

Additional File 3: Description of criteria for groupings in the MDS classification system

The ICD-10 has over 16,000 codes available, and its replacement, ICD-11 will have a comparable number. These long lists are not suitable for verbal autopsy, where causes of death cannot be ascertained in this great of detail. Using an expert panel, we focused on combining the main-level 3-digit ICD codes into 85 broader categories using the following guidelines: those presenting overlapping signs and symptoms (i.e., meningitis and encephalitis, and prematurity and low birth weight); shared programmatic implications for disease management (i.e., vaccine preventable diseases); those where a common organ, physiological system or pathological process was involved (i.e., cardiovascular disease, cancer by site or point of origin), including non-specific R codes pertaining to an organ system; those commonly found in particular gender and age groups (i.e., maternal and perinatal causes); and finally, ill-defined diseases where a specific organ system could not be identified, or cases of senility and unclassified death. These 85 categories were further grouped into 18 of the major conditions, plus ill-defined deaths. Additional Table 2 shows the detailed ICD-10 codes used in the MDS classification system.

MDS adult cause of death classification (ages 15+ years)

Codex4	Codex2	Codex	Disease	ICD 10 range
				A00-A99,B00-B17,B19-B99,C46,D50-D53,D64,D84,E00-E02,E40-E64,F53,G00-G09,H10,H60,H65-H68,H70-H71,I30,I32-I33,I39-I41,J00-J22,J32,J36,J65,J85-J86,K02,K04-K05,K61,K65,K67,K81,L00-L04,L08,M00-M01,M60,M86,N10,N30,N34,N41,N49,N61,N70-N74,O00-O99,P00-P96,R04,R50,R75,R95-R96,U00,U04,X53-X54,Y95
			Communicable, maternal, perinatal and nutritional conditions	
1				
1A			Tuberculosis	A15-A19, J65, B90
	1A01		Tuberculosis	A15-A19, B90,J65
1B			HIV/AIDS	B20-B24,C46,D84 R75
	1B01		HIV/AIDS	B20-B24,C46,D84 R75
1C			Sexually-transmitted infections excl. HIV/AIDS	A51-A64, N70-N74
	1C01		Syphilis	A51-A53
	1C02		Other sexually transmitted infections (excl. HIV/AIDS)	A54-A64, N70-N74
1D			Diarrhoeal diseases	A00-A09
	1D01		Diarrhoeal diseases	A00-A09
1E			Selected vaccine preventable diseases	A33,A35-A37,A80,B01,B03,B05-B06,B26,B91
	1E01		Tetanus	A33,A35
	1E02		Measles	B01,B05
	1E03		Poliomyelitis	A80, B91
	1E04		Other vaccine preventable diseases	A36-A37,B03,B06,B26
1F			Meningitis/encephalitis	A39,A81-A89,G00-G09
	1F01		Meningitis/encephalitis	A39, A81,A83-A89, G00-G09
	1F02		Rabies	A82
1G			Hepatitis	B15-B17, B19
	1G01		Hepatitis	B15-B17,B19
1H			Malaria	B50-B54
	1H01		Malaria	B50-B54
1I			Selected tropical diseases	A30, A71,A90-A99,B55-B58, B60-B83,B92
	1I01		Protozoal diseases	B55-B58, B60-B64
	1I02		Leprosy	A30, B92
	1I03		Arthropod-borne viral fevers	A90-A99
	1I04		Trachoma	A71
	1I05		Helminthiasis	B65-B83
1J			Respiratory infections	H65-H68,H70-H71,J00-J22,J32,J36,J85-J86,P23,U04
	1J01		Acute respiratory infections	H65-H68,H70-H71,J00-J22,J32,J36,J85-J86,P23,U04
1K			Acute bacterial sepsis & severe Infections	A20-A28,A32,A38,A40-A49,A68,A70,A74-A79,B95-B96,H10,H60,I30,I32-I33,I39-I41,K02,K04-K05,K61,K65,K67,K81,L00-L04,L08,M00-M01,M60,M86,N10,N30,N34,N41,N49,N61,P36-P39
	1K01		Severe Systemic Infection	A20-A28,A32,A38,A40-A49,A68,A70,A74-A79,B95-B96,P36-P39,U80-U89
	1K02		Severe Localized Infection	H10,H60,I30,I32-I33,I39-I41,K02,K04-K05,K61,K65,K67,K81,L00-L04,L08,M00-M01,M60,M86,N10,N30,N34,N41,N49,N61
1L			Other infectious and parasitic diseases	A31,A50,A65-A67,A69,B00, B02,B04,B07-B09,B25,B27-B49,B59,B85-B89,B94,B97-B99,P35,U00,Y95
	1L01		Other infectious diseases	A31,A50,A65-A67,A69,B00,B02,B04,B07-B09,B25,B27-B49,B59,B85-B89,B94,B97-B99,P35,U00,Y95
1M			Maternal conditions	A34,O00-O99,A34,F53
	1M01		Abortion or miscarriage	O00-O08
	1M02		Hypertensive disorders of pregnancy	O11-O16
	1M03		Obstetric haemorrhage	O20,O43-O46,O67,O71-O72
	1M04		Maternal sepsis	O23,O41,O85-O86,O91,A34
	1M05		Other maternal conditions	O10, O21-O22,O24-O40,O42,O47-O66,O68-O70,O73-O84,O87-O90,O92-O99,F53
1N			Perinatal conditions	P00-P22, P24-P29,P50-P96,R95,R96**
	1N01		Low birth weight/preterm	P01,P05-P07,P22,P25-P28,P52,P61,P77
	1N02		Birth asphyxia and birth trauma	P02-P03, P10-P15, P20-P21,P24,P50,P90-P91
	1N03		Other perinatal conditions	P00, P04, P08,P29, P51,P53-P60,P70-P76,P78-P83,P92-P94, P96,R95,R96** (** includes sudden infant death : R96 < 1 year)
1O			Nutritional deficiencies	D50-D53,D64,E00-E02, E40-E46,E50-E64,X53-X54
	1O01		Protein-energy malnutrition	E40-E46,X53-X54
	1O02		Iron, vitamin deficiencies and nutritional anaemias	D50-D53,D64,E00-E02,E50-E64
1P			Fever of unknown origin	R50
	1P01		Fever of unknown origin	R50

B18,C00-C45,C47-C97,D00-D48,D55-D63,D65-D83,D86-D89,E03-E35,E65-E90,F00-F52,F54-F99,G10-G99,H00-H06,H11-H59,H61-H62,H69,H72-H95,I00-I28,I31,I34-I38,I42-I99,J30-J31,J33-J35,J37-J64,J66-J84,J90-J99,K00-K01,K03,K06-K60,K62-K63,K66,K70-K80,K82-K93,L05,L10-L99,M02-M54,M61-M85,M87-M99,N00-N08,N11-N29,N31-N33,N35-N40,N42-N48,N50-N60,N62-N64,N75-N99,Q00-Q99,R00-R01,R03,R05-R06,R10-R23,R26-R49,R55-R56,R59,R63,R70-R74,R76-R77,R80-R82,R84-R87,R90-R91,R96**,X45,Y15,Y90-Y91

