

Assessing the health burden of infections with antibiotic-resistant bacteria in the EU/EEA, 2016-2020

Annex 2: Individual country results

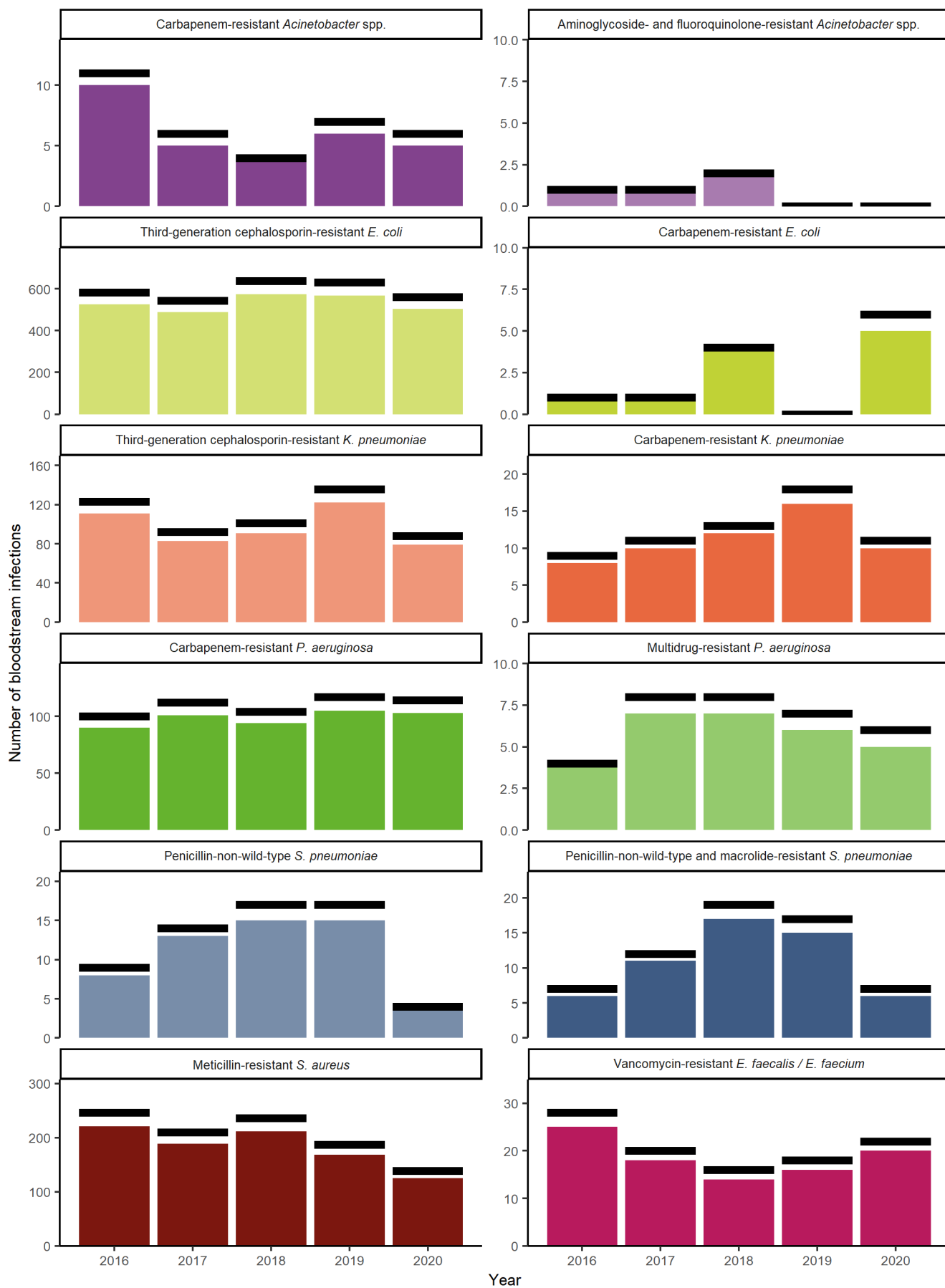
Estimates of the health burden of infections with antibiotic-resistant bacteria, Austria, 2016-2020

Austria: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	525	583	489	543	573	637	568	631	504	560
Meticillin-resistant <i>S. aureus</i>	221	246	189	210	212	236	168	187	125	139
Carbapenem-resistant <i>P. aeruginosa</i>	90	100	101	112	94	104	105	117	103	114
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	111	123	83	92	91	101	122	136	79	88
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	25	28	18	20	14	16	16	18	20	22
Carbapenem-resistant <i>K. pneumoniae</i>	8	9	10	11	12	13	16	18	10	11
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	6	7	11	12	17	19	15	17	6	7
Carbapenem-resistant <i>Acinetobacter</i> spp.	10	11	5	6	4	4	6	7	5	6
Carbapenem-resistant <i>E. coli</i>	1	1	1	1	4	4	0	0	5	6
Multidrug-resistant <i>P. aeruginosa</i>	4	4	7	8	7	8	6	7	5	6
Penicillin-non-wild-type <i>S. pneumoniae</i>	8	9	13	14	15	17	15	17	4	4
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1	1	1	1	2	2	0	0	0	0
Overall	1 010	1 122	928	1 030	1 045	1 161	1 037	1 155	866	963

Austria: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Austria: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	3 058 (2 670 - 3 485)	2 850 (2 480 - 3 264)	3 341 (2 901 - 3 823)	3 308 (2 853 - 3 808)	2 938 (2 567 - 3 346)
Carbapenem-resistant <i>P. aeruginosa</i>	940 (767 - 1 142)	1 055 (864 - 1 283)	982 (798 - 1 195)	1 096 (890 - 1 331)	1 076 (879 - 1 299)
Meticillin-resistant <i>S. aureus</i>	1 843 (1 588 - 2 125)	1 578 (1 354 - 1 824)	1 767 (1 512 - 2 050)	1 402 (1 206 - 1 613)	1 042 (896 - 1 203)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	711 (629 - 799)	532 (473 - 596)	583 (520 - 649)	782 (701 - 869)	506 (449 - 568)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	370 (278 - 486)	267 (197 - 350)	207 (146 - 284)	235 (160 - 337)	295 (206 - 412)
Multidrug-resistant <i>P. aeruginosa</i>	41 (27 - 59)	72 (47 - 105)	73 (51 - 99)	63 (44 - 84)	52 (33 - 76)
Carbapenem-resistant <i>K. pneumoniae</i>	34 (28 - 40)	42 (35 - 49)	50 (42 - 60)	67 (55 - 81)	42 (32 - 53)
Carbapenem-resistant <i>Acinetobacter</i> spp.	69 (57 - 83)	35 (27 - 43)	28 (20 - 37)	42 (32 - 52)	35 (27 - 43)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	34 (30 - 40)	63 (57 - 70)	97 (88 - 109)	86 (77 - 98)	34 (30 - 40)
Carbapenem-resistant <i>E. coli</i>	6 (3 - 9)	6 (3 - 9)	23 (18 - 30)	0 (0 - 0)	29 (23 - 36)
Penicillin-non-wild-type <i>S. pneumoniae</i>	46 (41 - 52)	74 (67 - 84)	86 (78 - 97)	86 (78 - 96)	23 (19 - 29)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	7 (4 - 11)	7 (4 - 11)	14 (9 - 19)	0 (0 - 0)	0 (0 - 0)
Overall	7 159 (6 122 - 8 331)	6 581 (5 608 - 7 688)	7 251 (6 183 - 8 452)	7 167 (6 096 - 8 369)	6 072 (5 161 - 7 105)

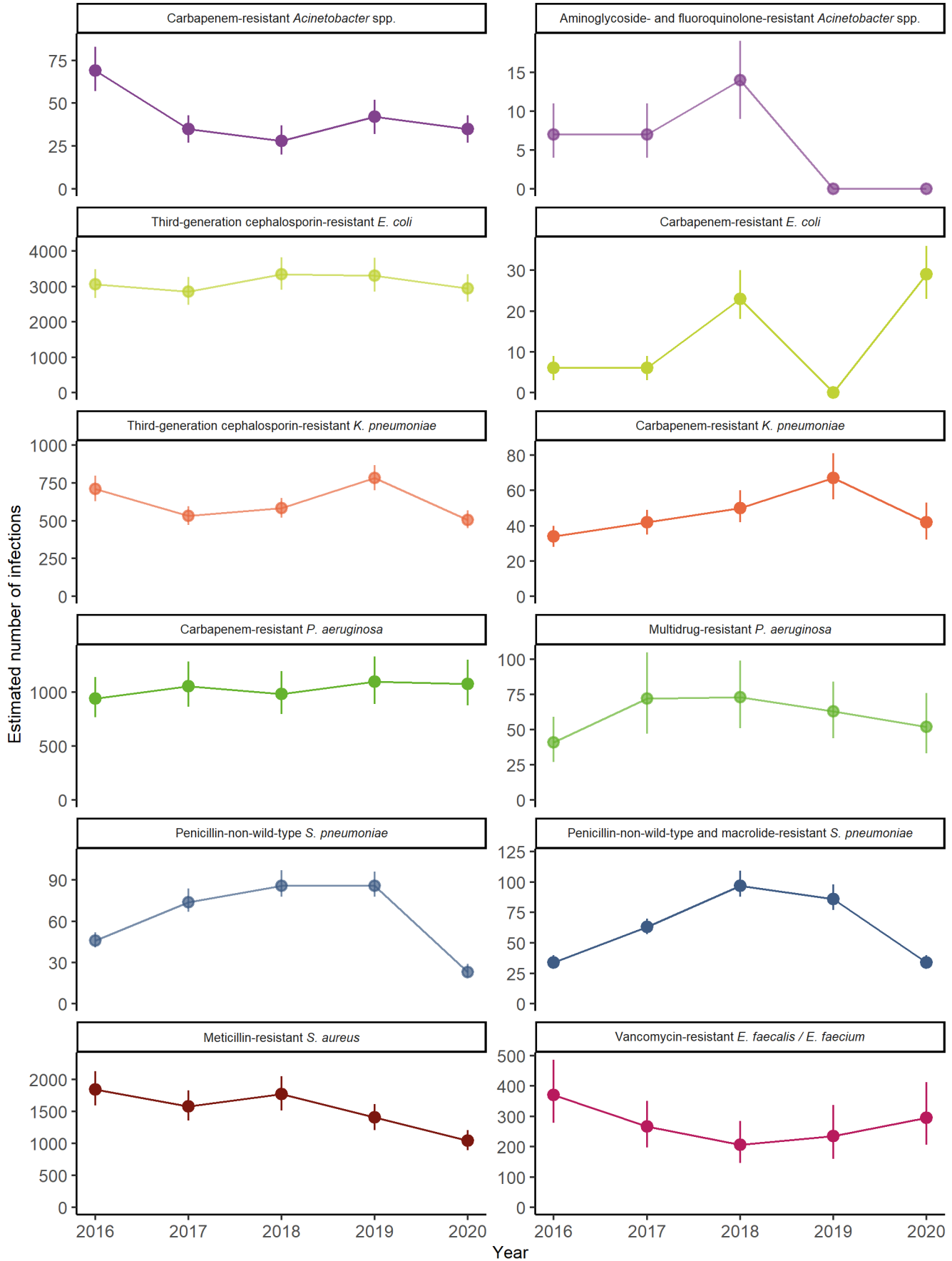
Austria: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	136 (120 - 152)	127 (112 - 143)	148 (131 - 167)	148 (130 - 168)	131 (116 - 147)
Carbapenem-resistant <i>P. aeruginosa</i>	45 (35 - 56)	50 (39 - 63)	47 (36 - 59)	52 (41 - 66)	51 (40 - 64)
Meticillin-resistant <i>S. aureus</i>	75 (68 - 83)	64 (57 - 71)	72 (65 - 80)	57 (52 - 63)	42 (38 - 46)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	29 (27 - 31)	22 (20 - 23)	24 (22 - 25)	31 (29 - 34)	21 (19 - 22)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	11 (9 - 12)	7 (6 - 8)	6 (5 - 7)	7 (6 - 8)	8 (7 - 10)
Carbapenem-resistant <i>K. pneumoniae</i>	4 (3 - 4)	4 (4 - 5)	5 (4 - 6)	7 (6 - 9)	4 (3 - 5)
Carbapenem-resistant <i>Acinetobacter</i> spp.	3 (2 - 4)	2 (1 - 2)	1 (1 - 2)	2 (1 - 3)	2 (1 - 2)
Multidrug-resistant <i>P. aeruginosa</i>	2 (1 - 3)	3 (2 - 5)	3 (2 - 5)	3 (2 - 4)	2 (1 - 4)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2 (2 - 2)	4 (4 - 4)	6 (5 - 7)	5 (5 - 6)	2 (2 - 2)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 1)	0 (0 - 1)	2 (1 - 2)	0 (0 - 0)	2 (2 - 3)
Penicillin-non-wild-type <i>S. pneumoniae</i>	3 (3 - 3)	5 (4 - 5)	5 (5 - 6)	5 (5 - 6)	1 (1 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 1)	0 (0 - 1)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Overall	310 (270 - 352)	288 (249 - 331)	320 (277 - 367)	317 (277 - 367)	266 (230 - 307)

Austria: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

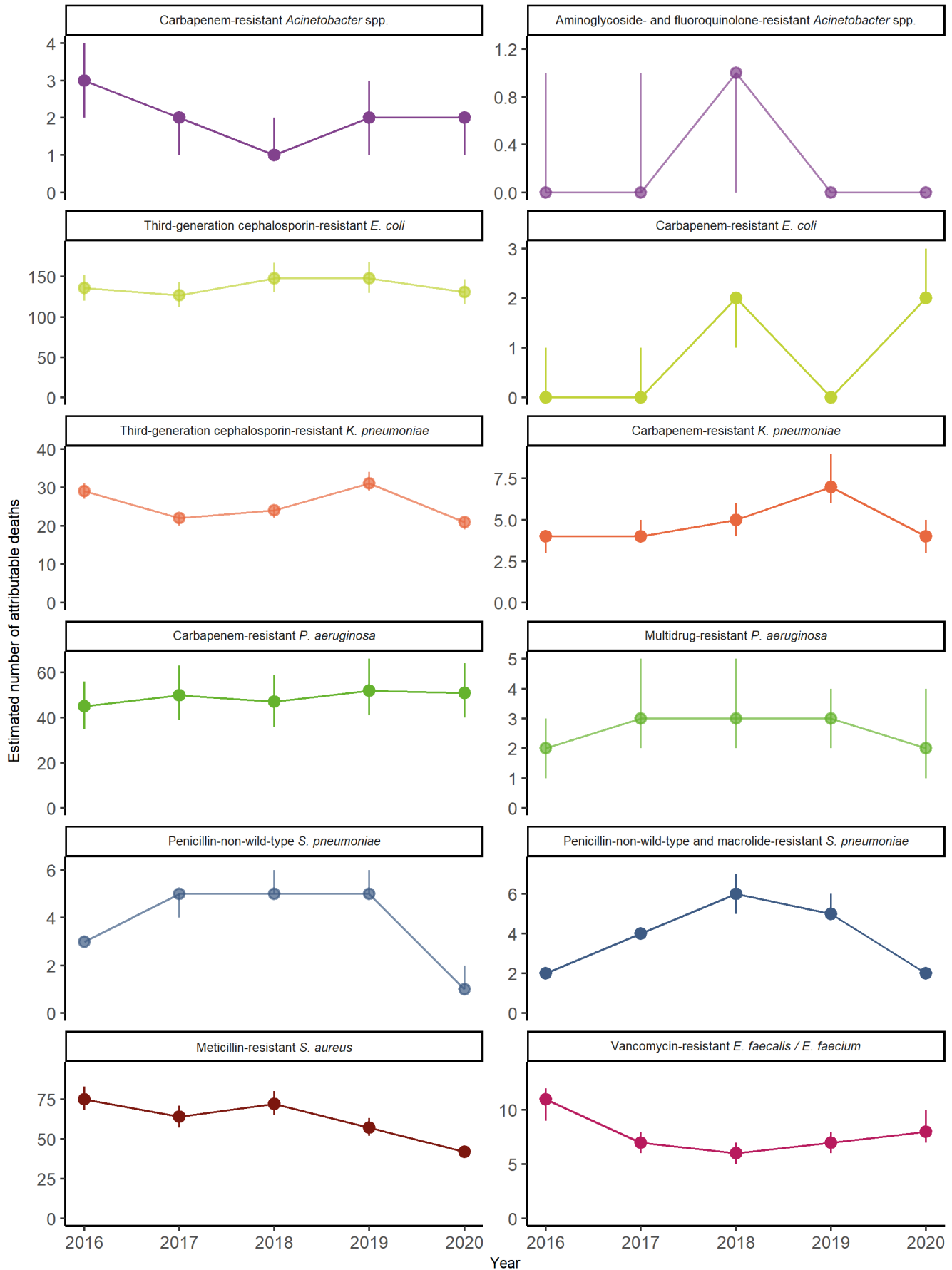
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	3 308 (3 016 - 3 613)	2 945 (2 672 - 3 227)	3 552 (3 230 - 3 886)	3 211 (2 924 - 3 512)	3 103 (2 833 - 3 384)
Carbapenem-resistant <i>P. aeruginosa</i>	1 426 (1 147 - 1 742)	1 618 (1 302 - 1 987)	1 423 (1 126 - 1 762)	1 603 (1 291 - 1 952)	1 613 (1 293 - 1 974)
Meticillin-resistant <i>S. aureus</i>	1 974 (1 816 - 2 148)	1 658 (1 517 - 1 815)	1 820 (1 668 - 1 988)	1 490 (1 369 - 1 620)	1 113 (1 021 - 1 213)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	862 (807 - 920)	607 (567 - 649)	686 (644 - 730)	993 (936 - 1 054)	608 (570 - 648)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	323 (290 - 362)	254 (230 - 282)	173 (153 - 200)	207 (178 - 250)	253 (222 - 292)
Carbapenem-resistant <i>K. pneumoniae</i>	114 (93 - 135)	170 (141 - 200)	161 (130 - 193)	175 (140 - 211)	197 (143 - 257)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	99 (86 - 117)	201 (182 - 224)	237 (214 - 270)	133 (120 - 149)	106 (93 - 122)
Carbapenem-resistant <i>E. coli</i>	25 (15 - 36)	6 (4 - 9)	62 (46 - 78)	0 (0 - 0)	69 (52 - 86)
Carbapenem-resistant <i>Acinetobacter</i> spp.	136 (103 - 170)	46 (32 - 60)	39 (24 - 55)	54 (38 - 72)	60 (42 - 78)
Multidrug-resistant <i>P. aeruginosa</i>	63 (37 - 99)	93 (56 - 141)	85 (57 - 119)	75 (50 - 105)	50 (29 - 81)
Penicillin-non-wild-type <i>S. pneumoniae</i>	134 (119 - 153)	207 (187 - 231)	161 (147 - 178)	130 (119 - 144)	30 (25 - 36)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	11 (5 - 18)	8 (4 - 13)	28 (16 - 42)	0 (0 - 0)	0 (0 - 0)
Overall	8 475 (7 534 - 9 513)	7 813 (6 894 - 8 838)	8 427 (7 455 - 9 501)	8 071 (7 165 - 9 069)	7 202 (6 323 - 8 171)

Austria: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



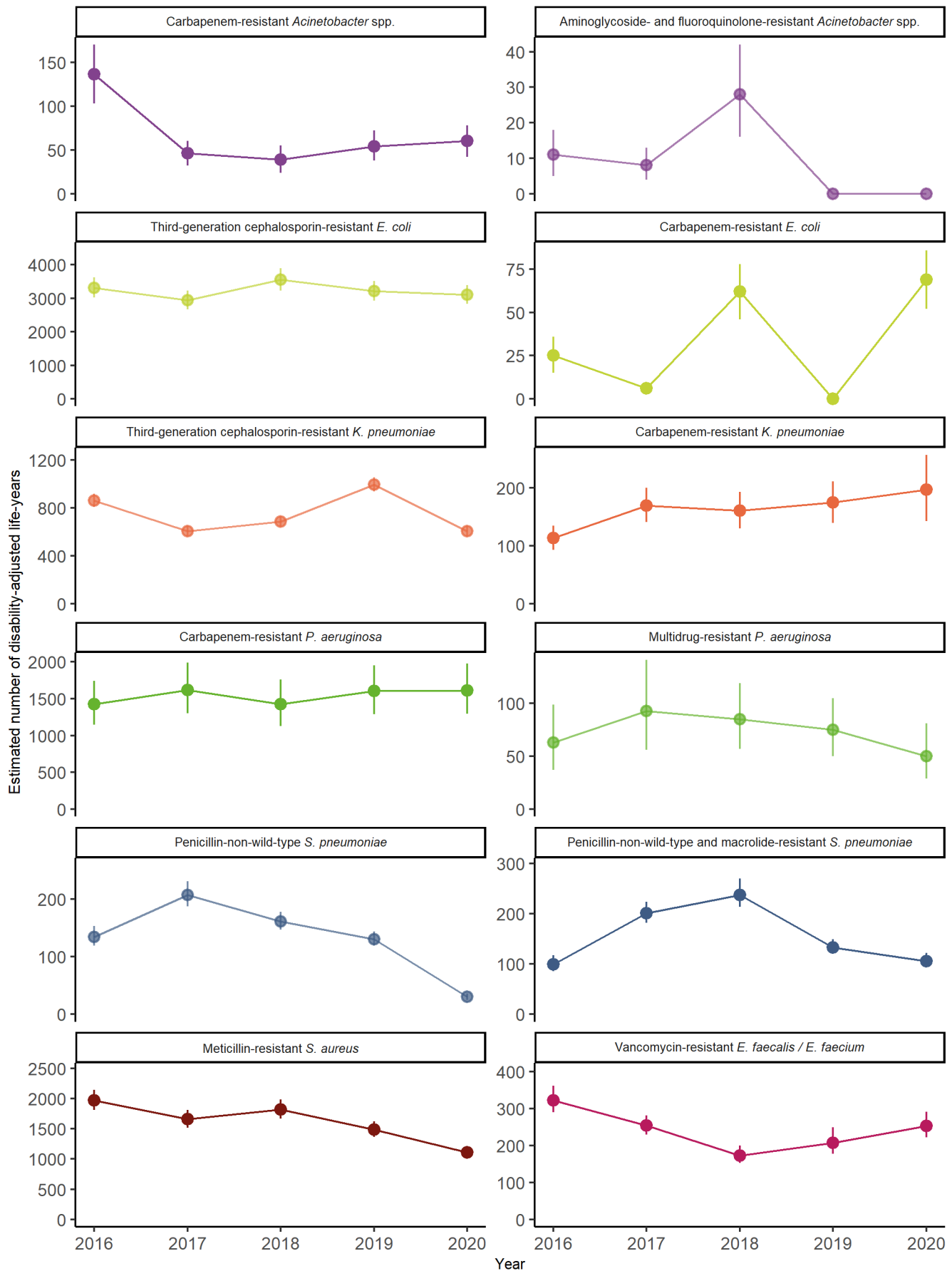
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Austria: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



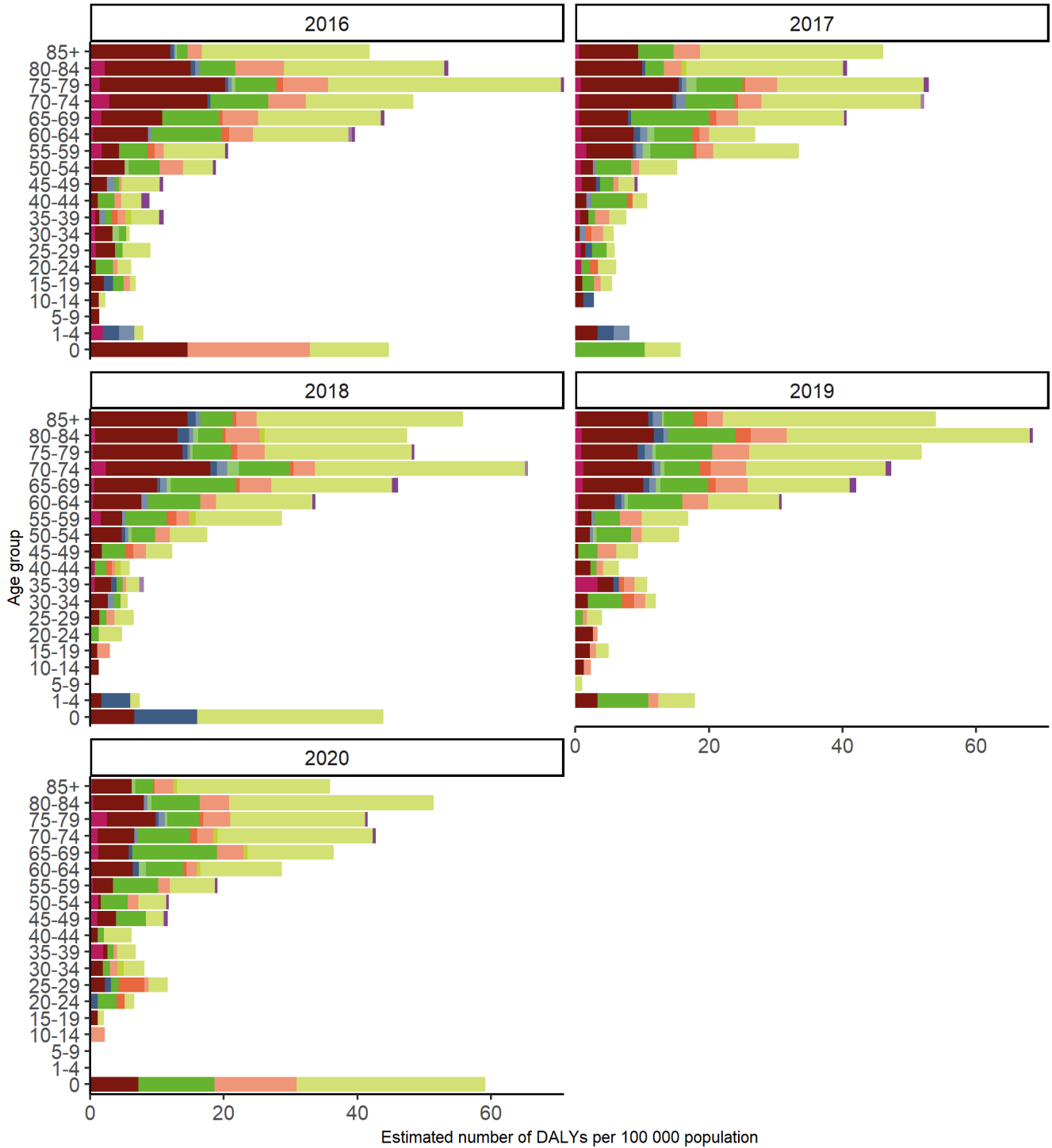
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Austria: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Austria: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

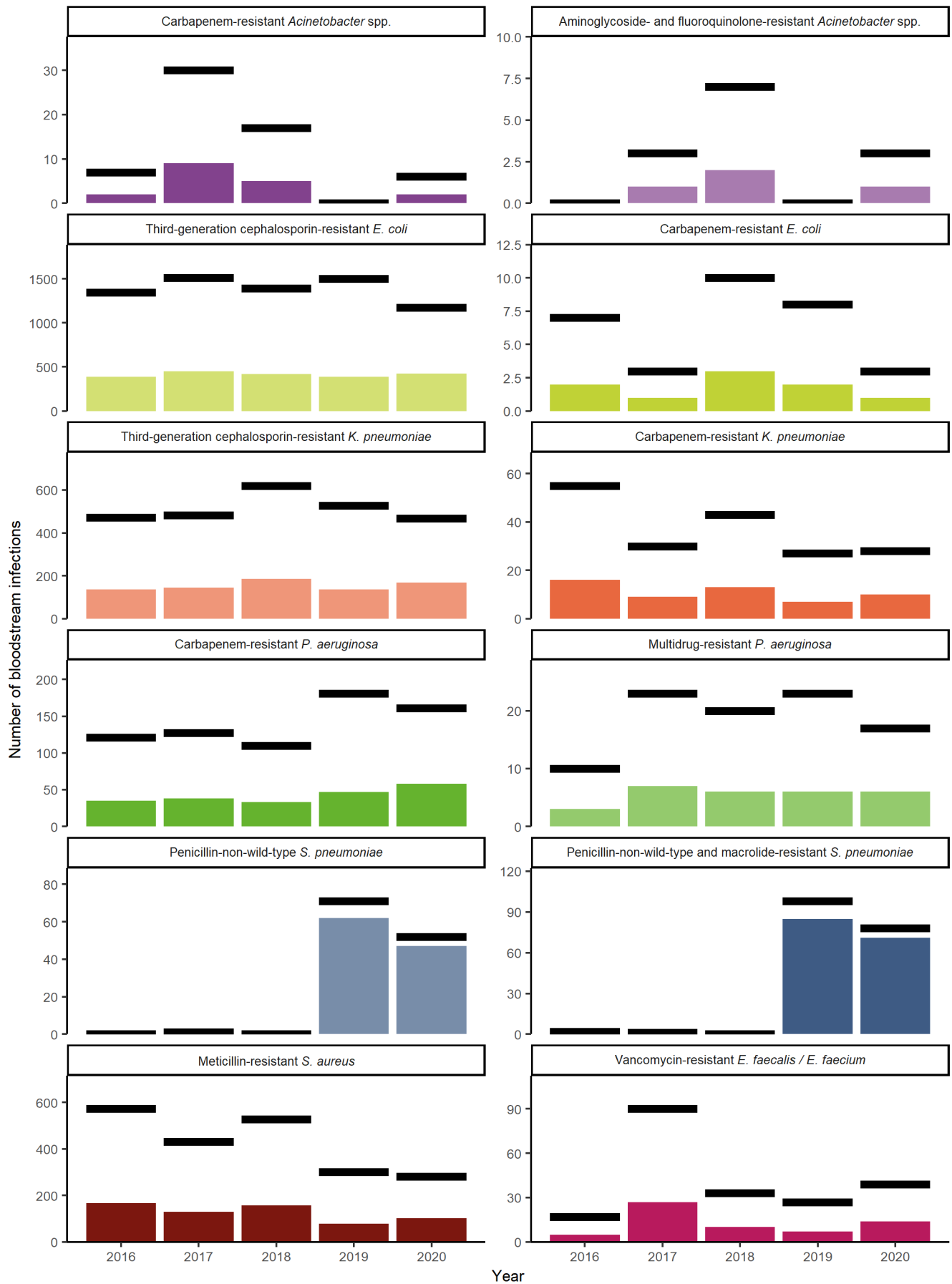
Estimates of the health burden of infections with antibiotic-resistant bacteria, Belgium, 2016-2020

Belgium: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	390	1 345	453	1 510	417	1 390	390	1 500	423	1 175
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	137	472	145	483	186	620	137	527	168	467
Meticillin-resistant <i>S. aureus</i>	166	572	129	430	158	527	78	300	101	281
Carbapenem-resistant <i>P. aeruginosa</i>	35	121	38	127	33	110	47	181	58	161
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2	2	1	1	0	0	85	98	71	78
Penicillin-non-wild-type <i>S. pneumoniae</i>	0	0	1	1	0	0	62	71	47	52
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	5	17	27	90	10	33	7	27	14	39
Carbapenem-resistant <i>K. pneumoniae</i>	16	55	9	30	13	43	7	27	10	28
Multidrug-resistant <i>P. aeruginosa</i>	3	10	7	23	6	20	6	23	6	17
Carbapenem-resistant <i>Acinetobacter</i> spp.	2	7	9	30	5	17	0	0	2	6
Carbapenem-resistant <i>E. coli</i>	2	7	1	3	3	10	2	8	1	3
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	1	3	2	7	0	0	1	3
Overall	758	2 608	821	2 731	833	2 777	821	2 762	902	2 310

Belgium: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Belgium: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	7 056 (6 117 - 8 101)	7 922 (6 915 - 9 019)	7 294 (6 380 - 8 279)	7 869 (6 895 - 8 961)	6 171 (5 401 - 7 012)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 726 (2 443 - 3 026)	2 788 (2 472 - 3 127)	3 575 (3 183 - 3 991)	3 037 (2 705 - 3 399)	2 689 (2 395 - 3 007)
Meticillin-resistant <i>S. aureus</i>	4 296 (3 716 - 4 933)	3 230 (2 774 - 3 725)	3 953 (3 385 - 4 579)	2 250 (1 940 - 2 594)	2 106 (1 833 - 2 412)
Carbapenem-resistant <i>P. aeruginosa</i>	1 134 (919 - 1 384)	1 189 (936 - 1 488)	1 033 (816 - 1 284)	1 700 (1 338 - 2 116)	1 513 (1 207 - 1 878)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	228 (152 - 333)	1 201 (912 - 1 543)	441 (285 - 640)	353 (238 - 536)	517 (375 - 693)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	11 (9 - 17)	6 (5 - 8)	0 (0 - 0)	505 (469 - 547)	403 (374 - 438)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	6 (5 - 8)	0 (0 - 0)	368 (341 - 401)	267 (246 - 291)
Multidrug-resistant <i>P. aeruginosa</i>	96 (59 - 145)	218 (159 - 288)	185 (112 - 290)	216 (158 - 288)	156 (112 - 210)
Carbapenem-resistant <i>K. pneumoniae</i>	209 (176 - 245)	113 (92 - 139)	164 (137 - 193)	101 (79 - 129)	104 (79 - 137)
Carbapenem-resistant <i>Acinetobacter</i> spp.	43 (33 - 56)	188 (148 - 231)	104 (81 - 130)	0 (0 - 0)	34 (23 - 48)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	20 (12 - 33)	41 (23 - 65)	0 (0 - 0)	17 (10 - 27)
Carbapenem-resistant <i>E. coli</i>	36 (25 - 50)	17 (10 - 27)	52 (36 - 73)	39 (24 - 62)	14 (9 - 23)
Overall	15 835 (13 649 - 18 290)	16 898 (14 440 - 19 636)	16 842 (14 438 - 19 524)	16 438 (14 187 - 19 033)	13 991 (12 064 - 16 176)

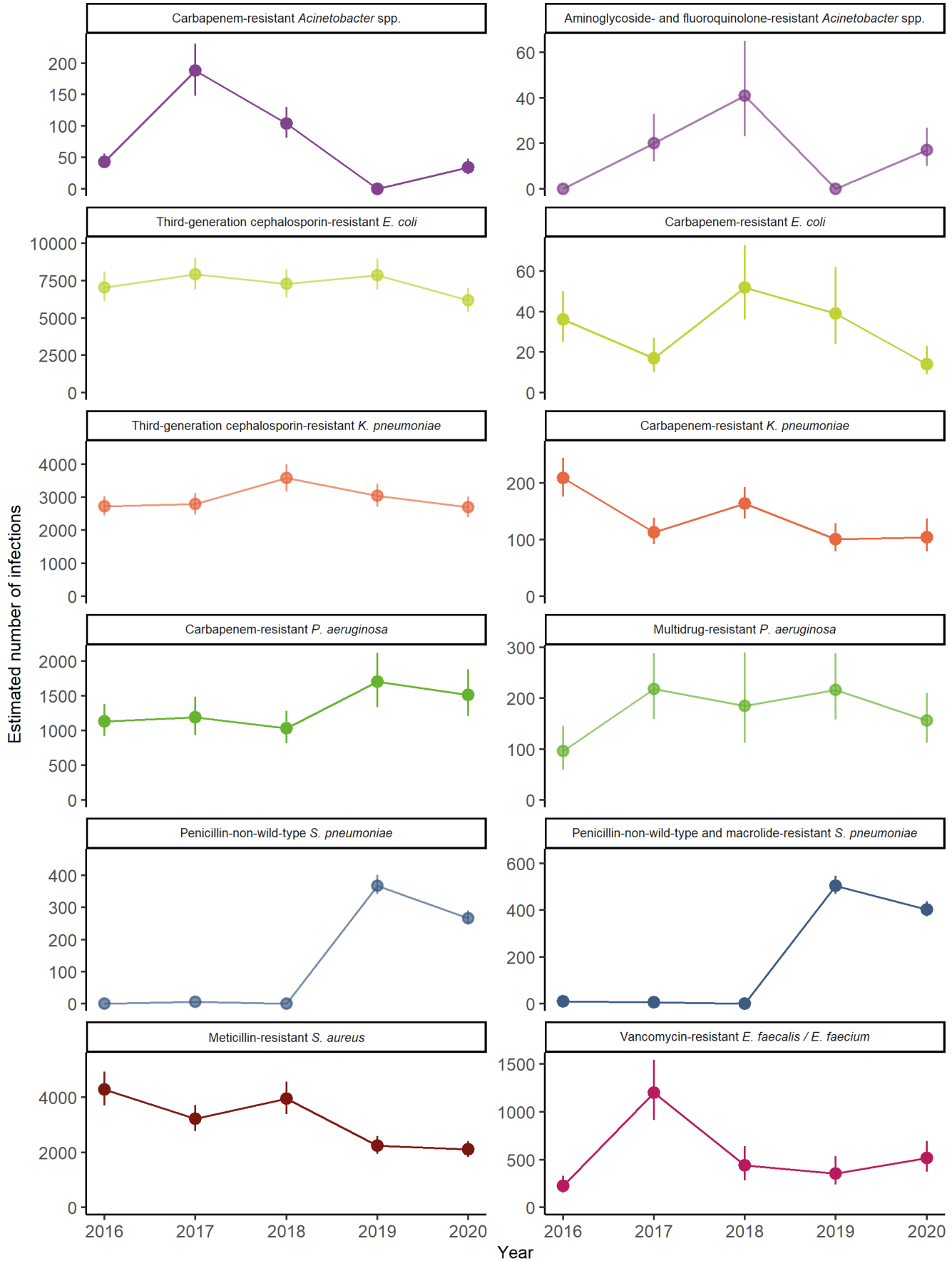
Belgium: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	316 (278 - 357)	351 (311 - 394)	323 (286 - 361)	347 (308 - 389)	274 (243 - 306)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	110 (102 - 118)	114 (106 - 124)	146 (135 - 157)	123 (114 - 132)	109 (101 - 118)
Meticillin-resistant <i>S. aureus</i>	173 (156 - 192)	130 (117 - 144)	156 (141 - 172)	89 (80 - 98)	85 (77 - 94)
Carbapenem-resistant <i>P. aeruginosa</i>	53 (41 - 67)	56 (42 - 73)	49 (36 - 63)	81 (60 - 104)	72 (54 - 93)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	31 (29 - 33)	25 (23 - 26)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	23 (21 - 24)	16 (15 - 18)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	6 (6 - 8)	35 (31 - 39)	14 (12 - 17)	10 (9 - 13)	13 (12 - 15)
Carbapenem-resistant <i>K. pneumoniae</i>	22 (18 - 25)	12 (9 - 15)	17 (14 - 20)	11 (8 - 14)	11 (8 - 14)
Multidrug-resistant <i>P. aeruginosa</i>	4 (2 - 7)	10 (7 - 14)	8 (4 - 14)	10 (7 - 14)	7 (5 - 10)
Carbapenem-resistant <i>Acinetobacter</i> spp.	2 (1 - 3)	9 (6 - 11)	5 (4 - 7)	0 (0 - 0)	2 (1 - 3)
Carbapenem-resistant <i>E. coli</i>	3 (2 - 4)	1 (1 - 2)	4 (3 - 5)	3 (2 - 4)	1 (1 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	1 (0 - 2)	2 (1 - 3)	0 (0 - 0)	1 (0 - 1)
Overall	690 (607 - 782)	719 (630 - 818)	724 (636 - 819)	728 (638 - 825)	616 (540 - 700)

Belgium: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

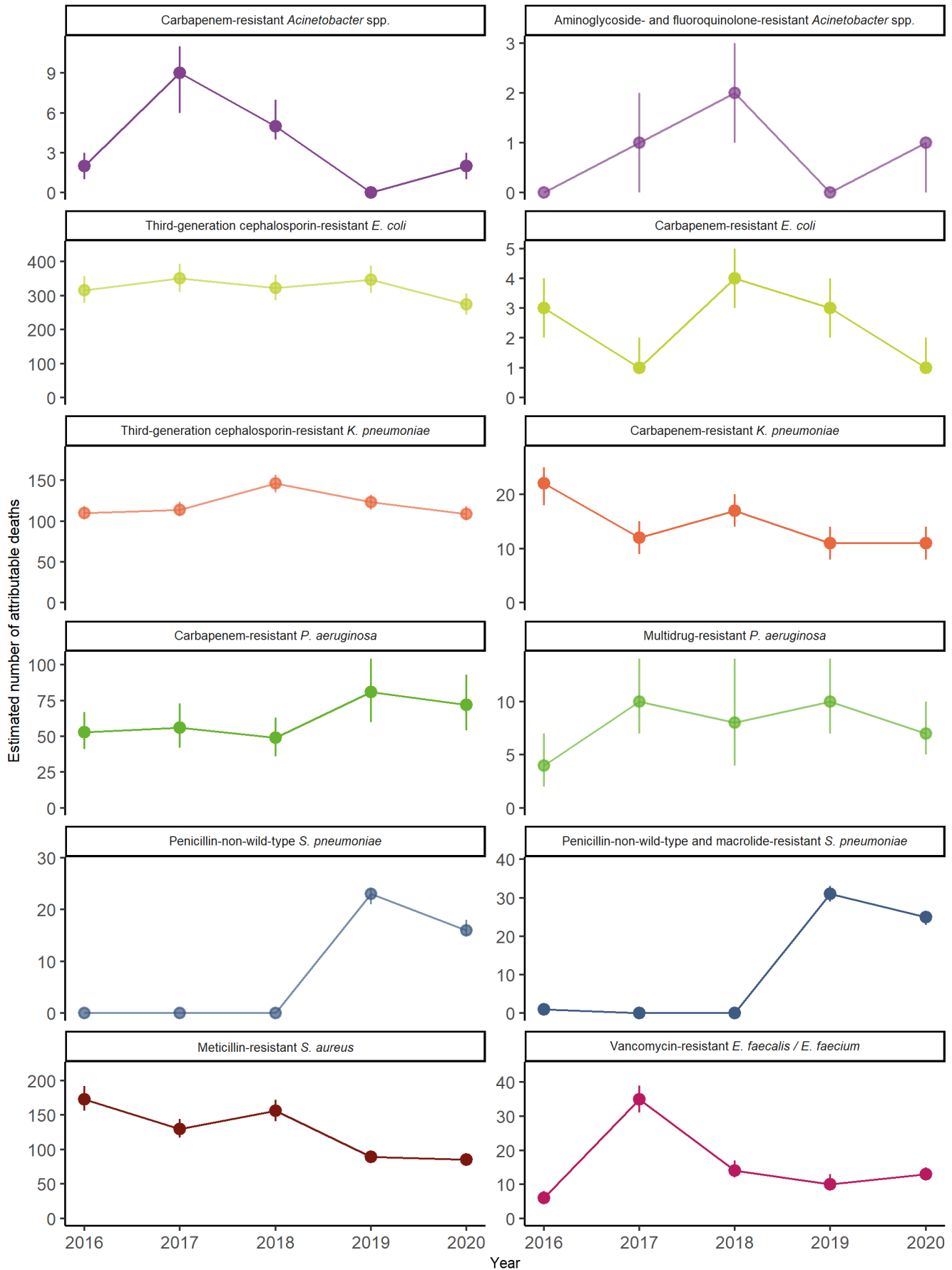
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	7 267 (6 611 - 7 959)	8 724 (7 980 - 9 490)	8 098 (7 390 - 8 832)	9 113 (8 361 - 9 889)	6 879 (6 294 - 7 480)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	3 381 (3 181 - 3 593)	2 815 (2 635 - 3 007)	3 769 (3 538 - 4 019)	3 892 (3 665 - 4 129)	3 115 (2 929 - 3 314)
Meticillin-resistant <i>S. aureus</i>	4 827 (4 465 - 5 219)	3 377 (3 113 - 3 666)	4 374 (3 987 - 4 806)	2 592 (2 388 - 2 817)	2 497 (2 309 - 2 703)
Carbapenem-resistant <i>P. aeruginosa</i>	1 997 (1 576 - 2 455)	1 843 (1 410 - 2 349)	1 779 (1 363 - 2 246)	2 863 (2 188 - 3 661)	2 470 (1 938 - 3 090)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	77 (62 - 106)	41 (33 - 56)	0 (0 - 0)	1 596 (1 464 - 1 758)	1 234 (1 146 - 1 342)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	4 (3 - 5)	0 (0 - 0)	1 274 (1 169 - 1 423)	999 (920 - 1 103)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	181 (155 - 219)	1 007 (902 - 1 134)	234 (194 - 284)	310 (262 - 382)	537 (484 - 604)
Carbapenem-resistant <i>K. pneumoniae</i>	869 (713 - 1 025)	362 (290 - 435)	574 (475 - 673)	291 (227 - 358)	286 (220 - 359)
Multidrug-resistant <i>P. aeruginosa</i>	176 (102 - 275)	334 (228 - 465)	260 (149 - 412)	265 (189 - 361)	240 (165 - 332)
Carbapenem-resistant <i>Acinetobacter</i> spp.	137 (81 - 200)	438 (312 - 570)	137 (96 - 180)	0 (0 - 0)	36 (20 - 55)
Carbapenem-resistant <i>E. coli</i>	104 (69 - 142)	62 (37 - 89)	166 (112 - 223)	225 (134 - 320)	21 (12 - 30)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	82 (38 - 132)	61 (29 - 98)	0 (0 - 0)	12 (6 - 20)
Overall	19 016 (17 015 - 21 193)	19 089 (16 981 - 21 398)	19 452 (17 333 - 21 773)	22 421 (20 047 - 25 098)	18 326 (16 443 - 20 432)

Belgium: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



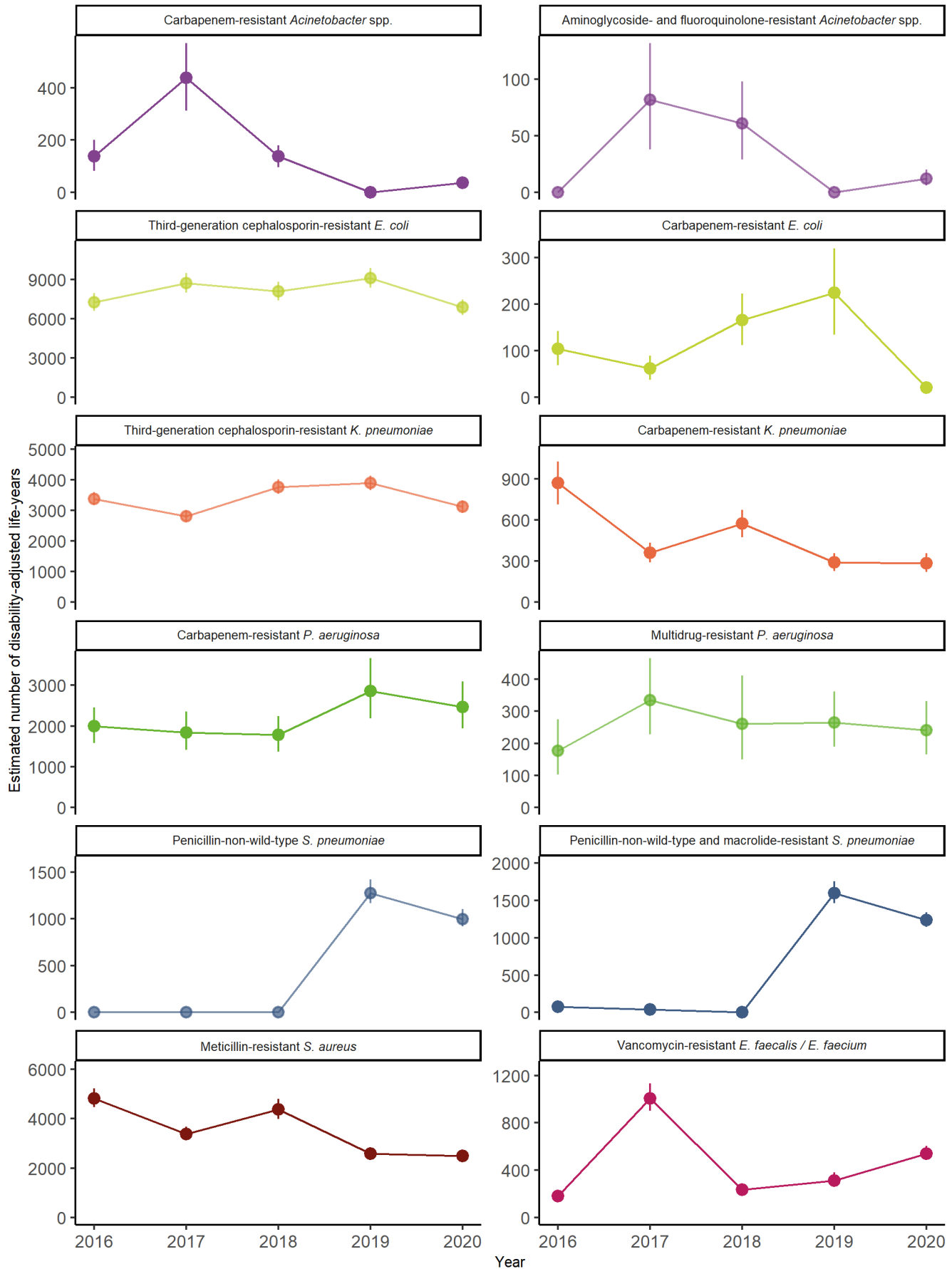
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Belgium: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



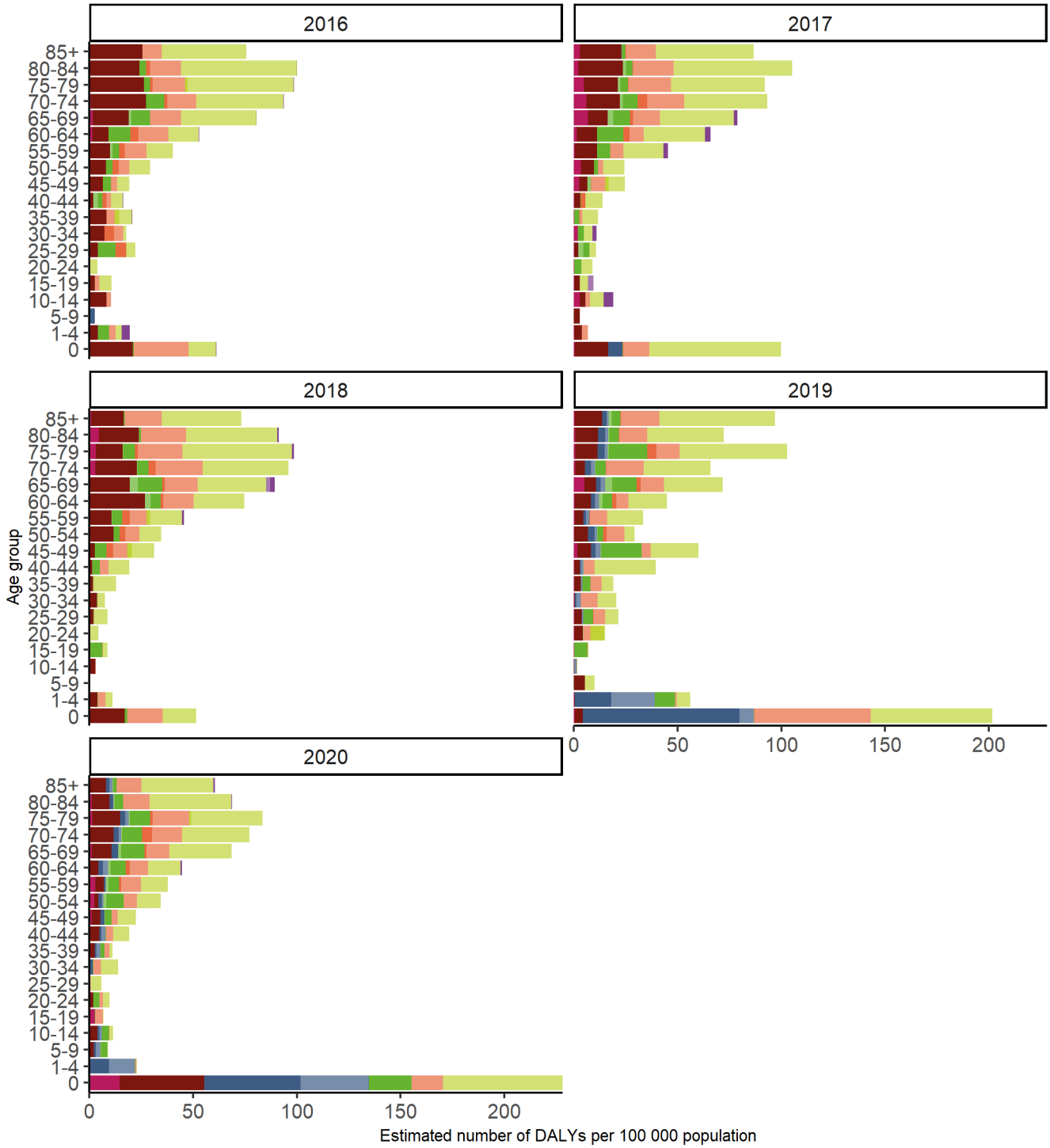
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Belgium: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Belgium: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

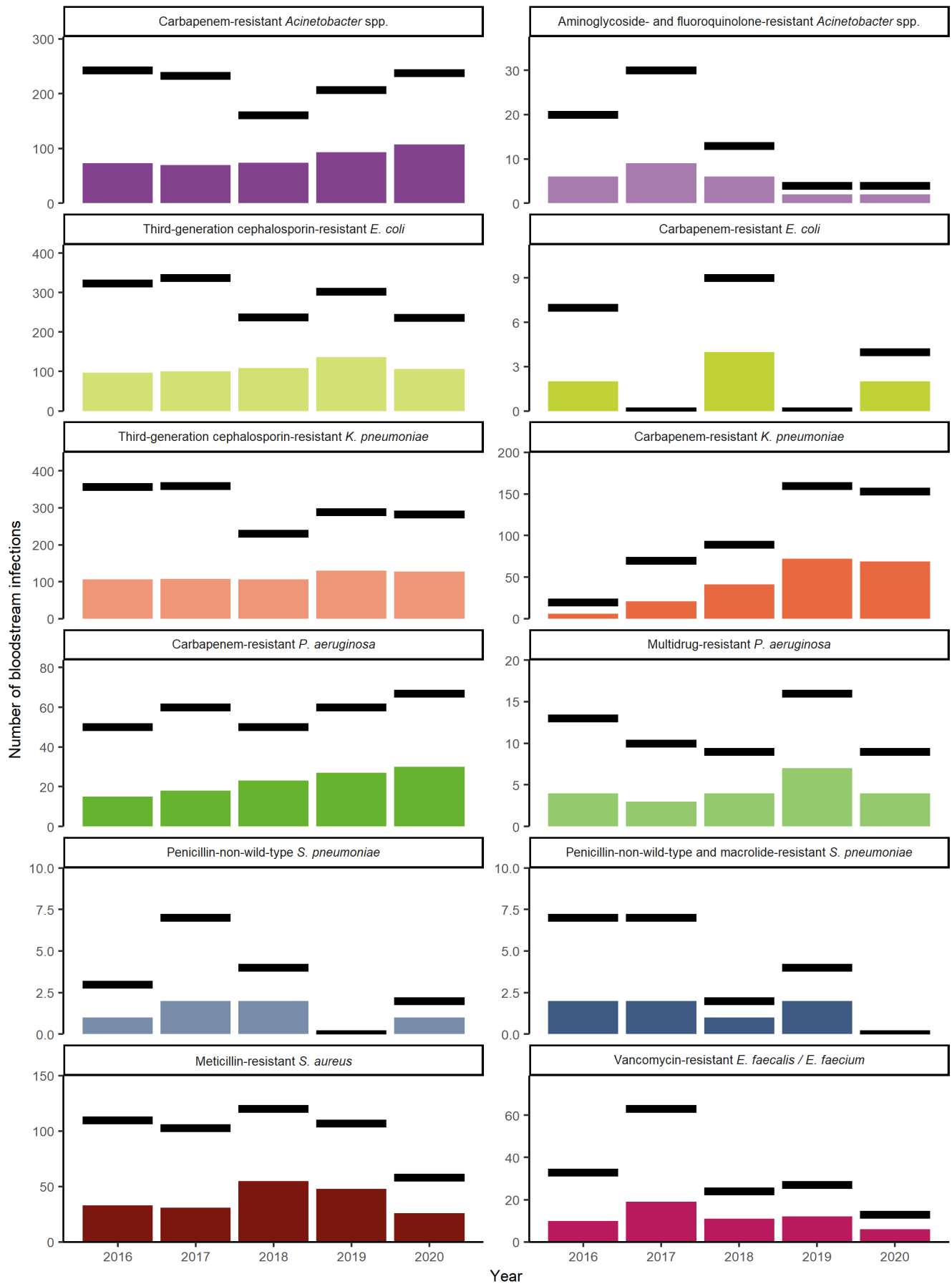
Estimates of the health burden of infections with antibiotic-resistant bacteria, Bulgaria, 2016-2020

Bulgaria: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	107	357	108	360	106	230	130	289	127	282
Carbapenem-resistant <i>Acinetobacter</i> spp.	73	243	70	233	74	161	93	207	107	238
Third-generation cephalosporin-resistant <i>E. coli</i>	97	323	101	337	109	237	136	302	106	236
Carbapenem-resistant <i>K. pneumoniae</i>	6	20	21	70	41	89	72	160	69	153
Carbapenem-resistant <i>P. aeruginosa</i>	15	50	18	60	23	50	27	60	30	67
Meticillin-resistant <i>S. aureus</i>	33	110	31	103	55	120	48	107	26	58
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	10	33	19	63	11	24	12	27	6	13
Multidrug-resistant <i>P. aeruginosa</i>	4	13	3	10	4	9	7	16	4	9
Carbapenem-resistant <i>E. coli</i>	2	7	0	0	4	9	0	0	2	4
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	6	20	9	30	6	13	2	4	2	4
Penicillin-non-wild-type <i>S. pneumoniae</i>	1	3	2	7	2	4	0	0	1	2
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2	7	2	7	1	2	2	4	0	0
Overall	356	1 186	384	1 280	436	948	529	1 176	480	1 066

Bulgaria: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Bulgaria: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 056 (1 836 - 2 295)	2 075 (1 889 - 2 277)	1 330 (1 194 - 1 475)	1 666 (1 510 - 1 834)	1 627 (1 464 - 1 805)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 523 (1 344 - 1 714)	1 461 (1 278 - 1 654)	1 007 (881 - 1 145)	1 294 (1 136 - 1 463)	1 490 (1 300 - 1 691)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 697 (1 508 - 1 902)	1 766 (1 560 - 1 991)	1 243 (1 103 - 1 397)	1 585 (1 394 - 1 794)	1 236 (1 088 - 1 396)
Carbapenem-resistant <i>P. aeruginosa</i>	467 (353 - 614)	560 (423 - 737)	470 (375 - 581)	563 (445 - 699)	626 (507 - 764)
Carbapenem-resistant <i>K. pneumoniae</i>	76 (60 - 92)	265 (222 - 313)	337 (296 - 382)	605 (530 - 687)	580 (514 - 652)
Meticillin-resistant <i>S. aureus</i>	826 (690 - 979)	775 (669 - 891)	897 (774 - 1 034)	800 (690 - 925)	433 (371 - 502)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	443 (293 - 629)	846 (629 - 1 100)	319 (225 - 427)	352 (228 - 525)	177 (116 - 252)
Multidrug-resistant <i>P. aeruginosa</i>	123 (74 - 193)	93 (56 - 140)	81 (53 - 116)	145 (102 - 200)	83 (54 - 119)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	125 (96 - 158)	187 (147 - 232)	81 (62 - 103)	28 (18 - 39)	28 (18 - 39)
Carbapenem-resistant <i>E. coli</i>	35 (24 - 48)	0 (0 - 0)	45 (33 - 61)	0 (0 - 0)	23 (16 - 32)
Penicillin-non-wild-type <i>S. pneumoniae</i>	17 (13 - 24)	34 (28 - 44)	22 (18 - 29)	0 (0 - 0)	11 (9 - 16)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	34 (28 - 44)	34 (28 - 44)	11 (9 - 16)	23 (19 - 29)	0 (0 - 0)
Overall	7 422 (6 319 - 8 692)	8 096 (6 929 - 9 423)	5 843 (5 023 - 6 766)	7 061 (6 072 - 8 195)	6 314 (5 457 - 7 268)

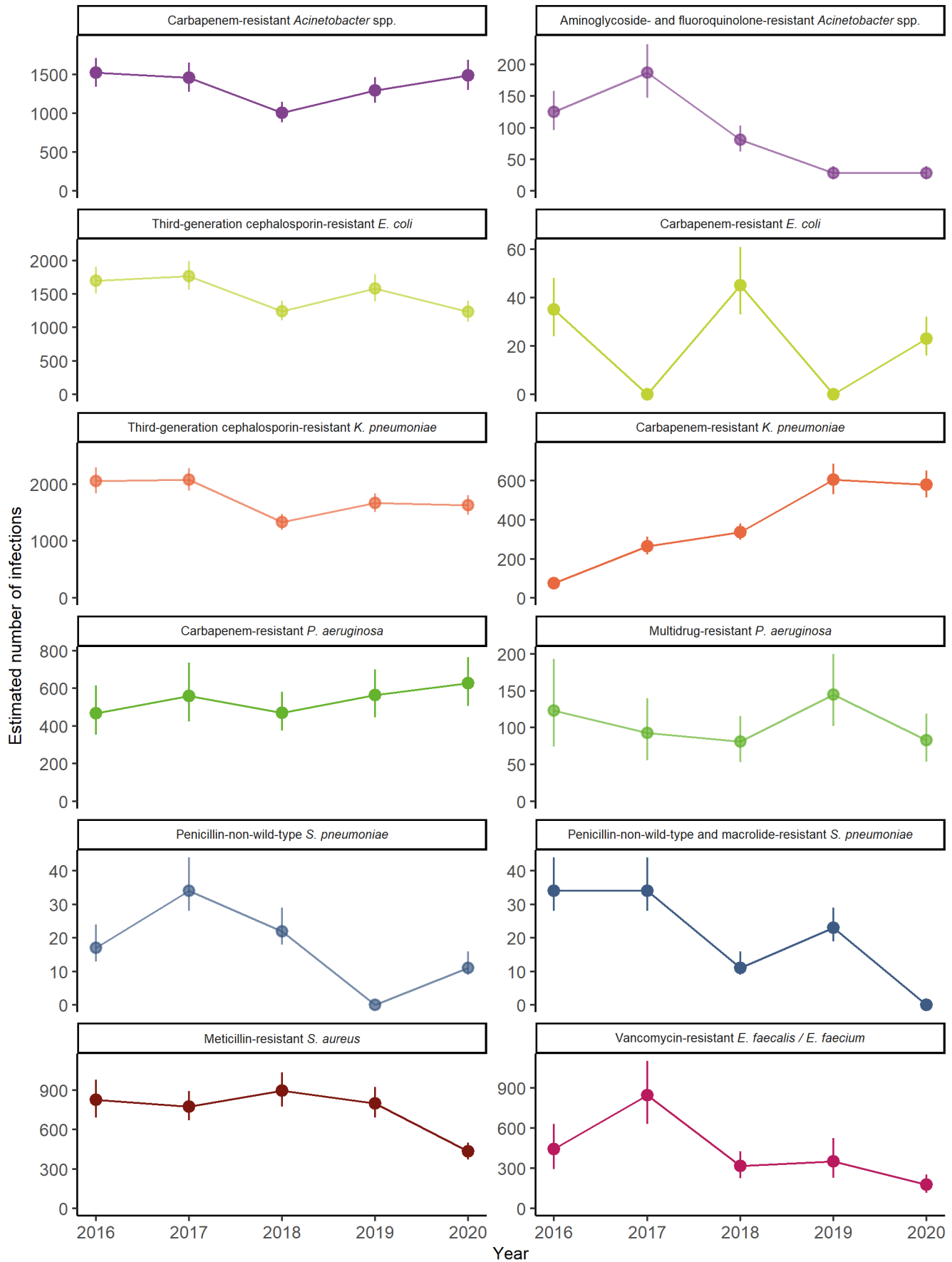
Bulgaria: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	73 (61 - 85)	69 (57 - 82)	48 (40 - 57)	62 (51 - 73)	72 (59 - 85)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	81 (76 - 87)	81 (77 - 86)	52 (49 - 56)	65 (61 - 70)	64 (60 - 69)
Carbapenem-resistant <i>K. pneumoniae</i>	8 (6 - 10)	28 (23 - 33)	35 (31 - 40)	64 (55 - 72)	61 (53 - 68)
Third-generation cephalosporin-resistant <i>E. coli</i>	73 (66 - 81)	76 (68 - 84)	54 (48 - 60)	69 (62 - 77)	54 (48 - 60)
Carbapenem-resistant <i>P. aeruginosa</i>	22 (15 - 29)	26 (18 - 36)	22 (17 - 28)	27 (20 - 34)	30 (23 - 37)
Meticillin-resistant <i>S. aureus</i>	31 (28 - 34)	30 (27 - 33)	34 (31 - 37)	31 (28 - 35)	16 (14 - 18)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	11 (10 - 13)	21 (19 - 24)	9 (7 - 10)	10 (8 - 12)	5 (4 - 6)
Multidrug-resistant <i>P. aeruginosa</i>	6 (3 - 9)	4 (2 - 6)	4 (2 - 5)	6 (4 - 9)	4 (2 - 6)
Carbapenem-resistant <i>E. coli</i>	3 (2 - 4)	0 (0 - 0)	4 (3 - 5)	0 (0 - 0)	2 (1 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	6 (4 - 8)	9 (6 - 12)	4 (3 - 5)	1 (1 - 2)	1 (1 - 2)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	2 (2 - 3)	1 (1 - 2)	0 (0 - 0)	1 (1 - 1)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2 (2 - 3)	2 (2 - 3)	1 (1 - 1)	1 (1 - 2)	0 (0 - 0)
Overall	317 (274 - 364)	348 (301 - 402)	268 (233 - 306)	336 (291 - 386)	310 (266 - 354)

Bulgaria: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

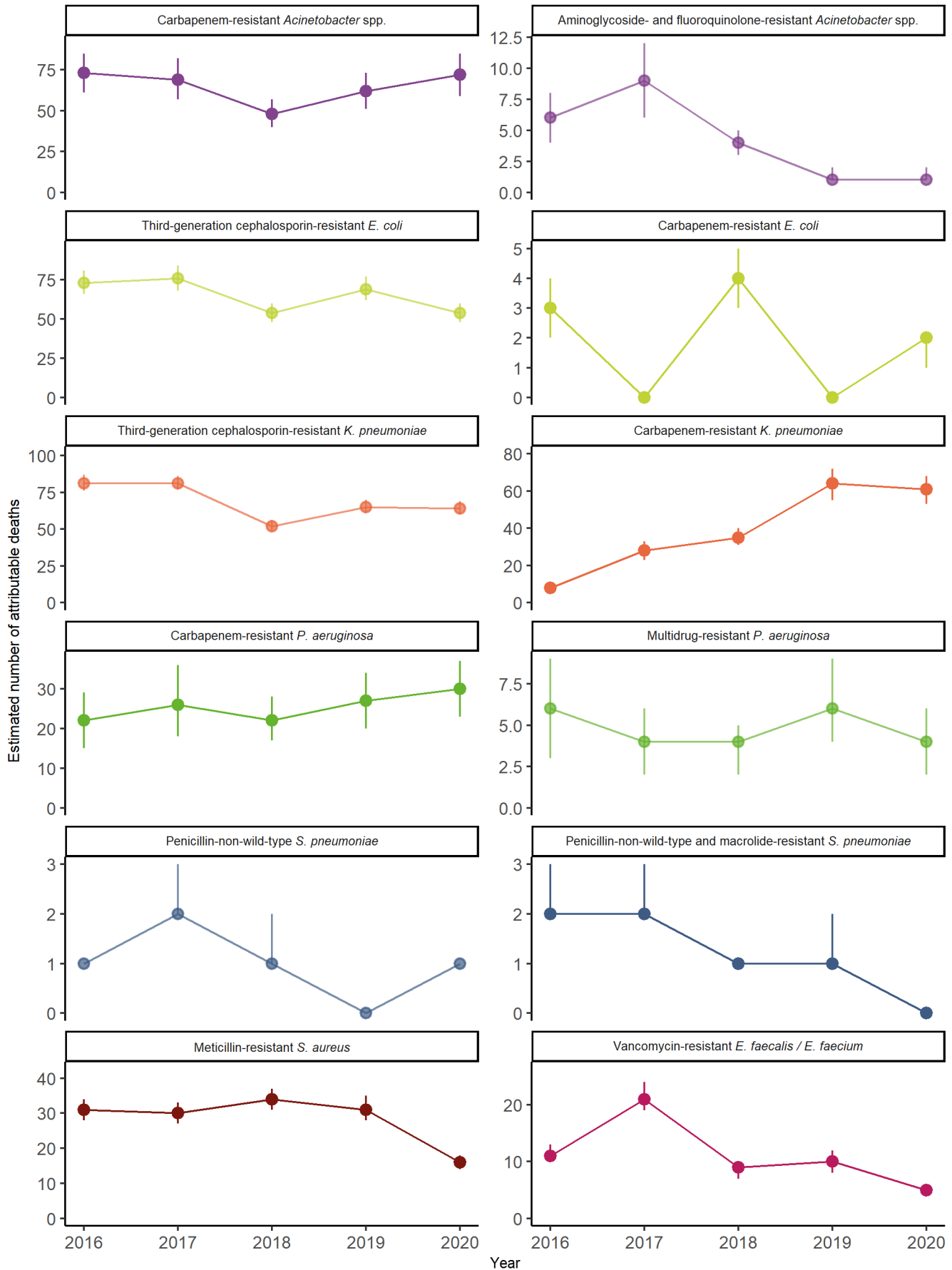
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	3 655 (3 422 - 3 900)	4 248 (3 994 - 4 518)	2 380 (2 220 - 2 548)	3 247 (3 050 - 3 454)	2 966 (2 792 - 3 154)
Carbapenem-resistant <i>Acinetobacter</i> spp.	3 032 (2 569 - 3 515)	2 974 (2 519 - 3 431)	1 878 (1 592 - 2 178)	2 379 (2 019 - 2 742)	2 539 (2 138 - 2 951)
Carbapenem-resistant <i>K. pneumoniae</i>	278 (217 - 340)	955 (804 - 1 111)	1 311 (1 149 - 1 476)	2 320 (2 042 - 2 604)	2 516 (2 201 - 2 832)
Third-generation cephalosporin-resistant <i>E. coli</i>	2 647 (2 419 - 2 882)	2 848 (2 588 - 3 116)	1 783 (1 635 - 1 941)	2 120 (1 929 - 2 319)	1 835 (1 664 - 2 016)
Carbapenem-resistant <i>P. aeruginosa</i>	907 (661 - 1 200)	1 150 (854 - 1 494)	837 (636 - 1 067)	1 091 (852 - 1 355)	1 123 (878 - 1 401)
Meticillin-resistant <i>S. aureus</i>	1 469 (1 316 - 1 639)	1 182 (1 085 - 1 287)	1 315 (1 195 - 1 449)	1 250 (1 139 - 1 375)	792 (719 - 874)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	389 (343 - 448)	835 (757 - 925)	300 (265 - 342)	313 (267 - 374)	135 (115 - 161)
Multidrug-resistant <i>P. aeruginosa</i>	164 (92 - 261)	147 (85 - 229)	151 (95 - 224)	257 (174 - 358)	104 (62 - 165)
Carbapenem-resistant <i>E. coli</i>	93 (62 - 126)	0 (0 - 0)	93 (67 - 120)	0 (0 - 0)	67 (44 - 91)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	283 (199 - 376)	255 (189 - 327)	152 (105 - 202)	57 (31 - 86)	39 (22 - 58)
Penicillin-non-wild-type <i>S. pneumoniae</i>	33 (27 - 46)	113 (94 - 146)	73 (61 - 92)	0 (0 - 0)	22 (18 - 30)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	80 (67 - 100)	44 (37 - 57)	26 (21 - 35)	110 (92 - 141)	0 (0 - 0)
Overall	13 030 (11 394 - 14 833)	14 751 (13 006 - 16 641)	10 299 (9 041 - 11 674)	13 144 (11 595 - 14 808)	12 138 (10 653 - 13 733)

Bulgaria: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



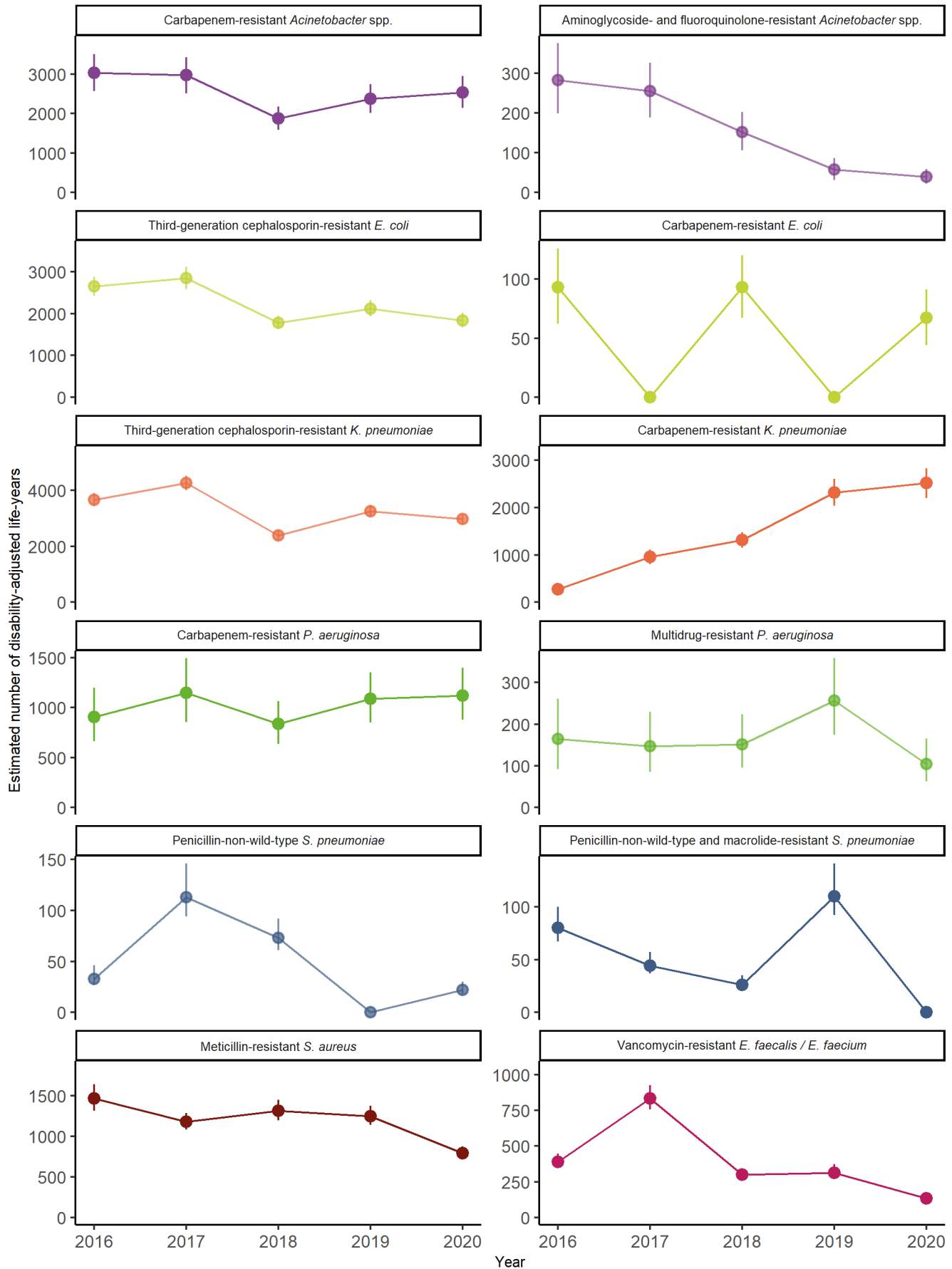
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Bulgaria: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



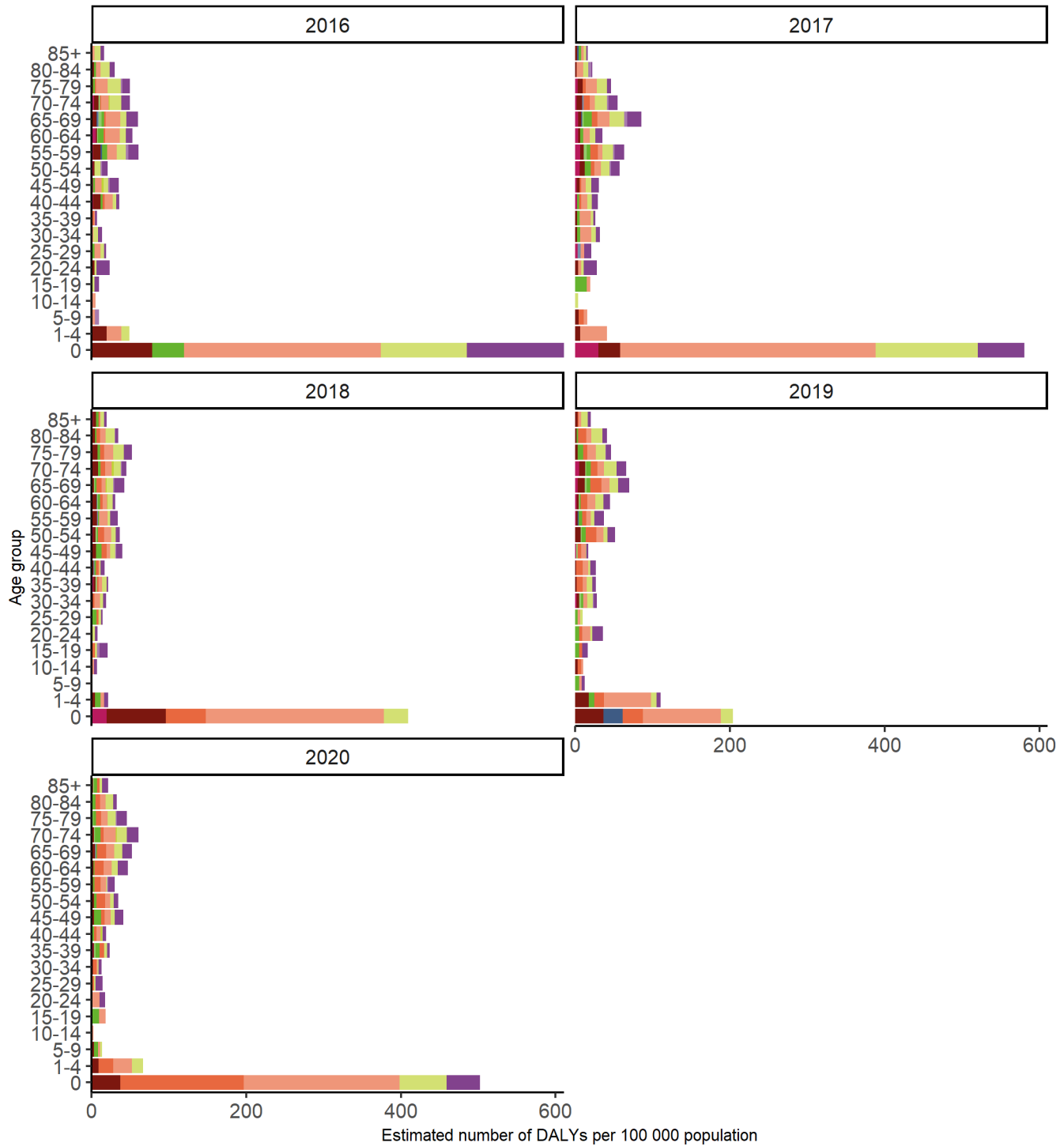
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Bulgaria: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Bulgaria: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

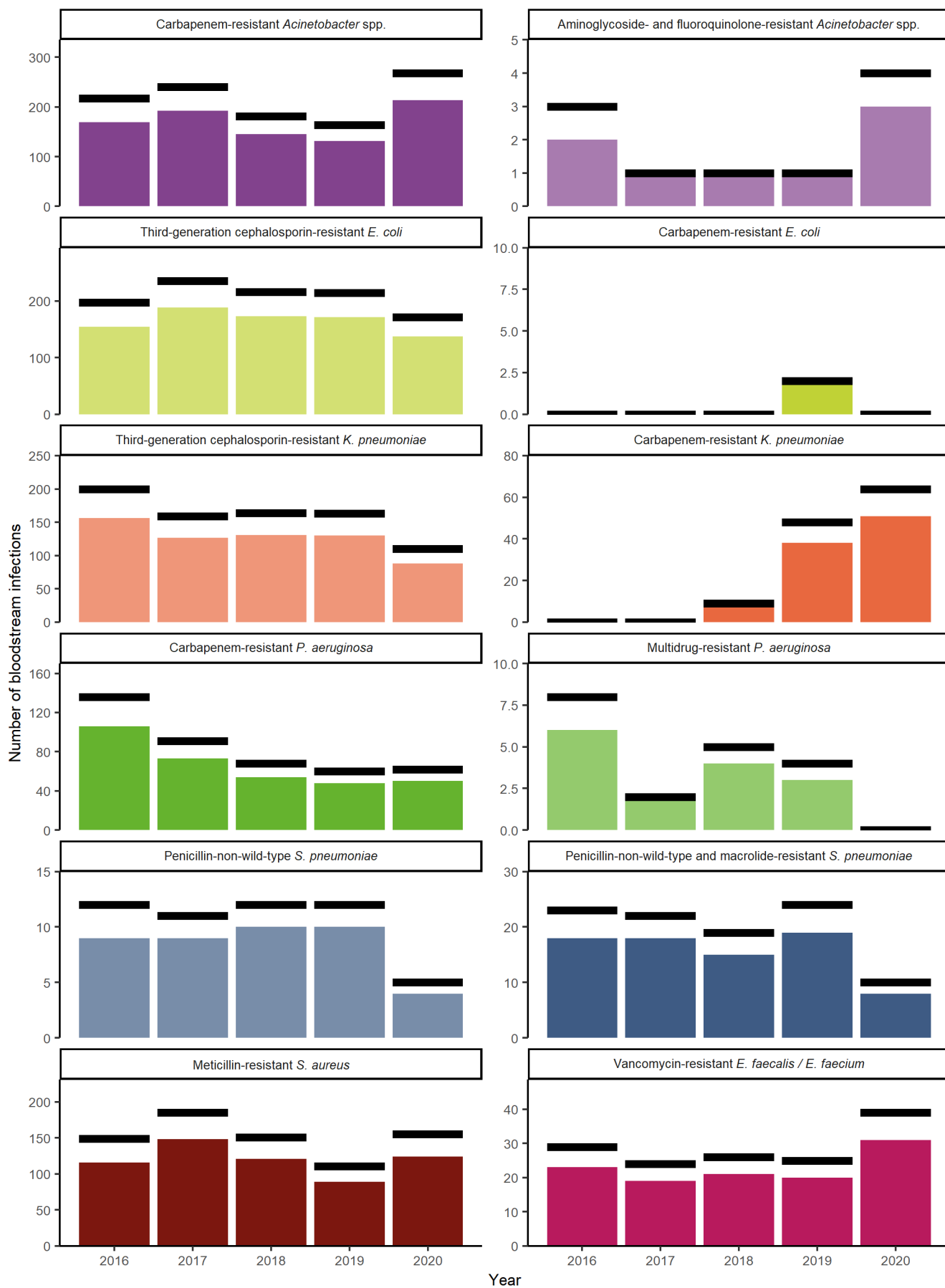
Estimates of the health burden of infections with antibiotic-resistant bacteria, Croatia, 2016-2020

Croatia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Carbapenem-resistant <i>Acinetobacter</i> spp.	169	217	192	240	145	181	131	164	214	268
Third-generation cephalosporin-resistant <i>E. coli</i>	154	197	188	235	173	216	171	214	137	171
Meticillin-resistant <i>S. aureus</i>	116	149	148	185	121	151	89	111	124	155
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	156	200	127	159	131	164	130	163	88	110
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	7	9	38	48	51	64
Carbapenem-resistant <i>P. aeruginosa</i>	106	136	73	91	54	68	48	60	50	62
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	23	29	19	24	21	26	20	25	31	39
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	18	23	18	22	15	19	19	24	8	10
Penicillin-non-wild-type <i>S. pneumoniae</i>	9	12	9	11	10	12	10	12	4	5
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	2	3	1	1	1	1	1	1	3	4
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	2	2	0	0
Multidrug-resistant <i>P. aeruginosa</i>	6	8	2	2	4	5	3	4	0	0
Overall	759	974	777	970	682	852	662	828	710	888

Croatia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Croatia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 358 (1 196 - 1 526)	1 503 (1 318 - 1 703)	1 135 (972 - 1 311)	1 025 (890 - 1 171)	1 675 (1 430 - 1 940)
Meticillin-resistant <i>S. aureus</i>	1 116 (960 - 1 288)	1 389 (1 180 - 1 620)	1 136 (968 - 1 318)	835 (715 - 968)	1 163 (991 - 1 351)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 035 (901 - 1 180)	1 232 (1 081 - 1 397)	1 135 (988 - 1 295)	1 121 (977 - 1 280)	898 (780 - 1 028)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 153 (1 044 - 1 268)	915 (823 - 1 013)	945 (851 - 1 045)	937 (836 - 1 045)	634 (568 - 706)
Carbapenem-resistant <i>P. aeruginosa</i>	1 278 (1 062 - 1 526)	857 (695 - 1 049)	635 (513 - 775)	562 (443 - 706)	587 (477 - 714)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	394 (303 - 500)	317 (235 - 414)	348 (244 - 483)	334 (240 - 446)	517 (381 - 684)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	33 (26 - 41)	180 (155 - 207)	241 (209 - 277)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	119 (108 - 134)	115 (103 - 134)	97 (87 - 110)	122 (111 - 138)	51 (44 - 63)
Penicillin-non-wild-type <i>S. pneumoniae</i>	59 (52 - 70)	58 (52 - 65)	64 (58 - 72)	64 (56 - 77)	26 (22 - 32)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	16 (11 - 22)	8 (4 - 12)	8 (4 - 12)	8 (4 - 12)	23 (15 - 33)
Multidrug-resistant <i>P. aeruginosa</i>	72 (51 - 97)	22 (10 - 45)	47 (31 - 67)	35 (21 - 53)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	13 (9 - 18)	0 (0 - 0)
Overall	6 600 (5 688 - 7 611)	6 416 (5 501 - 7 452)	5 583 (4 742 - 6 529)	5 236 (4 457 - 6 121)	5 815 (4 917 - 6 828)

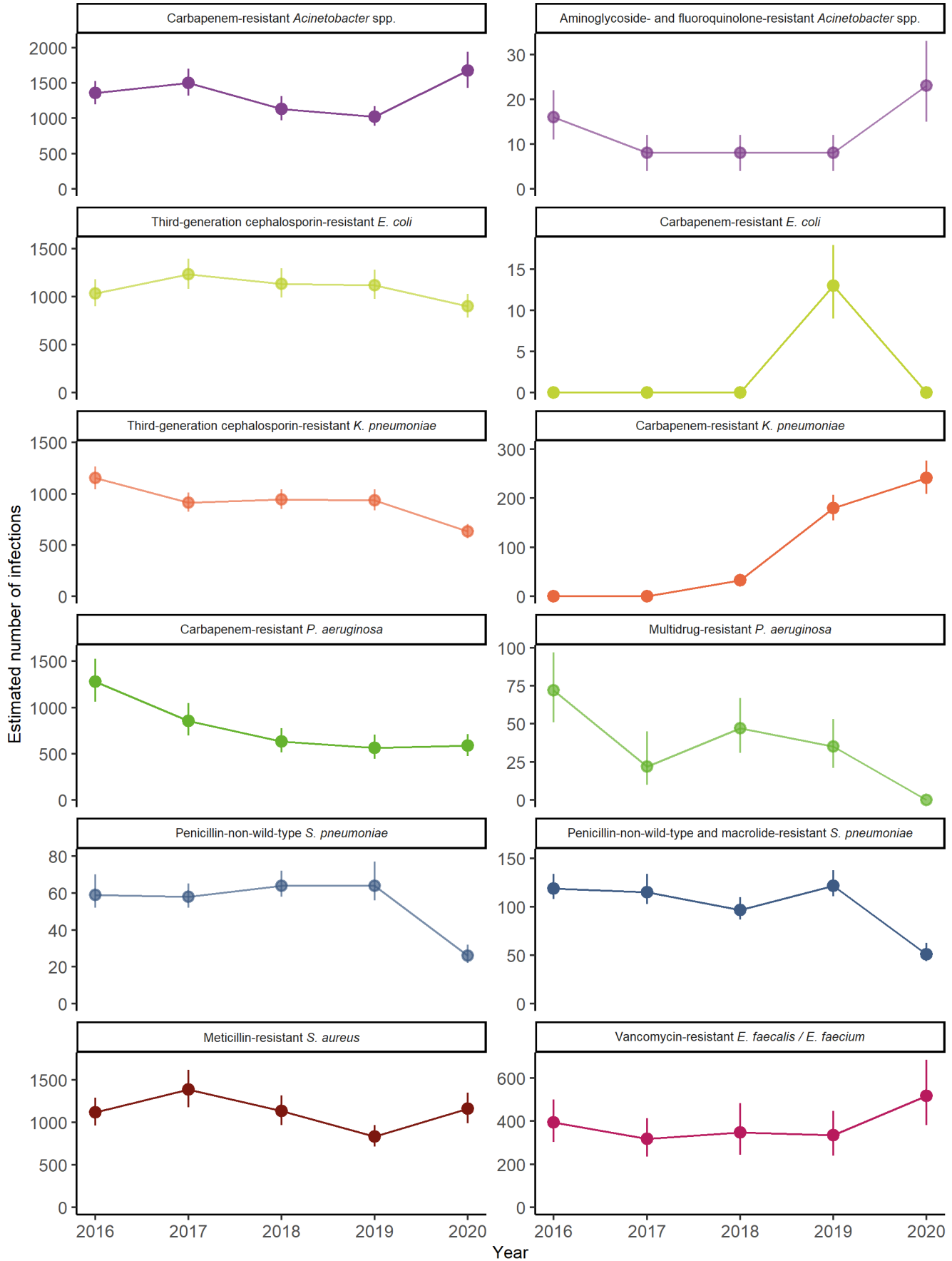
Croatia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	65 (54 - 76)	72 (60 - 85)	55 (44 - 66)	50 (41 - 59)	81 (65 - 98)
Meticillin-resistant <i>S. aureus</i>	45 (41 - 50)	57 (51 - 64)	46 (42 - 52)	34 (31 - 38)	47 (42 - 52)
Third-generation cephalosporin-resistant <i>E. coli</i>	46 (40 - 51)	55 (49 - 61)	50 (45 - 56)	50 (44 - 56)	40 (35 - 45)
Carbapenem-resistant <i>P. aeruginosa</i>	60 (48 - 74)	40 (31 - 51)	30 (23 - 38)	27 (20 - 35)	28 (21 - 35)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	46 (43 - 49)	37 (34 - 39)	38 (35 - 40)	38 (35 - 41)	26 (24 - 28)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	4 (3 - 4)	19 (16 - 22)	26 (22 - 29)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	11 (10 - 12)	9 (8 - 10)	10 (8 - 11)	9 (8 - 11)	15 (13 - 17)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	7 (7 - 8)	7 (6 - 8)	6 (5 - 7)	8 (7 - 8)	3 (3 - 4)
Penicillin-non-wild-type <i>S. pneumoniae</i>	4 (3 - 4)	4 (3 - 4)	4 (4 - 4)	4 (3 - 5)	2 (1 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (0 - 1)	0 (0 - 1)	0 (0 - 1)	0 (0 - 1)	1 (1 - 2)
Multidrug-resistant <i>P. aeruginosa</i>	3 (2 - 4)	1 (0 - 2)	2 (1 - 3)	2 (1 - 2)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)	0 (0 - 0)
Overall	288 (248 - 329)	282 (242 - 325)	245 (210 - 282)	242 (207 - 279)	269 (227 - 312)

