NHS National Services Scotland

Clostridioides difficile infection, *Escherichia coli* bacteraemia, *Staphylococcus aureus* bacteraemia and Surgical Site Infection in Scotland

April to June 2025

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An Official Statistics publication for Scotland

Antimicrobial Resistance & Healthcare Associated Infection (ARHAI) Scotland
An NHS Scotland Assure Service

Contents

This is an Official Statistics Publication

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Introduction

Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland provides a commentary on quarterly epidemiological data in Scotland for April to June (Q2) 2025 on the following:

- *Clostridioides difficile* infection
- *Escherichia coli* bacteraemia
- *Staphylococcus aureus* bacteraemia
- Surgical Site Infection

Data are provided for the 14 NHS boards and one NHS Special Health Board.

Main Points

Clostridioides difficile infection (CDI) during April to June 2025

- The total number of CDI cases in patients reported to ARHAI was 286.
- 213 CDI cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 13.9 cases per 100,000 total occupied bed days (TOBDs).
- 73 CDI cases were reported as community associated. This corresponds to an incidence rate of 5.3 cases per 100,000 population.
- No NHS boards were above the 95% confidence interval upper limit for healthcare associated or community associated CDI in the funnel plot analysis.
- No NHS boards were above normal variation for healthcare associated or community associated CDI when analysing trends over the past three years.

Escherichia coli bacteraemia (ECB) during April to June 2025

- The total number of ECB cases in patients reported to ARHAI was 1,237.
- 672 ECB cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 44.0 cases per 100,000 TOBDs.
- 565 ECB cases were reported as community associated. This corresponds to an incidence rate of 40.9 cases per 100,000 population.
- No NHS boards were above the 95% confidence interval upper limit for healthcare associated ECB in the funnel plot analysis.
- NHS Ayrshire & Arran, NHS Borders, NHS Dumfries & Galloway and NHS Tayside were above the 95% confidence interval upper limit for community associated ECB in the funnel plot analysis.
- NHS Scotland was above normal variation for healthcare associated ECB when analysing trends over the past three years.

- No NHS boards were above normal variation for community associated ECB when analysing trends over the past three years.

Staphylococcus aureus bacteraemia (SAB) during April to June 2025

- The total number of SAB cases in patients reported to ARHAI was 459.
- 303 SAB cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 19.8 cases per 100,000 TOBDs.
- 156 SAB cases were reported as community associated. This corresponds to an incidence rate of 11.3 cases per 100,000 population.
- No NHS boards were above the 95% confidence interval upper limit for healthcare associated SAB in the funnel plot analysis.
- NHS Fife was above the 95% confidence interval upper limit for community associated SAB in the funnel plot analysis.
- No NHS boards were above normal variation for healthcare associated SAB when analysing trends over the past three years.
- NHS Fife were above normal variation for community associated SAB when analysing trends over the past three years.

Surgical Site Infection (SSI) during April to June 2025

Epidemiological data for SSI are not included for this quarter. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Results and Commentary

Clostridioides difficile infection (CDI)

Total cases for quarter

- During Q2 2025, 286 *Clostridioides difficile* infection (CDI) cases in patients were reported to ARHAI. In the previous quarter there were 272 cases.
- In the clinical surveillance typing scheme (covering severe cases and/or outbreaks), out of a total of 46 isolates, ribotype 014 (17.4%) was the most common ribotype identified, followed by ribotype 023 (15.2%), 002 and 015 (both 13.0%), 078 (8.7%), and 026, 056 and 106 (all 4.3%). The remaining 19.6% of isolates comprised a mixture of ribotypes, each with a prevalence of less than 3%.
- In the snapshot surveillance (which aims to reflect the general distribution of ribotypes among CDI cases across Scotland), out of a total of 79 isolates, ribotype 020 (13.9%) was the most common ribotype identified, followed by ribotypes 078 (12.7%), 002 and 015 (both 11.4%), 005 and 014 (both 6.3%) and 023 (5.1%). The remaining 32.9% of isolates comprised a mixture of ribotypes, each with a prevalence of less than 3%.
- All isolates tested (clinical and snapshot) were susceptible to metronidazole and vancomycin.

Healthcare associated infection cases by NHS board where specimen taken

- During Q2 2025, 213 CDI cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 13.9 cases per 100,000 total occupied bed days (TOBDs) (Table 1).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show that there were increases in NHS Fife and NHS Grampian (Table 2).
- No NHS boards were above the 95% confidence interval upper limit in the funnel plot analysis (Figure 1).
- No NHS boards were above normal variation when analysing trends over the past three years (see supplementary data).

Community associated infection cases by NHS board of residence

- During Q2 2025, 73 CDI cases were reported as community associated. This corresponds to an incidence rate of 5.3 cases per 100,000 population (Table 3).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show that there were decreases in NHS Dumfries and Galloway and NHS Greater Glasgow & Clyde (Table 4).
- No NHS boards were above the 95% confidence interval upper limit in the funnel plot analysis (Figure 2).
- No NHS boards were above normal variation when analysing trends over the past three years (see supplementary data).

Table 1: CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3]

NHS board	Q1 Cases	Q1 Bed days	Q1 Rate	Q2 Cases	Q2 Bed days	Q2 Rate
AA	19	116,613	16.3	25	115,390	21.7
BR	9	30,581	29.4	4	27,963	14.3
DG	7	46,414	15.1	8	42,839	18.7
FF	13	88,403	14.7	11	85,401	12.9
FV	11	75,436	14.6	6	76,932	7.8
GJ	0	14,158	0.0	3	15,068	19.9
GR	15	138,812	10.8	15	142,007	10.6
GGC	51	447,595	11.4	46	443,813	10.4
HG	13	80,185	16.2	15	77,823	19.3
LN	26	150,120	17.3	28	149,047	18.8
LO	29	234,752	12.4	41	227,037	18.1
OR	1	3,307	30.2	0	3,141	0.0
SH	0	2,977	0.0	2	2,738	73.0
TY	13	116,400	11.2	9	112,791	8.0
WI	1	6,446	15.5	0	6,530	0.0
Scotland	**208**	**1,552,199**	**13.4**	**213**	**1,528,520**	**13.9**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 2: CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Bed days	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Bed days	YE Q2 25 Rate
AA	78	460,523	16.9	89	460,881	19.3
BR	15	129,800	11.6	19	122,880	15.5
DG	36	186,019	19.4	44	180,828	24.3
FF	18	355,947	5.1	49	348,860	↑ 14.0
FV	46	312,557	14.7	47	303,158	15.5
GJ	3	54,809	5.5	3	57,429	5.2
GR	57	544,451	10.5	85	555,627	↑ 15.3
GGC	266	1,794,935	14.8	266	1,784,243	14.9
HG	82	316,201	25.9	73	318,735	22.9
LN	121	614,824	19.7	108	603,930	17.9
LO	143	961,013	14.9	150	943,208	15.9
OR	1	12,886	7.8	1	12,584	7.9
SH	9	9,622	93.5	6	10,917	55.0
TY	53	472,923	11.2	44	463,437	9.5
WI	2	26,304	7.6	4	26,746	15.0
Scotland	**930**	**6,252,814**	**14.9**	**988**	**6,193,463**	**16.0**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 3: CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3, 4]

NHS board	Q1 Cases	Q1 Population	Q1 Rate	Q2 Cases	Q2 Population	Q2 Rate
AA	5	367,750	5.5	9	367,750	9.8
BR	2	116,980	6.9	0	116,980	0.0
DG	1	145,860	2.8	3	145,860	8.2
FF	4	374,760	4.3	3	374,760	3.2
FV	1	306,340	1.3	1	306,340	1.3
GR	10	591,870	6.9	11	591,870	7.5
GGC	10	1,217,270	3.3	10	1,217,270	3.3
HG	2	324,980	2.5	8	324,980	9.9
LN	6	678,570	3.6	7	678,570	4.1
LO	12	932,180	5.2	15	932,180	6.5
OR	1	22,020	18.4	0	22,020	0.0
SH	1	23,190	17.5	0	23,190	0.0
TY	9	419,110	8.7	5	419,110	4.8
WI	0	26,020	0.0	1	26,020	15.4
Scotland	**64**	**5,546,900**	**4.7**	**73**	**5,546,900**	**5.3**