2 Noncommunicable diseases

2A	Neoplasms	C00-C45,C47-C97,D00-D48,N60,N62-N64,N87,R59
2A01	Upper aerodigestive	C00-C15,C30-C32,D10-D11
2A02	Stomach	C16
2A03	Colon, rectum and small intestine	C17-C21,D12
2A04	Liver	C22
2A05	Other digestive	C23-C26,C48,D00-D01,D13,D37
2A06	Lung & airway cancers	C33-C34,C39,D02,D14
2A07	Breast cancer	C50,D05,D24,N60, N62-N64
2A08	Cervix & Uterus cancers	C53-C55,D06,N87
2A09	Other female genital cancer	C51-C52,C56-C58,D25-D28,D39
2A10	Male genital cancers	C60-C63,D29,D40
2A11	Urinary	C64-C68, D30,D41
2A12	Brain and eye	C69-C72,D31-D33,D42-D43
2A13	Leukemias, lymphomas and oth. hemotopoitic malignancie	C81-C96,D45-D47
2A14	Other neoplasms	C37-C38,C40-45,C47,C49,C73-C75,C77-C79,C97,D03-D04,D07-D09,D15-D23,D34-D36,D38,D44,R59
2A15	Cancer with unspecified sites	C76,C80,D48
2B	Diabetes mellitus	E10-E14
2B01	Diabetes mellitus	E10-E14
2C	Endocrine and immune disorders	D55-D63,D65-D83,D86-D89,E03-E07,E15-E16,E20-E35,E65-E90,R70-R74,R76-R77,R81
2C01	Endocrine and immune disorders	D55-D63, D65-D83, D86-D89, E03-E07, E15-E16, E20-E35, E65-E90,R70-R74,R76-R77,R81
2D	Neuro-psychiatric conditions	F00-F09,F11-F52,F54-F99, G10-G44,G47-G80,G90-G99,R26-R29,R40-R49,R56,R90
2D01	Epilepsy	G40-G41,R56
2D02	Other neuropsychiatric disorders	F00-F09,F11-F39,F40-F52,F54-F99,G10-G37,G43-G44,G47-G73, G80,G90-G99,R26-R29,R40-R49,R90
2F	Skin, Musculoskeletal, Senses Organ, Oral disorders	H00-H06,H11-H59,H61-H62,H69,H72-H95,K00-K01,K03,K06-K14,L05,L10-L99,M02-M54,M61-M85,M87-M99,R20-R23
2F01	Skin diseases	L05,L10-L99,R20-R23
2F02	Musculoskeletal disorders	M02-M54,M61-M85,M87-M99
2F03	Sense organ disorders	H00-H06,H11-H59,H61-H62,H69,H72-H95
2F04	Oral conditions	K00-K01,K03,K06-K14
2G	Cardiovascular diseases	G45-G46,G81-G83,I00-I28,I31,I34-I84,I86-I99,R00-R01,R03,R55,R96**
2G01	Rheumatic heart disease	I00-I09,I38
2G02	Hypertensive heart diseases	I10-I15
2G03	Ischaemic heart diseases	I20-I25,I44,I46,I70,R55,R96**
2G04	Cerebrovascular disease	I60-I69,G45-G46,G81-G83
2G05	Heart failure	I50
2G06	Other cardiovascular diseases	I26-I28,I31,I34-I37,I42-I43,I45,I47-I49,I51-I52,I71-I84,I86-I99,R00-R01,R03
2H	Chronic Respiratory diseases	J30-J31,J33-J35,J37-J64,J66-J84,J90-J99,R04-R06,R84,R91
2H01	Asthma and Chronic obstructive pulmonary disease	J40-J47,J63,J93
2H02	Other chronic respiratory diseases	J30-J31,J33-J35,J37-J39,J60-J62,J64,J66-J84,J90-J92,J94-J99,R04-R06,R84,R91
2J	Digestive diseases	B18,F10,I85,K20-K60,K62-K63,K66,K70-K80,K82-K93,R10-R19,R63,R85,X45,Y15,Y90,Y91
2J01	Gastro-oesophageal	K20-K23,K25-K31,I85,R12,R13
2J02	Lliver and alcohol related diseases	B18,F10,K70-K77,R16-R18,X45,Y15,Y90-Y91
2J03	Other digestive diseases	K35-K38, K40-K60,K62-K63,K66,K80,K82-K93,R10-R11,R14-R15,R19,R63,R85
2K	Genito-urinary diseases	N00-N08,N11-N29,N31-N33,N35-N40,N42-N48,N50-N51,N75-N86,N88-N99,R30-R39,R80,R82,R86,R87
2K01	Nephritis and nephrosis	N00-N08,N11-N19
2K02	Other genitourinary system diseases	N20-N29,N31-N33,N35-N40,N42-N48,N50-N51, N75-N86,N88-N99,R30-R39,R80,R82,R86,R87
2L	Congenital anomalies	Q00-Q99
2L01	Congenital anomalies	Q00-Q99

3	Injuries	V01-V99,W00-W99,X00-X44,X46-X52,X57-Y14,Y16-Y36,Y40-Y89,Y96-Y98
3A	Unintentional injuries	V01-V99,W00-W99,X00-X44,X46-X52, X57-X59,Y40-Y86,Y88-Y89
3A01	Road traffic accidents	V01-V04,V06-V80, V82--V83,V86-V89,V99,Y85
3A02	Other transport accidents	V05,V81,V84-V85,V90-V98
3A03	Poisonings	X40-X44,X46-X49
3A04	Falls	W00-W19
3A05	Fires	X00-X09
3A06	Drownings	W65-W74
3A07	Venomous snakes, animals and plants	X20-X29,W57,W60
3A08	Other unintentional injuries	W20-W56,W58-W59,W64,W75-W99, X10-X19,X30-X39,X50-X52,X57-X59,Y40-Y84,Y86,Y88-Y89
3B	Intentional injuries	X60-Y09,Y35-Y36,Y87
3B01	Self-inflicted injuries (suicide)	X60-X84
3B02	Interpersonal violence and other intentional injuries	X85-Y09,Y35-Y36,Y87
3C	Undetermined Intent	Y10-Y14,Y16-Y34,Y96-Y98
3C01	Undetermined Intent	Y10-Y14,Y16-Y34,Y96-Y98
3D	Injury and poisoning -* MDS not implemented this catagory	Injury and poisoning -* MDS instruction given Not to code this catagory
3D01	Injury and poisoning -* MDS instruction given	S00-T98
4	Symptoms, signs and Ill-defined conditions	B18,F10,I85,K20-K60,K62-K63,K66,K70-K80,K82-K93,R11-R19,R63,R85,X45,Y15,Y90,Y91
4A	Ill defined or cause unknown	R02,R07-R09,R25,R51-R54,R57-R58,R60-R62,R64-R69,R78-R79,R83,R89,R92-R94,R96**,R98-R99
4A01	Senility	R54
4A02	Other Ill-defined and abnormal findings	R02,R07-R09,R25,R51-R53,R57,R58,R60-R62,R64-R69,R78-R79,R83,R89,R92-R94,R96**,R98
4A03	Unspecified deaths	R99
5	Factors influencing health status and contact with health services	Z00-Z99
5A	Factors influencing health status and contact with health services (not used in MDS)	Z00-Z99
5A01	Factors influencing health status	Z00-Z99

MDS child cause of death classification (ages 1-59 months)

CCodex4	CCodex2	CCodex	Disease	ICD 10 range
1			Communicable, perinatal and nutritional conditions	
			Early childhood infections	A20-A28,A32,A37-A44,A46,A48-A49,A68-A70,A74-A75,A77-A79,A81-A89,B95-B96,G00-G09,H10,H60,H65-H68,H70-H71,I30,I32-I33,I39-I41,J00-J22,J32,J36,J85-J86,K65,K67,K81,L00-L04,L08,M00-M01,M60,M86,N10,N30,N34,N41,N49,N61,P23,P36,P38,U04
1A				
	1A01		Pneumonia	A37, H65-H68, H70-H71, J00-J22, J32, J36, J85-J86, P23, U04
	1A02		Acute bacterial sepsis and severe infections	A20-A28, A32, A38, A40-A44, A46, A48-A49, A68-A70, A74-A75, A77-A79, B95-B96, H10, H60, I30, I32-I33, I39-I41, K65, K67, K81, L00-L04, L08, M00-M01, M60, M86, N10, N30, N34, N41, N49, N61, P36, P38
	1A03		Meningitis/encephalitis	A39, A81-A89, G00-G09
			Other communicable diseases	A00-A09,A15-A19, A30-A31,A33-A36, A50-A67, A71,A80,A90-A99, B90, J65, B91,B01, B05,B20-B24, R75,B50-B54, B00, B02-B04, B06-B09, B15-B19, B25-B27, B30, B33-B49, B55--B60, B64-B83,B85-B89, B92, B94, B97, B99, K02, K04, K05, K61, N70-N74, P35, P37, P39, U00, Y95R50
1B				
	1B01		Diarrhoeal diseases	A00-A09
	1B02		Tuberculosis	A15-A19, B90, J65
	1B03		Tetanus	A33-A35
	1B04		Poliomyelitis	A80, B91
	1B05		Measles	B01, B05
	1B06		HIV/AIDS	B20-B24, R75
	1B07		Malaria	B50-B54
	1B08		Other infectious and parasitic diseases	A30-A31, A36, A50-A67, A71, A90-A99, B00, B02-B04, B06-B09, B15-B19, B25-B27, B30, B33-B49, B55--B60, B64-B83,B85-B89, B92, B94, B97, B99, K02, K04, K05, K61, N70-N74, P35, P37, P39, U00, Y95
	1B09		Fever of unknown origin	R50
1C			Perinatal conditions	P00-P03,P05,P07,P10-P15,P20-P22,P24-P29,P50,P52,P61,P77,P90-P91
	1C01		Prematurity & low birthweight	P01, P05, P07, P22, P25-P28, P52, P61, P77
	1C02		Birth asphyxia & birth trauma	P00, P02-P03, P10-P15, P20-P21, P24, P29, P50, P90-P91
1D			Other conditions	D50-D53,E00-E02,E40-E46,E50-E56,E59-E61,E63-E64,Q00-Q07,Q10-18,Q20-Q28,Q30-Q45,Q50-56,Q60-Q87,Q89-Q93,Q95-Q99,X53-X54
	1D01		Nutritional diseases	D50-D53, E00-E02, E40-E46, E50-E56, E59-E61, E63-E64, X53-X54
	1D02		Congenital anomalies	Q00-Q07, Q10-18, Q20-Q28, Q30-Q45, Q50-56, Q60-Q87, Q89-Q93, Q95-Q99
2			NonCommunicable diseases	
			Noncommunicable diseases	C00-C97,D00-D48,D55-D89,E03-E35,E65-E90,F00-F99,G10-G99,H00-H06,H11-H59,H61-H62,H69,H72-H95,I00-I28,I31,I34-I38,I42-I99,J30-J31,J33-J35,J37-J47,J60,J64,J66-J70,J80-J82,J84,J90-J99,K00-K01,K03,K06-K60,K62-K63,K70-K80,K82-K93,L05,L10-L99,M02-M54,M61-M85,M87-M99,N00-N08,N11-N29,N31-N33,N35-N40,N42-N48,N50-N51,N60,N62-N64,N75-N99,P04,P08,P51,P53-P60,P70-P72,P74-P76,P78,P80-P83,P92-P94,R00-R01,R03-R05,R06,R10-R23,R26,R27,R29-R49,R55-R56,R59,R63,R70-R74,R76-R77,R80-R82,R84-R87,R90-R91
2A				
	2A01		Noncommunicable diseases	C00-C97, D00-D48, D55-D89, E03-E35, E65-E90, F00-F99, G10-G99, H00-H06, H11-H59, H61-H62, H69, H72-H95, I00-I28, I31, I34-I38, I42-I99, J30-J31, J33-J35, J37-J47, J60, J64, J66-J70, J80-J82, J84, J90-J99, K00-K01, K03, K06-K60, K62-K63, K70-K80, K82-K93, L05, L10-L99, M02-M54, M61-M85, M87-M99, N00-N08, N11-N29, N31-N33, N35-N40, N42-N48, N50-N51, N60, N62-N64, N75-N99, P04, P08, P51, P53-P60, P70-P72, P74-P76, P78, P80-P83, P92-P94, R00-R01, R03-R05, R06, R10-R23, R26, R27, R29-R49, R55-R56, R59, R63, R70-R74, R76-R77, R80-R82, R84-R87, R90-R91
3			Injuries	
3A			Injuries	V01-V99, W00-W99, X00-X52, X57-X99, Y00-Y91, Y97-Y98
	3A01		Injuries ±	V01-V99, W00-W99, X00-X52, X57-X99, Y00-Y91, Y97-Y98
4			Ill-defined conditions	
4A			Ill defined or cause unknown	P96, R02, R07, R09, R25, R51-R54, R57-R58, R60-R62, R64, R68-R69, R78-R79, R83, R89, R92-R99
	4A01		Ill defined or cause unknown	P96, R02, R07, R09, R25, R51-R54, R57-R58, R60-R62, R64, R68-R69, R78-R79, R83, R89, R92-R99

