



Austin/Travis County Health and Human Services Department



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April 22, 2015

Dear Community Partner and Stakeholder:

The Austin/Travis County Health and Human Services Department produced the attached 2015 Critical Health Indicators Report to illustrate health conditions and disparities in Travis County. We encourage you to use the Critical Health Indicators report as a resource to guide planning and education efforts as well as to inform policy development, communication, and education.

A/TCHHSD epidemiologists, analysts, and planners developed this report based on data from national sources as well as local morbidity and mortality reports. The purpose of this report is to inform and provide health indicators including trends and basic disparity information. The context of this information and multiple determinants of health are important to remember in order to address and develop initiatives and strengthen existing programs.

As we advance with Community Health Improvement Planning and collaborative planning efforts, we may utilize this information to advance our community's health and wellness.

The online Critical Health Indicators report is accessible at www.austintexas.gov/health. For questions or comments, contact my office 512-972-5010.

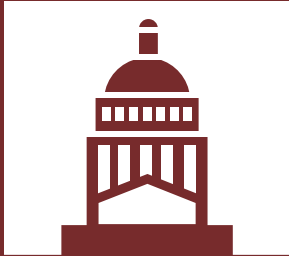
Sincerely,

A handwritten signature in blue ink, appearing to read "Shannon Jones, III".

Shannon Jones, III

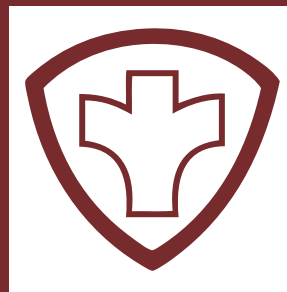
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Austin/Travis County Health and Human Services Department



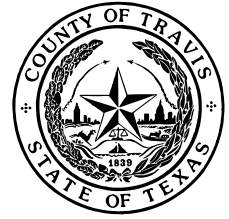
Austin/Travis County Health and Human Services Department

2015 Critical Health Indicators Report





Austin/Travis County Health and Human Services Department



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Executive Summary

Travis County is home to over one million people. Every day, we hear or learn of serious public health problems such as the obesity epidemic, higher rates of diabetes, cancer and heart disease, outbreaks of communicable diseases, the emergence of new influenza virus strains, and the persistent disparities in health status among various population groups.

The 2012 Critical Health Indicators Report, published in April 2012, represented the Austin/Travis County Health and Human Services Department's initial efforts to gather, analyze, and present information on adverse health conditions that affect the county's population. The 2015 Critical Health Indicators Report provides an updated overview of the health of the county's population.

Information in the 2015 report was primarily obtained from the United States Census Bureau, Texas Department of State Health Services, the Texas Behavioral Risk Factor Surveillance Survey, and from morbidity and mortality reports collected by the Disease Prevention and Health Promotion Division. Both Critical Health Indicators reports were prepared by epidemiologists and staff in the Disease Prevention and Health Promotion Division using the most recent county, state, and national data available.

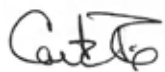
Readers of both reports will note changes in the occurrence or trend of some health indicators and will note no changes for others. As noted in the 2012 report, the top three causes of deaths in 2008 were due to cancers, heart disease and accidents; these were still the leading causes of death in 2011. Cancer mortality rates for lung and colon cancers have decreased from 2008 to 2011. However, mortality rates for prostate and breast cancers have basically stayed the same. The trend in rates for sexually-transmitted infections varies. Human immunodeficiency virus (HIV) incidence rates have stayed the same. The incidence rate of primary and secondary syphilis for males has increased, while rates for females have decreased. From 2008 to 2012, incidence rates for acute hepatitis A and acute hepatitis B have each decreased over 40%.

Improvements in prenatal care have been achieved. In 2008, mothers for 40% of the births had late or no prenatal care. This has decreased to 31% in 2011 with the greatest improvement seen for Hispanic mothers. The 2012 report notes many health disparities that exist for specific populations within Travis County. Unfortunately, these disparities still exist.

Regrettably, suicide still kills about 100 Travis County residents each year.

We hope the report serves as a resource for clinicians, healthcare policy makers, media professionals, the public, and others who seek health data about the population of Travis County. Most importantly, the report helps the public health and medical communities develop intervention and prevention strategies to measurably improve the quality of life for everyone in Travis County.

Respectfully,



Carlos Rivera, MPH, MBA, LCSW

Director

Austin/Travis County Health and Human Services Department

Acknowledgements

The expertise and contributions of the following persons who prepared and wrote various sections made the 2015 Critical Health Indicators Report possible.

Saeed Azadi
Heather Cooks-Sinclair
Jessie Patton-Levine
Sherry Lyles
Jeffery Taylor

The efforts of Matthew Pichette in creating the cover are greatly appreciated.

Introduction

The 2015 Critical Health Indicators Report provides important information regarding the current health status of our county's population.

When we look at the leading causes of death in our community, chronic diseases such as cancer, heart disease, stroke, chronic lung disease and diabetes account for nearly three out of four of the deaths in Travis County. Cancer is the number one killer in Travis County, and lung cancer is the leading cause of cancer death among the cancers, with almost 90 percent of lung cancers due directly to smoking. Lack of physical activity and poor nutrition are the other major causes of these costly, preventable chronic diseases.

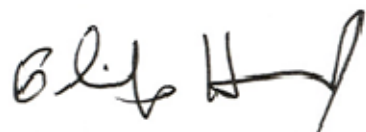
The health disparities in our community are another key finding in this report. Some specific disparities that stand out include:

- Black Americans have disproportionately higher rates of HIV and other sexually transmitted diseases and are more likely to die from HIV than other groups.
- The infant mortality rate for Blacks was two to three times higher compared with Whites, and babies born to black mothers are more likely to be premature and have low birth weight.
- Blacks have a higher prevalence of cardiovascular disease than Whites and Hispanics, but both Blacks and Hispanics have higher rates of diabetes than Whites.
- When comparing the raw number of teen births in Travis County, Hispanics had over seven times the number of teen births compared to Whites and approximately six times the number of teen births compared to Blacks.
- By contrast, 82 percent of suicides occurring in the City of Austin are committed by Whites.

Other key findings of the report include:

- Since 2003, the number of primary and secondary syphilis cases in Travis County has increased over 300 percent. Almost 95 percent of reported cases are among males.
- Foodborne disease rates in Travis County are significant and reflect the importance of continued environmental health control activities.

The Austin/Travis County Health and Human Services Department continues to address these issues and to try to “make the healthy choice the easy choice.” We hope this report will bring more attention to the importance of addressing some of these important public health issues in our community.



Philip Huang, MD, MPH
Medical Director/Health Authority

1.0 Demographic Characteristics

In 1990, Austin was ranked as the 25th largest city in the United States. In 2012, twenty-two years later, the City of Austin was ranked as the 11th most populated city in the United States. Austin is the fourth most populated city in Texas following the cities of Houston, San Antonio, and Dallas.

From 2007 to 2012, the City of Austin population increased 12.4% with a population increase of approximately 20,000 people per year. Table 1.1 shows selected demographic characteristics for the populations of the City of Austin, Travis County, and the State of Texas. Approximately 840,000 people reside in the City of Austin. The City of Austin population comprises about 3% of the State of Texas population. The median age of the city's population is 31.7 years. Twenty-two percent of the population is younger than 18 years and 7% are 65 years of age or older. In Austin, 37.2% of the population is 15 to 34 years of age compared with 29.0% of the Texas population. A majority (76.9%) of people living in Austin is white; most (66.0%) are non-Hispanic. From 2007 to 2012, the percentage of Blacks in the population decreased slightly from 8.3% to 7.8%. Conversely, the percentage of Asians in the population increased slightly from 5.8% to 6.4%. Spanish is spoken at home in 24.3% of the households in Austin compared with 29.8% of the households in Texas. Chinese and Vietnamese are spoken in 1.3% and 1.0% respectively of the Austin households.

In 2012, there were an estimated 331,000 households in the City of Austin. The average household size was 2.5 persons. About a quarter (25.2%) of all households have one or more persons under the age of 18 years. Among the civilian non-institutionalized population in 2012, 9% reported a disability. Over a third (35%) of those people 65 years of age or older reported a disability.

Table 1.2 shows various aspects of educational attainment, poverty, and health insurance coverage for the populations of Austin, Travis County, and the State of Texas. Generally, the Austin population has attained a higher level of education. The percentage of the Austin population 25 years of age or older who have attained a bachelor's, graduate, or professional degree is 45.5% compared with 26.7% of the Texas population 25 years of age or older.

Overall, 20.3% of the Austin population is living below the poverty level. The median income of households was \$52,453. From 2007 to 2012, the percent of households with income below \$15,000 increased slightly from 8.1% to 10.5%.

Overall, 20.3% of the Austin population lacks health insurance. Approximately 10% of the civilian non-institutionalized population less than 18 years of age lacks health insurance. Hispanic or Latinos are more than twice as likely to have no health insurance compared with Whites. This disparity is also seen for the Texas population.

Table 1.1. Selected Demographic Characteristics, City of Austin, Travis County, and Texas, 2012

Population Characteristic	City of Austin		Travis County		Texas
	Number	%	Number	%	%
	842,595	100.0	1,095,584	100.0	100.0
Gender					
Male	424,725	50.4	552,618	50.4	49.7
Female	417,840	49.6	542,966	49.6	50.3
Age					
Under 5 years	58,339	6.9	79,224	7.2	7.4
Under 18 years	182,530	21.7	260,108	23.7	26.8
15 to 34 years	313,856	37.2	372,475	34.0	29.0
65 years and over	61,099	7.3	112,467	10.3	10.9
Race					
White	647,851	76.9	850,287	77.6	75.0
Black/African American	65,431	7.8	92,124	8.4	11.9
American Indian/Alaska Native	5,272	0.6	6,192	0.6	0.5
Asian	54,084	6.4	63,593	5.8	4.0
Other/Two or more races	69,957	8.3	83,388	7.6	8.6
Ethnicity					
Not Hispanic or Latino	555,745	66.0	724,843	66.2	61.8
Hispanic or Latino (of any race)	286,850	34.0	370,741	33.8	38.2
Language Spoken at Home					
Population 5 years and over	784,256		1,016,360		
English only	534,288	68.1	697,198	68.6	64.8
Spanish	190,753	24.3	246,664	24.3	29.8
Other non-Spanish languages	59,215	7.6	72,498	7.1	5.4
Place of Birth					
Born in the United States	690,336	81.9	904,400	82.5	83.6
Foreign Born	152,259	18.1	191,184	17.5	16.4

Data Source: American Community Survey 2012 1-year estimates

Table 1.2. Educational Attainment, Poverty Status, and Health Insurance Coverage of Population, City of Austin, Travis County, and Texas, 2012

Population Characteristic	City of Austin		Travis County		Texas
	Number	%	Number	%	%
	842,595	100.0	1,095,584	100.0	100.0
Educational Attainment					
Population 25 years and over	548,469		711,001		
No high school diploma	72,823	13.3	93,930	13.2	18.6
High school graduate, includes equivalency	91,797	16.7	119,889	16.9	25.2
Some college or Associates degree	134,613	24.5	179,317	25.2	29.5
Bachelor's degree	162,033	29.5	206,925	29.1	17.7
Graduate or professional degree	87,203	15.9	110,940	15.6	9.0
Poverty Status over the Last 12 Months					
Persons under 18 years of age		30.0		26.4	25.8
All People		20.3		18.4	17.9
All Families		17.8		16.1	14.0
Health Insurance Coverage					
Civilian non-institutionalized population	837,661		1,087,905		
With health insurance coverage	667,282		879,122		
No health insurance coverage	170,379	20.3	208,783	19.2	22.5
Civilian non-institutionalized population under 18 years of age	182,330		259,894		
No health insurance coverage	18,935	10.4	25,457	9.8	12.4
White alone, not Hispanic or Latino	414,058		543,499		
No health insurance coverage	55,795	13.5	63,341	11.7	13.2
Hispanic or Latino (of any race)	285,918		368,802		
No health insurance coverage	93,228	32.6	117,604	31.9	34.4

Data Source: American Community Survey 2012 1-year estimates

2.0 Health Disparities

Healthy People 2020 defines a *health disparity* as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.”¹

The incidence or occurrence of many adverse health conditions does not occur randomly in the population. Incidence rates for many conditions are higher when comparing race/ethnicity groups, gender, geographic areas, age groups, and other demographic groups. Health disparities primarily affect Blacks, Hispanics, those in geographically underserved regions, and low-income individuals and families. Recognizing and identifying health disparities provides the bases for the reduction or elimination of health disparities.

Highlighted below are disparities among different populations in Travis County related to some key adverse health conditions.

Sexually-transmitted diseases

Black Americans have been disproportionately affected by the human immunodeficiency virus (HIV) epidemic.² In Travis County, the prevalence rate of HIV infections among Black males is twice the rate compared with White males. More disproportionately, the prevalence rate of HIV among Black females is over 12 times higher compared with White females. Concurrently, Blacks are more likely to die from HIV than others. The age-adjusted mortality rate for Blacks (14.6 deaths per 100,000 population) is over nine times higher compared with the age-adjusted mortality rate for Whites (1.6).

During 2011 and 2012, incidence rates for gonorrhea among Blacks were eight to 10 times higher compared with Whites. In 2012, the incidence rate for Black males (690.7 cases per 100,000 population) was over six times higher compared with White males (103.0). A greater disparity was seen comparing females. The rate for Black females (552.3) was over 13 times greater compared with White females (40.8).

Males compared with females are disproportionately impacted by syphilis. In 2012 in Travis County, the incidence rate in males (23.4 cases per 100,000 population) was 18 times greater compared with the rate in females (1.3 cases per 100,000 population). This difference in rates is increasing. Since 2008, incidence rates for males have increased 54% while incidence rates for females decreased 52%.

¹ About Healthy People, United States Department of Health and Human Services, Washington, DC, <http://www.healthypeople.gov/2020/about/DisparitiesAbout.aspx>.

² Centers for Disease Control and Prevention, HIV in the United States: At a Glance. <http://www.cdc.gov/hiv/statistics/basics/ataglance.html> December 2013.

Besides gender, a disparity in syphilis rates is also seen when comparing race and ethnicity. During 2008-2012, annual incidence rates of syphilis were two to five times higher in Blacks compared with Whites.

Tuberculosis

TB disease disproportionately affects Hispanic and Other populations in Travis County. Hispanics comprise 34% of population, yet Hispanics represent 46% of TB cases. And, while persons of Other races comprise 8% of population, 32% of TB cases are in the Other population.

Maternal, Child and Adolescent Health

In the United States, different racial and ethnic groups have very different infant mortality patterns. In the United States, rates of infant mortality and premature births are higher in Black, non-Hispanics.³ These differences also are seen in Travis County. During 2006-2010, the infant mortality rate for Blacks was two to three times higher compared with Whites. Babies born to Black mothers are more likely to be premature and have low birth weight. In 2011, 12.6% of babies born to Black mothers were of a low birth weight compared with 6.5% of babies born to White mothers. Similarly, 14.4% of babies born to Black mothers are premature compared with 9.3% of babies born to White mothers. These differences are also seen for births in 2009 and 2010.

Overall, the mother of three of every 100 babies born in Travis County is 15 – 17 years of age. Whites have the lowest percent of births to females 15 – 17 year olds (0.6%) and females less than 20 years old (2.4%). Hispanics have the highest percentage of births to females 15 – 17 year olds (5.3%) while Blacks have the highest births to females less than 20 years old (14.7%).

Chronic Diseases

Cardiovascular diseases

Blacks have a higher prevalence of cardiovascular disease than Whites and Hispanics. The estimated prevalence (10.1%) of cardiovascular disease in Blacks is twice the estimate (5.1%) for Whites. The age-adjusted mortality rate for heart disease for Blacks (194 deaths per 100,000 population) is 48% higher compared with Whites (131 deaths per 100,000 population).

Diabetes

In Travis County, 16.0% of Black adults have diabetes compared with 10.2% among Hispanics and 4.7% among White adults. The age-adjusted mortality rate for diabetes for Blacks is over twice the rate for Whites (31.6 deaths per 100,000 population compared with 12.4 deaths per 100,000 population).

Suicide

While males comprise 50% of the county's population, males comprise 71.7% of those who commit suicide. The suicide incidence rate is three times higher for males compared with females.

³ Understanding racial and ethnic disparities in United States infant mortality rates. National Center for Health Statistics. Data Brief No. 74, <http://www.cdc.gov/nchs/databriefs/db74.pdf> September 2011.

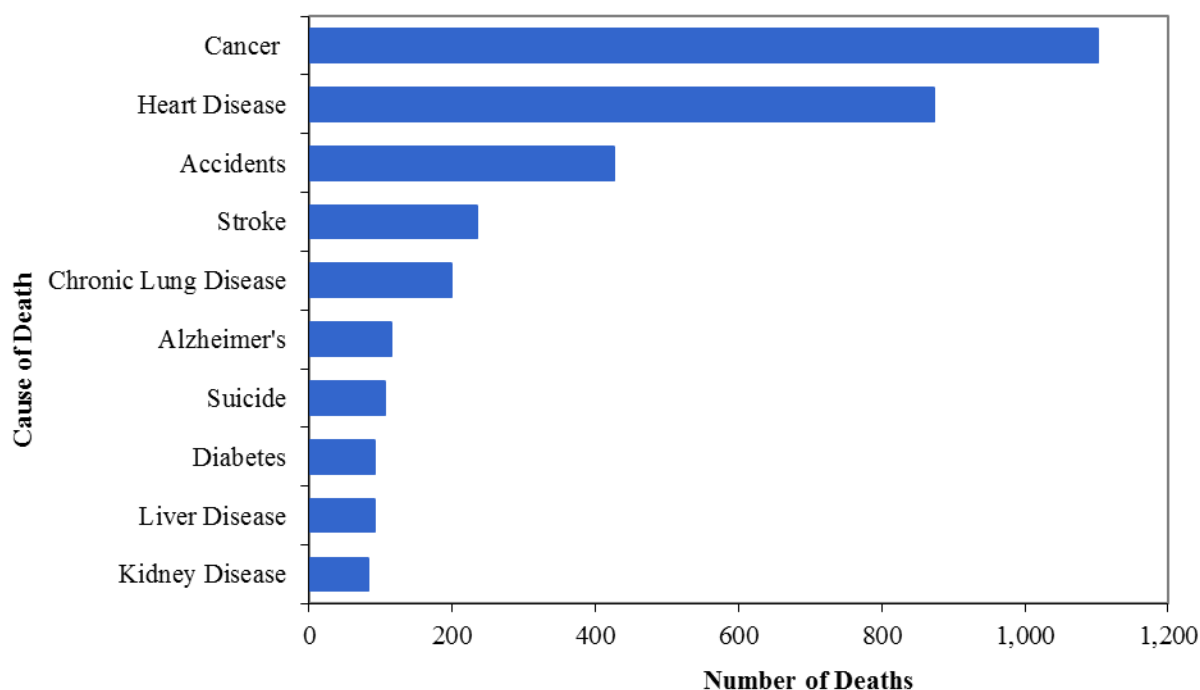
3.0 Leading Causes of Death

This section provides information on the leading causes of death for 2011 and the three-year period 2009 through 2011 with a focus on race/ethnicity, underlying causes of death, and age-related factors. Understanding the leading causes of death in a community is necessary for short-term prevention and intervention efforts.

Mortality

In 2011 in Travis County, there were a total of 4,615 deaths, of which, there were 2,360 males and 2,255 females. Cancer and heart disease were the top two leading causes of death among Travis County residents in 2011, far ahead of all other causes of death. Figure 3.1 shows the top 10 causes of death.

Figure 3.1. Leading Causes of Death, Travis County, 2011.



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

The following provides a summary of additional facts about the mortality experience of Travis County residents in 2011:

- Cancer, which represents 24% of total deaths (n=1,101 deaths), is the leading cause of death in Travis County. Cancer accounts for 22% of total deaths in the state.
- In Travis County, lung cancer was the most common form of cancer (n=253 deaths) followed by breast cancer (n=103 deaths) and colorectal cancer (n=80 deaths).
- Nineteen percent of deaths in Travis County were caused by heart disease (n=873 deaths), with mortality due to heart disease concentrated in persons over 45 years of age.

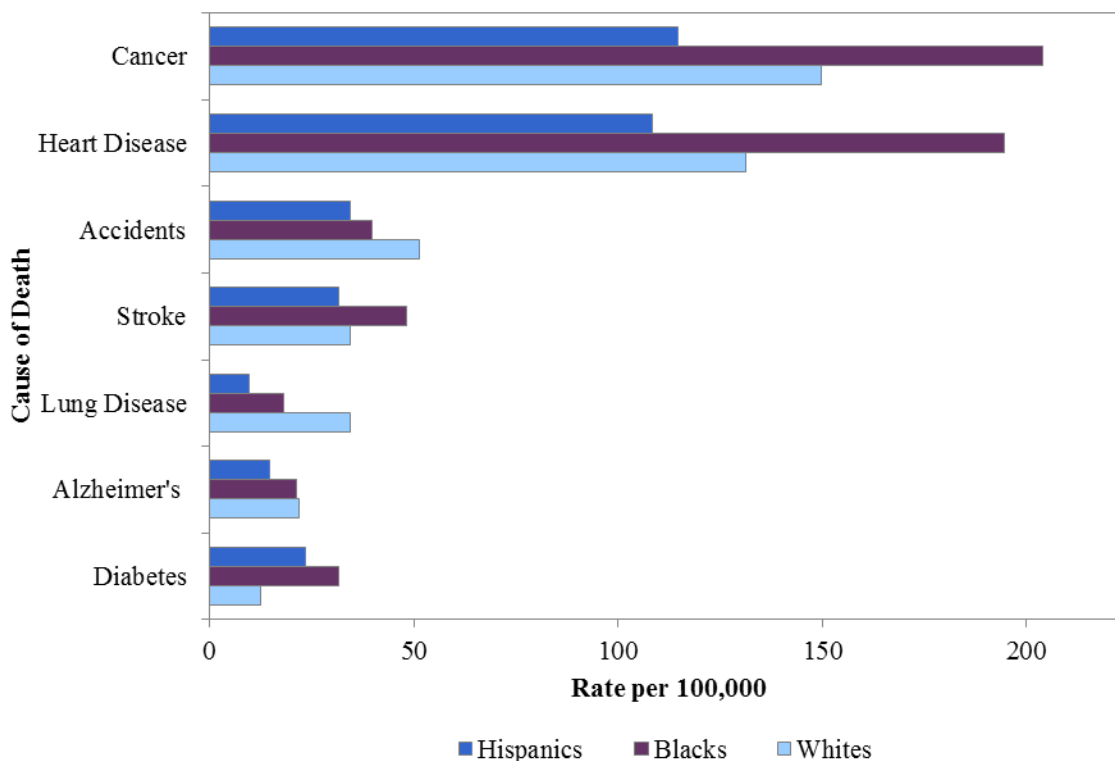
The leading cause of death for Texas is heart disease, accounting for 23% of total deaths, concentrated in persons over the age of 45.

- Motor vehicle accidents were the leading cause of death for persons aged 15 to 24 years in Travis County, as well as Texas.
- Diabetes, the eighth leading cause of death in the county, remains a significant cause of death among Hispanic and Black populations.
- Death rates were higher for men than women for the 10 leading causes of death with the exception of Alzheimer's disease.
- Overall, cancer (n=1,101 deaths) and heart disease (n=873 deaths) caused over 40% of all deaths, as compared with Texas where they caused over 45% of all deaths.

Race/Ethnicity: 2009-2011

Figure 3.2 shows seven leading causes of death for Travis County broken out by race and ethnicity for the three-year period, 2009-2011, combined. As shown in the figure people of different races and ethnicities had different mortality experiences for cancer, heart disease, accidents, stroke, lung disease, and diabetes. Blacks have the highest rates of cancer, heart disease, stroke and diabetes.

Figure 3.2. Age-adjusted Mortality Rates for Seven Leading Causes of Death by Race/Ethnicity, Travis County, 2009-2011.



