



## **2B.**

### **LEADING CAUSES OF DEATH**

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In 2010, the Office of Vital Records (OVR) of the Arizona Department of Health Services has implemented, for the first time since 1989, the new (2003) Standard U.S. death certificate. The new certificate added several new questions: 1) whether tobacco use contributed to the death, 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).

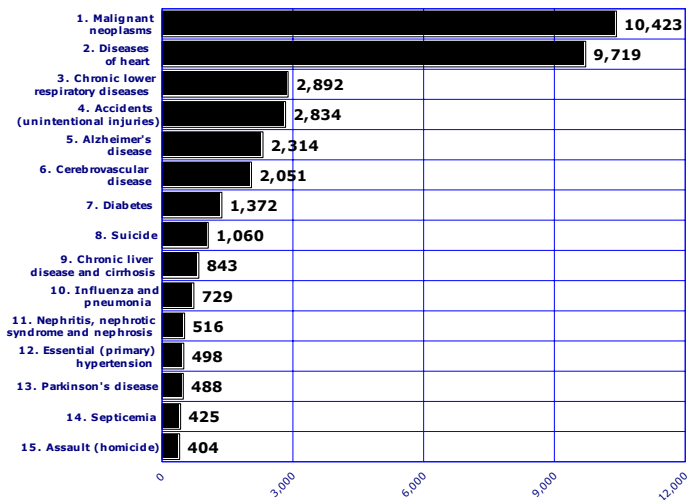
The death certificate now includes a new classification of the decedent's race/ethnic status, consistent with the revised federal standards for collecting and reporting racial and ethnic status. These standards were published in the Federal Register on October 30, 1997, as "Revisions to the Standards 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/fedreg/ombdir15.html>

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 2010, among the 45,871 deaths of Arizona residents, indication of "two or more races" appeared on only 259 certificates. The total number of deaths for decedents identified as Native Hawaiian was 10. Five (5) Samoan residents of the State died in 2010. These frequency counts are not large enough to compute statistically reliable mortality rates. They are certainly not large enough for any comparison of the top ten or fifteen leading causes of death.

## 2B. LEADING CAUSES OF DEATH

**Figure 2B-1A**  
**Leading Causes of Death among Arizona Residents in 2010**

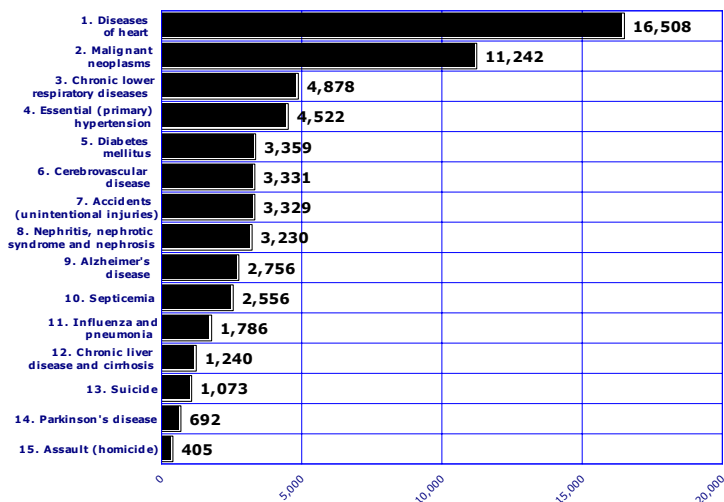
**BASED ON THE NUMBER OF DEATHS DUE TO THE UNDERLYING CAUSE:**



Based on the number of deaths (but not age-adjusted mortality rate), the leading underlying cause of death to Arizona residents in 2010 was cancer (10,423 or 22.7 percent of all deaths), followed by heart disease, which accounted for 9,719 or 21.2 percent of deaths (**Figure 2B-1A, Table 2B-1, Table 5E-14**). The third leading cause of death, *chronic lower respiratory diseases* accounted for 2,892 or 6.3 percent of total deaths. Deaths due to *accidents (unintentional injuries)* ranked fourth in 2010, with 2,834 resident deaths reported. Deaths due to *Alzheimer's disease* ranked fifth in 2010, with 2,314 resident deaths reported. Together, these five causes accounted for 61.4 percent of total deaths in 2010. The fifteen leading causes accounted for 79.7 percent of all deaths among Arizona residents.

**Figure 2B-1B**  
**Leading Causes of Death among Arizona Residents in 2010**

**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 9,719 deaths that had diseases of the heart assigned as the underlying cause, another 6,789 deaths had diseases of the heart assigned as the other than underlying cause. The sum of these two counts (16,508, **Figure 2B-1B**) is the total number of deaths that had any mention of diseases of the heart on the 2010 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 12<sup>th</sup> as the underlying cause but ranked 4<sup>th</sup> when any mention of it is counted.

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

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 2010, diseases of the heart were the leading cause of death for American Indians. Cancer was the number one cause of death for Asians or Pacific Islanders, Blacks or African Americans, Hispanic or Latinos, and White non-Hispanics (Figure 2B-2, Table 2B-4). Unintentional injury was the third leading cause of death only for American Indians. For Asians, Alzheimer's disease was the 3<sup>rd</sup> leading cause of death in 2010. It was the fifth leading cause for Blacks and White non-Hispanics. Diabetes was among the top five causes of death among American Indians, Blacks and Hispanics, but not among Asians or White non-Hispanics (Table 2B-4).

Chronic liver disease and cirrhosis was the fifth leading cause of death specific to American Indians. Chronic lower respiratory diseases were the third leading cause of death specific to White non-Hispanics.

Figure 2B-2  
Age-adjusted\* Mortality Rates for the Five Leading Causes of Death for Both Genders by Race/Ethnicity, Arizona, 2010

Rank	Asian or Pacific Islander	American Indian or Alaska Native	Black or African American	Hispanic or Latino	White non-Hispanic
1	Cancer 96.2	Diseases of heart 135.9	Cancer 182.6	Cancer 126.2	Cancer 155.6
2	Diseases of heart 86.8	Cancer 106.4	Diseases of heart 177.7	Diseases of heart 121.3	Diseases of heart 145.4
3	Alzheimer's disease 32.2	Unintentional injury 99.2	Stroke 53.5	Diabetes 37.3	Chronic lower respiratory diseases 47.1
4	Stroke 26.0	Diabetes 79.3	Diabetes 50.0	Stroke 35.1	Unintentional injury 45.5
5	Unintentional injury 24.6	Chronic liver disease and cirrhosis 64.6	Alzheimer's disease 46.7	Unintentional injury 33.7	Alzheimer's disease 35.5

Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-3  
Age-adjusted\* Mortality Rates for the Five Leading Causes of Death by Race/Ethnicity among Females, Arizona, 2010

Except American Indians, cancer, not diseases of the heart, was the number one cause of death among females in all other race/ethnic groups (Figure 2B-3, Table 2B-4). Diseases of the heart were the 2<sup>nd</sup> leading cause of female mortality among Asians, Blacks, Hispanics or Latinos, and White non-Hispanic females. Stroke was the 3<sup>rd</sup> leading cause of mortality among Black or African American, 4<sup>th</sup> among Hispanic and 5<sup>th</sup> among Asian females. Chronic liver disease and cirrhosis was the fourth leading cause of death specific to American Indian females. Chronic lower respiratory diseases were the third leading cause of death specific to White non-Hispanic females.

