

Infection Prevention & Control Report to Trust Board

Meeting Date – 1st August 2019

1. Executive Summary

Reduction Targets

The Department of Health for Northern Ireland has not yet issued new healthcare-associated infection reduction targets for 2019/20. These targets relate to *Clostridium difficile* (*C. difficile*) associated disease, Meticillin-Resistant *Staphylococcus aureus* (MRSA) bacteraemia and gram-negative bacteraemia (GNB), specifically *Escherichia coli*, *Klebsiella species* and *Pseudomonas aeruginosa*.

Current *C. difficile* Performance

So far this year 23 cases of *C. difficile* have been reported. 12 of the cases are classified as healthcare-acquired or associated as they occurred more than 72 hours 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 (11) are classified as community-acquired as the patients presented with symptoms within a 72 hour period after admission.

Current MRSA Bacteraemia Performance

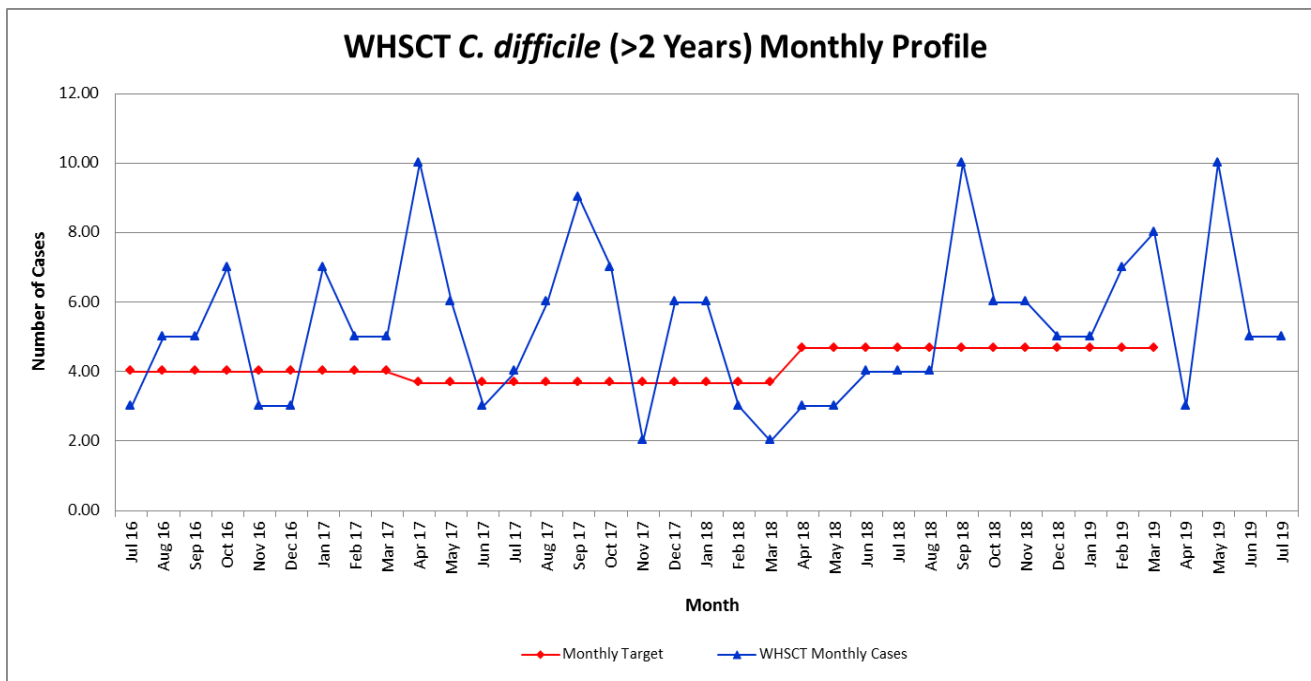
Since the beginning of April 2019 one MRSA bacteraemia case has been reported. It is categorised as community-associated as it occurred less than 48 hours after admission to hospital (definition used by the PHA).

Current GNB Performance

As of 24th July 2019, 20 healthcare-associated GNB cases have been reported.

