

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

Supplement 2 to “The State of US Health: Burden of Diseases, Injuries, and Risk Factors among US states, 1990 to 2016”

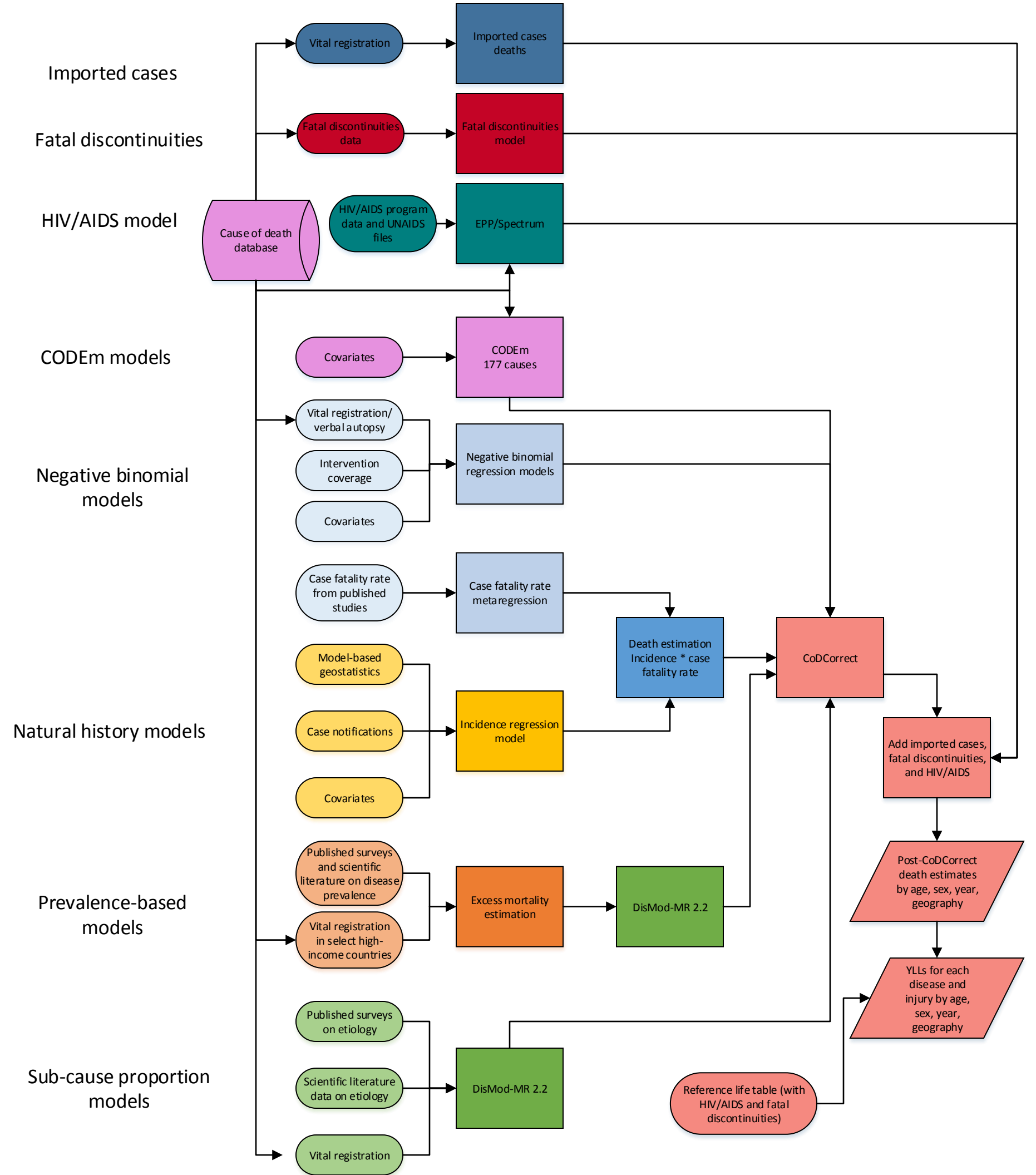
This supplement provides appendix tables on the GBD cause and location hierarchy, as well as supplemental results.

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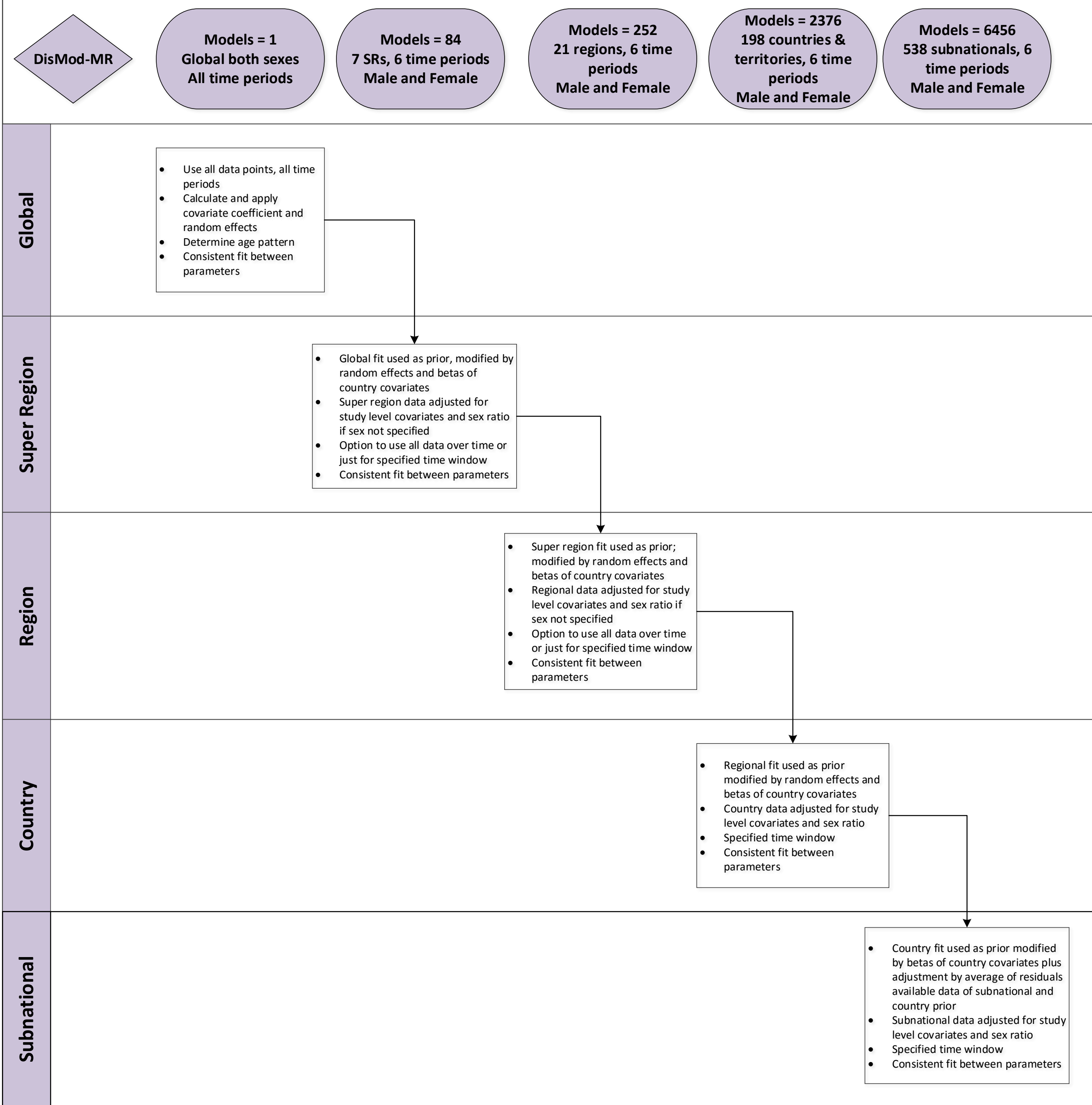
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Appendix Figure 2. GBD 2016 Causes of death estimation flowchart by modeling group

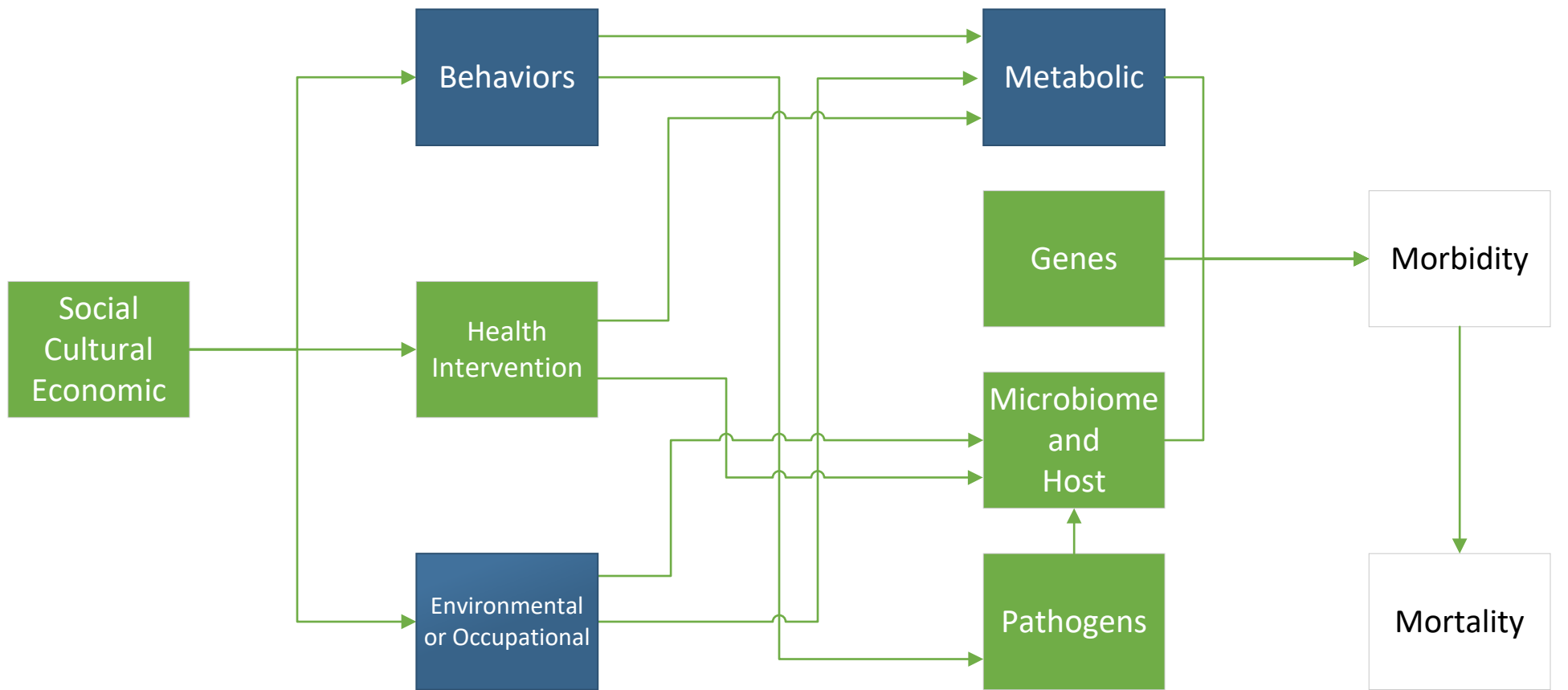


Abbreviations:
 CODEm: Cause of death ensemble model
 GBD: Global Burden of Disease
 YLL: years of life lost
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Appendix Figure 3 - GBD 2016 DisMod-MR 2.1 analytical cascade



Appendix Figure 4. A more general causal web of the causes of health outcomes with the categories of causes included in this analysis shown in blue.

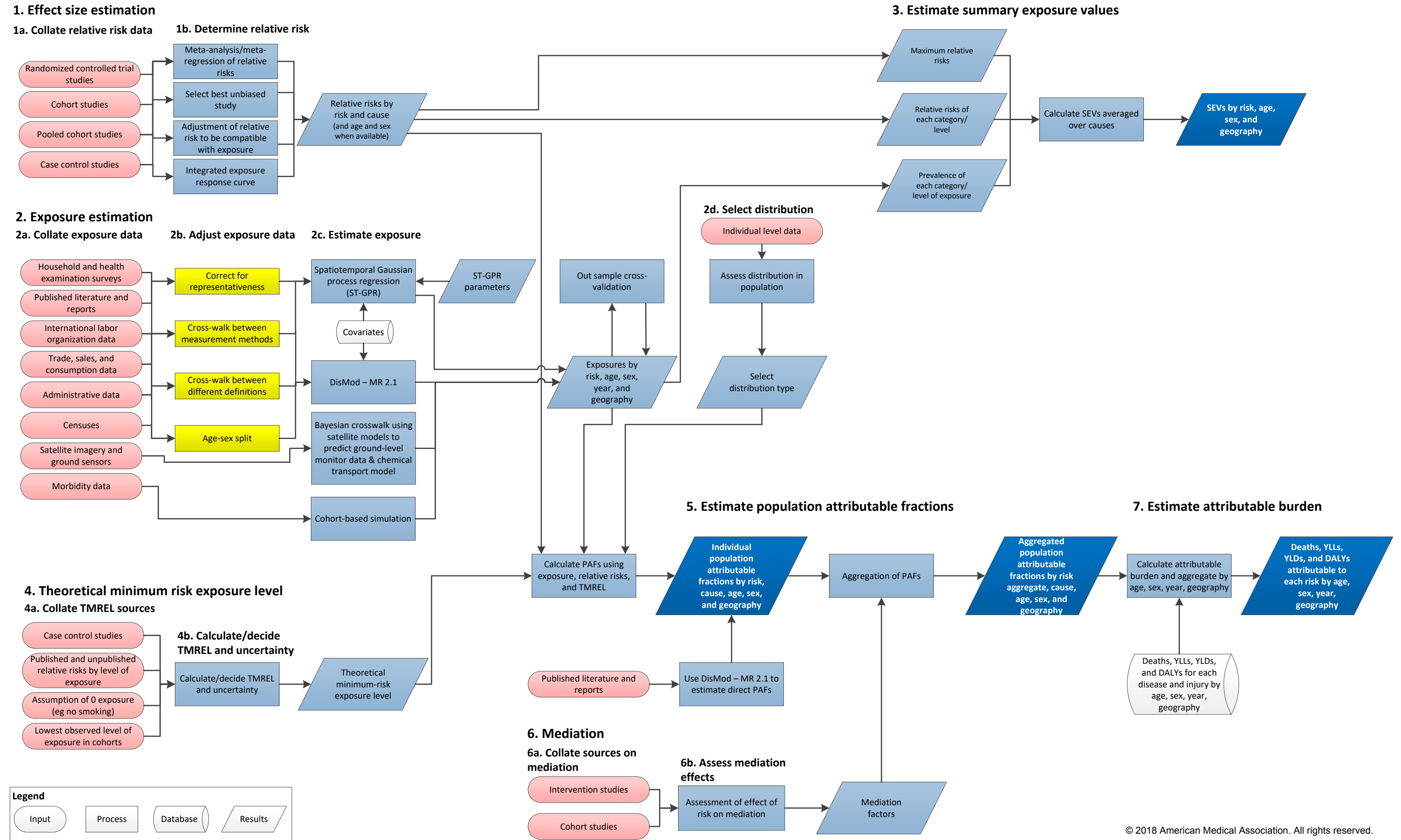


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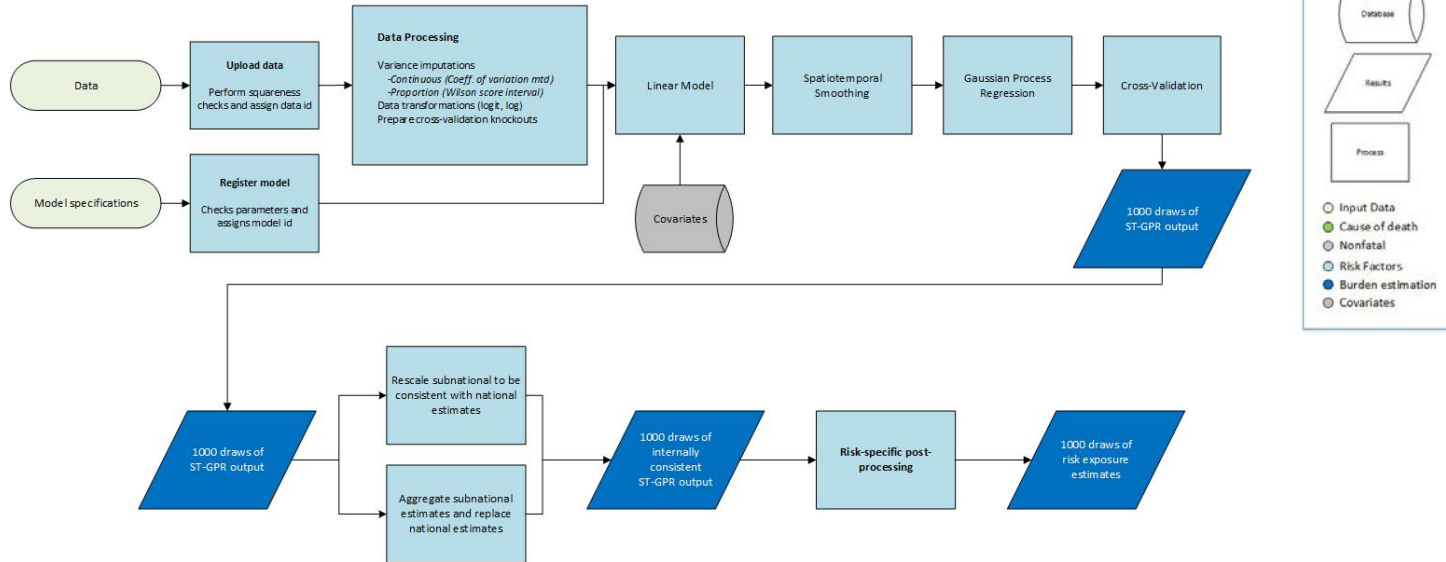
- Currently included (Blue box)
- Not currently included (Green box)

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Appendix Figure 5. Analytical flowchart of the comparative risk assessment for the estimation of population attributable fractions by geography, age, sex, and year for GBD 2016. Ovals represent data inputs, rectangular boxes represent analytical steps, cylinders represent databases, and parallelograms represent intermediate and final results. GBD=Global Burden of Disease. SEVs=Summary exposure values. TMREL=Theoretical minimum-risk exposure level. PAFs=Population attributable fractions. YLLs=years of life lost. YLDs=years lived with disability. DALYs=disability-adjusted life-years.



Appendix Figure 6. ST-GPR flowchart



Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Global	0
Southeast Asia, East Asia, and Oceania	1
East Asia	2
China	3
Anhui	4
Beijing	4
Chongqing	4
Fujian	4
Gansu	4
Guangdong	4
Guangxi	4
Guizhou	4
Hainan	4
Hebei	4
Heilongjiang	4
Henan	4
Hong Kong Special Administrative Region of China	4
Hubei	4
Hunan	4
Inner Mongolia	4
Jiangsu	4
Jiangxi	4
Jilin	4
Liaoning	4
Macao Special Administrative Region of China	4
Ningxia	4
Qinghai	4
Shaanxi	4
Shandong	4
Shanghai	4
Shanxi	4
Sichuan	4
Tianjin	4
Tibet	4
Xinjiang	4
Yunnan	4
Zhejiang	4
North Korea	3
Taiwan (Province of China)	3
Southeast Asia	2
Cambodia	3
Indonesia	3
Aceh	4
Bali	4
Bangka Belitung	4
Banten	4

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Bengkulu	4
Gorontalo	4
Jakarta	4
Jambi	4
Central Java	4
West Java	4
East Java	4
West Kalimantan	4
South Kalimantan	4
Central Kalimantan	4
East Kalimantan	4
North Kalimantan	4
Riau Islands	4
Lampung	4
Maluku	4
North Maluku	4
Nusa Tenggara Barat	4
East Nusa Tenggara	4
Papua	4
West Papua	4
Riau	4
West Sulawesi	4
South Sumatera	4
Central Sulawesi	4
Southeast Sulawesi	4
North Sulawesi	4
West Sumatera	4
South Sumatera	4
North Sumatera	4
Yogyakarta	4
Laos	3
Malaysia	3
Maldives	3
Mauritius	3
Myanmar	3
Philippines	3
Sri Lanka	3
Seychelles	3
Thailand	3
Timor-Leste	3
Vietnam	3
Oceania	2
American Samoa	3
Federated States of Micronesia	3
Fiji	3
Guam	3

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Kiribati	3
Marshall Islands	3
Northern Mariana Islands	3
Papua New Guinea	3
Samoa	3
Solomon Islands	3
Tonga	3
Vanuatu	3
Central Europe, Eastern Europe, and Central Asia	1
Central Asia	2
Armenia	3
Azerbaijan	3
Georgia	4
Georgia	3
Kazakhstan	3
Kyrgyzstan	3
Mongolia	3
Tajikistan	3
Turkmenistan	3
Uzbekistan	3
Central Europe	2
Albania	3
Bosnia and Herzegovina	3
Bulgaria	3
Croatia	3
Czech Republic	3
Hungary	3
Macedonia	3
Montenegro	3
Poland	3
Romania	3
Serbia	3
Slovakia	3
Slovenia	3
Eastern Europe	2
Belarus	3
Estonia	3
Latvia	3
Lithuania	3
Moldova	3
Russia	3
Ukraine	3
High-income	1
High-income Asia Pacific	2
Brunei	3
Japan	3

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Aichi	4
Akita	4
Aomori	4
Chiba	4
Ehime	4
Fukui	4
Fukuoka	4
Fukushima	4
Gifu	4
Gunma	4
Hiroshima	4
Hokkaidō	4
Hyōgo	4
Ibaraki	4
Ishikawa	4
Iwate	4
Kagawa	4
Kagoshima	4
Kanagawa	4
Kōchi	4
Kumamoto	4
Kyōto	4
Mie	4
Miyagi	4
Miyazaki	4
Nagano	4
Nagasaki	4
Nara	4
Niigata	4
Ōita	4
Okayama	4
Okinawa	4
Ōsaka	4
Saga	4
Saitama	4
Shiga	4
Shimane	4
Shizuoka	4
Tochigi	4
Tokushima	4
Tōkyō	4
Tottori	4
Toyama	4
Wakayama	4
Yamagata	4
Yamaguchi	4

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Yamanashi	4
South Korea	3
Singapore	3
Australasia	2
Australia	3
New Zealand	3
Western Europe	2
Andorra	3
Austria	3
Belgium	3
Cyprus	3
Denmark	3
Finland	3
France	3
Germany	3
Greece	3
Iceland	3
Ireland	3
Israel	3
Italy	3
Luxembourg	3
Malta	3
Netherlands	3
Norway	3
Portugal	3
Spain	3
Sweden	3
Stockholm	4
Sweden except Stockholm	4
Switzerland	3
United Kingdom	3
England	4
East Midlands	5
Derby	6
Derbyshire	6
Leicester	6
Leicestershire	6
Lincolnshire	6
Northamptonshire	6
Nottingham	6
Nottinghamshire	6
Rutland	6
East of England	5
Bedford	6
Cambridgeshire	6
Central Bedfordshire	6

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Essex	6
Hertfordshire	6
Luton	6
Norfolk	6
Peterborough	6
Southend-on-Sea	6
Suffolk	6
Thurrock	6
Greater London	5
Barking and Dagenham	6
Barnet	6
Bexley	6
Brent	6
Bromley	6
Camden	6
Croydon	6
Ealing	6
Enfield	6
Greenwich	6
Hackney	6
Hammersmith and Fulham	6
Haringey	6
Harrow	6
Havering	6
Hillingdon	6
Hounslow	6
Islington	6
Kensington and Chelsea	6
Kingston upon Thames	6
Lambeth	6
Lewisham	6
Merton	6
Newham	6
Redbridge	6
Richmond upon Thames	6
Southwark	6
Sutton	6
Tower Hamlets	6
Waltham Forest	6
Wandsworth	6
Westminster	6
North East England	5
County Durham	6
Darlington	6
Gateshead	6
Hartlepool	6

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Middlesbrough	6
Newcastle upon Tyne	6
North Tyneside	6
Northumberland	6
Redcar and Cleveland	6
South Tyneside	6
Stockton-on-Tees	6
Sunderland	6
North West England	5
Blackburn with Darwen	6
Blackpool	6
Bolton	6
Bury	6
Cheshire East	6
Cheshire West and Chester	6
Cumbria	6
Halton	6
Knowsley	6
Lancashire	6
Liverpool	6
Manchester	6
Oldham	6
Rochdale	6
Salford	6
Sefton	6
St Helens	6
Stockport	6
Tameside	6
Trafford	6
Warrington	6
Wigan	6
Wirral	6
South East England	5
Bracknell Forest	6
Brighton and Hove	6
Buckinghamshire	6
East Sussex	6
Hampshire	6
Isle of Wight	6
Kent	6
Medway	6
Milton Keynes	6
Oxfordshire	6
Portsmouth	6
Reading	6
Slough	6

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Southampton	6
Surrey	6
West Berkshire	6
West Sussex	6
Windsor and Maidenhead	6
Wokingham	6
South West England	5
Bath and North East Somerset	6
Bournemouth	6
Bristol, City of	6
Cornwall	6
Devon	6
Dorset	6
Gloucestershire	6
North Somerset	6
Plymouth	6
Poole	6
Somerset	6
South Gloucestershire	6
Swindon	6
Torbay	6
Wiltshire	6
West Midlands	5
Birmingham	6
Coventry	6
Dudley	6
Herefordshire, County of	6
Sandwell	6
Shropshire	6
Solihull	6
Staffordshire	6
Stoke-on-Trent	6
Telford and Wrekin	6
Walsall	6
Warwickshire	6
Wolverhampton	6
Worcestershire	6
Yorkshire and the Humber	5
Barnsley	6
Bradford	6
Calderdale	6
Doncaster	6
East Riding of Yorkshire	6
Kingston upon Hull, City of	6
Kirklees	6
Leeds	6

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
North East Lincolnshire	6
North Lincolnshire	6
North Yorkshire	6
Rotherham	6
Sheffield	6
Wakefield	6
York	6
Northern Ireland	4
Scotland	4
Wales	4
Southern Latin America	2
Argentina	3
Chile	3
Uruguay	3
High-income North America	2
Canada	3
Greenland	3
USA	3
Alabama	4
Alaska	4
Arizona	4
Arkansas	4
California	4
Colorado	4
Connecticut	4
Delaware	4
District of Columbia	4
Florida	4
Georgia	3
Georgia	4
Hawaii	4
Idaho	4
Illinois	4
Indiana	4
Iowa	4
Kansas	4
Kentucky	4
Louisiana	4
Maine	4
Maryland	4
Massachusetts	4
Michigan	4
Minnesota	4
Mississippi	4
Missouri	4
Montana	4

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Nebraska	4
Nevada	4
New Hampshire	4
New Jersey	4
New Mexico	4
New York	4
North Carolina	4
North Dakota	4
Ohio	4
Oklahoma	4
Oregon	4
Pennsylvania	4
Rhode Island	4
South Carolina	4
South Dakota	4
Tennessee	4
Texas	4
Utah	4
Vermont	4
Virginia	4
Washington	4
West Virginia	4
Wisconsin	4
Wyoming	4
Latin America and Caribbean	1
Caribbean	2
Antigua and Barbuda	3
The Bahamas	3
Barbados	3
Belize	3
Bermuda	3
Cuba	3
Dominica	3
Dominican Republic	3
Grenada	3
Guyana	3
Haiti	3
Jamaica	3
Puerto Rico	3
Saint Lucia	3
Saint Vincent and the Grenadines	3
Suriname	3
Trinidad and Tobago	3
Virgin Islands, U.S.	3
Andean Latin America	2
Bolivia	3

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Ecuador	3
Peru	3
Central Latin America	2
Colombia	3
Costa Rica	3
El Salvador	3
Guatemala	3
Honduras	3
Mexico	3
Aguascalientes	4
Baja California	4
Baja California Sur	4
Campeche	4
Chiapas	4
Chihuahua	4
Coahuila	4
Colima	4
Distrito Federal	4
Distrito Federal	4
Durango	4
Guanajuato	4
Guerrero	4
Hidalgo	4
Jalisco	4
México	4
Michoacán de Ocampo	4
Morelos	4
Nayarit	4
Nuevo León	4
Oaxaca	4
Puebla	4
Querétaro	4
Quintana Roo	4
San Luis Potosí	4
Sinaloa	4
Sonora	4
Tabasco	4
Tamaulipas	4
Tlaxcala	4
Veracruz de Ignacio de la Llave	4
Yucatán	4
Zacatecas	4
Nicaragua	3
Panama	3
Venezuela	3
Tropical Latin America	2

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Brazil	3
Acre	4
Alagoas	4
Amapá	4
Amazonas	4
Bahia	4
Ceará	4
Distrito Federal	4
Distrito Federal	4
Espírito Santo	4
Goiás	4
Maranhão	4
Mato Grosso	4
Mato Grosso do Sul	4
Minas Gerais	4
Pará	4
Paraíba	4
Paraná	4
Pernambuco	4
Piauí	4
Rio de Janeiro	4
Rio Grande do Norte	4
Rio Grande do Sul	4
Rondônia	4
Roraima	4
Santa Catarina	4
São Paulo	4
Sergipe	4
Tocantins	4
Paraguay	3
North Africa and Middle East	1
North Africa and Middle East	2
Afghanistan	3
Algeria	3
Bahrain	3
Egypt	3
Iran	3
Iraq	3
Jordan	3
Kuwait	3
Lebanon	3
Libya	3
Morocco	3
Palestine	3
Oman	3
Qatar	3

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Saudi Arabia	3
'Asir	4
Bahah	4
Eastern Province	4
Ha'il	4
Jawf	4
Jizan	4
Madinah	4
Makkah	4
Najran	4
Northern Borders	4
Qassim	4
Riyadh	4
Tabuk	4
Sudan	3
Syria	3
Tunisia	3
Turkey	3
United Arab Emirates	3
Yemen	3
South Asia	1
South Asia	2
Bangladesh	3
Bhutan	3
India	3
Andhra Pradesh	4
Andhra Pradesh, Rural	5
Andhra Pradesh, Urban	5
Arunāchal Pradesh	4
Arunāchal Pradesh, Rural	5
Arunāchal Pradesh, Urban	5
Assam	4
Assam, Rural	5
Assam, Urban	5
Bihār	4
Bihār, Rural	5
Bihār, Urban	5
Chhattīsgarh	4
Chhattīsgarh, Rural	5
Chhattīsgarh, Urban	5
Delhi	4
Delhi, Rural	5
Delhi, Urban	5
Goa	4
Goa, Rural	5
Goa, Urban	5

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Gujarāt	4
Gujarāt, Rural	5
Gujarāt, Urban	5
Haryāna	4
Haryāna, Rural	5
Haryāna, Urban	5
Himachal Pradesh	4
Himachal Pradesh, Rural	5
Himachal Pradesh, Urban	5
Jammu and Kashmīr	4
Jammu and Kashmīr, Rural	5
Jammu and Kashmīr, Urban	5
Jharkhand	4
Jharkhand, Rural	5
Jharkhand, Urban	5
Karnātaka	4
Karnātaka, Rural	5
Karnātaka, Urban	5
Kerala	4
Kerala, Rural	5
Kerala, Urban	5
Madhya Pradesh	4
Madhya Pradesh, Rural	5
Madhya Pradesh, Urban	5
Mahārāshtra	4
Mahārāshtra, Rural	5
Mahārāshtra, Urban	5
Manipur	4
Manipur, Rural	5
Manipur, Urban	5
Meghālaya	4
Meghālaya, Rural	5
Meghālaya, Urban	5
Mizoram	4
Mizoram, Rural	5
Mizoram, Urban	5
Nāgāland	4
Nāgāland, Rural	5
Nāgāland, Urban	5
Orissa	4
Orissa, Rural	5
Orissa, Urban	5
Punjab	4
Punjab, Rural	5
Punjab, Urban	5
Rājasthān	4

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Rājasthān, Rural	5
Rājasthān, Urban	5
Sikkim	4
Sikkim, Rural	5
Sikkim, Urban	5
Tamil Nādu	4
Tamil Nādu, Rural	5
Tamil Nādu, Urban	5
Telangana	4
Telangana, Rural	5
Telangana, Urban	5
Tripura	4
Tripura, Rural	5
Tripura, Urban	5
Uttar Pradesh	4
Uttar Pradesh, Rural	5
Uttar Pradesh, Urban	5
Uttarakhand	4
Uttarakhand, Rural	5
Uttarakhand, Urban	5
West Bengal	4
West Bengal, Rural	5
West Bengal, Urban	5
The Six Minor Territories	4
The Six Minor Territories, Rural	5
The Six Minor Territories, Urban	5
Nepal	3
Pakistan	3
Sub-Saharan Africa	1
Central Sub-Saharan Africa	2
Angola	3
the Central African Republic	3
Congo (Brazzaville)	3
Democratic Republic of the Congo	3
Equatorial Guinea	3
Gabon	3
Eastern Sub-Saharan Africa	2
Burundi	3
Comoros	3
Djibouti	3
Eritrea	3
Ethiopia	3
Kenya	3
Baringo	4
Bomet	4
Bungoma	4

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Busia	4
Elgeyo-Marakwet	4
Embu	4
Garissa	4
HomaBay	4
Isiolo	4
Kajiado	4
Kakamega	4
Kericho	4
Kiambu	4
Kilifi	4
Kirinyaga	4
Kisii	4
Kisumu	4
Kitui	4
Kwale	4
Laikipia	4
Lamu	4
Machakos	4
Makueni	4
Mandera	4
Marsabit	4
Meru	4
Migori	4
Mombasa	4
Murang'a	4
Nairobi	4
Nakuru	4
Nandi	4
Narok	4
Nyamira	4
Nyandarua	4
Nyeri	4
Samburu	4
Siaya	4
TaitaTaveta	4
TanaRiver	4
TharakaNithi	4
TransNzoia	4
Turkana	4
UasinGishu	4
Vihiga	4
Wajir	4
WestPokot	4
Madagascar	3
Malawi	3

Appendix Table 1: GBD 2016 location hierarchy with levels

Location	Level
Mozambique	3
Rwanda	3
Somalia	3
South Sudan	3
Tanzania	3
Uganda	3
Zambia	3
Southern Sub-Saharan Africa	2
Botswana	3
Lesotho	3
Namibia	3
South Africa	3
Eastern Cape	4
Free State	4
Gauteng	4
KwaZulu-Natal	4
Limpopo	4
Mpumalanga	4
North-West	4
Northern Cape	4
Western Cape	4
Swaziland	3
Zimbabwe	3
Western Sub-Saharan Africa	2
Benin	3
Burkina Faso	3
Cameroon	3
Cape Verde	3
Chad	3
Cote d'Ivoire	3
The Gambia	3
Ghana	3
Guinea	3
Guinea-Bissau	3
Liberia	3
Mali	3
Mauritania	3
Niger	3
Nigeria	3
Sao Tome and Principe	3
Senegal	3
Sierra Leone	3
Togo	3

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause Names: Long and Short	Cause of death	Cause of burden
0	All causes	X	X
1	Communicable, maternal, neonatal, and nutritional disorders, CMNN	X	X
2	HIV/AIDS and tuberculosis, HIV+TB	X	X
3	Tuberculosis, TB	X	X
4	Drug-sensitive tuberculosis, Drug-Sus TB	X	X
4	Multidrug-resistant tuberculosis without extensive drug resistance, MDR-TB	X	X
4	Extensively drug-resistant tuberculosis, XDR-TB	X	X
4	Latent tuberculosis infection, LTBI		X
3	HIV/AIDS, HIV	X	X
4	Drug HIV/AIDS - Tuberculosis, Drug HIV-TB	X	X
4	Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance, MDR HIV-TB	X	X
4	Extensively drug-resistant HIV/AIDS - Tuberculosis, XDR HIV-TB	X	X
4	HIV/AIDS resulting in other diseases, Oth HIV	X	X
2	Diarrhoea, lower respiratory infections, and other common infectious diseases, Diar+LRI+Oth	X	X
3	Diarrhoeal diseases, Diarrhea	X	X
3	Intestinal infectious diseases, Intest infec	X	X
4	Typhoid fever, Typhoid	X	X
4	Paratyphoid fever, Paratyph	X	X
4	Other intestinal infectious diseases, Other intest	X	X
3	Lower respiratory infections, LRI	X	X
3	Upper respiratory infections, URI	X	X
3	Otitis media, Otitis	X	X
3	Meningitis, Meningitis	X	X
4	Pneumococcal meningitis, Mng Pnc	X	X
4	H influenzae type B meningitis, Mng HiB	X	X
4	Meningococcal infection, Mng Men	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
4	Other meningitis, Oth Mng	X	X
3	Encephalitis, Enceph	X	X
3	Diphtheria, Diphtheria	X	X
3	Whooping cough, Whooping	X	X
3	Tetanus, Tetanus	X	X
3	Measles, Measles	X	X
3	Varicella and herpes zoster, Varicella	X	X
2	Neglected tropical diseases and malaria, NTD+Malaria	X	X
3	Malaria, Malaria	X	X
3	Chagas disease, Chagas	X	X
3	Leishmaniasis, Leish	X	X
4	Visceral leishmaniasis, Vis Leish	X	X
4	Cutaneous and mucocutaneous leishmaniasis, Cut Leish		X
3	African trypanosomiasis, Afr Tryp	X	X
3	Schistosomiasis, Schisto	X	X
3	Cysticercosis, Cysticer	X	X
3	Cystic echinococcosis, Echino	X	X
3	Lymphatic filariasis, LF		X
3	Onchocerciasis, Oncho		X
3	Trachoma, Trachoma		X
3	Dengue, Dengue	X	X
3	Yellow fever, Yellow Fev	X	X
3	Rabies, Rabies	X	X
3	Intestinal nematode infections, Nematode	X	X
4	Ascariasis, Ascaris	X	X
4	Trichuriasis, Trichuria		X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
4	Hookworm disease, Hookworm		X
3	Food-borne trematodiasis, FB Trema		X
3	Leprosy, Leprosy		X
3	Ebola, Ebola	X	X
3	Zika virus, Zika	X	X
3	Guinea worm disease, GWD		X
3	Other neglected tropical diseases, Oth NTD	X	X
2	Maternal disorders, Maternal	X	X
3	Maternal hemorrhage, Mat Hem	X	X
3	Maternal sepsis, Mat Sepsis	X	X
3	Maternal hypertensive, Mat HTN	X	X
3	Maternal obstructed labor, Obst Labor	X	X
3	Maternal abortion, Comp Abort	X	X
3	Indirect maternal deaths, Mat Indir	X	
3	Late maternal deaths, Mat Late	X	
3	Maternal HIV/AIDS, Mat HIV	X	
3	Other maternal disorders, Oth Mat	X	X
2	Neonatal disorders, Neonatal	X	X
3	Neonatal preterm birth complications, NN Preterm	X	X
3	Neonatal encephalopathy, NN Enceph	X	X
3	Neonatal sepsis and other neonatal infections, NN Sepsis	X	X
3	Hemolytic disease and other neonatal jaundice, NN Hemol	X	X
3	Other neonatal disorders, Oth NN	X	X
2	Nutritional deficiencies, Nutr Def	X	X
3	Protein-energy malnutrition, PEM	X	X
3	Iodine deficiency, Iodine	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Vitamin A deficiency, Vit A Iron-		X
3	deficiency anaemia, Iron	X	X
3	Other nutritional deficiencies, Oth Nutr	X	X
2	Other communicable, maternal, neonatal, and nutritional diseases, Oth Group 1	X	X
3	Sexually transmitted diseases excluding HIV, STDs	X	X
4	Syphilis, Syphilis	X	X
4	Chlamydial infection, Chlamydia	X	X
4	Gonococcal infection, Gonorrhea	X	X
4	Trichomoniasis, Trich		X
4	Genital herpes, Herpes		X
4	Other sexually transmitted diseases	X	X
3	Hepatitis, Hep	X	X
4	Acute hepatitis A, Hep A	X	X
4	Hepatitis B, Hep B	X	X
4	Hepatitis C, Hep C	X	X
4	Acute hepatitis E, Hep E	X	X
3	Other infectious diseases, Other Inf	X	X
1	Non-communicable diseases, NCDs	X	X
2	Neoplasms	X	X
3	Lip and oral cavity cancer	X	X
3	Nasopharynx cancer	X	X
3	Other pharynx cancer	X	X
3	Oesophageal cancer	X	X
3	Stomach cancer	X	X
3	Colon and rectum cancer	X	X
3	Liver cancer	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
4	Liver cancer due to hepatitis B	X	X
4	Liver cancer due to hepatitis C	X	X
4	Liver cancer due to alcohol use	X	X
4	Liver cancer due to other causes	X	X
3	Gallbladder and biliary tract cancer	X	X
3	Pancreatic cancer	X	X
3	Larynx cancer	X	X
3	Tracheal, bronchus, and lung cancer, Lung C	X	X
3	Malignant skin melanoma	X	X
3	Non-melanoma skin cancer	X	X
4	Non-melanoma skin cancer (squamous-cell carcinoma)	X	X
4	Non-melanoma skin cancer (basal-cell carcinoma)		X
3	Breast cancer, Breast C	X	X
3	Cervical cancer, Cervical C	X	X
3	Uterine cancer	X	X
3	Ovarian cancer	X	X
3	Prostate cancer	X	X
3	Testicular cancer	X	X
3	Kidney cancer	X	X
3	Bladder cancer	X	X
3	Brain and nervous system cancer	X	X
3	Thyroid cancer	X	X
3	Mesothelioma	X	X
3	Hodgkin lymphoma	X	X
3	Non-Hodgkin's lymphoma	X	X
3	Multiple myeloma	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Leukaemia	X	X
4	Acute lymphoid leukaemia	X	X
4	Chronic lymphoid leukaemia	X	X
4	Acute myeloid leukaemia	X	X
4	Chronic myeloid leukaemia	X	X
4	Other leukaemia	X	X
3	Other neoplasms	X	X
2	Cardiovascular diseases, CVD	X	X
3	Rheumatic heart disease, RHD	X	X
3	Ischaemic heart disease, IHD	X	X
3	Cerebrovascular disease, Stroke	X	X
4	Ischaemic stroke, Isch Stroke	X	X
4	Hemorrhagic stroke, Hem Stroke	X	X
3	Hypertensive heart disease, HTN HD	X	X
3	Cardiomyopathy and myocarditis, CMP	X	X
4	Myocarditis, Myocarditis	X	X
4	Alcoholic cardiomyopathy, Alcohol CMP	X	X
4	Other cardiomyopathy, Other CMP	X	X
3	Atrial fibrillation and flutter, A Fib	X	X
3	Aortic aneurysm, Aort An	X	
3	Peripheral vascular disease, PAD	X	X
3	Endocarditis, Endocar	X	X
3	Other cardiovascular and circulatory diseases	X	X
2	Chronic respiratory diseases	X	X
3	Chronic obstructive pulmonary disease, COPD	X	X
3	Pneumoconiosis, Pneumo	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
4	Silicosis, Silicosis	X	X
4	Asbestosis, Asbestosis	X	X
4	Coal workers pneumoconiosis, Coal W	X	X
4	Other pneumoconiosis, Other Pneum	X	X
3	Asthma, Asthma	X	X
3	Interstitial lung disease and pulmonary sarcoidosis, ILD	X	X
3	Other chronic respiratory diseases, Oth Resp	X	X
2	Cirrhosis and other chronic liver diseases, Cirrhosis	X	X
3	Cirrhosis and other chronic liver diseases due to hepatitis B	X	X
3	Cirrhosis and other chronic liver diseases due to hepatitis C	X	X
3	Cirrhosis and other chronic liver diseases due to alcohol use	X	X
3	Cirrhosis and other chronic liver diseases due to other causes	X	X
2	Digestive diseases, Digestive	X	X
3	Peptic ulcer disease, PUD	X	X
3	Gastritis and duodenitis, Gastritis	X	X
3	Appendicitis, Appendicit	X	X
3	Paralytic ileus and intestinal obstruction, Ileus	X	X
3	Inguinal, femoral, and abdominal hernia, Hernia	X	X
3	Inflammatory bowel disease, IBD	X	X
3	Vascular intestinal disorders , Vasc Intest	X	X
3	Gallbladder and biliary diseases, Gall Bile	X	X
3	Pancreatitis, Pancreatit	X	X
3	Other digestive diseases, Other digest	X	X
2	Neurological disorders, Neuro	X	X
3	Alzheimer's disease and other dementias, Alzheimer	X	X
3	Parkinson's disease, Parkinson	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Epilepsy, Epilepsy	X	X
3	Multiple sclerosis, MS	X	X
3	Motor neuron disease, ALS	X	X
3	Migraine, Migraine		X
3	Tension-type headache, Tens head		X
3	Other neurological disorders, Oth Neuro	X	X
2	Mental and substance use disorders, Mental	X	X
3	Schizophrenia, Schiz		X
3	Alcohol use disorders, Alcohol	X	X
3	Drug use disorders, Drugs	X	X
4	Opioid use disorders, Opioids	X	X
4	Cocaine use disorders, Cocaine	X	X
4	Amphetamine use disorders, Amphet	X	X
4	Cannabis use disorders, Cannabis		X
4	Other drug use disorders, Oth Drug	X	X
3	Depressive disorders, Depression		X
4	Major depressive disorder, MDD		X
4	Dysthymia, Dysthymia		X
3	Bipolar disorder, Bipolar		X
3	Anxiety disorders, Anxiety		X
3	Eating disorders, Eating	X	X
4	Anorexia nervosa, Anorexia	X	X
4	Bulimia nervosa, Bulimia	X	X
3	Autistic spectrum disorders, ASD		X
4	Autism, Autism		X
4	Asperger syndrome and other autistic spectrum disorders, Asperger		X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Attention-deficit/hyperactivity disorder, ADHD		X
3	Conduct disorder, Conduct		X
3	Idiopathic developmental intellectual disability, ID		X
3	Other mental and substance use disorders, Oth Ment		X
2	Diabetes, urogenital, blood, and endocrine diseases	X	X
3	Diabetes mellitus, Diabetes	X	X
3	Acute glomerulonephritis, AGN	X	X
3	Chronic kidney disease, CKD	X	X
4	Chronic kidney disease due to diabetes mellitus	X	X
4	Chronic kidney disease due to hypertension	X	X
4	Chronic kidney disease due to glomerulonephritis	X	X
4	Chronic kidney disease due to other causes	X	X
3	Urinary diseases and male infertility	X	X
4	Interstitial nephritis and urinary tract infections	X	X
4	Urolithiasis, Urolith	X	X
4	Benign prostatic hyperplasia, BPH		X
4	Male infertility, Infert M		X
4	Other urinary diseases, Oth Urin	X	X
3	Gynecological diseases	X	X
4	Uterine fibroids, Fibroids	X	X
4	Polycystic ovarian syndrome, PCOS	X	X
4	Female infertility, Infert F		X
4	Endometriosis, Endo	X	X
4	Genital prolapse, Prolapse	X	X
4	Premenstrual syndrome, PMS		X
4	Other gynecological diseases, Other gyne	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Hemoglobinopathies and hemolytic anaemias	X	X
4	Thalassemias, Thalass	X	X
4	Thalassaemias trait, Thal trait		X
4	Sickle cell disorders, Sickle	X	X
4	Sickle cell trait, Sickle trait		X
4	G6PD deficiency, G6PD	X	X
4	G6PD trait, G6PD trait		X
4	Other hemoglobinopathies and		X
4	hemolytic anaemias, Oth Hem	X	X
3	Endocrine, metabolic, blood, and immune disorders	X	X
2	Musculoskeletal disorders, MSK	X	X
3	Rheumatoid arthritis, Rheu Arth	X	X
3	Osteoarthritis, Osteoarth		X
3	Low back and neck pain, Back+Neck		X
4	Low back pain, Back pain		X
4	Neck pain, Neck pain		X
3	Gout		X
3	Other musculoskeletal disorders, Oth MSK	X	X
2	Other non-communicable diseases, Oth NCDs	X	X
3	Congenital anomalies	X	X
4	Neural tube defects	X	X
4	Congenital heart anomalies	X	X
4	Orofacial clefts	X	X
4	Down's syndrome	X	X
4	Turner syndrome		X
4	Klinefelter syndrome		X
4	Other chromosomal abnormalities	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
4	Congenital musculoskeletal and limb anomalies	X	X
4	Urogenital congenital anomalies	X	X
4	Digestive congenital anomalies	X	X
4	Other congenital anomalies	X	X
3	Skin and subcutaneous diseases	X	X
4	Eczema		X
4	Psoriasis		X
4	Cellulitis	X	X
4	Pyoderma	X	X
4	Scabies		X
4	Fungal skin diseases		X
4	Viral skin diseases		X
4	Acne vulgaris		X
4	Alopecia areata		X
4	Pruritus		X
4	Urticaria		X
4	Decubitus ulcer	X	X
4	Other skin and subcutaneous diseases	X	X
3	Sense organ diseases		X
4	Glaucoma		X
4	Cataract		X
4	Macular degeneration		X
4	Refraction and accommodation disorders		X
4	Age-related and other hearing loss		X
4	Other vision loss		X
4	Other sense organ diseases		X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Oral disorders, Oral		X
4	Deciduous caries		X
4	Permanent caries		X
4	Periodontal disease		X
4	Edentulism and severe tooth loss		X
4	Other oral disorders		X
3	Sudden infant death syndrome, SIDs	X	
1	Injuries	X	X
2	Transport injuries	X	X
3	Road injuries, Road injury	X	X
4	Pedestrian road injuries	X	X
4	Cyclist road injuries	X	X
4	Motorcyclist road injuries	X	X
4	Motor vehicle road injuries	X	X
4	Other road injuries	X	X
3	Other transport injuries	X	X
2	Unintentional injuries	X	X
3	Falls	X	X
3	Drowning	X	X
3	Fire, heat, and hot substances	X	X
3	Poisonings	X	X
3	Exposure to mechanical forces	X	X
4	Unintentional firearm injuries	X	X
4	Unintentional suffocation	X	X
4	Other exposure to mechanical forces	X	X
3	Adverse effects of medical treatment	X	X

Appendix Table 2. Causes included in the 2016 Global Burden of Disease Study

Cause level	Cause	Cause of death	Cause of burden
3	Animal contact	X	X
4	Venomous animal contact	X	X
4	Non-venomous animal contact	X	X
3	Foreign body	X	X
4	Pulmonary aspiration and foreign body in airway	X	X
4	Foreign body in eyes		X
4	Foreign body in other body part	X	X
3	Environmental heat and cold exposure	X	X
3	Other unintentional injuries	X	X
2	Self-harm and interpersonal violence	X	X
3	Self-harm	X	X
4	Self-harm by firearm	X	X
4	Self-harm by other specified means	X	X
3	Interpersonal violence	X	X
4	Assault by firearm	X	X
4	Assault by sharp object	X	X
4	Sexual violence		X
4	Assault by other means	X	X
2	Forces of nature, conflict and terrorism, and executions and police conflict	X	X
3	Exposure to forces of nature	X	X
3	Conflict and terrorism	X	X
3	Executions and police conflict	X	X

Appendix Table 3: CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
All causes	0
Tuberculosis	1
Drug-sensitive tuberculosis	2
Multidrug-resistant tuberculosis without extensive drug resistance	2
Extensively drug-resistant tuberculosis	2
Diarrhoeal diseases	1
Typhoid fever	1
Paratyphoid fever	1
Other intestinal infectious diseases	1
Lower respiratory infections	1
Upper respiratory infections	1
Otitis media	1
Meningitis	1
Pneumococcal meningitis	2
H influenzae type B meningitis	2
Meningococcal infection	2
Other meningitis	2
Encephalitis	1
Diphtheria	1
Whooping cough	1
Tetanus	1
Measles	1
Varicella and herpes zoster	1
Malaria	1
Chagas disease	1
Visceral leishmaniasis	1
African trypanosomiasis	1
Schistosomiasis	1
Cysticercosis	1
Cystic echinococcosis	1
Dengue	1
Yellow fever	1
Rabies	1
Intestinal nematode infections	1
Ascariasis	2
Zika virus	1
Other neglected tropical diseases	1
Maternal disorders	1
Maternal haemorrhage	2
Maternal sepsis and other pregnancy related infections	2
Maternal hypertensive disorders	2
Maternal obstructed labour and uterine rupture	2
Maternal abortion, miscarriage, and ectopic pregnancy	2

Appendix Table 3: CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
Indirect maternal deaths	2
Late maternal deaths	2
Maternal deaths aggravated by HIV/AIDS	2
Other maternal disorders	2
Neonatal disorders	1
Neonatal preterm birth complications	2
Neonatal encephalopathy due to birth asphyxia and trauma	2
Neonatal sepsis and other neonatal infections	2
Hemolytic disease and other neonatal jaundice	2
Other neonatal disorders	2
Nutritional deficiencies	1
Protein-energy malnutrition	2
Iodine deficiency	2
Iron-deficiency anaemia	2
Other nutritional deficiencies	2
Sexually transmitted diseases excluding HIV	1
Syphilis	2
Chlamydial infection	2
Gonococcal infection	2
Other sexually transmitted diseases	2
Hepatitis	1
Acute hepatitis A	2
Hepatitis B	2
Hepatitis C	2
Acute hepatitis E	2
Other infectious diseases	1
Lip and oral cavity cancer	1
Nasopharynx cancer	1
Other pharynx cancer	1
Oesophageal cancer	1
Stomach cancer	1
Colon and rectum cancer	1
Liver cancer	1
Liver cancer due to hepatitis B	2
Liver cancer due to hepatitis C	2
Liver cancer due to alcohol use	2
Liver cancer due to other causes	2
Gallbladder and biliary tract cancer	1
Pancreatic cancer	1
Larynx cancer	1
Tracheal, bronchus, and lung cancer	1
Malignant skin melanoma	1

Appendix Table 3: CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
Non-melanoma skin cancer	1
Non-melanoma skin cancer (squamous-cell carcinoma)	2
Breast cancer	1
Cervical cancer	1
Uterine cancer	1
Ovarian cancer	1
Prostate cancer	1
Testicular cancer	1
Kidney cancer	1
Bladder cancer	1
Brain and nervous system cancer	1
Thyroid cancer	1
Mesothelioma	1
Hodgkin lymphoma	1
Non-Hodgkin's lymphoma	1
Multiple myeloma	1
Leukaemia	1
Acute lymphoid leukaemia	2
Chronic lymphoid leukaemia	2
Acute myeloid leukaemia	2
Chronic myeloid leukaemia	2
Other leukaemia	2
Other neoplasms	1
Cardiovascular diseases	1
Rheumatic heart disease	2
Ischaemic heart disease	2
Cerebrovascular disease	2
Ischaemic stroke	3
Hemorrhagic stroke	3
Hypertensive heart disease	2
Cardiomyopathy and myocarditis	2
Myocarditis	3
Alcoholic cardiomyopathy	3
Other cardiomyopathy	3
Atrial fibrillation and flutter	2
Aortic aneurysm	2
Peripheral vascular disease	2
Endocarditis	2
Other cardiovascular and circulatory diseases	2
Chronic respiratory diseases	1
Chronic obstructive pulmonary disease	2
Pneumoconiosis	2
Silicosis	3
Asbestosis	3

Appendix Table 3. CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
Coal workers pneumoconiosis	3
Other pneumoconiosis	3
Asthma	2
Interstitial lung disease and pulmonary sarcoidosis	2
Other chronic respiratory diseases	2
Cirrhosis and other chronic liver diseases	1
Cirrhosis and other chronic liver diseases due to hepatitis B	2
Cirrhosis and other chronic liver diseases due to hepatitis C	2
Cirrhosis and other chronic liver diseases due to alcohol use	2
Cirrhosis and other chronic liver diseases due to other causes	2
Digestive diseases	1
Peptic ulcer disease	2
Gastritis and duodenitis	2
Appendicitis	2
Paralytic ileus and intestinal obstruction	2
Inguinal, femoral, and abdominal hernia	2
Inflammatory bowel disease	2
Vascular intestinal disorders	2
Gallbladder and biliary diseases	2
Pancreatitis	2
Other digestive diseases	2
Alzheimer's disease and other dementias	1
Parkinson's disease	1
Epilepsy	1
Multiple sclerosis	1
Motor neuron disease	1
Other neurological disorders	1
Alcohol use disorders	1
Drug use disorders	1
Opioid use disorders	2
Cocaine use disorders	2
Amphetamine use disorders	2
Other drug use disorders	2
Eating disorders	1
Anorexia nervosa	2
Bulimia nervosa	2
Diabetes mellitus	1
Acute glomerulonephritis	1
Chronic kidney disease	1
Chronic kidney disease due to diabetes mellitus	2
Chronic kidney disease due to hypertension	2

Appendix Table 3: CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
Chronic kidney disease due to glomerulonephritis	2
Chronic kidney disease due to other causes	2
Urinary diseases and male infertility	1
Interstitial nephritis and urinary tract infections	2
Urolithiasis	2
Other urinary diseases	2
Gynecological diseases	1
Uterine fibroids	2
Polycystic ovarian syndrome	2
Endometriosis	2
Genital prolapse	2
Other gynecological diseases	2
Hemoglobinopathies and hemolytic anaemias	1
Thalassemias	2
Sickle cell disorders	2
G6PD deficiency	2
Other hemoglobinopathies and hemolytic anaemias	2
Endocrine, metabolic, blood, and immune disorders	1
Musculoskeletal disorders	1
Rheumatoid arthritis	2
Other musculoskeletal disorders	2
Congenital anomalies	1
Neural tube defects	2
Congenital heart anomalies	2
Cleft lip and cleft palate	2
Down's syndrome	2
Other chromosomal abnormalities	2
Congenital musculoskeletal and limb anomalies	2
Urogenital congenital anomalies	2
Digestive congenital anomalies	2
Other congenital anomalies	2
Skin and subcutaneous diseases	1
Cellulitis	2
Pyoderma	2
Decubitus ulcer	2
Other skin and subcutaneous diseases	2
Sudden infant death syndrome	1
Transport injuries	1
Road injuries	2
Pedestrian road injuries	3
Cyclist road injuries	3

Appendix Table 3: CoDCorrect cause hierarchy with levels

Cause name	CoDCorrect level
Motorcyclist road injuries	3
Motor vehicle road injuries	3
Other road injuries	3
Other transport injuries	2
Falls	1
Drowning	1
Fire, heat, and hot substances	1
Poisonings	1
Unintentional firearm injuries	1
Unintentional suffocation	1
Other exposure to mechanical forces	1
Adverse effects of medical treatment	1
Animal contact	1
Venomous animal contact	2
Non-venomous animal contact	2
Pulmonary aspiration and foreign body in airway	1
Foreign body in other body part	1
Environmental heat and cold exposure	1
Other unintentional injuries	1
Self-harm	1
Self-harm by firearm	2
Self-harm by other specified means	2
Interpersonal violence	1
Assault by firearm	2
Assault by sharp object	2
Assault by other means	2
Executions and police conflict	1

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
Communicable, maternal, neonatal, and nutritional diseases	A00-A00.9, A01.0-A14, A15-A28.9, A30-A30.9, A32-A39.9, A48.1-A48.2, A48.4-A48.5, A49.1, A50-A58, A60-A60.9, A63-A63.8, A65-A65.0, A68-A70, A74, A74.8-A75.9, A77-A96.9, A98-A98.8, B00-B06.9, B10-B10.8, B15-B17.9, B19-B27.9, B29.4, B33-B33.1, B33.3-B33.8, B47-B48.8, B50-B53.8, B55.0, B56-B57.5, B60-B60.8, B63, B65-B67.9, B69-B72.0, B74.3-B75, B77-B77.9, B83-B83.8, B90-B92, B94.1-B94.2, B95-B95.5, B97.4-B97.6, D50.1-D50.8, D51-D52.0, D52.8-D53.9, D64.3, E00-E02, E40-E46.9, E51-E61.9, E63-E64.0, E64.2-E64.9, F07.1, G00.0-G00.8, G03-G03.8, G04-G05.8, G14-G14.6, H70-H70.9, I00, I02, I02.9, I98.0-I98.1, J01-J01.9, J02.0, J03.0, J04.0, J05-J05.0, J09-J15.8, J16-J16.9, J20-J21.9, J36-J36.0, K67.0-K67.8, K71.2, K71.6, K74.7-K74.8, K75.3, K76.3, K77.0, K93.0-K93.1, M03.1, M12.1, M49.0-M49.1, M73.0-M73.1, M89.6, N74.1-N74.2, N96, N98-N98.9, O00-O07.9, O09-O16.9, O20-O26.9, O28-O36.9, O40-O48.1, O60-O77.9, O80-O92.7, O96-O98.6, O98.8-P04.2, P04.5-P05.9, P07-P15.9, P19-P22.9, P23.0-P23.4, P24-P29.9, P35-P37.2, P37.5-P39.9, P50-P61.9, P70, P70.3-P72.9, P74-P78.9, P80-P81.9, P83-P84, P90-P94.9, P96, P96.3-P96.4, P96.8, R19.7, U04-U04.9, U06-U06.9, U82-U89, Z16-Z16.3	001-001.9, 002.0-030.9, 032-034.9, 036-036.3, 036.5-037.9, 040, 040.1-041.0, 042-066.9, 070-074.1, 074.3-075.9, 078.3-078.7, 079-079.7, 080-083.9, 084.0-084.5, 084.7-084.9, 085.0, 086-088, 088.8-088.9, 090-101.6, 104-104.9, 120-124.9, 125.4-125.9, 127-127.1, 128-129.0, 136-136.2, 137-139.0, 244.2, 260-263.9, 265-269.9, 280.1-280.8, 281.0-281.9, 320.0-320.8, 321-323.9, 381-383.9, 390-390.9, 392, 392.9, 425.6, 461-461.9, 464.0, 464.2, 464.4, 464.8-464.9, 466-469, 470.0, 475-475.9, 476.9, 480-482.8, 483.0-483.9, 484.0-484.7, 487-489, 630-636.9, 638-638.9, 640-679.1, 716.0, 730.4-730.6, 760-760.6, 760.8-768, 768.2-770, 770.1-775, 775.4-779.3, 779.6-779.8, V09-V09.9
HIV/AIDS and tuberculosis	A10-A14, A15-A19.9, B20-B24.9, B90-B90.9, K67.3, K93.0, M49.0, N74.1-N74.2, P37.0, U84.3	010-019.9, 042-044.9, 137-137.9, 138.0-138.9, 730.4-730.6
Tuberculosis	A10-A14, A15-A19.9, B90-B90.9, K67.3, K93.0, M49.0, N74.1-N74.2, P37.0, U84.3	010-019.9, 137-137.9, 138.0-138.9, 730.4-730.6
Drug-susceptible tuberculosis	A10-A14, A15-A19.9, B90-B90.9, K67.3, K93.0, M49.0, P37.0	010-019.9
Multidrug-resistant tuberculosis without extensive drug resistance	U84.3	
Extensively drug-resistant tuberculosis		
HIV/AIDS	B20-B24.9	042-044.9
Drug-susceptible HIV/AIDS - Tuberculosis	B20.0	
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance		
Extensively drug-resistant HIV/AIDS - Tuberculosis		
HIV/AIDS resulting in other diseases	B20.1-B23.9, B24.0	042-044.9
Diarrhea, lower respiratory, and other common infectious diseases	A00-A00.9, A01.0-A09.9, A33-A37.9, A39-A39.9, A48.1, A70, A83-A87.9, B01-B02.9, B05-B05.9, B94.1, B97.4-B97.6, F07.1, G00.0-G00.8, G03-G03.8, G04-G05.8, H70-H70.9, J01-J01.9, J04.0, J05-J05.0, J09-J15.8, J16-J16.9, J20-J21.9, J36-J36.0, P23.0-P23.4, P35.8, R19.7, U04-U04.9	001-001.9, 002.0-009.9, 032-033.9, 036-036.3, 036.5-037.9, 047-049.9, 052-053.9, 055-055.9, 062-064.9, 079.6, 139.0, 320.0-320.8, 321-323, 323.4-323.9, 381-383.9, 461-461.9, 464.0, 464.2, 464.4, 464.8-464.9, 466-469, 470.0, 475-475.9, 476.9, 480-482.8, 483.0-483.9, 484.0-484.3, 484.6-484.7, 487-489, 771.3
Diarrheal diseases	A00-A00.9, A02-A04.1, A04.3, A04.5-A07, A07.2-A07.4, A08-A09.9, R19.7	001-001.9, 003-006.9, 007.4-007.8, 008.2-009.9
Intestinal infectious diseases	A01.0-A01.4, A04.2, A04.4, A07.0-A07.1, A07.8-A07.9	002.0-002.9, 007-007.3, 007.9-008.1
Typhoid fever	A01.0	002.0
Paratyphoid fever	A01.1-A01.4	002.1-002.9
Other intestinal infectious diseases	A04.2, A04.4, A07.0-A07.1, A07.8-A07.9	007-007.3, 007.9-008.1
Lower respiratory infections	A48.1, A70, B97.4-B97.6, J09-J15.8, J16-J16.9, J20-J21.9, P23.0-P23.4, U04-U04.9	079.6, 466-469, 470.0, 480-482.8, 483.0-483.9, 484.1-484.2, 484.6-484.7, 487-489
Upper respiratory infections	J01-J01.9, J04.0, J05-J05.0, J36-J36.0	461-461.9, 464.0, 464.2, 464.4, 464.8-464.9, 475-475.9, 476.9
Otitis media	H70-H70.9	381-383.9
Meningitis	A39-A39.9, A87-A87.9, G00.0-G00.8, G03-G03.8	036-036.3, 036.5-036.9, 047-049.9, 320.0-320.8, 321-322.9

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death		
Cause	ICD10	ICD9
Pneumococcal meningitis	G00.1	320.1
H influenzae type B meningitis	G00.0	320.0
Meningococcal meningitis	A39-A39.9	036-036.3, 036.5-036.9
Other meningitis	A87-A87.9, G00.2-G00.8, G03-G03.8	047-049.9, 320.2-320.8, 321-322.9
Encephalitis	A83-A86.4, B94.1, F07.1, G04-G05.8	062-064.9, 139.0, 323, 323.4-323.9
Diphtheria	A36-A36.9	032-032.9
Whooping cough	A37-A37.9	033-033.9, 484.3
Tetanus	A33-A35.0	037-037.9, 771.3
Measles	B05-B05.9	055-055.9, 484.0
Varicella and herpes zoster	B01-B02.9, P35.8	052-053.9
Neglected tropical diseases and malaria	A30-A30.9, A68-A68.9, A69.2-A69.9, A75-A75.9, A77-A79.9, A82-A82.9, A90-A96.9, A98-A98.8, B33.0-B33.1, B50-B53.8, B55.0, B56-B57.5, B60-B60.8, B65-B67.9, B69-B72.0, B74.3-B75, B77-B77.9, B83-B83.8, B92, K93.1, P37.1, U06-U06.9	030-030.9, 060-061.8, 065-066.9, 071-071.9, 080-083.9, 084.0-084.5, 084.7-084.9, 085.0, 086-088, 088.8-088.9, 120-124.9, 125.4-125.9, 127-127.1, 128-129.0, 425.6
Malaria	B50-B53.8	084.0-084.5, 084.7-084.9
Leprosy	A30-A30.9	030-030.9
Chagas disease	B57-B57.5, K93.1	086-086.2, 086.9, 425.6
Leishmaniasis	B55.0	085.0
Visceral leishmaniasis	B55.0	085.0
African trypanosomiasis	B56-B56.9	086.3-086.5
Schistosomiasis	B65-B65.9	120-120.9
Cysticercosis	B69-B69.9	123.1
Cystic echinococcosis	B67-B67.4, B67.8-B67.9	122-122.4, 122.8-122.9
Dengue	A90-A91.9	061-061.8
Yellow fever	A95-A95.9	060-060.9
Rabies	A82-A82.9	071-071.9
Intestinal nematode infections	B77-B77.9	127.0
Ascariasis	B77-B77.9	127.0
Ebola	A98.4	
Zika virus	U06-U06.9	
Other neglected tropical diseases	A68-A68.9, A69.2-A69.9, A75-A75.9, A77-A79.9, A92-A94.0, A96-A96.9, A98-A98.3, A98.5-A98.8, B33.0-B33.1, B60-B60.8, B67.5-B67.7, B70-B71.9, B74.3-B75, B83-B83.8, P37.1	065-066.9, 080-083.9, 087-088, 088.8-088.9, 122.5-122.7, 123-123.0, 123.2-124.9, 125.4-125.6, 125.9, 127, 127.1, 128-129.0
Maternal disorders	N96, N98-N98.9, O00-O07.9, O09-O16.9, O20-O26.9, O28-O36.9, O40-O48.1, O60-O77.9, O80-O92.7, O96-O98.6, O98.8-O99.9	630-636.9, 638-638.9, 640-679.1
Maternal hemorrhage	O20-O20.9, O43.2, O44-O46.9, O62-O62.9, O67-O67.9, O70, O72-O72.3	640-641.9, 661-661.9, 665, 666-666.9
Maternal sepsis and other maternal infections	O23-O23.9, O85-O86.8, O91-O91.2	659.3, 670-670.9
Maternal hypertensive disorders	O10-O16.9	642-642.9
Maternal obstructed labor and uterine rupture	O32-O33.9, O64-O66.9, O71-O71.9	652-653.9, 660-660.9, 665.0-665.3
Maternal abortion, miscarriage, and ectopic pregnancy	N96, O00-O07.9	630-636.9, 638-638.9, 646.3
Indirect maternal deaths	O24-O25.3, O98-O98.6, O98.8-O99.9	646-646.2, 646.4-649.9
Late maternal deaths	O96-O97.9	
Maternal deaths aggravated by HIV/AIDS		
Other maternal disorders	N98-N98.9, O09-O09.9, O21-O22.9, O26-O26.9, O28-O31.8, O34-O36.9, O40-O43.1, O43.8-O43.9, O47-O48.1, O60-O61.9, O63-O63.9, O68-O69.9, O70.0-O70.9, O73-O77.9, O80-O84.9, O87-O90.9, O92-O92.7	643-645.2, 650-651.9, 654-659.2, 659.4-659.9, 662-664.9, 665.4-665.9, 667-669.9, 671-679.1
Neonatal disorders	P00-P04.2, P04.5-P05.9, P07-P15.9, P19-P22.9, P24-P29.9, P36-P36.9, P38-P39.9, P50-P61.9, P70, P70.3-P72.9, P74-P78.9, P80-P81.9, P83-P84, P90-P94.9, P96, P96.3-P96.4, P96.8	760-760.6, 760.8-768, 768.2-770, 770.1-771, 771.4-775, 775.4-779.3, 779.6-779.8
Neonatal preterm birth complications	P01.0-P01.1, P07-P07.3, P22-P22.9, P25-P28.9, P61.2, P77-P77.9	761.0-761.1, 765-765.9, 769-769.9, 770.2-770.9, 776.6, 777.5-777.6
Neonatal encephalopathy due to birth asphyxia and trauma	P01.7, P02-P03.9, P10-P15.9, P20-P21.9, P24-P24.9, P90-P91.9	761.7-763.9, 767-768, 768.2-768.9, 770.1, 772.1-772.9, 779.0-779.2
Neonatal sepsis and other neonatal infections	P36-P36.9, P38-P39.9	771.4-771.9
Hemolytic disease and other neonatal jaundice	P55-P59.9	773-774.9
Other neonatal disorders	P00-P01, P01.2-P01.6, P01.8-P01.9, P04-P04.2, P04.5-P05.9, P08-P09, P19-P19.9, P29-P29.9, P50-P54.9, P60-P61.1, P61.3-P61.9, P70, P70.3-P72.9, P74-P76.9, P78-P78.9, P80-P81.9, P83-P84, P92-P94.9, P96, P96.3-P96.4, P96.8	760-760.6, 760.8-761, 761.2-761.6, 764-764.9, 766-766.9, 770, 771, 772-772.0, 775, 775.4-776.5, 776.7-777.4, 777.7-779, 779.3, 779.6-779.8
Nutritional deficiencies	D50.1-D50.8, D51-D52.0, D52.8-D53.9, D64.3, E00-E02, E40-E46.9, E51-E61.9, E63-E64.0, E64.2-E64.9, M12.1	244.2, 260-263.9, 265-269.9, 280.1-280.8, 281.0-281.9, 716.0
Protein-energy malnutrition	E40-E46.9, E64.0	260-263.9

