



## **2B.**

### **LEADING CAUSES OF DEATH**

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In 2010, the Office of Vital Records (OVR) of the Arizona Department of Health Services implemented the new (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).

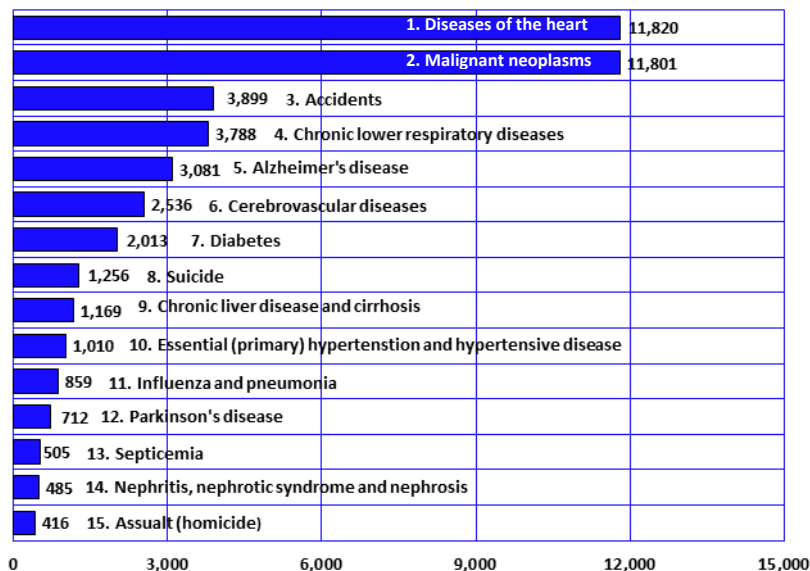
The death certificate now includes a new classification of the decedent’s racial/ethnic status, consistent with the revised federal standards for collecting and reporting racial and ethnic status. These standards were published in the Federal Register on October 30, 1997, as “Revisions to the Standards 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: <http://www.whitehouse.gov/omb/fedreq>.

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. In 2016, among the 56,480 deaths of Arizona residents, indication of “two or more races” appeared on only 502 certificates. The total number of deaths for decedents identified as Native Hawaiian was 20. 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.

## 2B. LEADING CAUSES OF DEATH

**Figure 2B-1A**  
**Leading Causes of Death among Arizona Residents in 2016**

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

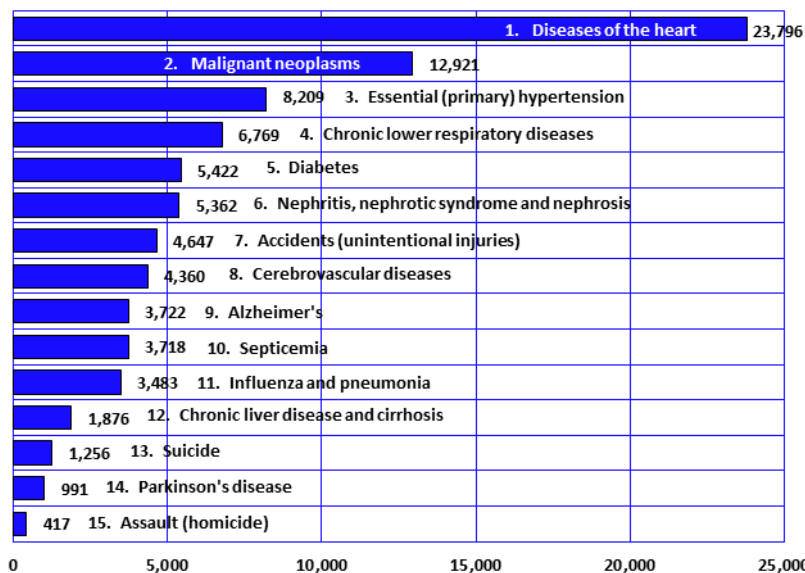


Based on the number of deaths (but not age-adjusted mortality rate), the leading underlying cause of death to Arizona residents in 2016 was *heart disease* (11,820 or 20.9 percent of all deaths), closely followed by *cancer*, which accounted for 11,801 or 20.9 percent of deaths (**Figure 2B-1A**, **Table 2B-1**, **Table 5E-14**).

The third leading cause of death, *accidents (unintentional injuries)*, accounted for 3,899 or 6.9 percent of total deaths. Deaths due to *chronic lower respiratory diseases* ranked fourth in 2016, with 3,788 resident deaths reported. Deaths due to *Alzheimer's disease* ranked fifth in 2016, with 3,081 resident deaths reported. Together, these five causes accounted for 60.9 percent of total deaths in 2016. The fifteen leading causes accounted for 80.3 percent of all deaths among Arizona residents.

**Figure 2B-1B**  
**Leading Causes of Death among Arizona Residents in 2016**

**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 11,820 deaths that had diseases of the heart assigned as the underlying cause, another 11,976 deaths had diseases of the heart assigned as a secondary cause of death. The sum of these two counts (23,796, **Figure 2B-1B**) is the total number of deaths that had any mention of diseases of the heart on the 2016 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, *nephritis, nephrotic syndrome and nephrosis* ranked 14<sup>th</sup> as the underlying cause but ranked 6<sup>th</sup> when any mention of it was counted.

2B. LEADING CAUSES OF DEATH  
Five Leading Causes by Gender

**Figure 2B-2**  
Age-adjusted Mortality Rates<sup>a</sup> for the Five Leading Causes of Death for Both Genders by Race/Ethnicity, Arizona, 2016

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 2016, diseases of the heart were the leading cause of death for all race/ethnic groups, except the Asian or Pacific Islanders. Cancer was the second leading cause of death for White non-Hispanics, Hispanic or Latinos, and Black or African Americans. Unintentional injury was among the third leading cause of death for White non-Hispanics, Hispanics, and Blacks while it ranked second among American Indians and 5<sup>th</sup> among Asians or Pacific Islanders (Figure 2B-2, Table 2B-4).

In 2016, stroke was the third leading cause of death specific to Asians. Chronic lower respiratory diseases were the fourth leading cause of death specific to White non-Hispanics.

For White non-Hispanics, Hispanics, and Blacks, Alzheimer's disease was the 5<sup>th</sup> leading cause of death while it ranked fourth among Asians or Pacific Islanders. (Table 2B-4).

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 147.7	Diseases of heart 116.3	Diseases of heart 188.3	Diseases of heart 139.9	Cancer 102.6
2	Cancer 146.7	Cancer 115.9	Cancer 171.6	Unintentional injury 139.1	Diseases of heart 76.6
3	Unintentional injury 55.2	Unintentional injury 41.6	Unintentional injury 52.2	Cancer 101.2	Stroke 31.1
4	Chronic lower respiratory diseases 50.9	Diabetes 40.5	Diabetes 50.1	Chronic liver disease and cirrhosis 85.9	Alzheimer's disease 26.2
5	Alzheimer's disease 37.9	Alzheimer's disease 34.6	Alzheimer's disease 48.6	Diabetes 79.9	Unintentional injury 25.9

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-3**  
Age-adjusted Mortality Rates<sup>a</sup> for the Five Leading Causes of Death by Race/Ethnicity among Females, Arizona, 2016

Based on age-adjusted mortality rates, cancer was the leading cause of death among White non-Hispanic, Hispanic, and Asian females. Diseases of the heart were the leading cause of death specific to Black and American Indian females (Figure 2B-3, Table 2B-4).