2. *C. difficile* Performance

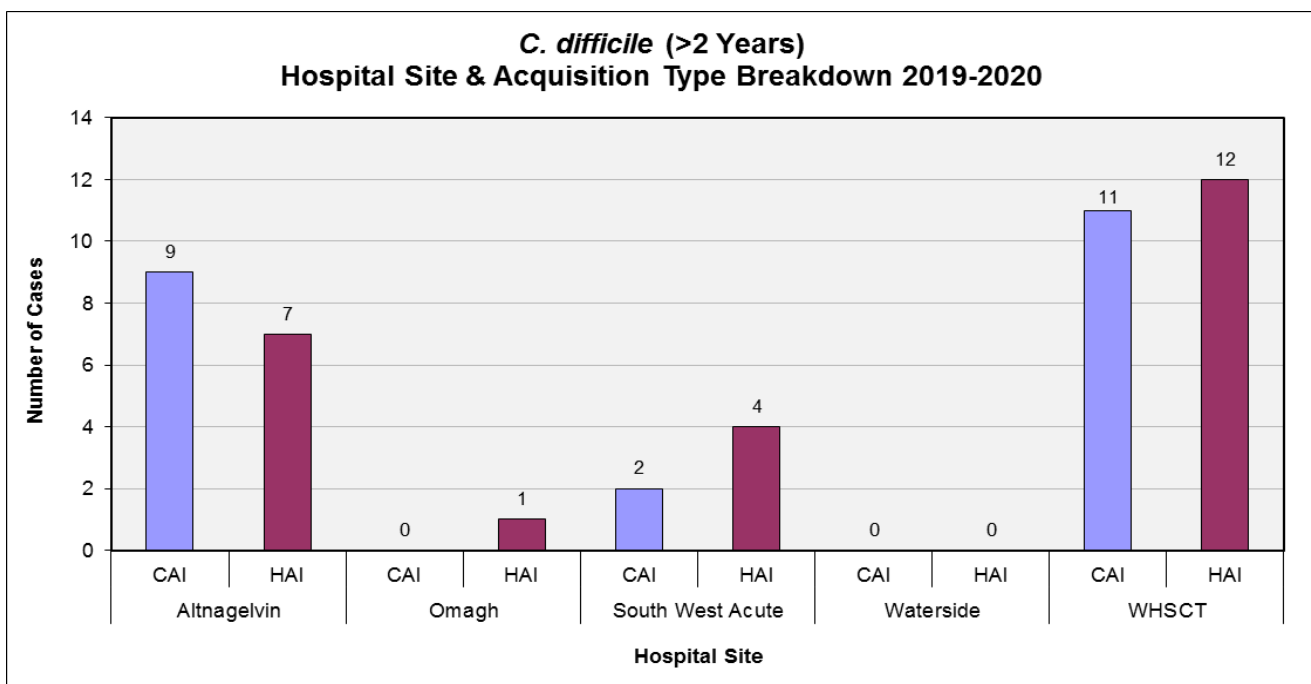
The new 2019/20 reduction target for *C. difficile* (≥ 2 years) has not yet been issued. To date the Trust has reported 23 cases, with 11 of those being categorised as community-associated.



* The value for Jul 19 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



A breakdown of the healthcare-associated cases by ward is given in the table below.

Hospital	Ward/ Department	Number of Cases
Altnagelvin Hospital	Ward 2 TOU	1
	Ward 8 AHAN	2
	Ward 22 ASM	1
	Ward 50 Sperrin	1

	CCU	1
	ICU	1
South West Acute Hospital (SWAH)	Ward 6	1
	Ward 8	1
	Ward 9	1
	CCU	1
Omagh Hospital & Primary Care Complex (OHPCC)	Rehab Unit	1

Since the last Report to Trust Board, which contained figures as at 4th June 2019, there have been 10 new cases of *C. difficile* (breakdown below). Root cause analyses (RCAs) are required for eight of these cases – five have been completed and three are pending.