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
Iodine deficiency	E00-E02	244.2
Iron-deficiency anemia	D50.1-D50.8	280.1-280.8
Other nutritional deficiencies	D51-D52.0, D52.8-D53.9, D64.3, E51-E61.9, E63-E64, E64.2-E64.3, M12.1	265-269.9, 281.0-281.9, 716.0
Other communicable, maternal, neonatal, and nutritional diseases	A20-A28.9, A32-A32.9, A38-A38.9, A48.2, A48.4-A48.5, A49.1, A50-A58, A60-A60.9, A63-A63.8, A65-A65.0, A69-A69.1, A74, A74.8-A74.9, A80-A81.9, A88-A89.9, B00-B00.9, B03-B04, B06-B06.9, B10-B10.8, B15-B17.9, B19-B19.9, B25-B27.9, B29.4, B33, B33.3-B33.8, B47-B48.8, B63, B91, B94.2, B95-B95.5, G14-G14.6, I00, I02, I02.9, I98.0-I98.1, J02.0, J03.0, K67.0-K67.2, K67.8, K71.2, K71.6, K74.7-K74.8, K75.3, K76.3, K77.0, M03.1, M49.1, M73.0-M73.1, M89.6, P35-P35.3, P35.9, P37, P37.2, P37.5-P37.9, U82-U84, U85-U89, Z16-Z16.3	020-029, 034-034.9, 040, 040.1-041.0, 045-046.9, 050-051.9, 054-054.9, 056-059.9, 070-070.9, 072-074.1, 074.3-075.9, 078.3-078.7, 079-079.5, 079.7, 090-101.6, 104-104.9, 136-136.2, 138, 139, 323.0-323.3, 390-390.9, 392, 392.9, 484.4-484.5, 771.0-771.2, V09-V09.9
Sexually transmitted diseases excluding HIV	A50-A58, A60-A60.9, A63-A63.8, B63, I98.0, K67.0-K67.2, M03.1, M73.0-M73.1	054.1, 090-099.9
Syphilis	A50-A53.9, I98.0, K67.2, M03.1, M73.1	090-097.9
Chlamydial infection	A55-A56.8, K67.0	099
Gonococcal infection	A54-A54.9, K67.1, M73.0	098-098.9
Other sexually transmitted diseases	A57-A58, A63-A63.8	099.0-099.9
Hepatitis	B15-B17.9, B19-B19.9, B94.2, K71.2, K71.6, P35.3	070-070.9
Acute hepatitis A	B15-B15.9	070.0-070.1
Hepatitis B	B16-B16.9, B17.0, B19.1, P35.3	070.2-070.3
Hepatitis C	B17.1, B19.2	070.7
Acute hepatitis E	B17.2	
Other infectious diseases	A20-A28.9, A32-A32.9, A38-A38.9, A48.2, A48.4-A48.5, A49.1, A65-A65.0, A69-A69.1, A74, A74.8-A74.9, A80-A81.9, A88-A89.9, B00-B00.9, B03-B04, B06-B06.9, B10-B10.8, B25-B27.9, B29.4, B33, B33.3-B33.8, B47-B48.8, B91, B95-B95.5, G14-G14.6, I00, I02, I02.9, I98.1, J02.0, J03.0, K67.8, K74.7-K74.8, K75.3, K76.3, K77.0, M49.1, M89.6, P35-P35.2, P35.9, P37, P37.2, P37.5-P37.9, U82-U84, U85-U89, Z16-Z16.3	020-029, 034-034.9, 040, 040.1-041.0, 045-046.9, 050-051.9, 054-054.0, 054.2-054.9, 056-059.9, 072-074.1, 074.3-075.9, 078.3-078.7, 079-079.5, 079.7, 100-101.6, 104-104.9, 136-136.2, 138, 139, 323.0-323.3, 390-390.9, 392, 392.9, 484.4-484.5, 771.0-771.2, V09-V09.9
Non-communicable diseases	A46-A46.0, A66-A67.9, B18-B18.9, B33.2, B86, C00-C13.9, C15-C25.9, C30-C34.9, C37-C38.8, C40-C41.9, C43-C45.9, C47-C54.9, C56-C57.8, C58-C58.0, C60-C63.8, C64-C67.9, C68.0-C68.8, C69-C75.8, C81-C86.6, C88-C96.9, D00.1-D00.2, D01.0-D01.3, D02.0-D02.3, D03-D06.9, D07.0-D07.2, D07.4-D07.5, D09.0, D09.2-D09.3, D09.8, D10.0-D10.7, D11-D12.9, D13.0-D13.7, D14.0-D14.3, D15-D16.9, D22-D27.9, D28.0-D28.7, D29.0-D29.8, D30.0-D30.8, D31-D36, D36.1-D36.7, D37.1-D37.5, D38.0-D38.5, D39.1-D39.2, D39.8, D40.0-D40.8, D41.0-D41.8, D42-D43.9, D44.0-D44.8, D45-D47.0, D47.2-D47.9, D48.0-D48.6, D49.2-D49.4, D49.6, D52.1, D55-D58.9, D59.0-D59.3, D59.5-D59.6, D60-D61.9, D63.1, D64.0, D64.4, D66-D67, D68.0-D69.8, D70-D75.8, D76-D78.8, D86-D86.9, D89-D89.3, E03-E07.1, E09-E14.9, E15.0, E16.0-E16.9, E20-E34.8, E36-E36.8, E65-E68, E70-E85.2, E88-E89.9, F00-F03.9, F10-F16.9, F18-F19.9, F24, F50.0-F50.5, G10-G13.8, G20-G26.0, G30-G31.9, G35-G37.9, G40-G41.9, G45-G46.8, G47.3, G61-G61.9, G70-G73.7, G90-G90.9, G93.7, G95-G95.9, G97-G97.9, H05.0-H05.1, I01-I01.9, I02.0, I05-I09.9, I11-I13.9, I20-I25.9, I27.1, I28-I28.8, I30-I31.1, I31.8-I41.9, I42.1-I42.8, I43-I43.9, I47-I48.9, I51.0-I51.4, I60-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.7, I68.0-I68.2, I69.0-I69.3, I70.2-I70.8, I71-I73.9, I77-I89.9, I95.2-I95.3, I97-I98, I98.2, I98.9, J30-J35.9, J37-I47.9, J60-J63.8, J65-J68.9, J70-J70.9, J82, J84-J84.9, J91-J92.9, J95-J95.9, K20-K29.9, K31-K31.8, K35-K38.9, K40-K46.9, K50-K52.9, K55-K62.9, K63.5, K64-K64.9, K66.8, K67, K68-K68.9, K70-K70.9, K71.3-K71.5, K71.7, K72.1-K74.6, K74.9, K75.1-K75.2, K75.4-K76.2, K76.4-K77, K77.8, K80-K83.9, K85-K86.9, K90-K91.9, K92.8, K93.8-K95.8, L00-L05.9, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.9, L93-L93.2, L97-L98.4, M00-M03.0, M03.2-M03.6, M05-M09.8, M30-M36.8, M40-M43.1, M65-M65.0, M71.0-M71.1, M72.5-M72.6, M80-M82.8, M86.3-M86.4, M87-M87.1, M88-M89.0, M89.5, M89.7-M89.9, N00-N08.8, N10-N12.9, N14-N16.8, N18-N18.9, N20-N23.0, N25-N28.1, N29-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.0, N45-N45.9, N49-N49.9, N60-N60.9, N65-N65.1, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9, N84.0-N84.1, N87-N87.9, N99-N99.9, P04.3-P04.4, P70.0-P70.2, P96.0-P96.2, P96.5, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q87.8, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8, R50.2, R73-R73.9, R78.0-R78.5, R95-R95.9, X45-X45.9, X65-X65.9, Y15-Y15.9	035-035.9, 036.4, 074.2, 102-103.9, 133-133.6, 135-135.9, 136.6, 140-148.9, 150-158.9, 160-164.9, 170-175.9, 180-183.8, 184.0-184.4, 184.8, 185-186.9, 187.1-187.8, 188-188.9, 189.0-189.8, 190-194.8, 200-208.9, 209.0-209.1, 209.4-209.5, 210.0-210.9, 211.0-211.8, 212.0-212.8, 213-213.9, 217-220.9, 221.0-221.8, 222.0-222.8, 223.0-223.8, 224-228.9, 229.0, 229.8, 230.1-230.8, 231.0-231.2, 232-232.9, 233.0-233.2, 233.4-233.5, 233.7, 234.0-234.8, 235.0, 235.4, 235.6-235.8, 236.0-236.2, 236.4-236.5, 236.7, 237-237.3, 237.5-237.9, 238.0-238.9, 239.2-239.4, 239.6, 240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 250-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 282-284.9, 286-286.5, 286.7-289.7, 290-292.9, 294.1-294.9, 303-303.9, 304.0-304.8, 305-305.9, 307.1, 327.2-327.8, 330-331.2, 331.5-337.9, 340-341.9, 345-345.9, 349, 349.2-349.8, 353.6-353.9, 356-356.9, 357.0-357.7, 358-359.9, 376.0-376.1, 391-391.9, 392.0, 393-398.9, 402-404.9, 410-414.9, 416.1, 417-417.9, 420-423, 423.1-424.9, 425.0-425.3, 425.5, 425.7-425.8, 427-427.3, 427.6-427.8, 429.0, 430-435.9, 437.0-437.2, 437.4-437.8, 440.2, 440.4, 441-443.9, 446-457, 457.1-457.9, 459, 459.1-459.3, 470, 470.9-474.9, 476-476.1, 477-479, 490-504.9, 506-506.9, 508-509, 515, 516-517.8, 518.6-518.7, 518.9, 519.0-519.4, 530-536.1, 536.4, 537-537.6, 537.8, 538-543.9, 550-553.6, 555-558.9, 560-560.3, 560.8-560.9, 562-562.1, 564-564.7, 565-566.9, 569.0-569.7, 571-571.9, 572.2-577.9, 579-583.9, 585-585.9, 588-590.9, 592-593.8, 594-599.6, 599.8, 601-602.9, 604-604.9, 608.2, 610-610.9, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.8, 680-689, 694-695.5, 707-707.9, 710-711.9, 714-714.3, 714.8-714.9, 730.1, 732-732.9, 733.0-733.1, 740-749.0, 749.2-758.9, 759.0-759.8, 760.7, 775.0-775.3, 779.4-779.5, 787.1, 788.0, 790.2-790.3, 798-798.0, E850-E854, E860

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
Neoplasms	C00-C13.9, C15-C25.9, C30-C34.9, C37-C38.8, C40-C41.9, C43-C45.9, C47-C54.9, C56-C57.8, C58-C58.0, C60-C63.8, C64-C67.9, C68.0-C68.8, C69-C75.8, C81-C86.6, C88-C96.9, D00.1-D00.2, D01.0-D01.3, D02.0-D02.3, D03-D06.9, D07.0-D07.2, D07.4-D07.5, D09.0, D09.2-D09.3, D09.8, D10.0-D10.7, D11-D12.9, D13.0-D13.7, D14.0-D14.3, D15-D16.9, D22-D24.9, D26.0, D27-D27.9, D28.0-D28.1, D28.7, D29.0-D29.8, D30.0-D30.8, D31-D36, D36.1-D36.7, D37.1-D37.5, D38.0-D38.5, D39.1-D39.2, D39.8, D40.0-D40.8, D41.0-D41.8, D42-D43.9, D44.0-D44.8, D45-D47.0, D47.2-D47.9, D48.0-D48.6, D49.2-D49.4, D49.6, K31.7, K62.0-K62.1, K63.5, N60-N60.9, N84.0-N84.1, N87-N87.9	140-148.9, 150-158.9, 160-164.9, 170-175.9, 180-183.8, 184.0-184.4, 184.8, 185-186.9, 187.1-187.8, 188-188.9, 189.0-189.8, 190-194.8, 200-208.9, 209.0-209.1, 209.4-209.5, 210.0-210.9, 211.0-211.8, 212.0-212.8, 213-213.9, 217-217.8, 219.0, 220-220.9, 221.0-221.8, 222.0-222.8, 223.0-223.8, 224-228.9, 229.0, 229.8, 230.1-230.8, 231.0-231.2, 232-232.9, 233.0-233.2, 233.4-233.5, 233.7, 234.0-234.8, 235.0, 235.4, 235.6-235.8, 236.1-236.2, 236.4-236.5, 236.7, 237-237.3, 237.5-237.9, 238.0-238.9, 239.2-239.4, 239.6, 569.0, 610-610.9
Lip and oral cavity cancer	C00-C08.9, D10.0-D10.5, D11-D11.9	140-145.9, 210.0-210.6, 235.0
Nasopharynx cancer	C11-C11.9, D10.6	147-147.9, 210.7-210.9
Other pharynx cancer	C09-C10.9, C12-C13.9, D10.7	146-146.9, 148-148.9
Esophageal cancer	C15-C15.9, D00.1, D13.0	150-150.9, 211.0, 230.1
Stomach cancer	C16-C16.9, D00.2, D13.1, D37.1	151-151.9, 211.1, 230.2
Colon and rectum cancer	C18-C21.9, D01.0-D01.3, D12-D12.9, D37.3-D37.5	153-154.9, 209.1, 209.5, 211.3-211.4, 230.3-230.6
Liver cancer	C22-C22.9, D13.4	155-155.9, 211.5
Liver cancer due to hepatitis B		
Liver cancer due to hepatitis C		
Liver cancer due to alcohol use		
Liver cancer due to other causes		
Gallbladder and biliary tract cancer	C23-C24.9, D13.5	156-156.9
Pancreatic cancer	C25-C25.9, D13.6-D13.7	157-157.9, 211.6-211.7
Larynx cancer	C32-C32.9, D02.0, D14.1, D38.0	161-161.9, 212.1, 231.0, 235.6
Tracheal, bronchus, and lung cancer	C33-C34.9, D02.1-D02.3, D14.2-D14.3, D38.1	162-162.9, 212.2-212.3, 231.1-231.2, 235.7
Malignant skin melanoma	C43-C43.9, D03-D03.9, D22-D23.9, D48.5	172-172.9
Non-melanoma skin cancer	C44-C44.9, D04-D04.9, D49.2	173-173.9, 222.4, 232-232.9, 238.2
Non-melanoma skin cancer (squamous-cell carcinoma)	C44-C44.9, D04-D04.9, D49.2	173-173.9, 222.4, 232-232.9, 238.2
Breast cancer	C50-C50.9, D05-D05.9, D24-D24.9, D48.6, D49.3, N60-N60.9	174-175.9, 217-217.8, 233.0, 238.3, 239.3, 610-610.9
Cervical cancer	C53-C53.9, D06-D06.9, D26.0	180-180.9, 219.0, 233.1
Uterine cancer	C54-C54.9, D07.0-D07.2, N87-N87.9	182-182.8, 233.2
Ovarian cancer	C56-C56.9, D27-D27.9, D39.1	183-183.0, 220-220.9, 236.2
Prostate cancer	C61-C61.9, D07.5, D29.1, D40.0	185-185.9, 222.2, 236.5
Testicular cancer	C62-C62.9, D29.2-D29.8, D40.1-D40.8	186-186.9, 222.0, 222.3, 236.4
Kidney cancer	C64-C65.9, D30.0-D30.1, D41.0-D41.1	189.0-189.1, 189.5-189.6, 223.0-223.1
Bladder cancer	C67-C67.9, D09.0, D30.3, D41.4-D41.8, D49.4	188-188.9, 223.3, 233.7, 236.7, 239.4
Brain and nervous system cancer	C70-C72.9	191-192.9
Thyroid cancer	C73-C73.9, D09.3, D09.8, D34-D34.9, D44.0	193-193.9, 226-226.9
Mesothelioma	C45-C45.9	
Hodgkin lymphoma	C81-C81.9	201-201.9
Non-Hodgkin lymphoma	C82-C86.6, C96-C96.9	200-200.9, 202-202.9
Multiple myeloma	C88-C90.9	203-203.9
Leukemia	C91-C95.9	204-208.9
Acute lymphoid leukemia	C91.0	204.0
Chronic lymphoid leukemia	C91.1	204.1
Acute myeloid leukemia	C92.0, C92.3-C92.6, C93.0, C94.0, C94.2, C94.4-C94.5	205.0, 205.3, 206.0, 207.0
Chronic myeloid leukemia	C92.1	205.1, 206.1, 207.1
Other leukemia	C91.2-C91.9, C92.2, C92.7-C92.9, C93.1-C93.9, C94.1, C94.3, C94.6-C95.9	204.2-204.9, 205.2, 205.8-205.9, 206.2-207, 207.2-208.9
Other neoplasms	C17-C17.9, C30-C31.9, C37-C38.8, C40-C41.9, C47-C44, C51-C52.9, C57-C57.8, C58-C58.0, C60-C60.9, C63-C63.8, C66-C66.9, C68.0-C68.8, C69-C69.9, C74-C75.8, D07.4, D09.2, D13.2-D13.3, D14.0, D15-D16.9, D28.0-D28.1, D28.7, D29.0, D30.2, D30.4-D30.8, D31-D33.9, D35-D36, D36.1-D36.7, D37.2, D38.2-D38.5, D39.2, D39.8, D41.2-D41.3, D42-D43.9, D44.1-D44.8, D45-D47.0, D47.2-D47.9, D48.0-D48.4, D49.6, K31.7, K62.0-K62.1, K63.5, N84.0-N84.1	152-152.9, 158-158.9, 160-160.9, 163-164.9, 170-171.9, 181-181.9, 182.9, 183.2-183.8, 184.0-184.4, 184.8, 187.1-187.8, 189.2-189.4, 189.8, 190-190.9, 194-194.8, 209.0, 209.4, 211.2, 211.8, 212.0, 212.4-212.8, 213-213.9, 221.0-221.8, 222.1, 222.8, 223.2, 223.8, 224-225.9, 227-228.9, 229.0, 229.8, 230.7-230.8, 233.4-233.5, 234.0-234.8, 235.4, 235.8, 236.1, 237-237.3, 237.5-237.9, 238.0-238.1, 238.4-238.9, 239.2, 239.6, 569.0
Cardiovascular diseases	B33.2, G45-G46.8, I01-I01.9, I02.0, I05-I09.9, I11-I11.9, I20-I25.9, I28-I28.8, I30-I31.1, I31.8-I41.9, I42.1-I42.8, I43-I43.9, I47-I48.9, I51.0-I51.4, I60-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.6, I68.0-I68.2, I69.0-I69.3, I70.2-I70.8, I71-I73.9, I77-I83.9, I86-I89.0, I89.9, I98, K75.1	036.4, 074.2, 391-391.9, 392.0, 393-398.9, 402-402.9, 410-414.9, 417-417.9, 420-423, 423.1-424.9, 425.0-425.3, 425.5, 425.7-425.8, 427-427.3, 427.6-427.8, 429.0, 430-435.9, 437.0-437.2, 437.5-437.8, 440.2, 440.4, 441-443.9, 447-454.9, 456, 456.3-457, 457.1, 457.8-457.9, 459, 459.1-459.3

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death		
Cause	ICD10	ICD9
Rheumatic heart disease	I01-I01.9, I02.0, I05-I09.9	391-391.9, 392.0, 393-398.9
Ischemic heart disease	I20-I25.9	410-414.9
Cerebrovascular disease	G45-G46.8, I60-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.6, I68.1-I68.2, I69.0-I69.3	430-435.9, 437.0-437.2, 437.5-437.8
Ischemic stroke	G45-G46.8, I63-I63.9, I65-I66.9, I67.2-I67.3, I67.5-I67.6, I69.3	433-435.9, 437.0-437.1, 437.5-437.8
Hemorrhagic stroke	I60-I62.9, I67.0-I67.1, I68.1-I68.2, I69.0-I69.2	430-432.9, 437.2
Hypertensive heart disease	I11-I11.9	402-402.9
Cardiomyopathy and myocarditis	B33.2, I40-I41.9, I42.1-I42.8, I43-I43.9, I51.4	422-422.9, 425.0-425.3, 425.5, 425.7-425.8, 429.0
Myocarditis	B33.2, I40-I41.9, I51.4	422-422.9
Alcoholic cardiomyopathy	I42.6	425.5
Other cardiomyopathy	I42.1-I42.5, I42.7-I42.8, I43-I43.9	425.0-425.3, 425.7-425.8, 429.0
Atrial fibrillation and flutter	I48-I48.9	427.3
Aortic aneurysm	I71-I71.9	441-441.9
Peripheral artery disease	I70.2-I70.8, I73-I73.9	440.2, 440.4, 443.0-443.9
Endocarditis	I33-I33.9, I38-I39.9	421-421.9, 424.9
Other cardiovascular and circulatory diseases	I28-I28.8, I30-I31.1, I31.8-I32.8, I34-I37.9, I47-I47.9, I51.0-I51.3, I68.0, I72-I72.9, I77-I83.9, I86-I89.0, I89.9, I98, K75.1	036.4, 074.2, 417-417.9, 420-420.9, 423, 423.1-424.8, 427-427.2, 427.6-427.8, 442-443, 447-454.9, 456, 456.3-457, 457.1, 457.8-457.9, 459, 459.1-459.3
Chronic respiratory diseases	D86-D86.2, D86.9, G47.3, J30-J35.9, J37-J47.9, J60-J63.8, J65-J68.9, J70-J70.1, J70.8-J70.9, J82, J84-J84.9, J91-J92.9	135-135.9, 136.6, 327.2-327.8, 470, 470.9-474.9, 476-476.1, 477-479, 490-504.9, 506-506.9, 508-509, 515, 516-517.8, 518.6, 518.9, 519.1-519.4
Chronic obstructive pulmonary disease	J40-J44.9, J47-J47.9	490-492.9, 494-494.9, 496-499
Pneumoconiosis	J60-J63.8, J65-J65.0, J92.0	500-504.9
Silicosis	J62-J62.9	502-502.9, 503.0, 503.9
Asbestosis	J61-J61.0, J92.0	501
Coal workers pneumoconiosis	J60-J60.0	500-500.9, 501.0-501.9
Other pneumoconiosis	J63-J63.8, J65-J65.0	503, 503.1, 504-504.9
Asthma	J45-J46.9	493-493.9
Interstitial lung disease and pulmonary sarcoidosis	D86-D86.2, D86.9, J84-J84.9	135-135.9, 136.6, 515, 516-516.9
Other chronic respiratory diseases	G47.3, J30-J35.9, J37-J39.9, J66-J68.9, J70-J70.1, J70.8-J70.9, J82, J91-J92, J92.9	327.2-327.8, 470, 470.9-474.9, 476-476.1, 477-479, 495-495.9, 506-506.9, 508-509, 517-517.8, 518.6, 518.9, 519.1-519.4
Cirrhosis and other chronic liver diseases	B18-B18.9, I85-I85.9, I98.2, K70-K70.9, K71.3-K71.5, K71.7, K72.1-K74.6, K74.9, K75.2, K75.4-K76.2, K76.4-K76.9, K77.8	456.0-456.2, 571-571.9, 572.2-573.9
Cirrhosis and other chronic liver diseases due to hepatitis B		
Cirrhosis and other chronic liver diseases due to hepatitis C		
Cirrhosis and other chronic liver diseases due to alcohol use		
Cirrhosis and other chronic liver diseases due to other causes		
Digestive diseases	I84-I84.9, K20-K29.9, K31-K31.6, K31.8, K35-K38.9, K40-K42.9, K44-K46.9, K50-K52.9, K55-K62, K62.2-K62.6, K62.8-K62.9, K64-K64.9, K66.8, K67, K68-K68.9, K77, K80-K83.9, K85-K86.9, K90-K90.9, K92.8, K93.8, M09.1	455-455.9, 530-536.1, 537-537.6, 537.8, 538, 540-543.9, 550-551.1, 551.3-552.1, 552.3-553.6, 555-558.9, 560-560.3, 560.8-560.9, 562-562.1, 564-564.1, 564.5-564.7, 565-566.9, 569.1-569.5, 569.7, 574-577.9, 579-579.2, 579.4-579.9, 787.1
Peptic ulcer disease	K25-K28.9, K31, K31.1-K31.6, K31.8	531-534.9
Gastritis and duodenitis	K29-K29.9	535-535.9
Appendicitis	K35-K37.9, K38.3-K38.9	540-542.9
Paralytic ileus and intestinal obstruction	K56-K56.9	560-560.3, 560.8-560.9
Inguinal, femoral, and abdominal hernia	K40-K42.9, K44-K46.9	550-551.1, 551.3-552.1, 552.3-553.0, 553.6
Inflammatory bowel disease	K50-K52.9, M09.1	555-556.9, 558-558.9, 569.5
Vascular intestinal disorders	K55-K55.9	557-557.9
Gallbladder and biliary diseases	K80-K83.9	574-576.9
Pancreatitis	K85-K86.9	577-577.9, 579.4
Other digestive diseases	I84-I84.9, K20-K24, K31.0, K38-K38.2, K57-K62, K62.2-K62.6, K62.8-K62.9, K64-K64.9, K66.8, K67, K68-K68.9, K77, K90-K90.9, K92.8, K93.8	455-455.9, 530-530.9, 536-536.1, 537-537.6, 537.8, 538, 543-543.9, 553.1-553.3, 562-562.1, 564-564.1, 564.5-564.7, 565-566.9, 569.1-569.4, 569.7, 579-579.2, 579.8-579.9, 787.1
Neurological disorders	F00-F03.9, G10-G13.8, G20-G21.0, G21.2-G24, G24.1-G25.0, G25.2-G25.3, G25.5, G25.8-G26.0, G30-G31.1, G31.8-G31.9, G35-G37.9, G40-G41.9, G61-G61.9, G70-G72, G72.2-G73.7, G90-G90.9, G95-G95.9, M33-M33.9	290-290.9, 294.1-294.9, 330-331.2, 331.5-337.9, 340-341.9, 345-345.9, 349, 349.2-349.8, 353.6-353.9, 356-356.9, 357.0-357.1, 357.3-357.4, 357.7, 358-359.9, 775.2
Alzheimer disease and other dementias	F00-F03.9, G30-G31.1, G31.8-G31.9	290-290.9, 294.1-294.9, 331-331.2

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
Parkinson disease	G20-G21.0, G21.2-G22.0	332-332.9
Epilepsy	G40-G41.9	345-345.9
Multiple sclerosis	G35-G35.9	340-340.9
Motor neuron disease	G12.2-G12.9	335-335.2, 335.8-335.9
Other neurological disorders	G10-G12.1, G13-G13.8, G23-G24, G24.1-G25.0, G25.2-G25.3, G25.5, G25.8-G26.0, G36-G37.9, G61-G61.9, G70-G72, G72.2-G73.7, G90-G90.9, G95-G95.9, M33-M33.9	330-330.9, 331.5-331.9, 333-334.9, 335.3, 336-337.9, 341-341.9, 349, 349.2-349.8, 353.6-353.9, 356-356.9, 357.0-357.1, 357.3-357.4, 357.7, 358-359.9, 775.2
Mental and substance use disorders	F10-F16.9, F18-F19.9, F24, F50.0-F50.5, G31.2, G72.1, P04.3-P04.4, P96.1, Q86.0, R78.0-R78.5, X45-X45.9, X65-X65.9, Y15-Y15.9	291-292.9, 303-303.9, 304.0-304.8, 305-305.9, 307.1, 357.5, 760.7, 790.3, E850-E854, E860
Alcohol use disorders	F10-F10.9, G31.2, G72.1, P04.3, Q86.0, R78.0, X45-X45.9, X65-X65.9, Y15-Y15.9	291-291.9, 303-303.9, 305.0, 357.5, 790.3, E860
Drug use disorders	F11-F16.9, F18-F19.9, P04.4, P96.1, R78.1-R78.5	292-292.9, 304.0-304.8, 305, 305.1-305.9, 760.7, E850-E854
Opioid use disorders	F11-F11.9, P96.1, R78.1	304.0, 305.5
Cocaine use disorders	F14-F14.9, R78.2	304.2, 305.6
Amphetamine use disorders	F15-F15.9	304.4, 305.7
Other drug use disorders	F13-F13.9, F16-F16.9, F18-F19.9, R78.3-R78.5	292-292.9, 304.1, 304.5-304.8, 305, 305.1, 305.3-305.4, 305.8-305.9
Eating disorders	F50.0-F50.5	307.1
Anorexia nervosa	F50.0-F50.1	307.1
Bulimia nervosa	F50.2-F50.5	
Diabetes, urogenital, blood, and endocrine diseases	D25-D26, D26.1-D26.9, D28.2, D52.1, D55-D58.9, D59.0-D59.3, D59.5-D59.6, D60-D61.9, D63.1, D64.0, D64.4, D66-D67, D68.0-D69.8, D70-D75.8, D76-D78.8, D86.8, D89-D89.3, E03-E07.1, E09-E14.9, E15.0, E16.0-E16.9, E20-E34.8, E36-E36.8, E65-E68, E70-E85.2, E88-E89.9, G21.1, G24.0, G25.1, G25.4, G25.6-G25.7, G72.0, G93.7, G97-G97.9, I12-I13.9, I95.2-I95.3, I97-I97.9, I98.9, J70.2-J70.5, J95-J95.9, K43-K43.9, K62.7, K91-K91.9, K94-K95.8, M87.1, N00-N08.8, N10-N12.9, N14-N16.8, N18-N18.9, N20-N23.0, N25-N28.1, N29-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.0, N45-N45.9, N49-N49.9, N65-N65.1, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9, N99-N99.9, P70.0-P70.2, P96.2, P96.5, Q61-Q62.8, R50.2, R73-R73.9	218-219, 219.1-219.9, 236.0, 240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 250-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 282-284.9, 286-286.5, 286.7-289.7, 357.2, 357.6, 403-404.9, 518.7, 519.0, 536.4, 539-539.9, 551.2, 552.2, 564.2-564.4, 569.6, 579.3, 580-583.9, 585-585.9, 588-590.9, 592-593.8, 594-599.6, 599.8, 601-602.9, 604-604.9, 608.2, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.8, 753-753.3, 775.0-775.1, 775.3, 779.4-779.5, 788.0, 790.2
Diabetes mellitus	E10-E10.1, E10.3-E11.1, E11.3-E12.1, E12.3-E13.1, E13.3-E14.1, E14.3-E14.9, P70.0-P70.2, R73-R73.9	250-250.3, 250.5-250.9, 357.2, 775.0-775.1, 790.2
Acute glomerulonephritis	N00-N01.9	580-580.9
Chronic kidney disease	D63.1, E10.2, E11.2, E12.2, E13.2, E14.2, I12-I13.9, N02-N08.8, N15.0, N18-N18.9, Q61-Q62.8	250.4, 403-404.9, 581-583.9, 585-585.9, 589-589.9, 753-753.3
Chronic kidney disease due to diabetes mellitus	E10.2, E11.2, E12.2, E13.2, E14.2	250.4
Chronic kidney disease due to hypertension	I12-I13.9	403-404.9
Chronic kidney disease due to glomerulonephritis	N03-N06.9	581-583.9
Chronic kidney disease due to other causes	N02-N02.9, N07-N08.8, N15.0, Q61-Q62.8	589-589.9, 753-753.3
Urinary diseases and male infertility	N10-N12.9, N15, N15.1-N16.8, N20-N23.0, N25-N28.1, N29-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.0, N45-N45.9, N49-N49.9	588-588.9, 590-590.9, 592-593.8, 594-598.1, 598.8-599.6, 599.8, 601-602.9, 604-604.9, 608.2, 788.0
Interstitial nephritis and urinary tract infections	N10-N12.9, N15, N15.1-N16.8, N30-N30.9, N34-N34.3, N39.0-N39.2	590-590.9, 595-595.9, 597-597.9, 599.0
Urolithiasis	N20-N23.0	592-592.9, 594-594.9, 788.0
Other urinary diseases	N25-N28.1, N29-N29.8, N31-N32.0, N32.3-N32.4, N36-N36.9, N39, N41-N41.9, N44-N44.0, N45-N45.9, N49-N49.9	588-588.9, 593-593.8, 596-596.9, 598-598.1, 598.8-599, 599.1-599.6, 599.8, 601-602.9, 604-604.9, 608.2
Gynecological diseases	D25-D26, D26.1-D26.9, D28.2, E28.2, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9	218-219, 219.1-219.9, 236.0, 256.4, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.8
Uterine fibroids	D25-D26, D26.1-D26.9, D28.2	218-219, 219.1-219.9, 236.0
Polycystic ovarian syndrome	E28.2	256.4
Endometriosis	N80-N80.9	617-617.9
Genital prolapse	N81-N81.9	618-618.9
Other gynecological diseases	N72-N72.0, N75-N77.8, N83-N83.9	620-620.9, 621.4-621.9, 622.3-622.7, 629-629.8
Hemoglobinopathies and hemolytic anemias	D55-D58.9, D59.1, D59.3, D59.5, D60-D61.9, D64.0, D64.4	282-284.9
Thalassemias	D56-D56.9	282.4
Sickle cell disorders	D57-D57.2, D57.4-D57.8	282.6
G6PD deficiency	D55-D55.2	282.2-282.3
Other hemoglobinopathies and hemolytic anemias	D55.3-D55.9, D58-D58.9, D59.1, D59.3, D59.5, D60-D61.9, D64.0, D64.4	282-282.1, 282.7-284.9

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
Endocrine, metabolic, blood, and immune disorders	D52.1, D59.0, D59.2, D59.6, D66-D67, D68.0-D69.8, D70-D75.8, D76-D78.8, D86.8, D89-D89.3, E03-E07.1, E09-E09.9, E15.0, E16.0-E16.9, E20-E28.1, E28.3-E34.8, E36-E36.8, E65-E68, E70-E85.2, E88-E89.9, G21.1, G24.0, G25.1, G25.4, G25.6-G25.7, G72.0, G93.7, G97-G97.9, I95.2-I95.3, I97-I97.9, I98.9, J70.2-J70.5, J95-J95.9, K43-K43.9, K62.7, K91-K91.9, K94-K95.8, M87.1, N14-N14.4, N65-N65.1, N99-N99.9, P96.2, P96.5, R50.2	240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 251-256.3, 256.8-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 286-286.5, 286.7-289.7, 357.6, 518.7, 519.0, 536.4, 539-539.9, 551.2, 552.2, 564.2-564.4, 569.6, 579.3, 598.2, 775.3, 779.4-779.5
Musculoskeletal disorders	I27.1, I67.7, L93-L93.2, M00-M03.0, M03.2-M03.6, M05-M09.0, M09.2-M09.8, M30-M32.9, M34-M36.8, M40-M43.1, M65-M65.0, M71.0-M71.1, M80-M82.8, M86.3-M86.4, M87-M87.0, M88-M89.0, M89.5, M89.7-M89.9	416.1, 437.4, 446-446.9, 695.4-695.5, 710-711.9, 714-714.3, 714.8-714.9, 730.1, 732-732.9, 733.0-733.1
Rheumatoid arthritis	M05-M06.9, M08.0-M08.8	714-714.3, 714.8-714.9
Other musculoskeletal disorders	I27.1, I67.7, L93-L93.2, M00-M03.0, M03.2-M03.6, M07-M08, M08.9-M09.0, M09.2-M09.8, M30-M32.9, M34-M36.8, M40-M43.1, M65-M65.0, M71.0-M71.1, M80-M82.8, M86.3-M86.4, M87-M87.0, M88-M89.0, M89.5, M89.7-M89.9	416.1, 437.4, 446-446.9, 695.4-695.5, 710-711.9, 730.1, 732-732.9, 733.0-733.1
Other non-communicable diseases	A46-A46.0, A66-A67.9, B86, D86.3, H05.0-H05.1, I89.1-I89.8, L00-L05.9, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.9, L97-L98.4, M72.5-M72.6, P96.0, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q60.6, Q63-Q86, Q86.1-Q87.8, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8, R95-R95.9	035-035.9, 102-103.9, 133-133.6, 376.0-376.1, 457.2-457.3, 680-689, 694-695.3, 707-707.9, 740-749.0, 749.2-752.9, 753.4-758.9, 759.0-759.8, 798-798.0
Congenital birth defects	P96.0, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q60.6, Q63-Q86, Q86.1-Q87.8, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8	740-749.0, 749.2-752.9, 753.4-758.9, 759.0-759.8
Neural tube defects	Q00-Q01.9, Q05-Q05.9	740-741.9, 742.0
Congenital heart anomalies	Q20-Q28.9	745-747.9
Orofacial clefts	Q35-Q36, Q37-Q37.9	749-749.0, 749.2-749.9
Down syndrome	Q90-Q90.9	758.0
Other chromosomal abnormalities	Q87-Q87.8, Q91-Q93.9, Q95-Q95.9, Q97-Q97.9, Q99-Q99.8	758, 758.1-758.6, 758.8-758.9
Congenital musculoskeletal and limb anomalies	Q65-Q79, Q79.6-Q79.9	742.5, 754-756.5, 756.8-756.9
Urogenital congenital anomalies	P96.0, Q50-Q56.4, Q60-Q60.6, Q63-Q64.9	752-752.9, 753.4-753.9
Digestive congenital anomalies	Q38-Q45.9, Q79.0-Q79.5	750-751.9, 756.6-756.7
Other congenital birth defects	Q02-Q04.9, Q06-Q07.9, Q10.4-Q18.9, Q30-Q34.9, Q57, Q80-Q86, Q86.1-Q86.8, Q89-Q89.8	742, 742.1-742.4, 742.8-744.9, 748-748.9, 757-757.9, 759.0-759.8
Skin and subcutaneous diseases	A46-A46.0, A66-A67.9, B86, D86.3, I89.1-I89.8, L00-L05.9, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.9, L97-L98.4, M72.5-M72.6	035-035.9, 102-103.9, 133-133.6, 457.2-457.3, 680-689, 694-695.3, 707-707.9
Cellulitis	L03-L03.9, M72.5-M72.6	681-682.9
Pyoderma	A46-A46.0, A66-A67.9, I89.1-I89.8, L00-L02.9, L04-L05.9, L08-L08.9, L88, L97-L98.4	035-035.9, 102-103.9, 457.2-457.3, 680-680.9, 683-689
Decubitus ulcer	L89-L89.9	707-707.9
Other skin and subcutaneous diseases	D86.3, L10-L14.0, L51-L51.9	694-695.3
Sudden infant death syndrome	R95-R95.9	798-798.0
Injuries	L55-L55.9, L56.3, L56.8-L56.9, L58-L58.9, U00-U03, V00-V86.9, V87.2-V87.3, V88.2-V88.3, V90-V98.8, W00-W46.2, W49-W62.9, W64-W70.9, W73-W75.9, W77-W81.9, W83-W94.9, W97.9, W99-X06.9, X08-X39.9, X46-X47, X47.1-X47.8, X48-X48.9, X50-X54.9, X57-X58.9, X60-X64.9, X66-Y08.9, Y35-Y84.9, Y87.0-Y87.1, Y88-Y88.3, Y89.0-Y89.1	349.0-349.1, 457.0, E800-E807, E830-E838, E840-E849, E856-E857, E861-E869, E870-E876, E878-E879, E880-E886, E888-E928, E930-E979, E990-E999
Transport injuries	V00-V86.9, V87.2-V87.3, V88.2-V88.3, V90-V98.8	E800-E807, E830-E838, E840-E849
Road injuries	V01-V04.9, V06-V80.9, V82-V82.9, V87.2-V87.3	
Pedestrian road injuries	V01-V04.9, V06-V09.9	
Cyclist road injuries	V10-V19.9	
Motorecyclist road injuries	V20-V29.9	
Motor vehicle road injuries	V30-V79.9, V87.2-V87.3	
Other road injuries	V80-V80.9, V82-V82.9	
Other transport injuries	V00-V00.8, V05-V05.9, V81-V81.9, V83-V86.9, V88.2-V88.3, V90-V98.8	E800-E807, E830-E838, E840-E849
Unintentional injuries	L55-L55.9, L56.3, L56.8-L56.9, L58-L58.9, W00-W46.2, W49-W62.9, W64-W70.9, W73-W75.9, W77-W81.9, W83-W94.9, W97.9, W99-X06.9, X08-X32.9, X39-X39.9, X46-X47, X47.1-X47.8, X48-X48.9, X50-X54.9, X57-X58.9, Y40-Y84.9, Y88-Y88.3	349.0-349.1, 457.0, E856-E857, E861-E869, E870-E876, E878-E879, E880-E886, E888-E906, E910-E928, E930-E949
Falls	W00-W19.9	E880-E886, E888
Drowning	W65-W70.9, W73-W74.9	E910
Fire, heat, and hot substances	X00-X06.9, X08-X19.9	E890-E899, E924
Poisonings	X46-X47, X47.1-X47.8, X48-X48.9	E856-E857, E861-E869
Exposure to mechanical forces	W20-W38.9, W40-W43.9, W45.0-W45.2, W46-W46.2, W49-W52, W75-W75.9	E913, E916-E922
Unintentional firearm injuries	W32-W34.9	E922
Unintentional suffocation	W75-W75.9	E913
Other exposure to mechanical forces	W20-W31.9, W35-W38.9, W40-W43.9, W45.0-W45.2, W46-W46.2, W49-W52	E916-E921

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death		
Cause	ICD10	ICD9
Adverse effects of medical treatment	Y40-Y84.9, Y88-Y88.3	349.0-349.1, 457.0, E870-E876, E878-E879, E930-E949
Animal contact	W52.0-W62.9, W64-W64.9, X20-X29.9	E905-E906
Venomous animal contact	X20-X29.9	E905
Non-venomous animal contact	W52.0-W62.9, W64-W64.9	E906
Foreign body	W44-W45, W45.3-W45.9, W78-W80.9, W83-W84.9	E911-E912, E914-E915
Pulmonary aspiration and foreign body in airway	W78-W80.9, W83-W84.9	E911-E912
Foreign body in other body part	W44-W45, W45.3-W45.9	E914-E915
Environmental heat and cold exposure	L55-L55.9, L56.3, L56.8-L56.9, L58-L58.9, W88-W94.9, W97.9, W99-W99.9, X30-X32.9, X39-X39.9	E900-E902, E926
Other unintentional injuries	W39-W39.9, W77-W77.9, W81-W81.9, W85-W87.9, X50-X54.9, X57-X58.9	E903-E904, E923, E925, E927-E928
Self-harm and interpersonal violence	X60-X64.9, X66-Y08.9, Y87.0-Y87.1	E950-E969
Self-harm	X60-X64.9, X66-X84.9, Y87.0	E950-E959
Self-harm by firearm	X72-X74.9	E955
Self-harm by other specified means	X60-X64.9, X66-X71.9, X75-X84.9, Y87.0	E950-E954, E956-E959
Interpersonal violence	X85-Y08.9, Y87.1	E960-E969
Physical violence by firearm	X93-X95.9	E965
Physical violence by sharp object	X99-X99.9	E966
Physical violence by other means	X85-X92.9, X96-X98.9, Y00-Y04.9, Y06-Y08.9, Y87.1	E961-E964, E967-E969
Forces of nature, conflict and terrorism, and executions and police conflict	U00-U03, X33-X38.9, Y35-Y38.9, Y89.0-Y89.1	E907-E909, E970-E979, E990-E999
Exposure to forces of nature	X33-X38.9	E907-E909
Conflict and terrorism	U00-U03, Y36-Y38.9, Y89.1	E979, E990-E999
Executions and police conflict	Y35-Y35.9, Y89.0	E970-E978
Still Born	P95-P95.9	768.0-768.1
Garbage Code (GBD Level 1)	A40-A41.9, A48.0, A48.3, A49.0, A59-A59.9, A71-A71.9, A74.0, B07-B07.9, B30-B30.9, B35-B36.9, B85-B85.4, B87-B88.9, B94.0, D50-D50.0, D50.9, D62-D63.0, D63.8-D64, D64.1-D64.2, D64.8-D65.9, D68, D69.9, E15, E16, E50-E50.9, E64.1, E85.3-E87.6, E87.8-E87.9, F06.2-F06.4, F07.2, F09-F09.9, F17-F17.9, F20-F23.9, F25-F49, F51-F99.0, G06-G08.0, G32-G32.8, G43-G44.2, G44.4-G44.8, G47-G47.2, G47.4-G47.9, G50-G60.9, G62-G65.2, G80-G83.9, G89-G89.4, G91-G91.2, G91.4-G92.9, G93.1-G93.2, G93.4-G93.6, G99-H05, H05.2-H09.9, H71-H99, I26-I26.9, I31.2-I31.4, I46-I46.9, I50-I50.9, I51.7, I67.4, I76, I95-I95.1, I95.8-I95.9, J69-J69.9, J80-J80.9, J85-J85.3, J86-J86.9, J93-J93.1, J93.8-J93.9, J94.2, J96-J96.9, J98.1-J98.3, K00-K19, K30, K65-K66.1, K66.9, K71-K71.1, K71.8-K72.0, K75.0, L20-L30.9, L40-L50.9, L52-L54.0, L56-L56.2, L56.4-L56.5, L57-L57.9, L59-L68.9, L70-L76.8, L80-L87.9, L90-L92.9, L94-L96, L98.5-L99.8, M04, M10-M12.0, M12.2-M29, M37-M39, M43.2-M49, M49.2-M64, M65.1-M71, M71.2-M72.4, M72.8-M73, M73.8-M79.9, M83-M86.2, M86.5-M86.9, M87.2-M87.9, M89.1-M89.4, M90-M99.9, N17-N17.9, N19-N19.9, N32.1-N32.2, N32.8-N33.8, N35-N35.9, N37-N37.8, N39.3-N39.8, N42-N43.4, N44.1-N44.8, N46-N48.9, N50-N53.9, N61-N64.9, N82-N82.9, N91-N91.5, N95, N95.1-N95.9, N97-N97.9, R02-R02.9, R03.1, R07.0, R08-R09, R09.3, R11-R12.0, R14-R15.9, R19-R19.6, R19.8-R23, R23.1-R30.9, R32-R50.1, R50.8-R57.9, R58.0-R72.9, R74-R78, R78.6-R94.8, R96-R99.9, U05, U07-U81, U90-U99, X40-X44.9, X47.0, X47.9, X49-X49.9, Y10-Y19.9, Z00-Z15.8, Z17	038-038.9, 040.0, 041.1, 076-078.2, 110-111.9, 125-125.3, 126-126.9, 127.2-127.9, 131-132.9, 133.8-134.9, 139.1, 139.9, 176-176.9, 247-248, 264-264.9, 274-274.9, 276.0-276.5, 276.7-276.9, 277.3, 280-280.0, 280.9-281, 285-285.9, 286.6, 293, 294-294.0, 295-302.9, 306-307.0, 307.2-307.4, 307.6-319.9, 324-327.1, 328-329, 338-339.1, 339.3-339.8, 342-344.9, 346-347.9, 350-353.5, 354-355.9, 360-376, 376.2-380.9, 384-389.9, 415-415.9, 423.0, 427.5, 427.9-428.9, 429.3, 437.3, 458-458.9, 459.0, 507-507.9, 510-510.9, 512-513.9, 518.0-518.2, 518.5, 520-529.9, 536.3, 536.8-536.9, 537.7, 537.9, 564.8-564.9, 567-568.9, 570-570.9, 572-572.1, 584-584.9, 586-587.9, 600-600.9, 603-603.9, 605-608.1, 608.3-609, 611-612.1, 615-616.9, 619-619.9, 621-621.3, 622-622.2, 622.8-623.6, 623.8-624.5, 624.8-628.9, 629.9, 690-693.9, 695.8-706.9, 708-709.9, 712-713.8, 715-716, 716.2-721.6, 721.8-730.0, 730.2-730.3, 730.7-731.9, 733, 733.2-734.2, 737-738, 738.2-739.9, 780-782.3, 782.6-784.6, 784.9, 785.4-786, 786.6, 786.8, 787, 787.3-788, 788.1-789, 790-790.1, 790.4-796.1, 796.3-797.9, 798.1-799, 799.2-799.9, E855, E858, E980-E982, V01-V08, V10
Garbage Code (GBD Level 2)	A14.9, A29, A45-A45.9, A47-A48, A48.8-A49, A49.3-A49.9, A61-A62, A72-A73, A76, A97, B08-B09, B11-B14, B28-B29, B31-B32.4, B34-B34.9, B61-B62, B68-B68.9, B73-B74.2, B76-B76.9, B78-B81.8, B84, B93-B94, B94.8-B94.9, B95.6-B97.3, B97.7-B99.9, D59, D59.4, D59.8-D59.9, G44.3, G91.3, G93.0, G93.3, I10-I10.9, I15-I15.9, I27-I27.0, I27.2-I27.9, I28.9, I70-I70.1, I70.9, I74-I75.8, J81-J81.1, J90-J90.0, J94-J94.1, J94.8-J94.9, K92.0-K92.2, N70-N71.9, N73-N74.0, N74.3-N74.8, R03-R03.0, R04-R06.9, R09.0-R09.2, R09.8-R10.9, R13-R13.9, R16-R18.9, R23.0, R58, S00, W47-W48, W63, W71-W72, W76-W76.9, W82, W95-W97, W98, X07, X55-X56, X59-X59.9, Y20-Y34.9, Y86-Y87, Y87.2, Y89, Y89.9-Y99.9	000-000.9, 041.2-041.9, 067-069, 078.8-078.9, 079.8-079.9, 089-089.9, 105-109.9, 119, 136.8-136.9, 139.8, 279-279.9, 304, 304.9, 307.5, 339.2, 401-401.9, 405-405.9, 416-416.0, 416.2-416.9, 440-440.1, 440.3, 440.8-440.9, 444-445.8, 511-511.9, 514-514.9, 515.0-515.9, 518, 518.3-518.4, 518.8, 536.2, 578-578.9, 599.7, 613-614.9, 714.4, 716.1, 721.7, 735-736.9, 738.0-738.1, 782.4, 784.7-784.8, 786.3, 787.0, 787.2, 789.0-789.9, 796.2, 799.0-799.1, 800-E80, E83, E839, E85, E859, E87, E877, E88, E887, E929, E983-E985, E988-E989

Appendix Table 4: List of International Classification of Diseases (ICD) codes mapped to the Global Burden of Disease cause list for causes of death

Cause	ICD10	ICD9
<p>Garbage Code (GBD Level 3)</p>	<p>A01, A31-A31.9, A42-A44.9, A49.2, A64-A64.0, A99-A99.0, B37-B46.9, B49-B49.9, B55.1-B55.2, B58-B59.9, B89, C14-C14.9, C26-C29, C35-C36, C39-C39.9, C42, C46-C46.9, C55-C55.9, C57.9, C59, C63.9, C68, C68.9, C75.9-C80.9, C87, C97-D00.0, D01, D01.4-D02, D02.4-D02.9, D07, D07.3, D07.6-D09, D09.1, D09.7, D09.9-D10, D10.9, D13, D13.9-D14, D14.4, D17-D21.9, D28, D28.9-D29, D29.9-D30, D30.9, D36.0, D36.9-D37.0, D37.6-D38, D38.6-D39.0, D39.7, D39.9-D40, D40.9-D41, D41.9, D44, D44.9, D48, D48.7-D49.1, D49.5, D49.7-D49.9, D54, D75.9, D79-D85, D87-D88, D89.8-D99, E07.8-E08.9, E17-E19, E34.9-E35.8, E37-E39, E47-E49, E62, E69, E87.7, E90-E99.8, F04-F06.1, F06.5-F07.0, F07.8-F08, F50, F50.8-F50.9, G09-G09.9, G15-G19, G27-G29, G33-G34, G38-G39, G42, G48-G49, G66-G69, G74-G79, G84-G88, G93, G93.8-G94.8, G96-G96.9, G98-G98.9, I00.0, I03-I04, I14, I16-I19, I29-I29.9, I44-I45.9, I49-I49.9, I51, I51.6, I51.8-I59, I90-I94, I96-I96.9, I98.4-I98.8, I99-J00.0, J02, J02.8-J03, J03.8-J04, J04.1-J04.3, J05.1-J06.9, J48-I59, J71-J79, J81.9, J83, J85.9, J87-J89, J90.9, J93.6, J97-J98.0, J98.4-J99.8, K31.9-K34, K39, K47-K49, K53-K54, K63-K63.4, K63.8-K63.9, K69, K75, K78-K79, K84, K87-K89, K92, K92.9-K93, K96-K99, L06-L07, L09, L15-L19, L31-L39, L69, L77-L79, N09, N13-N13.9, N24, N28.8-N28.9, N38, N39.9-N40.9, N54-N59, N66-N69, N78-N79, N84, N84.2-N86, N88-N90.9, N92-N94.9, N95.0, O08-O08.9, O17-O19, O27, O37-O39, O49-O59, O78-O79, O93-O95.9, P06, P16-P18, P30-P34.2, P40-P49, P62-P69, P73, P79, P82, P85-P89, P96.9-P99.9, Q08-Q10.3, Q19, Q29, Q36.0-Q36.9, Q46-Q49, Q88, Q89.9, Q94, Q99.9-R01.2, R07, R07.1-R07.9, R31-R31.9</p>	<p>002, 031-031.9, 039-039.9, 085, 085.1-085.9, 088.0-088.7, 112-118.9, 130-130.9, 136.3-136.5, 149-149.9, 159-159.9, 165-169, 177-179.9, 183.9-184, 184.5, 184.9, 187, 187.9, 189, 189.9, 194.9-199.9, 209, 209.2-209.3, 209.6-210, 211, 211.9-212, 212.9, 214-216.9, 221, 221.9-222, 222.9-223, 223.9, 229, 229.1, 229.9-230.0, 230.9-231, 231.8-231.9, 233, 233.3, 233.6, 233.9-234, 234.9-235, 235.1-235.3, 235.5, 235.9-236, 236.3, 236.6, 236.9, 237.4, 239-239.1, 239.5, 239.7-239.9, 249-249.9, 276.6, 278, 293.0-293.9, 331.3-331.4, 348-348.9, 349.9, 357, 357.8-357.9, 399-400.0, 406-409.4, 418-419.9, 426-426.9, 427.4, 429, 429.2, 429.4-429.9, 459.5-460.9, 462-464, 464.1, 464.3, 464.5, 465-465.9, 505-505.9, 519, 519.8-519.9, 544-549, 553.8-553.9, 559-559.0, 560.4-560.7, 561, 562.2-563, 569, 569.8-569.9, 591-591.9, 593.9, 599.9, 623.7, 624.6, 637-637.9, 639-639.9, 749.1, 759, 759.9, 779.9, 782.5, 785-785.3, 786.0-786.2, 786.4-786.5, 786.7, 786.9, E986-E987</p>
<p>Garbage Code (GBD Level 4)</p>	<p>B54-B55, B55.9, B64, B82-B82.9, B83.9, D47.1, G00, G00.9-G02.8, G03.9, I42-I42.0, I42.9, I51.5, I64-I64.9, I67, I67.8-I68, I68.8-I69, I69.4-I69.9, J07-J08, J15.9, J17-J19.6, J22-J29, J64-J64.9, P23, P23.5-P23.9, P37.3-P37.4, V87-V87.1, V87.4-V88.1, V88.4-V89.9, V99-V99.0, Y09-Y09.9, Y85-Y85.9</p>	<p>084, 084.6, 238, 244, 244.9, 289.8-289.9, 320, 320.9, 425, 425.4, 425.9, 429.1, 436-437, 437.9-439.6, 482.9-483, 484, 484.8-486.9, 770.0, E808-E829</p>

Appendix Table 5: GBD 2016 cause and sequela hierarchy

Causes and sequelae
All causes
Communicable, maternal, neonatal, and nutritional diseases
HIV/AIDS and tuberculosis
Tuberculosis
Drug-susceptible tuberculosis
Multidrug-resistant tuberculosis without extensive drug resistance
Extensively drug-resistant tuberculosis
Latent tuberculosis infection
HIV/AIDS
Drug-susceptible HIV/AIDS - Tuberculosis
Drug-susceptible HIV/AIDS - Tuberculosis with mild anemia
Drug-susceptible HIV/AIDS - Tuberculosis with moderate anemia
Drug-susceptible HIV/AIDS - Tuberculosis with severe anemia
Drug-susceptible HIV/AIDS - Tuberculosis without anemia
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with mild anemia
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with moderate anemia
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with severe anemia
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance without anemia
Extensively drug-resistant HIV/AIDS - Tuberculosis
Extensively drug-resistant HIV/AIDS - Tuberculosis with mild anemia
Extensively drug-resistant HIV/AIDS - Tuberculosis with moderate anemia
Extensively drug-resistant HIV/AIDS - Tuberculosis with severe anemia
Extensively drug-resistant HIV/AIDS - Tuberculosis without anemia
HIV/AIDS resulting in other diseases
AIDS with antiretroviral treatment with mild anemia
AIDS with antiretroviral treatment with moderate anemia
AIDS with antiretroviral treatment with severe anemia
AIDS with antiretroviral treatment without anemia
AIDS without antiretroviral treatment with mild anemia
AIDS without antiretroviral treatment with moderate anemia
AIDS without antiretroviral treatment with severe anemia
AIDS without antiretroviral treatment without anemia
Early HIV with mild anemia
Early HIV with moderate anemia
Early HIV with severe anemia
Early HIV without anemia
Symptomatic HIV with mild anemia
Symptomatic HIV with moderate anemia
Symptomatic HIV with severe anemia
Symptomatic HIV without anemia

Diarrhea, lower respiratory, and other common infectious diseases
Diarrheal diseases
Guillain-Barré syndrome due to diarrheal diseases
Mild diarrheal diseases
Moderate diarrheal diseases
Severe diarrheal diseases
Intestinal infectious diseases
Typhoid fever
Acute typhoid infection
Gastrointestinal bleeding due to typhoid
Intestinal perforation due to typhoid
Severe typhoid fever
Paratyphoid fever
Acute paratyphoid infection
Intestinal perforation due to paratyphoid
Moderate paratyphoid fever
Severe paratyphoid fever
Other intestinal infectious diseases
Lower respiratory infections
Guillain-Barré syndrome due to lower respiratory infections
Moderate lower respiratory infections
Severe lower respiratory infections
Upper respiratory infections
Guillain-Barré syndrome due to upper respiratory infections
Mild upper respiratory infections
Moderate upper respiratory infections
Otitis media
Acute otitis media
Mild hearing loss due to chronic otitis media
Mild hearing loss with ringing due to chronic otitis media
Moderate hearing loss due to chronic otitis media
Moderate hearing loss with ringing due to chronic otitis media
Severe infectious complications due to chronic otitis media
Vertigo with mild hearing loss and ringing due to chronic otitis media
Vertigo with mild hearing loss due to chronic otitis media
Vertigo with moderate hearing loss and ringing due to chronic otitis media
Vertigo with moderate hearing loss due to chronic otitis media
Meningitis
Pneumococcal meningitis
Acute pneumococcal meningitis
Blindness due to pneumococcal meningitis
Borderline intellectual disability due to pneumococcal meningitis
Complete hearing loss due to pneumococcal meningitis

Complete hearing loss with ringing due to pneumococcal meningitis
Epilepsy due to pneumococcal meningitis
Mild behavioral problems due to pneumococcal meningitis
Mild hearing loss due to pneumococcal meningitis
Mild hearing loss with ringing due to pneumococcal meningitis
Mild intellectual disability due to pneumococcal meningitis
Mild motor impairment due to long term due to pneumococcal meningitis
Mild motor plus cognitive impairments due to pneumococcal meningitis
Moderate hearing loss due to pneumococcal meningitis
Moderate hearing loss with ringing due to pneumococcal meningitis
Moderate motor impairment due to pneumococcal meningitis
Moderate motor plus cognitive impairments due to pneumococcal meningitis
Moderate vision impairment due to pneumococcol meningitis
Moderately severe hearing loss due to pneumococcal meningitis
Moderately severe hearing loss with ringing due to pneumococcal meningitis
Monocular distance vision loss due to pneumococcal meningitis
Profound hearing loss due to pneumococcal meningitis
Profound hearing loss with ringing due to pneumococcal meningitis
Severe hearing loss due to pneumococcal meningitis
Severe hearing loss with ringing due to pneumococcal meningitis
Severe motor impairment due to pneumococcal meningitis
Severe motor plus cognitive impairments due to pneumococcal meningitis
Severe vision impairment due to pneumococcol meningitis
H influenzae type B meningitis
Acute H influenzae type B meningitis
Blindness due to H influenzae type B meningitis
Borderline intellectual disability due to H influenzae type B meningitis
Complete hearing loss due to H influenzae type B meningitis
Complete hearing loss with ringing due to H influenzae type B meningitis
Epilepsy due to H influenzae type B meningitis
Mild behavioral problems due to H influenzae type B meningitis
Mild hearing loss due to H influenzae type B meningitis
Mild hearing loss with ringing due to H influenzae type B meningitis
Mild intellectual disability due to H influenzae type B meningitis
Mild motor impairment due to long term due to H influenzae type B meningitis
Mild motor plus cognitive impairments due to H influenzae type B meningitis
Moderate hearing loss due to H influenzae type B meningitis
Moderate hearing loss with ringing due to H influenzae type B meningitis
Moderate motor impairment due to H influenzae type B meningitis
Moderate motor plus cognitive impairments due to H influenzae type B meningitis
Moderate vision impairment due to H influenza type B meningitis
Moderately severe hearing loss due to H influenzae type B meningitis
Moderately severe hearing loss with ringing due to H influenzae type B meningitis

Monocular distance vision loss due to H influenzae type B meningitis
Profound hearing loss due to H influenzae type B meningitis
Profound hearing loss with ringing due to H influenzae type B meningitis
Severe hearing loss due to H influenzae type B meningitis
Severe hearing loss with ringing due to H influenzae type B meningitis
Severe motor impairment due to H influenzae type B meningitis
Severe motor plus cognitive impairments due to H influenzae type B meningitis
Severe vision impairment due to H influenza type B meningitis
Meningococcal meningitis
Acute meningococcal meningitis
Blindness due to meningococcal meningitis
Borderline intellectual disability due to meningococcal meningitis
Complete hearing loss due to meningococcal meningitis
Complete hearing loss with ringing due to meningococcal meningitis
Epilepsy due to meningococcal meningitis
Mild behavioral problems due to meningococcal meningitis
Mild hearing loss due to meningococcal meningitis
Mild hearing loss with ringing due to meningococcal meningitis
Mild intellectual disability due to meningococcal meningitis
Mild motor impairment due to long term due to meningococcal meningitis
Mild motor plus cognitive impairments due to meningococcal meningitis
Moderate hearing loss due to meningococcal meningitis
Moderate hearing loss with ringing due to meningococcal meningitis
Moderate motor impairment due to meningococcal meningitis
Moderate motor plus cognitive impairments due to meningococcal meningitis
Moderate vision impairment due to meningococcal meningitis
Moderately severe hearing loss due to meningococcal meningitis
Moderately severe hearing loss with ringing due to meningococcal meningitis
Monocular distance vision loss due to meningococcal meningitis
Profound hearing loss due to meningococcal meningitis
Profound hearing loss with ringing due to meningococcal meningitis
Severe hearing loss due to meningococcal meningitis
Severe hearing loss with ringing due to meningococcal meningitis
Severe motor impairment due to meningococcal meningitis
Severe motor plus cognitive impairments due to meningococcal meningitis
Severe vision impairment due to meningococcal meningitis
Other meningitis
Acute viral meningitis
Blindness due to other bacterial meningitis
Borderline intellectual disability due to other bacterial meningitis
Complete hearing loss due to other bacterial meningitis
Complete hearing loss with ringing due to other bacterial meningitis
Epilepsy due to other meningitis

Mild behavioral problems due to other bacterial meningitis
Mild hearing loss due to other bacterial meningitis
Mild hearing loss due with ringing to other bacterial meningitis
Mild intellectual disability due to other bacterial meningitis
Mild motor impairment due to long term due to other bacterial meningitis
Mild motor plus cognitive impairments due to other bacterial meningitis
Moderate hearing loss due to other bacterial meningitis
Moderate hearing loss with ringing due to other bacterial meningitis
Moderate motor impairment due to other bacterial meningitis
Moderate motor plus cognitive impairments due to other bacterial meningitis
Moderate vision impairment due to other bacterial meningitis
Moderately severe hearing loss due to other bacterial meningitis
Moderately severe hearing loss with ringing due to other bacterial meningitis
Monocular distance vision loss due to other bacterial meningitis
Other acute bacterial meningitis
Profound hearing loss due to other bacterial meningitis
Profound hearing loss with ringing due to other bacterial meningitis
Severe hearing loss due to other bacterial meningitis
Severe hearing loss with ringing due to other bacterial meningitis
Severe motor impairment due to other bacterial meningitis
Severe motor plus cognitive impairments due to other bacterial meningitis
Severe vision impairment due to other bacterial meningitis
Encephalitis
Acute encephalitis
Blindness due to encephalitis
Borderline intellectual disability due to encephalitis
Epilepsy due to encephalitis
Mild behavioral problems due to encephalitis
Mild intellectual disability due to encephalitis
Mild motor impairment due to long term due to encephalitis
Mild motor plus cognitive impairments due to encephalitis
Moderate motor impairment due to encephalitis
Moderate motor plus cognitive impairments due to encephalitis
Moderate vision impairment due to encephalitis
Monocular distance vision loss due to encephalitis
Severe motor impairment due to encephalitis
Severe motor plus cognitive impairments due to encephalitis
Severe vision impairment due to encephalitis
Diphtheria
Moderate diphtheria
Severe diphtheria
Whooping cough
Tetanus

Mild motor impairment due to neonatal tetanus
Mild motor plus cognitive impairments due to neonatal tetanus
Moderate motor impairment due to neonatal tetanus
Moderate motor impairment with blindness and epilepsy due to neonatal tetanus
Moderate motor impairment with blindness due to neonatal tetanus
Moderate motor impairment with epilepsy due to neonatal tetanus
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal tetanus
Moderate motor plus cognitive impairment with blindness due to neonatal tetanus
Moderate motor plus cognitive impairment with epilepsy due to neonatal tetanus
Severe motor impairment due to neonatal tetanus
Severe motor impairment with blindness and epilepsy due to neonatal tetanus
Severe motor impairment with blindness due to neonatal tetanus
Severe motor impairment with epilepsy due to neonatal tetanus
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal tetanus
Severe motor plus cognitive impairment with blindness due to neonatal tetanus
Severe motor plus cognitive impairment with epilepsy due to neonatal tetanus
Severe tetanus
Measles
Moderate measles
Severe measles
Varicella and herpes zoster
Chickenpox
Herpes zoster
Neglected tropical diseases and malaria
Malaria
Asymptomatic malaria parasitemia (PfPR)
Mild anemia due to malaria parasitemia (PfPR)
Mild malaria
Mild malaria with mild anemia
Mild malaria with moderate anemia
Mild malaria with severe anemia
Moderate anemia due to malaria parasitemia (PfPR)
Moderate malaria
Moderate malaria with mild anemia
Moderate malaria with moderate anemia
Moderate malaria with severe anemia
Moderate motor impairment due to malaria
Moderate motor impairment with blindness and epilepsy due to malaria
Moderate motor impairment with blindness due to malaria
Moderate motor impairment with epilepsy due to malaria
Moderate motor plus cognitive impairment with blindness and epilepsy due to malaria
Moderate motor plus cognitive impairment with blindness due to malaria
Moderate motor plus cognitive impairment with epilepsy due to malaria

Severe anemia due to malaria parasitemia (PfPR)
Severe malaria
Severe malaria with mild anemia
Severe malaria with moderate anemia
Severe malaria with severe anemia
Severe motor impairment due to malaria
Severe motor impairment with blindness and epilepsy due to malaria
Severe motor impairment with blindness due to malaria
Severe motor impairment with epilepsy due to malaria
Severe motor plus cognitive impairment with blindness and epilepsy due to malaria
Severe motor plus cognitive impairment with blindness due to malaria
Severe motor plus cognitive impairment with epilepsy due to malaria
Chagas disease
Acute Chagas disease
Asymptomatic Chagas disease
Asymptomatic and mild heart failure due to Chagas disease
Atrial fibrillation and flutter due to Chagas disease
Mild chronic digestive disease due to Chagas disease
Moderate chronic digestive disease due to Chagas disease
Moderate heart failure due to Chagas disease
Severe heart failure due to Chagas disease
Leishmaniasis
Visceral leishmaniasis
Moderate visceral leishmaniasis
Severe visceral leishmaniasis
Cutaneous and mucocutaneous leishmaniasis
African trypanosomiasis
Skin disfigurement due to Trypanosoma brucei gambiense
Skin disfigurement due to Trypanosoma brucei rhodesiense
Sleeping sickness due to Trypanosoma brucei gambiense
Sleeping sickness due to Trypanosoma brucei rhodesiense
Schistosomiasis
Ascites due to schistosomiasis
Bladder pathology due to schistosomiasis
Dysuria due to schistosomiasis
Hematemesis due to schistosomiasis
Hepatomegaly due to schistosomiasis
Hydronephrosis due to schistosomiasis
Mild anemia due to schistosomiasis
Mild diarrhea due to schistosomiasis
Mild schistosomiasis
Moderate anemia due to schistosomiasis
Severe anemia due to schistosomiasis

Cysticercosis
Neurocysticercosis with epilepsy
Cystic echinococcosis
Abdominal problems due to cystic echinococcosis
Chronic respiratory disease due to cystic echinococcosis
Epilepsy due to echinococcosis
Lymphatic filariasis
Acute adenolymphangitis due to lymphatic filariasis
Hydrocele due to lymphatic filariasis
Lymphedema due to lymphatic filariasis
Prevalence of detectable microfilaria due to lymphatic filariasis
Onchocerciasis
Asymptomatic onchocerciasis
Blindness due to onchocerciasis
Mild skin disease due to onchocerciasis
Mild skin disease without itch due to onchocerciasis
Moderate skin disease due to onchocerciasis
Moderate vision impairment due to onchocerciasis
Severe skin disease due to onchocerciasis
Severe skin disease without itch due to onchocerciasis
Severe vision impairment due to onchocerciasis
Trachoma
Blindness due to trachoma
Moderate vision impairment due to trachoma
Severe vision impairment due to trachoma
Dengue
Moderate dengue
Post-dengue chronic fatigue syndrome
Severe dengue
Yellow fever
Asymptomatic yellow fever
Moderate yellow fever
Severe yellow fever
Rabies
Intestinal nematode infections
Ascariasis
Asymptomatic ascariasis
Heavy infestation of ascariasis
Mild abdominopelvic problems due to ascariasis
Severe wasting due to ascariasis
Trichuriasis
Asymptomatic trichuriasis
Heavy infestation of trichuriasis

Mild abdominopelvic problems due to trichuriasis
Severe wasting due to trichuriasis
Hookworm disease
Asymptomatic hookworm disease
Heavy infestation of hookworm
Mild abdominopelvic problems due to hookworm disease
Mild anemia due to hookworm disease
Moderate anemia due to hookworm disease
Severe anemia due to hookworm disease
Severe wasting due to hookworm disease
Food-borne trematodiasis
Asymptomatic clonorchiasis
Asymptomatic fascioliasis
Asymptomatic intestinal fluke infection
Asymptomatic opisthorchiasis
Asymptomatic paragonimiasis
Cerebral paragonimiasis
Heavy clonorchiasis due to food-borne trematodiasis
Heavy fascioliasis due to food-borne trematodiasis
Heavy intestinal fluke infection due to food-borne trematodiasis
Heavy opisthorchiasis due to food-borne trematodiasis
Mild paragonimiasis due to food-borne trematodiasis
Moderate paragonimiasis due to food-borne trematodiasis
Severe paragonimiasis due to food-borne trematodiasis
Leprosy
Disfigurement level 1 due to leprosy
Disfigurement level 2 due to leprosy
Ebola
Ebola cases
Post-Ebola chronic fatigue syndrome
Zika virus
Acute Zika infection
Asymptomatic Zika infection
Congenital Zika syndrome
Guillain–Barré syndrome due to Zika infection
Guinea worm disease
Mild pain due to Guinea worm emergence
Moderate pain due to Guinea worm emergence
Moderate reduced mobility due to Guinea worm emergence
Other neglected tropical diseases
Acute infection due to other neglected tropical diseases
Mild anemia due to other neglected tropical diseases
Moderate anemia due to other neglected tropical diseases

Severe anemia due to other neglected tropical diseases
Maternal disorders
Maternal hemorrhage
Maternal hemorrhage (< 1L blood lost)
Maternal hemorrhage (> 1L blood lost)
Mild anemia due to maternal hemorrhage
Moderate anemia due to maternal hemorrhage
Severe anemia due to maternal hemorrhage
Maternal sepsis and other maternal infections
Infertility due to puerperal sepsis
Other maternal infections
Puerperal sepsis
Maternal hypertensive disorders
Eclampsia
Long term sequelae of eclampsia
Long term sequelae of severe pre-eclampsia
Other hypertensive disorders of pregnancy
Severe pre-eclampsia
Maternal obstructed labor and uterine rupture
Obstructed labor, acute event
Rectovaginal fistula
Vesicovaginal fistula
Maternal abortion, miscarriage, and ectopic pregnancy
Ectopic Pregnancy
Maternal abortive outcome
Indirect maternal deaths
Late maternal deaths
Maternal deaths aggravated by HIV/AIDS
Other maternal disorders
Neonatal disorders
Neonatal preterm birth complications
Asymptomatic neonatal preterm birth 28-<32 wks
Asymptomatic neonatal preterm birth 32-<37wks
Asymptomatic neonatal preterm birth <28wks
Asymptomatic retinopathy of prematurity
Blindness due to retinopathy of prematurity
Mild motor impairment due to neonatal preterm birth complications 28-32wks
Mild motor impairment due to neonatal preterm birth complications 32-36wks
Mild motor impairment due to neonatal preterm birth complications <28wks
Mild motor plus cognitive impairments due to neonatal preterm birth complications 28-32wks
Mild motor plus cognitive impairments due to neonatal preterm birth complications 32-36wks
Mild motor plus cognitive impairments due to neonatal preterm birth complications <28wks
Mild vision impairment due to retinopathy of prematurity

Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 28-32wks
Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 32-36wks
Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications <28wks
Severe vision impairment due to retinopathy of prematurity
Neonatal encephalopathy due to birth asphyxia and trauma
Asymptomatic neonatal encephalopathy due to birth asphyxia and trauma
Mild motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma
Mild motor plus cognitive impairments due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor plus cognitive impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma
Moderate motor plus cognitive impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor plus cognitive impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma
Severe motor plus cognitive impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma
Neonatal sepsis and other neonatal infections
Asymptomatic neonatal sepsis and other neonatal infections
Mild motor impairment due to neonatal sepsis and other neonatal infections
Mild motor plus cognitive impairments due to neonatal sepsis and other neonatal infections
Moderate motor impairment due to neonatal sepsis and other neonatal infections
Moderate motor impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections
Moderate motor impairment with blindness due to neonatal sepsis and other neonatal infections
Moderate motor impairment with epilepsy due to neonatal sepsis and other neonatal infections
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections
Moderate motor plus cognitive impairment with blindness due to neonatal sepsis and other neonatal infections
Moderate motor plus cognitive impairment with epilepsy due to neonatal sepsis and other neonatal infections
Severe infection due to neonatal sepsis and other neonatal infections
Severe motor impairment due to neonatal sepsis and other neonatal infections
Severe motor impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections
Severe motor impairment with blindness due to neonatal sepsis and other neonatal infections
Severe motor impairment with epilepsy due to neonatal sepsis and other neonatal infections

Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections
Severe motor plus cognitive impairment with blindness due to neonatal sepsis and other neonatal infections
Severe motor plus cognitive impairment with epilepsy due to neonatal sepsis and other neonatal infections
Hemolytic disease and other neonatal jaundice
Moderate motor impairment due to hemolytic disease and other neonatal jaundice
Moderate motor impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice
Moderate motor impairment with blindness due to hemolytic disease and other neonatal jaundice
Moderate motor impairment with epilepsy due to hemolytic disease and other neonatal jaundice
Moderate motor plus cognitive impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice
Moderate motor plus cognitive impairment with blindness due to hemolytic disease and other neonatal jaundice
Moderate motor plus cognitive impairment with epilepsy due to hemolytic disease and other neonatal jaundice
Severe motor impairment severe due to hemolytic disease and other neonatal jaundice
Severe motor impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice
Severe motor impairment with blindness due to hemolytic disease and other neonatal jaundice
Severe motor impairment with epilepsy due to hemolytic disease and other neonatal jaundice
Severe motor plus cognitive impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice
Severe motor plus cognitive impairment with blindness due to hemolytic disease and other neonatal jaundice
Severe motor plus cognitive impairment with epilepsy due to hemolytic disease and other neonatal jaundice
Other neonatal disorders
Nutritional deficiencies
Protein-energy malnutrition
Moderate wasting with edema
Moderate wasting without edema
Severe wasting with edema
Severe wasting without edema
Iodine deficiency
Visible goiter with profound intellectual disability and mild heart failure due to iodine deficiency
Visible goiter with profound intellectual disability and moderate heart failure due to iodine deficiency
Visible goiter with profound intellectual disability due to iodine deficiency
Visible goiter with profound intellectual disability with severe heart failure due to iodine deficiency
Visible goiter with severe intellectual disability due to iodine deficiency
Visible goiter with symptoms without intellectual disability or heart failure
Visible goiter without symptoms
Vitamin A deficiency
Asymptomatic vitamin A deficiency
Blindness due to vitamin A deficiency
Moderate vision impairment loss due to vitamin A deficiency
Severe vision impairment loss due to vitamin A deficiency
Iron-deficiency anemia
Asymptomatic and mild heart failure due to iron-deficiency anemia
Mild iron-deficiency anemia

Moderate heart failure due to iron-deficiency anemia
Moderate iron-deficiency anemia
Severe heart failure due to iron-deficiency anemia
Severe iron-deficiency anemia
Other nutritional deficiencies
Other communicable, maternal, neonatal, and nutritional diseases
Sexually transmitted diseases excluding HIV
Syphilis
Asymptomatic adult tertiary syphilis
Asymptomatic early syphilis infection
Cardiovascular complications due to adult tertiary syphilis
Mild early syphilis infection
Neurological problems and cardiovascular complications due to adult tertiary syphilis
Neurological problems due to adult tertiary syphilis
Severe disfigurement and cardiovascular complications due to adult tertiary syphilis
Severe disfigurement and neurological problems due to adult tertiary syphilis
Severe disfigurement due to adult tertiary syphilis
Severe disfigurement, neurological problems, and cardiovascular complications due to adult tertiary syphilis
Chlamydial infection
Asymptomatic chlamydial infection
Epididymo-orchitis due to chlamydial infection
Mild chlamydial infection
Moderate pelvic inflammatory diseases due to chlamydial infection
Primary infertility due to chlamydial infection
Secondary infertility due to chlamydial infection
Severe pelvic inflammatory diseases due to chlamydial infection
Gonococcal infection
Asymptomatic gonococcal infection
Epididymo-orchitis due to gonococcal infection
Mild gonococcal infection
Moderate pelvic inflammatory diseases due to gonococcal infection
Primary infertility due to gonococcal infection
Secondary infertility due to gonococcal infection
Severe pelvic inflammatory diseases due to gonococcal infection
Trichomoniasis
Acute trichomoniasis infection
Asymptomatic trichomoniasis infection
Genital herpes
Asymptomatic genital herpes
Moderate infection due to initial genital herpes episode
Symptomatic genital herpes
Other sexually transmitted diseases
Moderate pelvic inflammatory diseases due to other sexually transmitted diseases

