

# **CHAPTER 2**

## **TRENDS AND PATTERNS IN MORTALITY, ARIZONA, 2012-2022**

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### **2D. PATTERNS OF PREMATURE MORTALITY**





## 2A.

### TOTAL MORTALITY

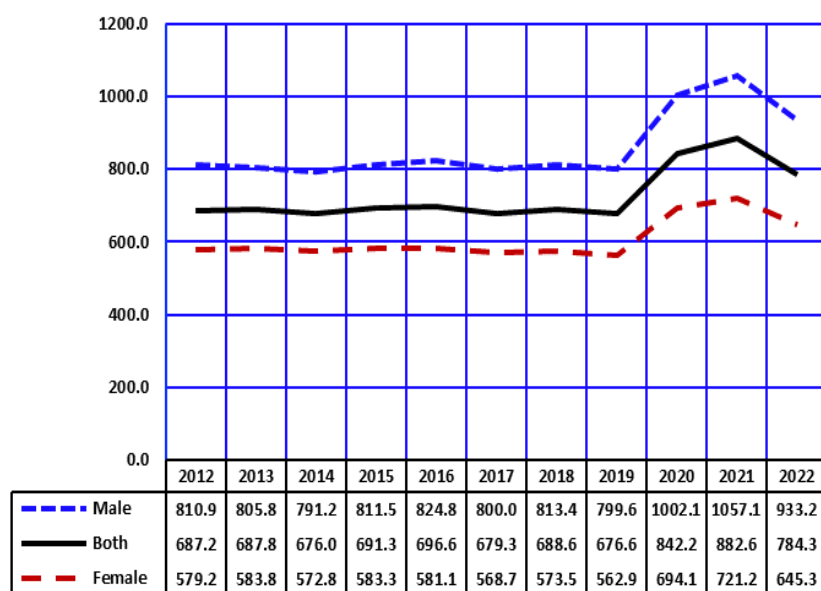
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The total number of deaths from all causes among Arizona residents decreased by 9.4 percent from 81,482 in 2021 to 73,861 in 2022 (**Table 2A-1**). The age-adjusted mortality rate for all causes of death decreased 11.1 percent from 882.6/100,000 in 2021 to 784.3/100,000 in 2022. When considering race/ethnicity, we observe an increase in the age adjusted mortality of all racial/ethnic groups in 2022 compared to 2012 and 2017 (**Figure 2A-2**).

There were some disparities by gender and race/ethnicity for total mortality. Deaths in Arizona by residents in 2022 mostly occurred in January (11.3 percent) and the smallest counts were recorded in September (7.4 percent) (**Table 2A-3**).

## 2A. TOTAL MORTALITY

**Figure 2A-1**  
Age-adjusted Mortality Rates<sup>a</sup> for all Causes by Gender and Year,  
Arizona, 2012-2022



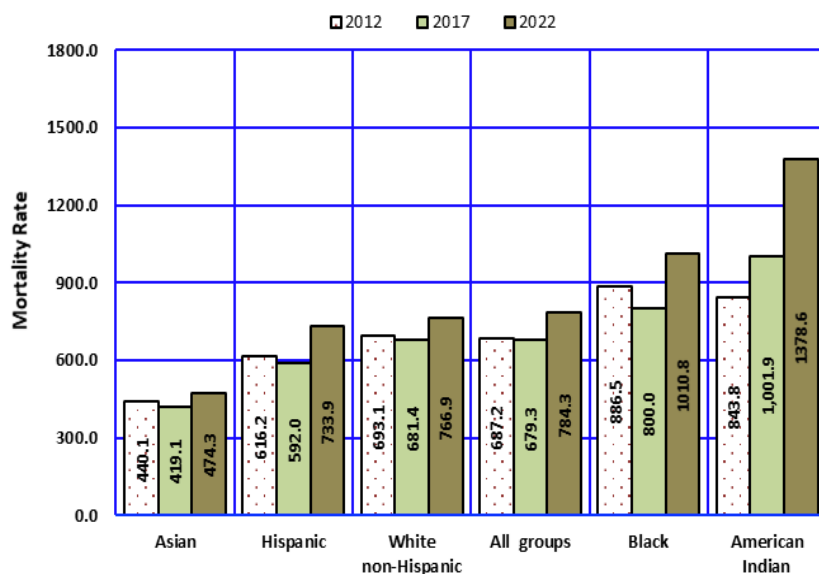
The age-adjusted mortality rates discussed below are based on the year 2000 population standard. All mortality rates in sections 2A and 2B are age-adjusted. A detailed explanation of the age-adjustment of mortality rates is given in the **Technical Notes**.

The total age-adjusted mortality rate decreased by 11.1 percent, from 882.6 deaths per 100,000 population in 2021 to 784.3 deaths in 2022 (**Figure 2A-1, Table 2B-2**). Over this period, the age-adjusted mortality rates decreased for both males (11.7 percent) and females (10.5 percent).

The gap between male and female mortality rates remained between 2012 and 2022. In each year during the 11-year period, the male age-adjusted mortality rate was almost 1.4 to 1.5 times higher than the female age-adjusted mortality annually.

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

**Figure 2A-2**  
Age-adjusted Mortality Rates<sup>a</sup> for all Causes by Race/Ethnicity and Year,  
Arizona Residents, 2012, 2017, and 2022



The 2022 age-adjusted death rates for the major racial/ethnic groups were as follows: for Asian or Pacific Islander, 474.3 deaths per 100,000 population; Hispanic or Latino, 733.9; White non-Hispanic, 766.9; Black or African American, 1010.8; and American Indian or Alaska Native, 1378.6 (**Figure 2A-2, Table 2B-4**).

In 2022, as in 2012 and 2017, American Indians and Blacks had higher total mortality rates than White non-Hispanics, Hispanics, and Asians. The total mortality rates for Asians were lower than the rates of both White non-Hispanics and Hispanics in 2012, 2017, and 2022.

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

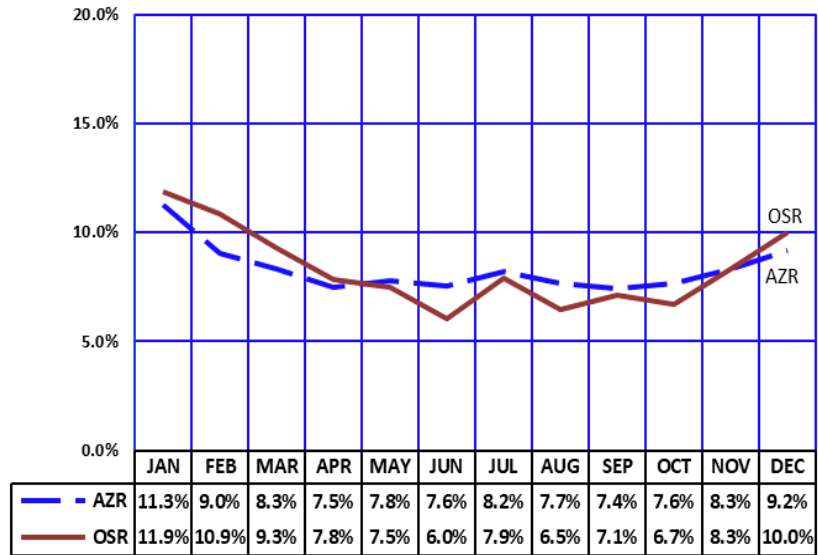
## 2A. TOTAL MORTALITY

**Figure 2A-3**  
Percent of Annual Deaths by Month of Occurrence and Residence Status, Arizona, 2022

If there was no monthly variation in proportional contribution to total annual deaths, 8.3 percent (100/12) of deaths should occur monthly. However, when the monthly distribution of resident deaths is examined, the month of January (11.3 percent), December (9.2 percent), and February (9.0 percent), contributed more than the expected value (**Figure 2A-3**). September was the month with the lowest percent contribution to the total annual deaths among Arizona residents (AZR).

The majority of the 3,193 non-residents who died in Arizona during 2022 did so during the months of January, February, March, and December.

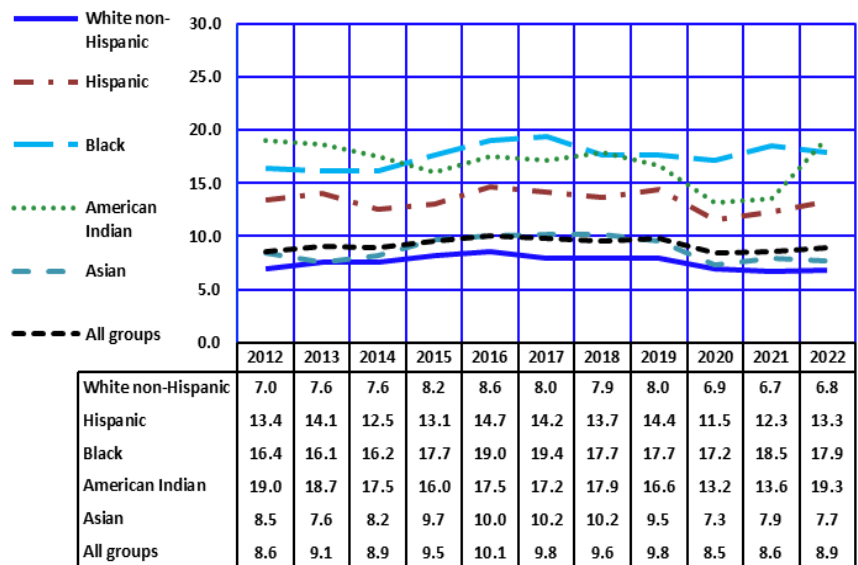
June was the month with the lowest percent contribution (6.0 percent) to the annual death among out-of-State residents (OSR) who died in Arizona.



**Figure 2A-4**  
Percentage of Deaths for which Autopsies were Reported by Race/Ethnicity and Year, Arizona Residents, 2012-2022

Autopsies were reported as performed on 6,567 decedents, or 8.9 percent of the deaths that occurred among Arizona residents in 2022. From 2012 – 2022, the percentage of deaths for which autopsies were reported varied from 8.6 percent in 2012, a high of 10.1 percent in 2016, 9.8 percent in 2017 and 2019, 9.6 in 2018, 9.1 in 2013, then dropped back down to 8.6 percent in 2021. Additionally, a low of 8.5 percent in 2020, made it the lowest percentage among the time period.

The percentage autopsied varies by the decedent's demographic characteristics. By race/ethnicity (**Figure 2A-4**) the percentage autopsied was the lowest for White non-Hispanic than for other racial/ethnic groups. The prevalence of autopsies was substantially greater among Black, American Indian, and Hispanic or Latino sub-populations. A substantial portion of the differential in the use of autopsy by race/ethnicity reflects differences in the age and manner of death. For example, autopsies tend to be more common at younger ages and for deaths by homicide, suicide, accidents, and undetermined manner.



**TABLE 2A-1  
NUMBER OF DEATHS BY RACE/ETHNICITY, GENDER, AND YEAR, ARIZONA RESIDENTS, 2012-2022**

		2012 <sup>a</sup>	2013 <sup>a</sup>	2014 <sup>a</sup>	2015 <sup>a</sup>	2016 <sup>a</sup>	2017 <sup>a</sup>	2018 <sup>a</sup>	2019 <sup>a</sup>	2020	2021	2022
<b>TOTAL</b>	<b>Total</b>	48,459	49,929	51,074	54,152	56,480	57,261	59,206	60,161	75,700	81,482	73,861
	<b>Male</b>	25,577	26,222	27,037	28,814	30,431	30,721	32,067	32,575	41,431	45,102	40,397
	<b>Female</b>	22,874	23,703	24,034	25,334	26,046	26,537	27,136	27,585	34,269	36,369	33,462
<b>White non-Hispanic</b>	<b>Total</b>	38,629	39,543	40,391	42,750	44,092	44,191	45,194	45,467	54,148	57,987	54,464
	<b>Male</b>	20,206	20,550	21,207	22,504	23,439	23,375	24,150	24,334	28,990	31,702	29,362
	<b>Female</b>	18,416	18,989	19,181	20,242	20,653	20,816	21,044	21,133	25,158	26,285	25,102
<b>Hispanic or Latino</b>	<b>Total</b>	5,963	6,300	6,444	6,839	7,343	7,539	8,088	8,488	12,504	13,785	11,225
	<b>Male</b>	3,323	3,412	3,543	3,814	4,154	4,197	4,629	4,770	7,277	7,998	6,396
	<b>Female</b>	2,640	2,888	2,901	3,025	3,189	3,341	3,458	3,718	5,227	5,787	4,829
<b>Black or African American</b>	<b>Total</b>	1,509	1,593	1,578	1,742	1,925	1,896	2,057	2,207	2,932	3,295	2,991
	<b>Male</b>	803	897	852	971	1,108	1,076	1,104	1,205	1,723	1,850	1,714
	<b>Female</b>	706	696	726	771	817	820	953	1,002	1,209	1,443	1,277
<b>American Indian or Alaska Native</b>	<b>Total</b>	1,806	1,955	2,074	2,140	2,346	2,355	2,527	2,599	4,290	4,380	3,530
	<b>Male</b>	993	1,103	1,152	1,187	1,365	1,334	1,445	1,463	2,412	2,463	2,050
	<b>Female</b>	812	852	922	953	981	1,021	1,081	1,136	1,878	1,917	1,480
<b>Asian or Pacific Islander</b>	<b>Total</b>	552	538	582	673	769	796	886	957	1,199	1,543	1,234
	<b>Male</b>	252	260	280	334	364	377	419	492	586	772	603
	<b>Female</b>	300	278	302	339	405	419	467	465	613	771	631
<b>Refused/Unknown race</b>	<b>Total</b>	<sup>b</sup>	<sup>b</sup>	10 <sup>†</sup>	10 <sup>†</sup>	0 <sup>†</sup>	484	454	443	627	492	417
	<b>Male</b>	<sup>b</sup>	<sup>b</sup>	*	*	*	362	320	311	443	317	272
	<b>Female</b>	<sup>b</sup>	<sup>b</sup>	*	*	*	120	133	131	184	166	143

Notes: \* Cell suppressed due to non-zero count less than 6; † Sum rounded to nearest tens unit due to non-zero addend less than 6; <sup>a</sup> Deaths with unknown gender or unknown race/ethnicity were included in total; <sup>b</sup> Bridging of race/ethnicity in 2012 and 2013 differed from previous years. Individuals with unknown race were categorized as White non-Hispanic, while individuals with unknown race and Hispanic ethnicity were coded as Hispanic.

**TABLE 2A-2  
RESIDENT MORTALITY BY MONTH OF OCCURRENCE AND YEAR, ARIZONA, 2012-2022**

Month of death	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	<b>JAN</b>	Count 4,210	5,079	4,824	5,028	5,119	5,111	6,219	5,595	5,693	10,061
	Percent 8.7%	10.2%	9.4%	9.3%	9.1%	8.9%	10.5%	9.3%	7.5%	12.3%	11.3%
<b>FEB</b>	Count 4,147	4,383	4,227	4,267	5,135	4,514	4,832	4,724	5,275	6,566	6,664
	Percent 8.6%	8.8%	8.3%	7.9%	9.1%	7.9%	8.2%	7.9%	7.0%	8.1%	9.0%
<b>MAR</b>	Count 4,414	4,484	4,333	4,819	5,387	5,070	5,353	5,372	5,745	6,039	6,165
	Percent 9.1%	9.0%	8.5%	8.9%	9.5%	8.9%	9.0%	8.9%	7.6%	7.4%	8.3%
<b>APR</b>	Count 4,176	4,231	4,278	4,547	4,689	4,854	4,922	5,029	5,768	5,457	5,546
	Percent 8.6%	8.5%	8.4%	8.4%	8.3%	8.5%	8.3%	8.4%	7.6%	6.7%	7.5%
<b>MAY</b>	Count 3,980	4,076	4,291	4,527	4,603	4,867	4,768	5,098	5,833	5,749	5,769
	Percent 8.2%	8.2%	8.4%	8.4%	8.1%	8.5%	8.1%	8.5%	7.7%	7.1%	7.8%
<b>JUN</b>	Count 3,868	3,831	4,072	4,396	4,464	4,782	4,666	4,689	6,483	5,692	5,594
	Percent 8.0%	7.7%	8.0%	8.1%	7.9%	8.4%	7.9%	7.8%	8.6%	7.0%	7.6%
<b>JUL</b>	Count 3,862	3,926	4,071	4,338	4,496	4,739	4,761	4,923	8,243	5,836	6,066
	Percent 8.0%	7.9%	8.0%	8.0%	8.0%	8.3%	8.0%	8.2%	10.9%	7.2%	8.2%
<b>AUG</b>	Count 3,850	3,893	4,112	4,338	4,432	4,534	4,647	4,848	6,603	6,718	5,663
	Percent 7.9%	7.8%	8.1%	8.0%	7.8%	7.9%	7.8%	8.1%	8.7%	8.2%	7.7%
<b>SEP</b>	Count 3,849	3,804	3,994	4,183	4,253	4,423	4,505	4,755	5,390	6,865	5,473
	Percent 7.9%	7.6%	7.8%	7.7%	7.5%	7.7%	7.6%	7.9%	7.1%	8.4%	7.4%
<b>OCT</b>	Count 3,956	3,868	4,184	4,284	4,501	4,548	4,619	4,858	5,566	6,849	5,645
	Percent 8.2%	7.7%	8.2%	7.9%	8.0%	7.9%	7.8%	8.1%	7.4%	8.4%	7.6%
<b>NOV</b>	Count 3,894	3,924	4,239	4,543	4,518	4,547	4,706	5,058	6,048	7,328	6,142
	Percent 8.0%	7.9%	8.3%	8.4%	8.0%	7.9%	7.9%	8.4%	8.0%	9.0%	8.3%
<b>DEC</b>	Count 4,253	4,430	4,449	4,882	4,883	5,272	5,208	5,212	9,053	8,322	6,791
	Percent 8.8%	8.9%	8.7%	9.0%	8.6%	9.2%	8.8%	8.7%	12.0%	10.2%	9.2%
<b>TOTAL</b>	Count 48,459	49,929	51,074	54,152	56,480	57,261	59,206	60,161	75,700	81,482	73,861
	Percent 100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**TABLE 2A-3  
DEATHS BY DAY AND MONTH OF OCCURRENCE, ARIZONA RESIDENTS, 2022**

Day of death	Month of death												Total
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
1	259	274	224	196	186	195	167	149	199	177	207	230	2,463
2	280	265	195	190	192	196	182	194	218	174	218	230	2,534
3	266	294	206	170	179	191	192	196	196	192	182	231	2,495
4	262	268	187	182	168	165	184	206	201	191	217	202	2,433
5	317	234	227	199	177	174	206	178	183	173	186	236	2,490
6	270	245	219	183	200	195	186	192	186	196	206	212	2,490
7	280	297	212	186	189	205	173	181	173	191	202	221	2,510
8	284	263	205	193	170	190	189	190	179	167	195	207	2,432
9	244	257	235	185	203	177	196	188	182	179	170	228	2,444
10	258	241	195	173	204	181	185	161	173	182	190	209	2,352
11	270	265	201	178	173	188	224	210	163	169	175	223	2,439
12	255	239	204	168	163	210	205	172	166	174	200	235	2,391
13	264	205	204	168	197	234	210	202	155	164	173	208	2,384
14	259	239	170	183	187	204	202	171	183	175	197	200	2,370
15	278	219	217	204	184	179	202	179	179	183	206	210	2,440
16	293	261	195	175	184	193	218	190	191	171	226	226	2,523
17	290	214	212	179	194	215	198	192	191	153	189	229	2,456
18	257	227	217	185	187	187	210	176	176	181	222	208	2,433
19	268	230	208	170	196	148	193	162	184	190	222	213	2,384
20	243	229	192	168	182	177	201	192	179	199	204	231	2,397
21	257	218	176	204	193	169	202	149	176	175	218	205	2,342
22	241	209	182	192	155	178	198	170	198	181	215	217	2,336
23	280	229	169	173	206	174	223	186	184	159	186	244	2,413
24	284	210	189	181	172	184	206	185	176	181	195	210	2,373
25	248	190	206	169	200	179	211	165	198	178	228	202	2,374
26	244	206	212	187	180	184	193	193	182	211	223	209	2,424
27	300	222	183	195	208	176	176	201	193	203	221	224	2,502
28	257	214	164	193	178	180	185	197	179	185	238	255	2,425
29	314		165	216	185	173	180	178	147	194	235	207	2,194
30	268		203	201	179	193	174	174	183	190	196	203	2,164
31	253		191		198		195	184		207		226	1,454
<b>Total</b>	<b>8,343</b>	<b>6,664</b>	<b>6,165</b>	<b>5,546</b>	<b>5,769</b>	<b>5,594</b>	<b>6,066</b>	<b>5,663</b>	<b>5,473</b>	<b>5,645</b>	<b>6,142</b>	<b>6,791</b>	<b>73,861</b>



**TABLE 2A-4  
AGE-SPECIFIC MORTALITY BY PLACE OF DEATH AND DECEDENT STATUS, ARIZONA, 2022**

	Age												Total				
	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Un- known					
<b>IN HOSPITAL</b>																	
<b>In-patient</b>	352	37	31	176	443	816	1,405	2,944	4,755	5,070	2,846	0	18,875				
<b>Out-patient<sup>a</sup></b>	70	37	30	166	293	349	404	682	815	781	399	0	4,026				
<b>Died on arrival</b>	0	0	0	*	0	*	*	6	*	7	6	0	30†				
<b>Status unknown</b>	31	15	31	220	493	763	1,336	3,227	5,837	7,266	7,143	0	26,362				
<b>Subtotal</b>	453	89	92	560†	1,229	1,930†	3,150†	6,859	11,410†	13,124	10,394	0	49,293				
<b>NOT IN HOSPITAL</b>																	
<b>Nursing home<sup>b</sup></b>	17	*	11	22	40	105	243	663	1,214	1,739	1,642	0	5,700†				
<b>Residence</b>	0	0	0	0	19	43	103	491	1,485	3,468	5,681	0	11,290				
<b>Other<sup>c</sup></b>	13	9	23	372	716	746	694	892	1,049	1,305	1,755	*	7,577				
<b>Unspecified</b>	0	0	0	0	0	0	0	0	0	0	0	0	0				
<b>Subtotal</b>	30	10†	34	394	775	894	1,040	2,046	3,748	6,512	9,078	0†	24,568				
<b>TOTAL</b>	483	103	126	958	2,004	2,823	4,190	8,905	15,158	19,636	19,472	3	73,861				

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Includes Emergency Room; <sup>b</sup> Includes other long-term care facilities; <sup>c</sup> Includes hospices.





**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 (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).

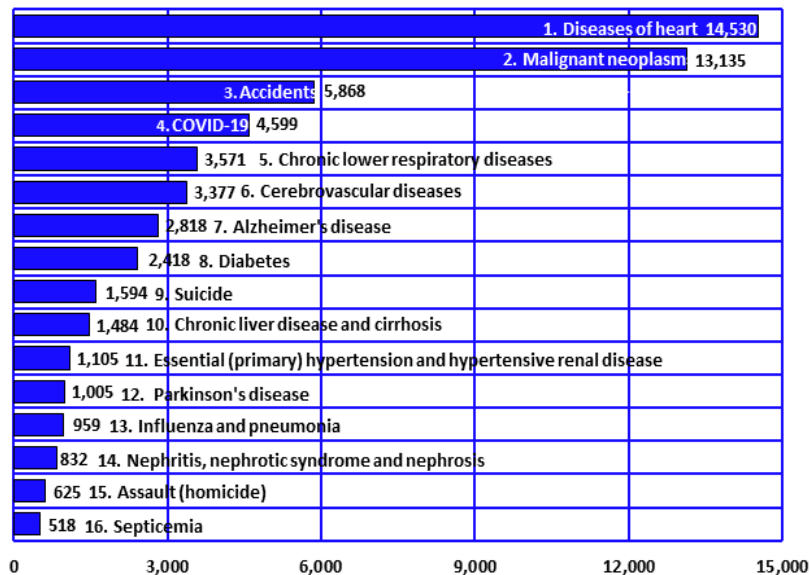
The death certificate now includes a new classification of the decedent’s racial/ethnic status, consistent with the revised federal standards for collecting and reporting racial and ethnic status. These standards were published in the Federal Register on October 30, 1997, as “Revisions to the Standards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

## 2B. LEADING CAUSES OF DEATH

**Figure 2B-1A**  
**Leading Causes of Death among Arizona Residents in 2022**

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

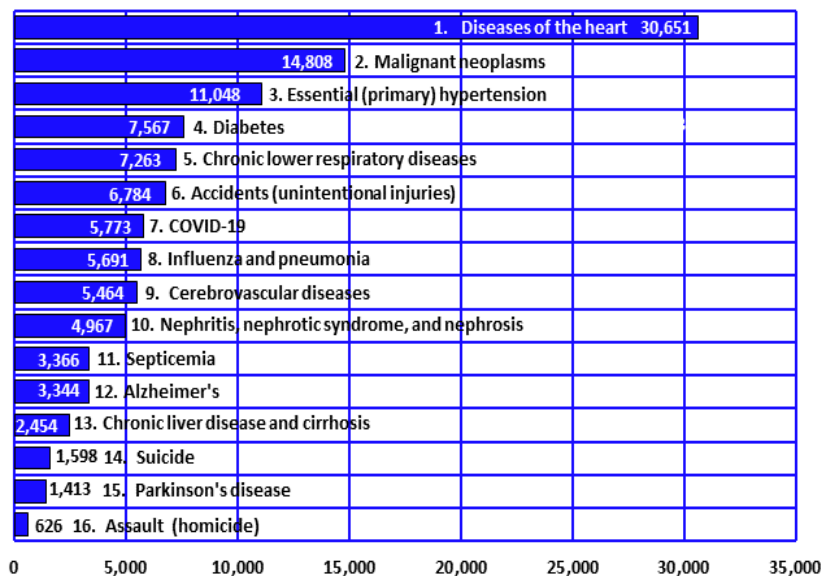


Based on the number of deaths (but not age-adjusted mortality rate), the leading underlying cause of death to Arizona residents in 2022 was *heart disease* (14,530 or 19.7 percent of all deaths), closely followed by *cancer*, which accounted for 13,135 or 17.8 percent of deaths (**Figure 2B-1A, Table 2B-1, Table 5E-14**).

The third leading cause of death, *accidents (unintentional injuries)* accounted for 5,868 or 7.9 percent of total deaths. Deaths due to *COVID-19* ranked fourth in 2022, with 4,599 (6.2 percent) resident deaths reported. Deaths due to *chronic lower respiratory diseases* ranked fifth in 2022, with 3,571 (4.8 percent) resident deaths reported. Together, these five causes accounted for 56.5 percent of total deaths in 2022. The fifteen leading causes accounted for 78.4 percent of all deaths among Arizona residents.

**Figure 2B-1B**  
**Leading Causes of Death among Arizona Residents in 2022**

**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 14,530 deaths that had diseases of the heart assigned as the underlying cause, another 16,121 deaths had diseases of the heart assigned as a secondary cause of death. The sum of these two counts (30,651, **Figure 2B-1B**) is the total number of deaths that had any mention of diseases of the heart on the 2022 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 11<sup>th</sup> as the underlying cause but ranked 3<sup>rd</sup> when any mention of it was 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 2022, diseases of the heart were the leading cause of death for White non-Hispanics, Hispanics, and Blacks, placed 2<sup>nd</sup> for American Indians and Asians. Cancer ranked 1<sup>st</sup> leading cause of death for Asians, 2<sup>nd</sup> for White non-Hispanics, Hispanics, and Blacks, and 3<sup>rd</sup> for American Indians. In 2022, unintentional injury ranked 1<sup>st</sup> leading cause for American Indians, 3<sup>rd</sup> for White non-Hispanics, Hispanics, Blacks, and Asians. (Figure 2B-2, Table 2B-4). COVID-19 was the 4<sup>th</sup> leading cause of death for White non-Hispanics, Hispanics, American Indians, and Asians, and ranked 5<sup>th</sup> for Black or African Americans.

In 2022, cerebrovascular diseases ranked 4<sup>th</sup> leading cause of death for Black or African Americans and 5<sup>th</sup> for Asians, while chronic lower respiratory disease came in as the fifth leading cause of death specific to White non-Hispanics, diabetes also ranked 5<sup>th</sup> among Hispanics, and chronic liver disease and cirrhosis was unique to American Indians in making the top five ranking. (Table 2B-4).

**Figure 2B-2**  
Age-adjusted Mortality Rates<sup>a</sup> for the Five Leading Causes of Death for Both Genders by Race/Ethnicity, Arizona, 2022

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 151.3	Diseases of heart 121.2	Diseases of heart 194.9	Unintentional injury 206.5	Cancer 102.7
2	Cancer 136.5	Cancer 113.8	Cancer 166.1	Diseases of heart 156.1	Diseases of heart 88.9
3	Unintentional injury 71.8	Unintentional injury 63.3	Unintentional injury 91.2	Cancer 139.3	Unintentional injury 31.1
4	COVID-19 41.7	COVID-19 62.7	Cerebrovascular diseases 54.2	COVID-19 116.7	COVID-19 30.1
5	Chronic lower respiratory diseases 40.1	Diabetes 39.5	COVID-19 52.7	Chronic liver disease and cirrhosis 106.0	Cerebrovascular diseases 29.4

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, 2022

Based on age-adjusted mortality rates, cancer was the leading cause of death for all females. Disease of the heart ranked 2<sup>nd</sup> for White non-Hispanic, Hispanic, Black or African American, and Asian females, while coming in 4<sup>th</sup> as the leading cause of death for American Indian females. Unintentional injury ranked 2<sup>nd</sup> leading cause of death for American Indian, 3<sup>rd</sup> among White-non-Hispanic, and 4<sup>th</sup> to Black or African American females. COVID-19 ranked 3<sup>rd</sup> to Hispanic and American Indians, while 5<sup>th</sup> for Black or African American and Asian females. Alzheimer's disease ranked 4<sup>th</sup> leading cause of death for Asians and 5<sup>th</sup> for White non-Hispanics and Hispanic females. (Figure 2B-3, Table 2B-4).

Chronic lower respiratory diseases was the fourth leading cause of death specific to White non-Hispanic females. Chronic liver disease and cirrhosis ranked fifth among the leading cause of death unique to American Indian women.

Cerebrovascular diseases ranked third among Black or African American and Asian females, while ranking fourth among Hispanic women.

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Cancer 120.8	Cancer 98.6	Cancer 158.7	Cancer 120.0	Cancer 100.1
2	Diseases of heart 117.4	Diseases of heart 93.8	Diseases of heart 145.3	Unintentional injury 105.4	Diseases of heart 73.0
3	Unintentional injury 42.4	COVID-19 43.8	Cerebrovascular diseases 59.1	COVID-19 100.9	Cerebrovascular diseases 31.2
4	Chronic lower respiratory diseases 40.2	Cerebrovascular diseases 36.5	Unintentional injury 46.1	Diseases of heart 99.4	Alzheimer's disease 22.9
5	Alzheimer's disease 34.0	Alzheimer's disease 35.0	COVID-19 43.1	Chronic liver disease and cirrhosis 99.0	COVID-19 20.2

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

2B. 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, 2022

Rank	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1	Diseases of heart 188.8	Diseases of heart 153.1	Diseases of heart 255.3	Unintentional injury 320.5	Diseases of heart 110.5
2	Cancer 154.8	Cancer 133.8	Cancer 176.9	Diseases of heart 231.2	Cancer 106.1
3	Unintentional injury 101.0	Unintentional injury 95.8	Unintentional injury 134.1	Cancer 166.6	COVID-19 45.0
4	COVID-19 52.2	COVID-19 88.0	COVID-19 64.3	COVID-19 139.8	Unintentional injury 43.7
5	Chronic lower respiratory diseases 39.8	Diabetes 52.5	Diabetes 53.9	Chronic liver disease and cirrhosis 112.5	Cerebrovascular diseases 26.7

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 for Arizona males, diseases of the heart ranked first as the leading cause of death for all racial/ethnic groups except for American Indians who ranked second. Cancer was the second leading cause for White non-Hispanic, Hispanic, Black or African American, and Asian males, and third for American Indian males. (**Figure 2B-4; Table 2B-4**).

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

In 2022, based on the age-adjusted mortality rates, COVID-19 was the third leading cause of death to Asian males and fourth leading cause to White non-Hispanic, Hispanic, Black or African American, and American Indian males. Chronic lower respiratory diseases ranked fifth specific to White non-Hispanic males, chronic liver disease and cirrhosis unique among American Indian males, cerebrovascular diseases also unique to Asian males, as well as ranking fifth for diabetes among Hispanic and Black 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, 2022

Rank	Urban male	Urban female	Rural male	Rural female
1	Diseases of heart 180.4	Cancer 116.0	Diseases of heart 212.3	Cancer 124.4
2	Cancer 147.4	Diseases of heart 112.0	Cancer 169.8	Diseases of heart 120.8
3	Unintentional injury 99.7	Unintentional injury 39.5	Unintentional injury 144.7	Unintentional injury 53.5
4	COVID-19 57.7	COVID-19 34.9	COVID-19 70.5	COVID-19 46.4
5	Cerebrovascular diseases 34.5	Alzheimer's disease 33.7	Intentional Self-harm (suicide) 60.3	Chronic lower respiratory diseases 46.0

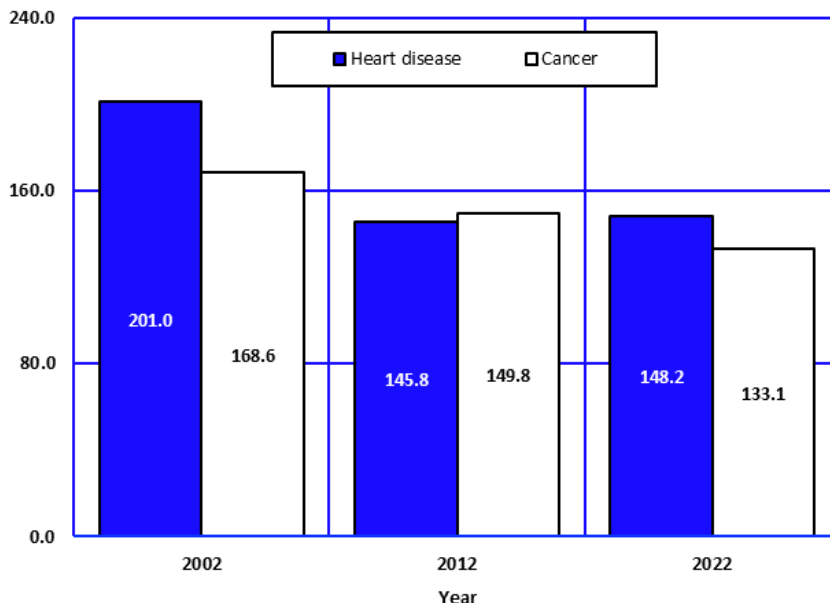
Notes: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas.

In 2022, 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, but came in 2<sup>nd</sup> among urban and rural females. Cancer did the opposite of heart disease ranking first to urban and rural females and ranked 2<sup>nd</sup> among urban and rural males. Unintentional injury placed third among the leading cause for males and females regardless of area of residence. COVID-19 was ranked the fourth among both urban and rural males and females.

The leading causes of death which ranked fifth were cerebrovascular disease specific to urban males, Alzheimer's disease unique to urban females, Intentional self-harm (suicide) was specific to rural males, and chronic lower respiratory diseases 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, 2002, 2012, and 2022**

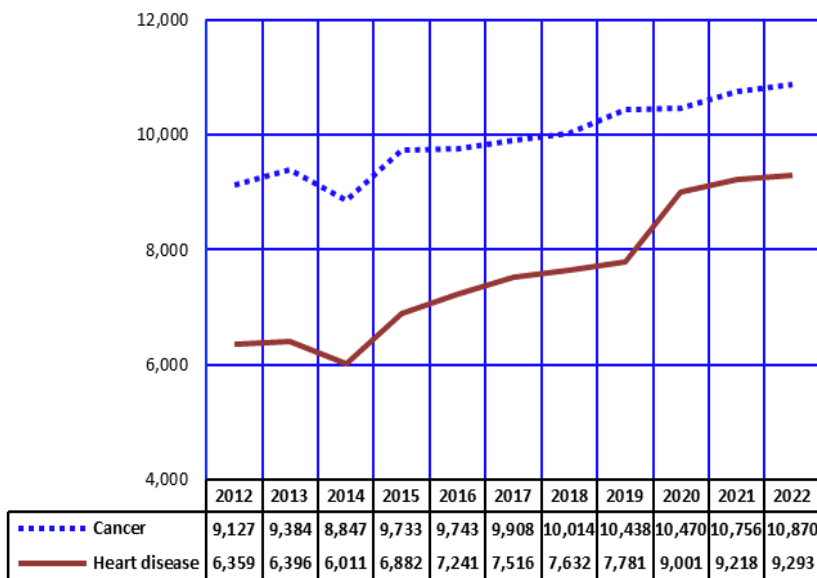


The age-adjusted mortality rate for diseases of the heart decreased by 26.3 percent from 201.0 deaths per 100,000 population in 2002 to 148.2/100,000 in 2022 (**Figure 2B-6**). The age-adjusted mortality rate for cancer declined less, by 21.1 percent, from 2002-2022. In Arizona, the relative risk of death from heart disease versus cancer declined from 19.2 percent greater in 2002 to 11.3 percent in 2022.

In 2012, 505 less Arizonans died from diseases of the heart than cancer (**Table 2B-1**). In 2022, the number of deaths due to diseases of the heart exceeded cancer by 1,395 cases (**Table 2B-4**).

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

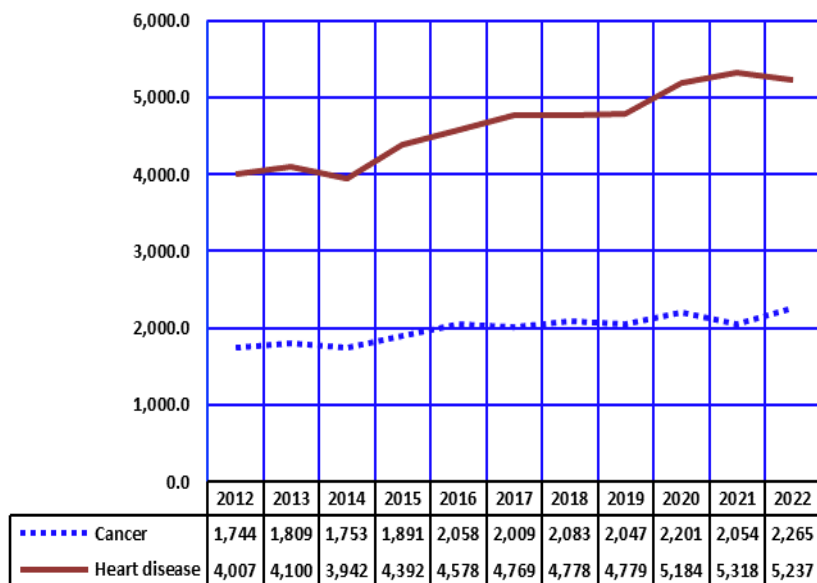
**Figure 2B-7**  
**Number of Deaths from Heart Disease and Cancer among Arizonans 0-84 Years, 2012-2022**



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 2022, 1,577 more Arizonans 0-84 years old died from cancer (10,870) than heart disease (9,293).

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

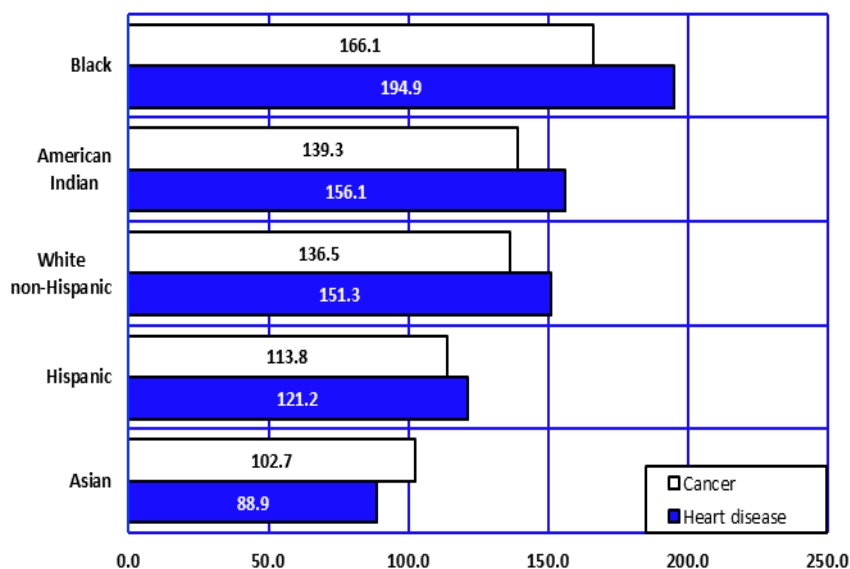
**Figure 2B-8**  
Deaths from Heart Disease and Cancer among Arizonans 85+, 2012-2022



Among Arizonans age 85 and over, heart disease is the number one leading cause of death by a wide margin. In 2022, adults aged 85 and over accounted for 17.2 percent of all deaths from cancer but 36.0 percent of all deaths from heart disease. In 2022, the median age at death for heart disease was 80 years (**Table 2D-3**); and a minority of deaths (42.7 percent, **Table 2D-4**) were premature, i.e., before reaching the expected years of life at birth for all U.S. residents (77.5 years).

However, from 2012 to 2022, the number of deaths from cancer increased by 29.9 percent among Arizonans 85 years or older, less than the increase observed in diseases of the heart (30.7 percent increase).

**Figure 2B-9**  
Age-adjusted Mortality Rates<sup>a</sup> for Heart Disease and Cancer by Race/Ethnicity, Arizona, 2022



In Arizona, Black or African Americans were 2.2 times more likely to die from diseases of the heart and 1.6 times more likely to die from malignant neoplasms in 2022 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 1.3 times more likely to die of cancer.

In 2022, the age-adjusted 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.

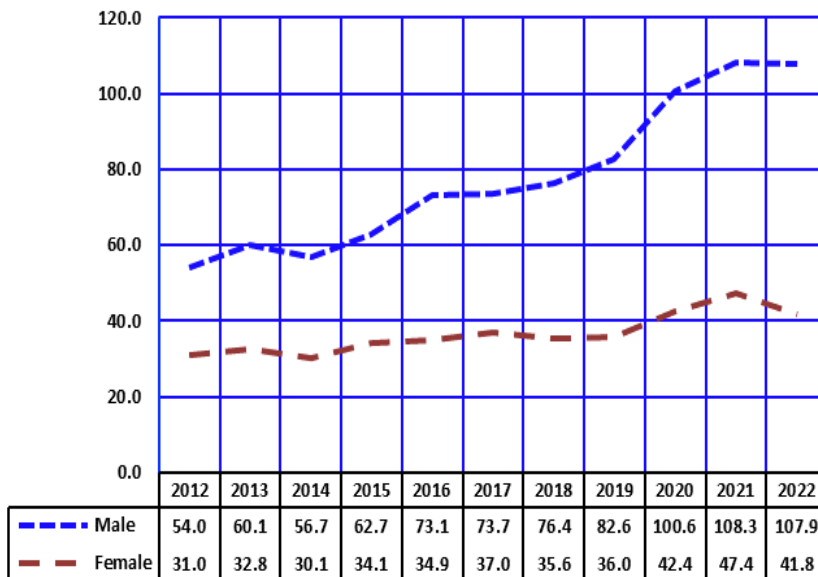


2B. LEADING CAUSES OF DEATH  
**Accidents (unintentional injury)**

**Figure 2B-10**  
**Age-adjusted Mortality Rates<sup>a</sup> for Accidents (Unintentional Injuries) by Gender and Year, Arizona, 2012-2022**

The number of deaths from unintentional injuries decreased by 1.3 percent from 5,945 in 2021 to 5,868 in 2022 (**Table 2B-1**). In 2022, based on age-adjusted mortality rates, accidents ranked third as a leading cause of death for males seventh for females (**Table 2B-4**). From 2021 to 2022, the age-adjusted mortality rate for accidents decreased both for males (0.4 percent) and females (11.8 percent; **Figure 2B-10**).

In 2022, 1,344 deaths were caused by motor vehicle accidents, a decrease of 1.1 percent from 2021. Heat induced mortality has seen an increase of 25.3 percent between 2021 and 2022. Deaths due to accidental drowning and submersion increased by 9.6 percent from 2021 (n=115) to 2022 (n=126). Additionally, Arizonans experienced a 4.8 percent decrease in the number of accidental poisonings due to drugs and/or medicaments from 2,508 fatalities in 2021 to 2,388 in 2022 (**Table 2B-9**).

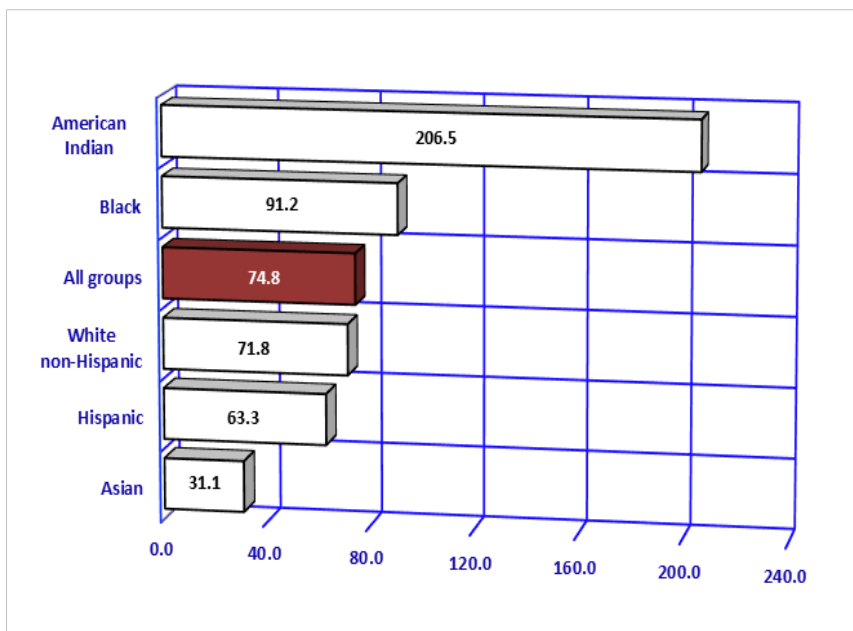


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-11**  
**Age-adjusted Mortality Rates<sup>a</sup> for Accidents (Unintentional Injuries) by Race/Ethnicity, Arizona, 2022**

The American Indian death rate for unintentional injuries (206.5/100,000) was 6.6 times greater than the rate for Asians (31.1/100,000), the group with the lowest risk of unintentional injury death among racial/ethnic groups in the state (**Figure 2B-11, Table 2B-4**).

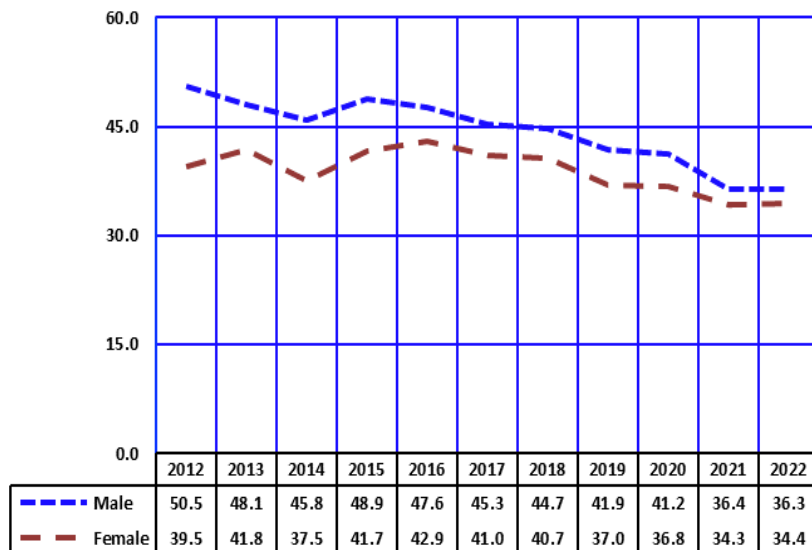
In 2022, Apache (198.5/100,000) and La Paz (173.4/100,000) counties had the two highest age-adjusted mortality rates for unintentional injuries (**Table 5E-11**).



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, 2012-2022

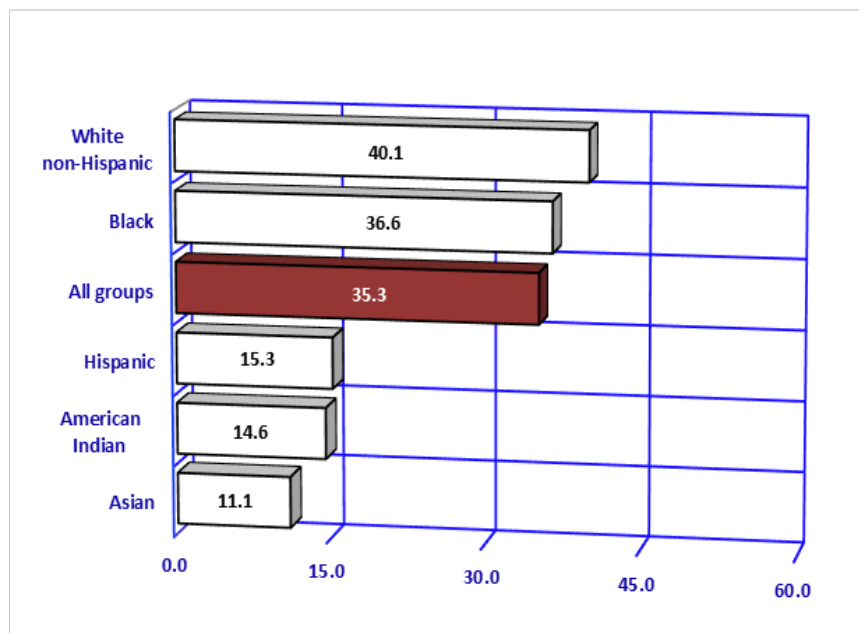


In 2022, chronic lower respiratory diseases (bronchitis, emphysema, asthma) was the 5<sup>th</sup> leading cause of death among Arizona residents (**Table 2B-1**). The mortality rate for chronic lower respiratory diseases decreased slightly for males between 2021 and 2022 (0.3 percent), but had a slight increase for females (0.3 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 46.3/100,000 and 46.0/100,000, respectively) (**Table 2B-5**).