10 *C. difficile* cases → 4 CAI
→ 6 HAI

Preventable/ Non-Preventable

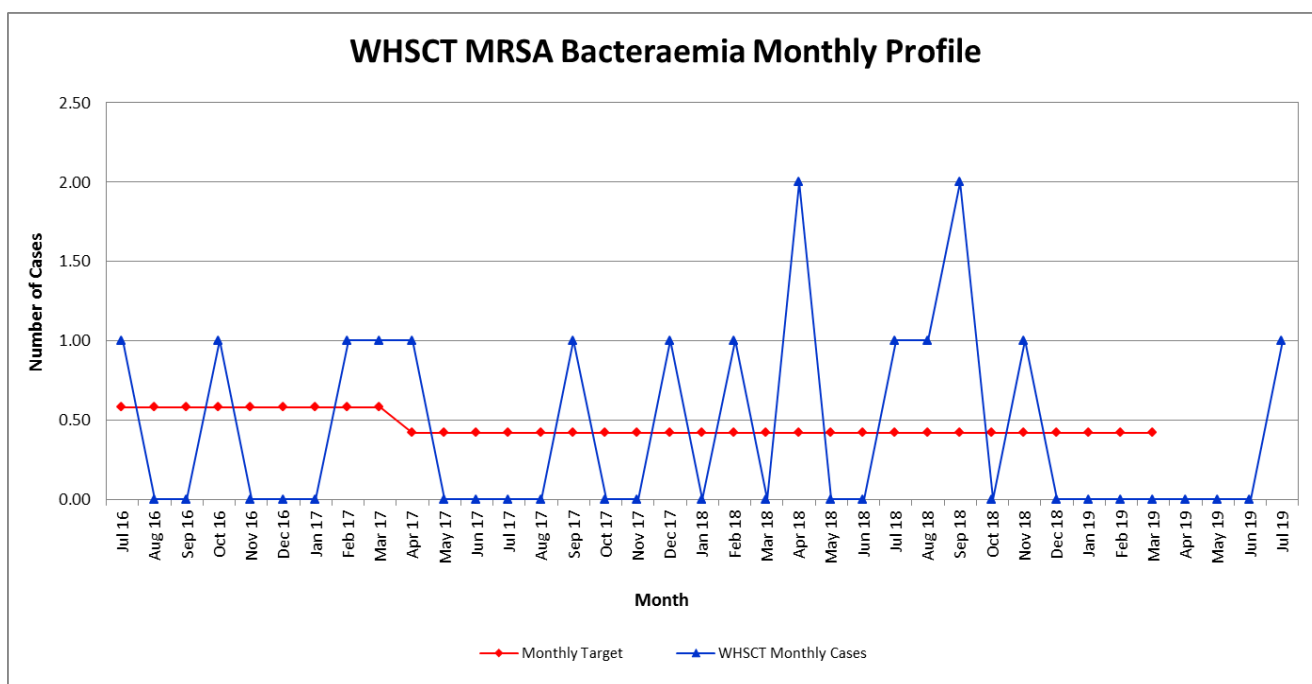
In respect of *C. difficile* cases occurring during 2019/20 a total of 12 RCAs have been conducted. The RCAs found that two of the cases were preventable, eight was non-preventable and two were difficult to determine.

3. S. aureus Bacteraemia Performance

MRSA Bacteraemia

The new MRSA bacteraemia reduction target for 2019/20 has not yet been issued.

Since the beginning of April 2019 one case has been reported. It is categorised as community-associated.



