

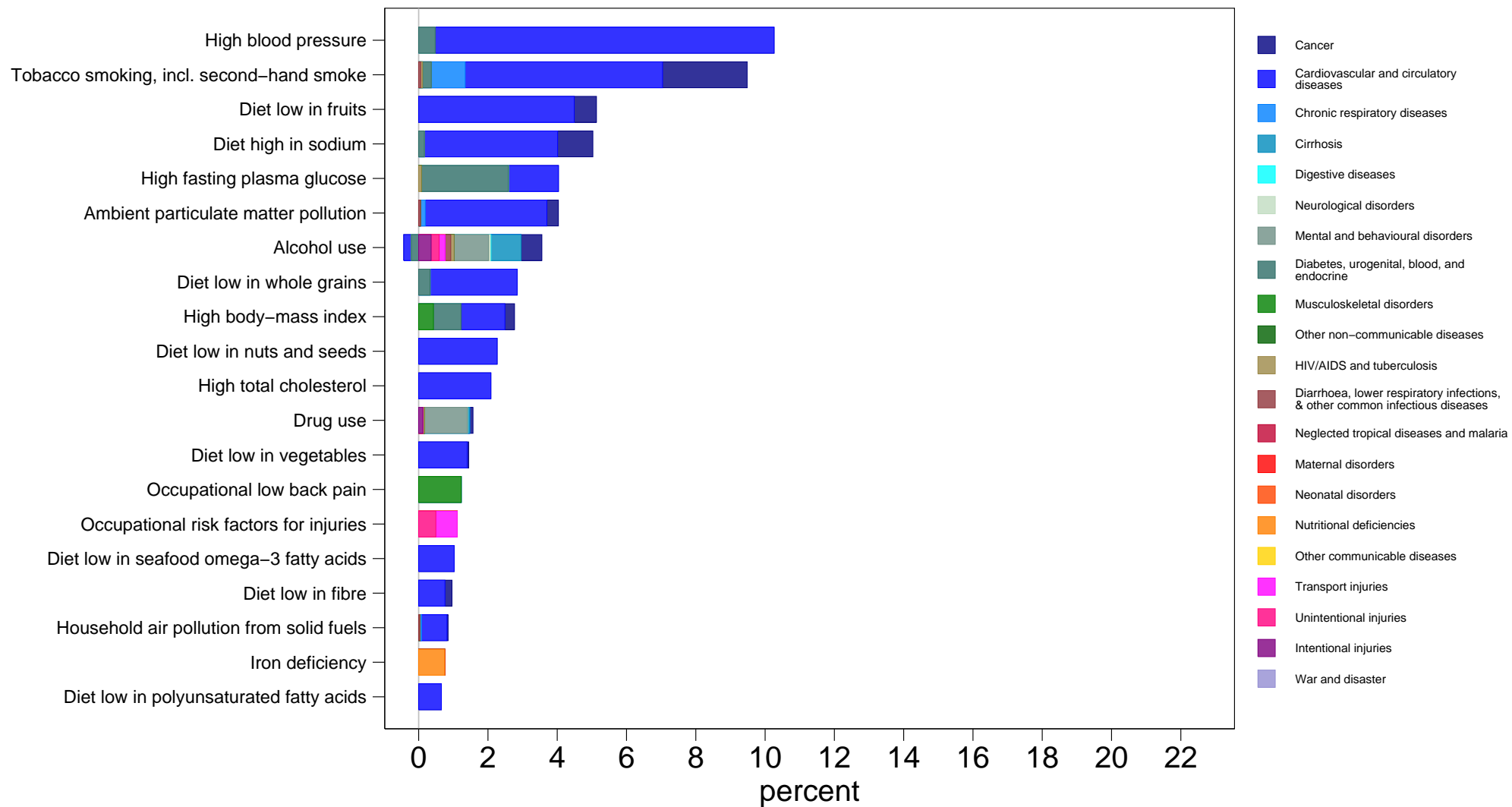
Appendix to A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010

This appendix provides supplemental figures and more detailed results for deaths and disability-adjusted life years (DALYs) attributable to risk factors.

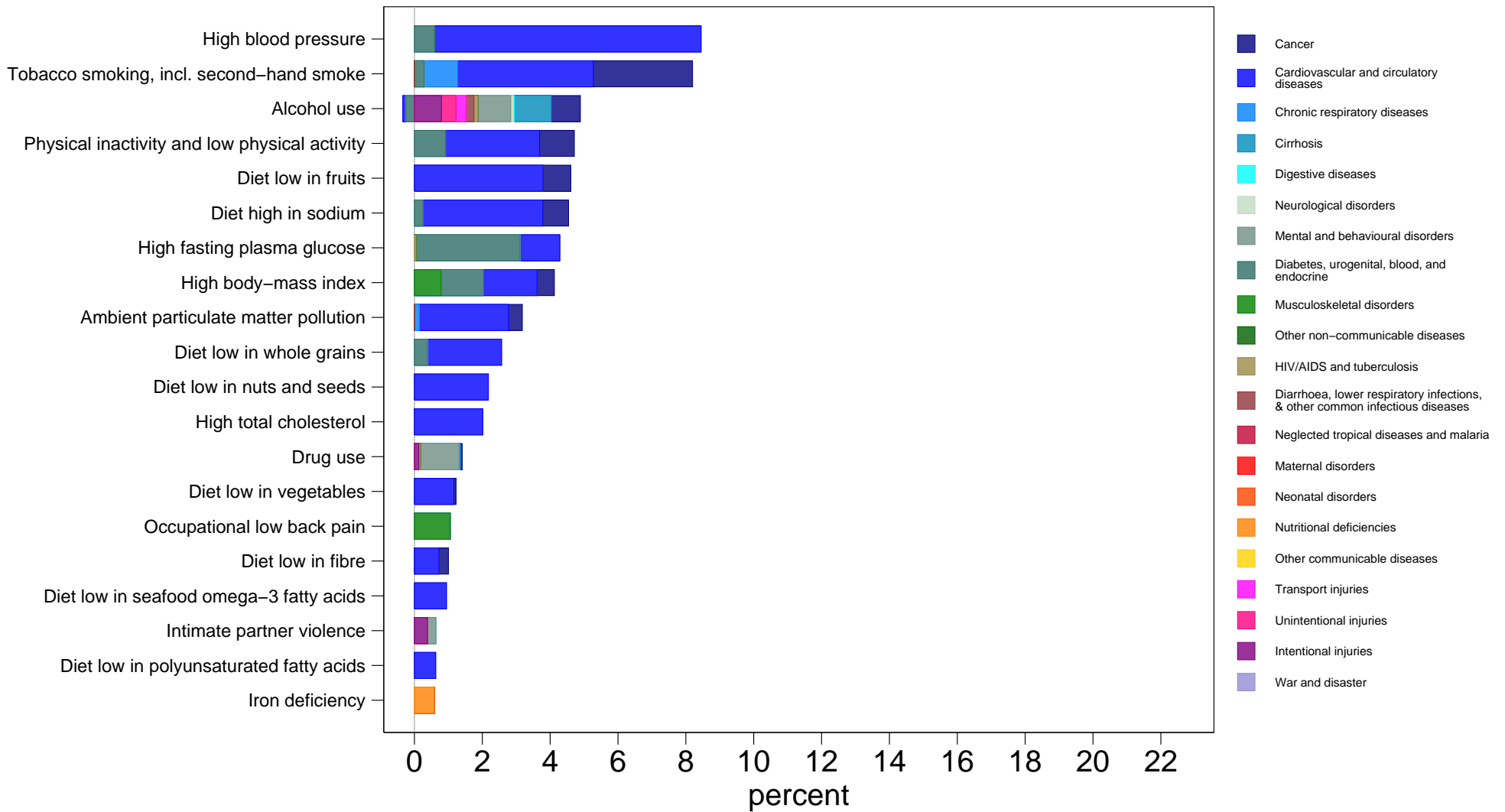
Table of contents

Web figure 1: Burden of disease attributable to the 20 leading risk factors, expressed as the percent of regional DALYs, by region, both sexes combined, 1990 and 2010	2
Web figure 2: Risk factors ranked by attributable burden of disease	44
Web table 1: Global deaths attributable to risk factors by age and sex in 2010	45
Web table 2: Global deaths attributable to risk factors by age and sex in 1990	72
Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010	99
Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990	126

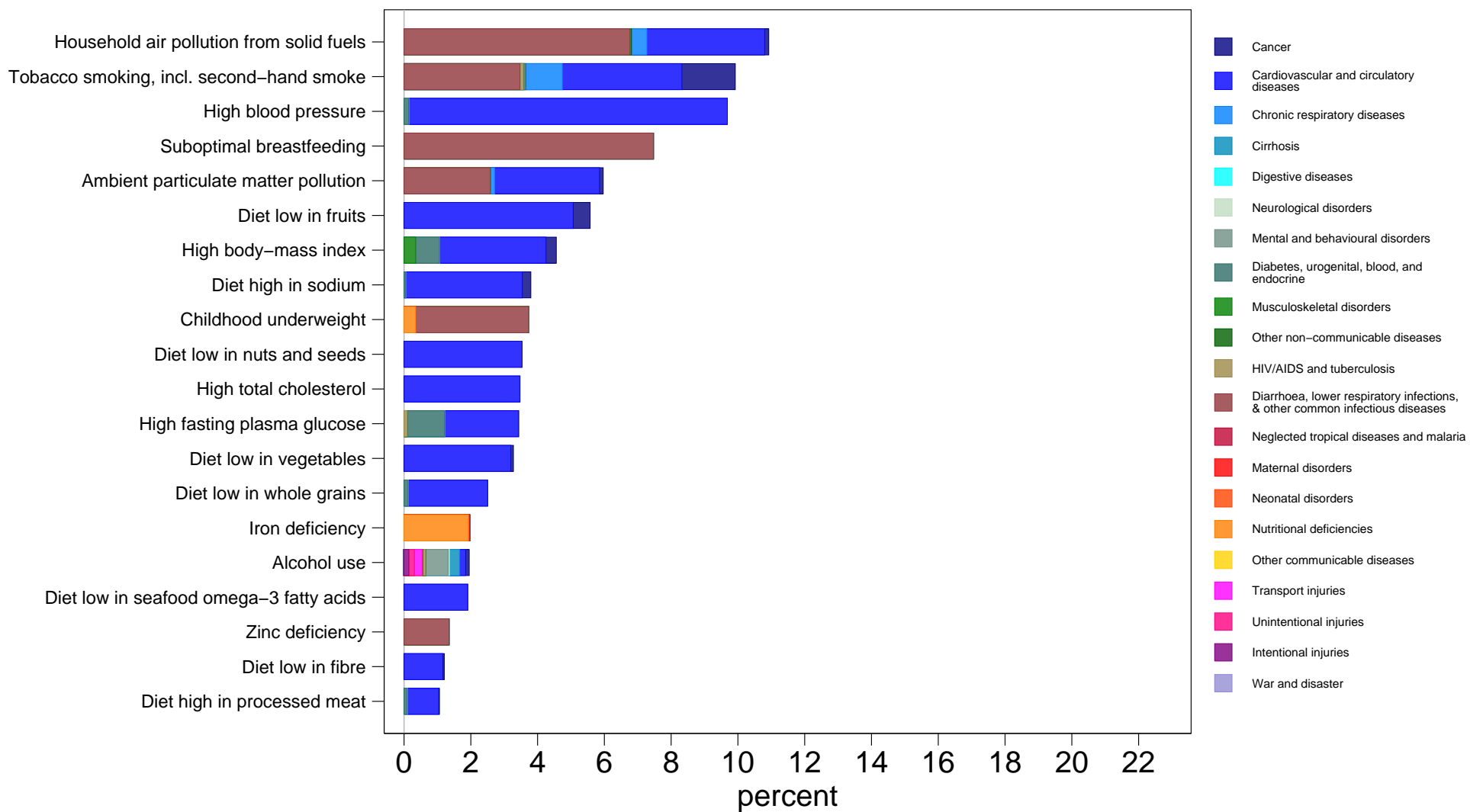
Web Figure 1: Percent of High-income Asia Pacific DALYs, 1990



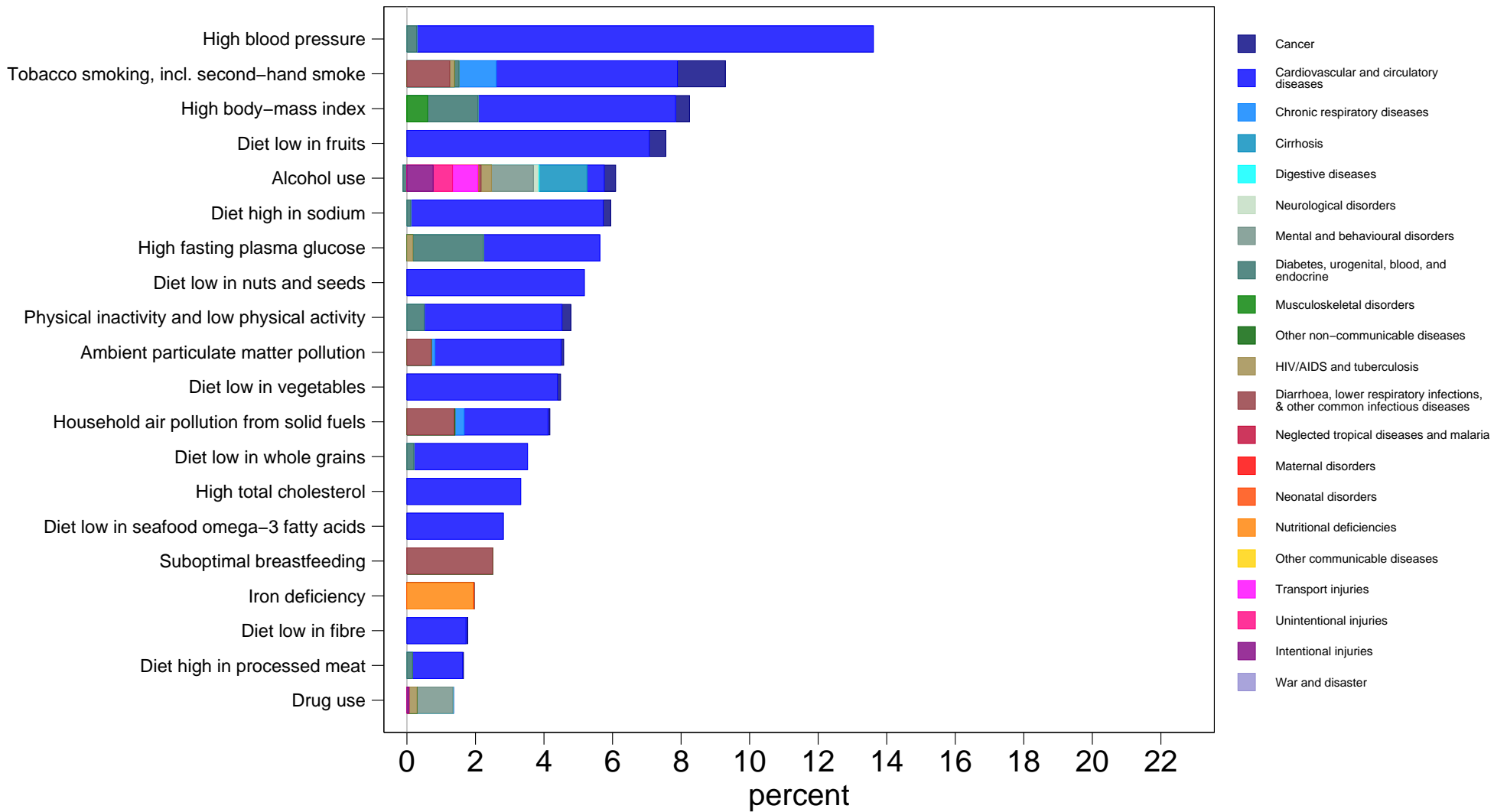
Web Figure 1: Percent of High-income Asia Pacific DALYs, 2010



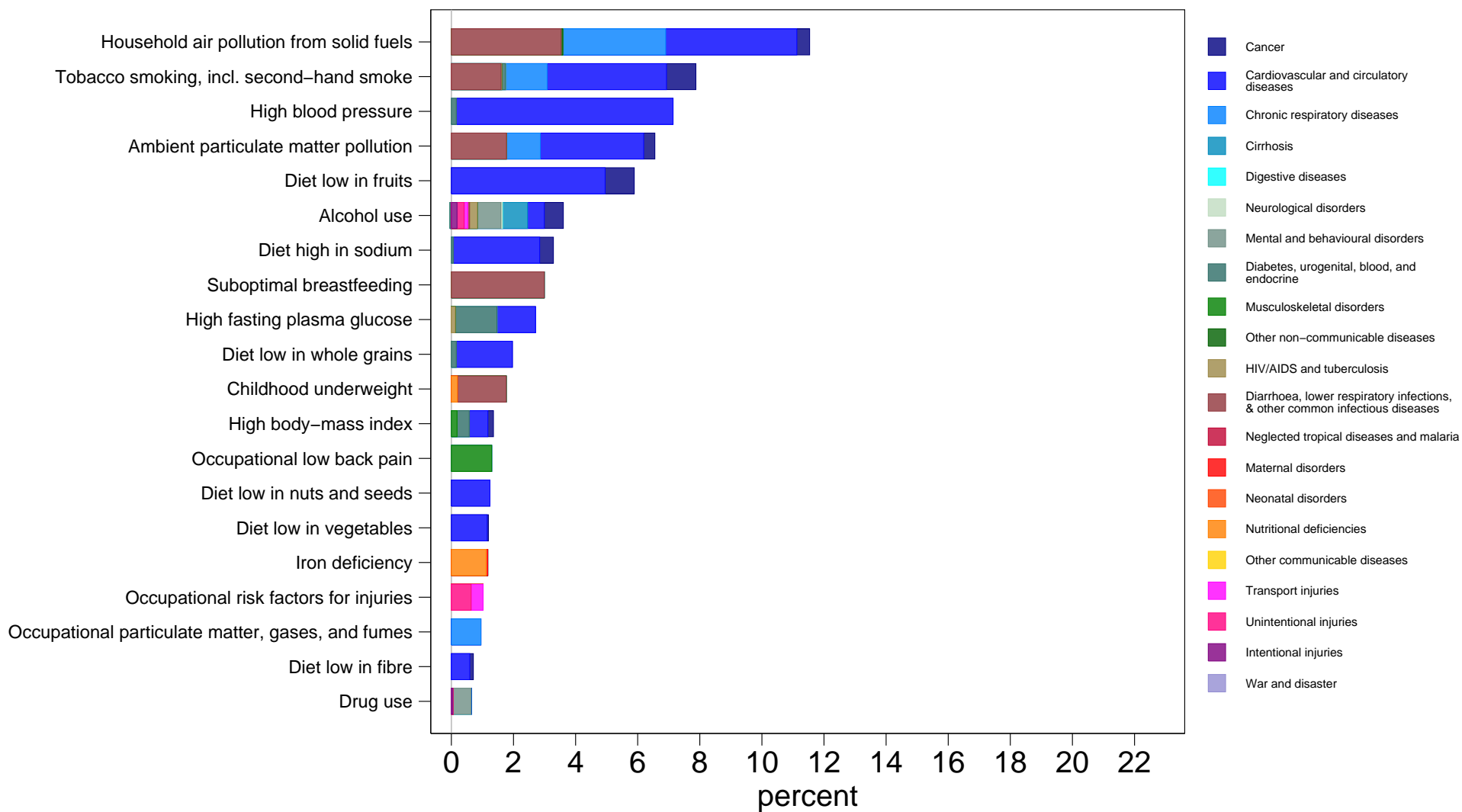
Web Figure 1: Percent of Central Asia DALYs, 1990



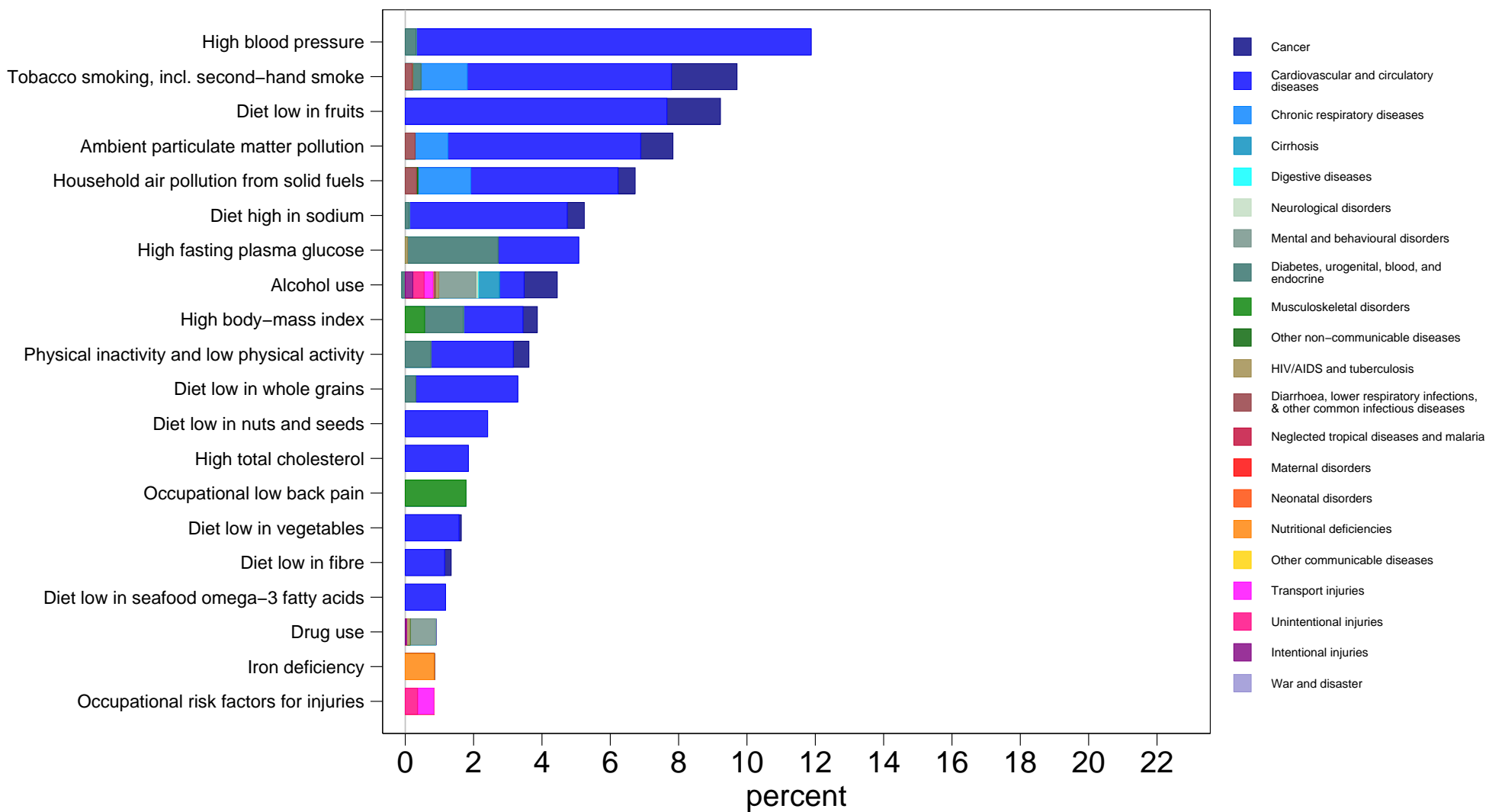
Web Figure 1: Percent of Central Asia DALYs, 2010



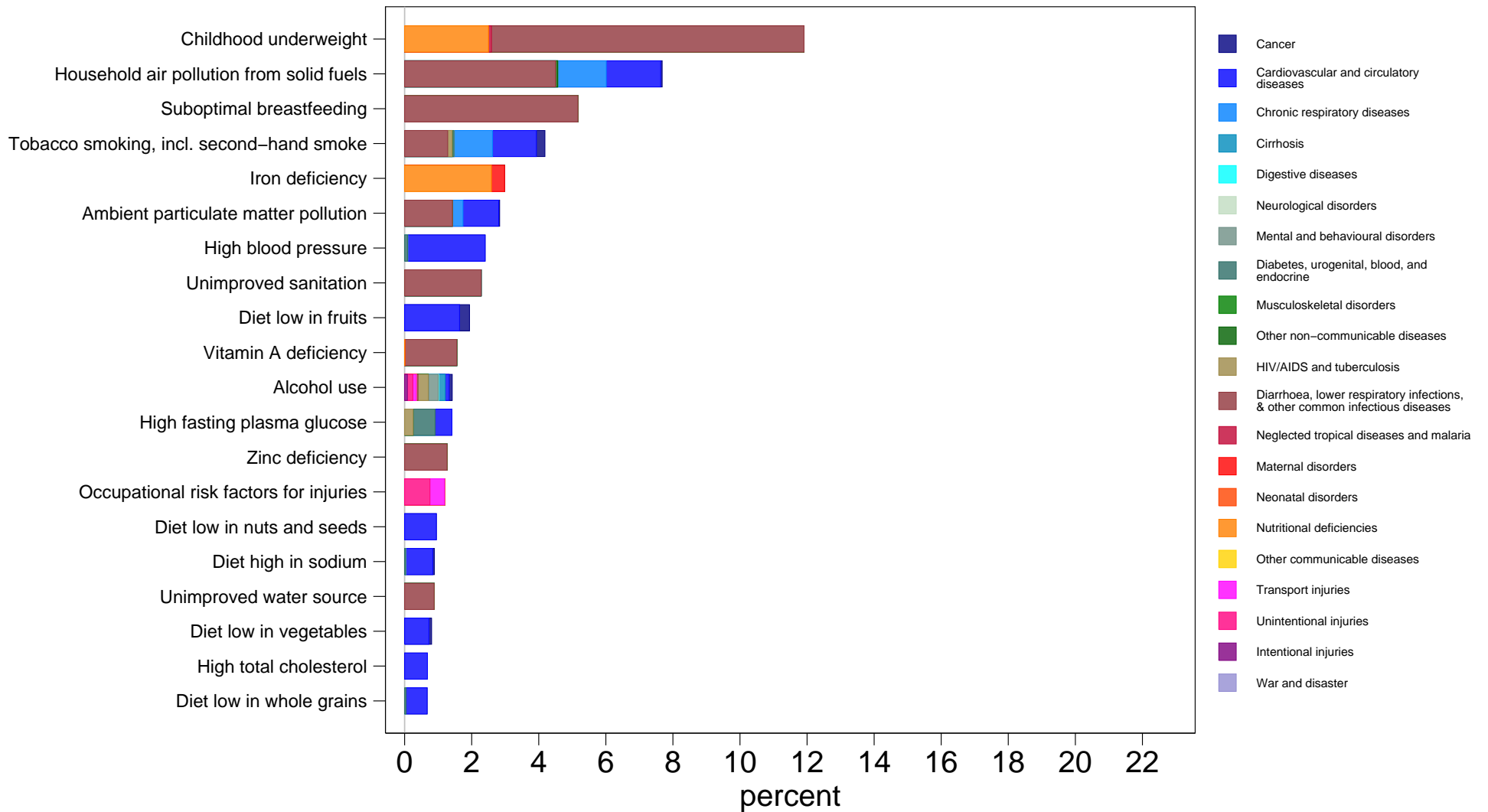
Web Figure 1: Percent of East Asia DALYs, 1990



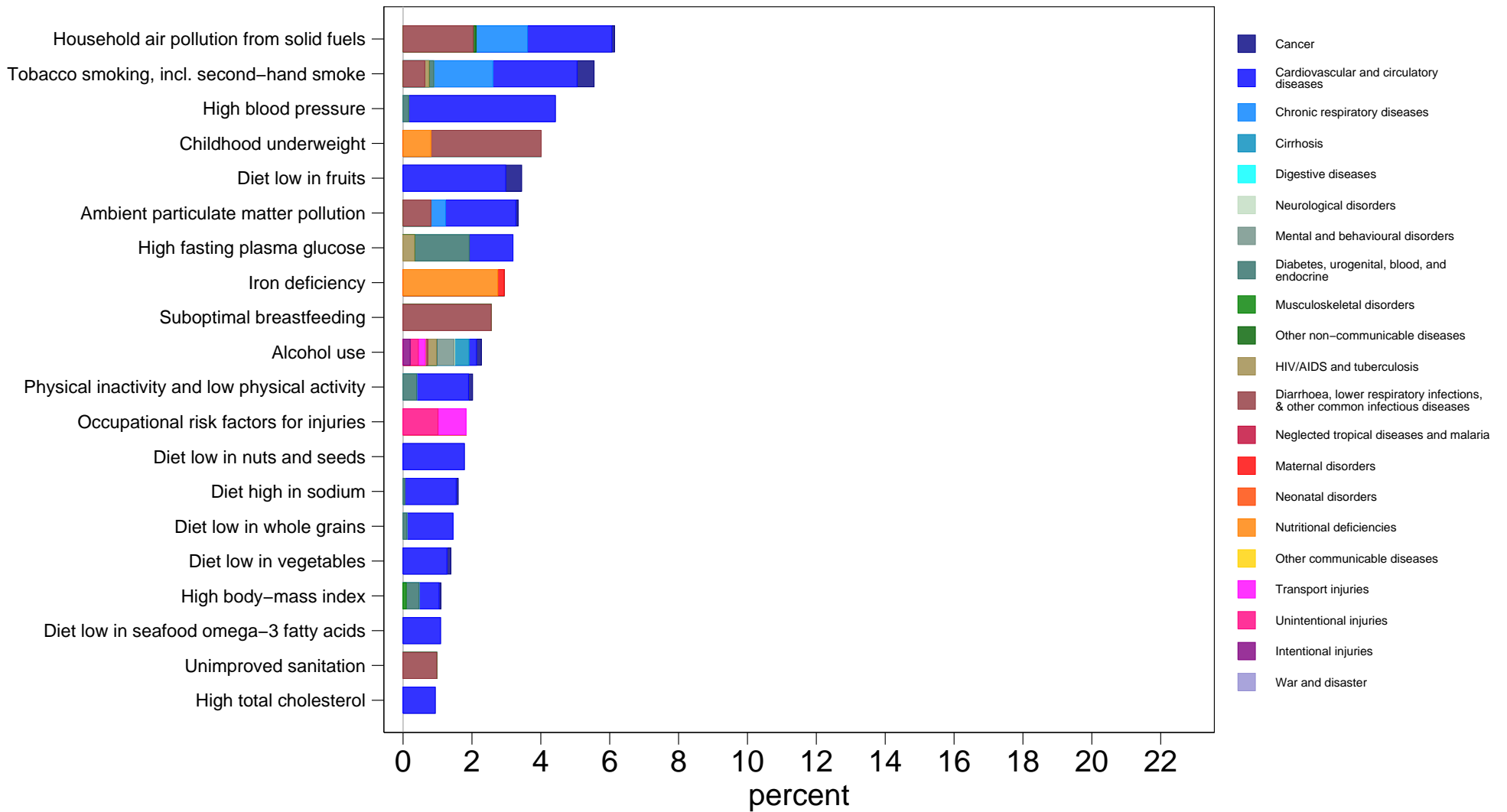
Web Figure 1: Percent of East Asia DALYs, 2010



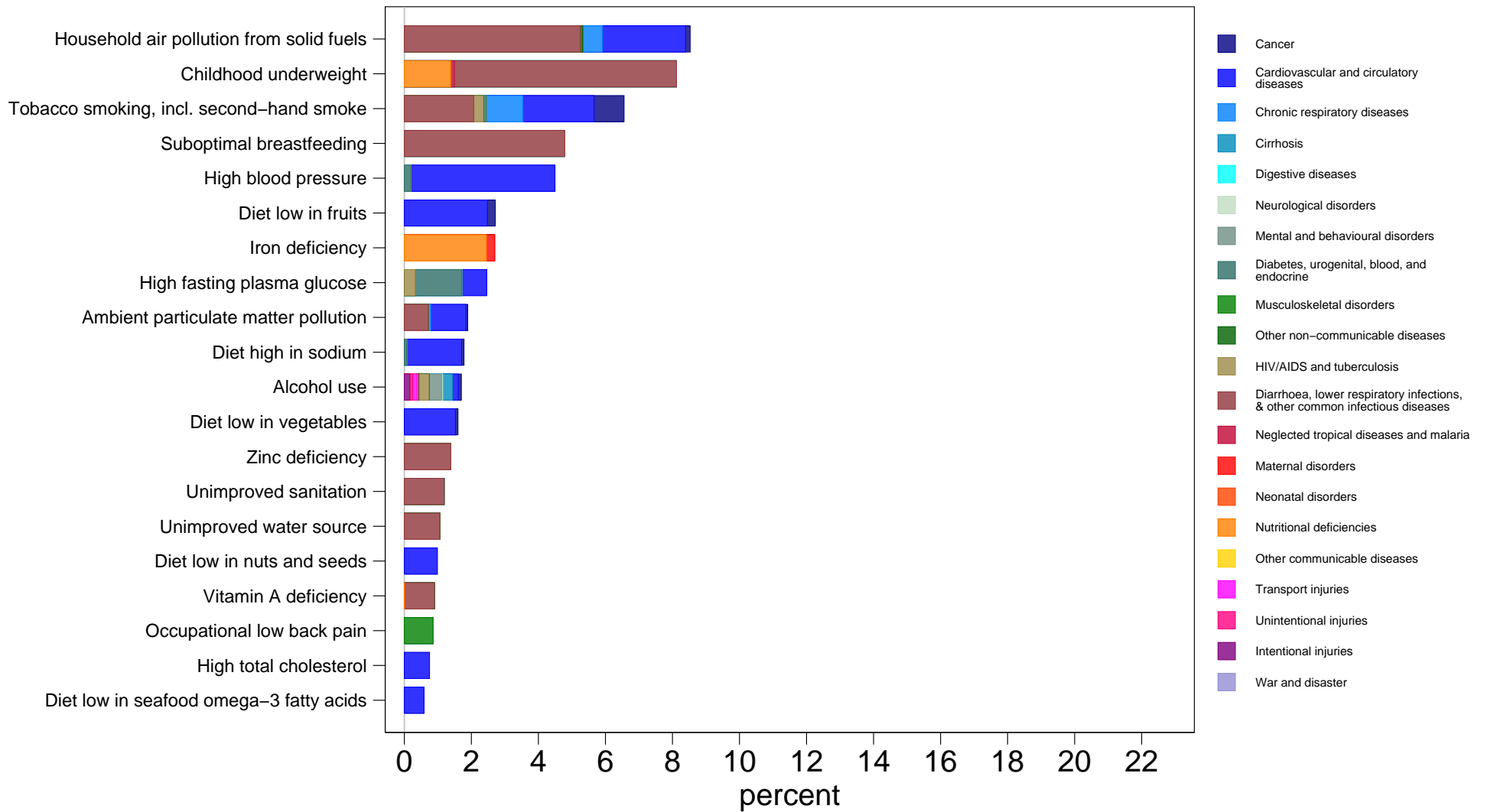
Web Figure 1: Percent of South Asia DALYs, 1990



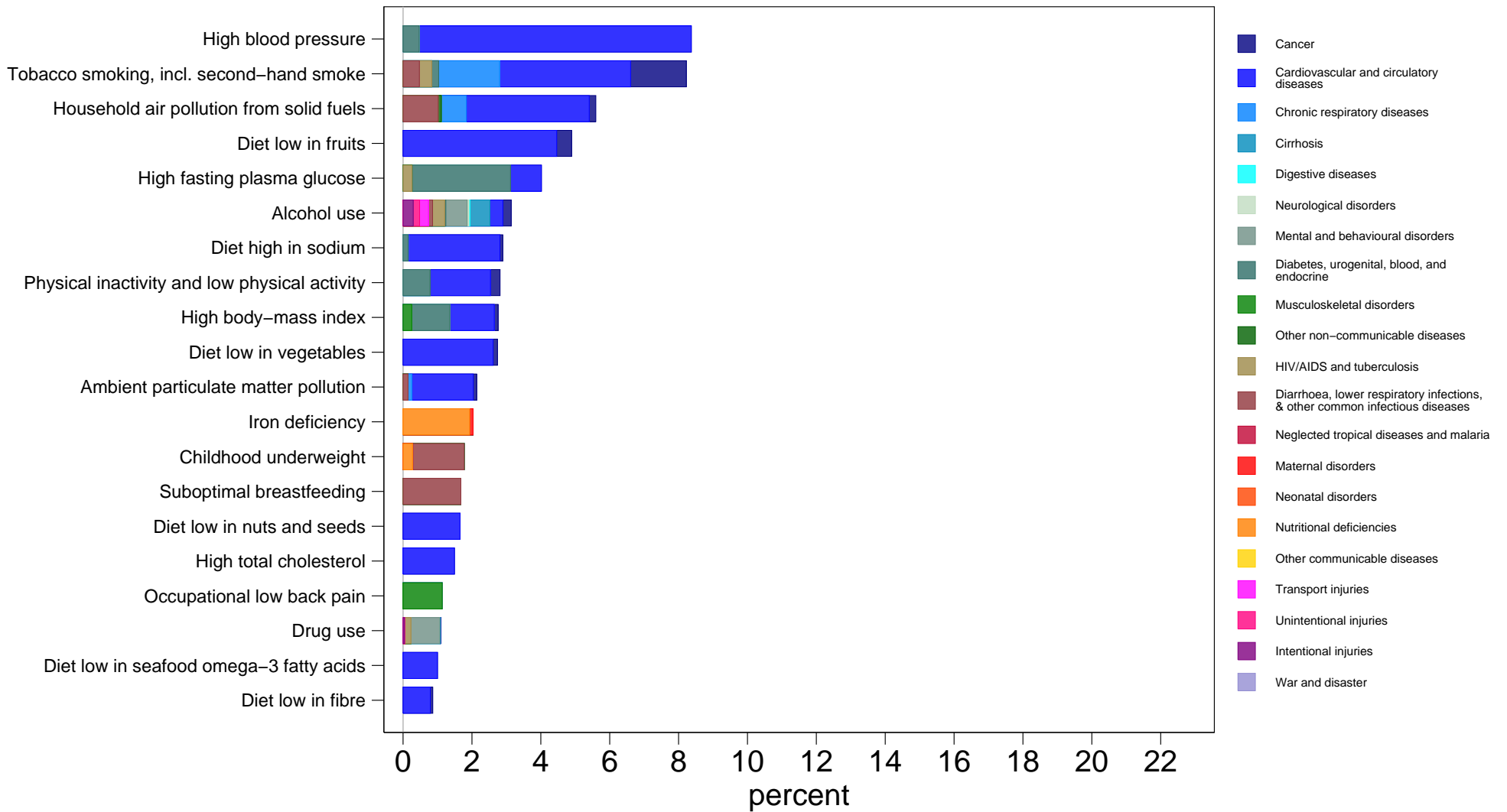
Web Figure 1: Percent of South Asia DALYs, 2010



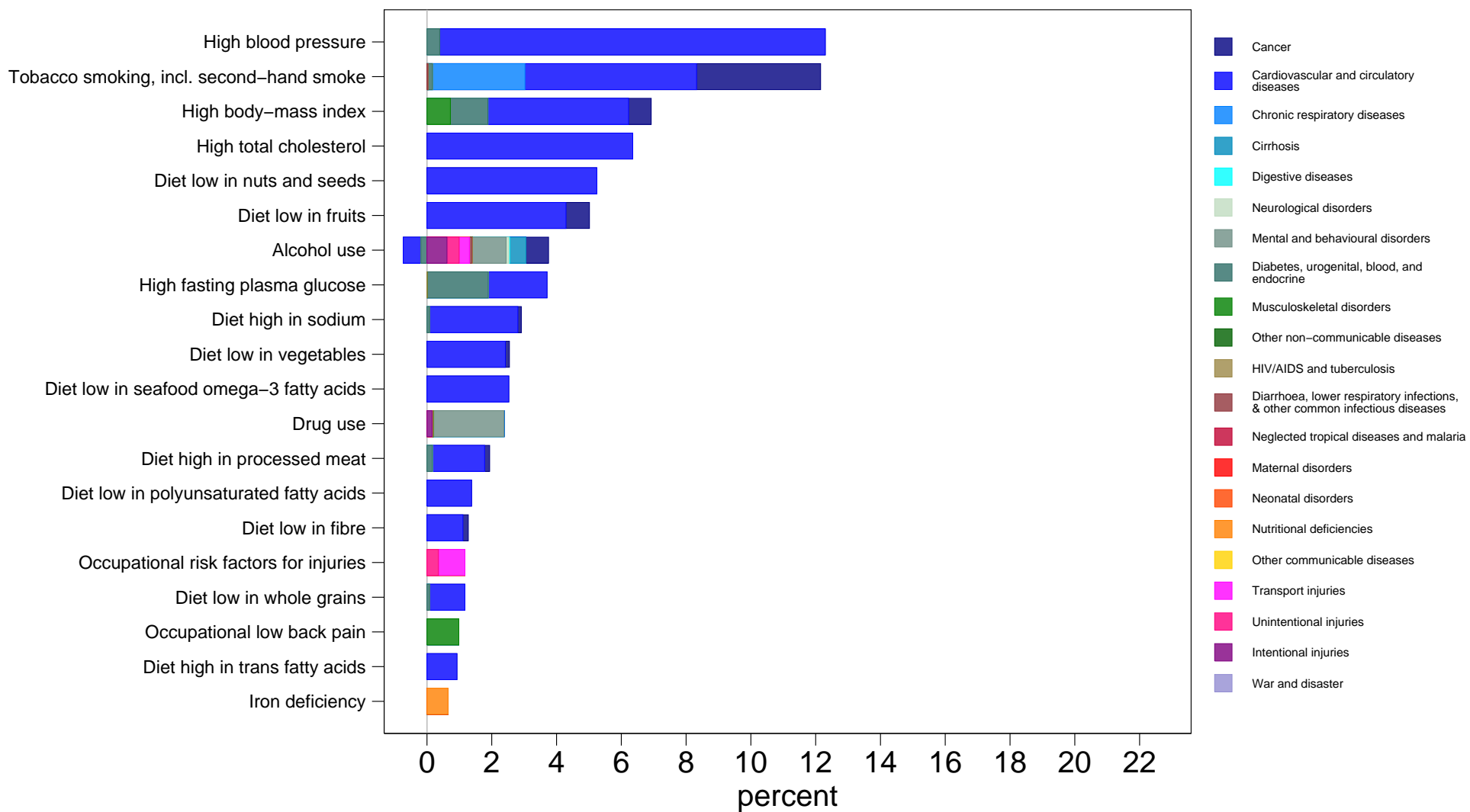
Web Figure 1: Percent of Southeast Asia DALYs, 1990



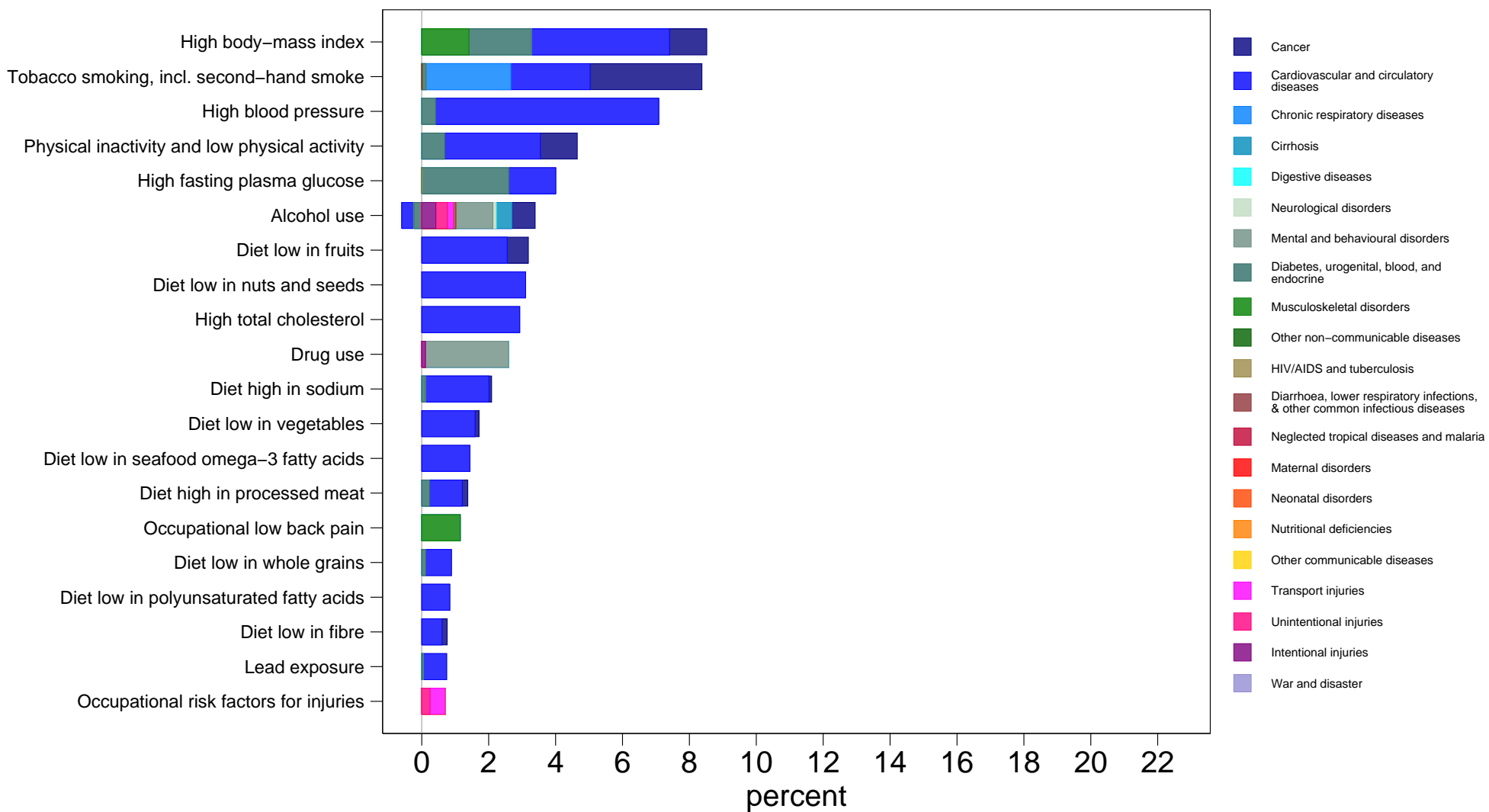
Web Figure 1: Percent of Southeast Asia DALYs, 2010



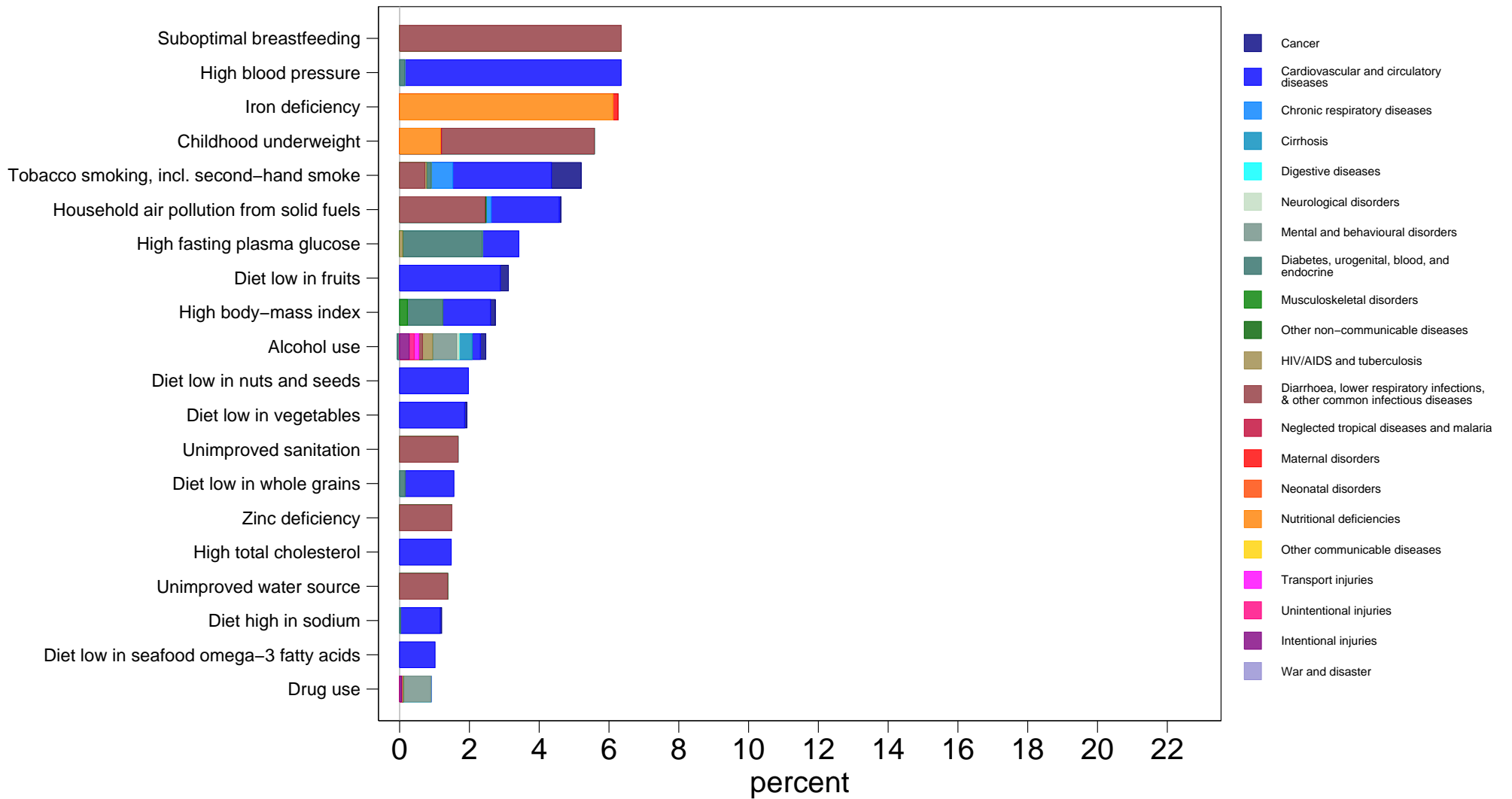
Web Figure 1: Percent of Australasia DALYs, 1990



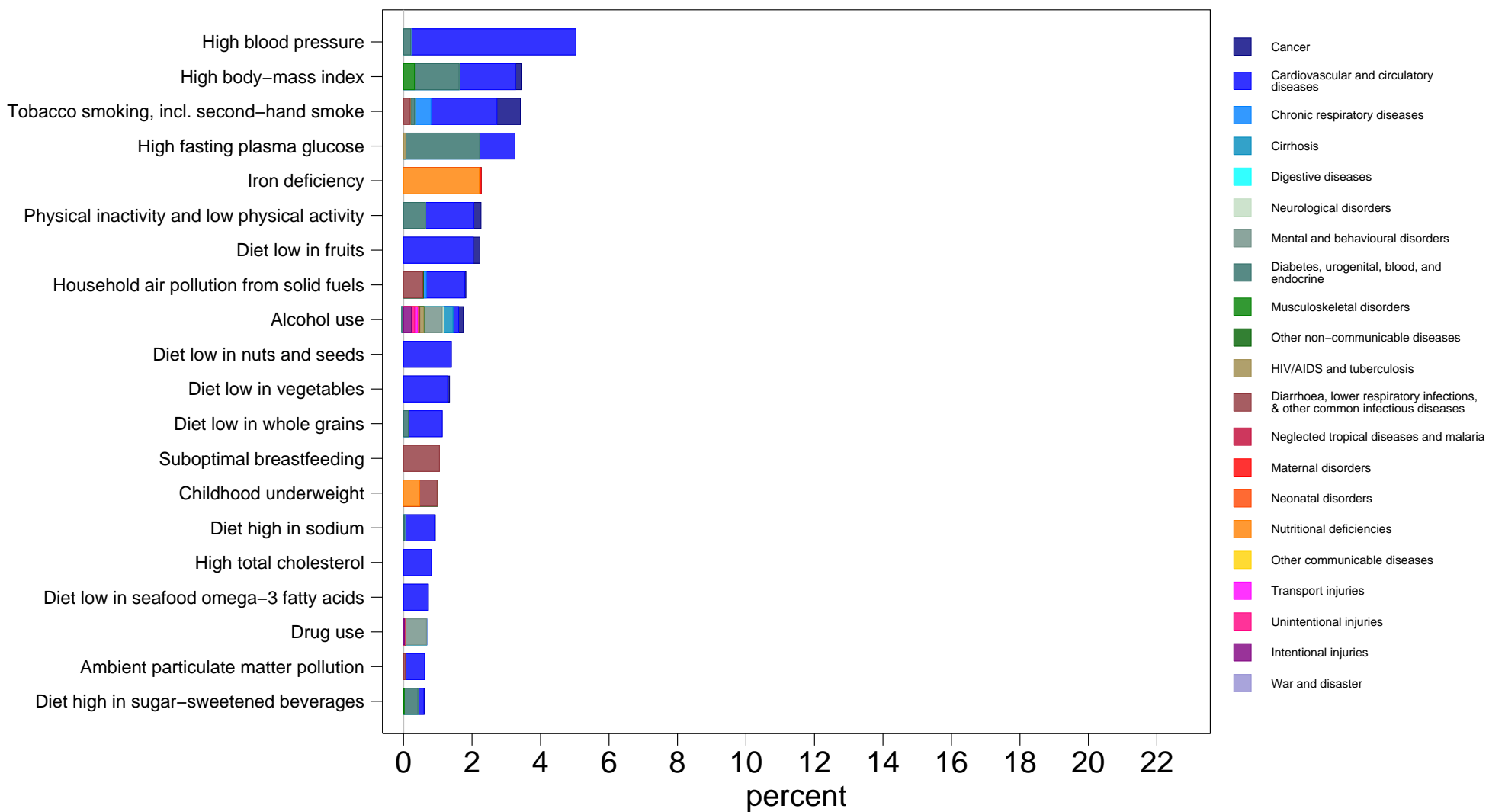
Web Figure 1: Percent of Australasia DALYs, 2010



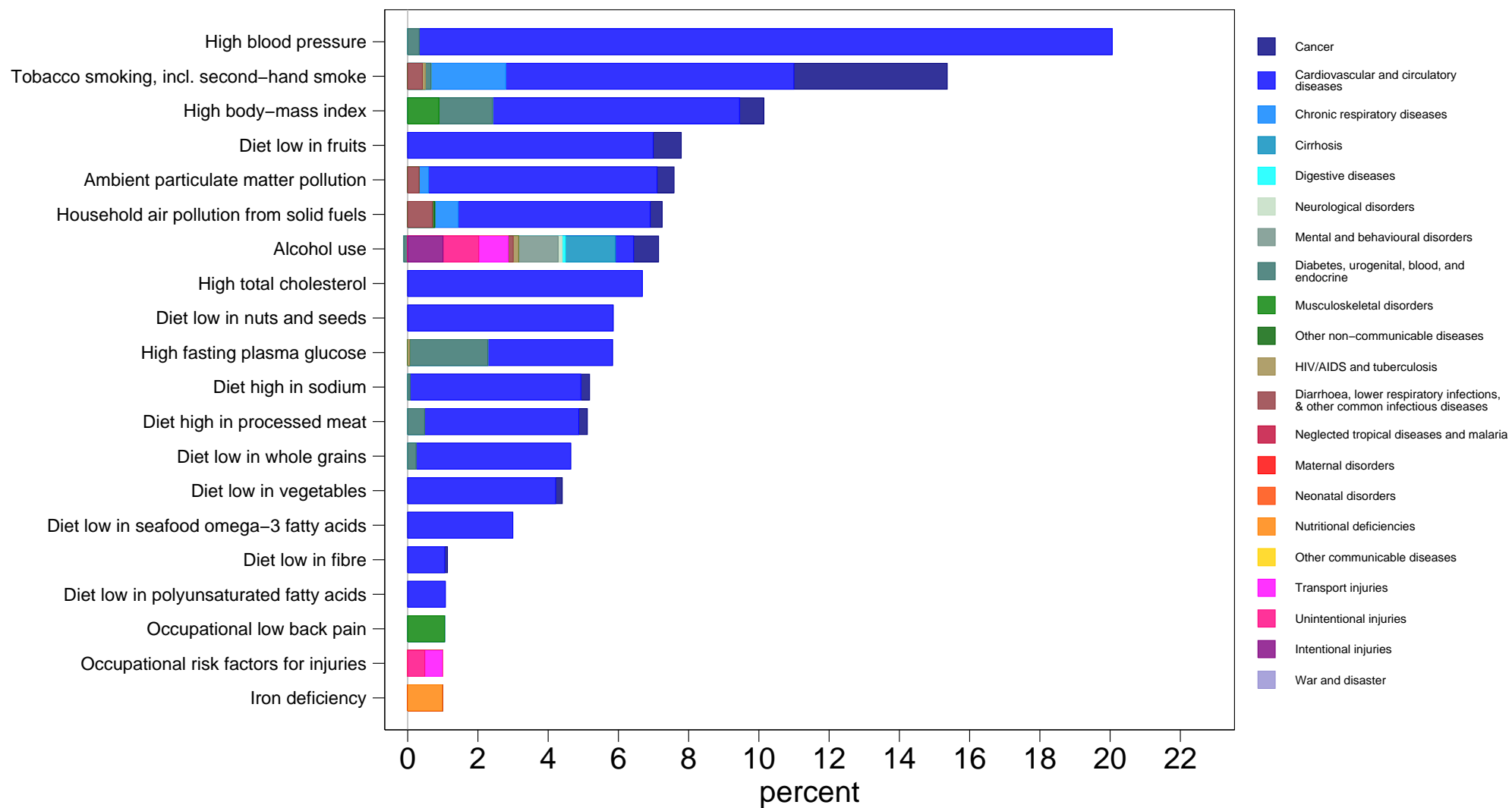
Web Figure 1: Percent of Caribbean DALYs, 1990



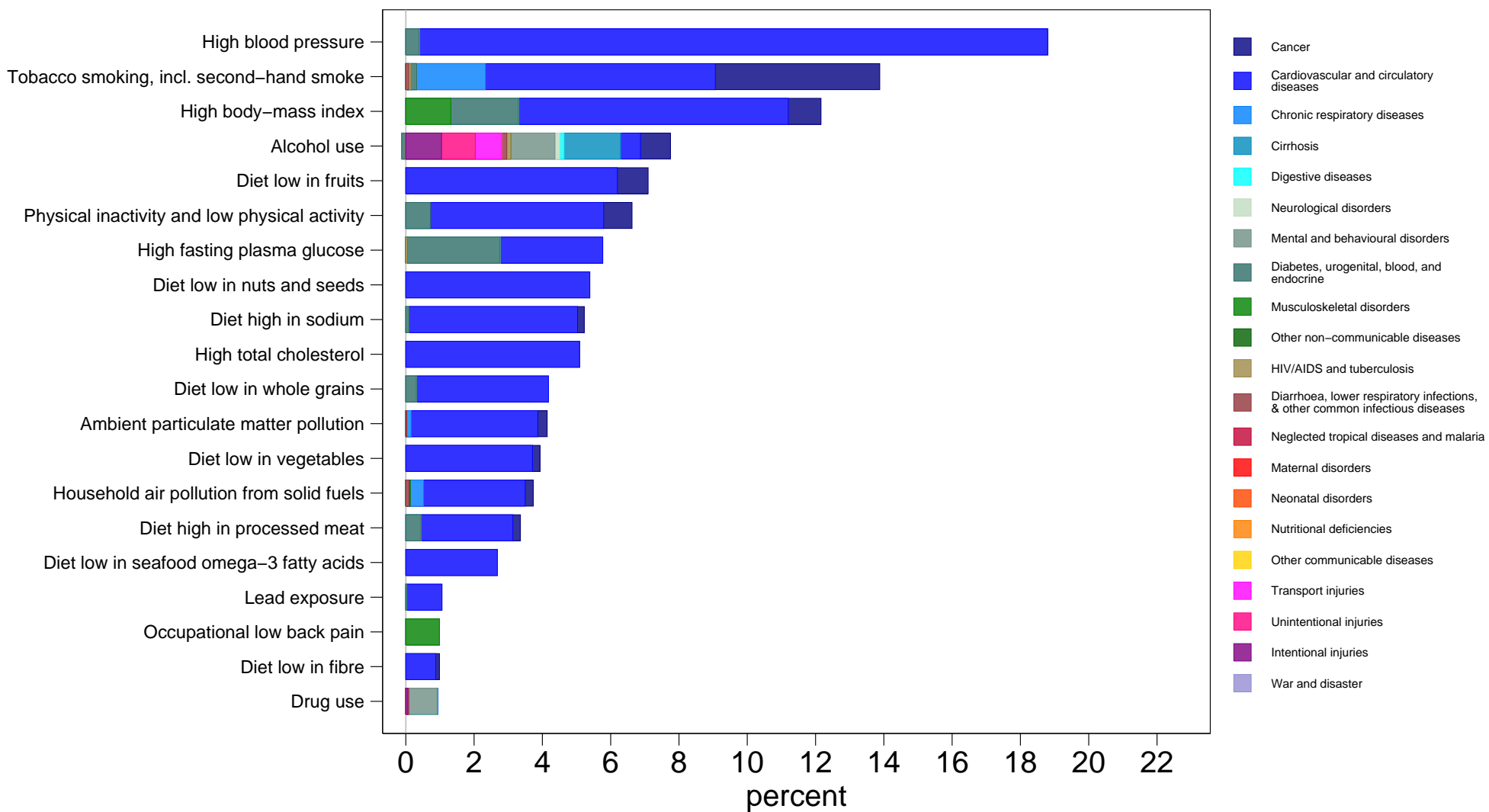
Web Figure 1: Percent of Caribbean DALYs, 2010



