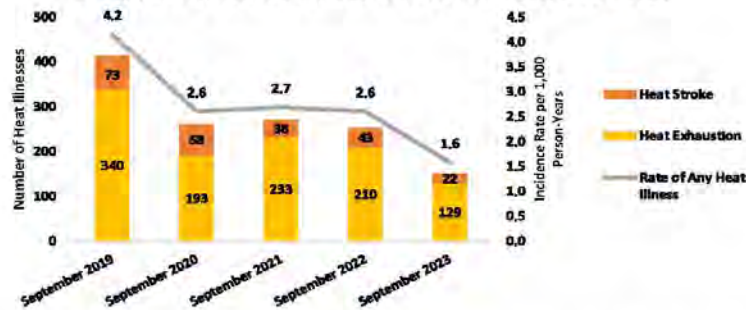
September 2023



Defense Centers for Public Health - Aberdeen

This report serves to describe incident heat illness (HI) cases among Active-Duty (AD) DoD Service members (SMs). The data for this report are obtained from the Defense Health Agency’s Weather-related Injury Repository, which captures a selection of ICD-10-CM codes in inpatient and outpatient medical encounter records from the Military Health System Data Repository (MDR) and medical event reports of heat exhaustion and heat stroke submitted through the Disease Reporting System internet (DRSi). The medical event reports used to identify HIs are adapted from standard case definitions of heat exhaustion and heat stroke established by the Armed Forces Health Surveillance Division (AFHSD). SMs are counted as an incident case if they have an initial encounter for an HI within the calendar year. Consistent with the AFHSD case definition, SMs are considered an incident case only once per calendar year.

Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of September, Active Duty DoD Service Members, 2019 - 2023



In September 2023, 151 HIs (129 heat exhaustion cases, 22 heat stroke cases) were diagnosed among AD DoD SMs (Figure 1); 23 of the cases were hospitalized (9 heat exhaustion cases, 14 heat stroke cases) (data not shown). The incidence rate of any HI in DoD SMs for September 2023 was 1.6 cases of HI per 1,000 person-years. HI rates in the last 5 years were highest in September 2019. From September 2020 to September 2022, the rate of HIs remained relatively stable; in September 2023, the rate of HIs decreased to their lowest level in the last 5 years (Figure 1). During the 2023 calendar year, the rate of HIs in DoD SMs increased sharply from May to July 2023 before decreasing slightly in August 2023 and sharply in September 2023 (Figure 2). Due to late data entry and delayed processing of data in the MDR, values for 2023 may be artificially low.

Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts

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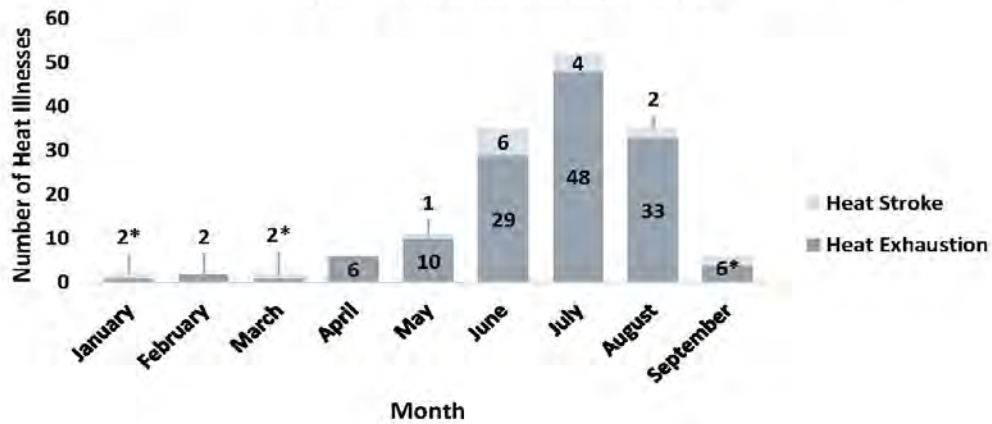
Army

Figure 3: Number of Heat Illnesses, Active Duty Army, Year-to-Date 2023



Air Force and Space Force

Figure 4: Number of Heat Illnesses, Active Duty Air Force and Space Force, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts
 Note: Due to small numbers, rates are not calculated for each service.