Croatia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

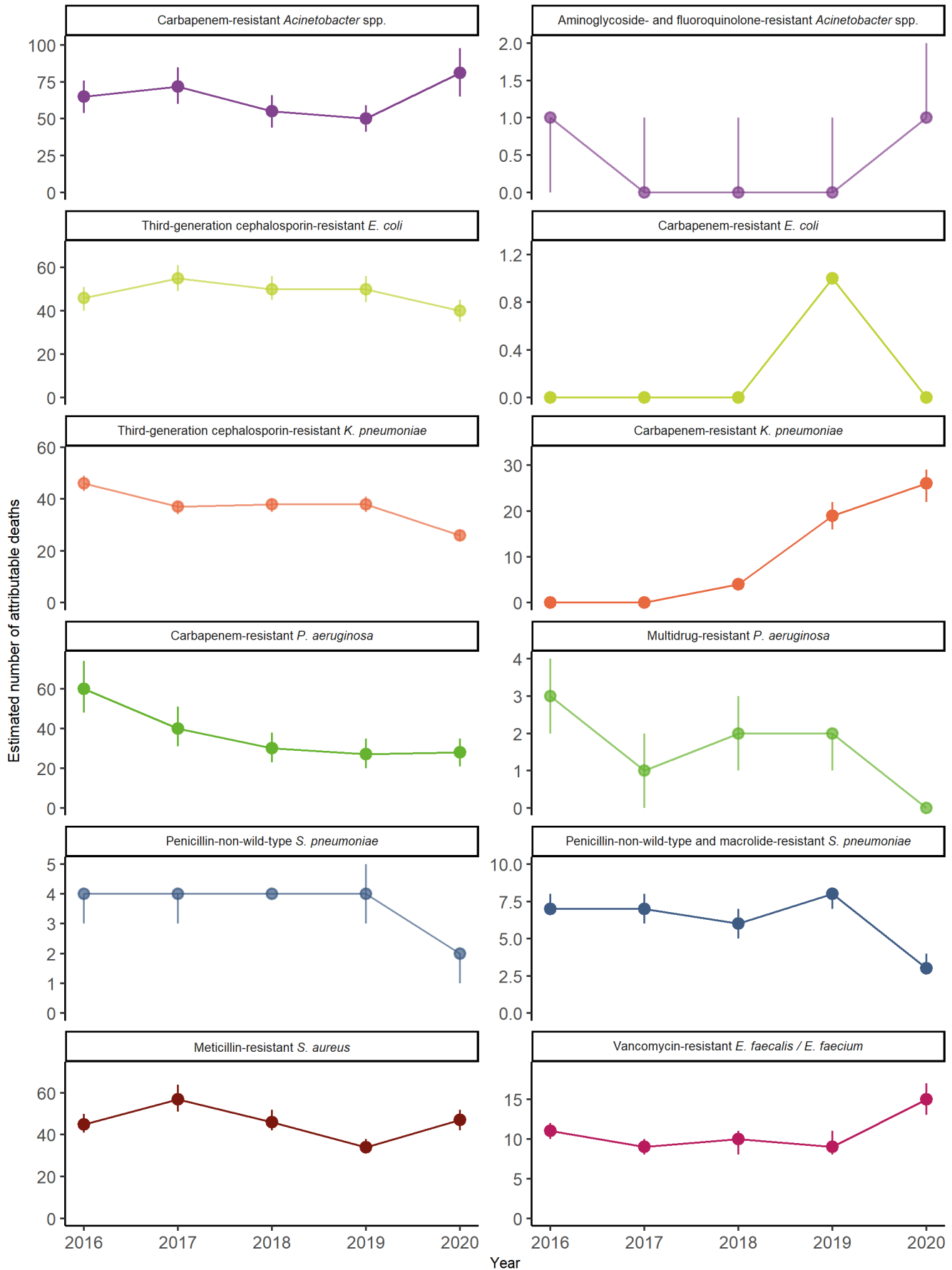
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	2 367 (2 042 - 2 699)	2 525 (2 171 - 2 886)	1 710 (1 421 - 2 005)	1 589 (1 338 - 1 847)	2 470 (2 036 - 2 924)
Meticillin-resistant <i>S. aureus</i>	1 193 (1 095 - 1 299)	1 390 (1 259 - 1 533)	1 136 (1 038 - 1 242)	819 (747 - 900)	1 189 (1 077 - 1 314)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 238 (1 125 - 1 355)	1 555 (1 424 - 1 693)	1 298 (1 178 - 1 424)	1 219 (1 108 - 1 335)	964 (870 - 1 062)
Carbapenem-resistant <i>P. aeruginosa</i>	2 377 (1 964 - 2 836)	1 628 (1 298 - 2 008)	1 077 (849 - 1 337)	943 (722 - 1 206)	955 (769 - 1 161)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 022 (1 896 - 2 155)	1 376 (1 294 - 1 461)	1 576 (1 464 - 1 696)	1 289 (1 203 - 1 380)	807 (757 - 861)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	57 (44 - 71)	531 (456 - 607)	691 (604 - 779)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	362 (329 - 401)	284 (255 - 319)	304 (266 - 356)	284 (250 - 325)	401 (354 - 457)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	373 (331 - 433)	445 (389 - 533)	388 (346 - 449)	533 (477 - 609)	113 (99 - 133)
Penicillin-non-wild-type <i>S. pneumoniae</i>	294 (255 - 352)	209 (188 - 235)	217 (196 - 244)	321 (279 - 381)	55 (47 - 69)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	24 (14 - 36)	14 (7 - 23)	6 (3 - 9)	7 (4 - 12)	50 (28 - 73)
Multidrug-resistant <i>P. aeruginosa</i>	104 (69 - 145)	44 (18 - 86)	58 (35 - 87)	48 (27 - 79)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	16 (11 - 22)	0 (0 - 0)
Overall	10 354 (9 120 - 11 711)	9 470 (8 303 - 10 777)	7 827 (6 840 - 8 920)	7 599 (6 622 - 8 703)	7 695 (6 641 - 8 833)

Croatia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



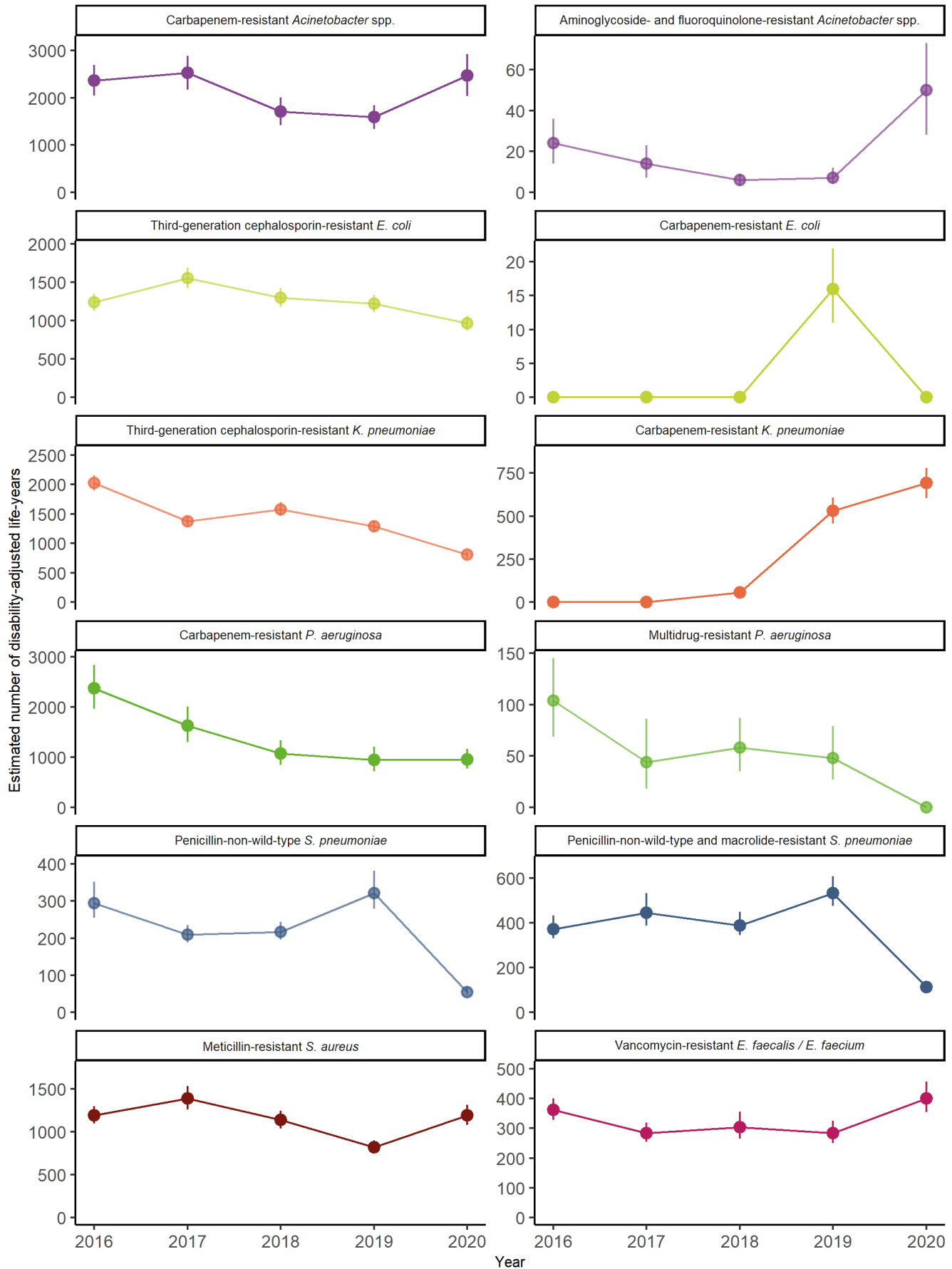
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Croatia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



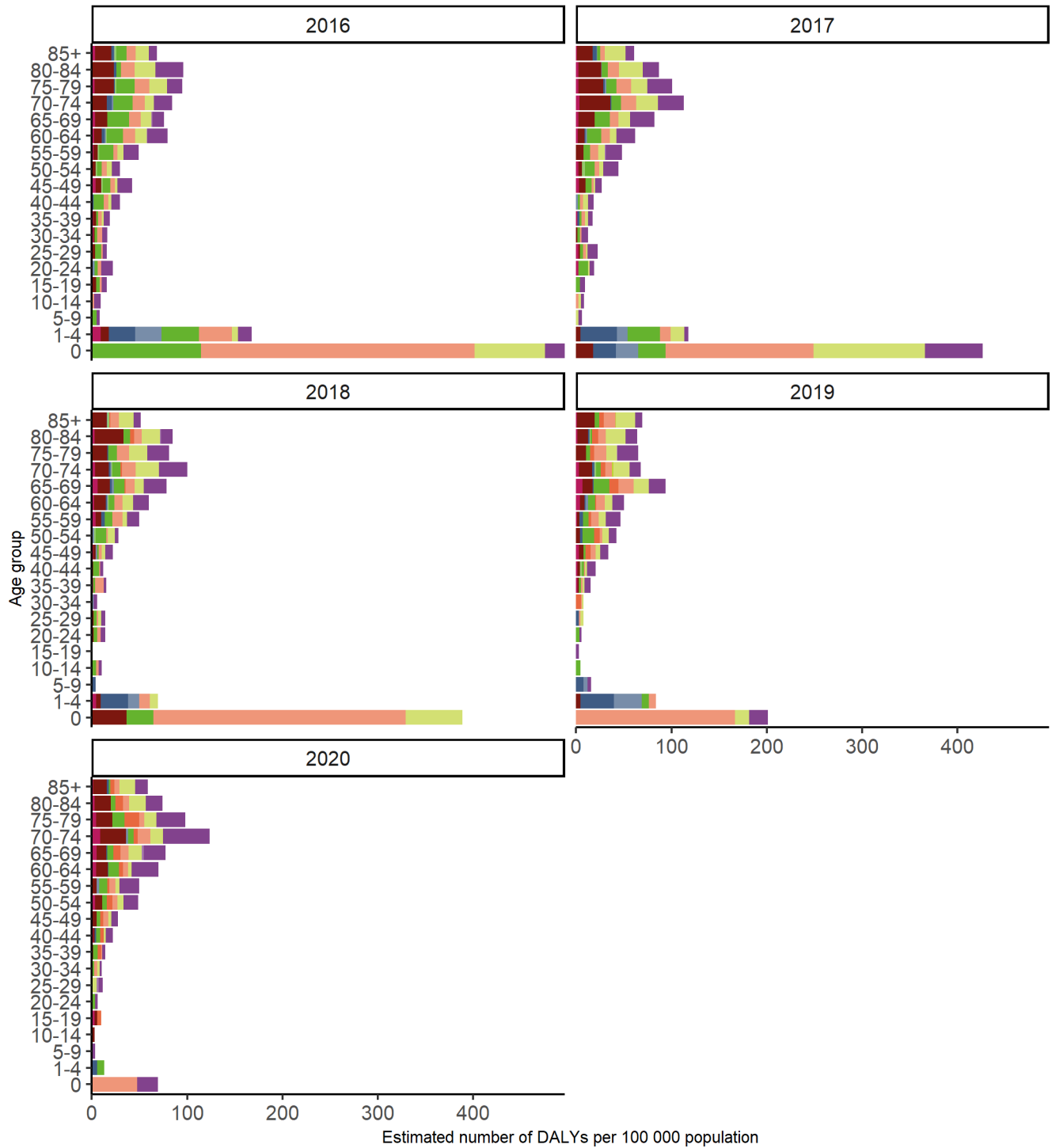
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Croatia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Croatia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

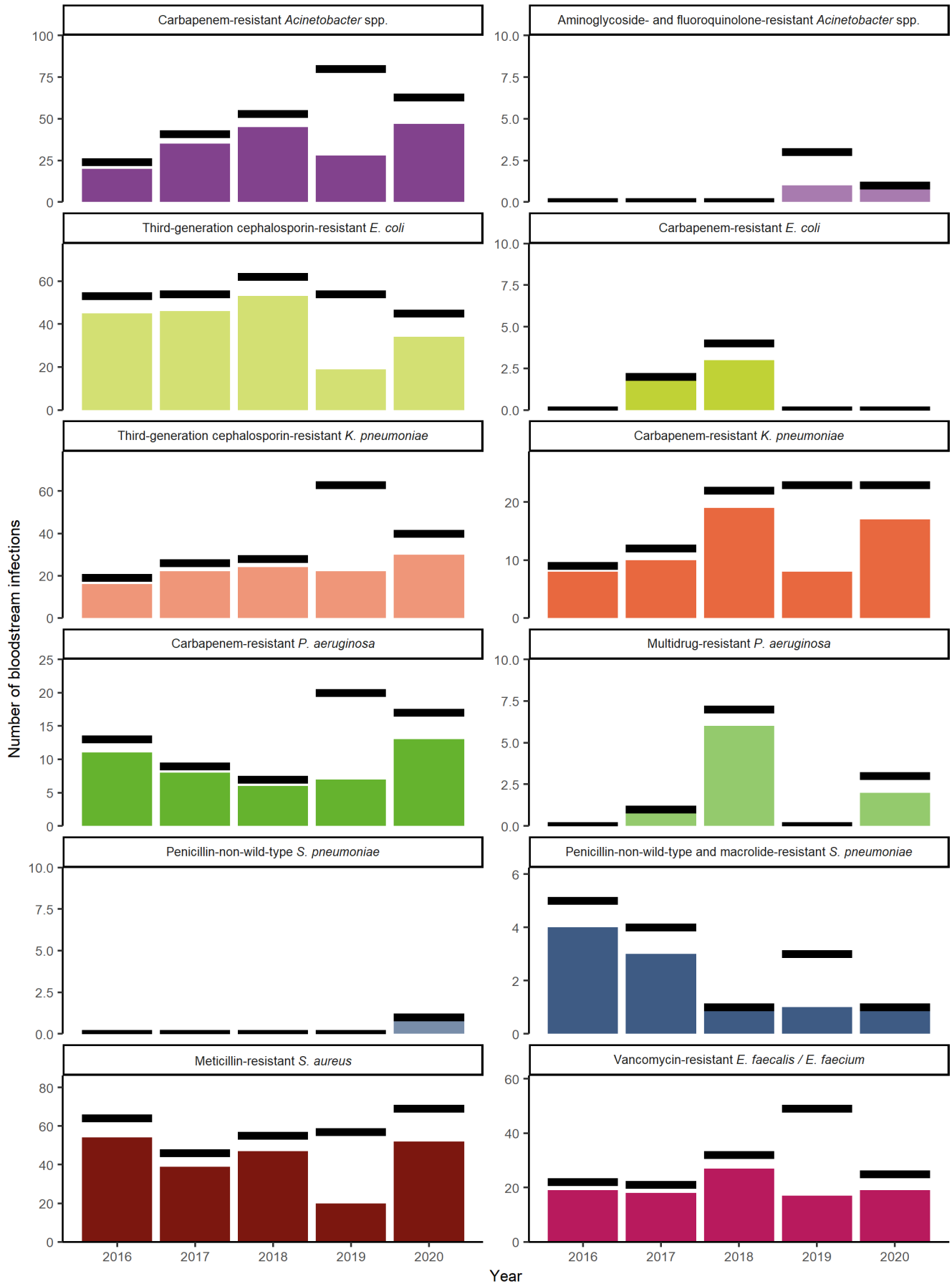
Estimates of the health burden of infections with antibiotic-resistant bacteria, Cyprus, 2016-2020

Cyprus: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Meticillin-resistant <i>S. aureus</i>	54	64	39	46	47	55	20	57	52	69
Carbapenem-resistant <i>Acinetobacter</i> spp.	20	24	35	41	45	53	28	80	47	63
Third-generation cephalosporin-resistant <i>E. coli</i>	45	53	46	54	53	62	19	54	34	45
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	16	19	22	26	24	28	22	63	30	40
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	19	22	18	21	27	32	17	49	19	25
Carbapenem-resistant <i>K. pneumoniae</i>	8	9	10	12	19	22	8	23	17	23
Carbapenem-resistant <i>P. aeruginosa</i>	11	13	8	9	6	7	7	20	13	17
Multidrug-resistant <i>P. aeruginosa</i>	0	0	1	1	6	7	0	0	2	3
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	1	3	1	1
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	4	5	3	4	1	1	1	3	1	1
Penicillin-non-wild-type <i>S. pneumoniae</i>	0	0	0	0	0	0	0	0	1	1
Carbapenem-resistant <i>E. coli</i>	0	0	2	2	3	4	0	0	0	0
Overall	177	209	184	216	231	271	123	352	217	288

Cyprus: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Cyprus: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	477 (404 - 558)	345 (296 - 398)	415 (353 - 484)	428 (353 - 513)	520 (441 - 609)
Carbapenem-resistant <i>Acinetobacter</i> spp.	147 (122 - 174)	258 (224 - 294)	331 (279 - 388)	501 (422 - 584)	392 (335 - 453)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	298 (210 - 407)	282 (206 - 380)	424 (322 - 548)	645 (460 - 885)	338 (246 - 452)
Third-generation cephalosporin-resistant <i>E. coli</i>	278 (237 - 323)	284 (246 - 325)	327 (280 - 380)	285 (243 - 330)	238 (206 - 273)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	108 (88 - 132)	149 (125 - 176)	163 (140 - 187)	363 (318 - 411)	230 (200 - 264)
Carbapenem-resistant <i>P. aeruginosa</i>	121 (91 - 158)	88 (62 - 121)	66 (45 - 93)	187 (130 - 257)	163 (125 - 206)
Carbapenem-resistant <i>K. pneumoniae</i>	36 (29 - 42)	44 (37 - 54)	85 (71 - 99)	86 (65 - 112)	86 (72 - 101)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	10 (5 - 21)	66 (45 - 93)	0 (0 - 0)	24 (16 - 39)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (10 - 28)	8 (5 - 13)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	24 (20 - 30)	18 (15 - 24)	6 (5 - 9)	14 (12 - 21)	7 (5 - 10)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	7 (5 - 10)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	12 (8 - 17)	18 (13 - 24)	0 (0 - 0)	0 (0 - 0)
Overall	1 489 (1 201 - 1 824)	1 490 (1 224 - 1 810)	1 901 (1 553 - 2 305)	2 527 (2 013 - 3 141)	2 013 (1 656 - 2 430)

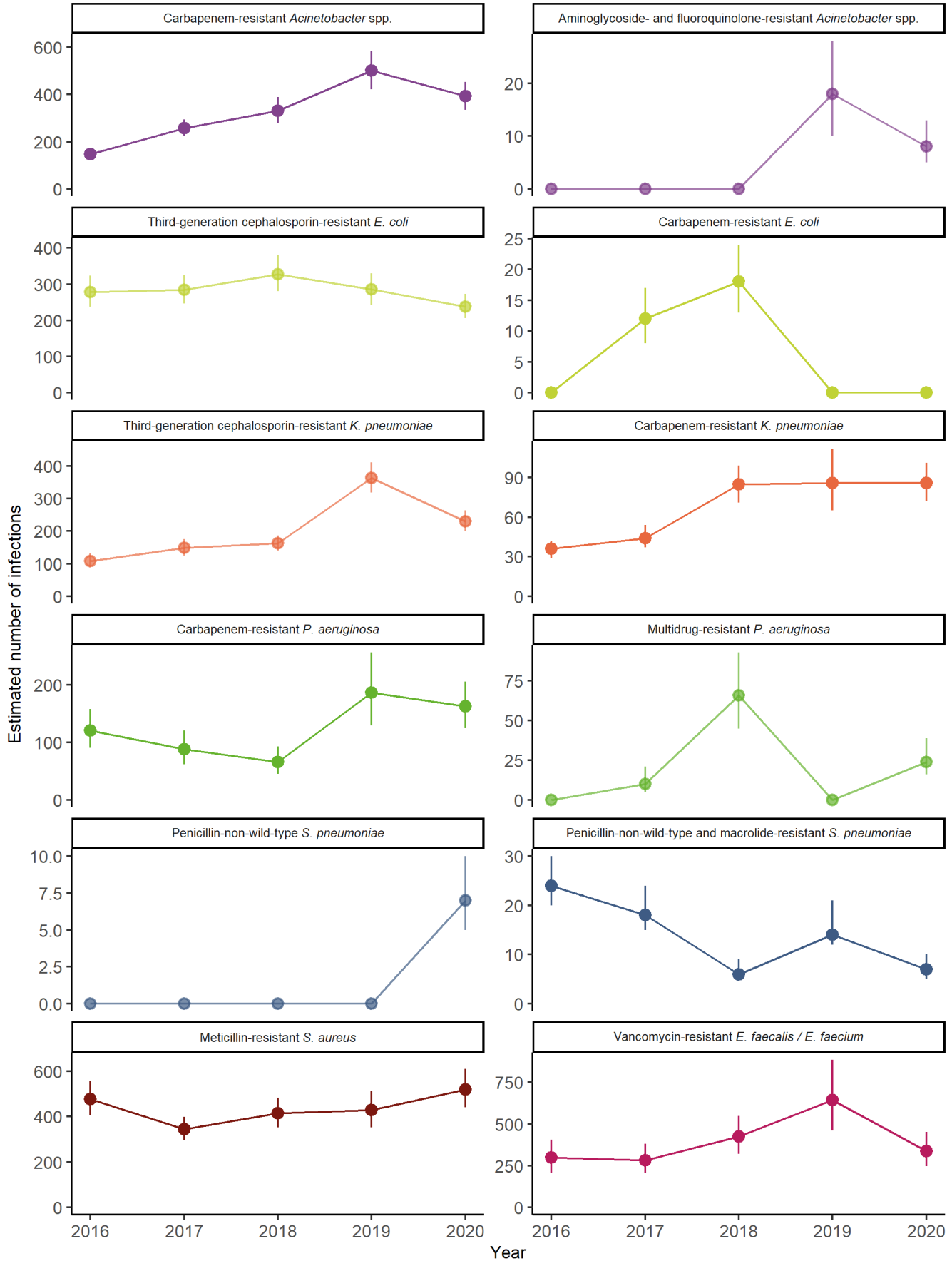
Cyprus: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	20 (18 - 22)	14 (12 - 15)	17 (15 - 19)	17 (15 - 20)	21 (19 - 24)
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 (6 - 9)	12 (10 - 15)	16 (12 - 20)	24 (19 - 30)	19 (15 - 23)
Third-generation cephalosporin-resistant <i>E. coli</i>	12 (11 - 14)	12 (11 - 14)	14 (12 - 16)	12 (11 - 14)	11 (9 - 12)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	9 (8 - 10)	8 (7 - 9)	12 (10 - 13)	19 (16 - 23)	9 (8 - 11)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	4 (4 - 5)	6 (5 - 7)	7 (6 - 7)	14 (13 - 16)	9 (9 - 10)
Carbapenem-resistant <i>K. pneumoniae</i>	4 (3 - 5)	5 (4 - 6)	9 (7 - 10)	9 (7 - 12)	9 (8 - 11)
Carbapenem-resistant <i>P. aeruginosa</i>	6 (4 - 8)	4 (3 - 6)	3 (2 - 5)	9 (6 - 13)	8 (6 - 10)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 1)	3 (2 - 4)	0 (0 - 0)	1 (1 - 2)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)	1 (1 - 1)	0 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)	0 (0 - 1)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	1 (1 - 1)	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)
Overall	63 (55 - 75)	63 (54 - 75)	82 (67 - 96)	106 (88 - 130)	87 (75 - 106)

Cyprus: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

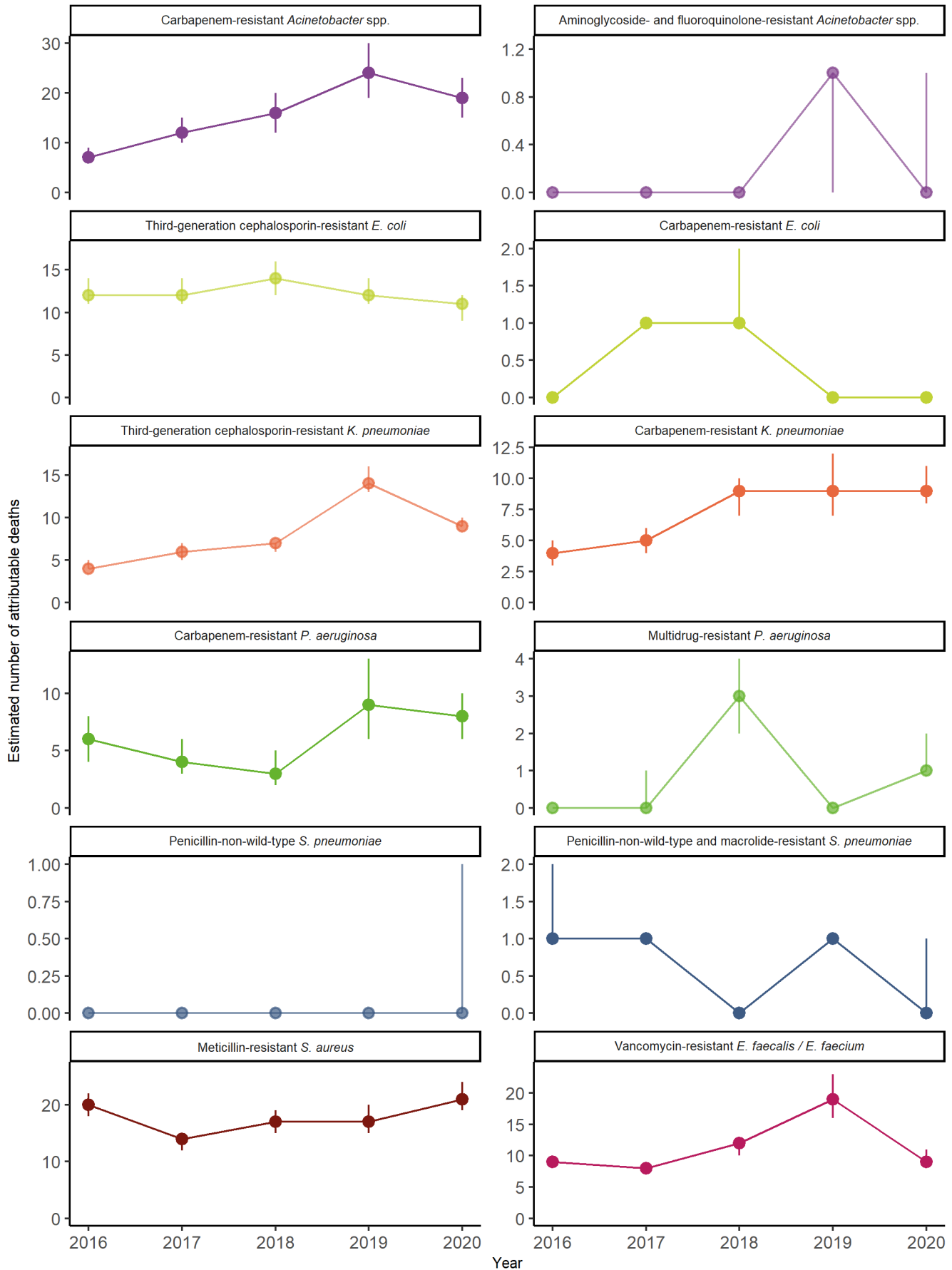
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	185 (146 - 227)	432 (357 - 509)	531 (423 - 645)	809 (638 - 987)	601 (498 - 708)
Meticillin-resistant <i>S. aureus</i>	476 (431 - 526)	406 (369 - 445)	441 (398 - 489)	405 (358 - 457)	559 (509 - 615)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	129 (115 - 145)	143 (129 - 160)	160 (145 - 175)	485 (448 - 524)	296 (273 - 320)
Third-generation cephalosporin-resistant <i>E. coli</i>	334 (296 - 374)	340 (306 - 374)	438 (387 - 492)	353 (309 - 399)	267 (239 - 296)
Carbapenem-resistant <i>P. aeruginosa</i>	191 (138 - 253)	147 (99 - 204)	139 (86 - 206)	302 (197 - 431)	265 (194 - 350)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	204 (178 - 235)	254 (226 - 289)	368 (330 - 415)	536 (469 - 618)	256 (227 - 295)
Carbapenem-resistant <i>K. pneumoniae</i>	114 (91 - 139)	183 (148 - 218)	300 (247 - 354)	326 (236 - 424)	232 (193 - 272)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	17 (8 - 27)	35 (16 - 56)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	9 (4 - 19)	111 (69 - 168)	0 (0 - 0)	31 (21 - 47)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	18 (15 - 25)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	96 (82 - 117)	125 (104 - 159)	14 (11 - 19)	100 (81 - 139)	11 (9 - 15)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	32 (22 - 43)	44 (31 - 57)	0 (0 - 0)	0 (0 - 0)
Overall	1 729 (1 477 - 2 016)	2 071 (1 764 - 2 420)	2 546 (2 127 - 3 020)	3 333 (2 744 - 4 006)	2 571 (2 194 - 2 999)

Cyprus: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



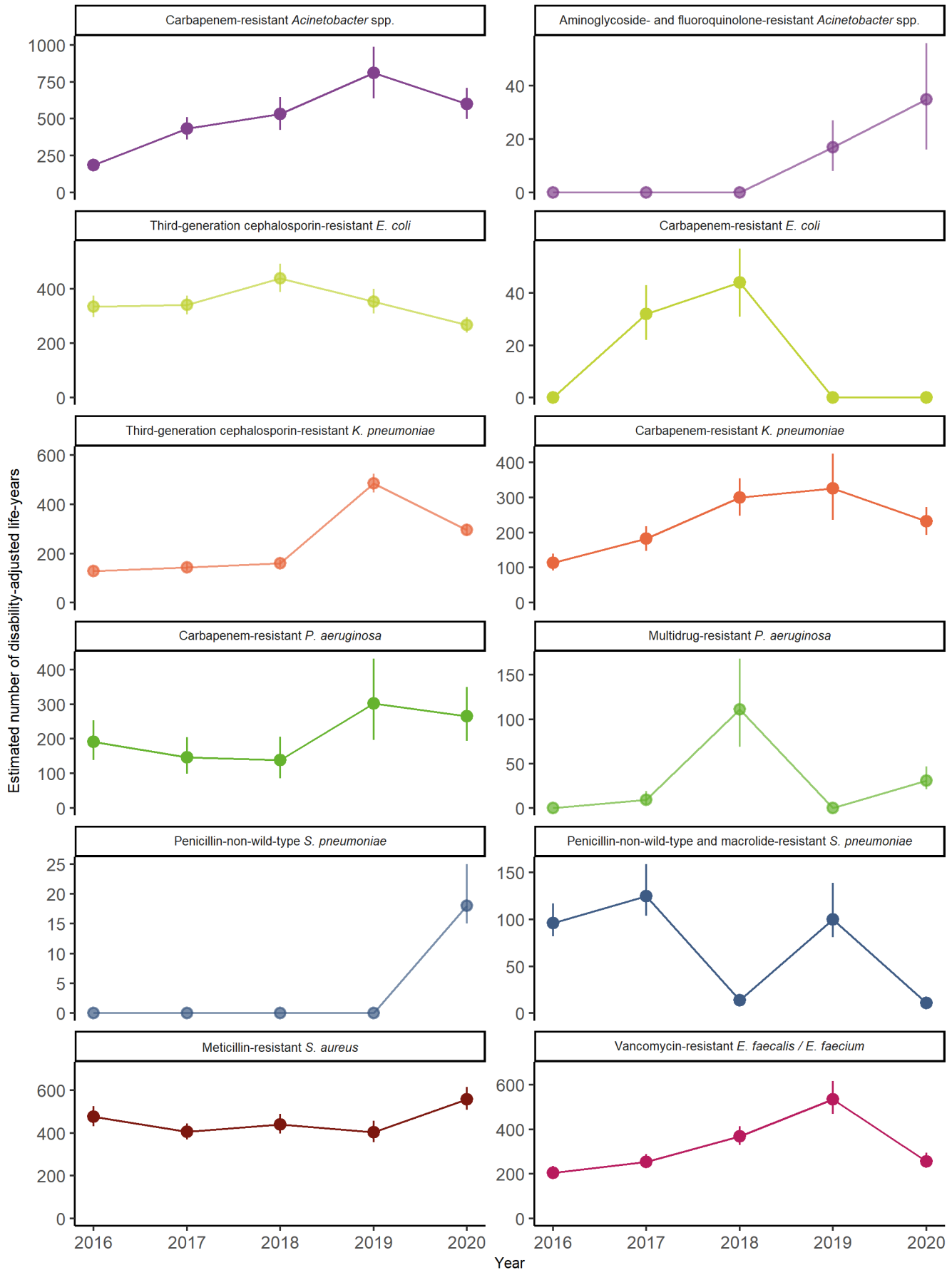
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Cyprus: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



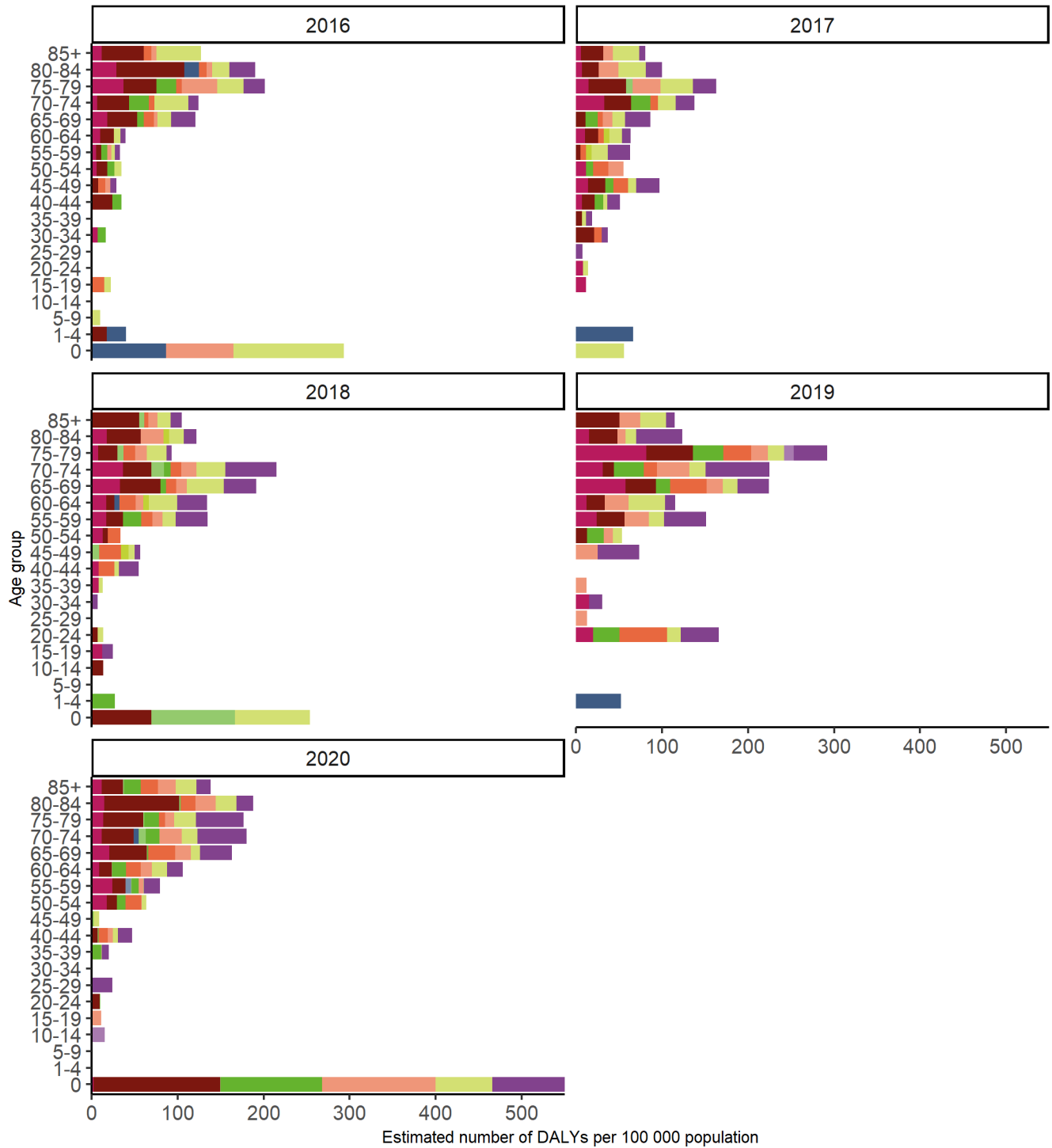
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Cyprus: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Cyprus: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium-antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

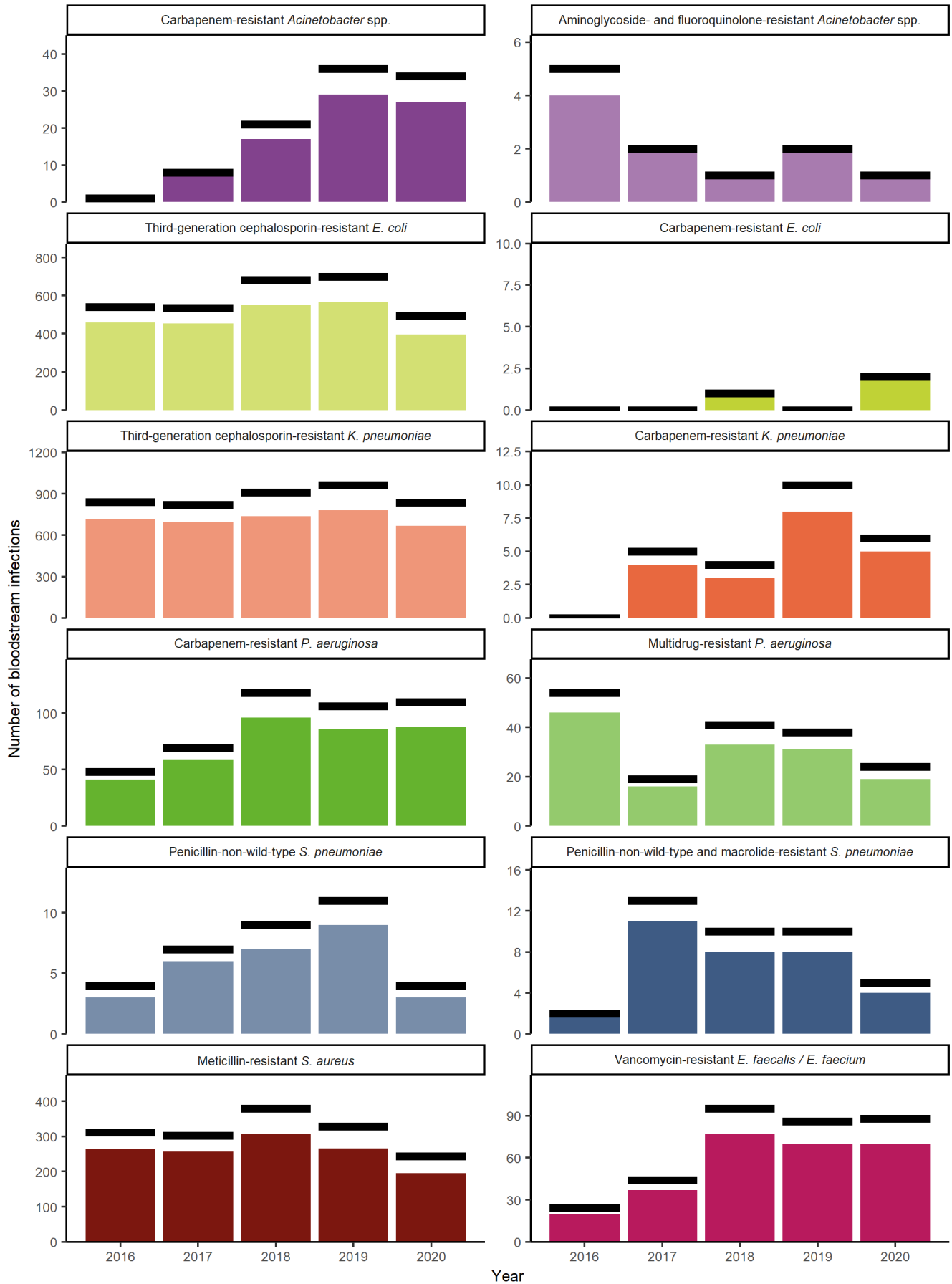
Estimates of the health burden of infections with antibiotic-resistant bacteria, Czechia, 2016-2020

Czechia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	715	841	698	821	737	910	782	965	669	836
Third-generation cephalosporin-resistant <i>E. coli</i>	460	541	455	535	553	683	566	699	397	496
Meticillin-resistant <i>S. aureus</i>	264	311	257	302	307	379	266	328	195	244
Carbapenem-resistant <i>P. aeruginosa</i>	41	48	59	69	96	118	86	106	88	110
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	20	24	37	44	77	95	70	86	70	88
Carbapenem-resistant <i>Acinetobacter</i> spp.	1	1	7	8	17	21	29	36	27	34
Multidrug-resistant <i>P. aeruginosa</i>	46	54	16	19	33	41	31	38	19	24
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	4	5	3	4	8	10	5	6
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2	2	11	13	8	10	8	10	4	5
Penicillin-non-wild-type <i>S. pneumoniae</i>	3	4	6	7	7	9	9	11	3	4
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	1	1	0	0	2	2
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	4	5	2	2	1	1	2	2	1	1
Overall	1 556	1 831	1 552	1 825	1 840	2 272	1 857	2 291	1 480	1 850

Czechia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Czechia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	4 849 (4 333 - 5 401)	4 737 (4 251 - 5 254)	5 246 (4 711 - 5 817)	5 568 (4 988 - 6 188)	4 821 (4 273 - 5 411)
Third-generation cephalosporin-resistant <i>E. coli</i>	2 837 (2 472 - 3 241)	2 808 (2 445 - 3 204)	3 582 (3 120 - 4 087)	3 668 (3 186 - 4 191)	2 602 (2 269 - 2 968)
Meticillin-resistant <i>S. aureus</i>	2 332 (2 016 - 2 683)	2 269 (1 943 - 2 630)	2 845 (2 461 - 3 268)	2 464 (2 111 - 2 856)	1 826 (1 547 - 2 140)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	314 (237 - 405)	580 (434 - 762)	1 272 (989 - 1 603)	1 154 (888 - 1 480)	1 170 (914 - 1 474)
Carbapenem-resistant <i>P. aeruginosa</i>	454 (366 - 554)	652 (529 - 792)	1 113 (892 - 1 371)	997 (808 - 1 217)	1 032 (835 - 1 264)
Multidrug-resistant <i>P. aeruginosa</i>	508 (411 - 623)	176 (127 - 236)	383 (303 - 476)	358 (278 - 458)	223 (171 - 286)
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 (4 - 11)	52 (42 - 62)	131 (111 - 153)	224 (191 - 260)	211 (174 - 252)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	12 (10 - 16)	67 (60 - 76)	51 (46 - 58)	51 (45 - 59)	26 (22 - 31)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	18 (13 - 24)	14 (9 - 20)	37 (29 - 46)	24 (18 - 29)
Penicillin-non-wild-type <i>S. pneumoniae</i>	18 (15 - 22)	36 (32 - 43)	44 (39 - 52)	57 (51 - 65)	19 (16 - 24)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	6 (4 - 10)	0 (0 - 0)	13 (9 - 18)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	29 (22 - 38)	15 (10 - 20)	8 (4 - 12)	15 (10 - 21)	8 (4 - 12)
Overall	11 360 (9 886 - 12 994)	11 410 (9 886 - 13 103)	14 695 (12 689 - 16 927)	14 593 (12 585 - 16 841)	11 975 (10 252 - 13 909)

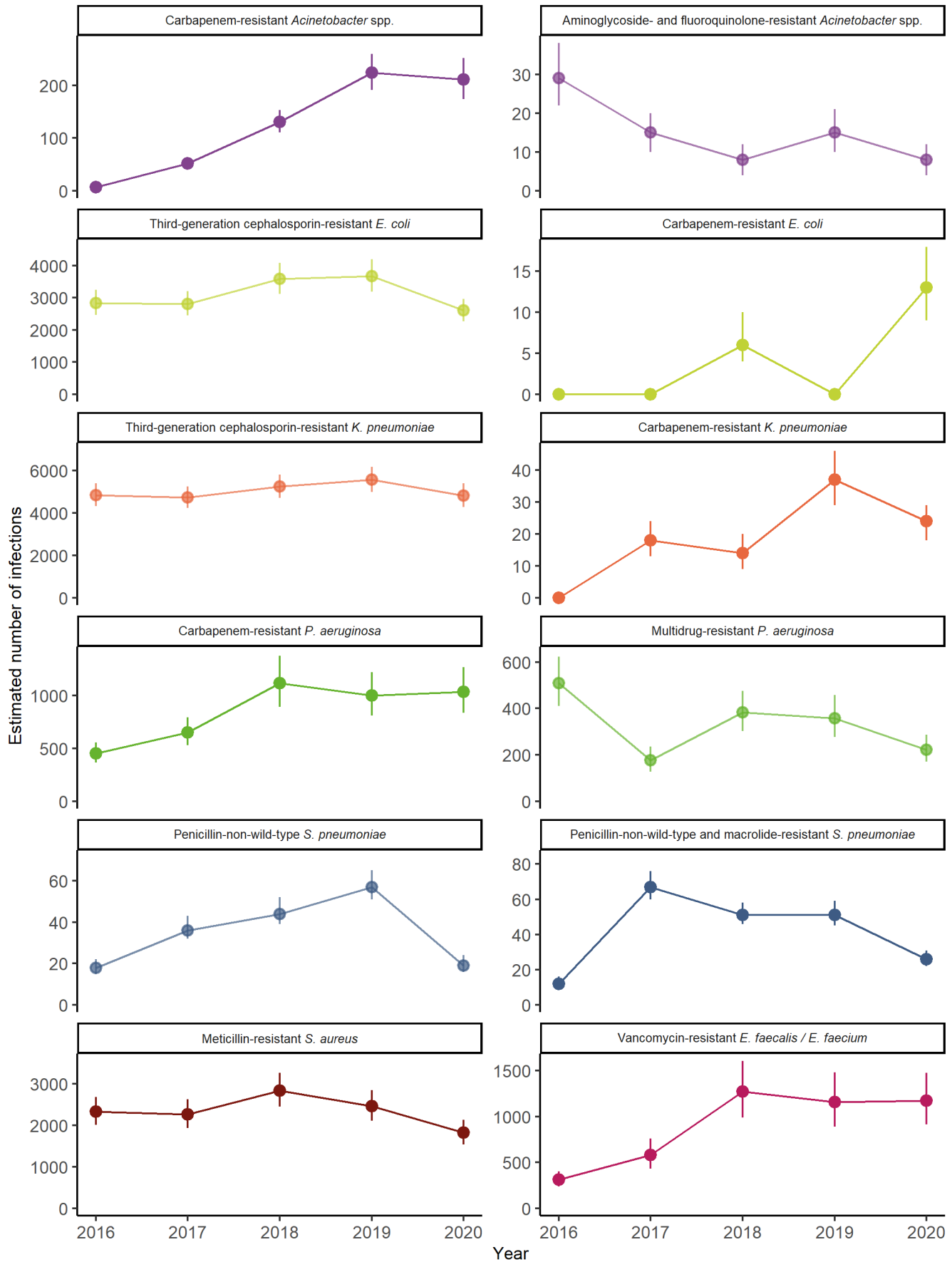
Czechia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	196 (182 - 211)	191 (179 - 206)	212 (198 - 227)	226 (210 - 243)	196 (181 - 213)
Third-generation cephalosporin-resistant <i>E. coli</i>	127 (112 - 142)	126 (111 - 141)	161 (142 - 180)	164 (144 - 184)	116 (103 - 130)
Meticillin-resistant <i>S. aureus</i>	94 (85 - 104)	92 (83 - 102)	114 (104 - 126)	100 (90 - 112)	75 (67 - 84)
Carbapenem-resistant <i>P. aeruginosa</i>	21 (16 - 27)	31 (24 - 39)	53 (41 - 68)	48 (37 - 60)	49 (38 - 63)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	9 (8 - 10)	16 (14 - 19)	36 (33 - 41)	33 (29 - 38)	33 (30 - 37)
Multidrug-resistant <i>P. aeruginosa</i>	23 (17 - 29)	8 (6 - 11)	17 (13 - 22)	16 (12 - 21)	10 (7 - 13)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 1)	3 (2 - 3)	6 (5 - 8)	11 (9 - 13)	10 (8 - 13)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	2 (1 - 2)	1 (1 - 2)	4 (3 - 5)	2 (2 - 3)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 (1 - 1)	4 (4 - 5)	3 (3 - 3)	3 (3 - 4)	2 (1 - 2)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	2 (2 - 3)	3 (2 - 3)	4 (3 - 4)	1 (1 - 1)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)	0 (0 - 0)	1 (1 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (1 - 2)	1 (0 - 1)	0 (0 - 1)	1 (0 - 1)	0 (0 - 1)
Overall	473 (423 - 528)	476 (426 - 532)	607 (542 - 682)	610 (540 - 685)	495 (439 - 561)

Czechia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

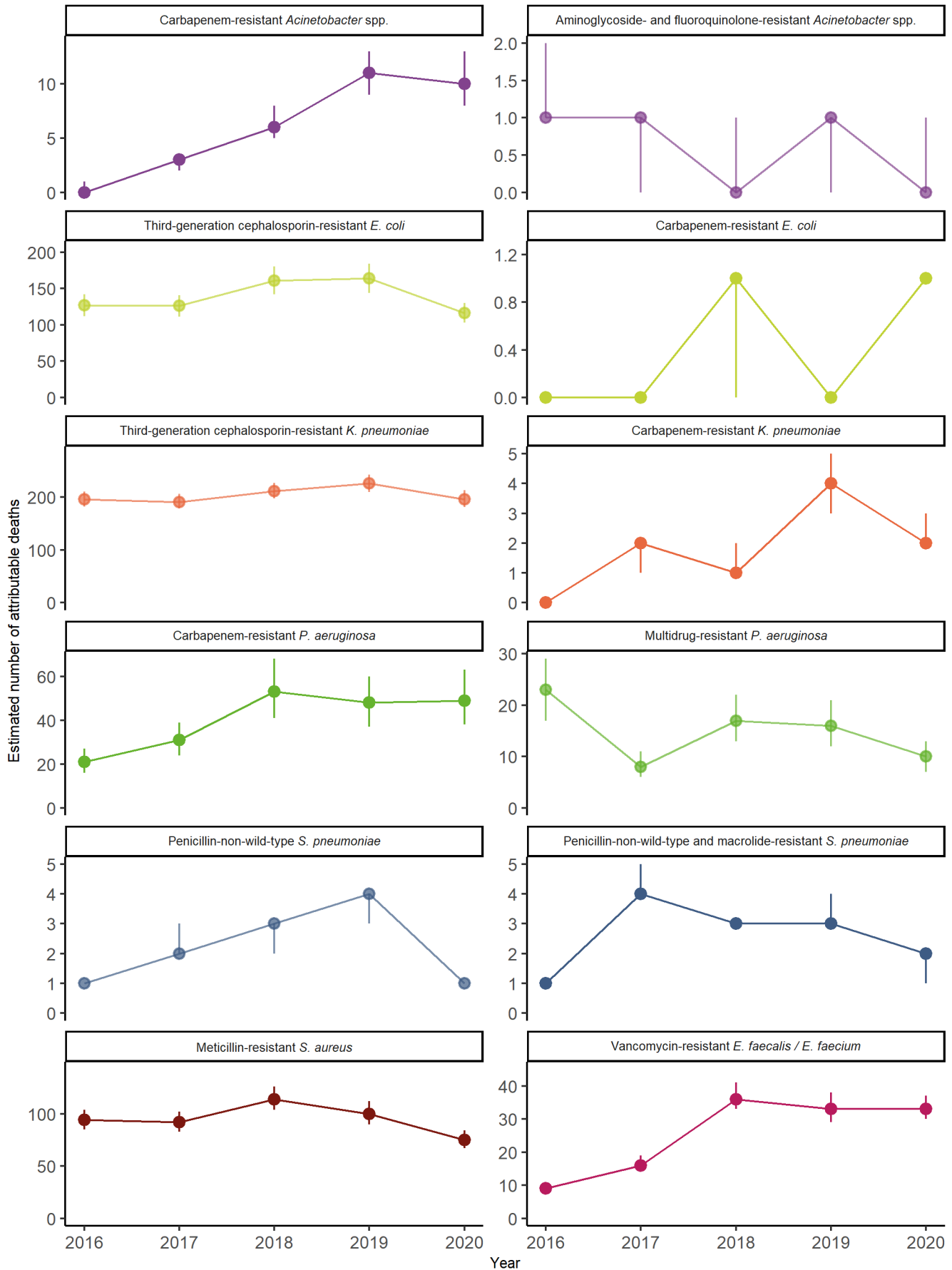
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	6 078 (5 707 - 6 473)	5 820 (5 489 - 6 180)	6 782 (6 396 - 7 186)	6 909 (6 505 - 7 342)	5 630 (5 253 - 6 033)
Third-generation cephalosporin-resistant <i>E. coli</i>	3 001 (2 724 - 3 293)	2 877 (2 599 - 3 166)	3 680 (3 335 - 4 042)	3 780 (3 414 - 4 160)	2 843 (2 575 - 3 127)
Meticillin-resistant <i>S. aureus</i>	2 562 (2 353 - 2 795)	2 412 (2 182 - 2 665)	3 222 (2 957 - 3 516)	2 636 (2 399 - 2 905)	1 916 (1 718 - 2 142)
Carbapenem-resistant <i>P. aeruginosa</i>	810 (632 - 1 011)	1 061 (853 - 1 300)	1 640 (1 305 - 2 033)	1 602 (1 289 - 1 951)	1 746 (1 403 - 2 143)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	264 (236 - 298)	498 (444 - 566)	995 (898 - 1 110)	927 (838 - 1 039)	949 (863 - 1 047)
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 (3 - 11)	66 (48 - 85)	177 (141 - 214)	380 (309 - 454)	349 (274 - 425)
Multidrug-resistant <i>P. aeruginosa</i>	789 (629 - 973)	174 (120 - 238)	605 (476 - 748)	522 (394 - 673)	279 (205 - 368)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	47 (33 - 61)	45 (30 - 62)	135 (104 - 167)	88 (66 - 111)
Penicillin-non-wild-type <i>S. pneumoniae</i>	64 (54 - 80)	66 (58 - 79)	101 (89 - 116)	150 (134 - 171)	57 (49 - 69)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	14 (11 - 17)	139 (126 - 157)	131 (118 - 149)	128 (114 - 146)	47 (41 - 55)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	9 (5 - 13)	0 (0 - 0)	19 (13 - 25)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	37 (25 - 49)	10 (6 - 15)	11 (5 - 18)	25 (14 - 38)	16 (8 - 26)
Overall	13 626 (12 374 - 15 000)	13 170 (11 958 - 14 512)	17 398 (15 755 - 19 207)	17 194 (15 514 - 19 046)	13 939 (12 468 - 15 571)

Czechia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



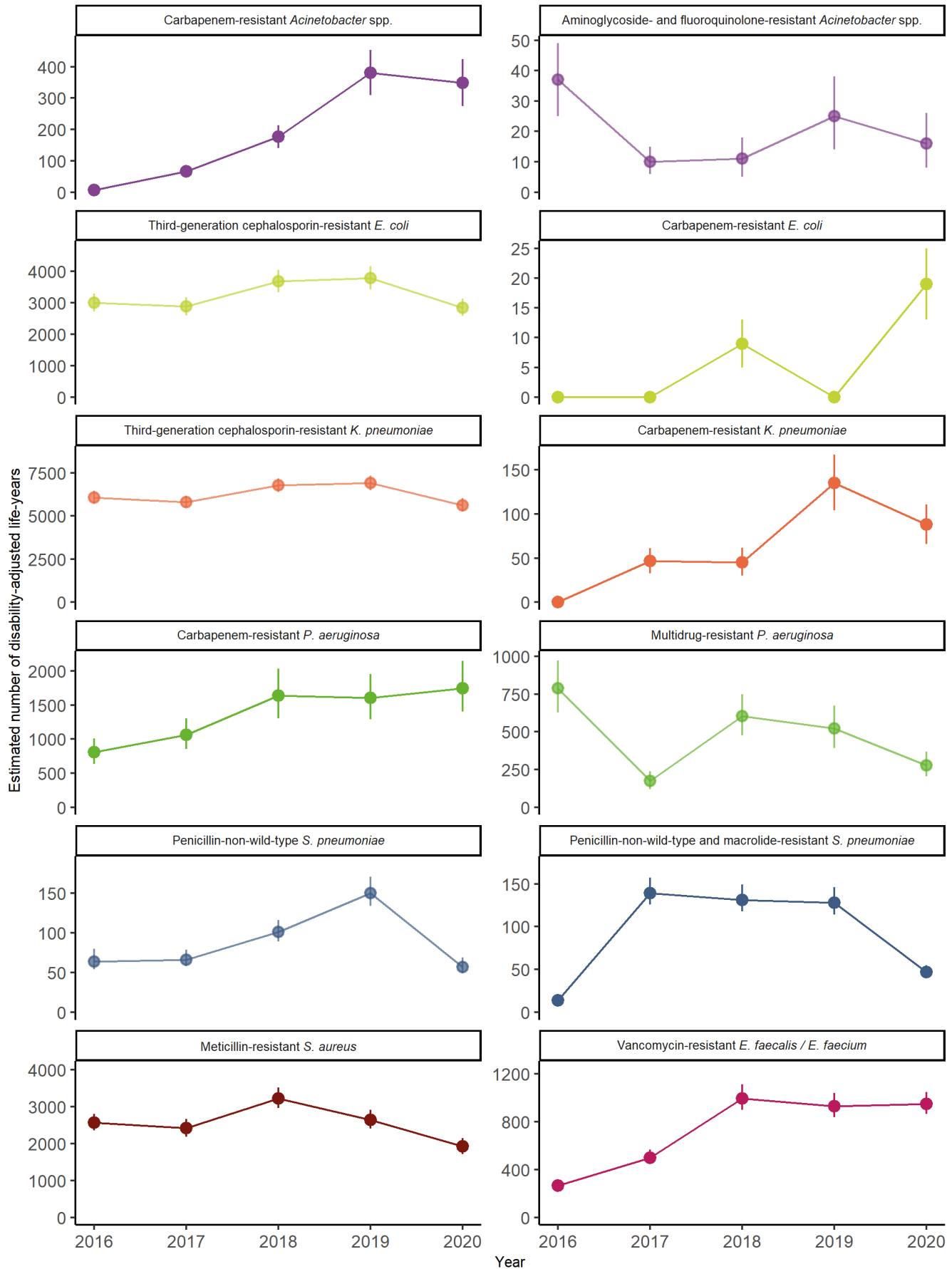
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Czechia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



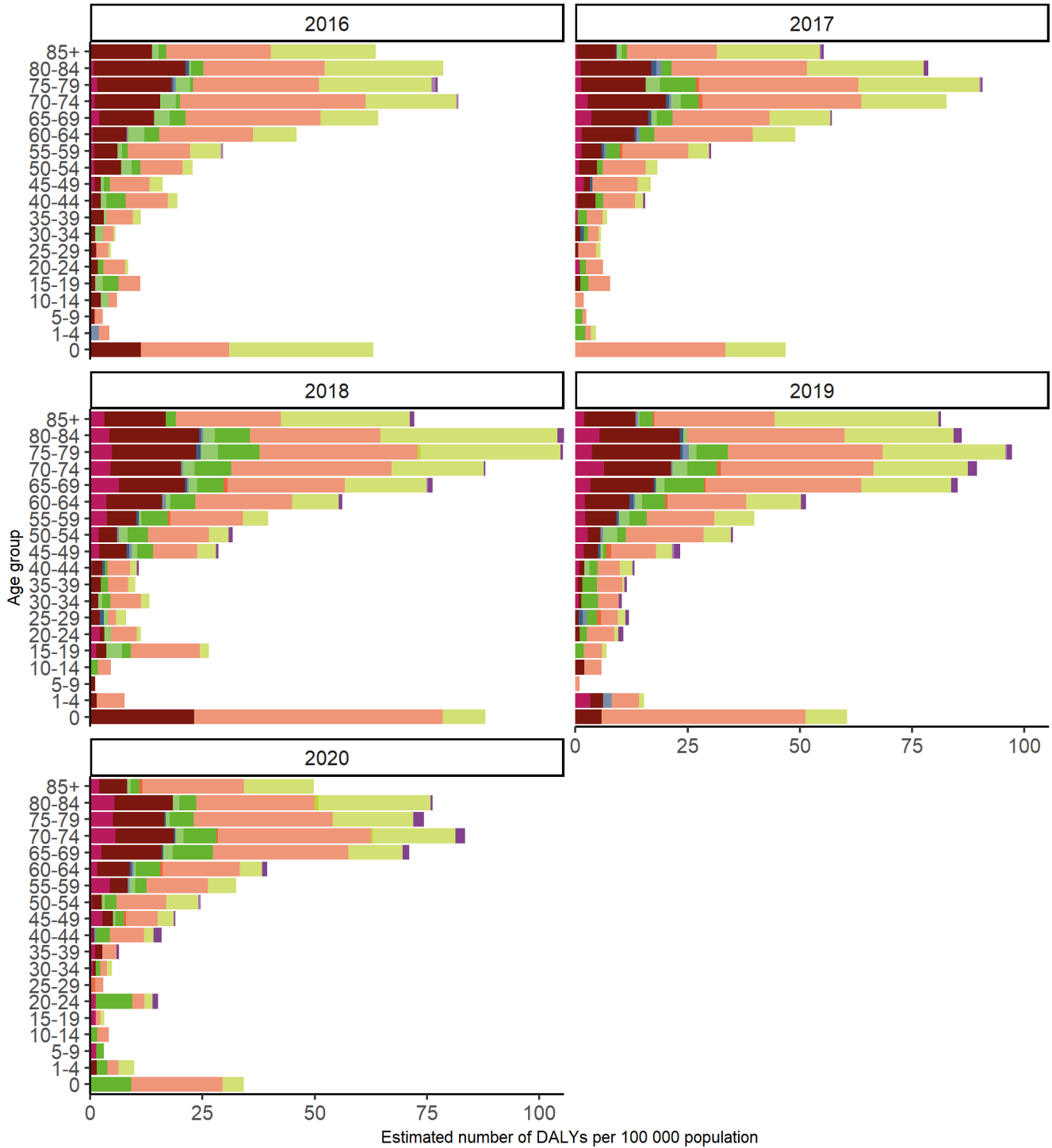
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Czechia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Czechia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

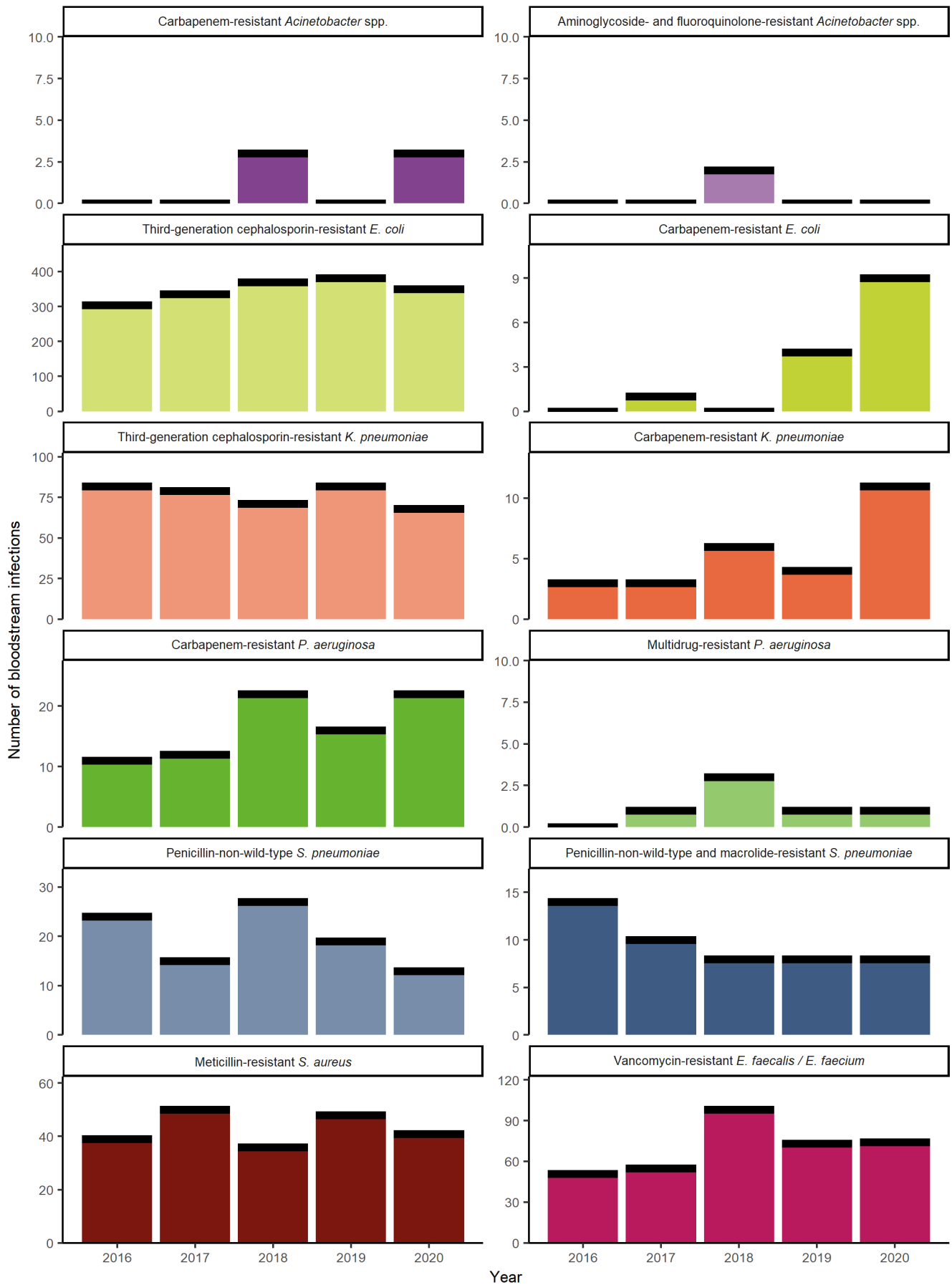
Estimates of the health burden of infections with antibiotic-resistant bacteria, Denmark, 2016-2020

Denmark: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	304	304	335	335	370	370	381	381	350	350
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	51	51	55	55	98	98	73	73	74	74
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	82	82	79	79	71	71	82	82	68	68
Meticillin-resistant <i>S. aureus</i>	39	39	50	50	36	36	48	48	41	41
Carbapenem-resistant <i>P. aeruginosa</i>	11	11	12	12	22	22	16	16	22	22
Penicillin-non-wild-type <i>S. pneumoniae</i>	24	24	15	15	27	27	19	19	13	13
Carbapenem-resistant <i>K. pneumoniae</i>	3	3	3	3	6	6	4	4	11	11
Carbapenem-resistant <i>E. coli</i>	0	0	1	1	0	0	4	4	9	9
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	14	14	10	10	8	8	8	8	8	8
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	0	0	3	3	0	0	3	3
Multidrug-resistant <i>P. aeruginosa</i>	0	0	1	1	3	3	1	1	1	1
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	2	2	0	0	0	0
Overall	528	528	561	561	646	646	636	636	600	600

Denmark: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Denmark: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 595 (1 397 - 1 813)	1 758 (1 538 - 1 998)	1 941 (1 713 - 2 185)	1 998 (1 749 - 2 272)	1 837 (1 618 - 2 076)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	682 (538 - 851)	735 (565 - 936)	1 311 (1 024 - 1 650)	976 (767 - 1 217)	989 (756 - 1 258)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	472 (415 - 535)	455 (404 - 511)	409 (363 - 459)	473 (419 - 531)	392 (345 - 443)
Meticillin-resistant <i>S. aureus</i>	293 (253 - 336)	375 (331 - 423)	270 (229 - 315)	360 (305 - 424)	307 (263 - 356)
Carbapenem-resistant <i>P. aeruginosa</i>	103 (81 - 129)	112 (82 - 150)	206 (162 - 259)	150 (118 - 187)	207 (165 - 255)
Penicillin-non-wild-type <i>S. pneumoniae</i>	124 (112 - 138)	77 (70 - 86)	139 (126 - 157)	98 (89 - 109)	67 (60 - 76)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	5 (3 - 8)	0 (0 - 0)	21 (15 - 28)	47 (37 - 59)
Carbapenem-resistant <i>K. pneumoniae</i>	11 (8 - 15)	11 (8 - 15)	23 (17 - 30)	15 (11 - 19)	42 (35 - 49)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	72 (66 - 80)	52 (46 - 58)	41 (37 - 48)	41 (37 - 47)	41 (37 - 47)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	19 (13 - 25)	0 (0 - 0)	19 (13 - 25)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	9 (4 - 18)	28 (17 - 42)	9 (4 - 18)	9 (4 - 18)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	12 (8 - 17)	0 (0 - 0)	0 (0 - 0)
Overall	3 352 (2 870 - 3 897)	3 589 (3 051 - 4 203)	4 399 (3 709 - 5 187)	4 141 (3 514 - 4 852)	3 957 (3 333 - 4 662)

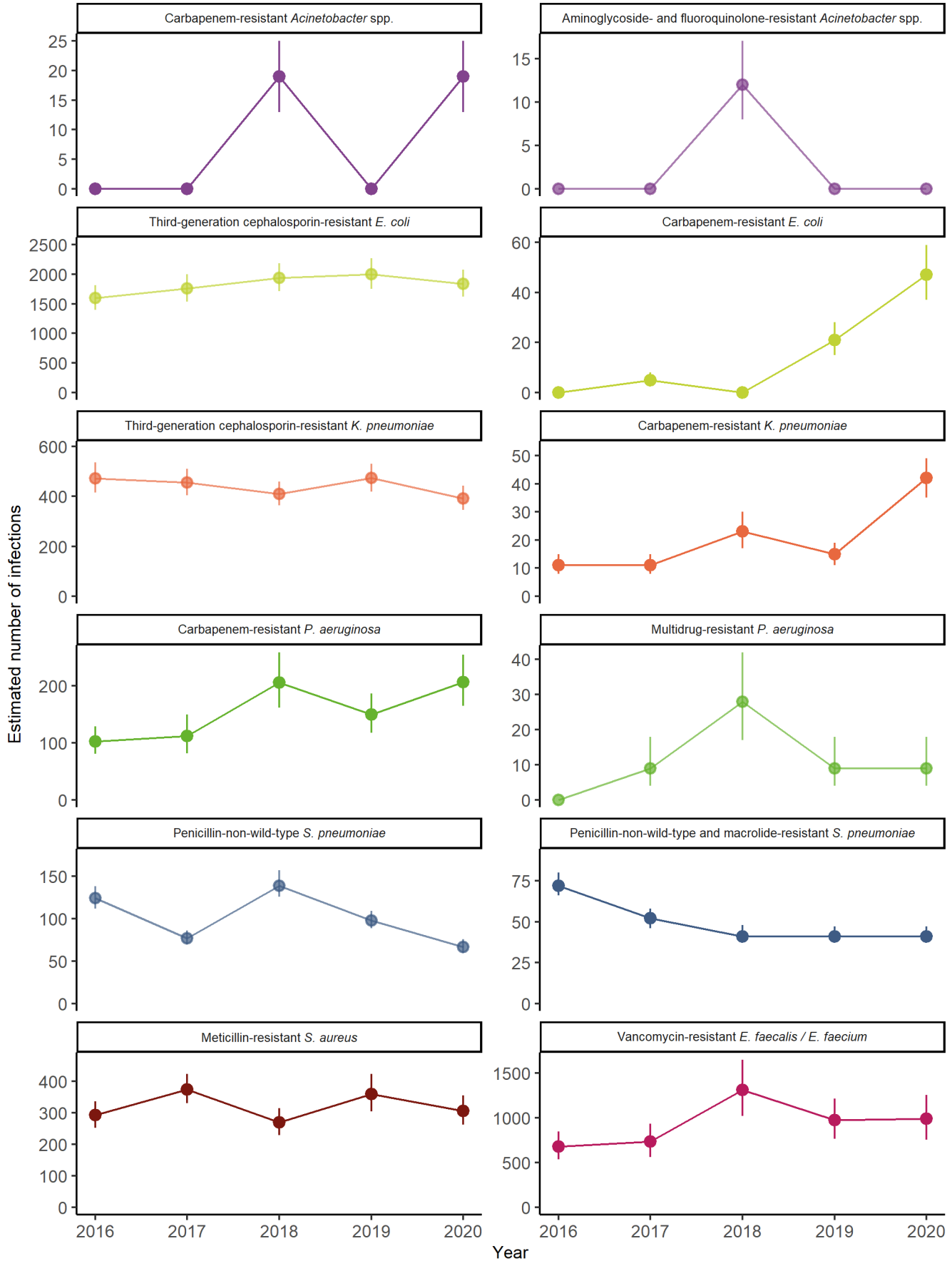
Denmark: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	71 (63 - 79)	78 (69 - 87)	85 (77 - 95)	89 (79 - 100)	81 (72 - 90)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	19 (17 - 22)	21 (19 - 23)	38 (34 - 43)	28 (25 - 31)	29 (26 - 33)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	19 (18 - 21)	18 (17 - 20)	17 (15 - 18)	19 (18 - 21)	16 (15 - 17)
Meticillin-resistant <i>S. aureus</i>	11 (10 - 12)	14 (13 - 16)	11 (10 - 12)	14 (13 - 16)	12 (11 - 13)
Carbapenem-resistant <i>P. aeruginosa</i>	5 (4 - 6)	5 (4 - 8)	10 (7 - 13)	7 (5 - 9)	10 (7 - 12)
Penicillin-non-wild-type <i>S. pneumoniae</i>	8 (7 - 8)	5 (4 - 5)	9 (8 - 9)	6 (6 - 7)	4 (4 - 5)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 2)	1 (1 - 2)	2 (2 - 3)	2 (1 - 2)	4 (4 - 5)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	2 (1 - 2)	4 (3 - 5)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	4 (4 - 5)	3 (3 - 4)	3 (2 - 3)	3 (2 - 3)	3 (2 - 3)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)	0 (0 - 0)	1 (1 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 1)	1 (1 - 2)	0 (0 - 1)	0 (0 - 1)
Overall	138 (124 - 155)	145 (130 - 167)	178 (157 - 200)	170 (150 - 192)	164 (145 - 185)

Denmark: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

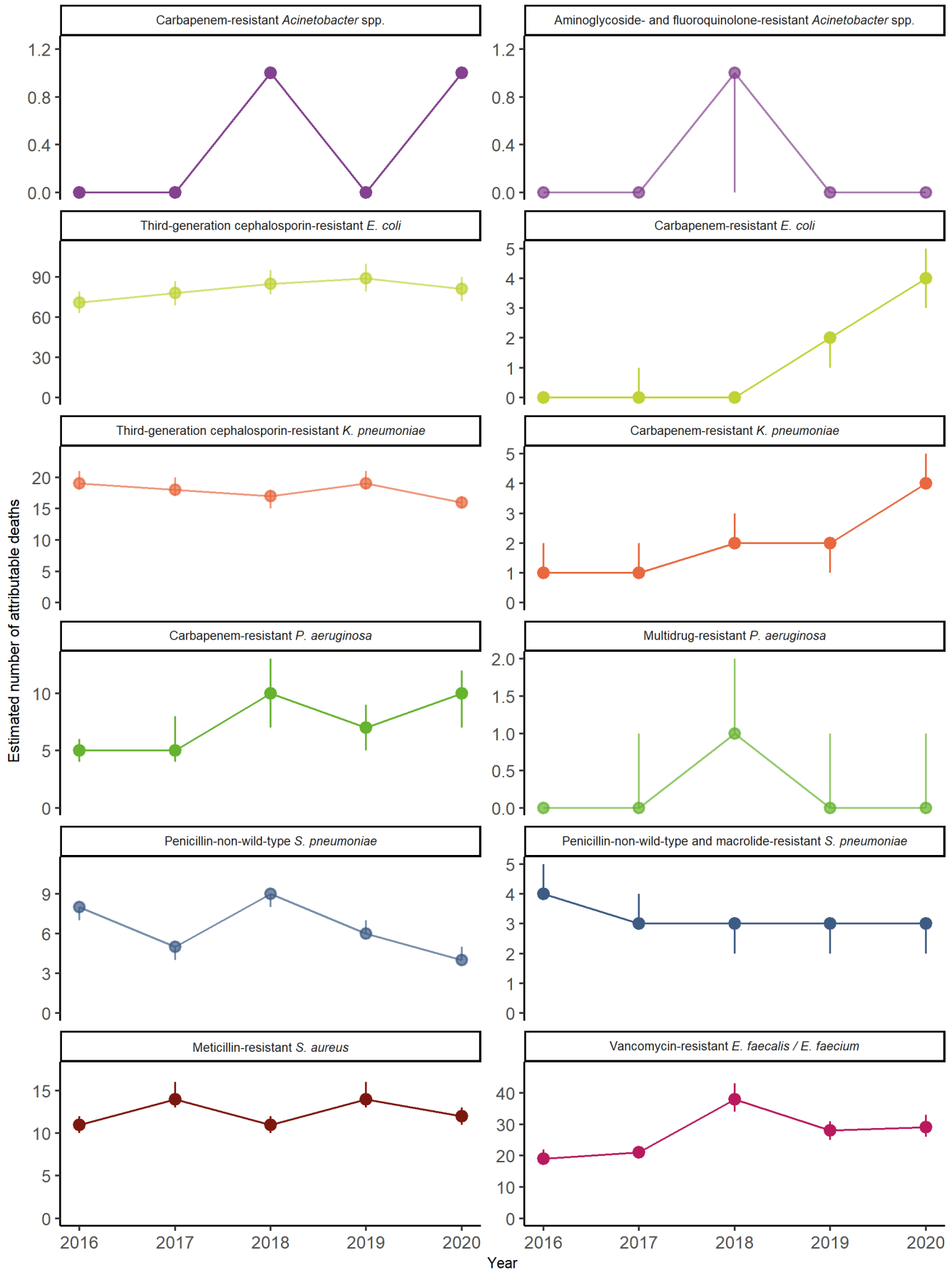
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 785 (1 622 - 1 958)	2 039 (1 840 - 2 245)	2 333 (2 136 - 2 536)	2 308 (2 107 - 2 519)	2 169 (1 984 - 2 362)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	564 (514 - 624)	539 (488 - 602)	1 088 (994 - 1 197)	732 (669 - 805)	729 (655 - 814)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	518 (482 - 556)	569 (532 - 609)	483 (450 - 519)	574 (537 - 614)	436 (406 - 469)
Meticillin-resistant <i>S. aureus</i>	443 (406 - 483)	560 (520 - 604)	363 (329 - 402)	462 (416 - 514)	428 (386 - 476)
Carbapenem-resistant <i>P. aeruginosa</i>	218 (157 - 290)	172 (120 - 236)	365 (279 - 465)	327 (245 - 425)	400 (304 - 515)
Carbapenem-resistant <i>K. pneumoniae</i>	33 (23 - 42)	35 (25 - 46)	86 (64 - 109)	42 (31 - 54)	146 (120 - 174)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	188 (171 - 209)	162 (145 - 184)	84 (74 - 97)	147 (131 - 168)	132 (118 - 150)
Penicillin-non-wild-type <i>S. pneumoniae</i>	271 (249 - 299)	135 (123 - 150)	266 (243 - 293)	208 (190 - 230)	116 (105 - 129)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	9 (6 - 14)	0 (0 - 0)	26 (18 - 35)	99 (76 - 122)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	43 (26 - 61)	0 (0 - 0)	49 (30 - 68)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	10 (4 - 20)	41 (23 - 67)	6 (2 - 12)	10 (4 - 20)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	21 (12 - 31)	0 (0 - 0)	0 (0 - 0)
Overall	4 020 (3 624 - 4 461)	4 230 (3 803 - 4 710)	5 173 (4 630 - 5 777)	4 832 (4 346 - 5 376)	4 714 (4 188 - 5 299)

Denmark: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



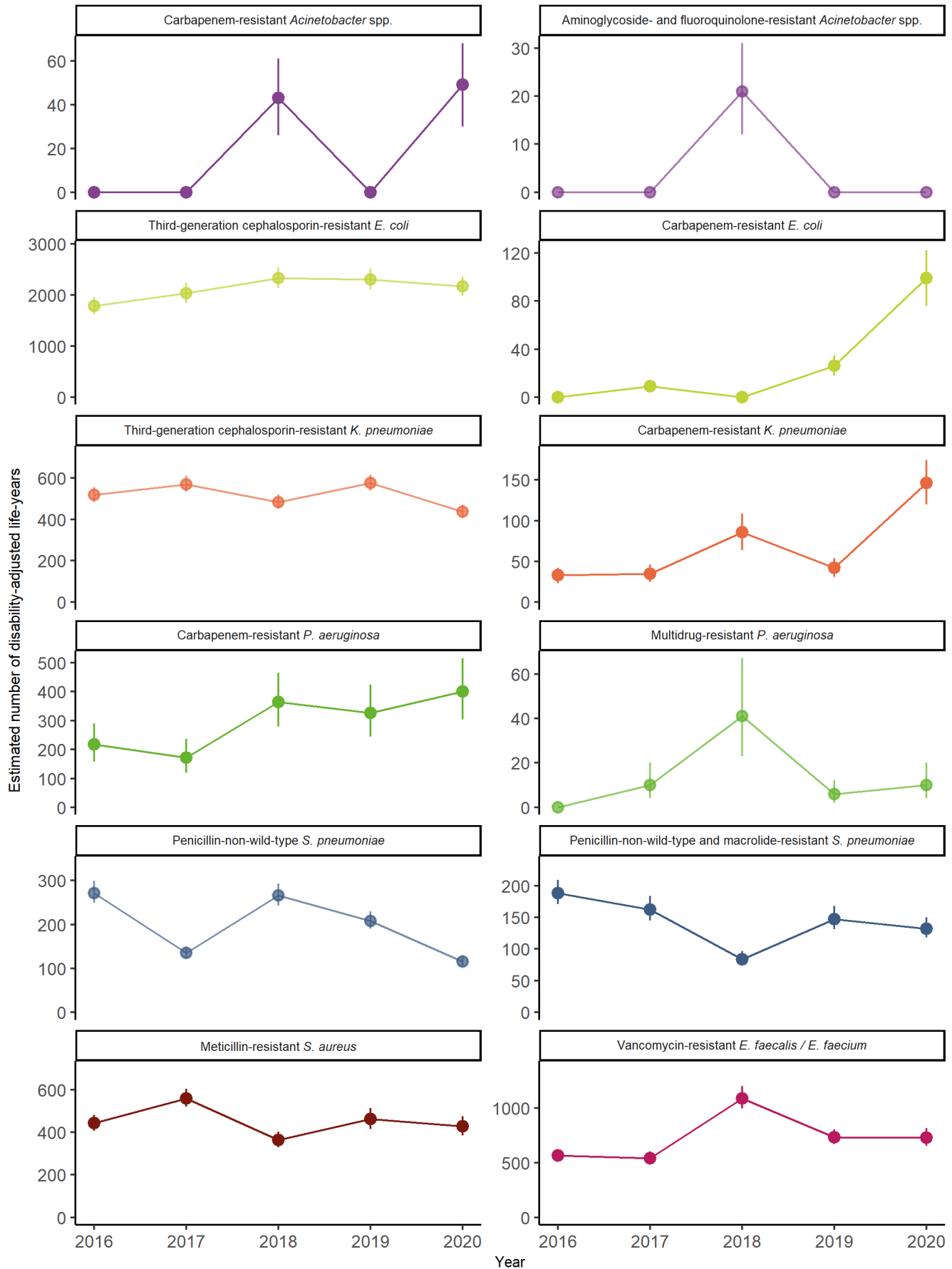
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Denmark: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



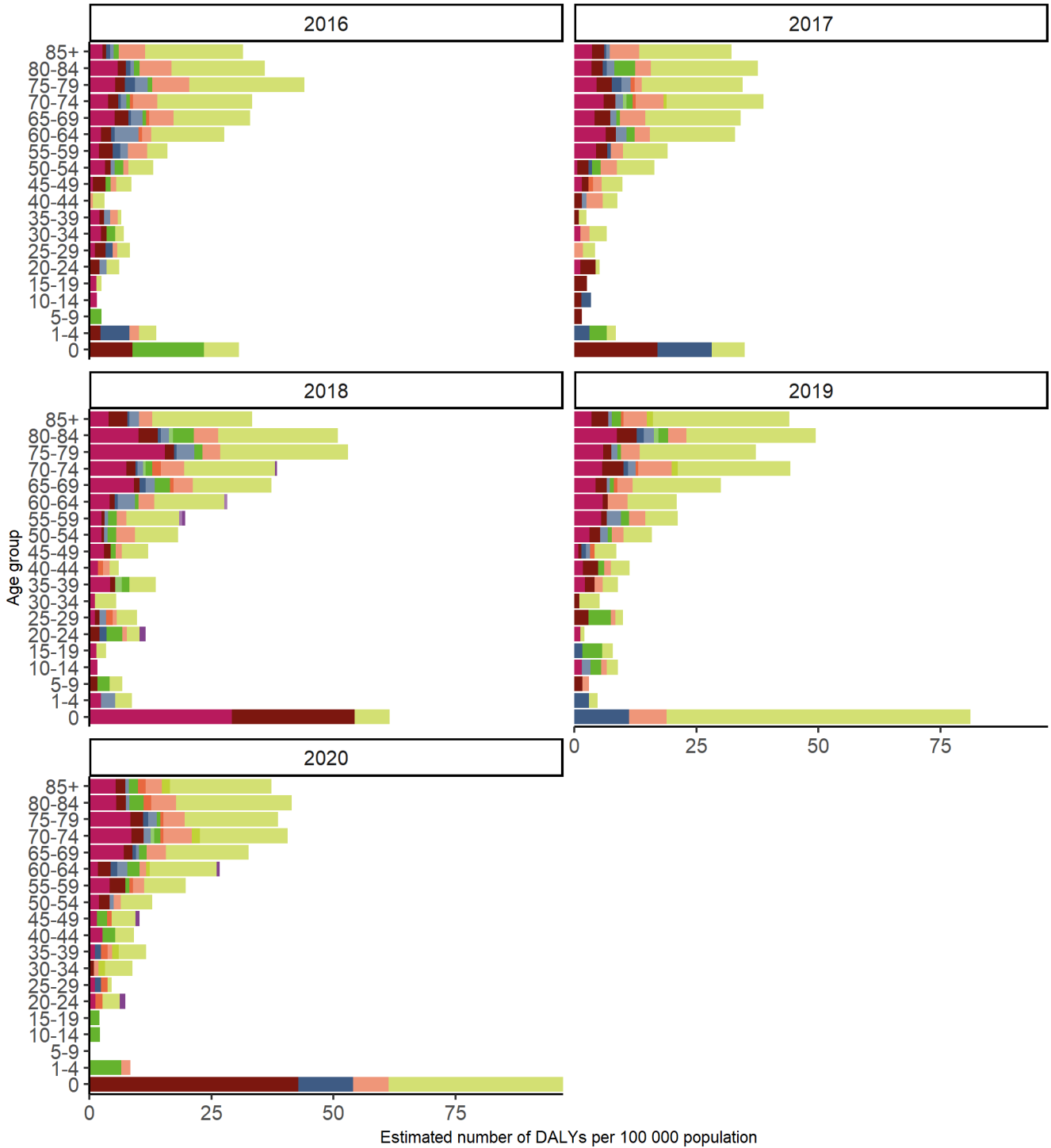
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Denmark: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Denmark: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

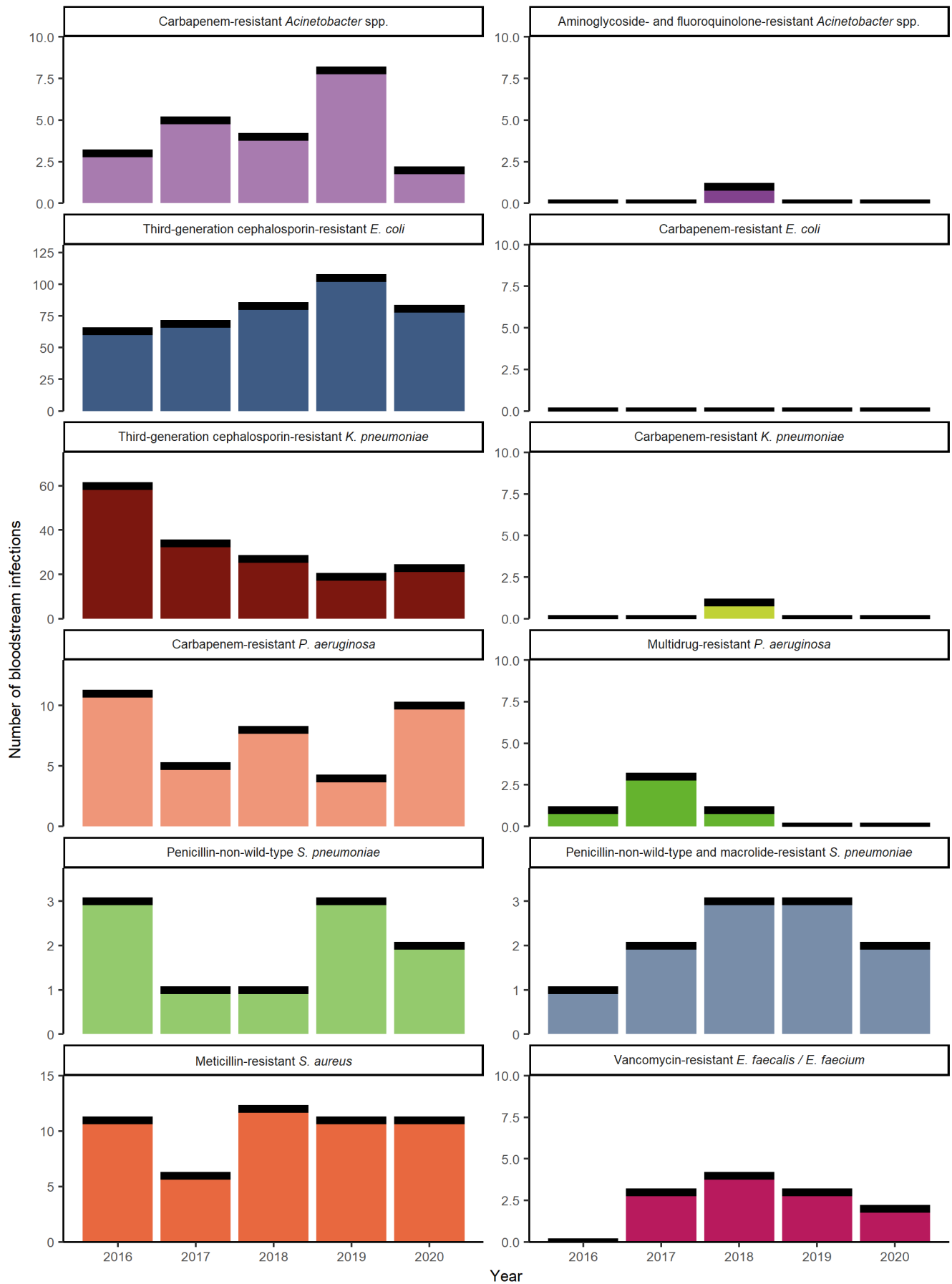
Estimates of the health burden of infections with antibiotic-resistant bacteria, Estonia, 2016-2020

Estonia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	63	63	69	69	83	83	105	105	81	81
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	60	60	34	34	27	27	19	19	23	23
Meticillin-resistant <i>S. aureus</i>	11	11	6	6	12	12	11	11	11	11
Carbapenem-resistant <i>P. aeruginosa</i>	11	11	5	5	8	8	4	4	10	10
Carbapenem-resistant <i>Acinetobacter</i> spp.	3	3	5	5	4	4	8	8	2	2
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1	1	2	2	3	3	3	3	2	2
Penicillin-non-wild-type <i>S. pneumoniae</i>	3	3	1	1	1	1	3	3	2	2
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0	0	3	3	4	4	3	3	2	2
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	0	0	0	0
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	1	1	0	0	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	1	1	0	0	0	0
Multidrug-resistant <i>P. aeruginosa</i>	1	1	3	3	1	1	0	0	0	0
Overall	153	153	128	128	145	145	156	156	133	133

Estonia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Estonia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	330 (285 - 381)	362 (313 - 416)	435 (378 - 499)	550 (471 - 640)	425 (372 - 483)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	346 (308 - 387)	196 (174 - 220)	156 (136 - 177)	110 (95 - 126)	133 (115 - 152)
Carbapenem-resistant <i>P. aeruginosa</i>	103 (79 - 132)	47 (32 - 65)	75 (56 - 97)	37 (22 - 57)	94 (71 - 122)
Meticillin-resistant <i>S. aureus</i>	82 (65 - 102)	45 (35 - 56)	90 (73 - 109)	82 (64 - 103)	82 (65 - 102)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	39 (21 - 65)	51 (23 - 101)	39 (21 - 65)	26 (12 - 47)
Carbapenem-resistant <i>Acinetobacter</i> spp.	19 (12 - 27)	31 (24 - 39)	25 (18 - 33)	50 (40 - 61)	12 (8 - 17)
Penicillin-non-wild-type <i>S. pneumoniae</i>	15 (13 - 19)	5 (4 - 7)	5 (4 - 7)	15 (13 - 20)	10 (8 - 13)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	5 (4 - 7)	10 (8 - 13)	15 (13 - 19)	15 (13 - 19)	10 (8 - 13)
Multidrug-resistant <i>P. aeruginosa</i>	9 (4 - 18)	28 (17 - 42)	9 (4 - 18)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	4 (2 - 6)	0 (0 - 0)	0 (0 - 0)
Overall	909 (770 - 1 073)	763 (628 - 923)	871 (710 - 1 076)	898 (739 - 1 091)	792 (659 - 949)