± External causes of injuries exclude S00-S99, T00-T99

MDS neonatal cause of death classification (ages 0-28 days)

NCodex4	NCodex2	NCodex	Disease	ICD 10 range
1			Communicable, perinatal and nutritional conditions	
			Neonatal_Infections:	A20-A28, A32,A37-A44-A49,A68-A70,A74-A79,A81-A89,B95-B96,G00-G09,H10,H60,H65-H68,H70-H71,I30,I32-I33,I39-I41,J00-J22,J32,J36,J85-J86,K65,K67,K81,L00-L04,L08,M00-M01,M60,M86,N10,N30,N34,N41,N49,N61,P23,P35-P39,U04
1A				
	1A01		Neonatal Pneumonia	A37, H65-H68, H70, H71, J00-J22, J32, J36, J85, J86, P23, U04
	1A02		Sepsis	A20-A28, A32, A38, A40-A44, A46, A48, A49, A68-A70, A74, A75, A77-A79, B95, B96, H10, H60, I30, I32-I33, I39-I41, K65, K67, K81, L00-L04,L08, M00-M01, M60, M86, N10, N30, N34, N41, N49, N61, P35-P39
	1A03		Meningitis/encephalitis	A39, A81-A89, G00-G09
			Other communicable diseases	A00-A09,A15-A19,A30-A31,A33-A36,A50-A67,A71,A80,A90-A99,B00-B09,B15-B27,B30,B33-B60,B64-B83,B85-B92,B94,B97,B99,J65,K04-K05,K61,N70-N74,R50,R75,U00,Y95
1B				
	1B01		Diarrhoeal diseases	A00-A09
	1B02		Tetanus	A33-A35
	1B03		Poliomyelitis	A80, B91
	1B04		Measles	B01, B05
	1B05		Malaria	B50-B54
	1B06		Other infectious and parasitic diseases	A15-A19, A30-A31, A36, A50-A67, A71, A90-A99, B00, B02-B04, B06-B09, B15-B27, B30, B33-B49, B55--B60, B64-B83,B85-B90, B92, B94, B97, B99, J65, K04, K05, K61, N70-N74, R75, U00, Y95
	1B07		Fever of unknown origin	R50
1C			Perinatal conditions	P00-P03,P05,P07,P10-P15,P20-P22,P24-P29,P50,P52,P61,P77,P90-P91,R04
	1C01		Prematurity & low birthweight	P01, P05, P07, P22, P25-P28, P52, P61, P77, R04
	1C02		Birth asphyxia & birth trauma	P00, P02, P03, P10-P15, P20, P21, P24, P29, P50, P90, P91
1D			Other perinatal conditions	D50-D53,E00-E02,E40-E46,E50-E56,E59-E61,E63-E64,G10-G99,Q00-Q99,X53-X54
	1D01		Congenital anomalies	G10-G99, Q00-Q99
	1D02		Nutritional diseases	D50-D53, E00-E02, E40-E46, E50-E56, E59-E61, E63, E64, X53-X54
2			NnCommunicable diseases	
			Noncommunicable diseases	C00-C97,D00-D48,D55-D89,E03-E35,E65-E90,F00-F99,H00-H06,H11-H59,H61-H62,H69,H72-H95,I00-I28,I31,I34-I38,I42-I99,J30-J31,J33-J35,J37-J47,J60,J64,J66-J70,J80-J82,J84,J90-J99,K00-K03,K06-K60,K62-K63,K70-K80,K82-K93,L05,L10-L99,M02-M54,M61-M85,M87-M99,N00-N08,N11-N29,N31-N33,N35-N40,N42-N48,N50-N51,N60,N62-N64,N75-N99,P04,P08,P51,P53-P60,P70-P72,P74-P76,P78,P80-P83,P92-P94,R00-R01,R03,R05-R06,R10-R23,R26-R27,R29-R36,R39-R49,R55-R56,R59,R63,R70-R74,R76-R77,R80-R82,R84-R87,R90-R91
2A				
	2A01		Noncommunicable diseases	C00-C97, D00-D48, D55-D89, E03-E35, E65-E90, F00-F99, H00-H06, H11-H59, H61-H62, H69, H72-H95, I00-I28, I31, I34-I38, I42-I99, J30, J31, J33-J35, J37-J47, J60, J64, J66-J70, J80-J82, J84, J90-J99, K00-K03, K06-K60, K62-K63, K70-K80, K82-K93, L05, L10-L99, M02-M54, M61-M85, M87-M99, N00-N08, N11-N29, N31-N33, N35-N40, N42-N48, N50-N51, N60, N62-N64, N75-N99, P04, P08, P51, P53-P60, P70-P72, P74-P76, P78, P80-P83, P92-P94, R00, R01, R03, R05, R06, R10-R23,R26, R27, R29-R36, R39-R49, R55, R56, R59, R63, R70-R74, R76-R77, R80-R82, R84-R87, R90, R91
3			Injuries	
3A			Injuries	S00-S99,T00-T98,V01-V99,W00-W99,X00-X52,X57-X99,Y00-Y91,Y97-Y98
	3A01		Injuries	S00-S99, T00-T98, V01-V99, W00-W99, X00-X52, X57-X99, Y00-Y91, Y97-Y98
4			Ill-defined conditions	
4A			Ill defined or cause unknown	P96,R02,R07,R09,R25,R51-R54,R57-R58,R60-R62,R64,R68,R69,R78,R79,R83,R89,R92-R99
	4A01		Ill defined or cause unknown	P96, R02, R07, R09,R25, R51-R54, R57-R58, R60-R62, R64, R68, R69, R78, R79, R83, R89, R92-R99

