

TECHNICAL NOTES

Sources of Data

The charts in Sections I and II are based on rates and ratios published in the **Arizona Health Status and Vital Statistics** annual report.

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

The 2000 Census data for Arizona's Indian Reservations are available at http://www.workforce.az.gov/admin/uploadedPublications/506_resage00.xls

Definitions

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, per 100,000 and so forth).

Terms Related to Reproductive Health

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, breaths 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.

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

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 - Prior to 1990: any neonate whose weight at birth is 2,500 grams or less. Beginning in 1990: any neonate weighing less than 2,500 grams at birth (less than 5 pounds 8 ounces).

Neonatal death - Death of a liveborn 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.

Postneonatal death - Any death of a liveborn 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.

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 though 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 than3 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.

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

Other chromosomal anomalies - All other chromosomal aberrations.

Polydactyly/Syndactyly/Adactyly – Polydactyly is the presence of more than five digits on either 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.

Other muscoskeletal/integumental anomalies – Other specified congenital anomalies of the muscles, skeleton, or skin.

Terms Related to Mortality

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	2009 population of American Indians	2009 deaths among American Indians	Age-specific rates for American Indians in 2009	2000 standard	Age- adjusted rate for American Indians In 2009
Α	В	С	D	E	F
			(C/B)*100000		D*E
< 1	6,333	52	821.1	.013818	11.3
1-4	24,248	17	70.1	.055317	3.9
5-14	65,222	15	23.0	.145565	3.3
15-24	68,922	108	156.7	.138646	21.7
25-34	51,722	144	278.4	.135573	37.7
35-44	45,574	215	471.8	.162613	76.7
45-54	38,055	270	709.5	.134834	95.7
55-64	23,703	253	1067.4	.087247	93.1
65-74	13,276	281	2116.6	.066037	139.8
75-84	6,598	272	4122.5	.044842	184.9
85+	2427	243	821.1	.015508	155.3
	346,080	1871			
				TOTAL	Σ 823.5

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

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 between 2000 and previous years 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. The online table provides comparable cause-of-death categories in ICD-9 and ICD-10 and shows comparability ratios for approximately 113 causes of death.

