

**Table 1.** Summary of EARS-Net data by pathogen and year  
(data correct as of **01/07/2024**)

Pathogen	National Data					% Trends, 2019-2023
	2019	2020	2021	2022	2023	
Number laboratories by year-end	<b>37</b>	<b>39</b>	<b>38</b>	<b>35</b>	<b>33</b>	
%Coverage of population	97%	99%	100%	98%	96%	
<b><i>E. coli</i></b>						
Number of isolates	<b>3439</b>	<b>3032</b>	<b>3073</b>	<b>3181</b>	<b>3304</b>	
%Ampicillin-R*	68.1%	65.2%	63.0%	62.1%	63.0%	
%Amoxicillin-clavulanic acid-R*	51.1%	49.1%	48.7%	45.1%	47.8%	
%Piperacillin/tazobactam-R*	13.2%	13.2%	12.5%	11.6%	12.7%	
%Cefoxitin-R*	7.4%	6.5%	4.6%	4.8%	4.8%	
%3GC-R*	12.4%	11.9%	10.3%	9.7%	10.3%	↓
%Cefotaxime/ceftriaxone-R*	12.2%	11.2%	9.1%	10.0%	9.9%	
%Ceftazidime-R*	10.0%	10.8%	10.0%	8.3%	8.8%	
%ESBL-producers*	11.3%	9.9%	7.8%	9.1%	8.7%	↓
%Ciprofloxacin-R*	20.6%	18.8%	16.1%	15.7%	15.8%	↓
%Gentamicin-R*	10.7%	9.3%	8.8%	7.7%	7.7%	
%Gentamicin/Amikacin/Tobramycin-R*	12.3%	10.8%	10.0%	9.1%	9.0%	↓
%Carbapenem†-R*	0.0%	0.3%	0.1%	0.3%	0.1%	-
Number Carbapenemase-producers	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>3</b>	
%MDR*	6.0%	4.8%	4.2%	3.7%	3.3%	↓
<b><i>S. aureus</i></b>						
Number of isolates	<b>1186</b>	<b>1081</b>	<b>1262</b>	<b>1250</b>	<b>1301</b>	
Number Meticillin-R (or MRSA)	<b>144</b>	<b>126</b>	<b>138</b>	<b>132</b>	<b>126</b>	
%Meticillin-R (or MRSA)	12.1%	11.7%	10.9%	10.6%	9.7%	↓
<b><i>K. pneumoniae</i></b>						
Number of isolates	<b>543</b>	<b>512</b>	<b>515</b>	<b>492</b>	<b>604</b>	
%Ampicillin-R*	98.9%	99.2%	99.8%	100.0%	99.7%	
%Amoxicillin-clavulanic acid-R*	27.6%	32.2%	32.5%	29.3%	34.2%	
%Piperacillin/tazobactam-R*	22.3%	20.5%	21.3%	21.9%	25.3%	
%Cefoxitin-R*	5.2%	6.5%	5.8%	5.7%	8.3%	
%3GC-R*	17.5%	18.4%	15.5%	13.2%	15.9%	-
%Cefotaxime/ceftriaxone-R*	15.5%	16.9%	14.9%	11.2%	14.3%	
%Ceftazidime-R*	14.0%	18.4%	16.1%	12.8%	15.2%	
%ESBL-producers*	14.2%	14.3%	14.4%	10.8%	12.6%	-
%Ciprofloxacin-R*	17.5%	17.0%	16.2%	9.6%	15.7%	-
%Gentamicin-R*	10.3%	9.1%	9.3%	7.3%	8.6%	
%Gentamicin/Amikacin/Tobramycin-R*	11.2%	11.8%	11.1%	7.5%	9.1%	-
%Carbapenem†-R*	1.1%	1.8%	2.0%	1.2%	1.5%	-
Number Carbapenemase-producers	<b>6</b>	<b>5</b>	<b>8</b>	<b>5</b>	<b>10</b>	
%MDR*	5.9%	7.9%	8.0%	3.3%	5.7%	-
<b><i>E. faecium</i></b>						
Number of isolates	<b>459</b>	<b>499</b>	<b>619</b>	<b>634</b>	<b>638</b>	
%Vancomycin-R (VREfm)	38.6%	35.7%	27.2%	27.8%	21.4%	↓
%Ampicillin-R*	94.5%	95.4%	94.8%	96.6%	96.2%	
%HLG-R*	63.8%	59.2%	60.2%	60.8%	62.2%	
%Linezolid-R*	0.4%	1.1%	0.3%	0.6%	0.2%	
%MDR*	27.9%	25.3%	18.1%	17.2%	16.9%	
<b><i>E. faecalis</i></b>						
Number of isolates	<b>310</b>	<b>330</b>	<b>365</b>	<b>375</b>	<b>387</b>	
%Vancomycin-R (VREfa)	0.3%	0.9%	0.3%	1.3%	0.5%	
%Ampicillin-R*	0.0%	0.9%	0.8%	1.1%	0.5%	
%HLG-R*	23.0%	16.0%	16.7%	16.4%	17.2%	↓
%Linezolid-R*	0.0%	0.0%	0.6%	0.0%	0.3%	

\* Not all isolates tested; † Carbapenems include imipenem, meropenem and ertapenem

Number of isolates presented in **bold**; proportions (%) presented in *italics*

R, Resistant; MRSA, Meticillin-Resistant *S. aureus*; VREfm, Vancomycin-Resistant *E. faecium*