GBD cause of death classification

	GBD2010_Name	GBD2010_ICD10 Code
	Communicable, maternal, neonatal and nutritional disorders	A00,A01,A02-A04,A06-A09,A15-A19,A20-A28,A30,A31-A32,A33-A35,A36,A37,A38,A39,A42-A49(exceptA48.0,A48.3,A49.9),A50-A58,A59**,A60**,A63**,A65-A70(exceptA68),A71**,A74(exceptA74.0),A74.0**,A80,A81,A82,A83-A86,A87,A88-A89,A90-A91,A95,A99,B01-B02,B03,B04,B05,B06,B15,B16,B17.0,B17.1,B17.2,B20-B24,B25,B26,B27-B49(exceptB35-B36),B50-B54,B55,B56,B57,B58-64,B65,B66,B67,B69,B73,B74(exceptB74.3,B74.4,B74.8,B74.9),B76,B90,B92,B94.0**,B94.1,C46-C469,D50,D51-D53,D64.9,D84.9,E00-E02,E40-E46,E50,E51-E63.9,E64.0,64.1,E64.2-E64.3,G00.0,G00.1,G00.2-G03.9,G04,H65-H68,H70,J00-J06,J09-J11,J12(exceptJ12.1),J12.1,J13,J14,J15-J22,J85,N70-N73.9,O00-O99,P00,P01.0,P01.1,P01.2-P01.6,P01.7-P01.9,P02-P03,P04,P05,P07,P08.0-P08.2,P10-P15,P20-P21,P22,P23,P24,25-P28,P29,P35.0,P35.1,P35.2,P35.3,P35.8,P35.9,P36,P37.0,P37.2,P37.3,P37.4,P37.5-P37.9,P38-P39,P50-P74(exceptP61.2,P52,P52,P61.2,P70,P70),P76,P77,P78-P83,P90-P91,P92-P94,P96(exceptP96.9)
A	HIV/AIDS and tuberculosis	A15-A19, B90, P37.0, B20-B24, C46-C469, D84.9
A.1.1	Tuberculosis	A15-A19, B90, P37.0
A.1.2	HIV/AIDS	B20-B24, C46-C469, D84.9
A.1.2.1	HIV disease resulting in mycobacterial infection	B20.0
A.1.2.2	HIV disease resulting in other specified or unspecified diseases	B20-B24(except B20.0), C46-C469, D84.9
	Diarrhea, lower respiratory infections, meningitis, and other common infectious diseases	A00, A02-A04, A06-A09, A01, J09-J11, J13, J14, J12.1, J12 (except J12.1), J15-J22, J85, P23, J00-J06, H65-H68, H70, G00.1, G00.0, A39, A87, G00.2-G03.9, A83-A86, B94.1, G04, A36, A37, A33-A35, B05, B01-B02, P35.8
A.2	Diarrheal diseases	A00, A02-A04, A06-A09
A.2.1	Cholera	A00
A.2.1.1	Other salmonella infections	A02
A.2.1.2	Shigellosis	A03
A.2.1.3	Enteropathogenic E coli infection	A04.0
A.2.1.4	Enterotoxigenic E coli infection	A04.1
A.2.1.5	Campylobacter enteritis	A04.5
A.2.1.6	Amoebiasis	A06
A.2.1.7	Cryptosporidiosis	A07.2
A.2.1.8	Rotaviral enteritis	A08.0
A.2.1.9	Other diarrheal diseases	A04 (except A04.0, A04.1, A04.5), A07-A09 (except A07.2, A08.0), A05
A.2.1.10	Typhoid and paratyphoid fevers	A01
A.2.2	Lower respiratory infections	J09-J22, J85, P23
A.2.3	Influenza	J09-J11
A.2.3.1	Pneumococcal pneumonia	J13
A.2.3.2	H influenza type B pneumonia	J14
A.2.3.3	Respiratory syncytial virus pneumonia	J12.1
A.2.3.4	Other lower respiratory infections	J12 (except J12.1), J15-J22, J85, P23
A.2.3.5	Upper respiratory infections	J00-J06
A.2.4	Otitis media	H65-H68, H70
A.2.5	Meningitis	G00.1, G00.0, A39, A87, G00.2-G03.9
A.2.6	Pneumococcal meningitis	G00.1
A.2.6.1	H influenza type B meningitis	G00.0
A.2.6.2	Meningococcal infection	A39
A.2.6.3	Other meningitis	A87, G00.2-G03.9
A.2.6.4	Encephalitis	A83-A86, B94.1, G04
A.2.7	Diphtheria	A36
A.2.8	Whooping cough	A37
A.2.9	Tetanus	A33-A35
A.2.10	Measles	B05
A.2.11	Varicella	B01-B02, P35.8
A.2.12	Neglected tropical diseases and malaria	B50-B54, P37.3, P37.4, B57, B55, B56, B65, B69, B67, B74 (except B74.3, B74.4, B74.8, B74.9)B73, A71**, A74.0**, B94.0**A90-A91, A95, A82, B76, B66
A.3	Malaria	B50-B54, P37.3, P37.4
A.3.1	Chagas disease	B57
A.3.2	Leishmaniasis	B55
A.3.3	African trypanosomiasis	B56
A.3.4	Schistosomiasis	B65
A.3.5	Cysticercosis	B69
A.3.6	Echinococcosis	B67
A.3.7	Lymphatic filariasis	B74 (except B74.3, B74.4, B74.8, B74.9)
A.3.8	Onchocerciasis	B73
A.3.9	Trachoma	A71**, A74.0**, B94.0**
A.3.10	Dengue	A90-A91
A.3.11	Yellow fever	A95
A.3.12	Rabies	A82
A.3.13	Intestinal nematode infections	B77, B79, B76, B68, B70-B71, B78, B80-B81
A.3.14	Food-borne trematodiases	B66
A.3.15		

