

INJURY MORTALITY AMONG ARIZONA RESIDENTS



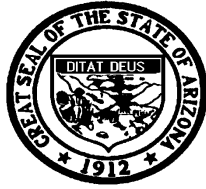
INTENTIONALITY OR MANNER OF INJURY DEATHS

ARIZONA,
1994-2004

Public Health Services
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**INTENTIONALITY
OR MANNER
OF INJURY DEATHS
ARIZONA, 1994-2004**

BY

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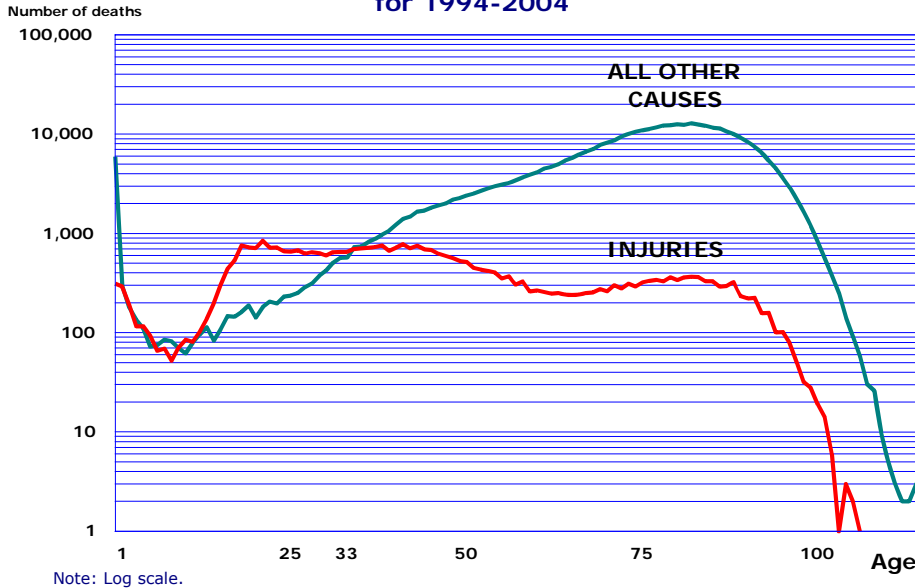
INTENTIONALITY OR MANNER OF INJURY DEATHS, ARIZONA, 1994-2004

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KEY FINDINGS

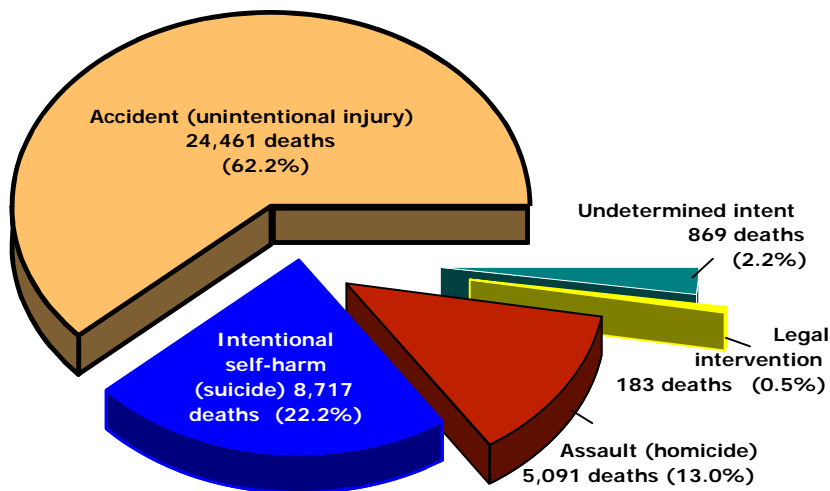
Figure 1-1
Number of Deaths from Injuries and All Other Causes by
Single-Year of Age Among Arizona Residents:
Eleven-Year Summary
for 1994-2004



Injuries are the leading cause of death among Arizonans ages 2 to 5 and 9 to 33 (Figure 1-1, Table 1-1). In the eleven-year period from 1994 to 2004, unintentional injuries in accidents, combined with self-inflicted injuries in suicide and injuries purposely inflicted by other person, accounted for 9.1 percent of total deaths (39,321 injury deaths among 430,447 deaths from all causes in 1994-2004). Among adolescents and young adults ages 15-24, injuries have claimed 3.8 times as many lives as all other causes of deaths combined (6,428 vs. 1,706), accounting for 79 percent of total deaths of these persons in 1994-2004 (Table 1-1).

Figure 1-2
Average Annual Percent of Total Injury Deaths By Intent
Among Arizona Residents: Eleven-Year Summary
for 1994-2004

N = 39,321 total injury deaths in 1994-2004



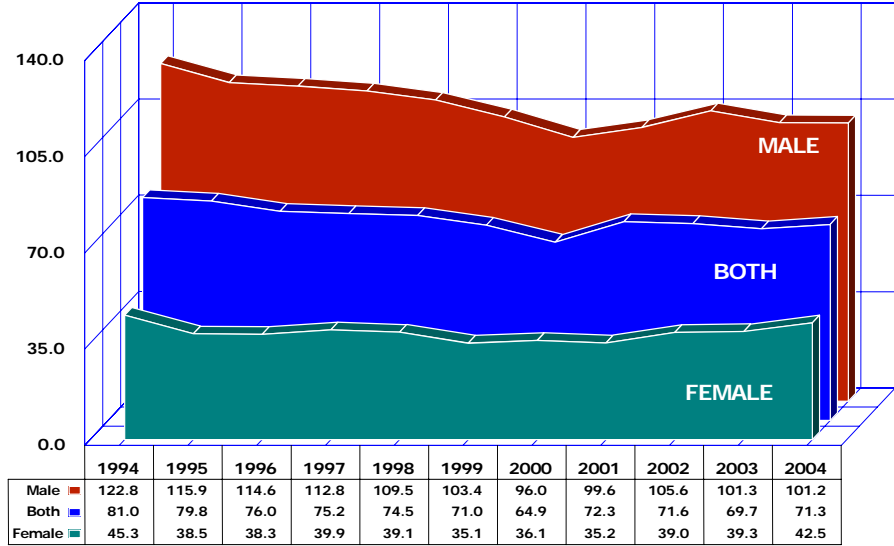
Substantially more Arizonans died in accidents (62.2 percent) than from any other cause of injury death (Figure 1-2). Intentional self-harm (suicide) was the second leading manner of injury mortality (22.2 percent), followed by assault (13.0 percent)

KEY FINDINGS

Figure 1-3
Age-Adjusted* Mortality Rates for Total Injury Deaths by Gender and Year, Arizona, 1994-2004

The age-adjusted mortality rate for all injuries declined from a recent peak of 81.0/100,000 in 1994 to 64.9/100,000 in 2000 (Figure 3). However, each of the annual rates for total injury deaths in 2001-2004 exceeded the 2000 rate by no less than 7.4 percent.

