



Office of Surveillance & Public Health Preparedness
Program of Public Health Informatics
Heat Surveillance Monthly Report
July 2016 Report

Highlights

- Houston Health Department (HHD) conducts heat injury surveillance from March to September. This time period includes Spring and Summer seasons.

Heat Related Illness Emergency Center Visits

- An Emergency Center (EC) visit is counted as Heat Related Illness (HRI) when chief complaints include variations of heat exhaustion, heat stroke, heat cramps, overheating, etc. Most months heat exhaustion accounts for the majority of HRI EC visits.
- This season 208 EC visits were due to Heat Related Illness (HRI) from March 2016 to July 2016.
- From March 2016 to July 2016 EC visits due to HRI peaked in June. The highest count in any given day of HRI occurred on June 17 (n=12).
- Sixty-nine percent (69%) of EC visits for HRI occurred among males. The age-group that accounted for the most (69%) ED visits due to HRI is 18 to 64 years.
- EC visits due to HRI have occurred in ZIP codes across the Greater Houston Metropolitan Area. The ZIP codes with counts higher than five are 77015, 77478, and 77357.

Mortality

- From March to July 2016, there was zero (0) heat-related deaths in the Houston area.

Historical Review

- From 2013 to 2015, heat related deaths were more likely to occur when the average maximum temperatures was above 90 degrees Fahrenheit.
- From 2013 to 2015, the average number of mortalities during the Spring and Summer seasons was 4 (range 2 to 6).

Announcements

- City of Houston activates the Heat Emergency Plan after two consecutive days when the heat index reaches 108 or above. Cooling center information is [here](#).
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Table 1. Occurrence of Heat-Related Events in Houston, 2013 to 2016

| Year | 2013 | 2014 | 2015 | 2016 |
|---|------------|------------|------------|------------|
| Heat related illness ^(a) | 144 | 151 | 221 | 208 |
| Heat related mortalities ^(b) | 6 | 2 | 4 | 0 |
| Total | 150 | 153 | 225 | 208 |

(a) Heat related illness for 2016 are from 03/20/2016 to 07/31/2016

(b) Heat related deaths for 2016 are from 03/20/2016 to 07/31/2016

Table 2. Heat Related Illness (HRI) Emergency Center visits by type, 2016

| HRI Type | Proportion |
|-----------------|-------------|
| Heat stroke | 5% |
| Heat cramp | 2% |
| Heat exhaustion | 23% |
| Overheating | 6% |
| Other | 63% |
| Total | 100% |