A.3.16	Other neglected tropical diseases	A68, A69.2, A75-A79, A92-A94, A96, A98, B58- B64, B72, B74.3-B74.9, B83, P37.1, B70-B71, B78, B80-B81
A.4	Maternal disorders	O00-O99
A.4.1	Maternal hemorrhage	O20, O44-O46, O67, O72
A.4.2	Maternal sepsis	O85-O86
A.4.3	Hypertensive disorders of pregnancy	O10-O16
A.4.4	Obstructed labor	O64-O66
A.4.5	Abortion	O00-O08
A.4.6	Other maternal disorders	O21-O43, O47-O63, O68-O71, O73-O84, O87-O92, O94- O99
A.5	Neonatal disorders	P01.0, P01.1, P07, P22, P25-P28, P61.2, P77, P52, P00, P01.7-P01.9 , P02-P03 , P08.0-P08.2, P10-P15, P20-P21, P24, P70, P90-P91, P36, P38-P39, P01.2-P01.6, P04, P05, P29, P50-P74(except P61.2, P52, P70), P76, P78-P83, P92- P94, P96(except P96.9)
A.5.1	Preterm birth complications	P01.0, P01.1, P07, P22, P25-P28, P61.2, P77, P52
A.5.2	Neonatal encephalopathy (birth asphyxia and birth trauma)	P00, P01.7-P01.9 P02-P03 , P08.0-P08.2, P10-P15, P20-P21, P24, P70, P90-P91
A.5.3	Sepsis and other infectious disorders of the newborn baby	P36, P38-P39
A.5.4	Other neonatal disorders	P01.2-P01.6, P04, P05, P29, P50-P74(except P61.2, P52, P70), P76, P78-P83, P92-P94, P96(except P96.9)
A.6	Nutritional deficiencies	D50-D53, D64.9, E00-E02, E40-E46, E51-E63.9, E64.0, E64.1, E64.2-E64.3, E50
A.6.1	Protein-energy malnutrition	E40-E46, E64.0
A.6.2	Iodine deficiency	E00-E02
A.6.3	Vitamin A deficiency	E50, E64.1
A.6.4	Iron-deficiency anemia	D50, D64.9
A.6.5	Other nutritional deficiencies	D51-D53, E51-E63.9, E64.2-E64.3
A.7	Other communicable, maternal, neonatal and nutritional disorders	A20-A28, A30, A31- A32, A38, A42-A49 (except A48.0, A48.3, A49.9), A50-A58, A59**, A60**, A63**B15, A65- A70(except A68), A74 (except A74.0), A80, A81, A88-A89, A99, B03, B04, B06, B16, B17.0, B17.1, B17.2, B25, B26, B27-B49(except B35-B36), B58-B64, B91, B92, N70-N73.9, P35.0, P35.1, P35.2, P35.3, P35.3, P35.8, P35.9, P37.2, P37.5-P37.9
A.7.1	Sexually transmitted diseases excluding HIV	N70-N73.9, A50-A58, A59**, A60**, A63**
A.7.1.1	Syphilis	A50-A53
A.7.1.2	Sexually transmitted chlamydial diseases	A55-A56
A.7.1.3	Gonococcal infection	A54
A.7.1.4	Trichomoniasis	A59**
A.7.1.5	Other sexually transmitted diseases	A57-A58, A60**, A63**
A.7.2	Hepatitis	B15, B16, B17.0, P35.3, P35.3, B17.1, B17.2
A.7.2.1	Acute hepatitis A	B15
A.7.2.2	Acute hepatitis B	B16, B17.0, P35.3
A.7.2.3	Acute hepatitis C	B17.1
A.7.2.4	Acute hepatitis E	B17.2
A.7.3	Leprosy	A30, B92
A.7.4	Other infectious diseases	A20-A28, A31-A32, A38, A42-A49 (except A48.0, A48.3, A49.9), A65-A70(except A68), A74 (except A74.0), A81, A88-A89, A99, B04, B25, B27-B49(except B35-B36), B58-B64, P35.1, P35.2, P35.8, P35.9, P37.2, P37.5-P37.9, B03, B26, B06, P35.0, A80, B91
B	Non-communicable diseases	B07**-B09**, L70**, L63.0**, B18, B35**, B36.0**, B36.1**, B36.2**, B36.3**, B36.8**, B36.9** B00, B66, B85**, B87**, B88**, C09-C13, C15-C15.9, C17, C22, C23, C24, C25, C30-C31, C33-C34, C37-C41, C43, C45, C47-C49, C51-C52, C57-C60(except C57.9), C63(except C63.9), C68- C69, C74-C75 (except C75.9), C77-C79, C82-C85, C88- C90, C91-C95, C96, C97, D0.5-D05.9*, D00.1*C16, D00.2*, D00-D24, D01.0-D01.3*, D01.4*, D01.5*, D02.0*, D02.1-D02.2*, D03*, D04*C56, D06*C54, D07.0, D07.1-D07.4*, D07.5*, D09.0*, D09.1-D09.3*, D25, D26- D44.2, D37.1*, D37.2*, D37.3- D37.5*C00-C08, D37.6*C32, D37.7*, D38.0*, D38.1*C50, D38.2- D38.5*, D39.0*C61, D39.1*C62, D39.2-D39.7*, D40.0*C18-C21, D40.1*C64- C66, D40.7*, D41.0-D41.2*C67, D41.4*C70-C72, D41.7*, D42- D43.9*, D44.0*C81, D44.1-D44.2*, D44.3-D44.5*C73, D44.6-D44.9*, D44.6-D48.9**I01, D48.0-D48.4*, D48.5*C44, D48.6*C53, D48.7*, D55-D59, D60-D64(except D64.9), D66-D89 (except D84.9, D86.0, D86.0, D86.2, D86.2, D86.9), D86.9, E03-E07, E10.2, E11.2, E11.2, E12.2, E12.2, E13.2), E13.2, E15-E34, E28.2, E65-E67, E70-E85 (except E85.3, E85.4, E85.8, E85.9), E88 (except E88.9), E89-E96, F00-F03, F04-F09, F10, F11, F12, F13, F14, F15, F16, F17, F18-F19, F20-F29, F32**-F33**, F34.1**F30**-F31**F40**- F42**, F34-F39 (except F34.1), F43**-F44**F50, F45-F48**, F51-F53**, F54-F59, F60-F69**, F70**- F79**, F70**- F79**, F80-F84** (except F84.0, F84.5, F84.9), F88-F89**E10- E13 (except E10.2, F90**, F91**-F92**, F93-F98**, G06-G08, G10-G12, G20-G21, G23-G25, G30-G31, G35, G36-G37, G40-G41, G43**, G44**, G45, G47-G58**, G60-G72, G90-G91 (except G91.1, G91.3, G91.8), G93.2, G93.3, G93.4, G93.5, G93.6), G93-G98 (except G93.1, H00-H21**, H25- H26**, H27, H30-H35** (except H35.3), H35.3**, H40**, H43-H47**, H49-H52**, H53-H54**, H55- H61**, H68-H69**, H71-H83**, H90-H91**, H92- H93**, I00, I02.0, I02.9, I05-I09, I11, I12.0, I12.9, I13.1, I13.2, I13.9, I20-I25, I27-I28 (except I27.1), I30-I32(except I31.2, I31.3), I33, I34-I39, I40, I42, I47, I48, I60-I63 I65-I67, I69.0, I69.1, I69.2, I69.3, I70.2, I70.8, I71, I72, I73, I77-I80, I82-I84, I85, I85, I86- I98, J30-J39, J40-J44, J45-J46, J47, J60-J65, J66-J70(except J69), J82, J84, J92, J93.0, J93.1, J95, J98 (except J98.1, J98.2, J98.3, J98.9)B18, K00-K01**, K02**, K03-K04**, K05**, K06-K11**, K12-K13, K14**, K20-K22, K25-K27, K28, K29, K30-K31, K35-K37, K38, K40-K41, K50-K52, K55, K56, K57-K63, K66.8, K70, K70, K71.7, K71.7, K72.1-K72.9, K72.1-K72.9, K73- K74, K73-K74, K75.2-K75.9, K75.2-K75.9, K76.6- K76.7, K76.6-K76.7, K76.9, K76.9, K760-K765, K768, K77, K80-K83, K85- K86.9, K90-K92 (except K92.0, K92.1, K92.2, K92.9), L00, L01, L02, L03.0, L03.1**, L03.2- L03.9, L04**, L05.0, L05.9, L08, L10-L13, L28**, L29**, L30**, L40**-L41**, L42**-L44**, L50**-L89, L51, L52**-L53**, L55**-L60**, L63.1**, L63.8**, L63.9**, L64**-L68**, L71**-L75**, L80**-L85**, L87, L88, L90**-L92**, L93, L94-L95, L97, L98.0-L98.4**, M00-M02, M05-M06, M08, M10**, M11**, M12-M13, M15-M19**, M20-M25**, M30-M35, M40**, M41-M46 (except M46.9), M46.9, M47**, M48** (except M48.0, M48.0-M48.2**, M48.1, M48.2, M48.8**- M48.9**, M48.8, M48.9), M50-M54**, M60**, M61-M62, M65-M71**, M72, M75- M79**, M80-M85, M87-M94, M95-M99**, N00-N01, N02- N07, N10-N12, N13, N15.0, N15.1-N15.9, N20-N28, N30-N32, N34, N35-N36, N39.0, N39.1-N39.9, N40**, N41-N45, N46**, N47-N50, N80, N81, N94.3, N97**, Q00, Q01-Q02, Q03, Q04, Q05, Q06-Q18, Q20-Q28, Q30-Q34, Q35-Q37, Q38-Q45, Q50-Q89 (except Q89.9) L20**-L28**, Q90, Q91-Q99 (except Q99.9), R95, X45
B.1	Neoplasms	C15-C159, D00.1*C16, D00.2*, D37.1*, C22, D01.5*, D37.6*C32, D02.0*, D38.0*, C33-C34, D02.1-D02.2*, D38.1*C50, D0.5-D05.9*, D48.6*C53, D06*C54, D07.0, D39.0*C61, D07.5*, D40.0*C18-C21, D01.0-D01.3*, D37.3- D37.5*C00-C08, C11, C09-C10, C12-C13, C23, C24, C25, C43, D03*, D48.5*C44, D04*C56, D39.1*C62, D40.1*C64- C66, D41.0-D41.2*C67, D09.0, D41.4*C70-C72, D42- D43.9*, D44.3-D44.5*C73, D44.0*C81, C82-C85, C96, C88- C90, C91-C95, C17, C30-C31, C37-C41, C45, C47-C49, C51-C52, C57-C60(except C57.9), C68- C69, C74-C75 (except C75.9), C77-C79, C97, D01.4*, D07.1-D07.4*, D09.1-D09.3*, D37.2*, D37.7*, D38.2- D38.5*, D39.2-D39.7*, D40.7*, D41.7*, D44.1-D44.2*, D44.6-D44.9*, D48.0-D48.4*, D48.7*, D00-D24, D26- D44.2, D44.6-D48.9**
B.1.1	Esophageal cancer	C15-C159, D00.1*
B.1.2	Stomach cancer	C16, D00.2*, D37.1*
B.1.3	Liver cancer	C22, D01.5*, D37.6*

