



AUSTIN PUBLIC HEALTH



CRITICAL HEALTH INDICATORS REPORT 2023



Austin Public Health

2023 Critical Health Indicators Report



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Executive Summary

Every day, we hear or learn of illnesses and health conditions impacting the health of people living in the United States. The messages related to old and new illnesses are relentless. In 2023, we continue to be impacted by the global pandemic caused by SARS-CoV-2 (COVID-19) and face the emergence of mpox. We hear of rising rates of obesity and increasing deaths due to prescription drug overdoses and Alzheimer's disease.

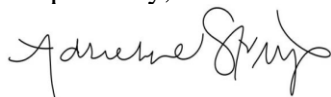
The 2023 Critical Health Indicators Report represents the Austin Public Health Department's efforts to provide information on many of the illnesses and adverse health conditions that affect the county's population. Information in this report was obtained from the United States Census Bureau, Texas Department of State Health Services, Travis County Medical Examiner's Office, Texas Behavioral Risk Factor Surveillance Survey, Centers for Disease Control & Prevention, and from morbidity and mortality reports collected by the Epidemiology and Public Health Preparedness Division, Austin Public Health.

This report describes many successes in creating a healthier community for the people living in Travis County. Lung cancer mortality rates are decreasing. Fewer people are diagnosed with human immunodeficiency virus or chickenpox. Fewer teenagers are having babies. Huge successes involve vaccinations. Because of high vaccination rates, few people experience illness caused by hepatitis A virus or hepatitis B virus. From December 2020 through early December 2022, over 2.5 million COVID-19 vaccine doses were administered to Travis County residents reducing the number of deaths related to COVID-19.

Despite many successes, new challenges have appeared, and old challenges persist. As of December 2022, over 320,000 people in Travis County were ill with COVID-19; over 1,750 people died. Over a quarter of the Travis County population is obese. Substance abuse remains a major health issue in Travis County. Unhealthy diets contribute to higher rates of cardiovascular disease and obesity. Racial disparities persist for many diseases and adverse health conditions.

Austin Public Health is committed to sustaining the successes and addressing the challenges. In the future, we want these challenges to be noted as successes. On behalf of the Austin Public Health staff, I am pleased to share with you the 2023 Critical Health Indicators Report. I hope this report informs you on the health of the people in Austin and generates discussions on how to best improve the health of all people in Travis County and to ensure the Austin Public Health mission *"To prevent disease, promote health, and protect the well-being of all."*

Respectfully,



Adrienne Sturup
Director
Austin Public Health

Acknowledgements

This report was prepared by Austin Public Health.

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The expertise and contributions of the following persons, who prepared graphs, maps, and datasets, and wrote various sections, made the 2023 Critical Health Indicators Report possible.

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1.0 Demographic Characteristics

In 2021, the estimated Travis County population was 1,267,795¹. Travis County is ranked as the 5th most populous county in Texas serving as home to approximately 4% of the state's population. From 2010 to 2020, the Travis County population increased over 27%. From 2010 to 2020, the City of Austin population increased over 26%.

Table 1.1 shows selected demographic characteristics for the populations of the City of Austin, Travis County, and the State of Texas. An estimated 944,658 people lived in the City of Austin in 2021. The City of Austin population comprised about 3% of the State of Texas population. Approximately 75% of the Travis County population lives within the City of Austin.

For the City of Austin and Travis County, a similar percentage, from 19.5% to 21.4%, of the population is younger than 18 years of age. Most people living in Austin and Travis County are white; most are non-Hispanic. In 2021, Blacks and Asians comprised 7.7% and 8.2% of the City of Austin population, respectively.

The percentage of the City of Austin and Travis County populations who are foreign born is 18.5% and 17.4%, respectively. Spanish is spoken at home for about 22% of the population five years of age and older in the City of Austin and Travis County. A greater percentage (29%) of the population five years of age and older in Texas speak Spanish at home.

Table 1.2 shows the aspects of educational attainment of Austin, Travis County, and the State of Texas population. Generally, the City of Austin and Travis County populations have attained a higher level of education. The percentages of the City of Austin and Travis County populations 25 years of age or older who have attained a bachelor's, graduate, or professional degree are over 50% compared with 31.5% of the Texas population 25 years of age or older.

¹ United States Census Bureau, 2021 American Community Survey 5-year estimates

Table 1.1. Selected Population Demographic Characteristics, City of Austin, Travis County, and Texas, 2021

Population Characteristic	City of Austin		Travis County		Texas
	Number	%	Number	%	%
	944,658	100	1,267,795	100	100
Sex					
Male	481,117	50.9	643,169	50.7	49.9
Female	463,541	49.1	624,626	49.3	50.1
Age					
Under 18 years of age	183,837	19.5	271,899	21.4	25.8
65 years of age or older	88,203	9.3	126,480	10.0	12.5
Race					
White	627,170	66.4	838,840	66.2	64.3
Black/African American	72,829	7.7	105,127	8.3	12.1
American Indian/Alaska Native	7,609	0.8	9,418	0.7	0.5
Asian	77,477	8.2	89,571	7.1	5.0
Other/Two or more races	159,118	16.9	224,306	17.7	17.9
Ethnicity					
Not Hispanic or Latino	631,904	66.9	841,396	66.4	60.2
Hispanic or Latino (of any race)	312,754	33.1	426,399	33.6	39.8
Language Spoken at Home					
Population 5 years of age or older	889,547		1,191,841		
Only English spoken at home	617,829	69.5	834,102	70.0	64.9
Spanish spoken at home	188,699	21.2	259,045	21.7	28.7
Asian or Pacific Island languages spoken at home	39,274	4.4	43,266	3.6	3.0
Country of Origin					
Born in the United States	770,054	81.5	1,046,991	82.6	83.0
Foreign Born	174,604	18.5	220,804	17.4	17.0

Data source: United States Census Bureau, 2021 American Community Survey 5-year estimates

Table 1.2. Education Attainment, City of Austin, Travis County, and Texas, 2021

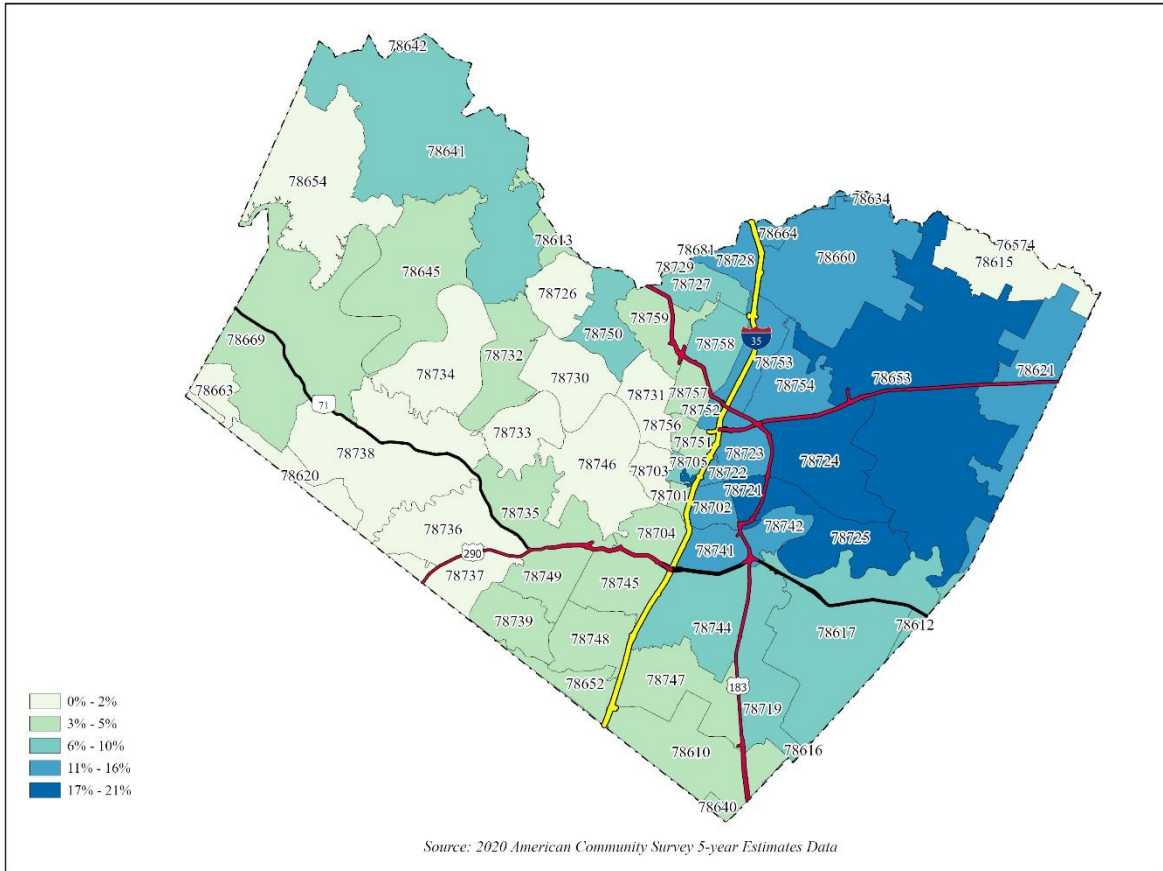
Population Characteristic	City of Austin		Travis County		Texas
	Number	%	Number	%	%
		965,872	100	1,250,884	100
Educational Attainment					
Population 25 years of age or over	663,357		881,650		
No high school diploma	62,434	9.4	82,571	9.4	15.1
High school graduate, includes equivalency diploma	95,810	14.4	138,636	15.7	24.5
Some college or Associate's degree	139,497	21.0	195,820	22.2	28.7
Bachelor's degree or higher	365,616	55.1	464,623	52.7	31.5

Data source: United States Census Bureau, 2021 American Community Survey 5-year estimates

Maps 1.1 through 1.4 show the percentage of the population by race and ethnicity for zip codes within Travis County. Over 60,000 people each reside within six zip codes. The most populated zip code is 78660, which contains more than 89,000 people and includes the City of Pflugerville. In addition to being the most populated zip code, 78660 has a notably diversified population. Whites comprise 38% of the population, Hispanics comprise 36%, Blacks 14%, and Asians 8%. This is the only zip code in Travis County where one group, i.e., Whites, Blacks, Hispanics, or Asians, does not comprise 40% or more of the population.

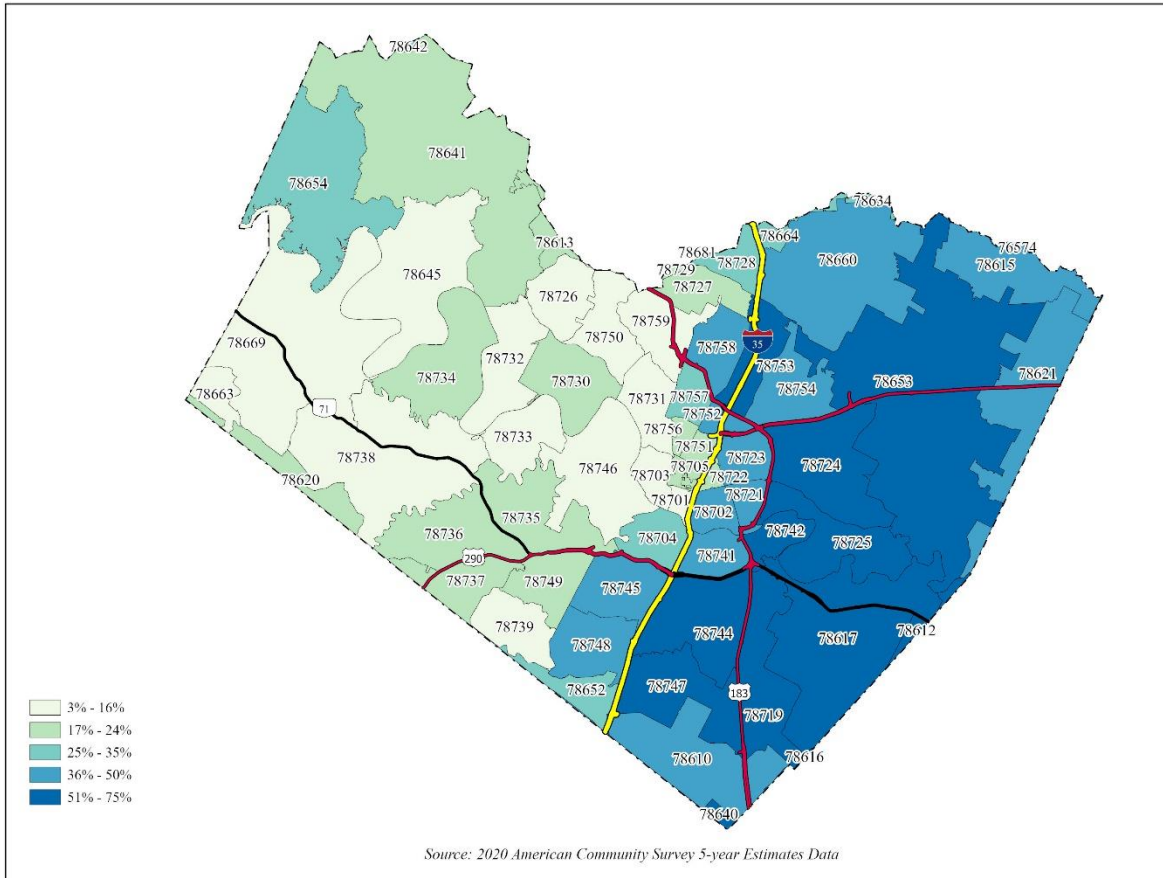
Overall Blacks comprise 8.3% of the Travis County population. A few zip codes east of Interstate 35 have Black populations that are 20% or greater. In zip code 78653, which includes the City of Manor, Blacks represent 21% of the population.

Map 1.1. Black Population as a Percentage of the Total Population by Zip Code, Travis County, 2020



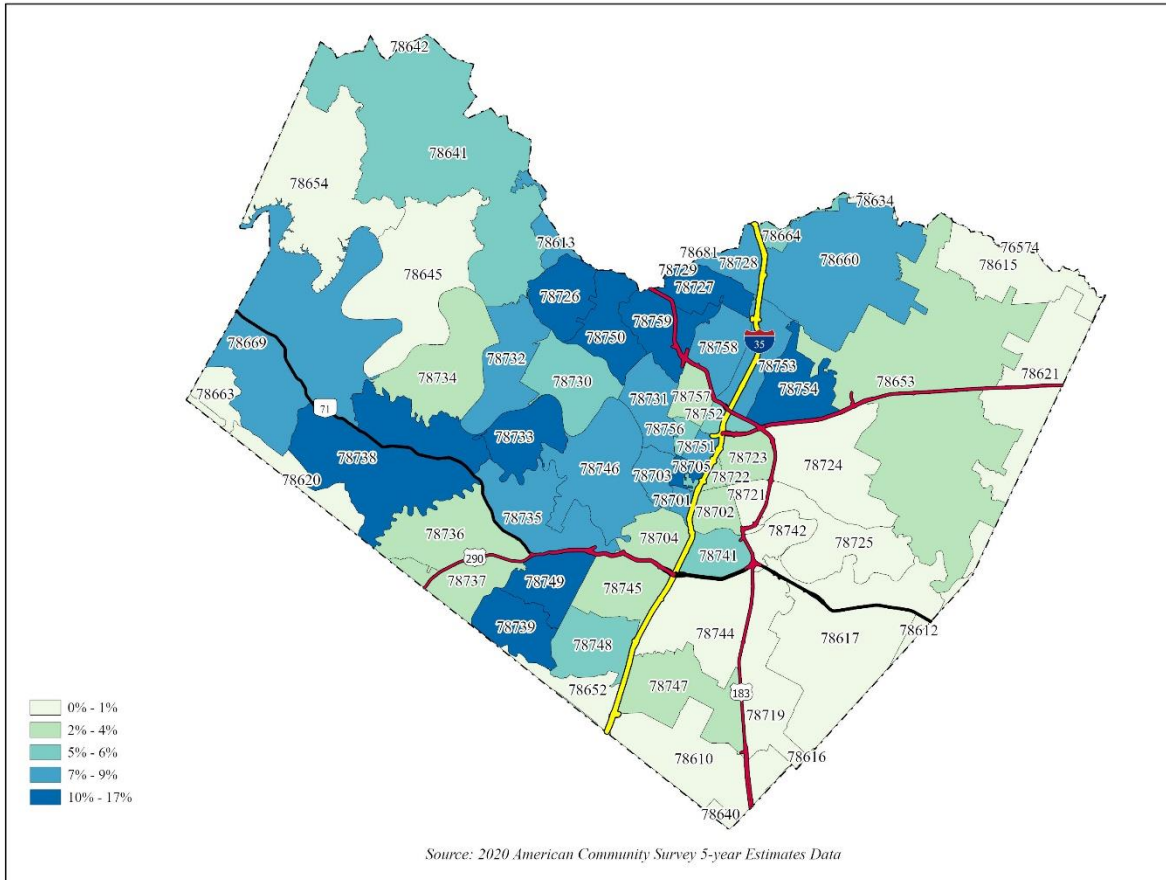
Hispanics comprise 33.6% of the Travis County population. Like Blacks, zip codes east of Interstate 35 have high percentages of Hispanics. In three zip codes, 78719, 78724, and 78742, over 60% of the population is Hispanic.

Map 1.2. Hispanic Population as a Percentage of the Total Population by Zip Code, Travis County, 2020



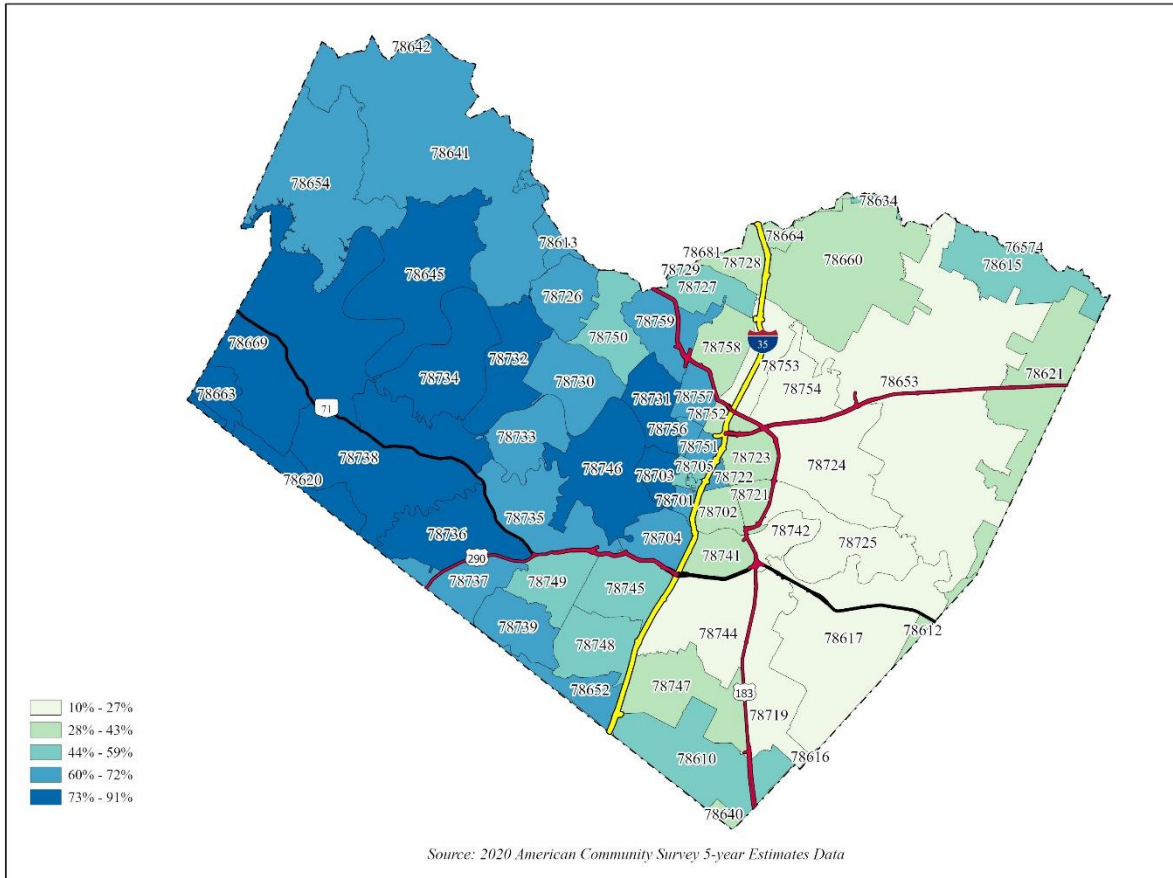
Overall, Asians comprise 7.1% of the county population. Six zip codes with 10% or greater of the population being Asian are located west of Interstate 35. Zip code 78727 has the highest percentage of Asians, 17%.

Map 1.3. Asian Population as a Percentage of the Total Population by Zip Code, Travis County, 2020



Zip codes with higher percentages of Whites are in western Travis County. Over 80% of the population is White in four zip codes. In four zip codes located east of Interstate 35, less than 20% of the population is White.

Map 1.4. White Population as a Percentage of the Total Population by Zip Code, Travis County, 2020



2.0 Health Disparities

Health disparities, or differences in the quality of health, health outcomes, and health care access, are common among populations in the United States. Many health disparities among Travis County populations were noted in the first critical health indicators report (2012 Critical Health Indicators Report) published by Austin Public Health (formerly Austin/Travis County Health and Human Services Department) in April 2012. Noted disparities in the 2012 report included a diabetes mortality rate higher among Blacks, a higher proportion of premature births and low birth weights among Blacks, higher rates of obesity among Blacks and Hispanics, and higher rates of suicides among White males. Unfortunately, these disparities and others endure.

The 2023 Critical Health Indicators Report describes the continuing occurrence of health disparities for various adverse health conditions among population groups in Travis County. Well-known and important disparities are briefly described below.

Cancer

Blacks have the highest cancer mortality rates. While cancer mortality rates have decreased for Hispanics, Whites, Blacks and Asians from 2011 through 2020, Asians experienced the greatest decrease (34%). Blacks experienced the lowest decrease (21%).

Mortality

Mortality rates for Blacks are higher for cancer, heart disease, and accidents compared with rates for Whites, Hispanics, and Asians. For Blacks, the heart disease mortality rate is 57% higher compared with Whites while the cancer mortality rate is 34% higher compared with Whites.

Diabetes

The prevalence of diabetes in Blacks and Hispanics is almost twice the prevalence in Whites. Likewise, the diabetes mortality rate for Blacks is almost three times higher compared with Whites.

COVID-19

Mortality disparity occurred during the COVID-19 epidemic. While Hispanics comprise 33.6% of the Travis County population, for those persons with known race and ethnicity who died due to COVID-19 during 2020-2021, over half (54%) were Hispanic. One third (31%) were White and 8% were Black.

Human Immunodeficiency Virus (HIV)

From 2011 through 2020, HIV incidence rates for Blacks have been consistently higher compared with rates for Hispanics, Whites, and Others. In 2020, incidence rates per 100,000 population for Blacks was five times higher compared with the rate for Whites. Incidence rates for Hispanics were three times higher compared with Whites. Fortunately, incidence rates for Whites, Blacks, Hispanics, and Asians are decreasing over time.

Tuberculosis

Tuberculosis is more frequently diagnosed among Blacks and Hispanics. While Blacks and Hispanics comprise 8.3% and 33.6% of the Travis County population, respectively, in 2019 18.8% of tuberculosis cases were Black and 43.8% were Hispanic.

Syphilis,

Blacks have higher incidence rates compared with Whites, Hispanics, and Asians. In 2020, the incidence rate per 100,000 population for Blacks was about three times higher compared with Whites. From 2015 to 2020, the incidence rate for Blacks increased over 100%. The incidence rate for Hispanics increased 33% while the rates for Whites and Asians increased only 15-16%.

Gonorrhea

Like syphilis, gonorrhea incidence rates for Blacks are much higher compared with rates for Whites, Hispanics, and Asians. In 2020 the incidence rate per 100,000 population for Blacks was over five times higher compared with Whites.

Low birth weight

During 2022, a low birth weight was noted for 14.5% of births to Black mothers. For White mothers, only 6% of births were a low birth weight.

No or late prenatal care

Black and Hispanic mothers are less likely to receive adequate prenatal care. In 2022, 23% of Black mothers and 27% of Hispanic mothers received no or late prenatal care compared with 11% of White mothers and 15% of Asian mothers.

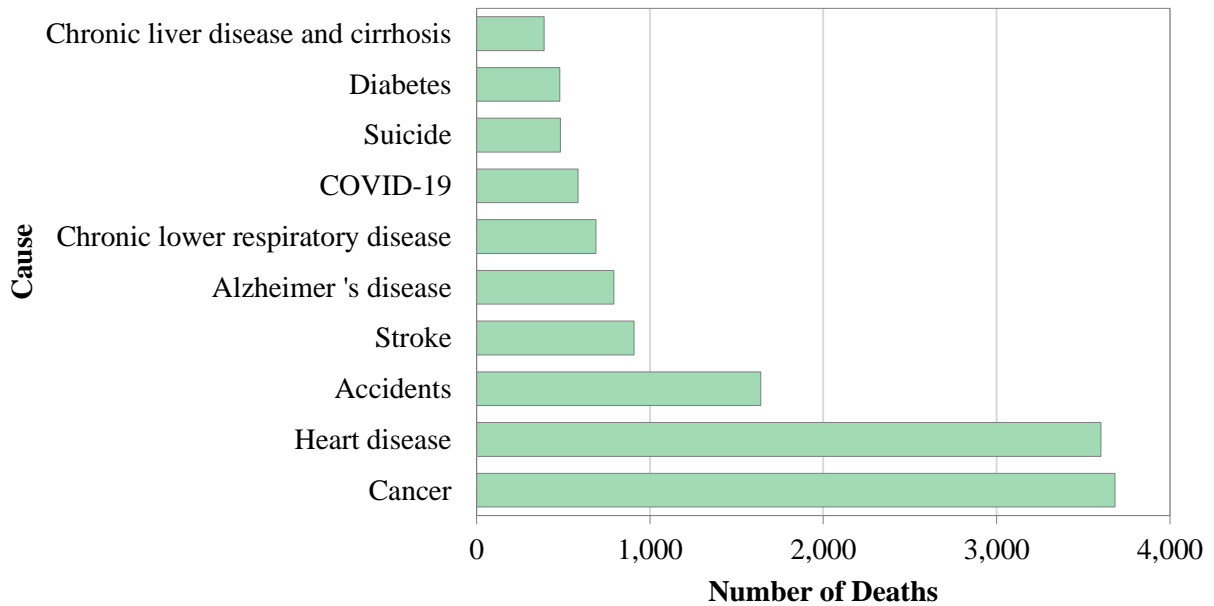
Infant mortality

Too few infant deaths occur in Travis County to calculate reliable mortality rates by race/ethnicity. However, for the State of Texas, infant mortality rate for Blacks for each year during 2018-2022 was twice the rate for Whites.

3.0 Leading Causes of Death

During 2018 through 2020, over 18,800 deaths occurred among Travis County residents. Cancer and heart disease are the two top leading causes of death in Texas and Travis County. As shown in Figure 3.1, over 7,200 Travis County residents died from either cancer or heart disease. Deaths due to cancer and heart disease cause 38.6% of all deaths in Travis County. For Travis County, all 586 deaths due to COVID-19 occurred in 2020. In 2020, COVID-19 was the fourth leading cause of death after cancer, heart disease, and accidents.