Chronic lower respiratory diseases were the third leading cause of death specific to White non-Hispanic females. Alzheimer's disease was the third leading causes of death for Hispanic, Black and Asian females. Chronic liver disease and cirrhosis was the 4<sup>th</sup> leading cause of death specific to American Indian females. For Black, American Indian and Asian women, diabetes was the fifth leading cause of death but the fourth among Hispanic females.

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Cancer 126.5	Cancer 92.3	Diseases of heart 151.5	Diseases of heart 102.3	Cancer 98.4
2	Diseases of heart 113.5	Diseases of heart 91.5	Cancer 138.9	Cancer 94.6	Diseases of heart 69.9
3	Chronic lower respiratory diseases 49.4	Alzheimer's disease 40.4	Alzheimer's disease 54.1	Unintentional injury 67.9	Alzheimer's disease 26.7
4	Alzheimer's disease 42.0	Diabetes 32.1	Stroke 45.8	Chronic liver disease and cirrhosis 67.2	Stroke 24.8
5	Unintentional injury 36.9	Stroke 31.2	Diabetes 44.9	Diabetes 63.5	Diabetes 24.0

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**B. LEADING CAUSES OF DEATH  
Five Leading Causes by Gender**

**Figure 2B-4  
Age-adjusted Mortality Rates<sup>a</sup> for the Five Leading Causes of Death  
by Race/Ethnicity among Males, Arizona, 2016**

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 186.9	Cancer 147.3	Diseases of heart 224.0	Unintentional injury 219.5	Cancer 106.6
2	Cancer 171.3	Diseases of heart 147.1	Cancer 214.4	Diseases of heart 191.2	Diseases of heart 86.8
3	Unintentional injury 73.8	Unintentional injury 58.2	Unintentional injury 66.0	Cancer 110.7	Stroke 41.5
4	Chronic lower respiratory diseases 52.7	Diabetes 51.4	Diabetes 55.9	Chronic liver disease and cirrhosis 107.3	Unintentional injury 33.4
5	Intentional Self-harm Suicide 33.6	Stroke 31.4	Chronic lower respiratory diseases 51.5	Diabetes 100.4	Alzheimer's disease 26.2

Note: <sup>a</sup> 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 followed by cancer were the two leading causes of death among White non-Hispanic and Black males. In contrast, cancer followed by diseases of the heart were the leading causes of death for Hispanic or Latino and Asian or Pacific Islander males (**Figure 2B-4; Table 2B-4**). Age-adjusted mortality rate for unintentional injury was the highest of all causes among American Indian or Alaska Native males, but ranked third among White non-Hispanic, Hispanic, and Black males and fourth among Asian males.

In 2016, based on the age-adjusted mortality rates, diabetes was among the fourth leading causes of death for Hispanic and Black males, and the 5<sup>th</sup> leading cause of death for American Indian males.

**Figure 2B-5  
Age-adjusted Mortality Rates<sup>a</sup> for the Five Leading Causes of Death  
by Gender in Urban<sup>b</sup> and Rural Areas, Arizona, 2016**

Rank	Urban male	Urban female	Rural male	Rural female
1	Diseases of heart 171.0	Cancer 116.1	Diseases of heart 212.4	Cancer 135.8
2	Cancer 163.7	Diseases of heart 105.5	Cancer 172.7	Diseases of heart 128.0
3	Unintentional injury 66.6	Alzheimer's disease 43.0	Unintentional injury 96.1	Chronic lower respiratory diseases 46.8
4	Chronic lower respiratory diseases 45.2	Chronic lower respiratory diseases 41.6	Chronic lower respiratory diseases 56.6	Unintentional injury 45.3
5	Diabetes 31.8	Unintentional injury 32.7	Intentional Self-harm (suicide) 42.6	Stroke 35.0

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

In 2016, the profile of the leading causes of death differed 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**). Cancer exceeded diseases of the heart as the leading causes of death among both urban and rural females. Diseases of the heart were the leading cause of deaths specific to both urban and rural males.

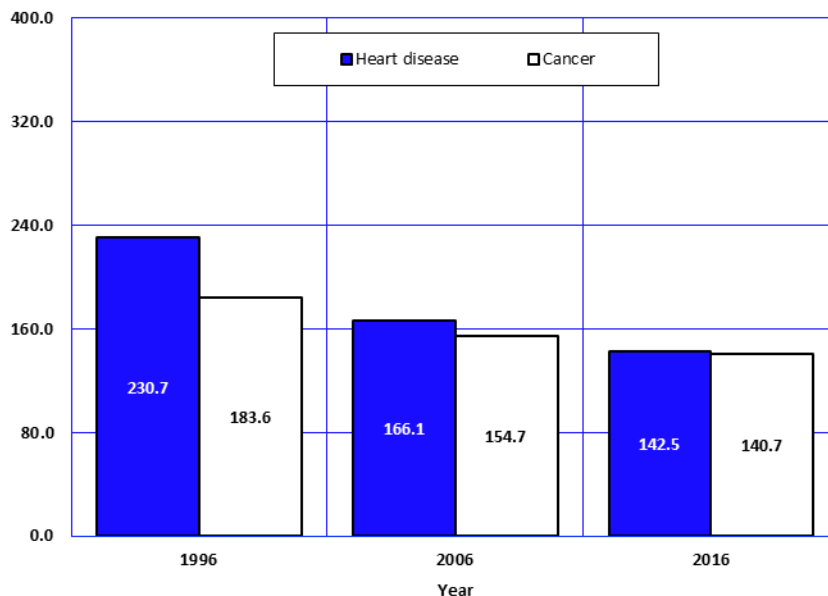
Chronic lower respiratory diseases were the fourth leading cause of death in urban areas and among rural males. Alzheimer's disease was the 3<sup>rd</sup> leading cause of death among urban females. Among the fifth leading cause of death, diabetes was specific to Urban males; suicide was specific to rural males while stroke was specific to rural females.

2B. LEADING CAUSES OF DEATH  
**Diseases of heart and malignant neoplasm (cancer)**

**Figure 2B-6**  
**Comparison of Age-adjusted Mortality Rates<sup>a</sup> for Heart Disease and Cancer**  
**(Malignant Neoplasm), Arizona, 1996, 2006, and 2016**

The age-adjusted mortality rate for diseases of the heart decreased by 38.2 percent from 230.7 deaths per 100,000 population in 1996 to 142.5/100,000 in 2016 (**Figure 2B-6**). The age-adjusted mortality rate for cancer declined less, by 23.4 percent, from 1996-2016. In Arizona, the relative risk of death from heart disease versus cancer changed from 25.6 percent greater in 1996 to 1.3 percent less in 2016.

