



## **Bexar County Heat-Related Illness Report** (March 12, 2023 - October 14, 2023)

### **Introduction:**

This report monitors heat-related illnesses associated with heat exhaustion and heat strokes in Bexar County. Heat-related illness happens when the body’s internal temperature control system becomes overwhelmed due to prolonged exposure to extremely high temperatures<sup>1</sup>. The body struggles to cool down by itself, possibly resulting in harm to the brain and other important organs<sup>1</sup>. Heat-related illnesses can include dehydration, heat cramps, heat exhaustion, heat strokes, and may result in heat-related deaths. Data is primarily collected weekly from emergency medical services (EMS) calls that identify cases as having exposure to heat, which are provided by South Texas Regional Advisory Council (STRAC)<sup>2</sup>.

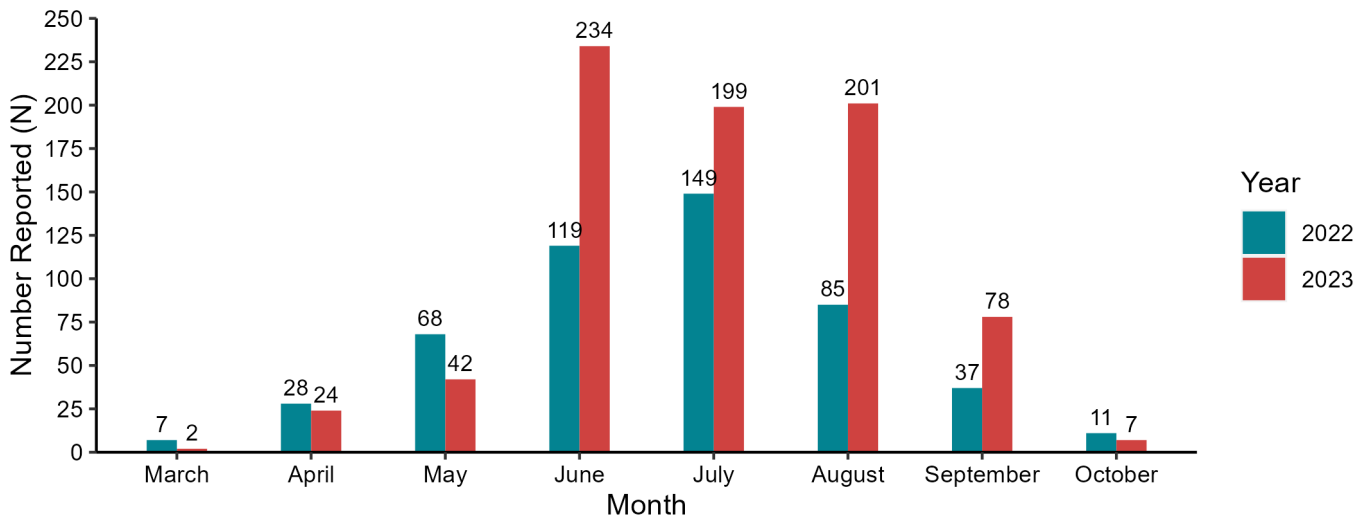
**Table 1. Health-Related Illnesses and Deaths Report: 03/12/2023 - 10/14/2023<sup>2</sup>**

<b>Week Ending</b>	<b>Dehydration</b>	<b>Heat Cramps</b>	<b>Heat Exhaustion</b>	<b>Heat Strokes</b>	<b>Heat Related Deaths</b>	<b>Total</b>
03/18/2023	0	0	1	0	N/A	1
04/01/2023	0	0	1	0	N/A	1
04/08/2023	0	0	4	0	N/A	4
04/15/2023	0	0	7	0	N/A	7
04/22/2023	0	0	5	2	N/A	7
04/29/2023	0	0	5	1	N/A	6
05/06/2023	0	0	9	1	N/A	10
05/13/2023	0	0	9	0	N/A	9
05/20/2023	0	0	8	0	N/A	8
05/27/2023	0	0	11	0	N/A	11
06/03/2023	0	0	10	2	N/A	12
06/10/2023	0	0	23	0	N/A	23
06/17/2023	0	0	56	0	N/A	56
06/24/2023	0	0	83	3	N/A	86
07/01/2023	0	0	66	3	N/A	69
07/08/2023	0	0	33	1	N/A	34
07/15/2023	0	0	68	1	N/A	69
07/22/2023	0	0	54	1	N/A	55
07/29/2023	0	0	23	0	N/A	23
08/05/2023	0	0	44	3	N/A	47
08/12/2023	0	0	59	1	N/A	60
08/19/2023	0	0	42	0	N/A	42
08/26/2023	0	0	47	1	N/A	48