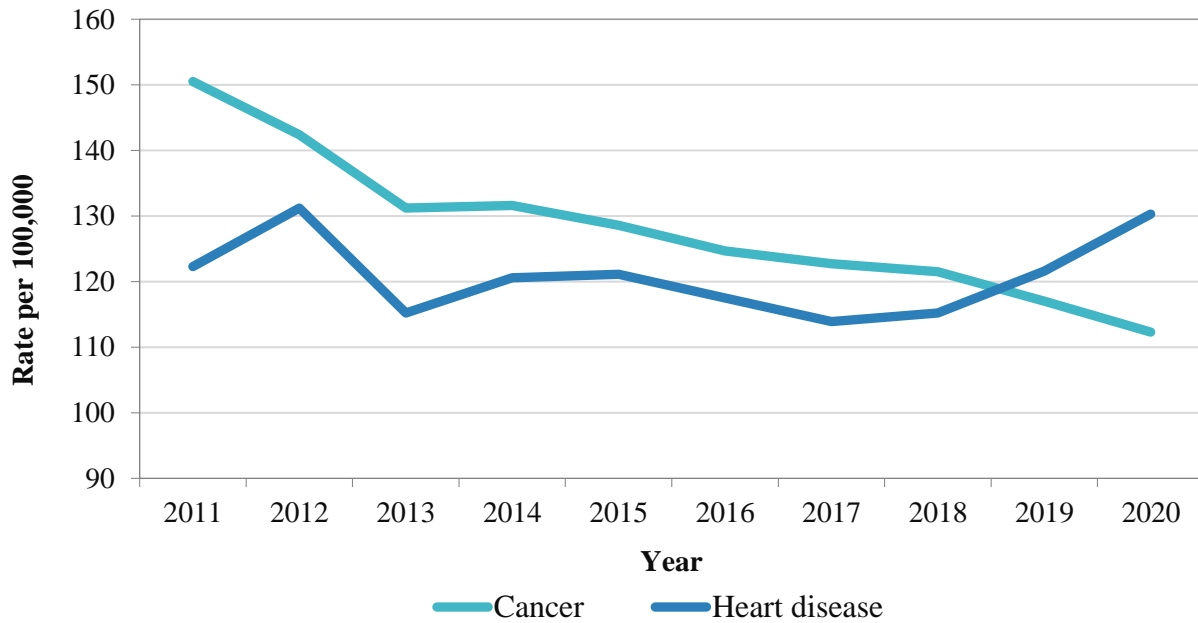
Figure 3.1. Leading Causes of Death, Travis County, 2018-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Figure 3.2 shows age-adjusted mortality rates per 100,000 population over time for cancer and heart disease. Cancer mortality rates have decreased over time. Heart disease mortality rates have been variable over time and ranged from 115 deaths per 100,000 population to 130 deaths per 100,000 population.

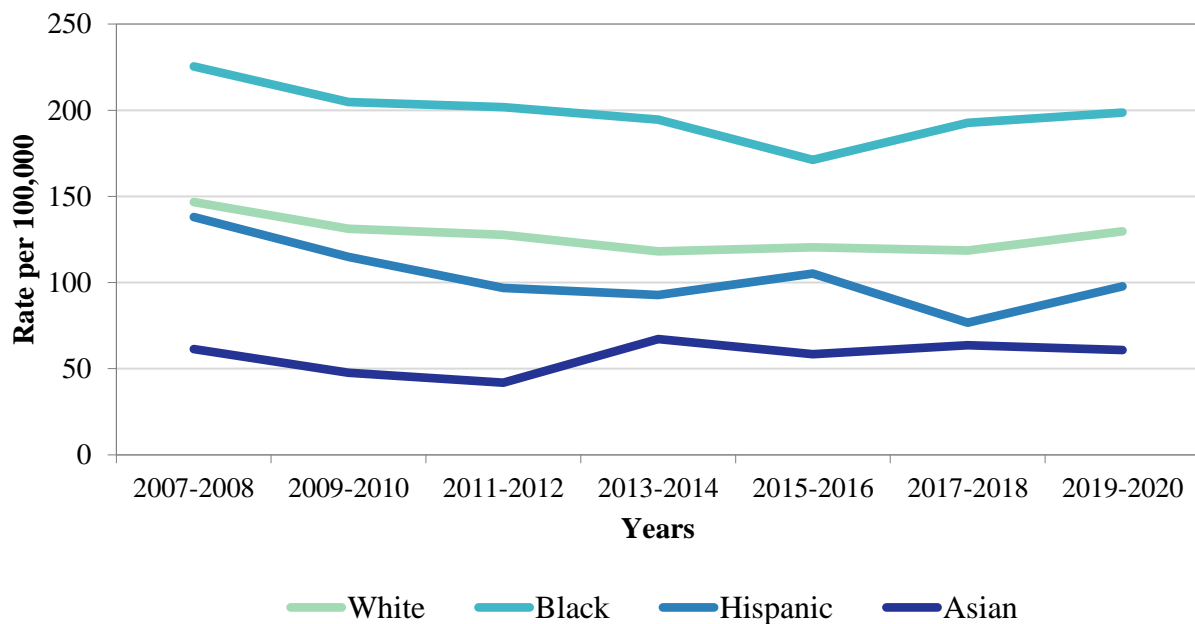
Figure 3.2. Age-adjusted Mortality Rates per 100,000 Population for Cancer and Heart Disease, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online data for Epidemiologic Research

Figure 3.3 shows age-adjusted heart disease mortality rates per 100,000 population over time by race/ethnicity. Rates for Blacks and Hispanics have slightly decreased over time while rates for Whites and Asians are generally unchanged.

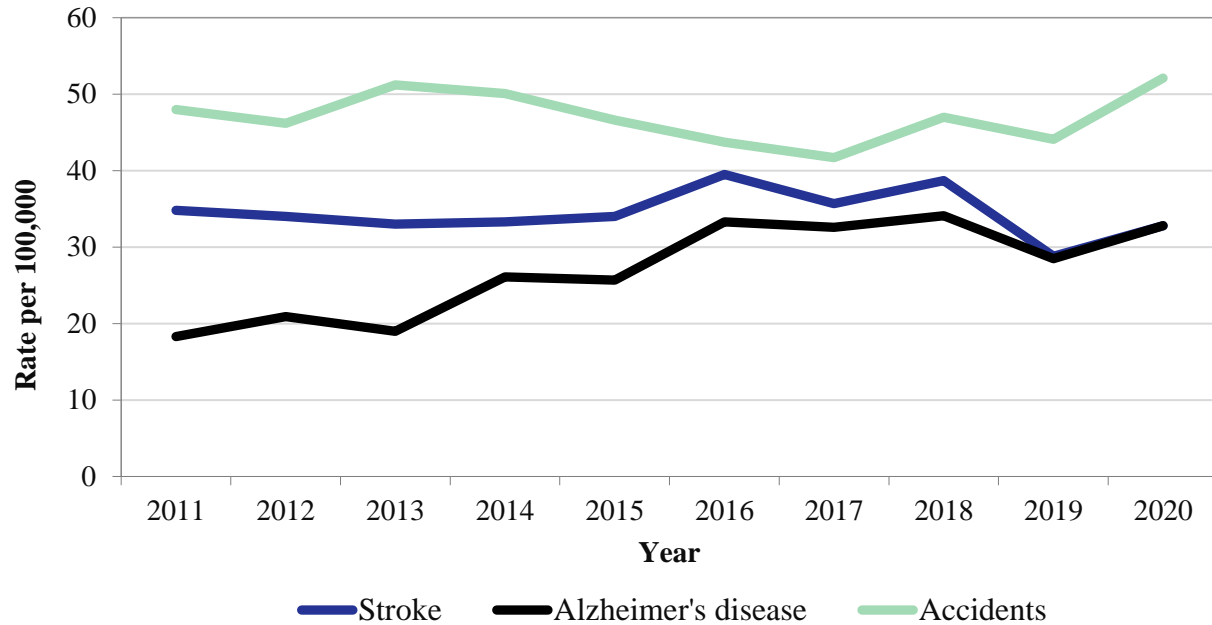
Figure 3.3. Age-adjusted Heart Disease Mortality Rates per 100,000 Population by Race/ethnicity, Travis County, 2007-2020



Source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Figure 3.4 shows age-adjusted mortality rates per 100,000 population for Alzheimer’s disease, stroke, and accidents. The Alzheimer’s mortality rates have increased 79% from 18.3 deaths per 100,000 population in 2011 to 32.8 deaths per 100,000 population in 2020. Mortality rates for stroke and accidents have been variable but similar over time.

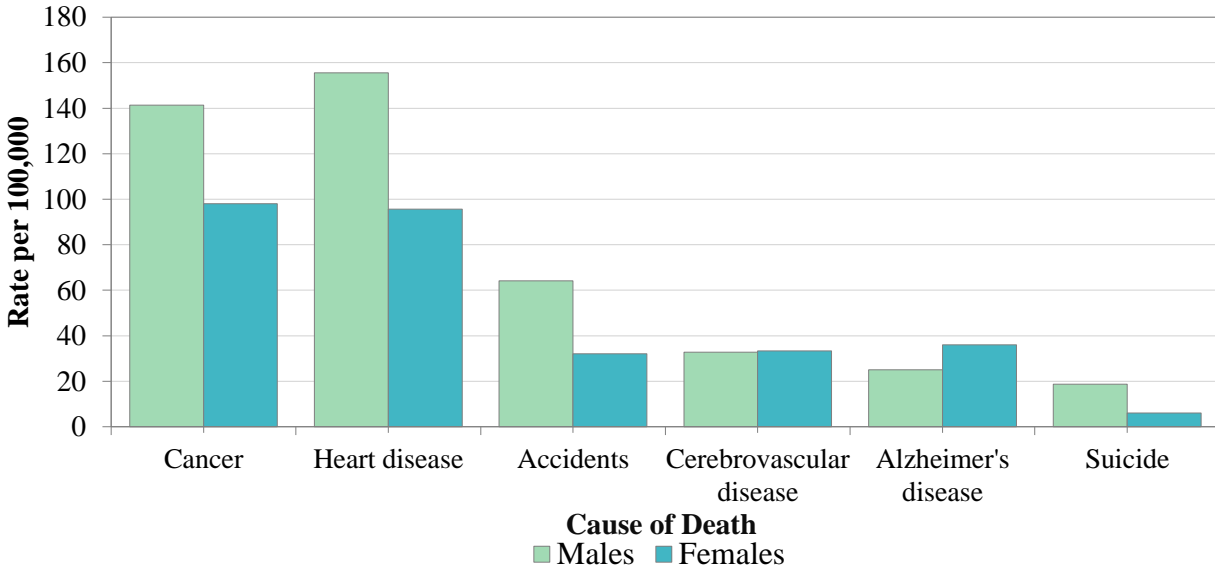
Figure 3.4. Age-adjusted Mortality Rates per 100,000 Population for Selected Causes of Death, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Mortality rates differ by sex. Figure 3.5 shows the age-adjusted mortality rates per 100,000 population by sex for Travis County for 2018-2020 for selected causes of death. Mortality rates for cancer and heart disease for males are at least 30% higher compared with rates for females. For males, the mortality rate for accidents is twice the rate of females. For suicide, the mortality rate for males is three times the rate of females. The mortality rate for Alzheimer’s disease is over 40% higher for females compared with males.

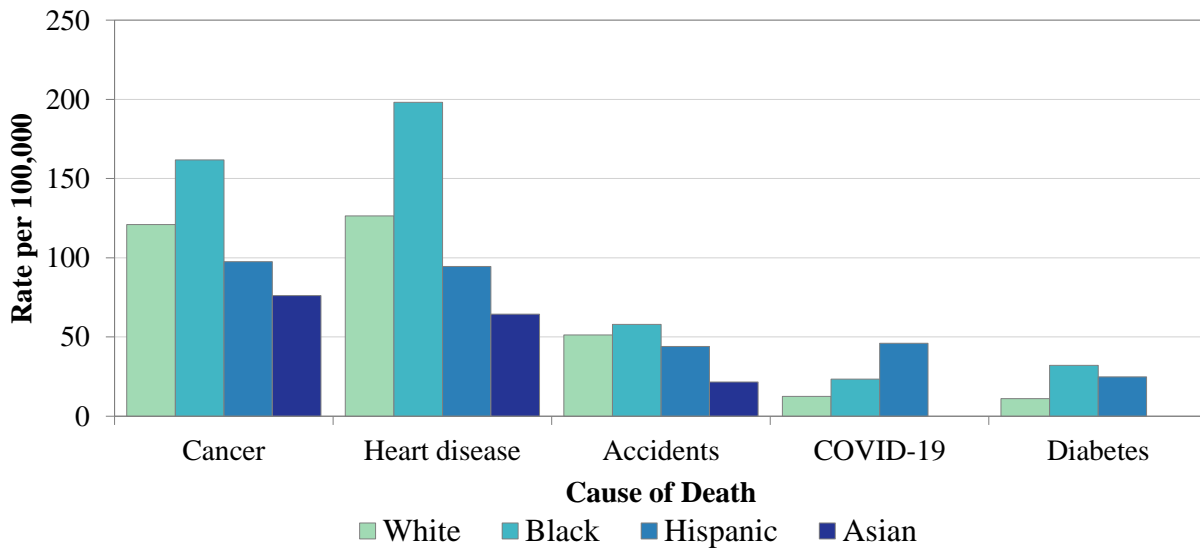
Figure 3.5. Age-adjusted Mortality Rates per 100,000 Population by Sex for Selected Causes of Death, Travis County, 2018-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Figure 3.6 show age-adjusted mortality rates per 100,000 population by race/ethnicity for five leading causes of death. Disparities exist when comparing mortality rates for cancer, heart disease, COVID-19, and diabetes. Morality rates for Blacks are higher for cancer, heart disease, accidents, and diabetes compared with rates for Whites, Hispanics, and Asians. The diabetes mortality rate for Blacks is almost three times higher compared with Whites. The mortality rate for COVID-19 for Hispanics is almost four times higher compared with Whites.

Figure 3.6. Age-adjusted Mortality Rate per 100,000 Population by Race/Ethnicity for Selected Causes of Death, Travis County, 2018-2020



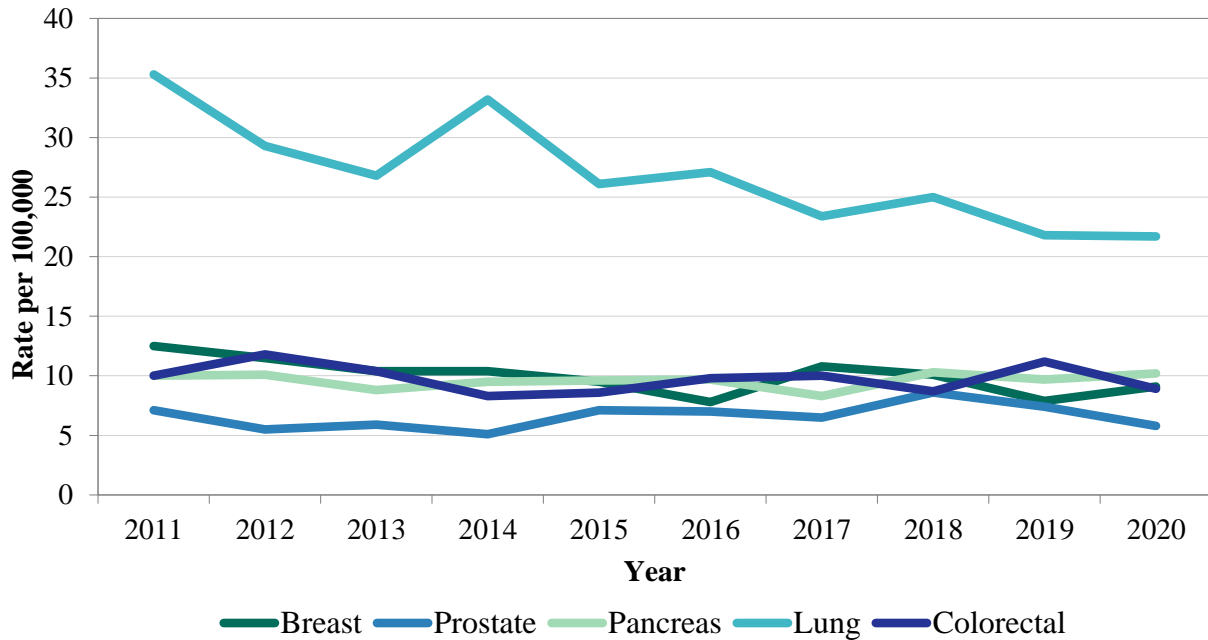
Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

4.0. Cancer

During 2016-2020, cancer was the leading cause of death in Travis County². In Travis County in 2020, 18% of all deaths were due to cancer.

Lung and bronchus, pancreas, breast, and colorectal cancers are the leading causes of death due to cancers. During 2018-2020, 702 Travis County residents died of cancer of the lung and bronchus. During this same three-year period, 317 and 312 residents died due to pancreas and colorectal cancer, respectively. Figure 4.1 shows the age-adjusted cancer mortality rates for five common cancers. Lung cancer mortality rates from 2011 through 2020 decreased 38%. Mortality rates for breast cancer have decreased 27%.

Figure 4.1. Age-adjusted Mortality Rates per 100,000 population for Selected Cancers, Travis County, 2011-2020

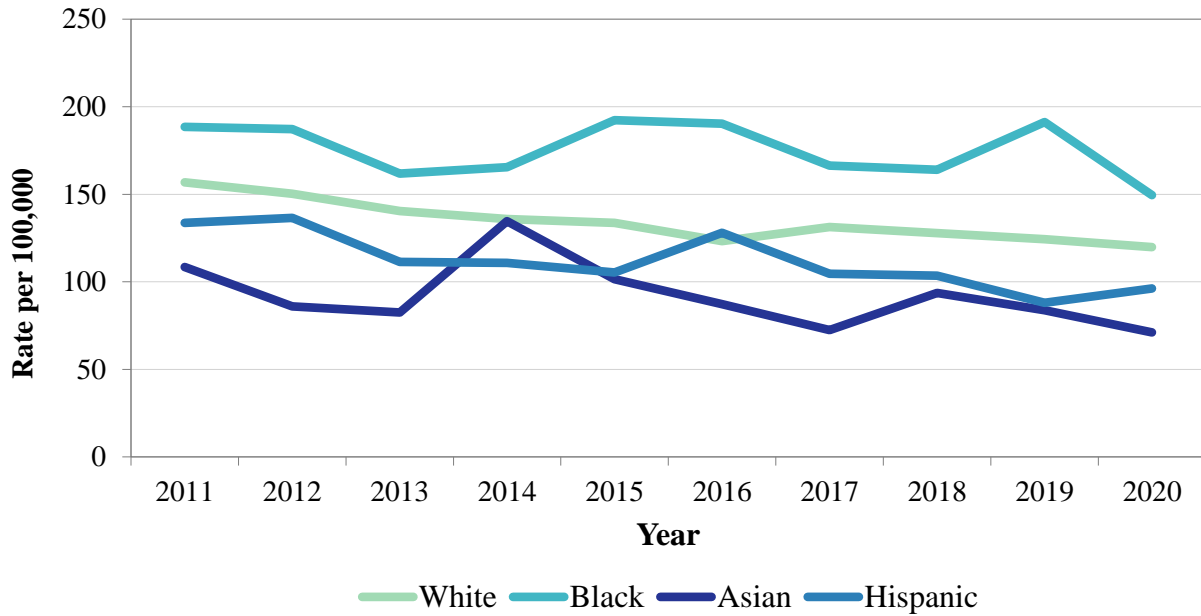


Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Figure 4.2 shows the overall age-adjusted cancer mortality rates by race and ethnicity for 2011 through 2020. Blacks have the highest cancer mortality rates. From 2011 through 2020, cancer mortality rates have decreased for Hispanics, Whites, Blacks and Asians. Asians experienced the greatest decrease (34%). Blacks experienced the lowest decrease (21%).

² Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Figure 4.2. Age-adjusted Cancer Mortality Rates per 100,000 Population by Race/Ethnicity, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

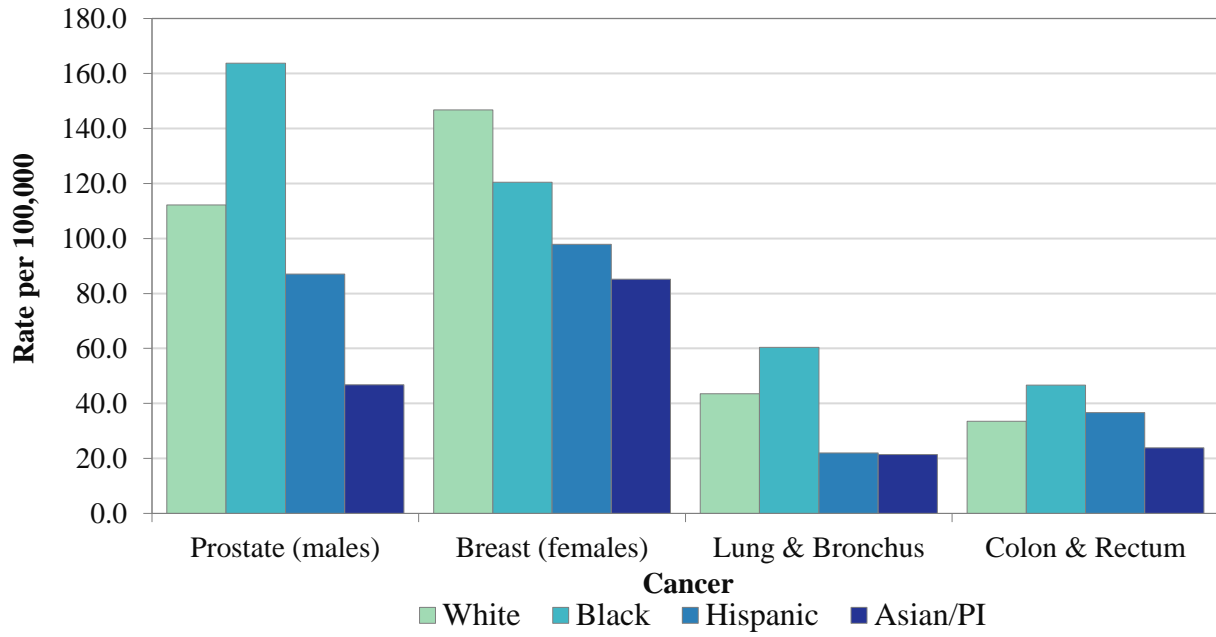
Table 4.1 and Figure 4.3 show age-adjusted *incidence* rates per 100,000 population for common cancers by race and ethnicity. Incidence rates show new diagnoses of cancer. The highest cancer incidence rates are for breast and prostate. When comparing race and ethnicity, Black males have the highest prostate cancer incidence rate while White females have the highest breast cancer incidence rate. Asian/Pacific Islanders have the lowest incidence rates for each of the four cancers.

Table 4.1. Age-adjusted Cancer *Incidence* Rates per 100,000 Population, Travis County, 2015-2019

Cancer	Race/Ethnicity				Overall
	White	Black	Hispanic	Asian/PI	
Breast (females)	146.7	120.4	97.9	85.2	129.0
Prostate (males)	112.2	163.7	87.0	46.8	113.5
Lung & Bronchus	43.5	60.4	22.0	21.4	39.6
Colon & Rectum	33.5	46.7	36.7	23.8	34.7

Data source: Texas Cancer Registry, Texas Department of State Health Services

Figure 4.3. Age-adjusted Cancer *Incidence* Rates per 100,000 Population, Travis County, 2015-2019



Data source: Texas Cancer Registry, Texas Department of State Health Services

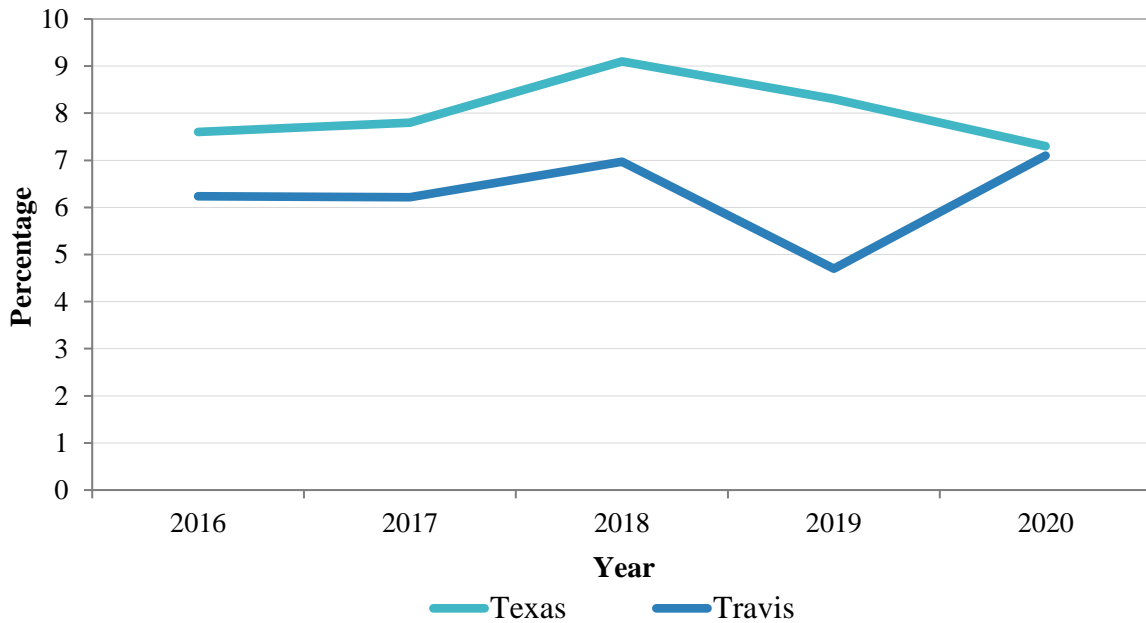
5.0 Chronic Diseases

Cardiovascular Disease

Cardiovascular disease refers to a variety of disorders that affect the heart and blood vessels. Heart disease, stroke, hypertension, and heart failure are all classified into the category of cardiovascular disease. The Behavioral Risk Factor Surveillance System (BRFSS) survey captures information related to cardiovascular diseases in several ways. Participants are randomly selected within Travis County and Texas to participate in the survey and provide a snapshot of health for Travis County and Texas as a whole. Within the survey data, the cardiovascular disease prevalence is calculated to include any person who has been diagnosed by a doctor as having had a heart attack, myocardial infarction, angina, coronary heart diseases, or a stroke. Data was combined (for some characteristics) from 2016-2020 to provide a larger sample size.

Figure 5.1 shows that the prevalence of cardiovascular disease in both Texas and in Travis County has remained relatively unchanged from 2016 through 2020. Generally, the prevalence of cardiovascular disease in Travis County is lower compared with Texas. The prevalence in Travis County has increased 14.5% from 2016 to 2020. In 2020, the prevalence of cardiovascular disease in Travis County and the Texas overall were essentially the same.

Figure 5.1. Cardiovascular Disease Prevalence among Adults, Travis County and Texas, 2016-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Table 5.1 summarizes select demographic characteristics for cardiovascular disease in Travis County and Texas. In general, the prevalence of cardiovascular disease in Travis County adults is lower compared with adults in Texas. For both Travis County and Texas, higher prevalence is

seen with increased age. Prevalence decreases as education level increases and household income increases.

