2B.

LEADING CAUSES OF DEATH

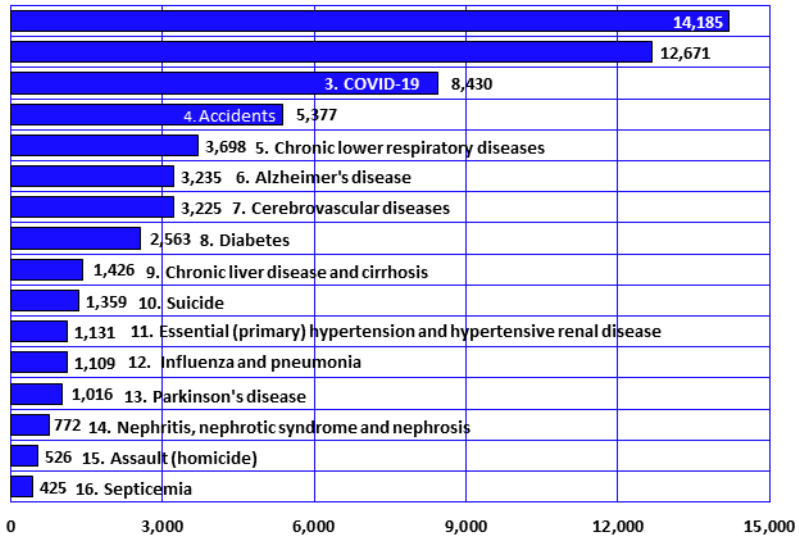
In 2010, the Office of Vital Records (OVR) of the Arizona Department of Health Services implemented the new (version 2003) Standard U.S. death certificate. The new certificate added several new questions: 1) whether tobacco use contributed to the death, and 2) whether, if the decedent was a female, the death was "pregnancy-associated" (defined as death from any cause during pregnancy or within one calendar year of delivery or pregnancy termination).

The death certificate now includes a new classification of the decedent's racial/ethnic status, consistent with the revised federal standards for collecting and reporting racial and ethnic status. These standards were published in the Federal Register on October 30, 1997, as "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity." The revised standards are available on the OMB (the Office of Management and Budget) web-site at: https://www.whitehouse.gov/omb.

There are now 15 racial categories (including Guamanian or Chamorro; Samoan or Native Hawaiian) to choose from. It is also permitted to indicate more than one race for a decedent. To create frequency counts of race and ethnicity that were adequate to compute statistically reliable mortality rates, race was "bridged", or essentially collapsed into 5 categories; White non-Hispanic, Hispanic or Latino, Black or African American, Native American or Alaska Native, and Asian or Pacific Islander. When an individual was identified as both Hispanic and any other race, that person was added to the racial/ethnic group with the lowest population. For example, a person identified as both White and Hispanic would be coded as Hispanic, where a person identified as American Indian and Hispanic would be coded as American Indian. Please refer to the technical appendix for further explanation of the racial bridging used in this report.

Figure 2B-1A
Leading Causes of Death among Arizona Residents in 2020

BASED ON THE NUMBER OF DEATHS DUE TO THE UNDERLYING CAUSE:

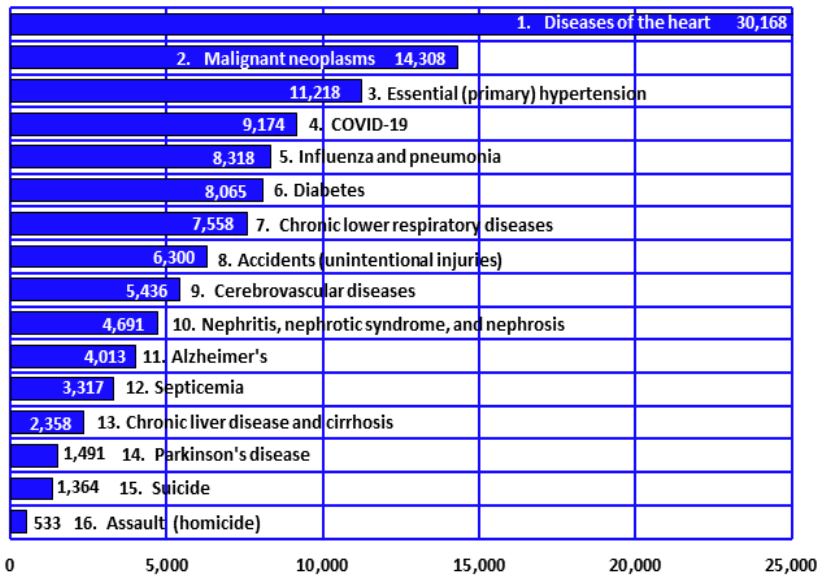


Based on the number of deaths (but not age-adjusted mortality rate), the leading underlying cause of death to Arizona residents in 2020 was *heart disease* (14,185 or 18.7 percent of all deaths), closely followed by *cancer*, which accounted for 12,671 or 16.7 percent of deaths (**Figure 2B-1A**, **Table 2B-1**, **Table 5E-14**).

The third leading cause of death, *COVID-19* accounted for 8,430 or 11.1 percent of total deaths. Deaths due to *accidents (unintentional injuries)* ranked fourth in 2020, with 5,377 (7.1 percent) resident deaths reported. Deaths due to *chronic lower respiratory diseases* ranked fifth in 2020, with 3,698 (4.9 percent) resident deaths reported. Together, these five causes accounted for 58.6 percent of total deaths in 2020. The fifteen leading causes accounted for 80.2 percent of all deaths among Arizona residents.

Figure 2B-1B
Leading Causes of Death among Arizona Residents in 2020

BASED ON THE NUMBER OF DEATHS DUE TO ANY MENTION OF A CAUSE:



For the purpose of mortality statistics, every death is attributed to one underlying condition or underlying cause of death. The underlying cause is defined as the disease or injury that initiated the chain of events leading directly to death. It is selected from up to 20 causes and conditions entered by the physician on the death certificate. The totality of all these conditions is known as multiple cause of death.

In addition to 14,185 deaths that had diseases of the heart assigned as the underlying cause, another 15,983 deaths had diseases of the heart assigned as a secondary cause of death. The sum of these two counts (30,168, **Figure 2B-1B**) is the total number of deaths that had any mention of diseases of the heart on the 2020 death certificates. The ranking based on any mention of the 15 diagnostic categories is different from ranking of the leading causes of death based on the underlying cause. In particular, *Essential (primary) hypertension* ranked 11th as the underlying cause but ranked 3rd when any mention of it was counted.

It is important to note that (**Figures 2B-2, 2B-3, 2B-4, and 2B-5)** are based on the age-adjusted mortality rates and not on the number of deaths.

In 2020, diseases of the heart were the leading cause of death for White non-Hispanics, Blacks, and Asians but placed 2nd for Hispanics and 3rd for American Indians. Cancer ranked 2nd leading cause of death for White non-Hispanics, Black or African Americans, and Asians but ranked 3rd for Hispanics and 4th for American Indians. In 2020, COVID-19 was the leading cause of death for Hispanics and American Indians, 3rd for Blacks and Asians, and 4th for White non- Hispanics. Unintentional injury ranked 2nd for American Indians, 3rd for White non-Hispanics, and 4th for Hispanics and Blacks. (**Figure 2B-2, Table 2B-4**).

In 2020, Cerebrovascular diseases was 4th leading cause of death specific to Asians. Diabetes ranked 5th among the leading causes of death for Hispanics, Blacks, and American Indians. Chronic lower respiratory disease was the fifth leading cause of death specific to White non-Hispanics, and Alzheimer's disease ranked in 5th specific to Asians. (**Table 2B-4**).