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

Mortality rates for the top 10 leading causes of death for each race/ethnicity group are presented in the three figures below. Highlights include:

- Cancer was the number one cause of death for all race/ethnicities. Lung cancer was the most frequent form of cancer for all race/ethnicities; similar to the entire state.
- Diabetes mortality rates among Blacks (32 per 100,000) and Hispanics (24 per 100,000) are higher when compared with the rate for Whites (12 per 100,000). State-wide the Hispanic population has a higher diabetes mortality rate as compared to Travis County; while Blacks and Whites had rates similar to rates in Travis County.
- A human immunodeficiency virus (HIV) infection among Blacks in Travis County is the ninth leading cause of death. For the state, HIV is the 13th leading cause of death among Blacks.
- Suicide among Whites is the seventh leading cause of death in both Travis County and Texas.

Figure 3.3. Age-adjusted Mortality Rates for Ten Leading Causes of Death among Whites, Travis County, 2009-2011.

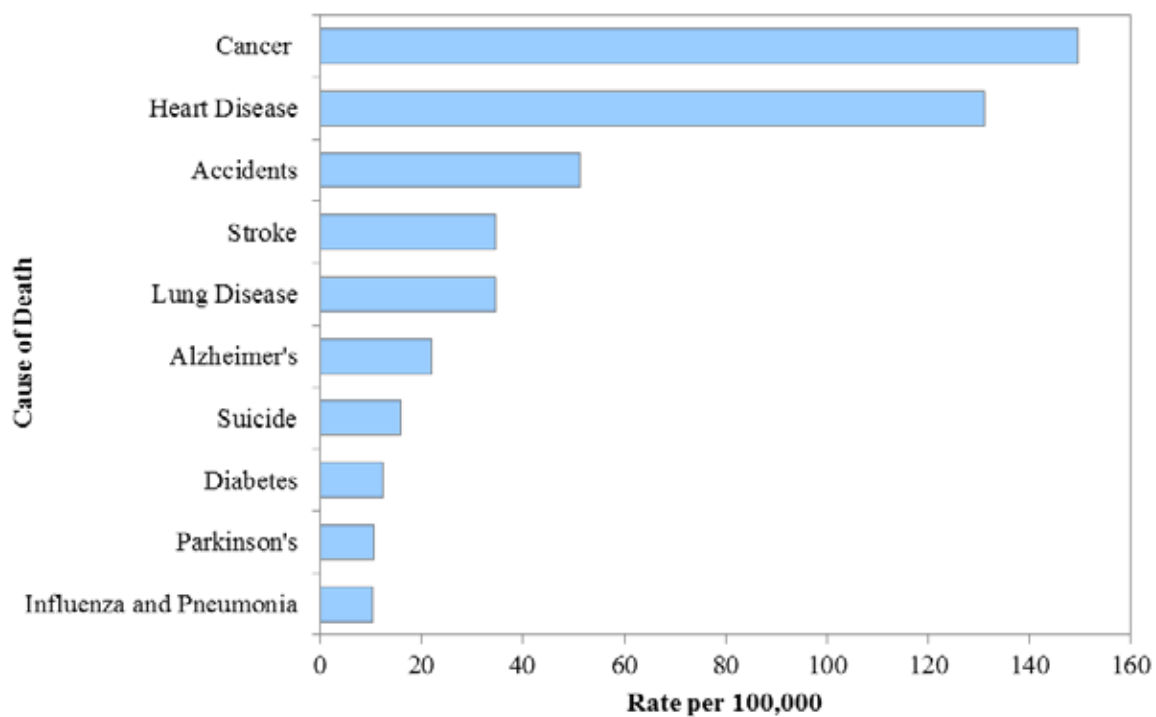
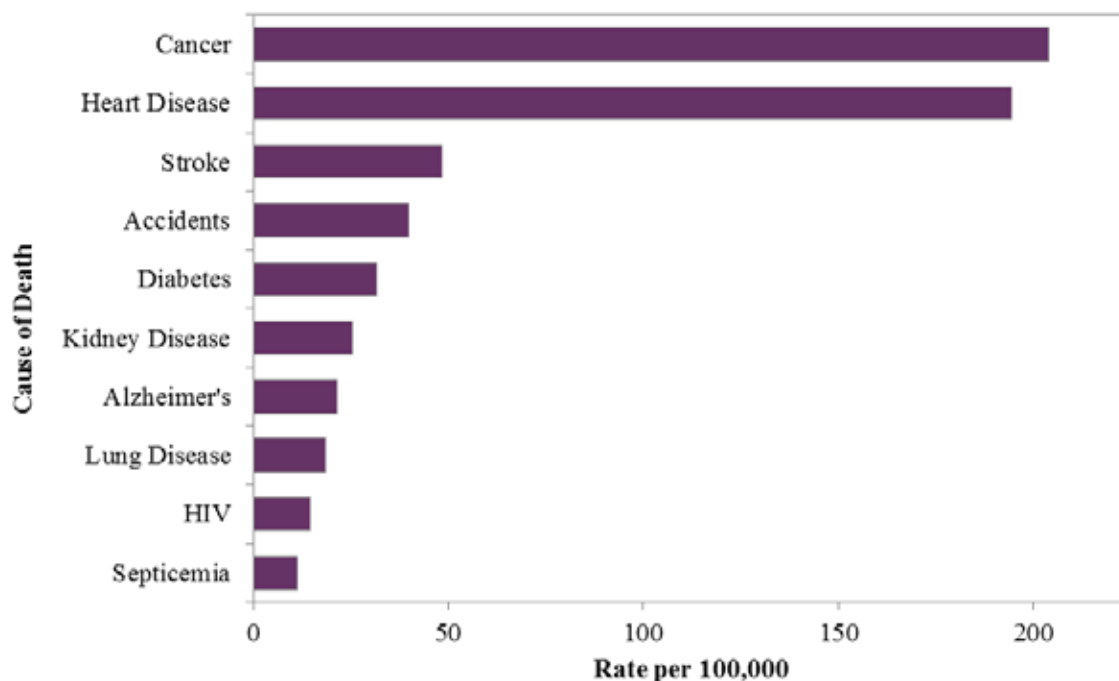
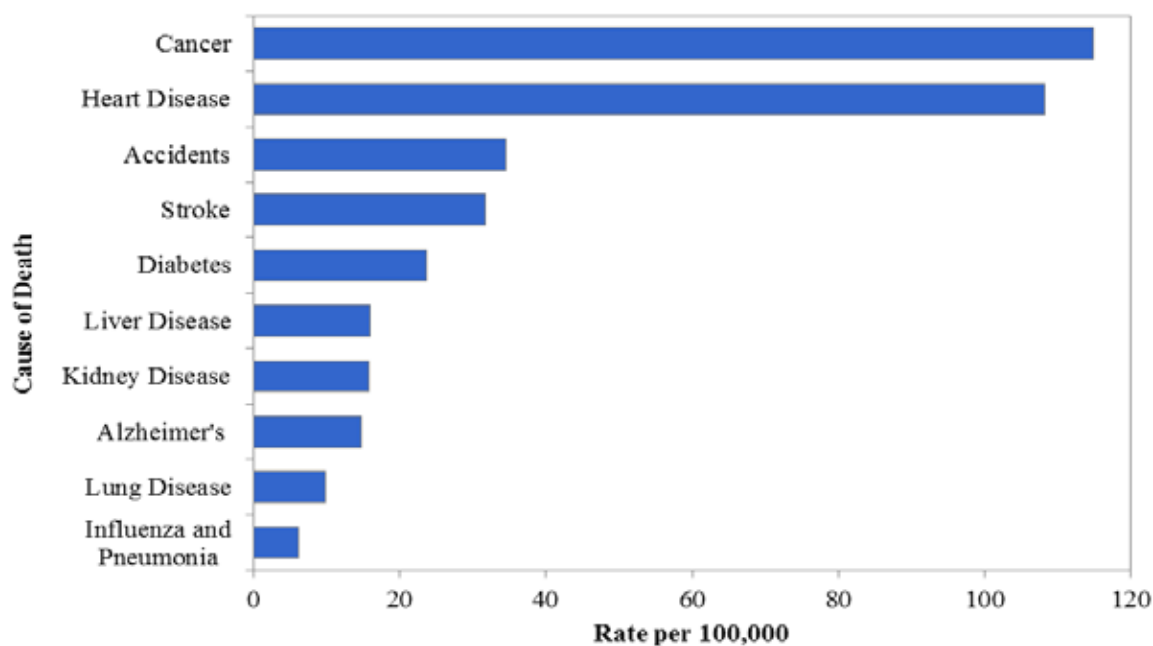


Figure 3.4. Age-adjusted Mortality Rates for Ten Leading Causes of Death among Blacks, Travis County, 2009-2011.



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

Figure 3.5. Age-adjusted Mortality Rates for Ten Leading Causes of Death among Hispanics, Travis County, 2009-2011.

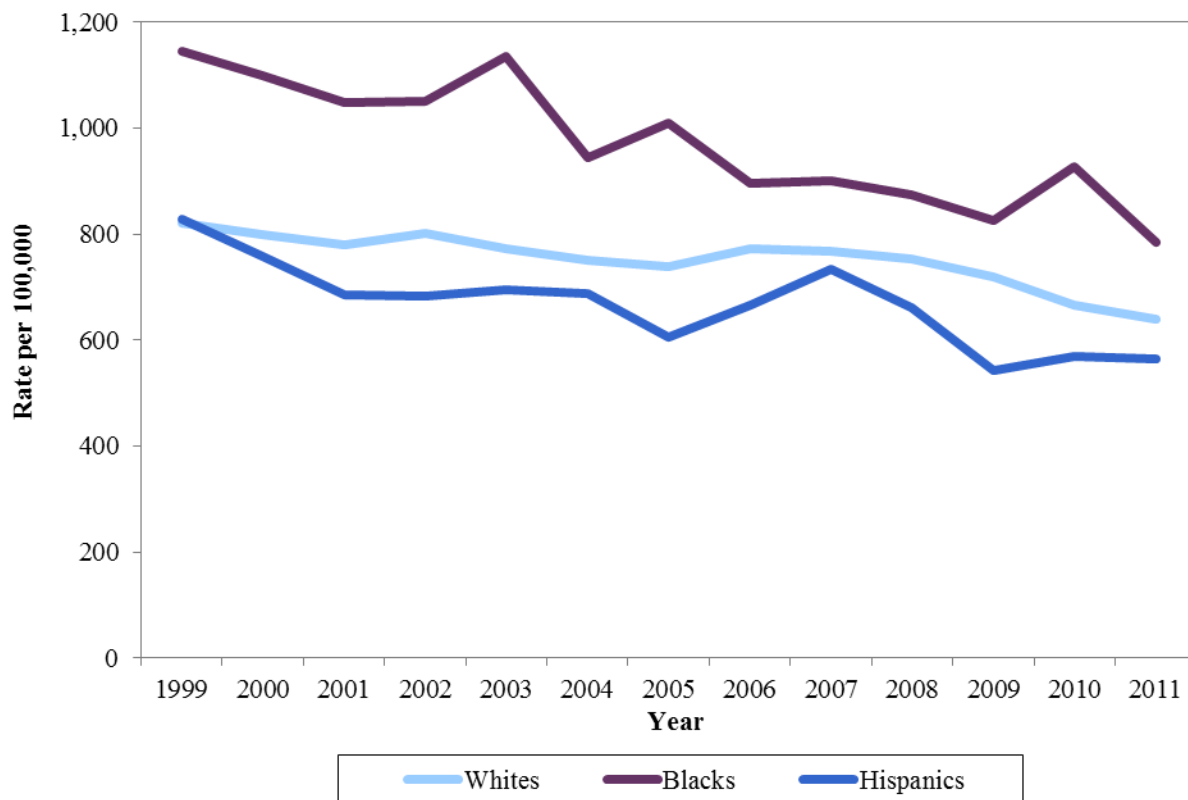


Data Source: Center for Health Statistics, Texas Department of State Health Services

Mortality Trends

As shown in Figure 3.6, the age-adjusted mortality rate for Travis County has been in slight decline over the past decade. The biggest decline in overall age-adjusted mortality rates are among Blacks.

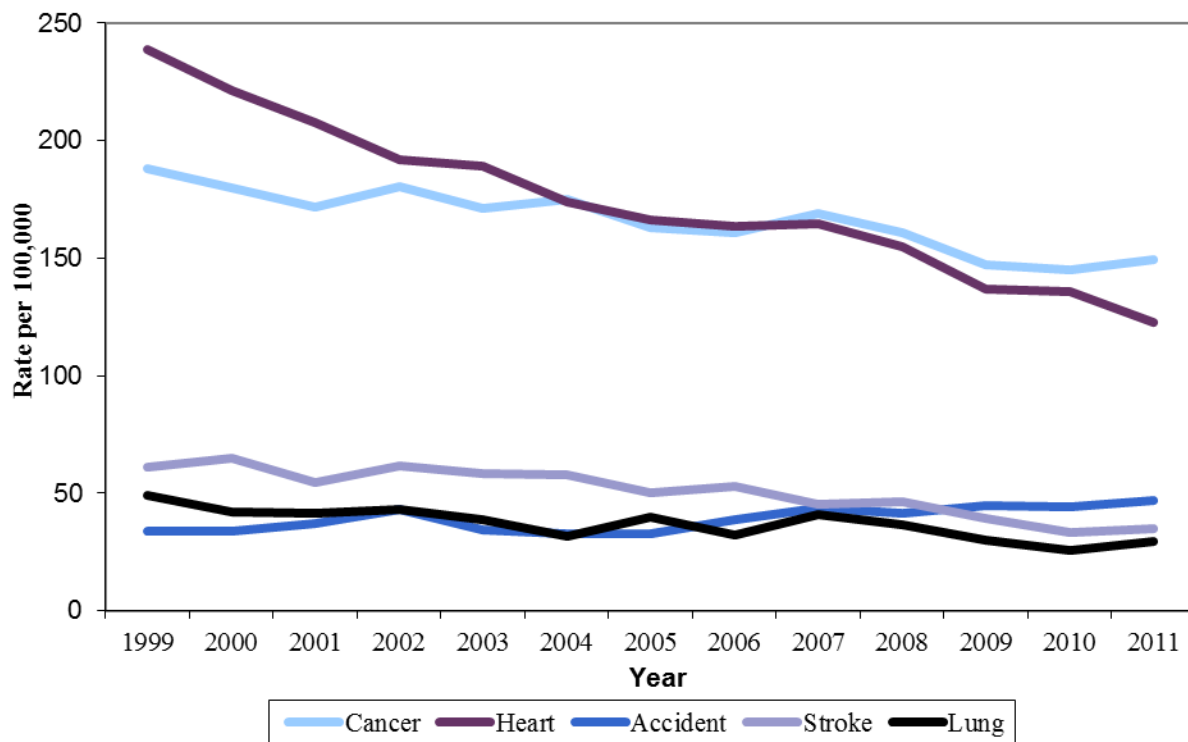
Figure 3.6. Age-adjusted Mortality Rates by Race/Ethnicity, Travis County, 1999-2011.



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

Figure 3.7 shows the age-adjusted mortality rates of the five leading causes of death in Travis County over the past decade. Cancer, heart disease, accidents, stroke, and chronic lung disease were the five leading causes of death. During that time the mortality rate from cancer surpassed heart disease and the mortality rate from accidental deaths surpassed stroke and lung disease.

Figure 3.7. Age-adjusted Mortality Rates by Cause of Death, Travis County, 1999-2011.

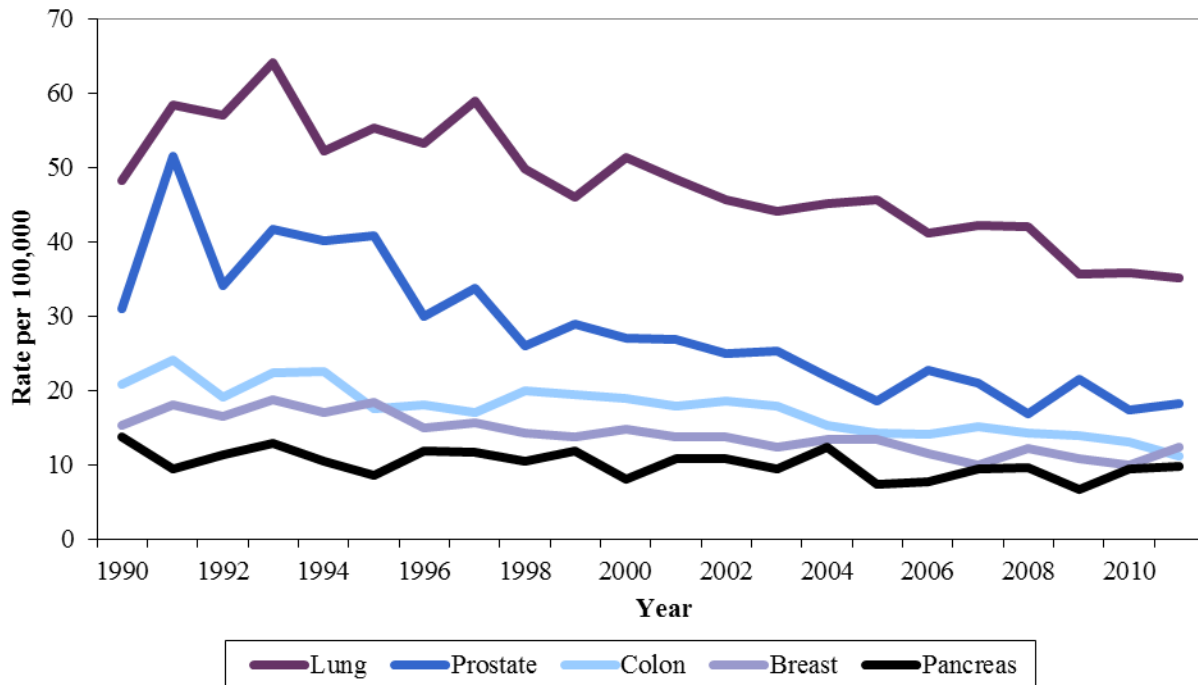


Data Source: Center for Health Statistics, Texas Department of State Health Services

4.0 Cancer

Cancer is the leading cause of death in Travis County, surpassing the historic number one cause of death – heart disease. During 2011, 2,997 new cancer cases were diagnosed and 1,101 people died from cancer in Travis County. Figure 4.1 shows the trend in age-adjusted mortality rates for selected cancers for Travis County. For each year during the 22 year period, the highest cancer mortality rate has been due to lung cancer.

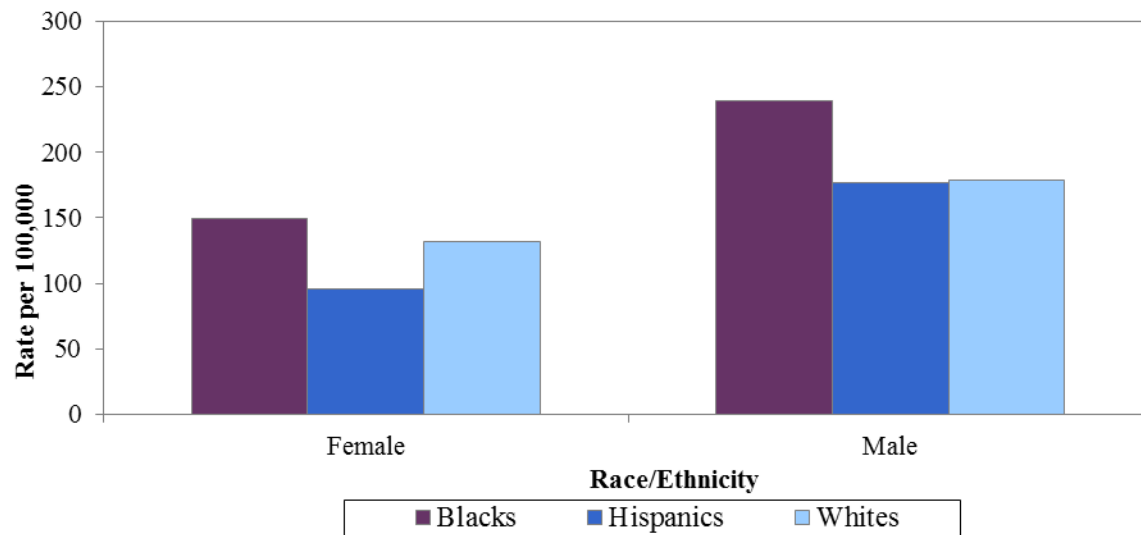
Figure 4.1. Age-adjusted Cancer Mortality Rates, Travis County, 1990-2011.



Rates are age-adjusted rates to the 2000 U.S. standard population
 Data source: Texas Cancer Registry Mortality File, February 2014

Cancer affects men and women at different rates. Figure 4.2 shows age-adjusted cancer mortality rates by gender and race/ethnicity. In Travis County, males typically have higher cancer incidence and mortality rates than females, after adjusting for age. Disparities also exist by race and ethnicity with Blacks having higher age-adjusted mortality rates than Whites. Hispanic females have the lowest cancer mortality rate.

Figure 4.2. Age-adjusted Cancer Mortality Rates by Gender and Race/Ethnicity, Travis County, 2011.

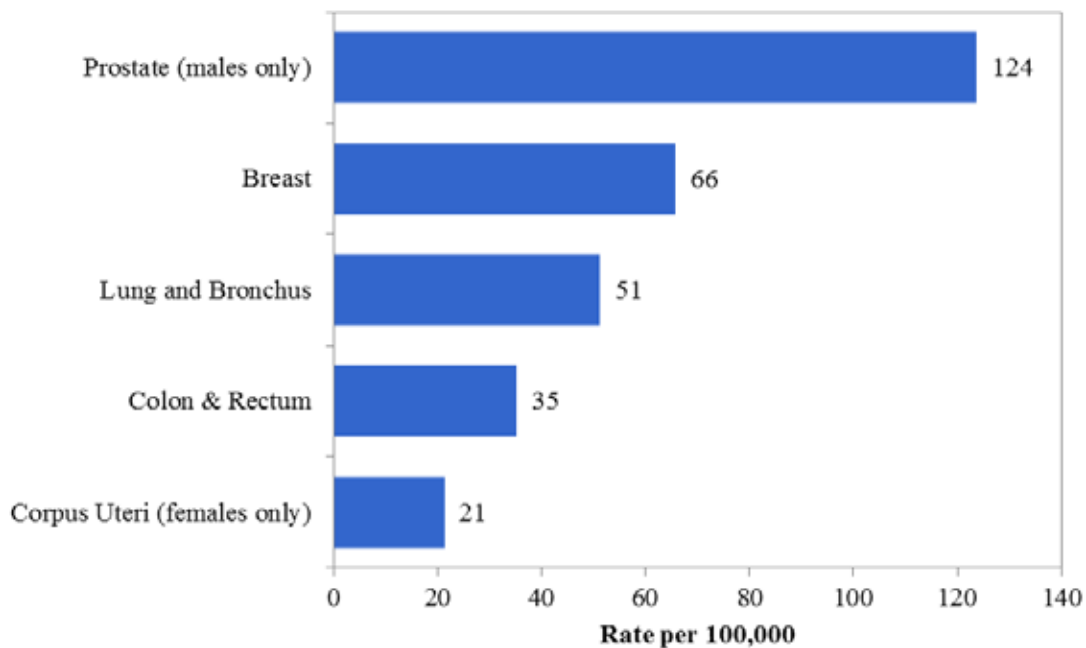


Rates are age-adjusted to U.S. 2000 standard population

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

Cancers of the prostate, breast and lung and bronchus are the most commonly diagnosed cancer sites. Figure 4.3 shows the incidence rates for the five most common cancers in Travis County during 2007-2011. The highest incidence rate is seen for prostate cancer followed by breast cancer.

Figure 4.3. Incidence Rates for Common Cancers, Travis County, 2007-2011.