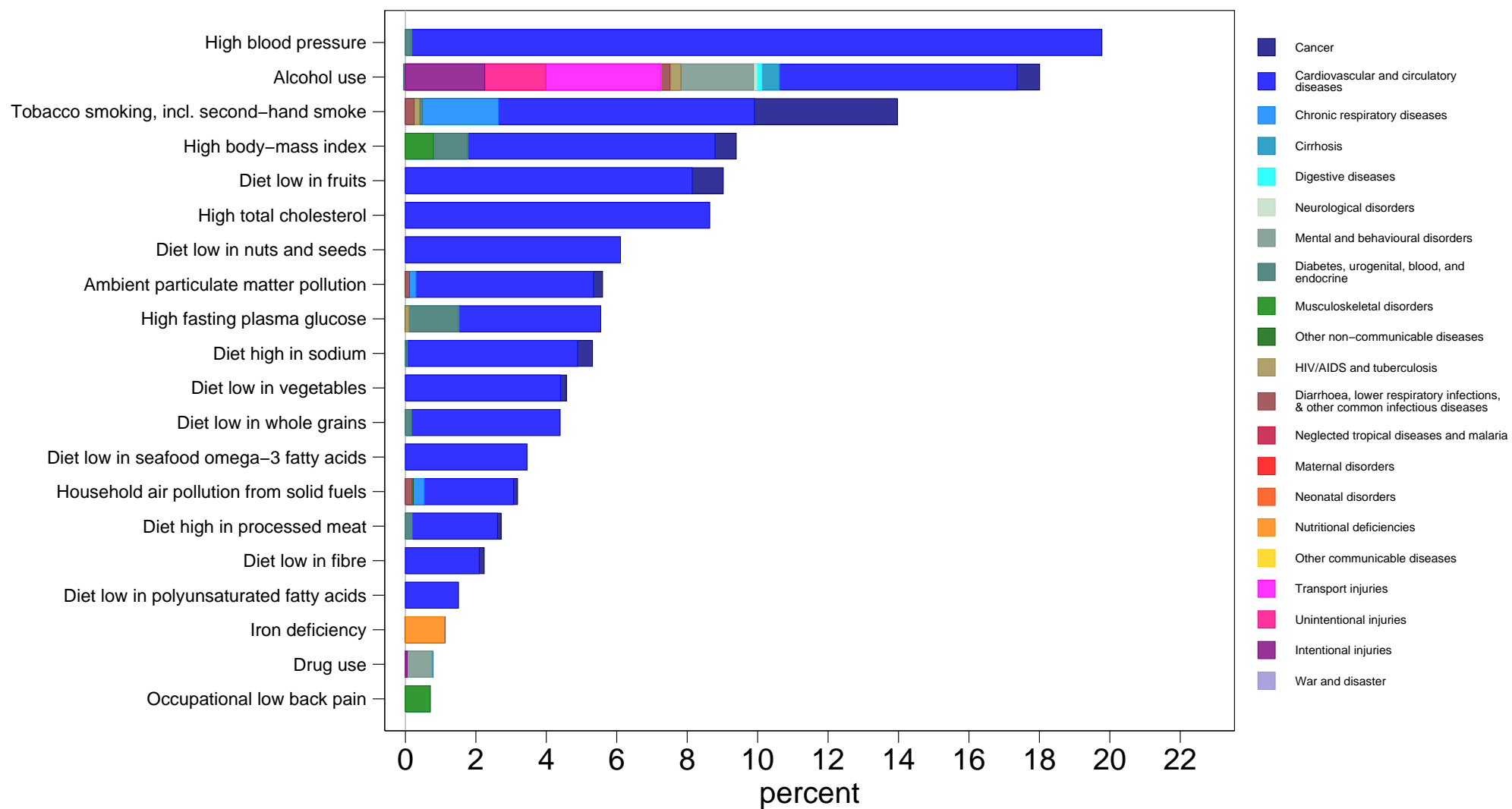
Web Figure 1: Percent of Central Europe DALYs, 1990



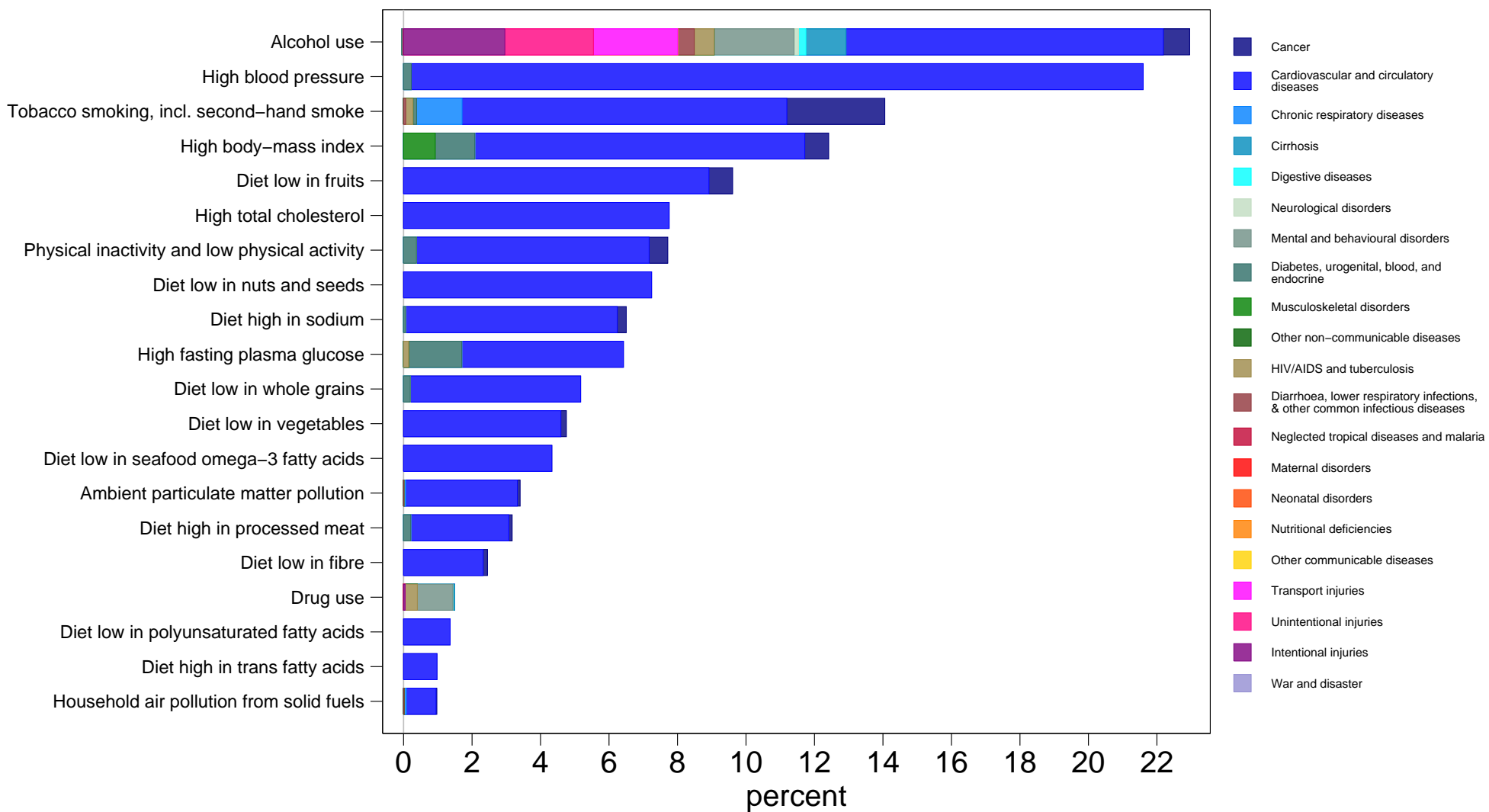
Web Figure 1: Percent of Central Europe DALYs, 2010



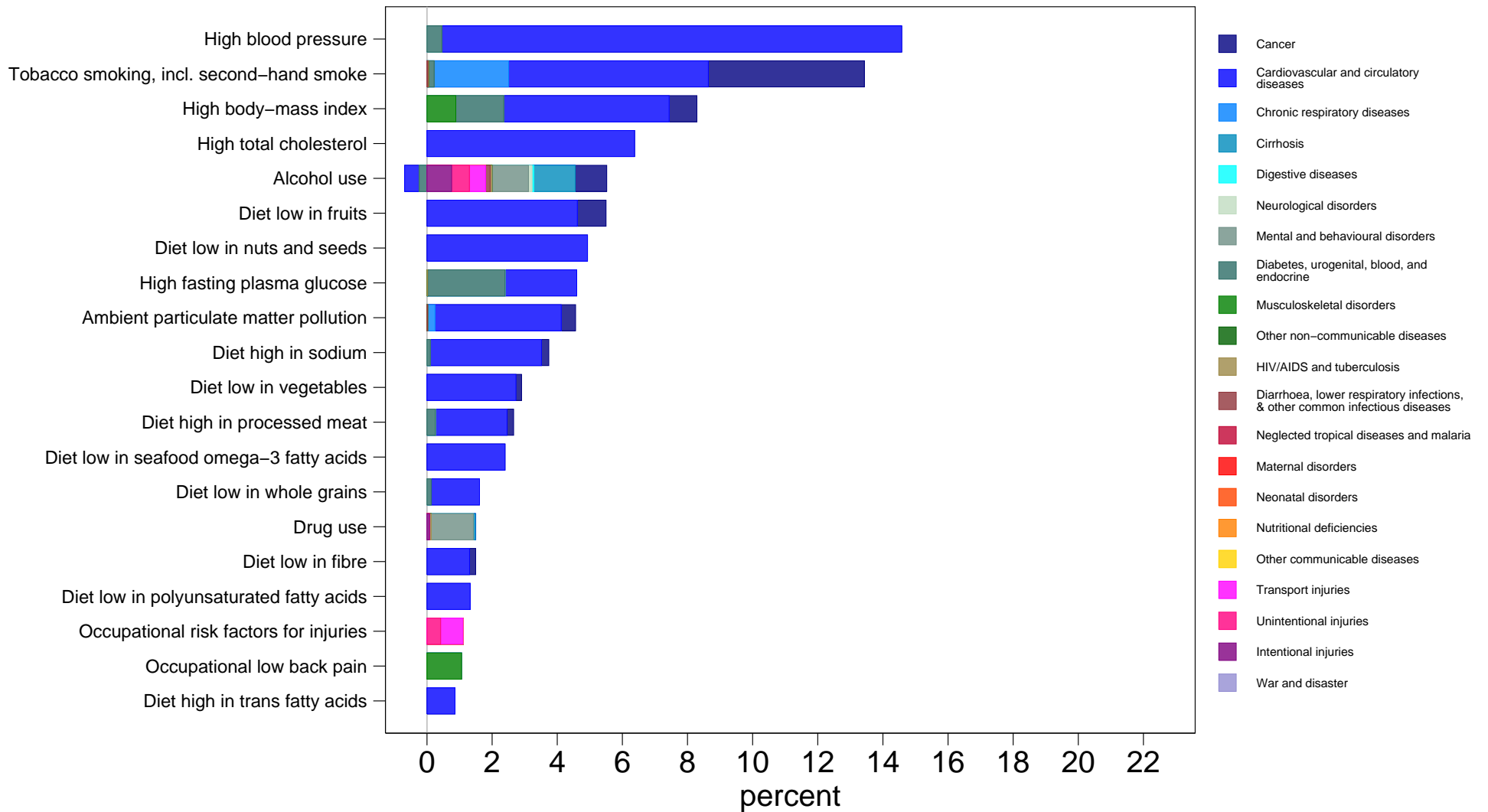
Web Figure 1: Percent of Eastern Europe DALYs, 1990



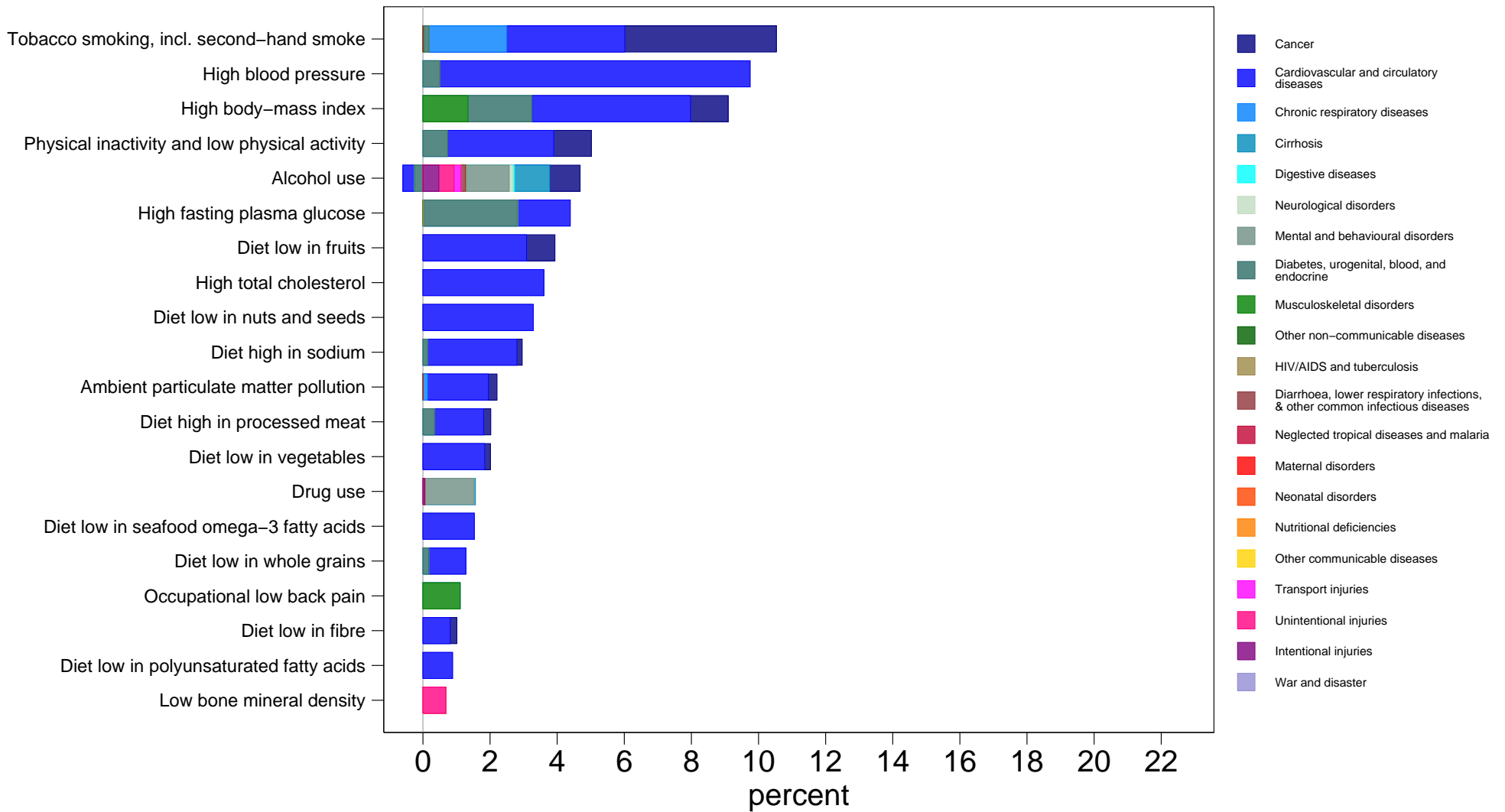
Web Figure 1: Percent of Eastern Europe DALYs, 2010



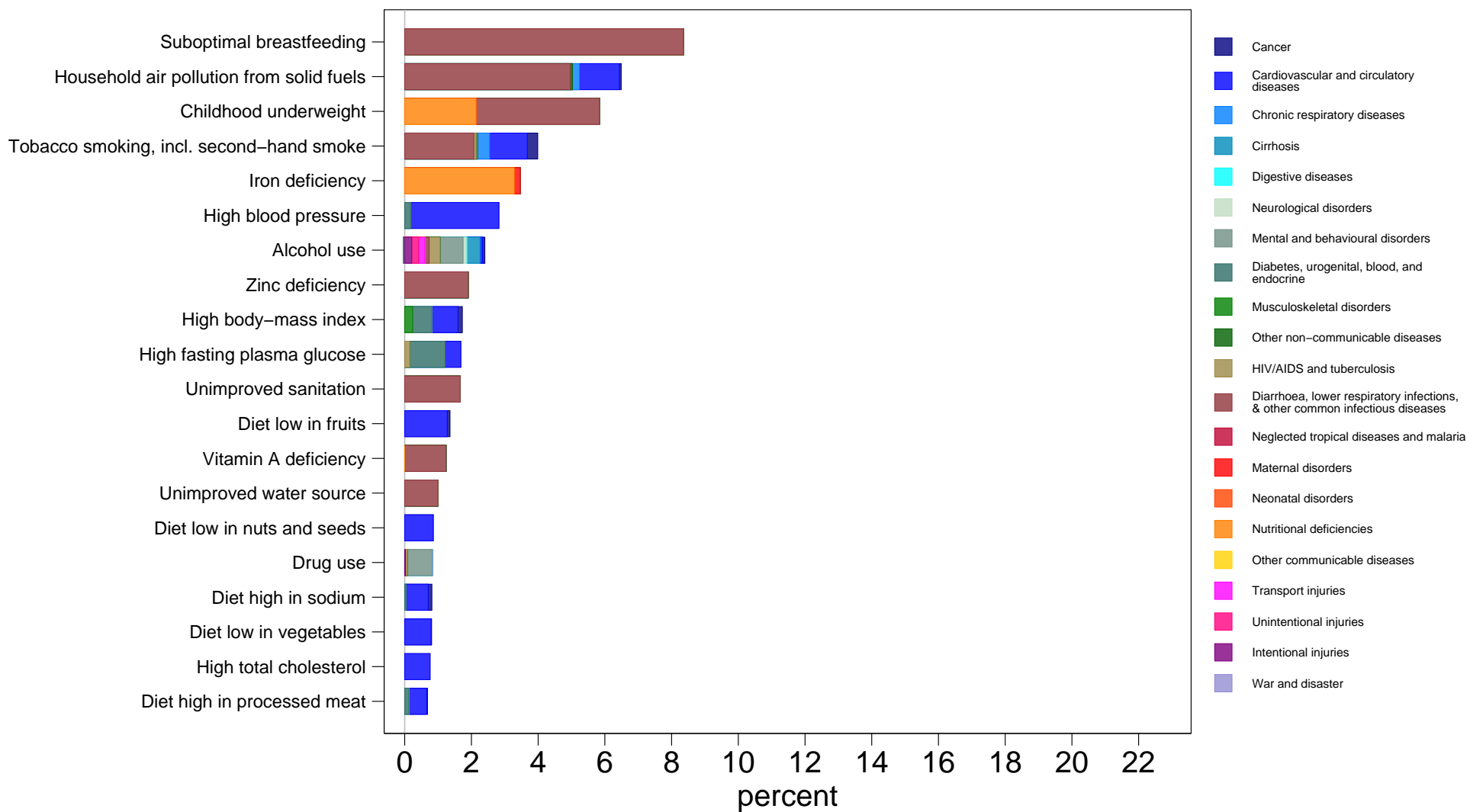
Web Figure 1: Percent of Western Europe DALYs, 1990



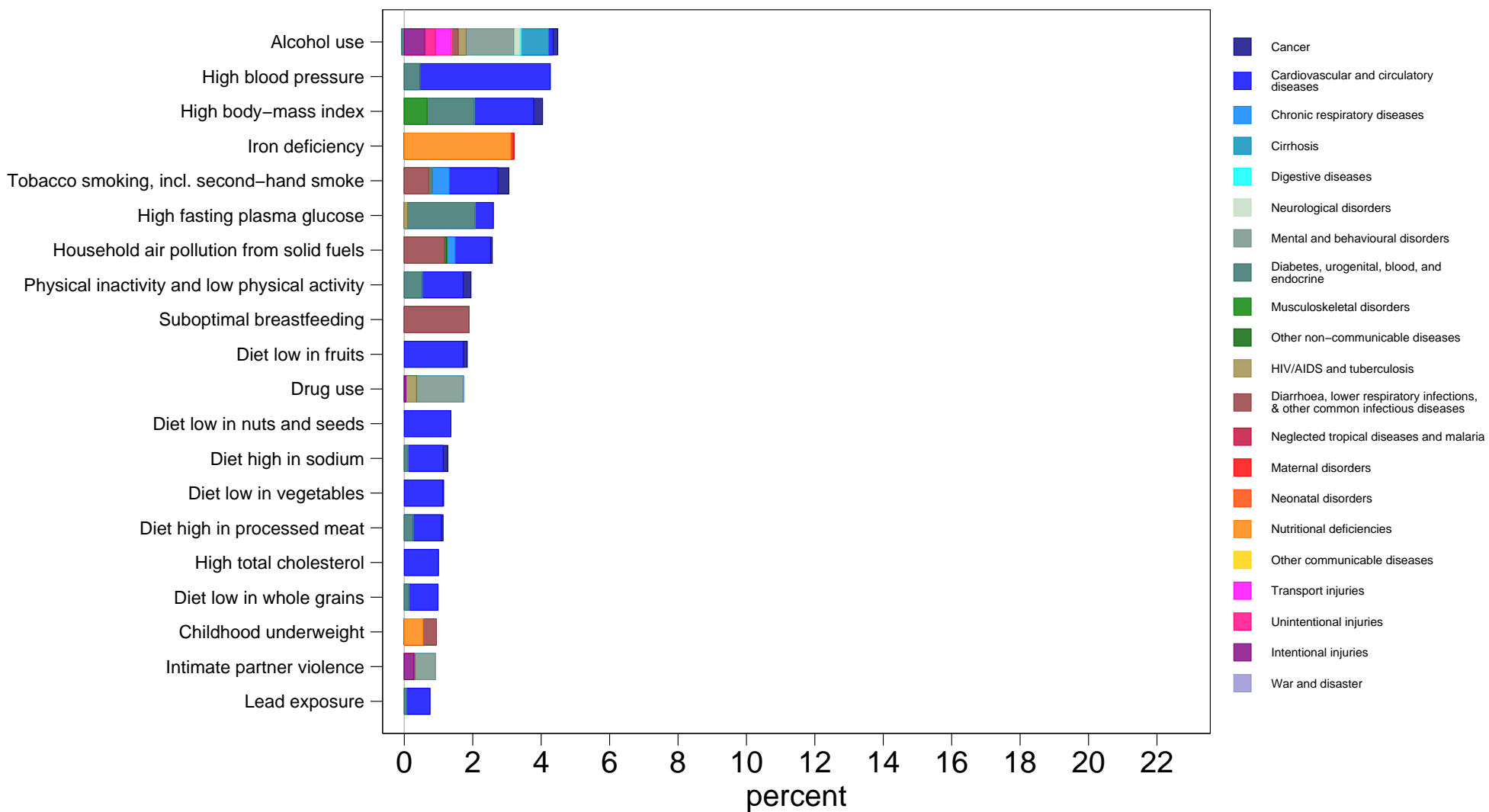
Web Figure 1: Percent of Western Europe DALYs, 2010



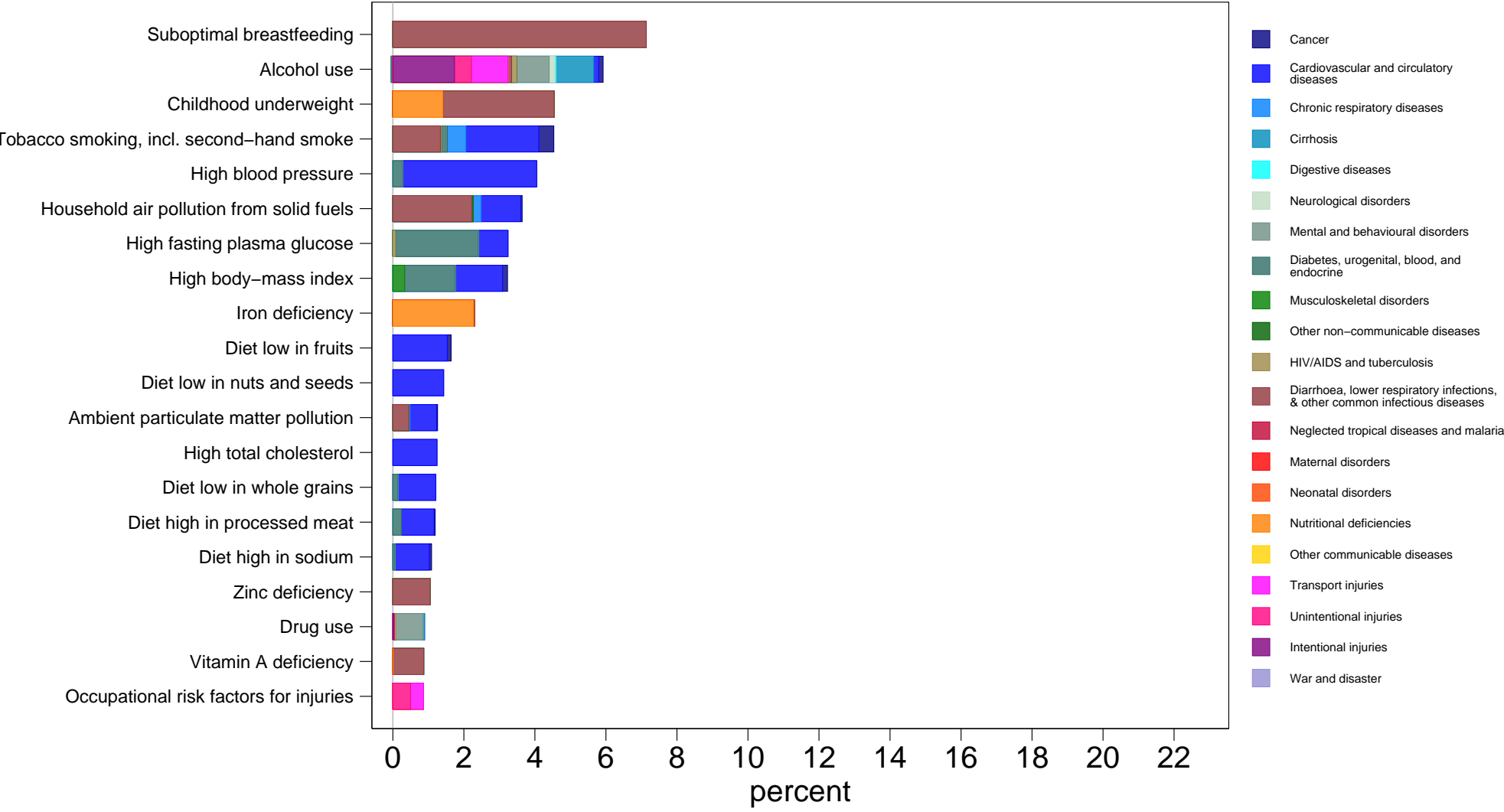
Web Figure 1: Percent of Andean Latin America DALYs, 1990



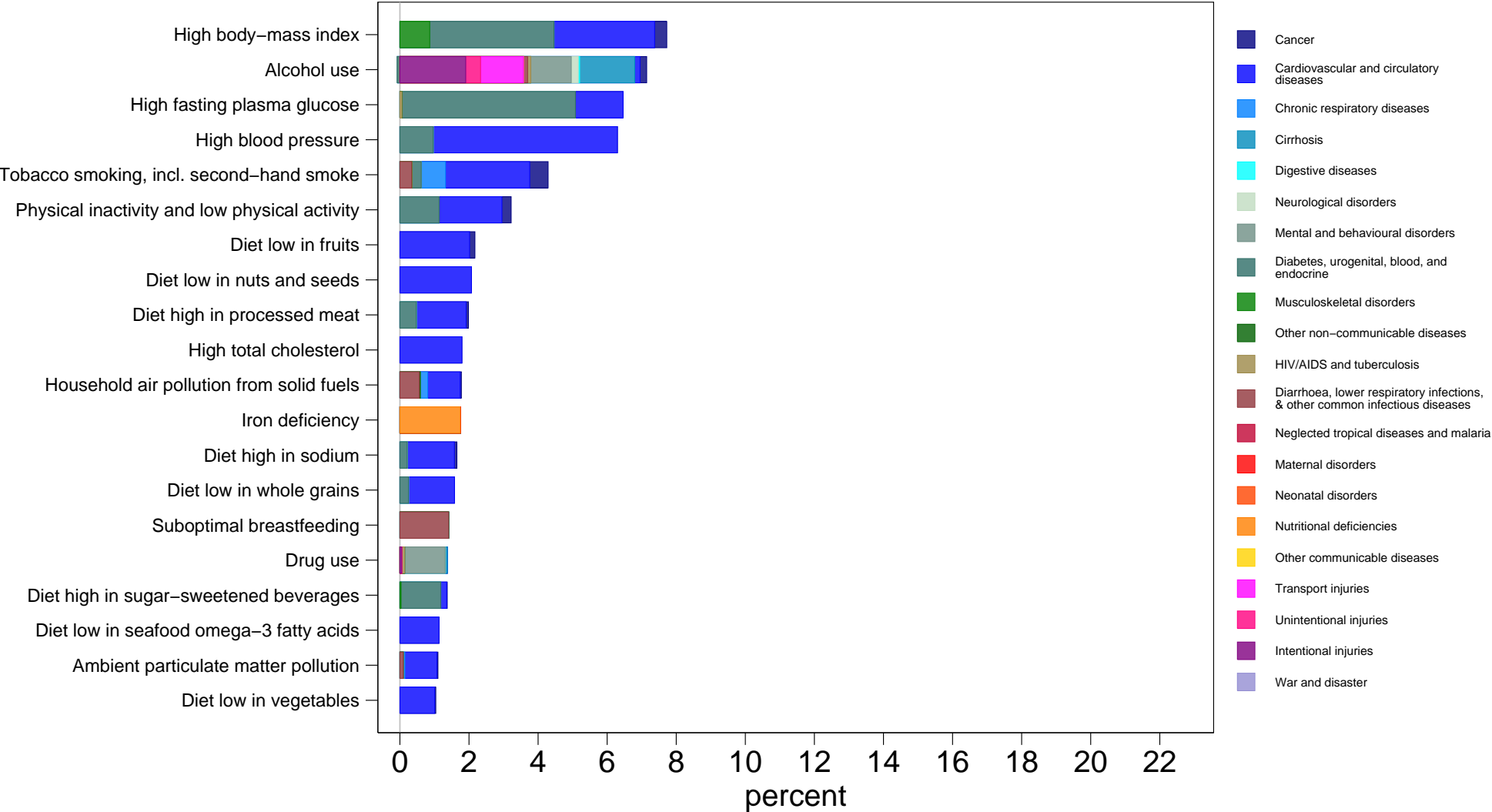
Web Figure 1: Percent of Andean Latin America DALYs, 2010



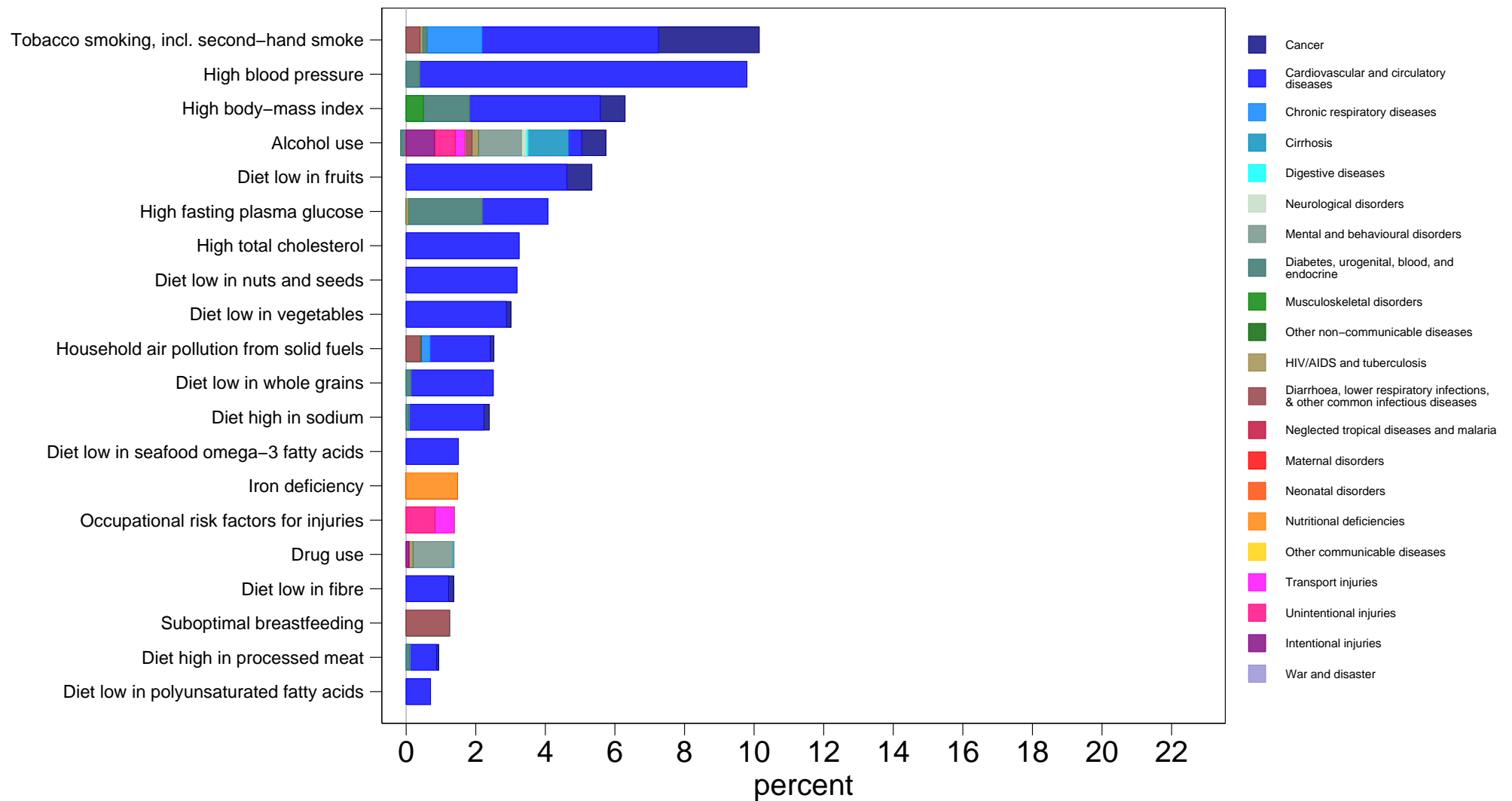
Web Figure 1: Percent of Central Latin America DALYs, 1990



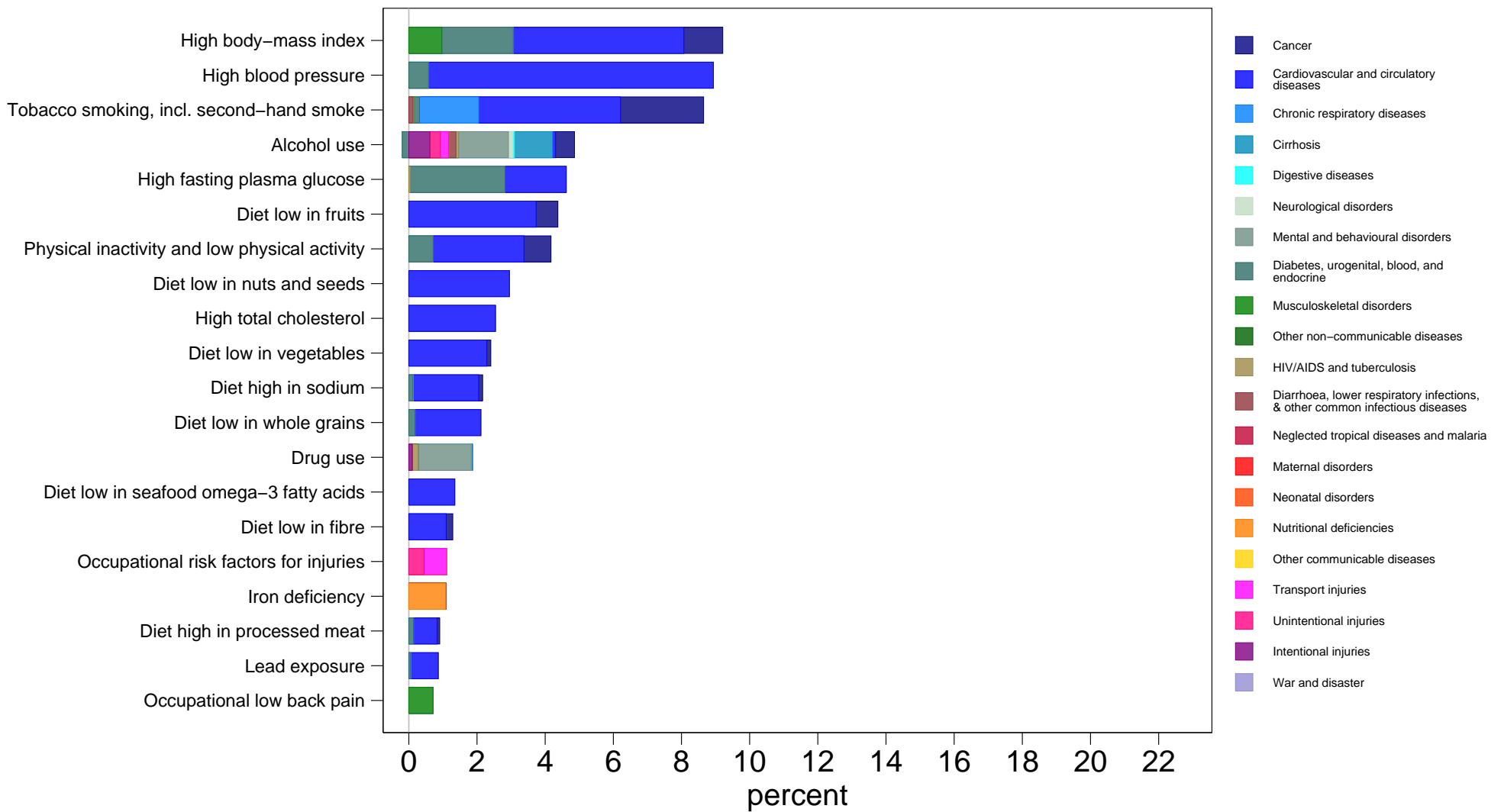
Web Figure 1: Percent of Central Latin America DALYs, 2010



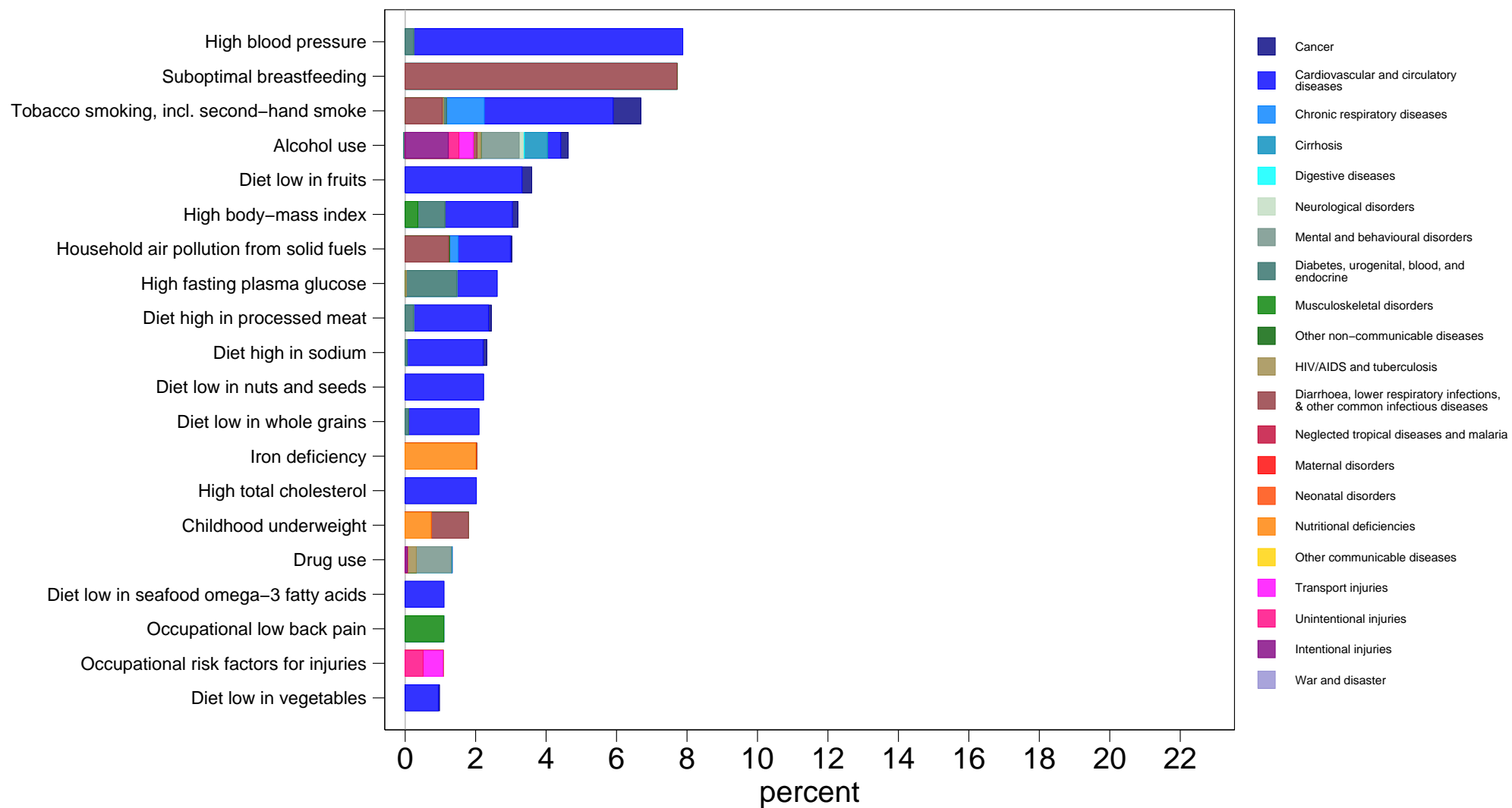
Web Figure 1: Percent of Southern Latin America DALYs, 1990



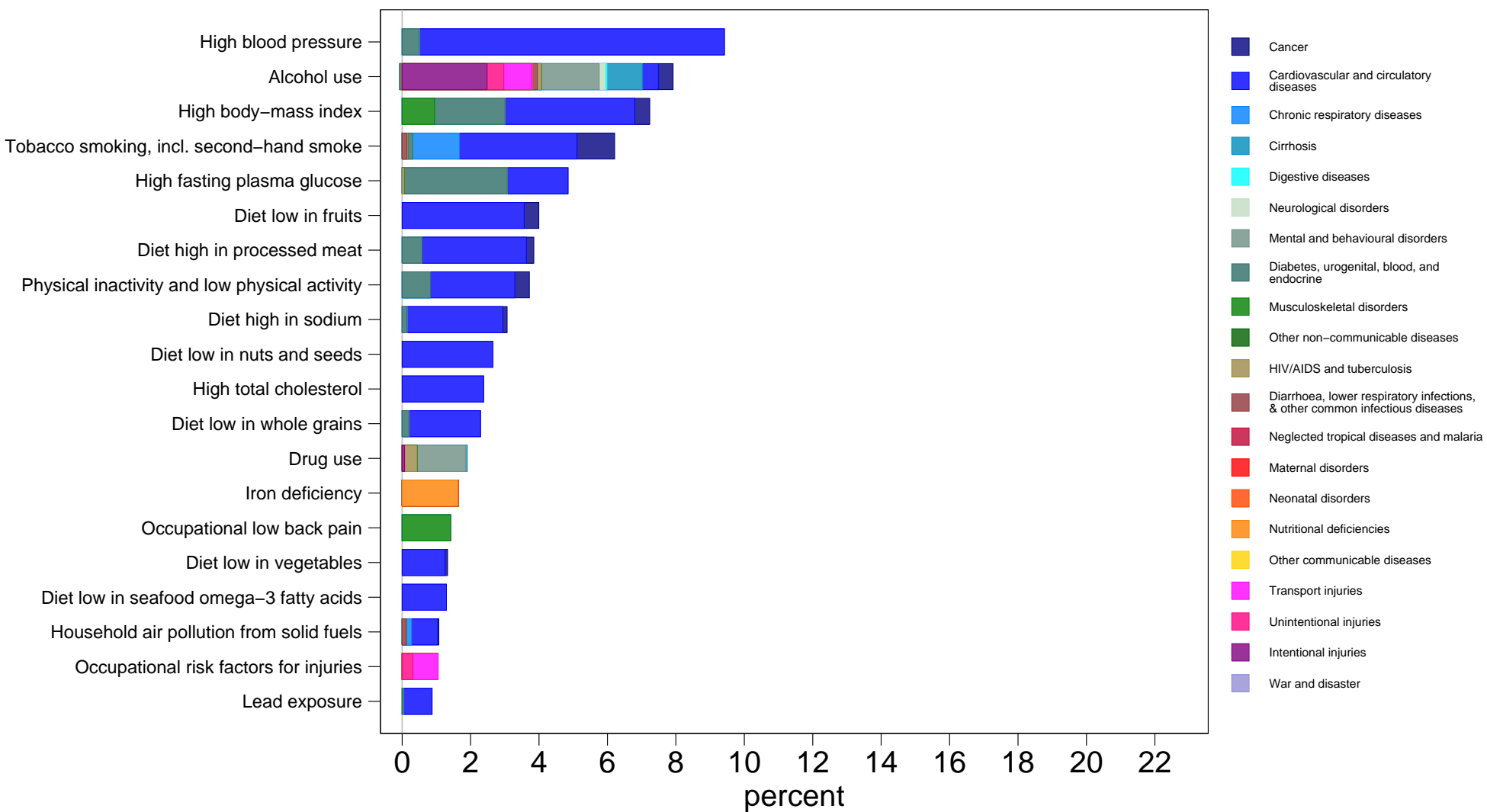
Web Figure 1: Percent of Southern Latin America DALYs, 2010



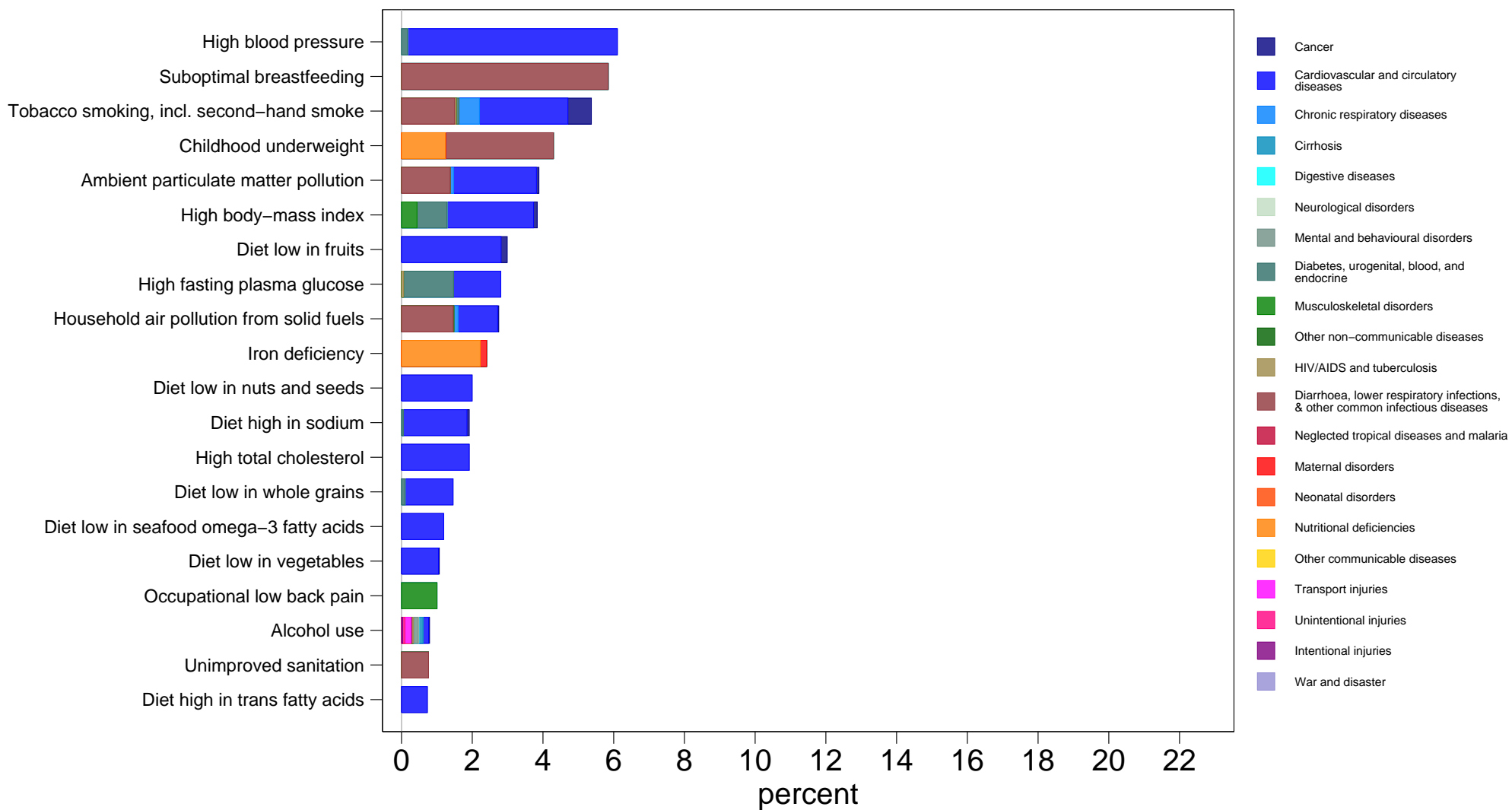
Web Figure 1: Percent of Tropical Latin America DALYs, 1990



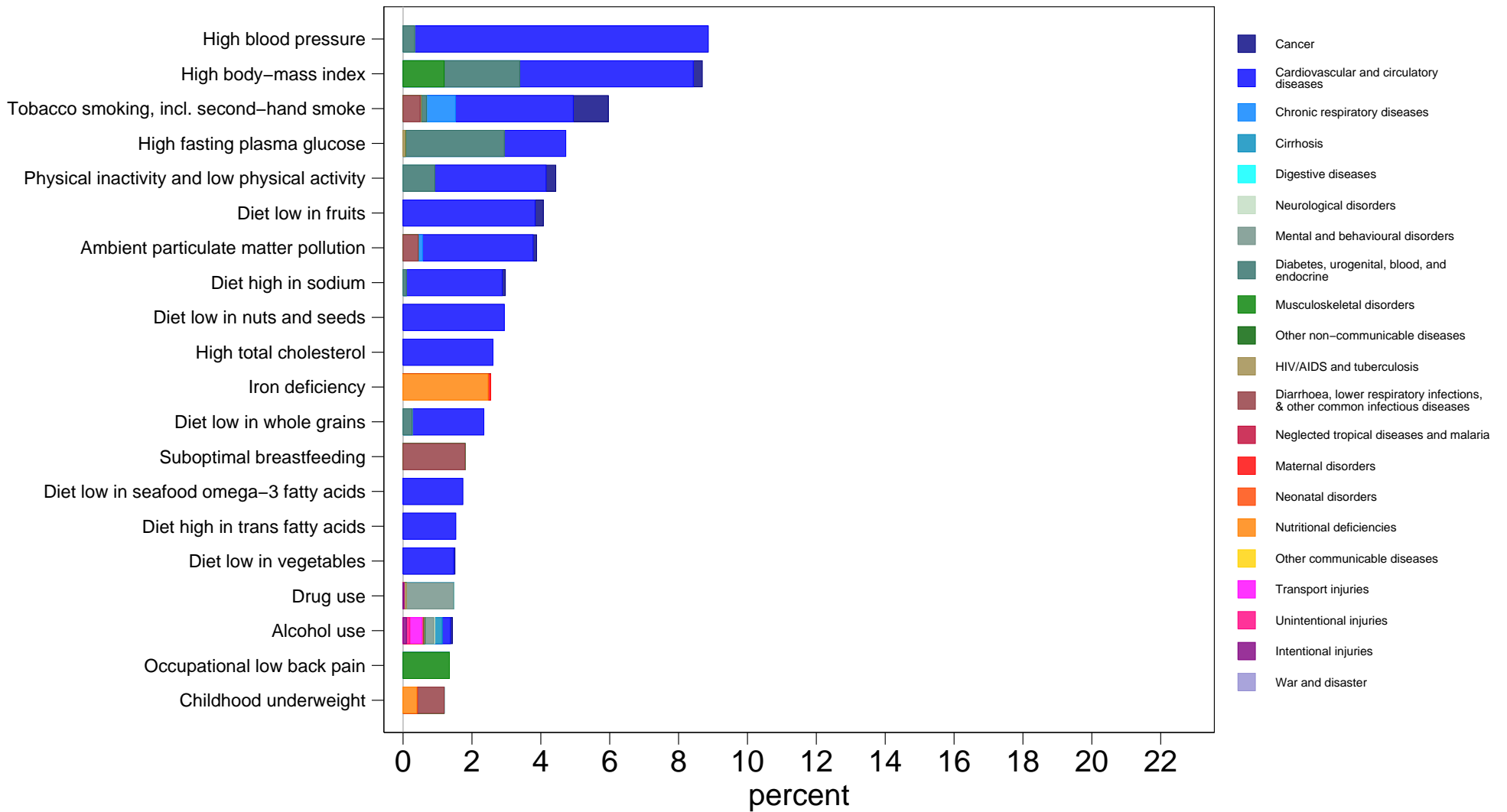
Web Figure 1: Percent of Tropical Latin America DALYs, 2010



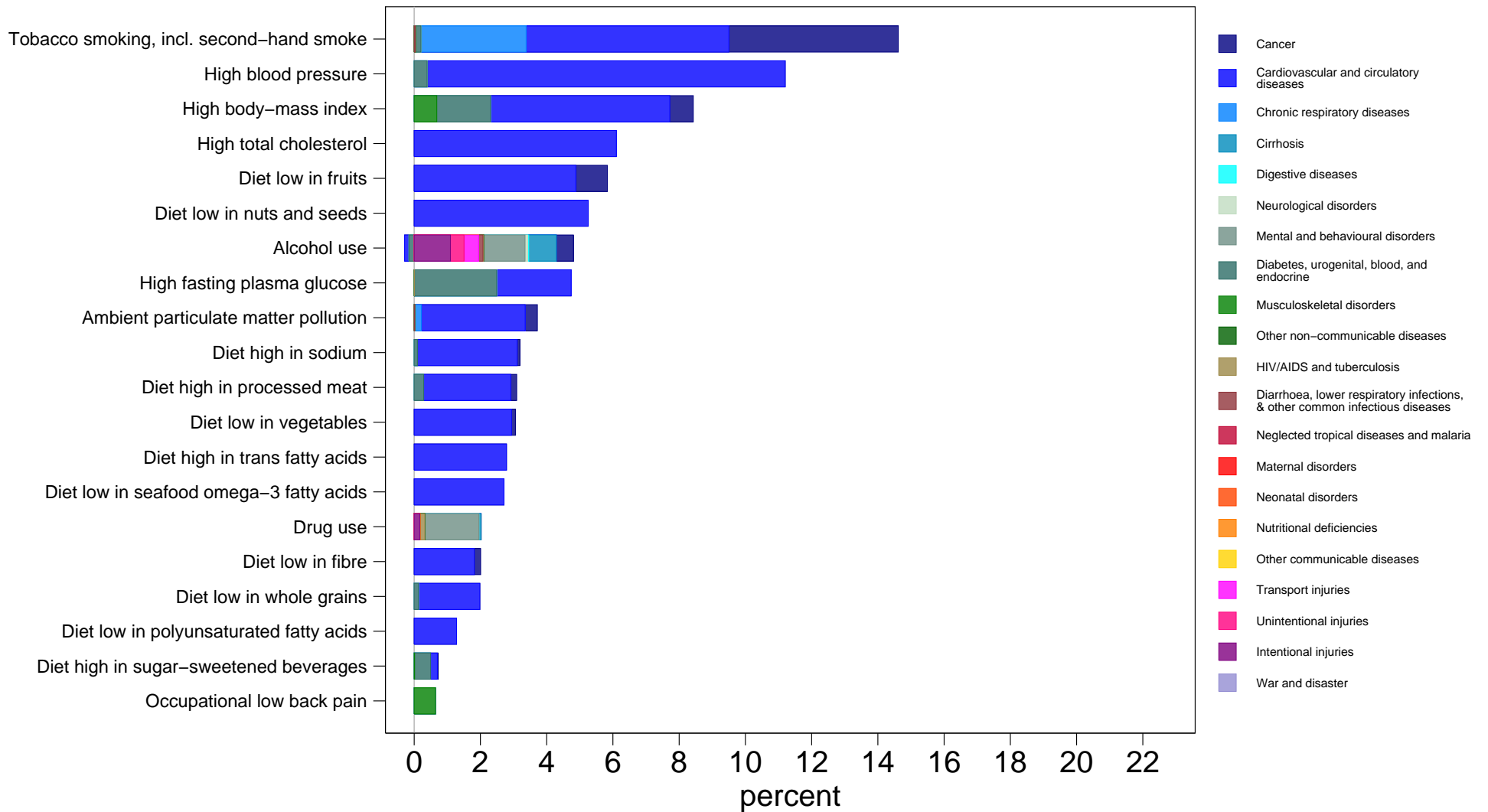
Web Figure 1: Percent of North Africa and Middle East DALYs, 1990



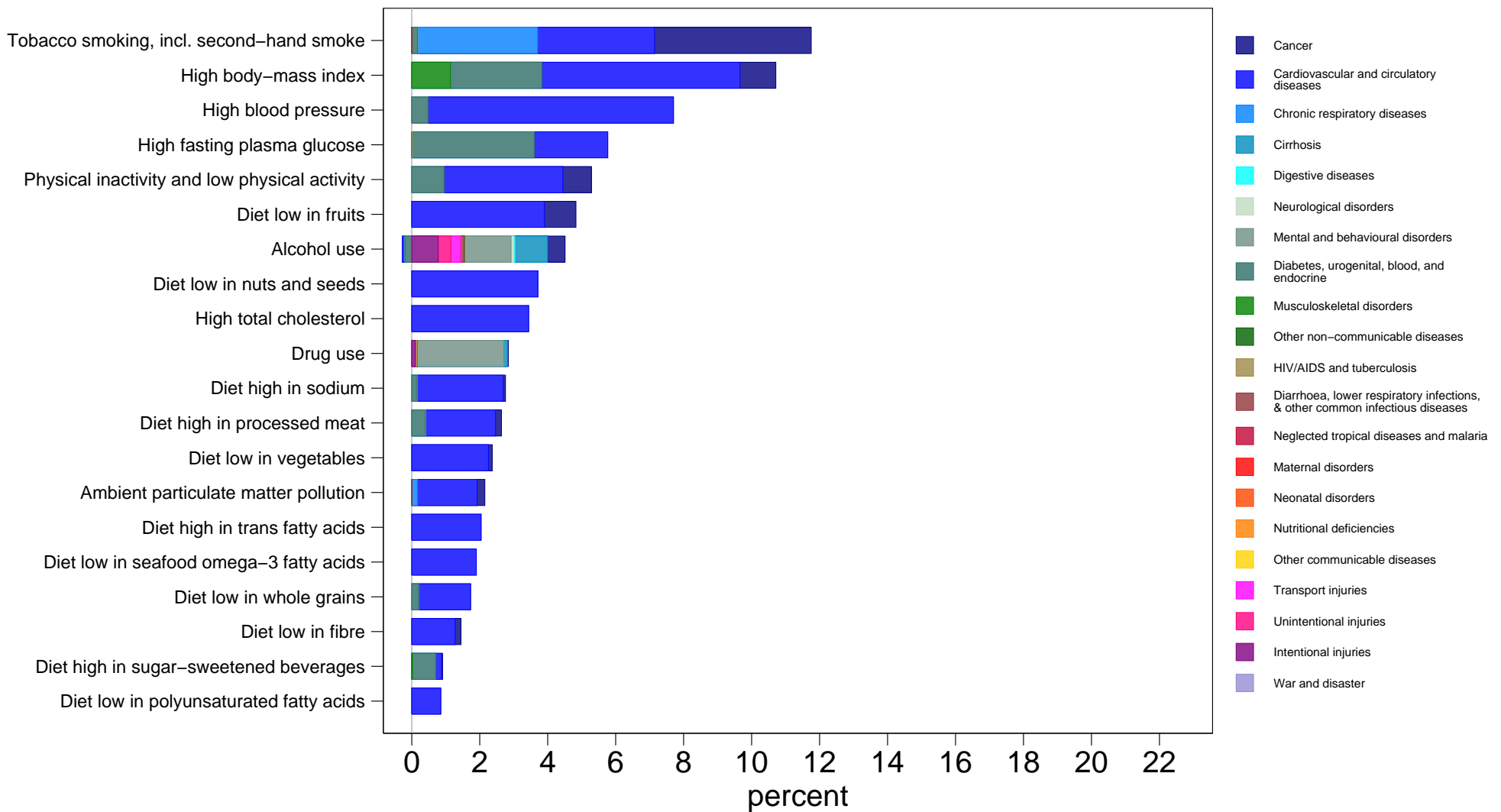
Web Figure 1: Percent of North Africa and Middle East DALYs, 2010



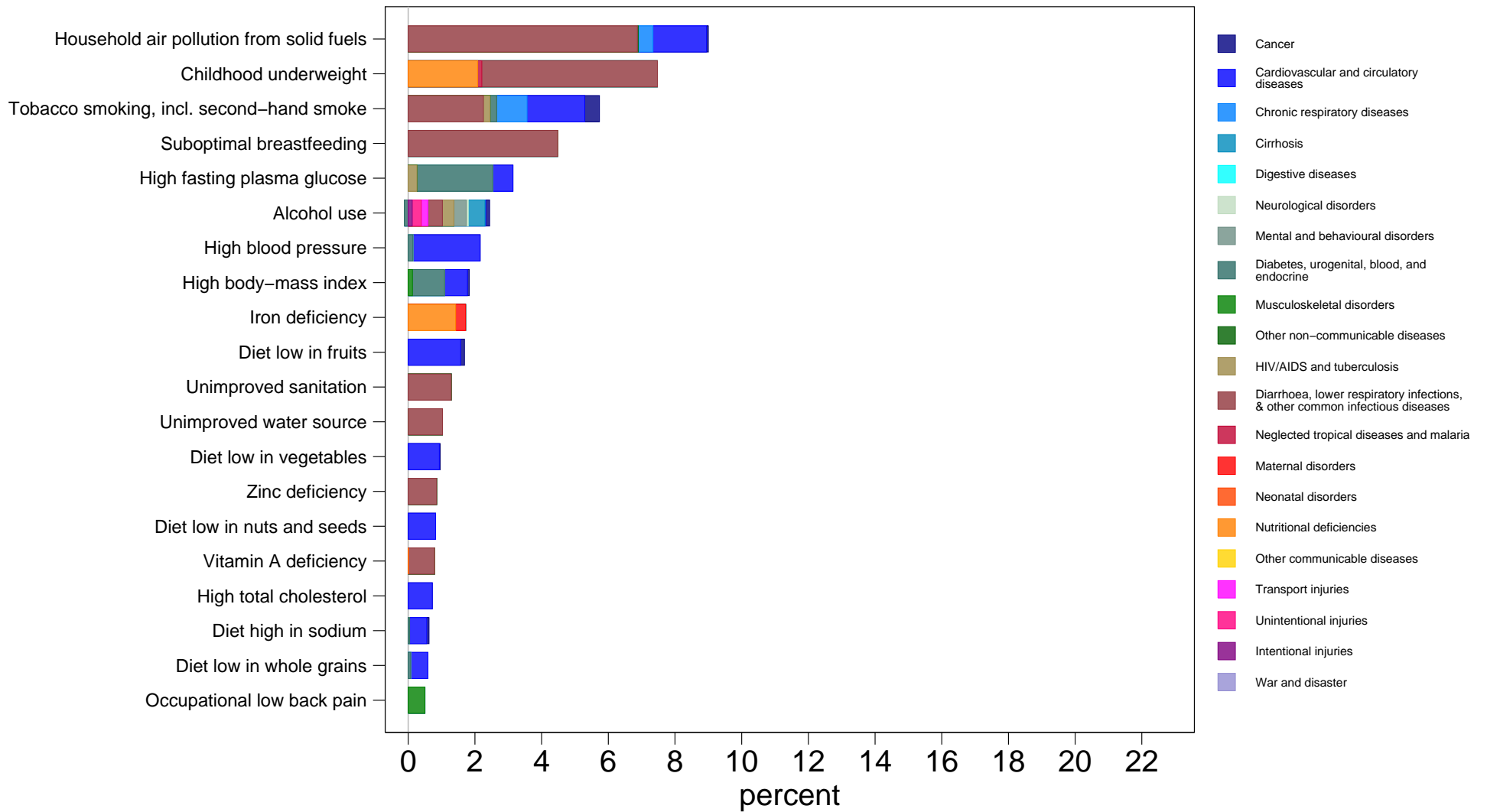
Web Figure 1: Percent of High-income North America DALYs, 1990



