Meeting Date	**2nd August 2018**	**Agenda Item**	**4a**
Meeting	**Quality & Safety Committee**		
Report Title	**Infection Prevention & Control Report for Quality & Safety Committee**		
Report Author	Lisa Manchipp-Taylor Matron, Infection Prevention & Control		
Report Sponsor	Cathy Dowling Interim Deputy Director of Nursing & Patient Experience		
Presented by	Gareth Howells Director of Nursing & Patient Experience		
Freedom of Information	Open		
Purpose of the Report	This report provides the Quality & Safety Committee with an assurance report on the current Health Board's performance since May 2018, and that of the Service Delivery Units, in relation to *Clostridium difficile* infection, *Staphylococcus aureus* bacteraemia, and *Escherichia coli (E. coli)* bacteraemia.		
Key Issues	The key points within the report are: • Cumulative Monthly profiles have been calculated within the IMTP. • April - June 2018, the number of *C. difficile* cases were 6 lower than the expected reduction profile. • April - June 2018, the number of *Staph. aureus* bacteraemia cases was 10 over the expected reduction profile. • April - June 2018, the number of *E. coli* bacteraemia cases was 2 cases over expected reduction profile. • Service Delivery Units must focus on key Quality Improvement actions to achieve infection reduction improvement goals.		
Specific Action Required ***(please ✓one only)***	**Information**	**Discussion**	**Assurance**	**Approval**
			✓	
Recommendations	Members are asked to: • Note the contents of this assurance report		

INFECTION PREVENTION & CONTROL REPORT

1. INTRODUCTION

This report provides the Quality & Safety Committee with an assurance report on the Health Board's current performance through May 2018 - June 2018, and that of the Service Delivery Units, in relation to the following Healthcare Associated Infections:

- *Clostridium difficile* infection.
- *Staphylococcus aureus* bacteraemia.
- *Escherichia coli (E. coli)* bacteraemia.

The paper will outline actions implemented and monitored to achieve improvements in reducing preventable healthcare associated infections. The paper will outline risk issues that impact on the Health Board's ability to deliver on its infection reduction improvement goals.

2. BACKGROUND

Healthcare Associated Infections (HCAIs) impact on the Health Board's performance and reputation in relation to the provision of safe, quality healthcare. Eliminating avoidable infections and reducing harm and variation are of key quality measures to the Health Board, its staff and the population it serves.

In the financial year, 2017/18, the Health Board failed to achieve a reduction in the target HCAIs. *Clostridium difficile*, *Staph. aureus* bacteraemia, and *E. coli* bacteraemia, had increased by 23%, 10% and 12% respectively; compared with 2016/17.

In WHC/2018/020 *(AMR Improvement Goals & HCAI Reduction Expectations by March 2019: Primary & Secondary Care Antimicrobial Prescribing Goals; C. difficile, S. aureus bacteraemias and Gram Negative bacteraemias)*, Welsh Government set out its expectations for improvement. University Health Boards are expected to achieve the following:

- ***C. difficile***: no more than 26 cases per 100,000 population (maximum of 136 cases for ABMU), and should work towards an additional 10% reduction in rate. For ABMU, this would mean a 57% reduction in cases within one year, which would not be achievable.

- ***Staph. aureus* bacteraemia**: no more than 20 cases per 100,000 population (maximum of 105 cases for ABMU). For ABMU, this would mean a 47% reduction in cases within one year, which would not be achievable.

- ***E. coli* bacteraemia**: no more than 67 cases per 100,000 population (maximum of 352 cases for ABMU). For ABMU, this would mean a 33% reduction in cases, which would not be achievable within one year. In addition, Welsh Government has set a new reduction expectation for other Gram negative bacteraemias: a 10% reduction in both *Klebsiella* spp. bacteraemia and *Pseudomonas aeruginosa* bacteraemia. These have not been included in national or local surveillance programmes previously.

Within the 2018/19 Annual Plan submitted to Welsh Government, the Health Board set the following infection reduction improvement goals by March 2019:

- 15% reduction in *Clostridium difficile* infection
- 10% reduction in *Staph. aureus* bacteraemia
- 5% reduction in *E. coli* bacteraemia

Using these reduction goals, infection reduction monthly trajectories for the Health Board as a whole have been calculated for each of the infections above. Monthly trajectories have been calculated for each of the Service Delivery Units also; these are shown in the tables in Appendix 1.

How are we doing?

During May and June 2018, the Health Board's performance in relation to these key healthcare associated infections is shown in the table below:

Measures	WG Target	IMTP Profile	May 18	June 18	Cumulative
C. difficile	136 cases (max.) 26/100,000 pop.	239	18	15	59 (-6)
Staph. aureus bacteraemia	105 cases (max.) 20/100,000 pop.	182	21	19	54 (+10)
E. coli bacteraemia	352 cases (max.) 67/100,000 pop.	504	43	41	126 (+2)

The Health Board's performance in relation to each of the three key healthcare associated infections for May and June, and up to 13th July 2018; is shown in Appendix 2. The performance of each Service Delivery Unit for April, and up to 13th July 2018, is shown in Appendix 3.

