

S. aureus bacteraemia surveillance

Quarterly report

July - September 2024

Key points

- Rates presented throughout this report have now changed to per 100,000 occupied bed days to align with the Targets.
- Overall *S. aureus* (SA) rates for Northern Ireland (MRSA plus MSSA bacteraemias) increased by approximately 14% during July-September 2024 compared to April-June 2024.
- MRSA rates increased by approximately 7% during July-September 2024 compared to April-June 2024.
- MSSA rates increased by approximately 14% during July-September 2024 compared to April-June 2024.
- Please note: Bed day data were not available for BHSCT and SEHSCT hospitals and provisional figures were used this quarter (figures taken from Jul-Sep 2023).

For further information or clarification on HCAI definitions, please refer to previous reports or contact hcaini@hscni.net

***S. aureus* bacteraemia surveillance**

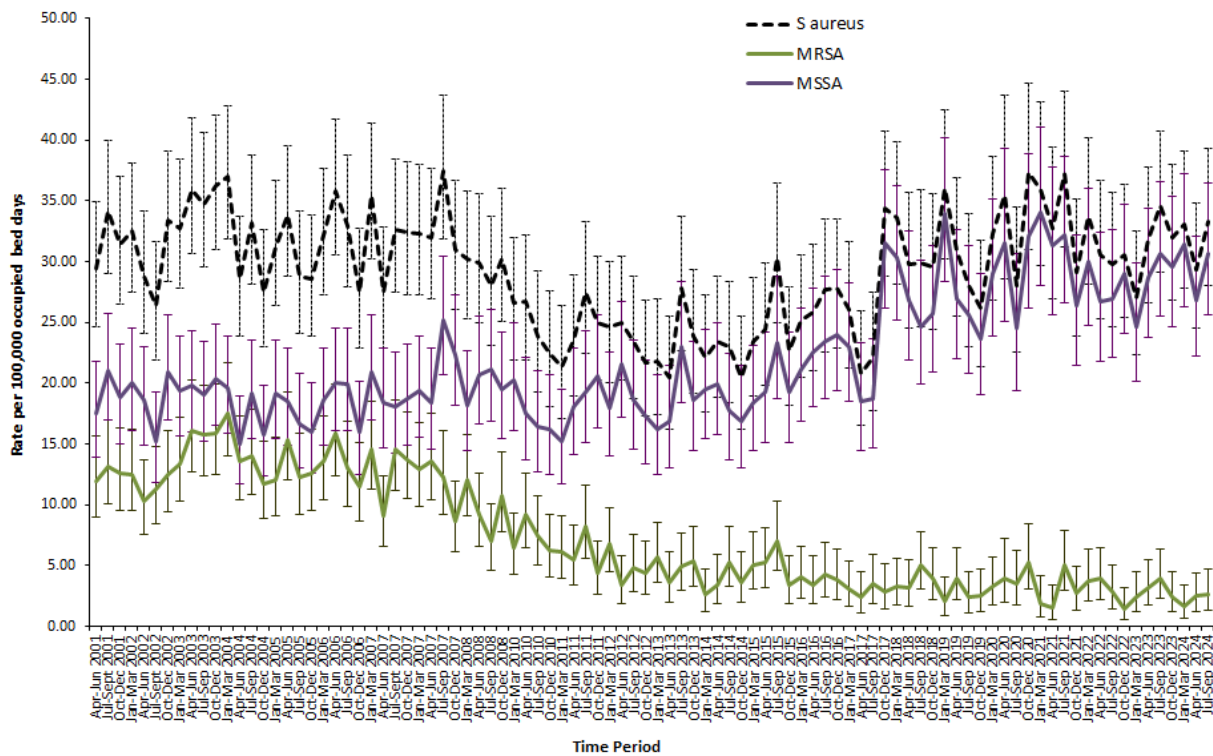


Figure 1: MSSA, MRSA and *S. aureus* rates in Northern Ireland by quarter, with 95% confidence intervals, April 2001 – Sept 2024 (see Appendix 3)

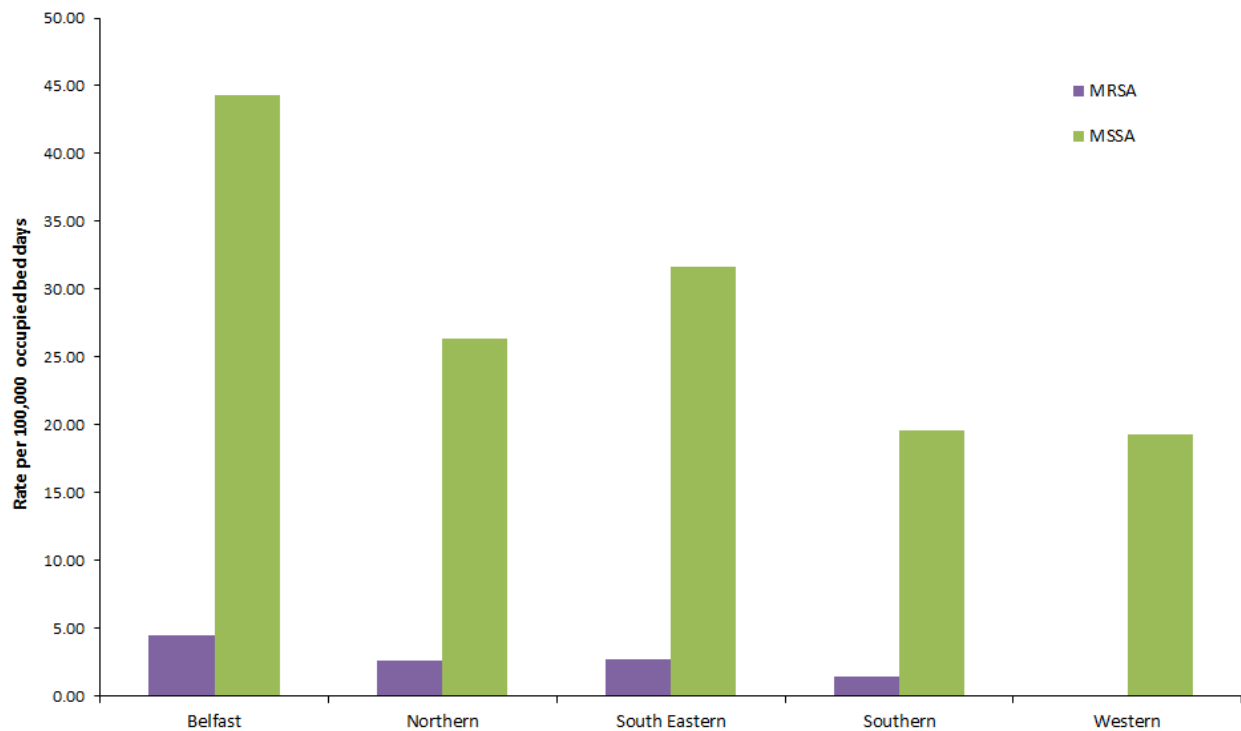


Figure 2: MRSA and MSSA rates per 100,000 occupied bed days, by HSCT, Jul-Sept 2024.