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, 2022



Mortality rates for emphysema, chronic bronchitis, asthma, and other lower respiratory disorders were highest among White non-Hispanics (40.1 deaths per 100,000) when compared to any other racial/ethnic groups in 2022. Asians recorded the lowest rate at 11.1 deaths per 100,000 population (**Figure 2B-13, Table 2B-4**).

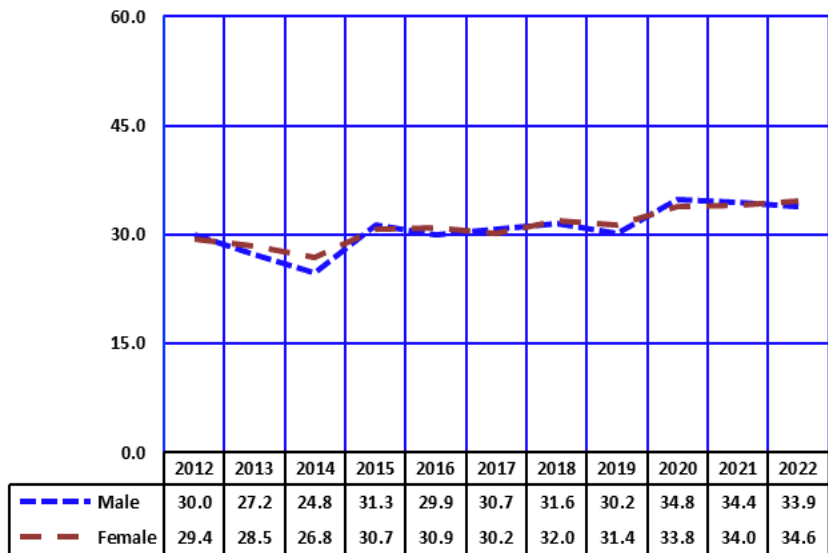
Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
**Cerebrovascular diseases**

**Figure 2B-14**  
**Age-adjusted Mortality Rates<sup>a</sup> for Cerebrovascular Disease by Gender and Year, Arizona, 2012-2022**

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 decreased by 0.3 percent from 34.4/100,000 in 2021 to 34.5 deaths per 100,000 population in 2022 (**Table 2B-2**).

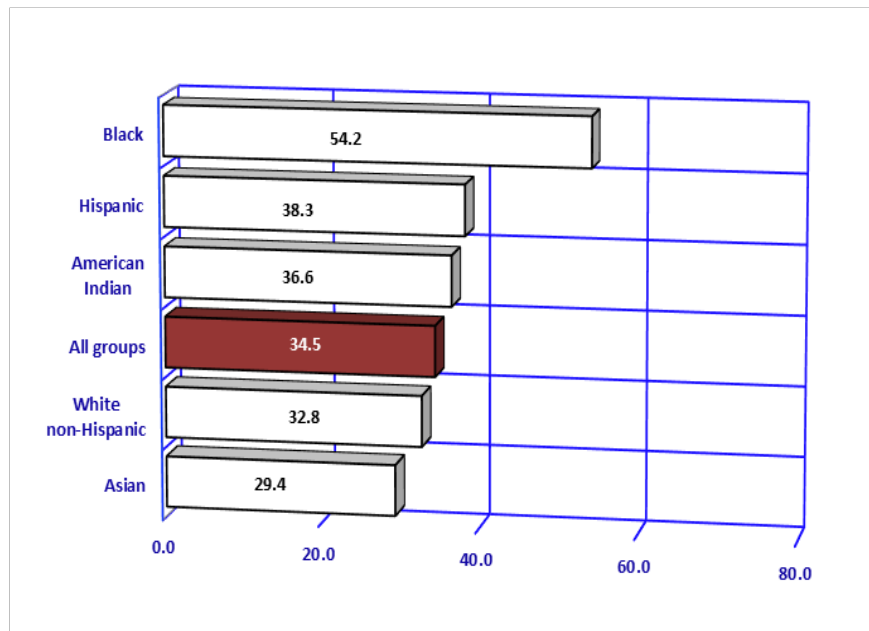
With some exceptions, the risk of dying from cerebrovascular diseases was slightly higher among females than males for the period 2012-2022 (6 of the last 11 years), but the rates were very similar. (**Figure 2B-14, Table 2B-2**).



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, 2022**

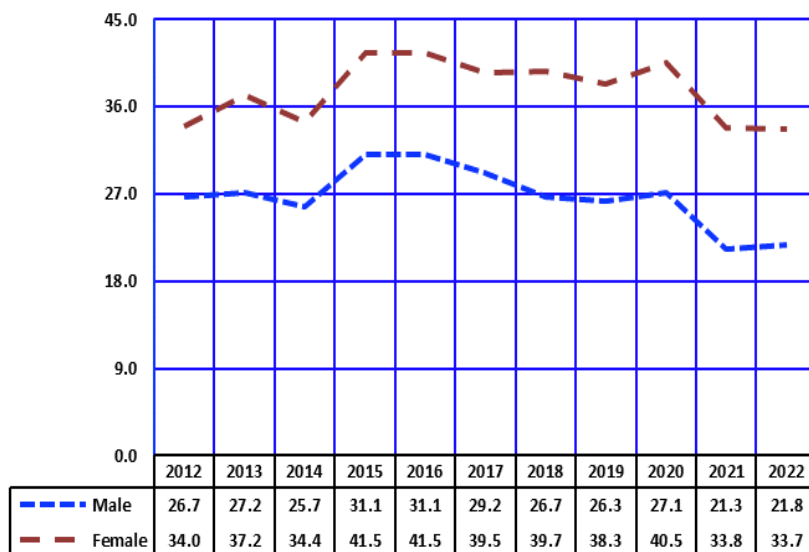
Compared to Arizona's overall rate, Black or African Americans were 1.6 times more likely to die from cerebrovascular disease in 2022 (**Figure 2B-15, Table 2B-4**). The 2022 mortality rate for cerebrovascular disease among Asians (29.4/100,000) was the lowest among racial/ethnic groups.



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

2B. LEADING CAUSES OF DEATH  
Alzheimer's disease

**Figure 2B-16**  
Age-adjusted Mortality Rates<sup>a</sup> for Alzheimer's Disease by Gender and Year, Arizona, 2012-2022

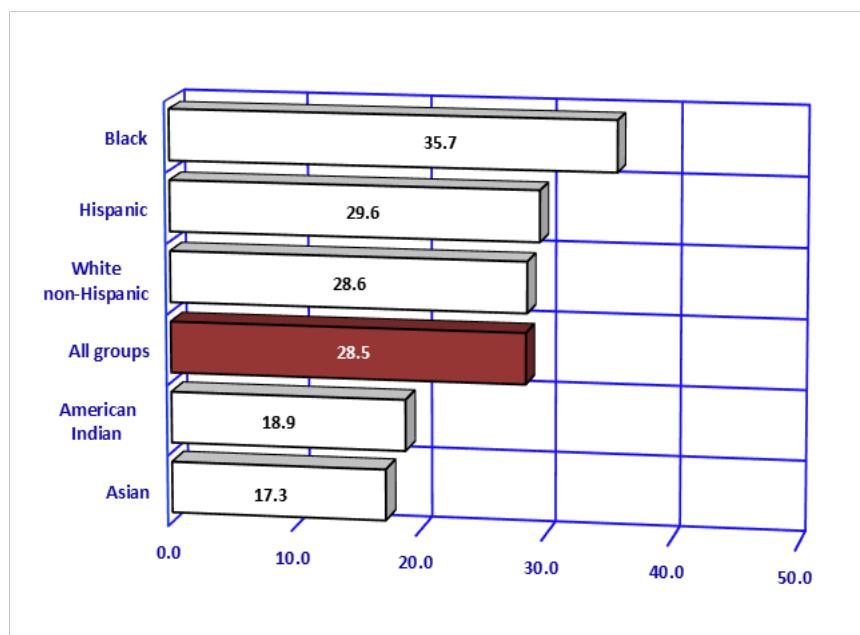


Based on the number of deaths in 2022, Alzheimer's disease was the 6<sup>th</sup> leading cause of death for females and 9<sup>th</sup> leading cause for males (**Table 2B-4**)

From 2021 to 2022, the age-adjusted mortality rate for Alzheimer's disease increased slightly for males (2.3 percent) and decreased for females (0.3 percent) (**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, 2022



The age-adjusted mortality rates for Alzheimer's disease in 2022 were higher among Black or African Americans (35.7/100,000), Hispanic or Latinos (29.6/100,000), and White non-Hispanics (28.6/100,000) than the other racial/ethnic groups. Rates lower than the state average (28.5/100,000) were recorded among American Indians (18.9/100,000) and Asians (17.3/100,000) (**Figure 2B-17, Table 2B-4**).

White non-Hispanic residents of Arizona disproportionately contributed to mortality from Alzheimer's disease. In 2022, White non-Hispanics accounted for 55.0 percent (**Table 10C-1**) of the state's population, but 82.3 percent of all deaths from Alzheimer's disease (2,318 out of 2,818; **Table 2B-4**).

In 2022, the overall median age at death from Alzheimer's disease was 86, specifically 85 years for males and 86 years for females (**Table 2D-3**).

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

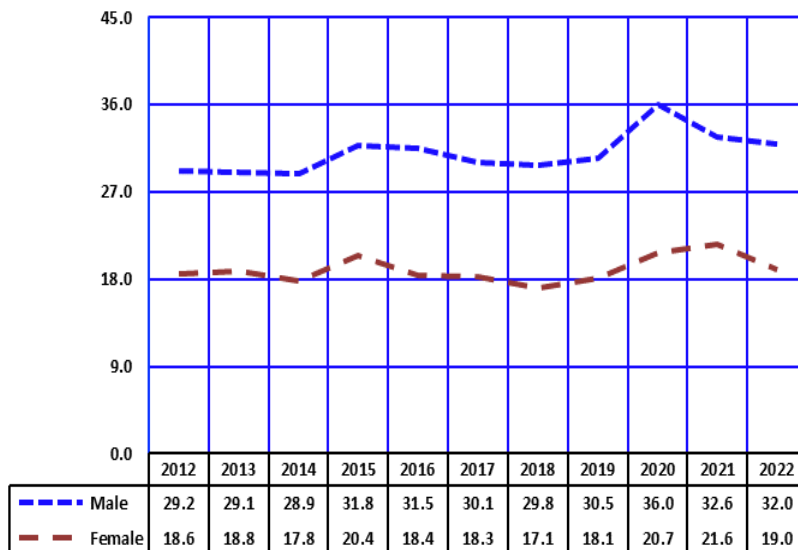
2B. LEADING CAUSES OF DEATH  
Diabetes

**Figure 2B-18**  
Age-adjusted Mortality Rates<sup>a</sup> for Diabetes by Gender and Year, Arizona, 2012-2022

From 2012-2022, mortality rates for diabetes decreased for both males (1.8 percent) and females (12.0 percent; **Figure 2B-18**).

In addition to 2,418 deaths that had diabetes assigned as the underlying cause in 2022, another 5,149 deaths had diabetes assigned as a contributing factor. The diabetes-related death rate of 77.9/100,000 (**Table 6A-6**) was 3.1 times greater than the rate for diabetes as an underlying cause (25.1/100,000; **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.

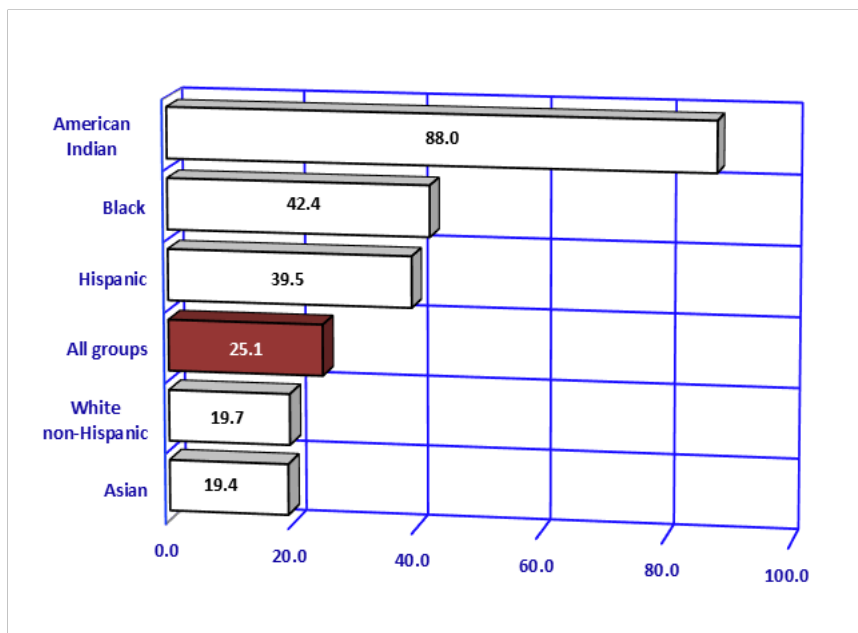


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-19**  
Age-adjusted Mortality Rates<sup>a</sup> for Diabetes by Race/Ethnicity, Arizona, 2022

In 2022, compared to Arizona's rate, American Indians were 3.5 times more likely to die from diabetes (88.0 deaths per 100,000; **Figure 2B-19, Table 2B-4**). The rate of 19.4 deaths per 100,000 among Asian or Pacific Islanders was the lowest rate among all racial/ethnic groups in the state.

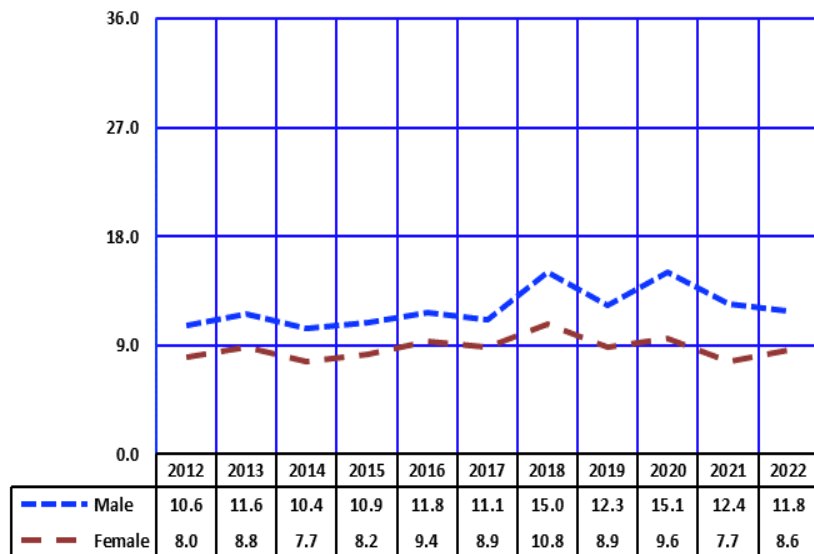
Among the 15 Arizona counties, La Paz (72.8/100,000) and Graham (57.0/100,000) counties had the highest mortality rates for diabetes recorded in 2022 (**Table 5E-11**).



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, 2012-2022**



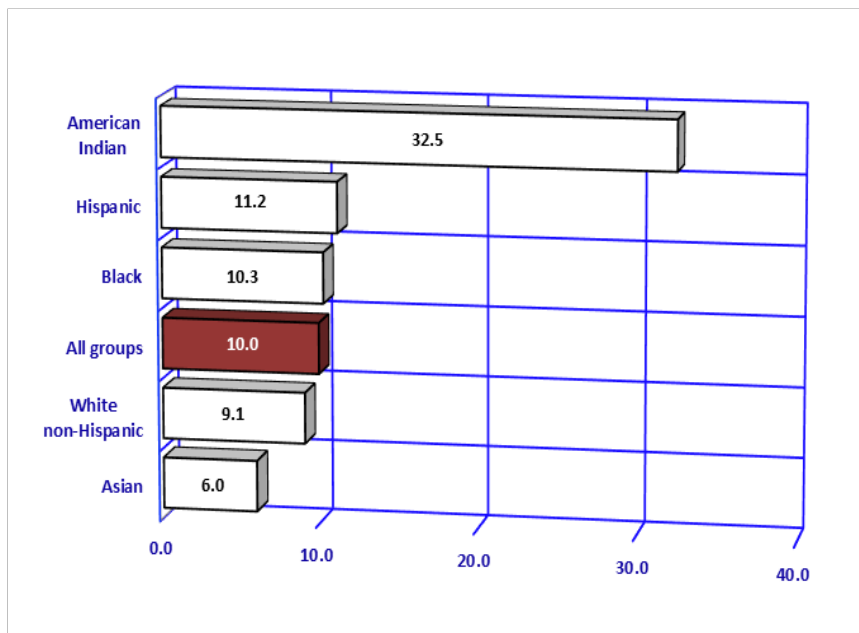
The number of deaths from influenza and pneumonia increased by 51.0 percent from 635 in 2012 to 959 in 2022. (**Table 2B-1**). Among the 959 deaths, influenza was identified as the underlying cause for 95 of them, while pneumonia was listed as the underlying cause on 864 death certificates (**Table 2B-6**).

The mortality rate for influenza and pneumonia increased for females from 7.7 deaths per 100,000 in 2021 to 8.6 deaths in 2022 (**Figure 2B-20, Table 2B-2**). However, the mortality rate for influenza and pneumonia decreased for males from 12.4 per 100,000 in 2021 to 11.8 deaths per 100,000 in 2022.

In 2022, the age-adjusted mortality rate for Arizona males was 37.2 percent greater than that of Arizona females.

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

**Figure 2B-21**  
**Age-adjusted Mortality Rates<sup>a</sup> for Influenza and Pneumonia by Race/Ethnicity, Arizona, 2022**



In 2022, American Indian residents of Arizona had the highest mortality rate for influenza and pneumonia (32.5 deaths per 100,000) among the racial/ethnic groups. Mortality due to influenza and pneumonia for White non-Hispanics (9.1/100,000) and Asians (6.0/100,000) were lower than the state rate. (**Figure 2B-21, Table 2B-4**).

County comparisons show that in 2022 influenza and pneumonia mortality rates were highest in Apache (25.8/100,000), Greenlee (20.2/100,000), and Navajo (19.5/100,000) counties compared to the remaining counties (**Table 5E-11**).

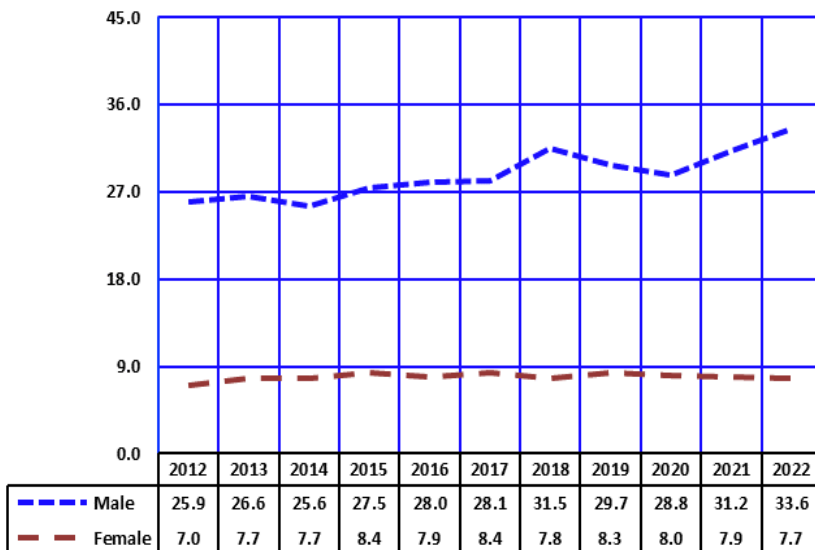
Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

2B. LEADING CAUSES OF DEATH  
Suicide

**Figure 2B-22**  
Age-adjusted Mortality Rates<sup>a</sup> for Suicide by Gender and Year, Arizona, 2012-2022

In 2022, based on age-adjusted mortality rates, suicide was the 7<sup>th</sup> leading cause of death among males. It ranked as the 12<sup>th</sup> cause of mortality for females. The overall age-adjusted suicide rate increased from 19.4 suicides per 100,000 in 2021 to 20.5 in 2022 (**Table 2B-4**).

From 2021 to 2022, suicide mortality increased by 7.7 percent among males and decreased 2.5 percent among females (**Figure 2B-22, Table 2B-4**). In 2022, suicide posed a 4.4 times greater mortality risk for males (33.6/100,000) than for females (7.7/100,000).

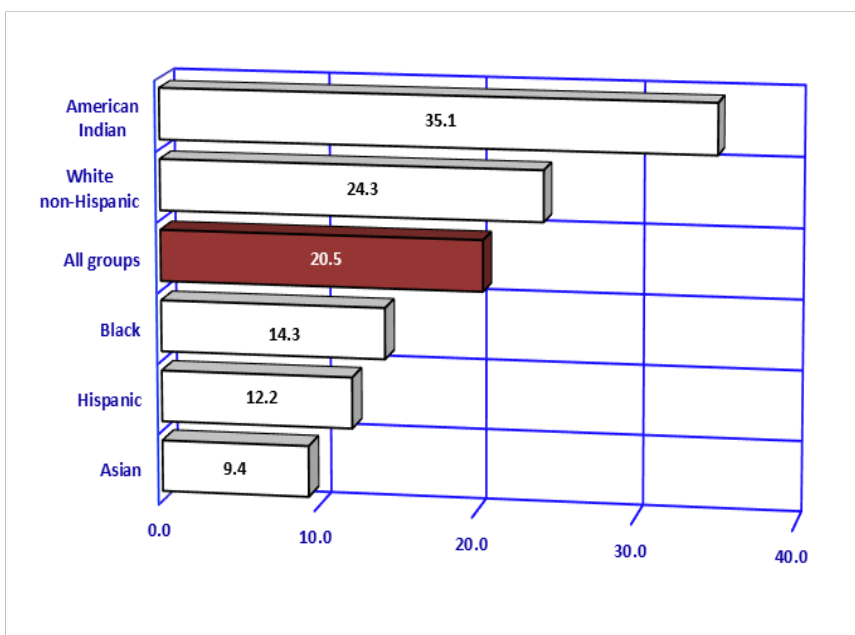


Note: <sup>a</sup> Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

**Figure 2B-23**  
Age-adjusted Mortality Rates<sup>a</sup> for Suicide by Race/Ethnicity, Arizona, 2022

In 2022, American Indians had the highest age-adjusted suicide rate (35.1 suicides per 100,000) among racial/ethnic groups, followed by White non-Hispanics (24.3/100,000), while Asians recorded the lowest age-adjusted suicide rate (9.4/100,000; **Figure 2B-23, Table 2B-4**).

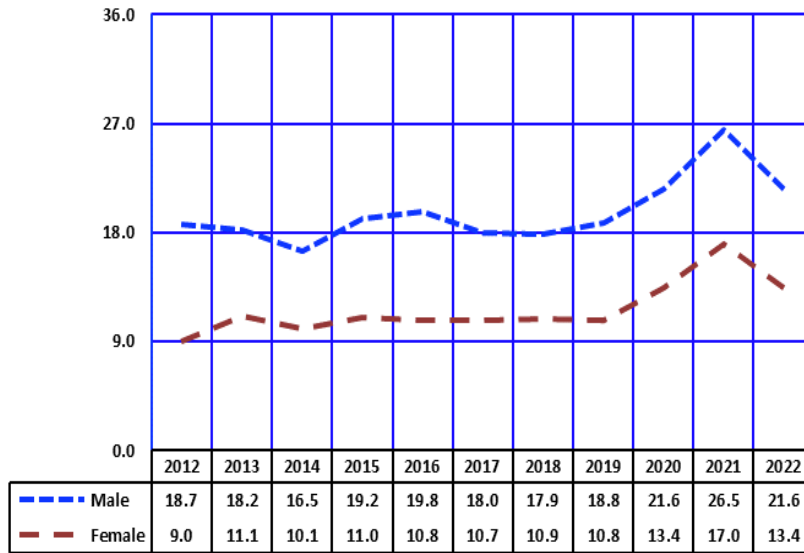
The 2022 age-adjusted mortality rates for suicide varied across the state, from a low rate of 7.5 suicides per 100,000 residents in Santa Cruz County to a high of 63.6 suicides per 100,000 residents in Greenlee County (**Table 5E-11**).



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, 2012-2022



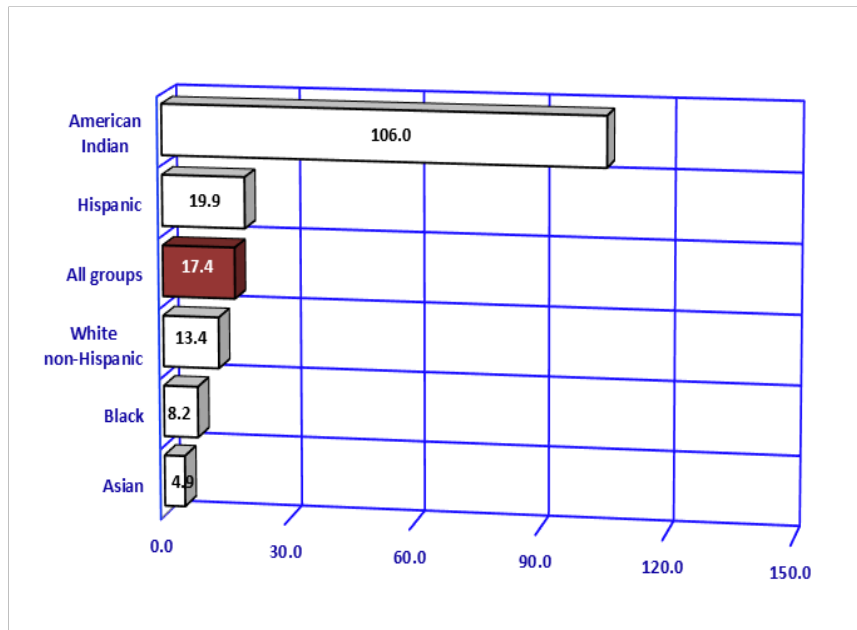
Chronic liver disease and cirrhosis was the 10<sup>th</sup> leading cause of death in Arizona in 2022 (**Figure 2B-1, Table 2B-1**). Among the 1,484 deaths due to chronic liver disease and cirrhosis, 901 (60.7 percent) were males (**Table 2B-4**).

Among females, the age-adjusted mortality rate for chronic liver disease and cirrhosis decreased 21.2 percent from 2021 to 2022. Among males, the mortality rate also decreased 18.5 percent from 26.5/100,000 in 2021 to 21.6/100,000 in 2022 (**Figure 2B-24, Table 2B-3**).

In 2022, Apache, Navajo, La Paz, and Gila counties had the highest mortality rates for chronic liver disease and cirrhosis (**Table 5E-11**).

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

**Figure 2B-25**  
Age-adjusted Mortality Rates<sup>a</sup> for Chronic Liver Disease and Cirrhosis  
by Race/Ethnicity, Arizona, 2022



In 2022, chronic liver disease and cirrhosis mortality rate was exceedingly high among American Indians (106.0 deaths per 100,000 population) compared to other racial/ethnic groups in the state (**Figure 2B-25, Table 2B-4**). The death rate for chronic liver disease and cirrhosis among Asians, Blacks, and White non-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 16 years younger (60 years, **Table 2D-3**). In 2022, the median age at death of American Indians who died from chronic liver disease and cirrhosis was 46 years, which was at least 14 years younger than all the other race/ethnic groups (**Table 2D-3**).

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



**TABLE 2B-1  
NUMBER OF DEATHS FOR THE LEADING CAUSES OF MORTALITY BY YEAR, ARIZONA, 2012-2022**

Rank in 2012	Rank in 2022	Cause of death	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2	1	Diseases of heart	10,366	10,497	9,953	11,274	11,820	12,285	12,410	12,560	14,185	14,536	14,530
1	2	Malignant neoplasms	10,871	11,193	10,600	11,624	11,801	11,917	12,097	12,485	12,671	12,810	13,135
4	3	Accidents (unintentional injury)	2,804	3,137	3,011	3,403	3,899	4,085	4,211	4,522	5,377	5,945	5,868
-	4	COVID-19	-	-	-	-	-	-	-	-	8,430	12,693	4,599
3	5	Chronic lower respiratory diseases	3,167	3,295	3,185	3,648	3,788	3,779	3,820	3,678	3,698	3,518	3,571
6	6	Cerebrovascular diseases	2,096	2,047	1,995	2,463	2,536	2,647	2,829	2,848	3,225	3,319	3,377
5	7	Alzheimer's disease	2,154	2,384	2,345	2,942	3,081	3,050	3,011	3,045	3,235	2,754	2,818
7	8	Diabetes	1,698	1,744	1,776	2,050	2,013	2,037	2,041	2,170	2,563	2,557	2,418
8	9	Intentional self-harm (suicide)	1,070	1,116	1,124	1,233	1,256	1,304	1,432	1,411	1,359	1,470	1,594
9	10	Chronic liver disease and cirrhosis	971	1,040	984	1,120	1,169	1,122	1,159	1,211	1,426	1,772	1,484
10	11	Essential primary hypertension and hypertensive renal disease	739	711	758	896	1,010	1,018	928	1,009	1,131	1,200	1,105
12	12	Parkinson's disease	579	578	569	719	712	749	790	806	1,016	892	1,005
11	13	Influenza and pneumonia	635	724	669	739	859	852	1,113	947	1,109	933	959
13	14	Nephritis, nephrotic syndrome and nephrosis	440	391	353	498	485	535	680	759	772	871	832
14	15	Assault (homicide)	376	383	294	364	416	430	416	409	526	561	625
15	16	Septicemia	319	354	336	436	505	461	382	339	425	511	518
<b>ALL CAUSES</b>			48,459	49,929	51,074	54,152	56,480	57,261	59,206	60,161	75,700	81,482	73,861

Notes: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. The group titles, such as cardiovascular diseases, infectious and parasitic diseases, or other cardiovascular diseases are not ranked to determine the leading causes of death.

**TABLE 2B-2  
AGE-ADJUSTED MORTALITY RATES<sup>a</sup> BY GENDER AND YEAR FOR SELECTED LEADING CAUSES OF DEATH,  
ARIZONA, 2012-2022**

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>TOTAL, ALL CAUSES</b>												
	<b>Total</b>	687.2	687.8	676.0	691.3	696.6	679.3	688.6	676.6	842.2	882.6	784.3
	<b>Male</b>	811.0	805.8	791.2	811.5	824.8	800.0	813.4	799.6	1002.1	1057.1	933.2
	<b>Female</b>	579.2	583.8	572.8	583.3	581.1	568.7	573.5	562.9	694.1	721.2	645.3
<b>CARDIOVASCULAR DISEASE</b>												
	<b>Total</b>	193.3	187.7	171.6	189.0	190.8	189.9	188.4	184.9	205.3	203.4	199.7
	<b>Male</b>	233.6	229.0	206.9	226.7	230.7	228.6	225.2	221.2	246.9	244.8	240.4
	<b>Female</b>	159.1	152.4	140.7	156.1	155.9	155.5	155.6	152.4	167.8	166.2	163.0
<b>-----DISEASES OF HEART</b>												
	<b>Total</b>	145.8	143.0	129.9	141.3	142.5	141.9	140.5	137.3	152.9	151.2	148.2
	<b>Male</b>	184.4	183.6	164.1	177.1	180.5	179.4	176.3	172.5	192.2	191.3	187.0
	<b>Female</b>	113.7	109.2	100.5	110.5	109.8	109.3	109.1	106.3	118.1	115.7	113.7
<b>-----CEREBROVASCULAR DISEASE</b>												
	<b>Total</b>	29.9	28.2	26.2	31.1	30.7	30.7	32.1	31.0	34.6	34.4	34.5
	<b>Male</b>	30.0	27.2	24.8	31.3	29.9	30.7	31.6	30.2	34.8	34.4	33.9
	<b>Female</b>	29.4	28.5	26.8	30.7	30.9	30.2	32.0	31.4	33.8	34.0	34.6
<b>MALIGNANT NEOPLASMS</b>												
	<b>Total</b>	149.8	149.6	136.3	144.0	140.7	136.6	135.9	134.7	134.7	131.8	133.1
	<b>Male</b>	180.3	175.0	160.8	169.0	166.3	161.0	161.8	156.7	156.1	150.3	151.9
	<b>Female</b>	125.9	129.9	116.8	123.8	120.0	116.6	114.7	116.4	117.2	116.7	117.5
<b>CHRONIC LOWER RESPIRATORY DISEASE</b>												
	<b>Total</b>	44.2	44.5	41.1	45.1	45.0	43.0	42.6	39.2	38.8	35.3	35.3
	<b>Male</b>	50.5	48.1	45.8	48.9	47.6	45.3	44.7	41.9	41.2	36.4	36.3
	<b>Female</b>	39.5	41.8	37.5	41.7	42.9	41.0	40.7	37.0	36.8	34.3	34.4
<b>ACCIDENTS (UNINTENTIONAL INJURIES)</b>												
	<b>Total</b>	42.4	46.3	43.3	48.1	53.7	55.3	55.9	59.2	71.5	77.8	74.8
	<b>Male</b>	54.0	60.1	56.7	62.7	73.1	73.7	76.4	82.6	100.6	108.3	107.9
	<b>Female</b>	31.0	32.8	30.1	34.1	34.9	37.0	35.6	36.0	42.4	47.4	41.8
<b>-----MOTOR VEHICLE ACCIDENTS</b>												
	<b>Total</b>	11.4	11.4	10.3	12.6	13.9	13.8	14.1	13.1	14.0	18.4	17.5
	<b>Male</b>	16.8	16.3	14.5	18.0	20.1	19.5	20.0	18.9	20.2	25.7	25.4
	<b>Female</b>	6.3	6.6	6.0	7.2	7.8	8.2	8.3	7.5	7.8	11.2	9.6
<b>INFLUENZA AND PNEUMONIA</b>												
	<b>Total</b>	9.1	10.0	8.9	9.4	10.4	9.9	12.7	10.4	12.2	9.9	10.0
	<b>Male</b>	7.4	11.6	10.4	10.9	11.8	11.1	15.0	12.3	15.1	12.4	11.8
	<b>Female</b>	5.6	8.8	7.7	8.2	9.4	8.9	10.8	8.9	9.6	7.7	8.6

**TABLE 2B-2 (continued)  
AGE-ADJUSTED MORTALITY RATES<sup>a</sup> BY GENDER AND YEAR FOR SELECTED LEADING CAUSES OF DEATH,  
ARIZONA, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>COVID-19</b>											
<b>Total</b>	-	-	-	-	-	-	-	-	92.1	136.9	47.5
<b>Male</b>	-	-	-	-	-	-	-	-	118.3	174.0	60.2
<b>Female</b>	-	-	-	-	-	-	-	-	69.2	103.7	36.8
<b>ALZHEIMER'S DISEASE</b>											
<b>Total</b>	29.9	33.2	30.9	37.3	37.3	35.2	34.3	33.2	34.7	28.3	28.5
<b>Male</b>	41.5	27.2	25.7	31.1	31.1	29.2	26.7	26.3	27.1	21.3	21.8
<b>Female</b>	52.8	37.2	34.4	41.5	41.5	39.5	39.7	38.3	40.5	33.8	33.7
<b>DIABETES</b>											
<b>Total</b>	23.5	23.6	23.0	25.7	24.5	23.8	23.0	23.9	27.9	26.8	25.1
<b>Male</b>	29.2	29.1	28.9	31.8	31.5	30.1	29.8	30.5	36.0	32.6	32.0
<b>Female</b>	18.6	18.8	17.8	20.4	18.4	18.3	17.1	18.1	20.7	21.6	19.0
<b>CHRONIC LIVER DISEASE AND CIRRHOSIS</b>											
<b>Total</b>	13.6	14.5	13.2	14.9	15.1	14.2	14.2	14.7	17.4	21.6	17.4
<b>Male</b>	18.7	18.2	16.5	19.2	19.8	18.0	17.9	18.8	21.6	26.5	21.6
<b>Female</b>	9.0	11.1	10.1	11.0	10.8	10.7	10.9	10.8	13.4	17.0	13.4
<b>NEPHRITIS, NEPHROTIC SYNDROME, AND NEPHROSIS</b>											
<b>Total</b>	6.2	5.3	4.6	6.3	5.8	6.2	7.7	8.3	8.4	9.1	8.5
<b>Male</b>	8.9	6.1	5.2	7.7	6.9	7.7	9.0	10.3	9.8	10.6	9.9
<b>Female</b>	6.7	4.8	4.2	5.2	4.9	4.9	6.7	6.5	7.2	7.9	7.4
<b>INTENTIONAL SELF-HARM (SUICIDE)</b>											
<b>Total</b>	16.2	17.0	16.5	17.8	17.7	18.0	19.5	18.9	18.2	19.4	20.5
<b>Male</b>	25.9	26.6	25.6	27.5	28.0	28.1	31.5	29.7	28.8	31.2	33.6
<b>Female</b>	7.0	7.7	7.7	8.4	7.9	8.4	7.8	8.3	8.0	7.9	7.7
<b>ASSAULT (HOMICIDE)</b>											
<b>Total</b>	5.9	5.9	4.6	5.6	6.3	6.4	6.1	5.9	7.7	8.1	9.0
<b>Male</b>	8.6	9.2	7.1	8.6	9.9	10.0	9.8	9.1	12.1	13.2	14.2
<b>Female</b>	3.1	2.5	2.1	2.5	2.5	2.8	2.4	2.6	3.2	2.9	3.6
<b>SEPTICEMIA</b>											
<b>Total</b>	4.5	4.8	4.4	5.4	6.2	5.5	4.4	3.8	4.7	5.4	5.5
<b>Male</b>	6.1	5.6	5.0	6.4	7.1	5.9	5.0	4.4	5.1	6.1	6.0
<b>Female</b>	4.8	4.3	4.0	4.6	5.5	5.1	3.9	3.3	4.4	4.8	5.0

Notes: <sup>a</sup> The number of deaths per 100,000 population adjusted to the 2000 U.S. standard. The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). Beginning in 2000, the causes of death are classified by ICD-10.







**TABLE 2B-3 (continued)**  
**AGE-ADJUSTED<sup>a</sup> MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY**  
**AND GENDER, ARIZONA, 2000-2022**

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
<b>-----Colorectal cancer</b>																		
2000	17.0	20.5	14.1	17.4	20.7	14.6	16.4	20.5	13.5	16.3	26.3	9.7	8.2	15.1	2.7	6.6	12.9	2.2
2001	16.7	19.0	14.8	16.9	19.0	15.2	16.6	22.1	12.9	27.4	26.2	25.2	7.2	7.8	6.3	10.6	15.3	7.2
2002	16.5	20.6	13.4	16.9	21.0	13.6	16.2	23.4	11.7	26.4	36.4	19.8	9.1	7.9	9.3	9.7	13.9	7.0
2003	17.9	21.8	14.7	17.9	22.0	14.4	21.2	25.5	17.9	26.3	22.3	28.2	6.3	10.2	3.7	3.0	4.8	1.8
2004	15.3	18.9	12.6	15.5	19.2	12.8	13.1	15.8	11.5	27.3	41.2	16.9	9.3	14.1	5.6	11.0	7.7	15.9
2005	15.4	18.9	12.8	15.2	18.8	12.5	17.6	21.5	14.8	27.0	23.7	30.6	7.5	10.0	6.0	12.5	18.7	7.1
2006	14.6	18.1	12.0	15.1	18.9	12.0	14.2	15.8	13.1	14.9	21.1	10.1	4.7	3.5	5.5	6.5	11.4	3.9
2007	14.4	17.7	11.5	15.0	18.1	12.3	12.0	16.5	8.6	15.7	19.3	11.8	8.0	10.6	5.3	9.4	28.7	9.8
2008	13.1	15.1	11.3	13.2	15.0	11.4	13.2	15.5	11.2	16.4	20.3	13.0	11.1	11.9	10.9	8.6	14.9	4.2
2009	12.9	14.9	11.2	12.9	15.1	11.0	13.8	16.7	11.5	14.1	14.0	14.9	8.5	7.4	9.1	13.8	16.4	12.5
2010	13.8	16.6	11.4	13.9	16.0	12.1	13.5	19.0	9.2	21.9	28.9	16.0	12.4	19.9	8.0	10.3	22.2	2.6
2011	13.4	15.4	11.6	14.4	15.3	11.4	13.6	16.5	11.2	20.2	12.6	25.6	9.9	12.0	7.4	14.3	16.2	12.7
2012	13.1	15.8	10.7	13.4	16.0	11.2	12.2	17.0	8.3	20.5	23.9	17.4	7.1	7.8	6.3	9.8	8.0	11.4
2013	13.6	15.3	12.3	13.7	15.5	12.2	12.5	14.3	10.9	21.7	19.6	23.0	11.3	7.3	14.0	12.1	13.0	11.7
2014	12.4	14.6	10.5	13.2	15.0	11.5	10.8	15.1	7.4	15.8	18.4	14.3	7.0	9.5	4.7	7.2	8.3	6.3
2015	12.9	15.6	10.5	12.9	15.1	10.9	11.8	16.6	8.0	19.5	25.1	15.0	13.3	18.8	9.6	9.4	17.1	4.9
2016	12.9	15.4	10.6	13.2	15.6	11.2	11.1	14.7	7.8	17.4	17.9	16.1	8.0	7.7	8.3	13.1	10.6	13.8
2017	13.0	16.0	10.2	13.2	16.4	10.3	12.7	16.6	9.5	15.1	13.8	16.1	11.1	14.1	8.4	6.0	11.3	2.4
2018	12.9	15.8	10.3	12.7	14.9	10.7	13.8	20.0	9.0	17.2	26.2	10.8	10.8	16.3	6.9	12.5	18.3	9.0
2019	12.3	14.6	10.1	12.4	15.0	10.0	11.2	12.5	9.8	14.2	17.3	11.3	12.9	17.2	10.4	11.0	10.2	11.6
2020	12.7	14.2	11.4	12.9	14.0	11.9	11.3	14.6	8.7	18.2	18.3	17.6	12.8	15.3	10.5	9.2	9.1	9.4
2021	12.4	14.6	10.4	12.6	14.6	10.8	11.9	15.1	9.2	15.9	15.0	16.1	8.2	10.7	5.8	9.6	10.5	9.0
2022	12.6	15.4	10.2	12.6	15.1	10.3	11.5	15.9	7.8	18.1	19.0	18.1	20.1	28.3	13.3	10.5	11.4	9.7
<b>-----Female breast cancer</b>																		
2000	NA	NA	25.4	NA	NA	26.2	NA	NA	20.7	NA	NA	29.5	NA	NA	12.1	NA	NA	12.8
2001	NA	NA	23.6	NA	NA	24.7	NA	NA	17.5	NA	NA	55.8	NA	NA	11.7	NA	NA	12.7
2002	NA	NA	22.2	NA	NA	22.5	NA	NA	18.7	NA	NA	42.3	NA	NA	9.6	NA	NA	17.7
2003	NA	NA	22.1	NA	NA	22.3	NA	NA	18.9	NA	NA	41.2	NA	NA	16.4	NA	NA	19.6
2004	NA	NA	21.4	NA	NA	21.4	NA	NA	18.0	NA	NA	32.2	NA	NA	18.4	NA	NA	35.2
2005	NA	NA	20.7	NA	NA	20.5	NA	NA	19.8	NA	NA	35.7	NA	NA	14.9	NA	NA	17.3
2006	NA	NA	21.6	NA	NA	23.2	NA	NA	14.0	NA	NA	25.7	NA	NA	6.9	NA	NA	7.5
2007	NA	NA	20.1	NA	NA	20.5	NA	NA	16.9	NA	NA	23.9	NA	NA	16.2	NA	NA	11.3
2008	NA	NA	19.8	NA	NA	20.6	NA	NA	15.1	NA	NA	38.0	NA	NA	11.6	NA	NA	7.1
2009	NA	NA	19.2	NA	NA	19.8	NA	NA	16.4	NA	NA	30.7	NA	NA	11.6	NA	NA	5.9
2010	NA	NA	19.2	NA	NA	19.9	NA	NA	18.5	NA	NA	25.8	NA	NA	8.2	NA	NA	12.9
2011	NA	NA	19.7	NA	NA	20.8	NA	NA	12.2	NA	NA	24.1	NA	NA	7.5	NA	NA	15.6
2012	NA	NA	19.2	NA	NA	20.0	NA	NA	14.8	NA	NA	30.3	NA	NA	8.6	NA	NA	15.3
2013	NA	NA	20.7	NA	NA	21.3	NA	NA	19.7	NA	NA	23.3	NA	NA	13.1	NA	NA	11.4
2014	NA	NA	17.9	NA	NA	18.5	NA	NA	16.5	NA	NA	29.4	NA	NA	9.2	NA	NA	6.3
2015	NA	NA	19.2	NA	NA	20.7	NA	NA	12.9	NA	NA	23.1	NA	NA	12.8	NA	NA	13.3
2016	NA	NA	19.4	NA	NA	20.8	NA	NA	13.9	NA	NA	23.0	NA	NA	11.8	NA	NA	13.4
2017	NA	NA	18.2	NA	NA	18.7	NA	NA	13.3	NA	NA	36.7	NA	NA	13.0	NA	NA	14.5
2018	NA	NA	17.6	NA	NA	18.7	NA	NA	13.8	NA	NA	24.9	NA	NA	9.1	NA	NA	17.6
2019	N/A	N/A	18.8	N/A	N/A	19.1	N/A	N/A	15.2	N/A	N/A	39.3	N/A	N/A	17.6	N/A	N/A	13.8
2020	N/A	N/A	18.5	N/A	N/A	19.5	N/A	N/A	15.9	N/A	N/A	28.2	N/A	N/A	6.5	N/A	N/A	13.5
2021	N/A	N/A	19.5	N/A	N/A	19.9	N/A	N/A	15.5	N/A	N/A	30.5	N/A	N/A	18.3	N/A	N/A	17.7
2022	N/A	N/A	18.8	N/A	N/A	19.8	N/A	N/A	13.4	N/A	N/A	33.9	N/A	N/A	11.2	N/A	N/A	12.6

**TABLE 2B-3 (continued)**  
**AGE-ADJUSTED<sup>a</sup> MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY**  
**AND GENDER, ARIZONA, 2000-2022**

