

**Table A2.3: Deaths attributable to environmental factors, by disease and mortality stratum for WHO regions in 2004.**  
**Updated data for 2004, from "Preventing disease through healthy environments", WHO 2006.**

Disease/disease group <sup>a</sup>	Total		Children 0-14 years		Developed countries		Developing countries		AFRICA		THE AMERICAS		
									Mortality stratum		Mortality stratum		
									High child/high adult	High child/very high adult	Very low child, very low adult	Low child, low adult	High child/high adult
<i>Population ('000)</i>	6425275								344816	392720	340046	458510	75824
	(000)	% <sup>c</sup>	(000)	% <sup>c</sup>	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
Total deaths	58 772		11 888		13 463	45 308	5 087	6 161	2 775	2 856	528		
Total environmental deaths <sup>b</sup>	13 767		4 132		2 317	11 450	1 544	1 604	430	524	113		
% of total deaths	23%		35%		17%	25%	30%	17%	15%	18%	21%		
Lower respiratory infections	1 643	11.9	827	20.0	106	1537	299	281	15	55	20		
Upper respiratory infections and otitis	20	0.1	8	0.2	2	18	2	2	0	0	0		
Diarrhoeal diseases	2 024	14.7	1 690	40.9	42	1 981	485	456	5	41	19		
Malaria	368	2.7	349	8.5	0	368	191	145	0	1	0		
Intestinal nematode infections <sup>d</sup>	6	0.0	6	0.1	0	6	0	0	0	0	1		
Trachoma	0	0.0	0	0.0	0	0	0	0	0	0	0		
Schistosomiasis	41	0.3	2	0.1	0	41	19	17	0	1	0		
Chagas disease	6	0.0	0	0.0	0	6	0	0	0	5	1		
Lymphatic filariasis	0	0.0	0	0.0	0	0	0	0	0	0	0		
Onchocerciasis	0	0.0	0	0.0	0	0	0	0	0	0	0		
Leishmaniasis	12	0.1	6	0.1	0	12	1	1	0	0	0		
Dengue	17	0.1	16	0.4	0	17	0	0	0	1	1		
Japanese encephalitis	10	0.1	9	0.2	0	10	0	0	0	0	0		
HIV/AIDS (>15 years)	193	1.4	n.a.	n.a.	3	189	27	130	1	3	1		
STDs (>15 years) <sup>e</sup>	21	0.2	n.a.	n.a.	0	21	1	1	0	0	0		
Hepatitis B (>15 years)	3	0.0	n.a.	n.a.	0	3	0	0	0	0	0		
Tuberculosis	262	1.9	16	0.4	15	247	28	37	0	5	4		
Perinatal conditions	349	2.5	349	8.5	10	339	53	55	1	11	3		
Congenital anomalies	24	0.2	1	0.0	3	21	3	3	1	2	0		
Malnutrition (only PEM, not consequences of)	68	0.5	68	1.6	0	68	15	24	0	5	3		
Childhood-cluster diseases <sup>g, h</sup>	172	1.2	172	4.2	0	172	43	20	0	0	0		
Meningitis <sup>h</sup>	34	0.2	34	0.8	1	33	7	7	0	0	0		
Cancer, total	1 448	10.5	15	0.4	562	887	42	44	129	86	13		
Lung cancer	404	2.9	0	0.0	186	218	4	4	53	17	1		
Other cancers <sup>i</sup>	1 044	7.6	15	0.4	376	668	39	40	75	69	12		
Neuropsychiatric disorders, total	100	0.7	11	0.3	31	69	9	8	11	6	1		
Depression	1	0.0	0	0.0	0	1	0	0	0	0	0		
Bipolar affective disorder	0	0.0	0	0.0	0	0	0	0	0	0	0		
Schizophrenia	1	0.0	0	0.0	0	1	0	0	0	0	0		
Epilepsy	31	0.2	8	0.2	3	29	6	5	0	1	0		
Alcohol use disorder	9	0.1	0	0.0	3	5	0	0	1	1	0		
Alzheimer and other dementias	20	0.1	0	0.0	11	8	0	0	5	1	0		
Parkinson's disease	5	0.0	0	0.0	3	3	0	0	1	0	0		
Multiple sclerosis	1	0.0	0	0.0	0	0	0	0	0	0	0		
Drug use disorders	3	0.0	0	0.0	1	2	0	0	0	0	0		
Post-traumatic stress disorder	0	0.0	0	0.0	0	0	0	0	0	0	0		
Obsessive-compulsive disorder	0	0.0	0	0.0	0	0	0	0	0	0	0		
Panic disorder	0	0.0	0	0.0	0	0	0	0	0	0	0		
Insomnia	0	0.0	0	0.0	0	0	0	0	0	0	0		
Migraine	0	0.0	0	0.0	0	0	0	0	0	0	0		
Mental retardation, lead-caused	5	0.0	2	0.0	2	3	0	0	1	0	0		
Other	25	0.2	3	0.1	8	17	2	2	3	2	0		