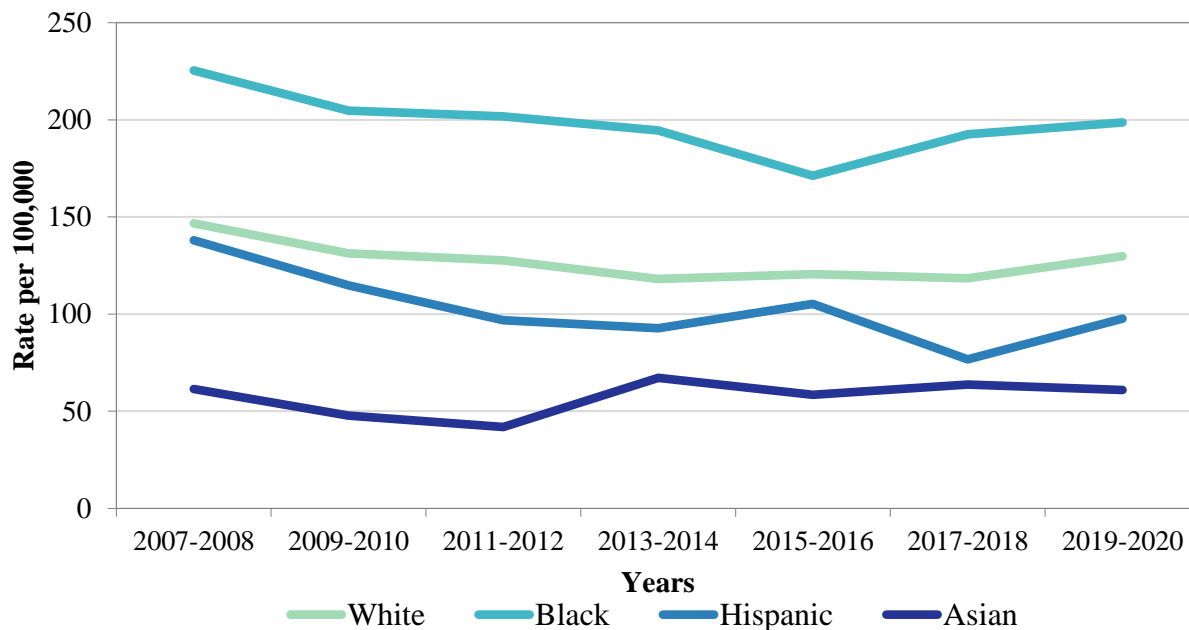
Table 5.1. Prevalence Estimates of Cardiovascular Disease among Adults by Select Population Characteristics, Travis County and Texas, 2016-2020

Population Characteristic	Travis County	Texas
	(%)	(%)
Overall	7.1	7.3
Sex		
Male	7.7	8.7
Female	5.2	5.9
Age Group (years)		
18 to 29	1.5	2.2
30 to 44	3.1	4.2
45 to 64	8.1	9.8
≥65	20.4	22.9
Race/Ethnicity		
Whites	9.6	10.0
Blacks	6.7	9.3
Hispanics	5.5	5.4
Education		
Less than High School	8.9	11.3
High School Graduate	6.7	8.1
Some College	9.1	8.7
College Graduate	5.0	4.9
Employed		
Yes	3.7	3.9
No	12.2	13.9
Household Income		
<\$25,000	10.9	11.5
\$25,000 to <\$50,000	7.6	7.6
≥\$50,000	5.0	4.4
Health Insurance		
Insured	8.1	5.3
Uninsured	5.0	4.8

Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Figure 5.2 shows cardiovascular disease mortality rates per 100,000 population by race/ethnicity. Mortality rates are highest for Blacks and lowest for Asians. In 2019-2020, rates for Blacks were over 50% higher compared with Whites and over three times higher compared with Asians.

Figure 5.2. Cardiovascular Disease Mortality Rate per 100,000 Population, Travis County, 2007-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

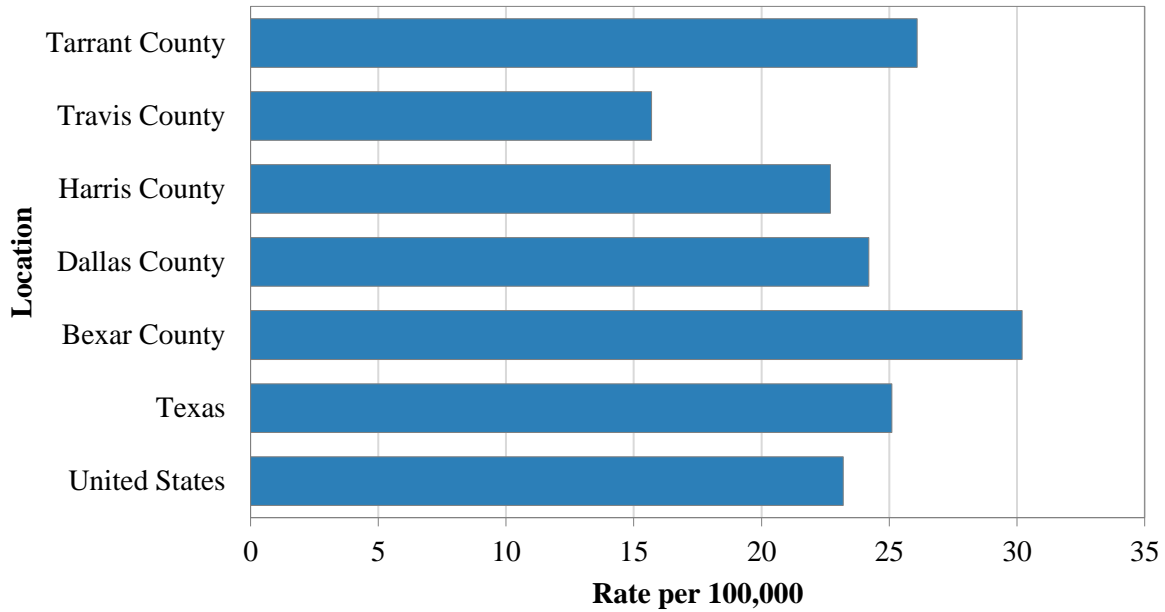
Diabetes

Diabetes is a chronic disease that affects approximately 30 million adults in the United States. In the last 20 years the number of adults with diabetes has doubled. Diabetes is a condition where the body’s ability to create or use insulin, a hormone which helps to regulate blood sugar levels, is hindered, or prevented. The disease presents in two different ways: with type 1, the body does not make insulin at all, while in type 2 the body creates insulin but does not use it efficiently enough to control blood sugar levels. Type 2 diabetes is more commonly seen in adults and can be delayed or prevented through lifestyle modifications. Complications from diabetes can lead to other disorders such as heart and kidney disease. While there is not a cure for diabetes, treatment is available to help manage the disease.³

Figure 5.3 shows age-adjusted diabetes mortality rates for 2019-2020 for the United States, Texas, and five counties in Texas. The diabetes mortality rate (15.7) in Travis County is lowest when compared to the United States, the State of Texas, and four other metropolitan Texas counties.

³ <https://www.cdc.gov/diabetes/basics/diabetes.html>

Figure 5.3. Age-adjusted Diabetes Mortality Rate per 100,000 Population, Selected Locations, 2019-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Data on diabetes prevalence was available from the Behavioral Risk Factor Surveillance System (BRFSS) survey. To account for smaller sample sizes, data was combined from 2016-2020 to provide better estimates of diabetes prevalence locally. The examined prevalence data is self-reported survey data that asks participants if a doctor has ever told them they have diabetes. Women with gestational diabetes were excluded from the data. Survey data is intended to serve as estimates of the total population.

Persons within various demographic and socioeconomic groups are at increased risk for diabetes. Table 5.2 summarizes data related to diabetes prevalence for Travis County compared with Texas. Overall, people in Travis County have a lower prevalence of diabetes compared with people in Texas. Prevalence is higher for those 65 years of age and older, those identifying as Black or Hispanic, and those with no high school diploma.

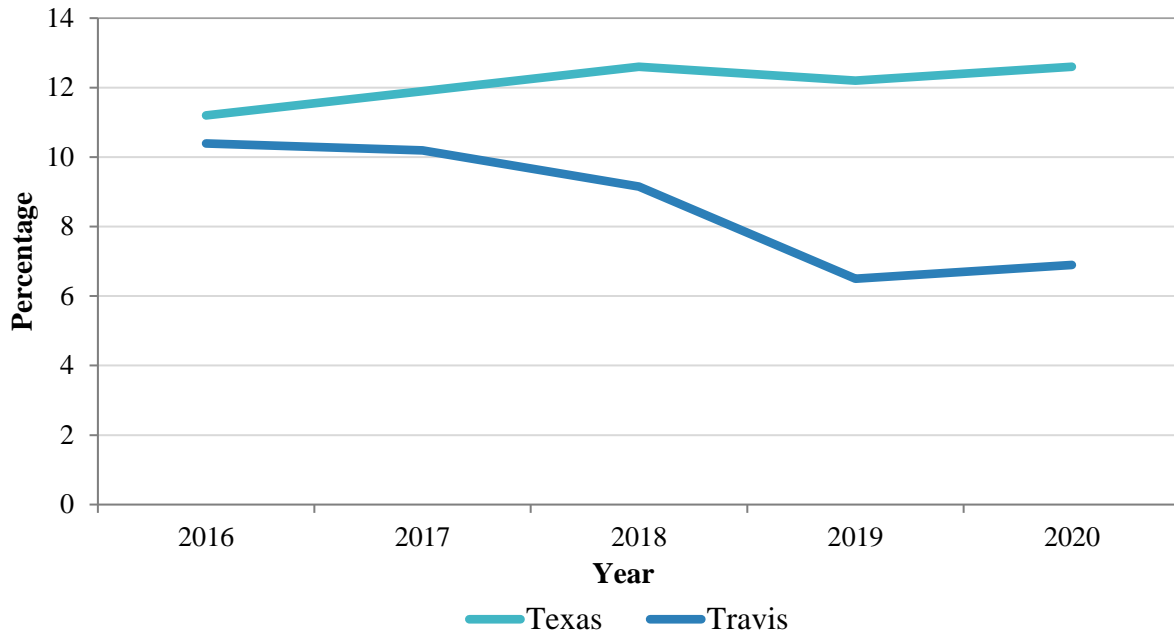
Table 5.2. Prevalence Estimates of Diabetes among Adults by Select Population Characteristics, Travis County and Texas, 2016-2020

Population Characteristic	Travis County	Texas
	(%)	(%)
Total	6.9	12.6
Sex		
Male	7.4	14.1
Female	6.3	11.1
Age Group (years)		
18 to 29	2.9	3.0
30 to 44	3.7	4.9
45 to 64	10.0	19.1
≥65	17.8	27.5
Race/Ethnicity		
Whites	6.4	10.8
Blacks	11.8	15.6
Hispanics	12.6	14.2
Education		
Less than High School	17.3	19.1
High School Graduate	9.9	12.1
Some College	9.3	12.5
College Graduate	5.1	8.7
Employed		
Yes	4.2	8.0
No	10.9	18.5
Household Income		
<\$25,000	13.4	16.5
\$25,000 to <\$50,000	10.8	14.8
≥\$50,000	6.1	9.6
Health Insurance		
Insured	7.5	13.6
Uninsured	8.5	9.4

Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Diabetes prevalence over time in Travis County and Texas is shown in Figure 5.4. Prevalence is higher each year in Texas compared with Travis County. Since 2016, the prevalence rate in Texas has increased while the rate in Travis County has decreased.

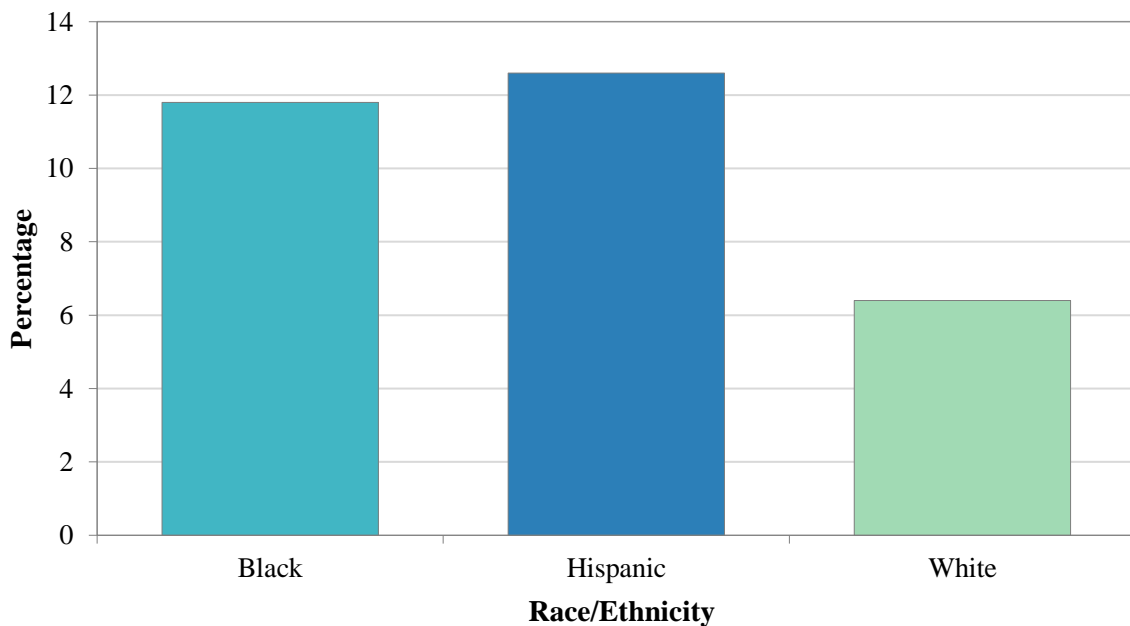
Figure 5.4. Diabetes Prevalence among Adults, Travis County and Texas, 2016-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

For 2016-2020, Blacks and Hispanics have higher diabetes prevalence compared with Whites as shown in Figure 5.5. Hispanics have the highest prevalence of diabetes at 12.6% which is almost twice that of Whites at 6.4%. Like other adverse health conditions, diabetes data indicates a health disparity between races in Travis County.

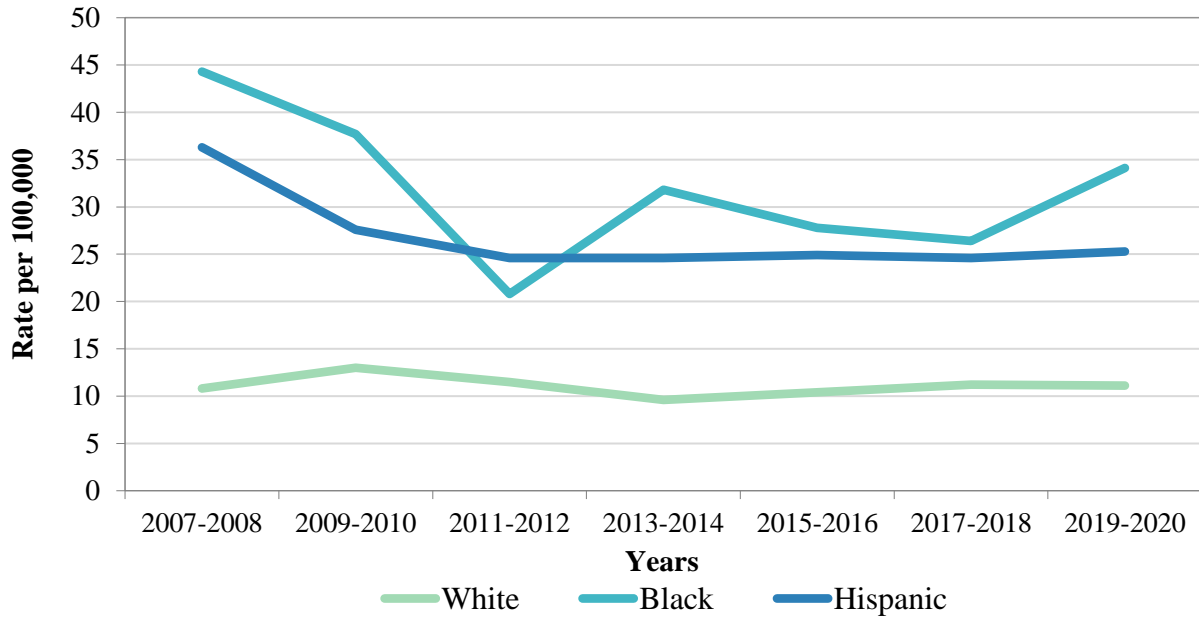
Figure 5.5. Diabetes Prevalence by Race/Ethnicity, Travis County, 2016-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Figure 5.6 shows diabetes mortality rates per 100,000 population by race/ethnicity. Blacks and Hispanics in Travis County have higher diabetes mortality rates compared with Whites. Generally during 2007 through 2020, rates for Blacks and Hispanics decreased over time, while rates for Whites remained unchanged.

Figure 5.6. Diabetes Mortality Rates per 100,000 Population by Race/Ethnicity, Travis County, 2007-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

6.0 Chronic Disease Risk Factors

Tobacco use

In the United States, cigarette smoking contributes to about one in every five deaths that occur each year. Overall, the life expectancy for people who smoke is at least 10 years shorter and the mortality rate is three times higher compared to those who do not smoke.⁴ Tobacco use also leads to increased risk of developing chronic diseases such as cancer and respiratory disease.

The Behavioral Risk Factor Surveillance System (BRFSS) survey assesses tobacco use in Travis County and Texas. The survey examines the use of cigarettes, electronic nicotine delivery systems (ENDS), and smokeless tobacco. Survey participants are asked to report their smoking status into one of four categories: everyday use, occasional use, former smoker, or never used. Data from BRFSS was combined for years 2017-2021 (for some measures) to provide a larger sample size. The BRFSS defines a current smoker as a person who smokes every day or some days and has smoked at least 100 cigarettes in their lifetime.

In Travis County during 2017-2021, 12.4% of people identify as current smokers and 32.9% have tried smoking in their lifetime. Table 6.1 shows how smoking in Travis County and Texas varies across different demographic and socioeconomic groups. In Travis County:

- Current smoker prevalence is higher for males than for females
- Prevalence of current smokers decreases as education level increases
- Prevalence of current smokers decreases as income level increases
- The prevalence of current smokers amongst the uninsured is nearly twice the prevalence for those with insurance
- The 18–44 year age group has a higher prevalence of current smokers

⁴ https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/tobacco_related_mortality/index.html

Table 6.1. Prevalence Estimates of Current Smoking and Ever Smoking among Adults by Select Population Characteristics, Travis County, 2017-2021

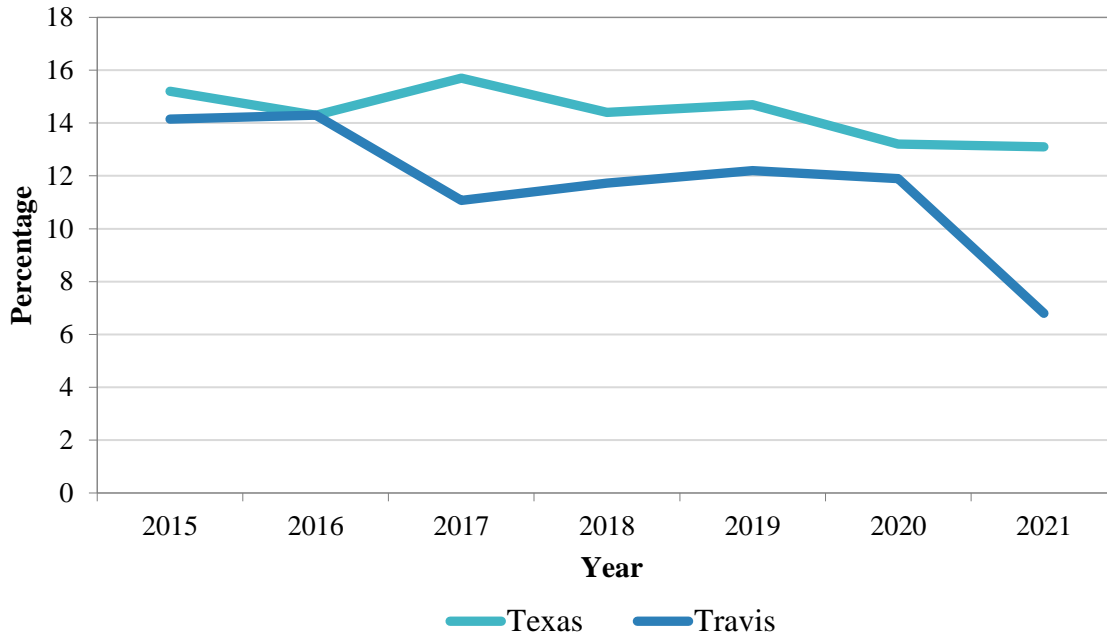
Population Characteristic	Current Smoker*		Ever Smoker*	
	Travis County	Texas	Travis County	Texas
	(%)	(%)	(%)	(%)
Overall	12.4	14.8	32.9	35.0
Sex				
Male	13.0	17.5	42.1	43.8
Female	8.6	12.2	27.9	28.9
Age Group (years)				
18 to 44	13.1	16.1	30.9	30.3
44 to 64	9.7	16.7	36.6	40.7
≥65	5.2	7.9	48.9	46.3
Race/Ethnicity				
Whites	9.4	14.6	38.9	43.1
Blacks	19.9	17.2	39.0	29.2
Hispanics	9.9	13.5	23.0	29.3
Education				
<High School	12.9	21.7	30.9	39.2
High School Graduate	19.5	18.7	38.0	40.3
Some College	14.9	13.8	39.9	39.4
College Graduate	6.5	5.8	30.6	25.8
Employed				
Yes	11.2	15.0	36.2	36.2
No	10.2	13.3	33.1	36.5
Household Income				
<\$25,000	19.6	20.0	34.8	38.0
\$25,000 to <\$75,000	11.3	15.7	34.4	38.1
≥75,000	7.2	9.6	34.4	32.2
Health Insurance				
Insured	9.2	13.1	32.7	33.7
Uninsured	23.2	22.2	34.0	36.7

Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2017-2021

*Current smoker is defined as a person who smokes every day or some days and has smoked at least 100 cigarettes in their lifetime. Ever smoker is defined as a current smoker (every day or some days) or a former smoker.

Generally, Travis County has had a lower prevalence of current smokers than Texas as shown in Figure 6.1. However, in 2016 the current smoker prevalence in Travis County equaled that of Texas. From 2016 to 2017 in Travis County there was a decrease in the prevalence of current smokers which remained unchanged for several years and then decreased to 6.8% in 2021. The current smoker prevalence in Travis County has decreased over 50% from 14.1% in 2015 to 6.8% in 2021.

Figure 6.1. Current Smoker Prevalence among Adults, Travis County and Texas, 2015-2021



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2014-2020

Table 6.2 shows current smoker prevalence by selected demographic groups in Travis County for two time periods, i.e., 2011-2015 and 2017-2022. During the period 2011-2015, current smoking prevalence was higher for males compared with females, higher of those 18 to 44 years of age compared with those 45 years of age or older, and higher for Blacks compared with Whites and Hispanics. These differences still exist for the period 2017-2022. Fortunately, the current smoking prevalence has declined for most demographic groups. The prevalence of smoking for Blacks in Travis County has not declined and shows a slight increase.

Table 6.2. Prevalence Estimates (%) of Current Smoking among Adults by Select Population Characteristics, Travis County, 2011-2015 and 2017-2022

Population Characteristic		Time Period (years)	
		2011-2015	2017-2022
Overall		13.5	12.4
Sex			
	Male	16.9	13.0
	Female	10.1	8.6
Age (in years)			
	18 to 44	14.8	13.1
	45 to 64	13.8	9.7
	≥ 65	6.2	5.2
Race/ethnicity			
	Whites	13.3	9.4
	Blacks	18.5	19.9
	Hispanics	12.9	9.9

Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2011-2022

Electronic Nicotine Delivery Systems

Use of electronic nicotine delivery systems (ENDS) such as e-cigarettes and vape pens has increased in recent years. In 2020 in Travis County 26.2% of individuals reported being a past or current user of an ENDS device; 5.1% reported current use. These numbers are similar for the Texas population 22.2% and 7.3% respectively.

In Texas use of ENDS is higher for White males, those with some college or a college degree and those aged 18-44 years.

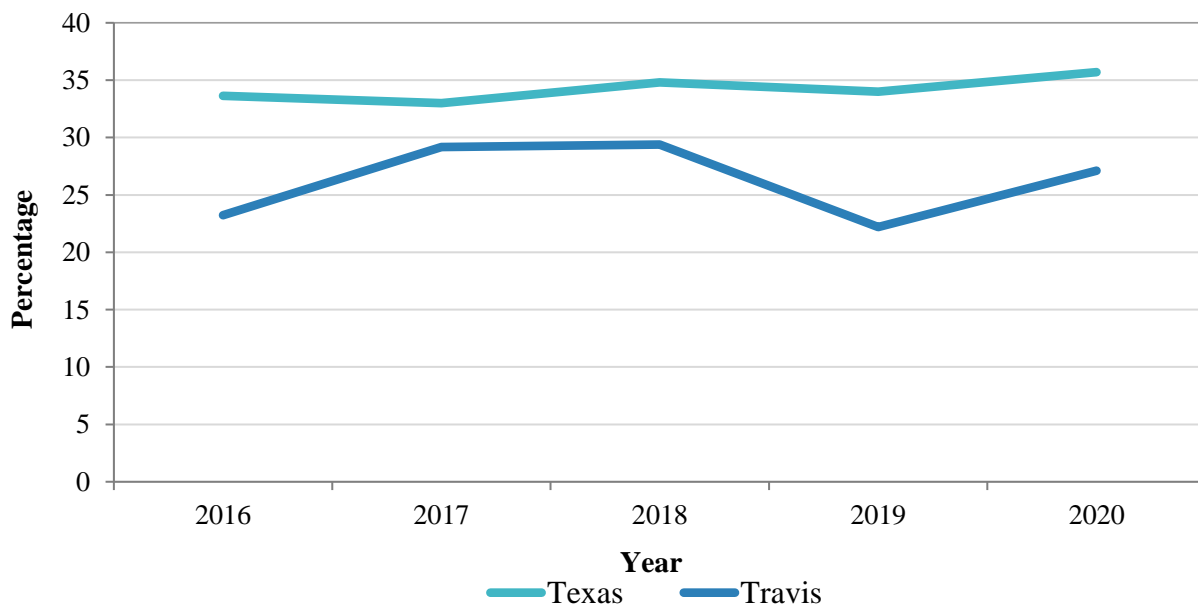
Obesity

People who are overweight or obese, compared with those with a healthy weight, are at increased risk for many serious diseases and health conditions. Body Mass Index (BMI) is an indicator used to classify a person's weight into four categories: 1) underweight, 2) normal weight, 3) overweight, and 4) obese. Obesity can lead to a variety of health problems such as heart disease, stroke, type 2 diabetes, and certain types of cancer.⁵

Data from the Texas Behavioral Risk Factor Surveillance System (BRFSS) was combined for the years 2016-2020 (for some measures) to determine the prevalences of being overweight and obese for adults living in Travis County. The survey uses self-reported height and weight data to calculate BMI which serves as a measure to determine being overweight or obese.