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
<b>-----Prostate cancer</b>																		
2000	NA	28.4	NA	NA	28.0	NA	NA	30.0	NA	NA	74.8	NA	NA	27.1	NA	NA	8.9	NA
2001	NA	24.3	NA	NA	24.1	NA	NA	26.3	NA	NA	45.0	NA	NA	14.0	NA	NA	24.2	NA
2002	NA	24.8	NA	NA	24.1	NA	NA	35.3	NA	NA	48.6	NA	NA	12.5	NA	NA	8.4	NA
2003	NA	25.1	NA	NA	25.2	NA	NA	22.4	NA	NA	41.2	NA	NA	21.0	NA	NA	7.6	NA
2004	NA	24.0	NA	NA	22.6	NA	NA	35.0	NA	NA	54.6	NA	NA	31.2	NA	NA	6.1	NA
2005	NA	23.8	NA	NA	23.5	NA	NA	30.6	NA	NA	20.4	NA	NA	23.5	NA	NA	5.1	NA
2006	NA	20.1	NA	NA	19.2	NA	NA	25.9	NA	NA	34.9	NA	NA	16.9	NA	NA	24.0	NA
2007	NA	18.9	NA	NA	19.5	NA	NA	15.8	NA	NA	23.6	NA	NA	16.6	NA	NA	19.4	NA
2008	NA	19.1	NA	NA	18.9	NA	NA	20.3	NA	NA	20.5	NA	NA	14.7	NA	NA	25.5	NA
2009	NA	18.4	NA	NA	18.2	NA	NA	20.0	NA	NA	28.9	NA	NA	16.4	NA	NA	2.1	NA
2010	NA	19.1	NA	NA	18.4	NA	NA	23.9	NA	NA	35.2	NA	NA	21.6	NA	NA	12.6	NA
2011	NA	19.8	NA	NA	19.5	NA	NA	20.6	NA	NA	24.1	NA	NA	17.1	NA	NA	5.0	NA
2012	NA	18.9	NA	NA	18.8	NA	NA	22.0	NA	NA	26.7	NA	NA	12.4	NA	NA	9.8	NA
2013	NA	18.2	NA	NA	18.0	NA	NA	17.0	NA	NA	26.7	NA	NA	19.9	NA	NA	18.5	NA
2014	NA	17.0	NA	NA	17.0	NA	NA	15.5	NA	NA	24.0	NA	NA	23.0	NA	NA	7.4	NA
2015	NA	17.6	NA	NA	17.3	NA	NA	17.6	NA	NA	29.6	NA	NA	26.0	NA	NA	10.7	NA
2016	NA	18.8	NA	NA	18.6	NA	NA	19.4	NA	NA	39.5	NA	NA	15.9	NA	NA	6.4	NA
2017	NA	16.8	NA	NA	16.5	NA	NA	16.3	NA	NA	26.3	NA	NA	19.9	NA	NA	9.7	NA
2018	NA	17.4	NA	NA	17.1	NA	NA	15.8	NA	NA	30.5	NA	NA	23.7	NA	NA	12.1	NA
2019	N/A	17.4	N/A	N/A	17.0	N/A	N/A	16.9	N/A	N/A	41.9	N/A	N/A	19.0	N/A	N/A	9.9	N/A
2020	N/A	18.5	N/A	N/A	18.2	N/A	N/A	18.3	N/A	N/A	35.4	N/A	N/A	17.5	N/A	N/A	8.1	N/A
2021	N/A	17.2	N/A	N/A	16.6	N/A	N/A	18.2	N/A	N/A	37.0	N/A	N/A	13.0	N/A	N/A	9.3	N/A
2022	N/A	16.7	N/A	N/A	16.4	N/A	N/A	14.8	N/A	N/A	32.1	N/A	N/A	16.0	N/A	N/A	12.7	N/A
<b>Chronic lower respiratory diseases<sup>b</sup></b>																		
2000	47.4	56.2	41.3	51.1	59.8	44.8	24.4	38.2	15.9	30.4	38.4	26.3	21.9	28.9	17.9	12.7	7.8	16.5
2001	46.9	53.9	42.2	51.0	58.1	46.2	17.7	25.4	12.5	37.9	48.9	32.2	26.8	30.0	24.3	21.4	19.2	23.0
2002	47.0	57.1	40.3	50.4	59.4	44.5	25.2	46.6	11.2	38.3	59.0	21.9	22.3	30.1	17.0	24.5	45.8	9.0
2003	45.4	53.8	40.0	48.3	56.5	42.9	28.7	39.9	22.1	30.3	39.7	23.1	19.4	20.8	18.4	15.5	34.4	2.1
2004	41.9	48.1	37.7	45.1	51.3	41.0	22.7	29.5	17.8	24.9	38.8	14.8	10.8	4.7	15.1	21.6	27.1	14.2
2005	46.8	51.3	43.5	49.6	53.6	46.7	31.6	42.7	24.0	43.9	49.4	37.9	12.0	12.9	11.4	17.9	22.6	13.8
2006	44.3	50.2	40.1	49.2	55.5	44.7	18.3	20.9	16.2	27.3	28.8	25.6	8.4	6.2	10.4	9.9	26.2	0.0
2007	39.2	43.5	36.0	43.7	47.9	40.7	18.8	26.4	13.4	18.7	10.1	26.7	13.0	20.1	8.4	7.5	19.9	6.1
2008	42.1	46.5	38.9	46.7	50.8	43.7	20.5	24.3	18.0	26.0	33.9	19.1	15.8	23.9	9.5	13.7	22.4	8.5
2009	40.5	44.7	37.1	45.0	48.7	42.1	16.4	20.2	13.4	26.8	34.1	20.8	19.2	29.5	12.3	18.0	33.4	8.1
2010	42.6	48.1	38.6	47.1	52.2	43.4	18.6	25.4	14.3	27.4	32.2	23.8	21.7	24.1	20.0	12.0	29.5	1.7
2011	45.9	49.7	42.8	55.3	53.3	48.5	19.5	26.5	14.7	34.8	48.5	24.7	14.4	14.7	14.4	17.2	26.4	11.9
2012	44.2	50.5	39.5	49.4	55.5	44.8	20.3	27.1	16.1	35.0	43.4	30.9	18.0	27.4	12.1	14.7	14.3	14.2
2013	44.5	48.1	41.8	49.3	52.5	47.0	20.9	24.6	18.2	46.7	56.4	37.5	15.5	11.7	18.4	19.4	32.0	12.4
2014	41.1	45.8	37.5	45.9	49.7	43.0	21.1	28.7	15.9	34.0	47.4	26.1	12.4	13.7	11.7	17.3	33.8	7.6
2015	45.1	48.9	41.7	50.8	53.7	48.0	21.5	27.9	16.8	34.0	51.8	20.6	14.8	16.5	13.0	18.1	17.5	18.4
2016	45.0	47.6	42.9	50.9	52.7	49.4	20.0	23.2	17.7	43.8	51.5	39.2	19.5	27.2	15.1	11.3	19.4	5.9
2017	43.0	45.3	41.0	48.0	49.7	46.5	19.9	23.7	17.1	28.8	21.3	34.3	22.9	27.4	19.9	20.1	29.6	14.3
2018	42.6	44.7	40.7	48.0	49.2	46.8	18.3	22.7	14.8	38.2	41.4	35.9	20.8	22.2	20.2	17.2	17.2	17.3
2019	39.2	41.9	37.0	43.7	45.1	42.5	20.1	25.9	16.1	34.2	49.7	23.4	18.1	21.5	15.6	11.6	13.2	10.6
2020	38.8	41.2	36.8	43.1	44.4	41.9	21.9	27.0	18.2	27.4	30.4	25.2	20.9	27.5	16.5	14.3	20.5	11.0
2021	35.3	36.4	34.3	39.8	40.0	39.5	17.2	21.4	14.1	25.7	23.9	27.9	15.2	19.4	12.4	13.7	22.1	8.4
2022	35.3	36.3	34.4	40.1	39.8	40.2	15.3	20.5	11.4	36.6	41.5	34.4	14.6	21.9	10.4	11.1	12.7	10.3



**TABLE 2B-3 (continued)**  
**AGE-ADJUSTED<sup>a</sup> MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY**  
**AND GENDER, ARIZONA, 2000-2022**

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
<b>Chronic liver disease and cirrhosis</b>																		
2000	12.8	17.7	8.3	10.4	14.9	6.4	15.8	20.5	11.0	6.6	7.1	5.9	61.7	80.2	45.3	4.1	6.9	2.2
2001	12.3	17.7	7.5	10.6	15.0	6.6	17.4	27.0	8.7	11.7	24.1	2.0	39.1	51.1	28.4	4.0	3.8	4.2
2002	12.1	15.6	8.9	9.9	11.9	8.0	21.6	31.9	12.3	9.8	14.6	5.5	40.5	55.6	27.5	5.3	2.9	7.0
2003	11.5	16.2	7.1	9.7	13.8	5.8	17.6	25.1	10.6	3.5	6.3	1.0	38.8	49.6	29.8	3.3	0.0	5.8
2004	11.1	15.6	6.9	8.4	11.7	5.4	18.6	26.6	10.6	6.7	7.3	6.5	51.0	68.9	36.1	3.8	7.0	2.4
2005	12.7	17.7	8.1	10.7	15.1	6.6	19.4	28.6	11.4	12.8	14.7	10.7	51.2	60.3	42.8	4.9	10.4	0.0
2006	11.4	14.3	8.5	9.6	11.8	7.6	15.5	19.9	11.1	7.2	11.6	4.2	43.6	54.3	32.7	3.1	3.8	2.5
2007	11.3	15.4	7.6	9.6	13.0	6.6	16.3	23.5	9.4	5.9	9.9	2.3	36.8	46.9	28.3	3.2	5.5	4.2
2008	11.7	15.3	8.4	10.0	13.2	7.1	15.4	19.9	11.2	7.5	9.2	5.6	40.7	52.8	30.5	1.8	2.6	1.1
2009	12.2	15.4	9.1	9.5	12.8	6.4	18.7	21.4	15.7	3.1	3.4	2.7	54.0	57.9	49.9	3.1	6.4	1.1
2010	12.3	16.1	8.8	9.7	13.6	6.1	15.5	20.9	10.3	8.0	9.5	7.0	64.6	63.9	64.9	0.5	1.2	0.0
2011	13.4	18.0	9.2	12.0	14.7	8.1	18.9	29.2	9.8	6.6	5.5	7.6	43.6	46.7	40.4	4.2	9.0	0.9
2012	13.6	18.7	9.0	11.4	15.9	7.2	16.9	25.7	9.2	10.9	14.8	8.5	59.2	63.3	55.5	2.6	6.1	0.0
2013	14.5	18.2	11.1	12.6	15.5	10.0	16.7	23.0	10.8	6.8	9.9	3.9	62.0	70.1	55.0	3.9	4.3	3.4
2014	13.2	16.5	10.1	10.9	14.1	7.9	18.0	22.4	13.6	8.3	10.7	5.5	52.7	48.0	55.5	3.8	4.0	3.6
2015	14.9	19.2	11.0	13.1	16.1	10.3	14.0	22.0	7.0	8.4	12.3	4.6	77.6	91.8	66.1	4.0	8.3	0.8
2016	15.1	19.8	10.8	12.5	16.0	9.2	16.8	24.2	10.3	7.7	12.7	2.9	85.9	107.3	67.2	2.0	5.2	0.0
2017	14.2	18.0	10.7	11.9	14.6	9.3	15.8	23.1	9.6	4.6	7.2	2.1	74.0	85.4	63.7	4.8	8.8	2.0
2018	14.2	17.9	10.9	11.3	13.7	9.1	15.1	22.9	8.3	6.8	8.5	5.5	88.8	101.9	77.1	3.4	5.7	1.8
2019	14.7	18.8	10.8	12.4	15.6	9.3	14.5	21.0	8.7	7.8	9.9	6.0	82.7	98.2	68.8	3.9	1.8	5.4
2020	17.4	21.6	13.4	14.9	18.6	11.5	16.7	23.3	10.7	4.3	6.2	2.5	103.2	110.6	95.5	3.1	2.9	3.3
2021	21.6	26.5	17.0	17.5	21.3	14.1	18.6	24.2	13.2	12.9	16.0	9.6	145.7	170.0	123.9	4.3	4.9	3.6
2022	17.4	21.6	13.4	13.4	17.3	9.7	19.9	25.6	14.8	8.2	10.5	6.0	106.0	112.5	99.0	4.9	8.4	2.3
<b>Diabetes</b>																		
2000	19.0	21.0	17.2	14.9	17.4	12.6	41.1	41.9	40.6	46.0	40.9	47.4	74.6	74.1	74.2	19.5	10.9	26.1
2001	19.9	22.9	17.5	15.4	19.2	12.2	42.9	43.5	42.3	55.7	42.2	64.1	72.8	71.2	73.9	14.8	3.0	23.3
2002	22.3	25.6	19.7	18.0	21.8	15.1	45.6	49.1	42.6	41.0	46.4	37.2	80.8	69.2	88.6	21.9	15.7	26.3
2003	20.3	23.6	17.5	16.5	20.6	13.1	39.1	35.9	40.9	53.6	55.0	49.8	55.8	48.2	60.3	15.7	22.2	11.6
2004	20.7	23.4	18.4	16.8	19.7	14.4	43.5	44.2	42.0	44.8	47.7	42.6	59.0	58.4	58.8	30.0	29.1	31.6
2005	20.1	24.7	16.7	15.5	20.2	12.1	46.0	49.9	42.4	55.2	56.2	54.0	69.9	73.5	68.2	17.8	17.7	18.0
2006	18.9	22.5	15.9	15.2	18.4	12.5	40.4	46.1	35.3	43.9	49.7	42.3	43.9	49.3	39.5	10.9	9.7	11.4
2007	17.0	20.5	13.9	13.7	17.4	10.4	30.8	32.6	28.9	30.3	32.0	30.0	51.1	61.1	42.1	5.1	12.8	4.4
2008	17.0	20.7	13.9	13.8	17.9	10.5	29.1	29.7	27.7	30.8	35.4	29.2	50.8	47.9	52.5	16.1	22.9	12.3
2009	15.7	18.2	13.5	12.2	15.5	9.4	28.1	29.2	27.2	31.1	28.6	34.9	54.2	46.6	59.9	16.2	18.5	14.4
2010	20.1	24.9	16.0	15.2	20.1	11.0	37.3	45.0	31.4	50.0	56.8	45.5	79.3	80.6	76.9	11.7	9.3	13.1
2011	24.8	30.3	20.2	21.6	25.1	15.7	41.7	48.4	35.9	57.8	71.9	44.4	61.3	50.7	68.8	23.3	32.4	17.4
2012	23.5	29.2	18.6	18.3	23.9	13.5	40.8	47.4	35.4	49.4	59.0	40.6	80.2	94.1	69.7	27.6	27.8	26.6
2013	23.6	29.1	18.8	18.6	24.0	14.0	40.7	45.8	36.3	60.2	68.0	55.8	65.7	79.7	55.0	17.9	18.5	17.9
2014	23.0	28.9	17.8	18.8	24.6	13.6	39.1	46.8	32.6	39.7	41.8	37.1	63.2	74.7	54.5	18.3	30.1	10.9
2015	25.7	31.8	20.4	20.1	25.8	15.1	45.3	53.2	38.7	53.0	67.5	42.6	73.9	85.6	65.3	22.7	29.3	18.4
2016	24.5	31.5	18.4	19.3	25.8	13.5	40.5	51.4	32.1	50.1	55.9	44.9	79.9	100.4	63.5	20.8	14.9	24.0
2017	23.8	30.1	18.3	18.1	23.5	13.3	39.4	48.7	31.7	45.9	49.5	42.3	81.6	101.9	64.8	21.3	22.6	20.3
2018	23.0	29.8	17.1	18.0	24.0	12.6	35.0	44.0	27.4	48.9	54.7	44.5	73.6	92.4	59.1	17.0	25.9	11.4
2019	23.9	30.5	18.1	18.9	25.6	12.9	34.6	42.0	28.8	43.6	44.6	42.0	91.4	106.3	78.5	19.5	23.4	16.6
2020	27.9	36.0	20.7	21.4	28.2	15.2	43.1	56.0	32.6	51.7	61.9	42.1	106.4	137.7	82.1	22.1	24.9	19.8
2021	26.8	32.6	21.6	20.0	24.8	15.8	42.5	51.6	35.1	48.3	51.2	46.2	97.6	116.1	81.5	30.1	38.6	24.5
2022	25.1	32.0	19.0	19.7	25.8	14.2	39.5	52.5	29.7	42.4	53.9	31.9	88.0	97.6	77.5	19.4	25.9	14.8

**TABLE 2B-3 (continued)**  
**AGE-ADJUSTED<sup>a</sup> MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY**  
**AND GENDER, ARIZONA, 2000-2022**

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
<b>Accidents (unintentional injuries)</b>																		
2000	41.1	58.0	24.9	36.9	51.5	23.3	41.6	60.8	22.5	49.7	75.8	22.7	113.1	165.2	67.4	24.1	24.4	21.4
2001	46.6	66.5	27.7	42.5	59.5	26.8	45.6	63.9	25.9	52.6	83.2	22.4	112.7	177.5	53.9	29.9	41.3	46.6
2002	45.2	62.8	28.8	41.5	56.8	27.8	45.5	64.6	26.2	44.0	58.5	28.5	111.0	168.4	60.4	15.5	13.8	15.6
2003	44.8	61.6	28.8	40.9	55.2	27.6	44.7	63.3	26.3	52.4	69.8	35.0	108.6	153.5	66.3	25.3	35.2	17.8
2004	46.0	61.1	31.7	43.3	56.8	30.7	48.9	66.1	31.8	45.9	66.9	26.0	103.9	137.5	73.7	21.2	21.7	30.0
2005	51.1	68.7	34.4	46.2	62.4	31.4	54.8	71.5	37.2	64.3	80.3	46.9	117.8	174.1	67.4	34.2	41.2	28.1
2006	51.2	68.5	34.3	48.7	64.5	33.5	52.4	72.9	32.2	54.8	73.0	34.5	97.2	139.8	58.6	19.8	17.0	20.8
2007	46.6	60.6	32.3	44.9	57.7	32.2	40.6	53.5	27.5	48.1	62.8	29.6	95.0	143.9	50.3	20.3	72.6	20.3
2008	44.7	59.0	30.6	45.4	59.8	31.4	34.2	46.9	22.0	43.1	50.6	33.8	92.6	142.6	47.9	23.7	31.1	17.9
2009	43.1	56.6	29.8	43.3	56.6	30.4	35.3	48.2	23.3	36.5	42.1	30.0	92.6	144.4	46.4	24.5	27.6	21.1
2010	43.8	56.6	31.6	45.5	58.0	33.3	33.7	45.3	22.8	36.0	42.3	30.7	99.2	148.9	55.4	24.6	24.9	23.9
2011	45.5	58.3	32.6	46.9	57.3	33.9	38.9	51.9	26.4	41.6	50.3	34.4	100.6	146.7	58.0	19.7	28.4	14.0
2012	42.4	54.0	31.0	43.3	54.0	32.7	33.9	45.4	22.8	38.2	50.3	25.2	94.8	136.9	56.5	21.0	20.0	20.3
2013	46.3	60.1	32.8	47.9	61.2	34.7	38.5	51.4	26.3	43.3	68.7	23.5	104.5	150.5	62.9	13.4	12.7	13.2
2014	43.3	56.7	30.1	43.7	57.7	29.9	35.9	47.3	24.9	37.6	44.1	32.2	85.4	128.2	47.4	18.3	15.5	19.3
2015	48.1	62.7	34.1	49.3	62.4	36.7	36.7	48.4	24.9	50.5	59.5	40.6	139.0	203.9	82.7	21.7	23.7	20.2
2016	53.7	73.1	34.9	55.2	73.8	36.9	41.6	58.2	25.9	52.2	66.0	35.8	139.1	219.5	67.9	25.9	33.4	20.1
2017	55.3	73.7	37.0	54.5	71.5	37.3	45.9	61.4	30.4	60.3	89.3	31.1	142.0	206.1	88.1	24.3	31.2	19.3
2018	55.9	76.4	35.6	56.3	74.7	37.8	44.5	63.5	26.0	57.6	80.4	34.1	144.5	224.0	74.5	24.9	31.5	18.7
2019	59.2	82.6	36.0	60.5	83.0	38.0	48.3	70.8	26.1	60.4	80.0	40.3	129.4	183.3	81.6	22.9	31.5	15.0
2020	71.5	100.6	42.4	69.2	94.4	43.8	60.4	89.5	31.5	82.2	124.6	38.0	180.1	262.7	104.9	20.2	24.8	16.1
2021	77.8	108.3	47.4	74.8	102.0	47.3	66.6	99.0	34.9	101.3	138.0	63.3	206.9	296.9	123.8	30.5	42.0	20.5
2022	74.8	107.9	41.8	71.8	101.0	42.4	63.3	95.8	31.6	91.2	134.1	46.1	206.5	320.5	105.4	31.1	43.7	18.3
<b>-----Motor vehicle accidents</b>																		
2000	17.5	24.4	10.6	13.8	18.5	9.2	18.2	28.5	7.5	19.3	33.1	6.8	74.2	106.4	46.3	15.3	11.6	12.8
2001	17.2	24.2	10.1	13.5	18.5	8.5	18.2	26.3	9.4	19.1	28.8	7.2	63.2	88.8	38.3	8.6	7.7	9.9
2002	18.5	25.5	11.6	14.7	20.3	9.3	21.1	27.4	14.0	11.9	15.9	7.5	65.9	100.2	35.3	10.1	8.2	11.1
2003	18.0	24.9	11.2	14.6	20.3	9.0	21.3	29.1	13.6	15.2	23.3	8.1	59.0	78.0	40.4	11.8	14.1	9.9
2004	18.1	23.9	12.5	15.3	20.3	10.6	23.2	30.0	16.0	14.8	18.2	10.8	54.1	63.9	44.1	11.3	13.7	13.9
2005	18.9	27.0	11.1	15.0	21.9	8.4	22.7	33.1	12.6	24.9	31.4	17.8	62.6	91.3	36.4	10.2	14.5	6.3
2006	19.6	26.8	12.4	16.6	22.8	10.7	21.9	29.9	13.3	15.3	22.9	7.7	56.9	76.5	38.5	5.9	5.3	6.1
2007	16.2	22.2	10.1	13.1	18.3	8.0	17.6	22.6	12.2	13.6	18.2	7.6	49.0	72.8	27.2	9.9	37.6	10.6
2008	13.6	19.5	7.9	12.0	17.7	6.5	13.1	18.5	7.7	11.5	16.8	5.6	41.9	55.0	29.3	4.4	6.9	2.0
2009	11.6	16.8	6.5	10.1	15.2	5.1	10.6	14.4	6.7	12.4	14.2	10.3	36.9	51.0	23.3	6.5	11.2	3.0
2010	11.1	15.9	6.4	9.2	13.6	4.8	11.1	15.6	6.9	10.8	14.2	7.2	41.7	60.2	24.0	5.5	4.3	6.3
2011	12.1	17.6	6.9	10.4	14.5	5.6	11.7	17.6	6.2	11.7	16.6	7.5	44.2	66.8	23.7	6.8	6.3	7.3
2012	11.4	16.8	6.3	10.0	14.8	5.3	10.6	16.3	5.4	10.1	15.2	5.1	37.8	53.1	22.8	4.9	5.4	4.5
2013	11.4	16.3	6.6	10.2	15.1	5.3	11.4	15.5	7.3	12.0	18.1	4.8	31.7	40.3	23.5	5.8	8.6	3.8
2014	10.3	14.5	6.0	8.3	12.5	4.1	10.3	14.2	6.5	7.9	11.1	4.4	35.6	49.2	23.1	2.5	2.8	2.2
2015	12.6	18.0	7.2	10.7	15.5	5.9	9.9	15.2	4.8	14.1	19.1	8.2	54.3	74.1	36.5	8.2	7.9	8.3
2016	13.9	20.1	7.8	11.5	17.3	5.9	13.3	19.9	7.2	19.1	22.6	14.7	52.2	77.6	29.5	7.2	9.0	6.2
2017	13.8	19.5	8.2	12.0	17.8	6.1	12.7	17.7	8.1	17.1	26.0	8.6	54.0	70.0	39.7	7.5	10.1	5.2
2018	14.1	20.0	8.3	12.3	17.3	7.4	12.1	18.7	6.0	13.9	17.0	10.7	60.7	91.1	33.1	6.2	7.9	4.8
2019	13.1	18.9	7.5	12.4	18.0	6.9	12.5	19.1	6.3	12.0	16.2	7.8	36.7	48.4	26.5	6.1	10.4	2.6
2020	14.0	20.2	7.8	12.0	17.9	6.2	13.7	19.7	7.6	12.2	19.3	4.6	44.7	59.4	30.8	6.8	6.0	7.4
2021	18.4	25.7	11.2	16.1	23.4	8.7	16.7	24.2	9.7	23.3	30.2	15.8	65.5	85.8	47.7	6.6	8.2	4.8
2022	17.5	25.4	9.6	15.4	22.7	8.1	16.7	23.4	10.1	21.3	28.5	13.2	59.7	86.8	35.1	8.8	14.3	3.3

**TABLE 2B-3 (continued)**  
**AGE-ADJUSTED<sup>a</sup> MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY**  
**AND GENDER, ARIZONA, 2000-2022**

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
<b>Assault (homicide)</b>																		
2000	7.6	11.1	3.8	3.9	5.4	2.3	13.0	19.2	6.1	22.7	32.3	11.0	14.9	22.1	7.5	7.6	5.1	9.7
2001	8.7	13.7	3.6	4.3	6.1	2.6	15.5	24.8	5.0	22.2	35.7	6.8	17.2	24.8	10.0	4.9	9.7	1.2
2002	8.6	13.9	3.0	4.4	6.8	2.0	15.1	25.8	3.4	21.3	32.5	7.1	20.3	29.0	11.8	3.3	0.0	5.8
2003	8.3	12.8	3.6	3.7	5.1	2.2	14.7	23.7	4.8	24.9	38.7	9.0	18.8	31.5	6.9	5.4	2.5	5.8
2004	8.2	13.3	2.9	4.8	7.0	2.6	13.6	23.2	3.0	22.3	35.5	7.4	14.7	25.9	4.5	1.4	2.3	0.0
2005	8.2	13.5	2.6	3.5	5.6	1.3	14.6	24.2	3.9	27.4	45.7	7.5	14.0	22.4	5.8	5.1	8.0	2.5
2006	8.5	13.5	3.1	4.6	6.8	2.4	13.0	21.6	3.3	19.6	30.5	7.5	13.2	23.7	3.2	2.4	1.5	3.5
2007	7.7	11.8	3.2	3.9	5.5	2.2	12.0	19.5	3.7	23.4	32.3	12.7	13.1	21.7	4.8	2.6	16.0	1.6
2008	7.1	11.2	2.7	3.7	5.6	1.7	10.6	16.9	3.7	20.7	32.7	6.4	12.8	20.6	5.2	3.2	4.3	2.1
2009	5.5	8.0	2.9	3.2	4.9	1.5	8.1	12.1	4.0	14.2	18.5	9.1	13.2	18.0	8.5	0.9	0.0	1.5
2010	6.5	10.5	2.4	3.8	5.5	2.2	8.0	13.5	2.3	15.4	25.6	3.4	18.0	31.4	5.0	4.1	4.2	4.0
2011	6.1	9.6	2.6	3.5	5.1	1.8	7.9	14.0	2.0	16.5	23.8	7.9	11.9	18.9	4.8	3.9	5.5	2.7
2012	5.9	8.6	3.1	4.3	6.0	2.4	6.1	9.7	2.5	14.5	20.2	8.2	17.3	26.3	8.8	2.0	3.0	0.9
2013	5.9	9.2	2.5	4.0	6.2	1.7	5.8	9.0	2.4	15.4	25.4	3.6	17.7	29.6	6.2	1.9	2.1	1.7
2014	4.6	7.1	2.1	3.0	4.2	1.8	6.0	9.8	2.1	11.1	17.5	4.0	7.3	12.0	2.6	0.4	0.8	0.0
2015	5.6	8.6	2.5	4.0	5.7	2.3	5.3	8.3	2.2	15.5	25.7	3.6	15.7	25.7	5.8	2.4	3.0	1.7
2016	6.3	9.9	2.5	3.7	5.3	2.1	6.8	11.7	1.8	20.4	33.4	5.6	17.6	25.7	9.9	4.0	7.1	1.6
2017	6.4	10.0	2.8	4.1	5.5	2.7	6.8	11.1	2.5	17.9	30.0	4.1	17.9	30.7	5.5	0.7	0.8	0.6
2018	6.1	9.8	2.4	3.6	4.9	2.3	6.6	11.4	1.6	19.3	30.0	6.9	17.9	29.1	6.9	2.6	3.9	1.4
2019	5.9	9.1	2.6	3.7	5.5	1.9	5.8	9.3	2.1	15.2	22.8	6.6	20.3	32.6	8.6	2.3	4.2	0.6
2020	7.7	12.1	3.2	4.3	6.0	2.6	6.9	11.5	2.1	27.3	45.4	7.2	28.4	46.0	11.7	2.3	2.7	1.8
2021	8.1	13.2	2.9	4.0	6.6	1.3	9.1	14.9	3.1	29.5	46.9	10.5	23.7	35.1	12.4	3.8	5.8	2.0
2022	9.0	14.2	3.6	4.7	7.2	2.2	9.4	14.9	3.9	27.4	43.6	9.6	34.5	59.5	10.9	2.6	4.7	0.5
<b>Intentional self-harm (suicide)</b>																		
2000	14.6	24.7	5.2	16.7	27.6	6.8	7.2	12.7	1.4	6.5	12.2	0.0	16.2	29.7	3.7	5.7	12.3	0.0
2001	14.9	24.6	5.6	12.8	21.0	5.1	5.9	9.9	1.6	9.2	15.2	2.4	15.4	26.4	5.2	9.4	15.4	4.7
2002	15.9	26.4	6.0	18.3	30.0	7.4	8.3	14.2	2.5	6.2	11.4	0.0	17.9	31.7	4.9	4.1	9.1	0.0
2003	14.6	24.0	5.8	16.4	27.1	6.4	8.2	11.8	4.2	11.3	16.6	4.8	15.2	27.4	3.6	6.0	7.0	5.9
2004	14.9	24.1	6.3	16.6	26.4	7.5	9.8	17.5	2.2	12.1	17.3	5.1	17.0	28.5	6.5	4.0	7.0	2.7
2005	15.4	24.9	6.5	16.6	26.7	7.3	10.5	17.8	3.0	3.3	4.7	1.8	17.5	28.7	6.8	11.7	8.9	14.1
2006	15.4	24.7	6.6	17.8	27.9	8.5	8.2	14.2	2.0	8.3	13.9	2.3	13.7	23.4	4.5	8.4	13.2	4.3
2007	15.4	24.4	6.7	18.7	29.4	8.3	9.2	14.7	3.6	6.2	10.1	1.7	9.8	16.3	3.6	6.1	9.2	2.4
2008	14.8	23.0	7.0	17.6	27.3	8.5	6.5	10.8	1.9	7.5	10.3	4.2	13.5	21.2	5.9	9.9	10.7	8.8
2009	16.1	24.6	8.1	18.4	28.0	9.5	9.0	14.0	3.9	10.5	12.7	7.7	15.9	22.9	9.3	9.9	19.9	2.3
2010	16.7	27.1	6.7	20.6	32.8	8.7	7.4	12.5	2.6	6.4	9.9	2.2	18.7	32.3	5.7	6.8	11.0	3.2
2011	17.2	27.4	7.5	22.0	33.1	10.1	8.1	14.8	1.8	9.1	13.7	4.3	14.9	24.0	5.8	5.3	6.9	3.5
2012	16.2	25.9	7.0	20.2	32.2	8.7	6.8	11.1	2.9	10.0	15.5	4.0	17.9	27.9	8.1	5.7	10.2	1.8
2013	17.0	26.6	7.7	20.8	32.4	9.6	8.4	12.8	4.2	6.7	9.7	3.1	21.9	36.1	8.1	7.0	14.5	1.1
2014	16.5	25.6	7.7	21.0	31.9	10.4	8.3	13.4	3.4	9.0	13.6	4.2	13.9	24.3	3.7	7.0	12.0	2.7
2015	17.8	27.5	8.4	23.6	36.4	11.1	6.7	10.4	3.2	6.6	9.2	3.7	19.0	28.4	10.0	7.0	9.9	4.5
2016	17.7	28.0	7.9	21.7	33.6	10.2	8.8	15.0	2.9	9.0	13.1	5.2	24.2	36.7	11.9	9.3	14.0	4.7
2017	18.0	28.1	8.4	22.1	33.8	10.8	8.5	14.1	3.0	10.5	19.1	2.3	26.2	40.4	12.7	9.3	10.6	7.8
2018	19.5	31.5	7.8	23.7	37.5	10.2	8.7	15.2	2.4	16.0	24.6	6.6	36.5	61.8	12.3	7.3	11.0	4.1
2019	18.9	29.7	8.3	23.1	36.4	10.1	9.9	16.4	3.7	12.5	14.1	11.1	26.8	41.8	12.4	7.3	11.5	3.9
2020	18.2	28.8	8.0	22.5	35.0	10.3	9.2	14.9	3.6	13.7	22.1	4.5	28.0	43.9	12.9	6.8	12.4	1.9
2021	19.4	31.2	7.9	23.3	37.5	9.3	10.0	16.6	3.6	13.3	21.3	4.4	39.7	62.8	17.5	9.8	12.5	7.4
2022	20.5	33.6	7.7	24.3	39.8	9.0	12.2	20.7	4.2	14.3	22.3	5.4	35.1	54.7	16.9	9.4	14.8	4.4

Notes: <sup>a</sup> Adjusted to the 2000 standard U.S. population; <sup>b</sup> Chronic obstructive pulmonary diseases in 1990; Age-adjusted rates by race/ethnicity for COVID-19 may be found in Table 2b-4; beginning in 2000, when the new standard for the age-adjustment of mortality rates was implemented, all previously published rates for 1979-1999 became obsolete. With the 2008 edition of this report we have added the recomputed age-adjusted mortality rates for 1991-1999. In order to compute these rates, we have used the population denominators consistent with both the 1990 and 2000 census. The mortality rates for 1989-1999 in Table 2B-2 also were revised for consistency; The denominators are available at:

<http://pub.azdhs.gov/health-stats/>

**TABLE 2B-4  
NUMBER OF DEATHS AND AGE-ADJUSTED MORTALITY RATES<sup>a</sup> FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY AND  
GENDER, ARIZONA, 2022**

	NUMBER OF DEATHS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	All groups						White non-Hispanic				Hispanic or Latino				Black or African American				American Indian or Alaska Native				Asian or Pacific Islander																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<b>Total, all causes<sup>b</sup></b>	73,861	40,397	33,462	54,464	29,362	25,102	11,225	6,396	4,829	2,991	1,714	1,277	3,530	2,050	1,480	1,234	603	631	19,576	10,731	8,845	15,358	8,369	6,989	2,460	1,371	1,089	806	460	346	506	297	209	329	159	170	14,530	8,350	6,180	11,587	6,595	4,992	1,686	994	692	558	339	219	375	239	136	224	117	107	107	10,256	6,167	4,089	8,211	4,893	3,318	1,179	738	441	370	232	138	249	164	85	169	91	78	78	13,135	6,967	6,168	10,230	5,489	4,741	1,724	904	820	499	244	255	342	172	170	283	122	161	161	2,483	1,286	1,197	2,078	1,075	1,003	223	118	105	90	48	42	21	15	6	59	22	37	37	1,210	682	528	891	495	396	177	112	65	56	26	30	51	32	19	30	14	16	16	974	9	965	757	8	749	118	0	118	55	0	55	17	0	17	21	0	21	21	755	755	0	603	603	0	83	83	0	40	40	0	14	14	0	12	12	0	0	0	220†	140†	80†	202	129	73	10†	6	*	0†	*	*	0†	*	0	0	0	0	0	0	0	93	0	90†	55	0	55	0	30	0	30	0	0	0	0	0	0	0	0	0	0	0	0	5,868	4,072	1,796	3,506	2,303	1,203	1,311	993	318	333	253	80	586	428	158	88	60	28	28	2,530†	1,946	590†	1,329	973	356	687	563	124	187	153	34	287	220	67	30†	22	*	*	1,344	964	380	683	498	185	369	259	110	80	57	23	178	123	55	27	21	6	6	1,170†	587	590†	967	469	498	122	69	53	10†	6	*	44	32	12	21	7	14	14	130†	90†	30†	81	59	22	20†	16	*	10†	8	*	10†	6	*	0†	*	*	*	4,599	2,692	1,907	3,113	1,825	1,288	939	570	369	159	91	68	288	147	141	80	48	32	32	3,571	1,678	1,893	3,190	1,472	1,718	204	117	87	97	46	51	33	18	15	27	12	15	15	3,377	1,506	1,871	2,547	1,138	1,409	520	246	274	144	59	85	85	33	52	73	28	45	45	2,818	950	1,868	2,318	800	1,518	341	100	241	77	28	49	38	13	25	39	7	32	32	2,418	1,440	978	1,402	862	540	604	351	253	126	77	49	224	114	110	53	30	23	23	1,594	1,295	299	1,124	920	204	271	222	49	57	47	10	106	79	27	28	21	7	7	1,480†	901	580†	792	501	291	351	217	134	26	16	10	291	150	141	20†	11	*	*	1,105	550	555	782	379	403	188	98	90	75	43	32	34	17	17	19	7	12	12	1,010†	640†	369	864	555	309	90	55	35	19	11	8	19	10	9	10†	*	6	6	960†	517	440†	663	354	309	162	81	81	28	16	12	82	49	33	20†	11	*	*	832	446	386	525	287	238	176	93	83	42	21	21	72	35	37	12	6	6	6	630†	498	130†	180	134	46	230	184	46	106	88	18	98	82	16	10†	7	*	*	520†	260†	254	347	191	156	101	42	59	16	10	6	40	17	23	10†	*	6	6	<b>Human immunodeficiency virus (HIV) disease</b>	100†	90†	20†	50†	43	*	32	26	6	10†	9	*	10†	*	*	0†	*	0	0	<b>Injury by firearms</b>	1,530†	1,317	210†	899	777	122	370	313	57	126	114	12	109	94	15	20†	14	*	*	<b>Drug-induced deaths</b>	2,770†	2,058	710†	1,539	1,087	452	728	586	142	209	167	42	236	174	62	30†	27	*	*	<b>Opioid-induced deaths</b>	1,930†	1,461	470†	1,052	765	287	540	440	100	132	103	29	171	128	43	20†	17	*	*	<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*
<b>Human immunodeficiency virus (HIV) disease</b>	100†	90†	20†	50†	43	*	32	26	6	10†	9	*	10†	*	*	0†	*	0	0	<b>Injury by firearms</b>	1,530†	1,317	210†	899	777	122	370	313	57	126	114	12	109	94	15	20†	14	*	*	<b>Drug-induced deaths</b>	2,770†	2,058	710†	1,539	1,087	452	728	586	142	209	167	42	236	174	62	30†	27	*	*	<b>Opioid-induced deaths</b>	1,930†	1,461	470†	1,052	765	287	540	440	100	132	103	29	171	128	43	20†	17	*	*	<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
<b>Injury by firearms</b>	1,530†	1,317	210†	899	777	122	370	313	57	126	114	12	109	94	15	20†	14	*	*	<b>Drug-induced deaths</b>	2,770†	2,058	710†	1,539	1,087	452	728	586	142	209	167	42	236	174	62	30†	27	*	*	<b>Opioid-induced deaths</b>	1,930†	1,461	470†	1,052	765	287	540	440	100	132	103	29	171	128	43	20†	17	*	*	<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>Drug-induced deaths</b>	2,770†	2,058	710†	1,539	1,087	452	728	586	142	209	167	42	236	174	62	30†	27	*	*	<b>Opioid-induced deaths</b>	1,930†	1,461	470†	1,052	765	287	540	440	100	132	103	29	171	128	43	20†	17	*	*	<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<b>Opioid-induced deaths</b>	1,930†	1,461	470†	1,052	765	287	540	440	100	132	103	29	171	128	43	20†	17	*	*	<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
<b>Alcohol-induced deaths</b>	1,610†	1,115	500†	866	584	282	296	225	71	28	20	8	398	266	132	10†	10	*	*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

**TABLE 2B-4 (continued)  
NUMBER OF DEATHS AND AGE-ADJUSTED MORTALITY RATES<sup>a</sup> FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY AND GENDER, ARIZONA, 2022**

	AGE-ADJUSTED MORTALITY RATES <sup>a</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	All groups						White non-Hispanic				Hispanic or Latino				Black or African American				American Indian or Alaska Native				Asian or Pacific Islander																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
<b>Total, all causes<sup>b</sup></b>	784.3	933.2	645.3	766.9	904.9	636.2	733.9	887.2	599.5	1010.8	1196.1	837.5	1378.6	1761.3	1054.1	474.3	543.4	418.0	199.7	240.4	163.0	200.3	239.2	164.6	178.4	214.5	146.9	287.3	349.6	234.2	211.8	284.8	154.1	131.1	151.1	116.5	148.2	187.0	113.7	151.3	188.8	117.4	121.2	153.1	93.8	194.9	255.3	145.3	156.1	104.0	162.5	61.8	67.4	86.7	53.3	103.9	137.1	74.8	106.5	138.9	77.3	84.8	114.9	59.8	131.5	177.9	93.4	104.0	162.5	61.8	67.4	86.7	53.3	133.1	151.9	117.5	136.5	154.8	120.8	113.8	133.8	98.6	166.1	176.9	158.7	139.3	166.6	120.0	102.7	106.1	100.1	24.3	27.2	21.9	26.5	29.1	24.2	15.6	18.5	13.3	30.3	34.4	26.3	8.9	16.7	3.9	21.5	19.6	23.0	12.6	15.4	10.2	12.6	15.1	10.3	11.5	15.9	7.8	18.1	19.0	18.1	20.1	28.3	13.3	10.5	11.4	9.7	10.1	0.2	18.8	10.6	0.2	19.8	7.3	0.0	13.4	18.0	0.0	33.9	6.4	0.0	11.2	7.3	0.0	12.6	7.5	16.7	0.0	7.5	16.4	0.0	6.3	14.8	0.0	14.3	32.1	0.0	6.2	16.0	0.0	5.0	12.7	0.0	2.2	3.0	1.5	2.8	3.6	2.0	0.6	0.7	**	**	**	**	**	**	0.0	0.0	0.0	0.0	1.2	0.0	2.3	1.0	0.0	2.1	1.7	0.0	3.2	**	0.0	**	**	**	0.0	**	**	0.0	**	74.8	107.9	41.8	71.8	101.0	42.4	63.3	95.8	31.6	91.2	134.1	46.1	206.5	320.5	105.4	31.1	43.7	18.3	35.6	54.8	16.2	34.5	50.9	17.8	30.5	49.7	11.1	49.2	78.4	18.4	101.1	161.6	45.5	8.2	14.8	**	17.5	25.4	9.6	15.4	22.7	8.1	16.7	23.4	10.1	21.3	28.5	13.2	59.7	86.8	35.1	8.8	14.3	3.3	12.0	13.4	10.6	12.4	13.4	11.4	9.2	11.7	7.3	4.5	5.7	**	17.2	29.6	8.1	9.1	7.2	9.9	1.7	2.5	0.9	1.8	2.7	0.8	1.0	1.6	**	2.6	4.0	**	3.7	4.6	**	**	**	**	47.5	60.2	36.8	41.7	52.2	32.5	62.7	88.0	43.8	52.7	64.3	43.1	116.7	139.8	100.9	30.1	45.0	20.2	35.3	36.3	34.4	40.1	39.8	40.2	15.3	20.5	11.4	36.6	41.5	34.4	14.6	21.9	10.4	11.1	12.7	10.3	34.5	33.9	34.6	32.8	32.2	33.0	38.3	40.2	36.5	54.2	46.1	59.1	36.6	31.0	39.3	29.4	26.7	31.2	28.5	21.8	33.7	28.6	22.0	34.0	29.6	21.3	35.0	35.7	31.3	38.8	18.9	17.8	19.9	17.3	8.4	22.9	25.1	32.0	19.0	19.7	25.8	14.2	39.5	52.5	29.7	42.4	53.9	31.9	88.0	97.6	77.5	19.4	25.9	14.8	20.5	33.6	7.7	24.3	39.8	9.0	12.2	20.7	4.2	14.3	22.3	5.4	35.1	54.7	16.9	9.4	14.8	4.4	17.4	21.6	13.4	13.4	17.3	9.7	19.9	25.6	14.8	8.2	10.5	6.0	106.0	112.5	99.0	4.9	8.4	**	11.3	12.3	10.2	10.1	10.7	9.5	14.6	16.6	12.6	28.4	35.2	22.7	14.3	15.8	12.5	7.6	7.4	8.0	10.0	14.2	6.7	10.7	15.0	7.0	7.4	11.1	4.9	8.3	11.4	6.1	9.0	11.2	7.3	5.0	**	4.5	10.0	11.8	8.6	9.1	10.4	7.9	11.2	12.6	10.2	10.3	13.1	8.3	32.5	44.5	23.5	6.0	12.0	**	9.0	14.2	3.6	4.7	7.2	2.2	9.4	14.9	3.9	27.4	43.6	9.6	34.5	59.5	10.9	2.6	4.7	**	8.5	9.9	7.4	6.9	8.2	5.7	12.4	14.9	10.6	15.0	17.3	13.8	28.9	33.4	26.6	4.8	6.2	4.0	5.5	6.0	5.0	4.9	5.8	4.0	6.6	5.8	7.2	6.3	7.6	4.9	15.2	16.2	15.0	3.6	**	4.0
<b>Human immunodeficiency virus (HIV) disease</b>	1.4	2.3	0.5	1.1	2.0	**	1.5	2.5	0.6	3.5	4.5	**	2.5	**	**	**	**	**	20.1	34.7	5.7	19.5	33.6	5.5	15.8	27.0	4.8	31.0	53.1	6.4	36.1	63.9	9.7	5.6	9.3	**	38.6	57.7	19.4	39.1	55.8	22.0	32.5	52.0	12.8	55.3	86.3	22.7	83.7	128.1	41.9	10.8	19.1	**	27.4	41.6	13.0	28.2	41.2	14.9	23.5	37.9	8.8	33.8	50.9	15.3	59.1	90.5	29.1	6.6	11.0	**	20.0	28.1	12.2	16.4	22.6	10.4	15.5	25.0	6.9	7.8	11.3	4.3	142.5	198.2	92.6	4.1	7.6	**																																																																																																																																																																																																																																																																																																																																																																																																																																																		

Notes: \* Cell suppressed due to count less than 6; \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> The number of deaths per 100,000 resident population age-adjusted to the 2000 U.S. standard; The rates for cervical cancer are per 100,000 females; The rate for prostate cancer is per 100,000 males; <sup>b</sup> Includes records with unknown gender and race/ethnicity.

**TABLE 2B-5  
AGE-ADJUSTED MORTALITY RATES<sup>a</sup> FOR SELECTED CAUSES OF DEATH BY URBAN/RURAL AREA AND GENDER,  
ARIZONA, 2022**

	Arizona			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Total, all causes</b>	784.3	933.2	645.3	753.6	892.5	625.7	935.7	1128.3	747.2
<b>Major cardiovascular diseases</b>	199.7	240.4	163.0	195.2	234.5	160.4	217.1	262.1	174.8
<b>Diseases of heart</b>	148.2	187.0	113.7	143.9	180.4	112.0	164.9	212.3	120.8
Coronary heart disease	103.9	137.1	74.8	100.3	131.2	73.5	118.0	158.7	80.5
<b>Malignant neoplasms</b>	133.1	151.9	117.5	130.1	147.4	116.0	146.0	169.8	124.4
Malignant neoplasm of trachea, bronchus and lung	24.3	27.2	21.9	23.5	26.3	21.2	27.3	30.1	24.8
Malignant neoplasm of colon, rectum, and anus	12.6	15.4	10.2	12.0	14.5	9.9	15.7	19.5	11.9
Malignant neoplasm of breast	10.1	0.2	18.8	10.1	0.2	18.7	10.1	0.1	19.3
Malignant neoplasm of prostate	7.5	16.7	0.0	7.2	16.1	0.0	8.9	19.0	0.0
Malignant melanoma of skin	2.2	3.0	1.5	2.3	3.0	1.6	2.1	3.3	1.0
Malignant neoplasm of cervix uteri	1.2	0.0	2.3	1.2	0.0	2.3	1.0	0.0	2.0
<b>Accidents (unintentional injury)</b>	74.8	107.9	41.8	69.4	99.7	39.5	99.6	144.7	53.5
Accidental poisoning	35.6	54.8	16.2	33.8	52.2	15.4	42.3	63.9	19.6
Motor vehicle accidents	17.5	25.4	9.6	15.6	22.7	8.6	28.3	40.7	15.6
Falls	12.0	13.4	10.6	11.8	13.1	10.7	12.6	14.8	10.4
Accidental drowning and submersion	1.7	2.5	0.9	1.6	2.3	0.9	2.2	3.8	0.7
<b>COVID-19</b>	47.5	60.2	36.8	45.2	57.7	34.9	57.7	70.5	46.4
<b>Chronic lower respiratory diseases</b>	35.3	36.3	34.4	32.6	33.7	31.7	46.2	46.3	46.0
<b>Cerebrovascular diseases</b>	34.5	33.9	34.6	34.2	34.5	33.6	35.5	31.0	39.2
<b>Alzheimer's disease</b>	28.5	21.8	33.7	28.8	22.4	33.7	27.1	19.2	33.7
<b>Diabetes</b>	25.1	32.0	19.0	24.8	31.9	18.5	26.7	32.8	21.0
<b>Intentional self-harm (suicide)</b>	20.5	33.6	7.7	17.6	29.0	6.6	37.4	60.3	14.1
<b>Chronic liver disease and cirrhosis</b>	17.4	21.6	13.4	14.1	18.2	10.4	36.9	41.6	32.5
<b>Essential (primary) hypertension and hypertensive renal disease</b>	11.3	12.3	10.2	11.6	12.7	10.5	10.1	10.6	9.4
<b>Influenza and pneumonia</b>	10.0	11.8	8.6	9.4	11.0	8.0	13.5	15.6	11.7
<b>Parkinson's disease</b>	10.0	14.2	6.7	10.2	14.7	6.7	9.4	12.3	6.7
<b>Assault (homicide)</b>	9.0	14.2	3.6	8.7	13.3	3.8	10.8	18.9	2.3
<b>Nephritis, nephrotic syndrome and nephrosis</b>	8.5	9.9	7.4	7.7	8.9	6.7	12.3	13.9	11.0
<b>Septicemia</b>	5.5	6.0	5.0	5.2	5.7	4.8	6.8	7.4	6.3
<b>(HIV) disease</b>	1.4	2.3	0.5	1.4	2.4	0.5	0.5	0.6	0.4
<b>Injury by firearms</b>	20.1	34.7	5.7	18.2	31.1	5.5	30.4	53.7	6.6
<b>Drug-induced deaths</b>	38.6	57.7	19.4	37.4	56.3	18.4	41.4	58.4	23.6
<b>Opioid-induced deaths</b>	27.4	41.6	13.0	26.8	40.5	12.9	28.4	43.0	13.0
<b>Alcohol-induced deaths</b>	20.0	28.1	12.2	15.0	21.1	9.1	50.6	69.3	31.8

Notes: <sup>a</sup> The number of deaths per 100,000 population in specified group age-adjusted to the 2000 standard U.S.; The rates for cervical cancer are per 100,000 females; the rates for prostate cancer are per 100,000 males.

