



Mortality is an important indicator of the health of a population. It is defined as the number of deaths in a defined population during a specific period of time. Mortality data in this report can be used to:

- Identify populations and communities at greater risk of death from specific diseases and injuries.
- Inform health care and public health planning, resource allocation, and priorities for prevention.
- Identify and highlight social disparities in health and mortality, which can help to better target resources and strategies that address inequitable societal conditions causing the disparities.
- Identify and characterize emerging and re-emerging public health issues.

## A Brief, Preliminary Spotlight on 2020

At the time of compiling this report in 2020, the most recent year of county-level mortality data available from CDC was 2019. However, given the availability of timely COVID-19 data and state-level mortality data, the following key findings are available for mortality in the year of the COVID-19 pandemic:

- **Texas experienced between 37,000 to 45,000 excess deaths in 2020.**<sup>1</sup> This means an extra 37,000 to 45,000 deaths occurred in 2020 beyond what would be normally expected (based on trends and data from previous years).
- In Bexar County, a total of 1,635 COVID-19 deaths occurred in 2020<sup>2</sup>, and the corresponding age-adjusted mortality rate was 89 per 100,000 population. Comparing this to the top causes of mortality in 2019 and 2018 (see details in report below), **COVID-19 ranks as the 3<sup>rd</sup> leading cause of death in Bexar County, behind heart disease and cancer.**

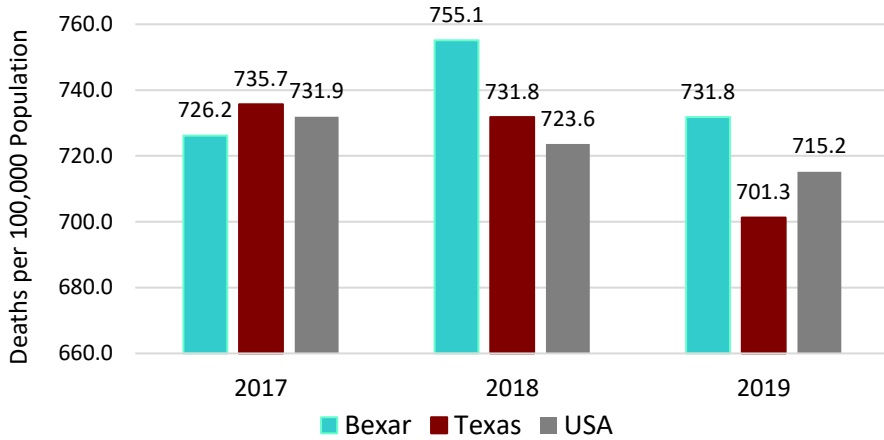
## Key Points from this Report

### In 2019:

- Bexar County's overall age-adjusted mortality rate decreased between 2018 and 2019 but was still higher than the Texas mortality rate as well as the US overall mortality rate.
- Bexar County's age-adjusted mortality rate was the highest among the top 10 largest Texas counties, similar to 2018.
- Non Hispanic (NH)-Black individuals had the highest age-adjusted mortality rate, similar to 2018.
- Cause-specific mortality rates decreased for many top causes of death, except for diabetes and accidents where there was an increase for a second consecutive year.
- Bexar County's age-adjusted mortality rate for diabetes was higher than the rate for Texas and the US overall. In addition, Bexar County had the highest diabetes mortality rate among the five largest counties in Texas. Similarly, Bexar County's diabetes mortality rate also ranked second when comparing the 5 largest counties within each of the 5 largest US states (CA, TX, NY, FL, PA).
- NH-Black individuals died from diabetes at twice the rate compared to NH-Whites.
- Among the top 10 causes of death, Alzheimer's disease was the only cause of death where females had a higher age-adjusted mortality rate than males.
- NH-Black individuals died from homicide at a rate 3-4 times higher than NH-White individuals and Hispanic/Latinos, similar to 2018.

## Mortality by Age and Sex

**Figure 1. All-Cause Age Adjusted Mortality Rate: Bexar County, Texas and the United States, 2017-2019**



- In 2017, Bexar County’s age-adjusted mortality rate was the lowest when compared to the rates for Texas and the US overall, however **since 2018, Bexar County’s rate has been higher than that of Texas and the US.**
- From 2018 to 2019, however, mortality rates dropped for Bexar, Texas, and the US overall. Bexar County’s age-adjusted mortality rate decreased from 755.1 to 731.8 per 100,000 population in 2019.