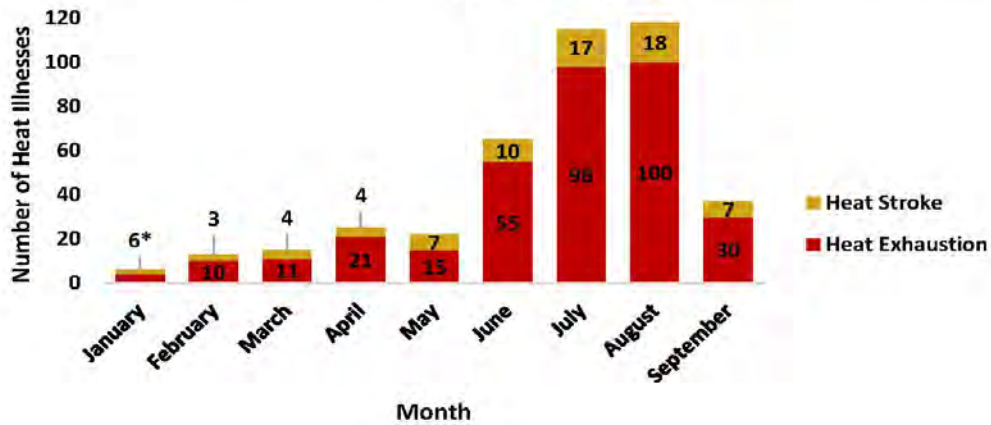
Navy

Figure 5: Number of Heat Illnesses, Active Duty Navy, Year-to-Date 2023



Marine Corps

Figure 6: Number of Heat Illnesses, Active Duty Marine Corps, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts
 Note: Due to small numbers, rates are not calculated for each service.



DoD Heat Illness Report
September 2023

DCPH-A
Defense Centers for Public Health - Aberdeen

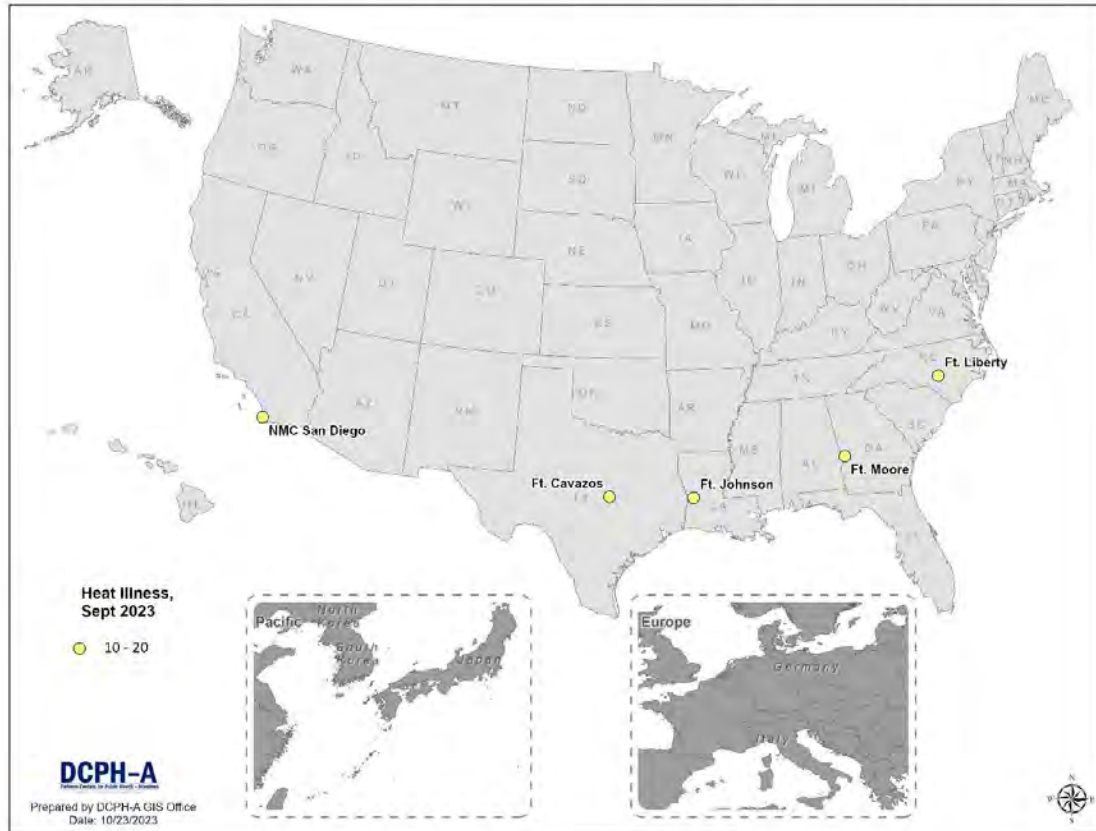
Table 1: Heat Illnesses by Service, Year-To-Date 2023