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

		Number of	f deaths	Estimated		Relative	95-percent	
Category codes according to the	Category codes according to the	allocated according to		comparability	Standard	standard	confiden	nce limits
Tenth Revision (ICD–10)	Ninth Revision (ICD-9)	Tenth Revision	Ninth Revision	ratio	error	error	Lower	Upper
A01-A02	002-003	30	37	0.8108	0.0644	7.9	0.6846	0.9370
A03,A06	004,006	*	*	*	*	*	*	
A04,A07-A09	007–009	*	*	*	*	*	*	
A16-A19	010–018	653	764	0.8547	0.0172	2.0	0.8209	0.8885
A16	010-012	518	572	0.9056	0.0201	2.2	0.8662	0.9450
A17-A19	013–018	135	192	0.7031	0.0407	5.8	0.6233	0.7830
A37	033	*	*	*	*	*	*	
A38,A46	034.1-035	*	*	*	*	*	*	
A39	036	221	222	0.9955	0.0149	1.5	0.9663	1.024
A40-A41	038	21,258	17,791	1.1949	0.0042	0.3	1.1867	1.2030
A50-A53	090–097	21		0.6364	0.1184	18.6	0.4043	0.8685
A80	045	*	*	*	*	*	*	
A83–A84,A85.2	062–064	*	*	*	*	*	*	·
B05	055	*	*	*	*	*	*	·
B15-B19	070	1,123	1,346	0.8343	0.0120	1.4	0.8109	0.8578
B20-B24	*042-*044	12,765	11,150	1.1448	0.0045	0.4	1.1360	1.1536
		*	*	*	*	*	*	
C00-C97	140–208	464,688	461,544	1.0068	0.0002	0.0	1.0064	1.0072
C00-C14	140–149	5,927	6,172	0.9603	0.0040	0.4	0.9525	0.9681
C15	150	9,596	9,630	0.9965	0.0020	0.2	0.9926	1.0003
C16	151	11,480	11,408	1.0063	0.0019	0.2	1.0025	1.0101
C18-C21	153–154			0.9993	0.0009	0.1	0.9975	1.0010
				0.9634	0.0023	0.2		0.9679
						0.1		0.9997
								1.0150
						0.1		0.9846
		· · · · ·				0.3		0.9741
								1.0075
C53	180	3.753	3.802	0.9871	0.0034	0.3		0.9938
	· ·	.,						
C54-C55	179.182	5.318	5.183	1.0260	0.0040	0.4	1.0182	1.0339
								0.9985
								1.0162
						0.2		1.0043
		· · · · ·				0.3		1.0019
		.,	.,					
C70-C72	191–192	10.039	10.359	0.9691	0.0025	0.3	0,9642	0.9740
	-		,007			510		
C81-C96	200-208	44 715	44 530	1 0042	0 0012	01	1.0019	1.0064
C81	201	1,021	1,036	0.9855	0.0012	0.9	0.9680	1.0030
		1,021	1,000	0.7000	5.0007	0.7	3.7000	
C82-C85	200,202	17,924	18,326	0.9781	0.0018	0.2	0.9745	0.9817
	Category codes according to the Tenth Revision (ICD-10) A01-A02 A03,A06 A04,A07-A09 A16-A19 A16 A17-A19 A37 A38,A46 A39 A40-A41 A50-A53 A80 A83-A84,A85.2 B05 B15-B19 B20-B24 B50-B54 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 C00-C14 C15 C16 C18-C21 C22 C25 C32 C33-C34 C43 C50 C53 C54-C55 C56 C61 C64-C65 C67 C70-C72 C81-C96	Category codes according to the Tenth Revision (ICD-10) Category codes according to the Ninth Revision (ICD-9) A01-A02 002-003 A03A06 004,006 A04,A07-A09 007-009 A16-A19 010-018 A16 