Primary infertility due to other sexually transmitted diseases
Secondary infertility due to other sexually transmitted diseases
Severe pelvic inflammatory diseases due to other sexually transmitted diseases
Hepatitis
Acute hepatitis A
Asymptomatic acute hepatitis A
Moderate acute hepatitis A
Severe acute hepatitis A
Hepatitis B
Asymptomatic acute hepatitis B
Chronic hepatitis B
Moderate acute hepatitis B
Severe acute hepatitis B
Hepatitis C
Asymptomatic acute hepatitis C
Chronic hepatitis C
Moderate acute hepatitis C
Severe acute hepatitis C
Acute hepatitis E
Asymptomatic acute hepatitis E
Moderate acute hepatitis E
Severe acute hepatitis E
Other infectious diseases
Guillain-Barré syndrome due to other infectious diseases
Mild anemia due to other infectious diseases
Moderate anemia due to other infectious diseases
Severe anemia due to other infectious diseases
Non-communicable diseases
Neoplasms
Lip and oral cavity cancer
Controlled phase of mouth cancer
Diagnosis and primary therapy phase of mouth cancer
Metastatic phase of mouth cancer
Terminal phase of mouth cancer
Nasopharynx cancer
Controlled phase of nasopharynx cancer
Diagnosis and primary therapy phase of nasopharynx cancer
Metastatic phase of nasopharynx cancer
Terminal phase of nasopharynx cancer
Other pharynx cancer
Controlled phase of other pharynx cancer
Diagnosis and primary therapy phase of other pharynx cancer
Metastatic phase of other pharynx cancer

Terminal phase of other pharynx cancer
Esophageal cancer
Controlled phase of esophageal cancer
Diagnosis and primary therapy phase of esophageal cancer
Metastatic phase of esophageal cancer
Terminal phase of esophageal cancer
Stomach cancer
Controlled phase of stomach cancer
Diagnosis and primary therapy phase of stomach cancer
Metastatic phase of stomach cancer
Terminal phase of stomach cancer
Colon and rectum cancer
Controlled phase of colon and rectum cancers
Diagnosis and primary therapy phase of colon and rectum cancers
Metastatic phase of colon and rectum cancers
Stoma due to colon and rectum cancer
Terminal phase of colon and rectum cancers
Liver cancer
Liver cancer due to hepatitis B
Controlled phase of liver cancer due to hepatitis B
Diagnosis and primary therapy phase of liver cancer due to hepatitis B
Metastatic phase of liver cancer due to hepatitis B
Terminal phase of liver cancer due to hepatitis B
Liver cancer due to hepatitis C
Controlled phase of liver cancer due to hepatitis C
Diagnosis and primary therapy phase of liver cancer due to hepatitis C
Metastatic phase of liver cancer due to hepatitis C
Terminal phase of liver cancer due to hepatitis C
Liver cancer due to alcohol use
Controlled phase of liver cancer due to alcohol use
Diagnosis and primary therapy phase of liver cancer due to alcohol use
Metastatic phase of liver cancer due to alcohol use
Terminal phase of liver cancer due to alcohol use
Liver cancer due to other causes
Controlled phase of liver cancer due to other causes
Diagnosis and primary therapy phase of liver cancer due to other causes
Metastatic phase of liver cancer due to other causes
Terminal phase of liver cancer due to other causes
Gallbladder and biliary tract cancer
Controlled phase of gallbladder and biliary tract cancer
Diagnosis and primary therapy phase of gallbladder and biliary tract cancer
Metastatic phase of gallbladder and biliary tract cancer
Terminal phase of gallbladder and biliary tract cancer

Pancreatic cancer
Controlled phase of pancreatic cancer
Diagnosis and primary therapy phase of pancreatic cancer
Metastatic phase of pancreatic cancer
Terminal phase of pancreatic cancer
Larynx cancer
Controlled phase of larynx cancer
Diagnosis and primary therapy phase of larynx cancer
Laryngectomy due to larynx cancer
Metastatic phase of larynx cancer
Terminal phase of larynx cancer
Tracheal, bronchus, and lung cancer
Controlled phase of lung, bronchus, and trachea cancer
Diagnosis and primary therapy phase of lung, bronchus, and trachea cancer
Metastatic phase of lung, bronchus, and trachea cancer
Terminal phase of lung, bronchus, and trachea cancer
Malignant skin melanoma
Controlled phase of malignant skin melanoma
Diagnosis and primary therapy phase of malignant skin melanoma
Metastatic phase of malignant skin melanoma
Terminal phase of malignant skin melanoma
Non-melanoma skin cancer
Non-melanoma skin cancer (squamous-cell carcinoma)
Mild disfigurement due to squamous cell carcinoma
Moderate disfigurement due to squamous cell carcinoma
Severe disfigurement due to squamous cell carcinoma
Non-melanoma skin cancer (basal-cell carcinoma)
Disfigurement due to basal cell carcinoma
Breast cancer
Controlled phase of breast cancer
Diagnosis and primary therapy phase of breast cancer
Mastectomy due to breast cancer
Metastatic phase of breast cancer
Terminal phase of breast cancer
Cervical cancer
Controlled phase of cervical cancer
Diagnosis and primary therapy phase of cervical cancer
Metastatic phase of cervical cancer
Terminal phase of cervical cancer
Uterine cancer
Controlled phase of uterine cancer
Diagnosis and primary therapy phase of uterine cancer
Metastatic phase of uterine cancer

Terminal phase of uterine cancer
Ovarian cancer
Controlled phase of ovarian cancer
Diagnosis and primary therapy phase of ovarian cancer
Metastatic phase of ovarian cancer
Terminal phase of ovarian cancer
Prostate cancer
Controlled phase of prostate cancer
Diagnosis and primary therapy phase of prostate cancer
Impotence due to prostate cancer
Incontinence due to prostate cancer
Metastatic phase of prostate cancer
Terminal phase of prostate cancer
Testicular cancer
Controlled phase of testicular cancer
Diagnosis and primary therapy phase of testicular cancer
Metastatic phase of testicular cancer
Terminal phase of testicular cancer
Kidney cancer
Controlled phase of kidney cancer
Diagnosis and primary therapy phase of kidney cancer
Metastatic phase of kidney cancer
Terminal phase of kidney cancer
Bladder cancer
Controlled phase of bladder cancer
Diagnosis and primary therapy phase of bladder cancer
Metastatic phase of bladder cancer
Terminal phase of bladder cancer
Urinary incontinence due to bladder cancer
Brain and nervous system cancer
Controlled phase of brain and nervous system cancers
Diagnosis and primary therapy phase of brain and nervous system cancers
Metastatic phase of brain and nervous system cancers
Terminal phase of brain and nervous system cancers
Thyroid cancer
Controlled phase of thyroid cancer
Diagnosis and primary therapy phase of thyroid cancer
Metastatic phase of thyroid cancer
Terminal phase of thyroid cancer
Mesothelioma
Controlled phase of mesothelioma
Diagnosis and primary therapy phase of mesothelioma
Metastatic phase of mesothelioma

Terminal phase of mesothelioma
Hodgkin lymphoma
Controlled phase of Hodgkin disease
Diagnosis and primary therapy phase of Hodgkin disease
Metastatic phase of Hodgkin disease
Terminal phase of Hodgkin disease
Non-Hodgkin lymphoma
Controlled phase of non-Hodgkin lymphoma
Diagnosis and primary therapy phase of non-Hodgkin lymphoma
Metastatic phase of non-Hodgkin lymphoma
Terminal phase of non-Hodgkin lymphoma
Multiple myeloma
Controlled phase of multiple myeloma
Diagnosis and primary therapy phase of multiple myeloma
Metastatic phase of multiple myeloma
Terminal phase of multiple myeloma
Leukemia
Acute lymphoid leukemia
Controlled phase of acute lymphoid leukemia
Diagnosis and primary therapy phase of acute lymphoid leukemia
Metastatic phase of acute lymphoid leukemia
Terminal phase of acute lymphoid leukemia
Chronic lymphoid leukemia
Controlled phase of chronic lymphoid leukemia
Diagnosis and primary therapy phase of chronic lymphoid leukemia
Metastatic phase of chronic lymphoid leukemia
Terminal phase of chronic lymphoid leukemia
Acute myeloid leukemia
Controlled phase of acute myeloid leukemia
Diagnosis and primary therapy phase of acute myeloid leukemia
Metastatic phase of acute myeloid leukemia
Terminal phase of acute myeloid leukemia
Chronic myeloid leukemia
Controlled phase of chronic myeloid leukemia
Diagnosis and primary therapy phase of chronic myeloid leukemia
Metastatic phase of chronic myeloid leukemia
Terminal phase of chronic myeloid leukemia
Other leukemia
Controlled phase of other leukemia
Diagnosis and primary therapy phase of other leukemia
Metastatic phase of other leukemia
Terminal phase of other leukemia
Other neoplasms

Controlled phase of other neoplasms
Diagnosis and primary therapy phase of other neoplasms
Metastatic phase of other neoplasms
Terminal phase of other neoplasms
Cardiovascular diseases
Rheumatic heart disease
Asymptomatic and mild heart failure due to rheumatic heart disease
Moderate heart failure due to rheumatic heart disease
Rheumatic heart disease, without heart failure
Severe heart failure due to rheumatic heart disease
Ischemic heart disease
Acute myocardial infarction 3 to 28 days
Acute myocardial infarction first 2 days
Asymptomatic and mild heart failure due to ischemic heart disease
Asymptomatic angina due to ischemic heart disease
Asymptomatic ischemic heart disease following myocardial infarction
Mild angina due to ischemic heart disease
Moderate angina due to ischemic heart disease
Moderate heart failure due to ischemic heart disease
Severe angina due to ischemic heart disease
Severe heart failure due to ischemic heart disease
Cerebrovascular disease
Ischemic stroke
Acute ischemic stroke severity level 1
Acute ischemic stroke severity level 2
Acute ischemic stroke severity level 3
Acute ischemic stroke severity level 4
Acute ischemic stroke severity level 5
Asymptomatic chronic ischemic stroke
Chronic ischemic stroke severity level 1
Chronic ischemic stroke severity level 2
Chronic ischemic stroke severity level 3
Chronic ischemic stroke severity level 4
Chronic ischemic stroke severity level 5
Hemorrhagic stroke
Acute hemorrhagic stroke severity level 1
Acute hemorrhagic stroke severity level 2
Acute hemorrhagic stroke severity level 3
Acute hemorrhagic stroke severity level 4
Acute hemorrhagic stroke severity level 5
Asymptomatic chronic hemorrhagic stroke
Chronic hemorrhagic stroke severity level 1
Chronic hemorrhagic stroke severity level 2

Chronic hemorrhagic stroke severity level 3
Chronic hemorrhagic stroke severity level 4
Chronic hemorrhagic stroke severity level 5
Hypertensive heart disease
Asymptomatic and mild heart failure due to hypertensive heart disease
Moderate heart failure due to hypertensive heart disease
Severe heart failure due to hypertensive heart disease
Cardiomyopathy and myocarditis
Myocarditis
Acute myocarditis
Asymptomatic and mild heart failure due to myocarditis
Moderate heart failure due to myocarditis
Severe heart failure due to myocarditis
Alcoholic cardiomyopathy
Asymptomatic and mild heart failure due to alcoholic cardiomyopathy
Moderate heart failure due to alcoholic cardiomyopathy
Severe heart failure due to alcoholic cardiomyopathy
Other cardiomyopathy
Asymptomatic and mild heart failure due to other cardiomyopathy
Moderate heart failure due to other cardiomyopathy
Severe heart failure due to other cardiomyopathy
Atrial fibrillation and flutter
Asymptomatic atrial fibrillation and flutter
Symptomatic atrial fibrillation and flutter
Aortic aneurysm
Peripheral artery disease
Asymptomatic peripheral vascular disease
Symptomatic claudication due to peripheral vascular disease
Endocarditis
Asymptomatic and mild heart failure due to endocarditis
Moderate endocarditis
Moderate heart failure due to endocarditis
Severe endocarditis
Severe heart failure due to endocarditis
Other cardiovascular and circulatory diseases
Asymptomatic and mild heart failure due to other cardiovascular diseases
Asymptomatic other cardiovascular diseases
Mild other cardiovascular diseases
Moderate heart failure due to other cardiovascular diseases
Moderate other cardiovascular diseases
Severe heart failure due to other cardiovascular diseases
Severe other cardiovascular diseases
Chronic respiratory diseases

Chronic obstructive pulmonary disease
Asymptomatic and mild heart failure due to severe chronic obstructive pulmonary disease
Asymptomatic chronic obstructive pulmonary disease
Mild chronic obstructive pulmonary disease
Moderate chronic obstructive pulmonary disease
Moderate heart failure due to severe chronic obstructive pulmonary disease
Severe chronic obstructive pulmonary disease without heart failure
Severe heart failure due to severe chronic obstructive pulmonary disease
Pneumoconiosis
Silicosis
Asymptomatic and mild heart failure due to severe silicosis
Asymptomatic silicosis
Mild silicosis
Moderate heart failure due to severe silicosis
Moderate silicosis
Severe heart failure due to severe silicosis
Severe silicosis without heart failure
Asbestosis
Asymptomatic and mild heart failure due to severe asbestosis
Asymptomatic asbestosis
Mild asbestosis
Moderate asbestosis
Moderate heart failure due to severe asbestosis
Severe asbestosis without heart failure
Severe heart failure due to severe asbestosis
Coal workers pneumoconiosis
Asymptomatic and mild heart failure due to severe coal workers pneumoconiosis
Asymptomatic coal workers pneumoconiosis
Mild coal workers pneumoconiosis
Moderate coal workers pneumoconiosis
Moderate heart failure due to severe coal workers pneumoconiosis
Severe coal workers pneumoconiosis without heart failure
Severe heart failure due to severe coal workers pneumoconiosis
Other pneumoconiosis
Asymptomatic and mild heart failure due to severe other pneumoconiosis
Asymptomatic other pneumoconiosis
Mild other pneumoconiosis
Moderate heart failure due to severe other pneumoconiosis
Moderate other pneumoconiosis
Severe heart failure due to severe other pneumoconiosis
Severe other pneumoconiosis without heart failure
Asthma
Asymptomatic asthma

Controlled asthma
Partially controlled asthma
Uncontrolled asthma
Interstitial lung disease and pulmonary sarcoidosis
Asymptomatic and mild heart failure due to severe interstitial lung disease and pulmonary sarcoidosis
Asymptomatic interstitial lung disease and pulmonary sarcoidosis
Mild interstitial lung disease and pulmonary sarcoidosis
Moderate heart failure due to severe interstitial lung disease and pulmonary sarcoidosis
Moderate interstitial lung disease and pulmonary sarcoidosis
Severe heart failure due to severe interstitial lung disease and pulmonary sarcoidosis
Severe interstitial lung disease and pulmonary sarcoidosis without heart failure
Other chronic respiratory diseases
Cirrhosis and other chronic liver diseases
Cirrhosis and other chronic liver diseases due to hepatitis B
Cirrhosis and other chronic liver diseases due to hepatitis B, compensated
Cirrhosis and other chronic liver diseases due to hepatitis B, decompensated
Cirrhosis and other chronic liver diseases due to hepatitis C
Cirrhosis and other chronic liver diseases due to hepatitis C, compensated
Cirrhosis and other chronic liver diseases due to hepatitis C, decompensated
Cirrhosis and other chronic liver diseases due to alcohol use
Cirrhosis and other chronic liver diseases due to alcohol, compensated
Cirrhosis and other chronic liver diseases due to alcohol, decompensated
Cirrhosis and other chronic liver diseases due to other causes
Cirrhosis and other chronic liver diseases due to other cause, compensated
Cirrhosis and other chronic liver diseases due to other cause, decompensated
Digestive diseases
Peptic ulcer disease
Asymptomatic peptic ulcer disease with mild anemia
Asymptomatic peptic ulcer disease with moderate anemia
Asymptomatic peptic ulcer disease with severe anemia
Asymptomatic peptic ulcer disease without anemia
Mild anemia due to peptic ulcer disease
Mild symptomatic peptic ulcer disease with mild anemia
Mild symptomatic peptic ulcer disease with moderate anemia
Mild symptomatic peptic ulcer disease with severe anemia
Mild symptomatic peptic ulcer disease without anemia
Moderate anemia due to peptic ulcer disease
Moderate symptomatic peptic ulcer disease with mild anemia
Moderate symptomatic peptic ulcer disease with moderate anemia
Moderate symptomatic peptic ulcer disease with severe anemia
Moderate symptomatic peptic ulcer disease without anemia
Severe anemia due to peptic ulcer disease
Gastritis and duodenitis

Asymptomatic gastritis and duodenitis with mild anemia
Asymptomatic gastritis and duodenitis with moderate anemia
Asymptomatic gastritis and duodenitis with severe anemia
Asymptomatic gastritis and duodenitis without anemia
Mild anemia due to gastritis and duodenitis
Mild symptomatic gastritis and duodenitis with mild anemia
Mild symptomatic gastritis and duodenitis with moderate anemia
Mild symptomatic gastritis and duodenitis with severe anemia
Mild symptomatic gastritis and duodenitis without anemia
Moderate anemia due to gastritis and duodenitis
Moderate symptomatic gastritis and duodenitis with mild anemia
Moderate symptomatic gastritis and duodenitis with moderate anemia
Moderate symptomatic gastritis and duodenitis with severe anemia
Moderate symptomatic gastritis and duodenitis without anemia
Severe anemia due to gastritis and duodenitis
Appendicitis
Paralytic ileus and intestinal obstruction
Inguinal, femoral, and abdominal hernia
Asymptomatic inguinal, femoral, and abdominal hernia
Mild symptomatic inguinal, femoral and abdominal hernia
Moderate symptomatic inguinal, femoral and abdominal hernia
Severe symptomatic inguinal, femoral and abdominal hernia
Inflammatory bowel disease
Asymptomatic Crohn's disease
Asymptomatic ulcerative colitis
Crohn's disease
Ulcerative colitis
Vascular intestinal disorders
Gallbladder and biliary diseases
Asymptomatic gallbladder and biliary diseases
Mild symptomatic episodes gallbladder and biliary diseases
Moderate symptomatic episodes gallbladder and biliary diseases
Severe symptomatic episodes gallbladder and biliary diseases
Pancreatitis
Mild pancreatitis episodes
Moderate pancreatitis episodes
Severe pancreatitis episodes
Other digestive diseases
Neurological disorders
Alzheimer disease and other dementias
Mild Alzheimer disease and other dementias
Moderate Alzheimer disease and other dementias
Severe Alzheimer disease and other dementias

Parkinson disease
Mild Parkinson disease
Moderate Parkinson disease
Severe Parkinson disease
Epilepsy
Less severe epilepsy
Seizure-free, treated epilepsy
Severe epilepsy
Multiple sclerosis
Asymptomatic multiple sclerosis
Mild multiple sclerosis
Moderate multiple sclerosis
Severe multiple sclerosis
Motor neuron disease
Diagnosis of motor neuron disease
Mild motor impairment and mild respiratory problems due to motor neuron disease
Mild motor impairment and severe respiratory problems due to motor neuron disease
Mild motor impairment and speech problems due to motor neuron disease
Mild motor impairment due to motor neuron disease
Mild motor impairment, mild respiratory problems, and speech problems due to motor neuron disease
Mild motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease
Mild motor impairment, severe respiratory problems and speech problems due to motor neuron disease
Mild respiratory problems and speech problems due to motor neuron disease
Mild respiratory problems due to motor neuron disease
Moderate motor impairment and mild respiratory problems due to motor neuron disease
Moderate motor impairment and moderate respiratory problems due to motor neuron disease
Moderate motor impairment and severe respiratory problems due to motor neuron disease
Moderate motor impairment and speech problems due to motor neuron disease
Moderate motor impairment due to motor neuron disease
Moderate motor impairment, mild respiratory problems, and speech problems due to motor neuron disease
Moderate motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease
Moderate motor impairment, severe respiratory problems, and speech problems due to motor neuron disease
Moderate respiratory problems and speech problems due to motor neuron disease
Moderate respiratory problems due to motor neuron disease
Severe motor impairment and mild respiratory problems due to motor neuron disease
Severe motor impairment and moderate respiratory problems due to motor neuron disease
Severe motor impairment and severe respiratory problems due to motor neuron disease
Severe motor impairment and speech problems due to motor neuron disease
Severe motor impairment due to motor neuron disease
Severe motor impairment, mild respiratory problems, and speech problems due to motor neuron disease
Severe motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease
Severe motor impairment, severe respiratory problems, and speech problems due to motor neuron disease
Severe respiratory problems and speech problems due to motor neuron disease

Severe respiratory problems due to motor neuron disease
Speech problems due to motor neuron disease
Migraine
Asymptomatic medication overuse headache due to migraine
Asymptomatic migraine
Symptomatic medication overuse headache due to migraine
Symptomatic migraine
Tension-type headache
Asymptomatic medication overuse headache due to tension-type headache
Asymptomatic tension-type headache
Symptomatic medication overuse headache due to tension-type headache
Symptomatic tension-type headache
Other neurological disorders
Guillain-Barré syndrome due to other neurological disorders
Mental and substance use disorders
Schizophrenia
Schizophrenia acute state
Schizophrenia residual state
Alcohol use disorders
Asymptomatic alcohol dependence
Asymptomatic fetal alcohol syndrome
Mild alcohol dependence
Mild fetal alcohol syndrome
Moderate alcohol dependence
Moderate fetal alcohol syndrome
Severe alcohol dependence
Severe fetal alcohol syndrome
Very mild alcohol dependence
Drug use disorders
Opioid use disorders
Asymptomatic opioid dependence
Mild opioid dependence
Severe opioid dependence
Cocaine use disorders
Asymptomatic cocaine dependence
Mild cocaine dependence
Severe cocaine dependence
Amphetamine use disorders
Asymptomatic amphetamine dependence
Mild amphetamine dependence
Severe amphetamine dependence
Cannabis use disorders
Asymptomatic cannabis dependence

Mild cannabis dependence
Severe cannabis dependence
Other drug use disorders
Depressive disorders
Major depressive disorder
Major depressive disorder, currently without symptoms
Mild major depressive disorder
Moderate major depressive disorder
Severe major depressive disorder
Dysthymia
Dysthymia, currently without symptoms
Symptomatic dysthymia
Bipolar disorder
Bipolar disorder depressive state
Bipolar disorder manic state
Bipolar disorder residual state
Anxiety disorders
Anxiety disorders, currently without symptoms
Mild anxiety disorders
Moderate anxiety disorders
Severe anxiety disorders
Eating disorders
Anorexia nervosa
Bulimia nervosa
Autistic spectrum disorders
Autism
Autism with borderline intellectual disability
Autism with mild intellectual disability
Autism with moderate intellectual disability
Autism with profound intellectual disability
Autism with severe intellectual disability
Autism without intellectual disability
Asperger syndrome and other autistic spectrum disorders
Attention-deficit/hyperactivity disorder
Attention-deficit/hyperactivity disorder, currently without symptoms
Symptomatic attention-deficit/hyperactivity disorder
Conduct disorder
Conduct disorder, currently without symptoms
Symptomatic conduct disorder
Idiopathic developmental intellectual disability
Borderline idiopathic developmental intellectual disability
Mild idiopathic developmental intellectual disability
Moderate idiopathic developmental intellectual disability

Profound idiopathic developmental intellectual disability
Severe idiopathic developmental intellectual disability
Other mental and substance use disorders
Mild other mental disorders
Moderate other mental disorders
Other mental disorders, currently without symptoms
Severe other mental disorders
Diabetes, urogenital, blood, and endocrine diseases
Diabetes mellitus
Blindness due to diabetes mellitus
Diabetic foot due to neuropathy
Diabetic neuropathy
Diabetic neuropathy and amputation with treatment
Diabetic neuropathy and amputation without treatment
Moderate vision impairment due to diabetes mellitus
Severe vision impairment due to diabetes mellitus
Uncomplicated diabetes mellitus
Acute glomerulonephritis
Chronic kidney disease
Chronic kidney disease due to diabetes mellitus
End-stage renal disease after transplant due to diabetes mellitus
End-stage renal disease on dialysis due to diabetes mellitus
Stage III chronic kidney disease and mild anemia due to diabetes mellitus
Stage III chronic kidney disease and moderate anemia due to diabetes mellitus
Stage III chronic kidney disease and severe anemia due to diabetes mellitus
Stage III chronic kidney disease without anemia due to diabetes mellitus
Stage IV chronic kidney disease untreated and mild anemia due to diabetes mellitus
Stage IV chronic kidney disease untreated and moderate anemia due to diabetes mellitus
Stage IV chronic kidney disease untreated and severe anemia due to diabetes mellitus
Stage IV chronic kidney disease untreated without anemia due to diabetes mellitus
Stage V chronic kidney disease untreated and mild anemia due to diabetes mellitus
Stage V chronic kidney disease untreated and moderate anemia due to diabetes mellitus
Stage V chronic kidney disease untreated and severe anemia due to diabetes mellitus
Stage V chronic kidney disease untreated without anemia due to diabetes mellitus
Chronic kidney disease due to hypertension
End-stage renal disease after transplant due to hypertension
End-stage renal disease on dialysis due to hypertension
Stage III chronic kidney disease and mild anemia due to hypertension
Stage III chronic kidney disease and moderate anemia due to hypertension
Stage III chronic kidney disease and severe anemia due to hypertension
Stage III chronic kidney disease without anemia due to hypertension
Stage IV chronic kidney disease untreated and mild anemia due to hypertension
Stage IV chronic kidney disease untreated and moderate anemia due to hypertension

Stage IV chronic kidney disease untreated and severe anemia due to hypertension
Stage IV chronic kidney disease untreated without anemia due to hypertension
Stage V chronic kidney disease untreated and mild anemia due to hypertension
Stage V chronic kidney disease untreated and moderate anemia due to hypertension
Stage V chronic kidney disease untreated and severe anemia due to hypertension
Stage V chronic kidney disease untreated without anemia due to hypertension
Chronic kidney disease due to glomerulonephritis
End-stage renal disease after transplant due to glomerulonephritis
End-stage renal disease on dialysis due to glomerulonephritis
Stage III chronic kidney disease and mild anemia due to glomerulonephritis
Stage III chronic kidney disease and moderate anemia due to glomerulonephritis
Stage III chronic kidney disease and severe anemia due to glomerulonephritis
Stage III chronic kidney disease without anemia due to glomerulonephritis
Stage IV chronic kidney disease untreated and mild anemia due to glomerulonephritis
Stage IV chronic kidney disease untreated and moderate anemia due to glomerulonephritis
Stage IV chronic kidney disease untreated and severe anemia due to glomerulonephritis
Stage IV chronic kidney disease untreated without anemia due to glomerulonephritis
Stage V chronic kidney disease untreated and mild anemia due to glomerulonephritis
Stage V chronic kidney disease untreated and moderate anemia due to glomerulonephritis
Stage V chronic kidney disease untreated and severe anemia due to glomerulonephritis
Stage V chronic kidney disease untreated without anemia due to glomerulonephritis
Chronic kidney disease due to other causes
End-stage renal disease after transplant due to other causes
End-stage renal disease on dialysis due to other causes
Stage III chronic kidney disease and mild anemia due to other causes
Stage III chronic kidney disease and moderate anemia due to other causes
Stage III chronic kidney disease and severe anemia due to other causes
Stage III chronic kidney disease without anemia due to other causes
Stage IV chronic kidney disease untreated and mild anemia due to other causes
Stage IV chronic kidney disease untreated and moderate anemia due to other causes
Stage IV chronic kidney disease untreated and severe anemia due to other causes
Stage IV chronic kidney disease untreated without anemia due to other causes
Stage V chronic kidney disease untreated and mild anemia due to other causes
Stage V chronic kidney disease untreated and moderate anemia due to other causes
Stage V chronic kidney disease untreated and severe anemia due to other causes
Stage V chronic kidney disease untreated without anemia due to other causes
Urinary diseases and male infertility
Interstitial nephritis and urinary tract infections
Mild interstitial nephritis and urinary tract infections
Moderate interstitial nephritis and urinary tract infections
Urolithiasis
Mild urolithiasis episodes
Moderate urolithiasis episodes

Severe urolithiasis episodes
Benign prostatic hyperplasia
Asymptomatic benign prostatic hyperplasia
Symptomatic benign prostatic hyperplasia
Male infertility
Primary male infertility
Secondary male infertility
Other urinary diseases
Gynecological diseases
Uterine fibroids
Asymptomatic uterine fibroids
Mild abdominal pain due to uterine fibroids, with mild anemia
Mild abdominal pain due to uterine fibroids, with moderate anemia
Mild abdominal pain due to uterine fibroids, with severe anemia
Mild abdominal pain due to uterine fibroids, without anemia
Polycystic ovarian syndrome
Asymptomatic polycystic ovarian syndrome
Hirsutism and primary infertility due to polycystic ovarian syndrome
Hirsutism and secondary infertility due to polycystic ovarian syndrome
Hirsutism due to polycystic ovarian syndrome
Primary infertility due to polycystic ovarian syndrome
Secondary infertility due to polycystic ovarian syndrome
Female infertility
Idiopathic primary female infertility
Idiopathic secondary female infertility
Endometriosis
Asymptomatic endometriosis
Mild abdominal pain and primary infertility due to endometriosis
Mild abdominal pain and secondary infertility due to endometriosis
Mild abdominal pain due to endometriosis
Moderate abdominal pain and primary infertility due to endometriosis
Moderate abdominal pain and secondary infertility due to endometriosis
Moderate abdominal pain due to endometriosis
Primary infertility due to endometriosis
Secondary infertility due to endometriosis
Severe abdominal pain and primary infertility due to endometriosis
Severe abdominal pain and secondary infertility due to endometriosis
Severe endometriosis
Genital prolapse
Abdominal pain and stress incontinence due to genital prolapse
Abdominal pain due to genital prolapse
Asymptomatic genital prolapse
Stress incontinence due to genital prolapse

Premenstrual syndrome
Abdominal pain and depression due to premenstrual syndrome
Abdominal pain due to premenstrual syndrome
Asymptomatic premenstrual syndrome
Depression due to premenstrual syndrome
Other gynecological diseases
Asymptomatic other gynecological disorders
Mild anemia due to other gynecological diseases
Mild other gynecological disorders
Moderate anemia due to other gynecological diseases
Moderate other gynecological disorders
Severe anemia due to other gynecological diseases
Severe other gynecological disorders
Hemoglobinopathies and hemolytic anemias
Thalassemias
Asymptomatic and mild heart failure due to thalassemias
Beta-thalassemia major, severe infection with severe anemia
Beta-thalassemia major, with mild anemia
Beta-thalassemia major, with moderate anemia
Beta-thalassemia major, with severe anemia
Beta-thalassemia major, without anemia
Hemoglobin E/Beta-thalassemia, without anemia
Hemoglobin E/beta-thalassemia, severe infection with severe anemia
Hemoglobin E/beta-thalassemia, with mild anemia
Hemoglobin E/beta-thalassemia, with moderate anemia
Hemoglobin E/beta-thalassemia, with severe anemia
Hemoglobin H disease, severe infection with severe anemia
Hemoglobin H disease, with mild anemia
Hemoglobin H disease, with moderate anemia
Hemoglobin H disease, with severe anemia
Hemoglobin H disease, without anemia
Moderate heart failure due to thalassemias
Severe heart failure due to thalassemias
Thalassemias trait
Asymptomatic B-thalassemia trait
Asymptomatic hemoglobin E trait
Mild anemia due to B-thalassemia trait
Mild anemia due to hemoglobin E trait
Moderate anemia due to B-thalassemia trait
Moderate anemia due to hemoglobin E trait
Severe anemia due to B-thalassemia trait
Severe anemia due to hemoglobin E trait
Sickle cell disorders

Hemoglobin SC disease, with mild anemia
Hemoglobin SC disease, with moderate anemia
Hemoglobin SC disease, with severe anemia
Hemoglobin SC disease, with stroke and severe anemia
Hemoglobin SC disease, with stroke, without anemia
Hemoglobin SC disease, with vaso-occlusive crisis and severe anemia
Hemoglobin SC disease, with vaso-occlusive crisis and stroke, without anemia
Hemoglobin SC disease, with vaso-occlusive crisis, stroke, and severe anemia
Hemoglobin SC disease, with vaso-occlusive crisis, without anemia
Hemoglobin SC disease, without anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with mild anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with moderate anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with severe anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with stroke and severe anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with stroke, without anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis and severe anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis and stroke, without anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis, stroke, and severe anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis, without anemia
Homozygous sickle cell and severe sickle cell/beta-thalassemia, without anemia
Mild sickle cell/beta-thalassemia, with mild anemia
Mild sickle cell/beta-thalassemia, with moderate anemia
Mild sickle cell/beta-thalassemia, with severe anemia
Mild sickle cell/beta-thalassemia, with stroke and severe anemia
Mild sickle cell/beta-thalassemia, with stroke, without anemia
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis and severe anemia
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis and stroke, without anemia
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis, stroke, and severe anemia
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis, without anemia
Mild sickle cell/beta-thalassemia, without anemia
Sickle cell trait
Asymptomatic sickle cell trait
Mild anemia due to sickle cell trait
Moderate anemia due to sickle cell trait
Severe anemia due to sickle cell trait
G6PD deficiency
Asymptomatic G6PD deficiency
Asymptomatic and mild heart failure due to G6PD deficiency
Mild anemia due to G6PD deficiency
Moderate anemia due to G6PD deficiency
Moderate heart failure due to G6PD deficiency
Severe anemia due to G6PD deficiency

Severe heart failure due to G6PD deficiency
G6PD trait
Asymptomatic hemizygous G6PD deficiency
Mild anemia due to hemizygous G6PD deficiency
Moderate anemia due to hemizygous G6PD deficiency
Severe anemia due to hemizygous G6PD deficiency
Other hemoglobinopathies and hemolytic anemias
Asymptomatic and mild heart failure due to other hemoglobinopathies and hemolytic anemias
Mild anemia due to other hemoglobinopathies and hemolytic anemias
Moderate anemia due to other hemoglobinopathies and hemolytic anemias
Moderate heart failure due to other hemoglobinopathies and hemolytic anemias
Severe anemia due to other hemoglobinopathies and hemolytic anemias
Severe heart failure due to other hemoglobinopathies and hemolytic anemias
Endocrine, metabolic, blood, and immune disorders
Asymptomatic and mild heart failure due to endocrine, metabolic, blood, and immune disorders
Asymptomatic endocrine, metabolic, blood, and immune disorders
Mild anemia due to endocrine, metabolic, blood, and immune disorders
Mild endocrine, metabolic, blood, and immune disorders
Moderate anemia due to endocrine, metabolic, blood, and immune disorders
Moderate endocrine, metabolic, blood, and immune disorders
Moderate heart failure due to endocrine, metabolic, blood, and immune disorders
Severe anemia due to endocrine, metabolic, blood, and immune disorders
Severe endocrine, metabolic, blood, and immune disorders
Severe heart failure due to endocrine, metabolic, blood, and immune disorders
Musculoskeletal disorders
Rheumatoid arthritis
Mild rheumatoid arthritis
Moderate rheumatoid arthritis
Severe rheumatoid arthritis
Osteoarthritis
Mild osteoarthritis of the hip
Mild osteoarthritis of the knee
Moderate osteoarthritis of the hip
Moderate osteoarthritis of the knee
Severe osteoarthritis of the hip
Severe osteoarthritis of the knee
Low back and neck pain
Low back pain
Mild low back pain with leg pain
Mild low back pain without leg pain
Moderate low back pain with leg pain
Moderate low back pain without leg pain
Most severe low back pain with leg pain

Most severe low back pain without leg pain
Severe low back pain with leg pain
Severe low back pain without leg pain
Neck pain
Mild neck pain
Moderate neck pain
Most severe neck pain
Severe neck pain
Gout
Asymptomatic gout
Polyarticular gout
Symptomatic episodes of gout
Other musculoskeletal disorders
Asymptomatic other musculoskeletal disorders
Other musculoskeletal disorders severity level 1
Other musculoskeletal disorders severity level 2
Other musculoskeletal disorders severity level 3
Other musculoskeletal disorders severity level 4
Other musculoskeletal disorders severity level 5
Other musculoskeletal disorders severity level 6
Other non-communicable diseases
Congenital birth defects
Neural tube defects
Asymptomatic encephalocele following treatment
Borderline intellectual disability and incontinence due to encephalocele
Borderline intellectual disability due to encephalocele
Incontinence due to encephalocele
Mild intellectual disability and incontinence due to encephalocele
Mild intellectual disability due to encephalocele
Mild motor impairment and borderline intellectual disability due to encephalocele
Mild motor impairment and borderline intellectual disability due to spina bifida
Mild motor impairment and incontinence due to encephalocele
Mild motor impairment and incontinence due to spina bifida
Mild motor impairment and mild intellectual disability due to encephalocele
Mild motor impairment and mild intellectual disability due to spina bifida
Mild motor impairment and moderate intellectual disability due to encephalocele
Mild motor impairment and moderate intellectual disability due to spina bifida
Mild motor impairment and profound intellectual disability due to encephalocele
Mild motor impairment and profound intellectual disability due to spina bifida
Mild motor impairment and severe intellectual disability due to encephalocele
Mild motor impairment and severe intellectual disability due to spina bifida
Mild motor impairment due to encephalocele
Mild motor impairment due to spina bifida

Mild motor impairment, borderline intellectual disability and incontinence due to encephalocele
Mild motor impairment, borderline intellectual disability and incontinence due to spina bifida
Mild motor impairment, mild intellectual disability and incontinence due to encephalocele
Mild motor impairment, mild intellectual disability and incontinence due to spina bifida
Mild motor impairment, moderate intellectual disability and incontinence due to encephalocele
Mild motor impairment, moderate intellectual disability and incontinence due to spina bifida
Mild motor impairment, profound intellectual disability and incontinence due to encephalocele
Mild motor impairment, profound intellectual disability and incontinence due to spina bifida
Mild motor impairment, severe intellectual disability and incontinence due to encephalocele
Mild motor impairment, severe intellectual disability and incontinence due to spina bifida
Moderate intellectual disability and incontinence due to encephalocele
Moderate intellectual disability due to encephalocele
Moderate motor impairment and borderline intellectual disability due to encephalocele
Moderate motor impairment and borderline intellectual disability due to spina bifida
Moderate motor impairment and incontinence due to encephalocele
Moderate motor impairment and incontinence due to spina bifida
Moderate motor impairment and mild intellectual disability due to encephalocele
Moderate motor impairment and mild intellectual disability due to spina bifida
Moderate motor impairment and moderate intellectual disability due to encephalocele
Moderate motor impairment and moderate intellectual disability due to spina bifida
Moderate motor impairment and profound intellectual disability due to encephalocele
Moderate motor impairment and profound intellectual disability due to spina bifida
Moderate motor impairment and severe intellectual disability due to encephalocele
Moderate motor impairment and severe intellectual disability due to spina bifida
Moderate motor impairment due to encephalocele
Moderate motor impairment due to spina bifida
Moderate motor impairment, borderline intellectual disability and incontinence due to encephalocele
Moderate motor impairment, borderline intellectual disability and incontinence due to spina bifida
Moderate motor impairment, mild intellectual disability and incontinence due to encephalocele
Moderate motor impairment, mild intellectual disability and incontinence due to spina bifida
Moderate motor impairment, moderate intellectual disability and incontinence due to encephalocele
Moderate motor impairment, moderate intellectual disability and incontinence due to spina bifida
Moderate motor impairment, profound intellectual disability and incontinence due to encephalocele
Moderate motor impairment, profound intellectual disability and incontinence due to spina bifida
Moderate motor impairment, severe intellectual disability and incontinence due to encephalocele
Moderate motor impairment, severe intellectual disability and incontinence due to spina bifida
Profound intellectual disability and incontinence due to encephalocele
Profound intellectual disability due to encephalocele
Severe intellectual disability and incontinence due to encephalocele
Severe intellectual disability due to encephalocele
Severe motor and cognitive impairment due to anencephaly
Severe motor impairment and borderline intellectual disability due to encephalocele
Severe motor impairment and borderline intellectual disability due to spina bifida

Severe motor impairment and incontinence due to encephalocele
Severe motor impairment and incontinence due to spina bifida
Severe motor impairment and mild intellectual disability due to encephalocele
Severe motor impairment and mild intellectual disability due to spina bifida
Severe motor impairment and moderate intellectual disability due to encephalocele
Severe motor impairment and moderate intellectual disability due to spina bifida
Severe motor impairment and profound intellectual disability due to encephalocele
Severe motor impairment and profound intellectual disability due to spina bifida
Severe motor impairment and severe intellectual disability due to encephalocele
Severe motor impairment and severe intellectual disability due to spina bifida
Severe motor impairment due to encephalocele
Severe motor impairment due to spina bifida
Severe motor impairment, borderline intellectual disability and incontinence due to encephalocele
Severe motor impairment, borderline intellectual disability and incontinence due to spina bifida
Severe motor impairment, mild intellectual disability and incontinence due to encephalocele
Severe motor impairment, mild intellectual disability and incontinence due to spina bifida
Severe motor impairment, moderate intellectual disability and incontinence due to encephalocele
Severe motor impairment, moderate intellectual disability and incontinence due to spina bifida
Severe motor impairment, profound intellectual disability and incontinence due to encephalocele
Severe motor impairment, severe intellectual disability and incontinence due to encephalocele
Severe motor impairment, severe intellectual disability and incontinence due to spina bifida
profound motor impairment, profound intellectual disability and incontinence due to spina bifida
Congenital heart anomalies
Asymptomatic ventricular septal defect and atrial septal defect
Congenital heart disease and borderline intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and borderline intellectual disability without heart failure due to other congenital cardiovascular anomalies
Congenital heart disease and borderline intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and borderline intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and borderline intellectual disability without heart failure due to ventricular septal defect and atrial septal defect
Congenital heart disease and mild heart failure without intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and mild heart failure without intellectual disability due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and mild heart failure without intellectual disability due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and mild heart failure without intellectual disability due to ventricular septal defect and atrial septal defect
Congenital heart disease and mild intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and mild intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and mild intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and mild intellectual disability without heart failure due to other congenital cardiovascular anomalies

Congenital heart disease and mild intellectual disability without heart failure due to ventricular septal defect and atrial septal defect
Congenital heart disease and moderate heart failure without intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and moderate heart failure without intellectual disability due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and moderate heart failure without intellectual disability due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and moderate heart failure without intellectual disability due to ventricular septal defect and atrial septal defect
Congenital heart disease and moderate intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and moderate intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and moderate intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and moderate intellectual disability without heart failure due to other congenital cardiovascular anomalies
Congenital heart disease and moderate intellectual disability without heart failure due to ventricular septal defect and atrial septal defect
Congenital heart disease and profound intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and profound intellectual disability without heart failure due to other congenital cardiovascular anomalies
Congenital heart disease and profound intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and profound intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and profound intellectual disability without heart failure due to ventricular septal defect and atrial septal defect
Congenital heart disease and severe heart failure without intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and severe heart failure without intellectual disability due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and severe heart failure without intellectual disability due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and severe heart failure without intellectual disability due to ventricular septal defect and atrial septal defect
Congenital heart disease and severe intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease and severe intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease and severe intellectual disability without heart failure due to other congenital cardiovascular anomalies
Congenital heart disease and severe intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease and severe intellectual disability without heart failure due to ventricular septal defect and atrial septal defect
Congenital heart disease without heart failure or intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus
Congenital heart disease without heart failure or intellectual disability due to ventricular septal defect and atrial septal defect
Congenital heart disease without intellectual disability or heart failure due to other congenital cardiovascular anomalies
Congenital heart disease without intellectual disability or heart failure due to severe congenital heart anomalies excluding single ventricle heart defects
Congenital heart disease without intellectual disability or heart failure due to single ventricle and single ventricle pathway heart defects
Congenital heart disease, borderline intellectual disability and mild heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus

Asymptomatic orofacial clefts
Disfigurement level 1 due to orofacial clefts
Disfigurement level 2 and speech problems due to orofacial clefts
Disfigurement level 2 due to orofacial clefts
Down syndrome
Asymptomatic Down syndrome
Borderline intellectual disability and mild dementia due to Down syndrome
Borderline intellectual disability and moderate dementia due to Down syndrome
Borderline intellectual disability and severe dementia due to Down syndrome
Borderline intellectual disability due to Down syndrome
Borderline intellectual disability with congenital heart disease due to Down syndrome
Borderline intellectual disability, mild dementia, and congenital heart disease due to Down syndrome
Borderline intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome
Borderline intellectual disability, severe dementia, and congenital heart disease due to Down syndrome
Congenital heart disease and mild dementia due to Down syndrome
Congenital heart disease and moderate dementia due to Down syndrome
Congenital heart disease and severe dementia due to Down syndrome
Isolated congenital heart disease due to Down syndrome
Mild dementia due to Down syndrome
Mild intellectual disability and mild dementia due to Down syndrome
Mild intellectual disability and moderate dementia due to Down syndrome
Mild intellectual disability and severe dementia due to Down syndrome
Mild intellectual disability due to Down syndrome
Mild intellectual disability with congenital heart disease due to Down syndrome
Mild intellectual disability, mild dementia, and congenital heart disease due to Down syndrome
Mild intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome
Mild intellectual disability, severe dementia, and congenital heart disease due to Down syndrome
Moderate dementia due to Down syndrome
Moderate intellectual disability and mild dementia due to Down syndrome
Moderate intellectual disability and moderate dementia due to Down syndrome
Moderate intellectual disability and severe dementia due to Down syndrome
Moderate intellectual disability due to Down syndrome
Moderate intellectual disability with congenital heart disease due to Down syndrome
Moderate intellectual disability, mild dementia, and congenital heart disease due to Down syndrome
Moderate intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome
Moderate intellectual disability, severe dementia, and congenital heart disease due to Down syndrome
Profound intellectual disability and mild dementia due to Down syndrome
Profound intellectual disability and moderate dementia due to Down syndrome
Profound intellectual disability and severe dementia due to Down syndrome
Profound intellectual disability due to Down syndrome
Profound intellectual disability with congenital heart disease due to Down syndrome
Profound intellectual disability, mild dementia, and congenital heart disease due to Down syndrome
Profound intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome

Profound intellectual disability, severe dementia, and congenital heart disease due to Down syndrome
Severe dementia due to Down syndrome
Severe intellectual disability and mild dementia due to Down syndrome
Severe intellectual disability and moderate dementia due to Down syndrome
Severe intellectual disability and severe dementia due to Down syndrome
Severe intellectual disability due to Down syndrome
Severe intellectual disability with congenital heart disease due to Down syndrome
Severe intellectual disability, mild dementia, and congenital heart disease due to Down syndrome
Severe intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome
Severe intellectual disability, severe dementia, and congenital heart disease due to Down syndrome
Turner syndrome
Asymptomatic Turner syndrome
Congenital heart disease due to Turner syndrome
Congenital heart disease with infertility due to Turner syndrome
Primary infertility due to Turner syndrome
Klinefelter syndrome
Asymptomatic Klinefelter syndrome
Borderline intellectual disability due to Klinefelter syndrome
Borderline intellectual disability with infertility due to Klinefelter syndrome
Mild intellectual disability due to Klinefelter syndrome
Mild intellectual disability with infertility due to Klinefelter syndrome
Primary infertility due to Klinefelter syndrome
Other chromosomal abnormalities
Asymptomatic other chromosomal abnormalities
Borderline intellectual disability and mild dementia due to other chromosomal abnormalities
Borderline intellectual disability and moderate dementia due to other chromosomal abnormalities
Borderline intellectual disability and severe dementia due to other chromosomal abnormalities
Borderline intellectual disability due to other chromosomal abnormalities
Borderline intellectual disability with congenital heart disease due to other chromosomal abnormalities
Borderline intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities
Borderline intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities
Borderline intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities
Congenital heart disease and mild dementia due to other chromosomal abnormalities
Congenital heart disease and moderate dementia due to other chromosomal abnormalities
Congenital heart disease and severe dementia due to other chromosomal abnormalities
Isolated congenital heart disease due to other chromosomal abnormalities
Mild dementia due to other chromosomal abnormalities
Mild intellectual disability and mild dementia due to other chromosomal abnormalities
Mild intellectual disability and moderate dementia due to other chromosomal abnormalities
Mild intellectual disability and severe dementia due to other chromosomal abnormalities
Mild intellectual disability due to other chromosomal abnormalities

Mild intellectual disability with congenital heart disease due to other chromosomal abnormalities
Mild intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities
Mild intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities
Mild intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities
Moderate dementia due to other chromosomal abnormalities
Moderate intellectual disability and mild dementia due to other chromosomal abnormalities
Moderate intellectual disability and moderate dementia due to other chromosomal abnormalities
Moderate intellectual disability and severe dementia due to other chromosomal abnormalities
Moderate intellectual disability due to other chromosomal abnormalities
Moderate intellectual disability with congenital heart disease due to other chromosomal abnormalities
Moderate intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities
Moderate intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities
Moderate intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities
Profound intellectual disability and mild dementia due to other chromosomal abnormalities
Profound intellectual disability and moderate dementia due to other chromosomal abnormalities
Profound intellectual disability and severe dementia due to other chromosomal abnormalities
Profound intellectual disability due to other chromosomal abnormalities
Profound intellectual disability with congenital heart disease due to other chromosomal abnormalities
Profound intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities
Profound intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities
Profound intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities
Severe dementia due to other chromosomal abnormalities
Severe intellectual disability and mild dementia due to other chromosomal abnormalities
Severe intellectual disability and moderate dementia due to other chromosomal abnormalities
Severe intellectual disability and severe dementia due to other chromosomal abnormalities
Severe intellectual disability due to other chromosomal abnormalities
Severe intellectual disability with congenital heart disease due to other chromosomal abnormalities
Severe intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities
Severe intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities
Severe intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities
Severe motor and cognitive impairment due to Edward Syndrome or Patau Syndrome
Severe motor and cognitive impairment with congenital heart disease due to Edward Syndrome or Patau Syndrome
Congenital musculoskeletal and limb anomalies
Disfigurement level 1 due to polydactyly and syndactyly
Disfigurement level 2 and mild motor impairment due to congenital limb deficiency
Disfigurement level 2 and mild motor impairment due to other congenital musculoskeletal anomalies
Disfigurement level 2 and moderate motor impairment due to congenital limb deficiency
Disfigurement level 2 and moderate motor impairment due to other congenital musculoskeletal anomalies
Disfigurement level 2 due to congenital limb deficiency
Disfigurement level 2 due to other congenital musculoskeletal anomalies

Disfigurement level 2 with pain and mild motor impairment due to congenital limb deficiency
Disfigurement level 2 with pain and mild motor impairment due to other congenital musculoskeletal anomalies
Disfigurement level 2 with pain and moderate motor impairment due to congenital limb deficiency
Disfigurement level 2 with pain and moderate motor impairment due to other congenital musculoskeletal anomalies
Disfigurement level 2 with pain due to congenital limb deficiency
Disfigurement level 2 with pain due to other congenital musculoskeletal anomalies
Urogenital congenital anomalies
Asymptomatic congenital anomalies of the urinary tract
Asymptomatic congenital genital anomalies
Atypical genital and recurrent urinary tract infections and other abdominal issues due to congenital anomalies of the urinary tract
Atypical genital and recurrent urinary tract infections and other abdominal issues due to congenital genital anomalies
Atypical genitalia and impotence due to congenital anomalies of the urinary tract
Atypical genitalia and impotence due to congenital genital anomalies
Atypical genitalia and incontinence due to congenital anomalies of the urinary tract
Atypical genitalia and primary infertility due to congenital genital anomalies
Atypical genitalia due to congenital anomalies of the urinary tract
Atypical genitalia due to congenital genital anomalies
Atypical genitalia, incontinence and impotence due to congenital anomalies of the urinary tract
Atypical genitalia, incontinence, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital anomalies of the urinary tract
Atypical genitalia, infertility and impotence due to congenital genital anomalies
Atypical genitalia, infertility, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and impotence due to congenital anomalies of the urinary tract
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and incontinence due to congenital anomalies of the urinary tract
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and infertility due to congenital genital anomalies
Impotence and recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract
Impotence and recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies
Impotence due to congenital anomalies of the urinary tract
Impotence due to congenital genital anomalies
Incontinence and impotence due to congenital anomalies of the urinary tract
Incontinence and recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract
Incontinence due to congenital anomalies of the urinary tract
Incontinence, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital anomalies of the urinary tract
Infertility and impotence due to congenital genital anomalies
Infertility, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies
Primary infertility and recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies
Primary infertility due to congenital genital anomalies
Recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract

Recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies
Digestive congenital anomalies
Mild chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia
Acid reflux, dysphagia, and/or constipation due to other congenital malformations of the digestive tract
Asymptomatic congenital atresia and/or stenosis of the digestive tract
Asymptomatic congenital diaphragmatic hernia
Asymptomatic congenital malformations of the abdominal wall after treatment
Asymptomatic other congenital malformations of the digestive tract
Chronic abdominal pain and concern about scars due to congenital malformations of the abdominal wall
Chronic abdominal pain and developmental delay due to congenital diaphragmatic hernia
Chronic abdominal pain and disfigurement due to congenital diaphragmatic hernia
Chronic abdominal pain and mild chronic respiratory problems due to congenital diaphragmatic hernia
Chronic abdominal pain and/or nausea due to other congenital malformations of the digestive tract
Chronic abdominal pain and/or nausea with acid reflux, dysphagia, and/or constipation due to other congenital malformations of the digestive tract
Chronic abdominal pain due to congenital atresia and/or stenosis of the digestive tract
Chronic abdominal pain due to congenital diaphragmatic hernia
Chronic abdominal pain due to congenital malformations of the abdominal wall
Chronic abdominal pain, chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia
Chronic abdominal pain, disfigurement and chronic respiratory problems due to congenital diaphragmatic hernia
Chronic abdominal pain, disfigurement and developmental delay due to congenital diaphragmatic hernia
Chronic abdominal pain, disfigurement, developmental delay and chronic respiratory problems due to congenital diaphragmatic hernia
Chronic respiratory problems and abdominal pain due to congenital atresia and/or stenosis of the digestive tract
Chronic respiratory problems and dysphagia or acid reflux due to congenital atresia and/or stenosis of the digestive tract
Chronic respiratory problems including difficulty breathing and recurrent upper respiratory infections due to atresia and/or stenosis of the digestive tract
Constipation and chronic abdominal pain due to congenital malformations of the abdominal wall
Constipation and concern about scars due to congenital malformations of the abdominal wall
Constipation due to congenital malformations of the abdominal wall
Constipation, chronic abdominal pain and concern about scars due to congenital malformations of the abdominal wall
Developmental delay or mild intellectual disability due to congenital diaphragmatic hernia
Disfigurement and developmental delay due to congenital diaphragmatic hernia
Disfigurement and mild chronic respiratory problems due to congenital diaphragmatic hernia
Disfigurement due to congenital diaphragmatic hernia
Disfigurement from scars following treatment for congenital malformations of the abdominal wall
Disfigurement, chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia
Dysphagia or acid reflux and chronic abdominal pain due to congenital atresia and/or stenosis of the digestive tract
Dysphagia or acid reflux due to congenital atresia and/or stenosis of the digestive tract
Dysphagia or acid reflux, chronic abdominal pain and chronic respiratory problems due to congenital atresia and/or stenosis of the digestive tract
Mild chronic respiratory problems and breathlessness due to congenital diaphragmatic hernia
Other congenital birth defects
Complete hearing loss due to other congenital anomalies

Complete hearing loss with ringing due to other congenital anomalies
Mild hearing loss due to other congenital anomalies
Mild hearing loss with ringing due to other congenital anomalies
Moderate hearing loss due to other congenital anomalies
Moderate hearing loss with ringing due to other congenital anomalies
Moderately severe hearing loss due to other congenital anomalies
Moderately severe hearing loss with ringing due to other congenital anomalies
Profound hearing loss due to other congenital anomalies
Profound hearing loss with ringing due to other congenital anomalies
Severe hearing loss due to other congenital anomalies
Severe hearing loss with ringing due to other congenital anomalies
Skin and subcutaneous diseases
Dermatitis
Asymptomatic contact dermatitis
Asymptomatic seborrheic dermatitis
Mild atopic dermatitis
Mild contact dermatitis
Moderate atopic dermatitis
Moderate contact dermatitis
Severe atopic dermatitis
Symptomatic seborrheic dermatitis
Psoriasis
Mild psoriasis
Moderate psoriasis
Severe psoriasis
Cellulitis
Mild cellulitis
Moderate cellulitis
Severe cellulitis
Pyoderma
Abscess and other bacterial skin diseases
Impetigo
Scabies
Fungal skin diseases
Other fungal skin diseases
Tinea capitis
Viral skin diseases
Mild molluscum contagiosum
Mild viral warts
Severe molluscum contagiosum
Severe viral warts
Acne vulgaris
Mild acne vulgaris

Moderate acne vulgaris
Severe acne vulgaris
Alopecia areata
Mild alopecia areata
Severe alopecia areata
Pruritus
Urticaria
Mild urticaria
Severe urticaria
Decubitus ulcer
Mild decubitus ulcer
Moderate decubitus ulcer
Severe decubitus ulcer
Other skin and subcutaneous diseases
Asymptomatic other skin and subcutaneous diseases
Symptomatic other skin and subcutaneous diseases
Sense organ diseases
Glaucoma
Blindness due to glaucoma
Moderate vision impairment due to glaucoma
Severe vision impairment due to glaucoma
Cataract
Blindness due to cataract
Moderate vision impairment due to cataract
Severe vision impairment due to cataract
Macular degeneration
Blindness due to macular degeneration
Moderate vision impairment due to macular degeneration
Severe vision impairment due to macular degeneration
Refraction and accommodation disorders
Blindness due to uncorrected refractive error
Moderate vision impairment due to uncorrected refractive error
Near vision impairment
Severe vision impairment due to uncorrected refractive error
Age-related and other hearing loss
Complete hearing loss due to age-related and other hearing loss
Complete hearing loss with ringing due to age-related and other hearing loss
Mild hearing loss due to age-related and other hearing loss
Mild hearing loss with ringing due to age-related and other hearing loss
Moderate hearing loss due to age-related and other hearing loss
Moderate hearing loss with ringing due to age-related and other hearing loss
Moderately severe hearing loss due to age-related and other hearing loss
Moderately severe hearing loss with ringing due to age-related and other hearing loss

Profound hearing loss due to age-related and other hearing loss
Profound hearing loss with ringing due to age-related and other hearing loss
Severe hearing loss due to age-related and other hearing loss
Severe hearing loss with ringing due to age-related and other hearing loss
Other vision loss
Blindness due to other vision loss
Moderate vision impairment due to other vision loss
Severe vision impairment due to other vision loss
Other sense organ diseases
Asymptomatic acute sense organ diseases
Asymptomatic chronic sense organ diseases
Mild acute sense organ diseases
Moderate acute sense organ diseases
Moderate chronic sense organ diseases
Severe chronic sense organ diseases
Oral disorders
Caries of deciduous teeth
Asymptomatic caries of deciduous teeth
Pain due to caries of deciduous teeth
Caries of permanent teeth
Asymptomatic caries of permanent teeth
Pain due to caries of permanent teeth
Periodontal diseases
Chronic periodontal diseases
Edentulism and severe tooth loss
Asymptomatic edentulism and severe tooth loss
Difficulty eating due to edentulism and severe tooth loss
Other oral disorders
Mild other oral disorders
Severe other oral disorders
Sudden infant death syndrome
Injuries
Transport injuries
Road injuries
Pedestrian road injuries
Cyclist road injuries
Motorcyclist road injuries
Motor vehicle road injuries
Other road injuries
Other transport injuries
Unintentional injuries
Falls
Drowning

Fire, heat, and hot substances
Poisonings
Exposure to mechanical forces
Unintentional firearm injuries
Unintentional suffocation
Other exposure to mechanical forces
Adverse effects of medical treatment
Animal contact
Venomous animal contact
Non-venomous animal contact
Foreign body
Pulmonary aspiration and foreign body in airway
Foreign body in eyes
Foreign body in other body part
Environmental heat and cold exposure
Other unintentional injuries
Self-harm and interpersonal violence
Self-harm
Self-harm by firearm
Self-harm by other specified means
Interpersonal violence
Physical violence by firearm
Physical violence by sharp object
Sexual violence
Physical violence by other means
Forces of nature, conflict and terrorism, and executions and police conflict
Exposure to forces of nature
Conflict and terrorism
Executions and police conflict