Figure 1. Heat Related Illness (HRI) Emergency Center visits per month, 2016

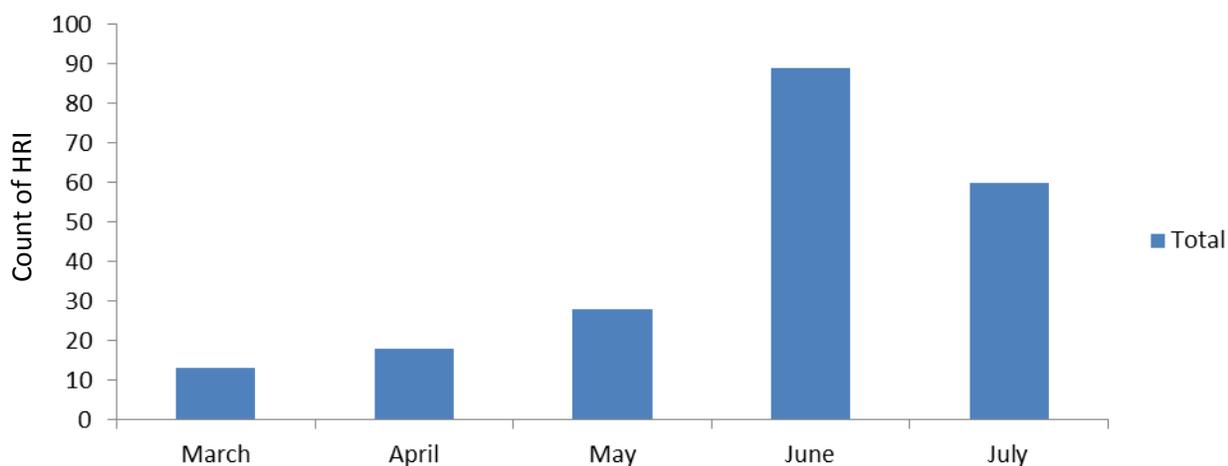
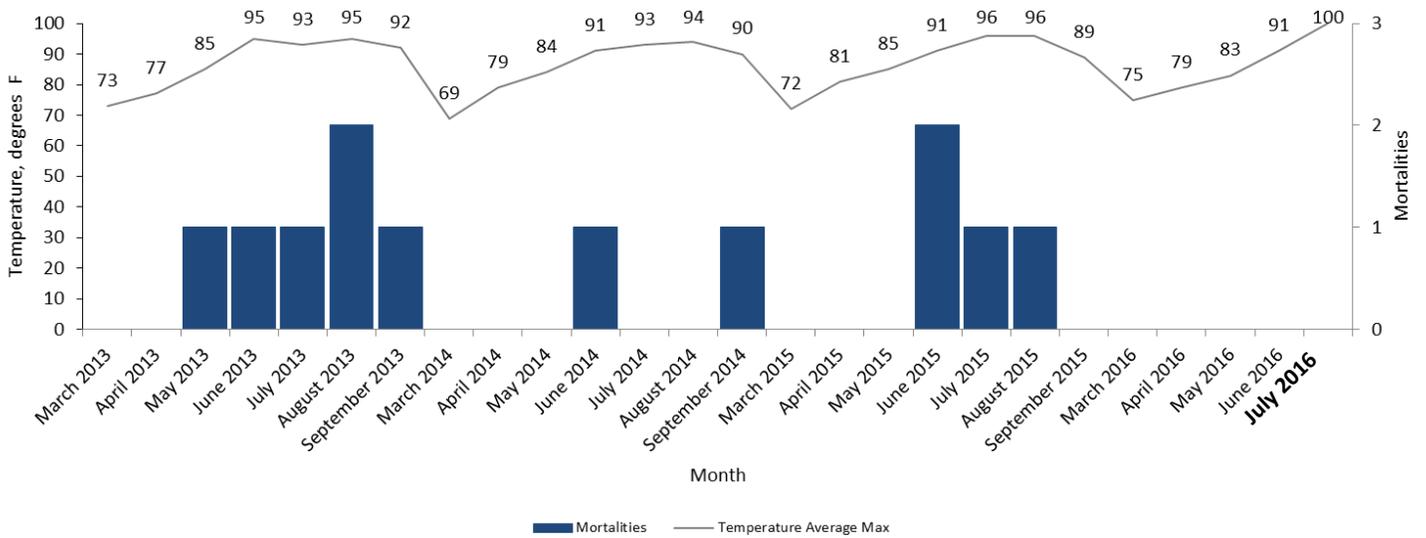


Figure 2. Heat related deaths ^c by month, 2016



^c A heat related death is defined as a death whose primary cause is related to excessive heat.

Figure 4. Map of Heat Related Illness in Greater Houston Metro Area, March 2016 to July 2016

| ZIP | HRI Count |
|-------|-----------|
| 77015 | 10 |
| 77478 | 8 |
| 77357 | 6 |
| 77020 | 5 |
| 77029 | 5 |
| 77036 | 5 |
| 77044 | 5 |
| 77379 | 5 |
| 77506 | 5 |
| 77520 | 5 |