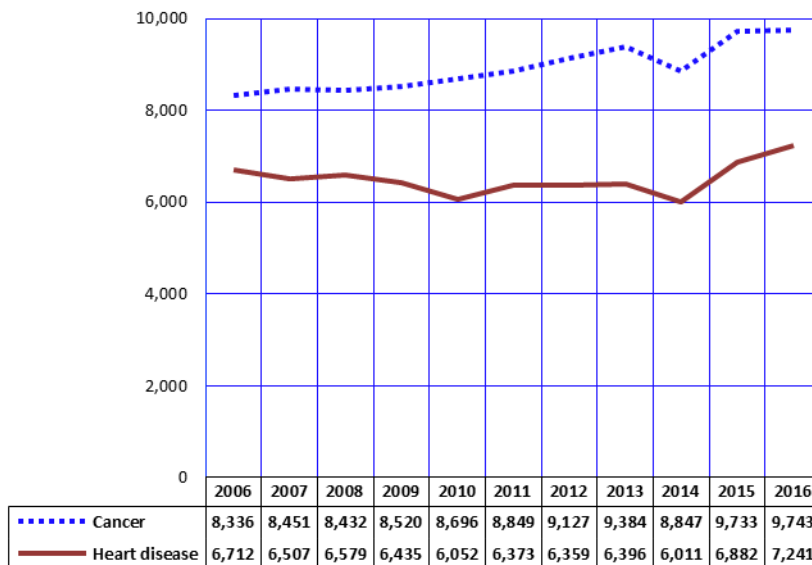
In 2006, 594 more Arizonans died from diseases of the heart than cancer (**Table 2B-1**). In 2016, the number of deaths due to the diseases of heart exceeded marginally the number of cancer deaths by only 19 cases (**Table 2B-4**).



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-7**  
**Number of Deaths from Heart Disease and Cancer among**  
**Arizonans 0-84 Years, 2006-2016**

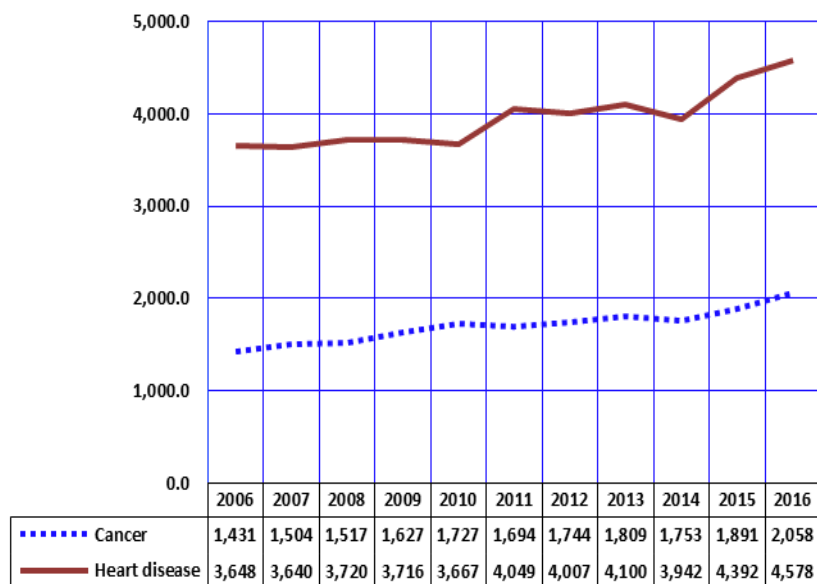
For the past several years, cancer has been the number one cause of death among Arizonans aged 0-84 years (**Figure 2B-7**). Beginning in 1996, the annual number of cancer deaths exceeded the number of deaths from heart disease. In 2016, 2,502 more Arizonans 0-84 years old died from cancer (9,743) than heart disease (7,241).



Note: 2008 counts for cancer and heart disease were updated due to misclassification of 2008 death records.

2B. LEADING CAUSES OF DEATH  
Diseases of heart and malignant neoplasm (cancer)

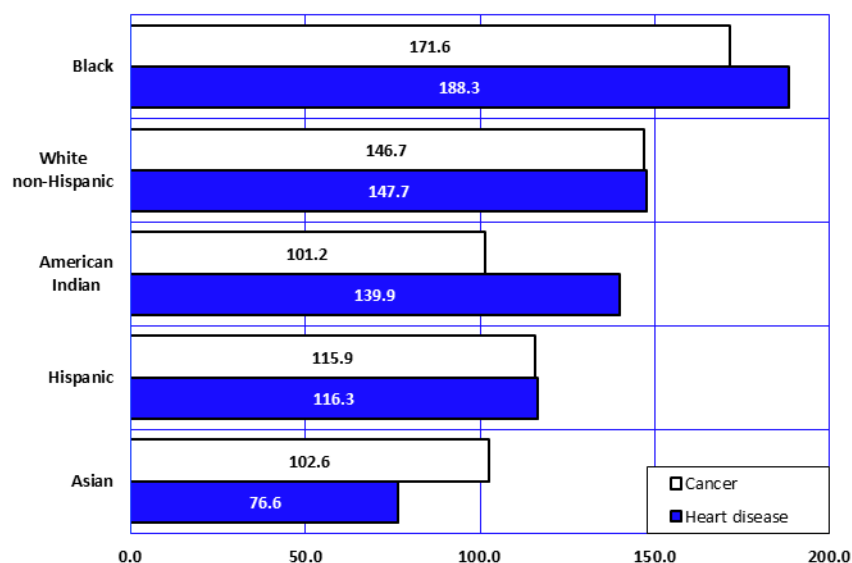
**Figure 2B-8**  
Deaths from Heart Disease and Cancer among Arizonans 85+, 2006-2016



Among Arizonans age 85 and over, heart disease is the number one leading cause of death by a wide margin. In 2016, adults aged 85 and over accounted for 17.4 percent of all deaths from cancer but 38.7 percent of all deaths from heart disease. In 2016, the median age at death for heart disease was 80 years (**Table 2D-3**); and a minority of deaths (44.9 percent, **Table 2D-4**) were premature, i.e., before reaching the expected years of life at birth for all U.S. residents (78.8 years).

However, from 2006 to 2016, the number of deaths from cancer increased by 43.8 percent among Arizonans 85 years or older, more than the increase observed in diseases of the heart (25.5 percent increase).

**Figure 2B-9**  
Age-adjusted Mortality Rates<sup>a</sup> for Heart Disease and Cancer by Race/Ethnicity, Arizona, 2016



Arizona's White non-Hispanics were 1.9 times more likely to die from diseases of the heart and 1.4 times more likely to die from malignant neoplasms in 2016 than Asians, the group with the lowest risk of each respective cause of death (**Figure 2B-9, Table 2B-4**). Compared to Asians, Black or African American Arizonans were 2.5 times more likely to die of heart disease and 1.7 times more likely to die of cancer.

