

## Infection Prevention & Control Report to Trust Board

Meeting Date – 7<sup>th</sup> November 2024

### 1. Executive Summary

#### Healthcare-Associated Infection (HCAI) Reduction Targets

##### Reduction Targets

The Department of Health for Northern Ireland (NI) has now issued new HCAI reduction targets covering a five-year period from 2024/25 to 2028/29. These targets relate to *Clostridium difficile* (*C. difficile*) associated disease and Meticillin-Resistant *Staphylococcus aureus* (MRSA) bacteraemia. A new methodology has been adopted for setting the targets in line with the new UK Antimicrobial Resistance National Action Plan, which was launched in May 2024. Changes include:

- Targets will now be measured as an incidence rate per 100,000 occupied bed days instead of the previous count of cases.
- The Decision to Admit Date will be used as the starting point of admission for categorising cases as either healthcare-associated or community-associated instead of the Inpatient Admission Date. (Where a Decision to Admit Date is unavailable, the Inpatient Admission Date will continue to be used).
- Attribution of *C. difficile* cases to healthcare-associated or community-associated categories will be based on a two-day timeframe from admission instead of the previous three-day timeframe. (The two-day rule is already in use for MRSA bacteraemia so that definition has not changed).

The latter two changes have the potential to increase the proportion of cases being categorised as healthcare-associated compared to previous years.

The new reduction targets are:

Organism	Year	Maximum target incidence rate, measured as cases per 100,000 occupied beds
<i>C. difficile</i>	2024/25	13.5
	2025/26	12.5
	2026/27	11.6
	2027/28	10.6
	2028/29	9.7
MRSA	2024/25	1.613
	2025/26	1.613
	2026/27	1.613
	2027/28	1.613
	2028/29	1.613

The baseline years against which the targets are measured are different for the two organisms. For MRSA, the baseline figure is taken from 2019/20, prior to the impact of the COVID-19 pandemic, and this is set out in the National Action Plan. For *C. difficile*, however, the National Action Plan includes no directive so last year, 2023/24, has been chosen as the baseline.

The Trust has raised concerns regionally regarding the new methodologies being used and the use of a single year's performance as the baseline.

Surveillance of Meticillin-Sensitive *Staphylococcus aureus* (MSSA) bacteraemia and gram-negative bacteraemia (GNB), specifically *Escherichia coli*, *Klebsiella species* and *Pseudomonas aeruginosa*, remains mandatory but there are no targets associated with these organisms.

### Current *C. difficile* Performance

So far this year 32 cases of *C. difficile* have been reported. 23 of the cases are classified as healthcare-associated as they occurred two or more days after admission to hospital (definition used by the Public Health Agency [PHA]). However, this is not always an accurate predictor of being healthcare-associated. The remainder (nine) are classified as community-associated as the patients presented with symptoms within a two-day period after admission.

The most recent incidence rate available is for August 2024 and it is 18.28. As such, the Trust is off track for meeting the reduction target.

### Current MRSA Bacteraemia Performance

Since the beginning of April 2024 two MRSA bacteraemia cases have been reported. One is categorised as healthcare-associated as it occurred two or more days after admission to hospital (definition used by the PHA). The other is classified as community-associated as the patient presented with symptoms within a two-day period after admission.

The most recent incidence rate available is for August 2024 and it is 0.91. As such, the Trust is on track to achieve the reduction target.

## **2. Coronavirus (COVID-19)**

### **Outbreak Management**

COVID-19 outbreaks continue to be declared in Trust wards, departments and facilities. Between July and mid-October 2024, a total of 17 outbreaks occurred. The Infection Prevention & Control (IP&C) Team are leading on the management of these incidents as applicable. Incident meetings are taking place and all IP&C measures have been instigated as necessary.

## **3. Infection Prevention & Control Induction and Mandatory Training**

IP&C Induction and Mandatory Training is delivered online via an e-learning programme. This was developed regionally for use by all health and social care organisations in NI.

The e-learning programme comprises two tiers – Tier 1 and Tier 2. Staff only need to complete one of the tiers. Clarification on which tier each staff member should complete is provided via a Tier Matrix. The e-learning includes a short assessment to test understanding and awareness, with a certificate available to be printed after successful completion.

Access to the e-learning is through the regional learning management system, LearnHSCNI (<https://learn.hscni.net/>), which is available to all Western Trust staff. The website can be accessed from any internet-enabled Trust or personal device (PC/ laptop/ mobile phone/ tablet).

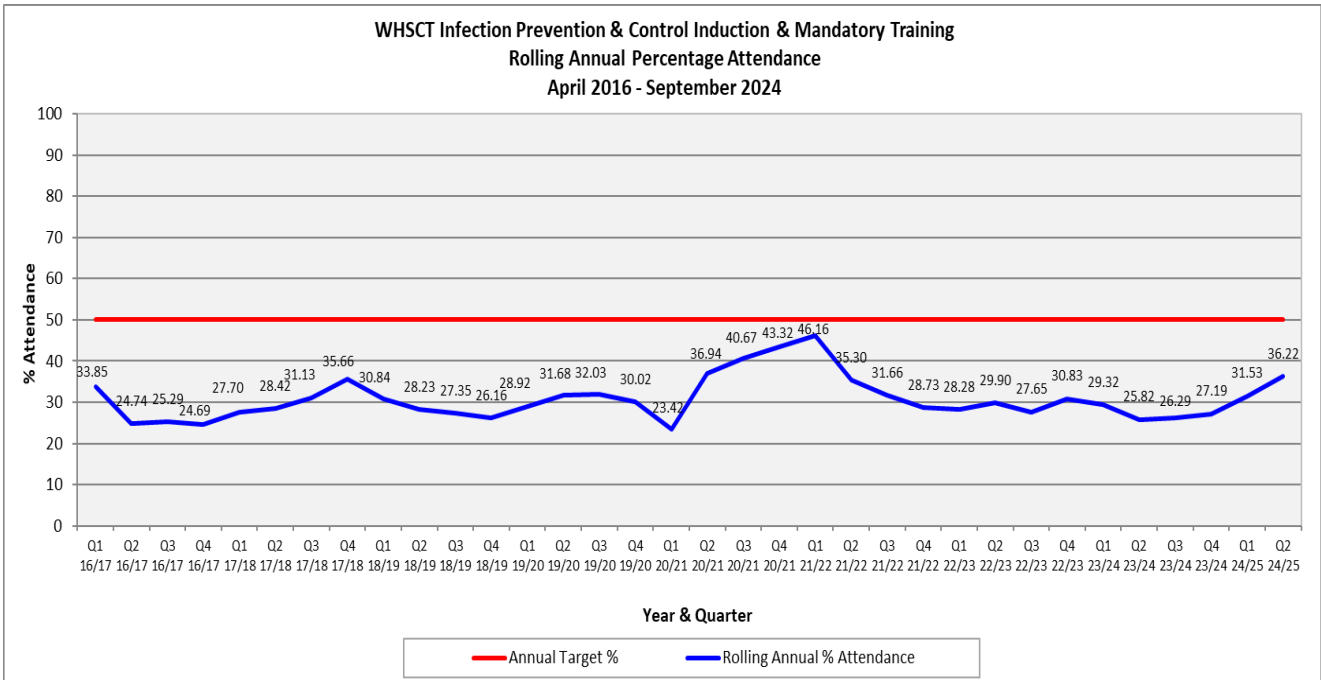
The IP&C Team also deliver a series of bespoke training sessions virtually via the Microsoft Teams app and face-to-face. These sessions are aimed at staff who come under Tier 1B of the Tier Matrix (i.e. “healthcare staff with minimal or no patient/ client contact or healthcare staff with patient contact who require role specific training”), such as Support Services, HSDU, Estates, Transport, Social Workers, Chaplains, etc. The Team also facilitate face-to-face Induction Training for large

groups of new staff in departments, e.g. Support Services staff.