010-012 A17-A19 013-018 A37 033 A38,A46 034.1-035 A39 036 A40-A41 038 A50-A53 090-097 A60 045 A83-A84,A85.2 062-064 B05 055 B15-B19 070 B20-B24 042-'044 B50-B54 084 A00 A05,A20-A36,A42-A44,A48-A49, 001,005,020-032,037,039-041,046-054, A05-A51,006,B25-B49,B25-B99 098-134,136-139,771.3 C00-C97 140-208 C00-C97 140-208 C00-C14 140-149 C15 150 C16 151 C18-C21 153-154 C22 155 C25 179,182	Category codes according to the Tenth Revision (ICD-10) Category codes according to the Ninth Revision (ICD-9) Allocated at Tenth Revision A01-A02 002-003 30 A03-A06 004.006 30 A04,A07-A09 007-009 5 A16 010-018 6633 A16 010-012 518 A17-A19 013-018 135 A37 033 - A38,A46 034.1-035 - A39 036 221 A40-A41 038 21.258 A50-A53 090-097 21 A80 045 - A80 045 - B15-B19 070 1.123 B20-B24 '042-'044 12.765 B50-B51 094 - A00,A05,A20-A36,A42-A44 A8-A97, 001.005,020-032,037,039-041,046-054, A00,A05,A20-A36,A42-A44 A8-A97, 001.005,020-032,037,039-041,046-054, A04,A05,A20-A36,A42-A44 A8-A97, 001.005,020-032,037,039-041,046-054, A00,A05,A20-A36,A42-A44 A8-A97, 001.005,0	Category codes according to the Ninth Revision (CD-10) Category codes according to the Ninth Revision (CD-10) Mumber of deaths allocated according to Tenth Revision A01-A02 002-003 30 37 A03A06 004.006 * * A04.07-A09 007-009 * * A16-A119 010-018 653 764 A16 010-012 518 572 A37 033 * * A38 036 221 222 A40-A41 038 21,258 17,791 A39 036 - * A39 036 - * A80-A62 045 * * A80-A53 090-097 21 33 A80 045 * * B05 055 * * * B15-B19 070 1,123 1,346 B20-B24 042-044 12,765 11,160 B20-B24 042-044 12,765	Category codes according to the Texth Revision (ICD-10) Category codes according to the Ninth Revision (ICD-10) Number of deaths allocated according to the Texth Revision (ICD-10) Estimated comparability Texth Revision A01-A02 002-003 30 37 0.8108 A03.A06 004.006 - - - A17-A19 010-018 653 764 0.8547 A17 013-018 135 192 0.0016 A38,A66 034,1-035 - - - A39 036 221 222 0.9955 A40-A41 038 21,258 17,791 1.139 A50-K53 090-097 21 33 0.6364 A81 A84,865.2 0042-064 - - A83 045 - - - A04,A65.2 0042-064 - - - A04,65.2 002-064 - - - A04,65.2 002-064 - - - A02,65,02,05,6,402-A44,485.49,001 <td>Category codes according to the Tenth Revision (CD-10) Category codes according to the With Revision (CD-9) Number of deaths according to Tenth Revision (ND-10) Estimated comparability Standard error A01-A02 002-003 30 37 0.8108 0.0644 A03.006 004.006 - - - - A04.007-A09 007-009 - - - - A16 010-018 653 764 0.0847 0.0170 A17-A19 013-018 135 192 0.9065 0.0201 A38.46 0.031 0.364 - - - - A39 0.36 2.21 2.22 0.9955 0.014 A39 0.36 2.128 17.791 1.1940 0.0042 A50 0.55 - <td< td=""><td>Category codes according to the Term Revision (CD-10) Category codes according to the Number of Geuths Estimated comparability Redetive comparability Redetive standard A01-A02 002-003 00 30 37 0.0108 0.044 7.9 A03-A06 004-006 -<!