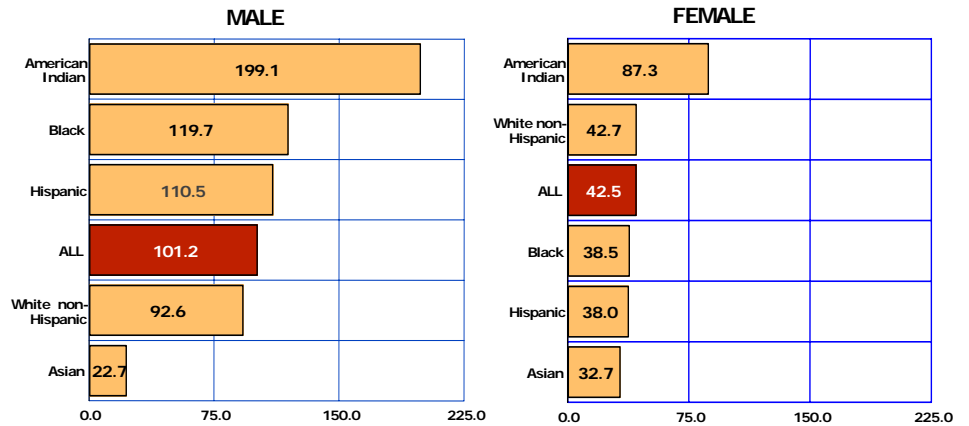
Arizona males were 2.4 times more likely to die in 2004 from injury than Arizona females (101.2 deaths per 100,000 vs. 42.5 deaths per 100,000).



*Number of suicides+homicides+unintentional injury deaths +deaths due to legal intervention+fatal injuries of undetermined intent per 100,000 population age-adjusted to the 2000 U.S. standard.

Figure 1-4
Age-Adjusted Mortality Rates for All Injury Deaths by Race/Ethnic Group and Gender, Arizona, 2004

The highest mortality rates among race by gender groups for all injuries combined in 2004 were those of American Indian male and female residents of the State (Figure 1-4). In 2004, the injury mortality rate among American Indian males was 2.2 times higher than the rate for White non-Hispanics and 8.8 times as high as the injury death rate of Asians. Among females, the injury mortality rate for American Indian females was 2.7 times greater than the death rate for Asian females.



*Number of suicides+homicides+unintentional injury deaths +deaths due to legal intervention+fatal injuries of undetermined intent per 100,000 population age-adjusted to the 2000 U.S. standard.

KEY FINDINGS

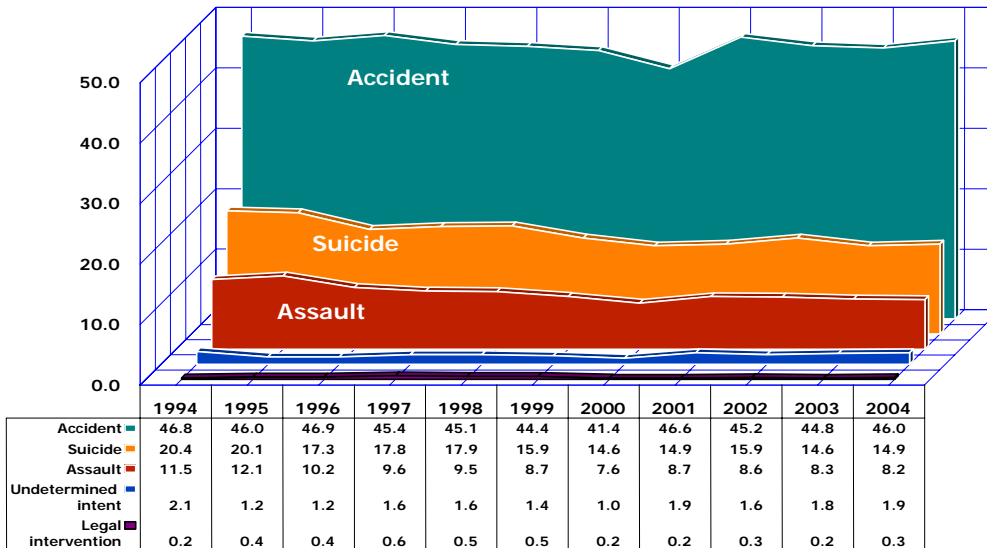
Figure 1-5
Age-Adjusted* Mortality Rates by Intent (or Manner) of Injury Death and Race/Ethnicity, Arizona, 2004

Rank	Asian or Pacific Islander	American Indian or Alaska Native	Black or African American	Hispanic or Latino	White non-Hispanic
1	Accident 21.2	Accident 103.9	Accident 45.9	Accident 48.9	Accident 43.3
2	Suicide 4.0	Suicide 17.0	Assault 22.3	Assault 13.6	Suicide 16.6
3	Assault 1.4	Assault 14.7	Suicide 12.1	Suicide 9.8	Assault 4.8
4		Injury of undetermined intent 4.2	Injury of undetermined intent 1.1	Injury of undetermined intent 1.8	Injury of undetermined intent 2.1
5		Legal intervention 0.7		Legal intervention 0.6	Legal intervention 0.2

In 2004, unintentional injuries in accidents ranked first as the leading cause of injury death for each of the five race/ethnic groups in Arizona (Figure 1-5). Assault (homicide) ranked second for Blacks and Hispanics, but third for White non-Hispanics, Asians and American Indians. Intentional self-harm (suicide) was the second highest cause of injury death among White non-Hispanics, American Indians and Asians but it ranked third highest for Blacks and Hispanics.

*Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.
Note: there were no deaths due to legal intervention among Blacks. There were no deaths due to legal intervention and no fatal injuries of undetermined intent among Asians.

Figure 1-6
Trends in Age-Adjusted* Mortality Rates by Intent (or Manner) of Injury Death and Year, Arizona Residents, 1994-2004



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

Clearly declining or increasing trends were not evident in the annual age-adjusted mortality rates for unintentional injuries in accidents, injuries of undetermined intent and legal intervention (Figure 1-6). In contrast, the rate for assault (8.2 deaths per 100,000 population) was the lowest of the past 5 years in 2004. However, the 486 Arizonans who were murdered in 2004 was the second highest of the 1994-2004 period (Table 1-2).

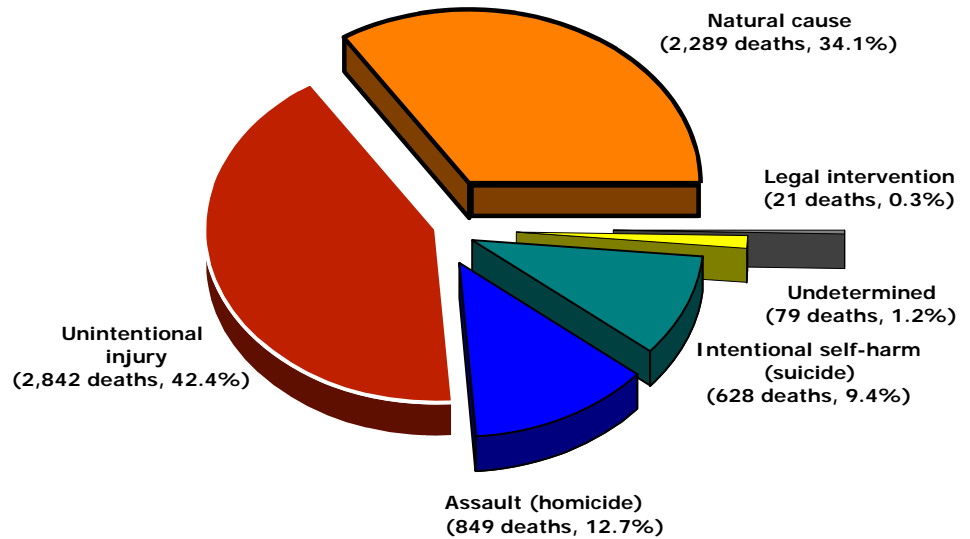
Each of the annual suicide rates in 1999-2004 was lower than any of the annual suicides rates in 1994-1998.

KEY FINDINGS

Figure 1-7
Average Annual Percent of Total Deaths By Mortality Category Among Children and Adolescents 1-19 Years Old, Arizona, 1994-2004

N = 6,708 deaths in 1994-2004

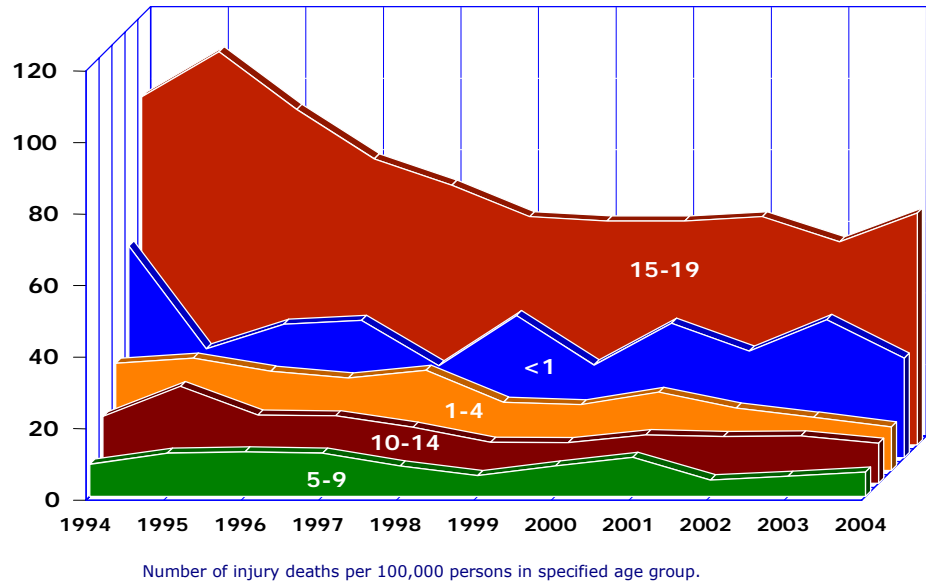
Between 1994 and 2004, injuries comprised 65.9 percent of all deaths for Arizona's children and adolescents 1-19 years old. There were 4,419 fatal injuries among 6,708 total deaths (Figure 1-7). Unintentional injuries in accidents accounted for almost two times as many deaths as homicides and suicides combined (2,842 vs. 1,477).



Among 0-19 age groups, children 5-9 years old had the lowest annual rates of injury death, followed by children 10-14 years of age, preschoolers 1-4 years old, infants, and adolescents 15 to 19 years of age (Figure 1-8).

Compared to 1995, when the injury death rate for Arizona's adolescents reached their latest peak (109.9 deaths per 100,000), none of the annual injury death rates for adolescents exceeded 65/100,000 since 1999 (Table 1-6).