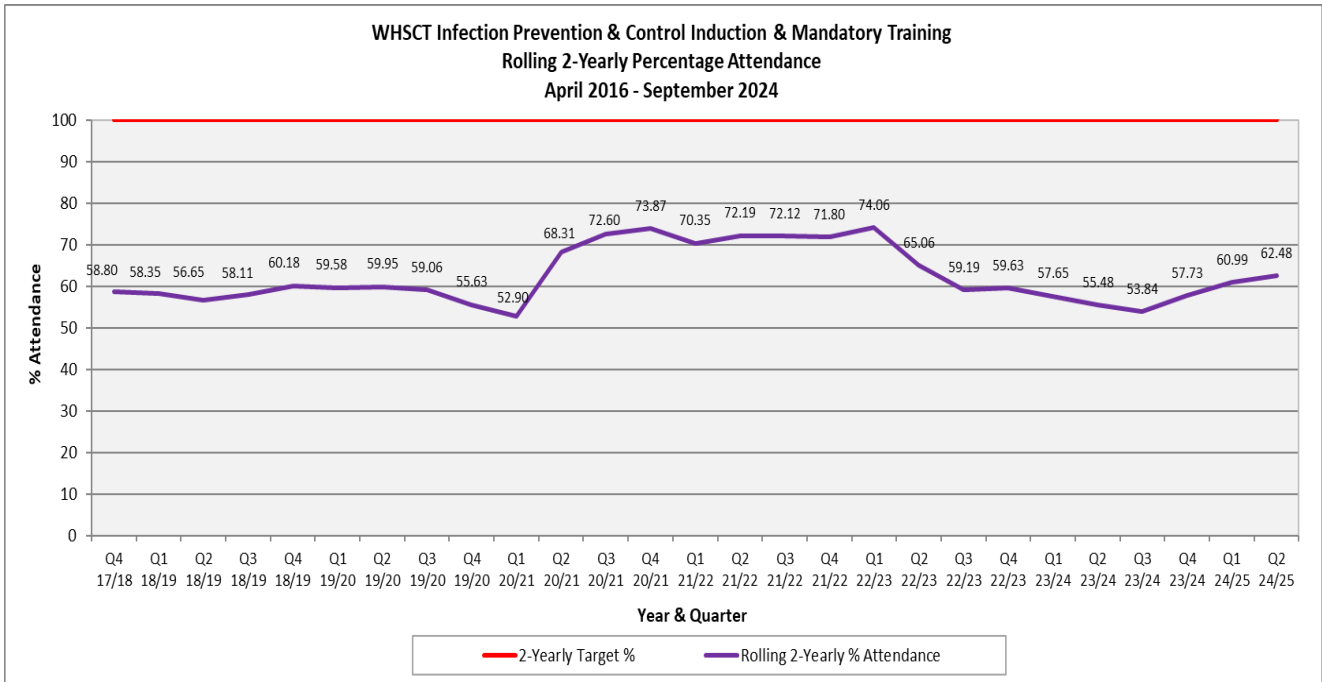
Training must be completed every two years.

The content of the e-learning is currently being reviewed by the Regional IP&C Lead Nurses Forum.

Between 1<sup>st</sup> April and 30<sup>th</sup> September 2024, a total of 2930 staff completed the training. The attendance target for each year is 50% of the total number of staff who require training (i.e. 7201 out of 14,402 applicable staff). For the 12 months ending September 2024, the percentage stands at 36.22%. That is 13.78% less than required.



As attendance at IP&C Training is required on a biennial basis, the attendance rate over a 24-month period has also been calculated. As of the end of September 2024, it is 62.48%.



The table below shows the rolling annual attendance rate broken down by staff group. This level of detail only became available from January 2023, so this is the fourth occasion that a full year’s worth of information is able to be reported. The IP&C Team have focused recent efforts with Professional Leads and Managers to improve attendance, which has shown an increase as detailed in the table.

*NB: The attendance figures in this table relate to the IP&C Tiers 1 & 2 e-learning modules, Training Tracker Online e-learning module (used by trainee doctors) and Specialist Groups training sessions (where it is possible to determine an individual's staff group allocation). They do not include General training sessions, which are open to various/ all staff groups, thus making it difficult to determine an individual's allocation. The number of General training sessions undertaken is limited so the discrepancies arising from their omission should be minimal.*

	Annual Target Percentage	Rolling Annual Percentage Attendance				
		Jan-Dec 2023	Apr 2023-Mar 2024	Jul 2023-Jun 2024	Oct 2023-Sep 2024	
<b>Nursing &amp; Midwifery</b>	50%	31.33%	32.31%	39.90%	46.90%	↑
<b>Medical &amp; Dental</b>	50%	36.23%	26.75%	27.85%	28.25%	↑
<b>Professional &amp; Technical</b>	50%	32.35%	34.06%	30.10%	28.24%	↓
<b>Social Services</b>	50%	13.97%	13.77%	20.20%	26.66%	↑
<b>Support Services/ User Experience</b>	50%	15.82%	33.29%	35.12%	35.63%	↑
<b>Admin &amp; Clerical</b>	50%	8.98%	9.27%	9.77%	12.88%	↑