Rank	Asian or Pacific Islander	American Indian or Alaska Native	Black or African American	Hispanic or Latino	White non-Hispanic
1	Cancer 74.2	Diseases of heart 108.1	Cancer 144.8	Cancer 110.6	Cancer 131.6
2	Diseases of heart 60.0	Cancer 86.6	Diseases of heart 133.9	Diseases of heart 99.5	Diseases of heart 113.7
3	Alzheimer's disease 36.9	Diabetes 76.9	Stroke 58.1	Alzheimer's disease 35.1	Chronic lower respiratory diseases 43.4
4	Unintentional injury 23.9	Chronic liver disease and cirrhosis 64.9	Diabetes 45.5	Stroke 34.6	Alzheimer's disease 40.0
5	Stroke 21.7	Unintentional injury 55.4	Alzheimer's disease 44.6	Diabetes 31.4	Unintentional injury 33.3

Number of deaths per 100,000 population to the 2000 U.S. standard.

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

**Figure 2B-4  
Age-adjusted\* Mortality Rates for the Five Leading Causes of Death  
by Race/Ethnicity among Males, Arizona, 2010**

Rank	Asian or Pacific Islander	American Indian or Alaska Native	Black or African American	Hispanic or Latino	White non-Hispanic
1	Cancer 130.7	Diseases of heart 169.5	Diseases of heart 233.6	Diseases of heart 149.0	Cancer 185.8
2	Diseases of heart 128.1	Unintentional injury 148.9	Cancer 231.0	Cancer 148.8	Diseases of heart 181.9
3	Stroke 30.7	Cancer 137.8	Diabetes 56.8	Unintentional injury 45.3	Unintentional injury 58.0
4	Chronic lower respiratory diseases 29.5	Diabetes 80.6	Alzheimer's disease 55.4	Diabetes 45.0	Chronic lower respiratory diseases 52.2
5	Unintentional injury 24.9	Chronic liver disease and cirrhosis 63.9	Unintentional injury 42.3	Stroke 34.8	Intentional self-harm (suicide) 32.8

Diseases of the heart followed by cancer were the two leading causes of death among Black and Hispanic, males (**Figure 2B-4; Table 2B-4**). Cancer was the first leading cause of death among Asian or Pacific Islander and White non-Hispanic males, followed by diseases of the heart.

Chronic lower respiratory diseases were the 4<sup>th</sup> leading cause of death for Asian and White non-Hispanic males.

In 2010, based on the age-adjusted mortality rates, diabetes was among the five leading causes of death for American Indian, Black or African American and Hispanic males.

\*Number of deaths per 100,000 population to the 2000 U.S. standard.

**Figure 2B-5  
Age-adjusted\* Mortality Rates for the Five Leading Causes of Death  
by Gender in Urban\*\* and Rural Areas, Arizona, 2010**

Rank	Urban male	Urban female	Rural male	Rural female
1	Cancer 176.8	Cancer 125.6	Diseases of heart 201.1	Cancer 132.6
2	Diseases of heart 173.5	Diseases of heart 110.3	Cancer 193.7	Diseases of heart 119.3
3	Unintentional injury 51.7	Alzheimer's disease 41.2	Unintentional injury 78.7	Chronic lower respiratory diseases 41.0
4	Chronic lower respiratory diseases 46.8	Chronic lower respiratory diseases 38.0	Chronic lower respiratory diseases 51.9	Unintentional injury 35.6
5	Alzheimer's disease 30.8	Unintentional injury 31.0	Intentional self-harm (suicide) 38.7	Stroke 34.4

In 2010, the profile of the leading causes of death differed by gender for the 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**). For both urban and rural females cancer followed by diseases of the heart were the two leading causes of death. Cancer exceeded diseases of the heart as the leading cause of death among rural females but not rural males. Alzheimer's disease was the third leading cause of death among urban females. Suicide was the 5<sup>th</sup> leading cause of death specific to rural males.

Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.  
\*\*Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

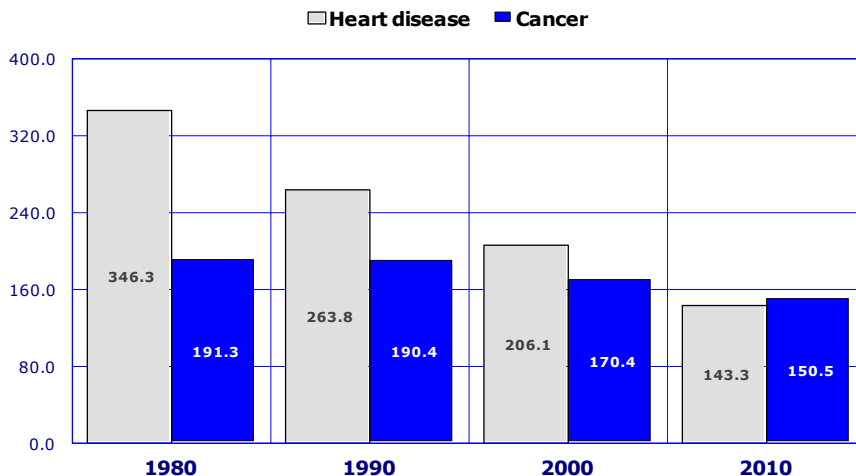


2B. LEADING CAUSES OF DEATH  
**Diseases of heart and malignant neoplasm (cancer)**

**Figure 2B-6**  
**Comparison of Age-adjusted\* Mortality Rates for Heart Disease and Cancer**  
**(Malignant Neoplasm), Arizona, 1980, 1990, 2000 and 2010**

The age-adjusted mortality rate for diseases of the heart decreased by 58.6 percent from 346.3 deaths per 100,000 population in 1980 to 143.3/100,000 in 2010 (**Figure 2B-6**). The age-adjusted mortality rate for cancer declined substantially less by 21.3 percent during 1980-2010. In Arizona, the relative risk of death from the two leading causes changed from 81 percent greater for heart disease in 1980 to 5.0 percent greater for cancer in 2010.

In 2000, 1,436 more Arizonans died from diseases of the heart than cancer (**Table 2B-1**). In 2010, the number of deaths from cancer exceeded the number of heart disease deaths by 704 (**Table 2B-4**).

