

Annex 1 *List of Member States by WHO region and mortality stratum*

To aid in cause of death and burden of disease analyses, the Member States of the World Health Organization (WHO) have been divided into five mortality strata on the basis of their levels of mortality of children under five years of age (5q0) and of males 15–59 years old (45q15). The classification of WHO Member States into mortality strata was carried out using population estimates for 1999 (from the United Nations Population Division, 1998) and estimates of 5q0 and 45q15 based on WHO analyses of mortality rates for 1999.

Quintiles of the distribution of 5q0 (both sexes combined) were used to define a very low child mortality group (1st quintile), a low child mortality group (2nd and 3rd quintiles) and a high child mortality group (4th and 5th quintiles). Adult mortality 45q15 was regressed on 5q0 and the regression line used to divide countries with high child mortality into high adult mortality (stratum D) and very high adult mortality (stratum E). Stratum E includes the countries in sub-Saharan Africa where HIV/AIDS has had a very substantial impact.

The following table summarizes the five mortality strata. When these mortality strata are applied to the six WHO regions, they produce 14 subregions, which are used throughout this document and its Annexes to present results. The mortality strata to which WHO Member States are classified are listed below. This classification has no official status and is for analytical purposes only.

Definitions of mortality strata used to define subregions

Mortality stratum	Child mortality	Adult mortality
A	Very low	Very low
B	Low	Low
C	Low	High
D	High	High
E	High	Very high

The total number of WHO Member States rose to 193 in 2006 with the addition of the Republic of Montenegro.

WHO Member States, by region and mortality stratum

WHO region	Mortality stratum	Description	Broad group	WHO Member States
Africa (AFR)	Afr-D	Africa with high child and high adult mortality	High mortality developing	Algeria, Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Comoros, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Mauritania, Mauritius, Niger, Nigeria, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Togo
	Afr-E	Africa with high child and very high adult mortality	High mortality developing	Botswana, Burundi, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe
Americas (AMR)	Amr-A	Americas with very low child and very low adult mortality	Developed	Canada, Cuba, United States of America
	Amr-B	Americas with low child and low adult mortality	Low mortality developing	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Republic of)
	Amr-D	Americas with high child and high adult mortality	High mortality developing	Bolivia, Ecuador, Guatemala, Haiti, Nicaragua, Peru
South-East Asia (SEAR)	Sear-B	South-East Asia with low child and low adult mortality	Low mortality developing	Indonesia, Sri Lanka, Thailand
	Sear-D	South-East Asia with high child and high adult mortality	High mortality developing	Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Maldives, Myanmar, Nepal, Timor-Leste
Europe (EUR)	Eur-A	Europe with very low child and very low adult mortality	Developed	Andorra, Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland
	Eur-B	Europe with low child and low adult mortality	Developed	Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Georgia, Kyrgyzstan, Montenegro, Poland, Romania, Serbia, Slovakia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Uzbekistan
	Eur-C	Europe with low child and high adult mortality	Developed	Belarus, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Ukraine
Eastern Mediterranean (EMR)	Emr-B	Eastern Mediterranean with low child and low adult mortality	Low mortality developing	Bahrain, Iran (Islamic Republic of), Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates
	Emr-D	Eastern Mediterranean with high child and high adult mortality	High mortality developing	Afghanistan, Djibouti, Egypt,* Iraq, Morocco, Pakistan, Somalia, Sudan, Yemen
Western Pacific (WPR)	Wpr-A	Western Pacific with very low child and very low adult mortality	Developed	Australia, Brunei Darussalam, Japan, New Zealand, Singapore
	Wpr-B	Western Pacific with low child and low adult mortality	Low mortality developing	Cambodia,** China, Cook Islands, Fiji, Kiribati, Lao People's Democratic Republic,** Malaysia, Marshall Islands, Micronesia (Federated States of), Mongolia, Nauru, Niue, Palau, Papua New Guinea,** Philippines, Republic of Korea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, Viet Nam

* Following improvements in child mortality over recent years, Egypt meets criteria for inclusion in subregion Emr-B with low child and low adult mortality. Egypt has been included in Emr-D for the presentation of subregional totals for mortality and burden to ensure comparability with *The World Health Report* and other WHO publications.

** Although Cambodia, the Lao People's Democratic Republic and Papua New Guinea meet criteria for high child mortality, they have been included in the Wpr-B subregion with other developing countries of the Western Pacific Region for reporting purposes.

Annex 2 *Country income groups used for reporting estimates and projections*

Income category	Countries
High	Andorra, Aruba, Australia, Austria, Bahamas, Bahrain, Belgium, Bermuda, Brunei Darussalam, Canada, Cayman Islands, Channel Islands, Cyprus, Denmark, Faeroe Islands, Finland, France, French Polynesia, Germany, Greece, Greenland, Guam, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Liechtenstein, Luxembourg, Monaco, Netherlands, Netherlands Antilles, New Caledonia, New Zealand, Northern Mariana Islands, Norway, Portugal, Qatar, Republic of Korea, San Marino, Singapore, Slovenia, Spain, Sweden, Switzerland, United Arab Emirates, United Kingdom, United States of America, United States Virgin Islands
Upper middle	American Samoa, Antigua and Barbuda, Argentina, Barbados, Botswana, Brazil, Chile, Costa Rica, Croatia, Czech Republic, Dominica, Estonia, Gabon, Grenada, Hungary, Isle of Man, Latvia, Lebanon, Libyan Arab Jamahiriya, Lithuania, Malaysia, Malta, Mauritius, Mexico, Oman, Palau, Panama, Poland, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saudi Arabia, Seychelles, Slovakia, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Republic of)
Lower middle	Albania, Algeria, Belarus, Belize, Bolivia, Bosnia and Herzegovina, Bulgaria, Cape Verde, China, Colombia, Cuba, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Fiji, Guatemala, Guyana, Honduras, Iran (Islamic Republic of), Iraq, Jamaica, Jordan, Kazakhstan, Kiribati, Maldives, Marshall Islands, Micronesia (Federated States of), Morocco, Namibia, Occupied Palestinian Territory, Paraguay, Peru, Philippines, Romania, Russian Federation, Saint Vincent and the Grenadines, Samoa, Serbia and Montenegro, South Africa, Sri Lanka, Suriname, Swaziland, Syrian Arab Republic, Thailand, The former Yugoslav Republic of Macedonia, Tonga, Tunisia, Turkey, Turkmenistan, Vanuatu
Low	Afghanistan, Angola, Armenia, Azerbaijan, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic People's Republic of Korea, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Guinea, Guinea-Bissau, Haiti, India, Indonesia, Kenya, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Republic of Moldova, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Tajikistan, Timor-Leste, Togo, Uganda, Ukraine, United Republic of Tanzania, Uzbekistan, Viet Nam, Yemen, Zambia, Zimbabwe
Not included	Anguilla, British Virgin Islands, Cook Islands, Falkland Islands (Malvinas), French Guiana, Gibraltar, Guadeloupe, Holy See, Martinique, Montserrat, Nauru, Niue, Pitcairn, Réunion, Saint Helena, Saint Pierre et Miquelon, Tokelau, Turks and Caicos Islands, Tuvalu, Wallis and Futuna Islands, Western Sahara

Note: Categories are based on the income categories published in *2003 World development indicators* (Washington, DC, The World Bank, 2003). Countries are divided according to 2001 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, US\$ 745 or less; lower middle income, US\$ 746–2975; upper middle income, US\$ 2976–9205; and high income, US\$ 9206 or more. This differs from the list currently available on the World Bank web site because that list has been recently amended.

Annex 3 *Global Burden of Disease cause categories, sequelae and case definitions for neurological disorders*

For the purpose of calculation of global burden of disease (GBD) estimates for this document, the neurological disorders were included from two categories: neurological disorders within the neuropsychiatric category, and neurological disorders from other categories. Neurological disorders within the neuropsychiatric category refer to the cause category listed in Group II under neuropsychiatric disorders and include epilepsy, Alzheimer and other dementias, Parkinson's disease, multiple sclerosis and migraine. Neurological disorders from other categories include diseases and injuries which have neurological sequelae and are listed elsewhere in cause category Groups I, II and III. The table below provides the complete list used for calculation of GBD estimates for neurological disorders.

GBD cause category	Sequelae	Case definition
Neurological disorders in the neuropsychiatric category		
Epilepsy	Cases	Cases meeting ILAE definition Cases meeting ICD-10 criteria for alcohol dependence and harmful use (F10.1 and F10.2), excluding cases with comorbid depressive episode
Alzheimer and other dementias	Cases	Mild, moderate and severe Alzheimer's disease, senile and other dementias
Parkinson's disease	Cases	Cases meeting clinical criteria for Parkinson's disease
Multiple sclerosis	Cases	Cases of chronic or intermittent relapsing multiple sclerosis
Migraine	Cases	Cases meeting IHS definition for migraine
Neurological disorders in other categories		
Cerebrovascular disease	First-ever stroke cases	First-ever stroke according to WHO definition (includes subarachnoid haemorrhage but excludes transient ischaemic attacks, subdural haematoma, and haemorrhage or infarction attributable to infection or tumour).
	Long-term stroke survivors	Persons who survive more than 28 days after first-ever stroke.
Poliomyelitis	Cases: lameness	Viral infection characterized by acute flaccid paralysis and proven by isolation of poliovirus from stool
Tetanus	Episodes	Neonatal: infection with <i>Clostridium tetani</i> in infants less than 30 days old with progressive difficulty and inability to feed because of trismus, generalized stiffness, spasms and opisthotonus Non-neonatal: infection with <i>Clostridium tetani</i> in non-neonates with initial localized spasms leading to general rigidity, opisthotonus and "risus sardonicus"

GBD cause category	Sequelae	Case definition
Meningitis	Seizure disorder	Acute bacterial disease with sudden onset and fever, intense headache, nausea, vomiting, neck stiffness and – in meningococcal disease – petechial rash with pink macules; the disease must be accompanied by laboratory evidence (in cerebrospinal fluid or blood) of <i>Neisseria meningitidis</i> , <i>Streptococcus pneumoniae</i> or <i>Haemophilus influenzae</i> type B
	Motor deficit	Seizures of any type that were present at least six months after hospitalization, RESULTING from meningitis
	Mental retardation	Motor deficit spasticity or paresis of one or more limbs, RESULTING from meningitis
		IQ of 70 or below RESULTING from meningitis
Japanese encephalitis	Cognitive impairment	Mosquito-borne encephalitis caused by JE virus
	Neurological sequelae	Reduced cognitive function resulting from encephalitis attributable to JE virus
Syphilis		Acute and chronic infection with <i>Treponema pallidum</i>
	Tertiary – neurological	Late stage of the disease with varied neurological manifestations
Pertussis		Acute bacterial infection of the respiratory tract with <i>Bordetella pertussis</i> or parapertussis
	Encephalopathy	Degenerative disease of the brain, which in pertussis is usually a result of hypoxia, leading to mental retardation
Diphtheria		Acute disease caused by toxin-producing <i>Corynebacterium diphtheriae</i>
	Neurological complications	Polyneuritis involving both cranial and peripheral nerve palsies, which are largely reversible
Malaria		Infectious disease caused by protozoa of the genus <i>Plasmodium</i>
	Neurological sequelae	Includes hemiplegia, aphasia, ataxia and cortical blindness
Leprosy		Chronic disease resulting from infection with <i>Mycobacterium leprae</i>
	Disabling leprosy	Grade 1 and 2 of WHO grades of disability for leprosy
Diabetes mellitus		Loss of reflexes and of vibration; damage and dysfunction of sensory, motor or autonomic nerves attributable to diabetes
	Neuropathy	
Protein–energy malnutrition	Developmental disability	Limited physical and mental ability to perform most activities in all of the following areas: recreation, education, procreation or occupation
Iodine deficiency	Mild developmental disability	Any of the following attributable to iodine deficiency: bilateral hearing loss, delay of walking ability, mild intellectual impairment
	Cretinoidism	Hypothyroid cretinism: hypothyroidism and stunting as a RESULT of iodine deficiency
	Cretinism	Neurological cretinism: mental deficiency (IQ below 70), deaf-mutism, and spastic paralysis as a RESULT of iodine deficiency Some but not all features of full cretinism as a RESULT of iodine deficiency
Road traffic accidents		Includes crashes and pedestrian injuries attributable to motor vehicles
	Fractured skull – long-term	
	Spinal cord injury – long-term	
	Intracranial injury – long-term	
Poisonings		Only one outcome is included for poisonings
	Fractured skull – long-term	
	Spinal cord injury – long-term	
	Intracranial injury – long-term	
Falls		Includes falls resulting from osteoporotic fractures
	Fractured skull – long-term	
	Spinal cord injury – long-term	
	Intracranial injury – long-term	
Fires		Most of the sequelae of fires are the result of burns. Some individuals, however, jump from buildings or are otherwise injured during fires.
	Fractured skull – long-term	
	Spinal cord injury – long-term	
	Intracranial injury – long-term	

GBD cause category	Sequelae	Case definition
Drownings	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	Other than drowning and near-drowning rates, the only other major disabling sequela from near-drowning included is quadriplegia
Other unintentional injuries	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	This is not a residual category, but includes injuries attributable to environmental factors, machinery and electrical equipment, cutting and piercing implements, and various other external causes of unintentional injury
Self-inflicted injuries	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	Suicide attempts, whether or not resulting in death
Violence	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	Interpersonal violence, including assault and homicide
War	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	War injuries and deaths directly attributable to war in combatants and non-combatants; e.g. the estimates of mortality include deaths to children and adults from landmines
Other intentional injuries	Fractured skull – long-term Spinal cord injury – long-term Intracranial injury – long-term Injured nerves – long-term	

Source: Mathers CD et al. *Deaths and disease burden by cause: global burden of disease estimates for 2001 by World Bank country groups*. Washington, DC, World Health Organization/World Bank/Fogarty International Center, United States National Institutes of Health, 2004 (Disease Control Priorities in Developing Countries (DCPP) Working Papers Series, No. 18; <http://www.fic.nih.gov/dcpp/wps.html>, accessed 25 July 2005).