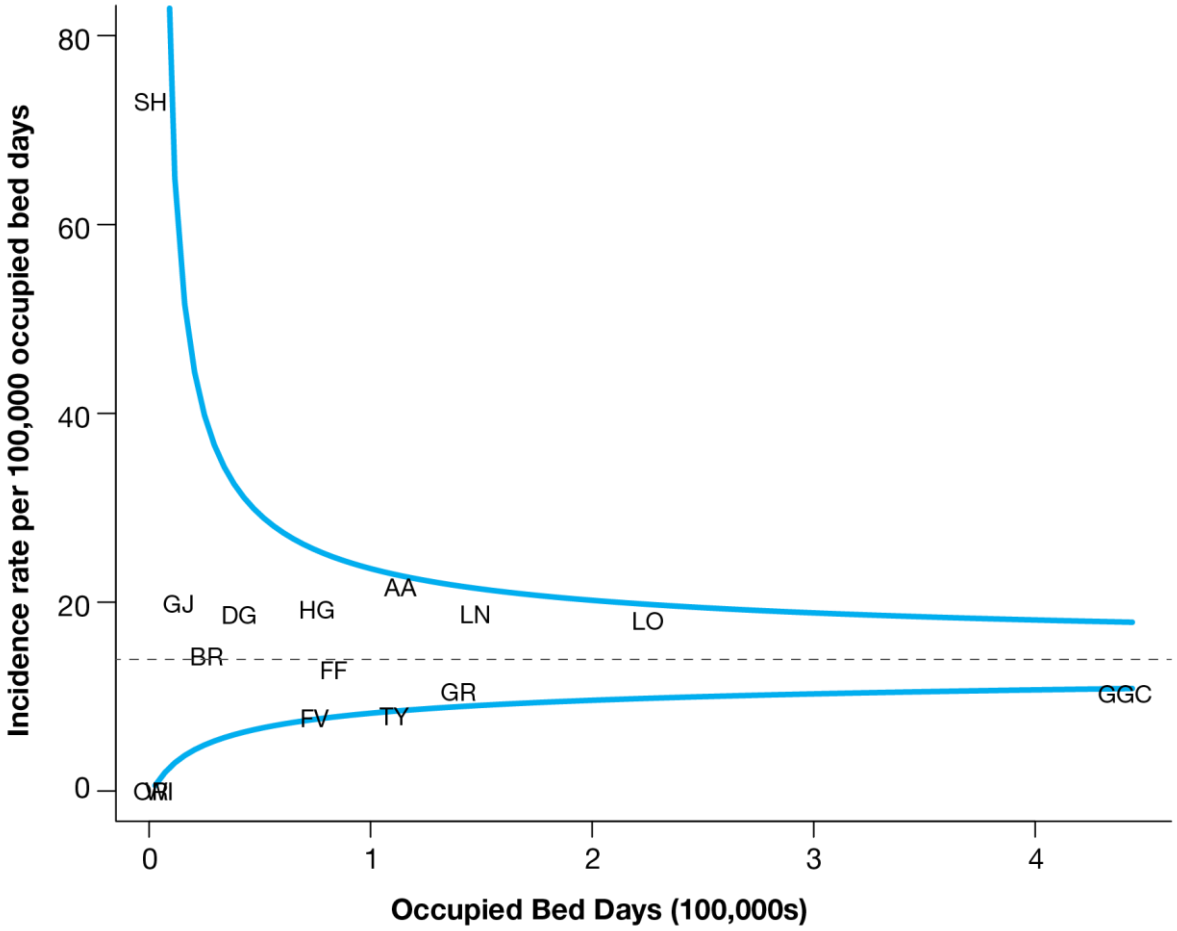
1. An arrow denotes statistically significant change.
2. Quarterly population rates are based on an annualised population.
3. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
4. Figures include any updates received following the last publication (see Appendix 2).

Table 4: CDI cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Population	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Population	YE Q2 25 Rate
AA	30	367,750	8.2	34	367,750	9.2
BR	3	116,980	2.6	7	116,980	6.0
DG	17	145,860	11.7	7	145,860	↓ 4.8
FF	24	374,760	6.4	16	374,760	4.3
FV	7	306,340	2.3	12	306,340	3.9
GR	33	591,870	5.6	49	591,870	8.3
GGC	62	1,217,270	5.1	39	1,217,270	↓ 3.2
HG	27	324,980	8.3	28	324,980	8.6
LN	40	678,570	5.9	28	678,570	4.1
LO	79	932,180	8.5	74	932,180	7.9
OR	1	22,020	4.5	3	22,020	13.6
SH	1	23,190	4.3	4	23,190	17.2
TY	22	419,110	5.2	24	419,110	5.7
WI	6	26,020	23.1	2	26,020	7.7
Scotland	**352**	**5,546,900**	**6.3**	**327**	**5,546,900**	**5.9**

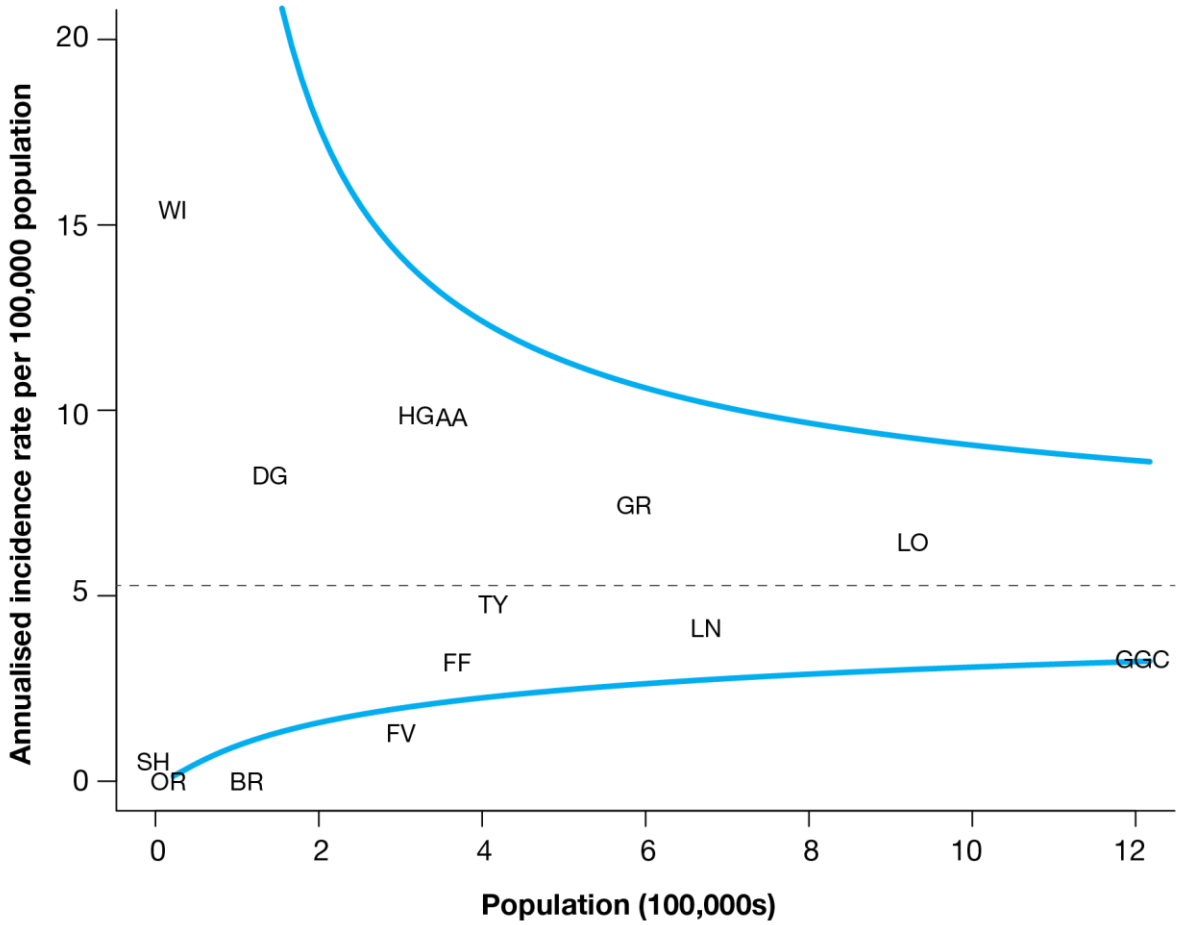
1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
3. Figures include any updates received following the last publication (see Appendix 2).

