

CHAPTER 2

TRENDS AND PATTERNS IN MORTALITY, ARIZONA, 1998-2008

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2D. PATTERNS OF PREMATURE MORTALITY



2A.

TOTAL MORTALITY

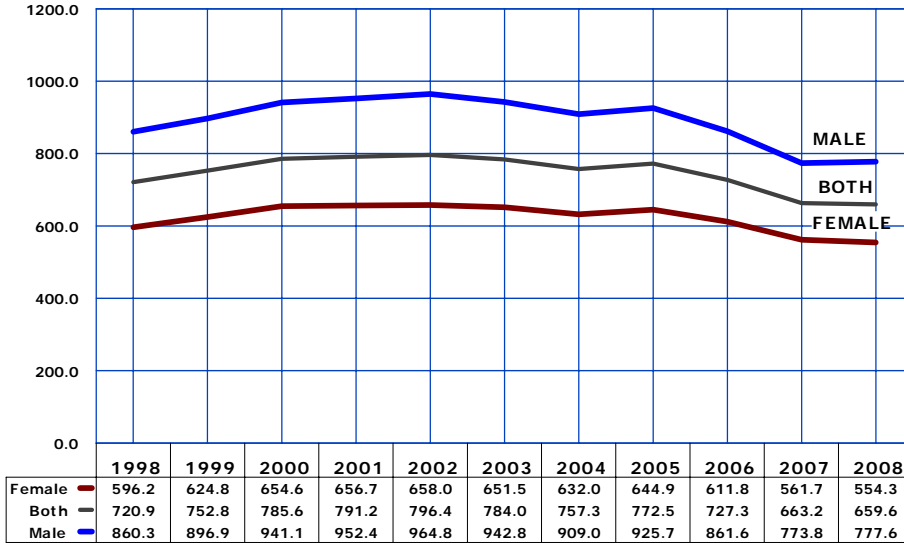
The number of deaths among Arizona residents increased by 1.1 percent from 44,640 in 2007 to 45,128 in 2008 (**Table 2A-1**). The number of deaths occurring in Arizona (including the deaths of out-of-State residents) also slightly increased from 46,325 in 2007 to 46,515 in 2008 (**Table 5E-2**).

Only one population subgroup (based on age and race/ethnicity) did not experience an increase in mortality. The number of deaths among Hispanic or Latinos actually decreased from 2007 to 2008 (most likely because the number of illegal Hispanic residents of the State was lower in 2008 than it was in 2007). In contrast, the number of deaths increased among White non-Hispanics, Blacks or African Americans, American Indians or Alaska Native, and Asians or Pacific Islanders. The number of deaths decreased by 10.8 percent among infants under 1 year of age (obviously associated with an unprecedented decrease in the number of live births). The number of deaths also decreased among Arizonans 10-44 years old. Other age groups, including preschoolers 1-4 years old, and Arizonans aged 45 years or older experienced an increase in mortality between 2007 and 2008.

There were fewer deaths in 2008 for some of the leading causes of mortality including diseases of heart, cancer, accidents (unintentional injuries), and suicide. The causes with the largest increases were primary hypertension (22.1 percent), influenza and pneumonia (21.1 percent), chronic lower pulmonary diseases (9.2 percent), and Parkinson's disease (7 percent).

2A. TOTAL MORTALITY

Figure 2A-1
Age-adjusted Mortality Rates for all Causes by Gender and Year, Arizona, 1998-2008



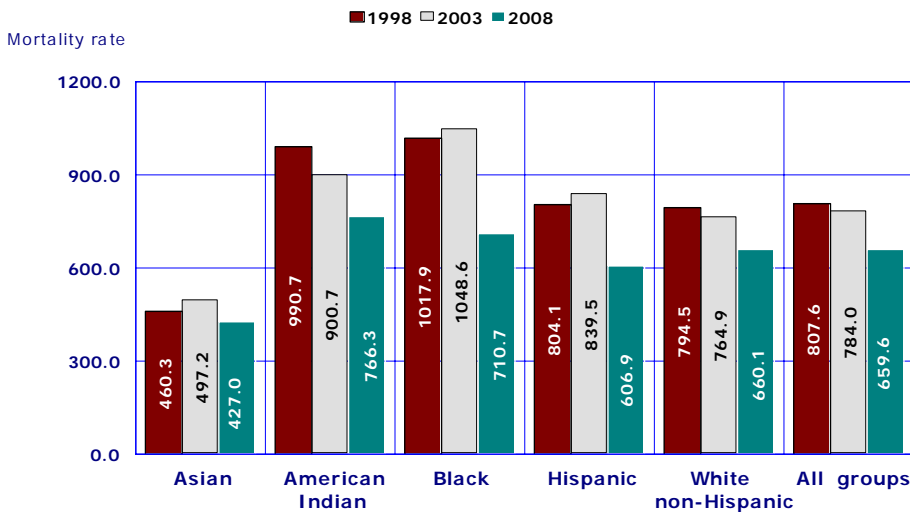
Beginning with the 2000 data year in Arizona, the age-adjusted mortality rates discussed below are based on the year 2000 population standard. The rates for 1998-1999 were re-calculated using the new standard. All mortality rates in sections 2A and 2B are age-adjusted. A detailed explanation of the age-adjustment of mortality rates is given in *Technical Notes*.

The total age-adjusted mortality rate decreased for the 3rd consecutive year from 772.5 in 2005 to 659.6 in 2008 (Figure 2A-1, Table 2B-2). The death rate for females in 2008 was 554.3, 15.8 percent lower than in 2002 when it reached its recent peak of 658.0. For males, the age-adjusted mortality rate increased by 0.5 percent from 773.8 in 2007 to 777.6 in 2008.

The percent difference between male and female mortality rates narrowed from 44 percent greater mortality rate in 1998 to 40 percent greater in 2008. However, the parallel trend lines (Figure 2A-1) do not seem to suggest that the convergence in mortality risk between males and females is likely to happen anytime soon.

Number of deaths per 100,000 persons (adjusted to the 2000 standard U.S. population).

Figure 2A-2
Age-adjusted Mortality Rates* for all Causes by Race/Ethnicity and Year, Arizona Residents, 1998, 2003 and 2008



The 2008 age-adjusted death rates for the major race/ethnic groups were as follows: for Asian or Pacific Islander, 427.0 deaths per 100,000 population; Hispanic or Latino, 606.9; White non-Hispanic, 660.1; Black or African American, 710.7 and American Indian or Alaska Native, 766.3 (Figure 2A-2, Table 2B-4).

In 2008, as in 2003 and in 1998, Blacks and American Indians had higher total mortality rates than White non-Hispanics, Hispanics and Asians. In contrast, the total mortality rates for Asians were lower than the rates of White non-Hispanics in 1998, 2003 and 2008.

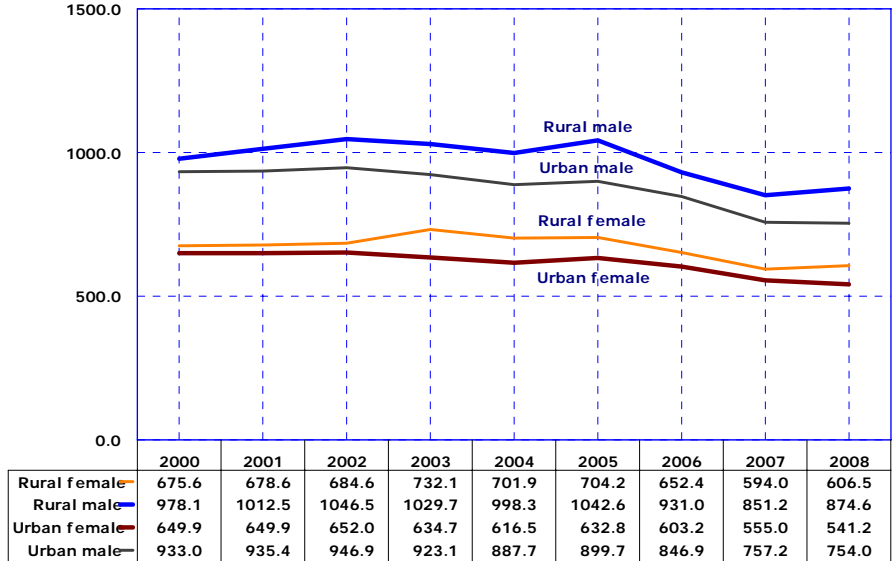
Number of deaths per 100,000 population age-adjusted to the 2000 standard U.S.

2A. TOTAL MORTALITY

Figure 2A-3
Age-adjusted Mortality Rates* for all Causes by Gender in Urban and Rural Areas, Arizona Residents, 2000-2008

The residents of Arizona's urban (Maricopa, Pima, Pinal, Yuma counties) but not rural (all other counties) areas experienced improvements in total mortality from 2006 to 2008 (Figure 2A-3, Table 2B-5). In each year from 2000 to 2008, rural males had the highest total mortality rate, followed by urban males, rural females, and urban females. In 2000, the risk of death for rural males was 50.5 higher than for urban females (978.1 vs. 649.9). This ratio increased to 61.6 percent in 2008.

In 2008, per 100,000 persons, for every death of an urban female (the lowest mortality group), 1.1 rural females, 1.4 urban males, and 1.6 rural males died.

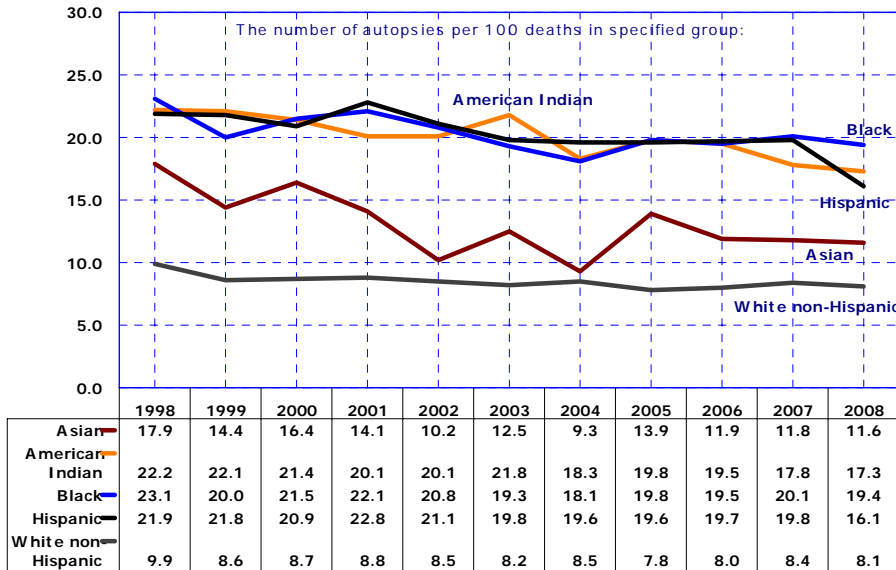


*The number of deaths per 100,000 population in specified group age-adjusted to the 2000 U.S. standard.

Figure 2A-4
Percentage of Deaths for which Autopsies were Reported by Race/Ethnicity and Year, Arizona Residents, 1998-2008

Autopsies were reported as performed on 4,407 decedents, or 9.8 percent of the deaths that occurred among Arizona residents in 2008. In 1998 – 2008, the percentage of deaths for which autopsies were reported varied from a high of 12.0 percent in 1998 to a low of 9.8 percent in 2008.

The percentage autopsied varies by the decedent's demographic characteristics. By race/ethnicity (Figure 2A-4) the percentage autopsied was lower for the White non-Hispanic population than for other groups. The prevalence of autopsies was substantially greater among Hispanic or Latino, American Indians and Black or African Americans. 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 homicide, suicide, accidents, and undetermined manner.



**TABLE 2A-1
NUMBER OF DEATHS BY RACE/ETHNICITY, GENDER AND YEAR, ARIZONA RESIDENTS, 1998-2008**

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
TOTAL	Total	38,395	39,673	40,202	40,851	42,320	42,830	42,736	45,115	45,415	44,640	45,128
	Male	20,389	21,020	21,080	21,480	22,317	22,452	22,400	23,614	23,658	23,321	23,744
	Female	18,006	18,653	19,122	19,371	20,003	20,378	20,336	21,501	21,757	21,319	21,384
White non-Hispanic	Total	31,708	32,675	33,111	33,443	34,845	34,906	34,813	36,558	36,952	35,805	36,235
	Male	16,528	16,996	17,063	17,250	17,946	17,972	17,916	18,723	18,711	18,339	18,758
	Female	15,180	15,679	16,048	16,193	16,899	16,934	16,897	17,835	18,241	17,466	17,477
Hispanic or Latino	Total	3,900	4,025	4,207	4,415	4,670	4,914	5,009	5,323	5,284	5,496	5,313
	Male	2,262	2,368	2,394	2,560	2,750	2,812	2,874	3,115	3,114	3,146	2,996
	Female	1,638	1,657	1,813	1,855	1,920	2,102	2,135	2,208	2,170	2,350	2,317
Black or African American	Total	957	990	1,002	1,045	950	1,138	1,095	1,173	1,274	1,276	1,295
	Male	531	559	556	567	557	623	598	623	754	695	712
	Female	426	431	446	478	393	515	497	550	520	581	583
American Indian or Alaska Native	Total	1,527	1,566	1,524	1,562	1,536	1,527	1,402	1,651	1,543	1,661	1,722
	Male	901	867	875	897	884	864	780	929	901	950	981
	Female	626	699	649	665	652	663	622	722	642	711	741
Asian or Pacific Islander	Total	223	215	263	292	264	289	300	338	336	365	449
	Male	107	108	126	139	142	129	145	172	164	168	230
	Female	116	107	137	153	122	160	155	166	172	197	219
Other/Unknown	Total	80	202	95	94	55	56	117	72	26	37	114
	Male	60	122	66	67	38	52	87	52	14	23	67
	Female	20	80	29	27	17	4	30	20	12	14	47

TABLE 2A-3
 DAY AND MONTH OF OCCURRENCE, ARIZONA RESIDENTS, 2008

Day of death	Month of death												Total
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
1	143	124	155	123	120	108	124	123	102	135	139	117	1,513
2	122	145	167	130	119	111	123	134	100	126	128	131	1,536
3	141	137	153	129	126	115	124	122	104	107	116	123	1,497
4	134	133	147	131	121	96	116	104	112	117	95	124	1,430
5	123	119	144	148	123	125	109	109	118	127	127	129	1,501
6	143	144	138	151	137	124	107	113	127	133	95	145	1,557
7	156	129	127	112	125	99	115	111	119	119	124	128	1,464
8	142	141	159	142	135	132	124	108	90	118	110	119	1,520
9	117	134	142	118	122	120	122	119	112	132	111	127	1,476
10	118	136	130	113	128	120	120	113	104	138	118	132	1,470
11	131	133	123	136	114	114	120	103	114	111	128	124	1,451
12	135	128	158	132	115	118	127	104	106	106	117	139	1,485
13	133	138	154	128	108	130	103	137	99	100	117	142	1,489
14	143	156	164	134	123	118	96	112	123	104	105	114	1,492
15	126	121	160	144	121	117	109	95	112	104	125	116	1,450
16	137	127	142	131	112	107	113	112	118	139	130	117	1,485
17	141	136	136	125	112	104	90	118	115	117	121	112	1,427
18	140	140	136	137	135	138	108	109	119	117	124	131	1,534
19	120	146	137	138	122	124	103	100	108	105	121	105	1,429
20	127	133	141	133	123	123	102	137	119	121	111	108	1,478
21	145	160	128	141	109	135	101	111	100	112	118	129	1,489
22	129	153	134	97	114	122	112	118	104	112	118	123	1,436
23	145	155	126	137	140	120	99	124	110	118	101	129	1,504
24	121	137	151	141	130	102	119	112	106	109	131	137	1,496
25	150	157	152	135	123	145	116	119	91	122	120	107	1,537
26	139	138	131	123	120	101	130	97	113	113	126	138	1,469
27	147	155	137	148	121	113	107	99	117	116	109	117	1,486
28	133	149	144	107	115	124	115	106	115	120	119	102	1,449
29	99	155	117	155	122	115	107	116	94	130	104	103	1,417
30	143		140	130	104	122	103	117	108	110	111	149	1,337
31	126		153		115		103	110		98		119	824
Total	4,149	4,059	4,426	3,949	3,754	3,542	3,467	3,512	3,279	3,636	3,519	3,836	45,128

**TABLE 2A-4
AGE-SPECIFIC MORTALITY BY PLACE OF DEATH AND DECEDENT STATUS, ARIZONA, 2008**

	Age												Un- known	Total
	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+			
IN HOSPITAL	In-patient	494	55	62	172	226	406	969	1,752	2,332	3,008	2,066	0	11,542
	Out-patient*	77	48	20	118	132	169	301	351	348	354	230	0	2,148
	Died on arrival	6	2	1	17	13	15	16	23	23	24	6	0	146
	Status unknown	0	0	0	0	0	0	0	0	0	1	0	0	1
	Subtotal	577	105	83	307	371	590	1,286	2,126	2,703	3,387	2,302	0	13,837
NOT IN HOSPITAL	Nursing home**	1	3	4	24	42	157	568	1,248	2,261	4,546	6,219	1	15,074
	Residence	40	13	29	131	244	443	1,175	1,776	2,285	3,202	2,923	0	12,261
	Other***	5	6	18	287	241	278	367	337	400	803	1,152	1	3,895
	Unspecified	2	1	0	5	2	4	7	9	14	9	8	0	61
	Subtotal	48	23	51	447	529	882	2,117	3,370	4,960	8,560	10,302	2	31,291
TOTAL	625	128	134	754	900	1,472	3,403	5,496	7,663	11,947	12,604	2	45,128	

* Includes Emergency Room.

** Includes other long-term care facilities.

*** Includes hospices.



2B.

LEADING CAUSES OF DEATH

Beginning with the 2000 data year in Arizona (1999 nationally) two major changes have occurred that affect the computation of mortality rates, tabulation of leading causes of death and analyses of mortality data over time. First, a new revision of the International Classification of Diseases (ICD), used to classify causes of death, was implemented. The Tenth Revision (ICD-10) has replaced the Ninth Revision (ICD-9), which was in effect since 1979. Second, a new population standard for the age adjustment of mortality rates has replaced the standard based on the 1940 population and used since 1943. The new set of age-adjustment weights uses the year 2000 estimated U.S. population as a standard.

Both changes have profound effects on the comparability of mortality data and continuity in statistical trends. Age-adjusted rates can only be compared to other age-adjusted rates that use the same population standard. In this report, ALL age-adjusted mortality rates (including those for 1980, 1990, and 1997-2007) are based on the (new) 2000 standard, and they CANNOT BE compared to rates using the 1940 standard population. This is because the age structures of the 1940 and year 2000 populations differ. From 1940 to 2000 the U.S. population "aged" considerably. The age-adjusted rates based on the year 2000 standard are different because the year 2000 population standard, which has an older age structure, gives more weight than the 1940 standard to death rates at older ages where mortality is higher. More than 1,800 age-adjusted mortality rates in this report were recomputed for the new population standard so that mortality rates can be compared over time. Beginning with the 2008 edition of this report we have added the recomputed age-adjusted mortality rates for 1991-1999 for the fifteen leading causes of death in Table 2B-3.

Breaks in comparability of mortality statistics effective with deaths occurring in 2000 also result from the implementation of ICD-10. ICD-10 is far more detailed than ICD-9, with about 8,000 categories compared with about 5,000 categories. Some of the coding rules and rules for selecting the underlying cause of death have been changed. Moreover, cause-of-death titles have been changed and the cause-of-death categories regrouped.

The new population standard and the revision of the ICD are not the only factors affecting the comparability of cause of death and the continuity of statistical trends in mortality. The mortality data for Arizona residents for 1999-2008 are not quite as complete as they used to be. There seems to be a problem with the out-of-State deaths of the residents of Arizona: their records (copies of death certificates from other states) are not always sent to the Office of Vital Records of the Arizona Department of Health Services:

Data year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Reported out-of-State deaths of AZ residents	1,569	792	844	1,009	678	640	714	553	493	518	727

Since mortality rates express the likelihood (or risk) of death in a specified population (i.e., all Arizona residents) regardless of the place of occurrence, missing data about the number of events in the numerator (i.e., resident deaths occurring out-of-State) continue to contribute to misrepresentation of mortality risks for Arizonans.

In particular, mortality rates for 1999-2008 were understated because the numerators used to calculate them were too small.

Another disturbing peculiarity of the mortality data collection in 2000 – 2007, are records where cause of death is missing (i.e. the ICD-10 code for the underlying cause of death). The majority of those records are, again, for Arizonans who died outside Arizona. Unfortunately, missing cause of death accounted for 970 records in 2001, almost as many as diabetes (1,040 deaths), and the eight leading cause of death in 2001.

Data year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Missing cause of death	12	11	197	970	704	532	118	37	0	36	140

As a result, the cause-of-death-specific numbers and rates for 2000-2008 also have been understated.

Last but not least, before data for 2000, mortality medical information was based on manual coding of an underlying death for each certificate in accordance with WHO rules, and done locally by the Office of Vital Records. Effective with the 2000 data year, cause-of-death data presented in this publication were coded, using computerized procedures of SuperMICAR (Mortality Medical Indexing and Retrieval) and ACME (Automated Classification of Medical Entities) systems.

The conversion to computerized coding contributed to at least some of the breaks in comparability over time of cause-of-death statistics for *drug-induced deaths*, *intentional self-harm (suicide)*, *firearm-suicide*, and *accidental discharge of firearms*:

Data year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Drug-induced deaths	543	331	577	645	646	745	799	903	940	523
Suicide	773	737	600	855	807	854	915	948	986	876
Suicide by firearms	495	486	358	544	476	498	507	554	541	529
Accidental discharge of firearms	7	11	114	26	13	13	15	9	13	9

Unprecedented decline in 2001 in the number of suicides and the equally unprecedented increase in the number of firearm deaths classified as accidental are obviously associated. Approximately 100 firearm fatalities, that would have been classified as suicides had the manual coding system been in place, were classified as accidents in 2001 because the "manner of death" was not indicated and the automated coding system defaulted to accidental injury.

Coding of "non-alcoholic" conditions as "alcoholic" is another (discovered in June 2007) and now corrected problem with SuperMICAR.

Beginning in 2000 the mode of transport has been unknown for the majority of the motor vehicle fatalities. It is another unintended result of the implementation of automated coding of the underlying causes of death. In 2008, among the 874 motor vehicle-related deaths, the mode of transport was unknown for 517. Fortunately, the ICD-10 categories V98 and V88 exclude collisions involving motorcycle riders, pedal cyclists, and pedestrians. However, we have lost the ability to properly identify other types of victims of motor vehicle accidents, such as drivers, non-driving passengers of motor vehicles, persons on outside of vehicle, or persons injured while boarding or alighting. Unfortunately, it is not possible to design an effective prevention strategy without taking into consideration characteristics of victims of motor vehicle accidents. Air bags and seat belts are known to decrease the number of serious injuries and fatalities among the occupants of motor vehicles, but they do nothing for persons outside of vehicles. Similarly, wearing a helmet may work well for a motorcycle rider but it's unlikely to help a pedestrian.

Some experience is usually necessary before the data is collected and coded as accurately and completely as possible in changed circumstances. Data in future years will indicate if this assumption is reasonable.

**TABLE 2B-1
NUMBER OF DEATHS FOR THE LEADING CAUSES OF MORTALITY BY YEAR, ARIZONA, 1998-2008**

Rank in 1998	Rank in 2008	Cause of death	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1	1	Diseases of heart	10,276	10,355	10,430	10,312	10,551	10,649	10,402	10,779	10,362	10,147	10,299
2	2	Malignant neoplasms	8,503	8,851	8,994	8,914	9,148	9,451	9,506	9,673	9,768	9,955	9,949
5	3	Accidents (unintentional injury)	2,182	2,192	2,087	2,430	2,416	2,466	2,641	3,006	3,156	3,014	2,951
4	4	Chronic lower respiratory diseases	2,395	2,499	2,493	2,463	2,530	2,522	2,392	2,778	2,771	2,651	2,896
3	5	Cerebrovascular diseases	2,414	2,320	2,603	2,416	2,448	2,356	2,412	2,325	2,159	2,079	2,089
9	6	Alzheimer's disease*	771	859	1,046	1,103	1,413	1,691	1,672	1,816	2,057	2,041	2,086
7	7	Diabetes	1,006	1,046	993	1,040	1,201	1,124	1,180	1,196	1,188	1,145	1,162
6	8	Influenza and pneumonia*	1,040	1,204	1,201	1,100	1,294	1,248	1,108	1,280	1,147	875	1,075
8	9	Intentional self-harm (suicide)	845	773	737	¹⁶⁰⁰ 767	855	807	854	915	948	986	968
12	10	Chronic liver disease and cirrhosis	412	397	645	635	647	625	629	749	706	734	778
13	11	Septicemia*	348	399	346	372	445	463	456	496	539	547	539
10	12	Nephritis, nephrotic syndrome and nephrosis*	460	516	605	622	600	550	625	603	549	510	488
15	13	Parkinson's disease	273	355	342	366	397	402	390	492	489	455	487
14	14	Essential primary hypertension and hypertensive renal disease	331	431	275	298	293	339	405	390	420	389	475
11	15	Assault (homicide)	447	430	394	467	478	480	486	503	525	494	461
ALL CAUSES			38,395	39,673	40,202	40,851	42,320	42,830	42,736	45,115	45,415	44,640	45,128

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2006 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. The ICD-10 code for the underlying cause of death was not missing for as many as 970 death records in 2001 and 704 in 2002 (see Section 2B "Leading Causes of Death" in this report for more detail). As a result, the cause-of-death specific numbers for 2000-2006 in the above table are likely to be understated.

*Comparability-modified number of deaths by year from 1998 to 1999 is shown for the four causes of death for which the discontinuity in trend (resulting from implementation of ICD-10) is substantial. The comparability-modified data present the annual number of deaths for 1998-1999 that would have been classified as Influenza and pneumonia, Alzheimer's disease, Nephritis, or Septicemia had the ICD-10 classification system and coding rules been in place. For the remaining causes of death, little or no change occurred in the number of deaths assigned using the different coding revisions. See **Technical Notes** for the measures of comparison between ICD-9 and ICD-10 -the "comparability ratios" - for the causes of death shown in this report.

¹ Unprecedented decline in the number of suicides from 845 in 1998 to 600, as originally published for 2001, signifies problems with the automated coding of the underlying cause of death by the National Center for Health Statistics. In 1999-2001, some firearm-suicides and suicides by drugs were classified as accidents because the "manner of death" was not indicated on a death certificate and the automated coding system defaulted to accidental injury. The more realistic number of 767 suicides used for 2001 in the above table is from the WISOARS site at http://webappa.cdc.gov/sasweb/nclpc/mortrate10_sy.html. For more information also see <http://www.azdhs.gov/plan/report/im/im/im04/3/index.htm>.

**TABLE 2B-2
AGE-ADJUSTED* MORTALITY RATES BY GENDER AND YEAR FOR SELECTED LEADING CAUSES OF DEATH,
ARIZONA, 1998-2008**

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
TOTAL, ALL CAUSES												
	Total	807.6	811.0	785.6	791.2	796.4	784.0	757.3	772.5	727.3	663.2	659.6
	Male	978.4	982.6	941.1	952.4	964.8	942.8	909.0	925.7	861.6	773.8	777.6
	Female	665.4	668.7	654.6	656.7	658.0	651.5	632.0	644.9	611.8	561.7	554.3
CARDIOVASCULAR DISEASE												
	Total	296.2	289.7	276.1	267.3	265.5	258.4	248.5	245.7	216.4	194.4	194.1
	Male	356.4	349.8	333.1	321.6	321.1	310.3	298.4	298.2	258.3	227.5	235.8
	Female	246.3	240.1	230.0	223.0	221.0	215.8	207.8	203.8	181.0	164.3	158.1
-----DISEASES OF HEART												
	Total	219.0	213.9	206.1	201.7	201.0	197.1	186.7	186.9	166.1	149.5	149.3
	Male	275.2	269.4	259.3	251.3	253.6	246.6	234.2	237.4	207.3	184.0	189.3
	Female	172.5	168.5	163.6	161.5	158.9	157.1	148.5	147.3	131.8	119.4	115.1
-----CEREBROVASCULAR DISEASE												
	Total	52.2	48.5	51.7	47.7	47.0	43.9	43.6	40.6	34.8	30.6	30.3
	Male	52.3	50.2	50.8	48.3	47.3	42.9	42.7	40.0	33.4	27.7	29.6
	Female	51.9	46.9	51.8	46.8	46.7	43.8	43.6	40.5	35.2	32.2	30.5
MALIGNANT NEOPLASMS												
	Total	174.5	176.7	170.4	169.2	168.6	169.4	164.7	161.8	154.7	148.0	145.5
	Male	211.2	212.6	204.0	199.8	209.1	208.3	201.2	197.1	187.0	176.7	173.8
	Female	147.8	150.5	145.8	147.5	139.1	141.3	138.6	136.1	131.0	125.6	123.0
CHRONIC LOWER RESPIRATORY												
	Total	49.2	50.1	47.4	46.9	47.0	45.4	41.9	46.8	44.3	39.2	42.2
	Male	60.5	59.8	56.2	53.9	57.1	53.8	48.1	51.3	50.2	43.5	46.6
	Female	41.8	43.8	41.3	42.2	40.3	40.0	37.7	43.5	40.1	36.0	39.0
ACCIDENTS (UNINTENTIONAL INJURIES)												
	Total	45.2	44.4	41.1	46.6	45.2	44.8	46.0	51.1	51.2	46.6	44.7
	Male	62.8	62.5	58.0	66.5	62.8	61.6	61.1	68.7	68.5	60.6	59.0
	Female	27.7	27.0	24.9	27.7	28.8	28.8	31.7	34.4	34.3	32.3	30.6
-----MOTOR VEHICLE ACCIDENTS												
	Total	20.4	19.6	17.5	17.2	18.5	18.0	18.1	18.9	19.6	16.2	13.6
	Male	27.3	27.5	24.4	24.2	25.5	24.9	23.9	27.0	26.8	22.2	19.5
	Female	13.6	11.8	10.6	10.1	11.6	11.2	12.5	11.1	12.4	10.1	7.9
INFLUENZA AND PNEUMONIA **												
	Total	22.6	25.4	24.4	21.9	25.0	23.4	20.1	22.3	18.4	12.9	15.6
	Male	26.9	31.8	29.2	26.8	27.8	29.8	25.7	26.6	22.2	14.9	17.7
	Female	19.5	20.7	21.1	18.1	22.9	18.7	16.3	19.2	15.7	11.5	14.1

**TABLE 2B-2 (continued)
AGE-ADJUSTED* MORTALITY RATES BY GENDER AND YEAR FOR SELECTED LEADING CAUSES OF DEATH,
ARIZONA, 1998-2008**

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
ALZHEIMER'S DISEASE**												
	Total	17.2	18.4	21.8	22.5	28.0	32.5	31.3	32.7	33.4	29.6	29.8
	Male	14.1	16.4	17.5	18.4	23.4	26.6	26.4	27.7	27.0	22.8	23.9
	Female	18.8	19.8	24.2	25.1	30.5	35.9	34.2	35.7	47.4	34.1	33.6
DIABETES												
	Total	20.8	21.1	19.0	19.9	22.3	20.3	20.7	20.1	18.9	17.0	17.0
	Male	24.2	25.0	21.0	22.9	25.6	23.6	23.4	24.7	22.5	20.5	20.7
	Female	18.1	18.3	17.2	17.5	19.7	17.5	18.4	16.7	15.9	13.9	13.9
CHRONIC LIVER DISEASE AND												
	Total	12.4	12.0	12.8	12.3	12.1	11.5	11.1	12.7	11.4	11.3	11.7
	Male	17.7	16.8	17.7	17.7	15.6	16.2	15.6	17.7	14.3	15.4	15.3
	Female	7.6	7.5	8.3	7.5	8.9	7.1	6.9	8.1	8.5	7.6	8.4
NEPHRITIS, NEPHROTIC SYNDROME												
	Total	9.7	10.6	11.7	12.0	11.3	10.1	11.0	10.4	8.8	7.6	7.1
	Male	11.9	13.9	13.9	15.6	12.9	12.0	13.4	12.7	10.5	8.8	8.6
	Female	8.2	8.5	10.4	9.7	10.4	8.8	9.4	8.8	7.4	6.6	5.9
INTENTIONAL SELF-HARM (SUICIDE)												
	Total	17.5	15.7	14.6	14.9	15.9	14.6	14.9	15.4	15.4	15.4	14.8
	Male	28.7	25.5	24.7	24.6	26.4	24.0	24.1	24.9	24.7	24.4	23.0
	Female	7.1	6.5	5.2	5.6	6.0	5.8	6.3	6.5	6.6	6.7	7.0
ASSAULT (HOMICIDE)												
	Total	9.0	8.5	7.6	8.7	8.6	8.3	8.2	8.2	8.5	7.7	7.1
	Male	13.7	12.1	11.1	13.7	13.9	12.8	13.3	13.5	13.5	11.8	11.2
	Female	4.0	4.7	3.8	3.6	3.0	3.6	2.9	2.6	3.1	3.2	2.7
SEPTICEMIA**												
	Total	11.8	13.2	6.7	7.2	8.3	8.4	8.0	8.4	8.6	8.1	7.9
	Male	13.5	15.8	7.3	8.0	9.6	9.4	9.4	9.7	9.4	8.4	9.4
	Female	10.4	11.3	6.1	6.5	7.2	7.6	7.0	7.5	8.0	7.9	6.7

* 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. The causes of death for 1998-1999 are classified by the Ninth Revision (ICD-9). The rates for 1998-1999 were revised in this edition of the report for consistency with the newly recomputed mortality rates in Table 2B-3.

