

Supplementary Table S2:

Supplementary Table S2: The annual incidence of ESBL-producing *Escherichia coli* in urine and blood cultures and their estimated annual decreases stratified by age groups and both sexes, Finland, 2018-2022. AAD, Average annual decrease; ESBL+, extended-spectrum β -lactamase-producing *E. coli*; CI, combatibility interval.

Urine ESBL+ <i>E. coli</i> , MALE							
Age group	Year	Observed incidence rate ratio (IRR)		2019-2022		2018/2019 vs. 2022	
		Incidence / 100,000 inhabitants	ESBL+ <i>E. coli</i> isolates (n)	p	AAD, % (95% CI)	p	Relative decrease, % (95% CI)
0-19	2018	7.0	39	0.000	30.0 (17.0-41.0)	0.001	62.0 (31.3 - 79.0)
	2019	7.6	42				
	2020	7.5	41				
	2021	3.5	19				
	2022	2.8	15				
20-39	2018	4.5	29	0.003	20.1 (7.3 - 31.0)	0.18	28.2 (-16.6 - 55.8)
	2019	7.6	49				
	2020	6.8	44				
	2021	4.0	26				
	2022	4.3	28				
40-59	2018	15.9	102	0.035	20.8 (13.5 - 27.4)	0.000	41.4 (21.5 - 56.3)
	2019	22.3	142				
	2020	18.7	119				
	2021	14.0	89				
	2022	11.2	71				
60-79	2018	80.7	432	0.000	17.6 (13.7-21.3)	0.000	44.1 (34.9 - 52.0)
	2019	85.0	460				
	2020	77.7	426				
	2021	63.6	354				
	2022	46.3	259				
≥80	2018	317.7	296	0.000	17.0 (12.3 - 21.5)	0.000	39.7 (28.2 - 49.4)
	2019	327.0	318				
	2020	279.1	283				
	2021	209.0	216				
	2022	194.3	214				
All	2018	36.4	898	0.000	17.2 (14.5 - 19.7)	0.000	39.0 (32.3 - 44.9)
	2019	40.9	1,011				
	2020	36.9	913				
	2021	28.4	704				
	2022	23.6	587				
Total number of ESBL+ <i>E. coli</i> isolates (n):					4,113		

Urine ESBL+ <i>E. coli</i> , FEMALE							
Age group	Year	Observed incidence rate ratio (IRR)		2019-2022		2018/2019 vs. 2022	
		Incidence / 100,000 inhabitants	ESBL+ <i>E. coli</i> isolates (n)	p	AAD, % (95% CI)	p	Relative decrease, % (95% CI)
0-19	2018	40.5	214	0.000	22.4 (16.8 - 27.5)	0.000	46.1 (32.9 - 56.7)
	2019	47.5	249				
	2020	35.2	183				
	2021	25.0	129				
	2022	23.7	122				
20-39	2018	71.4	435	0.000	21.6 (17.8 - 25.2)	0.000	45.8 (36.8 - 53.6)
	2019	81.4	494				
	2020	68.3	414				
	2021	46.3	280				
	2022	41.4	250				
40-59	2018	51.2	321	0.000	20.1 (15.9 - 24.2)	0.000	36.1 (24.7 - 45.7)
	2019	68.8	429				
	2020	50.6	314				
	2021	35.1	217				
	2022	38.4	236				
60-79	2018	176.0	1,052	0.000	21.2 (18.8 - 23.6)	0.000	50.8 (45.5 - 55.6)
	2019	190.3	1,148				
	2020	159.1	969				
	2021	127.3	787				
	2022	90.1	559				
≥80	2018	686.3	1,180	0.000	19.7 (17.3 - 22.1)	0.000	50.4 (45.3 - 55.0)
	2019	646.6	1,133				
	2020	602.7	1,080				
	2021	454.4	821				
	2022	330.6	621				
All	2018	126.4	3,202	0.000	20.0 (18.6 - 21.4)	0.000	46.4 (43.3 - 49.4)
	2019	136.3	3,453				
	2020	116.8	2,960				
	2021	88.0	2,234				
	2022	70.3	1,788				
Total number of ESBL+ <i>E. coli</i> isolates (n):				13,637			