Annex 4

Table A.4.1 Burden of neurological disorders, in DALYs, by cause, WHO region and mortality stratum, projections for 2005, 2015 and 2030

	DALYs			DALYs			DALYs		
	total	% total	per 100 000	total	% total	per 100 000	total	% total	per 100 000
WORLD									
	2005			2015			2030		
Population	6 441 919 466			7 103 297 899			7 917 115 397		
TOTAL DALYs	1 469 610 066			1 481 400 233			1 526 745 574		
Epilepsy	7 307 975	0.50	113.44	7 419 365	0.50	104.45	7 441 536	0.49	93.99
Alzheimer and other dementias	11 077 525	0.75	171.96	13 539 653	0.91	190.61	18 394 267	1.20	232.34
Parkinson's disease	1 616 523	0.11	25.09	1 762 344	0.12	24.81	2 015 065	0.13	25.45
Multiple sclerosis	1 509 696	0.10	23.44	1 585 932	0.11	22.33	1 648 303	0.11	20.82
Migraine	7 659 687	0.52	118.90	7 736 261	0.52	108.91	7 596 089	0.50	95.95
Cerebrovascular disease	50 784 770	3.46	788.35	53 814 944	3.63	757.61	60 864 051	3.99	768.77
Poliomyelitis	115 167	0.01	1.79	46 946	0.00	0.66	13 261	0.00	0.17
Tetanus	6 422 611	0.44	99.70	4 870 770	0.33	68.57	3 173 636	0.21	40.09
Meningitis	5 336 882	0.36	82.85	3 527 560	0.24	49.66	2 038 968	0.13	25.75
Japanese encephalitis	561 038	0.04	8.71	304 123	0.02	4.28	149 931	0.01	1.89
Total	92 391 874	6.29	1 434.23	94 607 898	6.39	1 331.89	103 335 108	6.77	1 305.21
AFRICA (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	335 459 111			419 571 880			550 082 900		
TOTAL DALYs	162 560 000			177 805 056			193 570 528		
Epilepsy	733 354	0.45	218.61	885 376	0.50	211.02	1 064 481	0.55	193.51
Alzheimer and other dementias	178 867	0.11	53.32	221 661	0.12	52.83	303 739	0.16	55.22
Parkinson's disease	38 555	0.02	11.49	47 146	0.03	11.24	66 606	0.03	12.11
Multiple sclerosis	60 711	0.04	18.10	78 674	0.04	18.75	105 590	0.05	19.20
Migraine	206 278	0.13	61.49	255 460	0.14	60.89	315 904	0.16	57.43
Cerebrovascular disease	1 923 353	1.18	573.35	2 456 636	1.38	585.51	3 520 676	1.82	640.03
Poliomyelitis	8 389	0.01	2.50	3 669	0.00	0.87	1 171	0.00	0.21
Tetanus	1 618 496	1.00	482.47	1 556 776	0.88	371.04	1 205 282	0.62	219.11
Meningitis	387 081	0.24	115.39	380 001	0.21	90.57	316 542	0.16	57.54
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	5 155 084	3.17	1 536.73	5 885 400	3.31	1 402.72	6 899 990	3.56	1 254.35
AFRICA (HIGH CHILD, VERY HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	382 647 820			478 419 411			628 734 321		
TOTAL DALYs	199 234 864			215 301 104			241 062 592		
Epilepsy	913 291	0.46	238.68	1 066 122	0.50	222.84	1 272 664	0.53	202.42
Alzheimer and other dementias	188 677	0.09	49.31	233 292	0.11	48.76	299 644	0.12	47.66
Parkinson's disease	43 020	0.02	11.24	50 089	0.02	10.47	66 823	0.03	10.63
Multiple sclerosis	47 853	0.02	12.51	62 378	0.03	13.04	86 962	0.04	13.83
Migraine	267 571	0.13	69.93	321 413	0.15	67.18	391 515	0.16	62.27
Cerebrovascular disease	2 089 458	1.05	546.05	2 535 342	1.18	529.94	3 443 274	1.43	547.65
Poliomyelitis	2 718	0.00	0.71	1 118	0.00	0.23	253	0.00	0.04
Tetanus	1 176 583	0.59	307.48	1 123 088	0.52	234.75	903 202	0.37	143.65
Meningitis	480 234	0.24	125.50	428 421	0.20	89.55	328 982	0.14	52.32
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	5 209 404	2.61	1 361.41	5 821 262	2.70	1 216.77	6 793 320	2.82	1 080.48

	2005			2015			2030		
	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
THE AMERICAS (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
Population	343 363 701			372 395 661			413 323 652		
TOTAL DALYs	47 523 900			49 441 160			49 995 588		
Epilepsy	174 560	0.37	50.84	175 647	0.36	47.17	175 616	0.35	42.49
Alzheimer and other dementias	1 380 277	2.90	401.99	1 634 372	3.31	438.88	2 303 611	4.61	557.34
Parkinson's disease	257 841	0.54	75.09	286 838	0.58	77.03	331 246	0.66	80.14
Multiple sclerosis	121 061	0.25	35.26	123 772	0.25	33.24	124 004	0.25	30.00
Migraine	511 142	1.08	148.86	526 028	1.06	141.26	559 602	1.12	135.39
Cerebrovascular disease	1 684 842	3.55	490.69	1 717 559	3.47	461.22	1 750 879	3.50	423.61
Poliomyelitis	2 539	0.01	0.74	2 225	0.00	0.60	1 886	0.00	0.46
Tetanus	27	0.00	0.01	27	0.00	0.01	28	0.00	0.01
Meningitis	36 770	0.08	10.71	23 206	0.05	6.23	12 285	0.02	2.97
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	4 169 059	8.77	1 214.18	4 489 676	9.08	1 205.62	5 259 157	10.52	1 272.41

	2005			2015			2030		
	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
THE AMERICAS (LOW CHILD, LOW ADULT MORTALITY)									
Population	463 707 779			511 277 519			560 127 320		
TOTAL DALYs	83 157 544			86 918 680			90 204 248		
Epilepsy	752 259	0.90	162.23	765 363	0.88	149.70	735 674	0.82	131.34
Alzheimer and other dementias	705 683	0.85	152.18	916 569	1.05	179.27	1 397 744	1.55	249.54
Parkinson's disease	56 623	0.07	12.21	67 157	0.08	13.14	83 103	0.09	14.84
Multiple sclerosis	107 378	0.13	23.16	114 704	0.13	22.43	117 098	0.13	20.91
Migraine	760 969	0.92	164.11	783 250	0.90	153.19	759 916	0.84	135.67
Cerebrovascular disease	2 577 873	3.10	555.93	2 789 067	3.21	545.51	3 129 619	3.47	558.73
Poliomyelitis	4 184	0.01	0.90	1 656	0.00	0.32	415	0.00	0.07
Tetanus	5 406	0.01	1.17	2 851	0.00	0.56	1 230	0.00	0.22
Meningitis	295 286	0.36	63.68	150 869	0.17	29.51	57 834	0.06	10.33
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	5 265 661	6.33	1 135.56	5 591 485	6.43	1 093.63	6 282 632	6.96	1 121.64

	2005			2015			2030		
	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
THE AMERICAS (HIGH CHILD, HIGH ADULT MORTALITY)									
Population	77 739 657			90 194 020			106 740 220		
TOTAL DALYs	16 806 174			17 120 126			17 995 520		
Epilepsy	147 253	0.88	189.42	161 116	0.94	178.63	168 515	0.94	157.87
Alzheimer and other dementias	82 158	0.49	105.68	103 267	0.60	114.49	155 670	0.87	145.84
Parkinson's disease	7 735	0.05	9.95	9 333	0.05	10.35	13 082	0.07	12.26
Multiple sclerosis	16 503	0.10	21.23	19 298	0.11	21.40	22 093	0.12	20.70
Migraine	155 043	0.92	199.44	165 994	0.97	184.04	171 234	0.95	160.42
Cerebrovascular disease	307 344	1.83	395.35	372 199	2.17	412.66	482 702	2.68	452.22
Poliomyelitis	633	0.00	0.81	256	0.00	0.28	60	0.00	0.06
Tetanus	6 869	0.04	8.84	4 545	0.03	5.04	2 176	0.01	2.04
Meningitis	249 051	1.48	320.37	168 327	0.98	186.63	84 756	0.47	79.40
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	972 590	5.79	1 251.09	1 004 336	5.87	1 113.53	1 100 287	6.11	1 030.81

	2005			2015			2030		
	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
SOUTH-EAST ASIA (LOW CHILD, LOW ADULT MORTALITY)									
Population	308 761 163			336 961 332			364 048 380		
TOTAL DALYs	61 585 292			59 738 224			61 457 480		
Epilepsy	361 414	0.59	117.05	338 893	0.57	100.57	303 458	0.49	83.36
Alzheimer and other dementias	400 013	0.65	129.55	529 452	0.89	157.13	789 056	1.28	216.74
Parkinson's disease	38 298	0.06	12.40	44 291	0.07	13.14	49 351	0.08	13.56
Multiple sclerosis	64 734	0.11	20.97	67 543	0.11	20.04	67 080	0.11	18.43
Migraine	339 628	0.55	110.00	329 367	0.55	97.75	305 781	0.50	83.99
Cerebrovascular disease	1 760 298	2.86	570.12	1 924 622	3.22	571.17	2 165 135	3.52	594.74
Poliomyelitis	6 454	0.01	2.09	2 345	0.00	0.70	479	0.00	0.13
Tetanus	190 414	0.31	61.67	67 754	0.11	20.11	14 159	0.02	3.89
Meningitis	179 622	0.29	58.18	97 609	0.16	28.97	44 339	0.07	12.18
Japanese encephalitis	23 641	0.04	7.66	11 891	0.02	3.53	4 636	0.01	1.27
Total	3 364 516	5.46	1 089.68	3 413 767	5.71	1 013.10	3 743 473	6.09	1 028.29

	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
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SOUTH-EAST ASIA (HIGH CHILD, HIGH ADULT MORTALITY)

	2005			2015			2030		
Population	1 352 957 715			1 525 318 552			1 718 832 463		
TOTAL DALYs	350 334 880			334 051 808			334 625 216		
Epilepsy	1 846 603	0.53	136.49	1 755 114	0.53	115.07	1 596 885	0.48	92.91
Alzheimer and other dementias	1 313 584	0.37	97.09	1 629 104	0.49	106.80	2 271 094	0.68	132.13
Parkinson's disease	222 096	0.06	16.42	256 981	0.08	16.85	324 249	0.10	18.86
Multiple sclerosis	290 158	0.08	21.45	329 272	0.10	21.59	360 861	0.11	20.99
Migraine	1 756 274	0.50	129.81	1 793 948	0.54	117.61	1 783 945	0.53	103.79
Cerebrovascular disease	9 309 524	2.66	688.09	10 744 744	3.22	704.43	13 685 517	4.09	796.21
Poliomyelitis	42 889	0.01	3.17	17 555	0.01	1.15	4 456	0.00	0.26
Tetanus	2 023 976	0.58	149.60	1 119 986	0.34	73.43	480 138	0.14	27.93
Meningitis	1 591 141	0.45	117.60	932 822	0.28	61.16	494 587	0.15	28.77
Japanese encephalitis	235 243	0.07	17.39	142 203	0.04	9.32	78 097	0.02	4.54
Total	18 631 487	5.32	1 377.09	18 721 728	5.60	1 227.40	21 079 828	6.30	1 226.40

EUROPE (VERY LOW CHILD, VERY LOW ADULT MORTALITY)

	2005			2015			2030		
Population	417 799 202			417 841 350			411 754 930		
TOTAL DALYs	51 143 804			49 025 240			44 716 336		
Epilepsy	239 993	0.47	57.44	220 376	0.45	52.74	193 205	0.43	46.92
Alzheimer and other dementias	2 090 437	4.09	500.34	2 422 371	4.94	579.73	2 875 209	6.43	698.28
Parkinson's disease	291 838	0.57	69.85	300 765	0.61	71.98	302 935	0.68	73.57
Multiple sclerosis	154 835	0.30	37.06	144 594	0.29	34.61	125 997	0.28	30.60
Migraine	721 342	1.41	172.65	670 731	1.37	160.52	600 497	1.34	145.84
Cerebrovascular disease	2 559 576	5.00	612.63	2 389 485	4.87	571.86	2 178 577	4.87	529.10
Poliomyelitis	1 130	0.00	0.27	854	0.00	0.20	588	0.00	0.14
Tetanus	429	0.00	0.10	301	0.00	0.07	209	0.00	0.05
Meningitis	55 054	0.11	13.18	30 142	0.06	7.21	14 196	0.03	3.45
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	6 114 632	11.96	1 463.53	6 179 619	12.60	1 478.94	6 291 414	14.07	1 527.95

EUROPE (LOW CHILD, LOW ADULT MORTALITY)

	2005			2015			2030		
Population	227 350 229			236 868 370			243 016 939		
TOTAL DALYs	37 466 008			36 742 964			35 907 916		
Epilepsy	187 986	0.50	82.69	181 046	0.49	76.43	163 317	0.45	67.20
Alzheimer and other dementias	416 799	1.11	183.33	480 419	1.31	202.82	601 148	1.67	247.37
Parkinson's disease	69 244	0.18	30.46	71 106	0.19	30.02	75 668	0.21	31.14
Multiple sclerosis	63 435	0.17	27.90	62 695	0.17	26.47	58 444	0.16	24.05
Migraine	250 906	0.67	110.36	233 551	0.64	98.60	207 238	0.58	85.28
Cerebrovascular disease	2 549 285	6.80	1 121.30	2 510 333	6.83	1 059.80	2 577 873	7.18	1 060.78
Poliomyelitis	1 135	0.00	0.50	435	0.00	0.18	95	0.00	0.04
Tetanus	1 744	0.00	0.77	722	0.00	0.31	254	0.00	0.10
Meningitis	245 592	0.66	108.02	113 510	0.31	47.92	40 438	0.11	16.64
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	3 786 125	10.11	1 665.33	3 653 819	9.94	1 542.55	3 724 475	10.37	1 532.60

EUROPE (LOW CHILD, HIGH ADULT MORTALITY)

	2005			2015			2030		
Population	235 511 792			206 753 120			175 407 940		
TOTAL DALYs	60 788 080			50 205 500			38 508 288		
Epilepsy	173 504	0.29	73.67	132 677	0.26	64.17	94 739	0.25	54.01
Alzheimer and other dementias	547 330	0.90	232.40	558 594	1.11	270.17	571 909	1.49	326.04
Parkinson's disease	89 160	0.15	37.86	74 137	0.15	35.86	60 079	0.16	34.25
Multiple sclerosis	83 868	0.14	35.61	68 588	0.14	33.17	51 033	0.13	29.09
Migraine	225 793	0.37	95.87	175 429	0.35	84.85	127 749	0.33	72.83
Cerebrovascular disease	5 697 447	9.37	2 419.18	4 817 814	9.60	2 330.23	3 716 728	9.65	2 118.91
Poliomyelitis	166	0.00	0.07	76	0.00	0.04	29	0.00	0.02
Tetanus	390	0.00	0.17	232	0.00	0.11	142	0.00	0.08
Meningitis	59 808	0.10	25.40	27 120	0.05	13.12	10 201	0.03	5.82
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	6 877 466	11.31	2 920.22	5 854 665	11.66	2 831.72	4 632 609	12.03	2 641.05

	DALYs			DALYs			DALYs		
		% total	per 100 000		% total	per 100 000		% total	per 100 000
EASTERN MEDITERRANEAN (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	150 452 139			176 204 370			207 555 239		
TOTAL DALYs	24 617 306			26 572 560			29 720 006		
Epilepsy	123 278	0.50	81.94	128 471	0.48	72.91	131 638	0.44	63.42
Alzheimer and other dementias	109 755	0.45	72.95	143 648	0.54	81.52	233 023	0.78	112.27
Parkinson's disease	41 032	0.17	27.27	45 034	0.17	25.56	53 874	0.18	25.96
Multiple sclerosis	37 457	0.15	24.90	41 969	0.16	23.82	46 541	0.16	22.42
Migraine	131 573	0.53	87.45	137 927	0.52	78.28	135 035	0.45	65.06
Cerebrovascular disease	609 782	2.48	405.30	719 923	2.71	408.57	966 963	3.25	465.88
Poliomyelitis	3 073	0.01	2.04	1 205	0.00	0.68	275	0.00	0.13
Tetanus	3 689	0.01	2.45	1 810	0.01	1.03	534	0.00	0.26
Meningitis	69 506	0.28	46.20	35 406	0.13	20.09	13 153	0.04	6.34
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	1 129 145	4.59	750.50	1 255 392	4.72	712.46	1 581 036	5.32	761.74