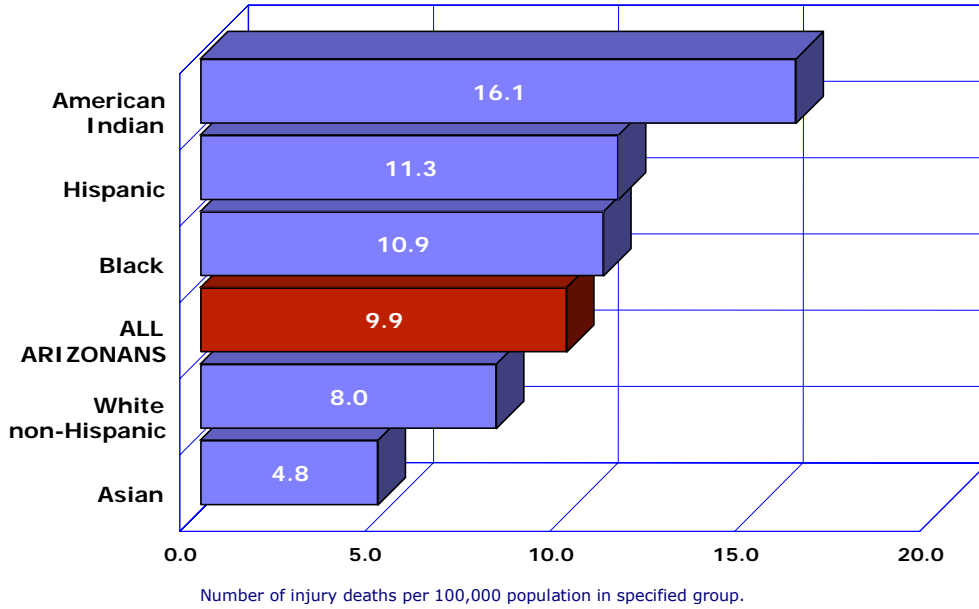
Figure 1-8
Rates of Injury Deaths by Age Group Among Persons 0-19 Years Old, Arizona 1994-2004



INTENTIONALITY OR MANNER OF INJURY DEATHS, ARIZONA, 1994-2004

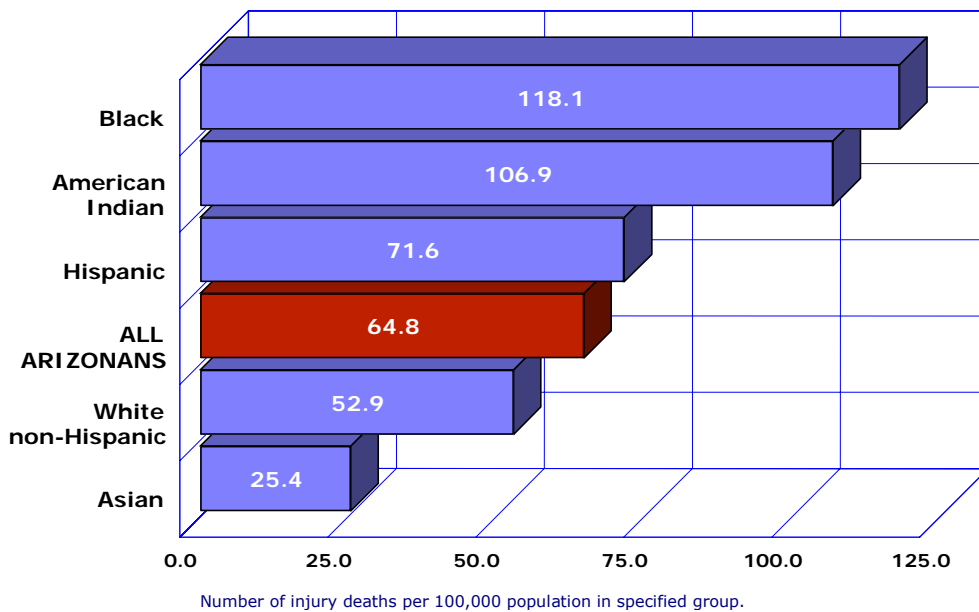
KEY FINDINGS

Figure 1-9
Mortality Rates for All Injury Deaths by Race/Ethnic Group
Among Children 1-14 Years Old, Arizona, 2004



In 2004, the highest mortality rates for injury for children 1-14 years old among race/ethnic groups were for American Indians (16.1/100,000), compared to 11.3/100,000 among Hispanics, 10.9/100,000 among Blacks, 8.0/100,000 among White non-Hispanics, and 4.8/100,000 among Asians (Figure 1-9).

Figure 1-10
Mortality Rates for All Injury Deaths by Race/Ethnic Group
Among Adolescents 15-19 Years Old, Arizona, 2004



The injury death rates for adolescents 15-19 years old in 2004 were substantially higher among Blacks (118.1 deaths per 100,000) and American Indians (106.9 deaths per 100,000), than they were among Hispanics, White non-Hispanics and Asians (Figure 1-10). The death rate for Asian adolescents in 2004 (25.4 deaths per 100,000) was the lowest among race/ethnic groups.

**TABLE 1-1
NUMBER OF DEATHS FROM INJURIES AND ALL OTHER CAUSES BY AGE GROUP AMONG ARIZONA RESIDENTS:
ELEVEN-YEAR SUMMARY FOR 1994-2004**

	Not an injury death		Injury death		Total	
	Count	Percent	Count	Percent	Count	Percent
<1	5,967	95.0%	311	5.0%	6,278	100.0%
1-4	721	50.2%	715	49.8%	1,436	100.0%
5-9	384	52.2%	351	47.8%	735	100.0%
10-14	434	42.0%	599	58.0%	1,033	100.0%
15-19	750	21.4%	2,754	78.6%	3,504	100.0%
20-24	956	20.6%	3,674	79.4%	4,630	100.0%
25-29	1,460	31.0%	3,253	69.0%	4,713	100.0%
30-34	2,807	46.3%	3,257	53.7%	6,064	100.0%
35-39	4,493	55.6%	3,588	44.4%	8,081	100.0%
40-44	7,471	67.1%	3,661	32.9%	11,132	100.0%
45-49	10,219	77.3%	3,003	22.7%	13,222	100.0%
50-54	13,428	85.8%	2,222	14.2%	15,650	100.0%
55-59	17,379	91.5%	1,616	8.5%	18,995	100.0%
60-64	23,673	94.9%	1,267	5.1%	24,940	100.0%
65-69	33,538	96.4%	1,266	3.6%	34,804	100.0%
70-74	46,937	97.0%	1,445	3.0%	48,382	100.0%
75-79	58,481	97.2%	1,687	2.8%	60,168	100.0%
80-84	62,641	97.3%	1,763	2.7%	64,404	100.0%
85-89	53,015	97.3%	1,476	2.7%	54,491	100.0%
90-94	32,307	97.4%	865	2.6%	33,172	100.0%
95-99	11,499	97.5%	291	2.5%	11,790	100.0%
100+	2,360	98.1%	46	1.9%	2,406	100.0%
Unknown	206	49.4%	211	50.6%	417	100.0%
Total	391,126	90.9%	39,321	9.1%	430,447	100.0%