Week Ending	Dehydration	Heat Cramps	Heat Exhaustion	Heat Strokes	Heat Related Deaths	Total
09/02/2023	0	0	20	1	N/A	21
09/09/2023	0	0	35	1	N/A	36
09/16/2023	0	0	10	0	N/A	10
09/23/2023	0	0	14	1	N/A	15
09/30/2023	0	0	10	0	N/A	10
10/07/2023	0	0	6	0	N/A	6
10/14/2023	0	0	1	0	N/A	1
3/18-10/14/23	0	0	764	23	N/A	787

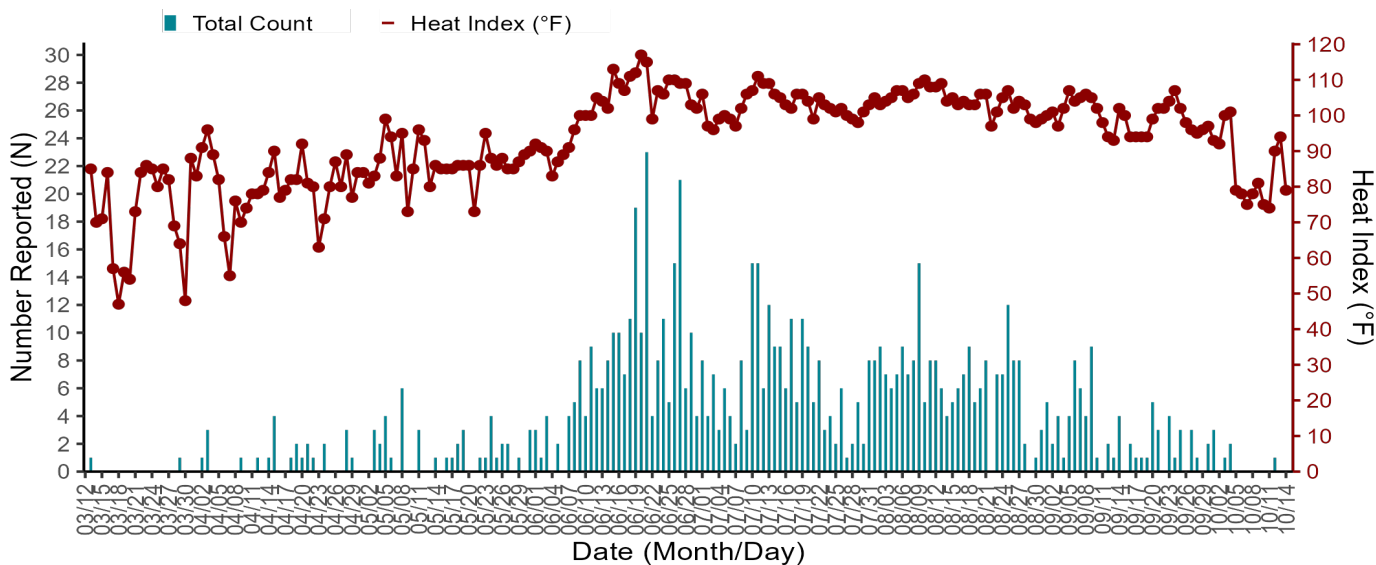
Note: N/A is the abbreviation for not available.

**Figure 1. Monthly Heat-Related Illnesses comparison for years 2022 and 2023, Bexar County: 03/12/2023 - 10/14/2023<sup>2</sup>**



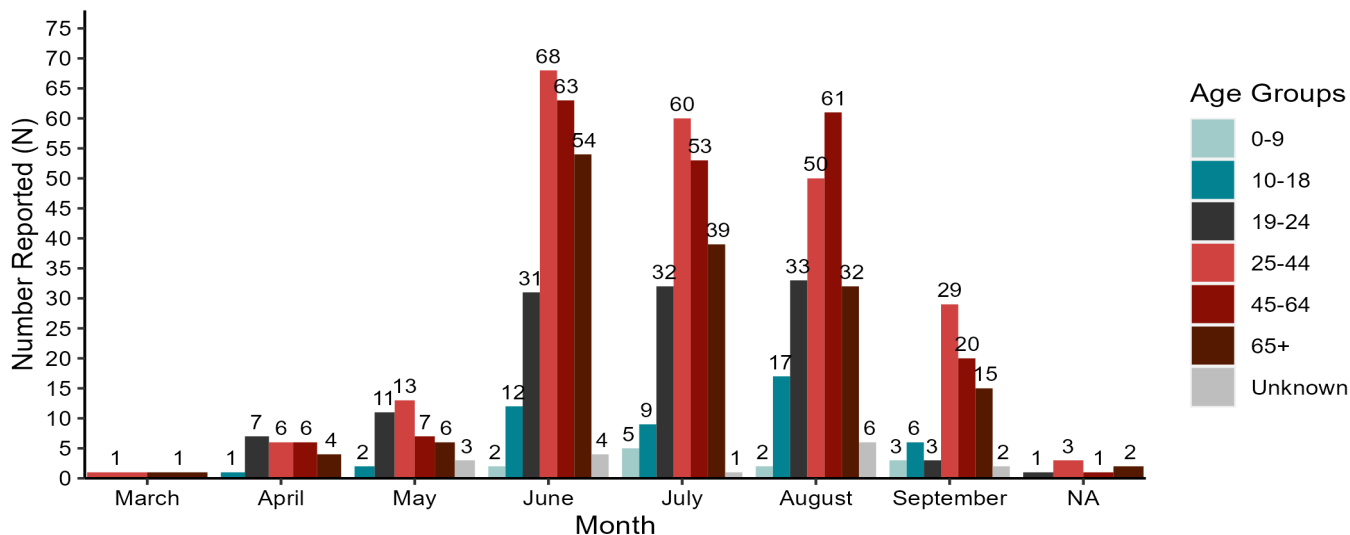
The bar graph in Figure 1 compares the monthly heat-related illnesses reported from the previous year 2022 to the current year 2023. In 2022, the number of heat-related illnesses reported in the months of March (7), April (28), and May (68) were greater than the same months in 2023 (2, 24, 42 heat-related illnesses respectively). However, in June 2023, there was an increase with 234 heat-related illnesses, surpassing 119 illnesses in June 2022. In July 2023, there were 199 illnesses, up from 149 illnesses in July 2022. August 2023, recorded 201 illnesses, compared to 85 illnesses in August 2022. In September 2023, 78 illnesses have been reported in contrast to the 37 illnesses in September 2022. As of this report, in October 2023, 7 illnesses were reported compared to the 11 illnesses for the same time period in October 2022. Overall, the heat-related illnesses increased in 2023 (787 illnesses) compared to 2022 (504 illnesses).