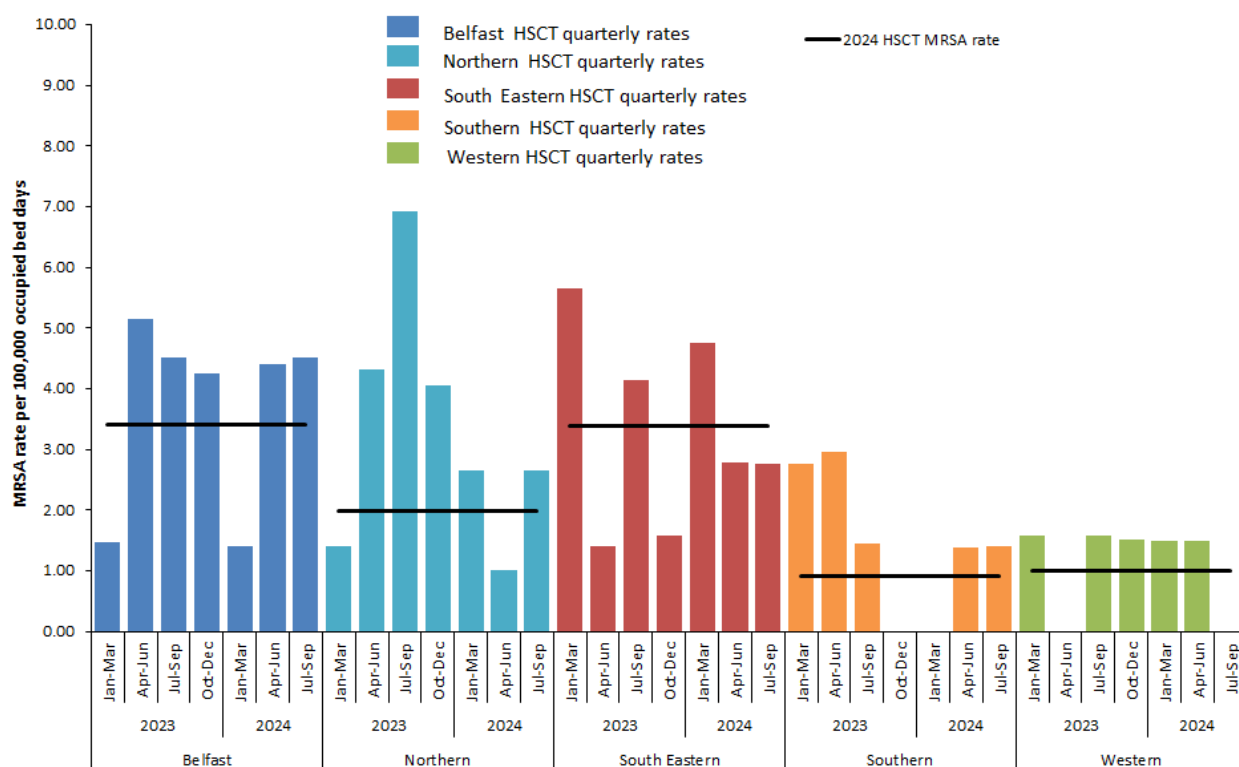


Figure 3: MRSA quarterly rate Jan 2023 – Sept 2024, by HSCT, with 2024 HSCT MRSA rate

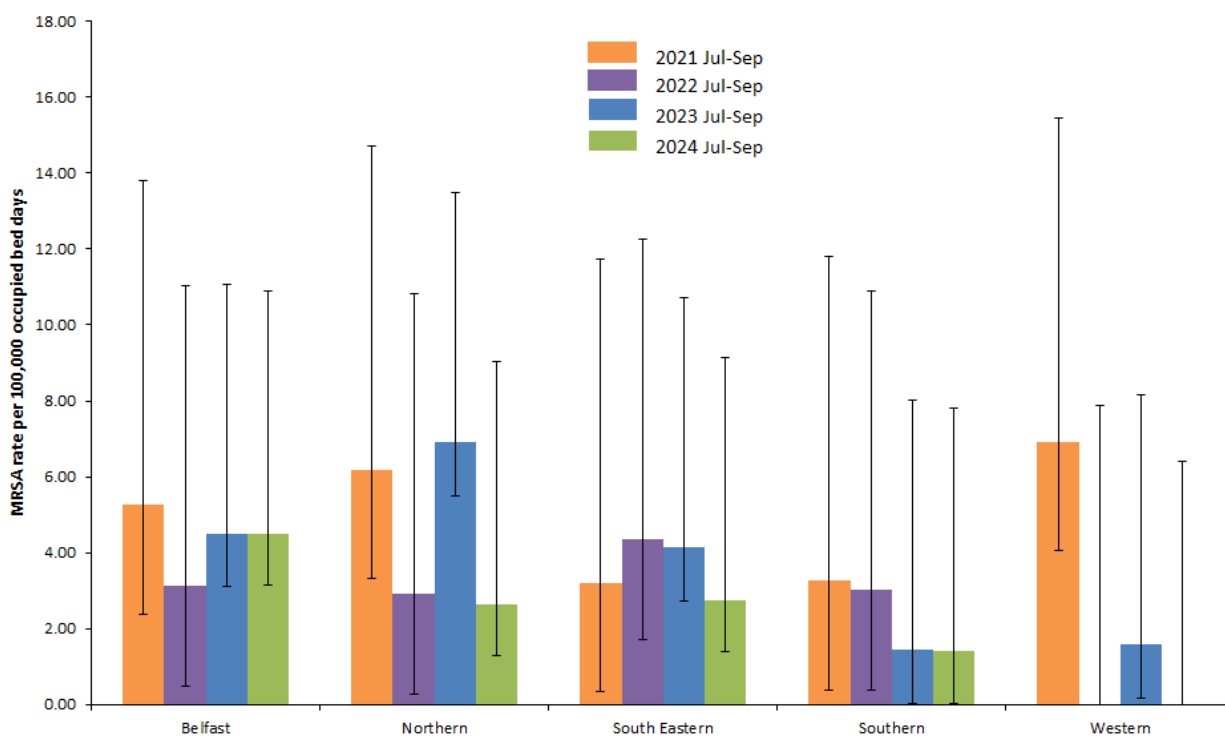


Figure 4: MRSA rate during Jul-Sep, by HSCT, from 2021–2024, with 95% confidence intervals