Figure 6.3 shows the prevalence of obesity in adults in Travis County and Texas. Obesity prevalence is lower for Travis County adults compared with adults in Texas. During 2016-2020 the obesity prevalence in Travis County ranged from 22% to almost 30%.

Figure 6.3. Obesity Prevalence among Adults, Travis County and Texas, 2016-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Table 6.2 shows the prevalence of obesity within Travis County for various demographic and socioeconomic groups. The table shows:

- More than 60% of Travis County residents are considered overweight or obese.
- The prevalence of obesity in men is slightly higher than that of women.
- Blacks and Hispanics have higher prevalence of obesity compared with Whites.
- Persons without a high school diploma are more likely to be overweight or obese.

⁵ <https://www.cdc.gov/obesity/data/adult.html>

Table 6.2. Prevalence Estimates of Obesity, Overweight, and Normal Weight by Select Population Characteristics, Travis County, 2016-2020

Population Characteristic	Travis County		
	Recommended Range (normal)	Overweight	Obese
	≥18.5 BMI* <25 (%)	≥25 BMI <30 (%)	BMI ≥30 (%)
Overall	35.5	37.4	27.1
Sex			
Male	26.6	45.1	28.3
Female	45.8	28.4	25.8
Age Group (years)			
18 to 29	53.3	31.0	15.7
30 to 44	27.0	45.3	27.6
45 to 64	27.4	39.3	33.3
≥65	43.9	26.1	30.3
Race/Ethnicity			
Whites	39.0	35.3	25.7
Blacks	30.2	39.6	30.2
Hispanics	22.7	44.4	33.0
Education			
Less than High School	28.1	45.0	26.9
High School Graduate	31.0	37.4	31.6
Some College	36.9	38.0	25.1
College Graduate	39.4	34.9	25.7
Employed			
Yes	31.4	43.4	25.2
No	41.4	29.0	29.6
Household Income			
<\$25,000	29.8	37.4	32.8
\$25,000 to <\$50,000	35.1	32.5	32.4
≥\$50,000	34.7	40.0	25.2
Health Insurance			
Insured	36.0	38.7	25.3
Uninsured	33.1	31.4	35.5

Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

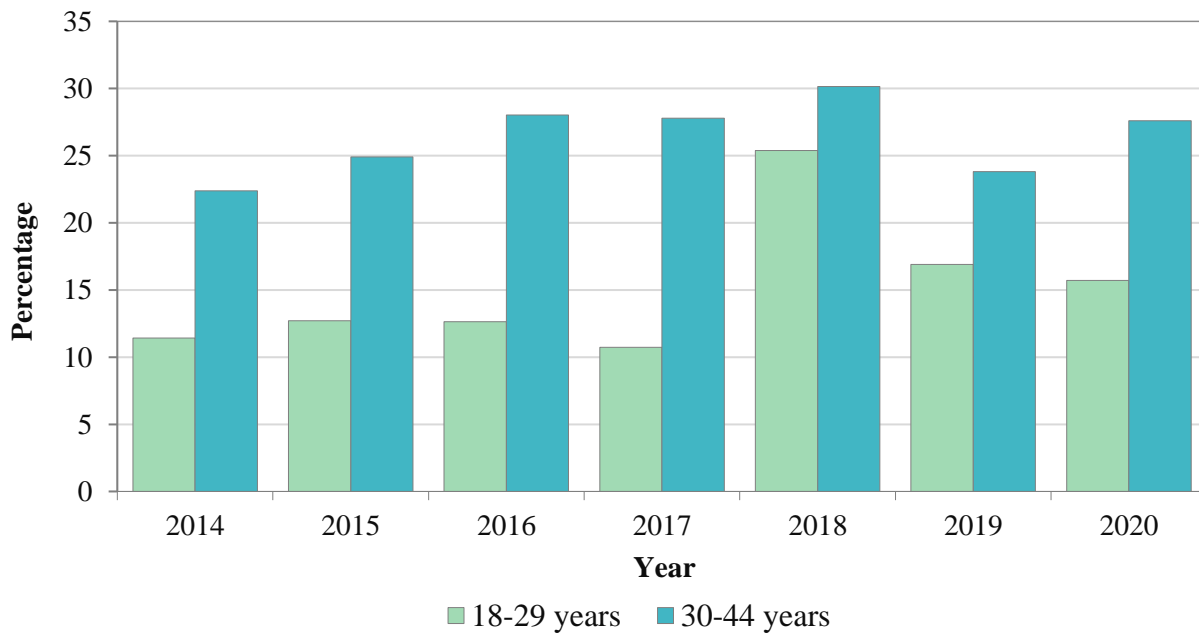
*Body Mass Index. BMI below 18.5 is considered underweight. There is not sufficient data to present demographic characteristics for an underweight group.

Within Travis County, 37.4% of residents are considered overweight and 27.1% as obese. For 2020, the overweight prevalence for Travis County and for Texas were relatively equal. From

2016-2017 the overweight prevalence for Travis County decreased from 34.8% to 30.5% but then increased slightly again the following year. The obesity rate has increased since 2019.

Figures 6.4 and 6.5 show the relationship between obesity and selected age groups and race/ethnicity. For individuals aged 18-29 years, the obesity prevalence has increased from 11.4% in 2014 to 15.7% in 2020. For individuals aged 30-44 years, there was also an increase in prevalence over time from 22.4% in 2014 to 27.6% in 2020. This data suggests an early age of onset of obesity for residents in Travis County.

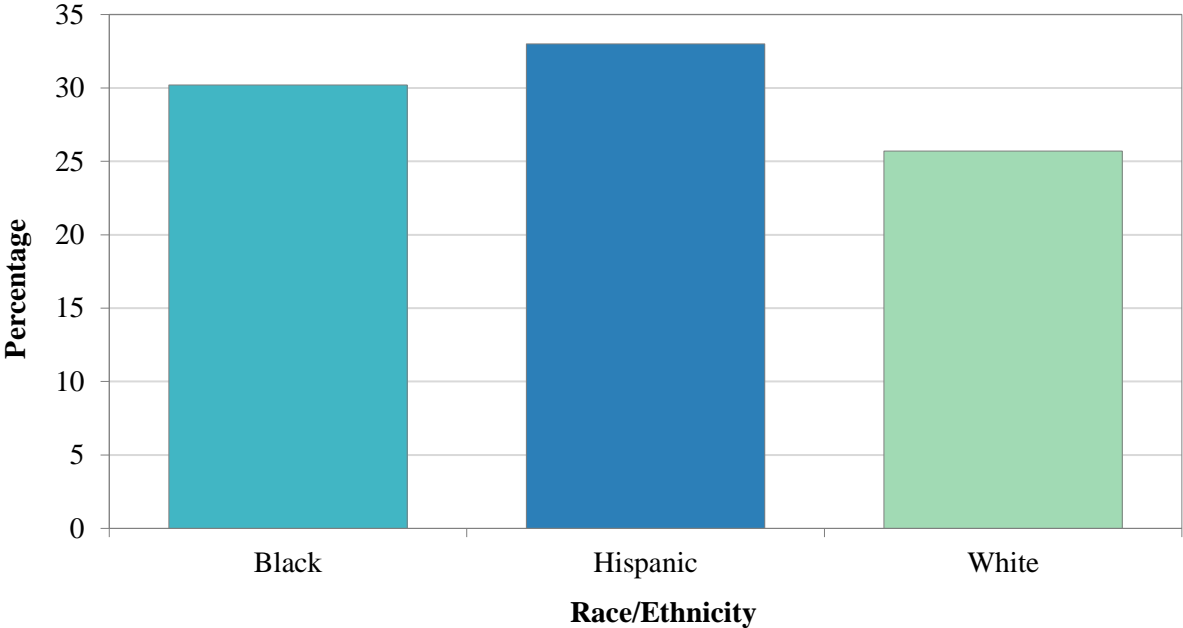
Figure 6.4. Obesity Prevalence among Adults in Travis County by Age Group and Year, 2014-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

Figure 6.5 shows obesity prevalence by race/ethnicity for persons living in Travis County. Obesity prevalence is higher among Hispanics and Blacks compared with Whites. For Hispanics, the obesity prevalence is 33% compared with 30.2% for Blacks, and 25.7% for Whites.

Figure 6.5. Obesity Prevalence by Race/Ethnicity, Travis County, 2016-2020



Data source: Texas Behavioral Risk Factor Surveillance System (BRFSS) 2016-2020

7.0 Maternal and Child Health

Maternal and child health indicators are often used as community benchmarks of the health status of a population. Maternal health status, maternal behaviors, and the environment during and even before pregnancy profoundly impacts the health and well-being of a child. Data presented in this section provides an understanding of the relationships between maternal risk factors and infant mortality. This section presents data for a variety of maternal and infant characteristics. Data on maternal mortality is not included in this report. Few, less than five, maternal-related deaths occur annually in Travis County. Data analysis is statistically unreliable with these low numbers.

Births to Teen Mothers

Teen birth rate (TBR) measures the annual number of births to female adolescents 15 to 19 years of age per 1,000 females in that age group. The numerator is the number of live births to female adolescents 15 to 19 years of age. The denominator is the total number of female adolescents 15 to 19 years of age in the population.

Table 7.1 provides the teen birth rates for adolescent females 15 to 19 years of age by race/ethnicity in Travis County compared with the overall rates in Travis County and Texas. Teen birth rates have been decreasing in Texas and Travis County. From 2016 to 2022, the teen birth rate for Travis County decreased 24% while the rate for Texas decreased 34%. Teen birth rates for Whites, Blacks and Hispanics adolescent females ages 15-19 years in Travis County decreased from 2016 to 2020.

Table 7.1. Teen Birth Rates* by Race/Ethnicity, Females Ages 15-19 Years, Travis County and Texas, 2016, 2019, 2022

Race/Ethnicity or Geographic Area	Year		
	2016	2019	2022
White	6.1	2.5	3.3
Black	28.9	27.2	18.3
Hispanic	36.1	34.5	29.6
Other§	3.6	7.6	†
Travis County	22.0	19.7	16.8
Texas	31.0	24.0	20.4

Data source: *Center for Health Statistics, Texas Department of State Health Services*. Female population data and teen birth data obtained from Texas Health Data, [TDC - Texas Population Estimates Program](#)

*[Teen Birth Rates – Rates is per 1,000 females 15-19 years of age](#)

§Other race/ethnicity category also includes cases with unknown race/ethnicity and includes multiple race responses

†Rate not presented when fewer than 20 cases in the numerator

When comparing teen birth rates among Whites and Blacks in 2022, Black teens are five times more likely to give birth (or have a baby) compared with Whites teenagers. When comparing Whites with Hispanics in 2022, the disparity is even more pronounced with Hispanic teens having babies almost nine times higher compared with Whites.

Several factors including social determinants of health influence these disparities.⁶ Lack of access to all forms of birth control including long-acting reversible contraception (LARC), lack of access to sexual education, and lack access to healthcare may play a role in the high teen birth rates in the Hispanic and Black populations.⁷ Other factors include culture and pregnancy intentions where the needs of a family over an individual plays a role and creates a supportive environment for some Latino teens to have children early.

Importantly, adverse childhood experiences are correlated with unplanned pregnancies.^{8,9} Adverse childhood experiences can include multiple traumatic experiences during childhood that can increase the likelihood of unhealthy behaviors like early sexual initiation and risky sexual behaviors. Adverse childhood experiences are also associated with changes in brain structure that lead to long-term health and social consequences, including unplanned teen pregnancies.¹⁰ Women who had experienced childhood sexual abuse were found to be two times more likely to report pregnancy during adolescence compared with those with no history of abuse.¹¹ Boys who experienced sexual abuse were nearly five times more likely to report causing a pregnancy during adolescence compared with boys with no history of abuse.¹²

Prenatal Care

Preconception and inter-conception along with prenatal care are fundamental preventive measures to improve outcomes in maternal and child health. The main goal of preconception and inter-conception care is to provide health promotion, screening and interventions for women of reproductive age, including adolescents, to reduce risk factors that might impact future pregnancies. Establishing care before a pregnancy happens is ideal. However, in the United States, approximately half of all pregnancies are not planned or meant.

Important risk factors for preterm births and low birth weight include: 1) late initiation of prenatal care or no prenatal care, 2) a mother's ability to access medical care, 3) lack of insurance, 4) immigration status, 5) lack of support, and 6) unintended and teenage pregnancies.¹³ Late prenatal care is considered prenatal care started in the second or third trimester.

During 2022 about 3,100 births in Travis County were to mothers with no or late prenatal care.

⁶ Maness SB, et al. Social determinants of health and adolescent pregnancy: An analysis from the National Longitudinal Study of Adolescent to Adult Health. *J Adolesc Health*. 2016;58:636–643.

⁷ Velasco-Mondragon E, et al. Hispanic health in the USA: a scoping review of the literature. *Public Health Rev* 37, 31 (2016).

⁸ Rocca CH, et al. Pregnancy intentions and teenage pregnancy among Latinas: a mediation analysis. *Perspect Sex Reprod Health*. 2010;42(3):186-196.

⁹ Felitti VJ, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*. 1998 May;14(4):245-58.

¹⁰ Hillis, SD, et al. The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics*. 2004;113(2):320–327.

¹¹ Noll, JG, et al. Childhood sexual abuse and adolescent pregnancy: A metaanalytic update. *Journal of Pediatric Psychology*. 2009;34(4):366–378.

¹² Homma YN, et al. The relationship between sexual abuse and risky sexual behavior among adolescent boys: A meta-analysis. *J Adolesc Health*. 2012;51(1):18–24.

¹³ Selchau K, et al. First Trimester Prenatal Care Initiation Among Hispanic Women Along the U.S.-Mexico Border. *Matern Child Health J*. 2017 Dec;21(Suppl 1):11-18

Table 7.2 shows the percentage of births with no or late prenatal care by race/ethnicity from 2018 through 2022. In Travis County and Texas, Black and Hispanic mothers are more likely to report receiving no or late prenatal care compared with White mothers. During 2022, Black and Hispanic mothers in Travis County are twice as likely or more to report no or late prenatal care compared with White mothers. Overall, since 2018 there has been an increase in the percentage of mothers in Travis County who reported no or late prenatal care.

Table 7.2. Percentage of Births with No or Late Prenatal Care by Race/Ethnicity, Travis County and Texas, 2018-2022**

Race/ethnicity	Year					Texas 2022*
	2018	2019	2020	2021	2022	
White	9.9	14.0	11.4	11.0	10.8	22.9
Black	21.9	27.6	26.6	23.8	22.9	36.9
Hispanic	20.7	27.1	26.5	25.1	27.4	35.4
Other†	13.0	15.6	14.1	12.3	14.7	27.7
All races*	15.8	20.8	19.3	18.1	19.5	31.1

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

*The total includes all races and ethnicities

**Percent calculated for “Late or No Prenatal Care” is based on the total number of births.

†Non-Hispanic Other race/ethnicity category also includes cases with unknown race/ethnicity and includes multiple race responses

Preterm Births

A preterm birth is defined as a baby born before 37 weeks of gestation. Preterm babies born between 32 and 36 weeks + 6 days may have good health outcomes; however, those born before 32 weeks (also known as very preterm or extremely preterm babies) have higher rates of serious health problems and death. Three situations primarily influence preterm births: 1) spontaneous preterm labor and birth (usually a result of infection or inflammation); 2) medically indicated preterm birth (as a treatment for preeclampsia); or 3) non-medically indicated (elective) preterm delivery.

Several studies have pointed to maternal chronic and/or toxic stress in addition to acculturation as a risk factor for premature births.⁸ When comparing adverse birth outcomes between foreign-born and United States-born women of the same race/ethnicity, foreign-born women had better birth outcomes than their U.S.-born racial/ethnic counterparts despite later initiation of prenatal care and less education.¹⁴ Other related risk factors such as behavioral, medical, social, personal, economic conditions and structural racism are implicated in a woman’s risk of preterm birth.¹⁵ Table 7.3 shows the percentages of births in Travis County and Texas by race/ethnicity that were preterm. In Travis County, the annual percentage of preterm births has been relatively constant

¹⁴ State-Specific Trends in U.S. Live Births to Women Born Outside the 50 States and the District of Columbia-United States, 1990 and 2000. *Morb Mortal Wkly Rep.* 2002;51(48):1091-1095

¹⁵ Alhusen JL, et al. Racial Discrimination and Adverse Birth Outcomes: An Integrative Review. *J Midwifery Womens Health.* 2016 Nov;61(6):707-720.

between 11% to 13% from 2018 to 2022. In Texas and Travis County, Black mothers are more likely to have a preterm birth compared with other races and/or ethnicities.

Table 7.3. Percentage of Preterm Births* by Race/Ethnicity, Travis County and Texas, 2018-2022

Race/ethnicity	Year					Texas Average 2022
	2018	2019	2020	2021	2022	
White	9.1	9.4	10.2	11.0	9.1	11.7
Black	15.9	18.0	17.8	17.0	18.3	17.6
Hispanic	11.7	12.2	12.6	13.8	12.7	14.0
Other†	10.7	10.1	13.4	13.9	10.3	12.6
All races	11.0	11.4	12.3	13.0	11.5	13.6

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

*“Preterm” is considered <37 weeks gestation. Percent calculated for “Preterm” is based on the total number of births.

†Non-Hispanic Other race/ethnicity category also includes cases with unknown race/ethnicity and includes multiple race responses

Low Birth Weight

The birth weight of an infant is the first weight recorded (ideally) within the first hours after birth. Low birth weight has been defined by the World Health Organization as weight at birth of less than 2,500 grams (5.5 pounds). Low birth weight is further categorized into very low birth weight (VLBW) between 1,000 and 1,500 grams (2.2 and 3.5 pounds) and extremely low birth weight (ELBW), less than 1,000 grams or 2.2 pounds). Low birth weight could be a result of preterm birth, intrauterine growth restriction, or both. It is worth noting that premature babies could still have a normal weight at birth and that term babies can be born with low birth weight.

At a population level, the proportion of infants with a low birth weight is an indicator of a multi-layered public health problem that includes long-term maternal malnutrition, unwellness and poor health care in pregnancy. Low birth weight contributes to a range of poor health outcomes and is closely associated with fetal and neonatal mortality and morbidity, inhibited growth, and cognitive development.

Table 7.4 shows the percentage of low birth weight births in Travis County by race and ethnicity. Annually from 2018 to 2022, around 7.5% of births are low weight. In Travis County and Texas low birth weight is more frequently seen in infants born to Black mothers.

Table 7.4. Percentage of Low Birth Weight[§] Births by Race/Ethnicity, Travis County and Texas, 2018-2022

Race/ethnicity	Year					Texas Average 2022*
	2018	2019	2020	2021	2022	
White	6.2	5.6	5.9	5.7	6.0	7.2
Black	13.3	14.2	14.5	13.7	14.5	14.4
Hispanic	7.5	6.6	7.2	7.6	7.8	8.5
Other†	8.7	8.7	8.6	9.2	8.8	9.5
All races	7.6	7.1	7.5	7.6	7.8	8.9

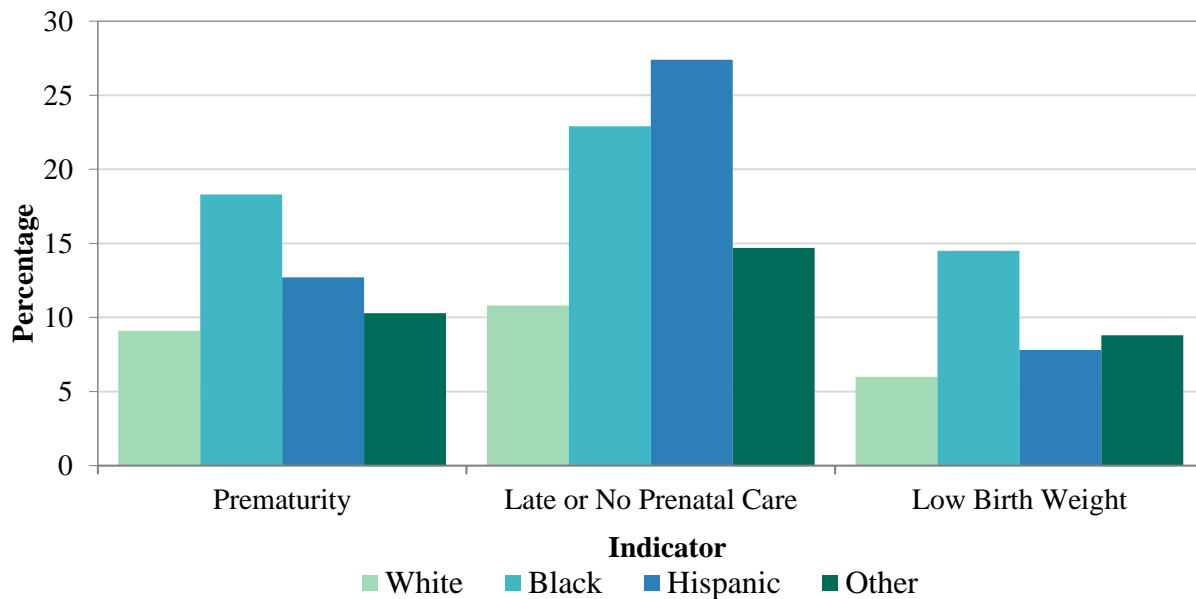
Data source: Texas Birth Certificate Data - Center for Health Statistics, Texas Department of State Health Services

§ "Low birth weight birth" is considered a birth weight of less than 2,500 grams (or 5.5 pounds). Percent calculated for "Low Birth Weight" is based on the total number of births.

† Non-Hispanic Other race/ethnicity category also includes cases with unknown race/ethnicity and includes multiple race responses

Figure 7.1 compares the percentage of premature and low birth weight babies and mothers reporting late or no prenatal care by race/ethnicity for Travis County for 2022. As previously noted, Black and Hispanic mothers are more than twice as likely to report late or no prenatal care compared with White mothers. Black mothers are twice as likely to have a premature and a low birth weight baby compared with White mothers.

Figure 7.1. Percentage of Premature and Low Birth Weight Babies and Mothers with Late or No Prenatal Care, by Race/Ethnicity, Travis County, 2022



Data source: Center for Health Statistics, Texas Department of State Health Service

† Non-Hispanic Other race/ethnicity category also includes cases with unknown race/ethnicity and includes multiple race responses

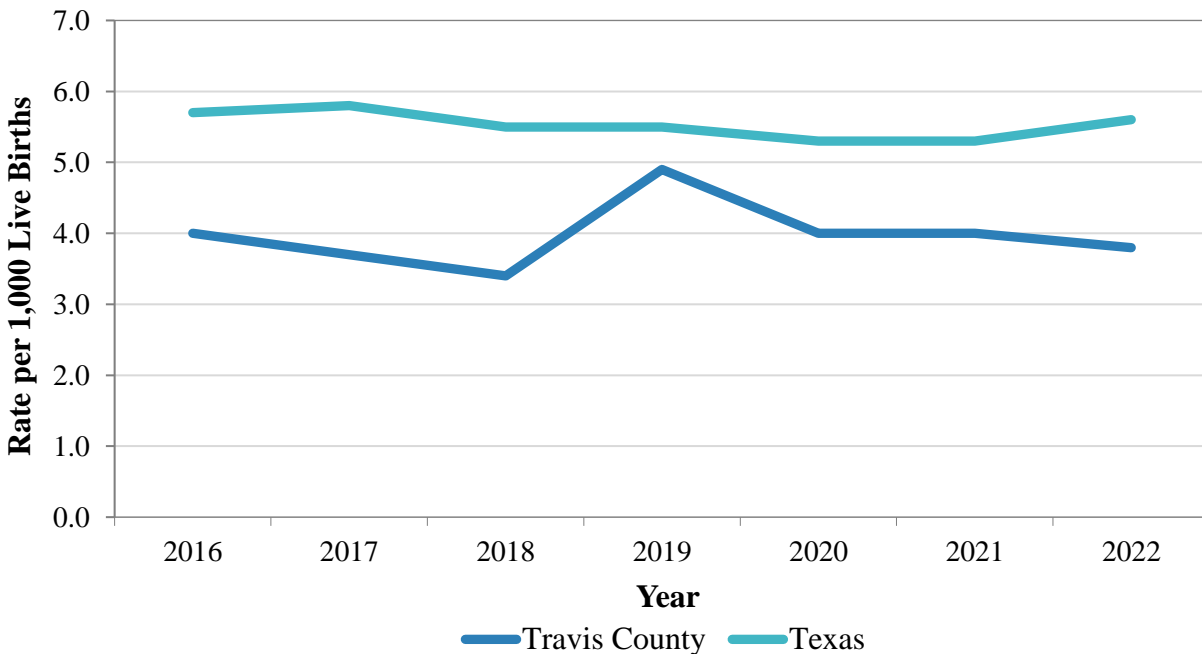
Infant Mortality

Infant mortality refers to the death of a baby before one year of age. The *infant mortality rate* is the number of infant deaths for every 1,000 live births. In general, the infant mortality is considered a summary measure of the health of a population and the differences between infant mortality rates for babies born to White and Black mothers in the United States has been a focal point in public health for many years.

While congenital malformations and chromosomal disorders are the leading cause of infant mortality in the United States among most racial and ethnic groups, preterm birth and low birth weight is the most common cause of infant death for Black and Puerto Rican (but not other Hispanic) women. It has been estimated that disparities in extremely preterm births are attributable for 80% of the black-white disparity in infant mortality.⁸

During 2016-2020, a total of 314 infant deaths were reported in Travis County.¹⁶ The infant mortality rate in Travis County has been lower than the rate in Texas from 2016-2022 (Figure 7.2). Over this seven-year period, the Travis County infant mortality rate has varied between 3.4 and 4.9 deaths per 1,000 live births.

Figure 7.2. Infant Mortality Rates per 1,000 Live Births, Travis County and Texas, 2016-2022



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

Table 7.5 shows infant mortality rates for Travis County and Texas by race/ethnicity for 2018-2022. For each race/ethnicity, infant mortality rates are lower for Travis County compared with Texas. In Travis County, Black babies are three times more likely to die in their first year of life compared with White babies.

¹⁶ Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

Table 7.5. Infant Mortality Rates per 1,000 Live Births by Race/ethnicity, Travis County and Texas, 2018-2022

Race/ethnicity	Travis County	Texas
White	3.0	4.7
Black	8.9	10.5
Hispanic	4.2	4.9
Other	3.3	3.6

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

Maternal Mortality

Data from the Centers for Disease Control Wide-ranging Online Data for Epidemiologic Research (CDC WONDER) was used to identify the number of maternal deaths in Travis County during 2016-2020. International Classification of Diseases Tenth Revision (ICD-10) codes A34, O00-O95, and O98-O99 were used to identify maternal deaths.

During 2016-2020, only 12 maternal deaths occurred among Travis County mothers. Year of occurrence, mother's age, and mother's race/ethnicity were not available due to the low number of deaths.

8.0 Human Immunodeficiency Virus

Human immunodeficiency virus (HIV) is a virus that attacks the body's immune system, especially the white blood cells (CD4 cells), destroying them and weakening a person's defense system against opportunistic infections. If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome). In the United States, most people get HIV through anal or vaginal sex or through sharing needles, syringes, or other drug injection equipment. Only certain body fluids from a person who has HIV can transmit HIV; these fluids include blood, semen/pre-seminal fluid, rectal fluids, vaginal fluids, and breast milk. Less commonly, 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. The time from HIV infection to the development of AIDS is extremely variable, ranging from less than one year to over 15 years.

