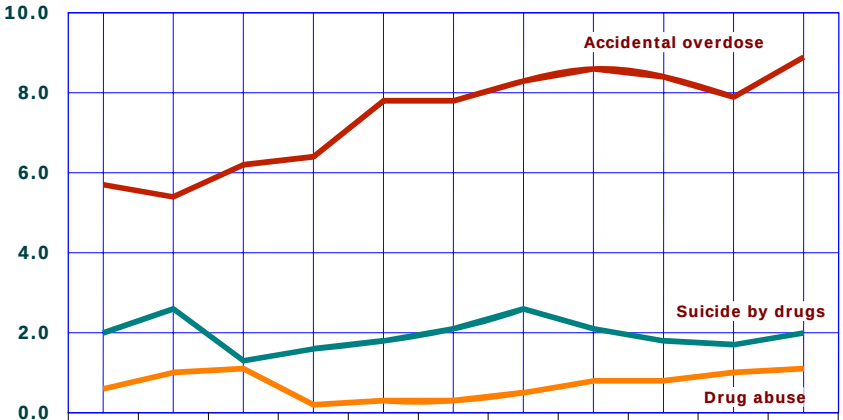
DRUG-RELATED DEATHS, ARIZONA, 1994-2004

KEY FINDINGS

Figure 8-1
Drug-Related Death Rates* by Mortality Category and Year, Arizona, 1994-2004



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Drug abuse	0.6	1.0	1.1	0.2	0.3	0.3	0.5	0.8	0.8	1.0	1.1
Accidental overdose	5.7	5.4	6.2	6.4	7.8	7.8	8.3	8.6	8.4	7.9	8.9
Suicide by drugs	2.0	2.6	1.3	1.6	1.8	2.1	2.6	2.1	1.8	1.7	2.0

* Number of deaths per 100,000 population.
Note: Drug-related mortality from 2000 to present is classified according to the Tenth Revision of the Classification of Diseases (ICD-10). The drug-related mortality for 1994-1999 is classified by ICD-9.
The rates for 2000-2001 are from the WISQARS site at http://webappa.cdc.gov/sasweb/nicpc/mortrate 10_sy.html.

Causes of death attributable to drug-related mortality include not only deaths from dependent and nondependent use of drugs (legal or illegal), but also poisoning by and adverse effects of medically prescribed and other drugs. The category of "drug-related deaths" excludes accidents, homicides and other causes indirectly related to drug use. Also excluded are newborn deaths due to mother's drug use.

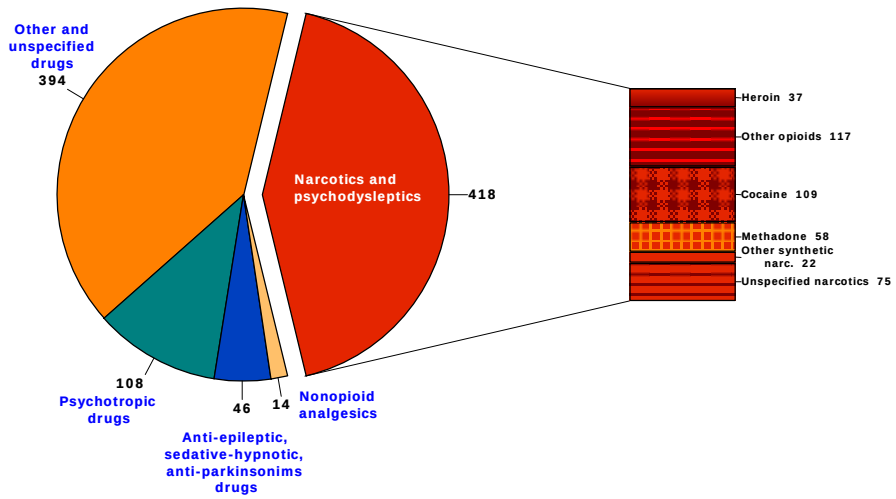
This report provides data on poisoning by misuse of, abuse of, or dependence on drugs, medications and biological substances other than alcohol.

Accidental overdoses of drugs, followed by intentional self-poisoning (suicide) and drug abuse are the three major categories of drug-related mortality (**Figure 8-1**). In 2004, 747 Arizonans died from drug poisoning in various circumstances (**Table 1**), 2.1 times as many as in 1994 (**Table 2**).