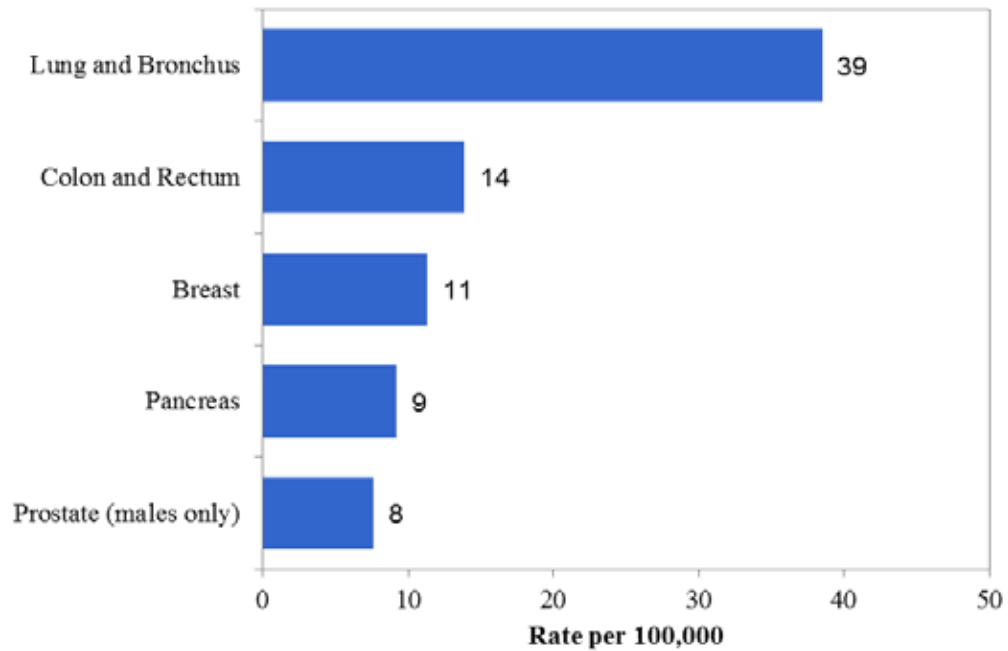


Rates are age-adjusted rates to U.S. 2000 standard population

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

Figure 4.4 shows the mortality rates for the five highest cancers. Deaths from these five cancer sites account for approximately 50% of all cancer deaths.

Figure 4.4. Mortality Rates for Selected Cancers, Travis County, 2007-2011.



Rates are age-adjusted rates to U.S. 2000 Standard Population
Data Source: Center for Health Statistics, Texas Department of State Health Services

5.0 Chronic Disease Conditions

Cardiovascular Disease

Cardiovascular disease refers to a wide variety of heart and blood vessel diseases. The most common forms of cardiovascular disease are coronary heart disease (CHD) and stroke. Hypertension, heart failure (HF), and atherosclerosis are other common cardiovascular diseases. Heart disease and stroke are the second and fourth leading causes of death respectively, in Travis County.

The Texas Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey conducted on a monthly basis of randomly selected adults 18 years of age and older in Travis County and Texas. Data on lifestyle risk factors contributing to the leading causes of death and chronic diseases is collected. The prevalence of cardiovascular disease is determined if the survey respondent indicates they have been diagnosed by a doctor of either having had a heart attack, myocardial infarction, angina, coronary heart diseases, or a stroke in the past. Due to a small sample size, data for 2011 and 2012 are combined to provide the prevalence estimates.

Table 5.1 summarizes select demographic characteristics for cardiovascular disease in Travis County. The prevalence of cardiovascular disease increased with age and decreased with increasing level of education. Blacks have a higher prevalence of cardiovascular disease than Whites and Hispanics. Adults who reported having diabetes also reported a higher prevalence of cardiovascular disease (23%) compared to adults without diabetes (3.5%). Obesity and being overweight are strongly associated with cardiovascular diseases as well. Over 9% of obese adults report having cardiovascular disease.

Table 5.1. Prevalence Estimates of Cardiovascular Disease Among Adults by Select Demographic Characteristics, Travis County and Texas, 2011-2012.

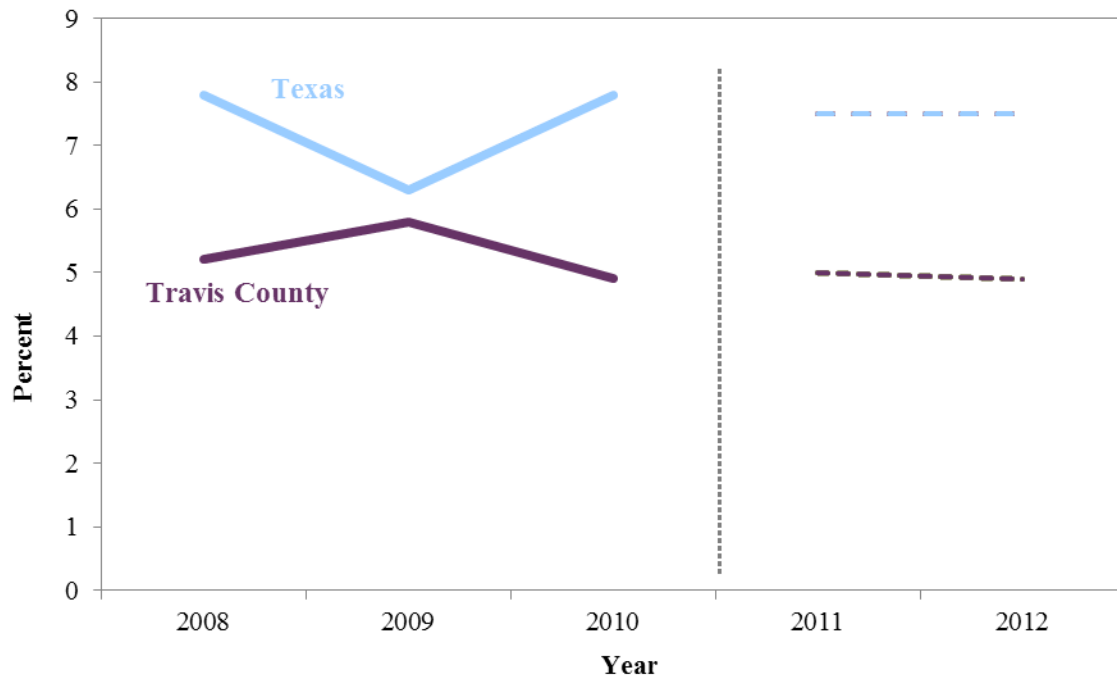
Demographic characteristics	Travis County (%)	Texas (%)
Total	5.0	7.5
Gender		
Male	4.9	8.7
Female	5.0	6.3
Age (in years)		
18 to 44	1.0*	1.9
45 to 64	6.6	9.5
≥ 65	19.9	22.6
Race/ethnicity		
White	5.1	9.0
Black	10.5	9.0
Hispanic	3.4*	4.8
Education		
< High school graduate	7.4	7.6
High school graduate and some college	5.4	8.4
College graduate	3.5	5.2
Employed		
Yes	2.0	3.4
No	10.5	13.0
Household income		
< \$25,000	5.9	10.4
\$25,000 to <\$75,000	4.4	7.3
≥\$75,000	3.8	5.5
Health insurance		
Insured	6.1	9.2
Uninsured	1.4*	3.5

Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2012

*Estimate unstable and should be interpreted with caution

The prevalence of cardiovascular disease among adults in Travis County has remained fairly constant at about 5% over the last five years and is below the prevalence rate for the entire state (see Figure 5.1). Cardiovascular disease includes the following conditions: heart attack, angina, coronary heart disease, and stroke.

Figure 5.1. Cardiovascular Disease Prevalence Among Adults, Travis County and Texas, 2008-2012.



Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2008-2012
Due to BRFSS methodology change, estimates prior to 2011 cannot be directly compared to estimates from 2011 onward

Diabetes

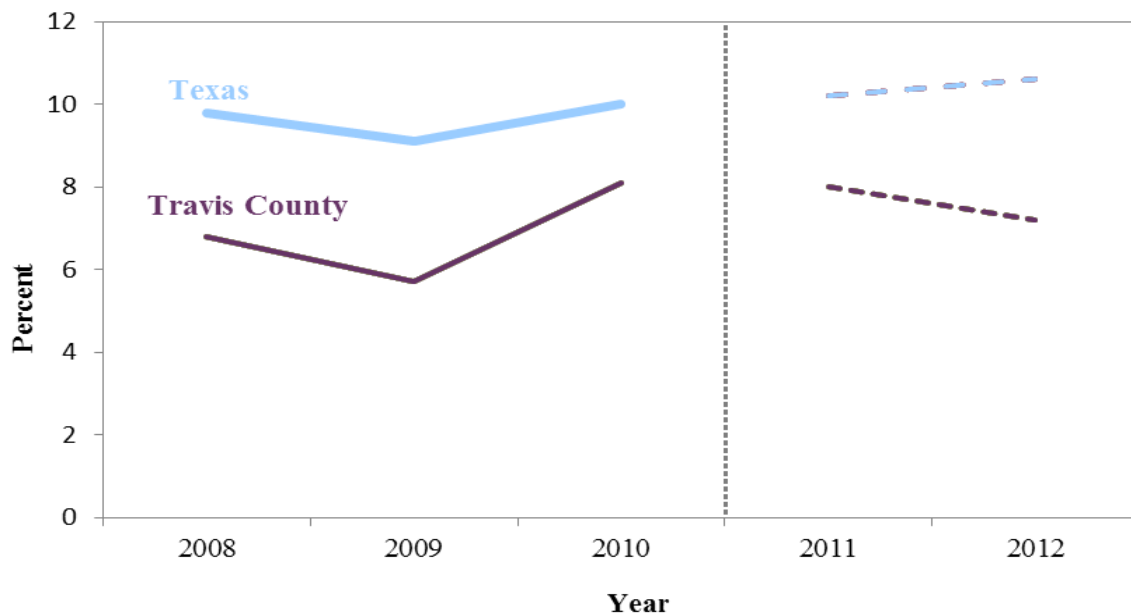
Diabetes is a group of diseases marked by high levels of sugar in the blood. The more severe form of diabetes is type 1 diabetes or insulin-dependent diabetes. The most common form of diabetes is type 2 or non-insulin dependent diabetes. People with type 2 diabetes can produce some of their own insulin, but the amount produced is not enough, or the person cannot use the insulin effectively. Diabetes affects 25.8 million people in the United States or 8.3% of the population.⁴

The Texas Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey conducted on a monthly basis of randomly selected adults 18 years of age and older in Travis County and Texas. Data on lifestyle risk factors contributing to the leading causes of death and chronic diseases is collected. The prevalence of diabetes is determined if the survey respondent indicates they been told by a doctor or other health profession that they have diabetes. The prevalence does not include women who were diagnosed with diabetes while pregnant. Due to a small sample size, data for 2011 and 2012 are combined to provide the prevalence estimates.

Diabetes affects many Travis County residents. In 2011-2012, 7.6% of adults reported being told by their doctor that they have diabetes. The 7.6% prevalence rate corresponds to an estimated 83,000 adults being told they have diabetes. While the prevalence of diabetes in Travis County is lower than for Texas, that gap is narrowing (see Figure 5.2). Disparities among diabetes prevalence exist by race and ethnicity. In Travis County, 16.0% of Black adults have diabetes compared with 10.2% among Hispanics and 4.7% among Whites (see Figure 5.3).

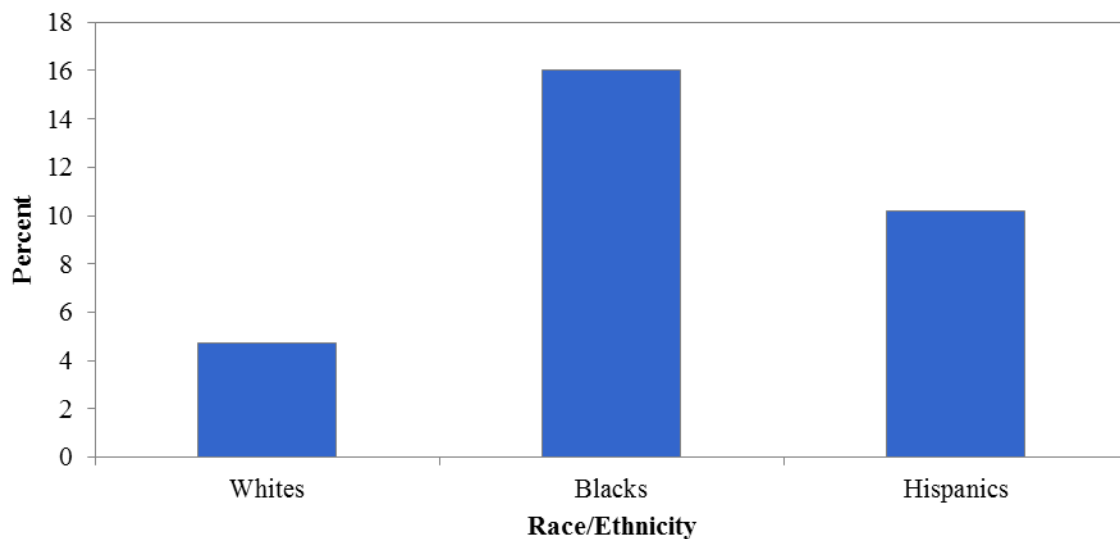
⁴ Centers for Disease Control and Prevention, US Department of Health and Human Services, Atlanta, GA. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011.

Figure 5.2. Diabetes Prevalence Among Adults, Travis County and Texas, 2008-2012.



Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2008-2012
 Due to BRFSS methodology change, estimates prior to 2011 cannot be directly compared to estimates from 2011 onward

Figure 5.3. Diabetes Prevalence by Race Ethnicity, Travis County, 2011-2012.



Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2012

Table 5.2 summarizes the prevalence estimates of diabetes in Travis County by selected demographic characteristics. Older Travis County residents are more likely to report being diagnosed with diabetes. The prevalence of diabetes was 12.2% among residents age 45 to 64 years and 20.5% among residents 65 years and older. Adults with more education or higher incomes have lower prevalence of diabetes than those with less education or lower incomes. Obesity and cardiovascular disease (CVD) are often co-morbid conditions among diabetics with 19% of obese adults and 35% of adults with CVD also reporting having diabetes.

Table 5.2. Prevalence Estimates of Diabetes Among Adults by Select Demographic Characteristics, Travis County and Texas, 2011-2012.

Demographic characteristics	Travis County (%)	Texas (%)
Total	7.6	10.4
Gender		
Male	8.4	10.9
Female	6.7	10.0
Age (in years)		
18 to 44	2.2*	3.4
45 to 64	12.2	15.8
≥ 65	20.5	23.3
Race/ethnicity		
White	4.7	9.1
Black	16.0	12.9
Hispanic	10.2	11.7
Education		
< High school graduate	12.4	14.5
High school graduate and some college	8.9	10.3
College graduate	4.2	7.3
Employed		
Yes	5.6	6.9
No	11.4	15.1
Household income		
< \$25,000	10.7	14.6
\$25,000 to <\$75,000	10.2	10.2
≥\$75,000	4.6	7.7
Health insurance		
Insured	8.0	11.8
Uninsured	6.2*	7.4

Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2012

*Estimate unstable and should be interpreted with caution

6.0 Chronic Disease Risk Factors

Tobacco

Tobacco is the leading cause of preventable death in Austin and Travis County. Each year approximately 600 deaths in Travis County are caused by cigarettes and other tobacco products. The use of tobacco, including smoking cigarettes and using smokeless tobacco, increases the risk of chronic diseases such as cardiovascular and respiratory diseases, as well as cancer of the lungs, throat, stomach, kidneys and pancreas.⁵

The Texas Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey conducted monthly of randomly selected adults 18 years of age and older in Travis County and Texas. The survey collects data on lifestyle risk factors contributing to the leading causes of death and chronic diseases. Respondents who currently use any tobacco product including cigarettes, cigars, pipes, chewing tobacco, snuff, and snus are defined as tobacco users. Respondents who have smoked at least 100 cigarettes in their lifetime and report smoking some or every day are considered current smokers. Due to a small sample size, data for 2011 and 2012 are combined to provide the prevalence estimates.

The prevalence of tobacco use among adults in Travis County has seen a decline in recent years. In 2011-2012, the prevalence of any tobacco use in Travis County was lower as compared to Texas (16.0% vs. 20.8%, respectively).

One in six, or an estimated 175,293 Travis County adults uses tobacco products such as cigarettes, snus, snuff, chewing tobacco, pipes or cigars, according to a population based survey of county residents in 2011-2012. Tobacco use in Travis County differs by gender, age group, and income, as shown in Table 6.1.

- Males smoke and use tobacco at two times the rate of females.
- Adults aged 18-44 years have tobacco use rates double those of adults over age 65 years.
- Adults with higher income levels have lower rates of smoking and tobacco use.
- Adults who have earned a college degree are less likely to smoke and use tobacco products compared with adults who lack a high school diploma.

⁵ <http://www.cdc.gov/chronicdisease/resources/publications/aag/osh.htm>.

Table 6.1. Prevalence Estimates of Smoking and any Tobacco Use Among Adults by Select Demographic Characteristics, Travis County and Texas, 2011-2012.

Demographic Characteristics	Current Smoker		Any Tobacco Use	
	Travis County	Texas	Travis County	Texas
	%	%	%	%
Total	15.4	18.7	16.0	20.8
Gender				
Male	20.9	23.5	21.9	27.6
Female	9.9	14.0	9.9	14.1
Age (in years)				
18 to 44	17.1	21.1	17.6	23.4
45 to 64	14.8	19.3	15.2	21.4
≥ 65	7.2	9.3	8.4	10.7
Race/Ethnicity				
White	15.9	20.1	16.9	23.4
Black	18.0	22.0	17.8	22.9
Hispanic	16.1	16.2	16.0	17.0
Education				
< High School Graduate	15.9	24.8	15.5	26.2
High School Graduate and Some College	22.4	21.0	22.9	23.3
College Graduate	6.9	8.0	7.7	9.9
Employed				
Yes	16.3	19.8	16.6	22.5
No	13.7	17.1	14.7	18.5
Household Income				
< \$25,000	21.3	25.3	21.0	26.5
\$25,000 to < \$75,000	19.7	20.2	19.8	21.9
≥ \$75,000	9.1	12.8	10.3	16.3
Health Insurance				
Insured	14.2	15.0	14.9	17.4
Uninsured	19.0	26.9	18.9	28.4

Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2012

Obesity

Overweight and obesity have been shown to increase the risk of many diseases and health conditions such as high blood pressure, diabetes, coronary heart disease, stroke, high cholesterol respiratory diseases, and some forms of cancer.⁶

The Texas Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey conducted monthly of randomly selected adults 18 years of age and older in Travis County and Texas. The survey collects data on lifestyle risk factors contributing to the leading causes of death and chronic diseases. Obesity in a survey respondent is defined as a Body Mass Index (BMI) greater than or equal to 30, based on self-reported height and weight. A person 5 feet 6 inches in height weighing 186 to 191 pounds would have a BMI of 30. Due to a small sample size, data for 2011 and 2012 are combined to provide the prevalence estimates.

Over 400,000 Travis County adults (37% of adults) are considered overweight. Furthermore over 230,000 Travis County adults are considered clinically obese. In recent years, there has been an increase of overweight and obesity locally, mirroring the increase seen in Texas and the United States. While rates of obesity are lower in Travis County as compared to Texas (21.3% vs. 29.8%, respectively), the prevalence of being overweight in Travis County recently surpassed the state prevalence of 36%.

The prevalence of obesity and being overweight vary by demographic and socioeconomic indicators as shown in Table 6.2.

- Older adults and adults with lower income levels are more likely to be obese.
- The prevalence of obesity was similar by gender, employment status and health insurance status.
- Black, non-Hispanic and Hispanic adults have higher prevalence of overweight and obesity than White, non-Hispanic adults. This disparity has persisted for several years.

Adults who report being diagnosed with chronic conditions such as asthma, diabetes and heart disease have higher prevalence of obesity and being overweight than those without these co-morbid conditions. Over 50% of adults with diabetes are also obese.

⁶ <http://www.cdc.gov/obesity/adult/causes/index.html>.

Table 6.2. Prevalence Estimates for Obesity, Overweight and Normal Weight Status Among Adults by Select Demographic Characteristics, Travis County, 2011-2012.

Demographic Characteristics	Travis County 2011-2012		
	Obese BMI* ≥ 30	Overweight $25 \leq \text{BMI} < 30$	Normal Weight BMI < 30
	%	%	%
Total	21.3	36.5	42.2
Gender			
Male	19.2	43.9	36.9
Female	23.7	28.4	48.0
Age (in years)			
18 to 44	17.1	35.3	47.6
45 to 64	26.7	38.5	34.9
≥ 65	25.8	38.0	36.2
Race/Ethnicity			
White	17.9	34.7	47.4
Black	40.0	35.1	24.8
Hispanic	24.5	41.9	33.6
Education			
< High School Graduate	27.6	34.5	37.9
High School Graduate and Some College	25.2	36.9	37.9
College Graduate	14.6	36.9	48.5
Employed			
Yes	20.0	39.0	41.0
No	24.4	31.3	44.4
Household Income			
< \$25,000	27.0	36.3	36.7
\$25,000 to <\$75,000	22.9	38.3	38.8
\geq \$75,000	18.2	35.6	46.3
Health Insurance			
Insured	22.0	34.0	44.0
Uninsured	19.4	44.4	36.2

Data Source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2012

*Body Mass Index

7.0 Maternal and Child Health

Maternal and child health indicators are often used as community benchmarks to provide a glimpse into the health status of a population. This section presents birth and infant mortality data for a variety of maternal and infant characteristics. Viewing data in this manner can be useful for understanding the relationships between risk factors and infant mortality. However, it is also important to note that women with one risk factor will often also have additional risk factors. Table 7.1 provides information on the number of births for Travis County and Texas for selected risk factors, including prenatal care, prematurity, and low birth weight by race/ethnicity. For each of the three indicators, the three-year averages for Travis County are slightly lower when compared with the Texas three-year averages.

The Centers for Disease Control and Prevention (CDC) note that the causes of preterm births are numerous, complex, and remain poorly understood and that psychosocial, biological, and clinical factors all may affect a woman's risk of preterm birth⁷. For Travis County, the percentage of total premature births (<37 weeks gestation) has been fairly consistent from 2009 to 2011. Approximately 10% of all births are premature. Premature births are more likely for Black mothers.

Late initiation of prenatal care or no prenatal care, both of which are often related to a mother's ability to access medical care, is an important risk factor for infant mortality. The three-year average for "Late or No Prenatal Care" in Travis County is very similar to that for Texas. In Travis County, the percent of births with "Late or No Prenatal Care" declined slightly from 2009 (35%) to 2011 (31%). The three-year average for Blacks (36.5%) and Hispanics (47.5%) are twice and three times the rate for Whites (16.7%), respectively. In Travis County, almost half of all Hispanic infants were born to mothers with late or no prenatal care.

Low birth weight is another important risk factor closely linked with infant mortality. The three-year average of infants with low birth rate (8.6%) in Travis County is also slightly below the state's three-year average (9.5%). Low birth weight is more frequently seen in Black infants.

⁷ <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm>.

Table 7.1. Key Maternal and Child Health Indicators for Travis County and Texas, 2009-2011.

Race/Ethnicity	Travis County				Texas
	2009	2010	2011	2009-2011 Average	2009-2011 Average
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Prematurity (<37 weeks gestation)					
White	577 (9.5)	552 (9.3)	563 (9.3)	564 (9.4)	15,188 (11.3)
Black	221 (16.8)	209 (17.2)	172 (14.4)	201 (16.1)	7,501 (16.9)
Hispanic	825 (10.4)	859 (11.5)	783 (11.0)	822 (11.0)	25,043 (13.1)
All Races*	1,729 (10.5)	1,711 (10.8)	1,619 (10.4)	1,686 (10.6)	49,893 (12.9)
Late or No Prenatal Care (% of total births)†					
White	1,037 (17.1)	981 (16.5)	1,005 (16.6)	1,008 (16.7)	38,015 (28.4)
Black	497 (37.8)	431 (35.4)	433 (36.1)	454 (36.5)	19,813 (44.7)
Hispanic	4,008 (50.4)	3,565 (47.7)	3,128 (44.1)	3,567 (47.5)	79,150 (41.5)
All Races*	5,746 (35.0)	5,208 (33.0)	4,798 (31.0)	5,251 (33.0)	143,106 (36.9)
Low Birth Weight (% of total births)‡					
White	477 (7.9)	469 (7.9)	471 (6.5)	472 (7.8)	11,944 (8.9)
Black	239 (18.2)	248 (20.4)	151 (12.6)	213 (17.1)	7,091 (16.0)
Hispanic	621 (7.8)	644 (8.6)	559 (7.9)	608 (8.1)	16,376 (8.6)
All Races*	1,451 (8.8)	1,490 (9.4)	1,181 (7.6)	1,374 (8.6)	36,741 (9.5)

*The total includes other races and ethnicities.

†"Late prenatal care" is considered prenatal care started in the second or third trimester. Percent calculated for "Late or No Prenatal Care" is based on the total number of births.

‡"Low birth weight birth" is considered a birth weight of less than 2,500 grams (5 pounds, 8 ounces). Percent calculated for "Low Birth Weight" is based on the total number of births.