** The rates for 1998-1999 are comparability-modified. In order to obtain comparability-modified data, the number of deaths or the death rate for a particular cause of death (such as Alzheimer's disease, Nephritis, Influenza and pneumonia, or Septicemia) classified by ICD-9 is adjusted by multiplying it by the comparability ratio for that cause. Comparability ratios are measures of comparison between ICD-9 and ICD-10. Comparability ratio of 1.0 indicates that the same number of deaths would be assigned to a cause-of-death when ICD 9 or ICD-10 was used. The comparability ratios for causes of death other than the four selected above are within 1.0-1.1 range (see **Technical Notes**).

**TABLE 2B-3
AGE-ADJUSTED* MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY RACE/ETHNICITY
AND GENDER, ARIZONA, 1980, 1990-2008**

	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
Intentional self-harm (suicide)																		
1980	17.5	27.9	8.1	18.5	28.7	9.3	11.3	21.1	2.0	10.9	16.8	4.5	18.6	33.1	5.6	8.7	19.6	0.0
1990	19.0	32.6	6.5	20.9	36.1	7.2	9.4	16.6	2.8	12.5	17.2	7.7	20.1	39.1	2.6	7.9	4.6	10.1
1991	18.0	30.8	6.4	19.1	32.8	6.7	12.1	20.3	4.6	17.8	23.6	12.3	18.9	35.1	4.0	2.5	5.5	0.0
1992	17.3	29.0	6.5	18.8	31.1	7.5	10.4	19.2	2.6	10.3	17.8	2.4	19.6	34.7	5.6	4.8	10.5	0.0
1993	18.9	32.2	6.9	21.2	35.7	8.2	8.8	14.9	2.4	8.0	12.4	3.0	21.7	39.1	5.5	5.2	7.7	3.2
1994	19.4	32.2	7.4	21.2	34.9	8.3	11.1	19.6	2.2	8.7	13.9	2.9	20.8	33.0	8.8	16.7	18.9	15.4
1995	19.5	31.1	8.6	22.2	35.1	10.2	9.7	15.8	3.4	14.4	24.6	5.8	16.3	30.0	3.5	4.1	5.0	4.0
1996	16.9	28.4	6.2	19.1	31.8	7.5	9.0	16.2	1.8	7.3	11.7	2.2	15.9	25.6	6.8	4.7	9.9	0.0
1997	17.2	28.7	6.3	19.4	31.8	7.7	8.8	16.3	1.3	12.3	21.5	3.5	18.7	30.5	7.4	11.0	18.2	5.7
1998	17.5	28.7	7.1	20.1	32.2	8.9	9.5	18.4	0.8	6.5	8.7	3.9	16.1	28.1	5.0	6.8	9.1	3.9
1999	15.7	25.5	6.5	16.7	27.1	7.0	10.5	17.8	3.7	12.8	26.1	0.0	16.6	27.6	6.4	6.4	10.3	3.4
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	49.2	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

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

** Chronic obstructive pulmonary diseases in 1980 and 1990.

Note: 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://www.azdhs.gov/plan/menu/info/pop/pop19/popsets19.htm>

TABLE 2B-4
 NUMBER OF DEATHS AND AGE-ADJUSTED* MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY
 RACE/ETHNICITY AND GENDER, ARIZONA, 2008

	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
Total, all causes	45,128	23,744	21,384	36,235	18,758	17,477	5,313	2,996	2,317	1,295	712	583	1,722	981	741	449	230	219
Major cardiovascular diseases	13,394	7,081	6,313	11,230	5,903	5,327	1,353	750	603	373	205	168	292	150	142	113	50	63
Diseases of heart	10,299	5,701	4,598	8,726	4,799	3,927	974	575	399	276	155	121	228	116	112	68	37	31
Coronary heart disease	8,162	4,685	3,477	6,946	3,970	2,976	758	463	295	219	119	100	161	85	76	57	33	24
Malignant neoplasms	9,949	5,367	4,582	8,279	4,462	3,817	1,051	579	472	266	137	129	218	110	108	115	67	48
Malignant neoplasm of trachea, bronchus and lung	2,636	1,478	1,158	2,347	1,302	1,045	159	99	60	66	42	24	22	9	13	36	22	14
Malignant neoplasm of colon, rectum, and anus	897	467	430	729	372	357	111	62	49	28	17	11	20	9	11	8	6	2
Malignant neoplasm of breast	734	9	725	602	7	595	75	0	75	34	0	34	16	2	14	6	0	6
Malignant neoplasm of prostate	568	568	0	471	471	0	59	59	0	17	17	0	10	10	0	9	9	0
Malignant melanoma of skin	168	115	53	159	107	52	6	5	1	2	2	0	1	1	0	0	0	0
Malignant neoplasm of cervix uteri	60	0	60	32	0	32	19	0	19	3	0	3	6	0	6	0	0	0
Accident (unintentional injury)	2,951	1,863	1,088	2,089	1,264	825	457	320	137	100	64	36	265	193	72	28	16	12
Motor vehicle accidents	891	632	259	502	364	138	215	152	63	29	22	7	133	86	47	8	6	2
Falls	748	350	398	639	284	355	63	38	25	12	5	7	26	19	7	7	4	3
Accidental poisoning	766	497	269	585	372	213	91	60	31	38	25	13	48	39	9	2	1	1
Accidental drowning and submersion	78	62	16	39	29	10	22	20	2	7	5	2	7	6	1	3	2	1
Chronic lower respiratory diseases	2,904	1,399	1,505	2,672	1,270	1,402	143	71	72	43	28	15	30	20	10	10	6	4
Cerebrovascular diseases	2,089	879	1,210	1,693	689	1,004	250	121	129	66	35	31	42	20	22	34	11	23
Alzheimer's disease	2,086	675	1,411	1,850	604	1,246	154	47	107	53	15	38	14	4	10	13	3	10
Influenza and pneumonia	1,075	525	550	824	397	427	141	74	67	21	7	14	73	35	38	13	11	2
Diabetes	1,162	638	524	759	439	320	233	118	115	51	28	23	101	44	57	16	8	8
Intentional self-harm (suicide)	968	737	231	772	580	192	105	90	15	20	15	5	53	41	12	16	9	7
Chronic liver disease and cirrhosis	778	491	287	499	316	183	152	97	55	15	10	5	107	64	43	3	2	1
Nephritis, nephrotic syndrome and nephrosis	488	259	229	320	174	146	100	48	52	16	11	5	47	23	24	4	3	1
Assault (homicide)	461	372	89	148	111	37	209	175	34	55	47	8	45	36	9	4	3	1
Parkinson's disease	487	300	187	430	262	168	30	19	11	8	6	2	15	12	3	3	1	2
Septicemia	539	288	251	368	201	167	95	45	50	21	11	10	45	25	20	8	4	4
Essential (primary) hypertension and hypertensive renal disease	475	219	256	373	175	198	64	25	39	21	11	10	12	7	5	4	0	4
Human immunodeficiency virus (HIV) disease	109	91	18	61	51	10	29	25	4	11	8	3	6	5	1	1	1	0
Injury by firearms	888	740	148	558	457	101	234	199	35	59	54	5	28	23	5	7	5	2
Drug-induced deaths	947	562	385	754	440	314	106	67	39	42	26	16	35	27	8	6	2	4
Alcohol-induced deaths	772	552	220	499	359	140	105	75	30	15	12	3	147	101	46	3	2	1

**TABLE 2B-4 (continued)
NUMBER OF DEATHS AND AGE-ADJUSTED* MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY
RACE/ETHNICITY AND GENDER, ARIZONA, 2008**

	AGE-ADJUSTED MORTALITY RATES:**																	
	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
Total, all causes	659.6	777.6	554.3	660.1	780.7	553.9	606.9	704.0	515.8	710.7	746.4	670.5	766.3	937.9	620.0	427.0	529.7	359.0
Major cardiovascular diseases	194.1	235.8	158.1	196.3	240.6	158.3	184.8	218.8	153.8	219.6	235.0	205.2	150.4	172.8	133.7	121.4	132.3	114.1
Diseases of heart	149.3	189.3	115.1	153.1	195.7	116.8	132.0	165.2	102.4	161.7	175.2	146.9	114.6	129.0	103.8	71.8	92.0	57.8
Coronary heart disease	118.3	155.1	86.9	121.8	161.3	88.3	103.3	134.3	76.5	131.9	136.7	123.7	83.2	98.1	72.9	61.5	84.5	45.9
Malignant neoplasms	145.5	173.8	123.0	150.4	179.7	127.0	123.8	151.9	101.5	149.2	150.1	146.3	106.7	126.4	93.2	104.4	149.4	74.0
Malignant neoplasm of trachea, bronchus and lung	38.5	47.7	31.2	42.3	51.7	34.8	20.0	27.7	13.7	37.1	45.4	27.8	11.2	10.1	11.7	32.7	49.1	21.8
Malignant neoplasm of colon, rectum, and anus	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
Malignant neoplasm of breast	10.8	0.3	19.8	11.2	0.3	20.6	8.1	0.0	15.1	18.5	0.0	38.0	7.3	1.9	11.6	4.0	0.0	7.1
Malignant neoplasm of prostate	8.2	19.1	0.0	8.2	18.9	0.0	8.6	20.3	0.0	10.0	20.5	0.0	5.9	14.7	0.0	10.0	25.5	0.0
Malignant melanoma of skin	2.5	3.7	1.4	2.9	4.3	1.7	0.6	0.9	0.2	0.9	1.8	0.0	0.7	1.6	0.0	0.0	0.0	0.0
Malignant neoplasm of cervix uteri	0.9	0.0	1.8	0.7	0.0	1.3	1.7	0.0	3.3	1.5	0.0	3.3	2.6	0.0	4.8	0.0	0.0	0.0
Accident (unintentional injury)	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
Motor vehicle accidents	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
Falls	10.8	11.9	9.8	11.0	11.8	10.2	8.6	11.3	6.7	7.1	5.2	8.9	13.4	21.8	6.5	8.7	12.7	6.1
Accidental poisoning and submersion	12.0	15.5	8.5	14.7	19.0	10.4	5.7	7.0	4.4	16.3	20.5	11.5	16.5	29.4	5.5	1.0	1.4	0.8
Chronic lower respiratory diseases	1.2	1.8	0.5	1.0	1.5	0.5	1.1	1.8	0.3	2.4	2.9	1.6	1.9	3.5	0.5	2.0	3.2	1.0
Cerebrovascular diseases	42.2	46.6	39.0	46.9	51.0	43.8	20.5	24.3	18.0	26.0	33.9	19.1	15.8	23.9	9.5	13.7	22.4	8.5
Alzheimer's disease	30.3	29.6	30.5	29.2	28.0	29.9	33.6	34.6	32.0	40.0	42.9	38.9	23.5	26.2	21.8	36.2	32.8	38.9
Influenza and pneumonia	29.8	23.9	33.6	30.6	24.9	34.4	26.3	19.3	30.4	42.5	29.7	53.5	8.5	5.3	10.2	18.4	11.7	22.5
Diabetes	15.6	17.7	14.1	14.6	16.5	13.2	18.3	21.6	15.7	12.4	6.8	17.0	36.3	41.2	33.3	13.5	27.8	4.2
Intentional self-harm (suicide)	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
Chronic liver disease and cirrhosis	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
Nephritis, nephrotic syndrome and nephrosis	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
Parkinson's disease	7.1	8.6	5.9	5.6	7.1	4.5	13.2	13.9	12.7	9.8	13.2	6.5	23.5	26.5	21.1	5.3	10.7	2.1
Septicemia	7.0	10.3	4.6	7.3	10.6	4.9	4.5	7.4	2.7	5.7	9.2	2.8	10.0	19.5	3.6	3.4	2.1	4.2
Assault (homicide)	7.9	9.4	6.7	6.7	8.1	5.7	11.0	11.1	10.8	10.9	11.4	10.8	20.6	25.3	16.6	7.1	8.3	6.3
Essential (primary) hypertension and hypertensive renal disease	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
Human immunodeficiency virus (HIV) disease	6.9	7.4	6.3	6.4	7.2	5.7	9.5	8.6	10.1	12.3	13.4	11.7	6.7	9.0	5.0	5.0	0.0	8.1
Injury by firearms	1.8	3.0	0.6	1.5	2.5	0.5	1.9	3.2	0.5	4.9	6.7	2.9	2.2	3.8	0.7	0.6	1.4	0.0
Drug-induced deaths	13.5	22.7	4.5	12.6	21.3	4.5	12.1	19.8	3.7	22.4	37.6	4.0	7.6	11.9	3.2	4.6	5.9	3.2
Alcohol-induced deaths	14.9	17.5	12.0	18.7	22.4	15.0	6.8	7.8	5.6	17.9	21.0	14.4	10.9	17.7	4.8	3.3	3.0	3.7
	11.8	17.3	6.6	10.6	15.6	5.9	9.2	13.5	5.2	7.3	11.0	3.0	54.3	81.4	31.2	1.8	2.6	1.1

*The number of deaths per 100,000 resident population age-adjusted to the 2000 U.S. standard. The causes of death for 2007 are classified by the Tenth Revision of the International Classification of Diseases (ICD-10). The rates for breast cancer and cervical cancer are per 100,000 females. The rate for prostate cancer is per 100,000 males.

**Includes other and unknown racial/ethnic groups.

TABLE 2B-5
AGE-ADJUSTED* MORTALITY RATES FOR SELECTED CAUSES OF DEATH BY URBAN/RURAL AREA AND GENDER,
ARIZONA, 2008

	Arizona			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
	Total, all causes	659.6	777.6	554.3	640.6	754.0	541.2	736.3	874.6
Cardiovascular diseases	194.1	235.8	158.1	189.5	229.7	155.5	212.2	259.7	168.7
Diseases of heart	149.3	189.3	115.1	145.1	183.2	113.1	166.3	214.0	123.4
Coronary heart disease	118.3	155.1	86.9	116.9	151.7	87.7	123.0	169.1	82.3
Malignant neoplasms	145.5	173.8	123.0	142.2	168.9	121.6	157.1	191.2	127.4
Lung cancer	38.5	47.7	31.2	36.6	45.3	29.9	45.6	56.4	36.1
Colorectal cancer	13.1	15.1	11.3	12.5	14.6	10.7	15.1	16.8	13.5
Breast cancer	10.8	0.3	19.8	10.7	0.2	19.6	11.2	0.6	20.6
Prostate cancer	8.2	19.1	0.0	8.0	18.8	0.0	8.8	19.5	0.0
Malignant melanoma of skin	2.5	3.7	1.4	2.5	3.8	1.4	2.2	3.2	1.3
Cervical cancer	0.9	0.0	1.8	1.0	0.0	1.9	0.6	0.0	1.1
Accident (unintentional injuries)	44.7	59.0	30.6	41.5	54.4	28.8	59.6	81.9	38.0
Motor vehicle accidents	13.6	19.5	7.9	11.4	16.9	6.0	24.0	32.6	15.8
Falls	10.8	11.9	9.8	11.0	11.9	10.1	10.1	12.0	8.3
Accidental poisoning	12.0	15.5	8.5	11.9	15.2	8.4	12.6	17.1	8.3
Accidental drowning	1.2	1.8	0.5	1.1	1.7	0.5	1.4	2.4	0.3
Chronic lower respiratory diseases	42.2	46.6	39.0	40.8	45.3	37.8	47.5	51.4	44.0
Cerebrovascular diseases	30.3	29.6	30.5	29.4	28.9	29.5	33.4	31.7	34.3
Alzheimer's disease	29.8	23.9	33.6	31.6	26.2	35.0	22.1	15.0	27.1
Influenza and pneumonia	15.6	17.7	14.1	14.7	17.1	12.8	19.5	20.1	19.1
Diabetes	17.0	20.7	13.9	16.4	20.0	13.4	19.3	23.6	15.6
Intentional self-harm (suicide)	14.8	23.0	7.0	13.9	21.4	6.7	19.7	31.3	8.5
Chronic liver disease and cirrhosis	11.7	15.3	8.4	10.6	13.9	7.5	17.6	22.5	13.1
Nephritis	7.1	8.6	5.9	6.0	7.5	4.9	11.5	12.7	10.4
Parkinson's disease	7.0	10.3	4.6	7.3	11.0	4.7	6.0	7.9	4.5
Septicemia	7.9	9.4	6.7	7.4	8.9	6.2	10.0	11.1	9.1
Assault (homicide)	7.1	11.2	2.7	7.3	11.5	2.8	6.0	9.5	2.6
Essential (primary) hypertension	6.9	7.4	6.3	7.4	8.1	6.9	4.4	4.8	3.8
(HIV) disease	1.8	3.0	0.6	2.0	3.3	0.6	0.7	1.1	0.4
Injury by firearms	13.5	22.7	4.5	13.3	22.2	4.4	14.7	24.8	5.1
Drug-induced deaths	14.9	17.5	12.0	14.9	18.0	11.7	14.5	15.7	13.1
Alcohol-induced deaths	11.8	17.3	6.6	10.4	15.5	5.6	19.2	27.0	12.0

*The number of deaths per 100,000 population in specified group age-adjusted to the 2000 standard U.S. The causes of death for 2007 are classified by the Tenth Revision of the International Classification of Diseases (ICD-10). The rates for breast cancer and cervical cancer are per 100,000 females. The rates for prostate cancer is per 100,000 males.

**TABLE 2B-6
DEATHS AND DEATH RATES BY GENDER FOR SELECTED 113 CAUSES,
ARIZONA RESIDENTS, 2008**

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
Total, all causes	45,128	23,744	21,384	690.6	725.5	655.5
Salmonella infections	2	1	1	0.0	0.0	0.0
Shigellosis and amebiasis	0	0	0	0.0	0.0	0.0
Certain other intestinal infections	152	71	81	2.3	2.2	2.5
Tuberculosis	13	7	6	0.2	0.2	0.2
Respiratory tuberculosis	10	4	6	0.2	0.1	0.2
Other tuberculosis	3	3	0	0.0	0.1	0.0
Whooping cough	1	1	0	0.0	0.0	0.0
Scarlet fever and erysipelas	0	0	0	0.0	0.0	0.0
Meningococcal infection	0	0	0	0.0	0.0	0.0
Septicemia	539	288	251	8.2	8.8	7.7
Syphilis	1	1	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	188	130	58	2.9	4.0	1.8
Human immunodeficiency virus (HIV) disease	109	91	18	1.7	2.8	0.6
Malaria	0	0	0	0.0	0.0	0.0
Other and unspecified infectious and parasitic diseases	168	86	82	2.6	2.6	2.5
Malignant neoplasms	9,949	5,367	4,582	152.2	164.0	140.5
Malignant neoplasm of lip, oral cavity and pharynx	151	101	50	2.3	3.1	1.5
Malignant neoplasm of esophagus	262	212	50	4.0	6.5	1.5
Malignant neoplasm of stomach	200	121	79	3.1	3.7	2.4
Malignant neoplasm of colon, rectum, and anus	897	467	430	13.7	14.3	13.2
Malignant neoplasm of liver and intrahepatic bile ducts	348	245	103	5.3	7.5	3.2
Malignant neoplasm of pancreas	636	340	296	9.7	10.4	9.1
Malignant neoplasm of larynx	42	33	9	0.6	1.0	0.3
Malignant neoplasm of trachea, bronchus and lung	2,636	1,478	1,158	40.3	45.2	35.5
Malignant melanoma of skin	168	115	53	2.6	3.5	1.6
Malignant neoplasm of breast	734	9	725	11.2	0.3	22.2
Malignant neoplasm of cervix uteri	60	0	60	0.9	0.0	1.8
Malignant neoplasm of corpus uteri and uterus, part unspecified	115	0	115	1.8	0.0	3.5
Malignant neoplasm of ovary	241	0	241	3.7	0.0	7.4
Malignant neoplasm of prostate	568	568	0	8.7	17.4	0.0
Malignant neoplasm of kidney and renal pelvis	247	154	93	3.8	4.7	2.9
Malignant neoplasm of bladder	258	192	66	3.9	5.9	2.0
Malignant neoplasm of meninges, brain and other parts of CNS	268	152	116	4.1	4.6	3.6
Malignant neoplasm of lymphoid, hematopoietic and related tissue	1,029	580	449	15.7	17.7	13.8
Hodgkin's disease	17	10	7	0.3	0.3	0.2
Non-Hodgkin's lymphoma	433	230	203	6.6	7.0	6.2
Leukemia	376	217	159	5.8	6.6	4.9
Multiple myeloma and immunoproliferative neoplasms	203	123	80	3.1	3.8	2.5
Other and unspecified malignant neoplasms of lymphoid tissue	0	0	0	0.0	0.0	0.0
All other and unspecified malignant neoplasm	1,089	600	489	16.7	18.3	15.0
In situ neoplasms	499	263	236	7.6	8.0	7.2
Anemias	47	14	33	0.7	0.4	1.0
Diabetes	1,162	638	524	17.8	19.5	16.1

TABLE 2B-6 (continued)
DEATHS AND DEATH RATES BY GENDER FOR SELECTED 113 CAUSES,
ARIZONA RESIDENTS, 2008

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	37	13	24	0.6	0.4	0.7
Malnutrition	36	13	23	0.6	0.4	0.7
Other nutritional deficiencies	1	0	1	0.0	0.0	0.0
Meningitis	15	8	7	0.2	0.2	0.2
Parkinson's disease	487	300	187	7.5	9.2	5.7
Alzheimer's disease	2,086	675	1,411	31.9	20.6	43.3
Major cardiovascular diseases	13,394	7,081	6,313	205.0	216.4	193.5
Diseases of heart	10,299	5,701	4,598	157.6	174.2	141.0
Acute rheumatic fever and chronic rheumatic heart disease	57	24	33	0.9	0.7	1.0
Hypertensive heart disease	675	348	327	10.3	10.6	10.0
Hypertensive heart and renal disease	48	22	26	0.7	0.7	0.8
Ischemic heart disease	7,487	4,337	3,150	114.6	132.5	96.6
Acute myocardial infarction	1,664	974	690	25.5	29.8	21.2
Other acute ischemic heart disease	28	20	8	0.4	0.6	0.2
Other forms of chronic ischemic heart disease	5,795	3,343	2,452	88.7	102.1	75.2
Atherosclerotic cardiovascular disease	1,893	1,143	750	29.0	34.9	23.0
All other forms of chronic ischemic heart disease	3,902	2,200	1,702	59.7	67.2	52.2
Other heart diseases	2,032	970	1,062	31.1	29.6	32.6
Acute and subacute endocarditis	30	14	16	0.5	0.4	0.5
Diseases of pericardium and acute myocarditis	14	8	6	0.2	0.2	0.2
Heart failure	592	255	337	9.1	7.8	10.3
All other forms of heart disease	1,396	693	703	21.4	21.2	21.6
Essential (primary) hypertension and hypertensive renal disease	475	219	256	7.3	6.7	7.8
Cerebrovascular diseases	2,089	879	1,210	32.0	26.9	37.1
Atherosclerosis	170	81	89	2.6	2.5	2.7
Other diseases of circulatory system	360	201	159	5.5	6.1	4.9
Aortic aneurysm and dissection	191	127	64	2.9	3.9	2.0
Other disease of arteries, arterioles and capillaries	169	74	95	2.6	2.3	2.9
Other disorders of circulatory system	78	43	35	1.2	1.3	1.1
Influenza and pneumonia	1,075	525	550	16.5	16.0	16.9
Influenza	19	8	11	0.3	0.2	0.3
Pneumonia	1,056	517	539	16.2	15.8	16.5
Other acute lower respiratory infections	5	2	3	0.1	0.1	0.1
Acute bronchiolitis	4	1	3	0.1	0.0	0.1
Unspecified acute lower respiratory infection	1	1	0	0.0	0.0	0.0
Chronic lower respiratory diseases	2,904	1,399	1,505	44.4	42.7	46.1
Bronchitis, chronic and unspecified	8	3	5	0.1	0.1	0.2
Emphysema	260	145	115	4.0	4.4	3.5
Asthma	48	14	34	0.7	0.4	1.0
Other chronic lower respiratory diseases	2,588	1,237	1,351	39.6	37.8	41.4
Pneumoconioses and chemical effects	15	14	1	0.2	0.4	0.0
Pneumonitis due to solids and liquids	256	144	112	3.9	4.4	3.4
Other disease of respiratory system	469	247	222	7.2	7.5	6.8
Peptic ulcer	52	31	21	0.8	0.9	0.6
Diseases of appendix	6	5	1	0.1	0.2	0.0
Hernia	27	11	16	0.4	0.3	0.5

TABLE 2B-6 (continued)
DEATHS AND DEATH RATES BY GENDER FOR SELECTED 113 CAUSES,
ARIZONA RESIDENTS, 2008

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	778	491	287	11.9	15.0	8.8
Alcoholic liver disease	517	353	164	7.9	10.8	5.0
Other chronic liver disease and cirrhosis	261	138	123	4.0	4.2	3.8
Cholelithiasis and other disorders of gallbladder	38	22	16	0.6	0.7	0.5
Nephritis, nephrotic syndrome and nephrosis	488	259	229	7.5	7.9	7.0
Acute and rapidly progressive nephritic and nephrotic syndrome	1	0	1	0.0	0.0	0.0
Chronic glomerulonephritis	42	21	21	0.6	0.6	0.6
Renal failure	445	238	207	6.8	7.3	6.3
Others disorders of kidney	0	0	0	0.0	0.0	0.0
Infections of kidney	16	7	9	0.2	0.2	0.3
Hyperplasia of prostate	3	3	0	0.0	0.1	0.0
Inflammatory diseases of female pelvic organs	5	0	5	0.1	0.0	0.2
Pregnancy, childbirth and the puerperium	10	0	10	0.2	0.0	0.3
Pregnancy with abortive outcome	1	0	1	0.0	0.0	0.0
Other complications of pregnancy, childbirth and the puerperium	9	0	9	0.1	0.0	0.3
Perinatal conditions	309	178	131	4.7	5.4	4.0
Congenital malformations	239	118	121	3.7	3.6	3.7
Symptoms, signs, abnormal findings	636	263	373	9.7	8.0	11.4
Total accidents	2,951	1,863	1,088	45.2	56.9	33.4
Transport accidents	989	716	273	15.1	21.9	8.4
Motor vehicle accidents	891	632	259	13.6	19.3	7.9
Other land transport accidents	31	28	3	0.5	0.9	0.1
Water, air, space	67	56	11	1.0	1.7	0.3
Nontransport accidents	1,962	1,147	815	30.0	35.0	25.0
Falls	748	350	398	11.4	10.7	12.2
Accidental discharge of firearms	10	8	2	0.2	0.2	0.1
Accidental drowning and submersion	78	62	16	1.2	1.9	0.5
Accidental exposure to smoke, fire and flames	50	31	19	0.8	0.9	0.6
Accidental poisoning	766	497	269	11.7	15.2	8.2
Other and unspecified nontransport accidents	310	199	111	4.7	6.1	3.4
Intentional self-harm (suicide)	968	737	231	14.8	22.5	7.1
By discharge of firearms	530	441	89	8.1	13.5	2.7
By other means	438	296	142	6.7	9.0	4.4
Assault (homicide)	461	372	89	7.1	11.4	2.7
By discharge of firearms	324	270	54	5.0	8.2	1.7
By other means	137	102	35	2.1	3.1	1.1
Legal intervention	9	8	1	0.1	0.2	0.0
Events of undetermined intent	121	80	41	1.9	2.4	1.3
Discharge of firearms	15	13	2	0.2	0.4	0.1
Other and unspecified events of undetermined intent	106	67	39	1.6	2.0	1.2
Operations of war	0	0	0	0.0	0.0	0.0
Complications of medical and surgical care	47	19	28	0.7	0.6	0.9
INJURY BY FIREARMS	888	740	148	13.6	22.6	4.5
DRUG-INDUCED DEATHS	947	562	385	14.5	17.2	11.8
ALCOHOL-INDUCED DEATHS	772	552	220	11.8	16.9	6.7

Note: The list of 113 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, 1998-2008**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
ALL FORMS OF HEART DISEASE											
TOTAL	10,276	10,355	10,430	10,312	10,551	10,649	10,402	10,779	10,362	10,147	10,052
Male	5,542	5,580	5,594	5,469	5,642	5,649	5,543	5,789	5,538	5,455	5,535
Female	4,734	4,775	4,836	4,843	4,909	5,000	4,859	4,990	4,834	4,692	4,517
Acute rheumatic fever and chronic rheumatic heart disease											
TOTAL	52	51	32	37	46	63	46	55	57	38	57
Male	14	19	13	16	14	25	18	16	15	15	24
Female	38	32	19	21	32	38	28	39	42	23	33
Hypertensive heart and renal disease *											
TOTAL	4	3	*30	26	31	33	32	39	24	29	48
Male	2	1	13	11	14	20	9	18	13	15	22
Female	2	2	17	15	17	13	23	21	11	14	26
Ischemic heart disease											
TOTAL	6,367	6,383	7,949	7,656	7,962	8,037	7,836	8,060	7,628	7,163	7,326
Male	3,562	3,537	4,386	4,245	4,449	4,402	4,344	4,509	4,202	4,005	4,225
Female	2,805	2,846	3,563	3,411	3,513	3,635	3,492	3,551	3,426	3,158	3,101
Hypertensive heart disease											
TOTAL	233	229	261	355	431	440	463	487	506	646	636
Male	99	99	136	164	197	215	223	226	256	332	322
Female	134	130	125	191	234	225	240	261	250	314	314
Other heart diseases											
TOTAL	3,620	3,689	2,158	2,238	2,104	2,076	2,025	2,138	2,147	2,271	1,985
Male	1,865	1,924	1,046	1,033	968	987	949	1,020	1,052	1,088	942
Female	1,755	1,765	1,112	1,205	1,136	1,089	1,076	1,118	1,095	1,183	1,043

Note: Beginning in 2000, the causes of death are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999.