MRSA, Meticillin-Resistant *S. aureus*; VREfm, Vancomycin-Resistant *E. faecium*

HLG, High-Level Gentamicin; 3GC, 3rd-Generation Cephalosporin (includes cefotaxime, ceftriaxone, ceftazidime)

ESBL, Extended-Spectrum Beta-Lactamase; MDR, Multi-Drug Resistant (see definition for each pathogen)

↓↑ indicate significant downward and upward trends

**Table 1 (continued).** Summary of EARS-Net data by pathogen and year  
(data correct as of **01/07/2024**)

Pathogen	National Data					% Trends, 2019-2023	Sparkline	Significance
	2019	2020	2021	2022	2023			
Number laboratories by year-end	37	39	38	37	36			
%Coverage of population	97%	99%	100%	98%	97%			
<b>S. pneumoniae</b>								
Number of isolates	372	189	179	305	360			
of which notified to public health	369	179	172	293	346			
Number serotyped	349	170	154	276	335			
% serotyped	93.8%	89.9%	86.0%	90.5%	93.1%			
Number Penicillin-Non-WT	52	32	34	72	61			
%Penicillin-Non-WT*	14.0%	16.9%	19.0%	23.6%	17.5%		-	
of which: %R	0.8%	0.0%	1.1%	2.0%	1.7%		-	
%I	13.2%	16.9%	17.9%	21.6%	15.3%		-	
%Erythromycin-R*	12.5%	13.2%	12.2%	16.5%	14.1%		-	
%Penicillin-NWT/Erythromycin-R*	7.2%	9.4%	6.9%	10.7%	8.1%		-	
<b>P. aeruginosa</b>								
Number of isolates	289	271	294	319	296			
%Piperacillin/tazobactam-R*	11.2%	13.0%	14.6%	9.9%	10.9%		-	
%Ceftazidime-R*	9.1%	10.5%	10.7%	9.1%	6.6%		-	
%Imipenem/meropenem-R*	5.9%	7.5%	7.8%	8.2%	6.4%		-	
%Ciprofloxacin-R*	10.1%	14.7%	9.6%	8.6%	8.0%		-	
%Tobramycin-R*	3.1%	2.4%	3.5%	2.1%	0.8%		-	
%MDR*	6.4%	2.1%	6.5%	5.3%	4.8%		-	
<b>Acinetobacter spp.</b>								
Number of isolates	67	53	72	80	71			
%Ciprofloxacin-R*	9.1%	7.3%	3.1%	1.4%	1.4%		↓	
%Gentamicin-R*	1.7%	2.2%	3.1%	1.6%	0.0%		-	
%Gentamicin/Amikacin/Tobramycin-R*	3.4%	2.2%	3.0%	1.5%	1.5%		-	
%Imipenem/meropenem-R*	1.6%	0.0%	1.5%	2.5%	0.0%		-	
%MDR*	1.9%	0.0%	0.0%	0.0%	0.0%		-	
<b>TOTAL EARS-NET PATHOGENS</b>	<b>6665</b>	<b>5967</b>	<b>6379</b>	<b>6636</b>	<b>6961</b>			
<b>Group A streptococci</b>								
Number of isolates	85	35	26	71	243			
of which notified to public health	84	32	24	71	243			
Number emm-typed	77	28	22	62	220			
% emm-typed	90.6%	80.0%	84.6%	87.3%	90.5%		-	
%Erythromycin-R*	4.9%	17.1%	16.7%	9.2%	3.5%		-	
<b>Group B streptococci (from 1st January 2019)</b>								
Number of isolates	176	119	139	138	125			
%Erythromycin-R*	41.9%	26.7%	42.9%	40.9%	41.4%			
<b>Candida spp. (Yeasts)</b>								
	Number of isolates							
<i>C. auris</i>	0	0	0	0	0			
<i>C. albicans</i>	118	85	124	129	136			
<i>C. glabrata</i>	70	53	77	84	81			
<i>C. parapsilosis</i>	44	57	51	49	59			
<i>C. dubliniensis</i>	6	5	10	4	8			
<i>C. tropicalis</i>	9	4	17	9	6			
<i>C. krusei</i>	2	0	6	1	6			
<i>C. lusitaniae</i>	5	5	2	4	5			
<i>C. metapsilosis</i>	0	0	0	1	4			
<i>C. fermentati</i>	0	0	0	0	2			
<i>C. duobushaemolonii</i>	0	0	0	0	2			
<i>C. guilliermondii</i>	3	1	1	3	1			
<i>C. lipolytica</i>	1	0	1	0	0			
<i>C. pelliculosa</i>	1	0	0	0	1			
<i>C. orthopsilosis</i>	0	0	1	0	1			
<i>Candida</i> spp. (unspeciated)	4	11	0	1	0			
<b>Total Candida spp</b>	<b>263</b>	<b>221</b>	<b>290</b>	<b>285</b>	<b>312</b>			
<b>TOTAL ALL PATHOGENS</b>	<b>7189</b>	<b>6342</b>	<b>6834</b>	<b>7130</b>	<b>7641</b>			

\* Not all isolates tested

\*\*Reconciliation with CIDR data not done for 2022 data due to resource issues at HPSC

Number of isolates presented in **bold**; proportions (%) presented in *italics*

R, Resistant; Non-WT, Non-Wild Type [includes isolates that are **Susceptible, increased exposure (I)** and **Resistant (R)**]

MDR, Multi-Drug Resistant (see definition for each pathogen; note: new definition for *P. aeruginosa*)

↓↑ indicate significant downward and upward trends; - indicates no trend