Data Source: Center for Health Statistics, Department of State Health Services, Texas Births 2009-2011. See also: <http://soupfin.tdh.state.tx.us/birth05.htm>

Infant Mortality

The death of a baby before his or her first birthday is called infant mortality. The infant mortality rate is an estimate of the number of infant deaths for every 1,000 live births. Table 7.2 shows infant mortality rates by race/ethnicity for 2009 through 2011. Overall, the three-year average rates for Travis County and Texas are similar. In Travis County and Texas, differences in infant mortality are seen when comparing race/ethnicity. Infant mortality rates are higher for Blacks with Whites and Hispanics.

Table 7.2. Infant Mortality Rates per 1,000 Live Births for Travis County and Texas, 2009-2011.

Race Ethnicity	Travis County				Texas
	2009	2010	2011	2009-2011 Average	2009-2011 Average
	No. (Rate)	No. (Rate)	No. (Rate)	No. (Rate)	No. (Rate)
White	31 (5.1)	22 (3.7)	18 (2.9)	24 (3.9)	693 (5.2)
Black	17 (12.5)	14 (11.5)	* (<10)	16 (12.5) †	498 (11.2)
Hispanic	37 (4.7)	45 (6.0)	43 (6.1)	42 (5.6)	1,015 (5.3)
Total	93 (5.7)	86 (5.4)	71 (4.5)	83 (5.2)	2,297 (5.9)

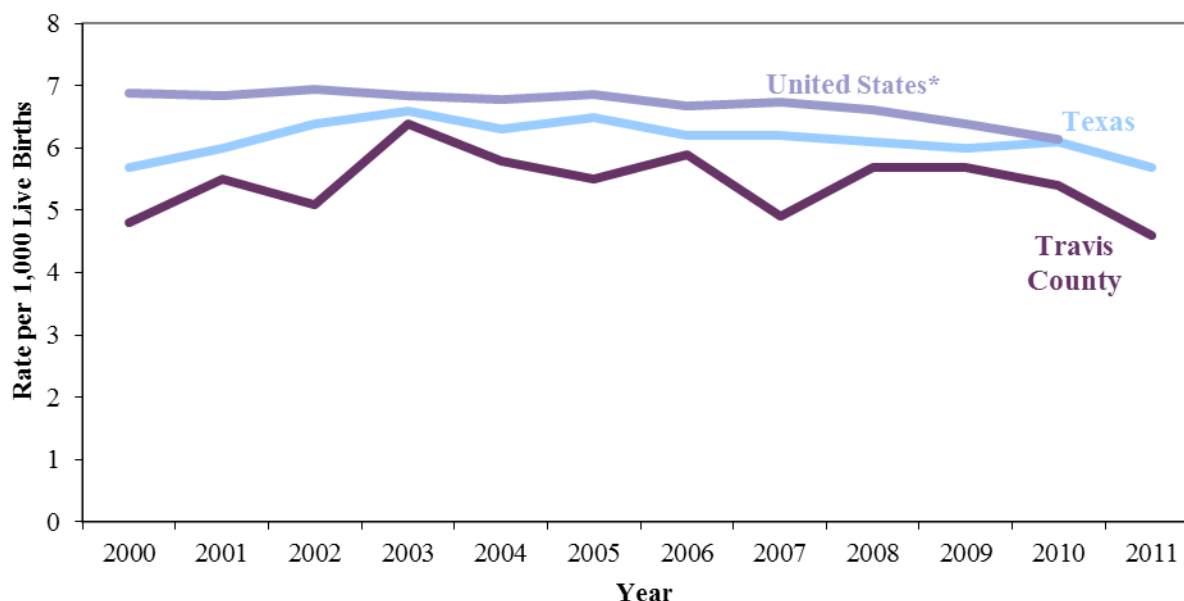
Data Source: Texas Department of State Health Services, Center for Health Statistics, Texas Births 2009-2011.

See also: <http://soupfin.tdh.state.tx.us/birth05.htm>

* Due to the low numbers of infant deaths, rates were not calculated.

† Due to the low numbers of infant deaths, average based on 2009 and 2010 only.

As shown in Figure 7.1 below, the infant mortality rate in Travis County has been consistently lower than either Texas or the national rate from 2000 through 2011. Over the 11-year period, the Travis County rate has varied between 4.5 and 6.4 deaths per 1,000 live births with the changes in the rate from year to year most likely due to random fluctuations.

Figure 7.1. Infant Mortality Rates for Travis County, Texas, and the United States, 2000-2011.

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

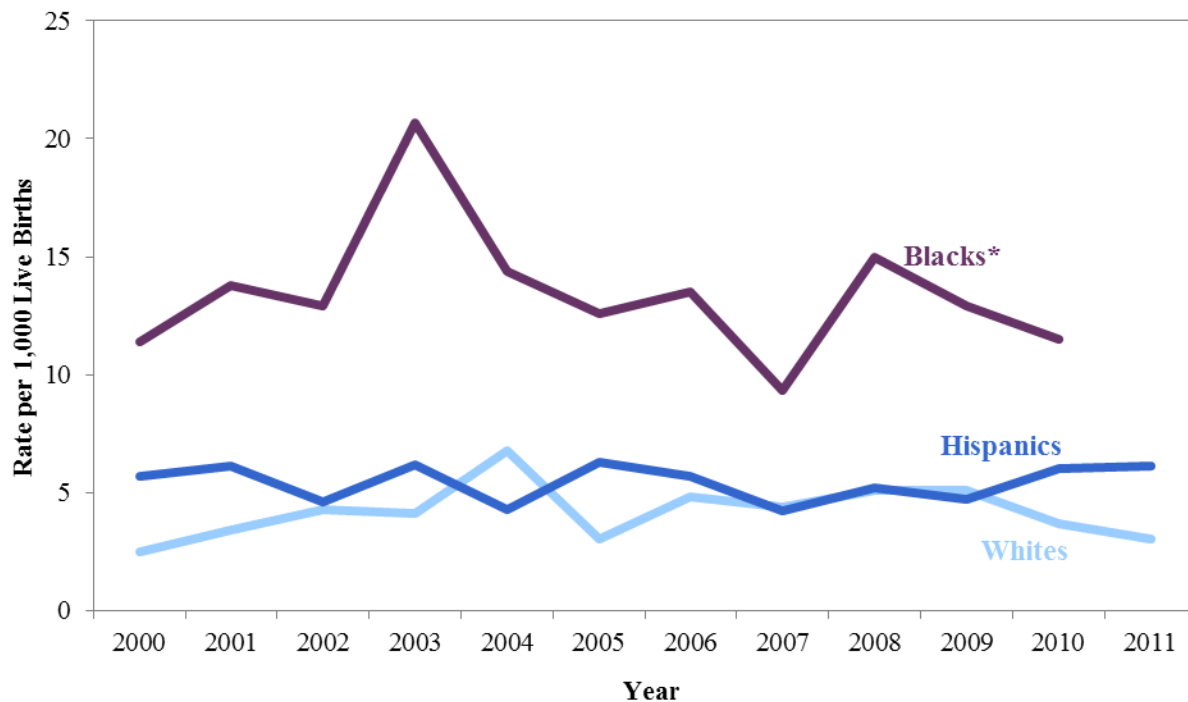
*Infant mortality rates for 2011 have not been published at the time of this report

Nationally, the higher infant mortality rates seen in Black infants are primarily due to higher levels of preterm births and preterm-related causes of death.⁸ Figure 7.2 shows infant mortality

⁸ <http://www.cdc.gov/nchs/data/databriefs/db74.pdf>.

rates by race/ethnicity for 2000 through 2011. Infant mortality rates are highest for Blacks during this period; while, rates for Whites and Hispanics continue to follow lower and similar trends. Although the rates for Blacks vary annually from 20.7 in 2003 to 9.3 in 2007 the trend over the 10 years has remained unchanged, and the mortality rate for Black, non-Hispanics in 2000 (11.4) and 2011 (11.5) are essentially the same.

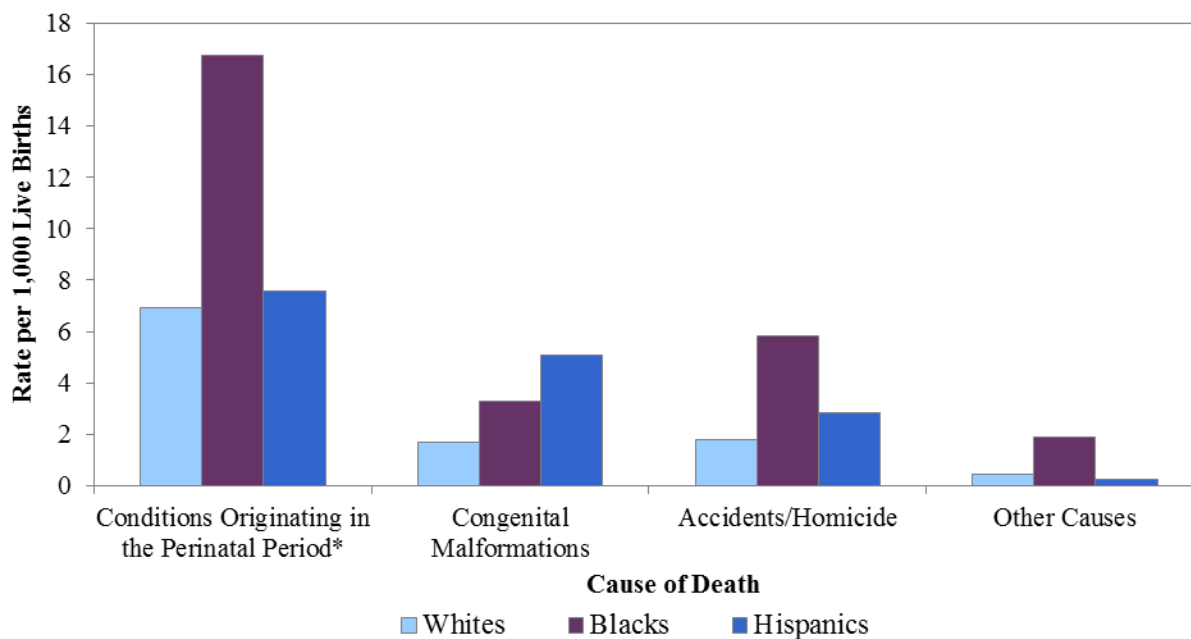
Figure 7.2. Infant Mortality Rates by Race/Ethnicity for Travis County, 2000-2011.



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

*Due to the low number of infant deaths, rates were not calculated for 2011

Selected causes of infant mortality are shown in Figure 7.3. Black infants are more likely to die due to conditions originating in the perinatal period and due to accidents and homicide than White and Hispanic infants. The rate (16.7) of mortality for conditions originating in the perinatal period for Blacks (16.7) is twice the rates for Whites (6.9) and Hispanics (7.6).

Figure 7.3. Infant Mortality Rates for Selected Causes of Death for Travis County, 2009-2011.

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

*Conditions originating in the perinatal period are complications of labor and/or delivery, short gestation, low birth weight and hypertension, diabetes, smoking and stress during pregnancy

Births to Teen Mothers

According to the CDC, infants born to teenage mothers are at greater risk for low birth weight, preterm birth, and death in infancy when compared with births to adult women⁹. The teen birth rate is defined as the percentage of females younger than 20 years of age who had a live birth during a given year. Table 7.3 provides information on the teen birth rate for females less than 20 years of age and a subset of that population, mothers 15 – 17 years old, by race/ethnicity. During 2009 through 2011, over 4,000 births in Travis County were to mothers younger than 20 years of age. Almost 1,500 births (1,477 births) were to mothers 15 to 17 years of age. A vast majority (1,194 of 1,447 or 82.5%) of mothers 15 to 17 years of age were Hispanic. Overall during 2009-2011, the mother of three of every 100 babies born in Travis County was 15-17 years of age. During this same period, the mother of 8 of every 100 babies born in Travis County was younger than 20 years of age.

Teen birth rates differ substantially by race and ethnic groups. During 2011 in Travis County there were 27.5 births for every 1,000 adolescent females 15 to 17 years of age. The birth rate for White females 15-17 years of age was 3.9 births per 1,000 White females 15-17 years of age. Teen birth rates for Hispanics and Blacks are higher. Hispanic females 15-17 years of age had the highest birth rate (47.2 births per 1,000 Hispanic females 15-17 years) followed by Blacks

⁹ <http://www.cdc.gov/nchs/data/databrief/db58.htm>.

(30.3 births per 1,000 Black females age 15-17 years). The rate of births in females 15-17 years of age for Hispanics is over 12 times higher compared with the rate in Whites. Of the 4,218 births to women under the age of 20 years during 2009-2011, 3,200 (76%) were to Hispanic females.

Table 7.3. Births to Women Under the Age of 20 Years Old and 15-17 Years of Age for Travis County and Texas, 2009-2011

Race/Ethnicity	Travis County				Texas
	2009	2010	2011	2009-2011 Average	2009-2011 Average
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Percent of Total Births to Women 15-17 Years Old					
White	37 (0.6)	40 (0.7)	26 (0.4)	34 (0.6)	2,586 (1.9)
Black	69 (5.2)	49 (4.0)	57 (4.8)	58 (4.7)	2,088 (4.7)
Hispanic	454 (5.7)	381 (5.1)	359 (5.1)	398 (5.3)	11,168 (5.9)
All Races	561 (3.4)	471 (3.0)	445 (2.9)	492 (3.1)	15,991 (4.1)
Percent of Total Births to Women under 20 Years Old					
White	155 (2.6)	151 (2.5)	130 (2.1)	145 (2.4)	10,257 (7.7)
Black	211 (16.0)	176 (14.5)	160 (13.4)	182 (14.7)	6,756 (15.2)
Hispanic	1,212 (15.2)	1,030 (13.8)	958 (13.5)	1,067 (14.2)	30,883 (16.2)
All Races	1,589 (9.7)	1,362 (8.6)	1,267 (8.2)	1,406 (8.8)	48,390 (12.5)

Data Source: Center for Health Statistics, Texas Department of State Health Services, Texas Births 2009-2011.

See also: <http://soupfin.tdh.state.tx.us/birth05.htm>

8.0 Human Immunodeficiency Virus

Human immunodeficiency virus (HIV) is spread through bodily fluids such as blood, semen, vaginal fluids, and breast milk. In the United States, HIV is most commonly transmitted from one person to another through unprotected anal or vaginal sex and through sharing needles or other drug paraphernalia. Transmission also can occur through transfusion of blood or its components from infected persons. In addition, a mother can pass HIV to her baby during pregnancy, during labor, or through breastfeeding. HIV infection is diagnosed by testing blood or saliva for antibodies to the virus or by directly testing for the presence of the virus. HIV damages the immune system leading to immunodeficiency; that is, the immune system is deficient in its ability to fight off infectious agents and cancer. Acquired immunodeficiency syndrome (AIDS) is the clinical stage of infection with HIV. The time from HIV infection to the development of AIDS is extremely variable ranging from less than one year to over 15 years. The term most often used for people who are HIV positive is “person living with HIV/AIDS.” This is often abbreviated as PLWHA or PLWH.

The Centers for Disease Control and Prevention estimates that over one million persons, aged 13 years and older, are living with HIV infection. In the United States, gay, bisexual, and other men who have sex with men (MSM) are considered most at risk of HIV infection.

Table 8.1 shows the number of new HIV cases and new AIDS cases reported in Travis County during 2003 through 2012. The annual number of new HIV diagnoses ranged from 191 to 252. The number of cases of AIDS are those who were diagnosed in that year regardless of whether they were previously diagnosed as HIV only or if they were newly diagnosed and had already met the AIDS case definition.

Table 8.1. Number of New Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome Diagnoses, Travis County, Texas, 2003-2012.

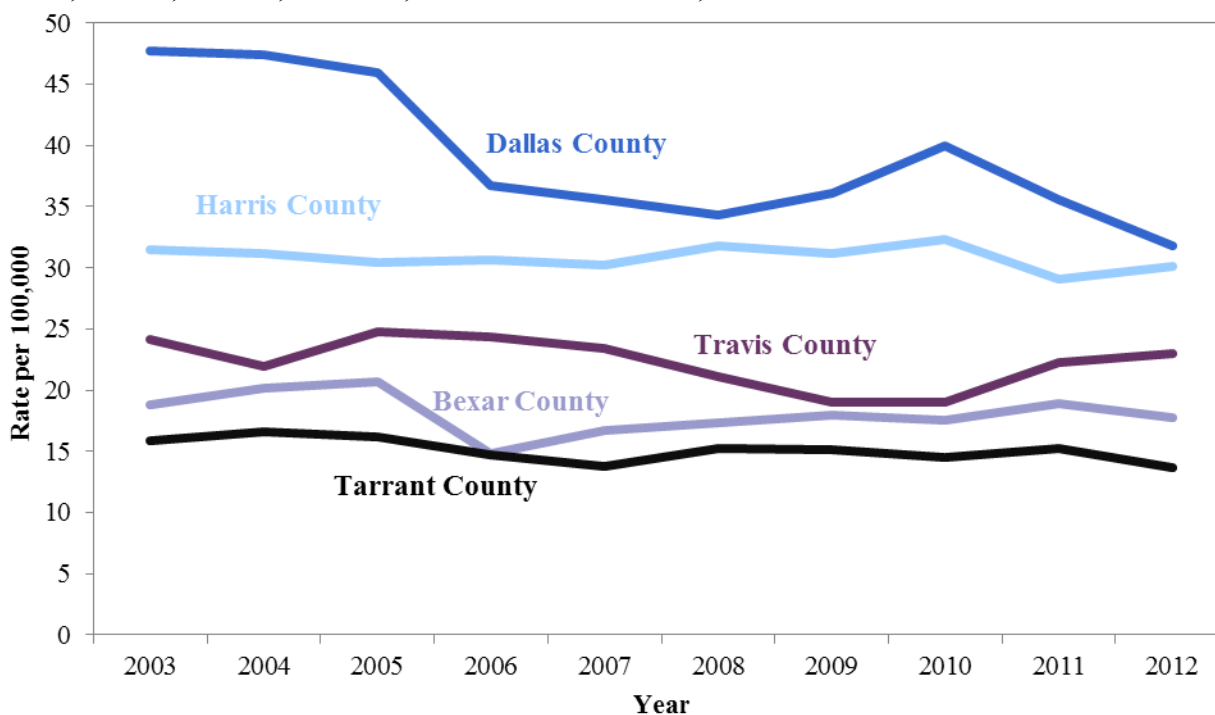
Diagnosis Year	Human Immunodeficiency Virus	Acquired Immunodeficiency Syndrome
2003	207	140
2004	191	136
2005	221	169
2006	223	150
2007	224	161
2008	207	148
2009	191	153
2010	195	129
2011	237	127
2012	252	112
Total	2,148	1,425

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 8.1 shows the incidence rates per 100,000 population for new HIV infection diagnoses by county of residence for the five most populated counties in Texas. Incidence rates of new HIV

infection diagnoses in Travis County ranged from 19.0 per 100,000 population in years 2009 and 2010 to 24.8 in year 2005. Consistently for the 10 years, rates in Travis County have been lower compared with Dallas and Harris counties and higher compared with Bexar and Tarrant counties.

Figure 8.1. Incidence Rates for New HIV Infection Diagnoses by County of Residence, Bexar, Dallas, Harris, Tarrant, and Travis Counties, 2003-2012.



Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Through December 31, 2012, a total of 79,932 persons living with HIV resided in Texas. A majority (78.1%) of PWLH in Texas are male. In Texas, Blacks comprise 31.8% of male PLWH while Blacks comprise 57.7% of female PLWH.

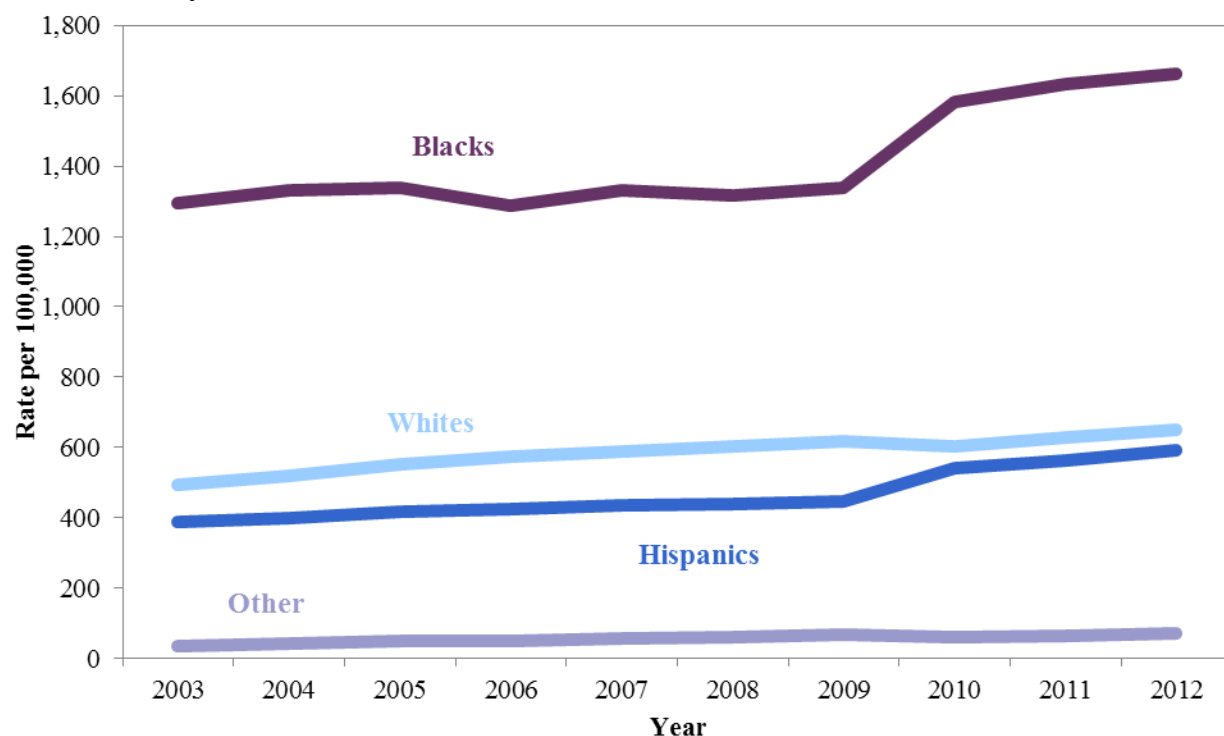
Through December 31, 2012, a total of 4,155 persons living with HIV resided in Travis County. Table 8.2 shows the number of persons living with HIV in Travis County and the prevalence rate per 100,000 population by year. Most (86.8%) of the PLWH in Travis County are males. Whites and Hispanics races comprise 45.1% and 30.5% of the persons living with HIV, respectively

Table 8.2. Number and Prevalence Rate of Persons Living with HIV, Travis County, 2003-2012.

Year	Number	Rate per 100,000 Population
2003	2,677	312.6
2004	2,827	324.6
2005	3,011	337.8
2006	3,177	343.4
2007	3,324	347.9
2008	3,489	355.8
2009	3,622	359.5
2010	3,776	368.7
2011	3,966	373.7
2012	4,155	379.2

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 8.2 shows the prevalence rate of males living with HIV. In all years, the rate is highest for Blacks. Rates for Whites and Hispanics all races are similar.

Figure 8.2. Prevalence Rate per 100,000 Population of Male Persons Living with HIV, Travis County, 2003-2012.

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Table 8.3 shows the percentage of persons living with HIV in Travis County by gender, race/ethnicity, and exposure category. For males, persons reporting the exposure category of men who have sex with men (MSM) accounted for the largest proportion of PLWH at 78.2%.

For Black males, this exposure category accounted for only 54.8% compared with 85.4% for White males. Intravenous drug use (IDU) only accounted for 27.4% of females living with HIV compared with 6.6% for males living HIV. Overall, heterosexual sex accounted for 15.5% of the PLWH ranging from 70.3% for females compared with 6.0% males.

Table 8.3. Percentage of Persons Living with HIV by Gender, Race/Ethnicity and Exposure Category, Travis County, 2012.

