

Leading Causes of Death in Harris County, Texas

August 2011

Hear disease, cancer, stroke, accidents and chronic lower respiratory disease are the top five leading causes of death in the U.S and in Harris County (see Table 1). A common thread among them all is their tendency to cause disability, poor health or diminished quality of life at later life stages when death is not the immediate outcome. A premature infant who survives is at greater risk of life-long disabilities than an infant not born prematurely. Similarly, when a teenager suffers a severe traumatic brain injury as a result of a motor vehicle accident, life-long disability is likely to occur.

Table 1: Leading Causes of Mortality, Harris County, 2008

Top 5 Causes of Death	Total Deaths	Mortality Rate*
Heart Disease	4,924	196.1
Cancer	4,896	177.3
Stroke	1,195	49.5
Accidents	1,373	41.1
Chronic Lower Respiratory Disease	870	36.2
All Causes	21,922	693.5

*Deaths per 100,000 persons, age-adjusted to the 2000 Standard population.

Source: Texas Department of State Health Services, Center for Health Statistics

Leading causes of death differ by race and ethnicity. For example, while diabetes is not considered one of the top five leading causes of death overall in Harris County, death due to diabetes ranked 4th in 2008 for both African-Americans and Hispanics (see Table 2).¹

Table 2: Leading Causes of Mortality by Race/Ethnicity, Harris County, 2008

Cause of Death	Mortality Rate and (Rank)		
	White	Black	Hispanic
Heart Disease	223.1 (1)	217.8 (2)	131.6 (1)
Cancer	190.5 (2)	227.9 (1)	124.3 (2)
Stroke	48.9 (5)	64.2 (3)	41.2 (3)
Accidents	74.8 (3)	17.3 (11)	18 (7)
Chronic Lower Respiratory Disease	49.7 (4)	26.5 (7)	11 (11)
Diabetes	21.3 (8)	36.2 (4)	31.3 (4)
Septicemia	20.7 (9)	34.6 (5)	18.9 (6)
Alzheimer's Disease	26.2 (6)	16.3 (12)	14 (10)
Kidney Disease	17.4 (11)	32.4 (6)	23.4 (5)
Influenza and Pneumonia	15.5 (12)	23.8 (8)	17.8 (8)
Chronic Liver Disease and Cirrhosis	11.8 (13)	7.5 (15)	17.5 (9)
Suicide	25.9 (7)	1.8 (24)	2.5 (18)
Homicide	19.1 (10)	8.3 (13)	3.9 (14)
All Causes	802.8	797.9	492.4

*Deaths per 100,000 persons, age-adjusted to the 2000 Standard population.

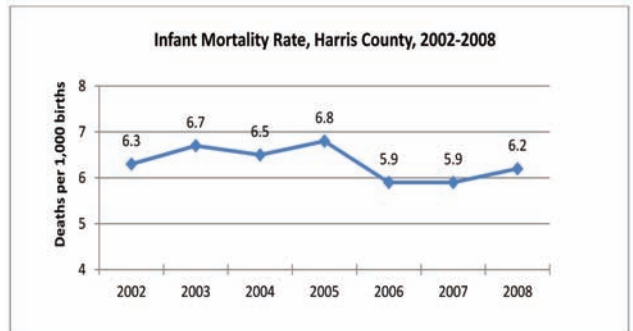
Source: Texas Department of State Health Services, Center for Health Statistics

Even further, leading causes of death vary by life stage. For example, vital statistics¹ data for Harris County in 2008 show that injury is the leading cause of death among children and adolescents; whereas heart disease and cancer are the primary leading causes of death for adults. This profile highlights primary causes of death at each stage across the lifespan among Harris County residents, as well as some of the reasons they occur.

Infants

Birth defects, low birth weight and Sudden Infant Death Syndrome are the leading causes of infant mortality in Harris County.