- A total of 13,945 deaths were registered in Bexar County in 2019 - 220 less than in 2018. This resulted in a 1.6% decrease in the age-adjusted mortality rate from 2018 to 2019.
- **Comparing the 10 largest counties in Texas, Bexar County had a higher 2019 age-adjusted mortality rate than all the other counties.**

**Table 1. Mortality across the Ten Largest Counties in Texas, 2019**

Location	Deaths	Population	Age-Adjusted Mortality Rate
1. Bexar County	13,945	2,003,554	731.8
2. Dallas County	16,531	2,635,516	714.8
3. Tarrant County	13,537	2,102,515	713.2
4. Harris County	26,730	4,713,325	664.4
5. El Paso County	5,724	839,238	693.7
6. Travis County	5,866	1,273,954	585.3
7. Denton County	4,124	887,207	595.8
8. Hidalgo County	4,763	868,707	612.0
9. Collin County	4,869	1,034,730	566.3
10. Fort Bend County	3,608	811,688	535.9
Texas	203,362	28,995,881	717.8
USA	2,854,838	328,239,523	715.2

\*Rates are per 100,000 population; age-adjusted rates are adjusted to the 2000 Standard Population



Mortality rates can be reported as crude rates or age-adjusted rates.

**Crude rates** are simply calculated as the number of deaths in a place divided by population size of that place. They do not take in consideration the age-distribution of the population in that place. However, to compare mortality rates between one location and another, or between one time point and another, age-adjusted rates are necessary.

**Age-adjusted rates** are calculated using statistical techniques that weigh the different age-groups according to a reference, standard population, thus eliminating the effect of different age distributions when comparing one place to another.

## Mortality by Age and Sex

- **One third of deaths in 2019 were among those less than 65 years old, similar to 2018**
- In Bexar County, age-specific mortality rates decreased from 2018 to 2019 for most age-groups, except for the 1-14 age-group where the mortality rate remained the same.

**Table 2. Total Deaths and Mortality Rates by Age-group in Bexar County, 2018 and 2019**

Age Group	2018			2019			Percent Change between 2018 and 2019
	Deaths	Population	Crude Mortality Rate	Deaths	Population	Crude Mortality Rate	
<1 year	186	27,665	672.3	170	26,629	638.4	-5.0
1-14	61	396,303	15.4	61	395,942	15.4	0.1
15-24	202	287,844	70.2	190	288,370	65.9	-6.1
25-44	851	586,381	145.1	848	595,524	142.4	-1.9
45-64	3,046	447,235	681.1	2,980	449,246	663.3	-2.6
65-74	2,732	143,813	1,899.7	2,723	148,209	1,837.3	-3.3
75-84	3,140	68,271	4,599.3	3,137	71,098	4,412.2	-4.1
85+	3,947	28,537	13,831.2	3,835	28,536	13,439.2	-2.8

Rates are per 100,000 population

- In 2019, males accounted for 53% of total deaths in Bexar County while females accounted for 47%.
- **Mortality for both males and females decreased between 2018 and 2019: The adjusted mortality rate decreased by 4.0% for women and 2.4% for men.**
- The male-to-female age-adjusted mortality rate ratio was 1.48 in 2019. This means that **males had a 48% higher overall risk of death than females in 2019**. There is evidence that men are less likely to seek medical care and comply with medical instructions than women, and that men are more likely to engage in risky and dangerous activities.

**Table 3. Total Deaths and Age-Adjusted Mortality Rates by Sex in Bexar County, 2018 and 2019**

Sex	2018			2019			Percent Change between 2018 and 2019
	Deaths	Population	Age Adjusted Mortality Rate	Deaths	Population	Age Adjusted Mortality Rate	
Female	6,712	1,005,533	625.8	6,530	1,013,764	600.8	-4.0
Male	7,453	980,516	913.9	7,415	989,790	891.9	-2.4

Rates are per 100,000 population

## Mortality by Race/Ethnicity

- Among the three prominent race/ethnic groups in Bexar County (NH-Black, NH-White, Hispanic/Latino), **NH-Black individuals had the highest age-adjusted mortality rate in both 2018 and 2019.** More specifically, non-Hispanic Black individuals had a 24% increased risk of death compared to Hispanic/Latinos, and a 12% increased risk of death compared to NH-White individuals.