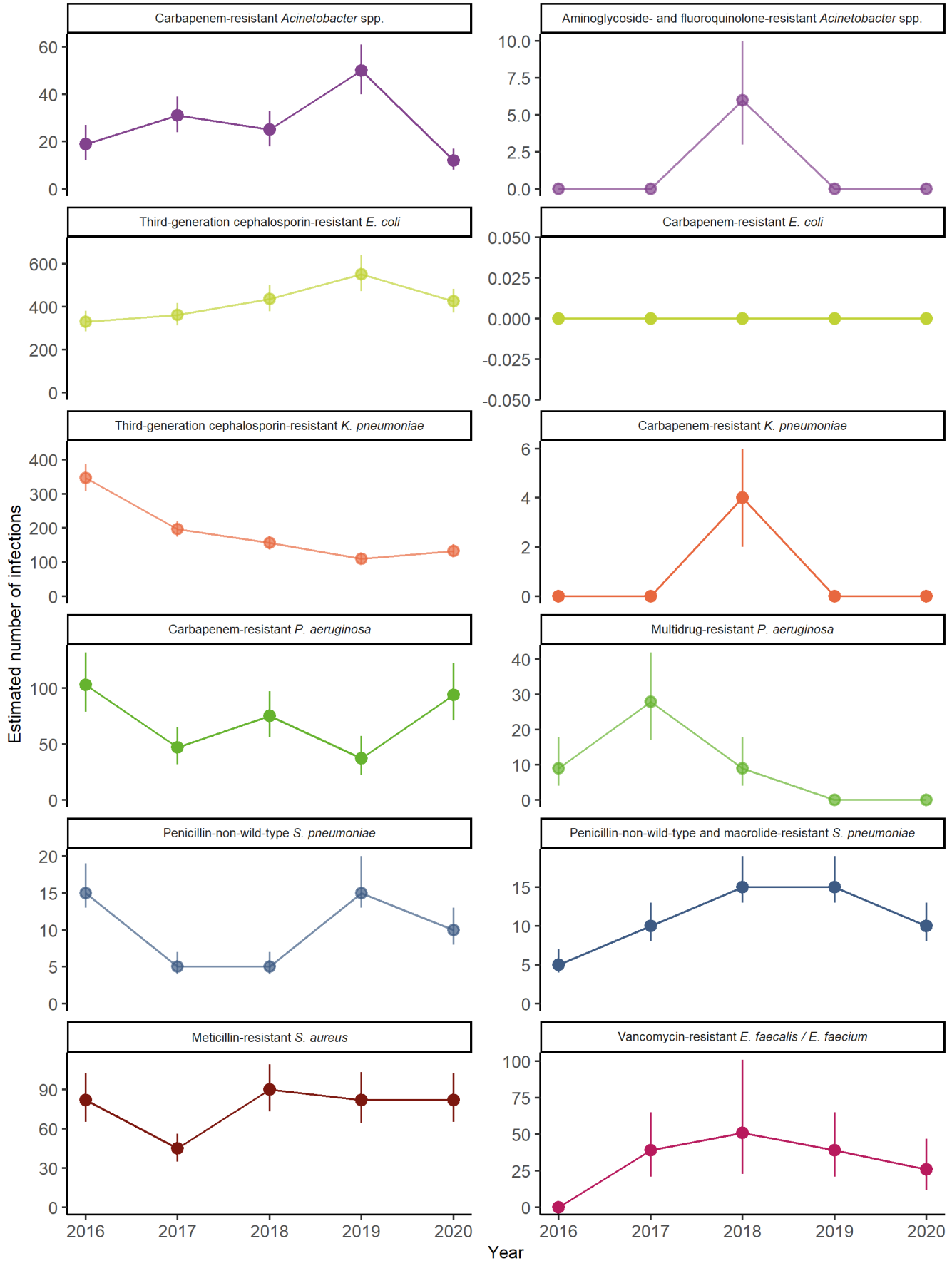
Estonia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	15 (13 - 17)	16 (14 - 18)	19 (17 - 22)	25 (22 - 28)	19 (16 - 21)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	14 (13 - 15)	8 (7 - 9)	6 (6 - 7)	5 (4 - 5)	5 (5 - 6)
Carbapenem-resistant <i>P. aeruginosa</i>	5 (3 - 6)	2 (1 - 3)	4 (3 - 5)	2 (1 - 3)	4 (3 - 6)
Meticillin-resistant <i>S. aureus</i>	3 (3 - 4)	2 (2 - 2)	4 (3 - 4)	3 (3 - 4)	3 (3 - 4)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)	1 (1 - 1)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 (0 - 1)	1 (1 - 2)	1 (1 - 2)	2 (2 - 3)	1 (0 - 1)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)	1 (1 - 1)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	1 (1 - 1)	2 (1 - 2)	1 (1 - 2)	1 (1 - 1)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 1)	1 (1 - 2)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Overall	39 (33 - 45)	32 (28 - 38)	37 (32 - 46)	40 (35 - 47)	35 (30 - 41)

Estonia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

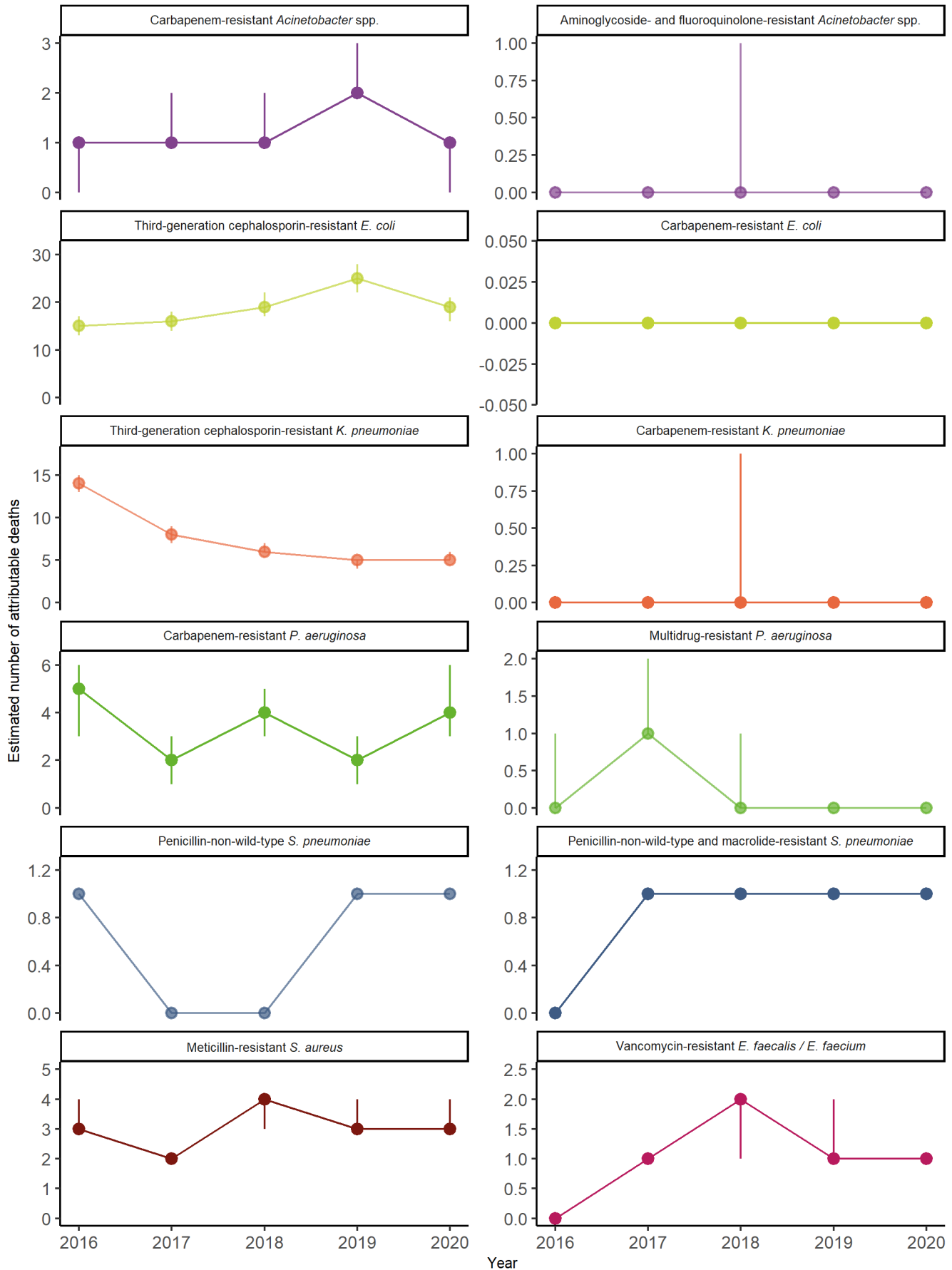
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	373 (337 - 410)	393 (352 - 436)	495 (451 - 541)	537 (485 - 593)	541 (492 - 592)
Meticillin-resistant <i>S. aureus</i>	99 (86 - 114)	48 (41 - 56)	77 (67 - 89)	165 (142 - 191)	178 (152 - 210)
Carbapenem-resistant <i>P. aeruginosa</i>	190 (139 - 250)	94 (58 - 142)	98 (69 - 133)	43 (23 - 69)	145 (102 - 195)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	397 (372 - 423)	289 (269 - 310)	160 (148 - 174)	108 (98 - 118)	114 (104 - 125)
Penicillin-non-wild-type <i>S. pneumoniae</i>	62 (53 - 77)	8 (7 - 11)	14 (11 - 19)	59 (49 - 76)	61 (51 - 77)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	31 (26 - 39)	46 (34 - 66)	31 (24 - 40)	27 (22 - 36)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	10 (8 - 14)	34 (28 - 42)	60 (51 - 75)	44 (38 - 53)	26 (22 - 33)
Carbapenem-resistant <i>Acinetobacter</i> spp.	41 (22 - 61)	48 (33 - 63)	51 (32 - 70)	65 (48 - 84)	14 (8 - 20)
Multidrug-resistant <i>P. aeruginosa</i>	8 (3 - 16)	23 (13 - 36)	8 (3 - 16)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	17 (10 - 24)	0 (0 - 0)	0 (0 - 0)
Overall	1 180 (1 020 - 1 365)	968 (827 - 1 135)	1 032 (879 - 1 217)	1 052 (907 - 1 224)	1 106 (953 - 1 288)

Estonia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



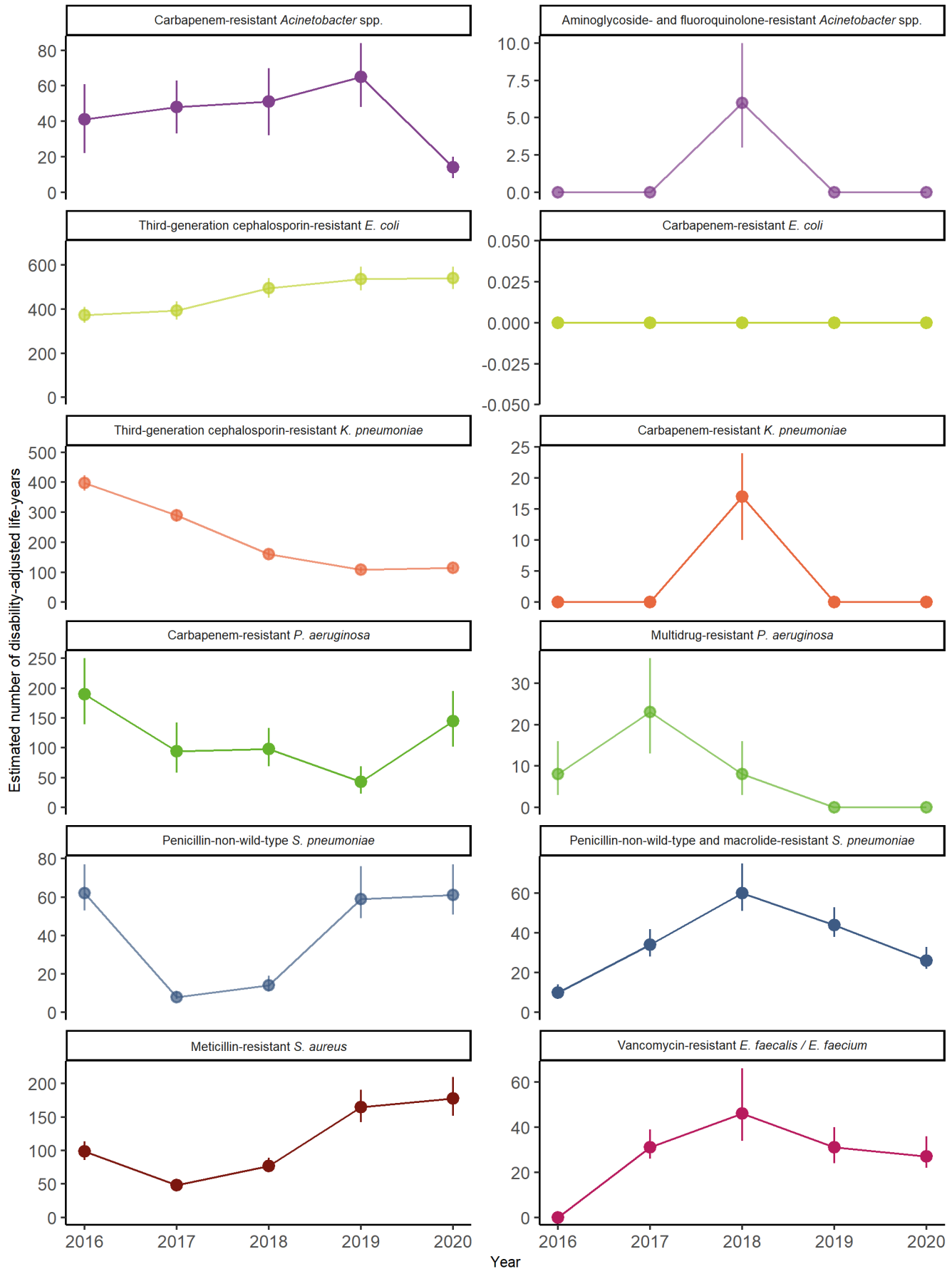
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Estonia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



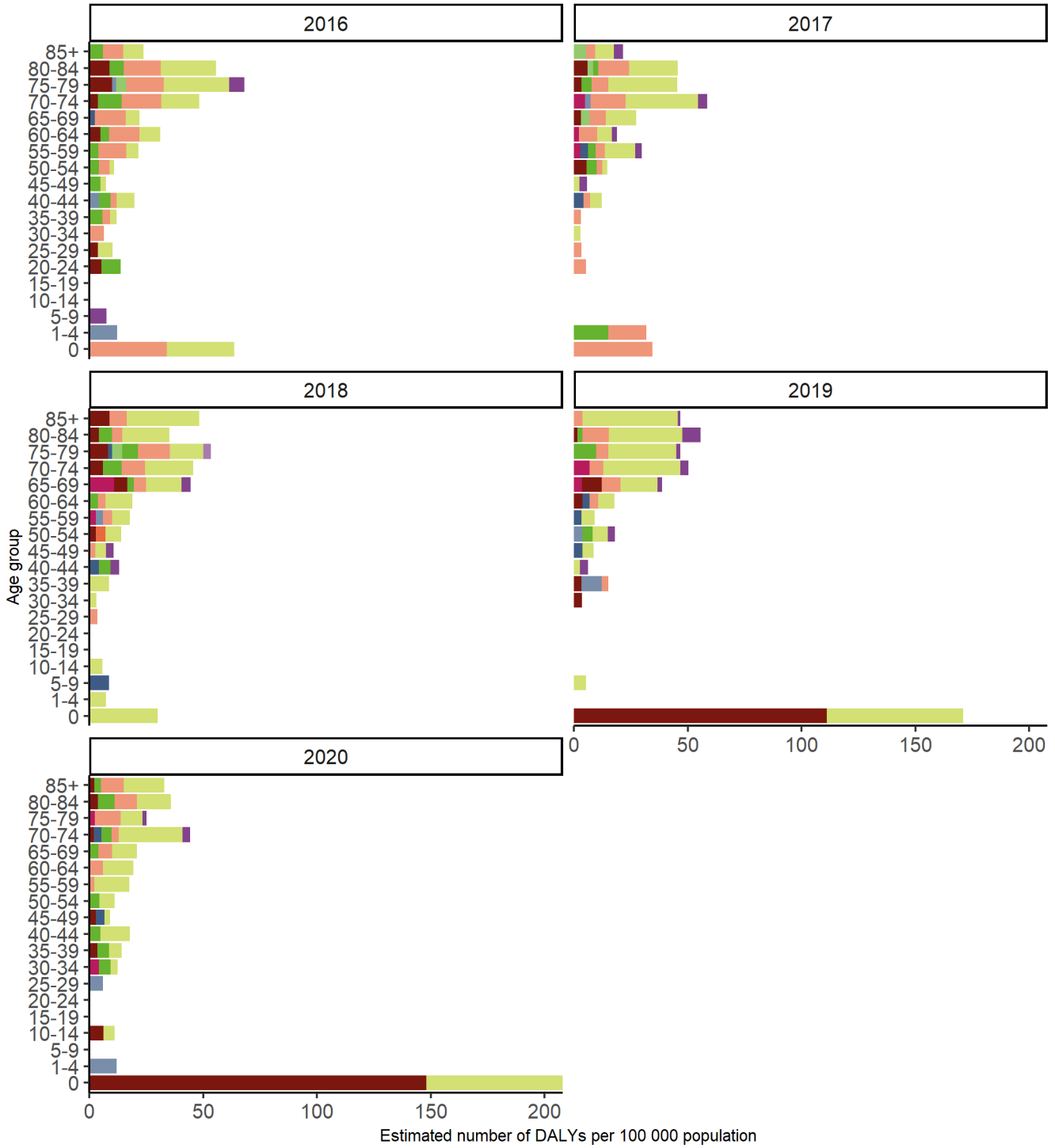
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Estonia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Estonia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

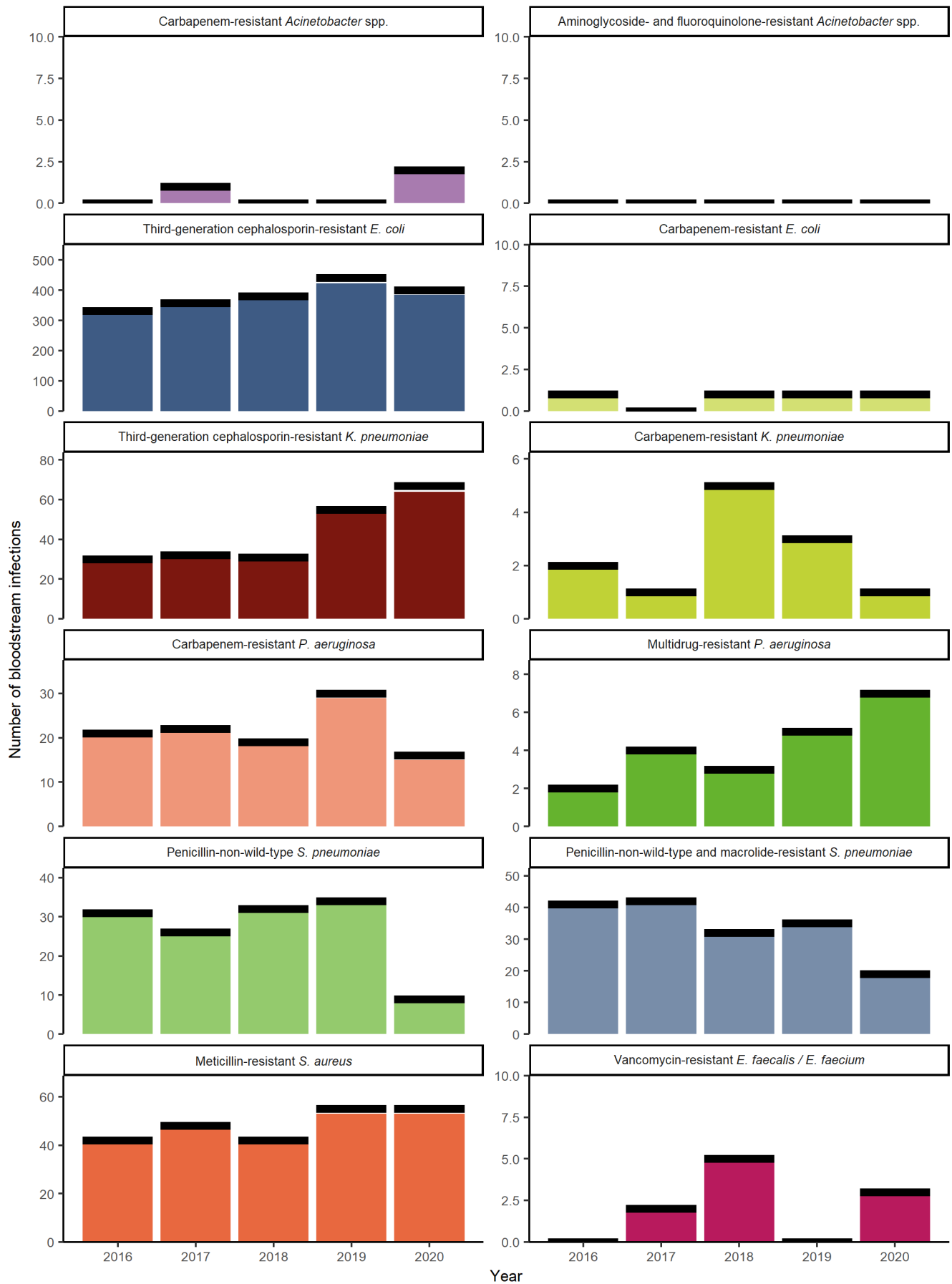
Estimates of the health burden of infections with antibiotic-resistant bacteria, Finland, 2016-2020

Finland: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	325	332	358	358	380	380	423	441	385	401
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	29	30	32	32	31	31	53	55	64	67
Meticillin-resistant <i>S. aureus</i>	41	42	48	48	42	42	53	55	53	55
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	40	41	42	42	32	32	34	35	18	19
Carbapenem-resistant <i>P. aeruginosa</i>	21	21	22	22	19	19	29	30	15	16
Penicillin-non-wild-type <i>S. pneumoniae</i>	30	31	26	26	32	32	33	34	9	9
Multidrug-resistant <i>P. aeruginosa</i>	2	2	4	4	3	3	5	5	7	7
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0	0	2	2	5	5	0	0	3	3
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	1	1	0	0	0	0	2	2
Carbapenem-resistant <i>E. coli</i>	1	1	0	0	1	1	1	1	1	1
Carbapenem-resistant <i>K. pneumoniae</i>	2	2	1	1	5	5	3	3	1	1
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Overall	491	502	536	536	550	550	634	659	558	581

Finland: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Finland: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 738 (1 517 - 1 984)	1 877 (1 634 - 2 148)	1 993 (1 737 - 2 274)	2 310 (2 003 - 2 653)	2 102 (1 828 - 2 405)
Meticillin-resistant <i>S. aureus</i>	314 (270 - 362)	360 (312 - 413)	315 (268 - 368)	414 (363 - 472)	414 (362 - 472)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	170 (148 - 195)	184 (159 - 213)	179 (154 - 206)	318 (281 - 357)	384 (335 - 438)
Carbapenem-resistant <i>P. aeruginosa</i>	201 (151 - 262)	207 (159 - 262)	178 (138 - 227)	284 (230 - 348)	146 (109 - 191)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	211 (194 - 232)	217 (200 - 239)	165 (151 - 183)	183 (168 - 201)	96 (86 - 112)
Multidrug-resistant <i>P. aeruginosa</i>	19 (10 - 31)	37 (22 - 58)	28 (17 - 42)	49 (33 - 68)	68 (50 - 90)
Penicillin-non-wild-type <i>S. pneumoniae</i>	158 (145 - 173)	134 (123 - 149)	165 (152 - 182)	177 (162 - 196)	48 (43 - 55)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	26 (12 - 48)	66 (41 - 98)	0 (0 - 0)	41 (22 - 67)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)	13 (7 - 20)
Carbapenem-resistant <i>E. coli</i>	5 (3 - 8)	0 (0 - 0)	5 (3 - 8)	5 (3 - 9)	5 (3 - 8)
Carbapenem-resistant <i>K. pneumoniae</i>	8 (5 - 11)	4 (2 - 6)	19 (13 - 25)	12 (9 - 16)	4 (2 - 6)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	2 824 (2 443 - 3 258)	3 052 (2 626 - 3 546)	3 113 (2 674 - 3 613)	3 752 (3 252 - 4 320)	3 321 (2 847 - 3 864)

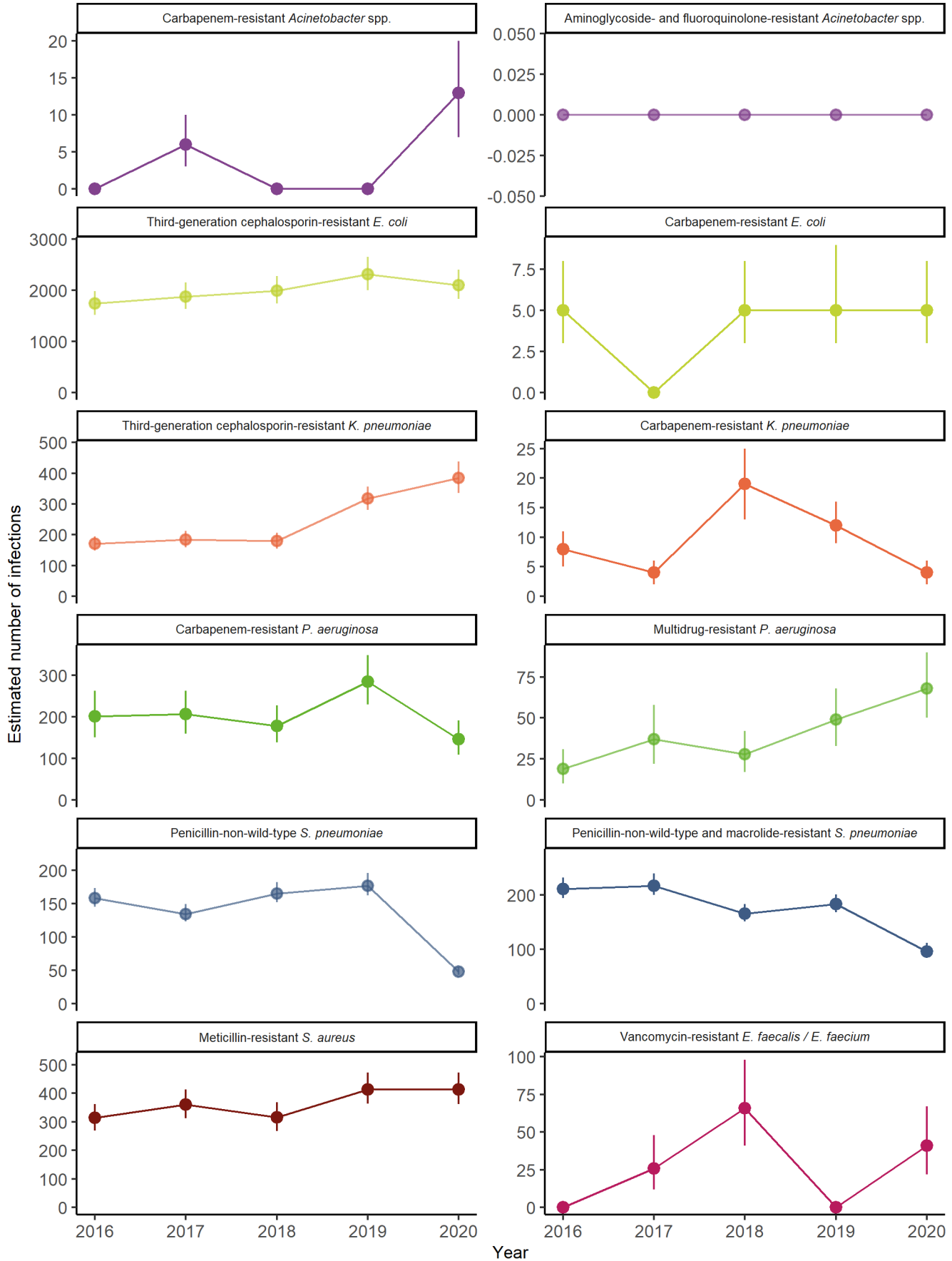
Finland: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	77 (68 - 87)	83 (73 - 94)	89 (79 - 100)	103 (91 - 117)	93 (82 - 105)
Meticillin-resistant <i>S. aureus</i>	12 (11 - 13)	14 (12 - 15)	13 (11 - 14)	16 (15 - 18)	16 (14 - 17)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	7 (6 - 8)	7 (7 - 8)	7 (7 - 8)	13 (12 - 14)	16 (14 - 17)
Carbapenem-resistant <i>P. aeruginosa</i>	10 (7 - 13)	10 (7 - 13)	8 (6 - 11)	13 (10 - 17)	7 (5 - 9)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	13 (12 - 14)	13 (12 - 14)	10 (9 - 11)	11 (10 - 12)	6 (5 - 7)
Penicillin-non-wild-type <i>S. pneumoniae</i>	10 (9 - 10)	8 (8 - 9)	10 (9 - 11)	11 (10 - 12)	3 (3 - 3)
Multidrug-resistant <i>P. aeruginosa</i>	1 (0 - 2)	2 (1 - 3)	1 (1 - 2)	2 (1 - 3)	3 (2 - 4)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	1 (1 - 1)	2 (1 - 2)	0 (0 - 0)	1 (1 - 2)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 1)	0 (0 - 0)	0 (0 - 1)	0 (0 - 1)	0 (0 - 1)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 1)	0 (0 - 1)	2 (1 - 3)	1 (1 - 2)	0 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	131 (114 - 149)	138 (121 - 158)	142 (124 - 163)	170 (150 - 196)	146 (126 - 167)

Finland: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

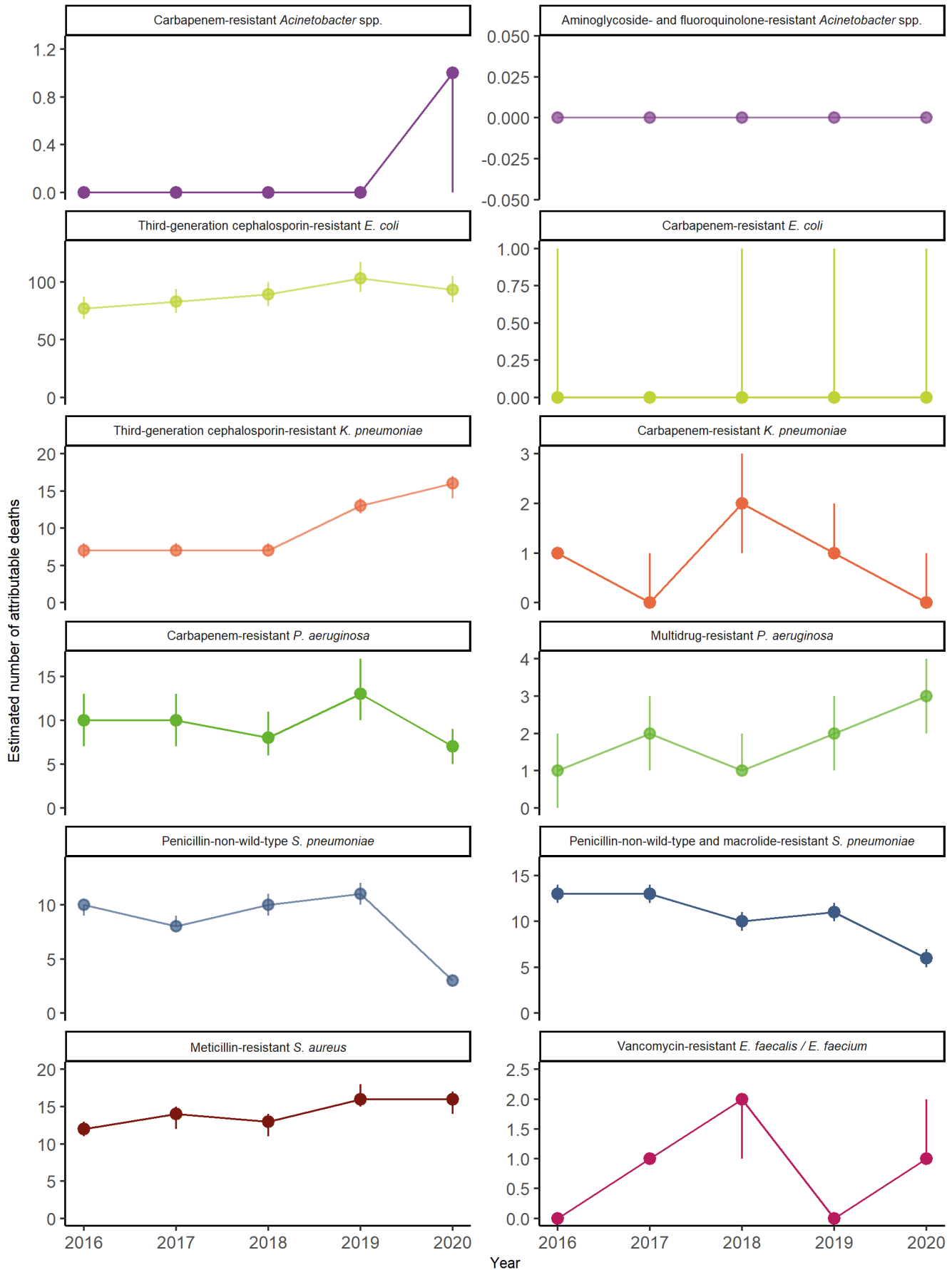
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 940 (1 773 - 2 113)	1 996 (1 819 - 2 180)	2 097 (1 915 - 2 288)	2 391 (2 182 - 2 605)	2 243 (2 052 - 2 440)
Meticillin-resistant <i>S. aureus</i>	518 (474 - 565)	587 (535 - 644)	397 (364 - 434)	553 (514 - 596)	665 (613 - 722)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	176 (162 - 191)	185 (169 - 202)	190 (175 - 207)	338 (316 - 362)	404 (375 - 434)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	503 (468 - 543)	477 (446 - 514)	334 (308 - 363)	386 (359 - 418)	257 (233 - 288)
Carbapenem-resistant <i>P. aeruginosa</i>	251 (187 - 326)	255 (189 - 331)	327 (234 - 437)	503 (396 - 626)	197 (139 - 268)
Penicillin-non-wild-type <i>S. pneumoniae</i>	366 (339 - 399)	368 (337 - 404)	397 (369 - 429)	487 (452 - 529)	144 (128 - 165)
Multidrug-resistant <i>P. aeruginosa</i>	17 (8 - 28)	41 (21 - 70)	25 (14 - 39)	97 (61 - 141)	109 (74 - 153)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	25 (12 - 40)	0 (0 - 0)	0 (0 - 0)	52 (24 - 84)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	28 (23 - 36)	66 (57 - 79)	0 (0 - 0)	36 (29 - 46)
Carbapenem-resistant <i>K. pneumoniae</i>	47 (31 - 63)	7 (4 - 10)	127 (90 - 164)	68 (47 - 91)	13 (8 - 19)
Carbapenem-resistant <i>E. coli</i>	30 (18 - 42)	0 (0 - 0)	7 (4 - 11)	12 (7 - 17)	6 (3 - 8)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	3 848 (3 460 - 4 270)	3 969 (3 555 - 4 431)	3 967 (3 530 - 4 451)	4 835 (4 334 - 5 385)	4 126 (3 678 - 4 627)

Finland: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



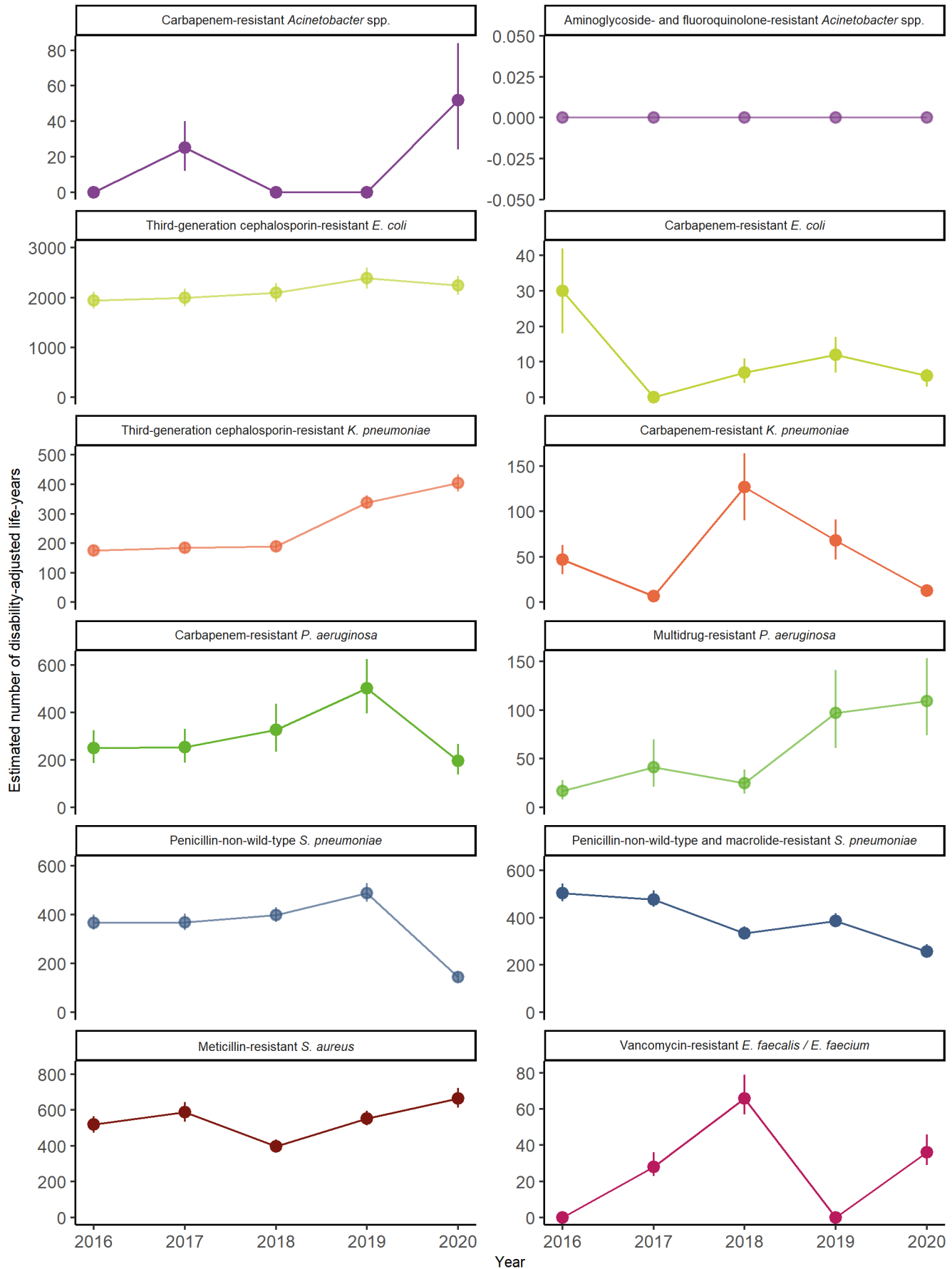
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Finland: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



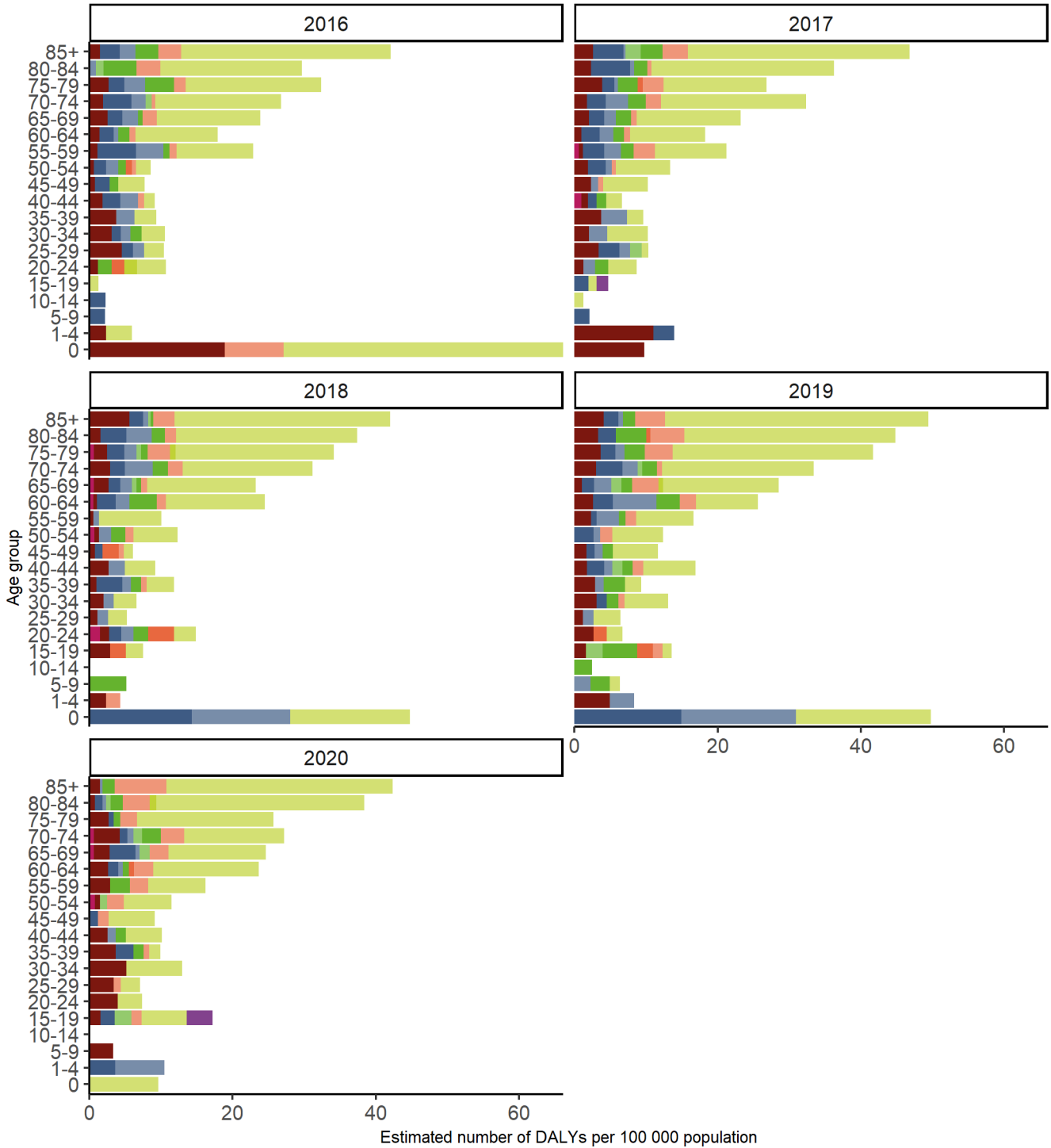
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Finland: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Finland: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

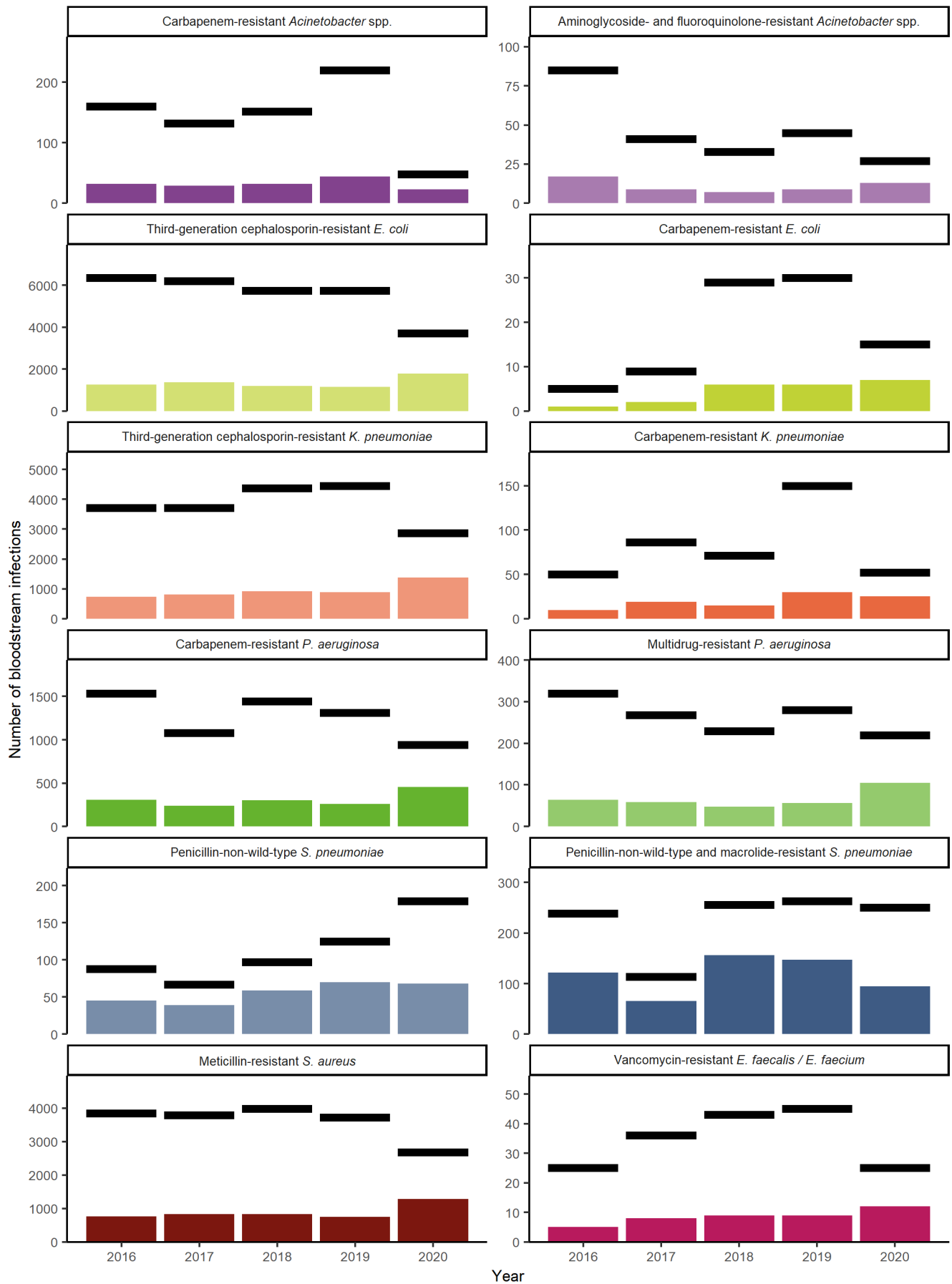
Estimates of the health burden of infections with antibiotic-resistant bacteria, France, 2016-2020

France: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	1 269	6 345	1 364	6 200	1 204	5 733	1 146	5 730	1 774	3 696
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	741	3 705	816	3 709	919	4 376	891	4 455	1 378	2 871
Meticillin-resistant <i>S. aureus</i>	770	3 850	836	3 800	836	3 981	746	3 730	1 291	2 690
Carbapenem-resistant <i>P. aeruginosa</i>	307	1 535	238	1 082	303	1 443	262	1 310	453	944
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	122	239	66	114	156	256	147	263	95	250
Multidrug-resistant <i>P. aeruginosa</i>	64	320	59	268	48	229	56	280	105	219
Penicillin-non-wild-type <i>S. pneumoniae</i>	45	88	39	67	59	97	70	125	68	179
Carbapenem-resistant <i>K. pneumoniae</i>	10	50	19	86	15	71	30	150	25	52
Carbapenem-resistant <i>Acinetobacter</i> spp.	32	160	29	132	32	152	44	220	23	48
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	17	85	9	41	7	33	9	45	13	27
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	5	25	8	36	9	43	9	45	12	25
Carbapenem-resistant <i>E. coli</i>	1	5	2	9	6	29	6	30	7	15
Overall	3 383	16 407	3 485	15 544	3 594	16 443	3 416	16 383	5 244	11 016

France: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



France: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	28 906 (24 751 - 33 518)	28 514 (24 514 - 32 903)	29 860 (25 535 - 34 769)	27 962 (24 010 - 32 445)	20 165 (17 116 - 23 657)
Third-generation cephalosporin-resistant <i>E. coli</i>	33 277 (29 082 - 37 857)	32 529 (28 378 - 37 161)	30 060 (26 257 - 34 237)	30 073 (26 249 - 34 339)	19 399 (16 879 - 22 205)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	21 367 (19 287 - 23 569)	21 380 (19 300 - 23 636)	25 235 (22 730 - 27 898)	25 694 (23 078 - 28 483)	16 546 (14 848 - 18 365)
Carbapenem-resistant <i>P. aeruginosa</i>	14 427 (11 998 - 17 184)	10 174 (8 529 - 12 050)	13 573 (11 365 - 16 128)	12 329 (10 305 - 14 651)	8 869 (7 315 - 10 659)
Multidrug-resistant <i>P. aeruginosa</i>	3 006 (2 446 - 3 651)	2 518 (2 030 - 3 090)	2 148 (1 744 - 2 627)	2 633 (2 166 - 3 157)	2 051 (1 647 - 2 542)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 235 (1 145 - 1 344)	587 (541 - 649)	1 320 (1 222 - 1 442)	1 352 (1 243 - 1 496)	1 292 (1 196 - 1 406)
Penicillin-non-wild-type <i>S. pneumoniae</i>	455 (418 - 504)	347 (322 - 378)	500 (465 - 542)	646 (598 - 701)	923 (853 - 1 012)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	329 (190 - 521)	483 (323 - 687)	571 (391 - 791)	599 (412 - 832)	333 (234 - 452)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 001 (838 - 1 176)	826 (711 - 946)	954 (821 - 1 098)	1 378 (1 193 - 1 577)	300 (260 - 343)
Carbapenem-resistant <i>K. pneumoniae</i>	189 (150 - 234)	327 (282 - 377)	270 (221 - 325)	567 (489 - 654)	197 (173 - 223)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	532 (445 - 626)	256 (209 - 308)	209 (169 - 252)	282 (233 - 333)	169 (142 - 199)
Carbapenem-resistant <i>E. coli</i>	26 (15 - 41)	46 (28 - 74)	149 (117 - 187)	157 (122 - 197)	76 (64 - 90)
Overall	104 750 (90 765 - 120 225)	97 987 (85 167 - 112 259)	104 849 (91 037 - 120 296)	103 672 (90 098 - 118 865)	70 320 (60 727 - 81 153)

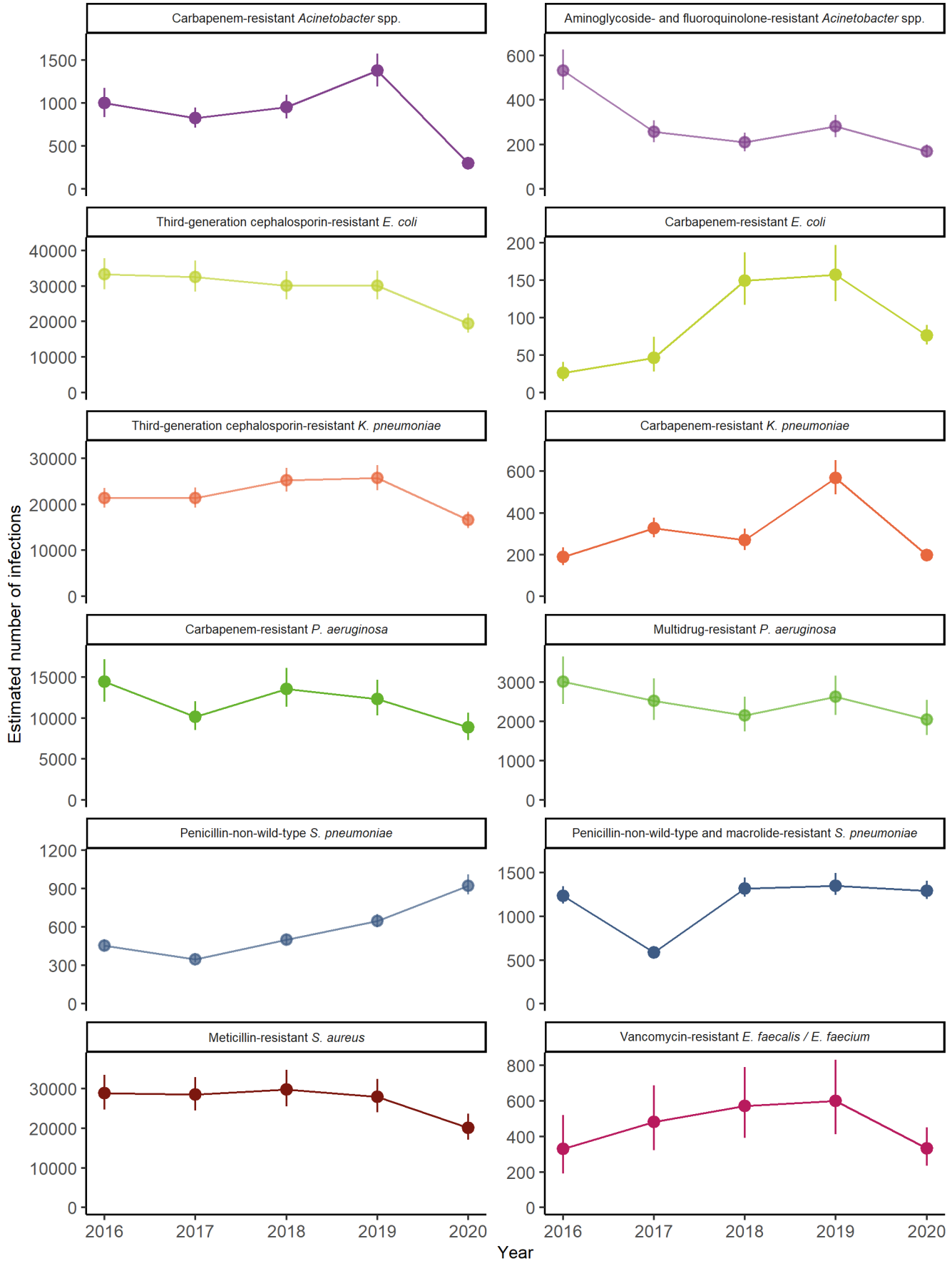
France: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 470 (1 303 - 1 646)	1 438 (1 271 - 1 616)	1 329 (1 177 - 1 491)	1 330 (1 176 - 1 494)	860 (759 - 966)
Meticillin-resistant <i>S. aureus</i>	1 171 (1 053 - 1 304)	1 158 (1 042 - 1 285)	1 222 (1 095 - 1 364)	1 134 (1 021 - 1 261)	828 (739 - 930)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	857 (802 - 915)	859 (803 - 919)	1 015 (949 - 1 087)	1 035 (966 - 1 109)	671 (625 - 719)
Carbapenem-resistant <i>P. aeruginosa</i>	678 (540 - 833)	476 (382 - 580)	638 (512 - 780)	576 (462 - 701)	422 (334 - 523)
Multidrug-resistant <i>P. aeruginosa</i>	133 (104 - 166)	112 (87 - 142)	95 (74 - 120)	115 (91 - 142)	93 (71 - 118)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	76 (71 - 81)	36 (34 - 39)	81 (76 - 87)	83 (77 - 90)	79 (74 - 85)
Penicillin-non-wild-type <i>S. pneumoniae</i>	28 (26 - 30)	21 (20 - 23)	31 (29 - 33)	40 (37 - 42)	57 (53 - 61)
Carbapenem-resistant <i>K. pneumoniae</i>	20 (16 - 25)	34 (29 - 39)	29 (23 - 34)	60 (51 - 68)	21 (18 - 23)
Carbapenem-resistant <i>Acinetobacter</i> spp.	47 (37 - 58)	39 (32 - 47)	46 (36 - 55)	65 (53 - 78)	14 (12 - 17)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	8 (7 - 10)	13 (11 - 16)	15 (13 - 18)	17 (15 - 21)	10 (9 - 12)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	24 (19 - 30)	12 (9 - 15)	10 (7 - 13)	13 (10 - 16)	8 (6 - 10)
Carbapenem-resistant <i>E. coli</i>	2 (1 - 3)	4 (2 - 5)	12 (9 - 15)	12 (9 - 15)	6 (5 - 7)
Overall	4 514 (3 979 - 5 101)	4 202 (3 722 - 4 726)	4 523 (4 000 - 5 097)	4 480 (3 968 - 5 037)	3 069 (2 705 - 3 471)

France: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

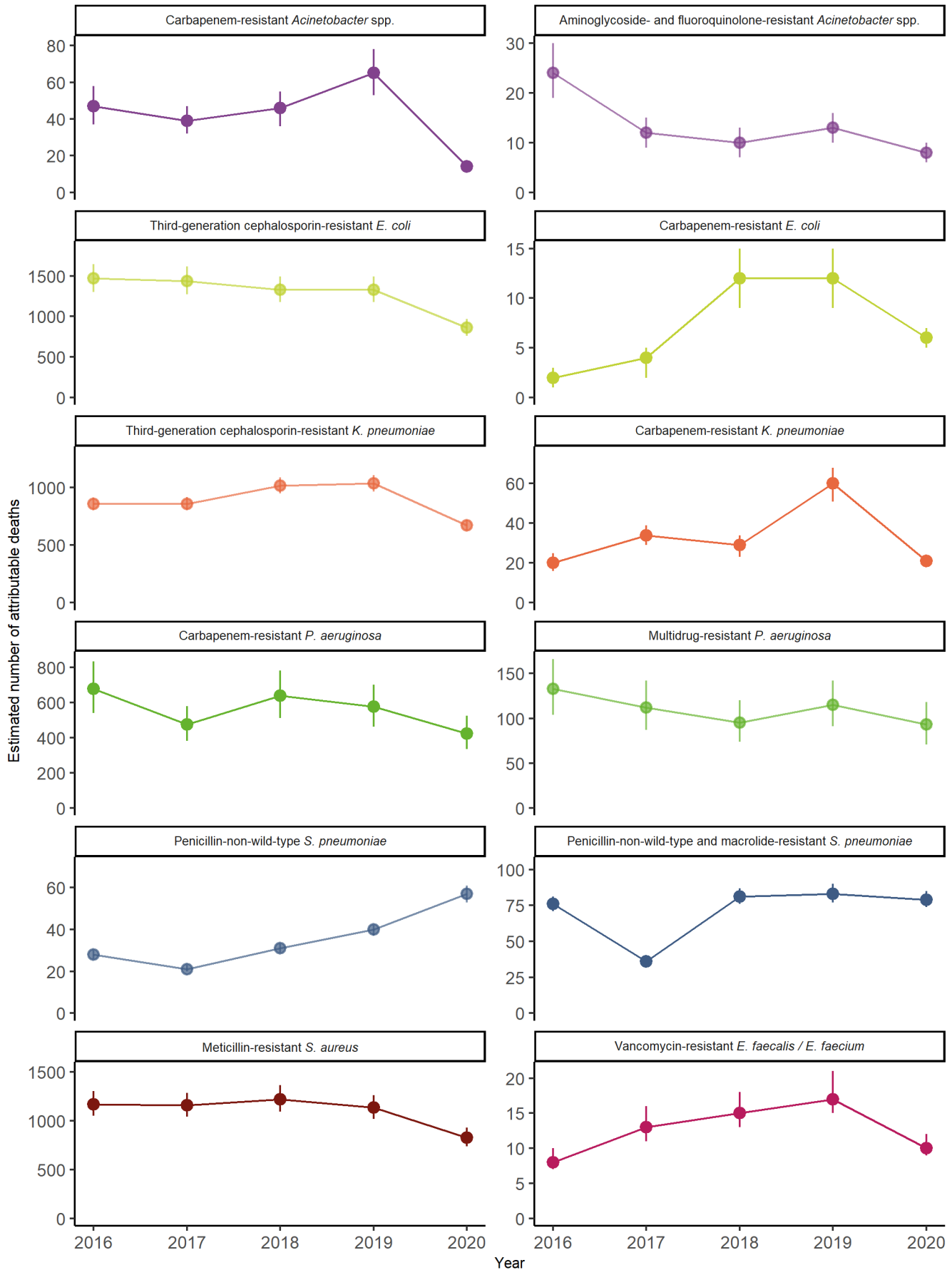
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	36 688 (33 457 - 40 021)	35 708 (32 822 - 38 740)	34 181 (31 364 - 37 132)	33 018 (30 237 - 35 870)	21 211 (19 395 - 23 079)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	28 668 (27 154 - 30 304)	27 694 (26 222 - 29 289)	33 006 (31 183 - 34 955)	32 317 (30 427 - 34 307)	19 413 (18 300 - 20 594)
Meticillin-resistant <i>S. aureus</i>	30 237 (28 032 - 32 654)	29 622 (27 440 - 31 975)	30 131 (27 817 - 32 641)	30 058 (27 887 - 32 414)	19 283 (17 764 - 20 988)
Carbapenem-resistant <i>P. aeruginosa</i>	25 072 (20 695 - 29 948)	18 810 (15 595 - 22 388)	24 477 (20 333 - 28 989)	22 056 (18 131 - 26 336)	13 700 (11 334 - 16 381)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 615 (3 356 - 3 947)	2 098 (1 913 - 2 359)	4 210 (3 878 - 4 631)	4 701 (4 275 - 5 337)	4 861 (4 455 - 5 399)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 836 (1 671 - 2 056)	939 (879 - 1 007)	1 661 (1 544 - 1 796)	1 804 (1 679 - 1 955)	3 204 (2 932 - 3 592)
Multidrug-resistant <i>P. aeruginosa</i>	4 790 (3 832 - 5 863)	3 782 (2 993 - 4 701)	3 351 (2 643 - 4 141)	4 353 (3 497 - 5 301)	2 643 (2 114 - 3 259)
Carbapenem-resistant <i>K. pneumoniae</i>	498 (376 - 628)	1 240 (1 059 - 1 431)	826 (670 - 986)	2 061 (1 741 - 2 389)	678 (594 - 765)
Carbapenem-resistant <i>Acinetobacter</i> spp.	2 182 (1 689 - 2 692)	1 907 (1 551 - 2 278)	1 787 (1 458 - 2 129)	2 828 (2 351 - 3 315)	477 (396 - 559)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	302 (256 - 362)	481 (417 - 562)	704 (614 - 831)	445 (382 - 523)	197 (170 - 229)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 030 (814 - 1 252)	554 (426 - 689)	311 (231 - 395)	642 (480 - 810)	172 (133 - 212)
Carbapenem-resistant <i>E. coli</i>	18 (10 - 26)	132 (79 - 189)	431 (334 - 531)	399 (300 - 498)	158 (130 - 186)
Overall	134 936 (121 342 - 149 753)	122 967 (111 396 - 135 608)	135 076 (122 069 - 149 157)	134 682 (121 387 - 149 055)	85 997 (77 717 - 95 243)

France: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



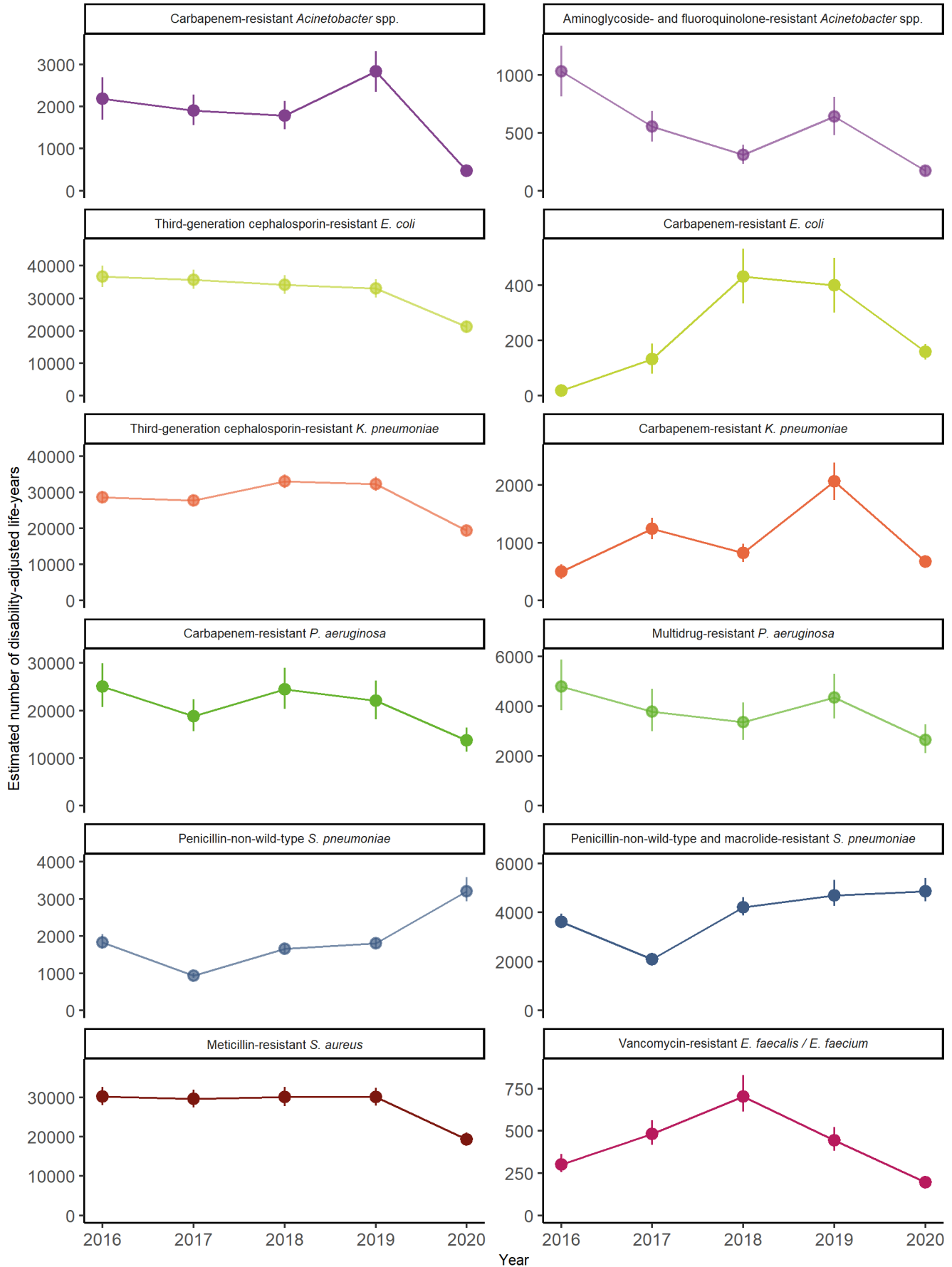
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

France: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



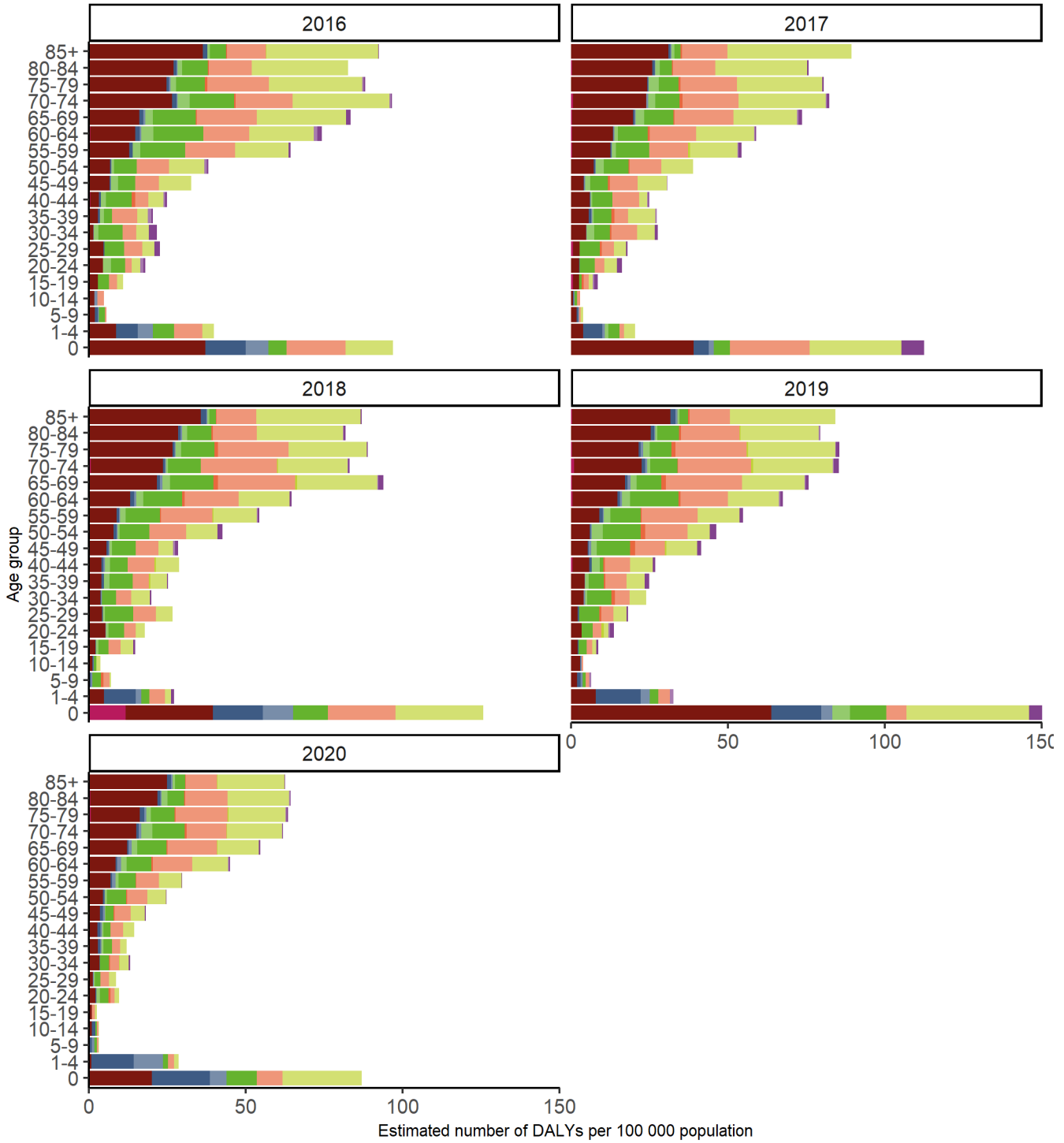
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

France: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

France: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

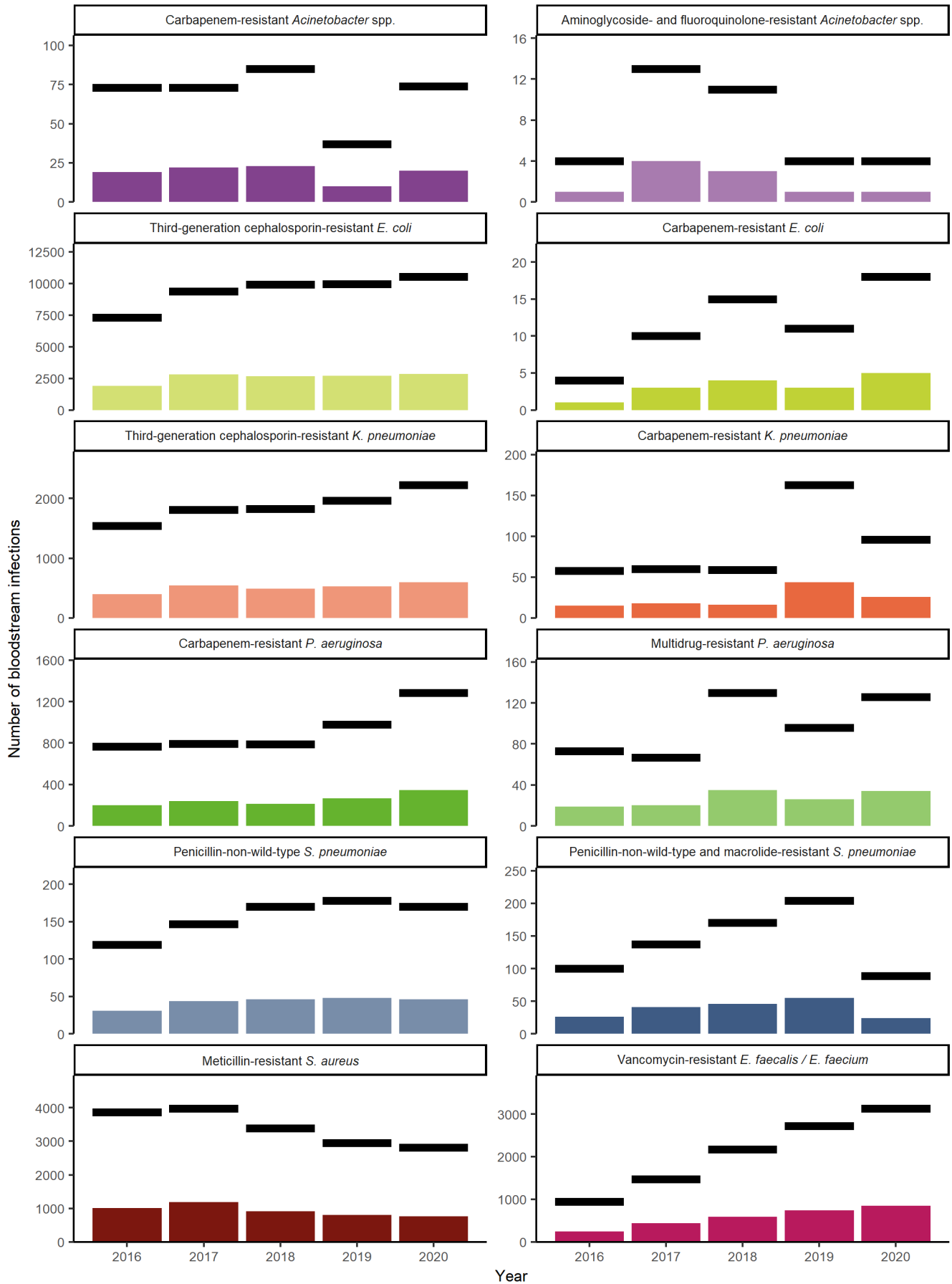
Estimates of the health burden of infections with antibiotic-resistant bacteria, Germany, 2016-2020

Germany: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	1 904	7 323	2 813	9 377	2 675	9 907	2 688	9 956	2 841	10 522
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	246	946	440	1 467	586	2 170	736	2 726	844	3 126
Meticillin-resistant <i>S. aureus</i>	1 004	3 862	1 192	3 973	915	3 389	797	2 952	761	2 818
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	401	1 542	544	1 813	494	1 830	530	1 963	602	2 230
Carbapenem-resistant <i>P. aeruginosa</i>	199	765	238	793	213	789	265	981	347	1 285
Penicillin-non-wild-type <i>S. pneumoniae</i>	31	119	44	147	46	170	48	178	46	170
Multidrug-resistant <i>P. aeruginosa</i>	19	73	20	67	35	130	26	96	34	126
Carbapenem-resistant <i>K. pneumoniae</i>	15	58	18	60	16	59	44	163	26	96
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	26	100	41	137	46	170	55	204	24	89
Carbapenem-resistant <i>Acinetobacter</i> spp.	19	73	22	73	23	85	10	37	20	74
Carbapenem-resistant <i>E. coli</i>	1	4	3	10	4	15	3	11	5	18
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1	4	4	13	3	11	1	4	1	4
Overall	3 866	14 869	5 379	17 930	5 056	18 725	5 203	19 271	5 551	20 558

Germany: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Germany: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	38 391 (33 230 - 44 041)	49 184 (42 479 - 56 334)	51 969 (45 120 - 59 454)	52 285 (45 403 - 59 702)	55 217 (48 037 - 63 105)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	12 639 (9 901 - 15 801)	19 611 (15 261 - 24 698)	29 019 (22 473 - 36 624)	36 437 (28 357 - 45 761)	41 753 (32 680 - 52 395)
Meticillin-resistant <i>S. aureus</i>	28 975 (24 767 - 33 616)	29 826 (25 494 - 34 557)	25 410 (21 771 - 29 463)	22 152 (18 955 - 25 677)	21 162 (18 061 - 24 529)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	8 886 (7 867 - 10 017)	10 450 (9 281 - 11 718)	10 547 (9 307 - 11 894)	11 320 (10 030 - 12 692)	12 850 (11 354 - 14 460)
Carbapenem-resistant <i>P. aeruginosa</i>	7 194 (5 889 - 8 711)	7 466 (6 081 - 9 037)	7 413 (6 083 - 8 949)	9 233 (7 478 - 11 240)	12 091 (9 790 - 14 681)
Multidrug-resistant <i>P. aeruginosa</i>	681 (494 - 930)	625 (471 - 807)	1 216 (942 - 1 541)	901 (689 - 1 165)	1 179 (893 - 1 520)
Penicillin-non-wild-type <i>S. pneumoniae</i>	615 (566 - 681)	758 (700 - 830)	879 (807 - 975)	917 (846 - 1 006)	879 (803 - 973)
Carbapenem-resistant <i>Acinetobacter</i> spp.	458 (389 - 531)	459 (386 - 538)	533 (453 - 619)	232 (190 - 277)	463 (394 - 537)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	516 (474 - 569)	706 (649 - 775)	879 (814 - 964)	1 052 (968 - 1 159)	458 (416 - 514)
Carbapenem-resistant <i>K. pneumoniae</i>	218 (179 - 261)	227 (191 - 267)	224 (187 - 265)	616 (525 - 717)	364 (309 - 425)
Carbapenem-resistant <i>E. coli</i>	20 (13 - 28)	52 (35 - 74)	78 (59 - 99)	58 (43 - 77)	97 (76 - 120)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	24 (13 - 38)	83 (60 - 111)	69 (49 - 92)	23 (13 - 36)	23 (13 - 36)
Overall	98 617 (83 782 - 115 224)	119 447 (101 088 - 139 746)	128 236 (108 065 - 150 939)	135 226 (113 497 - 159 509)	146 536 (122 826 - 173 295)

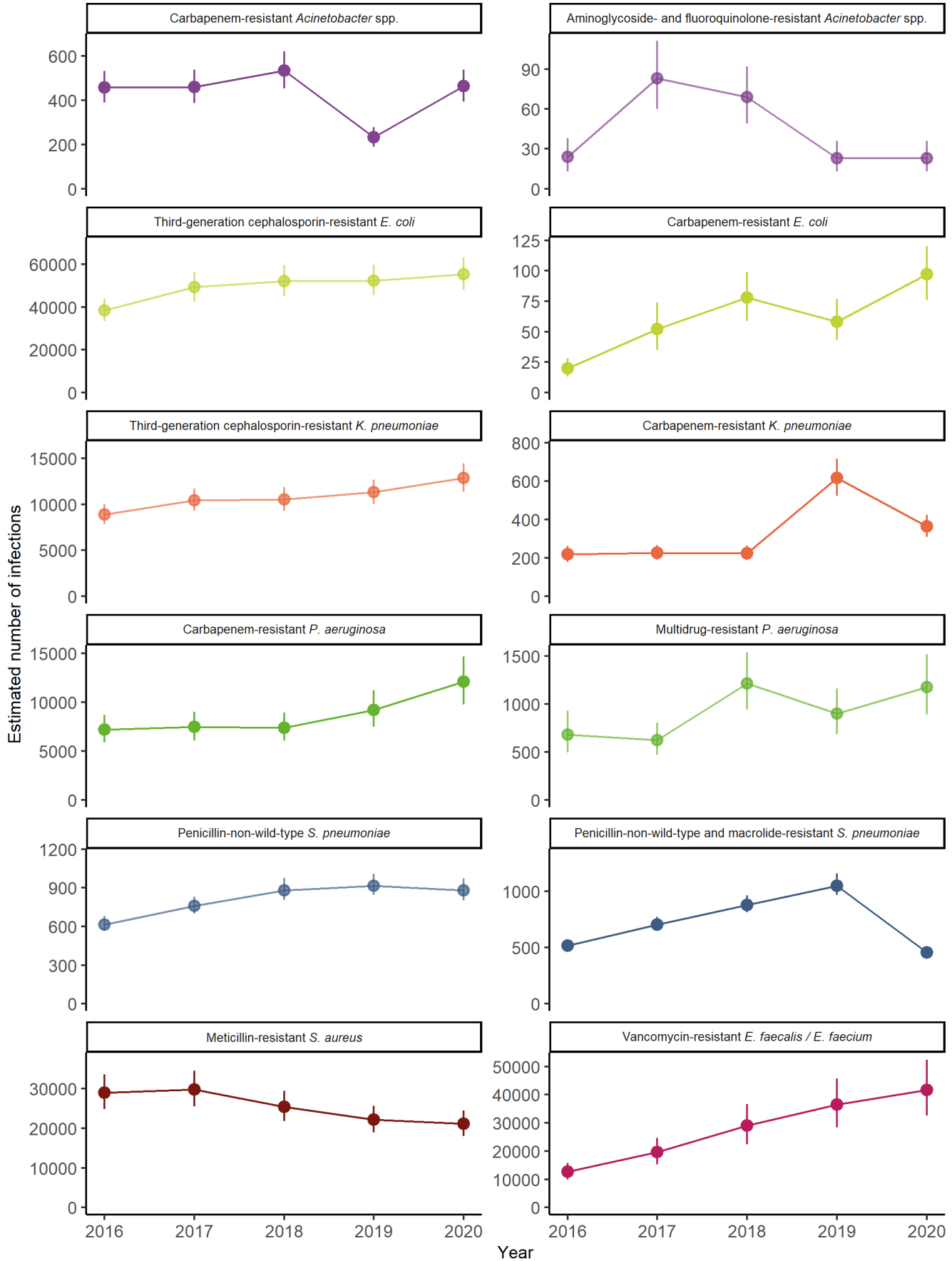
Germany: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 724 (1 515 - 1 944)	2 209 (1 940 - 2 490)	2 327 (2 050 - 2 623)	2 337 (2 058 - 2 629)	2 467 (2 174 - 2 779)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	364 (326 - 406)	567 (508 - 638)	845 (755 - 950)	1 066 (951 - 1 201)	1 219 (1 090 - 1 368)
Meticillin-resistant <i>S. aureus</i>	1 191 (1 069 - 1 325)	1 226 (1 103 - 1 364)	1 043 (938 - 1 162)	903 (812 - 1 003)	864 (775 - 961)
Carbapenem-resistant <i>P. aeruginosa</i>	345 (269 - 432)	356 (277 - 445)	355 (278 - 442)	440 (340 - 556)	578 (447 - 727)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	362 (335 - 393)	425 (394 - 460)	433 (398 - 470)	463 (428 - 500)	525 (484 - 568)
Penicillin-non-wild-type <i>S. pneumoniae</i>	38 (35 - 41)	47 (43 - 50)	54 (50 - 59)	56 (53 - 61)	54 (50 - 59)
Multidrug-resistant <i>P. aeruginosa</i>	31 (21 - 43)	28 (20 - 38)	54 (40 - 70)	41 (29 - 54)	54 (39 - 72)
Carbapenem-resistant <i>K. pneumoniae</i>	23 (19 - 27)	24 (20 - 28)	24 (20 - 28)	65 (55 - 75)	38 (32 - 45)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	32 (29 - 34)	43 (40 - 47)	54 (50 - 58)	65 (60 - 70)	28 (26 - 31)
Carbapenem-resistant <i>Acinetobacter</i> spp.	22 (17 - 27)	22 (17 - 27)	26 (21 - 31)	11 (8 - 14)	22 (18 - 27)
Carbapenem-resistant <i>E. coli</i>	2 (1 - 2)	4 (3 - 6)	6 (4 - 7)	4 (3 - 6)	8 (6 - 9)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (1 - 2)	4 (3 - 6)	3 (2 - 5)	1 (0 - 2)	1 (0 - 2)
Overall	4 135 (3 637 - 4 676)	4 955 (4 368 - 5 599)	5 224 (4 606 - 5 905)	5 452 (4 797 - 6 171)	5 858 (5 141 - 6 648)

Germany: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

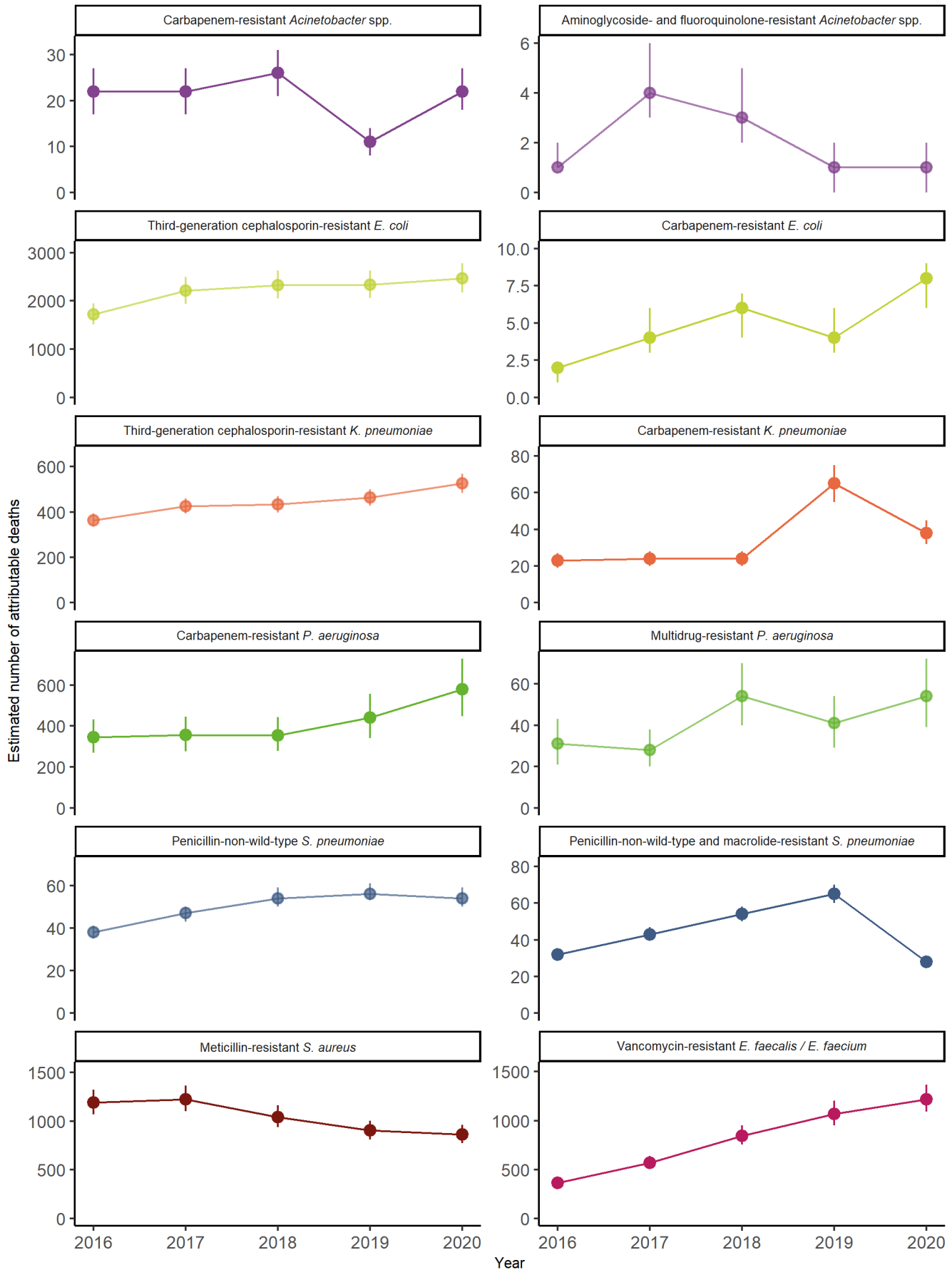
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	37 733 (34 262 - 41 361)	47 222 (42 739 - 51 813)	51 283 (46 578 - 56 148)	51 816 (47 041 - 56 706)	55 716 (50 717 - 60 824)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	9 116 (8 305 - 10 050)	13 830 (12 567 - 15 332)	20 618 (18 643 - 22 935)	26 385 (23 861 - 29 324)	29 986 (27 158 - 33 340)
Meticillin-resistant <i>S. aureus</i>	28 317 (25 853 - 30 971)	28 864 (26 384 - 31 575)	24 971 (22 764 - 27 432)	22 477 (20 569 - 24 571)	21 868 (19 926 - 23 994)
Carbapenem-resistant <i>P. aeruginosa</i>	10 146 (8 275 - 12 260)	10 906 (8 800 - 13 312)	10 168 (8 286 - 12 298)	12 794 (10 281 - 15 781)	15 969 (12 707 - 19 649)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	9 491 (8 885 - 10 150)	11 440 (10 712 - 12 204)	10 861 (10 125 - 11 645)	11 978 (11 221 - 12 775)	13 629 (12 755 - 14 560)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 458 (1 357 - 1 578)	1 882 (1 742 - 2 062)	1 867 (1 738 - 2 015)	2 078 (1 933 - 2 245)	1 881 (1 739 - 2 051)
Multidrug-resistant <i>P. aeruginosa</i>	832 (570 - 1 178)	810 (597 - 1 061)	1 653 (1 238 - 2 136)	1 147 (891 - 1 447)	1 379 (1 018 - 1 815)
Carbapenem-resistant <i>K. pneumoniae</i>	842 (692 - 1 000)	811 (680 - 945)	656 (549 - 764)	1 971 (1 676 - 2 270)	1 152 (982 - 1 325)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 235 (1 148 - 1 340)	1 512 (1 408 - 1 631)	2 186 (2 041 - 2 369)	2 168 (2 019 - 2 345)	1 017 (921 - 1 146)
Carbapenem-resistant <i>Acinetobacter</i> spp.	718 (558 - 889)	686 (554 - 819)	902 (733 - 1 080)	417 (315 - 525)	703 (566 - 847)
Carbapenem-resistant <i>E. coli</i>	14 (9 - 19)	76 (51 - 102)	239 (181 - 296)	143 (103 - 185)	213 (166 - 261)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	35 (17 - 57)	70 (47 - 96)	87 (56 - 120)	28 (13 - 45)	28 (13 - 45)
Overall	99 937 (89 931 - 110 853)	118 109 (106 281 - 130 952)	125 491 (112 932 - 139 238)	133 402 (119 923 - 148 219)	143 541 (128 668 - 159 857)

Germany: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



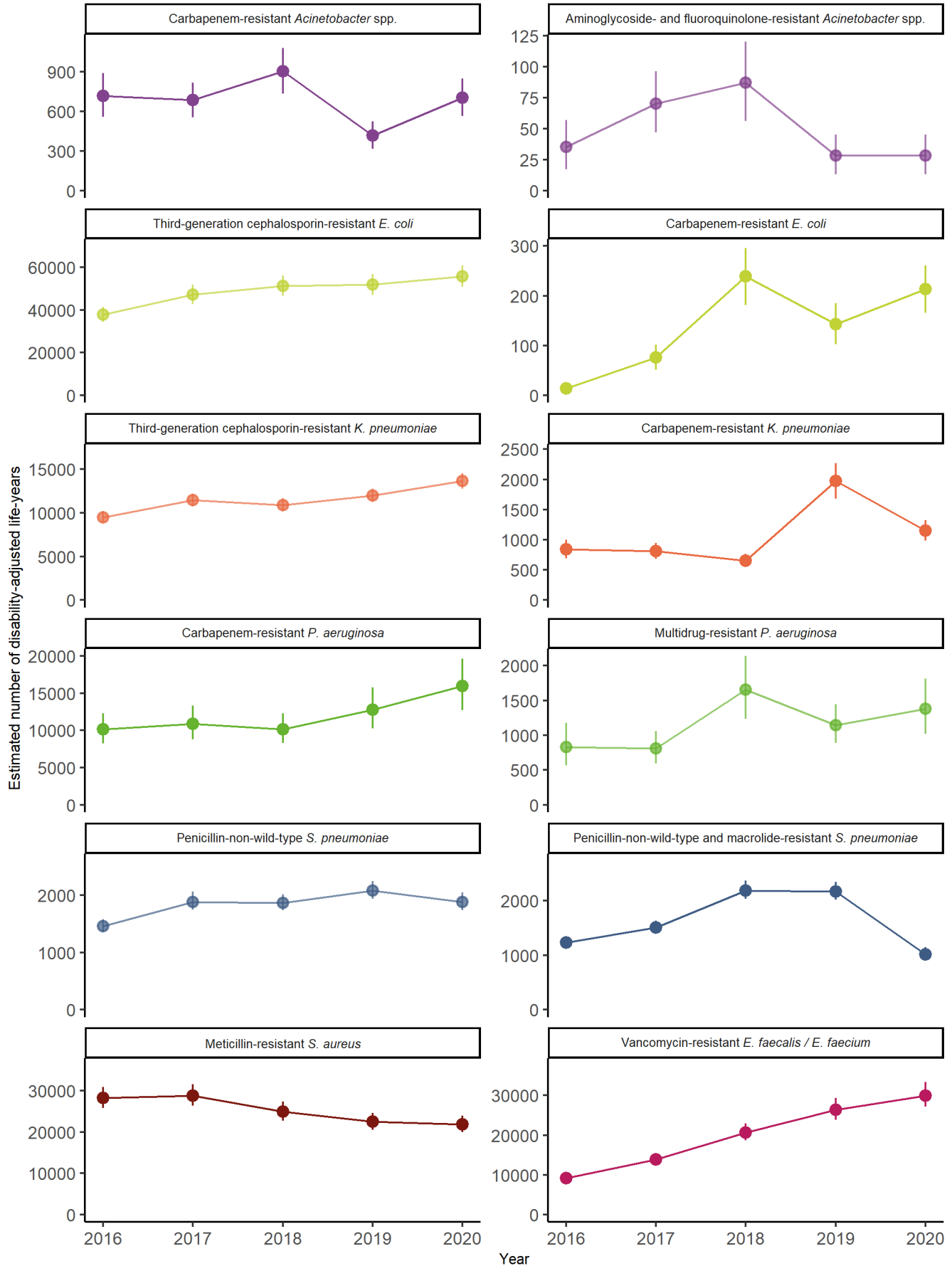
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Germany: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