Currently, there is no effective cure for HIV. HIV infection can be managed by treatment regimens composed of a combination of antiretroviral drugs. Current antiretroviral therapy (ART) does not cure HIV infection but suppresses viral replication and allows an individual's immune system recovery to strengthen and regain the capacity to fight off opportunistic infections.

More options than ever are available to reduce the risk of HIV infection. Ways to reduce risk include using condoms correctly every time you have sex, limiting the number of sexual partners, never sharing needles, sexual abstinence, and taking advantage of highly effective antiretroviral drugs for prevention called pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) to reduce the risk of HIV infection. PEP is used after a person is potentially exposed to HIV, while PrEP is a daily pill taken to prevent HIV for those at high risk for becoming infected with HIV.

In 2020, 30,635 people received an HIV diagnosis in the United States and dependent areas. The annual number of new diagnoses decreased 8% from 2016 to 2019.¹⁷ Over 85% of the people, with a new diagnosis knew they had HIV. The Centers for Disease Control and Prevention estimates that approximately 1,100,000 people in the United States had HIV at the end of 2019, the most recent year for which this information is available. About 13% of these people with HIV are unaware they have HIV.

HIV can affect anyone, although certain groups are at higher risk. In the United States, Blacks are the group most affected by HIV compared with other races and ethnicities. Additionally, male-to-male sexual contact accounted for about two thirds of the new HIV diagnoses, being gay and bisexual men the most affected subpopulations.

Table 8.1 shows the number of new HIV and late diagnoses cases reported in Travis County during 2011 through 2020. The annual number of new HIV diagnoses ranged from 164 to 296. In 2020, most of new diagnoses were male (93%). Almost half (48.2%) of the new cases were 25-34 years of age. A fifth (21.3%) were 15-24 years of age. Additionally, most cases identified as Hispanics (50.6%), followed by White (23.8%), and then Black (20.1%).

¹⁷ <https://www.cdc.gov/hiv/basics/statistics.html>

Table 8.1. Number of New and Late HIV Diagnoses, Travis County, 2011-2020

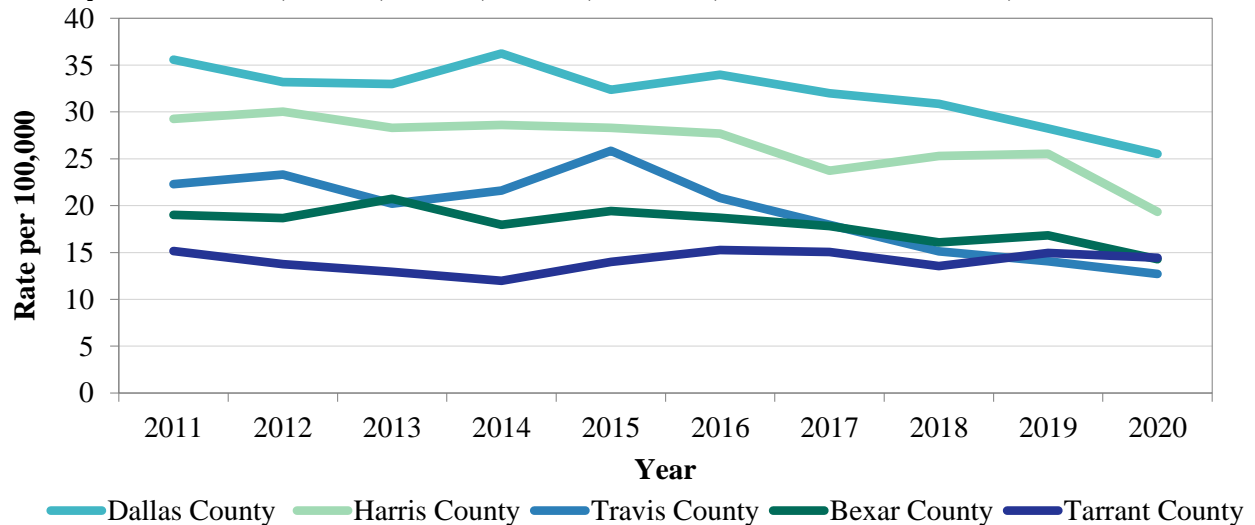
Diagnosis Year	HIV	Late Diagnosis of HIV infection*
2011	234	28
2012	250	21
2013	224	13
2014	242	23
2015	296	22
2016	244	25
2017	215	15
2018	185	11
2019	179	11
2020	164	NA
Total	2,233	169

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

*Late diagnosis of HIV infection was defined as stage 3 (AIDS) based on CD4 count <200 cells/mL or opportunistic illness within 3 months of HIV diagnosis

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. For the last ten years, rates in Travis County have been lower compared with Dallas and Harris counties and since 2019 are lower than Bexar and Tarrant counties. Rates for all five counties are decreasing over time.

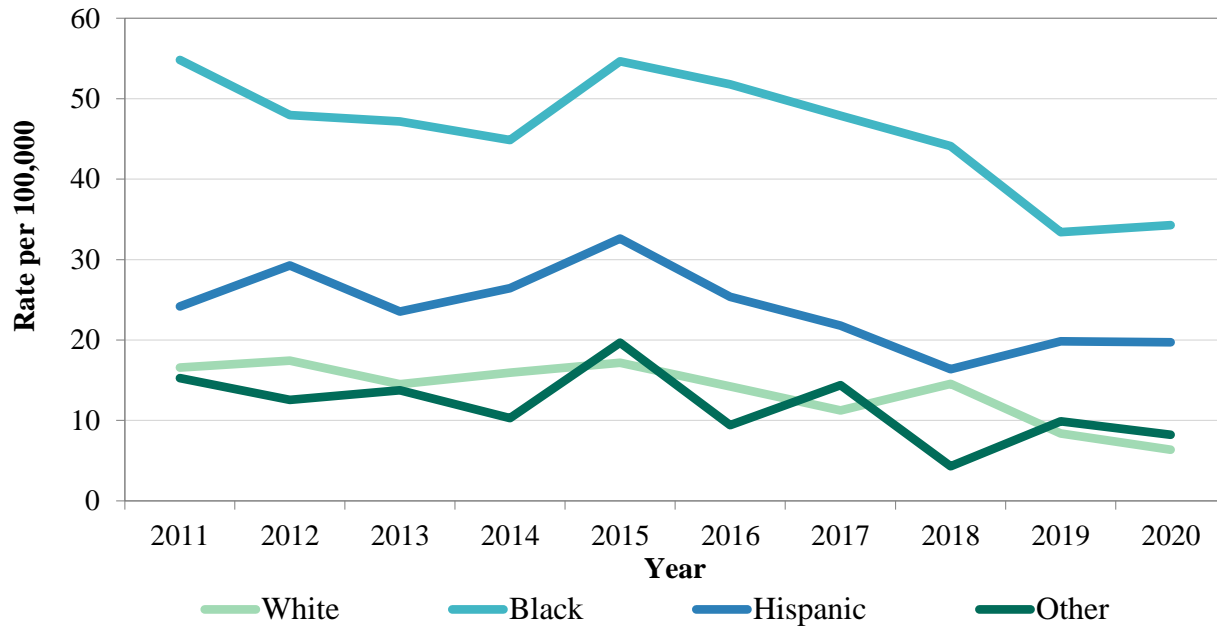
Figure 8.1. Incidence Rates per 100,000 Population of New HIV Infection Diagnoses by County of Residence, Bexar, Dallas, Harris, Tarrant, and Travis Counties, 2011-2020



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

Figure 8.2 shows incidence rates of new HIV diagnoses by race/ethnicity in Travis County. From 2011 through 2020, incidence rates for Blacks have been consistently higher compared with rates for Hispanics, Whites, and Others. Incidence rates for all are decreasing from 2011 to 2020.

Figure 8.2. Incidence Rate per 100,000 Population of New HIV Diagnoses, Travis County, 2011-2020

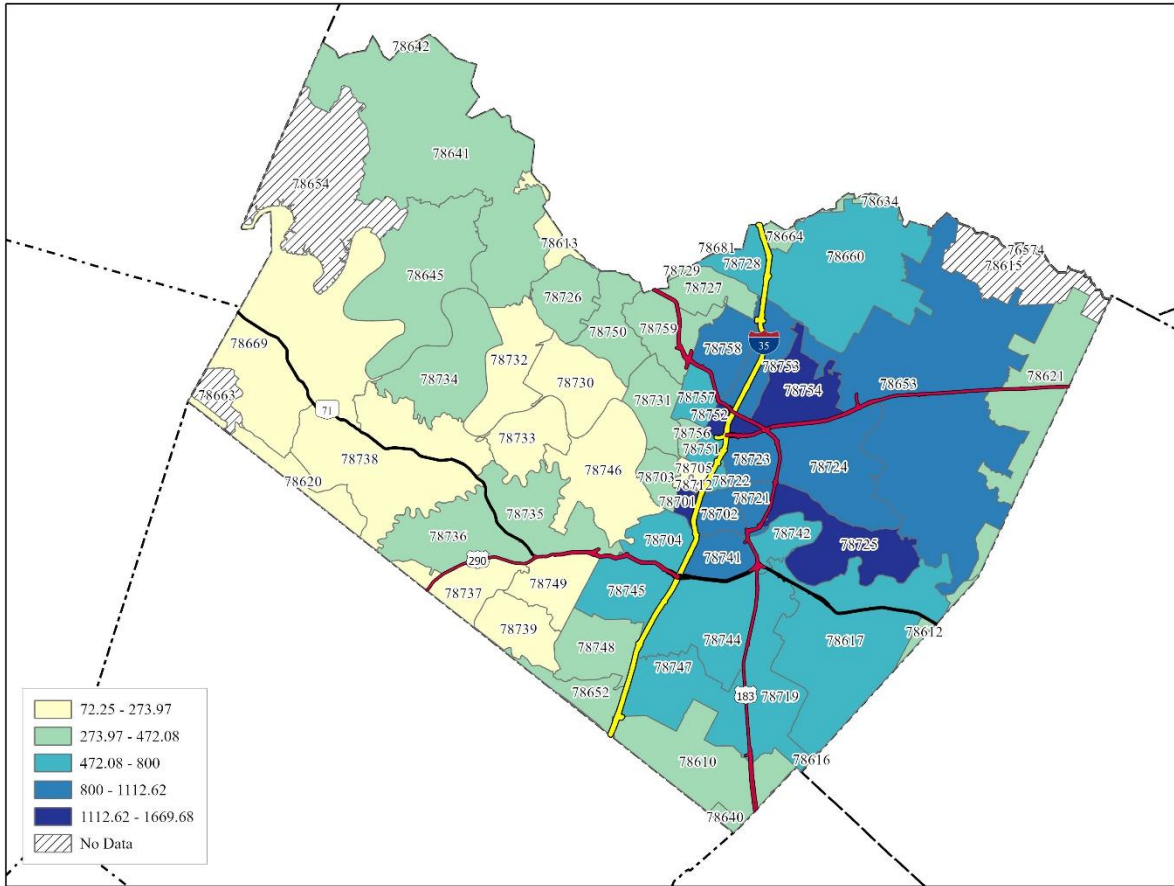


Data source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

Through December 31, 2019, a total of 97,844 persons living with HIV (PLWH) resided in Texas. A majority (79.1%) of PLWH in Texas are male. The rate of PLWH for males in Texas during 2019 was 537.1 per 100,000 population, compared with 140.3 per 100,000 population among females. In Texas, most persons living with HIV in 2019 were Blacks (36.6%) followed by Hispanics (34.3%), and then Whites (23.7%).

Map 8.1 shows the prevalence rate of HIV by zip code for Travis County in 2020. Higher HIV prevalence rates are concentrated along and east of Interstate-35. The zip codes with the highest prevalence rates are 78754 and 78725.

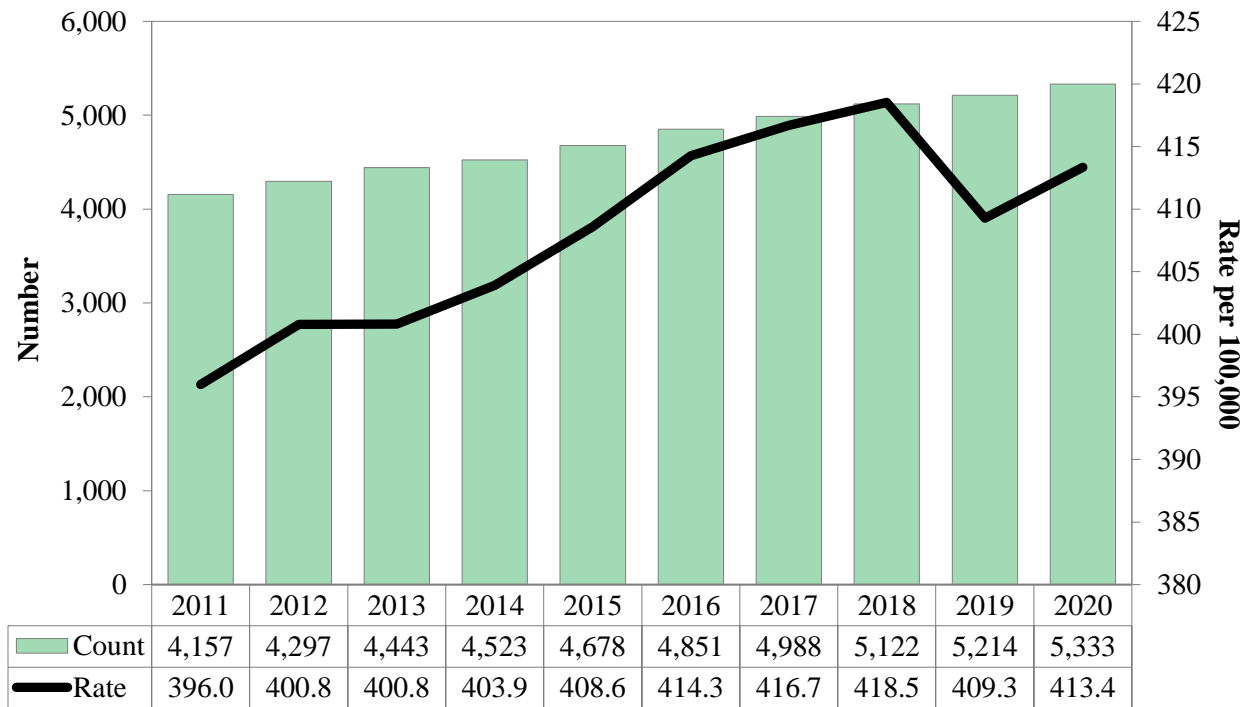
Map 8.1. Prevalence Rate per 100,000 Population of Persons Living with HIV by Zip Code, Travis County, 2020



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

Figure 8.3 shows the number of PLWH in Travis County and the prevalence rate per 100,000 population by year. The number of PLWH in Travis County has increased 28.3% over the past ten years, from 4,157 to 5,333. The rate of PLWH increased 4.4% from 396.0 per 100,000 in 2011 to 413.4 per 100,000 in 2020.

Figure 8.3. Number and Prevalence Rate per 100,000 of Persons Living with HIV, Travis County, 2011-2020



Data source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services.
 Note: Rates estimated using 2020 American Community Survey 5-year Estimates Data.

At the end of 2020, an estimated 8,200 PLWH were living within Bastrop, Caldwell, Hays, Travis, and Williams Counties referred to as the Austin Transitional Grant Area. Most (5,333 persons) were residents of Travis County. Table 8.2 shows the percentage of PLWH in Travis County by sex at birth, gender identity, and age group during the last five years. Most (87%) of the PLWH in Travis County are males. Hispanics and Whites races comprise 36.4% and 36.0% of PLWH, respectively. The group with higher transmission during 2020 was the men who have sex with men (MSM).

Table 8.2. Number and Percentage of Persons Living with HIV by Sex at Birth, Gender Identity, Age Group, Race/Ethnicity, and Mode of Transmission, Travis County, 2018-2020

Population Characteristic	Year					
	2018		2019		2020	
	#	%	#	%	#	%
Sex at birth						
Male	4,432	86.5	4,514	86.6	4,638	87.0
Female	690	13.5	700	13.4	695	13.0
Gender identity						
Transgender women	62	1.2	69	1.3	77	1.4
Transgender men	2	0.0	2	0.0	2	0.0
Cisgender women	688	13.4	698	13.4	693	13.0
Cisgender men	4,370	85.3	4,445	85.3	4,561	85.5
Current age (in years)						
≤14	7	0.1	7	0.1	4	0.1
15-24	165	3.2	141	2.7	144	2.7
25-34	1,049	20.5	1,067	20.5	1,106	20.7
35-44	1,149	22.4	1,185	22.7	1,229	23.0
45-54	1,379	26.9	1,318	25.3	1,259	23.6
55-64	1,054	20.6	1,130	21.7	1,184	22.2
≥65	319	6.2	366	7.0	407	7.6
Race/ethnicity						
American Indian or Alaska Native	2	0.0	4	0.0	5	0.1
Asian	71	1.4	75	1.4	74	1.4
Black	1,098	21.4	1,153	22.1	1,196	22.4
Hispanic	1,817	35.5	1,858	35.6	1,941	36.4
White	1,923	37.5	1,936	37.1	1,922	36.0
Multiple races	209	4.1	186	3.6	193	3.6
Native Hawaiian or Other Pacific Islander	2	0.0	2	0.0	2	0.0
Mode of transmission group						
Gay, bisexual men and other MSM	3,570	70.2	3,646	70.4	3,797	71.6
People who inject drugs (PWID)	376	7.4	368	7.1	370	7.0
MSM/PWID	431	8.5	444	8.6	415	7.8
Heterosexual	707	13.9	719	13.9	718	13.5

Data source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services
MSM: men who have sex with men, PWID: People who inject drugs.

9.0 Sexually-transmitted infections

Chlamydial infections

Chlamydial infections, caused by *Chlamydia trachomatis*, are the most reported sexually-transmitted infections in the United States, Texas, and Travis County. Both men and women can get infected with *C. trachomatis*. Many cases go unreported because most infected people are asymptomatic. In women, chlamydial infection may result in pelvic inflammatory disease and ectopic pregnancies, potentially even causing permanent damage and making it difficult to get pregnant. Chlamydial infections are treated with antibiotics.

In 2020, a total of 135,124 cases of chlamydia infection were reported in Texas¹⁸. In Travis County the annual number of cases has increased from 5,471 in 2008 to 7,932 in 2020. Table 9.1 shows the number of reported chlamydia infections in Travis County in 2020 by sex and race/ethnicity. A majority (56%) of persons with a chlamydial infection are females. For those with known race/ethnicity, Hispanics comprise about a third (28%) of the cases.

Table 9.1. Number of Chlamydial Infections by Sex and Race/Ethnicity, Travis County, 2020

Race/Ethnicity	Sex			Total
	Male	Female	Unknown	
White	927	697	5	1,629
Black	609	615	7	1,231
Hispanic	746	1,490	2	2,238
Other*	103	99	0	202
Unknown**	1,085	1,519	28	2,632
Total	3,470	4,420	42	7,932

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

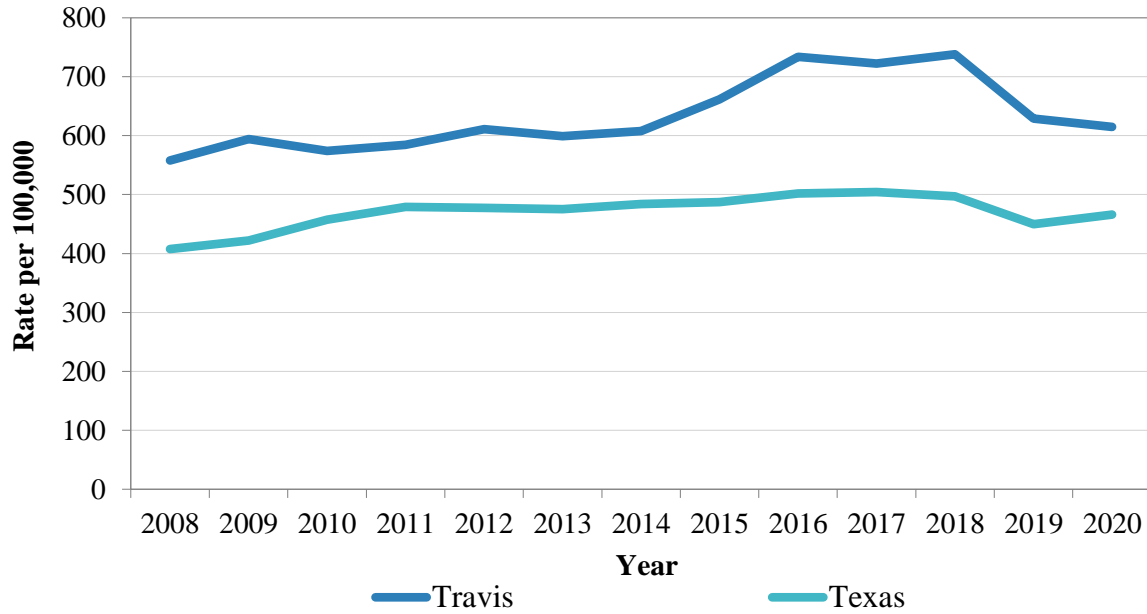
*Other race includes Asian, Native Hawaiian/Pacific Islander, American Indian/Alaska Native and, Multirace.

**Note: A delay in updating the race/ethnicity field in the surveillance data for chlamydia and gonorrhea has resulted in many cases of unknown race/ethnicity in 2020. Numbers should be interpreted with caution.

Figure 9.1 shows the chlamydial infection incidence rates per 100,000 population for Travis County and Texas from 2008 through 2020. During this time, incidence rates are higher each year in Travis County compared with Texas. Generally, the incidence rate for Travis County and Texas were increasing until 2018. Rates for Travis County and Texas decreased in 2019.

¹⁸ <https://www.cdc.gov/std/statistics/2020/tables/2.htm>

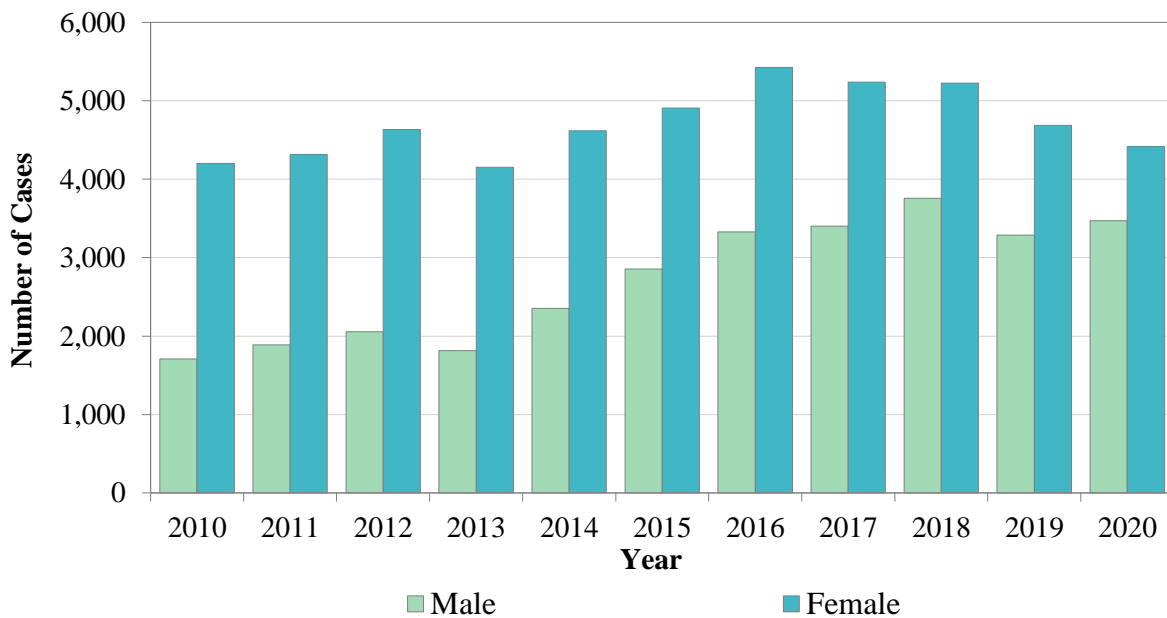
Figure 9.1. Chlamydial Infection Incidence Rate per 100,000 Population, Travis County and Texas, 2008-2020



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

Figure 9.2 shows the number chlamydial infections in Travis County by sex for years 2010 through 2020. Each year, females comprise most of the cases ranging from 71.0% in 2010 to 56.0% in 2020.

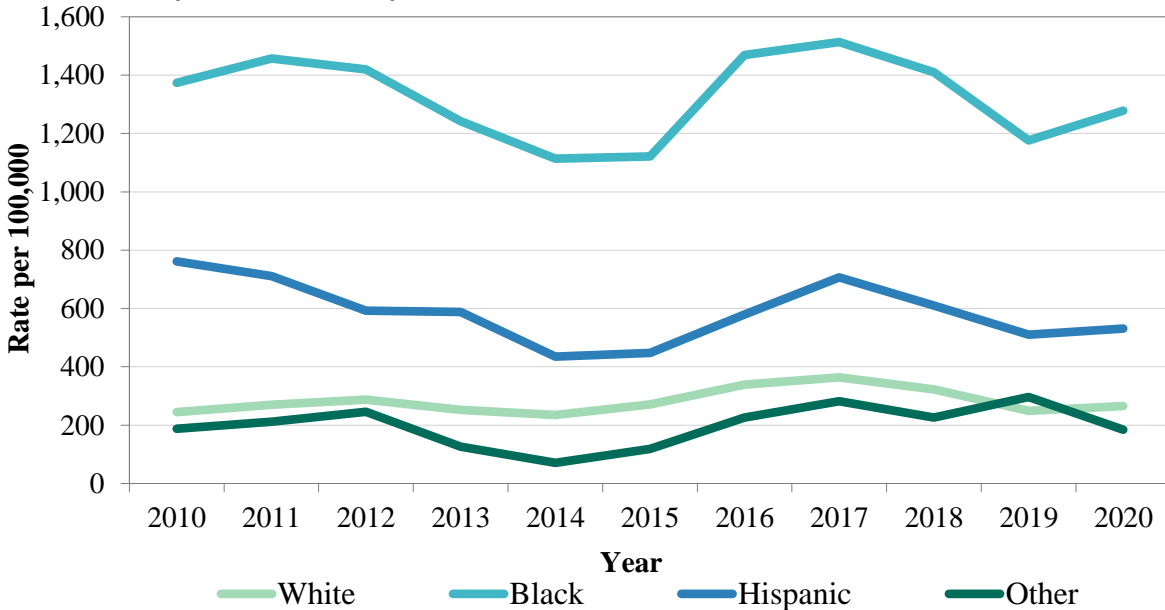
Figure 9.2. Number of Chlamydial Infections by Sex, Travis County, 2010-2020



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

Figure 9.3 shows the chlamydial infection incidence rates by race/ethnicity. From 2010 through 2020, incidence rates for Blacks have been consistently higher compared with rates for Whites, Hispanics, and Others. The incidence rate in 2020 for Blacks was about five times higher compared with Whites.

Figure 9.3. Chlamydial Infection Incidence Rates per 100,000 Population by Race/Ethnicity, Travis County, 2010-2020



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

Gonorrhea

Gonorrhea, caused by the bacteria *Neisseria gonorrhoeae*, is the second most common sexually-transmitted infection in the United States. Infections due to *Neisseria gonorrhoeae*, like infections due to *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease. Additionally, studies have shown gonococcal infections facilitate the transmission of HIV.