Figure 1: Funnel plot of CDI incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2, 3]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
2. NHS Orkney and NHS Western Isles overlap.
3. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Figure 2: Funnel plot of CDI incidence rates (per 100,000 population) in community associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
2. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Escherichia coli bacteraemia (ECB)

Total Cases for Quarter

- During Q2 2025, 1,237 *Escherichia coli* bacteraemia (ECB) cases in patients were reported to ARHAI. In the previous quarter there were 1,050 cases.

Healthcare associated infection cases by NHS board where specimen taken

- During Q2 2025, 672 ECB cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 44.0 cases per 100,000 TOBDs (Table 5).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show that there was an increase in NHSScotland, NHS Greater Glasgow & Clyde, NHS Lanarkshire and NHS Lothian (Table 6).
- No NHS boards were above the 95% confidence interval upper limit in the funnel plot analysis (Figure 3).
- NHS Scotland was above normal variation when analysing trends over the past three years (see supplementary data).

Community associated infection cases by NHS board of residence

- During Q2 2025, 565 ECB cases were reported as community associated. This corresponds to an incidence rate of 40.9 cases per 100,000 population (Table 7).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show there were increases in NHS Borders and NHS Shetland and a decrease in NHS Grampian (Table 8).
- NHS Ayrshire & Arran, NHS Borders, NHS Dumfries & Galloway and NHS Tayside were above the 95% confidence interval upper limit in the funnel plot analysis (Figure 4).
- No NHS boards were above normal variation when analysing trends over the past three years (see supplementary data).

Table 5: ECB cases and incidence rates (per 100,000 TOBD) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3]

NHS board	Q1 Cases	Q1 Bed days	Q1 Rate	Q2 Cases	Q2 Bed days	Q2 Rate
AA	49	116,613	42.0	47	115,390	40.7
BR	6	30,581	19.6	16	27,963	57.2
DG	15	46,414	32.3	22	42,839	51.4
FF	37	88,403	41.9	44	85,401	51.5
FV	29	75,436	38.4	38	76,932	49.4
GJ	1	14,158	7.1	3	15,068	19.9
GR	45	138,812	32.4	68	142,007	47.9
GGC	170	447,595	38.0	191	443,813	43.0
HG	21	80,185	26.2	19	77,823	24.4
LN	76	150,120	50.6	69	149,047	46.3
LO	93	234,752	39.6	92	227,037	40.5
OR	1	3,307	30.2	1	3,141	31.8
SH	3	2,977	100.8	6	2,738	219.1
TY	51	116,400	43.8	49	112,791	43.4
WI	7	6,446	108.6	7	6,530	107.2
Scotland	**604**	**1,552,199**	**38.9**	**672**	**1,528,520**	**↑ 44.0**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 6: ECB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Bed days	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Bed days	YE Q2 25 Rate
AA	213	460,523	46.3	190	460,881	41.2
BR	61	129,800	47.0	45	122,880	36.6
DG	71	186,019	38.2	85	180,828	47.0
FF	145	355,947	40.7	143	348,860	41.0
FV	139	312,557	44.5	147	303,158	48.5
GJ	11	54,809	20.1	5	57,429	8.7
GR	187	544,451	34.3	201	555,627	36.2
GGC	618	1,794,935	34.4	704	1,784,243	↑ 39.5
HG	80	316,201	25.3	85	318,735	26.7
LN	220	614,824	35.8	261	603,930	↑ 43.2
LO	292	961,013	30.4	356	943,208	↑ 37.7
OR	7	12,886	54.3	5	12,584	39.7
SH	9	9,622	93.5	14	10,917	128.2
TY	228	472,923	48.2	208	463,437	44.9
WI	22	26,304	83.6	21	26,746	78.5
Scotland	**2,303**	**6,252,814**	**36.8**	**2,470**	**6,193,463**	**↑ 39.9**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 7: ECB cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3, 4]

NHS board	Q1 Cases	Q1 Population	Q1 Rate	Q2 Cases	Q2 Population	Q2 Rate
AA	54	367,750	59.6	56	367,750	61.1
BR	11	116,980	38.1	22	116,980	75.4
DG	15	145,860	41.7	31	145,860	85.2
FF	30	374,760	32.5	42	374,760	45.0
FV	31	306,340	41.0	33	306,340	43.2
GR	25	591,870	17.1	43	591,870	29.1
GGC	78	1,217,270	26.0	92	1,217,270	30.3
HG	24	324,980	30.0	30	324,980	37.0
LN	67	678,570	40.0	83	678,570	49.1
LO	57	932,180	24.8	67	932,180	28.8
OR	2	22,020	36.8	1	22,020	18.2
SH	4	23,190	70.0	3	23,190	51.9
TY	45	419,110	43.5	59	419,110	56.5
WI	3	26,020	46.8	3	26,020	46.2
Scotland	**446**	**5,546,900**	**32.6**	**565**	**5,546,900**	**↑ 40.9**

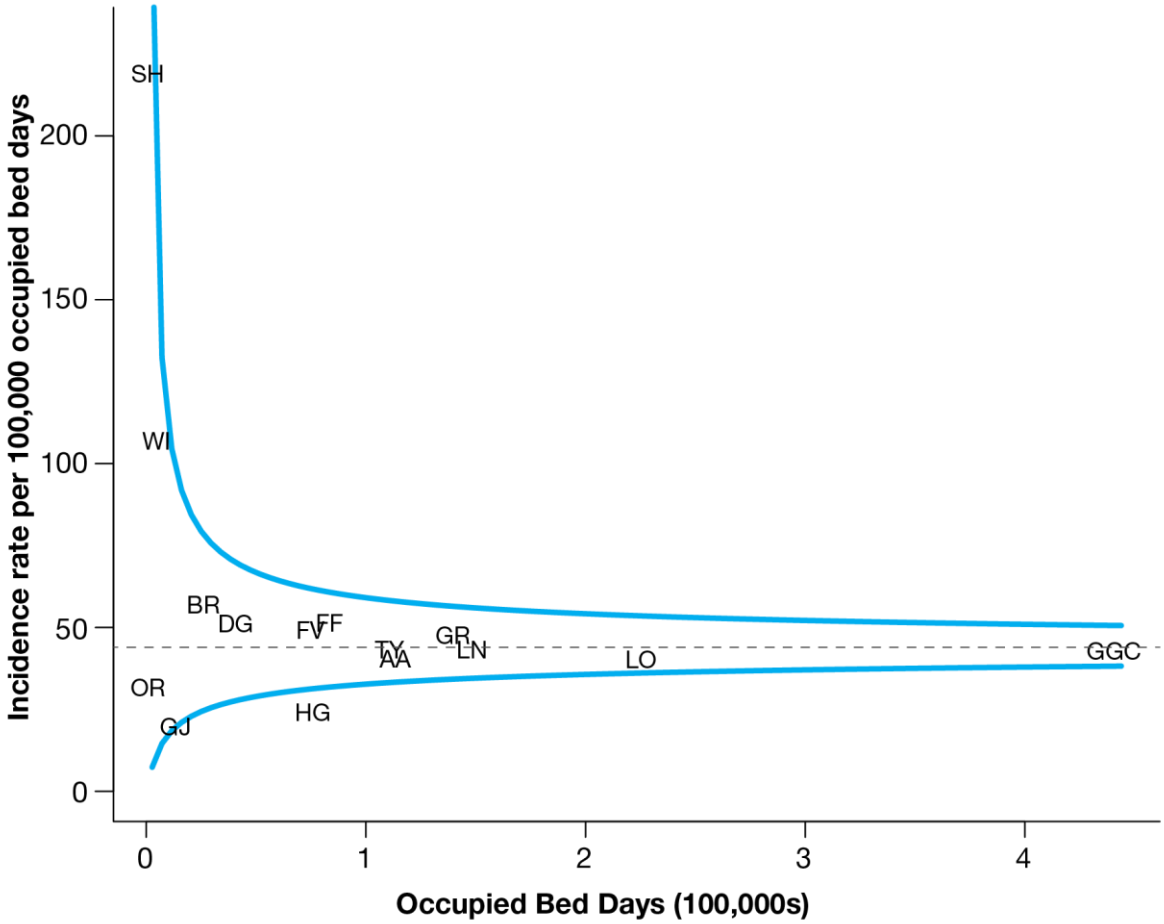
1. An arrow denotes statistically significant change.
2. Quarterly population rates are based on an annualised population.
3. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
4. Figures include any updates received following the last publication (see Appendix 2).