Local surveillance, utilising the newly implemented electronic surveillance system ICNet, it has been possible to identify "hotspot" wards. These are the wards that have had the highest incidence of hospital acquired infections. For 2018, these "hot spot" wards are identified in Appendix 4.

Using the results of local surveillance in this way provides key information for the Service Delivery Units, enabling them to focus on Quality Improvement activities, and direct appropriate resources, in these “hot spot” areas. Specialist teams, such as Consultant Microbiologists, the Infection Prevention & Control Team, and Antimicrobial Pharmacists; provide support, guidance and advice to the Service Delivery Units Directors, Service Delivery Unit Quality Improvement Leads for Infection (once appointed), and relevant clinical teams, as they progress their annual infection reduction improvement plans. Local surveillance will provide information that will help Service Delivery Units to demonstrate improvement outcomes.

Key healthcare associated infection reduction priorities for each of the Service Delivery Units include:

1. Restrictive antimicrobial policy implemented on the 12th June 2018, restricting the use of Co-Amoxiclav.
2. Reduction in overall antibiotic usage volumes – **by March 2019**.
3. Improvement in reactive High Level bed and room decontamination for each incident of *C. difficile*, together with the development and delivery of a proactive “3D” (Decant, Decontaminate and Disinfect) High Level decontamination of high incidence wards/units **during Quarter 2 and 3**. Individual Service Delivery Units to identify dedicated decant areas to facilitate this initiative. A study published[1] in 2012 identified that, in the UK, each episode of *Clostridium difficile* infection was associated with approximately 14 days of additional hospital stay.
4. Monitor and reduce the unnecessary use of invasive devices such as urinary catheters and peripheral vascular catheters. Where the use is necessary, improve compliance with best practice guidelines for insertion, maintenance and removal of all invasive devices.
5. Continue with PDSA style Quality Improvement programmes across Health Board. To reduce the prevalence and continuation of use of invasive devices.
6. Increase the numbers of staff completing the required Aseptic Non-Touch Technique (ANTT®) competency assessed training. ANTT training is currently recorded on ESR; Service Delivery Units to supply named lead person for co-ordinating and centrally recording ANTT compliance; ensuring that all Service Delivery Units are embedding ANTT into multi-disciplinary practices.
7. Sustain improvements in hand hygiene compliance.
8. Provision of a negative pressure isolation room in Morriston Hospital; validation tests are ongoing with advice sort from the specialist engineering systems and services of the NHS Wales Shared Services Partnership. Full validation and handover has been delayed due to the procurement of specialised Hepa-filters. Estimated completion predicted for end of September 2018. The room should be in use for **Quarter 3, 2018**. A second negative pressure isolation room in Morriston ED is currently at the planning stage.

Key to successful delivery

The Health Board has invested resources to support the expert teams in place, including funding sessional time to enable a Quality Improvement Infection Prevention and Control (IPC) lead clinician in each Service Delivery Unit. The 'whole system Quality Improvement plan' relies on a broader team being available which would include a Decontamination Lead, Consultant Antimicrobial Pharmacist working across primary and acute care; together with additional sessions for an Infectious Diseases and IPC Doctor; a Data Analyst, and Surveillance Support Staff.

Quarter 1 Performance

How are we doing at the end of Quarter 1?

- C Difficile – 59 cases in total < 6 below IMTP trajectory
- Staph Aureus Bacteraemia – 54 cases in total > 10 above trajectory
- E Coli Bacteraemia – 41 cases in total > 1 case over trajectory

What went well?

- Slowed rate of *C. difficile* infection increase. At mid-point 2017/18, the number of cases of *C. difficile* was 42% above those at mid-point 2016/17. At year end, the rate of increase was 24%.
- Appointment of Clinical Lead for Microbiology brought a focus and drive to reduce the use of antibiotics that promote *C. difficile* infection. Approved and ratified new policy for restricted antibiotic usage – June 2018.
- New team approach to infection reduction, with improved medical engagement. Funding identified for Clinical Quality Improvement Leads for Infection in each Service Delivery Unit. Assistant Nurse Director for Infection and Prevention Control post is in shortlisting stage. Interim Deputy Director of Nursing and Patient Experience has met with and engaged the support of Public Health Wales.
- Improved data analysis, facilitated by ICNet, and feedback to Service Delivery Units. Strong focus and evidence in the recently completed round of performance reviews of use in practice and management by Service Delivery Unit management teams.
- Improved focus on reactive decanting bays for deep cleaning and high level disinfection. We have secured external support from Bioquell to continue HPV programme in high risk areas whilst the Health Board local dispute is rectified.
- Cross-cutting plans incorporating HCAI priorities. We have initiated a number of quality improvement initiatives in line with the collaborative priorities.
- Approved 1 million pound capital investment programme into improving ward and clinical environments with definitive linkage to hot spot areas with higher prevalence to infection prevention control issues.

- Point Prevalence Survey of infection in 2017 provided the Health Board with a baseline prevalence of the number of acute and non-acute inpatients, and care home residents, with an indwelling invasive device.

What did we learn from our root cause analysis?