Transmission of *N. gonorrhoeae* 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 mucopurulent cervicitis. The cervicitis is usually asymptomatic. Gonorrhea is effectively treated with antibiotics.

In 2020, a total of 58,246 gonorrhea cases were reported in Texas¹⁹. In 2020, a total of 4,056 gonorrhea cases were reported in Travis County. Table 9.2 presents the number of gonorrhea

¹⁹ <https://www.cdc.gov/std/statistics/2020/tables/7.htm>

cases reported in 2020 by sex and race/ethnicity. A majority (71.1%) of cases were males. For males with a known race/ethnicity, Whites comprised over a third (39.4%) of cases followed by Blacks with 29.8% of the cases. For females with known race/ethnicity, White comprised 30.2% of cases while both Blacks and Hispanics comprised 33.4% of cases.

Table 9.2. Number of Gonorrhea Cases by Sex and Race/Ethnicity, Travis County, 2020

Race/Ethnicity	Sex			Total
	Male	Female	Unknown	
White	940	264	1	1,205
Black	713	292	1	1,006
Hispanic	637	292	2	931
Other*	98	25	0	123
Unknown**	498	289	4	791
Total	2,886	1,162	8	4,056

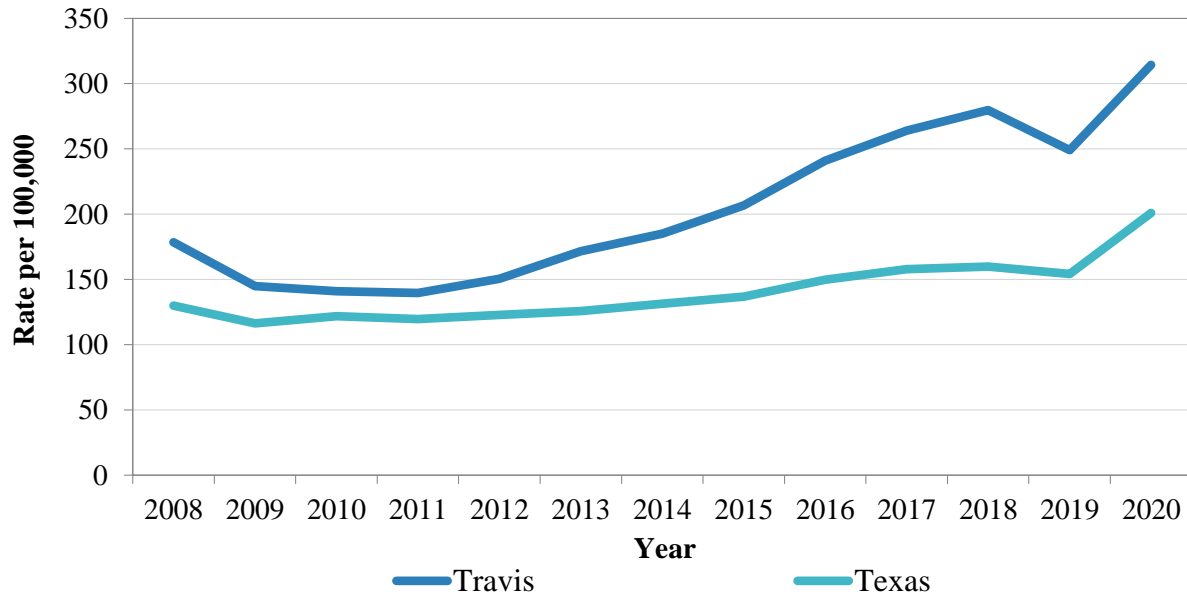
Data source: TB/HIV/STD Epidemiology and Surveillance Branch, Texas Department of State Health Services

*Other race includes Asian, Native Hawaiian/Pacific Islander, American Indian/Alaska Native and, Multirace.

**Note: A delay in updating the race/ethnicity field in the surveillance data for chlamydia and gonorrhea has resulted in many cases with race/ethnicity as unknown in 2020. Numbers should be interpreted with caution.

Figure 9.4 shows the gonorrhea incidence rates for Travis County and Texas for years 2008 through 2020. During this period rates in Travis County were always higher compared with Texas. In 2020, the rate for Travis County was 36% higher compared with the rate for Texas.

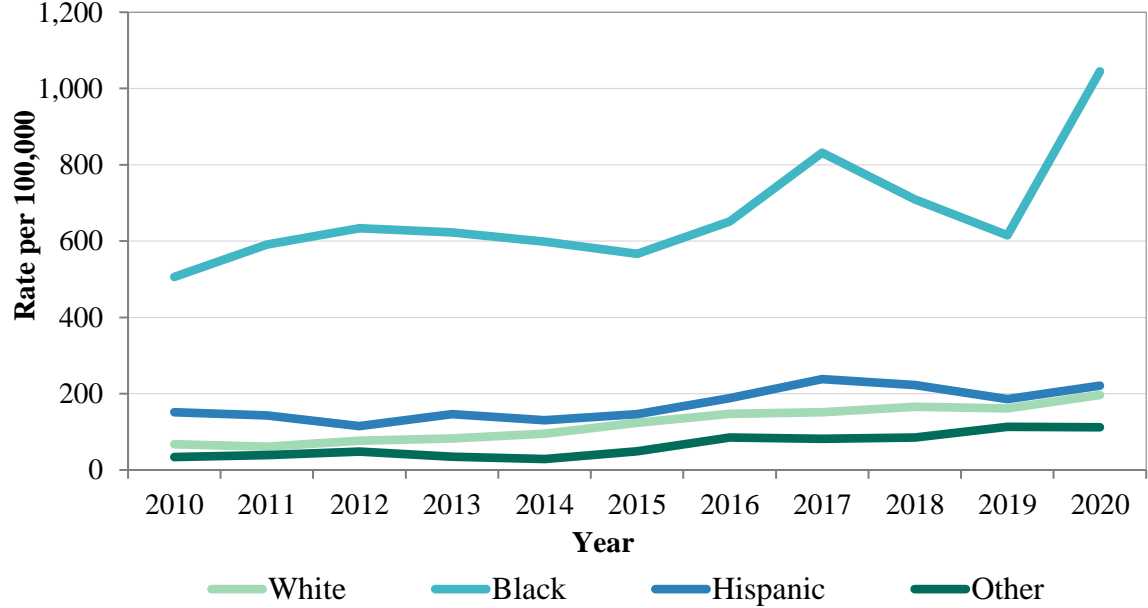
Figure 9.4. Gonorrhea Incidence Rates per 100,000 Population, Travis County and Texas, 2008-2020



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 2010 through 2020. During this time, incidence rates for Blacks in Travis County remain higher compared with Whites, Hispanics, and Others. In 2020 the incidence rate for Blacks (1,045.0 per 100,000 population) was over five times higher compared with Whites (196.6 per 100,000 population).

Figure 9.5. Gonorrhea Incidence Rates per 100,000 Population by Race/Ethnicity, Travis County, 2010-2020



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 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 is associated with damage to the central nervous system, cardiovascular system, and bones and occurs several years after the primary stage.

Syphilis is spread by direct contact with sores during sexual contact. Transplacental infection of the fetus occurs during pregnancy with an infected woman. Syphilis is curable with the right antibiotics from your health care provider. However, certain damage due to the infection can be permanent.

In 2020, a total of 2,708 primary and secondary (P&S) syphilis cases were reported in Texas while a total of 267 P&S syphilis cases were reported in Travis County. Table 9.3 shows the number of reported P&S syphilis cases reported in Travis County by age group. In 2020, 62.4% of all cases were 15 to 34 years of age.

Table 9.3. Number of Primary & Secondary Syphilis Cases by Age Group, Travis County, 2016-2020

Age Groups (years)	Diagnosis Year				
	2016	2017	2018	2019	2020
15-24	59	70	56	56	57
25-34	123	127	103	90	110
35-44	52	52	43	32	53
45-54	35	37	33	26	35
55-64	11	6	6	12	12
≥65	2	4	4	0	0
Total	282	296	245	216	267

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

Table 9.4 shows the number and incidence rates of primary & secondary syphilis by sex and race/ethnicity for 2020. In 2020, the incidence rate per 100,000 population for males (37.9) was 11 times higher compared with females (3.3). Comparing 2019 and 2020 rates, the female rates were stable (3.2 in 2019), nevertheless for males the rate increased from 30.9 in 2019 to 37.9 in 2020.

Table 9.4. Number of Primary & Secondary Syphilis Cases and Incidence Rates per 100,000 Population by Race/Ethnicity and Sex, Travis County, 2020

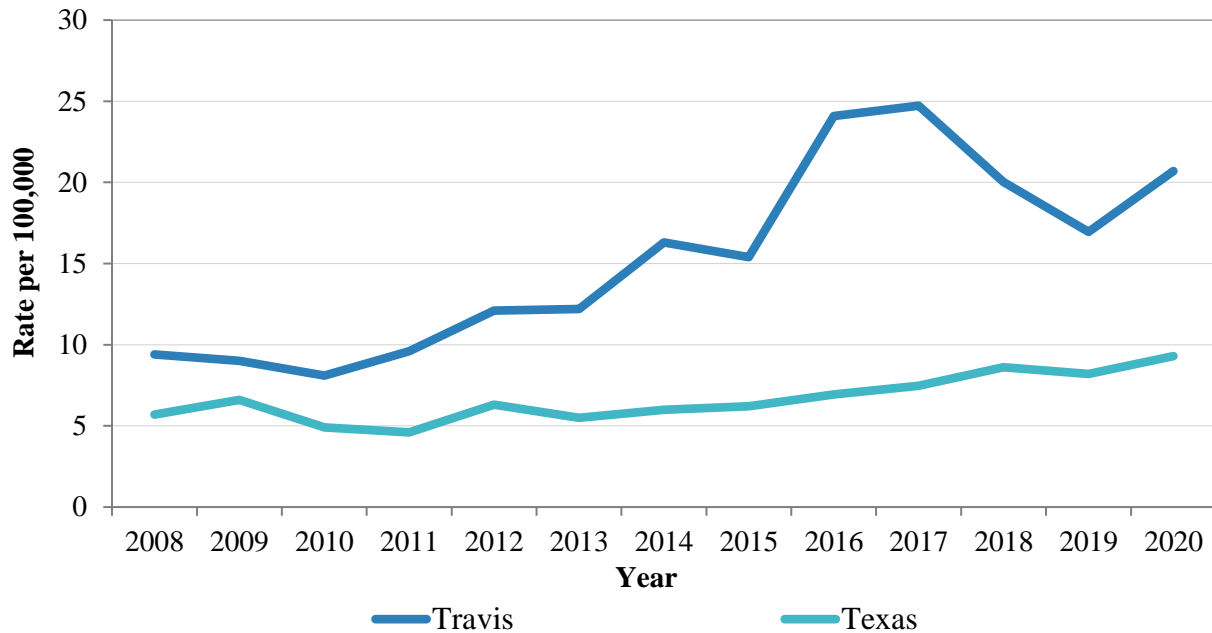
Race/ Ethnicity	Male		Female		Unknown		Total
	Number	Rate [†]	Number	Rate [†]	Number	Rate [†]	
White	100	15.8	8	-	0	-	108
Black	46	43.4	3	-	1	-	50
Hispanic	87	20.1	7	-	0	-	94
Other	8	-	0	-	0	-	8
Unknown	8	-	3	-	0	-	11
Total	249		21		1		271

[†]Rate not calculated, fewer than 10 cases reported

Data source: Texas Department of State Health Services, 2020 Texas STD and HIV Epidemiologic Profile

Figure 9.6 shows primary & secondary syphilis incidence rates per 100,000 population for Travis County and Texas from 2008 through 2020. During this time, the incidence rate in Travis County is consistently higher compared with the rate for Texas and rose at a higher rate. In 2010 the incidence rate for Travis County was 8.1 per 100,000 population. By 2020 the rate was 20.7 per 100,000 population, an increase of over 150%.

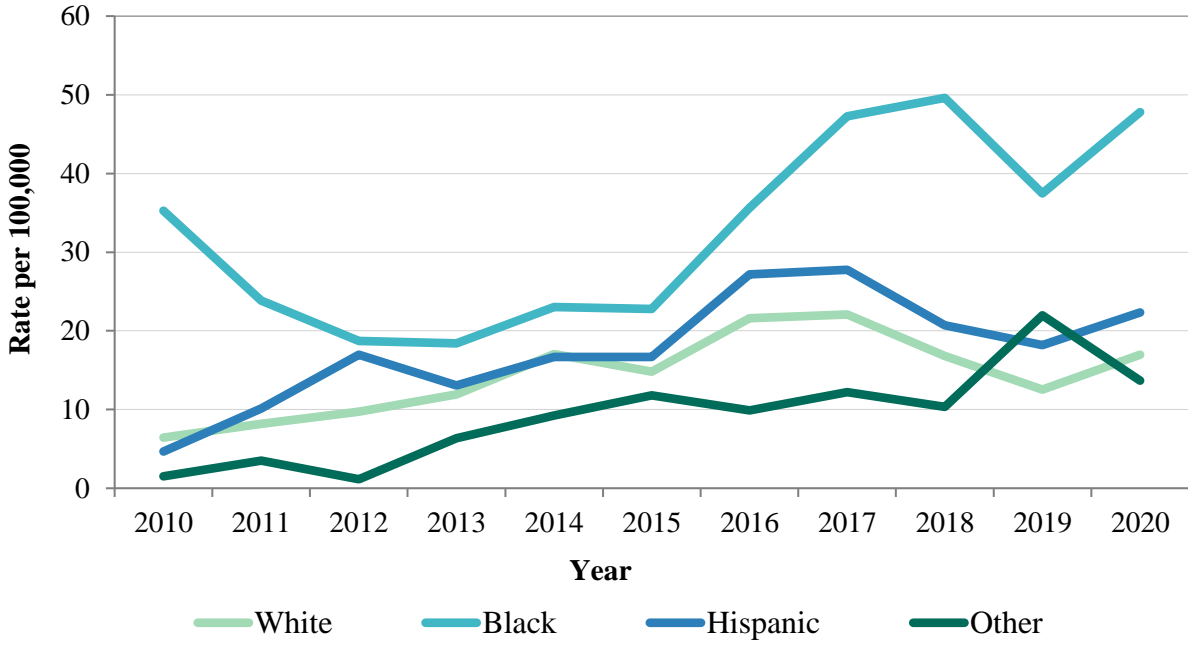
Figure 9.6. Primary & Secondary Syphilis Incidence Rates per 100,000 Population, Travis County and Texas, 2008-2020



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

Figure 9.7 shows primary & secondary syphilis incidence rates by race/ethnicity for 2010 through 2020. Higher rates are seen for Blacks for each year. From 2010 to 2020, rates have increased for each race/ethnicity. The rate for Hispanics increased over fourfold from 4.7 cases per 100,000 in 2010 to 22.3 per 100,000 population in 2020. In 2020, the rate for Blacks is almost three times higher compared with the rate for Whites.

Figure 9.7. Primary & Secondary Syphilis Incidence Rates per 100,000 Population by Race/Ethnicity, Travis County, 2010-2020



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

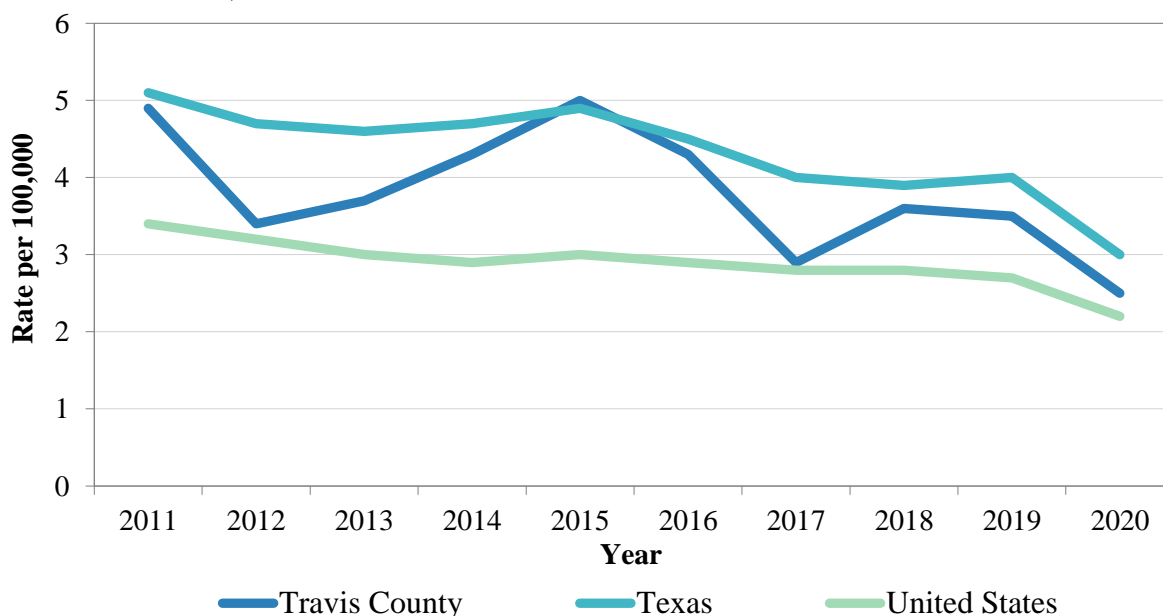
10.0 Tuberculosis

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis* and is spread person-to-person through the air. The bacteria most often affect the lungs, but TB bacteria can affect any part of the body such as bones and the brain. Not everyone infected with TB bacteria becomes sick. As a result, two TB-related conditions exist: latent TB infection (LTBI) and TB disease.²⁰ When TB bacteria live in the body without making you sick, it is called LTBI. In most people who breathe in TB bacteria and become infected, the body can fight the bacteria to stop the bacteria from growing. People with latent TB infection do not feel sick and do not have any symptoms. People with LTBI are not infectious and cannot spread TB bacteria to others. Those with compromised immune systems, such as people living with HIV, malnutrition, diabetes, or people who use tobacco, have a much higher risk of progressing to active TB disease.²¹

If the immune system can't stop TB bacteria from growing, the bacteria 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.²²

During 2020, 7,163 TB cases were reported in the United States with 882 TB cases reported in Texas and 32 TB cases reported in Travis County. Figure 10.1 shows the tuberculosis incidence rates for Travis County, Texas, and the United States from 2011 to 2020. The incidence rates for Travis County and Texas were higher when compared with the United States. Rates for Travis County, Texas, and the United States have decreased from 2011 to 2020.

Figure 10.1. Tuberculosis Incidence Rates per 100,000 Population, Travis County, Texas, and United States, 2011-2020

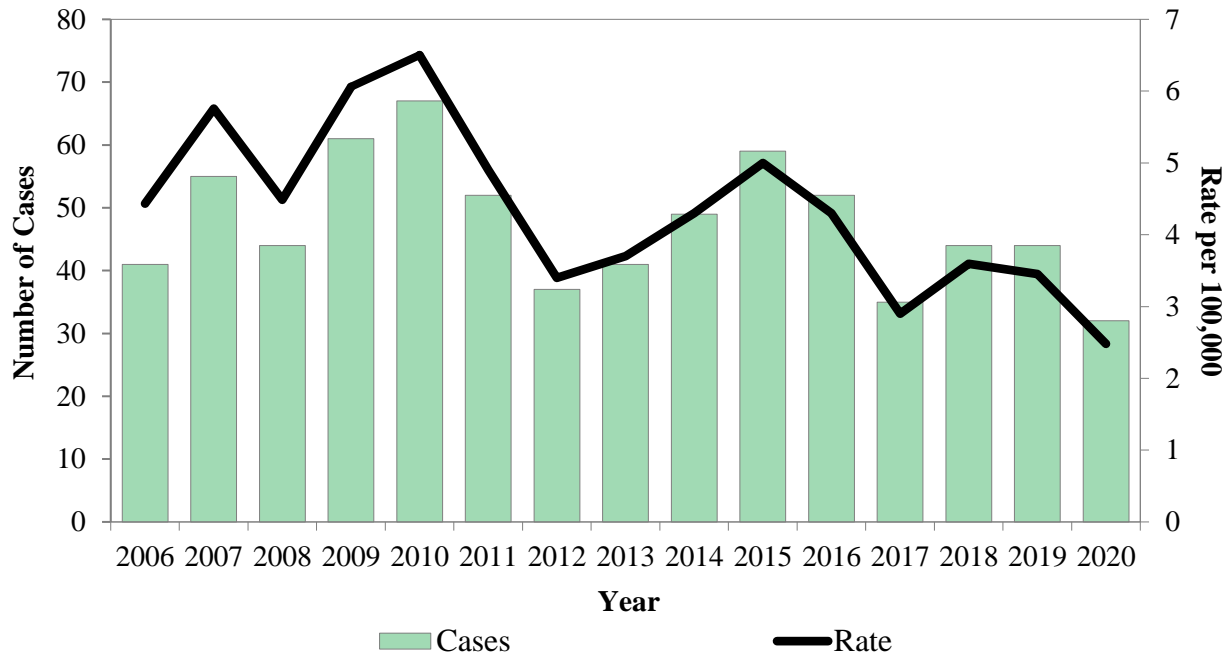


Data source: Division of Tuberculosis Elimination, Centers for Disease Control and Prevention, Atlanta, GA

^{20,21,22} <http://www.cdc.gov/tb/topic/basics/default.htm>

Figure 10.2 shows the number of active TB cases and incidence rates for Travis County from 2006 through 2020. In 2020, there were 32 TB cases reported in Travis County, a decrease of 54.2% from 2015 and an incidence rate decrease of 50.0%. The 32 cases reported in 2020 is the lowest number of cases reported annually during 2006-2020.

Figure 10.2. Number of Tuberculosis Cases and Incidence Rates per 100,000 Population, Travis County, 2006-2020



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

Table 10.1 shows the sex, race/ethnicity, and age groups of the TB cases in Travis County from 2017 to 2020. The proportion of cases between sexes were similar in 2019 and 2020. While comparing the number of cases based on age group, the age group of 25-44 years has a higher percentage of cases followed by the age group 45-64 years. In 2020, Blacks and Hispanics comprised 8.3% and 33.6% of the Travis County population, respectively. In 2020 18.8% of tuberculosis cases were Black and 43.8% were Hispanic.

Table 10.1. Number of Tuberculosis Cases by Sex, Race/Ethnicity and Age Group, Travis County, 2017-2020

Population Characteristic	Year								
	2017		2018		2019		2020		
	#	%	#	%	#	%	#	%	
Sex									
Male	27	77.1	35	79.5	25	56.8	17	53.1	
Female	8	22.9	9	20.5	19	43.2	15	46.9	
Race/Ethnicity									
White	0	0.0	4	8.9	7	15.9	3	9.4	
Black	2	5.7	10	22.2	5	11.4	6	18.8	
Hispanic	22	62.9	20	44.4	17	38.6	14	43.8	
Other	11	31.4	11	24.4	15	34.1	9	28.1	
Age Group (years)									
0-14	3	8.6	3	6.8	3	6.8	1	3.1	
15-24	1	2.9	2	4.5	2	4.5	2	6.3	
25-44	13	37.1	17	38.6	22	50.0	12	37.5	
45-64	12	34.3	11	25.0	14	31.8	10	31.3	
≥ 65	6	17.1	11	25.0	3	6.8	7	21.9	
Total	35	100.0	44	100.0	44	100.0	32	100.0	

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

In the United States, 71.5% of the reported TB cases in 2020 were born outside the United States.²³ Table 10.2 shows the place of birth for tuberculosis in Travis County reported during 2016 to 2020. In Travis County, 65.6% of the reported TB cases in 2020 were born outside the United States.

Table 10.2. Number of Tuberculosis Cases by Place of Birth, Travis County, 2016-2020

Place of birth	2016		2017		2018		2019		2020*	
	#	%	#	%	#	%	#	%	#	%
United States	15	28.8	8	22.9	15	34.1	15	34.1	10	31.3
Outside United States	37	71.2	27	77.1	29	65.9	29	65.9	21	65.6
Total	52	100.0	35	100.0	44	100.0	44	100.0	32	96.9

*Country of birth for one person is unknown

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

²³ <https://www.cdc.gov/mmwr/volumes/67/wr/mm6711a2.htm>

11.0 Vaccine-preventable Diseases

Immunizations or vaccines protect against many 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 2019 through 2021. During this period, no cases of diphtheria, measles, rubella, or tetanus were reported in Travis County.

Table 11.1. Number and Incidence Rates per 100,000 Population for Selected Vaccine-preventable Diseases, Travis County, 2019-2021, and Texas, 2020

Disease	Travis County						Texas	
	2019		2020		2021§		2020	
	#	Rate†	#	Rate†	#	Rate†	#	Rate
Chickenpox (Varicella)	89	7.0	20	1.6	19	1.5	655	2.2
Hepatitis A	12	1.0	7		8		425	1.5
Hepatitis B	5		3		1		108	0.4
Meningococcal disease, invasive	2		0		1		17	0.1
Mumps	22	1.7	3		2		108	0.4
Pertussis	87	6.8	8		1		559	1.9
Pneumococcal disease, invasive	93	7.3	43	3.3	44	3.4	928	3.2

§Data for 2021 is preliminary

†Rates based on 19 or fewer cases are unreliable; rates for <10 cases are not shown

Data sources: Epidemiology and Disease Surveillance Unit, Austin Public Health– National Electronic Disease Surveillance System and Emerging and Acute Infectious Disease Unit, Texas Department of State Health Services

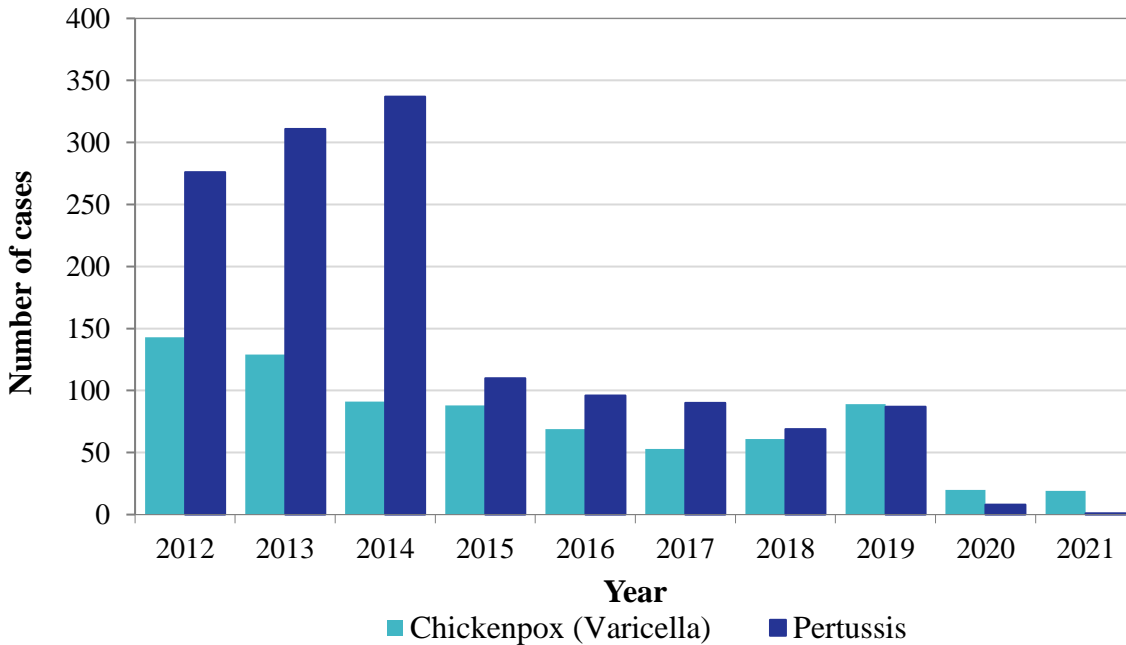
Chickenpox is a very contagious disease caused by the varicella-zoster virus (VZV). The virus causes a blister-like rash, itching, tiredness, and fever. Chickenpox spreads in the air through coughing or sneezing. Chickenpox can be serious, especially in babies, and people with a weakened immune system. It also can be spread by touching or breathing in the virus particles that come from chickenpox blisters.