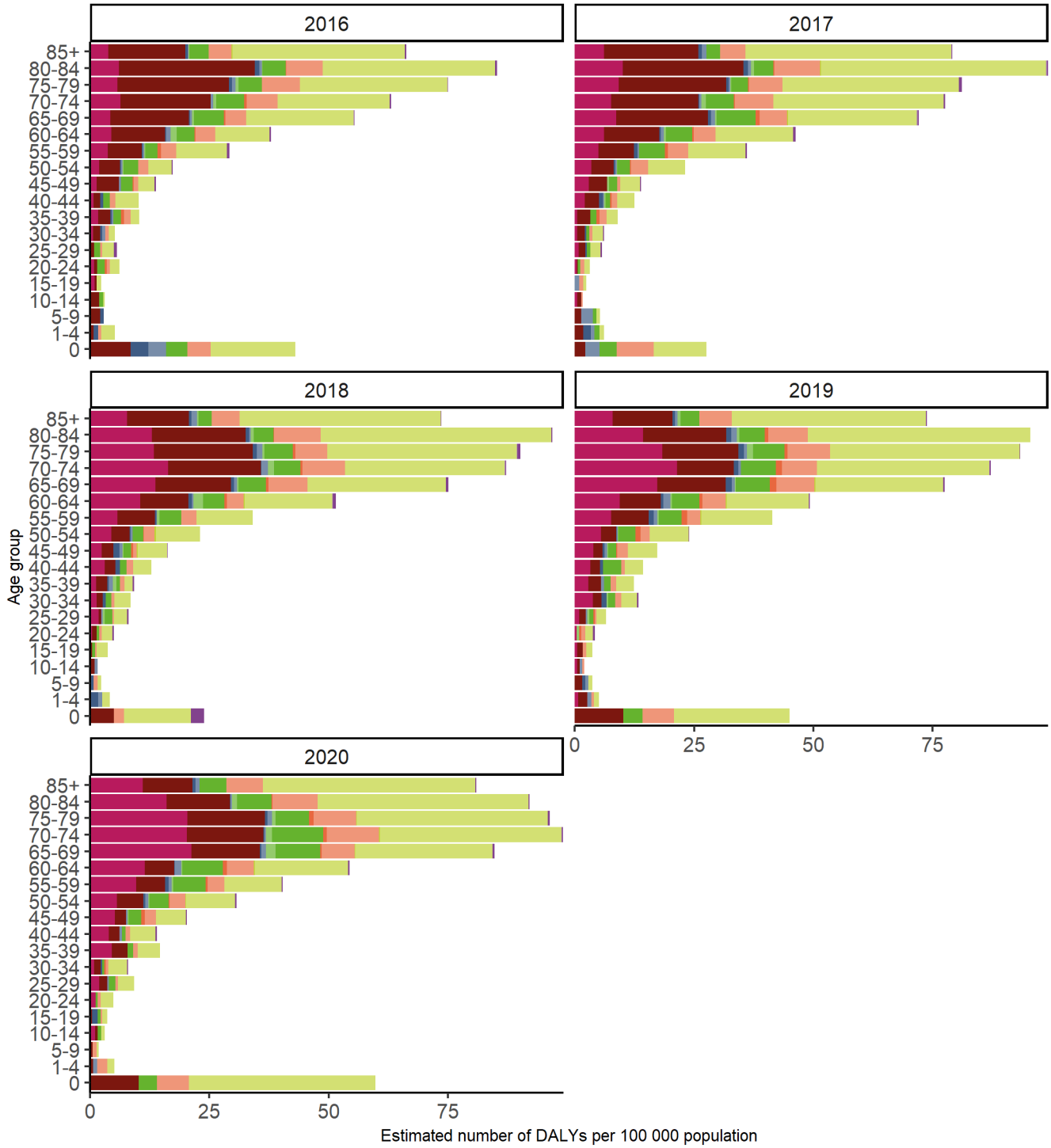
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Germany: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Germany: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

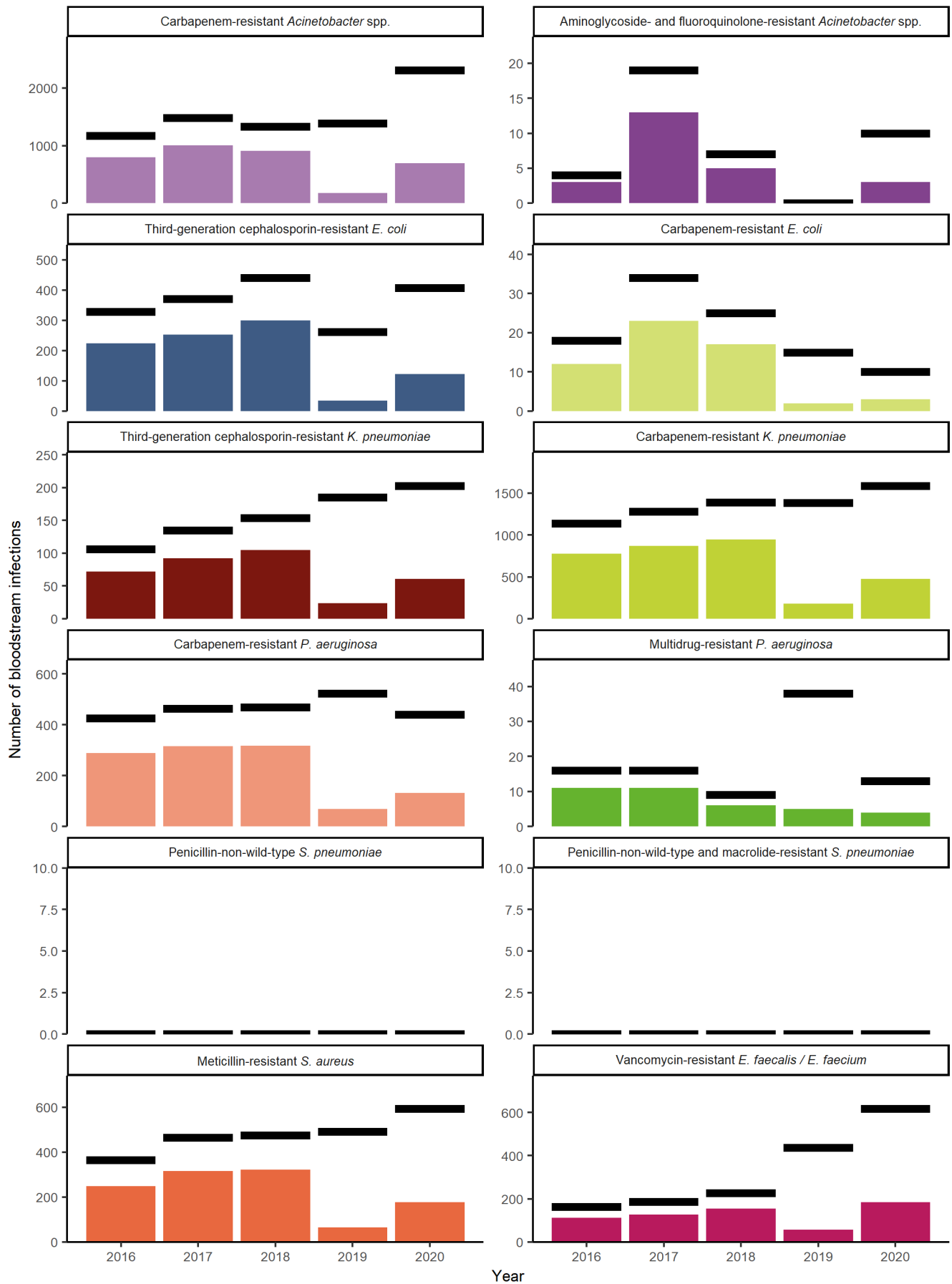
Estimates of the health burden of infections with antibiotic-resistant bacteria, Greece, 2016-2020

Greece: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Carbapenem-resistant <i>Acinetobacter</i> spp.	799	1 175	1 009	1 484	906	1 332	180	1 385	693	2 310
Carbapenem-resistant <i>K. pneumoniae</i>	776	1 141	872	1 282	947	1 393	180	1 385	477	1 590
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	111	163	127	187	154	226	57	438	185	617
Meticillin-resistant <i>S. aureus</i>	248	365	316	465	323	475	64	492	178	593
Carbapenem-resistant <i>P. aeruginosa</i>	289	425	315	463	318	468	68	523	132	440
Third-generation cephalosporin-resistant <i>E. coli</i>	223	328	252	371	299	440	34	262	122	407
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	72	106	92	135	105	154	24	185	61	203
Multidrug-resistant <i>P. aeruginosa</i>	11	16	11	16	6	9	5	38	4	13
Carbapenem-resistant <i>E. coli</i>	12	18	23	34	17	25	2	15	3	10
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	3	4	13	19	5	7	0	0	3	10
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0	0	0	0	0	0	0	0	0	0
Penicillin-non-wild-type <i>S. pneumoniae</i>	0	0	0	0	0	0	0	0	0	0
Overall	2 544	3 741	3 030	4 456	3 080	4 529	614	4 723	1 858	6 193

Greece: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Greece: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 359 (6 523 - 8 247)	9 298 (8 242 - 10 408)	8 347 (7 364 - 9 373)	8 675 (7 661 - 9 761)	14 471 (12 775 - 16 258)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	2 180 (1 726 - 2 708)	2 498 (1 972 - 3 089)	3 030 (2 391 - 3 761)	5 861 (4 544 - 7 443)	8 252 (6 518 - 10 206)
Carbapenem-resistant <i>K. pneumoniae</i>	4 318 (3 809 - 4 871)	4 855 (4 297 - 5 448)	5 271 (4 662 - 5 922)	5 239 (4 617 - 5 913)	6 021 (5 313 - 6 767)
Meticillin-resistant <i>S. aureus</i>	2 737 (2 360 - 3 152)	3 487 (3 025 - 4 002)	3 564 (3 078 - 4 099)	3 696 (3 213 - 4 216)	4 455 (3 878 - 5 083)
Carbapenem-resistant <i>P. aeruginosa</i>	4 003 (3 335 - 4 748)	4 361 (3 667 - 5 126)	4 402 (3 676 - 5 205)	4 916 (4 071 - 5 869)	4 144 (3 472 - 4 884)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 720 (1 486 - 1 989)	1 946 (1 692 - 2 224)	2 308 (2 014 - 2 629)	1 372 (1 187 - 1 579)	2 135 (1 857 - 2 440)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	610 (550 - 674)	780 (704 - 862)	891 (803 - 983)	1 064 (957 - 1 178)	1 173 (1 052 - 1 302)
Multidrug-resistant <i>P. aeruginosa</i>	152 (116 - 194)	152 (124 - 185)	82 (62 - 109)	358 (255 - 494)	125 (104 - 150)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	27 (22 - 34)	120 (104 - 137)	46 (38 - 55)	0 (0 - 0)	63 (53 - 73)
Carbapenem-resistant <i>E. coli</i>	93 (82 - 104)	177 (156 - 202)	131 (114 - 151)	79 (47 - 125)	52 (46 - 59)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	23 199 (20 009 - 26 721)	27 674 (23 983 - 31 683)	28 072 (24 202 - 32 287)	31 260 (26 552 - 36 578)	40 891 (35 068 - 47 222)

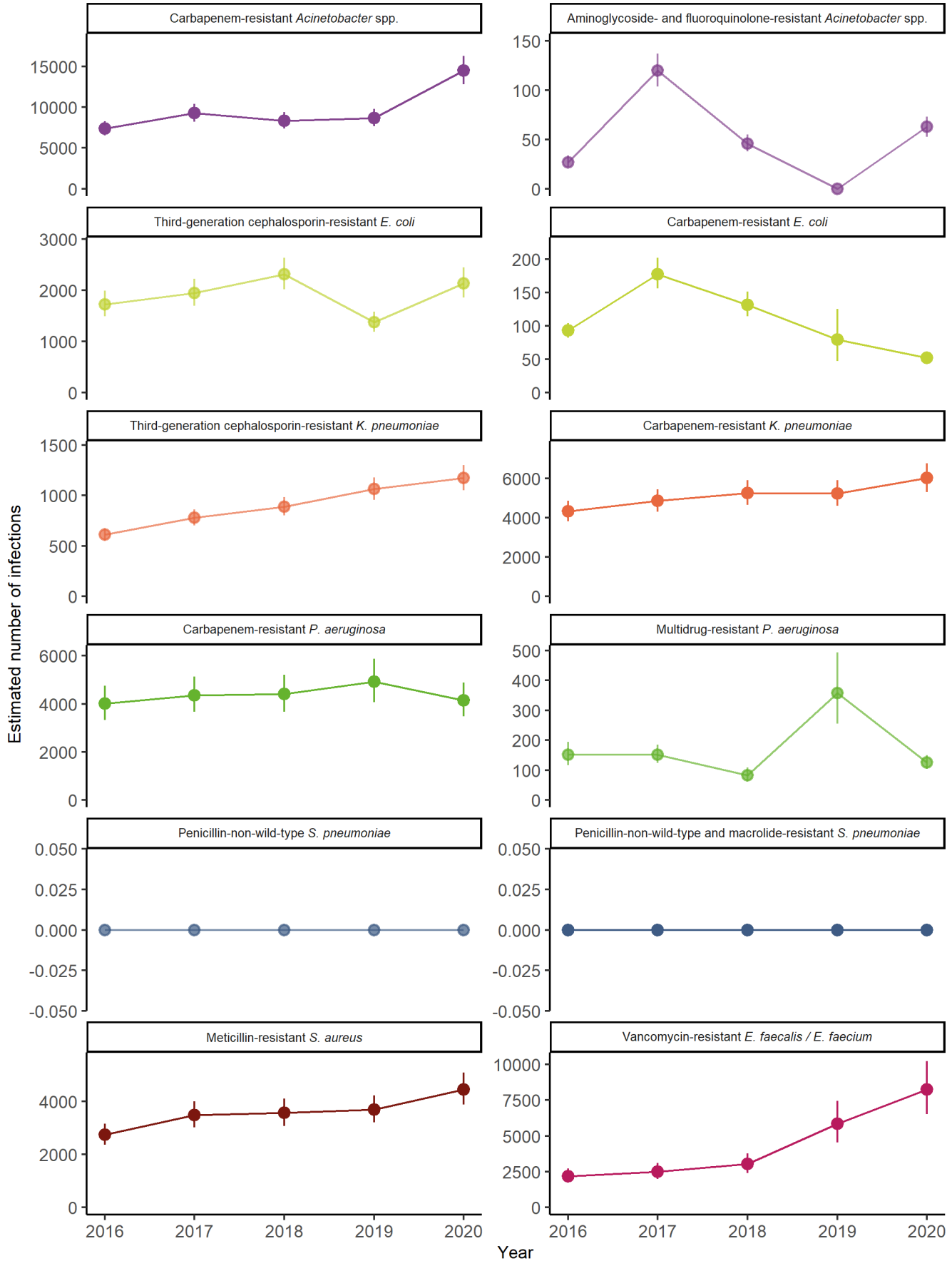
Greece: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	356 (301 - 413)	450 (380 - 522)	404 (340 - 470)	420 (352 - 490)	701 (590 - 816)
Carbapenem-resistant <i>K. pneumoniae</i>	456 (400 - 512)	512 (451 - 574)	556 (489 - 624)	553 (483 - 623)	635 (558 - 712)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	63 (57 - 70)	72 (65 - 81)	88 (79 - 99)	166 (148 - 186)	239 (215 - 266)
Carbapenem-resistant <i>P. aeruginosa</i>	190 (152 - 232)	207 (167 - 250)	209 (168 - 254)	235 (186 - 289)	197 (158 - 239)
Meticillin-resistant <i>S. aureus</i>	111 (100 - 123)	142 (128 - 156)	145 (131 - 160)	147 (134 - 161)	179 (163 - 197)
Third-generation cephalosporin-resistant <i>E. coli</i>	76 (67 - 87)	87 (76 - 97)	103 (91 - 115)	61 (53 - 69)	95 (84 - 107)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	25 (23 - 26)	32 (30 - 34)	36 (34 - 38)	43 (40 - 46)	47 (44 - 51)
Multidrug-resistant <i>P. aeruginosa</i>	7 (5 - 9)	7 (5 - 9)	4 (3 - 5)	16 (11 - 24)	6 (4 - 7)
Carbapenem-resistant <i>E. coli</i>	7 (6 - 8)	14 (12 - 16)	10 (9 - 12)	6 (3 - 9)	4 (4 - 5)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (1 - 2)	6 (5 - 7)	2 (2 - 3)	0 (0 - 0)	3 (2 - 4)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	1 292 (1 112 - 1 482)	1 529 (1 319 - 1 746)	1 557 (1 346 - 1 780)	1 647 (1 410 - 1 897)	2 106 (1 822 - 2 404)

Greece: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

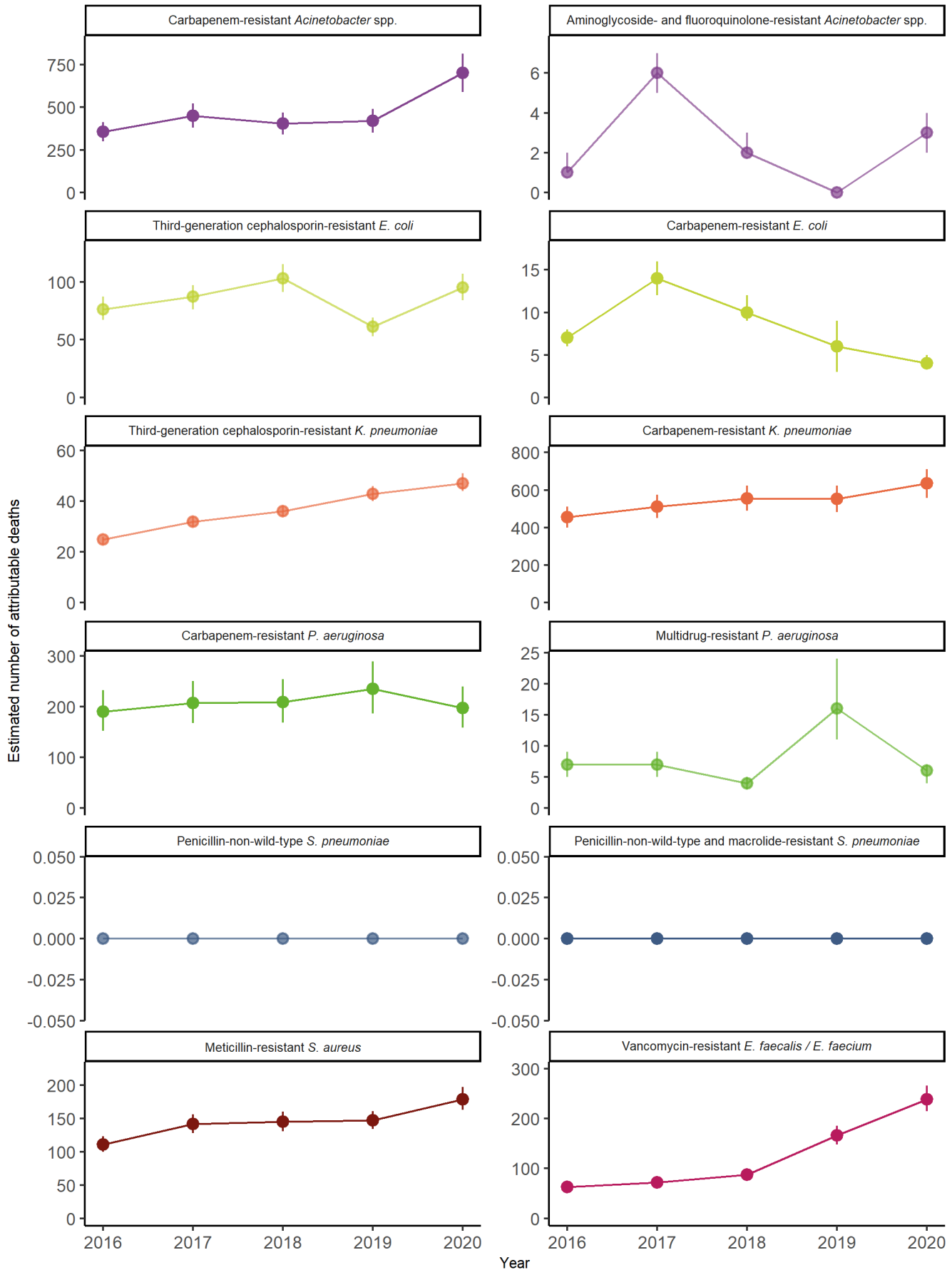
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	11 663 (10 167 - 13 211)	14 536 (12 693 - 16 457)	12 998 (11 289 - 14 769)	13 511 (11 614 - 15 444)	22 236 (19 273 - 25 275)
Carbapenem-resistant <i>K. pneumoniae</i>	13 164 (11 766 - 14 554)	14 849 (13 316 - 16 355)	16 090 (14 422 - 17 743)	15 941 (14 155 - 17 673)	18 382 (16 435 - 20 280)
Carbapenem-resistant <i>P. aeruginosa</i>	6 317 (5 267 - 7 460)	6 988 (5 887 - 8 190)	7 095 (5 928 - 8 374)	7 646 (6 298 - 9 122)	6 584 (5 503 - 7 755)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	1 661 (1 519 - 1 829)	1 882 (1 721 - 2 067)	2 197 (2 006 - 2 412)	4 543 (4 141 - 5 017)	6 174 (5 653 - 6 782)
Meticillin-resistant <i>S. aureus</i>	2 909 (2 696 - 3 139)	3 713 (3 450 - 4 003)	3 838 (3 563 - 4 137)	4 805 (4 424 - 5 223)	5 068 (4 705 - 5 459)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 846 (1 674 - 2 023)	2 040 (1 863 - 2 222)	2 468 (2 261 - 2 680)	1 633 (1 477 - 1 790)	2 323 (2 119 - 2 535)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	752 (713 - 793)	1 017 (963 - 1 076)	1 147 (1 086 - 1 210)	1 510 (1 418 - 1 609)	1 570 (1 479 - 1 668)
Multidrug-resistant <i>P. aeruginosa</i>	211 (162 - 271)	187 (157 - 220)	108 (83 - 137)	442 (323 - 594)	174 (146 - 205)
Carbapenem-resistant <i>E. coli</i>	196 (177 - 214)	385 (344 - 427)	270 (240 - 301)	255 (152 - 364)	110 (100 - 121)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	34 (28 - 40)	184 (158 - 210)	73 (58 - 90)	0 (0 - 0)	101 (84 - 119)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	38 753 (34 169 - 43 534)	45 781 (40 552 - 51 227)	46 284 (40 936 - 51 853)	50 286 (44 002 - 56 836)	62 722 (55 497 - 70 199)

Greece: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



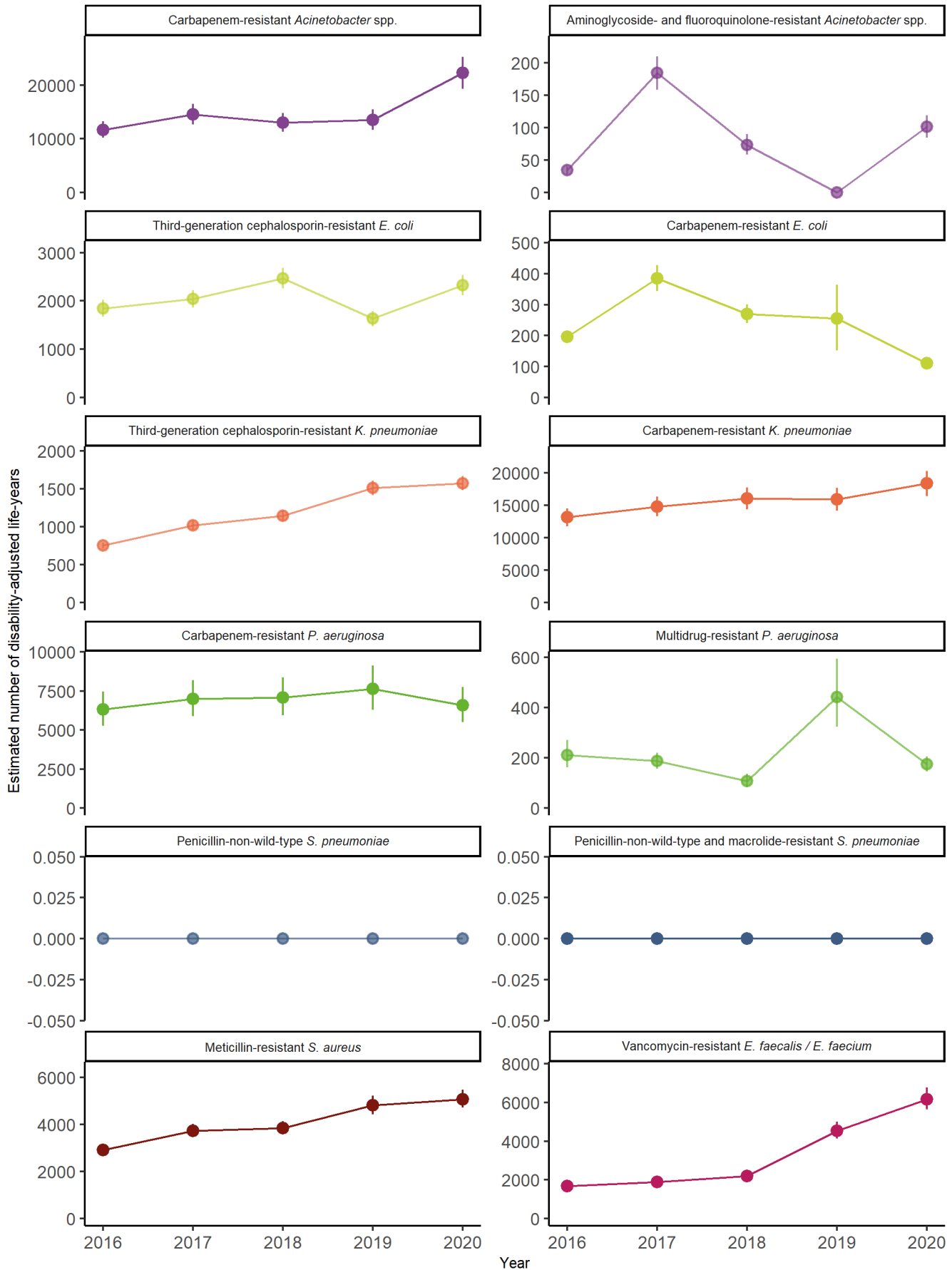
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Greece: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



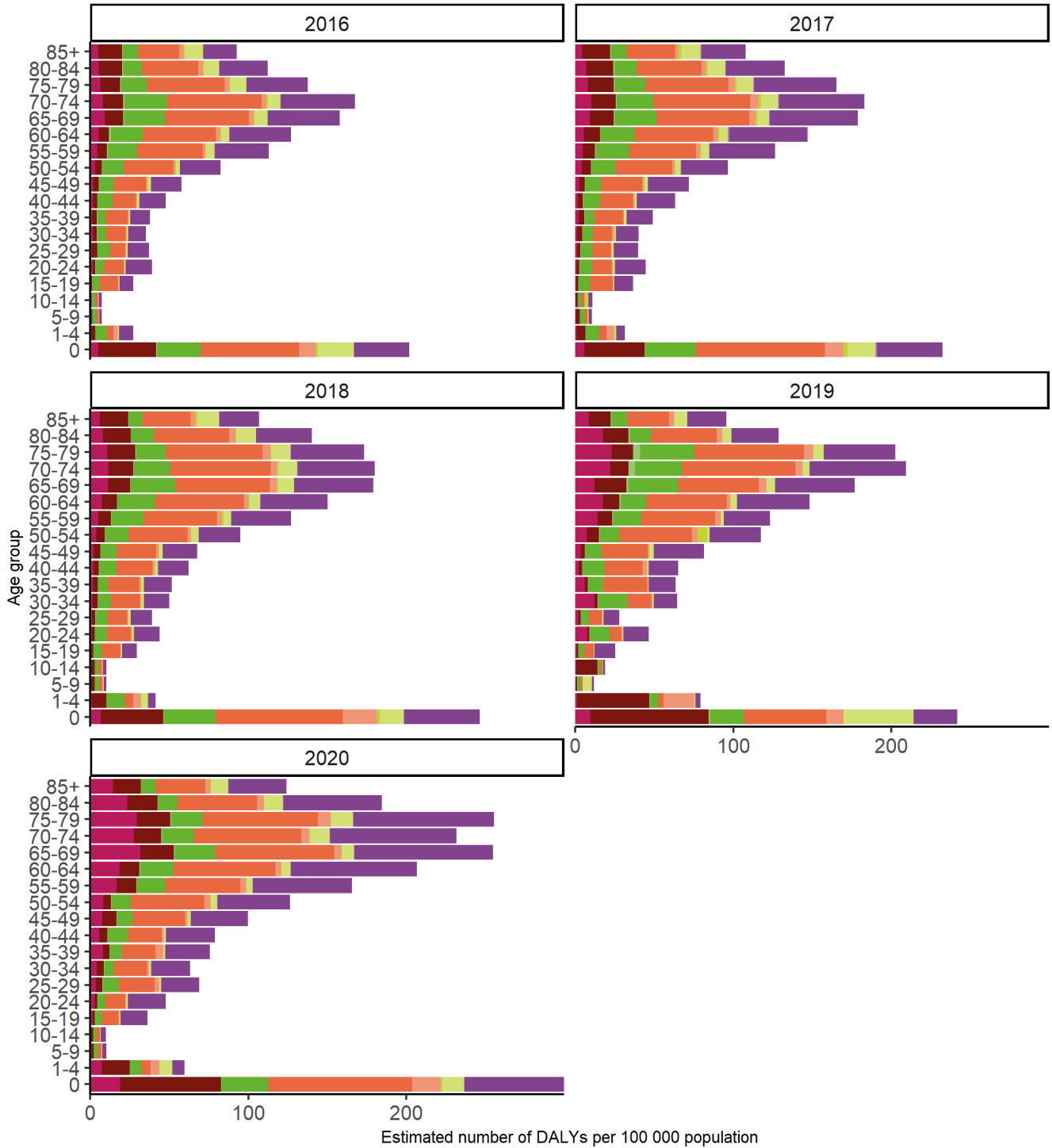
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Greece: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Greece: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

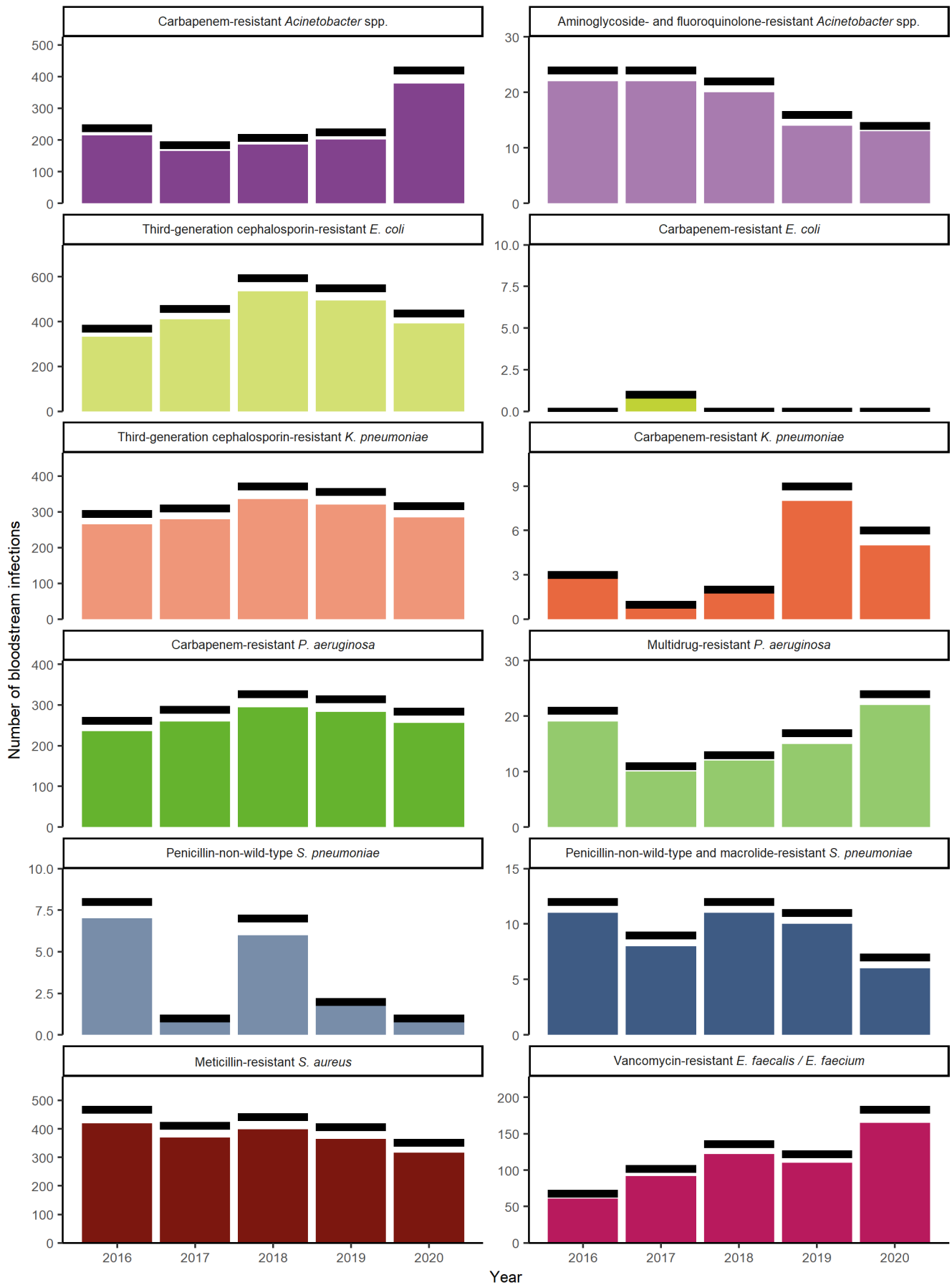
Estimates of the health burden of infections with antibiotic-resistant bacteria, Hungary, 2016-2020

Hungary: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	333	370	411	457	535	594	495	550	393	437
Carbapenem-resistant <i>Acinetobacter</i> spp.	214	238	166	184	186	207	202	224	378	420
Meticillin-resistant <i>S. aureus</i>	420	467	370	411	398	442	365	406	317	352
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	265	294	279	310	335	372	320	356	284	316
Carbapenem-resistant <i>P. aeruginosa</i>	236	262	259	288	294	327	283	314	256	284
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	61	68	92	102	122	136	110	122	165	183
Multidrug-resistant <i>P. aeruginosa</i>	19	21	10	11	12	13	15	17	22	24
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	22	24	22	24	20	22	14	16	13	14
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	11	12	8	9	11	12	10	11	6	7
Carbapenem-resistant <i>K. pneumoniae</i>	3	3	1	1	2	2	8	9	5	6
Penicillin-non-wild-type <i>S. pneumoniae</i>	7	8	1	1	6	7	2	2	1	1
Carbapenem-resistant <i>E. coli</i>	0	0	1	1	0	0	0	0	0	0
Overall	1 591	1 767	1 620	1 799	1 921	2 134	1 824	2 027	1 840	2 044

Hungary: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Hungary: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>P. aeruginosa</i>	2 463 (2 049 - 2 949)	2 707 (2 257 - 3 230)	3 073 (2 524 - 3 695)	2 961 (2 471 - 3 510)	2 675 (2 204 - 3 214)
Meticillin-resistant <i>S. aureus</i>	3 503 (3 034 - 4 008)	3 089 (2 671 - 3 545)	3 319 (2 868 - 3 802)	3 042 (2 633 - 3 493)	2 646 (2 305 - 3 019)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 489 (1 304 - 1 686)	1 155 (1 003 - 1 318)	1 294 (1 132 - 1 469)	1 406 (1 234 - 1 589)	2 631 (2 300 - 2 983)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	906 (717 - 1 128)	1 366 (1 079 - 1 698)	1 813 (1 440 - 2 242)	1 632 (1 290 - 2 040)	2 449 (1 920 - 3 078)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 941 (1 718 - 2 182)	2 395 (2 112 - 2 701)	3 121 (2 739 - 3 536)	2 886 (2 537 - 3 255)	2 292 (2 008 - 2 605)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 699 (1 533 - 1 874)	1 787 (1 616 - 1 967)	2 147 (1 923 - 2 388)	2 050 (1 834 - 2 281)	1 820 (1 639 - 2 012)
Multidrug-resistant <i>P. aeruginosa</i>	198 (157 - 246)	104 (81 - 131)	125 (91 - 166)	156 (121 - 197)	229 (180 - 286)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	153 (130 - 177)	153 (129 - 179)	139 (116 - 163)	97 (82 - 114)	90 (75 - 107)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	63 (57 - 71)	46 (41 - 52)	63 (56 - 73)	57 (52 - 64)	34 (30 - 41)
Carbapenem-resistant <i>K. pneumoniae</i>	13 (9 - 17)	4 (2 - 7)	8 (5 - 13)	34 (27 - 41)	21 (16 - 27)
Penicillin-non-wild-type <i>S. pneumoniae</i>	40 (36 - 45)	6 (5 - 7)	34 (30 - 40)	11 (9 - 15)	6 (4 - 8)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	6 (3 - 9)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	12 468 (10 744 - 14 383)	12 818 (10 999 - 14 844)	15 136 (12 924 - 17 587)	14 332 (12 290 - 16 599)	14 893 (12 681 - 17 380)

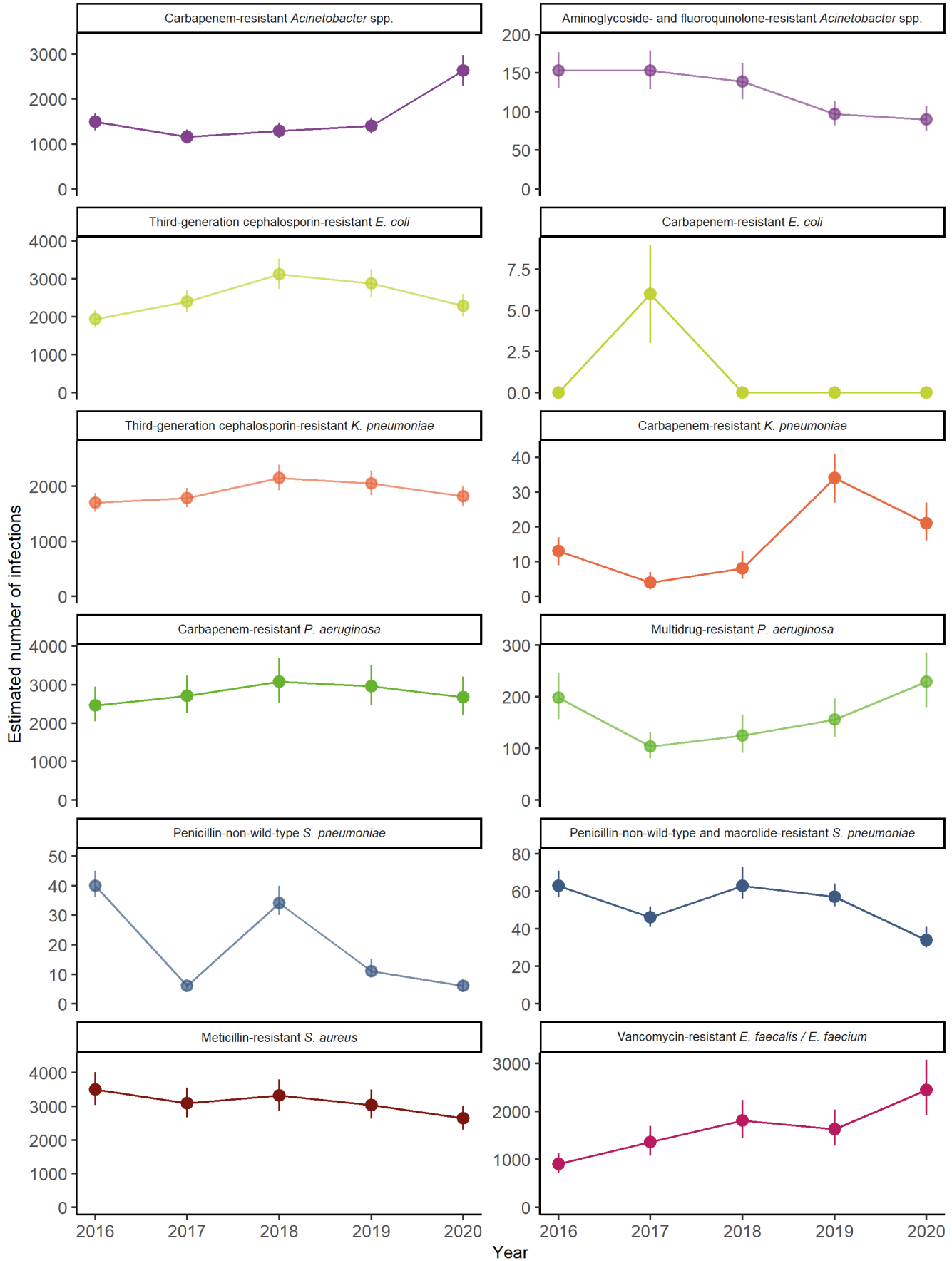
Hungary: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	71 (59 - 84)	56 (46 - 66)	62 (52 - 73)	68 (56 - 80)	127 (105 - 149)
Carbapenem-resistant <i>P. aeruginosa</i>	116 (93 - 144)	128 (102 - 158)	144 (114 - 179)	140 (112 - 171)	126 (99 - 157)
Meticillin-resistant <i>S. aureus</i>	141 (127 - 155)	124 (113 - 137)	134 (121 - 147)	122 (111 - 135)	104 (95 - 115)
Third-generation cephalosporin-resistant <i>E. coli</i>	85 (76 - 94)	106 (94 - 117)	138 (123 - 154)	127 (114 - 141)	101 (90 - 113)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	68 (64 - 73)	72 (67 - 76)	86 (80 - 92)	83 (77 - 89)	73 (68 - 78)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	25 (22 - 28)	38 (34 - 42)	51 (46 - 57)	46 (42 - 51)	69 (62 - 78)
Multidrug-resistant <i>P. aeruginosa</i>	9 (7 - 11)	5 (3 - 6)	6 (4 - 8)	7 (5 - 9)	10 (8 - 13)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	7 (6 - 9)	7 (6 - 9)	7 (5 - 8)	5 (4 - 6)	4 (3 - 5)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	4 (4 - 4)	3 (3 - 3)	4 (3 - 4)	4 (3 - 4)	2 (2 - 2)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 2)	0 (0 - 1)	1 (1 - 1)	4 (3 - 4)	2 (2 - 3)
Penicillin-non-wild-type <i>S. pneumoniae</i>	2 (2 - 3)	0 (0 - 0)	2 (2 - 2)	1 (1 - 1)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	529 (461 - 607)	539 (468 - 616)	635 (551 - 725)	607 (528 - 691)	618 (534 - 713)

Hungary: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

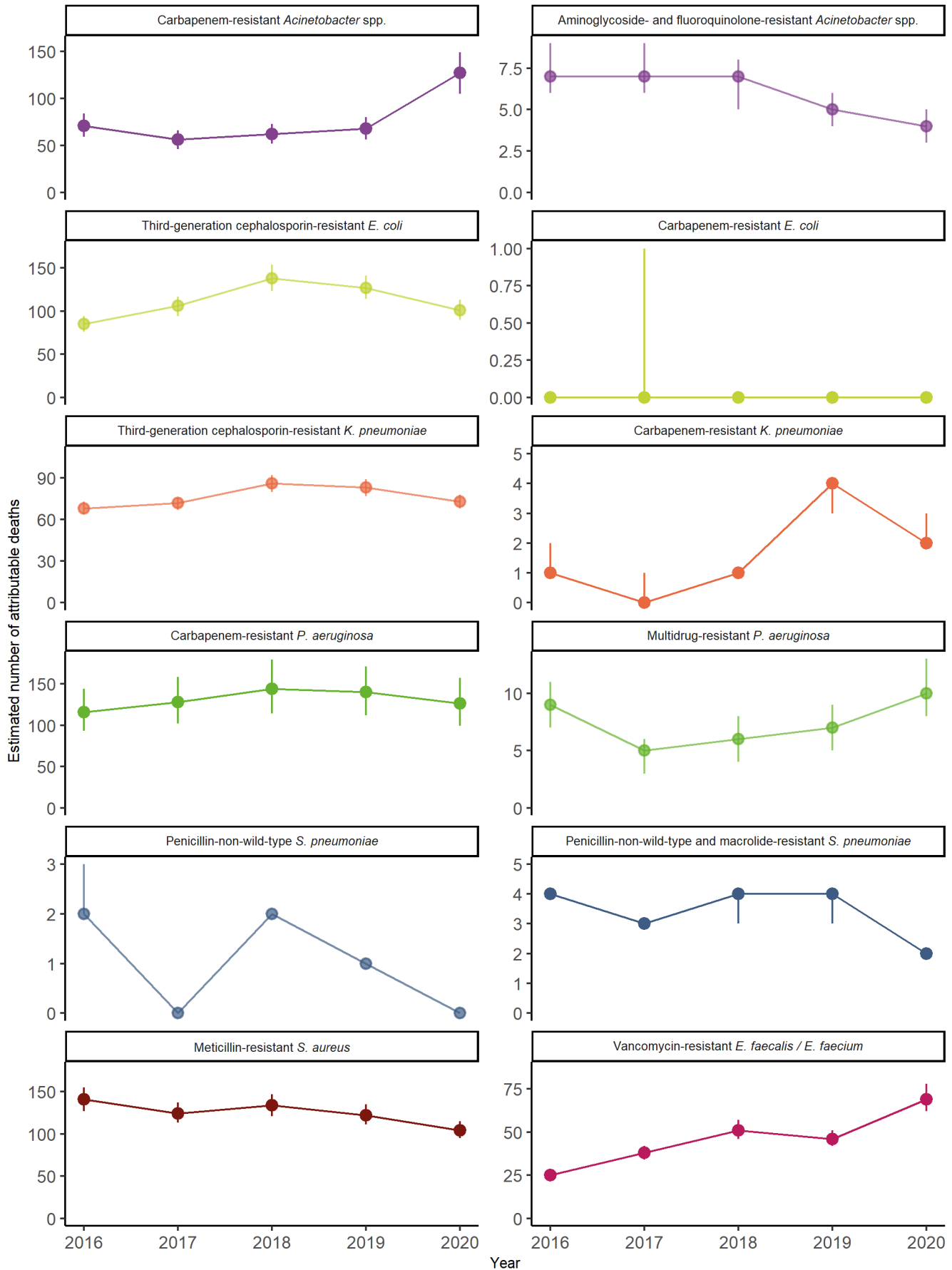
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>P. aeruginosa</i>	4 303 (3 570 - 5 123)	4 565 (3 778 - 5 462)	5 328 (4 355 - 6 408)	5 062 (4 209 - 5 996)	4 459 (3 636 - 5 398)
Carbapenem-resistant <i>Acinetobacter</i> spp.	2 517 (2 137 - 2 905)	1 800 (1 522 - 2 087)	2 195 (1 881 - 2 520)	2 229 (1 900 - 2 565)	4 277 (3 623 - 4 950)
Meticillin-resistant <i>S. aureus</i>	3 911 (3 591 - 4 266)	3 452 (3 169 - 3 765)	3 647 (3 345 - 3 971)	3 446 (3 154 - 3 766)	3 191 (2 940 - 3 462)
Third-generation cephalosporin-resistant <i>E. coli</i>	2 410 (2 200 - 2 632)	2 887 (2 630 - 3 154)	3 629 (3 292 - 3 984)	3 471 (3 168 - 3 785)	2 697 (2 448 - 2 957)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 344 (2 220 - 2 479)	2 467 (2 336 - 2 604)	2 732 (2 569 - 2 907)	2 806 (2 641 - 2 982)	2 518 (2 380 - 2 666)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	800 (733 - 882)	1 189 (1 095 - 1 297)	1 546 (1 417 - 1 690)	1 400 (1 282 - 1 540)	1 942 (1 759 - 2 157)
Multidrug-resistant <i>P. aeruginosa</i>	326 (247 - 421)	173 (129 - 225)	166 (119 - 223)	243 (186 - 309)	411 (314 - 523)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	317 (257 - 379)	253 (205 - 304)	239 (192 - 288)	153 (118 - 190)	144 (112 - 177)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	248 (225 - 279)	151 (134 - 172)	219 (197 - 246)	163 (146 - 185)	127 (110 - 152)
Carbapenem-resistant <i>K. pneumoniae</i>	79 (55 - 104)	16 (9 - 23)	20 (12 - 29)	128 (100 - 159)	94 (69 - 119)
Penicillin-non-wild-type <i>S. pneumoniae</i>	152 (137 - 171)	7 (6 - 9)	104 (92 - 120)	42 (35 - 52)	22 (17 - 30)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	18 (11 - 26)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	17 407 (15 372 - 19 641)	16 978 (15 024 - 19 128)	19 825 (17 471 - 22 386)	19 143 (16 939 - 21 529)	19 882 (17 408 - 22 591)

Hungary: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



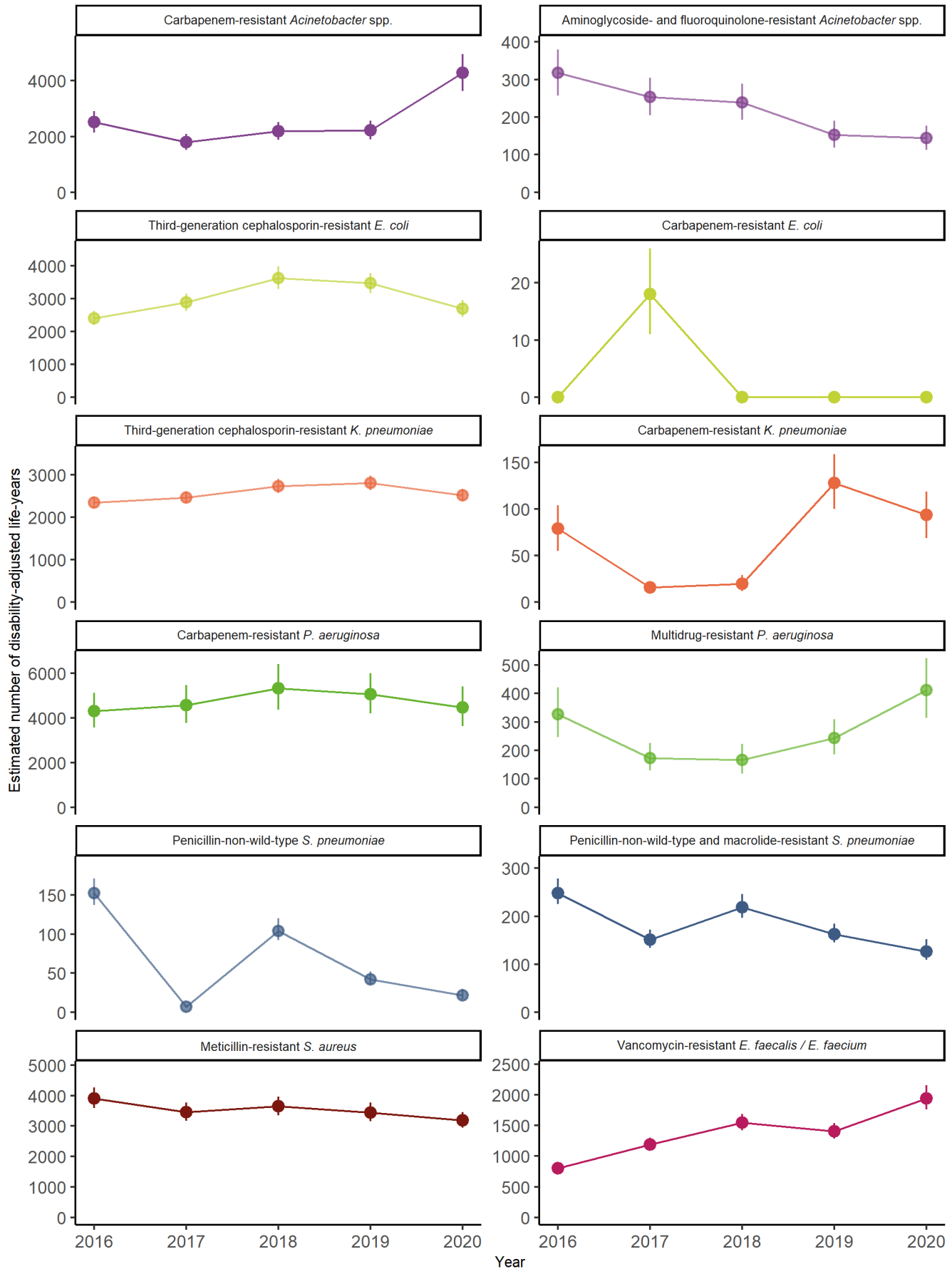
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Hungary: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



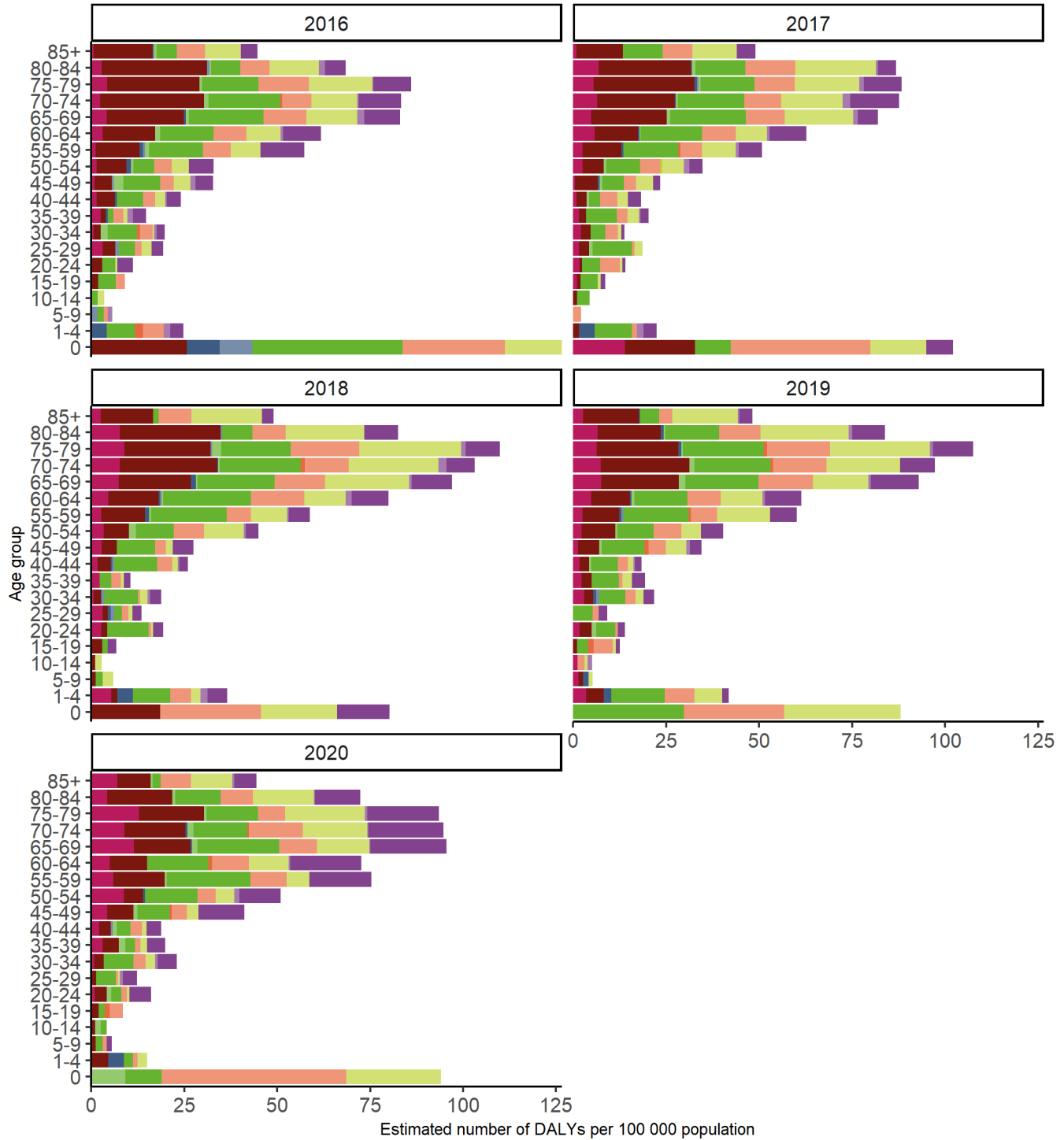
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Hungary: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Hungary: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

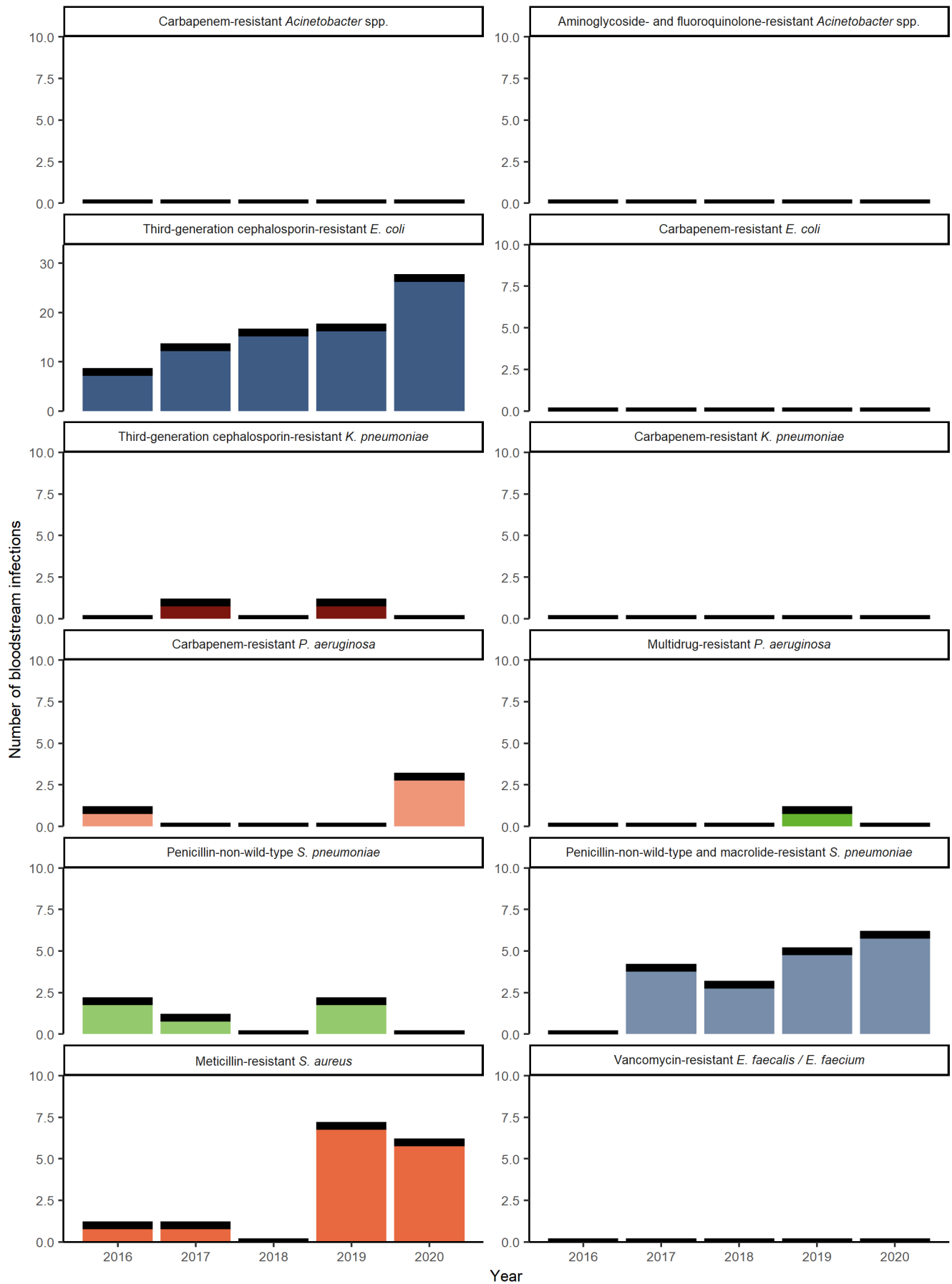
Estimates of the health burden of infections with antibiotic-resistant bacteria, Iceland, 2016-2020

Iceland: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	8	8	13	13	16	16	17	17	27	27
Meticillin-resistant <i>S. aureus</i>	1	1	1	1	0	0	7	7	6	6
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0	0	4	4	3	3	5	5	6	6
Carbapenem-resistant <i>P. aeruginosa</i>	1	1	0	0	0	0	0	0	3	3
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	0	0	1	1	0	0	1	1	0	0
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	0	0	0	0
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	0	0	0	0	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Multidrug-resistant <i>P. aeruginosa</i>	0	0	0	0	0	0	1	1	0	0
Penicillin-non-wild-type <i>S. pneumoniae</i>	2	2	1	1	0	0	2	2	0	0
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0	0	0	0	0	0	0	0	0	0
Overall	12	12	20	20	19	19	33	33	42	42

Iceland: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Iceland: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	42 (34 - 51)	68 (56 - 82)	84 (71 - 99)	89 (74 - 106)	141 (122 - 163)
Meticillin-resistant <i>S. aureus</i>	7 (4 - 12)	7 (4 - 12)	0 (0 - 0)	52 (42 - 64)	45 (35 - 56)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	21 (18 - 25)	15 (13 - 20)	26 (22 - 31)	31 (27 - 37)
Carbapenem-resistant <i>P. aeruginosa</i>	9 (4 - 18)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	28 (17 - 42)
Penicillin-non-wild-type <i>S. pneumoniae</i>	10 (8 - 13)	5 (4 - 7)	0 (0 - 0)	10 (8 - 15)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	0 (0 - 0)	6 (4 - 8)	0 (0 - 0)	6 (4 - 8)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (4 - 18)	0 (0 - 0)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	68 (50 - 94)	107 (86 - 134)	99 (84 - 119)	192 (154 - 242)	245 (201 - 298)

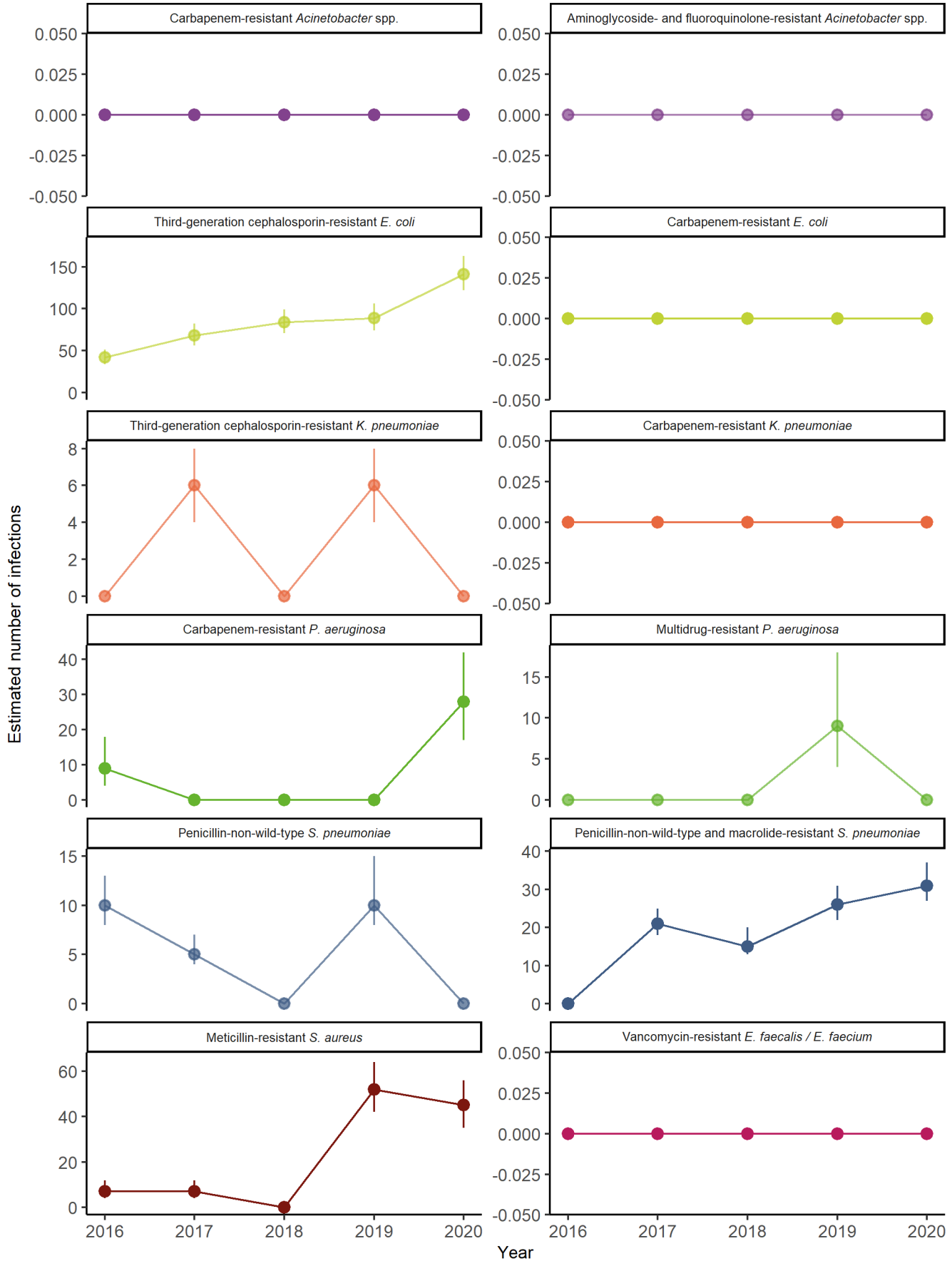
Iceland: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	2 (2 - 2)	3 (2 - 3)	4 (3 - 4)	4 (3 - 5)	6 (6 - 7)
Meticillin-resistant <i>S. aureus</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	2 (2 - 2)	2 (1 - 2)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	1 (1 - 1)	1 (1 - 1)	2 (1 - 2)	2 (2 - 2)
Carbapenem-resistant <i>P. aeruginosa</i>	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	3 (3 - 4)	4 (3 - 4)	5 (4 - 5)	9 (6 - 11)	11 (10 - 13)

Iceland: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

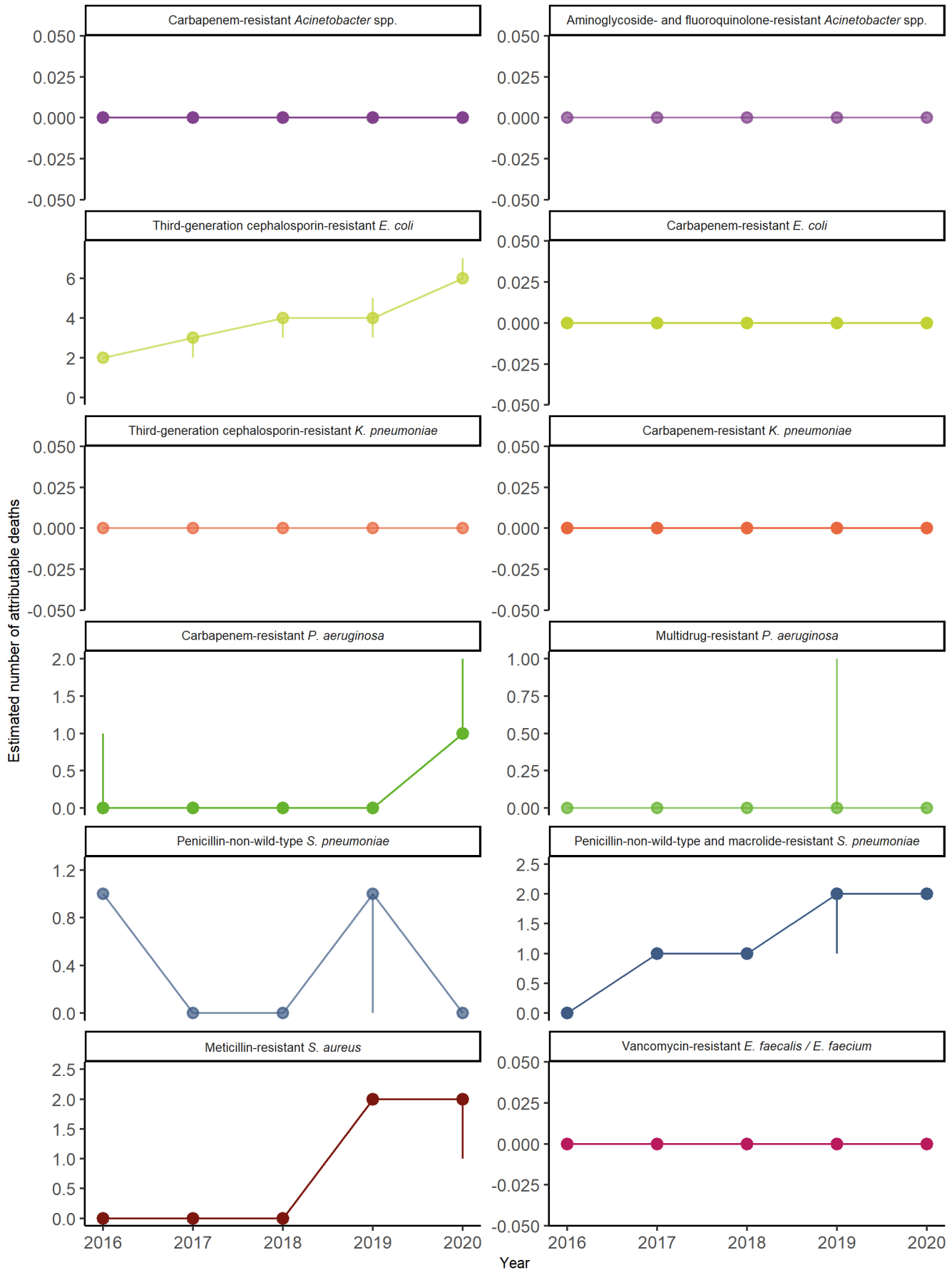
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	54 (45 - 63)	80 (67 - 93)	123 (106 - 140)	105 (90 - 120)	151 (133 - 168)
Meticillin-resistant <i>S. aureus</i>	5 (3 - 7)	9 (7 - 12)	0 (0 - 0)	117 (103 - 133)	101 (88 - 115)
Carbapenem-resistant <i>P. aeruginosa</i>	11 (4 - 21)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	70 (38 - 116)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	91 (78 - 108)	11 (9 - 14)	33 (29 - 39)	55 (48 - 65)
Penicillin-non-wild-type <i>S. pneumoniae</i>	43 (36 - 57)	35 (28 - 48)	0 (0 - 0)	70 (56 - 96)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	0 (0 - 0)	11 (9 - 14)	0 (0 - 0)	9 (7 - 11)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	13 (5 - 26)	0 (0 - 0)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	113 (88 - 148)	226 (189 - 275)	134 (115 - 154)	347 (290 - 425)	377 (307 - 464)

Iceland: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



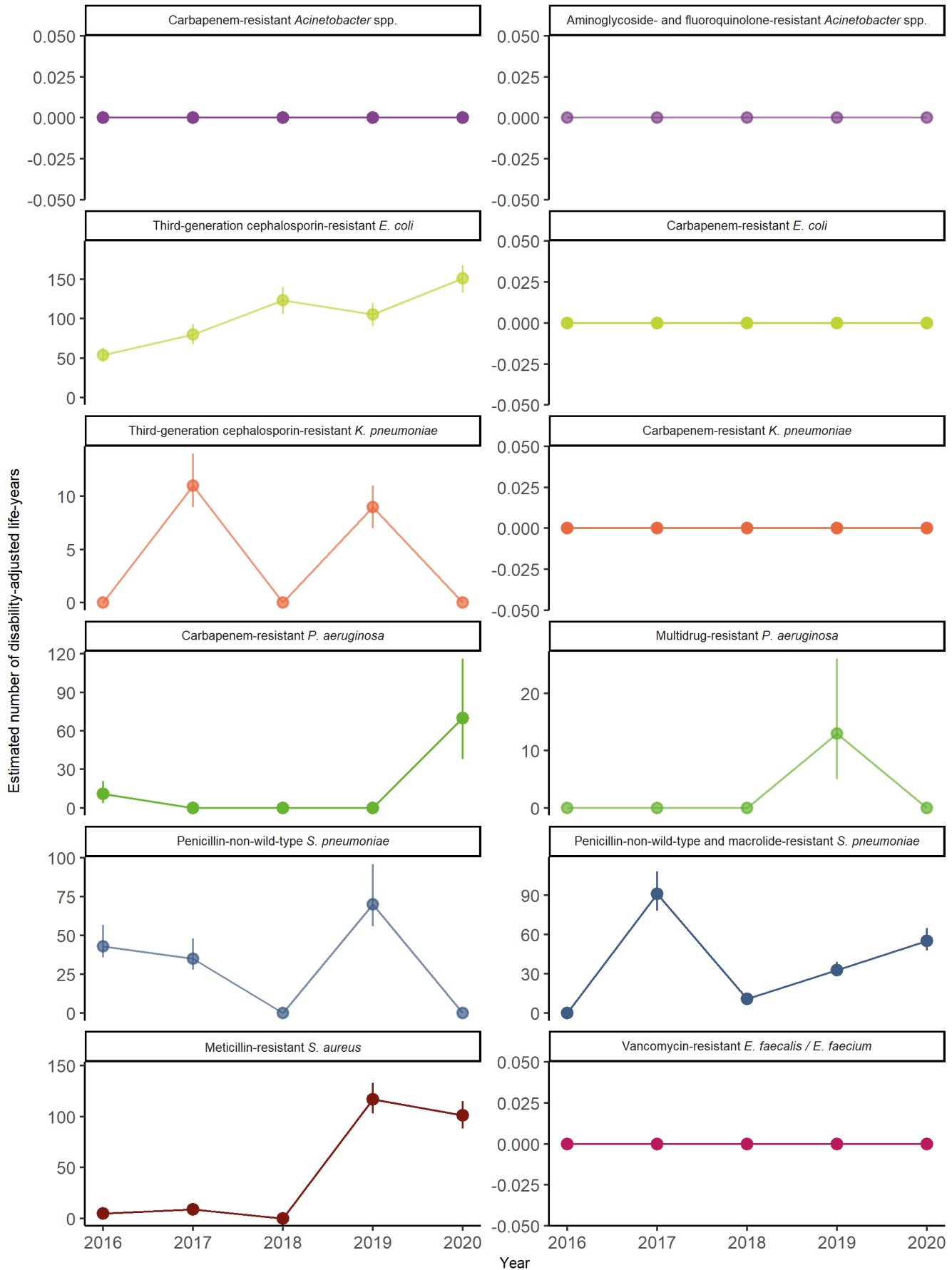
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Iceland: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



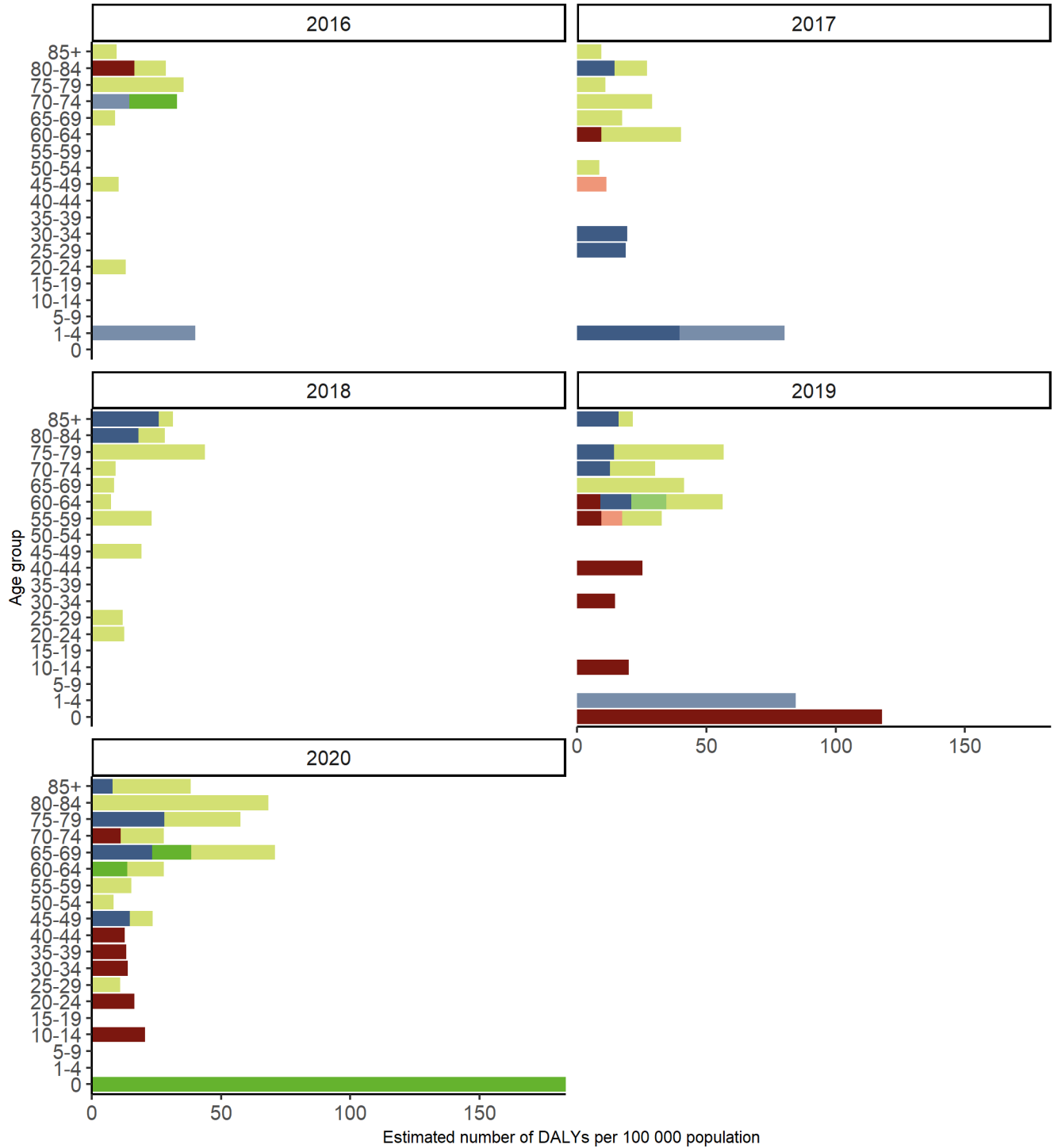
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Iceland: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Iceland: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium-antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

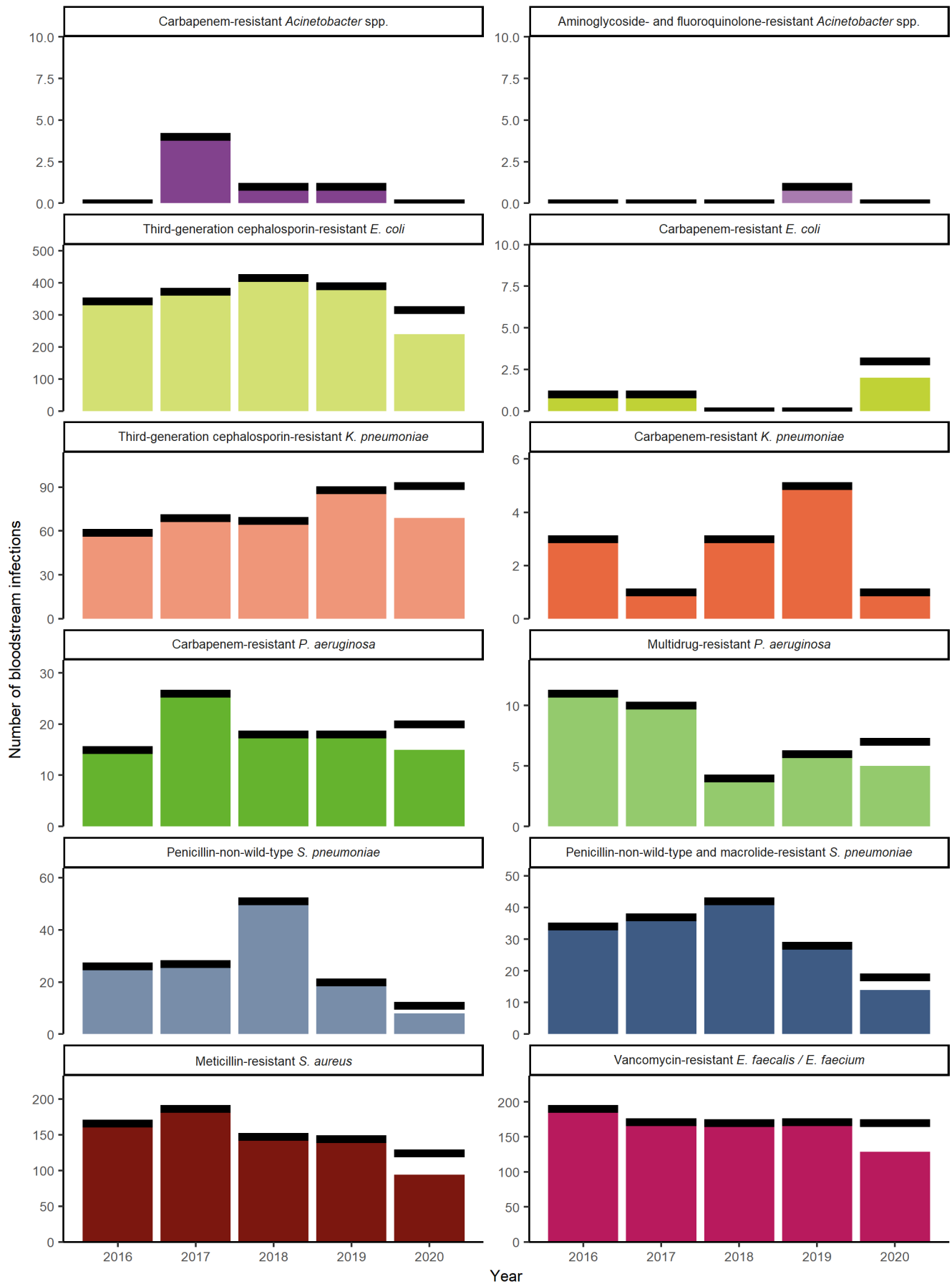
Estimates of the health burden of infections with antibiotic-resistant bacteria, Ireland, 2016-2020

Ireland: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	339	342	373	373	415	415	390	390	240	316
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	188	190	171	171	170	170	171	171	129	170
Meticillin-resistant <i>S. aureus</i>	164	166	186	186	147	147	144	144	94	124
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	58	59	69	69	67	67	88	88	69	91
Carbapenem-resistant <i>P. aeruginosa</i>	15	15	26	26	18	18	18	18	15	20
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	34	34	37	37	42	42	28	28	14	18
Penicillin-non-wild-type <i>S. pneumoniae</i>	26	26	27	27	51	51	20	20	8	11
Multidrug-resistant <i>P. aeruginosa</i>	11	11	10	10	4	4	6	6	5	7
Carbapenem-resistant <i>E. coli</i>	1	1	1	1	0	0	0	0	2	3
Carbapenem-resistant <i>K. pneumoniae</i>	3	3	1	1	3	3	5	5	1	1
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	4	4	1	1	1	1	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	1	1	0	0
Overall	839	847	905	905	918	918	872	872	577	761

Ireland: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Ireland: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	2 538 (1 982 - 3 199)	2 286 (1 804 - 2 853)	2 274 (1 792 - 2 838)	2 285 (1 793 - 2 851)	2 273 (1 800 - 2 813)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 796 (1 562 - 2 057)	1 956 (1 688 - 2 255)	2 177 (1 883 - 2 500)	2 047 (1 783 - 2 336)	1 655 (1 430 - 1 904)
Meticillin-resistant <i>S. aureus</i>	1 244 (1 079 - 1 428)	1 396 (1 203 - 1 608)	1 103 (948 - 1 277)	1 080 (921 - 1 257)	929 (811 - 1 055)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	338 (298 - 381)	398 (354 - 445)	386 (342 - 435)	507 (451 - 569)	524 (470 - 581)
Carbapenem-resistant <i>P. aeruginosa</i>	142 (111 - 179)	244 (192 - 305)	169 (132 - 212)	169 (128 - 218)	185 (145 - 234)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	177 (162 - 196)	191 (173 - 214)	217 (199 - 240)	144 (129 - 167)	95 (85 - 109)
Multidrug-resistant <i>P. aeruginosa</i>	104 (77 - 138)	94 (69 - 124)	37 (24 - 54)	56 (38 - 79)	61 (39 - 90)
Penicillin-non-wild-type <i>S. pneumoniae</i>	136 (126 - 148)	139 (129 - 153)	263 (241 - 292)	103 (93 - 116)	54 (48 - 63)
Carbapenem-resistant <i>E. coli</i>	5 (3 - 8)	5 (3 - 8)	0 (0 - 0)	0 (0 - 0)	14 (9 - 19)
Carbapenem-resistant <i>K. pneumoniae</i>	11 (8 - 15)	4 (2 - 6)	11 (8 - 15)	19 (15 - 24)	5 (3 - 8)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	25 (18 - 33)	6 (3 - 10)	6 (3 - 10)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	6 (3 - 10)	0 (0 - 0)
Overall	6 491 (5 408 - 7 749)	6 738 (5 635 - 8 004)	6 643 (5 572 - 7 873)	6 422 (5 357 - 7 637)	5 795 (4 840 - 6 876)

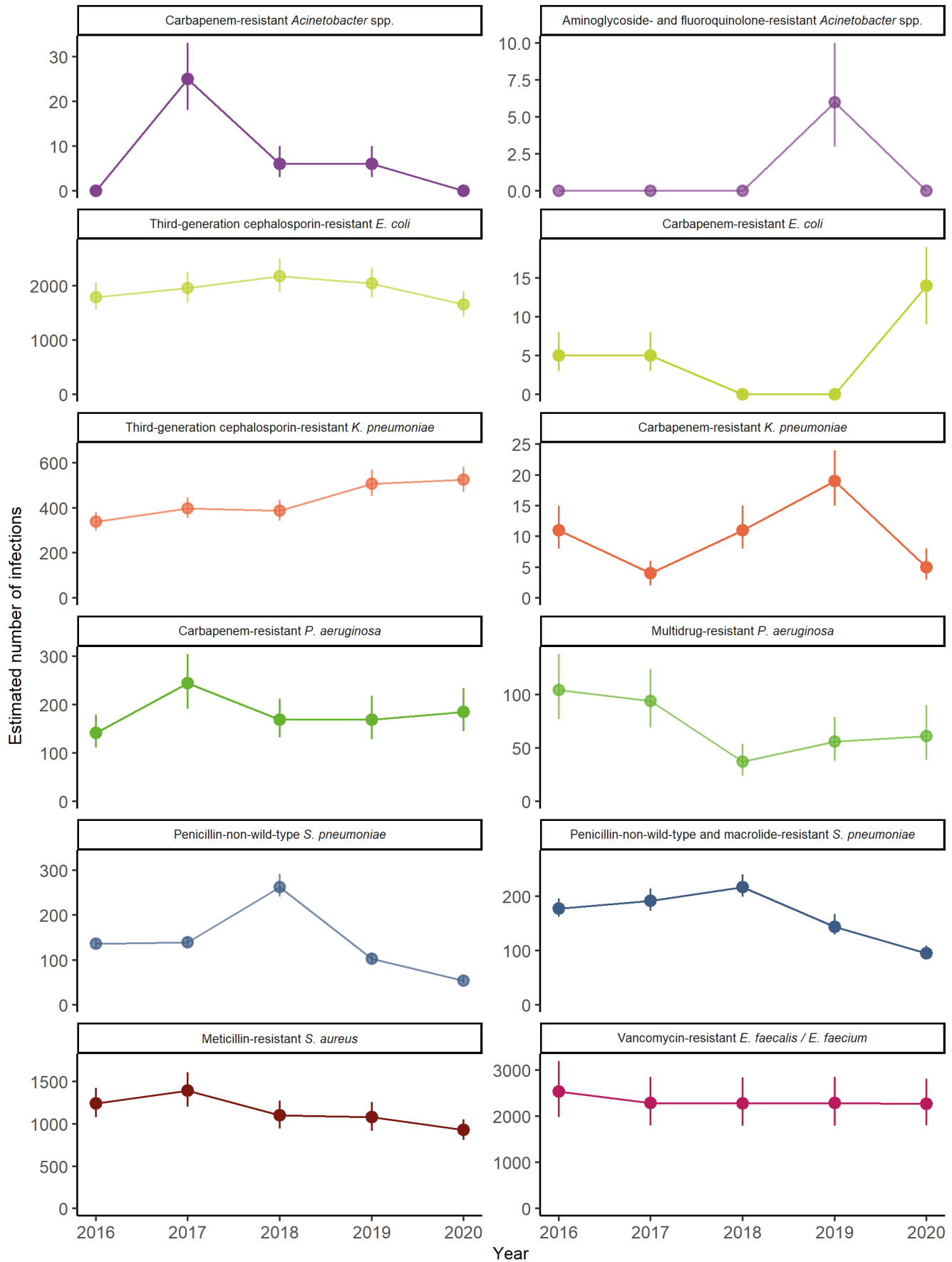
Ireland: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	80 (71 - 90)	88 (77 - 99)	98 (86 - 110)	91 (80 - 102)	74 (65 - 84)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	72 (65 - 81)	64 (57 - 71)	66 (59 - 74)	66 (59 - 74)	63 (57 - 70)
Meticillin-resistant <i>S. aureus</i>	50 (45 - 55)	57 (51 - 63)	45 (40 - 50)	44 (39 - 49)	36 (33 - 40)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	14 (13 - 15)	16 (15 - 17)	16 (14 - 17)	20 (19 - 22)	21 (20 - 23)
Carbapenem-resistant <i>P. aeruginosa</i>	7 (5 - 9)	11 (8 - 15)	8 (6 - 11)	8 (6 - 11)	9 (7 - 12)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	11 (10 - 12)	12 (11 - 13)	13 (12 - 14)	9 (8 - 10)	6 (5 - 7)
Penicillin-non-wild-type <i>S. pneumoniae</i>	8 (8 - 9)	9 (8 - 9)	16 (15 - 18)	6 (6 - 7)	3 (3 - 4)
Multidrug-resistant <i>P. aeruginosa</i>	5 (3 - 6)	4 (3 - 6)	2 (1 - 3)	3 (2 - 4)	3 (2 - 4)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 1)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 2)	0 (0 - 1)	1 (1 - 2)	2 (2 - 2)	1 (0 - 1)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	1 (1 - 2)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	248 (221 - 280)	262 (231 - 297)	265 (234 - 299)	249 (221 - 282)	217 (193 - 246)

Ireland: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

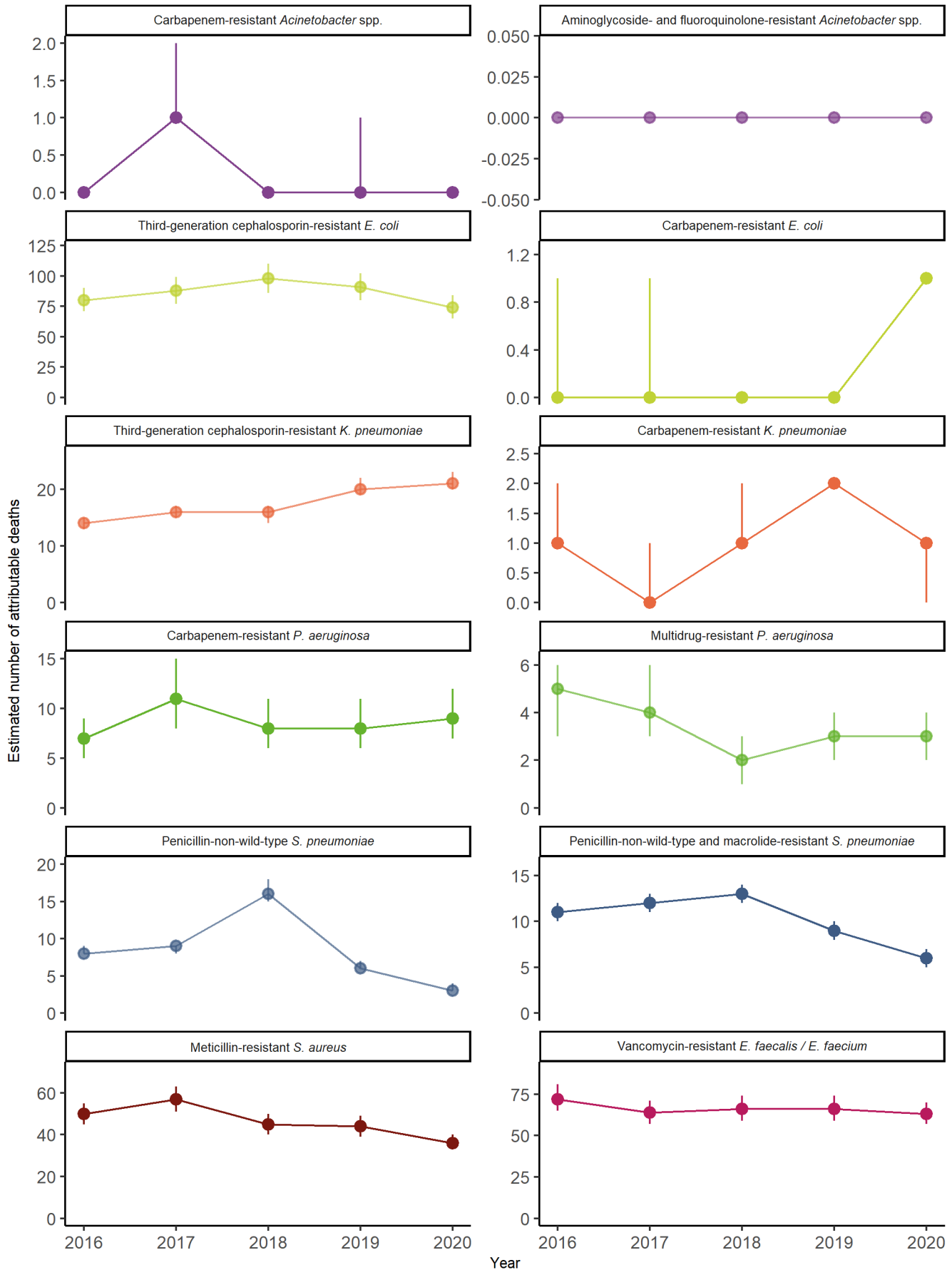
	2016	2017	2018	2019	2020
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	2 018 (1 827 - 2 248)	1 897 (1 737 - 2 089)	1 731 (1 578 - 1 914)	1 764 (1 600 - 1 960)	1 844 (1 682 - 2 033)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 847 (1 683 - 2 016)	1 937 (1 763 - 2 118)	2 201 (2 010 - 2 401)	2 238 (2 050 - 2 429)	1 732 (1 573 - 1 897)
Meticillin-resistant <i>S. aureus</i>	1 477 (1 369 - 1 593)	1 568 (1 446 - 1 697)	1 176 (1 080 - 1 283)	1 128 (1 034 - 1 230)	1 285 (1 182 - 1 396)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	432 (403 - 464)	539 (506 - 575)	511 (478 - 546)	673 (629 - 720)	700 (657 - 746)
Carbapenem-resistant <i>P. aeruginosa</i>	220 (165 - 283)	460 (347 - 589)	239 (181 - 305)	241 (178 - 312)	276 (208 - 355)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	342 (318 - 371)	314 (289 - 346)	438 (408 - 472)	256 (235 - 281)	219 (197 - 246)
Penicillin-non-wild-type <i>S. pneumoniae</i>	480 (444 - 524)	409 (376 - 455)	507 (472 - 549)	291 (260 - 335)	161 (143 - 185)
Multidrug-resistant <i>P. aeruginosa</i>	130 (94 - 175)	123 (87 - 166)	38 (23 - 58)	72 (47 - 104)	92 (56 - 139)
Carbapenem-resistant <i>E. coli</i>	9 (6 - 14)	15 (9 - 21)	0 (0 - 0)	0 (0 - 0)	32 (21 - 43)
Carbapenem-resistant <i>K. pneumoniae</i>	22 (16 - 28)	25 (15 - 36)	63 (44 - 83)	64 (49 - 79)	19 (11 - 28)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	51 (31 - 72)	30 (14 - 48)	8 (4 - 12)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	10 (5 - 16)	0 (0 - 0)
Overall	6 977 (6 325 - 7 716)	7 338 (6 606 - 8 164)	6 934 (6 288 - 7 659)	6 745 (6 091 - 7 478)	6 360 (5 730 - 7 068)

