

SOURCES OF DATA

Information on births, deaths, and fetal deaths is compiled from the original documents filed with the Arizona Department of Health Services', Office of Vital Records and from transcripts of original birth and death certificates filed in other states but affecting Arizona residents. (Copies of certificates for births, deaths and fetal deaths occurring to Arizona residents outside the United States are not sent to Arizona).

Information on induced terminations of pregnancy (abortions) performed on Arizona women is compiled from reports sent to the Arizona Department of Health Services by facilities within but only rarely outside the state.

Pregnancies are the sum of live births, spontaneous terminations of pregnancy (fetal deaths or stillbirths) and induced terminations of pregnancy (abortions).

Arizona has no central registry for marriage and divorce records. Statistics are limited to counts of marriages and divorces reported monthly by the Clerk of the Superior Court in each county in which the marriage or divorce occurred. These reports contain no demographic data on the people marrying or divorcing.

Data on morbidity, levels of disease and disability in the population, are obtained for certain infectious diseases that must be reported by law. The ADHS Epidemiology and Disease Control Services conduct surveillance and monitoring of these reportable diseases and provided data for the morbidity sections in this report.

All short-stay nonfederal hospitals in Arizona are required to submit every six months uniform patient reports to the Arizona Department of Health Services. The Section of Cost Reporting and Discharge Data Review in the Bureau of Public Health Statistics collects the information about both hospital inpatient discharges and emergency room visits.

Population denominators for Arizona residents, used to calculate rates for 1980, 1990, and 2000, are census enumerations from the U.S. Census Bureau. Population denominators for the intercensal years utilize the best available data sources. They are described in detail at <http://www.azdhs.gov/plan/menu/info/pd.htm>

Our website at <http://www.azdhs.gov/plan/index.htm> provides additional reports and studies, as well as links to other sources of information on topics such as morbidity from certain diseases or population composition.

DEFINITIONS

Urban and Rural Areas

For the purpose of this report, the following are Arizona's **urban areas**: Phoenix-Scottsdale-Mesa Metropolitan Statistical Area (Maricopa and Pinal Counties), Tucson Metropolitan Statistical Area (Pima County), and Yuma Metropolitan Statistical Area (Yuma County). The remaining counties (Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yavapai) comprise Arizona's **rural areas**. The 1994 list of Metropolitan Statistical Areas and their component counties for the United States is available at:

<http://www.cdc.gov/nchs/data/dvs/mcd/geog94msa.txt>

Race/Ethnicity

Race/ethnic designations used in this report are White non-Hispanic, Hispanic or Latino, Black or African-American, American Indian or Alaska Native (including Aleut and Eskimo) and Asian or Pacific Islander (including Hawaiian). In some of the trend tables the designation "Other" includes Asian and Pacific Islanders. Non-White Hispanics are included in their appropriate race groups.

The American Indian figures include those living both on and off the reservation.

The race/ethnicity of mother, father or decedent is as stated on the certificate.

Implementation of the revised certificates of live birth, death and fetal death in Arizona is necessary in order to provide compatibility with the new federal standards for collecting and presenting data on race and Hispanic origin as established by the Office of Management and Budget (OMB) in October 1997. These federal standards require that when self-identification is used, a method for reporting more than one race should be adopted. In addition, the Asian or Pacific Islander category will be split into two categories – one called "Asian" and the other called "Native Hawaiian or Other Pacific Islander".

Rates

Rate is a measure of the frequency of some event in relation to a unit of population during a specified time period such as a year; events in the numerator of the year occur to individuals in the denominator. Rates express the likelihood (or risk) of the event in the specified population during a particular time and are generally expressed as units of population in the denominator (per 1,000, 10,000, 100,000 and so forth).

Many rates shown in this report are based on a small population, a small number of events or both. Rates based on small numbers are unreliable and thus should be viewed with caution. Rates for many counties or Arizona's ethnic minorities also vary considerably from year to year due to small populations and few events.

Terms Related to Reproductive Health

Abortion Rate - Number of reported abortions to females of all ages during a calendar year per 1,000 females of childbearing age (15-44 years).

Abortion Ratio - Number of abortions reported during a period per 1,000 live births occurring during the same period.

Birth or Live Birth - The complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy which, after such expulsion or extraction, breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.

Birth rate - Number of live births during a calendar year per 1,000 population.

Birth weight - The weight of a neonate determined immediately after delivery or as soon thereafter as possible.

Fetal death - Death prior to the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy and which is not an induced termination of pregnancy. The death is indicated by the fact that, after such expulsion or extraction, the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.

Fetal death rate - Number of fetal deaths at 20 or more weeks of gestation per 1,000 live births + fetal deaths.

Fertility rate (general) - Total number of live births to women of all ages during a calendar year per 1,000 women of childbearing age (15-44 years old).

Fertility rate (total) - The sum of age-specific birth rates of women at each age group 10-14 through 45-49. Since five-year age groups are used, the sum is multiplied by five.

Infant death - Any death at any time from birth up to, but not including, the first year of age (364 days, 23 hours, 59 minutes from the moment of birth).

Infant mortality rate - Number of infant deaths per 1,000 live births.