**TABLE 1-2
INJURY MORTALITY BY INTENT, GENDER AND YEAR, ARIZONA RESIDENTS, 1994-2004**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total											
All injury deaths	3,267	3,431	3,384	3,457	3,571	3,494	3,281	3,611	3,851	3,867	4,107
Unintentional injury	1,879	1,973	2,091	2,104	2,182	2,192	2,087	2,430	2,416	2,466	2,641
Intentional self-harm (suicide)	816	858	762	810	845	773	737	600	855	807	854
Assault (homicide)	477	530	459	443	447	430	394	467	478	480	486
Legal intervention	9	18	17	25	21	27	10	13	14	12	17
Events of undetermined intent	86	52	55	75	76	72	53	101	88	102	109
Male											
All injury deaths	2,417	2,513	2,496	2,541	2,565	2,481	2,351	2,609	2,746	2,725	2,833
Unintentional injury	1,303	1,371	1,453	1,450	1,477	1,481	1,407	1,665	1,593	1,617	1,676
Intentional self-harm (suicide)	663	671	619	662	674	613	604	485	692	647	674
Assault (homicide)	378	417	368	352	348	315	295	374	394	379	403
Legal intervention	9	18	17	21	20	27	10	12	13	12	17
Events of undetermined intent	64	36	39	56	46	45	35	73	54	70	63
Female											
All injury deaths	850	918	888	916	1,006	1,013	930	1,002	1,105	1,142	1,274
Unintentional injury	576	602	638	654	705	711	680	765	823	849	965
Intentional self-harm (suicide)	153	187	143	148	171	160	133	115	163	160	180
Assault (homicide)	99	113	91	91	99	115	99	93	84	101	83
Legal intervention	0	0	0	4	1	0	0	1	1	0	0
Events of undetermined intent	22	16	16	19	30	27	18	28	34	32	46

TABLE 1-3
TOTAL MORTALITY AND INJURY MORTALITY BY COUNTY OF RESIDENCE AND YEAR, ARIZONA, 1994-2004

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total State	34,282	35,428	36,579	37,151	38,395	39,673	40,202	40,851	42,320	42,830	42,736
All injury deaths	3,267	3,431	3,384	3,457	3,571	3,494	3,281	3,611	3,851	3,867	4,107
Apache	369	380	459	390	418	436	453	479	448	509	521
All injury deaths	89	77	144	99	96	92	90	80	104	97	97
Cochise	836	919	936	977	1,027	1,005	1,067	1,087	1,078	1,126	1,099
All injury deaths	76	81	71	71	76	80	93	102	93	90	101
Coconino	451	526	474	464	542	486	501	548	592	620	592
All injury deaths	107	106	116	95	93	88	84	85	92	91	107
Gila	500	586	540	580	624	636	578	637	658	638	647
All injury deaths	43	56	55	53	51	50	47	43	51	66	60
Graham	229	259	274	234	269	290	244	256	262	265	274
All injury deaths	25	30	28	26	20	38	17	16	22	28	27
Greenlee	50	65	59	59	67	67	73	45	63	55	46
All injury deaths	4	5	4	4	6	4	5	5	5	3	1
Maricopa	19,001	19,340	20,339	20,327	21,041	22,348	22,600	22,790	23,490	23,549	23,533
All injury deaths	1,645	1,727	1,699	1,790	1,860	1,858	1,673	2,034	2,097	2,105	2,242
Mohave	1,390	1,464	1,441	1,639	1,807	1,752	1,917	1,915	2,047	2,151	2,253
All injury deaths	131	124	99	117	126	123	147	121	133	150	151
Navajo	598	580	658	658	611	682	656	677	692	813	775
All injury deaths	112	116	112	121	102	116	88	130	129	156	137
Pima	6,648	6,689	6,876	6,995	6,993	7,229	7,329	7,460	7,691	7,719	7,625
All injury deaths	552	595	533	575	577	620	662	601	675	653	674
Pinal	1,220	1,323	1,275	1,345	1,452	1,426	1,541	1,513	1,672	1,684	1,673
All injury deaths	158	154	147	131	154	140	132	137	150	167	167
Santa Cruz	187	188	180	213	215	197	204	203	237	215	225
All injury deaths	13	15	10	10	20	20	9	19	15	14	21
Yavapai	1,520	1,693	1,661	1,804	1,876	1,899	1,897	1,927	2,036	2,149	2,089
All injury deaths	104	108	104	111	143	138	141	142	168	153	210
Yuma	820	888	863	913	922	928	946	1,004	1,122	1,133	1,137
All injury deaths	76	83	79	75	88	80	74	75	89	68	83
La Paz	159	186	183	170	207	165	185	171	217	183	225
All injury deaths	14	17	26	21	28	13	17	18	27	22	26
Unknown	304	342	361	383	324	127	11	139	15	21	22
All injury deaths	118	137	157	158	131	34	2	3	1	4	3