- Results of ribotyping demonstrated increased incidence influenced more by disruption of the healthy balance of gut flora caused by antimicrobials.
- Restricting use of broad-spectrum antobiotics, such as Co-amoxiclav, and essential driver for reducing infection.
- Medical engagement in infection improvement programmes is critical.
- Focus on reactive Decanting, Deep-cleaning and high level Disinfection, a critical influence for infection reduction.
- Early isolation for unexplained diarrhoea is critical to protect others from infection risk.
- Improvement required in compliance with undertaking Clinical Risk Assessment for MRSA screening.
- PWID (people who inject drugs) are at increased risk of Staph Aureus Bacteraemia. Public Health Wales are aware of the Correlation.
- Variation in compliance with urinary catheter insertion bundle.
- Clinical information regarding presence of indwelling invasive device not clearly documented on microbiology request forms.

What will we focus on next in quarter 2?

- Restricted antimicrobial guidelines- implementation date 18 June 2018.
- Continue reactive Decant, Deep-clean & Disinfection ('3D'); extend to a proactive '3D' programme Quarter 2, 2018/19. Re-introduce Hydrogen Peroxide Vapour and Ultraviolet C technologies to augment '3D' programmes.
- Appointment of Clinical Quality Improvement Leads in each Service Delivery Unit.
- Continue to progress appointment of expert Infection Control Committee team approach appointment of Consultant in Infectious Disease, increased Infection Control Doctor sessions, Consultant Antimicrobial Pharmacist, Assistant Nurse Director for infection Prevention Control, Data Analyst, Surveillance Staff, decontamination lead.
- Continue with quality improvement programmes to reduce prevalence of invasive devices, which have an associated risk of infection.
- Individual Service Delivery Unit reduction projections calculated and continue to support improvements and monitoring of performance with assistance and support directed to hotspot areas.
- Commence capital bid environmental improvement programme.

CODE OF PRACTICE REQUIREMENTS

A summary of key progress includes:

- Publication of national Infection Control Manual; online guidance is accessible; however it has not been officially launched nationally. At which point the outstanding policies will be reviewed to reflect this national guidance.
- The post for Assistant Director of Nursing (8D), Infection Prevention & Control (IPC) has been advertised. Closing date 11.07.2018
- A temporary IPC (8A) Matron post was commenced on 4 June 2018 to aid succession planning.
- Senior support from Public Health Wales Healthcare Associated Infection and Antimicrobial Resistance Programme Team has been agreed for 3 months to bridge the gap whist the recruitment process for the (8D) post progresses.

3. GOVERNANCE AND RISK ISSUES

Issues that may impact on the Health Board's ability to deliver the infection reduction improvement goals within the IMTP include:

- The use of environmental decontamination technologies, such as Hydrogen Peroxide Vapour and **Ultraviolet C** radiation, remains suspended. Progress has been made in the review and strengthening of the Risk Assessments and Safe Systems of Work for **Ultraviolet C (UVC),** which have been accepted by the Health & Safety Executive. Staff side representatives continue to raise their concern about the re-introduction of **UVC**. A study published[1] in 2012 identified that, in the UK, each episode of *Clostridium difficile* infection was associated with approximately 14 days of additional hospital stay.
- Bed occupancy, which frequently, is close to or exceeds 90%. Analysis by the Department of Health, reported in ***Tackling healthcare associated infections through effective policy action*** [2] (BMA, June 2009), suggested that when all other variables are constant, an NHS organisation with an occupancy rate above 90 per cent could expect a 10.3% higher MRSA rate compared with an organisation with an occupancy levels below 85%.
- High bed turnover. In the same BMA report, the impact on MRSA rates of turnover intervals were suggested to have a greater impact on MRSA rates than bed occupancy levels.
- High acuity, and caring for an ageing population with more complex needs and co-morbidities, which increases their susceptibility to infection.
- Increased length of stay, which is influenced by economic challenges and limitations in social care. Using the findings from the above 2012 study [1] lost bed days for the 59 *Clostridium difficile* cases (April - June 2018) accumalated to an estimated 826 extra lost bed days.

- Increasingly frequent use of pre-emptive beds (e.g. adding a 7th bed to a 6-bedded bay; or placing beds into non-clinical areas that do not have hand washing facilities).
- Aging estate, and deteriorating condition of the fabric of the buildings, which impacts significantly on the ability of housekeeping teams to clean effectively.
- Staff shortages with a reliance on temporary staffing.
- In addition, it is acknowledged that there would be a risk in the Health Board being able to achieve the infection improvement goals for 2018/19 if there is a decision not to invest in a comprehensive new approach to the prevention of HCAI.

4. FINANCIAL IMPLICATIONS

A Department of Health impact assessment report (IA No. 5014, 20/12/2010) stated that the best estimate of costs to the NHS associated with a case of *Clostridium difficile* infection is approximately **£10,000**.

The estimated cost to the NHS of treating an individual cost of MRSA bacteraemia is **£7,000** (the cost of MSSA bacteraemia could be less due to the availability of a wider choice of antibiotics).

In an NHS Improvement indicative tool[3], the estimated cost of an *E. coli* bacteraemia is between **£1,100** and **£1,400**; depending on whether the *E. coli* is antimicrobial resistant.

The total cost of these combined cases for 2017/18 were reported as an estimated £4,828,700.

5. RECOMMENDATION

The Quality and Safety Committee is asked to note the contents of the report.