* The comparability ratio for hypertensive heart and renal disease is 1.5, indicating a 50 percent increase in hypertensive heart and renal disease deaths when classified by ICD-10.

**TABLE 2B-8
NUMBER OF DEATHS FOR SELECTED SUBCATEGORIES OF MALIGNANT NEOPLASMS BY GENDER AND YEAR,
ARIZONA, 1998-2008**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
ALL CANCERS											
TOTAL	8,503	8,850	8,994	8,914	9,148	9,451	9,506	9,873	9,768	9,955	9,941
Male	4,535	4,707	4,756	4,627	4,982	5,088	5,107	5,184	5,233	5,364	5,363
Female	3,968	4,143	4,238	4,287	4,166	4,363	4,399	4,489	4,535	4,591	4,578
ICD-9 140-149/ICD-10 C00-C14	115	102	108	116	122	114	127	140	115	133	151
Malignant neoplasm of lip, oral cavity and pharynx (oropharyngeal cancer)	80	71	65	80	91	85	87	95	80	91	101
Female	35	31	43	36	31	29	40	45	35	42	50
ICD-9 150/ICD-10 C15	196	167	192	202	239	239	240	222	261	252	262
Malignant neoplasm of esophagus	154	132	145	151	191	196	190	188	209	206	212
Female	42	35	47	51	48	43	50	34	52	46	50
ICD-9 151/ICD-10 C16	191	196	180	183	197	177	189	200	190	186	200
Malignant neoplasm of stomach	104	125	112	115	132	106	110	113	111	106	121
Female	87	71	68	68	65	71	79	87	79	80	79
ICD-9 153, 154/ICD-10 C18-C21	848	808	888	871	887	995	870	915	917	966	896
Malignant neoplasm of colon, rectum, rectosigmoid junction and anus	465	435	469	434	484	535	466	490	495	535	466
Female	383	373	419	437	403	460	404	425	422	431	430
ICD-9 157/ICD-10 C25	432	453	472	519	477	474	551	579	575	629	636
Malignant neoplasm of pancreas	218	236	242	260	244	240	306	305	301	362	340
Female	214	217	230	259	233	234	245	274	274	267	296
ICD-9 162/ICD-10 C33-C34	2,404	2,589	2,489	2,381	2,565	2,682	2,656	2,607	2,718	2,573	2,632
Malignant neoplasm of trachea, bronchus and lung	1,381	1,485	1,428	1,312	1,439	1,530	1,490	1,461	1,528	1,443	1,477
Female	1,023	1,104	1,061	1,069	1,126	1,152	1,166	1,146	1,190	1,130	1,155
ICD-9 172/ICD-10 C43	109	96	143	128	156	150	152	169	179	188	168
Malignant melanoma of skin	71	60	99	93	101	105	104	133	124	124	115
Female	38	36	44	35	55	45	48	36	55	64	53
ICD-9 174,175/ICD-10 C50	646	664	719	680	656	672	664	677	745	724	734
Malignant neoplasm of breast	2	7	8	13	10	5	1	7	6	6	9
Female	644	657	711	667	646	667	663	670	739	718	725

**TABLE 2B-8 (continued)
NUMBER OF DEATHS FOR SELECTED SUBCATEGORIES OF MALIGNANT NEOPLASMS BY GENDER AND YEAR,
ARIZONA, 1998-2008**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
ICD-9 180/ICD-10 C53 Malignant neoplasm of cervix uteri	TOTAL	46	51	80	74	63	64	65	54	62	60
	Female	46	51	80	74	63	64	65	54	62	60
ICD-9 179, 182/ ICD-10 C54-C55 Malignant neoplasm of body of uterus and of uterus, part unspecified	TOTAL	60	72	63	91	75	98	107	97	97	115
	Female	60	72	63	91	75	98	107	97	97	115
ICD-9 185/ICD-10 C61 Malignant neoplasm of prostate	TOTAL	520	486	600	501	533	544	564	522	548	568
	Male	520	486	600	501	533	544	564	522	548	568
ICD-9 188/ICD-10 C67 Malignant neoplasm of bladder	TOTAL	198	199	221	216	209	238	244	238	270	258
	Male	140	138	161	154	152	164	180	175	206	192
	Female	58	61	60	62	57	81	64	63	64	66
ICD-9 189/ICD-10 C64-C65 Malignant neoplasm of kidney and other and unspecified urinary organs	TOTAL	206	230	184	215	230	227	248	238	231	247
	Male	121	156	113	135	152	149	150	156	147	154
	Female	85	74	71	80	78	78	98	82	84	93
ICD-9 191, 192/ICD-10 C70-C72 Malignant neoplasm of brain	TOTAL	171	161	222	211	210	224	276	248	248	268
	Male	86	93	129	101	127	126	153	133	141	152
	Female	85	68	93	110	83	88	123	115	107	116
ICD-9 201/ICD-10 81 Hodgkin's disease	TOTAL	25	20	20	20	26	17	17	19	30	17
	Male	18	14	10	14	15	12	9	14	19	10
	Female	7	6	10	6	11	5	8	5	11	7
ICD-9 200, 202/ICD-10 C82-C85 Malignant lymphoma other than Hodgkin's disease	TOTAL	409	407	366	384	409	370	381	373	362	434
	Male	224	219	192	211	207	208	218	213	200	230
	Female	185	188	174	173	202	162	163	160	162	204
ICD-9 203/ICD-10 C88, C90 Multiple myeloma and immunoproliferative neoplasms	TOTAL	128	152	146	166	192	202	201	199	213	203
	Male	70	81	79	93	124	119	107	110	118	123
	Female	58	71	67	73	68	83	94	89	95	80
Other malignant neoplasms	TOTAL	1,592	1,776	2,901	1,956	1,902	2,073	2,061	2,080	2,243	2,092
	Male	881	968	904	960	912	1,049	1,011	1,056	1,112	1,093
	Female	711	808	997	996	990	1,024	1,050	1,024	1,131	999

Note: Beginning with the 2000 data year, the causes of death are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999.

**TABLE 2B-9
NUMBER OF DEATHS FROM UNINTENTIONAL INJURIES IN ACCIDENTS BY CATEGORY AND YEAR AMONG
ARIZONA RESIDENTS, 1998-2008**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total unintentional injury deaths	2,182	2,192	2,087	2,430	2,416	2,466	2,641	3,006	3,156	3,014	2,951
Railway accident	14	6	13	9	3	10	11	10	17	12	9
Motor vehicle accident	1,001	980	896	908	1,003	1,005	1,060	1,137	1,220	1,035	891
Water transport accident	6	7	6	6	4	1	4	5	3	1	4
Accident involving aircraft	17	16	20	9	19	23	21	9	32	17	32
Poisoning by drugs/medicaments	362	383	230	414	458	447	517	549	624	669	689
Poisoning by gases and vapors	28	31	20	32	24	18	16	14	22	52	77
Falls	352	404	374	445	448	469	526	685	702	720	748
Fire, flames, smoke	36	45	46	49	41	42	30	56	43	31	50
Excessive natural heat	51	35	23	21	35	40	34	74	62	28	33
Excessive natural cold	19	15	15	20	15	15	17	28	17	20	25
Contact with venomous snakes and lizards	0	1	1	0	0	0	1	0	0	0	1
Contact with venomous spiders	0	0	0	0	0	0	1	2	0	1	0
Contact with scorpions	0	0	0	1	1	0	0	0	0	0	0
Contact with hornets, wasps, bees	0	0	0	0	0	0	0	0	0	0	0
Bitten or struck by dog	0	1	1	1	0	1	2	1	2	2	1
Lightning	3	5	2	0	0	2	0	3	2	1	0
Storms and floods	2	0	0	3	0	4	0	0	1	1	0
Accidental drowning and submersion	94	83	94	80	65	83	97	83	87	85	78
Choked on food	31	38	35	20	18	41	36	27	30	22	35
Choked on other objects	31	22	34	32	54	59	48	62	48	61	53
Mechanical suffocation	22	28	19	57	23	25	21	27	26	43	29
Accidental discharge of firearms	16	7	11	*NA	26	13	13	15	9	13	10
Exposure to electric current	5	6	7	5	6	4	9	15	4	11	6
Overexertion	0	0	0	0	0	1	0	0	0	0	0
Adverse effects of drugs in therapeutic use	5	3	3	6	9	6	2	4	5	5	7
Misadventures to patients during medical/surgical care	13	17	43	44	46	49	46	39	51	44	40

Note: Beginning in 2000, the data are classified by the Tenth Revision of the International Classification of Diseases (ICD-10), replacing the Ninth Revision (ICD-9) used in Arizona during 1979-1999.

*Approximately 100 firearm fatalities that would have been classified as suicide, had the manual system of coding the underlying cause of death been in place, were misclassified as accidents in 2001. For more information see footnote on Table 3-1, Intentional Self-Harm (suicide), Arizona, 1996-2006, Injury Mortality Among Arizona Residents.

**TABLE 2B-10
NUMBER OF DEATHS FROM MOTOR VEHICLE-RELATED INJURIES BY PERSON INJURED, GENDER AND YEAR,
ARIZONA RESIDENTS, 1998-2008**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
TOTAL											
Total	1,001	980	896	908	1,003	1,005	1,060	1,137	1,220	1,035	891
Male	664	680	617	638	684	689	693	801	831	710	632
Female	337	300	279	270	319	316	367	336	389	325	259
Motorcyclist											
Total	43	68	71	61	81	76	89	113	115	103	113
Male	40	60	62	54	75	68	72	101	99	92	106
Female	3	8	9	7	6	8	17	12	16	11	7
Pedestrian											
Total	181	162	122	142	147	124	143	182	169	155	136
Male	129	131	97	101	103	88	99	141	123	103	101
Female	52	31	25	41	44	36	44	41	46	52	35
Pedal cyclist											
Total	21	23	20	26	8	14	21	39	30	18	12
Male	19	22	18	25	8	12	18	36	29	17	11
Female	2	1	2	1	0	2	3	3	1	1	1
Other person											
Total	756	727	683	679	767	791	807	803	906	759	630
Male	476	467	440	458	498	521	504	523	580	498	414
Female	280	260	243	221	269	270	33	280	326	261	216

Note: Beginning in 2000, the data are classified by the Tenth Revision of the International Classification of Diseases (ICD-10), replacing the Ninth Revision (ICD-9) used in Arizona during 1979-1999. The comparability ratio for motor vehicle accidents is 0.85, a decrease by 15 percent due to ICD-10.

TABLE 2B-11
LEADING CAUSES OF DEATH BY PLACE OF DEATH AND DECEDENT STATUS, ARIZONA, 2008

Causes of death	TOTAL		IN HOSPITAL					NOT IN HOSPITAL				
	In-patient	Out-patient*	Died on arrival	Status unknown	Subtotal	Nursing home**	Residence	Other***	Unspecified	Subtotal		
TOTAL, ALL CAUSES	45,128	2,148	146	1	13,837	15,074	12,261	3,895	61	31,291		
Diseases of heart	10,299	844	48	0	3,508	2,803	3,218	755	15	6,791		
Coronary heart disease	8,162	717	39	0	2,633	2,230	2,698	588	13	5,529		
Malignant neoplasms	9,949	1,750	4	1	1,867	3,900	3,646	532	4	8,082		
Malignant neoplasm of trachea, bronchus and lung	2,636	438	40	0	480	1,009	995	150	2	2,156		
Malignant neoplasm of colon, rectum, and anus	897	131	8	1	140	353	354	50	0	757		
Malignant neoplasm of breast	734	114	2	0	116	293	274	51	0	618		
Malignant neoplasm of prostate	568	77	7	0	84	230	227	27	0	484		
Malignant neoplasm of cervix uteri	60	10	0	0	10	31	17	2	0	50		
Chronic lower respiratory diseases	2,904	707	76	1	784	1,168	783	166	3	2,120		
Cerebrovascular diseases	2,089	620	49	0	669	1,007	276	136	1	1,420		
Accident (unintentional injury)	2,951	688	36	0	1,117	430	573	821	10	1,834		
Motor vehicle accidents	891	195	173	0	392	27	8	461	3	499		
Falls	748	272	31	1	304	325	68	49	2	444		
Accidental poisoning	766	70	104	0	179	12	407	166	2	587		
Accidental drowning and submersion	78	11	26	2	39	1	12	25	1	39		
Alzheimer's disease	2,086	81	10	0	91	1,385	372	237	1	1,995		
Influenza and pneumonia	1,075	624	29	0	655	292	82	46	0	420		
Diabetes	1,162	265	88	0	359	347	397	59	0	803		
Intentional self-harm (suicide)	968	74	58	13	145	8	595	218	2	823		
Chronic liver disease and cirrhosis	778	273	25	3	301	284	164	27	2	477		
Nephritis, nephrotic syndrome and nephrosis	488	219	17	0	236	123	100	29	0	252		
Assault (homicide)	461	73	103	6	182	5	81	191	2	279		
Septicemia	539	436	11	0	448	68	18	2	3	91		
Parkinson's disease	487	35	1	0	36	274	116	61	0	451		
Essential (primary) hypertension & hypertensive renal disease	475	107	23	3	133	215	99	28	0	342		
Human immunodeficiency virus (HIV) disease	109	36	4	0	40	48	15	6	0	69		
Injury by firearms	888	85	104	9	198	5	414	269	2	690		
Drug-induced deaths	947	106	116	3	225	25	523	170	4	722		
Alcohol-induced deaths	772	209	40	8	257	219	226	67	3	515		

* Includes Emergency Room.

** Includes other long-term care facilities.

*** Includes hospices.



2C.

AGE-SPECIFIC MORTALITY

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

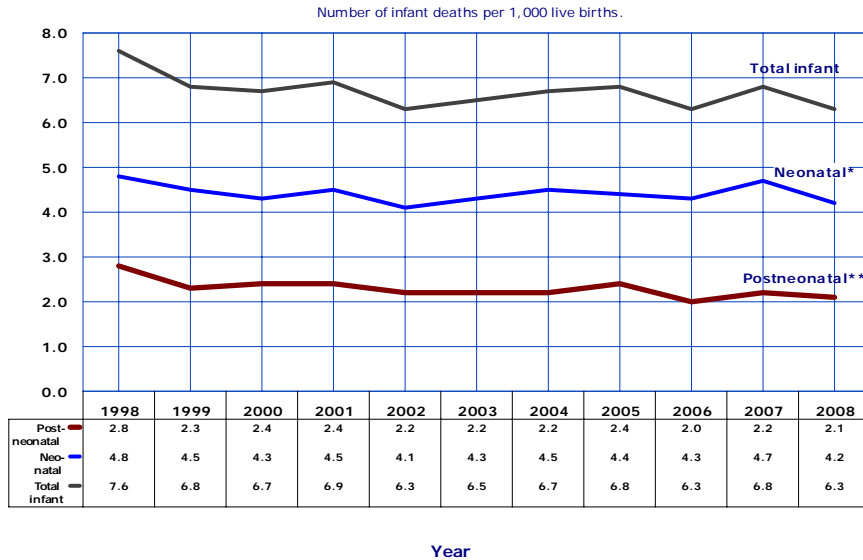
- **Infants** less than one year of age
- **Children** 1 to 14 years old
- **Adolescents** or persons 15 to 19 years old
- **Young adults** or persons 20 to 44 years old
- **Middle-aged adults** or persons 45 to 64 years old
- **Elderly** or persons 65 years or older.

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 the 113 causes of death is provided in **Table 2C-28**. A comparison of age-specific mortality rates is in **Table 2C-29**.

2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-1
Infant Mortality Rates by Neonatal/Postneonatal Age and Year,
Arizona, 1998-2008



Deaths to infants age 0-27 days.
**Deaths to infants age 28 days-1 year.

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

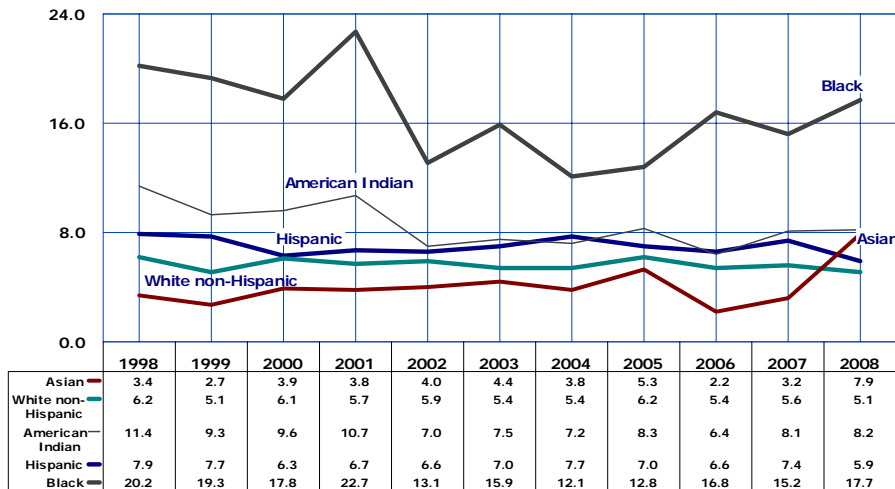
In 2008, 625 Arizona infants died before reaching their first birthday, 76 fewer than in 2007. Even if the risk of infant mortality remained the same as it was in 2007, 24 fewer infant deaths can be attributed to the absolute reduction in the number by 3,472 from 2007 to 2008 $((3,472 \times 6.8)/1,000) = 23.6$.

Based on the actual number of infant deaths and live births in 2008, the infant mortality rate decreased by 7.4 percent from 6.8 infant deaths per 1,000 live births in 2007 to 6.3/1,000 in 2008, matching the IMRs seen both in 2002 and 2006 (Figure 2C-1)

The infants' survival chances improved in both the neonatal (within the first 27 days) and the postneonatal (28 days to first birthday) periods in 2008 (Figure 2C-1, Table 2C-3).

More-detailed infant mortality data from the linked birth/infant death data set are used below to analyze some of the factors contributing to the increase. In the linked file, the information from the death certificate is linked to information from the birth certificate for each resident infant less than 1 year of age who died in Arizona in 2008.

Figure 2C-2
Infant Mortality Rates* by Race/Ethnicity and Year,
Arizona, 1998-2008



Number of infant deaths per 1,000 live births in specified group.

In 2008, 96.0 percent* of all infant death records were successfully matched to their corresponding birth records. Among the 625 infants who died in 2008, 92 were born in 2007.

The mortality risk for infants varies by race/ethnicity. Infants of White non-Hispanic mothers, followed by babies of Hispanic or Latino mothers had the lowest infant mortality rates among the race/ethnic groups in 2008 (Figure 2C-2, Table 2C-2). The infant mortality rose sharply for infants of Asian or Pacific Islander mothers from 3.2/1,000 in 2007 to 7.9/1,000 in 2008.

In 2008, Black infants continued to have the worst survival chances among the ethnic groups (Figure 2C-2). The Black IMR increased by 16.4 percent from 15.2/1,000 in 2007 to 17.7/1,000 in 2008. In contrast, the IMR of White non-Hispanic infants decreased by 8.9 percent from 5.6 in 2007 to 5.1 in 2008.

*Infant death records that were not linked to their corresponding birth certificates include unrecorded home births (i.e., no birth certificates was 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

Newborn weight at birth is one of the most important predictors of an infant's survival chances. In 2008, the infant mortality rate for low birthweight infants (LBW: less than 2,500 grams) was 54.4 deaths per 1,000 live births. Similarly, the infant mortality rate for very low birthweight infants (VLBW: less than 1,500 grams) was 242.3 deaths per 1,000 live births.

The absolute number of low birthweight births actually declined from 7,285 in 2007 to 7,026 in 2008; the former being the highest number of LBW births ever. Moreover, the proportion of babies whose weight at birth was less than 1,000 grams decreased from 8.1 percent of all low birthweight births in 2007 to 7.7 percent in 2008 (**Table 1B-3**). Both factors are chiefly responsible for the improved infants' survival chances in 2008.

Together, births of infants weighing less than 1,000 grams accounted for 0.6 percent of births, and 39.0 percent of all infant deaths. Infants weighing less than 500 grams in 2008 had a very high mortality rate of 82.0 percent (**Figure 2C-3**).

Figure 2C-3
Proportion of Infant Deaths by Birthweight, Arizona, 2008

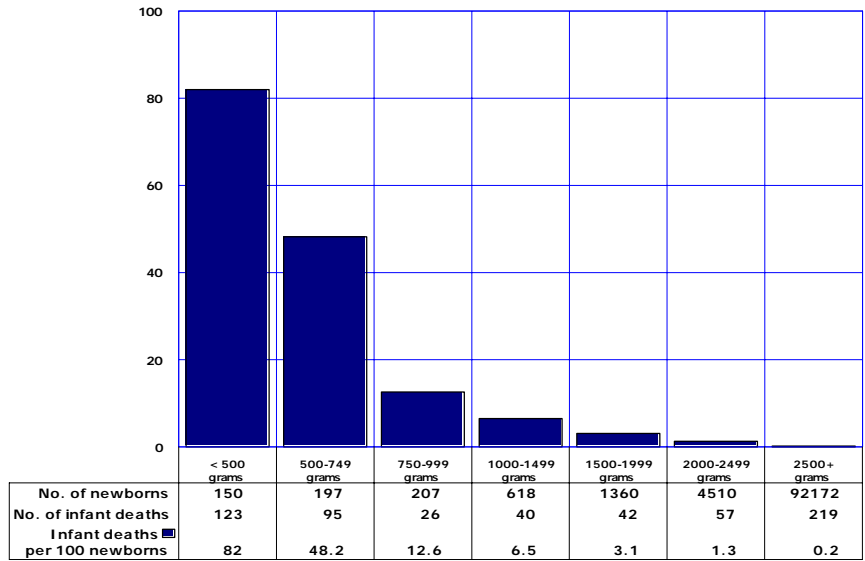
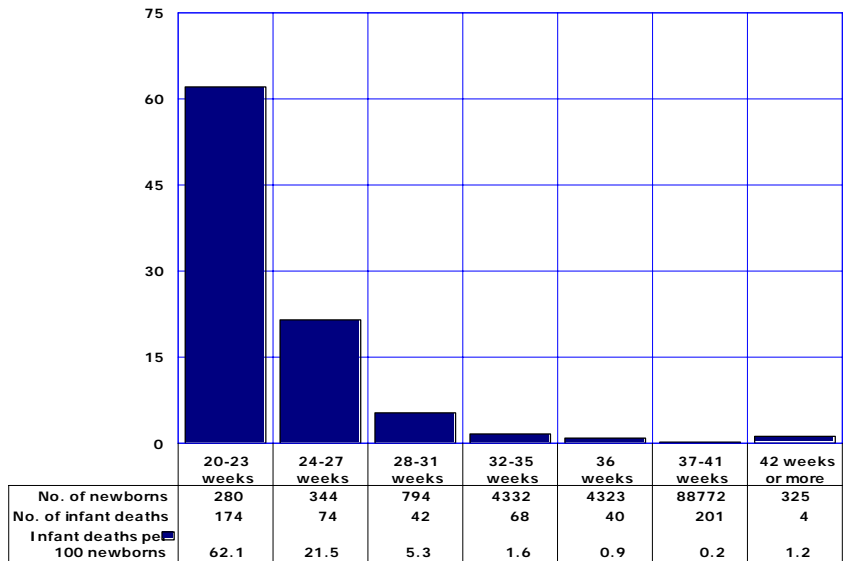


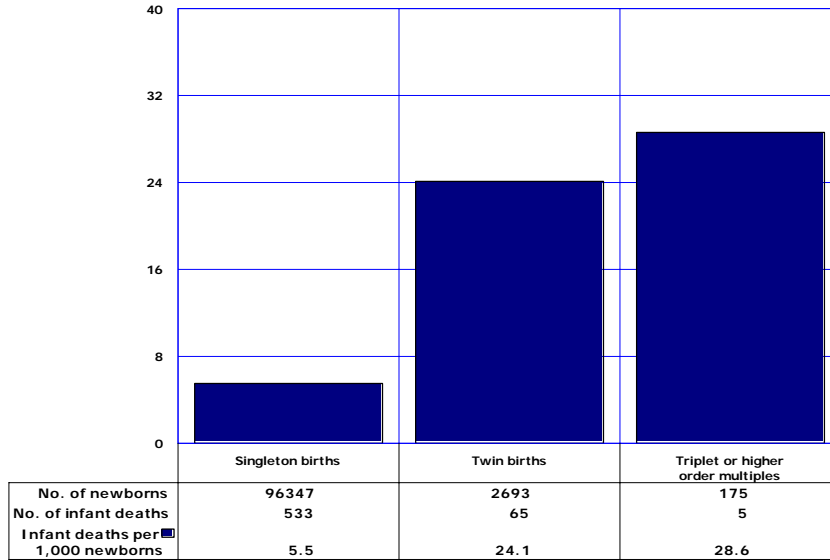
Figure 2C-4
Proportion of Infant Deaths by Gestational Age, Arizona, 2008

As with low birthweight, preterm and very preterm infants have a large impact on the total infant mortality rate because of their much higher risk of infant mortality. For example, births at less than 27 weeks of gestation accounted for only 0.6 percent of all births but 39.7 percent of infant deaths in Arizona in 2008. Births at less than 24 weeks of gestation have a very high infant mortality rate of 62.1 percent (**Figure 2C-4**). Overall, preterm infants (those born at less than 37 weeks of gestation) accounted for 10.2 percent of births (**Table 1B-2**) and 63.7 percent of all infant deaths.



2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-4.2
Infant Mortality Rates for Single and Multiple Births, Arizona, 2008

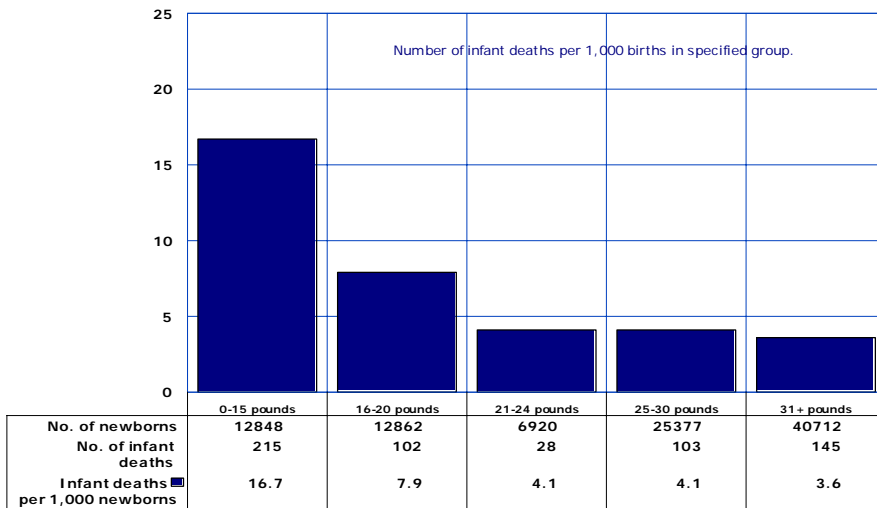


As already noted in Section 1B, infants born in multiple deliveries tend to be born at shorter gestations and smaller than those in singleton deliveries. In 2008, infants born in multiple deliveries were 12.8 times more likely (48.8 vs. 3.8 percent) to be born earlier than expected (at less than 37 completed weeks of gestation) and smaller (at less than 2,500 grams) than singleton births (Figure 1B-10).

The infant mortality rate for single births was 5.5 in 2008 (Figure 2C-4.2). The infant mortality rate for twin births was 24.1, and for triplets or higher order multiples it was 28.6 (the latter rate, based on only 5 infant deaths, is not statistically reliable).