Effective with data for 2000, causes of drug-related death are classified by the Tenth Revision of the International Classification of Diseases (ICD-10), replacing the Ninth Revision (ICD-9) used in 1979-1999. In addition, beginning with the 2000 data year, cause-of-death data presented in this publication were coded by the National Center for Health Statistics using computerized procedures for coding of medical information. Both the conversion to ICD-10 and computerized coding contributed to at least some the breaks in comparability over time of cause of death statistics for accidental poisoning by drugs and intentional self-poisoning by drugs (see ***Technical Notes*** for more detail).

Figure 8-2
Selected Substances Involved in Unintentional or Undetermined Drug Poisoning Deaths, Arizona Residents, 2004

N = 980 mentions of ICD-10 T-codes on 629 death records



Note: more than one substance can be mentioned on a death certificate. The sum of all identified ICD-10 T-codes for substances (980) is greater than the combined number (629) of fatal overdoses or drug poisonings of undetermined intent (see Table 8-10).

In 2004, 629 deaths of Arizona residents were attributed to mental and behavioral disorders due psychoactive substance use, accidental overdose of drugs or drug poisoning of undetermined intent (**Table 8-2**). Narcotics and psychodysleptics were mentioned 418 times on 337 death records (53.6 percent of the 629 deaths; **Figure 8-2**, **Table 8-10**). The specific narcotic substances associated most frequently with poisoning deaths were cocaine (109), methadone (58) and heroin (37). However, non-specific categories such as "other opioids", "other synthetic narcotics", and "other and unspecified narcotics" accounted for the absolute majority (51.2 percent) of the 418 mentions of ICD-10 T-codes for narcotics.

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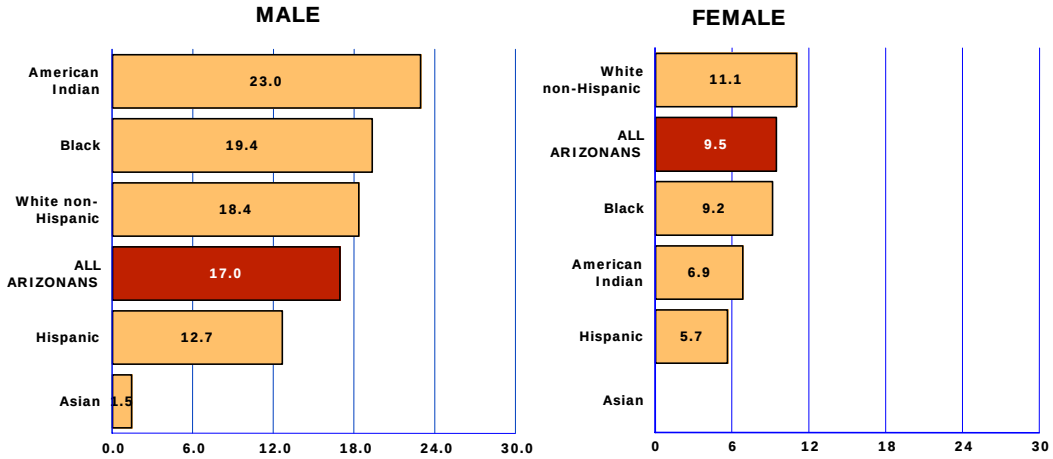
In 2004, American Indian male residents of Arizona had the highest age-adjusted rate of drug-related deaths, (23.0 per 100,000; **Figure 8-3**) followed by Blacks and White non-Hispanics. Among females, the rate for drug-induced deaths for White non-Hispanics was the highest, followed by the death rate of Black or African American females There were no drug related deaths among Asian female residents of the State.