--</td--><td>Category codes according to the Team Revision (CD-10) Category codes according to the Num Revision (CD-9) Num Revision (CD-9) Estimated Team Revision Estimated and according to read Estimated read Standard configure A01-A02 002-003 30 37 0.0108 0.044 79 0.6846 A03,006 004.006 -</td></td></td<></td>	Category codes according to the Tenth Revision (CD-10) Category codes according to the With Revision (CD-9) Number of deaths according to Tenth Revision (ND-10) Estimated comparability Standard error A01-A02 002-003 30 37 0.8108 0.0644 A03.006 004.006 - - - - A04.007-A09 007-009 - - - - A16 010-018 653 764 0.0847 0.0170 A17-A19 013-018 135 192 0.9065 0.0201 A38.46 0.031 0.364 - - - - A39 0.36 2.21 2.22 0.9955 0.014 A39 0.36 2.128 17.791 1.1940 0.0042 A50 0.55 - <td< td=""><td>Category codes according to the Term Revision (CD-10) Category codes according to the Number of Geuths Estimated comparability Redetive comparability Redetive standard A01-A02 002-003 00 30 37 0.0108 0.044 7.9 A03-A06 004-006 -<!--</td--><td>Category codes according to the Team Revision (CD-10) Category codes according to the Num Revision (CD-9) Num Revision (CD-9) Estimated Team Revision Estimated and according to read Estimated read Standard configure A01-A02 002-003 30 37 0.0108 0.044 79 0.6846 A03,006 004.006 -</td></td></td<>	Category codes according to the Term Revision (CD-10) Category codes according to the Number of Geuths Estimated comparability Redetive comparability Redetive standard A01-A02 002-003 00 30 37 0.0108 0.044 7.9 A03-A06 004-006 - </td <td>Category codes according to the Team Revision (CD-10) Category codes according to the Num Revision (CD-9) Num Revision (CD-9) Estimated Team Revision Estimated and according to read Estimated read Standard configure A01-A02 002-003 30 37 0.0108 0.044 79 0.6846 A03,006 004.006 -</td>	Category codes according to the Team Revision (CD-10) Category codes according to the Num Revision (CD-9) Num Revision (CD-9) Estimated Team Revision Estimated and according to read Estimated read Standard configure A01-A02 002-003 30 37 0.0108 0.044 79 0.6846 A03,006 004.006 -