During 2019-2021, the annual number of reported chickenpox cases in Travis County ranged from 19 to 89. From 2012 to 2021 the Travis County population has increased 19%. However, during this same 10 year period, the number of reported chickenpox cases has decreased 87% (Figure 11.1). Most (87%) chickenpox cases are less than 20 years of age (Figure 11.2)

Pertussis, also known as whooping cough, is a bacterial disease of the respiratory tract often spread from person-to-person by coughing or sneezing. Pertussis begins with cold-like symptoms then progresses to severe coughing or coughing fits over several weeks. In infants, the cough may be minimal or absent, but they may develop apnea or pause in their breathing pattern. Pertussis can cause serious illness in infants, children, and adults. Incidence rates for pertussis are highest in children less than one year of age. During 2019 through 2021, annual numbers of

pertussis cases in Travis County ranged from 1 to 87 (Table 11.1). From 2012 to 2021 the number of reported pertussis cases has decreased over 99% (Figure 11.1). Only 1 pertussis case was reported in 2021.

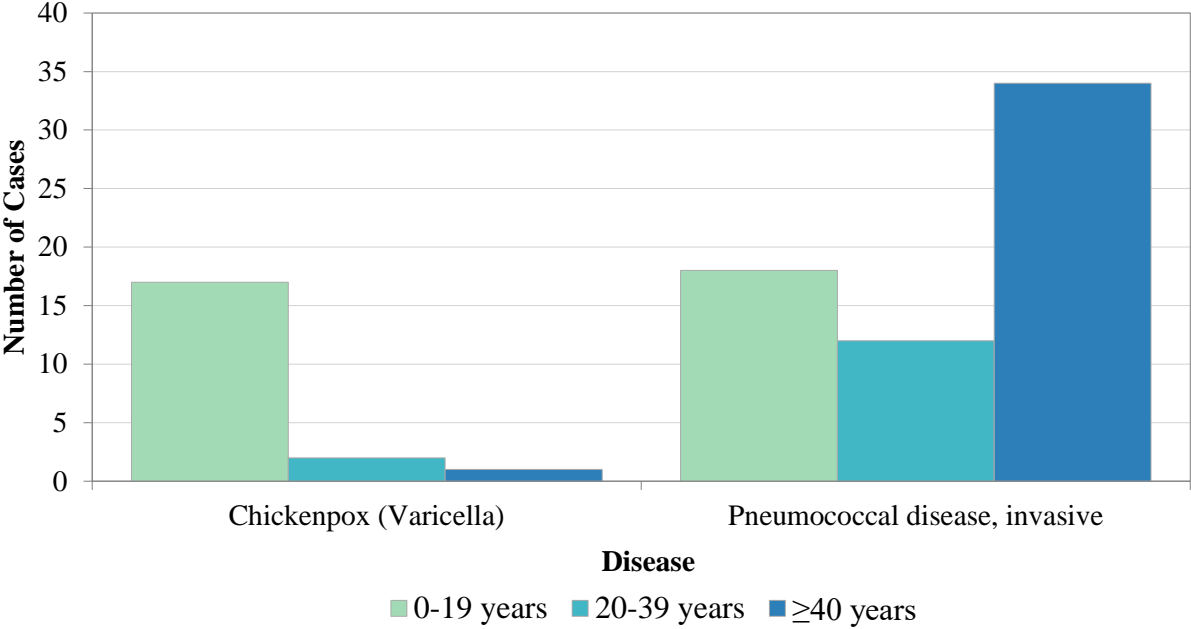
Figure 11.1. Number of Reported Chickenpox and Pertussis Cases, by Year, Travis County, 2012-2021



Data source: Epidemiology and Disease Surveillance Unit, Austin Public Health– National Electronic Disease Surveillance System

Invasive pneumococcal disease is caused by *Streptococcus pneumoniae* bacteria. This bacterium is often called pneumococcus. Invasive pneumococcal disease includes 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 disease. During 2020-2021, 87 cases of invasive *Streptococcus pneumoniae* infections were reported in Travis County. A majority of were identified in adults aged 40 years or older (Figure 11.2).

Figure 11.2. Number of Cases of Chickenpox and Invasive Pneumococcal Disease by Age Group, Travis County, 2020



Data source: Epidemiology and Disease Surveillance Unit, Austin Public Health, National Electronic Disease Surveillance System

12.0 Foodborne Diseases

Foodborne disease is a term used to collectively describe illnesses resulting from the consumption of foods items contaminated by bacteria, viruses, parasites, or toxins produced by these organisms. Contamination may occur in the environment while the food is growing, 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.²⁴ Additionally, foodborne diseases kill thousands in the United States each year and cause billions of dollars in healthcare-related and industry costs annually.²⁵

Table 12.1 shows the number of cases of various foodborne diseases reported in Travis County from 2019 through 2021. Foodborne disease incidence rates in Travis County are usually higher than rates 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.

Table 12.1. Number and Incidence Rate per 100,000 Population for Selected Foodborne Diseases, Travis County, 2019-2021, and Texas 2020

Disease	Travis County						Texas	
	2019		2020		2021		2020	
	#	Rate†	#	Rate†	#	Rate†	#	Rate
Botulism‡	0		0		0		19	0.1
Campylobacteriosis	216	17.0	140	10.9	150	11.5	2,949	10.1
Cryptosporidiosis	52	4.1	15	1.2	17	1.5	365	1.3
Cyclosporiasis	102	8.0	188	14.6	39	3.1	581	2.0
Shiga toxin-producing <i>Escherichia coli</i>	61	4.8	23	1.8	27	2.1	513	1.8
Listeriosis	2		1		2		33	0.1
Salmonellosis	316	24.8	167	12.9	188	14.8	3,046	10.5
Shigellosis	148	11.6	107	8.3	45	3.5	1,385	4.8
<i>Vibrio</i> infections§	15	1.2	6		7		100	0.3

†Rate not calculated, fewer than 10 cases reported

‡Botulism includes infant and wound botulism

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

Data sources: Epidemiology and Disease Surveillance Unit, Austin Public Health, National Electronic Disease Surveillance System and the Texas Department of State Health Services Infectious Disease Control Unit

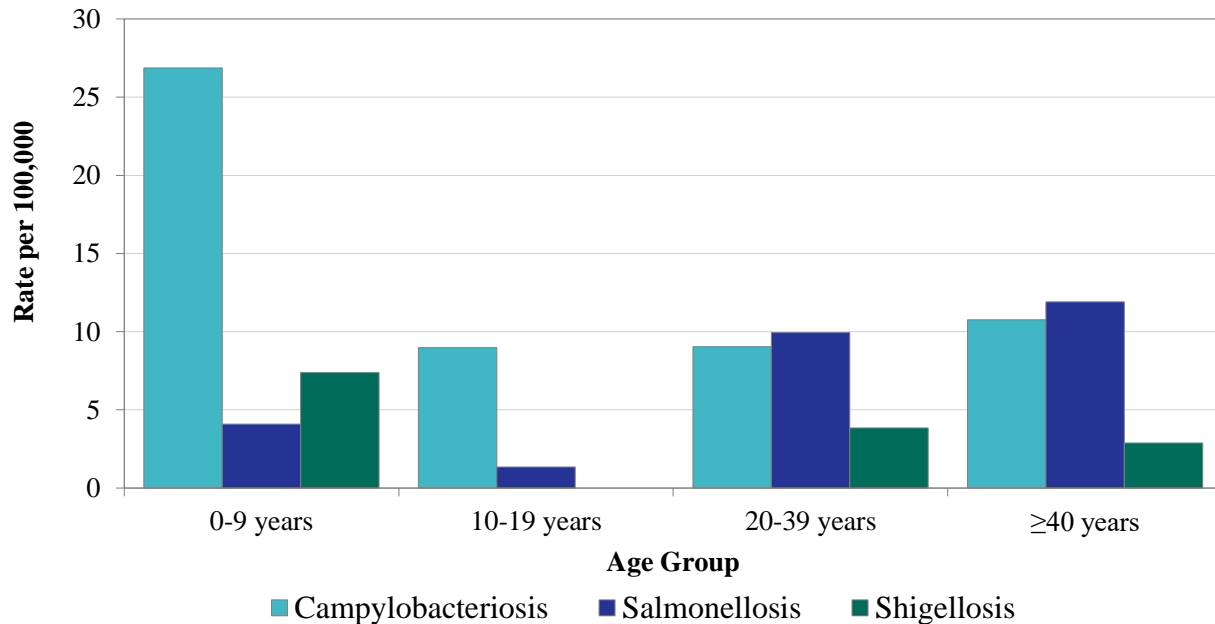
The most common foodborne diseases reported in Travis County and Texas were salmonellosis, campylobacteriosis, and shigellosis. All three diseases are caused by bacteria and result in a self-limiting diarrheal illness; however, in some people, the diarrhea may be so severe that the patient needs to be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

²⁴ <http://www.cdc.gov/foodborneburden/>

²⁵ http://www.cdc.gov/WinnableBattles/FoodSafety/index.html?s_cid=fb1651

Salmonellosis is commonly associated with contaminated food or water or contact with infected animals. Nationally, salmonellosis is typically diagnosed more frequently in children. However in Travis County salmonellosis incidence rates are higher in adults as shown in Figure 12.1. Travis County has seen a somewhat declining salmonellosis incidence rate from 2012 through 2021 as shown in Figure 12.2.

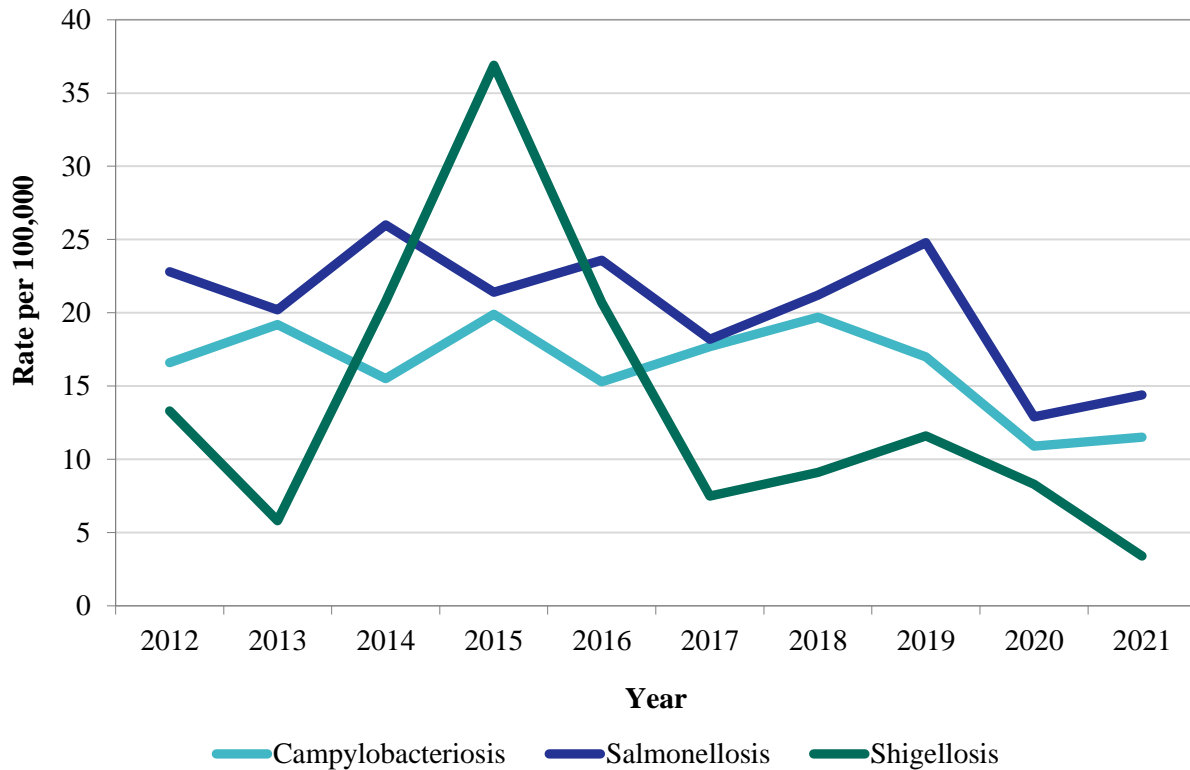
Figure 12.1. Incidence Rates per 100,000 Population for Selected Foodborne Diseases by Age Group, Travis County, 2021



Data source: Epidemiology and Disease Surveillance Unit, Austin Public Health– National Electronic Disease Surveillance System

Campylobacteriosis is frequently associated with eating raw or undercooked poultry, raw milk dairy products, contaminated produce and drinking water. Figure 12.1 shows that campylobacteriosis incidence rates in Travis County are highest for those 9 years of age or younger. Campylobacteriosis incidence rates from 2012 to 2021, as shown in Figure 12.2, have ranged from a low of about 10 cases per 100,000 population to a high of 20 cases per 100,000 population.

Figure 12.2. Incidence Rates per 100,000 Population of Selected Foodborne Diseases by Year, Travis County, 2012-2021



Data source: Epidemiology and Disease Surveillance Unit, Austin Public Health, National Electronic Disease Surveillance System

Shigellosis is associated with person-to-person transmission, consuming contaminated food or water and may also be transmitted by some sexual practices.²⁶ Similar to campylobacteriosis, shigellosis incidence rates are highest for those 9 years of age or younger. Travis County experienced a significant decrease in shigellosis from 2015 to 2017 as shown in Figure 12.2. This is like a national trend which also showed a decrease from 2015 to 2017.

The remaining foodborne diseases noted in Table 12.1, such as botulism, listeriosis, and *Vibrio* infections, are rarely or infrequently reported in Travis County.

²⁶ <https://www.cdc.gov/shigella/general-information.html>

13.0 Vector-borne Diseases

The term “vector-borne disease” is commonly used to describe a disease transmitted to people by blood-sucking arthropods. The arthropods that commonly serve as vectors of infectious agents include mosquitoes, fleas, and arachnids such as mites and ticks. The arthropod typically becomes infected with an infectious agent while feeding on infected vertebrates (e.g., birds, rodents, other larger animals, or humans). For many vector-borne diseases, the infectious agent must infect and multiply inside the arthropod before the arthropod is able to transmit the infectious agent. The most common vector-borne diseases in Texas and Travis County are transmitted by mosquitoes and fleas.

Table 13.1 shows the number of cases of various vector-borne diseases reported in Travis County for 2019 through 2021. The most reported vector-borne disease in Travis County is murine typhus. Murine typhus is caused by a bacteria named *Rickettsia typhi* and is transmitted to humans by the bite of an infected flea through inoculation at the bite site with flea feces containing *Rickettsia typhi*. During 2019-2021, 97 murine typhus cases were reported in Travis County. Travis County experienced an outbreak of West Nile virus (WNV) in 2012 with a total of 153 cases. Since 2012, only a few West Nile virus cases have been reported annually in Travis County.

Table 13.1 Number and Incidence Rates per 100,000 Population for Selected Vector-borne Diseases, Travis County, 2019-2021, and Texas, 2020

Disease	Travis County						Texas	
	2019		2020		2021 [§]		2020	
	#	Rate [†]	#	Rate [†]	#	Rate [†]	#	Rate
Dengue	10	0.8	5		1		65	0.2
Lyme disease	5		0		4		27	0.1
Malaria	14	1.1	5		3		48	0.2
Spotted fever rickettsiosis	0		1		0		12	<0.1
Murine typhus	35	2.7	31	2.4	31	2.4	526	1.8
West Nile virus	0		4		3		122	0.4

[§]Data for 2021 is preliminary

[†]Rates based on 19 or fewer cases are unreliable; rates for <10 cases are not shown

Data source: Epidemiology and Disease Surveillance Unit, Austin Public Health and Emerging and Acute Infectious Disease Unit, Texas Department of State Health Services

Like West Nile virus, malaria and dengue are also spread by the bite of infected mosquitos. In Travis County malaria and dengue are associated with travel to endemic areas outside the United States. Both travel-associated malaria and dengue cases are regularly reported in Travis County.

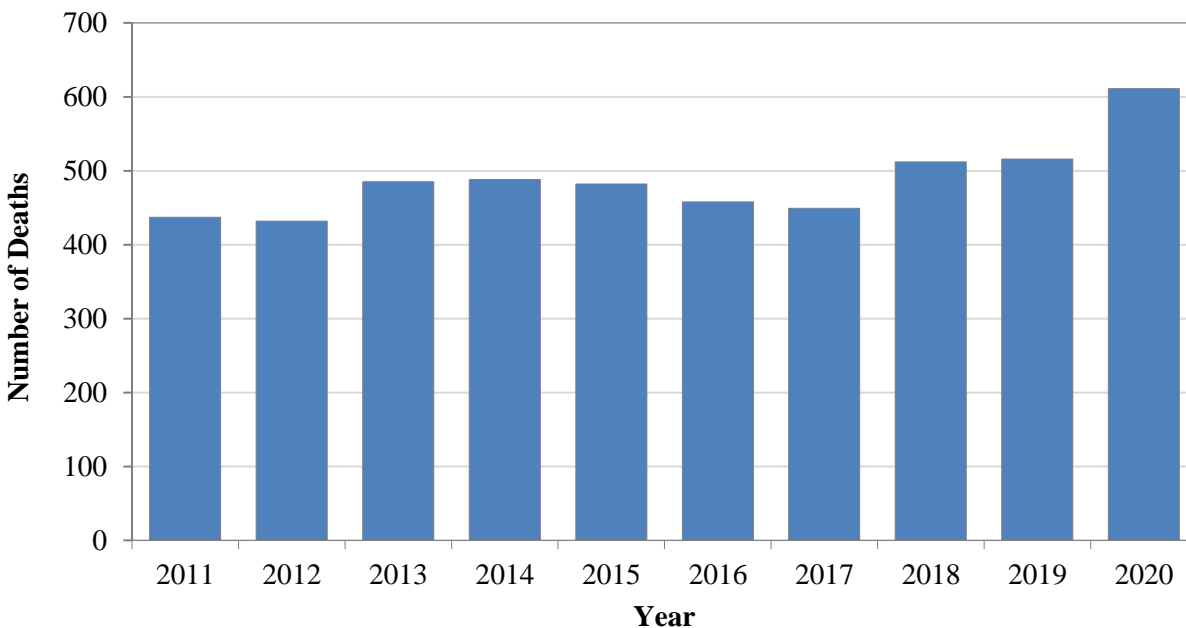
Other vector-borne diseases that may occur in Texas include Chagas’ disease, leishmaniasis, plague, and tularemia. These diseases are rarely reported in Travis County. In 2015 one case of Chagas’ disease and one case of leishmaniasis were reported in Travis County.

14.0 Unintentional Injuries

Unintentional injuries include deaths due to falls, fires, motor vehicle accidents, drownings, and poisonings. Unintentional injuries are the third leading cause of death in Travis County.²⁷

From 2011 through 2020, over 4,800 deaths due to unintentional injuries occurred in Travis County. Figure 14.1 shows the number of unintentional injury deaths by year for Travis County.

Figure 14.1. Number of Unintentional Injury Deaths, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

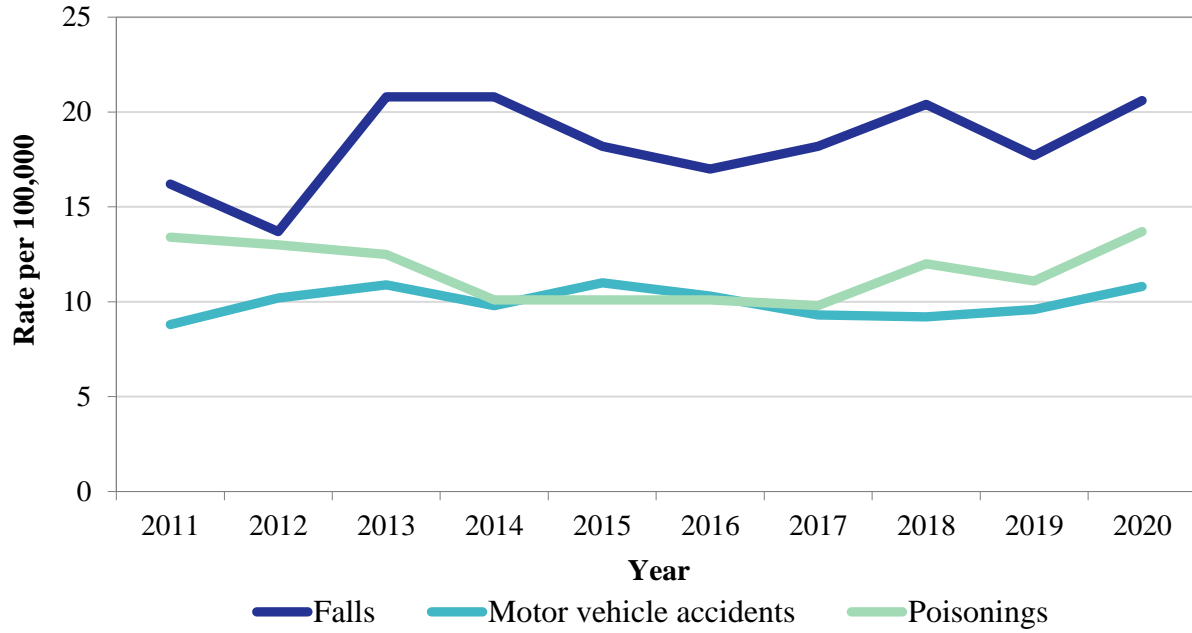
The three most common unintentional injuries are falls, poisonings, and motor vehicle accidents. During 2011 through 2020, 1,465 deaths were due to falls and 1,458 deaths were due to poisonings. The specific circumstances for most (80%) deaths related to falls are unreported. Specific circumstances that were noted included deaths (34) due to falls involving beds, deaths (30) involving falling on stairs, and a few deaths (12) involving falling off a ladder.

Poisonings maybe related to ingestion or exposure to alcohol, narcotics, pesticides, psychotropic drugs, sedatives, or other substances. About a quarter (29.4%) of poisoning deaths were due to narcotics or psychodysleptics, i.e., hallucinogens.

Figure 14.2 shows age-adjusted mortality rates for falls, poisonings and motor vehicle accidents. Mortality rates for falls are higher compared with mortality rates for poisonings and motor vehicle accidents. Mortality rates for poisonings and motor vehicle accidents are similar.

²⁷ Centers for Disease Control and Prevention, Wide-ranging Online data for Epidemiologic Research (WONDER)

Figure 14.2. Age-adjusted Mortality Rates per 100,000 Population for Falls, Motor Vehicle Accidents, and Poisonings, Travis County, 2011-2020



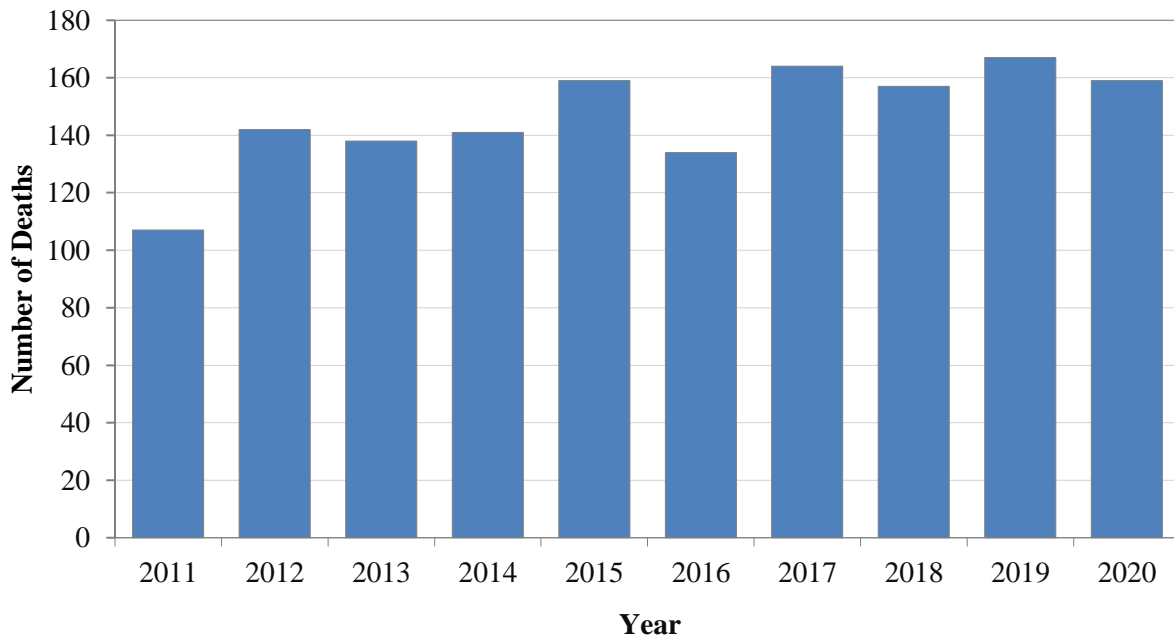
Data source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research

15. Suicide

In 2020, almost 46,000 deaths by suicide were reported in the United States.²⁸ Overall, death by suicide is the 12th leading cause of death. Among males, death by suicide is the 9th leading cause of death. Among females, it's the 15th leading cause of death. In Travis County, death by suicide is typically the 7th leading cause of death.²⁸

Figure 15.1 shows the number of deaths by suicide reported by year in Travis County during 2011-2020. During this 10 year period 1,648 deaths by suicide were reported. During this same ten-year period, over 34,500 deaths by suicide were reported in Texas.