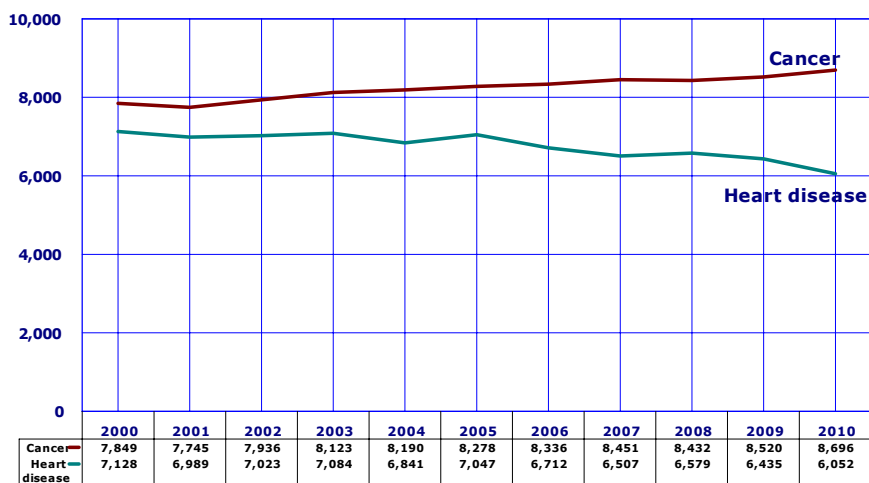


\*Adjusted to the 2000 standard U.S. population.

**Figure 2B-7**  
**Number of Deaths from Heart Disease and Cancer among**  
**Arizonans 0-84 Years, 2000-2010**

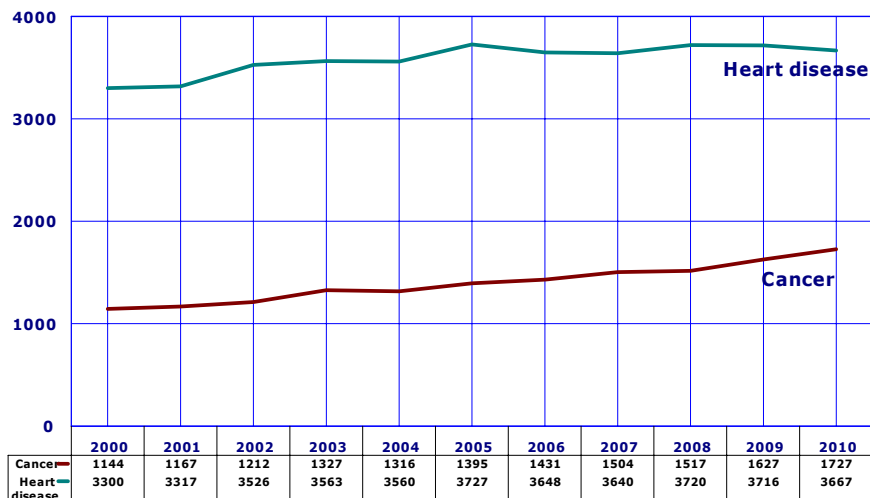
The prediction, that "in the early 21<sup>st</sup> century cancer would displace heart disease as the leading cause of death", was originally published in the 1990 edition of the *Arizona Health Status and Vital Statistics* report (p.90).

In fact, for the past several years cancer has already 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 2010, 2,644 more Arizonans 0-84 years old died from cancer (8,696) than heart disease (6,052).



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

**Figure 2B-8**  
Deaths from Heart Disease and Cancer among Arizonans 85+, 2000-2010

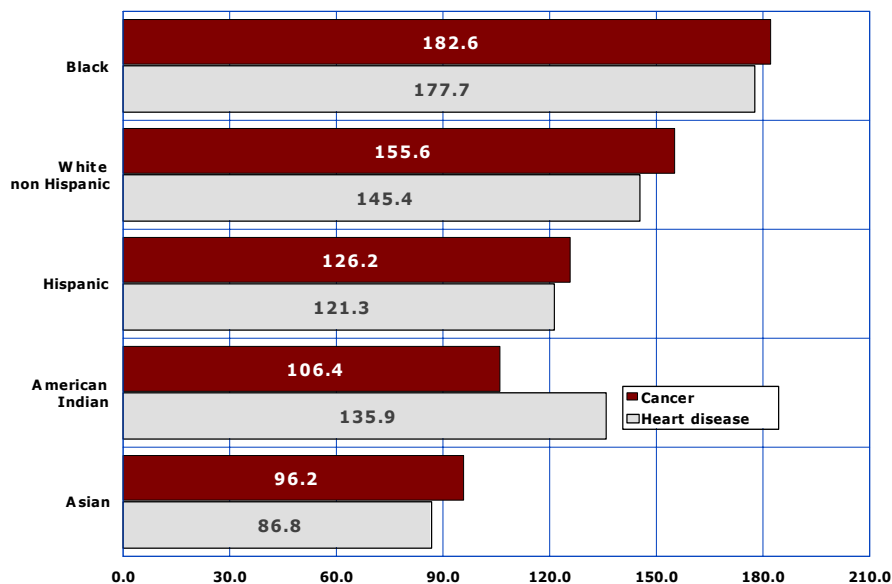


It is only among the oldest, 85 or older, that heart disease continues to be the number one cause of death (**Figure 2B-8**). In 2010, the elderly aged 85 years or older accounted for 16.6 percent of all deaths from cancer but 37.7 percent of all deaths from heart disease. In 2010, the median age at death from heart disease was 81 years (**Table 2D-3**) and only a minority of deaths (44.6 percent, **Table 2D-4**) was premature, i.e., before reaching the expected years of life at birth for all U.S. residents.

However, from 2000 to 2010, the number of deaths from cancer increased by 51.0 percent among Arizonans 85 years or older, a 4.6 times greater increase than the one seen for diseases of the heart (a 11.1 percent increase).

Note: there is more information available in our special online report "**Heart Disease vs. Cancer: An Epidemiologic Transition in Mortality Risks, Arizona residents, 1990-2008**". This publication can be accessed at <http://www.azdhs.gov/plan/report/epitrans/index.htm>

**Figure 2B-9**  
Age-adjusted Mortality Rates for Heart Disease and Cancer by Race/Ethnicity, Arizona, 2010



Arizona's Blacks were 2 times more likely to die from diseases of the heart and 1.9 times more likely to die from malignant neoplasms in 2010 than Asians, the group at the lowest risk of both heart disease and cancer death among race/ethnic groups (**Figure 2B-9**, **Table 2B-4**).

Among Asians, White non-Hispanics, and Hispanics or Latinos the relative risk of death from cancer exceeded the mortality risk of death from heart disease in 2010 (**Table 2B-3**).