See footnotes at end of table.

	Cause-of-Death Categorie	es and Comparability Ratios for Select							
			Number of	Estimated		Relative	95-pei	cent	
Cause of death (Based on the Tenth Revision,	Category codes according to the	Category codes according to the	allocated according to		comparability	Standard	standard	confidence limits	
International Classification of Diseases, 1992)	Tenth Revision (ICD-10)	Ninth Revision (ICD-9)	Tenth Revision	Ninth Revision	ratio	error	error	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,	152,156,158–160,163–171,173,181,							
	C44-C49,C51-C52,C57-C60,	183.2-184,186-187,189.2-190,							
	C66,C68-C69,C73-C80,C97	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	100–178	390-434,436-448	796,919	798,435	0.9981	0.0002	0.0	0.9977	0.9985
Diseases of heart	100-109,111,113,120-151	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	100–109	390-398	2,446	2,980	0.8208	0.0089	1.1	0.8034	0.8382
Hypertensive heart disease	111	402	17,322	21,577	0.8028	0.0028	0.3	0.7973	0.8083
Hypertensive heart and renal disease	113	404	2,170	2,027	1.0705	0.0020	1.5	1.0392	1.1019
Ischemic heart diseases	120–125	410-414,429.2	466,459	466,935	0.9990	0.0002	0.0	0.9985	0.9994
Acute myocardial infarction	121-122	410	178,125	180,169	0.9887	0.0003	0.0	0.9880	0.9893
Other acute ischemic heart diseases	124	411	2,667	2,638	1.0110	0.0000	1.2	0.9880	1.0340
Other forms of chronic ischemic heart disease	120,125	412-414,429.2	285,667	284,128	1.0054	0.0004	0.0	1.0046	1.0062
Atherosclerotic cardiovascular disease,	120,123	21/27,717 217	203,007	204,120	1.0034	0.0004	0.0	1.0040	1.0002
so described	125.0	429.2	64,354	61,362	1.0488	0.0016	0.2	1.0456	1.0519
All other forms of chronic ischemic heart disease	120,125.1–125.9	427.2	221,313	222,766	0.9935	0.0004	0.2	0.9927	0.9942
Other heart diseases	120,123.1-123.9	412-414 415-429.1,429.3-429.9	127,167	130,886	0.9935	0.0004	0.0	0.9927	0.9942
	133	415-429.1,429.5-429.9	552	554		0.0010			
Acute and subacute endocarditis					0.9964		1.4	0.9695	1.0233
Diseases of pericardium and acute myocarditis	130–131,140	420,422-423	489	475	1.0295	0.0160	1.6	0.9981	1.0608
Heart failure	150	428	44,297	42,554	1.0410	0.0013	0.1	1.0384	1.0435
All other forms of heart disease	126-128,134-138,142-149,151	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	110.110	101 100	11.050	10/04	1 1100	0.0050		1 100 1	1 1001
hypertensive renal disease	110,112	401,403	11,958	10,684	1.1192	0.0050	0.4	1.1094	1.1291
Cerebrovascular diseases	160–169	430-434,436-438	137,264	129,640	1.0588	0.0008	0.1	1.0572	1.0604
Atherosclerosis	170	440	13,894	14,417	0.9637	0.0025	0.3	0.9588	0.9686
Other diseases of circulatory system	171–178	441-448	18,239	19,289	0.9456	0.0021	0.2	0.9414	0.9498
Aortic aneurysm and dissection	171	441	12,216	12,201	1.0012	0.0010	0.1		1.0032
Other diseases of arteries, arterioles and capillaries	172–178	442-448	6,023	7,088	0.8497	0.0053	0.6		0.8601
Other disorders of circulatory system	180–199	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 Com	parability Ratios fo	or Selected 113 Causes	of Death