**TABLE 2B-6  
DEATHS AND DEATH RATES BY GENDER FOR SELECTED CAUSES,  
ARIZONA RESIDENTS, 2022**

Cause of death (Tenth Revision, International Statistical Classification of Diseases)	Number of deaths			Crude death rate per 100,000 persons		
	Total	Male	Female	Total	Male	Female
<b>Total, all causes<sup>a</sup></b>	73,861	40,397	33,462	996.9	1098.1	897.0
Salmonella infections	0†	*	*	**	**	**
Shigellosis and amebiasis	0	0	0	0.0	0.0	0.0
Certain other intestinal infections	241	104	137	3.3	2.8	3.7
Enterocolitis due to Clostridium difficile	145	68	77	2.0	1.8	2.1
Tuberculosis	10†	7	*	0.1	0.2	**
Respiratory tuberculosis	10†	*	*	0.1	**	**
Other tuberculosis	0†	*	*	**	**	**
Whooping cough	0	0	0	0.0	0.0	0.0
Scarlet fever and erysipelas	0	0	0	0.0	0.0	0.0
Meningococcal infection	0†	*	*	**	**	**
Septicemia	518	264	254	7.0	7.2	6.8
Syphilis	0	0	0	0.0	0.0	0.0
Acute poliomyelitis	0	0	0	0.0	0.0	0.0
Arthropod-borne encephalitis	0	0	0	0.0	0.0	0.0
Measles	0	0	0	0.0	0.0	0.0
Viral hepatitis	77	58	19	1.0	1.6	0.5
Human immunodeficiency virus (HIV) disease	103	85	18	1.4	2.3	0.5
Malaria	0	0	0	0.0	0.0	0.0
Other and unspecified infectious and parasitic diseases	421	235	186	5.7	6.4	5.0
Malignant neoplasms	13,135	6,967	6,168	177.3	189.4	165.4
Malignant neoplasm of lip, oral cavity and pharynx	244	167	77	3.3	4.5	2.1
Malignant neoplasm of esophagus	338	269	69	4.6	7.3	1.8
Malignant neoplasm of stomach	226	130	96	3.1	3.5	2.6
Malignant neoplasm of colon, rectum, and anus	1,210	682	528	16.3	18.5	14.2
Malignant neoplasm of liver and intrahepatic bile ducts	659	405	254	8.9	11.0	6.8
Malignant neoplasm of pancreas	1,060	570	490	14.3	15.5	13.1
Malignant neoplasm of larynx	70†	60	*	0.9	1.6	**
Malignant neoplasm of trachea, bronchus and lung	2,483	1,286	1,197	33.5	35.0	32.1
Malignant melanoma of skin	218	139	79	2.9	3.8	2.1
Malignant neoplasm of breast	974	9	965	13.1	0.2	25.9
Malignant neoplasm of cervix uteri	93	0	93	1.3	0.0	2.5
Malignant neoplasm of corpus uteri and uterus, part unspecified	268	0	268	3.6	0.0	7.2
Malignant neoplasm of ovary	338	0	338	4.6	0.0	9.1
Malignant neoplasm of prostate	755	755	0	10.2	20.5	0.0
Malignant neoplasm of kidney and renal pelvis	322	210	112	4.3	5.7	3.0
Malignant neoplasm of bladder	387	284	103	5.2	7.7	2.8
Malignant neoplasm of meninges, brain and other parts of central nervous system	389	219	170	5.3	6.0	4.6
Malignant neoplasm of lymphoid, hematopoietic and related tissue	1,300	784	516	17.5	21.3	13.8
Hodgkin's disease	27	17	10	0.4	0.5	0.3
Non-Hodgkin's lymphoma	475	281	194	6.4	7.6	5.2
Leukemia	519	302	217	7.0	8.2	5.8
Multiple myeloma and immunoproliferative neoplasms	274	180	94	3.7	4.9	2.5
Other and unspecified malignant neoplasms of lymphoid tissue	10†	*	*	**	**	**
All other and unspecified malignant neoplasm	1,806	998	808	24.4	27.1	21.7
In situ neoplasms	364	209	155	4.9	5.7	4.2
Anemias	81	33	48	1.1	0.9	1.3
Diabetes	2,418	1,440	978	32.6	39.1	26.2

**TABLE 2B-6 (continued)**  
**DEATHS AND DEATH RATES BY GENDER FOR SELECTED CAUSES,**  
**ARIZONA RESIDENTS, 2022**

Cause of death (Tenth Revision, International Statistical Classification of Diseases)	Number of deaths			Crude death rate per 100,000 persons		
	Total	Male	Female	Total	Male	Female
Nutritional deficiencies	852	343	509	11.5	9.3	13.6
Malnutrition	813	327	486	11.0	8.9	13.0
Other nutritional deficiencies	39	16	23	0.5	0.4	0.6
Obesity	248	138	110	3.3	3.8	2.9
Meningitis	19	11	8	0.3	0.3	0.2
Parkinson's disease	1,005	636	369	13.6	17.3	9.9
Alzheimer's disease	2,818	950	1,868	38.0	25.8	50.1
Major cardiovascular diseases	19,576	10,731	8,845	264.2	291.7	237.1
Diseases of heart	14,530	8,350	6,180	196.1	227.0	165.7
Acute rheumatic fever and chronic rheumatic heart disease	100	35	65	1.3	1.0	1.7
Hypertensive heart disease	2,029	1,019	1,010	27.4	27.7	27.1
Hypertensive heart and renal disease	257	115	142	3.5	3.1	3.8
Ischemic heart disease	8,227	5,148	3,079	111.0	139.9	82.5
Acute myocardial infarction	1,786	1,083	703	24.1	29.4	18.8
Other acute ischemic heart disease	71	46	25	1.0	1.3	0.7
Other forms of chronic ischemic heart disease	6,370	4,019	2,351	86.0	109.2	63.0
Atherosclerotic cardiovascular disease	1,803	1,275	528	24.3	34.7	14.2
All other forms of chronic ischemic heart disease	4,567	2,744	1,823	61.6	74.6	48.9
Other heart diseases	3,917	2,033	1,884	52.9	55.3	50.5
Acute and subacute endocarditis	42	31	11	0.6	0.8	0.3
Diseases of pericardium and acute myocarditis	26	14	12	0.4	0.4	0.3
Heart failure	1,103	590	513	14.9	16.0	13.8
All other forms of heart disease	2,746	1,398	1,348	37.1	38.0	36.1
Essential (primary) hypertension and hypertensive renal disease	1,105	550	555	14.9	14.9	14.9
Cerebrovascular diseases	3,377	1,506	1,871	45.6	40.9	50.2
Atherosclerosis	117	70	47	1.6	1.9	1.3
Other diseases of circulatory system	446	255	191	6.0	6.9	5.1
Aortic aneurysm and dissection	226	144	82	3.1	3.9	2.2
Other disease of arteries, arterioles and capillaries	220	111	109	3.0	3.0	2.9
Other disorders of circulatory system	138	71	67	1.9	1.9	1.8
Influenza and pneumonia	959	517	442	12.9	14.1	11.8
Influenza	95	43	52	1.3	1.2	1.4
Pneumonia	864	474	390	11.7	12.9	10.5
COVID-19	4,599	2,692	1,907	62.1	73.2	51.1
Other acute lower respiratory infections	10†	*	6	0.1	**	0.2
Acute bronchiolitis	10†	*	*	**	**	**
Unspecified acute lower respiratory infection	0†	*	*	**	**	**
Chronic lower respiratory diseases	3,571	1,678	1,893	48.2	45.6	50.7
Bronchitis, chronic and unspecified	10†	*	9	0.1	**	0.2
Emphysema	211	123	88	2.8	3.3	2.4
Asthma	95	32	63	1.3	0.9	1.7
Other chronic lower respiratory diseases	3,255	1,522	1,733	43.9	41.4	46.5
Pneumoconioses and chemical effects	10†	*	*	0.1	**	**
Pneumonitis due to solids and liquids	253	146	107	3.4	4.0	2.9
Other disease of respiratory system	1,076	579	497	14.5	15.7	13.3
Peptic ulcer	113	70	43	1.5	1.9	1.2
Diseases of appendix	10†	*	10	0.1	**	0.3
Hernia	49	23	26	0.7	0.6	0.7



**TABLE 2B-6 (continued)**  
**DEATHS AND DEATH RATES BY GENDER FOR SELECTED CAUSES,**  
**ARIZONA RESIDENTS, 2022**

Cause of death (Tenth Revision, International Statistical Classification of Diseases)	Number of deaths			Crude death rate per 100,000 persons		
	Total	Male	Female	Total	Male	Female
Chronic liver disease and cirrhosis	1,484	901	583	20.0	24.5	15.6
Alcoholic liver disease	862	541	321	11.6	14.7	8.6
Other chronic liver disease and cirrhosis	622	360	262	8.4	9.8	7.0
Cholelithiasis and other disorders of gallbladder	91	56	35	1.2	1.5	0.9
Nephritis, nephrotic syndrome and nephrosis	832	446	386	11.2	12.1	10.3
Acute and rapidly progressive nephritic and nephrotic syndrome	10†	*	7	0.2	**	0.2
Chronic glomerulonephritis	10†	9	*	0.2	0.2	**
Renal failure	805	432	373	10.9	11.7	10.0
Others disorders of kidney	0†	0	*	**	0.0	**
Infections of kidney	40	11	29	0.5	0.3	0.8
Hyperplasia of prostate	16	16	0	0.2	0.4	0.0
Inflammatory diseases of female pelvic organs	0†	0	*	**	0.0	**
Pregnancy, childbirth and the puerperium	26	0	26	0.4	0.0	0.7
Pregnancy with abortive outcome	0†	0	*	**	0.0	**
Other complications of pregnancy, childbirth and the puerperium	25	0	25	0.3	0.0	0.7
Perinatal conditions	233	139	92	3.1	3.8	2.5
Congenital malformations	253	141	112	3.4	3.8	3.0
Symptoms, signs, abnormal findings <sup>a</sup>	744	404	340	10.1	11.0	9.1
Total accidents	5,868	4,072	1,796	79.2	110.7	48.1
Transport accidents	1,446	1,042	404	19.5	28.3	10.8
Motor vehicle accidents	1,344	964	380	18.1	26.2	10.2
Other land transport accidents	39	28	11	0.5	0.8	0.3
Water, air, space	63	50	13	0.9	1.4	0.3
Nontransport accidents	4,422	3,030	1,392	59.7	82.4	37.3
Falls	1,172	587	585	15.8	16.0	15.7
Accidental discharge of firearms	10†	12	*	0.2	0.3	**
Accidental drowning and submersion	126	92	34	1.7	2.5	0.9
Accidental exposure to smoke, fire and flames	41	23	18	0.6	0.6	0.5
Accidental poisoning	2,534	1,946	588	34.2	52.9	15.8
Other and unspecified non-transport accidents	536	370	166	7.2	10.1	4.5
Intentional self-harm (suicide)	1,594	1,295	299	21.5	35.2	8.0
By discharge of firearms	977	859	118	13.2	23.3	3.2
By other means	617	436	181	8.3	11.9	4.9
Assault (homicide)	625	498	127	8.4	13.5	3.4
By discharge of firearms	487	400	87	6.6	10.9	2.3
By other means	138	98	40	1.9	2.7	1.1
Legal intervention	40†	36	*	0.5	1.0	**
Events of undetermined intent	160	103	57	2.2	2.8	1.5
Discharge of firearms	20†	13	*	0.2	0.4	**
Other and unspecified events of undetermined intent	144	90	54	1.9	2.4	1.4
Operations of war	0	0	0	0.0	0.0	0.0
Complications of medical and surgical care	81	43	38	1.1	1.2	1.0
Injury by firearms	1,527	1,317	210	20.6	35.8	5.6
Drug-induced deaths	2,769	2,058	711	37.4	55.9	19.1
Opioid-induced deaths	1,927	1,461	466	26.0	39.7	12.5
Alcohol-induced deaths	1,614	1,115	499	21.8	30.3	13.4

Notes: \* Cell suppressed due to count less than 6; \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Includes records with unknown gender; The list of Causes of Death was developed for the general analysis of ICD-10 mortality statistics and for ranking of leading causes of death. It is similar in structure and content and replaces the list of 72 Selected Causes of Death used for ICD-9 mortality statistics.

**TABLE 2B-7  
NUMBER OF DEATHS FROM DISEASES OF THE HEART BY CATEGORY, GENDER, AND YEAR, ARIZONA, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ALL FORMS OF HEART DISEASE</b>	<b>TOTAL</b>	10,366	10,497	9,953	11,274	11,820	12,410	12,560	14,185	14,536	14,530
	<b>Male</b>	5,731	5,910	5,575	6,286	6,702	7,030	7,129	8,097	8,386	8,350
	<b>Female</b>	4,635	4,587	4,378	4,988	5,118	5,380	5,431	6,088	6,150	6,180
<b>Acute rheumatic fever and chronic rheumatic heart disease</b>	<b>TOTAL</b>	51	64	74	52	77	98	71	87	98	100
	<b>Male</b>	19	17	26	20	33	41	31	31	42	35
	<b>Female</b>	32	47	48	32	44	57	40	56	56	65
<b>Hypertensive heart and renal disease</b>	<b>TOTAL</b>	51	49	65	71	111	153	165	179	240	257
	<b>Male</b>	28	27	31	36	56	81	77	82	121	115
	<b>Female</b>	23	22	34	35	55	72	88	97	119	142
<b>Ischemic heart disease</b>	<b>TOTAL</b>	7,294	7,159	6,650	7,264	7,734	7,540	7,617	8,586	8,491	8,227
	<b>Male</b>	4,279	4,259	3,957	4,391	4,703	4,670	4,642	5,295	5,325	5,148
	<b>Female</b>	3,015	2,900	2,693	2,873	3,031	2,870	2,975	3,291	3,166	3,079
<b>Hypertensive heart disease</b>	<b>TOTAL</b>	761	943	991	1,118	1,114	1,400	1,409	1,619	1,943	2,029
	<b>Male</b>	375	462	491	517	554	711	735	779	987	1,019
	<b>Female</b>	386	481	500	601	560	689	674	840	956	1,010
<b>Other heart diseases</b>	<b>TOTAL</b>	2,209	2,282	2,173	2,769	2,784	3,219	3,298	3,714	3,764	3,917
	<b>Male</b>	1,030	1,145	1,070	1,322	1,356	1,527	1,644	1,910	1,911	2,033
	<b>Female</b>	1,179	1,137	1,103	1,447	1,428	1,692	1,654	1,804	1,853	1,884

**TABLE 2B-8  
NUMBER OF DEATHS FOR SELECTED SUBCATEGORIES OF MALIGNANT NEOPLASMS BY GENDER AND YEAR,  
ARIZONA, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
<b>ALL CANCERS<sup>a</sup></b>	<b>TOTAL<sup>b</sup></b>	10,871	11,193	10,600	11,624	11,801	11,917	12,097	12,485	12,671	12,810	13,135
	Male	5,932	5,950	5,731	6,263	6,429	6,493	6,675	6,740	6,821	6,825	6,967
	Female	4,939	5,243	4,869	5,361	5,372	5,424	5,422	5,745	5,850	5,985	6,168
<b>ICD-9 140-149/ICD-10 C00-C14 - Malignant neoplasm of lip, oral cavity and pharynx (oropharyngeal cancer)</b>	<b>TOTAL</b>	144	150	137	160	205	180	165	187	217	225	244
	Male	106	101	98	109	157	128	127	141	154	167	167
	Female	38	49	39	51	48	52	38	46	63	58	77
<b>ICD-9 150/ICD-10 C15 - Malignant neoplasm of esophagus</b>	<b>TOTAL</b>	325	320	286	303	310	333	332	332	313	361	338
	Male	260	257	230	249	246	273	271	270	263	301	269
	Female	65	63	56	54	64	60	61	62	50	60	69
<b>ICD-9 151/ICD-10 C16 - Malignant neoplasm of stomach</b>	<b>TOTAL</b>	204	202	186	211	226	203	236	226	215	233	226
	Male	118	122	109	121	128	124	134	134	125	142	130
	Female	86	80	77	90	98	79	102	92	90	91	96
<b>ICD-9 153, 154/ICD-10 C18-C21 - Malignant neoplasm of colon, rectum, rectosigmoid junction and anus</b>	<b>TOTAL</b>	946	997	953	1,022	1,069	1,118	1,126	1,117	1,173	1,159	1,210
	Male	523	510	510	568	591	639	641	621	602	638	682
	Female	423	487	443	454	478	479	485	496	571	521	528
<b>ICD-9 157/ICD-10 C25 - Malignant neoplasm of pancreas</b>	<b>TOTAL</b>	813	755	769	852	901	914	952	1,018	1,005	984	1,060
	Male	450	392	400	461	494	484	513	541	545	531	570
	Female	363	363	369	391	407	430	439	477	460	453	490
<b>ICD-9 162/ICD-10 C33-C34 - Malignant neoplasm of trachea, bronchus and lung</b>	<b>TOTAL</b>	2,772	2,763	2,543	2,885	2,689	2,754	2,640	2,510	2,592	2,595	2,483
	Male	1,512	1,485	1,385	1,533	1,452	1,487	1,436	1,315	1,336	1,348	1,286
	Female	1,260	1,278	1,158	1,352	1,237	1,267	1,204	1,195	1,256	1,247	1,197
<b>ICD-9 172/ICD-10 C43 - Malignant melanoma of skin</b>	<b>TOTAL</b>	216	222	215	213	191	190	209	206	212	218	218
	Male	147	137	147	142	131	129	150	133	151	137	139
	Female	69	85	68	71	60	61	59	73	61	81	79
<b>ICD-9 174,175/ICD-10 C50 - Malignant neoplasm of breast</b>	<b>TOTAL</b>	740†	836	729	810†	853	834	815	911	894	972	974
	Male	*	9	6	*	9	8	10	12	11	16	9
	Female	740	827	723	809	844	826	805	899	883	956	965

**TABLE 2B-8 (continued)  
NUMBER OF DEATHS FOR SELECTED SUBCATEGORIES OF MALIGNANT NEOPLASMS BY GENDER AND YEAR,  
ARIZONA, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ICD-9 180/ICD-10 C53 - Malignant neoplasm of cervix uteri</b>	TOTAL	73	86	75	84	82	78	84	74	100	93
	Female	73	86	75	84	82	78	84	74	100	93
<b>ICD-9 179, 182/ ICD-10 C54-C55 - Malignant neoplasm of body of uterus and of uterus, part unspecified</b>	TOTAL	131	140	176	180	168	200	203	212	233	268
	Female	131	140	176	180	168	200	203	212	233	268
<b>ICD-9 185/ICD-10 C61 - Malignant neoplasm of prostate</b>	TOTAL	581	570	572	633	697	659	734	795	779	755
	Male	581	570	572	633	697	659	734	795	779	755
<b>ICD-9 188/ICD-10 C67 - Malignant neoplasm of bladder</b>	TOTAL	316	293	305	355	367	362	358	416	418	387
	Male	244	221	241	255	267	279	276	321	327	284
	Female	72	72	64	100	100	83	82	95	91	103
<b>ICD-9 189/ICD-10 C64-C65 - Malignant neoplasm of kidney and other and unspecified urinary organs</b>	TOTAL	252	274	254	309	308	323	351	337	317	322
	Male	171	179	177	224	205	208	250	242	215	210
	Female	81	95	77	85	103	115	101	95	102	112
<b>ICD-9 191, 192/ICD-10 C70-C72 - Malignant neoplasm of brain</b>	TOTAL	337	325	339	323	340	339	366	390	395	389
	Male	196	172	194	190	195	194	206	229	227	219
	Female	141	153	145	133	145	145	160	161	168	170
<b>ICD-9 201/ICD-10 81 - Hodgkin's disease</b>	TOTAL	17	26	10 <sup>+</sup>	30	22	29	22	20 <sup>+</sup>	25	27
	Male	8	16	10	21	10	15	12	13	14	17
	Female	9	10	*	9	12	14	10	*	11	10
<b>ICD-9 200, 202/ICD-10 C82-C85 - Malignant lymphoma other than Hodgkin's disease</b>	TOTAL	372	416	371	397	399	388	398	452	433	475
	Male	214	251	196	216	221	240	235	267	246	281
	Female	158	165	175	181	178	148	163	185	187	194
<b>ICD-9 203/ICD-10 C88, C90 - Multiple myeloma and immunoproliferative neoplasms</b>	TOTAL	221	247	221	240	243	270	297	292	250	274
	Male	128	129	133	139	149	162	181	162	147	180
	Female	93	118	88	101	94	108	116	130	103	94
<b>Other malignant neoplasms</b>	TOTAL	2,409	2,571	2,455	2,613	2,731	2,743	2,877	1,564	1,612	1,806
	Male	1,273	1,400	1,323	1,397	1,477	1,464	1,538	840	840	998
	Female	1,136	1,171	1,132	1,216	1,254	1,279	1,339	724	772	808

Notes: \* Cell suppressed due to count less than 6; + Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Includes other forms of cancer; <sup>b</sup> Total includes records with unknown gender.

**TABLE 2B-9  
NUMBER OF DEATHS FROM UNINTENTIONAL INJURIES IN ACCIDENTS BY CATEGORY AND YEAR AMONG  
ARIZONA RESIDENTS, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Total unintentional injury deaths</b>	2,804	3,137	3,011	3,403	3,899	4,085	4,211	4,522	5,377	5,945	5,868
<b>Railway accident</b>	7	7	8	6	11	9	7	10	9	12	9
<b>Motor vehicle accident</b>	747	767	702	855	967	979	1,032	970	1,035	1,359	1,344
<b>Water transport accident</b>	*	*	0	*	*	7	7	*	*	*	7
<b>Accident involving aircraft</b>	13	9	*	7	10	17	10	13	14	18	11
<b>Poisoning by drugs/medicaments</b>	731	853	885	955	1,095	1,269	1,425	1,679	2,309	2,508	2,388
<b>Poisoning by gases and vapors</b>	86	112	94	105	153	105	120	118	174	143	146
<b>Falls</b>	782	870	881	1,014	1,103	1,076	1,090	1,109	1,127	1,146	1,172
<b>Fire, flames, smoke</b>	43	68	30	25	40	51	23	43	48	57	41
<b>Excessive natural heat</b>	51	56	32	43	99	108	94	118	210	194	243
<b>Excessive natural cold</b>	9	28	19	20	21	24	15	37	27	24	29
<b>Contact with venomous snakes and lizards</b>	*	0	0	0	0	*	*	0	0	*	*
<b>Contact with venomous spiders</b>	0	*	0	0	0	*	0	0	0	0	0
<b>Contact with scorpions</b>	0	*	0	0	0	0	0	0	0	*	0
<b>Contact with hornets, wasps, bees</b>	0	*	0	*	*	*	*	*	*	*	0
<b>Bitten or struck by dog</b>	*	*	*	*	*	*	0	*	*	*	*
<b>Lightning</b>	*	*	0	*	*	*	0	0	0	0	0
<b>Storms and floods</b>	0	0	0	0	0	12	*	*	0	*	*
<b>Accidental drowning and submersion</b>	83	72	78	81	105	106	92	100	99	115	126
<b>Choked on food</b>	38	29	33	34	33	38	40	38	38	42	55
<b>Choked on other objects</b>	44	57	56	53	38	39	29	40	31	48	29
<b>Mechanical suffocation</b>	23	21	35	40	35	41	25	37	27	42	38
<b>Accidental discharge of firearms</b>	*	9	6	*	7	8	10	13	6	8	13
<b>Exposure to electric current</b>	0	6	*	*	10	*	*	*	8	*	8
<b>Overexertion</b>	0	0	0	0	0	*	0	0	0	0	0
<b>Adverse effects of drugs in therapeutic use</b>	6	10	10	12	*	*	11	7	14	13	11
<b>Misadventures to patients during medical/surgical care</b>	42	46	32	20	43	96	103	108	113	130	70

Notes: \* Cell suppressed due to count less than 6; Beginning in 2000, the data are classified by the Tenth Revision of the International Classification of Diseases (ICD-10).

**TABLE 2B-10  
NUMBER OF DEATHS FROM MOTOR VEHICLE-RELATED INJURIES BY PERSON INJURED, GENDER, AND YEAR,  
ARIZONA RESIDENTS, 2012-2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>TOTAL</b>											
<b>Total</b>	747	767	702	855	967	979	1,032	970	1,035	1,359	1,344
<b>Male</b>	541	541	492	605	693	691	729	692	747	954	964
<b>Female</b>	206	226	210	250	274	288	303	278	288	405	380
<b>Motorcyclist</b>											
<b>Total</b>	130	111	100	121	126	137	130	130 <sup>†</sup>	154	189	227
<b>Male</b>	113	98	93	106	118	122	114	130	139	172	202
<b>Female</b>	17	13	7	15	8	15	16	*	15	17	25
<b>Pedestrian</b>											
<b>Total</b>	128	152	138	160	218	245	251	227	235	307	325
<b>Male</b>	88	105	100	115	150	161	171	166	166	209	226
<b>Female</b>	40	47	38	45	68	84	80	61	69	98	99
<b>Pedal cyclist</b>											
<b>Total</b>	11	20 <sup>†</sup>	20 <sup>†</sup>	20 <sup>†</sup>	20 <sup>†</sup>	30 <sup>†</sup>	20 <sup>†</sup>	20 <sup>†</sup>	30 <sup>†</sup>	40 <sup>†</sup>	41
<b>Male</b>	11	19	15	15	18	24	18	18	23	34	34
<b>Female</b>	0	*	*	*	*	*	*	*	*	*	7
<b>Other person</b>											
<b>Total</b>	478	481	445	558	601	568	630	587	618	824	751
<b>Male</b>	329	319	284	369	407	384	426	378	419	539	502
<b>Female</b>	149	162	161	189	194	184	204	209	199	285	249

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; Beginning in 2000, the data are classified by the Tenth Revision of the International Classification of Diseases (ICD-10).

**TABLE 2B-11  
LEADING CAUSES OF DEATH BY PLACE OF DEATH AND DECEDENT STATUS, ARIZONA, 2022**

Causes of death	IN HOSPITAL						NOT IN HOSPITAL				
	TOTAL	In-patient	Out-patient <sup>a</sup>	Died on arrival	Status Unknown	Subtotal	Nursing home <sup>b</sup>	Residence	Other <sup>c</sup>	Subtotal	
<b>TOTAL, ALL CAUSES</b>	73,861	18,875	4,026	30	26,362	49,293	5,701	11,290	7,577	24,568	
<b>Diseases of heart</b>	14,530	3,073	1,123	11	5,761	9,968	740	2,538	1,284	4,562	
Coronary heart disease	10,256	1,676	881	10	4,375	6,942	479	1,832	1,003	3,314	
<b>Malignant neoplasms</b>	13,140†	2,086	218	*	6,829	9,140†	1,872	1,330	798	4,000	
Malignant neoplasm of trachea, bronchus and lung	2,483	433	43	0	1,276	1,752	331	265	135	731	
Malignant neoplasm of colon, rectum, and anus	1,210	139	20	0	641	800	206	120	84	410	
Malignant neoplasm of breast	974	127	10	0	490	627	150	124	73	347	
Malignant neoplasm of prostate	755	73	10	0	436	519	78	104	54	236	
Malignant neoplasm of cervix uteri	90†	11	0	0	50	61	21	6	*	32	
<b>Accidents (unintentional injury)</b>	5,870†	1,186	822	*	1,313	3,330†	304	202	2,036	2,542	
Accidental poisoning	2,530†	247	353	*	895	1,500†	13	6	1,017	1,036	
Motor vehicle accidents	1,340†	323	275	*	14	610†	22	11	698	731	
Falls	1,172	448	57	0	177	682	240	162	88	490	
Accidental drowning and submersion	126	16	33	0	23	72	0	0	54	54	
<b>COVID-19</b>	4,599	3,080	147	0	562	3,789	247	414	149	810	
<b>Chronic lower respiratory diseases</b>	3,570†	695	132	*	1,651	2,480†	244	622	226	1,092	
<b>Cerebrovascular diseases</b>	3,377	904	65	0	880	1,849	495	801	232	1,528	
<b>Alzheimer's disease</b>	2,818	46	18	0	919	983	144	1,332	359	1,835	
<b>Diabetes</b>	2,420†	450	287	*	1,176	1,920†	132	247	123	502	
<b>Intentional self-harm (suicide)</b>	1,590†	105	117	*	814	1,040†	7	*	547	560†	
<b>Chronic liver disease and cirrhosis</b>	1,484	622	42	0	446	1,110	189	110	75	374	
<b>Essential (primary) hypertension &amp; hypertensive renal disease</b>	1,105	132	95	0	512	739	86	198	82	366	
<b>Parkinson's disease</b>	1,005	49	6	0	380	435	73	396	101	570	
<b>Influenza and pneumonia</b>	959	726	51	0	73	850	33	56	20	109	
<b>Nephritis, nephrotic syndrome and nephrosis</b>	830†	350	40	*	252	640†	37	107	45	189	
<b>Assault (homicide)</b>	630†	92	166	0	93	351	*	*	270	270†	
<b>Septicemia</b>	518	416	17	0	29	462	34	13	9	56	
<b>Human immunodeficiency virus (HIV) disease</b>	103	54	0	0	19	73	12	11	7	30	
<b>Injury by firearms</b>	1,530†	110	224	0	600	934	*	*	586	590†	
<b>Drug-induced deaths</b>	2,770†	324	385	*	996	1,710†	27	8	1,027	1,062	
<b>Opioid-induced deaths</b>	1,930†	157	269	0	711	1,137	7	*	779	790†	
<b>Alcohol-induced deaths</b>	1,610†	415	68	*	702	1,190†	154	70	203	427	

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Includes Emergency Room; <sup>b</sup> Includes other long-term care facilities; <sup>c</sup> Includes hospices.







## 2C.

### AGE-SPECIFIC MORTALITY

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Six age-specific profiles of mortality are given on the following pages. The six developmental periods in the life span are:

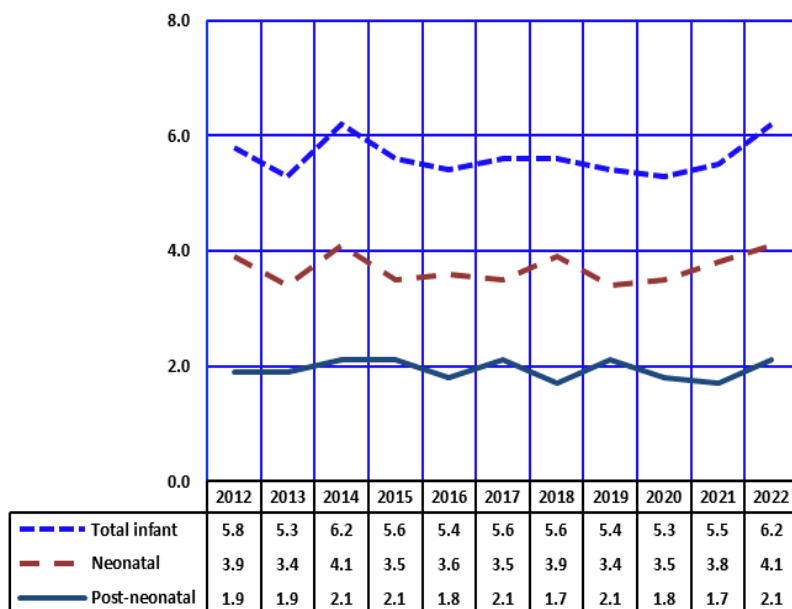
- **Infants** less than one year of age
- **Children** 1 to 14 years old
- **Adolescents** or persons 15 to 19 years old
- **Young adults** or persons 20 to 44 years old
- **Middle-aged adults** or persons 45 to 64 years old
- **Elderly** or persons 65 years or older.

For each age group, cause-specific mortality is compared between urban (i.e., Maricopa, Pima, Pinal, and Yuma counties) and rural (all other counties) regions and between genders. Urban and rural regions also are compared in gender-specific total mortality.

A comparison of age-specific mortality for causes of death is provided in **Table 2C-27**. A comparison of age-specific mortality rates is presented in **Table 2C-28**.

2C.AGE-SPECIFIC MORTALITY  
**Infant mortality**

**Figure 2C-1**  
**Infant Mortality Rates by Neonatal/Postneonatal Age and Year, Arizona, 2012-2022**



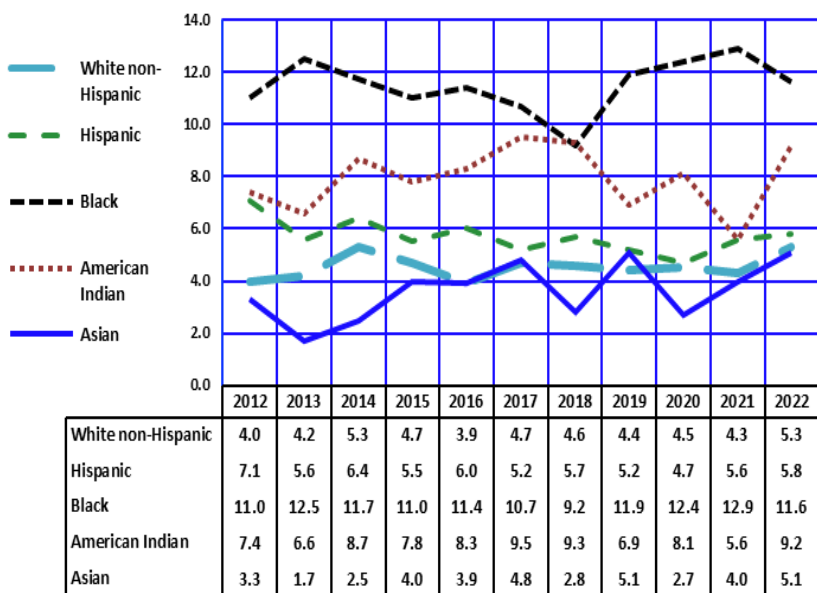
Notes: Neonatal deaths are those deaths affecting infants age 0-27 days; Post-neonatal deaths are deaths to infants aged 28 days-1 year.

Infant mortality is defined as the number of deaths within the first year of life. The infant mortality rate is computed as the number of infant deaths in a calendar year per 1,000 live births recorded for the same period.

In 2022, 483 Arizona infants died before reaching their first birthday, 52 fewer than the latest peak of 535 infant deaths in 2014, and an increase of 53 deaths in comparison to 2021 (**Table 2C-2**).

Based on the actual number of infant deaths and live births in 2022, the infant mortality rate was slightly higher at 6.2 infant deaths per 1,000 live births in 2022 than in 2021 which had 5.5 infant deaths per 1,000 live births (**Figure 2C-1**).

**Figure 2C-2**  
**Infant Mortality Rates<sup>a</sup> by Race/Ethnicity and Year, Arizona, 2012-2022**



Note: <sup>a</sup> Number of infant deaths per 1,000 live births in specified group.

In 2022, 96.5 percent (466/483)\* 100 of all infant death records were successfully matched to their corresponding birth records.

The mortality risk for infants varies by race/ethnicity. During the 11-year period (2012-2022), infants born to Asian or Pacific Islander mothers witnessed the lowest mortality rates among all racial/ethnic groups for the most part (**Figure 2C-2, Table 2C-2**). The exception being 2017 and 2019, as the infant mortality for Whites was the lowest of all racial/ethnic groups.

In parallel, in each year from 2012 to 2022, Black or African American and American Indian infants had the worst survival chances among the racial/ethnic groups (**Figure 2C-2**).

\*Infant death records that were not linked to their corresponding birth certificates include unrecorded home births (i.e., no birth certificates were issued) and out-of-State births (i.e., the State issuing the certificate of birth did not send a copy to Arizona).

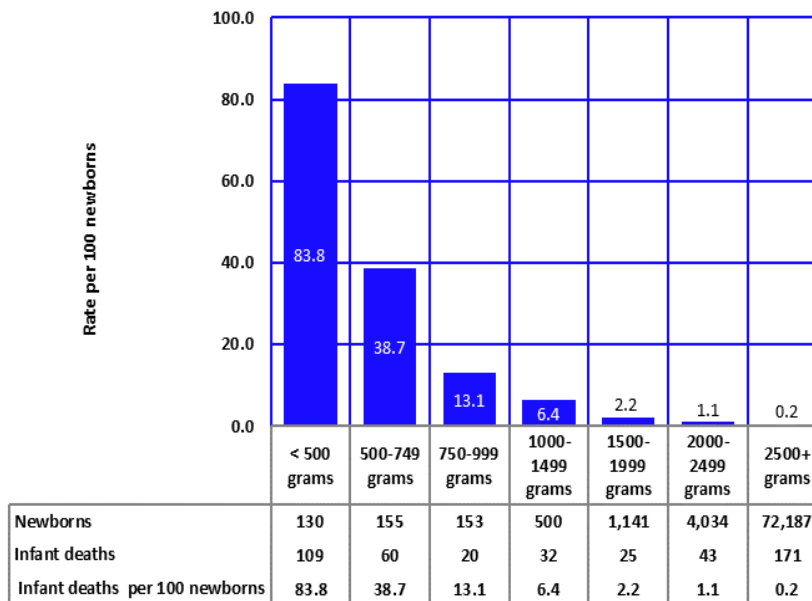
2C.AGE-SPECIFIC MORTALITY  
**Infant mortality**

**Figure 2C-3**  
**Proportion of Infant Deaths by Birthweight, Arizona, 2022**

Newborn weight at birth is one of the most important predictors of an infant’s survival chances. In 2022, the mortality rate of very low birth weight babies (birthweight less than 500 grams) was 83.8 per 100 live births (**Figure 2C-3**).

The absolute number of low birthweight births spiked in 2021 to 6,140 but remained lower than at its peak (n= 6,186) during the last 11 years, which occurred in 2016, but in 2022 had a decrease at 6,113.

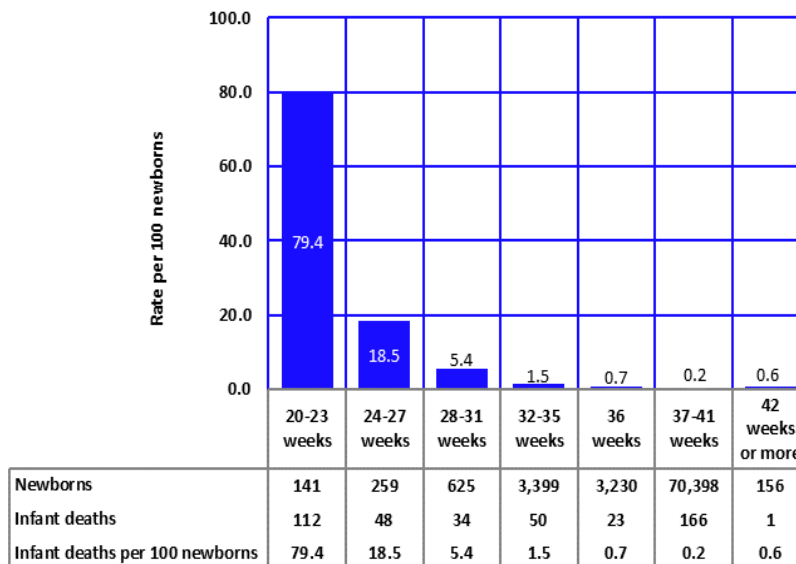
The proportion of babies whose weight at birth was less than 1,000 grams decreased slightly from 7.7 percent in 2021 to 7.2 in 2022 (**Table 1B-3**).



Note: 22 cases in the complete 2022 birth file had missing birthweight estimates.

**Figure 2C-4.1**  
**Proportion of Infant Deaths by Gestational Age, Arizona, 2022**

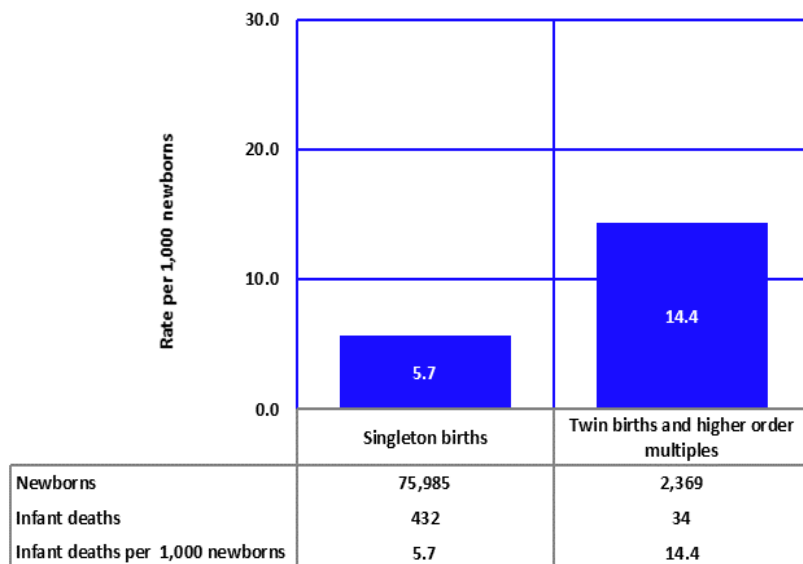
Similar to low birthweight infants, preterm and very preterm babies contribute greatly to the total infant mortality rate because of their higher risk of mortality. For example, in 2021 births occurring between 20-27 weeks of gestation accounted for only 0.5 percent of all births but 33.1 percent of infant deaths with a matching death record. Births at 20-23 weeks of gestation have a very high infant mortality rate of 79.4 per 100 live births (**Figure 2C-4**). Overall, in 2022 preterm infants (those born before 37 weeks of gestation) accounted for 9.8 percent of all births (**Table 1B-2**) and 57.3 percent of all infant deaths (only those with matching death records).



Note: 103 cases in the complete 2022 birth file had missing gestational age; two of which were missing in the linked infant death file.

2C.AGE-SPECIFIC MORTALITY  
**Infant mortality**

**Figure 2C-4.2**  
**Infant Mortality Rates for Single and Multiple Births, Arizona, 2022**

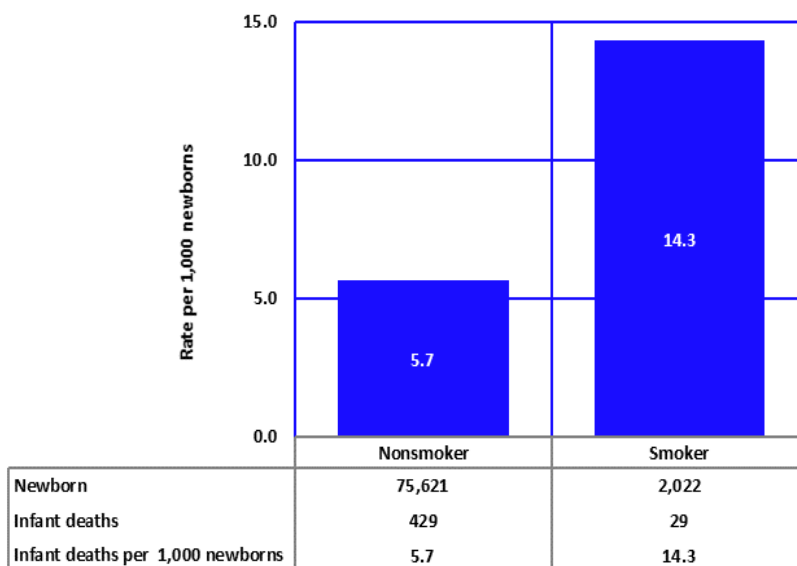


The infant mortality rate for single births was 5.7/1,000 live births in 2022 (**Figure 2C-4.2**). The infant mortality rate for twin births or higher order multiples (14.4/1,000 live births) was 2.5 times higher than the infant mortality for singleton births.

Babies born in multiple deliveries accounted for 3.0 percent of births (**Table 1B-16**), but 7.3 percent of all infant deaths in Arizona in 2022 (only those with matching birth and death records).

Note: 1 case in the complete 2022 birth file was missing plurality.

**Figure 2C-4.3**  
**Infant Mortality Rates by Mother's Smoking Status during Pregnancy, Arizona, 2022**



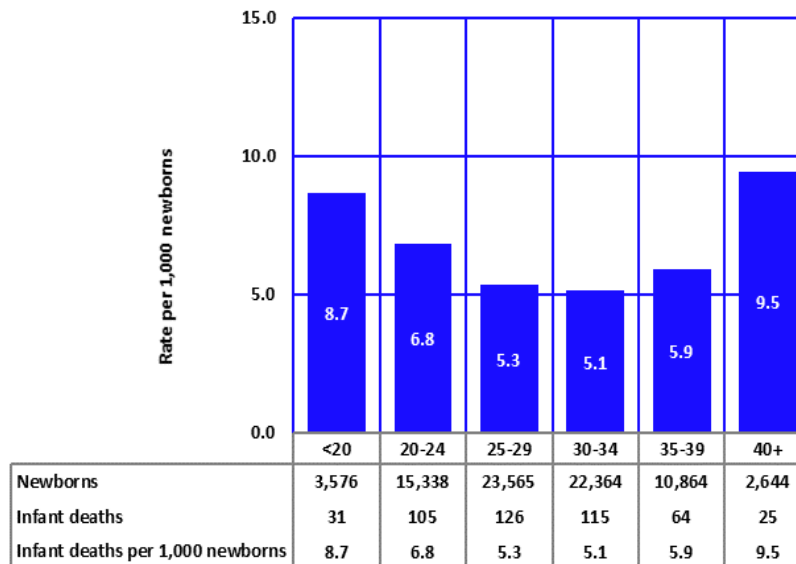
Smoking during pregnancy has been shown to increase the risk of preterm delivery, low birth weight and infant mortality. In 2022, among the 2,022 mothers who smoked during pregnancy, the risk of infant mortality was 2.5 times higher than among nonsmoker mothers (**Figure 2C-4.3**).

Note: 712 cases in the complete 2022 birth file were missing mothers' smoking status.

2C.AGE-SPECIFIC MORTALITY  
**Infant mortality**

**Figure 2C-4.4**  
**Infant Mortality Rates by Mother's Age Group, Arizona, 2022**

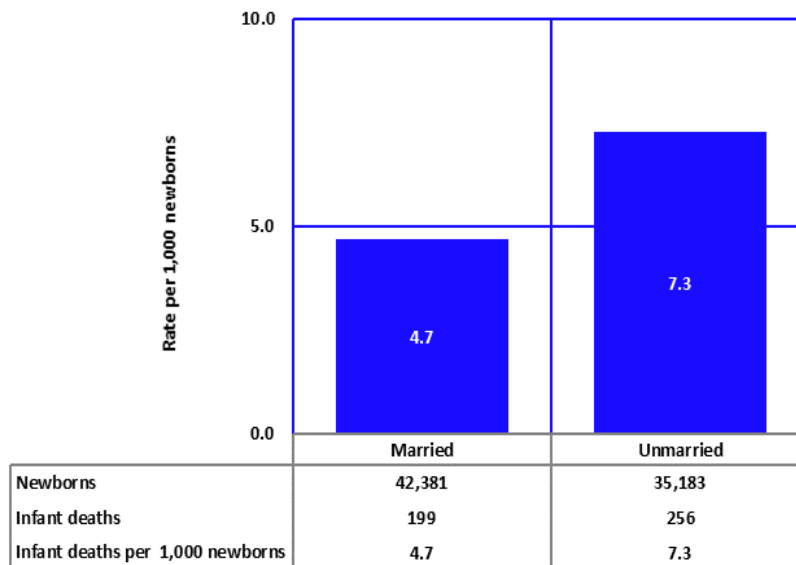
Infant mortality rates vary with maternal age. In 2022, infants born to younger mothers (less than 20 years), (20-24 years) and older mothers (40+ years) had the highest infant mortality rates of all age groups, 8.7/1,000, 6.8/1,000, and 9.5/1,000 respectively (**Figure 2C-4.4**). For mothers aged 25 through 39 years, the infant mortality rates were consistently lower than 6 deaths/1,000.



Note: 4 cases in the complete 2022 birth file were missing mother's age.

**Figure 2C-4.5**  
**Infant Mortality Rates by Mother's Marital Status, Arizona, 2022**

Infants born to unmarried mothers accounted for the absolute majority of infant deaths in 2022 (256 infant deaths) compared to married mothers (199 infant deaths). In 2022, more children were born to married women (42,381) than their unmarried counterparts (35,183; **Table 1B-25**). Infants of unmarried mothers had an infant mortality rate of 7.3 deaths per 1,000 live births, 1.5 times higher than the rate for infants of married mothers (4.7 infant deaths per 1,000 live births; **Figure 2C-4.5**). The effect of marital status on infant mortality suggests that marital status is a proxy measure of factors traditionally related to infant mortality such as poverty conditions, access to health care and social support. Mother's marital status may signify the presence or absence of emotional, social, and financial resources.



Note: 791 cases in the complete 2022 birth file were missing mother's marital status.