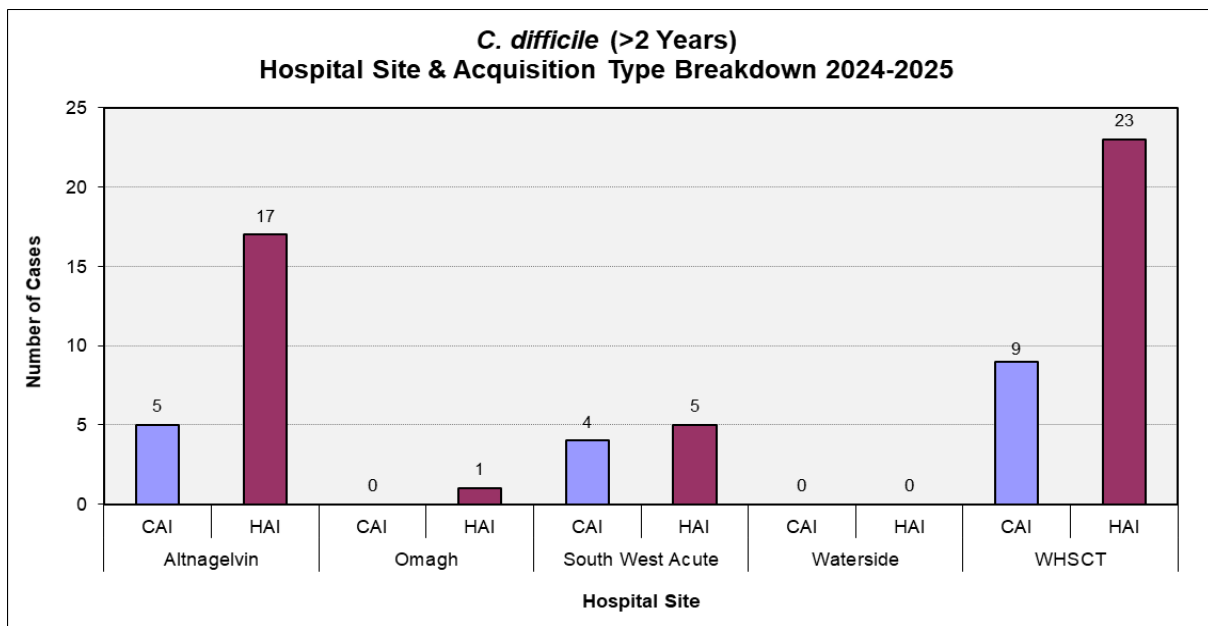
#### 4. Target Organisms Performance

##### C. difficile

The 2024/25 target for *C. difficile* ( $\geq$  two years of age) is an incidence rate of 13.5 per 100,000 occupied bed days. This is a reduction of 0.9 on the baseline of 14.4 in 2023/24.

Between 1<sup>st</sup> April and 24<sup>th</sup> October 2024 32 cases were reported. A breakdown of the cases by hospital site and acquisition type is given in the chart below.

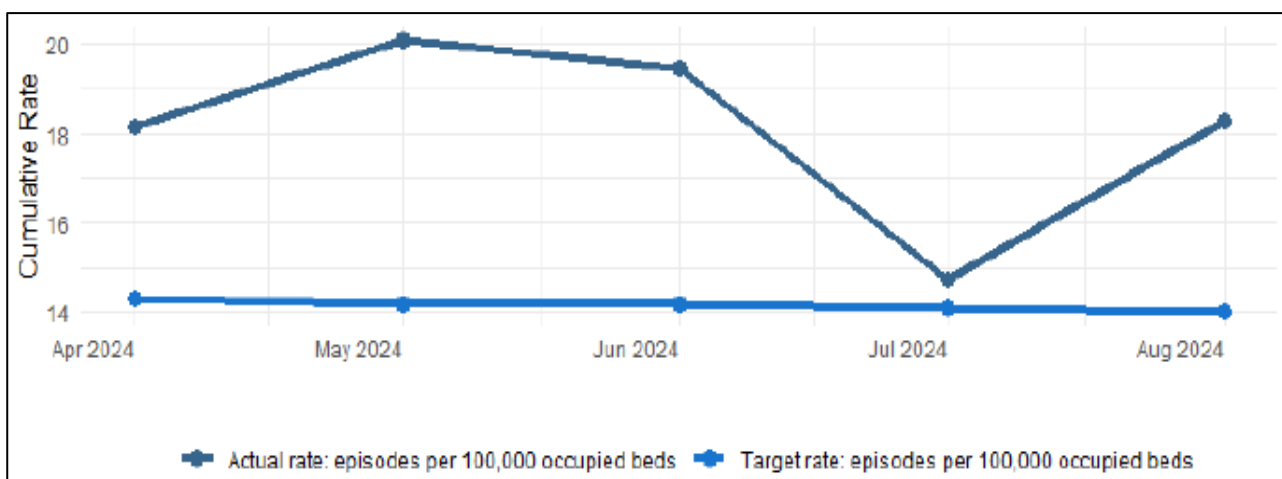
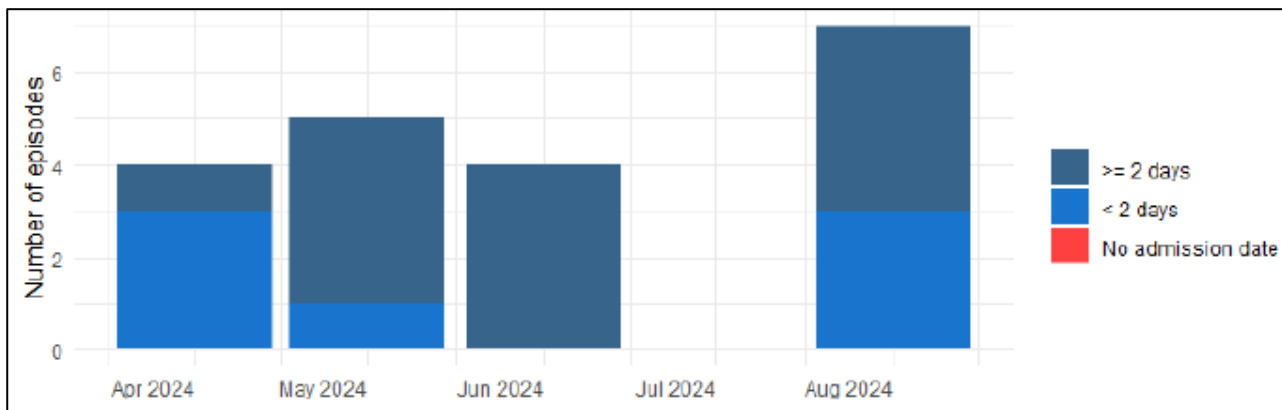
**Key:**  
CAI Community-associated infection  
HAI Hospital-associated infection



Since occupied bed days denominator data is released several months in arrears it is not possible to provide an up-to-date incidence rate. However, the most recent target monitoring report from the PHA includes data up to the end of August 2024, as follows:

Attribution	Apr	May	Jun	Jul	Aug	Cumulative
<2 days	3	1	0	0	3	7
$\geq$ 2 days	1	4	4	0	4	13
No admission date*	0	0	0	0	0	0
<b>Cases</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>20</b>

\*No Admission Date refers to cases where the admission date field was blank on Hi-Surv. These cases cannot be apportioned to < 2 or  $\geq$  2 days.



As of August 2024, the Trust was not meeting the reduction target set for *C. difficile*.

Comparison with Other Trusts

The PHA releases regional comparator information on a quarterly basis. The most recent data available covers up to the end of June 2024. The table below summarises the number of *C. difficile* cases and the rate per 1000\* bed days for each Trust, plus NI averages, for each of the last four quarters.