Figure 2B-2
Age-adjusted Mortality Rates[a] for the Five Leading Causes of Death for Both Genders by Race/Ethnicity, Arizona, 2020

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 154.9	COVID-19 185.8	Diseases of heart 212.3	COVID-19 492.3	Diseases of heart 91.0
2	Cancer 138.9	Diseases of heart 125.5	Cancer 169.4	Unintentional injury 180.1	Cancer 87.9
3	Unintentional injury 69.2	Cancer 114.8	COVID-19 101.6	Diseases of heart 164.3	COVID-19 72.6
4	COVID-19 55.4	Unintentional injury 60.4	Unintentional injury 82.2	Cancer 116.5	Cerebro-vascular diseases 29.9
5	Chronic lower respiratory diseases 43.1	Diabetes 43.1	Diabetes 51.7	Diabetes 106.4	Alzheimer's disease 28.6

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Based on age-adjusted mortality rates, diseases of the heart were the leading cause of death for Black or African American females, while cancer was the leading cause of death for White non-Hispanics and Asians. Diseases of heart ranked 2nd for White non-Hispanics, American Indians, and Asians, 3rd for Hispanics, while Cancer came in 2nd for Hispanics and Blacks, and 4th for American Indians. COVID-19 was the leading cause for Hispanics and American Indians, 3rd for Blacks and Asians but 4th for White non-Hispanics. (**Figure 2B-3**, **Table 2B-4**).

Alzheimer's disease ranked fourth among the leading cause of death for Hispanic, Black, and Asian females. Chronic lower respiratory diseases were the fifth leading cause of death specific to White non-Hispanic females.

Cerebrovascular diseases ranked fifth among Hispanic, Black and Asian females. Chronic liver disease and cirrhosis was unique to American Indian women and ranked fifth among the leading causes of death. While unintentional injury was the third leading cause of death for White non-Hispanic and American Indian women.

Figure 2B-3
Age-adjusted Mortality Rates[a] for the Five Leading Causes of Death by Race/Ethnicity among Females, Arizona, 2020

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Cancer 121.8	COVID-19 126.4	Diseases of heart 164.4	COVID-19 406.9	Cancer 81.5
2	Diseases of heart 120.8	Cancer 100.9	Cancer 141.6	Diseases of heart 113.2	Diseases of heart 74.6
3	Unintentional injury 43.8	Diseases of heart 94.8	COVID-19 83.7	Unintentional injury 104.9	COVID-19 46.6
4	COVID-19 43.2	Alzheimer's disease 40.4	Alzheimer's disease 54.3	Cancer 102.8	Alzheimer's disease 34.7
5	Chronic lower respiratory diseases 41.9	Cerebro-vascular diseases 34.2	Cerebro-vascular diseases 45.9	Chronic liver disease and cirrhosis 95.5	Cerebro-vascular diseases 28.0

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-4
Age-adjusted Mortality Rates[a] for the Five Leading Causes of Death by Race/Ethnicity among Males, Arizona, 2020

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 192.5	COVID-19 259.9	Diseases of heart 263.8	COVID-19 605.3	Diseases of heart 112.0
2	Cancer 159.3	Diseases of heart 163.5	Cancer 206.2	Unintentional injury 262.7	COVID-19 110.4
3	Unintentional injury 94.4	Cancer 132.7	Unintentional injury 124.6	Diseases of heart 234.2	Cancer 97.0
4	COVID-19 69.5	Unintentional injury 89.5	COVID-19 123.1	Cancer 138.7	Cerebro-vascular diseases 32.0
5	Chronic lower respiratory diseases 44.4	Diabetes 56.0	Diabetes 61.9	Diabetes 137.7	Diabetes 24.9

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Based on age-adjusted mortality rates, diseases of the heart ranked first and second as the leading cause of death for all racial/ethnic groups except for American Indians who ranked third; followed by cancer as the second leading cause for White non-Hispanic and Black males, third for Hispanic and Asian males, and fourth for American Indian males. (**Figure 2B-4**; **Table 2B-4**).

Unintentional injury ranked the second leading cause of death for American Indian males, third among White non-Hispanic and Black males, and fourth for Hispanic males.

In 2020, based on the age-adjusted mortality rates, COVID-19 was the first leading cause of death for Hispanic and American Indian males, second for Asian males, and fourth for White non-Hispanic and Black males. Diabetes was the fifth leading cause of death for Hispanic, Black, American Indian and Asian males, while cerebrovascular diseases ranked fourth specific to Asian males and chronic lower respiratory diseases ranked fifth for White non-Hispanic males.

Figure 2B-5
Age-adjusted Mortality Rates[a] for the Five Leading Causes of Death by Gender in Urban[b] and Rural Areas, Arizona, 2020

Rank	Urban male	Urban female	Rural male	Rural female
1	Diseases of heart 185.1	Diseases of heart 115.8	Diseases of heart 219.3	Diseases of heart 127.6
2	Cancer 152.7	Cancer 115.0	Cancer 167.1	Cancer 127.5
3	COVID-19 113.0	COVID-19 64.3	COVID-19 145.0	COVID-19 93.8
4	Unintentional injury 96.3	Alzheimer's disease 40.8	Unintentional injury 120.7	Unintentional injury 55.4
5	Chronic lower respiratory diseases 38.0	Unintentional injury 40.0	Chronic lower respiratory diseases 53.3	Chronic lower respiratory diseases 46.9

Notes: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard; [b] Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas.

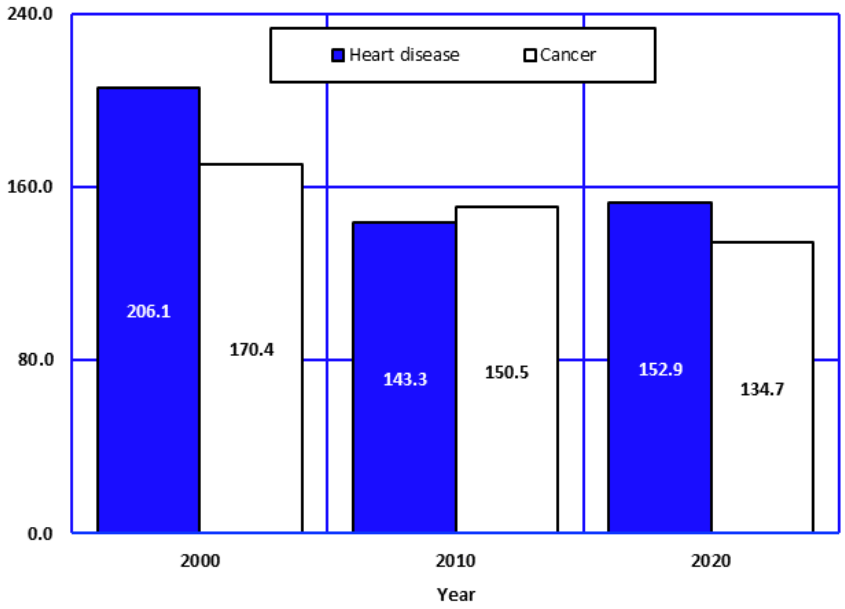
In 2020, the ranking of the leading causes of death were mostly similar by gender for residents of the urban (Maricopa, Pima, Pinal, and Yuma counties) and rural (all the remaining counties) areas of the state (**Figure 2B-5**, **Table 2B-5**). Diseases of the heart exceeded cancer as the leading causes of death among both urban and rural males, as well as urban and rural females. COVID-19 was ranked the third leading cause of death for both urban and rural males and females. Unintentional injury placed fourth among the leading cause for males regardless of area of residence, and rural females, but placed fifth for urban females.

Alzheimer's disease was the fourth leading cause of death specific to urban females. Chronic lower respiratory diseases were the fifth leading cause of death for urban and rural males and rural females.