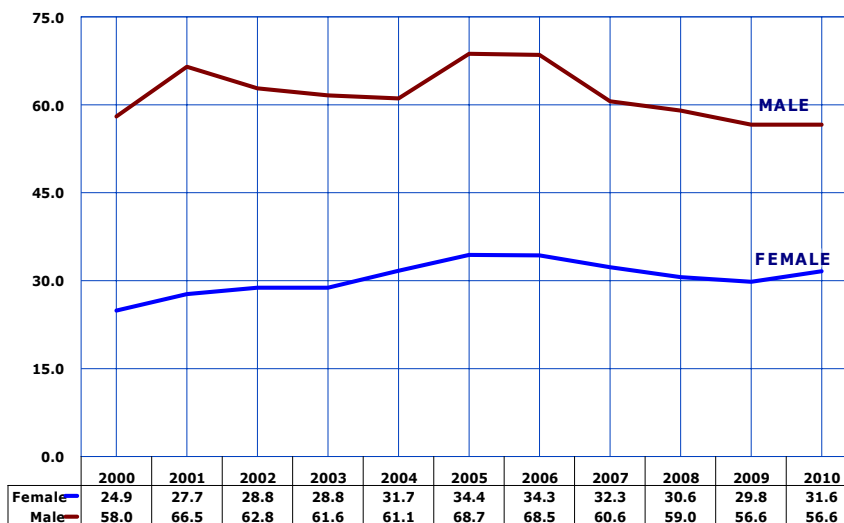
Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

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

The number of deaths from unintentional injuries decreased by 10.2 percent from a recent peak of 3,156 in 2006 to 2,834 in 2010 (**Table 2B-1**). In 2010, based on age-adjusted mortality rates, accidents ranked third as a leading cause of death for males and sixth for females (**Table 2B-4**). From 2009 to 2010 the age-adjusted mortality rate for accidents remained unchanged for males and it increased by 6.0 percent for females (**Figure 2B-10**).

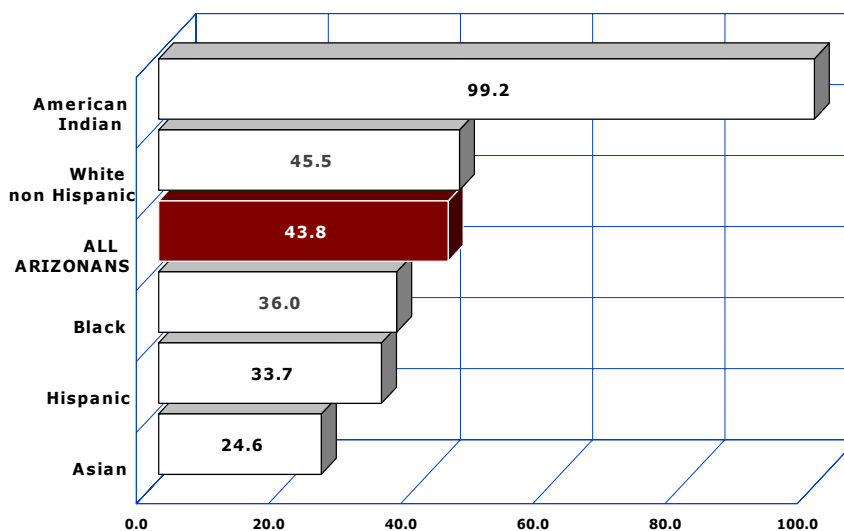
In 2010, the number of deaths in motor vehicle accidents declined to 711, the lowest annual number of deaths since 1991. (Due to high unemployment and high gas prices there were, arguably, fewer drivers on Arizona roads, and less driving). In contrast, Arizonans experienced, particularly, a large increase in the number of accidental drug poisoning/overdoses. They increased from 414 deaths in 2001 to 798 deaths in 2010. Both in 2009 and 2010, the number of deaths from accidental poisoning by drugs exceeded the number of deaths from motor vehicle-related injuries (**Table 2B-9**).

**Figure 2B-10**  
**Age-adjusted Mortality Rates for Accidents (unintentional injuries) by Gender and Year, Arizona, 2000-2010**



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-11**  
**Age-adjusted Mortality Rates for Accidents (unintentional injuries) by Race/Ethnicity, Arizona, 2010**



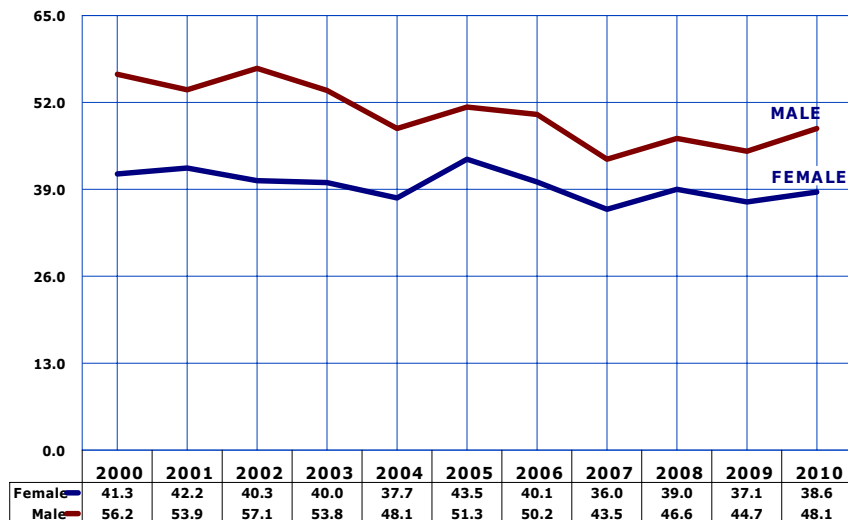
Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

The American Indian death rate for unintentional injuries (99.2/100,000) was 4 times greater than the rate for Asians (24.6/100,000), the group at the lowest risk of unintentional injury death among race/ethnic groups in the State (**Figure 2B-11, Table 2B-4**).

In 2010, Apache (92.7/100,000) and Greenlee (87.9/100,000) counties had the two highest age-adjusted mortality rates for unintentional injuries (**Table 5E-11**).

2B. LEADING CAUSES OF DEATH  
Chronic lower respiratory diseases

**Figure 2B-12**  
Age-adjusted Mortality Rates for Chronic Lower\* Respiratory Diseases by Gender and Year, Arizona, 2000-2010

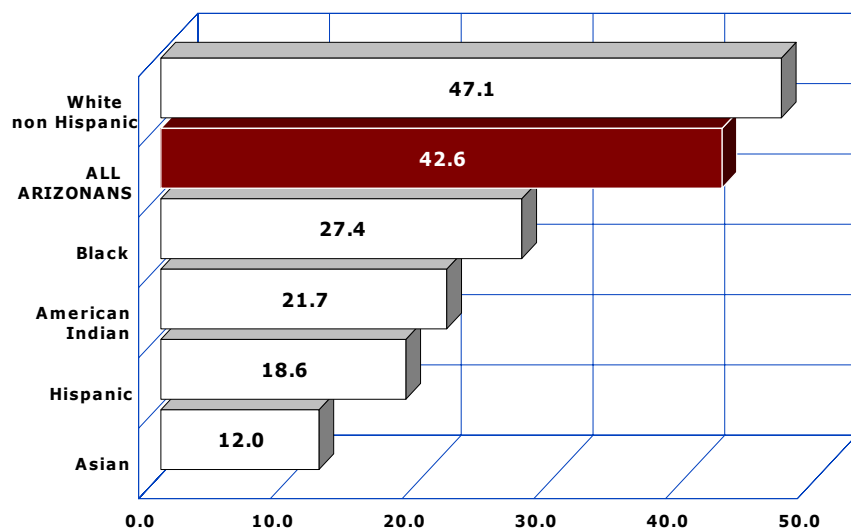


In 2010, chronic lower respiratory diseases (bronchitis, emphysema, asthma) were the 3rd leading cause of death among Arizona residents (**Table 2B-1**). From 2009 to 2010, the mortality rates for chronic lower respiratory diseases (CLRD) increased for both genders (**Figure 2B-12, Table 2B-2**).