In 2008, the rate of infant mortality (i.e. death before age one) was 6.2 deaths per 1,000 births in Harris County. This rate is comparable to the State rate, which is 6.1 per 1,000 births.² While this data is not yet available for the U.S., the national rate in 2007 was 6.75 per 1,000 per births.³



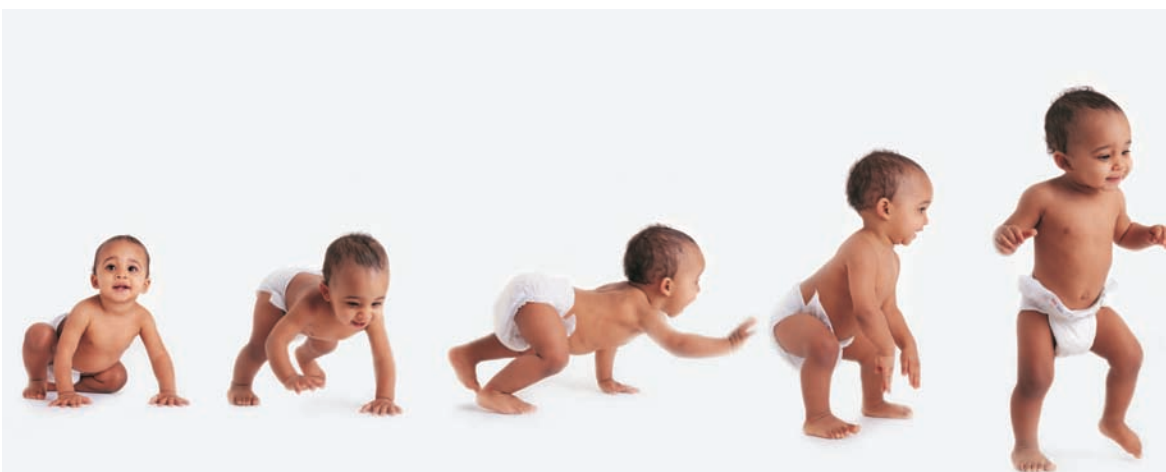
Source: Texas Department of State Health Services, Center for Health Statistics

There are differences in infant mortality rates among racial groups. Reflecting national trends, the 2008 infant mortality rate among African Americans in Harris County was 9 per 1,000 births, compared with 8.2 per 1,000 births among whites and 4.6 deaths per 1,000 births among Hispanics.

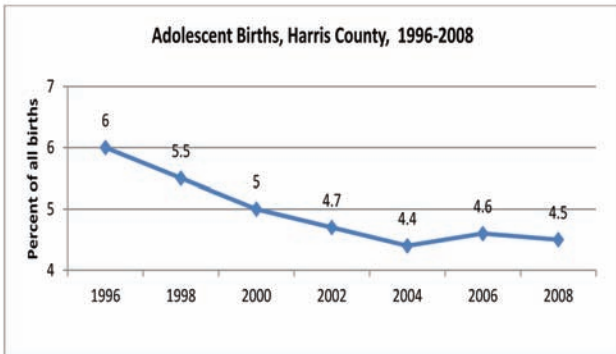
Underlying factors

Infant health is largely shaped by maternal factors during pregnancy. **Adequate prenatal care** is associated with healthy pregnancy outcomes, while receiving late or no prenatal care has been linked with low birth weight, premature birth and infant mortality.

Texas Department of State Health Services (DSHS) reports that in 2008, 54% of Harris County women received prenatal care during the first trimester, compared to the State rate of 58.4%.⁴ In Harris County during 2006-2008, African American mothers had the highest rates of late or no prenatal care, 15.3%, compared to mothers of other race and ethnicity categories.



Low birth weight (LBW), a condition also associated with maternal factors during pregnancy, occurs when a newborn's weight at birth is less than 5.5 pounds. LBW can lead to developmental disorders such as cerebral palsy, mental retardation and vision and hearing loss according to TDSHS.



Source: Texas Department of State Health Services, Center for Health Statistics

The rate of LBW among infants has grown more than 18% in Harris County in 2008 compared to 2000. TDSHS data report that 6,303 or 8.8% of Harris County infants born in 2008 were LBW or very LBW. This compares to a rate of 8.4% for Texas and 8.18% for the U.S.⁴

Finally, **infants born to teenage mothers** are at greater risk of low birth weight, disability and mortality during the first year of life. According to TDSHS, teenage mothers are less likely to receive adequate prenatal care, less likely to gain adequate weight during pregnancy and more likely to smoke than older mothers.

Vital statistics data show that there were 3,240 births to mothers age 17 and under in Harris County in 2008.⁴ This represents 4.5% of all Harris County births. In comparison, the State rate was 4.9% of all births. Among Harris County teen births, 71% of the mothers were Hispanic, 19% were African American and 10% were white.

Children & Adolescents

The fewest number of deaths occur among children and adolescents combined compared to deaths among infants, adults and older adult; death at this life stage accounted for 1% of all deaths in Harris County in 2008.¹ Children are defined here as those aged 1-12; adolescents are aged 13-17.