(\* The PHA has advised that future quarterly reports will be recalculated to show rates per 100,000 occupied bed days in order to align with the new target methodology.)

During 2023 the number of *C. difficile* cases in the Western Trust decreased quite significantly and it had the lowest rate in NI. Case numbers have increased during the first half of 2024 and the Trust is now reporting the second lowest rate.

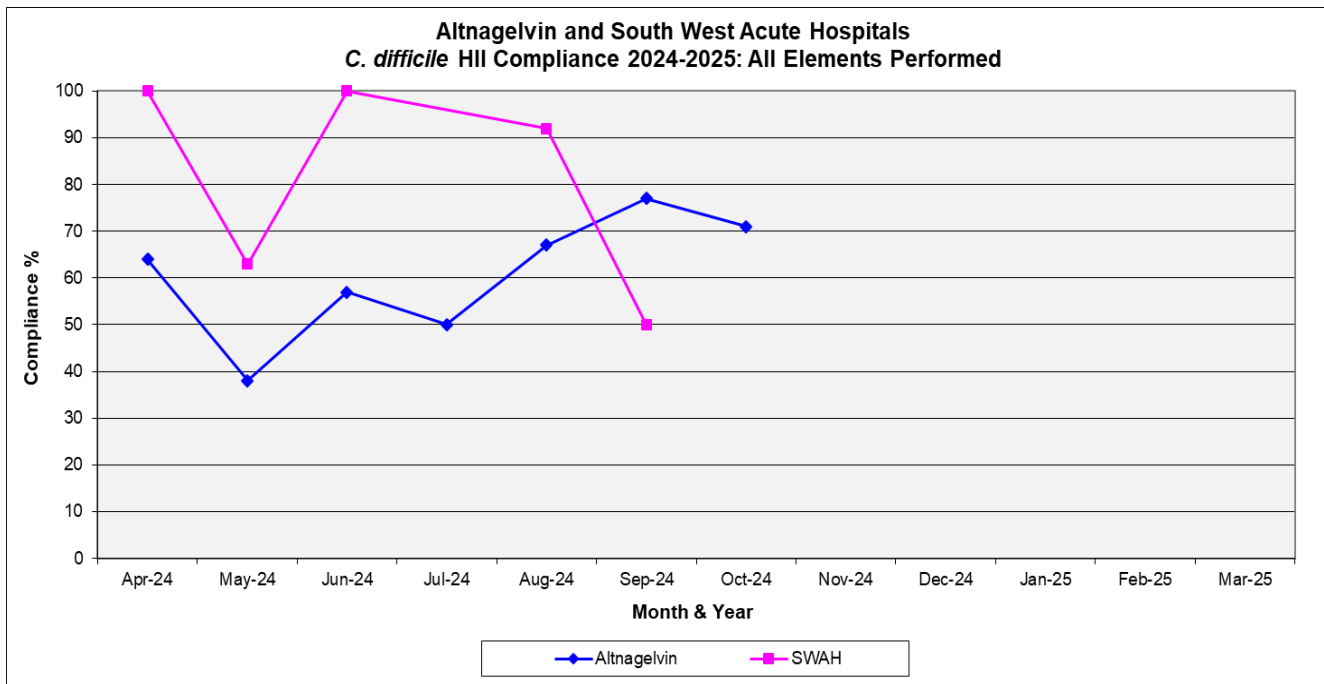
	July-September 2023		October-December 2023		January-March 2024		April-June 2024	
	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate
<b>Western Trust</b>	5	0.079	6	0.091	11	0.163	13	0.194
<b>Southern Trust</b>	25	0.360	26	0.366	25	0.339	27	0.373
<b>South Eastern Trust</b>	26	0.358	15	0.238	12	0.190	21	0.293

<b>Northern Trust</b>	14	0.194	15	0.202	6	0.079	8	0.080
<b>Belfast Trust</b>	33	0.248	31	0.220	41	0.287	31	0.228
<b>Northern Ireland</b>	103	0.251	93	0.224	95	0.225	100	0.224

**C. difficile Care Bundle and Care Pathway Audits**

Evidence based care bundles are effective when all elements of care are performed consistently. Therefore, scores are represented as either Pass (100%) or Fail (anything less than 100%). Consistent compliance with the *C. difficile* care bundle remains a challenge and is currently poor across both acute sites. The findings indicate issues around prudent antibiotic prescribing, environmental decontamination and isolation/ cohort nursing.

The graph below illustrates the overall compliance with all of the elements of the *C. difficile* high impact intervention (HII) care bundle for Altnagelvin Hospital and the South West Acute Hospital (SWAH).

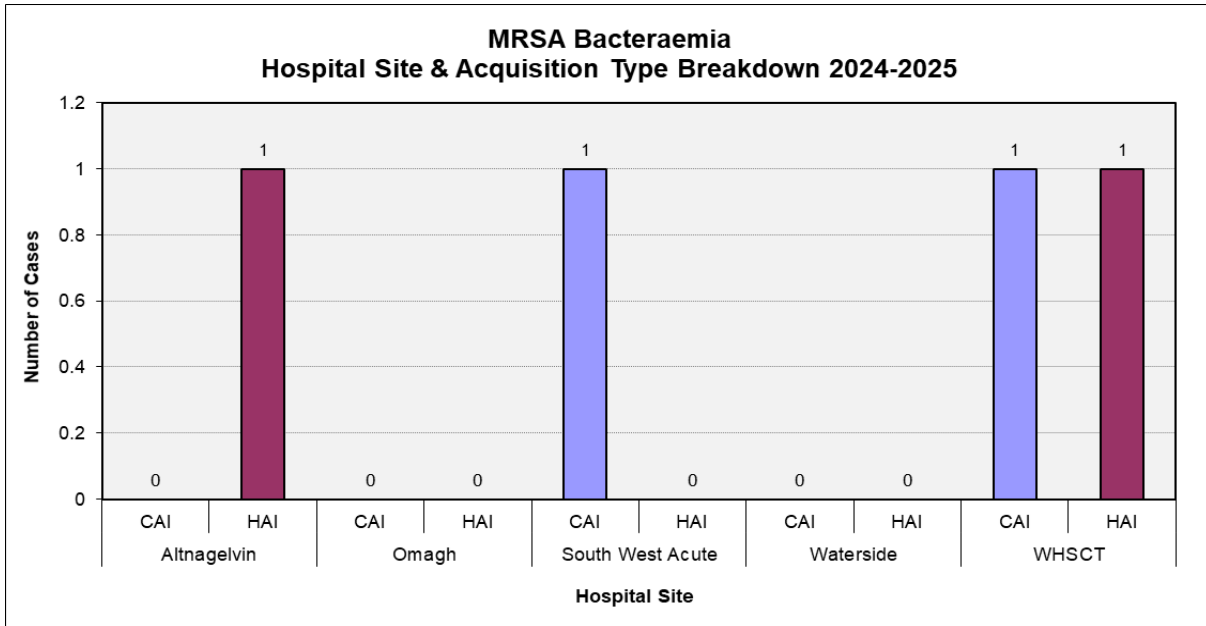


**MRSA Bacteraemia**

The 2024/25 target for MRSA bacteraemia is an incidence rate of 1.613 per 100,000 occupied bed days. This represents no change compared to the 2019/20 baseline.