References:

[1] PN Wiegand, D Nathwani, MH Wilcox et al (2012) Clinical and economic burden of *Clostridium difficile* infection in Europe: a systematic review of healthcare-facility-acquired infection; Journal of Hospital Infection 81 (2012) 1-14

[2] British Medical Association (June 2009) *Tackling healthcare associated infections through effective policy action***.**

[3] NHS Improvement *Trust and CCG level impact of E.coli BSIs* accessed online at https://improvement.nhs.uk/resources/preventing-gram-negative-bloodstream-infections/

Governance and Assurance

Link to corporate objectives *(please ✓)*	Promoting and enabling healthier communities	Delivering excellent patient outcomes, experience and access	Demonstrating value and sustainability	Securing a fully engaged skilled workforce	Embedding effective governance and partnerships
		✓			

Link to Health and Care Standards *(please ✓)*	Staying Healthy	Safe Care	Effective Care	Dignified Care	Timely Care	Individual Care	Staff and Resources
		✓					

Quality, Safety and Patient Experience

Effective infection prevention and control needs to be everybody's business and must be part of everyday healthcare practice and be based on the best available evidence so that people are protected from preventable healthcare associated infections.

Financial Implications

The Health Board has invested resources to support the specialist teams team in place; including funding sessional time to enable a Quality Improvement Infection Prevention and Control (IPC) lead clinician in each Delivery Unit and will shortly be recruiting a Lead Nurse, Head of Nursing, Head of HSDU and Lead for Decontamination. In addition to that, and reflecting the Health Board's Annual Plan, there is a proposal for a broader HCAI Collaborative team to strengthen the existing investments made by the Health Board, the year 1 cost has been estimated as £254,000.

Estimated financial impact of these HCAIs as cost per case is:
Clostridium difficile infection - approximately £10,000;
Staph. aureus bacteraemia - up to £10,000;
E. coli bacteraemia – between £1,100 and £1,400.

Legal Implications (including equality and diversity assessment)

None identified.

Staffing Implications

The current resource within the specialist Infection Prevention & Control (IPC) team is significantly reduced, with a shortfall in senior level strategic lead roles. There is a shortfall also in the Public Health Wales resource for Consultant Microbiologists. The implications of this are an increased workload for an already stretched service.

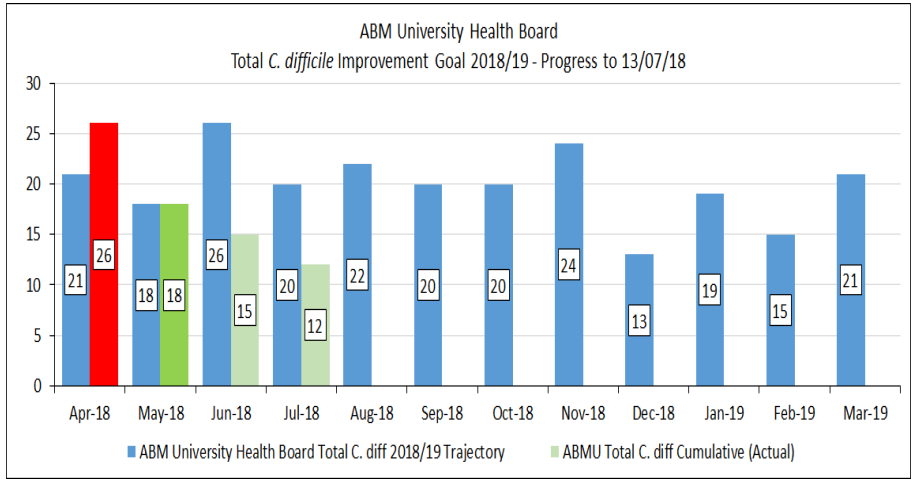
Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)

A healthier Wales: preventing infections

Report History	Infection Prevention & Control Report presented to Quality & Safety Committee, 7th June 2018**.**
Appendices	Appendix 1: IMTP HCAI Monthly Profiles for 2018/19 Appendix 2: Health Board Monthly Performance to 13.07.2018 Appendix 3: Service Delivery Unit Monthly Performance to 13.07.2018 Appendix 4: HCAI "Hot spot" Wards