Low-birthweight - Any neonate weighing less than 2,500 grams at birth (less than 5 pounds 8 ounces).

Maternal mortality rate - Number of deaths attributed to maternal conditions (i.e. related to or aggravated by pregnancy or its management) per 100,000 live births.

Neonatal death - Death of a live born neonate before the neonate becomes 28 days old (up to and including 27 days, 23 hours, 59 minutes from the moment of birth).

Neonatal mortality rate - Number of neonatal deaths per 1,000 live births.

Perinatal mortality rate - The sum of infant deaths of less than 7 days and fetal deaths with a stated or presumed period of gestation of 28 weeks or more per 1,000 live births + fetal deaths of 28 or more weeks of gestation..

Postneonatal death - Any death of a live born infant at least 28 days of age but less than one year of age.

Postneonatal mortality rate - Number of postneonatal deaths per 1,000 live births.

Post term - Any neonate whose birth occurs from the beginning of the first day (295th day) of the 43rd week following onset of the last menstrual period.

Pregnancy rate - The sum of live births, fetal deaths and induced terminations of pregnancy per 1,000 women of childbearing age (15-44 years old).

Preterm - Any neonate whose birth occurs through the end of the last day of the 37th week (259th day), following onset of the last menstrual period.

Term - Any neonate whose birth occurs from the beginning of the first day (260th day) of the 38th week, through the end of the last of the 42nd week (294th day), following onset of the last menstrual period.

Very Low-Birthweight - Any neonate whose weight at birth is 1,500 grams or less (less than 3 pounds 5 ounces).

Medical Terms Used on the Birth Certificate

Medical risk factors for this pregnancy

Anemia - Hemoglobin level of less than 10.0 g/dL during pregnancy, or hematocrit of less than 30 percent during pregnancy.

Cardiac disease - Disease of the heart.

Acute or chronic lung disease - Disease of the lungs during pregnancy.

Diabetes - Metabolic disorder characterized by excessive discharge of urine and persistent thirst; includes juvenile onset, adult onset and gestational diabetes during pregnancy.

Genital herpes - Infection of the skin of the genital area by herpes simplex virus.

Hydramnios/Oligohydramnios - Any noticeable excess (hydramnios) or lack (oligohydramnios) of amniotic fluid.

Hemoglobinopathy - A blood disorder caused by alteration in the genetically determined molecular structure of hemoglobin (for example, sickle cell anemia).

Hypertension, chronic - Blood pressure persistently greater than 140/90, diagnosed prior to onset of pregnancy or before the 20th week of gestation.

Hypertension, pregnancy-associated - An increase in blood pressure of at least 30 mm hg systolic or 15 mm hg diastolic on two measurements taken 6 hours apart after the 20th week of gestation.

Eclampsia - The occurrence of convulsions and/or coma unrelated to other cerebral conditions in women with signs and symptoms of preeclampsia.

Incompetent cervix - Characterized by painless dilation of the cervix in the second trimester or early in the third trimester of pregnancy, with premature expulsion of membranes through cervix and ballooning of the membranes into vagina, followed by rupture of the membrane and subsequent expulsion of the fetus.

Previous infant 4,000+ grams - The birthweight of a previous live-born child was over 4,000 grams (8lbs.14oz.).

Previous preterm or small-for-gestational-age-infant - Previous birth of an infant prior to term (before 37 completed weeks of gestation) or of an infant weighing less than the 10th percentile for gestational age using a standard weight for age chart.

Renal disease - Kidney disease.

Rh Sensitization - The process or state of becoming sensitized to the Rh factor as when an Rh-negative woman is pregnant with an Rh-positive fetus.

Uterine bleeding - Any clinically significant bleeding during the pregnancy taking into consideration the stage of pregnancy; any second or third trimester bleeding or third trimester bleeding of the uterus prior to the onset of labor.

Complications of labor and/or delivery

Febrile - A fever greater than 100 degrees F. or 38 degrees C. occurring during labor and/or delivery.

Meconium, moderate/heavy - Meconium consists of undigested debris from swallowed amniotic fluid, various products of secretion and shedding by the gastrointestinal tract, moderate to heavy amounts of meconium in the amniotic fluid noted during labor and/or delivery.

Premature rupture of membranes (more than 12 hours) - Rupture of membranes at any time during pregnancy and more than 12 hours before the onset of labor.

Abruptio placenta - Premature separation of normally implanted placenta from the uterus.

Placenta previa - Implantation of the placenta over or near the internal opening of the cervix.

Other excessive bleeding - The loss of significant amount of blood from conditions other than abruptio placenta or placenta previa.

Seizures during labor - Maternal seizures occurring during labor from any cause.

Precipitous labor (less than 3 hours) Extremely rapid labor and delivery lasting less than 3 hours.

Prolonged labor (more than 20 hours) - Abnormally slow progress of labor lasting more than 20 hours.

Dysfunctional labor - Failure to progress in a normal pattern of labor.

Breech/Malpresentation - At birth, the presentation of the fetal buttocks, rather than the head or other malpresentation.

Cephalopelvic disproportion - The relationship of the size, presentation and position of the fetal head to the maternal pelvis, which prevents dilation of the cervix and/or descent of the fetal head.