Urban females had the lowest mortality rate for CLRD (38.0/100,000) among the gender by region groups (**Table 2B-5**). Rural males, the group with the highest mortality risk for CLRD (51.9/100,000), were 10.9 percent more likely in 2010 to die from this cause than urban males (46.8 deaths per 100,000).

The number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.  
\*This ICD-10 title corresponds to Chronic Obstructive Pulmonary Disease (ICD-9 title)

**Figure 2B-13**  
Age-adjusted Mortality Rates for Chronic Lower Respiratory Diseases by Race/Ethnicity, Arizona, 2010



Death rates for emphysema, chronic bronchitis, asthma and other lower respiratory disorders were substantially higher among White non-Hispanics (47.1 deaths per 100,000) than they were among Blacks or African American (27.4/100,000), American Indians (21.7/100,00) and Asians (12.0/100,000); **Figure 2B-13, Table 2B-4**).

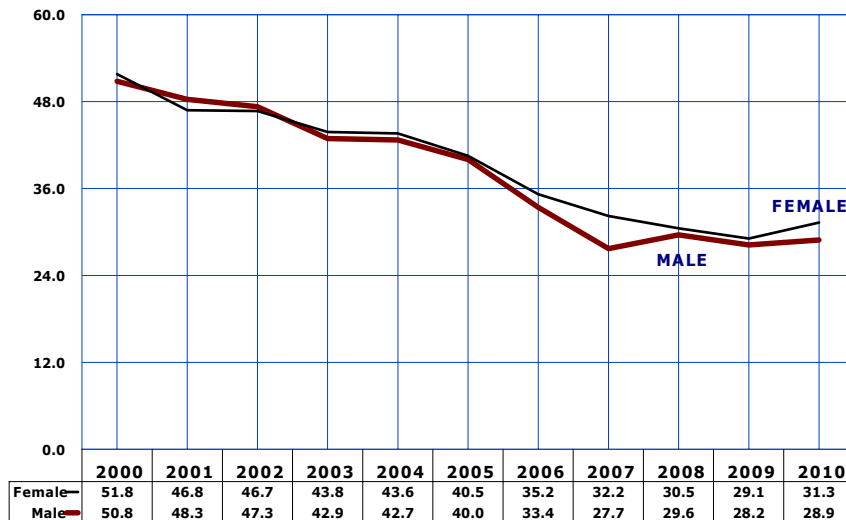
Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Cerebrovascular disease

**Figure 2B-14**  
Age-adjusted Mortality Rates for Cerebrovascular Disease by Gender and Year, Arizona, 2000-2010

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 40.6 percent from 51.7 deaths per 100,000 population in 2000 to 30.7/100,000 in 2010 (Table 2B-3).

In 2010, the number of deaths from cerebrovascular disease was greater among females (1,212) than males (839, Table 2B-4). Females remained at greater risk than males to die from a stroke in 2003-2010, as they were in 2000 (Figure 2B-14). In 2010 the age-adjusted mortality rates for stroke increased for both males and females (Figure 2B-14, Table 2B-2).

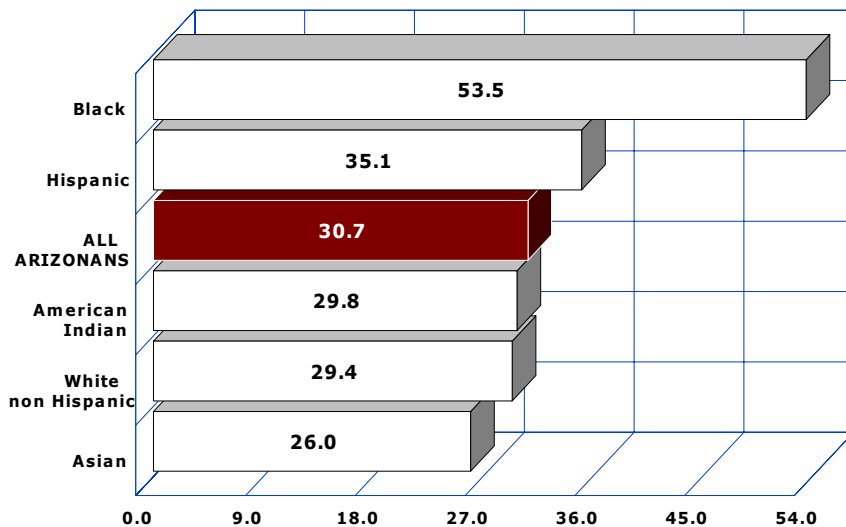


Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-15**  
Age-adjusted Mortality Rates for Cerebrovascular Disease by Race/Ethnicity, Arizona, 2010

Compared to Arizona's rate, Blacks or African Americans were 74.3 percent more likely to die from cerebrovascular disease in 2010 (Figure 2B-15, Table 2B-4). The 2010 mortality rate for cerebrovascular disease among Asians (26.0/100,000) was the lowest among race/ethnic groups.

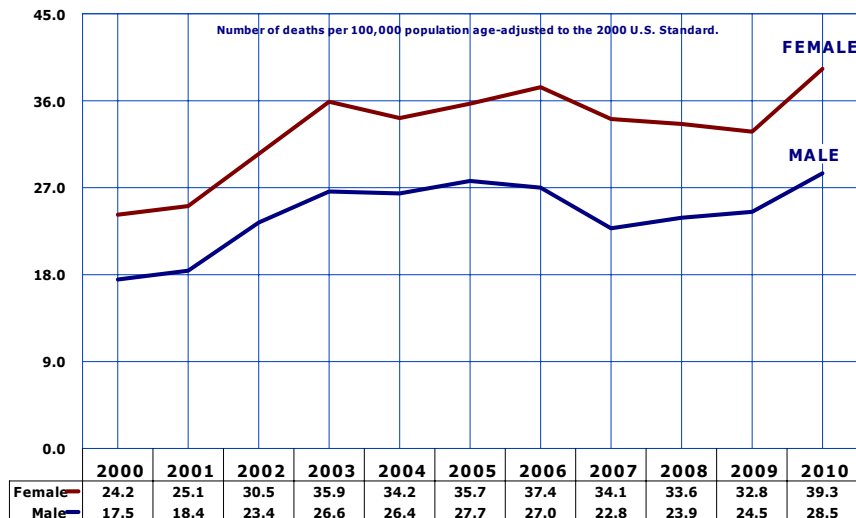
Asian females had the lowest mortality rate for cerebrovascular disease among gender by race subgroups (21.7 deaths per 100,000, Table 2B-4), while Black or African American females had the highest rate of 58.1 deaths per 100,000.