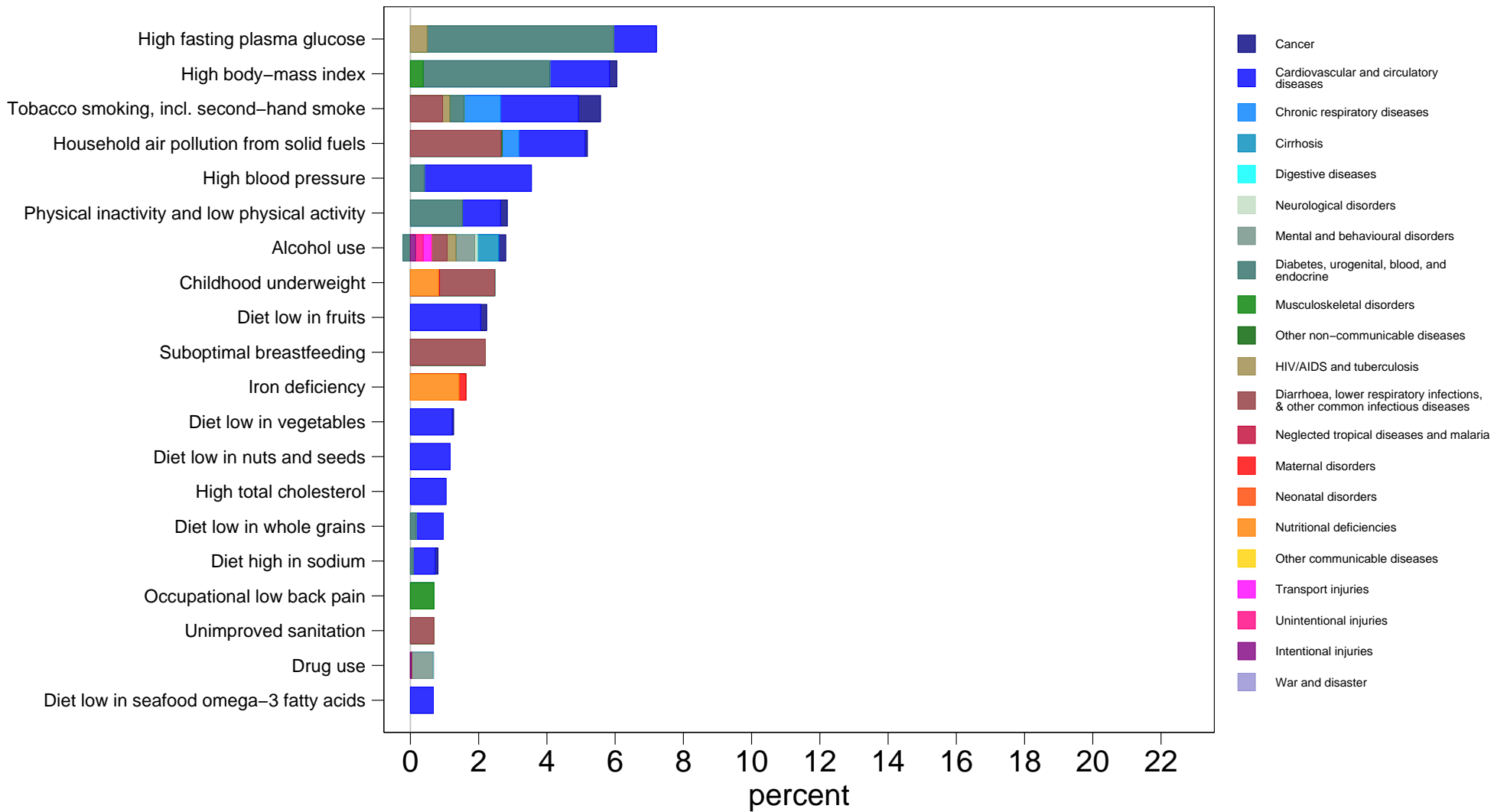
Web Figure 1: Percent of High-income North America DALYs, 2010



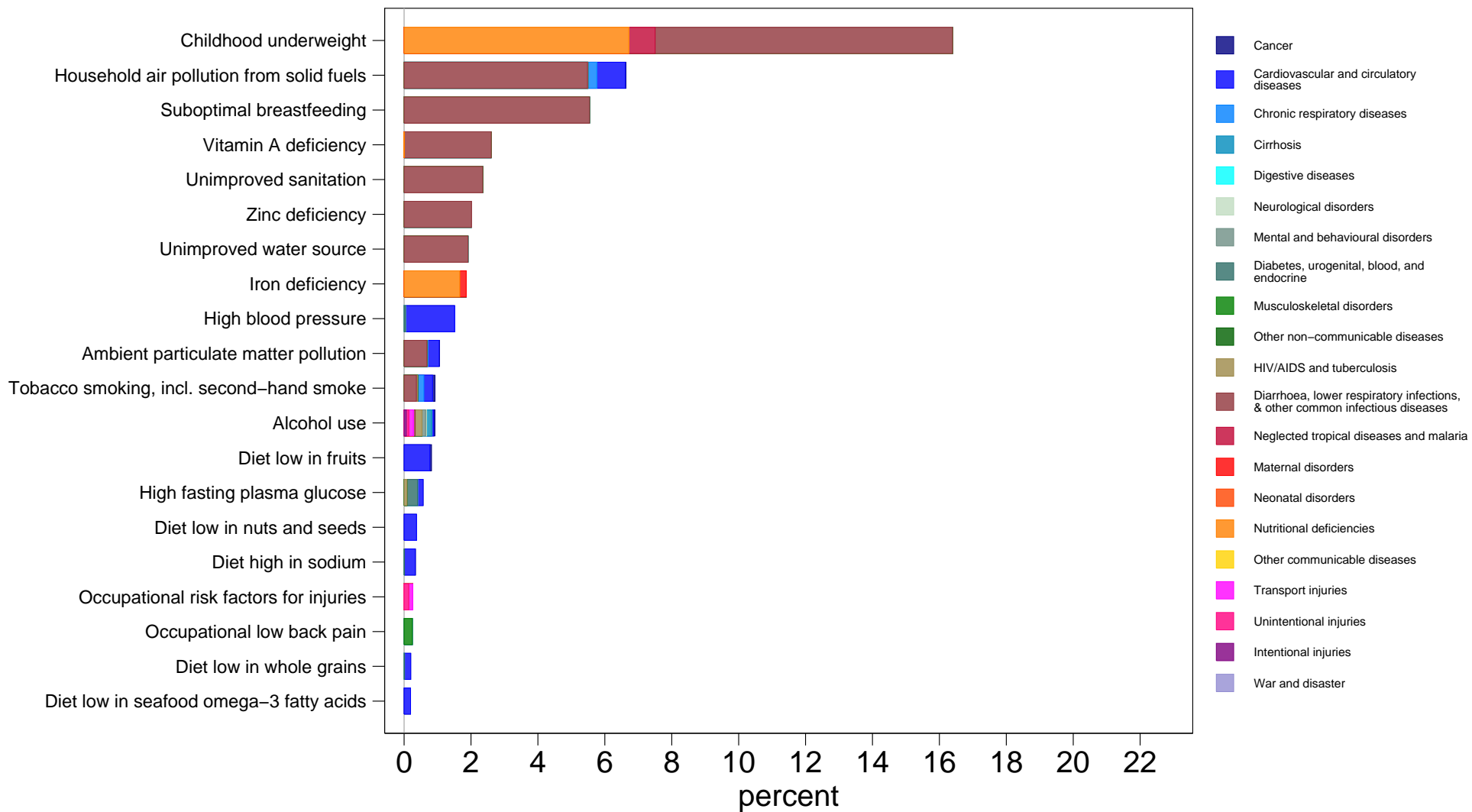
Web Figure 1: Percent of Oceania DALYs, 1990



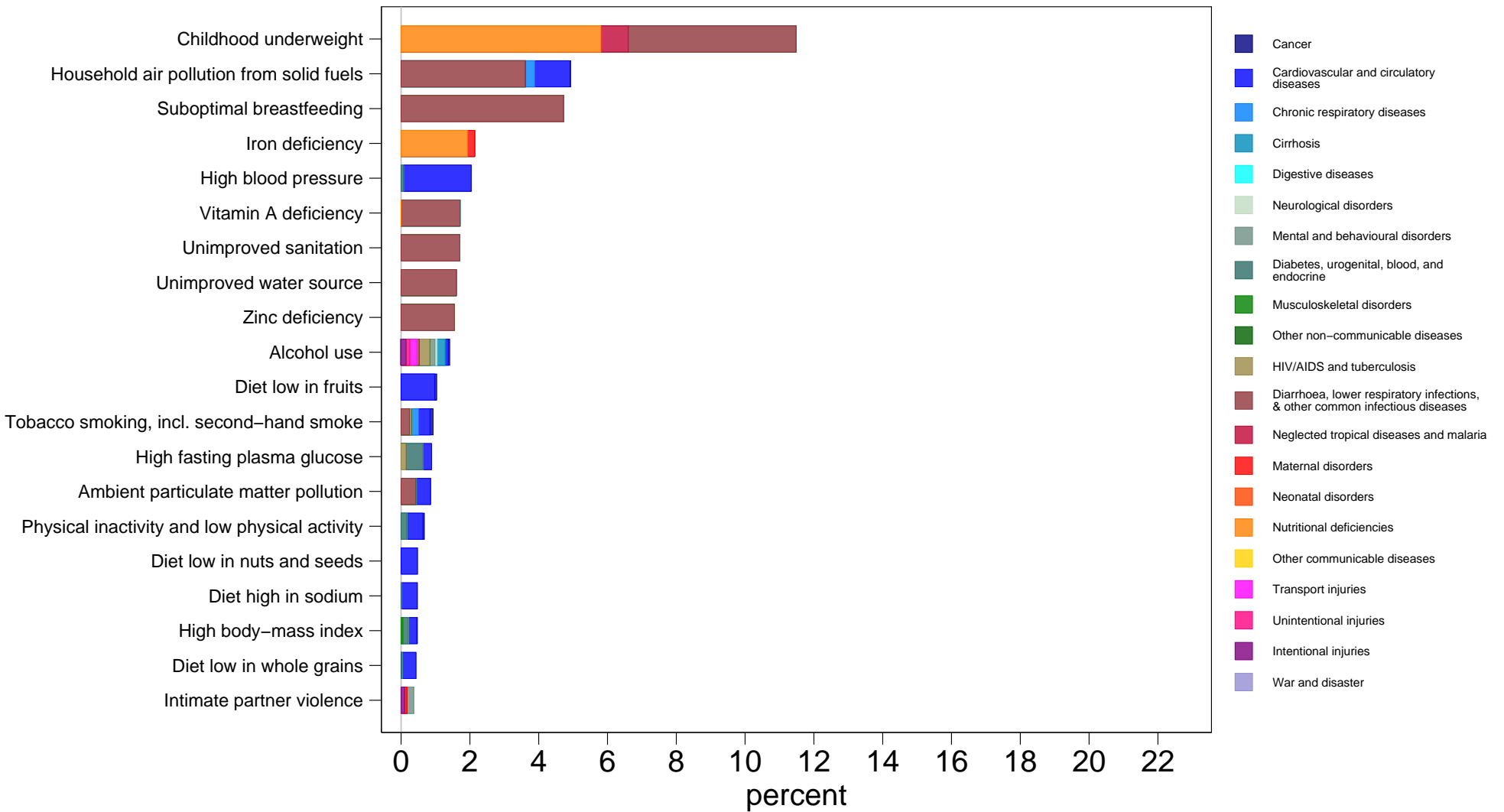
Web Figure 1: Percent of Oceania DALYs, 2010



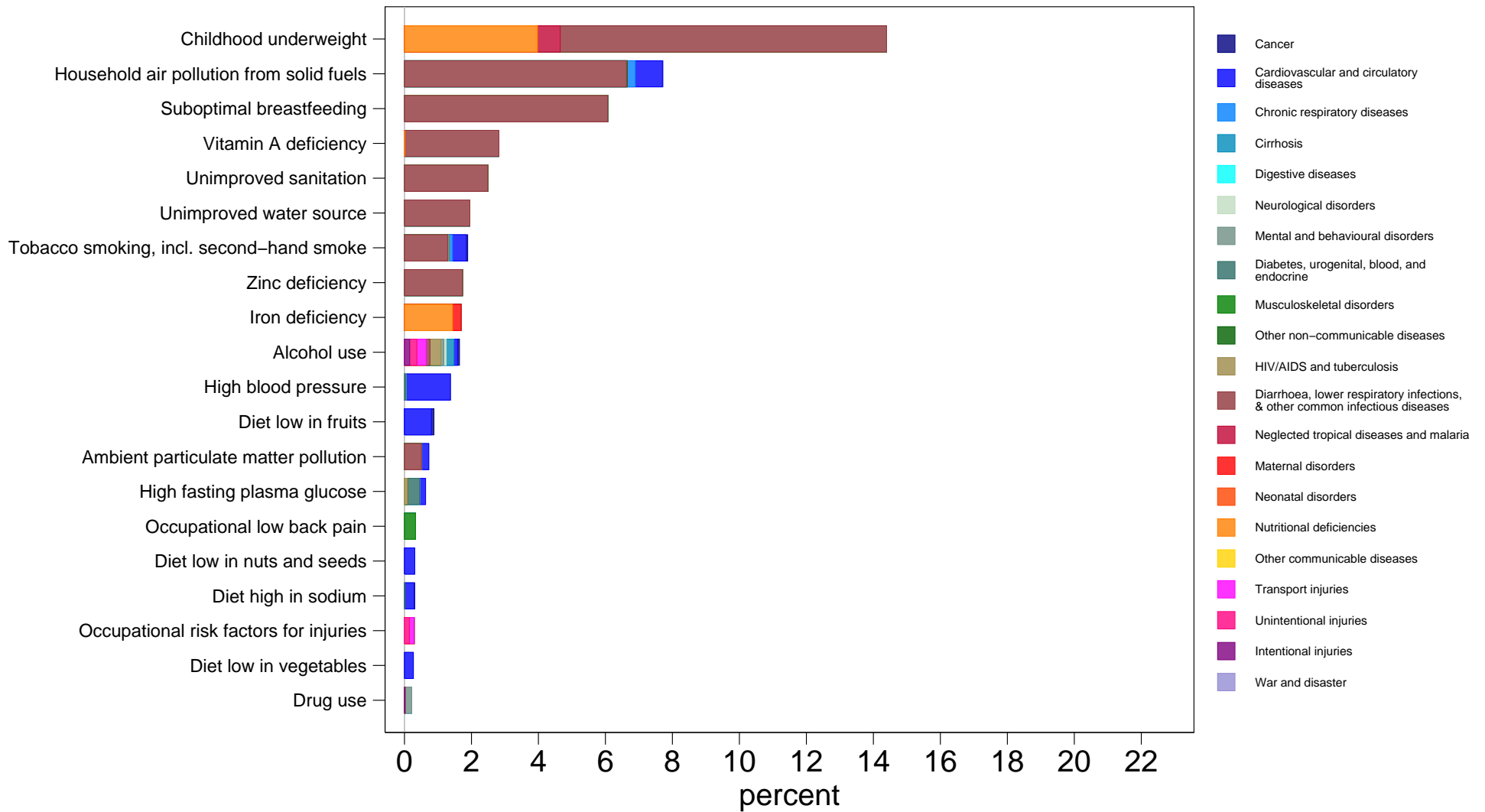
Web Figure 1: Percent of Central sub-Saharan Africa DALYs, 1990



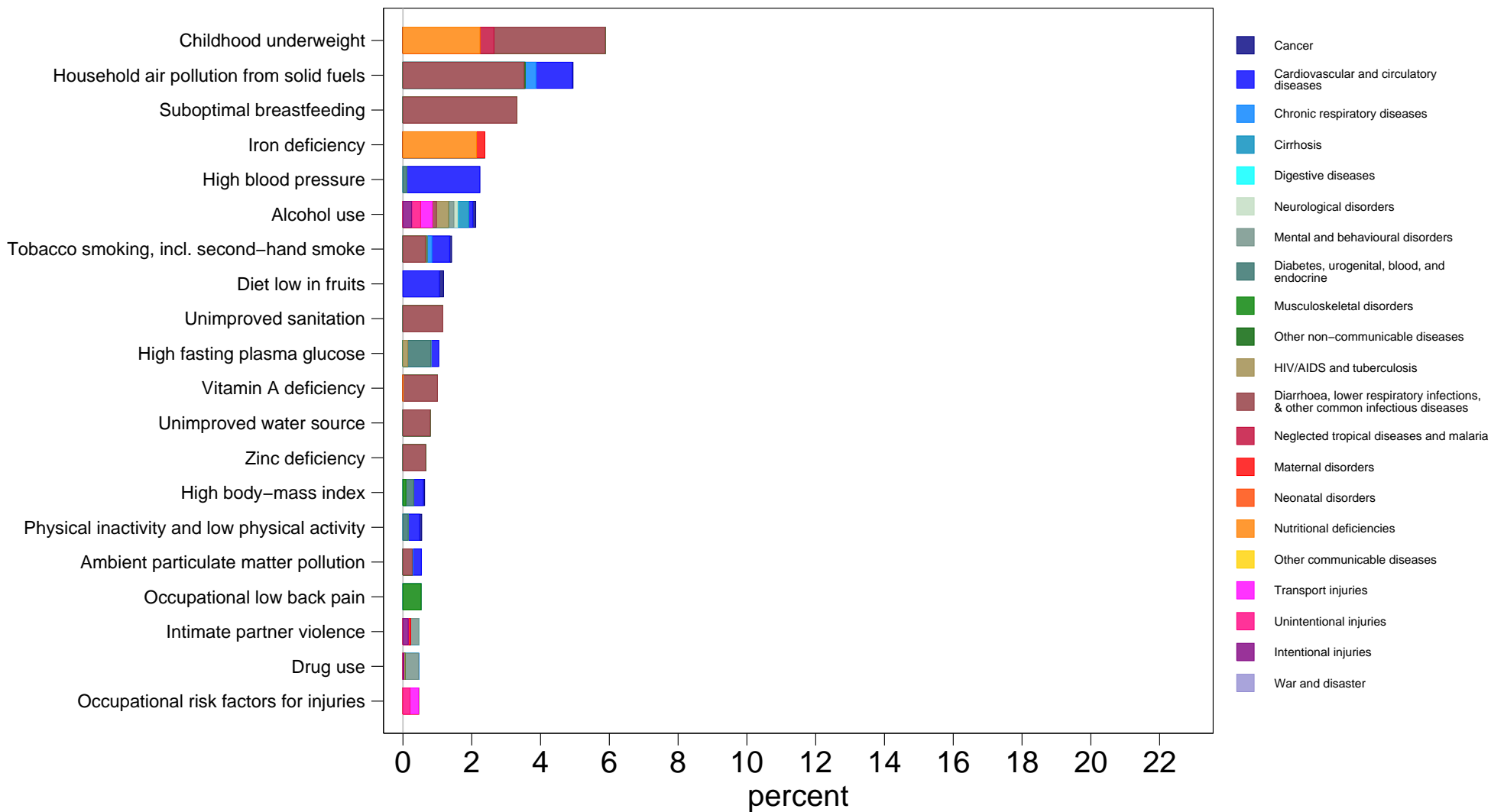
Web Figure 1: Percent of Central sub-Saharan Africa DALYs, 2010



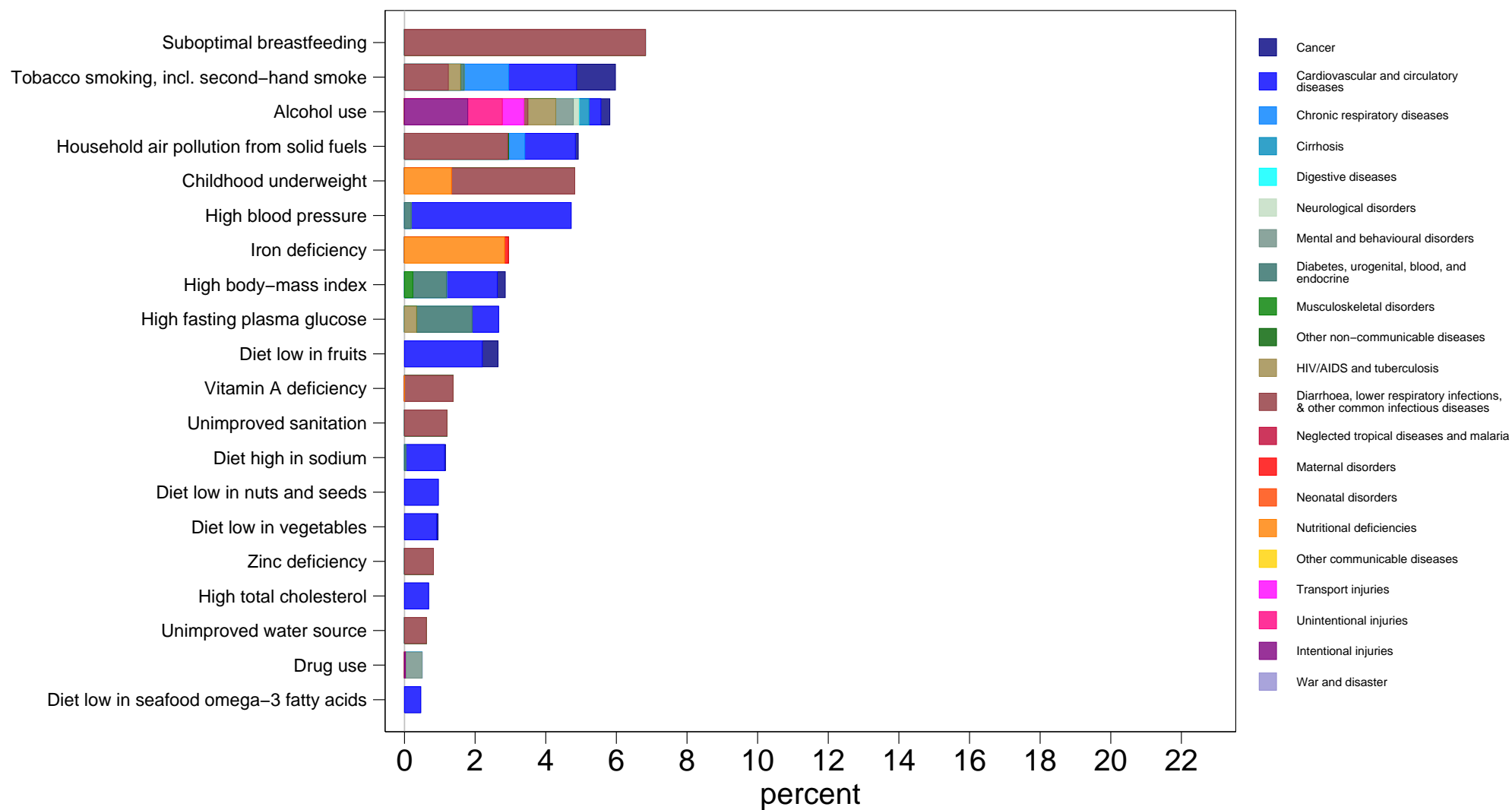
Web Figure 1: Percent of Eastern sub-Saharan Africa DALYs, 1990



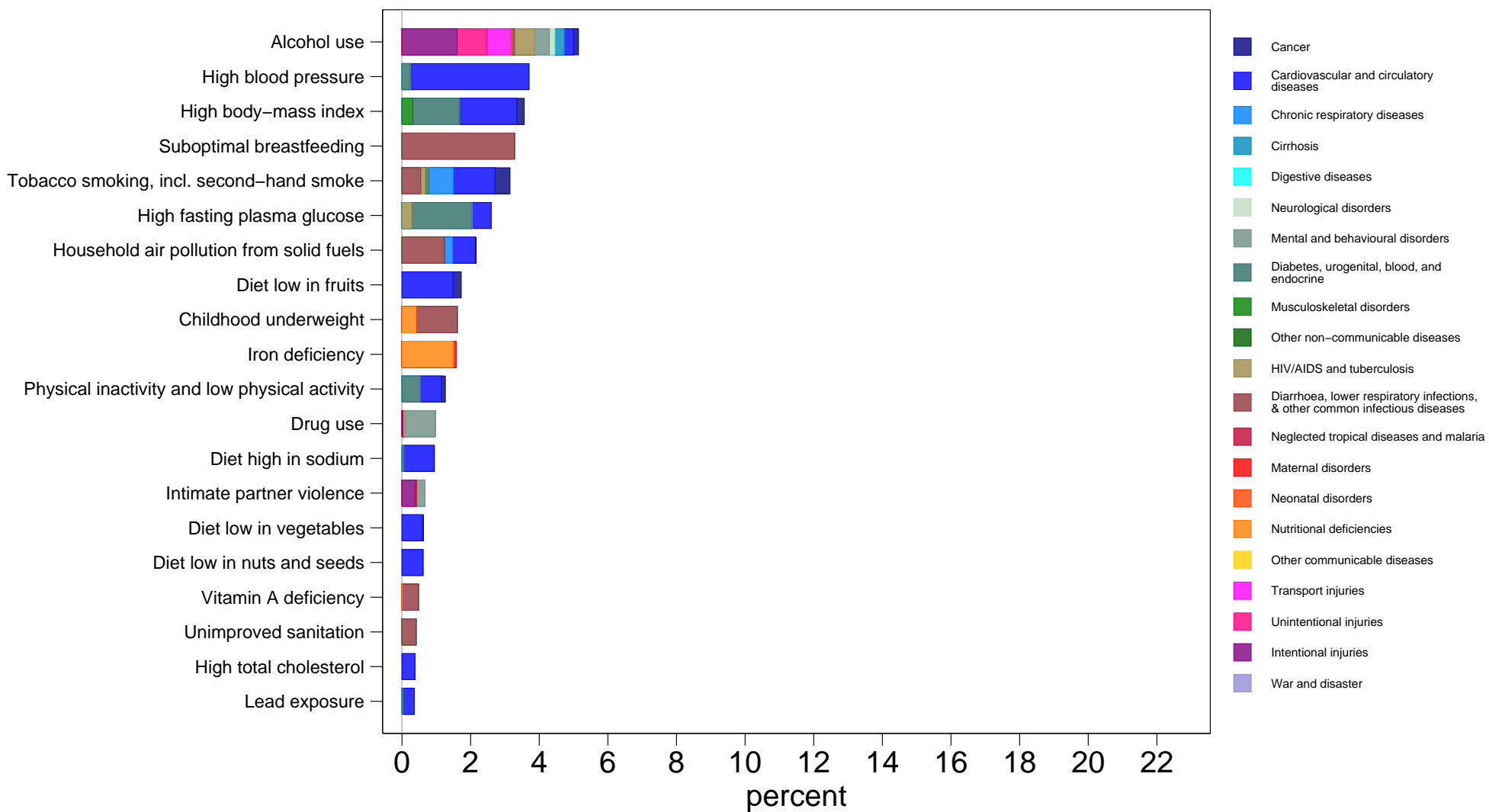
Web Figure 1: Percent of Eastern sub-Saharan Africa DALYs, 2010



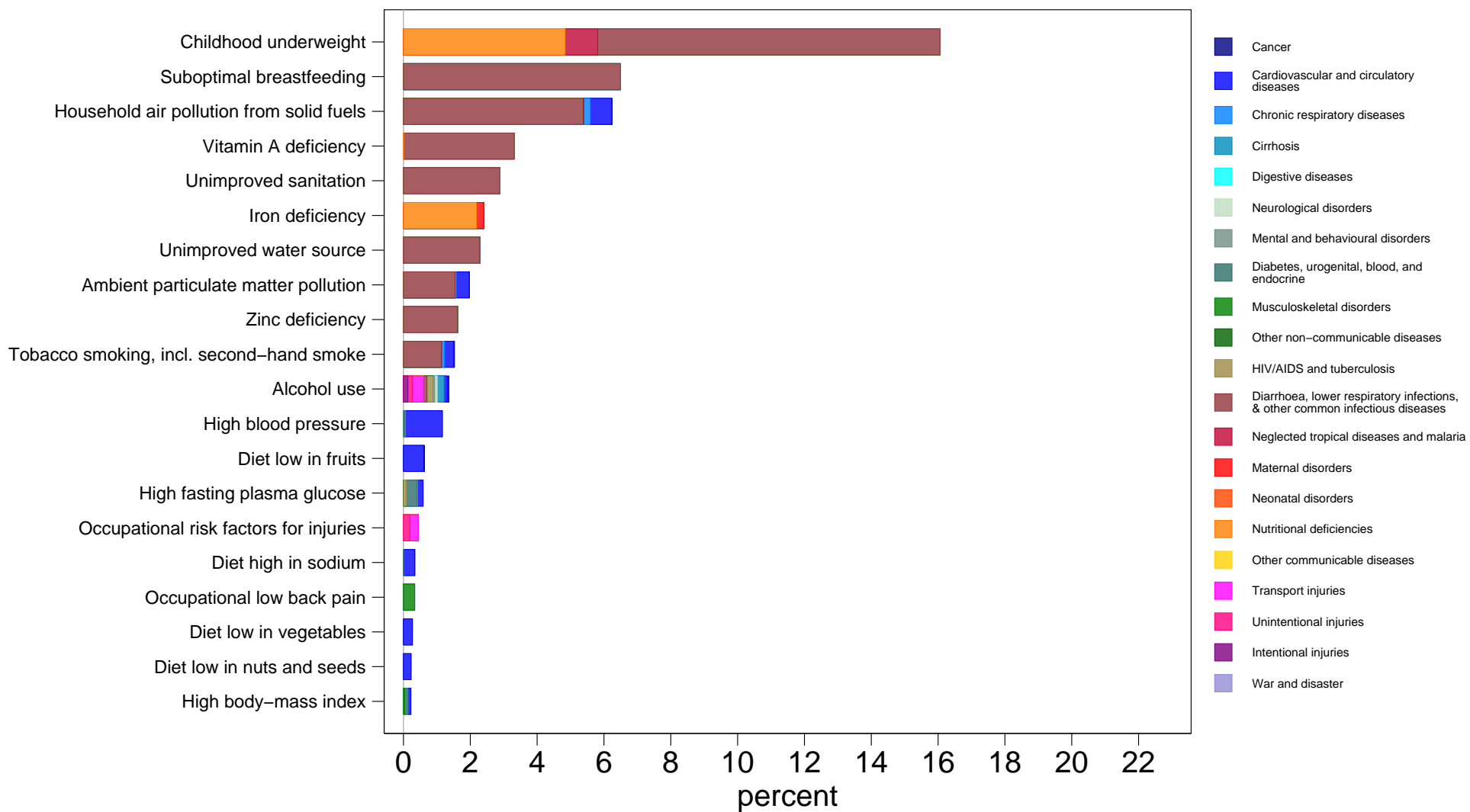
Web Figure 1: Percent of Southern sub-Saharan Africa DALYs, 1990



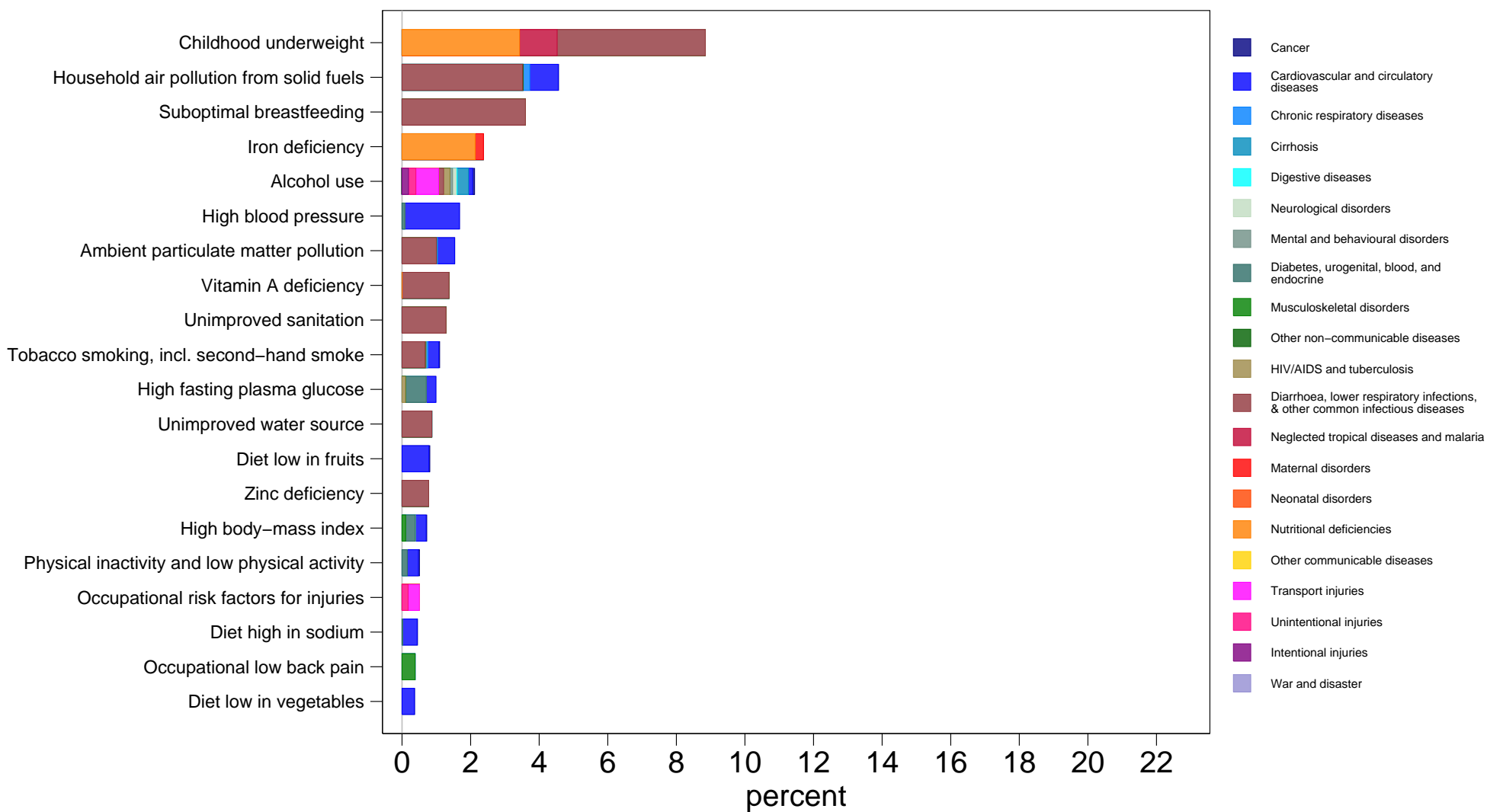
Web Figure 1: Percent of Southern sub-Saharan Africa DALYs, 2010



Web Figure 1: Percent of Western sub-Saharan Africa DALYs, 1990



Web Figure 1: Percent of Western sub-Saharan Africa DALYs, 2010



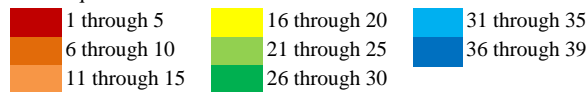
Web figure 2: Risk factors ranked by attributable burden of disease

	1990																					
	Global	High-income Asia Pacific	Western Europe	Australasia	High-income North America	Central Europe	Southern Latin America	Eastern Europe	East Asia	Tropical Latin America	Central Latin America	Southeast Asia	Central Asia	Andean Latin America	North Africa and Middle East	Caribbean	South Asia	Oceania	Southern sub-Saharan Africa	Eastern sub-Saharan Africa	Central sub-Saharan Africa	Western sub-Saharan Africa
Childhood underweight	1	36	34	33	35	28	23	32	11	15	3	2	9	3	4	4	1	2	5	1	1	1
Household air pollution from solid fuels	2	18				6	10	14	1	7	6	1	1	2	9	6	2	1	4	2	2	3
Tobacco smoking, including second-hand smoke	3	2	2	2	1	2	1	3	2	3	4	3	2	4	3	5	4	3	2	7	11	10
High blood pressure	4	1	1	1	2	1	2	1	3	1	5	5	3	6	1	2	7	7	6	11	9	12
Suboptimal breastfeeding	5						18		8	2	1	4	4	1	2	1	3	4	1	3	3	2
Ambient particulate matter pollution	6	6	9	21	9	5	21	8	4	29	12	9	5	22	5	21	6	30	23	13	10	8
Diet low in fruits	7	3	5	6	5	4	5	5	5	5	10	6	6	12	7	8	9	10	10	12	13	13
Alcohol use	8	7	7	8	8	7	4	2	6	4	2	11	16	7	18	10	11	6	3	10	12	11
High fasting plasma glucose	9	5	8	7	7	10	6	9	9	8	7	8	12	10	8	7	12	5	9	14	14	14
Iron deficiency	10	19	28	20	32	20	14	18	16	13	9	7	15	5	10	3	5	9	7	9	8	6
High body-mass index	11	9	3	3	3	3	3	4	12	6	8	23	7	9	6	9	26	8	8	22	23	20
Diet high in sodium	12	4	10	9	10	11	12	10	7	10	16	10	8	17	12	18	16	18	13	17	16	16
Diet low in nuts and seeds	13	10	6	5	6	9	8	7	14	11	11	16	10	15	11	11	15	15	14	16	15	19
High total cholesterol	14	11	4	4	4	8	7	6	21	14	13	19	11	19	13	16	19	17	17	24	22	24
Unimproved sanitation	15	33	35	35	37	38	36	36	24	21	21	14	25	11	19	13	8	11	12	5	5	5
Diet low in vegetables	16	13	11	10	12	14	9	11	15	20	24	12	13	18	16	12	18	13	15	19	21	18
Vitamin A deficiency	17	37	36	34	36	37	38	37	32	27	19	17	26	13	27	22	10	16	11	4	4	4
Diet low in whole grains	18	8	14	17	17	13	11	12	10	12	14	26	14	21	14	14	20	19	29	21	19	22
Zinc deficiency	19	34	33	32	33	35	37	35	23	28	17	13	18	8	26	15	13	14	16	8	6	9
Diet low in seafood omega-3 fatty acids	20	16	13	11	14	15	13	13	22	17	22	20	17	24	15	19	21	21	20	23	20	23
Occupational risk factors for injuries	21	15	18	16	21	19	15	22	17	19	20	21	22	23	21	29	14	24	21	18	17	15
Unimproved water source	22	38	37	36	34	36	34	38	30	25	27	15	28	14	25	17	17	12	18	6	7	7
Occupational low back pain	23	14	19	18	20	18	22	20	13	18	26	18	24	25	17	27	22	20	22	15	18	17
Diet high in processed meat	24	21	12	13	11	12	19	15	35	9	15	27	20	20	28	26	25	27	26	29	26	26
Drug use	25	12	15	12	15	22	16	19	20	16	18	22	23	16	22	20	24	23	19	20	24	21
Diet low in fibre	26	17	16	15	16	16	17	16	19	24	29	24	19	28	23	24	28	22	30	32	32	33
Diet low in polyunsaturated fatty acids	27	20	17	14	18	17	20	17	28	23	28	25	21	29	24	25	30	25	25	28	27	27
Occupational particulate matter, gases, and fumes	28	30	29	29	24	26	31	24	18	31	32	28	30	32	31	32	23	29	28	25	25	25
Diet high in trans fatty acids	29	24	20	19	13	21	25	21	36	22	25	34	29	27	20	36	31	33	31	34	33	34
Diet high in sugar-sweetened beverages	30	22	27	28	19	30	26	25	25	30	23	29	34	30	30	23	29	28	24	30	29	28
Lead exposure	31	27	22	22	25	23	24	23	27	26	30	30	27	26	29	28	27	31	27	26	28	30
Low bone mineral density	32	23	21	23	28	24	28	29	29	35	33	33	33	33	33	31	35	32	36	33	35	32
Occupational noise	33	31	32	31	30	33	32	30	31	32	31	31	31	31	34	33	34	34	32	27	30	29
Ambient ozone pollution	34	35	30	37	27	31	39	31	26	39	38	38	35	39	37	39	32	39	39	35	34	35
Occupational astmagens	35	29	31	30	31	34	35	34	39	33	34	32	37	34	32	30	33	26	33	31	31	31
Diet low in calcium	36	25	25	24	23	25	30	27	33	37	37	36	36	37	38	35	36	35	36	36	36	36
Occupational carcinogens	37	32	23	26	22	32	29	33	34	36	35	35	32	35	36	34	38	37	34	39	39	39
Diet low in milk	38	26	24	27	26	27	33	28	37	38	39	37	38	38	39	37	37	38	38	37	38	37
Diet high in red meat	39	28	26	25	29	29	27	26	38	34	36	39	39	36	35	38	39	35	37	38	37	38
Residential radon																						
Childhood sexual abuse																						
Physical inactivity and low physical activity																						
Intimate partner violence																						

Regions are ordered by mean life expectancy.

No data=attributable disability-adjusted life years were not quantified.

Rankings are color-coded as follows:



Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Unimproved water and sanitation	337,476 (13,150–648,205)	5,742 (266–11,546)	11,562 (513–22,408)	78,490 (3,404–148,556)	59,896 (2,621–114,551)	13,751 (528–26,645)	7,345 (289–15,357)
Unimproved water source	116,126 (7,518–233,136)	2,268 (160–4,744)	4,352 (289–8,924)	30,575 (2,045–60,286)	23,467 (1,564–47,572)	4,701 (295–9,643)	2,366 (143–5,190)
Unimproved sanitation	244,106 (6,027–478,186)	3,923 (99–8,288)	8,083 (214–16,246)	53,883 (1,398–105,643)	41,170 (1,083–81,737)	9,954 (238–19,957)	5,425 (135–11,562)
Air pollution							
Ambient particulate matter pollution	3,223,540 (2,828,854–3,619,148)	16,526 (10,489–24,056)	13,853 (8,838–19,546)	59,549 (40,421–80,135)	37,257 (24,939–51,925)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	3,478,773 (2,638,548–4,386,590)	56,112 (36,948–76,903)	44,843 (30,211–59,407)	208,416 (144,472–266,698)	128,974 (91,322–173,421)	0 (0–0)	0 (0–0)
Ambient ozone pollution	152,434 (52,272–267,431)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	773,030 (640,893–929,935)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon	98,992 (13,133–215,237)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Lead exposure	674,038 (575,858–779,314)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	1,438,305 (1,175,257–1,713,103)	0 (0–0)	90,836 (54,038–123,893)	721,637 (570,882–882,976)	518,754 (414,384–639,905)	1,408 (1,067–1,857)	1,252 (945–1,631)
Suboptimal breastfeeding	544,817 (338,453–775,077)	0 (0–0)	90,836 (54,038–123,893)	417,748 (249,596–613,606)	36,233 (3,467–80,680)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	475,888 (272,493–684,422)	0 (0–0)	90,836 (54,038–123,893)	385,051 (214,204–563,219)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	68,929 (6,445–153,290)	0 (0–0)	0 (0–0)	32,696 (2,977–75,138)	36,233 (3,467–80,680)	0 (0–0)	0 (0–0)
Childhood underweight	860,117 (715,742–1,033,573)	0 (0–0)	0 (0–0)	456,852 (373,978–544,720)	403,265 (324,901–495,038)	0 (0–0)	0 (0–0)
Iron deficiency	119,608 (93,261–139,985)	0 (0–0)	0 (0–0)	4,732 (3,473–6,131)	7,799 (5,825–10,574)	1,408 (1,067–1,857)	1,252 (945–1,631)
Vitamin A deficiency	119,762 (61,723–191,846)	0 (0–0)	0 (0–0)	29,946 (13,850–50,920)	89,817 (46,880–142,677)	0 (0–0)	0 (0–0)
Zinc deficiency	97,330 (17,575–190,527)	0 (0–0)	0 (0–0)	0 (0–0)	97,330 (17,575–190,527)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	6,297,287 (5,395,769–7,006,942)	15,394 (9,856–22,066)	12,964 (8,668–17,719)	61,568 (41,829–82,500)	34,722 (23,397–46,997)	0 (0–0)	0 (0–0)
Tobacco smoking	5,695,349 (4,755,779–6,421,611)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	601,938 (447,705–745,328)	15,394 (9,856–22,066)	12,964 (8,668–17,719)	61,568 (41,829–82,500)	34,722 (23,397–46,997)	0 (0–0)	0 (0–0)
Alcohol and drug use	2,882,343 (2,601,098–3,161,618)	542 (389–854)	466 (303–751)	2,751 (1,877–4,547)	7,340 (4,952–10,841)	2,520 (1,975–3,354)	2,287 (1,853–2,947)
Alcohol use	2,735,511 (2,464,575–3,006,459)	222 (142–366)	114 (66–213)	1,017 (705–1,529)	4,873 (3,071–7,823)	1,947 (1,486–2,680)	1,734 (1,382–2,207)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Drug use	157,805 (124,639–209,873)	320 (187–593)	352 (197–631)	1,734 (962–3,560)	2,467 (1,271–4,303)	573 (340–1,071)	553 (361–1,020)
Physiological risk factors							
High fasting plasma glucose	3,356,271 (2,917,520–3,782,483)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	2,018,811 (1,572,853–2,479,097)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	9,395,860 (8,579,630–10,147,805)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	3,371,232 (2,817,774–3,951,127)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	187,586 (140,636–219,906)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	12,288,450 (11,487,702–13,115,164)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	4,902,242 (3,818,356–5,881,561)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	1,797,254 (1,205,059–2,394,366)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	1,725,812 (1,342,896–2,067,224)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	2,471,823 (1,559,603–3,226,994)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	100,951 (29,728–171,340)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	38,092 (10,749–65,727)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	840,857 (188,952–1,460,279)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	210,780 (136,271–299,863)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	742,888 (334,379–1,166,933)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	125,594 (88,323–164,800)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	1,389,896 (1,010,300–1,781,401)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	533,603 (245,096–820,854)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	515,260 (371,081–649,451)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	3,104,308 (2,016,734–4,105,019)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	3,183,940 (2,657,204–3,718,963)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Occupational risk factors	852,107 (659,652–1,062,443)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	118,097 (77,249–160,431)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	33,610 (20,317–43,647)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	2,662 (1,011–4,860)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	2,731 (1,111–4,811)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	163 (65–276)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	555 (249–901)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	1,931 (1,140–2,799)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	22,187 (12,180–33,213)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	24,235 (16,094–31,803)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	731 (301–1,361)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	9,145 (2,449–18,834)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	4,086 (1,909–6,567)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	16,277 (9,875–22,272)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	2,845 (833–6,109)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	33,716 (22,844–58,659)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	218,864 (100,403–344,633)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	481,429 (363,778–639,590)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	238,359 (143,200–325,690)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	19 (9–35)	717 (314–1,407)
Childhood sexual abuse	64,438 (37,339–94,174)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	19 (9–35)	717 (314–1,407)
Intimate partner violence	186,365 (92,028–280,059)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Unimproved water and sanitation	7,927 (287-16,589)	9,312 (343-18,640)	9,875 (386-19,842)	8,925 (345-17,258)	8,330 (290-16,469)	7,341 (265-14,658)	7,863 (261-15,887)
Unimproved water source	2,645 (160-5,741)	3,188 (189-6,761)	3,458 (221-7,336)	3,098 (206-6,489)	2,788 (176-5,768)	2,391 (148-5,055)	2,437 (156-5,141)
Unimproved sanitation	5,783 (129-12,280)	6,733 (144-13,914)	7,082 (165-14,724)	6,422 (152-13,019)	6,077 (127-12,447)	5,410 (118-11,161)	5,901 (116-12,237)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	19,383 (13,539-25,181)	28,261 (20,627-36,185)	46,942 (34,622-58,828)	83,986 (61,621-105,440)	119,288 (87,902-150,065)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	22,293 (15,813-30,263)	31,629 (22,799-42,938)	50,274 (35,553-66,934)	86,704 (60,670-116,008)	119,410 (81,956-160,836)
Ambient ozone pollution	0 (0-0)	0 (0-0)	375 (116-765)	446 (133-905)	748 (235-1,401)	1,216 (386-2,262)	2,201 (708-4,176)
Other environmental risks	0 (0-0)	0 (0-0)	5,104 (3,304-7,453)	7,743 (5,241-10,924)	10,495 (8,296-14,745)	17,600 (13,746-24,585)	26,858 (21,596-33,065)
Residential radon	0 (0-0)	0 (0-0)	179 (19-460)	361 (42-894)	815 (97-2,018)	1,979 (252-4,700)	3,884 (506-8,889)
Lead exposure	0 (0-0)	0 (0-0)	4,925 (3,169-7,265)	7,382 (4,951-10,481)	9,680 (7,589-13,871)	15,621 (12,287-22,423)	22,974 (18,703-27,494)
Child and maternal undernutrition	6,986 (4,831-9,348)	14,132 (9,115-18,457)	13,684 (8,451-17,980)	11,995 (7,443-15,896)	10,630 (6,237-14,915)	6,881 (4,454-9,230)	4,507 (3,088-5,903)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	6,986 (4,831-9,348)	14,132 (9,115-18,457)	13,684 (8,451-17,980)	11,995 (7,443-15,896)	10,630 (6,237-14,915)	6,881 (4,454-9,230)	4,507 (3,088-5,903)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	2,781 (1,860-3,717)	45,557 (37,167-57,566)	82,782 (62,570-104,142)	167,605 (135,201-202,849)	266,672 (231,366-304,378)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	41,700 (33,543-53,877)	77,635 (57,110-98,732)	159,037 (126,938-194,322)	252,839 (217,743-292,135)
Second-hand smoke	0 (0-0)	0 (0-0)	2,781 (1,860-3,717)	3,857 (2,650-5,069)	5,147 (3,488-6,734)	8,568 (5,741-11,414)	13,834 (9,279-18,293)
Alcohol and drug use	47,576 (39,843-56,170)	89,470 (75,217-104,352)	105,131 (89,973-121,372)	106,200 (92,178-120,507)	153,451 (133,884-175,849)	178,612 (158,881-202,666)	219,203 (195,232-243,514)
Alcohol use	43,252 (35,488-51,791)	77,407 (64,487-91,668)	87,921 (73,852-103,453)	88,818 (76,090-102,309)	135,626 (116,887-156,261)	161,132 (142,629-184,403)	203,282 (179,796-227,983)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Drug use	4,514 (2,996–6,858)	12,688 (8,477–19,023)	18,015 (12,883–25,715)	17,947 (13,703–24,111)	18,558 (14,039–24,687)	18,465 (13,637–25,171)	17,219 (12,729–23,413)
Physiological risk factors							
High fasting plasma glucose	0 (0–0)	0 (0–0)	16,376 (13,393–19,453)	21,148 (17,209–25,587)	43,429 (35,413–52,077)	66,152 (54,203–78,473)	131,855 (111,312–153,375)
High total cholesterol	0 (0–0)	0 (0–0)	6,572 (4,394–8,963)	9,962 (6,553–13,920)	24,515 (17,800–31,983)	42,725 (31,400–55,359)	76,279 (57,998–95,565)
High blood pressure	0 (0–0)	0 (0–0)	31,718 (24,757–38,787)	42,412 (33,437–51,292)	85,457 (71,052–99,442)	138,576 (115,600–161,057)	269,840 (238,063–301,765)
High body-mass index	0 (0–0)	0 (0–0)	19,916 (15,486–24,861)	26,581 (20,553–33,369)	52,528 (42,411–63,304)	84,536 (68,301–101,372)	142,047 (118,257–167,130)
Low bone mineral density	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	0 (0–0)	0 (0–0)	55,529 (49,093–62,597)	84,329 (75,257–93,960)	142,660 (127,336–156,827)	257,650 (231,898–281,780)	408,925 (370,942–445,266)
Diet low in fruits	0 (0–0)	0 (0–0)	29,556 (22,733–36,007)	43,549 (33,426–53,056)	72,886 (56,575–88,493)	132,153 (102,782–158,869)	205,974 (158,169–245,090)
Diet low in vegetables	0 (0–0)	0 (0–0)	14,731 (9,377–19,724)	20,712 (13,467–27,691)	32,118 (20,106–43,252)	53,791 (34,064–71,797)	80,658 (51,595–107,242)
Diet low in whole grains	0 (0–0)	0 (0–0)	13,004 (9,944–16,207)	18,729 (14,177–23,363)	29,575 (22,577–36,641)	51,176 (39,003–62,409)	75,062 (57,926–91,881)
Diet low in nuts and seeds	0 (0–0)	0 (0–0)	15,304 (10,067–19,719)	23,376 (15,406–30,657)	37,278 (24,867–48,870)	65,322 (43,503–84,936)	96,674 (63,319–125,988)
Diet low in milk	0 (0–0)	0 (0–0)	608 (175–1,051)	918 (263–1,564)	1,522 (407–2,611)	2,463 (691–4,208)	3,999 (1,160–6,973)
Diet high in red meat	0 (0–0)	0 (0–0)	153 (42–266)	253 (72–452)	462 (128–853)	788 (219–1,399)	1,346 (368–2,395)
Diet high in processed meat	0 (0–0)	0 (0–0)	5,785 (1,293–10,388)	8,788 (1,911–15,937)	13,433 (2,863–24,166)	23,635 (4,991–43,764)	36,276 (8,262–63,401)
Diet high in sugar-sweetened beverages	0 (0–0)	0 (0–0)	2,833 (1,681–4,191)	3,725 (2,165–5,118)	4,663 (1,835–7,876)	7,031 (2,463–12,145)	9,159 (3,264–15,089)
Diet low in fibre	0 (0–0)	0 (0–0)	6,217 (2,769–9,778)	9,159 (4,075–14,334)	14,693 (6,311–22,524)	24,543 (10,944–38,488)	35,718 (15,907–56,352)
Diet low in calcium	0 (0–0)	0 (0–0)	767 (559–1,032)	1,137 (810–1,505)	1,866 (1,345–2,508)	2,954 (2,154–3,983)	4,694 (3,455–6,223)
Diet low in seafood omega-3 fatty acids	0 (0–0)	0 (0–0)	10,264 (7,269–13,173)	15,564 (10,897–20,365)	24,478 (17,108–31,695)	42,421 (31,370–55,094)	61,767 (44,216–79,980)
Diet low in polyunsaturated fatty acids	0 (0–0)	0 (0–0)	4,314 (2,085–6,637)	6,367 (3,025–9,704)	9,808 (4,589–14,853)	16,489 (7,740–25,406)	23,846 (11,064–36,070)
Diet high in trans fatty acids	0 (0–0)	0 (0–0)	4,649 (3,317–6,064)	6,892 (4,890–8,947)	10,395 (7,378–13,277)	17,502 (12,473–22,588)	25,250 (17,861–32,222)
Diet high in sodium	0 (0–0)	0 (0–0)	10,709 (5,512–15,656)	17,736 (11,101–24,204)	31,747 (20,022–43,823)	61,519 (40,089–82,711)	98,320 (65,211–130,036)
Physical inactivity and low physical activity	0 (0–0)	0 (0–0)	17,717 (14,545–21,127)	26,592 (22,165–32,284)	42,902 (35,223–50,963)	72,728 (60,057–86,619)	111,101 (91,925–128,952)
Occupational risk factors	32,664 (24,539–45,485)	62,435 (46,472–85,655)	70,651 (52,333–95,734)	65,957 (48,624–88,741)	64,027 (47,245–85,499)	62,283 (46,692–84,074)	62,417 (47,607–82,202)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Occupational carcinogens	243 (152-351)	409 (241-626)	535 (324-799)	681 (438-985)	1,128 (730-1,622)	2,364 (1,562-3,384)	4,896 (3,181-6,860)
Occupational exposure to asbestos	102 (55-142)	117 (60-164)	127 (62-187)	158 (85-218)	245 (142-332)	480 (282-644)	1,004 (586-1,346)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	4 (1-8)	9 (3-16)	24 (9-46)	56 (21-105)	124 (47-228)
Occupational exposure to benzene	118 (50-215)	242 (101-440)	230 (96-413)	216 (89-388)	119 (50-213)	136 (56-249)	75 (32-134)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	1 (1-3)	3 (1-6)	8 (3-13)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	1 (0-1)	2 (1-3)	5 (2-8)	11 (5-19)	25 (11-42)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	3 (2-5)	6 (3-10)	17 (10-26)	40 (23-60)	89 (53-132)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	35 (17-56)	67 (36-107)	194 (104-305)	445 (252-689)	1,011 (567-1,538)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	40 (24-59)	80 (49-116)	225 (147-314)	514 (360-702)	1,144 (775-1,523)
Occupational exposure to formaldehyde	24 (10-40)	52 (22-93)	53 (23-93)	56 (23-102)	37 (15-73)	53 (19-110)	33 (11-70)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	14 (3-29)	29 (8-63)	82 (21-176)	191 (52-408)	423 (110-872)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	6 (3-11)	13 (6-22)	36 (16-60)	83 (39-139)	187 (87-304)
Occupational exposure to silica	0 (0-0)	0 (0-0)	24 (13-37)	47 (28-71)	137 (84-202)	318 (209-455)	724 (454-1,007)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	3 (1-7)	7 (2-15)	25 (7-57)	79 (22-175)	182 (53-414)
Occupational asthmagens	358 (203-681)	740 (455-1,354)	1,066 (689-1,841)	1,105 (708-1,964)	1,488 (959-2,785)	1,840 (1,188-3,252)	2,659 (1,718-4,868)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	1,382 (611-2,345)	1,733 (786-2,913)	2,924 (1,346-4,816)	4,914 (2,251-7,771)	8,653 (4,028-13,724)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	32,063 (23,863-44,890)	61,286 (45,285-84,491)	67,668 (49,469-92,934)	62,438 (45,594-85,576)	58,487 (42,023-79,902)	53,165 (38,056-74,337)	46,208 (32,800-65,420)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence	22,733 (12,019-38,782)	28,956 (17,714-43,276)	24,610 (14,985-36,062)	20,391 (13,235-29,618)	20,210 (12,545-29,477)	19,242 (11,546-28,530)	17,203 (10,285-25,415)
Childhood sexual abuse	6,208 (3,117-10,541)	7,162 (3,552-12,066)	5,923 (2,981-10,085)	5,068 (2,706-8,223)	5,202 (2,908-8,361)	5,495 (3,114-8,356)	5,539 (3,237-8,384)
Intimate partner violence	18,330 (7,592-34,410)	23,487 (12,704-37,565)	19,975 (10,948-30,924)	16,304 (9,629-25,166)	15,987 (8,588-25,315)	14,732 (7,145-24,077)	12,498 (5,857-20,668)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Unimproved water and sanitation	8,151 (326–16,408)	9,759 (376–19,460)	12,962 (483–26,972)	14,139 (502–29,129)	17,147 (685–35,493)	14,904 (502–31,039)	24,054 (958–51,100)
Unimproved water source	2,536 (172–5,284)	2,862 (186–6,023)	3,729 (239–8,007)	4,087 (256–8,653)	4,669 (300–10,202)	4,107 (262–9,056)	6,402 (416–14,213)
Unimproved sanitation	6,109 (150–12,868)	7,461 (191–15,524)	9,982 (249–21,194)	10,865 (260–23,127)	13,403 (364–28,953)	11,598 (252–24,967)	18,841 (526–40,114)
Air pollution							
Ambient particulate matter pollution	184,594 (137,748–229,414)	264,159 (197,916–329,587)	312,142 (235,061–380,641)	350,365 (256,084–437,319)	437,544 (310,562–549,395)	441,676 (319,299–545,498)	808,013 (593,718–1,006,500)
Household air pollution from solid fuels	185,729 (130,714–250,233)	265,260 (179,824–363,709)	322,961 (223,865–423,616)	382,801 (258,960–520,298)	459,038 (308,038–625,421)	440,973 (298,421–598,274)	673,357 (451,313–939,330)
Ambient ozone pollution	4,316 (1,466–7,814)	8,062 (2,744–14,031)	12,747 (4,344–22,552)	18,635 (6,146–32,946)	25,305 (8,886–44,211)	27,205 (8,986–48,144)	51,177 (17,494–90,709)
Other environmental risks	44,042 (34,940–55,390)	63,955 (49,978–81,112)	78,391 (61,072–98,724)	91,681 (74,033–113,972)	112,467 (91,407–138,330)	113,536 (94,482–136,448)	201,157 (170,661–234,060)
Residential radon	7,079 (921–15,575)	11,324 (1,463–25,961)	13,548 (1,724–30,220)	14,401 (1,845–31,358)	15,897 (2,099–34,473)	13,896 (1,932–30,443)	15,630 (2,235–32,630)
Lead exposure	36,964 (30,600–44,851)	52,632 (43,971–62,442)	64,844 (53,983–76,354)	77,280 (64,747–90,674)	96,570 (81,172–112,338)	99,640 (84,717–115,369)	185,527 (158,672–213,510)
Child and maternal undernutrition	2,008 (1,456–2,513)	2,480 (1,811–3,087)	3,075 (2,132–3,874)	3,779 (2,684–4,711)	4,466 (3,166–5,655)	4,839 (3,477–5,993)	14,956 (9,848–17,596)
Suboptimal breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Childhood underweight	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Iron deficiency	2,008 (1,456–2,513)	2,480 (1,811–3,087)	3,075 (2,132–3,874)	3,779 (2,684–4,711)	4,466 (3,166–5,655)	4,839 (3,477–5,993)	14,956 (9,848–17,596)
Vitamin A deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Zinc deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	422,111 (367,296–477,852)	610,183 (523,167–684,715)	721,026 (612,303–809,754)	782,657 (652,139–877,934)	906,104 (739,469–1,024,868)	836,555 (673,595–951,091)	1,328,606 (1,077,222–1,528,946)
Tobacco smoking	400,125 (345,548–456,401)	577,913 (490,199–656,288)	680,179 (571,860–773,143)	733,152 (606,215–831,566)	835,859 (668,503–960,159)	761,951 (595,947–880,095)	1,174,959 (919,813–1,384,525)
Second-hand smoke	21,986 (14,932–28,718)	32,270 (22,169–41,920)	40,846 (27,856–53,015)	49,505 (33,487–64,034)	70,245 (47,149–91,083)	74,604 (49,672–98,144)	153,647 (102,682–200,924)
Alcohol and drug use	259,637 (232,928–288,933)	289,998 (261,407–319,189)	278,664 (251,759–308,347)	192,815 (169,747–217,361)	246,062 (211,826–280,749)	234,406 (196,742–270,417)	465,213 (368,775–553,542)
Alcohol use	247,349 (221,144–276,088)	280,924 (252,576–309,985)	271,855 (245,586–300,807)	190,618 (167,794–214,854)	243,705 (209,694–276,221)	232,408 (194,609–268,620)	461,306 (364,931–549,076)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Drug use	13,990 (10,465–18,702)	11,079 (8,422–14,411)	8,852 (6,899–11,843)	2,207 (1,423–3,877)	2,362 (1,597–5,088)	2,000 (1,373–4,143)	3,909 (2,477–8,336)
Physiological risk factors							
High fasting plasma glucose	192,326 (162,712–223,215)	301,908 (257,999–343,811)	354,094 (305,203–400,759)	409,284 (352,906–460,699)	497,620 (433,028–563,987)	479,994 (415,869–542,922)	842,087 (725,560–961,107)
High total cholesterol	116,153 (88,661–145,847)	163,447 (125,168–201,847)	192,656 (148,160–237,907)	212,332 (162,213–261,149)	287,394 (213,781–358,893)	280,762 (199,826–363,786)	606,014 (465,240–762,497)
High blood pressure	399,896 (351,044–450,086)	654,736 (590,299–716,664)	775,057 (702,642–847,847)	1,001,731 (915,284–1,089,574)	1,326,834 (1,213,244–1,441,000)	1,479,518 (1,357,572–1,602,369)	3,190,084 (2,903,071–3,473,227)
High body-mass index	212,132 (175,681–249,202)	284,645 (238,583–332,873)	342,743 (288,037–400,484)	352,399 (293,444–415,819)	462,281 (386,109–543,426)	447,723 (369,966–528,592)	943,703 (776,426–1,117,365)
Low bone mineral density	10,798 (7,376–14,427)	11,833 (7,989–15,250)	15,570 (10,556–20,325)	16,721 (11,264–21,858)	22,365 (14,771–29,664)	27,860 (19,146–35,337)	82,439 (61,339–99,596)
Dietary risk factors and physical inactivity	644,507 (585,811–697,969)	921,116 (843,663–993,658)	1,106,313 (1,016,853–1,198,794)	1,297,604 (1,195,070–1,404,483)	1,701,119 (1,558,272–1,837,743)	1,810,127 (1,658,017–1,936,517)	3,858,570 (3,539,652–4,173,525)
Diet low in fruits	320,139 (251,370–383,004)	447,203 (349,331–535,000)	503,150 (390,512–601,267)	567,807 (441,865–684,963)	694,866 (523,995–852,428)	694,529 (523,865–848,254)	1,190,431 (898,921–1,475,735)
Diet low in vegetables	119,259 (77,459–160,291)	154,768 (101,928–209,953)	171,837 (113,435–232,266)	190,875 (126,872–258,865)	245,311 (162,020–330,106)	245,167 (163,135–328,632)	468,027 (310,777–634,554)
Diet low in whole grains	111,113 (86,150–134,779)	149,480 (114,624–181,418)	168,657 (131,997–201,982)	184,513 (143,699–223,842)	237,570 (185,147–286,878)	239,546 (185,978–288,836)	447,387 (344,595–539,455)
Diet low in nuts and seeds	147,897 (97,152–194,197)	198,874 (126,498–258,779)	227,161 (144,126–296,077)	322,245 (160,295–329,883)	326,609 (203,019–432,509)	333,926 (207,817–444,484)	747,159 (444,925–1,013,572)
Diet low in milk	6,196 (1,809–10,510)	9,064 (2,657–15,593)	10,726 (3,075–18,156)	11,840 (3,596–19,917)	14,541 (4,242–24,359)	14,428 (4,211–24,711)	24,644 (7,154–41,748)
Diet high in red meat	2,123 (609–3,759)	3,213 (900–5,577)	3,901 (1,135–6,840)	4,366 (1,258–7,523)	5,620 (1,571–9,771)	5,680 (1,612–9,824)	10,186 (2,769–17,486)
Diet high in processed meat	55,072 (12,134–96,483)	70,821 (15,903–123,590)	79,582 (17,881–139,150)	83,696 (18,480–144,781)	106,904 (24,368–187,917)	106,784 (24,369–186,277)	250,082 (55,778–439,244)
Diet high in sugar-sweetened beverages	13,067 (4,343–21,137)	18,937 (5,865–27,568)	20,455 (6,561–28,996)	24,745 (17,217–34,142)	26,202 (18,015–38,916)	25,282 (17,260–52,334)	54,680 (27,449–99,390)
Diet low in fibre	50,669 (22,454–79,898)	64,896 (28,876–100,511)	69,288 (31,496–109,076)	72,368 (32,224–114,233)	93,640 (41,841–147,686)	96,524 (43,505–150,993)	205,173 (90,134–326,024)
Diet low in calcium	7,278 (5,363–9,476)	10,802 (7,857–13,970)	12,879 (9,431–16,736)	14,518 (10,476–18,715)	18,098 (12,755–23,815)	18,487 (12,737–24,562)	32,114 (20,693–44,759)
Diet low in seafood omega-3 fatty acids	92,600 (66,424–119,004)	121,446 (88,439–154,611)	134,722 (95,314–172,333)	145,575 (107,069–186,547)	183,517 (132,993–234,887)	180,729 (130,488–234,087)	376,813 (269,997–487,697)
Diet low in polyunsaturated fatty acids	35,428 (16,406–54,366)	45,805 (21,626–69,737)	51,033 (23,629–78,275)	55,294 (25,382–85,803)	68,664 (31,331–106,753)	68,287 (31,905–104,462)	148,269 (69,596–227,690)
Diet high in trans fatty acids	36,544 (25,998–46,689)	45,358 (32,389–57,299)	51,152 (36,748–65,110)	53,600 (38,825–68,146)	63,550 (45,742–81,677)	62,692 (44,977–79,902)	137,675 (98,838–177,505)
Diet high in sodium	160,935 (107,007–211,930)	239,505 (159,131–314,577)	298,843 (197,810–390,975)	360,688 (236,085–478,983)	458,805 (297,515–610,502)	466,938 (299,801–623,500)	898,562 (561,441–1,211,761)
Physical inactivity and low physical activity	166,062 (139,081–193,360)	233,944 (197,366–271,883)	285,323 (239,706–332,262)	330,531 (278,971–384,073)	437,261 (358,342–514,588)	461,360 (377,739–551,728)	998,419 (803,033–1,186,189)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Occupational risk factors	66,782 (50,522–87,875)	78,325 (57,429–101,849)	76,567 (52,399–103,659)	59,149 (37,215–83,170)	70,283 (43,374–101,420)	63,047 (36,177–93,649)	17,520 (11,736–23,165)
Occupational carcinogens	8,434 (5,529–12,084)	16,119 (10,270–23,451)	19,111 (12,299–26,963)	16,351 (10,577–22,534)	18,150 (11,300–25,242)	12,156 (7,901–16,412)	17,520 (11,736–23,165)
Occupational exposure to asbestos	1,815 (1,034–2,497)	2,759 (1,562–3,676)	3,796 (2,254–4,937)	4,214 (2,525–5,470)	5,136 (3,052–6,729)	5,118 (3,057–6,857)	8,540 (5,375–11,197)
Occupational exposure to arsenic	210 (82–381)	439 (166–814)	500 (190–938)	384 (143–696)	416 (158–757)	213 (82–394)	284 (112–532)
Occupational exposure to benzene	86 (35–154)	142 (58–252)	156 (65–274)	239 (99–416)	273 (114–483)	359 (148–656)	342 (137–607)
Occupational exposure to beryllium	13 (5–22)	27 (10–46)	30 (12–53)	23 (9–39)	26 (10–43)	13 (5–23)	18 (7–31)
Occupational exposure to cadmium	43 (20–72)	91 (40–153)	104 (47–174)	80 (35–130)	87 (39–142)	45 (20–74)	60 (27–100)
Occupational exposure to chromium	151 (89–226)	317 (190–476)	361 (212–539)	278 (160–401)	303 (172–447)	155 (86–231)	211 (116–313)
Occupational exposure to diesel engine exhaust	1,755 (969–2,688)	3,650 (1,999–5,640)	4,205 (2,339–6,419)	3,263 (1,752–4,918)	3,480 (1,808–5,340)	1,797 (909–2,770)	2,286 (1,166–3,448)
Occupational exposure to second-hand smoke	1,937 (1,330–2,630)	3,965 (2,647–5,404)	4,565 (3,054–6,210)	3,494 (2,247–4,640)	3,748 (2,398–5,047)	1,916 (1,193–2,576)	2,608 (1,573–3,518)
Occupational exposure to formaldehyde	35 (11–81)	57 (19–123)	53 (19–109)	75 (28–159)	69 (27–135)	81 (33–151)	54 (23–101)
Occupational exposure to nickel	717 (189–1,456)	1,497 (388–3,143)	1,703 (449–3,587)	1,316 (349–2,658)	1,437 (377–2,919)	740 (198–1,520)	996 (275–2,104)
Occupational exposure to polycyclic aromatic hydrocarbons	320 (151–525)	670 (309–1,122)	767 (361–1,272)	592 (267–957)	642 (296–1,039)	330 (149–542)	441 (204–721)
Occupational exposure to silica	1,264 (790–1,775)	2,664 (1,619–3,731)	3,068 (1,878–4,265)	2,403 (1,432–3,294)	2,580 (1,465–3,582)	1,345 (736–1,897)	1,703 (949–2,362)
Occupational exposure to sulfuric acid	317 (95–697)	452 (137–994)	504 (152–1,079)	409 (115–890)	407 (118–884)	202 (54–437)	258 (72–569)
Occupational asthmagens	3,429 (2,175–6,213)	4,420 (2,938–8,152)	4,545 (3,010–7,968)	3,734 (2,412–6,663)	4,289 (2,797–7,245)	4,043 (2,640–6,860)	0 (0–0)
Occupational particulate matter, gases, and fumes	16,308 (7,418–25,630)	27,579 (12,893–42,740)	35,929 (16,528–57,533)	31,724 (13,724–51,720)	42,535 (18,474–69,270)	45,183 (20,103–73,379)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	38,611 (27,657–56,561)	30,208 (21,348–43,821)	16,982 (12,144–24,063)	7,340 (5,214–10,759)	5,310 (3,801–7,576)	1,664 (1,213–2,405)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	16,691 (9,424–25,921)	14,856 (8,175–23,045)	12,739 (6,609–19,983)	10,636 (5,175–17,573)	10,329 (5,092–16,265)	8,007 (3,980–12,754)	11,021 (4,950–19,051)
Childhood sexual abuse	5,644 (3,271–8,352)	4,859 (2,876–7,353)	3,878 (2,272–6,015)	2,894 (1,655–4,540)	2,409 (1,384–3,807)	1,685 (968–2,636)	1,734 (964–2,823)
Intimate partner violence	11,896 (4,891–20,523)	10,741 (3,973–18,753)	9,510 (3,537–16,855)	8,269 (2,925–14,994)	8,395 (3,058–14,562)	6,628 (2,454–11,276)	9,613 (3,366–17,719)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Unimproved water and sanitation	171,097 (6,841–326,262)	3,256 (133–6,725)	6,162 (249–12,545)	41,197 (1,645–80,748)	31,452 (1,365–62,074)	7,407 (298–15,257)	3,772 (159–7,992)
Unimproved water source	59,463 (3,880–120,264)	1,304 (86–2,768)	2,331 (147–4,840)	16,231 (1,057–33,057)	12,614 (807–25,209)	2,561 (166–5,392)	1,223 (79–2,722)
Unimproved sanitation	123,255 (2,924–242,588)	2,208 (53–4,828)	4,299 (108–9,051)	28,121 (687–57,251)	21,386 (523–44,365)	5,338 (127–11,347)	2,778 (68–6,088)
Air pollution							
Ambient particulate matter pollution	1,850,428 (1,614,010–2,082,474)	9,864 (5,776–15,458)	7,848 (4,833–11,830)	32,496 (21,487–45,961)	20,244 (12,743–30,639)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	1,867,043 (1,359,090–2,452,588)	33,516 (20,455–50,767)	25,343 (16,582–36,042)	114,984 (77,458–155,115)	72,093 (49,492–106,401)	0 (0–0)	0 (0–0)
Ambient ozone pollution	86,335 (30,551–153,776)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	426,280 (341,744–541,465)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon	70,014 (9,140–154,460)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Lead exposure	356,266 (292,587–435,046)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	739,863 (570,560–909,248)	0 (0–0)	50,064 (29,003–71,177)	385,843 (295,253–483,200)	278,752 (211,907–359,030)	747 (517–1,077)	590 (414–832)
Suboptimal breastfeeding	293,449 (175,623–429,772)	0 (0–0)	50,064 (29,003–71,177)	224,974 (130,674–336,168)	18,411 (1,702–42,066)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	257,771 (143,116–382,459)	0 (0–0)	50,064 (29,003–71,177)	207,707 (113,863–313,552)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	35,678 (3,475–79,940)	0 (0–0)	0 (0–0)	17,267 (1,599–39,711)	18,411 (1,702–42,066)	0 (0–0)	0 (0–0)
Childhood underweight	458,639 (366,866–561,352)	0 (0–0)	0 (0–0)	242,188 (189,566–299,472)	216,451 (167,965–276,346)	0 (0–0)	0 (0–0)
Iron deficiency	32,287 (21,925–37,449)	0 (0–0)	0 (0–0)	2,631 (1,769–3,874)	4,453 (2,957–6,919)	747 (517–1,077)	590 (414–832)
Vitamin A deficiency	63,291 (32,070–104,030)	0 (0–0)	0 (0–0)	15,377 (6,877–26,936)	47,913 (24,771–79,872)	0 (0–0)	0 (0–0)
Zinc deficiency	52,390 (9,382–105,728)	0 (0–0)	0 (0–0)	0 (0–0)	52,390 (9,382–105,728)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	4,507,059 (3,757,779–5,092,460)	9,133 (5,668–14,018)	7,293 (4,596–10,497)	33,825 (22,595–46,692)	18,899 (11,980–27,536)	0 (0–0)	0 (0–0)
Tobacco smoking	4,251,424 (3,503,674–4,850,554)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	255,634 (191,587–314,541)	9,133 (5,668–14,018)	7,293 (4,596–10,497)	33,825 (22,595–46,692)	18,899 (11,980–27,536)	0 (0–0)	0 (0–0)
Alcohol and drug use	1,925,525 (1,712,465–2,132,787)	338 (229–622)	294 (155–562)	1,599 (891–3,117)	4,206 (2,652–6,792)	1,558 (1,176–2,204)	1,419 (1,123–1,870)
Alcohol use	1,824,119 (1,613,616–2,029,574)	120 (73–218)	65 (35–133)	574 (371–991)	2,971 (1,733–5,225)	1,209 (881–1,714)	1,123 (865–1,463)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Drug use	109,420 (82,297–152,421)	218 (104–456)	229 (99–482)	1,025 (406–2,503)	1,235 (480–2,271)	349 (190–737)	296 (156–654)
Physiological risk factors							
High fasting plasma glucose	1,749,058 (1,455,169–2,039,206)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	961,614 (714,774–1,236,023)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	4,750,581 (4,272,529–5,273,576)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	1,632,766 (1,328,501–1,941,988)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	103,440 (67,743–124,596)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	6,570,516 (6,063,034–7,098,471)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	2,837,481 (2,203,651–3,414,649)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	1,017,500 (687,787–1,378,721)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	963,640 (748,116–1,162,721)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	1,389,433 (890,869–1,817,734)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	54,093 (16,106–91,527)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	21,330 (6,175–37,340)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	473,562 (103,608–842,923)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	117,874 (76,219–170,172)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	441,895 (201,062–693,234)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	76,413 (51,653–103,188)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	793,650 (574,241–1,010,930)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	306,296 (140,873–473,149)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	293,087 (209,155–371,284)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	1,732,870 (1,122,107–2,301,781)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	1,547,833 (1,264,464–1,835,192)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Occupational risk factors	749,857 (580,954–941,322)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	92,154 (57,261–127,678)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	26,563 (14,454–36,593)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	1,915 (717–3,496)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	1,542 (618–2,706)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	114 (44–192)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	410 (179–670)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	1,361 (720–2,014)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	18,773 (9,641–28,714)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	17,189 (10,127–23,037)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	486 (185–939)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	6,443 (1,616–13,317)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	3,092 (1,394–5,028)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	14,205 (8,244–19,702)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	2,606 (718–5,761)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	25,364 (15,642–48,748)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	171,553 (79,656–270,369)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	460,785 (343,904–618,319)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	37,429 (21,366–56,607)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	9 (4–16)	293 (131–574)
Childhood sexual abuse	37,429 (21,366–56,607)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	9 (4–16)	293 (131–574)
Intimate partner violence	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Unimproved water and sanitation	4,198 (143-9,165)	4,548 (172-9,351)	4,909 (181-10,222)	4,749 (181-9,713)	4,520 (158-9,193)	4,150 (142-8,810)	4,411 (136-9,257)
Unimproved water source	1,385 (84-3,088)	1,532 (93-3,335)	1,666 (97-3,636)	1,586 (105-3,319)	1,446 (96-3,048)	1,296 (78-2,883)	1,340 (85-2,903)
Unimproved sanitation	3,072 (62-6,849)	3,304 (72-6,901)	3,560 (83-7,664)	3,466 (79-7,288)	3,349 (68-6,994)	3,103 (61-6,784)	3,332 (57-7,393)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	13,059 (9,124-17,095)	19,468 (13,850-25,400)	32,310 (23,268-41,544)	57,842 (42,349-73,195)	81,776 (59,736-103,678)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	13,864 (9,453-20,086)	20,344 (13,647-28,720)	31,996 (21,614-44,792)	55,558 (36,651-76,779)	75,245 (51,083-104,126)
Ambient ozone pollution	0 (0-0)	0 (0-0)	209 (59-454)	260 (78-554)	431 (139-871)	746 (224-1,487)	1,345 (449-2,770)
Other environmental risks	0 (0-0)	0 (0-0)	2,175 (1,619-3,534)	3,604 (2,775-5,833)	6,281 (4,915-8,475)	10,748 (8,324-15,098)	17,574 (13,608-22,319)
Residential radon	0 (0-0)	0 (0-0)	118 (12-311)	227 (26-564)	516 (58-1,250)	1,284 (142-3,042)	2,662 (324-6,136)
Lead exposure	0 (0-0)	0 (0-0)	2,057 (1,522-3,417)	3,376 (2,550-5,492)	5,765 (4,457-7,899)	9,465 (7,503-12,796)	14,911 (11,825-18,504)
Child and maternal undernutrition	1,059 (704-1,545)	1,402 (917-2,066)	1,406 (1,004-1,925)	1,298 (854-1,917)	1,138 (733-1,605)	960 (597-1,402)	1,017 (673-1,363)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,059 (704-1,545)	1,402 (917-2,066)	1,406 (1,004-1,925)	1,298 (854-1,917)	1,138 (733-1,605)	960 (597-1,402)	1,017 (673-1,363)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	1,426 (930-1,955)	38,180 (30,013-49,605)	68,311 (48,598-89,061)	137,134 (106,845-169,336)	217,668 (184,804-253,378)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	36,211 (28,169-47,605)	66,201 (46,625-86,784)	133,319 (103,444-165,767)	211,777 (177,868-248,269)
Second-hand smoke	0 (0-0)	0 (0-0)	1,426 (930-1,955)	1,970 (1,330-2,641)	2,110 (1,350-2,935)	3,815 (2,519-5,169)	5,891 (3,893-7,894)
Alcohol and drug use	38,563 (31,110-46,931)	74,852 (61,576-88,688)	88,525 (74,000-104,140)	88,326 (75,290-102,223)	127,398 (109,623-148,187)	146,079 (127,034-166,826)	176,125 (153,669-199,416)
Alcohol use	36,023 (28,686-44,345)	66,575 (53,884-80,300)	75,692 (61,830-91,071)	75,466 (63,389-88,672)	114,330 (96,927-134,353)	133,418 (115,195-153,720)	164,804 (142,796-187,607)
Drug use	2,708 (1,702-4,240)	8,849 (5,488-13,026)	13,569 (9,058-20,138)	13,347 (9,801-18,933)	13,672 (10,046-19,520)	13,431 (9,309-19,341)	12,253 (8,517-18,010)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	9,901 (7,505-12,477)	13,608 (10,431-17,367)	28,366 (22,365-35,573)	43,525 (34,134-53,740)	85,873 (69,876-103,704)
High total cholesterol	0 (0-0)	0 (0-0)	4,703 (2,938-6,753)	7,320 (4,556-10,658)	18,355 (12,896-24,595)	32,174 (22,504-42,847)	54,479 (39,181-70,286)
High blood pressure	0 (0-0)	0 (0-0)	23,298 (18,104-28,561)	31,944 (25,005-39,087)	59,130 (48,434-69,901)	97,391 (80,184-115,463)	180,199 (154,934-205,789)
High body-mass index	0 (0-0)	0 (0-0)	12,157 (9,196-15,622)	16,711 (12,729-21,185)	31,328 (24,828-38,622)	54,686 (43,043-66,893)	86,827 (70,457-103,360)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	35,775 (30,556-41,618)	55,301 (47,935-63,601)	93,118 (80,632-105,415)	169,927 (148,808-190,803)	271,516 (239,838-301,992)
Diet low in vegetables	0 (0-0)	0 (0-0)	19,874 (14,870-24,853)	29,885 (22,425-37,212)	49,633 (37,410-61,376)	90,254 (68,401-111,241)	141,261 (104,788-172,610)
Diet low in whole grains	0 (0-0)	0 (0-0)	9,940 (6,263-13,739)	14,296 (9,348-19,342)	22,058 (14,051-30,076)	37,172 (23,576-50,374)	55,966 (35,880-75,432)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	8,865 (6,554-11,311)	13,120 (9,625-16,912)	20,786 (15,332-26,314)	35,936 (27,093-44,622)	52,617 (39,643-65,517)
Diet low in milk	0 (0-0)	0 (0-0)	10,840 (7,088-14,546)	16,990 (10,851-22,591)	27,525 (17,647-37,205)	48,363 (31,724-64,208)	72,155 (46,283-95,082)
Diet high in red meat	0 (0-0)	0 (0-0)	337 (102-598)	515 (145-899)	829 (230-1,429)	1,285 (356-2,168)	2,159 (631-3,739)
Diet high in processed meat	0 (0-0)	0 (0-0)	92 (26-166)	151 (43-274)	266 (76-487)	440 (124-802)	769 (213-1,372)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	4,035 (825-7,543)	6,296 (1,295-11,996)	9,758 (1,931-17,999)	17,177 (3,311-33,518)	26,751 (5,612-48,323)
Diet low in fibre	0 (0-0)	0 (0-0)	1,842 (905-2,915)	2,472 (1,060-3,650)	3,122 (1,122-5,701)	4,872 (1,546-8,733)	6,532 (2,071-10,796)
Diet low in calcium	0 (0-0)	0 (0-0)	4,516 (1,990-7,213)	6,793 (2,989-10,900)	10,936 (4,590-17,052)	18,285 (7,950-28,926)	26,734 (11,345-43,301)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	433 (307-598)	651 (444-892)	1,038 (735-1,436)	1,577 (1,121-2,210)	2,606 (1,914-3,501)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	7,267 (5,020-9,668)	11,303 (7,753-15,221)	18,064 (12,431-23,928)	31,385 (22,735-41,519)	46,077 (31,792-60,511)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	3,052 (1,397-4,815)	4,609 (2,079-7,122)	7,193 (3,254-11,135)	12,162 (5,536-18,859)	17,753 (7,889-27,298)
Diet high in sodium	0 (0-0)	0 (0-0)	3,165 (2,134-4,261)	4,813 (3,184-6,401)	7,360 (5,073-9,657)	12,476 (8,723-16,506)	18,222 (12,354-23,844)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	6,145 (2,652-9,797)	10,937 (6,103-16,090)	20,661 (12,841-28,952)	40,830 (25,960-56,616)	67,522 (43,642-90,846)
Occupational risk factors	30,897 (22,755-43,753)	59,546 (43,537-82,538)	67,075 (48,822-92,167)	62,390 (45,483-85,090)	59,786 (42,943-81,343)	57,322 (42,078-78,741)	56,109 (41,872-75,614)
Occupational carcinogens	168 (99-245)	261 (152-391)	350 (209-519)	434 (270-618)	779 (479-1,155)	3,668 (1,059-2,442)	3,668 (2,230-5,277)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Occupational exposure to asbestos	78 (35-115)	90 (39-133)	96 (39-150)	116 (52-170)	175 (86-250)	350 (184-500)	761 (382-1,092)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	3 (1-5)	5 (2-10)	15 (5-30)	36 (13-68)	83 (31-158)
Occupational exposure to benzene	74 (30-137)	139 (57-253)	129 (54-232)	112 (47-204)	62 (26-115)	70 (29-122)	41 (17-74)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-4)	5 (2-9)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	3 (1-6)	7 (3-13)	18 (8-30)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	2 (1-3)	4 (2-6)	11 (6-17)	25 (14-39)	59 (32-89)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	28 (13-46)	52 (26-85)	154 (79-253)	354 (189-569)	827 (445-1,288)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	26 (14-39)	48 (28-70)	142 (80-214)	326 (207-463)	763 (479-1,055)
Occupational exposure to formaldehyde	16 (7-28)	33 (13-58)	34 (14-61)	32 (13-59)	23 (9-49)	34 (10-79)	22 (7-54)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	9 (2-19)	17 (4-35)	50 (12-111)	118 (28-255)	278 (69-589)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	4 (2-8)	8 (3-14)	24 (11-42)	57 (25-98)	134 (60-225)
Occupational exposure to silica	0 (0-0)	0 (0-0)	20 (11-32)	38 (22-58)	113 (63-177)	262 (162-387)	613 (365-878)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	2 (1-4)	5 (1-12)	22 (6-52)	72 (20-162)	168 (46-387)
Occupational asthmagens	269 (128-576)	556 (287-1,166)	823 (465-1,587)	831 (465-1,684)	1,058 (573-2,264)	1,296 (713-2,485)	1,909 (1,054-4,107)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	992 (448-1,753)	1,268 (555-2,212)	2,055 (916-3,559)	3,574 (1,620-5,874)	6,363 (2,961-10,436)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	30,460 (22,317-43,258)	58,729 (42,785-81,552)	64,909 (46,698-89,988)	59,857 (42,865-82,675)	55,894 (39,199-77,032)	50,774 (35,551-71,986)	44,170 (30,439-63,300)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence	2,331 (1,131-4,143)	3,942 (1,941-6,810)	3,504 (1,795-5,779)	3,194 (1,618-5,416)	3,245 (1,709-5,251)	3,430 (1,823-5,475)	3,653 (2,016-5,638)
Childhood sexual abuse	2,331 (1,131-4,143)	3,942 (1,941-6,810)	3,504 (1,795-5,779)	3,194 (1,618-5,416)	3,245 (1,709-5,251)	3,430 (1,823-5,475)	3,653 (2,016-5,638)
Intimate partner violence	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Unimproved water and sanitation	4,643 (191-9,859)	5,174 (205-10,815)	6,173 (215-13,974)	6,079 (222-13,225)	7,404 (301-16,673)	6,418 (213-14,877)	10,474 (360-23,428)
Unimproved water source	1,405 (90-3,026)	1,503 (98-3,182)	1,786 (103-3,960)	1,762 (117-3,825)	2,022 (135-4,473)	1,755 (108-3,944)	2,714 (158-6,335)
Unimproved sanitation	3,511 (94-7,723)	3,966 (102-8,605)	4,743 (112-11,215)	4,664 (105-10,765)	5,780 (171-13,688)	5,004 (109-12,197)	8,272 (195-19,113)
Air pollution							
Ambient particulate matter pollution	127,169 (93,334-161,188)	179,124 (133,821-224,895)	203,822 (152,740-252,420)	219,748 (159,663-275,644)	256,499 (180,369-322,622)	241,632 (174,831-299,398)	347,525 (255,518-430,025)
Household air pollution from solid fuels	117,956 (78,861-164,898)	163,376 (105,929-231,404)	189,482 (125,372-260,580)	213,555 (134,464-300,639)	240,190 (144,717-346,039)	218,172 (127,765-312,619)	281,368 (163,766-417,520)
Ambient ozone pollution	2,735 (893-5,182)	4,794 (1,565-8,890)	7,585 (2,552-14,008)	11,113 (3,720-20,128)	14,821 (5,215-26,638)	15,922 (5,458-28,654)	26,374 (8,873-47,294)
Other environmental risks	29,378 (22,642-38,423)	42,285 (31,729-55,349)	50,140 (38,124-65,755)	55,910 (42,897-72,465)	64,110 (50,023-82,928)	60,171 (47,892-76,757)	83,904 (68,225-102,566)
Residential radon	5,081 (638-11,274)	8,358 (1,026-19,168)	10,053 (1,288-22,176)	10,552 (1,339-23,633)	11,536 (1,533-25,026)	9,792 (1,312-21,581)	9,834 (1,413-20,831)
Lead exposure	24,297 (19,439-30,701)	33,926 (26,936-42,244)	40,087 (32,258-49,351)	45,359 (36,636-56,025)	52,574 (42,958-64,356)	50,379 (40,932-61,397)	74,070 (61,144-89,314)
Child and maternal undernutrition	1,038 (679-1,398)	1,218 (811-1,603)	1,560 (1,009-2,117)	1,834 (1,133-2,440)	2,053 (1,339-2,714)	2,213 (1,416-2,854)	5,669 (3,290-6,938)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,038 (679-1,398)	1,218 (811-1,603)	1,560 (1,009-2,117)	1,834 (1,133-2,440)	2,053 (1,339-2,714)	2,213 (1,416-2,854)	5,669 (3,290-6,938)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	340,583 (290,889-394,217)	484,316 (408,106-554,018)	560,603 (470,087-636,632)	591,788 (486,989-678,088)	659,896 (524,301-768,322)	587,796 (443,721-680,679)	750,208 (584,726-898,656)
Tobacco smoking	330,521 (281,007-385,490)	469,393 (392,179-543,488)	541,743 (449,871-618,366)	569,168 (464,559-654,631)	629,964 (493,901-740,028)	558,902 (414,668-653,248)	704,226 (535,667-857,500)
Second-hand smoke	10,063 (6,905-13,086)	14,923 (10,361-19,173)	18,860 (12,927-24,632)	22,620 (15,219-29,146)	29,932 (20,314-38,702)	28,894 (19,241-37,738)	45,981 (30,872-60,348)
Alcohol and drug use	203,407 (178,502-230,107)	217,105 (191,587-243,688)	199,851 (176,918-224,100)	127,948 (108,828-147,886)	140,786 (117,958-162,107)	120,027 (97,855-141,270)	167,120 (127,728-204,736)
Alcohol use	194,918 (171,039-219,987)	211,035 (185,935-236,622)	195,425 (172,828-219,982)	126,619 (108,011-146,001)	139,516 (116,762-160,507)	118,908 (97,111-139,986)	165,326 (126,300-202,899)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Drug use	9,646 (6,828–13,328)	7,368 (5,414–9,930)	5,697 (4,242–7,827)	1,338 (652–2,672)	1,274 (763–2,784)	1,121 (648–2,534)	1,795 (973–4,305)
Physiological risk factors							
High fasting plasma glucose	124,691 (100,351–150,143)	186,995 (151,862–221,598)	208,525 (171,068–246,530)	223,154 (184,750–262,154)	254,236 (211,791–299,949)	232,021 (192,249–272,383)	338,164 (283,419–395,815)
High total cholesterol	82,273 (59,286–107,727)	106,731 (77,033–137,047)	117,584 (85,672–150,711)	116,063 (85,765–151,608)	137,913 (101,253–180,520)	117,356 (83,483–156,711)	166,663 (123,137–215,142)
High blood pressure	268,540 (230,941–307,290)	426,583 (377,690–478,409)	484,557 (430,239–543,729)	585,618 (523,284–651,406)	712,775 (640,455–791,885)	722,554 (645,334–804,015)	1,157,993 (1,038,632–1,292,163)
High body-mass index	132,629 (108,023–158,194)	167,955 (137,578–199,344)	193,842 (159,346–229,552)	187,678 (151,484–224,817)	229,523 (185,009–274,165)	200,418 (160,887–241,928)	319,011 (255,236–385,200)
Low bone mineral density	7,868 (4,854–11,283)	8,183 (4,844–11,223)	10,963 (6,407–15,521)	10,626 (6,167–14,853)	14,406 (7,873–21,038)	14,890 (8,784–20,482)	36,503 (23,181–46,291)
Dietary risk factors and physical inactivity	433,011 (383,699–476,911)	611,106 (548,110–665,568)	708,224 (638,806–778,914)	789,537 (713,556–867,663)	954,955 (850,714–1,049,676)	936,138 (846,688–1,021,527)	1,511,907 (1,369,515–1,656,791)
Diet low in fruits	221,921 (170,124–270,024)	306,808 (236,792–371,260)	333,964 (257,262–406,618)	358,390 (278,150–438,455)	407,003 (295,523–502,322)	375,202 (272,844–462,090)	503,285 (370,638–637,399)
Diet low in vegetables	83,393 (53,760–112,043)	106,615 (69,023–144,742)	113,885 (76,781–155,547)	119,048 (78,163–163,234)	140,286 (92,862–192,202)	128,632 (85,041–176,538)	186,209 (124,383–253,499)
Diet low in whole grains	77,962 (59,255–96,282)	102,203 (77,726–125,342)	110,025 (84,274–133,154)	113,727 (86,648–140,325)	133,206 (102,318–162,180)	122,536 (95,086–149,449)	172,658 (132,998–209,301)
Diet low in nuts and seeds	109,675 (70,183–144,557)	142,332 (89,984–185,398)	153,047 (96,957–198,397)	159,169 (100,448–209,195)	185,938 (116,453–246,214)	174,359 (107,050–230,928)	289,041 (176,517–393,769)
Diet low in milk	3,400 (1,006–5,768)	5,216 (1,554–9,047)	6,292 (1,831–10,723)	6,992 (2,127–11,812)	8,241 (2,471–13,859)	7,870 (2,313–13,279)	10,957 (3,230–18,335)
Diet high in red meat	1,235 (361–2,233)	1,946 (541–3,436)	2,418 (684–4,231)	2,714 (793–4,751)	3,353 (972–5,840)	3,237 (918–5,661)	4,710 (1,291–8,329)
Diet high in processed meat	40,536 (8,515–72,767)	50,327 (10,475–91,165)	53,883 (11,743–97,852)	53,113 (11,558–95,287)	60,906 (13,767–108,416)	55,600 (12,848–98,545)	95,180 (21,363–169,670)
Diet high in sugar-sweetened beverages	9,488 (2,765–15,942)	12,919 (3,715–18,724)	13,456 (3,965–19,185)	14,551 (9,609–24,842)	14,204 (9,619–28,005)	12,672 (7,943–29,274)	21,745 (10,927–41,727)
Diet low in fibre	37,755 (16,485–60,408)	47,053 (20,768–73,524)	48,026 (21,456–76,064)	47,543 (21,140–75,301)	56,126 (25,264–89,553)	53,160 (24,378–83,508)	84,968 (37,563–135,464)
Diet low in calcium	4,134 (2,997–5,532)	6,486 (4,640–8,563)	7,991 (5,704–10,624)	9,230 (6,428–12,326)	11,369 (7,628–15,507)	11,613 (7,674–15,935)	19,285 (11,181–29,487)
Diet low in seafood omega-3 fatty acids	68,608 (48,461–88,706)	86,737 (62,222–112,001)	90,486 (63,840–115,885)	91,504 (65,685–118,681)	103,757 (74,908–134,397)	93,661 (67,507–122,103)	144,800 (102,772–189,021)
Diet low in polyunsaturated fatty acids	26,168 (12,070–40,253)	32,726 (15,236–49,530)	34,368 (15,651–53,432)	34,923 (16,067–54,284)	39,387 (17,777–61,730)	36,059 (16,485–55,115)	57,895 (26,178–89,993)
Diet high in trans fatty acids	26,272 (18,350–34,150)	31,702 (22,154–40,481)	33,647 (23,670–42,938)	33,098 (23,492–42,316)	35,765 (25,244–46,289)	32,683 (23,432–41,909)	53,885 (38,353–69,211)
Diet high in sodium	111,331 (73,763–148,158)	163,777 (108,009–218,045)	197,482 (130,634–261,613)	226,880 (147,417–305,091)	267,488 (173,087–361,561)	250,981 (162,689–335,386)	368,837 (229,457–500,045)
Physical inactivity and low physical activity	100,659 (82,098–121,201)	139,523 (112,811–166,449)	165,031 (134,938–197,025)	182,714 (148,983–218,534)	223,250 (181,013–268,672)	218,553 (173,655–263,335)	354,459 (278,366–433,836)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Occupational risk factors	58,488 (43,694–77,800)	66,039 (48,678–87,395)	62,194 (43,636–83,538)	48,844 (30,686–68,434)	57,276 (35,000–82,281)	51,020 (28,843–76,026)	12,872 (7,739–17,075)
Occupational carcinogens	6,564 (4,100–9,627)	12,721 (7,642–18,595)	15,274 (9,267–21,928)	13,214 (8,021–18,305)	14,468 (8,558–20,471)	9,702 (5,787–13,270)	12,872 (7,739–17,075)
Occupational exposure to asbestos	1,436 (730–2,044)	2,232 (1,118–3,111)	3,122 (1,683–4,271)	3,475 (1,897–4,804)	4,209 (2,314–5,740)	4,132 (2,244–5,737)	6,291 (3,471–8,868)
Occupational exposure to arsenic	148 (55–275)	317 (114–604)	367 (137–694)	287 (103–531)	304 (107–572)	158 (55–297)	191 (66–344)
Occupational exposure to benzene	49 (20–87)	80 (32–144)	90 (37–160)	141 (58–250)	161 (66–289)	210 (83–376)	183 (70–326)
Occupational exposure to beryllium	9 (3–15)	19 (7–33)	22 (8–38)	17 (6–29)	18 (7–31)	9 (4–16)	12 (4–19)
Occupational exposure to cadmium	31 (14–54)	67 (29–116)	78 (34–132)	61 (26–102)	65 (25–109)	34 (14–57)	42 (17–68)
Occupational exposure to chromium	105 (56–161)	225 (120–344)	261 (140–396)	204 (109–301)	216 (106–320)	113 (54–172)	138 (67–205)
Occupational exposure to diesel engine exhaust	1,470 (784–2,316)	3,095 (1,588–4,896)	3,592 (1,908–5,547)	2,819 (1,476–4,323)	2,972 (1,413–4,528)	1,552 (731–2,422)	1,860 (870–2,795)
Occupational exposure to second-hand smoke	1,352 (799–1,867)	2,831 (1,697–3,890)	3,306 (1,970–4,512)	2,574 (1,502–3,501)	2,700 (1,500–3,643)	1,405 (759–1,925)	1,716 (897–2,310)
Occupational exposure to formaldehyde	25 (7–62)	41 (12–95)	38 (12–80)	52 (18–124)	47 (18–99)	54 (20–107)	34 (14–64)
Occupational exposure to nickel	497 (123–1,041)	1,063 (264–2,265)	1,231 (308–2,619)	965 (236–2,017)	1,027 (263–2,170)	537 (137–1,139)	650 (166–1,314)
Occupational exposure to polycyclic aromatic hydrocarbons	238 (107–407)	509 (221–871)	592 (269–991)	463 (202–764)	492 (201–812)	257 (107–427)	313 (130–507)
Occupational exposure to silica	1,093 (633–1,567)	2,327 (1,345–3,323)	2,701 (1,569–3,801)	2,135 (1,212–2,970)	2,269 (1,219–3,131)	1,193 (622–1,701)	1,443 (739–2,034)
Occupational exposure to sulfuric acid	296 (87–661)	416 (117–935)	458 (126–1,003)	380 (104–843)	370 (100–806)	186 (47–412)	230 (59–518)
Occupational asthmagens	2,550 (1,442–5,262)	3,308 (1,940–6,649)	3,397 (1,975–6,609)	2,897 (1,638–5,547)	3,351 (1,952–6,104)	3,120 (1,841–5,698)	0 (0–0)
Occupational particulate matter, gases, and fumes	12,430 (5,571–20,280)	20,993 (9,785–33,515)	27,263 (12,603–43,581)	25,660 (11,227–42,444)	34,355 (14,711–56,196)	36,602 (16,388–59,772)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	36,944 (25,997–54,782)	29,017 (20,092–42,674)	16,260 (11,428–23,253)	7,074 (4,985–10,501)	5,102 (3,611–7,358)	1,597 (1,141–2,328)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	3,662 (2,050–5,759)	3,063 (1,797–4,773)	2,343 (1,313–3,724)	1,660 (908–2,751)	1,295 (723–2,099)	933 (512–1,568)	871 (455–1,478)
Childhood sexual abuse	3,662 (2,050–5,759)	3,063 (1,797–4,773)	2,343 (1,313–3,724)	1,660 (908–2,751)	1,295 (723–2,099)	933 (512–1,568)	871 (455–1,478)
Intimate partner violence	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Unimproved water and sanitation	166,379 (6,690–326,989)	2,486 (115–5,121)	5,399 (247–10,811)	37,293 (1,650–71,821)	28,444 (1,255–54,936)	6,344 (231–12,717)	3,573 (125–7,544)
Unimproved water source	56,663 (3,604–115,704)	964 (66–2,059)	2,021 (137–4,275)	14,344 (959–29,230)	10,853 (738–22,200)	2,141 (139–4,491)	1,143 (68–2,439)
Unimproved sanitation	120,851 (3,104–242,452)	1,715 (47–3,670)	3,784 (104–7,939)	25,763 (671–51,893)	19,784 (528–39,677)	4,616 (106–9,548)	2,647 (64–5,669)
Air pollution							
Ambient particulate matter pollution	1,373,113 (1,187,639–1,563,793)	6,662 (3,937–10,672)	6,005 (3,584–8,867)	27,053 (18,012–37,966)	17,013 (11,236–24,454)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	1,611,730 (1,243,516–2,027,067)	22,596 (14,681–32,927)	19,501 (13,030–26,806)	93,432 (63,350–125,781)	56,881 (39,463–77,353)	0 (0–0)	0 (0–0)
Ambient ozone pollution	66,100 (21,362–115,225)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	346,751 (281,555–413,370)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon	28,978 (4,098–64,387)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Lead exposure	317,772 (265,722–376,431)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	698,442 (569,013–832,012)	0 (0–0)	40,772 (24,682–57,769)	335,794 (266,439–415,246)	240,002 (188,315–295,877)	661 (421–980)	662 (424–951)
Suboptimal breastfeeding	251,368 (155,884–359,651)	0 (0–0)	40,772 (24,682–57,769)	192,774 (113,804–283,795)	17,822 (1,764–39,193)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	218,117 (126,383–319,470)	0 (0–0)	40,772 (24,682–57,769)	177,345 (99,818–265,103)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	33,251 (3,091–73,804)	0 (0–0)	0 (0–0)	15,429 (1,413–35,943)	17,822 (1,764–39,193)	0 (0–0)	0 (0–0)
Childhood underweight	401,478 (325,516–484,452)	0 (0–0)	0 (0–0)	214,663 (170,258–260,520)	186,815 (147,489–233,477)	0 (0–0)	0 (0–0)
Iron deficiency	87,321 (62,505–107,021)	0 (0–0)	0 (0–0)	2,101 (1,348–3,035)	3,346 (2,190–5,010)	661 (421–980)	662 (424–951)
Vitamin A deficiency	56,472 (28,192–91,464)	0 (0–0)	0 (0–0)	14,568 (6,442–25,937)	41,903 (20,972–69,222)	0 (0–0)	0 (0–0)
Zinc deficiency	44,940 (7,696–87,711)	0 (0–0)	0 (0–0)	0 (0–0)	44,940 (7,696–87,711)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	1,790,228 (1,278,666–2,094,260)	6,261 (3,828–9,577)	5,671 (3,688–8,005)	27,743 (18,423–37,658)	15,824 (10,557–21,745)	0 (0–0)	0 (0–0)
Tobacco smoking	1,443,924 (920,763–1,743,849)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	346,304 (252,702–439,439)	6,261 (3,828–9,577)	5,671 (3,688–8,005)	27,743 (18,423–37,658)	15,824 (10,557–21,745)	0 (0–0)	0 (0–0)
Alcohol and drug use	956,819 (793,785–1,121,300)	205 (124–354)	172 (89–283)	1,152 (691–1,709)	3,134 (1,851–4,913)	962 (697–1,334)	868 (666–1,178)
Alcohol use	911,393 (748,254–1,076,004)	102 (57–213)	49 (24–114)	443 (271–725)	1,902 (1,066–3,120)	738 (530–1,046)	611 (457–803)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Drug use	48,385 (36,780–64,303)	103 (43–198)	123 (49–195)	709 (318–1,210)	1,232 (475–2,319)	224 (100–460)	257 (141–501)
Physiological risk factors							
High fasting plasma glucose	1,607,214 (1,367,465–1,839,764)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	1,057,196 (793,595–1,350,633)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	4,645,279 (4,198,029–5,092,003)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	1,738,466 (1,454,008–2,036,059)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	84,146 (57,863–102,441)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	5,717,934 (5,274,690–6,181,117)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	2,064,761 (1,593,495–2,507,876)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	779,754 (521,285–1,040,304)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	762,171 (592,879–919,709)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	1,082,390 (663,158–1,441,054)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	46,858 (13,085–80,413)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	16,762 (4,306–29,007)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	367,296 (83,446–637,120)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	92,906 (50,832–146,921)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	300,994 (134,201–470,634)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	49,181 (34,016–63,592)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	596,246 (437,287–764,762)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	227,307 (108,675–350,194)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	222,173 (160,511–283,740)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	1,371,438 (878,780–1,834,541)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	1,636,107 (1,369,722–1,899,182)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Occupational risk factors	102,250 (68,744–140,097)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	25,943 (15,498–37,074)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	7,047 (3,312–9,681)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	747 (275–1,402)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	1,189 (434–2,156)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	49 (19–86)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	145 (62–245)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	570 (295–858)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	3,413 (1,709–5,262)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	7,046 (3,935–9,630)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	245 (97–456)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	2,702 (743–5,679)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	993 (441–1,661)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	2,072 (1,102–2,948)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	239 (74–509)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	8,352 (4,854–13,425)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	47,311 (20,330–77,499)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	20,644 (15,628–27,414)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	200,930 (113,070–292,802)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	10 (4–24)	424 (150–1,017)
Childhood sexual abuse	27,009 (14,290–43,424)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	10 (4–24)	424 (150–1,017)
Intimate partner violence	186,365 (92,028–280,059)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Unimproved water and sanitation	3,730 (138–7,795)	4,764 (177–9,577)	4,966 (205–10,035)	4,176 (150–8,185)	3,810 (134–7,652)	3,191 (120–6,651)	3,452 (139–7,200)
Unimproved water source	1,260 (79–2,770)	1,656 (99–3,583)	1,792 (113–3,709)	1,512 (94–3,191)	1,342 (81–2,852)	1,096 (70–2,389)	1,097 (68–2,353)
Unimproved sanitation	2,711 (60–5,803)	3,429 (75–7,088)	3,523 (90–7,407)	2,956 (69–5,976)	2,728 (64–5,744)	2,308 (55–5,004)	2,570 (60–5,514)
Air pollution							
Ambient particulate matter pollution	0 (0–0)	0 (0–0)	6,324 (4,356–8,414)	8,792 (6,102–11,616)	14,632 (10,380–19,319)	26,144 (18,745–33,928)	37,512 (26,358–47,833)
Household air pollution from solid fuels	0 (0–0)	0 (0–0)	8,429 (5,790–11,082)	11,285 (8,123–15,093)	18,278 (12,863–24,314)	31,146 (21,980–41,692)	44,164 (30,827–58,644)
Ambient ozone pollution	0 (0–0)	0 (0–0)	166 (44–370)	186 (50–438)	317 (85–652)	471 (139–958)	856 (269–1,642)
Other environmental risks	0 (0–0)	0 (0–0)	2,930 (1,492–4,827)	4,140 (2,201–6,491)	4,214 (2,943–7,248)	6,851 (4,824–11,623)	9,285 (7,259–11,544)
Residential radon	0 (0–0)	0 (0–0)	61 (6–174)	134 (17–371)	298 (36–756)	696 (96–1,665)	1,222 (168–2,836)
Lead exposure	0 (0–0)	0 (0–0)	2,868 (1,424–4,719)	4,006 (2,071–6,354)	3,915 (2,743–6,932)	6,156 (4,265–10,887)	8,063 (6,340–9,888)
Child and maternal undernutrition	5,927 (3,725–8,282)	12,729 (7,754–17,080)	12,278 (7,130–16,544)	10,697 (6,167–14,564)	9,491 (5,101–13,668)	5,921 (3,524–8,211)	3,490 (2,151–4,880)
Suboptimal breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Childhood underweight	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Iron deficiency	5,927 (3,725–8,282)	12,729 (7,754–17,080)	12,278 (7,130–16,544)	10,697 (6,167–14,564)	9,491 (5,101–13,668)	5,921 (3,524–8,211)	3,490 (2,151–4,880)
Vitamin A deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Zinc deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	0 (0–0)	0 (0–0)	1,355 (884–1,858)	7,377 (5,626–15,036)	14,471 (10,884–21,074)	30,471 (21,481–41,286)	49,005 (35,549–61,966)
Tobacco smoking	0 (0–0)	0 (0–0)	0 (0–0)	5,489 (3,820–13,386)	11,433 (7,715–17,768)	25,718 (16,435–36,620)	41,062 (27,671–54,764)
Second-hand smoke	0 (0–0)	0 (0–0)	1,355 (884–1,858)	1,888 (1,283–2,526)	3,038 (1,994–4,104)	4,753 (2,953–6,798)	7,943 (5,174–10,820)
Alcohol and drug use	9,013 (7,293–11,336)	14,618 (11,943–18,335)	16,606 (13,798–19,691)	17,874 (15,051–20,885)	26,052 (21,828–36,126)	32,533 (27,632–41,440)	43,078 (37,362–52,258)
Alcohol use	7,229 (5,791–9,270)	10,832 (8,844–13,512)	12,229 (9,940–14,529)	13,351 (11,138–15,636)	21,296 (17,527–31,436)	27,714 (23,210–36,423)	38,478 (33,186–46,744)
Drug use	1,806 (1,066–2,978)	3,839 (2,360–6,094)	4,446 (3,124–6,192)	4,600 (3,332–6,351)	4,886 (3,707–6,437)	5,034 (3,627–6,687)	4,966 (3,545–6,791)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	6,474 (5,252-8,018)	7,540 (6,034-9,463)	15,063 (12,076-18,478)	22,627 (18,065-27,542)	45,982 (37,851-54,539)
High total cholesterol	0 (0-0)	0 (0-0)	1,869 (1,126-2,789)	2,642 (1,590-3,949)	6,159 (4,110-8,662)	10,551 (6,909-14,868)	21,800 (15,766-27,966)
High blood pressure	0 (0-0)	0 (0-0)	8,420 (5,963-11,255)	10,469 (7,344-13,908)	26,327 (20,454-32,350)	41,185 (32,158-51,135)	89,641 (75,829-103,530)
High body-mass index	0 (0-0)	0 (0-0)	7,758 (6,055-9,706)	9,870 (7,656-12,434)	21,200 (16,370-26,279)	29,849 (24,150-36,073)	55,220 (45,531-66,227)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	9,682 (16,924-22,989)	13,664 (25,312-33,051)	23,253 (43,098-56,194)	41,898 (76,040-98,060)	64,713 (121,804-152,783)
Diet low in vegetables	0 (0-0)	0 (0-0)	4,792 (2,916-6,661)	6,417 (3,964-8,879)	10,060 (5,953-14,020)	16,619 (10,122-23,200)	24,692 (14,432-34,010)
Diet low in whole grains	0 (0-0)	0 (0-0)	4,139 (3,026-5,421)	5,608 (4,149-7,305)	8,789 (6,413-11,209)	15,240 (11,287-19,153)	22,445 (17,072-27,543)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	4,464 (2,868-6,084)	6,386 (4,056-8,811)	9,753 (6,220-13,251)	16,959 (10,328-23,188)	24,519 (15,310-32,092)
Diet low in milk	0 (0-0)	0 (0-0)	271 (72-493)	403 (114-702)	694 (180-1,221)	1,178 (341-2,067)	1,840 (503-3,171)
Diet high in red meat	0 (0-0)	0 (0-0)	61 (16-110)	103 (27-189)	197 (50-373)	348 (93-623)	578 (147-1,004)
Diet high in processed meat	0 (0-0)	0 (0-0)	1,750 (412-3,512)	2,493 (602-4,896)	3,675 (899-7,009)	6,458 (1,538-12,319)	9,525 (2,322-17,462)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	991 (461-1,497)	1,253 (537-1,872)	1,541 (637-3,139)	2,159 (800-4,780)	2,627 (1,054-5,635)
Diet low in fibre	0 (0-0)	0 (0-0)	1,701 (785-2,704)	2,365 (1,089-3,661)	3,758 (1,741-5,866)	6,258 (2,847-9,811)	8,984 (4,086-14,025)
Diet low in calcium	0 (0-0)	0 (0-0)	333 (206-477)	486 (319-678)	828 (545-1,193)	1,378 (963-1,934)	2,088 (1,449-2,854)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	2,997 (2,076-4,114)	4,261 (2,913-5,886)	6,414 (4,504-8,753)	11,036 (7,431-15,296)	15,690 (10,737-20,786)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	1,261 (622-1,957)	1,758 (822-2,746)	2,615 (1,239-4,140)	4,327 (2,046-6,804)	6,093 (2,901-9,422)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	1,485 (1,019-2,075)	2,079 (1,387-2,832)	3,035 (2,057-4,136)	5,026 (3,366-6,826)	7,029 (4,945-9,257)
Diet high in sodium	0 (0-0)	0 (0-0)	4,564 (2,421-6,438)	6,799 (4,359-8,966)	11,087 (6,854-16,159)	20,689 (12,985-28,816)	30,798 (20,167-40,915)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	6,934 (5,613-8,381)	10,326 (8,474-12,526)	17,117 (13,979-20,744)	28,749 (23,345-34,600)	44,269 (36,957-51,317)
Occupational risk factors	1,767 (1,393-2,224)	2,889 (2,281-3,687)	3,576 (2,786-4,484)	3,568 (2,812-4,489)	4,241 (3,236-5,542)	4,962 (3,697-6,500)	6,308 (4,559-8,520)
Occupational carcinogens	75 (41-122)	148 (72-248)	185 (102-300)	247 (138-391)	349 (201-534)	686 (392-1,035)	1,228 (689-1,910)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Occupational exposure to asbestos	24 (10-38)	27 (10-43)	31 (11-48)	42 (17-65)	70 (29-109)	130 (57-202)	242 (107-357)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	1 (0-3)	3 (1-8)	9 (3-18)	20 (7-40)	40 (14-83)
Occupational exposure to benzene	43 (16-85)	102 (35-196)	101 (38-193)	104 (39-192)	56 (21-107)	66 (24-126)	34 (13-65)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	3 (1-5)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-3)	4 (2-7)	8 (3-14)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	1 (0-2)	2 (1-5)	7 (3-12)	15 (7-25)	31 (14-51)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	7 (3-14)	15 (6-29)	40 (18-70)	91 (42-150)	185 (84-306)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	14 (6-27)	32 (14-55)	83 (41-134)	189 (93-281)	380 (191-574)
Occupational exposure to formaldehyde	7 (3-14)	19 (7-39)	19 (7-37)	23 (9-46)	14 (5-28)	18 (7-40)	10 (4-23)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	5 (1-13)	12 (3-31)	32 (8-71)	73 (19-158)	145 (36-330)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	2 (1-4)	4 (2-9)	12 (5-22)	26 (11-47)	53 (22-95)
Occupational exposure to silica	0 (0-0)	0 (0-0)	4 (2-8)	9 (4-17)	24 (11-41)	56 (27-86)	112 (53-176)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	1 (0-3)	1 (0-5)	3 (1-10)	6 (2-19)	14 (4-40)
Occupational asthmagens	89 (44-173)	184 (99-322)	242 (131-465)	274 (159-500)	431 (236-815)	544 (309-960)	751 (441-1,292)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	390 (152-743)	465 (181-894)	868 (365-1,565)	1,341 (584-2,260)	2,291 (980-3,839)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	1,603 (1,240-2,060)	2,557 (1,958-3,357)	2,759 (2,076-3,625)	2,581 (1,959-3,426)	2,593 (1,839-3,657)	2,392 (1,727-3,275)	2,038 (1,464-2,863)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence	20,401 (9,975-37,077)	25,013 (14,521-39,410)	21,106 (12,143-31,964)	17,197 (10,674-25,864)	16,965 (9,636-26,190)	15,812 (8,342-25,389)	13,549 (7,115-21,718)
Childhood sexual abuse	3,877 (1,610-7,358)	3,220 (1,357-6,413)	2,419 (968-4,772)	1,875 (858-3,441)	1,957 (962-3,610)	2,065 (986-3,606)	1,886 (981-3,290)
Intimate partner violence	18,330 (7,592-34,410)	23,487 (12,704-37,565)	19,975 (10,948-30,924)	16,304 (9,629-25,166)	15,987 (8,588-25,315)	14,732 (7,145-24,077)	12,498 (5,857-20,668)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Unimproved water and sanitation	3,507 (135-7,131)	4,584 (178-9,782)	6,789 (261-15,046)	8,060 (289-17,911)	9,743 (341-21,616)	8,486 (293-18,744)	13,580 (495-30,827)
Unimproved water source	1,131 (76-2,350)	1,359 (86-3,112)	1,943 (121-4,244)	2,324 (144-5,158)	2,647 (165-6,051)	2,352 (151-5,513)	3,688 (249-8,731)
Unimproved sanitation	2,598 (59-5,440)	3,495 (91-7,591)	5,238 (134-12,007)	6,201 (145-14,500)	7,623 (177-18,175)	6,594 (157-15,364)	10,569 (259-24,379)
Air pollution							
Ambient particulate matter pollution	57,425 (41,754-72,933)	85,035 (60,200-107,199)	108,320 (77,266-135,979)	130,618 (92,940-167,006)	181,045 (126,943-231,999)	200,044 (140,821-250,730)	460,488 (337,477-580,439)
Household air pollution from solid fuels	67,773 (48,078-89,514)	101,884 (70,341-134,028)	133,479 (94,887-172,988)	169,246 (117,129-224,928)	218,848 (156,124-294,731)	222,800 (156,816-302,382)	391,989 (266,670-542,900)
Ambient ozone pollution	1,581 (492-2,931)	3,268 (1,045-6,038)	5,162 (1,693-9,362)	7,522 (2,289-13,380)	10,485 (3,594-18,874)	11,283 (3,637-19,672)	24,803 (8,093-43,780)
Other environmental risks	14,664 (11,312-18,541)	21,671 (16,734-27,078)	28,251 (22,004-35,034)	35,771 (27,987-44,090)	48,358 (38,326-58,297)	53,364 (43,479-64,131)	117,253 (97,713-138,456)
Residential radon	1,998 (267-4,503)	2,965 (446-6,775)	3,494 (477-8,851)	3,849 (553-8,534)	4,362 (630-9,719)	4,104 (597-9,477)	5,796 (841-12,628)
Lead exposure	12,667 (10,084-15,740)	18,705 (14,803-22,995)	24,757 (19,567-30,656)	31,922 (25,388-38,746)	43,996 (35,574-53,522)	49,261 (40,632-59,366)	111,457 (93,568-131,295)
Child and maternal undernutrition	970 (593-1,347)	1,262 (784-1,786)	1,515 (884-2,190)	1,945 (1,187-2,673)	2,412 (1,448-3,434)	2,625 (1,603-3,584)	9,287 (5,060-11,505)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	970 (593-1,347)	1,262 (784-1,786)	1,515 (884-2,190)	1,945 (1,187-2,673)	2,412 (1,448-3,434)	2,625 (1,603-3,584)	9,287 (5,060-11,505)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	81,527 (58,407-99,252)	125,867 (86,791-152,681)	160,422 (109,569-196,491)	190,869 (130,302-232,985)	246,208 (165,198-300,762)	248,759 (172,774-305,633)	578,398 (400,221-706,393)
Tobacco smoking	69,604 (45,707-88,034)	108,520 (68,746-135,985)	138,436 (87,904-175,041)	163,985 (102,955-206,504)	205,895 (120,895-262,006)	203,049 (124,842-259,895)	470,733 (286,180-604,292)
Second-hand smoke	11,923 (7,841-15,937)	17,347 (11,807-22,925)	21,986 (14,792-29,227)	26,885 (18,196-35,586)	40,313 (27,273-52,548)	45,709 (30,274-60,823)	107,665 (71,506-142,506)
Alcohol and drug use	56,230 (48,581-66,205)	72,893 (62,769-83,962)	78,814 (66,619-91,495)	64,867 (53,048-77,372)	105,276 (84,138-126,162)	114,379 (88,673-139,377)	298,094 (214,905-375,700)
Alcohol use	52,432 (45,230-61,650)	69,889 (59,867-81,308)	76,430 (64,371-89,160)	63,998 (52,250-76,490)	104,189 (83,167-125,192)	113,500 (87,443-138,629)	295,980 (212,915-372,663)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Drug use	4,344 (3,035–5,958)	3,711 (2,744–5,110)	3,156 (2,349–4,258)	869 (494–1,551)	1,088 (651–2,189)	879 (515–1,938)	2,114 (1,128–4,656)
Physiological risk factors							
High fasting plasma glucose	67,635 (56,488–79,349)	114,914 (96,324–133,740)	145,569 (123,753–169,138)	186,130 (158,353–213,675)	243,384 (203,465–282,235)	247,973 (208,862–286,273)	503,923 (414,700–592,123)
High total cholesterol	33,880 (24,693–44,096)	56,716 (41,619–73,392)	75,072 (55,033–96,397)	96,268 (71,356–122,348)	149,481 (105,469–195,643)	163,406 (111,285–222,797)	439,351 (327,337–564,641)
High blood pressure	131,356 (112,301–151,628)	228,153 (199,085–259,018)	290,500 (252,602–328,236)	416,112 (369,785–465,935)	614,059 (549,023–679,958)	756,965 (679,733–836,440)	2,032,092 (1,841,487–2,237,161)
High body-mass index	79,502 (65,950–93,692)	116,690 (97,825–137,894)	148,901 (124,337–175,485)	164,720 (136,650–194,766)	232,758 (194,325–272,889)	247,305 (204,651–291,020)	624,692 (512,182–745,578)
Low bone mineral density	2,930 (1,831–4,304)	3,650 (2,306–5,343)	4,607 (2,674–6,397)	6,095 (3,579–8,755)	7,959 (4,983–11,332)	12,969 (7,974–17,760)	45,936 (30,059–58,224)
Dietary risk factors and physical inactivity	211,496 (188,805–234,418)	310,010 (274,986–341,814)	398,089 (355,004–437,250)	508,067 (456,433–562,338)	746,163 (672,252–811,703)	873,989 (795,286–957,571)	2,346,662 (2,138,741–2,542,228)
Diet low in fruits	98,218 (76,969–117,972)	140,395 (107,273–169,846)	169,186 (129,005–206,243)	209,417 (157,619–257,561)	287,863 (218,620–353,425)	319,327 (241,294–390,398)	687,145 (516,079–850,939)
Diet low in vegetables	35,865 (21,886–49,915)	48,153 (30,025–66,665)	57,952 (36,345–79,166)	71,827 (46,431–98,661)	105,024 (68,610–143,438)	116,535 (77,801–158,683)	281,817 (184,421–380,003)
Diet low in whole grains	33,151 (25,423–40,772)	47,277 (35,871–58,352)	58,632 (44,657–72,263)	70,786 (53,531–87,165)	104,364 (80,633–127,346)	117,011 (90,363–143,152)	274,729 (212,007–334,088)
Diet low in nuts and seeds	38,222 (23,792–51,472)	56,541 (35,874–75,981)	74,114 (45,840–99,840)	93,075 (57,749–124,755)	140,671 (85,820–188,734)	159,567 (96,493–215,975)	458,118 (269,369–620,556)
Diet low in milk	2,796 (760–4,923)	3,848 (1,103–6,633)	4,434 (1,188–7,741)	4,848 (1,402–8,470)	6,300 (1,756–10,817)	6,558 (1,848–11,366)	13,687 (3,669–23,775)
Diet high in red meat	888 (238–1,565)	1,268 (339–2,255)	1,483 (398–2,671)	1,651 (440–2,831)	2,267 (595–4,040)	2,443 (635–4,277)	5,476 (1,425–9,607)
Diet high in processed meat	14,536 (3,468–25,331)	20,494 (4,728–36,834)	25,699 (5,770–46,990)	30,583 (6,567–56,707)	45,998 (9,807–82,741)	51,185 (11,258–89,165)	154,901 (32,715–276,901)
Diet high in sugar-sweetened beverages	3,578 (1,353–7,805)	6,019 (1,808–10,791)	6,999 (2,095–12,347)	10,194 (3,054–15,757)	11,998 (3,770–19,219)	12,611 (7,883–26,552)	32,935 (14,319–63,180)
Diet low in fibre	12,914 (5,988–20,052)	17,843 (8,341–27,800)	21,262 (9,765–33,121)	24,825 (11,129–38,536)	37,514 (16,120–58,667)	43,364 (19,051–69,598)	120,206 (52,024–192,523)
Diet low in calcium	3,144 (2,134–4,235)	4,317 (2,973–5,781)	4,887 (3,434–6,694)	5,288 (3,602–6,914)	6,729 (4,473–8,893)	6,874 (4,620–9,215)	12,829 (8,397–17,105)
Diet low in seafood omega-3 fatty acids	23,992 (17,166–31,617)	34,709 (24,646–45,449)	44,236 (30,742–58,023)	54,071 (39,071–71,287)	79,760 (56,517–104,548)	87,068 (62,937–112,822)	232,013 (168,478–302,019)
Diet low in polyunsaturated fatty acids	9,261 (4,273–14,462)	13,078 (6,216–20,307)	16,664 (7,846–26,199)	20,371 (9,797–32,203)	29,278 (14,190–45,277)	32,228 (15,524–50,067)	90,373 (43,377–139,868)
Diet high in trans fatty acids	10,272 (7,303–13,460)	13,656 (9,501–17,727)	17,505 (12,420–23,186)	20,503 (14,659–27,234)	27,785 (20,107–35,930)	30,009 (21,757–38,665)	83,790 (59,976–110,691)
Diet high in sodium	49,604 (31,904–66,372)	75,728 (48,395–100,466)	101,361 (65,825–136,225)	133,809 (85,558–178,162)	191,317 (121,105–256,653)	215,957 (136,932–290,228)	529,725 (332,411–719,833)
Physical inactivity and low physical activity	65,404 (55,356–75,708)	94,421 (80,058–109,717)	120,292 (100,608–139,132)	147,817 (125,030–171,098)	214,011 (177,465–253,529)	242,807 (198,639–284,507)	643,960 (514,862–771,157)