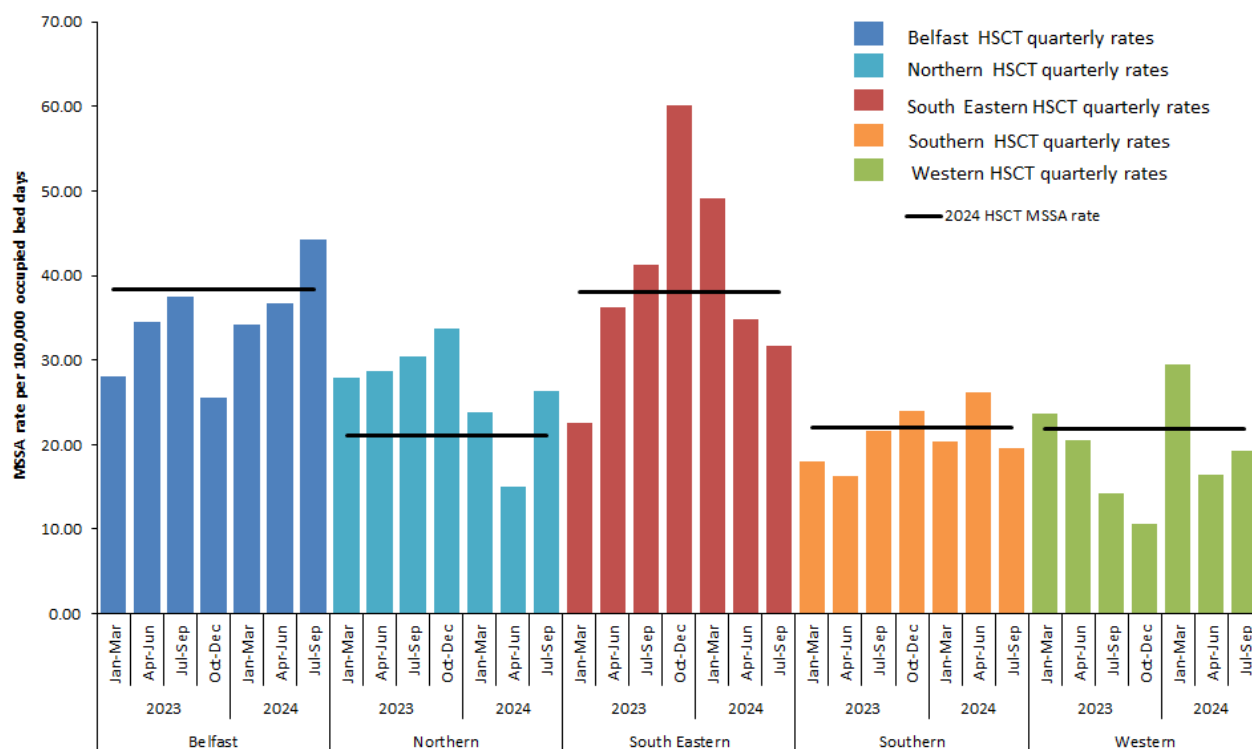


Figure 5: MSSA quarterly rate Jan 2023 – Sept 2024, by HSCT, with 2024 HSCT MSSA rate

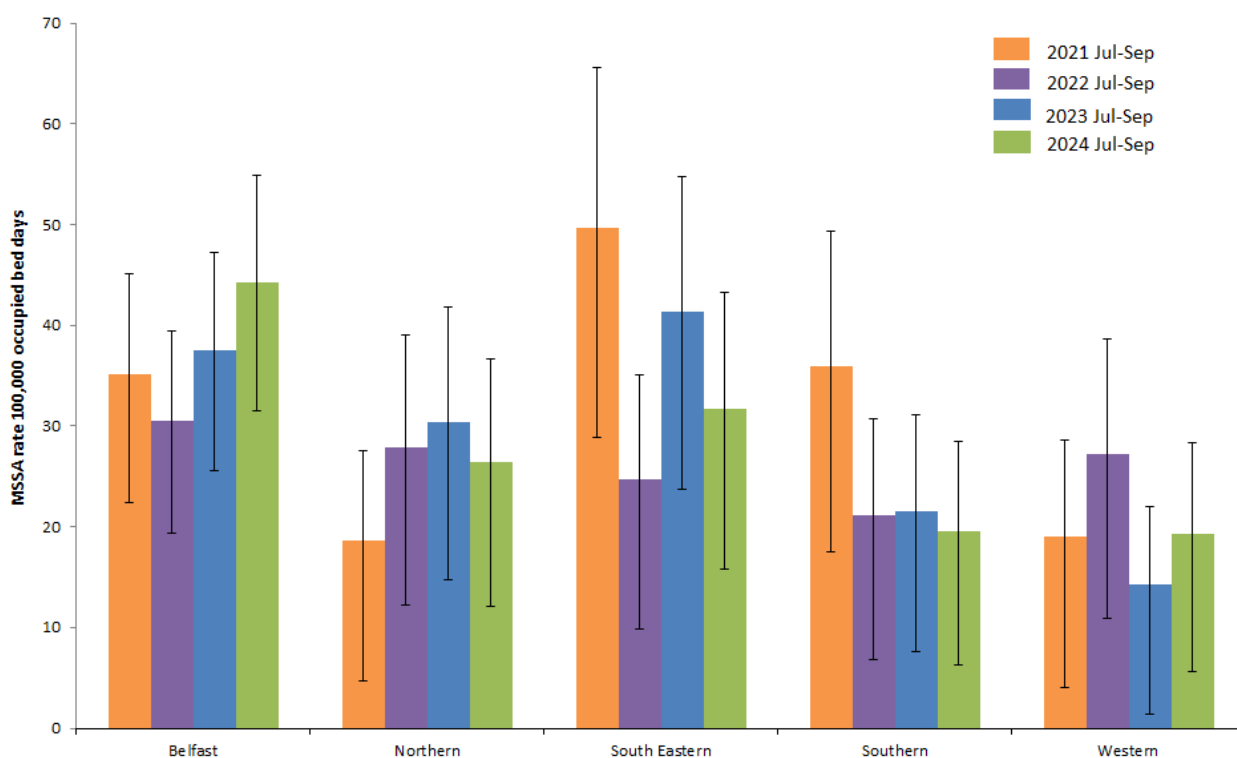


Figure 6: MSSA rate during Jul-Sept, by HSCT, from 2021–2024, with 95% confidence interval