Cord prolapse - Premature expulsion of the umbilical cord in labor before the fetus is delivered.

Anesthetic complications - Any complication during labor and/or delivery brought on by an anesthetic agent or agents.

Fetal distress - Signs indicating fetal hypoxia (deficiency in amount of oxygen reaching fetal tissues).

Abnormal conditions of the newborn

Anemia - Hemoglobin level of less than 13.0 g/dL, or a hematocrit of less than 39 percent.

Birth injury - Impairment of the infant's body function or structure due to adverse influences that occurred at birth.

Fetal alcohol syndrome - A syndrome of altered prenatal growth and development occurring in infants born of women who consumed excessive amounts of alcohol during pregnancy.

Hyaline membrane disease/RDS - A disorder primarily of prematurity, manifested clinically by respiratory distress and pathologically by pulmonary hyaline membranes and incomplete expansion of the lungs at birth.

Meconium aspiration syndrome - Aspiration of meconium by the fetus or newborn, affecting the lower respiratory system.

Assisted ventilation (less than 30 minutes) - A mechanical method of assisting respiration for newborns with respiratory failure.

Assisted ventilation (30 minutes or more) - Newborn placed on assisted ventilation for 30 minutes or longer.

Seizures - A seizure of any etiology.

Congenital anomalies of child

Anencephalus - Absence of the cerebral hemispheres.

Spina bifida/meningocele - Developmental anomaly characterized by defective closure of the bony encasement of the spinal cord, through which the cord and meninges may or may not protrude.

Hydrocephalus - Excessive accumulation of cerebrospinal fluid within the ventricles of the brain with consequent enlargement of cranium.

Microcephalus - A significantly small head.

Other central nervous system anomalies - Other specified anomalies of the brain, spinal cord, and nervous system.

Heart malformations - Congenital anomalies of heart.

Other circulatory/respiratory anomalies - Other specified anomalies of the circulatory and respiratory systems.

Rectal atresia/stenosis - Congenital absence, closure, or narrowing of the rectum.

Tracheo-esophageal fistula/Esophageal atresia - An abnormal passage between the trachea and the esophagus; esophageal atresia is the congenital absence or closure of the esophagus.

Omphalocele/Gastroschisis - An omphalocele is a protrusion of variable amounts of abdominal viscera from a midline defect at the base of the umbilicus. In gastroschisis, the abdominal viscera protrude through an abdominal wall defect, usually on the right side of the umbilical cord insertion.

Other gastrointestinal anomalies - Other specified congenital anomalies of the gastrointestinal system.

Malformed genitalia - Congenital anomalies of the reproductive organs.

Renal agenesis - One or both kidneys are completely absent.

Other urogenital anomalies - Other specified congenital anomalies of the organs concerned in the production and excretion of the urine, together with organs of reproduction.

Cleft lip/palate - Cleft lip is a fissure or elongated opening of the lip; cleft palate is a fissure in the roof of the mouth. These are failures of embryonic development.

Polydactyly/Syndactyly/Adactyly - Polydactyly is the presence of more than five digits on hands and/or feet; syndactyly is having fused or webbed fingers and/or toes; adactyly is the absence of fingers and/or toes.

Club foot - Deformities of the foot, which is twisted out of shape or position.

Diaphragmatic hernia - Herniation of the abdominal contents through the diaphragm into the thoracic cavity usually resulting in respiratory distress.

Down's syndrome - The most common chromosomal defect with most cases resulting from an extra chromosome (trisomy 21).

Diagnosis and Procedure Codes Used to Analyze the Hospital Discharge Data

Diagnostic groupings and code numbers used in Chapter 4 and Chapter 7 are based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).

The tabulations of the hospital inpatient data by first-listed diagnosis and all-listed procedures utilize the diagnostic categories available respectively at <http://www.azdhs.gov/plan/hip/cat/icd9primary.xls> and <http://www.azdhs.gov/plan/hip/cat/icd9procedure.xls>.

The ICD-9-CM diagnostic categories used to identify specific mental disorders are available online at <http://www.azdhs.gov/plan/hip/for/mental/2007/mental107.xls>

Terms Related to Mortality

The most common, and perhaps the most valuable measure of the likelihood (or risk) of death in the specified population during a particular time is the **crude death rate**. It is computed as the number of deaths per 1,000 or 100,000 population.

Age-adjusted mortality rates - Because mortality from most causes of death occurs predominately among the elderly, a population group with a larger proportion of older persons would have a higher mortality rate. The "age-adjustment" removes the effect of the age differences among sub-populations (or in the same population over time) by placing them all in a population with a standard age distribution. All age-adjusted mortality rates in this report were computed by the direct method that is by weighting the age-specific rates for a given year by the age distribution of a standard population. The weighted age-specific rates are then added to produce the summary rate for all ages combined. Beginning with the 2000 data year, 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 standard uses the age composition of the 2000 U.S. projected population. The standard is expressed in terms of a "standard million": the relative distribution of the 2000 population of the United States totaling 1 million in 10-year age groups:

Age group	2008 population	2008 deaths	Age-specific rates in 2008	2000 standard	Age-adjusted rate for 2008
A	B	C	D (C/B)*100000	E	F D*E
<1	98995	625	631.3	.013818	8.7
1-4	402486	128	31.8	.055317	1.8
5-14	927978	134	14.4	.145565	2.1
15-24	903796	754	83.4	.138646	11.6
25-34	949725	900	94.8	.135573	12.8
35-44	898425	1472	163.8	.162613	26.6
45-54	844161	3403	403.1	.134834	54.4
55-64	659678	5496	833.1	.087247	72.7
65-74	432451	7663	1772.0	.066037	117.0
75-84	307069	11947	3890.7	.044842	174.5
85+	110157	12604	11441.9	.015508	177.4
All ages	6534921	45128		TOTAL	659.6

The age-adjusted mortality rates should be viewed as relative indexes rather than as actual measures of mortality risk. It is also important to note that 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 2000 standard, and they CANNOT BE compared to rates using the 1940 standard population.

Age-specific mortality - Number of deaths in a specific age group during a calendar year.

Alcohol-induced deaths - This category was expanded in 2003. Causes of death attributable to alcohol mortality include mental and behavioral disorders due to alcohol use, degeneration of nervous system due to alcohol use, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver disease, finding of alcohol in blood, accidental poisoning by and exposure to alcohol, intentional self-poisoning by alcohol, poisoning by alcohol, undetermined intent.

Cause of death - For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and utilizing the international rules for selecting the underlying cause of death from the reported conditions.

Cause-specific mortality - Number of deaths from a specified cause during a calendar year.

Classification of causes of death - The cause of death used in this report is the underlying cause classified according to the *International Classification of Diseases (ICD)*. Beginning with the 2000 data year in Arizona (1999 nationally), a new revision of the International Classification of Diseases was implemented. The Tenth Revision (ICD-10) has replaced the Ninth Revision (ICD-9), which was in effect since 1979.

Comparability ratios - Comparability ratios are measures of comparison between ICD-9 and ICD-10. Any comparison of causes of mortality in Arizona before and after the implementation of ICD-10 needs to take into account the changes in statistical trends that can be attributed to changes in the classification system alone. 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. Comparability-modified number of deaths and mortality rates are shown for the four causes of death for which the discontinuity in trend is substantial (influenza and pneumonia, Alzheimer's disease, nephritis, or septicemia). The following online table provides comparable cause-of-death categories in ICD-9 and ICD-10 and shows comparability ratios for 113 selected causes of death:

<http://www.azdhs.gov/plan/report/ahs/ahs2007/pdf/compratio.pdf>

Drug-induced deaths - This category was expanded in 2003. Causes of death attributable to drug-related mortality include mental and behavioral disorders due to psychoactive substance use, accidental poisoning by and exposure to drugs, suicide by drugs, homicide by drugs and poisoning by drugs, undetermined intent

Firearm mortality - Causes of death attributable to firearm mortality include accidental discharge of firearms, suicide by firearms, homicide by firearms, legal intervention involving discharge of firearms, terrorism involving firearms and discharge of firearms, undetermined intent.

Cause-of-Death Categories and Comparability Ratios for Selected 113 Causes of Death