B.1.3.1	Liver cancer secondary to hepatitis B	
B.1.3.2	Liver cancer secondary to hepatitis C	
B.1.3.3	Liver cancer secondary to alcohol use	
B.1.3.4	Other liver cancer	
B.1.4	Larynx cancer	C32, D02.0*, D38.0*
B.1.5	Trachea, bronchus and lung cancers	C33-C34 , D02.1-D02.2*, D38.1*
B.1.6	Breast cancer	C50, D0.5-D05.9*, D48.6*
B.1.7	Cervical cancer	C53, D06*
B.1.8	Uterine cancer	C54, D07.0, D39.0*
B.1.9	Prostate cancer	C61, D07.5*, D40.0*
B.1.10	Colon and rectum cancers	C18-C21, D01.0-D01.3*, D37.3-D37.5*
B.1.11	Mouth cancer	C00-C08
B.1.12	Nasopharynx cancer	C11
B.1.13	Cancer of other part of pharynx and oropharynx	C09-C10, C12-C13
B.1.14	Gallbladder and biliary tract cancer	C23, C24
B.1.15	Pancreatic cancer	C25
B.1.16	Malignant melanoma of skin	C43, D03*, D48.5*
B.1.17	Non-melanoma skin cancer	C44, D04*
B.1.18	Ovarian cancer	C56, D39.1*
B.1.19	Testicular cancer	C62, D40.1*
B.1.20	Kidney and other urinary organ cancers	C64-C66, D41.0-D41.2*
B.1.21	Bladder cancer	C67, D09.0*, D41.4*
B.1.22	Brain and nervous system cancers	C70-C72, D42-D43.9*, D44.3-D44.5*
B.1.23	Thyroid cancer	C73, D44.0*
B.1.24	Hodgkin's disease	C81
B.1.25	Non-Hodgkin's lymphoma	C82-C85, C96
B.1.26	Multiple myeloma	C88-C90
B.1.27	Leukemia	C91-C95
B.1.28	Other neoplasms	C17, C30-C31, C37-C41, C45, C47-C49, C51-C52, C57- C60(except C57.9), C63(except C63.9), C68-C69, C74-C75 (except C75.9), C77-C79, C97, D00-D24, D01.4*, D07.1-D07.4*, D09.1-D09.3*, D26-D44.2, D37.2*, D37.7*, D38.2-D38.5*, D39.2- D39.7*, D40.7*, D41.7*, D44.1-D44.2*, D44.6- D48.9**, D44.6-D44.9*, D48.0-D48.4*, D48.7*
B.2	Cardiovascular and circulatory diseases	G45, I00, I01, I02.0, I02.9, I05-I09, I11, I20-I25, I27-I28 (except I27.1), I30-I32(except I31.2, I31.3), I33, I34-I39, I40, I42, I47, I48, I60-I63 I65-I67, I69.0, I69.1, I69.2, I69.3, I70.2, I70.8, I71, I72, I73, I77-I80, I82-I84, I86-I98
B.2.1	Rheumatic heart disease	I01, I02.0, I05-I09
B.2.2	Ischemic heart disease	I20-I25
B.2.3	Cerebrovascular disease	I60-I63 I65-I67, I69.0, I69.1, I69.2, I69.3
B.2.3.1	Ischemic stroke	I63, I65-I67(except I67.4), I69.3
B.2.3.2	Hemorrhagic and other non- ischemic stroke	I60-I62, I69.0-I69.2, I67.4
B.2.4	Hypertensive heart disease	I11
B.2.5	Cardiomyopathy and myocarditis	I42, I40
B.2.6	Atrial fibrillation and flutter	I48
B.2.7	Aortic aneurysm	I71
B.2.8	Peripheral vascular disease	I73, I70.2
B.2.9	Endocarditis	I33
B.2.10	Other cardiovascular and circulatory diseases	I00,I02.9,I27-I28 (except I27.1),I30-I32(except I31.2, I31.3), I34-I39, I47, I70.8, I72, I77-I80, I82-I84, I86-I98, G45
B.3	Chronic respiratory diseases	B18, D86.0, D86.2, D86.9, I85, J40-J44, J45-J46, J47J, J60-J65, J66-J70(except J69), J82, J84J30- J39, J92, J93.0, J93.1, J95, J98 (except J98.1, J98.2, J98.3, J98.9), K70, K71.7, K72.1-K72.9, K73-K74, K75.2-K75.9, K76.6-K76.7, K76.9
B.3.1	Chronic obstructive pulmonary disease	J40-J44, J47
B.3.2	Pneumoconiosis	J60-J65
B.3.3	Asthma	J45-J46
B.3.4	Interstitial lung disease and pulmonary sarcoidosis	D86.0, D86.2, D86.9, J84
B.3.5	Other chronic respiratory diseases	J30-J39, J66-J70(except J69), J82, J92, J93.0, J93.1, J95, J98 (except J98.1, J98.2, J98.3, J98.9)
B.4	Cirrhosis of the liver	B18, I85, K70, K71.7, K72.1-K72.9, K73-K74, K75.2-K75.9, K76.6-K76.7, K76.9
B.4.1	Cirrhosis of the liver secondary to hepatitis B	
B.4.2	Cirrhosis of the liver secondary to hepatitis C	
B.4.3	Cirrhosis of the liver secondary to alcohol use	
B.4.4	Other cirrhosis of the liver	
B.5	Digestive diseases (except cirrhosis)	K25-K27, K29, K35-K37, K56, K40-K41, K50-K52, K55, K80-K83, K85-K86.9, K00-K01**, K03-K04**, K06-K11**, K12-K13, K14**, K20-K22, K28, K30-K31, K38, K57-K63, K66.8, K760-K765, K768, K77, K90-K92 (except K92.0, K92.1, K92.2, K92.9)
B.5.1	Peptic ulcer disease	K25-K27
B.5.2	Gastritis and duodenitis	K29
B.5.3	Appendicitis	K35-K37
B.5.4	Paralytic ileus and intestinal obstruction without hernia	K56
B.5.5	Inguinal or femoral hernia	K40-K41
B.5.6	Noninfective inflammatory bowel disease	K50-K52
B.5.7	Vascular disorders of intestine	K55

B.5.8	Gall bladder and bile duct disease	K80-K83
B.5.9	Pancreatitis	K85-K86.9
B.5.10	Other digestive diseases	K00-K01**, K03-K04**, K06-K11**, K12-K13, K14**, K20-K22, K28, K30-K31, K38, K57-K63, K66.8, K760- K765, K768, K77, K90-K92 (except K92.0, K92.1, K92.2, K92.9)
B.6	Neurological disorders	F00-F03, G30-G31, G20-G21, G40-G41, G35, G43**, G44**, G06-G08, G10-G12, G23-G25, G36-G37, G47- G58**, G60-G72, G90-G91 (except G91.1, G91.3, G91.8), G93-G98 (except G93.1, G93.2, G93.3, G93.4, G93.5, G93.6)
B.6.1	Alzheimer's disease and other dementias	F00-F03, G30-G31
B.6.2	Parkinson's disease	G20-G21
B.6.3	Epilepsy	G40-G41
B.6.4	Multiple sclerosis	G35
B.6.5	Migraine	G43**
B.6.6	Tension-type headache	G44**
B.6.7	Other neurological disorders	G06-G08, G10-G12, G23-G25, G36-G37, G47-G58**, G60- G72, G90-G91 (except G91.1, G91.3, G91.8), G93-G98 (except G93.1, G93.2, G93.3, G93.4, G93.5, G93.6)
B.7	Mental and behavioral disorders	F20-F29, F10, X45, Q86.0, F11, F14, F15, F12, F13, F16, F18-F19, X41, X42,X49, F32**-F33**, F34.1**F30**- F31**, F40**-F42**, F43**-F44**F50, F90**, F91**-F92**, F70**-F79**, F70**-F79**, F04-F09, F17, F34-F39 (except F34.1), F45-F48**, F51-F53**, F54-F59, F60-F69**, F80- F84** (except F84.0, F84.5, F84.9), F93-F98**, F88-F89**
B.7.1	Schizophrenia	F20-F29
B.7.2	Alcohol use disorders	F10, X45, Q86.0
B.7.3	Drug use disorders	F11, F14, F15, F12, F13, F16, F18-F19, X41, X42, X49
B.7.3.1	Opioid use disorders	F11
B.7.3.2	Cocaine use disorders	F14
B.7.3.3	Amphetamine use disorders	F15
B.7.3.4	Cannabis use disorders	F12
B.7.3.5	Other drug use disorders	F13, F16, F18-F19
B.7.4	Unipolar depressive disorders	F32**-F33**, F34.1**
B.7.4.1	Major depressive disorder	F32**-F33**
B.7.4.2	Dysthymia	F34.1**
B.7.5	Bipolar affective disorder	F30**-F31**
B.7.6	Anxiety disorders	F40**-F42**, F43**-F44**
B.7.7	Eating disorders	F50
B.7.8	Pervasive development disorders	F84.0**, F84.5**
B.7.8.1	Autism	F84.0**
B.7.8.2	Asperger's syndrome	F84.5**
B.7.9	Childhood behavioral disorders	F90**, F91**-F92**, F70**-F79**
B.7.9.1	Attention-deficit hyperactivity disorder	F90**
B.7.9.2	Conduct disorder	F91**-F92**
B.7.10	Idiopathic intellectual disability	F70**-F79**
B.7.11	Other mental and behavioral disorders	F04-F09, F17, F34-F39 (except F34.1), F45-F48**, F51- F53**, F54-F59, F60-F69**, F80-F84** (except F84.0, F84.5, F84.9), F93-F98**, F88-F89**
B.8	Diabetes, urogenital, blood, and endocrine diseases	D55-D59, D60-D64(except D64.9), D66-D89 (except D84.9, D86.0, D86.2, D86.9), E03-E07, E10.2, E10-E13 (except E10.2, E11.2, E11.2, E12.2, E12.2, E13.2), E13.2, E15-E34, E28.2, E65-E67, E70-E85 (except E85.3, E85.4, E85.8, E85.9), E88 (except E88.9), E89-E96, I12.0, I12.9, I13.1, I13.2, I13.9, N00-N01, N02-N07, N10-N12, N13, N15.0, N15.1-N15.9, N20-N23, N24-N28, N30, N31-N32, N34, N35-N36, N39.0, N39.1-N39.9, N40**, N41-N45, N46**, N47-N50, N80, N81, N94.3, N97**
B.8.1	Diabetes mellitus	E10-E13 (except E10.2, E11.2, E12.2, E13.2)
B.8.2	Acute glomerulonephritis	N00-N01
B.8.3	Chronic kidney diseases	E10.2, E11.2, E12.2, E13.2, I12.0, I12.9, I13.1, I13.2, I13.9, N02-N07, N15.0
B.8.3.1	Chronic kidney disease due to diabetes mellitus	E10.2, E11.2, E12.2, E13.2, E14.2
B.8.3.2	Chronic kidney disease due to hypertension	I12.0, I12.9, I13.0, I13.1, I13.2, I13.9
B.8.3.3	Chronic kidney disease unspecified	N02-N07, N15.0
B.8.4	Urinary diseases and male infertility	N10-N12, N15.1-N15.9, N30, N34, N39.0,N20-N23, N40**, N46**, N13, N24-N28, N31-N32, N35-N36, N39.1-N39.9, N41-N45, N47-N50
B.8.4.1	Tubulointerstitial nephritis, pyelonephritis, and urinary tract infect	N10-N12, N15.1-N15.9, N30, N34, N39.0
B.8.4.2	Urolithiasis	N20-N23
B.8.4.3	Benign prostatic hyperplasia	N40**
B.8.4.4	Male infertility	N46**
B.8.4.5	Other urinary diseases	N13, N24-N28, N31-N32, N35-N36, N39.1-N39.9, N41- N45, N47-N50
B.8.5	Gynecological diseases	D25, E28.2, N97**, N80, N81, N94.3
B.8.5.1	Uterine fibroids	D25
B.8.5.2	Polycystic ovarian syndrome	E28.2
B.8.5.3	Female infertility	N97**
B.8.5.4	Endometriosis	N80
B.8.5.5	Genital prolapse	N81
B.8.5.6	Premenstrual syndrome	N94.3
B.8.5.7	Other gynecological diseases	N60**, N61-N64, N75-N76, N82-N83, N84**-N92 , N93- N94(Except N94.3), N98, N46**
B.8.6	Hemoglobinopathies and hemolytic anemias	D55-D59
B.8.6.1	Thalassemias	D56