The age-adjusted mortality rate for diseases of the heart decreased by 25.8 percent from 206.1 deaths per 100,000 population in 2000 to 152.9/100,000 in 2020 (**Figure 2B-6**). The age-adjusted mortality rate for cancer declined less, by 21.0 percent, from 2000-2020. In Arizona, the relative risk of death from heart disease versus cancer changed from 21 percent greater in 2000 to 13.5 percent less in 2020.

In 2010, 704 less Arizonans died from diseases of the heart than cancer (**Table 2B-1**). In 2020, the number of deaths due to diseases of the heart exceeded by 1,514 cases (**Table 2B-4**).

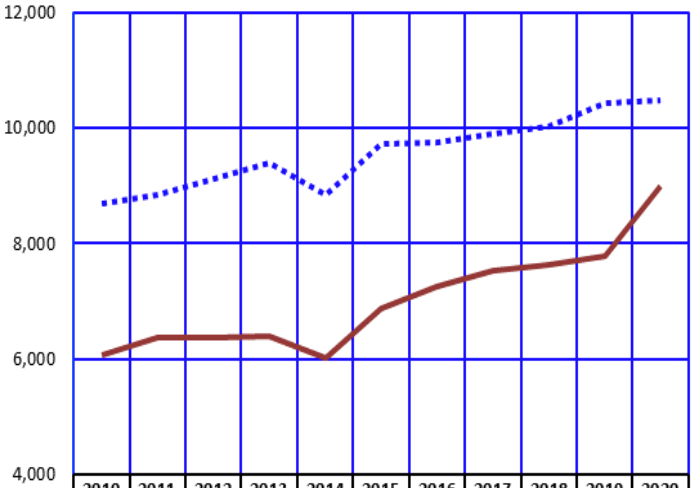
Figure 2B-6
Comparison of Age-adjusted Mortality Rates[a] for Heart Disease and Cancer (Malignant Neoplasm), Arizona, 2000, 2010, and 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

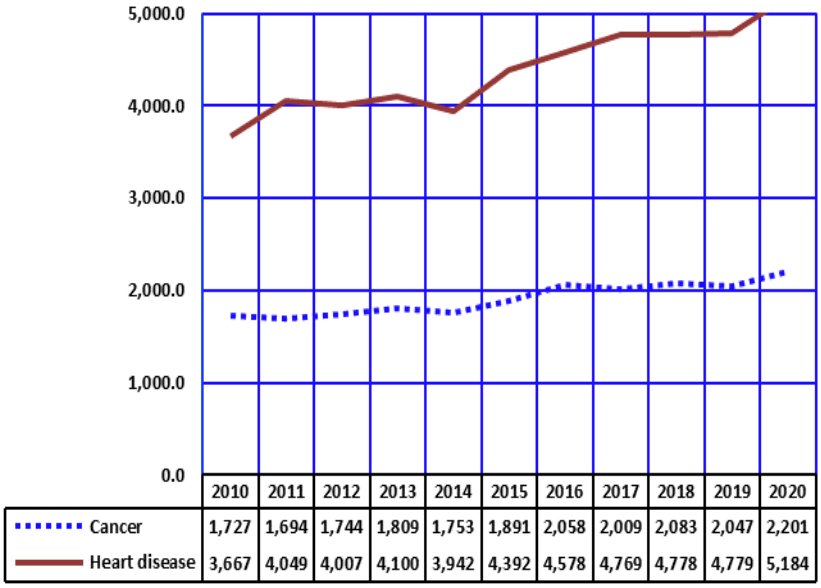
For the past several years, cancer has been the number one cause of death among Arizonans aged 0-84 years (**Figure 2B-7**). Beginning in 1996, the annual number of cancer deaths exceeded the number of deaths from heart disease in this age group. In 2020, 1,469 more Arizonans 0-84 years old died from cancer (10,470) than heart disease (9,001).

Figure 2B-7
Number of Deaths from Heart Disease and Cancer among Arizonans 0-84 Years, 2010-2020



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cancer	8,696	8,849	9,127	9,384	8,847	9,733	9,743	9,908	10,014	10,438	10,470
Heart disease	6,052	6,373	6,359	6,396	6,011	6,882	7,241	7,516	7,632	7,781	9,001

Figure 2B-8
Deaths from Heart Disease and Cancer among Arizonans 85+, 2010-2020

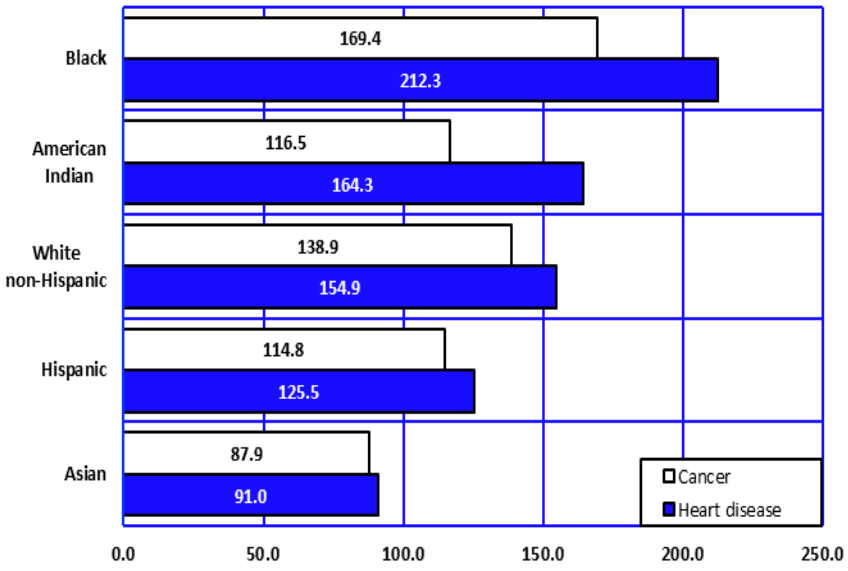


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cancer	1,727	1,694	1,744	1,809	1,753	1,891	2,058	2,009	2,083	2,047	2,201
Heart disease	3,667	4,049	4,007	4,100	3,942	4,392	4,578	4,769	4,778	4,779	5,184

Among Arizonans age 85 and over, heart disease is the number one leading cause of death by a wide margin. In 2020, adults aged 85 and over accounted for 17.4 percent of all deaths from cancer but 36.5 percent of all deaths from heart disease. In 2020, the median age at death for heart disease was 80 years (**Table 2D-3**); and a minority of deaths (42 percent, **Table 2D-4**) were premature, i.e., before reaching the expected years of life at birth for all U.S. residents (77.0 years).

However, from 2010 to 2020, the number of deaths from cancer increased by 27.4 percent among Arizonans 85 years or older, less than the increase observed in diseases of the heart (41.4 percent increase).

Figure 2B-9
Age-adjusted Mortality Rates[a] for Heart Disease and Cancer by Race/Ethnicity, Arizona, 2020



In Arizona, Black or African Americans were 2.3 times more likely to die from diseases of the heart and 1.9 times more likely to die from malignant neoplasms in 2020 than Asians, the group with the lowest risk of each respective cause of death (**Figure 2B-9**, **Table 2B-4**). Compared to Asians, White non-Hispanic Arizonans were 1.7 times more likely to die of heart disease and 1.6 times more likely to die of cancer.