EASTERN MEDITERRANEAN (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	388 102 585			488 304 210			638 188 559		
TOTAL DALYs	115 736 624			120 818 488			129 212 256		
Epilepsy	518 728	0.45	133.66	582 379	0.48	119.27	641 906	0.50	100.58
Alzheimer and other dementias	261 563	0.23	67.40	342 501	0.28	70.14	509 229	0.39	79.79
Parkinson's disease	62 573	0.05	16.12	72 760	0.06	14.90	92 341	0.07	14.47
Multiple sclerosis	80 277	0.07	20.68	101 462	0.08	20.78	135 640	0.10	21.25
Migraine	440 044	0.38	113.38	538 081	0.45	110.19	640 098	0.50	100.30
Cerebrovascular disease	2 100 098	1.81	541.12	2 535 459	2.10	519.24	3 377 608	2.61	529.25
Poliomyelitis	9 809	0.01	2.53	4 378	0.00	0.90	1 233	0.00	0.19
Tetanus	1 126 181	0.97	290.18	877 700	0.73	179.74	524 966	0.41	82.26
Meningitis	1 070 558	0.92	275.84	823 949	0.68	168.74	482 625	0.37	75.62
Japanese encephalitis	75 600	0.07	19.48	56 599	0.05	11.59	32 109	0.02	5.03
Total	5 745 431	4.96	1 480.39	5 935 268	4.91	1 215.49	6 437 755	4.98	1 008.75

WESTERN PACIFIC (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	156 684 271			154 795 439			145 921 920		
TOTAL DALYs	16 471 606			16 072 011			14 289 616		
Epilepsy	63 026	0.38	40.22	57 128	0.36	36.91	48 395	0.34	33.16
Alzheimer and other dementias	838 385	5.09	535.08	1 053 026	6.55	680.27	1 230 880	8.61	843.52
Parkinson's disease	118 451	0.72	75.60	119 030	0.74	76.89	106 668	0.75	73.10
Multiple sclerosis	28 761	0.17	18.36	26 463	0.16	17.10	22 753	0.16	15.59
Migraine	143 723	0.87	91.73	127 925	0.80	82.64	112 524	0.79	77.11
Cerebrovascular disease	1 215 436	7.38	775.72	1 142 950	7.11	738.36	953 952	6.68	653.74
Poliomyelitis	342	0.00	0.22	232	0.00	0.15	149	0.00	0.10
Tetanus	50	0.00	0.03	43	0.00	0.03	30	0.00	0.02
Meningitis	9 649	0.06	6.16	5 796	0.04	3.74	2 881	0.02	1.97
Japanese encephalitis	248	0.00	0.16	116	0.00	0.07	59	0.00	0.04
Total	2 418 071	14.68	1 543.28	2 532 708	15.76	1 636.16	2 478 290	17.34	1 698.37

WESTERN PACIFIC (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	1 601 382 302			1 688 392 664			1 753 380 614		
TOTAL DALYs	242 183 984			241 587 312			245 479 984		
Epilepsy	1 072 726	0.44	66.99	969 657	0.40	57.43	851 044	0.35	48.54
Alzheimer and other dementias	2 563 998	1.06	160.11	3 271 378	1.35	193.76	4 852 313	1.98	276.74
Parkinson's disease	280 059	0.12	17.49	317 676	0.13	18.82	389 041	0.16	22.19
Multiple sclerosis	352 664	0.15	22.02	344 518	0.14	20.41	324 207	0.13	18.49
Migraine	1 749 402	0.72	109.24	1 677 157	0.69	99.33	1 485 053	0.60	84.70
Cerebrovascular disease	16 400 456	6.77	1 024.14	17 158 812	7.10	1 016.28	18 914 550	7.71	1 078.75
Poliomyelitis	31 706	0.01	1.98	10 943	0.00	0.65	2 173	0.00	0.12
Tetanus	268 357	0.11	16.76	114 934	0.05	6.81	41 286	0.02	2.35
Meningitis	607 530	0.25	37.94	310 381	0.13	18.38	136 147	0.06	7.76
Japanese encephalitis	226 304	0.09	14.13	93 314	0.04	5.53	35 030	0.01	2.00
Total	23 553 201	9.73	1 470.80	24 268 771	10.05	1 437.39	27 030 841	11.01	1 541.64

Table A.4.2 Burden of neurological disorders, in DALYs, by cause and country income category, projections for 2005, 2015 and 2030

	DALYs			DALYs			DALYs		
	DALYs	% total	per 100 000	DALYs	% total	per 100 000	DALYs	% total	per 100 000
LOW INCOME									
	2005			2015			2030		
Population	2 698 990 297			3 157 941 695			3 786 445 271		
TOTAL DALYs	863 355 456			878 944 512			928 855 040		
Epilepsy	4 272 843	0.49	158.31	4 520 584	0.51	143.15	4 769 515	0.51	125.96
Alzheimer and other dementias	2 447 944	0.28	90.70	3 015 554	0.34	95.49	4 178 842	0.45	110.36
Parkinson's disease	407 152	0.05	15.09	468 466	0.05	14.83	592 196	0.06	15.64
Multiple sclerosis	542 866	0.06	20.11	633 335	0.07	20.06	742 842	0.08	19.62
Migraine	3 075 717	0.36	113.96	3 292 940	0.37	104.27	3 484 761	0.38	92.03
Cerebrovascular disease	17 881 426	2.07	662.52	20 698 738	2.35	655.45	26 672 044	2.87	704.41
Poliomyelitis	68 690	0.01	2.55	28 491	0.00	0.90	7 468	0.00	0.20
Tetanus	6 169 162	0.71	228.57	4 772 255	0.54	151.12	3 144 548	0.34	83.05
Meningitis	3 865 716	0.45	143.23	2 745 058	0.31	86.93	1 696 933	0.18	44.82
Japanese encephalitis	350 279	0.04	12.98	222 037	0.03	7.03	121 899	0.01	3.22
Total	39 081 794	4.53	1 448.02	40 397 457	4.60	1 279.23	45 411 047	4.89	1 199.31
LOWER MIDDLE INCOME									
	2005			2015			2030		
Population	2 267 665 265			2 394 506 774			2 504 674 883		
TOTAL DALYs	396 248 352			390 254 624			388 888 288		
Epilepsy	1 813 961	0.46	79.99	1 698 068	0.44	70.92	1 542 638	0.40	61.59
Alzheimer and other dementias	3 417 084	0.86	150.69	4 263 380	1.09	178.05	6 133 343	1.58	244.88
Parkinson's disease	446 605	0.11	19.69	482 673	0.12	20.16	560 720	0.14	22.39
Multiple sclerosis	527 563	0.13	23.26	518 073	0.13	21.64	493 924	0.13	19.72
Migraine	2 421 814	0.61	106.80	2 324 256	0.60	97.07	2 085 111	0.54	83.25
Cerebrovascular disease	24 063 276	6.07	1 061.15	24 385 588	6.25	1 018.40	25 586 734	6.58	1 021.56
Poliomyelitis	36 435	0.01	1.61	12 774	0.00	0.53	2 574	0.00	0.10
Tetanus	245 781	0.06	10.84	93 989	0.02	3.93	26 771	0.01	1.07
Meningitis	1 159 835	0.29	51.15	618 082	0.16	25.81	270 382	0.07	10.80
Japanese encephalitis	203 368	0.05	8.97	78 458	0.02	3.28	26 320	0.01	1.05
Total	34 335 721	8.67	1 514.14	34 475 340	8.83	1 439.77	36 728 516	9.44	1 466.40
UPPER MIDDLE INCOME									
	2005			2015			2030		
Population	528 081 304			574 892 329			622 970 241		
TOTAL DALYs	91 247 080			93 943 736			96 092 552		
Epilepsy	734 826	0.81	139.15	739 788	0.79	128.68	704 562	0.73	113.10
Alzheimer and other dementias	881 181	0.97	166.86	1 110 803	1.18	193.22	1 586 853	1.65	254.72
Parkinson's disease	92 265	0.10	17.47	101 366	0.11	17.63	114 497	0.12	18.38
Multiple sclerosis	131 579	0.14	24.92	136 702	0.15	23.78	135 916	0.14	21.82
Migraine	776 542	0.85	147.05	783 032	0.83	136.20	744 397	0.77	119.49
Cerebrovascular disease	3 232 834	3.54	612.18	3 361 867	3.58	584.78	3 570 041	3.72	573.07
Poliomyelitis	4 860	0.01	0.92	1 957	0.00	0.34	499	0.00	0.08
Tetanus	6 993	0.01	1.32	4 032	0.00	0.70	1 959	0.00	0.31
Meningitis	209 522	0.23	39.68	104 866	0.11	18.24	41 624	0.04	6.68
Japanese encephalitis	1 824	0.00	0.35	945	0.00	0.16	405	0.00	0.07
Total	6 072 426	6.65	1 149.90	6 345 357	6.75	1 103.75	6 900 753	7.18	1 107.72
HIGH INCOME									
	2005			2015			2030		
Population	947 138 427			975 884 050			1 002 892 462		
TOTAL DALYs	118 750 184			118 245 712			112 894 104		
Epilepsy	486 287	0.41	51.34	460 841	0.39	47.22	424 689	0.38	42.35
Alzheimer and other dementias	4 331 265	3.65	457.30	5 149 842	4.36	527.71	6 495 107	5.75	647.64
Parkinson's disease	670 491	0.56	70.79	709 829	0.60	72.74	747 640	0.66	74.55
Multiple sclerosis	307 679	0.26	32.49	297 810	0.25	30.52	275 597	0.24	27.48
Migraine	1 385 579	1.17	146.29	1 335 981	1.13	136.90	1 281 723	1.14	127.80
Cerebrovascular disease	5 606 824	4.72	591.98	5 368 321	4.54	550.10	5 034 698	4.46	502.02
Poliomyelitis	5 180	0.00	0.55	3 723	0.00	0.38	2 719	0.00	0.27
Tetanus	673	0.00	0.07	489	0.00	0.05	353	0.00	0.04
Meningitis	101 685	0.09	10.74	59 427	0.05	6.09	29 921	0.03	2.98
Japanese encephalitis	5 563	0.00	0.59	2 680	0.00	0.27	1 303	0.00	0.13
Total	12 901 225	10.86	1 362.13	13 388 941	11.32	1 371.98	14 293 750	12.66	1 425.25

Table A.4.3 Deaths attributable to neurological disorders, by cause, WHO region and mortality stratum, projections for 2005, 2015 and 2030

	Deaths			Deaths			Deaths		
	Deaths	% total	per 100 000	Deaths	% total	per 100 000	Deaths	% total	per 100 000
WORLD									
	2005			2015			2030		
Population	6 441 919 466			7 103 297 899			7 917 115 397		
TOTAL DALYs	58 028 152			63 458 962			73 247 767		
Epilepsy	126 096	0.22	1.96	130 569	0.21	1.84	139 276	0.19	1.76
Alzheimer and other dementias	425 331	0.73	6.60	513 230	0.81	7.23	671 372	0.92	8.48
Parkinson's disease	105 012	0.18	1.63	127 293	0.20	1.79	165 418	0.23	2.09
Multiple sclerosis	16 275	0.03	0.25	16 669	0.03	0.23	17 012	0.02	0.21
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	5 745 748	9.90	89.19	6 466 232	10.19	91.03	7 787 656	10.63	98.36
Poliomyelitis	774	0.00	0.01	654	0.00	0.01	577	0.00	0.01
Tetanus	191 592	0.33	2.97	145 640	0.23	2.05	95 587	0.13	1.21
Meningitis	152 004	0.26	2.36	106 372	0.17	1.50	69 946	0.10	0.88
Japanese encephalitis	11 625	0.02	0.18	7 282	0.01	0.10	4 318	0.01	0.05
Total	6 774 457	11.67	105.16	7 513 942	11.84	105.78	8 951 162	12.22	113.06
AFRICA (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	335 459 111			419 571 880			550 082 900		
TOTAL DALYs	4 784 001			5 361 866			6 219 324		
Epilepsy	19 203	0.40	5.72	23 662	0.44	5.64	30 834	0.50	5.61
Alzheimer and other dementias	3 462	0.07	1.03	4 403	0.08	1.05	5 877	0.09	1.07
Parkinson's disease	2 610	0.05	0.78	3 344	0.06	0.80	4 501	0.07	0.82
Multiple sclerosis	144	0.00	0.04	180	0.00	0.04	251	0.00	0.05
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	186 783	3.90	55.68	240 909	4.49	57.42	340 954	5.48	61.98
Poliomyelitis	22	0.00	0.01	20	0.00	0.00	15	0.00	0.00
Tetanus	47 653	1.00	14.21	45 915	0.86	10.94	35 731	0.57	6.50
Meningitis	8 225	0.17	2.45	8 212	0.15	1.96	7 203	0.12	1.31
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	268 102	5.60	79.92	326 645	6.09	77.85	425 366	6.84	77.33
AFRICA (HIGH CHILD, VERY HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	382 647 820			478 419 411			628 734 321		
TOTAL DALYs	6 097 012			6 767 650			7 914 237		
Epilepsy	21 099	0.35	5.51	24 959	0.37	5.22	31 346	0.40	4.99
Alzheimer and other dementias	3 975	0.07	1.04	5 051	0.07	1.06	6 401	0.08	1.02
Parkinson's disease	2 956	0.05	0.77	3 801	0.06	0.79	4 860	0.06	0.77
Multiple sclerosis	183	0.00	0.05	214	0.00	0.04	274	0.00	0.04
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	203 945	3.35	53.30	255 352	3.77	53.37	340 351	4.30	54.13
Poliomyelitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Tetanus	34 832	0.57	9.10	33 288	0.49	6.96	26 878	0.34	4.27
Meningitis	11 250	0.18	2.94	10 233	0.15	2.14	8 462	0.11	1.35
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	278 240	4.56	72.71	332 899	4.92	69.58	418 572	5.29	66.57
THE AMERICAS (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	343 363 701			372 395 661			413 323 652		
TOTAL DALYs	2 805 833			2 999 574			3 450 260		
Epilepsy	1 863	0.07	0.54	1 870	0.06	0.50	1 904	0.06	0.46
Alzheimer and other dementias	111 596	3.98	32.50	123 880	4.13	33.27	170 499	4.94	41.25
Parkinson's disease	20 348	0.73	5.93	23 466	0.78	6.30	32 175	0.93	7.78
Multiple sclerosis	3 735	0.13	1.09	3 896	0.13	1.05	3 910	0.11	0.95
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	192 402	6.86	56.03	200 803	6.69	53.92	243 062	7.04	58.81
Poliomyelitis	369	0.01	0.11	355	0.01	0.10	369	0.01	0.09
Tetanus	5	0.00	0.00	6	0.00	0.00	6	0.00	0.00
Meningitis	1 186	0.04	0.35	941	0.03	0.25	747	0.02	0.18
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	331 503	11.81	96.55	355 216	11.84	95.39	452 671	13.12	109.52