Gender	Race/ethnicity	Exposure Category				
		MSM (%)	IDU (%)	MSM/IDU (%)	Heterosexual (%)	Pediatric and Other Adult (%)
Male	White	85.6	3.0	9.7	1.4	0.3
	Black	54.8	17.6	12.5	14.4	0.7
	Hispanic	80.2	5.7	6.8	6.8	0.5
	Other	73.2	7.4	7.7	11.6	0.0
	All males	77.9	6.6	9.3	5.6	0.5
Female	White	-	41.9	-	57.2	0.9
	Black	-	29.5	-	66.8	3.6
	Hispanic	-	15.6	-	81.6	2.8
	Other	-	40.0	-	60.0	0.0
	All females	-	28.5	-	68.8	2.8

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

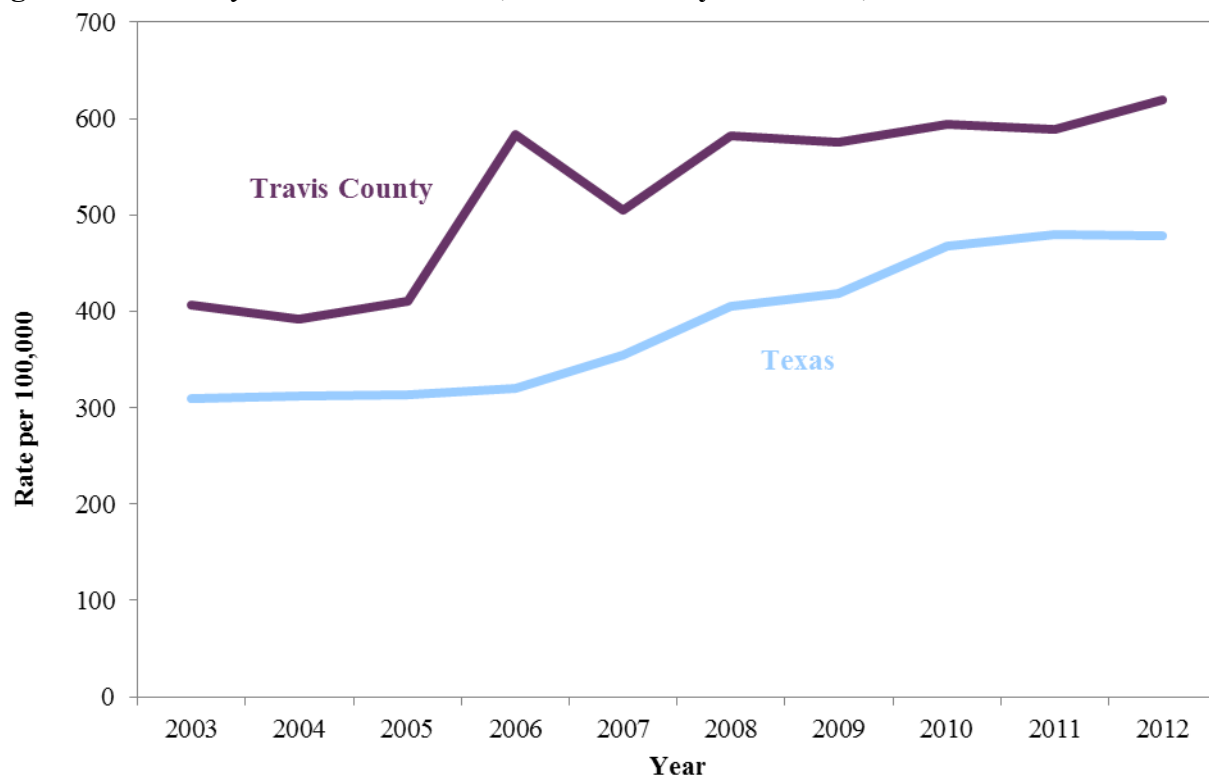
9.0 Sexually-transmitted Infections

Chlamydia

Chlamydial infections, caused by *Chlamydia trachomatis*, are the most commonly reported sexually-transmitted infections in the United States, Texas, and Travis County. In women, chlamydial infections may result in pelvic inflammatory disease and ectopic pregnancies.

In 2012, a total of 124,649 cases were reported in Texas.¹⁰ Since 2003, the number of cases in Travis County has increased 90% from 3,493 to 6,623. Over 6,000 cases were reported in Travis County each year in 2011 and in 2012. Figure 9.1 shows the incidence rate for Travis County and Texas for 2003 through 2013. During 2003 through 2012, incidence rates are higher each year in Travis County compared with Texas. The incidence rate for Travis County has increased from 406.4 cases per 100,000 population in 2003 to 619.5 cases per 100,000 population in 2012, a 52.4% increase. The state of Texas experienced a similar increase (54.4%) during this period.

Figure 9.1. *Chlamydia* Incidence Rate, Travis County and Texas, 2003-2012.



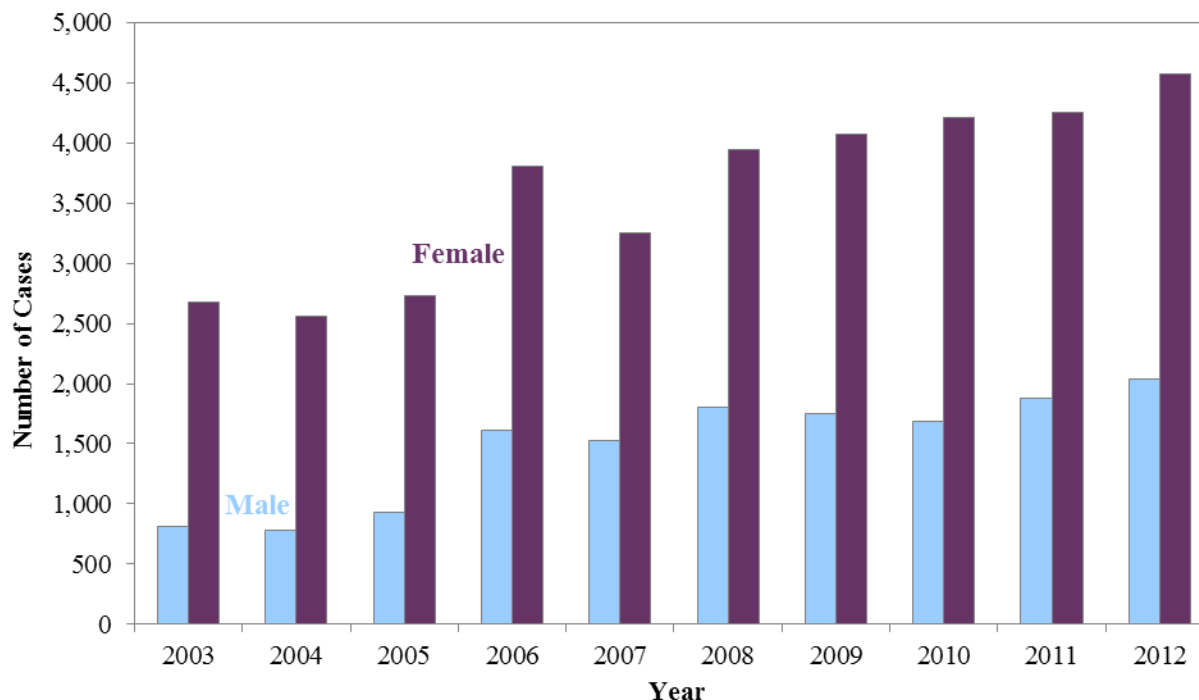
Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 9.2 shows the number of cases in Travis County by gender for years 2003 through 2012. Each year, females comprise most of the cases ranging from 77% in 2003 to 68% in 2007. Table 9.1 shows the number of reported cases in Travis County in 2012 by gender and race/ethnicity.

¹⁰ Texas STD Surveillance Report, 2012 Annual Report, Texas Department of State Health Services.

Overall, the number of reported *Chlamydia* cases who are female is 124% higher than the number who are male. For those with known race/ethnicity, Hispanics comprise 43% of the cases.

Figure 9.2. Number of *Chlamydia* Cases by Gender, Travis County, 2003-2012.



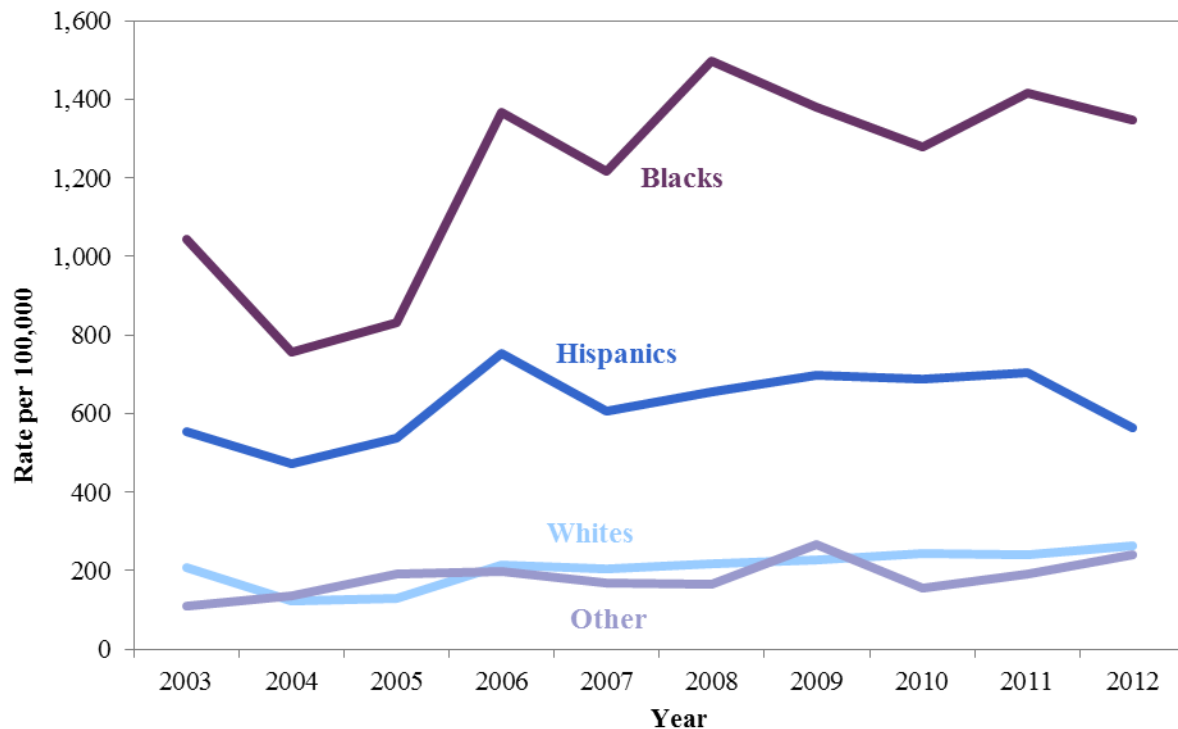
Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Table 9.1. Number of *Chlamydia* Cases by Gender and Race/Ethnicity, Travis County, 2012.

Race/Ethnicity	Gender			Total
	Male	Female	Unknown	
White	553	837	2	1,392
Black	414	722	1	1,137
Hispanic	470	1,566	0	2,036
Other	73	134	0	207
Unknown	528	1,316	7	1,851
Total	2,038	4,575	10	6,623

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 9.3 shows the incidence rates by race/ethnicity. From 2003 through 2012, incidence rates for Blacks have been consistently higher compared with rates for Whites, Hispanics, and Others. Rates for Hispanics have also been consistently higher compared with rates for Whites. The incidence rate in 2012 for Blacks was five times higher compared with Whites.

Figure 9.3. *Chlamydia* Incidence Rate by Race/Ethnicity, Travis County, 2003-2012.

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Gonorrhea

Gonorrhea, caused by the bacteria *Neisseria gonorrhoeae*, is one of the most common sexually-transmitted infections in the United States. Transmission occurs through contact with discharges from mucous membranes of infected persons. The clinical illness differs between males and females. In males, gonococcal infection presents as a discharge from the urethra with dysuria or painful urination within two-seven days after exposure. In females, infection is followed by the development of an abnormal vaginal discharge. Females may have no symptoms of an infection. Gonorrhea is effectively treated with antibiotics.

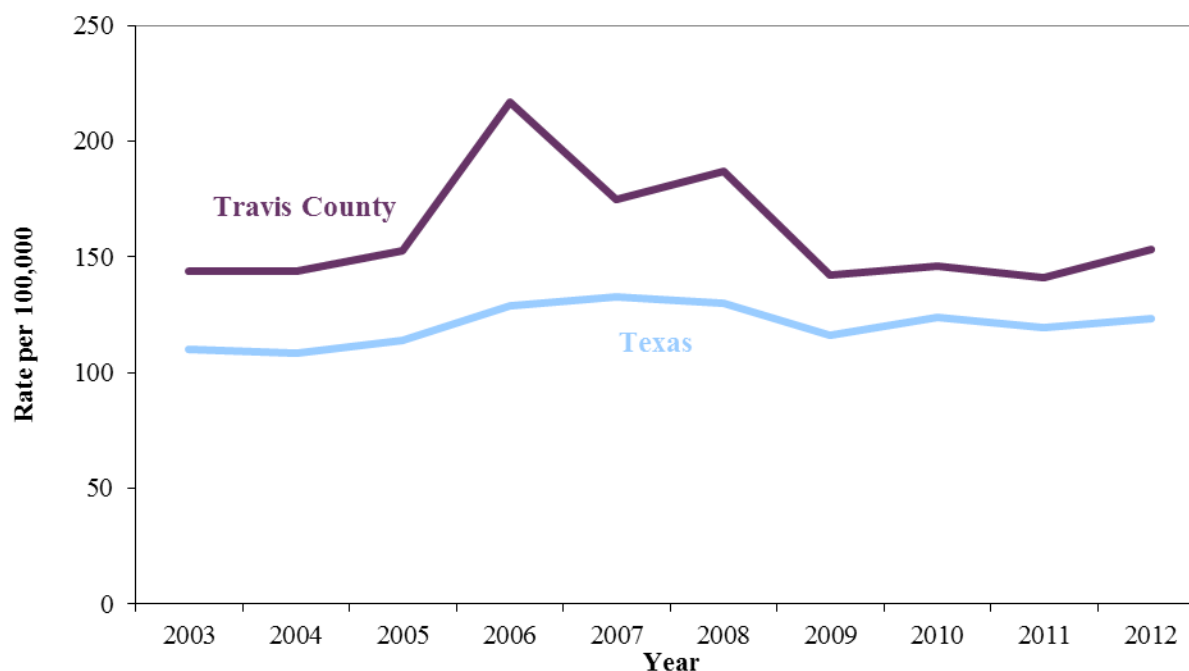
In 2012, a total of 32,089 cases were reported in Texas. In 2012, a total of 1,637 cases were reported in Travis County. Table 9.2 presents the number of cases reported in 2012 by gender and race/ethnicity. The gender and race/ethnicity was not reported for one person. A majority (57.2%) of cases were males. For those with known race/ethnicity, Blacks comprised 39% of the cases. A majority (74%) of cases were 15 to 29 years of age.

Table 9.2. Number of Gonorrhea Cases by Gender and Race/Ethnicity, Travis County, 2012.

Race/Ethnicity	Gender		Total
	Male	Female	
White	274	107	381
Black	282	241	523
Hispanic	219	184	403
Other	17	18	35
Unknown	143	151	294
Total	935	701	1,636

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 9.4 shows the gonorrhea incidence rates for Travis County and Texas for years 2003 through 2012. During this period rates in Travis County were higher compared with Texas. In 2011 and 2012, rates in Travis County were 17% and 24% higher, respectively, compared with Texas. In the five most populated counties in Texas, the incidence rate in Travis County (149.4) is higher compared with Tarrant County (115.0) and lower compared with Bexar County (188.4), Dallas County (179.4), and Harris County (153.4).¹¹

Figure 9.4. Gonorrhea Incidence Rates, Travis County and Texas, 2002-2012.

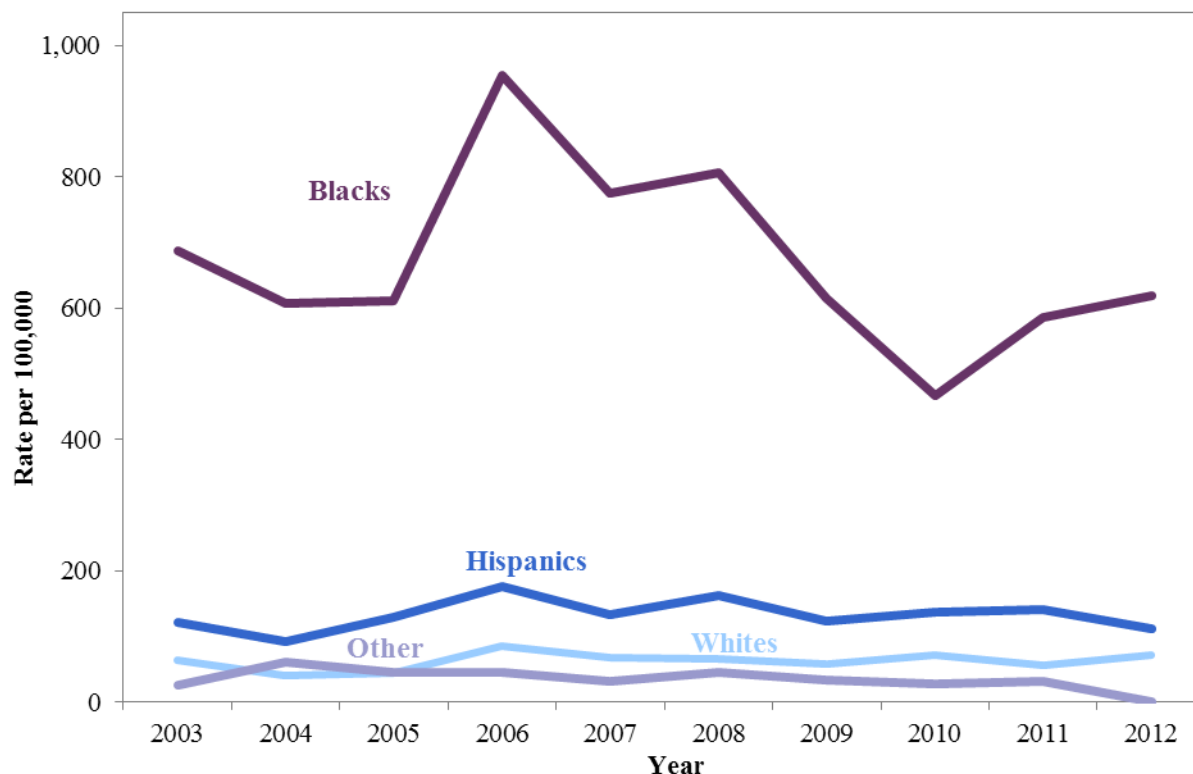
Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 9.5 shows gonorrhea incidence rates by race/ethnicity for the period 2002 through 2012. During this period, incidence rates for Blacks in Travis County were higher compared with

¹¹ Texas STD Surveillance Report, 2012 Annual Report, Texas Department of State Health Services.

Whites and Hispanics. In 2012, the incidence rate for Blacks (584.9) were over ten times higher compared with Whites (55.3).

Figure 9.5. Gonorrhea Incidence Rates by Race/Ethnicity, Travis County, 2002-2012.



Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Syphilis

Syphilis is caused by the bacteria *Treponema pallidum*. Syphilis in adults is categorized into four clinical stages. These stages are primary, secondary, latent, and late or tertiary syphilis. The primary stage is characterized by a single or multiple lesions or ulcers at the location where *Treponema pallidum* entered the body. Without treatment, the lesions may last several weeks. Secondary syphilis occurs several weeks or months after the primary stage. The secondary stage is characterized by a rash. Other signs and symptoms of this stage include fever, swollen lymph nodes, headaches, fatigue, and muscle aches. Latent or hidden syphilis is typically without symptoms of disease. Tertiary syphilis occurs several years after the primary stage. Tertiary syphilis is associated with damage to the central nervous system, cardiovascular system, and bones. Syphilis is spread by direct contact with sores during sexual contact. Transplacental infection of the fetus occurs during pregnancy with an infected woman.

In 2012, a total of 1,636 primary and secondary (P&S) cases were reported in Texas.¹² A total of 132 primary and secondary cases were reported in Travis County that year. Since 2003, the number of P&S syphilis cases has increased over 300%. Table 9.3 shows the number of reported primary and secondary syphilis cases reported in Travis County in 2012 by gender and age group. Almost 95% of reported cases are males. Almost half (53.7%) of the cases were between the ages of 20 to 34 years. In 2012, the incidence rate per 100,000 population for males (23.4) was 18 times higher compared with females (1.3). Since 2008, rates for males have increased 54% while rates for females decreased 52%.

Table 9.3. Number of Primary and Secondary Syphilis Cases by Gender, Age Group, and Race/Ethnicity, Travis County, 2012.

Race/Ethnicity, Travis County, 2012:

Age Group (Years)	Gender								Total
	Males				Females				
	White	Black	Hispanic	Other/ Unknown	White	Black	Hispanic	Other/ Unknown	
0 – 9	0	0	0	0	0	0	0	0	0
10 – 19	0	0	3	0	0	0	0	0	3
20 – 29	11	4	28	1	0	3	2	0	49
30 – 39	20	6	14	0	1	0	0	0	41
40 – 49	12	2	11	1	0	1	0	0	27
50 – 59	6	1	2	1	0	0	0	0	10
≥ 60	1	0	1	0	0	0	0	0	2
Total	50	13	59	3	1	4	2	0	132

Data Source: Texas Department of State Health Services, 2012 Texas STD and HIV Epidemiologic Profile

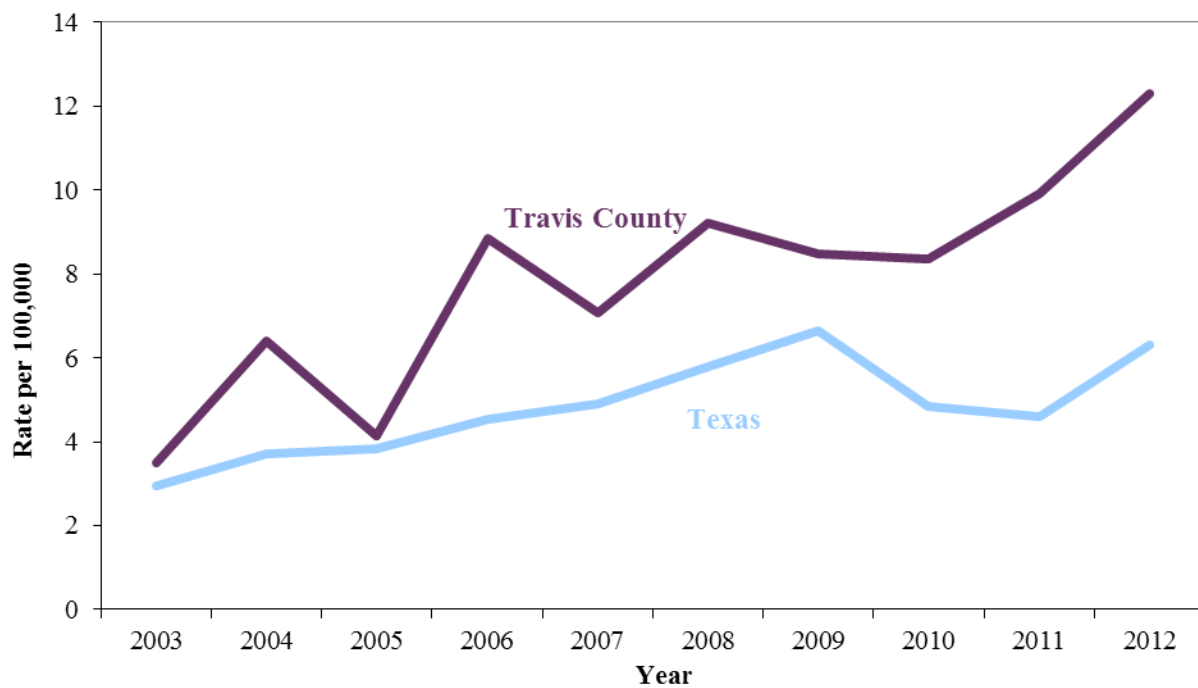
Figure 9.6 shows the syphilis incidence rates for Travis County and Texas for 2003 through 2012. The incidence rates for Travis County and Texas have been slowly increasing since 2003. For 2003 through 2012, the incidence rate in Travis County is higher compared with the rate for Texas. In 2012, Travis County had the fourth highest county incidence rate in Texas. For the five most populated counties in Texas, the incidence rate in Travis County (12.3) is higher compared with Dallas County (7.7), Tarrant County (8.7), and Harris County (11.7) and lower compared with Bexar County (17.2).¹³

Overall, the syphilis incidence rate in Travis County in 2012 was 12.3 cases per 100,000 population. Figure 9.7 shows the syphilis incidence rates by race/ethnicity for 2003 through 2012. In Travis County, rates for Blacks are usually higher compared with Whites and Hispanics. In 2012, the incidence rate per 100,000 for Blacks (20.1) was over two times higher compared with Whites (9.7). Since 2010, there has been a sharp increase, from 4.7 to 16.9 cases per 100,000 population, in the syphilis incidence rates for Hispanics.