In 2016, the relative risk of death from heart disease exceeded cancer mortality risk (**Table 2B-3**) for all the racial/ethnic groups.

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

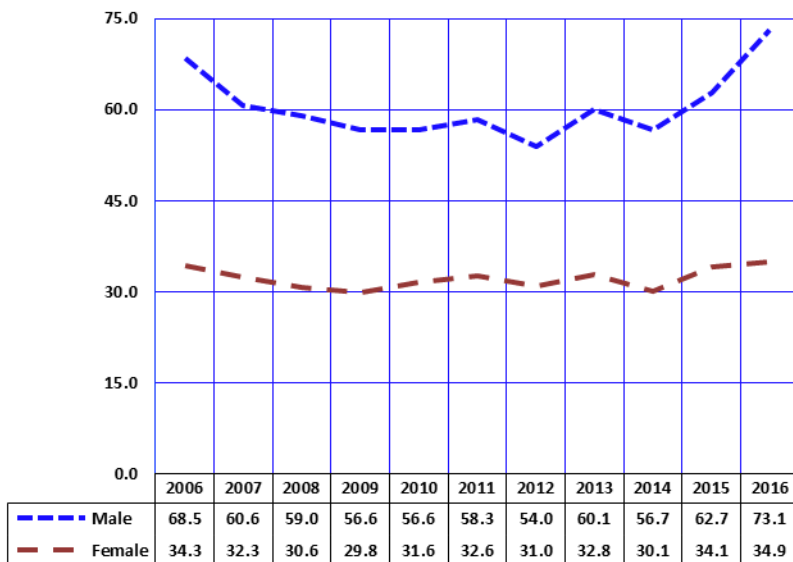


2B. LEADING CAUSES OF DEATH  
**Accidents (unintentional injury)**

**Figure 2B-10**  
**Age-adjusted Mortality Rates<sup>a</sup> for Accidents (Unintentional Injuries) by Gender and Year, Arizona, 2006-2016**

The number of deaths from unintentional injuries increased by 14.6 percent from 3,403 in 2015 to 3,899 in 2016 (**Table 2B-1**). In 2016, based on age-adjusted mortality rates, accidents ranked third as a leading cause of death for males and fifth for females (**Table 2B-4**). From 2015 to 2016, the age-adjusted mortality rate for accidents increased 16.5 percent for males compared to 2.3 percent for females (**Figure 2B-10**).

In 2016, 967 deaths were caused by motor vehicle accidents, an increase of 13.1 percent from 2015. Deaths due to accidental drowning and submersion increased 29.6 percent over this period. Additionally, Arizonans experienced a 14.7 percent increase in the number of accidental poisonings due to drugs and/or medicaments from 2015 (955) to 2016 (1,095); **Table 2B-9**).

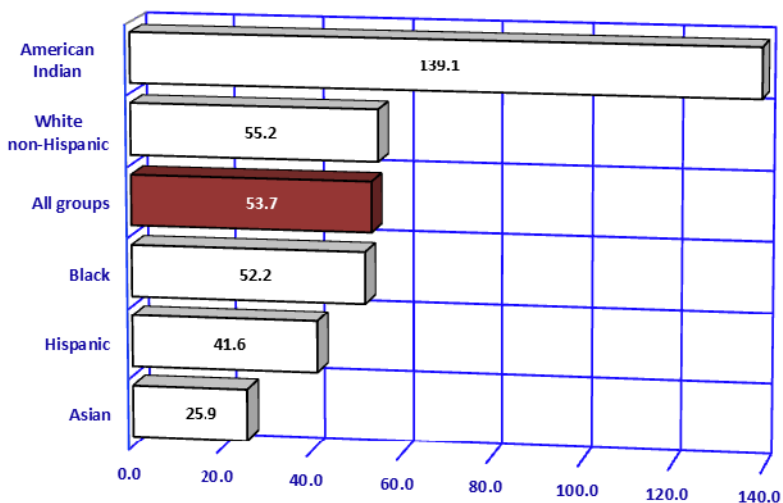


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-11**  
**Age-adjusted Mortality Rates<sup>a</sup> for Accidents (Unintentional Injuries) by Race/Ethnicity, Arizona, 2016**

The American Indian death rate for unintentional injuries (139.1/100,000) was 5.4 times greater than the rate for Asians (25.9/100,000), the group at the lowest risk of unintentional injury death among racial/ethnic groups in the State (**Figure 2B-11, Table 2B-4**).

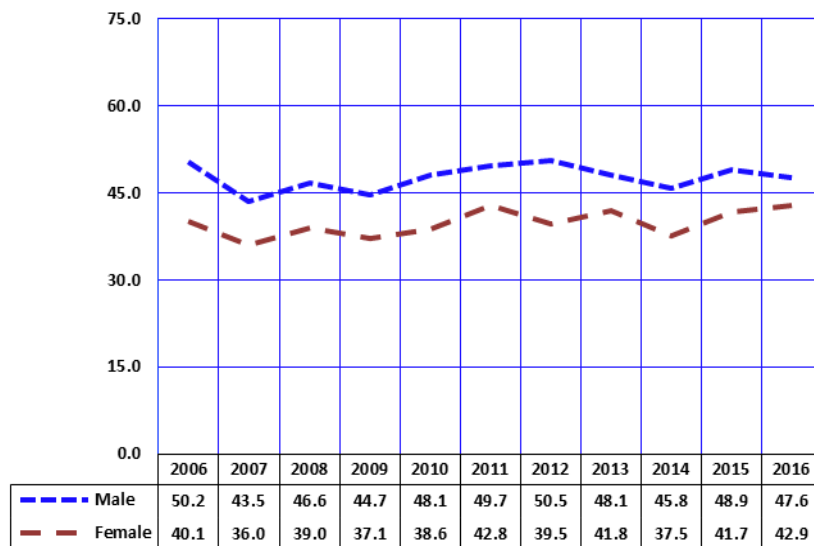
In 2016, Apache (142.2/100,000) and La Paz (118.7/100,000) counties had the two highest age-adjusted mortality rates for unintentional injuries (**Table 5E-11**).



