

Table A8.5 Median number of total and foodborne illnesses, Deaths, and Disability Adjusted Life Years (DALYs), with 95% uncertainty intervals, 2010

PATHOGEN	ILLNESSES (95% UI)	DEATHS (95% UI)	DALYS (95% UI)	PROPORTION FOODBORNE - ILLNESSES (95% UI)	PROPORTION FOODBORNE - DALYS (95% UI)	FOODBORNE ILLNESSES (95% UI)	FOODBORNE DEATHS (95% UI)	FOODBORNE DALYS (95% UI)
Enteric protozoa	356 688 438 (251 929 267- 517 872 930)	33 925 (22 933-53 614)	2 940 604 (1 978 442-4 686 855)	0.19 (0.12-0.28)	0.17 (0.09-0.29)	67 182 645 (35 794 977- 120 556 797)	5 558 (2 593-11 958)	492 354 (239 400-1 034 790)
<i>Cryptosporidium</i> spp.#	64 003 709 (43 049 455- 104 679 951)	27 553 (18 532-44 654)	2 159 331 (1 392 438-3 686 925)	0.13 (0.07-0.24)	0.14 (0.06-0.28)	8 584 805 (3 897 252-18 531 196)	3 759 (1 520-9 115)	296 156 (119 456-724 660)
<i>Entamoeba histolytica</i> #	103 943 952 (47 018 659- 210 632 459)	5 450 (2 194-17 127)	515 904 (222 446-1 552 466)	0.28 (0.14-0.44)	0.28 (0.13-0.47)	28 023 571 (10 261 254-68 567 590)	1 470 (453-5 554)	138 863 (47 339-503 775)
<i>Giardia</i> spp.#	183 842 615 (130 018 020- 262 838 002)	0 (0-0)	171 100 (115 777-257 315)	0.15 (0.08-0.27)	0.15 (0.07-0.27)	28 236 123 (12 945 655- 56 996 454)	0 (0-0)	26 270 (11 462-53 577)
Invasive infectious disease	20 817 916 (16 337 908-29 091 701)	1 409 (701-2 620)	1 684 414 (1 236 005-2 452 060)	0.49 (0.40-0.59)	0.49 (0.40-0.59)	10 280 089 (7 403 516-14 904 324)	684 (333-1 300)	829 071 (561 297-1 264 567)
<i>Toxoplasma gondii</i> , congenital	98 900 (67 858-188 748)	1 409 (701-2 620)	526 515 (359 756-835 537)	0.49 (0.40-0.58)	0.49 (0.40-0.58)	48 823 (31 893-93 213)	684 (333-1 300)	259 618 (168 510-422 935)
<i>Toxoplasma gondii</i> , acquired	20 710 906 (16 235 987-28 955 435)	0 (0-0)	1 153 779 (772 676-1 733 114)	0.49 (0.40-0.59)	0.49 (0.39-0.59)	10 228 111 (7 351 013-14 844 411)	0 (0-0)	565 816 (354 029-891 032)
Cestodes	596 838 (482 828-2 169 206)	48 269 (36 956-70 978)	3 721 581 (2 942 173-5 416 945)	0.72 (0.35-0.79)	0.85 (0.65-0.93)	430 864 (334 389-774 703)	36 500 (25 652-50 063)	3 158 826 (2 411 585-4 122 032)
<i>Echinococcus granulosus</i>	188 079 (156 848-1 770 405)	2 225 (749-19 627)	183 573 (88 082-1 590 846)	0.21 (0.15-0.30)	0.21 (0.15-0.29)	43 076 (25 881-371 177)	482 (150-3 974)	39 950 (16 996-322 953)
<i>Echinococcus multilocularis</i>	18 451 (11 384-29 619)	17 118 (10 184-27 346)	687 823 (409 190-1 106 320)	0.47 (0.04-0.75)	0.48 (0.01-0.76)	8 375 (656-17 005)	7 771 (243-15 896)	312 461 (9 083-640 716)
<i>Taenia solium</i>	370 710 (282 937-478 123)	28 114 (21 059-36 915)	2 788 426 (2 137 613-3 606 582)	1.00	1.00	370 710 (282 937-478 123)	28 114 (21 059-36 915)	2 788 426 (2 137 613-3 606 582)
Nematodes	26 845 649 (25 375 461-47 940 713)	2 227 (865-5 946)	1 318 104 (1 183 025-2 701 170)	0.45 (0.31-0.59)	0.46 (0.31-0.59)	12 285 286 (8 292 732-22 984 630)	1 012 (388-2 783)	605 738 (411 113-1 301 619)
<i>Ascaris</i> spp.	26 840 692 (25 371 434-47 937 154)	2 224 (862-5 942)	1 317 535 (1 182 187-2 700 572)	0.45 (0.31-0.59)	0.46 (0.31-0.59)	12 280 767 (8 287 414-22 980 491)	1 008 (384-2 781)	605 278 (410 668-1 301 114)
<i>Trichinella</i> spp.	4 472 (2 977-5 997)	4 (2-5)	550 (285-934)	1.00	1.00	4 472 (2 977-5 997)	4 (2-5)	550 (285-934)
Trematodes	218 569 (167 886-281 872)	7 533 (6 383-8 845)	2 024 592 (1 652 243-2 483 514)	1.00	1.00	218 569 (167 886-281 872)	7 533 (6 383-8 845)	2 024 592 (1 652 243-2 483 514)
<i>Chlonorchis sinensis</i>	31 620 (21 515-45 059)	5 770 (4 728-6 988)	522 863 (431 520-635 232)	1.00	1.00	31 620 (21 515-45 059)	5 770 (4 728-6 988)	522 863 (431 520-635 232)
<i>Fasciola</i> spp.	10 635 (6 888-24 100)	0 (0-0)	90 041 (58 050-209 097)	1.00	1.00	10 635 (6 888-24 100)	0 (0-0)	90 041 (58 050-209 097)
Intestinal flukes *	18 924 (14 498-24 200)	0 (0-0)	155 165 (118 920-198 147)	1.00	1.00	18 924 (14 498-24 200)	0 (0-0)	155 165 (118 920-198 147)