Table 8: ECB cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Population	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Population	YE Q2 25 Rate
AA	200	367,750	54.4	217	367,750	59.0
BR	46	116,980	39.3	72	116,980	↑ 61.5
DG	75	145,860	51.4	90	145,860	61.7
FF	138	374,760	36.8	144	374,760	38.4
FV	117	306,340	38.2	127	306,340	41.5
GR	170	591,870	28.7	132	591,870	↓ 22.3
GGC	390	1,217,270	32.0	364	1,217,270	29.9
HG	135	324,980	41.5	111	324,980	34.2
LN	271	678,570	39.9	297	678,570	43.8
LO	272	932,180	29.2	249	932,180	26.7
OR	10	22,020	45.4	7	22,020	31.8
SH	3	23,190	12.9	11	23,190	↑ 47.4
TY	180	419,110	42.9	190	419,110	45.3
WI	4	26,020	15.4	8	26,020	30.7
Scotland	**2,011**	**5,546,900**	**36.3**	**2,019**	**5,546,900**	**36.4**

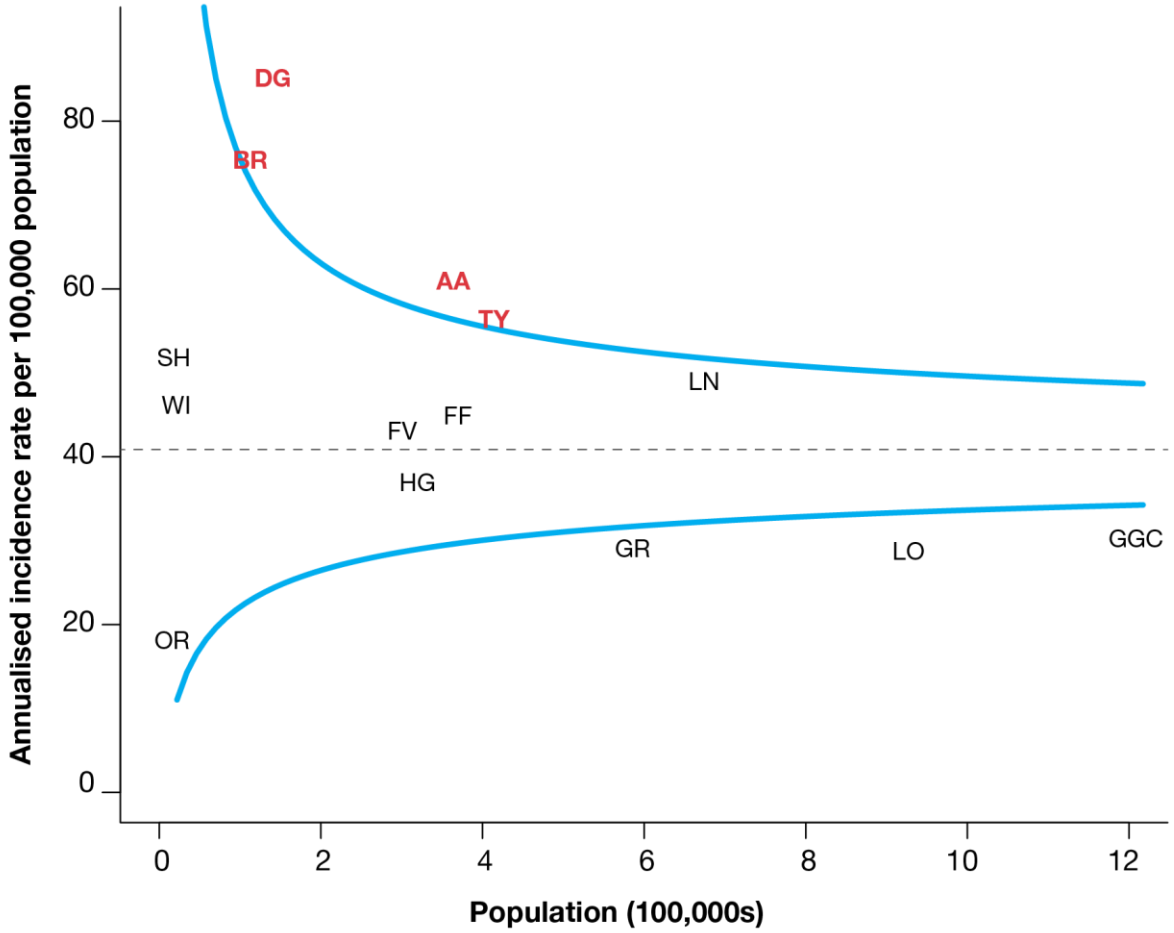
1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
3. Figures include any updates received following the last publication (see Appendix 2).

Figure 3: Funnel plot of ECB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2, 3]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
2. NHS Ayrshire and Arran and NHS Tayside overlap.
3. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Figure 4: Funnel plot of ECB incidence rates (per 100,000 population) in community associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
2. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Staphylococcus aureus bacteraemia (SAB)

Total cases for quarter

- During Q2 2025, 459 *Staphylococcus aureus* bacteraemia (SAB) cases in patients were reported to ARHAI. In the previous quarter there were 406 SAB cases.

Healthcare associated infection cases by NHS board where specimen taken

- During Q2 2025, 303 SAB cases were reported to ARHAI as healthcare associated. This corresponds to an incidence rate of 19.8 cases per 100,000 TOBDs (Table 9).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show there was an increase in NHS Ayrshire & Arran (Table 10).
- No NHS boards were above the 95% confidence interval upper limit in the funnel plot analysis (Figure 5).
- No NHS boards were above normal variation when analysing trends over the past three years (see supplementary data).

Community associated infection cases by NHS board of residence

- During Q2 2025, 156 SAB cases were reported as community associated. This corresponds to an incidence rate of 11.3 cases per 100,000 population (Table 11).
- Yearly comparisons (comparing year-ending June 2024 with year-ending June 2025) show there was an increase for NHS Fife (Table 12).
- NHS Fife was above the 95% confidence interval upper limit in the funnel plot analysis (Figure 6).
- NHS Fife was above normal variation when analysing trends over the past three years (see supplementary data).

Table 9: SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3]

NHS board	Q1 Cases	Q1 Bed days	Q1 Rate	Q2 Cases	Q2 Bed days	Q2 Rate
AA	32	116,613	27.4	28	115,390	24.3
BR	6	30,581	19.6	8	27,963	28.6
DG	5	46,414	10.8	5	42,839	11.7
FF	10	88,403	11.3	10	85,401	11.7
FV	16	75,436	21.2	16	76,932	20.8
GJ	2	14,158	14.1	2	15,068	13.3
GR	31	138,812	22.3	27	142,007	19.0
GGC	85	447,595	19.0	97	443,813	21.9
HG	17	80,185	21.2	18	77,823	23.1
LN	27	150,120	18.0	37	149,047	24.8
LO	31	234,752	13.2	32	227,037	14.1
OR	0	3,307	0.0	2	3,141	63.7
SH	4	2,977	134.4	2	2,738	73.0
TY	16	116,400	13.7	17	112,791	15.1
WI	1	6,446	15.5	2	6,530	30.6
Scotland	**283**	**1,552,199**	**18.2**	**303**	**1,528,520**	**19.8**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 10: SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Bed days	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Bed days	YE Q2 25 Rate
AA	81	460,523	17.6	129	460,881	↑ 28.0
BR	17	129,800	13.1	27	122,880	22.0
DG	37	186,019	19.9	29	180,828	16.0
FF	48	355,947	13.5	42	348,860	12.0
FV	51	312,557	16.3	62	303,158	20.5
GJ	9	54,809	16.4	8	57,429	13.9
GR	104	544,451	19.1	113	555,627	20.3
GGC	306	1,794,935	17.0	345	1,784,243	19.3
HG	43	316,201	13.6	49	318,735	15.4
LN	142	614,824	23.1	118	603,930	19.5
LO	156	961,013	16.2	154	943,208	16.3
OR	0	12,886	0.0	2	12,584	15.9
SH	7	9,622	72.7	8	10,917	73.3
TY	114	472,923	24.1	91	463,437	19.6
WI	5	26,304	19.0	9	26,746	33.6
Scotland	**1,120**	**6,252,814**	**17.9**	**1,186**	**6,193,463**	**19.1**

1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
3. Figures include any updates received following the last publication (see Appendix 2).