**TABLE 1-4
INJURY MORTALITY BY INTENT, RACE/ETHNIC GROUP AND YEAR, ARIZONA RESIDENTS, 1994-2004**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
White non-Hispanic	All injury deaths	2,086	2,267	2,104	2,213	2,329	2,150	2,248	2,509	2,448	2,736
	Unintentional injury	1,206	1,294	1,291	1,340	1,407	1,357	1,568	1,601	1,611	1,803
	Intentional self-harm (suicide)	642	704	615	645	682	589	586	462	684	624
	Assault (homicide)	185	222	155	160	171	146	131	141	154	136
	Legal intervention	4	13	9	13	14	11	7	9	9	5
	Events of undetermined intent	49	34	34	55	55	47	39	68	61	72
Hispanic or Latino	All injury deaths	595	638	674	641	681	753	690	818	825	864
	Unintentional injury	325	344	385	355	399	443	409	486	477	498
	Intentional self-harm (suicide)	98	89	86	86	98	106	92	73	103	105
	Assault (homicide)	155	191	187	184	169	184	180	233	225	226
	Legal intervention	1	5	5	8	5	11	3	3	4	4
	Events of undetermined intent	16	9	11	8	10	9	6	23	16	18
Black or African American	All injury deaths	159	145	121	141	128	132	115	119	154	133
	Unintentional injury	56	64	56	72	68	64	66	78	64	81
	Intentional self-harm (suicide)	14	19	13	19	11	19	10	15	12	23
	Assault (homicide)	82	60	49	46	48	43	38	38	39	48
	Legal intervention	3	0	1	3	1	1	0	0	0	0
	Events of undetermined intent	4	2	2	1	0	5	1	4	4	2
American Indian or Alaska Native	All injury deaths	390	351	452	420	393	386	352	366	383	316
	Unintentional injury	273	251	335	315	283	281	243	257	256	219
	Intentional self-harm (suicide)	51	41	42	48	46	43	41	43	50	47
	Assault (homicide)	52	52	66	46	52	49	36	47	54	54
	Legal intervention	1	0	2	1	1	3	0	1	1	3
	Events of undetermined intent	13	7	7	10	11	10	5	4	5	10
Asian or Pacific Islander	All injury deaths	28	21	22	32	31	34	35	19	34	22
	Unintentional injury	15	16	16	14	19	22	19	23	12	17
	Intentional self-harm (suicide)	10	3	5	12	8	7	7	6	5	6
	Assault (homicide)	2	2	0	5	4	5	7	6	2	7
	Legal intervention	1	0	1	1	0	0	0	0	0	0
	Events of undetermined intent	9	9	11	10	9	39	13	23	13	17
Other/Unknown	All injury deaths	4	4	8	8	6	25	8	18	6	32
	Unintentional injury	1	2	1	0	0	9	1	1	1	2
	Intentional self-harm (suicide)	1	3	2	2	3	3	2	2	4	9
	Assault (homicide)	0	0	0	0	0	1	0	0	0	0
	Legal intervention	3	0	0	0	0	1	2	2	2	0
	Events of undetermined intent	3	0	0	0	0	1	2	2	2	0

**TABLE 1-5
ALL INJURY DEATHS BY FIVE-YEAR AGE GROUPS AND YEAR, ARIZONA RESIDENTS, 1994-2004**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1	41	22	28	27	20	32	22	32	26	35	26
1-4	82	85	74	68	78	55	56	68	57	50	42
5-9	28	38	40	42	31	22	33	44	19	24	30
10-14	55	76	61	61	53	41	43	53	53	55	48
15-19	254	297	279	252	238	217	230	238	250	229	270
20-24	376	344	327	317	333	289	292	314	339	372	371
25-29	310	334	298	327	311	288	234	297	294	264	296
30-34	346	341	332	307	305	284	245	289	280	286	242
35-39	300	337	335	346	372	335	244	344	334	317	324
40-44	257	343	317	333	365	340	290	329	339	395	353
45-49	192	208	225	239	272	292	265	293	315	336	366
50-54	142	140	145	166	176	209	207	212	275	255	295
55-59	113	106	115	110	136	155	160	138	184	173	226
60-64	117	107	98	103	106	119	107	111	137	131	131
65-69	102	118	103	99	108	108	128	108	138	123	131
70-74	132	129	107	144	133	110	141	138	129	133	149
75-79	132	129	136	138	163	176	161	146	185	145	176
80-84	114	114	134	162	142	159	148	165	197	204	224
85-89	88	85	112	118	118	139	154	146	152	174	190
90-94	54	45	73	53	72	69	86	90	103	100	120
95-99	22	14	18	26	14	27	21	33	30	34	52
100+	1	7	5	3	5	7	2	3	2	7	4
Unknown	9	12	22	16	20	21	12	20	13	25	41
Total	3,267	3,431	3,384	3,457	3,571	3,494	3,281	3,611	3,851	3,867	4,107

**TABLE 1-6
MORTALITY RATES¹ FOR INJURIES BY INTENT AND FOR NATURAL CAUSES AMONG AGE GROUPS OF
PERSONS 0 TO 19 YEARS OLD, ARIZONA RESIDENTS, 1994-2004**