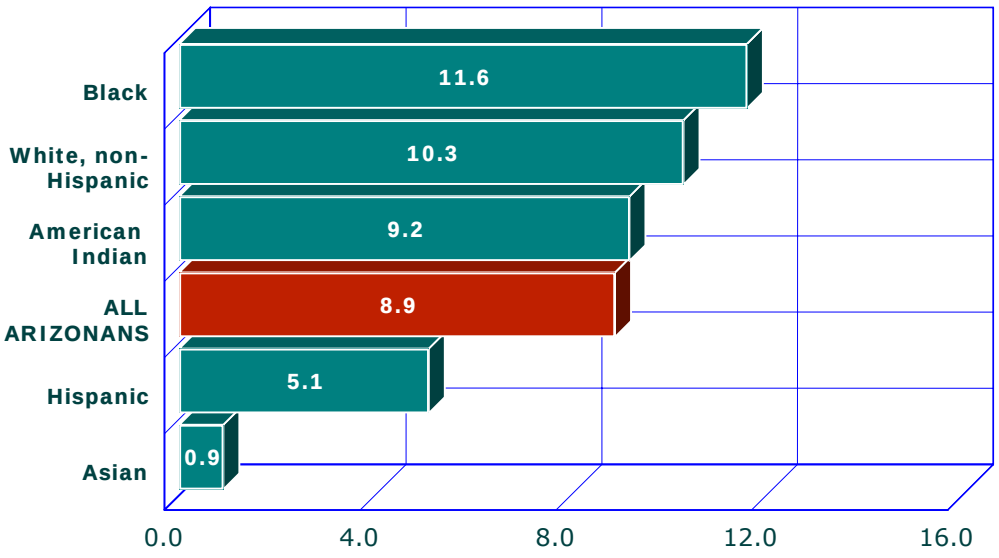
Figure 8-3
Age-Adjusted Mortality Rates for Drug-Induced Deaths by Gender and Race/Ethnic Group, Arizona, 2004



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

In 2004, Black, White non-Hispanic and American Indian residents of the State had the highest mortality rates for accidental overdoses of drugs (**Figure 8-4**).

Figure 8-4
Mortality Rates* for Accidental Drug Overdoses by Race/Ethnic Group, Arizona, 2004

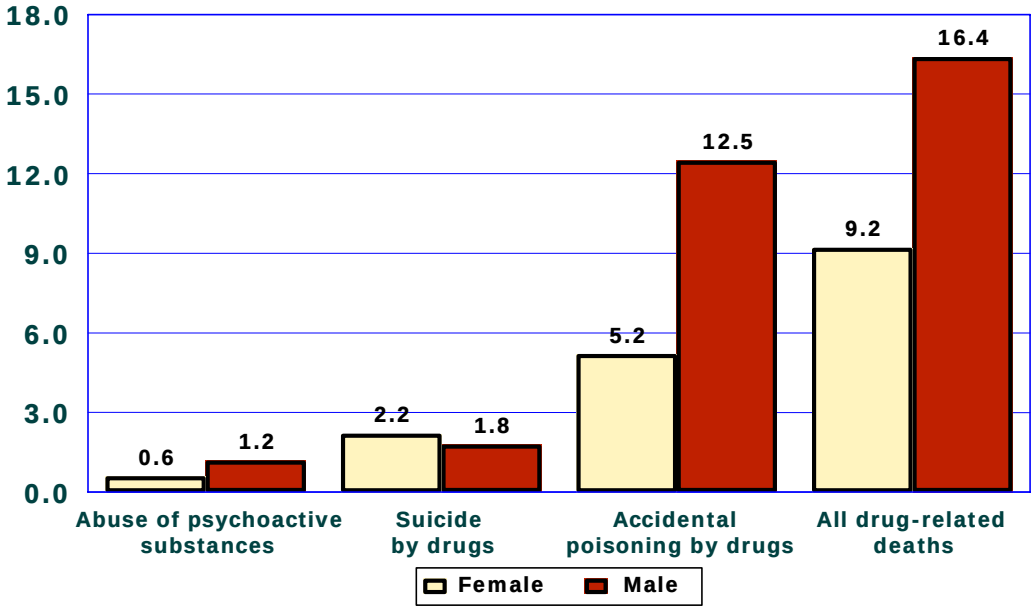


* Number of drug-related deaths per 100,000 persons in specified group ((unadjusted for differences in the age composition)

NOTE: Psychoactive substances include cannabis, cocaine, codeine, heroine, LSD, mescaline, methadone, morphine, opium.

