

S1 Table. Description of ICD codes used for outcome and composite control

Outcome group	Inclusions	Exclusions
All-cause pneumonia	Viral pneumonia, not elsewhere classified (J12) Pneumonia due to <i>Streptococcus pneumoniae</i> (J13) Pneumonia due to <i>Haemophilus influenzae</i> (J14) Bacterial pneumonia, not elsewhere classified (J15) Pneumonia due to other infectious organisms, not elsewhere classified (J16) Pneumonia, organism unspecified (J18) Congenital pneumonia (P23)	Not applicable
Control groups	Inclusions	Exclusions
A20_B99_a_D50_D89	Certain zoonotic bacterial diseases (A20-A28) Infections with a predominantly sexual mode of transmission (A50-A64) Other spirochetal diseases (A65-A69) Other diseases caused by chlamydia (A70-A74) Rickettsioses (A75-A79) Viral infections of the central nervous system (A80-A89) Arthropod-borne viral fevers and viral haemorrhagic fevers (A90-A99) Viral infections characterized by skin and mucous membrane lesions (B00-B09) Viral hepatitis (B15-B19) Human immunodeficiency virus [HIV] disease (B20-B24) Other viral diseases (B25-B34) Mycoses (B35-B49) Protozoal diseases (B50-B64) Helminthiasis (B65-B83) Pediculosis, ascariasis and other infestations (B85-B89) Sequelae of infectious and parasitic diseases (B90-B94) Other infectious diseases (B99) Infections specific to the perinatal period (P35-P39) Nutritional anaemias (D50-D53) Haemolytic anaemias (D55-D59) Aplastic and other anaemias (D60-D64) Coagulation defects, purpura and other hemorrhagic conditions (D65-D69) Other diseases of blood and blood-forming organs (D70-D76) Certain disorders involving the immune mechanism (D80-D89)	Streptococcal septicaemia (A40) Other septicaemia (A41) Bacterial infection of unspecified site (A49) Bacterial sepsis of new-born (P36)
A16_A19	Tuberculosis (A16-A19)	None
A20_A48	Certain zoonotic bacterial diseases (A20-A28) Other bacterial diseases (A30-A49)	
A39	Meningococcal infection (A39)	
A50_A79	Infections with a predominantly sexual mode of transmission (A50-A64) Other spirochetal diseases (A65-A69)	

Control groups	Inclusions	Exclusions
	Other diseases caused by chlamydia (A70-A74) Rickettsioses (A75-A79)	
A80_B34	Viral infections of the central nervous system (A80-A89) Arthropod-borne viral fevers and viral hemorrhagic fevers (A90-A99) Viral hepatitis (B15-B19) Other viral diseases (B25-B34)	Measles (B05) Rubella [German measles] (B06) Human immunodeficiency virus [HIV] disease (B20-B24)
B05_B06	Measles (B05) Rubella [German measles] (B06)	None
B20_B24	Human immunodeficiency virus [HIV] disease (B20-B24)	None
B35_B49	Mycoses (B35-B49)	None
B45	Cryptococcosis (B45)	None
B50_B89	Protozoal diseases (B50-B64) Helminthiasis (B65-B83) Pediculosis, acariasis and other infestations (B85-B89)	None
B99	Other and unspecified infectious diseases (B99)	None
C00_D49	Neoplasms (C00-D48)	None
E00_E89	Endocrine, nutritional and metabolic diseases (E00-E88)	None
E10_E14	Diabetes mellitus (E10-E14)	None
E40_E46	Malnutrition (E40-E46)	None
F01_F99	Mental and behavioural disorders (F01-F99)	None
G05_G99	Diseases of the nervous system (G00-G98)	Bacterial meningitis, not elsewhere classified (G00) Meningitis due to other and unspecified causes (G03) Encephalitis, myelitis, and encephalomyelitis (G04) Conjunctivitis (H10) Non-suppurative otitis media (H65) Suppurative and unspecified otitis media (H66) Mastoiditis and related conditions (H70) Other disorders of middle ear and mastoid (H74)
H00_H99_excl_cj_om	Diseases of the eye and adnexa (H00-H57)	
I00_I99	Diseases of the circulatory system (I00-I99)	None
I60_I64	Subarachnoid haemorrhage (I60) Intracerebral haemorrhage (I61) Other non-traumatic intracranial haemorrhage (I62)	None

Control groups	Inclusions	Exclusions
	Cerebral infarction (I63) Stroke, not specified as haemorrhage or infarction (I64) Intracranial non-traumatic haemorrhage of foetus and new-born (P52)	
J00_J99_excl_PI_bron	Diseases of the respiratory system (J00-J98)	Influenza and pneumonia (J10-J18) Other acute lower respiratory infections (J20-J22)
J20_J22	Other acute lower respiratory infections (J20-J22)	None
Inf	Influenza due to identified influenza virus (J10)	None
K00_K95	Diseases of the digestive system (K00-K92)	None
K35	Acute appendicitis (K35)	None
K80	Cholelithiasis (K80)	None
L00_L99	Diseases of the skin and subcutaneous tissue (L00-L98)	None
M00_M99	Diseases of the musculoskeletal system and connective tissue (M00-M99)	None
N00_N99	Diseases of the genitourinary system (N00-N98)	None
N39	Other disorders of urinary system (N39)	None
O00_O99	Pregnancy, childbirth and the puerperium (O00-O99)	None
P00_P15	New-born affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04) Disorders related to length of gestation and foetal growth (P05-P08) Birth trauma (P10-P15)	None
P05_P07	Slow foetal growth and foetal malnutrition (P05) Disorders related to short gestation and low birthweight, not elsewhere classified (P07)	None
Q00_Q99	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	None
R00_R99	Symptoms and signs involving the circulatory and respiratory systems (R00-R09) Symptoms and signs involving the digestive system and abdomen (R10-R19) Symptoms and signs involving the skin and subcutaneous tissue (R20-R23) Symptoms and signs involving the nervous and musculoskeletal systems (R25-R29) Symptoms and signs involving the urinary system (R30-R39) Symptoms and signs involving cognition, perception, emotional state and behaviour (R40-R46) Symptoms and signs involving speech and voice (R47-R49) Abnormal findings on examination of blood, without diagnosis (R70-R79) Abnormal findings on examination of urine, without diagnosis (R80-R82) Abnormal findings on examination of other body fluids, substances and tissues, without diagnosis (R83-R89) Abnormal findings on diagnostic imaging and in function studies, without diagnosis (R90-R94)	None
S00_T88	Injury, poisoning and certain other consequences of external causes (S00-T98)	None
V01_Y99	External causes of morbidity and mortality (V01-Y89)	None