			Number of		Estimated		Relative	95-pe	rcent
Cause of death (Based on the Tenth Revision,	Category codes according to the	Category codes according to the	allocated ac	cording to	comparability	Standard	standard	confiden	
International Classification of Diseases, 1992)	Tenth Revision (ICD–10)	Ninth Revision (ICD–9)	Tenth Revision	Ninth Revision	ratio	error	error	Lower	Upper
Unspecified acute lower respiratory infection	J22		*	*	*	*	*	*	*
Chronic lower respiratory diseases	J40–J47	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	913	2,320	0.3935	0.0107	2.7	0.3726	0.4145
Emphysema	J43	492	14,369	14,774	0.9726	0.0031	0.3	0.9666	0.9786
Asthma	J45J46	493	4,217	4,718	0.8938	0.0051	0.3	0.8819	0.9760
Other chronic lower respiratory diseases		494,496	74,827	68,210	1.0970	0.0001	0.1	1.0943	1.0998
Pneumoconioses and chemical effects	J60–J66,J68	500-506	860	845	1.0178	0.0099	1.0	0.9983	1.0372
Pneumonitis due to solids and liquids	J69	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	16,656	14,269	1.1673	0.0040	0.4	1.1572	1.1279
Peptic ulcer	K25-K28	531-534	3,574	3,686	0.9696	0.0032	0.4	0.9608	0.9784
Diseases of appendix	K35–K38	540-543	209	202	1.0347	0.0043	2.3	0.9873	1.0820
Hernia	K40–K46	550-553	658	633	1.0347	0.0242	1.5	1.0094	1.0696
Chronic liver disease and cirrhosis	K70,K73–K74	571	21,688	20,920	1.0393	0.0134	0.3	1.0094	1.0090
Alcoholic liver disease	K70,K73-K74	571.0-571.3	10,147	9,965	1.0307	0.0027	0.5	1.0085	1.0420
Other chronic liver disease and cirrhosis	K73–K74	571.4–571.9	11,541	10,955	1.0535	0.0030	0.4	1.0454	1.0201
Cholelithiasis and other disorders of gallbladder	K80–K82	574-575	1,725	1,803	0.9567	0.0041	0.4	0.9450	0.9685
Nephritis, nephrotic syndrome and nephrosis	N00-N07,N17-N19,N25-N27	580-589	24,939	20,242	1.2320	0.0000	0.0	1.2234	1.2407
Acute and rapidly progressive nephritic	100-107,117-117,123-1127	300-307	24,737	20,242	1.2320	0.0044	0.4	1.2234	1.2407
and nephrotic syndrome	N00-N01,N04	580–581	161	249	0.6466	0.0342	5.3	0.5796	0.7136
Chronic glomerulonephritis, nephritis and	100-101,104	560-561	101	247	0.0400	0.0342	0.0	0.3770	0.7130
nephropathy not specified as acute or chronic,									
and renal sclerosis unspecified	N02-N03,N05-N07,N26	582-583,587	468	1,213	0.3858	0.0144	3.7	0.3575	0.4141
Renal failure	N17-N19	584–586	24,290	18,758	1.2949	0.0050	0.4	1.2852	1.3047
Other disorders of kidney	N25,N27	588–589	24,290	22	0.9091	0.0050	9.5	0.7392	1.0790
Infections of kidney	N10–N12,N13.6,N15.1	590	731	726	1.0069	0.0307	1.4	0.7392	1.0790
Hyperplasia of prostate	N40	600	326	327	0.9969	0.0144	1.4	0.9658	1.0352
Inflammatory diseases of female pelvic organs	N70–N76	614–616	63	64	0.9909	0.0139	4.2	0.9038	1.0280
Pregnancy, childbirth and the puerperium	000-099	630–676	*	*	0.9044	0.0410	4.Z *	0.9040	1.0040
	000-007	630-639	*	*	*	*	*	*	*
Pregnancy with abortive outcome Other complications of pregnancy, childbirth	000-007	030-039							
and the puerperium	010-099	640–676	*	*	*	*	*	*	*
Certain conditions originating in the perinatal period	P00-P96	760-771.2,771.4-779	10,184	9,555	1.0658	0.0033	0.3	1.0593	1.0724
Congenital malformations, deformations	F 00-F 70	700-771.2,771.4-779	10,104	7,000	1.0050	0.0033	0.3	1.0373	1.0724
and chromosomal abnormalities	Q00-Q99	740–759	5,950	7,025	0.8470	0.0055	0.6	0.8362	0.8577
Symptoms, signs and abnormal clinical and	000-077	740-737	5,750	7,023	0.0470	0.0055	0.0	0.0302	0.0377
laboratory findings, not elsewhere classified	R00-R99	780–799	16,940	17,732	0.9553	0.0034	0.4	0.9487	0.9620
All other diseases (Residual)	Residual	Residual	10,940	122,107	0.8996	0.0034	0.4	0.9487	0.9020
Accidents (unintentional injuries)	V01–X59,Y85–Y86	E800–E869,E880–E929	31,084	30,163	1.0305	0.0013	0.2	1.0278	1.0333
Transport accidents	V01-V99,Y85	E800–E809,E800–E929 E800–E848,E929.0,E929.1	17,547	17,586	0.9978	0.0014	0.1	0.9966	0.9990
Motor vehicle accidents	V02–V04,V09.0,V09.2,V12–V14,	E810-E825	17,347	17,500	0.7770	0.0000	0.1	0.7700	0.7770
	V02–V04,V09.0,V09.2,V12–V14, V19.0–V19.2,V19.4–V19.6,V20–V79,	L010-L023							
	V19.0-V19.2, V19.4-V19.0, V20-V19, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1,								
	V80.3-V80.5,V81.0-V81.1,V82.0-V82.1, V83-V86,V87.0-V87.8,V88.0-V88.8,								
	V83-V80,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2		16.632	17.051	0.9754	0.0006	0.1	0.9742	0.9766
	v07.U, V07.Z		10,032	100,11	0.9734	0.0000	U. I	0.7/42	0.9700