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Category codes according to the Tenth Revision (ICD-10)		Category codes according to the Ninth Revision (ICD-9)		Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
	Tenth Revision (ICD-10)	Ninth Revision (ICD-9)	Tenth Revision	Ninth Revision	Lower	Upper					
Salmonella infections	A01-A02	002-003	30	37	0.8108	0.0644	7.9	0.6846	0.9370		
Shigellosis and amebiasis	A03-A06	004,006	*	*	*	*	*	*	*		
Certain other intestinal infections	A04, A07-A09	007-009	*	*	*	*	*	*	*		
Tuberculosis	A16-A19	010-018	653	764	0.8547	0.0172	2.0	0.8209	0.8885		
Respiratory tuberculosis	A16	010-012	518	572	0.9056	0.0201	2.2	0.8662	0.9450		
Other tuberculosis	A17-A19	013-018	135	192	0.7031	0.0407	5.8	0.6233	0.7830		
Whooping cough	A37	033	*	*	*	*	*	*	*		
Scarlet fever and erysipelas	A38, A46	034.1-035	*	*	*	*	*	*	*		
Meningococcal infection	A39	036	221	222	0.9955	0.0149	1.5	0.9663	1.0247		
Septicemia	A40-A41	038	21,258	17,791	1.1949	0.0042	0.3	1.1867	1.2030		
Syphilis	A50-A53	090-097	21	33	0.6364	0.1184	18.6	0.4043	0.8685		
Acute poliomyelitis	A80	045	*	*	*	*	*	*	*		
Arthropod-borne viral encephallitis	A83-A84, A85.2	062-064	*	*	*	*	*	*	*		
Measles	B05	055	*	*	*	*	*	*	*		
Viral hepatitis	B15-B19	070	1,123	1,346	0.8343	0.0120	1.4	0.8109	0.8578		
Human immunodeficiency virus (HIV) disease	B20-B24	*042-*044	12,765	11,150	1.1448	0.0045	0.4	1.1360	1.1536		
Malaria	B50-B54	084	*	*	*	*	*	*	*		
Other and unspecified infectious and parasitic diseases and their sequelae	A00, A05, A20-A36, A42-A44, A48-A49, A54-A79, A81-A82, A85.0-A85.1, A85.8, A86-B04, B06-B09, B25-B49, B55-B99	001,005,020-032,037,039-041,046-054, 056-061,065-066,071-083,085-088, 098-134,136-139,771.3	464,688	461,544	1.0068	0.0002	0.0	1.0064	1.0072		
Malignant neoplasms	C00-C97	140-208	464,688	461,544	1.0068	0.0002	0.0	1.0064	1.0072		
Malignant neoplasms of lip, oral cavity and pharynx	C00-C14	140-149	5,927	6,172	0.9603	0.0040	0.4	0.9525	0.9681		
Malignant neoplasm of esophagus	C15	150	9,596	9,630	0.9965	0.0020	0.2	0.9926	1.0003		
Malignant neoplasm of stomach	C16	151	11,480	11,408	1.0063	0.0019	0.2	1.0025	1.0101		
Malignant neoplasms of colon, rectum and anus	C18-C21	153-154	48,583	48,619	0.9993	0.0009	0.1	0.9975	1.0010		
Malignant neoplasms of liver and intrahepatic bile ducts	C22	155	9,732	10,102	0.9634	0.0023	0.2	0.9588	0.9679		
Malignant neoplasm of pancreas	C25	157	24,313	24,361	0.9980	0.0009	0.1	0.9963	0.9977		
Malignant neoplasm of larynx	C32	161	3,209	3,194	1.0047	0.0053	0.5	0.9943	1.0150		
Malignant neoplasms of trachea, bronchus and lung	C33-C34	162	131,750	133,936	0.9837	0.0005	0.1	0.9827	0.9846		
Malignant melanoma of skin	C43	172	5,941	6,139	0.9677	0.0032	0.3	0.9614	0.9741		
Malignant neoplasm of cervix uteri	C50	174-175	38,102	37,891	1.0056	0.0010	0.1	1.0036	1.0075		
Malignant neoplasm of breast	C53	180	3,753	3,802	0.9871	0.0034	0.3	0.9805	0.9938		
Malignant neoplasm of corpus uteri and uterus, part unspecified	C54-C55	179,182	5,318	5,183	1.0260	0.0040	0.4	1.0182	1.0339		
Malignant neoplasm of ovary	C56	183.0	11,292	11,344	0.9954	0.0016	0.2	0.9923	0.9985		
Malignant neoplasm of prostate	C61	185	30,672	30,267	1.0134	0.0015	0.1	1.0105	1.0162		
Malignant neoplasms of kidney and renal pelvis	C64-C65	189.0,189.1	9,521	9,521	1.0000	0.0022	0.2	0.9957	1.0043		
Malignant neoplasm of bladder	C67	188	9,563	9,594	0.9968	0.0026	0.3	0.9916	1.0019		
Malignant neoplasms of meninges, brain and other parts of central nervous system	C70-C72	191-192	10,039	10,359	0.9691	0.0025	0.3	0.9642	0.9740		
Malignant neoplasms of lymphoid, hematopoietic and related tissue	C81-C96	200-208	44,715	44,530	1.0042	0.0012	0.1	1.0019	1.0064		
Hodgkin's disease	C81	201	1,021	1,036	0.9855	0.0089	0.9	0.9680	1.0030		
Non-Hodgkin's lymphoma	C82-C85	200,202	17,924	18,326	0.9781	0.0018	0.2	0.9745	0.9817		
Leukemia	C91-C95	204-208	16,600	16,405	1.0119	0.0019	0.2	1.0083	1.0155		

See footnotes at end of table.

Cause-of-Death Categories and Comparability Ratios for Selected 113 Causes of Death