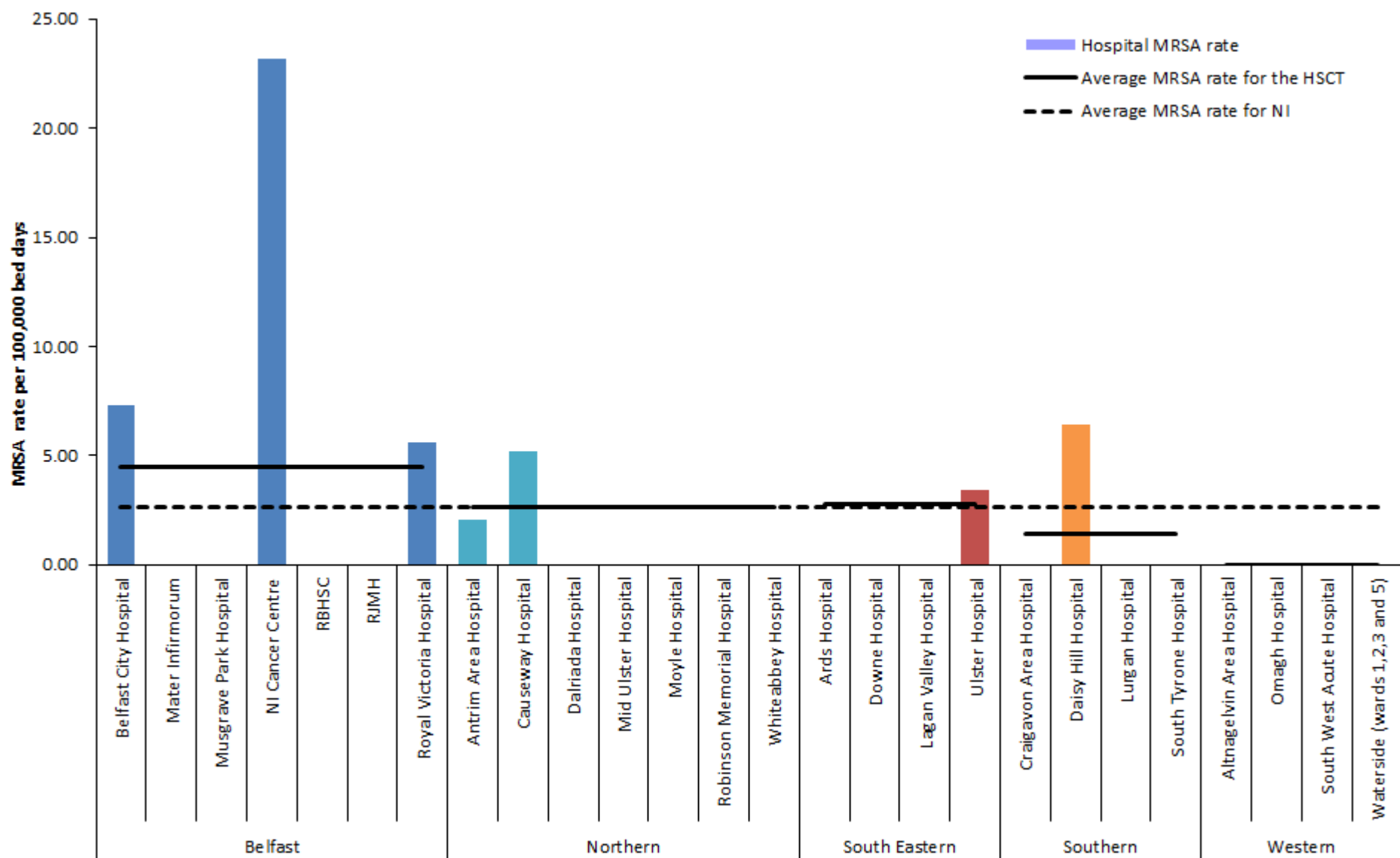


Figure 7: Rates of MRSA, July-September 2024 by individual hospitals, (gaps represent zero episodes), compared to July-September 2024 average rates for Northern Ireland and HSCTs