PATHOGEN	ILLNESSES (95% UI)	DEATHS (95% UI)	DALYS (95% UI)	PROPORTION FOODBORNE - ILLNESSES (95% UI)	PROPORTION FOODBORNE - DALYS (95% UI)	FOODBORNE ILLNESSES (95% UI)	FOODBORNE DEATHS (95% UI)	FOODBORNE DALYS (95% UI)
<i>Opisthorchis</i> spp.	16 315 (11 273-22 860)	1 498 (1 230-1 813)	188 346 (151 906-235 431)	1.00	1.00	16 315 (11 273-22 860)	1 498 (1 230-1 813)	188 346 (151 906-235 431)
<i>Paragonimus</i> spp.	139 238 (95 610-195 078)	250 (160-371)	1 048 937 (743 700-1 438 588)	1.00	1.00	139 238 (95 610-195 078)	250 (160-371)	1 048 937 (743 700-1 438 588)
TOTAL (excluding enteric protozoa)	48 405 537 (43 376 746- 79 049 913)	59 724 (48 017-83 616)	8 777 198 (7 620 016-12 511 566)	0.48 (0.38-0.56)	0.76 (0.65-0.81)	23 220 595 (18 215 499-38 081 817)	45 927 (34 763-59 933)	6 639 989 (5 611 955-8 414 684)
<b>TOTAL</b>	<b>407 149 528</b> <b>(301 670 420- 585 323 226)</b>	<b>94 620</b> <b>(77 140-125 670)</b>	<b>11 794 391</b> <b>(10 164 903-15 675 990)</b>	<b>0.22</b> <b>(0.16-0.31)</b>	<b>0.61</b> <b>(0.52-0.67)</b>	<b>91 148 998</b> <b>(58 576 614- 153 950 104)</b>	<b>51 909</b> <b>(40 020-66 992)</b>	<b>7 161 689</b> <b>(6 078 248-9 074 283)</b>

**Table A8.6** Median number of foodborne illnesses, Deaths, and Disability Adjusted Life Years (DALYs), with 95% Uncertainty Intervals, 2010

