

Appendix A

Comparability Ratios for the Major Causes of Death in North Carolina Vital Statistics, Volume 2

The comparability ratio is an adjustment factor that is applied to the number of deaths coded to a cause-of-death category under the International Classification of Diseases, 9th Revision (ICD-9) to make the number more comparable to the number coded under the 10th Revision (ICD-10). In North Carolina, causes of death were coded using ICD-9 from 1979 through 1998 and using ICD-10 beginning in 1999. The comparability ratios indicate the extent of discontinuities in cause-of-death trends resulting from implementing ICD-10. A large sample of 1996 United States deaths were

classified by both ICD-9 and ICD-10 to develop the comparability ratios. The comparability ratio is the ratio of the number of deaths in the 1996 sample in an ICD-10 cause-of-death category to the number of deaths in the sample in the same category as coded under ICD-9. More detailed comparability ratios are available from the State Center for Health Statistics or in the publication of the National Center for Health Statistics titled *Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates* (National Vital Statistics Reports, Volume 49, Number 2; May 18, 2001).

Cause of Death	Comparability Ratio
Heart disease	0.99
Cerebrovascular disease	1.06
Cancer	1.01
Cancer of colon, rectum and anus	1.00
Cancer of trachea, bronchus and lung	0.98
Cancer of breast	1.01
Cancer of prostate	1.01
Human immunodeficiency virus (HIV) disease	1.14
Septicemia	1.19
Diabetes mellitus	1.01
Pneumonia and influenza	0.70
Chronic lower respiratory diseases	1.05
Chronic liver disease and cirrhosis	1.04
Nephritis, nephrotic syndrome and nephrosis	1.23
Unintentional motor vehicle injuries	0.85
All other unintentional injuries	1.08
Suicide	1.00
Homicide	1.00
Alzheimer's disease	1.55
Deaths from all causes	1.00

Appendix B

List of Selected Causes of Death

(used for Tables E and F)

Cause of Death	ICD-10 Codes*
Heart disease	I00-I09,I11,I13, I20-I51
Cerebrovascular disease	I60-I69
Atherosclerosis	I70
Cancer	C00-C97
Lip, oral cavity and pharynx	C00-C14
Stomach	C16
Colon, rectum and anus	C18-C21
Liver	C22
Pancreas	C25
Larynx	C32
Trachea, bronchus and lung	C33-C34
Malignant melanoma of skin	C43
Breast	C50
Cervix uteri	C53
Ovary	C56
Prostate	C61
Bladder	C67
Brain	C71
Non-Hodgkins lymphoma	C82-C85
Leukemia	C91-C95
Human immunodeficiency virus (HIV) disease	B20-B24
Septicemia	A40-A41
Diabetes mellitus	E10-E14
Pneumonia and influenza	J09-J18
Chronic lower respiratory diseases	J40-J47
Chronic liver disease and cirrhosis	K70,K73-K74
Nephritis, nephrotic syndrome and nephrosis	N00-N07,N17-N19,N25-N27
Motor vehicle injuries (unintentional)	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
All other unintentional injuries	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,V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99, W00-X59,Y85,Y86
Suicide	X60-X84,Y87.0
Homicide	X85-Y09,Y87.1
Alzheimer's disease	G30

* International Classification of Diseases, 10th Revision.

Appendix C

List of 51 Selected Causes of Death*

(used for Tables A through D)

Cause of Death	ICD-10 Codes**
Salmonella infections	A01-A02
Shigellosis and amebiasis	A03, A06
Tuberculosis	A16-A19
Whooping cough	A37
Scarlet fever and erysipelas	A38, A46
Meningococcal infection	A39
Septicemia	A40-A41
Syphilis	A50-A53
Acute poliomyelitis	A80
Arthropod-borne viral encephalitis	A83-A84, A85.2
Measles	B05
Viral hepatitis	B15-B19
Human immunodeficiency virus (HIV) disease	B20-B24
Malaria	B50-B54
Malignant neoplasms	C00-C97
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00-D48
Anemias	D50-D64
Diabetes mellitus	E10-E14
Nutritional deficiencies	E40-E64
Meningitis	G00, G03
Parkinson's disease	G20-G21
Alzheimer's disease	G30
Diseases of heart	I00-I09, I11, I13, I20-I51
Essential (primary) hypertension and hypertensive renal disease	I10, I12
Cerebrovascular diseases	I60-I69
Atherosclerosis	I70
Aortic aneurysm and dissection	I71
Influenza and pneumonia	J09-J18
Acute bronchitis and bronchiolitis	J20-J21
Chronic lower respiratory diseases	J40-J47
Pneumoconioses and chemical effects	J60-J66, J68
Pneumonitis due to solids and liquids	J69
Peptic ulcer	K25-K28
Diseases of appendix	K35-K38
Hernia	K40-K46
Chronic liver disease and cirrhosis	K70, K73-K74
Cholelithiasis and other disorders of gallbladder	K80-K82