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Drug-susceptible tuberculosis	Tuberculosis, not HIV infected	has a persistent cough and fever, is short of breath, feels weak, and has lost a lot of weight.	0.333 (0.224–0.454)
Multidrug-resistant tuberculosis without extensive drug resistance	Tuberculosis, not HIV infected	has a persistent cough and fever, is short of breath, feels weak, and has lost a lot of weight.	0.333 (0.224–0.454)
Extensively drug-resistant tuberculosis	Tuberculosis, not HIV infected	has a persistent cough and fever, is short of breath, feels weak, and has lost a lot of weight.	0.333 (0.224–0.454)
Latent tuberculosis infection	Asymptomatic	--	--
Drug-susceptible HIV/AIDS - Tuberculosis with severe anemia	Tuberculosis, HIV infected and anemia, severe	(combined DW)	0.495 (0.353–0.64)
Drug-susceptible HIV/AIDS - Tuberculosis with moderate anemia	Tuberculosis, HIV infected and anemia, moderate	(combined DW)	0.439 (0.307–0.577)
Drug-susceptible HIV/AIDS - Tuberculosis with mild anemia	Tuberculosis, HIV infected and anemia, mild	(combined DW)	0.411 (0.278–0.551)
Drug-susceptible HIV/AIDS - Tuberculosis without anemia	Tuberculosis, HIV infected	has a persistent cough and fever, shortness of breath, night sweats, weakness and fatigue and severe weight loss.	0.408 (0.274–0.549)
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with severe anemia	Tuberculosis, HIV infected and anemia, severe	(combined DW)	0.495 (0.353–0.64)
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance without anemia	Tuberculosis, HIV infected	has a persistent cough and fever, shortness of breath, night sweats, weakness and fatigue and severe weight loss.	0.408 (0.274–0.549)
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with moderate anemia	Tuberculosis, HIV infected and anemia, moderate	(combined DW)	0.439 (0.307–0.577)
Multidrug-resistant HIV/AIDS - Tuberculosis without extensive drug resistance with mild anemia	Tuberculosis, HIV infected and anemia, mild	(combined DW)	0.411 (0.278–0.551)
Extensively drug-resistant HIV/AIDS - Tuberculosis with mild anemia	Tuberculosis, HIV infected and anemia, mild	(combined DW)	0.411 (0.278–0.551)
Extensively drug-resistant HIV/AIDS - Tuberculosis with severe anemia	Tuberculosis, HIV infected and anemia, severe	(combined DW)	0.495 (0.353–0.64)
Extensively drug-resistant HIV/AIDS - Tuberculosis without anemia	Tuberculosis, HIV infected	has a persistent cough and fever, shortness of breath, night sweats, weakness and fatigue and severe weight loss.	0.408 (0.274–0.549)
Extensively drug-resistant HIV/AIDS - Tuberculosis with moderate anemia	Tuberculosis, HIV infected and anemia, moderate	(combined DW)	0.439 (0.307–0.577)
Early HIV with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Symptomatic HIV without anemia	HIV cases, symptomatic, pre-AIDS	has weight loss, fatigue, and frequent infections.	0.274 (0.184–0.377)
Early HIV with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
AIDS without antiretroviral treatment without anemia	AIDS cases, not receiving ARV treatment	has severe weight loss, weakness, fatigue, cough and fever, and frequent infections, skin rashes and diarrhea.	0.582 (0.406–0.743)
AIDS with antiretroviral treatment without anemia	HIV/AIDS cases, receiving ARV treatment	has occasional fevers and infections. The person takes daily medication that sometimes causes diarrhea.	0.078 (0.052–0.111)
Early HIV with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Early HIV without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Symptomatic HIV with moderate anemia	HIV cases, symptomatic, pre-AIDS and anemia, moderate	(combined DW)	0.312 (0.217–0.418)
Symptomatic HIV with severe anemia	HIV cases, symptomatic, pre-AIDS and anemia, severe	(combined DW)	0.381 (0.269–0.505)
AIDS with antiretroviral treatment with mild anemia	HIV/AIDS cases, receiving ARV treatment and anemia, mild	(combined DW)	0.081 (0.054–0.116)
AIDS with antiretroviral treatment with moderate anemia	HIV/AIDS cases, receiving ARV treatment and anemia, moderate	(combined DW)	0.125 (0.085–0.176)
AIDS with antiretroviral treatment with severe anemia	HIV/AIDS cases, receiving ARV treatment and anemia, severe	(combined DW)	0.215 (0.148–0.295)
AIDS without antiretroviral treatment with mild anemia	AIDS cases, not receiving ARV treatment and anemia, mild	(combined DW)	0.583 (0.409–0.743)
AIDS without antiretroviral treatment with moderate anemia	AIDS cases, not receiving ARV treatment and anemia, moderate	(combined DW)	0.603 (0.43–0.758)
AIDS without antiretroviral treatment with severe anemia	AIDS cases, not receiving ARV treatment and anemia, severe	(combined DW)	0.642 (0.47–0.792)
Symptomatic HIV with mild anemia	HIV cases, symptomatic, pre-AIDS and anemia, mild	(combined DW)	0.277 (0.189–0.379)
Mild diarrheal diseases	Diarrhea, mild	has diarrhea three or more times a day with occasional discomfort in the belly.	0.074 (0.049–0.104)
Guillain-Barré syndrome due to diarrheal diseases	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Severe diarrheal diseases	Diarrhea, severe	has diarrhea three or more times a day with severe belly cramps. The person is very thirsty and feels nauseous and tired.	0.247 (0.164–0.348)
Moderate diarrheal diseases	Diarrhea, moderate	has diarrhea three or more times a day, with painful cramps in the belly and feeling thirsty	0.188 (0.125–0.264)
Intestinal perforation due to typhoid	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Severe typhoid fever	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Gastrointestinal bleeding due to typhoid	Gastric bleeding	vomits blood and feels nauseous.	0.325 (0.209–0.462)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Acute typhoid infection	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Acute paratyphoid infection	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate paratyphoid fever	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Intestinal perforation due to paratyphoid	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Severe paratyphoid fever	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Other intestinal infectious diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Guillain-Barré syndrome due to lower respiratory infections	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Severe lower respiratory infections	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Moderate lower respiratory infections	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Mild upper respiratory infections	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate upper respiratory infections	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Guillain-Barré syndrome due to upper respiratory infections	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Vertigo with moderate hearing loss and ringing due to chronic otitis media	Vertigo with moderate hearing loss and ringing	--	--
Vertigo with moderate hearing loss due to chronic otitis media	Vertigo with moderate hearing loss	--	--
Severe infectious complications due to chronic otitis media	Ear pain	has an ear-ache that causes some difficulty with daily activities.	0.013 (0.007–0.024)
Acute otitis media	Ear pain	has an ear-ache that causes some difficulty with daily activities.	0.013 (0.007–0.024)
Vertigo with mild hearing loss and ringing due to chronic otitis media	Vertigo with mild hearing loss and ringing	--	--
Vertigo with mild hearing loss due to chronic otitis media	Vertigo with mild hearing loss	--	--
Moderate hearing loss due to chronic otitis media	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Mild hearing loss due to chronic otitis media	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Moderate hearing loss with ringing due to chronic otitis media	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Mild hearing loss with ringing due to chronic otitis media	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)
Epilepsy due to pneumococcal meningitis	Epilepsy	(combined DW)	--
Profound hearing loss due to pneumococcal meningitis	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.204 (0.134–0.288)
Acute pneumococcal meningitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Severe hearing loss with ringing due to pneumococcal meningitis	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.261 (0.175–0.36)
Moderately severe hearing loss due to pneumococcal meningitis	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Borderline intellectual disability due to pneumococcal meningitis	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Moderate hearing loss with ringing due to pneumococcal meningitis	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Profound hearing loss with ringing due to pneumococcal meningitis	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.277 (0.182–0.387)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe hearing loss due to pneumococcal meningitis	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Mild behavioral problems due to pneumococcal meningitis	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Severe motor plus cognitive impairments due to pneumococcal meningitis	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Mild motor impairment due to long term due to pneumococcal meningitis	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Monocular distance vision loss due to pneumococcal meningitis	Distance vision, monocular	is blind in one eye and has difficulty judging distances	0.017 (0.009–0.029)
Severe vision impairment due to pneumococcal meningitis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderately severe hearing loss with ringing due to pneumococcal meningitis	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--
Moderate motor impairment due to pneumococcal meningitis	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Mild hearing loss with ringing due to pneumococcal meningitis	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)
Moderate motor plus cognitive impairments due to pneumococcal meningitis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Mild intellectual disability due to pneumococcal meningitis	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Complete hearing loss with ringing due to pneumococcal meningitis	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)
Mild motor plus cognitive impairments due to pneumococcal meningitis	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Moderate hearing loss due to pneumococcal meningitis	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Moderate vision impairment due to pneumococcal meningitis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Mild hearing loss due to pneumococcal meningitis	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Severe motor impairment due to pneumococcal meningitis	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Blindness due to pneumococcal meningitis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Complete hearing loss due to pneumococcal meningitis	Hearing loss, complete	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.215 (0.144–0.307)
Monocular distance vision loss due to H influenzae type B meningitis	Distance vision, monocular	is blind in one eye and has difficulty judging distances	0.017 (0.009–0.029)
Profound hearing loss due to H influenzae type B meningitis	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.204 (0.134–0.288)
Complete hearing loss due to H influenzae type B meningitis	Hearing loss, complete	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.215 (0.144–0.307)
Blindness due to H influenzae type B meningitis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Complete hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.261 (0.175–0.36)
Profound hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.277 (0.182–0.387)
Severe vision impairment due to H influenza type B meningitis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to H influenza type B meningitis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Mild hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)
Moderate hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Severe hearing loss due to H influenzae type B meningitis	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Moderate motor plus cognitive impairments due to H influenzae type B meningitis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Mild intellectual disability due to H influenzae type B meningitis	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Mild motor plus cognitive impairments due to H influenzae type B meningitis	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor impairment due to H influenzae type B meningitis	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Mild hearing loss due to H influenzae type B meningitis	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Severe motor plus cognitive impairments due to H influenzae type B meningitis	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Moderately severe hearing loss due to H influenzae type B meningitis	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Moderate hearing loss due to H influenzae type B meningitis	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Mild behavioral problems due to H influenzae type B meningitis	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Acute H influenzae type B meningitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Mild motor impairment due to long term due to H influenzae type B meningitis	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Epilepsy due to H influenzae type B meningitis	Epilepsy	(combined DW)	--
Moderately severe hearing loss with ringing due to H influenzae type B meningitis	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--
Moderate motor impairment due to H influenzae type B meningitis	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Borderline intellectual disability due to H influenzae type B meningitis	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Mild behavioral problems due to meningococcal meningitis	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Mild hearing loss with ringing due to meningococcal meningitis	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)
Complete hearing loss due to meningococcal meningitis	Hearing loss, complete	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.215 (0.144–0.307)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe hearing loss due to meningococcal meningitis	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Mild intellectual disability due to meningococcal meningitis	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Mild hearing loss due to meningococcal meningitis	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Moderate hearing loss due to meningococcal meningitis	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Profound hearing loss due to meningococcal meningitis	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.204 (0.134–0.288)
Borderline intellectual disability due to meningococcal meningitis	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Moderately severe hearing loss due to meningococcal meningitis	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Moderate vision impairment due to meningococcal meningitis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Blindness due to meningococcal meningitis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Mild motor plus cognitive impairments due to meningococcal meningitis	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Epilepsy due to meningococcal meningitis	Epilepsy	(combined DW)	--
Moderate motor impairment due to meningococcal meningitis	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Severe vision impairment due to meningococcal meningitis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Severe motor impairment due to meningococcal meningitis	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Moderate motor plus cognitive impairments due to meningococcal meningitis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Moderate hearing loss with ringing due to meningococcal meningitis	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Severe motor plus cognitive impairments due to meningococcal meningitis	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Monocular distance vision loss due to meningococcal meningitis	Distance vision, monocular	is blind in one eye and has difficulty judging distances	0.017 (0.009–0.029)
Profound hearing loss with ringing due to meningococcal meningitis	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.277 (0.182–0.387)
Mild motor impairment due to long term due to meningococcal meningitis	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Acute meningococcal meningitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Severe hearing loss with ringing due to meningococcal meningitis	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.261 (0.175–0.36)
Complete hearing loss with ringing due to meningococcal meningitis	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)
Moderately severe hearing loss with ringing due to meningococcal meningitis	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Mild intellectual disability due to other bacterial meningitis	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Moderate hearing loss with ringing due to other bacterial meningitis	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Mild motor plus cognitive impairments due to other bacterial meningitis	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Borderline intellectual disability due to other bacterial meningitis	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Moderate motor plus cognitive impairments due to other bacterial meningitis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Mild behavioral problems due to other bacterial meningitis	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Severe motor plus cognitive impairments due to other bacterial meningitis	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Severe motor impairment due to other bacterial meningitis	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Moderately severe hearing loss due to other bacterial meningitis	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Monocular distance vision loss due to other bacterial meningitis	Distance vision, monocular	is blind in one eye and has difficulty judging distances	0.017 (0.009–0.029)
Mild hearing loss due to other bacterial meningitis	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Moderate hearing loss due to other bacterial meningitis	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Epilepsy due to other meningitis	Epilepsy	(combined DW)	--
Moderately severe hearing loss with ringing due to other bacterial meningitis	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--
Severe hearing loss due to other bacterial meningitis	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Blindness due to other bacterial meningitis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Profound hearing loss due to other bacterial meningitis	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.204 (0.134–0.288)
Moderate vision impairment due to other bacterial meningitis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Complete hearing loss with ringing due to other bacterial meningitis	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)
Complete hearing loss due to other bacterial meningitis	Hearing loss, complete	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.215 (0.144–0.307)
Profound hearing loss with ringing due to other bacterial meningitis	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.277 (0.182–0.387)
Severe hearing loss with ringing due to other bacterial meningitis	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.261 (0.175–0.36)
Mild hearing loss due with ringing due to other bacterial meningitis	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate motor impairment due to other bacterial meningitis	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Severe vision impairment due to other bacterial meningitis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Mild motor impairment due to long term due to other bacterial meningitis	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Other acute bacterial meningitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Acute viral meningitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Blindness due to encephalitis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Epilepsy due to encephalitis	Epilepsy	(combined DW)	--
Monocular distance vision loss due to encephalitis	Distance vision, monocular	is blind in one eye and has difficulty judging distances	0.017 (0.009–0.029)
Severe motor plus cognitive impairments due to encephalitis	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Moderate motor plus cognitive impairments due to encephalitis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Mild motor plus cognitive impairments due to encephalitis	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Mild behavioral problems due to encephalitis	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Severe motor impairment due to encephalitis	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Acute encephalitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Borderline intellectual disability due to encephalitis	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Moderate motor impairment due to encephalitis	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Mild intellectual disability due to encephalitis	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Mild motor impairment due to long term due to encephalitis	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Moderate vision impairment due to encephalitis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Severe vision impairment due to encephalitis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Severe diphtheria	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Moderate diphtheria	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Whooping cough	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe motor plus cognitive impairment with blindness due to neonatal tetanus	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor impairment with blindness and epilepsy due to neonatal tetanus	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Severe motor impairment with epilepsy due to neonatal tetanus	Severe motor impairment with epilepsy	(combined DW)	--
Severe motor impairment with blindness due to neonatal tetanus	Severe motor impairment with blindness	(combined DW)	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal tetanus	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with epilepsy due to neonatal tetanus	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal tetanus	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to neonatal tetanus	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Severe motor impairment due to neonatal tetanus	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Mild motor impairment due to neonatal tetanus	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Moderate motor impairment due to neonatal tetanus	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe motor plus cognitive impairment with epilepsy due to neonatal tetanus	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe tetanus	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Mild motor plus cognitive impairments due to neonatal tetanus	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Moderate motor plus cognitive impairment with blindness due to neonatal tetanus	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal tetanus	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with blindness due to neonatal tetanus	Moderate motor impairment with blindness	(combined DW)	--
Moderate measles	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe measles	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Chickenpox	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Herpes zoster	Herpes zoster	has a blistering skin rash that causes pain, with some burning and itching.	0.058 (0.035–0.09)
Moderate motor impairment with epilepsy due to malaria	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate malaria with moderate anemia	Infectious disease, acute episode, moderate, with moderate anemia	(combined DW)	0.099 (0.065–0.142)
Moderate malaria with severe anemia	Infectious disease, acute episode, moderate, with severe anemia	(combined DW)	0.192 (0.133–0.263)
Moderate motor plus cognitive impairment with epilepsy due to malaria	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe malaria	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Severe motor plus cognitive impairment with blindness and epilepsy due to malaria	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Severe motor impairment due to malaria	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Moderate motor impairment due to malaria	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Mild malaria	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate malaria with mild anemia	Infectious disease, acute episode, moderate, with mild anemia	(combined DW)	0.054 (0.034–0.079)
Severe motor plus cognitive impairment with epilepsy due to malaria	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Moderate malaria	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Mild anemia due to malaria parasitemia (PIPR)	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Moderate anemia due to malaria parasitemia (PIPR)	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Severe motor plus cognitive impairment with blindness due to malaria	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor impairment with blindness due to malaria	Severe motor impairment with blindness	(combined DW)	--
Severe anemia due to malaria parasitemia (PIPR)	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Severe motor impairment with blindness and epilepsy due to malaria	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to malaria	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Mild malaria with severe anemia	Infectious disease, acute episode, mild, with severe anemia	(combined DW)	0.154 (0.105–0.214)
Severe motor impairment with epilepsy due to malaria	Severe motor impairment with epilepsy	(combined DW)	--
Severe malaria with severe anemia	Infectious disease, acute episode, severe, with severe anemia	(combined DW)	0.262 (0.184–0.359)
Severe malaria with moderate anemia	Infectious disease, acute episode, severe, with moderate anemia	(combined DW)	0.178 (0.122–0.247)
Moderate motor impairment with blindness and epilepsy due to malaria	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with blindness due to malaria	Moderate motor impairment with blindness	(combined DW)	--
Mild malaria with mild anemia	Infectious disease, acute episode, mild, with mild anemia	(combined DW)	0.009 (0.004–0.02)
Severe malaria with mild anemia	Infectious disease, acute episode, severe, with mild anemia	(combined DW)	0.137 (0.091–0.192)
Asymptomatic malaria parasitemia (PIPR)	Asymptomatic	--	--
Mild malaria with moderate anemia	Infectious disease, acute episode, mild, with moderate anemia	(combined DW)	0.057 (0.037–0.085)
Moderate motor plus cognitive impairment with blindness due to malaria	Moderate motor plus cognitive impairment with blindness	(combined DW)	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate heart failure due to Chagas disease	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Atrial fibrillation and flutter due to Chagas disease	Cardiac conduction disorders and cardiac dysrhythmias	has periods of rapid and irregular heartbeats and occasional fainting.	0.224 (0.151–0.312)
Asymptomatic and mild heart failure due to Chagas disease	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Mild chronic digestive disease due to Chagas disease	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Acute Chagas disease	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe heart failure due to Chagas disease	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Asymptomatic Chagas disease	Asymptomatic	--	--
Moderate chronic digestive disease due to Chagas disease	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Moderate visceral leishmaniasis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe visceral leishmaniasis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Cutaneous and mucocutaneous leishmaniasis	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Sleeping sickness due to Trypanosoma brucei rhodesiense	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Skin disfigurement due to Trypanosoma brucei gambiense	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Skin disfigurement due to Trypanosoma brucei rhodesiense	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Sleeping sickness due to Trypanosoma brucei gambiense	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Mild diarrhea due to schistosomiasis	Diarrhea, mild	has diarrhea three or more times a day with occasional discomfort in the belly.	0.074 (0.049–0.104)
Severe anemia due to schistosomiasis	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Hematemesis due to schistosomiasis	Gastric bleeding	vomits blood and feels nauseous.	0.325 (0.209–0.462)
Hepatomegaly due to schistosomiasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Moderate anemia due to schistosomiasis	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Mild anemia due to schistosomiasis	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Hydronephrosis due to schistosomiasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Ascites due to schistosomiasis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Mild schistosomiasis	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Dysuria due to schistosomiasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Bladder pathology due to schistosomiasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Neurocysticercosis with epilepsy	Epilepsy	(combined DW)	--
Abdominal problems due to cystic echinococcosis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Epilepsy due to echinococcosis	Epilepsy	(combined DW)	--
Chronic respiratory disease due to cystic echinococcosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Lymphedema due to lymphatic filariasis	Lymphatic filariasis, symptomatic	has swollen legs with hard and thick skin, which causes difficulty in moving around.	0.109 (0.073–0.154)
Hydrocele due to lymphatic filariasis	Epididymo-orchitis	has swelling and tenderness in the testicles and pain during urination.	0.128 (0.086–0.18)
Acute adenolymphangitis due to lymphatic filariasis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Prevalence of detectable microfilaria due to lymphatic filariasis	Asymptomatic	--	--
Mild skin disease due to onchocerciasis	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe vision impairment due to onchocerciasis	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to onchocerciasis	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Asymptomatic onchocerciasis	Asymptomatic	--	--
Severe skin disease without itch due to onchocerciasis	Disfigurement, level 3	has an obvious physical deformity that makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.405 (0.275–0.546)
Severe skin disease due to onchocerciasis	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Blindness due to onchocerciasis	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Mild skin disease without itch due to onchocerciasis	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Moderate skin disease due to onchocerciasis	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Blindness due to trachoma	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment due to trachoma	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to trachoma	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Severe dengue	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Post-dengue chronic fatigue syndrome	Infectious disease, post-acute consequences (fatigue, emotional lability, insomnia)	is always tired and easily upset. The person feels pain all over the body and is depressed.	0.219 (0.148–0.308)
Moderate dengue	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Asymptomatic yellow fever	Asymptomatic	--	--
Moderate yellow fever	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe yellow fever	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Rabies	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Severe wasting due to ascariasis	Severe wasting	is extremely skinny and has no energy.	0.128 (0.082–0.183)
Asymptomatic ascariasis	Asymptomatic	--	--
Heavy infestation of ascariasis	Intestinal nematode infections, symptomatic	has cramping pain and a bloated feeling in the belly.	0.027 (0.015–0.043)
Mild abdominopelvic problems due to ascariasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Heavy infestation of trichuriasis	Intestinal nematode infections, symptomatic	has cramping pain and a bloated feeling in the belly.	0.027 (0.015–0.043)
Severe wasting due to trichuriasis	Severe wasting	is extremely skinny and has no energy.	0.128 (0.082–0.183)
Mild abdominopelvic problems due to trichuriasis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Asymptomatic trichuriasis	Asymptomatic	--	--
Mild anemia due to hookworm disease	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Severe anemia due to hookworm disease	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Asymptomatic hookworm disease	Asymptomatic	--	--
Mild abdominopelvic problems due to hookworm disease	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Severe wasting due to hookworm disease	Severe wasting	is extremely skinny and has no energy.	0.128 (0.082–0.183)
Heavy infestation of hookworm	Intestinal nematode infections, symptomatic	has cramping pain and a bloated feeling in the belly.	0.027 (0.015–0.043)
Moderate anemia due to hookworm disease	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Asymptomatic fascioliasis	Asymptomatic	--	--
Heavy clonorchiasis due to food-borne trematodiasis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Heavy fascioliasis due to food-borne trematodiasis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Heavy intestinal fluke infection due to food-borne trematodiasis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Asymptomatic opisthorchiasis	Asymptomatic	--	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic intestinal fluke infection	Asymptomatic	--	--
Cerebral paragonimiasis	Epilepsy	(combined DW)	--
Asymptomatic paragonimiasis	Asymptomatic	--	--
Moderate paragonimiasis due to food-borne trematodiasis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Severe paragonimiasis due to food-borne trematodiasis	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Mild paragonimiasis due to food-borne trematodiasis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Heavy opisthorchiasis due to food-borne trematodiasis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Asymptomatic clonorchiasis	Asymptomatic	--	--
Disfigurement level 2 due to leprosy	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Disfigurement level 1 due to leprosy	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Post-Ebola chronic fatigue syndrome	Infectious disease, post-acute consequences (fatigue, emotional lability, insomnia)	is always tired and easily upset. The person feels pain all over the body and is depressed.	0.219 (0.148–0.308)
Ebola cases	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Guillain–Barré syndrome due to Zika infection	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Asymptomatic Zika infection	Asymptomatic	--	--
Acute Zika infection	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Congenital Zika syndrome	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Mild pain due to Guinea worm emergence	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Moderate pain due to Guinea worm emergence	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Moderate reduced mobility due to Guinea worm emergence	Musculoskeletal problems, lower limbs, moderate	has moderate pain in the leg, which makes the person limp, and causes some difficulty walking, standing, lifting and carrying heavy things, getting up and down and sleeping.	0.079 (0.054–0.11)
Mild anemia due to other neglected tropical diseases	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Moderate anemia due to other neglected tropical diseases	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Acute infection due to other neglected tropical diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Severe anemia due to other neglected tropical diseases	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Mild anemia due to maternal hemorrhage	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Moderate anemia due to maternal hemorrhage	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Severe anemia due to maternal hemorrhage	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Maternal hemorrhage (> 1L blood lost)	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Maternal hemorrhage (< 1L blood lost)	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Puerperal sepsis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Other maternal infections	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Infertility due to puerperal sepsis	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Other hypertensive disorders of pregnancy	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Long term sequelae of severe pre-eclampsia	Tension-type headaches, mild motor plus cognitive impairment	(combined DW)	--
Long term sequelae of eclampsia	Tension-type headaches, mild motor plus cognitive impairment	(combined DW)	--
Severe pre-eclampsia	Moderate abdominal pain, tension-type headaches, mild motor plus cognitive impairment	(combined DW)	--
Eclampsia	Moderate abdominal pain and severe epilepsy	(combined DW)	--
Obstructed labor, acute event	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Vesicovaginal fistula	Vesicovaginal fistula	has an abnormal opening between the bladder and the vagina, which makes her unable to control urinating. The woman is anxious and depressed.	0.342 (0.227–0.478)
Rectovaginal fistula	Rectovaginal fistula	has an abnormal opening between her vagina and rectum causing flatulence and feces to escape through the vagina. The person gets infections in her vagina, and has pain when urinating.	0.501 (0.339–0.657)
Ectopic Pregnancy	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Maternal abortive outcome	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Other maternal disorders	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications <28wks	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 32-36wks	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 28-32wks	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Mild motor plus cognitive impairments due to neonatal preterm birth complications <28wks	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications <28wks	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Mild motor plus cognitive impairments due to neonatal preterm birth complications 32-36wks	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor plus cognitive impairment with blindness due to neonatal preterm birth complications <28wks	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications <28wks	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications 32-36wks	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications 28-32wks	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Mild motor plus cognitive impairments due to neonatal preterm birth complications 28-32wks	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor impairment with epilepsy due to neonatal preterm birth complications 32-36wks	Severe motor impairment with epilepsy	(combined DW)	--
Severe motor impairment due to neonatal preterm birth complications 32-36wks	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Severe motor plus cognitive impairment with blindness due to neonatal preterm birth complications 32-36wks	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor impairment with epilepsy due to neonatal preterm birth complications <28wks	Severe motor impairment with epilepsy	(combined DW)	--
Severe motor impairment with blindness due to neonatal preterm birth complications 32-36wks	Severe motor impairment with blindness	(combined DW)	--
Severe motor impairment with epilepsy due to neonatal preterm birth complications 28-32wks	Severe motor impairment with epilepsy	(combined DW)	--
Mild motor impairment due to neonatal preterm birth complications <28wks	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Mild motor impairment due to neonatal preterm birth complications 28-32wks	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Mild motor impairment due to neonatal preterm birth complications 32-36wks	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Severe motor impairment with blindness due to neonatal preterm birth complications <28wks	Severe motor impairment with blindness	(combined DW)	--
Severe motor impairment due to neonatal preterm birth complications 28-32wks	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Severe motor impairment with blindness and epilepsy due to neonatal preterm birth complications <28wks	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment due to neonatal preterm birth complications 28-32wks	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Moderate motor impairment due to neonatal preterm birth complications <28wks	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Moderate motor impairment due to neonatal preterm birth complications 32-36wks	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Severe motor impairment with blindness due to neonatal preterm birth complications 28-32wks	Severe motor impairment with blindness	(combined DW)	--
Severe motor impairment with blindness and epilepsy due to neonatal preterm birth complications 32-36wks	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with blindness due to neonatal preterm birth complications 28-32wks	Severe motor plus cognitive impairment with blindness	(combined DW)	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Severe motor impairment due to neonatal preterm birth complications <28wks	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Severe motor impairment with blindness and epilepsy due to neonatal preterm birth complications 28–32wks	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 28–32wks	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Blindness due to retinopathy of prematurity	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications 32–36wks	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to neonatal preterm birth complications 32–36wks	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to neonatal preterm birth complications 28–32wks	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal preterm birth complications <28wks	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal preterm birth complications 28–32wks	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to neonatal preterm birth complications <28wks	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal preterm birth complications 32–36wks	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with blindness due to neonatal preterm birth complications 28–32wks	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor impairment with blindness due to neonatal preterm birth complications 32–36wks	Moderate motor impairment with blindness	(combined DW)	--
Moderate motor impairment with blindness due to neonatal preterm birth complications 28–32wks	Moderate motor impairment with blindness	(combined DW)	--
Moderate motor impairment with blindness due to neonatal preterm birth complications <28wks	Moderate motor impairment with blindness	(combined DW)	--
Moderate motor plus cognitive impairment with blindness due to neonatal preterm birth complications <28wks	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor plus cognitive impairment with blindness due to neonatal preterm birth complications 32–36wks	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Asymptomatic neonatal preterm birth 32–<37wks	Asymptomatic	--	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal preterm birth complications 28–32wks	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Severe vision impairment due to retinopathy of prematurity	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications <28wks	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Mild vision impairment due to retinopathy of prematurity	Distance vision, mild impairment	has some difficulty with distance vision, for example reading signs, but no other problems with eyesight.	0.003 (0.001–0.007)
Moderate vision impairment due to retinopathy of prematurity	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Moderate motor plus cognitive impairment with epilepsy due to neonatal preterm birth complications 32–36wks	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Asymptomatic neonatal preterm birth <28wks	Asymptomatic	--	--
Asymptomatic neonatal preterm birth 28–<32 wks	Asymptomatic	--	--
Asymptomatic retinopathy of prematurity	Asymptomatic	--	--
Severe motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Moderate motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Moderate motor impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor impairment with blindness	(combined DW)	--
Severe motor plus cognitive impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Mild motor impairment due to neonatal encephalopathy due to birth asphyxia and trauma	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Moderate motor plus cognitive impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe motor impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Mild motor plus cognitive impairments due to neonatal encephalopathy due to birth asphyxia and trauma	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate motor impairment with blindness and epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Asymptomatic neonatal encephalopathy due to birth asphyxia and trauma	Asymptomatic	--	--
Moderate motor plus cognitive impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor impairment with epilepsy due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor impairment with epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor impairment with blindness due to neonatal encephalopathy due to birth asphyxia and trauma	Severe motor impairment with blindness	(combined DW)	--
Moderate motor impairment with epilepsy due to neonatal sepsis and other neonatal infections	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with epilepsy due to neonatal sepsis and other neonatal infections	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe motor impairment with blindness due to neonatal sepsis and other neonatal infections	Severe motor impairment with blindness	(combined DW)	--
Severe motor plus cognitive impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Mild motor impairment due to neonatal sepsis and other neonatal infections	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Severe motor impairment with epilepsy due to neonatal sepsis and other neonatal infections	Severe motor impairment with epilepsy	(combined DW)	--
Asymptomatic neonatal sepsis and other neonatal infections	Asymptomatic	--	--
Moderate motor impairment with blindness due to neonatal sepsis and other neonatal infections	Moderate motor impairment with blindness	(combined DW)	--
Severe motor impairment due to neonatal sepsis and other neonatal infections	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Severe infection due to neonatal sepsis and other neonatal infections	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Moderate motor plus cognitive impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment due to neonatal sepsis and other neonatal infections	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Severe motor plus cognitive impairment with epilepsy due to neonatal sepsis and other neonatal infections	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Severe motor impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Mild motor plus cognitive impairments due to neonatal sepsis and other neonatal infections	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor plus cognitive impairment with blindness due to neonatal sepsis and other neonatal infections	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor plus cognitive impairment with blindness due to neonatal sepsis and other neonatal infections	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to neonatal sepsis and other neonatal infections	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Severe motor impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice	Severe motor impairment with blindness and epilepsy	(combined DW)	--
Severe motor impairment with epilepsy due to hemolytic disease and other neonatal jaundice	Severe motor impairment with epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice	Severe motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Severe motor plus cognitive impairment with blindness due to hemolytic disease and other neonatal jaundice	Severe motor plus cognitive impairment with blindness	(combined DW)	--
Severe motor plus cognitive impairment with epilepsy due to hemolytic disease and other neonatal jaundice	Severe motor plus cognitive impairment with epilepsy	(combined DW)	--
Moderate motor impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice	Moderate motor impairment with blindness and epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with epilepsy due to hemolytic disease and other neonatal jaundice	Moderate motor plus cognitive impairment with epilepsy	(combined DW)	--
Moderate motor impairment with epilepsy due to hemolytic disease and other neonatal jaundice	Moderate motor impairment with epilepsy	(combined DW)	--
Moderate motor plus cognitive impairment with blindness due to hemolytic disease and other neonatal jaundice	Moderate motor plus cognitive impairment with blindness	(combined DW)	--
Moderate motor impairment with blindness due to hemolytic disease and other neonatal jaundice	Moderate motor impairment with blindness	(combined DW)	--
Severe motor impairment severe due to hemolytic disease and other neonatal jaundice	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Moderate motor plus cognitive impairment with blindness and epilepsy due to hemolytic disease and other neonatal jaundice	Moderate motor plus cognitive impairment with blindness and epilepsy	(combined DW)	--
Moderate motor impairment due to hemolytic disease and other neonatal jaundice	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Severe motor impairment with blindness due to hemolytic disease and other neonatal jaundice	Severe motor impairment with blindness	(combined DW)	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Other neonatal disorders	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Moderate wasting without edema	Asymptomatic	--	--
Moderate wasting with edema	Kwashiorkor	is very tired and irritable and has diarrhea.	0.051 (0.031–0.079)
Severe wasting without edema	Severe wasting	is extremely skinny and has no energy.	0.128 (0.082–0.183)
Severe wasting with edema	Kwashiorkor and severe wasting	(combined DW)	0.172 (0.115–0.238)
Visible goiter with profound intellectual disability due to iodine deficiency	Intellectual disability / mental retardation, profound and Iodine-deficiency goiter	(combined DW)	0.358 (0.252–0.475)
Visible goiter with severe intellectual disability due to iodine deficiency	Intellectual disability / mental retardation, severe and Iodine-deficiency goiter	(combined DW)	0.326 (0.233–0.438)
Visible goiter with profound intellectual disability and mild heart failure due to iodine deficiency	Intellectual disability / mental retardation, profound and Iodine-deficiency goiter and heart failure, mild	(combined DW)	0.384 (0.276–0.502)
Visible goiter without symptoms	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Visible goiter with profound intellectual disability and moderate heart failure due to iodine deficiency	Intellectual disability / mental retardation, profound and Iodine-deficiency goiter and heart failure, moderate	(combined DW)	0.403 (0.293–0.524)
Visible goiter with profound intellectual disability with severe heart failure due to iodine deficiency	Intellectual disability / mental retardation, profound and Iodine-deficiency goiter and heart failure, severe	(combined DW)	0.471 (0.344–0.602)
Visible goiter with symptoms without intellectual disability or heart failure	Iodine-deficiency goiter	has a large mass in the front of the neck. The person sometimes has weakness and fatigue, constipation and weight gain.	0.199 (0.133–0.276)
Moderate vision impairment loss due to vitamin A deficiency	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Blindness due to vitamin A deficiency	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment loss due to vitamin A deficiency	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Asymptomatic vitamin A deficiency	Asymptomatic	--	--
Moderate heart failure due to iron-deficiency anemia	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Mild iron-deficiency anemia	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Asymptomatic and mild heart failure due to iron-deficiency anemia	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Severe iron-deficiency anemia	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Severe heart failure due to iron-deficiency anemia	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate iron-deficiency anemia	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Other nutritional deficiencies	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Cardiovascular complications due to adult tertiary syphilis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe disfigurement, neurological problems, and cardiovascular complications due to adult tertiary syphilis	Level 3 disfigurement, moderate motor plus cognitive impairments, and moderate infectious disease, acute episode	(combined DW)	0.547 (0.402–0.691)
Severe disfigurement and cardiovascular complications due to adult tertiary syphilis	Level 3 disfigurement and moderate infectious disease, acute episode	(combined DW)	0.435 (0.306–0.571)
Neurological problems due to adult tertiary syphilis	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Severe disfigurement due to adult tertiary syphilis	Disfigurement, level 3	has an obvious physical deformity that makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.405 (0.275–0.546)
Asymptomatic early syphilis infection	Asymptomatic	--	--
Mild early syphilis infection	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Neurological problems and cardiovascular complications due to adult tertiary syphilis	Moderate motor plus cognitive impairments and moderate infectious disease, acute episode	(combined DW)	0.243 (0.168–0.333)
Asymptomatic adult tertiary syphilis	Asymptomatic	--	--
Severe disfigurement and neurological problems due to adult tertiary syphilis	Level 3 disfigurement and moderate motor plus cognitive impairments	(combined DW)	0.523 (0.378–0.669)
Secondary infertility due to chlamydial infection	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic chlamydial infection	Asymptomatic	--	--
Moderate pelvic inflammatory diseases due to chlamydial infection	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Severe pelvic inflammatory diseases due to chlamydial infection	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Epididymo-orchitis due to chlamydial infection	Epididymo-orchitis	has swelling and tenderness in the testicles and pain during urination.	0.128 (0.086–0.18)
Primary infertility due to chlamydial infection	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Mild chlamydial infection	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Primary infertility due to gonococcal infection	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Epididymo-orchitis due to gonococcal infection	Epididymo-orchitis	has swelling and tenderness in the testicles and pain during urination.	0.128 (0.086–0.18)
Severe pelvic inflammatory diseases due to gonococcal infection	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Asymptomatic gonococcal infection	Asymptomatic	--	--
Mild gonococcal infection	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Secondary infertility due to gonococcal infection	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Moderate pelvic inflammatory diseases due to gonococcal infection	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Asymptomatic trichomoniasis infection	Asymptomatic	--	--
Acute trichomoniasis infection	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate infection due to initial genital herpes episode	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Asymptomatic genital herpes	Asymptomatic	--	--
Symptomatic genital herpes	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Primary infertility due to other sexually transmitted diseases	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Severe pelvic inflammatory diseases due to other sexually transmitted diseases	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Other sexually transmitted diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Secondary infertility due to other sexually transmitted diseases	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Moderate pelvic inflammatory diseases due to other sexually transmitted diseases	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Asymptomatic acute hepatitis A	Asymptomatic	--	--
Severe acute hepatitis A	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Moderate acute hepatitis A	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe acute hepatitis B	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Moderate acute hepatitis B	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Chronic hepatitis B	Asymptomatic	--	--
Asymptomatic acute hepatitis B	Asymptomatic	--	--
Moderate acute hepatitis C	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe acute hepatitis C	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Chronic hepatitis C	Asymptomatic	--	--
Asymptomatic acute hepatitis C	Asymptomatic	--	--
Asymptomatic acute hepatitis E	Asymptomatic	--	--
Moderate acute hepatitis E	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe acute hepatitis E	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Guillain-Barré syndrome due to other infectious diseases	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Mild anemia due to other infectious diseases	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Other infectious diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Moderate anemia due to other infectious diseases	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Severe anemia due to other infectious diseases	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Controlled phase of mouth cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of mouth cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of mouth cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of mouth cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Terminal phase of nasopharynx cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of nasopharynx cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of nasopharynx cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of nasopharynx cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of other pharynx cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of other pharynx cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of other pharynx cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of other pharynx cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of esophageal cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of esophageal cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of esophageal cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of esophageal cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Diagnosis and primary therapy phase of stomach cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of stomach cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of stomach cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of stomach cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of colon and rectum cancers	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of colon and rectum cancers	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Stoma due to colon and rectum cancer	Stoma and generic medication	(combined DW)	0.139 (0.094–0.192)
Diagnosis and primary therapy phase of colon and rectum cancers	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of colon and rectum cancers	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Controlled phase of liver cancer due to hepatitis B	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of liver cancer due to hepatitis B	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of liver cancer due to hepatitis B	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of liver cancer due to hepatitis B	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of liver cancer due to hepatitis C	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of liver cancer due to hepatitis C	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of liver cancer due to hepatitis C	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Terminal phase of liver cancer due to hepatitis C	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of liver cancer due to alcohol use	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of liver cancer due to alcohol use	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of liver cancer due to alcohol use	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of liver cancer due to alcohol use	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Controlled phase of liver cancer due to other causes	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of liver cancer due to other causes	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of liver cancer due to other causes	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of liver cancer due to other causes	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of gallbladder and biliary tract cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of gallbladder and biliary tract cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of gallbladder and biliary tract cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of gallbladder and biliary tract cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of pancreatic cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of pancreatic cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of pancreatic cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of pancreatic cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of larynx cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Laryngectomy due to larynx cancer	Speech problems and generic medication	(combined DW)	0.098 (0.063–0.145)
Controlled phase of larynx cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of larynx cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of larynx cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of lung, bronchus, and trachea cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of lung, bronchus, and trachea cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of lung, bronchus, and trachea cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of lung, bronchus, and trachea cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of malignant skin melanoma	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of malignant skin melanoma	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of malignant skin melanoma	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of malignant skin melanoma	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Severe disfigurement due to squamous cell carcinoma	Disfigurement, level 3, with itch/pain	has an obvious physical deformity that is very painful and itchy. The physical deformity makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.576 (0.401–0.731)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate disfigurement due to squamous cell carcinoma	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Mild disfigurement due to squamous cell carcinoma	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Disfigurement due to basal cell carcinoma	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Diagnosis and primary therapy phase of breast cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Mastectomy due to breast cancer	Mastectomy and generic medication	(combined DW)	0.083 (0.052–0.124)
Controlled phase of breast cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of breast cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of breast cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Terminal phase of cervical cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of cervical cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of cervical cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of cervical cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of uterine cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of uterine cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of uterine cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of uterine cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of ovarian cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of ovarian cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of ovarian cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of ovarian cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of prostate cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Impotence due to prostate cancer	Impotence and generic medication	(combined DW)	0.065 (0.04–0.1)
Terminal phase of prostate cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of prostate cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of prostate cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Incontinence due to prostate cancer	Incontinence and generic medication	(combined DW)	0.181 (0.124–0.248)
Terminal phase of testicular cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of testicular cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of testicular cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of testicular cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of kidney cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of kidney cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of kidney cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Controlled phase of kidney cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Controlled phase of bladder cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Urinary incontinence due to bladder cancer	Incontinence and generic medication	(combined DW)	0.181 (0.124–0.248)
Terminal phase of bladder cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of bladder cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of bladder cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of brain and nervous system cancers	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of brain and nervous system cancers	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of brain and nervous system cancers	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of brain and nervous system cancers	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of thyroid cancer	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of thyroid cancer	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of thyroid cancer	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of thyroid cancer	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of mesothelioma	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of mesothelioma	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of mesothelioma	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of mesothelioma	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of Hodgkin disease	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of Hodgkin disease	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of Hodgkin disease	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of Hodgkin disease	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of non-Hodgkin lymphoma	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of non-Hodgkin lymphoma	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of non-Hodgkin lymphoma	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of non-Hodgkin lymphoma	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of multiple myeloma	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of multiple myeloma	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of multiple myeloma	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of multiple myeloma	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Controlled phase of acute lymphoid leukemia	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of acute lymphoid leukemia	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Metastatic phase of acute lymphoid leukemia	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of acute lymphoid leukemia	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of chronic lymphoid leukemia	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of chronic lymphoid leukemia	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of chronic lymphoid leukemia	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of chronic lymphoid leukemia	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of acute myeloid leukemia	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Controlled phase of acute myeloid leukemia	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Terminal phase of acute myeloid leukemia	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Metastatic phase of acute myeloid leukemia	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Diagnosis and primary therapy phase of chronic myeloid leukemia	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of chronic myeloid leukemia	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Terminal phase of chronic myeloid leukemia	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Controlled phase of chronic myeloid leukemia	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Metastatic phase of other leukemia	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of other leukemia	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diagnosis and primary therapy phase of other leukemia	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Terminal phase of other leukemia	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Terminal phase of other neoplasms	Terminal phase, with medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and regularly uses strong medication to avoid constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.54 (0.377–0.687)
Diagnosis and primary therapy phase of other neoplasms	Cancer, diagnosis and primary therapy	has pain, nausea, fatigue, weight loss and high anxiety.	0.288 (0.193–0.399)
Metastatic phase of other neoplasms	Cancer, metastatic	has severe pain, extreme fatigue, weight loss and high anxiety.	0.451 (0.307–0.6)
Controlled phase of other neoplasms	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Severe heart failure due to rheumatic heart disease	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Rheumatic heart disease, without heart failure	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Moderate heart failure due to rheumatic heart disease	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Asymptomatic and mild heart failure due to rheumatic heart disease	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Acute myocardial infarction first 2 days	Acute myocardial infarction, days 1-2	has severe chest pain that becomes worse with any physical activity. The person feels nauseous, short of breath, and very anxious.	0.432 (0.288–0.579)
Asymptomatic and mild heart failure due to ischemic heart disease	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Asymptomatic angina due to ischemic heart disease	Asymptomatic	--	--
Severe heart failure due to ischemic heart disease	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Acute myocardial infarction 3 to 28 days	Acute myocardial infarction, days 3-28	gets short of breath after heavy physical activity, and tires easily, but has no problems when at rest. The person has to take medication every day and has some anxiety.	0.074 (0.049–0.105)
Moderate angina due to ischemic heart disease	Angina pectoris, moderate	has chest pain that occurs with moderate physical activity, such as walking uphill or more than half a kilometer (around a quarter-mile) on level ground. After a brief rest, the pain goes away.	0.08 (0.052–0.113)
Asymptomatic ischemic heart disease following myocardial infarction	Asymptomatic	--	--
Severe angina due to ischemic heart disease	Angina pectoris, severe	has chest pain that occurs with minimal physical activity, such as walking only a short distance. After a brief rest, the pain goes away. The person avoids most physical activities because of the pain.	0.167 (0.11–0.24)
Moderate heart failure due to ischemic heart disease	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Mild angina due to ischemic heart disease	Angina pectoris, mild	has chest pain that occurs with strenuous physical activity, such as running or lifting heavy objects. After a brief rest, the pain goes away.	0.033 (0.02–0.052)
Acute ischemic stroke severity level 1	Stroke, long-term consequences, mild	has some difficulty in moving around and some weakness in one hand, but is able to walk without help.	0.019 (0.01–0.032)
Chronic ischemic stroke severity level 1	Stroke, long-term consequences, mild	has some difficulty in moving around and some weakness in one hand, but is able to walk without help.	0.019 (0.01–0.032)
Acute ischemic stroke severity level 2	Stroke, long-term consequences, moderate	has some difficulty in moving around, and in using the hands for lifting and holding things, dressing and grooming.	0.07 (0.046–0.099)
Chronic ischemic stroke severity level 5	Stroke, long-term consequences, severe plus cognition problems	is confined to bed or a wheelchair, depends on others for feeding, toileting and dressing, and has difficulty speaking, thinking clearly and remembering things.	0.588 (0.411–0.744)
Chronic ischemic stroke severity level 2	Stroke, long-term consequences, moderate	has some difficulty in moving around, and in using the hands for lifting and holding things, dressing and grooming.	0.07 (0.046–0.099)
Acute ischemic stroke severity level 5	Stroke, long-term consequences, severe plus cognition problems	is confined to bed or a wheelchair, depends on others for feeding, toileting and dressing, and has difficulty speaking, thinking clearly and remembering things.	0.588 (0.411–0.744)
Acute ischemic stroke severity level 3	Stroke, long-term consequences, moderate plus cognition problems	has some difficulty in moving around, in using the hands for lifting and holding things, dressing and grooming, and in speaking. The person is often forgetful and confused.	0.316 (0.206–0.437)
Chronic ischemic stroke severity level 4	Stroke, long-term consequences, severe	is confined to bed or a wheelchair, has difficulty speaking and depends on others for feeding, toileting and dressing.	0.552 (0.377–0.707)
Chronic ischemic stroke severity level 3	Stroke, long-term consequences, moderate plus cognition problems	has some difficulty in moving around, in using the hands for lifting and holding things, dressing and grooming, and in speaking. The person is often forgetful and confused.	0.316 (0.206–0.437)
Acute ischemic stroke severity level 4	Stroke, long-term consequences, severe	is confined to bed or a wheelchair, has difficulty speaking and depends on others for feeding, toileting and dressing.	0.552 (0.377–0.707)
Asymptomatic chronic ischemic stroke	Asymptomatic	--	--
Chronic hemorrhagic stroke severity level 1	Stroke, long-term consequences, mild	has some difficulty in moving around and some weakness in one hand, but is able to walk without help.	0.019 (0.01–0.032)
Acute hemorrhagic stroke severity level 5	Stroke, long-term consequences, severe plus cognition problems	is confined to bed or a wheelchair, depends on others for feeding, toileting and dressing, and has difficulty speaking, thinking clearly and remembering things.	0.588 (0.411–0.744)
Chronic hemorrhagic stroke severity level 5	Stroke, long-term consequences, severe plus cognition problems	is confined to bed or a wheelchair, depends on others for feeding, toileting and dressing, and has difficulty speaking, thinking clearly and remembering things.	0.588 (0.411–0.744)
Acute hemorrhagic stroke severity level 1	Stroke, long-term consequences, mild	has some difficulty in moving around and some weakness in one hand, but is able to walk without help.	0.019 (0.01–0.032)
Acute hemorrhagic stroke severity level 2	Stroke, long-term consequences, moderate	has some difficulty in moving around, and in using the hands for lifting and holding things, dressing and grooming.	0.07 (0.046–0.099)
Chronic hemorrhagic stroke severity level 2	Stroke, long-term consequences, moderate	has some difficulty in moving around, and in using the hands for lifting and holding things, dressing and grooming.	0.07 (0.046–0.099)
Chronic hemorrhagic stroke severity level 4	Stroke, long-term consequences, severe	is confined to bed or a wheelchair, has difficulty speaking and depends on others for feeding, toileting and dressing.	0.552 (0.377–0.707)
Acute hemorrhagic stroke severity level 3	Stroke, long-term consequences, moderate plus cognition problems	has some difficulty in moving around, in using the hands for lifting and holding things, dressing and grooming, and in speaking. The person is often forgetful and confused.	0.316 (0.206–0.437)
Chronic hemorrhagic stroke severity level 3	Stroke, long-term consequences, moderate plus cognition problems	has some difficulty in moving around, in using the hands for lifting and holding things, dressing and grooming, and in speaking. The person is often forgetful and confused.	0.316 (0.206–0.437)
Acute hemorrhagic stroke severity level 4	Stroke, long-term consequences, severe	is confined to bed or a wheelchair, has difficulty speaking and depends on others for feeding, toileting and dressing.	0.552 (0.377–0.707)
Asymptomatic chronic hemorrhagic stroke	Asymptomatic	--	--
Asymptomatic and mild heart failure due to hypertensive heart disease	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Severe heart failure due to hypertensive heart disease	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate heart failure due to hypertensive heart disease	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic and mild heart failure due to myocarditis	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Acute myocarditis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Severe heart failure due to myocarditis	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate heart failure due to myocarditis	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Asymptomatic and mild heart failure due to alcoholic cardiomyopathy	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Moderate heart failure due to alcoholic cardiomyopathy	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Severe heart failure due to alcoholic cardiomyopathy	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate heart failure due to other cardiomyopathy	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Severe heart failure due to other cardiomyopathy	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Asymptomatic and mild heart failure due to other cardiomyopathy	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Asymptomatic atrial fibrillation and flutter	Asymptomatic	--	--
Symptomatic atrial fibrillation and flutter	Cardiac conduction disorders and cardiac dysrhythmias	has periods of rapid and irregular heartbeats and occasional fainting.	0.224 (0.151–0.312)
Asymptomatic peripheral vascular disease	Asymptomatic	--	--
Symptomatic claudication due to peripheral vascular disease	Claudication	has cramping pains in the legs after walking a medium distance. The pain goes away after a short rest.	0.014 (0.007–0.025)
Moderate endocarditis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Asymptomatic and mild heart failure due to endocarditis	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Severe endocarditis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)
Severe heart failure due to endocarditis	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate heart failure due to endocarditis	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Moderate other cardiovascular diseases	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Severe heart failure due to other cardiovascular diseases	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Asymptomatic other cardiovascular diseases	Asymptomatic	--	--
Mild other cardiovascular diseases	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Asymptomatic and mild heart failure due to other cardiovascular diseases	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Severe other cardiovascular diseases	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate heart failure due to other cardiovascular diseases	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Severe heart failure due to severe chronic obstructive pulmonary disease	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Asymptomatic and mild heart failure due to severe chronic obstructive pulmonary disease	Severe COPD and other chronic respiratory, with mild heart failure	--	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate chronic obstructive pulmonary disease	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Moderate heart failure due to severe chronic obstructive pulmonary disease	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Asymptomatic chronic obstructive pulmonary disease	Asymptomatic	--	--
Mild chronic obstructive pulmonary disease	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Severe chronic obstructive pulmonary disease without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Moderate heart failure due to severe silicosis	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Mild silicosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Moderate silicosis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Asymptomatic and mild heart failure due to severe silicosis	Severe COPD and other chronic respiratory, with mild heart failure	--	--
Severe silicosis without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Asymptomatic silicosis	Asymptomatic	--	--
Severe heart failure due to severe silicosis	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Asymptomatic and mild heart failure due to severe asbestosis	Severe COPD and other chronic respiratory, with mild heart failure	--	--
Moderate heart failure due to severe asbestosis	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Mild asbestosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Severe asbestosis without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Severe heart failure due to severe asbestosis	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Moderate asbestosis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Asymptomatic asbestosis	Asymptomatic	--	--
Severe coal workers pneumoconiosis without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Mild coal workers pneumoconiosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Severe heart failure due to severe coal workers pneumoconiosis	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Asymptomatic and mild heart failure due to severe coal workers pneumoconiosis	Severe COPD and other chronic respiratory, with mild heart failure	--	--
Asymptomatic coal workers pneumoconiosis	Asymptomatic	--	--
Moderate heart failure due to severe coal workers pneumoconiosis	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Moderate coal workers pneumoconiosis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Moderate other pneumoconiosis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Asymptomatic other pneumoconiosis	Asymptomatic	--	--
Mild other pneumoconiosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Severe heart failure due to severe other pneumoconiosis	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Severe other pneumoconiosis without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Moderate heart failure due to severe other pneumoconiosis	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Asymptomatic and mild heart failure due to severe other pneumoconiosis	Severe COPD and other chronic respiratory, with mild heart failure	--	--
Controlled asthma	Asthma, controlled	has wheezing and cough once a month, which does not cause difficulty with daily activities.	0.015 (0.007–0.026)
Uncontrolled asthma	Asthma, uncontrolled	has wheezing, cough and shortness of breath more than twice a week, which causes difficulty with daily activities and sometimes wakes the person at night.	0.133 (0.086–0.192)
Asymptomatic asthma	Asymptomatic	--	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Partially controlled asthma	Asthma, partially controlled	has wheezing and cough once a week, which causes some difficulty with daily activities.	0.036 (0.022–0.055)
Severe heart failure due to severe interstitial lung disease and pulmonary sarcoidosis	Severe COPD and other chronic respiratory, with severe heart failure	--	--
Severe interstitial lung disease and pulmonary sarcoidosis without heart failure	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Moderate heart failure due to severe interstitial lung disease and pulmonary sarcoidosis	Severe COPD and other chronic respiratory, with moderate heart failure	--	--
Mild interstitial lung disease and pulmonary sarcoidosis	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Moderate interstitial lung disease and pulmonary sarcoidosis	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Asymptomatic interstitial lung disease and pulmonary sarcoidosis	Asymptomatic	--	--
Asymptomatic and mild heart failure due to severe interstitial lung disease and pulmonary sarcoidosis	Severe COPD and other chronic respiratory, with mild heart failure	--	--
Other chronic respiratory diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Cirrhosis and other chronic liver diseases due to hepatitis B, compensated	Asymptomatic	--	--
Cirrhosis and other chronic liver diseases due to hepatitis B, decompensated	Decompensated cirrhosis of the liver	has a swollen belly and swollen legs. The person feels weakness, fatigue and loss of appetite.	0.178 (0.123–0.25)
Cirrhosis and other chronic liver diseases due to hepatitis C, decompensated	Decompensated cirrhosis of the liver	has a swollen belly and swollen legs. The person feels weakness, fatigue and loss of appetite.	0.178 (0.123–0.25)
Cirrhosis and other chronic liver diseases due to hepatitis C, compensated	Asymptomatic	--	--
Cirrhosis and other chronic liver diseases due to alcohol, compensated	Asymptomatic	--	--
Cirrhosis and other chronic liver diseases due to alcohol, decompensated	Decompensated cirrhosis of the liver	has a swollen belly and swollen legs. The person feels weakness, fatigue and loss of appetite.	0.178 (0.123–0.25)
Cirrhosis and other chronic liver diseases due to other cause, compensated	Asymptomatic	--	--
Cirrhosis and other chronic liver diseases due to other cause, decompensated	Decompensated cirrhosis of the liver	has a swollen belly and swollen legs. The person feels weakness, fatigue and loss of appetite.	0.178 (0.123–0.25)
Severe anemia due to peptic ulcer disease	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Moderate symptomatic peptic ulcer disease with mild anemia	Moderate abdominal pain with mild anemia	(combined DW)	0.118 (0.081–0.163)
Moderate symptomatic peptic ulcer disease with moderate anemia	Moderate abdominal pain with moderate anemia	(combined DW)	0.16 (0.109–0.22)
Moderate symptomatic peptic ulcer disease without anemia	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Mild anemia due to peptic ulcer disease	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Asymptomatic peptic ulcer disease without anemia	Asymptomatic	--	--
Mild symptomatic peptic ulcer disease with severe anemia	Mild abdominal pain with severe anemia	(combined DW)	--
Moderate anemia due to peptic ulcer disease	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Moderate symptomatic peptic ulcer disease with severe anemia	Mild abdominal pain with severe anemia	(combined DW)	--
Asymptomatic peptic ulcer disease with moderate anemia	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Asymptomatic peptic ulcer disease with severe anemia	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Mild symptomatic peptic ulcer disease without anemia	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Mild symptomatic peptic ulcer disease with moderate anemia	Mild abdominal pain with moderate anemia	(combined DW)	--
Asymptomatic peptic ulcer disease with mild anemia	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Mild symptomatic peptic ulcer disease with mild anemia	Mild abdominal pain with mild anemia	(combined DW)	--
Mild anemia due to gastritis and duodenitis	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Mild symptomatic gastritis and duodenitis with moderate anemia	Mild abdominal pain with moderate anemia	(combined DW)	--
Asymptomatic gastritis and duodenitis with moderate anemia	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Moderate symptomatic gastritis and duodenitis with severe anemia	Moderate abdominal pain with severe anemia	(combined DW)	0.246 (0.171–0.334)
Moderate anemia due to gastritis and duodenitis	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Asymptomatic gastritis and duodenitis without anemia	Asymptomatic	--	--
Moderate symptomatic gastritis and duodenitis with moderate anemia	Moderate abdominal pain with moderate anemia	(combined DW)	0.16 (0.109–0.22)
Asymptomatic gastritis and duodenitis with mild anemia	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic gastritis and duodenitis with severe anemia	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Mild symptomatic gastritis and duodenitis without anemia	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Mild symptomatic gastritis and duodenitis with severe anemia	Mild abdominal pain with severe anemia	(combined DW)	--
Severe anemia due to gastritis and duodenitis	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Mild symptomatic gastritis and duodenitis with mild anemia	Mild abdominal pain with mild anemia	(combined DW)	--
Moderate symptomatic gastritis and duodenitis with mild anemia	Moderate abdominal pain with mild anemia	(combined DW)	0.118 (0.081–0.163)
Moderate symptomatic gastritis and duodenitis without anemia	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Appendicitis	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Paralytic ileus and intestinal obstruction	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Asymptomatic inguinal, femoral, and abdominal hernia	Asymptomatic	--	--
Mild symptomatic inguinal, femoral and abdominal hernia	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Moderate symptomatic inguinal, femoral and abdominal hernia	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Severe symptomatic inguinal, femoral and abdominal hernia	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Asymptomatic Crohn's disease	Asymptomatic	--	--
Asymptomatic ulcerative colitis	Asymptomatic	--	--
Ulcerative colitis	Crohn disease or ulcerative colitis	has cramping abdominal pain, has diarrhea several times a day, and feels very tired for two months every year. When the person does not have symptoms, there is anxiety about them returning.	0.231 (0.156–0.32)
Crohn's disease	Crohn disease or ulcerative colitis	has cramping abdominal pain, has diarrhea several times a day, and feels very tired for two months every year. When the person does not have symptoms, there is anxiety about them returning.	0.231 (0.156–0.32)
Vascular intestinal disorders	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Asymptomatic gallbladder and biliary diseases	Asymptomatic	--	--
Severe symptomatic episodes gallbladder and biliary diseases	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Mild symptomatic episodes gallbladder and biliary diseases	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Moderate symptomatic episodes gallbladder and biliary diseases	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Moderate pancreatitis episodes	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Mild pancreatitis episodes	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Severe pancreatitis episodes	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Other digestive diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Severe Alzheimer disease and other dementias	Dementia, severe	has complete memory loss; no longer recognizes close family members; and requires help with all daily activities.	0.449 (0.304–0.595)
Mild Alzheimer disease and other dementias	Dementia, mild	has some trouble remembering recent events, and finds it hard to concentrate and make decisions and plans.	0.069 (0.046–0.099)
Moderate Alzheimer disease and other dementias	Dementia, moderate	has memory problems and confusion, feels disoriented, at times hears voices that are not real, and needs help with some daily activities.	0.377 (0.252–0.508)
Mild Parkinson disease	Parkinson disease, mild	has mild tremors and moves a little slowly, but is able to walk and do daily activities without assistance.	0.01 (0.005–0.019)
Moderate Parkinson disease	Parkinson disease, moderate	has moderate tremors and moves slowly, which causes some difficulty in walking and daily activities. The person has some trouble swallowing, talking, sleeping, and	0.267 (0.181–0.372)
Severe Parkinson disease	Parkinson disease, severe	has severe tremors and moves very slowly, which causes great difficulty in walking and daily activities. The person falls easily and has a lot of difficulty talking, swallowing, sleeping, and remembering things.	0.575 (0.396–0.73)
Severe epilepsy	Epilepsy, seizures >= once a month	has sudden seizures one or more times each month, with violent muscle contractions and stiffness, loss of consciousness, and loss of urine or bowel control. Between seizures the person has memory loss and difficulty concentrating.	0.552 (0.375–0.71)
Less severe epilepsy	Epilepsy, seizures 1-11 per year	has sudden seizures two to five times a year, with violent muscle contractions and stiffness, loss of consciousness, and loss of urine or bowel control.	0.263 (0.173–0.367)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Seizure-free, treated epilepsy	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Mild multiple sclerosis	Multiple sclerosis, mild	has mild loss of feeling in one hand, is a little unsteady while walking, has slight loss of vision in one eye, and often needs to urinate urgently.	0.183 (0.124–0.253)
Severe multiple sclerosis	Multiple sclerosis, severe	has slurred speech and difficulty swallowing. The person has weak arms and hands, very limited and stiff leg movement, has loss of vision in both eyes and cannot control urinating.	0.719 (0.534–0.858)
Moderate multiple sclerosis	Multiple sclerosis, moderate	needs help walking, has difficulty with writing and arm coordination, has loss of vision in one eye and cannot control urinating.	0.463 (0.313–0.613)
Asymptomatic multiple sclerosis	Asymptomatic	--	--
Severe respiratory problems and speech problems due to motor neuron disease	Severe respiratory and speech problems	(combined DW)	0.438 (0.304–0.581)
Moderate respiratory problems and speech problems due to motor neuron disease	Moderate respiratory and speech problems	(combined DW)	0.265 (0.184–0.36)
Mild respiratory problems and speech problems due to motor neuron disease	Mild respiratory and speech problems	(combined DW)	0.069 (0.043–0.106)
Severe motor impairment and speech problems due to motor neuron disease	Severe motor impairment and speech problems	(combined DW)	0.432 (0.306–0.572)
Moderate motor impairment and speech problems due to motor neuron disease	Moderate motor impairment and speech problems	(combined DW)	0.109 (0.071–0.158)
Mild motor impairment and speech problems due to motor neuron disease	Mild motor impairment and speech problems	(combined DW)	0.061 (0.038–0.094)
Severe motor impairment and severe respiratory problems due to motor neuron disease	Severe motor impairment and severe respiratory problems	(combined DW)	0.641 (0.47–0.796)
Severe motor impairment and mild respiratory problems due to motor neuron disease	Severe motor impairment and mild respiratory problems	(combined DW)	0.413 (0.286–0.553)
Moderate motor impairment, severe respiratory problems, and speech problems due to motor neuron disease	Moderate motor impairment with severe respiratory problems and speech problems	(combined DW)	0.472 (0.339–0.611)
Moderate motor impairment and severe respiratory problems due to motor neuron disease	Moderate motor impairment and severe respiratory problems	(combined DW)	0.414 (0.281–0.559)
Moderate motor impairment and moderate respiratory problems due to motor neuron disease	Moderate motor impairment and moderate respiratory problems	(combined DW)	0.233 (0.16–0.322)
Moderate motor impairment and mild respiratory problems due to motor neuron disease	Moderate motor impairment and mild respiratory problems	(combined DW)	0.029 (0.015–0.051)
Mild motor impairment and severe respiratory problems due to motor neuron disease	Mild motor impairment and severe respiratory problems	(combined DW)	0.443 (0.311–0.587)
Mild motor impairment and mild respiratory problems due to motor neuron disease	Mild motor impairment and mild respiratory problems	(combined DW)	0.079 (0.05–0.117)
Severe motor impairment, severe respiratory problems, and speech problems due to motor neuron disease	Severe motor impairment with severe respiratory problems and speech problems	(combined DW)	0.659 (0.495–0.809)
Severe motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease	Severe motor impairment with moderate respiratory problems and speech problems	(combined DW)	0.557 (0.412–0.705)
Severe motor impairment and moderate respiratory problems due to motor neuron disease	Severe motor impairment and moderate respiratory problems	(combined DW)	0.534 (0.382–0.685)
Moderate motor impairment due to motor neuron disease	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Moderate motor impairment, mild respiratory problems, and speech problems due to motor neuron disease	Moderate motor impairment with mild respiratory problems and speech problems	(combined DW)	0.126 (0.081–0.183)
Mild respiratory problems due to motor neuron disease	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Severe respiratory problems due to motor neuron disease	COPD and other chronic respiratory problems, severe	has cough, wheezing and shortness of breath all the time. The person has great difficulty walking even short distances or climbing any stairs, feels tired when at rest, and is	0.408 (0.273–0.556)
Moderate respiratory problems due to motor neuron disease	COPD and other chronic respiratory problems, moderate	has cough, wheezing and shortness of breath, even after light physical activity. The person feels tired and can walk only short distances or climb only a few stairs.	0.225 (0.153–0.31)
Mild motor impairment due to motor neuron disease	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Mild motor impairment, mild respiratory problems, and speech problems due to motor neuron disease	Mild motor impairment with mild respiratory problems and speech problems	(combined dw)	0.079 (0.049–0.123)
Mild motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease	Mild motor impairment with moderate respiratory problems and speech problems	(combined dw)	0.272 (0.191–0.369)
Speech problems due to motor neuron disease	Speech problems	has difficulty speaking, and others find it difficult to understand.	0.051 (0.032–0.078)
Severe motor impairment due to motor neuron disease	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Diagnosis of motor neuron disease	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Severe motor impairment, mild respiratory problems, and speech problems due to motor neuron disease	Severe motor impairment with mild respiratory problems and speech problems	(combined DW)	0.443 (0.316–0.58)
Moderate motor impairment, moderate respiratory problems, and speech problems due to motor neuron disease	Moderate motor impairment with moderate respiratory problems and speech problems	(combined DW)	0.309 (0.221–0.414)
Mild motor impairment, severe respiratory problems and speech problems due to motor neuron disease	Mild motor impairment with severe respiratory problems and speech problems	(combined DW)	0.444 (0.311–0.585)
Asymptomatic medication overuse headache due to migraine	Asymptomatic	--	--