**TABLE 2C-1  
INFANT, NEONATAL, AND POSTNEONATAL MORTALITY RATES AND PERCENT OF POSTNEONATAL DEATHS,  
UNITED STATES, ARIZONA AND URBAN/RURAL COUNTIES OF ARIZONA, 2012-2022**

UNITED STATES	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Infant mortality <sup>a</sup>	6.0	6.0	5.8	5.9	5.8	5.8	5.7	5.7	5.4	5.4	5.6
Neonatal mortality <sup>a</sup>	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.7	3.6	3.5	3.6
Postneonatal mortality <sup>a</sup>	2.0	2.0	1.8	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0
Percent postneonatal mortality <sup>b</sup>	33.3	33.3	31.0	32.2	34.5	32.8	33.3	33.9	34.3	35.8	36.1
<b>ARIZONA, STATEWIDE TOTAL</b>											
Infant mortality <sup>a</sup>	5.8	5.3	6.2	5.6	5.4	5.6	5.6	5.4	5.3	5.5	6.2
Neonatal mortality <sup>a</sup>	3.9	3.4	4.1	3.5	3.6	3.5	3.9	3.4	3.5	3.8	4.1
Postneonatal mortality <sup>a</sup>	1.9	1.9	2.1	2.1	1.8	2.1	1.7	2.1	1.8	1.7	2.1
Percent postneonatal mortality <sup>b</sup>	32.9	35.3	33.4	37.8	33.7	37.7	30.4	38.1	34.4	31.2	34.2
<b>URBAN COUNTIES</b>											
Infant mortality <sup>a</sup>	5.7	5.2	6.1	5.3	5.2	5.4	5.5	5.2	5.1	5.5	6.0
Neonatal mortality <sup>a</sup>	3.9	3.3	4.0	3.3	3.5	3.4	3.8	3.3	3.4	3.9	4.0
Postneonatal mortality <sup>a</sup>	1.9	1.8	2.1	2.0	1.7	2.0	1.6	2.0	1.7	1.6	2.0
Percent postneonatal mortality <sup>b</sup>	32.9	35.1	34.1	37.4	32.5	36.6	29.9	37.8	34.0	29.9	33.3
<b>RURAL COUNTIES</b>											
Infant mortality <sup>a</sup>	5.9	5.8	6.6	7.3	5.6	6.9	6.2	6.5	6.1	5.6	7.6
Neonatal mortality <sup>a</sup>	3.9	3.7	4.5	4.4	3.1	3.7	4.1	4.0	3.7	3.4	4.6
Postneonatal mortality <sup>a</sup>	2.0	2.2	2.1	3.0	2.4	3.2	2.1	2.5	2.3	2.2	3.0
Percent postneonatal mortality <sup>b</sup>	33.8	37.3	31.6	40.5	43.8	46.7	33.3	38.8	38.3	40.0	39.2

Notes: <sup>a</sup> Rates per 1,000 live births; the U.S. rates are from the National Center for Health Statistics; <sup>b</sup> Total infant mortality = 100 percent; Urban = Maricopa, Pima, Pinal, and Yuma Counties; the remaining counties comprise Arizona's rural areas; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

<https://www.cdc.gov/nchs/products/index.htm>

**TABLE 2C-2  
NUMBER AND RATES<sup>a</sup> OF INFANT DEATHS BY RACE/ETHNICITY AND GENDER, ARIZONA, 2012-2022  
NUMBER OF INFANT DEATHS**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>White non-Hispanic</b>	<b>Total</b>	154	161	213	181	146	166	151	148	144	175
	<b>Male</b>	81	93	122	99	87	93	81	88	68	102
	<b>Female</b>	73	68	91	82	59	73	70	60	76	73
<b>Hispanic or Latino</b>	<b>Total</b>	236	185	216	189	203	173	170	149	181	196
	<b>Male</b>	138	97	108	94	111	98	99	84	102	108
	<b>Female</b>	98	88	108	95	92	74	71	65	79	88
<b>Black or African American</b>	<b>Total</b>	52	59	53	48	50	49	58	59	62	56
	<b>Male</b>	22	30	35	24	23	30	33	29	28	33
	<b>Female</b>	30	29	18	24	27	19	25	30	32	23
<b>American Indian or Alaska Native</b>	<b>Total</b>	41	36	45	39	42	46	44	33	22	37
	<b>Male</b>	22	19	24	21	22	23	20	16	13	23
	<b>Female</b>	19	17	21	18	20	23	23	17	9	14
<b>Asian or Pacific Islander</b>	<b>Total</b>	10†	10†	10†	10†	13	16	10†	10†	10†	20†
	<b>Male</b>	8	*	6	*	7	10	13	7	9	11
	<b>Female</b>	*	*	*	9	6	*	*	*	*	*
<b>All groups<sup>b</sup></b>	<b>Total</b>	495	447	535	473	454	461	430	404	430	483
	<b>Male</b>	271	242	295	243	250	262	247	228	224	279
	<b>Female</b>	224	205	240	230	204	198	183	176	204	204

**INFANT MORTALITY RATES**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>White non-Hispanic</b>	<b>Total</b>	4.0	4.2	5.3	4.7	3.9	4.7	4.4	4.5	4.3	5.3
	<b>Male</b>	4.1	4.7	5.9	5.0	4.5	5.1	4.6	5.2	3.9	6.1
	<b>Female</b>	3.9	3.7	4.7	4.4	3.2	4.2	4.2	3.7	4.6	4.5
<b>Hispanic or Latino</b>	<b>Total</b>	7.1	5.6	6.4	5.5	6.0	5.2	5.2	4.7	5.6	5.8
	<b>Male</b>	8.1	5.7	6.2	5.4	6.4	5.8	6.0	5.2	6.2	6.3
	<b>Female</b>	6.1	5.5	6.6	5.6	5.5	4.5	4.4	4.2	5.0	5.4
<b>Black or African American</b>	<b>Total</b>	11.0	12.5	11.7	11.0	11.4	10.7	11.9	12.4	12.9	11.6
	<b>Male</b>	9.2	12.3	14.9	10.7	10.3	12.6	13.1	12.0	11.7	13.4
	<b>Female</b>	12.8	12.7	8.3	11.3	12.5	8.6	10.6	12.8	13.4	9.7
<b>American Indian or Alaska Native</b>	<b>Total</b>	7.4	6.6	8.7	7.8	8.3	9.5	6.9	8.1	5.6	9.2
	<b>Male</b>	7.8	6.7	9.4	8.3	8.7	9.2	8.3	7.6	6.5	11.4
	<b>Female</b>	6.9	6.4	8.1	7.3	8.0	9.8	5.5	8.6	4.7	7.0
<b>Asian or Pacific Islander</b>	<b>Total</b>	3.3	1.7	2.5	4.0	3.9	4.8	5.1	2.7	4.0	5.1
	<b>Male</b>	4.2	**	3.7	**	4.0	5.9	7.9	4.6	5.7	7.0
	<b>Female</b>	**	**	**	5.7	3.7	**	**	**	**	**
<b>All groups<sup>b</sup></b>	<b>Total</b>	5.8	5.3	6.2	5.6	5.4	5.6	5.4	5.3	5.5	6.2
	<b>Male</b>	6.2	5.5	6.6	5.6	5.8	6.3	6.1	5.8	5.6	7.0
	<b>Female</b>	5.4	5.0	5.7	5.5	4.9	4.9	4.7	4.7	5.4	5.3

Notes: \* Cell suppressed due to count less than 6; \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Number of infant deaths per 1,000 live births in specified ethnic/gender group; infant deaths are by the race/ethnicity of the decedent; For consistency with the national data, the denominators used to calculate infant mortality rates were changed from race/ethnicity of parents to race/ethnicity of mother as stated on the birth certificate; The change in the basis for calculating infant mortality rates results in lower rates for white infants and higher rates for most minority infants than when they are computed by the previous method; <sup>b</sup> Includes records with other and unknown ethnic group.

**TABLE 2C-3  
NUMBER AND RATES<sup>a</sup> OF INFANT DEATHS BY RACE/ETHNICITY AND AGE GROUP, 2012-2022  
NUMBER OF INFANT DEATHS**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>White non-Hispanic</b>											
Total	154	161	213	181	146	166	160	151	148	144	175
Neonatal	100	97	138	108	92	106	116	92	99	90	112
Postneonatal	54	64	75	73	54	60	44	59	49	54	63
<b>Hispanic or Latino</b>											
Total	236	185	216	189	203	173	187	170	149	181	196
Neonatal	170	131	149	130	142	115	136	109	108	134	138
Postneonatal	66	54	67	59	61	58	51	61	41	47	58
<b>Total</b>	52	59	53	48	50	49	43	58	59	62	56
<b>Black or African American</b>											
Neonatal	34	38	34	25	33	33	25	37	36	44	39
Postneonatal	18	21	19	23	17	19	18	21	23	18	17
<b>Total</b>	41	36	45	39	42	46	44	31	33	22	37
<b>Neonatal</b>	21	20	26	16	21	20	25	14	13	12	18
<b>Postneonatal</b>	20	16	19	23	21	26	19	17	20	10	19
<b>Total</b>	10†	10†	10†	10†	13	16	10†	20†	10†	10†	16
<b>Neonatal</b>	7	*	7	12	13	7	*	11	*	9	10
<b>Postneonatal</b>	*	*	*	*	0	9	*	*	*	*	6
<b>Total</b>	495	447	535	473	454	461	447	430	404	430	483
<b>Neonatal</b>	332	289	354	294	301	287	311	266	265	296	318
<b>Postneonatal</b>	163	158	181	179	153	174	136	164	139	134	165

**INFANT MORTALITY RATES**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>White non-Hispanic</b>											
Total	4.0	4.2	5.3	4.7	3.9	4.7	4.6	4.4	4.5	4.3	5.3
Neonatal	2.6	2.5	3.4	2.8	2.4	3.0	3.3	2.7	3.0	2.7	3.4
Postneonatal	1.4	1.7	1.9	1.9	1.4	1.7	1.3	1.7	1.5	1.6	1.9
<b>Hispanic or Latino</b>											
Total	7.1	5.6	6.4	5.5	6.0	5.2	5.7	5.2	4.7	5.6	5.8
Neonatal	5.1	4.0	4.4	3.8	4.2	3.5	4.1	3.3	3.4	4.2	4.1
Postneonatal	2.0	1.6	2.0	1.7	1.8	1.7	1.5	1.9	1.3	1.5	1.7
<b>Total</b>	11.0	12.5	11.7	11.0	11.4	10.7	9.2	11.9	12.4	12.9	11.6
<b>Neonatal</b>	7.2	8.0	7.5	5.7	7.5	6.5	5.4	7.6	7.6	9.2	8.0
<b>Postneonatal</b>	3.8	4.4	4.2	5.3	3.9	4.1	3.9	4.3	4.8	3.8	3.5
<b>Total</b>	7.4	6.6	8.7	7.8	8.3	9.5	9.3	6.9	8.1	5.6	9.2
<b>Neonatal</b>	3.8	3.7	5.1	3.2	4.2	4.1	5.3	3.1	3.2	3.1	4.5
<b>Postneonatal</b>	3.6	2.9	3.7	4.6	4.2	5.3	4.0	3.8	4.9	2.6	4.7
<b>Total</b>	3.3	1.7	2.5	4.0	3.9	4.8	2.8	5.1	2.7	4.0	5.1
<b>Neonatal</b>	1.9	**	2.2	3.7	3.9	2.1	**	3.5	**	3.0	3.2
<b>Postneonatal</b>	**	**	**	**	0.0	2.7	**	**	**	**	1.9
<b>Total</b>	5.8	5.3	6.2	5.6	5.4	5.6	5.6	5.4	5.3	5.5	6.2
<b>Neonatal</b>	3.9	3.4	4.1	3.5	3.6	3.5	3.9	3.4	3.5	3.8	4.1
<b>Postneonatal</b>	1.9	1.9	2.1	2.1	1.8	2.1	1.7	2.1	1.8	1.7	2.1

Notes: \* Cell suppressed due to count less than 6; \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Number of infant deaths per 1,000 live births in specified ethnic/gender group; infant deaths are by the race/ethnicity of the decedent; for consistency with the national data, the denominators used to calculate infant mortality rates were changed from race/ethnicity of parents to race/ethnicity of mother as stated on the birth certificate; the change in the basis for calculating infant mortality rates results in lower rates for white infants and higher rates for most minority infants than when they are computed by the previous method; <sup>b</sup> Includes records with other and unknown ethnic group.



**TABLE 2C-4  
NEONATAL, POSTNEONATAL, AND TOTAL INFANT MORTALITY BY CHILD'S GENDER AND MOTHER'S RACE/ETHNICITY,  
ARIZONA, 2022**

	NUMBER OF DEATHS BY AGE			MORTALITY RATES <sup>a</sup>		
	Total	Neonatal	Postneonatal	Total	Neonatal	Postneonatal
<b>TOTAL, ALL GROUPS</b>	483	318	165	6.2	4.1	2.1
<b>Male</b>	279	184	95	7.0	4.6	2.4
<b>Female</b>	204	134	70	5.3	3.5	1.8
<b>White non-Hispanic</b>	175	112	63	5.3	3.4	1.9
<b>Male</b>	102	67	35	6.1	4.0	2.1
<b>Female</b>	73	45	28	4.5	2.8	1.7
<b>Hispanic or Latino</b>	196	138	58	5.8	4.1	1.7
<b>Male</b>	108	76	32	6.3	4.4	1.9
<b>Female</b>	88	62	26	5.4	3.8	1.6
<b>Black or African American</b>	56	39	17	11.6	8.0	3.5
<b>Male</b>	33	22	11	13.4	8.9	4.5
<b>Female</b>	23	17	6	9.7	7.1	2.5
<b>American Indian or Alaska Native</b>	37	18	19	9.2	4.5	4.7
<b>Male</b>	23	11	12	11.4	5.4	5.9
<b>Female</b>	14	7	7	7.0	3.5	3.5
<b>Asian or Pacific Islander</b>	16	10	6	5.1	3.2	1.9
<b>Male</b>	10 <sup>†</sup>	7	*	7.0	4.4	**
<b>Female</b>	10 <sup>†</sup>	*	*	**	**	**

Notes: \* Cell suppressed due to count less than 6; \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Number of deaths per 1,000 live births in specified gender group by mother's race/ethnicity; denominators are from Table 5B-8.

**TABLE 2C-5  
NUMBER OF DEATHS FOR SELECTED LEADING CAUSES OF INFANT MORTALITY<sup>a</sup> BY YEAR, ARIZONA, 2012-2022**

Causes of death	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Congenital malformations, deformations and chromosomal abnormalities</b>	118	101	121	117	105	92	122	103	87	94	112
<b>of brain, spinal cord or nervous system</b>	19	13	24	20	14	18	17	12	12	14	13
<b>of respiratory system</b>	6	*	*	8	7	*	13	13	6	*	7
<b>Short gestation and low birth weight</b>	62	56	63	53	55	64	73	54	73	88	90
<b>Maternal complications</b>	46	28	39	39	28	31	21	23	20	17	18
<b>Accidents (unintentional injuries)</b>	16	14	27	29	16	23	13	20	17	31	30
<b>Sudden infant death syndrome</b>	13	14	13	15	7	14	14	17	13	13	14
<b>Respiratory distress syndrome</b>	*	*	*	*	*	6	*	*	8	8	8
<b>Intrauterine hypoxia or birth asphyxia</b>	*	6	9	*	6	11	*	6	11	7	11
<b>Assault (homicide)</b>	*	*	6	*	*	10	*	8	*	*	*
<b>Influenza and pneumonia</b>	*	*	*	*	*	*	*	*	*	*	*
<b>COVID-19</b>	-	-	-	-	-	-	-	-	0	*	*
<b>Total, all causes</b>	495	447	535	473	454	461	447	430	404	430	483

Notes: \* Cell suppressed due to count less than 6; <sup>a</sup> Leading causes of infant mortality are based on the list of 130 causes of infant death according to the Tenth Revision, International Classification of Diseases (ICD-10).

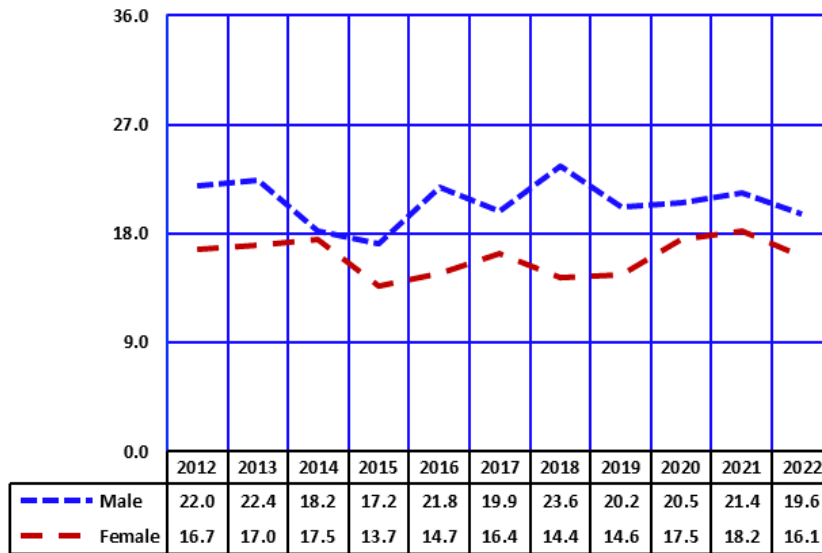
**TABLE 2C-6  
INFANT MORTALITY RATES<sup>a</sup> FOR SELECTED LEADING CAUSES OF DEATH BY YEAR, ARIZONA, 2012-2022**

Causes of death	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Congenital malformations, deformations and chromosomal abnormalities</b>	1.4	1.2	1.4	1.4	1.2	1.1	1.5	1.3	1.1	1.2	1.4
<b>of brain, spinal cord or nervous system</b>	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<b>of respiratory system</b>	0.1	**	**	0.1	0.1	**	0.2	0.2	0.1	**	0.1
<b>Short gestation and low birth weight</b>	0.7	0.7	0.7	0.6	0.7	0.8	0.9	0.7	1.0	1.1	1.1
<b>Maternal complications</b>	0.5	0.3	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.2	0.2
<b>Accidents (unintentional injuries)</b>	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.4	0.4
<b>Sudden infant death syndrome</b>	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
<b>Respiratory distress syndrome</b>	**	**	**	**	**	0.1	**	**	0.1	0.1	0.1
<b>Intrauterine hypoxia or birth asphyxia</b>	**	0.1	0.1	**	0.1	0.1	**	0.1	0.1	0.1	0.1
<b>Assault (homicide)</b>	**	**	0.1	**	**	0.1	**	0.1	**	**	**
<b>Influenza and pneumonia</b>	**	**	**	**	**	**	**	**	**	**	**
<b>COVID-19</b>	-	-	-	-	-	-	-	-	0.0	**	**
<b>Total, all causes</b>	5.8	5.3	6.2	5.6	5.4	5.6	5.6	5.4	5.3	5.5	6.2

Notes: \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; <sup>a</sup> Number of infant deaths per 1,000 live births; leading causes of infant mortality are based on the list of 130 causes of infant death according to the Tenth Revision, International Classification of Diseases (ICD-10).

**2C.AGE-SPECIFIC MORTALITY**  
**Childhood mortality (ages 1-14 years)**

**Figure 2C-5**  
**Mortality Rates<sup>a</sup> by Gender and Year among Children 1-14 Years,**  
**Arizona, 2012-2022**

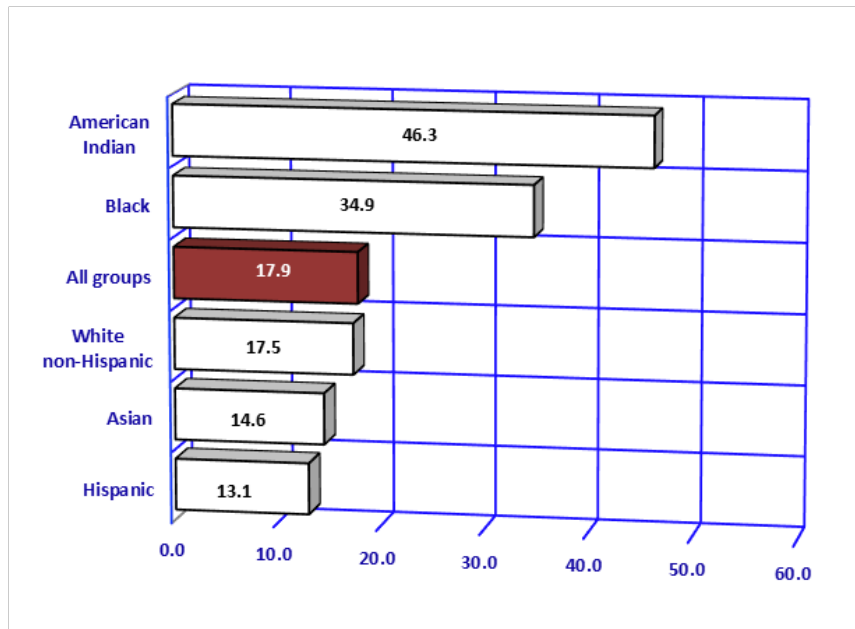


In 2022, a total of 229 deaths were recorded among 1,277,543 children aged 1-14 years residing in Arizona. The 2022 childhood mortality rate was 17.9 per 100,000, representing a decrease from 19.8 the rate recorded in 2021 (**Table 2C-7**). Between 2021 and 2022 the mortality rate for male and female children witnessed a favorable decrease (**Figure 2C-5, Table 2C-7**).

The five causes with the greatest mortality rates in childhood from 2012-2022 were *accidents* (unintentional injuries), *malignant neoplasms*, *congenital malformations*, *homicide*, and *suicide* (**Table 2C-7**).

Note: <sup>a</sup> Number of deaths per 100,000 persons, 1-14 years old in specified group.

**Figure 2C-6**  
**Mortality Rates<sup>a</sup> by Race/Ethnicity among Children 1-14 Years,**  
**Arizona, 2022**



American Indian children had the highest total mortality rate (46.3 deaths per 100,000) in 2022, followed by Black or African American children (34.9/100,000 **Figure 2C-6**). The mortality rates of White non-Hispanic, Asian, and Hispanic or Latino children were lower than the average rate for all groups.

It is important to note that the mortality rate of Asians is based on a very low death count (n=7) (**Table 2C-10**) thus not statistically reliable.

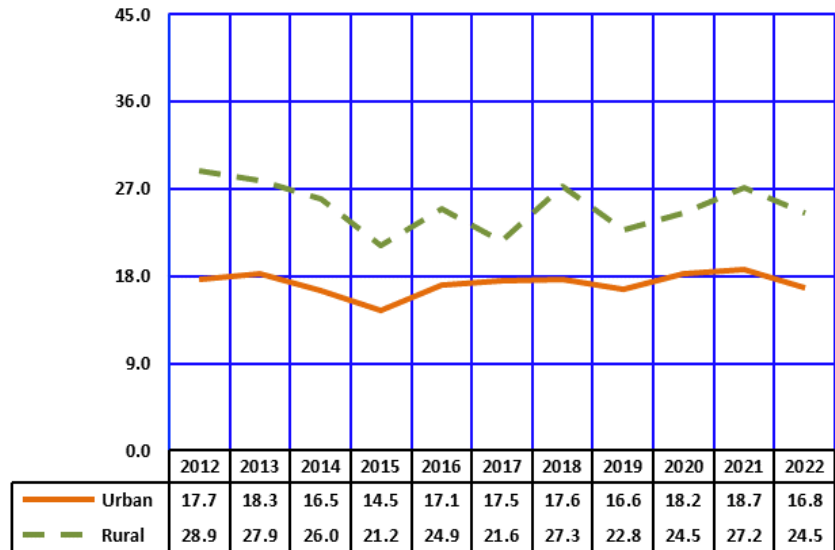
In 2022, there were 18 children who died from congenital anomalies and 9 by means of suicide among this age group (**Table 2C-10**).

Note: <sup>a</sup> Number of deaths per 100,000 persons, 1-14 years old in specified group.

2C.AGE-SPECIFIC MORTALITY  
**Childhood mortality (ages 1-14 years)**

**Figure 2C-7**  
**Mortality Rates<sup>a</sup> by Urban/Rural Area<sup>b</sup> and Year among Children 1-14 Years, Arizona, 2012-2022**

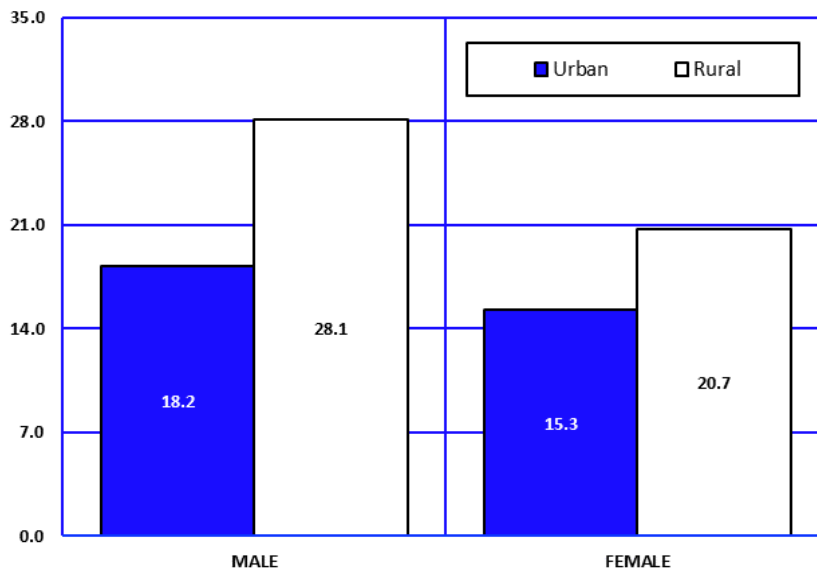
From 2021 to 2022, mortality rates decreased for both rural and urban children (**Figure 2C-7, Table 2C-8**). Between 2012 and 2022, urban childhood mortality rates have been lower than rural childhood mortality rates in each year during the 11-year period.



Notes: <sup>a</sup> Number of deaths per 100,000 persons, 1-14 years old in specified group; <sup>b</sup> Urban counties are Maricopa, Pima, Pinal, and Yuma Counties. Rural counties are those remaining.

**Figure 2C-8**  
**Mortality Rates<sup>a</sup> by Gender in Urban/Rural<sup>b</sup> Areas among Children 1-14 Years, Arizona, 2022**

The overall mortality rate among children 1-14 years residing in Arizona was higher for males in rural areas compared to urban with 28.1 deaths per 100,000 persons aged 1-14 years in rural areas versus 18.2 deaths per 100,000 persons aged 1-14 years in urban areas. Similarly, the mortality rate for females 1-14 years was 20.7 deaths per 100,000 persons aged 1-14 years in rural areas compared to 15.3 deaths per 100,000 persons aged 1-14 years in rural areas.



Notes: <sup>a</sup> Number of deaths per 100,000 persons, 1-14 years old in specified group; <sup>b</sup> Urban counties include Maricopa, Pima, Pinal, and Yuma Counties. Rural counties are those remaining.

**TABLE 2C-7  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG CHILDREN (1-14 YEARS)  
BY GENDER, ARIZONA, 2012-2022**

Gender/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>MALE</b>												
Accidents (unintentional injuries)	7.4	8.6	6.5	5.7	7.0	6.8	8.4	5.0	6.7	7.5	7.5	1.4
Motor vehicle accidents	3.5	4.5	2.5	2.0	4.0	2.9	3.2	2.9	3.4	3.0	3.5	0.0
Drowning	2.2	1.8	2.2	1.9	2.3	2.3	3.2	0.8	2.2	2.5	2.6	18.2
Other	1.7	2.3	1.9	1.9	0.6	1.5	2.0	1.4	1.1	2.0	1.4	-17.6
Congenital malformations	1.8	0.9	0.9	0.9	1.1	0.9	1.2	1.5	1.1	1.2	1.7	-5.6
Malignant neoplasms	2.8	2.5	1.7	1.7	1.6	2.3	2.3	3.1	2.0	1.9	1.4	-50.0
Assault (homicide)	0.9	1.4	0.9	1.2	0.9	0.6	0.5	1.8	1.7	1.4	1.1	22.2
Intentional self-harm (suicide)	1.1	0.6	1.1	1.1	0.8	1.7	2.0	1.4	1.7	1.2	1.1	0.0
ALL CAUSES	22.0	22.4	18.2	17.2	21.8	19.9	23.6	20.2	20.5	21.4	19.6	-10.9
(Number of all deaths)	(143)	(146)	(118)	(111)	(140)	(129)	(154)	(132)	(132)	(137)	(128)	(-10.5)
<b>FEMALE</b>												
Accidents (unintentional injuries)	3.7	4.5	3.7	4.3	4.5	5.1	3.3	4.1	5.3	7.0	4.8	29.7
Motor vehicle accidents	1.8	2.6	2.6	1.9	2.7	2.2	2.4	2.1	2.9	2.9	2.9	61.1
Drowning	0.8	1.3	0.5	0.6	0.8	1.3	0.5	0.6	1.0	2.1	1.0	25.0
Other	1.1	0.6	0.6	1.8	1.0	1.6	0.5	1.4	1.5	1.9	1.0	-9.1
Malignant neoplasms	2.4	2.1	2.9	0.5	1.3	2.4	2.6	2.1	1.9	1.8	1.9	-20.8
Assault (homicide)	1.1	1.6	1.3	1.3	1.3	1.0	1.3	1.1	1.3	0.8	1.3	18.2
Congenital malformations	2.3	2.4	1.3	2.1	0.6	1.1	1.3	1.0	1.8	1.5	1.1	-52.2
Influenza and pneumonia	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.0	0.2	0.2	0.6	200.0
ALL CAUSES	16.7	17.0	17.5	13.7	14.7	16.4	14.4	14.6	17.5	18.2	16.1	-3.6
(Number of all deaths)	(104)	(106)	(109)	(85)	(91)	(102)	(90)	(92)	(108)	(112)	(101)	(-2.9)
<b>TOTAL</b>												
Accidents (unintentional injuries)	5.6	6.6	5.1	5.0	5.8	6.0	5.9	4.6	6.0	7.2	6.2	10.7
Motor vehicle accidents	2.7	3.5	2.5	2.0	3.4	2.6	2.8	2.5	3.2	2.9	3.2	18.5
Drowning	1.5	1.6	1.3	1.3	1.6	1.8	1.9	0.7	1.6	2.3	1.8	20.0
Other	1.4	1.5	1.3	1.8	0.8	1.6	1.3	1.4	1.3	2.0	1.2	-14.3
Malignant neoplasms	2.6	2.3	2.3	1.1	1.4	2.4	2.4	2.6	2.0	1.8	1.6	-38.5
Congenital malformations	2.0	1.6	1.1	1.5	0.9	1.0	1.3	1.2	1.4	1.4	1.4	-30.0
Assault (homicide)	1.0	1.5	1.1	1.3	1.1	0.8	0.9	1.5	1.5	1.1	1.2	20.0
Intentional self-harm (suicide)	0.6	0.6	0.9	0.9	0.7	1.3	1.3	1.2	1.3	1.3	0.7	16.7
ALL CAUSES	19.4	19.8	17.9	15.4	18.3	18.2	19.1	17.5	19.1	19.8	17.9	-7.7
(Number of all deaths)	(247)	(252)	(227)	(196)	(231)	(231)	(244)	(224)	(240)	(249)	(229)	(-7.3)

Notes: <sup>a</sup> Number of deaths per 100,000 children 1-14 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9); measures of comparison between ICD-9 and ICD-10 – the “comparability ratios” – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-8  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG CHILDREN (1-14 YEARS)  
IN URBAN AND RURAL AREAS<sup>c</sup>, ARIZONA, 2012-2022**

Area/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Accidents (unintentional injuries)	4.7	5.5	4.5	4.3	5.0	5.8	5.4	4.1	6.0	6.3	5.9	25.5
Motor vehicle accidents	1.9	2.6	2.0	1.7	2.6	2.1	2.1	2.1	2.7	2.2	2.8	47.4
Drowning	1.5	1.8	1.4	1.2	1.8	2.1	2.0	0.7	1.8	2.3	2.0	33.3
Other	1.3	1.1	1.1	1.4	0.6	1.6	1.4	1.3	1.5	1.8	1.1	-15.4
Malignant neoplasms	2.6	2.4	2.3	1.1	1.4	2.5	2.5	2.5	2.0	1.8	1.4	-46.2
Congenital malformations	2.1	1.8	1.0	1.5	0.9	1.0	1.4	1.3	1.6	1.3	1.4	-33.3
Assault (homicide)	0.9	1.5	1.0	1.2	1.1	0.6	0.7	1.6	1.3	1.3	1.1	22.2
Diseases of heart	0.6	0.3	0.3	0.3	0.5	0.2	0.5	0.3	0.5	0.4	0.5	-16.7
ALL CAUSES	17.7	18.3	16.5	14.5	17.1	17.5	17.6	16.6	18.2	18.7	16.8	-5.1
(Number of all deaths)	(192)	(200)	(180)	(158)	(186)	(192)	(194)	(184)	(199)	(204)	(186)	(-3.1)
<b>RURAL</b>												
Accidents (unintentional injuries)	10.9	12.6	8.9	9.5	10.8	6.8	8.5	8.0	6.0	13.3	7.2	-33.9
Motor vehicle accidents	7.1	8.7	5.5	3.3	8.5	5.1	7.4	5.1	6.0	7.9	4.8	-32.4
Other	2.2	3.8	2.2	4.5	2.3	1.7	0.0	2.3	0.0	3.0	1.8	-18.2
Drowning	1.6	0.0	1.1	1.7	0.0	0.0	1.1	0.6	0.0	2.4	0.6	-62.5
Malignant neoplasms	2.2	1.6	2.2	1.1	1.7	1.7	1.7	2.8	1.8	1.8	3.0	36.4
Assault (homicide)	1.6	1.6	1.7	1.7	1.1	1.7	1.7	0.6	3.0	0.0	1.8	12.5
Congenital malformations	1.6	0.5	1.7	1.7	0.6	1.1	0.0	1.1	0.6	1.8	1.2	-25.0
Intentional self-harm (suicide)	1.1	1.6	2.2	2.8	1.7	4.0	3.4	2.3	3.0	3.0	1.2	9.1
ALL CAUSES	28.9	27.9	26.0	21.2	24.9	21.6	27.3	22.8	24.5	27.2	24.5	-15.2
(Number of all deaths)	(53)	(51)	(47)	(38)	(44)	(38)	(48)	(40)	(41)	(45)	(41)	(-22.6)
<b>TOTAL</b>												
Accidents (unintentional injuries)	5.6	6.6	5.1	5.0	5.8	6.0	5.9	4.6	6.0	7.2	6.2	10.7
Motor vehicle accidents	2.7	3.5	2.5	2.0	3.4	2.6	2.8	2.5	3.2	2.9	3.2	18.5
Drowning	1.5	1.6	1.3	1.3	1.6	1.8	1.9	0.7	1.6	2.3	1.8	20.0
Other	1.4	1.5	1.3	1.8	0.8	1.6	1.3	1.4	1.3	2.0	1.2	-14.3
Malignant neoplasms	2.6	2.3	2.3	1.1	1.4	2.4	2.4	2.6	2.0	1.8	1.6	-38.5
Congenital malformations	2.0	1.6	1.1	1.5	0.9	1.0	1.3	1.2	1.4	1.4	1.4	-30.0
Assault (homicide)	1.0	1.5	1.1	1.3	1.1	0.8	0.9	1.5	1.5	1.1	1.2	20.0
Intentional self-harm (suicide)	0.6	0.6	0.9	0.9	0.7	1.3	1.3	1.2	1.3	1.3	0.7	16.7
ALL CAUSES	19.4	19.8	17.9	15.4	18.3	18.2	19.1	17.5	19.1	19.8	17.9	-7.7
(Number of all deaths)	(247)	(252)	(227)	(196)	(231)	(231)	(244)	(224)	(240)	(249)	(229)	(-7.3)

Notes: <sup>a</sup> Number of deaths per 100,000 children 1-14 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; <sup>c</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10; measures of comparison between ICD-9 and ICD-10 - the "comparability ratios" - for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-9  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES OF DEATH AMONG CHILDREN (1-14 YEARS)  
BY GENDER IN URBAN AND RURAL AREAS<sup>b</sup>, ARIZONA, 2012-2022**

Area/Gender	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Male	20.0	21.3	16.2	16.2	19.9	18.4	22.2	19.6	19.4	19.6	18.2	-9.0
Female	15.2	15.2	16.8	12.7	14.3	16.6	12.8	13.5	17.0	17.8	15.3	0.7
TOTAL	17.7	18.3	16.5	14.5	17.1	17.5	17.6	16.6	18.2	18.7	16.8	-5.1
<b>RURAL</b>												
Male	32.1	29.0	30.5	23.1	33.5	27.9	32.5	23.5	28.2	33.2	28.1	-12.5
Female	25.5	26.6	21.3	19.3	16.1	15.0	21.9	22.1	20.7	20.9	20.7	-18.8
TOTAL	28.9	27.9	26.0	21.2	24.9	21.6	27.3	22.8	24.5	27.2	24.5	-15.2
<b>TOTAL</b>												
Male	22.0	22.4	18.2	17.2	21.8	19.9	23.6	20.2	20.5	21.4	19.6	-10.9
Female	16.7	17.0	17.5	13.7	14.7	16.4	14.4	14.6	17.5	18.2	16.1	-3.6
TOTAL	19.4	19.8	17.9	15.4	18.3	18.2	19.1	17.5	19.1	19.8	17.9	-7.7

Notes: <sup>a</sup> Rates are presented per 100,000 children 1-14 years old; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.



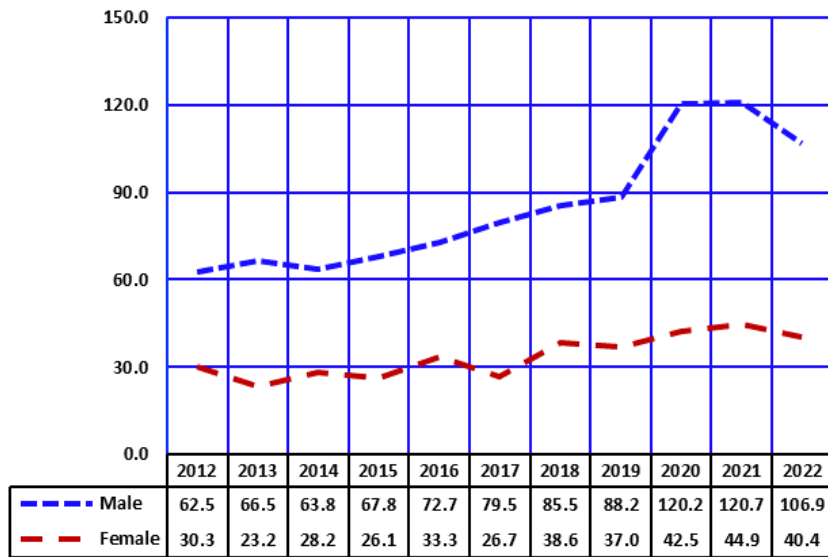
**TABLE 2C-10  
LEADING CAUSES OF DEATH AMONG CHILDREN (1-14 YEARS) BY GENDER, AREA, AND RACE/ETHNICITY, ARIZONA, 2022**

Cause of death	Total	Gender		Area <sup>a</sup>			Race/ethnicity				
		Male	Female	Urban	Rural	Unknown	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or other Pacific Islander
Accidents (unintentional injury)	80 <sup>†</sup>	49	30	65	12	*	24	29	9	13	*
Motor vehicle accidents	40 <sup>†</sup>	23	18	31	8	*	12	15	*	9	*
Accidental drowning and submersion	20 <sup>†</sup>	17	6	22	*	0	8	7	7	*	0
Malignant neoplasms	20 <sup>†</sup>	9	12	16	*	0	11	6	*	*	*
Leukemia	0 <sup>†</sup>	*	*	*	*	0	*	*	0	0	*
Congenital malformations	20 <sup>†</sup>	11	7	16	*	0	8	8	0	*	0
Assault (homicide)	20 <sup>†</sup>	7	8	12	*	0	*	*	*	*	0
By other means	10 <sup>†</sup>	*	*	7	*	0	*	*	*	*	0
By discharge of firearms	10 <sup>†</sup>	*	*	*	*	0	*	0	*	*	0
Intentional self-harm (suicide)	10 <sup>†</sup>	7	*	7	*	0	*	*	*	*	0
COVID-19	10 <sup>†</sup>	*	*	6	0	0	*	*	0	0	0
Influenza and pneumonia	10 <sup>†</sup>	*	*	*	*	0	*	*	0	0	0
Chronic lower respiratory diseases	0 <sup>†</sup>	0	*	*	*	0	*	0	*	0	0
Asthma	0 <sup>†</sup>	0	*	*	*	0	*	0	*	0	0
<b>Total, all causes</b>	<b>229</b>	<b>128</b>	<b>101</b>	<b>186</b>	<b>41</b>	<b>2</b>	<b>89</b>	<b>75</b>	<b>29</b>	<b>29</b>	<b>7</b>

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas.

**2C.AGE-SPECIFIC MORTALITY**  
**Adolescent mortality (ages 15-19 years)**

**Figure 2C-9**  
**Mortality Rates<sup>a</sup> by Gender and Year among Adolescents 15-19 Years,**  
**Arizona, 2012-2022**

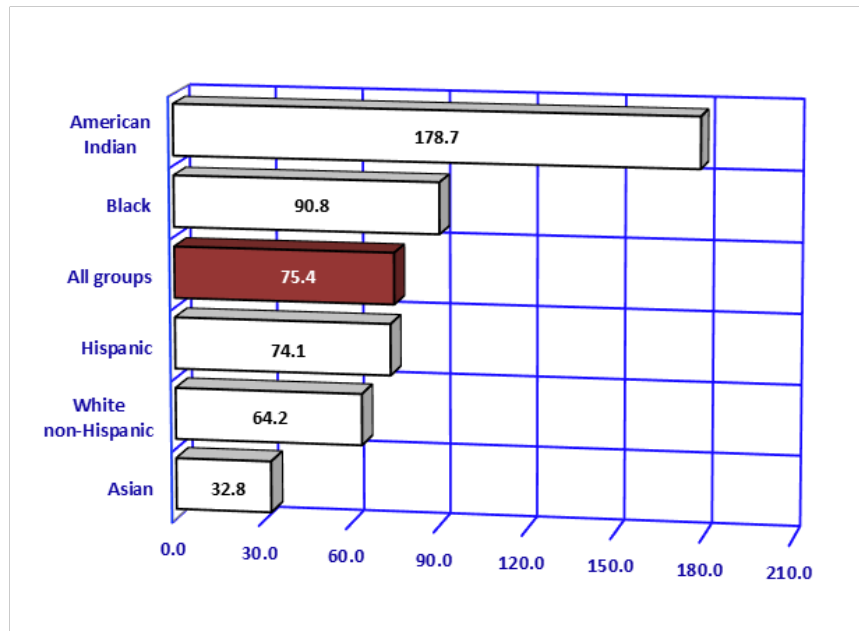


Adolescence refers to individuals between the ages of 15 and 19, an important developmental period marking the transition from childhood to adulthood. In 2022, an estimated 481,379 adolescents resided in Arizona, comprising 6.5 percent of the State’s population (**Table 10A-1**). The lives of 358 resident adolescents prematurely ended in 2022, resulting in a total mortality rate of 74.4 deaths per 100,000 adolescents. This mortality rate was 58.0 percent higher than the 2012 rate (**Table 2C-11**).

The likelihood of dying was approximately 2.65 times higher for adolescent boys than for adolescent girls in 2022 (**Figure 2C-9, Table 2C-11**).

Notes: <sup>a</sup> Number of deaths per 100,000 persons, 15 - 19 years old in specified group.

**Figure 2C-10**  
**Mortality Rates<sup>a</sup> by Race/Ethnicity among Adolescents 15-19 Years,**  
**Arizona, 2022**



The five causes with the greatest number of deaths over the 2012-2022 period were *accidents (unintentional injuries), intentional self-harm (suicide), assault (homicide), malignant neoplasms, and diseases of heart* (**Table 2C-14**).

In 2022, adolescents who were Asian, White non-Hispanic, or Hispanic had greater survival chances than the state average for all adolescents. American Indian had the lowest survival chances of all racial/ethnic groups (**Figure 2C-10**).

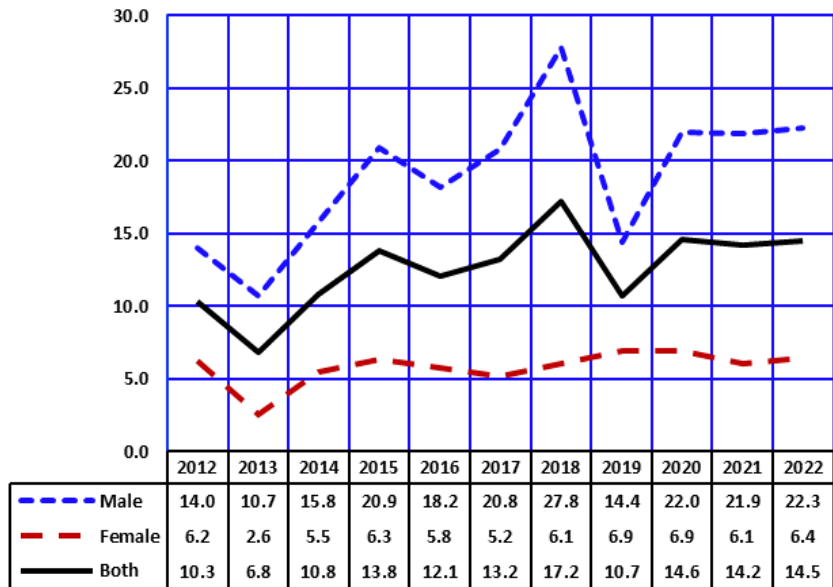
Note: <sup>a</sup> Number of deaths per 100,000 persons, 15 - 19 years old in specified group.

2C.AGE-SPECIFIC MORTALITY  
**Adolescent mortality (ages 15-19 years)**

**Figure 2C-11**  
**Suicide Rates<sup>a</sup> by Gender and Year among Adolescents 15-19 Years, Arizona, 2012-2022**

In 2022, seventy suicide deaths were recorded among Arizonans age 15-19 years, an increase from 67 recorded in 2021 (**Table 2C-14**). In 2022, as in prior years, male adolescents accounted for the absolute majority (78.6 percent) of completed suicides.

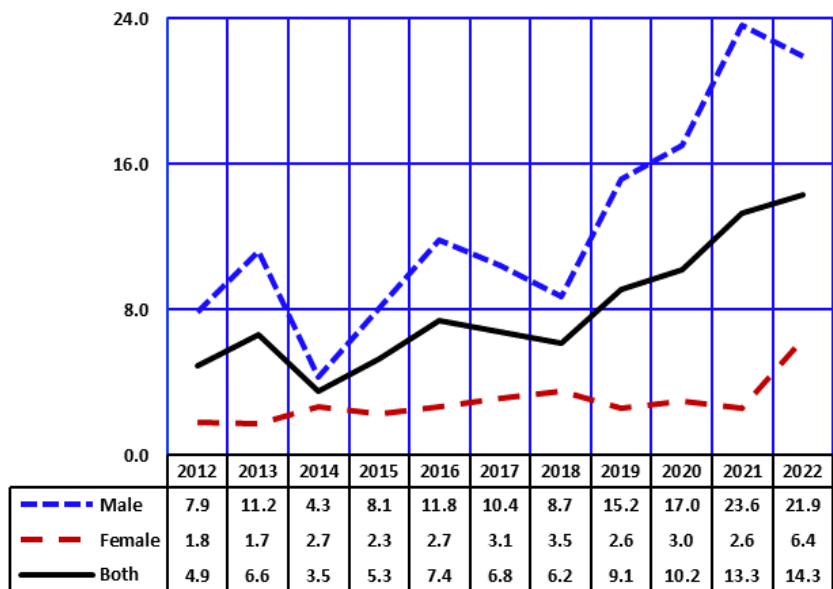
The suicide rate in 2012 was the lowest recorded since at least 1990 (**Figure 2C-11, Table 2C-11**). Between 2012 and 2022, the adolescent male suicide rate (22.3/100,000) increased 59.3 percent, and the adolescent female suicide rate (6.4) also increased by 3.2 percent. The male to female ratio in suicide mortality rates increased from 2.3:1 in 2012 to 3.5:1 in 2022. In other words, male adolescents were almost 3.5 times more likely to kill themselves than female adolescents in 2022, compared to 2.3 times in 2012.



Note: <sup>a</sup> Number of suicide deaths per 100,000 persons, 15 - 19 years old in specified group.

**Figure 2C-12**  
**Homicide Rates<sup>a</sup> by Gender and Year among Adolescents 15-19 Years, Arizona, 2012-2022**

During the 11-year period, from 2012 to 2022, the overall adolescent mortality rate due to homicide increased by 191.8 percent. However, there were some gender differences in homicide rates, marked by an increase of 177.2 percent among adolescent males and 255.6 percent among their female counterparts (**Figure 2C-12, Table 2C-11**). From 2021 to 2022, the overall mortality rate of adolescent homicide deaths increased by 7.5 percent. Looking at gender specific homicide mortality, there was a slight decrease of 7.2 percent for males and substantial 146.2 percent increase for females in the 2021-2022 years.



Note: <sup>a</sup> Number of homicide deaths per 100,000 persons, 15 - 19 years old in specified group.