Age Group and Cause of Death	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
UNDER 1 YEAR²											
Mortality from all causes	785.7	758.4	767.0	717.3	759.6	679.5	668.4	688.9	631.7	645.5	666.0
Deaths from natural causes	726.5	728.0	729.7	678.9	733.9	638.5	642.5	651.3	602.0	606.9	638.1
Deaths from injuries	59.2	30.4	37.3	38.4	25.7	39.7	25.9	37.6	29.8	38.6	27.8
(Accidents)	45.1	19.3	30.6	23.8	18.0	32.3	17.6	29.3	24.0	25.3	20.3
(Homicide)	9.9	11.1	5.3	7.9	1.3	7.5	7.1	5.9	3.4	12.1	5.4
(Undetermined intent)	4.2	0.0	1.3	4.0	5.1	0.0	1.2	2.4	2.3	1.1	2.1
1-4 YEARS											
Mortality from all causes	55.0	51.9	48.1	47.1	53.9	36.7	36.7	46.7	39.0	40.3	31.5
Deaths from natural causes	25.0	20.5	20.4	21.2	25.2	17.7	18.4	24.8	21.5	25.4	19.2
Deaths from injuries	30.0	31.4	27.8	25.9	28.0	19.1	18.4	21.9	17.5	14.9	12.2
(Accidents)	23.9	27.0	23.7	22.7	24.8	17.0	17.4	19.3	14.1	11.9	9.9
(Homicide)	5.4	4.0	3.0	1.1	3.2	2.1	1.0	1.9	3.4	2.7	2.0
(Undetermined intent)	0.7	0.4	1.1	1.1	0.0	0.0	0.0	0.7	0.0	0.3	0.3
5-9 YEARS											
Mortality from all causes	20.3	21.1	21.6	24.1	19.3	15.4	19.2	20.1	12.0	12.6	12.9
Deaths from natural causes	11.3	8.9	9.2	12.1	10.2	9.0	10.8	9.2	7.5	7.0	6.1
Deaths from injuries	9.0	12.1	12.4	12.1	8.5	5.8	8.5	10.9	4.6	5.6	6.8
(Accidents)	8.0	11.5	9.2	10.7	7.2	5.0	7.2	8.9	4.1	5.1	5.7
(Homicide)	1.0	0.6	2.3	0.8	1.1	0.5	1.3	2.0	0.5	0.2	0.9
(Undetermined intent)	0.0	0.0	0.9	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.0
10-14 YEARS											
Mortality from all causes	34.4	36.8	30.5	31.1	24.8	22.9	22.2	24.0	23.3	23.4	19.4
Deaths from natural causes	15.7	9.7	11.4	12.3	8.7	10.1	10.8	10.5	10.2	10.1	8.2
Deaths from injuries	18.7	27.1	19.1	18.9	15.7	11.5	11.4	13.6	13.1	13.3	11.2
(Accidents)	12.3	17.0	13.5	13.5	9.0	8.7	9.3	8.4	8.4	10.8	9.1
(Homicide)	1.4	4.4	3.1	2.1	3.5	1.7	0.3	2.6	1.2	0.0	1.6
(Suicide)	3.1	3.7	2.2	2.1	2.9	0.8	1.5	2.3	3.0	1.9	0.2
(Undetermined intent)	2.0	2.0	0.3	0.6	0.3	0.3	0.3	0.3	0.5	0.5	0.2
15-19 YEARS											
Mortality from all causes	115.6	130.4	114.6	103.1	90.9	81.4	78.9	86.6	82.7	75.4	80.8
Deaths from natural causes	18.3	20.5	20.8	23.1	16.2	14.4	16.3	23.9	18.9	18.6	16.1
Deaths from injuries	97.3	109.9	93.8	80.0	72.6	63.8	62.6	62.6	63.8	56.8	64.8
(Accidents)	43.9	52.8	46.1	35.7	39.9	35.8	35.9	37.6	36.7	34.7	40.5
(Homicide)	27.9	33.4	24.4	19.0	16.8	16.2	14.4	12.9	14.8	11.9	10.8
(Suicide)	23.7	18.7	18.2	23.7	15.2	10.2	11.1	10.5	9.9	9.7	11.8
(Other ³)	1.9	5.0	5.1	1.6	0.6	1.2	1.1	1.6	2.3	0.2	1.7

¹ Number of deaths per 100,000 population in specified age group per year.

² Number of births was used as the denominator for death rate calculations among infants.

³ Other=events of undetermined intent and/or legal intervention (see Table 1-7).

**TABLE 1-7
NUMBER OF INJURY DEATHS BY INTENT AND YEAR AMONG PERSONS 0-19 YEARS OLD BY AGE GROUP,
ARIZONA RESIDENTS, 1994-2004**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<1	All injury deaths	41	22	28	27	20	32	22	26	32	26
	Unintentional injury	32	14	23	18	14	26	15	21	25	23
	Assault (homicide)	7	8	4	6	4	6	6	3	5	11
	Events of undetermined intent	2	0	1	3	1	0	1	2	2	1
1-4	All injury deaths	82	85	74	68	78	55	68	57	50	42
	Unintentional injury	66	74	64	62	69	49	53	46	40	34
	Assault (homicide)	15	11	8	3	9	6	3	11	9	7
	Events of undetermined intent	1	0	2	3	0	0	0	0	0	1
5-9	All injury deaths	28	38	40	42	31	22	33	19	24	30
	Unintentional injury	25	36	32	38	26	19	28	17	22	25
	Intentional self-harm (suicide)	0	0	0	0	1	1	0	0	0	1
	Assault (homicide)	3	2	8	3	4	2	5	2	1	4
10-14	All injury deaths	55	76	61	61	53	41	43	53	55	48
	Unintentional injury	36	51	44	45	30	31	35	34	45	39
	Intentional self-harm (suicide)	9	11	7	7	10	6	6	12	8	1
	Assault (homicide)	4	13	10	7	11	3	1	5	0	7
15-19	All injury deaths	254	297	279	252	238	217	230	250	229	270
	Unintentional injury	115	147	142	113	131	122	132	144	140	169
	Intentional self-harm (suicide)	62	52	56	75	50	36	41	39	39	49
	Assault (homicide)	72	89	72	56	55	51	53	58	48	45
Events of undetermined intent	Legal intervention	1	4	3	4	0	4	1	1	0	1
	Events of undetermined intent	4	5	6	4	2	4	3	8	1	6

TABLE 1-8
 INJURY MORTALITY AMONG PERSONS 0-19 YEARS OLD BY INTENT, AGE GROUP AND RACE/ETHNICITY,
 ARIZONA RESIDENTS, 2004

	Injury	Unintentional injury	Intentional self-harm (suicide)	Assault (homicide)	Legal intervention	Events of undetermined intent
<1	Total, all groups	26	19	0	5	0
	White non-Hispanic	10	7	0	1	0
	Hispanic or Latino	11	9	0	2	0
	Black or African American	1	0	0	1	0
	American Indian or Alaska Native	4	3	0	1	0
	Asian or Pacific Islander	0	0	0	0	0
	Other/Unknown	0	0	0	0	0
	Total, all groups	42	34	0	7	0
1-4	White non-Hispanic	16	14	0	2	0
	Hispanic or Latino	20	15	0	4	1
	Black or African American	1	1	0	0	0
	American Indian or Alaska Native	4	3	0	1	0
	Asian or Pacific Islander	1	1	0	0	0
	Total, all groups	30	25	1	4	0
	White non-Hispanic	14	11	1	2	0
	Hispanic or Latino	12	10	0	2	0
5-9	Black or African American	0	0	0	0	0
	American Indian or Alaska Native	3	3	0	0	0
	Other/Unknown	1	1	0	0	0
	Total, all groups	48	39	1	7	1
	White non-Hispanic	19	17	1	1	0
	Hispanic or Latino	18	13	0	4	1
	Black or African American	4	3	0	1	0
	American Indian or Alaska Native	7	6	0	1	0
10-14	Total, all groups	270	169	49	45	6
	White non-Hispanic	120	81	27	10	2
	Hispanic or Latino	99	63	9	23	3
	Black or African American	18	10	2	6	0
	American Indian or Alaska Native	31	13	11	6	1
	Asian or Pacific Islander	2	2	0	0	0
	Total, all groups	270	169	49	45	6
	White non-Hispanic	120	81	27	10	2
15-19	Hispanic or Latino	99	63	9	23	3
	Black or African American	18	10	2	6	0
	American Indian or Alaska Native	31	13	11	6	1
	Asian or Pacific Islander	2	2	0	0	0
	Total, all groups	270	169	49	45	6
	White non-Hispanic	120	81	27	10	2
	Hispanic or Latino	99	63	9	23	3
	Black or African American	18	10	2	6	0