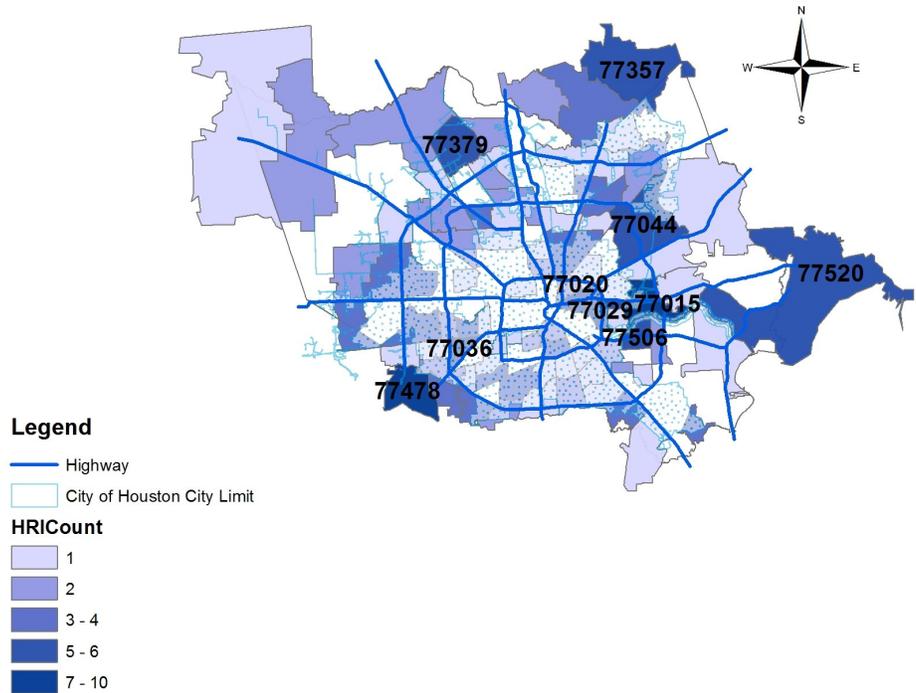


Figure 5. Age distribution of Heat Related Illness

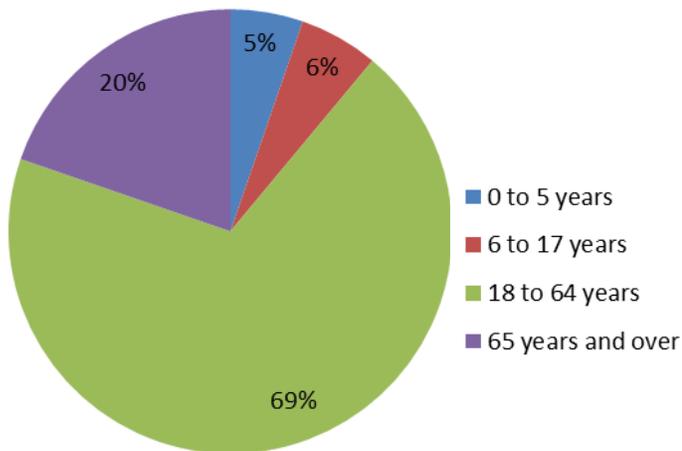
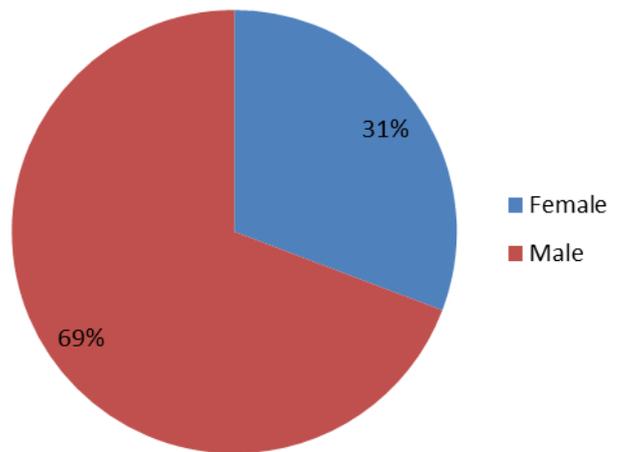


Figure 6. Gender distribution of Heat Related Illness



Tips for Prevention of Heat-related Illness

The Houston Health Department (HHD) recommends Houstonians begin taking precautions against high temperatures to avoid heat-related illnesses. High body temperatures can lead to damage to the brain or other vital organs and even death.

What Can You Do?

Stay cool.

- Find an air-conditioned shelter
- Avoid direct sunlight
- Wear lightweight, light-colored clothing
- Take cool showers or baths
- Do not rely on a fan as your primary cooling device

Stay hydrated.

- Drink more water than usual
- Don't wait until you're thirsty to drink more fluids
- Avoid alcohol or liquids containing high amounts of sugar
- Remind others to drink enough water

Stay informed.

- Check local news for extreme heat alerts and safety tips
- Learn the symptoms of heat illness

For more information regarding prevention tips for heat-related events, please visit [HHD website](#) or [CDC website](#)

The Houston Heat Surveillance Annual Report is available on the Houston Health Department web site [here](#).

NOTE: Additional information regarding extreme heat can be accessed [here](#).

NOTE: Data for Heat Related Illness is obtained from RODS system. The system retrieves Emergency Center chief complaint data from over 35 emergency centers in the Greater Houston Metropolitan Area.

NOTE: Data for Heat Mortalities is obtained from the Harris County Institute of Forensic Sciences

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