**TABLE 2C-11  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG ADOLESCENTS (15-19 YEARS)  
BY GENDER, ARIZONA, 2012-2022**

Gender/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>MALE</b>												
Accidents (unintentional injuries)	28.8	28.1	22.3	20.9	27.9	33.3	32.4	42.0	58.0	55.4	41.9	45.5
Motor vehicle accidents	18.3	15.3	15.0	12.8	13.1	15.4	13.3	16.1	20.3	26.4	24.0	31.1
Other	10.4	12.8	7.3	8.1	14.8	17.9	19.1	26.0	37.7	28.9	17.9	72.1
Intentional self-harm (suicide)	14.2	10.7	15.8	20.9	18.2	20.8	27.8	14.4	22.0	21.9	22.3	57.0
Assault (homicide)	7.9	11.2	4.3	8.1	11.8	10.4	8.7	15.2	17.0	23.6	21.9	177.2
Malignant neoplasms	2.9	2.5	2.6	3.8	2.5	2.1	2.5	4.1	3.7	3.7	5.3	82.8
Diseases of heart	0.0	0.4	1.3	0.4	0.0	0.8	1.7	0.4	2.1	0.8	1.6	NA
ALL CAUSES	62.5	66.5	63.8	67.8	72.7	79.5	85.5	88.2	120.2	120.7	106.9	71.0
(Number of all deaths)	(150)	(161)	(149)	(159)	(172)	(191)	(206)	(214)	(290)	(292)	(263)	75.3
<b>FEMALE</b>												
Accidents (unintentional injuries)	15.8	7.9	7.7	9.0	15.5	11.8	20.8	18.1	19.1	19.9	16.6	5.1
Other	2.6	1.7	2.7	2.7	4.0	3.5	7.8	7.3	10.0	9.9	8.5	226.9
Motor vehicle accidents	13.2	6.1	5.0	6.3	11.5	8.3	13.0	10.8	9.1	9.9	8.1	-38.6
Intentional self-harm (suicide)	6.2	2.6	5.5	6.3	5.8	5.2	6.1	6.9	6.9	6.1	6.4	3.2
Assault (homicide)	1.8	1.7	2.7	2.3	2.7	3.1	3.5	2.6	3.0	2.6	6.4	255.6
Malignant neoplasms	1.8	3.5	4.1	2.7	2.2	1.3	0.9	3.9	0.9	2.2	3.4	88.9
Diseases of heart	0.0	0.9	0.9	0.9	1.8	0.9	0.9	0.4	1.7	0.9	0.9	NA
ALL CAUSES	30.3	23.2	28.2	26.1	33.3	26.7	38.6	37.0	42.5	44.9	40.4	33.3
(Number of all deaths)	(69)	(53)	(62)	(58)	(75)	(61)	(89)	(86)	(98)	(104)	(95)	37.7
<b>TOTAL</b>												
Accidents (unintentional injuries)	22.5	18.3	15.2	15.1	21.9	22.8	26.7	30.3	39.0	38.0	29.5	31.1
Motor vehicle accidents	15.8	10.8	10.1	9.6	12.3	11.9	13.2	13.5	14.8	18.4	16.2	2.5
Other	6.6	7.4	5.1	5.5	9.5	10.9	13.6	16.8	24.2	19.6	13.3	101.5
Intentional self-harm (suicide)	10.3	6.8	10.8	13.8	12.1	13.2	17.2	10.7	14.6	14.2	14.5	40.8
Assault (homicide)	4.9	6.6	3.5	5.3	7.4	6.8	6.2	9.1	10.2	13.3	14.3	191.8
Malignant neoplasms	2.4	3.0	3.3	3.3	2.4	1.7	1.7	4.0	2.3	3.0	4.4	83.3
Diseases of heart	0.0	0.6	1.1	0.7	0.9	0.9	1.3	0.4	1.9	0.8	1.2	NA
ALL CAUSES	47.1	45.5	46.5	47.5	53.5	53.7	62.6	63.2	82.3	83.7	74.4	58.0
(Number of all deaths)	(220)	(214)	(211)	(217)	(247)	(252)	(295)	(300)	(388)	(396)	(358)	62.7

Notes: <sup>a</sup> Number of deaths per 100,000 adolescents 15-19 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9); measures of comparison between ICD-9 and ICD-10 – the “comparability ratios” – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-12  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG ADOLESCENTS (15-19 YEARS)  
IN URBAN AND RURAL AREAS<sup>c</sup>, ARIZONA, 2012-2022**

Area/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Accidents (unintentional injuries)	17.0	15.8	12.5	13.4	20.4	19.6	25.9	31.1	39.0	37.8	29.7	74.7
Motor vehicle accidents	11.9	9.3	8.9	8.5	12.2	9.3	12.2	12.8	13.6	17.4	16.4	37.8
Other	5.1	6.5	3.7	4.9	8.2	10.3	13.7	18.2	25.4	20.4	13.3	160.8
Assault (homicide)	4.8	6.8	3.7	5.9	7.9	7.8	6.5	10.1	10.9	14.7	16.4	241.7
Intentional self-harm (suicide)	8.1	5.0	9.6	12.7	11.2	11.5	12.4	9.9	12.3	12.3	13.7	69.1
Malignant neoplasms	2.8	3.5	3.7	2.8	2.8	1.8	1.7	4.4	2.7	2.7	4.8	71.4
Diseases of heart	0.0	0.5	1.3	0.5	0.8	1.0	1.0	0.5	2.2	0.7	1.2	NA
ALL CAUSES	38.8	42.4	42.5	44.2	50.7	49.9	57.2	65.6	80.0	82.7	75.7	95.1
(Number of all deaths)	(153)	(169)	(163)	(171)	(199)	(199)	(230)	(266)	(324)	(337)	(314)	105.2
<b>RURAL</b>												
Accidents (unintentional injuries)	52.1	31.8	29.9	24.5	30.3	39.9	30.2	24.5	37.7	34.9	28.5	-45.3
Motor vehicle accidents	37.0	19.3	17.1	15.8	13.0	25.6	18.7	17.3	22.6	21.3	15.0	-59.5
Other	15.1	12.4	12.8	8.6	17.3	14.2	11.5	7.2	15.1	13.7	13.5	-10.6
Intentional self-harm (suicide)	21.9	16.6	17.1	20.2	17.3	22.8	44.5	15.9	28.6	25.8	19.5	-11.0
Assault (homicide)	5.5	5.5	2.9	1.4	2.9	1.4	4.3	2.9	6.0	4.6	1.5	-72.7
Malignant neoplasms	0.0	0.0	1.4	5.8	0.0	1.4	1.4	1.4	0.0	4.6	1.5	NA
Diseases of heart	0.0	0.0	0.0	1.4	1.4	0.0	2.9	0.0	0.0	0.0	1.5	NA
ALL CAUSES	90.5	62.1	68.4	66.2	66.4	74.1	91.9	47.6	93.5	82.0	66.0	-27.1
(Number of all deaths)	(66)	(45)	(48)	(46)	(46)	(52)	(64)	(33)	(62)	(54)	(44)	(-33.3)
<b>TOTAL</b>												
Accidents (unintentional injuries)	22.5	18.3	15.2	15.1	21.9	22.8	26.7	30.3	39.0	38.0	29.5	31.1
Motor vehicle accidents	15.8	10.8	10.1	9.6	12.3	11.9	13.2	13.5	14.8	18.4	16.2	2.5
Other	6.6	7.4	5.1	5.5	9.5	10.9	13.6	16.8	24.2	19.6	13.3	101.5
Intentional self-harm (suicide)	10.3	6.8	10.8	13.8	12.1	13.2	17.2	10.7	14.6	14.2	14.5	40.8
Assault (homicide)	4.9	6.6	3.5	5.3	7.4	6.8	6.2	9.1	10.2	13.3	14.3	191.8
Malignant neoplasms	2.4	3.0	3.3	3.3	2.4	1.7	1.7	4.0	2.3	3.0	4.4	83.3
Diseases of heart	0.0	0.6	1.1	0.7	0.9	0.9	1.3	0.4	1.9	0.8	1.2	NA
ALL CAUSES	47.1	45.5	46.5	47.5	53.5	53.7	62.6	63.2	82.3	83.7	74.4	58.0
(Number of all deaths)	(220)	(214)	(211)	(217)	(247)	(252)	(295)	(300)	(388)	(396)	(358)	62.7

Notes: <sup>a</sup> Number of deaths per 100,000 adolescents 15-19 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; <sup>c</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10; measures of comparison between ICD-9 and ICD-10 - the "comparability ratios" - for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-13  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES OF DEATH AMONG ADOLESCENTS (15-19 YEARS)  
BY GENDER IN URBAN AND RURAL AREAS<sup>b</sup>, ARIZONA, 2012-2022**

Area/Gender	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Male	50.8	62.0	59.8	60.8	69.6	73.9	78.3	93.0	118.1	120.9	109.4	115.4
Female	26.1	21.7	24.2	26.6	30.9	24.7	35.2	36.9	40.0	42.7	40.5	55.2
TOTAL	38.8	42.4	42.5	44.2	50.7	49.9	57.2	65.6	80.0	82.7	75.7	95.1
<b>RURAL</b>												
Male	123.3	91.4	85.8	106.8	84.9	111.6	124.4	56.9	130.8	110.2	91.3	-26.0
Female	53.3	31.2	50.0	23.6	47.1	34.9	58.4	38.0	55.0	52.7	39.8	-25.3
TOTAL	90.5	62.1	68.4	66.2	66.4	74.1	91.9	47.6	93.5	82.0	66.0	-27.1
<b>TOTAL</b>												
Male	62.5	66.5	63.8	67.8	72.7	79.5	85.5	88.2	120.2	120.7	106.9	71.4
Female	30.3	23.2	28.2	26.1	33.3	26.7	38.6	37.0	42.5	44.9	40.4	33.3
TOTAL	47.1	45.5	46.5	47.5	53.5	53.7	62.6	63.2	82.3	83.7	74.4	58.0

Notes: <sup>a</sup> Rates are presented per 100,000 children 15-19 years old; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

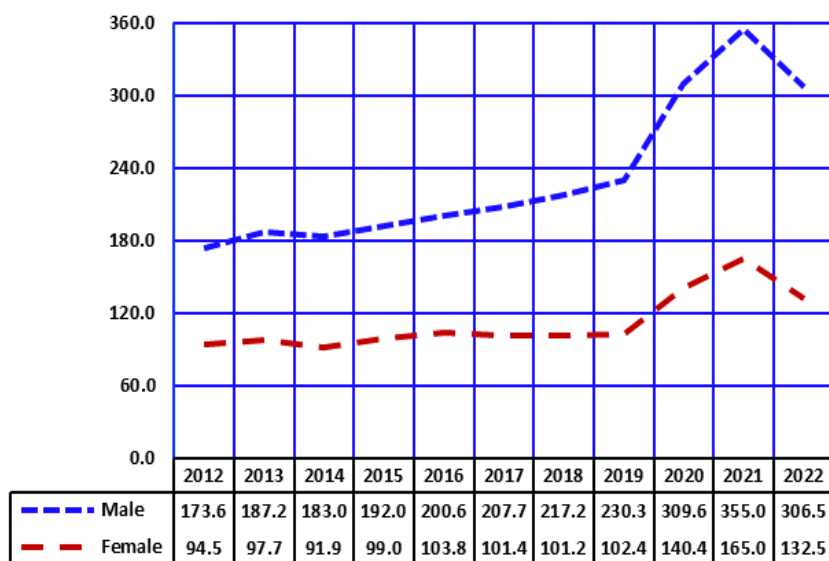
**TABLE 2C-14  
LEADING CAUSES OF DEATH AMONG ADOLESCENTS (15-19 YEARS) BY GENDER, AREA, AND RACE/ETHNICITY,  
ARIZONA, 2022**

Cause of death	Total	Gender		Area <sup>a</sup>		Race/ethnicity				
		Male	Female	Urban	Rural	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
<b>Accidents (unintentional injury)</b>	142	103	39	123	19	56	59	9	18	0
<b>Motor vehicle accidents</b>	80 <sup>†</sup>	59	19	68	10	29	35	*	9	0
<b>Accidental poisoning</b>	50 <sup>†</sup>	35	16	45	6	23	19	*	*	0
<b>Accidental drowning and submersion</b>	0 <sup>†</sup>	*	*	*	*	*	0	0	*	0
<b>Intentional self-harm (suicide)</b>	70 <sup>†</sup>	55	15	57	13	31	25	*	9	*
<b>By other means</b>	40 <sup>†</sup>	28	12	34	6	16	15	*	6	*
<b>By discharge of firearms</b>	30 <sup>†</sup>	27	*	23	7	15	10	*	*	0
<b>Assault (homicide)</b>	70 <sup>†</sup>	54	15	68	*	12	37	11	6	*
<b>By discharge of firearms</b>	70 <sup>†</sup>	53	14	66	*	12	37	11	*	*
<b>By other means</b>	0 <sup>†</sup>	*	*	*	0	0	0	0	*	0
<b>Malignant neoplasms</b>	20 <sup>†</sup>	13	8	20	*	8	11	0	*	*
<b>Diseases of the heart</b>	10 <sup>†</sup>	*	*	*	*	*	*	0	*	0
<b>Events of undetermined intent</b>	0 <sup>†</sup>	*	0	*	0	0	*	*	0	0
<b>Total, all causes<sup>b</sup></b>	358	263	95	314	44	130	155	26	41	6

Notes: \* Cell suppressed due to count less than 6; <sup>†</sup> Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> May include death records where the county of residence could not be classified as urban or rural; Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; <sup>b</sup> May include other causes of death not shown above.

2C.AGE-SPECIFIC MORTALITY  
**Young adult mortality (ages 20-44 years)**

**Figure 2C-13**  
**Mortality Rates<sup>a</sup> by Gender and Year among Young Adults 20-44 Years, Arizona, 2012-2022**

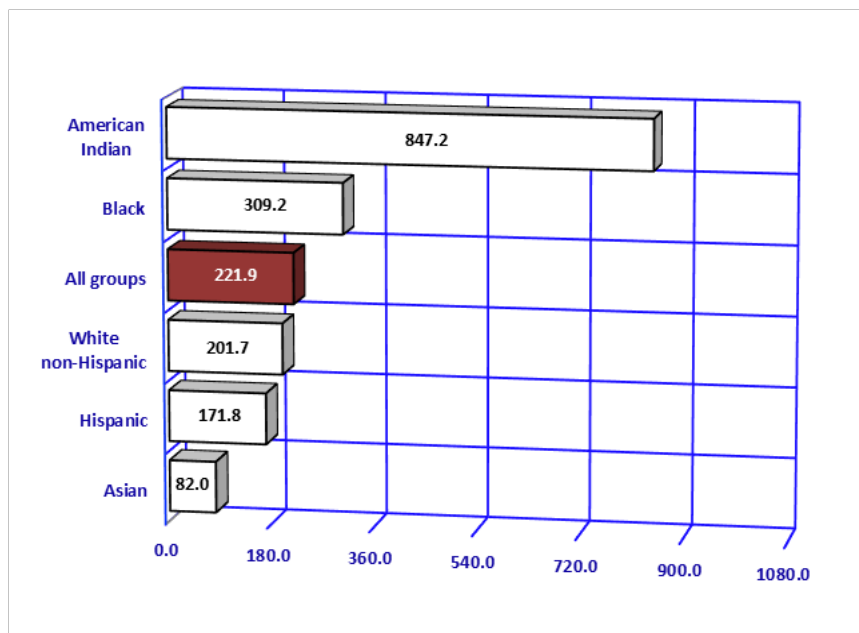


In 2022, 33.0 percent of Arizona residents were between 20 and 44 years of age. Among the six developmental periods examined in the life span, young adulthood, with an estimated 2.4 million individuals, easily represented the largest segment of the population. However, only 7.3 percent of all deaths occurred during young adulthood.

In each year from 2012 to 2022 period, males aged 20-44 years died at a higher rate than females. During the same period, the mortality rate for this age group increased by 76.6 percent for males and 40.2 percent for females. Compared to 2021, the young adult mortality rate decreased both for males (13.7 percent) and females (19.7 percent); **Figure 2C-13, Table 2C-15).**

Note: <sup>a</sup> Number of deaths per 100,000 persons, 20-44 years old in specified group.

**Figure 2C-14**  
**Mortality Rates<sup>a</sup> by Race/Ethnicity among Young Adults 20-44 Years, Arizona, 2022**



The 2022 mortality among young adults shows racial/ethnic disparities. American Indians aged 20-44 years had the highest mortality rates while Asians of the same age group recorded the lowest mortality rate across all groups.

American Indian young adults had a mortality rate 2.7 times greater than Black or African American adults, the racial/ethnic group with the second highest young adult mortality rate. The American Indian young adult mortality rate was 3.8 times higher than the state average for young adults and 10.3 times greater than Asian young adults.

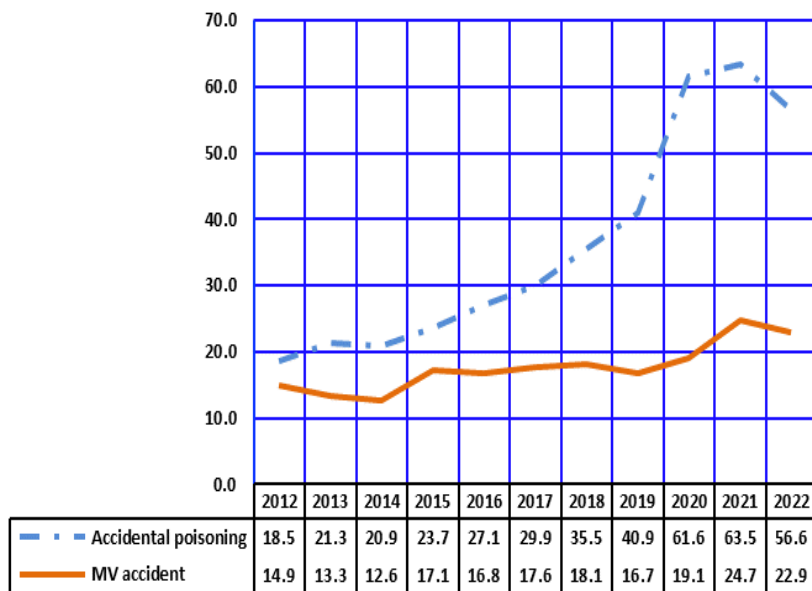
Note: <sup>a</sup> Number of deaths per 100,000 persons, 20-44 years old in specified group.



2C.AGE-SPECIFIC MORTALITY  
**Young adult mortality (ages 20-44 years)**

**Figure 2C-15**  
**Mortality Rates<sup>a</sup> for Motor Vehicle-Related Injuries and Accidental Poisoning**  
**by Year among Young Adults 20-44 Years, Arizona, 2012-2022**

In 2022, 1,384 deaths of young adults were attributed to accidental poisoning (**Table 2C-18**), a decrease of 9.4 percent from 2021. The mortality rate for accidental poisoning among young adults (56.6/100,000) exceeded the mortality rate for motor vehicle-related injuries. In the past decade, excess of mortality due to accidental poisoning has been consistently recorded in each year since 2012 (**Figure 2C-15**).

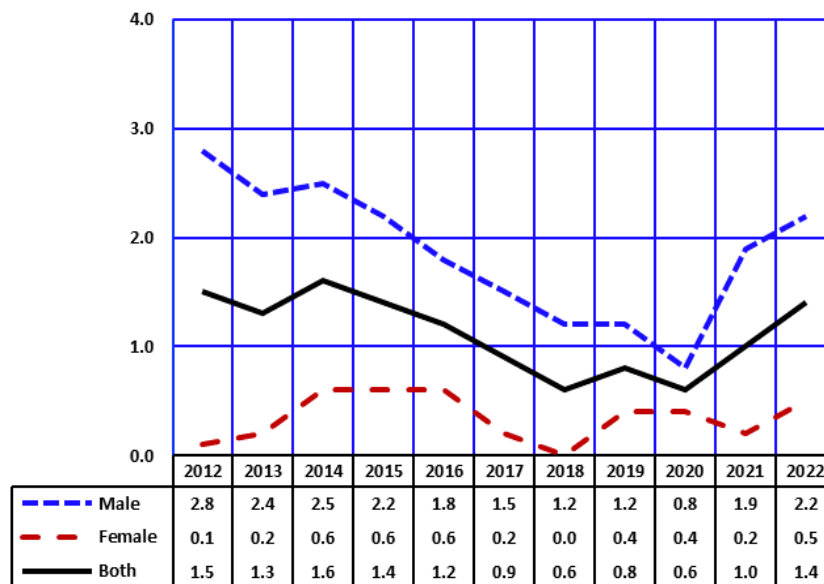


Note: <sup>a</sup> Number of motor vehicle and accidental poisoning deaths per 100,000 persons, 20-44 years old in specified group.

**Figure 2C-16**  
**Mortality Rates<sup>a</sup> for HIV Disease by Gender and Year among**  
**Young Adults 20-44 Years, Arizona, 2012-2022**

In 2022, of the 103 deaths from *HIV disease* about 33.0 percent occurred among Arizonans 20-44 years old (**Table 2C-27**), an increase from 26.6 percent of 94 deaths in 2021. Males accounted for the majority of the young adult deaths from *HIV disease* in 2022 (**Table 2C-18**).

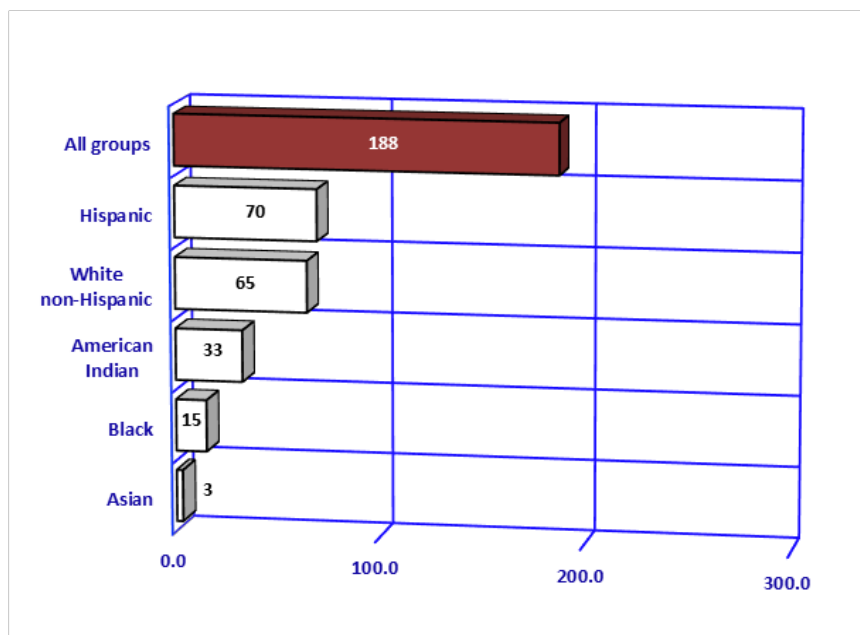
An analysis of HIV mortality rates by gender for the 2012-2022 period revealed a decrease of 21.4 percent in mortality among young males and 400.0 percent increase in mortality rate among their female counterparts.



Note: <sup>a</sup> Number of HIV deaths per 100,000 persons, 20-44 years old in specified group.

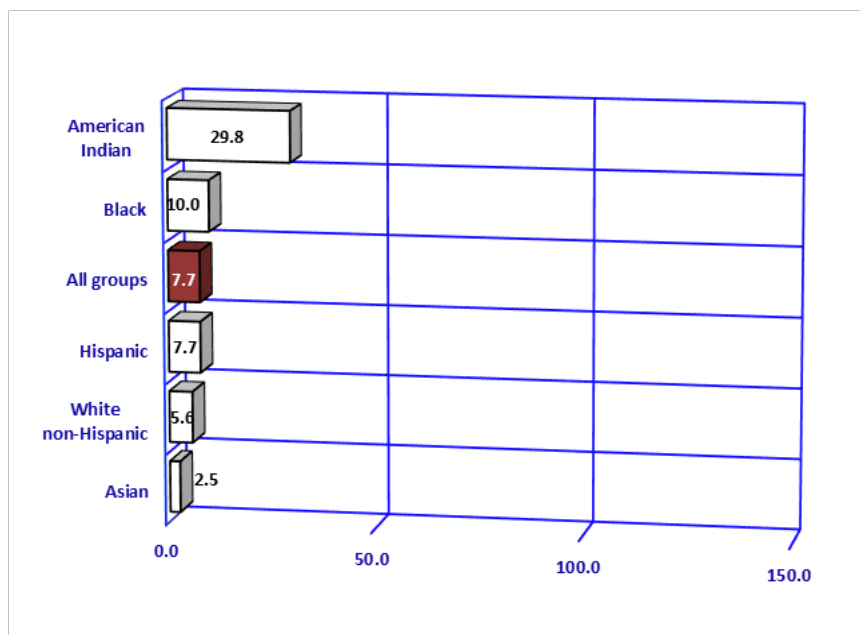
2C.AGE-SPECIFIC MORTALITY  
**Young adult mortality (ages 20-44 years)**

**Figure 2C-17**  
**Mortality for COVID-19 by Race/Ethnicity among Young Adults 20-44 Years, Arizona, 2022**



In 2022, 188 Arizona resident young adults age 20-44 died from COVID-19. Among the deaths, people who identified as Hispanic or Latino represented the largest amount of deaths compared to other race and ethnicities with 37.2% (n=70) of deaths in this age group. The least impacted race were Asians with 1.6% (n=3) of deaths in this age group (**Figure 2C-17, Table 2C-18**).

**Figure 2C-18**  
**Mortality Rates<sup>a</sup> for COVID-19 by Race/Ethnicity among Young Adults 20-44 Years, Arizona, 2022**



The age-specific mortality rate of Arizona resident young adults aged 20-44 years found the highest risk among American Indians with a rate of 29.8 deaths per 100,000 people aged 20-44. This was approximately four times the rate among all race/ethnicity groups (7.7 deaths per 100,000 people aged 20-44). People who identified as Black or African American represented the second highest group with 10.0 deaths per 100,000 people aged 20-44 and was above the average of all groups (**Figure 2C-18**).

Note: <sup>a</sup> Number of deaths due to COVID-19 per 100,000 persons, 20-44 years old in specified group.

**TABLE 2C-15  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG YOUNG ADULTS (20-44 YEARS)  
BY GENDER, ARIZONA, 2012-2022**

Gender/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>MALE</b>												
Accidents (unintentional injuries)	52.8	56.7	54.3	63.3	71.2	76.7	86.0	94.3	128.5	138.4	128.9	144.1
Other	31.2	38.0	35.9	38.6	46.9	52.6	59.9	70.2	100.9	105.0	96.5	209.3
Motor vehicle accidents	21.6	18.7	18.4	24.7	24.3	24.1	26.1	24.1	27.6	33.4	32.5	50.5
Intentional self-harm (suicide)	29.0	30.8	28.7	30.8	30.9	33.5	36.9	37.2	35.1	41.5	41.1	41.7
Assault (homicide)	16.1	16.1	13.3	16.6	17.8	19.4	17.9	15.0	20.3	23.2	24.0	49.1
Diseases of heart	13.5	14.2	14.0	13.6	12.0	14.7	13.3	14.8	18.9	17.4	15.6	15.6
Malignant neoplasms	12.3	13.4	11.2	13.0	11.3	12.0	10.9	12.0	12.6	14.1	14.6	18.7
ALL CAUSES	173.6	187.2	183.0	192.0	200.6	207.7	217.2	230.3	309.6	355.0	306.5	76.6
(Number of all deaths)	(1,910)	(2,082)	(2,071)	(2,191)	(2,304)	(2,421)	(2,588)	(2,799)	(3,763)	(4,386)	(3,851)	101.6
<b>FEMALE</b>												
Accidents (unintentional injuries)	22.8	24.5	21.3	28.2	26.6	29.3	30.5	32.0	44.6	49.4	41.9	83.8
Other	15.1	16.9	14.7	19.1	17.5	18.6	20.8	23.1	34.5	33.9	29.1	92.7
Motor vehicle accidents	7.7	7.6	6.6	9.1	9.0	10.7	9.7	8.9	10.1	15.6	12.8	66.2
Malignant neoplasms	17.6	17.4	14.0	13.5	16.7	14.5	16.2	14.1	14.5	16.2	14.9	-15.3
Intentional self-harm (suicide)	8.7	9.6	9.0	10.5	9.9	11.2	9.6	8.1	10.9	10.3	10.0	14.9
Diseases of heart	7.0	5.6	6.6	7.2	5.1	7.0	6.3	6.1	7.6	7.4	6.1	-12.9
Assault (homicide)	4.3	3.4	2.9	3.2	3.7	3.8	3.7	4.0	4.7	5.1	5.5	27.9
ALL CAUSES	94.5	97.7	91.9	99.0	103.8	101.4	101.2	102.4	140.4	165.0	132.5	40.2
(Number of all deaths)	(990)	(1,033)	(991)	(1,080)	(1,137)	(1,123)	(1,139)	(1,174)	(1,614)	(1,930)	(1,576)	59.2
<b>TOTAL</b>												
Accidents (unintentional injuries)	38.2	41.0	38.2	46.1	49.4	53.6	59.0	64.0	87.7	95.1	86.6	126.7
Other	23.3	27.7	25.6	29.0	32.6	36.0	40.9	47.3	68.7	70.4	63.7	173.4
Motor vehicle accidents	14.9	13.3	12.6	17.1	16.8	17.6	18.1	16.7	19.1	24.7	22.9	53.7
Intentional self-harm (suicide)	19.1	20.5	19.1	20.9	20.6	22.6	23.6	23.1	23.3	26.4	26.0	36.1
Assault (homicide)	10.3	9.9	8.2	10.0	11.0	11.8	11.0	9.7	12.7	14.4	15.0	45.6
Malignant neoplasms	14.9	15.3	12.6	13.2	13.9	13.2	13.5	13.0	13.5	15.1	14.7	-1.3
Diseases of heart	10.3	10.0	10.4	10.5	8.6	10.9	9.9	10.6	13.4	12.6	11.0	6.8
ALL CAUSES	135.0	143.5	138.6	146.6	153.3	155.9	160.9	168.2	227.3	262.6	221.9	64.4
(Number of all deaths)	(2,900)	(3,115)	(3,062)	(3,271)	(3,441)	(3,544)	(3,727)	(3,973)	(5,377)	(6,316)	(5,427)	87.1

Notes: <sup>a</sup> Rates are presented per 100,000 persons 20-44 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9); measures of comparison between ICD-9 and ICD-10 – the “comparability ratios” – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-16  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG YOUNG ADULTS (20-44 YEARS)  
IN URBAN AND RURAL AREAS<sup>c</sup>, ARIZONA, 2012-2022**

Area/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Accidents (unintentional injuries)	32.3	35.4	33.8	40.1	43.9	49.0	55.2	60.6	82.6	89.0	78.8	144.0
Other	20.2	23.9	22.7	25.4	28.9	34.3	39.5	46.1	65.9	67.7	59.0	192.1
Motor vehicle accidents	12.1	11.5	11.1	14.7	15.1	14.8	15.7	14.5	16.7	21.3	19.8	63.6
Intentional self-harm (suicide)	17.0	18.3	16.8	19.0	18.4	19.7	20.6	21.3	20.5	22.2	21.4	25.9
Assault (homicide)	9.5	9.4	8.1	9.6	10.7	11.3	11.1	9.8	12.1	14.3	14.4	51.6
Malignant neoplasms	14.1	15.3	12.7	13.1	13.5	13.0	13.5	12.6	13.7	14.6	14.2	0.7
Diseases of heart	9.5	9.3	9.7	10.1	8.3	10.3	9.2	10.1	13.3	12.1	10.5	10.5
ALL CAUSES	118.8	130.1	126.2	131.9	137.1	140.7	148.0	156.5	206.2	237.6	195.7	64.7
(Number of all deaths)	(2,215)	(2,451)	(2,422)	(2,557)	(2,676)	(2,783)	(2,986)	(3,224)	(4,270)	(5,007)	(4,198)	89.5
<b>RURAL</b>												
Accidents (unintentional injuries)	74.4	74.9	61.2	78.6	77.9	75.3	81.3	80.9	116.3	129.0	128.5	72.7
Other	42.7	50.8	39.6	47.9	51.3	39.4	48.5	52.8	81.6	83.0	85.0	99.1
Motor vehicle accidents	31.7	24.2	21.7	30.8	26.7	36.0	32.8	28.1	34.7	46.0	43.5	37.2
Intentional self-harm (suicide)	32.4	33.6	32.3	32.1	33.5	40.1	43.5	35.0	42.5	54.1	56.8	75.3
Malignant neoplasms	19.0	15.4	11.4	13.3	16.7	13.6	12.4	16.2	12.6	18.1	17.9	-5.8
Assault (homicide)	14.8	13.0	7.2	10.6	10.6	10.9	10.4	7.9	16.7	14.4	17.9	20.9
Diseases of heart	14.5	14.0	14.4	13.0	10.3	14.3	14.0	12.5	13.6	15.5	13.0	-10.3
ALL CAUSES	233.4	226.5	207.1	224.7	240.9	236.6	238.1	237.7	361.3	422.1	378.9	62.3
(Number of all deaths)	(662)	(647)	(602)	(657)	(705)	(697)	(712)	(720)	(1,063)	(1,256)	(1,141)	72.4
<b>TOTAL</b>												
Accidents (unintentional injuries)	38.2	41.0	38.2	46.1	49.4	53.6	59.0	64.0	87.7	95.1	86.6	126.7
Other	23.3	27.7	25.6	29.0	32.6	36.0	40.9	47.3	68.7	70.4	63.7	173.4
Motor vehicle accidents	14.9	13.3	12.6	17.1	16.8	17.6	18.1	16.7	19.1	24.7	22.9	53.7
Intentional self-harm (suicide)	19.1	20.5	19.1	20.9	20.6	22.6	23.6	23.1	23.3	26.4	26.0	36.1
Assault (homicide)	10.3	9.9	8.2	10.0	11.0	11.8	11.0	9.7	12.7	14.4	15.0	45.6
Malignant neoplasms	14.9	15.3	12.6	13.2	13.9	13.2	13.5	13.0	13.5	15.1	14.7	-1.3
Diseases of heart	10.3	10.0	10.4	10.5	8.6	10.9	9.9	10.6	13.4	12.6	11.0	6.8
ALL CAUSES	135.0	143.5	138.6	146.6	153.3	155.9	160.9	168.2	227.3	262.6	221.9	64.4
(Number of all deaths)	(2,900)	(3,115)	(3,062)	(3,271)	(3,441)	(3,544)	(3,727)	(3,973)	(5,377)	(6,316)	(5,427)	87.1

Notes: <sup>a</sup> Rates are presented per 100,000 young adults 20-44 years old; <sup>b</sup> The five causes with the greatest number of deaths statewide over the 2012-2022 period; <sup>c</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9); measures of comparison between ICD-9 and ICD-10 – the “comparability ratios” – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-17  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES OF DEATH AMONG YOUNG ADULTS (20-44 YEARS)  
BY GENDER IN URBAN AND RURAL AREAS<sup>b</sup>, ARIZONA, 2012-2022**

Area/Gender	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Male	154.0	169.0	165.6	171.9	178.4	187.7	198.0	216.0	282.9	322.9	272.2	76.8
Female	81.9	89.2	85.1	90.1	94.0	91.4	95.2	93.8	125.4	147.9	115.4	40.9
TOTAL	118.8	130.1	126.2	131.9	137.1	140.7	148.0	156.5	206.2	237.6	195.7	64.7
<b>RURAL</b>												
Male	288.4	296.4	278.8	294.2	315.6	307.7	332.7	309.8	475.6	553.3	506.7	75.7
Female	174.6	151.6	130.0	149.8	160.1	159.3	135.0	158.9	236.7	278.9	239.5	37.2
TOTAL	233.4	226.5	207.1	224.7	240.9	236.6	238.1	237.7	361.3	422.1	378.9	62.3
<b>TOTAL</b>												
Male	173.6	187.2	183.0	192.0	200.6	207.7	217.2	230.3	309.6	355.0	306.5	76.6
Female	94.5	97.7	91.9	99.0	103.8	101.4	101.2	102.4	140.4	165.0	132.5	40.2
TOTAL	135.0	143.5	138.6	146.6	153.3	155.9	160.9	168.2	227.3	262.6	221.9	64.4

Notes:<sup>a</sup> Rates are presented per 100,000 persons 20-44 years old; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

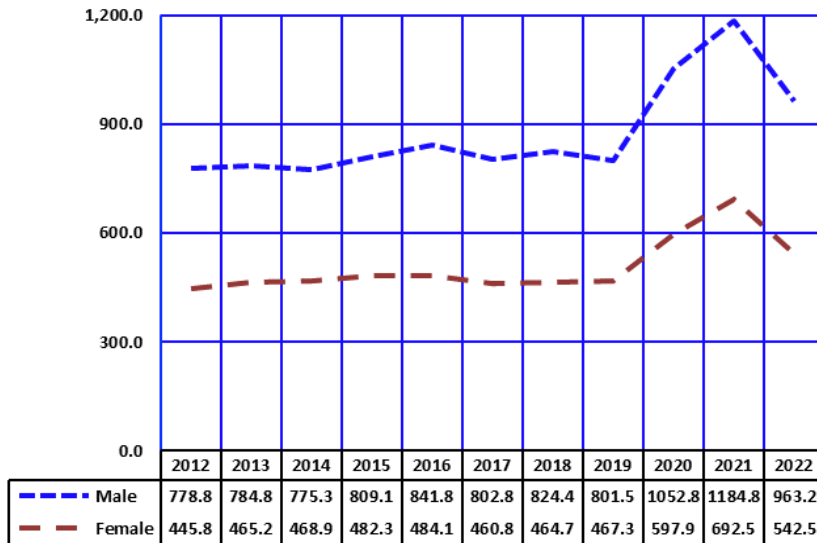
**TABLE 2C-18  
LEADING CAUSES OF DEATH AMONG YOUNG ADULTS (20-44 YEARS) BY GENDER, AREA, AND RACE/ETHNICITY,  
ARIZONA, 2022**

Cause of death	Total		Gender		Area <sup>a</sup>			Race/ethnicity				
	Total	Male	Female	Urban	Rural	Unknown	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Refused/Unknown
Accidents (unintentional injury)	2,118	1,620	498	1,689	387	42	944	656	159	310	39	10
Accidental poisoning	1,384	1,080	304	1,139	217	28	632	430	105	191	18	8
Motor vehicle accidents	560	408	152	424	131	*	230	187	38	90	14	*
Intentional self-harm (suicide)	635	516	119	458	171	6	347	158	38	78	11	*
By discharge of firearms	354	306	48	271	81	*	207	91	26	23	6	*
By other means	280†	210	71	187	90	*	140	67	12	55	*	*
Assault (homicide)	370†	302	65	309	54	*	81	147	70	66	*	*
By discharge of firearms	310†	258	49	265	39	*	65	135	55	50	*	*
By other means	60†	44	16	44	15	*	16	12	15	16	*	0
Malignant neoplasms	360	183	177	304	54	*	191	102	26	24	14	*
Malignant neoplasm of lymphoid, hematopoietic and related tissue	50†	36	16	46	*	*	31	14	*	*	*	0
Malignant neoplasm of breast	40†	0	44	37	7	0	26	8	6	*	*	*
Malignant neoplasm of meninges, brain and other parts of central nervous system	30†	24	7	28	*	0	21	8	0	0	*	0
Chronic liver disease and cirrhosis	270†	168	106	158	112	*	81	54	*	134	*	0
Diseases of heart	268	196	72	226	39	*	119	63	46	30	10	0
COVID-19	190†	103	85	156	31	*	65	70	15	33	*	*
Diabetes	111	70	41	87	22	*	42	40	10	18	0	*
Cerebrovascular diseases	60†	29	28	48	8	*	24	22	*	6	*	0
Obesity	50†	34	14	36	12	0	22	12	*	12	0	0
Influenza and pneumonia	44	26	18	36	8	0	20	9	6	9	0	0
Human immunodeficiency virus (HIV) disease	30†	28	6	31	0	*	11	17	*	*	*	0
<b>Total, all causes</b>	<b>5,427</b>	<b>3,851</b>	<b>1,576</b>	<b>4,198</b>	<b>1,141</b>	<b>88</b>	<b>2,332</b>	<b>1,560</b>	<b>462</b>	<b>937</b>	<b>100</b>	<b>36</b>

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas.

2C.AGE-SPECIFIC MORTALITY  
**Middle-aged adult mortality (ages 45-64 years)**

**Figure 2C-19**  
**Mortality Rates<sup>a</sup> by Gender and Year among Middle-Aged Adults 45-64 Years, Arizona, 2012-2022**



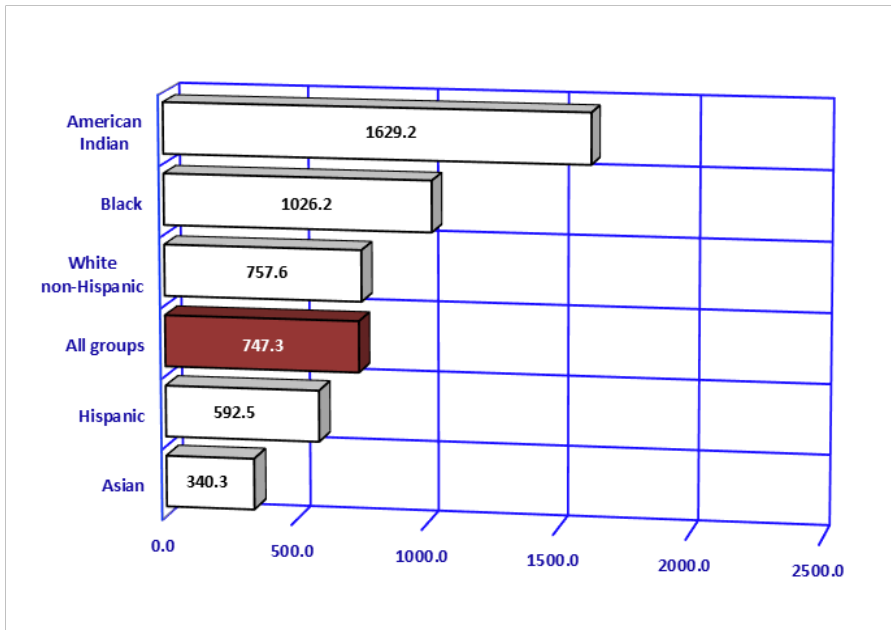
In 2022, the 1,752,404 middle-aged adult residents aged 45 to 64 experienced 13,095 deaths, or an average of 36 deaths per day. The total number of deaths among 45-64 years old Arizona residents in 2022 (13,095) was lower than both the 2020 count (14,003), and 2021 count (16,060). Overall, 2021 had the highest number of deaths for the age group of middle-aged adult residents 45-64 years recorded over the time period of 2012-2022 (**Table 2C-19**).

The 2022 total mortality rate among middle-age females was 21.7 percent higher, and among middle-aged males, 23.7 percent higher than their respective rates in 2012 (**Figure 2C-19, Table 2C-19**). In 2022, the mortality rate for males age 45 - 64 was 77.7 percent higher than the female mortality of the same age group.

The five causes with the greatest number of deaths in 2012-2022 were *malignant neoplasms, diseases of heart, accidents, chronic liver disease and cirrhosis, and chronic lower respiratory diseases* (**Table 2C-19**).

Note: <sup>a</sup> Number of deaths per 100,000 persons, 45-64 years old in specified group.

**Figure 2C-20**  
**Mortality Rates<sup>a</sup> by Race/Ethnicity among Middle-Aged Adults 45-64 Years, Arizona, 2022**



American Indian and Black or African American middle-aged adults had the two highest mortality rates (1629.2/100,000 and 1026.2/100,000, respectively) among the racial/ethnic groups.

If the 2022 total mortality rate for Asian middle-aged adults applied to all Arizona residents 45-64 years old, 5,963 middle-aged adults would have died rather than the 13,095 who actually did.

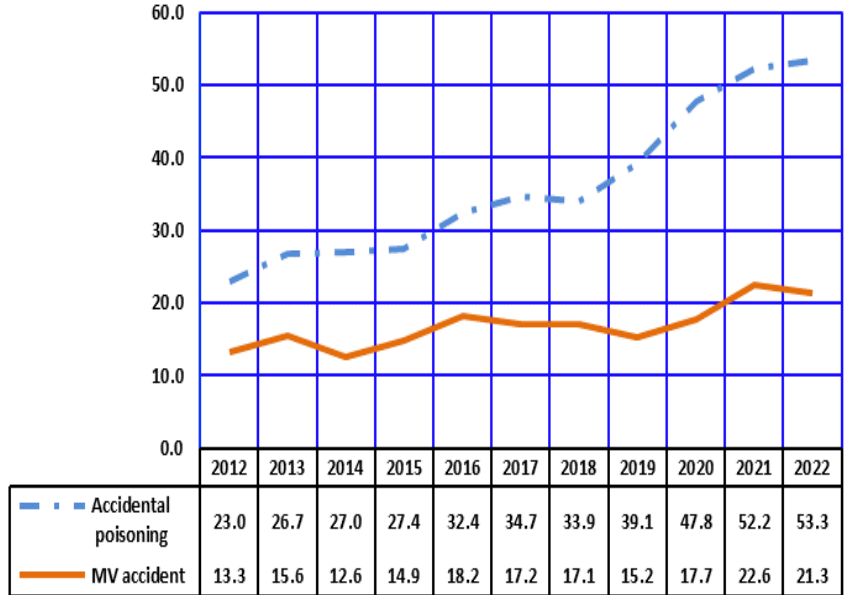
Note: <sup>a</sup> Number of deaths per 100,000 persons, 45-64 years old in specified group.

**2C.AGE-SPECIFIC MORTALITY**  
**Middle-aged adult mortality (ages 45-64 years)**

The 2022 mortality rate due to accidental poisoning was 53.3 per 100,000 adults aged 45-64 years, an increase of 2.1 percent from 2021. In 2022, about 934 deaths were attributed to accidental poisoning (Table 2C-22). Of the accidental poisoning deaths in this age group, 881 were drug overdoses (ICD-10 X40-X44) and 46 were alcohol poisoning (ICD-10 X45).

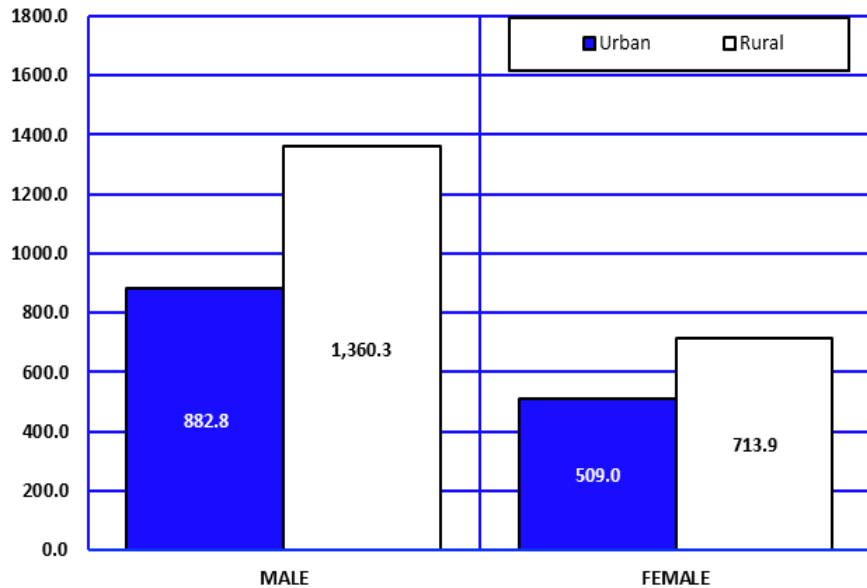
Since 2012, the mortality rate for accidental poisoning exceeded the mortality rate for motor vehicle-related injuries among the middle-aged (Figure 2C-21). In 2022, accidental poisoning mortality rate of 53.3 per 100,000 middle-aged adults was 2.5 times higher than the mortality rate of 21.3 per 100,000 for motor vehicle accidents. White non-Hispanics accounted for about 61.7 percent of all accidental poisoning deaths (Table 2C-22).

**Figure 2C-21**  
**Mortality Rates<sup>a</sup> for Accidental Poisoning and Motor Vehicle-related Injuries by Year among Middle-Aged Adults 45-64 Years, Arizona, 2012-2022**



Note: <sup>a</sup> Number of motor vehicle and accidental poisoning deaths per 100,000 persons, 45-64 years old in specified group.

**Figure 2C-22**  
**Mortality Rates by Gender in Urban<sup>a</sup> and Rural Areas among Middle-Aged Adults 45-64 Years, Arizona, 2022**



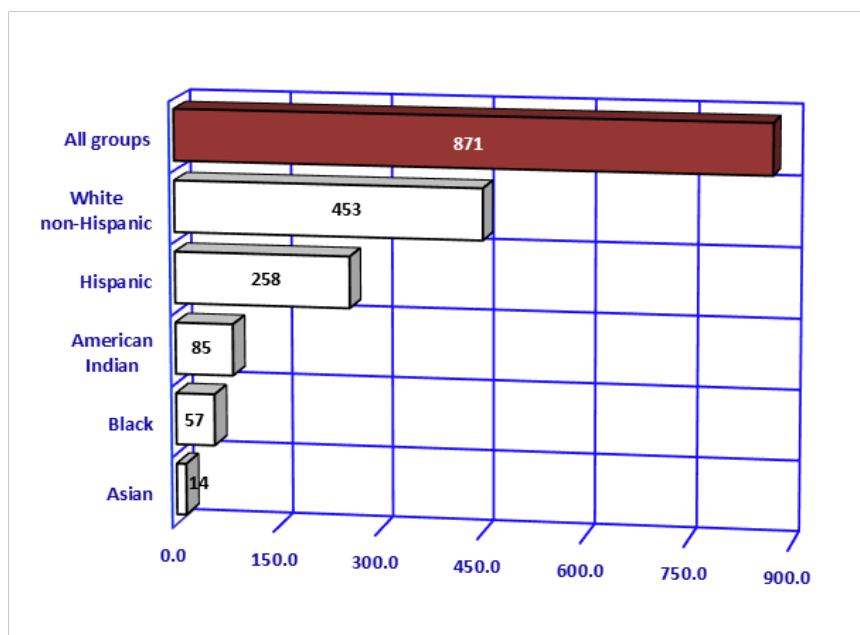
In 2022, as in the past, rural middle-aged males had the worse survival chances than the remaining of the sub-groups (Figure 2C-22, Table 2C-21). The mortality rate for rural middle-aged males in 2022 was 1.5 times greater than for urban males, 1.9-fold greater than rural females, and 2.7-fold greater than urban females.

Note: <sup>a</sup> Urban counties include Maricopa, Pima, Pinal, and Yuma counties.



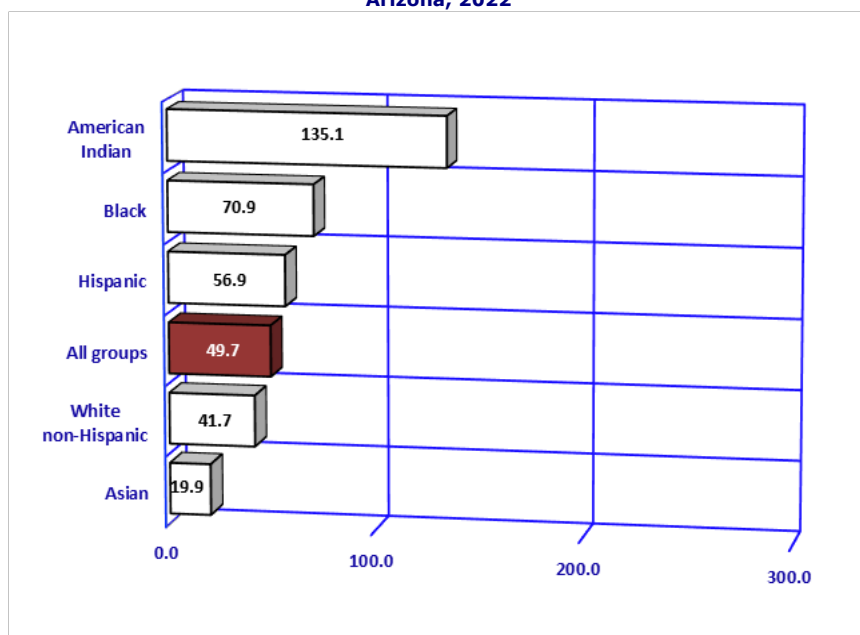
2C.AGE-SPECIFIC MORTALITY  
**Middle-aged adult mortality (ages 45-64 years)**

**Figure 2C-23**  
**Mortality for COVID-19 by Race/Ethnicity among Middle-Aged Adults 45-64 Years, Arizona, 2022**



In 2022, 871 Arizona resident middle-aged adults age 45-64 died from COVID-19. Among the deaths, people who identified as White non-Hispanic represented the largest amount of deaths compared to other race and ethnicities with 52.0% (n=453) of deaths in this age group. The least impacted race were Asians with 1.6% (n= 14) of deaths in this age group (**Figure 2C-23, Table 2C-22**).