Ireland: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



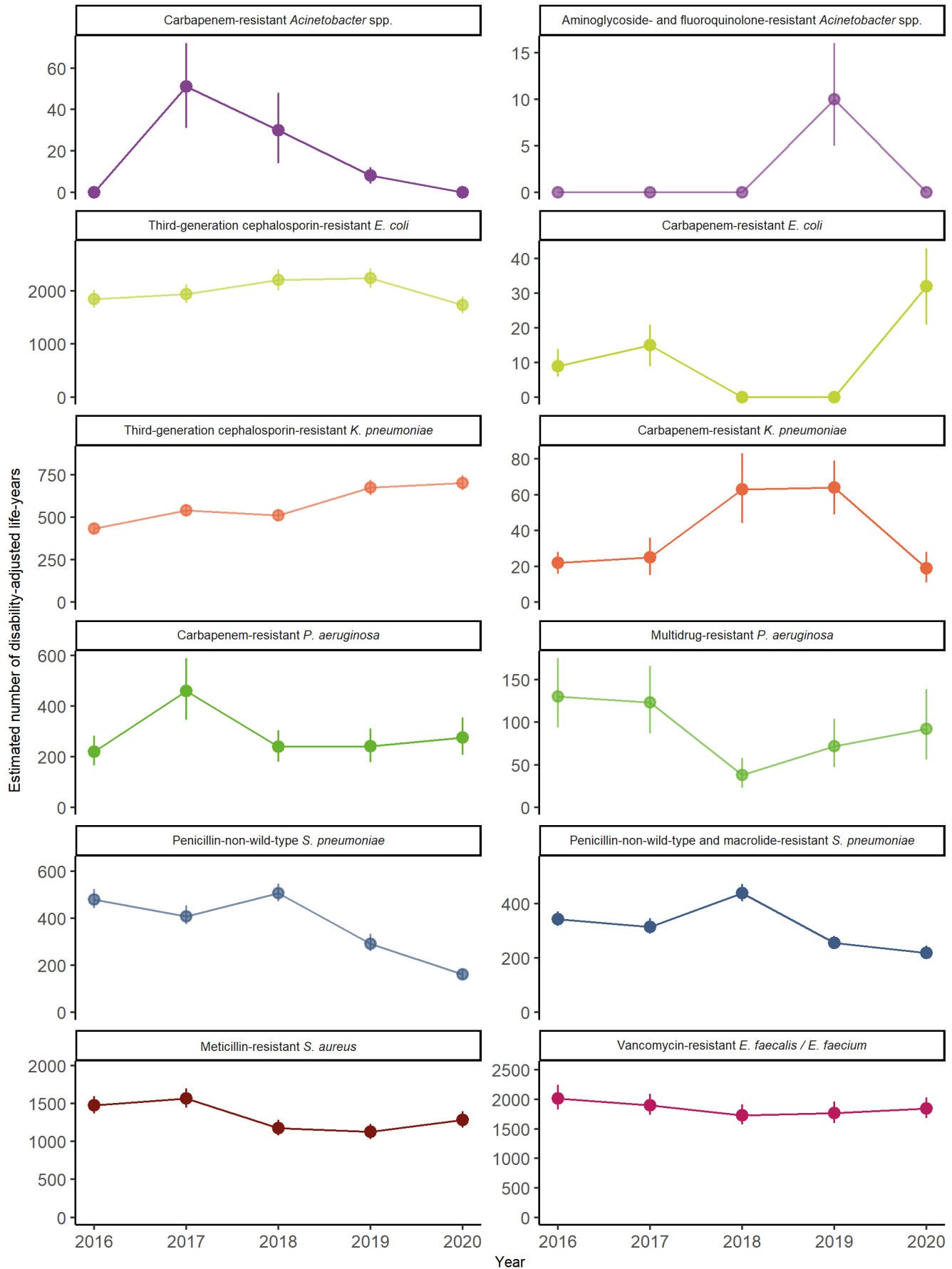
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Ireland: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



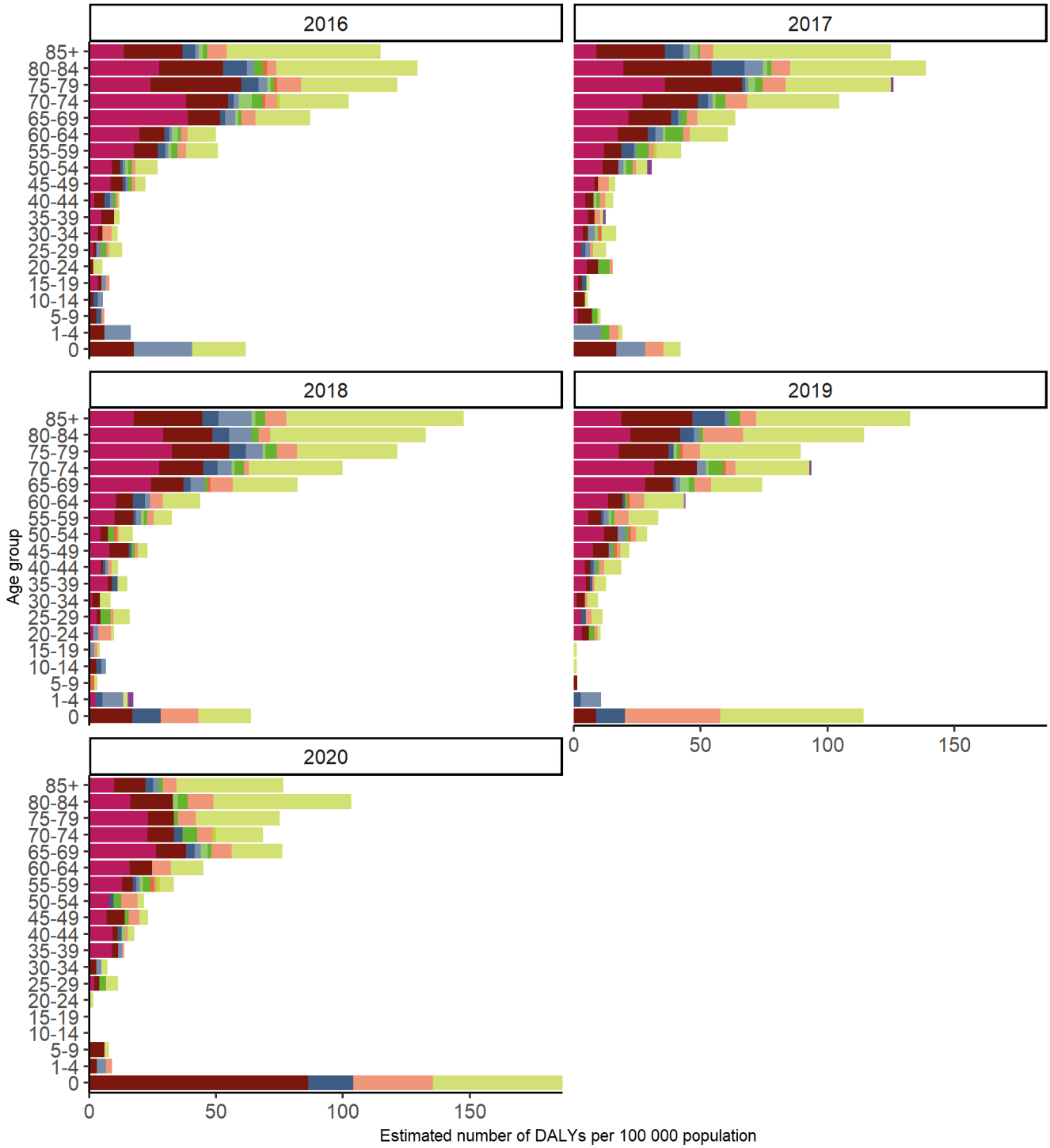
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Ireland: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Ireland: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

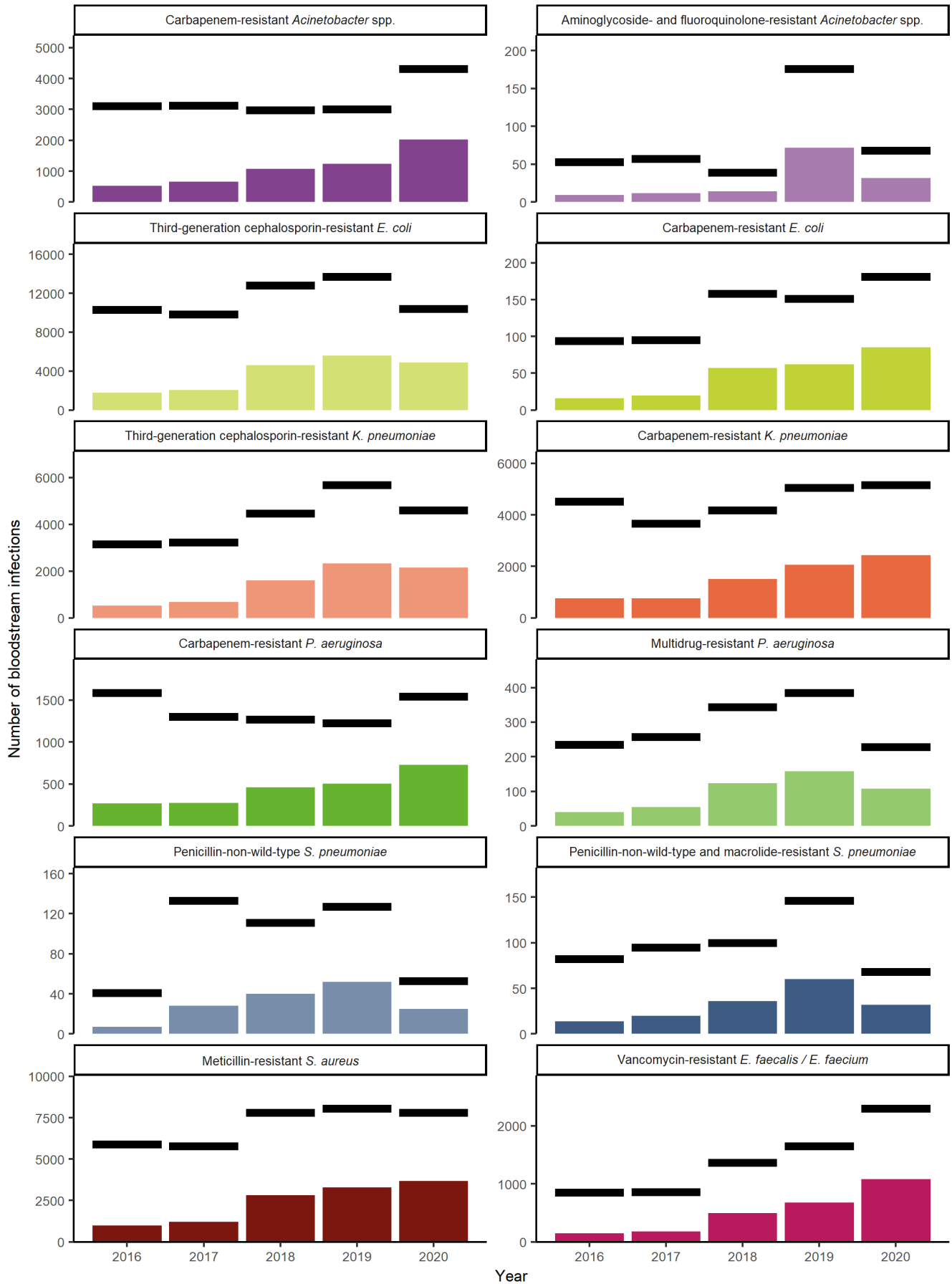
Estimates of the health burden of infections with antibiotic-resistant bacteria, Italy, 2016-2020

Italy: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	1 752	10 306	2 068	9 848	4 606	12 794	5 612	13 688	4 889	10 402
Meticillin-resistant <i>S. aureus</i>	1 001	5 888	1 217	5 795	2 808	7 800	3 298	8 044	3 664	7 796
Carbapenem-resistant <i>K. pneumoniae</i>	769	4 524	771	3 671	1 504	4 178	2 069	5 046	2 428	5 166
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	536	3 153	680	3 238	1 608	4 467	2 334	5 693	2 160	4 596
Carbapenem-resistant <i>Acinetobacter</i> spp.	529	3 112	657	3 129	1 070	2 972	1 234	3 010	2 027	4 313
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	145	853	180	857	492	1 367	675	1 646	1 078	2 294
Carbapenem-resistant <i>P. aeruginosa</i>	270	1 588	273	1 300	458	1 272	503	1 227	726	1 545
Multidrug-resistant <i>P. aeruginosa</i>	40	235	54	257	124	344	158	385	107	228
Carbapenem-resistant <i>E. coli</i>	16	94	20	95	57	158	62	151	85	181
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	9	53	12	57	14	39	72	176	32	68
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	14	82	20	95	36	100	60	146	32	68
Penicillin-non-wild-type <i>S. pneumoniae</i>	7	41	28	133	40	111	52	127	25	53
Overall	5 088	29 929	5 980	28 475	12 817	35 602	16 129	39 339	17 253	36 710

Italy: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Italy: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	44 185 (38 440 - 50 633)	43 523 (37 756 - 49 948)	58 480 (50 426 - 67 518)	60 357 (51 802 - 69 872)	58 476 (50 507 - 67 358)
Third-generation cephalosporin-resistant <i>E. coli</i>	54 101 (47 316 - 61 704)	51 714 (45 351 - 58 732)	67 144 (57 925 - 77 316)	71 814 (62 202 - 82 800)	54 597 (47 433 - 62 671)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	11 393 (8 678 - 14 575)	11 464 (9 012 - 14 274)	18 293 (14 224 - 22 967)	22 015 (17 050 - 27 787)	30 656 (24 033 - 38 426)
Carbapenem-resistant <i>Acinetobacter</i> spp.	19 441 (16 234 - 23 105)	19 572 (16 671 - 22 783)	18 615 (16 492 - 20 861)	18 845 (16 628 - 21 209)	27 003 (23 800 - 30 427)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	18 190 (16 529 - 19 955)	18 666 (16 950 - 20 511)	25 750 (23 285 - 28 411)	32 813 (29 614 - 36 236)	26 501 (23 909 - 29 246)
Carbapenem-resistant <i>K. pneumoniae</i>	17 126 (15 126 - 19 282)	13 895 (12 328 - 15 605)	15 817 (13 968 - 17 805)	19 096 (16 849 - 21 505)	19 557 (17 236 - 22 046)
Carbapenem-resistant <i>P. aeruginosa</i>	14 932 (12 471 - 17 723)	12 222 (10 241 - 14 512)	11 969 (10 052 - 14 139)	11 535 (9 588 - 13 733)	14 541 (12 038 - 17 305)
Multidrug-resistant <i>P. aeruginosa</i>	2 198 (1 645 - 2 913)	2 409 (1 838 - 3 116)	3 241 (2 641 - 3 929)	3 623 (2 966 - 4 367)	2 139 (1 754 - 2 586)
Carbapenem-resistant <i>E. coli</i>	494 (417 - 577)	499 (425 - 584)	830 (718 - 952)	793 (693 - 905)	949 (835 - 1 074)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	331 (259 - 409)	357 (303 - 417)	243 (204 - 285)	1 099 (920 - 1 297)	427 (371 - 484)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	424 (378 - 489)	491 (442 - 557)	516 (480 - 558)	754 (693 - 837)	351 (321 - 391)
Penicillin-non-wild-type <i>S. pneumoniae</i>	212 (188 - 247)	687 (624 - 769)	573 (527 - 630)	654 (604 - 718)	274 (249 - 310)
Overall	183 027 (157 681 - 211 612)	175 499 (151 941 - 201 808)	221 471 (190 942 - 255 371)	243 398 (209 609 - 281 266)	235 471 (202 486 - 272 324)

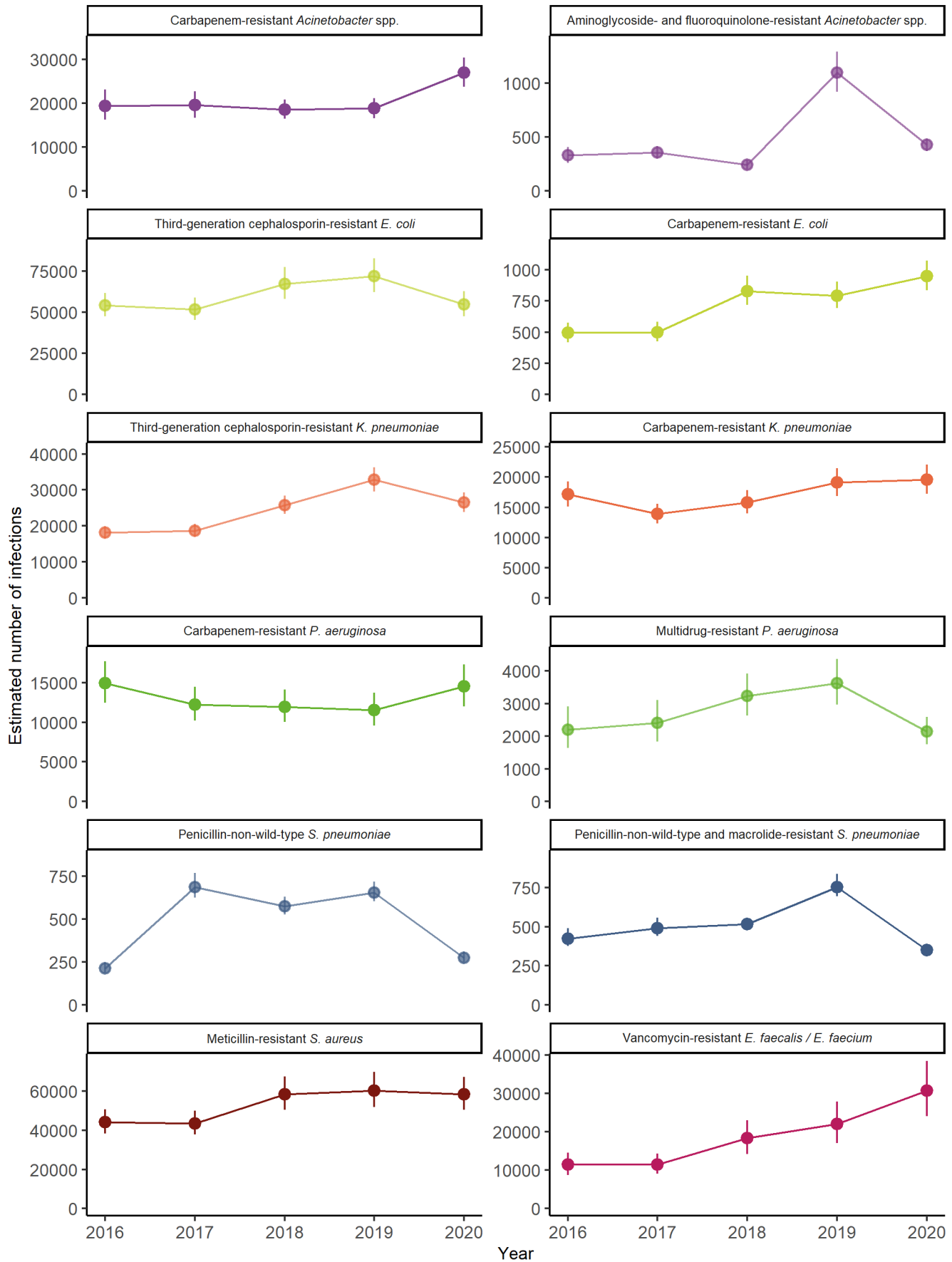
Italy: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	2 404 (2 130 - 2 693)	2 291 (2 035 - 2 560)	3 005 (2 640 - 3 394)	3 212 (2 824 - 3 632)	2 434 (2 146 - 2 743)
Meticillin-resistant <i>S. aureus</i>	1 789 (1 621 - 1 973)	1 761 (1 595 - 1 946)	2 383 (2 153 - 2 641)	2 475 (2 227 - 2 749)	2 380 (2 152 - 2 634)
Carbapenem-resistant <i>K. pneumoniae</i>	1 805 (1 582 - 2 025)	1 463 (1 291 - 1 638)	1 668 (1 466 - 1 872)	2 017 (1 771 - 2 266)	2 065 (1 811 - 2 318)
Carbapenem-resistant <i>Acinetobacter</i> spp.	959 (736 - 1 188)	949 (751 - 1 156)	903 (761 - 1 048)	920 (768 - 1 071)	1 310 (1 094 - 1 530)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	726 (683 - 772)	749 (703 - 798)	1 038 (971 - 1 109)	1 327 (1 240 - 1 418)	1 069 (999 - 1 142)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	341 (301 - 387)	329 (296 - 368)	541 (482 - 608)	653 (581 - 735)	903 (807 - 1 015)
Carbapenem-resistant <i>P. aeruginosa</i>	710 (569 - 870)	578 (465 - 705)	566 (456 - 686)	549 (438 - 675)	691 (550 - 847)
Multidrug-resistant <i>P. aeruginosa</i>	97 (68 - 133)	107 (78 - 143)	147 (114 - 183)	164 (129 - 203)	96 (76 - 120)
Carbapenem-resistant <i>E. coli</i>	39 (33 - 46)	40 (33 - 46)	66 (57 - 76)	62 (54 - 71)	75 (65 - 85)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	26 (24 - 29)	30 (27 - 33)	32 (30 - 34)	46 (43 - 50)	22 (20 - 24)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	16 (12 - 21)	17 (14 - 21)	12 (9 - 14)	54 (42 - 66)	20 (16 - 23)
Penicillin-non-wild-type <i>S. pneumoniae</i>	13 (12 - 15)	42 (39 - 46)	35 (33 - 38)	40 (37 - 43)	17 (15 - 19)
Overall	8 925 (7 771 - 10 152)	8 356 (7 327 - 9 460)	10 396 (9 172 - 11 703)	11 519 (10 154 - 12 979)	11 082 (9 751 - 12 500)

Italy: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

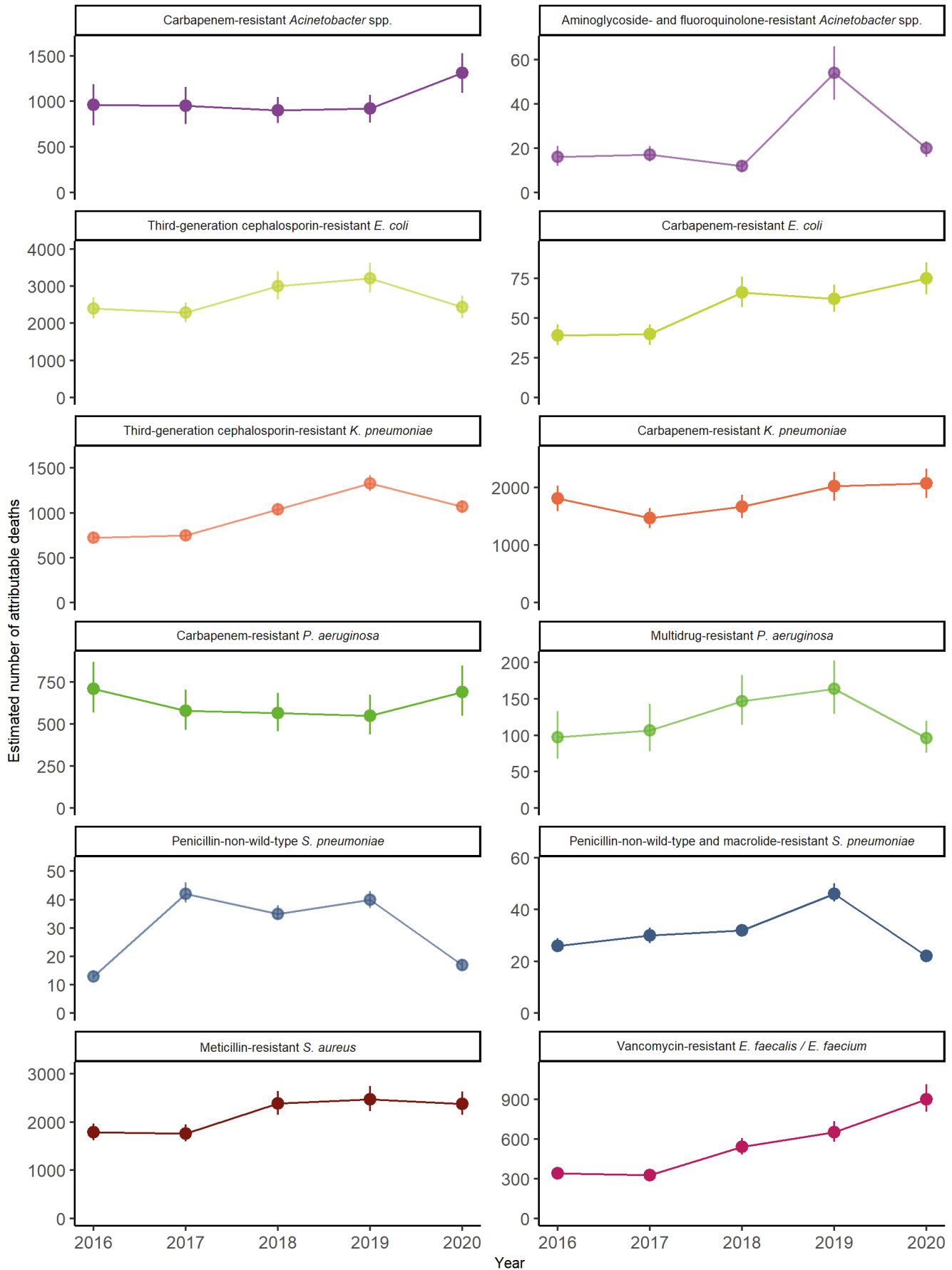
	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	50 215 (46 543 - 54 228)	50 208 (46 432 - 54 373)	60 885 (56 504 - 65 694)	60 210 (55 678 - 65 151)	60 367 (55 966 - 65 262)
Carbapenem-resistant <i>K. pneumoniae</i>	52 518 (46 539 - 58 425)	43 955 (39 288 - 48 664)	47 987 (42 968 - 53 030)	56 577 (50 593 - 62 440)	58 374 (52 180 - 64 510)
Third-generation cephalosporin-resistant <i>E. coli</i>	61 268 (56 273 - 66 359)	59 241 (54 502 - 64 093)	67 049 (61 115 - 73 164)	70 929 (64 708 - 77 407)	56 792 (52 135 - 61 683)
Carbapenem-resistant <i>Acinetobacter</i> spp.	24 801 (20 333 - 29 513)	35 118 (26 920 - 43 954)	28 473 (24 808 - 32 269)	27 490 (23 907 - 31 137)	41 189 (35 429 - 47 091)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	28 322 (26 813 - 29 930)	28 256 (26 742 - 29 855)	34 443 (32 644 - 36 318)	41 747 (39 558 - 44 047)	34 197 (32 418 - 36 056)
Carbapenem-resistant <i>P. aeruginosa</i>	27 145 (22 599 - 32 265)	20 787 (17 315 - 24 646)	20 104 (16 909 - 23 643)	18 558 (15 412 - 22 042)	23 100 (19 141 - 27 451)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	7 411 (6 714 - 8 212)	9 375 (8 569 - 10 316)	12 514 (11 371 - 13 781)	15 150 (13 764 - 16 796)	21 641 (19 719 - 23 874)
Multidrug-resistant <i>P. aeruginosa</i>	3 125 (2 216 - 4 320)	3 440 (2 564 - 4 558)	4 096 (3 322 - 4 957)	4 590 (3 767 - 5 494)	2 857 (2 338 - 3 431)
Carbapenem-resistant <i>E. coli</i>	1 010 (847 - 1 174)	893 (764 - 1 025)	1 559 (1 351 - 1 768)	1 810 (1 614 - 2 007)	2 097 (1 873 - 2 316)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	361 (261 - 467)	460 (393 - 530)	378 (291 - 468)	1 177 (996 - 1 365)	909 (758 - 1 064)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 133 (1 009 - 1 311)	1 585 (1 401 - 1 853)	1 570 (1 469 - 1 687)	1 542 (1 447 - 1 651)	905 (837 - 987)
Penicillin-non-wild-type <i>S. pneumoniae</i>	363 (332 - 405)	1 957 (1 792 - 2 158)	1 404 (1 286 - 1 571)	1 280 (1 200 - 1 370)	582 (536 - 637)
Overall	257 672 (230 479 - 286 609)	255 275 (226 682 - 286 025)	280 462 (254 038 - 308 350)	301 060 (272 644 - 330 907)	303 010 (273 330 - 334 362)

Italy: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



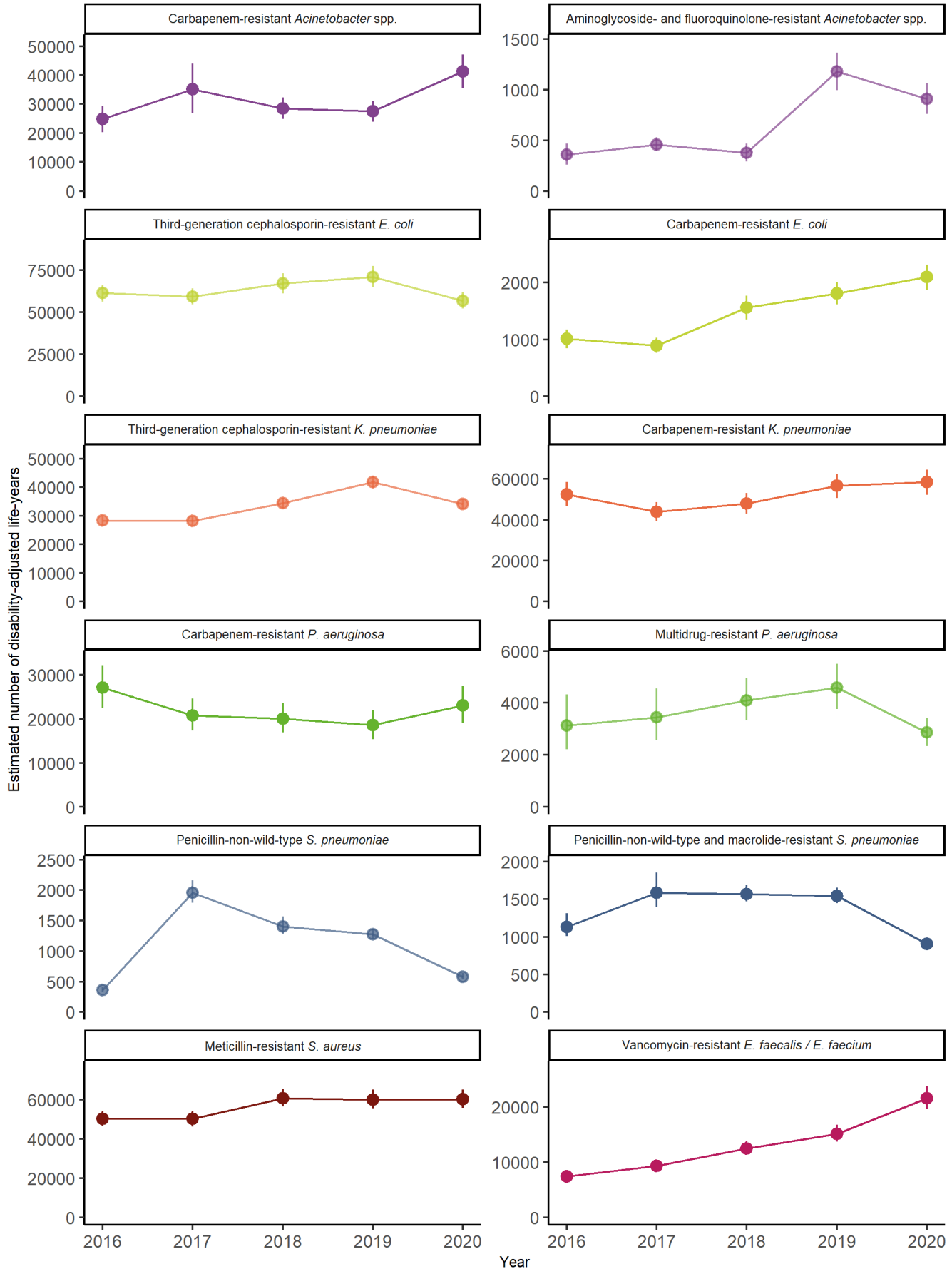
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Italy: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



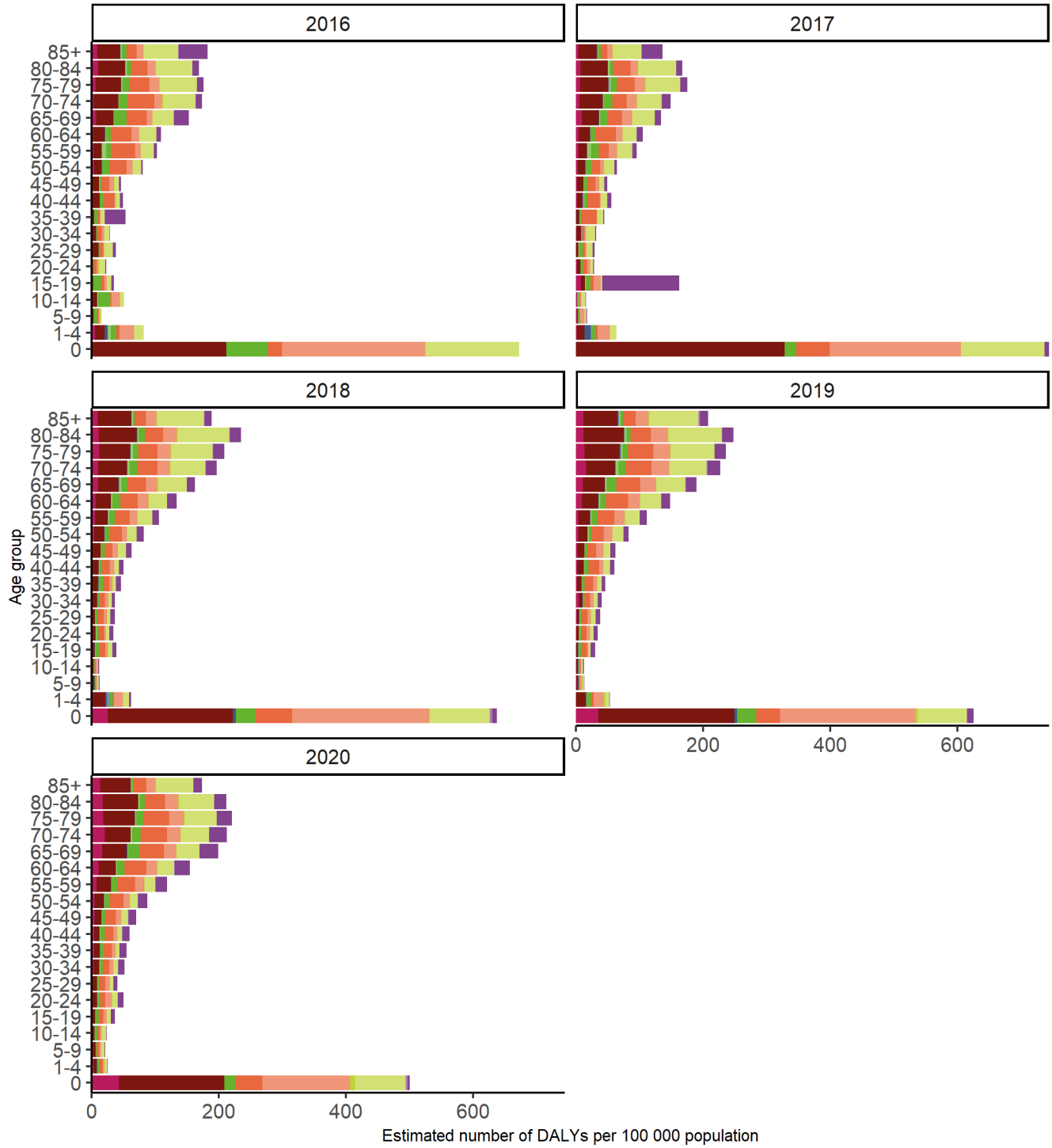
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Italy: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Italy: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

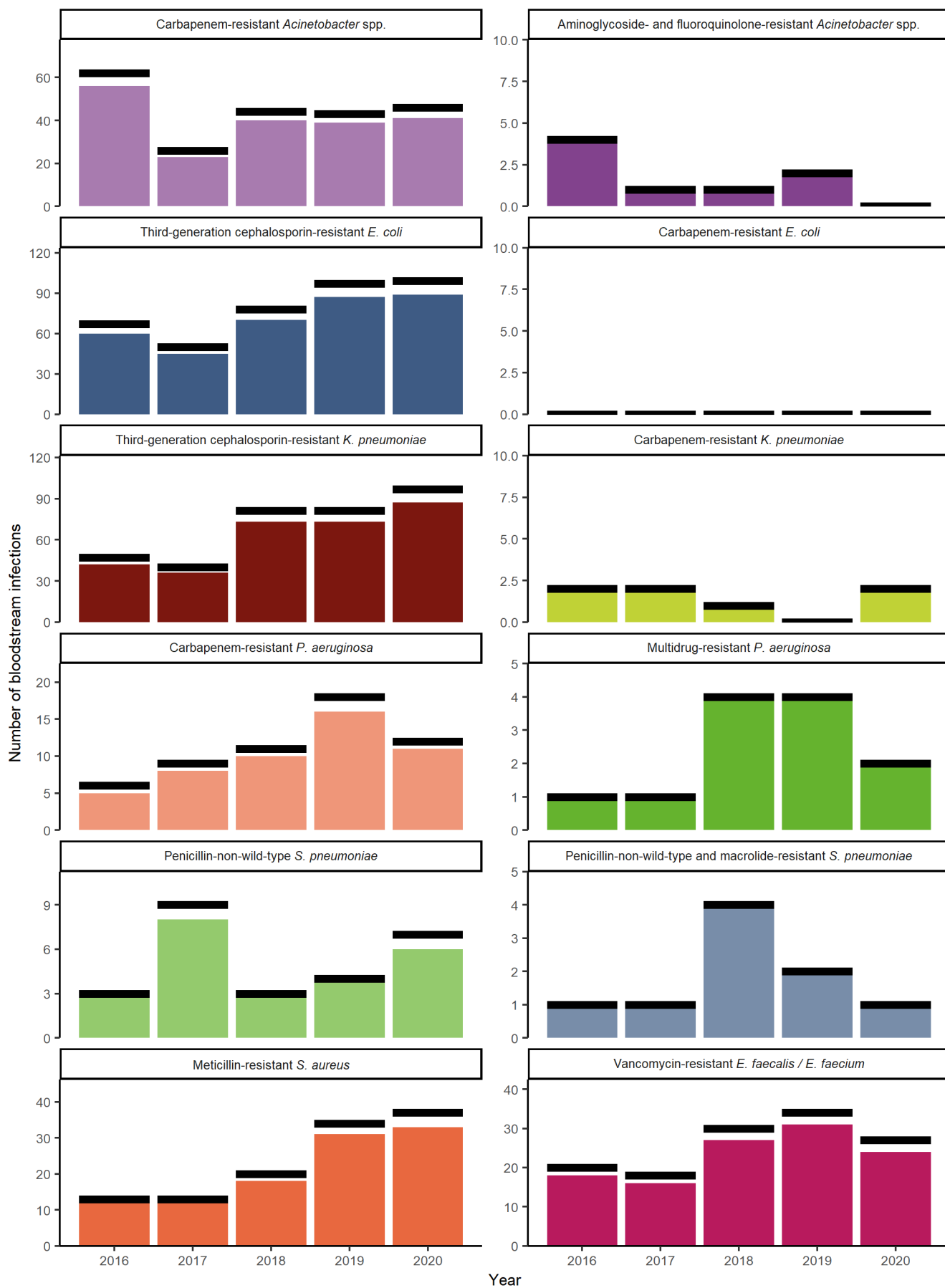
Estimates of the health burden of infections with antibiotic-resistant bacteria, Latvia, 2016-2020

Latvia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	60	67	45	50	70	78	87	97	89	99
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	42	47	36	40	73	81	73	81	87	97
Carbapenem-resistant <i>Acinetobacter</i> spp.	56	62	23	26	40	44	39	43	41	46
Meticillin-resistant <i>S. aureus</i>	12	13	12	13	18	20	31	34	33	37
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	18	20	16	18	27	30	31	34	24	27
Carbapenem-resistant <i>P. aeruginosa</i>	5	6	8	9	10	11	16	18	11	12
Penicillin-non-wild-type <i>S. pneumoniae</i>	3	3	8	9	3	3	4	4	6	7
Carbapenem-resistant <i>K. pneumoniae</i>	2	2	2	2	1	1	0	0	2	2
Multidrug-resistant <i>P. aeruginosa</i>	1	1	1	1	4	4	4	4	2	2
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1	1	1	1	4	4	2	2	1	1
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	0	0	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	4	4	1	1	1	1	2	2	0	0
Overall	204	226	153	170	251	277	289	319	296	330

Latvia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Latvia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	269 (236 - 306)	231 (206 - 257)	467 (413 - 528)	468 (418 - 521)	557 (499 - 621)
Third-generation cephalosporin-resistant <i>E. coli</i>	350 (306 - 397)	262 (226 - 303)	409 (359 - 461)	507 (442 - 578)	519 (455 - 587)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	266 (190 - 361)	237 (177 - 309)	398 (282 - 552)	459 (349 - 597)	356 (264 - 467)
Carbapenem-resistant <i>Acinetobacter</i> spp.	390 (341 - 441)	160 (135 - 187)	278 (244 - 315)	271 (235 - 310)	285 (244 - 329)
Meticillin-resistant <i>S. aureus</i>	100 (82 - 120)	100 (81 - 122)	150 (126 - 177)	258 (222 - 298)	275 (233 - 322)
Carbapenem-resistant <i>P. aeruginosa</i>	51 (33 - 76)	83 (60 - 111)	104 (78 - 135)	167 (126 - 215)	114 (83 - 154)
Penicillin-non-wild-type <i>S. pneumoniae</i>	17 (14 - 21)	46 (41 - 53)	17 (14 - 21)	23 (20 - 27)	34 (30 - 41)
Multidrug-resistant <i>P. aeruginosa</i>	10 (4 - 20)	10 (4 - 20)	41 (25 - 64)	41 (27 - 59)	20 (11 - 34)
Carbapenem-resistant <i>K. pneumoniae</i>	8 (6 - 12)	8 (6 - 12)	4 (2 - 7)	0 (0 - 0)	8 (6 - 12)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	6 (4 - 8)	6 (4 - 8)	23 (20 - 27)	11 (9 - 15)	6 (4 - 8)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	28 (21 - 36)	7 (4 - 11)	7 (4 - 11)	14 (9 - 19)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	1 495 (1 237 - 1 798)	1 150 (944 - 1 393)	1 898 (1 567 - 2 298)	2 219 (1 857 - 2 639)	2 174 (1 829 - 2 575)

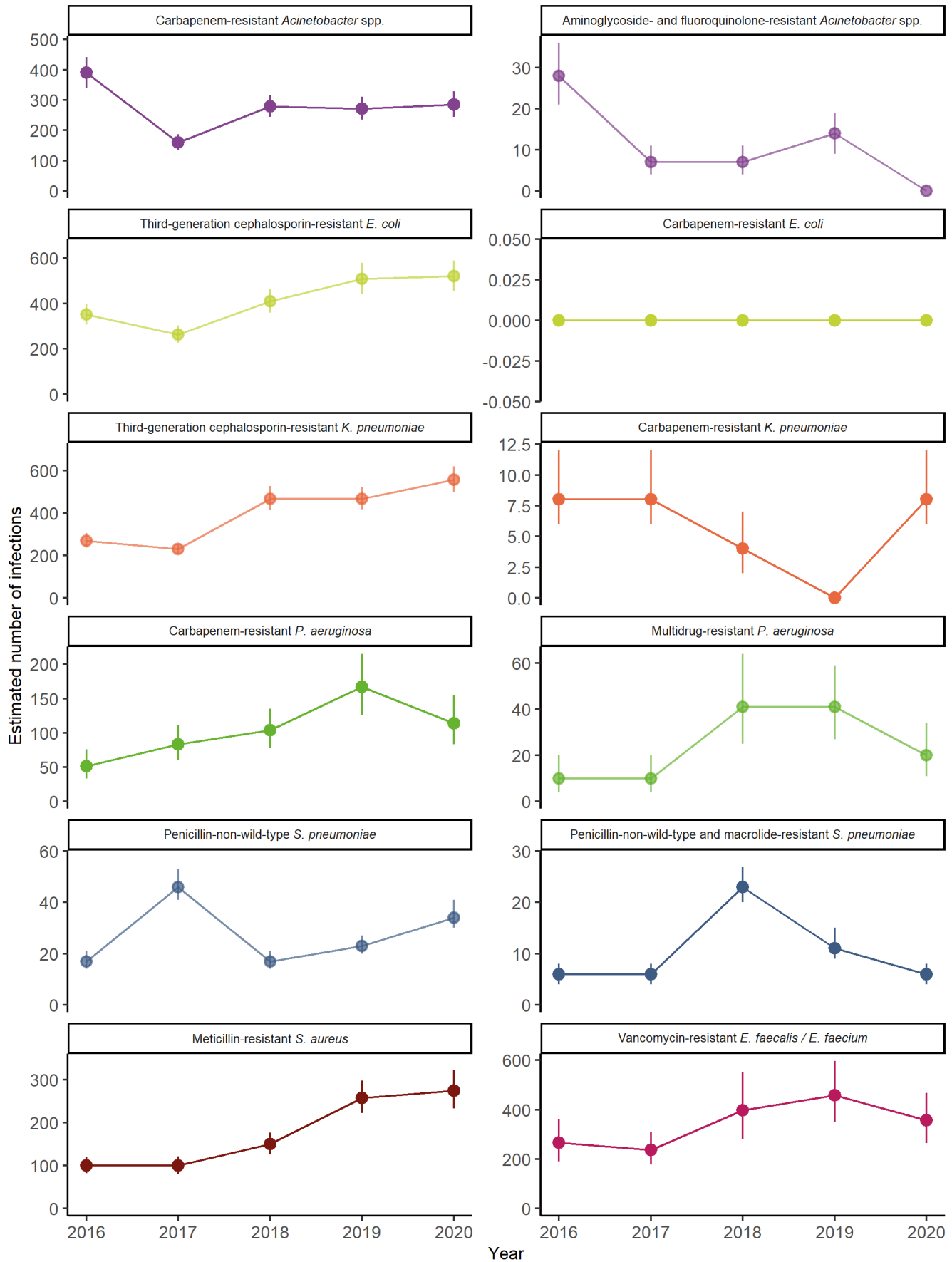
Latvia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	15 (13 - 17)	12 (10 - 13)	18 (16 - 20)	22 (20 - 25)	23 (20 - 25)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	11 (10 - 12)	9 (9 - 10)	19 (17 - 20)	19 (17 - 20)	23 (21 - 24)
Carbapenem-resistant <i>Acinetobacter</i> spp.	19 (15 - 22)	8 (6 - 9)	13 (11 - 16)	13 (11 - 16)	14 (11 - 16)
Meticillin-resistant <i>S. aureus</i>	4 (3 - 4)	4 (3 - 4)	6 (5 - 7)	10 (9 - 11)	11 (10 - 12)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	7 (6 - 9)	6 (6 - 7)	11 (10 - 13)	13 (11 - 14)	10 (9 - 11)
Carbapenem-resistant <i>P. aeruginosa</i>	2 (1 - 4)	4 (3 - 6)	5 (3 - 7)	8 (5 - 10)	5 (4 - 8)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	3 (3 - 3)	1 (1 - 1)	1 (1 - 2)	2 (2 - 2)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 1)	1 (1 - 1)	0 (0 - 1)	0 (0 - 0)	1 (1 - 1)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 1)	0 (0 - 1)	2 (1 - 3)	2 (1 - 3)	1 (0 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (1 - 2)	0 (0 - 1)	0 (0 - 1)	1 (0 - 1)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	1 (1 - 1)	0 (0 - 0)
Overall	61 (51 - 73)	47 (41 - 55)	76 (65 - 91)	90 (76 - 103)	90 (78 - 101)

Latvia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

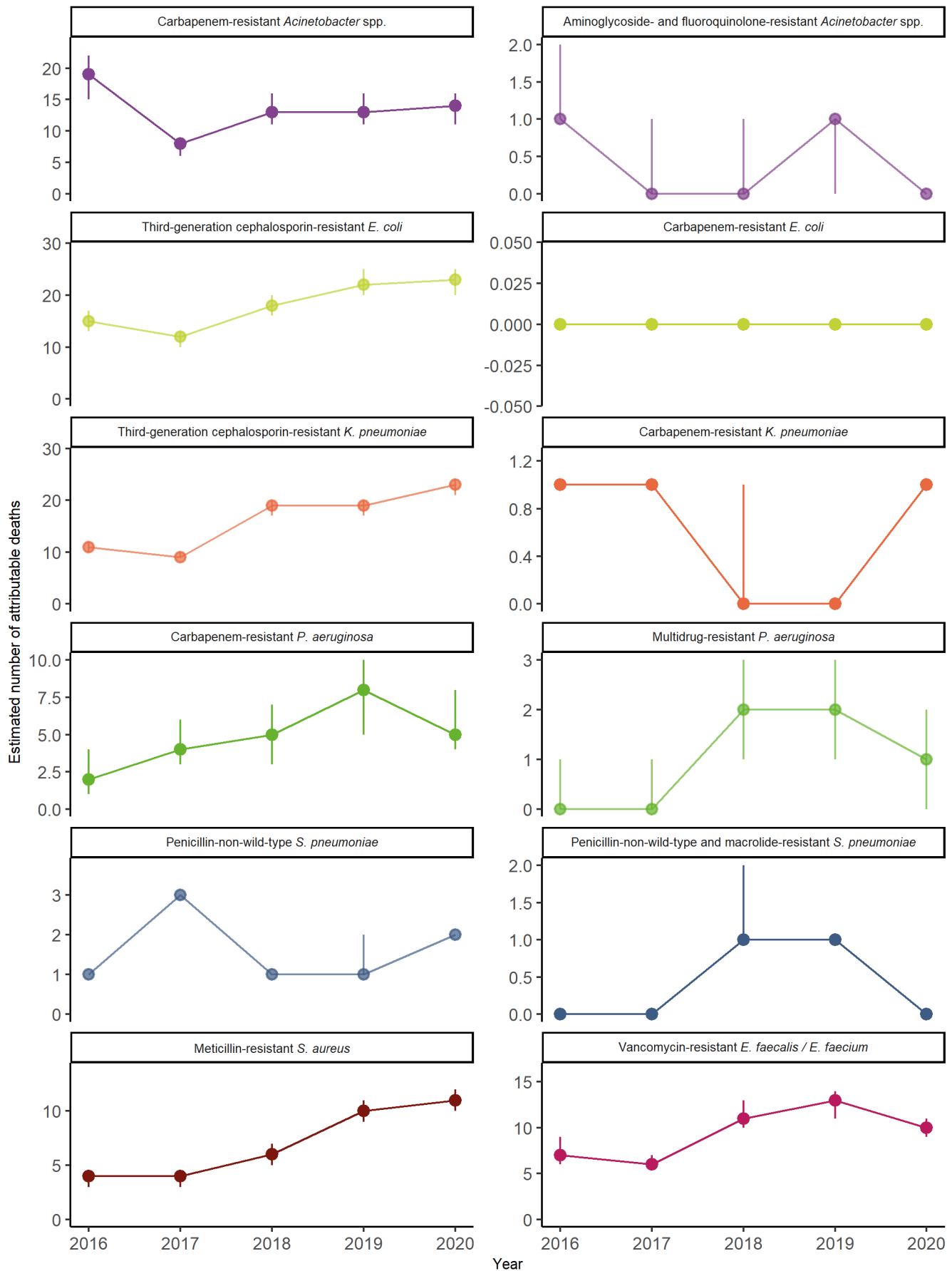
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	342 (316 - 370)	335 (314 - 358)	617 (573 - 665)	577 (540 - 618)	657 (615 - 701)
Third-generation cephalosporin-resistant <i>E. coli</i>	473 (426 - 521)	293 (263 - 325)	575 (525 - 627)	611 (554 - 673)	645 (589 - 703)
Carbapenem-resistant <i>Acinetobacter</i> spp.	675 (567 - 787)	294 (237 - 352)	506 (429 - 584)	432 (354 - 513)	498 (401 - 599)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	214 (190 - 245)	233 (211 - 260)	326 (289 - 372)	375 (338 - 418)	314 (280 - 353)
Meticillin-resistant <i>S. aureus</i>	154 (137 - 173)	188 (166 - 213)	186 (167 - 208)	317 (290 - 346)	302 (272 - 337)
Carbapenem-resistant <i>P. aeruginosa</i>	127 (76 - 191)	113 (77 - 156)	214 (149 - 293)	304 (220 - 402)	172 (122 - 233)
Penicillin-non-wild-type <i>S. pneumoniae</i>	49 (42 - 60)	172 (153 - 194)	45 (38 - 56)	52 (45 - 61)	83 (73 - 97)
Carbapenem-resistant <i>K. pneumoniae</i>	41 (27 - 56)	40 (26 - 56)	12 (7 - 18)	0 (0 - 0)	44 (29 - 59)
Multidrug-resistant <i>P. aeruginosa</i>	9 (3 - 18)	7 (3 - 13)	58 (32 - 95)	58 (34 - 89)	19 (9 - 34)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 (3 - 5)	24 (19 - 33)	42 (36 - 49)	33 (28 - 43)	13 (11 - 18)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	27 (18 - 36)	7 (3 - 11)	16 (8 - 26)	31 (17 - 46)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	2 114 (1 805 - 2 462)	1 706 (1 472 - 1 971)	2 597 (2 253 - 2 993)	2 790 (2 420 - 3 209)	2 747 (2 401 - 3 134)

Latvia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



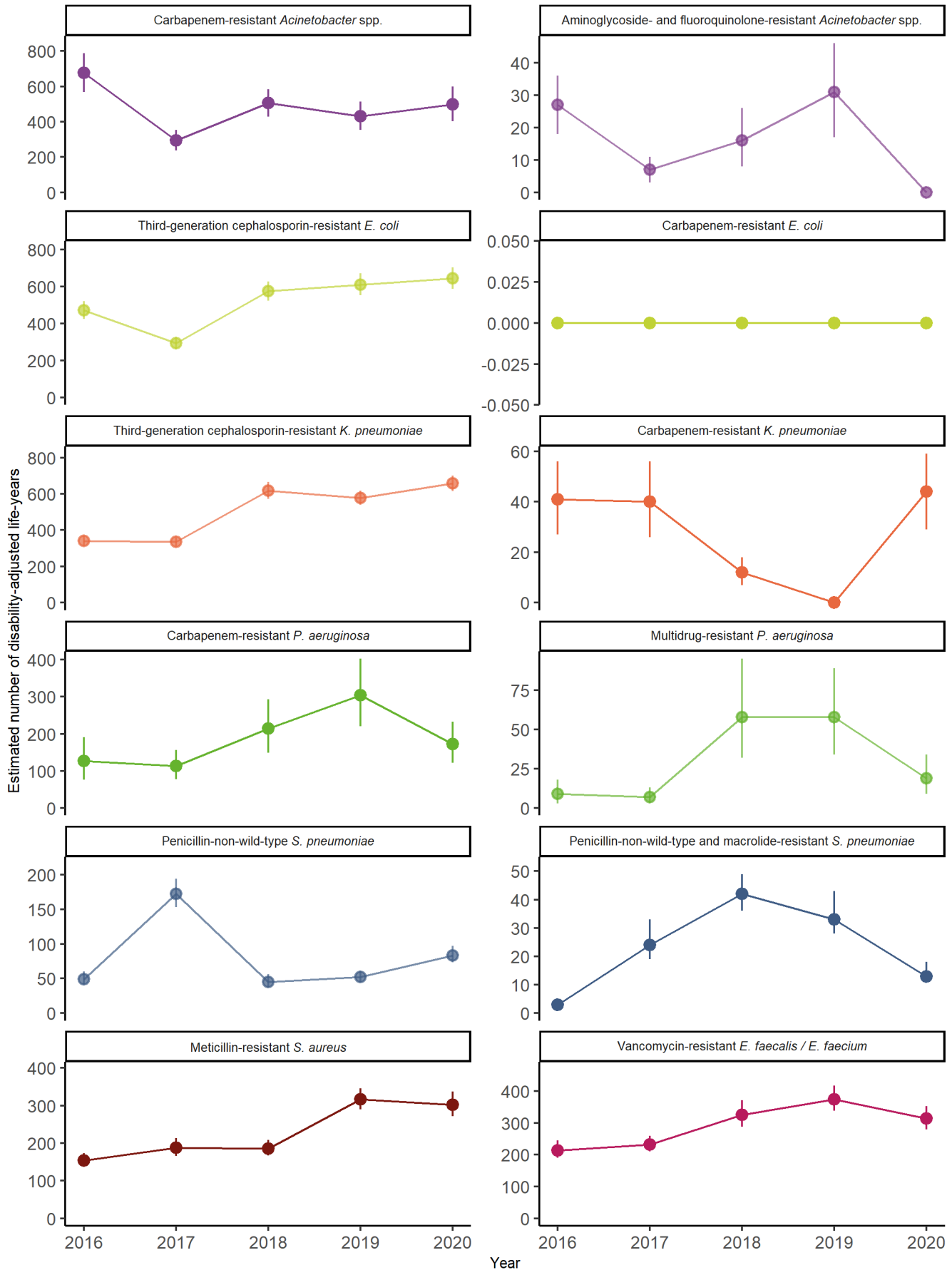
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Latvia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



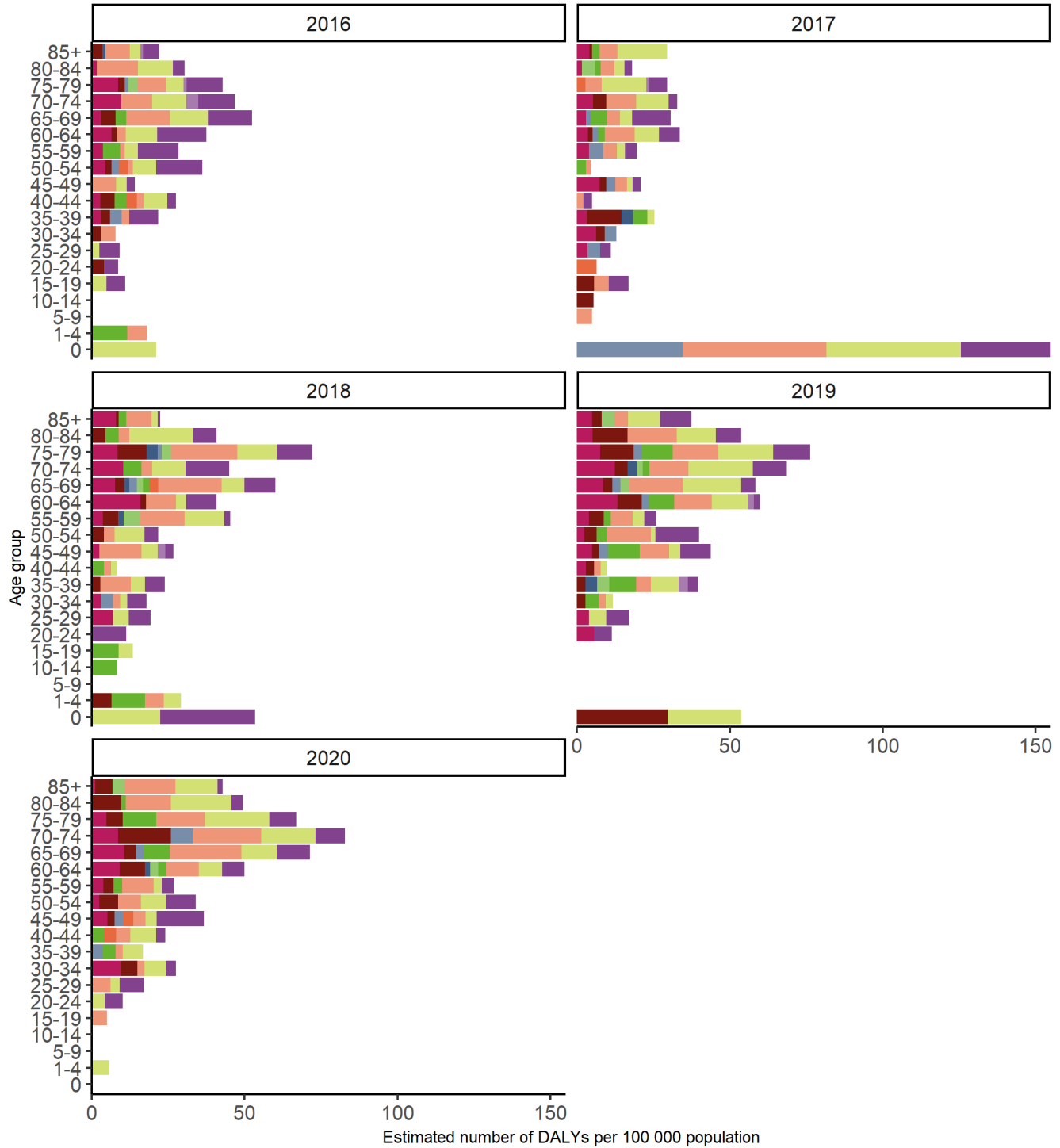
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Latvia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Latvia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

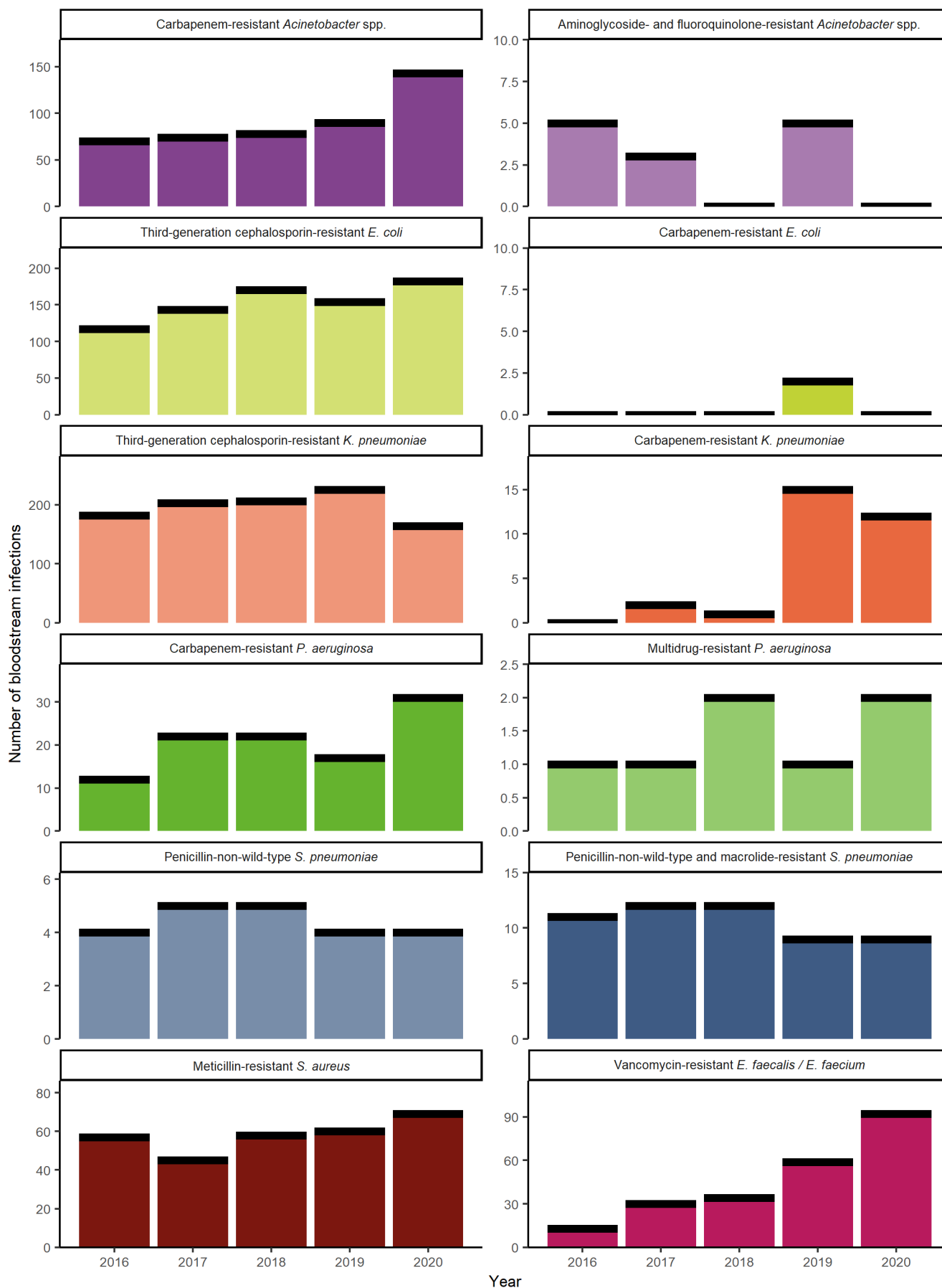
Estimates of the health burden of infections with antibiotic-resistant bacteria, Lithuania, 2016-2020

Lithuania: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	117	117	143	143	170	170	154	154	182	182
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	182	182	203	203	206	206	226	226	164	164
Carbapenem-resistant <i>Acinetobacter</i> spp.	70	70	74	74	78	78	90	90	143	143
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	13	13	30	30	34	34	59	59	92	92
Meticillin-resistant <i>S. aureus</i>	57	57	45	45	58	58	60	60	69	69
Carbapenem-resistant <i>P. aeruginosa</i>	12	12	22	22	22	22	17	17	31	31
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	2	2	1	1	15	15	12	12
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	11	11	12	12	12	12	9	9	9	9
Penicillin-non-wild-type <i>S. pneumoniae</i>	4	4	5	5	5	5	4	4	4	4
Multidrug-resistant <i>P. aeruginosa</i>	1	1	1	1	2	2	1	1	2	2
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	2	2	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	5	5	3	3	0	0	5	5	0	0
Overall	472	472	540	540	588	588	642	642	708	708

Lithuania: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Lithuania: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	173 (129 - 227)	401 (309 - 513)	454 (346 - 583)	787 (599 - 1 015)	1 230 (947 - 1 561)
Third-generation cephalosporin-resistant <i>E. coli</i>	613 (539 - 695)	750 (661 - 846)	892 (787 - 1 006)	808 (710 - 917)	955 (840 - 1 077)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 049 (942 - 1 163)	1 170 (1 049 - 1 300)	1 188 (1 072 - 1 315)	1 302 (1 167 - 1 448)	946 (848 - 1 051)
Carbapenem-resistant <i>Acinetobacter</i> spp.	438 (385 - 495)	463 (406 - 524)	489 (433 - 549)	564 (490 - 639)	896 (789 - 1 008)
Meticillin-resistant <i>S. aureus</i>	428 (361 - 502)	338 (294 - 385)	436 (377 - 499)	450 (383 - 524)	518 (446 - 599)
Carbapenem-resistant <i>P. aeruginosa</i>	113 (92 - 136)	206 (163 - 258)	207 (165 - 253)	159 (128 - 197)	292 (244 - 346)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	57 (51 - 64)	62 (57 - 69)	62 (56 - 69)	46 (42 - 53)	46 (42 - 52)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	8 (6 - 10)	4 (3 - 5)	57 (48 - 66)	45 (40 - 51)
Penicillin-non-wild-type <i>S. pneumoniae</i>	21 (18 - 24)	26 (23 - 29)	26 (23 - 30)	21 (18 - 24)	21 (18 - 24)
Multidrug-resistant <i>P. aeruginosa</i>	9 (5 - 15)	9 (5 - 15)	19 (12 - 27)	9 (5 - 15)	19 (12 - 27)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	31 (26 - 37)	19 (15 - 23)	0 (0 - 0)	31 (26 - 37)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	10 (8 - 13)	0 (0 - 0)
Overall	2 932 (2 548 - 3 358)	3 452 (2 988 - 3 972)	3 777 (3 274 - 4 336)	4 244 (3 624 - 4 948)	4 968 (4 226 - 5 796)

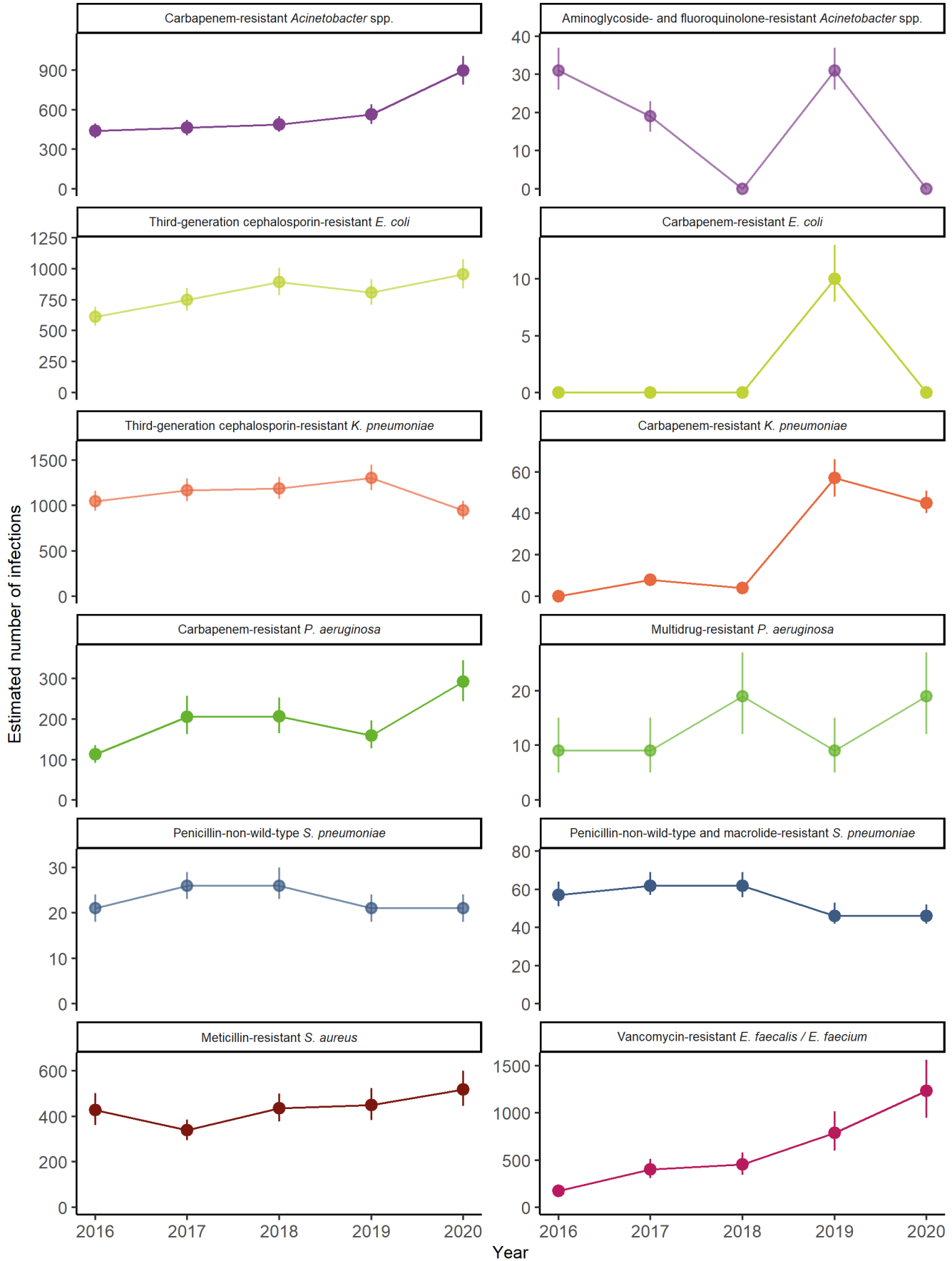
Lithuania: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	21 (18 - 25)	22 (19 - 26)	24 (20 - 27)	27 (22 - 32)	43 (36 - 50)
Third-generation cephalosporin-resistant <i>E. coli</i>	27 (24 - 30)	33 (29 - 37)	39 (35 - 43)	36 (32 - 40)	42 (38 - 47)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	42 (40 - 45)	47 (44 - 51)	48 (45 - 51)	53 (49 - 56)	38 (36 - 41)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	5 (4 - 5)	11 (10 - 13)	13 (11 - 15)	23 (20 - 26)	36 (32 - 41)
Meticillin-resistant <i>S. aureus</i>	18 (16 - 20)	13 (12 - 14)	18 (16 - 19)	18 (16 - 20)	21 (19 - 23)
Carbapenem-resistant <i>P. aeruginosa</i>	5 (4 - 7)	10 (7 - 13)	10 (8 - 13)	8 (6 - 10)	14 (11 - 17)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	1 (1 - 1)	0 (0 - 1)	6 (5 - 7)	5 (4 - 5)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 (3 - 4)	4 (4 - 4)	4 (4 - 4)	3 (3 - 3)	3 (3 - 3)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	2 (1 - 2)	2 (1 - 2)	1 (1 - 1)	1 (1 - 1)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 1)	0 (0 - 1)	1 (0 - 1)	0 (0 - 1)	1 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	2 (1 - 2)	1 (1 - 1)	0 (0 - 0)	1 (1 - 2)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)	0 (0 - 0)
Overall	124 (111 - 140)	144 (128 - 163)	159 (140 - 176)	177 (156 - 199)	204 (180 - 229)

Lithuania: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

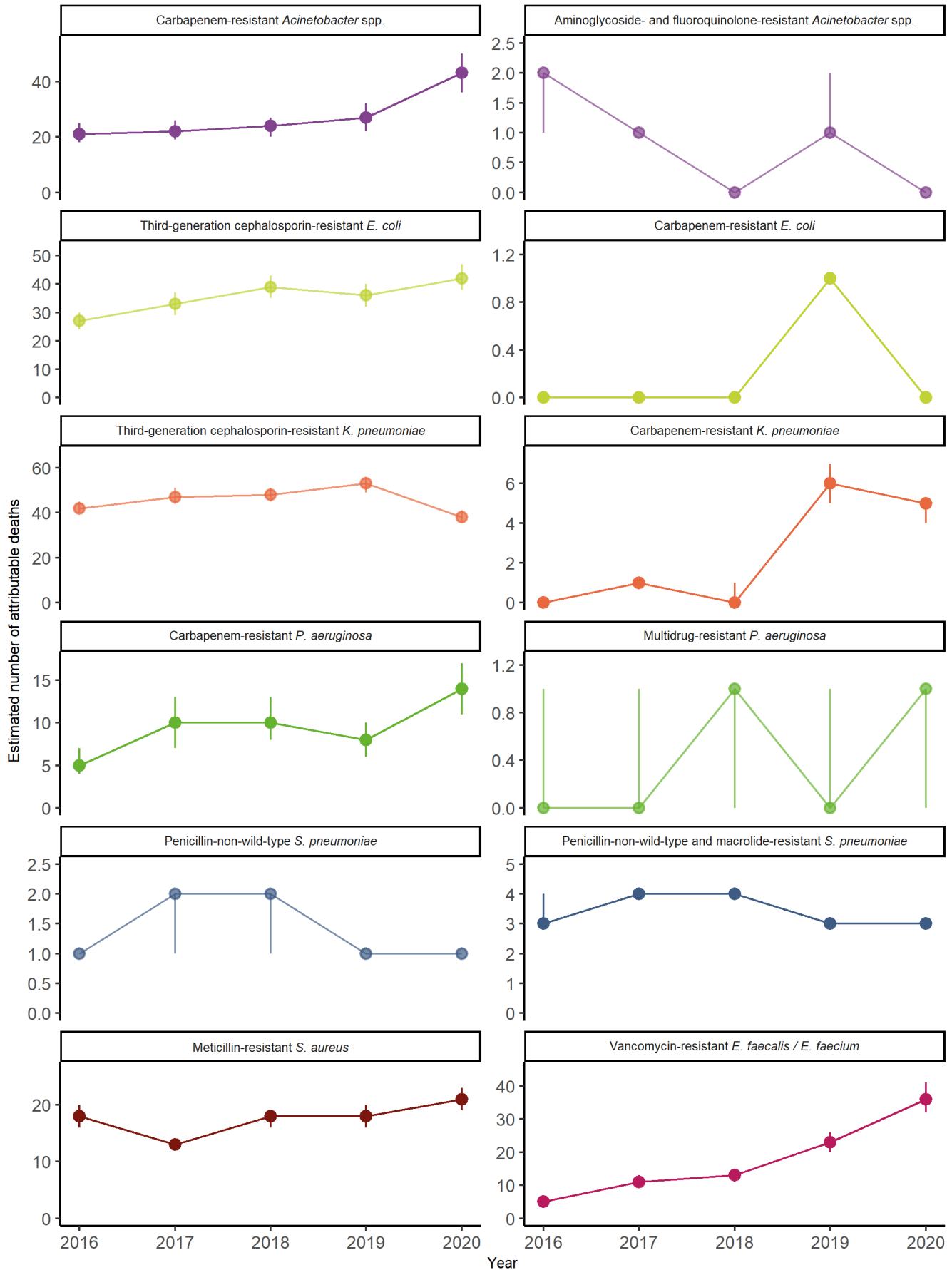
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	700 (593 - 811)	712 (611 - 815)	779 (667 - 895)	790 (678 - 906)	1 415 (1 203 - 1 627)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 335 (1 258 - 1 414)	1 449 (1 363 - 1 541)	1 486 (1 405 - 1 571)	1 649 (1 551 - 1 752)	1 121 (1 056 - 1 191)
Third-generation cephalosporin-resistant <i>E. coli</i>	738 (675 - 804)	948 (866 - 1 032)	1 094 (1 001 - 1 188)	1 031 (942 - 1 126)	1 109 (1 013 - 1 209)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	185 (166 - 208)	358 (325 - 402)	345 (311 - 387)	577 (514 - 653)	896 (802 - 1 005)
Meticillin-resistant <i>S. aureus</i>	402 (360 - 448)	417 (385 - 452)	463 (426 - 501)	440 (401 - 484)	563 (517 - 614)
Carbapenem-resistant <i>P. aeruginosa</i>	197 (155 - 245)	287 (220 - 369)	266 (202 - 339)	299 (237 - 369)	533 (439 - 636)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	38 (28 - 50)	11 (7 - 15)	228 (195 - 262)	187 (165 - 211)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	149 (136 - 164)	211 (192 - 234)	150 (137 - 165)	92 (83 - 103)	106 (96 - 118)
Multidrug-resistant <i>P. aeruginosa</i>	8 (4 - 14)	29 (15 - 49)	18 (10 - 27)	4 (2 - 7)	50 (31 - 75)
Penicillin-non-wild-type <i>S. pneumoniae</i>	30 (27 - 35)	62 (55 - 70)	54 (48 - 61)	72 (64 - 84)	36 (31 - 42)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	36 (28 - 44)	20 (14 - 25)	0 (0 - 0)	57 (44 - 70)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	31 (24 - 39)	0 (0 - 0)
Overall	3 780 (3 402 - 4 187)	4 531 (4 074 - 5 039)	4 666 (4 214 - 5 149)	5 270 (4 735 - 5 855)	6 016 (5 353 - 6 728)

Lithuania: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



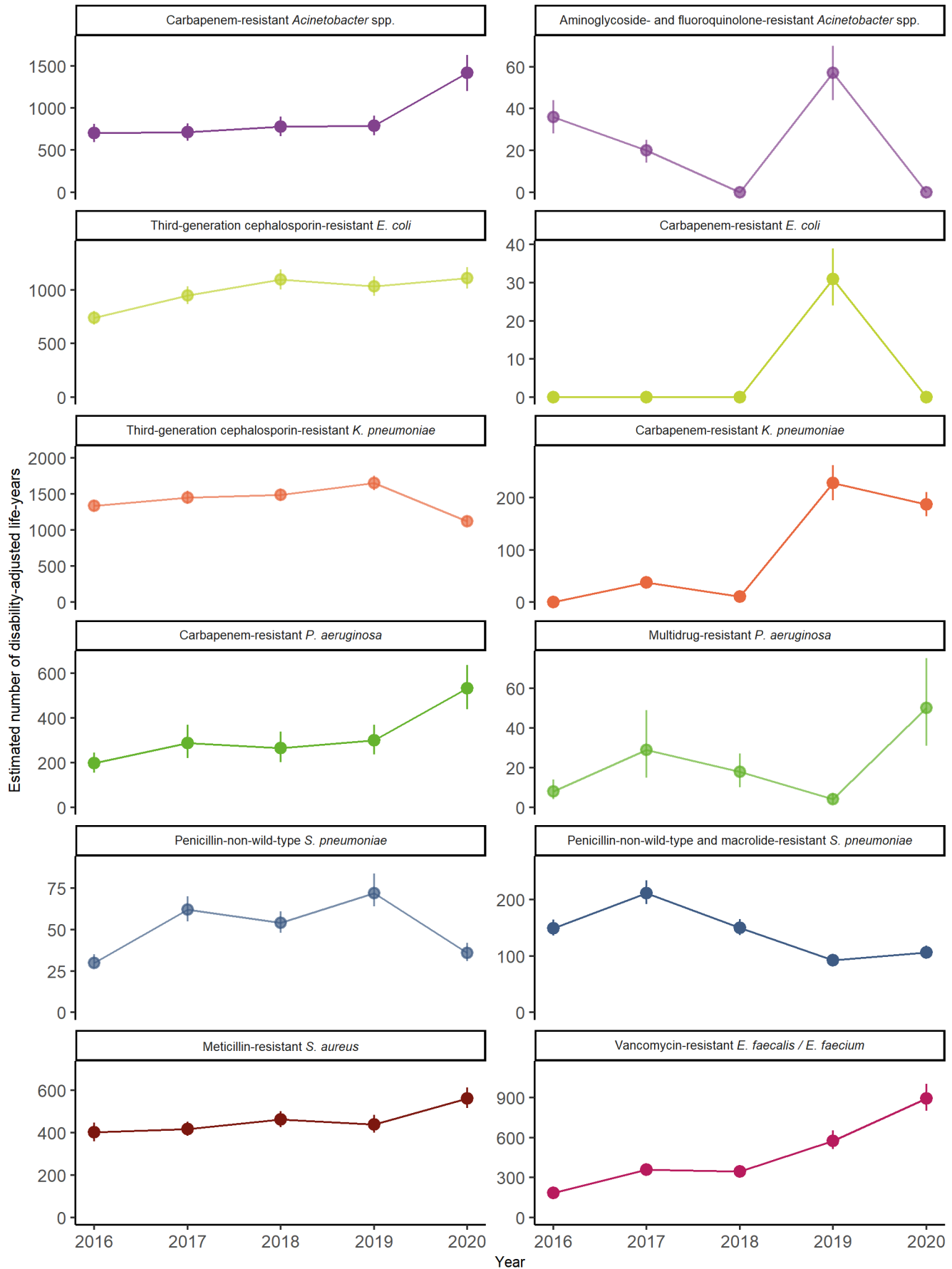
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Lithuania: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



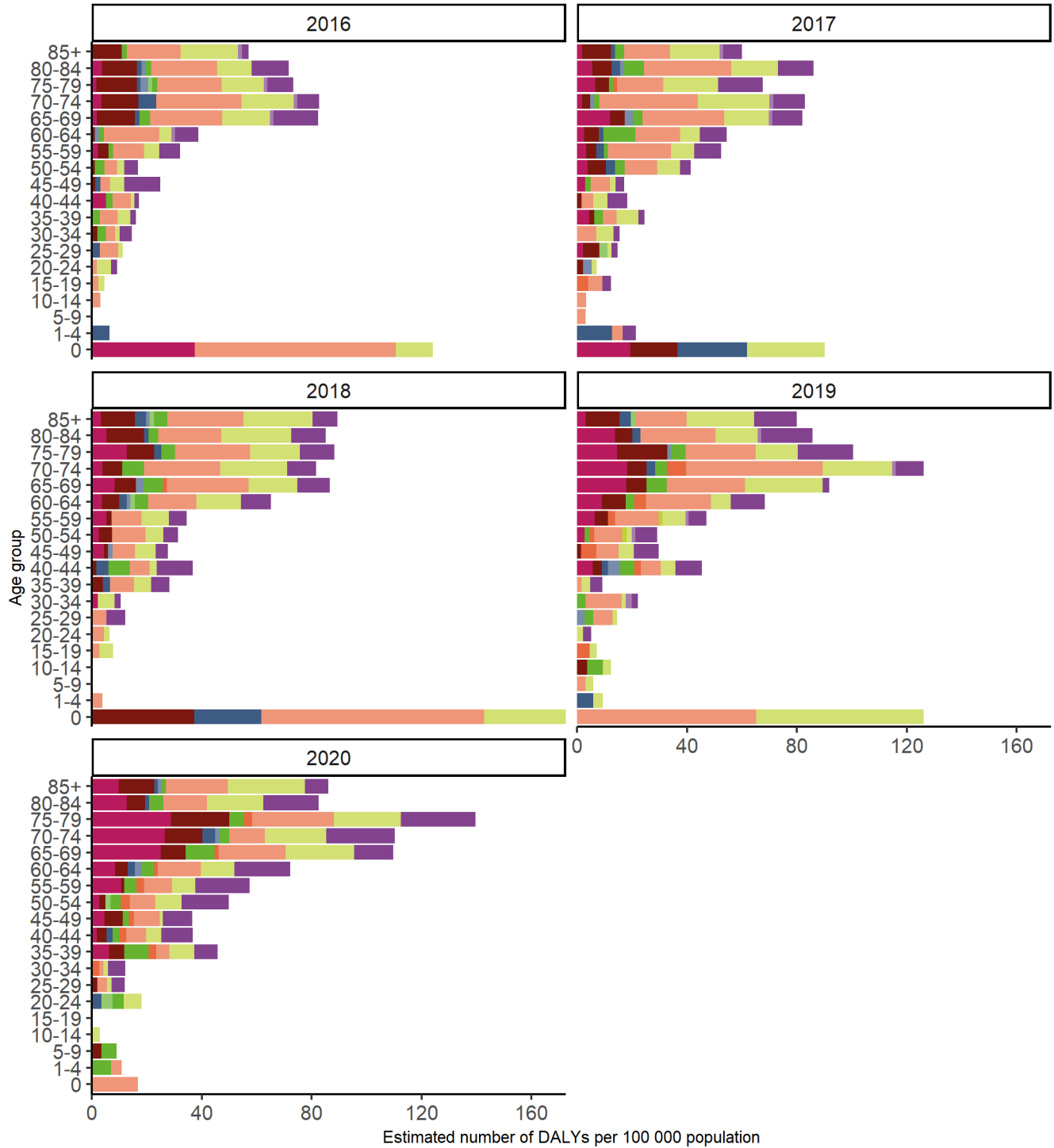
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Lithuania: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Lithuania: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

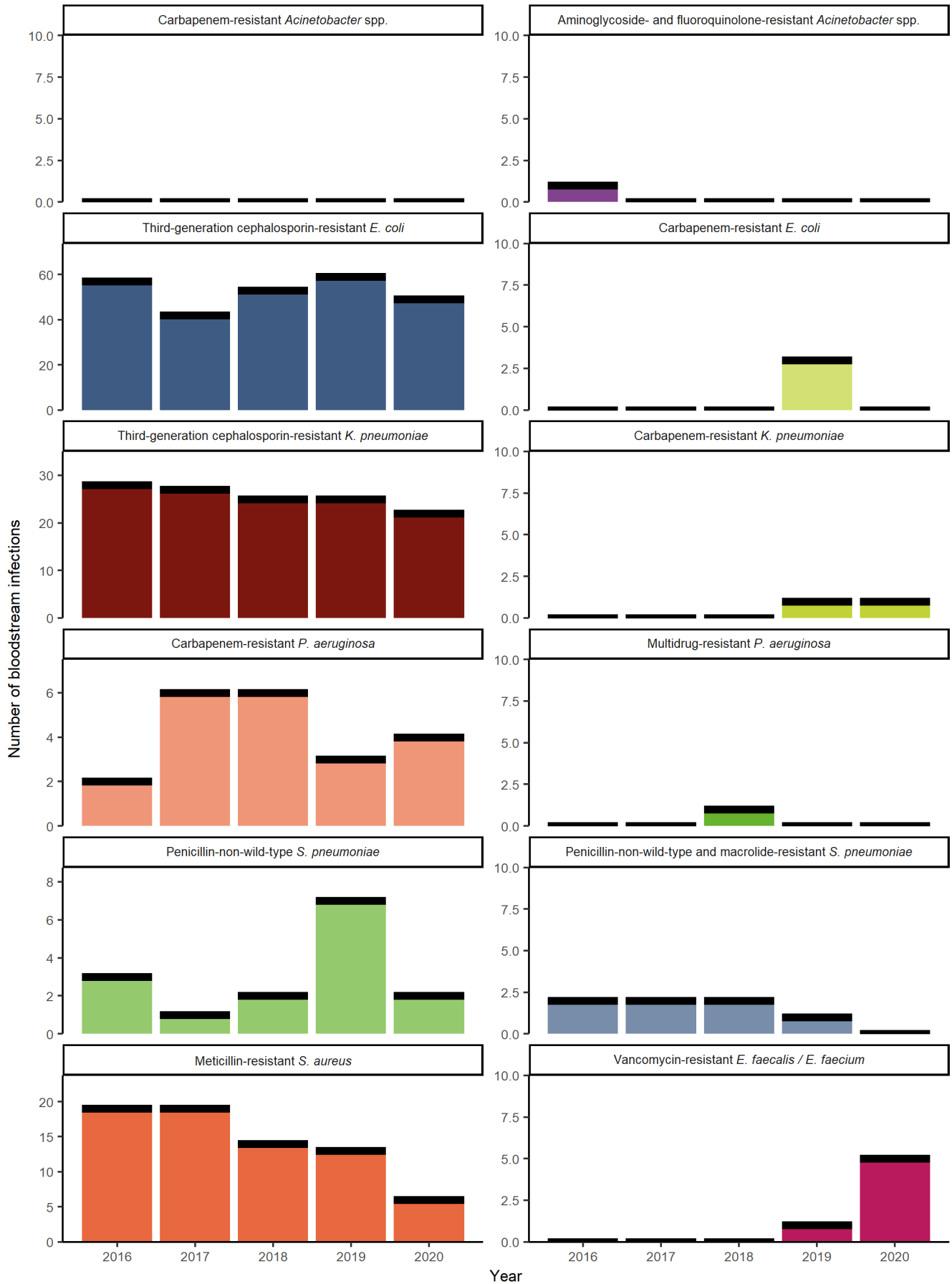
Estimates of the health burden of infections with antibiotic-resistant bacteria, Luxembourg, 2016-2020

Luxembourg: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	57	57	42	42	53	53	59	59	49	49
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	28	28	27	27	25	25	25	25	22	22
Meticillin-resistant <i>S. aureus</i>	19	19	19	19	14	14	13	13	6	6
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0	0	0	0	0	0	1	1	5	5
Carbapenem-resistant <i>P. aeruginosa</i>	2	2	6	6	6	6	3	3	4	4
Penicillin-non-wild-type <i>S. pneumoniae</i>	3	3	1	1	2	2	7	7	2	2
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	0	0	1	1	1	1
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	3	3	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1	1	0	0	0	0	0	0	0	0
Multidrug-resistant <i>P. aeruginosa</i>	0	0	0	0	1	1	0	0	0	0
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2	2	2	2	2	2	1	1	0	0
Overall	112	112	97	97	103	103	113	113	89	89

Luxembourg: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Luxembourg: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	299 (261 - 340)	220 (190 - 254)	278 (242 - 317)	309 (267 - 357)	259 (224 - 299)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	161 (138 - 187)	156 (136 - 177)	144 (125 - 166)	144 (126 - 164)	128 (110 - 148)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	12 (4 - 29)	66 (38 - 105)
Meticillin-resistant <i>S. aureus</i>	142 (120 - 168)	142 (117 - 170)	105 (84 - 129)	97 (81 - 116)	45 (33 - 60)
Carbapenem-resistant <i>P. aeruginosa</i>	18 (10 - 30)	56 (38 - 79)	56 (40 - 76)	27 (15 - 47)	37 (22 - 58)
Penicillin-non-wild-type <i>S. pneumoniae</i>	15 (13 - 19)	5 (4 - 7)	10 (8 - 13)	36 (32 - 42)	10 (9 - 13)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	4 (2 - 6)	4 (2 - 6)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	10 (8 - 13)	10 (8 - 15)	10 (8 - 13)	5 (4 - 7)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	16 (11 - 21)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	9 (4 - 18)	0 (0 - 0)	0 (0 - 0)
Overall	651 (553 - 767)	589 (493 - 702)	612 (511 - 732)	650 (542 - 789)	549 (438 - 689)