**Table 4. Total Deaths and Age-Adjusted Rates by Race/Ethnicity in Bexar County, 2018 and 2019**

Race/Ethnicity	2018			2019			Percent Change between 2018 and 2019
	Deaths	Population	Age Adjusted Mortality Rate	Deaths	Population	Age Adjusted Mortality Rate	
NH White	6,015	560,131	784.2	5,969	559,990	774.5	-1.2%
NH Black	1,157	152,056	909.8	1,120	154,570	864.8	-4.9%
Hispanic/Latinos	6,629	1,201,366	710.9	6,602	1,215,788	695.7	-2.1%
Asian/Pacific Islander	215	66,953	424.1	183	67,451	345.9	-18.4%
American Indian/ Alaska Native	**	5,543	**	11	5,755	**	**

Rates are per 100,000 population

Data is suppressed when numbers are too small to calculate stable rates or meet confidentiality requirements.

## Overall Leading Causes of Death

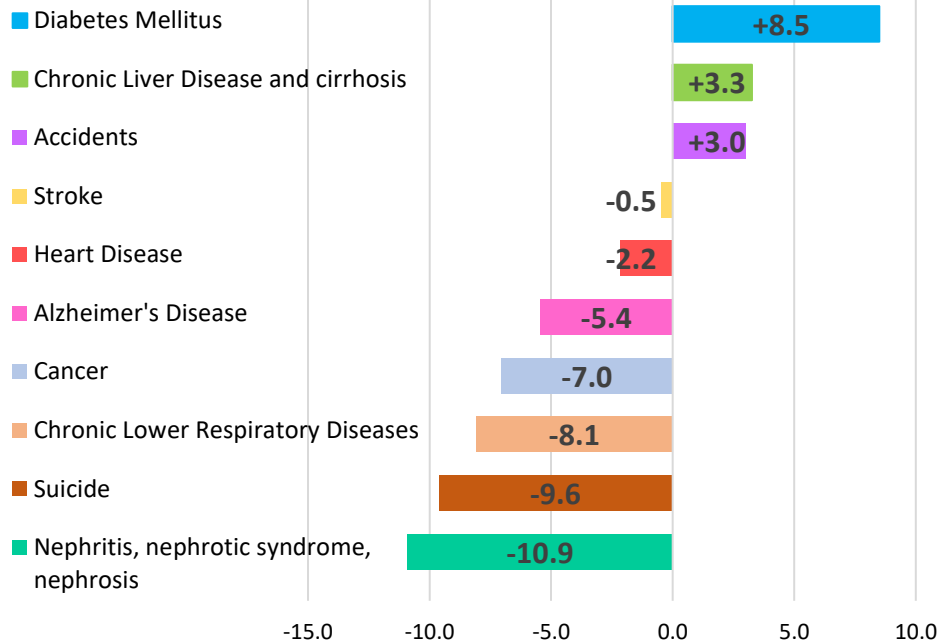
- The leading causes of death in 2019 for Bexar County were largely similar to that in 2018.
- In 2019, suicide replaced septicemia as the 10th causes of death, due to a large decrease in deaths related to septicemia.

**Table 5. Number of Deaths and Age-Adjusted Mortality Rates for 10 Leading Causes of Death in Bexar County, compared with Texas and USA, 2018 and 2019**

Cause of death	2018		2019			
	Deaths	Age Adjusted Mortality Rate	Deaths	Age Adjusted Mortality Rate	Texas Age-Adjusted	USA Age-Adjusted
1. Heart Disease	3,288	175.7	3,261	171.9	163.4	161.5
2. Cancer	2,787	146.3	2,640	136.0	141.4	146.2
3. Stroke	793	43.3	807	43.1	39.0	37.0
4. Accidents	775	40.1	809	41.3	39.7	49.3
5. Alzheimer's Disease	719	40.4	685	38.2	38.6	29.8
6. Chronic Lower Respiratory Diseases	635	34.7	592	31.9	38.6	38.2
7. Diabetes Mellitus	489	25.9	545	28.1	23.6	21.6
8. Chronic Liver Disease and cirrhosis	360	18.4	381	19.0	14.3	11.3
9. Nephritis, nephrotic syndrome, nephrosis	311	16.5	279	14.7	14.7	12.7
10. Suicide	267	13.5	245	12.2	13.4	13.9

Rates are per 100,000 population

**Figure 2. Percent Change in Bexar County Age-Adjusted Mortality Rate between 2018 and 2019, by Cause of Death**



- Between 2018 and 2019, age-adjusted mortality rates increased for three of the top 10 causes of death and decreased for seven.
- The largest increase was for ‘Diabetes Mellitus’, followed by ‘Chronic Liver Disease’, and ‘Accidents’.
- The largest decrease was for ‘Nephritis, nephrotic syndrome and nephrosis’, followed by ‘Suicide’ and ‘Chronic Lower respiratory Diseases’.