**Figure 2C-24**  
**Mortality Rates<sup>a</sup> for COVID-19 by Race/Ethnicity among Middle-Aged Adults 45-64 Years, Arizona, 2022**



The age-specific mortality rate of Arizona resident middle aged adults 45-64 years found the highest risk among American Indians with a rate of 135.1 deaths per 100,000 people aged 45-64. This was almost three times the rate among all race/ethnicity groups (49.7 deaths per 100,000 people aged 45-64). People who identified as Black or African American represented the second highest group with 70.9 deaths and Hispanic or Latino represented the third highest group at 56.9 per 100,000 people aged 45-64 deaths and were above the combined rate of all groups.

Note: <sup>a</sup> Number of deaths due to COVID-19 per 100,000 persons, 45-64 years old in specified group.

**TABLE 2C-19  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)  
BY GENDER, ARIZONA, 2012-2022**

Gender/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>MALE</b>												
Diseases of heart	155.1	159.3	143.2	166.6	170.1	164.7	162.5	160.8	186.3	182.9	182.4	17.6
Malignant neoplasms	196.6	191.4	171.5	186.4	184.1	180.7	177.8	175.1	164.9	158.7	156.3	-20.5
Accidents (unintentional injuries)	68.0	77.9	73.5	76.8	100.4	98.8	95.5	105.7	128.1	137.6	148.0	117.6
Other	47.9	54.5	54.0	54.5	71.5	72.1	70.5	82.6	101.0	103.6	116.1	142.4
Motor vehicle accidents	20.1	23.3	19.4	22.3	28.9	26.8	25.0	23.1	27.1	34.0	31.9	58.7
Chronic liver disease and cirrhosis	50.2	46.7	43.1	48.1	47.8	45.5	45.7	43.8	49.7	61.8	46.5	-7.4
Intentional self-harm (suicide)	41.8	38.3	37.7	40.3	41.2	37.4	43.3	39.7	38.7	38.0	44.1	5.5
ALL CAUSES	778.8	784.8	775.3	809.1	841.8	802.8	824.4	801.5	1052.8	1184.8	963.2	23.7
(Number of all deaths)	(5,999)	(6,088)	(6,111)	(6,444)	(6,781)	(6,570)	(6,839)	(6,702)	(8,755)	(9,935)	(8,215)	36.9
<b>FEMALE</b>												
Malignant neoplasms	155.1	160.7	145.0	155.6	150.9	143.9	146.3	147.5	147.9	153.3	149.1	-3.9
Diseases of heart	60.5	54.6	54.0	60.8	66.7	58.2	62.7	61.9	68.0	68.5	65.8	8.8
Accidents (unintentional injuries)	33.0	38.0	33.7	35.8	38.4	42.2	37.3	38.7	46.7	51.8	44.7	35.5
Other	26.1	29.8	27.4	27.9	30.4	18.6	27.7	31.0	37.8	40.0	33.5	28.4
Motor vehicle accidents	6.9	8.2	6.2	7.9	8.1	8.2	9.7	7.7	8.9	11.8	11.2	62.3
Diabetes	22.3	23.6	22.8	27.4	24.6	22.6	22.1	23.4	30.2	29.6	24.7	10.8
Chronic lower respiratory diseases	24.2	24.8	24.8	23.0	25.8	26.4	27.6	21.3	24.0	21.9	24.3	0.4
ALL CAUSES	445.8	465.2	468.9	482.3	484.1	460.8	464.7	467.3	597.9	692.5	542.5	21.7
(Number of all deaths)	(3,631)	(3,810)	(3,914)	(4,066)	(4,130)	(3,997)	(4,081)	(4,132)	(5,238)	(6,125)	(4,880)	34.4
<b>TOTAL</b>												
Malignant neoplasms	175.2	175.6	157.9	170.6	167.0	161.8	161.6	160.9	156.1	155.9	152.6	-12.9
Diseases of heart	106.5	105.5	97.4	112.2	116.9	109.9	111.2	110.0	125.5	124.2	122.6	15.1
Accidents (unintentional injuries)	50.0	57.4	53.0	55.7	68.5	69.7	65.6	71.3	86.3	93.6	95.0	90.0
Other	36.7	41.8	40.4	40.8	50.3	52.5	48.5	56.1	68.6	71.0	73.7	100.8
Motor vehicle accidents	13.3	15.6	12.6	14.9	18.2	17.2	17.1	15.2	17.7	22.6	21.3	60.2
Chronic liver disease and cirrhosis	35.0	34.7	33.6	37.7	36.3	35.1	34.0	33.6	40.0	49.7	36.7	4.9
Chronic lower respiratory diseases	25.1	24.7	25.4	26.6	28.2	27.3	28.4	23.5	25.8	20.8	22.8	-9.2
ALL CAUSES	607.6	620.7	617.7	641.0	657.8	626.8	639.4	629.7	819.2	932.1	747.3	23.0
(Number of all deaths)	(9,630)	(9,898)	(10,025)	(10,510)	(10,911)	(10,567)	(10,920)	(10,834)	(14,003)	(16,060)	(13,095)	36.0

Notes: <sup>a</sup> Rates are presented per 100,000 middle-aged adults 45-64 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10; measures of comparison between ICD-9 and ICD-10 – the “comparability ratios” – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-20  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)  
IN URBAN AND RURAL AREAS<sup>c</sup>, ARIZONA, 2012-2022**

Area/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Malignant neoplasms	171.8	169.1	153.8	164.8	162.1	156.3	156.4	153.7	150.9	151.6	147.1	-14.4
Diseases of heart	95.9	96.5	89.5	100.3	106.3	101.7	100.2	103.9	115.5	114.0	113.6	18.5
Accidents (unintentional injuries)	47.6	51.5	47.3	50.2	61.3	61.3	60.0	66.1	82.0	86.4	87.2	83.2
Other	35.7	38.5	36.7	37.8	45.3	46.6	46.0	52.4	65.7	67.0	68.7	92.4
Motor vehicle accidents	11.9	13.0	10.6	12.4	16.0	14.7	14.0	13.6	16.3	19.4	18.5	55.5
Chronic liver disease and cirrhosis	31.5	29.9	31.5	32.6	30.3	30.1	29.9	28.5	33.8	40.0	30.5	-3.2
Chronic lower respiratory diseases	22.9	22.6	23.4	25.0	25.9	24.0	24.4	21.0	22.1	18.1	20.6	-10.0
ALL CAUSES	575.8	579.8	584.2	596.5	613.0	583.1	595.1	586.3	759.7	862.3	691.2	20.0
(Number of all deaths)	(7,513)	(7,631)	(7,855)	(8,128)	(8,485)	(8,223)	(8,527)	(8,485)	(10,988)	(12,602)	(10,282)	36.9
<b>RURAL</b>												
Malignant neoplasms	187.8	204.7	175.4	196.4	184.3	182.9	186.2	196.3	182.9	175.5	181.6	-3.3
Diseases of heart	152.5	142.2	133.3	163.5	159.6	140.1	162.6	139.1	176.9	175.9	165.7	8.7
Accidents (unintentional injuries)	55.3	75.8	73.3	72.6	83.8	91.5	86.9	94.1	100.0	122.7	123.4	123.1
Other	36.4	51.7	52.8	46.6	58.3	64.2	55.6	71.4	78.0	85.3	90.6	148.9
Motor vehicle accidents	18.9	24.1	20.5	26.0	25.5	27.2	31.3	22.7	22.1	37.5	32.8	73.5
Chronic liver disease and cirrhosis	47.5	57.1	41.7	59.2	61.9	56.6	53.5	59.7	71.9	102.5	69.8	46.9
Chronic lower respiratory diseases	33.2	32.3	34.1	33.9	37.9	41.7	49.1	35.5	44.5	35.6	34.0	2.4
ALL CAUSES	720.2	786.8	751.4	821.2	808.3	781.1	842.7	839.6	1111.4	1281.7	1025.3	42.4
(Number of all deaths)	(2,017)	(2,191)	(2,091)	(2,275)	(2,219)	(2,152)	(2,317)	(2,293)	(2,922)	(3,352)	(2,716)	34.7
<b>TOTAL</b>												
Malignant neoplasms	175.2	175.6	157.9	170.6	167.0	161.8	161.6	160.9	156.1	155.9	152.6	-12.9
Diseases of heart	106.5	105.5	97.4	112.2	116.9	109.9	111.2	110.0	125.5	124.2	122.6	15.1
Accidents (unintentional injuries)	50.0	57.4	53.0	55.7	68.5	69.7	65.6	71.3	86.3	93.6	95.0	90.0
Other	36.7	41.8	40.4	40.8	50.3	52.5	48.5	56.1	68.6	71.0	73.7	100.8
Motor vehicle accidents	13.3	15.6	12.6	14.9	18.2	17.2	17.1	15.2	17.7	22.6	21.3	60.2
Chronic liver disease and cirrhosis	35.0	34.7	33.6	37.7	36.3	35.1	34.0	33.6	40.0	49.7	36.7	4.9
Chronic lower respiratory diseases	25.1	24.7	25.4	26.6	28.2	27.3	28.4	23.5	25.8	20.8	22.8	-9.2
ALL CAUSES	607.6	620.7	617.7	641.0	657.8	626.8	639.4	629.7	819.2	932.1	747.3	23.0
(Number of all deaths)	(9,630)	(9,898)	(10,025)	(10,510)	(10,911)	(10,567)	(10,920)	(10,834)	(14,003)	(16,060)	(13,095)	36.0

Notes: <sup>a</sup> Rates are presented per 100,000 middle-aged adults 45-64 years old; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; <sup>c</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10; measures of comparison between ICD-9 and ICD-10 - the "comparability ratios" - for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-21  
MORTALITY RATES<sup>a</sup> FOR THE SELECED FIVE LEADING CAUSES OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)  
BY GENDER IN URBAN AND RURAL AREAS<sup>b</sup>, ARIZONA, 2012-2022**

Area/Gender	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Male	724.9	726.0	728.1	746.1	769.7	736.7	762.1	743.8	974.4	1087.4	882.8	21.8
Female	434.7	441.0	448.0	454.8	464.5	437.4	436.6	436.6	555.5	648.1	509.0	17.1
TOTAL	575.8	579.8	584.2	596.5	613.0	583.1	595.1	586.3	759.7	862.3	691.2	20.0
<b>RURAL</b>												
Male	968.7	1018.5	953.9	1054.9	1079.2	1025.4	1110.2	1080.1	1432.6	1679.4	1360.3	40.4
Female	486.1	568.8	561.6	603.7	557.3	556.0	596.9	617.8	812.9	912.0	713.9	46.9
TOTAL	720.2	786.8	751.4	821.2	808.3	781.1	842.7	839.6	1111.4	1281.7	1025.3	42.4
<b>TOTAL</b>												
Male	778.8	784.8	775.3	809.1	841.8	802.8	824.4	801.5	1052.8	1184.8	963.2	23.7
Female	445.8	465.2	468.9	482.3	484.1	460.8	464.7	467.3	597.9	692.5	542.5	21.7
TOTAL	607.6	620.7	617.7	641.0	657.8	626.8	639.4	629.7	819.2	932.1	747.3	23.0

Notes: <sup>a</sup> Rates are presented per 100,000 persons 45-64 years old; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information.

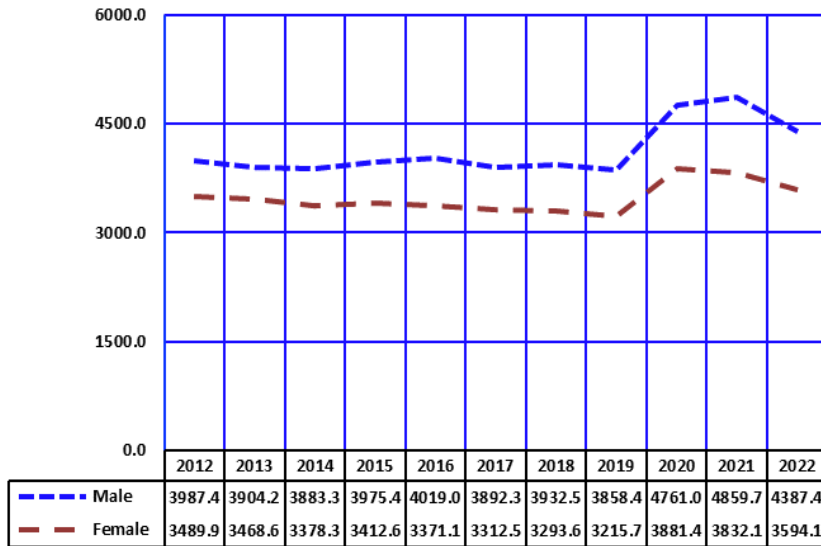
**TABLE 2C-22  
LEADING CAUSES OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS) BY GENDER, AREA, AND RACE/ETHNICITY,  
ARIZONA, 2022**

Cause of death	Total		Gender		Area <sup>a</sup>			Race/ethnicity				
	Total	Gender		Urban	Rural	Unknown	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Refused/Unknown
		Male	Female									
Malignant neoplasms	2,674	1,333	1,341	2,188	481	*	1,816	510	166	92	80	10
Malignant neoplasm of trachea, bronchus and lung	420†	210	214	338	85	*	336	51	26	*	10	0
Malignant neoplasm of colon, rectum, and anus	333	199	134	269	64	0	216	59	20	21	16	*
Malignant neoplasm of breast	260†	*	254	215	40	0	175	45	22	*	8	*
Malignant neoplasm of pancreas	210†	119	91	179	31	0	143	40	15	6	*	*
Diseases of heart	2,148	1,556	592	1,690	439	19	1,417	398	170	107	36	20
Accidents (unintentional injury)	1,664	1,262	402	1,297	327	40	1,008	347	104	172	15	18
Accidental poisoning	930†	723	211	781	134	19	576	208	64	74	*	7
Motor vehicle accidents	373	272	101	275	87	11	210	81	22	52	6	*
Falls	110†	74	38	84	27	*	75	15	*	16	0	*
COVID-19	871	516	355	692	175	*	453	258	57	85	14	*
Diabetes	646	424	222	538	106	*	314	197	40	76	18	*
Chronic liver disease and cirrhosis	643	397	246	453	185	*	342	164	12	115	6	*
Intentional self-harm (suicide)	479	376	103	364	112	*	381	57	13	15	11	*
By discharge of firearms	290†	246	39	215	70	0	242	25	8	*	*	0
By other means	190†	130	64	149	42	*	139	32	*	10	6	*
Cerebrovascular diseases	399	226	173	319	80	0	214	104	41	25	14	*
Chronic lower respiratory diseases	400†	180	219	307	90	*	336	34	19	*	*	*
Influenza and pneumonia	170†	97	77	126	48	0	93	38	6	32	*	*
Essential (primary) hypertension and hypertensive renal disease	150†	95	53	127	21	0	90	26	16	12	*	0
Nephritis, nephrotic syndrome and nephrosis	140†	82	62	111	32	*	68	33	15	27	*	0
Assault (homicide)	130†	113	17	102	27	*	51	35	19	21	*	*
By discharge of firearms	80†	74	9	63	19	*	32	24	16	9	*	*
By other means	50†	39	8	39	8	0	19	11	*	12	*	0
Septicemia	130†	65	62	96	31	0	73	35	*	16	*	0
Human immunodeficiency virus (HIV) disease	50†	45	6	45	*	*	30	11	*	*	*	*
Viral hepatitis	30†	27	6	32	*	0	19	12	*	0	0	*
<b>Total, all causes<sup>b</sup></b>	<b>13,095</b>	<b>8,215</b>	<b>4,880</b>	<b>10,282</b>	<b>2,716</b>	<b>97</b>	<b>8,222</b>	<b>2,686</b>	<b>825</b>	<b>1,025</b>	<b>240</b>	<b>97</b>

Note: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; <sup>b</sup> May include other causes of death not shown above.

**2C.AGE-SPECIFIC MORTALITY**  
**Elderly mortality (ages 65 years and older)**

**Figure 2C-25**  
**Mortality Rates<sup>a</sup> by Gender and Year among Elderly 65 Years and Older, Arizona, 2012-2022**



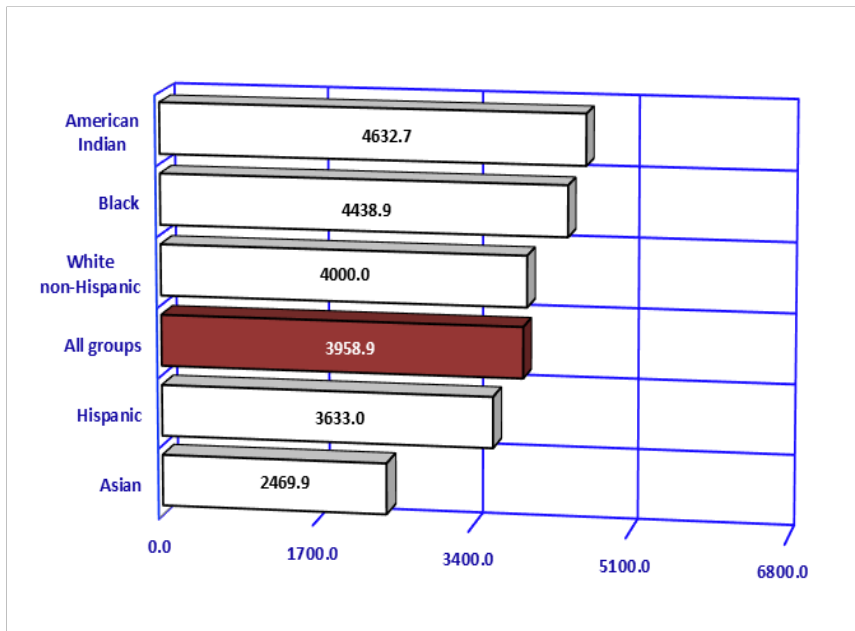
In 2022, an estimated 1,370,721 residents age 65 years and older resided in the state (**Table 10A-1**). No other age group has as great of a disproportionate gender distribution as the elderly. As a result of the higher total mortality rates for males at earlier ages, more elderly women than men were alive in 2022.

The 2022 elderly mortality rate of 3958.9 per 100,000 was 6.5 percent higher than the 2012 rate of 3,716.9 (**Table 2C-23**).

The 2022 total mortality rate among elderly females was 3.0 percent higher than their rate in 2012. The mortality rate among elderly males increased 10.0 percent during the same period (**Figure 2C-25, Table 2C-23**).

Note: <sup>a</sup> Number of deaths per 100,000 persons, 65+ years old in specified group.

**Figure 2C-26**  
**Mortality Rates<sup>a</sup> by Race/Ethnicity among Elderly 65 Years and Older, Arizona, 2022**



In 2022 the mortality rate for Arizona's American Indian elderly residents was 1.9 times that of the Asian elderly population. The mortality rate of 2,469.9 /100,000 among elderly Asians was the lowest rate among the racial/ethnic groups (**Figure 2C-26**). Hispanic or Latino elderly had the second lowest mortality rate in 2022 at 3,633.0/100,000.

Note: <sup>a</sup> Number of deaths per 100,000 persons, 65+ years old in specified group.

2C.AGE-SPECIFIC MORTALITY  
**Elderly mortality (ages 65 years and older)**

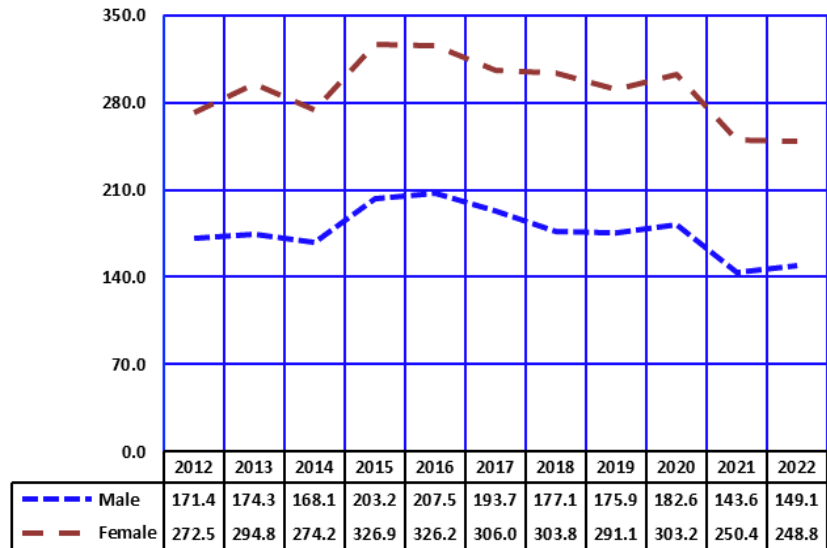
**Tables 2C-23 and 2C-24** provide mortality rates for the five causes with the greatest number of deaths over the 2012-2022 period.

In 2022, Alzheimer’s disease (2,782 deaths; **Table 2C-26**) accounted for 5.1 percent of elderly mortality. From 2021 to 2022, the mortality rate due to Alzheimer’s disease increased for males and decreased slightly for females (**Figure 2C-27**).

There were 1,842 deaths from Alzheimer’s disease among elderly females in 2022, approximately twice the number of deaths from this cause among males (940; **Table 2C-26**).

White non-Hispanic elderly accounted for 82.3 percent of the 2022 deaths from Alzheimer’s disease (based on data in **Table 2C-26**).

**Figure 2C-27**  
**Trends in Mortality Rates for Alzheimer’s Disease<sup>a</sup> by Gender and Year among Elderly 65 Years and Older, Arizona, 2012-2022**

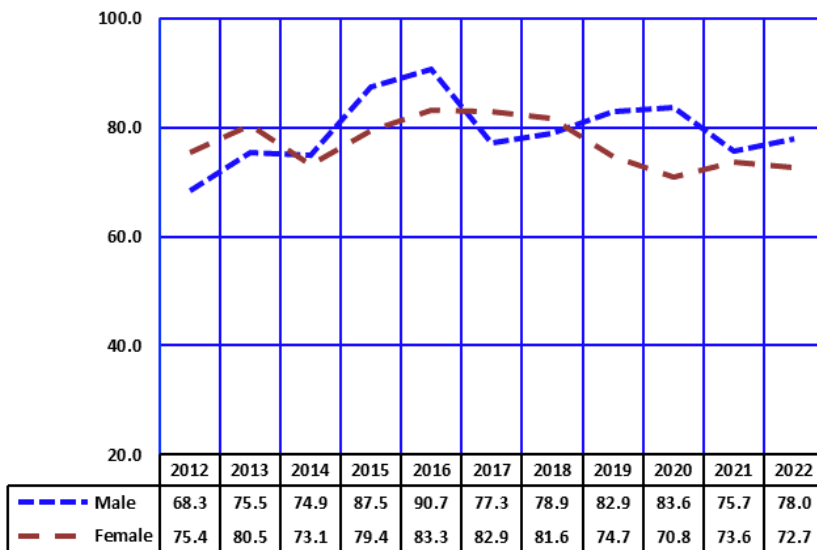


Note: <sup>a</sup> Number of deaths due to Alzheimer’s disease per 100,000 persons, 65+ years old in specified group.

**Figure 2C-28**  
**Trends in Mortality Rates for Falls and Fall-related Injuries<sup>a</sup> by Gender and Year among Elderly 65 Years and Older, Arizona, 2012-2022**

Among unintentional injury deaths unrelated to motor vehicles, Arizona’s elderly experienced high mortality from *fall-related injuries* (**Figure 2C-28**). In 2022, 1,030 elderly Arizonans 65 years or older died from *fall-related injuries*, compared to 1,005 in 2021, representing a 2.5 percent increase between these two years (**Table 2C-26**).

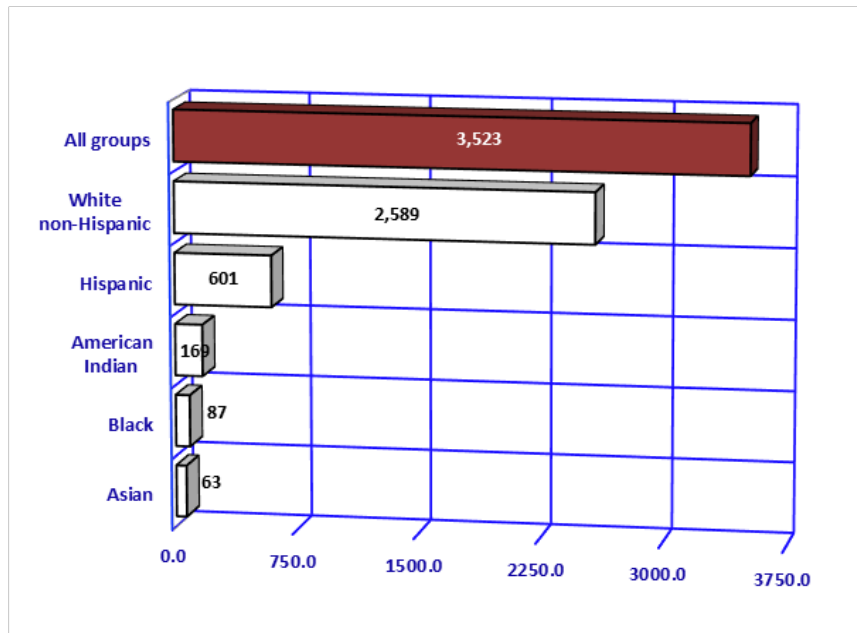
In 2022, Arizonans aged 85 years old or older experienced the largest number of *fall-related deaths* (496), followed by Arizonans 75-84 years old (350), and those aged 65-74 years old (184).



Note: <sup>a</sup> Number of deaths due to falls and fall-related injuries per 100,000 persons, 65+ years old in specified group.

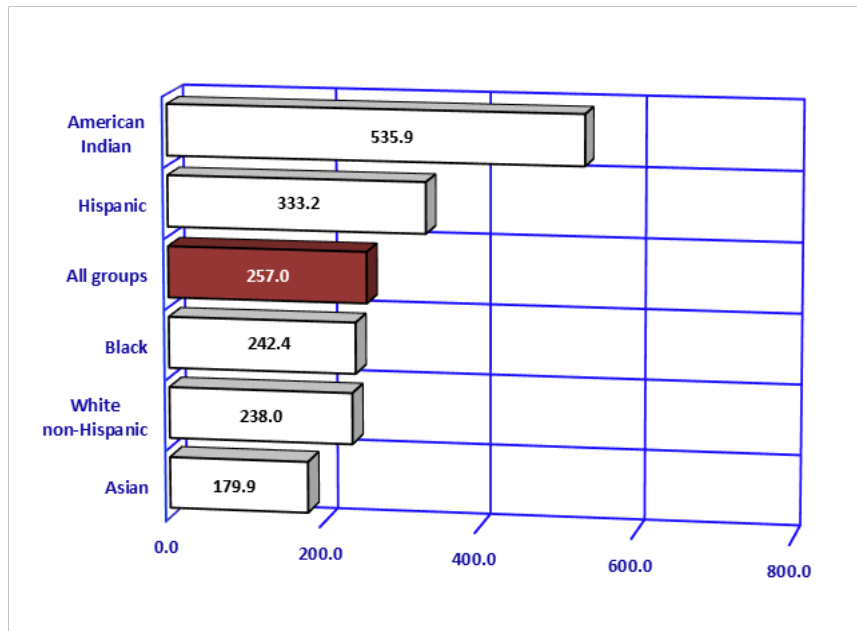
2C.AGE-SPECIFIC MORTALITY  
**Elderly mortality (ages 65 years and older)**

**Figure 2C-29**  
**Mortality for COVID-19 by Race/Ethnicity among Elderly 65 Years and Older, Arizona, 2022**



In 2022, 3523 Arizona resident elderly adults 65 years of age and older died from COVID-19. Among the deaths, people who identified as White, non-Hispanic represented the largest amount of deaths compared to other race and ethnicities with 73.5% (n=2,589) of deaths in this age group. The least impacted race were Asians with 1.8% (n=63) of deaths in this age group (**Figure 2C-29, Table 2C-26**).

**Figure 2C-30**  
**Mortality Rates<sup>a</sup> for COVID-19 by Race/Ethnicity among Elderly 65 Years and Older, Arizona, 2022**



The age-specific mortality rate of Arizona resident elderly adults 65 years of age and older found the highest risk among American Indians with a rate of 535.9 deaths per 100,000 people aged 65 years and older. This was approximately 2.1 times the rate among all race/ethnicity groups (257.0 deaths per 100,000 people aged 65+). People who identified as Hispanic or Latino represented the second highest group with 333.2 deaths per 100,000 people aged 65 years and older (**Figure 2C-30**).

Note: <sup>a</sup> Number of deaths due to COVID-19 per 100,000 persons, 65 years and older in specified group.



**TABLE 2C-23  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG ELDERLY (65 YEARS AND OLDER)  
BY GENDER, ARIZONA, 2012-2022**

Gender/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>MALE</b>												
Diseases of heart	1022.2	1007.0	908.6	970.0	1003.2	1002.5	984.3	961.0	1062.8	1070.0	1044.3	2.2
Malignant neoplasms	992.6	958.6	899.1	931.7	927.9	893.5	901.1	875.4	888.7	854.8	861.0	-13.3
Chronic lower respiratory diseases	319.9	302.7	290.2	308.7	298.2	288.3	280.8	265.2	260.6	238.3	236.0	-26.2
Cerebrovascular diseases	165.5	151.8	144.4	182.3	176.8	178.6	187.1	181.4	205.2	199.2	198.0	19.6
Alzheimer's disease	171.4	174.3	168.1	203.2	207.5	193.7	177.1	175.9	182.6	143.6	149.1	-13.0
ALL CAUSES	3987.4	3904.2	3883.3	3975.4	4019.0	3892.3	3932.5	3858.4	4761.0	4859.7	4387.4	10.0
(Number of all deaths)	(17,101)	(17,489)	(18,292)	(19,665)	(20,781)	(21,144)	(22,030)	(22,480)	(28,258)	(30,125)	(27,660)	61.7
<b>FEMALE</b>												
Diseases of heart	794.5	763.7	694.9	756.2	741.0	743.4	726.4	705.3	774.3	748.7	744.2	-6.3
Malignant neoplasms	678.6	697.9	628.1	670.5	642.2	628.7	601.8	624.4	627.5	607.5	625.4	-7.8
Alzheimer's disease	272.5	294.8	274.2	3269.0	326.2	306.0	303.8	291.1	303.2	250.4	248.8	-8.7
Cerebrovascular diseases	208.0	198.1	191.1	210.5	218.4	208.0	215.3	207.8	224.3	221.5	225.3	8.3
Chronic lower respiratory diseases	268.6	283.6	248.3	286.8	288.1	271.7	265.6	248.2	240.3	227.8	224.5	-16.4
ALL CAUSES	3489.9	3468.6	3378.3	3412.6	3371.1	3312.5	3293.6	3215.7	3881.4	3832.1	3594.1	3.0
(Number of all deaths)	(17,855)	(18,494)	(18,718)	(19,815)	(20,408)	(21,055)	(21,542)	(21,918)	(27,025)	(27,894)	(26,606)	49.0
<b>TOTAL</b>												
Diseases of heart	898.3	874.8	793.1	854.5	861.8	862.8	845.4	823.1	907.0	896.5	882.2	-1.8
Malignant neoplasms	821.8	816.9	752.6	790.7	773.8	750.7	739.9	740.1	747.7	721.2	733.8	-10.7
Chronic lower respiratory diseases	292.0	292.3	267.6	296.8	292.8	279.3	272.6	256.0	249.6	232.6	229.8	-21.3
Cerebrovascular diseases	188.6	176.9	169.6	197.8	199.2	194.4	202.3	195.6	215.5	211.2	212.7	12.8
Alzheimer's disease	226.4	239.8	225.4	270.0	271.5	254.2	245.3	238.0	247.7	201.3	203.0	-10.3
ALL CAUSES	3716.9	3667.5	3610.4	3671.5	3669.5	3579.6	3588.4	3511.9	4286.1	4304.7	3958.9	6.5
(Number of all deaths)	(34,958)	(35,983)	(37,010)	(39,480)	(41,189)	(42,199)	(43,572)	(44,398)	(55,283)	(58,019)	(54,266)	55.2

Notes: <sup>a</sup> Rates are presented per 100,000 elderly persons 65 years and older; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); the causes of death for 2012-2022 are classified by ICD-10, replacing the Ninth Revision (ICD-9); although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-24  
MORTALITY RATES<sup>a</sup> FOR THE SELECTED FIVE LEADING CAUSES<sup>b</sup> OF DEATH AMONG ELDERLY (65 YEARS AND OLDER)  
IN URBAN AND RURAL AREAS<sup>c</sup>, ARIZONA, 2012-2022**

Area/Cause	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Diseases of heart	891.8	862.3	781.0	830.2	835.5	839.1	829.2	822.4	893.4	885.1	871.8	-2.2
Malignant neoplasms	825.5	807.6	748.7	783.6	756.6	737.1	724.0	726.2	732.2	705.1	720.5	-12.7
Cerebrovascular diseases	192.8	180.1	172.6	198.1	197.5	193.8	203.2	197.2	218.6	211.4	215.5	11.8
Chronic lower respiratory diseases	288.9	286.3	267.8	292.0	285.8	265.3	257.5	238.0	235.6	215.1	214.0	-25.9
Alzheimer's disease	251.5	272.0	252.6	291.9	286.0	262.6	253.4	249.6	254.7	207.8	208.2	-17.2
ALL CAUSES	3740.3	3663.4	3615.6	3650.2	3624.7	3531.0	3568.4	3488.5	4238.3	4220.5	3918.1	4.8
(Number of all deaths)	(27,824)	(28,442)	(29,416)	(31,179)	(32,370)	(33,146)	(34,397)	(35,062)	(43,652)	(45,392)	(42,893)	54.2
<b>RURAL</b>												
Diseases of heart	912.5	919.1	834.0	935.2	947.2	940.3	900.8	819.6	950.5	929.5	913.5	0.1
Malignant neoplasms	802.6	847.8	764.5	810.8	828.2	792.5	794.6	788.7	803.9	777.9	780.8	-2.7
Chronic lower respiratory diseases	299.6	314.0	264.3	311.1	311.2	328.6	327.6	323.4	304.0	301.2	290.2	-3.1
Cerebrovascular diseases	171.9	164.1	157.9	195.8	204.0	193.6	196.1	187.2	202.0	206.8	198.9	15.7
Alzheimer's disease	130.2	117.2	118.7	184.1	211.9	218.2	211.3	190.6	218.6	174.1	181.2	39.2
ALL CAUSES	3590.0	3665.4	3558.1	3706.3	3771.9	3708.2	3634.9	3566.0	4435.0	4588.6	4079.2	13.6
(Number of all deaths)	(7,058)	(7,505)	(7,526)	(8,196)	(8,653)	(8,905)	(9,099)	(9,241)	(11,525)	(12,494)	(11,258)	59.5
<b>TOTAL</b>												
Diseases of heart	898.3	874.8	793.1	854.5	861.8	862.8	845.4	823.1	907.0	896.5	882.2	-1.8
Malignant neoplasms	821.8	816.9	752.6	790.7	773.8	750.7	739.9	740.1	747.7	721.2	733.8	-10.7
Chronic lower respiratory diseases	292.0	292.3	267.6	296.8	292.8	279.3	272.6	256.0	249.6	232.6	229.8	-21.3
Cerebrovascular diseases	188.6	176.9	169.6	197.8	199.2	194.4	202.3	195.6	215.5	211.2	212.7	12.8
Alzheimer's disease	226.4	239.8	225.4	270.0	271.5	254.2	245.3	238.0	247.7	201.3	203.0	-10.3
ALL CAUSES	3716.9	3667.5	3610.4	3671.5	3669.5	3579.6	3588.4	3511.9	4286.1	4304.7	3958.9	6.5
(Number of all deaths)	(34,958)	(35,983)	(37,010)	(39,480)	(41,189)	(42,199)	(43,572)	(44,398)	(55,283)	(58,019)	(54,266)	55.2

Notes: <sup>a</sup> Rates are presented per 100,000 elderly persons 65 years and older; <sup>b</sup> The five causes with the greatest number of deaths over the 2012-2022 period; <sup>c</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information; records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area; the cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10); causes of death for 2012-2021 are classified by ICD-10, replacing the Ninth Revision (ICD-9); measures of comparison between ICD-9 and ICD-10 – the "comparability ratios" – for the causes of death shown in this report are provided in the **Technical Notes**; although COVID-19 was among the 5 leading causes of death, it has been excluded in this table because the ICD-10 definition had not been identified until 2020, thus there is no data for years 2012-2019 and making it impossible to show a trend and a percent change.

**TABLE 2C-25  
MORTALITY RATES<sup>a</sup> FOR THE FIVE LEADING CAUSES OF DEATH AMONG ELDERLY (65 YEARS AND OLDER)  
BY GENDER IN URBAN AND RURAL AREAS<sup>b</sup>, ARIZONA, 2012-2022**

Area/Gender	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change from 2012
<b>URBAN</b>												
Male	3980.1	3898.2	3888.6	3944.3	3960.2	3799.2	3891.3	3816.2	4695.5	4733.8	4322.2	8.6
Female	3543.8	3470.8	3388.5	3405.1	3344.3	3306.7	3297.9	3214.4	3856.4	3792.2	3580.9	1.0
TOTAL	3740.3	3663.4	3615.6	3650.2	3624.7	3531.0	3568.4	3488.5	4238.3	4220.5	3918.1	4.8
<b>RURAL</b>												
Male	3952.6	3895.3	3826.7	4027.0	4133.9	4142.9	4043.4	3971.6	4952.7	5262.3	4575.5	15.8
Female	3256.0	3454.5	3309.8	3409.1	3435.2	3304.1	3253.6	3188.9	3956.9	3966.8	3621.2	11.2
TOTAL	3590.0	3665.4	3558.1	3706.3	3771.9	3708.2	3634.9	3566.0	4435.0	4588.6	4079.2	13.6
<b>TOTAL</b>												
Male	3987.4	3904.2	3883.3	3975.4	4019.0	3892.3	3932.5	3858.4	4761.0	4859.7	4387.4	10.0
Female	3489.9	3468.6	3378.3	3412.6	3371.1	3312.5	3293.6	3215.7	3881.4	3832.1	3594.1	3.0
TOTAL	3716.9	3667.5	3610.4	3671.5	3669.5	3579.6	3588.4	3511.9	4286.1	4304.7	3958.9	6.5

Notes: <sup>a</sup> Rates are presented per 100,000 persons 65 years and older; <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; see **Technical Notes** for more information.

**TABLE 2C-26  
LEADING CAUSES OF DEATH AMONG ELDERLY (65 YEARS AND OLDER) BY GENDER, AREA, AND RACE/ETHNICITY,  
ARIZONA, 2022**

Cause of death	Gender		Area <sup>a</sup>		Race/ethnicity							
	Total	Male	Female	Urban	Rural	Unknown	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Refused/Unknown
Diseases of heart	12,093	6,584	5,509	9,544	2,521	28	10,042	1,220	339	236	176	80
Malignant neoplasms	10,058	5,428	4,630	7,888	2,155	15	8,204	1,095	304	224	187	44
Malignant neoplasm of trachea, bronchus and lung	2,042	1,068	974	1,585	453	*	1,732	168	62	19	49	12
Malignant neoplasm of lymphoid, hematopoietic and related tissue	1,067	635	432	860	207	0	894	102	28	22	16	*
Malignant neoplasm of pancreas	832	436	396	687	144	*	682	83	27	20	18	*
Malignant neoplasm of colon, rectum, and anus	824	451	373	631	193	0	647	105	30	26	12	*
Malignant neoplasm of prostate	681	681	0	521	158	*	563	65	29	11	11	*
Malignant neoplasm of breast	675	8	667	542	131	*	556	65	27	11	12	*
COVID-19	3,523	2,062	1,461	2,711	808	*	2,589	601	87	169	63	14
Chronic lower respiratory diseases	3,150	1,488	1,662	2,343	801	6	2,844	168	71	28	23	16
Cerebrovascular diseases	2,916	1,248	1,668	2,359	549	8	2,305	393	99	54	58	7
Alzheimer's disease	2,782	940	1,842	2,279	500	*	2,290	335	75	38	39	*
Accidents (unintentional injury)	1,835	1,019	816	1,422	401	12	1,460	212	50	68	29	16
Falls	1,030	492	538	839	190	*	878	100	7	21	20	*
Motor vehicle accidents	290 <sup>†</sup>	200	89	223	63	*	200	51	13	17	*	*
Diabetes	1,659	944	715	1,328	328	*	1,045	366	76	130	35	7
Parkinson's disease	979	620	359	806	173	0	843	86	19	18	11	*
Essential (primary) hypertension and hypertensive disease	936	438	498	784	151	*	685	158	53	18	15	7
Influenza and pneumonia	730	389	341	562	165	*	545	110	16	40	11	8
Nephritis, nephrotic syndrome and nephrosis	664	353	311	489	175	0	450	138	26	35	10	*
Septicemia	360	182	178	288	69	*	263	60	12	14	7	*
<b>Total, all causes<sup>b</sup></b>	<b>54,266</b>	<b>27,660</b>	<b>26,606</b>	<b>42,893</b>	<b>11,258</b>	<b>115</b>	<b>43,516</b>	<b>6,553</b>	<b>1,593</b>	<b>1,461</b>	<b>865</b>	<b>278</b>

Notes: \* Cell suppressed due to count less than 6; <sup>†</sup> Sum rounded to nearest tens unit due to addend less than 6; <sup>a</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas; <sup>b</sup> May include other causes of death not shown above.

# **COMPARATIVE CAUSE-SPECIFIC MORTALITY BY AGE GROUP**

**TABLE 2C-27  
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Un-known
Total, all causes	73,861	483	229	358	5,427	13,095	54,266	3
Salmonella infections	0†	0	0	0	0	0	*	0
Shigellosis and amebiasis	0	0	0	0	0	0	0	0
Certain other intestinal infections	240†	6	0	0	*	33	197	0
Enterocolitis due to Clostridium difficile	150†	0	0	0	*	17	124	0
Tuberculosis	10	0	0	0	0	0	10	0
Respiratory tuberculosis	7	0	0	0	0	0	7	0
Other tuberculosis	0†	0	0	0	0	0	*	0
Whooping cough	0	0	0	0	0	0	0	0
Scarlet fever and erysipelas	0	0	0	0	0	0	0	0
Meningococcal infection	0†	0	0	0	0	0	0	0
Septicemia	520†	*	*	*	25	127	360	0
Syphilis	0	0	0	0	0	0	0	0
Acute poliomyelitis	0	0	0	0	0	0	0	0
Arthropod-borne encephalitis	0	0	0	0	0	0	0	0
Measles	0	0	0	0	0	0	0	0
Viral hepatitis	77	0	0	0	7	33	37	0
Human immunodeficiency virus (HIV) disease	100†	*	0	0	34	51	17	0
Malaria	0	0	0	0	0	0	0	0
Other and unspecified infectious and parasitic diseases	420†	*	*	0	28	89	297	0
Malignant neoplasms	13,140†	*	21	21	360	2,674	10,058	0
Malignant neoplasm of lip, oral cavity and pharynx	240†	0	0	0	*	70	172	0
Malignant neoplasm of esophagus	340†	0	0	0	*	77	256	0
Malignant neoplasm of stomach	226	0	0	0	16	62	148	0
Malignant neoplasm of colon, rectum, and anus	1,210†	0	0	*	52	333	824	0
Malignant neoplasm of liver and intrahepatic bile ducts	660†	*	0	0	9	154	495	0
Malignant neoplasm of pancreas	1,060	0	0	0	18	210	832	0
Malignant neoplasm of larynx	65	0	0	0	0	14	51	0
Malignant neoplasm of trachea, bronchus and lung	2,483	0	0	0	17	424	2,042	0
Malignant melanoma of skin	218	0	0	0	11	44	163	0
Malignant neoplasm of breast	974	0	0	0	44	255	675	0
Malignant neoplasm of cervix uteri	93	0	0	0	20	41	32	0
Malignant neoplasm of corpus uteri and uterus, part unspecified	270†	0	0	0	*	75	189	0
Malignant neoplasm of ovary	340†	0	0	*	9	112	216	0
Malignant neoplasm of prostate	760†	0	0	0	*	72	681	0
Malignant neoplasm of kidney and renal pelvis	320†	0	0	0	*	77	242	0
Malignant neoplasm of bladder	390†	0	0	0	*	51	333	0

**TABLE 2C-27 (continued)  
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Unknown
Malignant neoplasm of meninges, brain and other parts of central nervous system	389	0	9	8	31	100	241	0
Malignant neoplasm of lymphoid, hematopoietic and related tissue	1,300†	0	*	*	52	171	1,067	0
Hodgkin's disease	30†	0	0	0	*	7	15	0
Non-Hodgkin's lymphoma	480†	0	*	*	13	65	395	0
Leukemia	520†	0	*	*	31	67	413	0
Multiple myeloma and immunoproliferative neoplasms	270†	0	0	0	*	32	239	0
Other and unspecified malignant neoplasms of lymphoid tissue	10†	0	0	0	0	0	*	0
All other and unspecified malignant neoplasms	1,806	0	7	6	62	332	1,399	0
In situ neoplasms	360†	*	*	*	10	52	298	0
Anemias	80†	0	0	0	*	9	70	0
Diabetes	2,420†	0	*	*	111	646	1,659	0
Nutritional deficiencies	850†	*	0	0	*	37	813	0
Malnutrition	810†	*	0	0	*	34	777	0
Other nutritional deficiencies	40†	0	0	0	0	*	36	0
Obesity	250†	0	0	*	48	77	122	0
Meningitis	20†	0	0	0	*	7	10	0
Parkinson's disease	1,005	0	0	0	0	26	979	0
Alzheimer's disease	2,818	0	0	0	0	36	2,782	0
Major cardiovascular diseases	19,576	8	12	7	365	2,792	16,392	0
Diseases of heart	14,530	7	8	6	268	2,148	12,093	0
Acute rheumatic fever and chronic rheumatic heart disease	100†	0	0	0	*	21	74	0
Hypertensive heart disease	2,029	0	0	0	43	289	1,697	0
Hypertensive heart and renal disease	260†	0	0	0	*	19	235	0
Ischemic heart disease	8,230†	0	*	0	90	1,248	6,888	0
Acute myocardial infarction	1,786	0	0	0	23	316	1,447	0
Other acute ischemic heart disease	70†	0	0	0	*	*	65	0
Other forms of chronic ischemic heart disease	6,370†	0	*	*	66	927	5,376	0
Atherosclerotic cardiovascular disease	1,800†	0	*	0	41	513	1,248	0
All other forms of chronic ischemic heart disease	4,567	0	0	0	25	414	4,128	0
Other heart diseases	3,917	7	7	6	127	571	3,199	0
Acute and subacute endocarditis	40†	*	0	*	6	14	20	0
Diseases of pericardium and acute myocarditis	30†	0	*	0	0	6	19	0
Heart failure	1,100†	0	*	0	13	113	976	0
All other forms of heart disease	2,750†	6	*	*	108	438	2,184	0
Essential (primary) hypertension and hypertensive renal disease	1,105	0	0	0	21	148	936	0
Cerebrovascular diseases	3,380†	0	*	*	57	399	2,916	0
Atherosclerosis	117	0	0	0	0	10	107	0

TABLE 2C-27 (continued)  
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2022

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Unknown
Other diseases of circulatory system	450†	*	0	0	19	87	339	0
Aortic aneurysm and dissection	226	0	0	0	13	59	154	0
Other disease of arteries, arterioles and capillaries	220†	*	0	0	6	28	185	0
Other disorders of circulatory system	140†	0	0	*	14	48	74	0
Influenza and pneumonia	960†	*	*	*	44	174	730	0
Influenza	100†	*	*	0	8	21	62	0
Pneumonia	860†	*	*	*	36	153	668	0
COVID-19	4,600†	*	6	8	188	871	3,523	0
Other acute lower respiratory infections	10†	*	0	0	0	0	*	0
Acute bronchiolitis	10†	*	0	0	0	0	0	0
Unspecified acute lower respiratory infection	0†	0	0	0	0	0	*	0
Chronic lower respiratory diseases	3,570†	0	*	0	19	399	3,150	0
Bronchitis, chronic and unspecified	10	0	0	0	0	0	10	0
Emphysema	210†	0	0	0	*	29	181	0
Asthma	100†	0	*	0	11	32	49	0
Other chronic lower respiratory diseases	3,255	0	0	0	7	338	2,910	0
Pneumoconioses and chemical effects	6	0	0	0	0	0	6	0
Pneumonitis due to solids and liquids	250†	0	*	0	11	39	202	0
Other disease of respiratory system	1,080†	*	*	0	28	147	894	0
Peptic ulcer	110†	0	0	0	*	24	85	0
Diseases of appendix	10†	0	0	0	*	*	6	0
Hernia	50†	0	0	0	*	6	42	0
Chronic liver disease and cirrhosis	1,484	0	0	0	274	643	567	0
Alcoholic liver disease	862	0	0	0	212	413	237	0
Other chronic liver disease and cirrhosis	622	0	0	0	62	230	330	0
Cholelithiasis and other disorders of gallbladder	90†	0	0	0	*	9	81	0
Nephritis, nephrotic syndrome and nephrosis	830†	0	0	*	23	144	664	0
Acute and rapidly progressive nephritic and nephrotic syndrome	12	0	0	0	0	0	12	0
Chronic glomerulonephritis	10†	0	0	*	*	*	11	0
Renal failure	805	0	0	0	22	143	640	0
Others disorders of kidney	0†	0	0	0	0	0	*	0
Infections of kidney	40†	0	*	0	*	*	33	0
Hyperplasia of prostate	20†	0	0	0	0	*	15	0
Inflammatory diseases of female pelvic organs	0†	0	0	0	*	*	*	0
Pregnancy, childbirth and the puerperium	30†	0	0	*	25	0	0	0
Pregnancy with abortive outcome	0†	0	0	0	*	0	0	0
Other complications of pregnancy, childbirth and the puerperium	30†	0	0	*	24	0	0	0



**TABLE 2C-27 (continued)  
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Un-known
Perinatal conditions	230†	228	*	*	*	0	0	0
Congenital anomalies, deformations and chromosomal abnormalities	253	112	18	7	31	53	32	0
Symptoms, signs, abnormal findings	750†	42	7	*	73	125	494	*
Total accidents	5,868	30	79	142	2,118	1,664	1,835	0
Transport accidents	1,340†	*	41	78	560	373	289	0
Motor vehicle accidents	1,450†	*	44	79	584	414	321	0
Other land transport accidents	40†	*	*	*	9	14	13	0
Water, air, space	60†	0	*	0	15	27	19	0
Nontransport accidents	4,422	26	35	63	1,534	1,250	1,514	0
Falls	1,170†	0	0	*	29	112	1,030	0
Accidental discharge of firearms	10†	0	0	*	6	*	0	0
Accidental drowning and submersion	130†	*	23	*	32	32	35	0
Accidental exposure to smoke, fire and flames	40†	0	0	*	6	16	18	0
Accidental poisoning	2,530†	*	*	51	1,384	934	159	0
Other and unspecified nontransport accidents	540†	24	7	*	77	153	272	0
Intentional self-harm (suicide)	1,594	0	9	70	635	479	401	0
By discharge of firearms	980†	0	*	30	354	285	304	0
By other means	620†	0	*	40	281	194	97	0
Assault (homicide)	630†	*	15	69	367	130	39	0
By discharge of firearms	487	0	8	67	307	83	22	0
By other means	140†	*	7	*	60	47	17	0
Legal intervention	40†	0	0	*	24	8	*	0
Events of undetermined intent	160†	*	13	*	66	50	24	0
Discharge of firearms	20†	0	*	*	8	*	*	0
Other and unspecified events of undetermined intent	140†	*	11	*	58	47	23	0
Operations of war	0	0	0	0	0	0	0	0
Complications of medical and surgical care	81	0	0	0	6	20	55	0
Injury by firearms	1,527	0	14	104	699	382	328	0
Drug-induced deaths	2,770†	*	12	58	1,443	1,041	214	0
Opioid-induced deaths	1,927	0	11	52	1,164	607	93	0
Alcohol-induced deaths	1,610†	0	*	*	426	792	393	0

Notes: \* Cell suppressed due to count less than 6; † Sum rounded to nearest tens unit due to addend less than 6; the causes of death in this table are classified by the Tenth Revision of the International Classification of Diseases (ICD-10).