Babies born in multiple deliveries accounted for 2.9 percent of births (Table 1B-2), but 11.2 percent of all infant deaths in Arizona in 2008.

Figure 2C-4.3
Infant Mortality Rates by Maternal Weight Gain during Pregnancy, Arizona, 2008



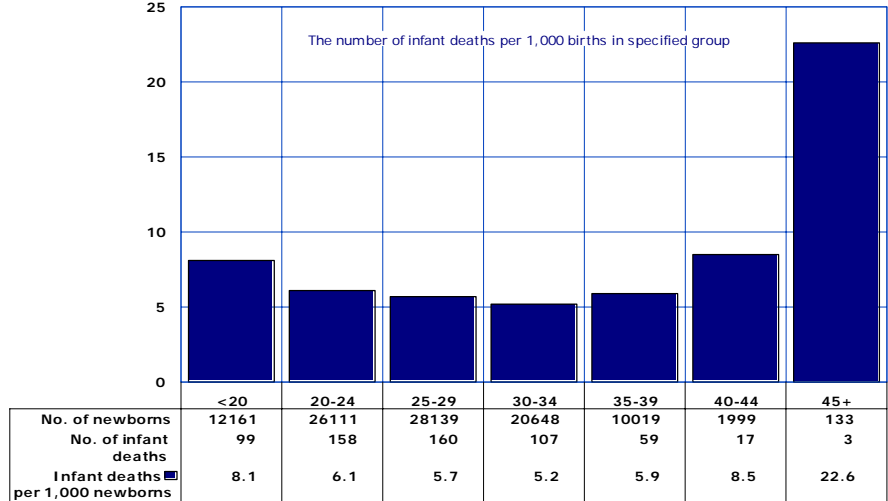
Infant mortality rates vary with maternal weight gain during pregnancy. Insufficient or excessive weight gain during pregnancy can negatively impact both maternal and pregnancy outcome. In 2008, as in previous years, the risk of infant death decreased with increasing maternal weight gain, including maternal weight gain of 31 or more pounds (Figure 2C-4.3). Among the 40,712 women giving birth in 2008 who gained 31 or more pounds, 41.3 percent (compared to 61.7 percent in 2007) had weight gains of more than 40 pounds, considered excessive for all women regardless of their body mass index.

There is no coincidence that mother's weight gain has been shown to have a positive correlation with infant birthweight (Figure 1B-22).

2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-4.4
Infant Mortality Rates by Mother's Age Group, Arizona, 2008

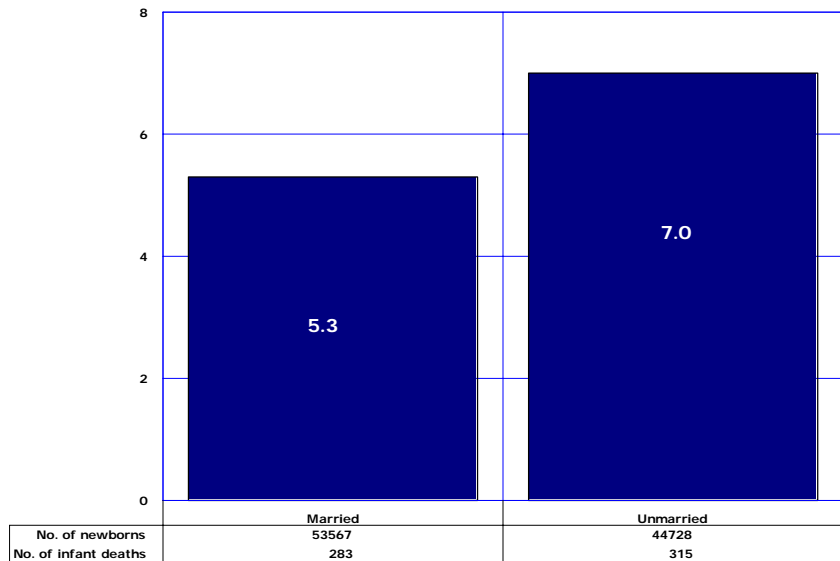
Infant mortality rates vary with maternal age. In 2008, infant mortality decreased with increasing maternal age through 30-34 years of age but increased for infants born to women 35 years of age or older. Optimal maternal age was 30-34 years (**Figure 2C-4.4**). The number of births to women 45 years or older decreased by 10.1 percent from 148 in 2007 to 133 in 2008.



Infants born to unmarried mothers accounted for the absolute majority of infant deaths in 2008 (315 vs. 283); while the number of births to married mothers exceeded by 19.8 percent the number of births to unmarried mothers (53,567 vs. 44,728; **Table 1B-26**). In 2008, infants of married mothers had an infant mortality rate of 5.3 deaths per 1,000 live births, 24.3 percent lower than the rate for infants of unmarried mothers (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 or social support. Mother's marital status may signify the presence or absence of emotional, social, and financial resources.

Additional information is available in our recent report on "Marital Status and Health, Arizona Residents, 2006" at www.azdhs.gov/plan/report/ms/ms06/index.htm

Figure 2C-4.5
Infant Mortality Rates by Mother's Marital Status, Arizona, 2008



**TABLE 2C-1
 INFANT, NEONATAL AND POSTNEONATAL MORTALITY RATES AND PERCENT POSTNEONATAL DEATHS,
 UNITED STATES, ARIZONA AND URBAN/RURAL COUNTIES OF ARIZONA, 1998-2008**

UNITED STATES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Infant mortality ¹	7.2	7.1	6.9	6.8	7.0	6.9	6.7	6.9	6.7	6.6	6.5
Neonatal mortality ¹	4.8	4.7	4.6	4.6	4.7	4.6	4.5	4.6	4.5	NA	NA
Postneonatal mortality ¹	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.2	NA	NA
Percent postneonatal mortality ²	33.8	33.0	33.3	33.3	33.8	33.3	32.8	33.3	32.8	NA	NA
ARIZONA, STATEWIDE TOTAL											
Infant mortality ¹	7.6	6.8	6.7	6.9	6.3	6.5	6.7	6.8	6.3	6.8	6.3
Neonatal mortality ¹	4.8	4.5	4.3	4.5	4.1	4.3	4.5	4.4	4.3	4.7	4.2
Postneonatal mortality ¹	2.8	2.3	2.4	2.4	2.2	2.2	2.2	2.4	2.0	2.2	2.1
Percent postneonatal mortality ²	37.7	33.8	35.9	34.8	35.0	33.8	32.8	35.3	31.5	32.4	33.3
URBAN COUNTIES											
Infant mortality ¹	7.2	6.8	6.5	6.9	6.4	6.4	6.7	6.5	6.3	6.6	6.3
Neonatal mortality ¹	4.8	4.5	4.2	4.7	4.2	4.4	4.7	4.3	4.3	4.6	4.3
Postneonatal mortality ¹	2.5	2.3	2.3	2.2	2.2	2.0	2.0	2.2	2.0	2.0	2.0
Percent postneonatal mortality ²	34.0	33.8	35.4	31.9	34.4	31.5	29.9	33.8	31.3	30.3	31.8
RURAL COUNTIES											
Infant mortality ¹	9.2	6.7	7.7	6.3	6.2	7.1	6.9	8.6	6.3	8.0	6.2
Neonatal mortality ¹	5.0	4.6	4.6	3.4	3.8	3.8	3.8	5.0	4.3	4.8	3.5
Postneonatal mortality ¹	4.2	2.1	3.1	2.9	2.4	3.3	3.1	3.6	2.0	3.3	2.7
Percent postneonatal mortality ²	45.6	31.3	40.3	46.0	38.7	46.2	44.9	41.9	32.6	41.3	43.6

¹Rates per 1,000 live births. The U.S. rates are from the National Center for Health Statistics. The 2007 and 2008 U.S. rates are provisional.

²Total infant mortality = 100 percent.

Note: 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-2
NUMBER AND RATE¹ OF INFANT DEATHS BY RACE/ETHNICITY AND GENDER, ARIZONA, 1998-2008
NUMBER OF INFANT DEATHS:**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White non-Hispanic											
Total	242	196	244	221	229	208	211	245	232	237	215
Male	142	115	149	138	147	124	129	140	119	135	114
Female	100	81	95	83	82	84	82	105	113	102	101
Hispanic or Latino											
Total	229	238	213	236	238	274	314	296	297	338	251
Male	121	138	105	119	139	148	168	161	173	186	142
Female	108	100	108	117	99	126	146	135	124	152	109
Black or African American											
Total	53	52	49	62	36	48	39	44	65	63	76
Male	29	29	28	36	18	26	26	30	36	42	42
Female	24	23	21	26	18	22	13	14	29	21	34
American Indian or Alaska Native											
Total	62	49	54	57	39	44	44	52	41	52	52
Male	37	25	33	29	22	22	24	25	28	29	27
Female	25	24	21	28	17	22	20	27	13	23	25
Asian or Pacific Islander											
Total	6	5	8	8	9	11	10	15	7	11	27
Male	3	4	5	4	6	6	4	7	5	7	15
Female	3	1	3	4	3	5	6	8	2	4	12
All groups²											
Total	592	547	568	587	552	586	622	653	642	701	625
Male	332	315	320	327	332	326	353	364	361	399	343
Female	260	232	248	260	220	260	269	289	281	302	282

INFANT MORTALITY RATES:

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White non-Hispanic											
Total	6.2	5.1	6.1	5.7	5.9	5.4	5.4	6.2	5.4	5.6	5.1
Male	7.2	5.8	7.3	6.9	7.3	6.2	6.4	6.9	5.4	6.3	5.3
Female	5.3	4.3	4.9	4.4	4.4	4.4	4.3	5.5	5.4	4.9	4.9
Hispanic or Latino											
Total	7.9	7.7	6.3	6.7	6.6	7.0	7.7	7.0	6.6	7.4	5.9
Male	8.3	8.7	6.0	6.7	7.5	7.4	8.0	7.5	7.5	7.9	6.5
Female	7.6	6.6	6.5	6.8	5.6	6.6	7.3	6.6	5.7	6.8	5.2
Black or African American											
Total	20.2	19.3	17.8	22.7	13.1	15.9	12.1	12.8	16.8	15.1	17.7
Male	21.2	20.0	20.0	26.8	12.6	16.6	15.7	17.2	18.3	19.5	18.7
Female	19.0	18.4	15.4	18.7	13.6	15.1	8.3	8.2	15.3	10.5	16.6
American Indian or Alaska Native											
Total	11.4	9.3	9.6	10.7	7.0	7.5	7.2	8.3	6.4	8.1	8.2
Male	13.2	9.4	11.6	10.9	7.9	7.6	7.7	7.8	8.8	9.0	8.5
Female	9.4	9.1	7.6	10.5	6.2	7.4	6.7	8.7	4.1	7.2	7.9
Asian or Pacific Islander											
Total	3.4	2.7	3.9	3.8	4.0	4.4	3.8	5.3	2.2	3.2	7.9
Male	3.3	4.3	4.9	3.8	5.2	4.7	2.9	4.9	3.1	3.9	8.5
Female	3.6	1.1	3.0	3.8	2.7	4.0	4.8	5.8	1.3	2.5	7.2
All groups²											
Total	7.6	6.8	6.7	6.9	6.3	6.5	6.7	6.8	6.3	6.8	6.3
Male	8.5	7.6	7.4	7.5	7.4	7.0	7.4	7.4	6.9	7.6	6.8
Female	6.8	5.9	6.0	6.2	5.2	5.9	5.9	6.2	5.6	6.0	5.8

¹Number 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.

²Includes records with other and unknown ethnic group.

**TABLE 2C-3
NUMBER AND RATE¹ OF INFANT DEATHS BY RACE/ETHNICITY AND AGE GROUP, 1998-2008
NUMBER OF INFANT DEATHS:**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White non-Hispanic											
Total	242	196	244	221	229	208	211	245	232	237	215
Neonatal	154	143	153	156	151	143	155	163	161	161	138
Postneonatal	88	53	91	65	78	65	56	82	71	76	77
Hispanic or Latino											
Total	229	238	213	236	238	274	314	296	297	338	251
Neonatal	153	151	144	159	165	190	209	205	213	239	175
Postneonatal	76	87	69	77	73	84	105	91	84	99	76
Black or African American											
Total	53	52	49	62	36	48	39	44	65	63	76
Neonatal	37	31	27	41	16	31	25	19	37	43	51
Postneonatal	16	21	22	21	20	17	14	25	28	20	25
American Indian or Alaska Native											
Total	62	49	54	57	39	44	44	52	41	52	52
Neonatal	28	29	36	22	20	18	21	27	26	27	29
Postneonatal	34	20	18	35	19	26	23	25	15	25	23
Asian or Pacific Islander											
Total	6	5	8	8	9	11	10	15	7	11	27
Neonatal	3	3	4	5	7	5	7	9	3	9	22
Postneonatal	3	2	4	3	2	6	3	6	4	2	5
All groups²											
Total	592	547	568	587	552	586	622	653	642	701	625
Neonatal	375	363	364	386	360	388	421	424	440	479	419
Postneonatal	217	184	204	201	192	198	201	229	202	222	206

INFANT MORTALITY RATES:

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White non-Hispanic											
Total	6.2	5.1	6.1	5.7	5.9	5.4	5.4	6.2	5.4	5.6	5.1
Neonatal	4.0	3.7	3.8	4.0	3.9	3.7	3.9	4.1	3.7	3.8	3.3
Postneonatal	2.3	1.4	2.3	1.7	2.0	1.7	1.4	2.1	1.7	1.8	1.8
Hispanic or Latino											
Total	7.9	7.7	6.3	6.7	6.6	7.0	7.7	7.0	6.6	7.4	5.9
Neonatal	5.3	4.9	4.2	4.5	4.6	4.9	5.1	4.9	4.7	5.2	4.1
Postneonatal	2.6	2.8	2.0	2.2	2.0	2.1	2.6	2.1	1.9	2.2	1.8
Black or African American											
Total	20.2	19.3	17.8	22.7	13.1	15.9	12.1	12.8	16.8	15.1	17.7
Neonatal	14.1	11.5	9.8	15.0	5.8	10.3	7.8	5.5	9.6	10.3	11.9
Postneonatal	6.1	7.8	8.0	7.7	7.3	5.6	4.4	7.3	7.2	4.8	5.8
American Indian or Alaska Native											
Total	11.4	9.3	9.6	10.7	7.0	7.5	7.2	8.3	6.4	8.1	8.2
Neonatal	5.1	5.5	6.4	4.1	3.6	3.1	3.4	4.3	4.0	4.2	4.6
Postneonatal	6.2	3.8	3.2	6.6	3.4	4.4	3.8	4.0	2.4	3.9	3.6
Asian or Pacific Islander											
Total	3.4	2.7	3.9	3.8	4.0	4.4	3.8	5.3	2.2	3.2	7.9
Neonatal	1.7	1.6	2.0	2.4	3.1	2.0	2.7	3.2	1.0	2.6	6.4
Postneonatal	1.7	1.1	2.0	1.4	0.9	2.4	1.1	2.1	1.2	0.6	1.5
All groups²											
Total	7.6	6.8	6.7	6.9	6.3	6.5	6.7	6.8	6.3	6.8	6.3
Neonatal	4.8	4.5	4.3	4.5	4.1	4.3	4.5	4.4	4.3	4.7	4.2
Postneonatal	2.8	2.3	2.4	2.4	2.2	2.2	2.2	2.4	2.0	2.2	2.1

¹Number 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.

²Includes 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, 2008**

	NUMBER OF DEATHS BY AGE			MORTALITY RATES ¹		
	Total	Neonatal	Postneonatal	Total	Neonatal	Postneonatal
TOTAL, ALL GROUPS	625	419	206	6.3	4.2	2.1
Male	343	231	112	6.8	4.6	2.2
Female	282	188	94	5.8	3.9	1.9
White non-Hispanic	215	138	77	5.1	3.3	1.8
Male	114	73	41	5.3	3.4	1.9
Female	101	65	36	4.9	3.2	1.8
Hispanic or Latino	251	175	76	5.9	4.1	1.8
Male	142	96	46	6.5	4.4	2.1
Female	109	79	30	5.2	3.8	1.4
Black or African American	76	51	25	17.7	11.9	5.8
Male	42	30	12	18.7	13.3	5.3
Female	34	21	13	16.6	10.2	6.3
American Indian or Alaska Native	52	29	23	8.2	4.6	3.6
Male	27	17	10	8.5	5.3	3.1
Female	25	12	13	7.9	3.8	4.1
Asian or Pacific Islander	27	22	5	7.9	6.4	1.5
Male	15	12	3	8.5	6.8	1.7
Female	12	10	2	7.2	6.0	1.2

¹Number of deaths per 1,000 live births in specified gender group by mother's race/ethnicity. Denominators are from Table 5B-8.
Note: Rates based on fewer than 10 cases are not statistically reliable.

**TABLE 2C-5
NUMBER OF DEATHS FOR SELECTED LEADING CAUSES OF INFANT MORTALITY BY YEAR, ARIZONA, 1998-2008**

Causes of death	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Congenital malformations, deformations and chromosomal abnormalities	139	128	134	141	99	126	152	149	142	159	148
of respiratory system	13	23	21	14	11	10	14	15	9	9	5
of brain, spinal cord or nervous system	14	13	14	18	18	23	20	19	28	20	24
Short gestation and low birth weight	70	65	55	73	95	85	84	79	93	95	92
Maternal complications	27	23	15	27	34	31	36	47	42	30	54
Sudden infant death syndrome	55	38	24	34	36	28	25	32	37	43	43
Accidents (unintentional injuries)	14	26	15	25	21	23	19	24	17	30	25
Influenza and pneumonia	32	21	16	20	19	21	17	19	13	5	7
Assault (homicide)	4	0	6	5	3	11	5	8	11	12	6
Intrauterine hypoxia or birth asphyxia	6	4	15	7	15	10	14	12	7	11	11
Respiratory distress syndrome	6	5	8	14	6	8	8	12	12	8	11
Total, all causes	592	547	568	587	552	586	622	653	642	701	625

Note: 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 RATES¹ FOR SELECTED LEADING CAUSES OF DEATH BY YEAR, ARIZONA, 1998-2008**

Causes of death	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Congenital malformations, deformations and chromosomal abnormalities	1.8	1.6	1.6	1.7	1.1	1.4	1.6	1.6	1.4	1.5	1.5
of respiratory system	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
of brain, spinal cord or nervous system	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2
Short gestation and low birth weight	0.9	0.8	0.6	0.9	1.1	0.9	0.9	0.8	0.9	0.9	0.9
Maternal complications	0.3	0.3	0.2	0.3	0.4	0.3	0.4	0.5	0.4	0.3	0.5
Sudden infant death syndrome	0.7	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Accidents (unintentional injuries)	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2
Influenza and pneumonia	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0
Assault (homicide)	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Intrauterine hypoxia or birth asphyxia	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Respiratory distress syndrome	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total, all causes	7.6	6.8	6.7	6.9	6.3	6.5	6.7	6.8	6.3	6.8	6.3

¹Number of infant deaths per 1,000 live births.

Note: 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). Rates based on fewer than 10 infant deaths are not statistically reliable.

**TABLE 2C-7
 INFANT MORTALITY RATES¹ FOR THE LEADING CAUSES OF DEATH BY AGE GROUP, GENDER, RACE/ETHNICITY AND AREA²,
 ARIZONA, 2008**

Causes of death	Total	Age		Gender		Race/ethnicity						Area	
		Neonatal	Post-neonatal	Male	Female	White non Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Urban	Rural	
Congenital malformations, deformations and chromosomal abnormalities	1.5	1.0	0.5	1.3	1.6	1.2	1.6	1.9	1.6	1.8	1.4	1.6	
of heart	0.3	0.1	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.2	
of respiratory system	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.1	
of brain, spinal cord or nervous system	0.2	0.2	0.1	0.3	0.1	0.2	0.2	0.5	0.5	0.0	0.2	0.4	
Short gestation and low birth weight	0.9	0.9	0.0	1.1	0.7	0.6	0.8	3.5	0.6	2.0	1.0	0.6	
Maternal complications	0.5	0.5	0.0	0.7	0.4	0.5	0.5	1.2	0.3	0.9	0.6	0.2	
Complications of placenta, cord and membrane	0.3	0.3	0.0	0.3	0.3	0.1	0.4	0.9	0.5	0.6	0.4	0.0	
Sudden infant death syndrome	0.4	0.0	0.4	0.5	0.4	0.3	0.4	1.9	0.8	0.6	0.4	0.5	
Accident (unintentional injury)	0.3	0.0	0.2	0.3	0.2	0.3	0.2	0.5	0.3	0.0	0.2	0.5	
Influenza and pneumonia	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	
Bacterial sepsis of newborn	0.2	0.2	0.0	0.2	0.1	0.1	0.1	1.2	0.2	0.6	0.1	0.4	
Intrauterine hypoxia or birth asphyxia	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.2	0.3	0.0	0.1	0.2	
Diseases of the circulatory system	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.5	0.0	0.0	0.1	0.1	
Respiratory distress syndrome	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.2	0.2	0.0	0.1	0.1	
Atelectasis	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	
Assault (homicide)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total, all causes	6.3	4.2	2.1	6.8	5.8	5.1	5.9	17.7	8.2	7.9	6.3	6.2	

¹Number of infant deaths per 1,000 live births. Infant mortality rates by race/ethnicity are by mother's race/ethnicity.

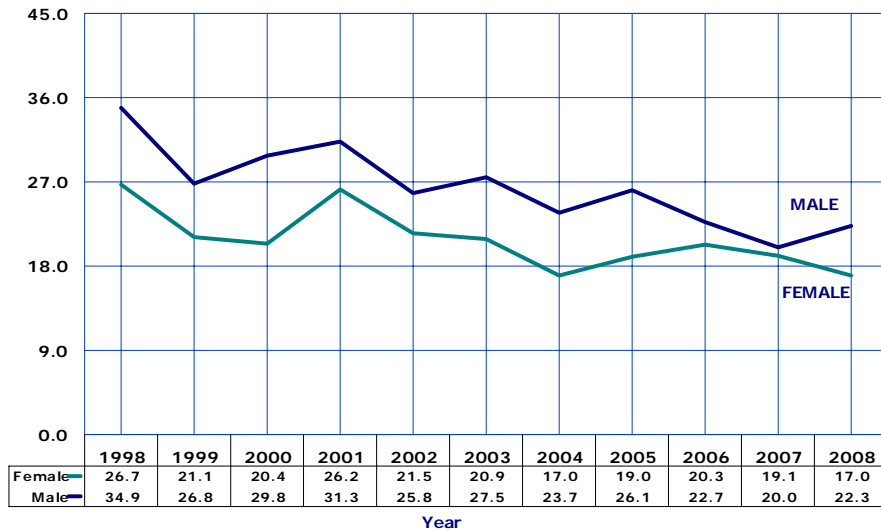
²Urban= Maricopa, Pima, Pinal and Yuma Counties. The remaining counties comprise Arizona's rural areas.

0.0 Quantity less than 0.05.

Note: Rates based on fewer than 10 infant deaths are not statistically reliable.

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

Figure 2C-5
Mortality Rates by Gender and Year among Children 1-14 Years, Arizona, 1998-2008

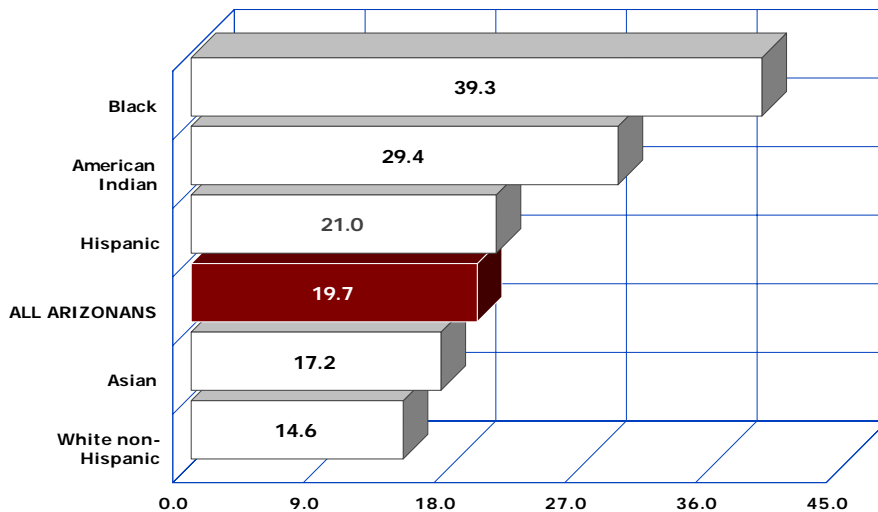


Number of deaths per 100,000 persons, 1-14 years old in specified group.

Death claimed the lives of 262 of the 1,330,464 children (1 to 14 years old) residing in Arizona in 2008. Their 2008 mortality rate of 19.7 per 100,000 was not significantly different from the rate of 19.5 in 2007 (**Table 2C-8**). Females but not males experienced a decrease in their total mortality rates from 2007 to 2008 (**Figure 2C-5, Table 2C-8**).

Females aged 1-14 years died in 2008 at the lowest rate since 1980.

Figure 2C-6
Mortality Rates by Race/Ethnicity among Children 1-14 Years, Arizona, 2008



*Number of deaths per 100,000 persons, 1-14 years old in specified group.

Black or African American children had the highest 2008 total mortality rate (39.3 deaths per 100,000), followed by American Indian (29.4/100,000) and Hispanic children (21.0 deaths per 100,000; **Figure 2C-6**). The mortality rates for Asian and White non-Hispanic children were lower than the average rate for all groups.

It is important to note that the rate for Asian or Pacific Islander children is based on only 6 deaths (**Table 2C-11**), and it is not statistically reliable.

**TABLE 2C-8
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG CHILDREN (1-14 YEARS) BY GENDER,
ARIZONA, 1998-2008**

Gender/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
MALE												
Accidents (unintentional injuries)	15.3	12.2	13.6	13.7	9.6	11.3	9.5	10.0	8.0	8.3	7.8	-49.2
Motor vehicle accidents	7.2	7.9	6.6	6.5	5.1	6.5	5.2	4.5	4.2	4.6	2.5	-65.3
Drowning	4.5	2.1	3.5	3.5	2.4	2.8	2.7	2.3	0.9	1.5	2.9	-35.6
Other	3.7	2.2	3.5	3.7	2.1	2.0	1.6	3.2	2.9	2.2	2.4	-35.1
Congenital malformations	2.1	1.5	1.1	1.4	1.2	1.7	1.6	1.9	2.3	0.7	1.8	-14.3
Malignant neoplasms	2.3	2.4	2.7	2.5	1.4	2.7	1.6	1.7	1.7	2.2	2.5	8.7
Assault (homicide)	2.7	0.9	1.1	1.9	1.9	0.7	2.3	2.0	1.5	1.3	1.2	-55.6
Intentional self-harm (suicide)	1.7	1.1	0.9	1.6	1.0	1.2	0.3	1.1	0.5	0.4	0.9	-47.1
ALL CAUSES	34.9	26.8	29.8	31.3	25.8	27.5	23.7	26.1	22.7	20.0	22.3	-36.1
(Number of all deaths)	(180)	(143)	(164)	(178)	(151)	(166)	(147)	(168)	(150)	(134)	(152)	-15.6
FEMALE												
Accidents (unintentional injuries)	9.8	7.0	7.8	9.4	7.3	6.8	6.6	7.8	7.8	6.3	4.6	-53.1
Motor vehicle accidents	5.8	3.5	5.0	4.1	4.5	4.2	4.1	4.6	4.1	3.6	2.8	-51.7
Drowning	2.1	2.3	2.1	2.6	1.4	1.2	1.2	1.6	2.1	0.8	0.9	-57.1
Other	1.9	1.2	0.7	2.7	1.4	1.4	1.0	1.6	1.6	1.9	0.9	-52.6
Malignant neoplasms	2.1	3.1	2.7	2.2	2.5	2.6	2.0	2.1	0.9	4.2	2.0	-4.8
Congenital malformations	0.9	1.8	1.0	2.4	1.8	1.9	1.4	1.8	2.1	1.3	1.5	66.7
Assault (homicide)	2.3	1.2	0.6	2.4	1.3	1.0	0.7	0.8	0.8	1.4	0.9	-60.9
Influenza and pneumonia	1.1	0.6	0.6	0.7	0.4	0.5	0.7	0.5	0.9	0.2	0.6	-45.5
ALL CAUSES	26.7	21.1	20.4	26.2	21.5	20.9	17.0	19.0	20.3	19.1	17.0	-36.3
(Number of all deaths)	(125)	(103)	(107)	(142)	(120)	(120)	(101)	(117)	(128)	(122)	(110)	-12.0
TOTAL												
Accidents (unintentional injuries)	12.7	9.7	10.8	11.6	8.5	9.1	8.1	8.9	7.9	7.3	6.2	-51.2
Motor vehicle accidents	6.5	5.8	5.8	5.3	4.8	5.4	4.6	4.5	4.2	4.1	2.6	-60.0
Drowning	3.4	2.2	2.8	3.1	1.9	2.0	2.0	2.0	1.5	1.1	2.0	-41.2
Other	2.8	1.8	2.2	3.2	1.8	1.7	1.5	2.4	2.2	2.1	1.6	-42.9
Malignant neoplasms	2.2	2.7	2.7	2.3	1.9	2.6	1.8	1.9	1.3	3.2	2.3	4.5
Congenital malformations	1.5	1.7	1.0	1.9	1.5	1.8	1.5	1.8	2.2	1.0	1.7	13.3
Assault (homicide)	2.5	1.1	0.8	2.2	1.6	0.8	1.5	1.4	1.2	1.4	1.1	-56.0
Intentional self-harm (suicide)	1.1	0.7	0.6	0.8	1.0	0.7	0.2	0.9	0.9	0.4	0.6	-45.5
ALL CAUSES	31.0	24.1	25.3	28.8	23.7	24.3	20.4	22.7	21.5	19.5	19.7	-36.5
(Number of all deaths)	(305)	(246)	(271)	(320)	(271)	(286)	(248)	(285)	(278)	(256)	(262)	-14.1

¹Number of deaths per 100,000 children 1-14 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

**TABLE 2C-9
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG CHILDREN (1-14 YEARS)
IN URBAN AND RURAL AREAS³, ARIZONA, 1998-2008**