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Multiple myeloma and immunoproliferative neoplasms	C88.C90	203	9,099	8,763	1.0383	0.0030	0.3	1.0324	1.0443
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue	C96	...	*	*	*	*	*	*	*
All other and unspecified malignant neoplasms	C17.C23-C24.C26-C31.C37-C41, C44-C49.C51-C52.C57-C60, C66.C68-C69.C73-C80.C97	152,156,158-160,163-171,173,181, 183.2-184,186-187,189.2-190, 193-199	51,182	45,492	1.1251	0.0021	0.2	1.1210	1.1292
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00-D48	210-239	9,263	5,532	1.6744	0.0164	1.0	1.6422	1.7067
Anemias	D50-D64	280-285	3,059	3,200	0.9559	0.0077	0.8	0.9409	0.9710
Diabetes mellitus	E10-E14	250	48,636	48,242	1.0082	0.0011	0.1	1.0060	1.0103
Nutritional deficiencies	E40-E64	260-269	3,215	2,763	1.1636	0.0165	1.4	1.1312	1.1960
Malnutrition	E40-E46	260-263	2,607	2,665	0.9782	0.0151	1.5	0.9487	1.0078
Other nutritional deficiencies	E50-E64	264-269	608	98	6.2041	0.5961	9.6	5.0358	7.3724
Meningitis	G00.G03	320-322	592	584	1.0137	0.0136	1.3	0.9871	1.0403
Parkinson's disease	G20-G21	332	10,404	10,392	1.0012	0.0028	0.3	0.9956	1.0067
Alzheimer's disease	G30	331.0	29,707	19,121	1.5536	0.0071	0.5	1.5398	1.5675
Major cardiovascular diseases	I00-I78	390-434,436-448	796,919	798,435	0.9981	0.0002	0.0	0.9977	0.9985
Diseases of heart	I00-I09,I11,I13,I20-I51	390-398,402,404,410-429	615,564	624,405	0.9858	0.0002	0.0	0.9854	0.9863
Acute rheumatic fever and chronic rheumatic heart diseases	I00-I09	390-398	2,446	2,980	0.8208	0.0089	1.1	0.8034	0.8382
Hypertensive heart disease	I11	402	17,322	21,577	0.8028	0.0028	0.3	0.7973	0.8083
Hypertensive heart and renal disease	I13	404	2,170	2,027	1.0705	0.0160	1.5	1.0392	1.1019
Ischemic heart diseases	I20-I25	410-414,429.2	466,459	466,935	0.9990	0.0002	0.0	0.9985	0.9994
Acute myocardial infarction	I21-I22	410	178,125	180,169	0.9887	0.0003	0.0	0.9880	0.9893
Other acute ischemic heart diseases	I24	411	2,667	2,638	1.0110	0.0117	1.2	0.9880	1.0340
Other forms of chronic ischemic heart disease	I20,I25	412-414,429.2	285,667	284,128	1.0054	0.0004	0.0	1.0046	1.0062
Atherosclerotic cardiovascular disease, so described	I25.0	429.2	64,354	61,362	1.0488	0.0016	0.2	1.0456	1.0519
All other forms of chronic ischemic heart disease	I20,I25.1-I25.9	412-414	221,313	222,766	0.9935	0.0004	0.0	0.9927	0.9942
Other heart diseases	I26-I51	415-429,1,429.3-429.9	127,167	130,886	0.9716	0.0010	0.1	0.9696	0.9736
Acute and subacute endocarditis	I33	421	552	554	0.9964	0.0137	1.4	0.9695	1.0233
Diseases of pericardium and acute myocarditis	I30-I31,I40	420,422-423	489	475	1.0295	0.0160	1.6	0.9981	1.0608
Heart failure	I50	428	44,297	42,554	1.0410	0.0013	0.1	1.0384	1.0435
All other forms of heart disease	I26-I28,I34-I38,I42-I49,I51	415-417,424-427,429.0-429.1,429.3-429.9	81,829	87,303	0.9373	0.0014	0.2	0.9345	0.9401
Essential (primary) hypertension and hypertensive renal disease	I10,I12	401,403	11,958	10,684	1.1192	0.0050	0.4	1.1094	1.1291
Cerebrovascular diseases	I60-I69	430-434,436-438	137,264	129,640	1.0588	0.0008	0.1	1.0572	1.0604
Atherosclerosis	I70	440	13,894	14,417	0.9637	0.0025	0.3	0.9588	0.9686
Other diseases of circulatory system	I71-I78	441-448	18,239	19,289	0.9456	0.0021	0.2	0.9414	0.9498
Aortic aneurysm and dissection	I71	441	12,216	12,201	1.0012	0.0010	0.1	0.9992	1.0032
Other diseases of arteries, arterioles and capillaries	I72-I78	442-448	6,023	7,088	0.8497	0.0053	0.6	0.8394	0.8601
Other disorders of circulatory system	I80-I99	451-459	2,984	2,899	1.0293	0.0172	1.7	0.9956	1.0631
Influenza and pneumonia	J10-J18	480-487	50,526	72,371	0.6982	0.0018	0.3	0.6947	0.7016
Influenza	J10-J11	487	572	567	1.0088	0.0073	0.7	0.9945	1.0231
Pneumonia	J12-J18	480-486	49,954	71,804	0.6957	0.0018	0.3	0.6922	0.6992
Other acute lower respiratory infections	J20-J22	466	346	355	0.9746	0.0392	4.0	0.8978	1.0515
Acute bronchitis and bronchiolitis	J20-J21	466	265	355	0.7465	0.0264	3.5	0.6947	0.7983

See footnotes at end of table.

Cause-of-Death Categories and Comparability Ratios for Selected 113 Causes of Death