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Symptomatic migraine	Headache, migraine	has severe, throbbing head pain and nausea that cause great difficulty in daily activities and sometimes confine the person to bed. Moving around, light, and noise make it worse.	0.441 (0.294–0.588)
Symptomatic medication overuse headache due to migraine	Headache, medication overuse	has daily headaches, felt as dull pain and often lasting all day, with poor sleep, nausea and fatigue. The person takes medicine for the headaches, which provides little relief but is needed to avoid having worse symptoms.	0.223 (0.146–0.313)
Asymptomatic migraine	Asymptomatic	--	--
Symptomatic medication overuse headache due to tension-type headache	Headache, medication overuse	has daily headaches, felt as dull pain and often lasting all day, with poor sleep, nausea and fatigue. The person takes medicine for the headaches, which provides little relief but is needed to avoid having worse symptoms.	0.223 (0.146–0.313)
Asymptomatic medication overuse headache due to tension-type headache	Asymptomatic	--	--
Asymptomatic tension-type headache	Asymptomatic	--	--
Symptomatic tension-type headache	Headache, tension-type	has a moderate headache that also affects the neck, which causes difficulty in daily activities.	0.037 (0.022–0.057)
Other neurological disorders	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Guillain-Barré syndrome due to other neurological disorders	Spinal cord lesion below neck level (treated)	is paralyzed from the waist down, cannot feel or move the legs and has difficulties with urine and bowel control. The person uses a wheelchair to move around.	0.296 (0.198–0.414)
Schizophrenia acute state	Schizophrenia, acute state	hears and sees things that are not real and is afraid, confused, and sometimes violent. The person has great difficulty with communication and daily activities, and sometimes wants to harm or kill himself (or herself).	0.778 (0.606–0.9)
Schizophrenia residual state	Schizophrenia, residual state	hears and sees things that are not real and has trouble communicating. The person can be forgetful, has difficulty with daily activities, and thinks about hurting himself (or drinks alcohol daily and has difficulty controlling the urge to drink. When sober, the person functions normally.	0.588 (0.411–0.754)
Very mild alcohol dependence	Alcohol use disorder, very mild	is very slow in developing physically and mentally, which causes great difficulty in daily activities.	0.123 (0.082–0.177)
Severe fetal alcohol syndrome	Fetal alcohol syndrome, severe	drinks a lot of alcohol and sometimes has difficulty controlling the urge to drink. While intoxicated, the person has difficulty performing daily activities.	0.179 (0.119–0.257)
Mild alcohol dependence	Alcohol use disorder, mild	is slow in developing physically and mentally, which causes some difficulty in daily activities.	0.235 (0.16–0.327)
Moderate fetal alcohol syndrome	Fetal alcohol syndrome, moderate	is a little slow in developing physically and mentally, which causes some difficulty in learning but no other difficulties in daily activities.	0.056 (0.035–0.083)
Asymptomatic fetal alcohol syndrome	Asymptomatic	--	--
Asymptomatic alcohol dependence	Asymptomatic	--	--
Mild fetal alcohol syndrome	Fetal alcohol syndrome, mild	gets drunk almost every day and is unable to control the urge to drink. Drinking and recovering replace most daily activities. The person has difficulty thinking, remembering and communicating, and feels constant pain and fatigue.	0.016 (0.008–0.03)
Severe alcohol dependence	Alcohol use disorder, severe	drinks a lot, gets drunk almost every week and has great difficulty controlling the urge to drink. Drinking and recovering cause great difficulty in daily activities, sleep loss,	0.57 (0.396–0.732)
Moderate alcohol dependence	Alcohol use disorder, moderate	uses heroin daily and has difficulty controlling the habit. When the effects wear off, the person feels severe nausea, agitation, vomiting and fever. The person has a lot of difficulty in daily activities.	0.373 (0.248–0.508)
Asymptomatic opioid dependence	Asymptomatic	--	--
Severe opioid dependence	Heroin and other opioid dependence	uses heroin (or methadone) daily and has difficulty controlling the habit. When not using, the person functions normally.	0.697 (0.51–0.843)
Mild opioid dependence	Heroin and other opioid dependence, mild	uses cocaine at least once a week and has some difficulty controlling the habit. When not using, the person functions normally.	0.335 (0.221–0.473)
Mild cocaine dependence	Cocaine dependence, mild	--	0.116 (0.074–0.165)
Asymptomatic cocaine dependence	Asymptomatic	--	--
Severe cocaine dependence	Cocaine dependence	uses cocaine and has difficulty controlling the habit. The person sometimes has mood swings, anxiety, paranoia, hallucinations and sleep problems, and has some difficulty in daily activities.	0.479 (0.324–0.634)
Severe amphetamine dependence	Amphetamine dependence	uses stimulants (drugs) and has difficulty controlling the habit. The person sometimes has depression, hallucinations and mood swings, and has difficulty in daily activities.	0.486 (0.329–0.637)
Mild amphetamine dependence	Amphetamine dependence, mild	uses stimulants (drugs) at least once a week and has some difficulty controlling the habit. When not using, the person functions normally.	0.079 (0.051–0.114)
Asymptomatic amphetamine dependence	Asymptomatic	--	--
Asymptomatic cannabis dependence	Asymptomatic	--	--
Mild cannabis dependence	Cannabis dependence, mild	uses marijuana at least once a week and has some difficulty controlling the habit. When not using, the person functions normally.	0.039 (0.024–0.06)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe cannabis dependence	Cannabis dependence	uses marijuana daily and has difficulty controlling the habit. The person sometimes has mood swings, anxiety and hallucinations, and has some difficulty in daily activities.	0.266 (0.178–0.364)
Other drug use disorders	Cocaine dependence, mild	uses cocaine at least once a week and has some difficulty controlling the habit. When not using, the person functions normally.	0.116 (0.074–0.165)
Severe major depressive disorder	Major depressive disorder, severe episode	has overwhelming, constant sadness and cannot function in daily life. The person sometimes loses touch with reality and wants to harm or kill himself (or herself).	0.658 (0.477–0.807)
Moderate major depressive disorder	Major depressive disorder, moderate episode	has constant sadness and has lost interest in usual activities. The person has some difficulty in daily life, sleeps badly, has trouble concentrating, and sometimes thinks about harming himself (or herself).	0.396 (0.267–0.531)
Major depressive disorder, currently without symptoms	Asymptomatic	--	--
Mild major depressive disorder	Major depressive disorder, mild episode	feels persistent sadness and has lost interest in usual activities. The person sometimes sleeps badly, feels tired, or has trouble concentrating but still manages to function in daily life with extra effort.	0.145 (0.099–0.209)
Dysthymia, currently without symptoms	Asymptomatic	--	--
Symptomatic dysthymia	Major depressive disorder, mild episode	feels persistent sadness and has lost interest in usual activities. The person sometimes sleeps badly, feels tired, or has trouble concentrating but still manages to function in daily life with extra effort.	0.145 (0.099–0.209)
Bipolar disorder manic state	Bipolar disorder, manic episode	is hyperactive, hears and believes things that are not real, and engages in impulsive and aggressive behavior that endanger the person and others.	0.492 (0.341–0.646)
Bipolar disorder residual state	Bipolar disorder, residual state	has mild mood swings, irritability and some difficulty with daily activities.	0.032 (0.018–0.051)
Bipolar disorder depressive state	Major depressive disorder, moderate episode	has constant sadness and has lost interest in usual activities. The person has some difficulty in daily life, sleeps badly, has trouble concentrating, and sometimes thinks about harming himself (or herself).	0.396 (0.267–0.531)
Anxiety disorders, currently without symptoms	Asymptomatic	--	--
Moderate anxiety disorders	Anxiety disorders, moderate	feels anxious and worried, which makes it difficult to concentrate, remember things, and sleep. The person tires easily and finds it difficult to perform daily activities.	0.133 (0.091–0.186)
Severe anxiety disorders	Anxiety disorders, severe	constantly feels very anxious and worried, which makes it difficult to concentrate, remember things, and sleep. The person has lost pleasure in life and thinks about suicide.	0.523 (0.362–0.677)
Mild anxiety disorders	Anxiety disorders, mild	feels mildly anxious and worried, which makes it slightly difficult to concentrate, remember things, and sleep. The person tires easily but is able to perform daily activities.	0.03 (0.018–0.046)
Anorexia nervosa	Anorexia nervosa	feels an overwhelming need to starve and exercises excessively to lose weight. The person is very thin, weak and anxious.	0.224 (0.15–0.312)
Bulimia nervosa	Bulimia nervosa	has uncontrolled overeating followed by guilt, starving, and vomiting to lose weight.	0.223 (0.149–0.311)
Autism with profound intellectual disability	Autism with profound intellectual disability	(combined DW)	--
Autism with moderate intellectual disability	Autism with moderate intellectual disability	(combined DW)	--
Autism with mild intellectual disability	Autism with mild intellectual disability	(combined DW)	--
Autism with borderline intellectual disability	Autism with borderline intellectual disability	(combined DW)	--
Autism without intellectual disability	Autism without intellectual disability	(combined DW)	--
Autism with severe intellectual disability	Autism with severe intellectual disability	(combined DW)	--
Asperger syndrome and other autistic spectrum disorders	Asperger syndrome	has difficulty interacting with other people, and is slow to understand or respond to questions. The person is often preoccupied with one thing and has some difficulty with basic daily activities.	0.104 (0.071–0.147)
Symptomatic attention-deficit/hyperactivity disorder	Attention deficit hyperactivity disorder	is hyperactive and has difficulty concentrating, remembering things, and completing tasks.	0.045 (0.028–0.066)
Attention-deficit/hyperactivity disorder, currently without symptoms	Asymptomatic	--	--
Symptomatic conduct disorder	Conduct disorder	has frequent behavior problems, which are sometimes violent. The person often has difficulty interacting with other people and feels irritable.	0.241 (0.159–0.341)
Conduct disorder, currently without symptoms	Asymptomatic	--	--
Mild idiopathic developmental intellectual disability	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Borderline idiopathic developmental intellectual disability	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Profound idiopathic developmental intellectual disability	Intellectual disability / mental retardation, profound	has very low intelligence, has almost no language, and does not understand even the most basic requests or instructions. The person requires constant supervision and help for all activities.	0.2 (0.133–0.283)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate idiopathic developmental intellectual disability	Intellectual disability / mental retardation, moderate	has low intelligence, and is slow in learning to speak and to do even simple tasks. As an adult, the person requires a lot of support to live independently and raise children. The person can only work at the simplest supervised jobs.	0.1 (0.066–0.142)
Severe idiopathic developmental intellectual disability	Intellectual disability / mental retardation, severe	has very low intelligence and cannot speak more than a few words, needs constant supervision and help with most daily activities, and can do only the simplest tasks.	0.16 (0.107–0.226)
Other mental disorders, currently without symptoms	Asymptomatic	--	--
Moderate other mental disorders	Anxiety disorders, moderate	feels anxious and worried, which makes it difficult to concentrate, remember things, and sleep. The person tires easily and finds it difficult to perform daily activities.	0.133 (0.091–0.186)
Severe other mental disorders	Anxiety disorders, severe	constantly feels very anxious and worried, which makes it difficult to concentrate, remember things and sleep. The person has lost pleasure in life and thinks about suicide.	0.523 (0.362–0.677)
Mild other mental disorders	Anxiety disorders, mild	feels mildly anxious and worried, which makes it slightly difficult to concentrate, remember things, and sleep. The person tires easily but is able to perform daily activities.	0.03 (0.018–0.046)
Moderate vision impairment due to diabetes mellitus	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Diabetic foot due to neuropathy	Diabetic neuropathy with diabetic foot	--	--
Severe vision impairment due to diabetes mellitus	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Diabetic neuropathy	Diabetic neuropathy	has pain, tingling and numbness in the arms, legs, hands and feet. The person sometimes gets cramps and muscle weakness.	0.133 (0.089–0.187)
Uncomplicated diabetes mellitus	Generic uncomplicated disease: worry and daily medication	has a chronic disease that requires medication every day and causes some worry but minimal interference with daily activities.	0.049 (0.031–0.072)
Diabetic neuropathy and amputation with treatment	Diabetic neuropathy with treated amputation	--	--
Diabetic neuropathy and amputation without treatment	Diabetic neuropathy with untreated amputation	--	--
Blindness due to diabetes mellitus	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Acute glomerulonephritis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Stage V chronic kidney disease untreated and severe anemia due to diabetes mellitus	Severe anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.631 (0.456–0.782)
End-stage renal disease after transplant due to diabetes mellitus	End-stage renal disease, with kidney transplant	sometimes feels tired and down, and has some difficulty with daily activities.	0.024 (0.014–0.039)
Stage IV chronic kidney disease untreated without anemia due to diabetes mellitus	Chronic kidney disease (stage IV)	tires easily, has nausea, reduced appetite and difficulty sleeping.	0.104 (0.07–0.147)
Stage III chronic kidney disease and severe anemia due to diabetes mellitus	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Stage III chronic kidney disease and mild anemia due to diabetes mellitus	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Stage IV chronic kidney disease untreated and mild anemia due to diabetes mellitus	Mild anemia with Stage IV CKD	--	--
Stage III chronic kidney disease without anemia due to diabetes mellitus	Asymptomatic	--	--
Stage IV chronic kidney disease untreated and moderate anemia due to diabetes mellitus	Moderate anemia with Stage IV CKD	--	--
Stage V chronic kidney disease untreated without anemia due to diabetes mellitus	Terminal phase, without medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and has constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.569 (0.389–0.727)
Stage IV chronic kidney disease untreated and severe anemia due to diabetes mellitus	Severe anemia with Stage IV CKD	--	--
Stage V chronic kidney disease untreated and moderate anemia due to diabetes mellitus	Moderate anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.591 (0.414–0.743)
End-stage renal disease on dialysis due to diabetes mellitus	End-stage renal disease, on dialysis	is tired and has itching, cramps, headache, joint pains and shortness of breath. The person needs intensive medical care every other day lasting about half a day.	0.571 (0.398–0.725)
Stage V chronic kidney disease untreated and mild anemia due to diabetes mellitus	Mild anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.57 (0.391–0.727)
Stage III chronic kidney disease and moderate anemia due to diabetes mellitus	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Stage IV chronic kidney disease untreated and moderate anemia due to hypertension	Moderate anemia with Stage IV CKD	--	--
Stage III chronic kidney disease without anemia due to hypertension	Asymptomatic	--	--
Stage V chronic kidney disease untreated and moderate anemia due to hypertension	Moderate anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.591 (0.414–0.743)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Stage V chronic kidney disease untreated and severe anemia due to hypertension	Severe anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.631 (0.456–0.782)
End-stage renal disease on dialysis due to hypertension	End-stage renal disease, on dialysis	is tired and has itching, cramps, headache, joint pains and shortness of breath. The person needs intensive medical care every other day lasting about half a day.	0.571 (0.398–0.725)
Stage V chronic kidney disease untreated and mild anemia due to hypertension	Mild anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.57 (0.391–0.727)
Stage III chronic kidney disease and mild anemia due to hypertension	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Stage IV chronic kidney disease untreated and severe anemia due to hypertension	Severe anemia with Stage IV CKD	--	--
Stage IV chronic kidney disease untreated without anemia due to hypertension	Chronic kidney disease (stage IV)	tires easily, has nausea, reduced appetite and difficulty sleeping.	0.104 (0.07–0.147)
Stage V chronic kidney disease untreated without anemia due to hypertension	Terminal phase, without medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and has constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.569 (0.389–0.727)
Stage III chronic kidney disease and severe anemia due to hypertension	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Stage IV chronic kidney disease untreated and mild anemia due to hypertension	Mild anemia with Stage IV CKD	--	--
End-stage renal disease after transplant due to hypertension	End-stage renal disease, with kidney transplant	sometimes feels tired and down, and has some difficulty with daily activities.	0.024 (0.014–0.039)
Stage III chronic kidney disease and moderate anemia due to hypertension	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
End-stage renal disease after transplant due to glomerulonephritis	End-stage renal disease, with kidney transplant	sometimes feels tired and down, and has some difficulty with daily activities.	0.024 (0.014–0.039)
Stage IV chronic kidney disease untreated without anemia due to glomerulonephritis	Chronic kidney disease (stage IV)	tires easily, has nausea, reduced appetite and difficulty sleeping.	0.104 (0.07–0.147)
Stage V chronic kidney disease untreated and moderate anemia due to glomerulonephritis	Moderate anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.591 (0.414–0.743)
Stage III chronic kidney disease and moderate anemia due to glomerulonephritis	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Stage III chronic kidney disease and severe anemia due to glomerulonephritis	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Stage III chronic kidney disease and mild anemia due to glomerulonephritis	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Stage III chronic kidney disease without anemia due to glomerulonephritis	Asymptomatic	--	--
Stage V chronic kidney disease untreated and mild anemia due to glomerulonephritis	Mild anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.57 (0.391–0.727)
Stage IV chronic kidney disease untreated and severe anemia due to glomerulonephritis	Severe anemia with Stage IV CKD	--	--
Stage IV chronic kidney disease untreated and moderate anemia due to glomerulonephritis	Moderate anemia with Stage IV CKD	--	--
Stage V chronic kidney disease untreated and severe anemia due to glomerulonephritis	Severe anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.631 (0.456–0.782)
Stage V chronic kidney disease untreated without anemia due to glomerulonephritis	Terminal phase, without medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and has constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.569 (0.389–0.727)
Stage IV chronic kidney disease untreated and mild anemia due to glomerulonephritis	Mild anemia with Stage IV CKD	--	--
End-stage renal disease on dialysis due to glomerulonephritis	End-stage renal disease, on dialysis	is tired and has itching, cramps, headache, joint pains and shortness of breath. The person needs intensive medical care every other day lasting about half a day.	0.571 (0.398–0.725)
Stage V chronic kidney disease untreated without anemia due to other causes	Terminal phase, without medication (for cancers, end-stage kidney/liver disease)	has lost a lot of weight and has constant pain. The person has no appetite, feels nauseous, and needs to spend most of the day in bed.	0.569 (0.389–0.727)
Stage III chronic kidney disease without anemia due to other causes	Asymptomatic	--	--
Stage IV chronic kidney disease untreated without anemia due to other causes	Chronic kidney disease (stage IV)	tires easily, has nausea, reduced appetite and difficulty sleeping.	0.104 (0.07–0.147)
Stage III chronic kidney disease and mild anemia due to other causes	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Stage IV chronic kidney disease untreated and mild anemia due to other causes	Mild anemia with Stage IV CKD	--	--
Stage III chronic kidney disease and moderate anemia due to other causes	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Stage IV chronic kidney disease untreated and moderate anemia due to other causes	Moderate anemia with Stage IV CKD	--	--
Stage V chronic kidney disease untreated and moderate anemia due to other causes	Moderate anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.591 (0.414–0.743)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Stage III chronic kidney disease and severe anemia due to other causes	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Stage IV chronic kidney disease untreated and severe anemia due to other causes	Severe anemia with Stage IV CKD	--	--
End-stage renal disease after transplant due to other causes	End-stage renal disease, with kidney transplant	sometimes feels tired and down, and has some difficulty with daily activities.	0.024 (0.014–0.039)
Stage V chronic kidney disease untreated and severe anemia due to other causes	Severe anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.631 (0.456–0.782)
Stage V chronic kidney disease untreated and mild anemia due to other causes	Mild anemia and terminal phase, without medication (for cancers, end-stage kidney/liver disease)	(combined DW)	0.57 (0.391–0.727)
End-stage renal disease on dialysis due to other causes	End-stage renal disease, on dialysis	is tired and has itching, cramps, headache, joint pains and shortness of breath. The person needs intensive medical care every other day lasting about half a day.	0.571 (0.398–0.725)
Mild interstitial nephritis and urinary tract infections	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate interstitial nephritis and urinary tract infections	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Moderate urolithiasis episodes	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Severe urolithiasis episodes	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Mild urolithiasis episodes	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Symptomatic benign prostatic hyperplasia	Benign prostatic hypertrophy, symptomatic cases	feels the urge to urinate frequently, but when passing urine it comes out slowly and sometimes is painful.	0.067 (0.043–0.097)
Asymptomatic benign prostatic hyperplasia	Asymptomatic	--	--
Primary male infertility	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Secondary male infertility	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Other urinary diseases	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Asymptomatic uterine fibroids	Asymptomatic	--	--
Mild abdominal pain due to uterine fibroids, with severe anemia	Mild abdominal pain with severe anemia	(combined DW)	--
Mild abdominal pain due to uterine fibroids, with moderate anemia	Mild abdominal pain with moderate anemia	(combined DW)	--
Mild abdominal pain due to uterine fibroids, without anemia	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Mild abdominal pain due to uterine fibroids, with mild anemia	Mild abdominal pain with mild anemia	(combined DW)	--
Secondary infertility due to polycystic ovarian syndrome	Disfigurement level 1 and secondary infertility	(combined DW)	--
Hirsutism due to polycystic ovarian syndrome	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Hirsutism and secondary infertility due to polycystic ovarian syndrome	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Asymptomatic polycystic ovarian syndrome	Asymptomatic	--	--
Hirsutism and primary infertility due to polycystic ovarian syndrome	Disfigurement level 1 and primary infertility	(combined DW)	--
Primary infertility due to polycystic ovarian syndrome	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Idiopathic secondary female infertility	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Idiopathic primary female infertility	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Mild abdominal pain and secondary infertility due to endometriosis	Mild abdominal pain and secondary infertility	(combined DW)	--
Moderate abdominal pain and secondary infertility due to endometriosis	Moderate abdominal pain and secondary infertility	(combined DW)	--
Severe abdominal pain and secondary infertility due to endometriosis	Severe abdominal pain and secondary infertility	(combined DW)	--
Severe endometriosis	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Primary infertility due to endometriosis	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Secondary infertility due to endometriosis	Infertility, secondary	has at least one child, and wants to have more children. The person has a fertile partner, but the couple cannot conceive.	0.005 (0.002–0.011)
Moderate abdominal pain due to endometriosis	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Asymptomatic endometriosis	Asymptomatic	--	--
Severe abdominal pain and primary infertility due to endometriosis	Severe abdominal pain and primary infertility	(combined DW)	--
Mild abdominal pain due to endometriosis	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Moderate abdominal pain and primary infertility due to endometriosis	Moderate abdominal pain and primary infertility	(combined DW)	--
Mild abdominal pain and primary infertility due to endometriosis	Mild abdominal pain and primary infertility	(combined DW)	--
Abdominal pain due to genital prolapse	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic genital prolapse	Asymptomatic	--	--
Abdominal pain and stress incontinence due to genital prolapse	Mild abdominal pain and stress incontinence	(combined DW)	--
Stress incontinence due to genital prolapse	Stress incontinence	loses small amounts of urine without meaning to when coughing, sneezing, laughing or during physical exercise.	0.02 (0.011–0.035)
Abdominal pain due to premenstrual syndrome	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Asymptomatic premenstrual syndrome	Asymptomatic	--	--
Depression due to premenstrual syndrome	Major depressive disorder, mild episode	feels persistent sadness and has lost interest in usual activities. The person sometimes sleeps badly, feels tired, or has trouble concentrating but still manages to function in daily life with extra effort.	0.145 (0.099–0.209)
Abdominal pain and depression due to premenstrual syndrome	Mild abdominal pain and mild depression	(combined DW)	--
Severe other gynecological disorders	Abdominopelvic problem, severe	has severe pain in the belly and feels nauseous. The person is anxious and unable to carry out daily activities.	0.324 (0.22–0.442)
Mild other gynecological disorders	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Moderate anemia due to other gynecological diseases	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Moderate other gynecological disorders	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Severe anemia due to other gynecological diseases	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Asymptomatic other gynecological disorders	Asymptomatic	--	--
Mild anemia due to other gynecological diseases	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Beta-thalassemia major, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Asymptomatic and mild heart failure due to thalassemias	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Moderate heart failure due to thalassemias	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Hemoglobin E/beta-thalassemia, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Hemoglobin H disease, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Hemoglobin H disease, severe infection with severe anemia	Infectious disease, acute episode, severe; Generic uncomplicated disease anxiety; Anemia, severe	--	--
Beta-thalassemia major, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Hemoglobin E/beta-thalassemia, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Beta-thalassemia major, severe infection with severe anemia	Infectious disease, acute episode, severe; Generic uncomplicated disease anxiety; Anemia, severe	--	--
Hemoglobin H disease, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Hemoglobin E/beta-thalassemia, severe infection with severe anemia	Infectious disease, acute episode, severe; Generic uncomplicated disease anxiety; Anemia, severe	--	--
Hemoglobin E/Beta-thalassemia, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Hemoglobin E/beta-thalassemia, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Beta-thalassemia major, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Beta-thalassemia major, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Hemoglobin H disease, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Severe heart failure due to thalassemias	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Hemoglobin H disease, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Moderate anemia due to B-thalassemia trait	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Asymptomatic B-thalassemia trait	Asymptomatic	--	--
Asymptomatic hemoglobin E trait	Asymptomatic	--	--
Moderate anemia due to hemoglobin E trait	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Mild anemia due to B-thalassemia trait	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Mild anemia due to hemoglobin E trait	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe anemia due to hemoglobin E trait	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Severe anemia due to B-thalassemia trait	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Homozygous sickle cell and severe sickle cell/beta-thalassemia, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Hemoglobin SC disease, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Mild sickle cell/beta-thalassemia, without anemia	Generic uncomplicated disease: anxiety about diagnosis	has a disease diagnosis that causes some worry but minimal interference with daily activities.	0.012 (0.006–0.023)
Hemoglobin SC disease, with vaso-occlusive crisis, stroke, and severe anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem; Anemia, severe	--	--
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis, stroke, and severe anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem; Anemia, severe	--	--
Mild sickle cell/beta-thalassemia, with stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis and stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem	--	--
Hemoglobin SC disease, with vaso-occlusive crisis and stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem	--	--
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis and stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis and severe anemia	Moderate abdominal pain; Anemia, severe; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Hemoglobin SC disease, with stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with stroke, without anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke	--	--
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis, without anemia	Generic uncomplicated disease anxiety and severe abdominopelvic problem	--	--
Hemoglobin SC disease, with vaso-occlusive crisis, without anemia	Generic uncomplicated disease anxiety and severe abdominopelvic problem	--	--
Hemoglobin SC disease, with vaso-occlusive crisis and severe anemia	Moderate abdominal pain; Anemia, severe; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Hemoglobin SC disease, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with stroke and severe anemia	Generic uncomplicated disease anxiety; Long-term consequences due to stroke; Anemia, severe	--	--
Hemoglobin SC disease, with stroke and severe anemia	Generic uncomplicated disease anxiety; Long-term consequences due to stroke; Anemia, severe	--	--
Hemoglobin SC disease, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Mild sickle cell/beta-thalassemia, with vaso-occlusive crisis and severe anemia	Moderate abdominal pain; Anemia, severe; Generic uncomplicated disease anxiety	--	--
Mild sickle cell/beta-thalassemia, with mild anemia	Anemia, mild; Generic uncomplicated disease anxiety	--	--
Mild sickle cell/beta-thalassemia, with severe anemia	Anemia, severe; Generic uncomplicated disease anxiety	--	--
Mild sickle cell/beta-thalassemia, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis, stroke, and severe anemia	Generic uncomplicated disease anxiety; long-term consequences due to stroke; severe abdominopelvic problem; Anemia, severe	--	--
Hemoglobin SC disease, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with moderate anemia	Anemia, moderate; Generic uncomplicated disease anxiety	--	--
Homozygous sickle cell and severe sickle cell/beta-thalassemia, with vaso-occlusive crisis, without anemia	Generic uncomplicated disease anxiety and severe abdominopelvic problem	--	--
Mild sickle cell/beta-thalassemia, with stroke and severe anemia	Generic uncomplicated disease anxiety; Long-term consequences due to stroke; Anemia, severe	--	--
Asymptomatic sickle cell trait	Asymptomatic	--	--
Moderate anemia due to sickle cell trait	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Mild anemia due to sickle cell trait	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Severe anemia due to sickle cell trait	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic and mild heart failure due to G6PD deficiency	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Mild anemia due to G6PD deficiency	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Severe heart failure due to G6PD deficiency	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Severe anemia due to G6PD deficiency	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Asymptomatic G6PD deficiency	Asymptomatic	--	--
Moderate heart failure due to G6PD deficiency	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Moderate anemia due to G6PD deficiency	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Mild anemia due to hemizygous G6PD deficiency	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Severe anemia due to hemizygous G6PD deficiency	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Moderate anemia due to hemizygous G6PD deficiency	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Asymptomatic hemizygous G6PD deficiency	Asymptomatic	--	--
Mild anemia due to other hemoglobinopathies and hemolytic anemias	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Other hemoglobinopathies and hemolytic anemias	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Severe heart failure due to other hemoglobinopathies and hemolytic anemias	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Asymptomatic and mild heart failure due to other hemoglobinopathies and hemolytic anemias	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Moderate heart failure due to other hemoglobinopathies and hemolytic anemias	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Moderate anemia due to other hemoglobinopathies and hemolytic anemias	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Severe anemia due to other hemoglobinopathies and hemolytic anemias	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Severe anemia due to endocrine, metabolic, blood, and immune disorders	Anemia, severe	feels very weak, tired and short of breath, and has problems with activities that require physical effort or deep concentration.	0.149 (0.101–0.209)
Asymptomatic endocrine, metabolic, blood, and immune disorders	Asymptomatic	--	--
Severe endocrine, metabolic, blood, and immune disorders	Thrombocytopenic purpura	easily bruises and sometimes bleeds from the gums and nose; feels weak and has some difficulty with daily activities.	0.159 (0.106–0.226)
Moderate heart failure due to endocrine, metabolic, blood, and immune disorders	Heart failure, moderate	is short of breath and easily tires with minimal physical activity, such as walking only a short distance. The person feels comfortable at rest but avoids moderate activity.	0.072 (0.047–0.103)
Asymptomatic and mild heart failure due to endocrine, metabolic, blood, and immune disorders	Heart failure, mild	is short of breath and easily tires with moderate physical activity, such as walking uphill or more than a quarter-mile on level ground. The person feels comfortable at rest or during activities requiring less effort.	0.041 (0.026–0.062)
Mild anemia due to endocrine, metabolic, blood, and immune disorders	Anemia, mild	feels slightly tired and weak at times, but this does not interfere with normal daily activities.	0.004 (0.001–0.008)
Mild endocrine, metabolic, blood, and immune disorders	Hypothyroidism	has low energy and feels cold.	0.019 (0.01–0.032)
Moderate anemia due to endocrine, metabolic, blood, and immune disorders	Anemia, moderate	feels moderate fatigue, weakness, and shortness of breath after exercise, making daily activities more difficult.	0.052 (0.034–0.076)
Severe heart failure due to endocrine, metabolic, blood, and immune disorders	Heart failure, severe	is short of breath and feels tired when at rest. The person avoids any physical activity, for fear of worsening the breathing problems.	0.179 (0.122–0.251)
Moderate endocrine, metabolic, blood, and immune disorders	Hyperthyroidism	feels nervous, has palpitations, sweats a lot and has difficulty sleeping.	0.145 (0.096–0.202)
Moderate rheumatoid arthritis	Musculoskeletal problems, generalized, moderate	has pain and deformity in most joints, causing difficulty moving around, getting up and down, and using the hands for lifting and carrying. The person often feels fatigue.	0.317 (0.216–0.44)
Mild rheumatoid arthritis	Musculoskeletal problems, upper limbs, moderate	has moderate pain and stiffness in the arms and hands, which causes difficulty lifting, carrying, and holding things, and trouble sleeping because of the pain.	0.117 (0.08–0.163)
Severe rheumatoid arthritis	Musculoskeletal problems, generalized, severe	has severe, constant pain and deformity in most joints, causing difficulty moving around, getting up and down, eating, dressing, lifting, carrying and using the hands. The person often feels sadness, anxiety and extreme fatigue.	0.581 (0.403–0.739)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate osteoarthritis of the knee	Musculoskeletal problems, lower limbs, moderate	has moderate pain in the leg, which makes the person limp, and causes some difficulty walking, standing, lifting and carrying heavy things, getting up and down and sleeping.	0.079 (0.054–0.11)
Severe osteoarthritis of the hip	Musculoskeletal problems, lower limbs, severe	has severe pain in the leg, which makes the person limp and causes a lot of difficulty walking, standing, lifting and carrying heavy things, getting up and down, and sleeping.	0.165 (0.112–0.232)
Severe osteoarthritis of the knee	Musculoskeletal problems, lower limbs, severe	has severe pain in the leg, which makes the person limp and causes a lot of difficulty walking, standing, lifting and carrying heavy things, getting up and down, and sleeping.	0.165 (0.112–0.232)
Mild osteoarthritis of the knee	Musculoskeletal problems, lower limbs, mild	has pain in the leg, which causes some difficulty running, walking long distances, and getting up and down.	0.023 (0.013–0.037)
Moderate osteoarthritis of the hip	Musculoskeletal problems, lower limbs, moderate	has moderate pain in the leg, which makes the person limp, and causes some difficulty walking, standing, lifting and carrying heavy things, getting up and down and sleeping.	0.079 (0.054–0.11)
Mild osteoarthritis of the hip	Musculoskeletal problems, lower limbs, mild	has pain in the leg, which causes some difficulty running, walking long distances, and getting up and down.	0.023 (0.013–0.037)
Mild low back pain without leg pain	Low back pain, mild	has mild back pain, which causes some difficulty dressing, standing, and lifting things.	0.02 (0.011–0.035)
Moderate low back pain without leg pain	Low back pain, moderate	has moderate back pain, which causes difficulty dressing, sitting, standing, walking, and lifting things.	0.054 (0.035–0.079)
Most severe low back pain with leg pain	Back pain, most severe, with leg pain	has constant back and leg pain, which causes difficulty dressing, sitting, standing, walking, and lifting things. The person sleeps poorly, is worried, and has lost some enjoyment in life.	0.384 (0.256–0.518)
Most severe low back pain without leg pain	Back pain, most severe, without leg pain	has constant back pain, which causes difficulty dressing, sitting, standing, walking, and lifting things. The person sleeps poorly, is worried, and has lost some enjoyment in life.	0.372 (0.25–0.506)
Severe low back pain with leg pain	Back pain, severe, with leg pain	has severe back and leg pain, which causes difficulty dressing, sitting, standing, walking, and lifting things. The person sleeps poorly and feels worried.	0.325 (0.219–0.446)
Severe low back pain without leg pain	Back pain, severe, without leg pain	has severe back pain, which causes difficulty dressing, sitting, standing, walking, and lifting things. The person sleeps poorly and feels worried.	0.272 (0.182–0.373)
Mild low back pain with leg pain	Mild low back pain with leg pain	(combined DW)	0.02 (0.011–0.035)
Moderate low back pain with leg pain	Moderate low back pain with leg pain	(combined DW)	0.054 (0.035–0.079)
Severe neck pain	Neck pain, severe	has severe neck pain, and difficulty turning the head and lifting things. The person gets headaches and arm pain, sleeps poorly, and feels tired and worried.	0.229 (0.153–0.317)
Most severe neck pain	Neck pain, most severe	has constant neck pain and arm pain, and difficulty turning the head, holding arms up, and lifting things. The person gets headaches, sleeps poorly, and feels tired and worried.	0.304 (0.202–0.415)
Moderate neck pain	Neck pain, moderate	has constant neck pain, and has difficulty turning the head, holding arms up, and lifting things	0.114 (0.075–0.162)
Mild neck pain	Neck pain, mild	has neck pain, and has difficulty turning the head and lifting things.	0.053 (0.034–0.078)
Asymptomatic gout	Asymptomatic	--	--
Polyarticular gout	Musculoskeletal problems, generalized, severe	has severe, constant pain and deformity in most joints, causing difficulty moving around, getting up and down, eating, dressing, lifting, carrying and using the hands. The person often feels sadness, anxiety and extreme fatigue.	0.581 (0.403–0.739)
Symptomatic episodes of gout	Gout, acute	has severe pain and swelling in the leg, making it very difficult to get up and down, stand, walk, lift, and carry heavy things. The person has trouble sleeping because of the	0.295 (0.196–0.409)
Other musculoskeletal disorders severity level 5	Musculoskeletal problems, generalized, moderate	has pain and deformity in most joints, causing difficulty moving around, getting up and down, and using the hands for lifting and carrying. The person often feels fatigue.	0.317 (0.216–0.44)
Other musculoskeletal disorders severity level 4	Musculoskeletal problems, lower limbs, severe	has severe pain in the leg, which makes the person limp and causes a lot of difficulty walking, standing, lifting and carrying heavy things, getting up and down, and sleeping.	0.165 (0.112–0.232)
Other musculoskeletal disorders severity level 6	Musculoskeletal problems, generalized, severe	has severe, constant pain and deformity in most joints, causing difficulty moving around, getting up and down, eating, dressing, lifting, carrying and using the hands. The person often feels sadness, anxiety and extreme fatigue.	0.581 (0.403–0.739)
Asymptomatic other musculoskeletal disorders	Asymptomatic	--	--
Other musculoskeletal disorders severity level 3	Musculoskeletal problems, upper limbs, moderate	has moderate pain and stiffness in the arms and hands, which causes difficulty lifting, carrying, and holding things, and trouble sleeping because of the pain.	0.117 (0.08–0.163)
Other musculoskeletal disorders severity level 2	Musculoskeletal problems, upper limbs, mild	has mild pain and stiffness in the arms and hands. The person has some difficulty lifting, carrying and holding things.	0.028 (0.017–0.045)
Other musculoskeletal disorders severity level 1	Musculoskeletal problems, lower limbs, mild	has pain in the leg, which causes some difficulty running, walking long distances, and getting up and down.	0.023 (0.013–0.037)
Severe motor impairment, severe intellectual disability and incontinence due to spina bifida	Severe motor impairment with severe intellectual disability and incontinence	(combined DW)	0.564 (0.418–0.71)
Severe motor impairment, moderate intellectual disability and incontinence due to spina bifida	Severe motor impairment with moderate intellectual disability and incontinence	(combined DW)	0.534 (0.391–0.675)
Severe motor impairment, moderate intellectual disability and incontinence due to encephalocele	Severe motor impairment with moderate intellectual disability and incontinence	(combined DW)	0.534 (0.391–0.675)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe motor impairment, borderline intellectual disability and incontinence due to encephalocele	Severe motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.489 (0.353–0.632)
Severe motor impairment, profound intellectual disability and incontinence due to encephalocele	Severe motor impairment with severe intellectual disability and incontinence	(combined DW)	0.564 (0.418–0.71)
Severe motor impairment, mild intellectual disability and incontinence due to encephalocele	Severe motor impairment with mild intellectual disability and incontinence	(combined DW)	0.505 (0.367–0.647)
profound motor impairment, profound intellectual disability and incontinence due to spina bifida	Severe motor impairment with profound intellectual disability and incontinence	(combined DW)	0.584 (0.435–0.73)
Severe motor impairment and mild intellectual disability due to spina bifida	Severe motor impairment with mild intellectual disability	(combined DW)	0.427 (0.3–0.567)
Severe motor impairment and mild intellectual disability due to encephalocele	Severe motor impairment with mild intellectual disability	(combined DW)	0.427 (0.3–0.567)
Severe motor impairment, severe intellectual disability and incontinence due to encephalocele	Severe motor impairment with severe intellectual disability and incontinence	(combined DW)	0.564 (0.418–0.71)
Severe motor impairment, mild intellectual disability and incontinence due to spina bifida	Severe motor impairment with mild intellectual disability and incontinence	(combined DW)	0.505 (0.367–0.647)
Mild motor impairment and incontinence due to spina bifida	Mild motor impairment and urinary incontinence	(combined DW)	0.148 (0.1–0.207)
Mild motor impairment, severe intellectual disability and incontinence due to encephalocele	Mild motor impairment, severe intellectual functioning, and urinary incontinence	(combined DW)	0.284 (0.201–0.385)
Moderate motor impairment, severe intellectual disability and incontinence due to spina bifida	Moderate motor impairment, severe intellectual functioning, and urinary incontinence	(combined DW)	0.32 (0.228–0.429)
Moderate motor impairment, severe intellectual disability and incontinence due to encephalocele	Moderate motor impairment, severe intellectual functioning, and urinary incontinence	(combined DW)	0.32 (0.228–0.429)
Severe motor impairment and moderate intellectual disability due to spina bifida	Severe motor impairment with moderate intellectual disability	(combined DW)	0.461 (0.324–0.603)
Mild motor impairment and incontinence due to encephalocele	Mild motor impairment and urinary incontinence	(combined DW)	0.148 (0.1–0.207)
Moderate motor impairment and incontinence due to spina bifida	Moderate motor impairment and urinary incontinence	(combined DW)	0.191 (0.132–0.263)
Moderate motor impairment and incontinence due to encephalocele	Moderate motor impairment and urinary incontinence	(combined DW)	0.191 (0.132–0.263)
Mild motor impairment, profound intellectual disability and incontinence due to spina bifida	Mild motor impairment, profound intellectual functioning, and urinary incontinence	(combined DW)	0.318 (0.224–0.426)
Moderate motor impairment, profound intellectual disability and incontinence due to encephalocele	Mild motor impairment, profound intellectual functioning, and urinary incontinence	(combined DW)	0.318 (0.224–0.426)
Mild motor impairment and profound intellectual disability due to spina bifida	Mild motor impairment with profound intellectual disability	(combined DW)	0.208 (0.142–0.289)
Mild motor impairment, severe intellectual disability and incontinence due to spina bifida	Mild motor impairment, severe intellectual functioning, and urinary incontinence	(combined DW)	0.284 (0.201–0.385)
Severe motor impairment and moderate intellectual disability due to encephalocele	Severe motor impairment with moderate intellectual disability	(combined DW)	0.461 (0.324–0.603)
Severe motor impairment and profound intellectual disability due to spina bifida	Severe motor impairment with profound intellectual disability	(combined DW)	0.519 (0.37–0.668)
Severe motor impairment and severe intellectual disability due to encephalocele	Severe motor impairment with severe intellectual disability	(combined DW)	0.496 (0.355–0.641)
Severe motor impairment, borderline intellectual disability and incontinence due to spina bifida	Severe motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.489 (0.353–0.632)
Mild motor impairment, mild intellectual disability and incontinence due to encephalocele	Mild motor impairment, mild intellectual functioning, and urinary incontinence	(combined DW)	0.184 (0.128–0.253)
Moderate motor impairment, borderline intellectual disability and incontinence due to encephalocele	Moderate motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.2 (0.139–0.273)
Moderate motor impairment, borderline intellectual disability and incontinence due to spina bifida	Moderate motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.2 (0.139–0.273)
Mild motor impairment, borderline intellectual disability and incontinence due to encephalocele	Mild motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.157 (0.108–0.218)
Mild motor impairment, borderline intellectual disability and incontinence due to spina bifida	Mild motor impairment, borderline intellectual functioning, and urinary incontinence	(combined DW)	0.157 (0.108–0.218)
Moderate motor impairment and severe intellectual disability due to encephalocele	Moderate motor impairment and severe intellectual functioning	(combined DW)	0.211 (0.145–0.293)
Moderate motor impairment and severe intellectual disability due to spina bifida	Moderate motor impairment and severe intellectual functioning	(combined DW)	0.211 (0.145–0.293)
Moderate motor impairment, mild intellectual disability and incontinence due to spina bifida	Moderate motor impairment, mild intellectual functioning, and urinary incontinence	(combined DW)	0.272 (0.191–0.364)
Mild motor impairment and severe intellectual disability due to spina bifida	Mild motor impairment and severe intellectual functioning	(combined DW)	0.169 (0.113–0.237)
Mild motor impairment and moderate intellectual disability due to encephalocele	Mild motor impairment and moderate intellectual functioning	(combined DW)	0.109 (0.073–0.154)
Mild motor impairment and moderate intellectual disability due to spina bifida	Mild motor impairment and moderate intellectual functioning	(combined DW)	0.109 (0.073–0.154)
Moderate motor impairment and mild intellectual disability due to encephalocele	Moderate motor impairment and mild intellectual functioning	(combined DW)	0.101 (0.066–0.146)
Moderate motor impairment, mild intellectual disability and incontinence due to encephalocele	Moderate motor impairment, mild intellectual functioning, and urinary incontinence	(combined DW)	0.272 (0.191–0.364)
Mild motor impairment, moderate intellectual disability and incontinence due to spina bifida	Mild motor impairment, moderate intellectual functioning, and urinary incontinence	(combined DW)	0.233 (0.161–0.314)
Mild motor impairment, moderate intellectual disability and incontinence due to encephalocele	Mild motor impairment, moderate intellectual functioning, and urinary incontinence	(combined DW)	0.233 (0.161–0.314)
Moderate motor impairment and mild intellectual disability due to spina bifida	Moderate motor impairment and mild intellectual functioning	(combined DW)	0.101 (0.066–0.146)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Mild motor impairment, mild intellectual disability and incontinence due to spina bifida	Mild motor impairment, mild intellectual functioning, and urinary incontinence	(combined DW)	0.184 (0.128–0.253)
Borderline intellectual disability and incontinence due to encephalocele	Borderline intellectual functioning and urinary incontinence	(combined DW)	0.148 (0.101–0.206)
Moderate motor impairment, moderate intellectual disability and incontinence due to encephalocele	Moderate motor impairment, moderate intellectual functioning, and urinary incontinence	(combined DW)	0.272 (0.191–0.364)
Moderate motor impairment, moderate intellectual disability and incontinence due to spina bifida	Moderate motor impairment, moderate intellectual functioning, and urinary incontinence	(combined DW)	0.272 (0.191–0.364)
Mild intellectual disability and incontinence due to encephalocele	Mild intellectual disability and urinary incontinence	(combined DW)	0.176 (0.12–0.242)
Moderate intellectual disability and incontinence due to encephalocele	Moderate intellectual disability and urinary incontinence	(combined DW)	0.225 (0.156–0.304)
Severe motor impairment and severe intellectual disability due to spina bifida	Severe motor impairment with severe intellectual disability	(combined DW)	0.496 (0.355–0.641)
Severe intellectual disability and incontinence due to encephalocele	Severe intellectual disability and urinary incontinence	(combined DW)	0.276 (0.194–0.376)
Mild motor impairment and borderline intellectual disability due to spina bifida	Mild motor impairment and borderline intellectual functioning	(combined DW)	0.021 (0.01–0.039)
Mild motor impairment and borderline intellectual disability due to encephalocele	Mild motor impairment and borderline intellectual functioning	(combined DW)	0.021 (0.01–0.039)
Moderate motor impairment and borderline intellectual disability due to spina bifida	Moderate motor impairment and borderline intellectual functioning	(combined DW)	0.071 (0.045–0.106)
Moderate motor impairment and borderline intellectual disability due to encephalocele	Moderate motor impairment and borderline intellectual functioning	(combined DW)	0.071 (0.045–0.106)
Severe motor impairment and borderline intellectual disability due to spina bifida	Severe motor impairment and borderline intellectual functioning	(combined DW)	0.408 (0.279–0.55)
Severe motor impairment and borderline intellectual disability due to encephalocele	Severe motor impairment and borderline intellectual functioning	(combined DW)	0.408 (0.279–0.55)
Profound intellectual disability and incontinence due to encephalocele	Profound intellectual disability and urinary incontinence	(combined DW)	0.311 (0.217–0.418)
Mild motor impairment and severe intellectual disability due to encephalocele	Mild motor impairment and severe intellectual functioning	(combined DW)	0.169 (0.113–0.237)
Moderate motor impairment, profound intellectual disability and incontinence due to spina bifida	Moderate motor impairment with profound intellectual disability and incontinence	(combined DW)	0.352 (0.254–0.465)
Moderate intellectual disability due to encephalocele	Intellectual disability / mental retardation, moderate	has low intelligence, and is slow in learning to speak and to do even simple tasks. As an adult, the person requires a lot of support to live independently and raise children. The person can only work at the simplest supervised jobs.	0.1 (0.066–0.142)
Incontinence due to encephalocele	Urinary incontinence	cannot control urinating.	0.139 (0.094–0.198)
Moderate motor impairment due to spina bifida	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Moderate motor impairment due to encephalocele	Motor impairment, moderate	has some difficulty in moving around, and difficulty in lifting and holding objects, dressing and sitting upright, but is able to walk without help.	0.061 (0.04–0.089)
Borderline intellectual disability due to encephalocele	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Severe motor impairment and incontinence due to spina bifida	Severe motor impairment with incontinence	(combined DW)	--
Severe motor impairment and incontinence due to encephalocele	Severe motor impairment with incontinence	(combined DW)	--
Mild motor impairment and profound intellectual disability due to encephalocele	Severe motor impairment with incontinence	(combined DW)	--
Moderate motor impairment and profound intellectual disability due to encephalocele	Severe motor impairment with incontinence	(combined DW)	--
Severe motor and cognitive impairment due to anencephaly	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Severe motor impairment and profound intellectual disability due to encephalocele	Severe motor impairment with incontinence	(combined DW)	--
Mild intellectual disability due to encephalocele	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Moderate motor impairment and moderate intellectual disability due to encephalocele	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Mild motor impairment and mild intellectual disability due to encephalocele	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Mild motor impairment and mild intellectual disability due to spina bifida	Motor plus cognitive impairments, mild	has some difficulty in moving around but is able to walk without help. The person is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.031 (0.018–0.05)
Severe motor impairment due to encephalocele	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe motor impairment due to spina bifida	Motor impairment, severe	is unable to move around without help, and is not able to lift or hold objects, get dressed or sit upright.	0.402 (0.268–0.545)
Profound intellectual disability due to encephalocele	Intellectual disability / mental retardation, profound	has very low intelligence, has almost no language, and does not understand even the most basic requests or instructions. The person requires constant supervision and help for all activities.	0.2 (0.133–0.283)
Moderate motor impairment and profound intellectual disability due to spina bifida	Moderate motor impairment with profound intellectual disability	(combined DW)	0.249 (0.174–0.338)
Severe intellectual disability due to encephalocele	Intellectual disability / mental retardation, severe	has very low intelligence and cannot speak more than a few words, needs constant supervision and help with most daily activities, and can do only the simplest tasks.	0.16 (0.107–0.226)
Mild motor impairment, profound intellectual disability and incontinence due to encephalocele	Severe motor impairment with incontinence	(combined DW)	--
Mild motor impairment due to spina bifida	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Asymptomatic encephalocele following treatment	Asymptomatic	--	--
Mild motor impairment due to encephalocele	Motor impairment, mild	has some difficulty in moving around but is able to walk without help.	0.01 (0.005–0.019)
Moderate motor impairment and moderate intellectual disability due to spina bifida	Motor plus cognitive impairments, moderate	has some difficulty in moving around, holding objects, dressing and sitting upright, but can walk without help. The person has low intelligence and is slow in learning to speak and to do simple tasks.	0.203 (0.134–0.29)
Congenital heart disease, borderline intellectual disability and mild heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, borderline intellectual functioning, and mild heart failure	(combined DW)	0.052 (0.032–0.081)
Congenital heart disease, borderline intellectual disability and mild heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, borderline intellectual functioning, and mild heart failure	(combined DW)	0.052 (0.032–0.081)
Congenital heart disease, borderline intellectual disability and mild heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, borderline intellectual functioning, and mild heart failure	(combined DW)	0.052 (0.032–0.081)
Congenital heart disease, severe intellectual disability and moderate heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, severe intellectual disability, and moderate heart failure	(combined DW)	0.22 (0.151–0.302)
Congenital heart disease, borderline intellectual disability and moderate heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, borderline intellectual functioning, and moderate heart failure	(combined DW)	0.082 (0.053–0.12)
Congenital heart disease, borderline intellectual disability and moderate heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, borderline intellectual functioning, and moderate heart failure	(combined DW)	0.082 (0.053–0.12)
Congenital heart disease, borderline intellectual disability and moderate heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, borderline intellectual functioning, and moderate heart failure	(combined DW)	0.082 (0.053–0.12)
Congenital heart disease, borderline intellectual disability and mild heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, borderline intellectual functioning, and mild heart failure	(combined DW)	0.052 (0.032–0.081)
Congenital heart disease, borderline intellectual disability and severe heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, borderline intellectual functioning, and severe heart failure	(combined DW)	0.188 (0.13–0.258)
Congenital heart disease, borderline intellectual disability and severe heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, borderline intellectual functioning, and severe heart failure	(combined DW)	0.188 (0.13–0.258)
Congenital heart disease, borderline intellectual disability and severe heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, borderline intellectual functioning, and severe heart failure	(combined DW)	0.188 (0.13–0.258)
Congenital heart disease, mild intellectual disability and mild heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, mild intellectual disability, and mild heart failure	(combined DW)	0.082 (0.052–0.121)
Congenital heart disease, mild intellectual disability and mild heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, mild intellectual disability, and mild heart failure	(combined DW)	0.082 (0.052–0.121)
Congenital heart disease, borderline intellectual disability and moderate heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, borderline intellectual functioning, and moderate heart failure	(combined DW)	0.082 (0.053–0.12)
Congenital heart disease, borderline intellectual disability and severe heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, borderline intellectual functioning, and severe heart failure	(combined DW)	0.188 (0.13–0.258)
Congenital heart disease and severe heart failure without intellectual disability due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease and severe heart failure	(combined DW)	0.179 (0.122–0.251)
Congenital heart disease and severe heart failure without intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease and severe heart failure	(combined DW)	0.179 (0.122–0.251)
Congenital heart disease, severe intellectual disability and moderate heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, severe intellectual disability, and moderate heart failure	(combined DW)	0.22 (0.151–0.302)
Congenital heart disease, profound intellectual disability and severe heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, profound intellectual disability, and severe heart failure	(combined DW)	0.342 (0.239–0.457)
Congenital heart disease, profound intellectual disability and severe heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, profound intellectual disability, and severe heart failure	(combined DW)	0.342 (0.239–0.457)
Congenital heart disease, profound intellectual disability and severe heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, profound intellectual disability, and severe heart failure	(combined DW)	0.342 (0.239–0.457)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Congenital heart disease, mild intellectual disability and severe heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, mild intellectual disability, and severe heart failure	(combined DW)	0.214 (0.148–0.291)
Congenital heart disease without intellectual disability or heart failure due to other congenital cardiovascular anomalies	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease without intellectual disability or heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease and mild intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease and Intellectual disability / mental retardation, mild	(combined DW)	0.043 (0.026–0.064)
Congenital heart disease without heart failure or intellectual disability due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease without heart failure or intellectual disability due to ventricular septal defect and atrial septal defect	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease, moderate intellectual disability and mild heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, moderate intellectual disability, and mild heart failure	(combined DW)	0.137 (0.093–0.191)
Congenital heart disease and borderline intellectual disability without heart failure due to other congenital cardiovascular anomalies	Congenital heart disease and borderline intellectual functioning	(combined DW)	0.011 (0.005–0.02)
Congenital heart disease without intellectual disability or heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease and borderline intellectual disability without heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease and borderline intellectual functioning	(combined DW)	0.011 (0.005–0.02)
Congenital heart disease, moderate intellectual disability and moderate heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, moderate intellectual disability, and moderate heart failure	(combined DW)	0.164 (0.112–0.225)
Congenital heart disease, moderate intellectual disability and moderate heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, moderate intellectual disability, and moderate heart failure	(combined DW)	0.164 (0.112–0.225)
Congenital heart disease and borderline intellectual disability without heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease and borderline intellectual functioning	(combined DW)	0.011 (0.005–0.02)
Congenital heart disease, moderate intellectual disability and moderate heart failure due to single ventricle and single ventricle pathway heart defects	Congenital heart disease, moderate intellectual disability, and moderate heart failure	(combined DW)	0.164 (0.112–0.225)
Congenital heart disease, moderate intellectual disability and mild heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease, moderate intellectual disability, and mild heart failure	(combined DW)	0.137 (0.093–0.191)
Congenital heart disease, moderate intellectual disability and moderate heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, moderate intellectual disability, and moderate heart failure	(combined DW)	0.164 (0.112–0.225)
Congenital heart disease, moderate intellectual disability and mild heart failure due to severe congenital heart anomalies excluding single ventricle heart defects	Congenital heart disease, moderate intellectual disability, and mild heart failure	(combined DW)	0.137 (0.093–0.191)
Congenital heart disease and borderline intellectual disability without heart failure due to ventricular septal defect and atrial septal defect	Congenital heart disease and borderline intellectual functioning	(combined DW)	0.011 (0.005–0.02)
Congenital heart disease and borderline intellectual disability without heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease and borderline intellectual functioning	(combined DW)	0.011 (0.005–0.02)
Congenital heart disease, moderate intellectual disability and mild heart failure due to critical malformations of great vessels, congenital valvular heart disease and patent ductus arteriosus	Congenital heart disease, moderate intellectual disability, and mild heart failure	(combined DW)	0.137 (0.093–0.191)
Disfigurement level 2 and speech problems due to orofacial clefts	Speech problems with disfigurement level 2	(combined DW)	--
Asymptomatic orofacial clefts	Asymptomatic	--	--
Disfigurement level 2 due to orofacial clefts	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Disfigurement level 1 due to orofacial clefts	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Severe intellectual disability and moderate dementia due to Down syndrome	Moderate dementia, severe intellectual disability	(combined DW)	0.475 (0.34–0.614)
Profound intellectual disability and moderate dementia due to Down syndrome	Moderate dementia, profound intellectual disability	(combined DW)	0.499 (0.358–0.645)
Borderline intellectual disability and severe dementia due to Down syndrome	Severe dementia, borderline intellectual disability	(combined DW)	0.455 (0.316–0.597)
Mild intellectual disability and severe dementia due to Down syndrome	Severe dementia, mild intellectual disability	(combined DW)	0.472 (0.332–0.615)
Moderate intellectual disability and moderate dementia due to Down syndrome	Moderate dementia, moderate intellectual disability	(combined DW)	0.438 (0.311–0.576)
Severe intellectual disability and severe dementia due to Down syndrome	Severe dementia, severe intellectual disability	(combined DW)	0.535 (0.384–0.681)
Profound intellectual disability and severe dementia due to Down syndrome	Severe dementia, profound intellectual disability	(combined DW)	0.557 (0.401–0.703)
Severe intellectual disability due to Down syndrome	Intellectual disability / mental retardation, severe	has very low intelligence and cannot speak more than a few words, needs constant supervision and help with most daily activities, and can do only the simplest tasks.	0.16 (0.107–0.226)
Profound intellectual disability due to Down syndrome	Intellectual disability / mental retardation, profound	has very low intelligence, has almost no language, and does not understand even the most basic requests or instructions. The person requires constant supervision and help for all activities.	0.2 (0.133–0.283)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate intellectual disability and severe dementia due to Down syndrome	Severe dementia, moderate intellectual disability	(combined DW)	0.503 (0.355–0.646)
Mild intellectual disability and moderate dementia due to Down syndrome	Moderate dementia, mild intellectual disability	(combined DW)	0.403 (0.281–0.536)
Borderline intellectual disability and mild dementia due to Down syndrome	Mild dementia, borderline intellectual disability	(combined DW)	0.079 (0.051–0.115)
Severe intellectual disability, severe dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, severe dementia, severe intellectual disability	(combined DW)	0.535 (0.384–0.681)
Moderate intellectual disability with congenital heart disease due to Down syndrome	Moderate intellectual disability with congenital heart disease	(combined DW)	0.1 (0.066–0.142)
Severe intellectual disability with congenital heart disease due to Down syndrome	Severe intellectual disability with congenital heart disease	(combined DW)	0.16 (0.107–0.226)
Moderate intellectual disability, mild dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, mild dementia, moderate intellectual disability	(combined DW)	0.162 (0.11–0.222)
Profound intellectual disability with congenital heart disease due to Down syndrome	Profound intellectual disability with congenital heart disease	(combined DW)	0.2 (0.133–0.283)
Borderline intellectual disability due to Down syndrome	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Moderate intellectual disability, severe dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, severe dementia, moderate intellectual disability	(combined DW)	0.503 (0.355–0.646)
Mild intellectual disability due to Down syndrome	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Moderate intellectual disability due to Down syndrome	Intellectual disability / mental retardation, moderate	has low intelligence, and is slow in learning to speak and to do even simple tasks. As an adult, the person requires a lot of support to live independently and raise children. The person can only work at the simplest supervised jobs.	0.1 (0.066–0.142)
Congenital heart disease and mild dementia due to Down syndrome	Congenital heart disease and mild dementia	(combined DW)	0.069 (0.046–0.099)
Congenital heart disease and moderate dementia due to Down syndrome	Congenital heart disease and moderate dementia	(combined DW)	0.377 (0.252–0.508)
Mild intellectual disability, severe dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, severe dementia, mild intellectual disability	(combined DW)	0.472 (0.332–0.615)
Borderline intellectual disability, severe dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, severe dementia, borderline intellectual disability	(combined DW)	0.455 (0.316–0.597)
Congenital heart disease and severe dementia due to Down syndrome	Congenital heart disease and severe dementia	(combined DW)	0.449 (0.304–0.595)
Profound intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, moderate dementia, profound intellectual disability	(combined DW)	0.499 (0.358–0.645)
Severe intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, moderate dementia, severe intellectual disability	(combined DW)	0.475 (0.34–0.614)
Borderline intellectual disability, mild dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, mild dementia, borderline intellectual disability	(combined DW)	0.079 (0.051–0.115)
Moderate intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, moderate dementia, moderate intellectual disability	(combined DW)	0.438 (0.311–0.576)
Mild intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, moderate dementia, mild intellectual disability	(combined DW)	0.403 (0.281–0.536)
Mild intellectual disability, mild dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, mild dementia, mild intellectual disability	(combined DW)	0.109 (0.071–0.159)
Borderline intellectual disability, moderate dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, moderate dementia, borderline intellectual disability	(combined DW)	0.384 (0.262–0.517)
Profound intellectual disability, mild dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, mild dementia, profound intellectual disability	(combined DW)	0.255 (0.178–0.346)
Mild intellectual disability with congenital heart disease due to Down syndrome	Mild intellectual disability with congenital heart disease	(combined DW)	0.043 (0.026–0.064)
Borderline intellectual disability with congenital heart disease due to Down syndrome	Borderline intellectual disability with congenital heart disease	(combined DW)	0.011 (0.005–0.02)
Severe intellectual disability, mild dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, mild dementia, severe intellectual disability	(combined DW)	0.218 (0.149–0.299)
Borderline intellectual disability and moderate dementia due to Down syndrome	Moderate dementia, borderline intellectual disability	(combined DW)	0.384 (0.262–0.517)
Isolated congenital heart disease due to Down syndrome	Congenital heart disease	(custom DW from MEPS)	--
Asymptomatic Down syndrome	Asymptomatic	--	--
Profound intellectual disability, severe dementia, and congenital heart disease due to Down syndrome	Congenital heart disease, severe dementia, profound intellectual disability	(combined DW)	0.557 (0.401–0.703)
Profound intellectual disability and mild dementia due to Down syndrome	Mild dementia, profound intellectual disability	(combined DW)	0.255 (0.178–0.346)
Severe intellectual disability and mild dementia due to Down syndrome	Mild dementia, severe intellectual disability	(combined DW)	0.218 (0.149–0.299)
Severe dementia due to Down syndrome	Dementia, severe	has complete memory loss; no longer recognizes close family members; and requires help with all daily activities.	0.449 (0.304–0.595)
Mild dementia due to Down syndrome	Dementia, mild	has some trouble remembering recent events, and finds it hard to concentrate and make decisions and plans.	0.069 (0.046–0.099)
Moderate intellectual disability and mild dementia due to Down syndrome	Mild dementia, moderate intellectual disability	(combined DW)	0.162 (0.11–0.222)
Mild intellectual disability and mild dementia due to Down syndrome	Mild dementia, mild intellectual disability	(combined DW)	0.109 (0.071–0.159)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Moderate dementia due to Down syndrome	Dementia, moderate	has memory problems and confusion, feels disoriented, at times hears voices that are not real, and needs help with some daily activities.	0.377 (0.252–0.508)
Congenital heart disease due to Turner syndrome	Congenital heart disease	(custom DW from MEPS)	--
Congenital heart disease with infertility due to Turner syndrome	Congenital heart disease with primary infertility	(combined DW)	--
Primary infertility due to Turner syndrome	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Asymptomatic Turner syndrome	Asymptomatic	--	--
Mild intellectual disability due to Klinefelter syndrome	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Mild intellectual disability with infertility due to Klinefelter syndrome	Mild intellectual disability with primary infertility	(combined DW)	--
Asymptomatic Klinefelter syndrome	Asymptomatic	--	--
Borderline intellectual disability due to Klinefelter syndrome	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Primary infertility due to Klinefelter syndrome	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Borderline intellectual disability with infertility due to Klinefelter syndrome	Borderline intellectual disability with primary infertility	(combined DW)	--
Borderline intellectual disability with congenital heart disease due to other chromosomal abnormalities	Borderline intellectual disability with congenital heart disease	(combined DW)	0.011 (0.005–0.02)
Mild intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, mild dementia, mild intellectual disability	(combined DW)	0.109 (0.071–0.159)
Asymptomatic other chromosomal abnormalities	Asymptomatic	--	--
Mild intellectual disability with congenital heart disease due to other chromosomal abnormalities	Mild intellectual disability with congenital heart disease	(combined DW)	0.043 (0.026–0.064)
Borderline intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, mild dementia, borderline intellectual disability	(combined DW)	0.079 (0.051–0.115)
Moderate intellectual disability with congenital heart disease due to other chromosomal abnormalities	Moderate intellectual disability with congenital heart disease	(combined DW)	0.1 (0.066–0.142)
Isolated congenital heart disease due to other chromosomal abnormalities	Congenital heart disease	(custom DW from MEPS)	--
Severe dementia due to other chromosomal abnormalities	Dementia, severe	has complete memory loss; no longer recognizes close family members; and requires help with all daily activities.	0.449 (0.304–0.595)
Borderline intellectual disability due to other chromosomal abnormalities	Borderline intellectual functioning	is slow in learning at school. As an adult, the person has some difficulty doing complex or unfamiliar tasks but otherwise functions independently.	0.011 (0.005–0.02)
Severe intellectual disability with congenital heart disease due to other chromosomal abnormalities	Severe intellectual disability with congenital heart disease	(combined DW)	0.16 (0.107–0.226)
Congenital heart disease and moderate dementia due to other chromosomal abnormalities	Congenital heart disease and moderate dementia	(combined DW)	0.377 (0.252–0.508)
Profound intellectual disability with congenital heart disease due to other chromosomal abnormalities	Profound intellectual disability with congenital heart disease	(combined DW)	0.2 (0.133–0.283)
Mild dementia due to other chromosomal abnormalities	Dementia, mild	has some trouble remembering recent events, and finds it hard to concentrate and make decisions and plans.	0.069 (0.046–0.099)
Congenital heart disease and mild dementia due to other chromosomal abnormalities	Congenital heart disease and mild dementia	(combined DW)	0.069 (0.046–0.099)
Severe motor and cognitive impairment due to Edward Syndrome or Patau Syndrome	Motor plus cognitive impairments, severe	cannot move around without help, and cannot lift or hold objects, get dressed or sit upright. The person also has very low intelligence, speaks few words, and needs constant supervision and help with all daily activities.	0.542 (0.374–0.702)
Mild intellectual disability due to other chromosomal abnormalities	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)
Moderate dementia due to other chromosomal abnormalities	Dementia, moderate	has memory problems and confusion, feels disoriented, at times hears voices that are not real, and needs help with some daily activities.	0.377 (0.252–0.508)
Congenital heart disease and severe dementia due to other chromosomal abnormalities	Congenital heart disease and severe dementia	(combined DW)	0.449 (0.304–0.595)
Moderate intellectual disability due to other chromosomal abnormalities	Intellectual disability / mental retardation, moderate	has low intelligence, and is slow in learning to speak and to do even simple tasks. As an adult, the person requires a lot of support to live independently and raise children. The person can only work at the simplest supervised jobs.	0.1 (0.066–0.142)
Mild intellectual disability and moderate dementia due to other chromosomal abnormalities	Moderate dementia, mild intellectual disability	(combined DW)	0.403 (0.281–0.536)
Severe intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, mild dementia, severe intellectual disability	(combined DW)	0.218 (0.149–0.299)
Severe intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, severe dementia, severe intellectual disability	(combined DW)	0.535 (0.384–0.681)
Severe intellectual disability due to other chromosomal abnormalities	Intellectual disability / mental retardation, severe	has very low intelligence and cannot speak more than a few words, needs constant supervision and help with most daily activities, and can do only the simplest tasks.	0.16 (0.107–0.226)
Profound intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, severe dementia, profound intellectual disability	(combined DW)	0.557 (0.401–0.703)
Borderline intellectual disability and mild dementia due to other chromosomal abnormalities	Mild dementia, borderline intellectual disability	(combined DW)	0.079 (0.051–0.115)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Profound intellectual disability and severe dementia due to other chromosomal abnormalities	Severe dementia, profound intellectual disability	(combined DW)	0.557 (0.401–0.703)
Mild intellectual disability and mild dementia due to other chromosomal abnormalities	Mild dementia, mild intellectual disability	(combined DW)	0.109 (0.071–0.159)
Severe intellectual disability and severe dementia due to other chromosomal abnormalities	Severe dementia, severe intellectual disability	(combined DW)	0.535 (0.384–0.681)
Moderate intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, mild dementia, moderate intellectual disability	(combined DW)	0.162 (0.11–0.222)
Moderate intellectual disability and severe dementia due to other chromosomal abnormalities	Severe dementia, moderate intellectual disability	(combined DW)	0.503 (0.355–0.646)
Mild intellectual disability and severe dementia due to other chromosomal abnormalities	Severe dementia, mild intellectual disability	(combined DW)	0.472 (0.332–0.615)
Borderline intellectual disability and severe dementia due to other chromosomal abnormalities	Severe dementia, borderline intellectual disability	(combined DW)	0.455 (0.316–0.597)
Severe intellectual disability and mild dementia due to other chromosomal abnormalities	Mild dementia, severe intellectual disability	(combined DW)	0.218 (0.149–0.299)
Profound intellectual disability and moderate dementia due to other chromosomal abnormalities	Moderate dementia, profound intellectual disability	(combined DW)	0.499 (0.358–0.645)
Severe intellectual disability and moderate dementia due to other chromosomal abnormalities	Moderate dementia, severe intellectual disability	(combined DW)	0.475 (0.34–0.614)
Profound intellectual disability and mild dementia due to other chromosomal abnormalities	Mild dementia, profound intellectual disability	(combined DW)	0.255 (0.178–0.346)
Moderate intellectual disability and moderate dementia due to other chromosomal abnormalities	Moderate dementia, moderate intellectual disability	(combined DW)	0.438 (0.311–0.576)
Moderate intellectual disability and mild dementia due to other chromosomal abnormalities	Mild dementia, moderate intellectual disability	(combined DW)	0.162 (0.11–0.222)
Moderate intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, severe dementia, moderate intellectual disability	(combined DW)	0.503 (0.355–0.646)
Borderline intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, moderate dementia, borderline intellectual disability	(combined DW)	0.384 (0.262–0.517)
Profound intellectual disability, mild dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, mild dementia, profound intellectual disability	(combined DW)	0.255 (0.178–0.346)
Borderline intellectual disability and moderate dementia due to other chromosomal abnormalities	Moderate dementia, borderline intellectual disability	(combined DW)	0.384 (0.262–0.517)
Mild intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, moderate dementia, mild intellectual disability	(combined DW)	0.403 (0.281–0.536)
Moderate intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, moderate dementia, moderate intellectual disability	(combined DW)	0.438 (0.311–0.576)
Severe intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, moderate dementia, severe intellectual disability	(combined DW)	0.475 (0.34–0.614)
Severe motor and cognitive impairment with congenital heart disease due to Edward Syndrome or Patau Syndrome	Severe motor plus cognitive impairments and congenital heart disease	(combined DW)	0.542 (0.374–0.702)
Profound intellectual disability, moderate dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, moderate dementia, profound intellectual disability	(combined DW)	0.499 (0.358–0.645)
Borderline intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, severe dementia, borderline intellectual disability	(combined DW)	0.455 (0.316–0.597)
Mild intellectual disability, severe dementia, and congenital heart disease due to other chromosomal abnormalities	Congenital heart disease, severe dementia, mild intellectual disability	(combined DW)	0.472 (0.332–0.615)
Profound intellectual disability due to other chromosomal abnormalities	Intellectual disability / mental retardation, profound	has very low intelligence, has almost no language, and does not understand even the most basic requests or instructions. The person requires constant supervision and help for all activities.	0.2 (0.133–0.283)
Disfigurement level 2 with pain due to other congenital musculoskeletal anomalies	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Disfigurement level 2 and mild motor impairment due to congenital limb deficiency	Level 2 disfigurement with mild motor impairment	(combined DW)	0.076 (0.051–0.112)
Disfigurement level 1 due to polydactyly and syndactyly	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Disfigurement level 2 and moderate motor impairment due to other congenital musculoskeletal anomalies	Level 2 disfigurement with moderate motor impairment	(combined DW)	0.124 (0.083–0.175)
Disfigurement level 2 with pain due to congenital limb deficiency	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Disfigurement level 2 due to other congenital musculoskeletal anomalies	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Disfigurement level 2 due to congenital limb deficiency	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Disfigurement level 2 with pain and moderate motor impairment due to other congenital musculoskeletal anomalies	Level 2 disfigurement with itch/pain and moderate motor impairment	(combined DW)	0.237 (0.163–0.324)
Disfigurement level 2 with pain and mild motor impairment due to other congenital musculoskeletal anomalies	Level 2 disfigurement with itch/pain and mild motor impairment	(combined DW)	0.196 (0.132–0.275)
Disfigurement level 2 with pain and mild motor impairment due to congenital limb deficiency	Level 2 disfigurement with itch/pain and mild motor impairment	(combined DW)	0.196 (0.132–0.275)
Disfigurement level 2 and mild motor impairment due to other congenital musculoskeletal anomalies	Level 2 disfigurement with mild motor impairment	(combined DW)	0.076 (0.051–0.112)
Disfigurement level 2 with pain and moderate motor impairment due to congenital limb deficiency	Level 2 disfigurement with itch/pain and moderate motor impairment	(combined DW)	0.237 (0.163–0.324)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Disfigurement level 2 and moderate motor impairment due to congenital limb deficiency	Level 2 disfigurement with moderate motor impairment	(combined DW)	0.124 (0.083–0.175)
Incontinence and impotence due to congenital anomalies of the urinary tract	urinary incontinence and impotence	(combined DW)	0.154 (0.105–0.214)
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and incontinence due to congenital anomalies of the urinary tract	Mild abdominopelvic problem, urinary incontinence, and level 1 disfigurement	(combined DW)	0.158 (0.108–0.218)
Atypical genitalia due to congenital genital anomalies	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Atypical genitalia, incontinence and impotence due to congenital anomalies of the urinary tract	Mild abdominopelvic problem, urinary incontinence, and level 1 disfigurement	(combined DW)	0.158 (0.108–0.218)
Atypical genitalia due to congenital anomalies of the urinary tract	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Incontinence, impotence, and recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract	Mild abdominopelvic problem, urinary incontinence, and impotence	(combined DW)	0.163 (0.112–0.225)
Recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Incontinence and recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract	Level 1 disfigurement and urinary incontinence	(combined DW)	0.149 (0.101–0.206)
Atypical genitalia, incontinence, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital anomalies of the urinary tract	Mild abdominopelvic problem, urinary incontinence, impotence, and level 1 disfigurement	(combined DW)	0.172 (0.118–0.239)
Primary infertility and recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies	Mild abdominal pain and primary infertility	(combined DW)	--
Asymptomatic congenital genital anomalies	Asymptomatic	--	--
Impotence due to congenital anomalies of the urinary tract	Impotence	has difficulty in obtaining or maintaining an erection.	0.017 (0.009–0.03)
Impotence due to congenital genital anomalies	Impotence	has difficulty in obtaining or maintaining an erection.	0.017 (0.009–0.03)
Incontinence due to congenital anomalies of the urinary tract	Urinary incontinence	cannot control urinating.	0.139 (0.094–0.198)
Asymptomatic congenital anomalies of the urinary tract	Asymptomatic	--	--
Atypical genitalia, infertility, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies	Mild abdominopelvic problem, primary infertility, impotence, and level 1 disfigurement	(combined DW)	0.046 (0.023–0.083)
Infertility, impotence, and recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies	Mild abdominopelvic problem, primary infertility, and impotence	(combined DW)	0.035 (0.018–0.064)
Impotence and recurrent urinary tract infections or other abdominal issues due to congenital genital anomalies	Mild abdominopelvic problem and impotence	(combined DW)	0.028 (0.014–0.05)
Impotence and recurrent urinary tract infections or other abdominal issues due to congenital anomalies of the urinary tract	Mild abdominopelvic problem and impotence	(combined DW)	0.028 (0.014–0.05)
Primary infertility due to congenital genital anomalies	Infertility, primary	wants to have a child and has a fertile partner, but the couple cannot conceive.	0.008 (0.003–0.015)
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and infertility due to congenital genital anomalies	Mild abdominopelvic problem, level 1 disfigurement and primary infertility	(combined DW)	0.029 (0.014–0.055)
Atypical genitalia, infertility and impotence due to congenital genital anomalies	Mild abdominopelvic problem, level 1 disfigurement and primary infertility	(combined DW)	0.029 (0.014–0.055)
Atypical genitalia and primary infertility due to congenital genital anomalies	Disfigurement level 1 and primary infertility	(combined DW)	--
Atypical genitalia and impotence due to congenital anomalies of the urinary tract	Level 1 disfigurement and impotence	(combined DW)	0.028 (0.014–0.05)
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and impotence due to congenital genital anomalies	Mild abdominopelvic problem, level 1 disfigurement and impotence	(combined DW)	0.039 (0.02–0.07)
Atypical genitalia, recurrent urinary tract infections or other abdominal issues and impotence due to congenital anomalies of the urinary tract	Mild abdominopelvic problem, level 1 disfigurement and impotence	(combined DW)	0.039 (0.02–0.07)
Infertility and impotence due to congenital genital anomalies	Primary infertility and impotence	(combined DW)	0.025 (0.012–0.045)
Atypical genital and recurrent urinary tract infections and other abdominal issues due to congenital genital anomalies	Mild abdominopelvic problem and level 1 disfigurement	(combined DW)	0.022 (0.011–0.041)
Atypical genital and recurrent urinary tract infections and other abdominal issues due to congenital anomalies of the urinary tract	Mild abdominopelvic problem and level 1 disfigurement	(combined DW)	0.022 (0.011–0.041)
Atypical genitalia and incontinence due to congenital anomalies of the urinary tract	Mild abdominopelvic problem and level 1 disfigurement	(combined DW)	0.022 (0.011–0.041)
Atypical genitalia and impotence due to congenital genital anomalies	Level 1 disfigurement and impotence	(combined DW)	0.028 (0.014–0.05)
Chronic abdominal pain and mild chronic respiratory problems due to congenital diaphragmatic hernia	Mild abdominopelvic problem and mild COPD and other chronic respiratory problems	(combined DW)	0.03 (0.016–0.053)
Chronic abdominal pain and disfigurement due to congenital diaphragmatic hernia	Level 1 disfigurement with itch/pain and mild abdominopelvic problem	(combined DW)	0.037 (0.02–0.062)
Disfigurement from scars following treatment for congenital malformations of the abdominal wall	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Chronic abdominal pain due to congenital atresia and/or stenosis of the digestive tract	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Developmental delay or mild intellectual disability due to congenital diaphragmatic hernia	Intellectual disability / mental retardation, mild	has low intelligence and is slow in learning at school. As an adult, the person can live independently, but often needs help to raise children and can only work at simple supervised jobs.	0.043 (0.026–0.064)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights			
Sequela	Health state name	Health state lay description	Disability weight
Chronic abdominal pain and/or nausea due to other congenital malformations of the digestive tract	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Chronic abdominal pain and/or nausea with acid reflux, dysphagia, and/or constipation due to other congenital malformations of the digestive tract	Mild abdominopelvic problem and moderate abdominopelvic problem	(combined DW)	0.124 (0.085–0.171)
Disfigurement due to congenital diaphragmatic hernia	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Constipation due to congenital malformations of the abdominal wall	Abdominopelvic problem, moderate	has pain in the belly and feels nauseous. The person has difficulties with daily activities.	0.114 (0.078–0.159)
Chronic respiratory problems including difficulty breaking and recurrent upper respiratory infections due to atresia and/or stenosis of the digestive tract	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Constipation and chronic abdominal pain due to congenital malformations of the abdominal wall	Mild abdominopelvic problem and moderate abdominopelvic problem	(combined DW)	0.124 (0.085–0.171)
Asymptomatic congenital diaphragmatic hernia	Asymptomatic	--	--
Asymptomatic congenital atresia and/or stenosis of the digestive tract	Asymptomatic	--	--
Asymptomatic congenital malformations of the abdominal wall after treatment	Asymptomatic	--	--
Asymptomatic other congenital malformations of the digestive tract	Asymptomatic	--	--
Chronic respiratory problems and dysphagia or acid reflux due to congenital atresia and/or stenosis of the digestive tract	Mild abdominopelvic problem and mild COPD and other chronic respiratory problems	(combined DW)	0.03 (0.016–0.053)
Acid reflux, dysphagia, and/or constipation due to other congenital malformations of the digestive tract	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Chronic abdominal pain due to congenital malformations of the abdominal wall	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Dysphagia or acid reflux due to congenital atresia and/or stenosis of the digestive tract	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Chronic abdominal pain due to congenital diaphragmatic hernia	Abdominopelvic problem, mild	has some pain in the belly that causes nausea but does not interfere with daily activities.	0.011 (0.005–0.021)
Mild chronic respiratory problems and breathlessness due to congenital diaphragmatic hernia	COPD and other chronic respiratory problems, mild	has cough and shortness of breath after heavy physical activity, but is able to walk long distances and climb stairs.	0.019 (0.011–0.033)
Chronic respiratory problems and abdominal pain due to congenital atresia and/or stenosis of the digestive tract	Mild abdominopelvic problem and mild COPD and other chronic respiratory problems	(combined DW)	0.03 (0.016–0.053)
Dysphagia or acid reflux and chronic abdominal pain due to congenital atresia and/or stenosis of the digestive tract	Mild abdominopelvic problem and moderate abdominopelvic problem	(combined DW)	0.124 (0.085–0.171)
Chronic abdominal pain and developmental delay due to congenital diaphragmatic hernia	Mild abdominopelvic problem and mild intellectual disability	(combined DW)	0.053 (0.032–0.083)
Constipation and concern about scars due to congenital malformations of the abdominal wall	Mild abdominopelvic problem and level 1 disfigurement	(combined DW)	0.022 (0.011–0.041)
Disfigurement and mild chronic respiratory problems due to congenital diaphragmatic hernia	Level 1 disfigurement with itch/pain and mild COPD and other chronic respiratory problems	(combined DW)	0.045 (0.026–0.073)
Chronic abdominal pain, disfigurement, developmental delay and chronic respiratory problems due to congenital diaphragmatic hernia	Mild abdominopelvic problem, mild COPD and other chronic respiratory problems, mild intellectual disability, and level 1 disfigurement	(combined DW)	0.096 (0.057–0.148)
Disfigurement, chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia	Mild COPD and other chronic respiratory problems, mild intellectual disability, and level 1 disfigurement with itch/pain	(combined DW)	0.086 (0.052–0.131)
Chronic abdominal pain, disfigurement and developmental delay due to congenital diaphragmatic hernia	Mild abdominopelvic problem, mild intellectual disability, and level 1 disfigurement with itch/pain	(combined DW)	0.078 (0.046–0.12)
Chronic abdominal pain, chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia	Mild abdominopelvic problem, mild COPD and other chronic respiratory problems, and level 1 disfigurement with itch/pain	(combined DW)	0.056 (0.031–0.092)
Chronic abdominal pain and concern about scars due to congenital malformations of the abdominal wall	Moderate abdominopelvic problem and level 1 disfigurement	(combined DW)	0.124 (0.085–0.172)
Chronic abdominal pain, disfigurement and chronic respiratory problems due to congenital diaphragmatic hernia	Mild abdominopelvic problem, mild COPD and other chronic respiratory problems, and level 1 disfigurement with itch/pain	(combined DW)	0.056 (0.031–0.092)
Constipation, chronic abdominal pain and concern about scars due to congenital malformations of the abdominal wall	Mild abdominopelvic problem, moderate abdominopelvic problem, and level 1 disfigurement	(combined DW)	0.206 (0.143–0.283)
Dysphagia or acid reflux, chronic abdominal pain and chronic respiratory problems due to congenital atresia and/or stenosis of the digestive tract	Mild abdominopelvic problem, moderate abdominopelvic problem, and mild COPD and other chronic respiratory problems	(combined DW)	0.141 (0.096–0.198)
Disfigurement and developmental delay due to congenital diaphragmatic hernia	Level 1 disfigurement with itch/pain and mild intellectual disability	(combined DW)	0.068 (0.041–0.102)
Mild chronic respiratory problems and developmental delay due to congenital diaphragmatic hernia	Mild intellectual disability and mild COPD and other chronic respiratory problem	(combined DW)	0.061 (0.037–0.093)
Moderate hearing loss with ringing due to other congenital anomalies	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Moderately severe hearing loss due to other congenital anomalies	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Mild hearing loss with ringing due to other congenital anomalies	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Severe hearing loss due to other congenital anomalies	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Moderate hearing loss due to other congenital anomalies	Hearing loss, moderate	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.027 (0.015–0.042)
Severe hearing loss with ringing due to other congenital anomalies	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.261 (0.175–0.36)
Mild hearing loss due to other congenital anomalies	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street).	0.01 (0.004–0.019)
Complete hearing loss with ringing due to other congenital anomalies	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)
Complete hearing loss due to other congenital anomalies	Hearing loss, complete	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.215 (0.144–0.307)
Profound hearing loss due to other congenital anomalies	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.204 (0.134–0.288)
Moderately severe hearing loss with ringing due to other congenital anomalies	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--
Other congenital birth defects	Post-COMO calculation for residuals (YLL/YLD ratio, other methods)	--	--
Profound hearing loss with ringing due to other congenital anomalies	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.277 (0.182–0.387)
Symptomatic seborrheic dermatitis	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Asymptomatic contact dermatitis	Asymptomatic	--	--
Asymptomatic seborrheic dermatitis	Asymptomatic	--	--
Severe atopic dermatitis	Disfigurement, level 3, with itch/pain	has an obvious physical deformity that is very painful and itchy. The physical deformity makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.576 (0.401–0.731)
Mild contact dermatitis	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Moderate contact dermatitis	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Mild atopic dermatitis	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Moderate atopic dermatitis	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Mild psoriasis	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Moderate psoriasis	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Severe psoriasis	Disfigurement, level 3, with itch/pain	has an obvious physical deformity that is very painful and itchy. The physical deformity makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.576 (0.401–0.731)
Moderate cellulitis	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)
Mild cellulitis	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Severe cellulitis	Infectious disease, acute episode, severe	has a high fever and pain, and feels very weak, which causes great difficulty with daily activities.	0.133 (0.088–0.19)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Abscess and other bacterial skin diseases	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Impetigo	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Scabies	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Other fungal skin diseases	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Tinea capitis	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Mild viral warts	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Severe molluscum contagiosum	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Severe viral warts	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Mild molluscum contagiosum	Infectious disease, acute episode, mild	has a low fever and mild discomfort , but no difficulty with daily activities.	0.006 (0.002–0.012)
Mild acne vulgaris	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Moderate acne vulgaris	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Severe acne vulgaris	Disfigurement, level 3	has an obvious physical deformity that makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.405 (0.275–0.546)
Severe alopecia areata	Disfigurement, level 2	has a visible physical deformity that causes others to stare and comment. As a result, the person is worried and has trouble sleeping and concentrating.	0.067 (0.044–0.096)
Mild alopecia areata	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Pruritus	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Severe urticaria	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Mild urticaria	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Moderate decubitus ulcer	Disfigurement, level 2, with itch/pain	has a visible physical deformity that is sore and itchy. Other people stare and comment, which causes the person to worry. The person has trouble sleeping and concentrating.	0.188 (0.125–0.267)
Severe decubitus ulcer	Disfigurement, level 3, with itch/pain	has an obvious physical deformity that is very painful and itchy. The physical deformity makes others uncomfortable, which causes the person to avoid social contact, feel worried, sleep poorly, and think about suicide.	0.576 (0.401–0.731)
Mild decubitus ulcer	Disfigurement, level 1 with itch/pain	has a slight, visible physical deformity that is sometimes sore or itchy. Others notice the deformity, which causes some worry and discomfort.	0.027 (0.015–0.042)
Symptomatic other skin and subcutaneous diseases	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Asymptomatic other skin and subcutaneous diseases	Asymptomatic	--	--
Blindness due to glaucoma	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment due to glaucoma	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to glaucoma	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Severe vision impairment due to cataract	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Blindness due to cataract	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Moderate vision impairment due to cataract	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Blindness due to macular degeneration	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment due to macular degeneration	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to macular degeneration	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Near vision impairment	Presbyopia	has difficulty seeing things that are nearer than 3 feet, but has no difficulty with seeing things at a distance.	0.011 (0.005–0.02)
Blindness due to uncorrected refractive error	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment due to uncorrected refractive error	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to uncorrected refractive error	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Mild hearing loss due to age-related and other hearing loss	Hearing loss, mild	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street). cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.01 (0.004–0.019)
Complete hearing loss due to age-related and other hearing loss	Hearing loss, complete	is unable to hear and understand another person talking in a noisy place (for example, on an urban street), and has difficulty hearing another person talking even in a quiet place or on the phone.	0.215 (0.144–0.307)
Moderate hearing loss due to age-related and other hearing loss	Hearing loss, moderate	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression, and loneliness.	0.027 (0.015–0.042)
Moderate hearing loss with ringing due to age-related and other hearing loss	Hearing loss, moderate, with ringing	is unable to hear and understand another person talking, even in a quiet place, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday.	0.074 (0.049–0.107)
Profound hearing loss due to age-related and other hearing loss	Hearing loss, profound	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.204 (0.134–0.288)
Severe hearing loss due to age-related and other hearing loss	Hearing loss, severe	is unable to hear and understand another person talking, even in a quiet place, and unable to take part in a phone conversation, and has annoying ringing in the ears for more than 5 minutes at a time, almost everyday. Difficulties with communicating and relating to others cause emotional impact at times (for example worry or depression).	0.158 (0.105–0.227)
Severe hearing loss with ringing due to age-related and other hearing loss	Hearing loss, severe, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, and has great difficulty hearing anything in any other situation. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.261 (0.175–0.36)
Mild hearing loss with ringing due to age-related and other hearing loss	Hearing loss, mild, with ringing	has great difficulty hearing and understanding another person talking in a noisy place (for example, on an urban street), and sometimes has annoying ringing in the ears.	0.021 (0.012–0.036)
Profound hearing loss with ringing due to age-related and other hearing loss	Hearing loss, profound, with ringing	is unable to hear and understand another person talking, even in a quiet place, is unable to take part in a phone conversation, has great difficulty hearing anything in any other situation, and has annoying ringing in the ears for more than 5 minutes at a time, several times a day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.277 (0.182–0.387)
Moderately severe hearing loss with ringing due to age-related and other hearing loss	Hearing loss, moderately severe, with ringing	(custom DW from hearing loss impairment envelope)	--
Moderately severe hearing loss due to age-related and other hearing loss	Hearing loss, moderately severe	(custom DW from hearing loss impairment envelope)	--
Complete hearing loss with ringing due to age-related and other hearing loss	Hearing loss, complete, with ringing	cannot hear at all in any situation, including even the loudest sounds, and cannot communicate verbally or use a phone, and has very annoying ringing in the ears for more than half of the day. Difficulties with communicating and relating to others often cause worry, depression or loneliness.	0.316 (0.212–0.435)
Blindness due to other vision loss	Distance vision blindness	is completely blind, which causes great difficulty in some daily activities, worry and anxiety, and great difficulty going outside the home without assistance.	0.187 (0.124–0.26)
Severe vision impairment due to other vision loss	Distance vision, severe impairment	has severe vision loss, which causes difficulty in daily activities, some emotional impact (for example worry), and some difficulty going outside the home without assistance.	0.184 (0.125–0.258)
Moderate vision impairment due to other vision loss	Distance vision, moderate impairment	has vision problems that make it difficult to recognize faces or objects across a room.	0.031 (0.019–0.049)
Asymptomatic acute sense organ diseases	Asymptomatic	--	--
Asymptomatic chronic sense organ diseases	Asymptomatic	--	--
Moderate acute sense organ diseases	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Severe chronic sense organ diseases	Vertigo	--	0.113 (0.074–0.158)
Mild acute sense organ diseases	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Moderate chronic sense organ diseases	Disfigurement, level 1	has a slight, visible physical deformity that others notice, which causes some worry and discomfort.	0.011 (0.005–0.021)
Pain due to caries of deciduous teeth	Dental caries, symptomatic	has a toothache, which causes some difficulty in eating.	0.01 (0.005–0.019)

Appendix Table 6. GBD 2016 sequelae, health states, health state lay descriptions, and disability weights

Sequela	Health state name	Health state lay description	Disability weight
Asymptomatic caries of deciduous teeth	Asymptomatic	--	--
Pain due to caries of permanent teeth	Dental caries, symptomatic	has a toothache, which causes some difficulty in eating.	0.01 (0.005–0.019)
Asymptomatic caries of permanent teeth	Asymptomatic	--	--
Chronic periodontal diseases	Periodontitis	has minor bleeding of the gums from time to time, with mild discomfort.	0.007 (0.003–0.014)
Asymptomatic edentulism and severe tooth loss	Asymptomatic	--	--
Difficulty eating due to edentulism and severe tooth loss	Severe tooth loss	has lost more than 20 teeth including front and back, and has great difficulty in eating meat, fruits, and vegetables.	0.067 (0.045–0.095)
Mild other oral disorders	Infectious disease, acute episode, mild	has a low fever and mild discomfort, but no difficulty with daily activities.	0.006 (0.002–0.012)
Severe other oral disorders	Infectious disease, acute episode, moderate	has a fever and aches, and feels weak, which causes some difficulty with daily activities.	0.051 (0.032–0.074)

Appendix Table 7: GBD 2016 methods of estimating years lived with disability (YLDs) for 35 residual categories

Residual	Method
	Estimation: YLD to YLL ratio method
Other intestinal infectious diseases	YLD to YLL ratio of explicitly estimated intestinal infectious diseases by geography, country, sex applied to YLL from other intestinal infectious diseases by geography, country, sex and age. Causes used for estimation include: Typhoid fever, Paratyphoid fever.
Other neglected tropical diseases	YLD to YLL ratio of explicitly estimated neglected tropical disease causes by geography, country, sex applied to YLL from other neglected tropical diseases by geography, country, sex and age. Causes used for estimation include: Chagas disease, Visceral leishmaniasis, Dengue, Yellow fever, Rabies.
Other maternal disorders	YLD to YLL ratio of explicitly estimated maternal disorder causes by geography, country, sex applied to YLL from other maternal disorders by geography, country, sex and age. Causes used for estimation include: Maternal hemorrhage, Maternal sepsis and other maternal infections, Maternal hypertensive disorders, Maternal obstructed labor and uterine rupture, Maternal abortion, miscarriage, and ectopic pregnancy, Indirect maternal deaths, Late maternal deaths, Maternal deaths aggravated by HIV/AIDS.
Other neonatal disorders	YLD to YLL ratio of explicitly estimated neonatal disorders by geography, country, sex applied to YLL from other neonatal disorders by geography, country, sex and age. Causes used for estimation include: Neonatal preterm birth complications, Neonatal encephalopathy due to birth asphyxia and trauma, Neonatal sepsis and other neonatal infections, Hemolytic disease and other neonatal jaundice.
Other nutritional deficiencies	YLD to YLL ratio of explicitly estimated nutritional deficiencies by geography, country, sex applied to YLL from other nutritional deficiencies by geography, country, sex and age. Causes used for estimation include Protein-energy malnutrition.
Other sexually transmitted diseases	YLD to YLL ratio of gonococcal and chlamydial infection by geography, country, sex applied to YLL from other sexually transmitted diseases by geography, country, sex and age. Causes used for estimation include: Chlamydial infection, Gonococcal infection.
Other infectious diseases	YLD to YLL ratio of HIV/AIDS and tuberculosis, diarrhea, lower respiratory and other common infectious diseases, neglected tropical diseases and malaria, sexually transmitted diseases and hepatitis by geography, country, sex applied to YLL from other infectious diseases by geography, country, sex and age. Causes used for estimation include: Typhoid fever, Paratyphoid fever, Lower respiratory infections, Upper respiratory infections, Varicella and herpes zoster, Malaria, Acute hepatitis A, Hepatitis B, Hepatitis C, Acute hepatitis E, Chlamydial infection, Gonococcal infection, Diphtheria, Whooping cough, Measles, Chagas disease, Visceral leishmaniasis, Dengue, Yellow fever, Maternal sepsis and other maternal infections, Pneumococcal meningitis, H influenzae type B meningitis, Meningococcal meningitis, Other meningitis, Encephalitis, Tetanus, Ascariasis, Neonatal sepsis and other neonatal infections
Other chronic respiratory diseases	YLD to YLL ratio of COPD, pneumoconiosis and interstitial lung disease and pulmonary sarcoidosis by geography, country, sex applied to YLL from other chronic respiratory diseases by geography, country, sex and age. Causes used for estimation include: Chronic obstructive pulmonary disease, Silicosis, Asbestosis, Coal workers pneumoconiosis, Other pneumoconiosis, Interstitial lung disease and pulmonary sarcoidosis
Other digestive disorders	YLD to YLL ratio of explicitly estimated digestive disorders by geography, country, sex applied to YLL from other digestive disorders by geography, country, sex and age. Causes used for estimation include: Gastritis and duodenitis, Appendicitis, Paralytic ileus and intestinal obstruction, Inguinal, femoral, and abdominal hernia, Inflammatory bowel disease, Vascular intestinal disorders, Gallbladder and biliary diseases, Pancreatitis
Other neurological disorders	YLD to YLL ratio of Alzheimer and other dementias, Parkinson disease, multiple sclerosis and motor-neuron disease by geography, country, sex applied to YLL from other neurological disorders by geography, country, sex and age. Causes used for estimation include: Alzheimer disease and other dementias, Parkinson disease, Epilepsy, Multiple sclerosis
Other urinary diseases	YLD to YLL ratio of explicitly estimated urinary diseases by geography, country, sex applied to YLL from other urinary diseases by geography, country, sex and age. Causes used for estimation include: Interstitial nephritis and urinary tract infections, Urolithiasis
Other hemoglobinopathies and hemolytic anemias	YLD to YLL ratio of explicitly estimated hemoglobinopathies and hemolytic anemias by geography, country, sex applied to YLL from other hemoglobinopathies and hemolytic anemias by geography, country, sex and age. Causes used for estimation include: Thalassemias, Sickle cell disorders, G6PD deficiency
Other congenital anomalies	YLD to YLL ratio of explicitly estimated congenital anomalies by geography, country, sex applied to YLL from other congenital anomalies by geography, country, sex and age. Causes used for estimation include: Neural tube defects, Congenital heart anomalies
	Estimation: based on epidemiological data

Appendix Table 7: GBD 2016 methods of estimating years lived with disability (YLDs) for 35 residual categories

Residual	Method
Meningitis due to other causes	Data on proportion of meningitis due to other causes modelled in DisMod-MR 2.1, forced to sum to 100% at 1,000 draw level for each geography-year-age-sex with the proportions for pneumococcal, H influenza B and meningococcal meningitis, and applied to dismod-MR 2.1 model of all meningitis
Pelvic inflammatory disease due to other causes	DisMod-MR 2.1 model of the proportion of pelvic inflammatory disease due to other causes, constrained to 100% with proportions of pelvic inflammatory disease due to gonococcal and chlamydial infection and applied to the DisMod-MR 2.1 model for all pelvic inflammatory disease
Other neoplasms	Similar to all other cancers: mortality to incidence ratio method applied to cancer registry data for other neoplasms
Liver cancer due to other causes	Data on proportion of liver cancer due to other causes modelled in DisMod-MR 2.1, forced to sum to 100% at 1,000 draw level for each geography, year, age, and sex with the proportions for liver cancer due to hepatitis B, hepatitis C and alcohol, and applied to total liver cancer estimates from cancer analyses using mortality to incidence ratios
Other cardiovascular diseases	Ratio of prevalence of ICD-9 coded other cardiovascular diseases in MEPS and 2005 USA outpatient data to prevalence of heart failure due to other cardiovascular diseases (estimated as part of the heart failure envelope), and applied to prevalence of heart failure due to other CVD estimates for all other locations and years
Cirrhosis and other chronic liver diseases due to other causes	Data on proportion of cirrhosis and other chronic liver diseases due to other causes modelled in DisMod-MR 2.1, forced to sum to 100% at 1,000 draw level for each geography-year-age-sex with the proportions for cirrhosis and other chronic liver diseases due to hepatitis B, hepatitis C and alcohol, and applied to total cirrhosis and other chronic liver diseases estimates from DisMod-MR 2.1 analysis
Other pneumoconiosis	DisMod-MR 2.1 model based on hospital admission and claims data
Other drug use disorders	NESARC prevalence of drug dependence other than cannabis, opioids, amphetamines and cocaine multiplied by ratio of YLD to prevalence for cocaine and amphetamine by geography, year, age, and sex
Other mental and substance use disorders	Prevalence of personality disorders not comorbid with GBD mental and substance use disorder categories and severity distribution from NESARC and Australian National Survey of Mental Health and Wellbeing 1997
Chronic kidney disease due to other causes	Data on proportion of chronic kidney disease due to other causes from renal registries modelled in DisMod-MR 2.1, forced to sum to 100% at 1,000 draw level for each geography-year-age-sex with the proportions of chronic kidney disease due to diabetes, hypertension and glomerulonephritis, and applied to total chronic kidney disease estimates from DisMod-MR 2.1 analyses
Other gynecological disorders	DisMod MR 2.1 using US claims data
Other musculoskeletal disorders	DisMod-MR 2.1 model of survey and US claims data on prevalence of all musculoskeletal symptoms and diseases minus rheumatoid arthritis, osteoarthritis, gout, low back pain and neck pain. Long-term sequelae of fractures, dislocations and contusions due to injuries are subtracted out of other musculoskeletal disorders to avoid double counting
Other skin	DisMod-MR 2.1 model using outpatient and US claims data
Age-related and other hearing loss	Survey data on the proportion of hearing loss due to age-related and other hearing loss modelled in dismod MR 2.1 and forced to sum to total hearing loss by geography, year, age and sex
Other vision loss	Survey data on vision loss due to other causes modelled in DisMod-MR 2.1 and forced to sum to total vision loss by geography, year, age and sex
Other sense organ disorders	DisMod-MR 2.1 model using outpatient and US claims data

Appendix Table 7: GBD 2016 methods of estimating years lived with disability (YLDs) for 35 residual categories

Residual	Method
Other oral disorders	DisMod-MR 2.1 model using US Medical Expenditure Panel Surveys (MEPS) data
Other transport injuries	DisMod-MR 2.1 model using data from surveys, hospital admission and outpatient/emergency department visits
Other exposure to mechanical forces	DisMod-MR 2.1 model using data from surveys, hospital admission and outpatient/emergency department visits
Foreign body in other part	DisMod-MR 2.1 model using data from surveys, hospital admission and outpatient/emergency department visits
Other unintentional injuries	DisMod-MR 2.1 model using data from surveys, hospital admission and outpatient/emergency department visits
Assault by other means	DisMod-MR 2.1 model using data from surveys, hospital admission and outpatient/emergency department visits

Appendix Table 8. GBD 2016 risk factor hierarchy with levels, modeling strategies, and the main type of data sources used to estimate exposure levels
 GBD—Global Burden of Disease.