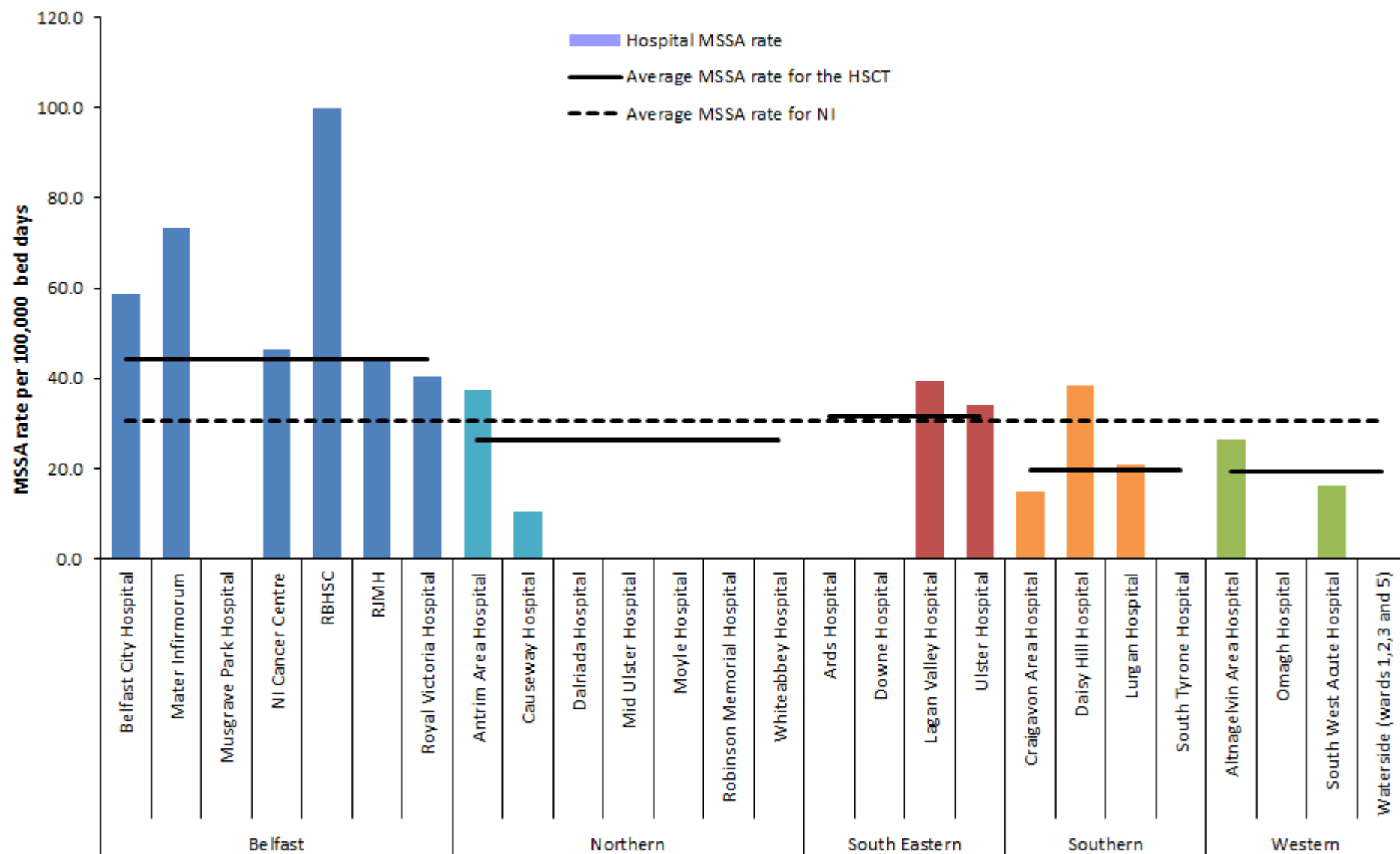


Figure 8: Rates of MSSA, July-September 2024 by individual hospitals, (gaps represent zero episodes), compared to July-September 2024 average rates for Northern Ireland and HSCTs

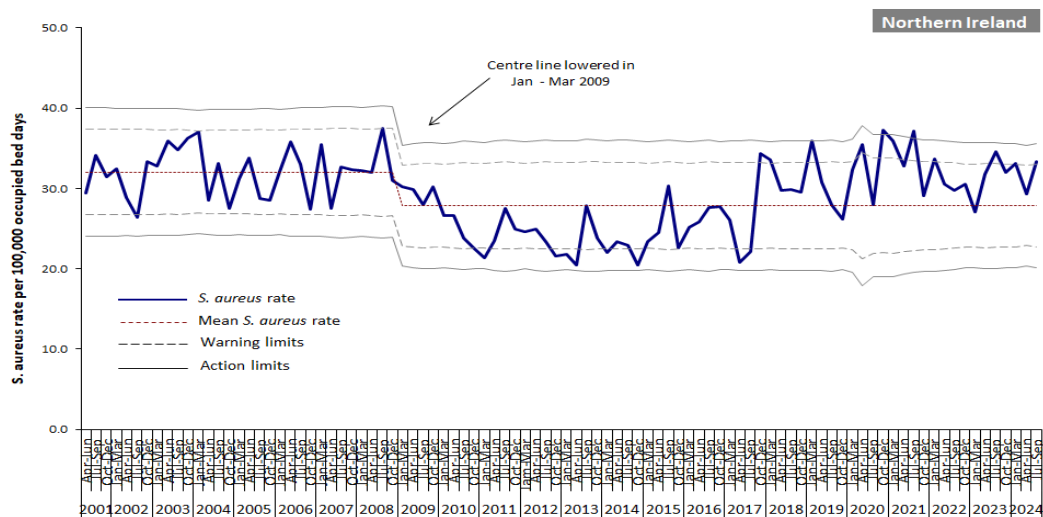


Figure 9a: Statistical process control chart for quarterly *S. aureus* rates in Northern Ireland

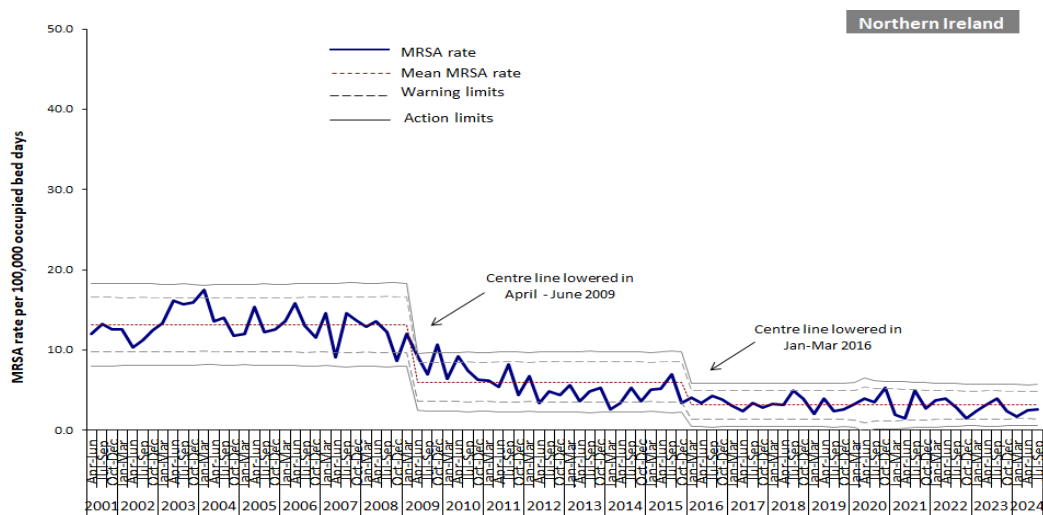


Figure 9b: Statistical process control chart for quarterly MRSA rates in Northern Ireland