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Chronic lower respiratory diseases

**Figure 2B-12**  
Age-adjusted Mortality Rates<sup>a</sup> for Chronic Lower Respiratory Diseases<sup>b</sup> by Gender and Year, Arizona, 2006-2016

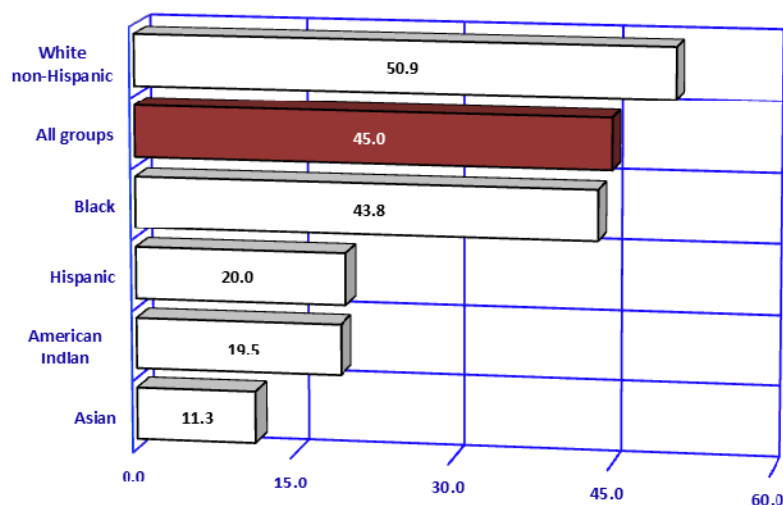


In 2016, chronic lower respiratory diseases (bronchitis, emphysema, asthma) were the 4th leading cause of death among Arizona residents (**Table 2B-1**). From 2015 to 2016, the mortality rate for chronic lower respiratory diseases decreased among males while it increased among females (**Figure 2B-12, Table 2B-2**).

Urban females had the lowest mortality rate for chronic lower respiratory diseases (41.6/100,000) among the genders and by regional group (**Table 2B-5**). Rural males were the group with the highest mortality risk for chronic lower respiratory diseases (56.6/100,000), followed by rural females (46.8/100,000) and urban males (45.2 deaths per 100,000).

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

**Figure 2B-13**  
Age-adjusted Mortality Rates<sup>a</sup> for Chronic Lower Respiratory Diseases by Race/Ethnicity, Arizona, 2016



Mortality rates for emphysema, chronic bronchitis, asthma, and other lower respiratory disorders were substantially higher among White non-Hispanics (50.9 deaths per 100,000) and Black or African Americans (43.8/100,000) than they were among Hispanics, (20.0/100,000), American Indians (19.5/100,000), and Asians (11.3/100,000) (**Figure 2B-13, Table 2B-4**).

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

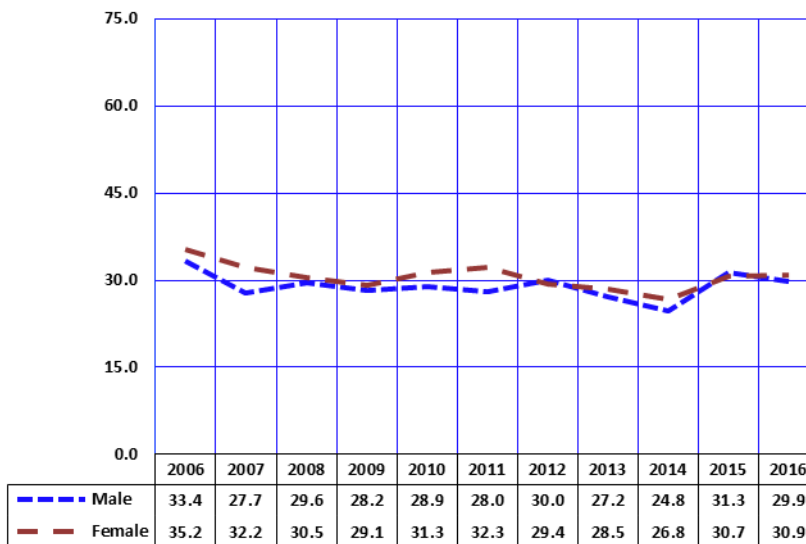


2B. LEADING CAUSES OF DEATH  
Cerebrovascular disease

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 stroke decreased by 11.7 percent from 34.8 deaths per 100,000 population in 2006 to 30.7/100,000 in 2016 (Table 2B-3).

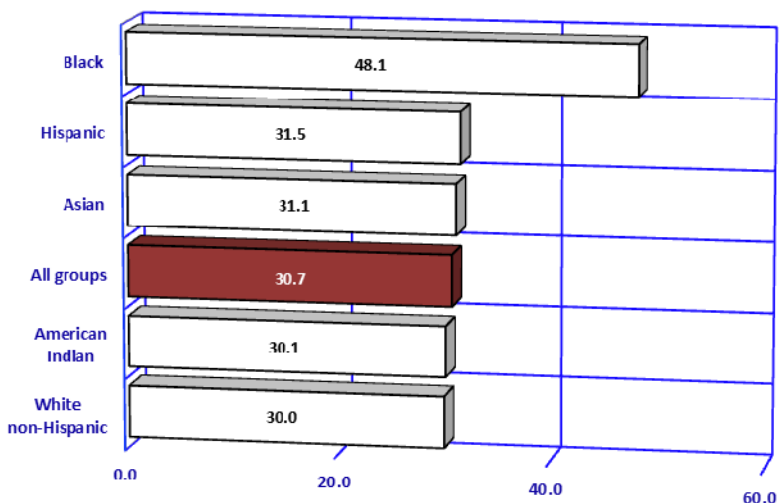
With some exceptions, the risk of dying from stroke was generally higher among females than males for the period 2006-2016. In 2012, the age-adjusted mortality rate for stroke was greater among males than females, with male risk being slightly higher than female risk (Figure 2B-14). In 2015, the stroke mortality rate for males was again greater than the rate for females (Figure 2B-14, Table 2B-2). In 2016, however, females experienced a higher risk of dying from stroke than males.

**Figure 2B-14**  
Age-adjusted Mortality Rates<sup>a</sup> for Cerebrovascular Disease by Gender and Year, Arizona, 2006-2016



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-15**  
Age-adjusted Mortality Rates<sup>a</sup> for Cerebrovascular Disease by Race/Ethnicity, Arizona, 2016

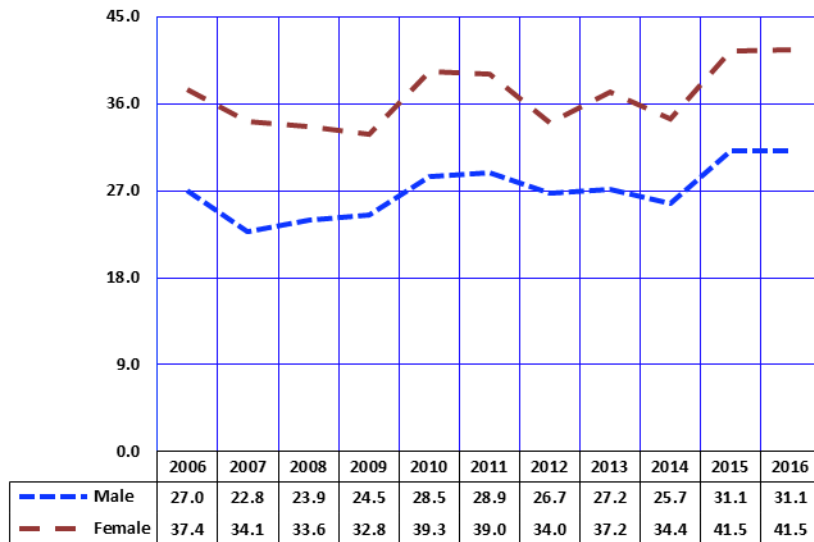


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Compared to Arizona's overall rate, Black or African Americans were 56.7 percent more likely to die from cerebrovascular disease in 2016 (Figure 2B-15, Table 2B-4). The 2016 mortality rate for cerebrovascular disease among White non-Hispanics (30.0/100,000) was the lowest among racial/ethnic groups.