### A Closer Look at Diabetes Mellitus

- In 2019, the age-adjusted mortality rate for diabetes mellitus in Bexar County (28.1 per 100,000 population) was higher than the rate in Texas (23.6 per 100,000 population) and the US (21.6 per 100,000 population).
- There was an 8.5% increase in the diabetes age-adjusted mortality rate between 2018-2019.
- 45% of deaths were related to non-insulin dependent diabetes mellitus (i.e. type 2 diabetes). Almost half (45%) of type 2 diabetes mellitus deaths had renal complications.
- **Among the five largest counties in Texas, Bexar County had the highest 2019 diabetes age-adjusted mortality rate.**
- Bexar County’s 2019 age-adjusted mortality rate also ranked second when comparing rates in the 5 largest counties (by population size) within each of the 5 largest US states.

**Table 6. Diabetes Mortality Rates across the Five Largest Counties in Texas, 2019**

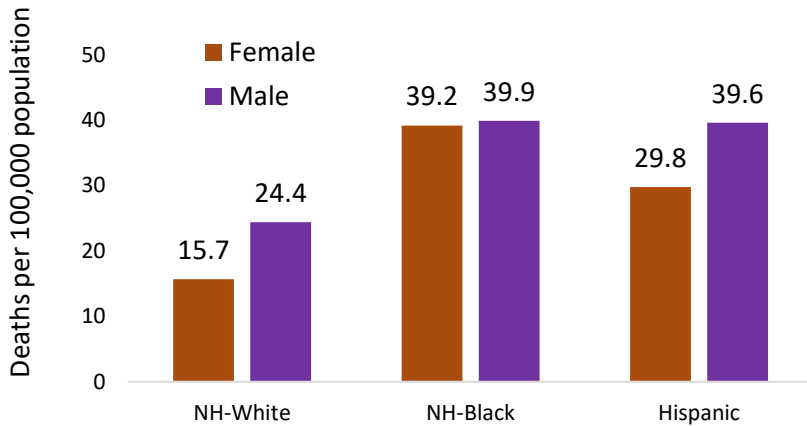
County	Deaths	Population	Age-Adjusted Mortality Rate
Bexar County	545	2,003,554	28.1
Dallas County	538	2,635,516	22.7
Tarrant County	444	2,102,515	22.5
Harris County	905	4,713,325	21.5
Travis County	159	1,273,954	15.3

**Table 7. Diabetes Mortality Rates across the Largest Counties in the Largest US States, 2019**

County	Deaths	Population	Age-Adjusted Mortality Rate
San Bernardino, CA	677	2,180,085	32.7
<b>Bexar, TX</b>	<b>545</b>	<b>2,003,554</b>	<b>28.1</b>
Bronx, NY	419	1,418,207	27.8
Miami-Dade, FL	704	2,716,940	19.6
Philadelphia, PA	334	1,584,064	19.4

Rates are per 100,000 population.

**Figure 3. Bexar County Age-adjusted Mortality Rates for Diabetes, by Race/Ethnicity and Sex, 2019**



- **Non-Hispanic Black individuals had the highest age-adjusted mortality rate for diabetes in Bexar County in 2019.**
- The age-adjusted mortality rate for diabetes was higher for males than females, across all races.