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Category codes according to the Tenth Revision (ICD-10)		Category codes according to the Ninth Revision (ICD-9)		Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
	Tenth Revision (ICD-10)		Ninth Revision (ICD-9)		Tenth Revision	Ninth Revision				Lower	Upper
	J22	----	-----	-----	*	*				*	*
Unspecified acute lower respiratory infection	J22	----	-----	-----	*	*	*	*	*	*	*
Chronic lower respiratory diseases	J40-J47	490-494,496	490-494,496	94,326	90,022	1.0478	0.0009	0.1	1.0460	1.0496	
Bronchitis, chronic and unspecified	J40-J42	490-491	490-491	913	2,320	0.3935	0.0107	2.7	0.3726	0.4145	
Empysema	J43	492	492	14,369	14,774	0.9726	0.0031	0.3	0.9666	0.9786	
Asthma	J45-J46	493	493	4,217	4,718	0.8938	0.0061	0.7	0.8819	0.9057	
Other chronic lower respiratory diseases	J44, J47	494,496	494,496	74,827	68,210	1.0970	0.0014	0.1	1.0943	1.0998	
Pneumoconioses and chemical effects	J60-J66, J68	500-506	500-506	860	845	1.0178	0.0099	1.0	0.9983	1.0372	
Pneumonitis due to solids and liquids	J69	507	507	10,183	9,104	1.1185	0.0048	0.4	1.1092	1.1279	
Other diseases of respiratory system	J00-J06, J30-J39, J67, J70-J98	034.0,460-465,470-478,495,508-519	034.0,460-465,470-478,495,508-519	16,656	14,269	1.1673	0.0052	0.4	1.1572	1.1774	
Peptic ulcer	K25-K28	531-534	531-534	3,574	3,686	0.9696	0.0045	0.5	0.9608	0.9784	
Diseases of appendix	K35-K38	540-543	540-543	209	202	1.0347	0.0242	2.3	0.9873	1.0820	
Hernia	K40-K46	550-553	550-553	658	633	1.0395	0.0154	1.5	1.0094	1.0696	
Chronic liver disease and cirrhosis	K70, K73-K74	571	571	21,688	20,920	1.0367	0.0027	0.3	1.0314	1.0420	
Alcoholic liver disease	K70	571.0-571.3	571.0-571.3	10,147	9,965	1.0183	0.0050	0.5	1.0085	1.0281	
Other chronic liver disease and cirrhosis	K73-K74	571.4-571.9	571.4-571.9	11,541	10,955	1.0535	0.0041	0.4	1.0454	1.0615	
Cholelithiasis and other disorders of gallbladder	K80-K82	574-575	574-575	1,725	1,803	0.9567	0.0060	0.6	0.9450	0.9685	
Nephritis, nephrotic syndrome and nephrosis	N00-N07, N17-N19, N25-N27	580-589	580-589	24,939	20,242	1.2320	0.0044	0.4	1.2234	1.2407	
Acute and rapidly progressive nephritic and nephrotic syndrome	N00-N01, N04	580-581	580-581	161	249	0.6466	0.0342	5.3	0.5796	0.7136	
Chronic glomerulonephritis, nephritis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified	N02-N03, N05-N07, N26	582-583, 587	582-583, 587	468	1,213	0.3858	0.0144	3.7	0.3575	0.4141	
Renal failure	N17-N19	584-586	584-586	24,290	18,758	1.2949	0.0050	0.4	1.2852	1.3047	
Other disorders of kidney	N25, N27	588-589	588-589	20	22	0.9091	0.0867	9.5	0.7392	1.0790	
Infections of kidney	N10-N12, N13.6, N15.1	590	590	731	726	1.0069	0.0144	1.4	0.9786	1.0352	
Hyperplasia of prostate	N40	600	600	326	327	0.9969	0.0159	1.6	0.9658	1.0280	
Inflammatory diseases of female pelvic organs	N70-N76	614-616	614-616	63	64	0.9844	0.0410	4.2	0.9040	1.0648	
Pregnancy, childbirth and the puerperium	O00-O99	630-676	630-676	*	*	*	*	*	*	*	
Pregnancy with abortive outcome	O00-O07	630-639	630-639	*	*	*	*	*	*	*	
Other complications of pregnancy, childbirth and the puerperium	O10-O99	640-676	640-676	*	*	*	*	*	*	*	
Certain conditions originating in the perinatal period	P00-P96	760-771.2, 771.4-779	760-771.2, 771.4-779	10,184	9,555	1.0658	0.0033	0.3	1.0593	1.0724	
Congenital malformations, deformations and chromosomal abnormalities	O00-Q99	740-759	740-759	5,950	7,025	0.8470	0.0055	0.6	0.8362	0.8577	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99	780-799	780-799	16,940	17,732	0.9553	0.0034	0.4	0.9487	0.9620	
All other diseases (Residual)	Residual		Residual	109,853	122,107	0.8996	0.0015	0.2	0.8968	0.9025	
Accidents (unintentional injuries)	V01-X59, Y85-Y86	E800-E869, E880-E929	E800-E869, E880-E929	31,084	30,163	1.0305	0.0014	0.1	1.0278	1.0333	
Transport accidents	V01-Y99, Y85	E800-E848, E929.0, E929.1	E800-E848, E929.0, E929.1	17,547	17,586	0.9978	0.0006	0.1	0.9966	0.9990	
Motor vehicle accidents	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825	E810-E825	16,632	17,051	0.9754	0.0006	0.1	0.9742	0.9766	

See footnotes at end of table.