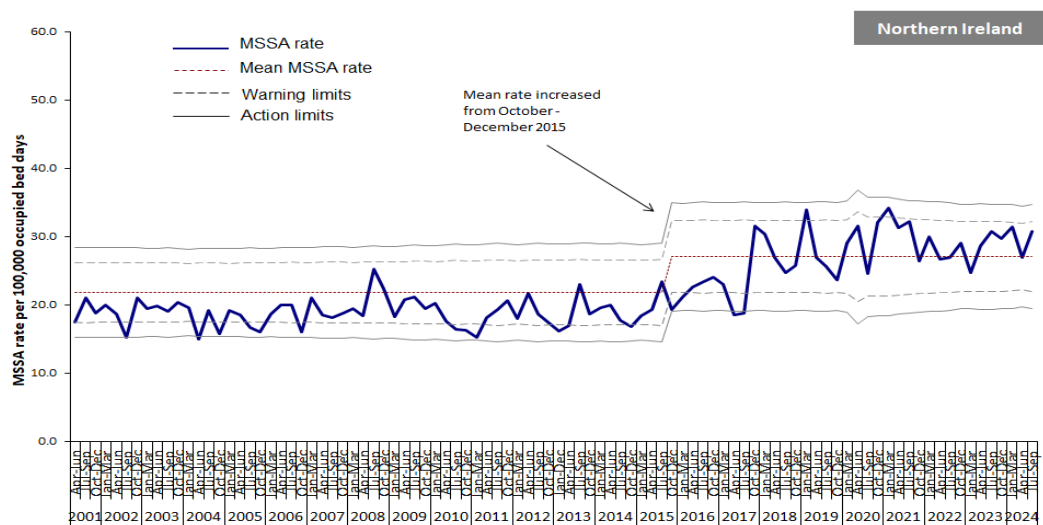


Figure 9c: Statistical process control chart for quarterly MSSA rates in Northern Ireland

Appendix 1

Table 1: Quarterly rates* of MRSA patient episodes, by hospital, Oct 2023 – Sept 2024

Hospital	Oct - Dec 2023	Jan - Mar 2024	Apr - Jun 2024	Jul - Sep 2024
Belfast City Hospital	7.51	7.30	0.00	7.34
Mater Infirmorum	5.93	0.00	0.00	0.00
Musgrave Park Hospital	0.00	0.00	0.00	0.00
NICCO	0.00	0.00	23.57	23.17
RBHSC	0.00	0.00	13.72	0.00
RJMH	0.00	0.00	0.00	0.00
Royal Group of Hospitals	5.50	1.36	5.70	5.58
Belfast Health & Social Care Trust	4.25	1.40	4.41	4.50
Antrim Area Hospital	6.44	2.11	1.56	2.08
Causeway Hospital	0.00	5.17	0.00	5.20
Dalriada Hospital	0.00	0.00	0.00	0.00
Mid Ulster Hospital	0.00	0.00	0.00	0.00
Moyle Hospital	0.00	0.00	0.00	0.00
Robinson Memorial Hospital	0.00	0.00	0.00	0.00
Whiteabbey Hospital	0.00	0.00	0.00	0.00
Northern Health & Social Care Trust	4.04	2.65	1.00	2.64
Ards Hospital	0.00	0.00	0.00	0.00
Downe Hospital	0.00	0.00	0.00	0.00
Lagan Valley Hospital	0.00	0.00	0.00	0.00
Ulster Hospital	1.96	5.87	3.43	3.40
South Eastern Health & Social Care Trust	1.58	4.75	2.79	2.76
Craigavon Area Hospital	0.00	0.00	2.10	0.00
Daisy Hill Hospital	0.00	0.00	0.00	6.40
Lurgan Hospital	0.00	0.00	0.00	0.00
South Tyrone Hospital	0.00	0.00	0.00	0.00
Southern Health & Social Care Trust	0.00	0.00	1.40	1.40
Altnagelvin Area Hospital	2.59	0.00	2.59	0.00
Omagh Hospital	0.00	0.00	0.00	0.00
South West Acute Hospital	0.00	5.41	0.00	0.00
Waterside Hospital	0.00	0.00	0.00	0.00
Western Health & Social Care Trust	1.52	1.48	1.50	0.00
NI TOTAL	2.65	1.89	2.46	2.62

Table 2: Quarterly MRSA patient episodes, by HSCT, Oct 2023 – Sept 2024

Trust	Oct - Dec 2023 Episodes	Jan - Mar 2024 Episodes	Apr - Jun 2024 Episodes	Jul - Sep 2024 Episodes
Belfast Health & Social Care Trust	6	2	6	6
Northern Health & Social Care Trust	3	2	1	2
South Eastern Health & Social Care Trust	1	3	2	2
Southern Health & Social Care Trust	0	0	1	1
Western Health & Social Care Trust	1	1	1	0
NI TOTAL	11	8	11	11

*Note: Rates displayed are per 100,000 occupied bed days. Previous reports presented rates per 1,000 occupied bed days.

Appendix 1

Table 3: Quarterly rates* of MSSA patient episodes, by hospital, Oct 2023 – Sept 2024