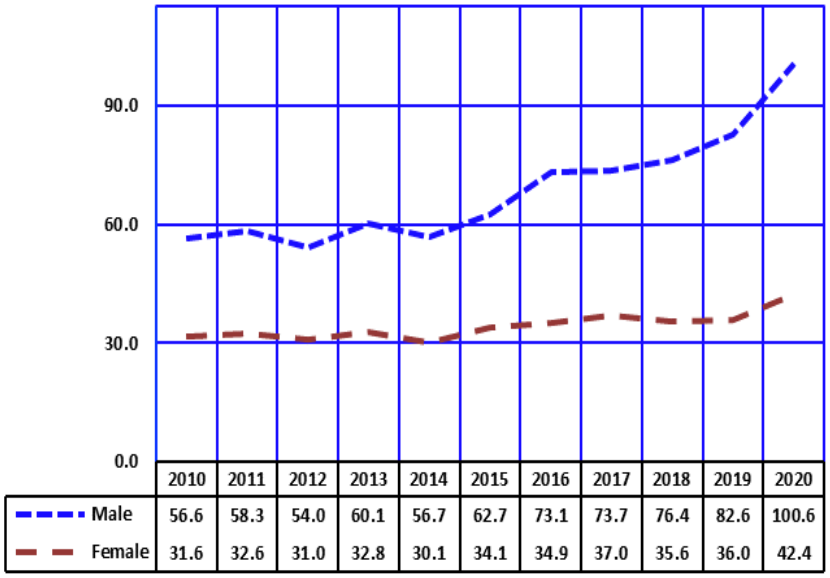
In 2020, the age-adjusted relative risk of death from heart disease exceeded cancer mortality risk (**Table 2B-3**) for all the racial/ethnic groups.

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

The number of deaths from unintentional injuries increased by 18.9 percent from 4,522 in 2019 to 5,377 in 2020 (**Table 2B-1**). In 2020, based on age-adjusted mortality rates, accidents ranked fourth as a leading cause of death for males and seventh for females (**Table 2B-4**). From 2019 to 2020, the age-adjusted mortality rate for accidents increased both for males (21.8 percent) and females (17.8 percent; **Figure 2B-10**).

In 2020, 1,035 deaths were caused by motor vehicle accidents, an increase of 6.7 percent from 2019. Heat induced mortality has seen an increase of 78.0 percent between 2019 and 2020. Deaths due to accidental drowning and submersion decreased by 1.0 percent from 2019 (n=100) to 2020 (n=99). Additionally, Arizonans experienced a 37.5 percent increase in the number of accidental poisonings due to drugs and/or medicaments from 1,679 fatalities in 2019 to 2,309 in 2020 (**Table 2B-9**).

Figure 2B-10
Age-adjusted Mortality Rates[a] for Accidents (Unintentional Injuries) by Gender and Year, Arizona, 2010-2020



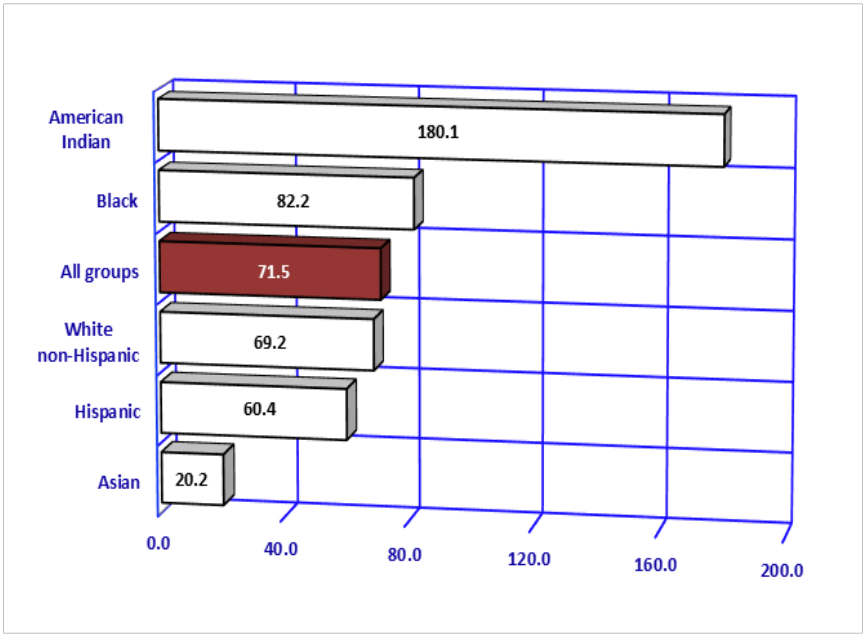
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	56.6	58.3	54.0	60.1	56.7	62.7	73.1	73.7	76.4	82.6	100.6
Female	31.6	32.6	31.0	32.8	30.1	34.1	34.9	37.0	35.6	36.0	42.4

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

The American Indian death rate for unintentional injuries (180.1/100,000) was 8.9 times greater than the rate for Asians 20.2/100,000), the group with the lowest risk of unintentional injury death among racial/ethnic groups in the state (**Figure 2B-11**, **Table 2B-4**).

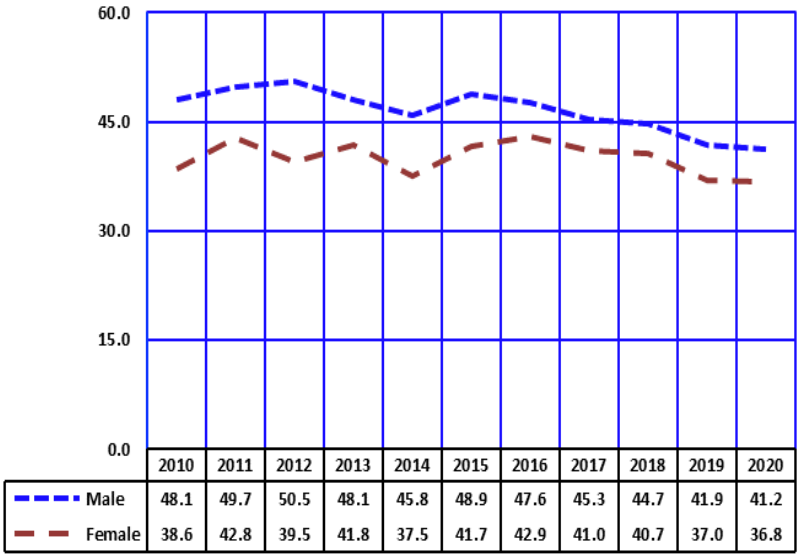
In 2020, Apache (195.3/100,000) and La Paz (193.9/100,000) counties had the two highest age-adjusted mortality rates for unintentional injuries (**Table 5E-11**).

Figure 2B-11
Age-adjusted Mortality Rates[a] for Accidents (Unintentional Injuries) by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-12
Age-adjusted Mortality Rates[a] for Chronic Lower Respiratory Diseases[b] by Gender and Year, Arizona, 2010-2020



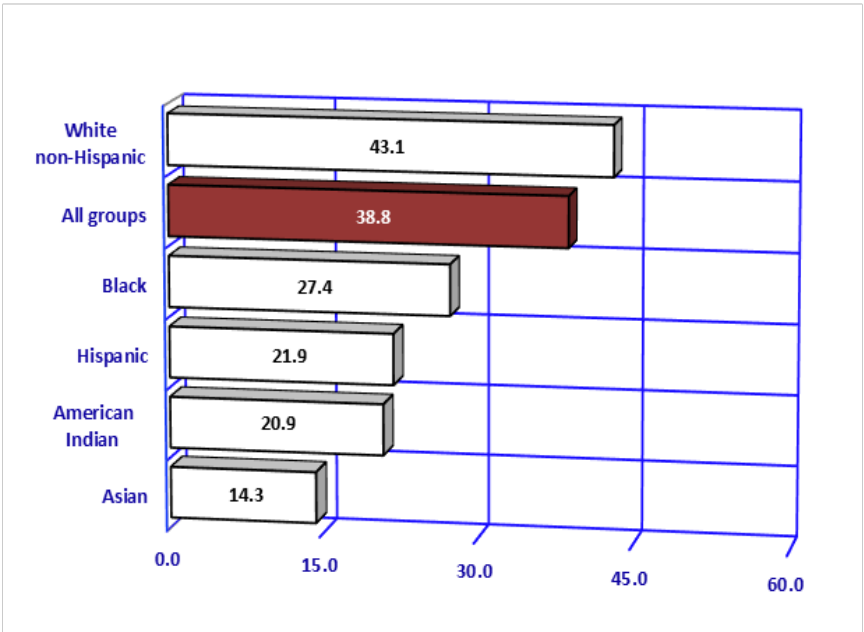
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	48.1	49.7	50.5	48.1	45.8	48.9	47.6	45.3	44.7	41.9	41.2
Female	38.6	42.8	39.5	41.8	37.5	41.7	42.9	41.0	40.7	37.0	36.8

In 2020, chronic lower respiratory diseases (bronchitis, emphysema, asthma) was the 5th leading cause of death among Arizona residents (**Table 2B-1**). The mortality rate for chronic lower respiratory diseases decreased for both genders between 2019 and 2020, but more so among males (1.7 percent) than females (0.5 percent); **Figure 2B-12**, **Table 2B-2**).