Web table 1: Global deaths attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Occupational risk factors	8,294 (5,663–11,378)	12,286 (7,700–17,535)	14,373 (8,340–21,119)	10,305 (5,946–15,561)	13,007 (7,324–19,977)	12,027 (6,608–18,556)	4,648 (2,596–6,548)
Occupational carcinogens	1,869 (1,098–2,777)	3,398 (1,977–5,209)	3,837 (2,182–5,776)	3,136 (1,835–4,579)	3,682 (2,010–5,389)	2,455 (1,391–3,465)	4,648 (2,596–6,548)
Occupational exposure to asbestos	379 (167–558)	527 (232–760)	674 (306–940)	739 (342–1,028)	927 (402–1,300)	986 (447–1,398)	2,249 (1,075–3,110)
Occupational exposure to arsenic	62 (23–121)	122 (44–238)	132 (48–261)	97 (37–185)	112 (37–219)	55 (19–107)	93 (29–185)
Occupational exposure to benzene	37 (13–70)	61 (23–116)	66 (24–123)	98 (34–175)	112 (39–205)	149 (53–276)	159 (54–296)
Occupational exposure to beryllium	4 (2–7)	8 (3–14)	9 (3–16)	6 (2–12)	7 (2–14)	4 (1–7)	6 (2–12)
Occupational exposure to cadmium	12 (5–21)	23 (10–42)	26 (11–45)	19 (8–33)	22 (8–38)	11 (4–19)	19 (6–33)
Occupational exposure to chromium	46 (23–74)	92 (47–150)	100 (49–160)	74 (36–116)	86 (40–139)	42 (17–67)	73 (28–120)
Occupational exposure to diesel engine exhaust	285 (144–450)	555 (283–903)	613 (298–984)	444 (223–702)	508 (232–817)	245 (105–392)	425 (167–691)
Occupational exposure to second-hand smoke	585 (314–852)	1,134 (651–1,636)	1,259 (692–1,867)	921 (494–1,312)	1,047 (538–1,506)	511 (235–727)	892 (384–1,322)
Occupational exposure to formaldehyde	10 (4–21)	16 (6–34)	16 (6–31)	22 (8–46)	22 (8–43)	27 (10–53)	20 (8–39)
Occupational exposure to nickel	220 (58–466)	434 (114–954)	472 (124–1,049)	351 (95–748)	411 (104–892)	203 (51–447)	346 (80–755)
Occupational exposure to polycyclic aromatic hydrocarbons	81 (36–140)	160 (69–281)	175 (76–304)	129 (57–222)	150 (58–262)	73 (29–128)	127 (46–224)
Occupational exposure to silica	171 (86–253)	337 (184–515)	367 (186–550)	269 (138–403)	312 (153–468)	152 (65–230)	260 (105–404)
Occupational exposure to sulfuric acid	21 (6–53)	36 (11–79)	46 (14–113)	29 (9–68)	37 (11–88)	16 (5–39)	27 (9–59)
Occupational asthmagens	880 (503–1,486)	1,111 (629–1,945)	1,148 (650–1,946)	838 (466–1,362)	938 (494–1,555)	924 (505–1,495)	0 (0–0)
Occupational particulate matter, gases, and fumes	3,878 (1,727–6,377)	6,586 (2,939–11,014)	8,666 (3,681–14,646)	6,065 (2,423–10,515)	8,180 (3,298–14,055)	8,582 (3,597–14,666)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	1,667 (1,202–2,342)	1,191 (839–1,673)	722 (514–1,037)	266 (194–364)	208 (156–285)	67 (50–90)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	13,028 (6,132–21,732)	11,793 (5,363–19,619)	10,396 (4,468–17,432)	8,976 (3,748–15,822)	9,034 (3,903–15,053)	7,074 (3,007–11,629)	10,150 (4,114–18,123)
Childhood sexual abuse	1,982 (1,000–3,338)	1,796 (926–3,097)	1,534 (763–2,601)	1,234 (617–2,165)	1,114 (564–1,940)	752 (391–1,211)	864 (463–1,456)
Intimate partner violence	11,896 (4,891–20,523)	10,741 (3,973–18,753)	9,510 (3,537–16,855)	8,269 (2,925–14,994)	8,395 (3,058–14,562)	6,628 (2,454–11,276)	9,613 (3,366–17,719)

0 indicates zero deaths attributable; blank cells indicate that attributable deaths were not quantified

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Unimproved water and sanitation	715,873 (36,817–1,279,220)	17,771 (826–33,218)	42,728 (2,121–78,066)	219,855 (11,268–399,959)	194,805 (10,602–346,367)	29,200 (1,267–54,277)	13,106 (532–25,603)
Unimproved water source	288,007 (20,641–553,293)	7,022 (489–13,858)	16,946 (1,203–33,450)	89,307 (6,410–174,117)	81,593 (6,018–156,438)	11,269 (755–22,425)	5,156 (317–10,611)
Unimproved sanitation	496,986 (15,380–927,845)	12,455 (352–24,427)	29,840 (935–56,760)	151,513 (4,667–286,363)	133,071 (4,327–244,813)	20,640 (556–39,887)	9,173 (223–18,288)
Air pollution							
Ambient particulate matter pollution	2,910,161 (2,546,184–3,286,508)	33,776 (22,354–46,596)	35,358 (24,180–47,687)	143,102 (98,396–187,600)	96,652 (66,168–129,364)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	4,473,490 (3,651,253–5,206,632)	117,132 (82,781–149,934)	124,367 (89,432–156,785)	498,302 (362,730–617,439)	354,274 (261,142–450,145)	0 (0–0)	0 (0–0)
Ambient ozone pollution	143,362 (47,539–251,885)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	209,923 (177,673–243,565)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon							
Lead exposure	209,923 (177,673–243,565)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	3,473,589 (2,906,896–4,175,138)	0 (0–0)	246,308 (157,743–329,587)	1,659,270 (1,384,576–1,950,609)	1,425,820 (1,144,769–1,821,093)	2,473 (1,980–3,165)	1,938 (1,585–2,447)
Suboptimal breastfeeding	1,275,024 (802,142–1,772,745)	0 (0–0)	246,308 (157,743–329,587)	940,270 (575,278–1,339,060)	88,447 (9,386–189,574)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	1,117,908 (663,274–1,576,633)	0 (0–0)	246,308 (157,743–329,587)	871,600 (507,872–1,252,531)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	157,117 (16,188–341,702)	0 (0–0)	0 (0–0)	68,670 (6,776–155,318)	88,447 (9,386–189,574)	0 (0–0)	0 (0–0)
Childhood underweight	2,263,952 (1,927,356–2,735,821)	0 (0–0)	0 (0–0)	1,119,425 (961,173–1,312,738)	1,144,527 (948,571–1,435,911)	0 (0–0)	0 (0–0)
Iron deficiency	168,084 (130,444–197,085)	0 (0–0)	0 (0–0)	9,145 (7,484–11,400)	16,748 (12,913–21,800)	2,473 (1,980–3,165)	1,938 (1,585–2,447)
Vitamin A deficiency	349,354 (170,504–632,149)	0 (0–0)	0 (0–0)	88,182 (40,749–151,034)	261,172 (126,837–493,664)	0 (0–0)	0 (0–0)
Zinc deficiency	275,590 (51,274–529,451)	0 (0–0)	0 (0–0)	0 (0–0)	275,590 (51,274–529,451)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	5,329,808 (4,778,526–6,049,296)	36,885 (24,959–49,513)	39,798 (27,347–52,915)	168,688 (118,669–217,894)	107,912 (75,419–141,843)	0 (0–0)	0 (0–0)
Tobacco smoking	4,576,298 (4,068,753–5,312,438)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	753,510 (585,131–912,313)	36,885 (24,959–49,513)	39,798 (27,347–52,915)	168,688 (118,669–217,894)	107,912 (75,419–141,843)	0 (0–0)	0 (0–0)
Alcohol and drug use	2,047,814 (1,831,313–2,270,020)	411 (265–667)	341 (184–568)	1,640 (1,049–2,827)	6,162 (3,654–9,600)	3,226 (2,456–4,181)	2,633 (2,110–3,298)
Alcohol use	1,988,502 (1,772,115–2,214,916)	225 (152–344)	121 (68–222)	910 (585–1,293)	4,423 (2,624–6,735)	2,789 (2,171–3,418)	2,252 (1,824–2,705)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Drug use	68,577 (50,706–102,395)	186 (73–434)	220 (84–424)	730 (336–1,738)	1,739 (588–3,615)	437 (196–935)	381 (205–826)
Physiological risk factors							
High fasting plasma glucose	2,104,174 (1,797,633–2,401,170)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	1,945,920 (1,625,929–2,318,054)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	7,293,185 (6,701,203–7,859,894)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	1,963,549 (1,590,282–2,345,133)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	103,270 (90,672–124,230)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	8,370,343 (7,738,620–9,000,836)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	3,667,202 (2,870,267–4,394,152)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	1,454,057 (978,665–1,924,334)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	1,230,276 (958,136–1,489,812)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	1,914,209 (1,216,363–2,487,874)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	68,150 (20,479–114,435)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	26,439 (7,374–45,232)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	731,675 (158,044–1,257,423)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	141,316 (89,249–191,574)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	584,144 (260,065–914,729)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	82,305 (57,324–108,535)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	1,043,085 (757,418–1,327,627)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	448,065 (213,262–687,396)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	367,461 (265,936–467,609)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	2,245,355 (1,459,900–2,966,107)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Occupational risk factors	811,146 (623,674–1,010,107)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	72,073 (50,753–101,233)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	23,057 (16,939–33,009)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	1,618 (622–3,039)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	1,764 (741–3,085)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	87 (35–152)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	288 (131–494)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	1,022 (618–1,578)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	13,040 (7,494–20,486)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	14,025 (10,058–19,715)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	478 (202–877)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	5,004 (1,331–10,489)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	2,130 (1,018–3,613)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	9,056 (6,140–13,213)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	2,157 (626–4,707)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	42,151 (24,425–76,872)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	275,647 (121,774–429,427)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	421,275 (329,209–529,004)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Unimproved water and sanitation	12,049 (509–23,339)	12,853 (542–24,456)	12,264 (571–22,729)	11,674 (558–21,649)	11,779 (586–21,456)	10,046 (513–18,727)	10,688 (519–19,733)
Unimproved water source	4,692 (291–9,705)	4,994 (325–10,180)	4,866 (333–9,712)	4,630 (314–9,339)	4,656 (348–9,216)	3,981 (280–7,901)	4,159 (292–8,295)
Unimproved sanitation	8,480 (229–17,060)	9,066 (233–17,768)	8,581 (249–16,473)	8,170 (237–15,677)	8,261 (236–15,510)	7,039 (225–13,576)	7,546 (223–14,364)
Air pollution							
Ambient particulate matter pollution	0 (0–0)	0 (0–0)	19,248 (13,867–24,255)	28,721 (20,924–36,166)	43,844 (33,276–54,539)	64,245 (47,989–80,521)	87,913 (64,269–109,905)
Household air pollution from solid fuels	0 (0–0)	0 (0–0)	26,694 (20,382–33,100)	38,487 (29,073–48,311)	57,908 (44,018–72,330)	82,424 (61,883–102,954)	115,005 (88,202–143,054)
Ambient ozone pollution	0 (0–0)	0 (0–0)	421 (131–787)	537 (170–974)	1,015 (335–1,809)	1,426 (463–2,578)	2,458 (770–4,394)
Other environmental risks	0 (0–0)	0 (0–0)	3,972 (2,302–5,983)	5,517 (3,427–8,050)	5,149 (4,172–6,423)	7,487 (6,118–9,126)	9,796 (8,188–11,561)
Residential radon							
Lead exposure	0 (0–0)	0 (0–0)	3,972 (2,302–5,983)	5,517 (3,427–8,050)	5,149 (4,172–6,423)	7,487 (6,118–9,126)	9,796 (8,188–11,561)
Child and maternal undernutrition	11,849 (7,588–16,505)	20,318 (13,233–26,859)	19,509 (12,128–25,790)	18,061 (11,216–24,436)	17,815 (11,054–24,324)	10,757 (6,831–14,642)	6,571 (4,352–8,788)
Suboptimal breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Childhood underweight	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Iron deficiency	11,849 (7,588–16,505)	20,318 (13,233–26,859)	19,509 (12,128–25,790)	18,061 (11,216–24,436)	17,815 (11,054–24,324)	10,757 (6,831–14,642)	6,571 (4,352–8,788)
Vitamin A deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Zinc deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	0 (0–0)	0 (0–0)	2,924 (1,962–3,854)	47,099 (38,064–59,477)	83,033 (60,024–108,116)	146,825 (119,044–176,845)	202,975 (176,778–237,267)
Tobacco smoking	0 (0–0)	0 (0–0)	0 (0–0)	42,982 (33,786–55,663)	78,401 (54,782–103,406)	140,411 (112,140–170,963)	193,041 (165,969–225,985)
Second-hand smoke	0 (0–0)	0 (0–0)	2,924 (1,962–3,854)	4,118 (2,819–5,366)	4,632 (3,039–6,391)	6,414 (4,157–8,995)	9,934 (6,400–13,535)
Alcohol and drug use	43,734 (37,474–51,304)	67,569 (57,944–79,274)	74,767 (65,263–88,401)	82,817 (72,743–94,537)	124,139 (109,423–142,782)	128,044 (114,364–144,912)	137,152 (122,555–153,181)
Alcohol use	40,912 (34,655–48,360)	60,761 (51,405–71,830)	66,440 (57,044–77,853)	74,981 (65,368–85,671)	117,504 (102,739–135,492)	122,930 (109,586–139,269)	133,052 (118,860–148,711)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Drug use	2,980 (1,724–4,919)	7,401 (4,341–11,654)	9,039 (5,961–14,290)	8,462 (5,654–14,179)	7,417 (5,104–12,287)	5,878 (4,248–9,712)	4,980 (3,655–7,264)
Physiological risk factors							
High fasting plasma glucose	0 (0–0)	0 (0–0)	12,474 (10,243–15,085)	16,202 (13,171–19,598)	32,242 (26,696–37,982)	41,304 (33,866–48,909)	76,716 (64,040–88,921)
High total cholesterol	0 (0–0)	0 (0–0)	7,015 (5,121–9,233)	11,790 (8,837–15,346)	25,905 (20,860–31,611)	39,632 (32,345–48,427)	61,348 (50,544–74,047)
High blood pressure	0 (0–0)	0 (0–0)	26,556 (20,100–32,972)	37,260 (28,704–45,454)	74,381 (61,731–86,930)	104,020 (86,394–121,427)	187,185 (164,173–210,163)
High body-mass index	0 (0–0)	0 (0–0)	11,291 (7,949–14,989)	15,906 (11,238–20,914)	32,172 (24,554–40,009)	45,344 (35,014–56,164)	66,675 (52,589–80,933)
Low bone mineral density	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	0 (0–0)	0 (0–0)	47,958 (42,731–52,467)	74,895 (67,596–81,402)	118,032 (107,448–129,933)	180,347 (164,726–197,526)	260,888 (237,430–286,597)
Diet low in fruits	0 (0–0)	0 (0–0)	27,922 (22,143–33,244)	42,072 (32,651–49,983)	65,455 (51,572–78,612)	99,470 (78,231–118,570)	144,225 (111,967–173,900)
Diet low in vegetables	0 (0–0)	0 (0–0)	13,864 (8,623–18,634)	19,998 (12,949–26,624)	28,863 (18,257–38,669)	41,407 (26,189–55,675)	56,830 (35,511–76,759)
Diet low in whole grains	0 (0–0)	0 (0–0)	11,671 (9,147–14,050)	17,325 (13,628–20,938)	25,570 (19,921–30,885)	36,865 (28,472–44,575)	49,133 (37,927–59,441)
Diet low in nuts and seeds	0 (0–0)	0 (0–0)	14,195 (9,781–17,553)	22,435 (15,226–28,131)	33,282 (22,569–41,811)	49,005 (32,797–62,158)	65,318 (43,617–83,187)
Diet low in milk	0 (0–0)	0 (0–0)	632 (175–1,070)	1,024 (307–1,760)	1,515 (454–2,540)	1,981 (609–3,314)	2,787 (832–4,746)
Diet high in red meat	0 (0–0)	0 (0–0)	161 (45–276)	291 (76–509)	460 (128–788)	637 (180–1,098)	913 (251–1,561)
Diet high in processed meat	0 (0–0)	0 (0–0)	4,895 (1,042–8,646)	8,452 (1,805–14,893)	13,027 (2,844–22,398)	20,174 (4,329–34,856)	26,660 (5,778–45,562)
Diet high in sugar-sweetened beverages	0 (0–0)	0 (0–0)	2,344 (1,556–3,288)	3,029 (2,150–4,032)	4,103 (1,574–6,293)	5,350 (1,910–8,129)	6,634 (2,458–9,859)
Diet low in fibre	0 (0–0)	0 (0–0)	6,334 (2,980–9,581)	9,632 (4,450–14,503)	14,207 (6,574–21,686)	19,389 (8,896–29,560)	24,641 (11,049–38,403)
Diet low in calcium	0 (0–0)	0 (0–0)	807 (523–1,062)	1,295 (829–1,678)	1,886 (1,311–2,428)	2,381 (1,705–3,016)	3,270 (2,355–4,137)
Diet low in seafood omega-3 fatty acids	0 (0–0)	0 (0–0)	9,323 (6,822–11,653)	14,588 (10,716–18,256)	21,265 (15,534–26,526)	30,958 (22,607–39,492)	40,539 (29,269–51,286)
Diet low in polyunsaturated fatty acids	0 (0–0)	0 (0–0)	4,095 (2,041–6,169)	6,251 (3,074–9,468)	9,147 (4,407–13,910)	13,117 (6,166–19,846)	17,158 (8,156–26,139)
Diet high in trans fatty acids	0 (0–0)	0 (0–0)	3,080 (2,214–3,956)	4,812 (3,444–6,156)	7,174 (5,155–9,211)	10,857 (7,963–13,792)	14,611 (10,495–18,739)
Diet high in sodium	0 (0–0)	0 (0–0)	10,201 (5,377–14,725)	17,387 (11,071–23,626)	29,109 (18,400–40,045)	46,627 (30,680–62,461)	68,062 (45,902–89,338)
Physical inactivity and low physical activity							
Occupational risk factors	42,995 (32,917–55,295)	63,808 (48,451–80,324)	65,261 (50,880–82,991)	60,275 (47,577–75,300)	58,784 (46,306–73,545)	50,665 (40,523–63,536)	51,506 (41,045–63,924)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Occupational carcinogens	210 (145-299)	309 (202-453)	411 (271-594)	539 (367-770)	1,002 (677-1,427)	1,670 (1,118-2,340)	3,337 (2,259-4,817)
Occupational exposure to asbestos	96 (66-142)	103 (70-151)	105 (72-153)	143 (97-203)	234 (163-320)	428 (300-615)	733 (516-1,023)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	4 (1-7)	7 (3-14)	24 (9-44)	39 (15-73)	89 (34-168)
Occupational exposure to benzene	95 (39-170)	168 (69-294)	168 (71-299)	164 (66-291)	95 (40-173)	92 (38-163)	51 (21-91)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-4)	5 (2-8)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	1 (0-1)	1 (1-2)	4 (2-7)	7 (3-11)	15 (7-26)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	2 (1-3)	4 (2-7)	14 (9-22)	24 (14-37)	55 (34-84)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	27 (14-42)	51 (28-81)	173 (97-263)	299 (168-456)	694 (401-1,078)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	30 (19-43)	59 (40-84)	197 (133-281)	337 (227-468)	766 (533-1,083)
Occupational exposure to formaldehyde	20 (9-34)	39 (18-66)	41 (18-69)	44 (19-79)	33 (13-63)	36 (13-74)	24 (8-53)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	10 (3-22)	21 (5-46)	71 (18-147)	120 (30-250)	271 (72-578)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	4 (2-7)	8 (4-15)	29 (13-48)	49 (23-82)	114 (54-189)
Occupational exposure to silica	0 (0-0)	0 (0-0)	18 (11-27)	35 (22-51)	119 (78-176)	204 (128-295)	475 (309-687)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	2 (1-6)	6 (1-14)	24 (6-54)	62 (17-133)	137 (39-313)
Occupational asthmagens	599 (321-1,070)	1,015 (550-1,724)	1,297 (759-2,297)	1,366 (789-2,385)	1,990 (1,142-3,586)	2,203 (1,274-3,953)	3,215 (1,767-6,267)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	1,957 (870-3,137)	2,733 (1,241-4,284)	5,247 (2,475-7,973)	7,497 (3,477-11,275)	12,282 (5,760-18,910)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	42,186 (32,031-54,441)	62,484 (47,379-78,894)	61,596 (47,535-78,950)	55,636 (43,322-70,176)	50,545 (38,086-65,576)	39,295 (29,958-51,536)	32,671 (24,713-42,382)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Unimproved water and sanitation	12,208 (559–22,606)	14,013 (674–26,636)	18,165 (839–33,832)	18,003 (956–34,015)	17,281 (817–31,539)	14,847 (675–27,465)	22,540 (1,141–42,258)
Unimproved water source	4,739 (333–9,386)	5,315 (349–10,712)	6,928 (476–13,975)	6,935 (490–14,009)	6,706 (462–13,312)	5,759 (379–11,451)	8,354 (557–16,738)
Unimproved sanitation	8,623 (241–16,628)	9,998 (302–19,738)	12,940 (375–25,359)	12,768 (411–25,168)	12,204 (375–23,181)	10,470 (294–20,309)	16,149 (526–31,362)
Air pollution							
Ambient particulate matter pollution	153,983 (115,196–192,112)	209,387 (154,733–262,761)	298,263 (221,962–363,945)	338,301 (242,865–428,504)	358,003 (254,014–455,316)	383,118 (269,356–479,667)	616,245 (446,426–775,352)
Household air pollution from solid fuels	202,755 (155,059–252,858)	280,260 (204,501–347,075)	404,277 (304,818–503,518)	470,322 (340,002–587,685)	521,856 (384,311–647,975)	494,845 (367,494–616,275)	684,584 (513,241–844,161)
Ambient ozone pollution	5,177 (1,646–9,059)	8,770 (2,946–15,191)	15,304 (5,044–26,797)	20,340 (6,760–35,495)	24,439 (7,980–43,118)	24,961 (8,361–43,752)	38,515 (12,636–68,569)
Other environmental risks	16,064 (13,428–18,935)	20,658 (17,532–24,487)	28,225 (23,631–32,909)	30,583 (25,883–35,708)	27,984 (23,778–32,554)	25,554 (21,950–29,609)	28,934 (24,483–33,616)
Residential radon							
Lead exposure	16,064 (13,428–18,935)	20,658 (17,532–24,487)	28,225 (23,631–32,909)	30,583 (25,883–35,708)	27,984 (23,778–32,554)	25,554 (21,950–29,609)	28,934 (24,483–33,616)
Child and maternal undernutrition	2,172 (1,746–2,742)	2,466 (1,970–3,018)	3,237 (2,593–4,095)	3,739 (2,882–4,608)	4,289 (3,220–5,359)	4,727 (3,769–5,707)	12,272 (9,829–15,716)
Suboptimal breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Childhood underweight	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Iron deficiency	2,172 (1,746–2,742)	2,466 (1,970–3,018)	3,237 (2,593–4,095)	3,739 (2,882–4,608)	4,289 (3,220–5,359)	4,727 (3,769–5,707)	12,272 (9,829–15,716)
Vitamin A deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Zinc deficiency	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	354,117 (305,997–409,523)	504,076 (436,766–572,170)	699,533 (613,467–809,735)	754,382 (653,086–877,163)	704,789 (607,727–835,419)	661,054 (574,612–791,875)	815,718 (724,642–975,917)
Tobacco smoking	336,664 (286,095–390,454)	479,593 (410,114–550,117)	662,516 (578,130–776,123)	707,104 (605,090–835,158)	649,923 (546,578–787,963)	592,676 (501,914–729,204)	692,989 (600,545–853,693)
Second-hand smoke	17,453 (11,475–22,950)	24,483 (16,042–32,643)	37,017 (25,005–47,972)	47,278 (31,514–61,370)	54,867 (36,467–71,706)	68,378 (45,114–89,123)	122,730 (82,559–158,720)
Alcohol and drug use	181,336 (163,328–201,168)	199,573 (179,406–220,909)	233,134 (209,831–258,238)	164,187 (142,802–186,468)	150,663 (126,807–175,752)	172,125 (139,474–205,006)	274,161 (202,549–342,896)
Alcohol use	177,477 (160,047–196,924)	195,975 (176,208–217,417)	229,408 (205,667–253,994)	163,475 (142,034–185,753)	150,057 (126,213–174,947)	171,510 (138,335–204,226)	273,299 (201,849–341,898)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Drug use	5,079 (3,940–7,833)	5,180 (4,174–6,754)	5,660 (4,564–7,272)	719 (446–1,556)	608 (369–1,350)	616 (378–1,471)	863 (535–1,814)
Physiological risk factors							
High fasting plasma glucose	121,197 (102,076–140,404)	188,743 (161,417–216,663)	257,298 (219,588–295,809)	294,771 (252,165–338,515)	295,064 (253,038–336,396)	315,731 (268,146–363,215)	452,433 (377,324–526,954)
High total cholesterol	106,684 (88,422–128,490)	143,686 (120,138–172,016)	219,427 (184,729–260,203)	252,714 (211,177–299,748)	254,294 (207,320–305,071)	304,678 (229,057–382,894)	518,749 (430,665–616,469)
High blood pressure	309,067 (272,582–344,096)	489,089 (445,089–536,945)	699,044 (636,123–763,143)	913,347 (843,638–987,707)	982,652 (902,304–1,064,189)	1,237,217 (1,150,597–1,330,466)	2,233,369 (2,072,674–2,395,549)
High body-mass index	111,174 (88,853–134,231)	150,280 (121,996–179,090)	225,528 (184,629–268,018)	250,389 (204,653–296,981)	252,985 (205,756–300,698)	306,079 (248,017–364,250)	495,725 (394,933–595,018)
Low bone mineral density	6,377 (5,129–8,417)	6,735 (5,572–9,003)	9,619 (7,911–12,654)	10,467 (8,767–13,533)	11,996 (9,889–15,532)	16,469 (13,605–20,231)	41,607 (34,733–51,278)
Dietary risk factors and physical inactivity	455,752 (416,811–493,423)	622,396 (570,926–682,573)	893,238 (826,814–968,533)	1,055,055 (971,070–1,147,752)	1,120,788 (1,018,781–1,218,539)	1,305,019 (1,194,259–1,405,988)	2,235,976 (2,033,797–2,441,236)
Diet low in fruits	247,368 (195,365–295,444)	330,243 (260,938–394,552)	437,004 (342,928–524,072)	491,356 (383,410–591,189)	501,139 (384,169–606,863)	527,333 (406,357–637,893)	753,617 (574,447–937,991)
Diet low in vegetables	93,858 (60,363–127,357)	118,742 (76,506–160,571)	162,636 (109,837–217,063)	181,552 (120,281–245,603)	185,412 (121,118–248,751)	213,306 (140,887–284,291)	337,590 (217,813–456,746)
Diet low in whole grains	81,246 (64,086–97,780)	103,164 (79,656–124,730)	141,270 (110,144–171,151)	155,604 (121,285–189,679)	159,098 (123,211–194,176)	178,169 (138,062–217,469)	271,161 (207,620–330,147)
Diet low in nuts and seeds	111,554 (74,047–142,047)	142,171 (93,026–181,813)	205,026 (130,945–262,876)	236,017 (151,491–305,030)	239,267 (150,031–312,742)	285,812 (176,211–378,999)	510,127 (307,343–687,140)
Diet low in milk	4,480 (1,342–7,537)	6,210 (1,882–10,387)	8,422 (2,509–14,283)	9,470 (2,869–15,951)	9,137 (2,755–15,417)	9,746 (2,870–16,518)	12,745 (3,799–21,646)
Diet high in red meat	1,565 (432–2,668)	2,232 (636–3,749)	3,219 (888–5,516)	3,695 (1,021–6,263)	3,537 (991–6,049)	4,092 (1,133–7,011)	5,639 (1,587–9,611)
Diet high in processed meat	43,948 (9,601–75,859)	55,068 (12,170–93,279)	78,524 (17,475–134,060)	88,763 (20,024–151,631)	86,454 (18,835–148,797)	108,427 (23,516–185,745)	197,284 (41,058–342,137)
Diet high in sugar-sweetened beverages	10,146 (3,554–15,074)	11,898 (7,754–17,678)	15,564 (9,891–23,864)	16,502 (10,112–25,674)	16,924 (9,498–28,179)	17,759 (8,803–27,439)	31,064 (12,974–40,837)
Diet low in fibre	39,177 (17,575–60,976)	47,839 (21,863–74,132)	63,758 (28,529–100,201)	69,407 (31,095–109,180)	70,823 (31,751–110,932)	81,230 (36,106–127,036)	137,708 (58,707–220,544)
Diet low in calcium	5,186 (3,832–6,662)	7,234 (5,344–9,249)	9,835 (7,109–12,660)	11,180 (7,847–14,515)	11,232 (7,815–14,953)	12,067 (8,100–16,400)	15,934 (9,962–22,384)
Diet low in seafood omega-3 fatty acids	67,795 (48,998–86,842)	83,712 (60,974–106,207)	117,624 (85,521–151,079)	131,006 (95,435–167,297)	128,812 (93,516–165,056)	148,437 (106,505–189,709)	249,026 (177,820–319,888)
Diet low in polyunsaturated fatty acids	28,349 (13,490–43,070)	35,405 (17,034–54,306)	49,579 (23,226–76,258)	55,547 (26,875–85,096)	55,064 (26,147–84,676)	64,320 (30,650–98,764)	110,031 (51,875–169,860)
Diet high in trans fatty acids	22,695 (16,321–29,163)	28,940 (21,064–37,224)	40,008 (29,146–51,205)	46,610 (33,742–59,504)	46,742 (33,517–60,144)	50,922 (36,415–65,201)	91,011 (65,291–116,840)
Diet high in sodium	122,481 (81,236–160,829)	174,255 (114,847–229,333)	257,126 (167,111–335,173)	310,128 (200,260–411,711)	320,993 (207,275–425,369)	349,350 (223,587–467,206)	539,635 (339,477–729,560)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Occupational risk factors	63,881 (48,234-80,919)	75,377 (52,632-98,373)	85,527 (53,825-117,633)	61,733 (37,036-88,656)	66,642 (38,417-99,530)	57,534 (31,414-86,228)	7,156 (5,467-9,811)
Occupational carcinogens	6,059 (4,059-8,735)	10,239 (6,779-14,559)	13,664 (9,269-19,669)	11,136 (7,769-15,574)	9,754 (6,802-14,238)	6,586 (4,875-9,255)	7,156 (5,467-9,811)
Occupational exposure to asbestos	1,247 (897-1,785)	1,985 (1,399-2,874)	2,983 (2,157-4,365)	3,806 (2,736-5,445)	3,395 (2,471-4,976)	3,553 (2,584-5,228)	4,246 (3,220-6,172)
Occupational exposure to arsenic	163 (63-301)	287 (108-537)	366 (142-695)	242 (91-459)	214 (81-405)	93 (35-178)	92 (34-177)
Occupational exposure to benzene	63 (26-114)	89 (36-158)	111 (47-196)	161 (67-286)	151 (63-271)	198 (82-351)	157 (63-291)
Occupational exposure to beryllium	9 (3-15)	15 (6-26)	20 (8-35)	13 (5-23)	11 (5-21)	5 (2-9)	5 (2-9)
Occupational exposure to cadmium	29 (13-49)	51 (23-84)	66 (30-112)	43 (19-75)	38 (17-65)	17 (8-29)	17 (7-29)
Occupational exposure to chromium	103 (62-153)	179 (108-266)	232 (141-355)	153 (93-237)	134 (80-212)	60 (36-94)	60 (36-95)
Occupational exposure to diesel engine exhaust	1,306 (753-2,019)	2,291 (1,299-3,545)	2,975 (1,722-4,628)	1,990 (1,136-3,143)	1,718 (973-2,768)	774 (438-1,280)	742 (423-1,215)
Occupational exposure to second-hand smoke	1,402 (954-1,966)	2,454 (1,705-3,397)	3,172 (2,237-4,471)	2,111 (1,473-3,086)	1,844 (1,308-2,746)	824 (591-1,224)	828 (587-1,223)
Occupational exposure to formaldehyde	25 (9-50)	34 (12-70)	36 (13-73)	45 (17-89)	37 (14-70)	41 (17-79)	24 (10-45)
Occupational exposure to nickel	503 (133-1,046)	878 (226-1,814)	1,135 (304-2,351)	751 (198-1,584)	660 (173-1,386)	291 (75-621)	291 (76-622)
Occupational exposure to polycyclic aromatic hydrocarbons	213 (100-356)	373 (175-618)	486 (233-819)	322 (151-548)	280 (132-481)	126 (59-216)	126 (58-215)
Occupational exposure to silica	900 (581-1,299)	1,588 (1,033-2,277)	2,066 (1,381-2,952)	1,388 (904-2,056)	1,200 (798-1,824)	544 (367-870)	520 (353-812)
Occupational exposure to sulfuric acid	263 (72-579)	363 (102-800)	464 (132-990)	326 (87-744)	259 (73-576)	124 (34-273)	127 (38-281)
Occupational asthmagens	4,450 (2,481-8,563)	5,589 (3,208-10,205)	6,439 (3,572-11,910)	4,738 (2,523-8,733)	4,945 (2,700-8,865)	4,305 (2,367-7,892)	0 (0-0)
Occupational particulate matter, gases, and fumes	24,369 (11,159-36,950)	36,913 (16,391-57,272)	51,476 (22,708-80,942)	39,808 (16,946-64,387)	47,929 (20,380-77,601)	45,435 (19,972-73,241)	0 (0-0)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	29,003 (22,110-37,199)	22,636 (17,127-29,346)	13,948 (10,576-17,974)	6,051 (4,484-8,062)	4,015 (3,020-5,360)	1,208 (918-1,566)	0 (0-0)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Unimproved water and sanitation	365,244 (18,940–662,551)	9,714 (471–19,232)	23,554 (1,223–44,532)	116,863 (6,173–217,301)	98,900 (5,299–182,571)	15,407 (692–29,583)	6,690 (278–12,938)
Unimproved water source	147,857 (10,566–282,890)	3,899 (261–8,160)	9,388 (652–18,799)	47,882 (3,500–93,262)	42,260 (3,084–83,475)	5,974 (397–12,180)	2,618 (169–5,387)
Unimproved sanitation	252,779 (8,032–480,822)	6,757 (197–14,052)	16,412 (529–32,682)	80,203 (2,557–156,244)	66,926 (2,196–129,052)	10,869 (289–21,640)	4,690 (115–9,507)
Air pollution							
Ambient particulate matter pollution	1,549,448 (1,345,894–1,752,880)	19,847 (12,268–28,231)	20,195 (13,181–27,975)	78,126 (52,893–105,889)	51,267 (33,908–71,030)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	2,251,932 (1,677,785–2,743,681)	68,924 (44,458–91,790)	71,317 (47,905–92,928)	274,648 (193,690–350,438)	191,888 (133,782–252,410)	0 (0–0)	0 (0–0)
Ambient ozone pollution	77,087 (25,256–134,021)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	109,224 (91,805–131,511)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon							
Lead exposure	109,224 (91,805–131,511)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	1,805,224 (1,479,043–2,219,888)	0 (0–0)	138,589 (83,615–190,605)	895,272 (729,496–1,076,442)	746,855 (581,453–987,070)	1,347 (999–1,869)	953 (718–1,277)
Suboptimal breastfeeding	693,103 (427,028–972,440)	0 (0–0)	138,589 (83,615–190,605)	510,324 (306,882–731,098)	44,190 (4,756–94,710)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	612,059 (354,236–875,230)	0 (0–0)	138,589 (83,615–190,605)	473,470 (272,590–693,746)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	81,044 (8,643–178,237)	0 (0–0)	0 (0–0)	36,854 (3,671–82,696)	44,190 (4,756–94,710)	0 (0–0)	0 (0–0)
Childhood underweight	1,198,178 (997,627–1,484,105)	0 (0–0)	0 (0–0)	600,286 (501,285–710,497)	597,892 (477,020–773,832)	0 (0–0)	0 (0–0)
Iron deficiency	39,409 (30,677–47,108)	0 (0–0)	0 (0–0)	5,232 (3,964–6,784)	9,669 (6,684–13,961)	1,347 (999–1,869)	953 (718–1,277)
Vitamin A deficiency	181,151 (85,775–341,439)	0 (0–0)	0 (0–0)	45,590 (20,830–78,943)	135,562 (61,576–267,698)	0 (0–0)	0 (0–0)
Zinc deficiency	143,518 (27,797–276,850)	0 (0–0)	0 (0–0)	0 (0–0)	143,518 (27,797–276,850)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	3,680,571 (3,213,427–4,229,530)	21,532 (13,294–29,845)	22,676 (14,782–31,004)	92,943 (63,260–123,193)	57,589 (38,090–78,687)	0 (0–0)	0 (0–0)
Tobacco smoking	3,332,192 (2,871,957–3,840,033)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	348,378 (273,555–425,310)	21,532 (13,294–29,845)	22,676 (14,782–31,004)	92,943 (63,260–123,193)	57,589 (38,090–78,687)	0 (0–0)	0 (0–0)
Alcohol and drug use	1,345,743 (1,196,535–1,513,476)	247 (139–455)	207 (92–393)	912 (512–1,717)	3,525 (1,951–5,657)	2,017 (1,481–2,764)	1,680 (1,302–2,162)
Alcohol use	1,305,926 (1,156,571–1,466,638)	125 (78–205)	70 (37–130)	529 (327–844)	2,725 (1,528–4,423)	1,764 (1,310–2,248)	1,500 (1,173–1,865)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Drug use	46,682 (33,063–78,398)	122 (33–293)	137 (37–300)	383 (126–1,050)	799 (184–1,881)	252 (80–701)	181 (73–475)
Physiological risk factors							
High fasting plasma glucose	1,051,401 (865,949–1,250,550)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	936,749 (767,684–1,128,051)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	3,412,588 (3,089,548–3,769,223)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	887,047 (698,599–1,079,235)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	52,816 (43,822–69,605)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	4,387,218 (4,017,891–4,762,455)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	2,013,415 (1,570,347–2,435,112)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	779,747 (535,472–1,041,517)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	649,676 (503,984–787,057)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	1,041,726 (667,481–1,349,266)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	34,838 (10,464–58,211)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	13,888 (3,859–23,763)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	397,198 (85,536–688,905)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	80,874 (50,739–111,941)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	333,603 (149,007–521,712)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	48,975 (32,814–66,562)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	576,646 (418,376–735,746)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	248,677 (117,929–381,787)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	202,725 (144,395–260,843)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	1,197,713 (776,962–1,589,448)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Occupational risk factors	694,403 (541,113–858,435)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	55,306 (37,867–80,887)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	17,024 (11,044–26,605)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	1,155 (446–2,210)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	993 (426–1,757)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	61 (24–110)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	214 (97–370)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	729 (431–1,133)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	10,979 (6,241–17,555)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	10,171 (6,878–15,272)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	299 (117–584)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	3,578 (935–7,585)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	1,638 (772–2,817)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	7,870 (5,154–11,902)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	1,964 (531–4,383)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	31,666 (15,305–62,856)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	207,366 (92,516–320,244)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	400,064 (308,482–507,787)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Unimproved water and sanitation	6,060 (243-12,157)	6,185 (273-12,097)	6,072 (294-11,732)	5,994 (267-11,216)	5,996 (305-11,525)	5,386 (273-10,413)	5,718 (300-11,445)
Unimproved water source	2,360 (140-4,941)	2,409 (158-4,956)	2,378 (157-4,953)	2,317 (144-4,733)	2,307 (168-4,669)	2,092 (149-4,301)	2,197 (154-4,655)
Unimproved sanitation	4,261 (104-8,763)	4,353 (121-8,862)	4,268 (128-8,585)	4,239 (125-8,317)	4,251 (126-8,465)	3,805 (124-7,826)	4,057 (127-8,388)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	11,815 (8,374-15,020)	18,338 (13,459-23,322)	28,085 (21,191-35,215)	41,435 (31,066-52,006)	56,651 (42,144-70,458)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	15,155 (10,904-19,627)	22,666 (16,461-29,461)	33,081 (24,023-43,365)	47,332 (33,692-61,314)	65,689 (46,898-84,341)
Ambient ozone pollution	0 (0-0)	0 (0-0)	207 (62-396)	281 (87-524)	513 (163-967)	777 (244-1,441)	1,392 (411-2,480)
Other environmental risks	0 (0-0)	0 (0-0)	1,285 (1,017-1,782)	1,983 (1,573-2,555)	2,871 (2,355-3,501)	4,263 (3,538-5,162)	5,987 (4,941-7,279)
Residential radon							
Lead exposure	0 (0-0)	0 (0-0)	1,285 (1,017-1,782)	1,983 (1,573-2,555)	2,871 (2,355-3,501)	4,263 (3,538-5,162)	5,987 (4,941-7,279)
Child and maternal undernutrition	1,243 (845-1,652)	1,352 (917-1,821)	1,166 (860-1,510)	1,139 (769-1,505)	1,148 (738-1,490)	1,073 (667-1,406)	1,161 (774-1,522)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,243 (845-1,652)	1,352 (917-1,821)	1,166 (860-1,510)	1,139 (769-1,505)	1,148 (738-1,490)	1,073 (667-1,406)	1,161 (774-1,522)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	1,265 (839-1,709)	36,271 (27,546-47,419)	62,748 (42,025-85,277)	111,180 (85,751-138,882)	160,435 (136,812-187,900)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	34,462 (25,731-45,391)	61,129 (40,332-83,748)	108,494 (83,011-136,545)	156,449 (132,719-184,235)
Second-hand smoke	0 (0-0)	0 (0-0)	1,265 (839-1,709)	1,809 (1,221-2,419)	1,618 (1,055-2,353)	2,686 (1,788-3,712)	3,987 (2,680-5,343)
Alcohol and drug use	35,470 (29,507-42,424)	57,296 (47,868-68,143)	63,154 (53,825-75,698)	69,207 (59,397-80,679)	101,996 (89,050-118,471)	102,717 (90,843-117,296)	108,288 (95,696-122,455)
Alcohol use	34,082 (28,058-40,983)	52,709 (43,429-63,049)	57,223 (48,001-68,639)	63,469 (53,748-73,921)	97,088 (83,850-113,128)	98,985 (86,746-112,953)	105,386 (92,918-119,234)
Drug use	1,523 (862-2,739)	5,141 (2,929-8,823)	6,584 (4,188-11,550)	6,284 (4,085-11,391)	5,562 (3,739-10,069)	4,316 (2,958-7,787)	3,538 (2,495-5,620)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	7,404 (5,625-9,290)	10,010 (7,791-12,508)	20,648 (16,478-25,031)	26,635 (20,914-32,221)	49,303 (39,573-58,624)
High total cholesterol	0 (0-0)	0 (0-0)	4,963 (3,526-6,572)	8,824 (6,405-11,582)	19,849 (15,862-24,196)	30,699 (24,309-37,741)	44,786 (35,883-54,025)
High blood pressure	0 (0-0)	0 (0-0)	18,648 (14,352-22,976)	26,963 (21,099-32,491)	48,594 (40,575-57,175)	68,851 (57,714-80,769)	116,812 (102,243-132,678)
High body-mass index	0 (0-0)	0 (0-0)	6,685 (4,618-9,043)	9,849 (6,858-13,066)	19,445 (14,731-24,319)	29,384 (22,276-36,538)	40,906 (31,883-49,947)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	29,442 (25,914-32,806)	47,640 (42,173-52,624)	76,024 (68,761-84,751)	117,475 (106,362-129,907)	171,815 (154,500-190,804)
Diet low in vegetables	0 (0-0)	0 (0-0)	17,284 (13,364-21,078)	26,874 (20,815-32,570)	41,898 (32,240-50,879)	63,807 (49,105-78,391)	93,203 (70,983-114,021)
Diet low in whole grains	0 (0-0)	0 (0-0)	8,672 (5,392-11,704)	12,960 (8,554-17,352)	18,902 (12,161-25,515)	27,223 (17,737-36,343)	37,550 (24,051-50,874)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	7,250 (5,601-8,868)	11,277 (8,721-13,913)	16,890 (12,932-20,844)	24,363 (18,459-30,185)	32,375 (25,014-39,686)
Diet low in milk	0 (0-0)	0 (0-0)	9,362 (6,335-11,797)	15,516 (10,254-19,451)	23,906 (15,918-30,311)	35,659 (23,584-45,744)	47,703 (31,583-60,507)
Diet high in red meat	0 (0-0)	0 (0-0)	357 (102-599)	582 (171-1,013)	812 (242-1,346)	1,045 (306-1,733)	1,512 (451-2,508)
Diet high in processed meat	0 (0-0)	0 (0-0)	97 (26-169)	173 (46-306)	259 (71-454)	355 (102-618)	523 (145-902)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	3,241 (710-5,731)	5,964 (1,254-10,929)	9,643 (2,032-16,939)	15,019 (3,128-26,744)	19,804 (4,066-34,674)
Diet low in fibre	0 (0-0)	0 (0-0)	1,467 (960-2,108)	1,914 (1,340-2,604)	2,588 (975-4,069)	3,452 (1,212-5,276)	4,462 (1,585-6,665)
Diet low in calcium	0 (0-0)	0 (0-0)	4,268 (1,988-6,576)	6,728 (3,076-10,392)	10,110 (4,619-15,668)	14,045 (6,173-21,681)	17,936 (7,793-28,188)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	464 (285-613)	751 (449-991)	1,030 (662-1,340)	1,288 (898-1,638)	1,826 (1,313-2,298)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	6,137 (4,406-7,737)	10,070 (7,217-12,711)	15,254 (11,065-19,180)	22,483 (16,510-28,906)	29,534 (21,121-37,667)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	2,749 (1,274-4,152)	4,366 (2,100-6,598)	6,610 (3,080-9,947)	9,600 (4,479-14,682)	12,583 (5,954-19,405)
Diet high in sodium	0 (0-0)	0 (0-0)	1,962 (1,381-2,550)	3,219 (2,261-4,161)	5,006 (3,521-6,530)	7,731 (5,566-9,983)	10,468 (7,388-13,528)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	5,489 (2,486-8,741)	10,112 (5,755-14,723)	17,655 (10,863-24,548)	28,842 (18,746-38,952)	44,088 (29,236-58,540)
Occupational risk factors	40,307 (30,293-52,619)	60,200 (45,146-76,640)	60,962 (46,666-78,665)	55,798 (43,168-70,498)	52,934 (40,514-67,761)	44,457 (34,925-57,206)	43,642 (34,994-55,273)
Occupational carcinogens	129 (84-185)	191 (124-278)	252 (163-364)	329 (220-469)	663 (435-954)	1,180 (766-1,685)	2,494 (1,632-3,652)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Occupational exposure to asbestos	65 (37-112)	72 (41-119)	70 (41-114)	92 (54-149)	152 (91-235)	296 (179-461)	528 (328-807)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	2 (1-4)	4 (1-8)	14 (5-26)	25 (9-46)	59 (23-113)
Occupational exposure to benzene	53 (22-95)	97 (39-175)	91 (38-167)	85 (35-151)	51 (21-92)	50 (20-88)	29 (12-52)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	3 (1-5)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-4)	8 (2-8)	15 (5-18)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	1 (1-2)	2 (1-4)	8 (5-13)	15 (9-24)	37 (22-57)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	21 (11-34)	38 (20-62)	132 (72-211)	236 (127-372)	565 (315-895)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	19 (11-28)	36 (21-51)	121 (76-175)	220 (136-321)	526 (344-752)
Occupational exposure to formaldehyde	11 (5-19)	23 (10-38)	23 (10-40)	24 (10-44)	19 (7-39)	22 (7-48)	16 (4-36)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	6 (2-14)	12 (3-26)	41 (11-87)	76 (19-157)	182 (48-383)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	3 (1-5)	5 (2-10)	19 (9-32)	35 (16-58)	83 (39-139)
Occupational exposure to silica	0 (0-0)	0 (0-0)	14 (8-22)	27 (16-41)	94 (58-143)	167 (99-249)	400 (255-588)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	2 (0-4)	5 (1-11)	21 (5-47)	56 (14-124)	126 (32-294)
Occupational asthmagens	421 (178-852)	743 (324-1,426)	954 (448-1,840)	965 (480-1,907)	1,363 (631-2,860)	1,491 (706-2,932)	2,252 (1,008-5,033)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	1,172 (502-2,000)	1,658 (733-2,657)	3,013 (1,413-4,842)	4,605 (2,092-7,190)	7,940 (3,736-12,288)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	39,757 (29,804-51,975)	59,266 (44,468-75,636)	58,584 (44,395-75,897)	52,845 (40,589-67,529)	47,895 (35,577-62,558)	37,181 (27,963-49,388)	30,956 (23,164-40,659)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Unimproved water and sanitation	6,214 (286-11,946)	6,572 (336-12,769)	8,135 (370-17,085)	7,839 (400-15,514)	7,415 (346-14,236)	6,351 (293-12,659)	10,178 (508-20,309)
Unimproved water source	2,370 (159-4,780)	2,491 (167-5,207)	3,076 (187-6,567)	2,975 (198-6,112)	2,829 (180-5,732)	2,409 (166-4,923)	3,626 (248-7,711)
Unimproved sanitation	4,419 (121-8,960)	4,685 (141-9,505)	5,808 (181-13,061)	5,585 (175-11,489)	5,266 (149-10,580)	4,515 (130-9,238)	7,411 (234-15,448)
Air pollution							
Ambient particulate matter pollution	99,937 (75,297-126,450)	136,051 (101,994-171,724)	186,556 (139,856-229,225)	196,182 (141,476-248,946)	192,016 (137,661-243,917)	184,008 (131,875-230,463)	228,941 (165,496-288,332)
Household air pollution from solid fuels	116,653 (83,145-152,563)	160,393 (108,795-209,306)	222,922 (149,166-294,060)	242,617 (152,788-325,290)	252,249 (155,413-334,708)	219,362 (131,831-294,827)	247,036 (147,023-335,976)
Ambient ozone pollution	3,046 (987-5,422)	5,061 (1,646-8,830)	8,875 (2,919-15,804)	11,630 (3,794-20,579)	13,621 (4,459-24,203)	13,614 (4,510-23,920)	18,071 (5,999-31,593)
Other environmental risks	9,806 (8,066-11,908)	12,732 (10,607-15,535)	16,741 (13,892-20,468)	16,926 (14,100-20,673)	14,246 (11,883-17,357)	11,714 (9,847-14,116)	10,670 (8,894-12,760)
Residential radon							
Lead exposure	9,806 (8,066-11,908)	12,732 (10,607-15,535)	16,741 (13,892-20,468)	16,926 (14,100-20,673)	14,246 (11,883-17,357)	11,714 (9,847-14,116)	10,670 (8,894-12,760)
Child and maternal undernutrition	1,081 (749-1,403)	1,238 (919-1,559)	1,600 (1,194-2,091)	1,816 (1,348-2,392)	1,920 (1,441-2,429)	2,035 (1,536-2,499)	4,235 (3,299-5,271)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,081 (749-1,403)	1,238 (919-1,559)	1,600 (1,194-2,091)	1,816 (1,348-2,392)	1,920 (1,441-2,429)	2,035 (1,536-2,499)	4,235 (3,299-5,271)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	277,125 (232,922-318,552)	388,167 (328,035-445,166)	536,986 (460,359-613,815)	549,201 (468,215-641,893)	478,248 (405,734-572,272)	432,711 (372,008-523,056)	451,492 (393,313-525,013)
Tobacco smoking	269,596 (224,472-312,670)	376,926 (317,488-436,497)	519,882 (442,873-594,782)	528,484 (447,366-624,005)	455,519 (380,908-552,986)	406,900 (343,098-499,259)	414,350 (357,564-491,339)
Second-hand smoke	7,529 (5,241-10,033)	11,241 (7,764-14,882)	17,103 (11,787-22,525)	20,716 (14,289-26,901)	22,729 (15,543-29,701)	25,811 (17,635-33,397)	37,142 (25,310-47,846)
Alcohol and drug use	138,348 (123,518-155,388)	147,441 (131,100-166,553)	160,181 (141,692-181,520)	100,426 (84,935-116,197)	84,322 (68,458-100,733)	77,600 (62,304-93,185)	90,706 (68,061-114,419)
Alcohol use	135,718 (120,880-152,546)	145,031 (129,008-163,825)	157,806 (139,455-178,629)	100,026 (84,559-115,818)	84,020 (68,167-100,508)	77,307 (61,950-92,940)	90,363 (67,827-114,062)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Drug use	3,468 (2,526–5,713)	3,459 (2,674–4,702)	3,581 (2,778–4,839)	407 (190–960)	305 (137–711)	295 (125–875)	344 (155–870)
Physiological risk factors							
High fasting plasma glucose	76,110 (61,718–91,873)	115,091 (94,688–136,651)	148,913 (121,472–178,406)	154,279 (127,248–182,513)	143,579 (118,474–171,278)	138,274 (114,284–164,684)	161,155 (131,926–193,450)
High total cholesterol	76,365 (62,094–91,013)	96,789 (78,201–116,387)	136,794 (112,406–163,763)	135,638 (110,602–164,592)	120,450 (95,255–146,208)	120,269 (91,621–150,975)	141,323 (113,457–171,240)
High blood pressure	193,559 (169,277–219,905)	303,063 (272,492–338,128)	414,702 (373,579–463,591)	492,514 (449,731–546,185)	482,462 (437,583–537,752)	531,077 (483,116–581,837)	715,344 (651,074–786,047)
High body-mass index	68,427 (53,629–83,476)	87,941 (69,472–106,312)	123,860 (98,667–149,267)	123,432 (97,891–149,077)	113,801 (89,473–138,922)	117,374 (92,199–142,611)	145,942 (112,418–179,611)
Low bone mineral density	4,454 (3,302–6,423)	4,473 (3,413–6,685)	6,489 (5,061–9,164)	6,269 (4,837–9,075)	7,065 (5,341–10,279)	7,926 (5,820–10,641)	16,140 (12,905–21,320)
Dietary risk factors and physical inactivity	301,622 (272,961–330,840)	412,916 (372,739–456,512)	569,189 (514,956–627,045)	618,981 (564,074–680,883)	603,280 (536,517–668,078)	621,668 (561,321–677,373)	817,166 (735,617–899,523)
Diet low in fruits	161,554 (126,237–196,989)	217,641 (168,649–263,912)	279,169 (214,716–340,216)	290,751 (227,942–353,986)	274,123 (203,954–340,175)	257,608 (191,662–316,508)	289,503 (216,638–365,241)
Diet low in vegetables	62,086 (40,722–83,808)	78,937 (51,127–108,509)	103,856 (70,607–138,638)	106,317 (72,267–142,155)	99,827 (66,904–137,130)	100,878 (67,820–135,679)	122,541 (81,657–164,989)
Diet low in whole grains	53,605 (41,649–65,087)	67,710 (52,163–82,264)	88,344 (68,947–107,913)	88,560 (68,240–108,554)	82,748 (63,926–101,816)	81,129 (62,808–98,233)	95,425 (73,862–116,107)
Diet low in nuts and seeds	80,089 (53,058–102,549)	100,555 (65,763–129,796)	136,085 (86,887–174,945)	142,237 (90,838–184,758)	130,536 (80,829–173,074)	136,856 (84,827–181,042)	183,221 (110,636–246,285)
Diet low in milk	2,441 (738–4,125)	3,513 (1,058–5,892)	4,722 (1,406–7,959)	5,172 (1,569–8,689)	4,771 (1,425–8,120)	4,749 (1,421–8,008)	5,163 (1,530–8,696)
Diet high in red meat	904 (248–1,578)	1,329 (374–2,281)	1,896 (523–3,288)	2,074 (570–3,520)	1,910 (551–3,255)	2,038 (560–3,526)	2,329 (641–3,995)
Diet high in processed meat	32,025 (6,684–56,192)	39,236 (8,484–68,196)	52,336 (11,357–93,159)	53,431 (11,587–93,453)	46,928 (10,304–82,732)	51,345 (11,072–89,522)	68,227 (14,042–120,678)
Diet high in sugar-sweetened beverages	6,706 (2,253–10,256)	7,951 (4,710–12,410)	10,150 (6,001–16,098)	10,332 (5,801–16,218)	10,107 (5,082–17,054)	9,323 (4,392–14,099)	12,422 (5,410–16,456)
Diet low in fibre	28,300 (12,438–44,541)	33,932 (15,163–53,317)	42,898 (18,957–67,641)	42,847 (19,263–67,051)	40,001 (17,974–62,924)	40,608 (18,078–63,965)	51,930 (22,897–82,004)
Diet low in calcium	2,929 (2,093–3,725)	4,286 (3,073–5,446)	5,904 (4,216–7,762)	6,794 (4,546–9,070)	6,762 (4,508–9,208)	7,326 (4,556–10,316)	9,616 (5,368–14,588)
Diet low in seafood omega-3 fatty acids	48,499 (34,641–62,537)	59,015 (42,693–75,800)	77,771 (56,315–99,795)	78,568 (56,770–101,051)	69,841 (50,677–90,067)	70,575 (50,674–90,707)	88,898 (63,097–115,124)
Diet low in polyunsaturated fatty acids	20,427 (9,662–31,136)	25,100 (11,851–38,830)	32,997 (15,409–50,687)	33,565 (15,975–51,699)	30,126 (14,261–46,521)	30,946 (14,634–47,895)	39,608 (18,571–61,654)
Diet high in trans fatty acids	16,040 (11,218–20,838)	20,191 (14,531–26,268)	26,346 (18,735–34,141)	28,404 (20,071–36,880)	25,972 (18,434–33,780)	25,071 (17,925–32,615)	32,315 (22,868–41,828)
Diet high in sodium	80,166 (53,077–106,023)	114,794 (76,259–152,811)	163,591 (106,039–216,120)	182,876 (118,404–244,772)	175,205 (113,429–234,245)	170,135 (108,845–228,089)	204,761 (128,510–280,031)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Occupational risk factors	52,540 (40,846–65,663)	60,494 (43,444–77,118)	67,463 (43,366–91,471)	50,853 (30,678–72,388)	54,021 (31,316–79,229)	45,761 (24,882–67,915)	4,969 (3,563–7,191)
Occupational carcinogens	4,696 (2,940–7,018)	8,047 (5,130–11,701)	10,868 (7,096–16,020)	8,869 (6,022–12,633)	7,574 (5,090–11,447)	5,044 (3,616–7,443)	4,969 (3,563–7,191)
Occupational exposure to asbestos	935 (589–1,418)	1,538 (969–2,419)	2,343 (1,513–3,685)	2,959 (1,899–4,554)	2,596 (1,706–4,104)	2,624 (1,716–4,112)	2,753 (1,781–4,400)
Occupational exposure to arsenic	114 (43–220)	204 (77–392)	267 (101–504)	179 (68–348)	152 (58–300)	70 (26–138)	65 (24–128)
Occupational exposure to benzene	37 (15–67)	53 (22–95)	66 (28–117)	97 (41–173)	89 (37–159)	114 (48–203)	82 (34–149)
Occupational exposure to beryllium	6 (2–11)	11 (4–19)	14 (6–25)	10 (4–17)	8 (3–15)	4 (1–7)	4 (1–6)
Occupational exposure to cadmium	21 (10–36)	38 (17–64)	50 (22–85)	33 (15–57)	28 (13–49)	13 (6–24)	12 (6–22)
Occupational exposure to chromium	72 (41–111)	128 (74–197)	169 (99–262)	114 (66–176)	95 (56–154)	44 (26–76)	42 (25–70)
Occupational exposure to diesel engine exhaust	1,090 (603–1,732)	1,929 (1,068–2,998)	2,527 (1,434–3,971)	1,710 (953–2,720)	1,446 (816–2,369)	668 (373–1,162)	617 (353–1,046)
Occupational exposure to second-hand smoke	1,002 (628–1,459)	1,781 (1,162–2,532)	2,338 (1,572–3,400)	1,584 (1,054–2,372)	1,336 (905–2,045)	622 (435–976)	586 (402–911)
Occupational exposure to formaldehyde	17 (5–37)	23 (7–52)	24 (8–53)	31 (11–63)	25 (9–50)	27 (10–53)	15 (6–27)
Occupational exposure to nickel	354 (91–758)	629 (162–1,340)	829 (217–1,737)	558 (143–1,182)	469 (124–1,013)	218 (56–474)	205 (53–446)
Occupational exposure to polycyclic aromatic hydrocarbons	162 (77–270)	287 (134–486)	379 (179–647)	255 (120–430)	215 (100–371)	100 (47–181)	95 (44–165)
Occupational exposure to silica	775 (478–1,139)	1,379 (869–2,010)	1,811 (1,180–2,630)	1,227 (792–1,881)	1,043 (679–1,630)	483 (323–794)	450 (303–728)
Occupational exposure to sulfuric acid	245 (66–549)	332 (93–741)	421 (115–914)	299 (75–682)	231 (60–523)	113 (30–255)	114 (31–261)
Occupational asthmagens	3,256 (1,435–6,863)	4,151 (1,955–8,509)	4,854 (2,174–10,049)	3,837 (1,752–7,797)	3,971 (1,887–7,579)	3,409 (1,623–6,763)	0 (0–0)
Occupational particulate matter, gases, and fumes	17,024 (7,973–25,713)	26,609 (11,847–40,956)	38,336 (17,066–59,385)	32,280 (13,904–51,912)	38,589 (16,673–61,951)	36,141 (16,051–57,616)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	27,564 (20,724–35,967)	21,687 (16,247–28,409)	13,405 (10,019–17,476)	5,867 (4,304–7,898)	3,888 (2,880–5,234)	1,167 (877–1,524)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Unimproved water and sanitation	350,629 (17,531–638,433)	8,057 (335–15,998)	19,175 (934–36,034)	102,992 (5,095–189,089)	95,905 (5,086–174,184)	13,793 (599–26,036)	6,416 (259–12,427)
Unimproved water source	140,150 (10,042–271,546)	3,122 (199–6,746)	7,558 (508–14,892)	41,425 (2,911–81,169)	39,333 (2,933–77,518)	5,295 (353–10,822)	2,538 (159–5,384)
Unimproved sanitation	244,207 (7,348–460,913)	5,697 (151–11,753)	13,428 (420–26,348)	71,310 (2,110–137,329)	66,144 (2,065–125,840)	9,771 (267–19,021)	4,483 (103–8,975)
Air pollution							
Ambient particulate matter pollution	1,360,712 (1,166,992–1,559,747)	13,929 (8,927–19,586)	15,163 (10,123–20,296)	64,977 (43,926–86,585)	45,385 (30,810–60,136)	0 (0–0)	0 (0–0)
Household air pollution from solid fuels	2,221,558 (1,862,975–2,581,337)	48,208 (33,065–63,885)	53,049 (37,321–67,156)	223,654 (162,223–280,860)	162,385 (118,948–205,548)	0 (0–0)	0 (0–0)
Ambient ozone pollution	66,274 (22,424–116,663)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Other environmental risks	100,699 (82,720–119,745)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Residential radon							
Lead exposure	100,699 (82,720–119,745)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Child and maternal undernutrition	1,668,365 (1,396,689–1,986,532)	0 (0–0)	107,719 (68,987–144,127)	763,998 (626,300–909,948)	678,965 (539,763–857,700)	1,126 (770–1,612)	985 (740–1,436)
Suboptimal breastfeeding	581,921 (370,598–814,551)	0 (0–0)	107,719 (68,987–144,127)	429,946 (264,728–612,610)	44,256 (4,631–95,705)	0 (0–0)	0 (0–0)
Non-exclusive breastfeeding	505,849 (302,585–720,858)	0 (0–0)	107,719 (68,987–144,127)	398,130 (232,644–577,305)	0 (0–0)	0 (0–0)	0 (0–0)
Discontinued breastfeeding	76,073 (7,809–165,395)	0 (0–0)	0 (0–0)	31,816 (3,006–72,813)	44,256 (4,631–95,705)	0 (0–0)	0 (0–0)
Childhood underweight	1,065,774 (898,859–1,299,715)	0 (0–0)	0 (0–0)	519,139 (433,722–617,567)	546,635 (444,754–679,669)	0 (0–0)	0 (0–0)
Iron deficiency	128,675 (92,036–156,884)	0 (0–0)	0 (0–0)	3,913 (2,823–5,655)	7,079 (4,809–10,276)	1,126 (770–1,612)	985 (740–1,436)
Vitamin A deficiency	168,203 (80,696–298,163)	0 (0–0)	0 (0–0)	42,592 (19,130–73,100)	125,610 (60,020–228,871)	0 (0–0)	0 (0–0)
Zinc deficiency	132,071 (23,716–253,841)	0 (0–0)	0 (0–0)	0 (0–0)	132,071 (23,716–253,841)	0 (0–0)	0 (0–0)
Tobacco smoking, including second-hand smoke	1,649,238 (1,380,504–2,144,408)	15,353 (10,426–21,273)	17,122 (11,809–22,782)	75,745 (51,933–99,291)	50,323 (33,956–66,051)	0 (0–0)	0 (0–0)
Tobacco smoking	1,244,106 (961,356–1,781,819)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Second-hand smoke	405,132 (310,224–500,100)	15,353 (10,426–21,273)	17,122 (11,809–22,782)	75,745 (51,933–99,291)	50,323 (33,956–66,051)	0 (0–0)	0 (0–0)
Alcohol and drug use	702,071 (570,285–844,382)	165 (98–268)	134 (61–236)	728 (421–1,192)	2,637 (1,322–4,264)	1,209 (872–1,573)	952 (711–1,255)
Alcohol use	682,576 (551,702–825,112)	100 (61–175)	51 (26–110)	381 (232–554)	1,698 (913–2,587)	1,024 (752–1,285)	752 (592–923)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Drug use	21,895 (15,984–31,023)	65 (22–132)	83 (27–152)	347 (137–765)	939 (221–2,081)	185 (65–434)	200 (80–440)
Physiological risk factors							
High fasting plasma glucose	1,052,773 (881,704–1,230,327)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	1,009,172 (829,163–1,218,442)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	3,880,598 (3,559,634–4,250,099)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	1,076,502 (878,065–1,286,482)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	50,455 (40,408–62,110)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	3,983,125 (3,624,593–4,360,772)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	1,653,787 (1,269,335–2,006,693)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	674,309 (441,649–910,150)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	580,600 (447,140–706,303)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	872,483 (541,757–1,147,258)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	33,312 (9,745–57,799)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	12,551 (3,425–22,054)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	334,476 (71,692–584,050)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	60,442 (34,097–91,666)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	250,541 (111,867–394,088)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	33,330 (23,008–43,904)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	466,440 (337,205–601,988)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	199,388 (95,418–305,733)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	164,736 (117,395–211,588)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	1,047,642 (666,779–1,397,486)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Occupational risk factors	116,743 (74,642–164,679)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	16,766 (11,866–24,842)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	6,033 (4,012–9,397)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	463 (176–915)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	770 (292–1,422)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	26 (10–47)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	74 (33–130)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	293 (171–490)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	2,060 (1,180–3,422)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	3,854 (2,637–6,207)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	179 (77–325)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	1,425 (369–3,031)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	492 (230–864)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	1,185 (797–1,975)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	193 (55–452)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	10,485 (5,116–19,129)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	68,281 (29,408–112,504)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	21,211 (16,479–27,705)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Unimproved water and sanitation	5,989 (287-11,946)	6,668 (262-12,835)	6,192 (275-11,981)	5,679 (261-10,770)	5,783 (269-11,006)	4,659 (205-8,905)	4,970 (239-9,497)
Unimproved water source	2,332 (160-4,949)	2,585 (165-5,359)	2,488 (163-5,111)	2,312 (155-4,666)	2,349 (161-4,859)	1,889 (121-3,918)	1,962 (138-4,066)
Unimproved sanitation	4,220 (131-8,598)	4,713 (114-9,364)	4,312 (121-8,575)	3,932 (107-7,884)	4,011 (115-7,992)	3,234 (88-6,441)	3,489 (105-6,880)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	7,434 (5,241-9,893)	10,384 (7,385-13,633)	15,759 (11,449-21,015)	22,809 (16,318-30,130)	31,263 (22,030-40,970)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	11,539 (8,869-14,356)	15,821 (12,262-19,705)	24,827 (19,194-31,052)	35,092 (27,078-44,466)	49,316 (38,513-61,565)
Ambient ozone pollution	0 (0-0)	0 (0-0)	214 (66-405)	256 (80-468)	502 (167-930)	649 (211-1,146)	1,066 (350-1,917)
Other environmental risks	0 (0-0)	0 (0-0)	2,687 (1,137-4,480)	3,534 (1,615-5,759)	2,278 (1,631-3,188)	3,224 (2,339-4,476)	3,810 (3,035-4,763)
Residential radon							
Lead exposure	0 (0-0)	0 (0-0)	2,687 (1,137-4,480)	3,534 (1,615-5,759)	2,278 (1,631-3,188)	3,224 (2,339-4,476)	3,810 (3,035-4,763)
Child and maternal undernutrition	10,605 (6,423-15,267)	18,966 (12,018-25,498)	18,343 (11,020-24,593)	16,922 (10,098-23,185)	16,667 (9,851-23,049)	9,684 (5,792-13,575)	5,410 (3,224-7,596)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	10,605 (6,423-15,267)	18,966 (12,018-25,498)	18,343 (11,020-24,593)	16,922 (10,098-23,185)	16,667 (9,851-23,049)	9,684 (5,792-13,575)	5,410 (3,224-7,596)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	1,659 (1,076-2,342)	10,828 (8,241-20,082)	20,285 (13,716-31,531)	35,645 (24,979-50,351)	42,540 (31,420-58,840)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	8,519 (5,976-17,755)	17,271 (10,464-29,029)	31,917 (20,612-46,536)	36,592 (25,550-54,049)
Second-hand smoke	0 (0-0)	0 (0-0)	1,659 (1,076-2,342)	2,308 (1,567-3,146)	3,014 (1,772-4,530)	3,728 (2,173-5,620)	5,948 (3,585-8,620)
Alcohol and drug use	8,264 (6,805-10,460)	10,273 (8,528-12,512)	11,613 (9,802-13,846)	22,143 (11,764-15,875)	25,327 (18,326-28,822)	28,864 (21,419-30,913)	28,864 (24,627-33,907)
Alcohol use	6,830 (5,769-8,641)	8,052 (6,831-9,928)	9,217 (7,831-10,842)	11,512 (9,922-13,289)	20,415 (16,775-26,898)	23,946 (20,064-29,599)	27,667 (23,384-32,812)
Drug use	1,456 (757-2,602)	2,260 (1,270-3,738)	2,455 (1,513-3,894)	2,177 (1,389-3,411)	1,855 (1,264-2,891)	1,562 (1,129-2,315)	1,442 (1,070-2,021)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	5,070 (4,088-6,236)	6,192 (4,895-7,581)	11,594 (9,313-14,011)	14,669 (11,597-18,019)	27,413 (22,502-32,931)
High total cholesterol	0 (0-0)	0 (0-0)	2,052 (1,331-2,949)	2,966 (1,961-4,267)	6,056 (4,513-8,037)	8,933 (6,656-11,673)	16,562 (13,084-20,598)
High blood pressure	0 (0-0)	0 (0-0)	7,908 (5,329-10,826)	10,297 (7,119-13,844)	25,787 (20,694-32,040)	35,169 (27,884-43,460)	70,373 (60,625-82,888)
High body-mass index	0 (0-0)	0 (0-0)	4,606 (3,252-6,149)	6,057 (4,283-8,037)	12,727 (9,546-16,221)	15,961 (12,261-20,050)	25,769 (20,370-32,083)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	18,515 (15,647-21,598)	27,254 (23,637-30,925)	42,008 (36,399-49,088)	62,872 (55,065-73,388)	89,073 (78,174-102,421)
Diet low in vegetables	0 (0-0)	0 (0-0)	10,638 (8,171-13,310)	15,198 (11,698-18,620)	23,557 (18,331-29,974)	35,664 (27,188-44,886)	51,022 (39,236-63,618)
Diet low in whole grains	0 (0-0)	0 (0-0)	5,192 (3,063-7,296)	7,038 (4,380-9,614)	9,961 (5,825-14,138)	14,184 (8,119-20,389)	19,280 (10,746-27,371)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	4,422 (3,334-5,574)	6,048 (4,630-7,622)	8,680 (6,586-11,100)	12,501 (9,416-15,783)	16,758 (12,664-21,122)
Diet low in milk	0 (0-0)	0 (0-0)	4,833 (3,203-6,143)	6,919 (4,561-8,940)	9,377 (6,215-12,094)	13,346 (8,732-17,495)	17,615 (11,527-22,864)
Diet high in red meat	0 (0-0)	0 (0-0)	275 (78-491)	442 (123-771)	704 (202-1,215)	936 (252-1,608)	1,275 (360-2,225)
Diet high in processed meat	0 (0-0)	0 (0-0)	64 (17-110)	118 (30-212)	200 (54-354)	282 (76-488)	390 (104-668)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	1,655 (373-3,126)	2,488 (574-4,558)	3,384 (819-5,783)	5,156 (1,208-9,144)	6,856 (1,694-12,295)
Diet low in fibre	0 (0-0)	0 (0-0)	877 (533-1,269)	1,114 (694-1,575)	1,516 (538-2,745)	1,898 (593-3,268)	2,172 (716-4,035)
Diet low in calcium	0 (0-0)	0 (0-0)	2,066 (957-3,151)	2,903 (1,384-4,359)	4,097 (1,939-6,235)	5,344 (2,580-8,180)	6,705 (3,111-10,224)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	343 (206-482)	544 (312-743)	856 (518-1,147)	1,093 (710-1,453)	1,445 (976-1,918)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	3,186 (2,320-4,065)	4,518 (3,274-5,853)	6,011 (4,409-7,840)	8,475 (6,051-11,089)	11,005 (7,802-14,454)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	1,346 (636-2,080)	1,885 (915-2,955)	2,538 (1,215-3,890)	3,518 (1,727-5,398)	4,575 (2,234-7,058)
Diet high in sodium	0 (0-0)	0 (0-0)	1,119 (771-1,495)	1,593 (1,112-2,112)	2,167 (1,529-2,953)	3,126 (2,240-4,232)	4,143 (2,945-5,551)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	4,712 (2,750-6,668)	7,275 (4,753-9,769)	11,455 (6,857-17,174)	17,785 (11,150-25,074)	23,974 (15,709-32,101)
Occupational risk factors							
Occupational carcinogens	2,688 (2,035-3,657)	3,608 (2,728-4,817)	4,299 (3,347-5,548)	4,477 (3,506-5,649)	5,850 (4,254-7,633)	6,208 (4,498-8,069)	7,864 (5,395-10,804)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Occupational exposure to asbestos	31 (16-51)	31 (16-50)	36 (19-58)	51 (27-84)	83 (44-137)	132 (78-217)	205 (121-322)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	1 (0-3)	3 (1-6)	10 (3-20)	15 (5-30)	29 (11-58)
Occupational exposure to benzene	42 (16-83)	71 (28-139)	77 (30-148)	78 (30-149)	45 (17-86)	42 (16-78)	21 (8-41)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	2 (1-3)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	2 (1-3)	2 (1-4)	5 (2-9)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	1 (0-2)	2 (1-3)	6 (3-10)	9 (5-16)	18 (10-31)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	6 (3-12)	13 (6-24)	41 (21-73)	63 (33-112)	129 (69-220)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	11 (5-22)	23 (12-41)	76 (45-132)	117 (74-198)	240 (147-384)
Occupational exposure to formaldehyde	9 (3-16)	16 (6-31)	18 (7-33)	20 (8-40)	14 (5-28)	14 (5-28)	8 (3-17)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	4 (1-11)	9 (2-21)	30 (7-65)	44 (11-103)	89 (23-196)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	1 (1-3)	3 (1-6)	10 (4-18)	15 (7-28)	31 (14-56)
Occupational exposure to silica	0 (0-0)	0 (0-0)	4 (2-7)	7 (4-14)	25 (14-43)	37 (22-65)	75 (44-121)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	1 (0-2)	1 (0-6)	3 (1-12)	6 (1-19)	11 (3-32)
Occupational asthmagens	178 (75-401)	272 (127-558)	343 (152-759)	401 (186-807)	628 (290-1,261)	712 (347-1,439)	963 (452-1,890)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	785 (351-1,325)	1,075 (487-1,713)	2,234 (1,018-3,590)	2,892 (1,393-4,564)	4,343 (1,979-6,997)
Occupational noise	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational risk factors for injuries	2,429 (1,793-3,324)	3,218 (2,359-4,461)	3,011 (2,279-4,049)	2,791 (2,141-3,748)	2,650 (1,935-3,816)	2,114 (1,641-2,809)	1,715 (1,328-2,262)
Occupational low back pain	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Unimproved water and sanitation	5,993 (287-11,521)	7,441 (336-14,532)	10,030 (467-19,862)	10,165 (517-20,180)	9,865 (465-18,995)	8,496 (378-16,307)	12,361 (627-23,548)
Unimproved water source	2,369 (162-4,916)	2,825 (181-5,902)	3,852 (255-8,376)	3,960 (293-8,347)	3,878 (257-8,011)	3,350 (208-7,025)	4,728 (313-9,603)
Unimproved sanitation	4,204 (124-8,402)	5,313 (143-10,759)	7,132 (195-14,468)	7,183 (218-14,596)	6,938 (203-13,931)	5,955 (162-11,810)	8,738 (288-17,055)
Air pollution							
Ambient particulate matter pollution	54,046 (38,883-69,091)	73,336 (51,273-95,704)	111,707 (81,389-142,223)	142,119 (98,529-186,124)	165,987 (114,686-214,281)	199,110 (137,890-251,054)	387,304 (275,527-489,629)
Household air pollution from solid fuels	86,101 (67,571-106,980)	119,867 (91,352-148,292)	181,354 (141,700-225,320)	227,705 (173,140-278,803)	269,607 (207,290-331,856)	275,483 (212,533-340,451)	437,548 (334,811-544,111)
Ambient ozone pollution	2,131 (678-3,739)	3,709 (1,192-6,564)	6,429 (2,111-11,412)	8,711 (2,827-15,251)	10,818 (3,611-18,984)	11,346 (3,697-19,955)	20,444 (6,507-36,593)
Other environmental risks	6,258 (5,028-7,783)	7,926 (6,428-9,801)	11,484 (9,310-14,088)	13,657 (11,230-16,420)	13,738 (11,372-16,579)	13,840 (11,569-16,433)	18,264 (14,945-21,739)
Residential radon							
Lead exposure	6,258 (5,028-7,783)	7,926 (6,428-9,801)	11,484 (9,310-14,088)	13,657 (11,230-16,420)	13,738 (11,372-16,579)	13,840 (11,569-16,433)	18,264 (14,945-21,739)
Child and maternal undernutrition	1,091 (762-1,580)	1,227 (862-1,698)	1,637 (1,125-2,361)	1,924 (1,282-2,582)	2,369 (1,491-3,309)	2,691 (1,842-3,671)	8,036 (5,718-11,143)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,091 (762-1,580)	1,227 (862-1,698)	1,637 (1,125-2,361)	1,924 (1,282-2,582)	2,369 (1,491-3,309)	2,691 (1,842-3,671)	8,036 (5,718-11,143)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	76,992 (55,221-108,336)	115,908 (84,799-157,759)	162,547 (121,542-230,043)	205,181 (149,958-284,345)	226,541 (166,738-306,635)	228,343 (176,839-330,587)	364,226 (299,349-521,567)
Tobacco smoking	67,068 (44,818-97,996)	102,666 (71,940-145,381)	142,633 (101,766-209,931)	178,619 (123,696-260,353)	194,404 (130,651-274,247)	185,776 (133,885-290,612)	278,639 (214,605-429,742)
Second-hand smoke	9,924 (6,198-13,638)	13,242 (8,265-18,667)	19,914 (12,680-26,957)	26,562 (17,227-35,711)	32,137 (20,395-43,278)	42,567 (27,442-56,929)	85,587 (57,225-112,448)
Alcohol and drug use	42,987 (36,781-50,217)	52,132 (43,936-61,070)	72,953 (61,864-85,562)	63,761 (51,391-77,982)	66,341 (51,127-82,619)	94,525 (69,818-120,014)	183,455 (121,787-248,429)
Alcohol use	41,760 (35,541-48,952)	50,944 (42,790-60,020)	71,603 (60,510-84,200)	63,449 (51,159-77,551)	66,037 (50,920-82,365)	94,204 (69,520-119,674)	182,936 (121,208-247,457)