Table 11: SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).[1, 2, 3, 4]

NHS board	Q1 Cases	Q1 Population	Q1 Rate	Q2 Cases	Q2 Population	Q2 Rate
AA	10	367,750	11.0	8	367,750	8.7
BR	5	116,980	17.3	1	116,980	3.4
DG	4	145,860	11.1	5	145,860	13.7
FF	13	374,760	14.1	26	374,760	27.8
FV	7	306,340	9.3	14	306,340	18.3
GR	19	591,870	13.0	8	591,870	5.4
GGC	15	1,217,270	5.0	23	1,217,270	7.6
HG	7	324,980	8.7	7	324,980	8.6
LN	17	678,570	10.2	16	678,570	9.5
LO	14	932,180	6.1	28	932,180	12.0
OR	0	22,020	0.0	2	22,020	36.4
SH	2	23,190	35.0	2	23,190	34.6
TY	10	419,110	9.7	16	419,110	15.3
WI	0	26,020	0.0	0	26,020	0.0
Scotland	**123**	**5,546,900**	**9.0**	**156**	**5,546,900**	**11.3**

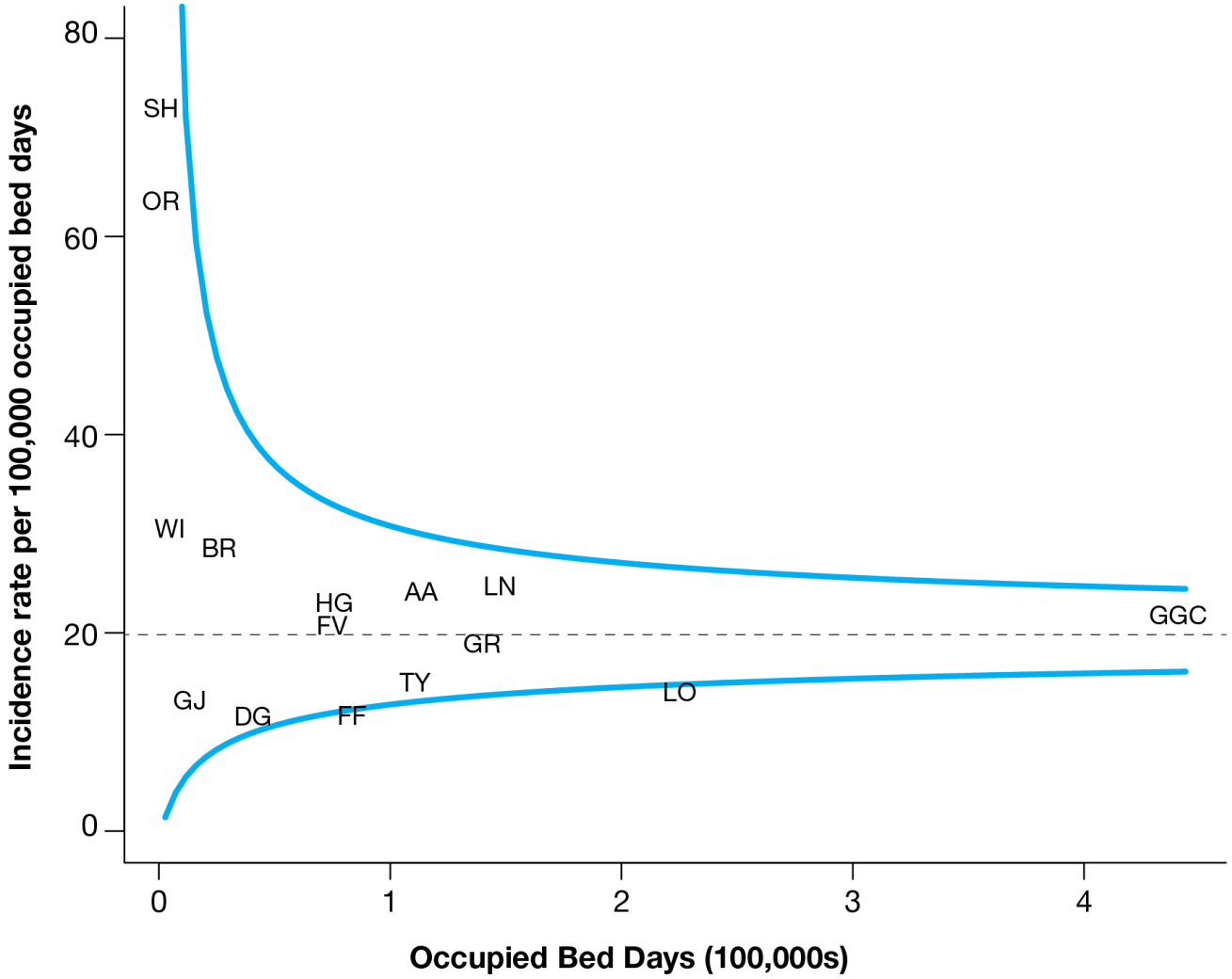
1. An arrow denotes statistically significant change.
2. Quarterly population rates are based on an annualised population.
3. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
4. Figures include any updates received following the last publication (see Appendix 2).

Table 12: SAB cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).[1, 2, 3]

NHS board	YE Q2 24 Cases	YE Q2 24 Population	YE Q2 24 Rate	YE Q2 25 Cases	YE Q2 25 Population	YE Q2 25 Rate
AA	53	367,750	14.4	36	367,750	9.8
BR	18	116,980	15.4	17	116,980	14.5
DG	15	145,860	10.3	21	145,860	14.4
FF	41	374,760	10.9	61	374,760	↑ 16.3
FV	31	306,340	10.1	47	306,340	15.3
GR	73	591,870	12.3	65	591,870	11.0
GGC	83	1,217,270	6.8	72	1,217,270	5.9
HG	28	324,980	8.6	25	324,980	7.7
LN	75	678,570	11.1	67	678,570	9.9
LO	88	932,180	9.4	96	932,180	10.3
OR	1	22,020	4.5	2	22,020	9.1
SH	9	23,190	38.8	6	23,190	25.9
TY	45	419,110	10.7	53	419,110	12.6
WI	1	26,020	3.8	1	26,020	3.8
Scotland	561	5,546,900	10.1	569	5,546,900	10.3

