

**Houston Department of Health and Human Services
Office of Surveillance and Public Health Preparedness
Bureau of Epidemiology**

**Heat Surveillance Report
August 28, 2008**

Summary

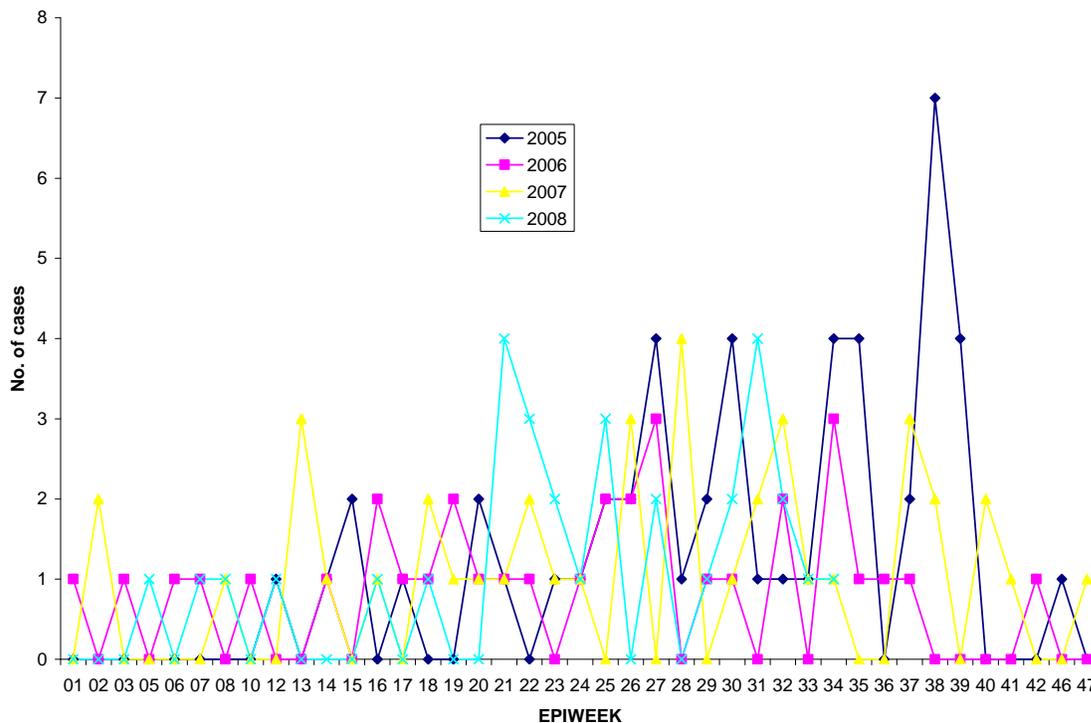
Introduction

- Houston has a humid subtropical Climate. The warmest month on the average is July at 85°F and the coldest month being January at 54 °F .
- Summer in Houston is hot and humid. The average daily high temperature peaks at 94°F at the end of July, with an average of 99 days per year above 90°F
- Exposure to extreme heat is associated with morbidity (Heat Cramps, Heat Exhaustion, and Heat Stroke) and occasionally mortality.
- Routine reporting for heat surveillance has been poor
- Using the Real time online Disease Surveillance System (RODS), we are able to extract hospital chief complaints that are surrogates for heat related Emergency Room visits.

Results

- **The Graph shows heat related morbidity 2005 – 2008**

Heat Related Morbidity Trends in Houston / Harris County 2005 - 2008



- The graph does not show an unusual trend compared to previous years and continues to match temperature patterns

**Heat Related Mortality in Houston and Harris County:
2003-2008**

	Harris County*	Houston
	Counts	Counts
2003	11	8
2004	8	3
2005**	1	0
2006	6	4
2007	2	2
2008	5	5

* Harris County counts include Houston

** Does not include deaths associated with the evacuation for Hurricane Rita

Notes: Data for 2005-2007 received directly from the Harris County Medical Examiner's Office. Data for 2004 obtained from Final Stats 2004 from Steve Long. Data for 2003 obtained from HIR Report 2003 by Shailija Menon forwarded by Steve Long.

Summary for Heat-Related Deaths Occurring in Houston: 2003-2007

Of the 22 heat-related deaths reported in Houston, 73% were male (16/22). Twenty seven (27%) percent were Black (6/22), 41% were White (9/22), and 32% were Hispanic. Age ranged from 8 months to 84 years, with one decedent of unknown age. Thirty-seven percent were 40 to 54 years of age (6/16) and an additional 43% were over 55 years (9/22). Three was under 5 years and three were 15-25 years.

Limited information on activities surrounding the deaths is available. Forty-six percent were reported as engaged in work activities (10/22) and 25% (6/22) were reported in residences without air conditioning. In two of these cases, the electricity had been turned off. Two death occurred in a children found unresponsive in vehicle.

2003

Of the 8 deaths, 2 were females and 6 were males. Four were Black and four were White. Four were involved in a work activity (2: mowing the lawn, 1: in cab of 18-wheeler without a/c, 1: fell at work after becoming overheated). One additional death occurred outdoors after playing racquetball. Two had no air conditioning, and a third had the electricity turned off. The decedents ranged from 16 to 85 years, with all but one being aged 45 and above.

2004

Of the 3 deaths, one occurred in May and two in July; all were in males. One was Black and two were White. One was found unresponsive at work, one was found unresponsive at a residence, and one was witnessed collapsing over an embankment. One was a 22 year old male and a 44 year old male. The age of the third decedent was unknown.

Five additional deaths occurred in Harris County, outside of Houston. Two occurred in May and one each in June, July, and August. One was found unresponsive inside a vehicle. Two occurred outdoors (mowing lawn, helping a friend move). Two deaths occurred indoors, (working in an attic, living with electricity shut off). One was a small child, the remainder ranged in age from 47 to 84 years.

2005

There was no heat-related death reported in Houston, however, one heat-related death was reported in a Harris County resident in June. Decedent was a 78 year old white male who collapsed while working in a residence without a/c units.

2006

Four heat-related deaths occurred in Houston, 3 in July and 1 in August. Two were female, two were male. Two decedents were Hispanic, one was White, and one was Black. Two were involved in work

activities (putting in a sprinkler system, working in a closed up home). One was a small child found unresponsive in a vehicle. One was found in a home with a broken a/c unit.

Two additional heat-related deaths occurred in Harris County, outside of Houston, both in July. One was a seven week old white female found unresponsive in a vehicle. The other was a 44 year old black male who was collecting trash.

2007

Two heat-related deaths were reported in Houston in 2007. Both decedents were Hispanic males over 50 years of age. One male was found outside and unconscious; acute cocaine toxicity was a contributing factor to his death. The other male collapsed while working outside.

2008 (as of August 28, 2008)

There was a mortality reported during the past week. This brings to 5 the total number reported till date. Of the five deaths, one occurred in March, two in May, and two in July. Three were males and two were females. One was Asian, two were White, and two were Hispanic. One was an eight months old Asian female found unresponsive in a vehicle. The other was a two year old child, a 22 year old and two others were over 70 years of age.