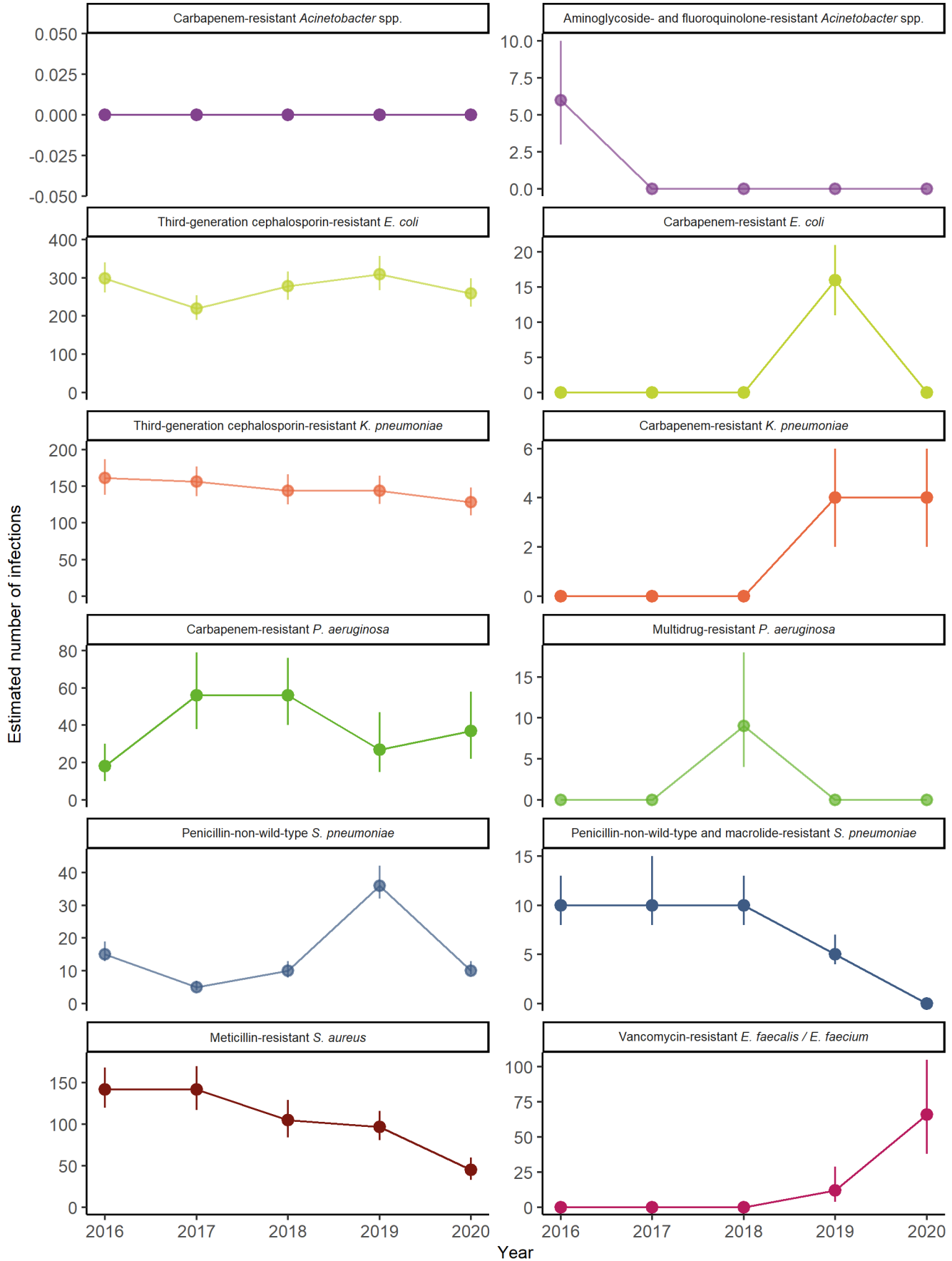
Luxembourg: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	13 (12 - 15)	10 (9 - 11)	12 (11 - 14)	14 (12 - 15)	11 (10 - 13)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)	6 (5 - 6)	5 (5 - 6)
Meticillin-resistant <i>S. aureus</i>	6 (5 - 6)	6 (5 - 6)	4 (4 - 5)	4 (3 - 4)	2 (2 - 2)
Carbapenem-resistant <i>P. aeruginosa</i>	1 (0 - 2)	3 (2 - 4)	3 (2 - 4)	1 (1 - 2)	2 (1 - 3)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	2 (2 - 3)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 (1 - 1)	0 (0 - 0)	1 (1 - 1)	2 (2 - 3)	1 (1 - 1)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 (1 - 1)	1 (0 - 1)	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 1)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)
Overall	28 (25 - 33)	26 (22 - 29)	27 (24 - 32)	28 (24 - 34)	23 (21 - 29)

Luxembourg: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

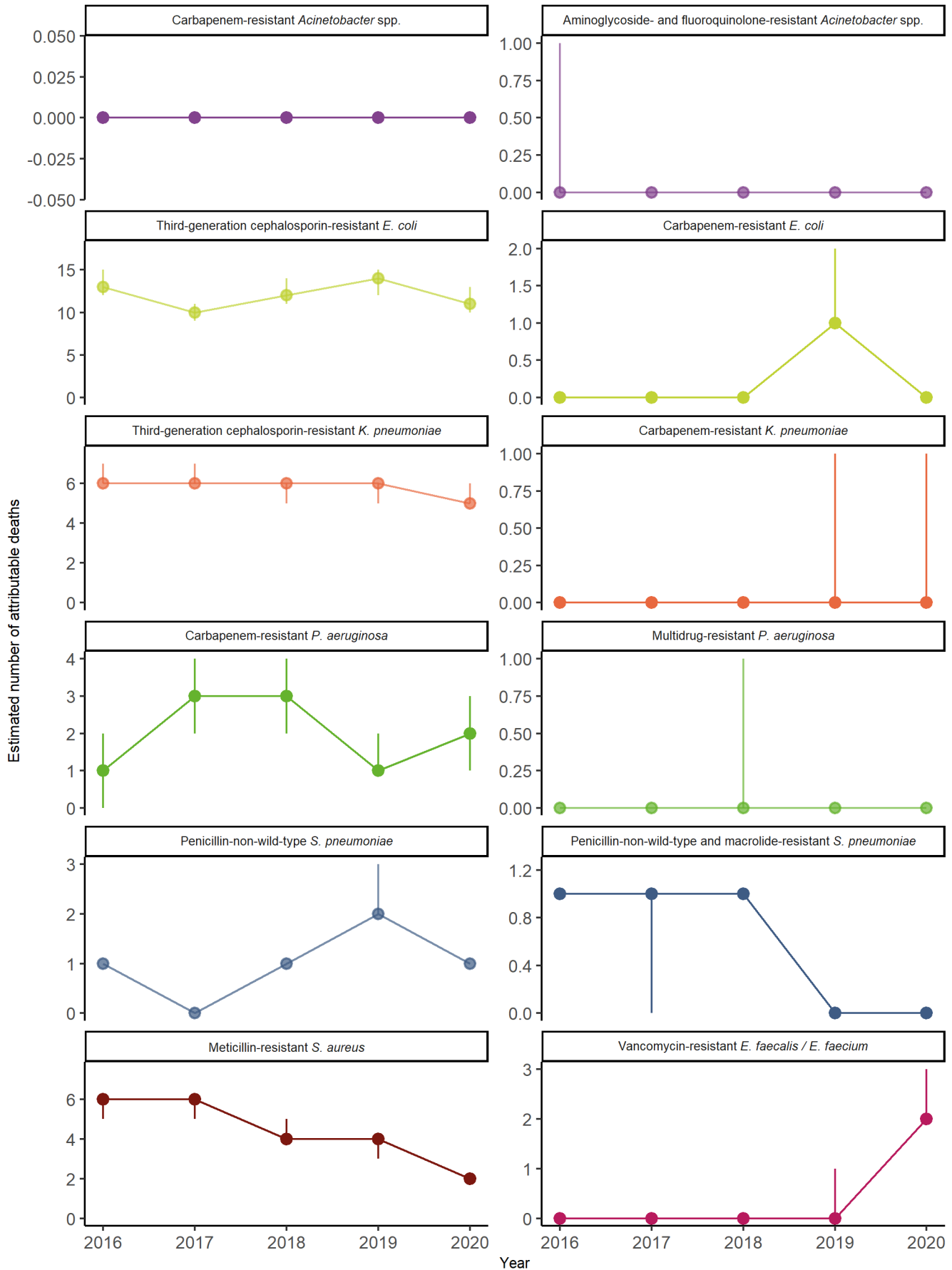
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	347 (313 - 382)	246 (216 - 277)	355 (320 - 393)	359 (324 - 394)	279 (250 - 310)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	210 (193 - 228)	218 (200 - 238)	145 (133 - 158)	170 (157 - 184)	140 (128 - 154)
Carbapenem-resistant <i>P. aeruginosa</i>	27 (13 - 47)	73 (47 - 105)	67 (44 - 96)	44 (21 - 78)	48 (26 - 80)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (6 - 15)	43 (35 - 54)
Meticillin-resistant <i>S. aureus</i>	182 (163 - 204)	161 (142 - 182)	91 (79 - 106)	103 (92 - 116)	41 (34 - 50)
Penicillin-non-wild-type <i>S. pneumoniae</i>	49 (41 - 62)	35 (28 - 48)	50 (41 - 63)	66 (58 - 75)	19 (16 - 24)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	13 (7 - 18)	13 (7 - 18)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	15 (13 - 19)	10 (8 - 14)	11 (10 - 15)	10 (8 - 14)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	39 (28 - 50)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	13 (5 - 26)	0 (0 - 0)	0 (0 - 0)
Overall	836 (739 - 952)	743 (641 - 864)	732 (632 - 857)	813 (701 - 944)	583 (496 - 690)

Luxembourg: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



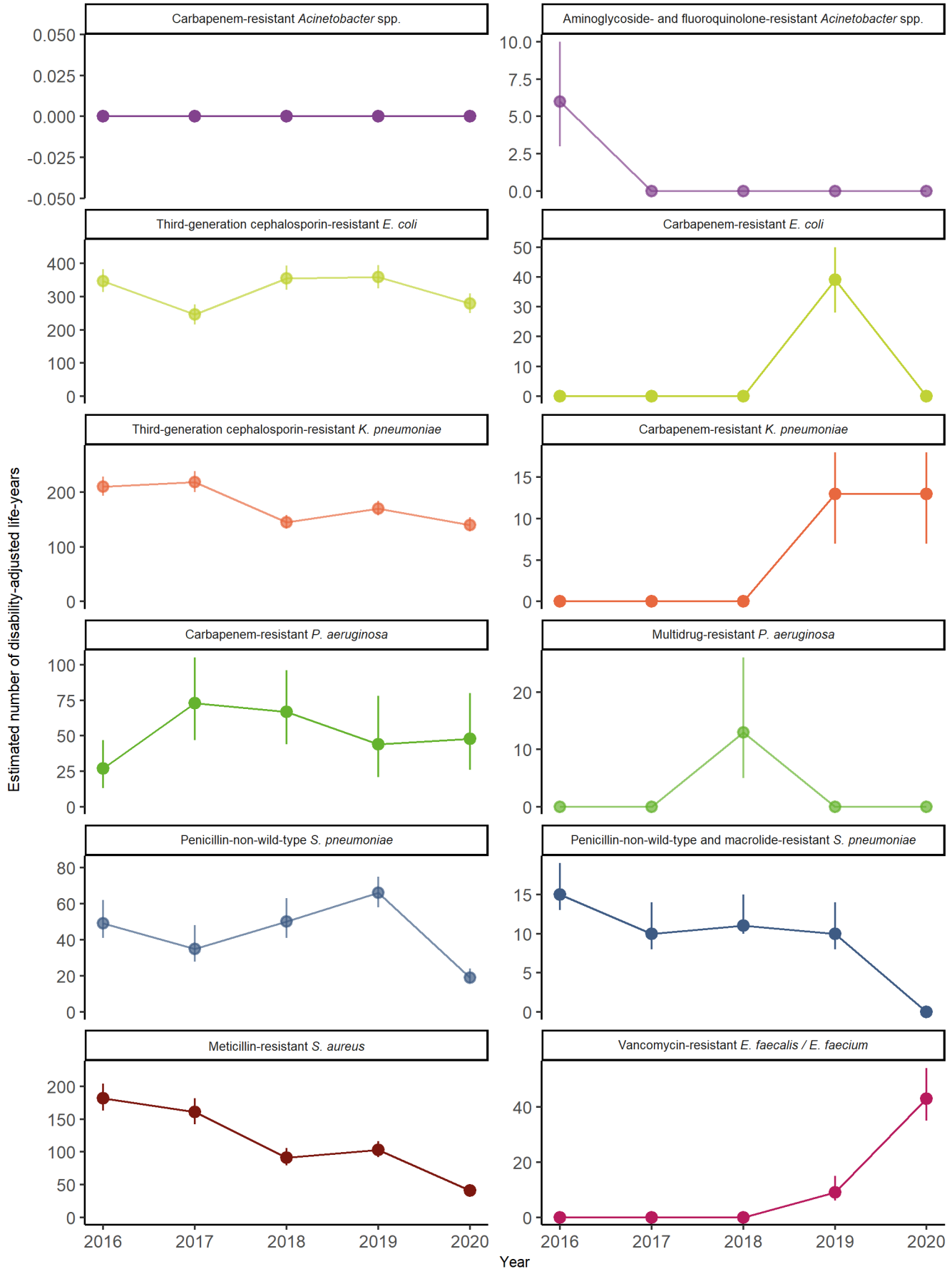
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Luxembourg: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



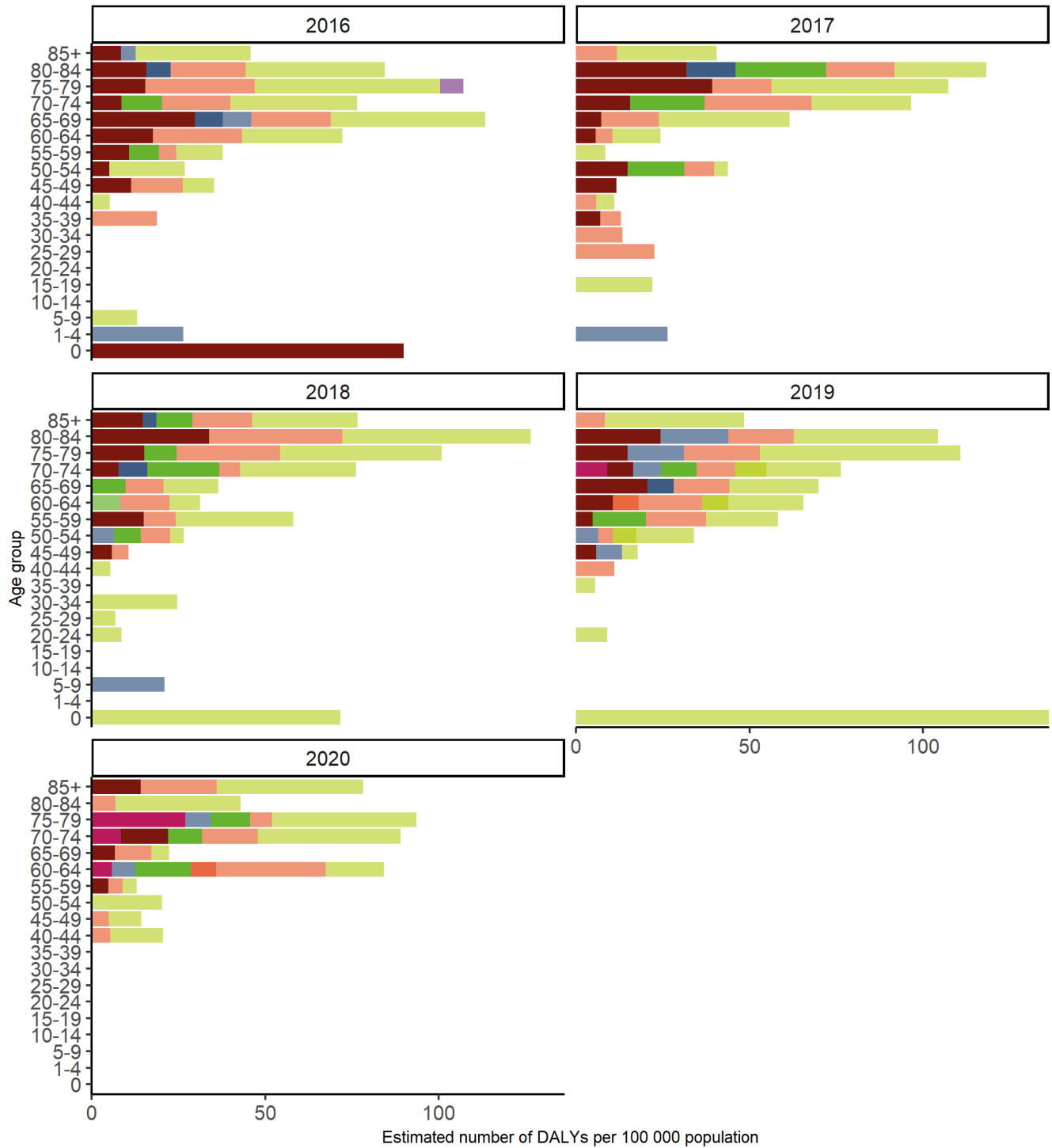
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Luxembourg: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Luxembourg: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

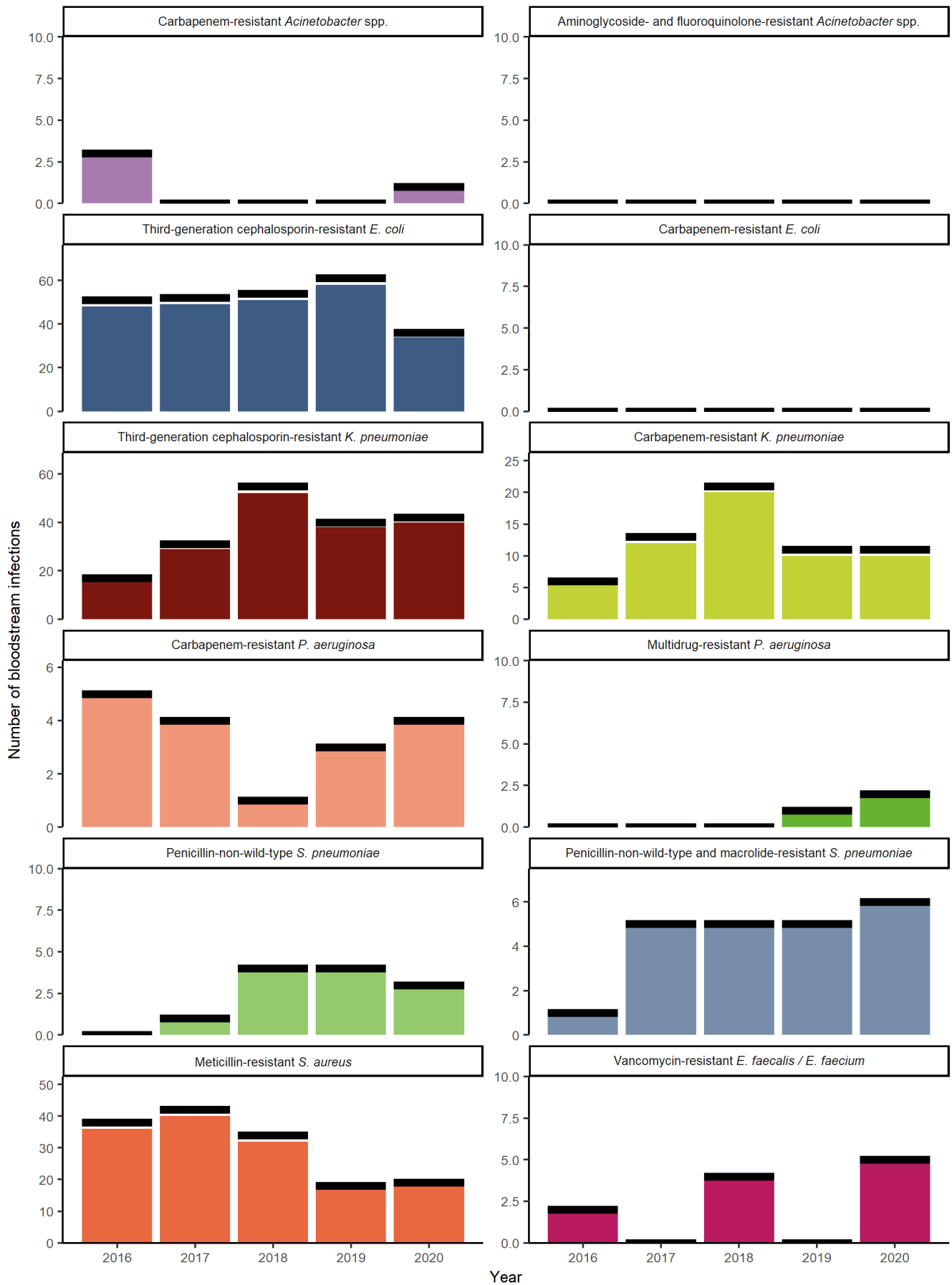
Estimates of the health burden of infections with antibiotic-resistant bacteria, Malta, 2016-2020

Malta: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	16	17	29	31	52	55	38	40	40	42
Third-generation cephalosporin-resistant <i>E. coli</i>	48	51	49	52	51	54	58	61	34	36
Meticillin-resistant <i>S. aureus</i>	36	38	40	42	32	34	17	18	18	19
Carbapenem-resistant <i>K. pneumoniae</i>	6	6	12	13	20	21	10	11	10	11
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1	1	5	5	5	5	5	5	6	6
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	2	2	0	0	4	4	0	0	5	5
Carbapenem-resistant <i>P. aeruginosa</i>	5	5	4	4	1	1	3	3	4	4
Penicillin-non-wild-type <i>S. pneumoniae</i>	0	0	1	1	4	4	4	4	3	3
Multidrug-resistant <i>P. aeruginosa</i>	0	0	0	0	0	0	1	1	2	2
Carbapenem-resistant <i>Acinetobacter</i> spp.	3	3	0	0	0	0	0	0	1	1
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	0	0	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Overall	117	123	140	148	169	178	136	143	123	129

Malta: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016–2020

The black line indicates the number of BSIs after correction for population coverage



Malta: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	97 (84 - 111)	176 (154 - 200)	316 (279 - 355)	231 (203 - 260)	242 (209 - 280)
Third-generation cephalosporin-resistant <i>E. coli</i>	265 (226 - 308)	270 (229 - 317)	281 (237 - 331)	320 (272 - 374)	188 (158 - 220)
Meticillin-resistant <i>S. aureus</i>	284 (241 - 333)	315 (267 - 370)	253 (213 - 297)	134 (112 - 159)	142 (118 - 169)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	27 (13 - 49)	0 (0 - 0)	56 (33 - 85)	0 (0 - 0)	70 (43 - 103)
Carbapenem-resistant <i>K. pneumoniae</i>	24 (18 - 30)	48 (40 - 57)	80 (67 - 94)	40 (33 - 48)	40 (33 - 47)
Carbapenem-resistant <i>P. aeruginosa</i>	49 (32 - 72)	39 (26 - 56)	9 (4 - 19)	29 (18 - 44)	39 (23 - 61)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	5 (4 - 8)	27 (23 - 33)	27 (24 - 32)	27 (24 - 32)	32 (28 - 39)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (4 - 19)	19 (11 - 32)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	5 (4 - 8)	22 (19 - 26)	22 (18 - 27)	16 (14 - 20)
Carbapenem-resistant <i>Acinetobacter</i> spp.	20 (14 - 26)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	6 (4 - 10)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	771 (632 - 937)	880 (743 - 1 041)	1 044 (876 - 1 239)	812 (684 - 963)	794 (641 - 981)

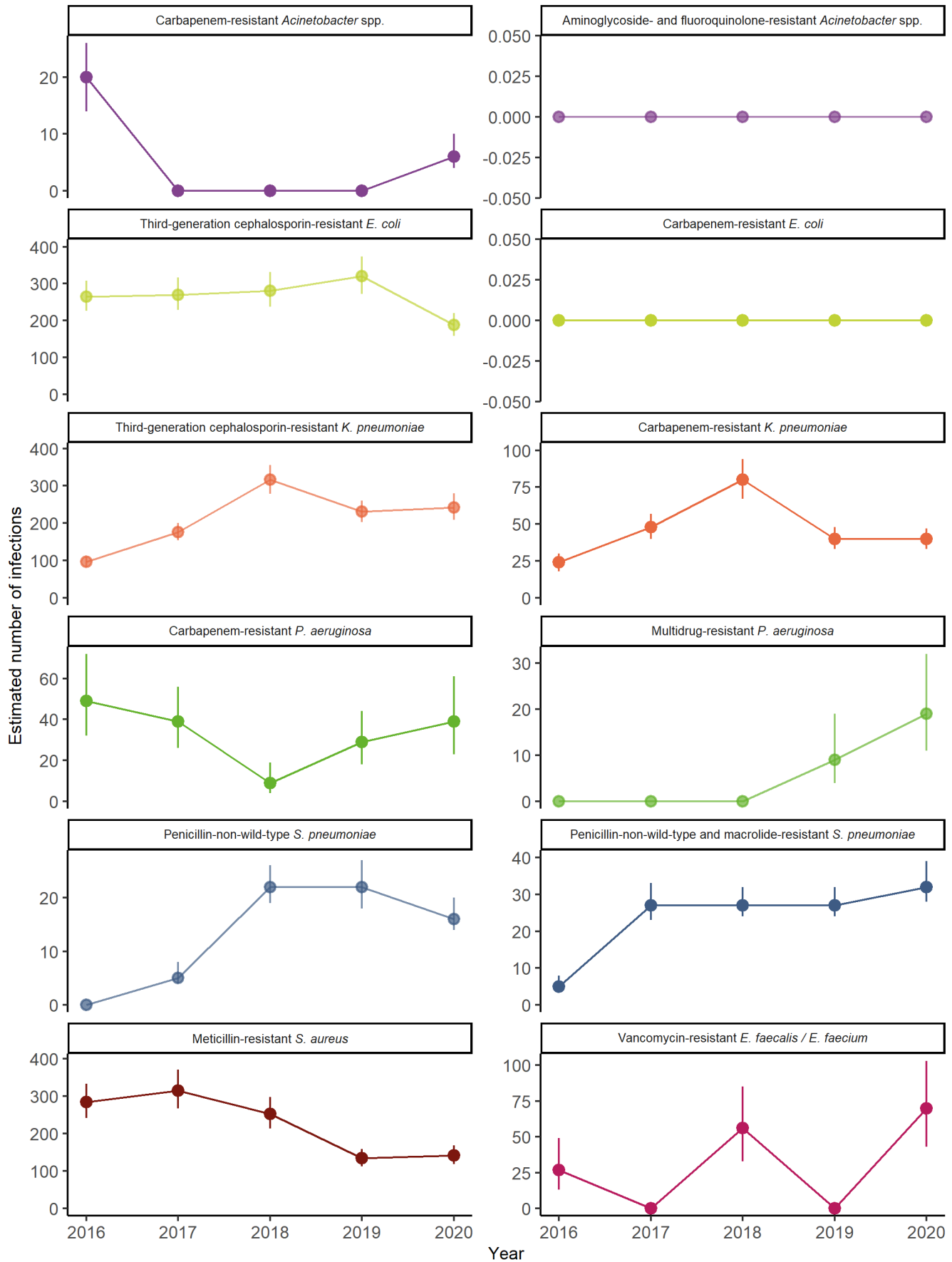
Malta: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	4 (4 - 4)	7 (7 - 8)	13 (12 - 14)	9 (9 - 10)	10 (9 - 11)
Third-generation cephalosporin-resistant <i>E. coli</i>	12 (10 - 14)	12 (10 - 14)	13 (11 - 15)	14 (12 - 16)	9 (7 - 10)
Meticillin-resistant <i>S. aureus</i>	12 (10 - 13)	13 (11 - 14)	10 (9 - 11)	5 (5 - 6)	6 (5 - 7)
Carbapenem-resistant <i>K. pneumoniae</i>	3 (2 - 3)	5 (4 - 6)	8 (7 - 10)	4 (3 - 5)	4 (3 - 5)
Carbapenem-resistant <i>P. aeruginosa</i>	2 (1 - 4)	2 (1 - 3)	0 (0 - 1)	1 (1 - 2)	2 (1 - 3)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	1 (1 - 1)	0 (0 - 0)	1 (1 - 2)	0 (0 - 0)	2 (2 - 2)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	2 (1 - 2)	2 (1 - 2)	2 (1 - 2)	2 (2 - 2)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	1 (0 - 2)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	1 (1 - 2)	1 (1 - 1)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 (1 - 1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	35 (29 - 40)	41 (34 - 47)	48 (42 - 57)	36 (32 - 44)	37 (30 - 44)

Malta: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

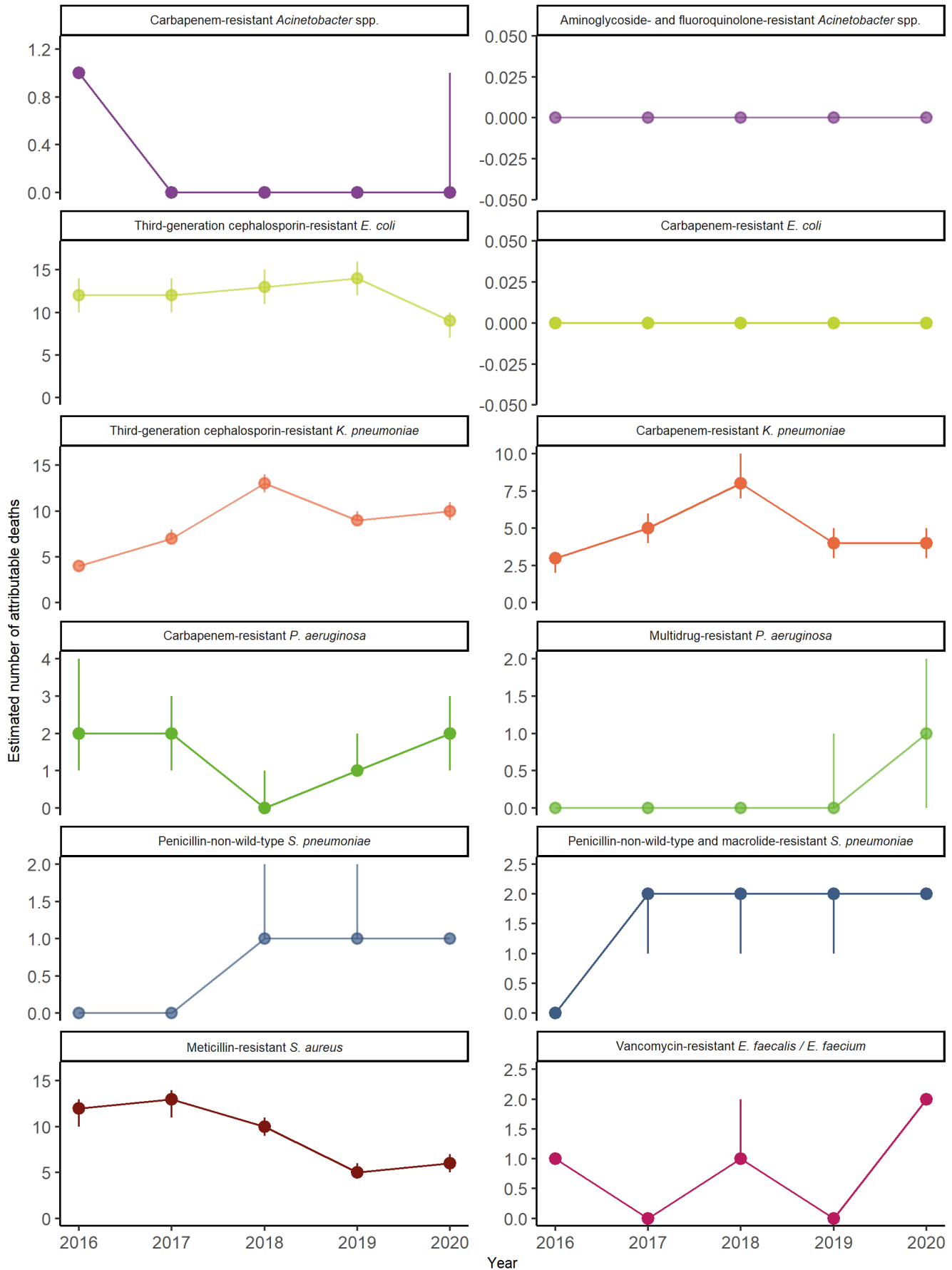
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	119 (108 - 130)	175 (162 - 190)	382 (356 - 410)	328 (305 - 353)	221 (204 - 240)
Third-generation cephalosporin-resistant <i>E. coli</i>	229 (203 - 256)	264 (235 - 294)	263 (231 - 298)	294 (264 - 326)	177 (155 - 201)
Meticillin-resistant <i>S. aureus</i>	310 (282 - 340)	331 (303 - 362)	308 (277 - 342)	161 (144 - 179)	163 (145 - 183)
Carbapenem-resistant <i>K. pneumoniae</i>	100 (75 - 125)	114 (92 - 137)	231 (193 - 270)	80 (66 - 95)	122 (100 - 145)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	9 (7 - 12)	33 (29 - 39)	68 (59 - 81)	58 (51 - 68)	73 (63 - 89)
Carbapenem-resistant <i>P. aeruginosa</i>	66 (38 - 105)	84 (51 - 127)	11 (4 - 22)	90 (51 - 144)	67 (37 - 106)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	23 (19 - 31)	0 (0 - 0)	58 (49 - 70)	0 (0 - 0)	46 (39 - 56)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 0)	3 (3 - 4)	78 (67 - 94)	86 (73 - 105)	39 (33 - 48)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	6 (2 - 13)	17 (9 - 29)
Carbapenem-resistant <i>Acinetobacter</i> spp.	39 (24 - 56)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	8 (4 - 13)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	895 (756 - 1 055)	1 004 (875 - 1 153)	1 399 (1 236 - 1 587)	1 103 (956 - 1 283)	933 (789 - 1 110)

Malta: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



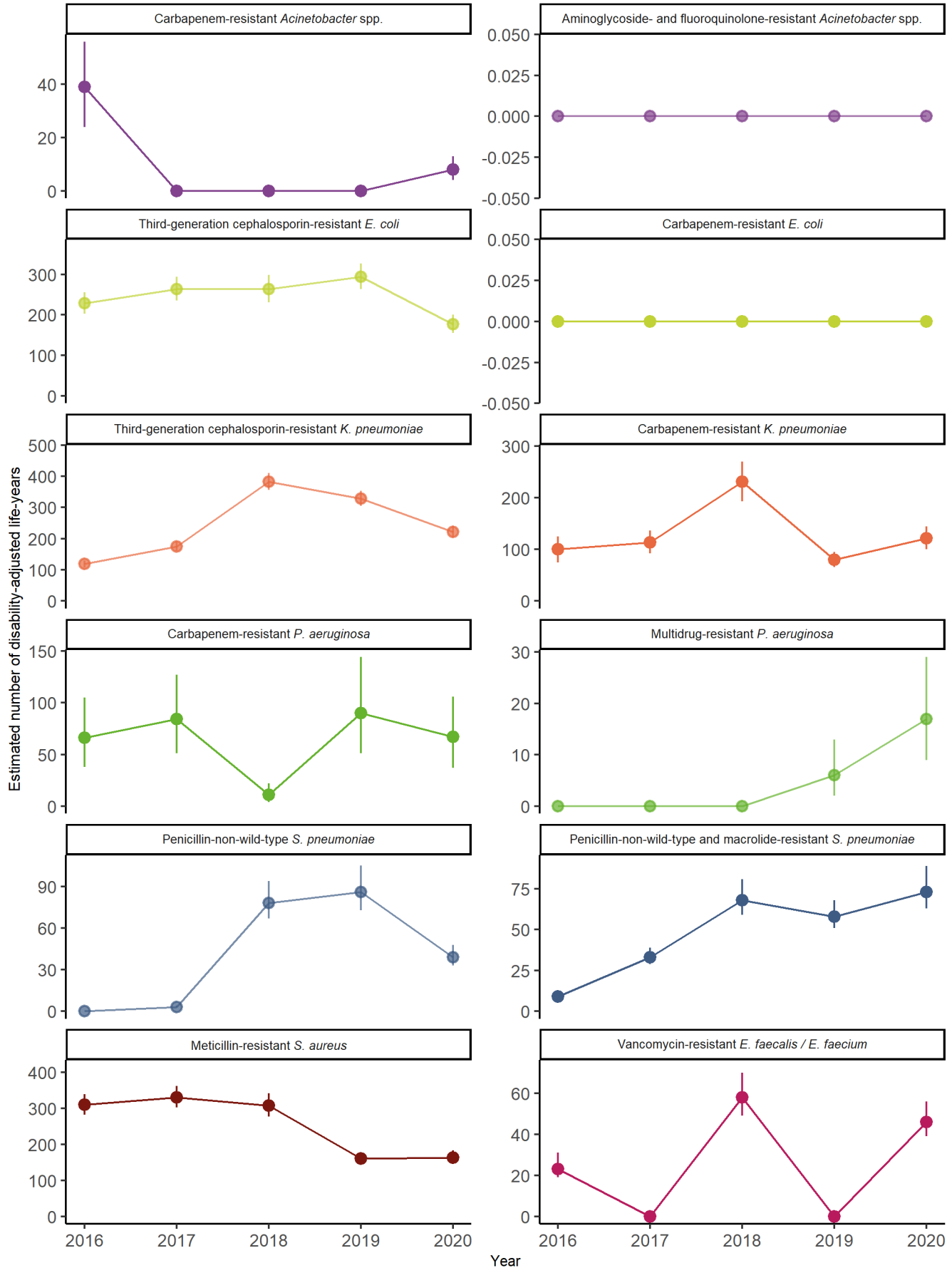
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Malta: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



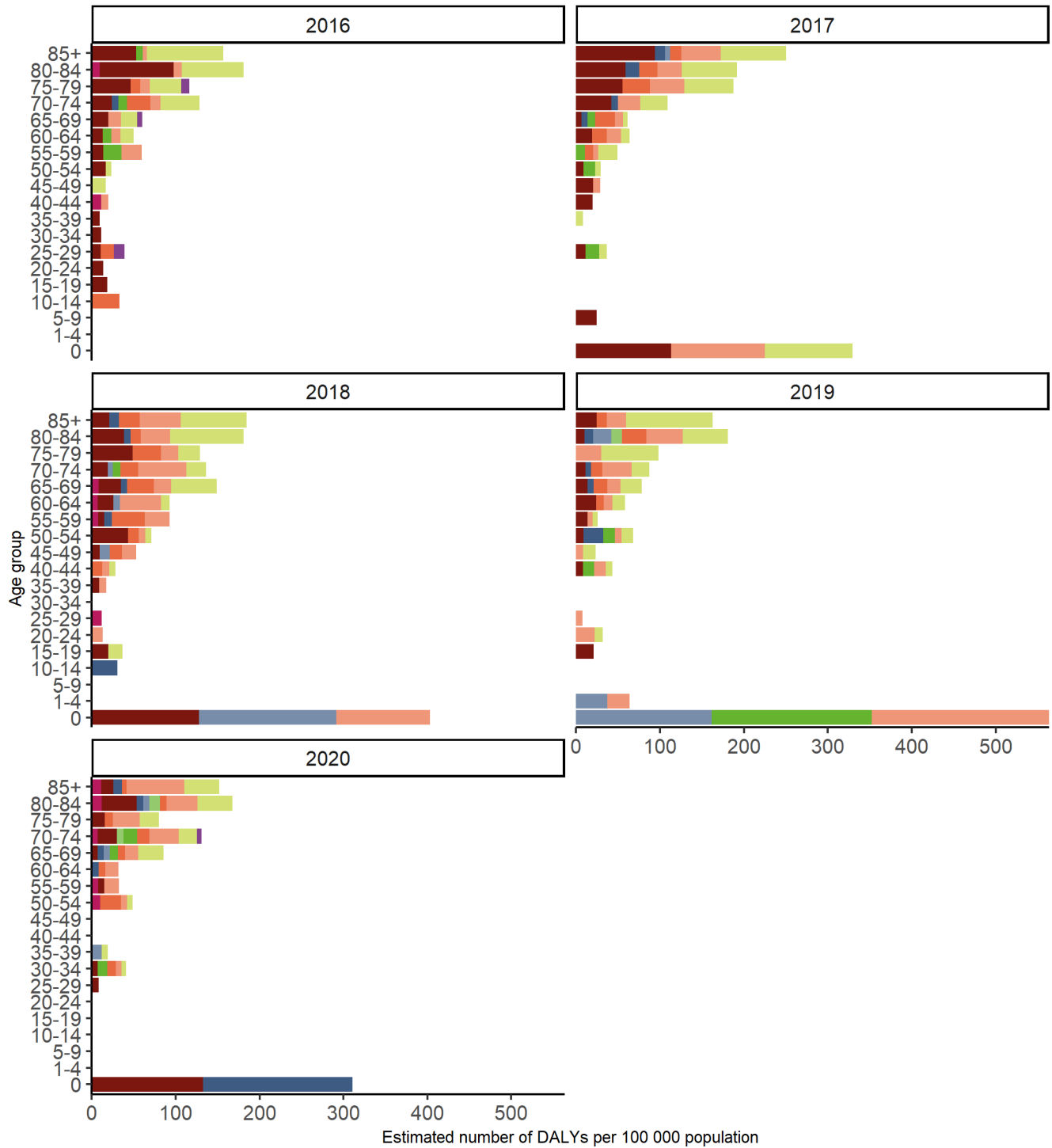
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Malta: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Malta: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

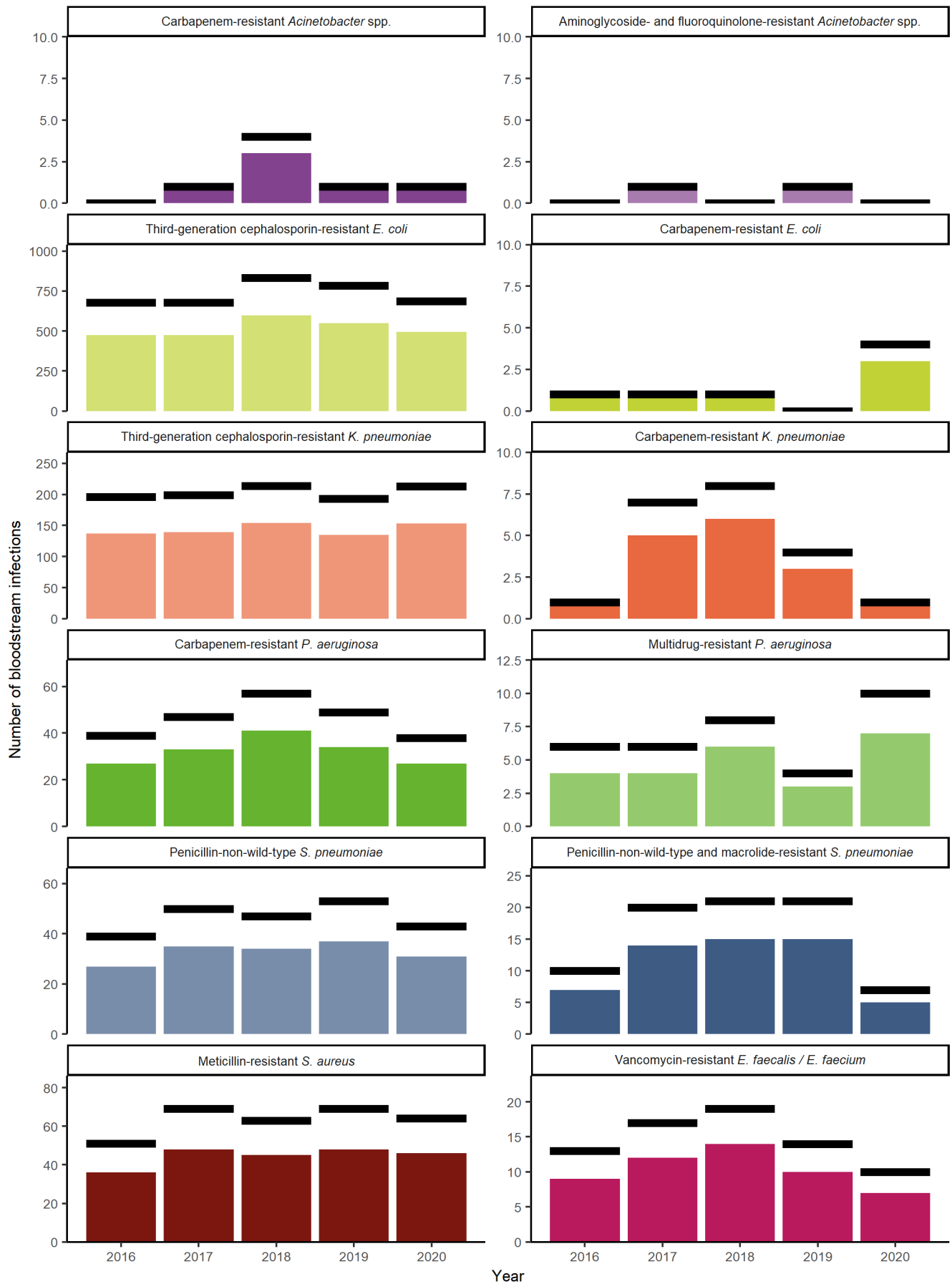
Estimates of the health burden of infections with antibiotic-resistant bacteria, Netherlands, 2016-2020

Netherlands: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	474	677	474	677	599	832	548	783	495	688
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	137	196	139	199	154	214	135	193	153	213
Meticillin-resistant <i>S. aureus</i>	36	51	48	69	45	63	48	69	46	64
Penicillin-non-wild-type <i>S. pneumoniae</i>	27	39	35	50	34	47	37	53	31	43
Carbapenem-resistant <i>P. aeruginosa</i>	27	39	33	47	41	57	34	49	27	38
Multidrug-resistant <i>P. aeruginosa</i>	4	6	4	6	6	8	3	4	7	10
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	9	13	12	17	14	19	10	14	7	10
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	7	10	14	20	15	21	15	21	5	7
Carbapenem-resistant <i>E. coli</i>	1	1	1	1	1	1	0	0	3	4
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	1	1	3	4	1	1	1	1
Carbapenem-resistant <i>K. pneumoniae</i>	1	1	5	7	6	8	3	4	1	1
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0	0	1	1	0	0	1	1	0	0
Overall	723	1 033	767	1 095	918	1 274	835	1 192	776	1 079

Netherlands: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Netherlands: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	3 551 (3 114 - 4 025)	3 555 (3 097 - 4 053)	4 363 (3 828 - 4 953)	4 109 (3 592 - 4 667)	3 606 (3 163 - 4 089)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 128 (1 008 - 1 257)	1 144 (1 022 - 1 276)	1 233 (1 098 - 1 379)	1 113 (998 - 1 233)	1 226 (1 090 - 1 373)
Meticillin-resistant <i>S. aureus</i>	386 (333 - 444)	515 (442 - 595)	469 (405 - 538)	515 (447 - 590)	479 (410 - 556)
Carbapenem-resistant <i>P. aeruginosa</i>	362 (285 - 453)	443 (361 - 536)	535 (430 - 656)	455 (350 - 581)	352 (281 - 435)
Penicillin-non-wild-type <i>S. pneumoniae</i>	199 (181 - 222)	258 (236 - 286)	244 (225 - 266)	272 (250 - 301)	222 (203 - 246)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	170 (108 - 255)	226 (150 - 333)	258 (179 - 365)	190 (130 - 265)	129 (83 - 188)
Multidrug-resistant <i>P. aeruginosa</i>	53 (35 - 76)	53 (35 - 76)	78 (55 - 105)	40 (24 - 60)	91 (64 - 125)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	52 (46 - 59)	103 (92 - 118)	108 (97 - 121)	110 (100 - 124)	36 (31 - 42)
Carbapenem-resistant <i>E. coli</i>	7 (4 - 12)	7 (4 - 12)	7 (4 - 11)	0 (0 - 0)	22 (16 - 29)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	9 (5 - 14)	26 (19 - 34)	9 (5 - 14)	9 (5 - 14)
Carbapenem-resistant <i>K. pneumoniae</i>	5 (3 - 8)	27 (21 - 34)	31 (24 - 41)	16 (12 - 21)	5 (3 - 8)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	9 (5 - 14)	0 (0 - 0)	9 (5 - 14)	0 (0 - 0)
Overall	5 913 (5 117 - 6 811)	6 349 (5 470 - 7 347)	7 352 (6 364 - 8 469)	6 838 (5 913 - 7 870)	6 177 (5 349 - 7 105)

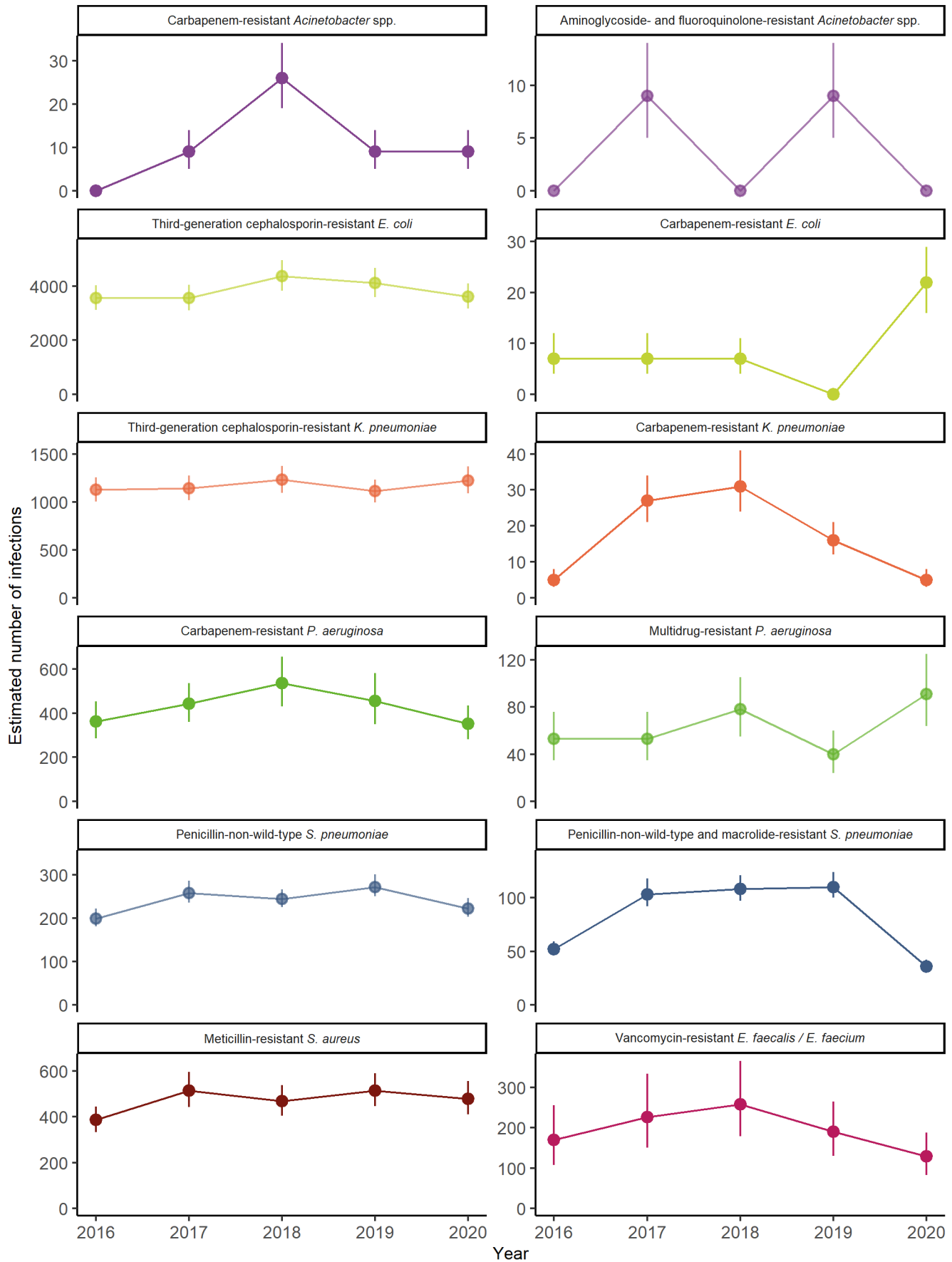
Netherlands: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	157 (140 - 175)	158 (140 - 177)	192 (171 - 214)	182 (161 - 204)	159 (142 - 177)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	45 (42 - 49)	46 (43 - 50)	50 (46 - 53)	45 (42 - 48)	49 (46 - 53)
Meticillin-resistant <i>S. aureus</i>	15 (13 - 16)	20 (18 - 22)	18 (17 - 20)	20 (18 - 22)	18 (17 - 20)
Carbapenem-resistant <i>P. aeruginosa</i>	17 (13 - 22)	21 (16 - 26)	25 (19 - 32)	22 (16 - 29)	17 (13 - 21)
Penicillin-non-wild-type <i>S. pneumoniae</i>	12 (11 - 13)	16 (15 - 17)	15 (14 - 16)	17 (16 - 18)	14 (13 - 15)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	4 (4 - 5)	7 (6 - 8)	7 (6 - 7)	5 (4 - 6)	4 (3 - 5)
Multidrug-resistant <i>P. aeruginosa</i>	2 (1 - 4)	2 (1 - 4)	3 (2 - 5)	2 (1 - 3)	4 (3 - 6)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 (3 - 4)	6 (6 - 7)	7 (6 - 7)	7 (6 - 7)	2 (2 - 3)
Carbapenem-resistant <i>E. coli</i>	1 (0 - 1)	1 (0 - 1)	1 (0 - 1)	0 (0 - 0)	2 (1 - 2)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (0 - 1)	3 (2 - 4)	3 (2 - 4)	2 (1 - 2)	1 (0 - 1)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 1)	1 (1 - 2)	0 (0 - 1)	0 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)
Overall	257 (227 - 290)	280 (247 - 318)	322 (284 - 361)	302 (265 - 341)	270 (240 - 304)

Netherlands: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

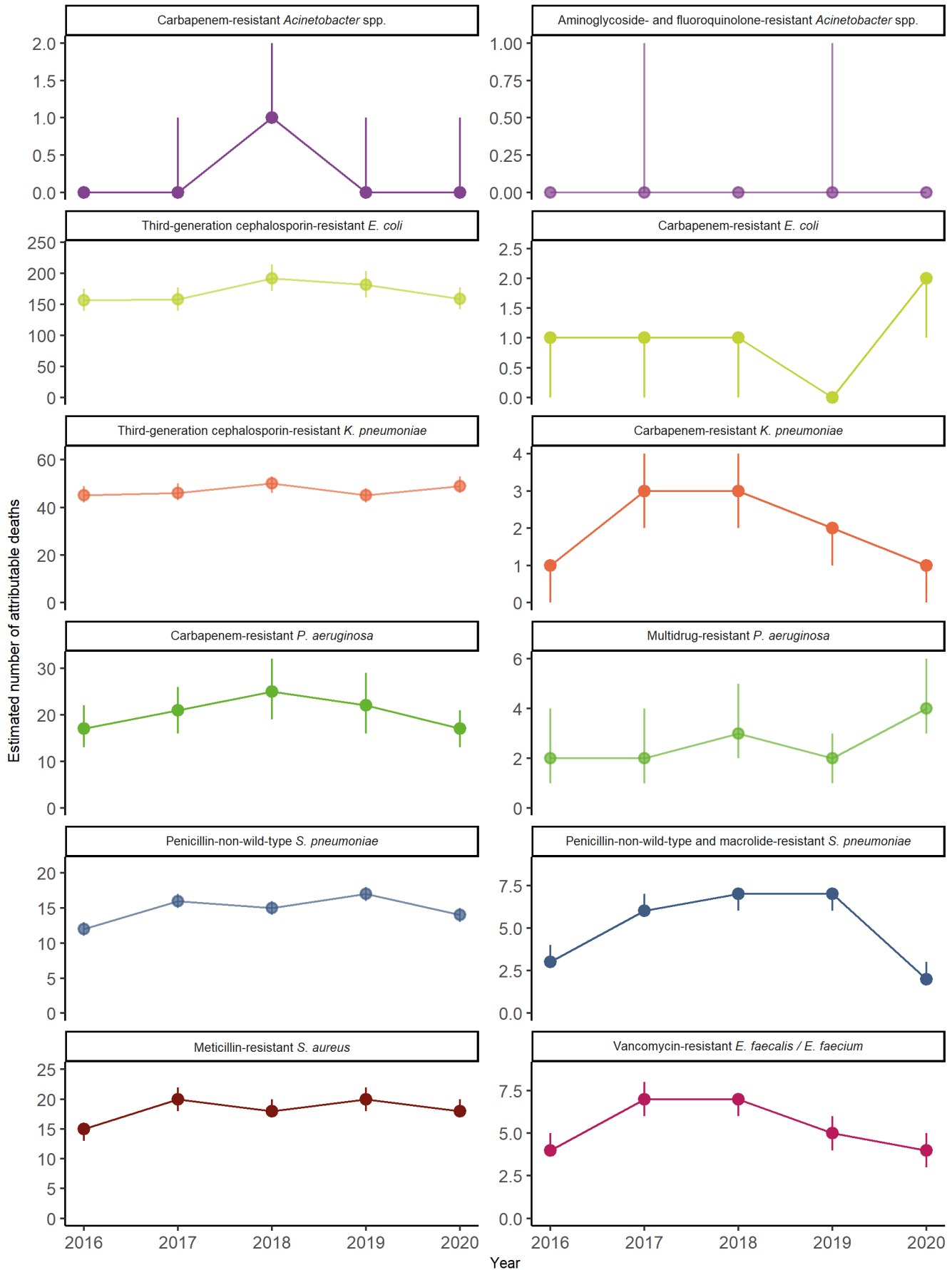
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	4 190 (3 814 - 4 581)	3 980 (3 601 - 4 382)	5 306 (4 823 - 5 813)	4 905 (4 453 - 5 371)	4 243 (3 856 - 4 649)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	1 402 (1 319 - 1 491)	1 413 (1 323 - 1 507)	1 581 (1 482 - 1 686)	1 444 (1 366 - 1 525)	1 622 (1 520 - 1 731)
Meticillin-resistant <i>S. aureus</i>	588 (541 - 639)	695 (632 - 763)	633 (579 - 692)	688 (635 - 745)	694 (634 - 761)
Carbapenem-resistant <i>P. aeruginosa</i>	641 (497 - 809)	733 (584 - 905)	916 (711 - 1 149)	582 (432 - 770)	610 (471 - 767)
Penicillin-non-wild-type <i>S. pneumoniae</i>	515 (472 - 568)	597 (550 - 654)	600 (557 - 652)	749 (697 - 812)	519 (479 - 566)
Multidrug-resistant <i>P. aeruginosa</i>	66 (40 - 99)	66 (39 - 101)	149 (100 - 209)	60 (33 - 97)	135 (91 - 191)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	93 (83 - 106)	163 (148 - 183)	189 (171 - 211)	291 (264 - 324)	87 (75 - 103)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	175 (151 - 207)	214 (183 - 254)	242 (217 - 274)	200 (177 - 227)	86 (74 - 103)
Carbapenem-resistant <i>E. coli</i>	18 (11 - 26)	30 (18 - 42)	20 (12 - 29)	0 (0 - 0)	46 (33 - 59)
Carbapenem-resistant <i>K. pneumoniae</i>	16 (9 - 23)	73 (56 - 90)	79 (58 - 99)	26 (18 - 33)	26 (15 - 37)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	31 (14 - 50)	35 (22 - 49)	9 (4 - 14)	6 (3 - 10)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	9 (4 - 14)	0 (0 - 0)	14 (7 - 23)	0 (0 - 0)
Overall	7 704 (6 937 - 8 549)	8 004 (7 152 - 8 945)	9 750 (8 732 - 10 863)	8 968 (8 086 - 9 941)	8 074 (7 251 - 8 977)

Netherlands: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



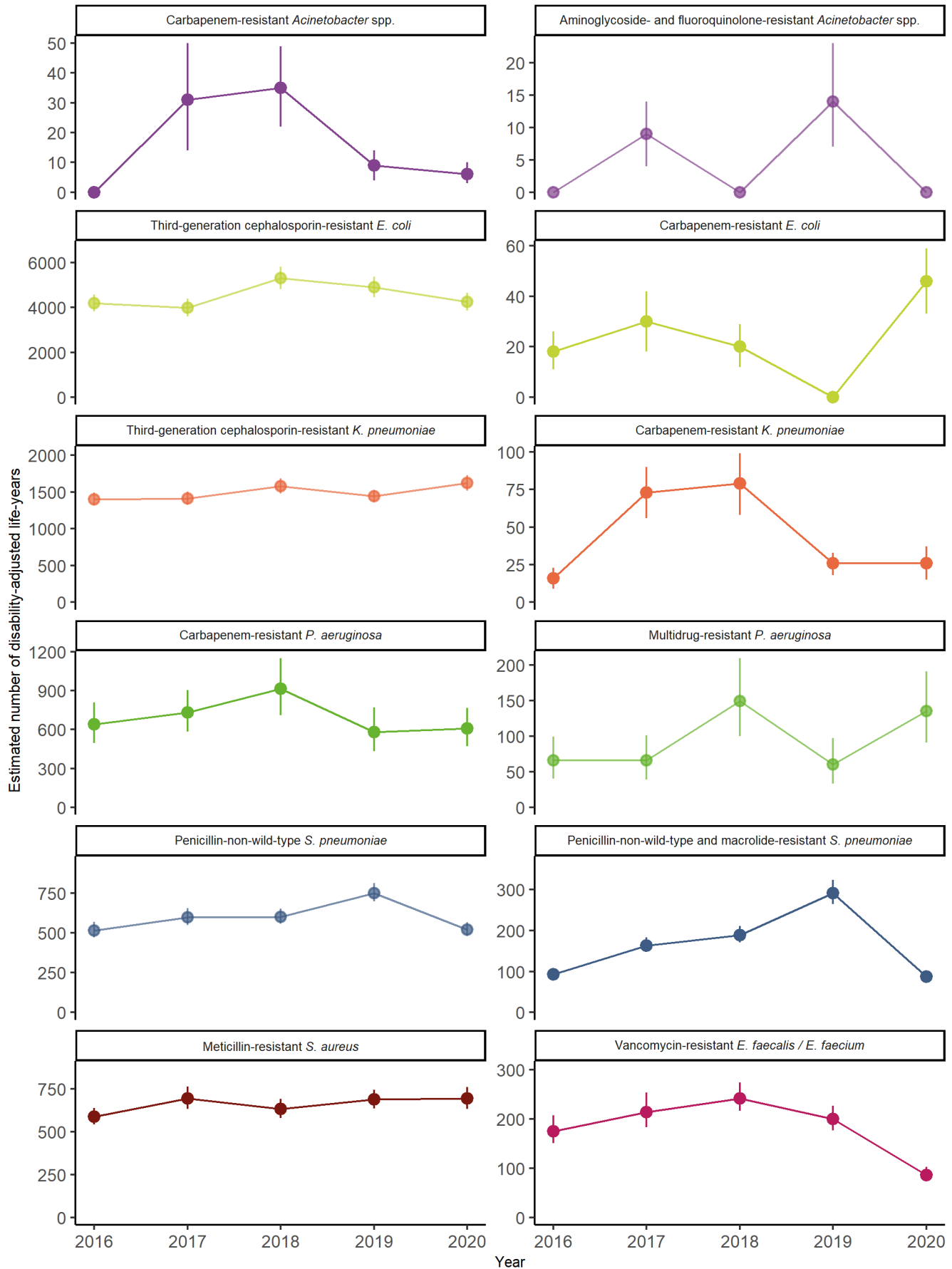
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Netherlands: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



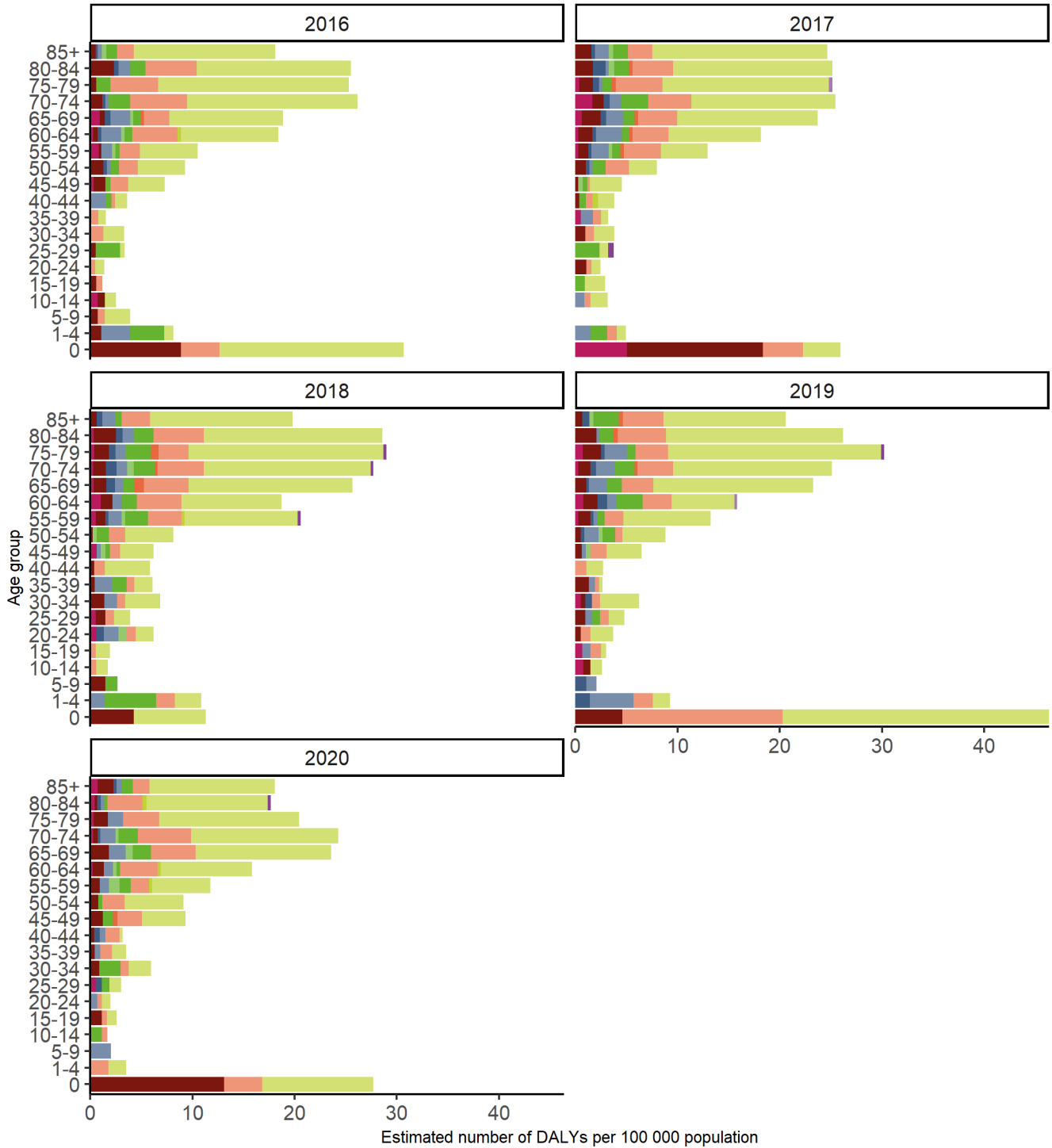
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Netherlands: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Netherlands: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

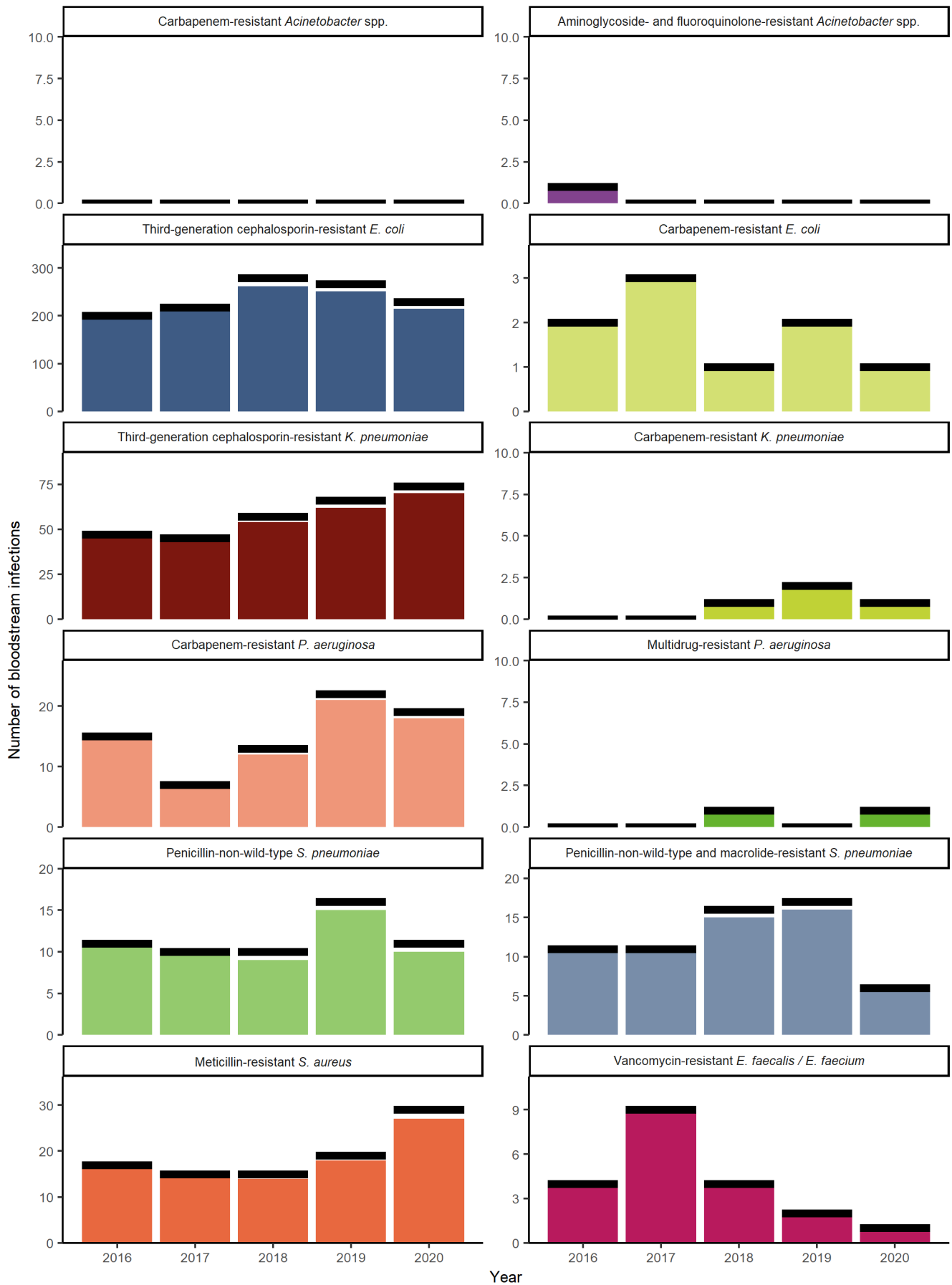
Estimates of the health burden of infections with antibiotic-resistant bacteria, Norway, 2016-2020

Norway: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	200	200	218	218	262	279	251	267	215	229
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	47	47	45	45	54	57	62	66	70	74
Meticillin-resistant <i>S. aureus</i>	17	17	15	15	14	15	18	19	27	29
Carbapenem-resistant <i>P. aeruginosa</i>	15	15	7	7	12	13	21	22	18	19
Penicillin-non-wild-type <i>S. pneumoniae</i>	11	11	10	10	9	10	15	16	10	11
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	11	11	11	11	15	16	16	17	6	6
Carbapenem-resistant <i>E. coli</i>	2	2	3	3	1	1	2	2	1	1
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	1	1	2	2	1	1
Multidrug-resistant <i>P. aeruginosa</i>	0	0	0	0	1	1	0	0	1	1
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	4	4	9	9	4	4	2	2	1	1
Carbapenem-resistant <i>Acinetobacter</i> spp.	0	0	0	0	0	0	0	0	0	0
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1	1	0	0	0	0	0	0	0	0
Overall	308	308	318	318	373	397	389	413	350	372

Norway: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Norway: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 049 (927 - 1 182)	1 144 (1 010 - 1 288)	1 463 (1 280 - 1 659)	1 401 (1 218 - 1 605)	1 198 (1 042 - 1 376)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	271 (237 - 308)	259 (228 - 294)	331 (289 - 378)	380 (328 - 438)	429 (371 - 493)
Meticillin-resistant <i>S. aureus</i>	127 (105 - 152)	113 (96 - 131)	112 (94 - 131)	143 (118 - 173)	215 (182 - 254)
Carbapenem-resistant <i>P. aeruginosa</i>	141 (107 - 180)	65 (43 - 95)	119 (84 - 163)	209 (162 - 265)	179 (132 - 239)
Penicillin-non-wild-type <i>S. pneumoniae</i>	56 (50 - 67)	52 (46 - 58)	49 (44 - 57)	82 (74 - 93)	55 (49 - 62)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	56 (49 - 69)	57 (50 - 66)	82 (74 - 92)	88 (77 - 102)	33 (29 - 38)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	53 (31 - 81)	120 (79 - 170)	55 (29 - 94)	26 (9 - 61)	13 (5 - 30)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	9 (4 - 19)	0 (0 - 0)	9 (4 - 19)
Carbapenem-resistant <i>E. coli</i>	10 (7 - 14)	16 (11 - 21)	5 (3 - 9)	11 (8 - 15)	5 (3 - 9)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	4 (2 - 6)	8 (5 - 11)	4 (3 - 6)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	6 (3 - 10)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	1 769 (1 516 - 2 063)	1 826 (1 563 - 2 123)	2 229 (1 903 - 2 608)	2 348 (1 999 - 2 763)	2 140 (1 820 - 2 526)

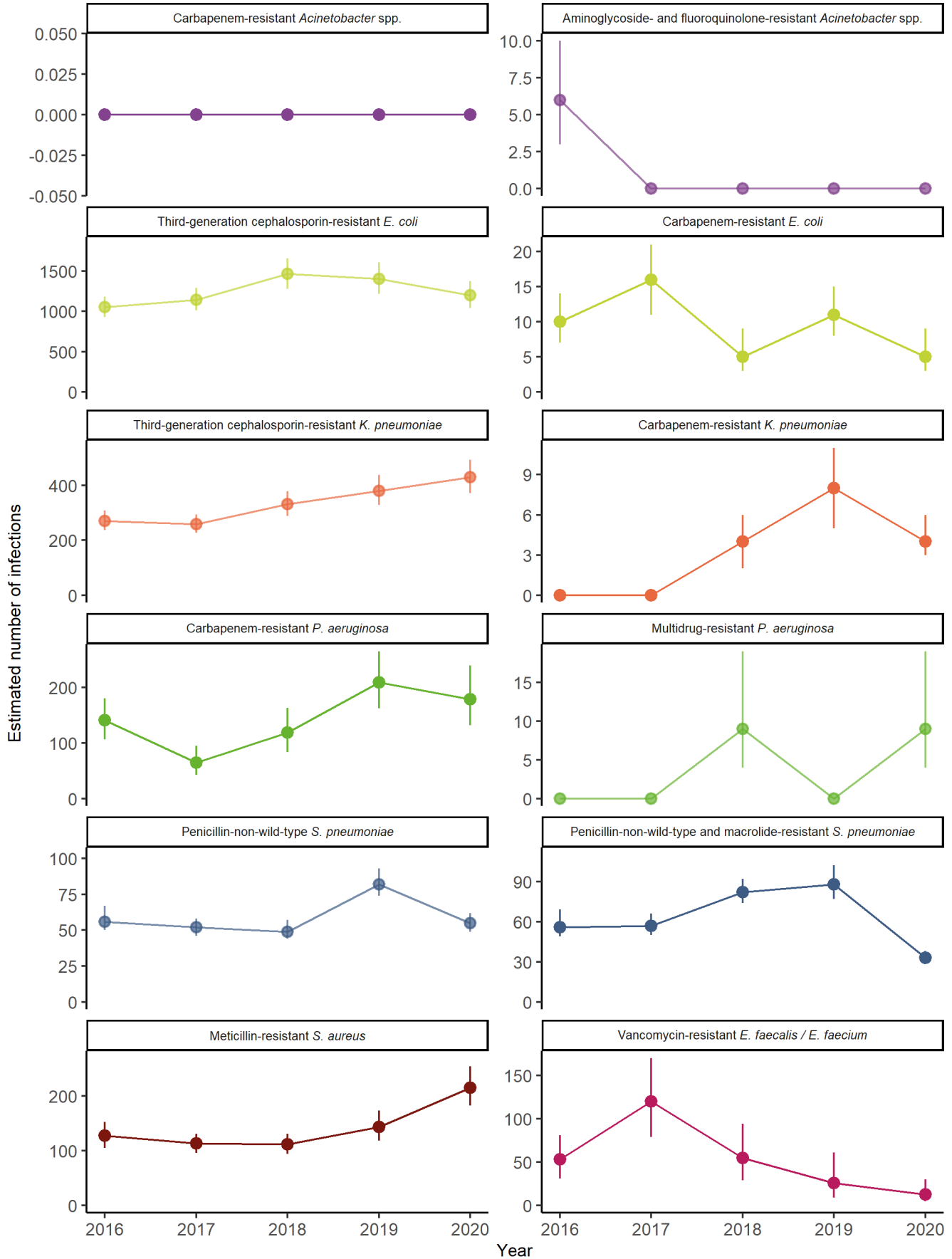
Norway: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	46 (41 - 51)	50 (45 - 55)	65 (58 - 72)	62 (54 - 69)	53 (47 - 60)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	11 (10 - 12)	11 (10 - 12)	14 (12 - 15)	16 (14 - 17)	17 (16 - 19)
Carbapenem-resistant <i>P. aeruginosa</i>	7 (5 - 9)	3 (2 - 5)	6 (4 - 8)	10 (7 - 13)	9 (6 - 12)
Meticillin-resistant <i>S. aureus</i>	5 (4 - 6)	4 (4 - 5)	4 (4 - 5)	5 (5 - 6)	9 (8 - 10)
Penicillin-non-wild-type <i>S. pneumoniae</i>	3 (3 - 4)	3 (3 - 4)	3 (3 - 3)	5 (5 - 6)	3 (3 - 4)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 (3 - 4)	3 (3 - 4)	5 (5 - 6)	5 (5 - 6)	2 (2 - 2)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	1 (1 - 2)	3 (3 - 4)	2 (1 - 2)	1 (1 - 1)	0 (0 - 1)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	0 (0 - 1)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>E. coli</i>	1 (1 - 1)	1 (1 - 2)	0 (0 - 1)	1 (1 - 1)	0 (0 - 1)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	1 (1 - 1)	0 (0 - 1)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	0 (0 - 1)
Overall	77 (68 - 90)	78 (71 - 91)	99 (87 - 114)	106 (93 - 120)	93 (82 - 111)

Norway: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

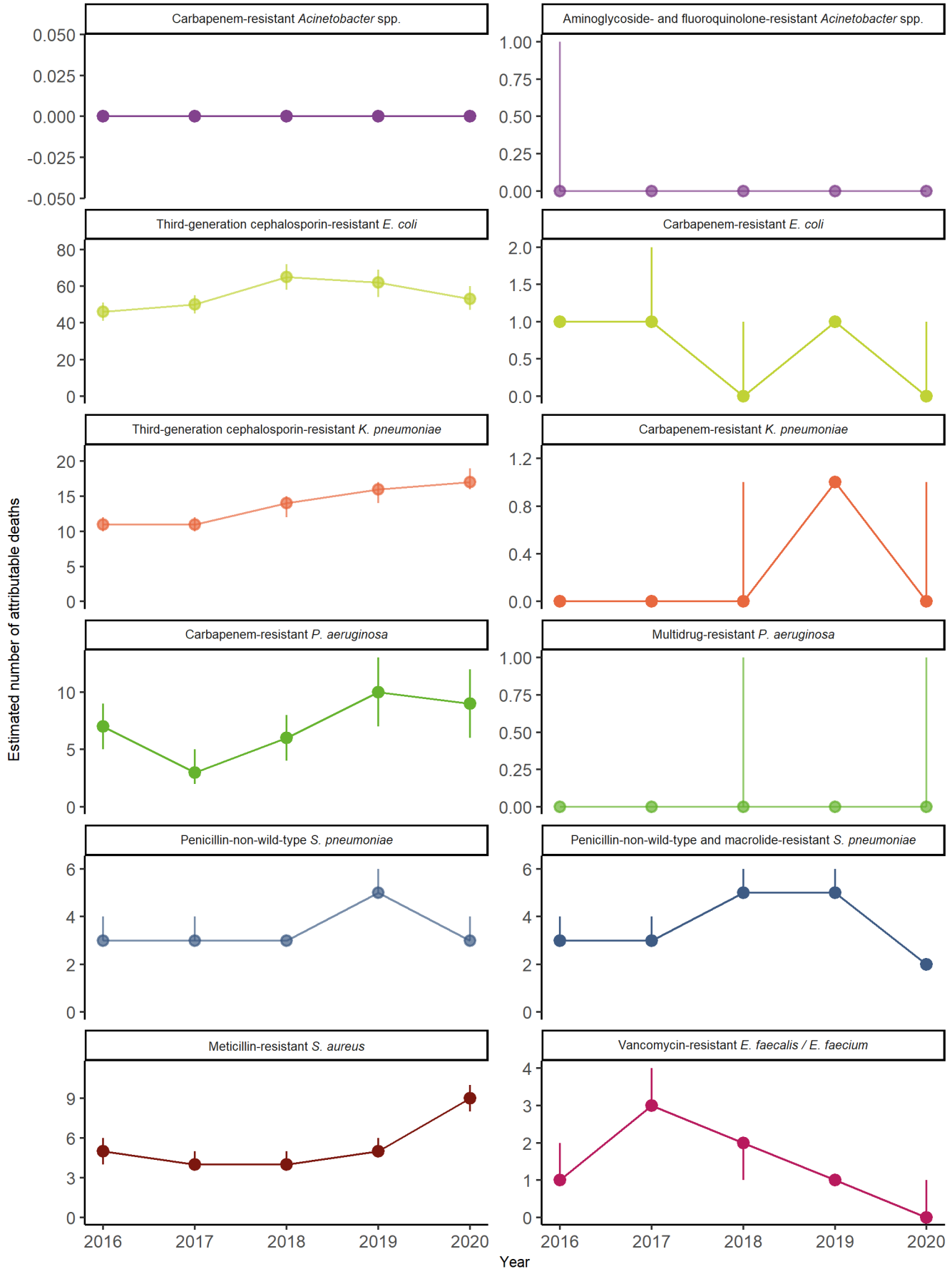
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	1 384 (1 266 - 1 505)	1 446 (1 328 - 1 566)	1 751 (1 598 - 1 909)	1 827 (1 664 - 1 997)	1 567 (1 425 - 1 713)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	287 (266 - 309)	288 (265 - 312)	388 (361 - 417)	453 (419 - 489)	555 (516 - 596)
Meticillin-resistant <i>S. aureus</i>	170 (152 - 191)	183 (166 - 203)	199 (179 - 221)	263 (234 - 295)	301 (272 - 334)
Carbapenem-resistant <i>P. aeruginosa</i>	193 (144 - 249)	91 (55 - 138)	106 (73 - 146)	350 (261 - 453)	298 (207 - 410)
Penicillin-non-wild-type <i>S. pneumoniae</i>	115 (102 - 130)	109 (98 - 124)	95 (84 - 111)	198 (179 - 222)	137 (123 - 154)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	92 (80 - 108)	128 (113 - 147)	180 (163 - 201)	182 (163 - 207)	114 (100 - 132)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	12 (7 - 17)	31 (21 - 43)	40 (26 - 54)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	46 (38 - 56)	107 (92 - 126)	53 (44 - 65)	21 (17 - 29)	8 (5 - 12)
Carbapenem-resistant <i>E. coli</i>	19 (13 - 25)	26 (18 - 34)	4 (2 - 5)	18 (12 - 24)	6 (4 - 9)
Multidrug-resistant <i>P. aeruginosa</i>	0 (0 - 0)	0 (0 - 0)	40 (16 - 78)	0 (0 - 0)	6 (3 - 13)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	4 (2 - 7)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Overall	2 310 (2 063 - 2 580)	2 378 (2 135 - 2 650)	2 828 (2 527 - 3 170)	3 343 (2 970 - 3 759)	3 032 (2 681 - 3 427)

Norway: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



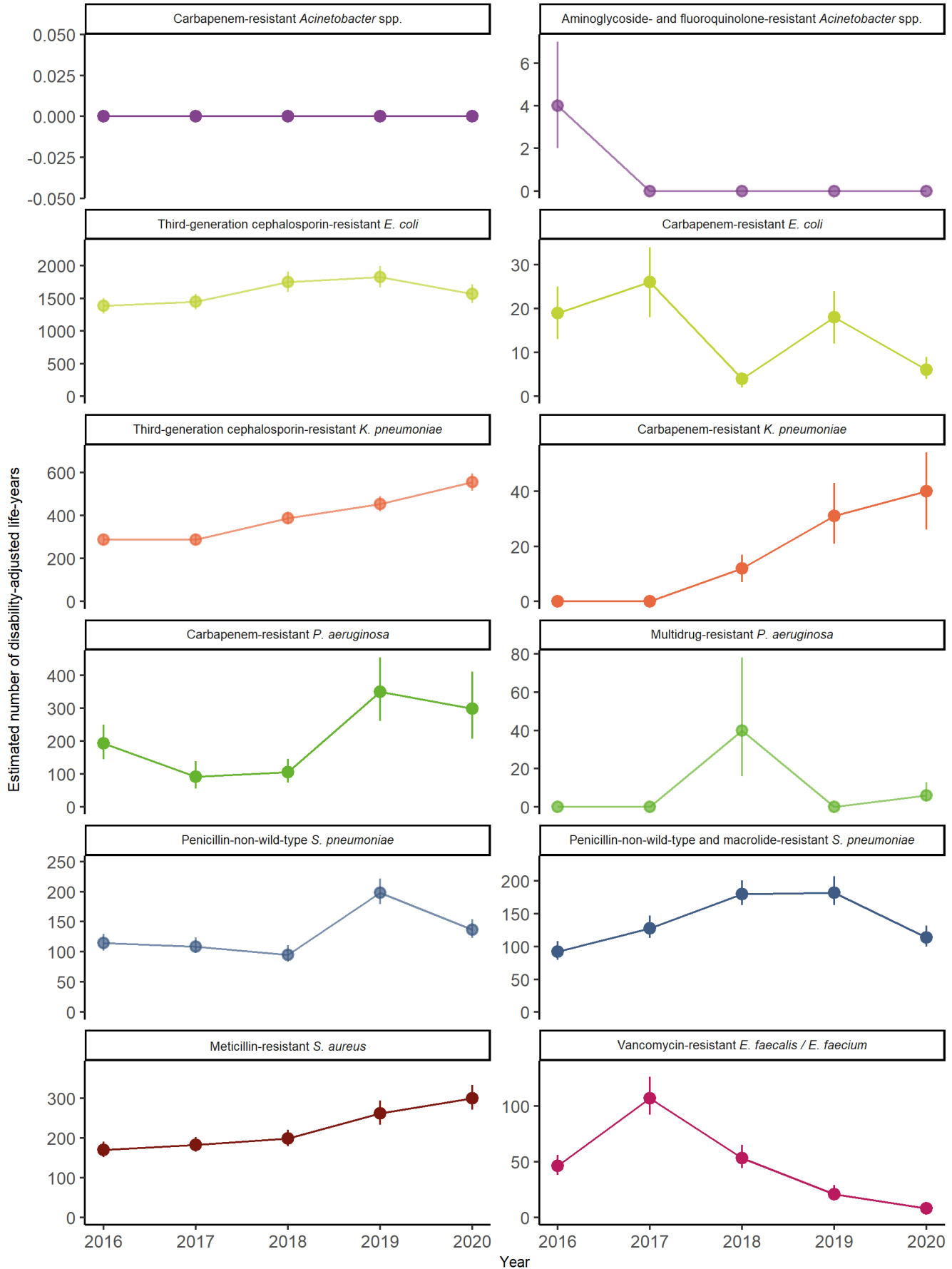
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Norway: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



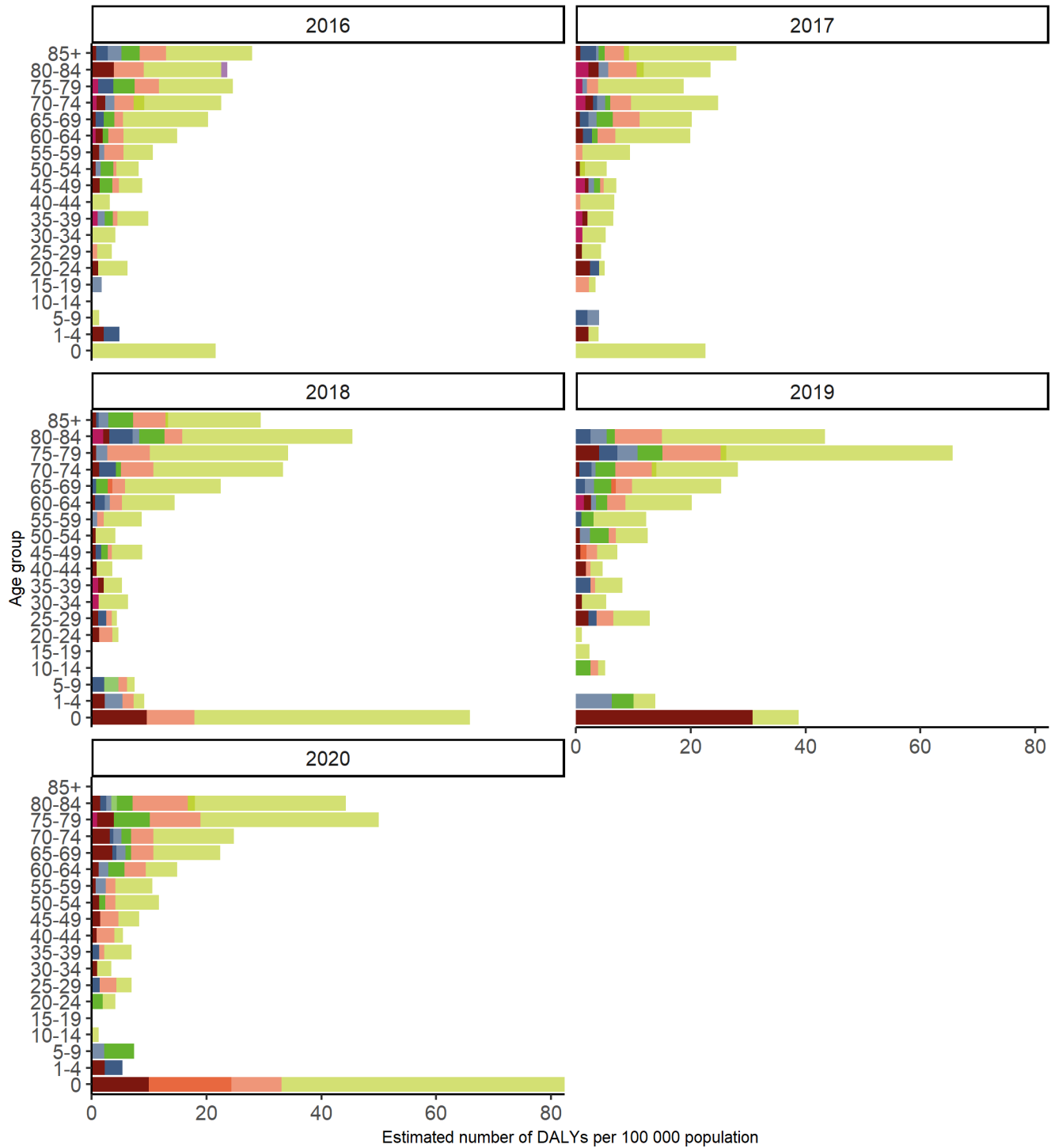
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Norway: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Norway: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

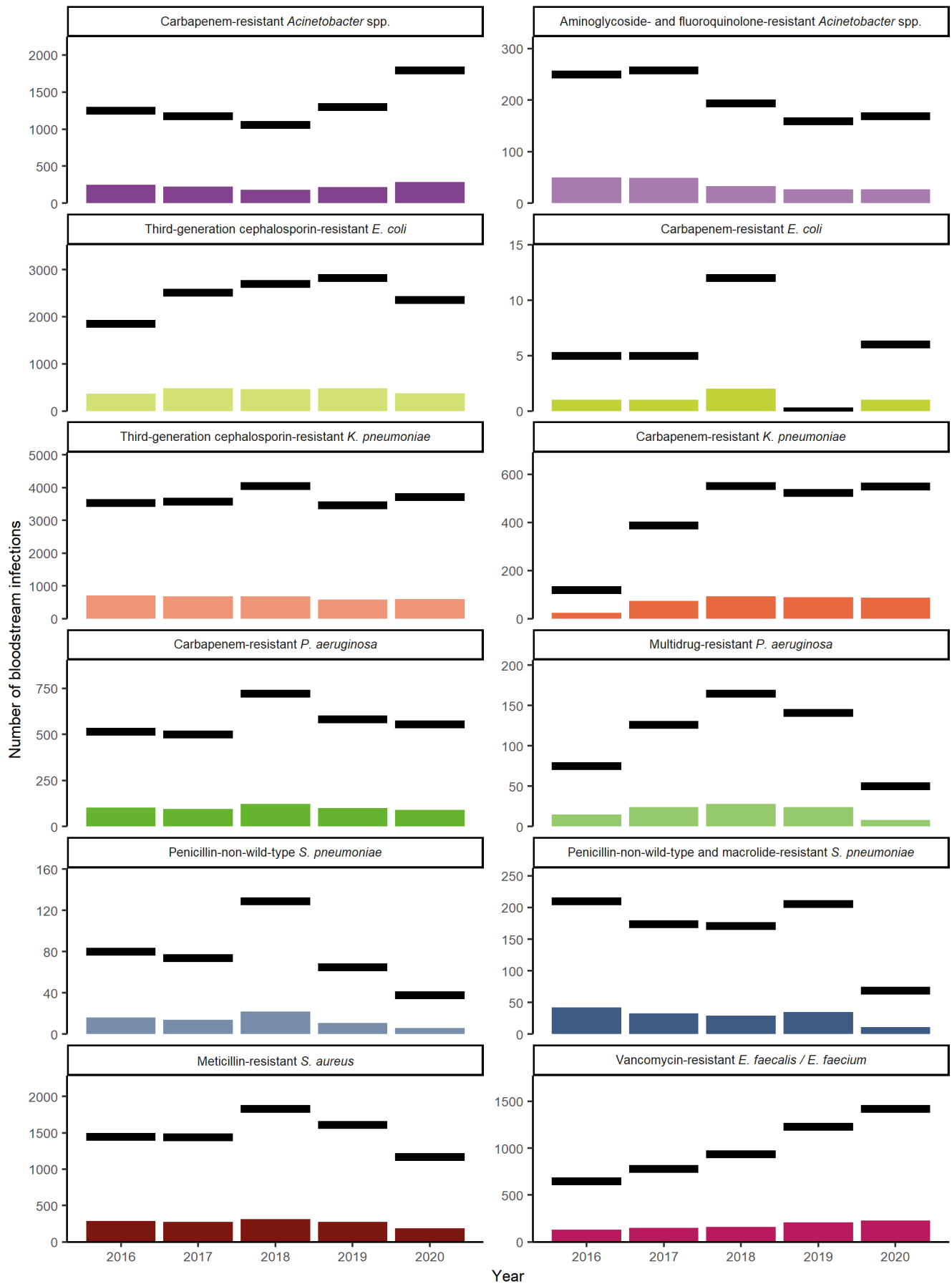
Estimates of the health burden of infections with antibiotic-resistant bacteria, Poland, 2016-2020