	Number of Cases by Service Branch			
	Army	Air Force and Space Force	Navy	Marine Corps
Total Heat Illness Cases	1,446	151	116	416
Heat Exhaustion	1,226	134	102	344
Heat Stroke	220	17	14	72
Heat Illness Hospitalizations				
Heat Exhaustion	70	6	7	44
Heat Stroke	120	7	4	28
Rank				
Trainee	47	1	7	31
Junior Enlisted (E1-E4)	931	92	53	312
Senior Enlisted (E5-E9)	281	41	35	39
Officer (O1-O10)	127	9	12	25
Warrant Officer (W1-W5)	5	0	1	0
Unknown	55	8	8	9
Sex				
Female	321	19	13	29
Male	1,085	57	35	350
Age Group (Years)				
<25	979	71	58	356
25-34	370	63	40	55
35-44	78	14	13	5
45+	19	3	5	0

For more information: [DCPH-A Heat Illness Prevention](#)
Contact us: [DCPH-A Disease Epidemiology Program](#)

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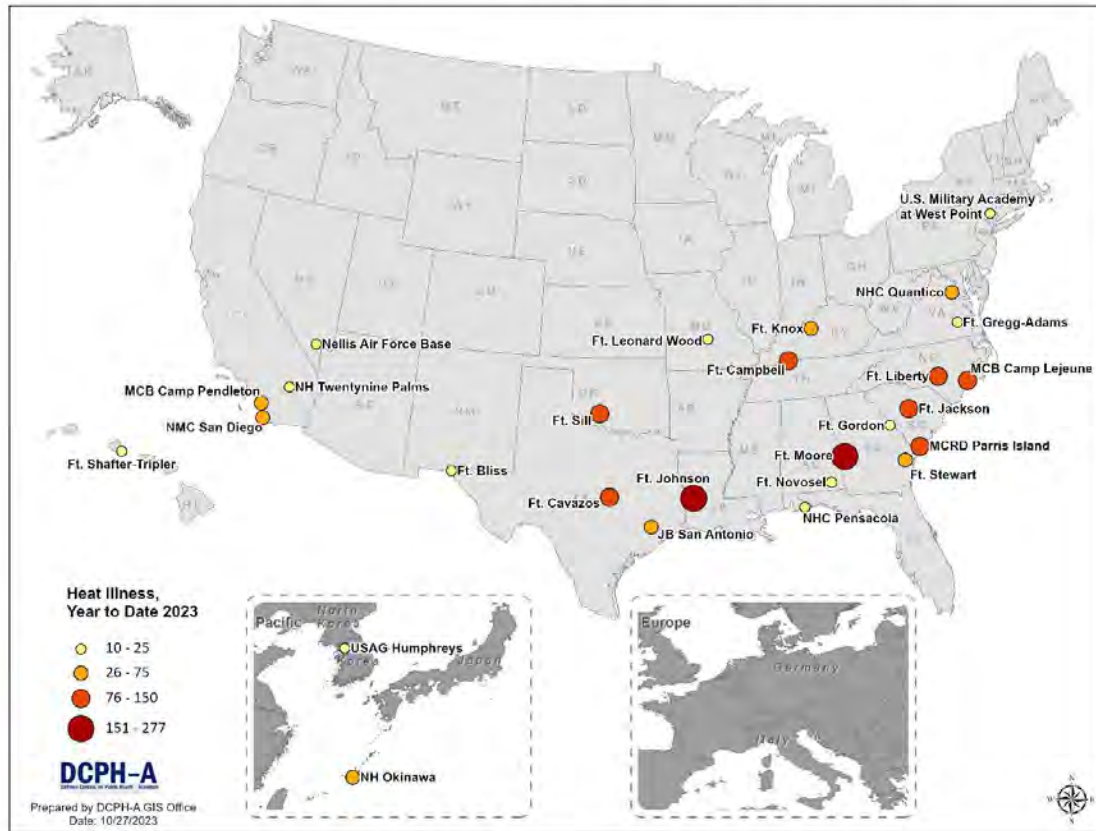
Map 1: Heat Illnesses by Installation, September 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

NMC=Naval Medical Center

Map 2: Heat Illnesses by Installation, Year-to-Date 2023



Installations where the total number of diagnosed cases were less than 10 are not shown.