	Deaths	% total	per 100 000	Deaths	% total	per 100 000	Deaths	% total	per 100 000
THE AMERICAS (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	463 707 779			511 277 519			560 127 320		
TOTAL DALYs	2 869 172			3 406 656			4 251 795		
Epilepsy	6 045	0.21	1.30	6 268	0.18	1.23	6 334	0.15	1.13
Alzheimer and other dementias	12 463	0.43	2.69	15 929	0.47	3.12	22 295	0.52	3.98
Parkinson's disease	4 281	0.15	0.92	5 479	0.16	1.07	7 933	0.19	1.42
Multiple sclerosis	903	0.03	0.19	1 058	0.03	0.21	1 291	0.03	0.23
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	248 042	8.65	53.49	285 390	8.38	55.82	371 920	8.75	66.40
Poliomyelitis	14	0.00	0.00	10	0.00	0.00	5	0.00	0.00
Tetanus	226	0.01	0.05	146	0.00	0.03	96	0.00	0.02
Meningitis	6 986	0.24	1.51	4 086	0.12	0.80	2 130	0.05	0.38
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	278 960	9.72	60.16	318 365	9.35	62.27	412 003	9.69	73.56

THE AMERICAS (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	77 739 657			90 194 020			106 740 220		
TOTAL DALYs	543 838			591 295			724 097		
Epilepsy	1 568	0.29	2.02	1 749	0.30	1.94	1 931	0.27	1.81
Alzheimer and other dementias	600	0.11	0.77	713	0.12	0.79	1 011	0.14	0.95
Parkinson's disease	699	0.13	0.90	864	0.15	0.96	1 286	0.18	1.20
Multiple sclerosis	37	0.01	0.05	44	0.01	0.05	55	0.01	0.05
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	28 472	5.24	36.62	34 757	5.88	38.54	48 277	6.67	45.23
Poliomyelitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Tetanus	221	0.04	0.28	150	0.03	0.17	79	0.01	0.07
Meningitis	7 676	1.41	9.87	5 381	0.91	5.97	3 064	0.42	2.87
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	39 271	7.22	50.52	43 659	7.38	48.41	55 704	7.69	52.19

SOUTH-EAST ASIA (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	308 761 163			336 961 332			364 048 380		
TOTAL DALYs	2 220 363			2 492 408			3 083 806		
Epilepsy	5 031	0.23	1.63	4 641	0.19	1.38	4 155	0.13	1.14
Alzheimer and other dementias	9 836	0.44	3.19	13 829	0.55	4.10	19 577	0.63	5.38
Parkinson's disease	1 551	0.07	0.50	2 168	0.09	0.64	3 110	0.10	0.85
Multiple sclerosis	148	0.01	0.05	183	0.01	0.05	224	0.01	0.06
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	172 702	7.78	55.93	216 099	8.67	64.13	274 913	8.91	75.52
Poliomyelitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Tetanus	5 735	0.26	1.86	2 086	0.08	0.62	481	0.02	0.13
Meningitis	8 049	0.36	2.61	5 398	0.22	1.60	3 521	0.11	0.97
Japanese encephalitis	195	0.01	0.06	129	0.01	0.04	80	0.00	0.02
Total	203 248	9.15	65.83	244 534	9.81	72.57	306 062	9.92	84.07

SOUTH-EAST ASIA (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	1 352 957 715			1 525 318 552			1 718 832 463		
TOTAL DALYs	12 368 446			12 943 856			14 999 705		
Epilepsy	27 634	0.22	2.04	25 583	0.20	1.68	23 277	0.16	1.35
Alzheimer and other dementias	86 338	0.70	6.38	108 673	0.84	7.12	148 917	0.99	8.66
Parkinson's disease	9 598	0.08	0.71	12 086	0.09	0.79	16 467	0.11	0.96
Multiple sclerosis	1 230	0.01	0.09	1 417	0.01	0.09	1 725	0.01	0.10
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	963 383	7.79	71.21	1 166 198	9.01	76.46	1 568 600	10.46	91.26
Poliomyelitis	143	0.00	0.01	79	0.00	0.01	34	0.00	0.00
Tetanus	60 687	0.49	4.49	33 875	0.26	2.22	14 848	0.10	0.86
Meningitis	56 178	0.45	4.15	38 059	0.29	2.50	25 629	0.17	1.49
Japanese encephalitis	7 233	0.06	0.53	4 735	0.04	0.31	2 954	0.02	0.17
Total	1 212 424	9.80	89.61	1 390 705	10.74	91.17	1 802 452	12.02	104.86

	Deaths			Deaths			Deaths		
	% total	per 100 000		% total	per 100 000	% total	per 100 000		
EUROPE (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	417 799 202			417 841 350			411 754 930		
TOTAL DALYs	4 019 118			4 364 652			4 356 278		
Epilepsy	6 061	0.15	1.45	6 033	0.14	1.44	5 647	0.13	1.37
Alzheimer and other dementias	102 492	2.55	24.53	122 786	2.81	29.39	138 128	3.17	33.55
Parkinson's disease	23 516	0.59	5.63	28 938	0.66	6.93	32 551	0.75	7.91
Multiple sclerosis	4 071	0.10	0.97	3 974	0.09	0.95	3 554	0.08	0.86
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	410 165	10.21	98.17	427 915	9.80	102.41	420 472	9.65	102.12
Poliomyelitis	161	0.00	0.04	139	0.00	0.03	116	0.00	0.03
Tetanus	74	0.00	0.02	61	0.00	0.01	49	0.00	0.01
Meningitis	2 011	0.05	0.48	1 440	0.03	0.34	978	0.02	0.24
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	548 551	13.65	131.30	591 287	13.55	141.51	601 496	13.81	146.08

EUROPE (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	227 350 229			236 868 370			243 016 939		
TOTAL DALYs	1 937 483			2 125 833			2 282 373		
Epilepsy	4 147	0.21	1.82	4 104	0.19	1.73	3 909	0.17	1.61
Alzheimer and other dementias	3 577	0.18	1.57	3 906	0.18	1.65	4 286	0.19	1.76
Parkinson's disease	1 837	0.09	0.81	1 951	0.09	0.82	2 138	0.09	0.88
Multiple sclerosis	1 362	0.07	0.60	1 383	0.07	0.58	1 448	0.06	0.60
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	298 450	15.40	131.27	328 305	15.44	138.60	350 321	15.35	144.15
Poliomyelitis	2	0.00	0.00	1	0.00	0.00	1	0.00	0.00
Tetanus	82	0.00	0.04	49	0.00	0.02	30	0.00	0.01
Meningitis	7 760	0.40	3.41	3 902	0.18	1.65	1 726	0.08	0.71
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	317 216	16.37	139.53	343 601	16.16	145.06	363 860	15.94	149.73

EUROPE (LOW CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	235 511 792			206 753 120			175 407 940		
TOTAL DALYs	3 819 475			3 566 264			2 904 723		
Epilepsy	4 319	0.11	1.83	3 223	0.09	1.56	2 238	0.08	1.28
Alzheimer and other dementias	6 406	0.17	2.72	6 120	0.17	2.96	5 439	0.19	3.10
Parkinson's disease	1 504	0.04	0.64	1 438	0.04	0.70	1 274	0.04	0.73
Multiple sclerosis	2 293	0.06	0.97	1 844	0.05	0.89	1 359	0.05	0.77
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	766 147	20.06	325.31	752 231	21.09	363.83	633 833	21.82	361.35
Poliomyelitis	7	0.00	0.00	3	0.00	0.00	1	0.00	0.00
Tetanus	44	0.00	0.02	30	0.00	0.01	22	0.00	0.01
Meningitis	2 649	0.07	1.12	1 351	0.04	0.65	641	0.02	0.37
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	783 370	20.51	332.62	766 239	21.49	370.61	644 807	22.20	367.60

EASTERN MEDITERRANEAN (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	150 452 139			176 204 370			207 555 239		
TOTAL DALYs	740 590			876 987			1 191 727		
Epilepsy	1 853	0.25	1.23	1 953	0.22	1.11	2 158	0.18	1.04
Alzheimer and other dementias	2 186	0.30	1.45	2 977	0.34	1.69	4 690	0.39	2.26
Parkinson's disease	1 803	0.24	1.20	2 203	0.25	1.25	3 164	0.27	1.52
Multiple sclerosis	272	0.04	0.18	326	0.04	0.19	433	0.04	0.21
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	58 439	7.89	38.84	72 354	8.25	41.06	107 995	9.06	52.03
Poliomyelitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Tetanus	112	0.02	0.07	56	0.01	0.03	18	0.00	0.01
Meningitis	1 831	0.25	1.22	1 014	0.12	0.58	480	0.04	0.23
Japanese encephalitis	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	66 497	8.98	44.20	80 882	9.22	45.90	118 939	9.98	57.30

	Deaths	% total	per 100 000	Deaths	% total	per 100 000	Deaths	% total	per 100 000
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EASTERN MEDITERRANEAN (HIGH CHILD, HIGH ADULT MORTALITY)

	2005			2015			2030		
Population	388 102 585			488 304 210			638 188 559		
TOTAL DALYs	3 522 774			3 867 656			4 577 913		
Epilepsy	8 704	0.25	2.24	9 518	0.25	1.95	10 283	0.22	1.61
Alzheimer and other dementias	10 072	0.29	2.60	13 189	0.34	2.70	20 151	0.44	3.16
Parkinson's disease	1 682	0.05	0.43	2 120	0.05	0.43	3 044	0.07	0.48
Multiple sclerosis	493	0.01	0.13	621	0.02	0.13	861	0.02	0.13
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	186 281	5.29	48.00	238 972	6.18	48.94	344 667	7.53	54.01
Poliomyelitis	11	0.00	0.00	8	0.00	0.00	4	0.00	0.00
Tetanus	33 662	0.96	8.67	26 309	0.68	5.39	15 885	0.35	2.49
Meningitis	21 861	0.62	5.63	16 787	0.43	3.44	9 925	0.22	1.56
Japanese encephalitis	2 169	0.06	0.56	1 650	0.04	0.34	986	0.02	0.15
Total	264 936	7.52	68.26	309 174	7.99	63.32	405 805	8.86	63.59

WESTERN PACIFIC (VERY LOW CHILD, VERY LOW ADULT MORTALITY)

	2005			2015			2030		
Population	156 684 271			154 795 439			145 921 920		
TOTAL DALYs	1 224 679			1 435 189			1 443 363		
Epilepsy	878	0.07	0.56	862	0.06	0.56	787	0.05	0.54
Alzheimer and other dementias	11 140	0.91	7.11	14 497	1.01	9.37	18 527	1.28	12.70
Parkinson's disease	4 745	0.39	3.03	6 049	0.42	3.91	6 913	0.48	4.74
Multiple sclerosis	225	0.02	0.14	235	0.02	0.15	239	0.02	0.16
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	154 475	12.61	98.59	176 628	12.31	114.10	175 495	12.16	120.27
Poliomyelitis	34	0.00	0.02	30	0.00	0.02	27	0.00	0.02
Tetanus	12	0.00	0.01	12	0.00	0.01	11	0.00	0.01
Meningitis	401	0.03	0.26	344	0.02	0.22	260	0.02	0.18
Japanese encephalitis	1	0.00	0.00	1	0.00	0.00	1	0.00	0.00
Total	171 910	14.04	109.72	198 660	13.84	128.34	202 259	14.01	138.61

WESTERN PACIFIC (LOW CHILD, LOW ADULT MORTALITY)

	2005			2015			2030		
Population	1 601 382 302			1 688 392 664			1 753 380 614		
TOTAL DALYs	11 075 368			12 659 077			15 848 165		
Epilepsy	17 690	0.16	1.10	16 143	0.13	0.96	14 471	0.13	0.83
Alzheimer and other dementias	61 187	0.55	3.82	77 277	0.61	4.58	105 573	0.61	6.02
Parkinson's disease	27 882	0.25	1.74	33 387	0.26	1.98	46 002	0.26	2.62
Multiple sclerosis	1 179	0.01	0.07	1 294	0.01	0.08	1 389	0.01	0.08
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	1 876 062	16.94	117.15	2 070 319	16.35	122.62	2 566 796	16.35	146.39
Poliomyelitis	12	0.00	0.00	8	0.00	0.00	5	0.00	0.00
Tetanus	8 247	0.07	0.51	3 657	0.03	0.22	1 453	0.03	0.08
Meningitis	15 941	0.14	1.00	9 224	0.07	0.55	5 180	0.07	0.30
Japanese encephalitis	2 027	0.02	0.13	766	0.01	0.05	297	0.01	0.02
Total	2 010 227	18.15	125.53	2 212 076	17.47	131.02	2 741 165	17.47	156.34

Table A.4.4 Deaths attributable to neurological disorders, by cause and country income category, projections for 2005, 2015 and 2030