Risk factor	Level	Model type	Main data source for exposure
All risk factors	0		
Environmental/occupational risks	1		
Unsafe water, sanitation, and handwashing	2		
Unsafe water source	3	Spatiotemporal Gaussian process regression (ST-GPR)	Population surveys and censuses
Unsafe sanitation	3	ST-GPR	Population surveys and censuses
No handwashing with soap	3	ST-GPR	Population surveys, censuses, and epidemiological studies
Air pollution	2		
Ambient particulate matter pollution	3	Regression crosswalk between grid-level fusion of satellite/chemical transport models and ground level monitoring data	Atmospheric chemical transport models, satellite measurements of aerosols in the atmosphere, data from ground-level monitoring sites
Household air pollution from solid fuels	3	ST-GPR	Population surveys and censuses, WHO Energy Database, literature review
Ambient ozone pollution	3	Chemical transport model	Atmospheric chemical transport models
Other environmental risks	2		
Residential radon	3	ST-GPR	Literature review, government agencies, and monitoring stations
Lead exposure	3	ST-GPR	Literature review, blood lead surveys
Occupational risks	2		
Occupational carcinogens	3		
Occupational exposure to asbestos	4	Asbestos Impact Ratio approach	GBD cause-specific mortality data for mesothelioma, epidemiological studies
Occupational exposure to arsenic	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to benzene	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to beryllium	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to cadmium	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to chromium	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to diesel engine exhaust	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to second-hand smoke	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to formaldehyde	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to nickel	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to polycyclic aromatic hydrocarbons	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to silica	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to sulphuric acid	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational exposure to trichloroethylene	4	ST-GPR	Labor force surveys, censuses, and international information system on occupational exposure to carcinogens
Occupational asthmagens	3	ST-GPR	Labor force surveys and censuses
Occupational particulate matter, gases, and fumes	3	ST-GPR	Labor force surveys and censuses
Occupational noise	3	ST-GPR	Labor force surveys and censuses, industry-based surveys of noise exposure
Occupational injuries	3	ST-GPR	International Labor Organization injury database
Occupational ergonomic factors	3	ST-GPR	Labor force surveys and censuses
Behavioural risks	1		
Child and maternal malnutrition	2		
Suboptimal breastfeeding	3		
Non-exclusive breastfeeding	4	ST-GPR	Population surveys
Discontinued breastfeeding	4	ST-GPR	Population surveys
Child growth failure	3		
Childhood underweight	4	DisMod-MR 2.1	Population surveys, literature review, and WHO Global Database on Child Growth and Malnutrition
Childhood wasting	4	DisMod-MR 2.1	Population surveys, literature review, and WHO Global Database on Child Growth and Malnutrition
Childhood stunting	4	DisMod-MR 2.1	Population surveys, literature review, and WHO Global Database on Child Growth and Malnutrition
Low birth weight and short gestation	3		
Low birth weight for gestation	4	Joint distribution using Copula optimization	Population surveys and censuses, vital registration
Short gestation for birth weight	4	Joint distribution using Copula optimization	Population surveys and censuses, vital registration
Iron deficiency	3	Mixed effect regression	Population surveys, examination surveys, and epidemiological studies
Vitamin A deficiency	3	DisMod-MR 2.1	Population surveys, examination surveys, and epidemiological studies
Zinc deficiency	3	Mixed effect regression based on stunting prevalence and dietary composition	FAO food balance sheets
Tobacco smoke	2		
Smoking	3	<ul style="list-style-type: none"> Smoking Impact Ratio (SIR) calculated from lung cancer mortality rates Smoking prevalence estimated using ST-GPR 	SIR input data: mortality and cause of death data including vital registration and verbal autopsy Smoking prevalence input data: nationally representative survey and report data and WHO InfoBase and International Smoking Statistics Database
Second-hand smoke	3	ST-GPR	Household surveys and national health surveys
Smokeless tobacco	3	ST-GPR	Nationally representative survey report and report data, literature review

Risk factor	Level	Model type	Main data source for exposure
Alcohol and drug use			
	2		
Alcohol use	3	<ul style="list-style-type: none"> Alcohol consumption per capita obtained from the FAO and the WHO Global Information System on Alcohol and Health (GISAH) ST-GPR used to integrate the data and to derive coherent time series for each country Prevalence of current alcohol drinkers, lifetime abstainers, former drinkers, and binge drinkers estimated using DisMod-MR 2.1 DisMod-MR 2.1 used to estimate the relative sex- and age-specific pattern of alcohol consumption in current drinkers 	Population surveys, alcohol sales, production, and other economic statistics
Drug use	3	DisMod-MR 2.1	Systematic review of published literature, reports from governments and international organizations, which include data from: school surveys, population surveys, registration data, and indirect estimates of prevalence
Dietary risks			
	2		
Diet low in fruits	3	DisMod-MR 2.1	Nutrition and health surveys, FAO food balance sheets
Diet low in vegetables	3	DisMod-MR 2.1	Nutrition and health surveys, FAO food balance sheets
Diet low in legumes	3	DisMod-MR 2.1	Nutrition and health surveys
Diet low in whole grains	3	DisMod-MR 2.1	Nutrition and health surveys
Diet low in nuts and seeds	3	DisMod-MR 2.1	Nutrition and health surveys, FAO food balance sheets
Diet low in milk	3	DisMod-MR 2.1	Nutrition and health surveys, FAO food balance sheets
Diet high in red meat	3	DisMod-MR 2.1	Nutrition and health surveys, FAO food balance sheets
Diet high in processed meat	3	DisMod-MR 2.1	Nutrition and health surveys
Diet high in sugar-sweetened beverages	3	DisMod-MR 2.1	Nutrition and health surveys
Diet low in fibre	3	DisMod-MR 2.1	Nutrition and health surveys, FAO SUA/USDA
Diet suboptimal in calcium	3	DisMod-MR 2.1	Nutrition and health surveys, FAO SUA/USDA
Diet low in seafood omega-3 fatty acids	3	DisMod-MR 2.1	Nutrition and health surveys, FAO SUA/USDA
Diet low in polyunsaturated fatty acids	3	DisMod-MR 2.1	Nutrition and health surveys, FAO SUA/USDA
Diet high in trans fatty acids	3	DisMod-MR 2.1	Nutrition and health surveys, availability of partially hydrogenated vegetable oil in packaged foods
Diet high in sodium	3	DisMod-MR 2.1	Nutrition and health surveys, 24-hour urinary sodium
Sexual abuse and violence			
	2		
Childhood sexual abuse	3	DisMod-MR 2.1	Systematic review of published literature, national health surveys, violence-specific surveys
Intimate partner violence	3	DisMod-MR 2.1	Systematic review of published literature, national health surveys, violence-specific surveys
Unsafe sex	2	DisMod-MR 2.1	UNAIDS country progress reports, disease surveillance reports
Low physical activity	2	DisMod-MR 2.1	Surveys of the adult population that capture reported frequency, duration and intensity of physical activity undertaken in the past seven days across all domains of life (work, transport, recreation or house/yard work)
Metabolic risks			
	1		
High fasting plasma glucose	2	ST-GPR	Examination surveys and epidemiological studies
High total cholesterol	2	ST-GPR	Examination surveys and epidemiological studies
High systolic blood pressure	2	ST-GPR	Examination surveys and epidemiological studies
High body-mass index	2	ST-GPR	Examination surveys and epidemiological studies
Low bone mineral density	2	DisMod-MR 2.1	Examination surveys and epidemiological studies
Impaired kidney function	2	DisMod-MR 2.1	Examination surveys and epidemiological studies

Appendix Table 9. Types of Comparative Risk Assessments (CRA) based on the time perspective and the nature of the counterfactual level or distribution of exposure. The shaded box represents the type of CRA currently undertaken in GBD 2016. GBD=Global Burden of Disease.

	Counterfactual distributions of exposure			
Construct	Theoretical minimum risk: level of risk with the lowest level of burden	Plausible minimum risk: level of risk with the lowest level of burden that could be imagined with current technology and knowledge	Feasible minimum risk: level of risk with the lowest level of burden that has been achieved in any population	Cost-effective minimum risk: lowest level of risk that can be achieved cost-effectively in a given population
Attributable burden: burden of disease today that would be avoided if each individual in the past had been exposed to the counterfactual level of exposure	Currently in GBD			
Avoidable burden: burden of disease in the future that would be avoided if each individual today was shifted to the counterfactual level of exposure				

Appendix Table 10. Percent change in age-standardised summary exposure values (SEVs) for leading ten risk factors for the United States 1990-2016, both sexes

	High body-mass index	Smoking	High fasting plasma glucose	High systolic blood pressure	Drug use	Alcohol use	High total cholesterol	Diet low in whole grains	Impaired kidney function	Diet low in fruits
United States	53.2 (41.5 to 67.2)	-42.8 (-47.1 to -37.2)	76.0 (44.4 to 144.2)	-13.3 (-13.9 to -12.6)	10.1 (7.5 to 12.8)	6.0 (-24.2 to 42.1)	-17.2 (-19.4 to -15.4)	-8.0 (-12.5 to -0.8)	0.5 (-0.6 to 2.1)	-11.1 (-14.5 to -8.7)
Alabama	66.7 (48.0 to 94.3)	-24.3 (-33.0 to -15.2)	123.2 (53.3 to 289.8)	-12.7 (-15.8 to -9.7)	9.1 (5.6 to 11.8)	4.7 (-51.0 to 99.5)	-15.9 (-19.2 to -12.8)	-8.3 (-14.4 to -0.6)	2.9 (1.4 to 5.0)	4.4 (1.8 to 8.2)
Alaska	32.2 (19.0 to 49.3)	-32.0 (-41.2 to -22.9)	36.4 (7.8 to 101.6)	-12.0 (-14.8 to -9.1)	39.2 (26.5 to 53.5)	12.0 (-50.8 to 139.6)	-17.7 (-21.5 to -14.4)	-7.8 (-14.4 to -0.5)	2.6 (0.7 to 5.4)	-0.8 (-4.6 to 3.0)
Arizona	60.7 (40.6 to 88.9)	-48.4 (-54.5 to -40.8)	61.7 (22.9 to 164.9)	-12.6 (-15.4 to -9.6)	6.5 (3.2 to 9.3)	7.5 (-48.7 to 120.4)	-15.4 (-19.0 to -12.2)	-8.3 (-14.7 to -0.7)	1.0 (-0.5 to 3.3)	-33.5 (-41.2 to -28.0)
Arkansas	56.0 (36.8 to 80.3)	-27.3 (-34.6 to -19.4)	78.6 (30.1 to 205.2)	-12.7 (-15.7 to -9.7)	-0.9 (-4.3 to 1.8)	3.1 (-49.8 to 103.7)	-15.6 (-19.3 to -12.4)	-8.2 (-14.3 to -0.6)	3.9 (2.0 to 5.6)	-5.0 (-8.5 to -2.2)
California	54.4 (36.6 to 75.6)	-60.5 (-67.2 to -51.3)	42.6 (16.3 to 117.8)	-12.9 (-15.8 to -9.7)	11.3 (8.4 to 14.5)	10.6 (-43.1 to 124.6)	-16.1 (-19.6 to -13.1)	-7.9 (-14.2 to -0.6)	0.6 (-0.8 to 1.9)	-35.0 (-47.9 to -27.6)
Colorado	45.4 (29.9 to 64.8)	-48.2 (-54.9 to -40.6)	31.2 (10.7 to 78.0)	-13.5 (-16.3 to -10.6)	31.2 (19.1 to 47.5)	6.7 (-49.3 to 130.5)	-17.2 (-20.7 to -13.8)	-7.9 (-14.1 to -0.5)	-0.4 (-1.9 to 1.6)	-11.0 (-17.0 to -7.3)
Connecticut	53.6 (35.6 to 76.2)	-47.2 (-54.4 to -38.7)	83.6 (25.9 to 235.6)	-14.3 (-17.2 to -11.3)	4.4 (1.5 to 7.5)	4.6 (-49.6 to 109.9)	-18.3 (-21.9 to -15.1)	-7.4 (-13.5 to -0.5)	-0.5 (-2.7 to 2.1)	-9.5 (-16.3 to -5.2)
Delaware	40.0 (25.3 to 57.7)	-36.6 (-42.8 to -29.9)	96.5 (32.8 to 247.9)	-13.1 (-16.1 to -10.0)	7.3 (2.5 to 12.8)	8.8 (-48.3 to 119.5)	-17.1 (-20.8 to -13.8)	-8.0 (-14.3 to -0.6)	-0.8 (-3.1 to 1.9)	7.9 (4.5 to 12.9)
District of Columbia	46.3 (31.2 to 65.0)	-51.5 (-59.6 to -40.3)	41.1 (7.3 to 120.5)	-15.6 (-18.6 to -12.5)	9.3 (5.8 to 15.9)	0.4 (-56.0 to 112.8)	-18.8 (-22.4 to -15.2)	-7.3 (-13.2 to -0.4)	-10.3 (-13.7 to -5.8)	5.6 (1.1 to 12.2)
Florida	51.0 (34.9 to 71.4)	-47.6 (-54.4 to -39.0)	100.2 (37.9 to 249.5)	-12.3 (-15.3 to -9.2)	16.9 (12.6 to 21.6)	5.4 (-46.1 to 117.0)	-16.8 (-20.3 to -13.8)	-8.1 (-14.8 to -0.5)	3.0 (1.3 to 5.0)	-0.0 (-3.5 to 3.9)
Georgia	57.5 (38.9 to 81.5)	-43.1 (-50.4 to -34.1)	110.5 (47.0 to 273.2)	-13.7 (-16.7 to -10.2)	15.2 (11.7 to 19.8)	-8.9 (-57.4 to 75.8)	-17.4 (-20.9 to -14.1)	-8.3 (-14.8 to -0.7)	0.7 (-0.8 to 2.9)	-20.5 (-28.2 to -15.4)
Hawaii	47.5 (30.3 to 67.1)	-36.2 (-43.4 to -27.3)	64.8 (22.8 to 181.6)	-14.9 (-17.9 to -12.0)	29.7 (17.8 to 44.8)	9.7 (-47.5 to 114.3)	-15.1 (-18.6 to -11.9)	-8.0 (-14.2 to -0.5)	2.7 (1.1 to 4.5)	7.7 (4.4 to 13.1)
Idaho	61.9 (39.7 to 90.2)	-29.5 (-38.1 to -20.8)	71.5 (22.5 to 201.7)	-12.8 (-15.9 to -9.8)	3.7 (-2.1 to 10.8)	2.9 (-53.0 to 99.2)	-16.4 (-20.0 to -13.3)	-8.3 (-14.7 to -0.7)	3.5 (1.7 to 5.4)	4.8 (2.5 to 8.2)
Illinois	48.6 (33.2 to 69.5)	-47.2 (-53.1 to -39.3)	56.0 (18.8 to 166.8)	-13.6 (-16.6 to -10.6)	16.9 (12.1 to 22.1)	7.6 (-47.7 to 118.1)	-17.2 (-20.8 to -14.4)	-7.9 (-14.2 to -0.5)	-1.1 (-2.8 to 1.0)	7.1 (4.3 to 11.3)
Indiana	55.4 (37.6 to 77.3)	-25.4 (-34.3 to -15.7)	116.7 (45.3 to 265.0)	-12.6 (-15.5 to -9.5)	8.5 (4.8 to 11.8)	4.2 (-49.4 to 118.6)	-17.4 (-20.8 to -14.3)	-8.2 (-15.0 to -0.5)	2.9 (1.3 to 5.0)	-2.4 (-5.5 to 0.1)
Iowa	57.2 (37.4 to 82.6)	-26.6 (-34.2 to -18.3)	59.4 (20.2 to 151.8)	-13.2 (-16.0 to -10.2)	40.8 (32.6 to 48.5)	3.0 (-52.7 to 116.9)	-17.7 (-21.0 to -14.4)	-7.9 (-13.9 to -0.5)	2.4 (0.9 to 4.1)	-8.6 (-13.2 to -5.4)
Kansas	51.7 (34.1 to 73.9)	-29.4 (-38.2 to -19.2)	81.4 (27.2 to 235.4)	-12.7 (-15.6 to -9.6)	32.7 (25.0 to 40.6)	4.3 (-52.2 to 111.6)	-17.1 (-20.6 to -13.6)	-8.0 (-14.2 to -0.5)	3.2 (1.5 to 5.0)	-4.9 (-8.5 to -2.2)
Kentucky	57.0 (38.0 to 79.2)	-19.8 (-26.8 to -12.9)	115.8 (49.5 to 281.7)	-12.5 (-15.6 to -9.5)	11.2 (5.2 to 18.6)	7.9 (-45.9 to 116.6)	-16.9 (-20.7 to -13.9)	-8.2 (-14.6 to -0.7)	4.5 (2.4 to 6.4)	-4.3 (-7.5 to -1.7)
Louisiana	52.0 (36.8 to 71.6)	-31.9 (-38.7 to -24.7)	108.0 (40.0 to 277.3)	-12.7 (-15.5 to -9.5)	4.5 (1.2 to 7.3)	10.6 (-47.2 to 132.5)	-15.3 (-18.7 to -11.9)	-8.0 (-14.2 to -0.5)	2.6 (1.1 to 4.5)	-5.3 (-9.4 to -2.5)
Maine	47.9 (32.1 to 68.4)	-29.1 (-35.8 to -22.0)	81.2 (26.7 to 217.5)	-13.1 (-16.1 to -10.1)	9.5 (5.8 to 12.8)	10.3 (-49.5 to 134.0)	-16.9 (-20.4 to -13.5)	-8.2 (-14.5 to -0.6)	1.8 (0.3 to 3.9)	-19.7 (-26.4 to -15.2)
Maryland	48.1 (32.7 to 66.3)	-51.5 (-57.2 to -44.7)	98.9 (32.4 to 247.8)	-13.8 (-16.8 to -10.6)	-9.7 (-15.0 to -5.2)	6.8 (-50.4 to 125.4)	-18.2 (-21.8 to -15.1)	-7.7 (-13.6 to -0.4)	-3.6 (-6.5 to -0.4)	-57.3 (-69.6 to -48.7)

Massachusetts	52.0 (34.0 to 75.4)	-46.0 (-52.3 to -38.7)	45.3 (16.0 to 129.6)	-14.1 (-16.9 to -11.1)	2.5 (-1.0 to 6.1)	9.0 (-49.2 to 123.2)	-19.6 (-23.1 to -16.7)	-7.6 (-13.8 to -0.4)	-0.2 (-1.6 to 1.3)	-7.2 (-13.1 to -3.0)
Michigan	41.9 (28.3 to 60.0)	-37.3 (-43.9 to -30.0)	114.8 (46.6 to 276.7)	-13.4 (-16.3 to -10.1)	13.7 (10.0 to 16.8)	5.6 (-49.8 to 112.7)	-17.5 (-21.4 to -14.4)	-8.3 (-14.7 to -0.7)	0.9 (-0.5 to 2.9)	2.5 (-1.2 to 7.0)
Minnesota	52.9 (36.2 to 74.8)	-37.3 (-44.1 to -28.6)	48.0 (19.1 to 140.3)	-14.0 (-17.0 to -10.9)	23.5 (16.2 to 31.9)	5.6 (-48.3 to 115.5)	-18.3 (-21.5 to -15.2)	-7.8 (-13.9 to -0.4)	2.2 (0.7 to 4.1)	-4.1 (-8.2 to -0.9)
Mississippi	54.3 (37.1 to 77.0)	-20.3 (-30.3 to -10.3)	127.2 (56.6 to 298.8)	-11.8 (-15.1 to -8.6)	7.0 (4.4 to 10.0)	8.8 (-45.3 to 115.6)	-14.8 (-18.3 to -11.8)	-8.2 (-14.6 to -0.7)	4.1 (2.2 to 6.1)	0.1 (-2.9 to 2.9)
Missouri	54.3 (35.8 to 78.0)	-29.6 (-36.7 to -22.2)	111.8 (44.2 to 271.5)	-12.6 (-15.6 to -9.5)	42.8 (38.1 to 46.7)	5.4 (-50.3 to 122.2)	-16.4 (-19.7 to -13.1)	-8.1 (-14.2 to -0.7)	2.5 (1.0 to 4.6)	-2.2 (-5.5 to 0.7)
Montana	53.6 (36.9 to 77.2)	-26.5 (-35.5 to -16.0)	40.6 (14.9 to 116.1)	-12.9 (-15.5 to -10.1)	22.0 (15.1 to 29.2)	8.1 (-50.3 to 127.1)	-16.8 (-20.3 to -13.4)	-8.0 (-14.2 to -0.5)	0.0 (-1.6 to 2.3)	-5.0 (-8.9 to -2.1)
Nebraska	57.1 (39.5 to 80.5)	-30.1 (-37.2 to -22.1)	88.0 (31.4 to 229.0)	-13.6 (-16.4 to -10.6)	25.2 (17.5 to 33.5)	4.0 (-51.2 to 116.2)	-17.6 (-21.1 to -14.4)	-7.8 (-13.9 to -0.6)	2.3 (0.9 to 4.3)	-9.2 (-14.2 to -5.8)
Nevada	36.7 (21.5 to 54.2)	-51.2 (-57.7 to -43.7)	81.1 (23.6 to 228.6)	-12.2 (-15.2 to -9.4)	14.6 (11.7 to 17.9)	5.9 (-51.6 to 122.6)	-17.6 (-21.0 to -14.4)	-8.2 (-14.7 to -0.6)	0.7 (-1.0 to 3.1)	6.2 (2.7 to 10.9)
New Hampshire	57.7 (38.1 to 83.6)	-37.0 (-42.9 to -29.5)	79.5 (25.7 to 210.3)	-13.0 (-16.1 to -10.0)	2.2 (-2.0 to 7.1)	14.0 (-47.1 to 142.8)	-17.8 (-21.3 to -14.5)	-7.8 (-14.0 to -0.5)	0.4 (-1.4 to 3.0)	-3.5 (-7.8 to 0.1)
New Jersey	48.0 (32.4 to 67.8)	-52.5 (-59.1 to -44.7)	75.4 (24.4 to 198.9)	-14.6 (-17.5 to -11.6)	9.2 (5.5 to 13.5)	3.5 (-52.0 to 115.9)	-18.2 (-22.1 to -15.0)	-7.6 (-13.8 to -0.4)	-2.4 (-4.5 to 0.1)	-2.7 (-6.6 to 0.9)
New Mexico	68.2 (45.6 to 99.7)	-37.5 (-45.6 to -29.3)	74.3 (27.3 to 190.2)	-11.7 (-14.7 to -8.6)	23.8 (19.0 to 29.2)	10.4 (-46.9 to 121.0)	-15.3 (-18.8 to -12.0)	-8.2 (-14.4 to -0.7)	3.5 (1.6 to 5.6)	-10.2 (-15.7 to -6.5)
New York	51.3 (34.6 to 72.4)	-51.4 (-58.5 to -42.4)	105.4 (42.2 to 262.3)	-14.0 (-17.1 to -11.0)	1.3 (-1.3 to 3.9)	4.5 (-48.4 to 115.5)	-18.6 (-22.1 to -15.6)	-7.8 (-14.1 to -0.5)	-2.3 (-4.7 to 0.5)	-5.8 (-10.6 to -2.4)
North Carolina	54.1 (38.2 to 73.7)	-37.1 (-44.6 to -28.8)	109.2 (42.2 to 272.4)	-13.9 (-17.1 to -10.6)	14.2 (9.2 to 19.6)	6.9 (-46.7 to 105.5)	-17.4 (-20.9 to -14.3)	-8.2 (-14.3 to -0.6)	1.6 (0.1 to 3.6)	-6.5 (-10.5 to -3.6)
North Dakota	60.8 (41.8 to 87.7)	-19.4 (-29.4 to -8.6)	68.6 (23.9 to 190.9)	-13.8 (-16.6 to -10.9)	71.3 (58.2 to 86.3)	7.1 (-49.9 to 118.2)	-17.7 (-21.6 to -14.4)	-7.5 (-13.6 to -0.4)	1.9 (0.4 to 3.6)	-24.8 (-33.8 to -19.2)
Ohio	49.6 (34.0 to 70.6)	-28.1 (-35.0 to -20.5)	118.3 (50.1 to 297.7)	-12.5 (-15.5 to -9.3)	12.1 (8.3 to 15.6)	9.2 (-49.2 to 118.8)	-17.1 (-20.8 to -13.9)	-8.1 (-14.5 to -0.5)	2.2 (0.8 to 4.5)	-37.2 (-50.5 to -29.4)
Oklahoma	69.3 (47.7 to 99.6)	-26.6 (-33.5 to -19.3)	118.0 (50.9 to 292.2)	-13.2 (-15.9 to -10.0)	12.1 (8.2 to 16.6)	1.8 (-49.9 to 113.6)	-15.1 (-18.6 to -12.1)	-8.0 (-14.0 to -0.6)	3.7 (1.8 to 5.6)	-5.2 (-9.2 to -2.4)
Oregon	48.1 (33.0 to 67.0)	-44.0 (-50.5 to -36.0)	40.9 (14.1 to 110.0)	-13.7 (-16.8 to -10.5)	-0.2 (-3.8 to 3.0)	5.5 (-47.6 to 119.8)	-16.9 (-20.4 to -13.7)	-8.1 (-14.4 to -0.6)	1.9 (0.6 to 3.8)	-8.1 (-12.7 to -4.8)
Pennsylvania	46.4 (28.9 to 66.0)	-38.6 (-44.9 to -31.4)	1.7 (-36.4 to 50.1)	-13.5 (-16.6 to -10.4)	12.9 (9.4 to 16.5)	6.9 (-48.0 to 113.8)	-17.5 (-21.3 to -14.3)	-7.9 (-14.2 to -0.6)	-1.2 (-3.0 to 0.9)	-7.8 (-13.2 to -4.5)
Rhode Island	58.2 (40.4 to 78.5)	-37.7 (-46.2 to -28.8)	87.5 (32.7 to 230.9)	-13.2 (-16.4 to -10.2)	2.9 (0.7 to 5.0)	7.1 (-49.2 to 123.8)	-16.9 (-20.6 to -13.7)	-7.9 (-14.2 to -0.5)	-0.4 (-2.1 to 1.9)	0.6 (-2.8 to 4.5)
South Carolina	59.7 (41.9 to 83.9)	-32.1 (-40.6 to -22.7)	123.2 (54.8 to 304.8)	-13.1 (-16.2 to -10.0)	2.1 (-0.8 to 4.6)	9.3 (-46.5 to 126.1)	-16.4 (-19.8 to -13.4)	-8.2 (-14.4 to -0.6)	2.3 (0.8 to 4.6)	4.1 (1.5 to 7.4)
South Dakota	59.0 (38.7 to 88.1)	-21.5 (-31.4 to -10.1)	51.1 (21.6 to 129.6)	-13.2 (-16.1 to -10.1)	75.4 (60.2 to 92.0)	4.6 (-49.4 to 131.0)	-17.3 (-20.8 to -14.1)	-7.7 (-14.0 to -0.4)	1.9 (0.6 to 3.9)	-38.8 (-52.8 to -30.6)
Tennessee	64.3 (46.4 to 88.2)	-25.1 (-32.5 to -17.6)	110.4 (44.7 to 269.2)	-12.8 (-15.9 to -9.8)	6.6 (3.2 to 9.7)	5.9 (-47.4 to 105.7)	-15.9 (-19.3 to -12.8)	-8.0 (-14.6 to -0.5)	3.2 (1.5 to 5.1)	-8.1 (-12.2 to -5.2)
Texas	62.5 (42.9 to 86.9)	-51.2 (-57.7 to -42.5)	95.1 (34.5 to 251.3)	-13.4 (-16.5 to -10.3)	19.6 (12.9 to 27.1)	6.9 (-49.5 to 121.1)	-18.0 (-21.7 to -14.9)	-8.0 (-14.0 to -0.6)	3.8 (2.1 to 5.1)	-10.3 (-15.9 to -7.0)

	59.4	-34.9	72.4	-12.9	1.4	3.8	-16.8	-8.2	2.1	-5.7
Utah	(40.6 to 84.1)	(-44.5 to -23.2)	(21.3 to 199.0)	(-15.8 to -9.9)	(-1.9 to 4.2)	(-45.6 to 96.4)	(-20.5 to -13.4)	(-14.5 to -0.6)	(0.7 to 3.7)	(-9.8 to -2.7)
	47.8	-29.8	38.6	-12.9	5.3	14.3	-17.2	-7.8	-2.4	-2.3
Vermont	(32.9 to 69.8)	(-37.5 to -21.3)	(15.6 to 103.5)	(-16.0 to -10.0)	(-2.3 to 14.6)	(-46.9 to 146.4)	(-20.6 to -14.0)	(-14.3 to -0.5)	(-5.0 to 0.6)	(-6.1 to 0.7)
	54.3	-44.4	96.8	-14.4	13.9	9.0	-17.9	-7.8	1.0	-6.6
Virginia	(37.1 to 76.3)	(-50.3 to -37.6)	(33.7 to 247.8)	(-17.5 to -11.5)	(9.1 to 19.3)	(-46.6 to 123.0)	(-21.4 to -14.8)	(-13.9 to -0.5)	(-0.6 to 3.3)	(-11.2 to -3.1)
	56.9	-47.9	44.8	-13.6	16.0	5.2	-18.0	-7.9	1.6	-7.7
Washington	(39.5 to 79.7)	(-54.2 to -40.1)	(18.3 to 113.4)	(-16.4 to -10.5)	(13.3 to 18.8)	(-48.7 to 116.7)	(-21.8 to -15.0)	(-14.0 to -0.5)	(0.3 to 3.6)	(-12.6 to -4.4)
	53.7	-11.2	129.2	-13.1	10.3	5.4	-16.7	-8.3	5.2	-7.0
West Virginia	(38.4 to 75.4)	(-18.6 to -2.3)	(51.7 to 301.8)	(-16.2 to -10.1)	(6.5 to 13.7)	(-47.1 to 100.6)	(-20.2 to -13.6)	(-14.6 to -0.7)	(2.8 to 7.2)	(-11.3 to -4.1)
	52.3	-32.6	53.2	-13.1	15.4	5.6	-17.5	-8.0	2.4	-4.8
Wisconsin	(36.7 to 72.8)	(-39.8 to -24.4)	(15.7 to 156.5)	(-16.0 to -9.8)	(10.3 to 21.6)	(-50.3 to 114.4)	(-21.3 to -14.0)	(-14.3 to -0.5)	(0.9 to 4.3)	(-8.9 to -1.5)
	52.3	-31.9	41.1	-13.7	116.0	10.3	-17.7	-7.5	1.2	-3.9
Wyoming	(34.4 to 76.6)	(-39.9 to -22.6)	(16.8 to 109.1)	(-16.6 to -10.8)	(91.2 to 141.9)	(-49.4 to 146.5)	(-21.3 to -14.5)	(-13.8 to -0.4)	(-0.2 to 3.4)	(-7.7 to -0.8)

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Global	0.526	0.531	0.535	0.54	0.544	0.549	0.554	0.559	0.564	0.569	0.575	0.58	0.586	0.591	0.596	0.6	0.605	0.609	0.614	0.618	0.622	0.626	0.63	0.634	0.639	0.643	0.648	0.652	0.657	0.662	0.666	0.671	0.676	0.681	0.686	0.691	0.696	
Southeast Asia, East Asia, and Oceania	0.438	0.445	0.453	0.461	0.47	0.478	0.486	0.495	0.504	0.512	0.521	0.53	0.539	0.548	0.556	0.565	0.573	0.581	0.587	0.594	0.6	0.606	0.612	0.619	0.626	0.633	0.641	0.65	0.658	0.666	0.675	0.683	0.691	0.699	0.706	0.712	0.719	
East Asia	0.436	0.443	0.45	0.458	0.467	0.477	0.486	0.496	0.506	0.515	0.524	0.533	0.543	0.552	0.562	0.571	0.58	0.588	0.594	0.601	0.608	0.614	0.621	0.629	0.636	0.644	0.653	0.661	0.67	0.678	0.686	0.694	0.701	0.709	0.715	0.722	0.729	
China	0.42	0.428	0.435	0.444	0.453	0.463	0.473	0.483	0.494	0.503	0.512	0.521	0.531	0.542	0.552	0.562	0.57	0.578	0.585	0.592	0.6	0.607	0.614	0.622	0.63	0.638	0.647	0.657	0.665	0.674	0.682	0.691	0.698	0.706	0.713	0.72	0.727	
North Korea	0.471	0.476	0.48	0.485	0.488	0.491	0.494	0.497	0.499	0.502	0.505	0.508	0.51	0.511	0.511	0.516	0.501	0.495	0.489	0.483	0.478	0.474	0.47	0.468	0.463	0.469	0.47	0.471	0.473	0.474	0.476	0.478	0.481	0.484	0.488	0.491	0.494	
Taiwan (province of China)	0.636	0.645	0.657	0.669	0.681	0.695	0.706	0.71	0.719	0.727	0.734	0.743	0.751	0.759	0.766	0.775	0.785	0.798	0.8	0.808	0.813	0.82	0.824	0.829	0.833	0.837	0.842	0.845	0.849	0.853	0.858	0.864	0.868	0.871	0.875	0.878	0.881	0.885
Hong Kong Special Administrative Region of China	0.633	0.643	0.652	0.662	0.671	0.677	0.682	0.688	0.694	0.699	0.704	0.708	0.713	0.718	0.723	0.727	0.731	0.734	0.737	0.74	0.743	0.746	0.749	0.752	0.756	0.761	0.765	0.77	0.775	0.779	0.783	0.787	0.791	0.795	0.798	0.801	0.805	
Macao Special Administrative Region of China	0.638	0.646	0.654	0.66	0.667	0.672	0.678	0.684	0.689	0.695	0.7	0.705	0.711	0.716	0.721	0.725	0.728	0.731	0.732	0.734	0.735	0.738	0.742	0.747	0.754	0.761	0.768	0.776	0.784	0.789	0.793	0.796	0.799	0.802	0.806	0.809	0.811	
China (without Hong Kong and Macao)	0.413	0.42	0.428	0.436	0.446	0.456	0.467	0.477	0.487	0.497	0.506	0.515	0.525	0.536	0.546	0.556	0.565	0.574	0.581	0.588	0.596	0.603	0.611	0.619	0.627	0.635	0.645	0.654	0.663	0.672	0.68	0.689	0.697	0.704	0.712	0.718	0.725	
Anhui	0.353	0.36	0.367	0.375	0.385	0.396	0.406	0.417	0.427	0.437	0.446	0.455	0.464	0.474	0.483	0.493	0.502	0.51	0.518	0.525	0.532	0.538	0.545	0.552	0.559	0.567	0.576	0.585	0.594	0.603	0.611	0.619	0.626	0.633	0.639	0.645	0.651	
Beijing	0.606	0.612	0.618	0.624	0.631	0.638	0.645	0.653	0.659	0.665	0.671	0.676	0.682	0.689	0.695	0.702	0.709	0.715	0.721	0.726	0.732	0.738	0.744	0.75	0.757	0.764	0.772	0.78	0.787	0.795	0.802	0.809	0.816	0.823	0.829	0.835	0.842	
Chongqing	0.367	0.375	0.384	0.394	0.407	0.419	0.431	0.443	0.454	0.464	0.474	0.485	0.496	0.507	0.519	0.53	0.539	0.549	0.557	0.565	0.574	0.582	0.591	0.599	0.607	0.616	0.625	0.635	0.643	0.652	0.66	0.668	0.675	0.682	0.689	0.694	0.7	
Fujian	0.372	0.378	0.386	0.396	0.408	0.42	0.433	0.445	0.458	0.469	0.48	0.492	0.504	0.518	0.531	0.544	0.555	0.564	0.573	0.581	0.59	0.598	0.606	0.615	0.623	0.632	0.642	0.652	0.662	0.671	0.68	0.689	0.698	0.706	0.713	0.72	0.727	
Gansu	0.353	0.358	0.364	0.372	0.382	0.391	0.401	0.411	0.421	0.431	0.438	0.447	0.456	0.465	0.473	0.482	0.49	0.498	0.506	0.513	0.52	0.526	0.533	0.539	0.546	0.553	0.56	0.568	0.575	0.583	0.59	0.597	0.604	0.61	0.616	0.622	0.628	
Guangdong	0.444	0.451	0.458	0.467	0.476	0.487	0.497	0.507	0.518	0.527	0.536	0.546	0.557	0.567	0.578	0.588	0.598	0.607	0.615	0.623	0.632	0.64	0.648	0.658	0.667	0.678	0.688	0.7	0.71	0.72	0.729	0.737	0.745	0.753	0.761	0.768	0.775	
Guangxi	0.361	0.369	0.376	0.385	0.395	0.406	0.417	0.428	0.439	0.449	0.458	0.468	0.479	0.49	0.501	0.511	0.521	0.531	0.539	0.547	0.555	0.562	0.569	0.577	0.585	0.594	0.603	0.613	0.622	0.632	0.641	0.651	0.661	0.67	0.679	0.686	0.693	
Guizhou	0.279	0.287	0.295	0.303	0.314	0.325	0.336	0.347	0.358	0.368	0.376	0.385	0.394	0.403	0.413	0.422	0.431	0.439	0.446	0.454	0.462	0.469	0.477	0.485	0.494	0.503	0.512	0.522	0.531	0.54	0.55	0.559	0.567	0.575	0.581	0.587	0.594	
Hainan	0.438	0.443	0.448	0.454	0.462	0.47	0.478	0.486	0.495	0.502	0.511	0.52	0.529	0.539	0.549	0.558	0.566	0.575	0.582	0.59	0.597	0.604	0.611	0.618	0.625	0.632	0.64	0.648	0.656	0.665	0.672	0.68	0.686	0.693	0.699	0.705	0.711	
Hebei	0.42	0.427	0.435	0.443	0.452	0.462	0.472	0.482	0.492	0.501	0.509	0.517	0.527	0.537	0.547	0.556	0.565	0.573	0.581	0.588	0.596	0.603	0.611	0.619	0.627	0.635	0.644	0.654	0.662	0.671	0.679	0.687	0.695	0.702	0.709	0.716	0.722	
Heilongjiang	0.477	0.482	0.488	0.495	0.504	0.513	0.522	0.531	0.54	0.548	0.557	0.566	0.575	0.582	0.588	0.594	0.6	0.606	0.611	0.617	0.623	0.628	0.634	0.639	0.644	0.649	0.655	0.662	0.668	0.674	0.679	0.685	0.69	0.695	0.7	0.704	0.709	
Henan	0.368	0.375	0.384	0.394	0.405	0.417	0.429	0.441	0.453	0.463	0.471	0.481	0.491	0.502	0.513	0.525	0.535	0.545	0.554	0.562	0.57	0.578	0.587	0.595	0.604	0.613	0.623	0.633	0.642	0.652	0.661	0.67	0.678	0.685	0.693	0.699	0.706	
Hubei	0.407	0.415	0.423	0.432	0.442	0.452	0.463	0.474	0.484	0.494	0.504	0.514	0.524	0.535	0.545	0.553	0.561	0.569	0.576	0.583	0.59	0.597	0.604	0.611	0.618	0.626	0.635	0.643	0.651	0.659	0.667	0.674	0.681	0.688	0.694	0.7	0.706	
Hunan	0.383	0.391	0.399	0.409	0.42	0.431	0.442	0.454	0.465	0.476	0.485	0.495	0.505	0.516	0.526	0.536	0.546	0.555	0.562	0.569	0.576	0.582	0.59	0.597	0.605	0.613	0.621	0.63	0.639	0.647	0.655	0.663	0.67	0.678	0.684	0.691	0.697	
Inner Mongolia	0.407	0.413	0.422	0.431	0.444	0.456	0.468	0.48	0.492	0.502	0.512	0.522	0.534	0.545	0.556	0.566	0.575	0.584	0.593	0.602	0.61	0.618	0.627	0.634	0.641	0.648	0.656	0.664	0.672	0.68	0.688	0.696	0.703	0.71	0.716	0.722	0.728	
Jiangsu	0.443	0.451	0.459	0.468	0.479	0.489	0.5	0.51	0.521	0.53	0.539	0.548	0.557	0.565	0.573	0.582	0.591	0.599	0.607	0.614	0.621	0.629	0.637	0.646	0.655	0.664	0.674	0.684	0.693	0.702	0.711	0.72	0.728	0.736	0.743	0.75	0.757	
Jiangxi	0.347	0.354	0.362	0.371	0.382	0.394	0.405	0.416	0.428	0.439	0.449	0.458	0.469	0.48	0.49	0.5	0.509	0.518	0.526	0.534	0.542	0.549	0.557	0.565	0.573	0.581	0.59	0.599	0.607	0.615	0.622	0.629	0.636	0.643	0.649	0.655	0.662	
Jilin	0.451	0.457	0.464	0.471	0.48	0.49	0.5	0.509	0.519	0.528	0.537	0.547	0.557	0.564	0.571	0.579	0.586	0.594	0.6	0.607	0.613	0.62	0.626	0.633	0.639	0.646	0.653	0.661	0.668	0.676	0.683	0.689	0.696	0.702	0.708	0.713	0.719	
Liaoning	0.521	0.527	0.533	0.539	0.547	0.555	0.563	0.571	0.579	0.587	0.592	0.597	0.602	0.608	0.614	0.621	0.627	0.634	0.639	0.645	0.651	0.656	0.662	0.668	0.674	0.68	0.686	0.693	0.7	0.707	0.713	0.719	0.725	0.73	0.736	0.741	0.746	
Ningxia	0.37	0.375	0.382	0.39	0.398	0.408	0.418	0.429	0.44	0.45	0.46	0.469	0.479	0.489	0.498	0.507	0.515	0.523	0.531	0.538	0.545	0.552	0.559	0.566	0.574	0.583	0.592	0.601	0.61	0.617	0.624	0.632	0.639	0.645	0.652	0.658	0.664	
Qinghai	0.354	0.36	0.366	0.375	0.386	0.397	0.408	0.42	0.431	0.442	0.452	0.462	0.473	0.482	0.492	0.501	0.509	0.517	0.524	0.531	0.537	0.544	0.55	0.557	0.564	0.571	0.578	0.586	0.593	0.6	0.607	0.614	0.622	0.627	0.633	0.639	0.645	
Shaanxi	0.385	0.392	0.4	0.409	0.419	0.43	0.441	0.451	0.462	0.471	0.48	0.49	0.501	0.512	0.522	0.532	0.54	0.549	0.556	0.564	0.571	0.579	0.587	0.594	0.602	0.61	0.619	0.628	0.637	0.645	0.654	0.662	0.67	0.677	0.683	0.689	0.696	
Shandong	0.413	0.421	0.431	0.44	0.451	0.463	0.474	0.485	0.497	0.507	0.516	0.525	0.535	0.544	0.553	0.563																						

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sumatera Barat	0.387	0.398	0.408	0.418	0.429	0.439	0.448	0.458	0.466	0.475	0.483	0.491	0.498	0.506	0.513	0.519	0.526	0.532	0.536	0.541	0.546	0.551	0.557	0.563	0.568	0.574	0.58	0.587	0.594	0.602	0.611	0.62	0.629	0.638	0.647	0.656	0.663
Riau	0.438	0.451	0.465	0.479	0.494	0.507	0.521	0.533	0.545	0.556	0.567	0.577	0.586	0.595	0.602	0.609	0.616	0.622	0.626	0.632	0.639	0.645	0.651	0.656	0.662	0.668	0.675	0.682	0.688	0.695	0.702	0.711	0.72	0.728	0.737	0.744	
Jambi	0.355	0.366	0.376	0.387	0.398	0.408	0.418	0.428	0.438	0.447	0.456	0.465	0.474	0.483	0.492	0.501	0.51	0.519	0.526	0.532	0.537	0.542	0.549	0.555	0.562	0.568	0.575	0.583	0.592	0.6	0.61	0.62	0.63	0.64	0.649	0.659	0.667
Sumatera Selatan	0.416	0.426	0.436	0.446	0.456	0.466	0.476	0.485	0.495	0.503	0.512	0.521	0.53	0.537	0.544	0.55	0.557	0.563	0.569	0.572	0.575	0.578	0.581	0.584	0.587	0.592	0.596	0.602	0.608	0.615	0.622	0.629	0.638	0.646	0.655	0.663	0.671
Bengkulu	0.348	0.359	0.369	0.38	0.391	0.402	0.413	0.423	0.433	0.443	0.452	0.462	0.471	0.48	0.489	0.498	0.507	0.515	0.52	0.526	0.53	0.534	0.538	0.543	0.548	0.554	0.561	0.567	0.575	0.582	0.589	0.598	0.607	0.616	0.625	0.634	0.641
Lampung	0.344	0.355	0.365	0.376	0.386	0.396	0.405	0.414	0.423	0.432	0.441	0.449	0.458	0.467	0.476	0.485	0.494	0.503	0.512	0.52	0.526	0.532	0.536	0.54	0.544	0.549	0.555	0.562	0.571	0.581	0.591	0.601	0.611	0.621	0.631	0.641	0.651
Bangka Belitung	0.398	0.408	0.417	0.427	0.437	0.447	0.456	0.466	0.475	0.483	0.492	0.499	0.507	0.514	0.521	0.528	0.535	0.542	0.548	0.553	0.557	0.562	0.567	0.572	0.578	0.584	0.589	0.595	0.602	0.608	0.615	0.623	0.631	0.639	0.647	0.656	0.663
Kepulauan Riau	0.439	0.453	0.467	0.482	0.498	0.513	0.528	0.542	0.555	0.568	0.581	0.593	0.606	0.617	0.626	0.635	0.644	0.653	0.659	0.665	0.669	0.672	0.675	0.678	0.681	0.684	0.688	0.692	0.698	0.704	0.711	0.718	0.726	0.734	0.742	0.751	0.758
Kalimantan Utara	0.455	0.469	0.483	0.498	0.513	0.527	0.541	0.554	0.566	0.577	0.588	0.599	0.61	0.62	0.63	0.64	0.649	0.658	0.666	0.673	0.679	0.684	0.689	0.693	0.698	0.704	0.709	0.713	0.72	0.726	0.731	0.739	0.746	0.754	0.761	0.769	0.775
Jakarta	0.554	0.566	0.576	0.587	0.599	0.609	0.619	0.629	0.638	0.646	0.654	0.663	0.67	0.68	0.689	0.697	0.706	0.714	0.72	0.725	0.73	0.735	0.74	0.745	0.75	0.754	0.759	0.764	0.769	0.775	0.782	0.789	0.795	0.803	0.81	0.818	0.824
Jawa Barat	0.406	0.416	0.426	0.436	0.446	0.456	0.465	0.474	0.481	0.488	0.496	0.504	0.512	0.52	0.529	0.538	0.546	0.554	0.56	0.563	0.566	0.569	0.571	0.575	0.578	0.582	0.587	0.593	0.6	0.608	0.615	0.623	0.631	0.639	0.648	0.656	0.663
Jawa Tengah	0.363	0.374	0.384	0.395	0.405	0.415	0.425	0.433	0.442	0.449	0.457	0.466	0.476	0.483	0.492	0.5	0.508	0.516	0.526	0.529	0.533	0.536	0.54	0.545	0.549	0.555	0.561	0.568	0.575	0.582	0.591	0.599	0.608	0.616	0.625	0.632	
Yogyakarta	0.393	0.405	0.417	0.429	0.44	0.451	0.462	0.472	0.481	0.49	0.499	0.508	0.517	0.53	0.543	0.554	0.563	0.572	0.576	0.58	0.584	0.587	0.591	0.595	0.599	0.603	0.607	0.612	0.618	0.624	0.631	0.639	0.647	0.655	0.663	0.672	0.679
Jawa Timur	0.384	0.395	0.406	0.416	0.427	0.437	0.447	0.456	0.465	0.473	0.482	0.49	0.498	0.506	0.514	0.522	0.53	0.538	0.545	0.55	0.556	0.562	0.567	0.573	0.579	0.584	0.59	0.596	0.603	0.61	0.617	0.625	0.633	0.642	0.651	0.659	0.667
Banten	0.398	0.408	0.418	0.428	0.439	0.449	0.459	0.469	0.478	0.486	0.495	0.504	0.513	0.521	0.529	0.536	0.544	0.553	0.561	0.568	0.573	0.577	0.581	0.586	0.59	0.593	0.598	0.602	0.607	0.612	0.618	0.626	0.635	0.644	0.652	0.661	0.669
Bali	0.394	0.406	0.418	0.43	0.442	0.454	0.466	0.477	0.486	0.496	0.506	0.515	0.524	0.534	0.544	0.552	0.561	0.57	0.575	0.579	0.582	0.585	0.589	0.592	0.596	0.6	0.604	0.609	0.614	0.621	0.628	0.636	0.644	0.653	0.662	0.67	0.678
Nusa Tenggara Barat	0.285	0.297	0.307	0.318	0.328	0.338	0.346	0.354	0.361	0.367	0.374	0.383	0.392	0.403	0.413	0.424	0.434	0.444	0.452	0.458	0.466	0.475	0.483	0.49	0.498	0.505	0.511	0.518	0.524	0.532	0.539	0.547	0.554	0.562	0.569	0.577	0.584
Nusa Tenggara Timur	0.301	0.311	0.319	0.327	0.335	0.343	0.351	0.359	0.366	0.373	0.381	0.388	0.395	0.402	0.409	0.415	0.42	0.426	0.427	0.427	0.429	0.432	0.436	0.439	0.443	0.447	0.451	0.457	0.463	0.47	0.479	0.488	0.497	0.507	0.516	0.525	0.534
Kalimantan Barat	0.319	0.33	0.341	0.353	0.365	0.377	0.388	0.398	0.408	0.419	0.429	0.439	0.45	0.461	0.472	0.483	0.494	0.505	0.517	0.525	0.535	0.543	0.553	0.558	0.564	0.57	0.577	0.584	0.591	0.598	0.606	0.614	0.622	0.63	0.638	0.646	0.654
Kalimantan Tengah	0.41	0.42	0.429	0.439	0.449	0.459	0.469	0.479	0.488	0.497	0.506	0.515	0.523	0.534	0.545	0.554	0.564	0.573	0.579	0.583	0.585	0.586	0.587	0.588	0.59	0.591	0.594	0.598	0.603	0.61	0.617	0.625	0.633	0.642	0.65	0.659	0.667
Kalimantan Selatan	0.399	0.41	0.421	0.432	0.442	0.453	0.463	0.472	0.48	0.487	0.494	0.502	0.51	0.519	0.527	0.534	0.542	0.549	0.554	0.558	0.561	0.564	0.567	0.57	0.574	0.577	0.58	0.584	0.589	0.594	0.601	0.609	0.617	0.625	0.633	0.642	0.649
Kalimantan Timur	0.463	0.478	0.492	0.507	0.522	0.536	0.55	0.563	0.575	0.587	0.598	0.607	0.617	0.625	0.632	0.64	0.647	0.654	0.661	0.667	0.673	0.68	0.686	0.691	0.696	0.702	0.707	0.711	0.717	0.722	0.726	0.733	0.739	0.747	0.755	0.763	0.77
Sulawesi Utara	0.44	0.45	0.46	0.469	0.478	0.487	0.495	0.503	0.51	0.517	0.524	0.532	0.539	0.548	0.556	0.564	0.573	0.581	0.588	0.591	0.593	0.595	0.596	0.597	0.599	0.601	0.603	0.607	0.612	0.619	0.626	0.634	0.642	0.651	0.659	0.668	0.675
Sulawesi Tengah	0.363	0.373	0.383	0.392	0.402	0.411	0.42	0.429	0.437	0.444	0.452	0.46	0.468	0.476	0.485	0.493	0.502	0.509	0.516	0.523	0.527	0.533	0.538	0.542	0.547	0.551	0.555	0.559	0.565	0.572	0.579	0.588	0.597	0.606	0.616	0.625	0.633
Sulawesi Selatan	0.354	0.366	0.377	0.388	0.399	0.409	0.42	0.429	0.438	0.447	0.456	0.465	0.474	0.482	0.489	0.496	0.504	0.51	0.516	0.52	0.525	0.53	0.535	0.54	0.546	0.55	0.554	0.56	0.566	0.574	0.583	0.593	0.603	0.613	0.623	0.632	0.64
Sulawesi Tenggara	0.327	0.339	0.35	0.361	0.373	0.384	0.395	0.405	0.414	0.423	0.432	0.442	0.45	0.458	0.465	0.473	0.48	0.487	0.494	0.503	0.508	0.513	0.519	0.525	0.531	0.537	0.544	0.552	0.561	0.57	0.58	0.589	0.599	0.608	0.617	0.625	
Gorontalo	0.328	0.338	0.346	0.354	0.362	0.37	0.378	0.385	0.392	0.399	0.407	0.415	0.424	0.43	0.437	0.444	0.45	0.457	0.462	0.466	0.467	0.47	0.473	0.478	0.482	0.488	0.493	0.5	0.507	0.517	0.526	0.536	0.546	0.555	0.564	0.573	0.581
Sulawesi Barat	0.318	0.329	0.338	0.348	0.358	0.368	0.378	0.387	0.396	0.405	0.414	0.422	0.43	0.436	0.442	0.447	0.453	0.458	0.462	0.466	0.469	0.473	0.477	0.481	0.485	0.489	0.493	0.498	0.507	0.516	0.525	0.536	0.547	0.558	0.568	0.579	0.587
Maluku	0.446	0.453	0.46	0.468	0.476	0.483	0.491	0.499	0.506	0.512	0.519	0.526	0.533	0.539	0.545	0.551	0.557	0.562	0.566	0.567	0.569	0.573	0.578	0.584	0.589	0.594	0.599	0.604	0.609	0.614	0.62	0.625	0.631	0.636	0.641	0.646	0.651
Maluku Utara	0.364	0.374	0.383	0.393	0.404	0.414	0.423	0.432	0.441	0.449	0.458	0.467	0.476	0.483	0.491	0.498	0.506	0.514	0.518	0.523	0.524	0.524	0.523	0.521	0.518	0.515	0.511	0.508	0.507	0.51	0.515	0.522	0.531	0.541	0.552	0.562	0.571
Papua Barat	0.413	0.425	0.436	0.448	0.461	0.472	0.484	0.495	0.505	0.515	0.525	0.534	0.543	0.55	0.558	0.565	0.572	0.578	0.582	0.585	0.587	0.589	0.59	0.592	0.594	0.596	0.598	0.601	0.607	0.615	0.626	0.643	0.657	0.671	0.683	0.695	0.706
Papua	0.442	0.45	0.457	0.465	0.474	0.481	0.488	0.494	0.5	0.505	0.51	0.516	0.522	0.529	0.534	0.54	0.546	0.552	0.558																		

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Albania	0.54	0.545	0.55	0.555	0.56	0.564	0.569	0.573	0.577	0.581	0.584	0.585	0.584	0.585	0.588	0.593	0.601	0.607	0.614	0.623	0.633	0.642	0.651	0.659	0.667	0.674	0.68	0.686	0.692	0.697	0.702	0.706	0.711	0.714	0.718	0.721	0.725	
Bosnia and Herzegovina	0.502	0.508	0.514	0.518	0.522	0.527	0.532	0.535	0.539	0.542	0.542	0.542	0.543	0.546	0.552	0.573	0.597	0.619	0.635	0.648	0.658	0.667	0.675	0.682	0.688	0.694	0.699	0.705	0.71	0.714	0.717	0.721	0.724	0.727	0.73	0.733		
Bulgaria	0.705	0.71	0.715	0.72	0.724	0.728	0.733	0.738	0.744	0.752	0.76	0.767	0.771	0.771	0.771	0.777	0.783	0.786	0.789	0.793	0.797	0.801	0.806	0.811	0.815	0.819	0.824	0.828	0.833	0.836	0.838	0.841	0.843	0.845	0.846	0.848	0.85	
Croatia	0.746	0.751	0.755	0.759	0.763	0.767	0.772	0.775	0.779	0.782	0.786	0.789	0.788	0.785	0.782	0.779	0.779	0.785	0.79	0.793	0.797	0.801	0.806	0.811	0.815	0.819	0.824	0.828	0.833	0.836	0.838	0.841	0.843	0.845	0.846	0.848	0.85	
Czech Republic	0.786	0.79	0.793	0.796	0.798	0.8	0.803	0.805	0.807	0.81	0.812	0.816	0.82	0.826	0.829	0.83	0.832	0.834	0.835	0.837	0.839	0.842	0.844	0.847	0.85	0.853	0.856	0.86	0.863	0.866	0.869	0.871	0.873	0.875	0.875	0.878	0.881	
Hungary	0.711	0.719	0.727	0.732	0.733	0.735	0.739	0.744	0.748	0.751	0.753	0.756	0.761	0.766	0.77	0.777	0.78	0.783	0.786	0.79	0.794	0.798	0.803	0.807	0.812	0.816	0.821	0.825	0.828	0.831	0.834	0.836	0.838	0.841	0.843	0.844	0.846	0.849
Macedonia	0.664	0.669	0.673	0.677	0.681	0.686	0.69	0.695	0.7	0.702	0.7	0.699	0.701	0.701	0.701	0.703	0.708	0.712	0.716	0.718	0.723	0.73	0.737	0.742	0.745	0.749	0.753	0.757	0.762	0.765	0.77	0.775	0.779	0.782	0.786	0.789	0.793	
Montenegro	0.725	0.728	0.732	0.734	0.737	0.739	0.742	0.744	0.746	0.748	0.75	0.751	0.75	0.747	0.743	0.74	0.74	0.741	0.743	0.745	0.748	0.753	0.759	0.764	0.769	0.773	0.777	0.781	0.786	0.79	0.795	0.8	0.803	0.806	0.809	0.812	0.815	
Poland	0.702	0.702	0.699	0.699	0.703	0.708	0.714	0.719	0.724	0.73	0.735	0.739	0.745	0.751	0.759	0.767	0.773	0.778	0.783	0.789	0.795	0.8	0.805	0.81	0.815	0.82	0.824	0.83	0.835	0.84	0.845	0.85	0.855	0.86	0.864	0.868	0.872	
Romania	0.661	0.672	0.684	0.688	0.687	0.688	0.689	0.695	0.703	0.715	0.731	0.738	0.738	0.739	0.74	0.742	0.744	0.747	0.749	0.751	0.755	0.759	0.764	0.769	0.774	0.78	0.786	0.794	0.802	0.808	0.813	0.818	0.822	0.827	0.83	0.833	0.838	
Serbia	0.678	0.68	0.682	0.683	0.684	0.686	0.689	0.691	0.694	0.697	0.7	0.703	0.704	0.701	0.699	0.697	0.698	0.702	0.707	0.709	0.712	0.714	0.717	0.722	0.728	0.733	0.737	0.742	0.747	0.752	0.755	0.759	0.761	0.764	0.767	0.769	0.771	
Slovakia	0.749	0.753	0.756	0.759	0.762	0.766	0.77	0.774	0.778	0.781	0.785	0.788	0.792	0.797	0.805	0.81	0.812	0.814	0.817	0.82	0.822	0.825	0.828	0.831	0.835	0.839	0.843	0.848	0.854	0.858	0.86	0.863	0.866	0.868	0.871	0.874	0.877	0.88
Slovenia	0.766	0.774	0.782	0.789	0.793	0.797	0.801	0.803	0.808	0.813	0.813	0.813	0.812	0.812	0.813	0.815	0.817	0.82	0.823	0.827	0.831	0.835	0.839	0.843	0.847	0.851	0.856	0.86	0.863	0.865	0.867	0.869	0.871	0.873	0.874	0.877	0.881	
Eastern Europe	0.737	0.738	0.738	0.739	0.742	0.743	0.744	0.747	0.753	0.76	0.767	0.775	0.782	0.782	0.78	0.777	0.774	0.771	0.768	0.766	0.766	0.768	0.77	0.774	0.78	0.786	0.792	0.8	0.806	0.81	0.813	0.817	0.819	0.821	0.823	0.826	0.829	
Belarus	0.703	0.706	0.708	0.711	0.713	0.716	0.719	0.723	0.727	0.733	0.738	0.743	0.748	0.751	0.752	0.748	0.744	0.742	0.741	0.74	0.741	0.744	0.747	0.752	0.758	0.765	0.772	0.78	0.788	0.795	0.8	0.805	0.81	0.814	0.818	0.822	0.826	
Estonia	0.775	0.776	0.776	0.776	0.779	0.78	0.779	0.778	0.781	0.788	0.799	0.807	0.813	0.814	0.813	0.812	0.812	0.813	0.816	0.818	0.822	0.832	0.837	0.843	0.847	0.851	0.854	0.859	0.861	0.866	0.872	0.877	0.88	0.883	0.885	0.887		
Latvia	0.759	0.759	0.758	0.758	0.759	0.76	0.762	0.765	0.77	0.776	0.783	0.789	0.793	0.794	0.79	0.786	0.783	0.781	0.781	0.783	0.785	0.79	0.795	0.801	0.808	0.815	0.822	0.831	0.837	0.841	0.843	0.847	0.85	0.851	0.851	0.851	0.851	0.853
Lithuania	0.768	0.771	0.772	0.772	0.774	0.776	0.777	0.781	0.787	0.79	0.792	0.795	0.8	0.805	0.805	0.804	0.801	0.801	0.801	0.803	0.805	0.809	0.814	0.819	0.825	0.832	0.838	0.845	0.851	0.853	0.856	0.858	0.862	0.865	0.869	0.872	0.876	
Moldova	0.614	0.617	0.619	0.621	0.623	0.625	0.628	0.632	0.636	0.641	0.647	0.651	0.652	0.654	0.652	0.647	0.643	0.637	0.631	0.626	0.624	0.623	0.626	0.629	0.634	0.64	0.646	0.653	0.66	0.665	0.67	0.678	0.683	0.689	0.695	0.699	0.703	
Russia	0.745	0.746	0.745	0.745	0.749	0.749	0.748	0.751	0.758	0.766	0.774	0.782	0.788	0.787	0.786	0.784	0.781	0.778	0.775	0.774	0.774	0.775	0.778	0.782	0.787	0.793	0.799	0.806	0.811	0.814	0.818	0.821	0.823	0.824	0.826	0.829	0.832	
Ukraine	0.712	0.715	0.717	0.719	0.721	0.724	0.727	0.731	0.737	0.742	0.748	0.753	0.757	0.76	0.758	0.753	0.748	0.742	0.737	0.732	0.729	0.728	0.729	0.733	0.74	0.747	0.755	0.763	0.77	0.774	0.778	0.782	0.785	0.789	0.791	0.792	0.793	
High-income	0.773	0.778	0.782	0.787	0.791	0.795	0.799	0.803	0.806	0.809	0.813	0.817	0.822	0.826	0.83	0.837	0.84	0.843	0.845	0.848	0.854	0.856	0.859	0.86	0.861	0.863	0.866	0.868	0.871	0.873	0.875	0.877	0.879	0.881	0.882			
High-income Asia Pacific	0.745	0.75	0.756	0.763	0.769	0.775	0.781	0.787	0.793	0.799	0.805	0.809	0.816	0.821	0.826	0.831	0.835	0.839	0.841	0.844	0.847	0.849	0.851	0.854	0.856	0.859	0.861	0.864	0.867	0.868	0.871	0.873	0.875	0.877	0.879	0.882	0.884	
Brunei	0.674	0.681	0.687	0.694	0.7	0.706	0.713	0.721	0.729	0.737	0.744	0.751	0.756	0.761	0.766	0.772	0.777	0.783	0.789	0.796	0.803	0.809	0.815	0.821	0.827	0.833	0.839	0.844	0.849	0.853	0.856	0.858	0.861	0.863	0.866	0.869	0.871	
Japan	0.776	0.779	0.781	0.784	0.788	0.793	0.798	0.803	0.81	0.817	0.822	0.828	0.833	0.837	0.84	0.844	0.847	0.85	0.852	0.854	0.856	0.858	0.859	0.861	0.863	0.865	0.867	0.869	0.871	0.872	0.873	0.875	0.877	0.878	0.88	0.882	0.884	
South Korea	0.618	0.631	0.649	0.669	0.684	0.693	0.704	0.714	0.723	0.732	0.738	0.744	0.753	0.764	0.772	0.781	0.791	0.8	0.805	0.81	0.816	0.821	0.826	0.831	0.835	0.84	0.845	0.849	0.853	0.857	0.861	0.864	0.868	0.871	0.874	0.878	0.881	
Singapore	0.678	0.686	0.695	0.704	0.711	0.717	0.718	0.711	0.719	0.734	0.741	0.748	0.754	0.76	0.768	0.776	0.784	0.795	0.802	0.805	0.812	0.818	0.823	0.828	0.834	0.84	0.846	0.852	0.858	0.863	0.867	0.869	0.873	0.876	0.879	0.883	0.886	
Hokkaidō	0.771	0.775	0.778	0.78	0.784	0.79	0.794	0.799	0.804	0.809	0.813	0.818	0.822	0.826	0.83	0.833	0.836	0.839	0.841	0.843	0.845	0.847	0.848	0.85	0.852	0.853	0.855	0.857	0.859	0.86	0.861	0.862	0.864	0.866	0.867	0.869	0.87	
Aomori	0.76	0.764	0.766	0.769	0.773	0.778	0.784	0.789	0.795	0.801	0.805	0.81	0.814	0.818	0.822	0.827	0.831	0.835	0.841	0.844	0.848	0.85	0.852	0.854	0.855	0.856	0.858	0.86	0.861	0.862	0.863	0.865	0.866	0.868	0.869	0.871	0.873	
Iwate	0.752	0.756	0.758	0.761	0.766	0.771	0.776	0.78	0.786	0.792	0.797	0.802	0.807	0.811	0.816	0.821	0.826	0.83	0.833	0.835	0.838	0.84	0.842	0.844	0.846	0.848	0.849	0.851	0.853	0.854	0.856	0.857	0.859	0.86	0.862	0.864	0.865	
Miyagi	0.763	0.767	0.77	0.773	0.778	0.783	0.789	0.794	0.8	0.807	0.813	0.818	0.824	0.828	0.832	0.836	0.839	0.842	0.844	0.846	0.848	0.85	0.851	0.853	0.855	0.857	0.859	0.861	0.862	0.863	0.865	0.866	0.868	0.869	0.871	0.873	0.874	
Akita	0.759	0.763	0.766	0.769	0.773	0.778	0.782	0.787	0.792	0.798	0.802	0.806	0.811	0.815	0.819	0.823	0.828	0.832	0.834																			