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Drug use	1,611 (1,242–2,288)	1,721 (1,357–2,182)	2,079 (1,636–2,691)	312 (195–659)	304 (163–635)	321 (183–772)	519 (288–1,192)
Physiological risk factors							
High fasting plasma glucose	45,087 (37,408–53,767)	73,652 (62,219–86,823)	108,385 (91,409–127,338)	140,492 (119,506–164,596)	151,485 (127,158–177,095)	177,457 (146,548–210,962)	291,278 (235,746–350,946)
High total cholesterol	30,319 (23,938–38,209)	46,896 (38,424–57,765)	82,633 (68,268–98,865)	117,076 (96,950–138,842)	133,845 (107,313–162,954)	184,409 (135,403–235,836)	377,426 (309,562–448,311)
High blood pressure	115,508 (100,112–132,648)	186,025 (164,527–214,740)	284,342 (254,571–323,796)	420,833 (382,943–466,796)	500,191 (455,565–558,576)	706,140 (650,568–770,223)	1,518,025 (1,406,171–1,641,440)
High body-mass index	42,747 (34,193–52,226)	62,339 (50,993–74,846)	101,668 (83,811–121,354)	126,957 (105,409–149,973)	139,184 (114,292–165,765)	188,706 (154,513–222,922)	349,783 (276,789–422,768)
Low bone mineral density	1,924 (1,447–2,528)	2,262 (1,699–3,019)	3,130 (2,280–4,308)	4,198 (3,107–5,472)	4,931 (3,711–6,459)	8,543 (6,278–11,265)	25,466 (19,176–33,059)
Dietary risk factors and physical inactivity	154,130 (136,842–173,607)	209,480 (187,845–241,672)	324,050 (292,151–367,541)	436,074 (394,483–489,181)	517,508 (465,335–581,643)	683,350 (620,976–749,752)	1,418,810 (1,273,536–1,560,003)
Diet low in fruits	85,813 (66,952–106,408)	112,602 (86,574–140,301)	157,834 (121,107–195,939)	200,605 (154,037–248,681)	227,016 (169,460–281,111)	269,725 (203,689–331,856)	464,114 (349,633–581,084)
Diet low in vegetables	31,772 (18,703–45,113)	39,805 (23,776–56,840)	58,780 (37,604–80,563)	75,235 (48,756–105,133)	85,585 (56,138–117,344)	112,428 (73,352–151,662)	215,050 (138,443–291,901)
Diet low in whole grains	27,641 (21,411–34,615)	35,454 (27,095–44,836)	52,925 (40,221–66,362)	67,044 (51,551–83,307)	76,350 (58,832–94,654)	97,041 (74,164–119,173)	175,736 (133,946–215,379)
Diet low in nuts and seeds	31,465 (20,000–41,539)	41,616 (26,285–56,298)	68,941 (44,040–91,218)	93,780 (58,963–123,498)	108,731 (67,212–144,350)	148,956 (91,323–198,325)	326,906 (196,128–439,292)
Diet low in milk	2,039 (580–3,520)	2,697 (818–4,630)	3,700 (1,076–6,368)	4,298 (1,289–7,472)	4,366 (1,310–7,506)	4,997 (1,441–8,644)	7,583 (2,223–13,137)
Diet high in red meat	660 (182–1,164)	902 (250–1,591)	1,323 (356–2,315)	1,621 (444–2,829)	1,627 (447–2,871)	2,054 (557–3,613)	3,311 (908–5,844)
Diet high in processed meat	11,923 (2,813–20,933)	15,832 (3,739–27,106)	26,188 (5,947–45,298)	35,332 (7,879–61,701)	39,526 (8,422–69,687)	57,082 (12,111–100,327)	129,057 (26,220–229,386)
Diet high in sugar-sweetened beverages	3,439 (1,036–6,293)	3,947 (1,875–7,503)	5,414 (2,519–10,089)	6,170 (3,561–11,500)	6,818 (3,750–13,972)	8,436 (3,887–15,291)	18,642 (6,876–28,218)
Diet low in fibre	10,877 (5,044–16,602)	13,908 (6,535–21,388)	20,860 (9,565–32,248)	26,560 (12,018–41,899)	30,822 (13,661–48,867)	40,621 (18,170–64,903)	85,778 (36,125–139,541)
Diet low in calcium	2,257 (1,525–2,964)	2,948 (2,024–3,870)	3,930 (2,629–5,256)	4,386 (3,001–5,844)	4,470 (3,078–5,985)	4,741 (3,241–6,258)	6,318 (4,290–8,734)
Diet low in seafood omega-3 fatty acids	19,296 (13,913–25,289)	24,698 (17,807–32,910)	39,852 (28,973–51,998)	52,438 (37,878–67,905)	58,971 (42,443–76,441)	77,862 (56,124–99,071)	160,127 (114,316–205,616)
Diet low in polyunsaturated fatty acids	7,922 (3,791–12,394)	10,305 (5,011–15,798)	16,581 (7,862–26,049)	21,982 (10,643–33,817)	24,938 (11,907–38,651)	33,375 (16,113–51,273)	70,423 (33,354–109,141)
Diet high in trans fatty acids	6,654 (4,755–8,719)	8,749 (6,284–11,560)	13,661 (9,777–17,960)	18,207 (13,023–23,430)	20,770 (14,593–26,779)	25,850 (18,266–33,300)	58,696 (41,495–75,692)
Diet high in sodium	42,315 (27,809–56,539)	59,461 (38,564–79,695)	93,535 (59,770–126,584)	127,253 (80,886–170,937)	145,788 (93,041–198,659)	179,215 (112,295–242,259)	334,875 (209,095–456,881)
Physical inactivity and low physical activity							

Web table 2: Global deaths attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Occupational risk factors	11,341 (6,798–16,329)	14,883 (8,680–22,053)	18,064 (10,016–27,727)	10,880 (6,148–16,631)	12,621 (6,743–19,903)	11,773 (6,135–18,529)	2,187 (1,613–3,332)
Occupational carcinogens	1,362 (879–2,152)	2,191 (1,375–3,475)	2,796 (1,841–4,396)	2,266 (1,505–3,420)	2,180 (1,488–3,391)	1,542 (1,115–2,245)	2,187 (1,613–3,332)
Occupational exposure to asbestos	312 (190–494)	447 (275–702)	640 (412–1,003)	847 (562–1,336)	799 (533–1,260)	929 (608–1,478)	1,493 (983–2,421)
Occupational exposure to arsenic	49 (18–97)	82 (30–162)	99 (38–196)	63 (24–122)	62 (22–129)	23 (9–51)	27 (10–55)
Occupational exposure to benzene	26 (10–49)	36 (14–67)	46 (17–86)	64 (24–119)	62 (23–116)	84 (32–159)	75 (26–144)
Occupational exposure to beryllium	3 (1–5)	5 (2–9)	6 (2–11)	3 (1–7)	3 (1–7)	1 (1–3)	2 (1–3)
Occupational exposure to cadmium	8 (3–14)	13 (5–24)	16 (7–30)	10 (4–18)	10 (4–19)	4 (2–7)	5 (2–9)
Occupational exposure to chromium	31 (17–51)	51 (28–92)	63 (35–112)	40 (22–70)	39 (22–71)	15 (8–27)	18 (10–33)
Occupational exposure to diesel engine exhaust	216 (120–377)	362 (192–643)	448 (246–775)	280 (153–491)	272 (147–497)	106 (57–192)	125 (67–229)
Occupational exposure to second-hand smoke	400 (257–654)	673 (419–1,105)	834 (521–1,420)	527 (339–873)	508 (321–920)	201 (131–358)	242 (162–415)
Occupational exposure to formaldehyde	8 (3–16)	11 (4–20)	11 (4–23)	14 (6–29)	12 (5–23)	14 (6–28)	9 (4–18)
Occupational exposure to nickel	149 (38–323)	250 (63–528)	306 (80–662)	193 (50–419)	191 (47–437)	74 (19–164)	87 (22–189)
Occupational exposure to polycyclic aromatic hydrocarbons	51 (23–92)	86 (38–160)	107 (50–195)	67 (31–120)	65 (29–125)	26 (11–49)	31 (14–58)
Occupational exposure to silica	125 (78–211)	209 (125–362)	255 (153–454)	160 (99–273)	157 (98–289)	60 (37–111)	71 (44–128)
Occupational exposure to sulfuric acid	18 (5–50)	31 (8–74)	43 (11–103)	27 (8–66)	28 (8–68)	10 (3–23)	13 (4–28)
Occupational asthmagens	1,194 (592–2,404)	1,438 (687–2,787)	1,585 (706–3,108)	901 (431–1,594)	974 (436–1,741)	896 (423–1,626)	0 (0–0)
Occupational particulate matter, gases, and fumes	7,346 (3,075–11,940)	10,304 (4,466–16,919)	13,140 (5,688–22,093)	7,528 (3,125–12,790)	9,340 (3,796–16,107)	9,294 (3,827–15,961)	0 (0–0)
Occupational noise	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	1,438 (1,137–1,927)	949 (735–1,264)	542 (423–712)	184 (146–241)	127 (102–163)	42 (34–53)	0 (0–0)
Occupational low back pain	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

0 indicates zero deaths attributable; blank cells indicate that attributable deaths were not quantified