Appendix 1: IMTP HCAI Monthly Profiles for 2018/19

Measure Profiles	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	
Total Number of Cases of C. *difficile*													
PCCS Community Acquired Infections	3	6	9	2	5	3	3	3	3	5	3	6	51
PCCS Hospital Acquired Infections	0	0	0	0	0	0	1	0	1	0	0	1	3
MH&LD Hospital Acquired Infections	0	1	0	0	0	0	0	0	0	0	0	0	1
Morriston Hospital Acquired Infections	9	5	9	7	7	7	8	9	4	5	4	7	81
NPTH Hospital Acquired Infections	0	1	0	0	1	1	1	0	0	2	2	1	9
POWH Hospital Acquired Infections	6	5	4	8	6	6	5	4	2	4	3	3	56
Singleton Hospital Acquired Infections	3	0	4	3	3	3	2	8	3	3	3	3	38
Sub-total Hospital Acquired Infections	**18**	**12**	**17**	**18**	**17**	**17**	**17**	**21**	**10**	**14**	**12**	**15**	
HB Total	**21**	**18**	**26**	**20**	**22**	**20**	**20**	**24**	**13**	**19**	**15**	**21**	
Cumulative Cases Profiles	**21**	**39**	**65**	**85**	**107**	**127**	**147**	**171**	**184**	**203**	**218**	**239**	
Total Number of cases of S. aureus bacteraemia													
PCCS Community Acquired Infections	6	10	9	6	4	5	7	11	10	6	12	7	93
PCCS Hospital Acquired Infections	0	0	0	0	1	1	0	0	0	0	0	0	2
MH&LD Hospital Acquired Infections	0	0	0	1	0	0	0	0	0	0	0	0	1
Morriston Hospital Acquired Infections	4	5	3	5	4	3	3	2	6	5	5	6	51
NPTH Hospital Acquired Infections	0	0	0	1	1	0	1	0	1	1	0	0	5
POWH Hospital Acquired Infections	1	3	0	2	0	1	1	1	2	1	1	1	14
Singleton Hospital Acquired Infections	2	0	1	3	1	3	1	1	2	0	1	1	16
Sub-total Hospital Acquired Infections	**7**	**8**	**4**	**12**	**7**	**8**	**6**	**4**	**11**	**7**	**7**	**8**	
HB Total	**13**	**18**	**13**	**18**	**11**	**13**	**13**	**15**	**21**	**13**	**19**	**15**	
Cumulative Cases	**13**	**31**	**44**	**62**	**73**	**86**	**99**	**114**	**135**	**148**	**167**	**182**	
Total Number of cases of E. coli bacteraemia													
PCCS Community Acquired Infections	30	28	27	31	28	33	30	23	25	31	32	34	352
PCCS Hospital Acquired Infections	0	0	0	0	0	0	0	0	0	0	0	0	-
MH&LD Hospital Acquired Infections	0	0	0	1	0	0	0	1	0	0	0	0	2
Morriston Hospital Acquired Infections	8	3	6	4	6	4	4	6	7	9	4	5	66
NPTH Hospital Acquired Infections	0	2	1	2	1	1	3	1	3	2	1	0	17
POWH Hospital Acquired Infections	1	2	2	3	2	3	3	4	4	2	1	1	28
Singleton Hospital Acquired Infections	6	4	4	4	5	4	4	2	2	1	1	2	39
Sub-total Hospital Acquired Infections	**15**	**11**	**13**	**14**	**14**	**12**	**14**	**14**	**16**	**14**	**7**	**8**	
HB Total	**45**	**39**	**40**	**45**	**42**	**45**	**44**	**37**	**41**	**45**	**39**	**42**	
Cumulative Cases	**45**	**84**	**124**	**169**	**211**	**256**	**300**	**337**	**378**	**423**	**462**	**504**	


ABM University Health Board
Total C. difficile Improvement Goal 2018/19 - Progress to 13/07/18
30
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18
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Apr-18
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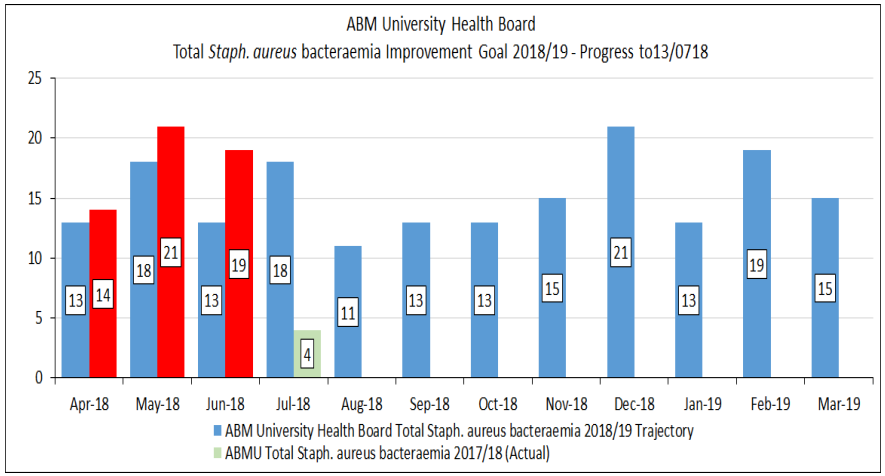
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
ABM University Health Board Total C. diff 2018/19 Trajectory
ABMU Total C. diff Cumulative (Actual)