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Tottori	0.747	0.751	0.753	0.755	0.759	0.764	0.769	0.774	0.778	0.786	0.791	0.797	0.803	0.807	0.812	0.817	0.822	0.826	0.83	0.832	0.835	0.837	0.84	0.843	0.845	0.847	0.849	0.851	0.853	0.854	0.856	0.857	0.858	0.859	0.861	0.864	0.866	
Shimane	0.744	0.748	0.75	0.752	0.756	0.761	0.766	0.771	0.777	0.783	0.788	0.794	0.799	0.803	0.808	0.813	0.818	0.823	0.827	0.83	0.833	0.836	0.839	0.842	0.845	0.847	0.849	0.85	0.852	0.853	0.854	0.856	0.857	0.858	0.859	0.861	0.864	0.866
Okayama	0.762	0.765	0.767	0.769	0.773	0.779	0.784	0.79	0.797	0.804	0.809	0.815	0.821	0.825	0.83	0.835	0.839	0.843	0.845	0.847	0.849	0.851	0.853	0.855	0.857	0.859	0.861	0.863	0.865	0.866	0.867	0.869	0.871	0.872	0.874	0.876	0.878	
Hiroshima	0.77	0.773	0.775	0.777	0.781	0.787	0.792	0.797	0.804	0.811	0.816	0.822	0.828	0.833	0.837	0.842	0.845	0.848	0.85	0.852	0.854	0.856	0.857	0.859	0.861	0.863	0.865	0.867	0.869	0.869	0.87	0.871	0.872	0.874	0.877	0.881		
Yamaguchi	0.767	0.771	0.773	0.775	0.779	0.784	0.789	0.795	0.801	0.808	0.813	0.818	0.824	0.828	0.832	0.837	0.84	0.843	0.846	0.848	0.85	0.851	0.853	0.855	0.857	0.859	0.861	0.863	0.865	0.866	0.867	0.868	0.868	0.87	0.872	0.874	0.875	0.878
Tokushima	0.762	0.765	0.768	0.77	0.774	0.78	0.785	0.79	0.796	0.803	0.808	0.814	0.82	0.824	0.828	0.832	0.835	0.838	0.841	0.843	0.845	0.847	0.849	0.85	0.852	0.854	0.856	0.858	0.86	0.861	0.862	0.864	0.866	0.867	0.869	0.871	0.873	
Kagawa	0.764	0.768	0.77	0.772	0.776	0.781	0.786	0.791	0.798	0.805	0.811	0.817	0.822	0.827	0.831	0.835	0.839	0.842	0.844	0.846	0.848	0.85	0.852	0.854	0.855	0.857	0.859	0.861	0.863	0.864	0.865	0.866	0.867	0.869	0.872	0.875		
Ehime	0.757	0.761	0.764	0.767	0.771	0.776	0.781	0.786	0.792	0.799	0.804	0.809	0.815	0.819	0.823	0.828	0.832	0.835	0.837	0.839	0.841	0.843	0.845	0.847	0.849	0.851	0.852	0.855	0.856	0.857	0.859	0.861	0.862	0.864	0.866	0.867	0.869	
Kōchi	0.746	0.749	0.751	0.753	0.757	0.763	0.768	0.774	0.78	0.787	0.792	0.796	0.801	0.805	0.81	0.815	0.819	0.823	0.825	0.827	0.829	0.831	0.833	0.835	0.837	0.839	0.84	0.843	0.844	0.845	0.847	0.848	0.85	0.852	0.853	0.855	0.857	
Fukuoka	0.769	0.773	0.775	0.777	0.782	0.787	0.792	0.798	0.804	0.811	0.816	0.822	0.826	0.83	0.834	0.837	0.841	0.844	0.846	0.848	0.85	0.852	0.853	0.855	0.857	0.859	0.861	0.863	0.865	0.866	0.867	0.869	0.87	0.872	0.874	0.876	0.877	
Saga	0.751	0.755	0.757	0.76	0.764	0.769	0.775	0.78	0.786	0.793	0.798	0.803	0.808	0.812	0.816	0.821	0.825	0.828	0.831	0.834	0.836	0.839	0.843	0.846	0.849	0.85	0.852	0.853	0.854	0.855	0.856	0.857	0.859	0.861	0.863	0.866	0.869	
Nagasaki	0.749	0.753	0.755	0.757	0.761	0.767	0.772	0.777	0.783	0.79	0.794	0.799	0.804	0.808	0.813	0.818	0.822	0.826	0.829	0.832	0.834	0.837	0.839	0.841	0.843	0.845	0.847	0.848	0.849	0.849	0.85	0.851	0.852	0.854	0.857	0.859		
Kumamoto	0.75	0.754	0.757	0.759	0.763	0.768	0.773	0.778	0.784	0.791	0.796	0.801	0.806	0.81	0.814	0.819	0.823	0.827	0.83	0.832	0.835	0.837	0.839	0.841	0.843	0.845	0.846	0.846	0.847	0.848	0.849	0.85	0.851	0.852	0.854	0.857	0.86	
Ōita	0.761	0.765	0.768	0.771	0.775	0.78	0.785	0.789	0.795	0.802	0.807	0.812	0.817	0.821	0.825	0.83	0.834	0.838	0.841	0.843	0.845	0.847	0.849	0.85	0.852	0.854	0.856	0.858	0.86	0.861	0.862	0.863	0.865	0.867	0.87	0.872		
Miyazaki	0.749	0.752	0.755	0.757	0.762	0.767	0.773	0.778	0.784	0.79	0.795	0.799	0.804	0.808	0.812	0.816	0.821	0.825	0.828	0.831	0.833	0.836	0.839	0.841	0.844	0.845	0.845	0.846	0.847	0.847	0.848	0.849	0.85	0.853	0.855	0.858		
Kagoshima	0.744	0.748	0.751	0.754	0.759	0.765	0.77	0.775	0.782	0.788	0.793	0.799	0.804	0.808	0.813	0.818	0.822	0.826	0.828	0.83	0.832	0.834	0.837	0.84	0.842	0.844	0.846	0.846	0.847	0.848	0.849	0.85	0.851	0.852	0.853	0.855	0.858	
Okinawa	0.73	0.734	0.736	0.738	0.743	0.75	0.756	0.762	0.769	0.777	0.782	0.787	0.793	0.797	0.802	0.808	0.812	0.816	0.819	0.821	0.823	0.825	0.828	0.832	0.835	0.836	0.836	0.837	0.837	0.837	0.838	0.838	0.84	0.842	0.845	0.848		
Australasia	0.787	0.79	0.793	0.796	0.799	0.802	0.805	0.808	0.811	0.813	0.815	0.818	0.821	0.824	0.828	0.832	0.836	0.839	0.843	0.846	0.849	0.853	0.856	0.858	0.86	0.862	0.861	0.861	0.864	0.867	0.87	0.872	0.875	0.88	0.884	0.887		
Australia	0.787	0.789	0.792	0.796	0.799	0.802	0.806	0.81	0.813	0.815	0.818	0.82	0.823	0.826	0.83	0.834	0.838	0.842	0.845	0.849	0.853	0.856	0.858	0.862	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.865	
New Zealand	0.786	0.79	0.794	0.797	0.799	0.8	0.8	0.8	0.8	0.8	0.803	0.807	0.81	0.813	0.816	0.819	0.822	0.826	0.828	0.828	0.831	0.836	0.839	0.84	0.841	0.843	0.84	0.838	0.841	0.844	0.847	0.851	0.856	0.86	0.863	0.865	0.867	
Western Europe	0.754	0.759	0.765	0.771	0.775	0.779	0.784	0.788	0.792	0.797	0.801	0.807	0.812	0.817	0.821	0.825	0.828	0.832	0.835	0.838	0.842	0.845	0.848	0.85	0.852	0.854	0.856	0.858	0.859	0.861	0.864	0.866	0.869	0.871	0.873	0.874	0.876	
Andorra	0.845	0.848	0.85	0.852	0.855	0.857	0.859	0.862	0.864	0.866	0.868	0.87	0.872	0.873	0.875	0.876	0.878	0.881	0.884	0.887	0.889	0.891	0.892	0.894	0.896	0.897	0.899	0.901	0.902	0.904	0.906	0.907	0.909	0.91	0.912	0.913	0.915	
Austria	0.801	0.803	0.807	0.812	0.816	0.818	0.82	0.822	0.824	0.827	0.83	0.832	0.836	0.838	0.841	0.844	0.846	0.849	0.851	0.854	0.857	0.86	0.862	0.864	0.867	0.869	0.871	0.874	0.876	0.878	0.88	0.882	0.885	0.887	0.889	0.89	0.892	
Belgium	0.813	0.818	0.823	0.827	0.831	0.833	0.835	0.837	0.84	0.841	0.843	0.846	0.85	0.855	0.859	0.861	0.862	0.865	0.867	0.869	0.871	0.874	0.877	0.877	0.878	0.879	0.88	0.882	0.883	0.886	0.89	0.893	0.896	0.897	0.898	0.899		
Cyprus	0.692	0.696	0.699	0.704	0.712	0.72	0.726	0.73	0.734	0.739	0.745	0.748	0.754	0.765	0.774	0.783	0.79	0.798	0.806	0.812	0.819	0.826	0.831	0.835	0.839	0.843	0.847	0.852	0.856	0.86	0.863	0.866	0.869	0.87	0.871	0.872		
Denmark	0.866	0.867	0.869	0.871	0.873	0.876	0.879	0.88	0.88	0.88	0.88	0.88	0.88	0.881	0.882	0.885	0.889	0.893	0.895	0.897	0.9	0.903	0.906	0.906	0.906	0.907	0.908	0.909	0.911	0.914	0.919	0.922	0.925	0.925	0.925	0.925		
Finland	0.815	0.816	0.818	0.821	0.826	0.832	0.836	0.837	0.838	0.84	0.841	0.841	0.842	0.843	0.845	0.849	0.852	0.856	0.86	0.863	0.867	0.871	0.874	0.876	0.878	0.88	0.883	0.886	0.888	0.89	0.892	0.896	0.9	0.904	0.906	0.907		
France	0.743	0.749	0.758	0.765	0.769	0.773	0.777	0.783	0.788	0.793	0.799	0.805	0.812	0.817	0.821	0.823	0.826	0.829	0.832	0.833	0.836	0.84	0.843	0.846	0.848	0.849	0.85	0.853	0.855	0.856	0.858	0.861	0.863	0.865	0.867	0.868	0.869	
Germany	0.801	0.804	0.807	0.809	0.812	0.814	0.817	0.82	0.822	0.826	0.829	0.832	0.835	0.838	0.841	0.843	0.845	0.847	0.85	0.852	0.854	0.857	0.86	0.862	0.864	0.866	0.869	0.871	0.873	0.875	0.877	0.88	0.882	0.884	0.886	0.889		
Greece	0.699	0.708	0.714	0.722	0.731	0.739	0.745	0.751	0.756	0.761	0.765	0.77	0.775	0.779	0.783	0.787	0.792	0.796	0.801	0.806	0.81	0.815	0.82	0.825	0.829	0.834	0.838	0.843	0.847	0.85	0.852	0.853	0.853	0.852	0.852	0.852	0.853	
Iceland	0.808	0.817	0.823	0.83	0.841	0.848	0.847	0.842	0.842	0.844	0.847	0.852	0.852	0.855	0.856	0.861	0.862	0.865	0.869	0.873	0.875	0.879	0.886	0.888	0.889	0.892	0.894	0.895	0.894	0.894	0.901	0.906	0.909	0.914	0.918	0.92	0.921	
Ireland	0.684	0.694	0.705	0.717	0.727	0.733	0.74	0.75	0.759	0.764	0.768	0.775	0.784	0.792	0.806	0.811	0.818	0.826	0.832	0.836	0.842	0.848	0.856	0.861	0.861	0.861	0.861	0.861	0.864									

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Middlesbrough	0.668	0.674	0.68	0.686	0.69	0.695	0.699	0.705	0.713	0.72	0.727	0.735	0.741	0.748	0.755	0.761	0.767	0.772	0.778	0.785	0.791	0.794	0.795	0.795	0.8	0.804	0.808	0.813	0.816	0.817	0.818	0.819	0.821	0.824	0.826	0.827	0.829
South Tyneside	0.657	0.662	0.666	0.669	0.672	0.675	0.68	0.686	0.694	0.701	0.707	0.713	0.719	0.725	0.731	0.736	0.741	0.746	0.753	0.761	0.768	0.775	0.78	0.784	0.789	0.793	0.796	0.799	0.802	0.803	0.805	0.807	0.81	0.814	0.816	0.818	0.82
Sunderland	0.676	0.683	0.689	0.694	0.7	0.706	0.712	0.718	0.725	0.731	0.736	0.742	0.748	0.754	0.761	0.767	0.772	0.778	0.785	0.791	0.798	0.804	0.809	0.812	0.816	0.82	0.823	0.826	0.829	0.83	0.831	0.832	0.835	0.838	0.841	0.844	0.845
Hartlepool	0.672	0.678	0.683	0.687	0.691	0.695	0.7	0.704	0.711	0.718	0.723	0.728	0.734	0.74	0.746	0.753	0.759	0.765	0.77	0.777	0.782	0.785	0.787	0.788	0.79	0.793	0.795	0.799	0.802	0.805	0.807	0.81	0.814	0.819	0.82	0.821	0.821
Cheshire East	0.726	0.732	0.737	0.742	0.747	0.753	0.758	0.764	0.769	0.774	0.778	0.783	0.788	0.795	0.802	0.809	0.815	0.821	0.826	0.832	0.837	0.842	0.845	0.845	0.847	0.848	0.848	0.847	0.848	0.851	0.854	0.858	0.863	0.869	0.872	0.873	0.874
Stockport	0.702	0.708	0.714	0.719	0.724	0.73	0.734	0.74	0.747	0.753	0.757	0.763	0.77	0.778	0.784	0.789	0.794	0.8	0.806	0.813	0.82	0.825	0.828	0.829	0.831	0.833	0.835	0.836	0.837	0.838	0.839	0.841	0.844	0.849	0.853	0.855	0.857
Trafford	0.726	0.732	0.737	0.741	0.745	0.75	0.755	0.76	0.767	0.772	0.777	0.784	0.791	0.799	0.806	0.812	0.816	0.821	0.828	0.835	0.841	0.846	0.849	0.851	0.854	0.855	0.855	0.856	0.858	0.86	0.864	0.868	0.872	0.877	0.88	0.882	0.883
Cheshire West and Chester	0.714	0.72	0.726	0.731	0.736	0.741	0.747	0.751	0.756	0.761	0.766	0.773	0.78	0.787	0.792	0.795	0.796	0.799	0.803	0.812	0.822	0.831	0.837	0.839	0.841	0.843	0.845	0.846	0.847	0.849	0.852	0.857	0.862	0.866	0.868	0.869	0.869
Sefton	0.682	0.688	0.693	0.698	0.704	0.709	0.715	0.72	0.725	0.73	0.734	0.74	0.747	0.754	0.761	0.767	0.771	0.777	0.783	0.789	0.795	0.8	0.803	0.805	0.809	0.811	0.812	0.813	0.813	0.814	0.816	0.818	0.82	0.823	0.824	0.825	0.826
Lancashire	0.694	0.7	0.705	0.711	0.716	0.721	0.727	0.732	0.738	0.744	0.749	0.755	0.761	0.768	0.775	0.781	0.786	0.792	0.798	0.804	0.81	0.815	0.817	0.819	0.822	0.824	0.826	0.827	0.829	0.83	0.832	0.834	0.838	0.842	0.845	0.847	0.848
Cumbria	0.702	0.707	0.713	0.718	0.723	0.73	0.736	0.741	0.747	0.751	0.754	0.757	0.763	0.77	0.777	0.783	0.789	0.794	0.8	0.804	0.809	0.812	0.814	0.815	0.818	0.82	0.821	0.821	0.823	0.825	0.828	0.832	0.837	0.842	0.845	0.846	0.848
Bolton	0.678	0.684	0.69	0.695	0.701	0.707	0.713	0.719	0.725	0.73	0.735	0.741	0.747	0.754	0.761	0.766	0.77	0.774	0.78	0.786	0.791	0.795	0.797	0.798	0.8	0.8	0.8	0.8	0.802	0.804	0.807	0.81	0.814	0.819	0.821	0.823	0.824
Wirral	0.677	0.682	0.687	0.692	0.696	0.7	0.705	0.71	0.716	0.722	0.727	0.733	0.739	0.746	0.753	0.76	0.765	0.771	0.777	0.783	0.787	0.79	0.791	0.792	0.795	0.797	0.798	0.798	0.799	0.8	0.803	0.808	0.812	0.817	0.819	0.82	0.82
Bury	0.683	0.688	0.693	0.697	0.7	0.704	0.709	0.714	0.72	0.727	0.733	0.739	0.747	0.754	0.761	0.766	0.77	0.774	0.78	0.787	0.793	0.797	0.799	0.8	0.803	0.806	0.807	0.806	0.806	0.805	0.808	0.812	0.818	0.824	0.828	0.83	0.831
St Helens	0.67	0.675	0.681	0.686	0.691	0.697	0.703	0.709	0.715	0.72	0.727	0.733	0.739	0.745	0.75	0.755	0.76	0.766	0.772	0.778	0.786	0.79	0.792	0.796	0.799	0.801	0.804	0.806	0.808	0.81	0.812	0.816	0.822	0.826	0.828	0.83	0.831
Warrington	0.719	0.724	0.73	0.735	0.741	0.747	0.753	0.759	0.766	0.771	0.777	0.783	0.789	0.796	0.802	0.807	0.812	0.817	0.824	0.83	0.836	0.841	0.844	0.847	0.85	0.852	0.852	0.852	0.854	0.858	0.862	0.867	0.873	0.875	0.877	0.878	
Oldham	0.669	0.674	0.679	0.684	0.689	0.694	0.699	0.704	0.71	0.715	0.72	0.725	0.731	0.738	0.743	0.747	0.751	0.754	0.758	0.763	0.769	0.773	0.775	0.776	0.778	0.78	0.782	0.784	0.787	0.789	0.792	0.796	0.8	0.804	0.806	0.807	0.808
Rochdale	0.668	0.673	0.679	0.684	0.688	0.694	0.7	0.705	0.712	0.716	0.72	0.725	0.731	0.737	0.744	0.75	0.755	0.76	0.767	0.773	0.779	0.783	0.784	0.785	0.787	0.788	0.788	0.788	0.789	0.791	0.795	0.8	0.805	0.81	0.813	0.814	0.814
Wigan	0.671	0.676	0.682	0.687	0.692	0.698	0.704	0.71	0.716	0.722	0.727	0.733	0.739	0.746	0.752	0.758	0.763	0.769	0.774	0.779	0.785	0.789	0.791	0.793	0.795	0.797	0.798	0.799	0.8	0.801	0.804	0.807	0.811	0.816	0.82	0.822	0.824
Halton	0.69	0.695	0.7	0.704	0.707	0.711	0.715	0.72	0.727	0.734	0.739	0.745	0.752	0.759	0.767	0.773	0.778	0.782	0.786	0.792	0.8	0.806	0.81	0.811	0.812	0.814	0.816	0.818	0.82	0.822	0.827	0.832	0.836	0.842	0.847	0.85	0.853
Liverpool	0.688	0.693	0.698	0.702	0.705	0.709	0.712	0.716	0.722	0.729	0.738	0.75	0.76	0.767	0.773	0.777	0.781	0.787	0.794	0.803	0.812	0.818	0.824	0.83	0.836	0.839	0.842	0.844	0.848	0.852	0.855	0.859	0.862	0.865	0.867	0.868	0.87
Tameside	0.672	0.678	0.683	0.688	0.692	0.697	0.702	0.707	0.713	0.719	0.724	0.73	0.737	0.744	0.751	0.756	0.761	0.766	0.771	0.778	0.786	0.792	0.795	0.797	0.8	0.802	0.801	0.801	0.8	0.8	0.802	0.805	0.809	0.813	0.816	0.818	0.82
Salford	0.691	0.696	0.701	0.706	0.71	0.714	0.719	0.723	0.728	0.732	0.737	0.744	0.752	0.761	0.769	0.775	0.78	0.784	0.791	0.799	0.807	0.814	0.818	0.821	0.825	0.828	0.831	0.832	0.834	0.835	0.839	0.843	0.848	0.853	0.856	0.859	0.861
Blackburn with Darwen	0.669	0.675	0.68	0.685	0.689	0.694	0.698	0.702	0.709	0.715	0.72	0.726	0.733	0.739	0.745	0.75	0.755	0.76	0.765	0.77	0.775	0.779	0.781	0.782	0.784	0.786	0.786	0.787	0.791	0.794	0.798	0.802	0.807	0.812	0.816	0.818	0.82
Knowsley	0.665	0.672	0.678	0.683	0.689	0.694	0.7	0.704	0.71	0.715	0.72	0.727	0.733	0.739	0.744	0.75	0.755	0.762	0.768	0.774	0.781	0.787	0.791	0.792	0.795	0.799	0.803	0.807	0.811	0.813	0.816	0.819	0.822	0.828	0.832	0.834	0.837
Blackpool	0.667	0.673	0.679	0.685	0.688	0.69	0.691	0.693	0.699	0.704	0.711	0.722	0.732	0.74	0.746	0.751	0.754	0.759	0.766	0.773	0.778	0.782	0.786	0.788	0.789	0.79	0.792	0.792	0.792	0.792	0.792	0.792	0.792	0.792	0.792	0.792	0.792
Manchester	0.715	0.721	0.726	0.731	0.734	0.739	0.744	0.749	0.755	0.761	0.768	0.775	0.781	0.789	0.796	0.801	0.806	0.812	0.819	0.829	0.839	0.847	0.853	0.857	0.862	0.866	0.869	0.872	0.875	0.878	0.882	0.884	0.888	0.892	0.895	0.897	0.899
North Yorkshire	0.707	0.712	0.718	0.724	0.73	0.736	0.742	0.747	0.754	0.759	0.762	0.765	0.769	0.774	0.78	0.785	0.79	0.796	0.802	0.808	0.815	0.819	0.821	0.822	0.826	0.829	0.831	0.833	0.834	0.835	0.838	0.841	0.844	0.848	0.849	0.849	0.85
East Riding of Yorkshire	0.696	0.702	0.708	0.714	0.72	0.726	0.732	0.737	0.743	0.748	0.752	0.758	0.765	0.771	0.777	0.782	0.788	0.793	0.799	0.804	0.809	0.81	0.811	0.812	0.815	0.818	0.819	0.821	0.823	0.825	0.827	0.828	0.831	0.834	0.836	0.837	0.839
York	0.729	0.735	0.74	0.745	0.749	0.753	0.756	0.76	0.766	0.773	0.781	0.79	0.799	0.804	0.81	0.815	0.819	0.824	0.831	0.836	0.842	0.848	0.854	0.86	0.865	0.87	0.873	0.877	0.88	0.881	0.883	0.885	0.886	0.888	0.89	0.892	0.894
North East Lincolnshire	0.693	0.698	0.703	0.706	0.709	0.714	0.721	0.728	0.736	0.744	0.743	0.748	0.755	0.762	0.769	0.773	0.776	0.779	0.784	0.789	0.795	0.801	0.802	0.803	0.805	0.808	0.813	0.817	0.822	0.825	0.828	0.831	0.833	0.834	0.834	0.834	0.834
Calderdale	0.688	0.694	0.699	0.704	0.709	0.716	0.722	0.729	0.736	0.741	0.746	0.75	0.755	0.761	0.767	0.773	0.777	0.783	0.788	0.795	0.801	0.80															

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Dudley	0.677	0.682	0.688	0.693	0.698	0.703	0.708	0.714	0.721	0.726	0.731	0.736	0.741	0.747	0.753	0.757	0.762	0.767	0.772	0.778	0.784	0.789	0.792	0.794	0.797	0.8	0.802	0.804	0.806	0.806	0.807	0.808	0.81	0.814	0.816	0.817	0.818		
Coventry	0.697	0.702	0.707	0.711	0.715	0.719	0.724	0.729	0.735	0.742	0.75	0.757	0.764	0.771	0.777	0.782	0.787	0.792	0.797	0.805	0.812	0.819	0.823	0.826	0.83	0.833	0.835	0.836	0.837	0.838	0.84	0.843	0.848	0.855	0.86	0.863	0.866		
Telford and Wrekin	0.698	0.704	0.71	0.716	0.721	0.726	0.731	0.736	0.742	0.747	0.752	0.757	0.763	0.769	0.775	0.78	0.785	0.792	0.798	0.804	0.81	0.815	0.817	0.818	0.818	0.818	0.818	0.818	0.818	0.821	0.822	0.824	0.828	0.833	0.838	0.842	0.845	0.846	
Stoke-on-Trent	0.67	0.676	0.681	0.686	0.691	0.697	0.701	0.705	0.71	0.716	0.724	0.733	0.742	0.749	0.756	0.761	0.766	0.772	0.777	0.783	0.788	0.79	0.789	0.788	0.789	0.791	0.791	0.79	0.793	0.796	0.8	0.804	0.809	0.815	0.819	0.823	0.827		
Walsall	0.667	0.672	0.677	0.682	0.686	0.691	0.697	0.702	0.709	0.714	0.718	0.722	0.728	0.735	0.741	0.744	0.746	0.747	0.752	0.759	0.766	0.771	0.773	0.773	0.776	0.777	0.781	0.784	0.786	0.788	0.792	0.796	0.8	0.804	0.809	0.815	0.819	0.823	0.827
Wolverhampton	0.678	0.684	0.689	0.693	0.698	0.703	0.707	0.712	0.717	0.723	0.728	0.734	0.741	0.747	0.753	0.757	0.761	0.766	0.772	0.778	0.783	0.788	0.795	0.799	0.8	0.803	0.806	0.807	0.808	0.808	0.81	0.813	0.816	0.82	0.825	0.827	0.829	0.83	
Birmingham	0.68	0.686	0.691	0.696	0.7	0.705	0.71	0.714	0.72	0.727	0.733	0.742	0.75	0.757	0.763	0.767	0.771	0.775	0.781	0.788	0.795	0.801	0.805	0.808	0.812	0.817	0.819	0.822	0.826	0.829	0.832	0.833	0.836	0.84	0.843	0.845	0.847		
Sandwell	0.666	0.671	0.677	0.682	0.686	0.691	0.696	0.701	0.708	0.714	0.719	0.725	0.732	0.739	0.745	0.749	0.753	0.758	0.763	0.768	0.773	0.778	0.781	0.782	0.785	0.787	0.788	0.789	0.79	0.791	0.794	0.797	0.803	0.808	0.812	0.813	0.815	0.815	
Bedford	0.711	0.717	0.723	0.728	0.733	0.739	0.745	0.75	0.757	0.764	0.771	0.776	0.781	0.784	0.788	0.791	0.795	0.801	0.807	0.814	0.822	0.828	0.831	0.833	0.836	0.839	0.841	0.842	0.843	0.844	0.845	0.846	0.848	0.85	0.851	0.851	0.851		
Central Bedfordshire	0.709	0.715	0.72	0.725	0.73	0.735	0.741	0.747	0.754	0.759	0.765	0.77	0.775	0.781	0.788	0.794	0.8	0.806	0.811	0.815	0.818	0.82	0.822	0.823	0.827	0.829	0.83	0.831	0.831	0.831	0.832	0.834	0.838	0.844	0.848	0.85	0.853		
Suffolk	0.703	0.709	0.715	0.72	0.725	0.731	0.736	0.74	0.746	0.752	0.757	0.763	0.768	0.773	0.78	0.786	0.791	0.797	0.802	0.807	0.811	0.814	0.814	0.814	0.817	0.82	0.822	0.823	0.824	0.825	0.827	0.83	0.833	0.837	0.838	0.839	0.84		
Hertfordshire	0.731	0.737	0.743	0.748	0.753	0.757	0.76	0.764	0.769	0.775	0.781	0.788	0.795	0.801	0.806	0.812	0.816	0.822	0.828	0.836	0.843	0.848	0.851	0.853	0.855	0.858	0.858	0.859	0.861	0.862	0.864	0.866	0.869	0.874	0.876	0.878	0.879		
Essex	0.701	0.706	0.712	0.717	0.722	0.726	0.73	0.734	0.739	0.745	0.75	0.757	0.763	0.768	0.774	0.779	0.784	0.79	0.796	0.802	0.808	0.812	0.814	0.816	0.819	0.823	0.825	0.828	0.83	0.833	0.833	0.836	0.84	0.842	0.844	0.845			
Cambridgeshire	0.728	0.734	0.74	0.745	0.749	0.755	0.76	0.765	0.771	0.777	0.783	0.789	0.796	0.801	0.807	0.814	0.82	0.827	0.833	0.838	0.844	0.849	0.854	0.856	0.86	0.862	0.862	0.862	0.862	0.863	0.867	0.87	0.874	0.878	0.88	0.881	0.882		
Thurrock	0.702	0.708	0.711	0.715	0.717	0.72	0.723	0.726	0.733	0.741	0.75	0.759	0.765	0.77	0.775	0.78	0.783	0.787	0.793	0.799	0.806	0.811	0.812	0.812	0.813	0.813	0.813	0.814	0.816	0.819	0.821	0.822	0.823	0.825	0.826	0.825	0.824		
Norfolk	0.702	0.708	0.714	0.719	0.723	0.728	0.733	0.737	0.743	0.749	0.754	0.759	0.764	0.77	0.775	0.781	0.786	0.792	0.798	0.804	0.81	0.814	0.817	0.818	0.821	0.824	0.826	0.828	0.83	0.831	0.832	0.833	0.836	0.841	0.844	0.846	0.848		
Southend-on-Sea	0.683	0.688	0.693	0.696	0.699	0.703	0.709	0.716	0.724	0.731	0.736	0.742	0.749	0.757	0.765	0.772	0.778	0.785	0.79	0.794	0.796	0.797	0.798	0.799	0.802	0.804	0.804	0.806	0.809	0.813	0.817	0.819	0.822	0.825	0.827	0.827	0.828		
Peterborough	0.713	0.719	0.724	0.728	0.732	0.737	0.742	0.747	0.753	0.759	0.763	0.767	0.773	0.778	0.785	0.79	0.794	0.798	0.803	0.809	0.815	0.819	0.818	0.816	0.816	0.816	0.816	0.816	0.816	0.816	0.818	0.823	0.828	0.831	0.835	0.837	0.838	0.839	
Luton	0.692	0.698	0.703	0.707	0.71	0.713	0.715	0.717	0.725	0.733	0.743	0.752	0.759	0.765	0.771	0.775	0.779	0.783	0.787	0.793	0.798	0.803	0.809	0.816	0.816	0.816	0.816	0.816	0.816	0.818	0.823	0.829	0.834	0.837	0.84	0.843	0.844	0.845	
Richmond upon Thames	0.76	0.766	0.771	0.775	0.779	0.783	0.787	0.791	0.798	0.805	0.813	0.82	0.827	0.833	0.839	0.845	0.85	0.855	0.861	0.868	0.873	0.878	0.882	0.885	0.887	0.888	0.887	0.887	0.888	0.888	0.889	0.891	0.895	0.9	0.905	0.908	0.91		
Kensington and Chelsea	0.798	0.804	0.809	0.815	0.82	0.826	0.832	0.837	0.84	0.848	0.855	0.861	0.866	0.871	0.875	0.88	0.884	0.889	0.894	0.9	0.906	0.91	0.914	0.917	0.921	0.924	0.927	0.929	0.932	0.934	0.936	0.938	0.94	0.941	0.942	0.943	0.945		
Barnet	0.729	0.735	0.742	0.748	0.753	0.759	0.764	0.769	0.775	0.782	0.787	0.792	0.797	0.803	0.81	0.816	0.823	0.829	0.835	0.841	0.846	0.851	0.853	0.854	0.855	0.855	0.854	0.853	0.855	0.857	0.86	0.865	0.87	0.875	0.878	0.879	0.88		
Westminster	0.808	0.812	0.817	0.821	0.825	0.829	0.831	0.832	0.837	0.844	0.853	0.86	0.865	0.869	0.873	0.877	0.882	0.886	0.891	0.896	0.901	0.906	0.91	0.914	0.918	0.921	0.924	0.927	0.929	0.931	0.933	0.935	0.936	0.938	0.939	0.941	0.943		
Bromley	0.73	0.736	0.741	0.746	0.749	0.753	0.757	0.761	0.767	0.774	0.779	0.784	0.789	0.793	0.799	0.804	0.809	0.815	0.821	0.829	0.835	0.839	0.842	0.844	0.846	0.847	0.848	0.85	0.851	0.851	0.851	0.851	0.853	0.857	0.86	0.862	0.863		
Bexley	0.701	0.707	0.713	0.718	0.722	0.726	0.73	0.733	0.739	0.744	0.749	0.756	0.762	0.768	0.774	0.778	0.781	0.784	0.789	0.795	0.801	0.806	0.809	0.811	0.814	0.815	0.815	0.817	0.819	0.821	0.823	0.824	0.828	0.833	0.836	0.838	0.84		
Redbridge	0.702	0.708	0.713	0.718	0.723	0.728	0.733	0.737	0.743	0.749	0.756	0.762	0.767	0.772	0.777	0.782	0.787	0.792	0.797	0.804	0.81	0.815	0.818	0.82	0.822	0.823	0.824	0.827	0.83	0.831	0.831	0.834	0.837	0.84	0.841	0.843	0.843		
Merton	0.726	0.732	0.737	0.74	0.743	0.747	0.752	0.757	0.765	0.773	0.782	0.792	0.8	0.807	0.813	0.818	0.823	0.828	0.836	0.845	0.852	0.857	0.859	0.861	0.863	0.865	0.866	0.867	0.869	0.87	0.871	0.874	0.879	0.881	0.882	0.884	0.884		
Brent	0.724	0.73	0.736	0.741	0.746	0.752	0.759	0.765	0.773	0.779	0.784	0.788	0.792	0.797	0.802	0.807	0.811	0.815	0.82	0.826	0.834	0.841	0.845	0.846	0.847	0.846	0.843	0.836	0.832	0.832	0.84	0.85	0.858	0.864	0.866	0.865	0.865		
Hillingdon	0.756	0.762	0.767	0.772	0.776	0.78	0.784	0.788	0.793	0.801	0.807	0.814	0.821	0.827	0.834	0.844	0.848	0.853	0.859	0.864	0.866	0.868	0.869	0.871	0.871	0.871	0.871	0.871	0.872	0.874	0.876	0.878	0.882	0.888	0.892	0.895	0.897		
Havering	0.703	0.709	0.715	0.72	0.724	0.728	0.732	0.735	0.74	0.745	0.75	0.756	0.762	0.768	0.774	0.778	0.783	0.787	0.792	0.798	0.803	0.808	0.81	0.812	0.815	0.818	0.82	0.822	0.825	0.827	0.828	0.829	0.83	0.833	0.835	0.836	0.837		
Kingston upon Thames	0.746	0.752	0.758	0.762	0.766	0.77	0.774	0.779	0.784	0.789	0.796	0.804	0.811	0.818	0.823	0.828	0.832	0.837	0.842	0.85	0.858	0.864	0.869	0.874	0.878	0.881	0.884	0.886	0.888	0.891	0.892	0.892	0.895	0.898	0.9	0.901	0.902		
Sutton	0.714	0.72	0.726	0.73	0.734	0.737	0.739	0.743	0.749	0.756	0.762																												

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016			
Bracknell Forest	0.733	0.74	0.746	0.753	0.76	0.766	0.771	0.777	0.784	0.791	0.796	0.799	0.804	0.808	0.814	0.82	0.824	0.828	0.833	0.838	0.842	0.849	0.855	0.858	0.86	0.863	0.866	0.868	0.87	0.871	0.872	0.873	0.874	0.878	0.882	0.885	0.887	0.888		
West Sussex	0.72	0.726	0.731	0.737	0.741	0.746	0.75	0.753	0.759	0.764	0.769	0.774	0.78	0.786	0.792	0.797	0.803	0.808	0.813	0.819	0.824	0.827	0.828	0.829	0.831	0.832	0.834	0.835	0.836	0.838	0.841	0.844	0.847	0.852	0.854	0.855	0.856			
Oxfordshire	0.745	0.751	0.757	0.762	0.767	0.773	0.778	0.782	0.786	0.79	0.794	0.799	0.805	0.81	0.816	0.822	0.827	0.832	0.838	0.845	0.851	0.856	0.858	0.86	0.863	0.865	0.866	0.866	0.867	0.868	0.87	0.874	0.879	0.884	0.887	0.889	0.89			
Reading	0.753	0.759	0.764	0.769	0.772	0.775	0.779	0.783	0.79	0.798	0.806	0.815	0.822	0.827	0.832	0.837	0.842	0.847	0.853	0.861	0.869	0.876	0.88	0.882	0.885	0.886	0.884	0.883	0.884	0.886	0.89	0.893	0.897	0.901	0.904	0.905	0.906			
Kent	0.71	0.716	0.721	0.726	0.729	0.733	0.736	0.74	0.745	0.75	0.755	0.76	0.765	0.771	0.776	0.781	0.786	0.791	0.797	0.803	0.808	0.814	0.815	0.816	0.818	0.821	0.822	0.823	0.824	0.826	0.827	0.829	0.832	0.835	0.839	0.84	0.844	0.845		
Brighton and Hove	0.73	0.735	0.74	0.743	0.745	0.748	0.751	0.755	0.763	0.771	0.781	0.79	0.797	0.803	0.808	0.813	0.819	0.824	0.829	0.834	0.839	0.845	0.851	0.857	0.862	0.867	0.872	0.874	0.877	0.88	0.884	0.887	0.889	0.891	0.894	0.896	0.899			
Medway	0.686	0.691	0.697	0.701	0.706	0.71	0.715	0.72	0.727	0.733	0.738	0.744	0.749	0.753	0.758	0.763	0.769	0.774	0.78	0.785	0.791	0.796	0.799	0.801	0.804	0.807	0.81	0.811	0.813	0.813	0.815	0.816	0.82	0.824	0.827	0.829	0.831			
East Sussex	0.696	0.702	0.708	0.713	0.718	0.723	0.728	0.732	0.737	0.742	0.746	0.75	0.755	0.759	0.765	0.77	0.776	0.781	0.786	0.791	0.796	0.799	0.8	0.801	0.803	0.806	0.807	0.808	0.809	0.81	0.813	0.817	0.821	0.826	0.83	0.832	0.834			
Portsmouth	0.728	0.734	0.74	0.744	0.746	0.748	0.751	0.754	0.76	0.768	0.776	0.784	0.791	0.797	0.802	0.806	0.81	0.815	0.821	0.828	0.836	0.843	0.849	0.853	0.858	0.861	0.864	0.867	0.869	0.87	0.87	0.878	0.869	0.871	0.873	0.876	0.878			
Isle of Wight	0.695	0.7	0.706	0.71	0.714	0.719	0.724	0.73	0.737	0.741	0.744	0.746	0.748	0.751	0.756	0.762	0.768	0.774	0.78	0.787	0.795	0.804	0.809	0.811	0.812	0.813	0.814	0.816	0.818	0.819	0.821	0.823	0.826	0.829	0.831	0.833	0.835			
Milton Keynes	0.757	0.761	0.766	0.762	0.763	0.768	0.775	0.783	0.79	0.795	0.796	0.799	0.804	0.811	0.818	0.825	0.83	0.835	0.839	0.843	0.847	0.85	0.85	0.85	0.853	0.855	0.856	0.855	0.855	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856		
Southampton	0.728	0.734	0.739	0.743	0.746	0.748	0.749	0.75	0.754	0.761	0.771	0.782	0.79	0.798	0.804	0.81	0.814	0.819	0.825	0.832	0.84	0.845	0.849	0.854	0.858	0.863	0.866	0.868	0.869	0.868	0.867	0.866	0.867	0.871	0.874	0.878	0.88	0.88		
Slough	0.749	0.753	0.756	0.757	0.759	0.762	0.766	0.771	0.779	0.787	0.795	0.805	0.812	0.818	0.824	0.83	0.836	0.84	0.844	0.847	0.852	0.855	0.854	0.851	0.848	0.846	0.843	0.845	0.85	0.855	0.861	0.866	0.871	0.874	0.875	0.874	0.873			
South Gloucestershire	0.731	0.737	0.742	0.747	0.751	0.756	0.762	0.767	0.774	0.779	0.783	0.787	0.791	0.795	0.799	0.803	0.809	0.816	0.824	0.832	0.839	0.844	0.846	0.848	0.851	0.855	0.858	0.861	0.865	0.866	0.867	0.868	0.871	0.875	0.878	0.88	0.882			
Dorset	0.704	0.71	0.715	0.721	0.726	0.731	0.737	0.742	0.747	0.752	0.754	0.757	0.762	0.768	0.775	0.781	0.788	0.794	0.801	0.807	0.811	0.814	0.814	0.813	0.815	0.816	0.815	0.814	0.814	0.814	0.816	0.821	0.827	0.833	0.837	0.839	0.841	0.842		
Wiltshire	0.713	0.719	0.725	0.731	0.736	0.741	0.746	0.75	0.756	0.761	0.766	0.77	0.775	0.781	0.787	0.793	0.798	0.804	0.81	0.815	0.821	0.825	0.826	0.827	0.829	0.829	0.828	0.826	0.825	0.826	0.826	0.826	0.826	0.826	0.826	0.826	0.826	0.826		
North Somerset	0.695	0.701	0.708	0.714	0.721	0.727	0.734	0.74	0.746	0.751	0.753	0.756	0.761	0.766	0.771	0.776	0.781	0.787	0.793	0.799	0.805	0.809	0.811	0.813	0.817	0.821	0.823	0.825	0.827	0.826	0.827	0.829	0.833	0.838	0.841	0.843	0.844			
Devon	0.701	0.707	0.712	0.717	0.721	0.726	0.731	0.736	0.742	0.748	0.753	0.757	0.762	0.767	0.772	0.777	0.782	0.788	0.794	0.802	0.809	0.815	0.818	0.821	0.825	0.829	0.831	0.833	0.834	0.835	0.836	0.836	0.837	0.84	0.845	0.849	0.851	0.853		
Poole	0.708	0.714	0.719	0.724	0.729	0.735	0.741	0.748	0.755	0.761	0.766	0.771	0.776	0.782	0.789	0.796	0.802	0.808	0.814	0.82	0.826	0.83	0.83	0.83	0.832	0.834	0.835	0.835	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	
Bath and North East Somerset	0.722	0.727	0.732	0.737	0.74	0.745	0.75	0.756	0.762	0.768	0.772	0.777	0.782	0.787	0.793	0.798	0.803	0.808	0.816	0.824	0.83	0.837	0.843	0.849	0.855	0.86	0.863	0.867	0.87	0.871	0.871	0.872	0.874	0.878	0.882	0.884	0.886			
Gloucestershire	0.716	0.722	0.728	0.733	0.738	0.744	0.749	0.754	0.76	0.765	0.77	0.775	0.779	0.785	0.79	0.796	0.801	0.806	0.812	0.819	0.826	0.832	0.835	0.838	0.842	0.844	0.844	0.844	0.844	0.845	0.846	0.849	0.851	0.855	0.859	0.861	0.862	0.863		
Somerset	0.701	0.708	0.714	0.719	0.725	0.73	0.734	0.738	0.743	0.748	0.752	0.756	0.762	0.767	0.774	0.78	0.786	0.791	0.795	0.801	0.807	0.811	0.812	0.813	0.816	0.818	0.819	0.82	0.821	0.823	0.827	0.83	0.834	0.835	0.836	0.835	0.835	0.836		
Swindon	0.736	0.742	0.748	0.753	0.757	0.761	0.766	0.77	0.777	0.784	0.79	0.796	0.801	0.806	0.81	0.815	0.819	0.824	0.831	0.838	0.844	0.849	0.851	0.851	0.851	0.852	0.851	0.853	0.855	0.856	0.858	0.858	0.859	0.861	0.865	0.866	0.866	0.867		
Torbay	0.684	0.69	0.696	0.701	0.706	0.711	0.715	0.721	0.728	0.734	0.738	0.743	0.749	0.755	0.761	0.767	0.772	0.777	0.782	0.787	0.793	0.799	0.805	0.809	0.811	0.813	0.817	0.821	0.823	0.825	0.827	0.826	0.827	0.829	0.833	0.838	0.841	0.843	0.844	
Bristol, City of	0.738	0.744	0.749	0.753	0.756	0.759	0.763	0.766	0.772	0.779	0.787	0.796	0.804	0.811	0.817	0.822	0.827	0.832	0.839	0.847	0.854	0.859	0.863	0.865	0.869	0.872	0.875	0.878	0.881	0.882	0.881	0.88	0.882	0.887	0.891	0.895	0.898			
Bournemouth	0.705	0.71	0.715	0.72	0.726	0.732	0.737	0.742	0.747	0.752	0.759	0.767	0.775	0.78	0.786	0.791	0.797	0.802	0.808	0.814	0.82	0.826	0.831	0.837	0.841	0.847	0.846	0.846	0.847	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848		
Cornwall	0.685	0.691	0.697	0.702	0.708	0.713	0.718	0.723	0.729	0.735	0.739	0.743	0.748	0.754	0.76	0.766	0.771	0.776	0.782	0.789	0.796	0.801	0.805	0.808	0.812	0.815	0.818	0.819	0.821	0.822	0.823	0.826	0.83	0.832	0.833	0.835	0.835			
Plymouth	0.699	0.705	0.711	0.718	0.723	0.729	0.736	0.741	0.747	0.752	0.757	0.762	0.769	0.776	0.783	0.789	0.793	0.798	0.804	0.81	0.815	0.819	0.822	0.823	0.827	0.83	0.833	0.836	0.839	0.84	0.84	0.841	0.843	0.847	0.85	0.851	0.853	0.854		
North East England	0.681	0.687	0.692	0.698	0.702	0.708	0.714	0.72	0.727	0.732	0.737	0.743	0.749	0.755	0.762	0.768	0.773	0.779	0.785	0.792	0.798	0.804	0.81	0.815	0.819	0.822	0.824	0.826	0.828	0.83	0.834	0.837	0.841	0.843	0.845	0.847	0.848	0.848		
North West England	0.693	0.699	0.704	0.709	0.714	0.719	0.724	0.729	0.735	0.741	0.746	0.752	0.759	0.766	0.773	0.778	0.783	0.788	0.794	0.801	0.807	0.813	0.816	0.818	0.821	0.823	0.825	0.826	0.828	0.83	0.833	0.836	0.84	0.845	0.848	0.85	0.851			
Yorkshire and the Humber	0.69	0.695	0.701	0.706	0.711	0.716	0.721	0.726	0.733	0.738	0.743	0.749	0.755	0.761	0.767	0.773	0.777	0.783	0.789	0.795	0.802	0.808	0.811	0.813	0.816															

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Idaho	0.809	0.813	0.816	0.822	0.825	0.829	0.833	0.834	0.834	0.832	0.833	0.835	0.837	0.84	0.842	0.845	0.846	0.847	0.848	0.849	0.851	0.854	0.854	0.854	0.855	0.854	0.853	0.854	0.859	0.864	0.867	0.869	0.87	0.871	0.872	0.872	0.872	0.872	
Illinois	0.843	0.846	0.849	0.852	0.854	0.856	0.857	0.858	0.856	0.855	0.856	0.858	0.86	0.863	0.866	0.868	0.871	0.872	0.874	0.875	0.878	0.881	0.883	0.884	0.886	0.888	0.888	0.891	0.895	0.899	0.902	0.903	0.905	0.906	0.907	0.908	0.908	0.908	
Indiana	0.833	0.837	0.84	0.843	0.844	0.846	0.848	0.848	0.848	0.847	0.848	0.85	0.853	0.855	0.858	0.859	0.86	0.86	0.86	0.861	0.863	0.866	0.867	0.869	0.869	0.868	0.869	0.872	0.875	0.878	0.879	0.88	0.881	0.882	0.883	0.883	0.883		
Iowa	0.834	0.838	0.842	0.845	0.848	0.85	0.853	0.854	0.854	0.853	0.854	0.856	0.858	0.86	0.862	0.864	0.865	0.866	0.867	0.868	0.87	0.873	0.874	0.875	0.876	0.876	0.874	0.876	0.88	0.884	0.887	0.888	0.889	0.891	0.891	0.892	0.891	0.892	0.893
Kansas	0.835	0.839	0.842	0.846	0.848	0.851	0.854	0.855	0.856	0.855	0.857	0.859	0.861	0.862	0.864	0.865	0.866	0.866	0.866	0.866	0.866	0.867	0.873	0.874	0.875	0.875	0.874	0.875	0.879	0.883	0.886	0.888	0.889	0.892	0.893	0.895	0.895	0.895	
Kentucky	0.805	0.81	0.814	0.818	0.821	0.824	0.827	0.828	0.828	0.829	0.83	0.833	0.836	0.839	0.841	0.843	0.845	0.846	0.847	0.849	0.851	0.855	0.856	0.857	0.858	0.858	0.857	0.859	0.862	0.865	0.868	0.869	0.87	0.871	0.872	0.873	0.874	0.874	0.874
Louisiana	0.796	0.801	0.806	0.811	0.814	0.817	0.82	0.822	0.822	0.822	0.824	0.827	0.83	0.833	0.837	0.84	0.842	0.844	0.846	0.847	0.85	0.854	0.856	0.857	0.86	0.86	0.861	0.864	0.869	0.873	0.876	0.878	0.88	0.882	0.883	0.885	0.885	0.885	
Maine	0.832	0.834	0.836	0.839	0.841	0.844	0.848	0.85	0.853	0.855	0.858	0.862	0.866	0.869	0.872	0.874	0.876	0.877	0.878	0.88	0.882	0.885	0.886	0.887	0.889	0.89	0.891	0.893	0.896	0.899	0.901	0.902	0.902	0.903	0.904	0.905	0.906	0.906	
Maryland	0.865	0.867	0.868	0.87	0.871	0.872	0.875	0.875	0.875	0.875	0.877	0.88	0.883	0.886	0.889	0.891	0.892	0.892	0.892	0.893	0.895	0.897	0.899	0.901	0.902	0.901	0.902	0.901	0.903	0.907	0.912	0.915	0.917	0.919	0.92	0.92	0.921	0.92	
Massachusetts	0.865	0.868	0.871	0.874	0.877	0.88	0.882	0.884	0.886	0.886	0.889	0.892	0.895	0.897	0.9	0.902	0.904	0.905	0.906	0.907	0.91	0.913	0.915	0.916	0.918	0.919	0.919	0.921	0.923	0.926	0.928	0.929	0.931	0.932	0.933	0.935	0.935	0.935	
Michigan	0.845	0.847	0.849	0.852	0.853	0.855	0.857	0.857	0.856	0.854	0.855	0.858	0.861	0.864	0.867	0.87	0.871	0.872	0.873	0.875	0.877	0.88	0.882	0.883	0.886	0.887	0.888	0.889	0.891	0.892	0.893	0.893	0.894	0.895	0.896	0.896	0.897	0.897	
Minnesota	0.839	0.844	0.848	0.852	0.856	0.859	0.863	0.866	0.867	0.868	0.87	0.873	0.875	0.877	0.879	0.88	0.882	0.882	0.883	0.884	0.886	0.889	0.89	0.891	0.891	0.891	0.89	0.892	0.896	0.9	0.903	0.904	0.905	0.906	0.907	0.909	0.909	0.909	
Mississippi	0.784	0.789	0.794	0.799	0.803	0.806	0.81	0.811	0.811	0.811	0.813	0.816	0.82	0.824	0.828	0.831	0.833	0.835	0.836	0.838	0.841	0.845	0.847	0.848	0.848	0.847	0.846	0.848	0.853	0.859	0.864	0.867	0.869	0.871	0.872	0.873	0.874	0.874	0.874
Missouri	0.826	0.83	0.833	0.837	0.839	0.842	0.845	0.846	0.846	0.846	0.847	0.85	0.853	0.856	0.859	0.86	0.862	0.863	0.864	0.865	0.868	0.871	0.872	0.873	0.875	0.875	0.874	0.876	0.879	0.883	0.886	0.887	0.888	0.889	0.891	0.892	0.893	0.893	
Montana	0.829	0.831	0.834	0.837	0.838	0.84	0.843	0.845	0.844	0.844	0.845	0.847	0.849	0.852	0.855	0.858	0.86	0.862	0.863	0.865	0.866	0.868	0.869	0.869	0.872	0.872	0.873	0.875	0.879	0.882	0.885	0.886	0.888	0.889	0.891	0.892	0.893	0.893	
Nebraska	0.832	0.835	0.838	0.842	0.845	0.848	0.852	0.853	0.854	0.853	0.855	0.858	0.86	0.862	0.863	0.865	0.866	0.867	0.867	0.868	0.87	0.871	0.873	0.873	0.873	0.873	0.873	0.875	0.879	0.881	0.884	0.886	0.888	0.888	0.889	0.89	0.89	0.89	
Nevada	0.855	0.857	0.858	0.86	0.86	0.86	0.86	0.857	0.854	0.85	0.85	0.853	0.855	0.857	0.858	0.859	0.861	0.862	0.862	0.863	0.865	0.868	0.868	0.868	0.869	0.867	0.865	0.868	0.875	0.882	0.887	0.889	0.889	0.889	0.888	0.887	0.886	0.886	
New Hampshire	0.852	0.856	0.859	0.862	0.864	0.866	0.869	0.871	0.873	0.876	0.879	0.882	0.885	0.887	0.889	0.891	0.893	0.894	0.896	0.897	0.9	0.903	0.904	0.905	0.908	0.91	0.911	0.914	0.916	0.919	0.921	0.922	0.924	0.926	0.928	0.93	0.931	0.931	
New Jersey	0.858	0.861	0.864	0.867	0.868	0.87	0.872	0.873	0.873	0.873	0.875	0.878	0.881	0.883	0.885	0.887	0.889	0.891	0.892	0.894	0.896	0.897	0.899	0.901	0.902	0.901	0.902	0.901	0.903	0.907	0.912	0.914	0.915	0.916	0.917	0.918	0.918	0.918	
New Mexico	0.809	0.812	0.814	0.818	0.819	0.822	0.825	0.826	0.826	0.824	0.825	0.826	0.829	0.832	0.835	0.838	0.841	0.843	0.844	0.845	0.847	0.85	0.852	0.852	0.854	0.855	0.855	0.858	0.862	0.867	0.871	0.873	0.875	0.877	0.879	0.88	0.881	0.881	
New York	0.854	0.856	0.858	0.861	0.862	0.864	0.866	0.866	0.866	0.866	0.868	0.871	0.874	0.877	0.879	0.882	0.885	0.887	0.888	0.89	0.892	0.895	0.896	0.897	0.899	0.899	0.901	0.904	0.907	0.91	0.912	0.915	0.916	0.918	0.919	0.92	0.92	0.92	
North Carolina	0.825	0.829	0.832	0.835	0.837	0.84	0.842	0.842	0.842	0.841	0.844	0.848	0.851	0.855	0.858	0.86	0.86	0.86	0.86	0.861	0.864	0.867	0.868	0.868	0.868	0.868	0.866	0.868	0.873	0.878	0.883	0.885	0.886	0.886	0.887	0.887	0.887	0.887	
North Dakota	0.816	0.818	0.822	0.827	0.83	0.835	0.839	0.842	0.842	0.843	0.846	0.848	0.85	0.852	0.854	0.857	0.86	0.863	0.866	0.869	0.871	0.874	0.875	0.874	0.874	0.874	0.872	0.874	0.879	0.883	0.887	0.888	0.891	0.892	0.893	0.895	0.896	0.896	
Ohio	0.838	0.841	0.844	0.847	0.848	0.85	0.853	0.853	0.853	0.852	0.854	0.856	0.858	0.86	0.863	0.865	0.866	0.866	0.867	0.868	0.87	0.874	0.875	0.876	0.878	0.879	0.88	0.883	0.885	0.887	0.888	0.889	0.89	0.891	0.892	0.893	0.893		
Oklahoma	0.82	0.824	0.828	0.833	0.836	0.84	0.843	0.844	0.843	0.842	0.843	0.844	0.846	0.847	0.848	0.849	0.849	0.849	0.85	0.85	0.853	0.856	0.857	0.858	0.86	0.861	0.861	0.862	0.866	0.869	0.872	0.874	0.877	0.879	0.88	0.882	0.883	0.883	
Oregon	0.85	0.852	0.854	0.857	0.857	0.858	0.859	0.858	0.857	0.856	0.857	0.86	0.863	0.866	0.868	0.869	0.87	0.871	0.873	0.875	0.878	0.883	0.885	0.886	0.887	0.887	0.886	0.887	0.89	0.894	0.897	0.898	0.899	0.9	0.901	0.903	0.903	0.903	
Pennsylvania	0.842	0.845	0.847	0.85	0.851	0.853	0.855	0.856	0.856	0.856	0.858	0.861	0.864	0.867	0.87	0.873	0.875	0.877	0.878	0.879	0.881	0.884	0.885	0.885	0.887	0.887	0.887	0.888	0.892	0.896	0.899	0.9	0.902	0.904	0.905	0.907	0.908	0.908	
Rhode Island	0.847	0.851	0.853	0.857	0.859	0.861	0.863	0.864	0.865	0.865	0.867	0.87	0.873	0.877	0.88	0.883	0.885	0.886	0.887	0.889	0.89	0.893	0.894	0.895	0.898	0.9	0.9	0.902	0.906	0.909	0.912	0.913	0.915	0.916	0.918	0.92	0.921	0.921	
South Carolina	0.814	0.818	0.821	0.825	0.828	0.831	0.833	0.833	0.833	0.832	0.831	0.834	0.839	0.844	0.849	0.853	0.856	0.857	0.857	0.858	0.86	0.864	0.866	0.866	0.866	0.866	0.866	0.862	0.863	0.868	0.874	0.879	0.883	0.884	0.884	0.885	0.886	0.886	
South Dakota	0.806	0.81	0.814	0.818	0.822	0.825	0.83	0.832	0.832	0.832	0.834	0.836	0.839	0.842	0.846	0.849	0.852	0.853	0.855	0.857	0.859	0.861	0.861	0.862	0.863	0.862	0.861	0.863	0.868	0.872	0.876	0.877	0.878	0.879	0.88	0.881	0.882	0.882	
Tennessee	0.818	0.822	0.825	0.829	0.831	0.833	0.836	0.836	0.836	0.835	0.837	0.841	0.844	0.848	0.851	0.853	0.855	0.856	0.857	0.858	0.861	0.864	0.866	0.866	0.866	0.866	0.865												

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Puerto Rico	0.699	0.71	0.719	0.727	0.733	0.739	0.743	0.748	0.753	0.76	0.767	0.774	0.781	0.788	0.793	0.799	0.805	0.81	0.817	0.822	0.828	0.834	0.84	0.845	0.85	0.854	0.858	0.86	0.863	0.864	0.866	0.867	0.868	0.87	0.871	0.873	0.875		
Virgin Islands, U.S.	0.723	0.732	0.738	0.743	0.749	0.755	0.76	0.764	0.767	0.771	0.777	0.782	0.789	0.796	0.802	0.808	0.814	0.82	0.825	0.829	0.833	0.836	0.839	0.842	0.845	0.85	0.855	0.861	0.864	0.868	0.871	0.874	0.875	0.876	0.877	0.878	0.877	0.877	
Andean Latin America	0.45	0.457	0.465	0.473	0.481	0.488	0.496	0.504	0.511	0.518	0.524	0.53	0.536	0.541	0.548	0.555	0.561	0.568	0.575	0.582	0.588	0.594	0.6	0.605	0.61	0.615	0.62	0.625	0.63	0.635	0.64	0.644	0.649	0.653	0.657	0.662	0.666	0.666	
Bolivia	0.354	0.361	0.368	0.376	0.383	0.39	0.397	0.405	0.412	0.418	0.425	0.432	0.439	0.446	0.453	0.461	0.469	0.477	0.485	0.494	0.502	0.51	0.518	0.525	0.531	0.539	0.546	0.553	0.56	0.567	0.573	0.58	0.586	0.593	0.599	0.605	0.61	0.61	
Ecuador	0.45	0.458	0.467	0.475	0.484	0.493	0.501	0.509	0.516	0.523	0.53	0.537	0.543	0.55	0.556	0.563	0.569	0.576	0.583	0.588	0.593	0.598	0.603	0.608	0.613	0.619	0.624	0.629	0.635	0.64	0.645	0.65	0.655	0.66	0.665	0.67	0.674	0.674	
Peru	0.478	0.485	0.493	0.5	0.507	0.514	0.521	0.529	0.537	0.543	0.548	0.553	0.558	0.563	0.569	0.576	0.582	0.589	0.593	0.603	0.61	0.615	0.621	0.626	0.63	0.634	0.639	0.644	0.648	0.652	0.656	0.66	0.663	0.666	0.67	0.674	0.678	0.678	
Central Latin America	0.466	0.476	0.485	0.493	0.502	0.51	0.518	0.525	0.531	0.537	0.544	0.551	0.56	0.568	0.575	0.581	0.588	0.595	0.602	0.609	0.615	0.622	0.627	0.633	0.639	0.645	0.652	0.659	0.665	0.671	0.676	0.682	0.689	0.695	0.701	0.707	0.711	0.711	
Colombia	0.485	0.493	0.5	0.506	0.513	0.519	0.526	0.532	0.538	0.544	0.55	0.556	0.562	0.568	0.574	0.581	0.588	0.595	0.601	0.606	0.611	0.616	0.62	0.624	0.629	0.634	0.639	0.645	0.652	0.658	0.664	0.672	0.679	0.686	0.694	0.701	0.707	0.707	
Costa Rica	0.527	0.532	0.535	0.537	0.539	0.541	0.546	0.552	0.557	0.563	0.57	0.577	0.584	0.591	0.598	0.603	0.608	0.614	0.62	0.627	0.634	0.64	0.646	0.651	0.657	0.662	0.668	0.674	0.679	0.685	0.691	0.697	0.704	0.71	0.716	0.722	0.726	0.726	
El Salvador	0.383	0.392	0.401	0.408	0.414	0.419	0.424	0.429	0.434	0.439	0.444	0.451	0.458	0.465	0.472	0.48	0.488	0.496	0.504	0.513	0.521	0.529	0.537	0.545	0.552	0.56	0.568	0.576	0.584	0.592	0.6	0.609	0.617	0.625	0.632	0.639	0.645	0.645	
Guatemala	0.325	0.33	0.335	0.338	0.342	0.345	0.348	0.351	0.355	0.36	0.365	0.37	0.376	0.383	0.389	0.396	0.404	0.412	0.42	0.429	0.438	0.446	0.455	0.463	0.472	0.48	0.489	0.498	0.506	0.514	0.522	0.53	0.537	0.543	0.55	0.556	0.561	0.561	
Honduras	0.295	0.304	0.313	0.321	0.329	0.337	0.345	0.353	0.362	0.37	0.381	0.39	0.4	0.409	0.418	0.427	0.435	0.443	0.451	0.459	0.466	0.474	0.481	0.488	0.495	0.502	0.508	0.515	0.522	0.527	0.533	0.539	0.545	0.551	0.556	0.562	0.567	0.567	
Mexico	0.458	0.47	0.481	0.491	0.501	0.511	0.521	0.53	0.538	0.547	0.555	0.564	0.573	0.582	0.591	0.598	0.606	0.614	0.622	0.629	0.637	0.644	0.651	0.657	0.664	0.671	0.678	0.684	0.691	0.695	0.701	0.706	0.712	0.718	0.723	0.729	0.734	0.734	
Nicaragua	0.409	0.412	0.415	0.418	0.421	0.424	0.427	0.43	0.431	0.433	0.434	0.436	0.438	0.44	0.443	0.447	0.453	0.459	0.466	0.473	0.481	0.488	0.496	0.502	0.509	0.516	0.523	0.53	0.537	0.543	0.549	0.555	0.562	0.569	0.576	0.583	0.588	0.588	
Panama	0.542	0.552	0.56	0.568	0.574	0.581	0.588	0.594	0.597	0.6	0.603	0.607	0.611	0.615	0.62	0.624	0.628	0.633	0.64	0.647	0.653	0.66	0.666	0.67	0.674	0.679	0.683	0.688	0.693	0.698	0.704	0.71	0.718	0.726	0.735	0.744	0.752	0.752	
Venezuela	0.533	0.54	0.547	0.557	0.568	0.577	0.583	0.588	0.594	0.592	0.59	0.602	0.619	0.628	0.629	0.632	0.637	0.642	0.647	0.65	0.654	0.657	0.66	0.662	0.664	0.667	0.673	0.681	0.688	0.696	0.702	0.708	0.714	0.721	0.728	0.734	0.738	0.742	0.742
Aguascalientes	0.49	0.502	0.512	0.521	0.53	0.538	0.548	0.558	0.567	0.576	0.586	0.597	0.608	0.617	0.624	0.631	0.639	0.648	0.656	0.663	0.67	0.675	0.681	0.687	0.693	0.699	0.705	0.711	0.715	0.719	0.723	0.728	0.733	0.739	0.744	0.749	0.754	0.754	
Baja California	0.523	0.536	0.548	0.56	0.572	0.585	0.597	0.608	0.617	0.624	0.629	0.635	0.642	0.65	0.658	0.666	0.672	0.676	0.68	0.687	0.695	0.703	0.709	0.713	0.715	0.718	0.722	0.728	0.735	0.74	0.745	0.751	0.758	0.764	0.769	0.773	0.776	0.776	
Baja California Sur	0.535	0.547	0.559	0.571	0.584	0.596	0.605	0.615	0.627	0.635	0.644	0.654	0.663	0.669	0.674	0.679	0.686	0.691	0.692	0.689	0.693	0.694	0.698	0.701	0.707	0.712	0.711	0.707	0.706	0.71	0.718	0.729	0.738	0.744	0.749	0.753	0.757	0.757	
Campeche	0.437	0.449	0.459	0.468	0.477	0.485	0.494	0.503	0.511	0.52	0.53	0.541	0.551	0.56	0.567	0.574	0.582	0.593	0.603	0.614	0.625	0.635	0.643	0.651	0.658	0.665	0.671	0.677	0.682	0.685	0.688	0.693	0.7	0.707	0.713	0.72	0.726	0.726	
Coahuila	0.499	0.512	0.523	0.533	0.543	0.552	0.562	0.572	0.582	0.593	0.605	0.617	0.63	0.64	0.649	0.656	0.663	0.671	0.679	0.685	0.691	0.697	0.702	0.708	0.714	0.72	0.726	0.733	0.739	0.743	0.747	0.751	0.754	0.758	0.764	0.769	0.776	0.776	
Colima	0.472	0.485	0.496	0.506	0.517	0.528	0.54	0.553	0.565	0.579	0.591	0.604	0.616	0.625	0.632	0.638	0.645	0.652	0.659	0.666	0.672	0.678	0.683	0.689	0.695	0.7	0.706	0.712	0.716	0.719	0.723	0.727	0.732	0.737	0.742	0.748	0.753	0.753	
Chiapas	0.3	0.313	0.323	0.332	0.338	0.342	0.345	0.345	0.342	0.339	0.342	0.355	0.375	0.393	0.41	0.427	0.444	0.459	0.472	0.483	0.491	0.499	0.508	0.517	0.527	0.536	0.546	0.555	0.563	0.57	0.577	0.585	0.593	0.6	0.608	0.616	0.622	0.622	
Chihuahua	0.49	0.503	0.513	0.523	0.531	0.54	0.549	0.559	0.568	0.578	0.587	0.597	0.607	0.614	0.62	0.623	0.628	0.634	0.639	0.645	0.651	0.658	0.666	0.673	0.682	0.689	0.697	0.705	0.713	0.719	0.726	0.734	0.743	0.75	0.758	0.764	0.769	0.769	
Distrito Federal	0.592	0.605	0.615	0.624	0.631	0.635	0.638	0.642	0.649	0.66	0.671	0.68	0.686	0.692	0.702	0.713	0.723	0.729	0.733	0.738	0.743	0.749	0.755	0.761	0.766	0.771	0.776	0.779	0.782	0.783	0.785	0.79	0.796	0.802	0.808	0.814	0.819	0.819	
Durango	0.459	0.47	0.48	0.488	0.495	0.503	0.509	0.516	0.522	0.529	0.536	0.544	0.553	0.559	0.563	0.568	0.576	0.586	0.593	0.605	0.615	0.624	0.632	0.641	0.65	0.657	0.665	0.672	0.678	0.681	0.684	0.688	0.691	0.696	0.7	0.705	0.709	0.709	
Guajalajara	0.384	0.396	0.407	0.417	0.427	0.437	0.448	0.461	0.472	0.485	0.497	0.511	0.524	0.534	0.543	0.551	0.562	0.573	0.583	0.593	0.603	0.611	0.619	0.627	0.634	0.642	0.65	0.658	0.666	0.671	0.677	0.683	0.688	0.694	0.7	0.706	0.711	0.711	
Guerrero	0.355	0.367	0.378	0.387	0.395	0.404	0.413	0.423	0.431	0.437	0.441	0.444	0.445	0.442	0.438	0.439	0.445	0.454	0.464	0.473	0.483	0.494	0.505	0.517	0.529	0.54	0.551	0.562	0.57	0.577	0.585	0.595	0.606	0.617	0.626	0.634	0.639	0.639	
Hidalgo	0.383	0.395	0.406	0.416	0.426	0.437	0.449	0.46	0.47	0.48	0.49	0.501	0.515	0.521	0.527	0.533	0.541	0.55	0.56	0.569	0.577	0.587	0.594	0.602	0.609	0.616	0.624	0.633	0.64	0.646	0.651	0.656	0.662	0.668	0.674	0.68	0.685	0.685	
Jalisco	0.463	0.475	0.486	0.496	0.505	0.514	0.524	0.535	0.544	0.554	0.565	0.577	0.589	0.599	0.607	0.615	0.624	0.633	0.642	0.65	0.658	0.664	0.671	0.677	0.684	0.69	0.697	0.703	0.709	0.712	0.716	0.719	0.723	0.727	0.732	0.736	0.741	0.741	
México	0.447	0.463	0.481	0.502	0.528	0.554	0.571	0.582	0.592	0.595	0.597	0.598	0.6	0.616	0.637	0.646	0.651	0.655	0.66	0.666	0.673	0.679	0.684	0.688	0.692	0.697	0.701												

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Distrito Federal	0.597	0.607	0.617	0.625	0.634	0.643	0.652	0.659	0.666	0.673	0.68	0.686	0.692	0.698	0.704	0.71	0.717	0.723	0.729	0.735	0.741	0.747	0.753	0.758	0.764	0.769	0.775	0.781	0.787	0.793	0.8	0.806	0.812	0.818	0.824	0.829	0.832
Espírito Santo	0.459	0.47	0.481	0.49	0.499	0.509	0.518	0.527	0.536	0.545	0.553	0.561	0.568	0.577	0.584	0.592	0.6	0.607	0.614	0.621	0.628	0.635	0.642	0.648	0.654	0.66	0.665	0.671	0.677	0.682	0.688	0.694	0.699	0.705	0.711	0.717	0.721
Goias	0.396	0.411	0.425	0.437	0.45	0.462	0.473	0.483	0.493	0.502	0.511	0.52	0.528	0.537	0.546	0.555	0.565	0.574	0.582	0.59	0.597	0.604	0.612	0.617	0.623	0.628	0.635	0.641	0.647	0.653	0.659	0.665	0.67	0.676	0.682	0.689	0.693
Maranhão	0.309	0.314	0.319	0.324	0.329	0.333	0.341	0.352	0.361	0.371	0.38	0.387	0.393	0.403	0.413	0.424	0.435	0.446	0.457	0.468	0.479	0.488	0.496	0.503	0.511	0.517	0.525	0.533	0.541	0.549	0.557	0.566	0.574	0.581	0.588	0.595	0.6
Minas Gerais	0.45	0.462	0.473	0.483	0.493	0.503	0.512	0.518	0.525	0.532	0.539	0.546	0.552	0.559	0.566	0.574	0.582	0.589	0.596	0.603	0.609	0.615	0.621	0.627	0.632	0.638	0.643	0.65	0.656	0.661	0.668	0.674	0.68	0.686	0.692	0.697	0.702
Mato Grosso do Sul	0.401	0.418	0.432	0.445	0.457	0.471	0.481	0.489	0.498	0.506	0.514	0.522	0.53	0.539	0.548	0.558	0.567	0.576	0.584	0.591	0.598	0.604	0.61	0.615	0.62	0.626	0.632	0.638	0.644	0.649	0.654	0.659	0.664	0.669	0.675	0.681	0.686
Mato Grosso	0.419	0.433	0.445	0.456	0.467	0.48	0.49	0.498	0.507	0.516	0.524	0.532	0.54	0.549	0.559	0.569	0.578	0.587	0.595	0.602	0.609	0.615	0.621	0.626	0.631	0.636	0.642	0.647	0.653	0.658	0.664	0.67	0.675	0.68	0.687	0.693	0.699
Pará	0.364	0.375	0.385	0.393	0.402	0.411	0.42	0.428	0.436	0.444	0.451	0.458	0.465	0.473	0.483	0.493	0.503	0.511	0.519	0.526	0.532	0.537	0.541	0.545	0.549	0.554	0.56	0.566	0.574	0.581	0.589	0.597	0.605	0.612	0.619	0.625	0.63
Paraíba	0.325	0.337	0.347	0.356	0.365	0.372	0.384	0.399	0.412	0.424	0.436	0.444	0.451	0.459	0.467	0.476	0.486	0.495	0.504	0.512	0.519	0.527	0.533	0.54	0.546	0.553	0.559	0.567	0.574	0.581	0.589	0.596	0.603	0.61	0.616	0.622	0.627
Paraná	0.443	0.458	0.471	0.483	0.494	0.507	0.517	0.524	0.533	0.541	0.548	0.556	0.564	0.572	0.58	0.589	0.597	0.606	0.614	0.622	0.629	0.636	0.643	0.649	0.654	0.66	0.665	0.671	0.677	0.682	0.688	0.694	0.7	0.706	0.712	0.718	0.722
Pernambuco	0.364	0.377	0.387	0.396	0.405	0.414	0.425	0.437	0.448	0.458	0.468	0.477	0.485	0.492	0.5	0.508	0.516	0.523	0.53	0.536	0.543	0.549	0.555	0.561	0.567	0.573	0.579	0.585	0.592	0.598	0.605	0.611	0.617	0.623	0.63	0.636	0.64
Piauí	0.321	0.329	0.337	0.344	0.351	0.358	0.367	0.378	0.388	0.398	0.408	0.415	0.421	0.428	0.436	0.445	0.455	0.464	0.473	0.482	0.49	0.498	0.505	0.512	0.519	0.526	0.533	0.54	0.548	0.555	0.563	0.571	0.578	0.585	0.591	0.598	0.604
Rio de Janeiro	0.531	0.545	0.557	0.567	0.577	0.587	0.595	0.602	0.608	0.615	0.62	0.626	0.631	0.637	0.642	0.648	0.653	0.659	0.665	0.67	0.676	0.682	0.688	0.692	0.696	0.701	0.705	0.71	0.714	0.718	0.723	0.727	0.732	0.736	0.74	0.745	0.749
Rio Grande do Norte	0.357	0.369	0.38	0.39	0.4	0.409	0.42	0.431	0.442	0.452	0.461	0.469	0.477	0.485	0.494	0.504	0.515	0.524	0.531	0.539	0.546	0.554	0.562	0.568	0.575	0.582	0.589	0.596	0.603	0.61	0.618	0.625	0.632	0.639	0.645	0.651	0.656
Roraima	0.401	0.411	0.421	0.43	0.44	0.45	0.461	0.472	0.483	0.493	0.503	0.512	0.52	0.527	0.535	0.542	0.548	0.552	0.558	0.569	0.581	0.589	0.595	0.604	0.612	0.62	0.628	0.636	0.644	0.651	0.657	0.661	0.666	0.672	0.678	0.683	
Rio Grande do Sul	0.506	0.516	0.525	0.533	0.541	0.549	0.557	0.565	0.572	0.579	0.585	0.592	0.598	0.604	0.61	0.617	0.622	0.628	0.635	0.641	0.647	0.654	0.66	0.665	0.671	0.676	0.682	0.688	0.693	0.698	0.703	0.708	0.712	0.717	0.722	0.727	0.732
Santa Catarina	0.477	0.489	0.499	0.508	0.517	0.526	0.536	0.544	0.553	0.561	0.569	0.577	0.584	0.592	0.6	0.609	0.617	0.624	0.632	0.639	0.647	0.654	0.66	0.665	0.671	0.676	0.681	0.687	0.693	0.698	0.704	0.711	0.716	0.722	0.729	0.735	0.74
Sergipe	0.336	0.35	0.361	0.372	0.382	0.391	0.403	0.417	0.43	0.443	0.453	0.463	0.472	0.481	0.49	0.501	0.511	0.52	0.529	0.537	0.546	0.554	0.562	0.569	0.576	0.582	0.589	0.596	0.604	0.611	0.619	0.627	0.634	0.641	0.648	0.654	0.659
São Paulo	0.53	0.542	0.552	0.561	0.571	0.581	0.589	0.596	0.602	0.609	0.615	0.621	0.628	0.634	0.64	0.647	0.653	0.659	0.666	0.672	0.679	0.686	0.692	0.697	0.702	0.706	0.711	0.716	0.721	0.726	0.73	0.736	0.74	0.745	0.75	0.756	0.76
Tocantins	0.38	0.389	0.398	0.406	0.415	0.424	0.434	0.443	0.452	0.461	0.469	0.477	0.486	0.494	0.502	0.511	0.521	0.53	0.539	0.547	0.556	0.563	0.571	0.578	0.584	0.591	0.597	0.604	0.612	0.619	0.626	0.634	0.642	0.649	0.656	0.663	0.668
North Africa and Middle East	0.382	0.392	0.401	0.41	0.418	0.427	0.436	0.446	0.455	0.465	0.475	0.485	0.495	0.505	0.513	0.522	0.531	0.539	0.548	0.556	0.564	0.571	0.578	0.586	0.593	0.601	0.608	0.615	0.622	0.628	0.634	0.64	0.647	0.654	0.661	0.669	0.674
North Africa and Middle East	0.382	0.392	0.401	0.41	0.418	0.427	0.436	0.446	0.455	0.465	0.475	0.485	0.495	0.505	0.513	0.522	0.531	0.539	0.548	0.556	0.564	0.571	0.578	0.586	0.593	0.601	0.608	0.615	0.622	0.628	0.634	0.64	0.647	0.654	0.661	0.669	0.674
Algeria	0.356	0.367	0.379	0.39	0.401	0.412	0.423	0.433	0.443	0.453	0.463	0.472	0.479	0.485	0.49	0.495	0.5	0.505	0.51	0.516	0.523	0.53	0.538	0.549	0.559	0.57	0.581	0.591	0.602	0.612	0.622	0.632	0.642	0.651	0.66	0.669	0.676
Bahrain	0.498	0.513	0.526	0.536	0.54	0.542	0.55	0.559	0.565	0.571	0.586	0.599	0.605	0.613	0.623	0.633	0.641	0.644	0.646	0.65	0.663	0.681	0.694	0.699	0.701	0.703	0.707	0.711	0.716	0.719	0.72	0.719	0.718	0.721	0.726	0.732	0.738
Egypt	0.347	0.358	0.369	0.38	0.391	0.402	0.413	0.425	0.435	0.446	0.458	0.469	0.48	0.49	0.499	0.509	0.518	0.527	0.535	0.543	0.551	0.558	0.566	0.573	0.579	0.585	0.591	0.596	0.601	0.607	0.612	0.617	0.623	0.629	0.637	0.645	0.653
Iran	0.379	0.387	0.395	0.404	0.412	0.422	0.434	0.449	0.466	0.487	0.51	0.536	0.562	0.585	0.607	0.625	0.642	0.656	0.667	0.676	0.683	0.689	0.695	0.701	0.707	0.713	0.719	0.725	0.731	0.736	0.742	0.748	0.752	0.757	0.762	0.766	0.769
Iraq	0.289	0.299	0.31	0.32	0.331	0.341	0.351	0.361	0.372	0.381	0.391	0.398	0.405	0.412	0.418	0.423	0.429	0.437	0.447	0.459	0.472	0.485	0.495	0.498	0.498	0.492	0.485	0.475	0.461	0.447	0.434	0.429	0.432	0.44	0.45	0.463	0.474
Jordan	0.264	0.294	0.322	0.346	0.369	0.389	0.409	0.428	0.448	0.468	0.483	0.497	0.511	0.524	0.538	0.548	0.558	0.568	0.577	0.586	0.595	0.603	0.61	0.615	0.621	0.626	0.632	0.637	0.643	0.649	0.656	0.663	0.669	0.676	0.683	0.69	0.694
Kuwait	0.46	0.476	0.494	0.515	0.54	0.566	0.59	0.611	0.628	0.642	0.652	0.657	0.66	0.659	0.653	0.649	0.655	0.671	0.689	0.702	0.711	0.717	0.721	0.726	0.732	0.738	0.747	0.758	0.77	0.781	0.791	0.8	0.808	0.816	0.823	0.829	0.832
Lebanon	0.51	0.525	0.536	0.547	0.561	0.575	0.588	0.602	0.613	0.621	0.627	0.636	0.645	0.653	0.661	0.669	0.678	0.687	0.697	0.706	0.715	0.723	0.73	0.738	0.744	0.751	0.757	0.763	0.77	0.777	0.785	0.792	0.797	0.801	0.804	0.807	0.81
Libya	0.565	0.57	0.575	0.579	0.583	0.588	0.591	0.595	0.598	0.601	0.605	0.611	0.617	0.623	0.63	0.636	0.643	0.651	0.659	0.667	0.675	0.684	0.692	0.702	0.712	0.723	0.734	0.746	0.757	0.768	0.781	0.785	0.793	0.8	0.804	0.807	0.806
Morocco	0.287	0.295	0.303	0.312	0.321	0.329	0.339	0.349	0.359	0.37	0.381	0.393	0.404	0.415	0.427	0.438	0.449	0.46																			