	Deaths			Deaths			Deaths		
	Deaths	% total	per 100 000	Deaths	% total	per 100 000	Deaths	% total	per 100 000
LOW INCOME									
	2005			2015			2030		
Population	2 698 990 297			3 157 941 695			3 786 445 271		
TOTAL DALYs	28 672 778			30 854 969			35 900 272		
Epilepsy	79 248	0.28	2.94	85 525	0.28	2.71	96 579	0.27	2.55
Alzheimer and other dementias	117 006	0.41	4.34	147 611	0.48	4.67	203 293	0.57	5.37
Parkinson's disease	18 481	0.06	0.68	23 210	0.08	0.73	31 322	0.09	0.83
Multiple sclerosis	2 557	0.01	0.09	2 848	0.01	0.09	3 377	0.01	0.09
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	1 839 308	6.41	68.15	2 212 111	7.17	70.05	2 926 235	8.15	77.28
Poliomyelitis	177	0.00	0.01	108	0.00	0.00	53	0.00	0.00
Tetanus	183 622	0.64	6.80	142 332	0.46	4.51	94 390	0.26	2.49
Meningitis	110 589	0.39	4.10	81 490	0.26	2.58	55 933	0.16	1.48
Japanese encephalitis	10 003	0.03	0.37	6 800	0.02	0.22	4 209	0.01	0.11
Total	2 360 989	8.23	87.48	2 702 035	8.76	85.56	3 415 391	9.51	90.20
LOWER MIDDLE INCOME									
	2005			2015			2030		
Population	2 267 665 265			2 394 506 774			2 504 674 883		
TOTAL DALYs	17 652 714			19 527 556			22 973 178		
Epilepsy	30 565	0.17	1.35	28 746	0.15	1.20	26 985	0.12	1.08
Alzheimer and other dementias	60 684	0.34	2.68	74 768	0.38	3.12	100 342	0.44	4.01
Parkinson's disease	31 952	0.18	1.41	38 119	0.20	1.59	51 958	0.23	2.07
Multiple sclerosis	4 124	0.02	0.18	4 088	0.02	0.17	4 154	0.02	0.17
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	2 791 658	15.81	123.11	3 045 869	15.60	127.20	3 537 725	15.40	141.24
Poliomyelitis	12	0.00	0.00	8	0.00	0.00	5	0.00	0.00
Tetanus	7 584	0.04	0.33	3 027	0.02	0.13	994	0.00	0.04
Meningitis	32 066	0.18	1.41	18 680	0.10	0.78	10 009	0.04	0.40
Japanese encephalitis	1 620	0.01	0.07	481	0.00	0.02	109	0.00	0.00
Total	2 960 266	16.77	130.54	3 213 785	16.46	134.21	3 732 280	16.25	149.01
UPPER MIDDLE INCOME									
	2005			2015			2030		
Population	528 081 304			574 892 329			622 970 241		
TOTAL DALYs	3 566 059			4 137 547			4 903 171		
Epilepsy	7 115	0.20	1.35	7 168	0.17	1.25	6 984	0.14	1.12
Alzheimer and other dementias	16 506	0.46	3.13	20 434	0.49	3.55	27 069	0.55	4.35
Parkinson's disease	5 439	0.15	1.03	6 807	0.16	1.18	9 432	0.19	1.51
Multiple sclerosis	1 736	0.05	0.33	1 796	0.04	0.31	1 909	0.04	0.31
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	343 741	9.64	65.09	389 884	9.42	67.82	464 680	9.48	74.59
Poliomyelitis	16	0.00	0.00	12	0.00	0.00	7	0.00	0.00
Tetanus	284	0.01	0.05	190	0.00	0.03	124	0.00	0.02
Meningitis	5 750	0.16	1.09	3 481	0.08	0.61	2 013	0.04	0.32
Japanese encephalitis	1	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Total	380 587	10.67	72.07	429 773	10.39	74.76	512 219	10.45	82.22
HIGH INCOME									
	2005			2015			2030		
Population	947 138 427			975 884 050			1 002 892 462		
TOTAL DALYs	8 136 260			8 938 508			9 470 662		
Epilepsy	9 168	0.11	0.97	9 129	0.10	0.94	8 725	0.09	0.87
Alzheimer and other dementias	231 134	2.84	24.40	270 416	3.03	27.71	340 667	3.60	33.97
Parkinson's disease	49 139	0.60	5.19	59 155	0.66	6.06	72 704	0.77	7.25
Multiple sclerosis	7 857	0.10	0.83	7 938	0.09	0.81	7 572	0.08	0.76
Migraine	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00
Cerebrovascular disease	771 010	9.48	81.40	818 338	9.16	83.86	858 977	9.07	85.65
Poliomyelitis	570	0.01	0.06	527	0.01	0.05	512	0.01	0.05
Tetanus	103	0.00	0.01	90	0.00	0.01	78	0.00	0.01
Meningitis	3 595	0.04	0.38	2 718	0.03	0.28	1 988	0.02	0.20
Japanese encephalitis	1	0.00	0.00	1	0.00	0.00	1	0.00	0.00
Total	1 072 577	13.18	113.24	1 168 312	13.07	119.72	1 291 225	13.63	128.75

Table A.4.5 Burden of neurological disorders, in YLDs, by cause, WHO region and mortality stratum, projections for 2005, 2015 and 2030

	YLDs	% total	per 100 000	YLDs	% total	per 100 000	YLDs	% total	per 100 000
WORLD									
	2005			2015			2030		
Population	6 441 919 466			7 103 297 899			7 917 115 397		
TOTAL DALYs	570 766 387			592 406 432			620 989 911		
Epilepsy	4 167 285	0.73	64.69	4 323 495	0.73	60.87	4 402 862	0.71	55.61
Alzheimer and other dementias	9 494 517	1.66	147.39	11 750 573	1.98	165.42	16 144 423	2.60	203.92
Parkinson's disease	1 137 991	0.20	17.67	1 228 128	0.21	17.29	1 353 366	0.22	17.09
Multiple sclerosis	1 286 458	0.23	19.97	1 371 367	0.23	19.31	1 453 083	0.23	18.35
Migraine	7 659 687	1.34	118.90	7 736 261	1.31	108.91	7 596 089	1.22	95.95
Cerebrovascular disease	11 389 442	2.00	176.80	12 423 121	2.10	174.89	14 073 668	2.27	177.76
Neuroinfections	6 337 373	1.11	98.38	5 099 627	0.86	71.79	3 613 205	0.58	45.64
Nutritional and neuropathies	12 557 068	2.20	194.93	12 381 343	2.09	174.30	10 603 690	1.71	133.93
Neurological injuries	27 402 985	4.80	425.39	27 952 326	4.72	393.51	28 566 683	4.60	360.82
Total	81 432 806	14.27	1 264.11	84 266 242	14.22	1 186.30	87 807 069	14.14	1 109.08
AFRICA (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	335 459 111			419 571 880			550 082 900		
TOTAL DALYs	39 757 166			46 874 383			55 477 689		
Epilepsy	283 212	0.71	84.43	340 342	0.73	81.12	391 907	0.71	71.25
Alzheimer and other dementias	150 597	0.38	44.89	187 472	0.40	44.68	259 332	0.47	47.14
Parkinson's disease	25 093	0.06	7.48	30 415	0.06	7.25	43 450	0.08	7.90
Multiple sclerosis	58 067	0.15	17.31	75 385	0.16	17.97	101 149	0.18	18.39
Migraine	206 278	0.52	61.49	255 460	0.54	60.89	315 904	0.57	57.43
Cerebrovascular disease	201 642	0.51	60.11	258 428	0.55	61.59	386 282	0.70	70.22
Neuroinfections	1 883 305	4.74	561.41	1 787 505	3.81	426.03	1 388 398	2.50	252.40
Nutritional and neuropathies	1 234 252	3.10	367.93	1 288 195	2.75	307.03	1 198 182	2.16	217.82
Neurological injuries	1 993 030	5.01	594.12	2 506 683	5.35	597.44	3 281 196	5.91	596.49
Total	6 035 477	15.18	1 799.17	6 729 886	14.36	1 603.99	7 365 799	13.28	1 339.03
AFRICA (HIGH CHILD, VERY HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	382 647 820			478 419 411			628 734 321		
TOTAL DALYs	45 155 172			52 429 855			62 319 016		
Epilepsy	409 059	0.91	106.90	480 175	0.92	100.37	567 435	0.91	90.25
Alzheimer and other dementias	156 813	0.35	40.98	195 498	0.37	40.86	253 632	0.41	40.34
Parkinson's disease	27 746	0.06	7.25	31 434	0.06	6.57	43 185	0.07	6.87
Multiple sclerosis	44 545	0.10	11.64	58 521	0.11	12.23	82 066	0.13	13.05
Migraine	267 571	0.59	69.93	321 413	0.61	67.18	391 515	0.63	62.27
Cerebrovascular disease	197 776	0.44	51.69	238 846	0.46	49.92	335 577	0.54	53.37
Neuroinfections	1 896 016	4.20	495.50	1 787 682	3.41	373.66	1 412 743	2.27	224.70
Nutritional and neuropathies	1 792 207	3.97	468.37	1 775 869	3.39	371.20	1 552 311	2.49	246.89
Neurological injuries	1 608 254	3.56	420.30	2 020 694	3.85	422.37	2 729 220	4.38	434.08
Total	6 399 986	14.17	1 672.55	6 910 130	13.18	1 444.37	7 367 685	11.82	1 171.83
THE AMERICAS (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	343 363 701			372 395 661			413 323 652		
TOTAL DALYs	27 424 860			29 218 777			30 362 527		
Epilepsy	142 844	0.52	41.60	145 672	0.50	39.12	148 862	0.49	36.02
Alzheimer and other dementias	1 098 397	4.01	319.89	1 321 126	4.52	354.76	1 881 645	6.20	455.25
Parkinson's disease	193 420	0.71	56.33	213 375	0.73	57.30	233 076	0.77	56.39
Multiple sclerosis	74 882	0.27	21.81	78 170	0.27	20.99	83 615	0.28	20.23
Migraine	511 142	1.86	148.86	526 028	1.80	141.26	559 602	1.84	135.39
Cerebrovascular disease	800 860	2.92	233.24	844 620	2.89	226.81	852 316	2.81	206.21
Neuroinfections	53 322	0.19	15.53	28 613	0.10	7.68	11 942	0.04	2.89
Nutritional and neuropathies	439 068	1.60	127.87	764 411	2.62	205.27	723 902	2.38	175.14
Neurological injuries	629 861	2.30	183.44	578 786	1.98	155.42	507 043	1.67	122.67
Total	3 943 797	14.38	1 148.58	4 500 801	15.40	1 208.61	5 002 001	16.47	1 210.19

	YLDs			YLDs			YLDs		
	YLDs	% total	per 100 000	YLDs	% total	per 100 000	YLDs	% total	per 100 000
THE AMERICAS (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	463 707 779			511 277 519			560 127 320		
TOTAL DALYs	45 054 114			46 814 643			48 413 568		
Epilepsy	612 176	1.36	132.02	630 457	1.35	123.31	616 295	1.27	110.03
Alzheimer and other dementias	652 387	1.45	140.69	853 641	1.82	166.96	1 315 578	2.72	234.87
Parkinson's disease	36 931	0.08	7.96	43 162	0.09	8.44	50 015	0.10	8.93
Multiple sclerosis	95 617	0.21	20.62	101 743	0.22	19.90	103 463	0.21	18.47
Migraine	760 969	1.69	164.11	783 250	1.67	153.19	759 916	1.57	135.67
Cerebrovascular disease	691 265	1.53	149.07	797 905	1.70	156.06	935 815	1.93	167.07
Neuroinfections	231 993	0.51	50.03	123 838	0.26	24.22	58 135	0.12	10.38
Nutritional and neuropathies	461 022	1.02	99.42	630 089	1.35	123.24	619 622	1.28	110.62
Neurological injuries	3 112 433	6.91	671.21	3 306 741	7.06	646.76	3 424 932	7.07	611.46
Total	6 654 794	14.77	1 435.13	7 270 826	15.53	1 422.09	7 883 770	16.28	1 407.50

THE AMERICAS (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	77 739 657			90 194 020			106 740 220		
TOTAL DALYs	7 526 243			8 100 445			8 797 225		
Epilepsy	107 611	1.43	138.42	118 806	1.47	131.72	125 913	1.43	117.96
Alzheimer and other dementias	78 281	1.04	100.70	98 776	1.22	109.51	149 912	1.70	140.45
Parkinson's disease	4 058	0.05	5.22	4 791	0.06	5.31	6 185	0.07	5.79
Multiple sclerosis	15 849	0.21	20.39	18 521	0.23	20.53	21 164	0.24	19.83
Migraine	155 043	2.06	199.44	165 994	2.05	184.04	171 234	1.95	160.42
Cerebrovascular disease	59 933	0.80	77.09	75 746	0.94	83.98	104 519	1.19	97.92
Neuroinfections	53 657	0.71	69.02	35 231	0.43	39.06	17 348	0.20	16.25
Nutritional and neuropathies	94 844	1.26	122.00	121 415	1.50	134.61	121 256	1.38	113.60
Neurological injuries	379 972	5.05	488.77	423 553	5.23	469.60	455 172	5.17	426.43
Total	949 248	12.61	1 221.06	1 062 833	13.12	1 178.38	1 172 703	13.33	1 098.65

SOUTH-EAST ASIA (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	308 761 163			336 961 332			364 048 380		
TOTAL DALYs	29 192 942			29 559 126			30 625 968		
Epilepsy	230 664	0.79	74.71	228 970	0.77	67.95	219 000	0.72	60.16
Alzheimer and other dementias	342 972	1.17	111.08	461 668	1.56	137.01	702 335	2.29	192.92
Parkinson's disease	29 751	0.10	9.64	33 833	0.11	10.04	35 286	0.12	9.69
Multiple sclerosis	62 728	0.21	20.32	65 397	0.22	19.41	64 881	0.21	17.82
Migraine	339 628	1.16	110.00	329 367	1.11	97.75	305 781	1.00	83.99
Cerebrovascular disease	358 648	1.23	116.16	417 908	1.41	124.02	506 734	1.65	139.19
Neuroinfections	148 955	0.51	48.24	65 463	0.22	19.43	23 302	0.08	6.40
Nutritional and neuropathies	705 161	2.42	228.38	650 504	2.20	193.05	534 179	1.74	146.73
Neurological injuries	1 159 558	3.97	375.55	1 141 632	3.86	338.80	1 055 000	3.44	289.80
Total	3 378 064	11.57	1 094.07	3 394 742	11.48	1 007.46	3 446 499	11.25	946.71

SOUTH-EAST ASIA (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	1 352 957 715			1 525 318 552			1 718 832 463		
TOTAL DALYs	131 383 680			134 080 889			138 967 789		
Epilepsy	1 035 382	0.79	76.53	1 048 587	0.78	68.75	1 024 835	0.74	59.62
Alzheimer and other dementias	947 241	0.72	70.01	1 195 702	0.89	78.39	1 680 655	1.21	97.78
Parkinson's disease	180 689	0.14	13.36	207 974	0.16	13.63	257 984	0.19	15.01
Multiple sclerosis	270 885	0.21	20.02	308 778	0.23	20.24	338 732	0.24	19.71
Migraine	1 756 274	1.34	129.81	1 793 948	1.34	117.61	1 783 945	1.28	103.79
Cerebrovascular disease	1 693 829	1.29	125.19	2 016 085	1.50	132.17	2 646 134	1.90	153.95
Neuroinfections	670 551	0.51	49.56	390 475	0.29	25.60	192 850	0.14	11.22
Nutritional and neuropathies	2 996 430	2.28	221.47	2 565 498	1.91	168.19	2 075 062	1.49	120.73
Neurological injuries	7 357 484	5.60	543.81	7 407 802	5.52	485.66	7 250 907	5.22	421.85
Total	16 908 766	12.87	1 249.76	16 934 850	12.63	1 110.25	17 251 104	12.41	1 003.65

	YLDs			YLDs			YLDs		
		% total	per 100 000		% total	per 100 000		% total	per 100 000
EUROPE (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	417 799 202			417 841 350			411 754 930		
TOTAL DALYs	27 610 816			26 642 716			24 777 376		
Epilepsy	155 845	0.56	37.30	146 958	0.55	35.17	134 248	0.54	32.60
Alzheimer and other dementias	1 803 137	6.53	431.58	2 106 469	7.91	504.13	2 529 668	10.21	614.36
Parkinson's disease	214 964	0.78	51.45	215 201	0.81	51.50	209 109	0.84	50.78
Multiple sclerosis	106 037	0.38	25.38	99 719	0.37	23.87	90 370	0.36	21.95
Migraine	721 342	2.61	172.65	670 731	2.52	160.52	600 497	2.42	145.84
Cerebrovascular disease	964 090	3.49	230.75	922 228	3.46	220.71	865 531	3.49	210.21
Neuroinfections	75 613	0.27	18.10	57 040	0.21	13.65	46 731	0.19	11.35
Nutritional and neuropathies	281 902	1.02	67.47	305 417	1.15	73.09	269 085	1.09	65.35
Neurological injuries	626 253	2.27	149.89	517 606	1.94	123.88	384 566	1.55	93.40
Total	4 949 182	17.92	1 184.58	5 041 370	18.92	1 206.53	5 129 805	20.70	1 245.84