Cause-of-Death Categories and Comparability Ratios for Selected 113 Causes of Death

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Other land transport accidents	V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3,V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.8,V88.9,V89.1,V89.3, V89.9	E800-E807,E826-E829	351	347	1.0115	0.0209	2.1	0.9706	1.0525
Water, air and space, and other and unspecified transport accidents and their sequelae	V90-V99,Y85	E830-E848,E929.0,E929.1	13,537	12,577	1.0763	0.0035	0.3	1.0696	1.0831
Nontransport accidents	W00-X59,Y86	E850-E869,E880-E928,E929.2-E929.9	5,173	6,152	0.8409	0.0049	0.6	0.8313	0.8505
Falls	W00-W19	E880-E888	493	466	1.0579	0.0127	1.2	1.0331	1.0828
Accidental discharge of firearms	W32-W34	E922	283	284	0.9965	0.0127	1.3	0.9716	1.0213
Accidental drowning and submersion	W65-W74	E910	493	506	0.9743	0.0089	0.9	0.9568	0.9918
Accidental exposure to smoke, fire and flames	X00-X09	E890-E899	*	*	*	*	*	*	*
Accidental poisoning and exposure to noxious substance	X40-X49	E850-E869,E924.1	*	*	*	*	*	*	*
Other and unspecified nontransport accidents and their sequelae	W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86	E900-E909,E911-E921,E923-E924.0, E924.8-E928,E929.2-E929.9	6,698	4,721	1.4188	0.0123	0.9	1.3947	1.4428
Intentional self-harm (suicide)	X60-X84,Y87.0	E950-E959	18,352	18,422	0.9962	0.0005	0.0	0.9952	0.9972
Intentional self-harm (suicide) by discharge of firearms	X72-X74	E955.0-E955.4	14,157	14,183	0.9982	0.0007	0.1	0.9968	0.9996
Intentional self-harm (suicide) by other and unspecified means and their sequelae	X60-X71,X75-X84,Y87.0	E950-E954,E955.5-E959	4,195	4,239	0.9896	0.0023	0.2	0.9850	0.9942
Assault (homicide)	X85-Y09,Y87.1	E960-E969	12,287	12,308	0.9983	0.0006	0.1	0.9972	0.9994
Assault (homicide) by discharge of firearms	X93-X95	E965.0-E965.4	8,718	8,745	0.9969	0.0008	0.1	0.9953	0.9985
Assault (homicide) by other and unspecified means and their sequelae	X85-X92,X96-Y09,Y87.1	E960-E964,E965.5-E969	3,569	3,563	1.0017	0.0024	0.2	0.9969	1.0064
Legal intervention	Y35,Y89.0	E970-E978	*	*	*	*	*	*	*
Events of undetermined intent	Y10-Y34,Y87.2,Y89.9	E980-E989	*	*	*	*	*	*	*
Discharge of firearms, undetermined intent	Y22-Y24	E985.0-E985.4	*	*	*	*	*	*	*
Other and unspecified events of undetermined intent and their sequelae	Y10-Y21,Y25-Y34,Y87.2,Y89.9	E980-E984,E985.5-E989	*	*	*	*	*	*	*
Operations of war and their sequelae	Y36,Y89.1	E990-E999	*	*	*	*	*	*	*
Complications of medical and surgical care	Y40-Y84,Y88	E870-E879,E930-E949	*	*	*	*	*	*	*
Injury by firearms ¹	W32-W34,X72-X74,X93-X95, Y22-Y24,Y35.0,*U01.4	E922,E955.0-E955.4,E965.0-E965.4, E970,E985.0-E985.4	23,355	23,418	0.9973	0.0006	0.1	0.9961	0.9985
Drug-induced deaths ¹	D52.1,D59.0,D61.1,D64.2,E06.4, E16.0,E23.1,E24.2,E27.3,E66.1, F11.0-F11.5,F11.7-F11.9,F12.0-F12.5, F12.7-F12.9,F13.0-F13.5,F13.7-F13.9, F14.0-F14.5,F14.7-F14.9,F15.0-F15.5, F15.7-F15.9,F16.0-F16.5,F16.7-F16.9, F17.0,F17.3-F17.5,F17.7-F17.9, F18.0-F18.5,F18.7-F18.9,F19.0-F19.5, F19.7-F19.9,G21.1,G24.0,G25.1, G25.4,G25.6,G44.4,G62.0,G72.0,I95.2, J70.2,J70.3,J70.4,L10.5,L27.1,M10.2, M32.0,M80.4,M81.4,M83.5,M87.1, R78.1,R78.3,R78.4,R78.5,X40-X44, X60-X64,X85,Y10-Y14	292,304,305.2-305.9,E850-E858, E950.0-E950.5,E962.0,E980.0-E980.5							
Alcohol-induced deaths ¹	E24.4,F10,G31.2,G62.1,G72.1, I42.6,K29.2,K70,R78.0,X45,X65,Y15	291,303,305.0,357.5,425.5,535.3, 571.0-571.3,790.3,E860	1,158	969	1.1950	0.0225	1.9	1.1509	1.2391
			14,783	15,269	0.9682	0.0025	0.3	0.9633	0.9731

*Figure does not meet standards of reliability or precision.
 ---Category not applicable
 0.0 Quantity more than zero but less than 0.05
 1 Included in selected categories. The list of codes included in drug-and-alcohol induced causes was expanded in the 2003 data year.
 Source: National vital statistics reports vol 49 no 8 and vol 54 no 13.