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
South Asia	0.288	0.293	0.298	0.303	0.309	0.314	0.32	0.327	0.334	0.341	0.349	0.356	0.364	0.371	0.378	0.386	0.394	0.402	0.409	0.417	0.425	0.432	0.44	0.447	0.455	0.464	0.473	0.482	0.491	0.5	0.51	0.519	0.529	0.539	0.549	0.56	0.569	
South Asia	0.288	0.293	0.298	0.303	0.309	0.314	0.32	0.327	0.334	0.341	0.349	0.356	0.364	0.371	0.378	0.386	0.394	0.402	0.409	0.417	0.425	0.432	0.44	0.447	0.455	0.464	0.473	0.482	0.491	0.5	0.51	0.519	0.529	0.539	0.549	0.56	0.569	
Bangladesh	0.254	0.258	0.263	0.269	0.275	0.281	0.287	0.294	0.3	0.307	0.315	0.323	0.331	0.339	0.347	0.355	0.363	0.371	0.378	0.386	0.394	0.402	0.41	0.418	0.426	0.434	0.442	0.45	0.459	0.467	0.476	0.485	0.494	0.503	0.511			
Bhutan	0.237	0.242	0.247	0.253	0.259	0.265	0.272	0.279	0.286	0.293	0.301	0.31	0.318	0.327	0.337	0.348	0.359	0.37	0.382	0.394	0.406	0.418	0.431	0.444	0.457	0.47	0.482	0.494	0.506	0.518	0.53	0.541	0.552	0.563	0.572	0.581	0.588	
India	0.298	0.303	0.308	0.313	0.318	0.324	0.329	0.336	0.342	0.35	0.357	0.364	0.371	0.378	0.385	0.393	0.401	0.408	0.416	0.424	0.432	0.44	0.447	0.455	0.464	0.473	0.482	0.492	0.502	0.512	0.522	0.533	0.543	0.553	0.563	0.574	0.584	
Nepal	0.194	0.198	0.202	0.206	0.21	0.214	0.219	0.224	0.23	0.236	0.242	0.25	0.258	0.266	0.276	0.285	0.293	0.302	0.31	0.319	0.328	0.337	0.346	0.354	0.362	0.37	0.377	0.384	0.391	0.398	0.404	0.411	0.417	0.424	0.433	0.443	0.452	
Pakistan	0.216	0.218	0.22	0.223	0.227	0.234	0.243	0.255	0.268	0.282	0.297	0.309	0.32	0.33	0.339	0.349	0.36	0.371	0.383	0.392	0.4	0.408	0.416	0.424	0.431	0.438	0.443	0.448	0.453	0.458	0.464	0.471	0.478	0.488	0.499	0.51	0.519	
Andhra Pradesh	0.276	0.281	0.285	0.29	0.294	0.299	0.303	0.309	0.315	0.322	0.329	0.337	0.345	0.354	0.363	0.373	0.383	0.393	0.403	0.414	0.424	0.434	0.444	0.453	0.463	0.472	0.481	0.493	0.503	0.514	0.525	0.536	0.546	0.556	0.566	0.577	0.585	
Arunachal Pradesh	0.263	0.269	0.274	0.28	0.286	0.292	0.3	0.307	0.315	0.322	0.33	0.338	0.346	0.354	0.362	0.371	0.38	0.389	0.397	0.405	0.413	0.422	0.43	0.438	0.447	0.457	0.466	0.477	0.487	0.5	0.513	0.526	0.539	0.552	0.565	0.578	0.589	
Assam	0.292	0.298	0.304	0.311	0.318	0.325	0.332	0.339	0.346	0.353	0.361	0.367	0.373	0.378	0.383	0.389	0.394	0.4	0.405	0.413	0.421	0.429	0.437	0.446	0.454	0.462	0.471	0.479	0.487	0.496	0.504	0.514	0.523	0.532	0.542	0.552	0.562	
Bihar	0.25	0.255	0.26	0.264	0.27	0.275	0.281	0.287	0.294	0.3	0.306	0.312	0.317	0.318	0.319	0.318	0.318	0.319	0.317	0.317	0.318	0.321	0.325	0.329	0.334	0.338	0.346	0.354	0.363	0.371	0.38	0.39	0.4	0.411	0.421	0.431	0.44	
Chhattisgarh	0.256	0.26	0.264	0.269	0.273	0.277	0.282	0.287	0.292	0.298	0.304	0.31	0.316	0.323	0.329	0.336	0.344	0.352	0.36	0.369	0.376	0.382	0.389	0.395	0.405	0.414	0.425	0.436	0.449	0.461	0.473	0.485	0.497	0.509	0.521	0.534	0.547	0.558
Delhi	0.471	0.478	0.484	0.49	0.495	0.5	0.505	0.51	0.515	0.52	0.524	0.529	0.533	0.538	0.544	0.55	0.557	0.565	0.573	0.582	0.592	0.602	0.612	0.623	0.633	0.643	0.653	0.664	0.674	0.684	0.694	0.705	0.715	0.724	0.734	0.744	0.752	
Goa	0.394	0.401	0.409	0.416	0.424	0.432	0.44	0.448	0.456	0.465	0.473	0.481	0.49	0.5	0.511	0.523	0.535	0.547	0.561	0.573	0.586	0.597	0.608	0.616	0.623	0.631	0.638	0.645	0.654	0.664	0.673	0.686	0.696	0.707	0.718	0.729	0.738	
Gujarat	0.319	0.326	0.331	0.338	0.345	0.352	0.359	0.365	0.373	0.38	0.389	0.395	0.403	0.411	0.42	0.429	0.439	0.448	0.457	0.465	0.473	0.48	0.487	0.495	0.503	0.512	0.522	0.532	0.542	0.551	0.561	0.571	0.58	0.589	0.598	0.607	0.615	
Haryana	0.317	0.324	0.331	0.338	0.345	0.353	0.361	0.368	0.377	0.386	0.395	0.405	0.413	0.422	0.431	0.44	0.449	0.458	0.467	0.475	0.484	0.494	0.503	0.513	0.524	0.534	0.545	0.557	0.569	0.58	0.591	0.602	0.613	0.624	0.635	0.646	0.655	
Himachal Pradesh	0.289	0.296	0.303	0.311	0.318	0.326	0.334	0.343	0.353	0.363	0.374	0.385	0.396	0.407	0.419	0.43	0.443	0.456	0.469	0.483	0.496	0.508	0.52	0.531	0.541	0.553	0.564	0.575	0.587	0.598	0.61	0.622	0.633	0.644	0.654	0.662	0.669	
Jammu and Kashmir	0.276	0.282	0.288	0.295	0.301	0.308	0.316	0.322	0.329	0.336	0.343	0.349	0.353	0.361	0.369	0.377	0.384	0.395	0.405	0.417	0.429	0.441	0.452	0.464	0.475	0.486	0.497	0.507	0.518	0.528	0.539	0.549	0.559	0.569	0.579	0.589	0.598	
Jharkhand	0.259	0.262	0.266	0.269	0.273	0.277	0.281	0.285	0.29	0.295	0.3	0.306	0.311	0.316	0.322	0.329	0.334	0.342	0.35	0.358	0.365	0.373	0.381	0.389	0.397	0.406	0.415	0.424	0.433	0.442	0.453	0.464	0.475	0.487	0.499	0.512	0.523	
Karnataka	0.296	0.301	0.306	0.312	0.318	0.324	0.33	0.337	0.344	0.352	0.36	0.368	0.376	0.385	0.395	0.405	0.415	0.425	0.436	0.447	0.457	0.465	0.474	0.481	0.49	0.499	0.509	0.521	0.532	0.543	0.554	0.565	0.576	0.586	0.596	0.606	0.614	
Kerala	0.369	0.374	0.379	0.385	0.391	0.396	0.403	0.409	0.415	0.422	0.429	0.436	0.444	0.454	0.464	0.476	0.488	0.5	0.512	0.524	0.535	0.545	0.553	0.562	0.571	0.58	0.589	0.599	0.608	0.619	0.629	0.638	0.648	0.657	0.667	0.676	0.683	
Madhya Pradesh	0.271	0.275	0.28	0.286	0.291	0.297	0.303	0.309	0.317	0.324	0.332	0.339	0.345	0.35	0.355	0.36	0.365	0.37	0.375	0.38	0.385	0.391	0.397	0.404	0.411	0.418	0.425	0.433	0.441	0.45	0.459	0.47	0.481	0.494	0.507	0.52	0.532	
Maharashtra	0.339	0.346	0.353	0.36	0.368	0.375	0.383	0.391	0.399	0.408	0.418	0.426	0.435	0.444	0.454	0.464	0.475	0.485	0.494	0.503	0.512	0.519	0.526	0.534	0.543	0.553	0.564	0.576	0.588	0.599	0.61	0.62	0.63	0.639	0.648	0.658	0.666	
Manipur	0.28	0.288	0.295	0.302	0.31	0.318	0.326	0.336	0.346	0.355	0.364	0.372	0.38	0.386	0.391	0.395	0.4	0.406	0.413	0.423	0.433	0.444	0.455	0.467	0.48	0.494	0.507	0.518	0.529	0.54	0.549	0.56	0.571	0.581	0.591	0.601	0.61	
Meghalaya	0.287	0.291	0.296	0.3	0.305	0.31	0.316	0.323	0.328	0.335	0.342	0.348	0.353	0.358	0.36	0.363	0.367	0.372	0.379	0.389	0.402	0.417	0.431	0.443	0.455	0.467	0.477	0.488	0.498	0.508	0.519	0.53	0.541	0.552	0.563	0.575	0.585	
Mizoram	0.334	0.34	0.346	0.352	0.359	0.369	0.378	0.39	0.399	0.407	0.414	0.422	0.429	0.436	0.44	0.446	0.453	0.459	0.465	0.473	0.482	0.492	0.502	0.511	0.52	0.528	0.537	0.545	0.553	0.562	0.572	0.581	0.591	0.601	0.611	0.621	0.63	
Nagaland	0.343	0.348	0.354	0.36	0.366	0.371	0.377	0.383	0.389	0.395	0.401	0.406	0.409	0.413	0.416	0.419	0.422	0.428	0.434	0.442	0.456	0.473	0.49	0.505	0.519	0.533	0.545	0.559	0.572	0.585	0.597	0.61	0.622	0.634	0.645	0.654	0.661	
Odisha	0.251	0.255	0.259	0.264	0.269	0.274	0.28	0.285	0.292	0.299	0.305	0.312	0.318	0.324	0.33	0.338	0.344	0.351	0.359	0.368	0.376	0.385	0.393	0.402	0.413	0.422	0.433	0.445	0.457	0.468	0.48	0.491	0.503	0.514	0.526	0.537	0.547	
Punjab	0.329	0.337	0.344	0.352	0.359	0.367	0.375	0.383	0.392	0.401	0.409	0.418	0.427	0.436	0.445	0.455	0.465	0.474	0.484	0.493	0.503	0.515	0.527	0.535	0.545	0.555	0.566	0.576	0.587	0.598	0.608	0.618	0.627	0.636	0.643	0.65		
Rajasthan	0.254	0.259	0.263	0.27	0.275	0.28	0.286	0.292	0.299	0.306	0.315	0.322	0.329	0.335	0.341	0.348	0.355	0.362	0.368	0.375	0.382	0.39	0.397	0.405	0.414	0.422	0.43	0.44	0.449	0.457	0.468	0.479	0.49	0.5	0.511	0.521	0.53	
Sikkim	0.268	0.273	0.279	0.284	0.29	0.297	0.304	0.313	0.321	0.329	0.337	0.346	0.352	0.361	0.369	0.378	0.388	0.398	0.408	0.418	0.43	0.441	0.453	0.466	0.478	0.49	0.501	0.511	0.52	0.536	0.551	0.565	0.579	0.593	0.607	0.62	0.632	
Tamil Nadu	0.309	0.315	0.319	0.325	0.33	0.337	0.343	0.351	0.359	0.367	0.376	0.385	0.395	0.405	0.417	0.428	0.44	0.452	0.464	0.476	0.487																	

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Himachal Pradesh, Rural	0.275	0.282	0.289	0.297	0.304	0.312	0.32	0.329	0.339	0.349	0.36	0.37	0.381	0.393	0.404	0.416	0.429	0.442	0.455	0.469	0.482	0.495	0.506	0.517	0.528	0.539	0.551	0.563	0.574	0.585	0.598	0.61	0.621	0.632	0.643	0.652	0.659
Jammu and Kashmir, Urban	0.366	0.374	0.383	0.392	0.401	0.411	0.42	0.428	0.437	0.444	0.451	0.457	0.462	0.47	0.478	0.486	0.494	0.506	0.515	0.528	0.54	0.551	0.562	0.572	0.581	0.59	0.599	0.607	0.615	0.623	0.629	0.636	0.643	0.65	0.657	0.664	0.671
Jammu and Kashmir, Rural	0.247	0.252	0.258	0.263	0.269	0.275	0.282	0.287	0.294	0.301	0.307	0.312	0.317	0.324	0.332	0.339	0.346	0.357	0.366	0.378	0.389	0.4	0.412	0.423	0.435	0.446	0.458	0.468	0.479	0.49	0.5	0.511	0.522	0.532	0.543	0.553	0.562
Jharkhand, Urban	0.453	0.457	0.462	0.466	0.469	0.472	0.476	0.479	0.483	0.487	0.492	0.497	0.502	0.508	0.514	0.521	0.527	0.536	0.545	0.554	0.561	0.569	0.577	0.584	0.591	0.599	0.607	0.615	0.622	0.63	0.638	0.646	0.653	0.659	0.666	0.673	0.679
Jharkhand, Rural	0.233	0.236	0.239	0.242	0.245	0.248	0.251	0.255	0.259	0.264	0.269	0.274	0.279	0.285	0.292	0.299	0.305	0.313	0.321	0.33	0.338	0.346	0.354	0.362	0.37	0.379	0.387	0.397	0.405	0.415	0.425	0.436	0.448	0.459	0.472	0.485	0.496
Karnataka, Urban	0.391	0.398	0.404	0.412	0.42	0.428	0.434	0.441	0.449	0.456	0.463	0.471	0.478	0.486	0.495	0.505	0.515	0.525	0.536	0.546	0.557	0.565	0.574	0.581	0.589	0.598	0.607	0.616	0.624	0.631	0.639	0.647	0.655	0.664	0.672	0.681	0.688
Karnataka, Rural	0.251	0.256	0.26	0.264	0.269	0.274	0.28	0.286	0.292	0.299	0.306	0.314	0.322	0.33	0.339	0.348	0.357	0.367	0.377	0.387	0.397	0.406	0.415	0.423	0.432	0.442	0.453	0.464	0.475	0.485	0.496	0.507	0.518	0.529	0.54	0.552	0.561
Kerala, Urban	0.408	0.412	0.417	0.422	0.428	0.432	0.438	0.443	0.448	0.454	0.46	0.466	0.474	0.483	0.494	0.506	0.518	0.53	0.542	0.554	0.565	0.574	0.582	0.589	0.597	0.605	0.613	0.621	0.629	0.638	0.646	0.655	0.664	0.673	0.683	0.692	0.699
Kerala, Rural	0.358	0.363	0.368	0.374	0.38	0.385	0.391	0.397	0.404	0.411	0.418	0.425	0.433	0.442	0.452	0.464	0.476	0.488	0.5	0.513	0.524	0.534	0.543	0.551	0.559	0.568	0.577	0.586	0.595	0.605	0.613	0.623	0.632	0.642	0.653	0.662	0.669
Madhya Pradesh, Urban	0.403	0.409	0.415	0.422	0.428	0.435	0.441	0.448	0.455	0.461	0.469	0.476	0.483	0.49	0.497	0.504	0.511	0.517	0.522	0.527	0.531	0.535	0.538	0.541	0.545	0.55	0.557	0.564	0.572	0.581	0.591	0.6	0.609	0.618	0.626	0.635	0.643
Madhya Pradesh, Rural	0.229	0.232	0.236	0.24	0.245	0.249	0.254	0.26	0.266	0.272	0.28	0.286	0.292	0.296	0.3	0.305	0.309	0.314	0.318	0.322	0.325	0.331	0.336	0.342	0.349	0.355	0.362	0.37	0.378	0.388	0.399	0.411	0.423	0.436	0.451	0.465	0.478
Maharashtra, Urban	0.421	0.428	0.436	0.444	0.451	0.458	0.465	0.472	0.478	0.486	0.493	0.499	0.506	0.514	0.522	0.531	0.54	0.55	0.558	0.568	0.578	0.584	0.591	0.598	0.606	0.616	0.627	0.638	0.648	0.658	0.668	0.678	0.695	0.703	0.712	0.719	
Maharashtra, Rural	0.288	0.295	0.301	0.308	0.314	0.322	0.329	0.337	0.345	0.354	0.364	0.373	0.382	0.391	0.4	0.41	0.421	0.43	0.439	0.449	0.457	0.464	0.472	0.48	0.488	0.498	0.51	0.522	0.533	0.544	0.556	0.567	0.577	0.586	0.596	0.607	0.615
Manipur, Urban	0.346	0.353	0.361	0.369	0.378	0.385	0.393	0.402	0.411	0.419	0.427	0.434	0.441	0.447	0.453	0.458	0.465	0.472	0.479	0.489	0.498	0.509	0.519	0.53	0.541	0.554	0.564	0.574	0.582	0.592	0.6	0.609	0.618	0.627	0.636	0.643	0.65
Manipur, Rural	0.265	0.272	0.278	0.285	0.292	0.299	0.306	0.315	0.324	0.332	0.341	0.349	0.356	0.362	0.367	0.371	0.375	0.381	0.387	0.397	0.408	0.419	0.43	0.442	0.455	0.469	0.482	0.494	0.504	0.515	0.525	0.535	0.545	0.555	0.565	0.575	0.585
Meghalaya, Urban	0.456	0.459	0.46	0.462	0.463	0.465	0.466	0.468	0.469	0.471	0.473	0.474	0.476	0.478	0.484	0.49	0.498	0.506	0.516	0.529	0.545	0.559	0.572	0.584	0.595	0.605	0.613	0.621	0.63	0.638	0.648	0.657	0.667	0.677	0.687	0.696	
Meghalaya, Rural	0.25	0.254	0.258	0.263	0.268	0.273	0.279	0.286	0.292	0.299	0.307	0.313	0.319	0.323	0.325	0.328	0.331	0.336	0.342	0.352	0.365	0.379	0.393	0.406	0.417	0.429	0.44	0.451	0.461	0.472	0.483	0.495	0.505	0.516	0.528	0.54	0.55
Mizoram, Urban	0.383	0.389	0.395	0.401	0.408	0.417	0.426	0.437	0.446	0.453	0.459	0.466	0.472	0.479	0.485	0.492	0.5	0.508	0.514	0.522	0.531	0.54	0.548	0.555	0.562	0.568	0.575	0.581	0.587	0.593	0.601	0.608	0.616	0.625	0.633	0.643	0.651
Mizoram, Rural	0.292	0.298	0.303	0.309	0.315	0.325	0.334	0.346	0.355	0.363	0.37	0.378	0.385	0.392	0.395	0.398	0.404	0.408	0.413	0.42	0.43	0.44	0.451	0.461	0.472	0.482	0.491	0.502	0.512	0.523	0.535	0.546	0.557	0.568	0.58	0.591	0.6
Nagaland, Urban	0.446	0.451	0.458	0.466	0.473	0.48	0.486	0.494	0.501	0.507	0.513	0.517	0.521	0.525	0.527	0.53	0.532	0.536	0.54	0.544	0.553	0.564	0.576	0.586	0.595	0.604	0.612	0.622	0.632	0.641	0.65	0.66	0.67	0.68	0.691	0.702	0.711
Nagaland, Rural	0.328	0.333	0.338	0.343	0.348	0.353	0.357	0.363	0.368	0.374	0.379	0.383	0.387	0.39	0.393	0.395	0.399	0.405	0.412	0.42	0.435	0.452	0.469	0.484	0.498	0.512	0.524	0.537	0.55	0.563	0.575	0.588	0.6	0.611	0.622	0.629	0.637
Odisha, Urban	0.37	0.376	0.382	0.389	0.396	0.403	0.411	0.417	0.424	0.432	0.438	0.444	0.45	0.455	0.461	0.469	0.474	0.481	0.488	0.496	0.504	0.512	0.519	0.527	0.536	0.544	0.552	0.561	0.569	0.575	0.583	0.591	0.599	0.608	0.617	0.627	0.635
Odisha, Rural	0.233	0.237	0.24	0.245	0.248	0.253	0.259	0.263	0.269	0.276	0.281	0.287	0.293	0.299	0.305	0.312	0.318	0.325	0.333	0.341	0.35	0.358	0.366	0.376	0.387	0.397	0.408	0.42	0.432	0.443	0.455	0.467	0.479	0.49	0.502	0.514	0.524
Punjab, Urban	0.441	0.449	0.456	0.463	0.47	0.477	0.484	0.491	0.498	0.506	0.513	0.519	0.526	0.533	0.541	0.548	0.556	0.564	0.571	0.578	0.585	0.592	0.598	0.605	0.611	0.619	0.627	0.636	0.645	0.654	0.662	0.671	0.679	0.688	0.696	0.703	0.709
Punjab, Rural	0.286	0.293	0.3	0.307	0.314	0.322	0.33	0.338	0.346	0.355	0.364	0.373	0.381	0.39	0.399	0.408	0.418	0.427	0.437	0.447	0.457	0.466	0.474	0.483	0.492	0.502	0.513	0.524	0.535	0.546	0.556	0.566	0.577	0.587	0.596	0.604	0.611
Rajasthan, Urban	0.374	0.379	0.384	0.39	0.396	0.402	0.407	0.412	0.419	0.425	0.433	0.44	0.446	0.452	0.459	0.465	0.473	0.481	0.489	0.499	0.507	0.516	0.523	0.531	0.539	0.546	0.554	0.561	0.569	0.576	0.585	0.594	0.602	0.61	0.618	0.626	0.632
Rajasthan, Rural	0.218	0.222	0.226	0.232	0.236	0.241	0.246	0.251	0.258	0.265	0.273	0.28	0.286	0.292	0.299	0.305	0.312	0.318	0.324	0.331	0.337	0.345	0.352	0.36	0.368	0.376	0.385	0.395	0.404	0.412	0.423	0.434	0.445	0.456	0.467	0.478	0.487
Sikkim, Urban	0.371	0.377	0.386	0.394	0.404	0.414	0.426	0.437	0.448	0.459	0.469	0.477	0.483	0.491	0.498	0.504	0.511	0.518	0.525	0.533	0.542	0.551	0.56	0.57	0.579	0.588	0.595	0.601	0.605	0.618	0.628	0.639	0.649	0.66	0.672	0.685	0.695
Sikkim, Rural	0.257	0.261	0.266	0.271	0.276	0.283	0.29	0.297	0.305	0.313	0.321	0.329	0.335	0.343	0.352	0.36	0.37	0.38	0.39	0.4	0.411	0.422	0.434	0.445	0.457	0.469	0.479	0.489	0.496	0.513	0.527	0.545	0.565	0.584	0.598	0.61	
Tamil Nadu, Urban	0.391	0.398	0.403	0.408	0.413	0.419	0.425	0.432	0.439	0.446	0.453	0.459	0.467	0.476	0.486	0.495	0.505	0.515	0.526	0.537	0.547	0.557	0.565	0.573	0.581	0.59	0.599	0.609	0.617	0.627	0.636	0.646	0.656	0.667	0.678	0.686	0.693
Tamil Nadu, Rural	0.264	0.27	0.274	0.279	0.285	0.292	0.299	0.307	0.315	0.324	0.333	0.341	0.35	0.359	0.369	0.379	0.389	0.399	0.411	0.422	0.433	0.443	0.453	0.462	0.472	0.483	0.494	0.506	0.516	0.528	0.539	0.551	0.562	0.574	0.586	0.595	0.603
Telangana, Urban	0.37	0.376	0.382	0.389	0.396	0.402	0.409	0.416	0.424	0.432	0.44	0.449	0.457	0.4																							

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Kenya	0.22	0.232	0.245	0.257	0.269	0.28	0.291	0.302	0.313	0.323	0.335	0.346	0.357	0.367	0.376	0.384	0.393	0.4	0.405	0.41	0.415	0.42	0.425	0.429	0.434	0.44	0.446	0.452	0.459	0.465	0.473	0.48	0.489	0.498	0.506	0.514	0.52
Madagascar	0.195	0.201	0.207	0.213	0.219	0.226	0.232	0.238	0.244	0.249	0.255	0.26	0.264	0.267	0.269	0.272	0.275	0.278	0.282	0.286	0.289	0.294	0.297	0.302	0.306	0.311	0.315	0.319	0.323	0.327	0.331	0.338	0.344	0.35	0.355	0.361	0.365
Malawi	0.143	0.149	0.155	0.161	0.167	0.175	0.182	0.188	0.194	0.199	0.205	0.21	0.215	0.219	0.223	0.227	0.232	0.238	0.243	0.249	0.254	0.258	0.263	0.268	0.273	0.279	0.284	0.29	0.296	0.302	0.308	0.314	0.32	0.326	0.334	0.342	0.348
Mozambique	0.131	0.133	0.135	0.136	0.137	0.138	0.138	0.139	0.14	0.142	0.145	0.149	0.151	0.153	0.157	0.158	0.165	0.172	0.18	0.186	0.193	0.2	0.207	0.214	0.22	0.226	0.231	0.236	0.242	0.247	0.253	0.26	0.268	0.277	0.287	0.297	0.306
Rwanda	0.065	0.067	0.068	0.069	0.07	0.071	0.089	0.12	0.144	0.164	0.181	0.197	0.208	0.217	0.22	0.223	0.226	0.23	0.234	0.237	0.24	0.244	0.25	0.256	0.263	0.272	0.282	0.293	0.303	0.318	0.33	0.342	0.354	0.365	0.374	0.383	0.39
Somalia	0.161	0.162	0.164	0.166	0.168	0.171	0.173	0.176	0.18	0.183	0.187	0.19	0.192	0.194	0.195	0.196	0.197	0.198	0.199	0.2	0.201	0.203	0.205	0.208	0.212	0.216	0.22	0.225	0.23	0.235	0.24	0.245	0.251	0.256	0.26	0.265	0.268
Tanzania	0.176	0.183	0.19	0.197	0.205	0.213	0.22	0.226	0.233	0.239	0.245	0.251	0.256	0.259	0.263	0.271	0.279	0.288	0.295	0.302	0.308	0.314	0.32	0.326	0.332	0.339	0.345	0.352	0.359	0.367	0.375	0.384	0.392	0.402	0.411	0.421	0.428
Uganda	0.101	0.11	0.117	0.125	0.134	0.142	0.149	0.156	0.163	0.17	0.177	0.184	0.19	0.196	0.203	0.209	0.215	0.22	0.226	0.232	0.238	0.244	0.251	0.257	0.265	0.272	0.28	0.289	0.298	0.308	0.317	0.328	0.338	0.348	0.359	0.37	0.377
Zambia	0.193	0.205	0.216	0.228	0.239	0.251	0.261	0.271	0.281	0.291	0.299	0.307	0.315	0.321	0.326	0.331	0.336	0.34	0.343	0.346	0.35	0.354	0.357	0.362	0.366	0.371	0.377	0.385	0.393	0.401	0.41	0.419	0.428	0.437	0.446	0.454	0.46
South Sudan	0.053	0.054	0.054	0.055	0.056	0.056	0.057	0.062	0.07	0.077	0.082	0.088	0.092	0.095	0.098	0.102	0.105	0.108	0.111	0.114	0.117	0.12	0.123	0.127	0.13	0.134	0.138	0.143	0.148	0.152	0.158	0.164	0.17	0.176	0.182	0.188	0.192
Central	0.292	0.305	0.318	0.33	0.343	0.356	0.368	0.379	0.39	0.401	0.413	0.425	0.435	0.444	0.453	0.462	0.47	0.478	0.482	0.487	0.492	0.497	0.501	0.505	0.51	0.515	0.521	0.527	0.533	0.54	0.546	0.553	0.56	0.566	0.573	0.58	0.585
Coast	0.146	0.16	0.172	0.185	0.196	0.205	0.214	0.222	0.231	0.241	0.252	0.264	0.275	0.286	0.296	0.305	0.313	0.321	0.327	0.332	0.337	0.343	0.348	0.354	0.361	0.368	0.376	0.385	0.394	0.403	0.413	0.423	0.434	0.444	0.455	0.465	0.473
Eastern	0.196	0.209	0.221	0.233	0.245	0.256	0.266	0.277	0.287	0.298	0.31	0.322	0.333	0.344	0.353	0.362	0.371	0.379	0.385	0.391	0.396	0.401	0.407	0.412	0.418	0.424	0.431	0.438	0.445	0.452	0.46	0.467	0.475	0.483	0.49	0.498	0.503
Nairobi	0.42	0.431	0.442	0.453	0.464	0.475	0.486	0.496	0.506	0.516	0.526	0.536	0.545	0.553	0.56	0.567	0.574	0.58	0.585	0.589	0.593	0.598	0.602	0.607	0.611	0.617	0.623	0.63	0.637	0.644	0.652	0.66	0.669	0.677	0.685	0.694	0.701
North Eastern	0.049	0.05	0.051	0.052	0.053	0.053	0.054	0.055	0.056	0.057	0.058	0.059	0.061	0.062	0.067	0.075	0.08	0.081	0.076	0.068	0.069	0.07	0.071	0.072	0.073	0.074	0.075	0.077	0.078	0.079	0.08	0.081	0.083	0.084	0.092	0.112	0.124
Nyanza	0.204	0.216	0.229	0.241	0.253	0.264	0.274	0.285	0.295	0.306	0.318	0.331	0.343	0.353	0.364	0.373	0.383	0.391	0.398	0.404	0.411	0.417	0.423	0.429	0.436	0.443	0.45	0.458	0.466	0.475	0.483	0.491	0.5	0.508	0.516	0.524	0.53
Rift Valley	0.173	0.188	0.202	0.216	0.228	0.239	0.249	0.259	0.269	0.28	0.292	0.305	0.316	0.327	0.337	0.347	0.356	0.363	0.37	0.375	0.381	0.386	0.392	0.397	0.403	0.41	0.417	0.424	0.432	0.44	0.448	0.457	0.465	0.474	0.482	0.491	0.497
Western	0.228	0.24	0.251	0.263	0.274	0.284	0.294	0.303	0.312	0.322	0.332	0.343	0.353	0.362	0.37	0.378	0.385	0.391	0.396	0.4	0.404	0.408	0.412	0.416	0.421	0.426	0.431	0.437	0.443	0.45	0.456	0.463	0.47	0.477	0.484	0.491	0.496
Kiambu	0.313	0.327	0.341	0.355	0.368	0.382	0.394	0.406	0.41	0.452	0.462	0.47	0.478	0.486	0.493	0.498	0.503	0.507	0.511	0.515	0.518	0.519	0.523	0.527	0.531	0.536	0.541	0.547	0.553	0.559	0.566	0.574	0.581	0.588	0.596	0.601	
Kirinyaga	0.28	0.292	0.303	0.314	0.326	0.337	0.348	0.358	0.369	0.379	0.389	0.399	0.408	0.417	0.427	0.437	0.446	0.454	0.461	0.467	0.473	0.479	0.484	0.49	0.495	0.501	0.508	0.514	0.521	0.527	0.533	0.54	0.546	0.552	0.558	0.564	0.569
Murang'a	0.278	0.29	0.303	0.315	0.328	0.34	0.352	0.363	0.374	0.384	0.395	0.406	0.415	0.424	0.432	0.44	0.447	0.454	0.461	0.466	0.472	0.477	0.482	0.487	0.492	0.497	0.503	0.509	0.515	0.52	0.526	0.531	0.537	0.542	0.547	0.552	0.556
Nyandarua	0.263	0.275	0.287	0.3	0.312	0.325	0.337	0.348	0.36	0.371	0.383	0.395	0.405	0.415	0.423	0.431	0.439	0.446	0.452	0.457	0.462	0.466	0.47	0.474	0.479	0.484	0.489	0.496	0.503	0.51	0.518	0.526	0.534	0.542	0.55	0.558	0.564
Nyeri	0.292	0.305	0.318	0.332	0.345	0.358	0.37	0.382	0.394	0.407	0.419	0.432	0.443	0.453	0.462	0.47	0.477	0.483	0.488	0.492	0.496	0.5	0.503	0.507	0.512	0.517	0.524	0.531	0.538	0.546	0.553	0.56	0.566	0.572	0.577	0.583	0.587
Kilifi	0.085	0.086	0.087	0.088	0.089	0.09	0.098	0.111	0.122	0.134	0.15	0.166	0.182	0.197	0.212	0.226	0.238	0.249	0.258	0.266	0.273	0.28	0.286	0.291	0.295	0.301	0.306	0.313	0.321	0.33	0.341	0.352	0.364	0.375	0.387	0.398	0.406
Kwale	0.13	0.141	0.151	0.161	0.17	0.177	0.185	0.192	0.2	0.209	0.221	0.234	0.246	0.255	0.261	0.266	0.271	0.275	0.278	0.28	0.281	0.283	0.285	0.289	0.294	0.3	0.306	0.314	0.324	0.334	0.346	0.357	0.369	0.381	0.393	0.404	0.412
Lamu	0.168	0.181	0.193	0.205	0.215	0.224	0.233	0.241	0.249	0.255	0.262	0.269	0.276	0.283	0.292	0.3	0.309	0.317	0.325	0.332	0.338	0.344	0.349	0.355	0.36	0.365	0.371	0.376	0.381	0.388	0.397	0.406	0.415	0.425	0.434	0.444	0.45
Mombasa	0.246	0.259	0.271	0.283	0.294	0.305	0.316	0.326	0.337	0.347	0.36	0.372	0.384	0.394	0.404	0.413	0.421	0.429	0.435	0.44	0.444	0.448	0.452	0.457	0.463	0.47	0.477	0.484	0.491	0.499	0.508	0.518	0.529	0.539	0.549	0.56	0.568
TaitaTaveta	0.156	0.172	0.186	0.2	0.212	0.223	0.233	0.242	0.252	0.263	0.276	0.29	0.303	0.315	0.327	0.339	0.349	0.359	0.367	0.374	0.38	0.386	0.392	0.399	0.408	0.417	0.426	0.435	0.444	0.453	0.464	0.474	0.484	0.494	0.504	0.513	0.52
TanaRiver	0.064	0.065	0.066	0.077	0.084	0.088	0.09	0.092	0.097	0.107	0.12	0.132	0.145	0.157	0.167	0.176	0.183	0.188	0.189	0.187	0.185	0.182	0.179	0.175	0.172	0.169	0.168	0.171	0.178	0.191	0.204	0.219	0.234	0.248	0.261	0.271	
Embu	0.237	0.25	0.262	0.274	0.287	0.298	0.31	0.32	0.331	0.342	0.353	0.365	0.375	0.386	0.396	0.407	0.417	0.426	0.434	0.441	0.449	0.456	0.463	0.469	0.474	0.48	0.486	0.493	0.499	0.506	0.514	0.521	0.529	0.536	0.543	0.55	0.555
Isiolo	0.205	0.212	0.219	0.226	0.233	0.24	0.246	0.252	0.258	0.264	0.27	0.277	0.284	0.289	0.295	0.3	0.306	0.311	0.315	0.32	0.325	0.33	0.334	0.336	0.336	0.335	0.334	0.334	0.336	0.339	0.343	0.348	0.354	0.36	0.366	0.372	0.377
Kitui	0.145	0.158	0.171	0.183	0.195	0.207	0.217	0.227	0.237	0.246	0.255	0.265	0.274	0.283	0.293	0.302	0.311	0.319	0.327	0.333	0.339	0.345	0.351														

Appendix Table 11: Socio-Demographic Index values for all estimated GBD 2016 locations, 1980–2016

Location	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TransNzoia	0.103	0.137	0.161	0.18	0.197	0.21	0.222	0.234	0.246	0.26	0.278	0.296	0.313	0.328	0.341	0.353	0.364	0.374	0.382	0.39	0.398	0.405	0.412	0.418	0.422	0.427	0.432	0.438	0.445	0.453	0.462	0.471	0.48	0.489	0.498	0.506	0.513
Turkana	0.185	0.19	0.195	0.2	0.205	0.209	0.213	0.217	0.22	0.223	0.227	0.231	0.235	0.238	0.241	0.244	0.247	0.249	0.251	0.25	0.249	0.248	0.248	0.249	0.251	0.253	0.256	0.26	0.265	0.268	0.271	0.273	0.276	0.279	0.283	0.287	0.289
UasinGishu	0.183	0.202	0.22	0.237	0.252	0.266	0.279	0.291	0.303	0.316	0.329	0.342	0.355	0.366	0.376	0.386	0.395	0.404	0.413	0.422	0.432	0.443	0.453	0.462	0.47	0.478	0.486	0.495	0.504	0.513	0.522	0.53	0.539	0.548	0.556	0.564	0.57
WestPokot	0.153	0.16	0.168	0.176	0.183	0.19	0.196	0.203	0.211	0.219	0.23	0.24	0.25	0.258	0.264	0.27	0.275	0.279	0.28	0.281	0.283	0.284	0.286	0.289	0.292	0.296	0.301	0.308	0.314	0.321	0.328	0.335	0.343	0.351	0.359	0.367	0.373
Bungoma	0.199	0.214	0.228	0.242	0.254	0.266	0.277	0.287	0.296	0.305	0.316	0.327	0.336	0.345	0.354	0.362	0.37	0.378	0.385	0.392	0.399	0.406	0.413	0.42	0.426	0.432	0.438	0.444	0.45	0.456	0.462	0.464	0.477	0.484	0.492	0.499	0.505
Busia	0.235	0.246	0.256	0.266	0.276	0.285	0.294	0.303	0.312	0.321	0.331	0.341	0.35	0.359	0.365	0.371	0.377	0.382	0.385	0.387	0.39	0.393	0.396	0.399	0.402	0.406	0.41	0.415	0.421	0.427	0.433	0.44	0.447	0.454	0.461	0.468	0.473
Kakamega	0.23	0.241	0.252	0.263	0.273	0.283	0.292	0.302	0.311	0.321	0.332	0.344	0.355	0.365	0.374	0.383	0.39	0.397	0.402	0.405	0.408	0.411	0.414	0.417	0.421	0.426	0.431	0.438	0.444	0.45	0.457	0.463	0.47	0.477	0.484	0.491	0.496
Vihiga	0.258	0.27	0.281	0.293	0.304	0.315	0.325	0.334	0.344	0.352	0.361	0.37	0.378	0.385	0.391	0.397	0.401	0.405	0.408	0.409	0.41	0.412	0.415	0.418	0.422	0.428	0.436	0.446	0.456	0.467	0.476	0.485	0.493	0.5	0.507	0.513	0.517
Southern Sub-Saharan Africa	0.505	0.511	0.516	0.521	0.527	0.531	0.536	0.541	0.546	0.552	0.558	0.564	0.57	0.577	0.583	0.589	0.595	0.601	0.606	0.611	0.615	0.62	0.625	0.63	0.635	0.64	0.646	0.651	0.656	0.661	0.666	0.672	0.677	0.681	0.685	0.689	0.691
Botswana	0.404	0.414	0.423	0.432	0.441	0.451	0.461	0.471	0.484	0.497	0.508	0.518	0.527	0.536	0.544	0.552	0.56	0.569	0.578	0.587	0.595	0.602	0.609	0.616	0.623	0.631	0.638	0.645	0.65	0.656	0.662	0.669	0.675	0.682	0.689	0.695	0.701
Lesotho	0.323	0.328	0.333	0.337	0.341	0.345	0.349	0.353	0.358	0.364	0.37	0.376	0.383	0.39	0.397	0.403	0.41	0.417	0.423	0.429	0.435	0.442	0.448	0.455	0.462	0.469	0.475	0.482	0.489	0.496	0.504	0.513	0.521	0.529	0.538	0.545	0.552
Namibia	0.374	0.38	0.385	0.39	0.395	0.399	0.404	0.41	0.416	0.422	0.427	0.433	0.441	0.45	0.459	0.469	0.478	0.488	0.497	0.505	0.514	0.522	0.531	0.539	0.547	0.555	0.563	0.569	0.575	0.58	0.586	0.591	0.597	0.604	0.611	0.618	0.624
South Africa	0.542	0.548	0.554	0.559	0.564	0.569	0.574	0.579	0.584	0.59	0.596	0.601	0.606	0.613	0.619	0.624	0.63	0.636	0.64	0.645	0.649	0.653	0.658	0.663	0.669	0.675	0.682	0.688	0.695	0.701	0.707	0.714	0.719	0.724	0.727	0.73	0.734
Swaziland	0.384	0.391	0.398	0.404	0.41	0.415	0.421	0.429	0.437	0.446	0.454	0.462	0.47	0.477	0.484	0.491	0.498	0.504	0.509	0.514	0.518	0.522	0.525	0.528	0.531	0.534	0.537	0.538	0.538	0.539	0.544	0.553	0.562	0.571	0.578	0.584	0.589
Zimbabwe	0.357	0.364	0.37	0.377	0.384	0.39	0.397	0.403	0.412	0.422	0.432	0.443	0.452	0.461	0.47	0.477	0.486	0.493	0.498	0.502	0.505	0.507	0.508	0.506	0.503	0.498	0.492	0.485	0.477	0.472	0.469	0.47	0.474	0.479	0.485	0.491	0.497
Eastern Cape	0.495	0.501	0.506	0.511	0.516	0.521	0.524	0.528	0.533	0.538	0.543	0.547	0.551	0.557	0.562	0.567	0.573	0.578	0.583	0.587	0.591	0.596	0.601	0.606	0.612	0.618	0.626	0.633	0.64	0.647	0.653	0.66	0.665	0.67	0.673	0.676	0.679
Free State	0.546	0.551	0.556	0.56	0.564	0.568	0.572	0.576	0.581	0.586	0.591	0.597	0.602	0.609	0.617	0.624	0.631	0.637	0.641	0.645	0.649	0.652	0.656	0.661	0.666	0.672	0.678	0.684	0.69	0.696	0.702	0.708	0.714	0.718	0.721	0.724	0.727
Gauteng	0.656	0.66	0.664	0.667	0.671	0.674	0.677	0.681	0.684	0.688	0.692	0.695	0.698	0.702	0.705	0.707	0.709	0.712	0.715	0.718	0.721	0.724	0.728	0.731	0.735	0.74	0.744	0.749	0.754	0.759	0.763	0.768	0.773	0.775	0.778	0.78	0.782
KwaZulu-Natal	0.521	0.527	0.532	0.537	0.542	0.546	0.551	0.555	0.56	0.566	0.571	0.576	0.581	0.588	0.594	0.599	0.605	0.61	0.615	0.619	0.624	0.629	0.634	0.639	0.645	0.651	0.658	0.665	0.672	0.679	0.685	0.692	0.702	0.706	0.71	0.713	
Limpopo	0.447	0.454	0.461	0.467	0.473	0.479	0.484	0.49	0.497	0.504	0.511	0.518	0.524	0.532	0.54	0.547	0.554	0.562	0.568	0.572	0.577	0.582	0.588	0.594	0.602	0.61	0.618	0.627	0.636	0.643	0.651	0.659	0.665	0.671	0.675	0.679	0.682
Mpumalanga	0.495	0.502	0.508	0.514	0.52	0.525	0.531	0.537	0.543	0.55	0.557	0.563	0.57	0.577	0.584	0.589	0.595	0.601	0.606	0.61	0.615	0.62	0.625	0.631	0.637	0.644	0.652	0.659	0.667	0.674	0.681	0.688	0.695	0.7	0.703	0.707	0.71
North-West	0.523	0.529	0.534	0.539	0.545	0.55	0.555	0.56	0.565	0.571	0.576	0.58	0.585	0.59	0.594	0.597	0.6	0.604	0.608	0.613	0.618	0.623	0.628	0.633	0.639	0.645	0.651	0.658	0.664	0.671	0.677	0.683	0.689	0.693	0.696	0.699	0.702
Northern Cape	0.545	0.55	0.555	0.559	0.564	0.568	0.572	0.576	0.58	0.585	0.59	0.594	0.598	0.603	0.607	0.61	0.614	0.619	0.623	0.626	0.63	0.633	0.637	0.641	0.646	0.652	0.658	0.664	0.67	0.675	0.681	0.688	0.693	0.697	0.7	0.704	0.707
Western Cape	0.653	0.657	0.66	0.662	0.665	0.668	0.67	0.672	0.675	0.678	0.681	0.684	0.687	0.691	0.695	0.698	0.703	0.708	0.711	0.713	0.715	0.717	0.72	0.722	0.725	0.728	0.732	0.736	0.74	0.744	0.748	0.752	0.756	0.758	0.76	0.762	0.764
Western Sub-Saharan Africa	0.254	0.259	0.263	0.268	0.272	0.276	0.279	0.281	0.282	0.285	0.287	0.29	0.293	0.297	0.301	0.305	0.31	0.314	0.318	0.322	0.326	0.33	0.335	0.339	0.345	0.351	0.357	0.364	0.37	0.376	0.383	0.391	0.399	0.407	0.415	0.423	0.428
Benin	0.171	0.175	0.178	0.182	0.187	0.192	0.197	0.202	0.207	0.212	0.217	0.222	0.227	0.233	0.237	0.242	0.247	0.252	0.257	0.262	0.267	0.273	0.278	0.283	0.288	0.293	0.298	0.304	0.31	0.315	0.32	0.326	0.33	0.335	0.34	0.346	0.351
Burkina Faso	0.103	0.106	0.108	0.109	0.111	0.113	0.115	0.117	0.12	0.123	0.125	0.13	0.136	0.141	0.146	0.15	0.155	0.16	0.165	0.169	0.173	0.178	0.182	0.186	0.191	0.195	0.2	0.206	0.212	0.217	0.225	0.234	0.244	0.253	0.262	0.269	0.274
Cameroon	0.283	0.289	0.296	0.302	0.309	0.316	0.322	0.327	0.332	0.337	0.341	0.345	0.349	0.353	0.356	0.36	0.364	0.369	0.374	0.379	0.383	0.388	0.392	0.396	0.4	0.403	0.406	0.409	0.412	0.415	0.419	0.423	0.428	0.433	0.439	0.445	0.451
Cape Verde	0.241	0.248	0.256	0.263	0.271	0.279	0.287	0.294	0.302	0.31	0.317	0.325	0.332	0.34	0.349	0.358	0.367	0.377	0.387	0.399	0.41	0.421	0.431	0.442	0.452	0.462	0.473	0.484	0.495	0.505	0.514	0.524	0.534	0.542	0.551	0.559	0.566
Chad	0.158	0.159	0.159	0.161	0.163	0.166	0.169	0.172	0.175	0.179	0.183	0.187	0.191	0.194	0.197	0.2	0.203	0.206	0.209	0.212	0.214	0.217	0.219	0.222	0.228	0.235	0.241	0.247	0.252	0.257	0.262	0.268	0.274	0.28	0.285	0.29	0.295
Cote d'Ivoire	0.225	0.226	0.227	0.228	0.23	0.234	0.241	0.249	0.258	0.267	0.277	0.287	0.297	0.306	0.313	0.32	0.327	0.332	0.337	0.341	0.345	0.348	0.351	0.353	0.355	0.358	0.36	0.363	0.366	0.369	0.373	0.377	0.382	0.388	0.394	0.401	0.407
The Gambia	0.205	0.21	0.215	0.221	0.226	0.232	0.237	0.242	0.247	0.251	0.254	0.255	0.255	0.254	0.254	0.255	0.259	0.264	0.269																		

Table 12. The probability of death from birth to 20 years in the United States, 50 states, and DC from 1990 to 2016

Location	1990, 20q0	2016, 20q0
Alabama	2.18	1.54
Alaska	2.09	1.21
Arizona	1.81	1.10
Arkansas	2.08	1.41
California	1.62	0.80
Colorado	1.61	0.97
Connecticut	1.44	0.80
Delaware	1.82	1.18
District of Columbia	3.70	1.14
Florida	1.86	1.10
Georgia	2.10	1.22
Hawaii	1.35	0.91
Idaho	1.79	1.05
Illinois	1.92	1.08
Indiana	1.79	1.24
Iowa	1.53	0.89
Kansas	1.70	1.16
Kentucky	1.76	1.21
Louisiana	2.13	1.52
Maine	1.41	1.09
Maryland	1.82	1.07
Massachusetts	1.27	0.72
Michigan	1.92	1.14
Minnesota	1.41	0.89
Mississippi	2.36	1.63
Missouri	1.88	1.19
Montana	1.83	1.16

Nebraska	1.67	1.02
Nevada	1.79	1.00
New Hampshire	1.33	0.80
New Jersey	1.54	0.79
New Mexico	1.97	1.17
New York	1.70	0.81
North Carolina	1.95	1.21
North Dakota	1.59	1.05
Ohio	1.71	1.16
Oklahoma	1.87	1.45
Oregon	1.62	0.91
Pennsylvania	1.67	1.04
Rhode Island	1.34	0.87
South Carolina	2.10	1.25
South Dakota	2.01	1.32
Tennessee	1.92	1.27
Texas	1.71	1.07
United States	1.76	1.05
Utah	1.46	1.00
Vermont	1.39	0.84
Virginia	1.78	1.03
Washington	1.56	0.84
West Virginia	1.77	1.37
Wisconsin	1.60	1.01
Wyoming	1.76	1.20

Table 13. The probability of death from 20 to 55 years in the United States, 50 states, and DC from 1990 to 2016

Location	1990, 35q20	2016, 35q20
Alabama	9.96	10.21
Alaska	8.11	8.32
Arizona	8	7.42
Arkansas	9.26	9.86
California	7.64	5.52
Colorado	6.37	6.16
Connecticut	6.57	5.61
Delaware	7.77	7.6
District of Columbia	20.1	8.38
Florida	8.51	7.09
Georgia	9.35	7.7
Hawaii	6.46	6.13
Idaho	6.57	6.68
Illinois	8.35	6.36
Indiana	7.44	8.15
Iowa	6.15	6.23
Kansas	6.62	7.08
Kentucky	8.68	9.92
Louisiana	10.13	9.85
Maine	6.65	6.71
Maryland	7.97	6.61
Massachusetts	6.66	5.85
Michigan	8.06	7.67
Minnesota	5.77	5.2
Mississippi	10.61	10.82
Missouri	7.9	8.29
Montana	7.37	7.58

Nebraska	6.47	6.27
Nevada	8.98	7.51
New Hampshire	6.17	6.1
New Jersey	7.43	5.82
New Mexico	8.48	9.86
New York	8.66	5.52
North Carolina	8.84	7.54
North Dakota	6.26	6.82
Ohio	7.53	8.08
Oklahoma	8.31	9.93
Oregon	6.92	6.38
Pennsylvania	7.74	7.26
Rhode Island	6.84	6.38
South Carolina	10.08	9
South Dakota	6.91	7.48
Tennessee	9	9.53
Texas	8.2	6.9
United States	7.96	6.99
Utah	6.05	6.45
Vermont	6.54	6.07
Virginia	7.4	6.27
Washington	6.62	5.82
West Virginia	8.81	10.92
Wisconsin	6.31	6.23
Wyoming	7.38	8.22
Wyoming	1.76	1.20

Table 14. The probability of death from 55 to 90 years in the United States, 50 states, and DC from 1990 to 2016

Location	1990, 35q55	2016, 35q55
Alabama	83.32	79.59
Alaska	81.69	73.71
Arizona	78.56	68.65
Arkansas	82.54	78.52
California	80.07	67.44
Colorado	79.01	70.29
Connecticut	78.66	69.08
Delaware	82.97	72.52
District of Columbia	83.26	71.18
Florida	76.96	67.63
Georgia	83.43	77.12
Hawaii	73.76	63.27
Idaho	79.03	73.88
Illinois	82.01	73.09
Indiana	82.51	77.01
Iowa	78.6	72.89
Kansas	78.96	74.14
Kentucky	83.83	79.43
Louisiana	83.92	78.71
Maine	81.42	74.06
Maryland	83.11	71.42
Massachusetts	80.1	70.92
Michigan	81.9	75.21
Minnesota	78.22	70.15
Mississippi	83.75	80.21
Missouri	81.35	75.55
Montana	79.73	72.61

Nebraska	79.17	72.94
Nevada	83.43	74.81
New Hampshire	81.17	72.07
New Jersey	81.93	70.99
New Mexico	79.12	71.25
New York	81.18	69.25
North Carolina	81.98	75.18
North Dakota	77.17	69.68
Ohio	82.61	76.21
Oklahoma	82.27	78.44
Oregon	80.71	72.18
Pennsylvania	82.33	74.1
Rhode Island	80.47	71.97
South Carolina	82.92	76.81
South Dakota	77.84	70.65
Tennessee	83.38	78.41
Texas	81.3	74.21
United States	81.1	72.77
Utah	78.58	73.46
Vermont	81.2	72.25
Virginia	82.53	73.61
Washington	79.54	70.9
West Virginia	84.03	79.69
Wisconsin	80.08	73.1
Wyoming	80.08	72.33
Wyoming	7.38	8.22
Wyoming	1.76	1.20

Table 15. Probability of Death between 20 and 50 years from 1990 to 2016 for GBD locations, including the United States, DC and 50 states

Location	Year	Age	Sex	Cause of death or injury	Measure	Value
Lesotho	2016	20-55	Both	All causes	Probability of death	50.09%
Central African Republic	2016	20-55	Both	All causes	Probability of death	38.55%
Swaziland	2016	20-55	Both	All causes	Probability of death	37.05%
Zimbabwe	2016	20-55	Both	All causes	Probability of death	29.90%
Zambia	2016	20-55	Both	All causes	Probability of death	29.84%
South Africa	2016	20-55	Both	All causes	Probability of death	29.11%
Afghanistan	2016	20-55	Both	All causes	Probability of death	27.62%
Guinea-Bissau	2016	20-55	Both	All causes	Probability of death	27.09%
Botswana	2016	20-55	Both	All causes	Probability of death	27.00%
Malawi	2016	20-55	Both	All causes	Probability of death	26.56%
Mozambique	2016	20-55	Both	All causes	Probability of death	26.35%
Somalia	2016	20-55	Both	All causes	Probability of death	25.63%
Namibia	2016	20-55	Both	All causes	Probability of death	24.77%
Papua New Guinea	2016	20-55	Both	All causes	Probability of death	24.61%
Solomon Islands	2016	20-55	Both	All causes	Probability of death	23.98%
Cameroon	2016	20-55	Both	All causes	Probability of death	23.87%
Cote d'Ivoire	2016	20-55	Both	All causes	Probability of death	23.46%
Kiribati	2016	20-55	Both	All causes	Probability of death	23.36%
South Sudan	2016	20-55	Both	All causes	Probability of death	22.61%
Uganda	2016	20-55	Both	All causes	Probability of death	22.26%
Congo	2016	20-55	Both	All causes	Probability of death	22.25%
Burundi	2016	20-55	Both	All causes	Probability of death	21.70%
Vanuatu	2016	20-55	Both	All causes	Probability of death	21.39%
Marshall Islands	2016	20-55	Both	All causes	Probability of death	21.34%
Federated States of Micr	2016	20-55	Both	All causes	Probability of death	20.95%
Togo	2016	20-55	Both	All causes	Probability of death	20.46%
Chad	2016	20-55	Both	All causes	Probability of death	20.33%
Equatorial Guinea	2016	20-55	Both	All causes	Probability of death	19.99%
Democratic Republic of tl	2016	20-55	Both	All causes	Probability of death	19.94%
Sierra Leone	2016	20-55	Both	All causes	Probability of death	19.79%
Tanzania	2016	20-55	Both	All causes	Probability of death	19.75%
Eritrea	2016	20-55	Both	All causes	Probability of death	19.61%
Guinea	2016	20-55	Both	All causes	Probability of death	19.51%
Haiti	2016	20-55	Both	All causes	Probability of death	19.16%
Angola	2016	20-55	Both	All causes	Probability of death	18.33%
Kenya	2016	20-55	Both	All causes	Probability of death	17.70%
Madagascar	2016	20-55	Both	All causes	Probability of death	17.62%
Gabon	2016	20-55	Both	All causes	Probability of death	17.61%
Ethiopia	2016	20-55	Both	All causes	Probability of death	17.41%
Fiji	2016	20-55	Both	All causes	Probability of death	17.26%
Burkina Faso	2016	20-55	Both	All causes	Probability of death	17.25%
Liberia	2016	20-55	Both	All causes	Probability of death	17.14%
Syria	2016	20-55	Both	All causes	Probability of death	17.10%
Mongolia	2016	20-55	Both	All causes	Probability of death	17.00%

Djibouti	2016 20-55	Both	All causes	Probability of death	16.99%
Guyana	2016 20-55	Both	All causes	Probability of death	16.73%
Ghana	2016 20-55	Both	All causes	Probability of death	16.68%
Niger	2016 20-55	Both	All causes	Probability of death	16.34%
Russian Federation	2016 20-55	Both	All causes	Probability of death	16.23%
Benin	2016 20-55	Both	All causes	Probability of death	16.15%
Iraq	2016 20-55	Both	All causes	Probability of death	15.92%
Senegal	2016 20-55	Both	All causes	Probability of death	15.88%
Mali	2016 20-55	Both	All causes	Probability of death	15.72%
Yemen	2016 20-55	Both	All causes	Probability of death	15.69%
The Gambia	2016 20-55	Both	All causes	Probability of death	15.46%
Rwanda	2016 20-55	Both	All causes	Probability of death	14.04%
Cambodia	2016 20-55	Both	All causes	Probability of death	13.95%
Nigeria	2016 20-55	Both	All causes	Probability of death	13.93%
Ukraine	2016 20-55	Both	All causes	Probability of death	13.62%
Tonga	2016 20-55	Both	All causes	Probability of death	13.28%
Laos	2016 20-55	Both	All causes	Probability of death	13.16%
India	2016 20-55	Both	All causes	Probability of death	13.13%
Comoros	2016 20-55	Both	All causes	Probability of death	13.08%
Kazakhstan	2016 20-55	Both	All causes	Probability of death	12.89%
Pakistan	2016 20-55	Both	All causes	Probability of death	12.82%
Guatemala	2016 20-55	Both	All causes	Probability of death	12.77%
Myanmar	2016 20-55	Both	All causes	Probability of death	12.66%
Uzbekistan	2016 20-55	Both	All causes	Probability of death	12.43%
Grenada	2016 20-55	Both	All causes	Probability of death	12.42%
Samoa	2016 20-55	Both	All causes	Probability of death	12.36%
Philippines	2016 20-55	Both	All causes	Probability of death	12.15%
Saint Vincent and the Gre	2016 20-55	Both	All causes	Probability of death	11.94%
Turkmenistan	2016 20-55	Both	All causes	Probability of death	11.92%
The Bahamas	2016 20-55	Both	All causes	Probability of death	11.88%
Belize	2016 20-55	Both	All causes	Probability of death	11.86%
American Samoa	2016 20-55	Both	All causes	Probability of death	11.84%
Sudan	2016 20-55	Both	All causes	Probability of death	11.84%
Belarus	2016 20-55	Both	All causes	Probability of death	11.68%
North Korea	2016 20-55	Both	All causes	Probability of death	11.55%
Moldova	2016 20-55	Both	All causes	Probability of death	11.54%
Sao Tome and Principe	2016 20-55	Both	All causes	Probability of death	11.46%
Guam	2016 20-55	Both	All causes	Probability of death	11.37%
El Salvador	2016 20-55	Both	All causes	Probability of death	11.34%
Kyrgyzstan	2016 20-55	Both	All causes	Probability of death	11.29%
Lithuania	2016 20-55	Both	All causes	Probability of death	11.18%
Nepal	2016 20-55	Both	All causes	Probability of death	11.01%
West Virginia	2016 20-55	Both	All causes	Probability of death	10.92%
Trinidad and Tobago	2016 20-55	Both	All causes	Probability of death	10.88%
Suriname	2016 20-55	Both	All causes	Probability of death	10.83%
Mississippi	2016 20-55	Both	All causes	Probability of death	10.82%
Greenland	2016 20-55	Both	All causes	Probability of death	10.64%
Latvia	2016 20-55	Both	All causes	Probability of death	10.59%

Indonesia	2016	20-55	Both	All causes	Probability of death	10.51%
Cape Verde	2016	20-55	Both	All causes	Probability of death	10.39%
Honduras	2016	20-55	Both	All causes	Probability of death	10.33%
Seychelles	2016	20-55	Both	All causes	Probability of death	10.31%
Alabama	2016	20-55	Both	All causes	Probability of death	10.20%
Mauritania	2016	20-55	Both	All causes	Probability of death	10.11%
Oklahoma	2016	20-55	Both	All causes	Probability of death	9.93%
Kentucky	2016	20-55	Both	All causes	Probability of death	9.91%
Arkansas	2016	20-55	Both	All causes	Probability of death	9.86%
New Mexico	2016	20-55	Both	All causes	Probability of death	9.86%
Louisiana	2016	20-55	Both	All causes	Probability of death	9.84%
Egypt	2016	20-55	Both	All causes	Probability of death	9.73%
Dominica	2016	20-55	Both	All causes	Probability of death	9.71%
Venezuela	2016	20-55	Both	All causes	Probability of death	9.64%
Georgia	2016	20-55	Both	All causes	Probability of death	9.63%
Virgin Islands, U.S.	2016	20-55	Both	All causes	Probability of death	9.58%
Tennessee	2016	20-55	Both	All causes	Probability of death	9.54%
Tajikistan	2016	20-55	Both	All causes	Probability of death	9.40%
Northern Mariana Islands	2016	20-55	Both	All causes	Probability of death	9.40%
Azerbaijan	2016	20-55	Both	All causes	Probability of death	9.35%
Thailand	2016	20-55	Both	All causes	Probability of death	9.30%
Bangladesh	2016	20-55	Both	All causes	Probability of death	9.24%
Brazil	2016	20-55	Both	All causes	Probability of death	9.16%
Saint Lucia	2016	20-55	Both	All causes	Probability of death	9.03%
South Carolina	2016	20-55	Both	All causes	Probability of death	9.00%
Mauritius	2016	20-55	Both	All causes	Probability of death	8.99%
Timor-Leste	2016	20-55	Both	All causes	Probability of death	8.85%
Vietnam	2016	20-55	Both	All causes	Probability of death	8.84%
Bolivia	2016	20-55	Both	All causes	Probability of death	8.76%
Paraguay	2016	20-55	Both	All causes	Probability of death	8.70%
United Arab Emirates	2016	20-55	Both	All causes	Probability of death	8.67%
Romania	2016	20-55	Both	All causes	Probability of death	8.57%
Dominican Republic	2016	20-55	Both	All causes	Probability of death	8.48%
Alaska	2016	20-55	Both	All causes	Probability of death	8.32%
Mexico	2016	20-55	Both	All causes	Probability of death	8.29%
Bulgaria	2016	20-55	Both	All causes	Probability of death	8.28%
Missouri	2016	20-55	Both	All causes	Probability of death	8.28%
Bhutan	2016	20-55	Both	All causes	Probability of death	8.28%
Hungary	2016	20-55	Both	All causes	Probability of death	8.27%
Jamaica	2016	20-55	Both	All causes	Probability of death	8.23%
Wyoming	2016	20-55	Both	All causes	Probability of death	8.22%
Indiana	2016	20-55	Both	All causes	Probability of death	8.15%
Estonia	2016	20-55	Both	All causes	Probability of death	8.12%
Ohio	2016	20-55	Both	All causes	Probability of death	8.08%
Libya	2016	20-55	Both	All causes	Probability of death	8.06%
Barbados	2016	20-55	Both	All causes	Probability of death	8.00%
Palestine	2016	20-55	Both	All causes	Probability of death	7.93%
Ecuador	2016	20-55	Both	All causes	Probability of death	7.69%

Georgia	2016	20-55	Both	All causes	Probability of death	7.69%
Michigan	2016	20-55	Both	All causes	Probability of death	7.67%
Morocco	2016	20-55	Both	All causes	Probability of death	7.61%
Nevada	2016	20-55	Both	All causes	Probability of death	7.61%
Delaware	2016	20-55	Both	All causes	Probability of death	7.60%
Montana	2016	20-55	Both	All causes	Probability of death	7.58%
North Carolina	2016	20-55	Both	All causes	Probability of death	7.54%
Sri Lanka	2016	20-55	Both	All causes	Probability of death	7.49%
South Dakota	2016	20-55	Both	All causes	Probability of death	7.48%
Malaysia	2016	20-55	Both	All causes	Probability of death	7.47%
Arizona	2016	20-55	Both	All causes	Probability of death	7.42%
Serbia	2016	20-55	Both	All causes	Probability of death	7.40%
Puerto Rico	2016	20-55	Both	All causes	Probability of death	7.36%
Pennsylvania	2016	20-55	Both	All causes	Probability of death	7.27%
Nicaragua	2016	20-55	Both	All causes	Probability of death	7.26%
Uruguay	2016	20-55	Both	All causes	Probability of death	7.13%
Argentina	2016	20-55	Both	All causes	Probability of death	7.10%
Florida	2016	20-55	Both	All causes	Probability of death	7.09%
Kansas	2016	20-55	Both	All causes	Probability of death	7.08%
Armenia	2016	20-55	Both	All causes	Probability of death	7.08%
Poland	2016	20-55	Both	All causes	Probability of death	7.02%
Antigua and Barbuda	2016	20-55	Both	All causes	Probability of death	7.02%
United States	2016	20-55	Both	All causes	Probability of death	6.99%
Texas	2016	20-55	Both	All causes	Probability of death	6.90%
Montenegro	2016	20-55	Both	All causes	Probability of death	6.88%
Jordan	2016	20-55	Both	All causes	Probability of death	6.83%
North Dakota	2016	20-55	Both	All causes	Probability of death	6.82%
Brunei	2016	20-55	Both	All causes	Probability of death	6.73%
Iran	2016	20-55	Both	All causes	Probability of death	6.71%
Maine	2016	20-55	Both	All causes	Probability of death	6.71%
Panama	2016	20-55	Both	All causes	Probability of death	6.69%
Idaho	2016	20-55	Both	All causes	Probability of death	6.68%
Slovakia	2016	20-55	Both	All causes	Probability of death	6.65%
Maryland	2016	20-55	Both	All causes	Probability of death	6.61%
China	2016	20-55	Both	All causes	Probability of death	6.55%
Macedonia	2016	20-55	Both	All causes	Probability of death	6.54%
Oman	2016	20-55	Both	All causes	Probability of death	6.51%
Utah	2016	20-55	Both	All causes	Probability of death	6.45%
Taiwan	2016	20-55	Both	All causes	Probability of death	6.40%
Rhode Island	2016	20-55	Both	All causes	Probability of death	6.38%
Oregon	2016	20-55	Both	All causes	Probability of death	6.38%
Illinois	2016	20-55	Both	All causes	Probability of death	6.36%
Virginia	2016	20-55	Both	All causes	Probability of death	6.27%
Nebraska	2016	20-55	Both	All causes	Probability of death	6.27%
Wisconsin	2016	20-55	Both	All causes	Probability of death	6.23%
Iowa	2016	20-55	Both	All causes	Probability of death	6.23%
Colorado	2016	20-55	Both	All causes	Probability of death	6.16%
Hawaii	2016	20-55	Both	All causes	Probability of death	6.13%

Colombia	2016	20-55	Both	All causes	Probability of death	6.11%
Croatia	2016	20-55	Both	All causes	Probability of death	6.11%
New Hampshire	2016	20-55	Both	All causes	Probability of death	6.10%
Vermont	2016	20-55	Both	All causes	Probability of death	6.07%
Massachusetts	2016	20-55	Both	All causes	Probability of death	5.85%
Bosnia and Herzegovina	2016	20-55	Both	All causes	Probability of death	5.85%
Algeria	2016	20-55	Both	All causes	Probability of death	5.83%
Washington	2016	20-55	Both	All causes	Probability of death	5.83%
New Jersey	2016	20-55	Both	All causes	Probability of death	5.82%
Tunisia	2016	20-55	Both	All causes	Probability of death	5.81%
Cuba	2016	20-55	Both	All causes	Probability of death	5.75%
Connecticut	2016	20-55	Both	All causes	Probability of death	5.61%
Albania	2016	20-55	Both	All causes	Probability of death	5.56%
New York	2016	20-55	Both	All causes	Probability of death	5.52%
California	2016	20-55	Both	All causes	Probability of death	5.52%
Bermuda	2016	20-55	Both	All causes	Probability of death	5.49%
Costa Rica	2016	20-55	Both	All causes	Probability of death	5.38%
Chile	2016	20-55	Both	All causes	Probability of death	5.28%
Minnesota	2016	20-55	Both	All causes	Probability of death	5.20%
Peru	2016	20-55	Both	All causes	Probability of death	5.09%
Portugal	2016	20-55	Both	All causes	Probability of death	5.08%
South Korea	2016	20-55	Both	All causes	Probability of death	4.99%
Turkey	2016	20-55	Both	All causes	Probability of death	4.97%
Czech Republic	2016	20-55	Both	All causes	Probability of death	4.92%
Saudi Arabia	2016	20-55	Both	All causes	Probability of death	4.92%
Bahrain	2016	20-55	Both	All causes	Probability of death	4.81%
France	2016	20-55	Both	All causes	Probability of death	4.80%
Qatar	2016	20-55	Both	All causes	Probability of death	4.60%
Greece	2016	20-55	Both	All causes	Probability of death	4.54%
Lebanon	2016	20-55	Both	All causes	Probability of death	4.52%
Belgium	2016	20-55	Both	All causes	Probability of death	4.47%
Slovenia	2016	20-55	Both	All causes	Probability of death	4.46%
United Kingdom	2016	20-55	Both	All causes	Probability of death	4.40%
Finland	2016	20-55	Both	All causes	Probability of death	4.35%
Germany	2016	20-55	Both	All causes	Probability of death	4.25%
New Zealand	2016	20-55	Both	All causes	Probability of death	4.22%
Canada	2016	20-55	Both	All causes	Probability of death	4.20%
Denmark	2016	20-55	Both	All causes	Probability of death	4.12%
Ireland	2016	20-55	Both	All causes	Probability of death	4.05%
Cyprus	2016	20-55	Both	All causes	Probability of death	4.03%
Maldives	2016	20-55	Both	All causes	Probability of death	3.96%
Australia	2016	20-55	Both	All causes	Probability of death	3.94%
Austria	2016	20-55	Both	All causes	Probability of death	3.93%
Andorra	2016	20-55	Both	All causes	Probability of death	3.84%
Luxembourg	2016	20-55	Both	All causes	Probability of death	3.75%
Kuwait	2016	20-55	Both	All causes	Probability of death	3.69%
Israel	2016	20-55	Both	All causes	Probability of death	3.62%
Norway	2016	20-55	Both	All causes	Probability of death	3.57%

Spain	2016 20-55	Both	All causes	Probability of death	3.54%
Japan	2016 20-55	Both	All causes	Probability of death	3.51%
Netherlands	2016 20-55	Both	All causes	Probability of death	3.51%
Sweden	2016 20-55	Both	All causes	Probability of death	3.44%
Italy	2016 20-55	Both	All causes	Probability of death	3.42%
Malta	2016 20-55	Both	All causes	Probability of death	3.40%
Iceland	2016 20-55	Both	All causes	Probability of death	3.37%
Switzerland	2016 20-55	Both	All causes	Probability of death	3.05%
Singapore	2016 20-55	Both	All causes	Probability of death	3.05%