**Figure 2. Daily Heat-Related Illnesses and Heat Index, Bexar County: 03/12/2023 - 10/14/2023<sup>2</sup>**



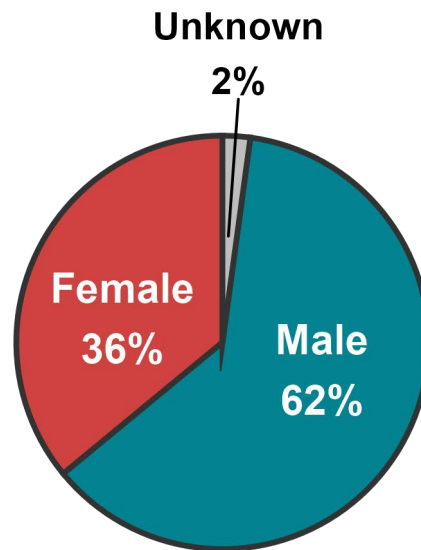
The graph presented in Figure 2 showcases the total number of heat-related illnesses alongside the corresponding heat index measured in degrees Fahrenheit. For the week of October 8 to October 14, 2023, the heat index and heat-related illness are reported as following: On October 9, 2023, the heat index was 81°F, with 0 heat-related illnesses. On October 12, 2023, the heat index rose to 90°F, with 1 heat-related illness. On October 14, 2023, the heat index was 79°F, with 0 illnesses reported. The average heat index for the previous week was 88°F and for the current week is 82°F. The average heat-related illnesses reported for last week was 0.86 and for this week is 0.14. The average heat index and the average number of heat-related illnesses both decreased this week. From March 12 to October 14, 2023, the highest heat-index recorded was 117°F and the highest number of heat-related illnesses reported were 23 in the month of June 2023.

**Figure 3. Monthly Heat-Related Illnesses by Age Group, Bexar County: 03/12/2023 - 10/14/2023<sup>2</sup>**



The bar graph in Figure 3 illustrates the monthly occurrences of heat-related illnesses in Bexar County, from March 12, 2023, to October 14, 2023, segmented to different age groups. In March, there were only two heat-related illnesses which occurred in the 25-44 age group (1) and 65+ age group (1). April, had the most heat-related illnesses occur in the 19-24 age group (7), followed by 25-44 age group (6) and 45-64 age group (6). In May, the 25-44 age group had the most illnesses with 13, followed by the 19-24 age group with 11 illnesses. In June and July, the age group of 25-44 had the most heat-related illnesses (68 and 60, respectively) followed by the 45-64 age group (63 and 53). In August, the age group of 45-64 had the most illnesses (61) followed by the 25-44 age group (48). For September, the 25-44 age group had the highest number of heat-related illnesses (29) followed by the 45-64 age group (20). In October, the 25-44 age group had most number of heat-related illnesses reported (3).

Figure 4. Heat-related illness by gender, Bexar County: 03/12/2023 - 10/14/2023 N= 787<sup>2</sup>



The pie chart in Figure 4. illustrates the percentage of heat-related illnesses categorized by gender in Bexar County, spanning from March 12 to October 14, 2023. Overall this season, males exhibited a higher incidence of heat-related illness (62%) compared to females (36%). Gender was unknown for 2% of the cases.

<sup>1</sup>Source: Centers for Disease Control and Prevention, National Center for Environmental Health

<sup>2</sup>Source: South Texas Regional Advisory Council (STRAC, RescueNet Reporting)