Figure 15.1. Number of Suicide Deaths by Year, Travis County, Austin, 2011-2020

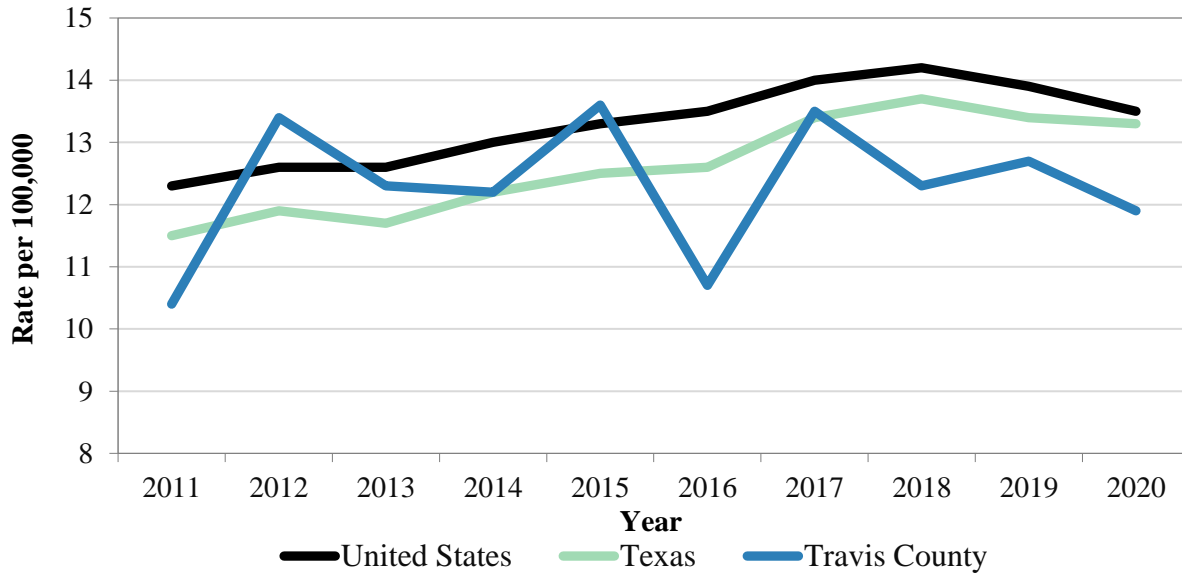


Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

Figure 15.2 shows the age-adjusted mortality rates for suicides for Travis County, the State of Texas, and the United States for 2011 through 2020. Since 2016 rates were higher for the United States compared with Travis County and Texas. Since 2018 rates in Travis County have been lower compared with the State of Texas.

²⁸ Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online data for Epidemiologic Research

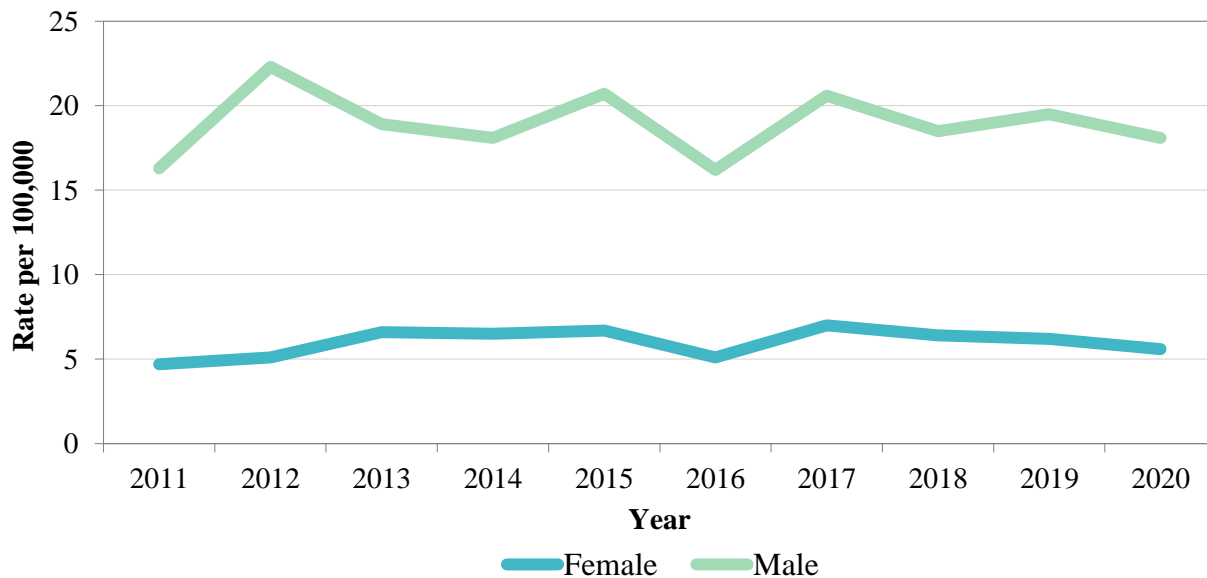
Figure 15.2. Age-adjusted Suicide Mortality Rates per 100,000 Population, Travis County, Texas, and United States, 2011-2020



Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

A majority (75%) of persons who die by suicide were males. Figure 15.3 shows age-adjusted suicide mortality rates by sex. Generally, rates are three times higher for males compared with females. Whites had higher mortality rates compared with Blacks, Asians, or Hispanics. During 2011-2020, the age-adjusted suicide mortality rate for Whites was 17.5 deaths per 100,000 population. For Asians, Blacks, and Hispanics, the rates were 4.3, 8.0, and 5.2 respectively.

Figure 15.3. Age-adjusted Suicide Mortality Rates per 100,000 Population by Sex, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

Table 15.1 shows the number of suicide deaths by age group for the years 2011-2020. Persons 25 to 54 years of age and older accounted for 57% of suicide deaths. Rates are highest in age groups between 45 years of age and 85 years of age or older.

Table 15.1. Number of Suicide Deaths and Crude Suicide Morality Rates by Age Groups, Travis County, 2011-2020

Age Group (years)	Number	Percentage	Rate per 100,000 Population
5-14	19	1.3	†
15-24	193	13.1	12.3
25-34	286	19.5	12.2
35-44	267	18.2	14.2
45-54	279	19.0	18.5
55-64	235	16.0	19.3
65-74	118	8.0	17.5
75-84	48	3.3	17.3
≥85	23	1.6	18.9
Total	1,468	100.0	12.4

Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

†Rate not calculated because of low number of deaths.

16.0 SARS-CoV-2 (COVID-19) Disease

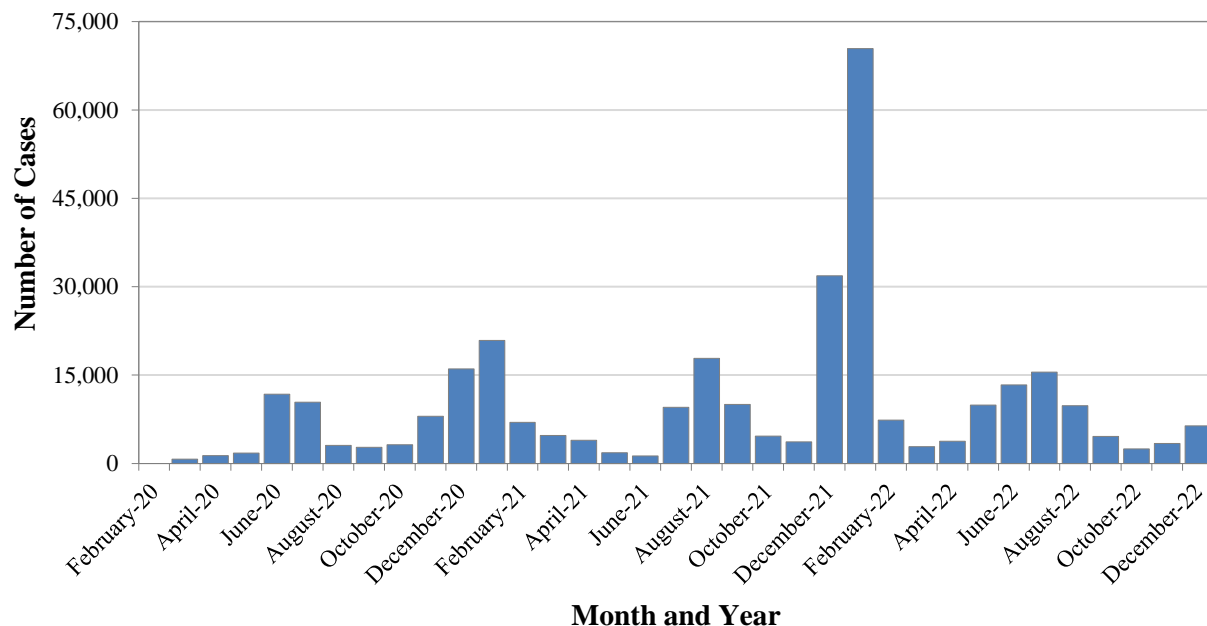
First discovered in December 2019 in Wuhan, China, COVID-19 (coronavirus disease 2019) is a highly contagious respiratory disease caused by the Severe Acute Respiratory Syndrome (SARS) CoV-2 virus. Within a few months of being identified, COVID-19 transmission was occurring around the world and leading to significant illness, hospitalization, and death. On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic.

Transmission of SARS-CoV-2 virus occurs through respiratory droplets. Symptoms of COVID-19 and influenza are similar. Most people with COVID-19 experience mild symptoms, some people are asymptomatic, while others may become severely ill. Those most at risk of severe disease and death are older adults as well as those with certain underlying medical conditions²⁹.

The first United States case of COVID-19 was identified on January 19, 2020. The first case in Texas was reported on March 4, 2020, while the first case in Travis County was reported on March 13, 2020. The first death in Travis County occurred on March 27, 2020.

During the initial year (2020) of the pandemic in Travis County over 58,000 COVID-19 cases were reported. During the second year (2021) over 115,000 COVID-19 cases were reported. Figure 16.1 shows the month of collection of specimens testing positive for laboratory-confirmed and probable cases reported during 2020-2022.

Figure 16.1. Month of Initial Specimen Collection Which Tested Positive for Laboratory-confirmed and Probable Cases, Travis County, 2020-2022



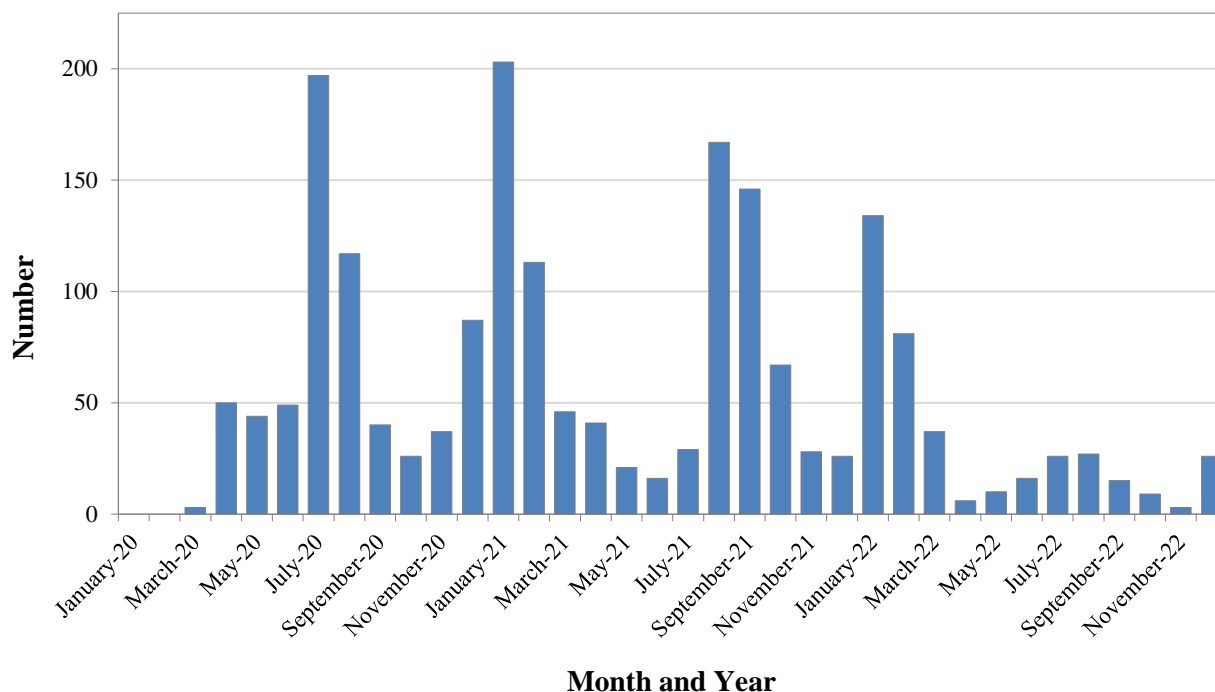
The high number of cases in June and July 2020 was due to the spread of the initial wild-type SARS-CoV-2 virus. The high number of cases in December 2020-January 2021 was due to the emergence of the Alpha variant, known as B.1.1.7. The Omicron variant was responsible for the

²⁹ [Basics of COVID-19 | CDC](#), Centers for Disease Control and Prevention, accessed 05/16/2022

exceptionally high number of cases reported during December 2021-January 2022. Over 100,000 cases were reported in Travis County during these two months.

From January 2020 through December 2022, more than 100,622,000 reports of illness and over one million deaths due to COVID-19 were reported in the United States³⁰. During this same period, over 320,000 people in Travis County became ill and almost 2,000 died. Of those who died of COVID-19 in Travis County, 95% had at least one comorbidity or underlying health condition. In Travis County, 49% of COVID-associated deaths are among people identified as Hispanic and 11% are among African Americans³¹.

Figure 16.2. COVID-19 Deaths by Month and Year, Travis County, 2020-2022



The COVID-19 pandemic is believed to be among the most lethal pandemics in history. While research into its origins have been ongoing, the current consensus among researchers is that the SARS-CoV-2 virus likely evolved from an animal coronavirus that naturally infects species such as bats and pangolins in Asia and Southeast Asia³².

The most effective prevention against COVID-19 is vaccination. As of December 31, 2022, the United States Food & Drug Administration (FDA) has approved or authorized for emergency use four vaccines for the prevention of COVID-19. These vaccines are produced by Janssen,

³⁰ [CDC COVID Data Tracker: Home](https://covid.cdc.gov/covid-data-tracker), Centers for Disease Control and Prevention, Atlanta, GA, December 31, 2022, <https://covid.cdc.gov/covid-data-tracker>

³¹ [Most COVID-19 Deaths Reported in Austin-Travis County Include People with Chronic Conditions | AustinTexas.gov](#), City of Austin, News, COVID-19. Accessed 05/26/2022.

³² [The Origin of COVID-19 and Why It Matters - PMC \(nih.gov\)](#), National Institutes of Health, The American Journal of Tropical Medicine and Hygiene, Sept. 2020; v.103(3).

Novavax, Moderna, and Pfizer-BioNTech³³. All have been found to be highly effective against severe illness and death. In one analysis by the Texas Department of State Health Services (DSHS), unvaccinated adults were more than 29 times as likely to die from COVID-19 than those who were fully vaccinated³⁴. At the same time, public health experts continue to study the endurance and effectiveness of COVID-19 vaccines and booster doses against new variants of the virus and waning immunity levels. Both reinfections and vaccine breakthrough illnesses are common, although the vaccines consistently have been shown to prevent severe illness, hospitalizations, and death from COVID-19³⁵.

³³ [COVID-19 Vaccines | FDA](#), U.S Food & Drug Administration, Coronavirus Disease 2019 (COVID-19)/COVID-19 Vaccines, accessed 12/30/2022.

³⁴ [Texas Data Shows Unvaccinated People 20 times More Likely to Die From COVID-19](#), Texas Department of State Health Services, News and Media, News Releases, accessed 05/16/2022.

³⁵ [COVID-19 Vaccines Work | CDC](#), the Centers for Disease Control and Prevention, COVID-19, COVID-19 Vaccines Work, accessed 05/31/2022.

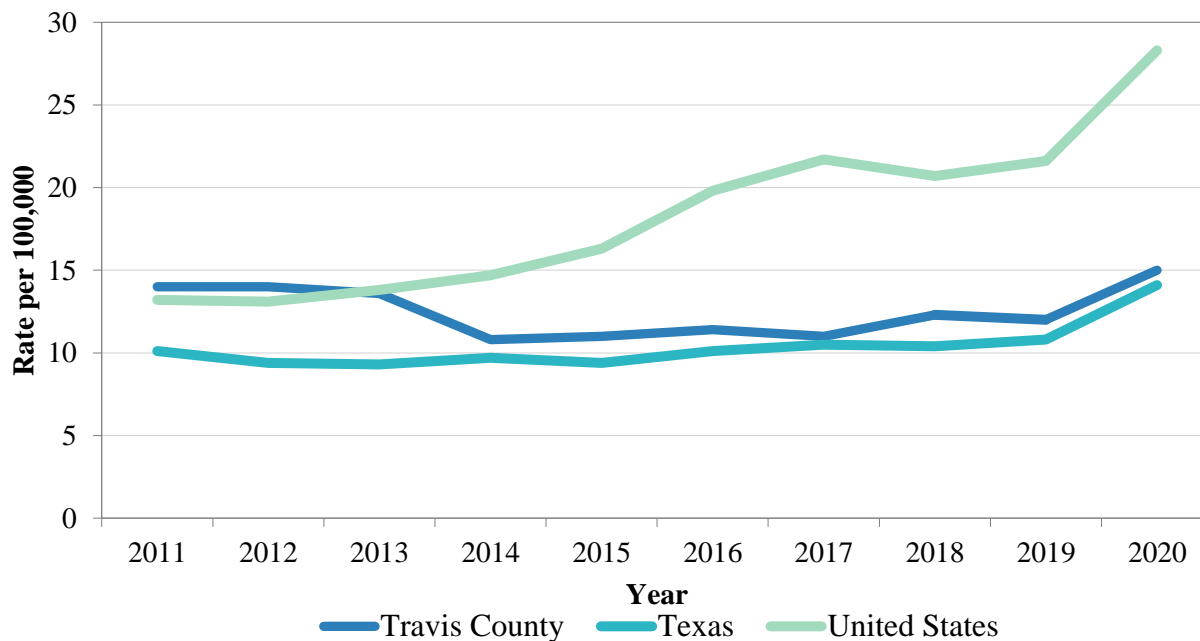
17.0 Drug Overdose Deaths

Data on drug overdose deaths in Travis County were obtained from two sources: Travis County Medical Examiner’s Office and the Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (WONDER). WONDER is an interactive, online database.

The opioid epidemic adversely impacts all people in the United States, Texas, and Travis County. In 2015, 52,270 drug overdose deaths were reported in the United States and 2,588 overdose deaths were reported in Texas. During 2020, over 91,000 drug overdose deaths were reported in the United States.³⁶ A total of 4,172 of these deaths were in Texas.

Figure 17.1 shows age-adjusted mortality rates for drug overdose deaths for Travis County, Texas, and the United States. Since 2013, rates for the United States have doubled. Since 2014, rates for Travis County and Texas have been similar. While drug overdose mortality rates in Travis County and Texas have increased since 2014, rates have not doubled like rates for the United States. From 2014 to 2020, rates for Travis County increased 39% while rates for Texas increased 45%.

Figure 17.1. Age-adjusted Drug Overdose Mortality Rates per 100,000 Population, Travis County, Texas, and United States, 2011-2020

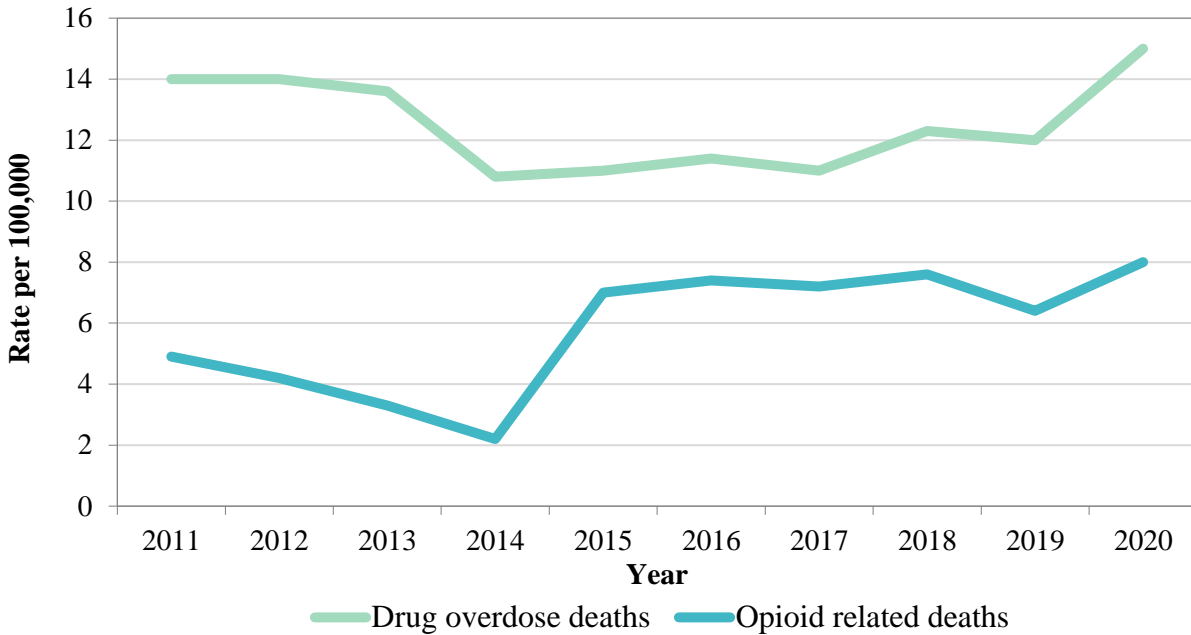


Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

³⁶ CDC, National Center for Health Statistics, March 1, 2022, Drug Overdose Mortality by State, Stats of the State, https://www.cdc.gov/nchs/pressroom/sosmap/drug_poisoning_mortality/drug_poisoning.htm

Figure 17.2 shows the age-adjusted mortality rates for all drug overdose deaths and opioid-related overdose deaths. From 2014 to 2020, age-adjusted mortality rates for all drug overdose deaths in Travis County increased 39%. During this time-period, the rate for opioid-related deaths increased over 250%.

Figure 17.2. Age-adjusted Drug Overdose Morality Rates per 100,000 Population, Travis County, 2011-2020



Data source: Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging Online Data for Epidemiologic Research

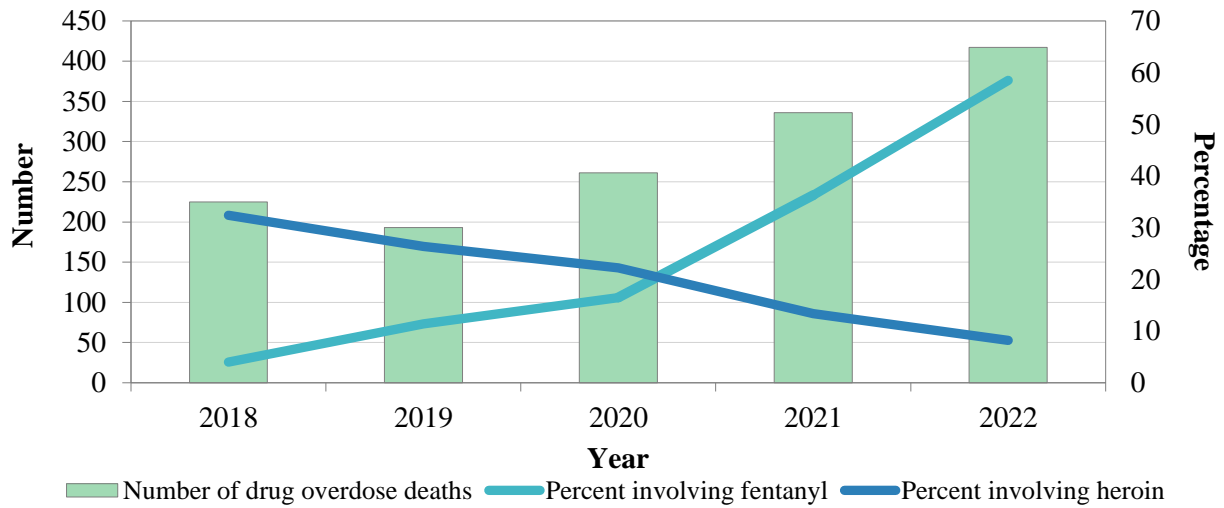
During the five-year period (2018-2022) the Travis County Medical Examiner’s Office investigated 1,432 drug overdose deaths that occurred in Travis County. A majority (75%) of the 1,432 persons were males and 81% were 20 to 59 years of age. Some (2.4%) were persons 19 years of age or younger and some (2.4%) were 70 years of age or older.

Most (95%) of the deaths were accidental. Death by suicide accounted for 4.7% of the overdose deaths. Most of the deaths (61%) occurred at the person’s residence or another person’s residence. A few deaths (6%) occurred in a hotel. A total of 148 persons (10%) were identified as transients.

Combinations of multiples drugs may be noted in a death. During 2018-2022, one or more opioids (fentanyl, heroin, hydrocodone, oxycodone, tramadol, etc.) were noted in over half (53.4%) of the deaths. Fentanyl as noted in 31% of the deaths. Non-opioid drugs commonly noted included cocaine and methamphetamine.

Figure 17.3 shows the number of drug overdose deaths by the percentage involvement of fentanyl or heroin. In 2022, 58.5% of drug overdose deaths involved fentanyl. Only 8.2% of the deaths involved heroin. From 2018 through 2022, the involvement of heroin decreased 75%. The involvement of fentanyl increased over 1,300% from 4% of all overdose deaths in 2018 to 58.5% of overdose deaths in 2022.

Figure 17.3. Number of Drug Overdose Deaths with Involvement of Fentanyl or Heroin, Travis County, 2018-2022



Data source: Travis County Medical Examiner’s Office.

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 = 18.5–24.9 ; Overweight = 25–29.9 ; 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 a particular disease or adverse health condition.

Crude mortality rate. A mortality rate without adjustment.

Demographic characteristics. The “person” traits, i.e., age, sex, race, occupation, etc., 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 birthweight 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. Note: the MMWR “Year” does not correspond to a calendar year, but a 52 week period established by the CDC.

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.

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.

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.

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

Appendix A. Number and Incidence Rate per 100,000 Population of Commonly Reported Conditions by Year, Travis County, 2019-2021^{1,2,3}

Condition	2019		2020		2021	
	Number	Rate [§]	Number	Rate [§]	Number	Rate [§]
AIDS ⁴	79	6.2	†		†	
Campylobacteriosis	216	17.6	140	11.2	149	11.8
Chicken Pox (Varicella)	89	7.3	20	1.6	19	1.5
Cryptosporidiosis	52	4.2	15	1.2	17	1.3
Cyclosporiasis	102	8.3	188	15.0	39	3.1
<i>Escherichia coli</i> , Shiga toxin-producing (STEC)	61	5.0	23	1.8	27	2.1
Gonorrhea ⁴	3,174	249.1	4,056	314.4	†	
Hepatitis A, Acute	12	1.0	7		8	
Hepatitis B, Acute	5		3		1	
HIV ⁴	179	14.1	218	15.5	226	17.3
Legionellosis	19	1.5	25	1.9	36	2.8
Lyme disease	5		0		4	
Malaria	14	1.1	5		3	
Mumps	22	1.8	3		2	
Pertussis	87	7.1	8		1	
Salmonellosis	316	25.8	167	13.4	188	14.8
Shigellosis	148	12.1	107	8.6	45	3.5
<i>Streptococcus pneumoniae</i> , invasive	93	7.6	43	3.4	44	3.5
Primary & Secondary Syphilis ⁴	216	17.0	267	20.7	†	
Tuberculosis ⁵	44	3.5	32	2.5	44	3.4
Typhus, murine	35	2.9	31	2.5	31	2.4

¹Rates per 100,000 population

²Population data from US Census Bureau, American Community Survey 5-year estimates

³Unless otherwise noted, data source is the National Electronic Disease Surveillance System

⁴HIV/STD/HCV Epidemiology and Surveillance Unit, Texas Department of State Health Services

⁵Tuberculosis and Hansen's Disease Unit, Texas Department of State Health Services

†Data unavailable

§Rates based on 19 or fewer cases are unreliable; rates for <10 cases are not shown