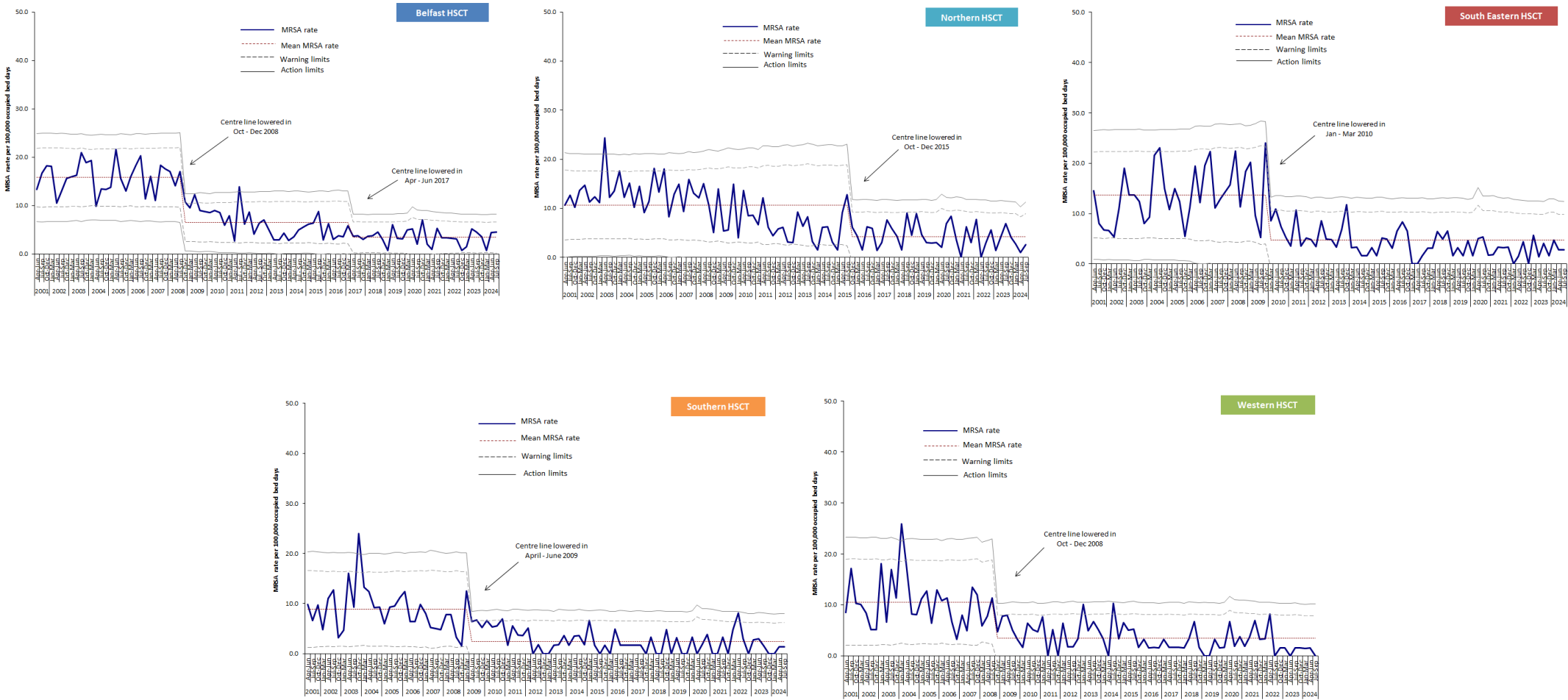
Hospital	Oct - Dec 2023	Jan - Mar 2024	Apr - Jun 2024	Jul - Sep 2024
Belfast City Hospital	15.02	21.85	22.08	58.70
Mater Infirmorum	35.59	33.94	30.77	73.39
Musgrave Park Hospital	5.74	5.58	11.29	0.00
NICCO	70.60	47.77	47.15	46.34
RBHSC	60.90	37.17	27.45	99.79
RJMH	12.57	0.00	14.89	44.66
Royal Group of Hospitals	24.62	46.08	49.86	40.45
Belfast Health & Social Care Trust	25.51	34.26	36.77	44.28
Antrim Area Hospital	42.93	25.34	17.18	37.42
Causeway Hospital	25.77	31.04	16.13	10.41
Dalriada Hospital	0.00	0.00	0.00	0.00
Mid Ulster Hospital	0.00	0.00	0.00	0.00
Moyle Hospital	0.00	0.00	0.00	0.00
Robinson Memorial Hospital	0.00	0.00	0.00	0.00
Whiteabbey Hospital	0.00	0.00	0.00	0.00
Northern Health & Social Care Trust	33.67	23.83	15.01	26.40
Ards Hospital	0.00	0.00	0.00	0.00
Downe Hospital	27.45	0.00	0.00	0.00
Lagan Valley Hospital	71.61	14.60	13.36	39.28
Ulster Hospital	62.86	58.72	41.21	33.96
South Eastern Health & Social Care Trust	60.21	49.10	34.83	31.69
Craigavon Area Hospital	28.27	22.79	23.10	14.75
Daisy Hill Hospital	23.96	23.60	48.89	38.41
Lurgan Hospital	0.00	0.00	0.00	20.69
South Tyrone Hospital	0.00	0.00	0.00	0.00
Southern Health & Social Care Trust	23.95	20.33	26.26	19.60
Altnagelvin Area Hospital	12.97	20.08	23.32	26.63
Omagh Hospital	0.00	58.33	0.00	0.00
South West Acute Hospital	11.15	54.13	10.95	16.15
Waterside Hospital	0.00	0.00	0.00	0.00
Western Health & Social Care Trust	10.62	29.56	16.45	19.34
NI TOTAL	29.61	31.43	26.85	30.70