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Alzheimer's disease

**Figure 2B-16**  
Age-adjusted Mortality Rates for Alzheimer's Disease by Gender and Year, Arizona, 2000-2010



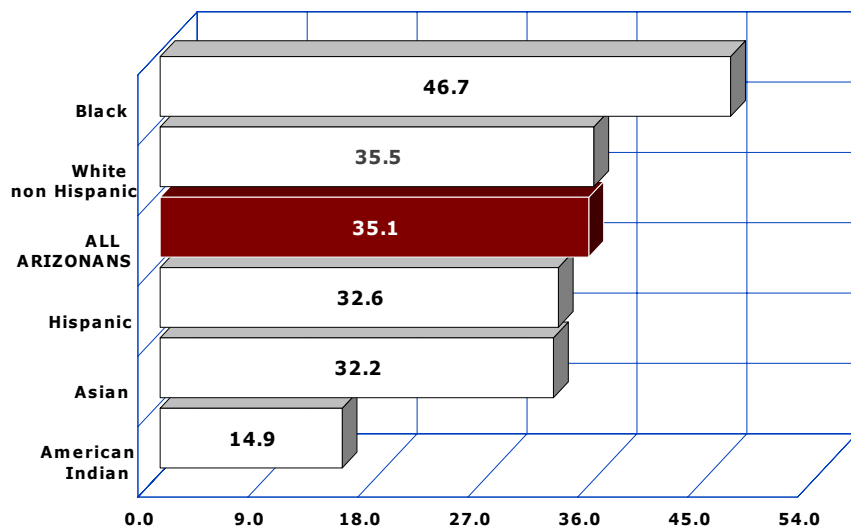
Note: The rates for 1998-1999 are comparability-modified.

Based on the number of deaths in 2010, Alzheimer's disease was the 3rd leading cause of death for females and 6<sup>th</sup> leading cause for males (**Table 2B-4**).

From 2009 to 2010, the age-adjusted mortality rate for Alzheimer's disease among females increased sharply by 19.8 percent from 32.8/100,000 to 39.3/100,000 in (**Figure 2B-16**). The age-adjusted mortality rate for Alzheimer's disease increased for the 3rd consecutive year for males from 22.8/100,000 in 2007 to 28.5/100,000 in 2010

In 2010, the age-adjusted death rate for Alzheimer's disease was 37.9 percent higher for females than for males.

**Figure 2B-17**  
Age-adjusted Mortality Rates for Alzheimer's Disease by Race/Ethnicity, Arizona, 2010



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 2010 were higher among Black or African American (46.7/100,000) and White non-Hispanic (35.5 deaths per 100,000) than they were among Hispanic or Latino (32.6/100,000), Asian (32.2/100,000), and American Indian residents of Arizona (14.9/100,000; **Figure 2B-17**, **Table 2B-4**).

White non-Hispanic residents of Arizona disproportionately contributed to mortality from Alzheimer's disease. In 2010, White non-Hispanics accounted for 57.8 percent (**Table 10C-1**) of the State's population, but 87.0 percent of all deaths from Alzheimer's disease (2,013 out of 2,314; **Table 2B-4**).

In 2010, the median age at death from Alzheimer's disease was 88 for females and 86 for males (**Table 2D-3**).



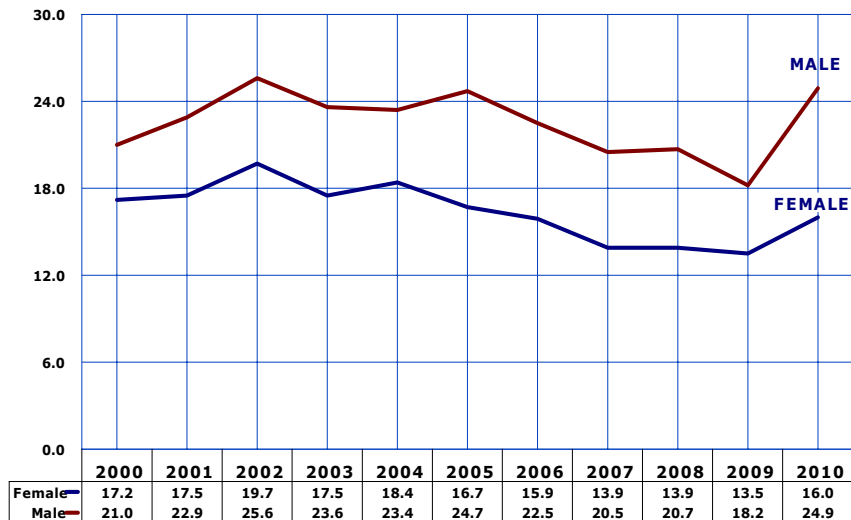
2B. LEADING CAUSES OF DEATH  
Diabetes

Both men and women experienced a decline in mortality rates for diabetes from 2005 to 2009 (Figure 2B-18). From 2009 to 2010 the number of deaths from diabetes increased by 27.3 percent (based on the data in Table 2B-1).

In 2010, in addition to 1,372 deaths that had diabetes assigned as the underlying cause, another 1,987 deaths had diabetes assigned as a contributing factor (Figure 2B-1B). The diabetes-related death rate of 49.0/100,000 (Table 6A-6) was 2.4 times greater than the rate for diabetes as underlying cause (20.1/100,000, Table 2B-2).

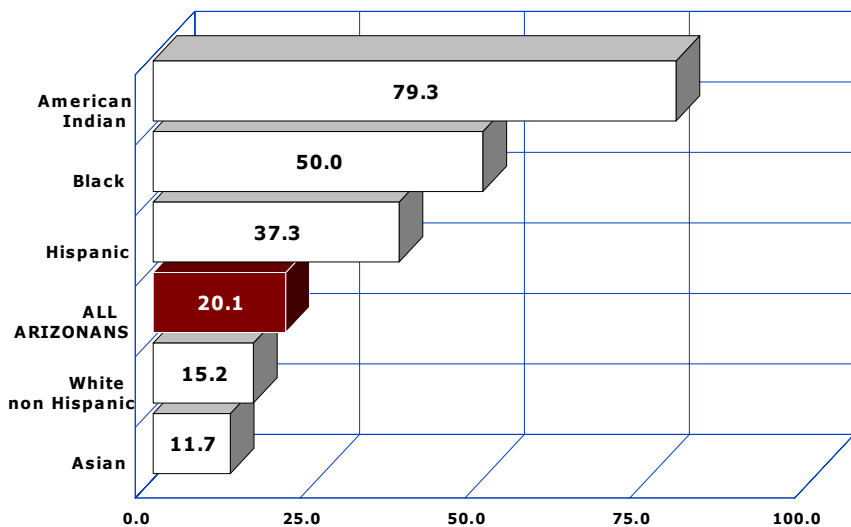
The diabetes-related death rate includes all mentions of diabetes on the death certificate as the underlying or other than underlying cause.