EUROPE (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	227 350 229			236 868 370			243 016 939		
TOTAL DALYs	17 678 271			17 368 886			16 773 659		
Epilepsy	87 172	0.49	38.34	84 516	0.49	35.68	78 059	0.47	32.12
Alzheimer and other dementias	379 974	2.15	167.13	443 628	2.55	187.29	564 896	3.37	232.45
Parkinson's disease	51 897	0.29	22.83	53 876	0.31	22.75	58 399	0.35	24.03
Multiple sclerosis	45 790	0.26	20.14	46 291	0.27	19.54	43 580	0.26	17.93
Migraine	250 906	1.42	110.36	233 551	1.34	98.60	207 238	1.24	85.28
Cerebrovascular disease	534 109	3.02	234.93	551 693	3.18	232.91	599 220	3.57	246.58
Neuroinfections	52 903	0.30	23.27	31 345	0.18	13.23	17 841	0.11	7.34
Nutritional and neuropathies	362 898	2.05	159.62	276 475	1.59	116.72	205 173	1.22	84.43
Neurological injuries	702 802	3.98	309.13	623 501	3.59	263.23	506 991	3.02	208.62
Total	2 468 450	13.96	1 085.75	2 344 876	13.50	989.95	2 281 396	13.60	938.78

EUROPE (LOW CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	235 511 792			206 753 120			175 407 940		
TOTAL DALYs	22 197 055			17 666 220			13 902 539		
Epilepsy	78 380	0.35	33.28	62 765	0.36	30.36	47 892	0.34	27.30
Alzheimer and other dementias	487 307	2.20	206.91	509 996	2.89	246.67	534 153	3.84	304.52
Parkinson's disease	77 078	0.35	32.73	64 187	0.36	31.05	52 110	0.37	29.71
Multiple sclerosis	44 105	0.20	18.73	37 404	0.21	18.09	29 180	0.21	16.64
Migraine	225 793	1.02	95.87	175 429	0.99	84.85	127 749	0.92	72.83
Cerebrovascular disease	1 023 157	4.61	434.44	881 652	4.99	426.43	715 286	5.15	407.78
Neuroinfections	28 055	0.13	11.91	22 393	0.13	10.83	19 462	0.14	11.10
Nutritional and neuropathies	466 319	2.10	198.00	314 373	1.78	152.05	174 053	1.25	99.23
Neurological injuries	1 401 926	6.32	595.27	1 101 024	6.23	532.53	832 680	5.99	474.71
Total	3 832 120	17.26	1 627.15	3 169 224	17.94	1 532.85	2 532 566	18.22	1 443.81

EASTERN MEDITERRANEAN (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	150 452 139			176 204 370			207 555 239		
TOTAL DALYs	13 501 935			14 650 861			16 286 148		
Epilepsy	76 282	0.56	50.70	83 269	0.57	47.26	89 420	0.55	43.08
Alzheimer and other dementias	97 087	0.72	64.53	128 325	0.88	72.83	210 609	1.29	101.47
Parkinson's disease	15 562	0.12	10.34	19 169	0.13	10.88	25 826	0.16	12.44
Multiple sclerosis	32 689	0.24	21.73	36 823	0.25	20.90	40 810	0.25	19.66
Migraine	131 573	0.97	87.45	137 927	0.94	78.28	135 035	0.83	65.06
Cerebrovascular disease	150 006	1.11	99.70	190 911	1.30	108.35	267 892	1.64	129.07
Neuroinfections	44 447	0.33	29.54	21 587	0.15	12.25	7 131	0.04	3.44
Nutritional and neuropathies	297 321	2.20	197.62	316 784	2.16	179.78	303 130	1.86	146.05
Neurological injuries	1 029 319	7.62	684.15	1 048 314	7.16	594.94	1 034 270	6.35	498.31
Total	1 874 287	13.88	1 245.77	1 983 110	13.54	1 125.46	2 114 125	12.98	1 018.58

202 Neurological disorders: public health challenges

	YLDs	% total	per 100 000	YLDs	% total	per 100 000	YLDs	% total	per 100 000
EASTERN MEDITERRANEAN (HIGH CHILD, HIGH ADULT MORTALITY)									
	2005			2015			2030		
Population	388 102 585			488 304 210			638 188 559		
TOTAL DALYs	39 623 952			44 895 159			53 022 485		
Epilepsy	265 587	0.67	68.43	314 334	0.70	64.37	373 064	0.70	58.46
Alzheimer and other dementias	215 420	0.54	55.51	284 474	0.63	58.26	423 140	0.80	66.30
Parkinson's disease	45 050	0.11	11.61	52 644	0.12	10.78	67 919	0.13	10.64
Multiple sclerosis	74 124	0.19	19.10	94 108	0.21	19.27	126 171	0.24	19.77
Migraine	440 044	1.11	113.38	538 081	1.20	110.19	640 098	1.21	100.30
Cerebrovascular disease	303 348	0.77	78.16	384 625	0.86	78.77	553 881	1.04	86.79
Neuroinfections	612 629	1.55	157.85	480 754	1.07	98.45	298 203	0.56	46.73
Nutritional and neuropathies	1 437 613	3.63	370.42	1 408 013	3.14	288.35	1 239 083	2.34	194.16
Neurological injuries	2 238 881	5.65	576.88	2 677 914	5.96	548.41	3 285 653	6.20	514.84
Total	5 632 695	14.22	1 451.34	6 234 948	13.89	1 276.86	7 007 211	13.22	1 097.98
WESTERN PACIFIC (VERY LOW CHILD, VERY LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	156 684 271			154 795 439			145 921 920		
TOTAL DALYs	9 224 931			8 950 894			8 121 455		
Epilepsy	47 370	0.51	30.23	43 636	0.49	28.19	37 984	0.47	26.03
Alzheimer and other dementias	805 387	8.73	514.02	1 014 704	11.34	655.51	1 186 645	14.61	813.21
Parkinson's disease	100 793	1.09	64.33	99 312	1.11	64.16	86 543	1.07	59.31
Multiple sclerosis	26 219	0.28	16.73	24 018	0.27	15.52	20 623	0.25	14.13
Migraine	143 723	1.56	91.73	127 925	1.43	82.64	112 524	1.39	77.11
Cerebrovascular disease	555 167	6.02	354.32	524 231	5.86	338.66	441 683	5.44	302.68
Neuroinfections	36 368	0.39	23.21	33 492	0.37	21.64	31 667	0.39	21.70
Nutritional and neuropathies	138 728	1.50	88.54	137 362	1.53	88.74	114 520	1.41	78.48
Neurological injuries	208 128	2.26	132.83	171 403	1.91	110.73	122 436	1.51	83.91
Total	2 061 882	22.35	1 315.95	2 176 082	24.31	1 405.78	2 154 625	26.53	1 476.56
WESTERN PACIFIC (LOW CHILD, LOW ADULT MORTALITY)									
	2005			2015			2030		
Population	1 601 382 302			1 688 392 664			1 753 380 614		
TOTAL DALYs	115 435 250			115 153 579			113 142 467		
Epilepsy	635 699	0.55	39.70	595 008	0.52	35.24	547 946	0.48	31.25
Alzheimer and other dementias	2 279 518	1.97	142.35	2 949 094	2.56	174.67	4 452 224	3.94	253.92
Parkinson's disease	134 959	0.12	8.43	158 755	0.14	9.40	184 281	0.16	10.51
Multiple sclerosis	334 921	0.29	20.91	326 490	0.28	19.34	307 278	0.27	17.52
Migraine	1 749 402	1.52	109.24	1 677 157	1.46	99.33	1 485 052	1.31	84.70
Cerebrovascular disease	3 855 611	3.34	240.77	4 318 244	3.75	255.76	4 862 796	4.30	277.34
Neuroinfections	549 560	0.48	34.32	234 210	0.20	13.87	87 453	0.08	4.99
Nutritional and neuropathies	1 849 303	1.60	115.48	1 826 936	1.59	108.21	1 474 133	1.30	84.07
Neurological injuries	4 955 084	4.29	309.43	4 426 671	3.84	262.18	3 696 617	3.27	210.83
Total	16 344 057	14.16	1 020.62	16 512 565	14.34	978.01	17 097 780	15.11	975.13

Table A.4.6 Burden of neurological disorders, in YLDs, by cause and country income category, projections for 2005, 2015 and 2030

	YLDs	% total	per 100 000	YLDs	% total	per 100 000	YLDs	% total	per 100 000
LOW INCOME									
	2005			2015			2030		
Population	2 698 990 297			3 157 941 695			3 786 445 271		
TOTAL DALYs	274 869 775			296 212 785			327 825 374		
Epilepsy	2 162 379	0.79	80.12	2 345 818	0.79	74.28	2 508 911	0.77	66.26
Alzheimer and other dementias	1 887 847	0.69	69.95	2 358 215	0.80	74.68	3 298 981	1.01	87.13
Parkinson's disease	308 756	0.11	11.44	353 265	0.12	11.19	441 287	0.13	11.65
Multiple sclerosis	501 366	0.18	18.58	590 060	0.20	18.68	696 371	0.21	18.39
Migraine	3 075 717	1.12	113.96	3 292 940	1.11	104.27	3 484 761	1.06	92.03
Cerebrovascular disease	2 961 840	1.08	109.74	3 497 473	1.18	110.75	4 623 403	1.41	122.10
Neuroinfections	5 178 007	1.88	191.85	4 484 971	1.51	142.02	3 295 399	1.01	87.03
Nutritional and neuropathies	7 806 618	2.84	289.24	7 321 821	2.47	231.85	6 284 158	1.92	165.96
Neurological Injuries	13 836 513	5.03	512.66	15 166 127	5.12	480.25	16 970 828	5.18	448.20
Total	37 719 043	13.72	1 397.52	39 410 691	13.30	1 247.99	41 604 099	12.69	1 098.76
LOWER MIDDLE INCOME									
	2005			2015			2030		
Population	2 267 665 265			2 394 506 774			2 504 674 883		
TOTAL DALYs	180 841 215			179 114 557			176 548 919		
Epilepsy	1 083 085	0.60	47.76	1 051 524	0.59	43.91	996 999	0.56	39.81
Alzheimer and other dementias	3 092 955	1.71	136.39	3 912 760	2.18	163.41	5 720 544	3.24	228.39
Parkinson's disease	255 194	0.14	11.25	277 039	0.15	11.57	307 805	0.17	12.29
Multiple sclerosis	464 515	0.26	20.48	460 503	0.26	19.23	443 061	0.25	17.69
Migraine	2 421 813	1.34	106.80	2 324 256	1.30	97.07	2 085 110	1.18	83.25
Cerebrovascular disease	5 256 334	2.91	231.79	5 698 033	3.18	237.96	6 238 042	3.53	249.06
Neuroinfections	773 549	0.43	34.11	370 936	0.21	15.49	159 203	0.09	6.36
Nutritional and neuropathies	3 277 499	1.81	144.53	3 045 262	1.70	127.18	2 424 744	1.37	96.81
Neurological Injuries	9 200 404	5.09	405.72	8 521 185	4.76	355.86	7 594 651	4.30	303.22
Total	25 825 349	14.28	1 138.85	25 661 498	14.33	1 071.68	25 970 159	14.71	1 036.87
UPPER MIDDLE INCOME									
	2005			2015			2030		
Population	528 081 304			574 892 329			622 970 241		
TOTAL DALYs	48 512 303			50 027 602			51 204 031		
Epilepsy	574 453	1.18	108.78	588 084	1.18	102.29	573 146	1.12	92.00
Alzheimer and other dementias	804 632	1.66	152.37	1 025 454	2.05	178.37	1 483 308	2.90	238.10
Parkinson's disease	66 408	0.14	12.58	71 217	0.14	12.39	75 045	0.15	12.05
Multiple sclerosis	108 140	0.22	20.48	113 803	0.23	19.80	114 563	0.22	18.39
Migraine	776 542	1.60	147.05	783 032	1.57	136.20	744 397	1.45	119.49
Cerebrovascular disease	841 607	1.73	159.37	925 989	1.85	161.07	1 030 004	2.01	165.34
Neuroinfections	207 991	0.43	39.39	115 195	0.23	20.04	60 222	0.12	9.67
Nutritional and neuropathies	540 532	1.11	102.36	707 179	1.41	123.01	698 714	1.36	112.16
Neurological Injuries	2 831 533	5.84	536.19	2 954 590	5.91	513.94	2 963 659	5.79	475.73
Total	6 751 839	13.92	1 278.56	7 284 542	14.56	1 267.11	7 743 058	15.12	1 242.93
HIGH INCOME									
	2005			2015			2030		
Population	947 138 427			975 884 050			1 002 892 462		
TOTAL DALYs	66 539 151			67 046 328			65 404 060		
Epilepsy	347 335	0.52	36.67	338 021	0.50	34.64	323 722	0.49	32.28
Alzheimer and other dementias	3 709 039	5.57	391.60	4 454 081	6.64	456.41	5 641 486	8.63	562.52
Parkinson's disease	507 626	0.76	53.60	526 601	0.79	53.96	529 223	0.81	52.77
Multiple sclerosis	212 428	0.32	22.43	206 989	0.31	21.21	199 064	0.30	19.85
Migraine	1 385 579	2.08	146.29	1 335 981	1.99	136.90	1 281 723	1.96	127.80
Cerebrovascular disease	2 329 596	3.50	245.96	2 301 556	3.43	235.84	2 182 130	3.34	217.58
Neuroinfections	177 788	0.27	18.77	128 477	0.19	13.17	98 343	0.15	9.81
Nutritional and neuropathies	932 307	1.40	98.43	1 306 923	1.95	133.92	1 195 901	1.83	119.25
Neurological Injuries	1 534 400	2.31	162.00	1 310 269	1.95	134.26	1 037 296	1.59	103.43
Total	11 136 099	16.74	1 175.76	11 908 897	17.76	1 220.32	12 488 887	19.09	1 245.29

Table A.4.7 Prevalence (per 1000) of neurological disorders, by cause, WHO region and mortality stratum, projections for 2005, 2015 and 2030