Urine ESBL+ <i>E. coli</i> , BOTH SEXES							
Age group	Year	Observed resistance rate		2019-2022		2018/2019 vs. 2022	
		Incidence / 100,000 inhabitants	ESBL+ <i>E. coli</i> isolates (n)	p	AAD, % (95% CI)	p	Relative decrease, % (95% CI)
0-19	2018	23.4	253	0.000	23.5 (18.4 - 28.2)	0.000	48.4 (36.6 - 58)
	2019	27.1	291				
	2020	21.0	224				
	2021	14.0	148				
	2022	13.0	137				
20-39	2018	36.9	464	0.000	21.5 (17.9 - 25.0)	0.000	44.6 (35.9 - 52.2)
	2019	43.3	543				
	2020	36.6	458				
	2021	24.5	306				
	2022	22.2	278				
40-59	2018	33.4	423	0.000	20.4 (16.7 - 23.8)	0.000	37.5 (28.0 - 45.8)
	2019	45.3	571				
	2020	34.5	433				
	2021	24.4	306				
	2022	24.6	307				
60-79	2018	131.0	1,484	0.000	20.2 (18.1 - 22.2)	0.000	48.9 (44.4 - 53.1)
	2019	140.5	1,608				
	2020	120.5	1,395				
	2021	97.1	1,141				
	2022	69.3	818				
≥80	2018	556.8	1,476	0.000	19.3 (17.2 - 21.4)	0.000	48.5 (44.0 - 52.7)
	2019	532.6	1,451				
	2020	485.7	1,363				
	2021	365.1	1,037				
	2022	280.2	835				
All	2018	82.0	4,100	0.000	19.4 (18.1 - 20.6)	0.000	44.8 (42.0 - 47.5)
	2019	89.2	4,464				
	2020	77.3	3,873				
	2021	58.5	2,938				
	2022	47.2	2,375				
Total number of ESBL+ <i>E. coli</i> isolates (n):					17,750		

Blood ESBL+ <i>E. coli</i> , MALE							
Age group	Year	Observed incidence rate ratio (IRR)		2019-2022		2018/2019 vs. 2022	
		Incidence / 100,000 inhabitants	ESBL+ <i>E. coli</i> isolates (n)	p	AAD, % (95% CI)	p	Relative decrease, % (95% CI)
0-19	2018	0.54	3	0.701	-15.2 (-136.8 - 44.0)	0.980	-2.6 (-628.3 - 85.5)
	2019	0.18	1				
	2020	0.37	2				
	2021	0.19	1				
	2022	0.37	2				
20-39	2018	0.62	4	0.891	3.6 (-63.6 - 43.2)	0.844	14.3 (-300.5 - 81.7)
	2019	0.46	3				
	2020	0.46	3				
	2021	0.31	2				
	2022	0.46	3				
40-59	2018	3.4	22	0.565	5.5 (-14.7 - 22.2)	0.328	28.1 (-39.4 - 63.0)
	2019	3.1	20				
	2020	3.5	22				
	2021	3.9	25				
	2022	2.4	15				
60-79	2018	15.5	83	0.028	10.8 (1.3 - 19.4)	0.032	30.4 (3.0 - 50.1)
	2019	15.3	83				
	2020	15.1	83				
	2021	13.5	75				
	2022	10.7	60				
≥80	2018	61.2	57	0.001	18.4 (8.0 - 27.7)	0.005	42.8 (15.6 - 61.3)
	2019	72.0	70				
	2020	54.2	55				
	2021	48.4	50				
	2022	38.1	42				
All	2018	6.8	169	0.001	11.1 (4.5 - 17.2)	0.003	30.0 (11.7 - 44.5)
	2019	7.2	177				
	2020	6.7	165				
	2021	6.2	153				
	2022	4.9	122				
Total number of ESBL+ <i>E. coli</i> isolates (n):				786			