Figure 2B-18  
Age-adjusted Mortality Rates for Diabetes by Gender and Year, Arizona, 2000-2010



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-19  
Age-adjusted Mortality Rates for Diabetes by Race/Ethnicity, Arizona, 2010



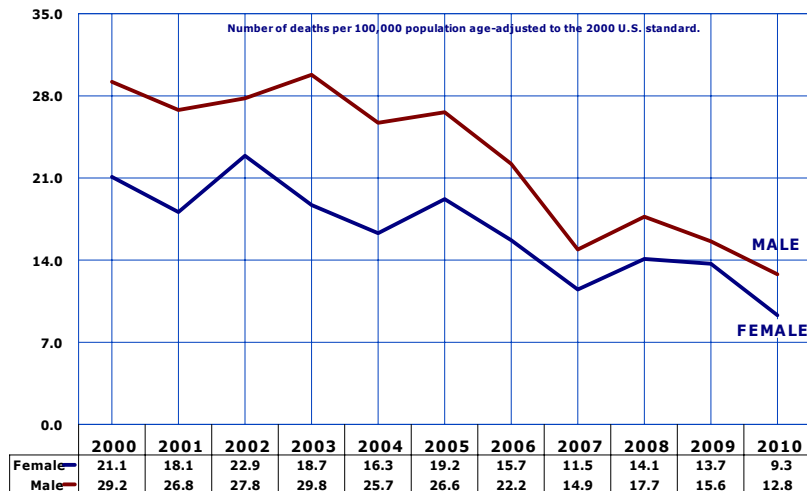
The number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2010, compared to Arizona's rate, American Indians were 3.9 times more likely to die from diabetes (79.3 deaths per 100,000; Figure 2B-19, Table 2B-4). The rate of 11.7 deaths per 100,000 among Asians or Pacific Islanders was the lowest rate among race/ethnic groups in the State.

Among the 15 Arizona counties, in 2010 Apache (63.1/100,000), Santa Cruz (43.0/100,000), and Navajo (38.7 /100,000) had the highest mortality rates for diabetes (Table 5E-11).

2B. LEADING CAUSES OF DEATH  
**Influenza and pneumonia**

**Figure 2B-20**  
**Age-adjusted Mortality Rates for Influenza and Pneumonia by**  
**Gender and Year, Arizona, 2000-2010**

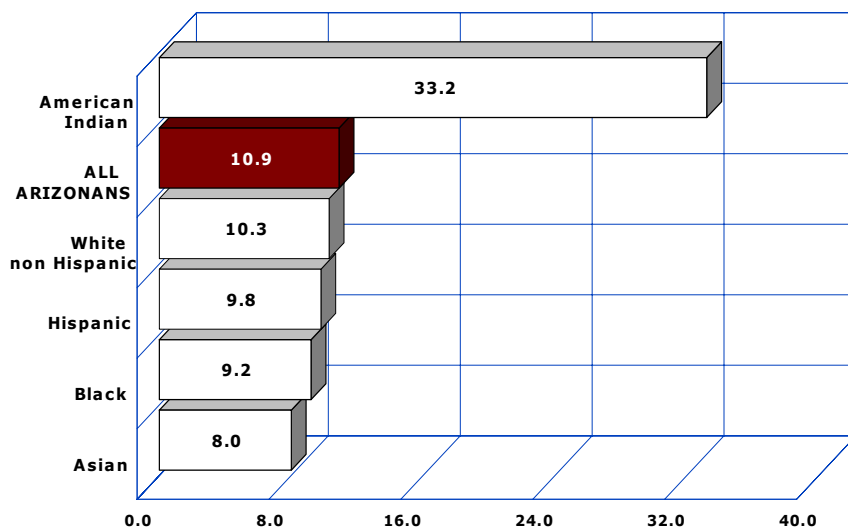


The number of deaths from influenza and pneumonia decreased by 43.0 percent from a recent high of 1,280 in 2005 to 729 in 2010 (**Table 2B-1**). In 2009, influenza and pneumonia were ranked the 10<sup>th</sup> leading cause of death in Arizona. Among the 729 deaths, influenza was identified as the underlying cause for 7 of them, while pneumonia was listed as the underlying cause on 722 death certificates (**Table 2B-6**).

The mortality rate for influenza and pneumonia decreased for females from 13.7 deaths per 100,000 in 2009 to 9.3 deaths in 2010 (**Figure 2B-20, Table 2B-2**). The mortality rate for influenza and pneumonia also decreased for males from 15.6 deaths per 100,000 in 2009 to 12.8/100,000 in 2010.

In 2010, Arizona males were 37.6 percent more likely to die from influenza and pneumonia than females.

**Figure 2B-21**  
**Age-adjusted Mortality Rates for Influenza and Pneumonia by**  
**Race/Ethnicity, Arizona, 2010**



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2010, American Indian residents of Arizona had the highest mortality rate for influenza and pneumonia (33.2 deaths per 100,000) among the race/ethnic groups. The age-adjusted mortality of 8.0/100,000 among Asians or Pacific Islanders was the lowest rate among race/ethnic groups in the State (**Figure 2B-21, Table 2B-4**).

Compared to the State death rate for influenza and pneumonia, Graham County's rate was 2.4 times greater (26.5/100,000). The mortality rate also was elevated in Coconino County (23.7/100,000; **Table 5E-11**).

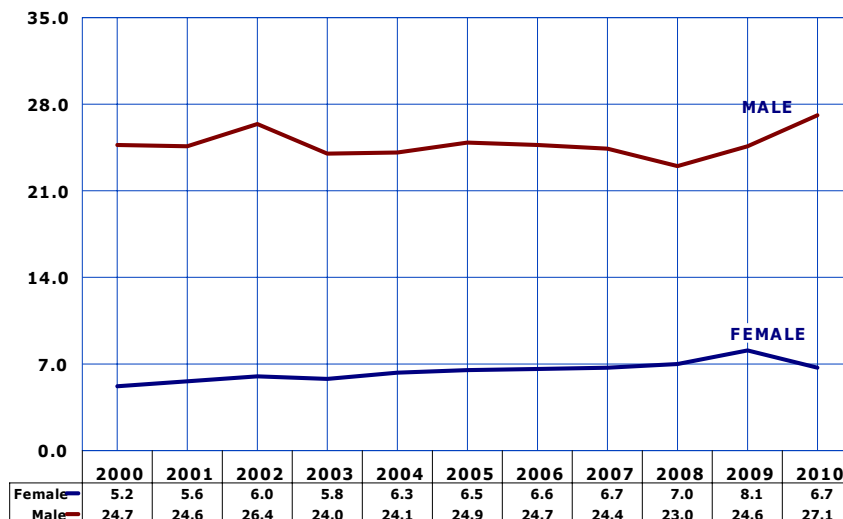
2B. LEADING CAUSES OF DEATH  
Suicide

In 2010, suicide was the 5<sup>th</sup> leading cause of death among males. It ranked as the 12th cause of mortality for females. The age-adjusted suicide rate increased from 14.8 suicides per 100,000 residents of the State in 2008 to 16.1/100,000 in 2009, and 16.7/100,000 in 2010; the highest suicide rate since 1998 (Table 2B-3).

The suicide rate decreased for females from 8.1 suicides per 100,000 in 2009 to 6.7 in 2010 (Figure 2B-22, Table 2B-3). The male mortality risk for suicide increased from the 2009 rate of 24.6/100,000 to 27.1/100,000 in 2010.