**Table 8. Alcoholic Liver Disease Age-adjusted Mortality Rate by Sex in Bexar County, 2019**

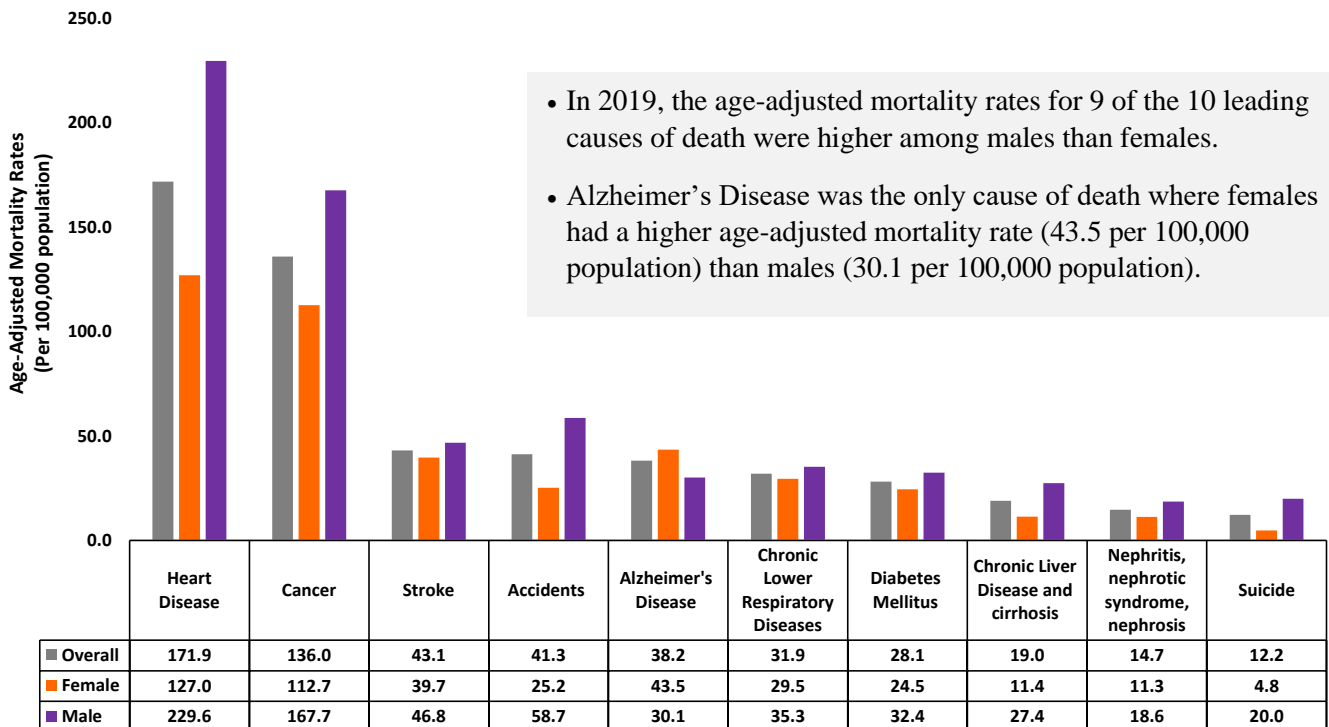
Gender	Deaths	Population	Age-Adjusted Mortality Rate
Female	33	1,013,764	3.2
Male	113	989,790	11.8

Rates are per 100,000 population.

- The 2019 age-adjusted mortality rate for alcoholic liver disease was higher for Bexar County males compared with females.

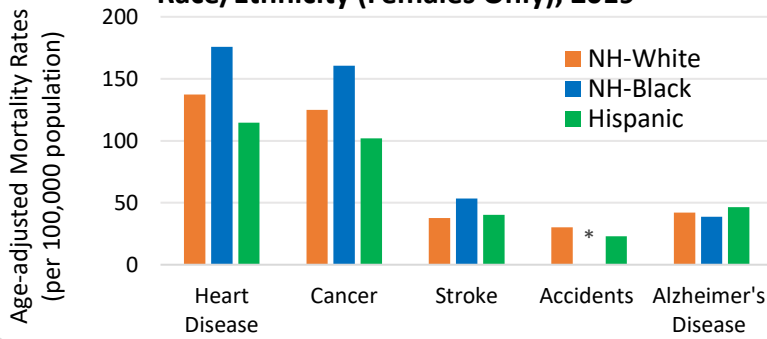
## Leading Causes of Death – by Sex and Race/Ethnicity