Area/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Accidents (unintentional injuries)	11.6	8.1	10.0	11.3	7.1	7.3	6.8	9.2	7.1	6.5	5.4	-50.9
Motor vehicle accidents	5.7	4.9	5.6	4.8	3.4	4.2	3.7	4.2	3.9	3.2	2.0	-64.9
Drowning	3.4	2.2	3.0	3.5	2.2	2.2	2.1	2.3	1.4	1.3	1.8	-47.1
Other	2.5	1.1	1.4	3.0	1.5	0.9	1.0	2.7	1.8	2.0	1.7	-32.0
Malignant neoplasms	2.4	2.6	2.9	2.6	2.0	2.8	1.6	2.2	1.5	3.4	2.6	8.3
Congenital malformations	1.4	1.6	1.2	2.0	1.6	1.6	1.5	1.7	2.4	0.8	1.7	21.4
Assault (homicide)	2.4	1.3	1.0	2.4	1.6	0.9	1.4	1.3	1.1	1.4	1.1	-54.2
Intentional self-harm (suicide)	1.0	0.4	0.5	0.7	0.8	0.6	0.1	0.5	0.6	0.4	0.4	-60.0
ALL CAUSES	29.2	21.4	24.4	27.3	21.8	22.4	18.3	21.9	20.9	18.6	18.5	-36.6
(Number of all deaths)	(235)	(179)	(216)	(251)	(207)	(219)	(184)	(229)	(228)	(206)	(210)	-10.6
RURAL												
Accidents (unintentional injuries)	12.8	16.0	14.5	13.2	15.3	18.0	14.6	7.6	12.0	12.0	10.3	-19.5
Motor vehicle accidents	6.7	9.0	6.5	7.9	11.8	11.0	9.2	6.2	5.5	9.0	6.4	-4.5
Drowning	2.2	2.1	1.6	1.1	0.5	1.5	1.5	0.5	2.0	0.5	2.5	13.6
Other	3.9	4.8	6.4	4.2	3.0	5.5	3.9	0.9	4.5	2.5	1.5	-61.5
Malignant neoplasms	1.1	2.7	1.6	1.1	1.5	2.0	2.9	0.5	0.5	2.0	0.5	-54.5
Congenital malformations	2.2	2.1	0.0	1.6	1.0	2.5	1.5	2.4	1.0	2.0	1.5	-31.8
Assault (homicide)	2.2	0.0	0.0	1.1	1.5	0.5	1.9	1.9	1.5	1.0	1.0	-54.5
Intentional self-harm (suicide)	0.6	2.1	1.1	1.6	2.0	1.0	0.5	2.8	2.0	0.5	1.5	150.0
ALL CAUSES	27.4	30.3	29.6	35.3	32.7	33.5	31.1	26.5	25.0	24.9	25.5	-6.9
(Number of all deaths)	(49)	(57)	(55)	(67)	(64)	(67)	(64)	(56)	(50)	(50)	(52)	6.1
STATEWIDE												
Accidents (unintentional injuries)	12.7	9.7	10.8	11.6	8.5	9.1	8.1	8.9	7.9	7.3	6.2	-51.2
Motor vehicle accidents	6.5	5.8	5.8	5.3	4.8	5.4	4.6	4.5	4.2	4.1	2.6	-60.0
Drowning	3.4	2.2	2.8	3.1	1.9	2.0	2.0	2.0	1.5	1.1	2.0	-41.2
Other	2.8	1.8	2.2	3.2	1.8	1.7	1.5	2.4	2.2	2.1	1.6	-42.9
Malignant neoplasms	2.2	2.7	2.7	2.3	1.9	2.6	1.8	1.9	1.3	3.2	2.3	4.5
Congenital malformations	1.5	1.7	1.0	1.9	1.5	1.8	1.5	1.8	2.2	1.0	1.7	13.3
Assault (homicide)	2.5	1.1	0.8	2.2	1.6	0.8	1.5	1.4	1.2	1.4	1.1	-56.0
Intentional self-harm (suicide)	1.1	0.7	0.6	0.8	1.0	0.7	0.2	0.9	0.9	0.4	0.6	-45.5
ALL CAUSES	31.0	24.1	25.3	28.8	23.7	24.3	20.4	22.7	21.5	19.5	19.7	-36.5
(Number of all deaths)	(305)	(246)	(271)	(320)	(271)	(286)	(248)	(285)	(278)	(256)	(262)	-14.1

¹Number of deaths per 100,000 children 1-14 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

³Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: 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 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

TABLE 2C-10
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES OF DEATH AMONG CHILDREN (1-14 YEARS) BY GENDER
IN URBAN AND RURAL AREAS², ARIZONA, 1998-2008

Area/Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Male	35.5	23.4	29.0	29.5	24.5	24.4	21.9	25.9	22.2	19.2	21.1	-40.6
Female	17.3	19.3	19.4	25.0	19.0	20.2	14.4	17.6	19.5	18.0	15.9	-8.1
TOTAL	29.2	21.4	24.4	27.3	21.8	22.3	18.3	21.9	20.9	18.6	18.5	-36.6
RURAL												
Male	30.2	37.0	37.7	39.2	32.0	42.1	31.8	27.0	25.5	24.4	27.9	-7.6
Female	24.3	23.2	27.1	31.2	33.4	24.5	30.3	26.1	24.4	25.4	23.0	-5.3
TOTAL	27.4	30.3	29.6	35.3	32.7	33.5	31.1	26.5	25.0	24.9	25.5	-6.9
STATEWIDE												
Male	34.9	26.8	29.8	31.3	25.8	27.5	23.7	26.1	22.7	20.0	22.3	-36.1
Female	26.7	21.1	20.4	26.2	21.5	20.9	17.0	19.0	20.3	19.1	17.0	-36.3
TOTAL	31.0	24.1	25.3	28.8	23.7	24.3	20.4	22.7	21.5	19.5	19.7	-36.5

¹Rates are presented per 100,000 children 1-14 years old.

²Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas.

Note: Records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

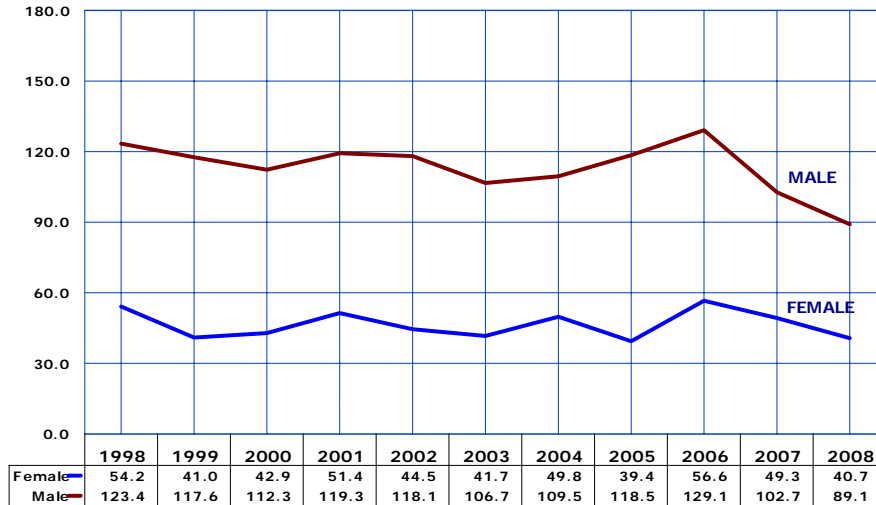
TABLE 2C-11
LEADING CAUSES OF DEATH AMONG CHILDREN (1-14 YEARS) BY GENDER, AREA AND RACE/ETHNICITY, ARIZONA, 2008

Cause of death	Total	Gender		Area*		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	Other/Unknown
Accidents (unintentional injury)	83	53	30	62	21	33	31	6	9	1	3
Motor vehicle accidents	35	17	18	22	13	11	16	1	5	1	1
Accidental drowning and submersion	26	20	6	21	5	8	11	3	4	0	0
Accidental exposure to smoke, fire and flames	3	2	1	1	2	2	1	0	0	0	0
Malignant neoplasms	30	17	13	29	1	13	13	1	2	1	0
Leukemia	9	3	6	8	1	4	4	0	1	0	0
Congenital malformations	22	12	10	19	3	9	10	1	2	0	0
Assault (homicide)	14	8	6	12	2	3	8	2	1	0	0
By discharge of firearms	6	3	3	6	0	1	4	1	0	0	0
By other means	8	5	3	6	2	2	4	1	1	0	0
Intentional self-harm (suicide)	8	6	2	5	3	4	2	0	2	0	0
Septicemia	8	2	6	7	1	4	4	0	0	0	0
Diseases of heart	8	5	3	5	3	3	5	0	0	0	0
Influenza and pneumonia	7	3	4	5	2	0	4	2	1	0	0
Cerebrovascular diseases	7	3	4	7	0	1	6	0	0	0	0
Chronic lower respiratory diseases	4	3	1	3	1	2	0	2	0	0	0
Asthma	3	2	1	2	1	1	0	2	0	0	0
Total, all causes	262	152	110	210	52	89	112	26	26	6	3

*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 by Gender and Year among Adolescents 15-19 Years,
Arizona, 1998-2008

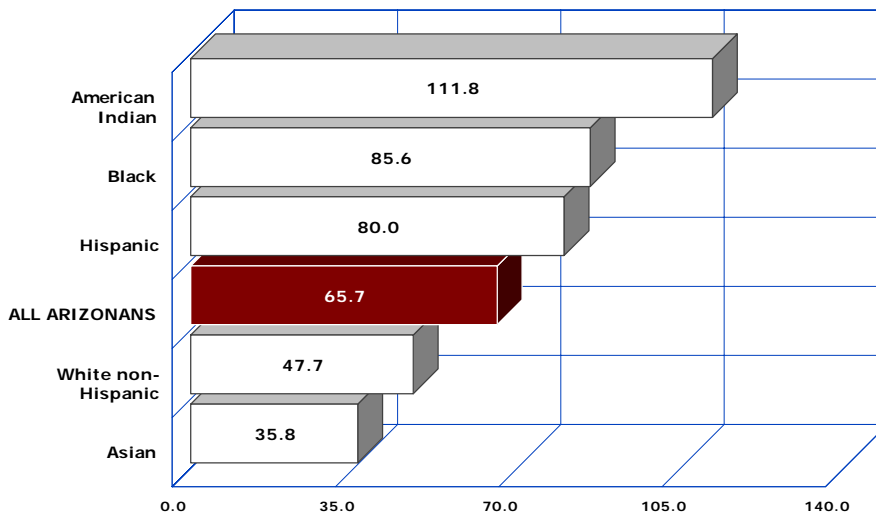


Number of deaths per 100,000 persons, 15-19 years old in specified group.

Adolescents refer to those individuals between the ages of 15 to 19, an important developmental period marking the transition from childhood to adulthood. In 2008, an estimated 451,910 adolescents resided in Arizona (Table 10C-1), comprising 6.9 percent of the State's population. The lives of 297 resident adolescents prematurely ended in 2008, resulting in a total mortality rate of 65.7 deaths per 100,000 adolescents. This mortality rate was 27.7 percent lower than the 1998 rate (Table 2C-12). In fact, the adolescent mortality rate in 2008 was the lowest rate since 1980.

The likelihood of dying was 2.2 times as high for adolescent boys than girls in 2008 (Figure 2C-9, Table 2C-12).

Figure 2C-10
Mortality Rates by Race/Ethnicity among Adolescents 15-19 Years, Arizona, 2008



Number of deaths per 100,000 persons, 15-19 years old in specified group.

From best to worst survival chances of adolescents 15-19 years old, the 2008 rank-order was Asian, White non-Hispanic, Hispanic, Black and American Indian (Figure 2C-10). If the 2008 mortality risk of Asian adolescents (i.e., their mortality rate) applied to all adolescents, 162 would have died: 135 less than the 297 who actually did.

**TABLE 2C-12
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG ADOLESCENTS (15-19 YEARS) BY GENDER,
ARIZONA, 1998-2008**

Gender/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
MALE												
Accidents (unintentional injuries)	50.9	50.2	47.2	51.3	50.2	49.3	51.3	49.4	57.7	48.3	33.0	-35.2
Motor vehicle accidents	41.1	40.7	34.1	33.5	37.4	35.9	36.1	33.2	41.7	35.3	21.9	-46.7
Other than motor vehicle	9.8	9.5	13.1	17.8	12.8	13.4	15.3	16.2	16.0	13.0	11.1	13.3
Assault (homicide)	24.3	25.6	22.6	22.8	25.6	19.1	18.5	24.7	27.9	21.3	21.0	-13.6
Intentional self-harm (suicide)	25.5	17.3	18.9	15.2	17.2	14.8	18.0	22.0	19.5	12.2	18.0	-29.4
Malignant neoplasms	3.5	2.2	6.3	5.6	5.4	2.4	6.5	4.0	3.1	3.5	5.1	45.7
Diseases of heart	3.5	3.9	2.1	4.1	2.5	1.9	1.8	1.8	1.8	2.2	0.9	-74.3
ALL CAUSES	123.4	117.6	112.3	119.3	118.1	106.7	109.5	118.5	129.1	102.7	89.1	-27.8
(Number of all deaths)	(214)	(211)	(214)	(235)	(240)	(223)	(237)	(264)	(291)	(236)	(208)	-2.8
FEMALE												
Accidents (unintentional injuries)	27.7	19.9	23.7	22.9	22.2	19.1	28.9	18.3	28.1	23.7	18.3	-33.9
Motor vehicle accidents	22.6	16.8	20.3	18.6	18.0	15.5	24.9	16.3	26.2	17.7	12.4	-45.1
Other than motor vehicle	5.2	3.1	3.4	4.3	4.2	3.6	4.0	2.0	1.9	6.0	5.9	13.5
Assault (homicide)	8.4	5.6	5.6	2.2	3.2	4.1	2.5	4.8	7.5	4.6	5.9	-29.8
Intentional self-harm (suicide)	3.9	3.1	2.8	5.5	2.1	4.1	5.0	5.8	6.1	4.6	6.4	64.1
Malignant neoplasms	3.9	5.0	1.1	4.9	3.2	2.6	2.5	1.4	3.7	4.2	4.1	5.1
Diseases of heart	1.3	0.0	1.1	1.1	1.1	0.5	0.5	1.0	1.4	1.4	0.9	-30.8
ALL CAUSES	54.2	41.0	42.9	51.4	44.5	41.7	49.8	39.4	56.6	49.3	40.7	-24.9
(Number of all deaths)	(84)	(66)	(76)	(94)	(84)	(81)	(100)	(82)	(121)	(106)	(89)	6.0
TOTAL												
Accidents (unintentional injuries)	39.9	35.8	35.9	37.6	36.7	34.7	40.5	34.3	43.3	36.4	25.9	-35.1
Motor vehicle accidents	32.3	29.4	27.5	26.3	28.1	26.0	30.7	25.0	34.2	26.8	17.3	-46.4
Other than motor vehicle	7.6	6.5	8.4	11.3	8.6	8.7	9.8	9.3	9.1	9.6	8.6	13.2
Assault (homicide)	16.8	16.2	14.4	12.9	14.8	11.9	10.8	15.0	18.0	13.3	13.7	-18.4
Intentional self-harm (suicide)	15.2	10.6	11.1	10.5	9.9	9.7	11.8	14.1	13.0	8.5	12.4	-18.4
Malignant neoplasms	3.7	3.5	3.8	5.3	4.3	2.5	4.6	2.8	3.4	3.8	4.6	24.3
Diseases of heart	2.4	2.1	1.6	2.6	1.8	1.2	1.2	1.4	1.6	1.8	0.9	-62.5
ALL CAUSES	90.9	81.4	78.9	86.6	82.7	75.4	80.8	80.1	93.8	76.9	65.7	-27.7
(Number of all deaths)	(298)	(277)	(290)	(329)	(324)	(304)	(337)	(346)	(412)	(342)	(297)	-0.3

¹Number of deaths per 100,000 adolescents 15-19 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

**TABLE 2C-13
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG ADOLESCENTS (15-19 YEARS)
IN URBAN AND RURAL AREAS³, ARIZONA, 1998-2008**

Area/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Accidents (unintentional injuries)	32.4	29.8	28.9	33.3	36.1	29.9	37.3	28.9	40.3	30.9	23.7	-26.9
Motor vehicle accidents	26.4	22.9	21.9	23.4	27.4	22.0	27.1	20.5	32.2	21.9	14.8	-43.9
Other than motor vehicle	6.1	7.0	7.0	9.9	8.7	7.9	10.2	8.4	8.1	9.0	8.9	45.9
Assault (homicide)	17.7	18.9	16.0	14.4	16.2	13.6	9.9	16.8	20.0	14.8	15.3	-13.6
Intentional self-harm (suicide)	14.7	8.4	12.3	7.4	9.3	9.1	11.4	13.2	10.6	8.2	9.4	-36.1
Malignant neoplasms	4.1	3.3	4.3	5.1	4.4	2.4	4.1	2.8	2.8	3.8	4.6	12.2
Diseases of heart	1.9	2.5	1.7	2.6	1.6	1.2	1.5	1.4	1.4	1.6	1.1	-42.1
ALL CAUSES	81.4	72.4	75.4	77.6	82.4	69.8	75.8	75.8	88.9	72.5	61.4	-24.6
(Number of all deaths)	(216)	(199)	(227)	(242)	(265)	(231)	(260)	(270)	(320)	(265)	(230)	6.5
RURAL												
Accidents (unintentional injuries)	57.6	54.9	67.4	57.2	39.8	57.0	54.1	59.4	56.8	61.9	36.0	-37.5
Motor vehicle accidents	44.8	50.4	52.4	39.6	31.3	44.5	46.0	46.2	42.9	49.2	28.6	-36.2
Other than motor vehicle	12.8	4.5	15.0	17.6	8.5	12.5	8.1	13.2	13.9	12.7	7.4	-42.2
Intentional self-harm (suicide)	14.4	16.8	6.0	24.9	12.8	12.5	13.5	18.5	24.0	10.1	26.1	81.3
Assault (homicide)	8.0	4.6	7.5	5.9	8.5	4.2	14.9	6.6	8.8	6.3	7.5	-6.3
Malignant neoplasms	1.6	4.6	1.5	5.9	4.3	2.8	6.8	2.6	6.3	3.8	6.2	287.5
Diseases of heart	3.2	0.0	1.5	2.9	2.8	1.4	0.0	1.3	2.5	2.5	0.0	-100.0
ALL CAUSES	91.1	96.1	92.8	123.2	83.9	101.5	102.7	100.3	116.2	97.2	83.3	-8.6
(Number of all deaths)	(57)	(63)	(62)	(84)	(59)	(73)	(76)	(76)	(92)	(77)	(67)	17.5
STATEWIDE												
Accidents (unintentional injuries)	39.9	35.8	35.9	37.6	36.7	34.7	40.5	34.3	43.3	36.4	25.9	-35.1
Motor vehicle accidents	32.3	29.4	27.5	26.3	28.1	26.0	30.7	25.0	34.2	26.8	17.3	-46.4
Other than motor vehicle	7.6	6.5	8.4	11.3	8.6	8.7	9.8	9.3	9.1	9.6	8.6	13.2
Assault (homicide)	16.8	16.2	14.4	12.9	14.8	11.9	10.8	15.0	18.0	13.3	13.7	-18.4
Intentional self-harm (suicide)	15.2	10.6	11.1	10.5	9.9	9.7	11.8	14.1	13.0	8.5	12.4	-18.4
Malignant neoplasms	3.7	3.5	3.8	5.3	4.3	2.5	4.6	2.8	3.4	3.8	4.6	24.3
Diseases of heart	2.4	2.1	1.6	2.6	1.8	1.2	1.2	1.4	1.6	1.8	0.9	-62.5
ALL CAUSES	90.9	81.4	78.9	86.6	82.7	75.4	80.8	80.1	93.8	76.9	65.7	-27.7
(Number of all deaths)	(298)	(277)	(290)	(329)	(324)	(304)	(337)	(346)	(412)	(342)	(297)	-0.3

¹Number of deaths per 100,000 adolescents 15-19 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

³Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: 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 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**

TABLE 2C-14
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES OF DEATH AMONG ADOLESCENTS (15-19 YEARS)
BY GENDER IN URBAN AND RURAL AREAS², ARIZONA, 1998-2008

Area/Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Male	106.8	103.8	110.9	110.1	121.8	98.4	105.1	112.7	121.7	97.9	84.3	-21.1
Female	52.8	37.4	37.3	42.6	40.0	38.9	44.2	36.1	54.2	45.3	36.8	-30.3
TOTAL	81.4	72.4	75.4	77.6	82.4	69.8	75.8	75.8	88.9	72.5	61.4	-24.6
RURAL												
Male	142.1	147.1	126.5	158.4	101.5	144.8	127.9	142.5	162.3	125.2	109.0	-23.3
Female	36.5	41.2	69.6	85.3	64.9	54.9	74.5	54.8	67.5	57.6	56.2	54.0
TOTAL	91.1	96.1	92.8	123.2	83.9	101.5	102.7	100.3	116.2	97.2	83.3	-8.6
STATEWIDE												
Male	123.4	117.6	112.3	119.3	118.1	106.7	109.5	118.5	129.1	102.7	89.1	-27.8
Female	54.2	41.0	42.9	51.4	44.5	41.7	49.8	39.4	56.6	49.3	40.7	-24.9
TOTAL	90.9	81.4	78.9	86.6	82.7	75.4	80.8	80.1	93.8	76.9	65.7	-27.7

¹Rates are presented per 100,000 children 15-19 years old.

²Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: Records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

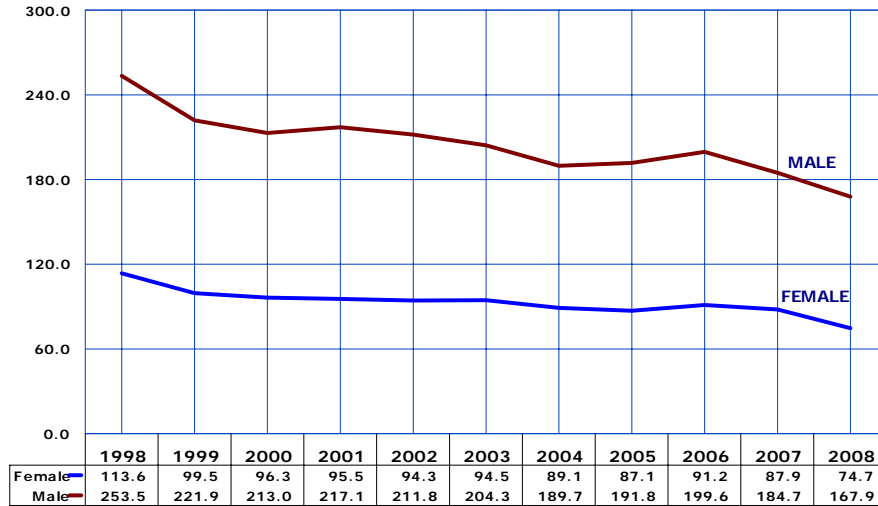
TABLE 2C-15
LEADING CAUSES OF DEATH AMONG ADOLESCENTS (15-19 YEARS) BY GENDER, AREA AND RACE/ETHNICITY,
ARIZONA, 2008

Cause of death	Total		Gender		Area*		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	Other/Unknown		
Accidents (unintentional injury)	77	40	88	29	58	41	4	12	1	1		
Motor vehicle accidents	51	27	55	23	36	30	2	9	1	0		
Accidental drowning and submersion	3	0	2	1	3	0	0	0	0	0		
Accidental poisoning	16	9	21	4	13	9	1	2	0	0		
Assault (homicide)	49	13	56	6	7	41	5	8	1	0		
By discharge of firearms	40	10	48	2	3	38	4	4	1	0		
By other means	9	3	8	4	4	3	1	4	0	0		
Intentional self-harm (suicide)	42	14	35	21	18	17	3	17	0	1		
By discharge of firearms	22	2	19	5	10	8	3	2	0	1		
By other means	20	12	16	16	8	9	0	15	0	0		
Malignant neoplasms	12	9	16	5	11	7	1	2	0	0		
Leukemia	1	6	5	2	3	2	0	2	0	0		
Congenital malformations	5	0	3	2	2	0	2	0	1	0		
Diseases of heart	2	2	4	0	2	2	0	0	0	0		
Total, all causes	208	89	230	67	110	121	19	41	4	2		

*Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

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

Figure 2C-13
 Mortality Rates by Gender and Year among Young Adults 20-44 Years,
 Arizona, 1998-2008

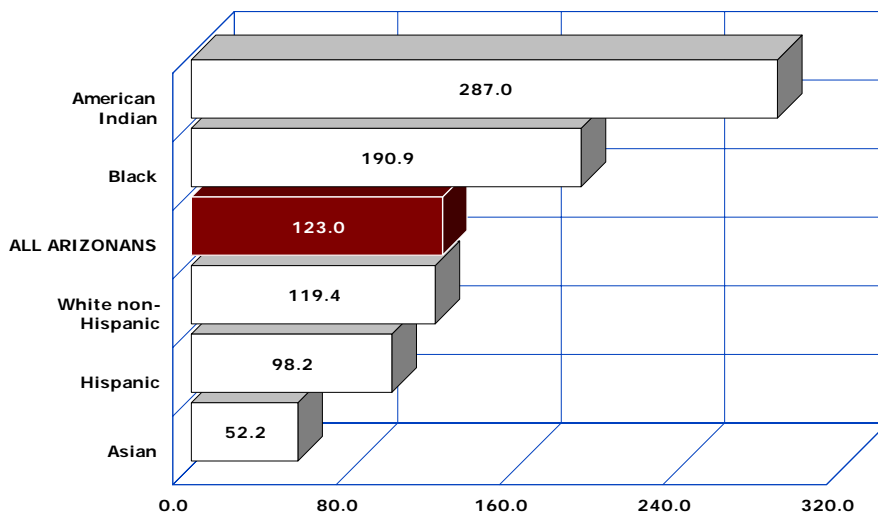


In 2008, 35.2 percent of Arizona residents were between 20 and 44 years of age. Among the six developmental periods examined in the life span, young adulthood, with an estimated 2.3 million individuals, easily represented the largest segment of the population. However, only one in sixteen deaths in Arizona (or 6.3 percent) occurred during young adulthood.

During an average week in 2008, 54 young adults aged 20 to 44 died. The 2,829 premature deaths among 2,300,036 young adult Arizona residents produced a 2008 mortality rate of 123.0 deaths per 100,000, 33.4 percent lower than the 1998 rate of 184.8/100,000 in 1998 (Table 2C-16). Young female adults had a slightly greater improvement in their survival chances from 1998 to 2008 than did young male adults (38.8 and 33.8 percent respectively (Figure 2C-13, Table 2C-16).

Number of deaths per 100,000 persons, 20-44 years old in specified group.

Figure 2C-14
 Mortality Rates by Race/Ethnicity among Young Adults 20-44 Years,
 Arizona, 2008



The rank order of survival chances of young adults from best to worse by race/ethnicity in 2008 was Asians, Hispanic or Latino, White non-Hispanics, Black or African Americans and American Indians. If the 2008 mortality risk of Asians (i.e., their mortality rate of 52.2/100,000) was applied to all young adults in Arizona, 1,201 would have died, rather than the 2,829 who actually did.

Number of deaths per 100,000 persons, 20-44 years old in specified group.