2B. LEADING CAUSES OF DEATH  
Alzheimer's disease

**Figure 2B-16**  
Age-adjusted Mortality Rates<sup>a</sup> for Alzheimer's Disease by  
Gender and Year, Arizona, 2006-2016

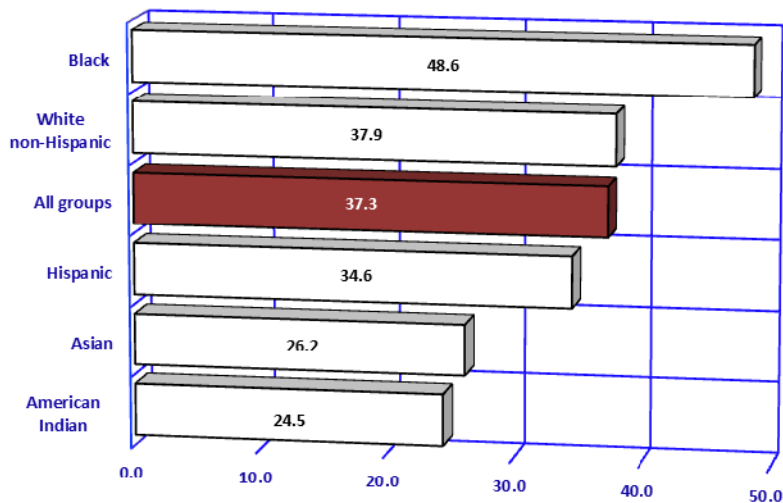


Based on the number of deaths in 2016, Alzheimer's disease was the 4<sup>th</sup> leading cause of death for females and 6<sup>th</sup> leading cause for males (**Table 2B-4**)

From 2015 to 2016, the age-adjusted mortality rate for Alzheimer's disease remained constant among both genders, at 41.5/100,000 for females and 31.1/100,000 for males (**Figure 2B-16**).

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-17**  
Age-adjusted Mortality Rates<sup>a</sup> for Alzheimer's Disease by  
Race/Ethnicity, Arizona, 2016



The age-adjusted mortality rates for Alzheimer's disease in 2016 were higher among Black or African Americans (48.6/100,000), White non-Hispanics (37.9/100,000), and Hispanics (34.6/100,000) than among Asian residents of Arizona (26.2/100,000) or American Indian (24.5/100,000) (**Figure 2B-17**, **Table 2B-4**).

White non-Hispanic residents of Arizona disproportionately contributed to mortality from Alzheimer's disease. In 2016, White non-Hispanics accounted for 56.7 percent (**Table 10C-1**) of the State's population, but 85.0 percent of all deaths from Alzheimer's disease (2,617 out of 3,081; **Table 2B-4**).

In 2016, the median age at death from Alzheimer's disease was 88 for females and 86 for males (**Table 2D-3**).

Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

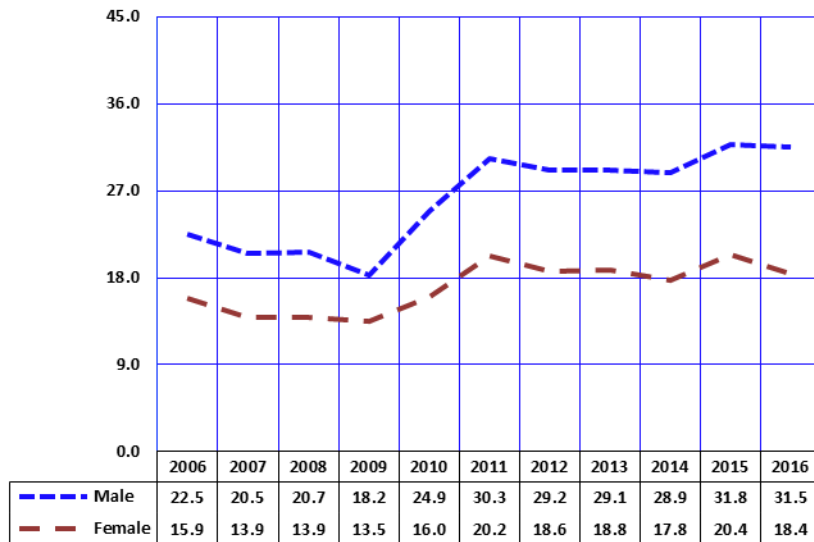
2B. LEADING CAUSES OF DEATH  
Diabetes

**Figure 2B-18**  
Age-adjusted Mortality Rates<sup>a</sup> for Diabetes by Gender and Year, Arizona, 2006-2016

In 2016, mortality rates for diabetes decreased for both genders, to a greater extent among females than males (**Figure 2B-18**).

In addition to 2,013 deaths that had diabetes assigned as the underlying cause in 2016, another 3,409 deaths had diabetes assigned as a contributing factor. The diabetes-related death rate of 65.5/100,000 (**Table 6A-6**) was 2.7 times greater than the rate for diabetes as an underlying cause (24.5/100,000; **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.

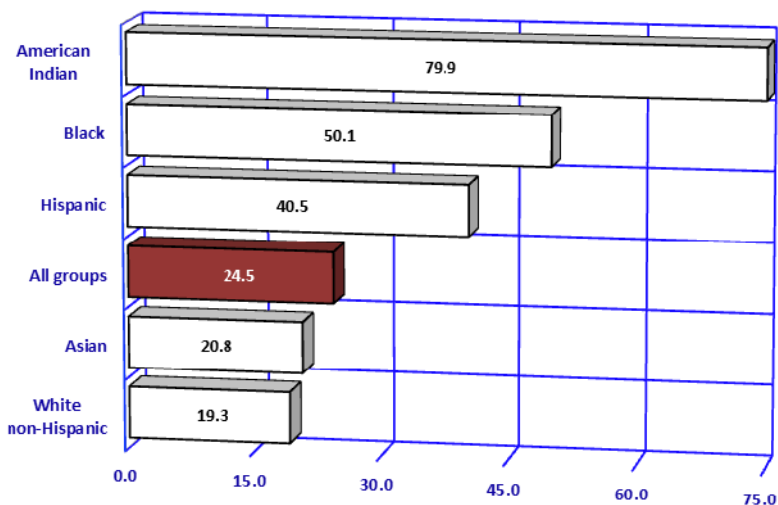


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-19**  
Age-adjusted Mortality Rates<sup>a</sup> for Diabetes by Race/Ethnicity, Arizona, 2016

In 2016, compared to Arizona's rate, American Indians were 3.3 times more likely to die from diabetes (79.9 deaths per 100,000; **Figure 2B-19**, **Table 2B-4**). The rate of 19.3 deaths per 100,000 among White non-Hispanics was the lowest rate among all racial/ethnic groups in the State.