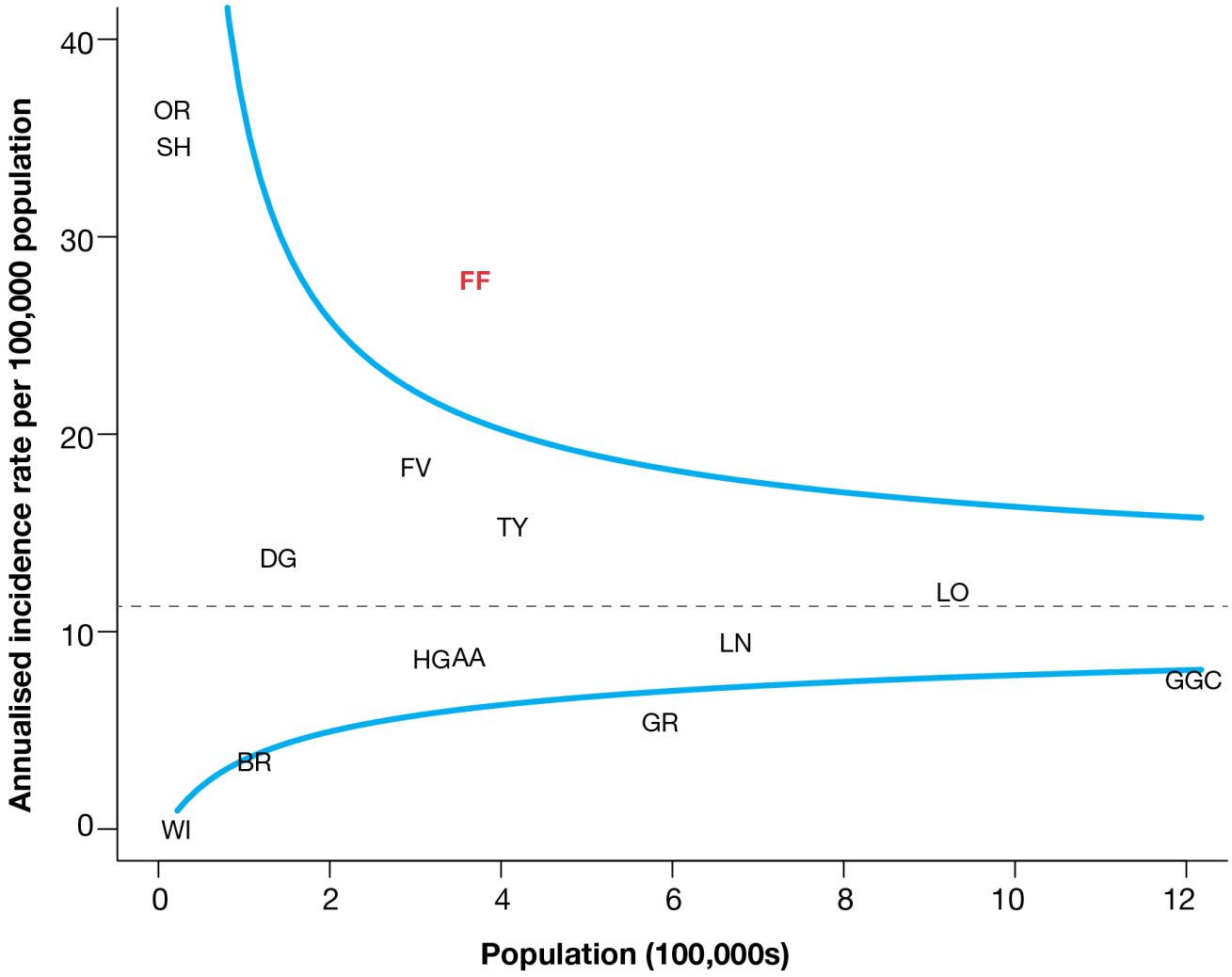
1. An arrow denotes statistically significant change.
2. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
3. Figures include any updates received following the last publication (see Appendix 2).

Figure 5: Funnel plot of SAB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Public Health Scotland ISD(S)1.
2. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Figure 6: Funnel plot of SAB incidence rates (per 100,000 population) in community associated infection cases for all NHS boards in Scotland in Q2 2025.[1, 2]



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & National Records of Scotland (NRS) mid-year population estimates.
2. NHS boards above the 95% confidence interval upper limit are highlighted in red.

Surgical Site Infection (SSI)

Epidemiological data for SSI are not included for this quarter. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

List of Tables

Name	File and size
Table 1: CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 2: CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)
Table 3: CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 4: CDI cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)
Table 5: ECB cases and incidence rates (per 100,000 TOBD) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 6: ECB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)
Table 7: ECB cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 8: ECB cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)
Table 9: SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 10: SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)

Table 11: SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2025 (January to March 2025) compared to Q2 2025 (April to June 2025).	supplementary data (534 Kb)
Table 12: SAB cases and incidence rates (per 100,000 population) for community associated infection cases: year-ending June 2024 (YE Q2 24) compared to year-ending June 2025 (YE Q2 25).	supplementary data (534 Kb)

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Further Information

Further information can be found on the ARHAI Scotland website.

The data from this publication is available to download **from our web page** along with background information and metadata.

For more information on types of infections included in this report, please see the CDI, ECB, SAB and SSI pages.

The next release of this publication will be January 2026.

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Appendices

Appendix 1 – Background information

Revisions to the surveillance

Description of Revision	First report revision applied	Report section(s) revision applies to	Rational for revision
Addition of healthcare/ community case assignment.	October 2017	CDI/SAB	An increasing awareness of those infections occurring in community settings has warranted measurement of incidence rates by healthcare setting (healthcare settings vs. community settings) to enable interventions to be targeted to the relevant settings.
Use of standardised denominator data for CDI/ECB/SAB.	October 2017	CDI/SAB	The 'total occupied bed days' data will be extracted from the ISD(S)1 data collection which contains aggregated information on acute and non-acute bed days including geriatric medicine and long-term stays in real-time. The standardisation of denominator data across the three surveillance programmes could result in slightly less accurate denominators due to inclusion of persons in the denominator who are at slightly lower risk of infection. However, in surveillance programmes developed for the purpose of preventing infection and driving quality improvement in care, consistency of the denominators over time tends to be more important than getting a very precise estimate of the population at risk, as the primary aim is to reduce infection to a lower incidence relative to what it was at the initial time of benchmarking.
Reporting of CDI cases aged 15 years and above only.	October 2017	CDI	Current Scottish Government Local Delivery Plan (LDP) Standards are based on the incidence rate in cases aged 15 years and above, therefore the report has been aligned to reflect this. ARHAI will

Description of Revision	First report revision applied	Report section(s) revision applies to	Rational for revision
			continue to monitor CDI incidence rates in the separate age groups (15-64 years and 65 years and above) internally.
Reporting of total SAB cases only (i.e. Removal of MRSA sub-analysis).	October 2017	SAB	The count of MRSA bacteraemia cases are now too small to carry out statistical analysis. ARHAI Scotland will continue to monitor internally.
Name change for *Clostridium difficile* to *Clostridioides difficile*.	October 2018	CDI	A novel genus *Clostridioides* has been proposed for *Clostridium difficile* which will now be known as *Clostridioides difficile*. There are no implications with regards to the natural history of infection, infection prevention and control, or clinical treatment.
Addition of year end comparisons to ECB.	October 2018	ECB	This analysis (already included for other reported organisms) is now possible for ECB due the amount of data that has now been collected.
Change in production of quarterly SPC charts.	April 2020	All sections	Updated method used for calculating exceptions within the statistical process control (SPC) charts. The mean, Trigger/warning lines (+2 standard deviations) and upper control limits (+3 standard deviations) presented, are now calculated using the 12 quarters prior to the most recent quarter, as to compare the new rate against an existing baseline.
Changes to data collection in response to COVID-19.	July 2020	All sections	A CNO letter sent 25th March 2020 asked NHS boards to continue to report case numbers and origin of infection data but they would not be required to report risk factor data as would normally be expected under enhanced/extended surveillance for *Staphylococcus aureus* bacteraemia (SAB), *Escherichia coli* bacteraemia (ECB) and *Clostridioides difficile* infection (CDI). All mandatory and voluntary Surgical Site Infection (SSI) surveillance was paused until further notice.

Description of Revision	First report revision applied	Report section(s) revision applies to	Rational for revision
Change from Health Protection Scotland to ARHAI Scotland.	October 2020	All sections	In April 2020, as part of launch of Public Health Scotland, the ARHAI Group within Health Protection Scotland (HPS) became ARHAI Scotland. ARHAI Scotland will continue to support NHS boards in the prevention and control of healthcare associated infections. The report was updated to reflect this branding change.
Change from National Waiting Times Centre (NWTC) to NHS Golden Jubilee (GJ).	January 2021	All sections	Labelling updated.
Change to reporting of ribotypes.	October 2022	CDI	A description of *C. difficile* PCR ribotypes (RTs) had not been included in the reports published between October 2022 and July 2023, while the CDI typing service provided by the Scottish Microbiology Reference Laboratory (SMiRL) was being reviewed.
Recommencement of mandatory surveillance following COVID-19 response.	April 2023	All sections	As part of a return to pre-pandemic surveillance, for data collected from October 2022 onwards enhanced/extended surveillance for *Escherichia coli* bacteraemia (ECB) and *Staphylococcus aureus* bacteraemia (SAB) has been reinstated. Mandatory surveillance of enhanced fields including source of infection/entry point and risk factors as appropriate has resumed in line with the bacteraemia surveillance protocol. Previously, for data collected from 25 March 2020 onwards, only origin of infection was mandatory for ECB and SAB surveillance. Meanwhile all mandatory and voluntary Surgical Site Infection (SSI) surveillance will remain paused until further notice.

Description of Revision	First report revision applied	Report section(s) revision applies to	Rational for revision
Update to CDI surveillance protocol	September 2024	CDI	This protocol update should not have any impact on current CDI surveillance activities but has been updated to better reflect the current data handling methodologies as well as updating links to relevant documents.
Update to CDI snapshot surveillance protocol	September 2024	CDI	This protocol update reflected changes in laboratory reporting criteria and links to relevant documents were updated throughout.