**TABLE 2C-28  
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES<sup>a</sup> BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adoles- cents 15-19	Young adults 20-44	Middle- aged adults 45-64	Elderly 65+
Total, all causes	996.9	616.4	17.9	74.4	221.9	747.3	3958.9
Salmonella infections	0.0	0.0	0.0	0.0	0.0	0.0	**
Shigellosis and amebiasis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Certain other intestinal infections	3.3	7.7	0.0	0.0	**	1.9	14.4
Enterocolitis due to Clostridium difficile	2.0	0.0	0.0	0.0	**	1.0	9.1
Tuberculosis	0.1	0.0	0.0	0.0	0.0	0.0	0.7
Respiratory tuberculosis	0.1	0.0	0.0	0.0	0.0	0.0	0.5
Other tuberculosis	0.0	0.0	0.0	0.0	0.0	0.0	**
Whooping cough	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scarlet fever and erysipelas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal infection	0.0	0.0	0.0	0.0	0.0	**	0.0
Septicemia	7.0	**	**	**	1.0	7.2	26.3
Syphilis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acute poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arthropod-borne encephalitis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Viral hepatitis	1.0	0.0	0.0	0.0	0.3	1.9	2.7
Human immunodeficiency virus (HIV) disease	1.4	**	0.0	0.0	1.4	2.9	1.2
Malaria	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other and unspecified infectious and parasitic diseases	5.7	**	**	0.0	1.1	5.1	21.7
Malignant neoplasms	177.3	**	1.6	4.4	14.7	152.6	733.8
Malignant neoplasm of lip, oral cavity and pharynx	3.3	0.0	0.0	0.0	**	4.0	12.5
Malignant neoplasm of esophagus	4.6	0.0	0.0	0.0	**	4.4	18.7
Malignant neoplasm of stomach	3.1	0.0	0.0	0.0	0.7	3.5	10.8
Malignant neoplasm of colon, rectum, and anus	16.3	0.0	0.0	**	2.1	19.0	60.1
Malignant neoplasm of liver and intrahepatic bile ducts	8.9	**	0.0	0.0	0.4	8.8	36.1
Malignant neoplasm of pancreas	14.3	0.0	0.0	0.0	0.7	12.0	60.7
Malignant neoplasm of larynx	0.9	0.0	0.0	0.0	0.0	0.8	3.7
Malignant neoplasm of trachea, bronchus and lung	33.5	0.0	0.0	0.0	0.7	24.2	149.0
Malignant melanoma of skin	2.9	0.0	0.0	0.0	0.5	2.5	11.9
Malignant neoplasm of breast	13.1	0.0	0.0	0.0	1.8	14.6	49.2
Malignant neoplasm of cervix uteri	2.5	0.0	0.0	0.0	1.7	4.6	4.3
Malignant neoplasm of corpus uteri and uterus, part unspecified	7.2	0.0	0.0	0.0	**	8.3	25.5
Malignant neoplasm of ovary	9.1	0.0	0.0	**	0.8	12.5	29.2
Malignant neoplasm of prostate	20.5	0.0	0.0	0.0	**	8.4	108.0
Malignant neoplasm of kidney and renal pelvis	4.3	0.0	0.0	0.0	**	4.4	17.7
Malignant neoplasm of bladder	5.2	0.0	0.0	0.0	**	2.9	24.3

**TABLE 2C-28 (continued)  
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES<sup>a</sup> BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adoles- cents 15-19	Young adults 20-44	Middle- aged adults 45-64	Elderly 65+
Malignant neoplasm of meninges, brain and other parts of central nervous system	5.3	0.0	0.7	1.7	1.3	5.7	17.6
Malignant neoplasm of lymphoid, hematopoietic and related tissue	17.5	0.0	**	**	2.1	9.8	77.8
Hodgkin's disease	0.4	0.0	0.0	0.0	**	0.4	1.1
Non-Hodgkin's lymphoma	6.4	0.0	**	**	0.5	3.7	28.8
Leukemia	7.0	0.0	**	**	1.3	3.8	30.1
Multiple myeloma and immunoproliferative neoplasms	3.7	0.0	0.0	0.0	**	1.8	17.4
Other and unspecified malignant neoplasms of lymphoid tissue	0.1	0.0	0.0	0.0	0.0	0.0	**
All other and unspecified malignant neoplasm	24.4	0.0	0.5	1.2	2.5	18.9	102.1
In situ neoplasms	4.9	**	**	**	0.4	3.0	21.7
Anemias	1.1	0.0	0.0	0.0	**	0.5	5.1
Diabetes	32.6	0.0	**	**	4.5	36.9	121.0
Nutritional deficiencies	11.5	**	0.0	0.0	**	2.1	59.3
Malnutrition	11.0	**	0.0	0.0	**	1.9	56.7
Other nutritional deficiencies	0.5	0.0	0.0	0.0	0.0	**	2.6
Obesity	3.3	0.0	0.0	**	2.0	4.4	8.9
Meningitis	0.3	0.0	0.0	0.0	**	0.4	0.7
Parkinson's disease	13.6	0.0	0.0	0.0	0.0	1.5	71.4
Alzheimer's disease	38.0	0.0	0.0	0.0	0.0	2.1	203.0
Major cardiovascular diseases	264.2	10.2	0.9	1.5	14.9	159.3	1195.9
Diseases of heart	196.1	8.9	0.6	1.2	11.0	122.6	882.2
Acute rheumatic fever and chronic rheumatic heart disease	1.3	0.0	0.0	0.0	**	1.2	5.4
Hypertensive heart disease	27.4	0.0	0.0	0.0	1.8	16.5	123.8
Hypertensive heart and renal disease	3.5	0.0	0.0	0.0	**	1.1	17.1
Ischemic heart disease	111.0	0.0	**	0.0	3.7	71.2	502.5
Acute myocardial infarction	24.1	0.0	0.0	0.0	0.9	18.0	105.6
Other acute ischemic heart disease	1.0	0.0	0.0	0.0	**	**	4.7
Other forms of chronic ischemic heart disease	86.0	0.0	**	0.0	2.7	52.9	392.2
Atherosclerotic cardiovascular disease	24.3	0.0	**	0.0	1.7	29.3	91.1
All other forms of chronic ischemic heart disease	61.6	0.0	0.0	0.0	1.0	23.6	301.2
Other heart diseases	52.9	8.9	0.5	1.2	5.2	32.6	233.4
Acute and subacute endocarditis	0.6	**	0.0	**	0.2	0.8	1.5
Diseases of pericardium and acute myocarditis	0.4	0.0	**	0.0	0.0	0.3	1.4
Heart failure	14.9	0.0	**	0.0	0.5	6.4	71.2
All other forms of heart disease	37.1	7.7	**	**	4.4	25.0	159.3
Essential (primary) hypertension and hypertensive renal disease	14.9	0.0	0.0	0.0	0.9	8.4	68.3
Cerebrovascular diseases	45.6	0.0	**	**	2.3	22.8	212.7
Atherosclerosis	1.6	0.0	0.0	0.0	0.0	0.6	7.8

TABLE 2C-28 (continued)  
**COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES<sup>a</sup> BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+
Other diseases of circulatory system	6.0	**	0.0	0.0	0.8	5.0	24.7
Aortic aneurysm and dissection	3.1	0.0	0.0	0.0	0.5	3.4	11.2
Other disease of arteries, arterioles and capillaries	3.0	**	0.0	0.0	0.2	1.6	13.5
Other disorders of circulatory system	1.9	0.0	0.0	**	0.6	2.7	5.4
Influenza and pneumonia	12.9	**	**	**	1.8	9.9	53.3
Influenza	1.3	**	**	0.0	0.3	1.2	4.5
Pneumonia	11.7	**	**	**	1.5	8.7	48.7
COVID-19	62.1	**	0.5	1.7	7.7	49.7	257.0
Other acute lower respiratory infections	0.1	**	0.0	0.0	0.0	0.0	**
Acute bronchiolitis	0.1	**	0.0	0.0	0.0	0.0	0.0
Unspecified acute lower respiratory infection	0.0	0.0	0.0	0.0	0.0	0.0	**
Chronic lower respiratory diseases	48.2	0.0	**	0.0	0.8	22.8	229.8
Bronchitis, chronic and unspecified	0.1	0.0	0.0	0.0	0.0	0.0	0.7
Emphysema	2.8	0.0	0.0	0.0	**	1.7	13.2
Asthma	1.3	0.0	**	0.0	0.5	1.8	3.6
Other chronic lower respiratory diseases	43.9	0.0	0.0	0.0	0.3	19.3	212.3
Pneumoconioses and chemical effects	0.1	0.0	0.0	0.0	0.0	0.0	0.4
Pneumonitis due to solids and liquids	3.4	0.0	**	0.0	0.5	2.2	14.7
Other disease of respiratory system	14.5	**	**	0.0	1.1	8.4	65.2
Peptic ulcer	1.5	0.0	0.0	0.0	**	1.4	6.2
Diseases of appendix	0.1	0.0	0.0	0.0	**	**	0.4
Hernia	0.7	0.0	0.0	0.0	**	0.3	3.1
Chronic liver disease and cirrhosis	20.0	0.0	0.0	0.0	11.2	36.7	41.4
Alcoholic liver disease	11.6	0.0	0.0	0.0	8.7	23.6	17.3
Other chronic liver disease and cirrhosis	8.4	0.0	0.0	0.0	2.5	13.1	24.1
Cholelithiasis and other disorders of gallbladder	1.2	0.0	0.0	0.0	**	0.5	5.9
Nephritis, nephrotic syndrome and nephrosis	11.2	0.0	0.0	**	0.9	8.2	48.4
Acute and rapidly progressive nephritic and nephrotic syndrome	0.2	0.0	0.0	0.0	0.0	0.0	0.9
Chronic glomerulonephritis	0.2	0.0	0.0	**	**	**	0.8
Renal failure	10.9	0.0	0.0	0.0	0.9	8.2	46.7
Others disorders of kidney	0.0	0.0	0.0	0.0	0.0	0.0	**
Infections of kidney	0.5	0.0	**	0.0	**	**	2.4
Hyperplasia of prostate	0.4	0.0	0.0	0.0	0.0	**	2.4
Inflammatory diseases of female pelvic organs	0.1	0.0	0.0	0.0	**	**	**
Pregnancy, childbirth and the puerperium	0.7	0.0	0.0	**	2.1	0.0	0.0
Pregnancy with abortive outcome	0.0	0.0	0.0	0.0	**	0.0	0.0
Other complications of pregnancy, childbirth and the puerperium	0.7	0.0	0.0	**	2.0	0.0	0.0

**TABLE 2C-28 (continued)  
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES<sup>a</sup> BY AGE GROUP, ARIZONA, 2022**

	All ages	Infants <1	Children 1-14	Adoles- cents 15-19	Young adults 20-44	Middle- aged adults 45-64	Elderly 65+
Perinatal conditions	3.1	291.0	**	**	**	0.0	0.0
Congenital anomalies, deformations and chromosomal abnormalities	3.4	142.9	1.4	1.5	1.3	3.0	2.3
Symptoms, signs, abnormal findings	10.1	53.6	0.5	**	3.0	7.1	36.0
Total accidents	79.2	38.3	6.2	29.5	86.6	95.0	133.9
Transport accidents	19.5	**	3.4	16.4	23.9	23.6	23.4
Motor vehicle accidents	18.1	**	3.2	16.2	22.9	21.3	21.1
Other land transport accidents	0.5	**	**	**	0.4	0.8	1.0
Water, air, space	0.9	0.0	**	0.0	0.6	1.5	1.4
Nontransport accidents	59.7	33.2	2.7	13.1	62.7	71.3	110.5
Falls	15.8	0.0	0.0	**	1.2	6.4	75.1
Accidental discharge of firearms	0.2	0.0	0.0	**	0.2	**	0.0
Accidental drowning and submersion	1.7	**	1.8	**	1.3	1.8	2.6
Accidental exposure to smoke, fire and flames	0.6	0.0	0.0	**	0.2	0.9	1.3
Accidental poisoning	34.2	**	**	10.6	56.6	53.3	11.6
Other and unspecified nontransport accidents	7.2	30.6	0.5	**	3.1	8.7	19.8
Intentional self-harm (suicide)	21.5	0.0	0.7	14.5	26.0	27.3	29.3
By discharge of firearms	13.2	0.0	**	6.2	14.5	16.3	22.2
By other means	8.3	0.0	**	8.3	11.5	11.1	7.1
Assault (homicide)	8.4	**	1.2	14.3	15.0	7.4	2.9
By discharge of firearms	6.6	0.0	0.6	13.9	12.6	4.7	1.6
By other means	1.9	**	0.5	**	2.5	2.7	1.2
Legal intervention	0.5	0.0	0.0	**	1.0	0.5	**
Events of undetermined intent	2.2	**	1.0	**	2.7	2.9	1.8
Discharge of firearms	0.2	0.0	**	**	0.3	**	**
Other and unspecified events of undetermined intent	1.9	**	0.9	**	2.4	2.7	1.7
Operations of war	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Complications of medical and surgical care	1.1	0.0	0.0	0.0	0.2	1.1	4.0
Injury by firearms <sup>b</sup>	20.6	0.0	1.1	21.6	28.6	21.8	23.9
Drug-induced deaths <sup>b</sup>	37.4	**	0.9	12.0	59.0	59.4	15.6
Opioid-induced deaths	26.0	0.0	0.9	10.8	47.6	34.6	6.8
Alcohol-induced deaths <sup>b</sup>	21.8	0.0	**	**	17.4	45.2	28.7

Notes: \*\* Cell suppressed due to rate/ratio/percent based on non-zero count less than 6; <sup>a</sup> The rates for infants <1 year of age are per 100,000 births; all other rates are per 100,000 population in specified group; the rates for malignant neoplasm of cervix uteri, corpus uteri, ovary, inflammatory disease of female pelvic organs and complications of pregnancy are per 100,000 females; the rates for prostate cancer and hyperplasia of prostate are per 100,000 males; <sup>b</sup> Included in selected categories above.





## 2D.

### **PATTERNS OF PREMATURE MORTALITY**

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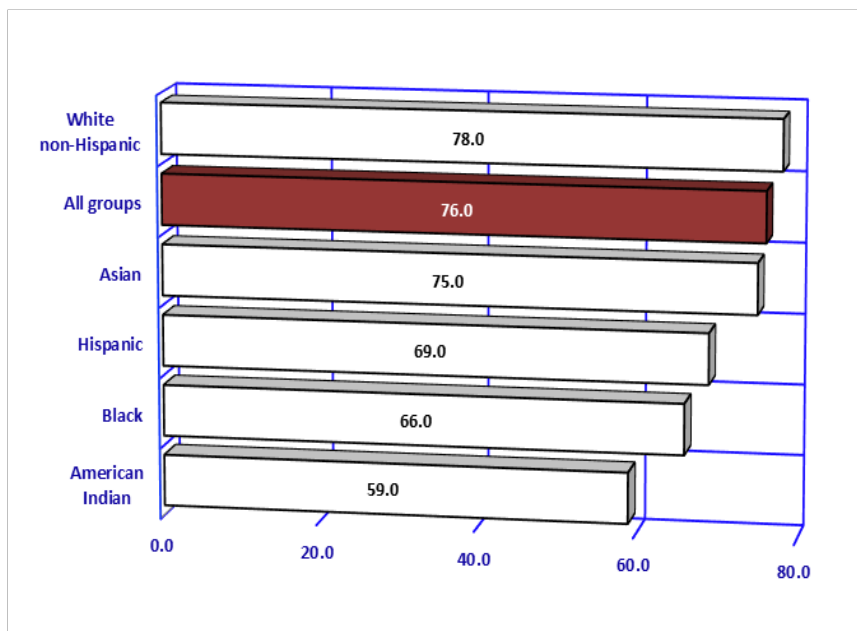
In 2022, among the race/ethnic minority groups (Hispanic or Latino, Black or African American, American Indian or Alaska Native, Asian or Pacific Islander), people younger than 25 years represented 41.4 percent of the group total (n= 3,335,924), while among White non-Hispanics the same age demographic accounted for 23.6 percent of the group total (n= 4,073,265). In contrast, people aged 65 years and older accounted for 26.7 percent of White non-Hispanics, but only 8.5 percent of all ethnic minority groups combined (percentages based on race-and-age-specific population denominators in **Table 10C-1**).

Arizona's population distribution by age and race/ethnicity is related to patterns of mortality among these subgroups. In 2022, of all deaths among the elderly (65 years and older), 80.2 percent were White non-Hispanics, 12.1 percent were Hispanic or Latino, with the remaining three racial/ethnic groups comprising only 7.2 percent of all deaths in this age group (**Table 2C-26**). Looking at younger ages, Native American children comprised only 4.9 percent of Arizona's population age 1-14, but accounted for 12.7 percent of all childhood deaths. Native American adolescents (ages 15-19) represented only 4.8 percent of all adolescents, but accounted for 11.5 percent of all adolescent deaths. Finally, Native American young adults (ages 20-44) represented 4.5 percent of all young adults but comprised 17.3 percent of all young adult deaths. In summary, Arizona's racial/ethnic minority groups tend to experience mortality earlier in life than Arizona's White non-Hispanics.

Beginning with the 2005 edition of the report, information about the arithmetic mean age at death was supplemented with information about the median age, or the age in the center of the distribution when sorted by age (see **Table 2D-1**). The median age is higher than the arithmetic mean age in negatively skewed distributions.

## 2D. PATTERNS OF PREMATURE MORTALITY

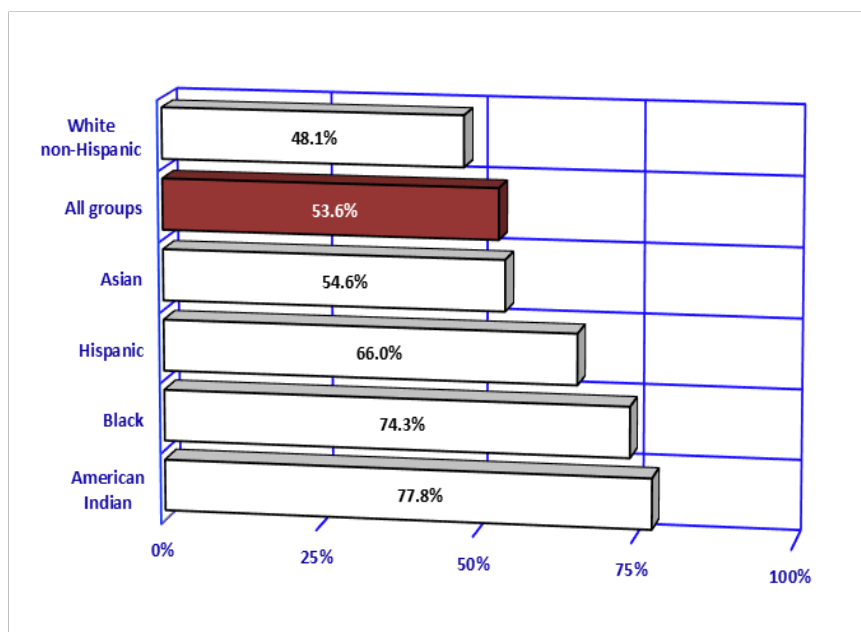
**Figure 2D-1**  
**Median Age at Death by Race/Ethnicity, Arizona, 2022**



The median age at death reflected a change from 76 years in 2014 to 2020, to 74 in 2021, but reverted back to 76 years in 2022 (**Table 2D-1**). In other words, one of every two Arizonans who died in 2022 was older than 76 years of age. Among Arizona females, the median age at death was 79 years old when they died in 2022. Among males, the median age at death was 73 years in 2022. **Table 2D-1** shows both the median age at death by race/ethnicity and gender from 2012-2022.

In 2022, compared to White non-Hispanics, on average Asians were 3 years younger at time of death, Hispanics were 9 years younger, Blacks were 12 years younger, and American Indian residents of Arizona were 19 years younger (based on the median age at death).

**Figure 2D-2**  
**Percent of Deaths before Expected<sup>a</sup> Years of Life Reached by Race/Ethnicity, Arizona, 2022**



Note: <sup>a</sup> Expected years of life at birth for all U.S. residents (77.5 years).

In 2022, the percent of deaths before expected years of life reached (a premature death ratio) was 53.6 percent, a level that changed from prior years (52.2 in 2020, 55.6 in 2019, and 55.1 for both 2018 and 2017 (**Figure 2D-2**).

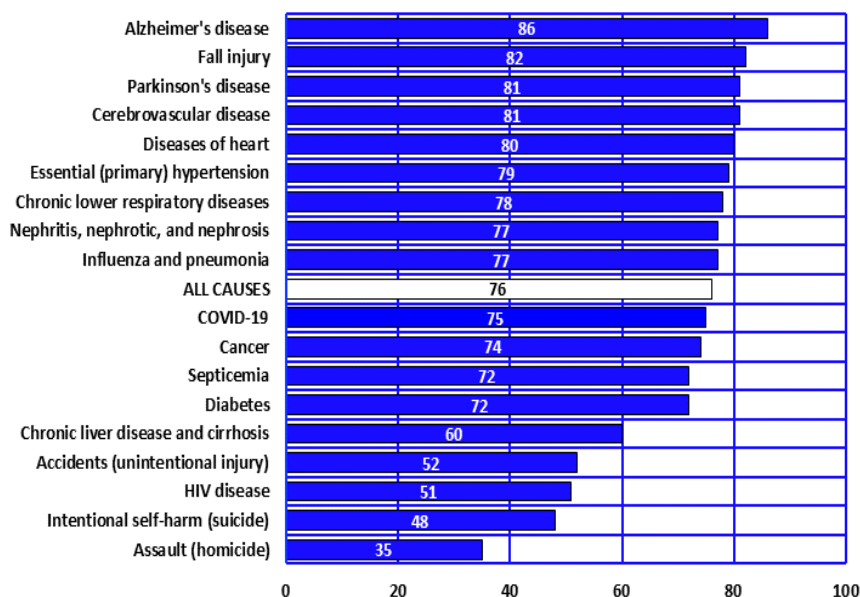
As expected, based on the findings for average and median age at death, White non-Hispanics were the only group with less than 50 percent of all deaths (48.1 percent) occurring before the expected years of life were reached (**Figure 2D-2**).

Among American Indians, nearly eight out of ten deaths (77.8 percent) were premature (**Table 2D-2**).



## 2D. PATTERNS OF PREMATURE MORTALITY

**Figure 2D-3**  
Median Age at Death for Selected Leading Causes of Death,  
Arizona, 2022

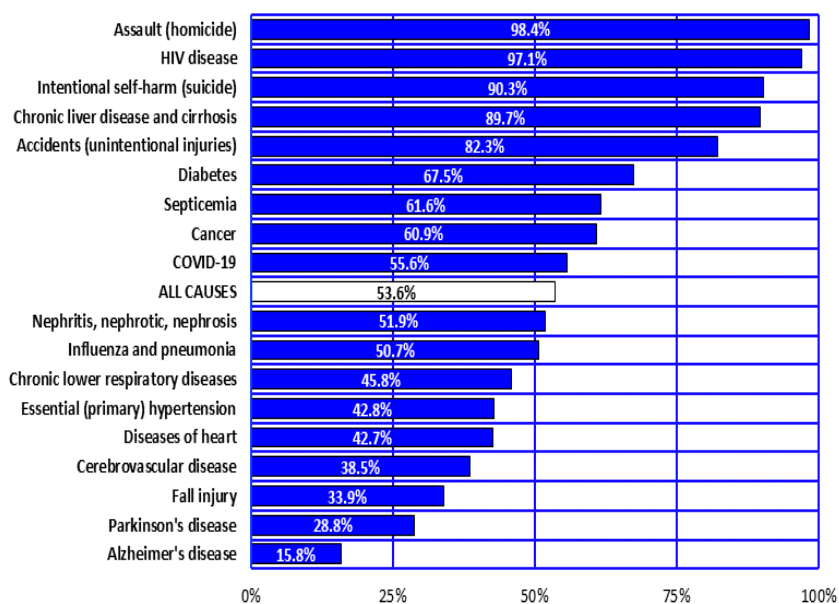


In 2022, *Alzheimer's disease* had the highest median age of death at 86 years (**Figure 2D-3**), exceeding by 10 years the median age at death for all causes (**Figure 2D-3, Table 2D-3**).

Among the leading causes of death, *homicide* had the lowest median age at death of 35 years.

From 2010-2015, *cancer* replaced *diseases of the heart* as the leading cause of death (based on the number of deaths). This epidemiologic transition in mortality risks is likely to have long lasting implications for the life expectancy of Arizonans, because the median age at death from *cancer* (74 years) is substantially lower than the median age at death from *diseases of the heart* (80 years).

**Figure 2D-4**  
Percent of Deaths before Expected Years of Life<sup>a</sup> Reached for  
Selected Leading Causes of Death, Arizona, 2022



Notes: <sup>a</sup> Expected years of life at birth for all U.S. residents (77.5 years).

Only 15.8 percent of deaths from *Alzheimer's disease* occurred before the age of 77.5 years, i.e., before the expected years of life were reached. In contrast, almost all deaths from *homicide* were premature (98.4 percent; **Figure 2D-4, Table 2D-4**). The median age at death from *homicide* was 35 years in 2022, showing an increase from 32 years recorded in 2021 (**Figure 2D-3, Table 2D-3**).

A minority of deaths from *diseases of heart* were premature (42.7 percent). In contrast 60.9 percent of deaths from *cancer* occurred before the expected years of life were reached.

**TABLE 2D-1  
AVERAGE AND MEDIUM AGE AT DEATH FROM ALL CAUSES BY GENDER AND RACE/ETHNICITY, ARIZONA, 2012-2022**

Year	Gender	Race/ethnicity													
		All ethnic groups		White non-Hispanic		Hispanic or Latino		Black or African American		American Indian or Alaska Native		Asian or Pacific Islander			
		Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median		
2012	Total	72.7	77.0	75.2	78.8	63.8	68.8	62.6	65.9	57.8	59.8	68.6	73.1		
	Male	69.9	73.7	72.6	75.9	60.7	64.3	59.6	63.2	54.3	55.5	64.2	68.7		
	Female	75.9	80.6	78.1	82.1	67.8	74.7	66.0	69.6	62.0	65.0	72.3	78.5		
2013	Total	72.5	77.0	75.2	79.0	64.3	69.0	63.1	66.0	58.3	60.0	70.9	76.0		
	Male	69.6	74.0	72.6	76.0	60.6	64.0	59.5	63.0	54.7	55.0	68.4	73.0		
	Female	75.8	81.0	78.0	82.0	68.6	75.0	67.7	73.0	63.1	67.0	73.3	78.0		
2014	Total	72.7	76.0	75.1	78.0	64.7	69.0	62.7	65.0	59.3	61.0	70.3	74.0		
	Male	70.0	73.0	72.6	75.0	61.7	65.0	60.5	63.0	55.7	57.0	66.2	71.0		
	Female	75.8	80.0	77.9	81.0	68.4	74.0	65.3	67.0	63.8	66.0	74.1	79.0		
2015	Total	72.5	76.0	74.9	78.0	64.8	69.0	62.8	66.0	58.5	60.0	70.0	75.0		
	Male	69.9	73.0	72.5	75.0	61.7	66.0	60.4	64.0	55.0	56.0	67.3	71.0		
	Female	75.5	79.0	77.5	81.0	68.7	74.0	65.9	69.0	62.9	66.0	72.6	77.0		
2016	Total	72.9	76.0	75.4	78.0	65.0	69.0	63.4	66.0	58.9	60.0	69.2	74.0		
	Male	70.3	73.0	73.2	75.0	61.9	65.0	60.3	63.0	55.8	56.0	65.1	69.5		
	Female	75.9	79.0	78.0	81.0	69.1	75.0	67.6	71.0	63.3	66.0	72.9	78.0		
2017	Total	72.6	76.0	75.2	78.0	64.9	69.0	62.7	65.0	58.9	61.0	70.3	75.0		
	Male	69.9	73.0	72.8	76.0	61.5	65.0	58.7	62.0	55.7	57.0	67.6	72.0		
	Female	75.8	79.0	77.9	81.0	69.3	75.0	67.8	69.0	63.1	67.0	72.7	77.0		
2018	Total	72.5	76.0	75.2	78.0	65.2	70.0	63.5	67.0	58.2	60.0	71.2	75.0		
	Male	69.7	73.0	72.8	76.0	61.4	65.0	60.2	63.0	54.7	56.0	68.3	72.0		
	Female	75.9	80.0	77.9	81.0	70.2	76.0	67.3	70.0	62.9	66.0	73.8	78.0		
2019	Total	72.5	76.0	75.3	78.0	65.0	70.0	62.3	66.0	59.7	62.0	69.9	74.0		
	Male	69.8	74.0	72.9	76.0	61.1	65.0	59.9	65.0	56.5	58.0	66.5	71.0		
	Female	75.7	79.0	78.0	81.0	70.0	75.0	65.1	68.0	63.8	67.0	73.5	77.0		
2020	Total	72.1	76.0	75.3	78.0	65.4	69.0	62.1	65.0	60.2	62.0	72.0	76.0		
	Male	69.5	73.0	73.0	76.0	62.1	66.0	59.3	63.0	57.4	59.0	68.0	72.0		
	Female	75.4	79.0	77.8	80.0	70.0	74.0	66.2	69.0	63.7	66.0	75.9	79.0		
2021	Total	71.2	74.0	74.5	77.0	64.0	67.0	61.2	65.0	57.8	59.0	70.5	74.0		
	Male	68.8	72.0	72.5	75.0	60.9	64.0	58.6	62.0	54.9	56.0	67.4	71.0		
	Female	74.2	77.0	77.0	79.0	68.3	72.0	64.6	68.0	61.6	63.0	73.7	77.0		
2022	Total	72.1	76.0	75.1	78.0	64.9	69.0	62.4	66.0	57.9	59.0	70.4	75.0		
	Male	69.4	73.0	72.8	76.0	61.3	65.0	59.4	63.0	54.5	55.0	65.7	71.0		
	Female	75.3	79.0	77.7	80.0	69.7	74.0	66.3	70.0	62.6	66.0	74.9	78.0		

Notes: Average age at death = the arithmetic mean of the ages of Arizonans who died in a given year; Median age at death = the middle of the age distribution: half died at age greater than the median and half at age below the median; The mean is lower than the median in negatively skewed distributions.

**TABLE 2D-2  
PERCENT OF DEATHS BEFORE EXPECTED YEARS OF LIFE REACHED  
BY GENDER AND RACE/ETHNICITY, ARIZONA, 2012-2022**

<b>Year/gender</b>	<b>All racial/ethnic groups</b>	<b>White non-Hispanic</b>	<b>Hispanic or Latino</b>	<b>Black or African American</b>	<b>American Indian or Alaska Native</b>	<b>Asian or Pacific Islander</b>
<b>2012 Total</b>	55.0	50.9	68.4	74.4	78.7	62.3
<b>Male</b>	62.3	58.1	75.7	81.6	83.9	74.2
<b>Female</b>	46.7	43.0	59.1	66.1	72.2	51.9
<b>2013 Total</b>	54.6	50.1	67.1	72.8	76.7	58.9
<b>Male</b>	62.0	57.5	75.0	80.8	82.7	65.0
<b>Female</b>	46.2	42.1	57.7	62.4	68.9	53.2
<b>2014<sup>a</sup> Total</b>	54.8	50.9	66.7	75.2	77.8	58.9
<b>Male</b>	62.0	58.0	74.1	79.7	84.1	68.9
<b>Female</b>	46.7	43.1	57.7	69.8	69.8	49.7
<b>2015<sup>a</sup> Total</b>	54.9	50.9	67.4	74.1	77.4	59.9
<b>Male</b>	61.6	57.6	73.9	78.5	83.2	66.8
<b>Female</b>	47.2	43.4	59.1	68.6	70.2	53.1
<b>2016 Total</b>	55.3	51.4	66.7	73.5	77.1	58.5
<b>Male</b>	62.1	57.9	73.4	79.9	82.4	67.3
<b>Female</b>	47.5	44.1	57.9	64.9	69.7	50.6
<b>2017 Total</b>	55.1	50.6	67.0	75.1	77.9	58.7
<b>Male</b>	61.8	57.0	74.1	82.0	84.0	63.1
<b>Female</b>	47.3	43.3	58.0	66.1	69.9	54.7
<b>2018 Total</b>	55.1	50.8	65.6	73.3	78.8	57.7
<b>Male</b>	62.1	57.4	73.4	80.3	83.9	64.9
<b>Female</b>	46.9	43.2	55.1	65.2	71.9	51.2
<b>2019 Total</b>	55.6	50.8	67.3	75.3	77.8	60.2
<b>Male</b>	61.9	56.9	74.7	78.8	82.8	67.7
<b>Female</b>	48.2	43.9	57.9	71.0	71.5	52.3
<b>2020 Total</b>	52.2	46.1	65.0	72.9	75.6	51.0
<b>Male</b>	58.6	52.0	72.1	78.1	80.7	58.2
<b>Female</b>	44.5	39.3	55.0	65.3	69.1	44.2
<b>2021 Total</b>	52.7	45.9	67.2	74.0	79.1	52.8
<b>Male</b>	58.6	51.4	73.8	79.0	84.3	59.2
<b>Female</b>	45.4	39.3	58.1	67.5	72.5	46.4
<b>2022 Total</b>	53.6	48.1	66.0	74.3	77.8	54.6
<b>Male</b>	59.9	53.9	73.4	79.6	83.8	62.5
<b>Female</b>	45.9	41.3	56.1	67.2	69.7	47.1

Note: <sup>a</sup> Based on updated expected years of life at birth for all U.S. residents (77.5 years in 2022).

**TABLE 2D-3  
MEDIAN AGE AT DEATH FOR LEADING CAUSES OF MORTALITY BY GENDER, RACE/ETHNICITY, AND  
URBAN/RURAL AREAS<sup>a</sup>, ARIZONA, 2022**

	ARIZONA				Area/gender				Race/ethnicity					
	Total	Male	Female	Total Urban	Urban Male	Urban Female	Total Rural	Rural Male	Rural Female	White Non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
<b>Total, all causes</b>	76.0	73.0	79.0	76.0	73.0	79.0	75.0	73.0	78.0	78.0	69.0	66.0	59.0	75.0
<b>Major cardiovascular diseases</b>	80.0	77.0	83.0	80.0	77.0	84.0	78.0	76.0	82.0	81.0	76.0	70.0	72.0	80.0
<b>Diseases of heart</b>	80.0	77.0	84.0	80.0	77.0	84.0	78.0	76.0	82.0	81.0	75.0	69.0	72.0	80.0
<b>Coronary heart disease</b>	80.0	77.0	84.0	80.0	77.0	84.0	78.0	76.0	81.0	81.0	75.0	70.0	72.0	80.0
<b>Malignant neoplasms</b>	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	73.0	75.0	70.0	69.0	71.0	71.0
<b>Lung cancer</b>	74.0	74.0	75.0	74.0	73.0	75.0	74.0	74.0	73.0	74.0	73.0	69.0	75.0	73.0
<b>Prostate cancer</b>	80.0	80.0	0.0	79.0	79.0	0.0	81.0	81.0	0.0	80.0	77.0	72.5	77.5	80.5
<b>Breast cancer</b>	72.0	73.0	72.0	72.0	74.0	72.0	72.0	72.0	72.0	73.0	66.0	64.0	70.0	70.0
<b>Colorectal cancer</b>	71.0	70.5	73.0	71.0	70.0	72.0	72.0	71.0	76.0	73.0	68.0	66.0	65.0	60.0
<b>Malignant melanoma of skin</b>	72.0	75.0	69.0	72.5	76.0	70.0	69.0	70.5	67.0	73.0	59.0	63.0	88.0	0.0
<b>Cerebrovascular diseases</b>	81.0	78.0	83.0	81.0	78.5	84.0	81.0	76.0	83.0	82.0	77.0	74.0	74.0	80.0
<b>Chronic lower respiratory diseases</b>	78.0	77.0	79.0	78.0	77.0	79.0	78.0	78.0	78.0	78.0	76.0	72.0	82.0	81.0
<b>Accidents (unintentional injuries)</b>	52.0	48.0	61.0	51.0	48.0	61.0	55.0	52.0	63.0	60.0	40.0	42.0	40.0	45.0
<b>Motor vehicle accidents</b>	44.0	44.0	44.5	43.0	43.0	45.0	45.0	45.0	44.0	53.0	37.0	41.0	36.0	32.0
<b>Falls</b>	82.0	80.0	85.0	83.0	81.0	85.0	79.0	76.0	83.0	83.0	77.0	77.0	63.5	87.0
<b>Accidental poisoning</b>	41.0	41.0	42.0	41.0	41.0	41.0	41.0	41.0	46.0	45.0	38.0	41.0	38.0	39.0
<b>Accidental drowning</b>	46.5	44.5	53.0	44.0	40.5	58.0	53.0	54.0	46.0	59.0	28.0	2.5	36.0	38.5
<b>Influenza and pneumonia</b>	77.0	75.0	78.0	77.0	76.0	79.0	75.0	73.0	77.5	79.0	73.0	69.0	64.0	82.0
<b>COVID-19</b>	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	77.0	70.0	66.0	69.0	74.0
<b>Alzheimer's disease</b>	86.0	85.0	86.0	86.0	85.0	86.0	85.5	84.0	86.5	86.0	86.0	84.0	82.0	89.0
<b>Diabetes</b>	72.0	70.0	73.0	72.0	70.0	73.0	72.0	72.0	72.0	73.5	69.0	68.0	67.0	72.0
<b>Intentional self-harm (suicide)</b>	48.0	49.0	47.0	48.0	49.0	46.5	50.5	49.5	52.0	56.0	36.0	31.0	31.0	46.5
<b>Chronic liver disease and cirrhosis</b>	60.0	61.0	60.0	61.0	61.0	62.0	58.0	59.0	56.0	64.0	60.0	60.0	46.0	64.0
<b>Nephritis, nephrotic syndrome and nephrosis</b>	77.0	75.0	79.0	77.0	75.0	79.0	76.0	76.0	77.0	79.0	73.0	69.5	62.5	80.0
<b>Septicemia</b>	72.0	71.0	73.5	73.0	72.0	74.0	70.0	67.0	71.0	74.0	67.0	76.0	58.5	83.0
<b>Assault (homicide)</b>	35.0	34.0	37.0	33.0	32.0	37.0	39.0	40.0	35.0	43.0	30.0	32.0	35.0	29.0
<b>Parkinson's disease</b>	81.0	81.0	81.0	82.0	82.0	81.0	80.5	80.5	80.5	82.0	79.0	80.0	84.0	81.0
<b>Essential (primary) hypertension and hypertensive renal disease</b>	79.0	76.0	82.0	80.0	77.0	83.0	78.0	73.0	82.0	80.0	79.5	72.0	67.5	77.0
<b>Human immunodeficiency virus (HIV) disease</b>	51.0	51.0	49.5	51.0	51.0	49.5	60.0	60.0	31.0	53.0	44.0	56.0	63.0	48.0
<b>Injury by firearms</b>	42.0	42.0	41.5	40.0	40.0	39.0	52.0	51.0	59.0	56.0	31.0	30.0	30.0	42.0
<b>Drug-induced deaths</b>	43.0	42.0	44.0	43.0	43.0	43.0	42.0	41.0	49.5	46.0	38.0	41.0	36.0	42.5
<b>Opioid-induced deaths</b>	39.0	39.0	39.0	39.0	39.0	40.0	38.0	38.0	39.0	42.5	35.0	36.0	34.0	38.0
<b>Alcohol-induced deaths</b>	56.0	56.0	56.0	57.0	57.0	57.0	55.0	55.0	53.0	60.0	55.0	50.0	45.0	64.0

Notes: <sup>a</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties; median age at death = the middle of the age distribution; half died at age greater than the median and half at age below the median.

**TABLE 2D-4  
PERCENT DEATHS BEFORE EXPECTED<sup>a</sup> YEARS OF LIFE REACHED FOR THE LEADING CAUSES OF MORTALITY BY  
GENDER, RACE/ETHNICITY, AND URBAN/RURAL AREAS<sup>b</sup>, ARIZONA, 2022**

	ARIZONA					Area/gender					Race/ethnicity						
	Total	Male	Female	Total	Urban	Urban	Male	Female	Total	Rural	Rural Male	Rural Female	White Non-Hispanic	Hispanic or Latino	Black or African American	Indian or Alaska Native	Asian or Pacific Islander
						Male	Female	Total	Male	Female							
<b>Total, all causes</b>	53.6%	59.9%	45.9%	52.7%	59.2%	45.1%	56.1%	48.7%	61.8%	48.7%	48.1%	66.0%	74.3%	77.8%	54.6%		
<b>Major cardiovascular diseases</b>	42.3%	50.4%	32.5%	41.3%	49.3%	31.9%	45.9%	34.9%	54.1%	34.9%	38.4%	53.1%	67.1%	63.0%	43.8%		
<b>Diseases of heart</b>	42.7%	50.4%	32.3%	41.4%	49.3%	31.3%	46.7%	36.1%	53.5%	36.1%	38.7%	54.2%	69.7%	63.5%	44.6%		
<b>Coronary heart disease</b>	43.2%	51.1%	31.4%	41.7%	49.8%	30.0%	48.2%	36.8%	54.6%	36.8%	39.6%	54.7%	67.6%	62.7%	42.6%		
<b>Malignant neoplasms</b>	60.9%	61.0%	60.8%	60.8%	61.1%	60.5%	61.2%	62.1%	60.5%	62.1%	57.9%	69.8%	78.4%	69.0%	70.7%		
<b>Lung cancer</b>	60.6%	62.5%	58.6%	60.3%	63.3%	57.1%	61.7%	64.0%	59.6%	64.0%	59.0%	67.3%	76.7%	57.1%	71.2%		
<b>Colorectal cancer</b>	64.3%	68.0%	59.5%	64.8%	67.6%	61.3%	62.5%	62.3%	69.6%	62.5%	60.6%	70.1%	85.7%	74.5%	76.7%		
<b>Breast cancer</b>	65.7%	66.7%	65.7%	64.9%	62.5%	64.9%	69.7%	69.5%	10.0%	69.5%	61.6%	78.8%	80.0%	82.4%	85.7%		
<b>Prostate cancer</b>	39.2%	39.2%	0.0%	40.2%	40.2%	0.0%	35.7%	0.0%	35.7%	0.0%	35.7%	49.4%	65.0%	50.0%	41.7%		
<b>Malignant melanoma of skin</b>	62.8%	56.1%	74.7%	62.2%	54.1%	75.4%	64.9%	66.7%	64.3%	66.7%	60.4%	100.0%	100.0%	0.0%	0.0%		
<b>Accidents (unintentional injuries)</b>	82.3%	87.5%	70.5%	81.7%	87.2%	69.6%	83.2%	87.7%	87.7%	72.9%	74.8%	93.0%	96.4%	95.7%	77.3%		
<b>Accidental poisoning</b>	99.3%	99.6%	98.1%	99.5%	99.6%	99.0%	98.0%	94.1%	99.3%	94.1%	99.0%	99.7%	100.0%	99.0%	96.0%		
<b>Falls</b>	33.9%	40.5%	27.2%	31.4%	36.9%	26.1%	43.6%	32.4%	52.8%	32.4%	30.2%	49.2%	45.5%	72.7%	19.0%		
<b>Motor vehicle accidents</b>	93.5%	94.2%	91.8%	92.9%	93.7%	90.7%	95.7%	96.5%	95.3%	96.5%	89.9%	97.0%	96.3%	98.9%	96.3%		
<b>Accidental drowning</b>	86.5%	88.0%	82.4%	87.1%	90.0%	80.6%	83.3%	10.0%	81.0%	10.0%	81.5%	90.5%	100.0%	100.0%	100.0%		
<b>Chronic lower respiratory diseases</b>	45.8%	48.5%	43.5%	46.0%	49.6%	42.8%	45.6%	45.8%	45.3%	45.8%	44.8%	53.9%	57.7%	45.5%	33.3%		
<b>Alzheimer's disease</b>	15.8%	17.4%	15.0%	15.5%	17.8%	14.3%	17.4%	18.3%	15.5%	18.3%	15.1%	17.9%	28.6%	21.1%	10.3%		
<b>Cerebrovascular diseases</b>	38.5%	47.1%	31.5%	38.2%	45.9%	31.7%	39.4%	30.9%	51.3%	30.9%	34.0%	50.8%	61.8%	56.5%	37.0%		
<b>Diabetes</b>	67.5%	69.2%	65.1%	67.7%	69.2%	65.4%	66.4%	63.7%	68.4%	63.7%	63.7%	70.7%	76.2%	76.3%	69.8%		
<b>Intentional self-harm (suicide)</b>	90.3%	89.8%	92.6%	90.9%	90.4%	93.1%	88.6%	91.0%	88.0%	91.0%	87.5%	97.4%	98.2%	99.1%	85.7%		
<b>Chronic liver disease and cirrhosis</b>	89.7%	89.9%	89.4%	89.7%	90.4%	88.5%	89.7%	90.9%	88.8%	90.9%	87.2%	87.7%	88.5%	99.0%	86.7%		
<b>Essential (primary) hypertension and hypertensive renal disease</b>	42.8%	52.2%	33.5%	41.9%	50.4%	33.5%	47.7%	33.3%	61.8%	33.3%	39.9%	42.6%	57.3%	70.6%	47.4%		
<b>Influenza and pneumonia</b>	50.7%	53.6%	47.3%	49.3%	51.7%	46.6%	54.9%	49.0%	59.7%	49.0%	46.0%	56.8%	64.3%	73.2%	40.0%		
<b>COVID-19</b>	55.6%	56.2%	54.9%	55.2%	55.8%	54.4%	56.9%	56.6%	57.1%	56.6%	49.9%	67.3%	78.0%	66.7%	57.5%		
<b>Parkinson's disease</b>	28.8%	28.0%	30.1%	27.9%	27.4%	28.8%	32.8%	35.7%	30.9%	35.7%	27.4%	40.0%	36.8%	36.8%	91.0%		
<b>Nephritis, nephrotic syndrome and nephrosis</b>	51.9%	56.7%	46.4%	51.5%	57.0%	45.4%	53.0%	49.5%	55.7%	49.5%	44.2%	60.2%	69.0%	76.4%	50.0%		
<b>Septicemia</b>	61.6%	64.0%	59.1%	61.9%	65.0%	58.7%	61.1%	60.4%	61.8%	60.4%	57.9%	68.3%	56.3%	82.5%	44.4%		
<b>Assault (homicide)</b>	98.4%	98.8%	96.9%	98.3%	98.8%	96.6%	10.0%	10.0%	10.0%	10.0%	95.0%	100.0%	99.1%	100.0%	100.0%		
<b>Human immunodeficiency virus (HIV) disease</b>	97.1%	97.6%	94.4%	96.8%	97.4%	93.8%	100.0%	100.0%	100.0%	100.0%	93.8%	100.0%	100.0%	100.0%	100.0%		
<b>Injury by firearms</b>	91.9%	91.3%	95.7%	92.9%	92.3%	96.5%	88.6%	92.5%	88.1%	92.5%	87.2%	98.4%	100.0%	99.1%	94.1%		
<b>Drug-induced deaths</b>	98.0%	99.0%	96.6%	98.6%	99.0%	97.6%	96.7%	91.9%	98.9%	91.9%	97.6%	99.7%	99.5%	99.6%	87.5%		
<b>Opioid-induced deaths</b>	99.5%	99.7%	98.7%	99.6%	99.8%	99.2%	98.4%	95.2%	99.5%	95.2%	99.2%	100.0%	100.0%	99.4%	95.0%		
<b>Alcohol-induced deaths</b>	95.3%	94.4%	97.2%	95.1%	94.0%	97.5%	95.8%	96.5%	95.5%	96.5%	94.0%	93.9%	96.4%	99.0%	92.3%		

Notes: <sup>a</sup> Expected years of life at birth for all U.S. residents (77.5 years in 2022); <sup>b</sup> Urban = Maricopa, Pima, Pinal, and Yuma counties.