Between 1<sup>st</sup> April and 24<sup>th</sup> October 2024 two cases were reported. A breakdown of the cases by hospital site and acquisition type is given in the chart below.

- Key:**  
 CAI Community-associated infection  
 HAI Hospital-associated infection



As of 24<sup>th</sup> October 2024, the total number of days since the last Trust hospital-associated MRSA bacteraemia is:

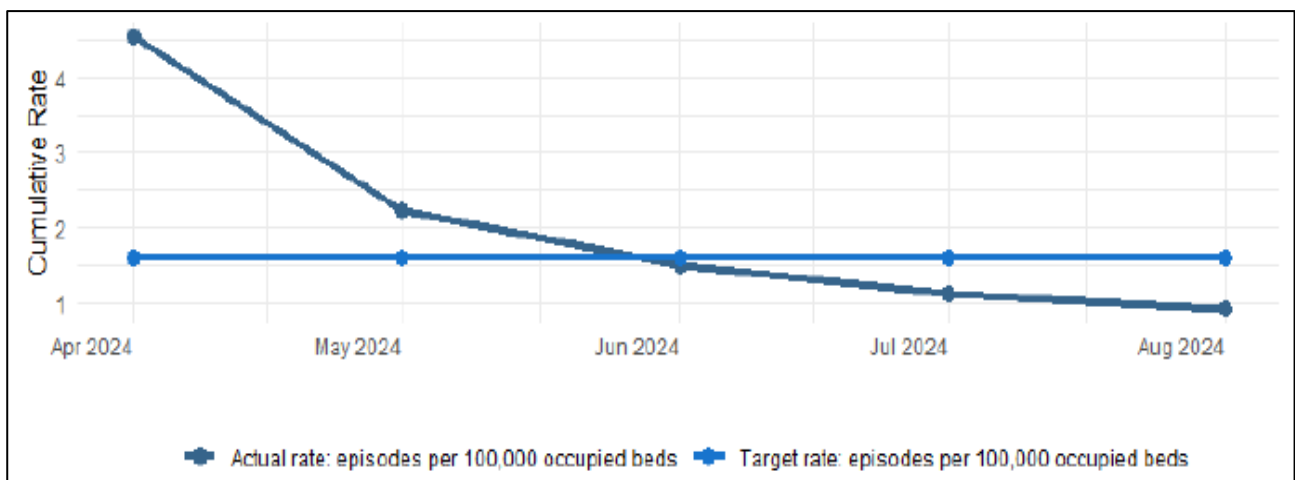
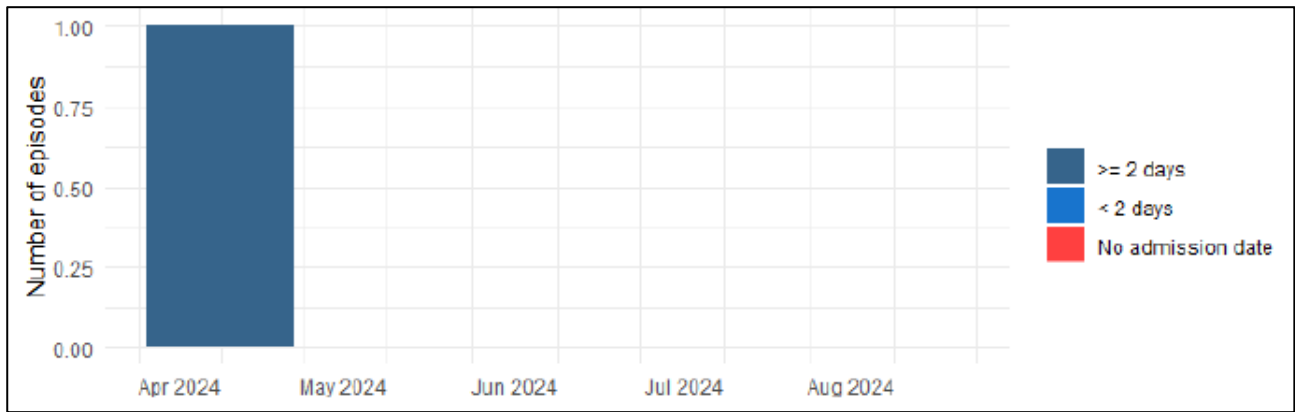
- Altnagelvin – 181 days (Last recorded case was in Ward 32 ESU)
- SWAH – 1592 days (Last recorded case was in Ward 8)
- Tyrone County Hospital/ Omagh Hospital & Primary Care Complex (OHPCC) – 3564 days (Last recorded case was in the Rehab Unit)

Since occupied bed days denominator data is released several months in arrears it is not possible to provide an up-to-date incidence rate. However, the most recent target monitoring report from the PHA includes data up to the end of August 2024, as follows:

Attribution	Apr	May	Jun	Jul	Aug	Cumulative
<2 days	0	0	0	0	0	0
>=2 days	1	0	0	0	0	1
No admission date*	0	0	0	0	0	0
<b>Cases</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

\*No Admission Date refers to cases where the admission date field was blank on Hi-Surv. These cases cannot be apportioned to < 2 or >= 2 days.





As of August 2024, the Trust was achieving and exceeding the reduction target set for MRSA bacteraemia.

Comparison with Other Trusts

The PHA releases regional comparator information on a quarterly basis. The most recent data available covers up to the end of June 2024. The table below summarises the number of MRSA bacteraemia cases and the rate per 1000\* bed days for each Trust, plus NI averages, for each of the last four quarters.

(\* The PHA has advised that future quarterly reports will be recalculated to show rates per 100,000 occupied bed days in order to align with the new target methodology.)

The Western Trust’s rate remains very low and stable. As of April-June 2024, the Trust was reporting the third lowest rate in NI.