**TABLE 2C-16
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG YOUNG ADULTS (20-44 YEARS) BY GENDER,
ARIZONA, 1998-2008**

Gender/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
MALE												
Accidents (unintentional injuries)	78.9	70.5	57.3	72.5	61.8	63.3	54.8	63.2	69.2	60.6	54.4	-31.1
Motor vehicle accidents	38.9	34.1	30.2	34.5	30.7	33.6	27.8	34.2	34.5	29.2	23.8	-38.8
Other than motor vehicle	40.0	36.4	27.1	38.0	31.1	29.7	27.0	29.0	34.7	31.4	30.6	-23.5
Intentional self-harm (suicide)	38.6	30.4	28.3	21.7	31.3	30.2	28.3	28.3	27.4	30.3	23.5	-39.1
Assault (homicide)	28.4	24.7	20.0	25.9	25.6	22.9	23.7	24.7	24.2	22.8	19.2	-32.4
Diseases of heart	21.6	19.1	16.2	16.6	17.2	16.3	15.4	15.3	15.9	14.3	13.3	-38.4
Malignant neoplasms	21.5	18.6	15.7	15.9	15.7	14.2	14.0	11.9	11.0	11.3	12.6	-41.4
ALL CAUSES	253.5	221.9	213.0	217.1	211.8	204.3	189.4	191.8	199.6	184.7	167.9	-33.8
(Number of all deaths)	(2246)	(2048)	(2059)	(2172)	(2186)	(2169)	(2091)	(2185)	(2290)	(2166)	(2001)	-10.9
FEMALE												
Accidents (unintentional injuries)	24.4	23.4	16.7	22.0	21.9	22.5	21.8	24.9	25.0	25.2	20.4	-16.4
Motor vehicle accidents	15.5	14.0	10.1	10.5	12.0	12.2	12.7	13.8	13.1	12.2	8.3	-46.5
Other than motor vehicle	8.9	9.4	6.6	11.5	9.9	10.3	9.1	11.1	11.9	13.0	12.1	36.0
Malignant neoplasms	25.0	21.0	21.0	21.2	18.7	15.9	18.2	13.4	16.4	15.5	13.7	-45.2
Intentional self-harm (suicide)	9.7	7.8	7.2	4.3	6.2	7.4	7.2	7.5	7.0	7.1	6.0	-38.1
Diseases of heart	8.2	7.5	6.2	7.6	7.3	7.0	6.6	7.8	5.0	6.7	5.8	-29.3
Assault (homicide)	7.1	7.3	4.5	6.2	3.9	5.1	4.5	3.7	4.0	4.7	3.2	-54.9
ALL CAUSES	113.6	99.5	96.3	95.5	94.3	94.5	89.2	87.1	91.2	87.9	69.5	-38.8
(Number of all deaths)	(972)	(881)	(874)	(897)	(913)	(941)	(922)	(936)	(968)	(954)	(828)	-14.8
TOTAL												
Accidents (unintentional injuries)	52.1	47.5	37.7	48.1	42.5	43.5	38.8	44.6	47.9	43.6	38.0	-27.1
Motor vehicle accidents	27.4	24.3	20.5	22.9	21.6	23.3	20.5	24.3	24.2	21.0	16.3	-40.5
Other than motor vehicle	24.7	23.2	17.2	25.2	20.9	20.2	18.3	20.3	23.7	22.6	21.7	-12.2
Intentional self-harm (suicide)	24.4	19.4	18.1	13.3	19.1	19.2	18.1	18.2	17.6	19.1	15.0	-38.5
Malignant neoplasms	22.9	19.8	18.3	18.5	17.1	15.0	16.0	12.6	13.6	13.3	9.7	-57.6
Assault (homicide)	18.0	16.2	12.5	16.3	15.1	14.3	14.5	14.5	14.5	14.1	13.1	-27.2
Diseases of heart	15.0	13.4	11.4	12.2	12.4	11.8	11.1	11.7	10.7	10.7	11.5	-23.3
ALL CAUSES	184.8	162.0	156.5	158.2	154.9	151.1	141.0	140.9	147.5	138.2	123.0	-33.4
(Number of all deaths)	(3218)	(2929)	(2933)	(3069)	(3099)	(3110)	(3013)	(3121)	(3258)	(3120)	(2829)	-12.1

¹Rates are presented per 100,000 persons 20-44 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

**TABLE 2C-17
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG YOUNG ADULTS (20-44 YEARS)
IN URBAN AND RURAL AREAS³, ARIZONA, 1998-2008**

Area/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Accidents (unintentional injuries)	44.4	43.6	34.0	43.7	39.1	38.3	35.5	40.2	44.8	38.7	34.4	-22.5
Motor vehicle accidents	20.9	21.1	17.6	19.5	18.9	19.2	17.5	21.1	21.2	17.7	14.2	-32.1
Other injury	23.5	22.5	16.4	24.2	20.2	19.1	18.0	19.1	23.6	21.0	20.2	-14.0
Malignant neoplasms	20.1	19.0	17.8	18.6	16.2	14.7	16.0	11.8	13.5	12.9	14.2	-29.4
Intentional self-harm (suicide)	21.5	17.8	16.5	12.3	18.0	17.9	16.2	16.8	16.2	18.0	16.4	-23.7
Assault (homicide)	17.6	16.7	13.0	16.9	15.6	14.8	15.2	14.9	15.1	14.3	13.2	-25.0
Diseases of heart	13.6	12.5	10.5	12.3	11.8	11.0	10.6	11.9	10.0	9.9	8.9	-34.6
ALL CAUSES	161.4	150.6	147.8	148.1	145.4	140.2	132.2	133.0	139.3	129.8	113.6	-29.6
(Number of all deaths)	(2391)	(2311)	(2372)	(2464)	(2494)	(2477)	(2426)	(2532)	(2640)	(2511)	(2239)	-6.4
RURAL												
Accidents (unintentional injuries)	74.5	65.5	59.3	74.0	63.2	75.5	58.9	72.0	66.9	73.2	57.1	-23.4
Motor vehicle accidents	50.7	39.9	37.5	42.8	37.9	48.1	38.4	44.2	42.4	40.5	28.0	-44.8
Other injury	23.8	25.6	21.8	31.2	25.3	27.4	20.5	27.8	24.5	32.7	29.2	22.7
Intentional self-harm (suicide)	28.8	24.5	27.4	19.2	26.0	26.8	29.5	26.8	25.5	25.6	20.4	-29.2
Malignant neoplasms	25.7	20.5	21.5	17.8	22.8	17.2	15.9	17.8	14.0	16.1	12.5	-51.4
Diseases of heart	18.1	16.5	15.2	11.6	16.2	16.8	14.2	10.0	15.0	15.1	9.4	-48.1
Assault (homicide)	16.1	11.3	9.6	12.7	11.9	11.3	9.9	12.6	11.2	12.7	14.6	-9.3
ALL CAUSES	219.4	193.6	208.1	212.6	212.2	217.3	194.3	189.9	196.9	188.1	174.2	-20.6
(Number of all deaths)	(571)	(529)	(561)	(586)	(604)	(633)	(587)	(588)	(618)	(609)	(590)	3.3
STATEWIDE												
Accidents (unintentional injuries)	52.1	47.5	37.7	48.1	42.5	43.5	38.8	44.6	47.9	43.6	38.0	-27.1
Motor vehicle accidents	27.4	24.3	20.5	22.9	21.6	23.3	20.5	24.3	24.2	21.0	16.3	-40.5
Other injury	24.7	23.2	17.2	25.2	20.9	20.2	18.3	20.3	23.7	22.6	21.7	-12.2
Intentional self-harm (suicide)	24.4	19.4	18.1	13.3	19.1	19.2	18.1	18.2	17.6	19.1	15.0	-38.5
Malignant neoplasms	22.9	19.8	18.3	18.5	17.1	15.0	16.0	12.6	13.6	13.3	9.7	-57.6
Assault (homicide)	18.0	16.2	12.5	16.3	15.1	14.3	14.5	14.5	14.5	14.1	13.1	-27.2
Diseases of heart	15.0	13.4	11.4	12.2	12.4	11.8	11.1	11.7	10.7	10.7	11.5	-23.3
ALL CAUSES	184.8	162.0	156.5	158.2	154.9	151.1	141.0	140.9	147.5	138.2	123.0	-33.4
(Number of all deaths)	(3218)	(2929)	(2933)	(3069)	(3099)	(3110)	(3013)	(3121)	(3258)	(3120)	(2829)	-12.1

¹Rates are presented per 100,000 young adults 20-44 years old.

²The five causes with the greatest number of deaths statewide over the 1998-2008 period.

³Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: 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 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**

TABLE 2C-18
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES OF DEATH AMONG YOUNG ADULTS (20-44 YEARS)
BY GENDER IN URBAN AND RURAL AREAS², ARIZONA, 1998-2008

Area/Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Male	223.1	206.5	201.4	201.8	197.0	190.5	176.7	181.5	188.7	172.2	154.2	-30.9
Female	97.6	92.3	90.3	90.5	89.9	86.1	84.4	81.0	85.3	83.6	69.4	-28.9
TOTAL	161.4	150.6	147.8	148.1	145.4	140.2	132.2	133.0	139.3	129.8	113.6	-29.6
RURAL												
Male	293.6	263.1	306.1	301.8	303.4	288.9	266.5	256.4	266.4	261.2	244.4	-30.9
Female	142.1	120.7	138.8	121.6	119.2	142.8	118.0	123.0	125.1	112.7	102.9	-28.9
TOTAL	219.4	193.6	208.1	212.6	212.2	217.3	194.3	189.9	196.9	188.1	174.2	-29.6
STATEWIDE												
Male	253.5	221.9	213.0	217.1	211.8	204.3	189.4	191.8	199.6	184.7	167.9	-33.8
Female	113.6	99.5	96.3	95.5	94.3	94.5	89.2	87.1	91.2	87.9	69.5	-38.8
TOTAL	184.8	162.0	156.5	158.2	154.9	151.1	141.0	140.9	147.5	138.2	123.0	-33.4

¹Rates are presented per 100,000 per

²Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: Records with unknown county of residence are included in the statewide totals, but are not distributed by urban/rural area.

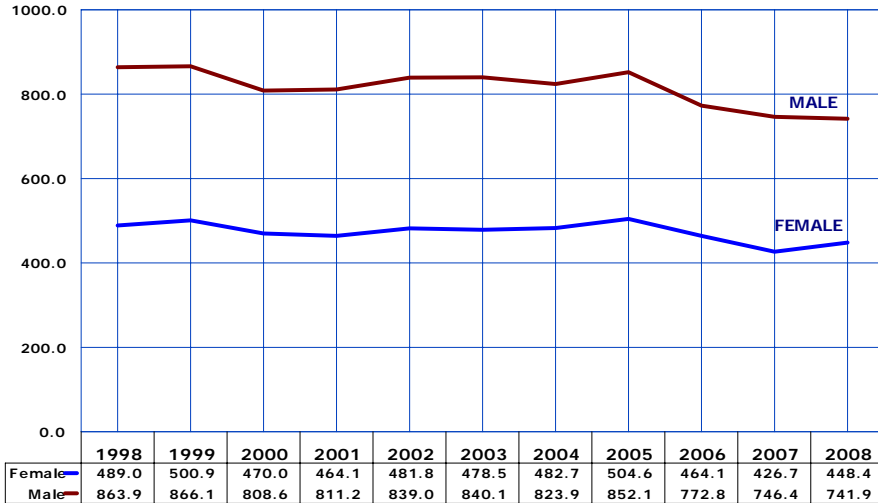
TABLE 2C-19
LEADING CAUSES OF DEATH AMONG YOUNG ADULTS (20-44 YEARS) BY GENDER, AREA AND RACE/ETHNICITY,
ARIZONA, 2008

Cause of death	Total		Gender		Area		Race/ethnicity					
	Total	Male	Female	Urban	Rural	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Other/Unknown	
Accidents (unintentional injury)	875	649	226	678	197	508	193	39	121	10	4	
Motor vehicle accidents	376	284	92	279	97	173	107	17	71	6	2	
Accidental poisoning	362	249	113	304	58	270	53	16	21	1	1	
Intentional self-harm (suicide)	346	280	66	279	67	239	61	12	28	6	0	
By discharge of firearms	169	142	27	135	34	118	34	7	8	2	0	
By other means	177	138	39	144	33	121	27	5	20	4	0	
Malignant neoplasms	302	150	152	261	41	175	89	11	18	9	0	
Malignant neoplasm of colon, rectum, and anus	28	15	13	26	2	19	6	0	2	1	0	
Malignant neoplasm of trachea, bronchus and lung	22	10	12	20	2	14	6	1	0	1	0	
Malignant neoplasm of breast	32	0	32	27	5	21	7	3	0	1	0	
Assault (homicide)	265	229	36	232	33	61	138	40	26	0	0	
By discharge of firearms	199	176	23	181	18	38	116	35	10	0	0	
By other means	66	53	13	51	15	23	22	5	16	0	0	
Diseases of heart	223	159	64	175	48	136	35	35	11	5	1	
Chronic liver disease and cirrhosis	95	58	37	61	34	39	18	0	37	1	0	
Human immunodeficiency virus (HIV) disease	50	42	8	47	3	19	22	5	3	0	1	
Influenza and pneumonia	46	30	16	31	15	22	12	0	11	1	0	
Diabetes	48	34	14	40	8	22	14	4	7	1	0	
Cerebrovascular diseases	37	19	18	33	4	14	13	5	3	1	1	
Total, all causes	2,829	2,001	828	2,239	590	1,506	724	185	366	40	8	

*Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

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

Figure 2C-17
Mortality Rates by Gender and Year among Middle-Aged Adults 45-64 Years, Arizona, 1998-2008

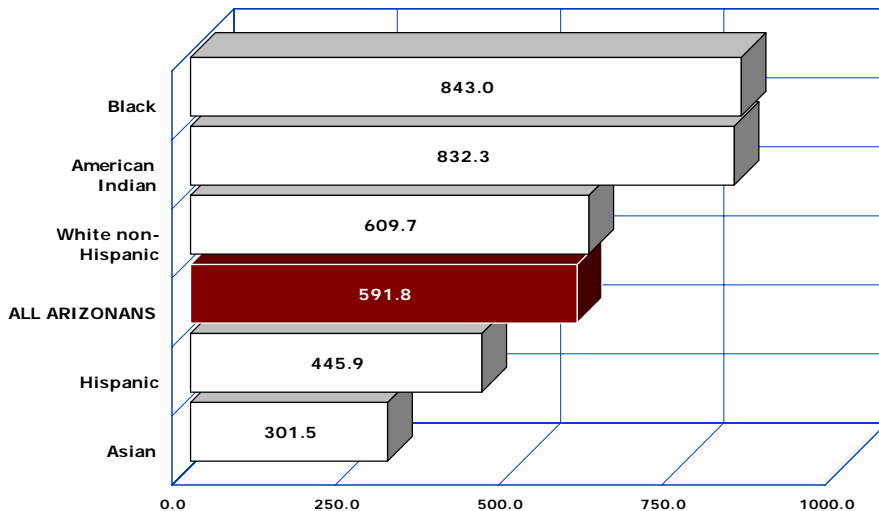


The 1,503,839 middle-aged adult residents aged 45 to 64 experienced 8,899 deaths or an average of 24 deaths per day. The total mortality rate of middle-aged adults increased by 1.5 percent from 582.8 deaths per 100,000 in 2007 to 591.8/100,000 in 2008 (Table 2C-20), but it was 11.7 percent lower than the 1998 rate of 669.9 deaths per 100,000.

The 2008 total mortality rate among middle-age females was 8.3 percent lower and among middle-aged males 14.1 percent lower than their respective rates in 1998 (Figure 2C-17, Table 2C-20).

Number of deaths per 100,000 persons, 45-64 years old in specified group.

Figure 2C-18
Mortality Rates by Race/Ethnicity among Middle-Aged Adults 45-64 Years, Arizona, 2008



Black middle-aged adults, followed by American Indians and White non-Hispanics had the three highest mortality rates (843.0 deaths per 100,000, 832.3 per 100,000, and 609.7/100,000 respectively) among the race/ethnic groups. If the 2008 total mortality rate for Asian middle-aged adults applied to all Arizona residents 45-64 years old, 4,534 middle-aged adults would have died rather than 8,899 who actually did.

Number of deaths per 100,000 persons, 45-64 years old in specified group.

**TABLE 2C-20
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)
BY GENDER, ARIZONA, 1998-2008**

Gender/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
MALE												
Malignant neoplasms	236.7	229.0	212.9	204.3	228.3	220.6	213.1	210.6	192.1	192.1	184.5	-22.1
Diseases of heart	240.9	225.3	202.0	197.4	206.1	196.7	196.7	207.5	186.7	170.8	175.5	-27.2
Accidents (unintentional injuries)	66.3	74.0	65.8	66.6	70.9	68.8	75.7	86.2	81.2	73.2	76.5	15.4
Motor vehicle accidents	26.8	32.3	26.8	19.8	29.3	26.2	27.7	33.7	31.9	23.1	24.6	-8.2
Other than motor vehicle	39.5	29.0	39.0	46.8	41.6	42.6	48.0	52.5	49.3	50.1	51.9	31.4
Chronic liver disease and cirrhosis	43.0	42.3	41.9	42.5	36.0	42.7	42.3	45.1	34.4	35.5	39.2	-8.8
Suicide	32.4	33.9	29.7	25.6	34.4	29.4	31.6	32.7	31.9	35.0	35.1	8.3
ALL CAUSES	863.9	866.1	808.6	811.2	839.0	840.1	823.9	852.1	772.8	746.4	741.9	-14.1
(Number of all deaths)	(3894)	(4133)	(4190)	(4348)	(4637)	(4776)	(4906)	(5232)	(5282)	(5397)	(5450)	40.0
FEMALE												
Malignant neoplasms	190.7	192.5	181.5	185.4	179.2	181.3	179.4	182.3	166.2	154.7	151.4	-20.6
Diseases of heart	85.2	81.7	79.5	75.1	78.0	72.8	74.8	74.2	66.4	65.0	63.4	-25.6
Accidents (unintentional injuries)	23.4	22.7	21.0	23.5	26.5	24.6	29.6	33.1	35.8	30.2	34.2	46.2
Motor vehicle accidents	13.2	11.7	10.3	9.6	12.2	11.9	11.8	10.9	14.2	9.2	10.0	-24.2
Other than motor vehicle	10.1	10.9	10.7	13.9	14.3	12.7	17.8	22.2	21.6	21.0	24.2	139.6
Chronic lower respiratory diseases	22.3	23.5	20.6	25.7	19.9	22.5	18.5	25.4	21.6	23.6	24.3	9.0
Diabetes	18.8	20.3	17.0	19.6	19.5	17.2	19.0	20.1	19.1	14.0	16.0	-14.9
ALL CAUSES	489.0	500.9	470.0	464.1	481.8	478.5	482.7	504.6	464.1	426.7	448.4	-8.3
(Number of all deaths)	(2364)	(2563)	(2595)	(2650)	(2837)	(2898)	(3022)	(3292)	(3336)	(3232)	(3449)	45.9
TOTAL												
Malignant neoplasms	212.9	210.1	196.7	194.6	203.0	200.3	195.8	196.0	178.8	173.0	167.6	-21.3
Diseases of heart	160.4	151.0	138.8	134.3	140.0	132.9	134.2	138.8	125.0	116.6	118.2	-26.3
Accidents (unintentional injuries)	44.1	47.4	42.7	44.4	48.0	46.0	52.1	58.8	57.9	51.2	54.9	24.8
Motor vehicle accidents	19.8	21.6	18.3	14.5	20.5	18.8	19.6	22.0	22.8	16.0	17.2	-12.1
Other than motor vehicle	24.3	25.8	24.4	29.9	27.5	27.2	32.5	36.8	35.1	35.2	37.7	55.1
Chronic liver disease and cirrhosis	28.7	28.7	29.1	27.5	26.1	29.0	28.9	31.8	25.0	25.3	29.7	3.5
Chronic lower respiratory diseases	27.6	27.2	24.2	26.7	23.7	21.9	21.4	26.8	22.7	21.8	24.7	-10.5
ALL CAUSES	669.9	677.1	633.9	632.1	654.8	653.7	649.1	673.1	614.6	582.8	591.8	-11.7
(Number of all deaths)	(6258)	(6696)	(6785)	(6998)	(7474)	(7675)	(7928)	(8524)	(8618)	(8629)	(8899)	42.2

¹Rates are presented per 100,000 middle-aged adults 45-64 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period. Suicide (2,051 deaths in 1998-2008) replaced chronic lower respiratory diseases (1,675 deaths) as the fifth leading cause of death among male middle-aged adults. Diabetes (1,236 deaths in 1998-2008) replaced chronic liver disease and cirrhosis (1,135 deaths) as the fifth leading cause of death among female middle-aged adults.

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

**TABLE 2C-21
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)
IN URBAN AND RURAL AREAS³, ARIZONA, 1998-2008**

Area/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Malignant neoplasms	204.0	205.3	196.6	193.2	202.4	198.0	188.9	190.5	174.8	169.6	162.8	-20.2
Diseases of heart	151.2	146.3	132.5	129.8	135.3	125.9	127.0	132.5	119.9	109.4	109.8	-27.4
Accidents (unintentional injuries)	39.5	43.1	41.0	42.8	45.1	40.6	47.6	55.7	54.2	47.8	51.6	30.6
Motor vehicle accidents	18.0	19.6	17.0	12.5	18.0	14.7	17.0	18.7	19.7	13.7	14.8	-17.8
Other injury	21.4	23.5	24.0	30.3	27.1	25.9	30.6	37.0	34.5	34.1	36.8	72.0
Chronic liver disease and cirrhosis	26.3	29.2	28.3	26.9	25.8	26.8	25.2	30.0	23.3	23.0	27.4	4.2
Chronic lower respiratory diseases	26.8	26.2	25.1	27.8	23.0	21.2	21.9	25.8	22.3	20.5	23.6	-11.9
ALL CAUSES	638.4	655.0	619.2	615.7	637.2	630.2	620.7	647.8	595.0	559.7	559.5	-12.4
(Number of all deaths)	(4885)	(5302)	(5345)	(5509)	(5878)	(5987)	(6140)	(6658)	(6834)	(6812)	(6918)	41.6
RURAL												
Malignant neoplasms	252.7	230.7	197.1	199.7	205.5	210.1	225.2	219.6	197.0	188.3	188.1	-25.6
Diseases of heart	201.2	172.2	164.7	153.6	159.4	162.4	164.5	165.9	148.1	149.6	156.0	-22.5
Accidents (unintentional injuries)	64.5	65.7	48.8	50.4	60.3	68.2	71.0	72.5	74.9	65.3	68.1	5.6
Motor vehicle accidents	27.8	30.1	22.7	23.1	31.1	35.7	30.6	36.0	37.0	26.6	27.3	-1.8
Other injury	36.7	35.7	26.1	27.3	29.2	32.5	40.4	36.5	37.9	38.7	40.8	11.2
Chronic liver disease and cirrhosis	39.6	26.7	32.4	29.7	27.4	37.9	44.8	39.8	32.3	36.1	39.6	0.0
Chronic lower respiratory diseases	31.4	30.6	20.3	22.1	26.9	25.0	18.9	31.4	24.8	28.1	29.5	-6.1
ALL CAUSES	806.6	772.8	693.7	683.9	725.8	750.7	768.9	781.4	702.9	687.3	727.8	-9.8
(Number of all deaths)	(1363)	(1387)	(1436)	(1452)	(1589)	(1683)	(1786)	(1865)	(1784)	(1810)	(1946)	42.8
STATEWIDE												
Malignant neoplasms	212.9	210.1	196.7	194.6	203.0	200.3	195.8	196.0	178.8	173.0	167.6	-21.3
Diseases of heart	160.4	151.0	138.8	134.3	140.0	132.9	134.2	138.8	125.0	116.6	118.2	-26.3
Accidents (unintentional injuries)	44.1	47.4	42.7	44.4	48.0	46.0	52.1	58.8	57.9	51.2	54.9	24.8
Motor vehicle accidents	19.8	21.6	18.3	14.5	20.5	18.8	19.6	22.0	22.8	16.0	17.2	-12.1
Other injury	24.3	25.8	24.4	29.9	27.5	27.2	32.5	36.8	35.1	35.2	37.7	55.1
Chronic liver disease and cirrhosis	28.7	28.7	29.1	27.5	26.1	29.0	28.9	31.8	25.0	25.3	29.7	3.5
Chronic lower respiratory diseases	27.6	27.2	24.2	26.7	23.7	21.9	21.4	26.8	22.7	21.8	24.7	-10.5
ALL CAUSES	669.9	677.1	633.9	632.1	654.8	653.7	649.1	673.1	614.6	582.8	591.8	-11.7
(Number of all deaths)	(6258)	(6696)	(6785)	(6998)	(7474)	(7675)	(7928)	(8524)	(8618)	(8629)	(8899)	42.2

¹Rates are presented per 100,000 middle-aged adults 45-64 years old.

²The five causes with the greatest number of deaths over the 1998-2008 period.

³Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: 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 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**

TABLE 2C-22
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS)
BY GENDER IN URBAN AND RURAL AREAS², ARIZONA, 1998-2008

Area/Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Male	824.3	834.9	789.4	782.6	812.8	809.3	788.6	815.2	749.3	714.7	693.2	-15.9
Female	465.1	487.3	459.6	461.0	472.5	462.2	461.1	490.0	447.6	410.8	431.1	-7.3
TOTAL	638.4	655.0	619.2	615.7	637.2	630.1	620.7	647.8	595.0	559.7	559.5	-12.4
RURAL												
Male	1037.3	1000.9	937.7	907.2	943.6	966.6	972.3	1010.8	879.7	891.7	953.6	-8.1
Female	591.8	560.0	575.2	473.2	520.2	546.9	575.1	567.2	536.9	497.7	518.4	-12.4
TOTAL	806.6	772.8	693.7	683.9	725.8	750.7	768.9	781.4	702.9	687.3	727.8	-9.8
STATEWIDE												
Male	863.9	866.1	808.6	811.2	839.0	840.1	823.9	852.1	772.8	746.4	741.9	-14.1
Female	489.0	500.9	470.0	464.1	481.8	478.5	482.7	504.6	464.1	426.7	448.4	-8.3
TOTAL	669.9	677.1	633.9	632.1	654.8	653.6	649.1	673.1	614.6	582.8	591.8	-11.7

¹Rates are presented per 100,000 persons 45-64 years old.

²Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

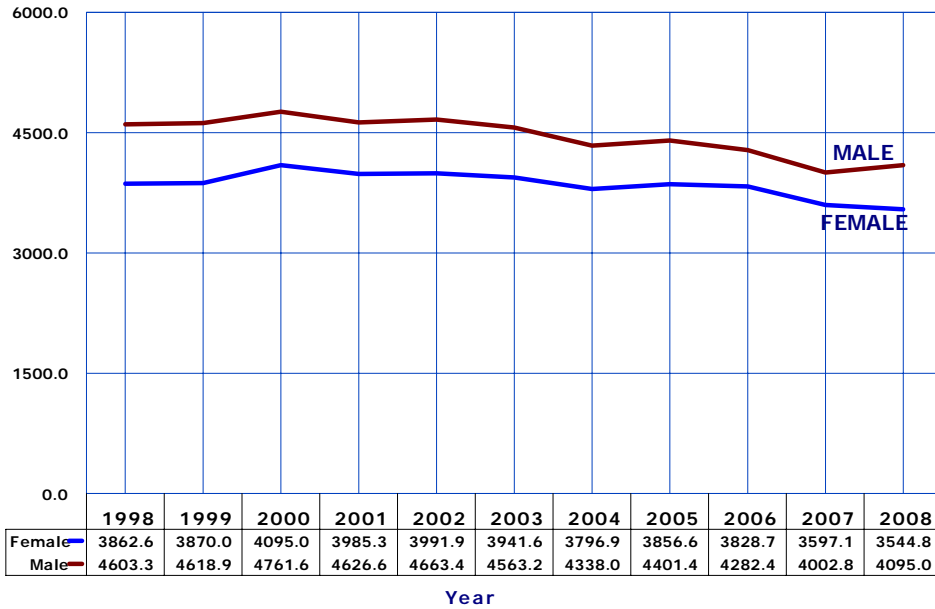
TABLE 2C-23
LEADING CAUSES OF DEATH AMONG MIDDLE-AGED ADULTS (45-64 YEARS) BY GENDER, AREA AND RACE/ETHNICITY,
ARIZONA, 2008

Cause of death	Total	Gender		Area *			Race/ethnicity					
		Male	Female	Urban	Rural	Unknown	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander	Other/Unknown
Malignant neoplasms	2,520	1,355	1,165	1,998	517	5	1,952	323	124	79	37	5
Malignant neoplasm of trachea, bronchus and lung	625	355	270	478	144	3	528	44	31	8	13	1
Malignant neoplasm of breast	269	5	264	216	53	0	203	35	17	9	4	1
Malignant neoplasm of colon, rectum, and anus	228	132	96	179	49	0	170	43	11	4	0	0
Malignant neoplasm of pancreas	158	100	58	127	31	0	112	30	11	3	2	0
Diseases of heart	1,777	1,289	488	1,340	434	3	1,343	236	95	81	14	8
Accidents (unintentional injury)	825	562	263	629	190	6	603	101	37	77	4	3
Motor vehicle accidents	258	181	77	177	78	3	175	42	9	32	0	0
Falls	71	50	21	54	16	1	48	10	4	8	0	1
Accidental poisoning	350	217	133	289	60	1	280	27	20	21	1	1
Chronic liver disease and cirrhosis	446	288	158	332	113	1	295	77	11	59	2	2
Chronic lower respiratory diseases	371	184	187	289	82	0	333	20	9	8	0	1
Intentional self-harm (suicide)	371	258	113	295	75	1	331	19	5	6	9	1
By discharge of firearms	198	152	46	153	44	1	184	8	1	3	1	1
By other means	173	106	67	142	31	0	147	11	4	3	8	0
Diabetes	315	192	123	251	61	3	198	63	14	37	3	0
Cerebrovascular diseases	250	137	113	206	44	0	161	49	21	9	9	1
Influenza and pneumonia	155	82	73	125	30	0	96	33	5	17	4	0
Septicemia	138	76	62	108	30	0	85	21	10	18	3	1
Viral hepatitis	132	95	37	109	23	0	84	37	6	4	1	0
Assault (homicide)	94	74	20	73	21	0	60	18	7	7	2	0
By discharge of firearms	59	49	10	47	12	0	42	10	5	0	2	0
By other means	35	25	10	26	9	0	18	8	2	7	0	0
Total, all causes	8,899	5,450	3,449	6,918	1,946	35	6,654	1,199	404	509	104	29

*Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

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

Figure 2C-21
Mortality Rates by Gender and Year among Elderly 65 Years and Older,
Arizona, 1998-2008



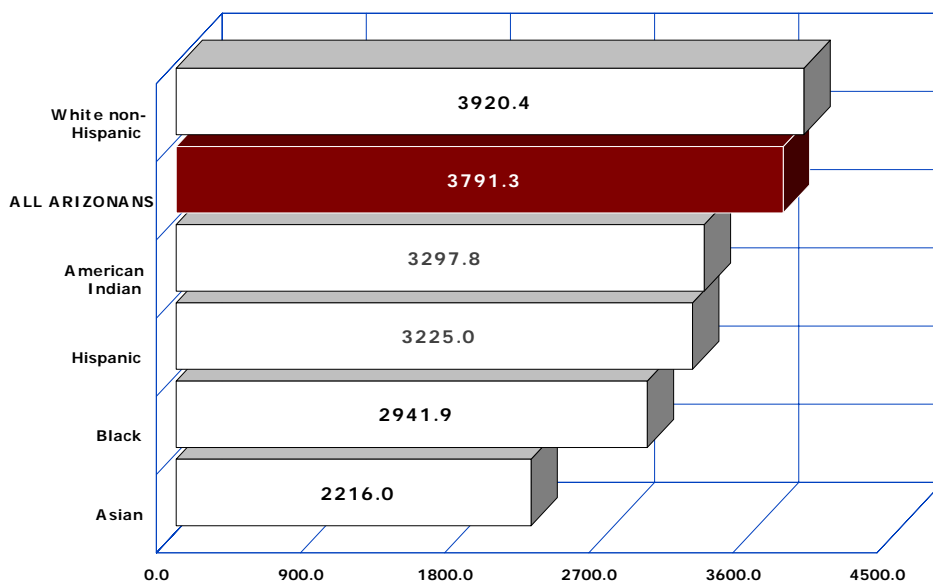
In 2008, an estimated 849,677 elderly over 64 years of age resided in the State (Table 10A-1). No other age group has as great a disproportionate gender distribution as the elderly. As a result of the higher total mortality rates for males in each of the earlier periods of lifespan, 23.2 percent more elderly women than men were alive in 2008.

The 2008 elderly mortality rate of 3791.3 per 100,000 was 9.5 percent lower than the 1998 rate of 4191.1, and it was the 2nd lowest annual elderly mortality rate of the eleven years from 1998 to 2008.

Survival chances improved from 1998 to 2008 for both elderly males and females. The 2008 total mortality rate among elderly females was 8.2 percent lower than their rate in 1998. The mortality rate among elderly males decreased 11.0 percent from 1998 to 2008 (Figure 2C-21, Table 2C-24).

Number of deaths per 100,000 persons, 65+ years old in specified group.