	Number	per 1 000	Number	per 1 000	Number	per 1 000
WORLD						
	2005		2015		2030	
Population	6 441 919 466		7 103 297 899		7 917 115 397	
Epilepsy	39 891 898	6.19	44 568 780	6.27	50 503 933	6.38
Alzheimer and other dementias	24 446 651	3.79	31 318 923	4.41	44 016 718	5.56
Parkinson's disease	5 223 897	0.81	5 967 673	0.84	7 236 712	0.91
Multiple sclerosis	2 492 385	0.39	2 823 092	0.40	3 279 199	0.41
Migraine	326 196 121	50.64	364 432 879	51.30	412 894 420	52.15
Cerebrovascular disease	61 537 499	9.55	67 212 050	9.46	76 826 249	9.70
Neuroinfections	18 169 479	2.82	15 714 399	2.21	13 290 180	1.68
Nutritional and neuropathies	352 494 535	54.72	321 738 424	45.29	285 369 403	36.04
Neurological injuries	170 382 211	26.45	197 627 526	27.82	242 728 912	30.66
AFRICA (HIGH CHILD, HIGH ADULT MORTALITY)						
	2005		2015		2030	
Population	335 459 111		419 571 880		550 082 900	
Epilepsy	3 887 787	11.59	4 887 589	11.65	6 425 567	11.68
Alzheimer and other dementias	301 529	0.90	390 872	0.93	558 471	1.02
Parkinson's disease	77 310	0.23	96 484	0.23	139 094	0.25
Multiple sclerosis	90 125	0.27	118 905	0.28	171 479	0.31
Migraine	5 301 369	15.80	6 958 945	16.59	10 049 321	18.27
Cerebrovascular disease	922 165	2.75	1 177 212	2.81	1 752 287	3.19
Neuroinfections	3 429 358	10.22	3 455 514	8.24	3 063 637	5.57
Nutritional and neuropathies	34 447 298	102.69	37 749 963	89.97	37 452 942	68.09
Neurological injuries	13 046 081	38.89	16 885 887	40.25	24 827 838	45.13
AFRICA (HIGH CHILD, VERY HIGH ADULT MORTALITY)						
	2005		2015		2030	
Population	382 647 820		478 419 411		628 734 321	
Epilepsy	3 572 218	9.34	4 476 346	9.36	5 826 652	9.27
Alzheimer and other dementias	320 683	0.84	416 691	0.87	560 199	0.89
Parkinson's disease	83 143	0.22	98 722	0.21	132 208	0.21
Multiple sclerosis	85 170	0.22	109 363	0.23	161 820	0.26
Migraine	6 889 476	18.00	8 829 595	18.46	12 309 881	19.58
Cerebrovascular disease	875 178	2.29	1 058 100	2.21	1 468 215	2.34
Neuroinfections	3 547 669	9.27	3 400 301	7.11	3 021 709	4.81
Nutritional and neuropathies	39 641 466	103.60	40 133 334	83.89	39 426 363	62.71
Neurological injuries	11 528 595	30.13	14 935 805	31.22	21 909 861	34.85
THE AMERICAS (VERY LOW CHILD, VERY LOW ADULT MORTALITY)						
	2005		2015		2030	
Population	343 363 701		372 395 661		413 323 652	
Epilepsy	1 830 517	5.33	1 960 485	5.26	2 157 642	5.22
Alzheimer and other dementias	3 236 120	9.42	3 809 436	10.23	5 630 271	13.62
Parkinson's disease	1 042 640	3.04	1 180 495	3.17	1 543 063	3.73
Multiple sclerosis	181 870	0.53	199 324	0.54	220 144	0.53
Migraine	29 434 637	85.72	32 303 593	86.75	35 115 150	84.96
Cerebrovascular disease	5 181 015	15.09	5 514 921	14.81	5 762 804	13.94
Neuroinfections	331 319	0.96	297 476	0.80	273 074	0.66
Nutritional and neuropathies	8 470 890	24.67	14 078 189	37.80	15 706 201	38.00
Neurological injuries	3 761 512	10.95	3 838 293	10.31	3 950 758	9.56

	Number	per 1 000	Number	per 1 000	Number	per 1 000
THE AMERICAS (LOW CHILD, LOW ADULT MORTALITY)						
	2005		2015		2030	
Population	463 707 779		511 277 519		560 127 320	
Epilepsy	5 995 062	12.93	6 483 590	12.68	6 950 211	12.41
Alzheimer and other dementias	1 563 720	3.37	2 111 608	4.13	3 382 089	6.04
Parkinson's disease	131 149	0.28	162 062	0.32	219 316	0.39
Multiple sclerosis	169 790	0.37	199 298	0.39	235 538	0.42
Migraine	26 424 577	56.99	31 327 545	61.27	37 412 092	66.79
Cerebrovascular disease	3 579 817	7.72	4 173 211	8.16	5 039 977	9.00
Neuroinfections	1 130 487	2.44	803 085	1.57	589 365	1.05
Nutritional and neuropathies	10 977 028	23.67	12 455 700	24.36	12 609 273	22.51
Neurological injuries	18 428 772	39.74	22 348 470	43.71	27 329 074	48.79

THE AMERICAS (HIGH CHILD, HIGH ADULT MORTALITY)						
	2005		2015		2030	
Population	77 739 657		90 194 020		106 740 220	
Epilepsy	836 072	10.75	966 534	10.72	1 130 346	10.59
Alzheimer and other dementias	177 298	2.28	228 977	2.54	364 489	3.41
Parkinson's disease	14 415	0.19	17 608	0.20	25 160	0.24
Multiple sclerosis	25 390	0.33	31 655	0.35	41 305	0.39
Migraine	4 664 146	60.00	5 713 736	63.35	7 277 075	68.18
Cerebrovascular disease	295 893	3.81	373 202	4.14	521 080	4.88
Neuroinfections	222 767	2.87	178 873	1.98	133 484	1.25
Nutritional and neuropathies	1 747 300	22.48	2 006 469	22.25	2 049 464	19.20
Neurological injuries	2 451 434	31.53	3 055 072	33.87	4 002 293	37.50

SOUTH-EAST ASIA (LOW CHILD, LOW ADULT MORTALITY)						
	2005		2015		2030	
Population	308 761 163		336 961 332		364 048 380	
Epilepsy	1 716 803	5.56	1 869 945	5.55	2 030 893	5.58
Alzheimer and other dementias	750 947	2.43	1 109 965	3.29	1 758 876	4.83
Parkinson's disease	83 755	0.27	101 189	0.30	127 726	0.35
Multiple sclerosis	115 420	0.37	133 396	0.40	155 365	0.43
Migraine	12 452 696	40.33	14 276 937	42.37	16 357 388	44.93
Cerebrovascular disease	1 753 574	5.68	2 069 695	6.14	2 577 753	7.08
Neuroinfections	603 533	1.95	489 621	1.45	414 406	1.14
Nutritional and neuropathies	23 486 575	76.07	19 023 347	56.46	15 013 037	41.24
Neurological injuries	6 360 357	20.60	7 562 330	22.44	9 000 303	24.72

SOUTH-EAST ASIA (HIGH CHILD, HIGH ADULT MORTALITY)						
	2005		2015		2030	
Population	1 352 957 715		1 525 318 552		1 718 832 463	
Epilepsy	7 949 495	5.88	8 852 768	5.80	9 751 328	5.67
Alzheimer and other dementias	2 109 176	1.56	2 830 478	1.86	4 151 049	2.42
Parkinson's disease	601 514	0.44	748 737	0.49	1 043 266	0.61
Multiple sclerosis	467 985	0.35	559 474	0.37	685 168	0.40
Migraine	58 123 761	42.96	68 872 969	45.15	83 386 832	48.51
Cerebrovascular disease	8 080 667	5.97	9 654 382	6.33	12 810 896	7.45
Neuroinfections	2 700 495	2.00	2 106 911	1.38	1 712 605	1.00
Nutritional and neuropathies	102 584 258	75.82	82 871 325	54.33	65 739 960	38.25
Neurological injuries	48 694 670	35.99	56 565 467	37.08	68 317 201	39.75

	Number		per 1 000		Number		per 1 000	
EUROPE (VERY LOW CHILD, VERY LOW ADULT MORTALITY)								
	2005		2015		2030			
Population	417 799 202		417 841 350		411 754 930			
Epilepsy	2 145 979	5.14	2 161 029	5.17	2 158 279	5.24		
Alzheimer and other dementias	5 362 157	12.83	6 611 650	15.82	8 053 138	19.56		
Parkinson's disease	1 365 849	3.27	1 512 916	3.62	1 614 797	3.92		
Multiple sclerosis	259 275	0.62	262 457	0.63	254 097	0.62		
Migraine	53 492 555	128.03	54 275 528	129.90	53 586 117	130.14		
Cerebrovascular disease	6 278 185	15.03	6 116 704	14.64	5 887 278	14.30		
Neuroinfections	530 651	1.27	472 683	1.13	438 486	1.06		
Nutritional and neuropathies	6 659 295	15.94	7 554 085	18.08	7 564 726	18.37		
Neurological injuries	3 856 936	9.23	3 670 108	8.78	3 290 918	7.99		
EUROPE (LOW CHILD, LOW ADULT MORTALITY)								
	2005		2015		2030			
Population	227 350 229		236 868 370		243 016 939			
Epilepsy	955 206	4.20	995 872	4.20	1 023 780	4.21		
Alzheimer and other dementias	987 308	4.34	1 233 107	5.21	1 558 168	6.41		
Parkinson's disease	250 849	1.10	275 108	1.16	319 164	1.31		
Multiple sclerosis	91 104	0.40	98 909	0.42	107 864	0.44		
Migraine	11 127 627	48.94	12 009 067	50.70	12 923 428	53.18		
Cerebrovascular disease	2 909 121	12.80	3 011 979	12.72	3 314 164	13.64		
Neuroinfections	288 785	1.27	258 413	1.09	239 714	0.99		
Nutritional and neuropathies	5 806 482	25.54	5 018 573	21.19	4 397 770	18.10		
Neurological injuries	4 654 920	20.47	4 931 436	20.82	5 161 201	21.24		
EUROPE (LOW CHILD, HIGH ADULT MORTALITY)								
	2005		2015		2030			
Population	235 511 792		206 753 120		175 407 940			
Epilepsy	986 267	4.19	874 450	4.23	749 294	4.27		
Alzheimer and other dementias	1 385 473	5.88	1 558 787	7.54	1 650 510	9.41		
Parkinson's disease	338 403	1.44	305 100	1.48	270 942	1.54		
Multiple sclerosis	110 444	0.47	98 774	0.48	86 042	0.49		
Migraine	12 519 404	53.16	11 380 891	55.05	9 993 768	56.97		
Cerebrovascular disease	5 578 425	23.69	4 899 001	23.69	4 094 427	23.34		
Neuroinfections	214 736	0.91	189 090	0.91	176 088	1.00		
Nutritional and neuropathies	7 706 356	32.72	5 309 161	25.68	3 544 585	20.21		
Neurological injuries	8 121 815	34.49	7 053 326	34.11	5 848 082	33.34		
EASTERN MEDITERRANEAN (LOW CHILD, LOW ADULT MORTALITY)								
	2005		2015		2030			
Population	150 452 139		176 204 370		207 555 239			
Epilepsy	612 616	4.07	713 756	4.05	833 149	4.01		
Alzheimer and other dementias	207 025	1.38	284 456	1.61	488 949	2.36		
Parkinson's disease	52 892	0.35	66 868	0.38	105 629	0.51		
Multiple sclerosis	50 491	0.34	63 382	0.36	83 451	0.40		
Migraine	4 486 529	29.82	5 414 528	30.73	6 760 297	32.57		
Cerebrovascular disease	758 271	5.04	963 285	5.47	1 381 731	6.66		
Neuroinfections	187 741	1.25	140 870	0.80	111 484	0.54		
Nutritional and neuropathies	4 325 183	28.75	4 648 624	26.38	5 094 358	24.54		
Neurological injuries	5 661 387	37.63	6 874 140	39.01	8 985 853	43.29		

	Number	per 1 000	Number	per 1 000	Number	per 1 000
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EASTERN MEDITERRANEAN (HIGH CHILD, HIGH ADULT MORTALITY)

	2005		2015		2030	
Population	388 102 585		488 304 210		638 188 559	
Epilepsy	2 307 484	5.95	2 905 715	5.95	3 780 009	5.92
Alzheimer and other dementias	433 980	1.12	599 142	1.23	949 710	1.49
Parkinson's disease	153 850	0.40	187 726	0.38	260 147	0.41
Multiple sclerosis	118 755	0.31	154 093	0.32	220 508	0.35
Migraine	12 122 159	31.23	15 724 788	32.20	22 272 136	34.90
Cerebrovascular disease	1 449 886	3.74	1 843 680	3.78	2 674 703	4.19
Neuroinfections	2 040 970	5.26	1 738 470	3.56	1 324 728	2.08
Nutritional and neuropathies	29 803 040	76.79	28 239 576	57.83	25 847 645	40.50
Neurological injuries	14 044 340	36.19	18 063 186	36.99	25 714 352	40.29

WESTERN PACIFIC (VERY LOW CHILD, VERY LOW ADULT MORTALITY)

	2005		2015		2030	
Population	156 684 271		154 795 439		145 921 920	
Epilepsy	868 123	5.54	865 621	5.59	826 117	5.66
Alzheimer and other dementias	2 184 654	13.94	2 996 308	19.36	3 794 924	26.01
Parkinson's disease	511 384	3.26	603 106	3.90	626 385	4.29
Multiple sclerosis	72 700	0.46	72 033	0.47	67 012	0.46
Migraine	11 547 332	73.70	11 488 613	74.22	10 715 929	73.44
Cerebrovascular disease	3 792 785	24.21	3 667 047	23.69	3 178 620	21.78
Neuroinfections	257 304	1.64	245 428	1.59	237 127	1.63
Nutritional and neuropathies	3 347 308	21.36	3 552 062	22.95	3 333 547	22.84
Neurological injuries	1 491 604	9.52	1 495 519	9.66	1 342 770	9.20

WESTERN PACIFIC (LOW CHILD, LOW ADULT MORTALITY)

	2005		2015		2030	
Population	1 601 382 302		1 688 392 664		1 753 380 614	
Epilepsy	6 228 270	3.89	6 555 079	3.88	6 860 667	3.91
Alzheimer and other dementias	5 426 580	3.39	7 137 446	4.23	11 115 873	6.34
Parkinson's disease	516 744	0.32	611 552	0.36	809 814	0.46
Multiple sclerosis	653 867	0.41	722 028	0.43	789 406	0.45
Migraine	77 609 852	48.46	85 856 144	50.85	94 735 006	54.03
Cerebrovascular disease	20 082 517	12.54	22 689 633	13.44	26 362 316	15.04
Neuroinfections	2 683 663	1.68	1 937 664	1.15	1 554 271	0.89
Nutritional and neuropathies	73 492 056	45.89	59 098 014	35.00	47 589 533	27.14
Neurological injuries	28 279 787	17.66	30 348 487	17.97	33 048 410	18.85

Table A.4.8 Prevalence (per 1000) of neurological disorders, by cause and country income category, projections for 2005, 2015 and 2030