	July-September 2023		October-December 2023		January-March 2024		April-June 2024	
	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate
<b>Western Trust</b>	1	0.016	1	0.015	1	0.015	1	0.015
<b>Southern Trust</b>	1	0.014	0	0.000	0	0.000	1	0.014
<b>South Eastern Trust</b>	3	0.041	1	0.016	3	0.048	2	0.028

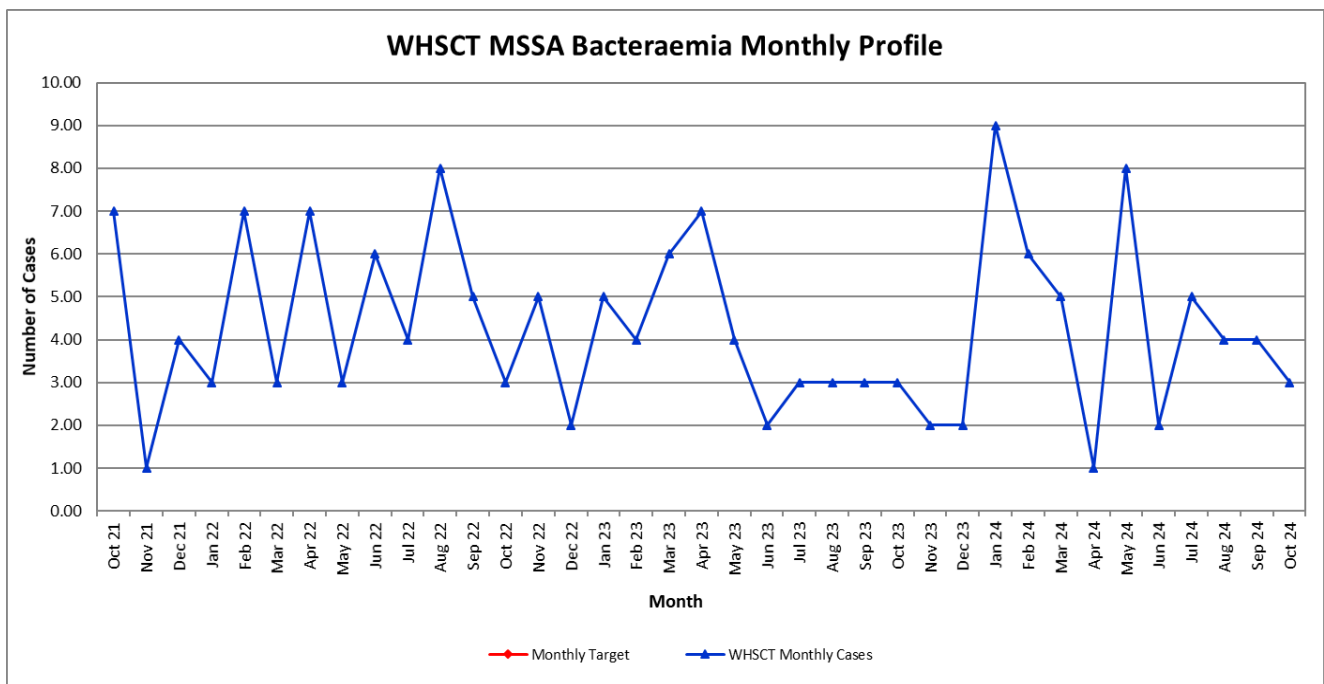
<b>Northern Trust</b>	5	0.069	3	0.040	2	0.026	1	0.010
<b>Belfast Trust</b>	6	0.045	6	0.043	2	0.014	6	0.044
<b>Northern Ireland</b>	16	0.039	11	0.026	8	0.019	11	0.025

## 5. Non-Target Organisms Performance

### MSSA Bacteraemia

There is no reduction target associated with MSSA bacteraemia for 2024/25, however surveillance remains mandatory. MSSA is part of the skin normal flora of approximately 25-30% of the well population. It is, therefore, more difficult to control endogenous (self) exposure, which is the reason for removing the target associated with this organism. The controls in place for MRSA will go some way to also protect patients from MSSA, but do not provide the same level of safeguard because of the ubiquitous nature of the organism.

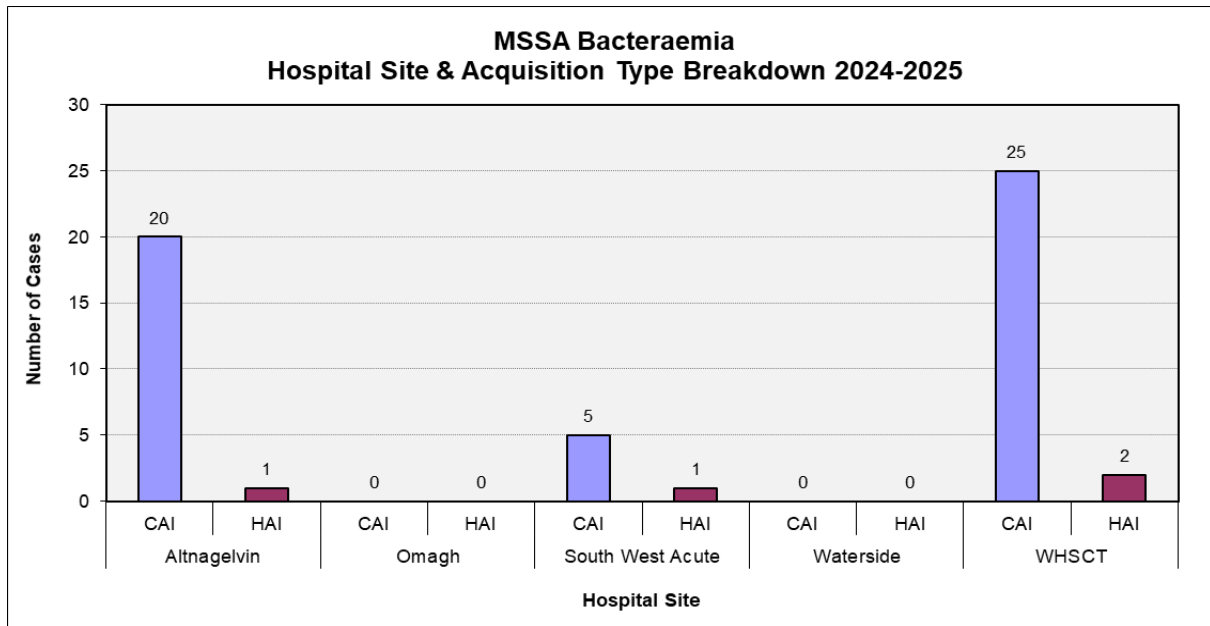
So far this year the Trust has reported 27 cases.



\* The value for Oct 24 is subject to change as the report was compiled prior to the end of the month.

A breakdown of the cases by hospital site and acquisition type is given in the chart below.

**Key:**  
CAI Community-associated infection  
HAI Hospital-associated infection



As of 24<sup>th</sup> October 2024, the total number of days since the last Trust hospital-associated MSSA bacteraemia is as follows:

Altnagelvin – 73 days

(Last recorded case was in Ward 31)

SWAH – 84 days

(Last recorded case was in Ward 8)

OHPCC – 2565 days

(Last recorded case was in the Rehab Unit)

### Comparison with Other Trusts

The PHA releases regional comparator information on a quarterly basis. The most recent data available covers up to the end of June 2024. The table below summarises the number of MSSA bacteraemia cases and the rate per 1000\* bed days for each Trust, plus NI averages, for each of the last four quarters.

(\* The PHA has advised that future quarterly reports will be recalculated to show rates per 100,000 occupied bed days in order to align with the new target methodology.)