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Unimproved water and sanitation	21,187 (866-40,957)	497 (23-998)	1,004 (45-1,945)	6,877 (298-13,001)	5,537 (242-10,497)	1,163 (45-2,257)	596 (24-1,232)
Unimproved water source	7,775 (514-15,705)	196 (14-410)	378 (25-773)	2,675 (178-5,268)	2,161 (145-4,285)	399 (25-815)	194 (12-421)
Unimproved sanitation	14,927 (377-29,705)	340 (9-718)	702 (19-1,410)	4,722 (123-9,234)	3,806 (100-7,526)	840 (21-1,693)	438 (11-917)
Air pollution							
Ambient particulate matter pollution	76,163 (68,086-85,171)	1,423 (903-2,071)	1,193 (762-1,683)	5,134 (3,490-6,910)	3,213 (2,154-4,473)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	108,084 (84,891-132,983)	4,831 (3,181-6,620)	3,861 (2,602-5,114)	17,944 (12,443-22,951)	11,048 (7,825-14,805)	0 (0-0)	0 (0-0)
Ambient ozone pollution	2,456 (837-4,299)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	16,051 (13,212-19,503)	0 (0-0)	0 (0-0)	0 (0-0)	3 (1-6)	12 (6-22)	9 (4-16)
Residential radon	2,114 (273-4,660)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Lead exposure	13,936 (11,750-16,327)	0 (0-0)	0 (0-0)	0 (0-0)	3 (1-6)	12 (6-22)	9 (4-16)
Child and maternal undernutrition	166,095 (139,685-193,981)	0 (0-0)	7,841 (4,684-10,683)	66,744 (54,093-80,472)	58,676 (48,384-70,282)	6,580 (4,355-9,552)	4,573 (3,021-6,589)
Suboptimal breastfeeding	47,537 (29,868-67,518)	0 (0-0)	7,837 (4,680-10,678)	36,176 (21,735-52,955)	3,524 (352-7,682)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	41,108 (23,668-58,913)	0 (0-0)	7,837 (4,680-10,678)	33,271 (18,610-48,581)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	6,429 (605-14,426)	0 (0-0)	0 (0-0)	2,905 (268-6,661)	3,524 (352-7,682)	0 (0-0)	0 (0-0)
Childhood underweight	77,316 (64,497-91,943)	0 (0-0)	0 (0-0)	40,458 (33,383-48,094)	36,858 (30,210-44,425)	0 (0-0)	0 (0-0)
Iron deficiency	48,225 (33,769-67,592)	0 (0-0)	4 (3-6)	3,717 (2,623-5,187)	11,670 (7,873-16,572)	6,580 (4,355-9,552)	4,573 (3,021-6,589)
Vitamin A deficiency	10,770 (5,625-17,149)	0 (0-0)	0 (0-0)	2,615 (1,211-4,453)	8,155 (4,281-12,707)	0 (0-0)	0 (0-0)
Zinc deficiency	9,136 (2,458-16,903)	0 (0-0)	0 (0-0)	0 (0-0)	9,136 (2,458-16,903)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	156,838 (136,543-173,057)	1,326 (849-1,900)	1,118 (748-1,527)	5,322 (3,615-7,121)	3,077 (2,116-4,148)	0 (0-0)	0 (0-0)
Tobacco smoking	136,907 (117,201-153,778)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	19,931 (15,707-24,223)	1,326 (849-1,900)	1,118 (748-1,527)	5,322 (3,615-7,121)	3,077 (2,116-4,148)	0 (0-0)	0 (0-0)
Alcohol and drug use	120,611 (107,670-134,693)	47 (34-74)	40 (26-65)	240 (165-394)	630 (428-921)	220 (176-288)	536 (416-679)
Alcohol use	97,237 (87,087-107,658)	19 (12-32)	10 (6-19)	90 (63-135)	422 (270-668)	175 (138-236)	404 (318-504)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Drug use	23,810 (18,780–29,246)	28 (16–51)	30 (17–54)	149 (83–307)	207 (107–362)	45 (27–85)	132 (87–199)
Physiological risk factors							
High fasting plasma glucose	89,012 (77,743–101,390)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	40,900 (31,662–50,484)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	173,556 (155,939–189,025)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	93,609 (77,107–110,600)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	5,216 (4,133–6,418)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity							
Diet low in fruits	248,884 (232,462–264,494)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	104,095 (81,833–124,169)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	38,559 (26,006–51,658)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	40,762 (32,112–48,486)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	51,289 (33,482–65,959)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	2,101 (619–3,544)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	1,853 (870–2,946)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	20,939 (6,982–33,468)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	5,250 (3,052–7,402)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	16,452 (7,401–25,783)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	2,590 (1,873–3,322)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	28,199 (20,624–35,974)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	11,680 (5,360–17,798)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	11,592 (8,395–14,623)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	61,231 (40,124–80,342)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
	69,318 (58,646–80,182)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Occupational risk factors	62,488 (49,471–76,240)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	2,681 (1,773–3,689)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	653 (389–840)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	63 (24–114)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	92 (39–163)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	4 (2–6)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	13 (6–21)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	45 (27–66)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	523 (292–789)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	572 (386–762)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	25 (11–47)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	215 (58–443)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	96 (45–156)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	382 (239–526)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	71 (21–152)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	2,020 (1,441–2,871)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	9,142 (4,377–14,250)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	3,451 (2,072–5,574)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	23,444 (17,736–30,904)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	21,750 (14,492–30,533)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	23,519 (17,961–30,322)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	36 (25–51)	338 (241–455)
Childhood sexual abuse	7,833 (5,964–10,005)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	36 (25–51)	338 (241–455)
Intimate partner violence	16,794 (11,373–23,087)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Unimproved water and sanitation	588 (22-1,216)	640 (24-1,282)	625 (25-1,247)	523 (20-1,005)	449 (16-892)	362 (13-717)	343 (12-681)
Unimproved water source	197 (12-431)	219 (13-461)	219 (14-462)	181 (12-376)	151 (10-314)	119 (7-251)	108 (7-227)
Unimproved sanitation	428 (10-898)	462 (10-947)	448 (11-927)	375 (9-746)	326 (7-663)	266 (6-545)	256 (5-527)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	1,300 (942-1,672)	1,720 (1,266-2,191)	2,560 (1,919-3,196)	4,020 (3,018-5,014)	5,034 (3,709-6,319)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	1,769 (1,255-2,370)	2,236 (1,608-3,007)	3,085 (2,165-4,117)	4,521 (3,191-5,976)	5,424 (3,830-7,250)
Ambient ozone pollution	0 (0-0)	0 (0-0)	22 (7-45)	24 (7-49)	37 (12-69)	54 (17-100)	87 (28-164)
Other environmental risks	0 (0-0)	0 (0-0)	326 (210-475)	455 (308-636)	557 (439-787)	831 (647-1,170)	1,122 (911-1,378)
Residential radon	0 (0-0)	0 (0-0)	11 (1-27)	20 (2-48)	40 (5-100)	88 (11-209)	154 (20-352)
Lead exposure	0 (0-0)	0 (0-0)	315 (200-466)	436 (291-615)	517 (405-743)	743 (583-1,064)	968 (797-1,158)
Child and maternal undernutrition	3,151 (2,247-4,367)	3,387 (2,464-4,535)	2,862 (2,093-3,837)	2,381 (1,726-3,207)	2,099 (1,509-2,830)	1,737 (1,249-2,395)	1,380 (976-1,933)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	3,151 (2,247-4,367)	3,387 (2,464-4,535)	2,862 (2,093-3,837)	2,381 (1,726-3,207)	2,099 (1,509-2,830)	1,737 (1,249-2,395)	1,380 (976-1,933)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	179 (121-237)	3,227 (2,489-4,466)	5,265 (3,703-7,028)	9,390 (7,467-11,508)	12,619 (10,798-14,465)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	2,997 (2,263-4,240)	4,986 (3,409-6,735)	8,979 (7,027-11,103)	12,032 (10,203-13,935)
Second-hand smoke	0 (0-0)	0 (0-0)	179 (121-237)	230 (159-301)	280 (190-365)	411 (279-543)	587 (394-768)
Alcohol and drug use	6,298 (5,275-7,426)	11,774 (9,862-13,798)	12,218 (10,370-14,182)	10,290 (8,805-11,877)	11,415 (9,932-13,084)	11,132 (9,853-12,582)	11,297 (10,082-12,676)
Alcohol use	4,638 (3,907-5,475)	7,124 (6,012-8,308)	7,220 (6,154-8,337)	6,609 (5,725-7,597)	8,683 (7,588-10,000)	9,165 (8,090-10,455)	9,952 (8,855-11,138)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Drug use	1,674 (1,254–2,172)	4,690 (3,566–5,877)	5,046 (3,852–6,317)	3,712 (2,865–4,624)	2,768 (2,198–3,410)	2,011 (1,607–2,448)	1,396 (1,102–1,745)
Physiological risk factors							
High fasting plasma glucose	0 (0–0)	0 (0–0)	1,562 (1,296–1,863)	2,063 (1,694–2,483)	3,629 (3,010–4,311)	4,931 (4,140–5,943)	7,631 (6,515–8,862)
High total cholesterol	0 (0–0)	0 (0–0)	429 (290–579)	600 (397–827)	1,342 (982–1,744)	2,073 (1,525–2,697)	3,298 (2,533–4,129)
High blood pressure	0 (0–0)	0 (0–0)	2,009 (1,582–2,443)	2,476 (1,951–2,994)	4,573 (3,813–5,324)	6,591 (5,463–7,642)	11,439 (10,064–12,774)
High body-mass index	0 (0–0)	0 (0–0)	1,884 (1,473–2,365)	2,389 (1,841–2,979)	4,383 (3,528–5,325)	6,220 (4,961–7,582)	8,934 (7,297–10,756)
Low bone mineral density	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	0 (0–0)	0 (0–0)	3,873 (3,453–4,315)	5,460 (4,903–6,044)	8,387 (7,612–9,170)	13,242 (12,013–14,437)	18,324 (16,698–19,962)
Diet low in fruits	0 (0–0)	0 (0–0)	1,852 (1,436–2,249)	2,508 (1,931–3,047)	3,805 (2,945–4,599)	6,140 (4,772–7,365)	8,497 (6,516–10,132)
Diet low in vegetables	0 (0–0)	0 (0–0)	922 (596–1,225)	1,191 (792–1,578)	1,675 (1,071–2,244)	2,500 (1,616–3,328)	3,334 (2,143–4,418)
Diet low in whole grains	0 (0–0)	0 (0–0)	975 (763–1,183)	1,317 (1,010–1,599)	1,906 (1,485–2,308)	2,846 (2,227–3,408)	3,606 (2,841–4,332)
Diet low in nuts and seeds	0 (0–0)	0 (0–0)	992 (667–1,268)	1,396 (931–1,796)	2,025 (1,351–2,642)	3,147 (2,113–4,041)	4,142 (2,712–5,373)
Diet low in milk	0 (0–0)	0 (0–0)	36 (10–63)	50 (15–86)	76 (20–131)	111 (31–189)	161 (47–281)
Diet high in red meat	0 (0–0)	0 (0–0)	51 (20–90)	78 (30–135)	123 (48–214)	167 (64–288)	196 (81–331)
Diet high in processed meat	0 (0–0)	0 (0–0)	506 (203–813)	719 (295–1,146)	1,002 (410–1,623)	1,485 (554–2,449)	1,941 (701–3,157)
Diet high in sugar-sweetened beverages	0 (0–0)	0 (0–0)	186 (112–275)	227 (137–314)	271 (110–457)	377 (141–659)	449 (169–732)
Diet low in fibre	0 (0–0)	0 (0–0)	402 (178–628)	546 (243–845)	798 (343–1,231)	1,185 (523–1,851)	1,529 (682–2,419)
Diet low in calcium	0 (0–0)	0 (0–0)	46 (33–62)	62 (45–82)	93 (67–125)	134 (98–179)	189 (139–251)
Diet low in seafood omega-3 fatty acids	0 (0–0)	0 (0–0)	605 (428–776)	840 (588–1,099)	1,201 (839–1,554)	1,873 (1,385–2,433)	2,430 (1,740–3,147)
Diet low in polyunsaturated fatty acids	0 (0–0)	0 (0–0)	280 (135–431)	381 (178–577)	532 (252–810)	794 (377–1,222)	1,022 (466–1,554)
Diet high in trans fatty acids	0 (0–0)	0 (0–0)	300 (216–389)	409 (287–526)	561 (402–721)	840 (601–1,081)	1,080 (759–1,379)
Diet high in sodium	0 (0–0)	0 (0–0)	680 (348–992)	1,036 (647–1,401)	1,693 (1,072–2,319)	2,918 (1,883–3,919)	4,139 (2,748–5,481)
Physical inactivity and low physical activity	0 (0–0)	0 (0–0)	1,354 (1,104–1,619)	1,900 (1,579–2,269)	2,805 (2,322–3,308)	4,132 (3,427–4,904)	5,428 (4,592–6,310)
Occupational risk factors	3,629 (2,835–4,631)	6,105 (4,799–7,729)	6,918 (5,333–8,727)	6,612 (5,220–8,223)	6,590 (5,143–8,276)	6,451 (5,018–8,167)	6,034 (4,657–7,539)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Occupational carcinogens	17 (11-24)	26 (16-40)	32 (19-47)	37 (24-54)	56 (36-80)	105 (70-151)	194 (127-272)
Occupational exposure to asbestos	7 (4-10)	8 (4-11)	8 (4-11)	9 (5-12)	12 (7-16)	21 (13-29)	40 (23-53)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-5)	5 (2-9)
Occupational exposure to benzene	8 (3-15)	16 (7-28)	14 (6-25)	12 (5-21)	6 (2-11)	6 (3-11)	3 (1-5)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	2 (0-2)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-3)	4 (2-5)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	2 (1-3)	4 (2-6)	10 (5-15)	20 (11-31)	40 (23-61)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	2 (1-4)	4 (3-6)	11 (7-15)	23 (16-31)	45 (31-60)
Occupational exposure to formaldehyde	2 (1-3)	3 (1-6)	3 (1-6)	3 (1-6)	2 (1-4)	2 (1-5)	1 (0-3)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	1 (0-2)	2 (0-3)	4 (1-9)	8 (2-18)	17 (4-35)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-3)	4 (2-6)	7 (3-12)
Occupational exposure to silica	0 (0-0)	0 (0-0)	1 (1-2)	3 (2-4)	7 (4-10)	14 (9-20)	29 (18-40)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-3)	4 (1-8)	7 (2-17)
Occupational asthmagens	172 (111-254)	199 (134-284)	186 (129-263)	159 (110-225)	165 (116-236)	169 (122-249)	188 (132-281)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	437 (202-718)	495 (222-810)	605 (285-975)	721 (339-1,161)	856 (412-1,336)
Occupational noise	149 (80-253)	248 (137-415)	316 (181-527)	371 (216-610)	352 (208-581)	387 (230-630)	382 (228-618)
Occupational risk factors for injuries	2,201 (1,638-3,082)	3,913 (2,892-5,394)	3,987 (2,915-5,476)	3,369 (2,460-4,617)	2,868 (2,061-3,918)	2,347 (1,680-3,282)	1,818 (1,290-2,573)
Occupational low back pain	1,090 (696-1,585)	1,719 (1,133-2,449)	1,960 (1,309-2,759)	2,180 (1,463-3,059)	2,544 (1,709-3,564)	2,721 (1,827-3,846)	2,596 (1,748-3,703)
Sexual abuse and violence	2,774 (1,968-3,970)	3,384 (2,497-4,588)	2,974 (2,203-3,882)	2,536 (1,942-3,286)	2,368 (1,763-3,095)	2,142 (1,591-2,857)	1,829 (1,355-2,429)
Childhood sexual abuse	997 (720-1,351)	1,084 (790-1,449)	924 (686-1,229)	784 (583-1,025)	735 (556-956)	693 (525-900)	626 (477-800)
Intimate partner violence	1,954 (1,136-3,109)	2,477 (1,635-3,546)	2,194 (1,476-3,033)	1,868 (1,310-2,597)	1,740 (1,186-2,421)	1,546 (1,029-2,219)	1,283 (834-1,844)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Unimproved water and sanitation	313 (13-625)	320 (12-636)	351 (13-723)	314 (11-642)	303 (12-619)	203 (7-415)	181 (7-380)
Unimproved water source	98 (7-205)	95 (6-200)	102 (7-217)	92 (6-197)	83 (5-181)	57 (4-124)	49 (3-107)
Unimproved sanitation	233 (6-483)	243 (6-500)	269 (7-570)	240 (6-505)	236 (6-508)	157 (3-333)	141 (4-296)
Air pollution							
Ambient particulate matter pollution	6,786 (5,044-8,392)	8,383 (6,291-10,400)	8,354 (6,322-10,185)	7,722 (5,626-9,614)	7,670 (5,456-9,640)	5,931 (4,275-7,316)	5,719 (4,199-7,096)
Household air pollution from solid fuels	7,222 (5,043-9,671)	8,812 (6,002-12,085)	8,982 (6,332-11,790)	8,748 (5,963-11,784)	8,338 (5,626-11,358)	6,144 (4,213-8,346)	5,119 (3,451-7,114)
Ambient ozone pollution	149 (51-270)	242 (82-421)	324 (111-574)	392 (129-693)	426 (149-744)	350 (116-620)	350 (119-619)
Other environmental risks	1,610 (1,288-2,023)	2,024 (1,590-2,548)	2,101 (1,653-2,626)	2,031 (1,644-2,504)	1,990 (1,633-2,436)	1,547 (1,288-1,851)	1,434 (1,220-1,672)
Residential radon	247 (32-544)	343 (44-785)	348 (44-774)	306 (39-667)	271 (36-586)	181 (25-398)	106 (15-223)
Lead exposure	1,363 (1,128-1,641)	1,681 (1,408-1,995)	1,753 (1,467-2,062)	1,725 (1,446-2,021)	1,720 (1,445-1,998)	1,366 (1,161-1,582)	1,328 (1,135-1,528)
Child and maternal undernutrition	1,153 (792-1,635)	954 (657-1,340)	760 (531-1,070)	583 (414-822)	487 (346-686)	381 (271-533)	366 (265-497)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,153 (792-1,635)	954 (657-1,340)	760 (531-1,070)	583 (414-822)	487 (346-686)	381 (271-533)	366 (265-497)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	16,947 (14,623-19,292)	20,836 (17,788-23,293)	20,562 (17,475-23,109)	18,298 (15,314-20,405)	16,813 (13,790-19,020)	11,903 (9,604-13,608)	9,957 (8,074-11,511)
Tobacco smoking	16,131 (13,788-18,465)	19,799 (16,822-22,344)	19,455 (16,411-22,067)	17,195 (14,247-19,421)	15,571 (12,468-17,875)	10,893 (8,571-12,644)	8,871 (6,929-10,474)
Second-hand smoke	816 (558-1,063)	1,037 (715-1,341)	1,107 (761-1,431)	1,103 (744-1,424)	1,242 (837-1,603)	1,011 (677-1,331)	1,086 (722-1,418)
Alcohol and drug use	11,000 (9,825-12,183)	10,149 (9,125-11,220)	7,932 (7,135-8,752)	4,428 (3,904-4,969)	4,404 (3,807-5,013)	3,173 (2,673-3,656)	3,387 (2,706-4,029)
Alcohol use	10,179 (9,074-11,317)	9,671 (8,659-10,698)	7,671 (6,897-8,488)	4,351 (3,822-4,890)	4,351 (3,760-4,961)	3,143 (2,636-3,625)	3,360 (2,683-3,990)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Drug use	880 (715-1,090)	539 (434-665)	313 (252-398)	78 (59-114)	53 (39-97)	31 (22-59)	28 (18-56)
Physiological risk factors							
High fasting plasma glucose	9,324 (8,027-10,808)	11,995 (10,372-13,609)	11,585 (10,061-13,136)	10,839 (9,494-12,217)	10,417 (9,156-11,790)	7,782 (6,806-8,784)	7,253 (6,282-8,278)
High total cholesterol	4,394 (3,345-5,530)	5,372 (4,155-6,627)	5,348 (4,124-6,634)	4,843 (3,763-5,954)	5,174 (3,853-6,457)	3,854 (2,736-5,005)	4,172 (3,212-5,237)
High blood pressure	14,823 (13,013-16,659)	21,084 (19,044-23,072)	21,120 (19,137-23,093)	22,553 (20,599-24,520)	23,766 (21,749-25,817)	20,375 (18,721-22,034)	22,748 (20,806-24,693)
High body-mass index	11,008 (8,986-13,075)	12,211 (10,074-14,489)	11,895 (9,882-14,029)	9,832 (8,094-11,602)	9,966 (8,303-11,697)	7,297 (6,000-8,593)	7,591 (6,248-8,997)
Low bone mineral density	600 (429-783)	687 (517-871)	715 (549-908)	702 (535-883)	718 (549-909)	722 (566-899)	1,072 (862-1,323)
Dietary risk factors and physical inactivity	24,898 (22,855-26,854)	30,539 (28,153-32,873)	30,850 (28,539-33,162)	29,683 (27,431-32,032)	30,858 (28,447-33,218)	25,140 (23,217-26,881)	27,628 (25,303-29,847)
Diet low in fruits	11,582 (9,142-13,835)	14,028 (11,043-16,747)	13,359 (10,388-15,993)	12,436 (9,678-15,000)	12,144 (9,193-14,898)	9,324 (7,067-11,363)	8,420 (6,353-10,454)
Diet low in vegetables	4,329 (2,838-5,799)	4,877 (3,263-6,562)	4,592 (3,091-6,163)	4,209 (2,807-5,686)	4,313 (2,864-5,776)	3,317 (2,208-4,445)	3,299 (2,189-4,470)
Diet low in whole grains	4,546 (3,572-5,435)	5,211 (4,087-6,224)	4,899 (3,881-5,812)	4,365 (3,437-5,236)	4,415 (3,463-5,284)	3,397 (2,669-4,076)	3,279 (2,529-3,931)
Diet low in nuts and seeds	5,544 (3,676-7,216)	6,463 (4,130-8,447)	6,247 (3,980-8,111)	5,699 (3,635-7,451)	5,851 (3,660-7,746)	4,571 (2,832-6,080)	5,212 (3,111-7,066)
Diet low in milk	220 (64-372)	280 (82-483)	282 (81-476)	259 (79-434)	255 (75-426)	196 (57-335)	173 (51-290)
Diet high in red meat	217 (96-353)	235 (110-377)	210 (99-331)	176 (84-273)	167 (80-259)	123 (58-190)	109 (51-169)
Diet high in processed meat	2,455 (823-3,973)	2,661 (861-4,361)	2,488 (780-4,078)	2,123 (646-3,488)	2,115 (613-3,524)	1,601 (458-2,634)	1,843 (506-3,105)
Diet high in sugar-sweetened beverages	549 (194-877)	671 (221-962)	604 (205-869)	600 (414-869)	503 (345-761)	378 (255-791)	435 (217-787)
Diet low in fibre	1,900 (832-2,974)	2,112 (939-3,295)	1,907 (865-3,008)	1,637 (730-2,589)	1,679 (746-2,652)	1,322 (595-2,080)	1,435 (631-2,276)
Diet low in calcium	259 (192-338)	335 (243-434)	341 (249-441)	321 (231-413)	322 (226-422)	254 (175-339)	233 (150-324)
Diet low in seafood omega-3 fatty acids	3,206 (2,300-4,121)	3,644 (2,654-4,639)	3,430 (2,427-4,388)	3,063 (2,253-3,925)	3,085 (2,236-3,949)	2,325 (1,678-3,011)	2,497 (1,791-3,230)
Diet low in polyunsaturated fatty acids	1,329 (602-2,040)	1,489 (699-2,259)	1,405 (644-2,155)	1,251 (578-1,926)	1,232 (565-1,921)	937 (435-1,426)	1,028 (480-1,577)
Diet high in trans fatty acids	1,369 (975-1,732)	1,475 (1,059-1,875)	1,407 (1,010-1,782)	1,212 (873-1,546)	1,140 (822-1,462)	860 (621-1,095)	941 (677-1,202)
Diet high in sodium	5,934 (3,962-7,854)	7,658 (5,059-10,082)	8,098 (5,395-10,587)	8,074 (5,257-10,725)	8,183 (5,281-10,919)	6,407 (4,103-8,577)	6,411 (4,001-8,637)
Physical inactivity and low physical activity	6,915 (5,828-8,064)	8,283 (6,981-9,618)	8,405 (7,075-9,796)	7,935 (6,698-9,208)	8,249 (6,844-9,675)	6,637 (5,458-7,867)	7,274 (5,838-8,669)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Occupational risk factors	5,638 (4,330–7,095)	5,154 (3,948–6,551)	3,868 (2,864–4,982)	2,141 (1,520–2,814)	1,940 (1,361–2,600)	1,286 (869–1,775)	121 (81–161)
Occupational carcinogens	295 (193–422)	488 (311–710)	492 (318–694)	349 (226–482)	310 (194–431)	159 (105–215)	121 (81–161)
Occupational exposure to asbestos	64 (36–87)	84 (48–112)	98 (59–127)	90 (54–117)	88 (52–115)	67 (41–89)	57 (36–75)
Occupational exposure to arsenic	7 (3–13)	13 (5–25)	13 (5–24)	8 (3–15)	7 (3–13)	3 (1–5)	2 (1–4)
Occupational exposure to benzene	3 (1–5)	4 (2–8)	4 (2–7)	5 (2–9)	5 (2–8)	5 (2–9)	2 (1–4)
Occupational exposure to beryllium	0 (0–1)	1 (0–1)	1 (0–1)	0 (0–1)	0 (0–1)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	2 (1–2)	3 (1–5)	3 (1–4)	2 (1–3)	1 (1–2)	1 (0–1)	0 (0–1)
Occupational exposure to chromium	5 (3–8)	10 (6–14)	9 (5–14)	6 (3–9)	5 (3–8)	2 (1–3)	1 (1–2)
Occupational exposure to diesel engine exhaust	61 (34–94)	110 (61–171)	108 (60–165)	69 (37–104)	59 (31–91)	23 (12–36)	16 (8–25)
Occupational exposure to second-hand smoke	68 (46–92)	120 (80–164)	117 (79–159)	74 (48–98)	64 (41–86)	25 (16–34)	18 (11–25)
Occupational exposure to formaldehyde	1 (0–3)	2 (1–4)	1 (0–3)	2 (1–3)	1 (0–2)	1 (0–2)	0 (0–1)
Occupational exposure to nickel	25 (7–51)	45 (12–95)	44 (12–92)	28 (7–56)	24 (6–50)	10 (3–20)	7 (2–15)
Occupational exposure to polycyclic aromatic hydrocarbons	11 (5–18)	20 (9–34)	20 (9–33)	13 (6–20)	11 (5–18)	4 (2–7)	3 (1–5)
Occupational exposure to silica	44 (28–62)	81 (49–113)	79 (48–110)	51 (31–70)	44 (25–61)	18 (10–25)	12 (7–17)
Occupational exposure to sulfuric acid	11 (3–25)	14 (4–31)	13 (4–28)	9 (3–19)	7 (2–15)	3 (1–6)	2 (1–4)
Occupational asthmagens	192 (134–295)	193 (135–309)	155 (108–246)	95 (65–156)	85 (59–137)	61 (42–99)	0 (0–0)
Occupational particulate matter, gases, and fumes	1,079 (527–1,672)	1,307 (650–1,995)	1,254 (581–2,008)	842 (368–1,363)	861 (381–1,400)	685 (312–1,102)	0 (0–0)
Occupational noise	425 (253–684)	292 (166–472)	273 (155–439)	112 (64–183)	116 (65–192)	28 (12–52)	0 (0–0)
Occupational risk factors for injuries	1,337 (957–1,958)	906 (640–1,314)	432 (309–613)	155 (110–227)	89 (64–128)	21 (16–31)	0 (0–0)
Occupational low back pain	2,312 (1,544–3,241)	1,966 (1,316–2,746)	1,263 (836–1,761)	589 (380–839)	479 (310–680)	332 (214–476)	0 (0–0)
Sexual abuse and violence	1,559 (1,156–2,108)	1,247 (907–1,694)	858 (615–1,164)	560 (399–764)	413 (287–571)	267 (187–372)	232 (159–332)
Childhood sexual abuse	539 (415–704)	419 (322–543)	275 (211–362)	164 (123–214)	108 (80–140)	64 (47–84)	46 (34–61)
Intimate partner violence	1,088 (694–1,591)	881 (559–1,282)	619 (397–915)	420 (263–616)	322 (201–475)	212 (133–311)	191 (120–287)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Unimproved water and sanitation	11,022 (458-21,162)	282 (11-582)	535 (22-1,086)	3,606 (145-7,051)	2,894 (125-5,657)	621 (25-1,264)	304 (13-633)
Unimproved water source	4,080 (266-8,172)	113 (7-239)	202 (13-419)	1,419 (92-2,888)	1,154 (74-2,304)	216 (14-450)	99 (6-218)
Unimproved sanitation	7,735 (190-15,338)	191 (5-418)	373 (9-787)	2,462 (61-5,034)	1,969 (48-4,012)	447 (11-937)	223 (5-482)
Air pollution							
Ambient particulate matter pollution	46,732 (41,393-52,602)	849 (497-1,331)	676 (416-1,019)	2,802 (1,853-3,957)	1,744 (1,101-2,623)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	60,170 (45,087-75,153)	2,885 (1,761-4,370)	2,182 (1,428-3,102)	9,898 (6,673-13,353)	6,166 (4,242-9,078)	0 (0-0)	0 (0-0)
Ambient ozone pollution	1,440 (506-2,563)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	9,434 (7,476-12,045)	0 (0-0)	0 (0-0)	0 (0-0)	2 (1-4)	7 (3-13)	5 (2-9)
Residential radon	1,514 (191-3,383)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Lead exposure	7,920 (6,491-9,683)	0 (0-0)	0 (0-0)	0 (0-0)	2 (1-4)	7 (3-13)	5 (2-9)
Child and maternal undernutrition	83,202 (67,963-99,704)	0 (0-0)	4,319 (2,507-6,136)	35,720 (28,074-44,025)	31,250 (25,312-38,390)	3,656 (2,406-5,314)	2,439 (1,603-3,537)
Suboptimal breastfeeding	25,572 (15,540-37,260)	0 (0-0)	4,318 (2,506-6,135)	19,471 (11,387-29,065)	1,783 (171-4,021)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	22,258 (12,464-32,936)	0 (0-0)	4,318 (2,506-6,135)	17,940 (9,884-27,008)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	3,314 (324-7,377)	0 (0-0)	0 (0-0)	1,532 (142-3,512)	1,783 (171-4,021)	0 (0-0)	0 (0-0)
Childhood underweight	41,270 (33,478-50,007)	0 (0-0)	0 (0-0)	21,465 (16,932-26,531)	19,805 (15,520-24,962)	0 (0-0)	0 (0-0)
Iron deficiency	19,974 (13,595-28,289)	0 (0-0)	1 (1-1)	2,025 (1,418-2,808)	6,036 (4,082-8,602)	3,656 (2,406-5,314)	2,439 (1,603-3,537)
Vitamin A deficiency	5,672 (2,904-9,348)	0 (0-0)	0 (0-0)	1,341 (604-2,344)	4,331 (2,283-7,091)	0 (0-0)	0 (0-0)
Zinc deficiency	4,880 (1,203-9,316)	0 (0-0)	0 (0-0)	0 (0-0)	4,880 (1,203-9,316)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	115,496 (98,595-130,090)	787 (488-1,207)	629 (396-904)	2,923 (1,957-4,030)	1,669 (1,080-2,407)	0 (0-0)	0 (0-0)
Tobacco smoking	105,635 (88,332-120,347)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	9,861 (7,669-12,312)	787 (488-1,207)	629 (396-904)	2,923 (1,957-4,030)	1,669 (1,080-2,407)	0 (0-0)	0 (0-0)
Alcohol and drug use	90,578 (79,476-101,772)	29 (20-54)	25 (13-48)	140 (80-270)	361 (229-577)	136 (105-188)	373 (285-476)
Alcohol use	74,662 (65,764-83,831)	10 (6-19)	6 (3-12)	51 (34-87)	257 (153-449)	108 (82-149)	294 (226-373)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Drug use	16,248 (12,679–20,132)	19 (9–39)	20 (9–42)	88 (35–216)	104 (40–191)	28 (15–58)	79 (50–119)
Physiological risk factors							
High fasting plasma glucose	49,148 (41,619–57,197)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	23,179 (17,148–29,650)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	99,566 (88,193–110,943)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	48,310 (39,429–57,750)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	3,105 (2,295–3,831)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	146,574 (135,045–157,419)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	65,523 (51,056–78,959)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	24,169 (16,503–32,480)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	24,881 (19,486–29,709)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	32,615 (21,258–41,958)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	1,171 (350–1,977)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	1,026 (484–1,629)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	12,901 (4,012–21,421)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	3,142 (1,755–4,330)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	10,893 (4,903–17,191)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	1,570 (1,113–2,058)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	18,300 (13,267–23,201)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	7,521 (3,455–11,583)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	7,339 (5,240–9,300)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	37,378 (24,639–49,428)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	37,007 (30,583–43,466)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Occupational risk factors	48,317 (38,407–58,677)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	2,087 (1,315–2,928)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	521 (279–709)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	45 (17–84)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	52 (21–92)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	3 (1–5)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	10 (4–16)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	32 (17–48)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	442 (232–682)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	405 (244–544)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	17 (6–31)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	151 (38–312)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	73 (33–119)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	333 (199–463)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	66 (19–143)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	1,359 (917–2,153)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	6,682 (3,293–10,311)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	2,284 (1,348–3,649)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	22,434 (16,711–29,943)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	13,471 (8,968–18,945)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	3,588 (2,669–4,679)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	11 (8–16)	117 (84–158)
Childhood sexual abuse	3,588 (2,669–4,679)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	11 (8–16)	117 (84–158)
Intimate partner violence	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Unimproved water and sanitation	309 (11-664)	312 (12-638)	310 (12-638)	276 (11-559)	241 (9-485)	201 (7-422)	190 (6-395)
Unimproved water source	102 (6-229)	105 (6-227)	105 (6-229)	92 (6-193)	78 (5-163)	63 (4-137)	58 (4-123)
Unimproved sanitation	226 (5-498)	226 (5-464)	224 (5-480)	201 (5-418)	178 (4-372)	150 (3-321)	142 (3-311)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	860 (613-1,114)	1,162 (838-1,509)	1,730 (1,259-2,205)	2,730 (2,019-3,419)	3,408 (2,512-4,341)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	1,024 (666-1,464)	1,333 (872-1,867)	1,839 (1,233-2,544)	2,751 (1,835-3,749)	3,266 (2,215-4,527)
Ambient ozone pollution	0 (0-0)	0 (0-0)	12 (3-27)	14 (4-30)	21 (7-43)	33 (10-66)	53 (18-109)
Other environmental risks	0 (0-0)	0 (0-0)	135 (101-218)	205 (159-328)	327 (257-438)	498 (388-695)	725 (568-918)
Residential radon	0 (0-0)	0 (0-0)	7 (1-18)	12 (1-31)	26 (3-62)	57 (6-135)	105 (13-243)
Lead exposure	0 (0-0)	0 (0-0)	128 (95-212)	193 (148-314)	302 (235-407)	441 (351-597)	620 (493-764)
Child and maternal undernutrition	987 (665-1,412)	710 (492-994)	563 (397-783)	500 (353-699)	474 (331-671)	425 (291-599)	408 (281-574)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	987 (665-1,412)	710 (492-994)	563 (397-783)	500 (353-699)	474 (331-671)	425 (291-599)	408 (281-574)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	90 (60-123)	2,642 (1,962-3,688)	4,213 (2,767-5,793)	7,425 (5,651-9,336)	10,069 (8,511-11,741)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	2,528 (1,857-3,566)	4,102 (2,646-5,662)	7,246 (5,451-9,137)	9,823 (8,230-11,512)
Second-hand smoke	0 (0-0)	0 (0-0)	90 (60-123)	115 (77-153)	112 (71-154)	179 (119-242)	246 (164-330)
Alcohol and drug use	4,824 (4,033-5,706)	9,104 (7,657-10,710)	9,512 (8,036-11,030)	8,098 (6,905-9,391)	9,179 (7,946-10,558)	8,945 (7,853-10,118)	9,018 (7,935-10,170)
Alcohol use	3,775 (3,118-4,508)	5,963 (4,963-7,047)	6,069 (5,099-7,099)	5,522 (4,724-6,438)	7,263 (6,263-8,385)	7,577 (6,621-8,645)	8,096 (7,066-9,149)
Drug use	1,061 (792-1,394)	3,178 (2,399-4,007)	3,486 (2,625-4,354)	2,603 (1,997-3,272)	1,946 (1,524-2,448)	1,402 (1,092-1,756)	959 (743-1,245)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	898 (721-1,085)	1,224 (986-1,503)	2,189 (1,784-2,627)	2,984 (2,453-3,593)	4,663 (3,880-5,470)
High total cholesterol	0 (0-0)	0 (0-0)	302 (192-426)	433 (275-624)	984 (691-1,315)	1,532 (1,076-2,013)	2,302 (1,671-2,962)
High blood pressure	0 (0-0)	0 (0-0)	1,463 (1,139-1,784)	1,845 (1,449-2,247)	3,120 (2,550-3,676)	4,571 (3,760-5,414)	7,527 (6,483-8,572)
High body-mass index	0 (0-0)	0 (0-0)	1,086 (837-1,376)	1,400 (1,075-1,763)	2,416 (1,909-2,962)	3,624 (2,872-4,431)	4,911 (3,993-5,876)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	2,424 (2,088-2,783)	3,464 (3,030-3,940)	5,301 (4,678-5,911)	8,481 (7,474-9,435)	11,851 (10,497-13,111)
Diet low in vegetables	0 (0-0)	0 (0-0)	1,237 (925-1,542)	1,706 (1,289-2,109)	2,569 (1,936-3,174)	4,164 (3,168-5,099)	5,788 (4,341-7,060)
Diet low in whole grains	0 (0-0)	0 (0-0)	618 (396-851)	816 (544-1,100)	1,142 (734-1,553)	1,716 (1,102-2,314)	2,298 (1,480-3,084)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	635 (489-790)	873 (660-1,089)	1,265 (966-1,560)	1,901 (1,457-2,335)	2,418 (1,862-2,971)
Diet low in milk	0 (0-0)	0 (0-0)	691 (458-917)	994 (646-1,305)	1,463 (940-1,966)	2,285 (1,514-2,995)	3,031 (1,947-3,984)
Diet high in red meat	0 (0-0)	0 (0-0)	20 (6-36)	28 (8-49)	42 (12-71)	58 (16-98)	87 (26-151)
Diet high in processed meat	0 (0-0)	0 (0-0)	29 (12-50)	44 (17-77)	70 (28-123)	93 (36-162)	108 (47-183)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	324 (112-551)	469 (170-806)	659 (232-1,118)	989 (327-1,779)	1,321 (417-2,263)
Diet low in fibre	0 (0-0)	0 (0-0)	117 (57-186)	145 (64-215)	172 (63-305)	244 (81-427)	299 (99-485)
Diet low in calcium	0 (0-0)	0 (0-0)	287 (126-457)	397 (173-633)	582 (245-912)	867 (379-1,373)	1,124 (479-1,801)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	26 (18-36)	36 (24-49)	52 (37-72)	71 (51-100)	105 (77-141)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	428 (296-570)	610 (418-821)	886 (610-1,173)	1,386 (1,004-1,833)	1,813 (1,251-2,380)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	195 (90-308)	270 (125-414)	382 (178-590)	575 (269-898)	746 (334-1,147)
Diet high in sodium	0 (0-0)	0 (0-0)	201 (137-269)	281 (188-376)	390 (271-507)	588 (409-776)	765 (524-1,004)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	383 (165-612)	628 (351-924)	1,083 (674-1,523)	1,906 (1,212-2,643)	2,805 (1,811-3,761)
Occupational risk factors							
Occupational carcinogens	2,972 (2,311-3,849)	5,123 (3,958-6,643)	5,716 (4,397-7,316)	5,305 (4,141-6,649)	5,066 (3,960-6,390)	4,795 (3,739-5,982)	4,397 (3,419-5,486)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Occupational exposure to asbestos	5 (2-8)	6 (3-9)	6 (2-9)	6 (3-9)	9 (4-12)	16 (8-22)	30 (15-43)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-3)	3 (1-6)
Occupational exposure to benzene	5 (2-9)	9 (4-16)	8 (3-14)	6 (3-11)	3 (1-6)	3 (1-5)	2 (1-3)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-0)	1 (0-1)	2 (0-1)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	2 (0-0)	3 (0-0)	8 (0-1)	16 (1-2)	33 (1-4)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	2 (1-3)	3 (1-5)	7 (4-12)	14 (8-25)	30 (18-51)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	2 (1-2)	3 (2-4)	7 (4-11)	14 (9-21)	30 (19-42)
Occupational exposure to formaldehyde	1 (0-2)	2 (1-4)	2 (1-4)	2 (1-3)	1 (0-2)	2 (0-4)	1 (0-2)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	2 (1-5)	5 (1-11)	11 (3-23)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (1-2)	3 (1-4)	5 (2-9)
Occupational exposure to silica	0 (0-0)	0 (0-0)	1 (1-2)	2 (1-3)	6 (3-9)	12 (7-17)	24 (15-35)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-3)	3 (1-7)	7 (2-15)
Occupational asthmagens	105 (65-159)	126 (83-187)	123 (83-181)	105 (70-157)	106 (70-168)	109 (71-172)	124 (80-209)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	304 (146-491)	344 (160-560)	408 (198-658)	491 (241-780)	590 (288-924)
Occupational noise	98 (51-166)	167 (89-276)	210 (120-350)	243 (140-405)	228 (133-377)	247 (145-411)	244 (142-398)
Occupational risk factors for injuries	2,091 (1,532-2,970)	3,750 (2,732-5,206)	3,825 (2,752-5,302)	3,230 (2,313-4,461)	2,741 (1,922-3,777)	2,242 (1,570-3,178)	1,737 (1,197-2,490)
Occupational low back pain	666 (429-982)	1,064 (697-1,528)	1,234 (814-1,751)	1,360 (914-1,913)	1,545 (1,035-2,180)	1,632 (1,087-2,308)	1,556 (1,040-2,205)
Sexual abuse and violence	394 (285-535)	516 (363-719)	444 (318-604)	378 (273-516)	354 (255-471)	335 (243-452)	309 (227-409)
Childhood sexual abuse	394 (285-535)	516 (363-719)	444 (318-604)	378 (273-516)	354 (255-471)	335 (243-452)	309 (227-409)
Intimate partner violence	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Unimproved water and sanitation	175 (7-367)	168 (7-346)	167 (6-368)	136 (5-292)	131 (5-292)	87 (3-199)	79 (3-173)
Unimproved water source	54 (3-114)	49 (3-104)	49 (3-108)	40 (3-84)	36 (2-80)	24 (2-54)	21 (1-49)
Unimproved sanitation	132 (4-286)	128 (3-272)	127 (3-298)	103 (2-234)	102 (3-237)	68 (1-164)	62 (1-140)
Air pollution							
Ambient particulate matter pollution	4,624 (3,422-5,857)	5,630 (4,228-7,023)	5,413 (4,083-6,674)	4,815 (3,498-6,042)	4,479 (3,177-5,625)	3,237 (2,357-4,005)	2,574 (1,882-3,176)
Household air pollution from solid fuels	4,413 (2,925-6,143)	5,247 (3,354-7,533)	5,113 (3,349-7,065)	4,740 (2,928-6,693)	4,240 (2,543-6,083)	2,949 (1,737-4,251)	2,123 (1,229-3,161)
Ambient ozone pollution	95 (31-179)	144 (47-267)	193 (65-357)	234 (78-424)	250 (88-448)	205 (70-370)	186 (63-334)
Other environmental risks	1,062 (821-1,380)	1,326 (1,002-1,728)	1,334 (1,020-1,738)	1,231 (949-1,590)	1,130 (885-1,459)	819 (655-1,039)	627 (512-766)
Residential radon	177 (22-393)	253 (31-580)	258 (33-570)	225 (29-503)	196 (26-426)	128 (17-282)	70 (10-148)
Lead exposure	885 (711-1,114)	1,073 (857-1,331)	1,075 (870-1,323)	1,007 (813-1,243)	934 (761-1,141)	691 (563-841)	558 (460-673)
Child and maternal undernutrition	378 (263-530)	353 (245-496)	304 (213-423)	243 (174-339)	195 (138-270)	147 (104-205)	130 (96-176)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	378 (263-530)	353 (245-496)	304 (213-423)	243 (174-339)	195 (138-270)	147 (104-205)	130 (96-176)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	13,353 (11,445-15,434)	16,199 (13,587-18,470)	15,714 (13,156-17,916)	13,635 (11,247-15,546)	12,089 (9,621-14,003)	8,269 (6,280-9,556)	5,790 (4,545-6,887)
Tobacco smoking	12,986 (11,014-15,114)	15,726 (13,140-18,102)	15,208 (12,643-17,420)	13,134 (10,720-15,002)	11,560 (9,069-13,501)	7,877 (5,884-9,216)	5,446 (4,205-6,550)
Second-hand smoke	367 (255-479)	473 (328-608)	506 (350-658)	501 (336-647)	529 (360-682)	393 (264-511)	344 (231-449)
Alcohol and drug use	8,654 (7,656-9,714)	7,721 (6,858-8,624)	5,822 (5,142-6,524)	3,016 (2,586-3,453)	2,601 (2,195-3,001)	1,694 (1,394-1,989)	1,326 (1,015-1,608)
Alcohol use	8,097 (7,145-9,098)	7,400 (6,538-8,276)	5,650 (4,986-6,335)	2,966 (2,549-3,395)	2,570 (2,162-2,973)	1,676 (1,377-1,968)	1,312 (1,003-1,595)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Drug use	597 (472-764)	360 (286-454)	205 (161-262)	50 (34-78)	31 (21-56)	18 (12-37)	14 (8-31)
Physiological risk factors							
High fasting plasma glucose	5,700 (4,738-6,704)	7,120 (5,961-8,287)	6,601 (5,525-7,733)	5,788 (4,868-6,762)	5,240 (4,412-6,119)	3,718 (3,155-4,313)	3,021 (2,566-3,484)
High total cholesterol	3,047 (2,203-3,966)	3,435 (2,485-4,419)	3,211 (2,344-4,117)	2,616 (1,942-3,392)	2,473 (1,812-3,210)	1,612 (1,142-2,144)	1,233 (908-1,583)
High blood pressure	9,833 (8,496-11,205)	13,579 (12,037-15,162)	13,083 (11,597-14,643)	13,092 (11,687-14,538)	12,725 (11,459-14,108)	9,955 (8,888-11,037)	8,772 (7,845-9,759)
High body-mass index	6,241 (5,086-7,449)	6,647 (5,439-7,891)	6,310 (5,204-7,451)	4,990 (4,066-5,945)	4,783 (3,891-5,714)	3,188 (2,580-3,843)	2,712 (2,174-3,296)
Low bone mineral density	404 (263-556)	434 (303-573)	471 (328-625)	426 (301-564)	453 (316-603)	397 (291-513)	520 (397-655)
Dietary risk factors and physical inactivity	16,349 (14,655-17,882)	19,863 (17,878-21,505)	19,430 (17,635-21,230)	17,840 (16,217-19,558)	17,190 (15,484-18,825)	12,951 (11,732-14,088)	11,431 (10,368-12,459)
Diet low in fruits	7,976 (6,146-9,695)	9,563 (7,391-11,525)	8,822 (6,784-10,742)	7,823 (6,076-9,538)	7,102 (5,167-8,749)	5,038 (3,667-6,222)	3,736 (2,769-4,726)
Diet low in vegetables	3,006 (1,977-4,026)	3,337 (2,182-4,530)	3,027 (2,051-4,111)	2,616 (1,730-3,573)	2,464 (1,627-3,376)	1,743 (1,152-2,378)	1,387 (927-1,883)
Diet low in whole grains	3,071 (2,377-3,737)	3,451 (2,666-4,181)	3,116 (2,434-3,768)	2,641 (2,042-3,221)	2,449 (1,906-2,963)	1,728 (1,340-2,093)	1,334 (1,028-1,612)
Diet low in nuts and seeds	4,038 (2,605-5,324)	4,550 (2,900-5,933)	4,154 (2,642-5,394)	3,564 (2,265-4,697)	3,319 (2,078-4,405)	2,386 (1,479-3,152)	2,140 (1,308-2,905)
Diet low in milk	121 (36-205)	161 (48-280)	166 (48-281)	153 (47-259)	145 (44-244)	107 (31-180)	82 (24-137)
Diet high in red meat	120 (54-197)	133 (62-210)	120 (55-186)	101 (48-155)	92 (43-144)	66 (29-102)	50 (22-78)
Diet high in processed meat	1,691 (513-2,905)	1,790 (531-3,029)	1,612 (462-2,775)	1,302 (371-2,270)	1,179 (335-2,017)	822 (234-1,410)	741 (202-1,280)
Diet high in sugar-sweetened beverages	375 (115-616)	437 (131-632)	383 (119-536)	342 (229-608)	267 (182-536)	185 (117-429)	177 (88-339)
Diet low in fibre	1,393 (608-2,240)	1,509 (664-2,359)	1,306 (577-2,068)	1,066 (477-1,696)	1,003 (455-1,601)	728 (331-1,139)	631 (280-1,002)
Diet low in calcium	148 (107-197)	202 (144-267)	213 (152-282)	205 (142-276)	204 (137-277)	161 (106-220)	147 (86-221)
Diet low in seafood omega-3 fatty acids	2,376 (1,678-3,072)	2,603 (1,867-3,361)	2,305 (1,626-2,952)	1,927 (1,383-2,499)	1,747 (1,261-2,263)	1,207 (870-1,574)	1,013 (716-1,324)
Diet low in polyunsaturated fatty acids	964 (441-1,497)	1,047 (487-1,596)	934 (426-1,457)	783 (360-1,207)	704 (315-1,110)	494 (222-756)	427 (193-665)
Diet high in trans fatty acids	967 (675-1,255)	1,014 (709-1,288)	913 (641-1,173)	742 (522-947)	639 (452-829)	448 (322-575)	393 (280-501)
Diet high in sodium	4,058 (2,696-5,404)	5,184 (3,431-6,897)	5,305 (3,505-7,017)	5,045 (3,285-6,769)	4,753 (3,075-6,399)	3,442 (2,231-4,610)	2,786 (1,731-3,779)
Physical inactivity and low physical activity	4,053 (3,312-4,827)	4,801 (3,928-5,699)	4,749 (3,908-5,656)	4,309 (3,568-5,096)	4,168 (3,374-4,982)	3,125 (2,510-3,748)	2,736 (2,167-3,322)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Occupational risk factors	4,105 (3,193-5,134)	3,785 (2,936-4,747)	2,837 (2,120-3,626)	1,657 (1,184-2,192)	1,489 (1,041-2,012)	979 (654-1,359)	92 (55-121)
Occupational carcinogens	229 (143-335)	386 (233-563)	393 (241-563)	282 (172-390)	247 (146-350)	127 (77-173)	92 (55-121)
Occupational exposure to asbestos	50 (26-71)	68 (34-94)	81 (44-110)	74 (41-102)	72 (40-98)	54 (30-75)	44 (24-60)
Occupational exposure to arsenic	5 (2-10)	10 (3-18)	9 (4-18)	6 (2-11)	5 (2-10)	2 (1-4)	1 (0-3)
Occupational exposure to benzene	2 (1-3)	2 (1-4)	2 (1-4)	3 (1-5)	3 (1-5)	3 (1-5)	1 (0-2)
Occupational exposure to beryllium	0 (0-1)	1 (0-1)	1 (0-1)	0 (0-1)	0 (0-1)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	1 (0-2)	2 (1-4)	2 (1-3)	1 (1-2)	1 (0-2)	0 (0-1)	0 (0-0)
Occupational exposure to chromium	4 (2-6)	7 (4-10)	7 (4-10)	4 (2-6)	4 (2-5)	1 (1-2)	1 (0-1)
Occupational exposure to diesel engine exhaust	51 (27-81)	94 (48-148)	92 (49-142)	60 (31-92)	51 (24-77)	20 (10-32)	14 (6-20)
Occupational exposure to second-hand smoke	47 (28-65)	86 (52-118)	85 (51-116)	55 (32-74)	46 (26-62)	18 (10-25)	12 (7-17)
Occupational exposure to formaldehyde	1 (0-2)	1 (0-3)	1 (0-2)	1 (0-3)	1 (0-2)	1 (0-1)	0 (0-0)
Occupational exposure to nickel	17 (4-36)	32 (8-69)	32 (8-67)	21 (5-43)	17 (4-37)	7 (2-15)	5 (1-10)
Occupational exposure to polycyclic aromatic hydrocarbons	8 (4-14)	15 (7-26)	15 (7-25)	10 (4-16)	8 (3-14)	3 (1-6)	2 (1-4)
Occupational exposure to silica	38 (22-55)	70 (41-101)	69 (41-98)	45 (26-63)	39 (21-53)	16 (8-22)	11 (5-15)
Occupational exposure to sulfuric acid	10 (3-23)	13 (4-28)	12 (3-26)	8 (2-18)	6 (2-14)	2 (1-5)	2 (0-4)
Occupational asthmagens	132 (86-230)	136 (88-240)	111 (71-198)	72 (43-130)	65 (40-114)	46 (28-80)	0 (0-0)
Occupational particulate matter, gases, and fumes	774 (391-1,211)	958 (480-1,464)	925 (433-1,473)	665 (295-1,078)	681 (302-1,097)	543 (250-875)	0 (0-0)
Occupational noise	276 (163-440)	199 (113-322)	186 (105-299)	82 (46-133)	84 (47-137)	20 (8-38)	0 (0-0)
Occupational risk factors for injuries	1,279 (900-1,897)	870 (603-1,280)	414 (291-592)	149 (105-221)	86 (61-124)	21 (15-30)	0 (0-0)
Occupational low back pain	1,415 (951-1,999)	1,236 (833-1,740)	809 (539-1,152)	407 (264-585)	326 (211-466)	222 (144-320)	0 (0-0)
Sexual abuse and violence	263 (194-357)	196 (145-265)	122 (90-167)	69 (49-95)	42 (31-57)	24 (17-33)	14 (10-19)
Childhood sexual abuse	263 (194-357)	196 (145-265)	122 (90-167)	69 (49-95)	42 (31-57)	24 (17-33)	14 (10-19)
Intimate partner violence	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Unimproved water and sanitation	10,165 (428-19,650)	215 (10-443)	469 (21-937)	3,271 (144-6,349)	2,643 (117-5,122)	542 (20-1,075)	292 (10-607)
Unimproved water source	3,694 (242-7,511)	83 (6-178)	176 (12-372)	1,257 (84-2,556)	1,007 (69-2,071)	184 (12-388)	95 (6-199)
Unimproved sanitation	7,192 (187-14,099)	149 (4-318)	329 (9-689)	2,260 (59-4,548)	1,836 (49-3,658)	393 (9-810)	215 (5-452)
Air pollution							
Ambient particulate matter pollution	29,431 (25,722-33,273)	574 (339-919)	517 (309-764)	2,333 (1,554-3,271)	1,469 (973-2,105)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	47,914 (37,929-58,289)	1,945 (1,264-2,835)	1,679 (1,122-2,307)	8,046 (5,454-10,828)	4,881 (3,393-6,615)	0 (0-0)	0 (0-0)
Ambient ozone pollution	1,016 (331-1,758)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	6,617 (5,322-7,938)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-3)	5 (2-9)	3 (2-6)
Residential radon	600 (84-1,355)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Lead exposure	6,017 (4,915-7,231)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-3)	5 (2-9)	3 (2-6)
Child and maternal undernutrition	82,894 (69,171-98,757)	0 (0-0)	3,522 (2,135-4,989)	31,024 (24,986-37,901)	27,426 (22,504-32,654)	2,923 (1,958-4,229)	2,134 (1,421-3,081)
Suboptimal breastfeeding	21,965 (13,717-31,340)	0 (0-0)	3,519 (2,132-4,986)	16,705 (9,895-24,505)	1,741 (174-3,840)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	18,850 (10,926-27,569)	0 (0-0)	3,519 (2,132-4,986)	15,332 (8,690-22,846)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	3,114 (296-6,915)	0 (0-0)	0 (0-0)	1,373 (128-3,185)	1,741 (174-3,840)	0 (0-0)	0 (0-0)
Childhood underweight	36,045 (29,430-43,394)	0 (0-0)	0 (0-0)	18,993 (15,240-22,982)	17,053 (13,581-20,993)	0 (0-0)	0 (0-0)
Iron deficiency	28,251 (20,195-39,063)	0 (0-0)	3 (2-5)	1,692 (1,192-2,375)	5,634 (3,822-7,961)	2,923 (1,958-4,229)	2,134 (1,421-3,081)
Vitamin A deficiency	5,098 (2,566-8,168)	0 (0-0)	0 (0-0)	1,274 (566-2,263)	3,824 (1,941-6,186)	0 (0-0)	0 (0-0)
Zinc deficiency	4,256 (1,131-7,821)	0 (0-0)	0 (0-0)	0 (0-0)	4,256 (1,131-7,821)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	41,342 (30,473-48,563)	539 (330-825)	489 (318-690)	2,399 (1,594-3,255)	1,407 (951-1,921)	0 (0-0)	0 (0-0)
Tobacco smoking	31,272 (19,859-38,467)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	10,070 (7,931-12,429)	539 (330-825)	489 (318-690)	2,399 (1,594-3,255)	1,407 (951-1,921)	0 (0-0)	0 (0-0)
Alcohol and drug use	30,033 (26,232-34,432)	18 (11-31)	15 (8-24)	100 (61-148)	268 (161-418)	84 (63-114)	163 (127-207)
Alcohol use	22,575 (19,542-25,693)	9 (5-18)	4 (2-10)	39 (25-63)	165 (95-267)	67 (50-91)	110 (86-138)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Drug use	7,562 (5,922-9,471)	9 (4-17)	11 (4-17)	61 (27-104)	104 (40-195)	18 (8-36)	53 (34-81)
Physiological risk factors							
High fasting plasma glucose	39,864 (34,103-45,972)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
High total cholesterol	17,721 (13,153-22,508)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
High blood pressure	73,991 (66,161-81,931)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
High body-mass index	45,300 (37,218-54,219)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Low bone mineral density	2,111 (1,627-2,618)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	102,310 (94,930-110,079)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in vegetables	38,573 (29,923-46,512)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in whole grains	14,389 (9,434-19,284)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in nuts and seeds	15,881 (12,615-18,949)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in milk	18,674 (11,716-24,404)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet high in red meat	931 (264-1,605)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet high in processed meat	827 (374-1,362)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet high in sugar-sweetened beverages	8,038 (2,932-12,685)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in fibre	2,108 (1,052-3,335)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in calcium	5,559 (2,500-8,639)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in seafood omega-3 fatty acids	1,019 (720-1,319)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet low in polyunsaturated fatty acids	9,899 (7,241-12,596)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet high in trans fatty acids	4,159 (1,973-6,396)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Diet high in sodium	4,253 (3,106-5,416)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Physical inactivity and low physical activity	23,852 (15,544-31,682)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
	32,311 (27,698-37,217)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Occupational risk factors	14,171 (10,344–18,842)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	594 (368–855)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	132 (61–184)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	18 (7–33)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	40 (15–72)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	1 (0–2)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	3 (1–6)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	13 (7–21)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	81 (42–126)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	167 (95–228)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	9 (4–16)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	64 (18–132)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	23 (10–39)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	49 (26–71)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	6 (2–13)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	661 (407–994)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	2,460 (1,105–4,025)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	1,167 (696–1,870)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	1,010 (771–1,331)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	8,279 (5,502–11,602)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence	19,931 (14,524–26,397)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	25 (17–35)	220 (152–305)
Childhood sexual abuse	4,244 (3,082–5,533)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	25 (17–35)	220 (152–305)
Intimate partner violence	16,794 (11,373–23,087)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Unimproved water and sanitation	279 (10-579)	328 (12-659)	315 (13-631)	247 (9-483)	208 (7-418)	161 (6-333)	154 (6-316)
Unimproved water source	95 (6-210)	114 (7-243)	114 (7-234)	89 (6-187)	73 (4-153)	55 (4-120)	49 (3-106)
Unimproved sanitation	202 (5-428)	236 (5-485)	224 (6-459)	175 (4-354)	149 (4-310)	116 (3-249)	114 (3-240)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	441 (311-586)	559 (397-729)	830 (604-1,077)	1,291 (936-1,683)	1,626 (1,159-2,078)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	745 (526-994)	903 (663-1,213)	1,246 (893-1,667)	1,770 (1,245-2,350)	2,158 (1,554-2,858)
Ambient ozone pollution	0 (0-0)	0 (0-0)	10 (3-22)	10 (3-24)	16 (4-32)	21 (6-42)	34 (11-65)
Other environmental risks	0 (0-0)	0 (0-0)	191 (97-310)	250 (132-388)	230 (163-391)	333 (235-558)	397 (313-490)
Residential radon	0 (0-0)	0 (0-0)	4 (0-10)	7 (1-20)	15 (2-37)	31 (4-74)	48 (7-112)
Lead exposure	0 (0-0)	0 (0-0)	187 (93-306)	243 (126-380)	215 (152-373)	302 (209-524)	348 (277-426)
Child and maternal undernutrition	2,164 (1,549-2,974)	2,677 (1,951-3,565)	2,299 (1,676-3,058)	1,881 (1,368-2,506)	1,624 (1,173-2,185)	1,312 (941-1,799)	972 (691-1,359)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	2,164 (1,549-2,974)	2,677 (1,951-3,565)	2,299 (1,676-3,058)	1,881 (1,368-2,506)	1,624 (1,173-2,185)	1,312 (941-1,799)	972 (691-1,359)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	89 (59-120)	584 (407-1,612)	1,052 (719-1,745)	1,965 (1,265-2,790)	2,550 (1,784-3,331)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	469 (291-1,499)	884 (561-1,557)	1,733 (1,019-2,572)	2,209 (1,428-2,994)
Second-hand smoke	0 (0-0)	0 (0-0)	89 (59-120)	115 (79-153)	168 (111-227)	232 (146-327)	341 (228-465)
Alcohol and drug use	1,474 (1,200-1,783)	2,670 (2,157-3,217)	2,707 (2,172-3,284)	2,191 (1,812-2,634)	2,236 (1,872-2,785)	2,187 (1,869-2,660)	2,279 (1,979-2,685)
Alcohol use	863 (714-1,055)	1,161 (973-1,390)	1,150 (966-1,361)	1,087 (919-1,278)	1,421 (1,181-1,930)	1,588 (1,350-2,002)	1,857 (1,598-2,223)
Drug use	613 (453-818)	1,512 (1,127-1,910)	1,561 (1,176-2,010)	1,109 (848-1,417)	822 (639-1,036)	608 (477-765)	437 (343-545)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	664 (543-821)	839 (677-1,024)	1,439 (1,159-1,767)	1,947 (1,573-2,365)	2,968 (2,484-3,535)
High total cholesterol	0 (0-0)	0 (0-0)	127 (78-184)	168 (103-246)	358 (243-494)	541 (357-746)	996 (728-1,271)
High blood pressure	0 (0-0)	0 (0-0)	546 (391-732)	631 (444-836)	1,453 (1,143-1,780)	2,021 (1,573-2,498)	3,912 (3,336-4,499)
High body-mass index	0 (0-0)	0 (0-0)	797 (614-1,004)	989 (760-1,240)	1,967 (1,537-2,443)	2,596 (2,024-3,202)	4,023 (3,226-4,914)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	1,450 (1,260-1,652)	1,996 (1,771-2,247)	3,087 (2,720-3,476)	4,761 (4,184-5,288)	6,474 (5,794-7,191)
Diet low in vegetables	0 (0-0)	0 (0-0)	616 (465-762)	802 (619-1,005)	1,236 (948-1,519)	1,976 (1,516-2,400)	2,709 (2,109-3,259)
Diet low in whole grains	0 (0-0)	0 (0-0)	304 (189-417)	376 (237-511)	534 (323-739)	784 (487-1,087)	1,037 (623-1,415)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	341 (262-426)	443 (336-551)	641 (490-793)	944 (738-1,152)	1,188 (937-1,451)
Diet low in milk	0 (0-0)	0 (0-0)	301 (197-409)	402 (259-543)	562 (362-745)	861 (527-1,158)	1,111 (709-1,455)
Diet high in red meat	0 (0-0)	0 (0-0)	16 (4-29)	22 (6-38)	35 (9-61)	53 (16-93)	74 (20-128)
Diet high in processed meat	0 (0-0)	0 (0-0)	22 (8-40)	34 (13-59)	54 (20-92)	74 (28-127)	87 (35-147)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	182 (82-304)	250 (119-417)	343 (166-558)	495 (222-801)	619 (273-980)
Diet low in fibre	0 (0-0)	0 (0-0)	68 (32-101)	82 (35-121)	98 (42-209)	133 (52-323)	150 (63-302)
Diet low in calcium	0 (0-0)	0 (0-0)	115 (53-182)	149 (69-232)	216 (98-339)	318 (144-497)	404 (182-632)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	20 (12-28)	27 (17-37)	41 (28-59)	62 (44-87)	84 (59-114)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	177 (122-243)	230 (157-318)	315 (221-429)	487 (328-676)	617 (423-818)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	85 (42-130)	111 (53-171)	150 (72-236)	219 (106-346)	276 (131-424)
Diet high in sodium	0 (0-0)	0 (0-0)	99 (69-136)	128 (89-173)	171 (122-230)	252 (173-339)	315 (222-410)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	296 (157-413)	408 (265-536)	609 (378-874)	1,012 (636-1,402)	1,334 (877-1,770)
Occupational risk factors							
Occupational carcinogens	657 (471-879)	982 (715-1,298)	1,202 (875-1,600)	1,307 (951-1,746)	1,524 (1,094-2,046)	1,657 (1,182-2,231)	1,636 (1,162-2,185)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Occupational exposure to asbestos	2 (1-3)	2 (1-3)	2 (1-3)	2 (1-4)	4 (1-5)	6 (3-9)	10 (4-14)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-3)
Occupational exposure to benzene	3 (1-6)	7 (2-13)	6 (2-11)	6 (2-10)	3 (1-5)	3 (1-6)	1 (1-3)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	1 (1-2)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-3)	4 (2-7)	7 (3-12)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	1 (0-2)	2 (1-3)	4 (2-7)	8 (4-12)	15 (8-23)
Occupational exposure to formaldehyde	1 (0-1)	1 (0-3)	1 (0-2)	1 (0-3)	1 (0-1)	1 (0-2)	0 (0-1)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (0-4)	3 (1-7)	6 (1-13)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	1 (0-2)	2 (1-4)
Occupational exposure to silica	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (1-2)	2 (1-4)	4 (2-7)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	1 (0-2)
Occupational asthmagens	67 (36-110)	73 (43-114)	63 (38-98)	55 (34-82)	59 (36-91)	60 (39-90)	64 (41-94)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	133 (57-227)	151 (63-256)	197 (85-329)	231 (99-385)	266 (118-439)
Occupational noise	50 (28-86)	82 (44-139)	106 (60-179)	128 (71-209)	124 (73-207)	140 (81-232)	138 (81-223)
Occupational risk factors for injuries	110 (85-142)	163 (125-215)	163 (122-214)	139 (106-185)	127 (90-179)	106 (76-145)	80 (58-113)
Occupational low back pain	424 (272-618)	654 (435-932)	726 (486-1,019)	820 (550-1,149)	1,000 (670-1,408)	1,089 (725-1,538)	1,040 (695-1,466)
Sexual abuse and violence	2,380 (1,594-3,553)	2,868 (2,035-3,986)	2,530 (1,818-3,418)	2,157 (1,594-2,912)	2,015 (1,439-2,708)	1,807 (1,286-2,481)	1,520 (1,069-2,093)
Childhood sexual abuse	603 (410-887)	568 (391-806)	481 (335-661)	406 (294-544)	381 (278-515)	358 (261-479)	316 (234-420)
Intimate partner violence	1,954 (1,136-3,109)	2,477 (1,635-3,546)	2,194 (1,476-3,033)	1,868 (1,310-2,597)	1,740 (1,186-2,421)	1,546 (1,029-2,219)	1,283 (834-1,844)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Unimproved water and sanitation	138 (5-278)	152 (6-318)	184 (7-398)	179 (6-393)	172 (6-377)	115 (4-253)	102 (4-226)
Unimproved water source	45 (3-92)	46 (3-102)	53 (3-115)	52 (3-116)	47 (3-108)	32 (2-75)	28 (2-66)
Unimproved sanitation	101 (2-211)	115 (3-249)	141 (4-320)	137 (3-315)	134 (3-314)	89 (2-206)	79 (2-180)
Air pollution							
Ambient particulate matter pollution	2,161 (1,574-2,726)	2,753 (1,957-3,493)	2,941 (2,113-3,685)	2,908 (2,066-3,714)	3,190 (2,253-4,069)	2,694 (1,894-3,383)	3,145 (2,299-3,970)
Household air pollution from solid fuels	2,810 (2,007-3,671)	3,565 (2,489-4,716)	3,869 (2,783-5,028)	4,008 (2,840-5,300)	4,098 (2,957-5,459)	3,195 (2,281-4,288)	2,996 (2,076-4,123)
Ambient ozone pollution	55 (17-101)	98 (31-181)	131 (43-238)	158 (48-281)	176 (60-317)	145 (47-253)	163 (53-288)
Other environmental risks	547 (424-687)	698 (542-864)	767 (599-948)	800 (634-978)	860 (686-1,037)	728 (597-871)	807 (670-950)
Residential radon	70 (9-157)	90 (14-205)	90 (12-201)	82 (12-181)	74 (11-165)	53 (8-123)	37 (5-81)
Lead exposure	478 (384-589)	608 (486-742)	678 (540-833)	718 (578-868)	786 (637-953)	675 (560-812)	770 (643-904)
Child and maternal undernutrition	776 (528-1,104)	601 (412-851)	457 (318-647)	340 (240-486)	292 (208-411)	234 (166-327)	236 (169-324)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	776 (528-1,104)	601 (412-851)	457 (318-647)	340 (240-486)	292 (208-411)	234 (166-327)	236 (169-324)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	3,594 (2,471-4,446)	4,637 (3,128-5,618)	4,848 (3,262-5,941)	4,663 (3,165-5,670)	4,724 (3,118-5,779)	3,634 (2,470-4,496)	4,167 (2,847-5,109)
Tobacco smoking	3,145 (1,992-4,008)	4,072 (2,503-5,090)	4,247 (2,670-5,330)	4,061 (2,522-5,109)	4,011 (2,380-5,118)	3,016 (1,842-3,870)	3,425 (2,069-4,366)
Second-hand smoke	448 (299-598)	565 (387-740)	601 (404-797)	602 (408-792)	714 (486-931)	618 (410-824)	742 (493-977)
Alcohol and drug use	2,346 (2,041-2,707)	2,428 (2,096-2,814)	2,110 (1,793-2,461)	1,413 (1,149-1,691)	1,803 (1,422-2,165)	1,480 (1,139-1,813)	2,061 (1,480-2,586)
Alcohol use	2,082 (1,807-2,427)	2,271 (1,949-2,642)	2,022 (1,707-2,374)	1,385 (1,124-1,666)	1,781 (1,401-2,145)	1,467 (1,126-1,802)	2,047 (1,467-2,574)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Drug use	283 (220-358)	179 (140-228)	108 (85-138)	28 (19-42)	22 (14-41)	13 (8-27)	14 (8-30)
Physiological risk factors							
High fasting plasma glucose	3,624 (3,056-4,285)	4,875 (4,143-5,674)	4,985 (4,262-5,711)	5,051 (4,359-5,746)	5,177 (4,394-5,957)	4,064 (3,458-4,679)	4,232 (3,524-4,911)
High total cholesterol	1,347 (995-1,734)	1,937 (1,438-2,475)	2,138 (1,585-2,709)	2,227 (1,656-2,808)	2,701 (1,909-3,502)	2,242 (1,530-3,022)	2,939 (2,167-3,784)
High blood pressure	4,990 (4,254-5,744)	7,504 (6,605-8,507)	8,037 (7,030-9,016)	9,461 (8,477-10,562)	11,041 (9,932-12,164)	10,420 (9,396-11,498)	13,976 (12,685-15,323)
High body-mass index	4,767 (3,856-5,740)	5,564 (4,573-6,685)	5,585 (4,622-6,674)	4,842 (3,997-5,766)	5,184 (4,323-6,120)	4,108 (3,381-4,873)	4,879 (3,990-5,835)
Low bone mineral density	197 (133-278)	252 (176-342)	244 (176-323)	277 (205-363)	265 (197-347)	325 (245-417)	552 (415-697)
Dietary risk factors and physical inactivity	8,549 (7,717-9,437)	10,676 (9,616-11,762)	11,420 (10,276-12,487)	11,843 (10,768-13,035)	13,668 (12,443-14,843)	12,189 (11,133-13,298)	16,197 (14,739-17,548)
Diet low in fruits	3,606 (2,836-4,305)	4,466 (3,439-5,411)	4,537 (3,529-5,520)	4,614 (3,500-5,668)	5,042 (3,822-6,192)	4,285 (3,251-5,249)	4,684 (3,532-5,796)
Diet low in vegetables	1,323 (835-1,835)	1,539 (984-2,101)	1,565 (1,007-2,127)	1,593 (1,035-2,182)	1,849 (1,216-2,510)	1,575 (1,052-2,138)	1,912 (1,248-2,586)
Diet low in whole grains	1,475 (1,145-1,768)	1,760 (1,358-2,127)	1,783 (1,386-2,157)	1,725 (1,344-2,092)	1,966 (1,542-2,370)	1,669 (1,299-2,022)	1,945 (1,502-2,353)
Diet low in nuts and seeds	1,506 (954-1,993)	1,913 (1,220-2,577)	2,093 (1,294-2,809)	2,136 (1,337-2,859)	2,533 (1,550-3,406)	2,185 (1,332-2,928)	3,072 (1,813-4,183)
Diet low in milk	99 (27-174)	119 (34-205)	117 (31-202)	106 (31-184)	110 (31-188)	89 (25-153)	91 (25-156)
Diet high in red meat	96 (41-160)	103 (46-168)	90 (43-147)	76 (36-121)	75 (35-120)	58 (28-90)	59 (28-92)
Diet high in processed meat	764 (307-1,246)	871 (327-1,415)	876 (304-1,458)	821 (261-1,414)	936 (282-1,596)	778 (228-1,303)	1,102 (302-1,923)
Diet high in sugar-sweetened beverages	174 (72-359)	235 (76-407)	221 (71-384)	259 (82-403)	236 (78-386)	193 (120-420)	258 (112-494)
Diet low in fibre	507 (230-782)	604 (274-936)	601 (272-937)	571 (255-893)	676 (291-1,068)	594 (262-954)	804 (347-1,288)
Diet low in calcium	112 (77-149)	133 (92-177)	128 (90-175)	115 (80-150)	118 (79-154)	93 (63-123)	86 (58-114)
Diet low in seafood omega-3 fatty acids	830 (594-1,094)	1,041 (739-1,363)	1,125 (782-1,476)	1,136 (821-1,498)	1,338 (948-1,754)	1,117 (808-1,448)	1,484 (1,078-1,929)
Diet low in polyunsaturated fatty acids	365 (171-568)	442 (212-686)	471 (221-735)	468 (226-738)	529 (259-820)	443 (214-686)	601 (288-928)
Diet high in trans fatty acids	402 (290-522)	461 (327-598)	493 (353-652)	470 (338-619)	501 (365-647)	412 (299-528)	549 (390-718)
Diet high in sodium	1,876 (1,211-2,501)	2,474 (1,589-3,299)	2,794 (1,814-3,739)	3,029 (1,932-4,041)	3,430 (2,177-4,581)	2,965 (1,888-3,989)	3,625 (2,272-4,929)
Physical inactivity and low physical activity	2,862 (2,422-3,326)	3,482 (2,938-4,061)	3,655 (3,118-4,230)	3,626 (3,073-4,193)	4,081 (3,407-4,816)	3,512 (2,894-4,118)	4,538 (3,634-5,414)

Web table 3: Global DALYs (in thousands) attributable to risk factors by age and sex in 2010

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Occupational risk factors	1,533 (1,099–2,045)	1,369 (988–1,835)	1,031 (740–1,389)	484 (338–651)	451 (309–610)	308 (203–425)	30 (17–42)
Occupational carcinogens	65 (39–97)	103 (60–157)	99 (56–148)	67 (39–97)	63 (35–91)	32 (18–45)	30 (17–42)
Occupational exposure to asbestos	13 (6–20)	16 (7–23)	17 (8–24)	16 (7–22)	16 (7–22)	13 (6–18)	14 (7–19)
Occupational exposure to arsenic	2 (1–4)	4 (1–7)	3 (1–7)	2 (1–4)	2 (1–4)	1 (0–1)	1 (0–1)
Occupational exposure to benzene	1 (0–2)	2 (1–4)	2 (1–3)	2 (1–4)	2 (1–3)	2 (1–4)	1 (0–2)
Occupational exposure to beryllium	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	0 (0–1)	1 (0–1)	1 (0–1)	0 (0–1)	0 (0–1)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	2 (1–3)	3 (1–5)	3 (1–4)	2 (1–2)	1 (1–2)	1 (0–1)	0 (0–1)
Occupational exposure to diesel engine exhaust	10 (5–16)	17 (9–27)	16 (8–25)	9 (5–15)	9 (4–14)	3 (1–5)	3 (1–5)
Occupational exposure to second-hand smoke	20 (11–30)	34 (20–49)	32 (18–48)	20 (11–28)	18 (9–26)	7 (3–9)	6 (3–9)
Occupational exposure to formaldehyde	0 (0–1)	0 (0–1)	0 (0–1)	0 (0–1)	0 (0–1)	0 (0–1)	0 (0–0)
Occupational exposure to nickel	8 (2–16)	13 (3–29)	12 (3–27)	7 (2–16)	7 (2–15)	3 (1–6)	2 (1–5)
Occupational exposure to polycyclic aromatic hydrocarbons	3 (1–5)	5 (2–8)	5 (2–8)	3 (1–5)	3 (1–4)	1 (0–2)	1 (0–2)
Occupational exposure to silica	6 (3–9)	10 (6–16)	9 (5–14)	6 (3–9)	5 (3–8)	2 (1–3)	2 (1–3)
Occupational exposure to sulfuric acid	1 (0–2)	1 (0–2)	1 (0–3)	1 (0–1)	1 (0–2)	0 (0–1)	0 (0–0)
Occupational asthmagens	60 (40–89)	57 (37–85)	44 (27–68)	23 (13–36)	20 (11–33)	15 (9–23)	0 (0–0)
Occupational particulate matter, gases, and fumes	305 (137–493)	350 (159–569)	329 (144–546)	177 (71–300)	180 (75–307)	142 (58–240)	0 (0–0)
Occupational noise	149 (89–239)	94 (53–155)	87 (49–145)	30 (17–49)	31 (18–52)	8 (3–14)	0 (0–0)
Occupational risk factors for injuries	58 (42–81)	36 (25–50)	18 (13–26)	6 (4–8)	3 (3–5)	1 (1–1)	0 (0–0)
Occupational low back pain	897 (597–1,253)	730 (480–1,024)	454 (296–642)	182 (116–266)	153 (99–222)	110 (71–161)	0 (0–0)
Sexual abuse and violence	1,296 (909–1,810)	1,052 (721–1,464)	736 (509–1,041)	492 (334–690)	371 (246–525)	244 (161–343)	218 (145–317)
Childhood sexual abuse	276 (203–371)	224 (164–299)	153 (114–206)	95 (69–127)	65 (47–88)	40 (29–55)	33 (24–45)
Intimate partner violence	1,088 (694–1,591)	881 (559–1,282)	619 (397–915)	420 (263–616)	322 (201–475)	212 (133–311)	191 (120–287)

0 indicates zero deaths attributable; blank cells indicate that attributable deaths were not quantified