CHEMICAL	FOODBORNE ILLNESSES (95% UI)	FOODBORNE DEATHS (95% UI)	FOODBORNE DALYS (95% UI)
Aflatoxin	21 757 (8 967-56 776)	19 455 (7 954-51 324)	636 869 (267 142-1 617 081)
Cyanide in cassava	1 066 (105-3 016)	227 (22-669)	18 203 (1 769-53 170)
Dioxin	193 447 (155 963-1 085 675)	0 (0-0)	240 056 (192 608-1 399 562)
Peanut allergens*	107 167 (6 262-210 093)	28 (2-56)	99 717 (5 827-195 489)
<b>TOTAL</b>	<b>338 611</b> <b>(185 705-1 238 725)</b>	<b>19 736</b> <b>(8 210-51 700)</b>	<b>1 012 362</b> <b>(562 087-2 822 481)</b>

Notes: \* = Only the burdens for AMR A, EUR A and WPR A were assessed.

**Table A8.7** Median rate per 100 000 foodborne (FB) illnesses, Deaths, and Disability Adjusted Life Years (DALYs) by region, with 95% uncertainty intervals, 2010.

REGION		CHEMICAL			
		AFLATOXIN	CYANIDE IN CASSAVA	DIOXIN	TOTAL
AFR	FB Illnesses (95% UI)	0.4 (0.1-1)	0.1 (0.01-0.4)	0.2 (0.07-7)	0.7 (0.3-8)
	FB Deaths (95% UI)	0.4 (0.1-1)	0.03 (0.003-0.08)	0 (0-0)	0.4 (0.1-1)
	FB DALYs (95% UI)	15 (5-40)	2 (0.2-6)	0.2 (0.07-8)	18 (7-49)
AMR	FB Illnesses (95% UI)	0.08 (0.02-0.6)	0 (0-0)	0.2 (0.05-6)	0.2 (0.1-7)
	FB Deaths (95% UI)	0.08 (0.02-0.6)	0 (0-0)	0 (0-0)	0.08 (0.02-0.6)
	FB DALYs (95% UI)	2 (0.4-15)	0 (0-0)	0.2 (0.07-9)	2 (0.6-24)
EMR	FB Illnesses (95% UI)	0.2 (0.04-0.5)	0 (0-0)	2 (1-35)	2 (1-35)
	FB Deaths (95% UI)	0.1 (0.04-0.4)	0 (0-0)	0 (0-0)	0.1 (0.04-0.4)
	FB DALYs (95% UI)	4 (1-13)	0 (0-0)	2 (2-43)	7 (3-51)
EUR	FB Illnesses (95% UI)	0.02 (0.01-0.03)	0 (0-0)	1 (0.7-13)	1 (0.7-13)
	FB Deaths (95% UI)	0.02 (0.01-0.03)	0 (0-0)	0 (0-0)	0.02 (0.01-0.03)
	FB DALYs (95% UI)	0.5 (0.3-0.8)	0 (0-0)	1 (0.9-19)	2 (1-19)
SEAR	FB Illnesses (95% UI)	0.2 (0.08-0.6)	0 (0-0)	9 (8-32)	10 (8-32)
	FB Deaths (95% UI)	0.2 (0.08-0.5)	0 (0-0)	0 (0-0)	0.2 (0.07-0.5)
	FB DALYs (95% UI)	7 (2-17)	0 (0-0)	12 (10-41)	19 (13-54)
WPR	FB Illnesses (95% UI)	0.6 (0.1-2)	0 (0-0)	0.05 (0.005-4)	0.8 (0.1-5)
	FB Deaths (95% UI)	0.5 (0.09-2)	0 (0-0)	0 (0-0)	0.5 (0.09-2)
	FB DALYs (95% UI)	16 (3-63)	0 (0-0)	0.07 (0.007-6)	16 (3-65)
GLOBAL	FB Illnesses (95% UI)	0.3 (0.1-0.8)	0.02 (0.002-0.04)	3 (2-16)	3 (3-17)
	FB Deaths (95% UI)	0.3 (0.1-0.7)	0.003 (0-0.01)	0 (0-0)	0.3 (0.1-0.8)
	FB DALYs (95% UI)	9 (4-24)	0.3 (0.03-0.8)	3 (3-20)	13 (7-39)



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