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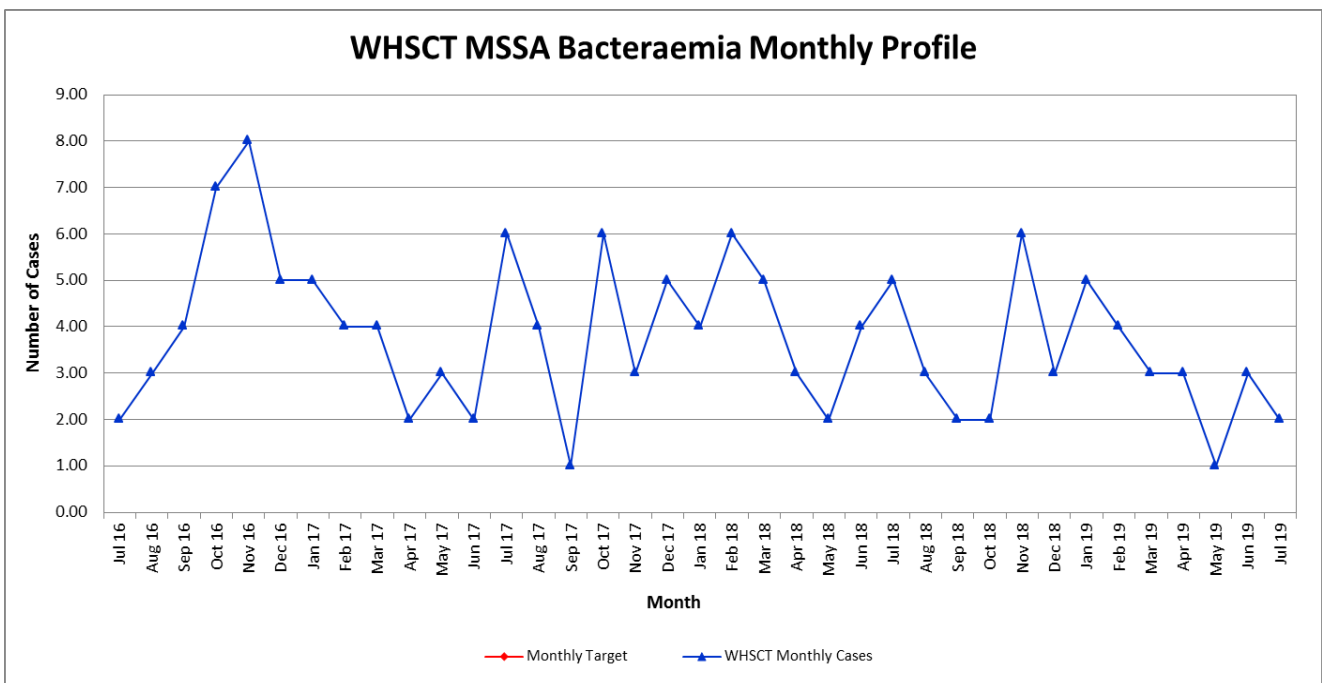
As of 24th July 2019, the total number of days since the last Trust hospital-associated MRSA bacteraemia is:

Altnagelvin – 261 days (Last recorded case was in Ward 42)
 SWAH – 1257 days (Last recorded case was in Ward 8)
 Tyrone County Hospital/ OHPCC – 1646 days (Last recorded case was in the Rehab Unit)

Meticillin-Sensitive Staphylococcus aureus (MSSA) Bacteraemia

There is no reduction target associated with MSSA bacteraemia for 2019/20, 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 protect patients, 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 nine cases.



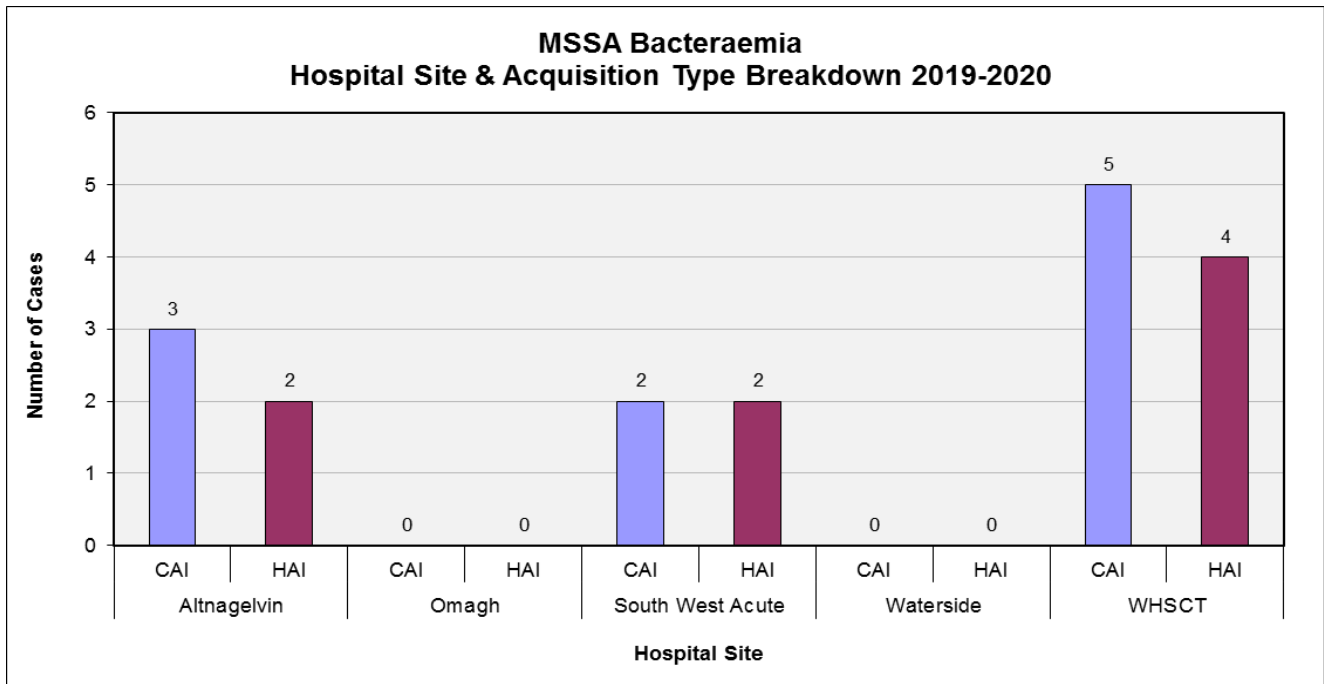
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Since the beginning of April 2019 four cases have been categorised as Trust hospital-associated. As of 24th July 2019, the total number of days since the last Trust hospital-associated MSSA bacteraemia is as follows:

Altnagelvin – 41 days (Last recorded case was in ICU)
 SWAH – 49 days (Last recorded case was in Ward 9)
 OHPCC – 646 days (Last recorded case was in the Rehab Unit)

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

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4. Learning from Root Cause Analysis Process

RCA is a technique that helps answer the question of why an infection occurred in the first place. It seeks to identify the origin of the problem using a specific set of steps and tools to determine why it happened and to develop an action plan to reduce the likelihood of it happening again. Details of the learning from RCAs carried out during quarter one 2019 (January-March) follow.

C. difficile

Eight *C. difficile* cases met the criteria for and were investigated by RCA within this period. Five of the patients received antibiotics prescribed in hospital and five were on proton pump inhibitors (PPIs). None of the patients had a previous history of Glutamate Dehydrogenase (GDH) or *C. difficile* infection. None of the cases were deemed to have been preventable.

The main causes of patients developing *C. difficile* associated diarrhoea were the use of antibiotics (eight patients) and PPIs (five patients).

Examples of things that went wrong, identified during the RCA process, include:

- Patients not sampled within the appropriate timeframe.
- Incomplete details provided on a specimen and laboratory request form, leading to a delay in the result being communicated to the ward.
- Incorrect labelling of a specimen. The positive result was, therefore, not reported by the Laboratory to the area which had sent it.
- No record within the Laboratory to show why a result had not been reported.
- Failures in *C. difficile* audits, commode audits and poor compliance with hand hygiene practice in two wards.

MRSA Bacteraemia

No MRSA bacteraemia cases occurred during this period.

MSSA Bacteraemia

Six MSSA bacteraemia cases met the criteria for and were investigated by RCA within this period. Two were deemed to be preventable.

The main root causes identified and issues highlighted were:

- Possible undiagnosed cellulitis and wound infection in a patient who had undergone surgery 19 days previously. The description of the change to the skin was not clear in either the nursing or medical documentation and there was an opportunity to have taken blood cultures earlier.
- The entry point for the MSSA bacteraemia could not be definitively determined, although multiple options existed as the patient had a large area of abrasion/ broken skin due to a seatbelt injury. The patient continued to receive intravenous (IV) Tazocin without an obvious indication for 10 days post the positive blood culture. This should have been reviewed and modified if appropriate.
- Related to a peripherally inserted central catheter (PICC) and poor compliance with care of same, difficult IV access and poor skin integrity. On discharge there was poor communication to Community staff regarding the date for PICC line removal and poor review of the ongoing need for a PICC line by District Nursing staff.
- Patient had previous colonisation with MSSA, was being peg fed and had multiple IV lines and IV antibiotics. There was poor compliance with Trust guidelines regarding documentation, ongoing care of a peripheral cannula and hand hygiene practice.
- The probable cause was a cannula, which was red and painful upon removal two days after insertion. There was poor compliance with six-hourly observations of this cannula. The patient had a total of six cannulas and the patient's behaviour caused several dislodgements. Another possible source may have been bilateral avascular necrosis of both hips.