B.8.6.2	Sickle cell disorders	D57
B.8.6.3	G6PD deficiency	D55
B.8.6.4	Other hemoglobinopathies and hemolytic anemias	D58-D64.8
B.8.7	Other endocrine, nutritional, blood, and immune disorders	D66-D89 (except D84.9, D86.0, D86.2, D86.9), E03-E07, E15-E34, E65-E67, E70-E85 (except E85.3, E85.4, E85.8, E85.9), E88 (except E88.9), E89-E96, D60-D64(except D64.9)
B.9	Musculoskeletal disorders	M05-M06, M15-M19**, M46.9, M47**, M48.0-M48.2**, M48.8**-M48.9**, M50-M54**, M10**, M00-M02, M08, M11**, M12-M13, M20-M25**, M30-M35,M40**, M41- M46 (except M46.9), M48** (except M48.0, M48.1, M48.2, M48.8, M48.9), M60**,M61-M62, M65-M71**, M72, M75- M79**, M80-M85, M87-M94 , M95-M99**
B.9.1	Rheumatoid arthritis	M05-M06
B.9.2	Osteoarthritis	M15-M19**
B.9.3	Low back and neck pain	M46.9, M47** , M48.0-M48.2**, M48.8**-M48.9**, M50- M54**
B.9.3.1	Low back pain	M46.9, M47** ,M48.0-M48.2** ,M48.8**-M48.9** , M51- M54**(except M53.1** ,M53.2**)
B.9.3.2	Neck pain	M50**, M53.1** ,M53.2**
B.9.4	Gout	M10**
B.9.5	Other musculoskeletal disorders	M00-M02, M08, M11** ,M12-M13, M20-M25**,M30- M35,M40** , M41-M46 (except M46.9), M48** (except M48.0, M48.1, M48.2, M48.8, M48.9), M60**, M61-M62, M65-M71** , M72, M75-M79** , M80-M85, M87-M94, M95- M99**
B.10.	Other non-communicable diseases	B00,B07**- B09**, B35**, B36.0**, B36.1**, B36.2**, B36.3**, B36.8**, B36.9**, B66, B85**, B87**, B88**, H00-H21**, H25- H26**, H27*, H30-H35** (except H35.3), H35.3**, H40**, H43-H47**, H49-H52**, H53-H54**, H55- H61**, H68-H69**, H71-H83**, H90-H91**, H92-H93**, K02**, K05**, L00, L01, L02, L03.0, L03.1**, L03.2-L03.9, L04**, L05.0, L05.9, L08, L10-L13, L20**-L28**,L28**, L29**, L30**, L40**-L41**, L42**-L44**, L50**, L51, L52**-L53**, L55**- L60**, L63.0**, L63.1**, L63.8**, L63.9**, L64**-L68**, L70**, L71**-L75**, L80**-L85**, L87, L88, L89, L90**-L92**, L93, L94-L95, L97, L98.0-L98.4**, Q00, Q01-Q02, Q03, Q04, Q05, Q06-Q18, Q20-Q28, Q30-Q34, Q35-Q37, Q38-Q45, Q50- Q89 (except Q89.9), Q90, Q91-Q99 (except Q99.9), R95
B.10.1	Congenital anomalies	Q00-Q99 (except Q89.9, Q99.9)
B.10.1.1.	Neural tube defects	Q00, Q01, Q05
B.10.1.2.	Congenital heart anomalies	Q20-Q28
B.10.1.3.	Cleft lip and cleft palate	Q35-Q37
B.10.1.5.	Down's syndrome	Q90
B.10.1.6.	Other chromosomal abnormalities	Q91-Q99 (except Q99.9)
B.10.1.7.	Other congenital anomalies	Q01-Q03, Q04, Q06-Q18, Q30-Q34, Q38-Q45, Q50-Q89 (except Q89.9)
B.10.2	Skin and subcutaneous diseases	B00,B07**-B09**,L70**, L63.0**, B35**, B36.0**, B36.1**, B36.2**, B36.3**, B36.8**, B36.9** , B66, B85**, B87**, B88**, L00, L01, L02, L03.0, L03.1**, L03.2-L03.9, L04**, L05.0, L05.9, L08, L10-L13, L20**-L28**, L28**, L29**, L30**, L40**-L41**, L42**-L44**, L50**-L89, L51, L52**-L53**, L55**-L60**, L63.1**, L63.8**, L63.9**, L64**-L68**, L71**-L75**, L80**-L85**, L87, L88, L90**-L92**, L93, L94-L95, L97, L98.0-L98.4**
B.10.2.1.	Eczema	L20**-L28**
B.10.2.2.	Psoriasis	L40**-L41**
B.10.2.3.	Cellulitis	L03.0, L03.1**, L03.2-L03.9
B.10.2.4.	Abscess, impetigo, and other bacterial skin diseases	L00, L01, L02, L04**, L08, L88, L97, L98.0-L98.4**
B.10.2.5.	Scabies	B66**
B.10.2.6.	Fungal skin diseases	B35**, B36.0**, B36.1**, B36.2**, B36.3**, B36.8**, B36.9**
B.10.2.7.	Viral skin diseases	B00, B07**-B09**
B.10.2.8.	Acne vulgaris	L70**
B.10.2.9.	Alopecia areata	L63.0**, L63.1**, L63.8**, L63.9**, L29**
B.10.2.10	Pruritus	L29**
B.10.2.11	Urticaria	L50**
B.10.2.12	Decubitus ulcer	L89
B.10.2.13	Other skin and subcutaneous diseases	B85**, B87**,B88**, L05.0, L05.9, L10-L13, L28**, L30**, L42**-L44**, L51, L52**-L53**, L55**-L60**, L64**-L68**, L71**-L75**, L80**-L85**, L87, L90**- L92**, L93, L94-L95
B.10.3	Sense organ diseases	H40**, H25-H26**, H35.3**,H49-H52**, H90-H91**, H30- H35** (except H35.3), H53-H54**, H00-H21**, H27*, H43- H47**, H55-H61**, H68-H69**, H71-H83**, H92-H93**
B.10.3.1.	Glaucoma	H40**
B.10.3.2.	Cataracts	H25-H26**
B.10.3.3.	Macular degeneration	H35.3**
B.10.3.4.	Refraction and accommodation disorders	H49-H52**
B.10.3.5.	Other hearing loss	H90-H91**
B.10.3.6.	Other vision loss	H30-H35** (except H35.3), H53-H54**
B.10.3.7.	Other sense organ diseases	H00-H21**, H27*, H43-H47**, H55-H61**, H68-H69** , H71-H83**, H92-H93**
B.10.4	Oral disorders	K02** , K05**
B.10.4.1.	Dental caries	K02**
B.10.4.2.	Periodontal disease	K05**
B.10.4.3.	Edentulism	No ICD code**
B.10.5	Sudden infant death syndrome	R95
C	Injuries	V01-V04, V06, V09, V10-V19, V20-V29, V30-V79, V80, V81, V82 V05, V83-V86, V87.2-V87.3, V88.2, V88.3, V90, V91, V92, V93-V98W00-W19, W21, W24-W31, W39, W44, W45- W46, W49-W52, W53-W64, W65-W74, W75-W99, X00-X19, X20-X29, X30-X39, X40, X43-X44 W32-W34, X46-X47, X48, X50-X58, X60-X67, X68, X69, X70, X71, X72- X74, X75, X76-X77, X78-X83, X85-X92, X93-X95, X96-X98, X99, Y00-Y08, Y35, Y36, Y40-Y84, Y85.0, Y88, Y89.0, Y89.1
C.1	Transport injuries	V01-V04, V06,V09, V10-V19, V20-V29, Y85.0, V30-V79, V87.2-V87.3, V80, V82, V05,V81, V83-V86, V88.2, V88.3 , V91, V93-V98
C.1.1	Road injury	V01-V04, V06, V09, V10-V19, V20-V29, Y85.0, V30-V79, V87.2-V87.3, V80, V82
C.1.1.1	Pedestrian injury by road vehicle	V01-V04, V06,V09
C.1.1.2	Pedal cycle vehicle	V10-V19