Poland: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	706	3 530	681	3 584	690	4 059	588	3 459	594	3 712
Third-generation cephalosporin-resistant <i>E. coli</i>	370	1 850	478	2 516	459	2 700	480	2 824	377	2 356
Carbapenem-resistant <i>Acinetobacter</i> spp.	250	1 250	223	1 174	180	1 059	221	1 300	287	1 794
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	130	650	148	779	159	935	209	1 229	227	1 419
Meticillin-resistant <i>S. aureus</i>	290	1 450	274	1 442	311	1 829	274	1 612	187	1 169
Carbapenem-resistant <i>P. aeruginosa</i>	103	515	95	500	123	723	99	582	89	556
Carbapenem-resistant <i>K. pneumoniae</i>	24	120	74	389	94	553	89	523	88	550
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	50	250	49	258	33	194	27	159	27	169
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	42	210	33	174	29	171	35	206	11	69
Multidrug-resistant <i>P. aeruginosa</i>	15	75	24	126	28	165	24	141	8	50
Penicillin-non-wild-type <i>S. pneumoniae</i>	16	80	14	74	22	129	11	65	6	38
Carbapenem-resistant <i>E. coli</i>	1	5	1	5	2	12	0	0	1	6
Overall	1 997	9 985	2 094	11 021	2 130	12 529	2 057	12 100	1 902	11 888

Poland: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Poland: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	20 352 (18 434 - 22 423)	20 672 (18 696 - 22 745)	23 406 (21 085 - 25 901)	19 947 (17 813 - 22 246)	21 407 (19 262 - 23 711)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	8 696 (7 052 - 10 581)	10 403 (8 190 - 13 039)	12 526 (9 915 - 15 511)	16 439 (12 854 - 20 716)	18 961 (14 842 - 23 692)
Third-generation cephalosporin-resistant <i>E. coli</i>	9 708 (8 565 - 10 932)	13 206 (11 636 - 14 906)	14 158 (12 477 - 16 028)	14 822 (13 073 - 16 697)	12 366 (10 828 - 14 057)
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 832 (6 894 - 8 806)	7 358 (6 500 - 8 253)	6 632 (5 818 - 7 493)	8 145 (7 129 - 9 206)	11 231 (9 816 - 12 732)
Meticillin-resistant <i>S. aureus</i>	10 876 (9 500 - 12 381)	10 824 (9 474 - 12 293)	13 728 (11 958 - 15 661)	12 104 (10 584 - 13 740)	8 775 (7 488 - 10 197)
Carbapenem-resistant <i>P. aeruginosa</i>	4 852 (4 113 - 5 672)	4 705 (3 922 - 5 603)	6 798 (5 602 - 8 186)	5 476 (4 522 - 6 537)	5 227 (4 318 - 6 277)
Carbapenem-resistant <i>K. pneumoniae</i>	454 (392 - 522)	1 474 (1 286 - 1 682)	2 089 (1 817 - 2 397)	1 982 (1 728 - 2 257)	2 080 (1 827 - 2 360)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 566 (1 368 - 1 775)	1 614 (1 411 - 1 831)	1 214 (1 042 - 1 403)	992 (827 - 1 183)	1 056 (879 - 1 249)
Multidrug-resistant <i>P. aeruginosa</i>	703 (530 - 908)	1 184 (917 - 1 503)	1 546 (1 226 - 1 923)	1 323 (1 019 - 1 695)	468 (339 - 627)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 085 (1 002 - 1 181)	896 (819 - 992)	880 (799 - 991)	1 063 (983 - 1 161)	354 (313 - 411)
Penicillin-non-wild-type <i>S. pneumoniae</i>	413 (377 - 456)	380 (343 - 428)	668 (605 - 750)	332 (288 - 402)	193 (167 - 229)
Carbapenem-resistant <i>E. coli</i>	26 (15 - 41)	27 (16 - 43)	61 (42 - 86)	0 (0 - 0)	32 (19 - 51)
Overall	66 563 (58 242 - 75 678)	72 743 (63 210 - 83 318)	83 706 (72 386 - 96 330)	82 625 (70 820 - 95 840)	82 150 (70 098 - 95 593)

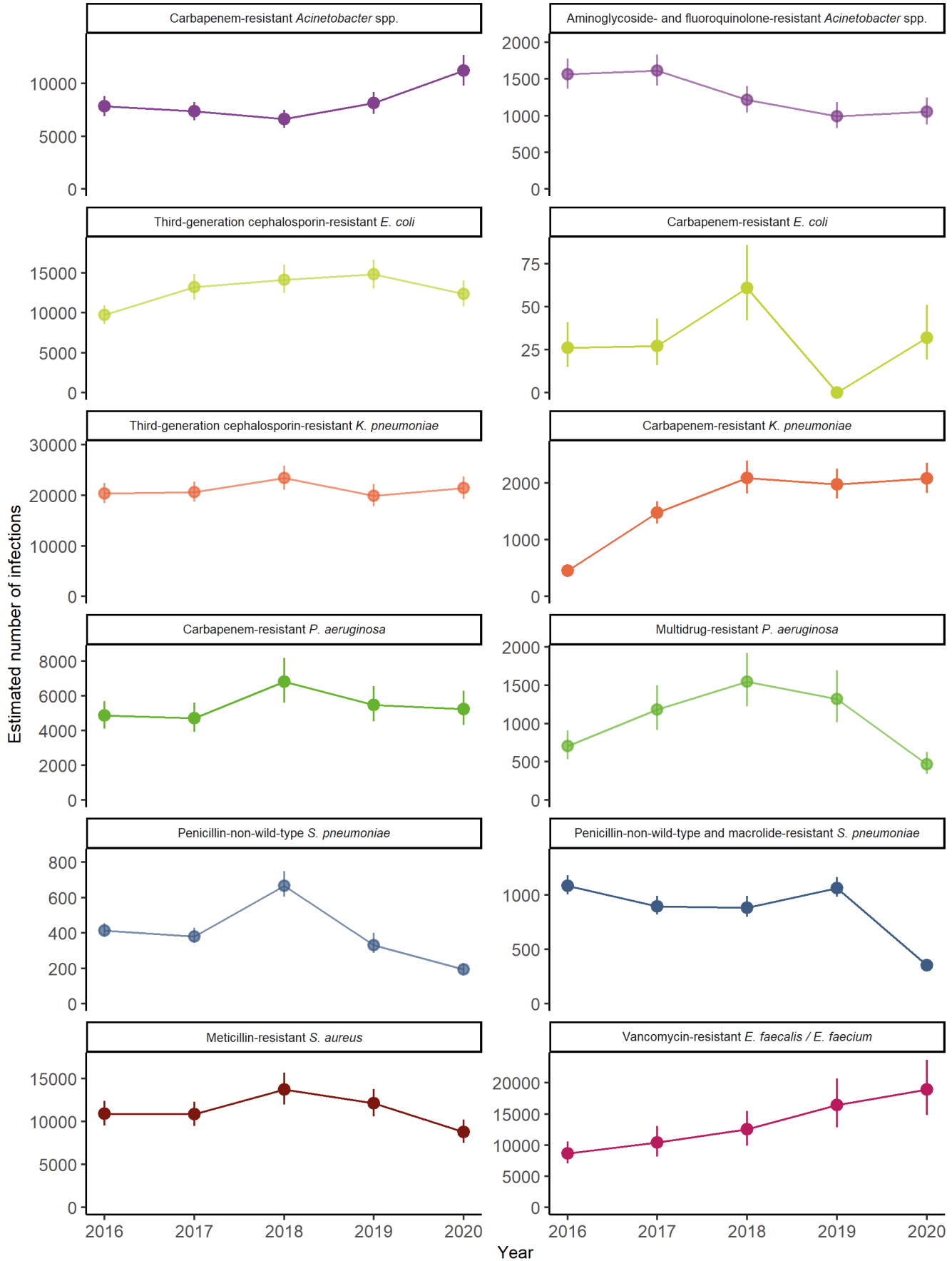
Poland: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	811 (762 - 864)	830 (777 - 886)	935 (875 - 999)	806 (749 - 867)	859 (803 - 921)
Third-generation cephalosporin-resistant <i>E. coli</i>	427 (382 - 474)	583 (521 - 648)	622 (556 - 692)	653 (584 - 725)	549 (488 - 613)
Carbapenem-resistant <i>Acinetobacter</i> spp.	376 (314 - 439)	356 (298 - 413)	321 (265 - 376)	392 (325 - 459)	547 (452 - 643)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	235 (215 - 257)	290 (262 - 325)	353 (319 - 393)	471 (423 - 529)	534 (480 - 597)
Meticillin-resistant <i>S. aureus</i>	433 (395 - 474)	427 (391 - 467)	545 (496 - 598)	478 (437 - 523)	351 (315 - 389)
Carbapenem-resistant <i>P. aeruginosa</i>	227 (185 - 274)	219 (175 - 269)	320 (252 - 397)	256 (203 - 315)	244 (193 - 302)
Carbapenem-resistant <i>K. pneumoniae</i>	48 (41 - 55)	156 (134 - 177)	221 (190 - 251)	209 (181 - 238)	218 (190 - 247)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	73 (61 - 86)	75 (62 - 88)	57 (46 - 69)	47 (36 - 59)	51 (40 - 63)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	67 (62 - 72)	55 (51 - 60)	54 (50 - 60)	65 (61 - 70)	22 (19 - 25)
Multidrug-resistant <i>P. aeruginosa</i>	32 (22 - 43)	53 (39 - 69)	69 (52 - 88)	60 (44 - 80)	21 (14 - 29)
Penicillin-non-wild-type <i>S. pneumoniae</i>	25 (23 - 28)	23 (21 - 26)	41 (38 - 45)	20 (18 - 24)	12 (10 - 14)
Carbapenem-resistant <i>E. coli</i>	2 (1 - 3)	2 (1 - 3)	5 (3 - 7)	0 (0 - 0)	2 (1 - 4)
Overall	2 756 (2 463 - 3 069)	3 069 (2 732 - 3 431)	3 543 (3 142 - 3 975)	3 457 (3 061 - 3 889)	3 410 (3 005 - 3 847)

Poland: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

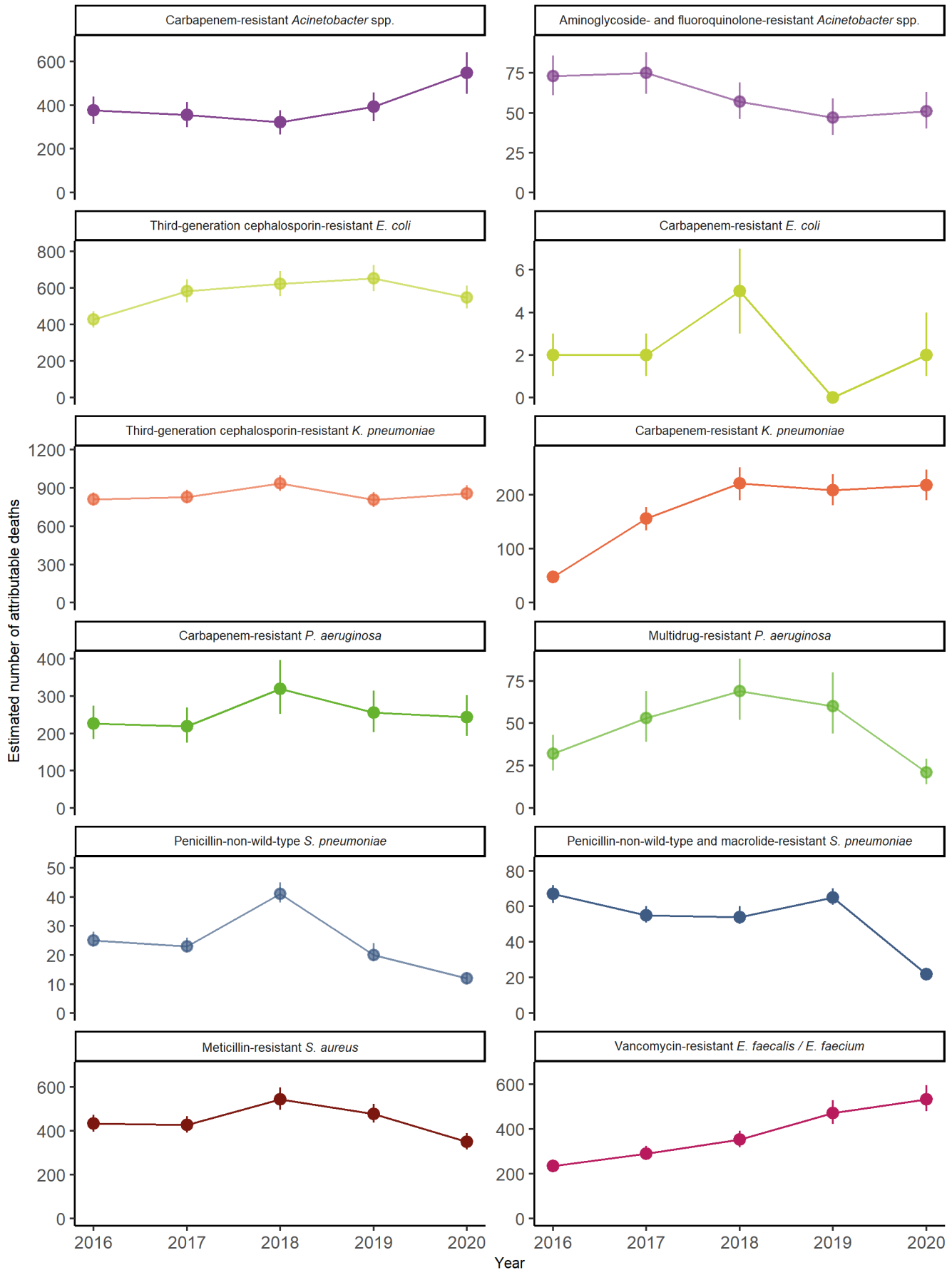
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	30 589 (28 920 - 32 345)	28 681 (27 178 - 30 266)	32 634 (30 809 - 34 582)	24 426 (22 884 - 26 063)	29 133 (27 459 - 30 935)
Carbapenem-resistant <i>Acinetobacter</i> spp.	13 309 (11 330 - 15 328)	11 866 (10 178 - 13 614)	11 073 (9 447 - 12 709)	13 153 (11 150 - 15 218)	17 008 (14 398 - 19 629)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	7 911 (7 349 - 8 565)	8 706 (7 941 - 9 656)	9 595 (8 792 - 10 517)	12 592 (11 427 - 14 021)	14 809 (13 470 - 16 444)
Third-generation cephalosporin-resistant <i>E. coli</i>	12 471 (11 421 - 13 577)	15 769 (14 373 - 17 186)	17 515 (15 917 - 19 191)	18 177 (16 588 - 19 771)	14 196 (12 907 - 15 532)
Carbapenem-resistant <i>P. aeruginosa</i>	9 365 (7 780 - 11 159)	9 398 (7 704 - 11 223)	12 375 (10 142 - 14 865)	10 422 (8 435 - 12 667)	10 355 (8 439 - 12 477)
Meticillin-resistant <i>S. aureus</i>	13 660 (12 660 - 14 771)	13 532 (12 550 - 14 594)	16 900 (15 616 - 18 307)	14 935 (13 851 - 16 140)	9 414 (8 567 - 10 367)
Carbapenem-resistant <i>K. pneumoniae</i>	1 953 (1 629 - 2 335)	4 914 (4 296 - 5 533)	7 001 (6 111 - 7 886)	5 811 (5 136 - 6 489)	7 596 (6 657 - 8 544)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	2 600 (2 203 - 3 014)	2 846 (2 398 - 3 315)	2 193 (1 786 - 2 617)	1 537 (1 238 - 1 854)	1 348 (1 078 - 1 629)
Multidrug-resistant <i>P. aeruginosa</i>	955 (701 - 1 247)	1 898 (1 434 - 2 432)	2 470 (1 935 - 3 078)	1 726 (1 287 - 2 250)	825 (544 - 1 182)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 328 (3 067 - 3 645)	1 884 (1 735 - 2 064)	1 947 (1 785 - 2 140)	2 991 (2 780 - 3 236)	768 (684 - 878)
Penicillin-non-wild-type <i>S. pneumoniae</i>	1 175 (1 077 - 1 296)	725 (655 - 814)	1 393 (1 276 - 1 530)	631 (545 - 755)	186 (163 - 217)
Carbapenem-resistant <i>E. coli</i>	188 (113 - 269)	39 (23 - 57)	129 (86 - 175)	0 (0 - 0)	78 (47 - 112)
Overall	97 504 (88 250 - 107 551)	100 258 (90 465 - 110 754)	115 225 (103 702 - 127 597)	106 401 (95 321 - 118 464)	105 716 (94 413 - 117 946)

Poland: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



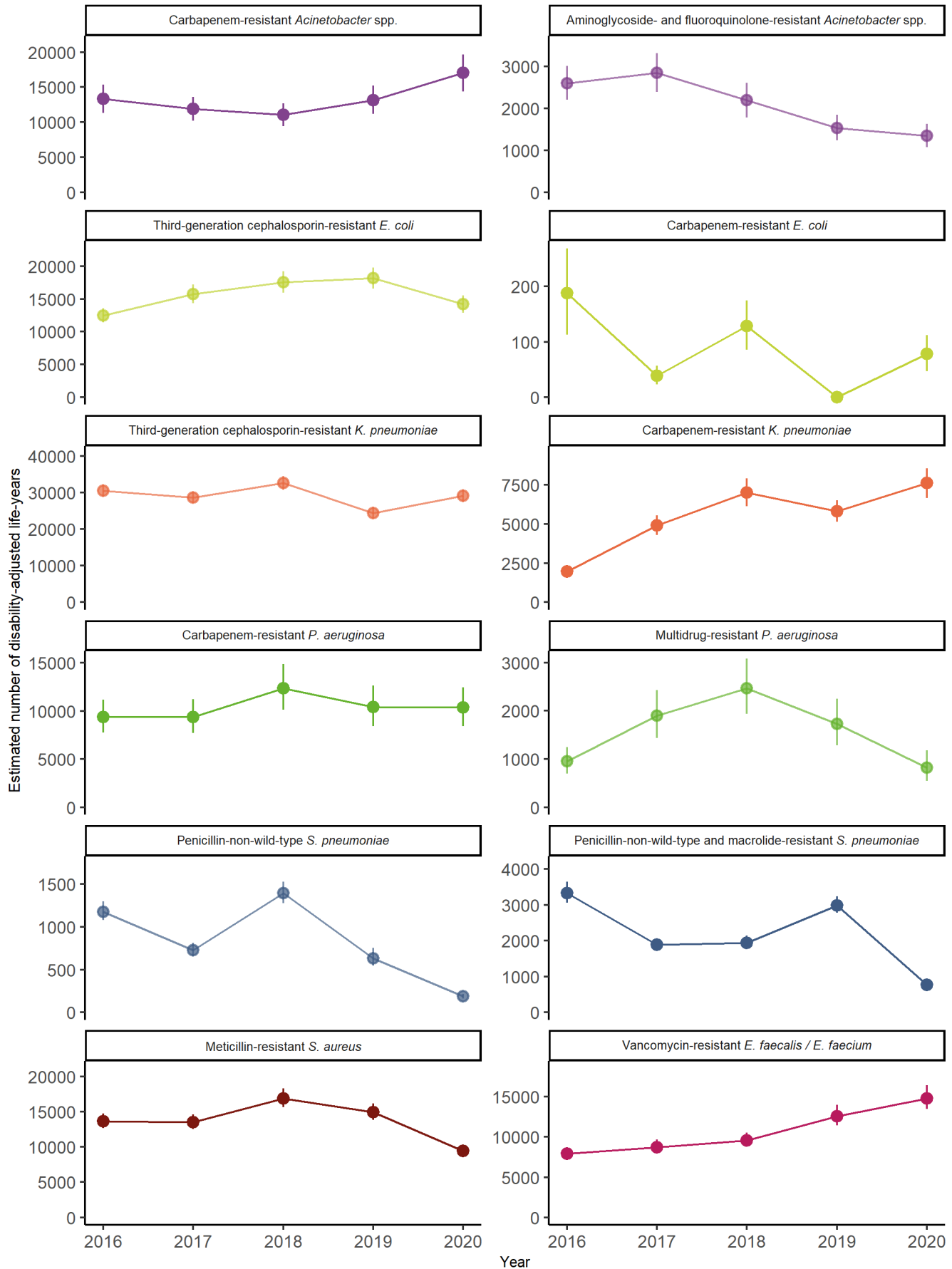
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Poland: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



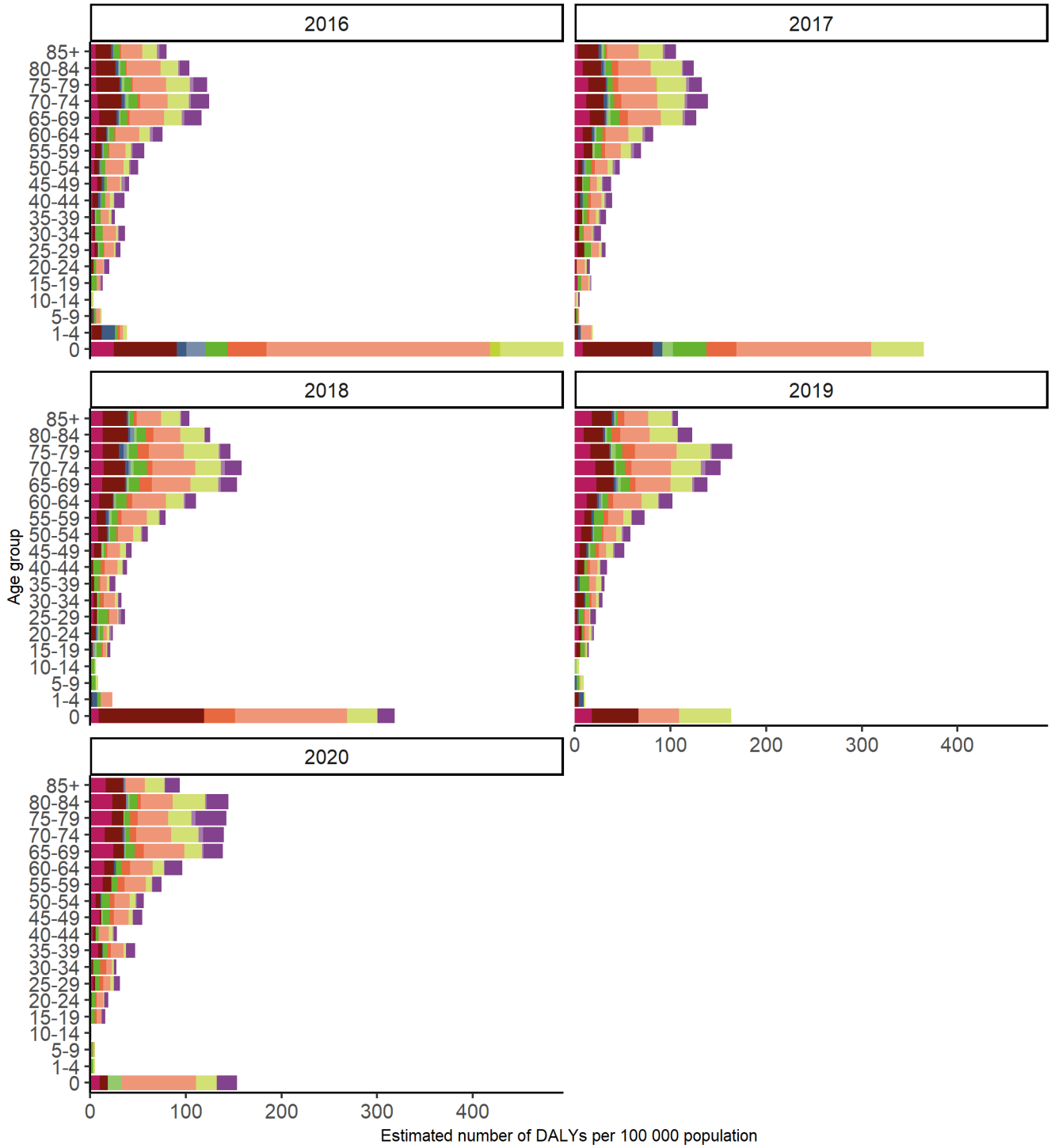
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Poland: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Poland: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

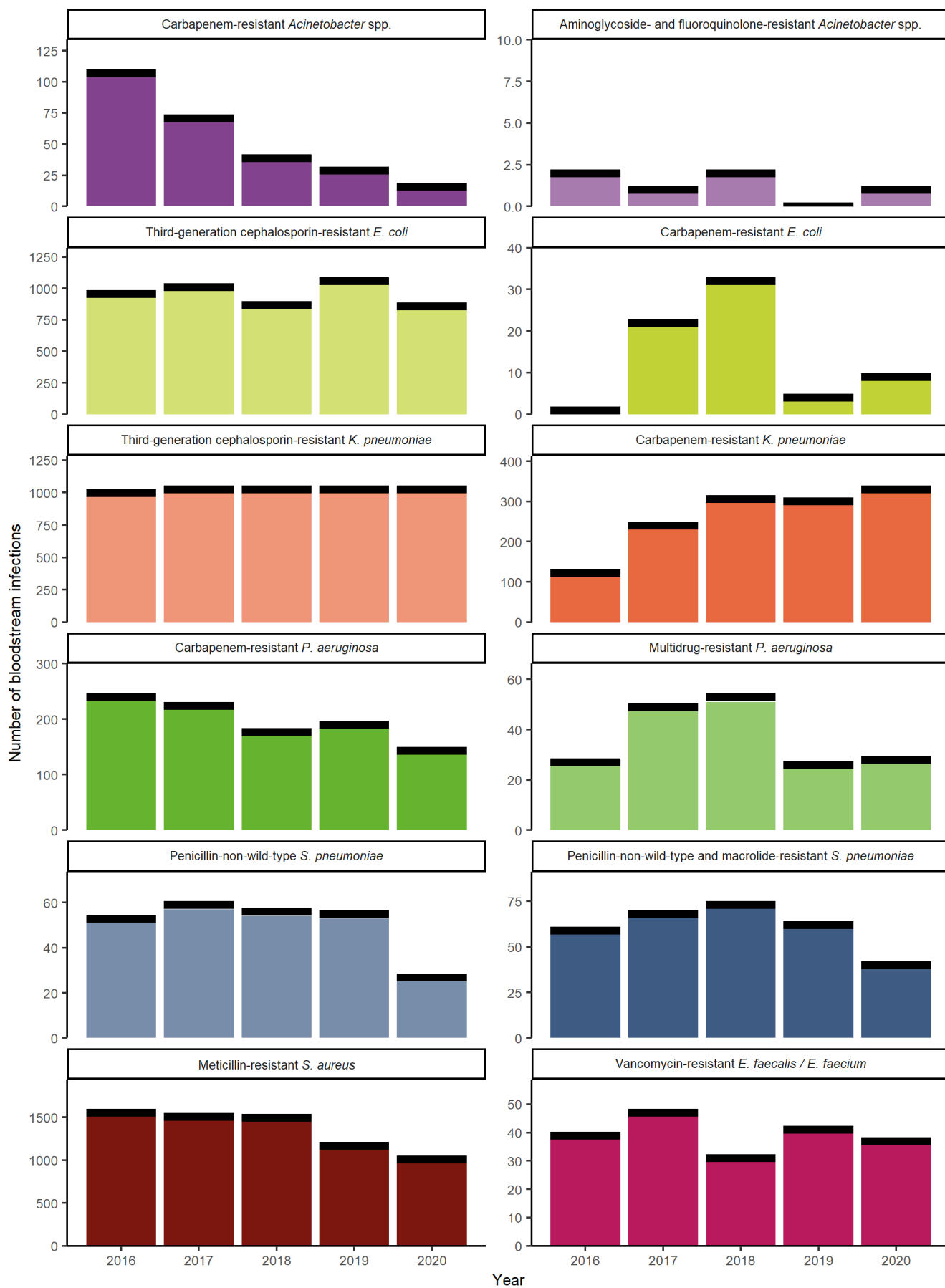
Estimates of the health burden of infections with antibiotic-resistant bacteria, Portugal, 2016-2020

Portugal: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	969	999	994	1 025	994	1 025	997	1 028	997	1 028
Meticillin-resistant <i>S. aureus</i>	1 505	1 552	1 460	1 505	1 451	1 496	1 135	1 170	979	1 009
Third-generation cephalosporin-resistant <i>E. coli</i>	927	956	982	1 012	844	870	1 026	1 058	831	857
Carbapenem-resistant <i>K. pneumoniae</i>	118	122	233	240	298	307	292	301	321	331
Carbapenem-resistant <i>P. aeruginosa</i>	233	240	217	224	172	177	184	190	139	143
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	57	59	66	68	71	73	60	62	39	40
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	38	39	46	47	30	31	40	41	36	37
Multidrug-resistant <i>P. aeruginosa</i>	26	27	48	49	51	53	25	26	27	28
Penicillin-non-wild-type <i>S. pneumoniae</i>	51	53	57	59	54	56	53	55	26	27
Carbapenem-resistant <i>Acinetobacter</i> spp.	104	107	69	71	38	39	28	29	16	16
Carbapenem-resistant <i>E. coli</i>	1	1	21	22	31	32	4	4	9	9
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	2	2	1	1	2	2	0	0	1	1
Overall	4 031	4 157	4 194	4 323	4 036	4 161	3 844	3 964	3 421	3 526

Portugal: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Portugal: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	11 627 (9 904 - 13 579)	11 278 (9 593 - 13 196)	11 221 (9 489 - 13 150)	8 775 (7 410 - 10 277)	7 574 (6 473 - 8 801)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	5 758 (5 152 - 6 414)	5 909 (5 291 - 6 566)	5 903 (5 305 - 6 552)	5 926 (5 292 - 6 609)	5 923 (5 297 - 6 602)
Third-generation cephalosporin-resistant <i>E. coli</i>	5 011 (4 303 - 5 790)	5 316 (4 575 - 6 118)	4 564 (3 918 - 5 275)	5 547 (4 766 - 6 412)	4 494 (3 880 - 5 171)
Carbapenem-resistant <i>P. aeruginosa</i>	2 260 (1 852 - 2 727)	2 103 (1 731 - 2 525)	1 668 (1 359 - 2 026)	1 783 (1 441 - 2 164)	1 346 (1 087 - 1 648)
Carbapenem-resistant <i>K. pneumoniae</i>	461 (407 - 519)	909 (796 - 1 032)	1 163 (1 021 - 1 314)	1 139 (994 - 1 295)	1 252 (1 096 - 1 424)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	524 (407 - 658)	631 (470 - 829)	413 (318 - 523)	551 (435 - 686)	495 (369 - 647)
Multidrug-resistant <i>P. aeruginosa</i>	250 (192 - 327)	463 (358 - 592)	494 (398 - 607)	242 (190 - 302)	261 (202 - 333)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	303 (278 - 337)	351 (325 - 385)	378 (347 - 417)	319 (296 - 347)	207 (191 - 229)
Penicillin-non-wild-type <i>S. pneumoniae</i>	271 (249 - 298)	303 (280 - 332)	287 (265 - 314)	281 (259 - 314)	138 (126 - 155)
Carbapenem-resistant <i>Acinetobacter</i> spp.	671 (576 - 773)	445 (389 - 506)	245 (209 - 284)	181 (151 - 213)	103 (87 - 121)
Carbapenem-resistant <i>E. coli</i>	5 (3 - 8)	114 (97 - 131)	168 (143 - 195)	21 (16 - 29)	48 (39 - 60)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	13 (8 - 18)	6 (4 - 10)	13 (9 - 18)	0 (0 - 0)	6 (4 - 10)
Overall	27 154 (23 331 - 31 448)	27 828 (23 909 - 32 222)	26 517 (22 781 - 30 675)	24 765 (21 250 - 28 648)	21 847 (18 851 - 25 201)

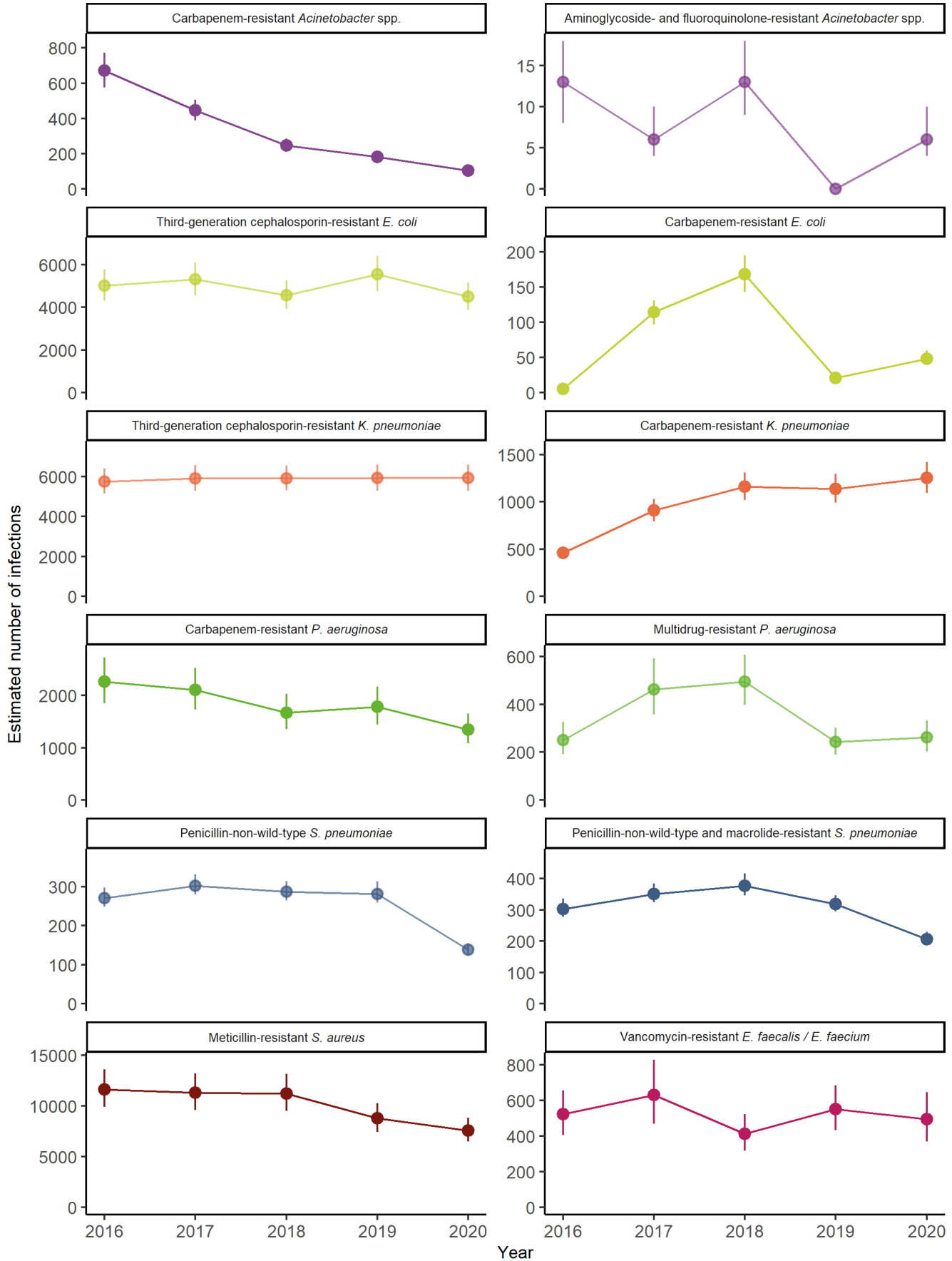
Portugal: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	481 (430 - 537)	469 (419 - 524)	467 (416 - 522)	364 (324 - 408)	312 (280 - 348)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	234 (218 - 252)	239 (222 - 257)	240 (223 - 257)	242 (224 - 260)	240 (223 - 259)
Third-generation cephalosporin-resistant <i>E. coli</i>	226 (197 - 256)	238 (208 - 270)	205 (179 - 232)	248 (217 - 282)	201 (176 - 228)
Carbapenem-resistant <i>K. pneumoniae</i>	49 (43 - 55)	96 (84 - 109)	123 (107 - 138)	120 (105 - 137)	133 (115 - 150)
Carbapenem-resistant <i>P. aeruginosa</i>	108 (84 - 134)	100 (79 - 125)	79 (62 - 99)	86 (66 - 108)	64 (49 - 82)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	14 (13 - 16)	17 (16 - 20)	12 (10 - 13)	16 (14 - 17)	15 (13 - 17)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	19 (17 - 20)	22 (20 - 23)	23 (22 - 25)	20 (18 - 21)	13 (12 - 14)
Multidrug-resistant <i>P. aeruginosa</i>	11 (8 - 16)	21 (15 - 28)	22 (17 - 28)	11 (8 - 14)	12 (9 - 16)
Penicillin-non-wild-type <i>S. pneumoniae</i>	17 (15 - 18)	19 (17 - 20)	18 (16 - 19)	17 (16 - 19)	8 (8 - 9)
Carbapenem-resistant <i>Acinetobacter</i> spp.	33 (27 - 40)	22 (18 - 26)	12 (10 - 15)	9 (7 - 11)	5 (4 - 6)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 1)	9 (8 - 10)	13 (11 - 16)	2 (1 - 2)	4 (3 - 5)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (0 - 1)	0 (0 - 1)	1 (0 - 1)	0 (0 - 0)	0 (0 - 1)
Overall	1 193 (1 052 - 1 346)	1 252 (1 106 - 1 413)	1 215 (1 073 - 1 365)	1 135 (1 000 - 1 279)	1 007 (892 - 1 135)

Portugal: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

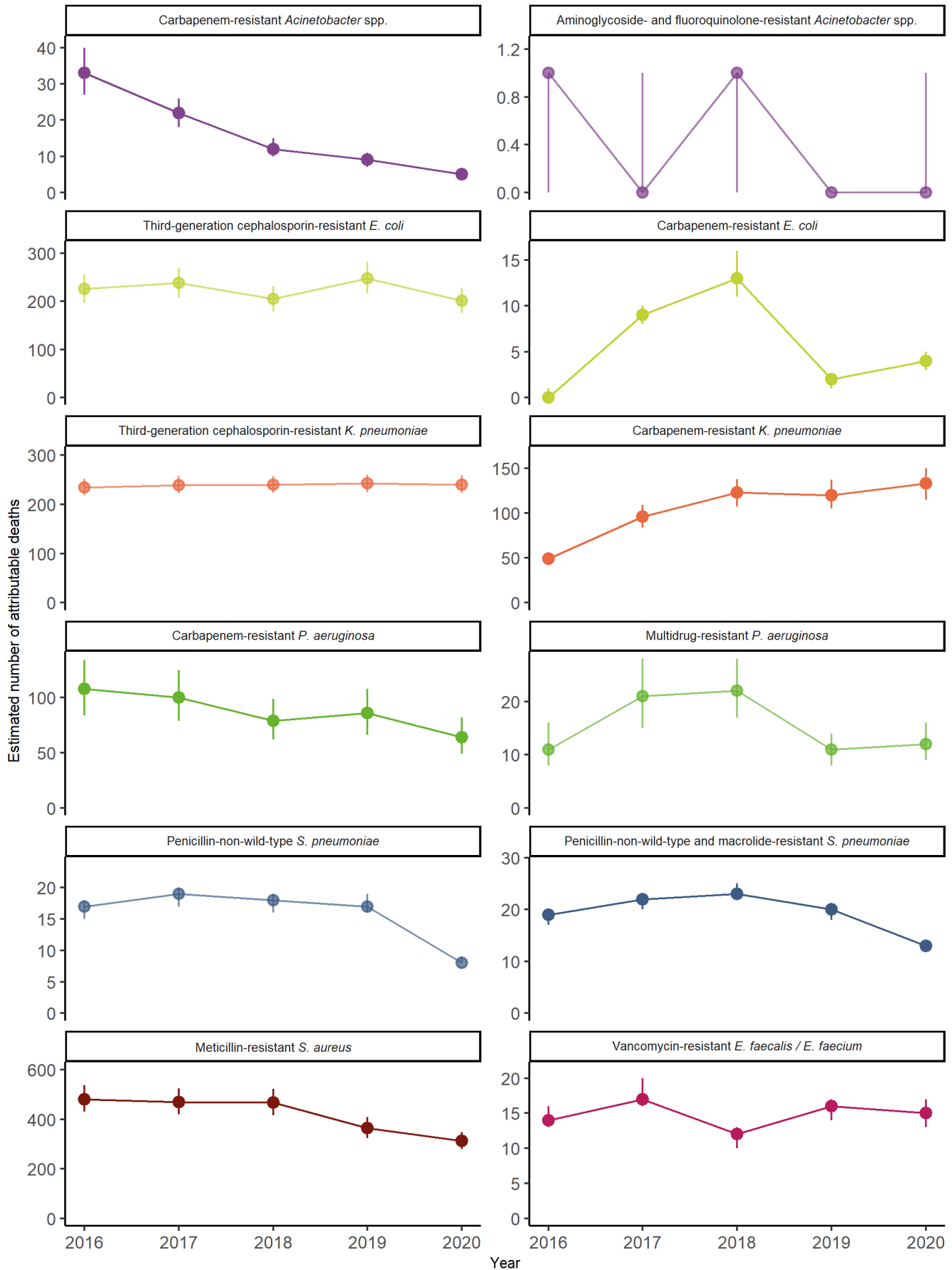
	2016	2017	2018	2019	2020
Meticillin-resistant <i>S. aureus</i>	10 854 (9 966 - 11 821)	10 425 (9 558 - 11 366)	10 049 (9 211 - 10 954)	7 950 (7 306 - 8 645)	7 595 (6 991 - 8 244)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	6 829 (6 435 - 7 242)	7 221 (6 825 - 7 639)	7 081 (6 694 - 7 490)	6 624 (6 257 - 7 014)	6 971 (6 578 - 7 386)
Third-generation cephalosporin-resistant <i>E. coli</i>	4 679 (4 243 - 5 129)	5 072 (4 622 - 5 538)	4 390 (4 005 - 4 790)	5 312 (4 841 - 5 810)	4 553 (4 149 - 4 963)
Carbapenem-resistant <i>K. pneumoniae</i>	1 472 (1 314 - 1 633)	2 610 (2 303 - 2 916)	3 423 (3 039 - 3 800)	3 123 (2 754 - 3 488)	3 480 (3 076 - 3 882)
Carbapenem-resistant <i>P. aeruginosa</i>	3 299 (2 673 - 3 994)	3 084 (2 510 - 3 730)	2 405 (1 928 - 2 953)	2 259 (1 817 - 2 745)	1 947 (1 559 - 2 406)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	617 (571 - 669)	734 (688 - 786)	799 (742 - 871)	893 (832 - 965)	561 (516 - 620)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	481 (439 - 529)	478 (429 - 538)	339 (307 - 377)	460 (420 - 508)	360 (321 - 408)
Multidrug-resistant <i>P. aeruginosa</i>	276 (209 - 356)	543 (429 - 672)	649 (523 - 791)	279 (215 - 351)	329 (250 - 423)
Penicillin-non-wild-type <i>S. pneumoniae</i>	485 (449 - 528)	605 (564 - 653)	655 (608 - 707)	637 (593 - 689)	312 (287 - 343)
Carbapenem-resistant <i>Acinetobacter</i> spp.	919 (773 - 1 070)	664 (561 - 771)	308 (251 - 366)	183 (148 - 220)	188 (145 - 232)
Carbapenem-resistant <i>E. coli</i>	10 (6 - 14)	231 (195 - 267)	291 (250 - 332)	41 (29 - 54)	72 (57 - 88)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	15 (8 - 22)	5 (2 - 7)	38 (21 - 58)	0 (0 - 0)	9 (4 - 15)
Overall	29 936 (27 086 - 33 007)	31 672 (28 686 - 34 883)	30 427 (27 579 - 33 489)	27 761 (25 212 - 30 489)	26 377 (23 933 - 29 010)

Portugal: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



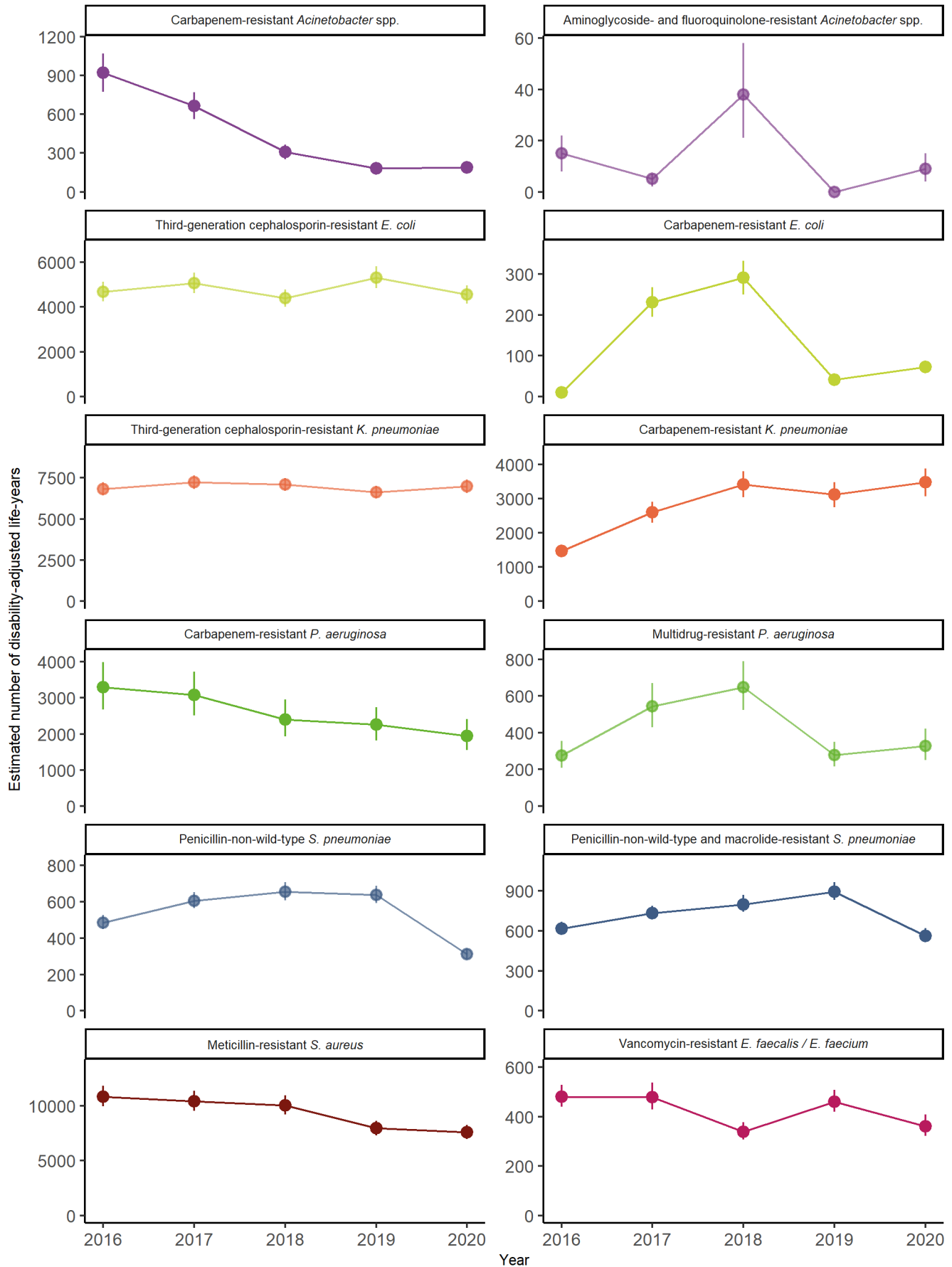
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Portugal: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



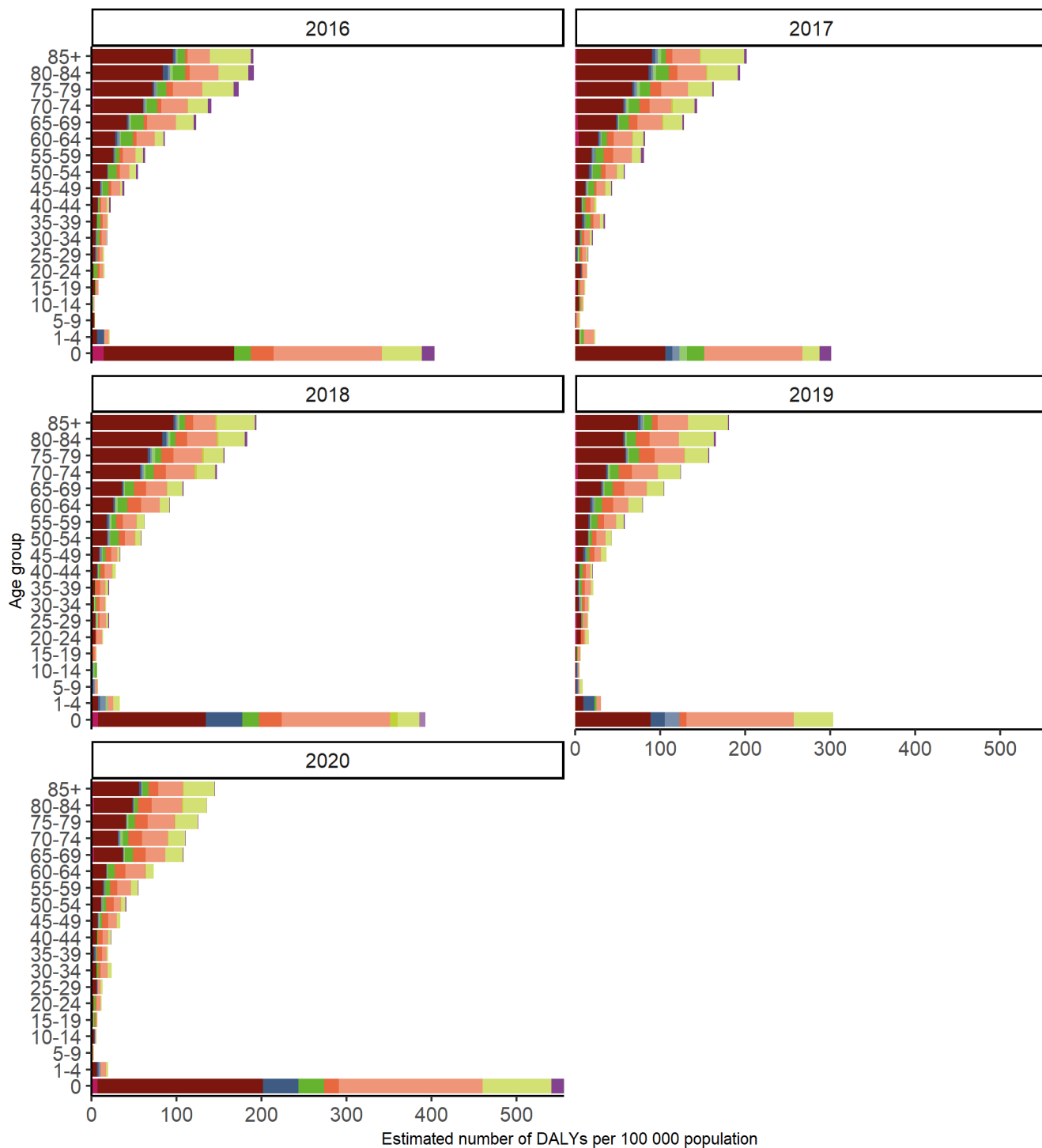
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Portugal: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Portugal: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

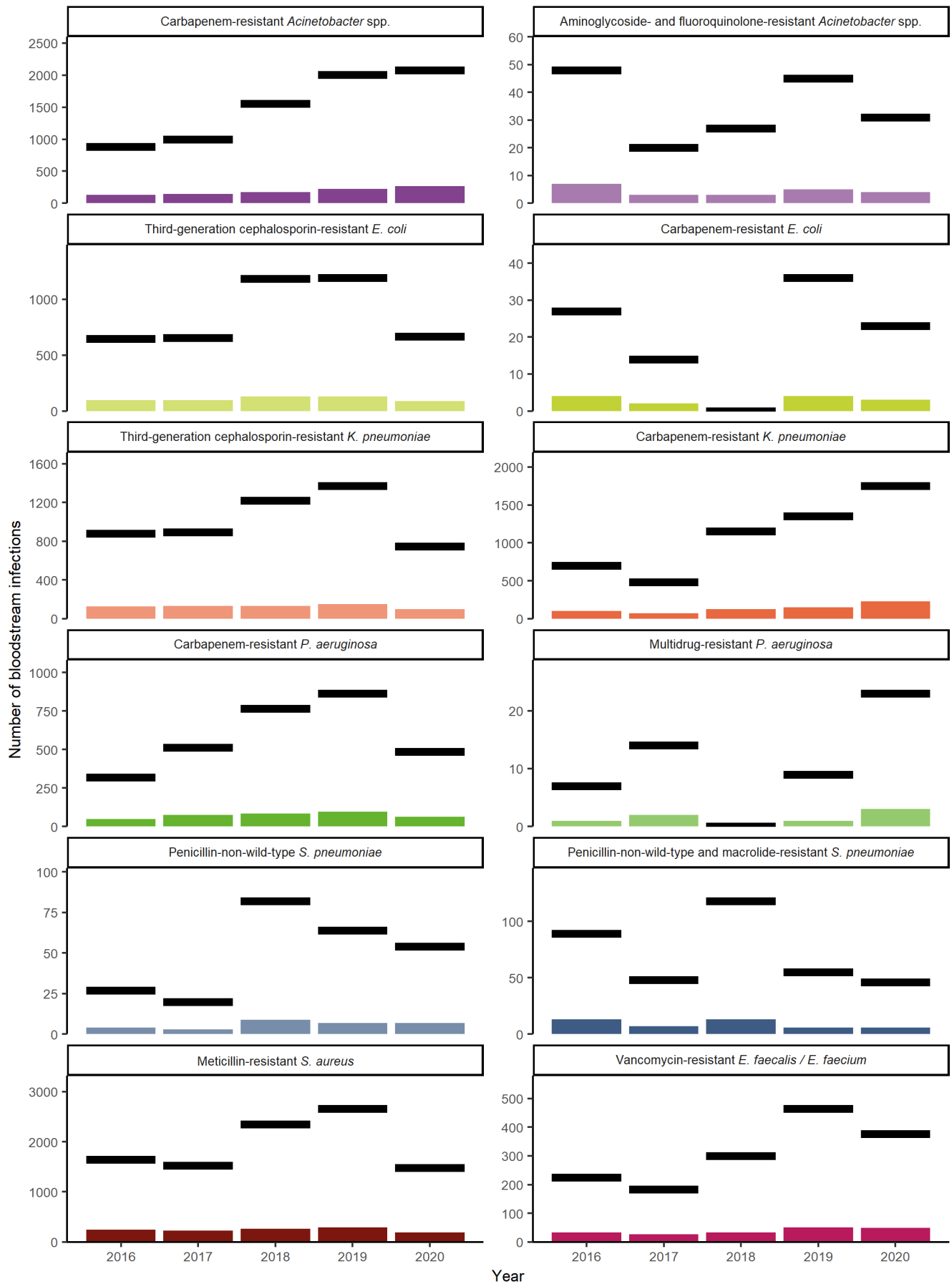
Estimates of the health burden of infections with antibiotic-resistant bacteria, Romania, 2016-2020

Romania: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Carbapenem-resistant <i>Acinetobacter</i> spp.	129	879	146	995	171	1 555	221	2 009	270	2 077
Carbapenem-resistant <i>K. pneumoniae</i>	103	701	71	484	127	1 155	149	1 355	228	1 754
Meticillin-resistant <i>S. aureus</i>	241	1 642	224	1 526	258	2 345	292	2 655	192	1 477
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	129	879	131	892	134	1 218	151	1 373	97	746
Third-generation cephalosporin-resistant <i>E. coli</i>	95	647	96	654	130	1 182	131	1 191	87	669
Carbapenem-resistant <i>P. aeruginosa</i>	47	320	75	511	84	764	95	864	63	485
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	33	225	27	184	33	300	51	464	49	377
Penicillin-non-wild-type <i>S. pneumoniae</i>	4	27	3	20	9	82	7	64	7	54
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	13	89	7	48	13	118	6	55	6	46
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	7	48	3	20	3	27	5	45	4	31
Carbapenem-resistant <i>E. coli</i>	4	27	2	14	0	0	4	36	3	23
Multidrug-resistant <i>P. aeruginosa</i>	1	7	2	14	0	0	1	9	3	23
Overall	806	5 491	787	5 362	962	8 746	1 113	10 120	1 009	7 762

Romania: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium-antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Romania: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>Acinetobacter</i> spp.	5 762 (4 918 - 6 673)	6 529 (5 611 - 7 514)	9 740 (8 581 - 10 972)	12 591 (11 188 - 14 058)	13 012 (11 423 - 14 699)
Meticillin-resistant <i>S. aureus</i>	12 989 (11 064 - 15 078)	12 067 (10 252 - 14 047)	17 608 (15 407 - 20 008)	19 934 (17 493 - 22 583)	11 091 (9 675 - 12 634)
Carbapenem-resistant <i>K. pneumoniae</i>	2 779 (2 351 - 3 278)	1 919 (1 629 - 2 235)	4 367 (3 831 - 4 940)	5 128 (4 536 - 5 762)	6 642 (5 868 - 7 458)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	3 324 (2 525 - 4 250)	2 711 (1 956 - 3 619)	3 985 (2 851 - 5 445)	6 191 (4 818 - 7 828)	5 024 (3 888 - 6 383)
Carbapenem-resistant <i>P. aeruginosa</i>	3 255 (2 637 - 3 952)	5 201 (4 073 - 6 467)	7 175 (5 898 - 8 648)	8 121 (6 754 - 9 669)	4 550 (3 729 - 5 495)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	5 266 (4 650 - 5 939)	5 355 (4 669 - 6 103)	7 021 (6 342 - 7 746)	7 919 (7 141 - 8 737)	4 299 (3 828 - 4 814)
Third-generation cephalosporin-resistant <i>E. coli</i>	3 558 (3 050 - 4 118)	3 594 (3 060 - 4 176)	6 201 (5 477 - 6 988)	6 250 (5 504 - 7 048)	3 512 (3 090 - 3 970)
Penicillin-non-wild-type <i>S. pneumoniae</i>	144 (111 - 196)	109 (84 - 145)	421 (370 - 493)	328 (291 - 374)	278 (246 - 317)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	475 (406 - 563)	256 (213 - 309)	607 (540 - 703)	281 (248 - 326)	237 (206 - 281)
Multidrug-resistant <i>P. aeruginosa</i>	64 (24 - 143)	135 (65 - 237)	0 (0 - 0)	81 (36 - 163)	214 (130 - 324)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	309 (209 - 433)	133 (87 - 189)	170 (122 - 225)	284 (220 - 354)	192 (144 - 245)
Carbapenem-resistant <i>E. coli</i>	149 (106 - 202)	74 (45 - 111)	0 (0 - 0)	190 (145 - 242)	121 (89 - 158)
Overall	38 074 (32 051 - 44 825)	38 083 (31 744 - 45 152)	57 295 (49 419 - 66 168)	67 298 (58 374 - 77 144)	49 172 (42 316 - 56 778)

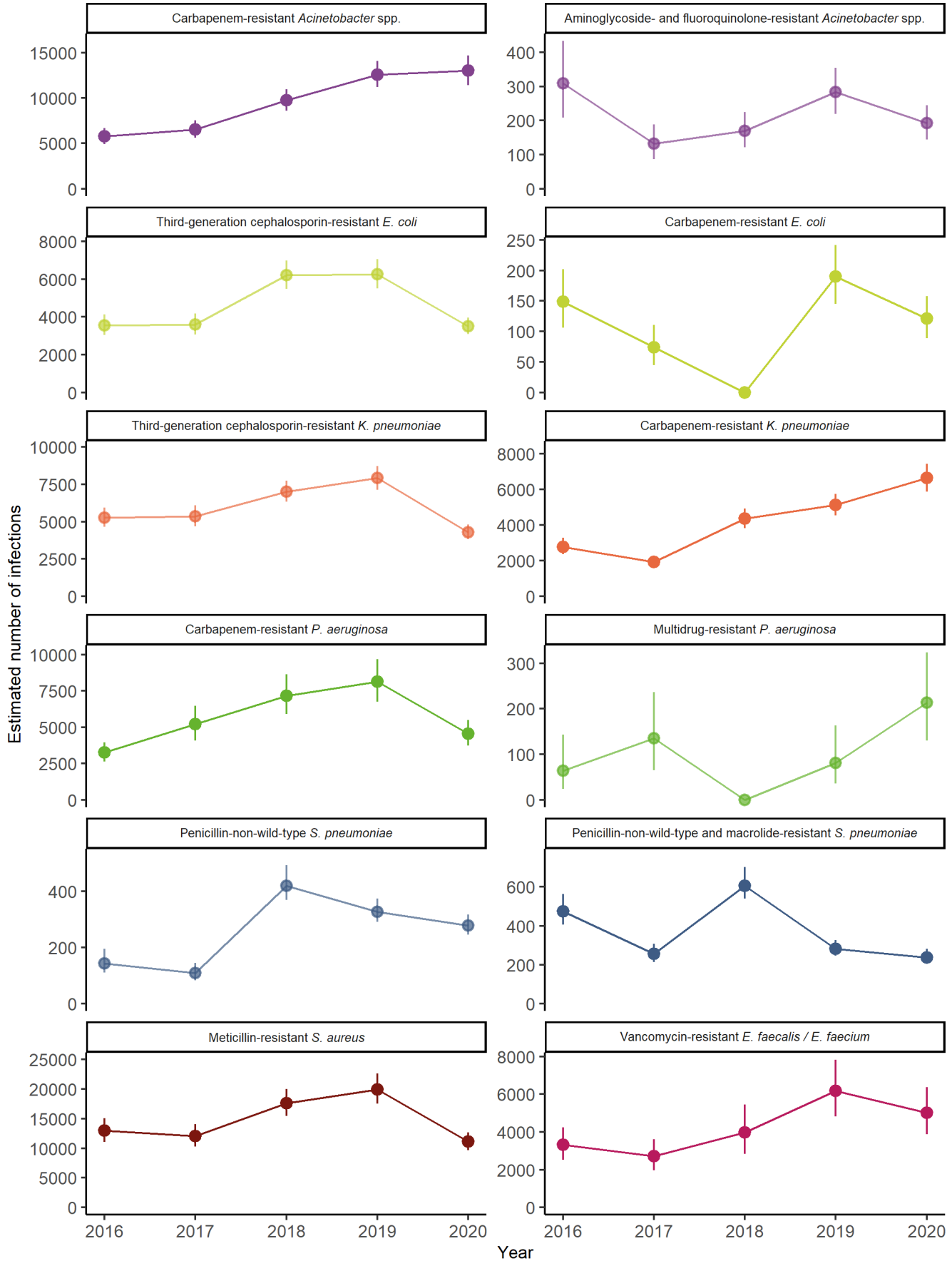
Romania: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>K. pneumoniae</i>	280 (241 - 320)	192 (166 - 219)	458 (399 - 516)	538 (473 - 603)	697 (612 - 782)
Carbapenem-resistant <i>Acinetobacter</i> spp.	266 (220 - 314)	302 (252 - 355)	466 (390 - 545)	599 (508 - 693)	623 (518 - 730)
Meticillin-resistant <i>S. aureus</i>	482 (434 - 536)	447 (402 - 498)	687 (627 - 752)	770 (706 - 841)	426 (389 - 467)
Carbapenem-resistant <i>P. aeruginosa</i>	147 (116 - 181)	237 (180 - 302)	337 (265 - 419)	383 (304 - 471)	215 (167 - 268)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	201 (187 - 217)	207 (191 - 225)	278 (261 - 296)	315 (295 - 336)	174 (161 - 188)
Third-generation cephalosporin-resistant <i>E. coli</i>	148 (131 - 166)	151 (133 - 170)	270 (241 - 300)	273 (244 - 303)	154 (138 - 171)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	85 (74 - 99)	71 (61 - 85)	113 (98 - 133)	171 (153 - 192)	141 (126 - 159)
Penicillin-non-wild-type <i>S. pneumoniae</i>	9 (7 - 11)	7 (5 - 8)	26 (23 - 29)	20 (18 - 23)	17 (15 - 19)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	29 (25 - 33)	15 (13 - 18)	37 (34 - 42)	17 (15 - 20)	15 (13 - 17)
Multidrug-resistant <i>P. aeruginosa</i>	3 (1 - 7)	6 (3 - 11)	0 (0 - 0)	4 (1 - 8)	10 (5 - 15)
Carbapenem-resistant <i>E. coli</i>	11 (8 - 14)	6 (4 - 8)	0 (0 - 0)	15 (11 - 19)	9 (7 - 12)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	14 (9 - 20)	6 (3 - 8)	8 (5 - 12)	14 (9 - 18)	9 (6 - 12)
Overall	1 675 (1 453 - 1 918)	1 647 (1 413 - 1 907)	2 680 (2 343 - 3 044)	3 119 (2 737 - 3 527)	2 490 (2 157 - 2 840)

Romania: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

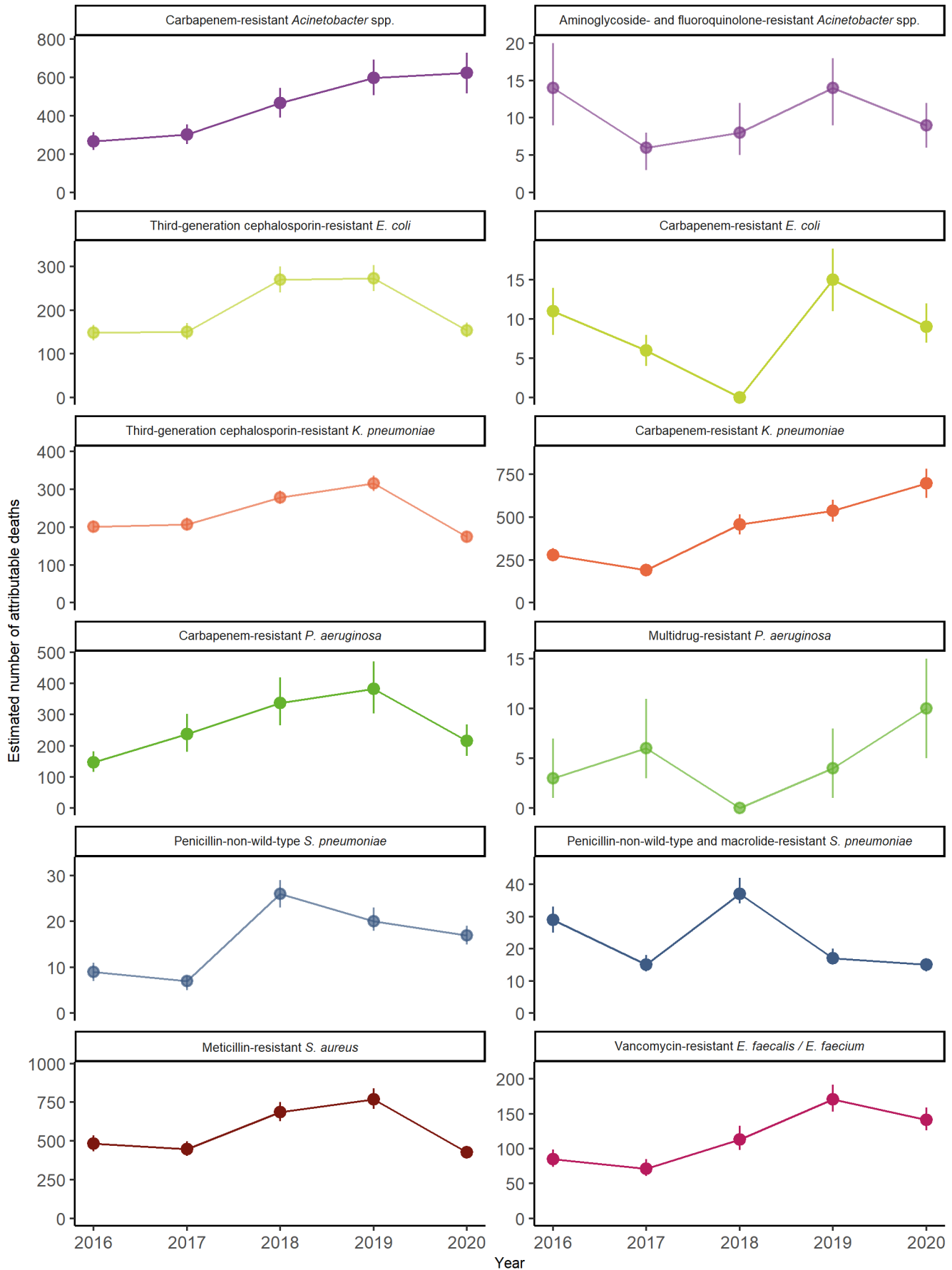
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>K. pneumoniae</i>	10 878 (9 430 - 12 388)	7 215 (6 299 - 8 155)	15 242 (13 413 - 17 061)	18 910 (16 819 - 21 003)	24 626 (21 920 - 27 357)
Carbapenem-resistant <i>Acinetobacter</i> spp.	10 683 (8 921 - 12 569)	11 384 (9 710 - 13 148)	17 281 (14 843 - 19 788)	23 833 (20 442 - 27 304)	22 847 (19 441 - 26 367)
Meticillin-resistant <i>S. aureus</i>	17 659 (16 130 - 19 367)	16 997 (15 540 - 18 610)	23 893 (22 085 - 25 894)	27 647 (25 606 - 29 859)	15 288 (14 127 - 16 581)
Carbapenem-resistant <i>P. aeruginosa</i>	6 198 (5 025 - 7 515)	8 671 (6 802 - 10 808)	12 877 (10 442 - 15 623)	13 675 (11 055 - 16 539)	8 026 (6 397 - 9 868)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	9 152 (8 514 - 9 839)	8 025 (7 461 - 8 637)	11 122 (10 510 - 11 753)	11 294 (10 653 - 11 970)	5 998 (5 607 - 6 419)
Third-generation cephalosporin-resistant <i>E. coli</i>	4 934 (4 446 - 5 467)	4 751 (4 266 - 5 257)	8 398 (7 653 - 9 181)	8 109 (7 393 - 8 863)	4 262 (3 867 - 4 677)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	3 036 (2 698 - 3 424)	2 164 (1 866 - 2 537)	3 490 (3 066 - 4 064)	5 705 (5 194 - 6 321)	4 192 (3 780 - 4 682)
Penicillin-non-wild-type <i>S. pneumoniae</i>	392 (315 - 501)	366 (291 - 485)	2 094 (1 832 - 2 452)	961 (852 - 1 108)	971 (868 - 1 096)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 623 (1 422 - 1 863)	1 095 (934 - 1 299)	2 186 (1 902 - 2 673)	1 117 (988 - 1 291)	689 (602 - 809)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	432 (265 - 627)	274 (169 - 392)	214 (136 - 296)	317 (220 - 421)	387 (264 - 517)
Carbapenem-resistant <i>E. coli</i>	583 (430 - 749)	178 (115 - 252)	0 (0 - 0)	514 (382 - 650)	266 (191 - 343)
Multidrug-resistant <i>P. aeruginosa</i>	86 (31 - 184)	116 (55 - 208)	0 (0 - 0)	55 (22 - 108)	197 (109 - 325)
Overall	65 656 (57 627 - 74 493)	61 236 (53 508 - 69 788)	96 797 (85 882 - 108 785)	112 137 (99 626 - 125 437)	87 749 (77 173 - 99 041)

Romania: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



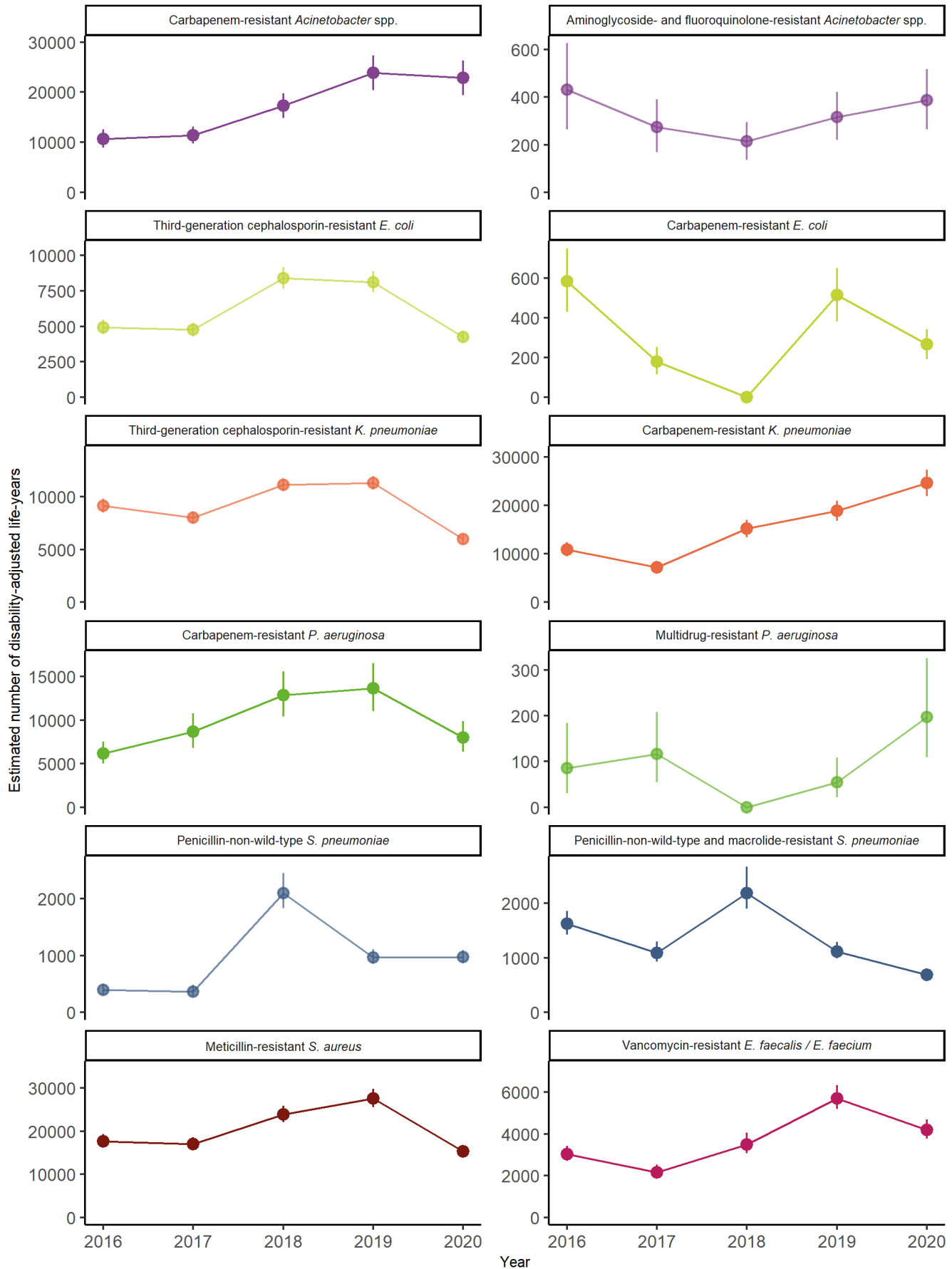
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Romania: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



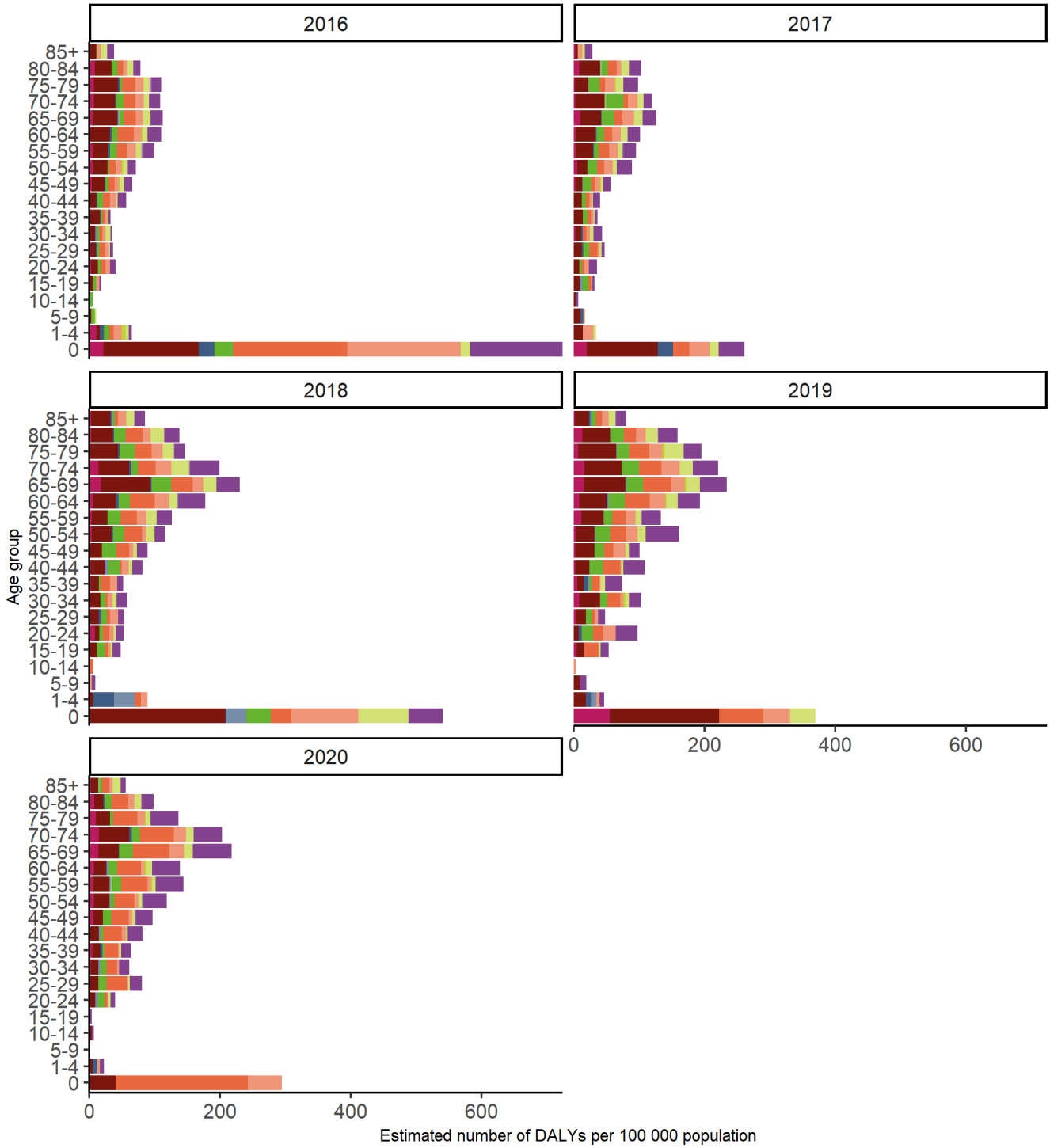
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Romania: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Romania: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

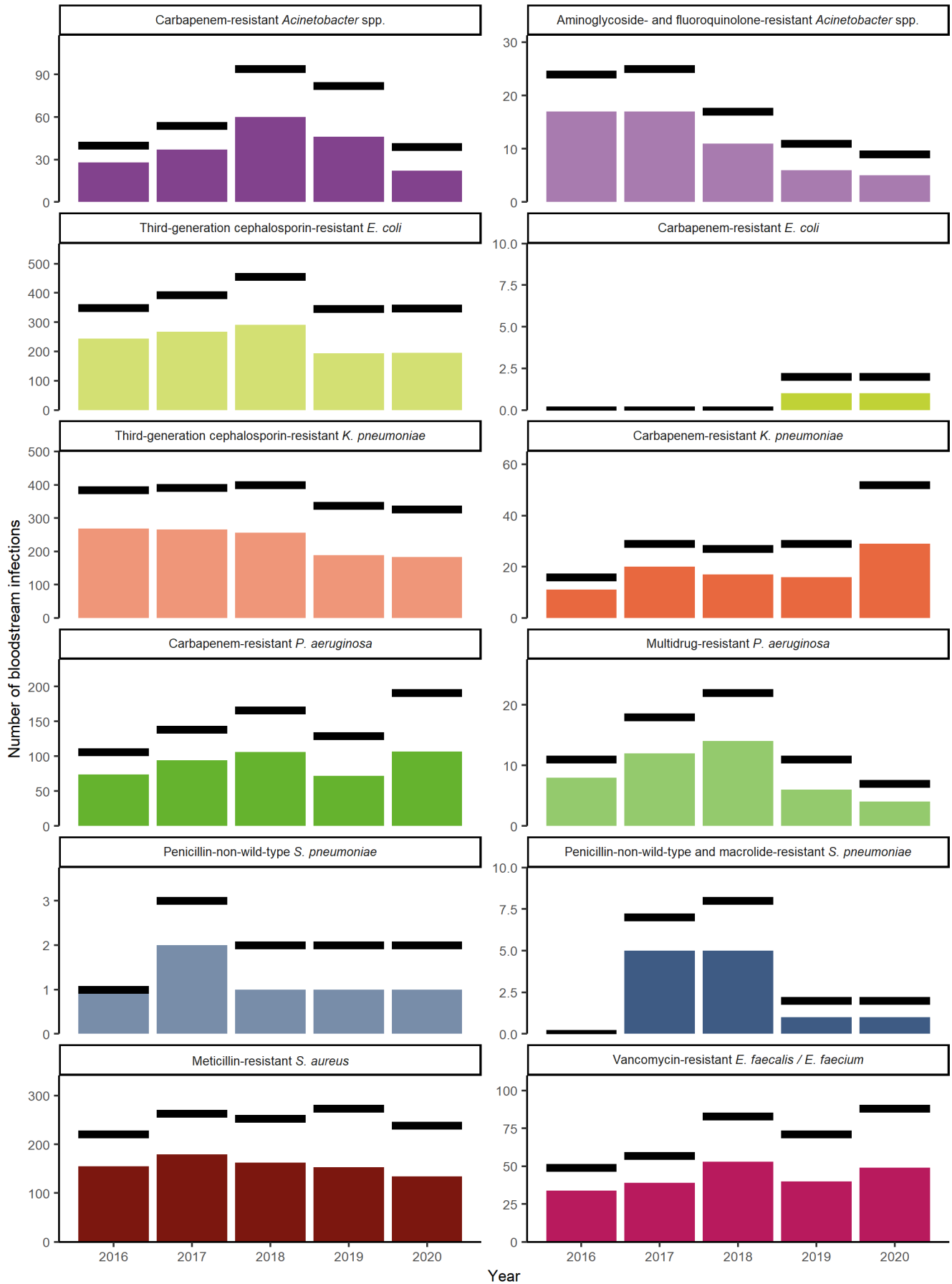
Estimates of the health burden of infections with antibiotic-resistant bacteria, Slovakia, 2016-2020

Slovakia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	244	349	267	393	291	455	193	345	195	348
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	269	384	266	391	256	400	189	337	183	327
Meticillin-resistant <i>S. aureus</i>	155	221	179	263	162	253	153	273	134	239
Carbapenem-resistant <i>P. aeruginosa</i>	74	106	94	138	106	166	72	129	107	191
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	34	49	39	57	53	83	40	71	49	88
Carbapenem-resistant <i>K. pneumoniae</i>	11	16	20	29	17	27	16	29	29	52
Carbapenem-resistant <i>Acinetobacter</i> spp.	28	40	37	54	60	94	46	82	22	39
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	17	24	17	25	11	17	6	11	5	9
Multidrug-resistant <i>P. aeruginosa</i>	8	11	12	18	14	22	6	11	4	7
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	1	2	1	2
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0	0	5	7	5	8	1	2	1	2
Penicillin-non-wild-type <i>S. pneumoniae</i>	1	1	2	3	1	2	1	2	1	2
Overall	841	1 201	938	1 378	976	1 527	724	1 294	731	1 306

Slovakia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Slovakia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 217 (1 990 - 2 457)	2 256 (2 046 - 2 476)	2 308 (2 083 - 2 546)	1 947 (1 749 - 2 157)	1 885 (1 696 - 2 086)
Third-generation cephalosporin-resistant <i>E. coli</i>	1 829 (1 612 - 2 061)	2 061 (1 824 - 2 319)	2 386 (2 098 - 2 700)	1 808 (1 584 - 2 050)	1 828 (1 600 - 2 074)
Carbapenem-resistant <i>P. aeruginosa</i>	994 (819 - 1 189)	1 301 (1 074 - 1 557)	1 560 (1 295 - 1 865)	1 209 (1 012 - 1 433)	1 797 (1 483 - 2 162)
Meticillin-resistant <i>S. aureus</i>	1 662 (1 451 - 1 896)	1 975 (1 718 - 2 254)	1 900 (1 672 - 2 151)	2 052 (1 771 - 2 361)	1 796 (1 547 - 2 072)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	650 (502 - 824)	762 (578 - 1 008)	1 104 (841 - 1 428)	950 (725 - 1 245)	1 166 (891 - 1 513)
Carbapenem-resistant <i>Acinetobacter</i> spp.	250 (214 - 290)	341 (297 - 387)	587 (511 - 669)	514 (445 - 589)	246 (206 - 291)
Carbapenem-resistant <i>K. pneumoniae</i>	60 (51 - 69)	111 (94 - 131)	100 (84 - 119)	108 (92 - 125)	196 (166 - 230)
Multidrug-resistant <i>P. aeruginosa</i>	107 (80 - 139)	165 (117 - 224)	204 (152 - 269)	100 (68 - 142)	66 (44 - 96)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	152 (129 - 177)	156 (133 - 181)	107 (86 - 130)	67 (53 - 82)	56 (43 - 70)
Penicillin-non-wild-type <i>S. pneumoniae</i>	7 (6 - 10)	15 (12 - 19)	8 (6 - 11)	9 (7 - 13)	9 (7 - 13)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	9 (5 - 14)	9 (5 - 15)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	38 (32 - 46)	40 (35 - 47)	9 (7 - 13)	9 (7 - 13)
Overall	7 928 (6 854 - 9 112)	9 181 (7 925 - 10 602)	10 304 (8 863 - 11 935)	8 782 (7 518 - 10 224)	9 063 (7 695 - 10 635)

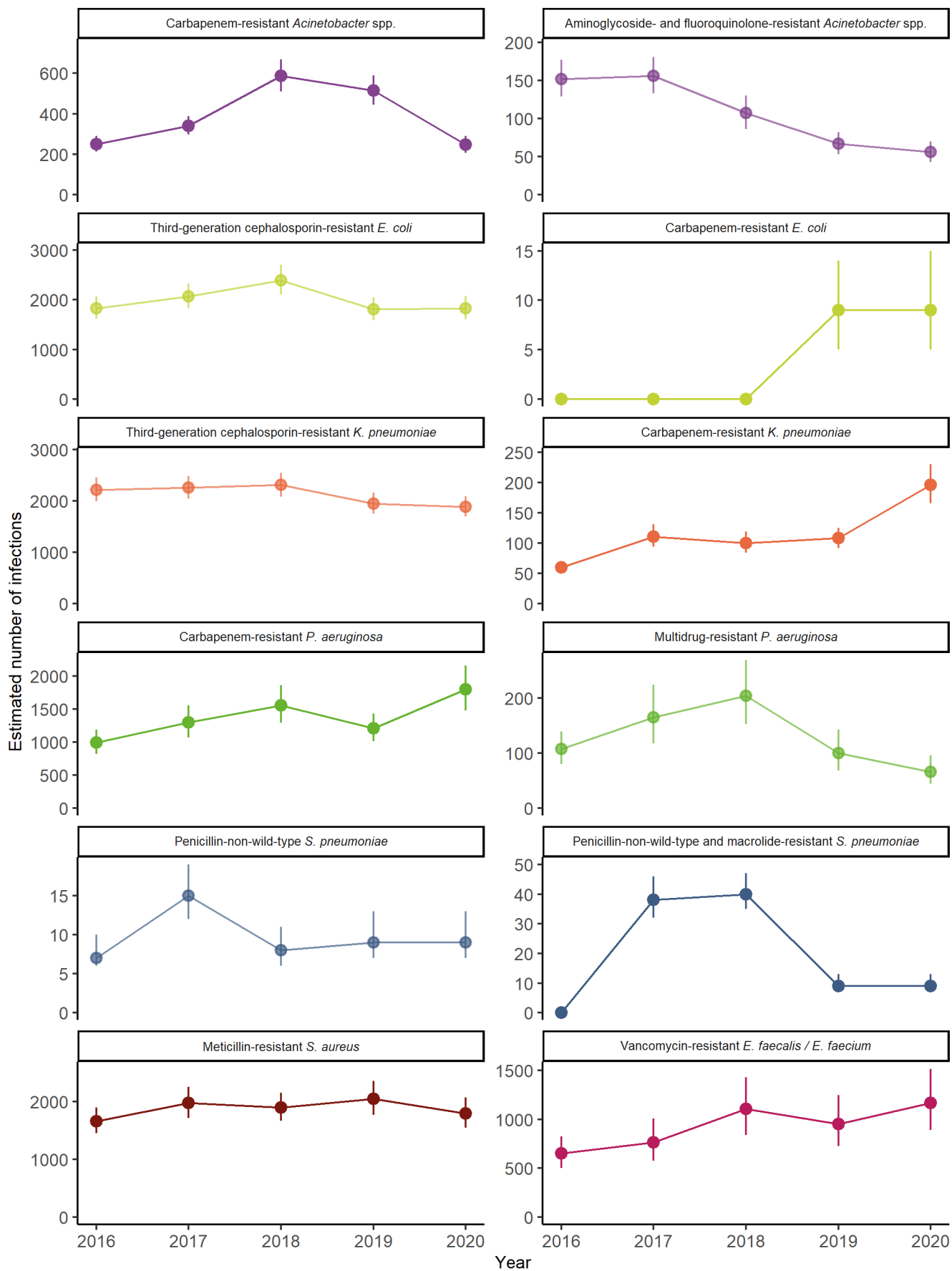
Slovakia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Carbapenem-resistant <i>P. aeruginosa</i>	47 (37 - 58)	61 (48 - 76)	73 (57 - 89)	56 (45 - 69)	85 (67 - 105)
Third-generation cephalosporin-resistant <i>E. coli</i>	80 (72 - 89)	91 (81 - 101)	105 (94 - 117)	80 (71 - 90)	81 (72 - 91)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	89 (83 - 95)	90 (84 - 95)	92 (86 - 99)	78 (73 - 83)	76 (71 - 81)
Meticillin-resistant <i>S. aureus</i>	66 (60 - 72)	77 (70 - 85)	75 (69 - 82)	82 (74 - 91)	72 (65 - 80)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	18 (16 - 20)	22 (19 - 26)	31 (27 - 35)	26 (23 - 29)	33 (29 - 38)
Carbapenem-resistant <i>K. pneumoniae</i>	6 (5 - 7)	12 (10 - 14)	11 (9 - 12)	11 (10 - 13)	20 (17 - 24)
Carbapenem-resistant <i>Acinetobacter</i> spp.	12 (10 - 15)	16 (13 - 19)	28 (23 - 33)	25 (20 - 30)	12 (9 - 15)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	7 (6 - 9)	7 (6 - 9)	5 (4 - 6)	3 (2 - 4)	3 (2 - 4)
Multidrug-resistant <i>P. aeruginosa</i>	5 (3 - 6)	8 (5 - 11)	9 (6 - 13)	4 (3 - 6)	3 (2 - 5)
Penicillin-non-wild-type <i>S. pneumoniae</i>	0 (0 - 1)	1 (1 - 1)	0 (0 - 1)	1 (0 - 1)	1 (0 - 1)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	1 (0 - 1)	1 (0 - 1)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	2 (2 - 3)	2 (2 - 3)	1 (0 - 1)	1 (0 - 1)
Overall	330 (292 - 372)	387 (339 - 440)	431 (377 - 490)	368 (321 - 418)	388 (334 - 446)