Injury, either intentional or unintentional was consistently ranked the top leading cause of death among children and adolescents in Harris County in recent years. In 2008, the rate of death due to unintentional injury is 5.9 per 100,000 among children and 11.4 per 100,000 among adolescents; both rates are higher than rates due to intentional injury in each respective age group.



Homicide however was the 2nd leading cause of death among adolescents and the 3rd ranked cause among children in 2008. The rate of death due to homicide was 2.1 per 100,000 children and 6.9 per 100,000 adolescents. In addition, the death rate due to intentional self-harm, i.e. suicide, was 5.2 per 100,000 adolescents in 2008 placing suicide as the 3rd leading cause of death in this age group. Eighty percent of adolescent suicide deaths occurred among males.

In Texas, firearms were the instrument of death in 76% of teen homicides and 47% of teen suicides in 2007.⁵

Underlying factors

A closer look at the underlying causes of unintentional injury among children and adolescents in Harris County reveals that **transportation accidents** and **accidental drowning** are the primary reasons for injury death. In 2008, 34 deaths occurred among persons ages 1-17 due to transportation accidents, most of which were motor vehicle crashes. This represents 40% of all deaths in this age group. Twenty-three percent of deaths (19 persons) in this age group occurred as a result of accidental drowning.

On the other hand, death due to intentional injury in children and adolescents, whether it is suicide or homicide is related to many risk factors, one of which is **mental illness** in both youth and adults. According to the U.S. Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health, 4.4% of persons ages 18 or older experienced major depressive episode in the past year in Harris County based on a 2005-2007 annual average.⁶ This compares to an estimate of 7.7% for youth ages 12 to 17.

Adults and Older Adults

Deaths among adults and older adults make up approximately 35% and 61% of all deaths respectively in Harris County. Adults are defined here as those ages 18-64; older adults are age 65 and older.¹ The leading causes of death for these age groups, heart disease and cancer, are consistent with the leading causes of death in Harris County overall (see Table 1). In 2008, cancer is ranked first followed by heart disease among adults while heart disease is ranked first followed by cancer in older adults.



There were 1,353 deaths among adults in 2008 due to heart disease, which is equivalent to a rate of 52.5 per 100,000. Sixty-eight percent of deaths due to heart disease occurred among adult men. For older adults, there were 3,558 deaths due to heart disease, or 1,181.1 deaths per 100,000. Forty-eight percent of these deaths were among older men.

Cancer is responsible for 1,913 deaths among adults and 2,943 deaths among older adults in 2008. This translates to a death rate of 74.3 per 100,000 adults and 976.9 per 100,000 older adults in Harris County. The proportion of cancer deaths by gender is split almost evenly in both age groups. Among women, breast cancer is the second leading cancer killer, while prostate cancer accounts for the second highest number of cancer deaths among men. Lung cancer is the leading cancer killer in both men and women.⁷

Other leading causes of death differ substantially in rank for adults compared to older adults. For example, in 2008 death due to influenza and pneumonia ranked 10th among older deaths with a rate of 104.2 per 100,000 compared to a rate of 3.5 per 100,000 and a ranking of 13 among adults.



Underlying factors

What lies below the surface of the leading causes of death are modifiable behaviors that are considered actual causes of death. According to the American Medical Association, **tobacco** followed by **physical inactivity** and **poor nutrition** are the leading actual causes of death⁸ driving much of the mortality observed in adults and older adults. For more information on these and other related risk factors, see the data profile on chronic disease.

Data Sources:

1. Texas Department of State Health Services (DSHS), Center for Health Statistics. Unpublished data, accessed June 2011.
2. DSHS, Center for Health Statistics. Texas Health Data: Death Tables, <http://soupfin.tdh.state.tx.us/deathdoc.htm>, accessed May 2011.
3. Centers for Disease Control and Prevention (CDC), FastStats, <http://www.cdc.gov/nchs/fastats/>, accessed July 2011.
4. DSHS, Center for Health Statistics. Texas Health Data: Birth Data, <http://soupfin.tdh.state.tx.us/birthdoc.htm>, accessed July 2011.
5. CDC, WISQARS Injury Mortality Reports 1999-2007, accessed July 2011.
6. Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health. Unpublished data, accessed September 2009.
7. DSHS, Texas Cancer Registry, <http://www.dshs.state.tx.us/tcr>, accessed July, 2011.
8. Mokdad et al. "Actual Causes of Death in the U.S., 2000." *JAMA*. 291, no.10 (2004):1238-1245.