ABM University Health Board
Total Staph. aureus bacteraemia Improvement Goal 2018/19 - Progress to13/0718
25
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21
13
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Apr-18
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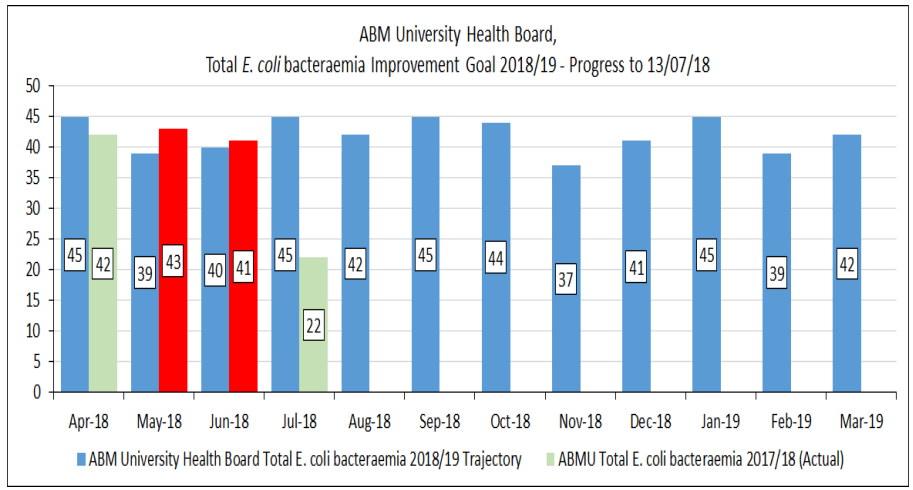
ABM University Health Board Total Staph. aureus bacteraemia 2018/19 Trajectory
ABMU Total Staph. aureus bacteraemia 2017/18 (Actual)


ABM University Health Board,
Total E. coli bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
50
45
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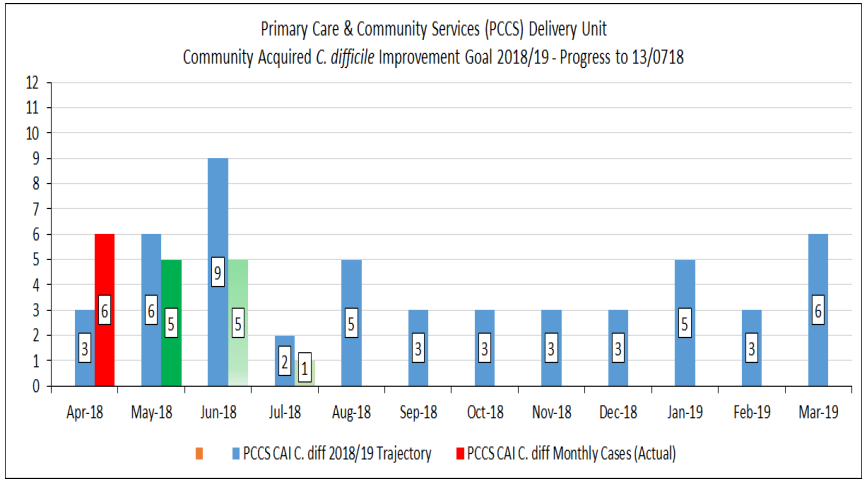
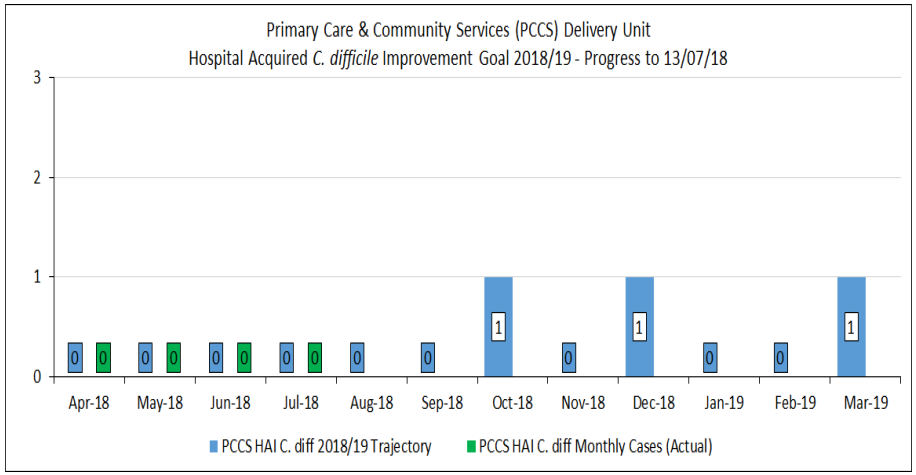
Mar-19
ABM University Health Board Total E. coli bacteraemia 2018/19 Trajectory
ABMU Total E. coli bacteraemia 2017/18 (Actual)