JB=Joint Base

MCB=Marine Corps Base

MCRD=Marine Corps Recruit Depot

NH=Naval Hospital

NHC=Naval Health Clinic

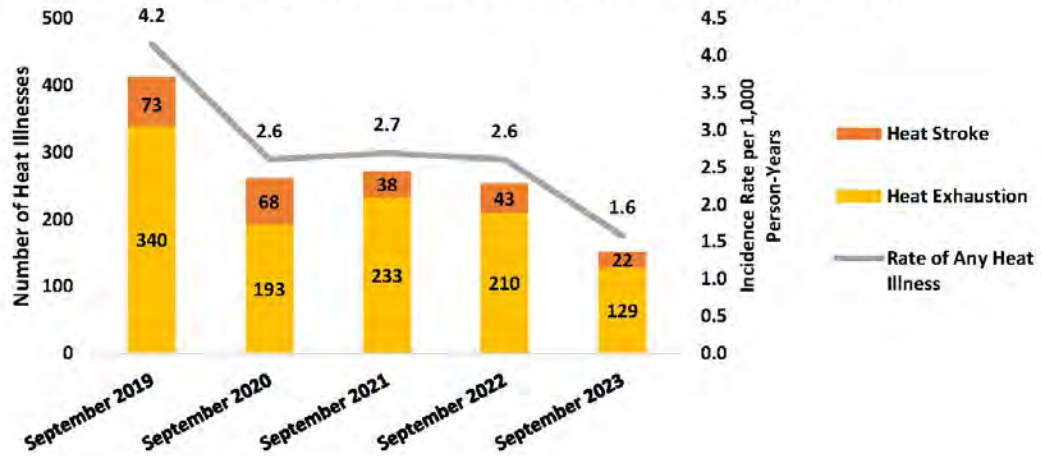
NMC=Naval Medical Center

USAG=U.S. Army Garrison

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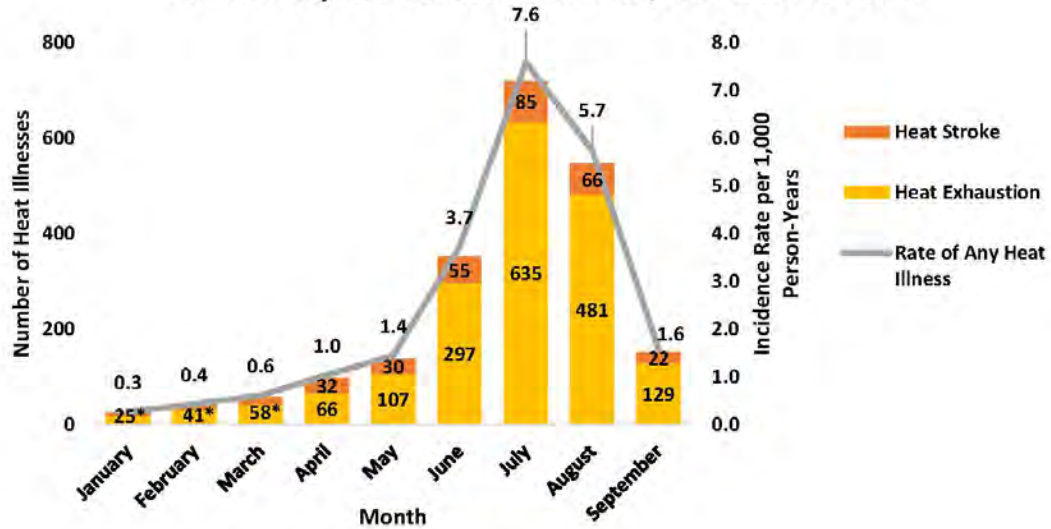
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Figure 1: Incident Cases and Rates of Heat Illnesses for the Month of September, Active Duty DoD Service Members, 2019 - 2023



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Figure 2: Incident Cases and Rates of Heat Illnesses, Active Duty DoD Service Members, Year-to-Date 2023



*Sum of heat stroke and heat exhaustion counts

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