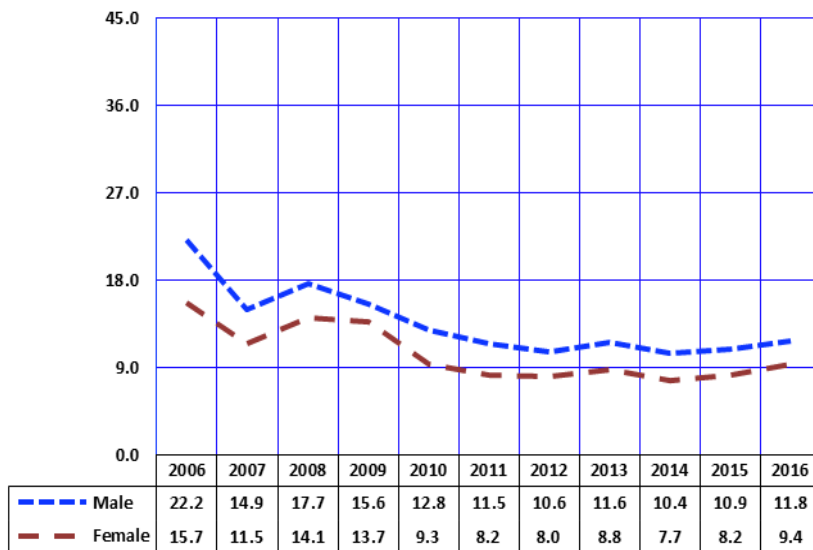
Among the 15 Arizona counties, in 2016, Apache (46.7/100,000), La Paz (41.2/100,000) and Graham (37.4/100,000) counties had the highest mortality rates for diabetes (**Table 5E-11**).



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Influenza and pneumonia

**Figure 2B-20**  
Age-adjusted Mortality Rates<sup>a</sup> for Influenza and Pneumonia by Gender and Year, Arizona, 2006-2016



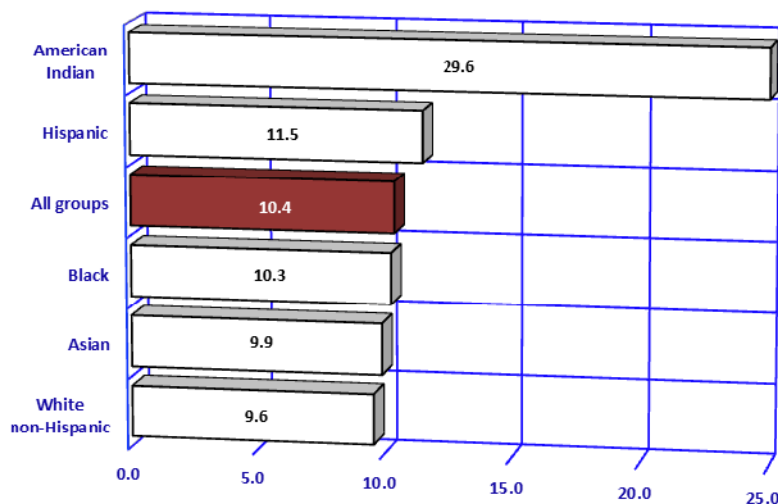
Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted 2000 U.S. standard.

The number of deaths from influenza and pneumonia decreased by 25.1 percent from 1,147 in 2006 to 859 in 2016, though the number of influenza deaths rose 16.2 percent from 2015 to 2016 (**Table 2B-1**). Among the 859 deaths, influenza was identified as the underlying cause for 146 of them, while pneumonia was listed as the underlying cause on 713 death certificates (**Table 2B-6**).

The mortality rate for influenza and pneumonia increased for females from 8.2 deaths per 100,000 in 2015 to 9.4 deaths in 2016 (**Figure 2B-20**, **Table 2B-2**). The mortality rate for influenza and pneumonia also increased for males from 10.9 deaths per 100,000 in 2015 to 11.8/100,000 in 2016.

In 2016, the age-adjusted mortality rate for Arizona males was 25.2 percent greater than that of Arizona females.

**Figure 2B-21**  
Age-adjusted Mortality Rates<sup>a</sup> for Influenza and Pneumonia by Race/Ethnicity, Arizona, 2016



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2016, American Indian residents of Arizona had the highest mortality rate for influenza and pneumonia (29.6 deaths per 100,000) among the racial/ethnic groups. The age-adjusted mortality of 9.6/100,000 among White non-Hispanic was the lowest rate among racial/ethnic groups in the State (**Figure 2B-21**, **Table 2B-4**).

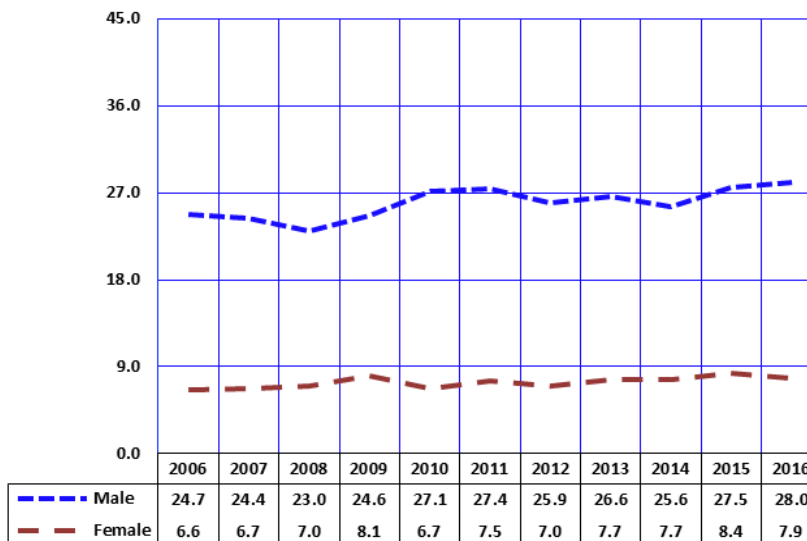
Compared to the State death rate for influenza and pneumonia, Apache County's rate was 2.2 times greater (22.5/100,000). The mortality rate was also higher in Cochise, Graham and Navajo Counties (**Table 5E-11**).