Primary Care & Community Services (PCCS) Delivery Unit
Community Acquired C. difficile Improvement Goal 2018/19 - Progress to 13/0718
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
PCCS CAI C. diff 2018/19 Trajectory
PCCS CAI C. diff Monthly Cases (Actual)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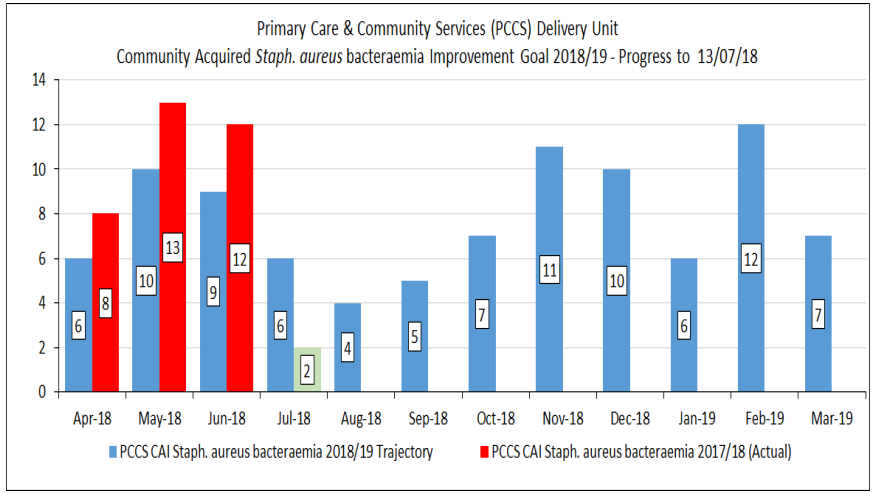
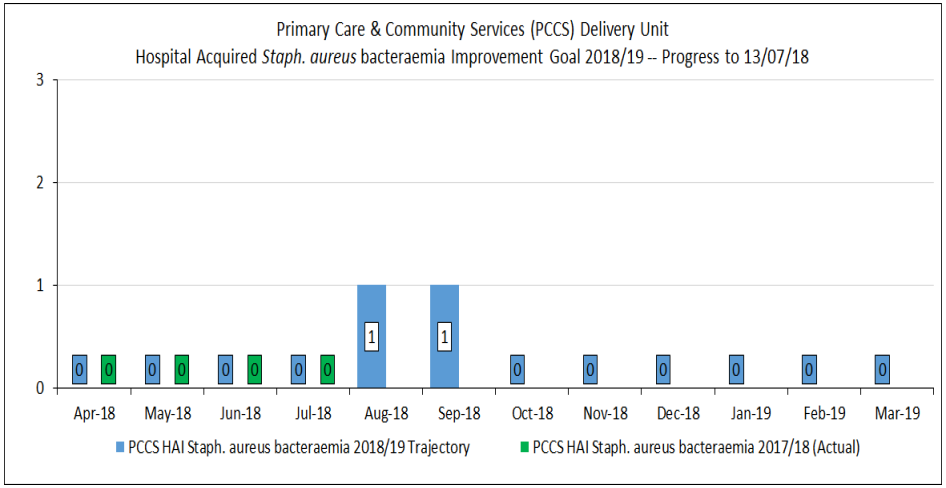
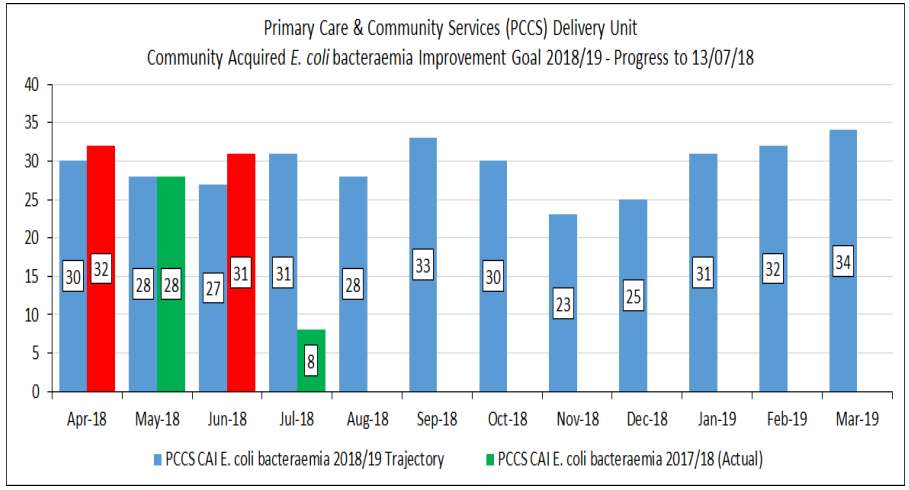
Hospital Acquired C. difficile Improvement Goal 2018/19 - Progress to 13/07/18
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
PCCS HAI C. diff 2018/19 Trajectory
PCCS HAI C. diff Monthly Cases (Actual)


Primary Care & Community Services (PCCS) Delivery Unit
Community Acquired Staph. aureus bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
PCCS CAI Staph. aureus bacteraemia 2018/19 Trajectory
PCCS CAI Staph. aureus bacteraemia 2017/18 (Actual)


Primary Care & Community Services (PCCS) Delivery Unit
Hospital Acquired Staph. aureus bacteraemia Improvement Goal 2018/19 -- Progress to 13/07/18
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
PCCS HAI Staph. aureus bacteraemia 2018/19 Trajectory
PCCS HAI Staph. aureus bacteraemia 2017/18 (Actual)