¹² Texas STD Surveillance Report, 2012 Annual Report, Texas Department of State Health Services.

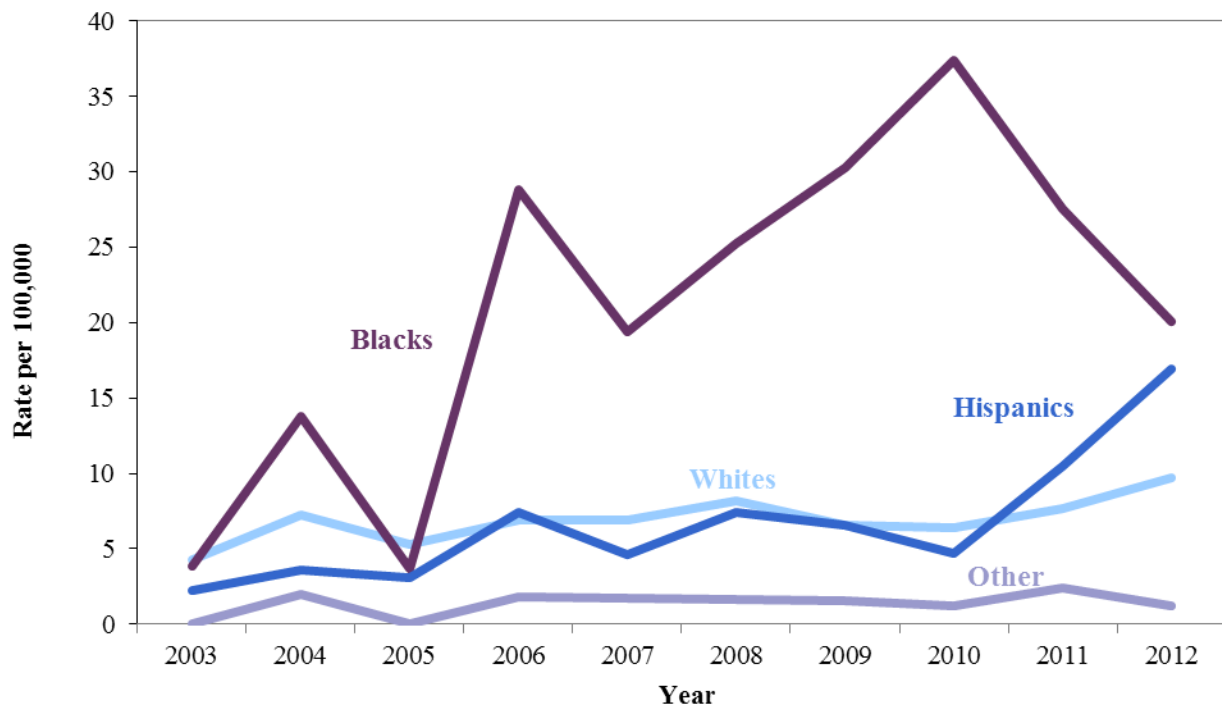
¹³ Ibid.

Figure 9.6. Primary and Secondary Syphilis Incidence Rates, Travis County and Texas, 2003-2012.



Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 9.7. Primary and Secondary Syphilis Incidence Rates by Race/Ethnicity, Travis County, 2003-2012.



Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

10.0 Tuberculosis

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but TB bacteria can attack any part of the body such as the kidneys, spine, and brain. If not treated properly, TB disease can be fatal. TB is spread through the air from person to person. The TB bacteria are put into the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. People nearby may breathe in these bacteria and become infected. Not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: latent TB infection and TB disease.¹⁴

When TB bacteria live in the body without making you sick, it is called latent TB infection. In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. People with latent TB infection do not feel sick and do not have any symptoms. People with latent TB infection are not infectious and cannot spread TB bacteria to others.¹⁵

If the immune system can't stop TB bacteria from growing, they become active. When TB bacteria are active (multiplying in your body), this is called TB disease. People with TB disease are sick. They also may be able to spread the bacteria to people they spend time with every day.¹⁶

Table 10.1 shows the number of TB cases in Travis County and Texas from 2003 to 2012. In 2012, there were 37 cases of TB in Travis County. There were 1,233 cases of TB in the State of Texas in 2012. The Travis County TB case numbers ranged anywhere from 37 to 67 cases per year during this period, with a median TB case number of 53 per year. In the State of Texas the median number of TB cases during the same period was 1,503 per year.

Table 10.1. Number of Reported Tuberculosis Cases, Travis County and Texas, 2003-2012.

Geographic area	Year									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Travis County	54	63	48	41	55	44	61	67	52	37
Texas	1,579	1,669	1,525	1,567	1,504	1,501	1,494	1,381	1,316	1,233

Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Figure 10.1 shows the incident rates for Travis County, the State of Texas, and the United States from 2003 to 2012. The rate of TB cases for Travis County was 3.4 per 100,000 in 2012. The rate of TB cases in the State of Texas was higher at 4.7 per 100,000 in 2012. Generally, incidence rates are lower in Travis County compared with Texas, but higher when compared

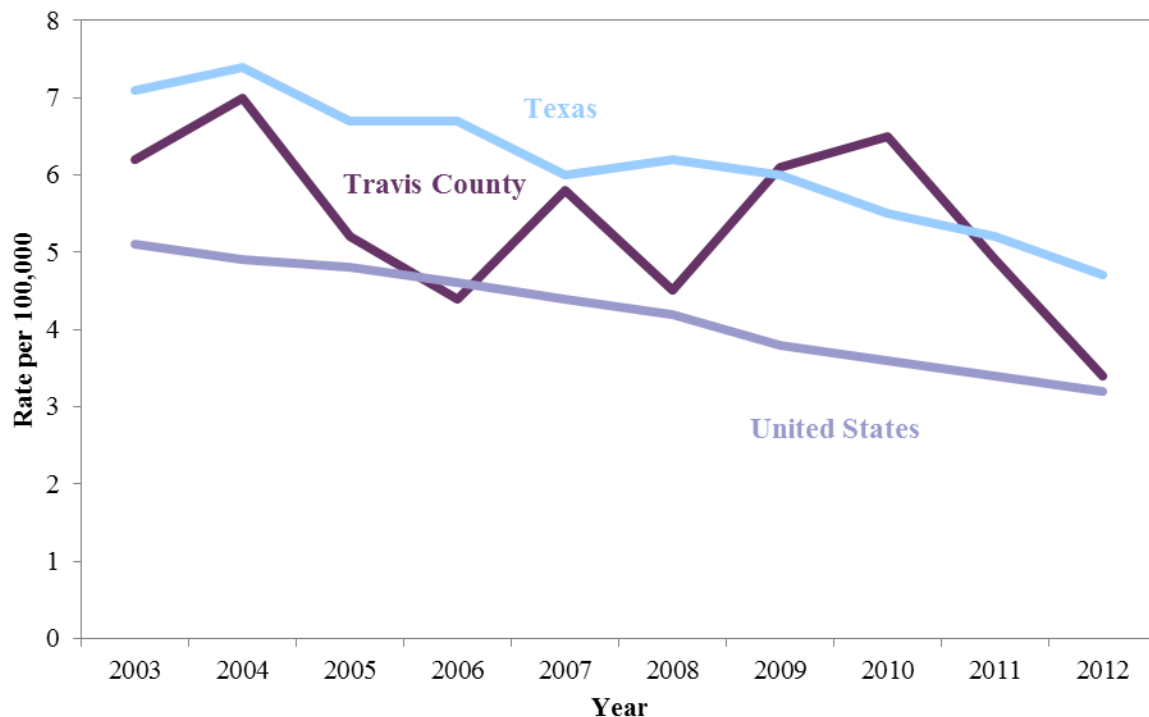
¹⁴ <http://www.cdc.gov/tb/topic/basics/default.htm>.

¹⁵ Ibid.

¹⁶ Ibid.

with the United States. From 2003 to 2012, the tuberculosis incidence rate in Travis County decreased 45%. Travis County ranked eighth among Texas Counties in 2012 for TB rates.¹⁷

Figure 10.1. Tuberculosis Incidence Rates per 100,000 Population, Travis County, Texas, and United States, 2003-2012.



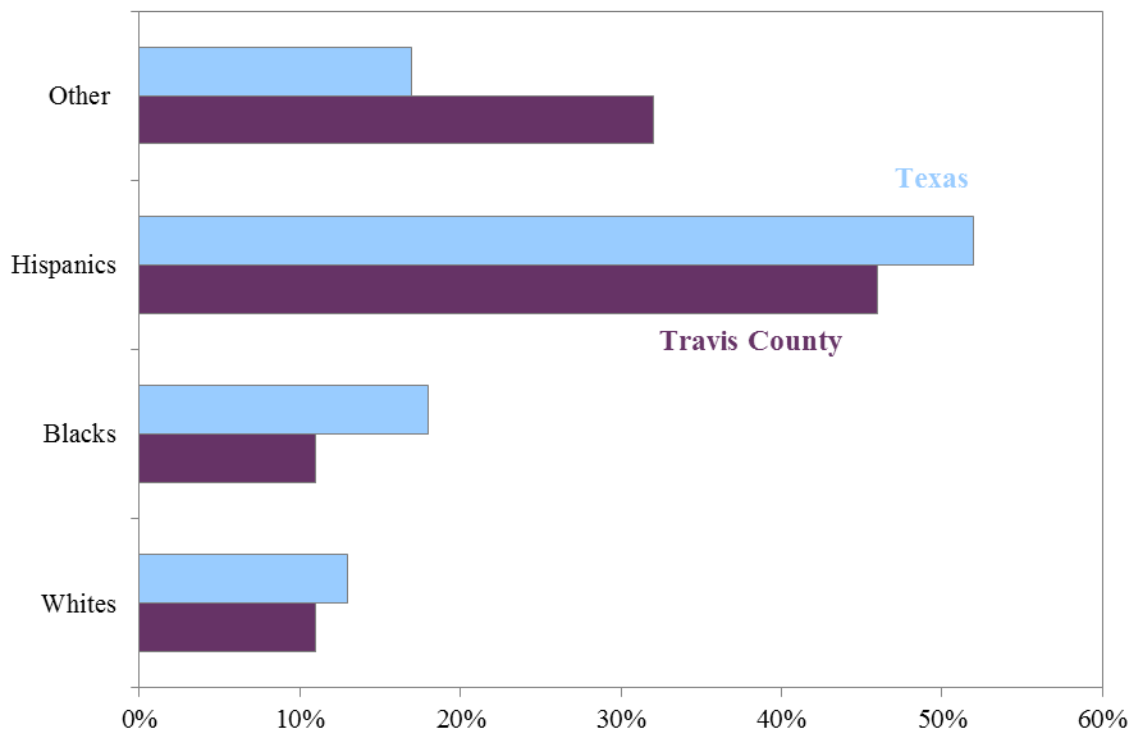
Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services and the Centers for Disease Control and Prevention

Figure 10.2 shows the race/ethnicity of the TB cases in Travis County and Texas for 2012. The race and ethnicity of the Travis County TB cases in 2012 were as follows: White, 11%; Black, 11%; Hispanic, 46%; and Other, 32%. Compared to Travis County's population, in 2012, TB disease disproportionately and adversely affected Blacks (8% of population but 11% of TB cases); Hispanics (34% of population but 46% of TB cases); and Others (8% of population but 32% of cases). In the United States, 63% of the reported TB cases in 2012 were born outside the United States.¹⁸ Similarly, in Travis County, 62% of the reported TB cases in 2012 were born outside the United States.

¹⁷ <https://www.dshs.state.tx.us/idcu/disease/tb/statistics>.

¹⁸ <http://www.cdc.gov/tb/statistics/surv/surv2012/slides/surv14.htm>.

Figure 10.2. Distribution of Tuberculosis Cases by Race/Ethnicity, Travis County and Texas, 2012.



Data Source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

11.0 Vaccine-preventable Diseases

Immunizations or vaccines protect against a number of serious diseases. Widespread use of vaccines in the United States has eliminated or greatly reduced the occurrence of some infectious diseases. Table 11.1 shows the number of reported cases of selected vaccine-preventable diseases in Travis County for 2008 through 2012. During this period, no cases of diphtheria, measles, or rubella were reported in Travis County.

Table 11.1. Number and Incidence Rates* for Selected Vaccine-preventable Diseases, Travis County and Texas, 2008-2012.

Condition	Travis County 2008		Travis County 2009		Travis County 2010		Travis County 2011		Travis County 2012		Texas 2012	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Chickenpox (varicella)	255	25.8	140	13.8	127	12.4	98	9.4	144	13.6	2,410	9.1
Hepatitis A (acute)	9	0.9	9	0.9	12	1.2	6	0.6	5	0.5	134	0.5
Hepatitis B (acute)	27	2.7	31	3.1	18	1.8	10	1.0	11	1.0	170	0.6
Meningococcal infections, invasive	7	0.7	4	0.4	1	0.1	1	0.1	2	0.2	37	0.1
Mumps	1	0.1	1	0.1	5	0.5	1	0.1	0	0.0	15	0.1
Pertussis	91	9.2	701	69.2	908	88.6	224	21.5	275	25.9	2,218	8.4
<i>Streptococcus pneumoniae</i> infections, invasive	109	11.0	129	12.7	128	12.5	79	7.6	89	8.4	1,535	5.8

Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

*Rate per 100,000 population

Chickenpox is a very contagious disease caused by the varicella-zoster virus (VZV). The virus causes a blister-like rash, itching, tiredness, and fever. Chickenpox can be serious, especially in babies, and people with weakened immune systems. Chickenpox spreads in the air through coughing or sneezing. It also can be spread by touching or breathing in the virus particles that come from chickenpox blisters. During 2008-2012, the annual number of reported chickenpox cases ranged from 98 to 255.

Hepatitis A and hepatitis B are viral diseases of the liver. In 1992, 22 years ago, the incidence rates for acute hepatitis A and acute hepatitis B in Travis County, were 7.1 and 12.5 cases per 100,000 population, respectively.¹⁹ In 2012, the incidence rates for both of these diseases have decreased over 90%.

Whooping cough, also known as pertussis, is a bacterial disease of the respiratory tract. Incidence rates for pertussis are highest in children less than one year of age. During 2008

¹⁹ Texas Department of Health, Epidemiology in Texas, 1992 Annual Report.

through 2012, the annual number of pertussis cases in Travis County ranged from 91 to 908. In 2012 the risk for pertussis in Travis County was three times higher compared with the risk in Texas.

Streptococcus pneumoniae bacteria, or pneumococcus, can cause many types of illnesses. These illnesses include pneumonia, meningitis, and bacteremia or blood stream infections. Persons less than two years of age and those 65 years of age and older have the highest rates of diseases. In 2012, 89 cases of invasive *Streptococcus pneumoniae* infections were reported in Travis County.

12.0 Foodborne Diseases

Foodborne disease is a term used to describe illnesses resulting from the consumption of contaminated foods. These diseases may be caused by bacteria, viruses, or toxins produced by these organisms. Contamination may occur during food production and preparation via inadequate sanitization, improper food handling, or holding food items at inadequate temperatures. The Centers for Disease Control and Prevention (CDC) estimate that one in six Americans, approximately 48 million people, have a foodborne illness each year.²⁰ Additionally, foodborne diseases kill thousands in the United States each year and cause billions of dollars in healthcare-related and industry costs annually.²¹

Table 12.1. Number and Incidence Rate* for Selected Foodborne Diseases, Travis County and Texas, 2006-2011.

Condition	Travis County														Texas	
	2006		2007		2008		2009		2010		2011		2012		2012	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Amebiasis	26	2.8	65	6.9	102	10.3	112	11.1	41	4.0	17	†	22	2.1	148	0.6
Botulism‡	0	0	2	†	0	0	0	0	1	†	0	†	1	†	2	†
Campylobacteriosis	71	7.7	151	15.9	114	11.5	131	12.9	182	17.8	140	13.4	183	17.3	2,390	9.2
Cryptosporidiosis	44	4.7	12	†	168	17.0	10	†	8	†	11	†	12	†	302	1.2
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	7	†	4	†	3	†	4	†	8	†	8	†	7	†	499	1.9
Hepatitis A, Acute	11	†	11	†	9	†	9	†	12	†	6	†	5	†	134	0.5
Listeriosis	1	†	1	†	6	†	2	†	7	†	0	0.0	0	0.0	28	0.1
Salmonellosis	141	15.2	142	15.0	244	24.7	199	19.6	259	25.3	274	26.3	253	23.9	4,990	19.3
Shigellosis	152	16.4	64	6.8	148	15.0	75	7.4	176	17.2	316	30.3	146	13.8	1,926	7.4
Vibriosis Infections§	3	†	3	†	2	†	5	†	6	†	4	†	2	†	66	0.3

*Rate rate per 100,000 population. 2010 population numbers are 2010 US Census data. 2011 and 2012 are population projections from the Texas State Data Center using 0.5 migration scenario.

†Rate not calculated, fewer than 20 cases reported annually

‡Botulism includes: infant and wound botulism

§Vibriosis infections include: *Vibrio parahaemolyticus*, *Vibrio vulnificus*, and *Vibrio* other or unspecified.

Data Sources: Epidemiology and Health Statistics Unit, Austin/Travis County Health and Human Services Department – National Electronic Disease Surveillance System and the Texas Department of State Health Services Infectious Disease Control Unit.

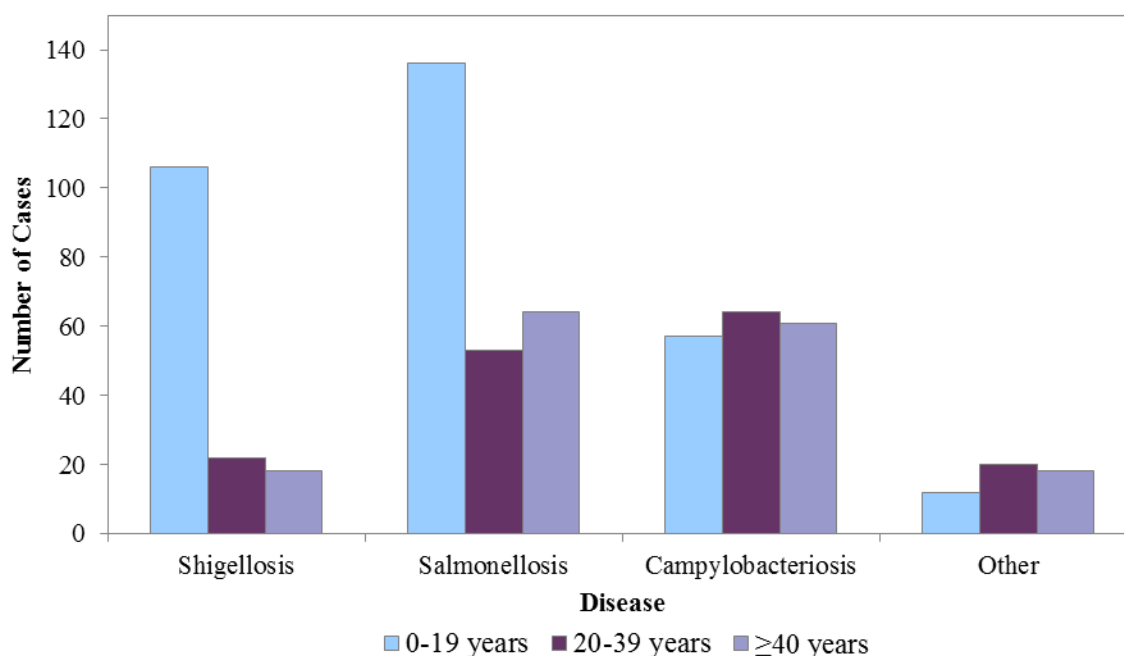
Table 12.1 shows the number of cases of various foodborne diseases reported in Travis County for 2006 through 2012. Foodborne disease rates in Travis County are significantly higher than those reported for Texas. Foodborne diseases are commonly underreported, and only a small proportion of illnesses are confirmed by laboratory testing; as a result, the higher Travis County rates could reflect an increased disease burden or a higher proportion of diseases identified and reported as compared to Texas overall.

²⁰ <http://www.cdc.gov/foodborneburden/>.

²¹ http://www.cdc.gov/WinnableBattles/FoodSafety/index.html?s_cid=fb165.

The most common foodborne diseases reported in Travis County and Texas were salmonellosis, campylobacteriosis, and shigellosis. All three diseases are caused by bacteria and result in a self-limiting diarrheal illness; however, in some persons, the diarrhea may be so severe that the patient needs to be hospitalized.

Figure 12.1. Number of Selected Foodborne Diseases by Age Group, Travis County, 2012.



Data Source: Epidemiology and Health Statistics Unit, Austin/Travis County Health and Human Service Department - National Electronic Disease Surveillance System

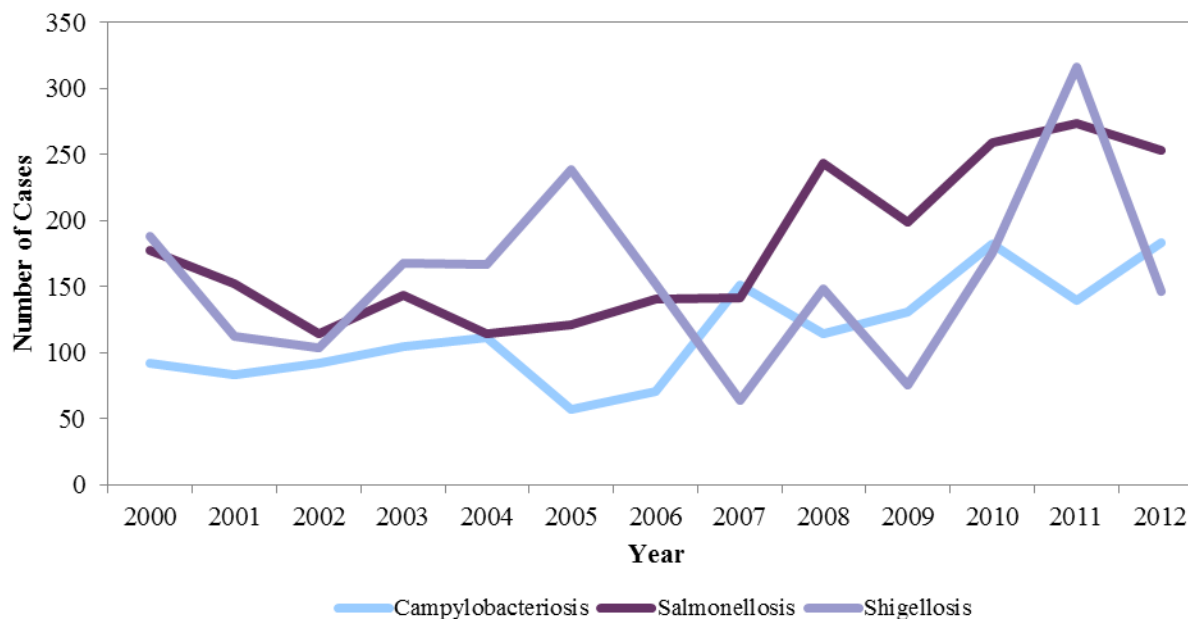
Commonly associated with contaminated food, water, or contact with infected animals, salmonellosis has been associated with many food items and animal exposures over the past few years. Nationally, salmonellosis is identified more frequently in children which is also the case in Travis County as shown in Figure 12.1.²² Travis County has seen a steady increase in salmonellosis cases from 2006 to 2012 as shown in Figure 12.2. This is similar to national trends for 2012 which have shown a 13/3% increase from 2006 to 2008.²³

Campylobacteriosis is associated with eating raw or undercooked poultry, raw milk dairy products, contaminated produce and drinking water. Travis County has seen a stable trend in campylobacteriosis cases from 2006 to 2012 as shown in Table 12.1. This is different from national trends for 2012 which have shown a 14% increase from 2006 to 2008.²⁴ Figure 12.1 shows that campylobacteriosis does not vary by age group in Travis County; however, this is different from national trends which indicate higher risk among children.