Figure 2C-22
Mortality Rates by Race/Ethnicity among Elderly 65 Years and Older,
Arizona, 2008



In 2008 the mortality rate for Arizona's White non-Hispanic elderly residents was 1.8 times that for the Asian elderly population. The mortality rate of 2216.0 /100,000 among elderly Asians was the lowest rate among the race/ethnic groups (Figure 2C-22). Blacks or African American elderly had the second lowest mortality rate in 2008, 10.8 percent lower than the mortality rate of American Indian elderly.

The 2008 mortality rates of Black or African American and Hispanic or Latino elderly differed by a mere 2.3 percent.

Number of deaths per 100,000 persons, 65+ years old in specified group.

TABLE 2C-24
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG ELDERLY (65 YEARS AND OLDER) BY GENDER,
ARIZONA, 1998-2008

Gender/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
MALE												
Diseases of heart	1449.3	1406.8	1475.7	1378.0	1363.9	1335.3	1241.4	1238.7	1138.7	1079.2	1114.1	-23.2
Malignant neoplasms	1114.2	1118.4	1171.9	1091.2	1119.6	1126.0	1085.8	1068.2	1058.2	1020.4	1006.6	-9.7
Chronic lower respiratory diseases	364.4	354.1	369.3	338.0	352.3	340.9	296.0	317.3	326.7	300.9	316.8	-13.1
Cerebrovascular diseases	285.9	297.3	309.9	277.0	269.4	248.9	242.2	224.9	195.2	168.6	188.9	-33.9
Influenza and pneumonia	147.0	166.7	161.7	145.8	150.0	161.5	139.8	140.8	127.3	93.0	106.7	-27.4
ALL CAUSES	4603.3	4618.9	4761.6	4626.6	4663.4	4536.2	4338.0	4401.4	4282.4	4002.8	4095.0	-11.0
(Number of all deaths)	(13492)	(14141)	(14107)	(14182)	(14733)	(14744)	(14614)	(15385)	(15273)	(14981)	(15589)	15.5
FEMALE												
Diseases of heart	1154.1	1117.9	1165.3	1126.8	1101.9	1098.6	1028.8	1013.9	968.0	891.9	860.8	-25.4
Malignant neoplasms	765.5	771.2	814.6	781.9	734.5	757.2	731.8	721.8	713.1	696.4	691.1	-9.7
Cerebrovascular diseases	353.2	312.5	376.0	337.9	337.4	316.2	311.8	286.9	258.7	246.8	229.2	-35.1
Chronic lower respiratory diseases	282.7	293.7	300.6	287.4	281.6	276.2	264.0	297.4	286.3	255.0	279.3	-1.2
Alzheimer's disease	141.2	148.7	191.6	197.7	240.5	282.8	269.8	280.4	317.9	301.8	297.9	111.0
ALL CAUSES	3862.6	3870.0	4095.0	3985.3	3991.9	3941.6	3796.9	3856.6	3828.7	3597.1	3544.8	-8.2
(Number of all deaths)	(14194)	(14799)	(15216)	(15322)	(15820)	(16070)	(15918)	(16778)	(16919)	(16601)	(16625)	17.1
TOTAL												
Diseases of heart	1285.1	1246.5	1303.0	1238.2	1218.1	1203.6	1123.5	1114.1	1044.8	975.7	974.3	-24.2
Malignant neoplasms	920.2	925.7	973.1	919.1	905.3	920.9	889.5	876.1	867.2	841.5	832.4	-9.5
Cerebrovascular diseases	323.3	297.3	346.6	310.9	307.2	286.3	280.8	259.2	230.3	211.8	211.1	-34.7
Chronic lower respiratory diseases	319.0	320.5	331.1	309.8	313.0	304.9	278.3	306.3	304.3	275.6	296.1	-7.2
Alzheimer's disease	118.2	124.3	154.4	158.0	196.6	229.0	220.1	229.5	258.2	241.6	242.6	105.2
ALL CAUSES	4191.1	4203.4	4390.7	4269.8	4289.8	4205.5	4038.0	4099.3	4031.3	3778.8	3791.3	-9.5
(Number of all deaths)	(27686)	(28940)	(29323)	(29504)	(30553)	(30815)	(30532)	(32163)	(32192)	(31852)	(32214)	16.4

¹Rates are presented per 100,000 elderly persons 65 years and older.

²The five causes with the greatest number of deaths over the 1998-2008 period. In 1998-2008, Alzheimer's disease (deaths) replaced influenza and pneumonia (deaths) as the 5th leading cause of death among females and both genders but not elderly males 65 years or older.

Note: The cause-of-death titles are according to the Tenth Revision of the International Classification of Diseases (ICD-10). The causes of death for 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. The rates for both Alzheimer's disease and influenza and pneumonia for 1998-1999 are comparability modified and represent the annual number of deaths per 100,000 persons 65+ that would have been classified as influenza and pneumonia, had the ICD-10 classification system and coding rules been in place. The comparability ratio for influenza and pneumonia is 0.6982, a decrease of about 30.2 percent due to ICD-10. The comparability ratio for Alzheimer's disease is 1.5536, a 55.4 percent increase due to ICD-10. The comparability ratios for other causes of death in the above table are equal to 1.0.

**TABLE 2C-25
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES² OF DEATH AMONG ELDERLY (65 YEARS AND OLDER)
IN URBAN AND RURAL AREAS³, ARIZONA, 1998-2008**

Area/Cause	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Diseases of heart	1291.4	1295.9	1333.1	1273.8	1245.9	1217.0	1130.1	1110.7	1055.0	983.1	971.9	-24.7
Malignant neoplasms	918.9	931.6	977.7	915.3	906.5	907.5	869.3	863.6	854.5	834.1	817.9	-11.0
Cerebrovascular diseases	329.1	308.5	352.4	315.5	313.7	289.5	287.8	257.3	234.6	211.3	206.4	-37.3
Chronic lower respiratory diseases	322.3	328.4	340.6	320.7	316.5	303.4	278.9	309.3	303.2	271.8	289.2	-10.3
Alzheimer's disease	119.2	132.9	164.4	169.8	208.6	235.7	232.9	244.6	270.7	262.4	261.3	119.2
ALL CAUSES	4202.3	4277.2	4447.4	4292.7	4314.8	4192.3	4021.7	4083.4	4053.0	3792.4	3765.0	-10.4
(Number of all deaths)	(22179)	(23447)	(23753)	(23758)	(24619)	(24633)	(24384)	(25740)	(25585)	(25143)	(25374)	14.4
RURAL												
Diseases of heart	1258.3	1052.9	1180.6	1094.2	1106.2	1146.3	1094.8	1127.8	1006.1	946.3	979.3	-22.2
Malignant neoplasms	923.9	902.6	954.0	933.5	900.1	974.1	966.6	927.4	915.2	868.7	883.7	-4.4
Cerebrovascular diseases	300.4	253.6	323.7	292.3	281.0	272.1	251.7	267.2	214.0	213.6	228.2	-24.0
Chronic lower respiratory diseases	305.7	289.9	293.1	266.1	297.9	310.0	275.7	293.8	308.5	290.0	322.1	5.4
Influenza and pneumonia	145.1	152.7	154.0	125.8	146.1	175.7	137.5	142.0	107.0	101.9	116.1	-20.0
ALL CAUSES	4140.7	3911.7	4160.1	4123.0	4185.5	4249.8	4093.4	4164.3	3949.5	3723.8	3863.1	-6.7
(Number of all deaths)	(5499)	(5491)	(5564)	(5671)	(5929)	(6169)	(6132)	(6421)	(6607)	(6434)	(6789)	23.5
STATEWIDE												
Diseases of heart	1285.1	1246.5	1303.0	1238.2	1218.1	1203.6	1123.5	1114.1	1044.8	975.7	974.3	-24.2
Malignant neoplasms	920.2	925.7	973.1	919.1	905.3	920.9	889.5	876.1	867.2	841.5	832.4	-9.5
Cerebrovascular diseases	323.3	297.3	346.6	310.9	307.2	286.3	280.8	259.2	230.3	211.8	211.1	-34.7
Chronic lower respiratory diseases	319.0	320.5	331.1	309.8	313.0	304.9	278.3	306.3	304.3	275.6	296.1	-7.2
Alzheimer's disease	118.2	124.3	154.4	158	196.6	229.0	220.1	229.5	258.2	241.6	242.6	105.2
ALL CAUSES	4191.1	4203.4	4390.7	4269.8	4289.8	4205.5	4038.0	4099.3	4031.3	3778.8	3791.3	-9.5
(Number of all deaths)	(27686)	(28940)	(29323)	(29504)	(30553)	(30815)	(30532)	(32163)	(32192)	(31852)	(32214)	16.4

¹Rates are presented per 100,000 elderly persons 65 years and older.

²The five causes with the greatest number of deaths over the 1998-2008 period. In 1998-2008, Alzheimer's disease (deaths) replaced influenza and pneumonia (deaths) as the 5th leading cause of death among Arizonans 65 years or older statewide and in the urban areas.

³Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

Note: 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 2000-2008 are classified by ICD-10, replacing the Ninth Revision (ICD-9) used during 1979-1999. 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**.

TABLE 2C-26
MORTALITY RATES¹ FOR THE FIVE LEADING CAUSES OF DEATH AMONG ELDERLY (65 YEARS AND OLDER)
BY GENDER IN URBAN AND RURAL AREAS², ARIZONA, 1998-2008

Area/Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	% change from 1998
URBAN												
Male	4632.1	4692.7	4818.1	4650.1	4674.4	4542.1	4323.1	4359.2	4283.2	3986.1	4053.2	-12.5
Female	3870.0	3954.0	4160.0	4015.6	4036.1	3920.8	3786.0	3866.8	3871.5	3638.1	3534.9	-8.7
TOTAL	4202.3	4277.2	4447.4	4292.7	4314.8	4192.1	4021.7	4083.4	4053.0	3792.4	3765.0	-10.4
RURAL												
Male	4490.2	4349.0	4695.7	4473.9	4617.9	4502.4	4379.8	4561.0	4279.7	4058.9	4216.1	-6.1
Female	3825.4	3515.2	4417.3	3810.1	3799.9	4024.4	3836.1	3811.3	3658.6	3432.7	3555.8	-7.0
TOTAL	4140.7	3911.7	4160.1	4123.0	4185.5	4249.8	4093.4	4164.3	3949.5	3723.8	3863.1	-6.7
STATEWIDE												
Male	4603.0	4618.9	4761.6	4626.6	4663.4	4536.2	4338.0	4401.4	4282.4	4002.8	4095.0	-11.0
Female	3862.6	3870.0	4095.0	3985.3	3991.9	3941.6	3796.9	3856.6	3828.7	3597.1	3544.8	-8.2
TOTAL	4191.1	4203.4	4390.7	4269.8	4289.8	4205.3	4038.0	4099.3	4031.3	3778.8	3791.3	-9.5

¹Rates are presented per 100,000 persons 65 years and older.

²Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas. See **Technical Notes** for more information.

TABLE 2C-27
LEADING CAUSES OF DEATH AMONG ELDERLY (65 YEARS AND OLDER) BY GENDER, AREA AND RACE/ETHNICITY,
ARIZONA, 2008

Cause of death	Gender		Area*			Race/ethnicity					
	Male	Female	Urban	Rural	Other/ Unknown	White non- Hispanic	Hispanic or Latino	Black or American	American or Indian or Alaska Native	Asian or Pacific Islander	Other/ Unknown
Diseases of heart	4,241	4,037	6,550	1,721	7	7,237	693	145	136	49	18
Malignant neoplasms	3,832	3,241	5,512	1,553	8	6,126	618	129	117	68	15
Malignant neoplasm of trachea, bronchus and lung	1,113	876	1,507	480	2	1,805	109	34	14	22	5
Malignant neoplasm of colon, rectum, and anus	320	321	487	153	1	540	62	17	14	7	1
Malignant neoplasm of prostate	504	0	391	110	3	424	54	9	8	7	2
Malignant neoplasm of breast	4	429	343	90	0	378	33	14	7	1	0
Malignant neoplasm of pancreas	233	235	389	79	0	383	59	10	9	5	2
Malignant neoplasm of lymphoid, hematopoietic and related tissue	431	335	636	130	0	677	63	10	11	4	1
Chronic lower respiratory diseases	1,206	1,310	1,949	566	1	2,328	120	31	22	10	5
Alzheimer's disease	664	1,397	1,767	293	1	1,826	153	53	14	13	2
Cerebrovascular diseases	719	1,075	1,391	402	1	1,517	182	39	30	24	2
Accidents (unintentional injury)	507	519	796	230	0	876	83	11	44	11	1
Falls	279	373	541	111	0	578	45	7	15	7	0
Motor vehicle accidents	97	42	86	53	0	106	18	0	14	0	1
Influenza and pneumonia	406	452	650	204	4	700	92	13	42	8	3
Diabetes	411	387	610	186	2	539	155	33	57	12	2
Parkinson's disease	295	182	395	82	0	423	28	8	15	3	0
Essential (primary) hypertension and hypertensive disease	183	234	364	51	2	339	55	11	8	4	0
Nephritis, nephrotic syndrome and nephrosis	202	190	263	128	1	277	72	11	27	4	1
Septicemia	189	165	264	89	1	266	55	7	21	5	0
Total, all causes	15,589	16,625	25,374	6,789	51	27,659	2,906	585	728	268	68

*Urban = Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

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

TABLE 2C-28
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2008

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Unknown
Total, all causes	45,128	625	262	297	2,829	8,899	32,214	2
Salmonella infections	2	0	0	0	0	0	2	0
Shigellosis and amebiasis	0	0	0	0	0	0	0	0
Certain other intestinal infections	152	0	0	0	3	13	136	0
Tuberculosis	13	0	1	0	1	3	8	0
Respiratory tuberculosis	10	0	1	0	1	1	7	0
Other tuberculosis	3	0	0	0	0	2	1	0
Whooping cough	1	1	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	539	8	8	0	31	138	354	0
Syphilis	1	0	0	0	1	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	188	0	0	0	14	132	42	0
Human immunodeficiency virus (HIV) disease	109	0	0	0	50	56	3	0
Malaria	0	0	0	0	0	0	0	0
Other and unspecified infectious and parasitic diseases	168	5	2	1	11	36	113	0
Malignant neoplasms	9,949	2	30	21	302	2,520	7,073	1
Malignant neoplasm of lip, oral cavity and pharynx	151	0	0	0	8	48	95	0
Malignant neoplasm of esophagus	262	0	0	0	5	76	181	0
Malignant neoplasm of stomach	200	0	0	0	16	37	147	0
Malignant neoplasm of colon, rectum, and anus	897	0	0	0	28	228	641	0
Malignant neoplasm of liver and intrahepatic bile ducts	348	0	2	1	15	137	193	0
Malignant neoplasm of pancreas	636	0	0	0	9	158	468	1
Malignant neoplasm of larynx	42	0	0	0	0	16	26	0
Malignant neoplasm of trachea, bronchus and lung	2,636	0	0	0	22	625	1,989	0
Malignant melanoma of skin	168	0	0	0	9	48	111	0
Malignant neoplasm of breast	734	0	0	0	32	269	433	0
Malignant neoplasm of cervix uteri	60	0	0	0	16	29	15	0
Malignant neoplasm of corpus uteri and uterus, part unspecified	115	0	0	0	3	39	73	0
Malignant neoplasm of ovary	241	0	0	0	7	70	164	0
Malignant neoplasm of prostate	568	0	0	0	0	64	504	0
Malignant neoplasm of kidney and renal pelvis	247	0	3	0	6	64	174	0
Malignant neoplasm of bladder	258	0	0	0	2	50	206	0

TABLE 2C-28 (continued)
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2008

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Un-known
Malignant neoplasm of meninges, brain and other parts of CNS	268	0	12	1	24	94	137	0
Malignant neoplasm of lymphoid, hematopoietic and related tissue	1,029	1	10	11	48	193	766	0
Hodgkin's disease	17	0	0	1	2	5	9	0
Non-Hodgkin's lymphoma	433	0	1	3	19	74	336	0
Leukemia	376	1	9	7	27	66	266	0
Multiple myeloma and immunoproliferative neoplasms	203	0	0	0	0	48	155	0
Other and unspecified malignant neoplasms of lymphoid tissue	0	0	0	0	0	0	0	0
All other and unspecified malignant neoplasm	1,089	1	3	8	52	275	750	0
In situ neoplasms	499	1	3	2	10	104	379	0
Anemias	47	1	3	0	3	4	36	0
Diabetes	1,162	0	1	0	48	315	798	0
Nutritional deficiencies	37	0	0	0	0	5	32	0
Malnutrition	36	0	0	0	0	4	32	0
Other nutritional deficiencies	1	0	0	0	0	1	0	0
Meningitis	15	3	0	0	2	5	5	0
Parkinson's disease	487	0	0	0	1	9	477	0
Alzheimer's disease	2,086	0	0	0	0	25	2,061	0
Major cardiovascular diseases	13,394	10	15	5	280	2,133	10,951	0
Diseases of heart	10,299	9	8	4	223	1,777	8,278	0
Acute rheumatic fever and chronic rheumatic heart disease	57	0	0	0	2	5	50	0
Hypertensive heart disease	675	0	0	1	21	185	468	0
Hypertensive heart and renal disease	48	0	0	0	0	9	39	0
Ischemic heart disease	7,487	0	1	0	118	1,312	6,056	0
Acute myocardial infarction	1,664	0	0	0	25	294	1,345	0
Other acute ischemic heart disease	28	0	0	0	1	3	24	0
Other forms of chronic ischemic heart disease	5,795	0	1	0	92	1,015	4,687	0
Atherosclerotic cardiovascular disease	1,893	0	0	0	44	537	1,312	0
All other forms of chronic ischemic heart disease	3,902	0	1	0	48	478	3,375	0
Other heart diseases	2,032	9	7	3	82	266	1,665	0
Acute and subacute endocarditis	30	0	0	1	3	6	20	0
Diseases of pericardium and acute myocarditis	14	0	1	0	4	2	7	0
Heart failure	592	1	1	0	2	21	567	0
All other forms of heart disease	1,396	8	5	2	73	237	1,071	0
Essential (primary) hypertension and hypertensive renal disease	475	0	0	0	13	45	417	0
Cerebrovascular diseases	2,089	1	7	0	37	250	1,794	0
Atherosclerosis	170	0	0	0	0	6	164	0

TABLE 2C-28 (continued)
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2008

	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	360	0	0	1	7	54	298	0
Aortic aneurysm and dissection	191	0	0	0	6	36	149	0
Other disease of arteries, arterioles and capillaries	169	0	0	1	1	18	149	0
Other disorders of circulatory system	78	0	1	0	9	26	42	0
Influenza and pneumonia	1,075	7	7	2	46	155	858	0
Influenza	19	0	1	0	2	4	12	0
Pneumonia	1,056	7	6	2	44	151	846	0
Other acute lower respiratory infections	5	2	1	0	0	0	2	0
Acute bronchiolitis	4	2	1	0	0	0	1	0
Unspecified acute lower respiratory infection	1	0	0	0	0	0	1	0
Chronic lower respiratory diseases	2,904	0	4	0	13	371	2,516	0
Bronchitis, chronic and unspecified	8	0	1	0	0	1	6	0
Emphysema	260	0	0	0	1	44	215	0
Asthma	48	0	3	0	7	16	22	0
Other chronic lower respiratory diseases	2,588	0	0	0	5	310	2,273	0
Pneumoconioses and chemical effects	15	0	0	0	0	3	12	0
Pneumonitis due to solids and liquids	256	0	2	0	4	24	226	0
Other disease of respiratory system	469	5	5	1	18	69	371	0
Peptic ulcer	52	0	0	0	1	15	36	0
Diseases of appendix	6	0	0	0	0	1	5	0
Hernia	27	1	0	1	0	3	22	0
Chronic liver disease and cirrhosis	778	0	0	0	95	446	237	0
Alcoholic liver disease	517	0	0	0	86	320	111	0
Other chronic liver disease and cirrhosis	261	0	0	0	9	126	126	0
Cholelithiasis and other disorders of gallbladder	38	0	0	0	0	4	34	0
Nephritis, nephrotic syndrome and nephrosis	488	1	1	1	14	79	392	0
Acute and rapidly progressive nephritic and nephrotic syndrome	1	0	0	0	0	0	1	0
Chronic glomerulonephritis	42	0	0	1	0	1	40	0
Renal failure	445	1	1	0	14	78	351	0
Others disorders of kidney	0	0	0	0	0	0	0	0
Infections of kidney	16	0	0	0	1	2	13	0
Hyperplasia of prostate	3	0	0	0	0	0	3	0
Inflammatory diseases of female pelvic organs	5	1	0	0	1	0	3	0
Pregnancy, childbirth and the puerperium	10	0	0	0	10	0	0	0
Pregnancy with abortive outcome	1	0	0	0	1	0	0	0
Other complications of pregnancy, childbirth and the puerperium	9	0	0	0	9	0	0	0

TABLE 2C-28 (continued)
COMPARISON OF CAUSES OF MORTALITY BY AGE GROUP, ARIZONA, 2008

	All ages	Infants <1	Children 1-14	Adolescents 15-19	Young adults 20-44	Middle-aged adults 45-64	Elderly 65+	Unknown
Perinatal conditions	309	307	2	0	0	0	0	0
Congenital anomalies, deformations and chromosomal abnormalities	239	148	22	5	21	21	22	0
Symptoms, signs, abnormal findings	636	71	6	2	34	63	460	0
Total accidents	2,951	25	83	117	875	825	1,026	0
Transport accidents	989	5	37	82	409	304	152	0
Motor vehicle accidents	891	5	35	78	376	258	139	0
Other land transport accidents	31	0	1	2	12	11	5	0
Water, air, space	67	0	1	2	21	35	8	0
Nontransport accidents	1,962	20	46	35	466	521	874	0
Falls	748	2	2	3	18	71	652	0
Accidental discharge of firearms	10	0	1	0	6	1	2	0
Accidental drowning and submersion	78	0	26	3	25	14	10	0
Accidental exposure to smoke, fire and flames	50	0	3	0	6	16	25	0
Accidental poisoning	766	0	1	25	362	350	28	0
Other and unspecified nontransport accidents	310	18	13	4	49	69	157	0
Intentional self-harm (suicide)	968	0	8	56	346	371	187	0
By discharge of firearms	530	0	3	24	169	198	136	0
By other means	438	0	5	32	177	173	51	0
Assault (homicide)	461	6	14	62	265	94	20	0
By discharge of firearms	324	0	6	50	199	59	10	0
By other means	137	6	8	12	66	35	10	0
Legal intervention	9	0	0	1	6	1	1	0
Events of undetermined intent	121	4	9	4	46	42	15	1
Discharge of firearms	15	0	1	3	9	1	1	0
Other and unspecified events of undetermined intent	106	4	8	1	37	41	14	1
Operations of war	0	0	0	0	0	0	0	0
Complications of medical and surgical care	47	0	1	0	5	17	24	0
Injury by firearms	888	0	11	78	389	260	150	0
Drug-induced deaths	947	0	3	26	430	438	50	0
Alcohol-induced deaths	772	0	0	1	152	470	149	0

Note: The causes of death in this table are classified by the Tenth Revision of the International Classification of Diseases (ICD-10).

TABLE 2C-29
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES¹ BY AGE GROUP, ARIZONA, 2008

	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	690.6	631.3	19.7	65.7	123.0	591.8	3791.3
Salmonella infections	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Shigellosis and amebiasis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Certain other intestinal infections	2.3	0.0	0.0	0.0	0.1	0.9	16.0
Tuberculosis	0.2	0.0	0.1	0.0	0.0	0.2	0.9
Respiratory tuberculosis	0.2	0.0	0.1	0.0	0.0	0.1	0.8
Other tuberculosis	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Whooping cough	0.0	1.0	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	0.0
Septicemia	8.2	8.1	0.6	0.0	1.3	9.2	41.7
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	2.9	0.0	0.0	0.0	0.6	8.8	4.9
Human immunodeficiency virus (HIV) disease	1.7	0.0	0.0	0.0	2.2	3.7	0.4
Malaria	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other and unspecified infectious and parasitic diseases	2.6	5.1	0.2	0.2	0.5	2.4	13.3
Malignant neoplasms	152.2	2.0	2.3	4.6	13.1	167.6	832.4
Malignant neoplasm of lip, oral cavity and pharynx	2.3	0.0	0.0	0.0	0.3	3.2	11.2
Malignant neoplasm of esophagus	4.0	0.0	0.0	0.0	0.2	5.1	21.3
Malignant neoplasm of stomach	3.1	0.0	0.0	0.0	0.7	2.5	17.3
Malignant neoplasm of colon, rectum, and anus	13.7	0.0	0.0	0.0	1.2	15.2	75.4
Malignant neoplasm of liver and intrahepatic bile ducts	5.3	0.0	0.2	0.2	0.7	9.1	22.7
Malignant neoplasm of pancreas	9.7	0.0	0.0	0.0	0.4	10.5	55.1
Malignant neoplasm of larynx	0.6	0.0	0.0	0.0	0.0	1.1	3.1
Malignant neoplasm of trachea, bronchus and lung	40.3	0.0	0.0	0.0	1.0	41.6	234.1
Malignant melanoma of skin	2.6	0.0	0.0	0.0	0.4	3.2	13.1
Malignant neoplasm of breast	11.2	0.0	0.0	0.0	1.4	17.9	51.0
Malignant neoplasm of cervix uteri	0.9	0.0	0.0	0.0	0.7	1.9	1.8
Malignant neoplasm of corpus uteri and uterus, part unspecified	1.8	0.0	0.0	0.0	0.1	2.6	8.6
Malignant neoplasm of ovary	3.7	0.0	0.0	0.0	0.3	4.7	19.3
Malignant neoplasm of prostate	8.7	0.0	0.0	0.0	0.0	4.3	59.3
Malignant neoplasm of kidney and renal pelvis	3.8	0.0	0.2	0.0	0.3	4.3	20.5
Malignant neoplasm of bladder	3.9	0.0	0.0	0.0	0.1	3.3	24.2

TABLE 2C-29 (continued)
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES¹ BY AGE GROUP, ARIZONA, 2008

	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 CNS	4.1	0.0	0.9	0.2	1.0	6.3	16.1
Malignant neoplasm of lymphoid, hematopoietic and related tissue	15.7	1.0	0.8	2.4	2.1	12.8	90.2
Hodgkin's disease	0.3	0.0	0.0	0.2	0.1	0.3	1.1
Non-Hodgkin's lymphoma	6.6	0.0	0.1	0.7	0.8	4.9	39.5
Leukemia	5.8	1.0	0.7	1.5	1.2	4.4	31.3
Multiple myeloma and immunoproliferative neoplasms	3.1	0.0	0.0	0.0	0.0	3.2	18.2
Other and unspecified malignant neoplasms of lymphoid tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All other and unspecified malignant neoplasm	16.7	1.0	0.2	1.8	2.3	18.3	88.3
In situ neoplasms	7.6	1.0	0.2	0.4	0.4	6.9	44.6
Anemias	0.7	1.0	0.2	0.0	0.1	0.3	4.2
Diabetes	17.8	0.0	0.1	0.0	2.1	20.9	93.9
Nutritional deficiencies	0.6	0.0	0.0	0.0	0.0	0.3	3.8
Malnutrition	0.6	0.0	0.0	0.0	0.0	0.3	3.8
Other nutritional deficiencies	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Meningitis	0.2	3.0	0.0	0.0	0.1	0.3	0.6
Parkinson's disease	7.5	0.0	0.0	0.0	0.0	0.6	56.1
Alzheimer's disease	31.9	0.0	0.0	0.0	0.0	1.7	242.6
Major cardiovascular diseases	205.0	10.1	1.1	1.1	12.2	141.8	1288.8
Diseases of heart	157.6	9.1	0.6	0.9	9.7	118.2	974.3
Acute rheumatic fever and chronic rheumatic heart disease	0.9	0.0	0.0	0.0	0.1	0.3	5.9
Hypertensive heart disease	10.3	0.0	0.0	0.2	0.9	12.3	55.1
Hypertensive heart and renal disease	0.7	0.0	0.0	0.0	0.0	0.6	4.6
Ischemic heart disease	114.6	0.0	0.1	0.0	5.1	87.2	712.7
Acute myocardial infarction	25.5	0.0	0.0	0.0	1.1	19.5	158.3
Other acute ischemic heart disease	0.4	0.0	0.0	0.0	0.0	0.2	2.8
Other forms of chronic ischemic heart disease	88.7	0.0	0.1	0.0	4.0	67.5	551.6
Atherosclerotic cardiovascular disease	29.0	0.0	0.0	0.0	1.9	35.7	154.4
All other forms of chronic ischemic heart disease	59.7	0.0	0.1	0.0	2.1	31.8	397.2
Other heart diseases	31.1	9.1	0.5	0.7	3.6	17.7	196.0
Acute and subacute endocarditis	0.5	0.0	0.0	0.2	0.1	0.4	2.4
Diseases of pericardium and acute myocarditis	0.2	0.0	0.1	0.0	0.2	0.1	0.8
Heart failure	9.1	1.0	0.1	0.0	0.1	1.4	66.7
All other forms of heart disease	21.4	8.1	0.4	0.4	3.2	15.8	126.0
Essential (primary) hypertension and hypertensive renal disease	7.3	0.0	0.0	0.0	0.6	3.0	49.1
Cerebrovascular diseases	32.0	1.0	0.5	0.0	1.6	16.6	211.1
Atherosclerosis	2.6	0.0	0.0	0.0	0.0	0.4	19.3

TABLE 2C-29 (continued)
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES¹ BY AGE GROUP, ARIZONA, 2008