**Figure 5. Top 10 Causes of Deaths in Bexar County by Sex, 2019**

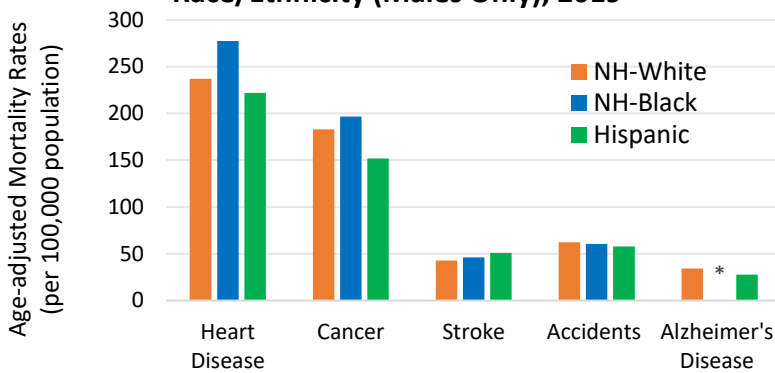


- In 2019, the age-adjusted mortality rates for 9 of the 10 leading causes of death were higher among males than females.
- Alzheimer's Disease was the only cause of death where females had a higher age-adjusted mortality rate (43.5 per 100,000 population) than males (30.1 per 100,000 population).

**Fig 6a. Causes of Death in Bexar County, by Race/Ethnicity (Females Only), 2019**



**Figure 6b. Causes of Death in Bexar County By Race/Ethnicity (Males Only), 2019**



- Heart disease and cancer are the top causes of death regardless of sex and race/ethnicity.
- Non-Hispanic Black females led the mortality rate for heart disease, cancer, and stroke in 2019, while Non-Hispanic Black males led the mortality rate for heart disease and cancer.
- This means that regardless of gender, the NH-Black population in Bexar County led the mortality rate for both heart disease and cancer in 2019, similar to the trend in 2018.
- Conversely, Hispanic/Latinos have the lowest rates of mortality from heart disease and cancer when comparing the three prominent race/ethnicity groups.

## Leading Causes of Death Specific to each Race/Ethnicity

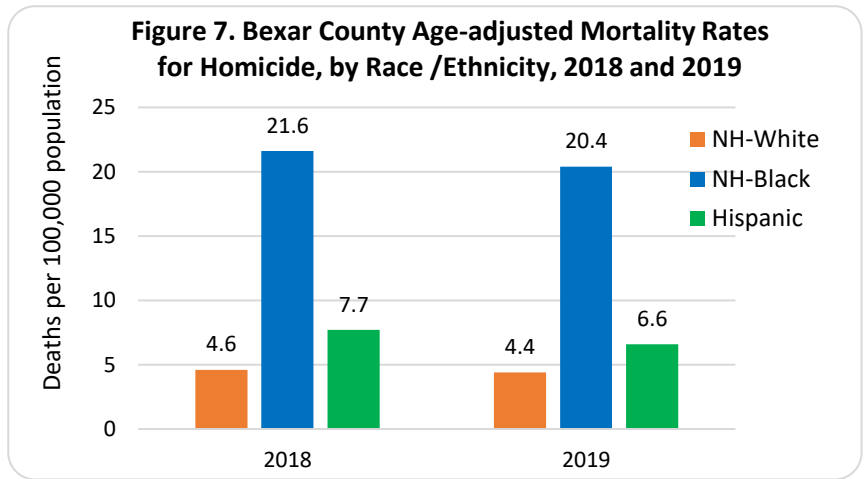
**Table 9. Leading Causes of Death for each Race/Ethnicity in Bexar County, 2019**

NH-White	NH-Black	Hispanic/Latino
Heart Disease 1443 (182.5)	Heart Disease 287 (220.6)	Heart Disease 1473 (160.1)
Cancer 1163 (150.0)	Cancer 222 (173.5)	Cancer 1192 (122.7)
CLRD 393 (49.0)	Stroke 65 (50.9)	Stroke 405 (45.3)
Accidents 314 (46.2)	Diabetes Mellitus 52 (39.5)	Alzheimer's Disease 318 (39.5)
Stroke 319 (40.2)	Accidents 54 (38.5)	Accidents 431 (39.4)
Alzheimer Disease 319 (38.5)	Alzheimer Disease 36 (34.6)	Diabetes Mellitus 327 (34.1)
Diabetes Mellitus 156 (19.9)	CLRD 38 (29.5)	Liver Disease/Cirrhosis 246 (22.9)
Suicide 107 (18.3)	Nephritis 29 (23.3)	Nephritis 168 (18.1)
Liver Disease/Cirrhosis 112 (16.4)	Homicide 31 (20.4)	CLRD 154 (17.7)
Parkinson Disease 105 (13.1)	Influenza pneumonia 21 (15.9)	Parkinson Disease 93 (11.6)