²² <http://www.cdc.gov/features/dsfoodnet2012/>.

²³ Centers for Disease Control and Prevention, Summary of Notifiable Diseases-United States, 2011, MMWR 2012;60:pp100.

²⁴ Ibid.

Figure 12.2. Number of Selected Foodborne Diseases by Year, Travis County, 2000-2012.

Data Source: Epidemiology and Health Statistics Unit, Austin/Travis County Health and Human Services Department – National Electronic Disease Surveillance System

Shigellosis is associated with contaminated food or water and may also be transmitted by flies and sexual contact.²⁵ Similar to salmonellosis, shigellosis is identified more frequently in children nationally which is also the case in Travis County as shown in Figure 12.1.²⁶ Travis County has seen a slight increase in shigellosis cases from 2006 to 2012 as shown in Figure 12.2. This is different from national trends which have shown a 13% decrease from 2006 to 2008.²⁷

The remaining foodborne diseases noted in Table 12.1 such as: botulism, vibriosis, listeriosis, etc., are rarely reported in Travis County.

²⁵<http://www.cdc.gov/nczved/divisions/dfbmd/diseases/shigellosis/technical.html>.

²⁶ <http://www.cdc.gov/features/dsfoodnet2012/>.

²⁷ Centers for Disease Control and Prevention, Summary of Notifiable Diseases-United States, 2011, MMWR 2012;60:pp100.

13.0 Vectorborne Diseases

The term “vectorborne disease” is commonly used to describe an illness caused by an infectious agent, such as a virus or bacteria that is transmitted to people by blood-sucking arthropods. The term “vector” refers to the arthropod that transmits the infectious agent through feeding activity. Insects and ticks are types of arthropods. The arthropods that most commonly serve as vectors of infectious agents include mosquitoes, fleas, and arachnids such as mites and ticks.

The arthropod or vector typically becomes infected with an infectious agent while feeding on infected vertebrates (e.g., birds, rodents, other larger animals, or humans). The infectious agent is then spread to a susceptible person or other animal. For almost all vectorborne diseases, the infectious agent must infect and multiply inside the arthropod before the arthropod is able to transmit the disease through its salivary glands. The most common vectorborne diseases in Texas and Travis County are carried by mosquitoes and fleas.

Table 13.1 shows the number of cases of various vectorborne diseases reported in Travis County for 2008 through 2012. In Travis County and Texas in 2012, West Nile virus infections were the most common vectorborne disease followed by murine typhus. During 2012, Texas and Travis County experienced an outbreak of West Nile virus. The risk of West Nile virus in Travis County during 2012 (14.4 cases per 100,000 population) was greater than the risk in Texas. West Nile virus is spread by the bite of an infected mosquito.

Table 13.1. Number and Incidence Rates for Selected Vectorborne Diseases, Travis County and Texas, 2008-2012.

Condition	Travis County 2008		Travis County 2009		Travis County 2010		Travis County 2011		Travis County 2012		Texas 2012	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Dengue	4	0.4	2	0.2	1	0.1	3	0.3	2	0.2	15	0.06
Lyme Disease	8	0.8	8	0.8	4	0.4	9	0.9	3	0.3	75	0.3
Malaria	5	0.5	5	0.5	10	1.0	3	0.3	5	0.5	102	0.4
Spotted Fever	5	0.5	5	0.5	2	0.2	4	0.4	7	0.7	77	0.3
Rickettsiosis												
Murine Typhus	33	3.3	34	3.4	15	1.5	54	5.2	42	4.0	263	1.0
West Nile Virus	2	0.2	0	0.0	0	0.0	0	0.0	153	14.4	1,868	8.2

Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

Malaria and dengue are also spread by the bite of infected mosquitos. These two diseases are associated with travel to endemic areas outside the United States. They are reported infrequently in Travis County.

Murine typhus is caused by bacteria named *Rickettsia typhi*. Murine typhus in humans is characterized by fever, headache, and a rash. Murine typhus is transmitted to humans by the bite of an infected flea or by inoculation with flea feces containing *Rickettsia typhi*. Figure 13.1 shows murine typhus incidence rates for Travis County and Texas from 2003 through 2012. Incidence rates in Texas have gradually increased since 2003. Prior to 2007, murine typhus was a rare disease in Travis County. Since 2007, incidence rates in Travis County have dramatically increased and are consistently higher compared with the Texas incidence rates. From 2007 through 2012 an average of 35 murine typhus cases were reported in Travis County annually.

Figure 13.1. Murine Typhus Incidence Rates, Travis County and Texas, 2003-2012.



Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

Other vectorborne diseases that are reported in Texas include plague, tularemia, leishmaniasis, and relapsing fever. These diseases are rarely reported in Travis County.

West Nile Virus

West Nile virus infection is the most common vectorborne disease in the United States. In nature, West Nile virus is spread between mosquitos and birds. Infected mosquitos will infect birds while getting a blood meal. Mosquitos can become infected by feeding on infected birds. West Nile virus is primarily transmitted to humans by the bite of an infected mosquito.

Transmission also may occur through blood transfusions, organ transplants, and from mother to baby during pregnancy, delivery, or breastfeeding. Most persons with a West Nile virus infection experience a fever with headache, body aches, and joint pains. Severe symptoms in some persons include encephalitis or meningitis.

During 2008-2011, only two West Nile virus cases were reported in Travis County (Table 13.2). In 2012, the United States experienced an outbreak of West Nile virus with 5,674 cases reported.²⁸ A total of 286 persons in the United States died due to West Nile virus in 2012.²⁹ Over 1,800 cases (1,868 cases) were reported in Texas in 2012.³⁰ In 2012, 153 cases occurred in Travis County; six persons died.

Table 13.2. Number of West Nile Virus Cases and Clinical Characteristics, Travis County, 2003-2012.

	Year									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Number of Cases	22	2	6	1	8	2	0	0	0	153
Clinical presentation										
West Nile Fever	11	0	2	0	2	0	0	0	0	92
West Nile Neuroinvasive Disease	11	2	4	1	6	2	0	0	0	61
Number of Hospitalizations	14	2	3	1	2	2	0	0	0	73
Number of Deaths	1	0	0	0	2	0	0	0	0	6

Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

A majority (61.6%) of the cases in Travis County were males. The cases ranged in age from 11 to 91 years; most (57.6%) were 50 years of age or older. The six deaths occurred in persons 60 years of age or older; five were males. Figure 13.2 shows the month of onset of symptoms for the West Nile virus infections reported in Travis County. Ill persons had onset of symptoms

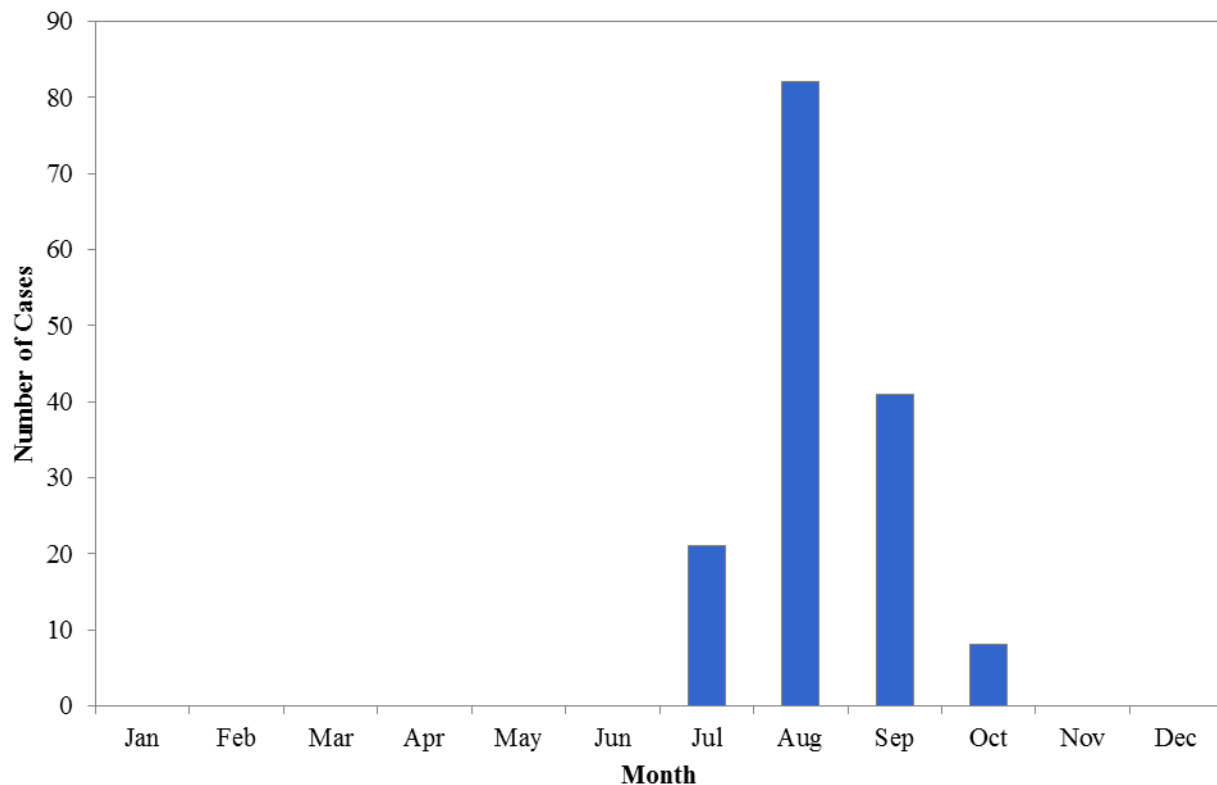
²⁸ Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report; 62:513-517.

²⁹ Ibid.

³⁰ West Nile Virus, Texas, USA, 2012, Emerging Infectious Diseases, 2013;19:1836-1838

during July through October. The initial cases had onset of illness the second week of July. Almost half (53%) had onset in August. A total of 92 persons had fever without meningitis or encephalitis. A total of 59 experienced meningitis and/or encephalitis. Meningitis and/or encephalitis were more common in those 60 years of age or older. Almost half (48%) of those 60 years of age or older experienced meningitis or encephalitis compared with 33% for those younger than 60 years.

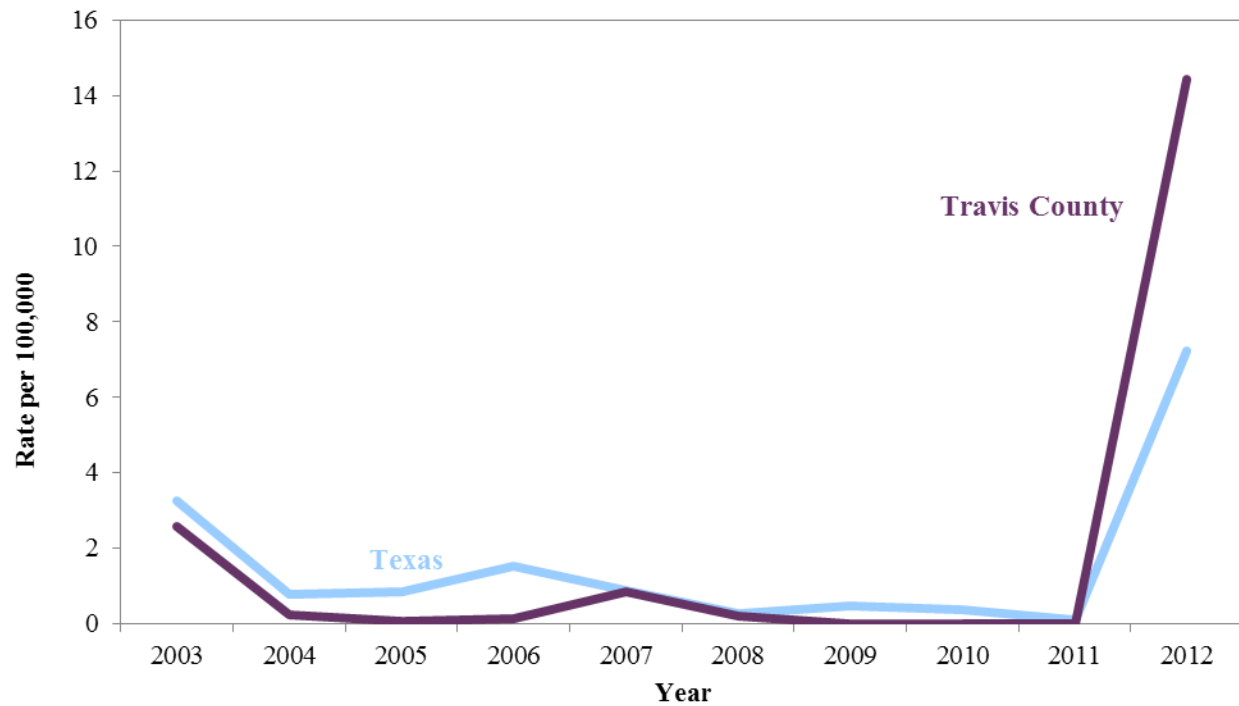
Figure 13.2. Month of Onset of Illness, West Nile virus, Travis County, 2012.



Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

Figure 13.3 shows the incidence rate by year for Travis County and Texas. In 2012, the incidence rate of West Nile virus infections in Travis County was double the rate for Texas.

Figure 13.3. West Nile Virus Incidence Rates, Travis County and Texas, 2003-2012.



Data Source: Infectious Disease Control Unit, Texas Department of State Health Services

14.0 Suicide

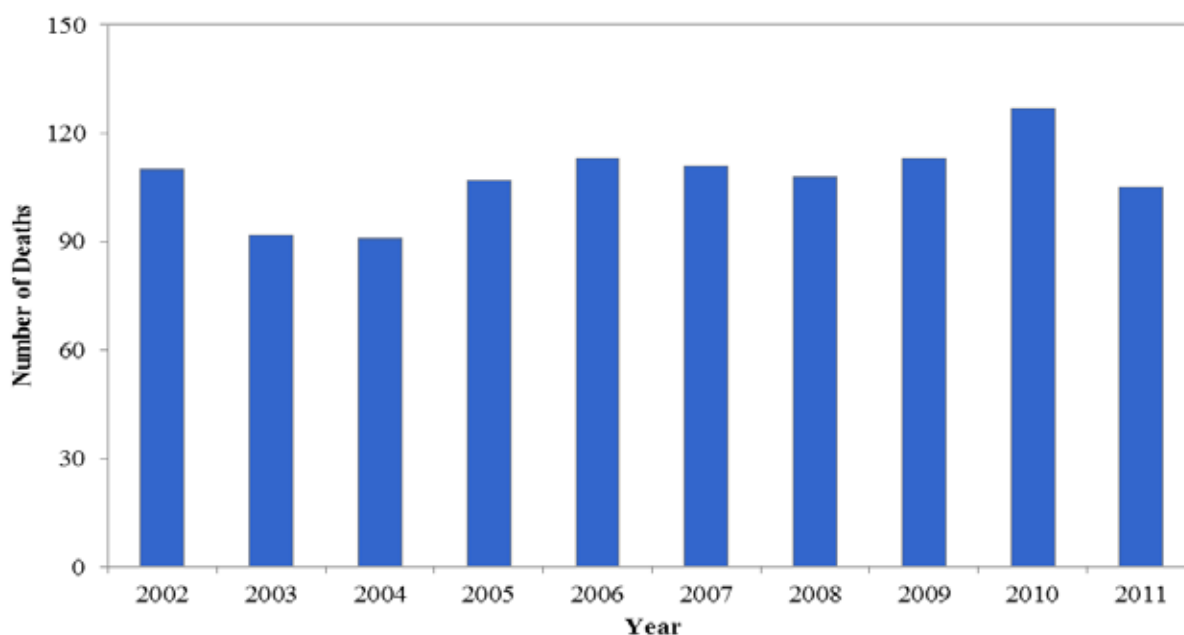
The Austin/Travis County Health and Human Services Department (A/TCHHSD) Office of Vital Records (OVR) receives, processes, and reports birth and death records for the City of Austin. Currently, the City of Austin boundaries include areas of Travis, Hays, and Williamson Counties. City of Austin data represents a portion of data within all three counties but not these counties entirely. Data available from the OVR for the City of Austin is preliminary.

The Texas Department of State Health Services provided data for the state and county level for 2002-2011 via the web site for Texas Health Data – Death Data. This data represents the usual residence of each individual regardless of location of death. Travis County level data is obtained from Texas Health Data. It is of value to note that the different data sources provide different time frames and different jurisdictional levels of data. Every effort has been made to provide the most current and accurate data available.

Anyone reviewing suicide data should be aware that this report is a snapshot, a point-in-time representation of suicide data. The data represented in this report, regardless of data source, ultimately is based on a subset of variables from the death certificates processed by the registrar of the city, precincts, county, and state of occurrence. Although rare, it is possible that a death record filing could be delayed for an extended period of time or amended which could ultimately change the picture presented within this report.

Figure 14.1 shows the number of suicides in Travis County for the period 2002 through 2011. During this ten year period, 1,077 suicides occurred in Travis County. The annual number of suicides ranged from 91 to 127.

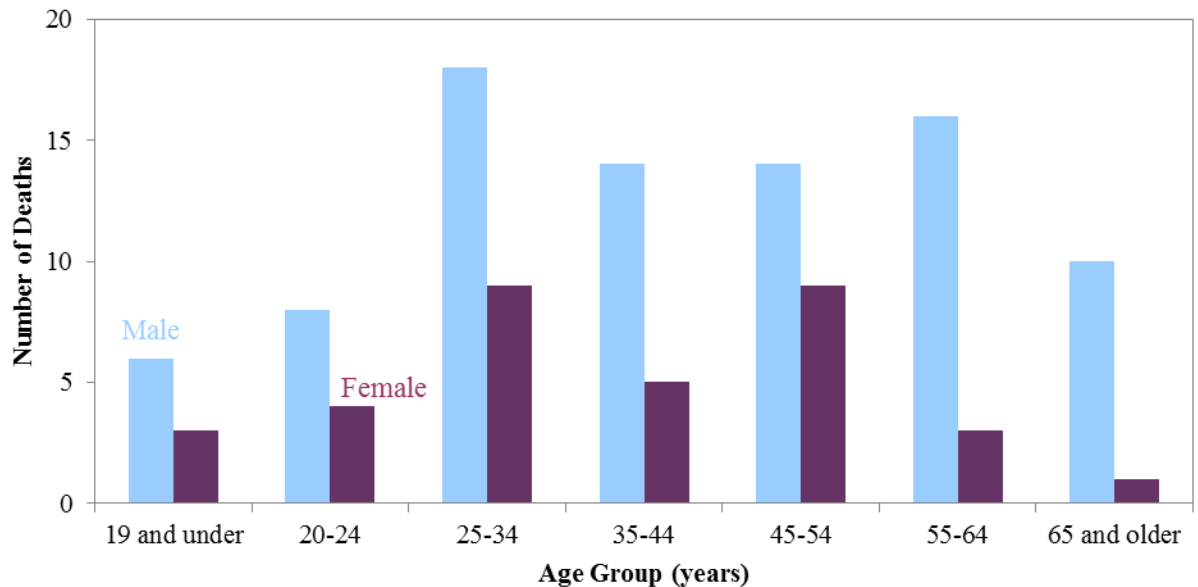
Figure 14.1. Suicide Mortality, Travis County, 2002-2011.



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

A total of 120 suicides were reported in the City of Austin in 2013. A majority (71.7%) of persons who committed suicide were males. In 2013, the rate of suicide was 20.2 per 100,000 for males and 8.1 per 100,000 for females. Figure 14.2 shows suicide mortality by age group and gender. Persons 45 years of age or older accounted for 44.2% of the suicides.

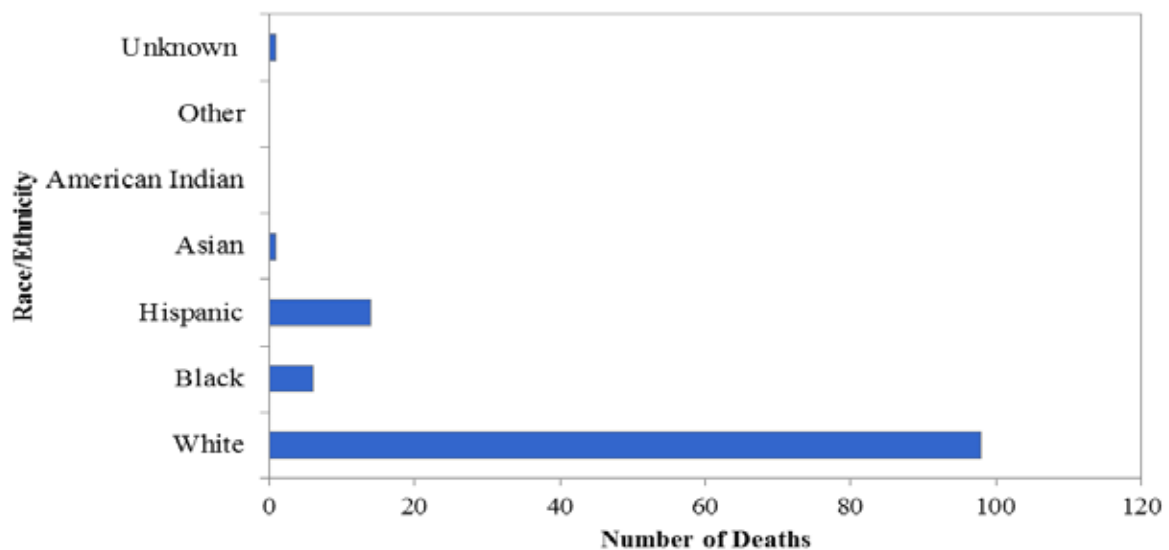
Figure 14.2. Suicide Mortality by Age Group and Gender, City of Austin, 2013.



Data Source: Office of Vital Records, A/TCHHSD

As shown in Figure 14.3, most (82.3%) suicides occurring in the City of Austin in 2013 are committed among Whites.

Figure 14.3. Suicide Mortality by Race and Ethnicity, City of Austin, 2013.



Data Source: Office of Vital Records, A/TCHHSD

Table 14.1 and Figure 14.4 presents suicide mortality by description of how injury occurred by gender. Almost half (48%) of all suicides were committed with a firearm. Drug use was the method for over 25% of females.

Table 14.1. Number of Suicides by Method of Self-inflicted Death, City of Austin, 2013.

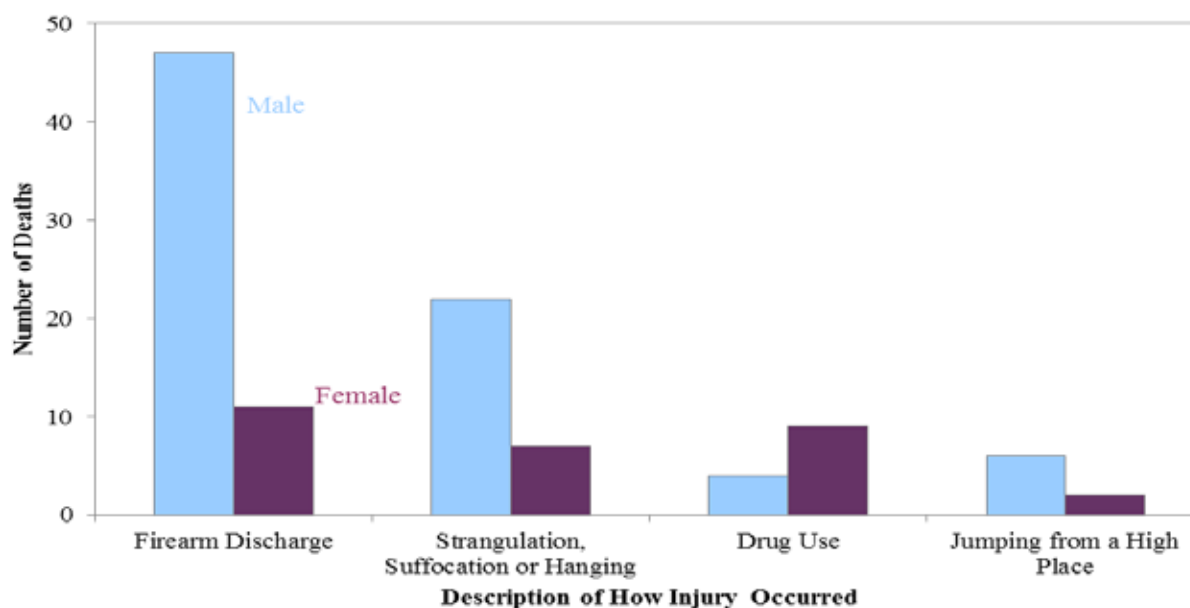
Method of self-inflicted death	Male		Female	
	Number	%	Number	%
Intentional self-poisoning by or exposure to:				
Drug use ¹	4	4.7	9	26.5
Other gases and vapors ²	1	1.1	0	0.0
Other and unspecified chemicals and noxious substances ³	1	1.1	1	2.9
Intentional self-harm by:				
Firearm discharge ⁴	47	54.7	11	32.4
Strangulation, suffocation, or hanging ⁵	22	25.6	7	20.6
Jumping from a high place ⁶	6	7.0	2	5.9
Sharp object ⁷	2	2.3	1	2.9
Drowning and/or submersion ⁸	1	1.1	0	0.0
Jumping or lying before a moving object ⁹	2	2.3	2	5.9
Crashing of a motor vehicle ¹⁰	0	0.0	1	2.9
Total	86		34	

Notations:

¹ ICD-10 Codes X60 – X66, X68-X69. ² ICD-10 Code X67. ³ ICD-10 Codes X69. ⁴ ICD-10 Code X72 – X74. ⁵ ICD-10 Code X70. ⁶ ICD-10 Code X80. ⁷ ICD-10 Code X78. ⁸ ICD-10 Code X71. ⁹ ICD-10 Code X81. ¹⁰ ICD-10 Code X82.