See footnotes at end of table.

	ourse of beath outcyof	ies and Comparability Ratios for Sele	Number of		Ectimated		Relative	05 n/	ercent
Course of dooth (Doord on the Touth Double)					Estimated	Chandrad			
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)	allocated a Tenth Revision	Ninth Revision	comparability ratio	Standard error	standard error	Lower	ice limits 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,		Tehan Kevision		100	enor			opper
	V89.9	E800-E807,E826-E829	*	*	*	*		×	
Water, air and space, and other and unspecified transport accidents and their sequelae			051	247	1 0115	0 0 0 0 0 0	0.1	0.0707	1 05 05
	V90–V99,Y85 W00–X59,Y86	E830–E848,E929.0,E929.1 E850–E869,E880–E928,E929.2–E929.9	351	347	1.0115	0.0209	2.1		1.0525
Nontransport accidents Falls	W00-X39,188 W00-W19	E880-E888	13,537 5,173	6,152	1.0763 0.8409	0.0035	0.3		1.0831 0.8505
	W32-W34			466					
Accidental discharge of firearms	W65-W74	E922 E910	493 283	284	1.0579	0.0127	1.2		1.0828
Accidental drowning and submersion		E890-E899		506	0.9965		1.3		
Accidental exposure to smoke, fire and flames	X00-X09		493	0UC *	0.9743	0.0089	0.9		0.9918
Accidental poisoning and exposure to noxious substance Other and unspecified nontransport	X40–X49 W20–W31,W35–W64,W75–W99,	E850-E869,E924.1 E900-E909,E911-E921,E923-E924.0,							
	x10-x39,x50-x59,y86		6,698	4 701	1 4100	0.0123	0.0	1 20 47	1 4 4 2 6
accidents and their sequelae		E924.8–E928,E929.2–E929.9 E950–E959	· · · · ·	4,721	1.4188 0.9962	0.0123	0.9		1.4428 0.9972
Intentional self-harm (suicide)	X60-X84,Y87.0		18,352			0.0005			
Intentional self-harm (suicide) by discharge of firearms	X72–X74	E955.0-E955.4	14,157	14,183	0.9982	0.0007	0.1	0.9908	0.9996
Intentional self-harm (suicide) by other and			4 105	4 3 3 0	0.000/	0 0022	0.2	0.0050	0.0047
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		0.9942
Assault (homicide)	X85–Y09,Y87.1 X93–X95	E960-E969 E965.0-E965.4	12,287	8,745	0.9983	0.0008	0.1		
Assault (homicide) by discharge of firearms Assault (homicide) by other and	A93-A93	E903.0-E903.4	8,718	0,743	0.9909	0.0006	0.1	0.9903	0.9985
	V0E V02 V04 V00 V07 1	E960-E964,E965.5-E969	2 640	2 642	1 0017	0.0024	0.2	0.9969	1 004 (
unspecified means and their sequelae	X85-X92,X96-Y09,Y87.1		3,569	3,563	1.0017	0.0024	0.2	0.9909	1.0064
Legal intervention Events of undetermined intent	Y35,Y89.0 Y10-Y34,Y87.2,Y89.9	E970–E978 E980–E989	*	*	*	*	*	*	
	Y22-Y24	E985.0-E985.4	*	*	*	*	*		
Discharge of firearms, undetermined intent	122-124	E985.0-E985.4							
Other and unspecified events of undetermined			*	*	*	*	*	*	
intent and their sequelae	Y10-Y21,Y25-Y34,Y87.2,Y89.9 Y36,Y89.1	E980-E984,E985.5-E989 E990-E999	*	*	*	*	*	*	
Operations of war and their sequelae Complications of medical and surgical care	Y40-Y84,Y88	E870-E879,E930-E949	*	*	*	*	*	*	*
	W32–W34,X72–X74,X93–X95,	E922,E955.0-E955.4,E965.0-E965.4,							
Injury by firearms ¹	Y22–Y24,Y35.0, *U01.4	E922,E935.0-E935.4,E905.0-E905.4,	23,355	23,418	0.9973	0.0006	0.1	0.9961	0.9985
			23,300	23,418	0.9973	0.0006	0.1	0.9901	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,	292,304,305.2–305.9,E850–E858, E950.0–E950.5,E962.0,E980.0–E980.5							
	F14.0–F14.5,F14.7–F14.9,F15.0–F15.5, F15.7–F15.9,F16.0–F16.5,F16.7–F16.9,		*Figure does not mee Category not applic	t standards of reliabilit able	y or precision.				
	F17.0,F17.3–F17.5,F17.7–F17.9, F18.0–F18.5,F18.7–F18.9,F19.0–F19.5,		2	in zero but less than 0 categories. The list of		drug-and-			
	F19.7-F19.9,G21.1,G24.0, G25.1,			es was expanded in th		aray and			
	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,		Source National vital	statistics reports vol 4	9 no 8 and vol 54 r	10 13.			
	R78.1,R78.3,R78.4,R78.5,X40–X44, X60–X64,X85,Y10–Y14		1,158	969	1.1950	0.0225	1 9	1.1509	1.2391
Alcohol-induced deaths ¹	E24.4, F10,G31.2,G62.1, G72.1,	291,303,305.0,357.5,425.5,535.3,	1,130	707	1.1750	0.0220	1.7	1.1007	1.2371
	I42.6, K29.2,K70,R78.0,X45,X65,Y15	571.0–571.3,790.3,E860	14,783	15,269	0.9682	0.0025	0.3	0.9633	0.9731