Table 4: Quarterly MSSA patient episodes, by HSCT, Oct 2023 – Sept 2024

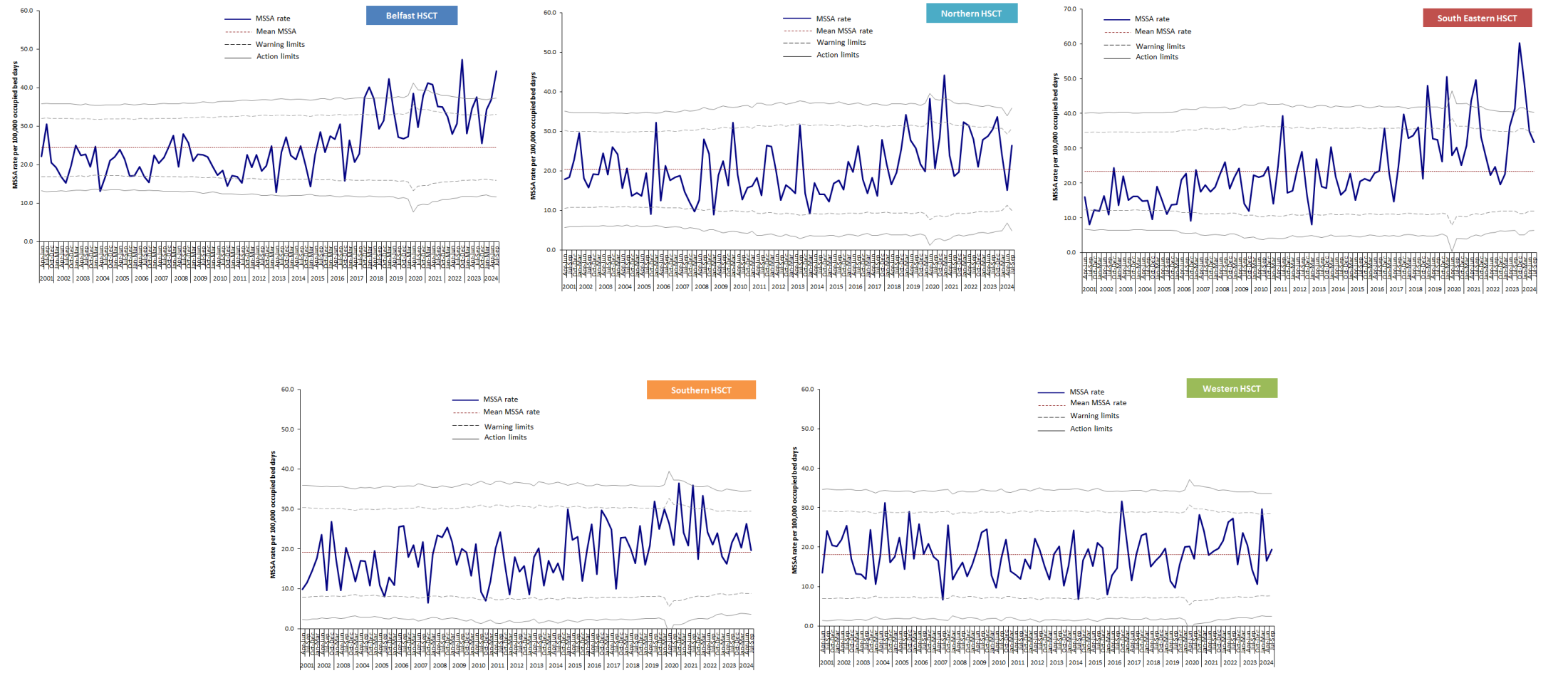
Trust	Oct - Dec 2023 Episodes	Jan - Mar 2024 Episodes	Apr - Jun 2024 Episodes	Jul - Sep 2024 Episodes
Belfast Health & Social Care Trust	36	49	50	59
Northern Health & Social Care Trust	25	18	15	20
South Eastern Health & Social Care Trust	38	31	25	23
Southern Health & Social Care Trust	17	15	19	14
Western Health & Social Care Trust	7	20	11	13
NI TOTAL	123	133	120	129

***Note: Rates displayed are per 100,000 occupied bed days. Previous reports presented rates per 1,000 occupied bed days.**

Appendix 2: Trends in MRSA rates, by HSCT and quarter, April 2001 – Sept 2024



Appendix 2: Trends in MSSA rates, by HSCT and quarter, April 2001 – Sept 2024



Appendix 3

Table 5: MSSA, MRSA and total *S. aureus* patient episode rates, and the percentage of *S. aureus* reported as MRSA, in Northern Ireland, Apr 2015 – Sept 2024.

Quarter	MSSA rate	MRSA rate	All <i>S. aureus</i> rate	% MRSA
Apr-Jun 2015	19.25	5.20	24.46	21.3
Jul-Sep 2015	23.37	6.98	30.35	23.0
Oct-Dec 2015	19.26	3.38	22.65	14.9
Jan-Mar 2016	21.13	4.03	25.16	16.0
Apr-Jun 2016	22.51	3.36	25.87	13.0
Jul-Sep 2016	23.40	4.25	27.65	15.4
Oct-Dec 2016	23.98	3.83	27.81	13.8
Jan-Mar 2017	22.98	3.06	26.04	11.8
Apr-Jun 2017	18.49	2.34	20.84	11.3
Jul-Sep 2017	18.73	3.43	22.16	15.5
Oct-Dec 2017	31.50	2.84	34.34	8.3
Jan-Mar 2018	30.35	3.29	33.89	9.7
Apr-Jun 2018	26.86	3.13	29.99	10.4
Jul-Sep 2018	24.88	4.98	29.85	16.7
Oct-Dec 2018	25.69	3.89	29.58	13.2
Jan-Mar 2019	33.90	2.07	35.98	5.8
Apr-Jun 2019	26.91	3.92	30.83	12.7
Jul-Sep 2019	25.65	2.38	28.02	8.5
Oct-Dec 2019	23.65	2.54	26.20	9.7
Jan-Mar 2020	29.06	3.26	32.32	10.1
Apr-Jun 2020	31.58	3.95	35.53	11.1
Jul-Sep 2020	24.55	3.46	28.01	12.4
Oct-Dec 2020	32.04	5.29	37.32	14.2
Jan-Mar 2021	34.09	1.88	35.96	5.2
Apr-Jun 2021	31.29	1.46	32.75	4.5
Jul-Sep 2021	32.21	5.00	37.21	13.4
Oct-Dec 2021	26.42	2.70	29.12	9.3
Jan-Mar 2022	29.98	3.75	33.73	11.1
Apr-Jun 2022	26.66	3.92	30.58	12.8
Jul-Sep 2022	26.96	2.80	29.75	9.4
Oct-Dec 2022	29.06	1.45	30.51	4.8
Jan-Mar 2023	24.64	2.42	27.06	8.9
Apr-June 2023	28.66	3.18	31.84	10.0
Jul-Sep 2023	30.68	3.90	34.57	11.3
Oct-Dec 2023	29.61	2.65	32.02	8.3
Jan-Mar 2024	31.43	1.89	33.09	5.7
Apr-Jun 2024	26.85	2.46	29.31	8.4
Jul-Sep 2024	30.70	2.62	33.32	7.9

Appendix 4

Table 4: MRSA patient episodes for each financial year, by HSCT

HSCT	Financial Year												
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Belfast	46	32	18	28	34	22	19	16	22	15	15	11	21
Northern	19	14	12	11	21	10	14	16	9	12	11	7	13
South Eastern	14	13	15	7	9	13	5	12	7	7	6	8	8
Southern	10	1	5	9	2	6	4	3	4	3	5	9	3
Western	7	10	12	12	9	5	4	7	4	7	10	7	3
Northern Ireland	96	70	62	67	75	56	46	54	46	44	47	42	48

Table 5: MSSA patient episodes for each financial year, by HSCT

HSCT	Financial Year												
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Belfast	109	115	121	112	142	134	163	189	147	138	166	176	182
Northern	57	42	43	37	47	52	55	64	63	73	60	75	85
South Eastern	57	54	57	50	47	64	70	85	88	59	95	62	125
Southern	38	32	38	42	45	59	49	48	67	54	66	59	58
Western	34	40	38	40	38	50	47	42	35	46	46	58	49
Northern Ireland	295	283	297	281	319	359	384	428	400	370	433	430	499