In the latter half of 2023 the Western Trust’s MSSA rate had reduced to the lowest in the region. Case numbers have increased in the first half of 2024 and, as of June 2024, the Trust is reporting the second lowest rate.

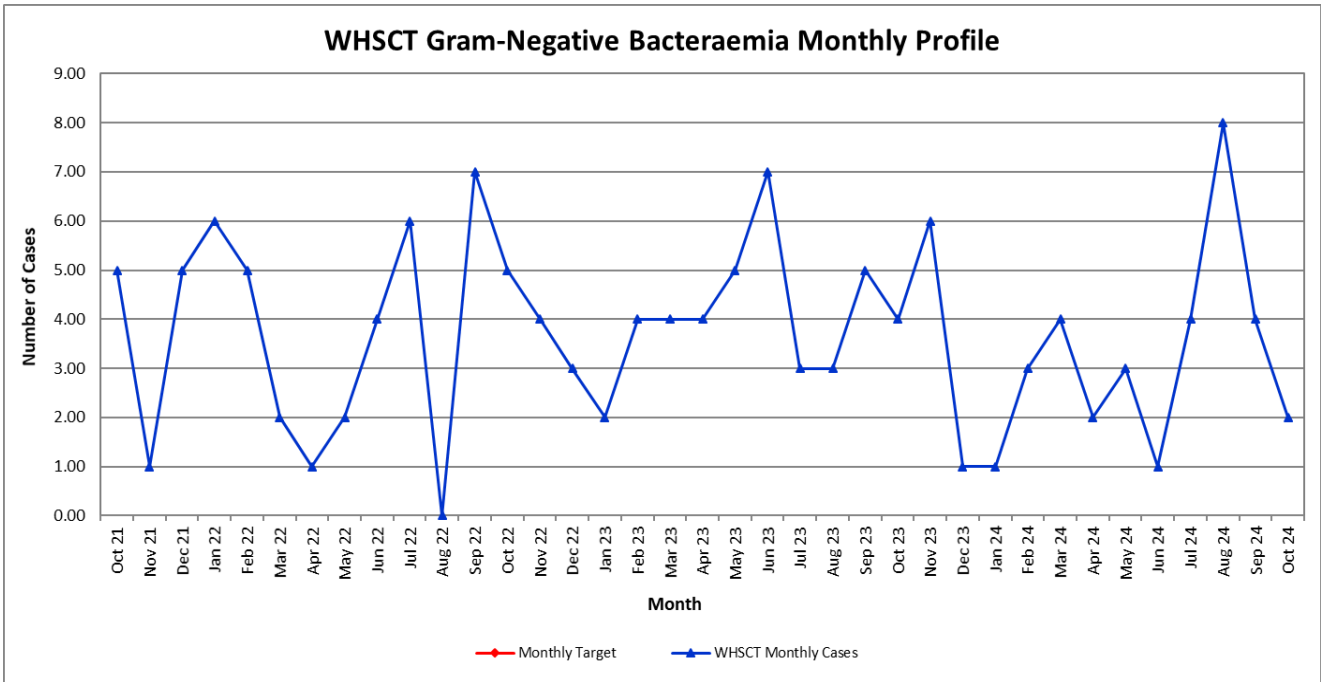
	July-September 2023		October-December 2023		January-March 2024		April-June 2024	
	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate	Number of Cases	Rate
<b>Western Trust</b>	9	0.143	7	0.106	20	0.296	11	0.164
<b>Southern Trust</b>	15	0.216	17	0.239	15	0.203	19	0.263
<b>South Eastern Trust</b>	30	0.413	38	0.602	31	0.491	25	0.348
<b>Northern Trust</b>	22	0.304	25	0.337	18	0.238	15	0.150
<b>Belfast Trust</b>	50	0.375	36	0.255	49	0.343	50	0.368

<b>Northern Ireland</b>	126	0.307	123	0.296	133	0.314	120	0.269
-------------------------	-----	-------	-----	-------	-----	-------	-----	-------

**GNB**

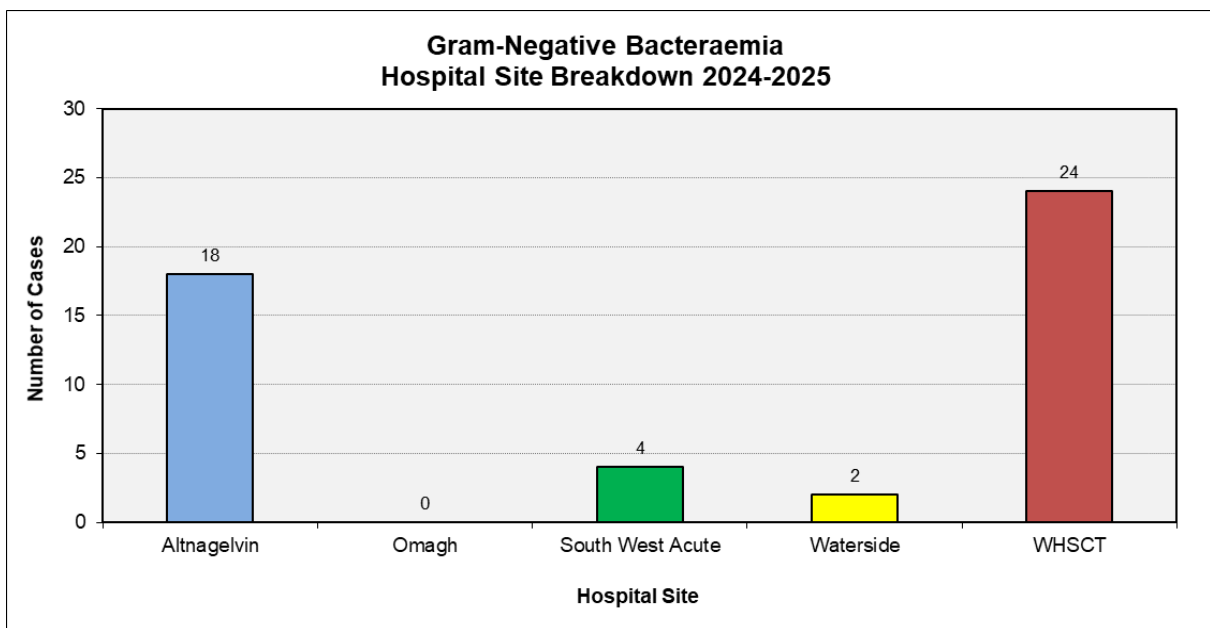
Due to the challenges associated with reducing GNBs to date, no target has been set for 2024/25. Rather Trusts are encouraged to minimise risk factors for infections where possible and to be supported to do this. Surveillance remains mandatory, however.

As of 24<sup>th</sup> October 2024, 24 healthcare-associated GNB cases have been reported.



\* The value for Oct 24 is subject to change as the report was compiled prior to the end of the month.