C.1.1.3	Motorized vehicle with two wheels	V20-V29
C.1.1.4	Motorized vehicle with three or more wheels	V30-V79, V87.2-V87.3
C.1.1.5	Road injury other	V80, V82
C.1.2	Other transport injury	V05,V81, V83-V86, V88.2, V88.3 , V91, V93-V98
C.2	Unintentional injuries other than transport injuries	V90, V92, W00-W19, W21,W24-W31,W32-W34, W39, W44, W45-W46,W53-W64, W49-W52,W65-W74,W75-W99, X00-X19, X20-X29,X40, X43-X44,X46-X47, X48, X50-X58,Y40-Y84,Y88
C.2.1	Falls	W00-W19
C.2.2	Drowning	V90, V92, W65-W74
C.2.3	Fire, heat and hot substances	X00-X19
C.2.4	Poisonings	X46-X47, X48, X40, X43-X44
C.2.5	Exposure to mechanical forces	W32-W34, W24-W31, W45-W46
C.2.5.1	Mechanical forces (firearm)	W32-W34
C.2.5.2	Mechanical forces (other)	W24-W31, W45-W46
C.2.6	Adverse effects of medical treatment	Y40-Y84, Y88
C.2.7	Animal contact	X20-X29, W53-W64
C.2.7.1	Animal contact (venomous)	X20-X29
C.2.7.2	Animal contact (non-venomous)	W53-W64
C.2.8	Unintentional injuries not classified elsewhere	W21, W39, W44, W49-W52, W75-W99, X50-X58
C.3	Self-harm and interpersonal violence	X60-X83, X85-X99, Y00-Y08
C.3.1	Self-harm	X60-X83
C.3.2	Interpersonal violence	X93-X95, X99, X85-X92, X96-X98, Y00-Y08
C.3.2.1	Assault by firearm	X93-X95
C.3.2.2	Assault by sharp object	X99
C.3.2.3	Assault by other means	X85-X92, X96-X98, Y00-Y08
C.4	Forces of nature, war, and legal intervention	X30-X39, Y36, Y89.1, Y35, Y89.0
C.4.1	Exposure to forces of nature	X30-X39
C.4.2	Collective violence and legal intervention	Y36, Y89.1,Y35, Y89.0

Notes:

The format of this list is slightly different from the list originally published. We reorganized the order and introduced a new hierarchical code label to make easily use for comparison with other classification systems.

* These codes have been used just for calculation of mortality (YLL)

** These codes have been used just for calculation of non-fatal outcomes (YLD)

*** These codes are just usable for hospital data from the US

Reference: Christopher JL Murray et.al. GBD 2010: design, definitions, and metrics The Lancet - 15 December 2012 (Vol. 380, Issue 9859, Pages 2063-2066) DOI: 10.1016/S0140-6736(12)61899-6

WHO cause of death classification

Code	Verbal autopsy title	ICD-10 code (to ICD)	ICD-10 range
Communicable diseases			
VAs-01 Infectious and parasitic diseases			
1.01	Sepsis	A41	A40-A41
1.02	Acute respiratory infection, including pneumonia	J22/J18	J00-J22
1.03	HIV/AIDS related death	B24	B20-B24
1.04	Diarrheal diseases	A09	A00-A09
1.05	Malaria	B54	B50-B54
1.06	Measles	B05	B05
1.07	Meningitis and encephalitis	G03;G04	A39; G00-G05
1.08	Tetanus Excludes: Neonatal tetanus VAs-10.05	A35 (obstetrical A34)	A33-A35
1.09	Pulmonary tuberculosis	A16	A15-A16
1.1	Pertussis	A37	A37
1.11	Haemorrhagic fever	A99	A90-A99
1.99	Other and unspecified infectious disease	B99	A17-A19;A20-A38;A42-A89; B00-B19;B25-B49;B55-B99
VAs-03 Nutritional and endocrine disorders			
3.01	Severe anaemia	D64	D50-D64
3.02	Severe malnutrition	E46	E40-E46
3.03	Diabetes mellitus	E14	E10-E14
VAs-09 Pregnancy, childbirth and puerperium-related disorders			
9.01	Ectopic pregnancy	O00	O00
9.02	Abortion-related death	O06	O03-O08
9.03	Pregnancy-induced hypertension	O13 (or O15 for eclampsia)	O10-O16
9.04	Obstetric haemorrhage	O46 (ante partum) O72 (post partum)	O46; O67; O72
9.05	Obstructed labour	O66	O63-O66
9.06	Pregnancy-related sepsis	O75.3 (ante partum) O85 (post partum)	O85; O75.3
9.07	Anaemia of pregnancy	O99	O99.0
9.08	Ruptured uterus	O71	O71
9.99	Other and unspecified maternal cause	O05	O01-O02;O20-O45;O47-O62;O68-O70;O73-O84;O86-O99
VAs-10 Neonatal causes of death			
10.01	Prematurity	P07	P05-P07
10.02	Birth asphyxia	P21	P20-P22
10.03	Neonatal pneumonia	P23	P23-P25
10.04	Neonatal sepsis	P63	P36
10.05	Neonatal tetanus	A33	A33
10.06	Congenital malformation	Q89	Q00-Q99
10.99	Other and unspecified perinatal cause of death	P96	P00-P04; P08-P15; P26-P35; P37-P94; P96
VAs-11 Stillbirths			
11.01	Fresh stillbirth	P95	P95
11.02	Macerated stillbirth	P95	P95
Non-communicable diseases (see Note 1)			
VAs-02 Neoplasms			
2.01	Oral neoplasms	C06	C00-C06
2.02	Digestive neoplasms	C26	C15-C26
2.03	Respiratory neoplasms	C39	C30-C39
2.04	Breast neoplasms	C50	C50
2.05	Female reproductive neoplasms	C57	C51-C58
2.06	Male reproductive neoplasms	C63	C60-C63
2.99	Other and unspecified neoplasms	C80	C07-C14, C40-C49, C60-D48
VAs-04 Diseases of the circulatory system			
4.01	Acute cardiac disease	I24 (acute ischemic)	I20-I25
4.02	Stroke	I64	I60-I69
4.03	Sickle cell with crisis	D57	D57
4.99	Other and unspecified cardiac disease	I99	I00-I09, I10-I15, I26-I52, I70-I99
VAs-05 Respiratory disorders			
5.01	Chronic obstructive pulmonary disease (COPD)	J44	J40-J44
5.02	Asthma	J45 (J46)	J45-J46

VAs-06 Gastrointestinal disorders			
6.01	Acute abdomen	R10	R10
6.02	Liver cirrhosis	K74	K70-K76
VAs-07 Renal disorders			
7.01	Renal failure	N19	N17-N19
VAs-08 Mental and nervous system disorders			
8.01	Epilepsy	G40	G40-G41
98	Other and unspecified non-communicable disease. (See Note 2)	R99	D55-D89; E00-E07; E15-E35;E50-E90;F00-F99; G06-G09;G10-G37; G50-G99; H00-H95; J30-J39;J47-J99; K00-K31;K35-K38;K40-K93; L00-L99; M00-M99; N00-N16;N20-N99; R00-R09;R11-R94
VAs-12 External causes of death (See Note 3)			
12.01	Road traffic accident	V89	V01-V89
12.02	Other transport accident	V99	V90-V99
12.03	Accidental fall	W19	W00-W19
12.04	Accidental drowning and submersion	W74	W65-W74
12.05	Accidental exposure to smoke, fire and flames	X09	X00-X19
12.06	Contact with venomous animals and plants	X29	X20-X29
12.07	Accidental poisoning and exposure to noxious substance	X49	X40-X49
12.08	Intentional self-harm	X84	X60-X84
12.09	Assault	Y09	X85-Y09
12.1	Exposure to force of nature	X39	X30-X39
12.99	Other and unspecified external cause of death	X59	S00-T99; W20-W64;W75-W99; X50-X59; Y10-Y98
99	Cause of death unknown	R99	R95-R99

Notes

- (1) This group covers all non-communicable conditions. Any infection of the systems that are listed in this section should be assigned to the suitable infectious disease category. Any maternal and perinatal condition should be assigned to the maternal and perinatal causes below.
- (2) This group covers all non-communicable conditions that could not be assigned to another category in this section. There is a separate category for cases where the cause of death is unknown.
- (4) The list of questions contains sub questions that allow for more specificity for accidents.
- (3) The format of this list is slightly different from the list originally published. We reorganized the order and introduced a new hierarchical code label to make easily use for comparison with other classification systems.

Source: WHO verbal autopsy instrument (2012) Appendix 1: 2012 cause of death list for verbal autopsy with corresponding ICD-10 codes pp A1-1 to A1-6