Among genders and regional groups, rural males and females experienced the highest mortality due to chronic lower respiratory diseases with rates of 53.3/100,000 and 46.9/100,000, respectively) (**Table 2B-5**).

Notes: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard; [b] This ICD-10 title corresponds to Chronic Obstructive Pulmonary Disease (ICD-9 title).

Figure 2B-13
Age-adjusted Mortality Rates[a] for Chronic Lower Respiratory Diseases by Race/Ethnicity, Arizona, 2020



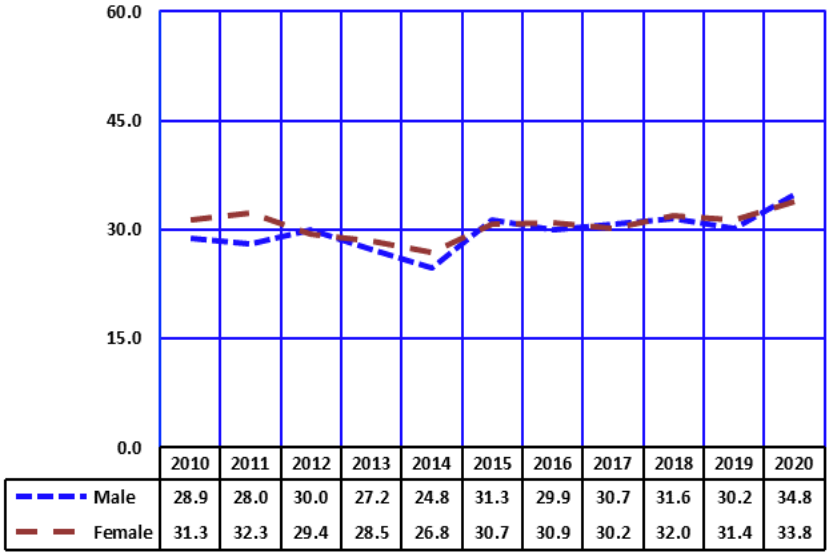
Mortality rates for emphysema, chronic bronchitis, asthma, and other lower respiratory disorders were highest among White non-Hispanics (43.1 deaths per 100,000) when compared to any other racial/ethnic groups in 2020. Asians recorded the lowest rate at 14.3 deaths per 100,000 population **(Figure 2B-13**, **Table 2B-4**).

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Cerebrovascular disease and diseases of the heart are two of the leading causes of death that share many risk factors such as hypertension, smoking, obesity, and high levels of cholesterol. The age-adjusted mortality rate for cerebrovascular diseases increased by 11.6 percent from 31.0/100,000 in 2019 to 34.6 deaths per 100,000 population in 2020 (**Table 2B-3**).

With some exceptions, the risk of dying from cerebrovascular diseases was slightly higher among females than males for the period 2010-2020 (7 of the last 11 years), but the rates were very similar. (**Figure 2B-14**, **Table 2B-2**).

Figure 2B-14
Age-adjusted Mortality Rates[a] for Cerebrovascular Disease by Gender and Year, Arizona, 2010-2020

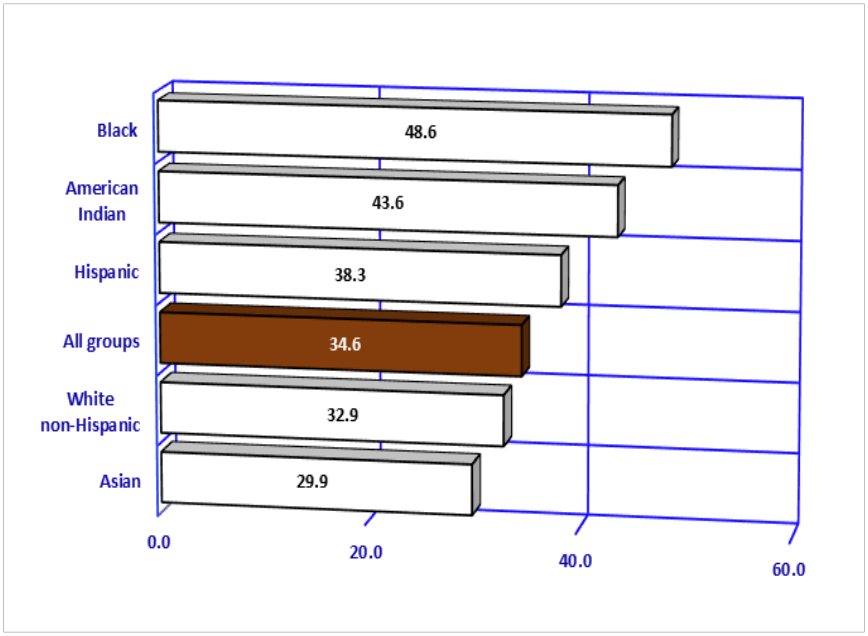


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	28.9	28.0	30.0	27.2	24.8	31.3	29.9	30.7	31.6	30.2	34.8
Female	31.3	32.3	29.4	28.5	26.8	30.7	30.9	30.2	32.0	31.4	33.8

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

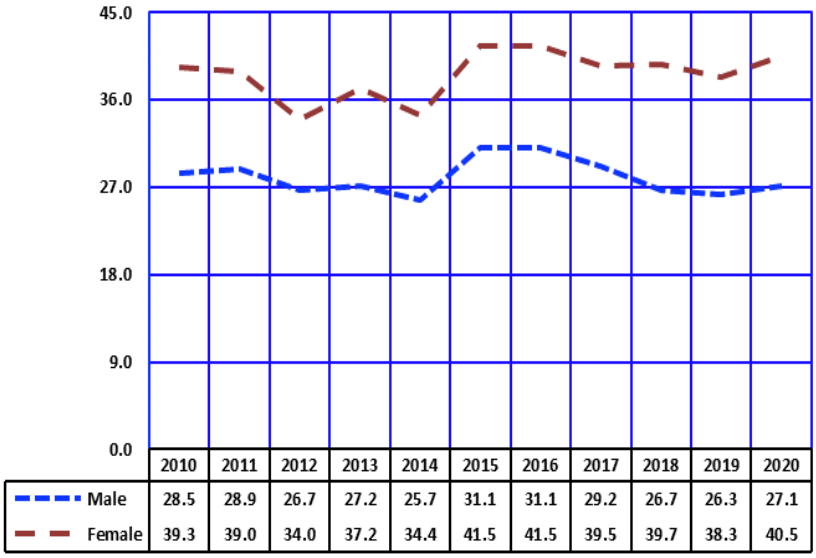
Compared to Arizona's overall rate, Black or African Americans were 1.4 times more likely to die from cerebrovascular disease in 2020 (**Figure 2B-15**, **Table 2B-4**). The 2020 mortality rate for cerebrovascular disease among Asians (29.9/100,000) was the lowest among racial/ethnic groups.