Data Source: Office of Vital Records, A/TCHHSD

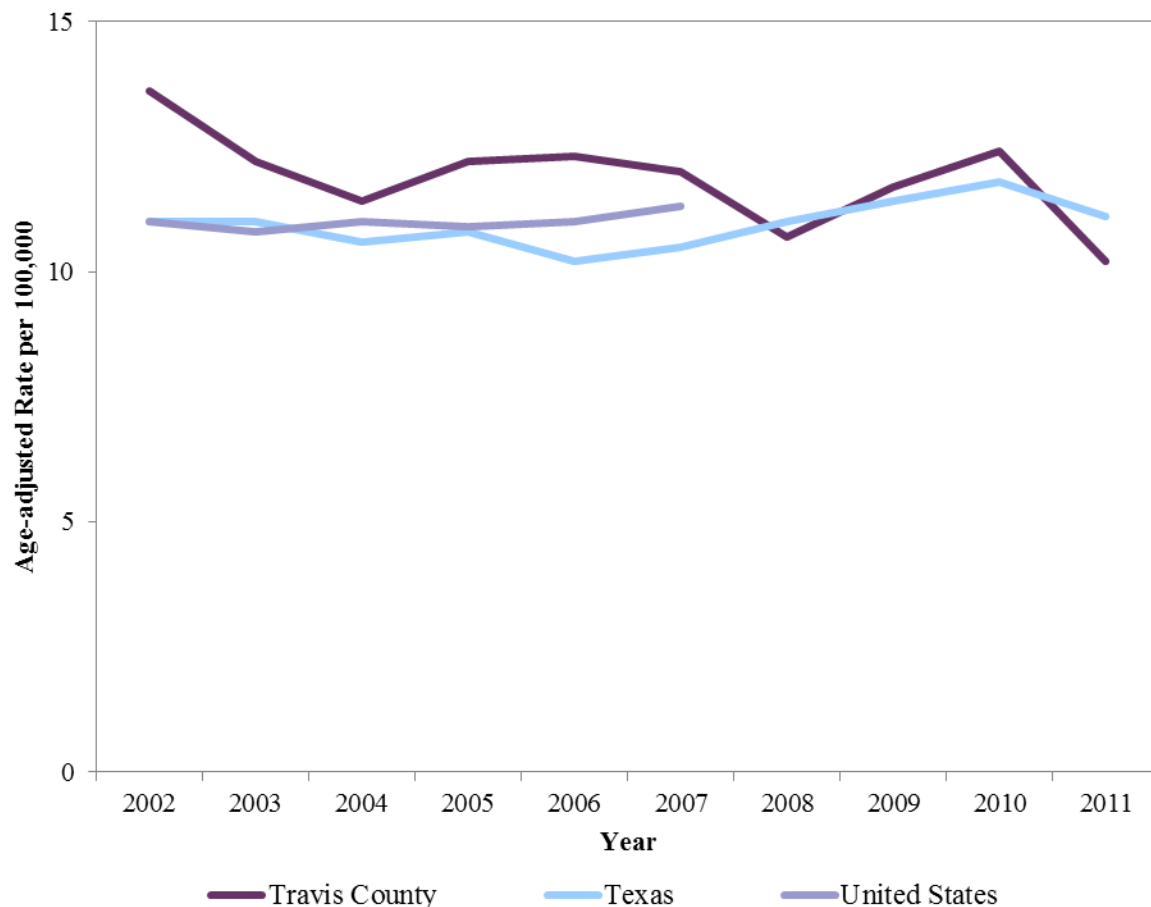
Figure 14.4. Suicide Mortality by Method of Self-inflicted Death and Gender, City of Austin, 2013.



Data Source: Office of Vital Records, A/TCHHSD

During 2002 through 2011, the age-adjusted suicide mortality for Travis County ranged from a high of 13.6 suicides per 100,000 population in 2002 to a low of 10.2 in 2011. Figure 14.5 shows the age-adjusted suicide mortality rate for Travis County, Texas, and the United States. Generally during this time period the rate has been higher in Travis County compared with the rate for Texas.

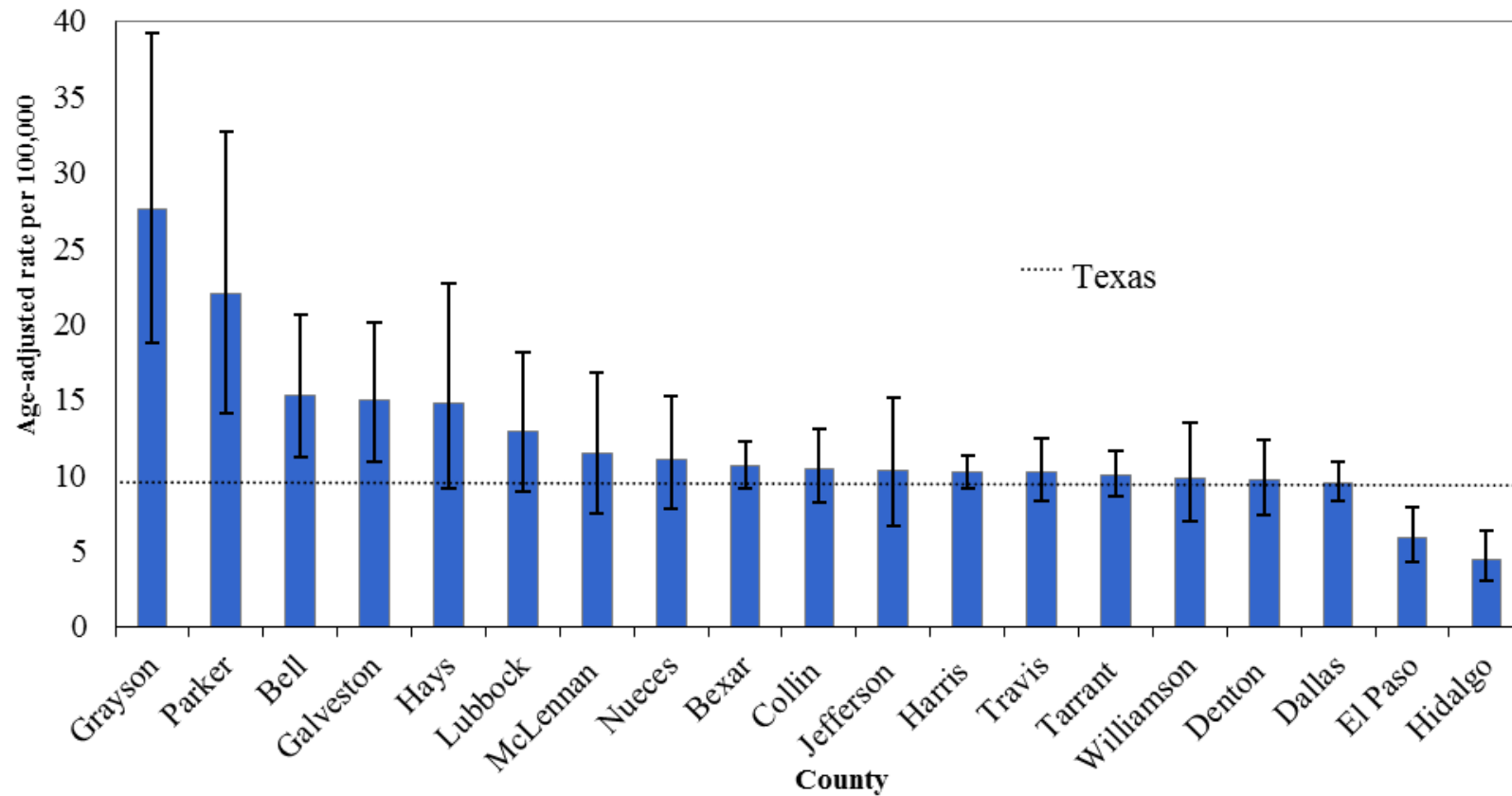
Figure 14.5. Suicide Mortality Age-adjusted Rate per 100,000 population, Travis County, Texas, and the United States, 2002-2011.



Data Sources: Center for Health Statistics, Texas Department of State Health Services and WISQARS InjuryMortality Report, Centers for Disease Control and Prevention

Figure 14.6 shows the age-adjusted suicide mortality rate for select counties in Texas. The five most populated counties in Texas, i.e. Bexar, Dallas, Harris, Travis, and Tarrant, have similar rates.

Figure 14.6. Suicide Mortality Age-adjusted Rate per 100,000 Population for Select Counties in Texas, 2011.



Commentary:

- Age adjustment uses United States 2000 standard population.
- Data Source: Texas Health Data - Death Data at <http://soupfin.tdh.state.tx.us/death10.htm>
- The number of deaths attributed to suicide was too low to calculate a rate in the following neighboring counties: Bastrop, Blanco, Burnet, and Caldwell.
- Error bars represent the variability of the rate for each county, i.e. the longer the bar the greater the variability or uncertainty of the rate.

15.0 Glossary of Key Terminology

Age-adjusted mortality rate. A mortality rate statistically modified to eliminate the effect of different age distributions in the different populations.

BMI. Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women. BMI Categories: Underweight = <18.5 ; Normal weight = $18.5\text{--}24.9$; Overweight = $25\text{--}29.9$; Obesity = BMI of 30 or greater

BRFSS. Behavioral Risk Factor Surveillance System. The BRFSS is an on-going data collection program designed to measure behavioral risk factors in the U.S. adult, noninstitutionalized, civilian population. The objective of the BRFSS is to collect uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases. Factors assessed by the BRFSS include safety-belt use, tobacco use, physical activity, diet, and use of cancer screening services, among others. Data are collected from a random sample of adults (one per household) through a telephone survey.

Case. In epidemiology, a countable instance in the population or study group of a particular disease, health disorder, or condition under investigation. Sometimes, an individual with the particular disease.

Demographic Information. The "person" characteristics--age, sex, race, and occupation--of descriptive epidemiology used to characterize the populations at risk.

Ethnicity. The classification of a person's ethnicity, i.e. Hispanic or non-Hispanic, is generally derived from how the person self-reported when asked.

Hispanic. Refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

Health. A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Health Indicator. A measure that reflects, or indicates, the state of health of persons in a defined population, e.g., the infant mortality rate.

Incidence rate. A measure of the frequency with which an event, such as a new case of illness, occurs in a population over a period of time. The denominator is the population at risk; the numerator is the number of new cases occurring during a given time period.

Low birth weight. A birth weight less than 5.5 pounds (2500 grams). Low birth weight is the single most important factor affecting neonatal mortality and is a determinant of post-neonatal mortality.

MMWR. The Morbidity and Mortality Weekly Report, a weekly scientific publication prepared and published by the CDC (US Centers for Disease Control and Prevention). MMWR contains data and reports on specific health and safety topics. The data are on specific diseases as reported by state and territorial health departments. Note: the MMW “Year” does not correspond to a calendar year, but a 52 week period established by the Centers for Disease Control and Prevention.

Morbidity. Any departure, subjective or objective, from a state of physiological or psychological well-being.

Mortality rate. A measure of the frequency of occurrence of death in a defined population during a specified interval of time.

Mortality rate, infant. A ratio expressing the number of deaths among children less than one year of age reported during a given time period divided by the number of births reported during the same time period. The infant mortality rate is usually expressed per 1,000 live births.

Prematurity/Premature birth. It is a birth that is at least three weeks before a baby's due date. It is also known as preterm birth (or less than 37 weeks — full term is 40 weeks).

Population. The total number of inhabitants of a given area or country. In sampling, the population may refer to the units from which the sample is drawn, not necessarily the total population of people.

Prevalence. The number or proportion of cases or events or conditions in a given population.

Public Health Surveillance. The systematic collection, analysis, interpretation, and dissemination of health data on an ongoing basis, to gain knowledge of the pattern of disease occurrence and potential in a community, in order to control and prevent disease in the community.

Race. The classification of a person's race is generally derived from how the person self-reported when asked.

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Black. A person having origins in any of the Black racial groups of Africa.

American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia,

China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Rate. An expression of the frequency with which an event occurs in a defined population.

Risk Factor. An aspect of personal behavior or lifestyle, an environmental exposure, or an inborn or inherited characteristic that is associated with an increased occurrence of disease or other health-related event or condition.

Trend. A long-term movement or change in frequency, usually upwards or downwards.

Appendix A. Number and Rate of Reported Cases by Year, Travis County, 2008-2012^{1,2}

CONDITION	2008		2009		2010		2011		2012		2012 Texas	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
AIDS³	148	15.0	153	15.1	129	12.6	127	12.2	112	10.6	2,541	9.8
Amebiasis	102	10.3	112	11.1	41	4.0	17	1.6	22	2.1	148	0.6
Anthrax	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism⁴	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1	2	0.01
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18	0.07
Campylobacteriosis	114	11.5	131	12.9	182	17.8	140	13.4	182	17.2	2,390	9.2
Chicken Pox (Varicella)	255	25.8	140	13.8	127	12.4	98	9.4	143	13.5	2,410	9.3
<i>Chlamydia</i>⁵	5,417	548.1	5,916	584.1	5,804	566.6	6,133	588.6	6,623	62.4	124,649	481.7
Cholera	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.003
Creutzfeldt-Jakob Disease	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	20	0.08
Cryptosporidiosis	168	17.0	10	1.0	8	0.8	11	1.1	12	1.1	302	11.7
Cyclosporiasis	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	44	1.7
Cysticercosis	1	0.1	0	0.0	1	0.1	0	0.0	2	0.2	10	0.4
Dengue	4	0.4	2	0.2	1	0.1	3	0.3	2	0.2	15	0.06
Diphtheria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.02
Encephalitis⁶	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2	6	0.02
Encephalitis, Nonarboviral	4	0.4	0	0.0	0	0.0	2	0.2	4	0.4	31	0.1
<i>Escherichia coli</i> , Shiga toxin-producing (STEC)	3	0.3	4	0.4	8	0.8	8	0.8	8	0.8	499	1.9
Gonorrhea⁷	1,733	175.3	1,439	142.1	1,437	140.3	1,470	141.1	1,637	154.4	32,089	124.0
<i>Haemophilus influenzae</i> type b, invasive	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	3	0.01
Hantavirus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	0.05
Hepatitis A, Acute	9	0.9	9	0.9	12	1.2	6	0.6	5	0.5	134	0.5
Hepatitis B, Acute	27	2.7	31	3.1	18	1.8	10	1.0	11	1.0	170	0.7
Hepatitis B, Perinatal	1	0.1	0	0.0	0	0.0	1	0.1	1	0.1	4	0.02
Hepatitis C, Acute	0	0.0	0	0.0	1	0.1	2	0.2	1	0.1	44	1.7
Hepatitis Other, Acute⁸	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	10	0.4
HIV⁹	207	20.9	191	18.9	195	19.0	237	22.7	252	23.8	4,265	16.5
Influenza-associated pediatric mortality	0	0.0	2	0.2	1	0.1	0	0.0	1	0.1	12	0.05
Legionellosis	5	0.5	3	0.3	5	0.5	4	0.4	7	0.7	158	0.6
Leishmaniasis	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2	6	0.02
Listeriosis	6	0.6	2	0.2	7	0.7	0	0.0	0	0.0	28	0.1
Lyme Disease	8	0.8	8	0.8	4	0.4	9	0.9	3	0.3	75	0.3
Malaria	5	0.5	5	0.5	10	1.0	3	0.3	5	0.5	102	0.4
Measles	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	96	9.7	102	10.1	124	12.1	162	15.5	130	12.3	1,169	4.5
Meningitis, Bacterial and Other¹⁰	12	1.2	2	0.2	7	0.7	2	0.2	7	0.7	209	0.8
Meningococcal Infection¹¹	7	0.7	4	0.4	1	0.1	1	0.1	2	0.2	37	0.1

2015 Critical Health Indicators

CONDITION	2008		2009		2010		2011		2012		2012 Texas	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Mumps	1	0.1	1	0.1	5	0.5	1	0.1	0	0.0	15	0.06
Pertussis	91	9.2	701	69.2	908	88.6	224	21.5	276	26.0	2,218	8.6
Plague	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Poliomyelitis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Primary Amoebic Meningoencephalitis (PAM)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever, Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	0.03
Rabies, human	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rubella	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Salmonellosis	244	24.7	199	19.6	259	25.3	274	26.3	250	23.6	4,990	19.3
Shigella	148	15.0	75	7.4	176	17.2	316	30.3	146	13.8	1,926	7.4
Smallpox	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Spotted Fever Rickettsiosis	5	0.5	5	0.5	2	0.2	4	0.4	7	0.7	77	0.3
<i>Streptococcus</i>, Group A	28	2.8	24	2.4	18	1.8	24	2.3	26	2.5	333	1.3
<i>Streptococcus</i>, Group B	44	4.5	49	4.8	54	5.3	50	4.8	48	4.5	1,020	3.9
<i>Streptococcus pneumonia</i>	109	11.0	129	12.7	128	12.5	79	7.6	89	8.4	1,542	6.0
Syphilis¹²	294	29.7	307	30.3	284	27.7	365	35.0	411	38.8	7,071	27.3
Taeniasis	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0	1	0.003
Tetanus	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	3	0.01
Trichinosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.003
Tuberculosis¹³	44	4.5	61	6.0	67	6.5	52	5.0	37	3.5	1,233	4.8
Tularemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	4	0.4	5	0.5	4	0.4	2	0.2	2	0.2	29	0.1
Typhus, Murine	33	3.3	34	3.4	15	1.5	54	5.2	42	4.0	263	1.0
Vancomycin-intermediate resistant <i>Staphylococcus aureus</i> (VISA)¹⁴	1	0.1	4	0.4	1	0.1	1	0.1	1	0.1	23	0.09
Vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA)¹⁵	1	0.1	0	0.0	0	0.0	0	0.0	1	0.1	1	0.003
<i>Vibrio</i> Infections¹⁶	2	0.2	5	0.5	6	0.6	4	0.4	2	0.2	66	0.3
West Nile Virus	2	0.2	2	0.2	2	0.2	0	0.0	153	14.4	1,603	6.2
Yellow Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	0	0.0	2	0.2	1	0.1	2	0.2	22	0.1

Disease Surveillance data source: Austin/Travis County Health and Human Services Department Epidemiology and Health Statistics Unit – National Electronic Disease Surveillance System (NEDSS)

HIV/AIDS Surveillance Data Source: Texas Department of State Health Services TB-HIV-STD and Viral Hepatitis Unit Texas HIV Surveillance Report 2011

<http://www.dshs.state.tx.us/hivstd/reports/>

STD Surveillance Data Source: Texas Department of State Health Services TB-HIV-STD and Viral Hepatitis Unit Texas STD Surveillance Report 2011

<http://www.dshs.state.tx.us/hivstd/reports/>

Tuberculosis Surveillance data source: Texas Department of State Health Services TB-HIV-STD and Viral Hepatitis Unit Texas TB Data (2007-2011) report

<http://www.dshs.state.tx.us/idcu/disease/tb/statistics/>

West Nile Virus Surveillance data source 2008-2011: Texas Department of State Health Services Infectious Disease Control Unit Statistics for West Nile Virus in Texas <http://www.dshs.state.tx.us/idcu/disease/arboviral/WestNile/>

Considerations

- Unless otherwise noted, annual data is based on corresponding MMWR year.
- The number of cases reported is presumed to be underestimates of true disease incidence due to incomplete reporting.
- The number of cases reported includes both probable and confirmed conditions when applicable.
- Diseases listed reflect those that were notifiable in Texas based on Texas Administrative Code.
- Travis County Population Estimates for 2003-2009 obtained from the Texas Department of State Health Services Center for Health Statistics and the Texas State Data Center, Population Estimates and Projections Program. Travis County Population for 2010 obtained from Census 2010, from the U.S. Census Bureau. Travis County Population Projections for 2011 and State of Texas Population Projections for 2011 and 2012 obtained from the Texas State Data Center, Population Estimates and Projections Program using a 0.5 migration scenario. Population Estimates and Population Projections are produced by different methods. If data are to be used in trend analysis, or other comparative treatments, unexpected results may be obtained if data from both estimated and projected series are used.
- When the number of reported cases is less than 20, rates may not be considered reliable and would need to be interpreted with caution.
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¹ Rate per 100,000 population.

² National Electronic Disease Surveillance System (NEDSS) data generated on December 17, 2013.

³ AIDS data is generated by calendar year and not MMWR years. AIDS data represents year of diagnosis and not year of report.

⁴ Botulism category is collapsed and can potentially include foodborne, infant, wound, or other unspecified cases

⁵ *Chlamydia* data is pulled by calendar year and not MMWR year.

⁶ Encephalitis category is collapsed and can potentially include Cache Valley Encephalitis, Eastern equine Encephalitis, Japanese Encephalitis, Powassan Encephalitis, St. Louis Encephalitis, Venezuelan equine Encephalitis, Western equine Encephalitis, post-chickenpox Encephalitis, post-mumps Encephalitis, or California serogroup viral Encephalitis and meningitis.

⁷ Gonorrhea data is pulled by calendar year and not MMWR year.

⁸ Hepatitis Other, Acute is collapsed and can potentially include acute cases of Hepatitis Delta co- or super-infection, Hepatitis E, or Hepatitis Non-ABC.

⁹ HIV data is pulled by calendar year and not MMWR year. HIV infection data represents year of diagnosis and not year of report.

¹⁰ Meningitis, Bacterial and Other includes all cases of Meningitis due to infectious agents (bacterial, fungal, parasitic) other than Aseptic (viral) Meningitis. It includes cases that are also counted under specific etiologic agents such as *Haemophilus influenzae* serotype b, *Neisseria meningitides*, Group A *Streptococcus*, Group B *Streptococcus*, *Streptococcus pneumoniae* and *Listeria monocytogenes*.

¹¹ Includes all cases of invasive *Neisseria meningitides* including cases of meningitis, septicemia, and joint infections.

¹² Syphilis category is collapsed and can potentially include primary, secondary, latent, tertiary (late latent), neurosyphilis, and congenital cases of syphilis. Syphilis data is pulled by calendar year and not MMWR year.

¹³ Tuberculosis data is pulled by calendar year and not MMWR year.

¹⁴ Vancomycin-intermediate resistant *Staphylococcus aureus* (VISA)—*Staphylococcus aureus* with a vancomycin minimum inhibitory concentration (MIC) of 4 µg/mL through 8 µg/mL.

¹⁵ Vancomycin-resistant *Staphylococcus aureus* (VRSA)—*Staphylococcus aureus* with a vancomycin MIC of 16µg/mL or greater.

¹⁶ *Vibrio* Infections category is collapsed and can potentially include *Vibrio parahaemolyticus*, *Vibrio vulnificus*, or *Vibrio* spp., non-toxicogenic, and other or unspecified cases of *Vibrio*.