Report methods and caveats

Full details of the report methods and caveats can be found here.

UK comparisons

Improved collaboration with the other UK nations has made comparisons and standardisation across the UK a high priority for all four nations' governments/health departments. The changes introduced in the Scottish HAI surveillance described here facilitate benchmarking of the Scottish data against those of the rest of the UK.

Key to NHS boards

AA = NHS Ayrshire & Arran

BR = NHS Borders

DG = NHS Dumfries & Galloway

FV = NHS Forth Valley

FF = NHS Fife

GJ = NHS Golden Jubilee

GR = NHS Grampian

GGC = NHS Greater Glasgow & Clyde

HG = NHS Highland

LN = NHS Lanarkshire

LO = NHS Lothian

OR = NHS Orkney

SH = NHS Shetland

TY = NHS Tayside

WI = NHS Western Isles

Appendix 2 – Publication Metadata

Publication title

Quarterly epidemiological data on *Clostridioides difficile* infection, *Escherichia coli* bacteraemia, *Staphylococcus aureus* bacteraemia and Surgical Site Infection in Scotland.

Description

This release provides information on *Clostridioides difficile* infection, *Escherichia coli* bacteraemia, *Staphylococcus aureus* bacteraemia and Surgical Site Infection in Scotland for the period April to June 2025.

Theme

Infections in Scotland.

Topic

Clostridioides difficile infection, *Escherichia coli* bacteraemia, *Staphylococcus aureus* bacteraemia and Surgical Site Infection.

Format

MS Word reports and MS Excel workbooks.

Data source(s)

***Clostridioides difficile* infection:**

Case data source: Electronic Communication of Surveillance in Scotland (ECOSS).

Data linkage source: General / Acute Inpatient and Day Case Scottish Morbidity Records (SMR01).

Healthcare associated denominator: Total occupied bed days: Public Health Scotland ISD(S)1.

Community associated denominator: National Records of Scotland (NRS) mid-year population estimates. Note: mid-year population estimates are not yet available for 2025, therefore mid-year population data for 2024 are used for rates of community associated infections for 2024 and 2025.

***Escherichia coli* bacteraemia:**

Case data source: Electronic Communication of Surveillance in Scotland (ECOSS) Enhanced Surveillance Web Tool.

Healthcare associated denominator: Total occupied bed days: Public Health Scotland ISD(S)1.

Community associated denominator: NRS mid-year population estimates. Note: mid-year population estimates are not yet available for 2025, therefore mid-year population data for 2024 are used for rates of community associated infections for 2024 and 2025.

***Staphylococcus aureus* bacteraemia:**

Case data source: Electronic Communication of Surveillance in Scotland (ECOSS) Enhanced Surveillance Web Tool.

Healthcare associated denominator: Total occupied bed days: Public Health Scotland ISD(S)1.

Community associated denominator: NRS mid-year population estimates. Note: mid-year population estimates are not yet available for 2025, therefore mid-year population data for 2024 are used for rates of community associated infections for 2024 and 2025.

Surgical Site Infection:

Epidemiological data for SSI are not included for this quarter. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Date that data are acquired

The date the data were extracted for analysis.

Clostridioides difficile infection: 17 July 2025.

Escherichia coli bacteraemia: 20 August 2025.

Staphylococcus aureus bacteraemia: 21 August 2025.

Surgical Site Infection: Epidemiological data for SSI are not included for this quarter. National Mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Release date

07 October 2025.

Frequency

Quarterly.

Timeframe of data and timeliness

The latest iteration of data is 30 June 2025, therefore the data are three months in arrears.

Continuity of data

Quarterly as at March, June, September, and December.

Revisions statement

These data are not subject to planned major revisions. However, ARHAI aims to continually improve the interpretation of the data and therefore analysis methods are regularly reviewed and may be updated in the future.

Revisions relevant to this publication

Updates to previously published figures.

National Records for Scotland (NRS) mid-year population estimates
All NHS board mid-year population estimates from 2024 Q1 to 2025 Q1 were updated following the release of 2024 NRS mid-year population estimates on 8th August 2025.

Total Occupied Bed Days (TOBDs)
There were no retrospective amendments to the data.

***Clostridioides difficile* infection (CDI)**
There were no retrospective amendments to the data.

***Escherichia coli* bacteraemia (ECB)**
There were no retrospective amendments to the data.

***Staphylococcus aureus* bacteraemia (SAB)**
There were no retrospective amendments to the data.

Surgical Site Infection (SSI)
Epidemiological data for SSI are not included for this quarter. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Concepts and definitions

Further information on the methods and caveats can be found here.

When a board is highlighted as an exception this will be looked at further as per the exception reporting process.

Further information on the production of quarterly exception reports (SOP) can be found here.

***Clostridioides difficile* infection (CDI)**

Clostridioides difficile infection (CDI) is the most common cause of intestinal infections (and diarrhoea) associated with antimicrobial therapy. Clinical disease comprises a range of toxin mediated symptoms from mild diarrhoea, which can resolve without treatment, to severe cases such as pseudomembranous colitis (PMC), toxic megacolon and peritonitis that can lead to death.

For mild disease, diarrhoea is usually the only symptom. Other clinical features consistent with more severe forms of CDI include fever, leukocytosis, pseudomembranous colitis and ileus.

Symptoms of CDI, and associated immune reactions in children, differ from those in adults, but the pathology is not well described. Routine testing in children aged less than 3 years old is not recommended, see *C. difficile* testing algorithm published by the Scottish Microbiology and Virology Network in 2024.

There remains scope for a reduction of incidence rates through continued local monitoring, appropriate prescribing, and compliance with infection prevention and control measures. The Scottish Health Protection Network published community based guidance in November 2024 here. The National Infection Prevention and Control Manual provides IPC guidance to all those involved in care provision and is considered best practice across all health and care settings in Scotland. Full details of the surveillance methods may be found in the **Protocol for the Scottish Surveillance Programme for Clostridioides difficile infection: user manual | National Services Scotland.**

***Escherichia coli* bacteraemia (ECB)**

Escherichia coli (*E. coli*) is a bacterium commonly found in the gut of animals and people where it forms part of the normal gut flora that helps human digestion. Although most types of *E. coli* live harmlessly in your gut, some types can make you unwell. Some types of *E. coli* can cause urinary tract infections (UTI) and illnesses such as pneumonia.

E. coli continues to be the most frequent cause of Gram-negative bacteraemia in Scotland and is a frequent cause of infection worldwide.

New cases of ECB are identified by laboratory testing (via positive blood cultures) and submitted to the national system ECOSS. Only cases of ECB that have been reviewed and confirmed by the NHS boards in the enhanced surveillance system are included in the quarterly commentaries. Full details of the surveillance methods may be found in the protocol.

Staphylococcus aureus bacteraemia (SAB)

Staphylococcus aureus (*S. aureus*) is a Gram-positive bacterium that colonises the nasal cavity of about a quarter of the healthy population. This colonisation is usually harmless. However, infection can occur if *S. aureus* breaches the body's defence systems and can cause a range of illnesses from minor skin infections to serious systemic infections such as bacteraemia. Some strains of *S. aureus* produce toxins or show resistance to first line treatments, therefore, can be more complicated to treat.

Scotland has had a mandatory meticillin resistant *S. aureus* (MRSA) bacteraemia surveillance programme since 2001. The programme was extended to include meticillin sensitive *S. aureus* (MSSA) bacteraemia in 2006 and in 2014 to include enhanced *S. aureus* bacteraemia (SAB) surveillance. Full details of the surveillance methods may be found in the protocol.

Surgical Site Infection (SSI)

A surgical site infection (SSI) is an infection that occurs after surgery in the part of the body where the surgery took place. SSI may be superficial infections involving the skin only, while other SSI is more serious and can involve tissues under the skin, organs, or implanted material.

SSI is one of the most common types of healthcare associated infection in Scotland, estimated to account for 16.5% of inpatient healthcare associated infection within NHSScotland, according to Scottish Point Prevalence Survey 2016. Prior to the COVID-19 pandemic, NHS boards participated in SSI surveillance for procedures including caesarean section, hip arthroplasty, large bowel, and vascular procedures. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Relevance and key uses of the statistics

Clostridioides difficile infection (CDI)

Surveillance data is essential for monitoring trends and assisting in outbreak investigations. Certain strains of *C. difficile* have been associated with more severe disease (e.g. PCR ribotypes 027 and 078) and antibiotic resistance has been suggested to be a factor in the emergence and spread of *C. difficile* epidemic types. In addition, the identification of ribotypes and whole genome sequencing can assist in the investigation of outbreaks.