	All ages	Infants <1	Children 1-14	Adoles- cents 15-19	Young adults 20-44	Middle- aged adults 45-64	Elderly 65 +
Other diseases of circulatory system	5.5	0.0	0.0	0.2	0.3	3.6	35.1
Aortic aneurysm and dissection	2.9	0.0	0.0	0.0	0.3	2.4	17.5
Other disease of arteries, arterioles and capillaries	2.6	0.0	0.0	0.2	0.0	1.2	17.5
Other disorders of circulatory system	1.2	0.0	0.1	0.0	0.4	1.7	4.9
Influenza and pneumonia	16.5	7.1	0.5	0.4	2.0	10.3	101.0
Influenza	0.3	0.0	0.1	0.0	0.1	0.3	1.4
Pneumonia	16.2	7.1	0.5	0.4	1.9	10.0	99.6
Other acute lower respiratory infections	0.1	2.0	0.1	0.0	0.0	0.0	0.2
Acute bronchiolitis	0.1	2.0	0.1	0.0	0.0	0.0	0.1
Unspecified acute lower respiratory infection	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Chronic lower respiratory diseases	44.4	0.0	0.3	0.0	0.6	24.7	296.1
Bronchitis, chronic and unspecified	0.1	0.0	0.1	0.0	0.0	0.1	0.7
Emphysema	4.0	0.0	0.0	0.0	0.0	2.9	25.3
Asthma	0.7	0.0	0.2	0.0	0.3	1.1	2.6
Other chronic lower respiratory diseases	39.6	0.0	0.0	0.0	0.2	20.6	267.5
Pneumoconioses and chemical effects	0.2	0.0	0.0	0.0	0.0	0.2	1.4
Pneumonitis due to solids and liquids	3.9	0.0	0.2	0.0	0.2	1.6	26.6
Other disease of respiratory system	7.2	5.1	0.4	0.2	0.8	4.6	43.7
Peptic ulcer	0.8	0.0	0.0	0.0	0.0	1.0	4.2
Diseases of appendix	0.1	0.0	0.0	0.0	0.0	0.1	0.6
Hernia	0.4	1.0	0.0	0.2	0.0	0.2	2.6
Chronic liver disease and cirrhosis	11.9	0.0	0.0	0.0	4.1	29.7	27.9
Alcoholic liver disease	7.9	0.0	0.0	0.0	3.7	21.3	13.1
Other chronic liver disease and cirrhosis	4.0	0.0	0.0	0.0	0.4	8.4	14.8
Cholelithiasis and other disorders of gallbladder	0.6	0.0	0.0	0.0	0.0	0.3	4.0
Nephritis, nephrotic syndrome and nephrosis	7.5	1.0	0.1	0.2	0.6	5.3	46.1
Acute and rapidly progressive nephritic and nephrotic syndrome	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Chronic glomerulonephritis	0.6	0.0	0.0	0.2	0.0	0.1	4.7
Renal failure	6.8	1.0	0.1	0.0	0.6	5.2	41.3
Others disorders of kidney	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Infections of kidney	0.2	0.0	0.0	0.0	0.0	0.1	1.5
Hyperplasia of prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Inflammatory diseases of female pelvic organs	0.1	1.0	0.0	0.0	0.0	0.0	0.4
Pregnancy, childbirth and the puerperium	0.2	0.0	0.0	0.0	0.4	0.0	0.0
Pregnancy with abortive outcome	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other complications of pregnancy, childbirth and the puerperium	0.1	0.0	0.0	0.0	0.4	0.0	0.0

TABLE 2C-29 (continued)
COMPARISON OF CAUSE-SPECIFIC MORTALITY RATES¹ BY AGE GROUP, ARIZONA, 2008

	All ages	Infants <1	Children 1-14	Adoles- cents 15-19	Young adults 20-44	Middle- aged adults 45-64	Elderly 65 +
Perinatal conditions	4.7	310.1	0.2	0.0	0.0	0.0	0.0
Congenital anomalies, deformations and chromosomal abnormalities	3.7	149.5	1.7	1.1	0.9	1.4	2.6
Symptoms, signs, abnormal findings	9.7	71.7	0.5	0.4	1.5	4.2	54.1
Total accidents	45.2	25.3	6.2	25.9	38.0	54.9	120.8
Transport accidents	15.1	5.1	2.8	18.1	17.8	20.2	17.9
Motor vehicle accidents	13.6	5.1	2.6	17.3	16.3	17.2	16.4
Other land transport accidents	0.5	0.0	0.1	0.4	0.5	0.7	0.6
Water, air, space	1.0	0.0	0.1	0.4	0.9	2.3	0.9
Nontransport accidents	30.0	20.2	3.5	7.7	20.3	34.6	102.9
Falls	11.4	2.0	0.2	0.7	0.8	4.7	76.7
Accidental discharge of firearms	0.2	0.0	0.1	0.0	0.3	0.1	0.2
Accidental drowning and submersion	1.2	0.0	2.0	0.7	1.1	0.9	1.2
Accidental exposure to smoke, fire and flames	0.8	0.0	0.2	0.0	0.3	1.1	2.9
Accidental poisoning	11.7	0.0	0.1	5.5	15.7	23.3	3.3
Other and unspecified nontransport accidents	4.7	18.2	1.0	0.9	2.1	4.6	18.5
Intentional self-harm (suicide)	14.8	0.0	0.6	12.4	15.0	24.7	22.0
By discharge of firearms	8.1	0.0	0.2	5.3	7.3	13.2	16.0
By other means	6.7	0.0	0.4	7.1	7.7	11.5	6.0
Assault (homicide)	7.1	6.1	1.1	13.7	11.5	6.3	2.4
By discharge of firearms	5.0	0.0	0.5	11.1	8.7	3.9	1.2
By other means	2.1	6.1	0.6	2.7	2.9	2.3	1.2
Legal intervention	0.1	0.0	0.0	0.2	0.3	0.1	0.1
Events of undetermined intent	1.9	4.0	0.7	0.9	2.0	2.8	1.8
Discharge of firearms	0.2	0.0	0.1	0.7	0.4	0.1	0.1
Other and unspecified events of undetermined intent	1.6	4.0	0.6	0.2	1.6	2.7	1.6
Operations of war	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Complications of medical and surgical care	0.7	0.0	0.1	0.0	0.2	1.1	2.8
Injury by firearms ²	13.6	0.0	0.8	17.3	16.9	17.3	17.7
Drug-induced deaths ²	14.5	0.0	0.2	5.8	18.7	29.1	5.9
Alcohol-induced deaths ²	11.8	0.0	0.0	0.2	6.6	31.3	17.5

¹The 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.

²Included in selected categories above.



2D.

PATTERNS OF PREMATURE MORTALITY

Compared with the White non-Hispanics, the race/ethnic minority groups in Arizona have had greater percentages of people younger than 25 years (46.8 vs. 28.4 percent). In contrast, people aged 65 years and older accounted for 17.9 percent of White non-Hispanics, but only 5.6 percent of all ethnic minority groups combined (percentages based on race-and-age-specific population denominators in **Table 10C-1**).

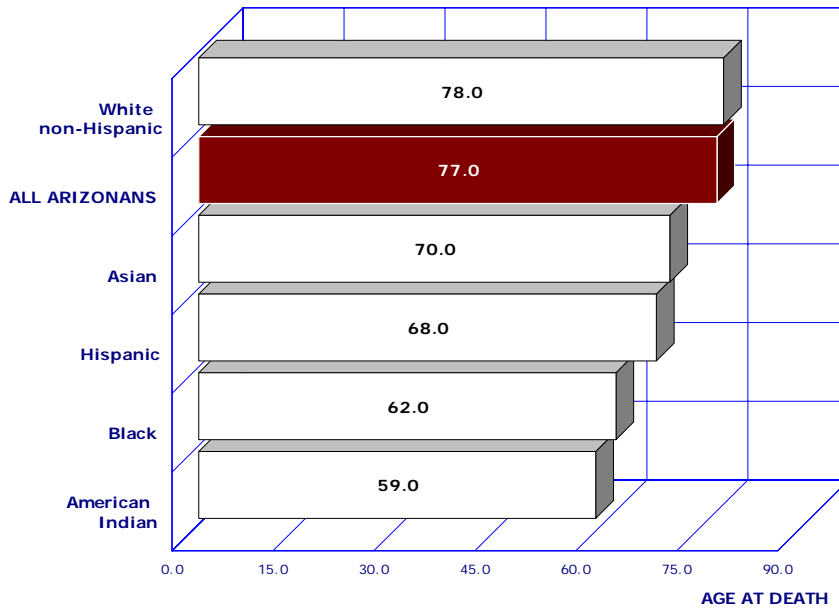
Similar to the differences in the age composition is the contrasting pattern of proportional mortality by age group. In 2008, the elderly (65 years and older) comprised 76.3 percent of the total mortality among White non-Hispanics, compared to 42.3 percent among American Indians, 45.2 percent among Blacks, 54.7 percent among Hispanics, and 59.7 percent among Asians. One out of fifty-six White non-Hispanics who died in 2008 was less than 25 years old (1.8 percent). In contrast, persons younger than 25 years of age accounted for one out of every nine (11.3 percent) deaths among Arizona ethnic minorities.

The smaller the proportion of elderly as well as the proportion of deaths at older age, the lower is the average age at death. In 2008, the average age at death among the residents of Sun City (a retirement community where the median age of residents is 75 years) was 82.4 years. In contrast, the average age in Gilbert (median age 30.1 years) was 67.3 years. Compared to residents of Sun City, on average residents of Gilbert were 15.1 years younger at time of death. It is not so much that the risk of premature death is higher in Gilbert than it is in Sun City. Rather, it is the lower proportional contribution of elderly deaths to total mortality in Gilbert that depresses the average age at death for this community.

Beginning with the 2005 edition of the report, information about the arithmetic mean age at death is supplemented with the information about the median age, the age in the middle, and conceptually similar to life expectancy at birth (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, 2008

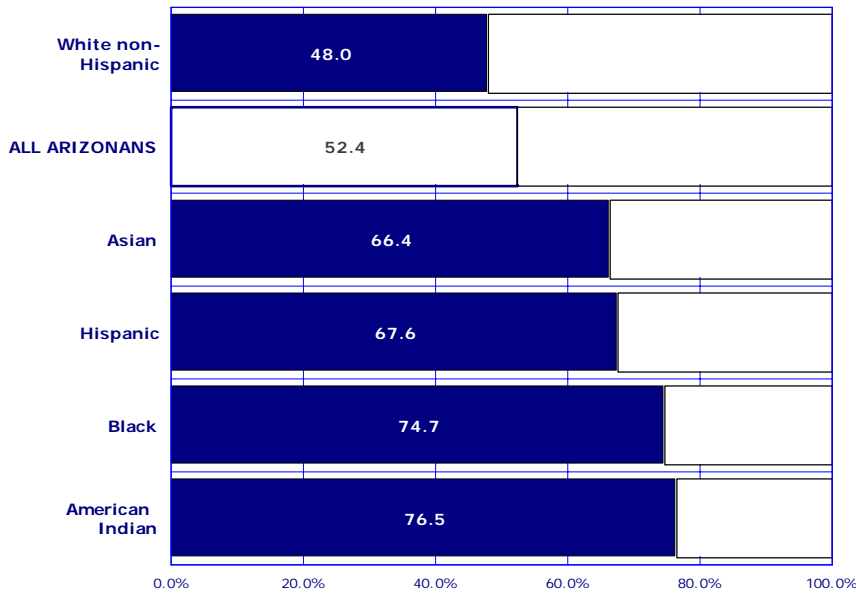


The median age at death increased from 76 years in 2007 to 77 years in 2008 (Table 2D-1). Compared to 2007, there were fewer deaths in 2008 from causes such as homicide or suicide, i.e., the causes with the lowest median age at death (29 and 48 years, respectively; Table 2B-1, Table 2D-3).

One out of two Arizonans who died in 2008 was older than 77 years of age. Among Arizona females, fifty percent were older than 80 years when they died in 2008 (no change since 2002) Among males, the median age at death was 73 years in 2008. Table 2D-1 shows both the average and the median age at death by race/ethnicity and gender in 1997-2007.

In 2008, compared to White non-Hispanics, on average Asians were 8 years younger at time of death, Hispanics were 10 years younger, Blacks were 16 years younger, and American Indian residents of Arizona were 19 years younger.

Figure 2D-2
Percent of Deaths before Expected Years of Life Reached* by Race/Ethnicity, Arizona, 2008



The percent of deaths before expected years of life reached (a premature death ratio) slightly decreased for all Arizonans from 53.0 in 2004 to 52.4 in 2008 (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 (48.0 percent) occurring before the expected years of life were reached (Figure 2D-2). In contrast, at least 66.4 percent among race/ethnic minority groups occurred prematurely.

Among American Indians, eight out of ten deaths (76.5 percent) were premature.

*Expected years of life at birth for all U.S. residents (77.9 years in 2006).

**TABLE 2D-1
AVERAGE AND MEDIUM AGE AT DEATH FROM ALL CAUSES BY GENDER AND RACE/ETHNICITY, ARIZONA, 1998-2008**

Year	Gender	All ethnic groups		Race/ethnicity											
		Mean	Median	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		
1998	Total	71.2	75.0	73.4	77.0	61.8	66.0	62.5	65.0	56.5	57.0	62.7	66.0		
	Male	67.9	73.0	70.5	74.0	57.4	61.0	59.4	60.0	53.2	51.0	60.8	63.0		
	Female	74.9	78.0	76.5	80.0	68.0	72.0	66.3	69.0	61.2	63.5	62.7	66.5		
1999	Total	71.7	76.0	74.1	77.0	59.2	65.0	60.5	64.5	55.7	58.0	63.9	69.0		
	Male	68.8	73.0	71.5	75.0	56.2	60.0	57.8	60.0	51.8	52.0	62.3	69.0		
	Female	74.9	79.0	77.0	80.0	63.3	71.0	63.9	70.0	60.6	64.0	65.5	70.0		
2000	Total	71.6	76.0	73.9	77.0	59.2	66.0	60.8	66.0	55.4	57.5	62.3	68.0		
	Male	68.7	73.0	70.9	75.0	55.8	60.0	56.8	61.0	51.6	52.0	61.6	67.0		
	Female	74.9	79.0	77.0	80.0	63.7	71.0	65.8	71.0	60.4	65.0	63.0	68.0		
2001	Total	71.2	76.0	74.2	78.0	58.4	65.0	59.1	63.0	54.3	56.0	63.9	68.5		
	Male	67.9	73.0	71.2	75.0	54.8	59.0	55.6	58.0	50.1	49.0	61.6	68.0		
	Female	75.0	79.0	77.3	80.0	63.4	71.0	63.2	69.0	60.0	65.0	66.0	69.0		
2002	Total	71.5	76.0	74.3	78.0	58.6	65.0	60.9	65.0	55.8	57.0	67.4	74.0		
	Male	68.1	73.0	71.3	75.0	54.9	59.0	56.9	60.0	52.5	52.0	64.2	72.0		
	Female	75.3	79.0	77.5	80.0	63.9	72.0	66.4	72.0	60.4	64.0	71.1	75.0		
2003	Total	72.2	76.0	74.4	78.0	60.4	66.0	62.4	66.0	54.7	56.0	64.3	70.0		
	Male	69.6	73.0	71.6	75.0	57.5	60.0	60.0	60.0	50.3	51.0	63.5	70.0		
	Female	75.1	80.0	77.4	81.0	64.4	72.0	65.3	71.0	60.4	65.0	65.0	71.0		
2004	Total	71.0	76.0	73.8	78.0	58.5	65.0	60.4	64.0	55.9	58.0	65.3	69.0		
	Male	67.7	73.0	70.9	75.0	54.6	60.0	55.4	59.0	52.4	53.0	63.5	68.0		
	Female	74.6	80.0	76.9	81.0	63.8	72.0	66.5	70.0	60.4	64.0	67.0	70.0		
2005	Total	71.5	77.0	74.4	79.0	59.0	65.0	60.7	64.0	56.8	59.0	65.5	72.0		
	Male	68.1	73.0	71.4	76.0	55.5	61.0	55.7	58.0	53.4	54.0	64.3	71.0		
	Female	75.2	80.0	77.6	81.0	63.8	71.0	66.3	71.0	61.2	66.0	66.8	73.0		
2006	Total	71.2	76.0	74.0	78.0	58.7	65.0	60.2	63.0	55.4	57.0	68.7	73.0		
	Male	67.9	73.0	71.1	75.0	55.1	59.0	57.3	59.0	51.5	52.0	64.5	71.5		
	Female	74.8	80.0	76.9	81.0	64.0	73.0	64.4	70.0	60.9	65.0	72.7	73.0		
2007	Total	71.2	76.0	74.2	78.0	58.4	64.0	60.1	62.0	57.2	59.0	64.9	70.0		
	Male	67.8	73.0	71.3	75.0	54.6	59.0	54.8	57.0	53.7	54.0	60.2	64.0		
	Female	74.9	80.0	77.4	81.0	63.4	71.0	66.5	70.0	61.9	67.0	69.0	73.0		
2008	Total	71.5	77.0	74.3	78.0	61.2	68.0	58.5	62.0	57.3	59.0	63.5	70.0		
	Male	68.4	73.0	71.6	76.0	57.1	62.0	55.3	59.0	53.7	54.0	61.5	67.5		
	Female	75.0	80.0	77.2	81.0	66.4	74.0	62.5	67.0	62.0	67.0	65.6	73.0		

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 REACHED¹
BY GENDER AND RACE/ETHNICITY, ARIZONA, 1998-2008**

Year/gender	All race/ethnic groups ²	White non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
1998 Total	52.5	48.7	69.8	68.9	77.2	67.3
Male	60.2	56.7	78.0	76.3	81.4	68.2
Female	43.8	40.7	62.4	63.6	73.5	68.1
1999 Total	51.8	47.4	71.7	70.7	76.9	67.0
Male	59.3	54.8	78.0	76.6	83.4	63.9
Female	43.3	39.3	62.6	63.1	69.0	70.1
2000 Total	51.6	47.3	70.5	69.3	78.7	69.6
Male	59.6	55.4	76.7	75.7	83.1	70.6
Female	42.9	38.7	62.2	61.2	72.9	68.6
2001 Total	51.0	46.2	71.2	73.0	79.1	69.9
Male	59.2	54.3	78.1	79.2	85.3	71.2
Female	42.0	37.6	61.7	65.7	70.8	68.6
2002 Total	50.2	45.6	70.3	71.7	78.3	59.8
Male	58.4	53.6	77.0	79.2	82.8	60.6
Female	41.1	37.0	60.7	61.1	72.2	59.0
2003 Total	50.8	46.1	70.0	70.6	78.4	65.7
Male	59.0	54.2	76.8	79.1	84.4	66.7
Female	41.7	37.4	61.0	60.4	70.5	65.0
2004 Total	53.0	48.3	71.5	74.3	80.3	64.3
Male	61.0	56.4	78.3	81.9	85.9	69.0
Female	44.1	39.9	62.4	65.2	73.3	60.0
2005 Total	52.7	47.9	71.3	75.1	78.4	65.1
Male	60.8	56.2	76.9	83.3	83.3	64.5
Female	43.7	39.2	63.3	65.8	72.2	65.7
2006 Total	52.7	48.2	70.8	73.9	77.4	61.0
Male	61.0	56.2	78.4	80.9	82.9	61.0
Female	43.7	40.1	60.0	63.7	69.8	61.0
2007 Total	52.6	47.7	71.6	73.3	75.8	64.9
Male	61.5	56.4	79.2	82.6	82.0	73.8
Female	42.9	38.5	61.3	62.1	67.5	57.4
2008 Total	52.4	48.0	67.6	74.7	76.5	66.4
Male	60.0	55.4	75.4	81.6	82.6	68.7
Female	43.9	40.0	57.6	66.4	68.6	63.9

¹Based on expected years of life at birth for all U.S. residents (77.8 years in 2005).

²May include records with other/unknown ethnic groups.

**MEDIAN AGE AT DEATH FOR LEADING CAUSES OF MORTALITY BY GENDER, RACE/ETHNICITY AND URBAN/RURAL AREAS*,
ARIZONA, 2008**

	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
Total, all causes	77.0	73.0	80.0	77.0	74.0	80.0	75.0	72.0	79.0	78.0	68.0	62.0	59.0	70.0
Major cardiovascular diseases	81.0	77.0	84.0	81.0	78.0	84.0	79.0	75.0	83.0	82.0	76.0	68.0	71.0	75.0
Diseases of heart	80.0	77.0	84.0	81.0	77.0	84.0	78.0	75.0	82.0	81.0	75.0	66.5	69.0	74.0
Coronary heart disease	80.0	76.0	84.0	81.0	77.0	85.0	77.0	74.0	81.0	81.0	75.0	69.0	71.0	75.0
Malignant neoplasms	73.0	72.0	73.0	73.0	73.0	73.0	72.0	72.0	73.0	74.0	69.0	64.0	66.0	68.0
Lung cancer	73.0	73.0	73.0	73.0	73.0	73.0	72.0	72.0	72.0	73.0	71.0	65.0	69.0	67.0
Prostate cancer	79.0	79.0	NA	80.0	80.0	NA	78.0	78.0	NA	80.0	77.0	69.0	78.0	76.0
Breast cancer	68.0	61.0	68.0	68.0	61.0	68.0	68.0	60.5	68.5	69.0	61.0	60.0	61.5	56.5
Colorectal cancer	74.0	72.0	77.0	74.0	72.0	77.5	73.5	71.5	77.0	75.0	67.0	72.0	77.0	77.0
Malignant melanoma of skin	72.0	71.0	76.0	74.0	72.0	77.5	69.0	69.5	67.0	72.0	56.5	51.5	75.0	NA
Cerebrovascular diseases	82.0	79.0	84.0	82.0	79.0	84.0	81.0	78.0	83.0	83.0	76.0	69.0	78.0	74.5
Chronic lower respiratory diseases	78.0	78.0	79.0	79.0	78.0	79.0	77.0	76.0	78.5	78.0	79.0	73.0	73.0	84.0
Accidents (unintentional injuries)	52.0	49.0	61.0	52.0	48.0	63.0	52.0	50.0	57.0	57.0	39.0	43.0	43.0	50.0
Motor vehicle accidents	41.0	41.0	42.0	40.0	40.0	39.0	45.0	45.0	44.5	49.0	30.0	38.0	35.0	27.0
Falls	84.0	82.0	86.0	85.0	83.0	86.0	81.0	77.5	85.5	85.0	81.0	67.5	71.0	80.0
Accidental poisoning	44.0	43.0	46.0	44.0	43.0	45.0	46.0	43.0	49.0	45.0	39.0	45.0	45.5	43.0
Accidental drowning	28.0	25.0	37.5	27.0	23.0	37.5	32.0	32.0	39.0	36.0	13.0	21.0	2.0	40.0
Influenza and pneumonia	81.0	79.0	82.0	81.0	78.0	83.0	80.0	81.0	79.5	82.0	75.0	72.0	69.0	75.0
Alzheimer's disease	87.0	86.0	88.0	87.0	86.0	88.0	86.0	84.0	87.0	87.0	87.0	87.0	85.0	88.0
Diabetes	73.0	71.0	75.0	73.0	71.0	75.0	74.0	71.0	77.0	75.0	71.0	73.0	69.0	74.0
Intentional self-harm (suicide)	48.0	48.0	51.0	48.0	47.0	50.0	50.0	49.0	53.0	52.0	36.0	30.0	21.0	51.5
Chronic liver disease and cirrhosis	58.0	58.0	58.0	58.0	58.0	59.0	56.0	58.0	54.0	60.0	58.5	57.0	50.0	51.0
Nephritis, nephrotic syndrome and nephrosis	79.0	78.0	80.0	79.0	78.0	79.0	79.5	78.5	81.0	81.0	74.0	79.5	67.0	80.0
Septicemia	73.0	71.5	74.0	73.0	72.0	74.0	73.0	70.0	75.5	76.0	70.0	55.0	62.0	68.5
Assault (homicide)	30.0	30.0	31.0	29.0	29.0	29.0	36.0	33.5	39.0	44.5	25.0	30.0	28.0	58.5
Parkinson's disease	83.0	82.0	84.0	83.0	82.5	84.0	82.0	82.0	82.5	83.0	80.0	79.5	82.0	81.0
Essential (primary) hypertension and hypertensive renal disease	83.0	80.0	85.0	83.0	81.0	85.0	83.0	77.5	86.0	84.0	80.0	65.0	79.5	79.5
Aortic aneurysm and dissection	76.0	76.0	78.0	76.0	76.0	78.0	76.5	76.0	78.0	77.0	73.0	52.0	64.5	67.0
Human immunodeficiency virus (HIV) disease	46.0	46.0	45.0	46.0	46.0	45.0	45.0	45.0	46.0	48.0	39.0	45.0	43.0	49.0
INJURY BY FIREARMS	41.0	40.0	48.0	39.0	38.0	45.0	50.0	50.0	51.0	52.0	26.0	30.0	26.5	57.0
DRUG-INDUCED DEATHS	45.0	43.0	47.0	45.0	44.0	46.0	47.0	39.5	50.5	46.0	39.0	45.0	43.0	45.5
ALCOHOL-INDUCED DEATHS	54.0	54.0	53.0	54.0	55.0	53.0	52.0	53.0	50.0	55.0	54.0	53.0	49.0	51.0

*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* YEARS OF LIFE REACHED FOR THE LEADING CAUSES OF MORTALITY BY
GENDER, RACE/ETHNICITY AND URBAN/RURAL AREAS**, ARIZONA, 2008**

	ARIZONA			Area/gender						Race/ethnicity						
	Total	Male	Female	Total	Urban		Rural		Total	Male	Female	White Non-Hispanic	Hispanic or Latino	Black or African American	American Indian or Alaska Native	Asian or Pacific Islander
					Urban	Urban	Female	Male								
Total, all causes	52.4	60.0	43.9	51.2	58.8	43.0	56.3	63.8	47.3	48.0	67.6	74.7	76.5	66.4		
Major cardiovascular diseases	39.9	49.5	29.2	38.2	47.8	27.8	46.2	55.4	34.8	37.7	53.5	69.2	64.0	53.1		
Diseases of heart	41.0	50.7	29.1	39.0	48.8	27.5	48.1	56.9	35.7	39.1	54.6	69.9	69.3	55.9		
Coronary heart disease	42.1	51.8	29.3	39.8	49.7	27.3	51.2	58.9	38.3	40.6	55.0	67.6	67.1	54.4		
Malignant neoplasms	64.3	65.6	62.9	63.6	64.6	62.6	66.9	69.0	64.2	62.1	73.8	82.7	76.1	77.4		
Lung cancer	66.5	66.7	66.2	65.8	65.3	66.4	68.8	70.7	66.0	65.4	73.0	81.8	77.3	77.8		
Prostate cancer	44.0	44.0	NA	42.7	42.7	NA	49.2	49.2	NA	41.6	50.8	76.5	50.0	55.6		
Breast cancer	71.4	88.9	71.2	70.5	80.0	70.4	75.0	100.0	74.3	68.1	81.3	91.2	93.8	100.0		
Colorectal cancer	59.4	67.6	50.5	58.8	66.9	50.0	61.8	70.8	52.0	57.6	70.3	71.4	50.0	50.0		
Malignant melanoma of skin	64.3	68.7	54.7	61.2	66.3	50.0	79.3	80.0	77.8	62.9	83.3	100.0	100.0	0.0		
Cerebrovascular diseases	36.7	45.5	30.4	36.1	45.5	29.3	39.2	45.6	34.4	32.5	54.8	63.6	45.2	55.9		
Chronic lower respiratory diseases	47.0	48.8	45.4	45.7	46.5	44.9	51.6	56.0	47.2	46.7	46.2	69.8	70.0	10.0		
Chronic (unintentional injuries)	72.1	80.2	58.2	69.7	78.7	54.7	78.7	84.2	68.5	69.3	89.3	95.0	94.3	75.0		
Motor vehicle accidents	93.8	94.0	93.3	94.7	94.9	94.4	91.5	91.8	90.8	90.2	98.1	100.0	99.2	100.0		
Falls	29.5	38.7	21.5	27.1	35.4	20.4	39.7	50.7	27.4	26.8	44.4	66.7	57.7	42.9		
Accidental poisoning	99.1	99.0	99.3	99.1	99.1	99.0	99.1	98.6	100.0	99.0	100.0	100.0	97.9	100.0		
Accidental drowning	92.9	94.6	85.7	92.6	95.2	83.3	100.0	100.0	100.0	89.7	100.0	100.0	100.0	100.0		
Influenza and pneumonia	40.7	45.0	36.5	39.7	46.2	33.4	44.0	41.5	46.2	36.5	55.3	57.1	60.3	61.5		
Alzheimer's disease	11.6	13.5	10.7	11.6	13.3	10.8	11.5	14.8	10.1	11.2	11.7	17.0	35.7	15.4		
Diabetes	60.9	64.6	56.3	61.6	65.1	57.4	58.0	62.7	52.2	58.4	68.2	64.7	65.3	68.8		
Intentional self-harm (suicide)	91.2	90.2	95.1	92.4	91.7	95.0	87.3	85.1	95.5	89.6	99.0	100.0	100.0	93.8		
Chronic liver disease and cirrhosis	91.7	93.1	89.3	90.9	92.9	87.5	94.0	93.7	94.5	90.0	91.4	100.0	98.1	100.0		
Chronic liver disease and cirrhosis	45.8	47.5	43.9	46.7	47.8	45.4	44.2	47.4	40.8	39.1	58.0	50.0	70.2	0.0		
Nephritis, nephrotic syndrome and nephrosis	62.9	66.7	58.6	63.0	65.7	59.9	62.3	69.1	54.8	56.8	69.5	90.5	86.7	75.0		
Septicemia	97.3	98.9	90.5	96.9	98.7	88.7	100.0	100.0	100.0	93.2	99.5	100.0	100.0	75.0		
Assault (homicide)	22.8	24.3	20.3	22.5	24.6	19.0	24.4	22.9	26.5	21.9	36.7	12.5	20.0	33.3		
Parkinson's disease	31.4	39.5	24.3	30.9	37.9	25.0	33.9	50.0	17.2	26.8	42.2	71.4	41.7	25.0		
Essential (primary) hypertension and hypertensive renal disease	54.7	60.6	42.9	54.9	60.2	43.2	54.2	62.1	42.1	53.9	58.8	100.0	50.0	66.7		
Aortic aneurysm and dissection	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Human immunodeficiency virus (HIV) disease	92.4	92.1	93.9	93.9	93.8	94.2	85.7	84.2	92.9	88.5	99.6	98.3	100.0	85.7		
INJURY BY FIREARMS	98.7	98.4	99.0	98.3	98.1	98.6	100.0	100.0	100.0	98.5	100.0	100.0	100.0	100.0		
DRUG-INDUCED DEATHS	95.5	94.9	97.0	94.5	94.1	95.7	98.0	97.1	100.0	94.6	96.2	100.0	99.3	100.0		
ALCOHOL-INDUCED DEATHS																

* Expected years of life at birth for all U.S. residents.

**Urban = Maricopa, Pima, Pinal and Yuma counties.

Note: The causes of death for 2008 are classified by the Tenth Revision of the International Classification of Diseases (ICD-10).