Appendix C (continued)

Cause of Death	ICD-10 Codes**
Nephritis, nephrotic syndrome and nephrosis	N00-N07, N17-N19, N25-N27
Infections of kidney	N10-N12, N13.6, N15.1
Hyperplasia of prostate	N40
Inflammatory diseases of female pelvic organs	N70-N76
Pregnancy, childbirth and the puerperium	O00-O99
Certain conditions originating in the perinatal period	P00-P96
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Motor vehicle injuries	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
All other unintentional injuries	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, V87.9, V88.9, V89.1, V89.3, V89.9, V90-V99, W00-X59, Y85, Y86
Intentional self-harm (suicide)	X60-X84, Y87.0
Assault (homicide)	X85-Y09, Y87.1
Legal intervention	Y35, Y89.0
Operations of war and their sequelae	Y36, Y89.1
Complications of medical and surgical care	Y40-Y84, Y88

* List adapted from rankable causes in the list of 113 causes of death developed by the National Center for Health Statistics.

** International Classification of Diseases, 10th Revision.

Appendix D

List of 72 Selected Causes of Infant Death*

(used for Table A, Ages <1)

Cause of Death	ICD-10 Codes**
Diarrhea and gastroenteritis of presumed infectious origin	A09
Tuberculosis	A16-A19
Tetanus	A33, A35
Diphtheria	A36
Whooping cough	A37
Meningococcal infection	A39
Septicemia	A40-A41
Congenital syphilis	A50
Gonococcal infection	A54
Acute poliomyelitis	A80
Varicella (chickenpox)	B01
Measles	B05
Human immunodeficiency virus (HIV) disease	B20-B24
Mumps	B26
Candidiasis	B37
Malaria	B50-B54
Pneumocystosis	B59
Malignant neoplasms	C00-C97
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00-D48
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89
Short stature, not elsewhere classified	E34.3
Nutritional deficiencies	E40-E64
Cystic fibrosis	E84
Volume depletion, disorders of fluid, electrolyte and acid-base balance	E86-E87
Meningitis	G00, G03
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman)	G12.0
Infantile cerebral palsy	G80
Anoxic brain damage, not elsewhere classified	G93.1
Diseases of the ear and mastoid process	H60-H93
Diseases of the circulatory system	I00-I99
Acute upper respiratory infections	J00-J06
Influenza and pneumonia	J09-J18
Acute bronchitis and acute bronchiolitis	J20-J21
Bronchitis, chronic and unspecified	J40-J42
Asthma	J45-J46
Pneumonitis due to solids and liquids	J69
Gastritis, duodenitis and noninfective enteritis and colitis	K29, K50-K55
Hernia of abdominal cavity and intestinal obstruction without hernia	K40-K46, K56
Renal failure and other disorders of kidney	N17-N19, N25, N27

Appendix D (continued)

Cause of Death	ICD-10 Codes**
Newborn affected by maternal hypertensive disorders	P00.0
Newborn affected by other maternal conditions which may be unrelated to present pregnancy	P00.1-P00.9
Newborn affected by maternal complications of pregnancy	P01
Newborn affected by complications of placenta, cord and membranes	P02
Newborn affected by other complications of labor and delivery	P03
Newborn affected by noxious influences transmitted via placenta or breast milk	P04
Slow fetal growth and fetal malnutrition	P05
Disorders related to short gestation and low birth weight, not elsewhere classified	P07
Disorders related to long gestation and high birth weight	P08
Birth trauma	P10-P15
Intrauterine hypoxia and birth asphyxia	P20-P21
Respiratory distress of newborn	P22
Congenital pneumonia	P23
Neonatal aspiration syndromes	P24
Interstitial emphysema and related conditions originating in the perinatal period	P25
Pulmonary hemorrhage originating in the perinatal period	P26
Chronic respiratory disease originating in the perinatal period	P27
Atelectasis	P28.0-P28.1
Bacterial sepsis of newborn	P36
Omphalitis of newborn with or without mild hemorrhage	P38
Neonatal hemorrhage	P50-P52, P54
Hemorrhagic disease of newborn	P53
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice	P55-P59
Hematological disorders	P60-P61
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus	P70.0-P70.2
Necrotizing enterocolitis of newborn	P77
Hydrops fetalis not due to hemolytic disease	P83.2
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Sudden infant death syndrome	R95
Motor vehicle injuries	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
All other unintentional injuries	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, V87.9, V88.9, V89.1, V89.3, V89.9, V90-V99, W00-X59, Y85, Y86
Assault (homicide)	X85-Y09, Y87.1
Complications of medical and surgical care	Y40-Y84, Y88

* List adapted from rankable causes in the list of 130 causes of infant death developed by the National Center for Health Statistics.

** International Classification of Diseases, 10th Revision.