Figure 2B-15
Age-adjusted Mortality Rates[a] for Cerebrovascular Disease by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-16
Age-adjusted Mortality Rates[a] for Alzheimer's Disease by Gender and Year, Arizona, 2010-2020



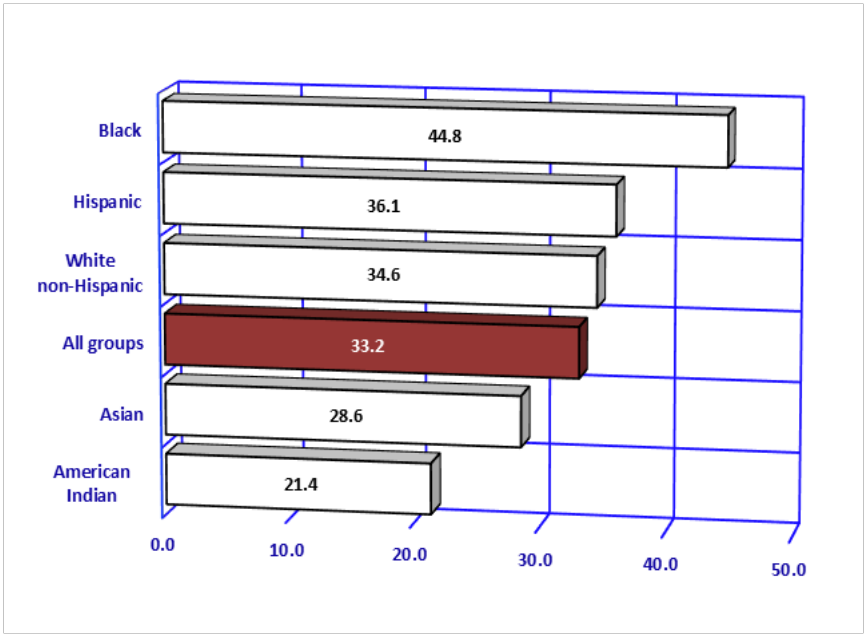
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	28.5	28.9	26.7	27.2	25.7	31.1	31.1	29.2	26.7	26.3	27.1
Female	39.3	39.0	34.0	37.2	34.4	41.5	41.5	39.5	39.7	38.3	40.5

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Based on the number of deaths in 2019, Alzheimer's disease was the 4th leading cause of death for females and 8th leading cause for males (**Table 2B-4**)

From 2019 to 2020, the age-adjusted mortality rate for Alzheimer's disease increased for both males (3.0 percent) and females (5.7 percent) (**Figure 2B-16**).

Figure 2B-17
Age-adjusted Mortality Rates[a] for Alzheimer's Disease by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

The age-adjusted mortality rates for Alzheimer's disease in 2020 were higher among Black or African Americans (44.8/100,000), Hispanic or Latinos (36.1/100,000), and White non-Hispanics (34.6/100,000) than the other racial/ethnic groups. Rates lower than the state average (33.2/100,000) were recorded among Asians (28.6/100,000) and American Indians (21.4/100,000); **Figure 2B-17**, **Table 2B-4**).

White non-Hispanic residents of Arizona disproportionately contributed to mortality from Alzheimer's disease. In 2020, White non-Hispanics accounted for 55.2 percent (**Table 10C-1**) of the state's population, but 81.9 percent of all deaths from Alzheimer's disease (2,650 out of 3,235; **Table 2B-4**).

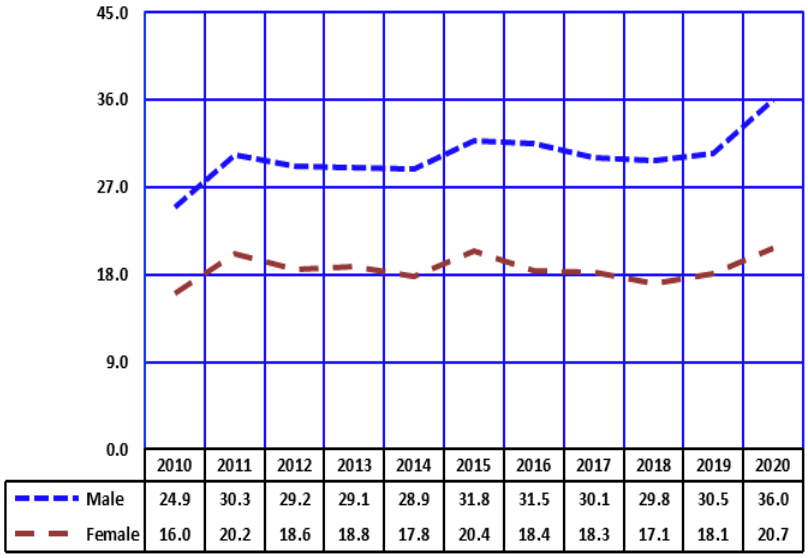
In 2020, the overall median age at death from Alzheimer's disease was 86, specifically 85 years for males and 88 years for females (**Table 2D-3**).

From 2010-2020, mortality rates for diabetes increased for both males (44.6 percent) and females (29.4 percent; **Figure 2B-18**).

In addition to 2,563 deaths that had diabetes assigned as the underlying cause in 2020, another 5,502 deaths had diabetes assigned as a contributing factor. The diabetes-related death rate of 86.8/100,000 (**Table 6A-6**) was 3.1 times greater than the rate for diabetes as an underlying cause (27.9/100,000; **Table 2B-2**).

The diabetes-related death rate includes all mentions of diabetes on the death certificate as the underlying or other than underlying cause.

Figure 2B-18
Age-adjusted Mortality Rates[a] for Diabetes by Gender and Year, Arizona, 2010-2020



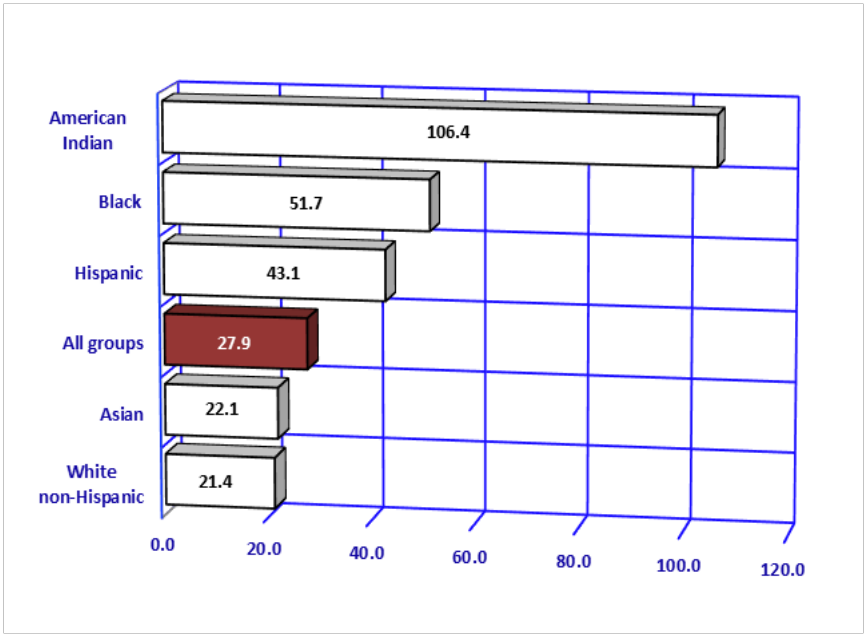
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	24.9	30.3	29.2	29.1	28.9	31.8	31.5	30.1	29.8	30.5	36.0
Female	16.0	20.2	18.6	18.8	17.8	20.4	18.4	18.3	17.1	18.1	20.7

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2020, compared to Arizona's rate, American Indians were 3.8 times more likely to die from diabetes (106.4 deaths per 100,000; **Figure 2B-19**, **Table 2B-4**). The rate of 21.4 deaths per 100,000 among White non - Hispanics was the lowest rate among all racial/ethnic groups in the state.