Slovakia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

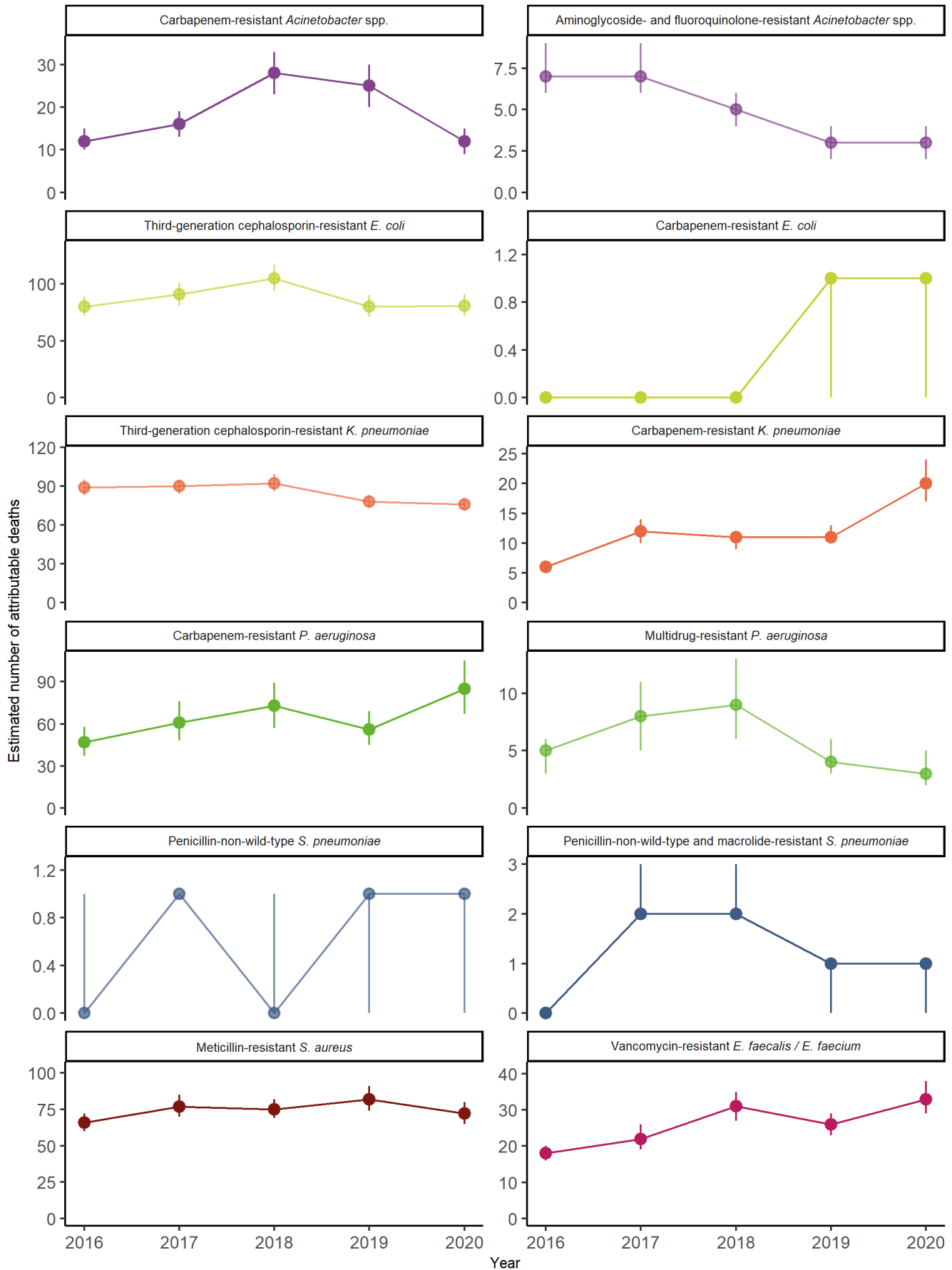
	2016	2017	2018	2019	2020
Carbapenem-resistant <i>P. aeruginosa</i>	1 666 (1 339 - 2 042)	2 505 (2 027 - 3 043)	3 036 (2 475 - 3 652)	2 484 (2 048 - 2 962)	3 242 (2 646 - 3 914)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	2 949 (2 775 - 3 135)	3 466 (3 285 - 3 659)	3 504 (3 297 - 3 722)	2 911 (2 733 - 3 106)	2 487 (2 345 - 2 638)
Meticillin-resistant <i>S. aureus</i>	2 026 (1 875 - 2 188)	2 904 (2 638 - 3 213)	2 853 (2 622 - 3 115)	2 440 (2 240 - 2 663)	2 071 (1 902 - 2 258)
Third-generation cephalosporin-resistant <i>E. coli</i>	2 278 (2 081 - 2 483)	2 680 (2 452 - 2 921)	2 994 (2 734 - 3 265)	2 181 (1 982 - 2 390)	2 067 (1 875 - 2 265)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	540 (493 - 594)	660 (591 - 759)	957 (862 - 1 082)	752 (683 - 837)	1 087 (977 - 1 221)
Carbapenem-resistant <i>K. pneumoniae</i>	221 (187 - 258)	411 (344 - 479)	363 (304 - 424)	373 (316 - 433)	681 (573 - 793)
Carbapenem-resistant <i>Acinetobacter</i> spp.	398 (321 - 477)	638 (531 - 752)	1 081 (904 - 1 264)	871 (729 - 1 018)	441 (349 - 542)
Multidrug-resistant <i>P. aeruginosa</i>	209 (147 - 285)	187 (125 - 264)	264 (190 - 354)	134 (84 - 199)	85 (53 - 125)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	258 (203 - 313)	316 (247 - 388)	158 (120 - 198)	143 (105 - 183)	75 (52 - 100)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	0 (0 - 0)	247 (214 - 293)	175 (154 - 203)	21 (17 - 29)	46 (37 - 63)
Penicillin-non-wild-type <i>S. pneumoniae</i>	39 (31 - 54)	41 (34 - 51)	52 (42 - 72)	18 (14 - 24)	25 (20 - 34)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	10 (6 - 15)	17 (10 - 24)
Overall	10 584 (9 452 - 11 829)	14 055 (12 488 - 15 822)	15 437 (13 704 - 17 351)	12 338 (10 957 - 13 859)	12 324 (10 839 - 13 977)

Slovakia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



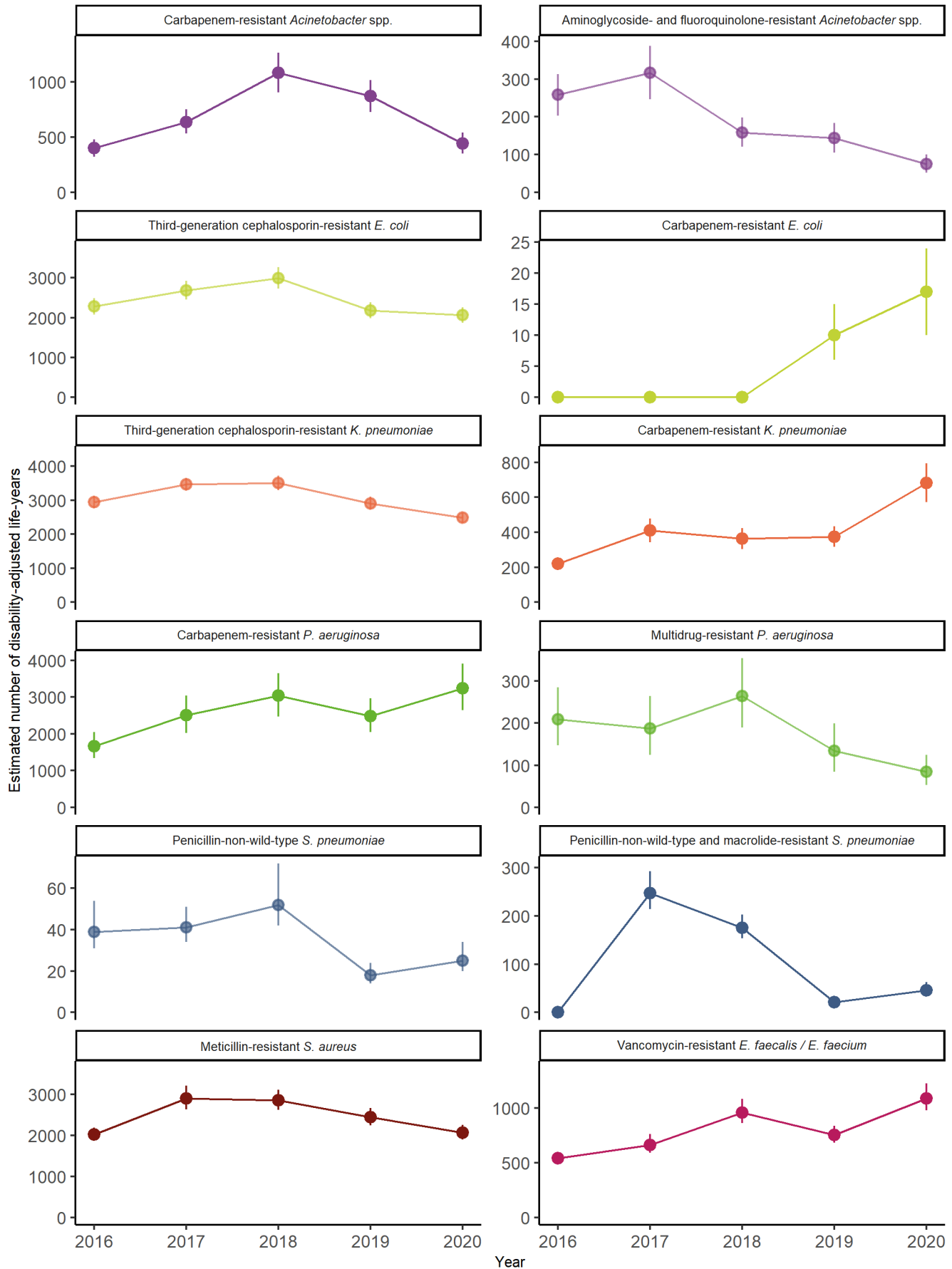
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovakia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



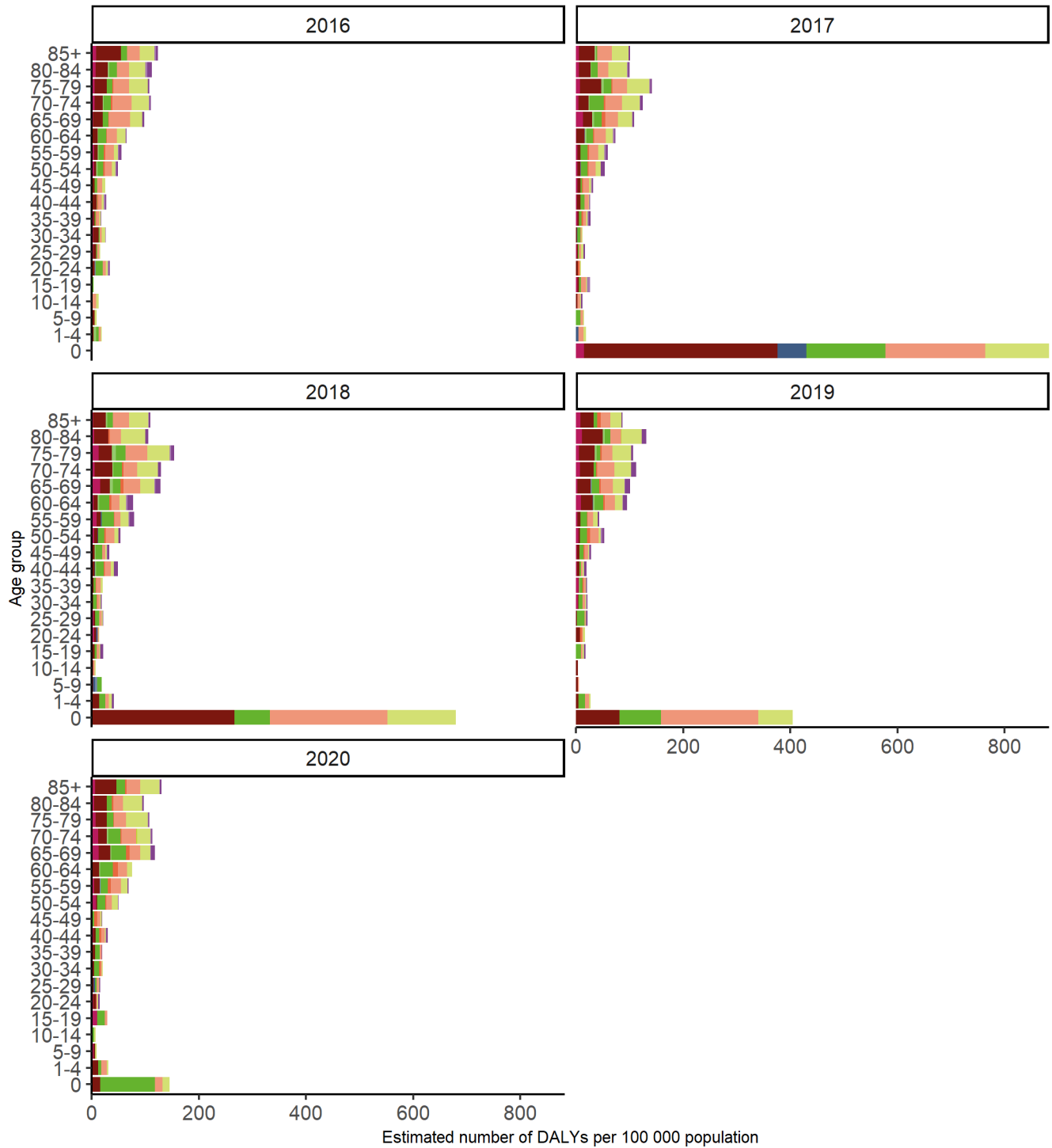
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovakia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovakia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

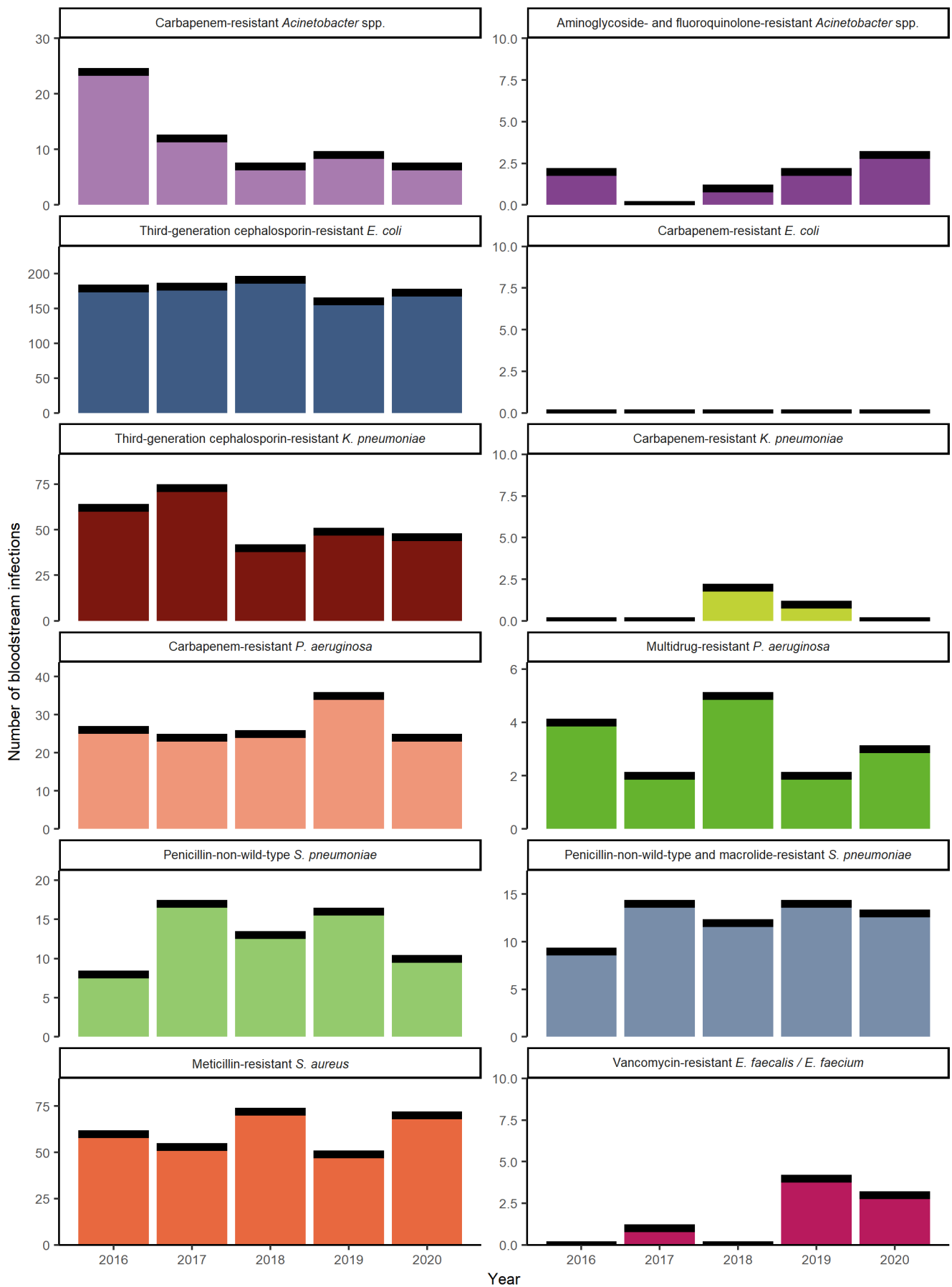
Estimates of the health burden of infections with antibiotic-resistant bacteria, Slovenia, 2016-2020

Slovenia: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	177	179	179	181	189	191	158	160	171	173
Meticillin-resistant <i>S. aureus</i>	59	60	52	53	71	72	49	49	69	70
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	61	62	72	73	40	40	49	49	46	46
Carbapenem-resistant <i>P. aeruginosa</i>	26	26	24	24	25	25	35	35	24	24
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	9	9	14	14	12	12	14	14	13	13
Penicillin-non-wild-type <i>S. pneumoniae</i>	8	8	17	17	13	13	16	16	10	10
Carbapenem-resistant <i>Acinetobacter</i> spp.	24	24	12	12	7	7	9	9	7	7
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	2	2	0	0	1	1	2	2	3	3
Multidrug-resistant <i>P. aeruginosa</i>	4	4	2	2	5	5	2	2	3	3
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0	0	1	1	0	0	4	4	3	3
Carbapenem-resistant <i>E. coli</i>	0	0	0	0	0	0	0	0	0	0
Carbapenem-resistant <i>K. pneumoniae</i>	0	0	0	0	2	2	1	1	0	0
Overall	370	374	373	377	365	368	339	341	349	352

Slovenia: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Slovenia: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	938 (807 - 1 083)	947 (817 - 1 095)	1 001 (860 - 1 158)	838 (724 - 962)	905 (777 - 1 048)
Meticillin-resistant <i>S. aureus</i>	447 (375 - 527)	394 (332 - 462)	537 (457 - 628)	371 (308 - 443)	523 (446 - 608)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	356 (316 - 398)	419 (370 - 473)	233 (203 - 264)	285 (252 - 322)	268 (231 - 309)
Carbapenem-resistant <i>P. aeruginosa</i>	246 (188 - 316)	228 (179 - 286)	237 (183 - 302)	332 (261 - 416)	228 (174 - 293)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	47 (42 - 53)	73 (66 - 83)	62 (56 - 72)	73 (65 - 84)	68 (61 - 76)
Penicillin-non-wild-type <i>S. pneumoniae</i>	42 (37 - 48)	88 (80 - 100)	68 (61 - 76)	83 (76 - 92)	52 (46 - 60)
Carbapenem-resistant <i>Acinetobacter</i> spp.	152 (125 - 179)	76 (62 - 91)	44 (35 - 55)	57 (47 - 67)	44 (35 - 55)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	12 (4 - 29)	0 (0 - 0)	53 (31 - 82)	40 (21 - 65)
Multidrug-resistant <i>P. aeruginosa</i>	38 (25 - 54)	19 (10 - 31)	47 (32 - 65)	19 (10 - 31)	28 (17 - 43)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	13 (8 - 18)	0 (0 - 0)	6 (3 - 10)	13 (8 - 18)	19 (13 - 25)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	8 (5 - 11)	4 (2 - 6)	0 (0 - 0)
Overall	2 279 (1 923 - 2 676)	2 256 (1 920 - 2 650)	2 243 (1 895 - 2 641)	2 128 (1 784 - 2 523)	2 175 (1 821 - 2 582)

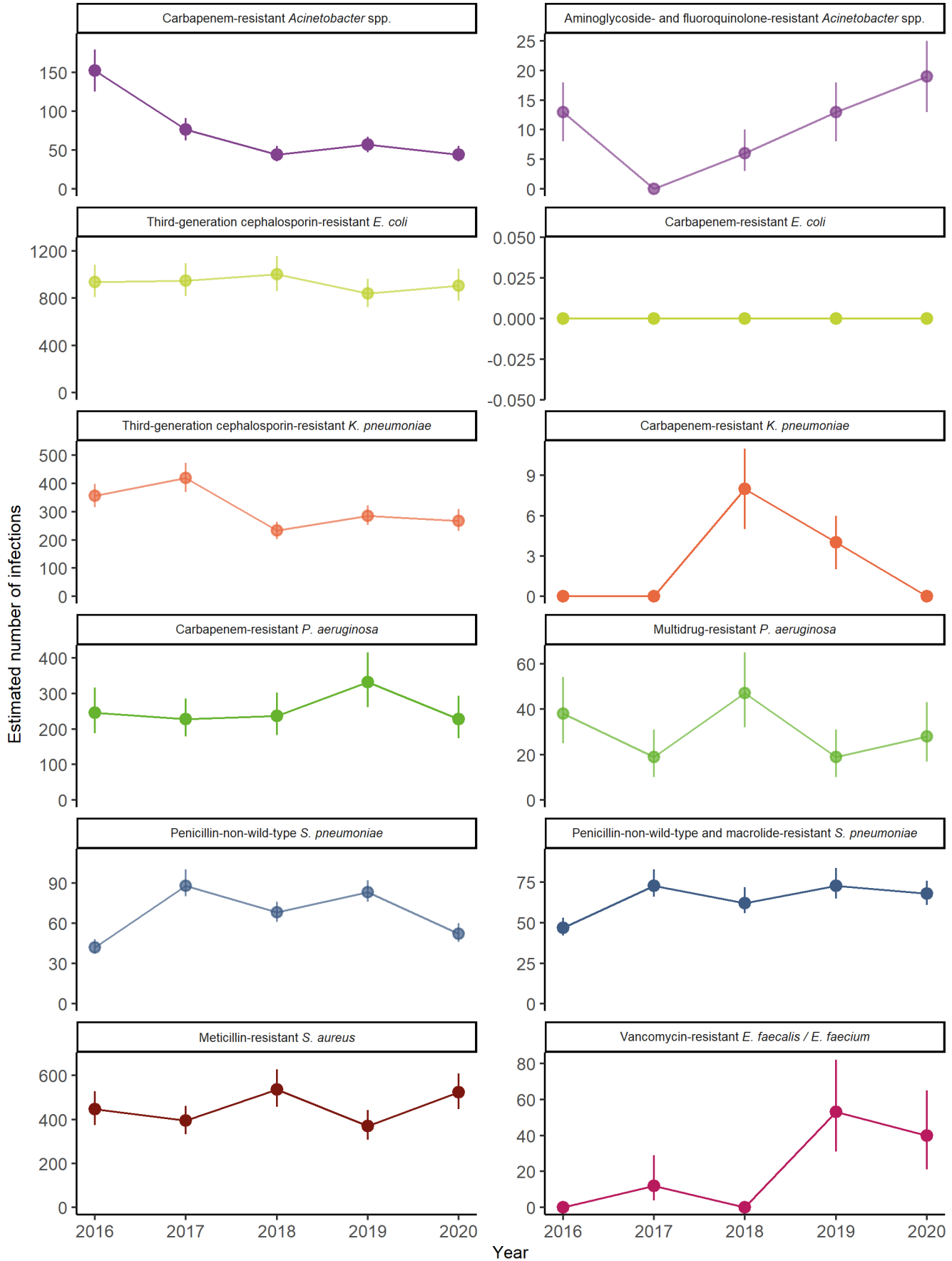
Slovenia: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	42 (37 - 48)	42 (37 - 48)	45 (39 - 51)	38 (33 - 42)	41 (36 - 46)
Meticillin-resistant <i>S. aureus</i>	18 (16 - 21)	16 (14 - 18)	22 (20 - 24)	15 (13 - 17)	21 (19 - 24)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	14 (13 - 16)	17 (16 - 18)	9 (9 - 10)	12 (11 - 13)	11 (10 - 12)
Carbapenem-resistant <i>P. aeruginosa</i>	12 (8 - 15)	11 (8 - 14)	11 (8 - 15)	16 (12 - 21)	11 (8 - 15)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	3 (3 - 3)	4 (4 - 5)	4 (3 - 4)	4 (4 - 5)	4 (4 - 5)
Penicillin-non-wild-type <i>S. pneumoniae</i>	3 (2 - 3)	5 (5 - 6)	4 (4 - 5)	5 (5 - 6)	3 (3 - 4)
Carbapenem-resistant <i>Acinetobacter</i> spp.	7 (6 - 9)	4 (3 - 5)	2 (2 - 3)	3 (2 - 3)	2 (1 - 3)
Multidrug-resistant <i>P. aeruginosa</i>	2 (1 - 3)	1 (0 - 1)	2 (1 - 3)	1 (0 - 1)	1 (1 - 2)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (0 - 1)	0 (0 - 0)	0 (0 - 1)	1 (0 - 1)	1 (1 - 1)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	0 (0 - 1)	0 (0 - 0)	2 (1 - 2)	1 (1 - 1)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	1 (1 - 1)	0 (0 - 1)	0 (0 - 0)
Overall	102 (86 - 119)	100 (87 - 116)	100 (87 - 117)	97 (81 - 112)	96 (84 - 113)

Slovenia: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

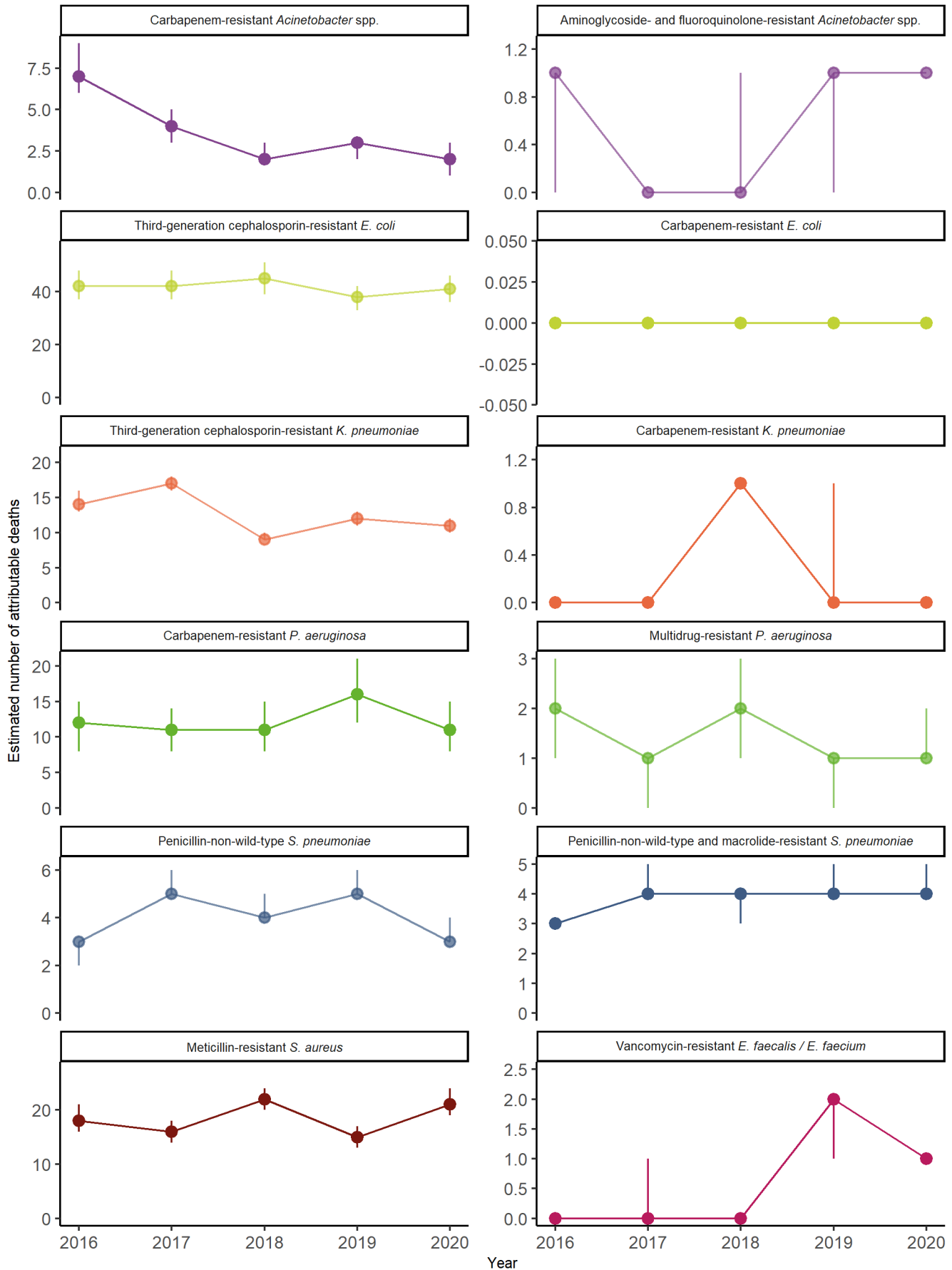
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	923 (831 - 1 019)	950 (861 - 1 044)	970 (872 - 1 071)	812 (732 - 896)	838 (757 - 925)
Meticillin-resistant <i>S. aureus</i>	430 (389 - 477)	384 (346 - 427)	567 (512 - 629)	372 (332 - 417)	531 (482 - 588)
Carbapenem-resistant <i>P. aeruginosa</i>	379 (271 - 510)	339 (259 - 430)	408 (300 - 537)	550 (424 - 697)	356 (272 - 454)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	426 (400 - 455)	466 (435 - 500)	265 (245 - 287)	337 (315 - 361)	302 (276 - 332)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	91 (81 - 103)	154 (139 - 173)	262 (230 - 309)	213 (188 - 261)	173 (156 - 193)
Carbapenem-resistant <i>Acinetobacter</i> spp.	209 (165 - 254)	97 (75 - 120)	72 (52 - 92)	111 (85 - 138)	78 (54 - 103)
Penicillin-non-wild-type <i>S. pneumoniae</i>	136 (119 - 165)	199 (178 - 230)	211 (189 - 242)	281 (256 - 314)	62 (56 - 70)
Multidrug-resistant <i>P. aeruginosa</i>	52 (31 - 82)	37 (18 - 64)	58 (37 - 84)	19 (9 - 32)	39 (23 - 60)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	0 (0 - 0)	6 (4 - 9)	0 (0 - 0)	41 (33 - 52)	36 (30 - 45)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	30 (17 - 44)	0 (0 - 0)	6 (3 - 10)	21 (12 - 31)	30 (19 - 42)
Carbapenem-resistant <i>E. coli</i>	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)	0 (0 - 0)
Carbapenem-resistant <i>K. pneumoniae</i>	0 (0 - 0)	0 (0 - 0)	42 (28 - 57)	7 (4 - 11)	0 (0 - 0)
Overall	2 676 (2 304 - 3 109)	2 632 (2 315 - 2 997)	2 861 (2 468 - 3 318)	2 764 (2 390 - 3 210)	2 445 (2 125 - 2 812)

Slovenia: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



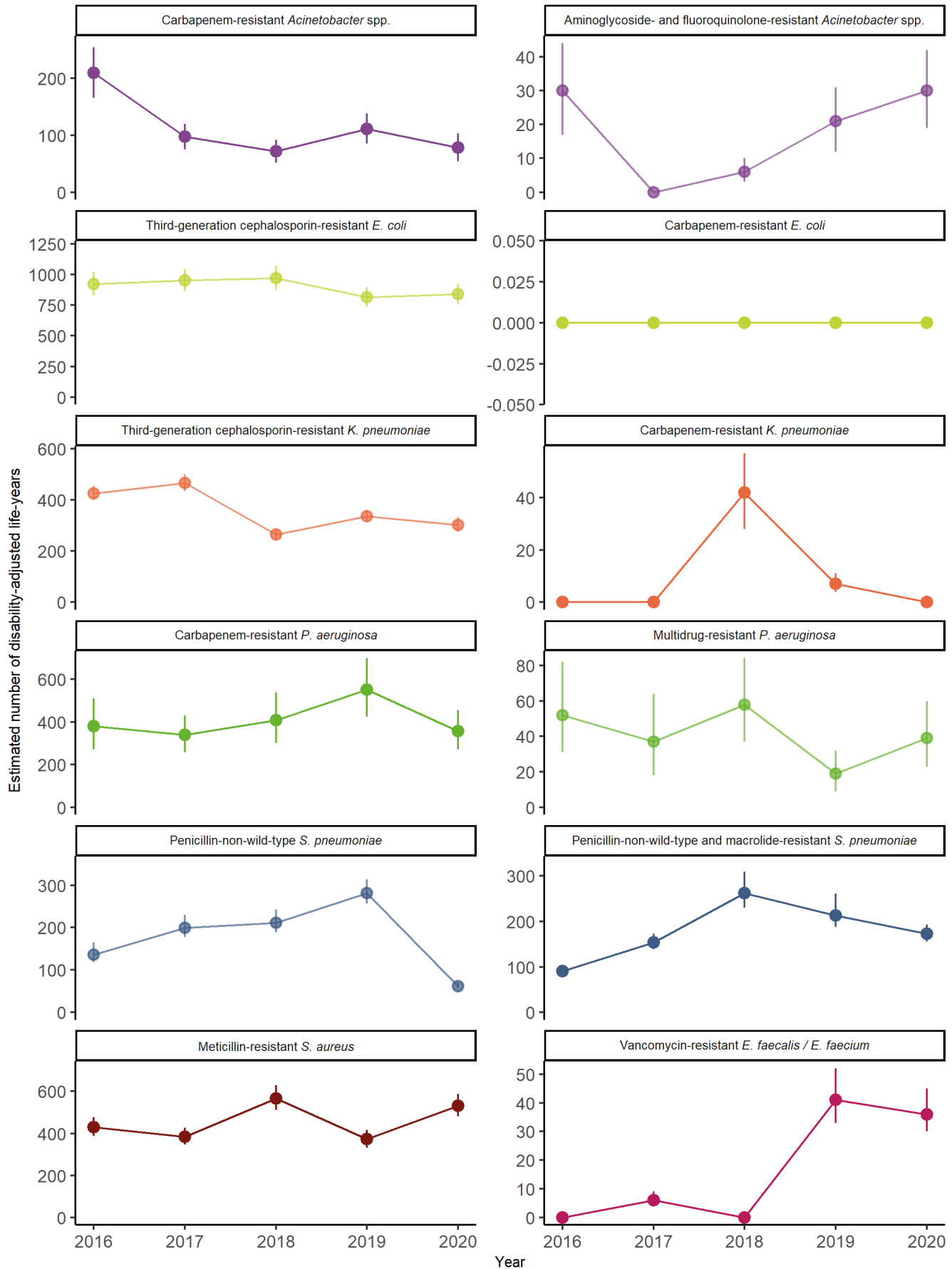
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovenia: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



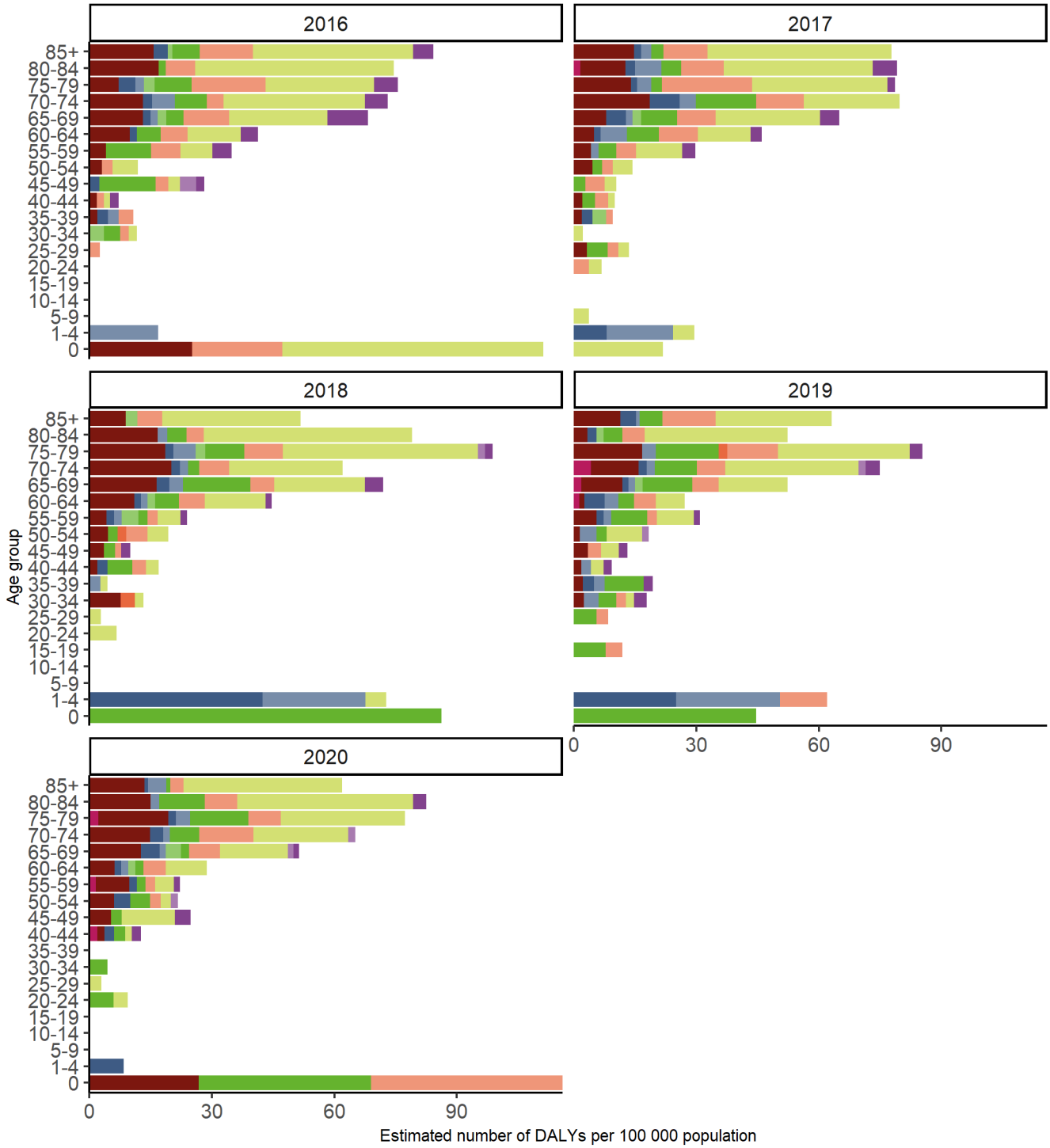
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovenia: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Slovenia: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium-antibiotic resistance combination, 2016-2020



- | | |
|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbanem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbanem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbanem-resistant <i>P. aeruginosa</i> | ■ Carbanem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

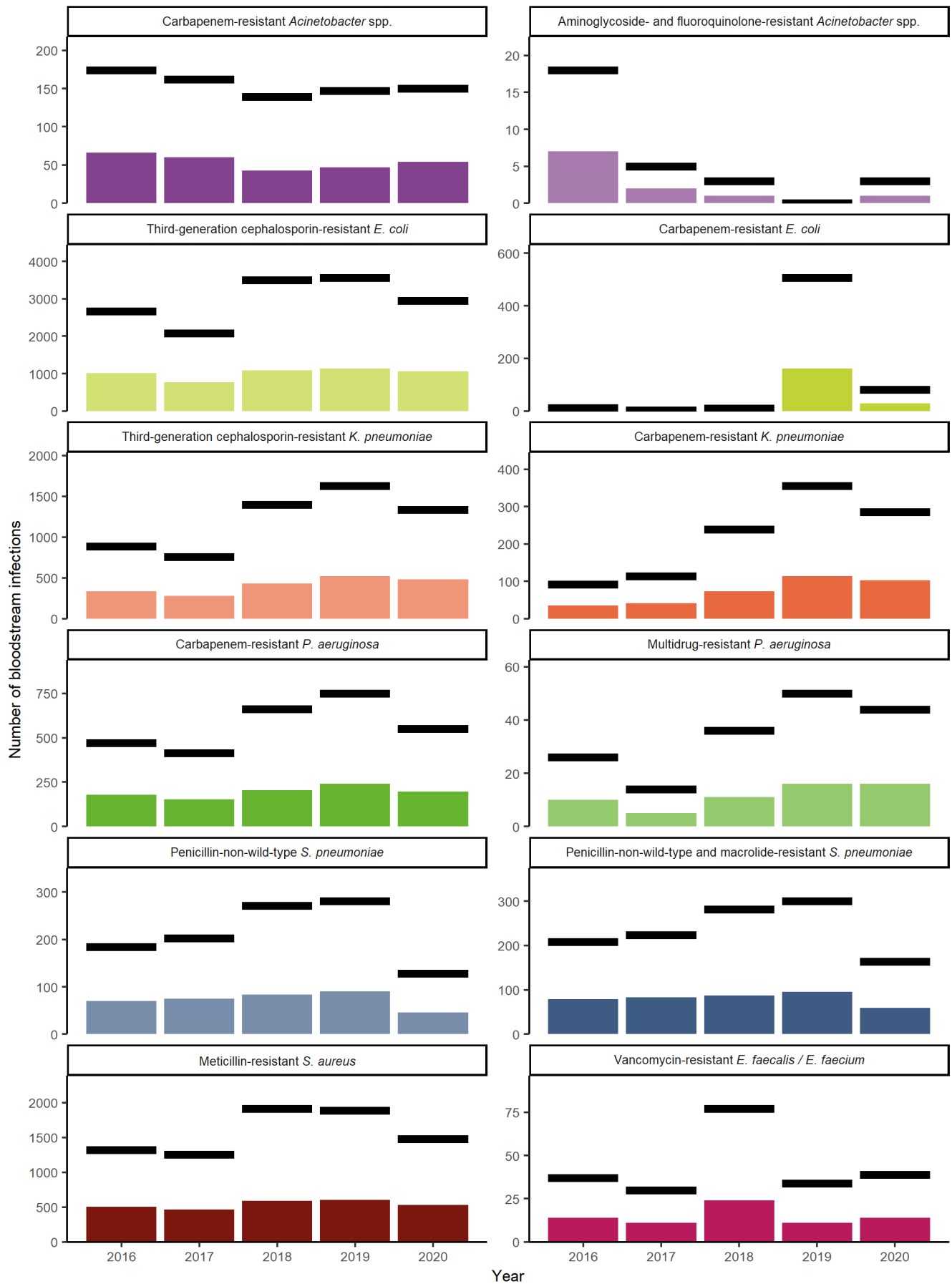
Estimates of the health burden of infections with antibiotic-resistant bacteria, Spain, 2016-2020

Spain: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium-antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	1 014	2 668	768	2 076	1 085	3 500	1 139	3 559	1 063	2 953
Meticillin-resistant <i>S. aureus</i>	502	1 321	464	1 254	592	1 910	603	1 884	531	1 475
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	338	889	280	757	433	1 397	522	1 631	482	1 339
Carbapenem-resistant <i>P. aeruginosa</i>	179	471	153	414	205	661	240	750	198	550
Carbapenem-resistant <i>K. pneumoniae</i>	35	92	42	114	74	239	114	356	103	286
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	79	208	83	224	87	281	96	300	59	164
Carbapenem-resistant <i>Acinetobacter</i> spp.	66	174	60	162	43	139	47	147	54	150
Penicillin-non-wild-type <i>S. pneumoniae</i>	70	184	75	203	84	271	90	281	46	128
Carbapenem-resistant <i>E. coli</i>	4	11	1	3	3	10	162	506	29	81
Multidrug-resistant <i>P. aeruginosa</i>	10	26	5	14	11	36	16	50	16	44
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	14	37	11	30	24	77	11	34	14	39
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	7	18	2	5	1	3	0	0	1	3
Overall	2 318	6 099	1 944	5 256	2 642	8 524	3 040	9 498	2 596	7 212

Spain: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



Spain: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	13 994 (12 076 - 16 146)	10 890 (9 344 - 12 594)	18 353 (15 758 - 21 213)	18 657 (16 215 - 21 408)	15 473 (13 364 - 17 859)
Meticillin-resistant <i>S. aureus</i>	9 909 (8 410 - 11 567)	9 413 (8 013 - 10 964)	14 337 (12 265 - 16 638)	14 137 (12 157 - 16 338)	11 069 (9 425 - 12 868)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	5 129 (4 608 - 5 675)	4 362 (3 913 - 4 841)	8 054 (7 253 - 8 907)	9 406 (8 478 - 10 393)	7 722 (6 908 - 8 596)
Carbapenem-resistant <i>P. aeruginosa</i>	4 428 (3 625 - 5 350)	3 892 (3 185 - 4 693)	6 221 (5 108 - 7 494)	7 062 (5 915 - 8 346)	5 163 (4 171 - 6 318)
Carbapenem-resistant <i>K. pneumoniae</i>	349 (300 - 402)	429 (368 - 497)	904 (789 - 1 028)	1 347 (1 168 - 1 546)	1 083 (949 - 1 227)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 088 (951 - 1 233)	1 015 (872 - 1 168)	869 (742 - 1 006)	920 (812 - 1 035)	939 (795 - 1 098)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	1 072 (987 - 1 184)	1 158 (1 072 - 1 264)	1 448 (1 339 - 1 588)	1 548 (1 424 - 1 701)	847 (789 - 918)
Penicillin-non-wild-type <i>S. pneumoniae</i>	951 (878 - 1 044)	1 047 (964 - 1 146)	1 399 (1 298 - 1 524)	1 452 (1 348 - 1 578)	660 (607 - 727)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	492 (354 - 656)	395 (273 - 554)	1 026 (715 - 1 445)	455 (309 - 652)	516 (361 - 718)
Carbapenem-resistant <i>E. coli</i>	55 (42 - 70)	14 (8 - 22)	51 (37 - 67)	2 657 (2 294 - 3 059)	423 (360 - 491)
Multidrug-resistant <i>P. aeruginosa</i>	246 (178 - 332)	126 (87 - 175)	332 (244 - 440)	468 (351 - 610)	417 (324 - 524)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	115 (91 - 142)	34 (22 - 47)	20 (11 - 32)	0 (0 - 0)	17 (10 - 27)
Overall	37 828 (32 500 - 43 801)	32 775 (28 121 - 37 965)	53 014 (45 559 - 61 382)	58 109 (50 471 - 66 666)	44 329 (38 063 - 51 371)

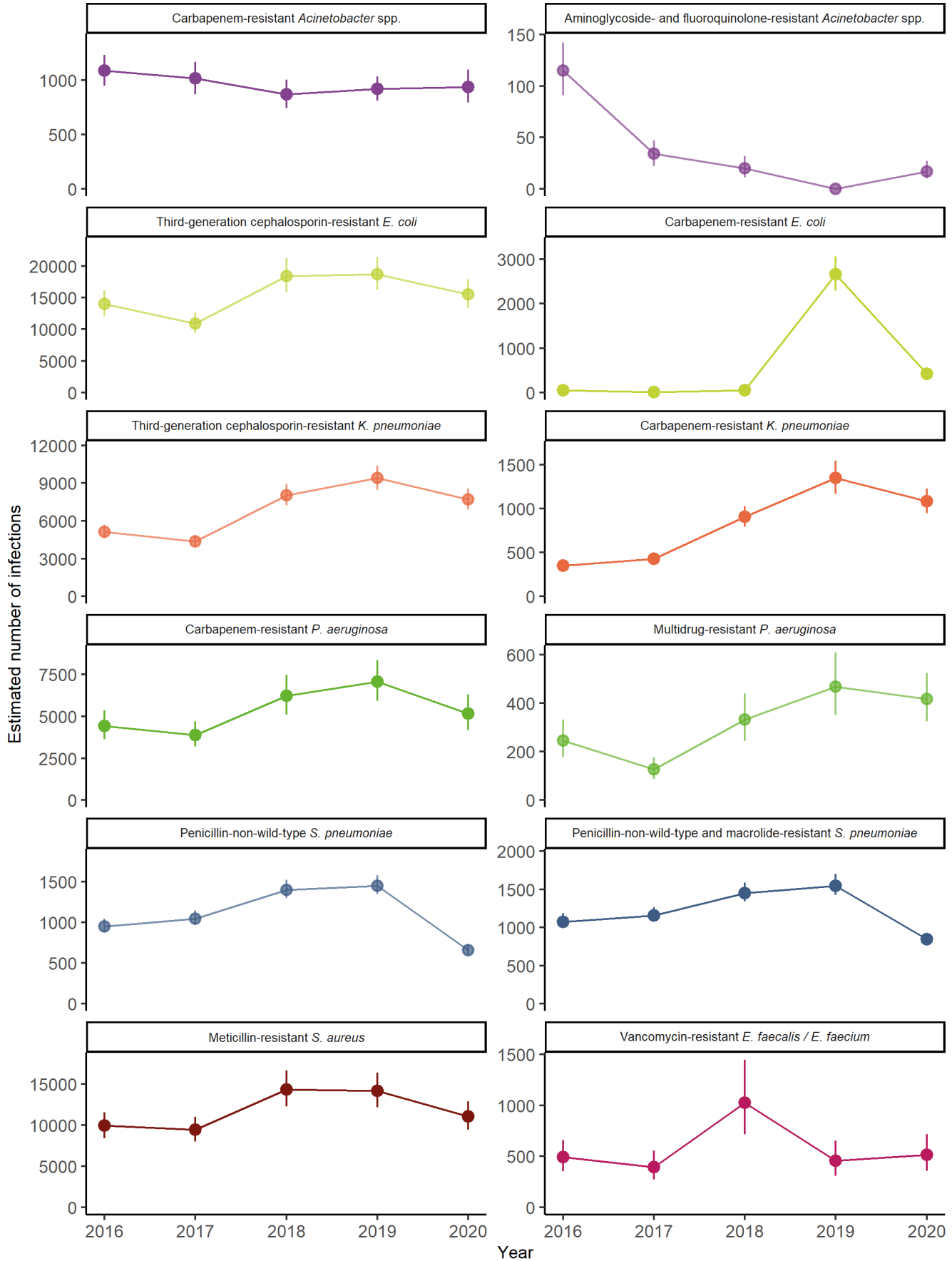
Spain: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	623 (547 - 705)	489 (427 - 555)	821 (716 - 931)	831 (733 - 939)	693 (607 - 784)
Meticillin-resistant <i>S. aureus</i>	407 (364 - 456)	387 (346 - 432)	585 (525 - 652)	572 (515 - 635)	450 (402 - 502)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	207 (193 - 222)	176 (164 - 189)	325 (304 - 348)	379 (354 - 405)	313 (290 - 336)
Carbapenem-resistant <i>P. aeruginosa</i>	209 (164 - 261)	185 (144 - 230)	295 (233 - 367)	334 (268 - 408)	244 (188 - 309)
Carbapenem-resistant <i>K. pneumoniae</i>	37 (32 - 42)	46 (39 - 52)	95 (82 - 107)	142 (123 - 162)	114 (99 - 129)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	66 (61 - 72)	71 (66 - 76)	89 (83 - 96)	95 (88 - 103)	52 (49 - 56)
Carbapenem-resistant <i>Acinetobacter</i> spp.	52 (43 - 62)	49 (39 - 58)	42 (33 - 50)	44 (37 - 51)	46 (36 - 56)
Penicillin-non-wild-type <i>S. pneumoniae</i>	58 (54 - 63)	64 (60 - 69)	86 (80 - 92)	89 (84 - 95)	41 (38 - 44)
Carbapenem-resistant <i>E. coli</i>	4 (3 - 6)	1 (1 - 2)	4 (3 - 5)	211 (180 - 243)	34 (28 - 39)
Multidrug-resistant <i>P. aeruginosa</i>	11 (7 - 16)	5 (3 - 8)	15 (11 - 21)	21 (14 - 28)	19 (14 - 24)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	15 (13 - 17)	11 (10 - 14)	31 (26 - 37)	13 (11 - 15)	16 (13 - 19)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	5 (4 - 7)	2 (1 - 2)	1 (0 - 2)	0 (0 - 0)	1 (0 - 1)
Overall	1 694 (1 485 - 1 929)	1 486 (1 300 - 1 687)	2 389 (2 096 - 2 708)	2 731 (2 407 - 3 084)	2 023 (1 764 - 2 299)

Spain: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

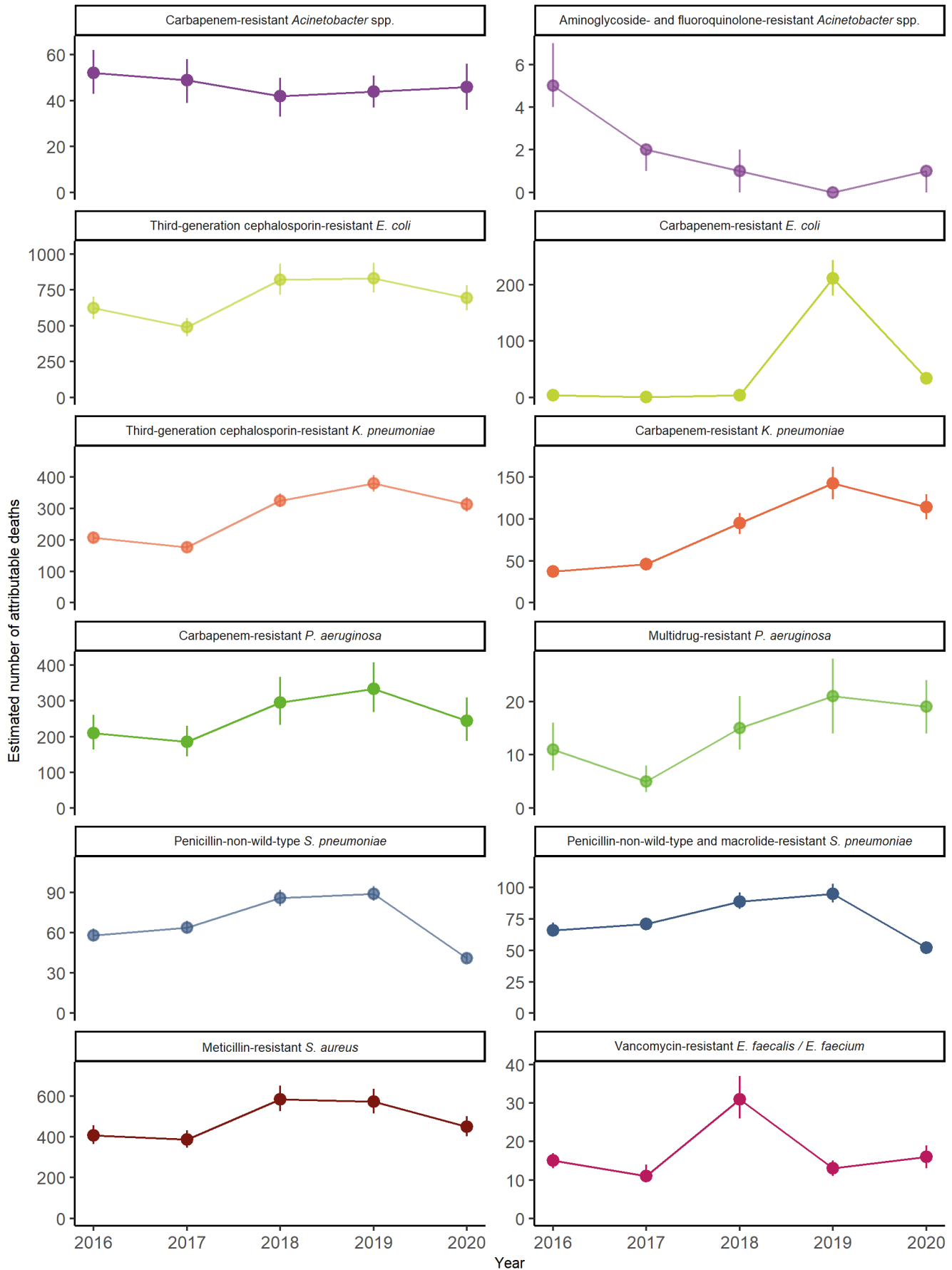
	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	14 189 (13 002 - 15 417)	10 149 (9 189 - 11 125)	17 808 (16 168 - 19 475)	19 184 (17 575 - 20 871)	15 433 (14 054 - 16 857)
Meticillin-resistant <i>S. aureus</i>	9 746 (8 967 - 10 582)	9 393 (8 647 - 10 206)	14 400 (13 283 - 15 603)	15 129 (14 040 - 16 318)	11 098 (10 215 - 12 044)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	6 646 (6 260 - 7 055)	5 588 (5 276 - 5 919)	10 105 (9 558 - 10 690)	11 992 (11 372 - 12 647)	9 144 (8 604 - 9 703)
Carbapenem-resistant <i>P. aeruginosa</i>	7 173 (5 816 - 8 689)	6 073 (4 875 - 7 420)	9 403 (7 695 - 11 333)	11 995 (10 012 - 14 154)	8 326 (6 674 - 10 205)
Carbapenem-resistant <i>K. pneumoniae</i>	899 (775 - 1 024)	1 199 (1 023 - 1 379)	2 998 (2 636 - 3 358)	4 242 (3 704 - 4 802)	3 489 (3 079 - 3 912)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	2 529 (2 360 - 2 727)	2 927 (2 720 - 3 190)	3 363 (3 156 - 3 607)	4 303 (3 956 - 4 783)	2 570 (2 385 - 2 815)
Penicillin-non-wild-type <i>S. pneumoniae</i>	2 014 (1 875 - 2 179)	2 134 (1 990 - 2 304)	3 469 (3 239 - 3 755)	3 562 (3 330 - 3 842)	1 630 (1 510 - 1 776)
Carbapenem-resistant <i>Acinetobacter</i> spp.	1 886 (1 593 - 2 186)	1 872 (1 520 - 2 241)	1 538 (1 264 - 1 821)	1 813 (1 543 - 2 090)	1 486 (1 220 - 1 757)
Carbapenem-resistant <i>E. coli</i>	82 (60 - 105)	25 (15 - 37)	175 (120 - 234)	4 825 (4 282 - 5 354)	814 (688 - 942)
Multidrug-resistant <i>P. aeruginosa</i>	307 (217 - 415)	231 (152 - 326)	371 (266 - 493)	760 (555 - 998)	636 (477 - 822)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	300 (259 - 349)	337 (294 - 390)	554 (488 - 631)	309 (268 - 364)	381 (327 - 447)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	222 (166 - 280)	39 (22 - 58)	29 (14 - 47)	0 (0 - 0)	41 (19 - 66)
Overall	45 993 (41 350 - 51 008)	39 967 (35 723 - 44 595)	64 213 (57 887 - 71 047)	78 114 (70 637 - 86 223)	55 048 (49 252 - 61 346)

Spain: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016–2020



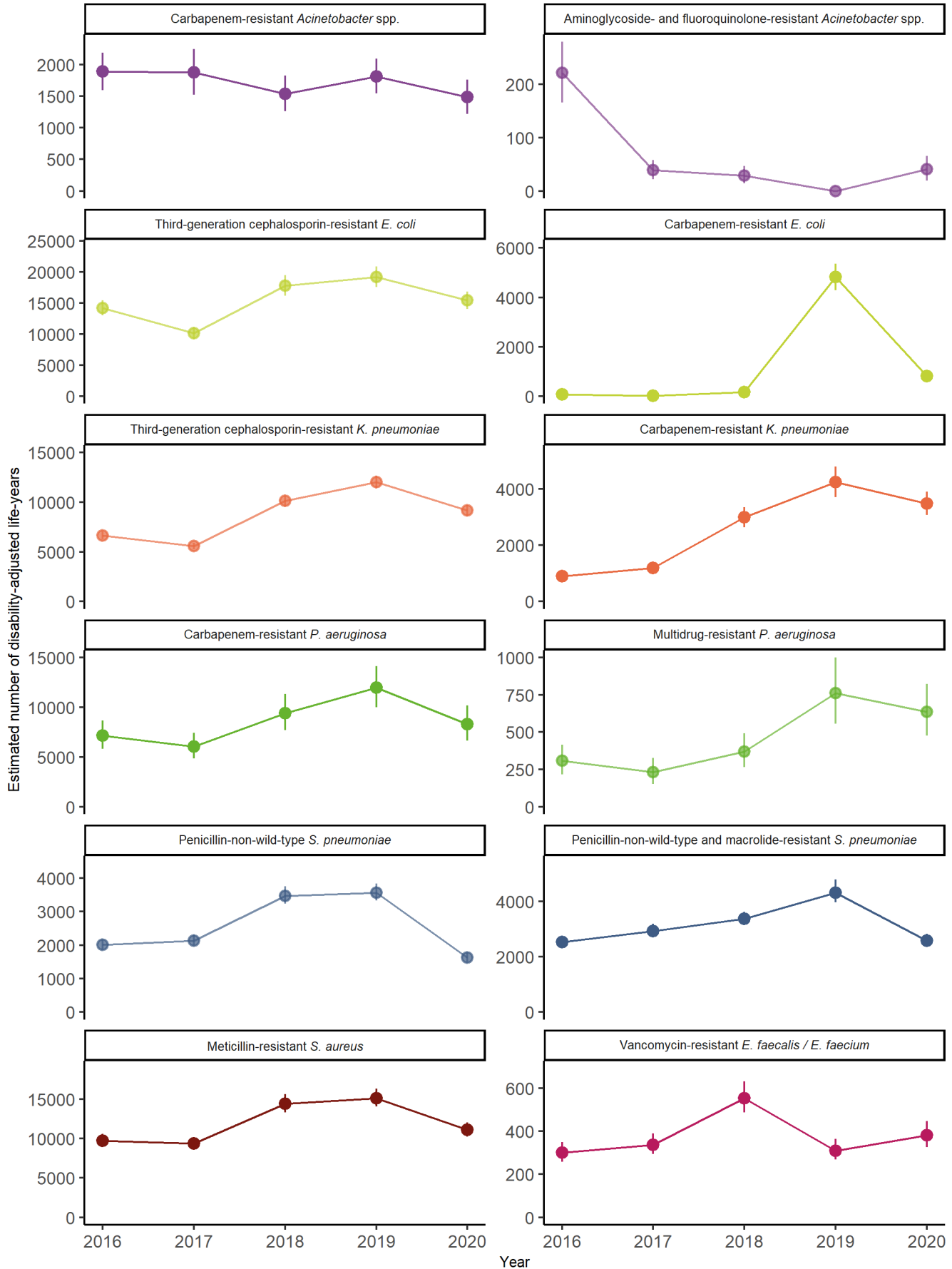
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Spain: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



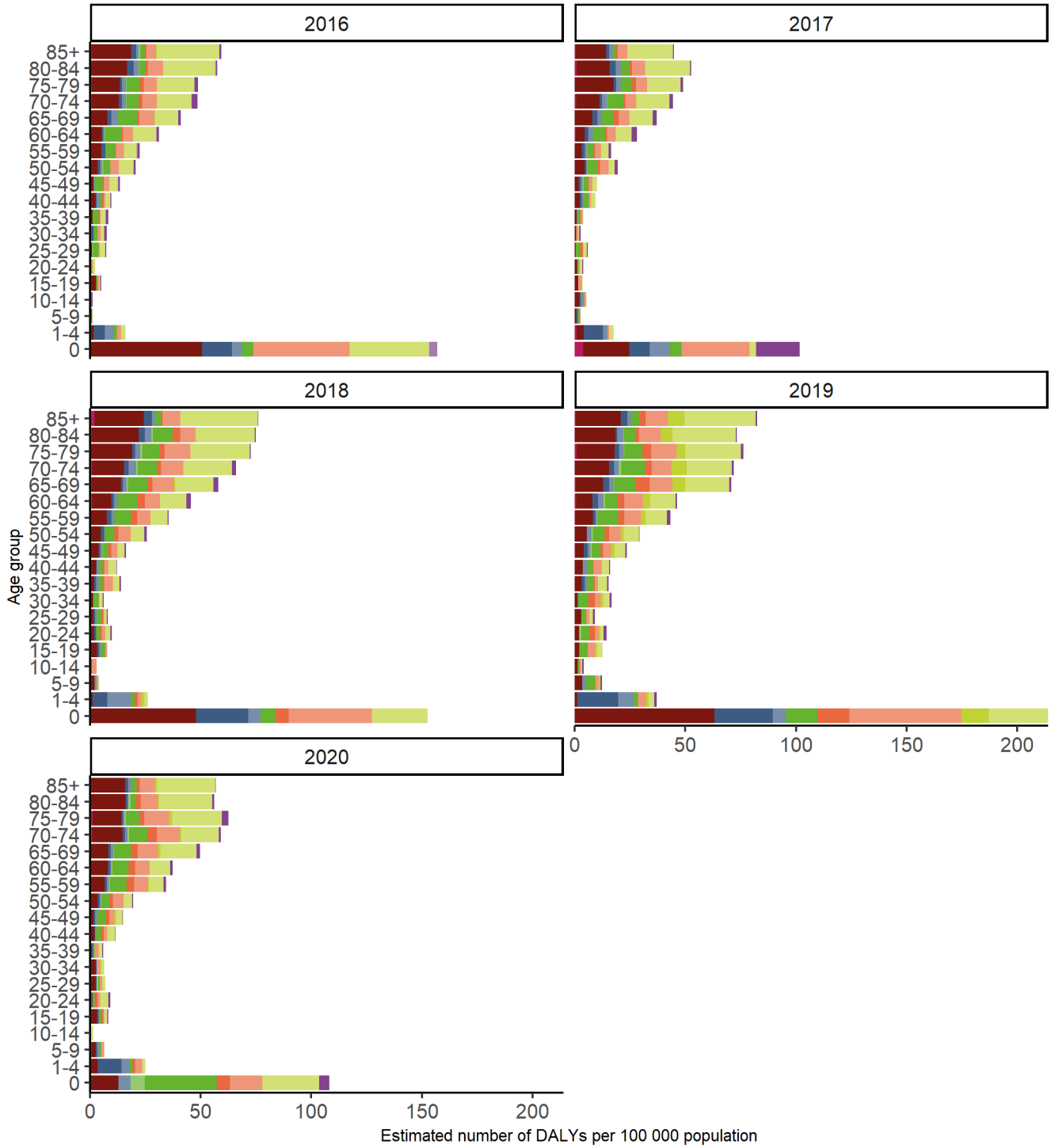
Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Spain: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Spain: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



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| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
| ■ Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i> | ■ Carbapenem-resistant <i>E. coli</i> |
| ■ Penicillin-non-wild-type <i>S. pneumoniae</i> | ■ Third-generation cephalosporin-resistant <i>E. coli</i> |
| ■ Multidrug-resistant <i>P. aeruginosa</i> | ■ Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp. |
| ■ Carbapenem-resistant <i>P. aeruginosa</i> | ■ Carbapenem-resistant <i>Acinetobacter</i> spp. |

Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

Estimates of the health burden of infections with antibiotic-resistant bacteria, Sweden, 2016-2020

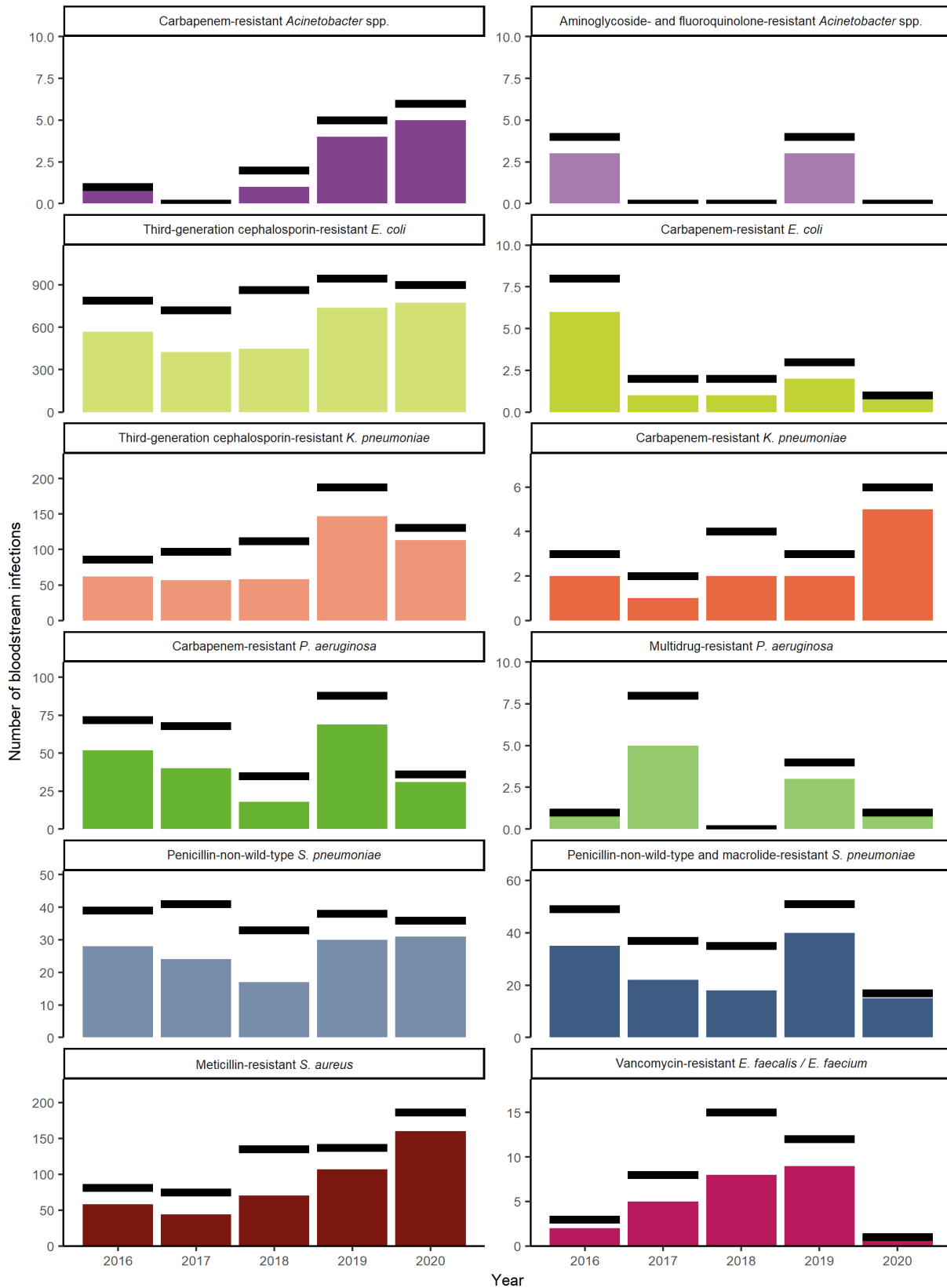
Sweden: Number of bloodstream infections, crude (EARS-Net), and with population coverage correction (PCC), by bacterium–antibiotic resistance combination, 2016-2020

	2016		2017		2018		2019		2020	
	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC	EARS-Net	PCC
Third-generation cephalosporin-resistant <i>E. coli</i>	569	790	425	720	448	862	736	944	774	900
Meticillin-resistant <i>S. aureus</i>	58	81	44	75	70	135	107	137	160	186
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	62	86	57	97	58	112	147	188	113	131
Carbapenem-resistant <i>P. aeruginosa</i>	52	72	40	68	18	35	69	88	31	36
Penicillin-non-wild-type <i>S. pneumoniae</i>	28	39	24	41	17	33	30	38	31	36
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	35	49	22	37	18	35	40	51	15	17
Carbapenem-resistant <i>Acinetobacter</i> spp.	1	1	0	0	1	2	4	5	5	6
Carbapenem-resistant <i>K. pneumoniae</i>	2	3	1	2	2	4	2	3	5	6
Carbapenem-resistant <i>E. coli</i>	6	8	1	2	1	2	2	3	1	1
Multidrug-resistant <i>P. aeruginosa</i>	1	1	5	8	0	0	3	4	1	1
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	2	3	5	8	8	15	9	12	1	1
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	3	4	0	0	0	0	3	4	0	0
Overall	819	1 137	624	1 058	641	1 235	1 152	1 477	1 137	1 321

*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

Sweden: Number of bloodstream infections (BSIs) as reported to EARS-Net, by bacterium–antibiotic resistance combination, 2016-2020

The black line indicates the number of BSIs after correction for population coverage



*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

Sweden: Estimated number of infections with antibiotic-resistant bacteria, 2016-2020 (by decreasing number of infections in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	4 145 (3 611 - 4 732)	3 782 (3 299 - 4 290)	4 519 (3 986 - 5 092)	4 952 (4 350 - 5 607)	4 721 (4 164 - 5 330)
Meticillin-resistant <i>S. aureus</i>	600 (477 - 764)	559 (458 - 675)	1 010 (860 - 1 178)	1 030 (894 - 1 179)	1 396 (1 220 - 1 590)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	497 (443 - 555)	557 (488 - 633)	643 (572 - 719)	1 087 (970 - 1 213)	758 (680 - 842)
Carbapenem-resistant <i>P. aeruginosa</i>	677 (532 - 854)	637 (509 - 787)	324 (241 - 428)	831 (674 - 1 014)	338 (253 - 438)
Penicillin-non-wild-type <i>S. pneumoniae</i>	201 (183 - 223)	210 (190 - 236)	169 (152 - 190)	198 (180 - 221)	186 (171 - 205)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	251 (230 - 277)	192 (174 - 215)	178 (160 - 204)	265 (242 - 293)	90 (81 - 101)
Carbapenem-resistant <i>Acinetobacter</i> spp.	9 (5 - 14)	0 (0 - 0)	12 (7 - 19)	32 (24 - 41)	36 (29 - 45)
Carbapenem-resistant <i>K. pneumoniae</i>	10 (6 - 16)	6 (4 - 10)	14 (10 - 20)	10 (6 - 14)	22 (17 - 27)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	36 (17 - 65)	110 (51 - 203)	204 (136 - 291)	152 (99 - 225)	14 (5 - 33)
Multidrug-resistant <i>P. aeruginosa</i>	12 (5 - 25)	79 (51 - 116)	0 (0 - 0)	35 (19 - 60)	10 (5 - 21)
Carbapenem-resistant <i>E. coli</i>	43 (32 - 57)	9 (5 - 14)	10 (6 - 16)	13 (9 - 19)	6 (4 - 9)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	26 (17 - 37)	0 (0 - 0)	0 (0 - 0)	24 (16 - 34)	0 (0 - 0)
Overall	6 507 (5 558 - 7 619)	6 141 (5 229 - 7 179)	7 083 (6 130 - 8 157)	8 629 (7 483 - 9 920)	7 577 (6 629 - 8 641)

*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

Sweden: Estimated number of attributable deaths due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of attributable deaths in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	185 (163 - 207)	167 (149 - 187)	198 (177 - 220)	218 (195 - 243)	207 (185 - 230)
Meticillin-resistant <i>S. aureus</i>	24 (21 - 29)	22 (20 - 26)	39 (35 - 44)	39 (36 - 43)	53 (49 - 58)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	20 (19 - 22)	23 (21 - 25)	25 (24 - 27)	44 (41 - 47)	30 (28 - 33)
Carbapenem-resistant <i>P. aeruginosa</i>	32 (24 - 42)	31 (23 - 39)	15 (10 - 21)	39 (30 - 50)	16 (11 - 22)
Penicillin-non-wild-type <i>S. pneumoniae</i>	12 (11 - 13)	13 (12 - 14)	10 (9 - 11)	12 (11 - 13)	11 (11 - 12)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	15 (14 - 17)	12 (11 - 13)	11 (10 - 12)	16 (15 - 18)	6 (5 - 6)
Carbapenem-resistant <i>Acinetobacter</i> spp.	0 (0 - 1)	0 (0 - 0)	1 (0 - 1)	2 (1 - 2)	2 (1 - 2)
Carbapenem-resistant <i>K. pneumoniae</i>	1 (1 - 2)	1 (0 - 1)	2 (1 - 2)	1 (1 - 1)	2 (2 - 3)
Carbapenem-resistant <i>E. coli</i>	3 (2 - 4)	1 (0 - 1)	1 (0 - 1)	1 (1 - 1)	0 (0 - 1)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	1 (1 - 2)	0 (0 - 0)	0 (0 - 0)	1 (1 - 2)	0 (0 - 0)
Multidrug-resistant <i>P. aeruginosa</i>	1 (0 - 1)	3 (2 - 5)	0 (0 - 0)	2 (1 - 3)	0 (0 - 1)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	1 (1 - 1)	4 (3 - 5)	6 (5 - 7)	5 (4 - 6)	0 (0 - 0)
Overall	295 (257 - 341)	277 (241 - 316)	308 (271 - 346)	380 (337 - 429)	327 (292 - 368)

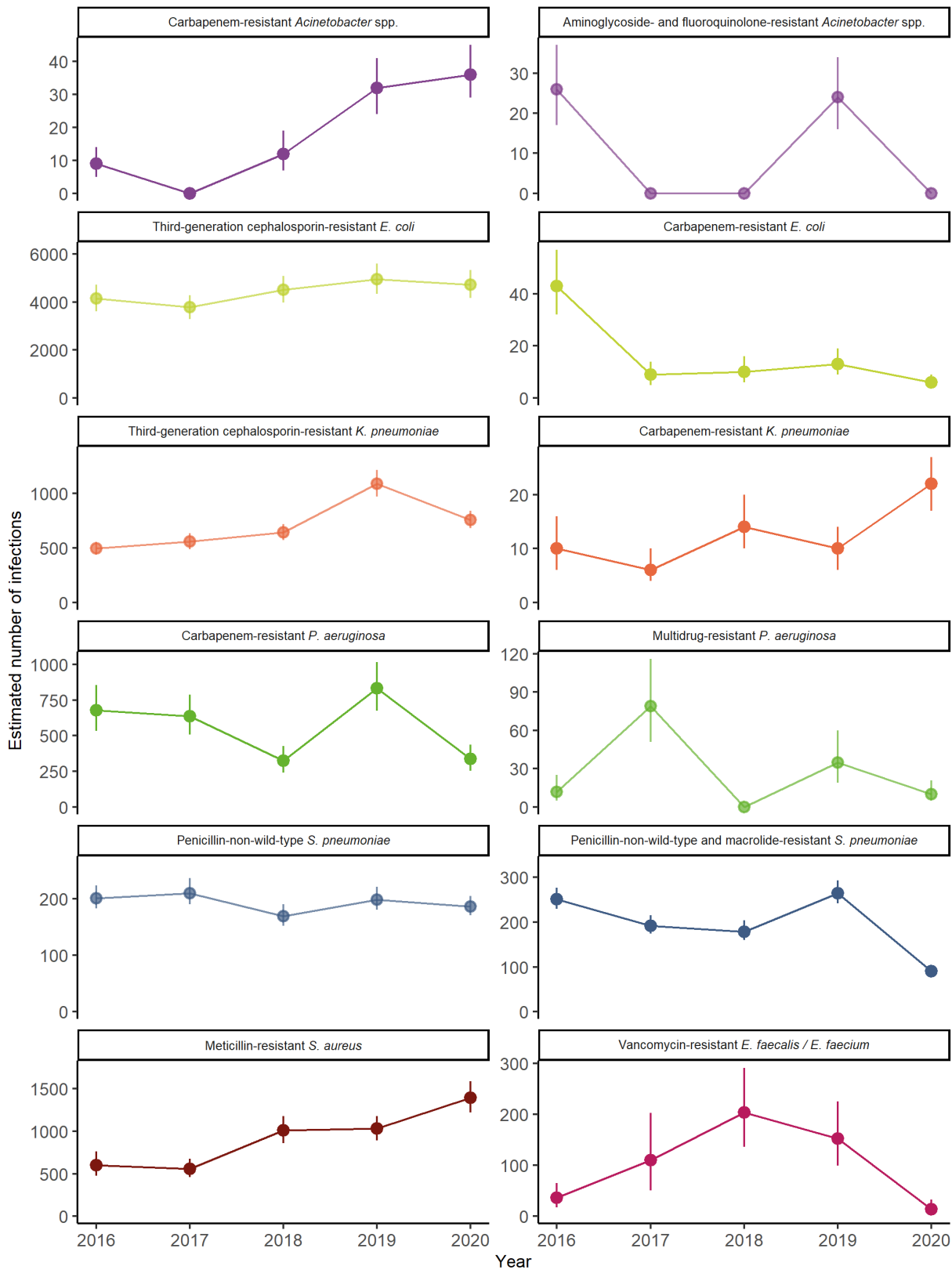
*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

Sweden: Estimated number of disability-adjusted life-years (DALYs) due to infections with antibiotic-resistant bacteria, EU/EEA, 2016-2020 (by decreasing number of DALYs in 2020)

	2016	2017	2018	2019	2020
Third-generation cephalosporin-resistant <i>E. coli</i>	4 519 (4 097 - 4 952)	4 306 (3 920 - 4 711)	5 740 (5 252 - 6 245)	5 781 (5 287 - 6 289)	5 604 (5 120 - 6 106)
Meticillin-resistant <i>S. aureus</i>	707 (618 - 820)	737 (653 - 835)	1 359 (1 226 - 1 506)	1 673 (1 528 - 1 834)	2 019 (1 869 - 2 186)
Third-generation cephalosporin-resistant <i>K. pneumoniae</i>	646 (604 - 690)	676 (629 - 728)	902 (843 - 965)	1 285 (1 205 - 1 370)	1 006 (950 - 1 066)
Penicillin-non-wild-type <i>S. pneumoniae</i>	534 (493 - 584)	484 (441 - 536)	314 (286 - 347)	384 (349 - 429)	510 (467 - 568)
Carbapenem-resistant <i>P. aeruginosa</i>	1 153 (851 - 1 557)	945 (730 - 1 196)	706 (486 - 988)	1 444 (1 130 - 1 811)	458 (339 - 599)
Penicillin-non-wild-type and macrolide-resistant <i>S. pneumoniae</i>	545 (506 - 591)	381 (350 - 418)	323 (294 - 358)	479 (441 - 526)	260 (237 - 289)
Carbapenem-resistant <i>Acinetobacter</i> spp.	16 (7 - 26)	0 (0 - 0)	19 (9 - 31)	35 (24 - 48)	82 (58 - 106)
Carbapenem-resistant <i>K. pneumoniae</i>	9 (6 - 14)	6 (3 - 8)	24 (16 - 33)	21 (14 - 28)	79 (60 - 99)
Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i>	37 (30 - 50)	41 (30 - 59)	195 (171 - 227)	130 (111 - 155)	12 (9 - 16)
Carbapenem-resistant <i>E. coli</i>	195 (132 - 261)	16 (9 - 23)	18 (11 - 26)	42 (26 - 58)	11 (6 - 16)
Multidrug-resistant <i>P. aeruginosa</i>	18 (7 - 36)	134 (73 - 225)	0 (0 - 0)	36 (17 - 68)	7 (3 - 14)
Aminoglycoside- and fluoroquinolone-resistant <i>Acinetobacter</i> spp.	46 (25 - 71)	0 (0 - 0)	0 (0 - 0)	29 (15 - 45)	0 (0 - 0)
Overall	8 425 (7 376 - 9 652)	7 726 (6 838 - 8 739)	9 600 (8 594 - 10 726)	11 339 (10 147 - 12 661)	10 048 (9 118 - 11 065)

*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

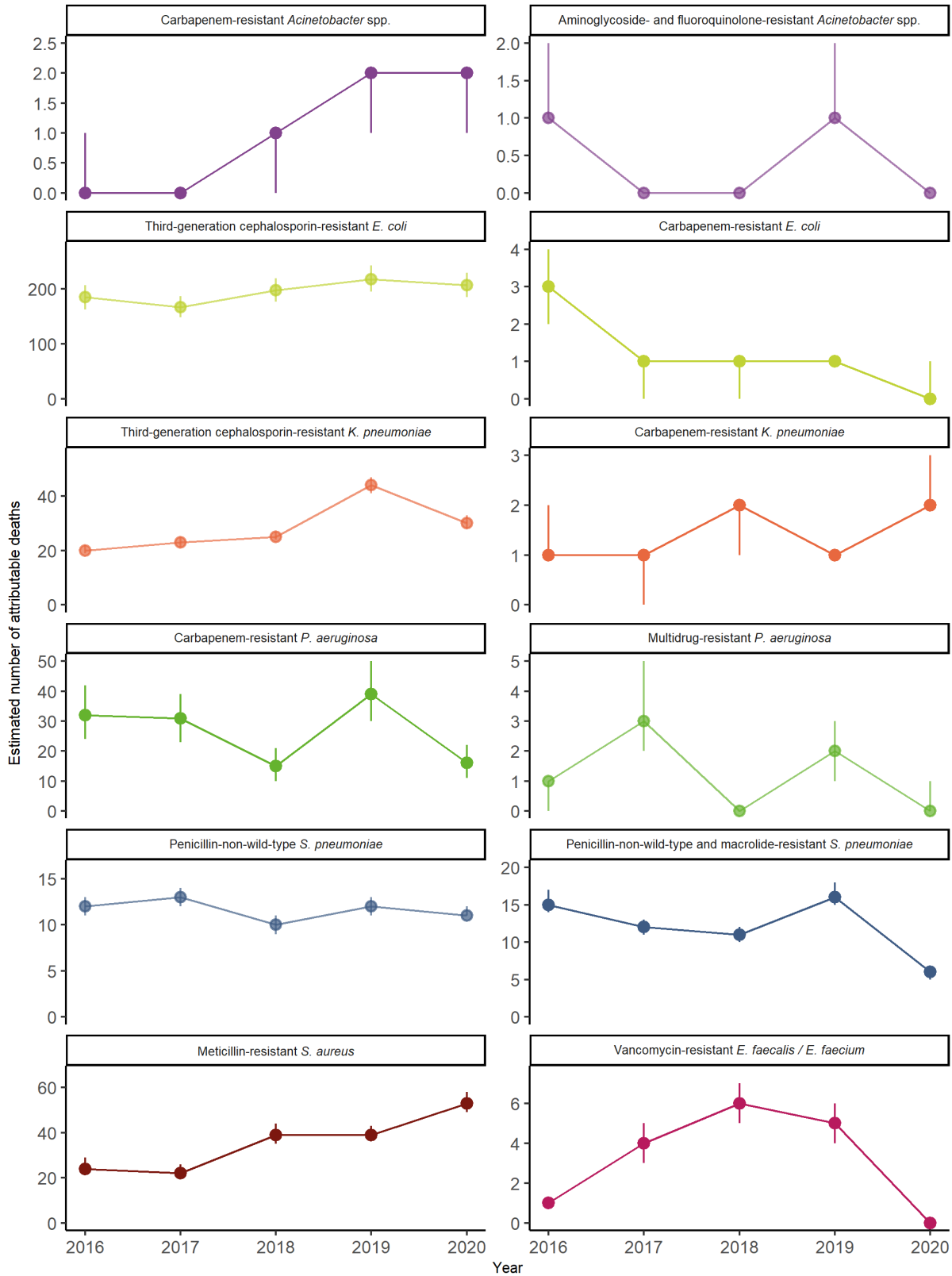
Sweden: Estimated number of infections (bloodstream and other infections) with 95% uncertainty intervals, by bacterium-antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

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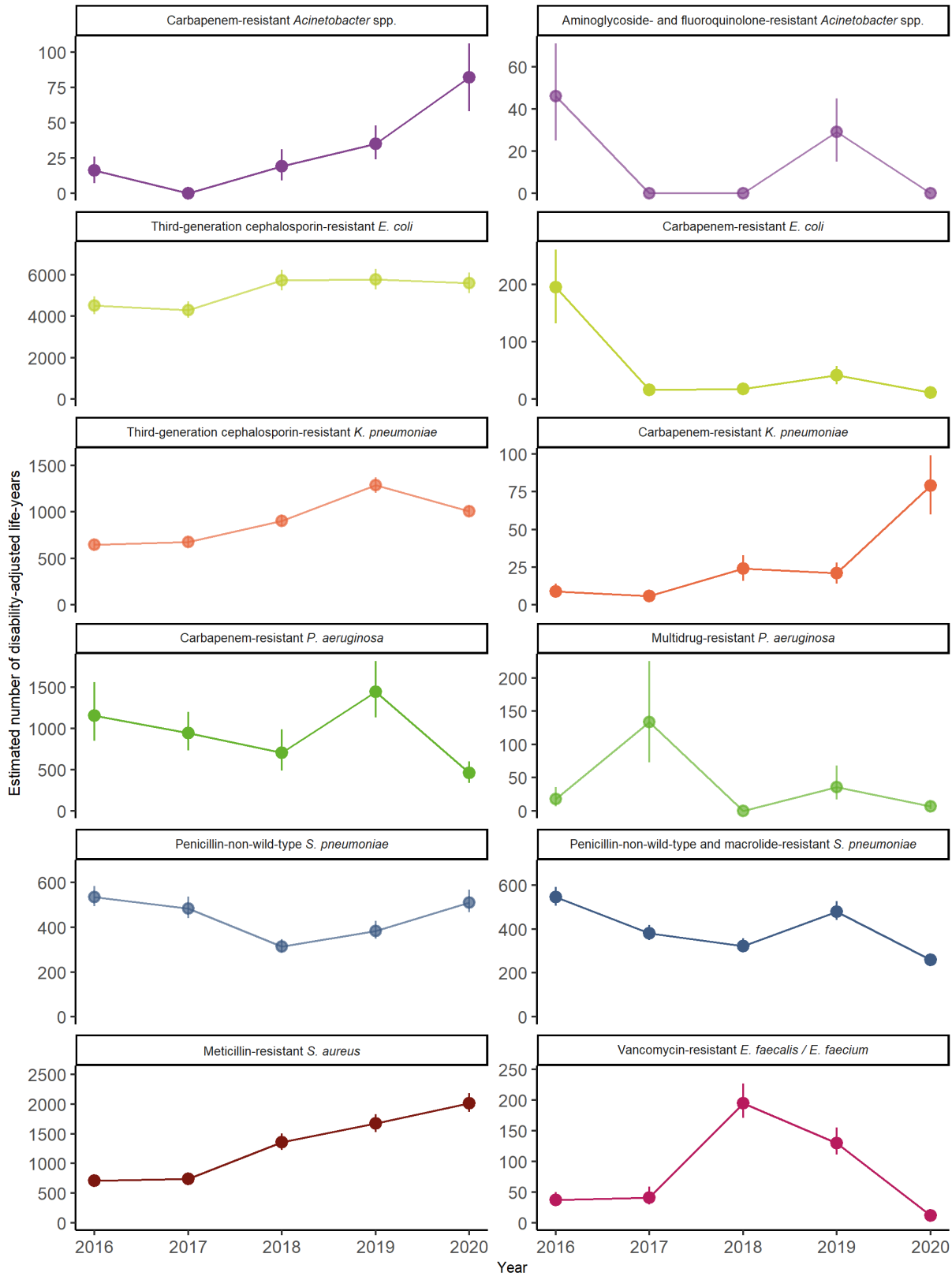
Sweden: Estimated number of attributable deaths with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

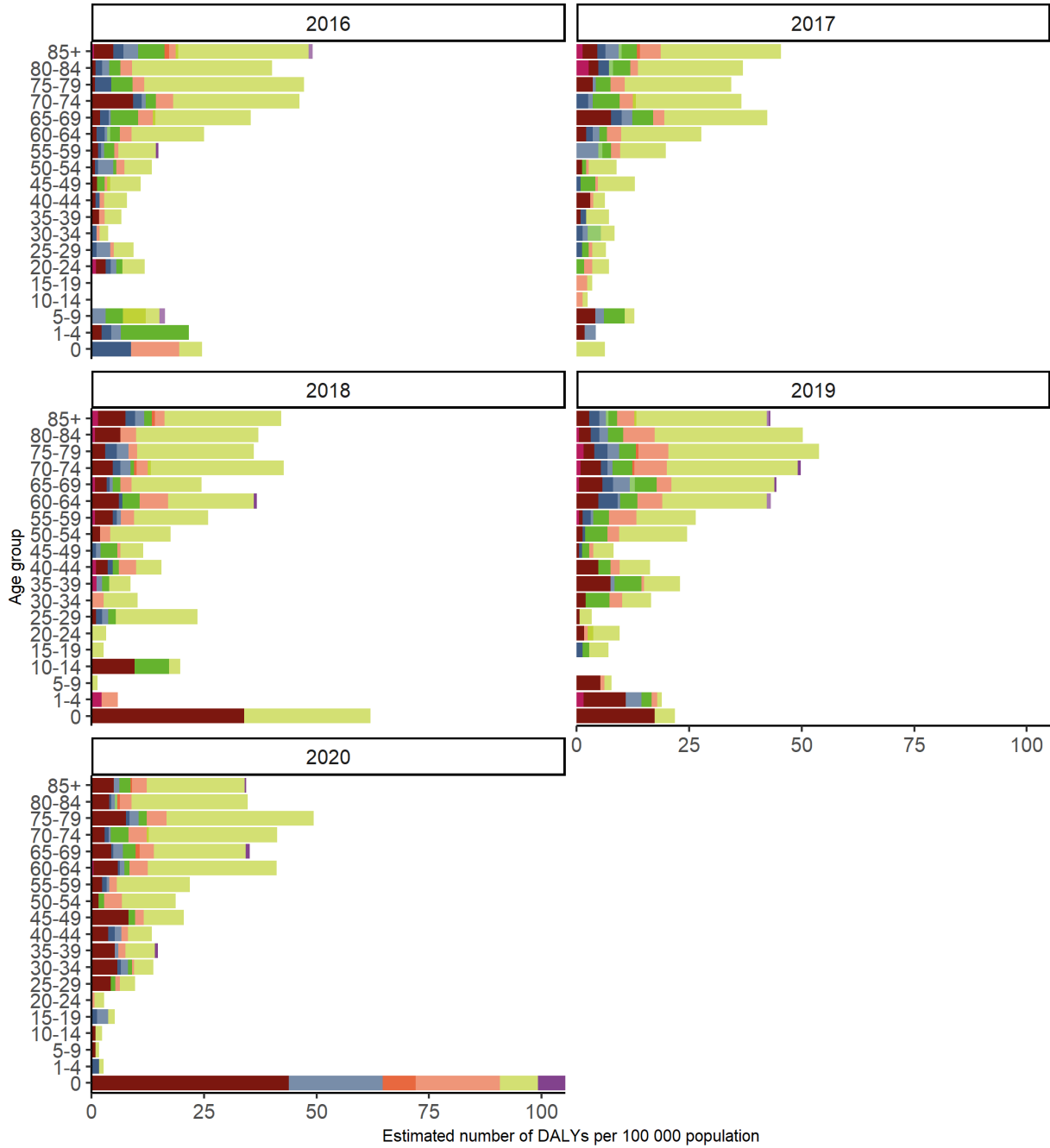
Sweden: Estimated number of disability-adjusted life-years with 95% uncertainty intervals, by bacterium–antibiotic resistance combination, 2016-2020



Derived from number of EARS-Net BSIs after coverage correction and conversion to other infection types

*For Sweden, data reported to EARS-Net for 2016-2020 could not be checked for possible duplicate cases reported from the same patient.

Sweden: Estimated number of disability-adjusted life-years (DALYs) per 100 000 population, by bacterium–antibiotic resistance combination, 2016-2020



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|--|--|
| ■ Vancomycin-resistant <i>E. faecalis</i> / <i>E. faecium</i> | ■ Carbapenem-resistant <i>K. pneumoniae</i> |
| ■ Meticillin-resistant <i>S. aureus</i> | ■ Third-generation cephalosporin-resistant <i>K. pneumoniae</i> |
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