5. Hand Hygiene Compliance

The Trust's overall self-reported hand hygiene scores are 76% when non-submission areas are included. These areas score an automatic 0%. 29 areas out of 194 applicable areas failed to submit scores for June 2019. They are as follows:

Altnagelvin – Ward 8 AHAN, Rheumatology, Emergency Department, Elective Procedure Unit, Main Theatre 4, DESU Theatre 1, DESU Theatre 3, DESU Theatre 4, GUM Clinic, Pre-Op Assessment, Physiotherapy Outpatients and Roe Valley Outpatients

SWAH – Cardiac Investigations, Pre-Op Assessment, Radiology Department and Physiotherapy Outpatients

OHPCC – Outpatients Department, Pre-Op Assessment and Physiotherapy Outpatients

Tyrone & Fermanagh Hospital – Elm Villa

Grangewood – Carrick and Evisk

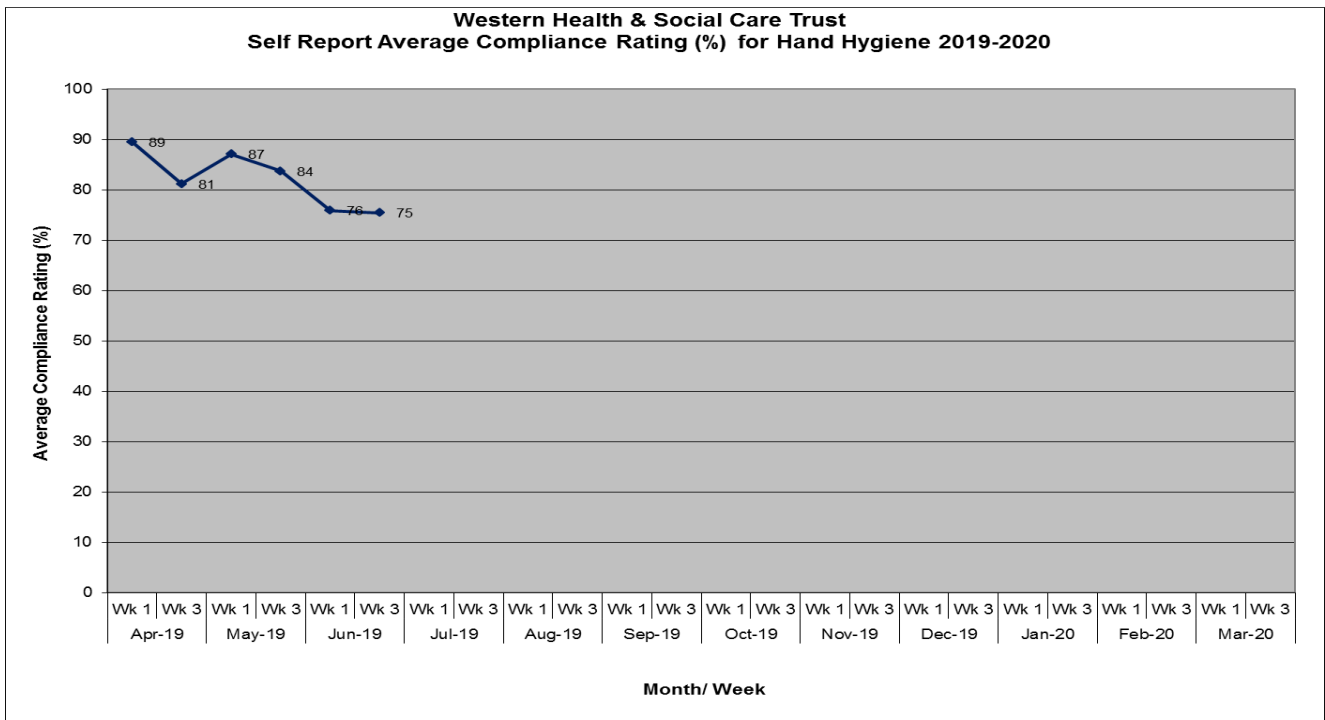
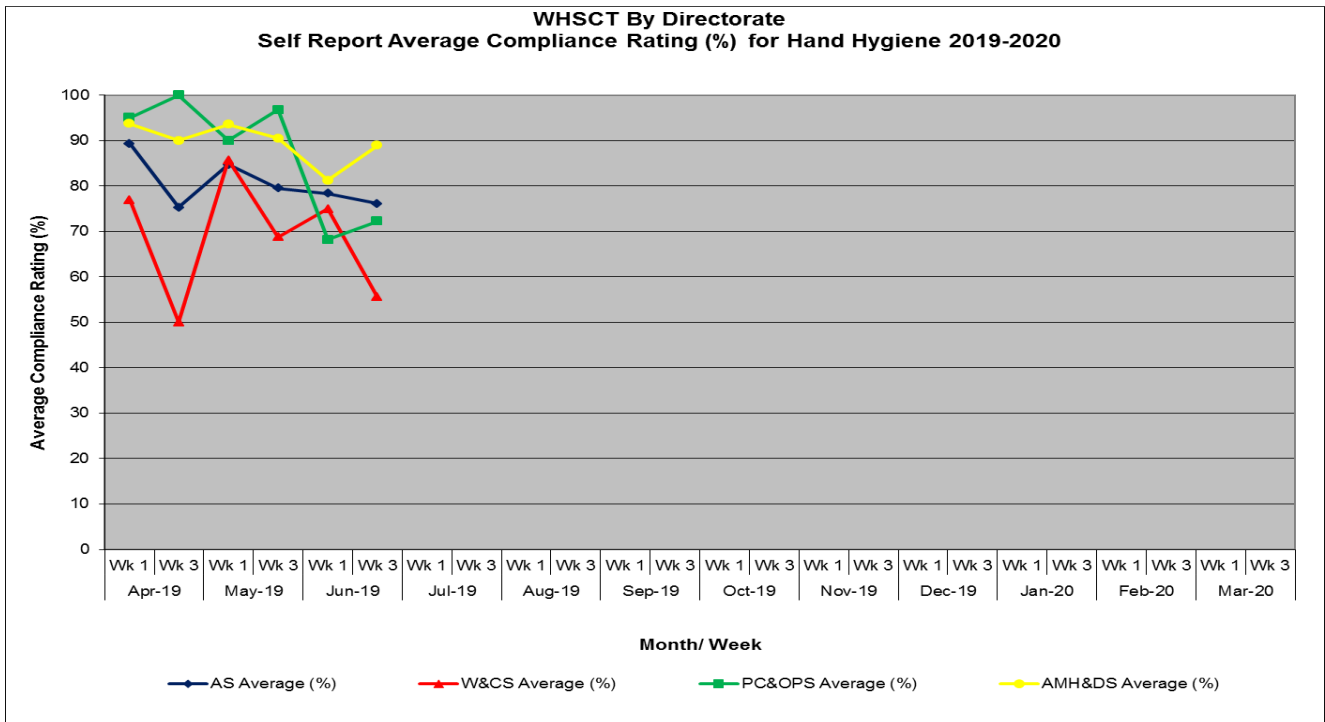
Residential Homes – Seymour Gardens Residential Home and Thackeray Place Residential Home

Day Care – Gortin Day Centre and Tempo Road Day Centre

Other Community – The Cottages Children's Respite, Avalon House and Crannog Intensive Treatment Team

Rheumatology, Emergency Department, Main Theatre 4, DESU Theatre 1, DESU Theatre 3, DESU Theatre 4, GUM Clinic, Cardiac Investigations, Altnagelvin Pre-Op Assessment, SWAH Pre-Op Assessment, OHPCC Pre-Op Assessment, Outpatients Department, Carrick, Evisk, Thackeray Place Residential Home, Gortin Day Centre, The Cottages Children's

Respite, Avalon House and Crannog Intensive Treatment Team also did not submit scores for the previous month.



However, when adjusted for non-submission areas, the Trust's overall self-reported hand hygiene scores improve 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.