KEY FINDINGS

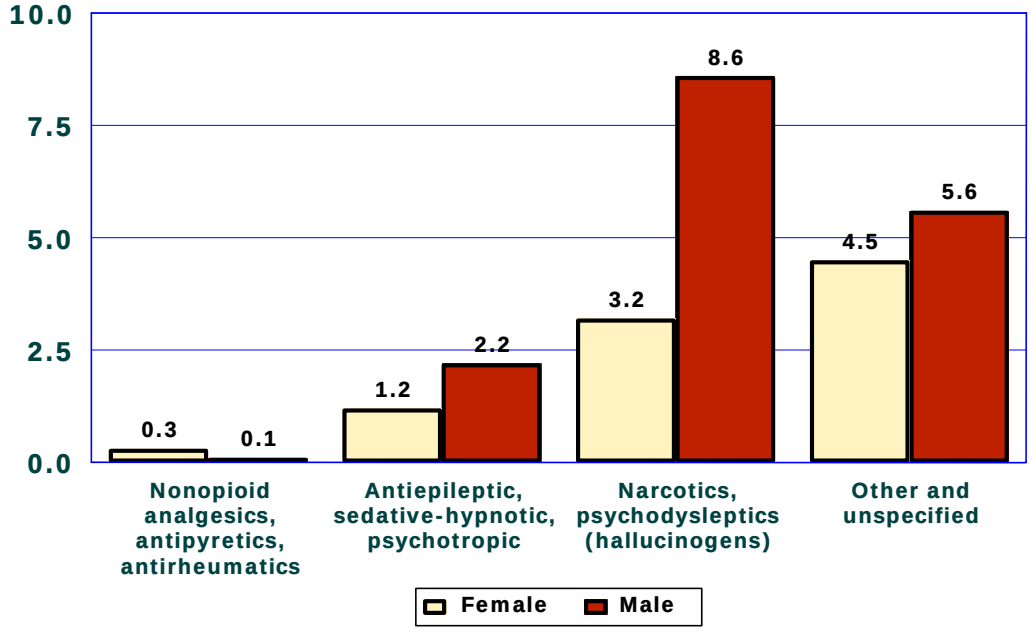
Figure 8-5
Drug-Related Death Rates* by Mortality Category and Gender, Arizona, 2004



* Number of drug-related deaths per 100,000 persons in specified group

The 2004 rate of drug-related deaths among males (16.4/100,000) was 1.8 times the rate for females (9.2/100,000; **Figure 8-5**). The death rate for accidental overdoses among males (12.5/100,000) was 2.4 times the female rate of 5.2/100,000. In contrast, the female rate for suicide by drugs exceeded the respective rate among males by 22 percent.

Figure 8-6
Drug-Related Death Rates* by Type of Drug and Gender, Arizona, 2004



* Number of drug-related deaths per 100,000 persons in specified group.

The male mortality rate for narcotics and psychodysleptics (hallucinogens, 8.6 per 100,000) was 2.7 times higher than the respective female rate of 3.2 deaths per 100,000 (**Figure 8-6**). With the exception of nonopioid analgesics, antipyretics and antirheumatics, all gender-specific mortality rates by type of drug were greater for males than females.

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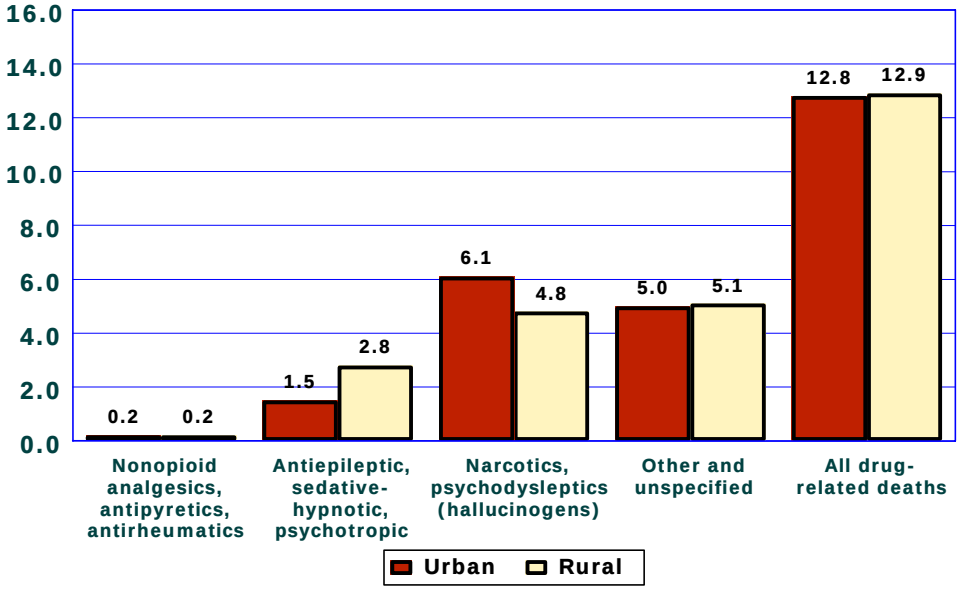
Relative to rural residents, the 2004 mortality risk of urban residents was no different for all types of drugs combined (**Figure 8-7**). However, urban compared to rural residents were 1.3 times more likely to die from the abuse of narcotics and psychodysleptics (6.1/100,000 vs. 4.8/100,000). In contrast, rural residents had a mortality disadvantage with respect to urban residents on overdoses of sedative-hypnotic and psychotropic drugs.