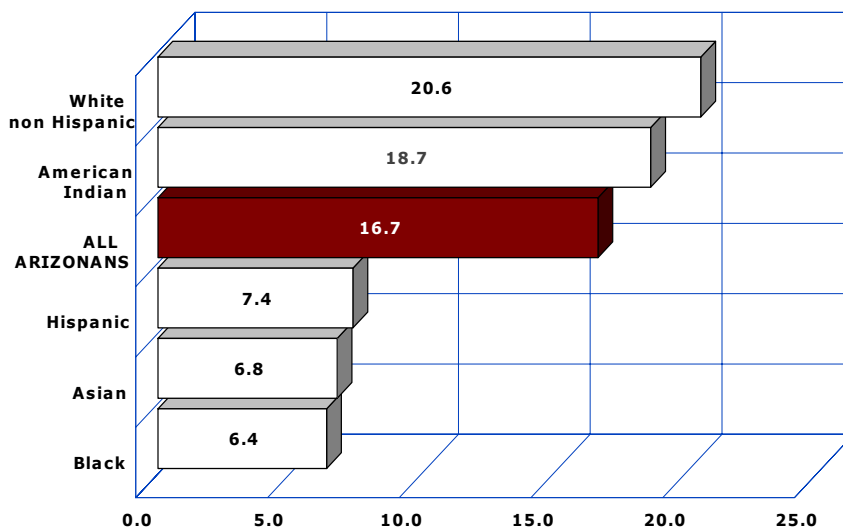
In 2009, suicide posed a 4 times greater mortality risk for males (27.1/100,000) than females (6.7/100,000).

Figure 2B-22  
Age-adjusted Mortality Rates for Suicide by Gender and Year, Arizona, 2000-2010



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 2B-23  
Age-adjusted Mortality Rates for Suicide by Race/Ethnicity, Arizona, 2010



Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

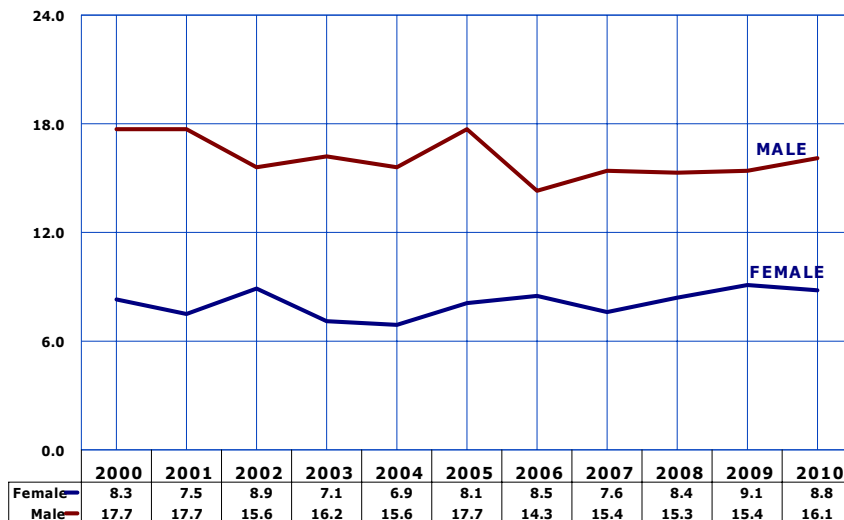
In 2010, White non-Hispanics (had the highest age-adjusted suicide rate (20.6 suicides per 100,000) among the race/ethnic groups (Figure 2B-23, Table 2B-4).

The suicide rates varied by race/ethnicity. They ranged from the age-adjusted mortality rate of 18.7/100,000 among American Indian residents of the State to a rate of 6.4/100,000 for Blacks or African American (Figure 2B-23).

The age-adjusted mortality rates varied in Arizona in 2010 from 4.0 suicides per 100,000 residents of La Paz County to 46.6 suicides per 100,000 residents of Apache County (Table 5E-11).

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

**Figure 2B-24**  
Age-adjusted Mortality Rates for Chronic Liver Disease and Cirrhosis  
by Gender and Year, Arizona, 2000-2010



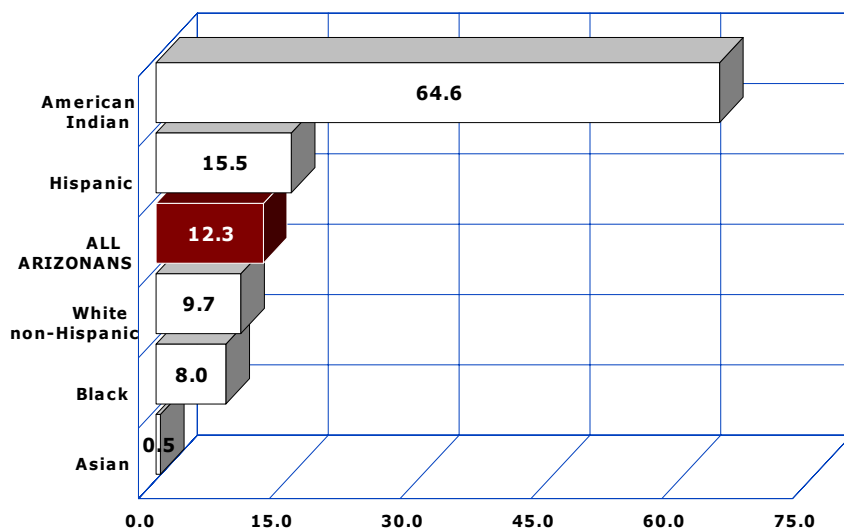
Chronic liver disease and cirrhosis was the 9<sup>th</sup> leading cause of death in Arizona in 2010 (Figure 2B-1, Table 2B-1). Among the 843 deaths due to chronic liver disease and cirrhosis, 534 (63.3 percent) were males (Table 2B-4).

Among females the age-adjusted mortality rate for chronic liver disease and cirrhosis slightly decreased from 9.1/100,000 in 2009 to 8.8 deaths per 100,000 in 2010. Among males, the mortality increased in 2010 to 16.1/100,000 (Figure 2B-24, Table 2B-3).

In 2010, La Paz, Navajo, and Apache counties had the highest mortality rates for chronic liver disease and cirrhosis (Table 5E-11).

The number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-25**  
Age-adjusted Mortality Rates for Chronic Liver Disease and Cirrhosis  
by Race/Ethnicity, Arizona, 2010



The 2010 death rate for chronic liver disease and cirrhosis among American Indians (64.6 deaths per 100,000) was 129 times greater than the rate among Asians or Pacific Islanders (0.5/100,000) (Figure 2B-25, Table 2B-4). The rate for Hispanics (15.5 deaths per 100,000 population) was the second highest among race/ethnic groups in the State.

Compared to the median age at death from all causes (77 years), those who died from chronic liver disease and cirrhosis were 19 years younger (58 years, Table 2D-3). In 2010, the median age at death of American Indians who died from chronic liver disease and cirrhosis was only 48 years (Table 2D-3).

Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.