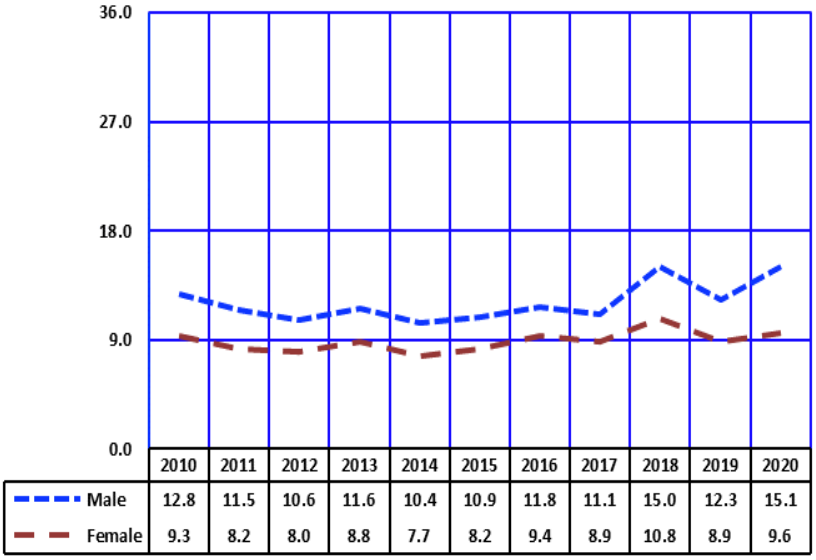
Among the 15 Arizona counties, Apache (83.5/100,000) and Graham (57.4/100,000) counties had the highest mortality rates for diabetes recorded in 2020 (**Table 5E-11**).

Figure 2B-19
Age-adjusted Mortality Rates[a] for Diabetes by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-20
Age-adjusted Mortality Rates[a] for Influenza and Pneumonia by Gender and Year, Arizona, 2010-2020



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	12.8	11.5	10.6	11.6	10.4	10.9	11.8	11.1	15.0	12.3	15.1
Female	9.3	8.2	8.0	8.8	7.7	8.2	9.4	8.9	10.8	8.9	9.6

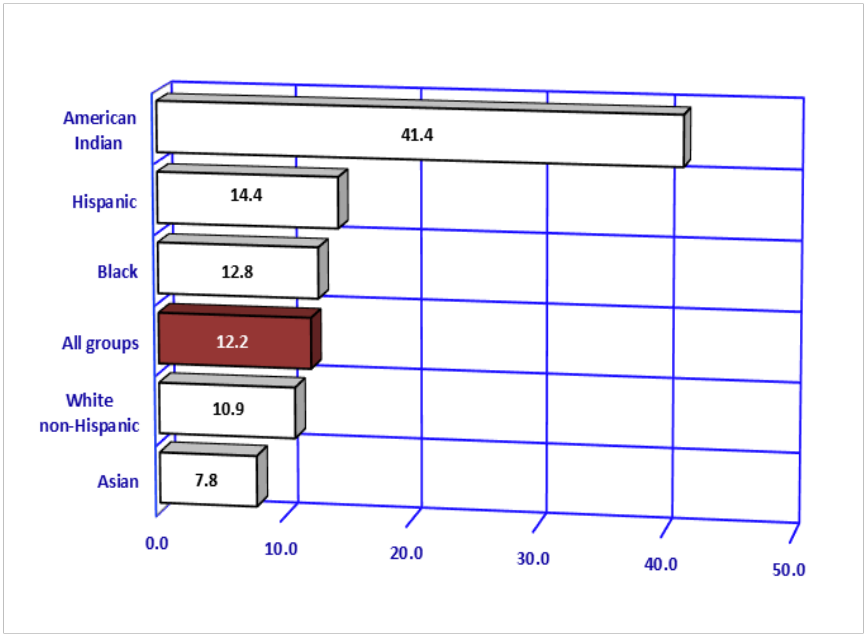
The number of deaths from influenza and pneumonia increased by 52.1 percent from 729 in 2010 to 1,109 in 2020. (**Table 2B-1**). Among the 1,109 deaths, influenza was identified as the underlying cause for 100 of them, while pneumonia was listed as the underlying cause on 1,009 death certificates (**Table 2B-6**).

The mortality rate for influenza and pneumonia increased for females from 8.9 deaths per 100,000 in 2019 to 9.6 deaths in 2020 (**Figure 2B-20, Table 2B-2**). The mortality rate for influenza and pneumonia also increased for males from 12.3 per 100,000 in 2010 to 15.1 deaths per 100,000 in 2020.

In 2020, the age-adjusted mortality rate for Arizona males was 57.3 percent greater than that of Arizona females.

Note: [a] Number of deaths per 100,000 population age-adjusted 2000 U.S. standard.

Figure 2B-21
Age-adjusted Mortality Rates[a] for Influenza and Pneumonia by Race/Ethnicity, Arizona, 2020



In 2020, American Indian residents of Arizona had the highest mortality rate for influenza and pneumonia (41.4 deaths per 100,000) among the racial/ethnic groups. Mortality due to influenza and pneumonia for White non-Hispanics (10.9/100,000) and Asians (7.8/100,000) were lower than the state rate. (**Figure 2B-21**, **Table 2B-4**).

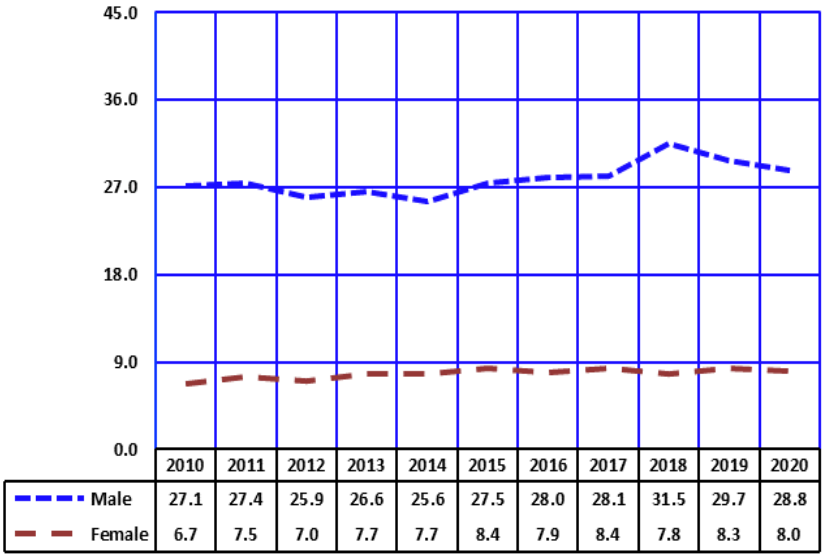
County comparisons show that in 2020 influenza and pneumonia mortality rates were highest in Apache (35.7/100,000) and La Paz (34.4/100,000) counties compared to the remaining counties (**Table 5E-11**).

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2020, based on age-adjusted mortality rates, suicide was the 9th leading cause of death among males. It ranked as the 12th cause of mortality for females. The overall age-adjusted suicide rate decreased from 18.9 suicides per 100,000 in 2019 to 18.2 in 2020 (**Table 2B-4**).

From 2019 to 2020, suicide mortality decreased by 3.0 percent among males and 3.6 percent among females (**Figure 2B-22**, **Table 2B-4**). In 2020, suicide posed a 3.6 times greater mortality risk for males (28.8/100,000) than for females (8.0/100,000).