The surveillance data should inform and support NHS boards in implementing antimicrobial prescribing policies, infection control and prevention interventions. Further information on typing schemes may be found in the Protocol for the *Clostridioides difficile* snapshot programme | National Services Scotland.

Escherichia coli bacteraemia (ECB)

The outputs of the surveillance programme are intended to support the NHS boards in controlling and reducing the burden of ECB. Benchmarking against other NHS boards (and other countries) is an important function of the surveillance. In conjunction with other sources of intelligence (including enhanced surveillance data) the outputs of the quarterly surveillance can also help the NHS boards with planning and targeting activities to reduce risk to patient of becoming infected and improve the care of patients (i.e. strategic planning, targeted intervention, care quality improvement).

As urinary tract infections are commonly associated with *E. coli* bacteraemia cases, ARHAI Scotland coordinates the sharing of urinary tract infection (UTI) reduction resources. These include the National Hydration Campaign which aims to convey the public health benefits of good hydration in terms of UTI prevention, and the National Catheter Passport which gives information on how to care for urinary catheters at home as well as a clinical section for a nurse, doctor, or carer. Work is also being done on improving antimicrobial treatment of people with infections – co-

ordinated by the Scottish Antimicrobial Prescribing Group (SAPG) through a network of antimicrobial management teams.

***Staphylococcus aureus* bacteraemia (SAB)**

ARHAI continues to offer support to NHS boards across Scotland to aid their local SAB reduction strategies. A programme of enhanced SAB surveillance commenced in all NHS boards in Scotland on 1 October 2014. This is providing further intelligence to focus future reduction interventions.

Surgical Site Infection (SSI)

SSIs are estimated to double the length of post-operative stay in hospital and significantly increase the cost of care. The national SSI programme is intended to enhance the quality of patient care with use of data obtained from surveillance to compare incidence of SSI over time and against a benchmark rate and to use this information locally to review and guide clinical practice. National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Accuracy

CDI, ECB and SAB data are the product of the Electronic Communication of Surveillance in Scotland (ECOSS). Participating laboratories routinely report all identifications of organisms, infection, or microbiological intoxication unless they are known to be of no clinical or public health importance. The collected data are used for: the identification of single cases of severe disease, outbreaks, longer term trends in the incidence of laboratory reported infections, enhanced surveillance, health protection, and analytical and statistical use.

Delays in SMR01 data availability at the time of report production means that the origin of infection for some CDI cases may be reassigned at a later date. Therefore, healthcare-associated and community-associated CDI cases in this report are provisional and may change as more data becomes available.

The enhanced ECB and SAB ECOSS web tool has built-in validation rules that must be met before the data are submitted. Further checks of the data are made by

ARHAI before the data are analysed. CDI validation of collected data entails sending a list of CDI cases extracted from ECOSS to all NHS boards and asking for confirmation that the cases represent true CDI cases, i.e., meet the case definition which is defined in the Protocol for the Scottish Surveillance Programme for *Clostridioides difficile* infection: user manual | National Services Scotland, prior to sending for linkage with national hospital activity registers. The final list of CDI cases is then agreed before publishing.

SSI data is reported via the Surgical Site Infection Reporting System (SSIRS). Complying with a national minimum dataset and definitions for Surgical Site Infections, enables the data submitted to ARHAI Scotland to be mapped into the national dataset following a rigorous quality assurance process.

SSIRS has built-in validation rules and data cannot be submitted until rules are met. SSIRS primary validation checks for incomplete or conflicting information entered in core data fields. Secondary validation includes data checks that can be accepted without completion and/or values that are outside the stated requirements.

Completeness

TOBD:

The total occupied bed days for April 2025 in NHS Greater Glasgow & Clyde were not available at the time of publication, therefore the TOBDs for April 2024 were used as a proxy.

ECB/SAB:

Surveillance data are collected using an ECOSS Surveillance Web Tool that allows data collectors in NHS boards to validate ECOSS records as well as additional cases that may not be included in the ECOSS system. This therefore means that completeness is near to 100%. Only cases validated through enhanced surveillance are included in this publication.

CDI:

Diagnosis of CDI is confirmed in a patient who is both symptomatic with diarrhoea and whose stool has tested positive for *C. difficile* toxin using the diagnostic algorithm outlined in the *C. difficile* testing algorithm published by the Scottish Microbiology and Virology Network in 2024. Origin of infections are assigned using a combination of NHS board validation and data linkage with national hospital activity registers (**Protocol for the Scottish Surveillance Programme for *Clostridioides difficile* infection: user manual | National Services Scotland).** As with most surveillance programmes, completeness will not be 100% but mandatory surveillance methodology ensures this is as near to 100% as practically possible.

CDI Ribotyping: The snapshot programme (Protocol for the *Clostridioides difficile* snapshot programme | National Services Scotland) aims to obtain a representative sample of isolates from CDI cases across all NHS boards in Scotland, but this cannot always be achieved, therefore the data should be interpreted with caution.

The clinical typing scheme aims to provide data from severe CDI cases and/or suspected outbreaks. These data are based on the specimens and information received by the reference laboratory and are not validated by individual NHS boards for completeness, therefore, the data should be interpreted with caution.

SSI:

National mandatory SSI surveillance was paused in 2020 to support the COVID-19 response and has not yet resumed.

Comparability

UK Health Security Agency (UKHSA) report rates per quarter for CDI, ECB and SAB, and annually for SSI (methods and definitions may differ).

Clostridioides difficile: guidance, data and analysis
Escherichia coli (*E. coli*): guidance, data and analysis
Staphylococcus aureus: guidance, data and analysis
Surgical site infection (SSI): guidance, data and analysis

Accessibility

It is the policy of ARHAI to make its web sites and products accessible according to published guidelines.

Coherence and clarity

Tables and charts are accessible via the supplementary data file on the ARHAI Scotland website.

Value type and unit of measurement

Healthcare associated cases and incidence rates (per 100,000 Total occupied bed days (TOBDs)) for *Clostridioides difficile* infection, *Escherichia coli* bacteraemia & *Staphylococcus aureus* bacteraemia.

Community associated cases and incidence rates (per 100,000 population) for *Clostridioides difficile* infection, *Escherichia coli* bacteraemia & *Staphylococcus aureus* bacteraemia. Quarterly rates of community associated infections are calculated pro-rata for the number of days in the quarter, so that quarterly and yearly incidence rates are comparable.

Number of procedures and Surgical Site Infections and incidence per categories (per 100 procedures) for inpatients and post discharge surveillance.

Further information on the methods and caveats for can be found here.

Disclosure

The PHS protocol on Statistical Disclosure Protocol is followed.

Official Statistics accreditation

Official Statistics.

UK Statistics Authority Assessment

Not Assessed.

Last published

01 July 2025.

Next published

January 2026.

Date of first publication

07 April 2015. Prior to this *Clostridioides difficile* infection (first publication - 2 Apr 2008) and *Staphylococcus aureus* bacteraemia (first publication - 3 Apr 2002) were separate reports.

Help email

NSS.ARHAIdatateam@nhs.scot

Date form completed

07 October 2025.

Appendix 3 – Early access details

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ARHAI is obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

Standard Pre-Release Access:

- Scottish Government Health Department
- NHS board Chief Executives
- NHS board Communication leads

Appendix 4 – ARHAI Scotland and Official Statistics

About ARHAI Scotland

ARHAI Scotland works at the very heart of the health service across Scotland, delivering services critical to frontline patient care and supporting the efficient and effective operation of NHSScotland.

Official Statistics

Our statistics comply with the Code of Practice for Statistics in terms of trustworthiness, high quality and public value. This also means that we keep data secure at all stages, through collection, processing, analysis and output production, and adhere to the 'five safes'.

This document has been prepared by Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) team of NHS Scotland Assure, part of NHS National Services Scotland (NSS).

This publication can be made available in large print, braille (English only), audio tape and different languages. Please contact nss.equalitydiversity@nhs.scot for further information.

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