	Number	per 1 000	Number	per 1 000	Number	per 1 000
LOW INCOME						
	2005		2015		2030	
Population	2 698 990 297		3 157 941 695		3 786 445 271	
Epilepsy	18 767 673	6.95	22 219 076	7.04	26 963 317	7.12
Alzheimer and other dementias	4 187 247	1.55	5 519 844	1.75	7 941 472	2.10
Parkinson's disease	1 026 261	0.38	1 236 644	0.39	1 679 946	0.44
Multiple sclerosis	861 399	0.32	1 050 073	0.33	1 356 892	0.36
Migraine	97 386 421	36.08	117 150 189	37.10	147 040 876	38.83
Cerebrovascular disease	14 233 869	5.27	16 804 274	5.32	22 324 143	5.90
Neuroinfections	12 219 114	4.53	11 095 507	3.51	9 461 215	2.50
Nutritional and neuropathies	229 490 905	85.03	206 778 850	65.48	181 940 616	48.05
Neurological Injuries	90 262 196	33.44	109 630 501	34.72	143 849 509	37.99
LOWER MIDDLE INCOME						
	2005		2015		2030	
Population	2 267 665 265		2 394 506 774		2 504 674 883	
Epilepsy	10 651 319	4.70	11 308 222	4.72	11 942 124	4.77
Alzheimer and other dementias	7 498 331	3.31	9 730 403	4.06	14 587 111	5.82
Parkinson's disease	1 016 623	0.45	1 134 671	0.47	1 399 970	0.56
Multiple sclerosis	905 993	0.40	997 151	0.42	1 101 687	0.44
Migraine	104 870 967	46.25	115 096 758	48.07	126 818 106	50.63
Cerebrovascular disease	27 616 112	12.18	30 176 588	12.60	33 975 321	13.56
Neuroinfections	3 822 412	1.69	2 835 263	1.18	2 262 956	0.90
Nutritional and neuropathies	89 556 278	39.49	73 313 524	30.62	60 403 913	24.12
Neurological Injuries	54 090 897	23.85	59 112 199	24.69	66 769 005	26.66
UPPER MIDDLE						
	2005		2015		2030	
Population	528 081 304		574 892 329		622 970 241	
Epilepsy	5 636 336	10.67	6 057 319	10.54	6 449 477	10.35
Alzheimer and other dementias	2 002 209	3.79	2 656 367	4.62	3 952 642	6.34
Parkinson's disease	282 273	0.53	320 603	0.56	381 415	0.61
Multiple sclerosis	201 706	0.38	230 675	0.40	266 357	0.43
Migraine	29 450 329	55.77	33 885 778	58.94	39 155 596	62.85
Cerebrovascular disease	4 482 667	8.49	4 965 600	8.64	5 651 784	9.07
Neuroinfections	956 305	1.81	724 346	1.26	578 551	0.93
Nutritional and neuropathies	13 267 582	25.12	14 561 442	25.33	14 555 473	23.36
Neurological Injuries	16 551 721	31.34	19 589 370	34.07	23 272 762	37.36
HIGH INCOME						
	2005		2015		2030	
Population	947 138 427		975 884 050		1 002 892 462	
Epilepsy	4 836 322	5.11	4 983 733	5.11	5 148 237	5.13
Alzheimer and other dementias	10 758 768	11.36	13 412 189	13.74	17 535 293	17.48
Parkinson's disease	2 898 718	3.06	3 275 732	3.36	3 775 357	3.76
Multiple sclerosis	523 272	0.55	545 176	0.56	554 231	0.55
Migraine	94 487 271	99.76	98 298 715	100.73	99 877 490	99.59
Cerebrovascular disease	15 204 544	16.05	15 265 253	15.64	14 874 570	14.83
Neuroinfections	1 171 502	1.24	1 059 129	1.09	987 315	0.98
Nutritional and neuropathies	20 177 668	21.30	27 082 158	27.75	28 466 544	28.38
Neurological Injuries	9 476 767	10.01	9 294 786	9.52	8 836 820	8.81

Annex 5 *International nongovernmental organizations working in neurological disorders*

Organization	Contact details	Mission statement, scope of activity or purpose
GENERAL		
International Child Neurology Association (ICNA)	Pediatric Neurology University of Rome Tor Vergata P. le Umanesimo 10 144 Rome Italy tel: +39 335 834 89 21 fax: +39 06 941 14 63 e-mail: curatolo@uniroma2.it web site: http://www.child-neuro.net	The general purpose of ICNA is: <ul style="list-style-type: none"> ■ to create a non-profit association of child neurologists and members of allied professions from all parts of the world dedicated to promoting clinical and scientific research in the field of child neurology and encouraging the recognition of child neurologists' competence and scope of practice; ■ to provide, at an international level, an outlet for interchange of scientific and professional opinions for the benefit and advancement of the neurological sciences in infancy and childhood; ■ to establish international scientific meetings, international cooperative studies, publications, translations, audio-visual material and to encourage international exchange of teachers and students in the field of child neurology.
World Federation of Neurology (WFN)	12 Chandos Street London W1G 9DR England tel: +44 20 7323 4011 fax: +44 20 7323 4012 e-mail: WFNLondon@aol.com web site: http://www.wfneurology.org	It is the purpose of WFN to improve human health worldwide by promoting prevention and the care of persons with disorders of the entire nervous system by: <ul style="list-style-type: none"> ■ fostering the best standards of neurological practice; ■ educating, in collaboration with neuroscience and other international public and private organizations; ■ facilitating research through its Research Groups and other means.
European Federation of Neurological Societies (EFNS)	EFNS Head Office Breite Gasse 4–8 1070 Vienna Austria tel: +43 1 889 05 03 fax: +43 1 889 05 03 13 e-mail: headoffice@efns.org web site: http://www.efns.org	EFNS is an organization that unites and supports neurologists across the whole of Europe. It aims: <ul style="list-style-type: none"> to broaden the base of clinical neurology in Europe; raise public awareness about the importance of the brain and its disorders; to strengthen the standard, availability and uniformity of neurological services in Europe; to create and maintain continuing medical education guidelines and accreditation; support and encourage European clinical neuroscience research programmes; to strengthen the standard, quantity and equality of pre-graduate and postgraduate teaching and training; to strengthen WFN, EU and WHO relations; to strengthen collaboration with related professional and lay organizations; organize European Neurology Congresses and Neurological Teaching Courses; to publish the <i>European Journal of Neurology</i>.
European Neurology Societies (ENS)	ENS Administrative Secretariat c/o AKM Congress Service P.O. Box 4005 Basel Switzerland tel: +41 61 686 77 77 fax: +41 61 686 77 88 e-mail: info@akm.ch web site: http://www.ensinfo.com	The aims of ENS are to provide continuing education in all fields of neurology, to create a scientific forum for the presentation of original research work for all the neurologists, to guarantee a high level of scientific standard, and to support the younger generation by continuing promotions such as travel grants, fellowships stipends or the new neurologist in training offer.

Organization	Contact details	Mission statement, scope of activity or purpose
DEMENTIA		
Alzheimer's Disease International (ADI)	64 Great Suffolk Street London SE1 0BL England tel: +44 20 7981 0880 fax: +44 20 7928 2357 e-mail: info@alz.co.uk web site: http://www.alz.co.uk/	ADI is the umbrella organization of Alzheimer associations around the world. It aims to help establish and strengthen Alzheimer associations throughout the world and to raise global awareness about Alzheimer's disease and all other causes of dementia.
EPILEPSY		
International Bureau for Epilepsy (IBE)	International Bureau for Epilepsy Unit 4 Hillview House Bracken Road Sandyford Dublin 18 Ireland tel: +353 1 293 4961 fax: +353 1 293 4963 e-mail: ibedublin@eircom.net web site: http://www.ibe-epilepsy.org	IBE is an organization of lay persons and professionals interested in the medical and non-medical aspects of epilepsy. It addresses such social problems as education, employment, insurance, driving-licence restrictions and public awareness. It provides assistance by offering international support, by creating means for worldwide exchange of information and, where possible, by setting standards that provide an international policy focus and identity for all persons with epilepsy. IBE works in close liaison with the International League against Epilepsy.
International League Against Epilepsy (ILAE)	204 avenue Marcel Thiry 1200 Brussels Belgium tel: + 32 (0) 2 774 9547 fax: + 32 (0) 2 774 9690 e-mail: dsartiux@ilae.org web site: http://www.ilae-epilepsy.org	ILAE is the world's pre-eminent association of physicians and other health professionals working towards a world where no persons' life is limited by epilepsy. Its mission is to provide the highest quality of care and wellbeing for those afflicted with the condition and other related seizure disorders. The League aims to advance and disseminate knowledge about epilepsy, to promote research, education and training and to improve services and care for patients, especially by prevention, diagnosis and treatment.
HEADACHE DISORDERS		
International Headache Society (IHS)	c/o Griffin Stone, Moscrop and Co. 41 Welbeck Street London W1G 8EA England e-mail: info@i-h-s.org web site: http://www.i-h-s.org	A worldwide professional society, the mission of IHS is to work with others to reduce the world burden of headache. The web site includes all published guidelines and recommendations of the IHS, and professional educational pages are planned.
World Headache Alliance (WHA)	c/o Griffin Stone, Moscrop and Co 41 Welbeck Street London W1G 8EA England e-mail: info@w-h-a.org web site: http://www.w-h-a.org	A worldwide lay alliance, WHA exists to relieve the suffering of people affected by headache throughout the world, in particular by sharing information among headache organizations and by increasing the awareness and understanding of headache as a public health concern with profound social and economic impact. The web site includes a regularly updated source of detailed and quality-controlled information on headache for the general public, with many useful links.
European Headache Federation (EHF)	c/o Kenes International 17 rue du Cendrier PO Box 1726 1211 Geneva 1 Switzerland. tel: +41 22 906 9154 fax: +41 22 732 2852 e-mail: info@ehf-org.org web site: http://www.ehf-org.org	A European professional federation, EHF dedicates its efforts to improving awareness among governments, health-care providers and consumers across Europe of headache disorders and their personal and socioeconomic impact. Ultimately EHF seeks to create the optimal environment for headache sufferers and their carers across all Europe, so that they have access to appropriate treatment and therefore enjoy a better quality of life.

Organization	Contact details	Mission statement, scope of activity or purpose
MULTIPLE SCLEROSIS		
Multiple Sclerosis International Federation (MSIF)	200 Union Street London SE1 0LX England tel: +44 20 7620 1911 fax: +44 20 7620 1922 e-mail: info@msif.org web site: http://www.msif.org	MSIF was established in 1967 as an international body linking the activities of national multiple sclerosis societies around the world. MSIF seeks to work in worldwide partnership with member societies and the international scientific community to eliminate multiple sclerosis and its consequences, and to speak out globally on behalf of those affected by multiple sclerosis. MSIF works to achieve this through the following key priorities: international research; development of new and existing societies; exchange of information; advocacy.
European Multiple Sclerosis Platform (EMSP)	144/8 rue Auguste Lambiotte 1030 Brussels Belgium tel: +32 2 305 80 12 fax: +32 2 305 80 11 e-mail: ms-in-europe@pandora.be web site: http://www.ms-in-europe.com	The mission of EMSP is to exchange and disseminate information relating to multiple sclerosis, considering all issues relevant to people affected by it: to encourage research of all kinds that is appropriate to multiple sclerosis through recognized medical and other organizations; to promote the development of joint action programmes with the participation of national multiple sclerosis societies in Europe, aimed at improving the quality of their activities and services; to act as focal point for liaison with the institutions of the European Union, the Council of Europe and other European organizations, in order to study and propose measures to improve the autonomy of handicapped persons and promote their full participation in society.
PAIN ASSOCIATED WITH NEUROLOGICAL DISORDERS		
The International Association for the Study of Pain (IASP)	Queen Anne Avenue N, Suite 501 Seattle, WA 98109 – 4955 United States of America tel: +1 206 283 0311 fax: +1 206 283 9403 e-mail: iaspdesk@iasp-pain.org web site: http://www.iasp-pain.org	To foster and encourage research of pain mechanisms and pain syndromes and to help improve the management of patients with acute and chronic pain by bringing together basic scientists, physicians and other health professionals of various disciplines and backgrounds who have an interest in pain research and management.
The European Federation of IASP-Chapters (EFIC)	Mrs Sarah Wheeler Executive Officer Foukithidou 2 16343 Iliopoulis, Athens Greece tel: +30 210 992 6335 mobile: + 30 694 447 8978 fax: + 30 210 992 6382 e-mail: efic@internet.gr web site: http://www.efic.org	To promote research, education, and the clinical management of pain, to create a forum for European collaboration on pain issues and to encourage communication at a European level between IASP Chapters, and also with other bodies interested or involved in the fields of pain research and therapy.
PARKINSON'S DISEASE		
Asian and Pacific Parkinson's Association (APPA)	PO Box 12042 50766 Kuala Lumpur Malaysia tel: +603 2454648 fax: +603 2454649 e-mail: appda@po.jaring.my	The objectives of APPA are: to establish and operate projects rendering service to persons suffering from Parkinson's disease; to encourage and promote research and other activities relating to the prevention, diagnosis, causes and treatment of Parkinson's disease; to cooperate with all relevant public and private agencies in services for persons suffering from Parkinson's disease; to collect, compile and disseminate information on causes, prevention, research programmes and available aids to combat Parkinson's disease, and to carry on a vigorous general public education programme within this field; generally to do what may be required to give effect and carry forward the purposes of APPA without discriminating against any person or organization because of race or religion.
European Parkinson's Disease Association (EPDA)	4 Golding Road Sevenoaks Kent TN13 3NJ England tel/fax: +44 17 3245 7683 e-mail: lizzie@epda.eu.com web site: http://www.epda.eu.com	Formed in 1992, EPDA now has a membership of 36 European organizations and eight associates. It is non-political, non-religious and non-profit making, concerned with the health and welfare of people with Parkinson's disease and their families. Collaboration with European patient and neurological organizations, the European Commission, WHO, WFN and the pharmaceutical industry has resulted in the development of quality of life research projects, education materials and multidisciplinary conferences.

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Organization	Contact details	Mission statement, scope of activity or purpose
STROKE		
International Stroke Society (ISS)	<p>Dr Takenori Yamaguchi, Acting President National Cardiovascular Centre 5-7-1 Fujishirodai, Suita City Osaka 565-8565 Japan tel: +81 6 6833 5012 fax: +81 6 4863 7052 e-mail: tyamaguc@hsp.ncvc.go.jp web site: http://www.internationalstroke.org</p> <p>Dr Bo Norrving, Secretary Department of Neurology University Hospital 221 85 Lund Sweden tel: +46 4617 1466 fax: +46 4615 89 19 e-mail: bo.norrving@neuro.lu.se</p>	<p>The mission of ISS is to provide access to stroke care and to promote research and teaching in this area that will improve the care of stroke victims by: promoting prevention and care of persons with stroke and/or dementia; fostering the best standards of practice; educating, in collaboration with other international, public and private organizations; facilitating clinical research.</p>
TRAUMATIC BRAIN INJURIES		
World Federation of Neurosurgical Societies	<p>5 rue du Marché 1260 Nyon Switzerland tel: +41 22 362 4303 fax: +41 22 362 4352 e-mail: janjoseph@wfns.ch web site: http://www.wfns.org</p>	<p>To advance neurological surgery in all its aspects by facilitating the personal association of neurosurgeons throughout the world; to aid in the exchange and dissemination of knowledge and ideas in the field of neurosurgery; to encourage research and investigation in neurosurgery and allied sciences.</p>

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As all countries in the WHO Member States are included in Annex 1 (p. 183–4), specific country references to the Annexes are not included in the index. A list of abbreviations used in the text can be found in page xi of the preface.

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