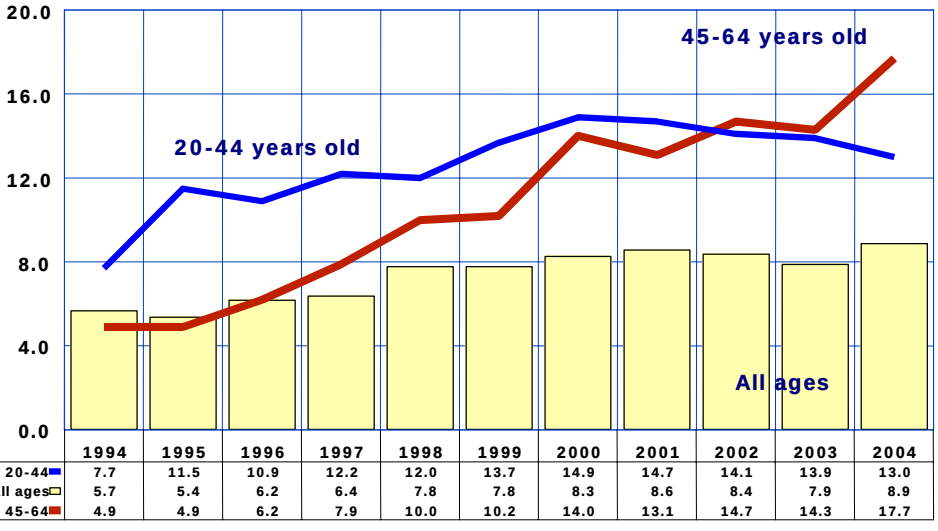
Figure 8-7
Drug-Related Death Rates by Type of Drug and Urban* / Rural Area, Arizona, 2004



* Number of drug-related deaths per 100,000 persons in specified group.

Among Arizonans of all ages, the overall mortality rate for accidental drug overdoses increased by 56 percent from 5.7 deaths per 100,000 in 1994 to 8.9/100,000 in 2004 (**Figure 8-8**). In 2004, 517 Arizonans died from drug overdoses (**Table 1**), 2.3 times as many as in 1994 (**Table 2**). Middle-aged adults (45-64 years old) experienced an unprecedented increase in mortality from accidental drug overdoses. In 2004, 211 of middle-aged adults were attributed to accidental poisoning by drugs compared to 36 deaths in 1994. The 2004 rate for accidental drug overdoses among middle-aged Arizonans (17.7/100,000) was 3.6 times greater than the rate of 4.9/100,000 reported for 1994. Among young adults 20-44 years old, the mortality rate for accidental poisoning by drugs declined from a high of 14.9 deaths per 100,000 in 2000 to 13.0/100,000 in 2004.

Figure 8-8
Comparison of Mortality Rates for Accidental Drug Overdoses Among Young Adults 20-44 Years Old, Middle-Aged Adults 45-64 Years Old and Arizonans of all Ages, 1994-2004