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							Mortality stratum		Mortality stratum		
							Developed countries	Developing countries	High child/high adult	High child/very high adult	Very low child, very low adult
<i>Population ('000)</i>	6425275					344816	392720	340046	458510	75824	
	(000)	% <sup>c</sup>	(000)	% <sup>c</sup>	(000)	(000)	(000)	(000)	(000)	(000)	(000)
Cataracts	0	0.0	0	0.0	0	0	0	0	0	0	0
Deafness	0	0.0	0	0.0	0	0	0	0	0	0	0
Cardiovascular diseases <sup>i</sup>	2 617	19.0	17	0.4	977	1 640	88	90	163	131	15
COPD	1 459	10.6	0	0.0	72	1 386	32	30	19	28	3
Asthma	126	0.9	5	0.1	20	107	13	15	2	4	1
Musculoskeletal diseases, total	15	0.1	0	0.0	5	10	1	1	2	1	0
Low back pain	1	0.0	0	0.0	0	1	0	0	0	0	0
Osteoarthritis	1	0.0	0	0.0	0	1	0	0	0	0	0
Rheumatoid arthritis	4	0.0	0	0.0	1	2	0	0	0	0	0
Other musculoskeletal diseases	9	0.1	0	0.0	3	6	1	1	1	1	0
Road traffic accidents	503	3.7	68	1.6	57	445	36	48	9	38	4
Poisonings	240	1.7	28	0.7	89	151	14	17	15	2	0
Falls	133	1.0	11	0.3	33	100	3	3	6	5	0
Fires	22	0.2	5	0.1	2	20	2	2	0	0	0
Drownings	281	2.0	99	2.4	30	251	20	26	2	11	2
Other unintentional injuries	510	3.7	117	2.8	94	416	24	31	8	19	10
Suicide	245	1.8	4	0.1	49	195	2	3	10	5	0
Violence	112	0.8	6	0.1	15	97	11	23	3	24	2

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**Updated data for 2004, from "Preventing disease through healthy environments", WHO 2006.**

Disease/disease group <sup>a</sup>	EASTERN MEDITERRANEAN		EUROPE			SOUTH-EAST ASIA		WESTERN PACIFIC	
	Mortality stratum		Mortality stratum			Mortality stratum		Mortality stratum	
	Low child, low adult	High child/high adult	Very low child, very low adult	Low child, low adult	Low child, high adult	Low child, low adult	High child/high adult	Very low child, very low adult	Low child, low adult
Population ('000)	145753	373934	422026	223210	238074	304830	1367074	156569	1581888
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
Total deaths	706	3 600	3 968	1 897	3 628	2 741	12 539	1 196	10 995
Total environmental deaths <sup>b</sup>	143	898	603	368	719	597	3 265	197	2 762
% of total deaths	20%	25%	15%	19%	20%	22%	26%	16%	25%
Lower respiratory infections	11	158	25	27	19	69	502	21	141
Upper respiratory infections and otitis	0	2	0	1	1	1	5	0	6
Diarrhoeal diseases	13	226	4	28	4	47	593	1	100
Malaria	0	14	0	0	0	2	14	0	2
Intestinal nematode infections <sup>d</sup>	0	1	0	0	0	0	3	0	1
Trachoma	0	0	0	0	0	0	0	0	0
Schistosomiasis	1	3	0	0	0	0	0	0	0
Chagas disease	0	0	0	0	0	0	0	0	0
Lymphatic filariasis	0	0	0	0	0	0	0	0	0
Onchocerciasis	0	0	0	0	0	0	0	0	0
Leishmaniasis	0	1	0	0	0	0	8	0	0
Dengue	0	1	0	0	0	2	8	0	4
Japanese encephalitis	0	0	0	0	0	1	7	0	3
HIV/AIDS (>15 years)	0	2	0	0	2	7	17	0	3
STDs (>15 years) <sup>e</sup>	0	0	0	0	0	0	3	0	1
Hepatitis B (>15 years)	0	0	0	0	0	0	1	0	0
Tuberculosis	1	20	1	3	10	21	76	1	56
Perinatal conditions	4	42	1	6	2	8	124	0	38
Congenital anomalies	1	3	1	1	1	1	6	0	3
Malnutrition (only PEM, not consequences of)	1	9	0	0	0	1	7	0	3
Childhood-cluster diseases <sup>g, h</sup>	0	21	0	0	0	3	84	0	2
Meningitis <sup>h</sup>	0	5	0	0	0	1	10	0	3
Cancer, total	14	42	202	65	97	59	169	69	415
Lung cancer	2	8	63	22	28	16	33	20	133
Other cancers <sup>i</sup>	12	34	140	42	69	43	136	49	283
Neuropsychiatric disorders, total	2	8	12	3	4	5	17	2	14
Depression	0	0	0	0	0	0	1	0	0
Bipolar affective disorder	0	0	0	0	0	0	0	0	0
Schizophrenia	0	0	0	0	0	0	1	0	0
Epilepsy	0	2	1	1	1	1	6	0	6
Alcohol use disorder	0	0	1	0	1	0	1	0	1
Alzheimer and other dementias	0	0	5	0	0	0	3	0	3
Parkinson's disease	0	0	1	0	0	0	0	0	2
Multiple sclerosis	0	0	0	0	0	0	0	0	0
Drug use disorders	0	1	0	0	0	0	1	0	0
Post-traumatic stress disorder	0	0	0	0	0	0	0	0	0
Obsessive-compulsive disorder	0	0	0	0	0	0	0	0	0
Panic disorder	0	0	0	0	0	0	0	0	0
Insomnia	0	0	0	0	0	0	0	0	0
Migraine	0	0	0	0	0	0	0	0	0
Mental retardation, lead-caused	0	2	0	0	0	0	0	0	0
Other	0	2	3	1	1	2	4	1	2