2B. LEADING CAUSES OF DEATH  
Suicide

**Figure 2B-22**  
Age-adjusted Mortality Rates<sup>a</sup> for Suicide by Gender and Year, Arizona, 2006-2016

In 2016, suicide was the 8th leading cause of death among males. It ranked as the 11th cause of mortality for females. The age-adjusted suicide rate decreased from 17.8 suicides per 100,000 in 2015 to 17.7 in 2016 (Table 2B-4).

From 2015 to 2016, the suicide rate increased for both males and females (Figure 2B-22, Table 2B-4). In 2016, suicide posed a 3.6 times greater mortality risk for males (28.0/100,000) than for females (7.9/100,000).

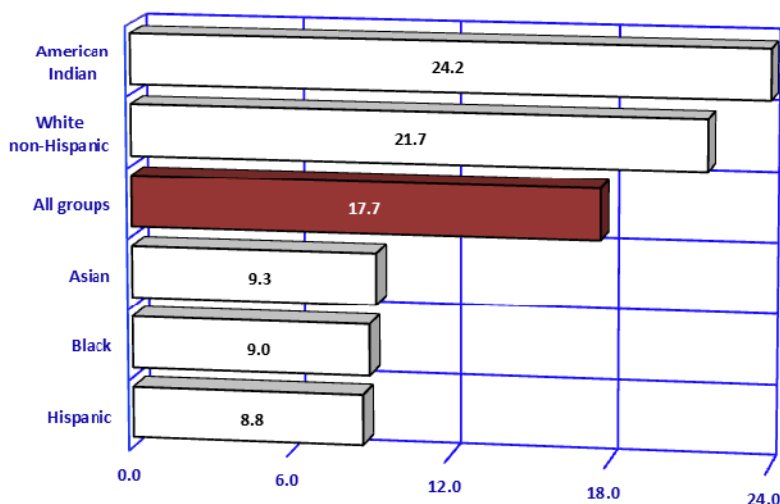


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-23**  
Age-adjusted Mortality Rates<sup>a</sup> for Suicide by Race/Ethnicity, Arizona, 2016

In 2016, American Indians had the highest age-adjusted suicide rate (24.2 suicides per 100,000) among racial/ethnic groups, followed by White non-Hispanics (21.7/100,000), while Hispanics recorded the lowest age-adjusted suicide rate (8.8/100,000; Figure 2B-23, Table 2B-4).

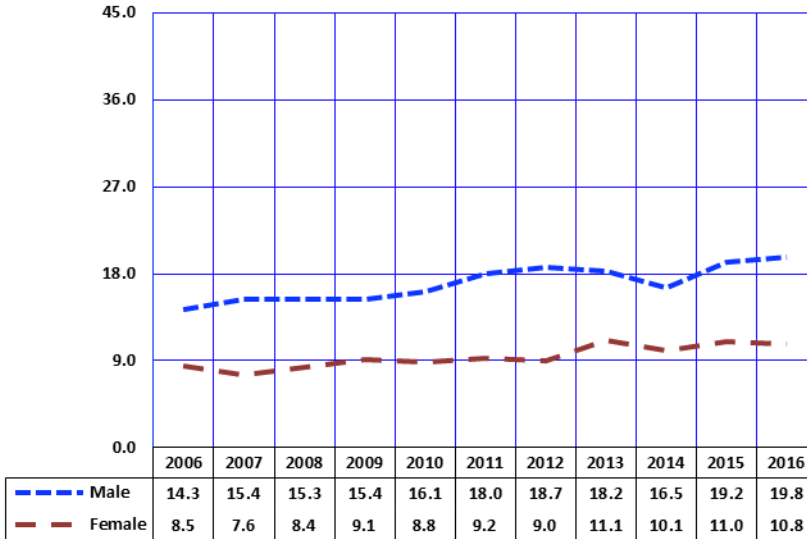
The age-adjusted mortality rates for suicide varied in Arizona in 2016 from a low rate of 9.7 suicides per 100,000 residents in Santa Cruz county to a high of 32.7 suicides per 100,000 residents of Yavapai County (Table 5E-11).



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Chronic liver disease and cirrhosis

**Figure 2B-24**  
Age-adjusted Mortality Rates<sup>a</sup> for Chronic Liver Disease and Cirrhosis  
by Gender and Year, Arizona, 2006-2016



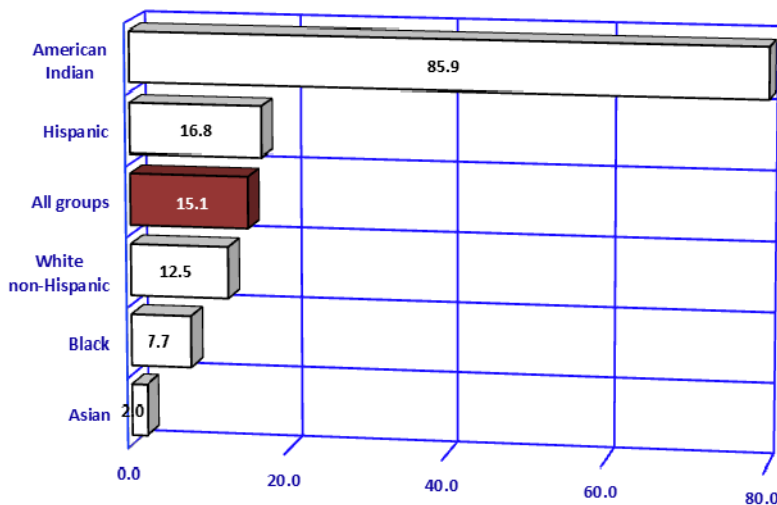
Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Chronic liver disease and cirrhosis was the 9<sup>th</sup> leading cause of death in Arizona in 2016 (**Figure 2B-1, Table 2B-1**). Among the 1,169 deaths due to chronic liver disease and cirrhosis, 744 (63.6 percent) were males (**Table 2B-4**).

Among females, the age-adjusted mortality rate for chronic liver disease and cirrhosis decreased 2.3 percent from 2015 to 2016. Among males, the mortality rate increased 2.9 percent from 19.2/100,000 in 2015 to 19.8/100,000 in 2016 (**Figure 2B-24, Table 2B-3**).

In 2016, La Paz, Gila, Navajo, and Apache counties had the highest mortality rates for chronic liver disease and cirrhosis (**Table 5E-11**).

**Figure 2B-25**  
Age-adjusted Mortality Rates<sup>a</sup> for Chronic Liver Disease and Cirrhosis  
by Race/Ethnicity, Arizona, 2016



Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

The 2016 death rate for chronic liver disease and cirrhosis among American Indians (85.9 deaths per 100,000) was 5.7 times greater than the state average (15.1/100,000; **Figure 2B-25, Table 2B-4**). The rate for Asians (2.0 deaths per 100,000 population) was the lowest among all racial/ethnic groups in the State.

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 2016, the median age at death of American Indians who died from chronic liver disease and cirrhosis was 50 years, which was 11-12 years younger than all the other race/ethnic groups (**Table 2D-3**).