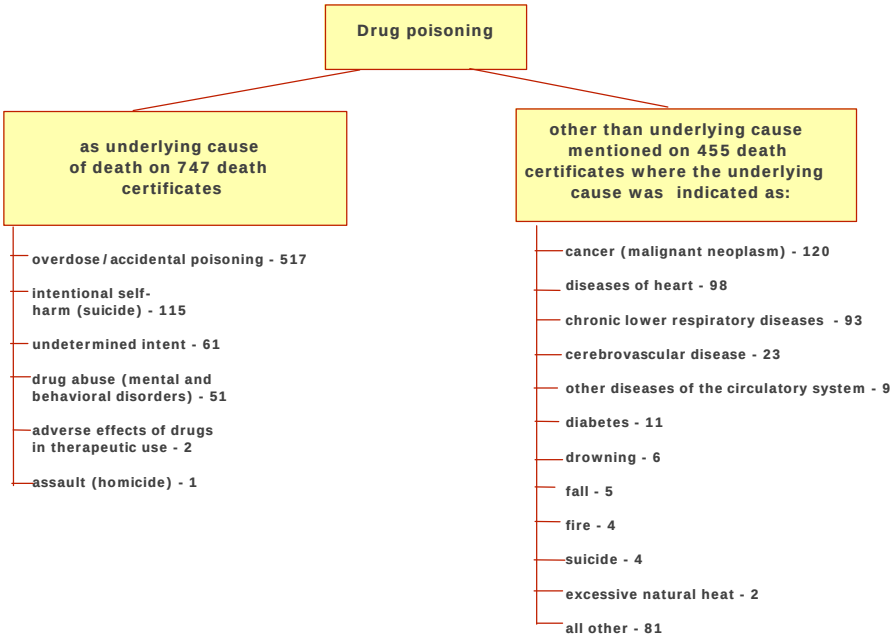


	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
20-44	7.7	11.5	10.9	12.2	12.0	13.7	14.9	14.7	14.1	13.9	13.0
All ages	5.7	5.4	6.2	6.4	7.8	7.8	8.3	8.6	8.4	7.9	8.9
45-64	4.9	4.9	6.2	7.9	10.0	10.2	14.0	13.1	14.7	14.3	17.7

Number of deaths per 100,000 persons in specified group.

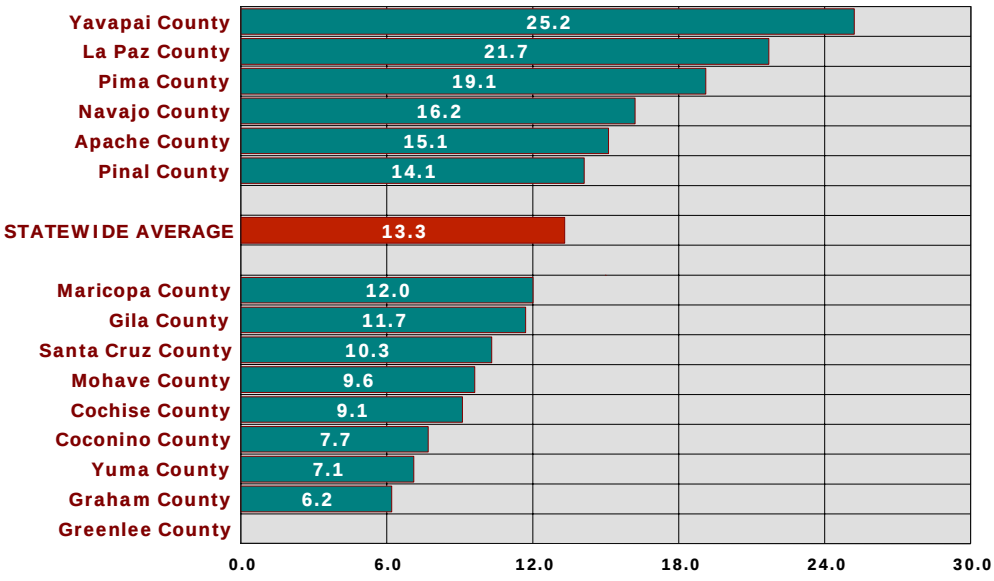
KEY FINDINGS

Figure 8-9
Drug-related Deaths Based on Underlying Cause or Any Mention of Drug Poisoning on the Death Certificates of Arizona Residents, 2004



In various circumstances drug poisoning was indicated as the underlying cause of death on 747 death certificates of Arizona residents who died in 2004. In addition, drug poisoning was mentioned on 455 death certificates of Arizonans who died in 2004 from the underlying causes such as cancer, diseases of heart, chronic lower respiratory diseases, stroke (cerebrovascular disease), fall-related injuries, drowning, fire and flames or exposure to excessive natural heat (**Figure 8-9, Table 8-11**).

Figure 8-10
Age-Adjusted Mortality Rates for Drug Induced Deaths by County of Residence in Arizona, 2004



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

Note: There were no drug-induced deaths in Greenlee County. The rates for Gila, Graham, Santa Cruz and La Paz are bas fewer than 10 deaths. These rates are not statistically reliable.

In 2004 the age-adjusted rates for drug-induced deaths varied in Arizona from 6.2 deaths per 100,000 residents of Graham County, to 25.2 deaths per 100,000 residents of Yavapai County. Including Yavapai, six counties exceeded the statewide rate of 13.3 deaths per 100,000 resident population in 2004. There were no drug-induced deaths in Greenlee County.

Yavapai County experienced an unprecedented increase in drug-induced mortality from 23 deaths in 2003 to 47 deaths in 2004 (**Table 8-8**). Accidental drug overdoses and poisoning by drugs, where it was undetermined whether it was unintentionally or purposely inflicted, accounted for the majority of this increase.