TABLE 1-9
INJURY MORTALITY AMONG PERSONS 0 TO 19 YEARS OLD BY INTENT AND
COUNTY OF RESIDENCE, ARIZONA, 2004

		All injury deaths	Intent or manner of fatal injury				Events of undetermined intent
			Unintentional injury	Intentional self-harm (suicide)	Assault (homicide)	Legal intervention	
<1	Total State	26	19	0	5	0	2
	Apache	1	1	0	0	0	0
	Cochise	1	0	0	0	0	1
	Coconino	2	1	0	0	0	1
	Gila	1	1	0	0	0	0
	Graham	0	0	0	0	0	0
	Greenlee	0	0	0	0	0	0
	Maricopa	14	10	0	4	0	0
	Mohave	3	3	0	0	0	0
	Navajo	0	0	0	0	0	0
	Pima	2	1	0	1	0	0
	Pinal	1	1	0	0	0	0
	Santa Cruz	1	1	0	0	0	0
	Yavapai	0	0	0	0	0	0
	Yuma	0	0	0	0	0	0
La Paz	0	0	0	0	0	0	
1-4	Total State	42	34	0	7	0	1
	Apache	0	0	0	0	0	0
	Cochise	3	3	0	0	0	0
	Coconino	3	2	0	1	0	0
	Gila	1	1	0	0	0	0
	Maricopa	20	18	0	2	0	0
	Mohave	2	1	0	0	0	1
	Navajo	1	0	0	1	0	0
	Pima	4	3	0	1	0	0
	Pinal	3	2	0	1	0	0
	Santa Cruz	2	1	0	1	0	0
	Yavapai	2	2	0	0	0	0
	Yuma	1	1	0	0	0	0
5-9	Total State	30	25	1	4	0	0
	Cochise	3	3	0	0	0	0
	Coconino	1	1	0	0	0	0
	Gila	1	0	0	1	0	0
	Graham	1	1	0	0	0	0
	Maricopa	15	12	0	3	0	0
	Mohave	1	1	0	0	0	0
	Navajo	1	1	0	0	0	0
	Pima	3	3	0	0	0	0
	Pinal	1	1	0	0	0	0
	Santa Cruz	0	0	0	0	0	0
	Yavapai	3	2	1	0	0	0
	Yuma	0	0	0	0	0	0

TABLE 1-9
INJURY MORTALITY AMONG PERSONS 0 TO 19 YEARS OLD BY INTENT AND
COUNTY OF RESIDENCE, ARIZONA, 2004

		All injury deaths	Intent or manner of fatal injury				Events of undetermined intent
			Unintentional injury	Intentional self-harm (suicide)	Assault (homicide)	Legal intervention	
10-14	Total State	48	39	1	7	0	1
	Apache	1	1	0	0	0	0
	Cochise	1	1	0	0	0	0
	Coconino	2	2	0	0	0	0
	Graham	2	2	0	0	0	0
	Maricopa	29	22	1	5	0	1
	Mohave	3	3	0	0	0	0
	Navajo	2	2	0	0	0	0
	Pima	7	6	0	1	0	0
	Pinal	1	0	0	1	0	0
	Santa Cruz	0	0	0	0	0	0
	Yavapai	0	0	0	0	0	0
	Yuma	0	0	0	0	0	0
15-19	Total State	270	169	49	45	1	6
	Apache	11	5	5	1	0	0
	Cochise	3	2	1	0	0	0
	Coconino	7	2	2	2	0	1
	Gila	5	3	0	2	0	0
	Graham	4	4	0	0	0	0
	Maricopa	141	87	27	23	0	4
	Mohave	8	4	0	3	0	1
	Navajo	12	8	1	3	0	0
	Pima	47	29	10	8	0	0
	Pinal	11	6	2	2	1	0
	Santa Cruz	2	2	0	0	0	0
	Yavapai	11	10	1	0	0	0
	Yuma	7	6	0	1	0	0
	Unknown	1	1	0	0	0	0

INTENTIONALITY OR MANNER OF INJURY DEATHS, ARIZONA, 1994-2004

Technical Notes

Beginning with the 2000 data year in Arizona (1999 nationally) two major changes have occurred that affect the computation of mortality rates 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 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 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.

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.

In addition, 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 and the implementation of ICD-10, cause-of-death data presented in this publication were coded by the National Center for Health Statistics, 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 intentional self-harm (suicide), drug-induced deaths, accidental drug overdoses and accidental discharge of firearms:

Data year	1999	2000	2001	2002	2003	2004
Drug-related deaths	543	337	583	654	652	747
Accidental poisoning/overdose	383	230	414	458	447	517
Undetermined intent	41	21	41	43	48	61
Suicide	773	737	600	855	807	854
Suicide by firearms	495	486	358	544	476	498
Suicide by drugs	105	59	76	100	93	115
Accidental discharge of firearms	7	11	114	26	13	13

Unprecedented decline in 2001 in the number of suicides and the equally unprecedented increase in the number of firearm deaths classified as accidental obviously are 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. Computerized coding of the underlying cause of death also affected the number of accidental drug overdoses in 2000, as well as the number of suicides by drug poisoning in both 2000 and 2001.

The statistics about the manner of injury mortality for 2000-2001 should be used with caution. In the following three reports: [Intentional Self-Harm \(Suicide\), Arizona, 1994-2004](#), [Firearm-Related Deaths, Arizona, 1994-2004](#) and [Drug-Related Mortality, Arizona, 1994-2004](#) some of the originally reported data for 2000-2001 have been supplemented with a bit more realistic statistical information from the WISQARS (Web-based Injury Statistics Query and Reporting System) site at <http://www.cdc.gov/ncipc/wisqars/> .