A breakdown of the cases by hospital site is given in the chart below.



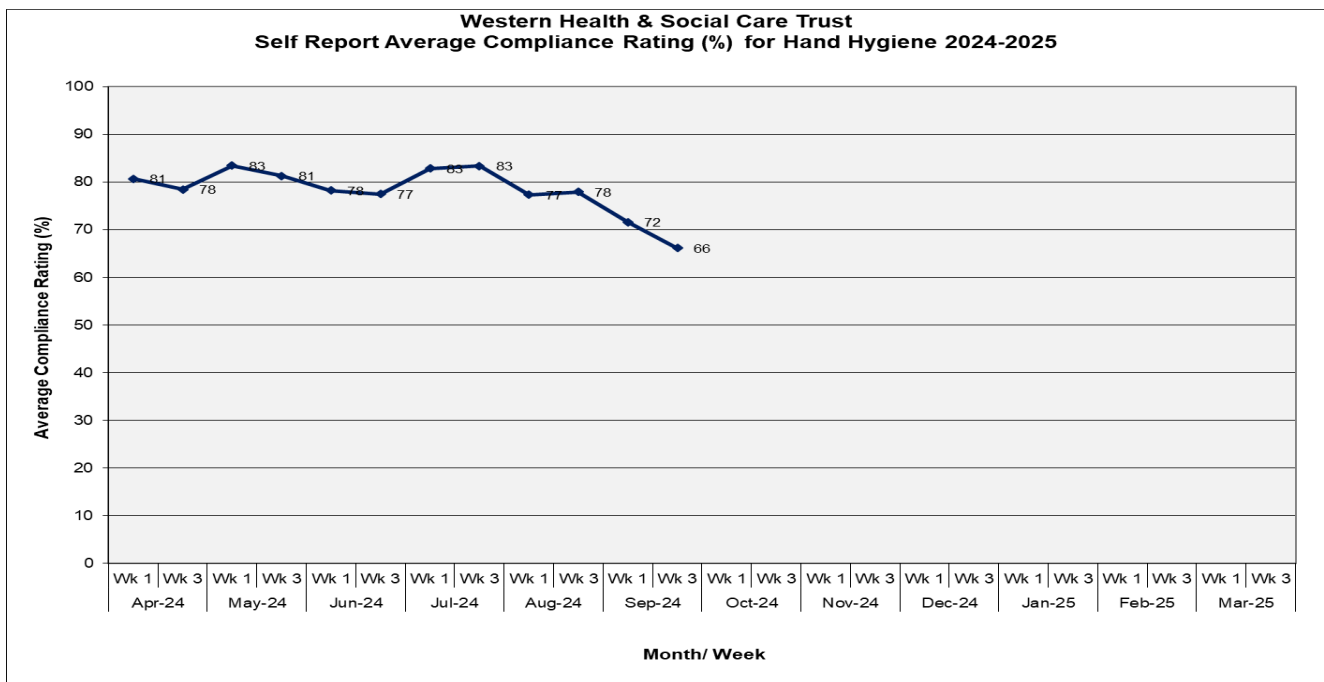
## 6. Hand Hygiene Compliance

The Trust's overall average self-reported hand hygiene score is 69% when non-submission areas are included. These areas score an automatic 0%. 59 areas out of 194 applicable areas failed to submit scores for September 2024. They are as follows:

Site	Ward/ Department/ Facility
Altnagelvin	Ward 9 Rheumatology * Ward 24 AMU * Ward 25 FOU Ward 26 ARM Ward 40 * Ward 42 * ACU * Antenatal Clinic * Breast Screening Unit * DCU Theatre 9 Emergency Department * GUM Clinic * Main Theatre 2 OPALS South Wing Clinics * Physiotherapy Outpatients Department Radiology Department
SWAH	Ward 1 MSAU * Ward 2 * Ward 5 * Ward 6 * Ward 7 * Ward 9 Emergency Department * DPU Theatre Physiotherapy Outpatients Department Radiology Department Theatre 3 Theatre 4 Women's Health Centre *
OHPCC	Cardiac Assessment Unit * Cardiac Investigations * Outpatients Department * Physiotherapy Outpatients Department Radiology Department Theatres * Urgent Care & Treatment Centre * Women's Centre *
Tyrone & Fermanagh Hospital	Ash Villa * Lime Villa Oak Villa *
Lakeview Hospital	Berryburn Centre * Ralph's Close
Grangewood Hospital	Carrick Ward *
Residential Homes	Thackeray Place Residential Home *
Day Care	Benbradagh ATC * Beragh Day Centre Creggan Day Centre Dromore Day Centre

	Drumhaw Day Centre Foyleville Day Centre * Gortmore Day Centre Lackaboy 2 * Lisnaskea * Newtownstewart Day Centre Strabane Day Centre Tempo Road Day Centre
Other Community	Avalon House * The Cottages Children's Respite * Rapid Response Team, Derry *

A number of the areas also did not submit scores for the previous month. These are marked with an asterisk on the above table.



However, when adjusted for non-submission areas, the Trust's overall self-reported hand hygiene score improves to 100%.

The hand hygiene dashboard has been circulated to Directors for action through their governance arrangements.

It is important to note that scores from independent audits conducted by the IP&C Team and Lead Nurses tend to be lower than self-reported scores. The table below shows the wards/ departments where the IP&C Team undertook validation audits during September 2024 and the scores obtained compared with self-reported scores for the same areas.

Ward/ Department/ Facility	IP&C Team Validation Score	Self-Reported Score
Ward 22 ASM, Altnagelvin	60%	1) 100% 2) 100%
Ward 41 AGM, Altnagelvin	80%	1) 100% 2) 100%
Ward 50, Altnagelvin	100%	1) N/A 2) 100%

Ward 1 MSAU, SWAH	73%	1) 95% 2) Not submitted
Seymour Gardens Residential Home	100%	1) 100% 2) 100%

**7. Caesarean Section Surgical Site Infection (SSI) Surveillance**

During quarter two of 2024 the Trust achieved 82.0% compliance with surveillance related documentation, compared to a 74.8% average compliance rate in NI as a whole.

There has been a slight increase in the C-section SSI rate for Altnagelvin Hospital this quarter; 5.94% compared to 5.19% in quarter two 2024. However, the SWAH's rate has been on a downward trend for the last three quarters and is now 2.50%. The overall Western Trust SSI rate is 4.96%, marginally below the NI rate of 4.99%.

Multi-disciplinary team work is ongoing with regard to validation and assurance of the surveillance information and to continue driving forward improvements.

**8. Orthopaedic Surgical Site Infection Surveillance**

In quarter two of 2024 the Trust's SSI rate is 0.51% of all orthopaedic surgery; slightly above the NI average of 0.45%.

Multi-disciplinary team work is ongoing with regard to validation and assurance of the surveillance information and to continue driving forward improvements. Evidence based care bundles are in place for orthopaedic surgery.