Figure 2B-22
Age-adjusted Mortality Rates[a] for Suicide by Gender and Year, Arizona, 2010-2020



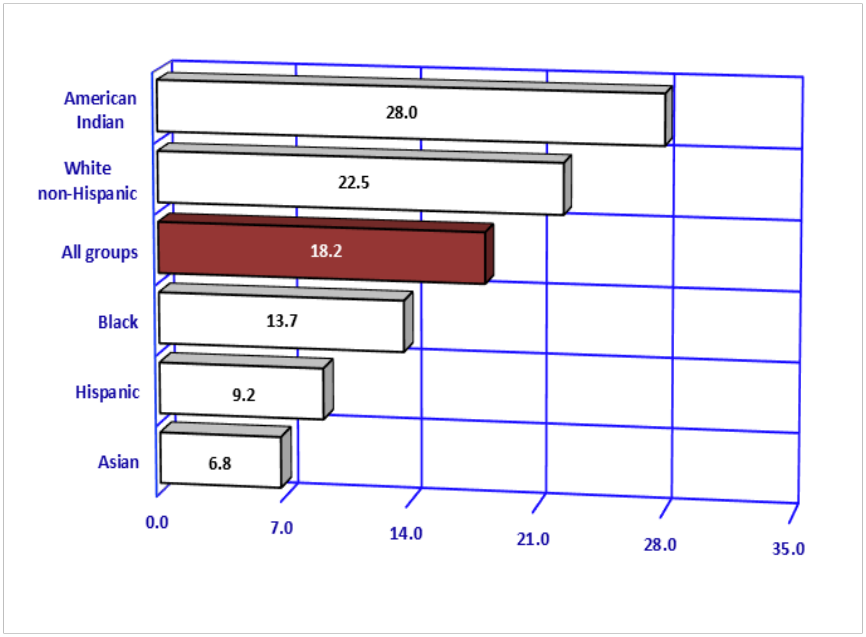
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	27.1	27.4	25.9	26.6	25.6	27.5	28.0	28.1	31.5	29.7	28.8
Female	6.7	7.5	7.0	7.7	7.7	8.4	7.9	8.4	7.8	8.3	8.0

Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2020, American Indians had the highest age-adjusted suicide rate (28.0 suicides per 100,000) among racial/ethnic groups, followed by White non-Hispanics (22.5/100,000), while Asians recorded the lowest age-adjusted suicide rate (6.8/100,000; **Figure 2B-23**, **Table 2B-4**).

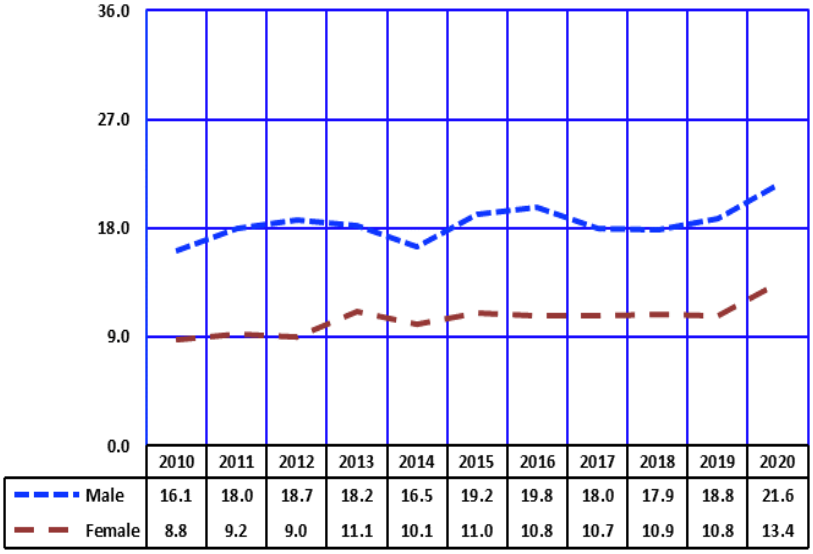
The 2020 age-adjusted mortality rates for suicide varied across the state, from a low rate of 7.8 suicides per 100,000 residents in Santa Cruz County to a high of 50.9 suicides per 100,000 residents in Apache County (**Table 5E-11**).

Figure 2B-23
Age-adjusted Mortality Rates[a] for Suicide by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-24
Age-adjusted Mortality Rates[a] for Chronic Liver Disease and Cirrhosis by Gender and Year, Arizona, 2010-2020



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male	16.1	18.0	18.7	18.2	16.5	19.2	19.8	18.0	17.9	18.8	21.6
Female	8.8	9.2	9.0	11.1	10.1	11.0	10.8	10.7	10.9	10.8	13.4

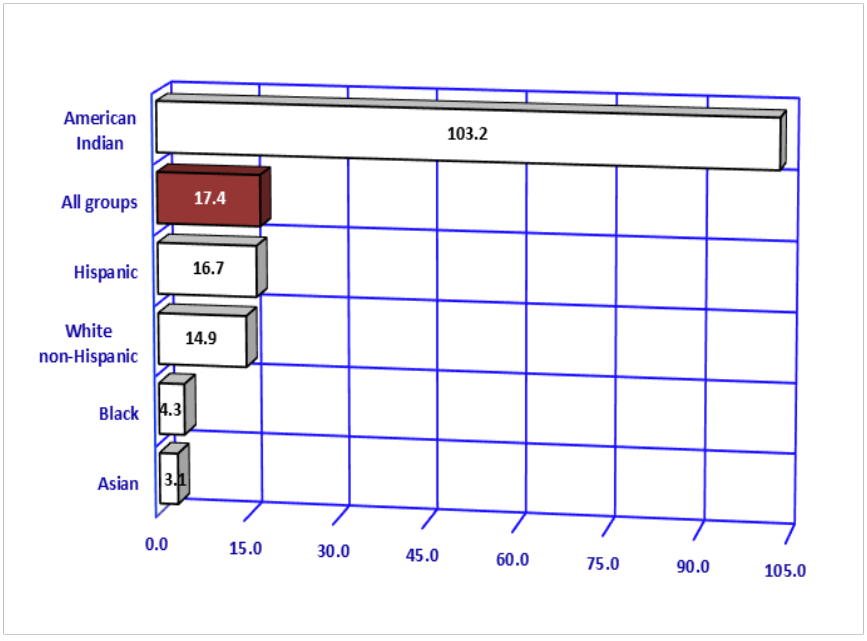
Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Chronic liver disease and cirrhosis was the 9th leading cause of death in Arizona in 2020 (**Figure 2B-1, Table 2B-1**). Among the 1,426 deaths due to chronic liver disease and cirrhosis, 864 (60.6 percent) were males (**Table 2B-4**).

Among females, the age-adjusted mortality rate for chronic liver disease and cirrhosis increased 24.1 percent from 2019 to 2020. Among males, the mortality rate increased 14.9 percent from 18.8/100,000 in 2019 to 21.6/100,000 in 2020 (**Figure 2B-24**, **Table 2B-3**).

In 2020, Apache, Navajo, La Paz, and Gila counties had the highest mortality rates for chronic liver disease and cirrhosis (**Table 5E-11**).

Figure 2B-25
Age-adjusted Mortality Rates[a] for Chronic Liver Disease and Cirrhosis by Race/Ethnicity, Arizona, 2020



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2020, chronic liver disease and cirrhosis mortality rate was exceedingly high among American Indians (103.2 deaths per 100,000 population) than any racial/ethnic groups in the state (**Figure 2B-25, Table 2B-4**). The death rate for chronic liver disease and cirrhosis among Asians, Blacks, White non-Hispanics, and Hispanics were all below the state average (17.4 deaths per 100,000 population).

Compared to the median age at death from all causes (76 years), those who died from chronic liver disease and cirrhosis were on average 17 years younger (59 years, **Table 2D-3**). In 2020, the median age at death of American Indians who died from chronic liver disease and cirrhosis was 49 years, which was at least 10 years younger than all the other race/ethnic groups (**Table 2D-3**).