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Unimproved water and sanitation	52,169 (2,700-93,073)	1,535 (71-2,871)	3,693 (183-6,757)	19,101 (981-34,717)	17,174 (932-30,328)	2,410 (106-4,483)	1,035 (43-1,998)
Unimproved water source	21,172 (1,517-40,491)	607 (42-1,197)	1,465 (104-2,893)	7,759 (559-15,141)	7,183 (530-13,717)	932 (63-1,842)	408 (25-830)
Unimproved sanitation	36,050 (1,115-66,871)	1,076 (30-2,109)	2,578 (81-4,904)	13,161 (405-24,937)	11,730 (377-21,680)	1,701 (46-3,273)	723 (18-1,438)
Air pollution							
Ambient particulate matter pollution	81,699 (71,012-92,859)	2,910 (1,926-4,014)	3,045 (2,083-4,107)	12,321 (8,469-16,159)	8,225 (5,658-11,004)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	170,693 (139,087-199,504)	10,088 (7,130-12,913)	10,709 (7,702-13,500)	42,869 (31,206-53,102)	30,083 (22,143-38,133)	0 (0-0)	0 (0-0)
Ambient ozone pollution	2,534 (851-4,426)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	5,365 (4,534-6,279)	0 (0-0)	0 (0-0)	0 (0-0)	9 (4-16)	27 (14-46)	17 (9-29)
Residential radon							
Lead exposure	5,365 (4,534-6,279)	0 (0-0)	0 (0-0)	0 (0-0)	9 (4-16)	27 (14-46)	17 (9-29)
Child and maternal undernutrition	339,965 (289,845-402,489)	0 (0-0)	21,231 (13,610-28,398)	147,452 (123,776-172,966)	135,125 (111,065-169,647)	7,628 (5,130-11,002)	5,169 (3,478-7,459)
Suboptimal breastfeeding	110,261 (69,615-153,539)	0 (0-0)	21,227 (13,607-28,395)	81,098 (49,773-115,296)	7,936 (845-16,932)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	96,330 (57,274-135,861)	0 (0-0)	21,227 (13,607-28,395)	75,102 (43,823-107,837)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	13,931 (1,443-30,062)	0 (0-0)	0 (0-0)	5,996 (591-13,535)	7,936 (845-16,932)	0 (0-0)	0 (0-0)
Childhood underweight	197,741 (169,224-238,276)	0 (0-0)	0 (0-0)	97,653 (84,072-114,151)	100,088 (83,373-124,897)	0 (0-0)	0 (0-0)
Iron deficiency	51,841 (37,477-71,202)	0 (0-0)	3 (2-5)	3,973 (2,930-5,403)	11,706 (8,190-16,430)	7,628 (5,130-11,002)	5,169 (3,478-7,459)
Vitamin A deficiency	30,288 (14,884-54,488)	0 (0-0)	0 (0-0)	7,636 (3,529-13,078)	22,652 (11,177-42,339)	0 (0-0)	0 (0-0)
Zinc deficiency	24,375 (5,385-45,685)	0 (0-0)	0 (0-0)	0 (0-0)	24,375 (5,385-45,685)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	151,766 (136,367-169,522)	3,178 (2,150-4,265)	3,429 (2,357-4,558)	14,537 (10,246-18,781)	9,270 (6,514-12,127)	0 (0-0)	0 (0-0)
Tobacco smoking	113,740 (100,454-131,675)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	38,026 (28,832-47,544)	3,178 (2,150-4,265)	3,429 (2,357-4,558)	14,537 (10,246-18,781)	9,270 (6,514-12,127)	0 (0-0)	0 (0-0)
Alcohol and drug use	88,510 (78,717-98,794)	36 (23-58)	30 (16-49)	145 (94-247)	532 (322-820)	277 (214-352)	524 (413-667)
Alcohol use	73,715 (66,090-82,089)	19 (13-30)	11 (6-19)	82 (54-114)	386 (233-580)	242 (190-292)	420 (335-523)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Drug use	15,171 (11,714–19,369)	16 (6–37)	19 (7–37)	63 (29–150)	146 (50–304)	35 (15–74)	104 (66–161)
Physiological risk factors							
High fasting plasma glucose	56,358 (48,720–65,030)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	39,526 (32,704–47,202)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	137,017 (124,360–149,366)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	51,565 (40,786–62,557)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	3,125 (2,589–3,811)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	172,929 (160,885–185,502)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	80,453 (63,298–95,763)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	31,558 (21,349–41,921)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	29,404 (23,097–35,134)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	40,525 (26,308–51,741)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	1,527 (461–2,555)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	1,208 (571–1,909)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	17,359 (5,137–27,949)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	3,756 (2,332–5,389)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	13,347 (5,970–20,751)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	1,836 (1,316–2,368)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	21,740 (15,869–27,537)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	9,912 (4,655–14,976)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	8,064 (5,893–10,305)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	46,183 (30,363–60,604)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, All Ages	Both Sexes, 0-6 Days	Both Sexes, 7-27 Days	Both Sexes, 28-364 Days	Both Sexes, 1-4 Years	Both Sexes, 5-9 Years	Both Sexes, 10-14 Years
Occupational risk factors	55,414 (45,312–66,718)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	1,758 (1,220–2,477)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	484 (354–695)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	41 (16–77)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	65 (27–112)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	2 (1–4)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	7 (3–12)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	26 (16–40)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	332 (192–517)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	358 (255–500)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	18 (8–32)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	128 (34–266)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	54 (26–92)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	230 (154–328)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	57 (16–122)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	2,129 (1,419–3,222)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	9,552 (4,385–14,636)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	2,869 (1,698–4,582)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	21,265 (16,644–26,702)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	17,841 (11,846–24,945)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Unimproved water and sanitation	881 (38-1,689)	875 (37-1,638)	772 (36-1,434)	676 (33-1,242)	621 (31-1,128)	480 (24-897)	452 (22-833)
Unimproved water source	344 (22-708)	340 (22-691)	306 (21-604)	268 (18-537)	246 (18-484)	190 (14-376)	176 (13-348)
Unimproved sanitation	619 (17-1,225)	616 (16-1,197)	539 (16-1,046)	472 (14-903)	435 (12-815)	335 (11-642)	318 (9-606)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	1,260 (915-1,588)	1,704 (1,246-2,137)	2,336 (1,788-2,908)	3,025 (2,277-3,803)	3,657 (2,687-4,565)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	2,011 (1,532-2,534)	2,579 (1,944-3,230)	3,405 (2,574-4,286)	4,176 (3,145-5,189)	5,080 (3,879-6,320)
Ambient ozone pollution	0 (0-0)	0 (0-0)	25 (8-46)	29 (9-53)	50 (16-89)	63 (20-114)	97 (30-173)
Other environmental risks	0 (0-0)	0 (0-0)	250 (145-376)	320 (198-464)	270 (219-337)	350 (286-425)	407 (340-479)
Residential radon							
Lead exposure	0 (0-0)	0 (0-0)	250 (145-376)	320 (198-464)	270 (219-337)	350 (286-425)	407 (340-479)
Child and maternal undernutrition	3,801 (2,743-5,233)	3,918 (2,919-5,137)	3,284 (2,423-4,305)	2,765 (2,063-3,641)	2,458 (1,834-3,255)	1,718 (1,257-2,286)	1,262 (916-1,710)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	3,801 (2,743-5,233)	3,918 (2,919-5,137)	3,284 (2,423-4,305)	2,765 (2,063-3,641)	2,458 (1,834-3,255)	1,718 (1,257-2,286)	1,262 (916-1,710)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	186 (125-244)	3,195 (2,435-4,208)	5,098 (3,493-6,822)	7,911 (6,329-9,627)	9,304 (8,084-10,829)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	2,953 (2,205-3,980)	4,852 (3,233-6,610)	7,608 (5,984-9,364)	8,889 (7,606-10,392)
Second-hand smoke	0 (0-0)	0 (0-0)	186 (125-244)	241 (166-313)	246 (162-336)	303 (198-422)	416 (273-562)
Alcohol and drug use	5,628 (4,733-6,618)	9,112 (7,584-10,715)	9,014 (7,565-10,577)	7,952 (6,797-9,194)	8,921 (7,755-10,196)	7,705 (6,806-8,690)	6,935 (6,166-7,767)
Alcohol use	4,318 (3,656-5,090)	5,729 (4,853-6,691)	5,604 (4,792-6,477)	5,539 (4,804-6,345)	7,326 (6,438-8,418)	6,766 (6,007-7,696)	6,384 (5,673-7,173)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Drug use	1,320 (984–1,757)	3,422 (2,592–4,367)	3,452 (2,578–4,421)	2,447 (1,853–3,152)	1,634 (1,251–2,100)	973 (755–1,256)	587 (460–749)
Physiological risk factors							
High fasting plasma glucose	0 (0–0)	0 (0–0)	1,144 (948–1,381)	1,492 (1,231–1,804)	2,528 (2,115–3,011)	2,920 (2,427–3,487)	4,282 (3,640–4,987)
High total cholesterol	0 (0–0)	0 (0–0)	454 (332–600)	698 (524–909)	1,389 (1,121–1,690)	1,888 (1,541–2,311)	2,608 (2,149–3,149)
High blood pressure	0 (0–0)	0 (0–0)	1,671 (1,272–2,078)	2,153 (1,665–2,632)	3,925 (3,270–4,584)	4,891 (4,069–5,698)	7,844 (6,937–8,811)
High body-mass index	0 (0–0)	0 (0–0)	1,032 (720–1,370)	1,346 (944–1,777)	2,491 (1,876–3,133)	3,093 (2,350–3,889)	3,972 (3,106–4,905)
Low bone mineral density	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity							
	0 (0–0)	0 (0–0)	3,178 (2,854–3,473)	4,563 (4,163–4,928)	6,524 (5,925–7,131)	8,808 (8,073–9,575)	11,213 (10,183–12,231)
Diet low in fruits	0 (0–0)	0 (0–0)	1,733 (1,375–2,072)	2,393 (1,854–2,834)	3,375 (2,650–4,059)	4,575 (3,581–5,460)	5,894 (4,590–7,089)
Diet low in vegetables	0 (0–0)	0 (0–0)	860 (540–1,152)	1,137 (750–1,504)	1,489 (953–1,985)	1,907 (1,224–2,559)	2,327 (1,476–3,119)
Diet low in whole grains	0 (0–0)	0 (0–0)	834 (658–994)	1,145 (905–1,355)	1,545 (1,210–1,847)	1,947 (1,538–2,338)	2,265 (1,784–2,705)
Diet low in nuts and seeds	0 (0–0)	0 (0–0)	912 (628–1,124)	1,324 (902–1,643)	1,786 (1,222–2,248)	2,339 (1,571–2,949)	2,777 (1,852–3,511)
Diet low in milk	0 (0–0)	0 (0–0)	38 (10–64)	56 (17–96)	75 (23–126)	89 (27–148)	112 (33–189)
Diet high in red meat	0 (0–0)	0 (0–0)	39 (16–66)	60 (25–101)	86 (36–144)	101 (41–168)	109 (48–176)
Diet high in processed meat	0 (0–0)	0 (0–0)	407 (150–646)	631 (230–1,012)	875 (317–1,369)	1,161 (397–1,858)	1,331 (422–2,116)
Diet high in sugar-sweetened beverages	0 (0–0)	0 (0–0)	152 (100–209)	182 (128–242)	238 (90–379)	289 (102–452)	325 (121–514)
Diet low in fibre	0 (0–0)	0 (0–0)	406 (187–618)	567 (261–868)	760 (348–1,167)	925 (422–1,418)	1,047 (466–1,630)
Diet low in calcium	0 (0–0)	0 (0–0)	48 (31–63)	71 (45–91)	94 (65–121)	107 (76–135)	131 (94–165)
Diet low in seafood omega-3 fatty acids	0 (0–0)	0 (0–0)	549 (402–687)	787 (578–985)	1,042 (761–1,300)	1,366 (997–1,742)	1,594 (1,151–2,017)
Diet low in polyunsaturated fatty acids	0 (0–0)	0 (0–0)	264 (128–395)	370 (182–556)	491 (232–746)	627 (294–946)	731 (343–1,109)
Diet high in trans fatty acids	0 (0–0)	0 (0–0)	200 (143–258)	287 (205–365)	387 (279–496)	520 (383–662)	621 (449–791)
Diet high in sodium	0 (0–0)	0 (0–0)	637 (333–916)	997 (631–1,351)	1,521 (966–2,083)	2,177 (1,430–2,913)	2,825 (1,915–3,710)
Physical inactivity and low physical activity							
	4,762 (3,838–5,821)	6,282 (5,034–7,682)	6,399 (5,238–7,706)	5,985 (4,858–7,249)	5,712 (4,594–6,986)	4,789 (3,838–5,879)	4,359 (3,479–5,380)
Occupational risk factors							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990							
Risk	Both Sexes, 15-19 Years	Both Sexes, 20-24 Years	Both Sexes, 25-29 Years	Both Sexes, 30-34 Years	Both Sexes, 35-39 Years	Both Sexes, 40-44 Years	Both Sexes, 45-49 Years
Occupational carcinogens	15 (10–21)	20 (13–29)	24 (16–35)	29 (20–42)	49 (34–70)	74 (50–104)	132 (90–190)
Occupational exposure to asbestos	7 (5–10)	7 (5–10)	6 (4–9)	8 (5–11)	12 (8–16)	19 (13–27)	29 (21–41)
Occupational exposure to arsenic	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–1)	1 (0–2)	2 (1–3)	4 (1–7)
Occupational exposure to benzene	7 (3–12)	11 (4–19)	10 (4–18)	9 (4–16)	5 (2–9)	4 (2–7)	2 (1–4)
Occupational exposure to beryllium	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–1)	1 (0–1)
Occupational exposure to chromium	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	1 (0–1)	1 (1–2)	2 (1–3)
Occupational exposure to diesel engine exhaust	0 (0–0)	0 (0–0)	2 (1–2)	3 (2–4)	9 (5–13)	13 (7–20)	27 (16–43)
Occupational exposure to second-hand smoke	0 (0–0)	0 (0–0)	2 (1–3)	3 (2–5)	10 (7–14)	15 (10–21)	30 (21–43)
Occupational exposure to formaldehyde	1 (1–2)	3 (1–4)	2 (1–4)	2 (1–4)	2 (1–3)	2 (1–3)	1 (0–2)
Occupational exposure to nickel	0 (0–0)	0 (0–0)	1 (0–1)	1 (0–2)	3 (1–7)	5 (1–11)	11 (3–23)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–1)	1 (1–2)	2 (1–4)	5 (2–7)
Occupational exposure to silica	0 (0–0)	0 (0–0)	1 (1–2)	2 (1–3)	6 (4–9)	9 (6–13)	19 (12–27)
Occupational exposure to sulfuric acid	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–1)	1 (0–3)	3 (1–6)	5 (2–12)
Occupational asthmagens	209 (135–306)	208 (137–297)	181 (123–259)	156 (107–224)	170 (113–251)	158 (106–238)	179 (115–298)
Occupational particulate matter, gases, and fumes	0 (0–0)	0 (0–0)	405 (186–657)	468 (217–755)	602 (281–950)	650 (310–995)	794 (391–1,218)
Occupational noise	174 (94–295)	239 (131–403)	291 (163–485)	343 (194–568)	310 (181–505)	292 (171–472)	275 (163–433)
Occupational risk factors for injuries	2,898 (2,201–3,741)	3,991 (3,026–5,040)	3,630 (2,801–4,653)	3,001 (2,337–3,786)	2,477 (1,866–3,214)	1,733 (1,321–2,274)	1,285 (972–1,666)
Occupational low back pain	1,466 (958–2,091)	1,823 (1,199–2,577)	1,867 (1,231–2,599)	1,987 (1,315–2,779)	2,104 (1,398–2,928)	1,882 (1,249–2,623)	1,693 (1,127–2,363)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Unimproved water and sanitation	452 (21-835)	447 (22-847)	486 (22-896)	398 (21-748)	305 (14-558)	202 (9-372)	174 (9-324)
Unimproved water source	176 (12-345)	170 (11-342)	186 (13-372)	153 (11-309)	119 (8-236)	78 (5-155)	65 (4-130)
Unimproved sanitation	319 (9-613)	318 (10-623)	345 (10-670)	281 (9-549)	215 (7-412)	142 (4-275)	124 (4-241)
Air pollution							
Ambient particulate matter pollution	5,582 (4,159-6,983)	6,563 (4,828-8,207)	7,885 (5,881-9,689)	7,377 (5,294-9,410)	6,221 (4,414-7,891)	5,100 (3,579-6,369)	4,489 (3,247-5,659)
Household air pollution from solid fuels	7,668 (5,879-9,620)	9,110 (6,724-11,326)	10,997 (8,273-13,654)	10,538 (7,647-13,189)	9,314 (6,871-11,540)	6,777 (5,035-8,421)	5,289 (4,022-6,522)
Ambient ozone pollution	179 (57-314)	263 (88-456)	390 (129-683)	428 (142-748)	412 (134-726)	322 (108-565)	276 (91-492)
Other environmental risks	584 (489-684)	652 (553-771)	753 (634-879)	674 (574-786)	492 (419-573)	345 (297-399)	215 (182-249)
Residential radon							
Lead exposure	584 (489-684)	652 (553-771)	753 (634-879)	674 (574-786)	492 (419-573)	345 (297-399)	215 (182-249)
Child and maternal undernutrition	1,025 (715-1,431)	850 (597-1,195)	739 (523-1,031)	552 (398-760)	407 (293-558)	313 (228-429)	272 (208-359)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,025 (715-1,431)	850 (597-1,195)	739 (523-1,031)	552 (398-760)	407 (293-558)	313 (228-429)	272 (208-359)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	13,775 (11,866-15,749)	16,747 (14,544-19,051)	19,420 (17,017-22,411)	17,269 (14,981-20,070)	12,854 (11,100-15,231)	9,275 (8,069-11,039)	6,317 (5,609-7,452)
Tobacco smoking	13,135 (11,153-15,181)	15,969 (13,705-18,313)	18,428 (16,091-21,493)	16,226 (13,891-19,137)	11,891 (10,085-14,358)	8,357 (7,100-10,183)	5,431 (4,711-6,669)
Second-hand smoke	640 (422-839)	778 (520-1,030)	992 (672-1,284)	1,043 (691-1,349)	963 (643-1,255)	918 (606-1,193)	886 (596-1,145)
Alcohol and drug use	7,551 (6,782-8,397)	6,883 (6,195-7,606)	6,541 (5,886-7,238)	3,729 (3,256-4,217)	2,676 (2,260-3,120)	2,316 (1,900-2,745)	2,004 (1,502-2,487)
Alcohol use	7,191 (6,451-8,008)	6,656 (5,994-7,356)	6,390 (5,716-7,108)	3,692 (3,224-4,180)	2,658 (2,243-3,100)	2,305 (1,890-2,735)	1,997 (1,493-2,477)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Drug use	403 (320-520)	275 (226-336)	201 (167-247)	37 (27-55)	18 (13-30)	11 (8-22)	7 (5-14)
Physiological risk factors							
High fasting plasma glucose	5,699 (4,853-6,635)	7,319 (6,325-8,408)	8,204 (7,074-9,431)	7,678 (6,659-8,748)	6,090 (5,275-6,952)	5,005 (4,333-5,699)	3,997 (3,400-4,615)
High total cholesterol	3,963 (3,285-4,769)	4,637 (3,861-5,556)	5,950 (5,015-7,077)	5,642 (4,706-6,700)	4,509 (3,670-5,470)	4,113 (3,100-5,176)	3,675 (3,051-4,378)
High blood pressure	11,326 (9,986-12,688)	15,565 (14,144-17,099)	18,789 (17,122-20,518)	20,302 (18,779-21,990)	17,398 (15,983-18,870)	16,798 (15,609-18,085)	16,355 (15,177-17,548)
High body-mass index	5,485 (4,299-6,699)	6,151 (4,895-7,441)	7,415 (5,987-8,869)	6,633 (5,354-7,911)	5,215 (4,214-6,238)	4,722 (3,819-5,642)	4,011 (3,189-4,849)
Low bone mineral density	364 (281-463)	410 (319-529)	469 (378-582)	477 (381-602)	406 (328-516)	440 (358-540)	559 (455-681)
Dietary risk factors and physical inactivity	16,992 (15,592-18,348)	20,025 (18,412-21,778)	24,185 (22,361-26,078)	23,520 (21,692-25,406)	19,876 (18,142-21,541)	17,703 (16,251-19,023)	16,341 (14,856-17,805)
Diet low in fruits	8,865 (7,020-10,585)	10,262 (8,115-12,234)	11,491 (9,021-13,818)	10,671 (8,317-12,855)	8,691 (6,689-10,512)	7,019 (5,413-8,526)	5,483 (4,176-6,823)
Diet low in vegetables	3,373 (2,203-4,537)	3,703 (2,407-4,992)	4,293 (2,897-5,702)	3,960 (2,663-5,335)	3,227 (2,117-4,333)	2,849 (1,889-3,787)	2,433 (1,566-3,288)
Diet low in whole grains	3,204 (2,538-3,827)	3,495 (2,760-4,199)	3,981 (3,119-4,769)	3,589 (2,799-4,334)	2,901 (2,272-3,508)	2,469 (1,919-2,996)	2,029 (1,558-2,461)
Diet low in nuts and seeds	4,147 (2,753-5,279)	4,592 (3,014-5,851)	5,573 (3,611-7,110)	5,277 (3,363-6,810)	4,257 (2,666-5,544)	3,872 (2,402-5,140)	3,670 (2,207-4,955)
Diet low in milk	158 (48-266)	190 (58-317)	220 (66-372)	205 (62-346)	159 (48-267)	131 (39-223)	94 (28-160)
Diet high in red meat	136 (62-219)	145 (68-228)	155 (73-241)	136 (63-209)	99 (47-154)	83 (37-128)	61 (27-94)
Diet high in processed meat	1,850 (553-3,006)	1,977 (582-3,193)	2,323 (651-3,828)	2,137 (573-3,531)	1,640 (428-2,730)	1,552 (394-2,589)	1,474 (356-2,515)
Diet high in sugar-sweetened beverages	425 (150-669)	429 (275-680)	461 (287-739)	406 (242-646)	329 (182-558)	265 (128-407)	255 (102-334)
Diet low in fibre	1,456 (650-2,282)	1,544 (702-2,394)	1,734 (772-2,718)	1,553 (691-2,442)	1,262 (563-1,988)	1,103 (488-1,736)	991 (423-1,597)
Diet low in calcium	183 (135-235)	222 (163-285)	257 (186-332)	243 (171-316)	197 (137-262)	163 (109-223)	121 (76-169)
Diet low in seafood omega-3 fatty acids	2,347 (1,696-3,006)	2,511 (1,829-3,186)	2,995 (2,178-3,847)	2,757 (2,008-3,521)	2,166 (1,573-2,776)	1,911 (1,371-2,443)	1,714 (1,223-2,202)
Diet low in polyunsaturated fatty acids	1,055 (502-1,610)	1,144 (549-1,747)	1,348 (622-2,070)	1,242 (592-1,891)	979 (462-1,494)	871 (411-1,339)	790 (370-1,217)
Diet high in trans fatty acids	844 (614-1,091)	932 (679-1,202)	1,086 (788-1,396)	1,040 (755-1,327)	829 (598-1,066)	689 (495-881)	630 (453-807)
Diet high in sodium	4,453 (2,952-5,835)	5,497 (3,617-7,226)	6,864 (4,470-8,965)	6,849 (4,424-9,125)	5,656 (3,657-7,497)	4,728 (3,033-6,330)	3,979 (2,500-5,385)
Physical inactivity and low physical activity							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Both Sexes, 50-54 Years	Both Sexes, 55-59 Years	Both Sexes, 60-64 Years	Both Sexes, 65-69 Years	Both Sexes, 70-74 Years	Both Sexes, 75-79 Years	Both Sexes, 80+ Years
Occupational risk factors	4,538 (3,550-5,633)	4,182 (3,106-5,214)	3,631 (2,592-4,662)	2,002 (1,386-2,665)	1,659 (1,097-2,245)	1,063 (678-1,485)	52 (40-71)
Occupational carcinogens	211 (142-304)	310 (205-439)	351 (238-505)	237 (166-331)	166 (117-243)	86 (64-121)	52 (40-71)
Occupational exposure to asbestos	44 (31-62)	60 (43-87)	77 (56-112)	81 (59-116)	58 (42-85)	47 (34-68)	30 (23-44)
Occupational exposure to arsenic	6 (2-10)	9 (3-16)	9 (4-18)	5 (2-10)	4 (1-7)	1 (0-2)	1 (0-1)
Occupational exposure to benzene	2 (1-4)	3 (1-5)	3 (1-5)	3 (1-6)	3 (1-5)	3 (1-5)	1 (0-2)
Occupational exposure to beryllium	0 (0-1)	0 (0-1)	1 (0-1)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	1 (0-2)	2 (1-3)	2 (1-3)	1 (0-2)	1 (0-1)	0 (0-0)	0 (0-0)
Occupational exposure to chromium	4 (2-5)	5 (3-8)	6 (4-9)	3 (2-5)	2 (1-4)	1 (0-1)	0 (0-1)
Occupational exposure to diesel engine exhaust	46 (26-70)	69 (39-107)	76 (44-119)	42 (24-67)	29 (17-47)	10 (6-17)	6 (3-9)
Occupational exposure to second-hand smoke	49 (33-68)	74 (52-103)	81 (58-115)	45 (31-65)	31 (22-47)	11 (8-16)	6 (4-9)
Occupational exposure to formaldehyde	1 (0-2)	1 (0-2)	1 (0-2)	1 (0-2)	1 (0-1)	1 (0-1)	0 (0-0)
Occupational exposure to nickel	18 (5-36)	27 (7-55)	29 (8-60)	16 (4-34)	11 (3-24)	4 (1-8)	2 (1-5)
Occupational exposure to polycyclic aromatic hydrocarbons	7 (3-12)	11 (5-19)	12 (6-21)	7 (3-12)	5 (2-8)	2 (1-3)	1 (0-2)
Occupational exposure to silica	31 (20-45)	48 (31-69)	53 (35-76)	29 (19-44)	20 (14-31)	7 (5-11)	4 (3-6)
Occupational exposure to sulfuric acid	9 (3-20)	11 (3-24)	12 (3-26)	7 (2-16)	4 (1-10)	2 (0-4)	1 (0-2)
Occupational asthmagens	203 (128-343)	208 (127-344)	192 (115-337)	112 (64-197)	92 (52-160)	61 (35-109)	0 (0-0)
Occupational particulate matter, gases, and fumes	1,170 (555-1,779)	1,407 (649-2,167)	1,545 (698-2,392)	960 (420-1,559)	901 (389-1,455)	650 (285-1,048)	0 (0-0)
Occupational noise	320 (190-500)	218 (124-349)	217 (122-345)	87 (50-143)	83 (47-135)	19 (8-35)	0 (0-0)
Occupational risk factors for injuries	1,004 (765-1,288)	679 (514-880)	355 (269-458)	128 (95-170)	68 (51-90)	16 (12-20)	0 (0-0)
Occupational low back pain	1,629 (1,093-2,277)	1,361 (911-1,912)	971 (646-1,376)	478 (310-689)	349 (226-502)	230 (149-329)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Unimproved water and sanitation	27,045 (1,409-49,439)	839 (41-1,659)	2,035 (106-3,844)	10,145 (537-18,838)	8,709 (465-16,072)	1,266 (57-2,411)	526 (22-1,017)
Unimproved water source	11,075 (792-21,250)	337 (23-704)	811 (56-1,624)	4,157 (303-8,120)	3,713 (270-7,302)	492 (33-990)	206 (13-424)
Unimproved sanitation	18,610 (593-35,486)	583 (17-1,213)	1,418 (46-2,825)	6,962 (222-13,557)	5,895 (193-11,473)	892 (24-1,762)	368 (9-736)
Air pollution							
Ambient particulate matter pollution	46,667 (40,185-53,381)	1,710 (1,057-2,431)	1,739 (1,135-2,409)	6,727 (4,555-9,113)	4,362 (2,893-6,030)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	91,432 (71,850-109,298)	5,936 (3,829-7,906)	6,141 (4,125-8,001)	23,627 (16,670-30,164)	16,288 (11,339-21,432)	0 (0-0)	0 (0-0)
Ambient ozone pollution	1,409 (460-2,456)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	2,876 (2,406-3,459)	0 (0-0)	0 (0-0)	0 (0-0)	5 (2-10)	16 (8-27)	10 (5-17)
Residential radon							
Lead exposure	2,876 (2,406-3,459)	0 (0-0)	0 (0-0)	0 (0-0)	5 (2-10)	16 (8-27)	10 (5-17)
Child and maternal undernutrition	175,366 (146,049-211,406)	0 (0-0)	11,943 (7,210-16,418)	79,554 (65,288-95,221)	70,667 (57,021-91,212)	4,092 (2,717-5,950)	2,759 (1,840-4,025)
Suboptimal breastfeeding	59,902 (36,953-84,059)	0 (0-0)	11,942 (7,209-16,417)	44,001 (26,545-62,907)	3,959 (425-8,431)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	52,729 (30,540-75,288)	0 (0-0)	11,942 (7,209-16,417)	40,787 (23,469-59,694)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	7,173 (767-15,819)	0 (0-0)	0 (0-0)	3,214 (321-7,183)	3,959 (425-8,431)	0 (0-0)	0 (0-0)
Childhood underweight	104,713 (87,668-128,697)	0 (0-0)	0 (0-0)	52,369 (43,805-61,923)	52,344 (41,987-67,060)	0 (0-0)	0 (0-0)
Iron deficiency	21,451 (14,947-30,321)	0 (0-0)	1 (0-1)	2,175 (1,596-2,957)	6,072 (4,244-8,518)	4,092 (2,717-5,950)	2,759 (1,840-4,025)
Vitamin A deficiency	15,689 (7,475-29,165)	0 (0-0)	0 (0-0)	3,945 (1,802-6,813)	11,744 (5,410-22,805)	0 (0-0)	0 (0-0)
Zinc deficiency	12,666 (2,938-23,883)	0 (0-0)	0 (0-0)	0 (0-0)	12,666 (2,938-23,883)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	104,840 (91,849-119,255)	1,855 (1,146-2,571)	1,953 (1,274-2,671)	8,008 (5,455-10,613)	4,943 (3,281-6,727)	0 (0-0)	0 (0-0)
Tobacco smoking	84,956 (73,038-97,937)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	19,884 (14,493-25,591)	1,855 (1,146-2,571)	1,953 (1,274-2,671)	8,008 (5,455-10,613)	4,943 (3,281-6,727)	0 (0-0)	0 (0-0)
Alcohol and drug use	65,660 (57,545-73,925)	21 (12-39)	18 (8-34)	81 (46-150)	305 (172-486)	173 (130-232)	364 (284-469)
Alcohol use	55,770 (49,280-62,723)	11 (7-18)	6 (3-11)	48 (30-74)	238 (137-379)	153 (117-192)	304 (239-383)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Drug use	10,178 (7,787–13,073)	10 (3–25)	12 (3–26)	33 (11–91)	67 (16–159)	20 (6–55)	60 (37–98)
Physiological risk factors							
High fasting plasma glucose	30,177 (25,148–34,980)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	22,519 (18,230–27,029)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	73,120 (65,538–81,302)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	25,391 (19,752–31,108)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	1,764 (1,448–2,208)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity	100,320 (92,232–108,625)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fruits	47,979 (37,530–57,842)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	18,755 (12,859–24,939)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	17,033 (13,513–20,522)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	24,918 (16,268–31,946)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	818 (248–1,366)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	642 (306–1,014)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	10,477 (2,801–17,479)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	2,250 (1,365–3,267)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	8,485 (3,787–13,262)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	1,083 (752–1,406)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	13,620 (9,915–17,307)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	6,185 (2,891–9,362)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	4,979 (3,571–6,413)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	26,807 (17,646–35,273)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, All Ages	Males, 0-6 Days	Males, 7-27 Days	Males, 28-364 Days	Males, 1-4 Years	Males, 5-9 Years	Males, 10-14 Years
Occupational risk factors	42,660 (35,146–50,545)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	1,346 (917–1,958)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	362 (236–555)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	29 (11–56)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	36 (15–64)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	2 (1–3)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	5 (2–9)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	18 (11–28)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	278 (158–436)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	257 (173–383)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	11 (4–20)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	90 (24–191)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	41 (19–71)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	199 (129–297)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	52 (14–114)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	1,467 (874–2,439)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	6,808 (3,162–10,425)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	1,936 (1,149–3,103)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	20,175 (15,588–25,639)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	10,929 (7,340–15,116)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Unimproved water and sanitation	442 (18-869)	421 (19-814)	381 (19-730)	345 (16-649)	315 (16-596)	255 (13-490)	240 (12-475)
Unimproved water source	172 (10-358)	164 (11-335)	149 (10-309)	134 (8-272)	121 (9-243)	99 (7-201)	92 (6-193)
Unimproved sanitation	310 (8-632)	296 (8-599)	268 (8-535)	244 (7-475)	223 (7-436)	180 (6-366)	170 (5-349)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	766 (560-971)	1,076 (794-1,345)	1,481 (1,129-1,840)	1,933 (1,441-2,426)	2,338 (1,738-2,905)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	1,087 (755-1,425)	1,440 (1,010-1,892)	1,862 (1,316-2,459)	2,312 (1,612-2,990)	2,811 (1,983-3,615)
Ambient ozone pollution	0 (0-0)	0 (0-0)	12 (4-23)	15 (5-28)	25 (8-47)	34 (11-64)	55 (16-98)
Other environmental risks	0 (0-0)	0 (0-0)	79 (63-109)	112 (89-145)	149 (122-182)	197 (164-237)	246 (203-300)
Residential radon							
Lead exposure	0 (0-0)	0 (0-0)	79 (63-109)	112 (89-145)	149 (122-182)	197 (164-237)	246 (203-300)
Child and maternal undernutrition	1,188 (817-1,705)	857 (590-1,203)	671 (466-939)	591 (414-829)	541 (377-758)	434 (302-611)	396 (277-552)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	1,188 (817-1,705)	857 (590-1,203)	671 (466-939)	591 (414-829)	541 (377-758)	434 (302-611)	396 (277-552)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	80 (53-107)	2,425 (1,739-3,233)	3,754 (2,345-5,327)	5,830 (4,456-7,292)	7,233 (6,166-8,467)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	2,320 (1,639-3,138)	3,669 (2,253-5,239)	5,705 (4,313-7,150)	7,067 (5,994-8,292)
Second-hand smoke	0 (0-0)	0 (0-0)	80 (53-107)	105 (71-142)	85 (55-124)	125 (84-172)	165 (112-221)
Alcohol and drug use	4,321 (3,612-5,139)	7,072 (5,928-8,342)	7,000 (5,876-8,218)	6,286 (5,368-7,263)	7,145 (6,150-8,231)	6,111 (5,341-6,928)	5,465 (4,815-6,136)
Alcohol use	3,518 (2,928-4,166)	4,820 (4,017-5,674)	4,708 (3,971-5,515)	4,620 (3,935-5,350)	6,032 (5,225-6,942)	5,462 (4,798-6,245)	5,090 (4,484-5,751)
Drug use	812 (601-1,087)	2,287 (1,723-2,916)	2,330 (1,762-2,983)	1,695 (1,277-2,190)	1,146 (868-1,482)	674 (516-870)	401 (310-520)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	649 (517-787)	863 (698-1,055)	1,511 (1,237-1,811)	1,746 (1,433-2,089)	2,601 (2,156-3,047)
High total cholesterol	0 (0-0)	0 (0-0)	317 (226-422)	514 (372-673)	1,045 (831-1,273)	1,439 (1,143-1,762)	1,868 (1,509-2,274)
High blood pressure	0 (0-0)	0 (0-0)	1,166 (899-1,435)	1,545 (1,210-1,865)	2,536 (2,112-2,979)	3,202 (2,684-3,761)	4,839 (4,234-5,523)
High body-mass index	0 (0-0)	0 (0-0)	586 (404-784)	785 (545-1,041)	1,392 (1,045-1,756)	1,821 (1,360-2,302)	2,201 (1,695-2,728)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	1,922 (1,707-2,128)	2,849 (2,542-3,129)	4,120 (3,725-4,525)	5,633 (5,111-6,197)	7,266 (6,573-7,991)
Diet low in vegetables	0 (0-0)	0 (0-0)	1,070 (834-1,310)	1,522 (1,177-1,845)	2,150 (1,648-2,610)	2,922 (2,270-3,577)	3,794 (2,913-4,636)
Diet low in whole grains	0 (0-0)	0 (0-0)	536 (334-719)	734 (489-980)	970 (631-1,305)	1,248 (822-1,655)	1,531 (993-2,069)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	504 (395-606)	721 (562-869)	983 (767-1,191)	1,244 (960-1,519)	1,448 (1,132-1,756)
Diet low in milk	0 (0-0)	0 (0-0)	595 (403-749)	901 (599-1,123)	1,259 (838-1,587)	1,672 (1,112-2,141)	1,993 (1,320-2,533)
Diet high in red meat	0 (0-0)	0 (0-0)	21 (6-36)	32 (9-55)	40 (12-67)	47 (14-78)	61 (18-100)
Diet high in processed meat	0 (0-0)	0 (0-0)	22 (9-37)	33 (14-57)	47 (20-80)	55 (22-92)	60 (27-97)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	252 (82-418)	413 (133-695)	595 (186-983)	802 (234-1,373)	924 (257-1,540)
Diet low in fibre	0 (0-0)	0 (0-0)	93 (61-133)	112 (78-152)	144 (54-225)	175 (62-275)	206 (74-318)
Diet low in calcium	0 (0-0)	0 (0-0)	270 (125-418)	391 (179-603)	532 (240-828)	660 (289-1,021)	750 (325-1,179)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	28 (17-36)	41 (25-54)	51 (33-67)	58 (40-73)	73 (53-92)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	362 (260-456)	543 (389-685)	747 (542-940)	991 (728-1,275)	1,161 (830-1,481)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	175 (83-264)	254 (121-382)	348 (163-525)	451 (209-685)	526 (246-809)
Diet high in sodium	0 (0-0)	0 (0-0)	126 (88-162)	189 (133-242)	265 (188-342)	364 (262-468)	437 (310-564)
Physical inactivity and low physical activity	0 (0-0)	0 (0-0)	339 (153-542)	574 (325-834)	914 (569-1,267)	1,333 (866-1,800)	1,815 (1,213-2,403)
Occupational risk factors	3,837 (3,091-4,730)	5,176 (4,102-6,320)	5,184 (4,216-6,309)	4,710 (3,843-5,738)	4,338 (3,509-5,261)	3,524 (2,841-4,303)	3,150 (2,553-3,844)
Occupational carcinogens	9 (6-13)	12 (8-18)	15 (10-22)	18 (12-25)	33 (21-47)	52 (34-75)	99 (65-144)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, 15-19 Years	Males, 20-24 Years	Males, 25-29 Years	Males, 30-34 Years	Males, 35-39 Years	Males, 40-44 Years	Males, 45-49 Years
Occupational exposure to asbestos	4 (3-8)	5 (3-8)	4 (2-7)	5 (3-8)	8 (5-12)	13 (8-20)	21 (13-32)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-1)	1 (0-2)	2 (1-4)
Occupational exposure to benzene	4 (2-7)	6 (2-11)	5 (2-10)	5 (2-8)	2 (1-5)	2 (1-4)	1 (0-2)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	1 (1-2)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	1 (1-2)	2 (1-3)	7 (4-10)	10 (6-17)	22 (12-35)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	1 (1-2)	2 (1-3)	6 (4-9)	10 (6-14)	21 (14-30)
Occupational exposure to formaldehyde	1 (0-1)	1 (1-2)	1 (1-2)	1 (1-2)	1 (0-2)	1 (0-2)	1 (0-1)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-4)	3 (1-7)	7 (2-15)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-3)	3 (2-5)
Occupational exposure to silica	0 (0-0)	0 (0-0)	1 (0-1)	1 (1-2)	5 (3-7)	7 (4-11)	16 (10-23)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-2)	2 (1-6)	5 (1-12)
Occupational asthmagens	128 (79-197)	134 (84-198)	121 (76-184)	103 (64-159)	111 (66-184)	103 (62-172)	121 (67-232)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	262 (124-425)	301 (143-486)	373 (177-589)	409 (196-633)	514 (256-786)
Occupational noise	116 (62-200)	161 (87-278)	195 (110-331)	227 (128-378)	205 (119-333)	190 (110-310)	180 (106-284)
Occupational risk factors for injuries	2,731 (2,047-3,571)	3,786 (2,840-4,833)	3,452 (2,616-4,472)	2,850 (2,189-3,643)	2,347 (1,743-3,066)	1,640 (1,233-2,179)	1,217 (911-1,599)
Occupational low back pain	853 (561-1,225)	1,083 (719-1,516)	1,139 (762-1,589)	1,211 (804-1,683)	1,271 (839-1,772)	1,129 (742-1,574)	1,019 (677-1,412)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990							
Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Unimproved water and sanitation	229 (11-437)	210 (11-408)	218 (10-452)	173 (9-340)	131 (6-250)	86 (4-171)	79 (4-156)
Unimproved water source	88 (6-175)	80 (5-165)	83 (5-174)	66 (4-134)	50 (3-100)	33 (2-67)	28 (2-59)
Unimproved sanitation	163 (4-324)	149 (4-301)	155 (5-341)	123 (4-251)	93 (3-185)	61 (2-125)	57 (2-118)
Air pollution							
Ambient particulate matter pollution	3,598 (2,711-4,544)	4,236 (3,172-5,334)	4,908 (3,692-6,034)	4,264 (3,066-5,424)	3,333 (2,385-4,227)	2,451 (1,760-3,073)	1,744 (1,258-2,196)
Household air pollution from solid fuels	4,298 (3,002-5,633)	5,086 (3,450-6,696)	5,939 (3,986-7,878)	5,327 (3,347-7,164)	4,414 (2,688-5,883)	2,943 (1,758-3,979)	1,922 (1,142-2,616)
Ambient ozone pollution	105 (34-188)	152 (49-265)	226 (74-403)	245 (80-434)	230 (75-408)	176 (58-309)	133 (44-234)
Other environmental risks	354 (292-431)	399 (333-488)	444 (369-543)	372 (310-453)	251 (209-305)	159 (133-191)	83 (69-99)
Residential radon							
Lead exposure	354 (292-431)	399 (333-488)	444 (369-543)	372 (310-453)	251 (209-305)	159 (133-191)	83 (69-99)
Child and maternal undernutrition	372 (260-515)	346 (241-485)	316 (223-436)	243 (174-334)	174 (124-237)	126 (91-172)	98 (75-132)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	372 (260-515)	346 (241-485)	316 (223-436)	243 (174-334)	174 (124-237)	126 (91-172)	98 (75-132)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	10,608 (8,942-12,307)	12,720 (10,829-14,570)	14,738 (12,564-16,777)	12,442 (10,653-14,512)	8,653 (7,302-10,379)	6,020 (5,185-7,200)	3,578 (3,133-4,138)
Tobacco smoking	10,335 (8,643-12,016)	12,366 (10,480-14,254)	14,283 (12,069-16,364)	11,986 (10,112-14,055)	8,254 (6,873-9,950)	5,673 (4,784-6,904)	3,297 (2,847-3,893)
Second-hand smoke	273 (191-363)	353 (245-465)	455 (315-596)	455 (316-592)	399 (273-518)	348 (238-450)	281 (192-362)
Alcohol and drug use	5,806 (5,175-6,492)	5,169 (4,614-5,818)	4,600 (4,059-5,175)	2,348 (2,012-2,710)	1,546 (1,271-1,827)	1,092 (885-1,311)	738 (567-915)
Alcohol use	5,564 (4,968-6,235)	5,016 (4,466-5,638)	4,501 (3,959-5,068)	2,324 (1,990-2,689)	1,535 (1,259-1,817)	1,086 (878-1,306)	735 (564-913)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Drug use	272 (211-361)	185 (150-231)	130 (105-163)	24 (17-37)	11 (7-18)	6 (4-13)	3 (2-7)
Physiological risk factors							
High fasting plasma glucose	3,407 (2,814-4,012)	4,295 (3,587-5,017)	4,603 (3,790-5,414)	3,931 (3,284-4,576)	2,920 (2,426-3,414)	2,172 (1,805-2,540)	1,479 (1,224-1,733)
High total cholesterol	2,789 (2,274-3,340)	3,069 (2,499-3,685)	3,661 (3,007-4,377)	3,000 (2,448-3,645)	2,127 (1,675-2,585)	1,624 (1,231-2,035)	1,066 (862-1,301)
High blood pressure	7,027 (6,145-7,972)	9,556 (8,599-10,678)	11,067 (9,952-12,385)	10,891 (9,939-12,072)	8,528 (7,738-9,471)	7,228 (6,574-7,892)	5,535 (5,026-6,078)
High body-mass index	3,081 (2,379-3,793)	3,321 (2,605-4,033)	3,822 (3,019-4,648)	3,110 (2,456-3,787)	2,270 (1,780-2,768)	1,769 (1,393-2,153)	1,233 (949-1,525)
Low bone mineral density	232 (168-307)	247 (183-328)	296 (230-391)	273 (214-358)	241 (191-318)	225 (177-282)	249 (201-313)
Dietary risk factors and physical inactivity	11,092 (10,110-12,124)	13,114 (11,897-14,419)	15,256 (13,897-16,766)	13,699 (12,519-15,001)	10,660 (9,500-11,719)	8,432 (7,657-9,153)	6,278 (5,650-6,901)
Diet low in fruits	5,767 (4,500-7,018)	6,735 (5,213-8,138)	7,319 (5,627-8,883)	6,305 (4,938-7,664)	4,754 (3,543-5,893)	3,436 (2,563-4,230)	2,205 (1,654-2,777)
Diet low in vegetables	2,221 (1,469-2,990)	2,450 (1,607-3,354)	2,732 (1,858-3,640)	2,315 (1,576-3,086)	1,738 (1,167-2,379)	1,351 (906-1,812)	930 (620-1,255)
Diet low in whole grains	2,061 (1,610-2,492)	2,240 (1,753-2,706)	2,446 (1,932-2,960)	2,017 (1,580-2,456)	1,499 (1,167-1,828)	1,123 (877-1,360)	748 (580-908)
Diet low in nuts and seeds	2,931 (1,941-3,764)	3,197 (2,096-4,090)	3,656 (2,358-4,680)	3,154 (2,018-4,085)	2,314 (1,439-3,058)	1,855 (1,154-2,445)	1,391 (844-1,866)
Diet low in milk	86 (26-145)	108 (33-181)	123 (37-208)	112 (34-189)	83 (25-141)	64 (19-108)	40 (12-67)
Diet high in red meat	75 (34-120)	81 (38-125)	85 (39-132)	71 (33-111)	50 (23-78)	39 (17-60)	25 (11-38)
Diet high in processed meat	1,276 (335-2,148)	1,340 (355-2,256)	1,491 (391-2,576)	1,249 (318-2,149)	873 (221-1,498)	726 (180-1,242)	537 (129-923)
Diet high in sugar-sweetened beverages	269 (91-419)	277 (161-438)	293 (169-465)	248 (137-391)	193 (96-324)	136 (63-206)	104 (44-138)
Diet low in fibre	1,038 (453-1,642)	1,081 (479-1,713)	1,155 (507-1,829)	952 (424-1,495)	710 (318-1,114)	551 (245-864)	395 (175-626)
Diet low in calcium	104 (74-132)	132 (94-167)	155 (110-203)	149 (99-198)	119 (79-163)	100 (62-140)	75 (42-111)
Diet low in seafood omega-3 fatty acids	1,679 (1,199-2,165)	1,770 (1,281-2,274)	1,981 (1,435-2,542)	1,655 (1,196-2,128)	1,176 (853-1,517)	911 (654-1,171)	644 (457-834)
Diet low in polyunsaturated fatty acids	748 (354-1,141)	798 (375-1,225)	887 (409-1,362)	744 (351-1,137)	534 (251-823)	419 (197-647)	300 (140-465)
Diet high in trans fatty acids	587 (413-761)	641 (462-836)	707 (506-925)	628 (443-819)	459 (327-597)	339 (242-441)	239 (170-310)
Diet high in sodium	2,894 (1,922-3,812)	3,596 (2,397-4,788)	4,343 (2,814-5,751)	4,023 (2,608-5,379)	3,083 (1,996-4,111)	2,307 (1,469-3,092)	1,586 (987-2,163)
Physical inactivity and low physical activity							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Males, 50-54 Years	Males, 55-59 Years	Males, 60-64 Years	Males, 65-69 Years	Males, 70-74 Years	Males, 75-79 Years	Males, 80+ Years
Occupational risk factors	3,272 (2,608–4,006)	3,064 (2,327–3,777)	2,689 (1,944–3,430)	1,575 (1,091–2,085)	1,292 (852–1,753)	811 (516–1,137)	37 (27–53)
Occupational carcinogens	164 (103–244)	244 (155–353)	280 (184–411)	189 (129–268)	129 (87–195)	66 (47–97)	37 (27–53)
Occupational exposure to asbestos	33 (21–50)	47 (30–73)	60 (39–95)	63 (41–97)	44 (29–70)	34 (23–54)	20 (13–32)
Occupational exposure to arsenic	4 (2–8)	6 (2–12)	7 (3–13)	4 (1–7)	3 (1–5)	1 (0–2)	0 (0–1)
Occupational exposure to benzene	1 (1–2)	2 (1–3)	2 (1–3)	2 (1–4)	2 (1–3)	1 (1–3)	1 (0–1)
Occupational exposure to beryllium	0 (0–0)	0 (0–1)	0 (0–1)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	1 (0–1)	1 (1–2)	1 (1–2)	1 (0–1)	0 (0–1)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	3 (1–4)	4 (2–6)	4 (3–7)	2 (1–4)	2 (1–3)	1 (0–1)	0 (0–1)
Occupational exposure to diesel engine exhaust	38 (21–60)	58 (32–91)	65 (37–102)	36 (20–58)	25 (14–40)	9 (5–15)	5 (3–8)
Occupational exposure to second-hand smoke	35 (22–51)	54 (35–77)	60 (40–87)	34 (22–50)	23 (15–35)	8 (6–13)	4 (3–7)
Occupational exposure to formaldehyde	1 (0–1)	1 (0–2)	1 (0–1)	1 (0–1)	0 (0–1)	0 (0–1)	0 (0–0)
Occupational exposure to nickel	12 (3–26)	19 (5–40)	21 (6–45)	12 (3–25)	8 (2–17)	3 (1–6)	2 (0–3)
Occupational exposure to polycyclic aromatic hydrocarbons	6 (3–9)	9 (4–15)	10 (5–17)	5 (3–9)	4 (2–6)	1 (1–2)	1 (0–1)
Occupational exposure to silica	27 (17–40)	42 (26–61)	47 (30–67)	26 (17–40)	18 (12–28)	6 (4–10)	3 (2–5)
Occupational exposure to sulfuric acid	9 (2–19)	10 (3–23)	11 (3–24)	6 (2–15)	4 (1–9)	2 (0–3)	1 (0–2)
Occupational asthmagens	143 (77–270)	151 (80–283)	142 (73–276)	89 (44–173)	73 (36–134)	48 (24–91)	0 (0–0)
Occupational particulate matter, gases, and fumes	804 (383–1,201)	1,003 (462–1,517)	1,140 (525–1,753)	771 (342–1,239)	719 (314–1,151)	512 (227–810)	0 (0–0)
Occupational noise	212 (125–335)	151 (86–244)	154 (88–247)	67 (38–110)	64 (36–104)	15 (6–27)	0 (0–0)
Occupational risk factors for injuries	954 (717–1,245)	651 (487–852)	342 (255–445)	124 (91–167)	66 (49–88)	15 (11–20)	0 (0–0)
Occupational low back pain	995 (665–1,382)	865 (584–1,194)	633 (422–885)	335 (221–478)	241 (159–345)	154 (101–220)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Unimproved water and sanitation	25,123 (1,262-45,792)	696 (29-1,380)	1,658 (81-3,115)	8,956 (444-16,476)	8,465 (444-15,452)	1,144 (50-2,150)	509 (21-973)
Unimproved water source	10,097 (722-19,424)	270 (17-582)	654 (44-1,287)	3,603 (255-7,059)	3,470 (256-6,779)	440 (30-894)	202 (13-429)
Unimproved sanitation	17,441 (522-32,889)	492 (13-1,015)	1,161 (36-2,280)	6,199 (184-11,928)	5,835 (180-11,136)	809 (22-1,569)	355 (8-705)
Air pollution							
Ambient particulate matter pollution	35,032 (29,974-40,402)	1,200 (769-1,688)	1,306 (872-1,748)	5,595 (3,784-7,451)	3,863 (2,616-5,125)	0 (0-0)	0 (0-0)
Household air pollution from solid fuels	79,261 (64,684-93,004)	4,152 (2,848-5,503)	4,568 (3,214-5,783)	19,242 (13,955-24,153)	13,795 (10,096-17,469)	0 (0-0)	0 (0-0)
Ambient ozone pollution	1,125 (375-1,990)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Other environmental risks	2,489 (1,974-3,015)	0 (0-0)	0 (0-0)	0 (0-0)	4 (1-7)	11 (6-19)	7 (4-12)
Residential radon							
Lead exposure	2,489 (1,974-3,015)	0 (0-0)	0 (0-0)	0 (0-0)	4 (1-7)	11 (6-19)	7 (4-12)
Child and maternal undernutrition	164,599 (139,926-192,077)	0 (0-0)	9,288 (5,953-12,426)	67,898 (55,921-80,266)	64,458 (52,644-79,349)	3,536 (2,394-5,048)	2,410 (1,633-3,439)
Suboptimal breastfeeding	50,359 (32,186-70,526)	0 (0-0)	9,285 (5,950-12,423)	37,097 (22,897-52,842)	3,977 (420-8,546)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	43,601 (26,173-62,072)	0 (0-0)	9,285 (5,950-12,423)	34,315 (20,089-49,656)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	6,758 (696-14,710)	0 (0-0)	0 (0-0)	2,782 (263-6,354)	3,977 (420-8,546)	0 (0-0)	0 (0-0)
Childhood underweight	93,028 (78,656-112,766)	0 (0-0)	0 (0-0)	45,284 (37,921-53,845)	47,744 (39,053-58,791)	0 (0-0)	0 (0-0)
Iron deficiency	30,390 (22,473-40,703)	0 (0-0)	3 (2-4)	1,798 (1,309-2,477)	5,634 (3,930-7,995)	3,536 (2,394-5,048)	2,410 (1,633-3,439)
Vitamin A deficiency	14,598 (7,068-25,637)	0 (0-0)	0 (0-0)	3,690 (1,660-6,332)	10,908 (5,260-19,557)	0 (0-0)	0 (0-0)
Zinc deficiency	11,709 (2,640-22,049)	0 (0-0)	0 (0-0)	0 (0-0)	11,709 (2,640-22,049)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	46,926 (39,634-58,092)	1,323 (898-1,833)	1,475 (1,018-1,963)	6,529 (4,481-8,555)	4,327 (2,933-5,668)	0 (0-0)	0 (0-0)
Tobacco smoking	28,784 (21,829-40,090)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Second-hand smoke	18,142 (13,748-22,355)	1,323 (898-1,833)	1,475 (1,018-1,963)	6,529 (4,481-8,555)	4,327 (2,933-5,668)	0 (0-0)	0 (0-0)
Alcohol and drug use	22,851 (19,812-26,197)	14 (8-23)	12 (5-20)	64 (37-104)	227 (117-363)	104 (76-132)	160 (125-204)
Alcohol use	17,945 (15,470-20,768)	9 (5-15)	4 (2-10)	34 (21-49)	148 (83-223)	89 (67-110)	116 (93-143)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Drug use	4,993 (3,811–6,417)	6 (2–11)	7 (2–13)	30 (12–66)	79 (19–175)	15 (5–34)	44 (27–70)
Physiological risk factors							
High fasting plasma glucose	26,181 (22,243–30,349)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High total cholesterol	17,006 (13,940–20,640)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High blood pressure	63,897 (57,903–70,789)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
High body-mass index	26,174 (20,911–31,642)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Low bone mineral density	1,361 (1,102–1,686)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Dietary risk factors and physical inactivity							
Diet low in fruits	72,609 (66,495–79,085)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in vegetables	32,474 (25,061–39,155)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in whole grains	12,803 (8,412–17,503)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in nuts and seeds	12,370 (9,625–14,895)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in milk	15,607 (9,915–20,208)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in red meat	710 (210–1,210)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in processed meat	566 (263–903)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sugar-sweetened beverages	6,882 (2,340–11,119)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in fibre	1,506 (861–2,498)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in calcium	4,862 (2,188–7,562)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in seafood omega-3 fatty acids	753 (521–975)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet low in polyunsaturated fatty acids	8,120 (5,900–10,388)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in trans fatty acids	3,727 (1,788–5,709)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Diet high in sodium	3,085 (2,226–3,944)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Physical inactivity and low physical activity	19,376 (12,521–25,596)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, All Ages	Females, 0-6 Days	Females, 7-27 Days	Females, 28-364 Days	Females, 1-4 Years	Females, 5-9 Years	Females, 10-14 Years
Occupational risk factors	12,754 (9,357–16,658)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational carcinogens	412 (284–611)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to asbestos	122 (78–189)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to arsenic	12 (5–24)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to benzene	28 (11–52)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to beryllium	1 (0–1)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to cadmium	2 (1–3)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to chromium	8 (4–13)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to diesel engine exhaust	54 (31–88)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to second-hand smoke	100 (69–162)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to formaldehyde	7 (3–13)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to nickel	37 (10–79)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to polycyclic aromatic hydrocarbons	13 (6–23)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to silica	31 (21–52)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational exposure to sulfuric acid	5 (1–12)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational asthmagens	662 (366–1,062)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational particulate matter, gases, and fumes	2,745 (1,216–4,406)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational noise	933 (550–1,489)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational risk factors for injuries	1,090 (836–1,437)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Occupational low back pain	6,912 (4,487–9,835)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)	0 (0–0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Unimproved water and sanitation	439 (21-875)	454 (18-864)	391 (17-754)	330 (15-626)	307 (14-578)	225 (10-426)	212 (10-402)
Unimproved water source	171 (12-361)	176 (11-361)	157 (10-321)	134 (9-269)	124 (9-253)	91 (6-187)	84 (6-176)
Unimproved sanitation	309 (10-632)	320 (8-627)	272 (8-536)	228 (6-451)	212 (6-420)	156 (4-308)	149 (5-291)
Air pollution							
Ambient particulate matter pollution	0 (0-0)	0 (0-0)	493 (358-656)	628 (453-825)	855 (634-1,122)	1,092 (791-1,437)	1,319 (934-1,709)
Household air pollution from solid fuels	0 (0-0)	0 (0-0)	925 (705-1,179)	1,139 (881-1,443)	1,543 (1,198-1,925)	1,865 (1,463-2,323)	2,270 (1,780-2,829)
Ambient ozone pollution	0 (0-0)	0 (0-0)	13 (4-24)	14 (4-25)	25 (8-46)	29 (9-51)	42 (14-75)
Other environmental risks	0 (0-0)	0 (0-0)	171 (73-282)	207 (95-336)	121 (87-169)	153 (112-213)	161 (129-199)
Residential radon							
Lead exposure	0 (0-0)	0 (0-0)	171 (73-282)	207 (95-336)	121 (87-169)	153 (112-213)	161 (129-199)
Child and maternal undernutrition	2,613 (1,910-3,537)	3,061 (2,289-4,016)	2,613 (1,913-3,417)	2,173 (1,601-2,846)	1,917 (1,405-2,537)	1,284 (950-1,689)	866 (635-1,158)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	2,613 (1,910-3,537)	3,061 (2,289-4,016)	2,613 (1,913-3,417)	2,173 (1,601-2,846)	1,917 (1,405-2,537)	1,284 (950-1,689)	866 (635-1,158)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	0 (0-0)	0 (0-0)	106 (71-147)	770 (553-1,692)	1,344 (861-2,158)	2,080 (1,408-2,899)	2,072 (1,512-2,882)
Tobacco smoking	0 (0-0)	0 (0-0)	0 (0-0)	633 (423-1,543)	1,183 (676-2,014)	1,903 (1,186-2,740)	1,821 (1,265-2,701)
Second-hand smoke	0 (0-0)	0 (0-0)	106 (71-147)	137 (93-184)	161 (96-237)	177 (103-265)	251 (153-360)
Alcohol and drug use	1,307 (1,068-1,593)	2,041 (1,637-2,502)	2,014 (1,621-2,455)	1,666 (1,384-1,996)	1,776 (1,498-2,137)	1,594 (1,368-1,900)	1,470 (1,259-1,718)
Alcohol use	800 (666-968)	909 (755-1,089)	896 (756-1,059)	919 (787-1,063)	1,294 (1,091-1,634)	1,304 (1,113-1,604)	1,294 (1,096-1,532)
Drug use	508 (372-684)	1,135 (842-1,466)	1,122 (828-1,459)	752 (560-977)	489 (369-631)	298 (226-382)	186 (143-238)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Physiological risk factors							
High fasting plasma glucose	0 (0-0)	0 (0-0)	495 (402-605)	629 (515-770)	1,018 (837-1,244)	1,174 (955-1,435)	1,681 (1,395-2,003)
High total cholesterol	0 (0-0)	0 (0-0)	137 (90-193)	184 (123-259)	343 (258-456)	449 (336-582)	740 (582-919)
High blood pressure	0 (0-0)	0 (0-0)	505 (343-688)	608 (419-816)	1,389 (1,111-1,712)	1,689 (1,343-2,069)	3,005 (2,592-3,518)
High body-mass index	0 (0-0)	0 (0-0)	446 (310-601)	560 (393-743)	1,100 (817-1,410)	1,272 (946-1,621)	1,771 (1,363-2,233)
Low bone mineral density	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Dietary risk factors and physical inactivity							
Diet low in fruits	0 (0-0)	0 (0-0)	1,256 (1,082-1,440)	1,715 (1,508-1,926)	2,404 (2,121-2,751)	3,175 (2,829-3,639)	3,947 (3,502-4,469)
Diet low in vegetables	0 (0-0)	0 (0-0)	664 (512-824)	872 (670-1,062)	1,225 (957-1,544)	1,652 (1,260-2,063)	2,100 (1,627-2,599)
Diet low in whole grains	0 (0-0)	0 (0-0)	324 (197-449)	404 (256-547)	519 (312-727)	659 (387-935)	796 (459-1,120)
Diet low in nuts and seeds	0 (0-0)	0 (0-0)	329 (256-406)	425 (332-521)	562 (438-693)	703 (559-867)	816 (633-1,007)
Diet low in milk	0 (0-0)	0 (0-0)	318 (211-403)	422 (281-551)	527 (352-678)	666 (437-873)	785 (520-1,005)
Diet high in red meat	0 (0-0)	0 (0-0)	16 (5-29)	24 (7-42)	35 (10-60)	42 (11-72)	51 (14-89)
Diet high in processed meat	0 (0-0)	0 (0-0)	17 (7-31)	27 (11-46)	39 (16-66)	46 (19-77)	49 (21-81)
Diet high in sugar-sweetened beverages	0 (0-0)	0 (0-0)	154 (63-253)	219 (93-348)	280 (124-431)	359 (152-576)	407 (163-647)
Diet low in fibre	0 (0-0)	0 (0-0)	59 (36-84)	70 (44-99)	95 (33-171)	114 (36-203)	118 (40-239)
Diet low in calcium	0 (0-0)	0 (0-0)	135 (62-206)	176 (83-266)	227 (106-347)	265 (127-408)	296 (136-455)
Diet low in seafood omega-3 fatty acids	0 (0-0)	0 (0-0)	20 (12-29)	30 (17-40)	43 (26-57)	49 (32-65)	58 (39-77)
Diet low in polyunsaturated fatty acids	0 (0-0)	0 (0-0)	188 (137-240)	244 (177-316)	295 (216-385)	374 (267-490)	433 (307-569)
Diet high in trans fatty acids	0 (0-0)	0 (0-0)	89 (42-137)	116 (57-178)	143 (69-219)	176 (86-272)	204 (99-313)
Diet high in sodium	0 (0-0)	0 (0-0)	74 (52-99)	98 (69-129)	122 (86-163)	156 (112-208)	184 (132-243)
Physical inactivity and low physical activity	925 (671-1,258)	1,106 (808-1,480)	1,216 (895-1,604)	1,274 (945-1,689)	1,374 (1,019-1,811)	1,265 (936-1,662)	1,209 (889-1,587)
Occupational risk factors	6 (3-9)	8 (5-12)	9 (6-15)	11 (7-17)	17 (11-26)	22 (14-33)	33 (21-52)
Occupational carcinogens							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 15-19 Years	Females, 20-24 Years	Females, 25-29 Years	Females, 30-34 Years	Females, 35-39 Years	Females, 40-44 Years	Females, 45-49 Years
Occupational exposure to asbestos	2 (1-4)	2 (1-3)	2 (1-3)	3 (2-5)	4 (2-7)	6 (4-10)	8 (5-13)
Occupational exposure to arsenic	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	1 (0-2)
Occupational exposure to benzene	3 (1-6)	5 (2-9)	5 (2-9)	4 (2-8)	2 (1-4)	2 (1-3)	1 (0-2)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	1 (0-0)
Occupational exposure to chromium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	1 (0-1)
Occupational exposure to diesel engine exhaust	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	2 (1-4)	3 (1-5)	5 (3-9)
Occupational exposure to second-hand smoke	0 (0-0)	0 (0-0)	1 (0-1)	1 (1-2)	4 (2-6)	5 (3-9)	10 (6-15)
Occupational exposure to formaldehyde	1 (0-1)	1 (0-2)	1 (0-2)	1 (0-2)	1 (0-1)	1 (0-1)	0 (0-1)
Occupational exposure to nickel	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	1 (0-3)	2 (0-5)	4 (1-8)
Occupational exposure to polycyclic aromatic hydrocarbons	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (0-1)	1 (1-2)
Occupational exposure to silica	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	1 (1-2)	2 (1-3)	3 (2-5)
Occupational exposure to sulfuric acid	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	0 (0-1)
Occupational asthmagens	81 (41-134)	74 (41-118)	60 (34-96)	53 (30-84)	59 (33-97)	55 (32-93)	58 (31-97)
Occupational particulate matter, gases, and fumes	0 (0-0)	0 (0-0)	144 (62-237)	167 (75-272)	229 (105-373)	240 (113-380)	281 (129-448)
Occupational noise	58 (30-104)	78 (41-135)	96 (53-161)	117 (65-195)	105 (61-172)	102 (59-163)	95 (56-150)
Occupational risk factors for injuries	167 (123-229)	206 (151-285)	178 (134-239)	151 (116-202)	130 (95-187)	93 (72-124)	67 (52-89)
Occupational low back pain	613 (387-896)	740 (472-1,060)	729 (464-1,046)	776 (504-1,101)	833 (543-1,186)	753 (496-1,073)	674 (442-958)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Unimproved water and sanitation	223 (11-426)	237 (11-461)	268 (12-527)	224 (11-442)	174 (8-335)	116 (5-220)	95 (5-182)
Unimproved water source	88 (6-180)	90 (6-186)	103 (7-223)	87 (6-182)	69 (5-142)	46 (3-95)	37 (2-75)
Unimproved sanitation	156 (5-310)	169 (5-339)	190 (5-383)	158 (5-321)	122 (4-245)	81 (2-159)	67 (2-131)
Air pollution							
Ambient particulate matter pollution	1,984 (1,436-2,517)	2,326 (1,643-3,012)	2,977 (2,176-3,789)	3,113 (2,148-4,072)	2,888 (2,003-3,735)	2,649 (1,838-3,359)	2,745 (1,957-3,467)
Household air pollution from solid fuels	3,370 (2,656-4,135)	4,024 (3,093-4,945)	5,058 (3,969-6,261)	5,210 (3,993-6,378)	4,900 (3,784-6,012)	3,834 (2,995-4,734)	3,367 (2,615-4,173)
Ambient ozone pollution	74 (23-129)	111 (36-197)	164 (54-291)	183 (59-321)	182 (61-319)	146 (48-257)	143 (45-256)
Other environmental risks	230 (185-284)	253 (206-310)	308 (250-376)	302 (249-363)	242 (200-292)	187 (156-221)	132 (108-157)
Residential radon							
Lead exposure	230 (185-284)	253 (206-310)	308 (250-376)	302 (249-363)	242 (200-292)	187 (156-221)	132 (108-157)
Child and maternal undernutrition	653 (452-922)	504 (353-711)	423 (301-592)	308 (222-432)	233 (168-321)	188 (136-257)	173 (132-233)
Suboptimal breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Non-exclusive breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Discontinued breastfeeding	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Childhood underweight	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Iron deficiency	653 (452-922)	504 (353-711)	423 (301-592)	308 (222-432)	233 (168-321)	188 (136-257)	173 (132-233)
Vitamin A deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Zinc deficiency	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Tobacco smoking, including second-hand smoke	3,167 (2,274-4,377)	4,028 (2,974-5,433)	4,682 (3,481-6,512)	4,827 (3,575-6,692)	4,202 (3,082-5,667)	3,255 (2,535-4,617)	2,740 (2,229-3,903)
Tobacco smoking	2,800 (1,896-4,076)	3,603 (2,544-5,032)	4,145 (2,955-5,957)	4,240 (2,971-6,171)	3,638 (2,502-5,136)	2,685 (1,952-4,131)	2,134 (1,632-3,256)
Second-hand smoke	367 (236-500)	425 (272-593)	537 (344-723)	588 (384-790)	564 (363-753)	571 (371-758)	605 (404-797)
Alcohol and drug use	1,745 (1,501-2,033)	1,715 (1,457-2,009)	1,941 (1,648-2,283)	1,381 (1,107-1,692)	1,130 (873-1,416)	1,224 (895-1,557)	1,266 (822-1,718)
Alcohol use	1,627 (1,391-1,907)	1,640 (1,385-1,932)	1,889 (1,597-2,232)	1,368 (1,098-1,679)	1,123 (865-1,409)	1,219 (890-1,551)	1,262 (819-1,710)

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Drug use	131 (103-165)	91 (73-111)	71 (58-88)	13 (9-20)	7 (5-13)	5 (3-11)	4 (2-8)
Physiological risk factors							
High fasting plasma glucose	2,292 (1,914-2,719)	3,023 (2,567-3,517)	3,601 (3,052-4,178)	3,747 (3,219-4,347)	3,170 (2,718-3,675)	2,834 (2,388-3,299)	2,518 (2,064-2,943)
High total cholesterol	1,174 (929-1,465)	1,569 (1,284-1,931)	2,289 (1,881-2,751)	2,642 (2,187-3,149)	2,382 (1,907-2,925)	2,488 (1,835-3,179)	2,609 (2,136-3,131)
High blood pressure	4,298 (3,740-4,930)	6,009 (5,339-6,902)	7,722 (6,929-8,749)	9,411 (8,619-10,422)	8,870 (8,066-9,857)	9,570 (8,826-10,385)	10,820 (10,016-11,698)
High body-mass index	2,404 (1,861-2,955)	2,830 (2,267-3,442)	3,592 (2,912-4,308)	3,523 (2,881-4,187)	2,945 (2,404-3,509)	2,953 (2,407-3,509)	2,777 (2,193-3,357)
Low bone mineral density	132 (93-177)	163 (118-220)	173 (132-225)	204 (157-262)	165 (127-210)	215 (170-269)	309 (243-387)
Dietary risk factors and physical inactivity	5,900 (5,285-6,597)	6,911 (6,231-7,897)	8,929 (8,052-10,040)	9,822 (8,879-10,951)	9,215 (8,325-10,289)	9,271 (8,414-10,158)	10,063 (9,060-11,062)
Diet low in fruits	3,098 (2,429-3,812)	3,527 (2,736-4,338)	4,172 (3,194-5,142)	4,367 (3,353-5,388)	3,936 (2,937-4,865)	3,583 (2,719-4,409)	3,278 (2,471-4,102)
Diet low in vegetables	1,151 (698-1,618)	1,252 (769-1,776)	1,561 (1,010-2,133)	1,646 (1,080-2,291)	1,490 (976-2,046)	1,498 (981-2,019)	1,503 (965-2,053)
Diet low in whole grains	1,143 (894-1,399)	1,255 (974-1,554)	1,536 (1,191-1,906)	1,571 (1,216-1,924)	1,402 (1,088-1,725)	1,346 (1,036-1,642)	1,281 (979-1,559)
Diet low in nuts and seeds	1,216 (780-1,593)	1,395 (889-1,831)	1,917 (1,217-2,523)	2,123 (1,335-2,775)	1,943 (1,202-2,574)	2,017 (1,242-2,689)	2,279 (1,371-3,062)
Diet low in milk	72 (21-124)	83 (25-141)	96 (28-166)	93 (28-161)	76 (23-130)	67 (19-116)	54 (16-93)
Diet high in red meat	61 (28-101)	64 (30-106)	70 (32-111)	65 (30-102)	49 (22-76)	44 (20-69)	36 (16-57)
Diet high in processed meat	574 (209-912)	636 (228-1,013)	833 (261-1,353)	888 (260-1,470)	768 (214-1,293)	826 (213-1,385)	938 (228-1,632)
Diet high in sugar-sweetened beverages	157 (49-307)	153 (72-312)	168 (79-337)	158 (90-306)	136 (74-283)	128 (58-230)	151 (53-224)
Diet low in fibre	419 (191-645)	464 (215-714)	579 (261-911)	601 (270-942)	552 (243-868)	551 (246-877)	596 (252-966)
Diet low in calcium	80 (54-104)	90 (62-118)	102 (69-137)	95 (65-126)	77 (54-103)	63 (44-84)	46 (32-62)
Diet low in seafood omega-3 fatty acids	668 (482-876)	741 (534-987)	1,014 (737-1,323)	1,102 (796-1,427)	990 (713-1,284)	1,000 (721-1,273)	1,070 (764-1,374)
Diet low in polyunsaturated fatty acids	307 (147-477)	346 (167-532)	462 (217-721)	498 (238-765)	446 (212-690)	452 (216-696)	489 (231-756)
Diet high in trans fatty acids	257 (183-338)	292 (212-385)	379 (270-492)	412 (296-529)	371 (262-477)	350 (247-449)	391 (278-503)
Diet high in sodium	1,559 (1,024-2,073)	1,900 (1,230-2,552)	2,521 (1,610-3,399)	2,826 (1,800-3,788)	2,573 (1,648-3,487)	2,421 (1,517-3,268)	2,394 (1,492-3,260)
Physical inactivity and low physical activity							

Web table 4: Global DALYs (in thousands) attributable to risk factors by age and sex in 1990

Risk	Females, 50-54 Years	Females, 55-59 Years	Females, 60-64 Years	Females, 65-69 Years	Females, 70-74 Years	Females, 75-79 Years	Females, 80+ Years
Occupational risk factors	1,265 (921-1,655)	1,118 (783-1,473)	941 (650-1,261)	427 (288-582)	367 (239-509)	252 (160-356)	15 (11-22)
Occupational carcinogens	48 (31-75)	66 (42-105)	72 (47-114)	48 (32-73)	37 (25-58)	20 (15-29)	15 (11-22)
Occupational exposure to asbestos	11 (7-17)	14 (8-21)	16 (11-26)	18 (12-28)	14 (9-21)	12 (8-19)	10 (7-16)
Occupational exposure to arsenic	2 (1-3)	2 (1-5)	3 (1-5)	1 (1-3)	1 (0-2)	0 (0-1)	0 (0-0)
Occupational exposure to benzene	1 (0-2)	1 (0-2)	1 (0-2)	1 (1-3)	1 (0-2)	1 (0-2)	1 (0-1)
Occupational exposure to beryllium	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to cadmium	0 (0-0)	0 (0-1)	0 (0-1)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to chromium	1 (1-2)	2 (1-3)	2 (1-3)	1 (0-1)	1 (0-1)	0 (0-0)	0 (0-0)
Occupational exposure to diesel engine exhaust	8 (4-13)	11 (6-19)	11 (6-20)	6 (3-10)	5 (3-8)	1 (1-2)	1 (0-2)
Occupational exposure to second-hand smoke	14 (9-23)	20 (13-33)	21 (13-36)	11 (7-18)	9 (5-16)	3 (2-5)	2 (1-3)
Occupational exposure to formaldehyde	0 (0-1)	0 (0-1)	0 (0-1)	0 (0-1)	0 (0-0)	0 (0-0)	0 (0-0)
Occupational exposure to nickel	5 (1-11)	8 (2-16)	8 (2-17)	4 (1-9)	3 (1-7)	1 (0-2)	1 (0-1)
Occupational exposure to polycyclic aromatic hydrocarbons	2 (1-3)	3 (1-5)	3 (1-5)	1 (1-3)	1 (0-2)	0 (0-1)	0 (0-0)
Occupational exposure to silica	4 (3-7)	6 (4-11)	7 (4-12)	3 (2-6)	3 (2-5)	1 (0-1)	1 (0-1)
Occupational exposure to sulfuric acid	1 (0-2)	1 (0-2)	1 (0-3)	1 (0-1)	0 (0-1)	0 (0-0)	0 (0-0)
Occupational asthmagens	60 (33-102)	57 (29-99)	49 (24-91)	23 (11-38)	19 (9-33)	13 (7-24)	0 (0-0)
Occupational particulate matter, gases, and fumes	365 (161-585)	404 (177-655)	405 (179-674)	190 (78-319)	182 (75-311)	138 (57-234)	0 (0-0)
Occupational noise	109 (64-170)	66 (37-106)	63 (35-100)	20 (11-33)	19 (11-32)	4 (2-8)	0 (0-0)
Occupational risk factors for injuries	50 (39-67)	28 (22-38)	14 (11-18)	4 (3-5)	2 (2-3)	1 (0-1)	0 (0-0)
Occupational low back pain	634 (417-896)	496 (321-704)	338 (213-493)	143 (87-215)	107 (66-162)	76 (47-114)	0 (0-0)
Sexual abuse and violence							
Childhood sexual abuse							
Intimate partner violence							

0 indicates zero deaths attributable; blank cells indicate that attributable deaths were not quantified