Each cell shows: number of cases (age-adjusted rate); rates are per 100,000 population  
CLRD = Chronic Lower Respiratory Diseases

- Chronic lower respiratory disease (CLRD) was the third leading cause of death for NH-Hispanic White individuals but ranked lower for NH-Black individuals and Hispanic/Latinos.
- Homicide was among the top 10 causes of death for NH-Black individuals, but it did not rank in the top 10 for NH-White individuals and Hispanic/Latinos.

- Examining race/ethnicity differences for homicide, **NH-Black individuals die from homicide at a rate 3-4 times higher than that of NH-White individuals and Hispanic/Latinos.** This was seen consistently in both 2018 and 2019.



## Leading Causes of Death Specific to each Age-group

**Table 10. Leading Causes of Death for each Age-group in Bexar County, 2019**

1-14	15-24	25-44	45-64	65-84	85+
Accidents 13 (*)	Accidents 51 (17.7)	Accidents 213 (35.8)	Cancer 715 (159.2)	Heart Disease 1,430 (625.1)	Heart Disease 1,033 (3,620.0)
	Suicide 44 (15.3)	Suicide 111 (18.6)	Heart Disease 702 (156.3)	Cancer 1,354 (617.4)	Alzheimer Disease 451 (1,580.5)
	Homicide 40 (13.9)	Cancer 103 (17.3)	Accidents 226 (50.3)	Stroke 341 (155.4)	Cancer 445 (1,559.4)
	Cancer 14 (*)	Heart Disease 84 (14.1)	Liver Disease/Cirrhosis 205 (45.6)	CLRD 322 (146.8)	Stroke 297 (1,040.8)
		Homicide 61 (10.2)	Stroke 135 (30.1)	Diabetes Mellitus 285 (130.0)	CLRD 198 (693.9)
		Liver Disease/Cirrhosis 39 (6.5)	Diabetes Mellitus 132 (29.4)	Alzheimer Disease 225 (102.6)	Accidents 137 (480.1)
		Stroke 30 (5.0)	CLRD 67 (14.9)	Accidents 166 (75.7)	Diabetes Mellitus 103 (360.3)
		Diabetes Mellitus 22 (3.7)	Nephritis 66 (14.7)	Nephritis 146 (66.6)	Parkinson Disease 85 (297.9)
		HIV 13 (*)	Suicide 59 (13.1)	Liver Disease/Cirrhosis 128 (58.4)	Nephritis 59 (206.8)
			Septicemia 54 (12.0)	Parkinson Disease 122 (55.6)	Essential Hypertension 56 (196.2)

each cell shows: number of cases (rate); rates are per 100,000 population  
CLRD = Chronic Lower Respiratory Diseases

- Accidents, suicide, and homicide generally rank as top causes of death in younger age groups, mostly due to the fact younger people do not experience causes of death commonly linked to older age (e.g. heart disease). This holds true for accidents and suicide in Bexar County, but not for homicide. When examining homicide by age, young people in Bexar County do have the highest homicide rate.

- Differences in homicide by race/ethnicity and age-group are in line with trends that are seen nationally: **young NH-Blacks are at highest risk of dying due to homicide. This is largely attributed to the fact that NH-Blacks are often disproportionately exposed to adverse conditions such as unsafe neighborhoods, racism, concentrated poverty, and limited educational and employment opportunities.**<sup>2</sup>



Report produced by San Antonio Metro Health's Informatics Unit. Authors: Maciel Ugalde, PhD; Golareh Agha, PhD

**Data source for all tables and figures:** Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death, 1999-2019 on CDC WONDER online database: <https://wonder.cdc.gov/ucd-icd10.html>

All age-adjusted rates are adjusted to the US 2000 standard population.

**References:** 1) CDC, National Center for Health Statistics. "Excess Deaths Associated with COVID-19".

[https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess\\_deaths.htm](https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm). 2) Sheats et al. Violence-Related Disparities Experienced by Black Youth and Young Adults: Opportunities for Prevention. *Am J Prev Med*, 2018, 55(4):462