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Disease/disease group <sup>a</sup>	EASTERN MEDITERRANEAN		EUROPE			SOUTH-EAST ASIA		WESTERN PACIFIC	
	Mortality stratum		Mortality stratum			Mortality stratum		Mortality stratum	
	Low child, low adult	High child/high adult	Very low child, very low adult	Low child, low adult	Low child, high adult	Low child, low adult	High child/high adult	Very low child, very low adult	Low child, low adult
Population ('000)	145753	373934	422026	223210	238074	304830	1367074	156569	1581888
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
Cataracts	0	0	0	0	0	0	0	0	0
Deafness	0	0	0	0	0	0	0	0	0
Cardiovascular diseases <sup>i</sup>	44	131	246	162	345	96	493	60	552
COPD	2	43	19	16	13	54	358	5	837
Asthma	3	7	4	4	9	10	35	2	20
Musculoskeletal diseases, total	0	0	2	0	1	1	1	1	3
Low back pain	0	0	0	0	0	0	0	0	0
Osteoarthritis	0	0	0	0	0	0	0	0	0
Rheumatoid arthritis	0	0	0	0	0	0	1	0	1
Other musculoskeletal diseases	0	0	1	0	0	1	1	0	2
Road traffic accidents	21	39	10	11	26	28	98	2	133
Poisonings	2	10	5	4	64	5	61	1	40
Falls	1	6	14	4	7	5	35	2	40
Fires	0	2	0	0	1	1	12	0	1
Drownings	3	18	2	5	17	11	62	3	97
Other unintentional injuries	8	26	12	11	56	105	128	6	65
Suicide	1	6	11	4	17	13	76	7	88
Violence	1	4	1	1	10	5	17	0	11

#### Notes

Other diseases considered in this analysis but not listed in Table A2.3 include hepatitis C, leprosy and diabetes mellitus, as their environmental contributions to the disease burden are negligible and/or they are secondary to another risk factor.

These estimates are not formal WHO estimates (data based on literature review, comparative risk assessment and expert survey).

- a Abbreviations: COPD = chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; STDs = sexually transmitted diseases
- b Total of all deaths attributable to environmental risk factors. Subtotals for the diseases/disease groups do not add up to 100% because minor diseases are not listed.
- c Percentage of all deaths attributable to environmental risk factors.
- d Intestinal nematode infections include ascariasis, trichuriasis and hookworm disease in this analysis.
- e STDs include syphilis, chlamydia and gonorrhoea in this analysis.
- f Totals include only deaths attributable to protein-energy malnutrition, and not those caused by the consequences of malnutrition.
- g Childhood cluster diseases include pertussis, poliomyelitis, diphtheria, measles and tetanus in this analysis.
- h Induced by malnutrition related to the environment.
- i Other cancers include the 16 other cancer categories as listed in the World Health Report 2004.
- j Cardiovascular diseases include rheumatic heart disease, hypertensive heart disease, ischaemic heart disease, cerebrovascular disease and inflammatory heart disease in this analysis.