Primary Care & Community Services (PCCS) Delivery Unit
Community Acquired E. coli bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
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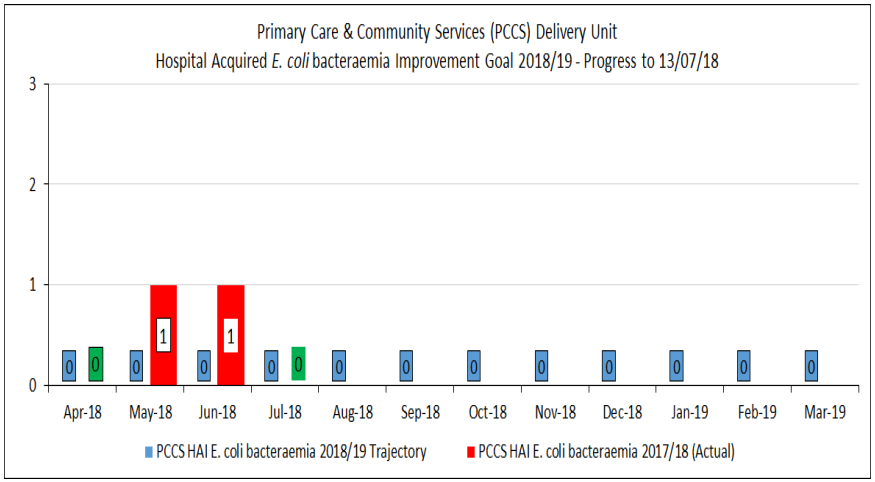
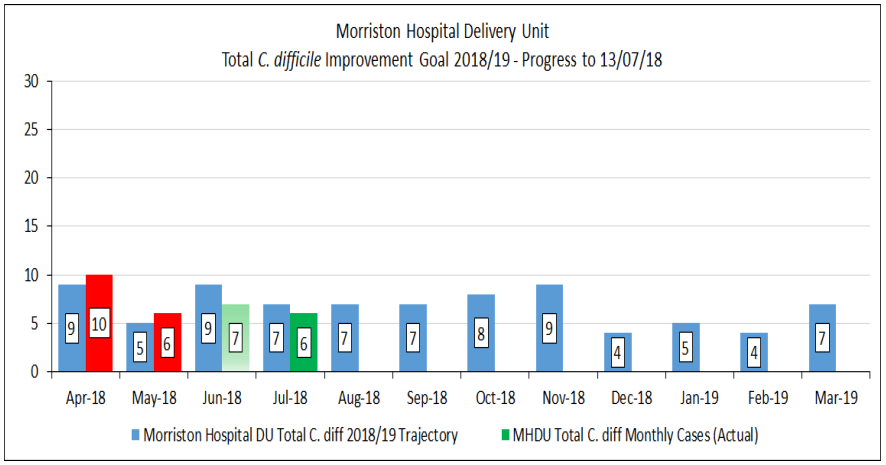
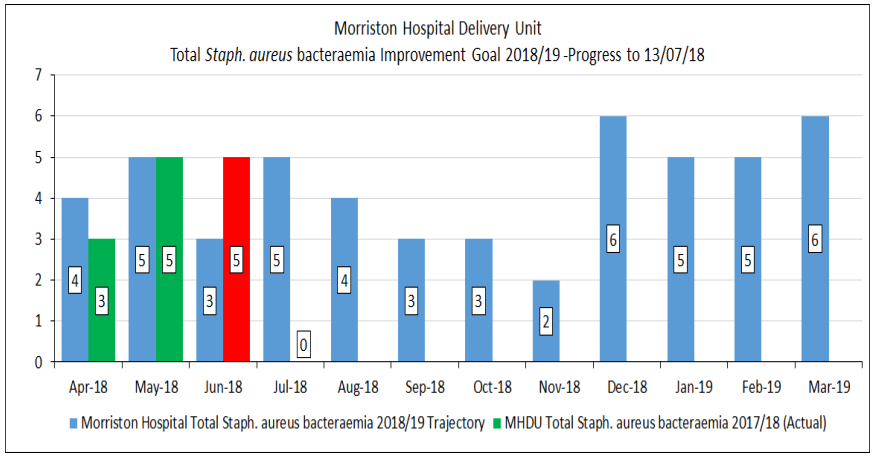
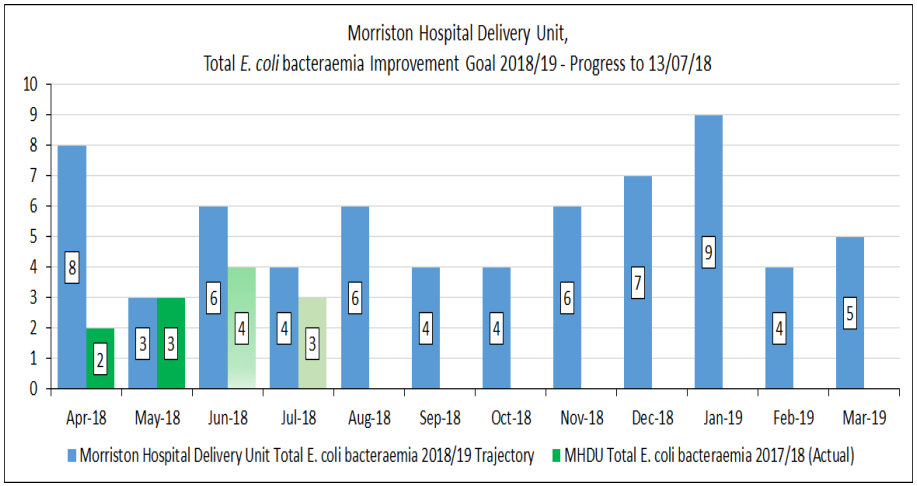
32
28
28
27
31
31
8
28
33
30
23
25
31
32
34
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
PCCS CAI E. coli bacteraemia 2018/19 Trajectory
PCCS CAI E. coli bacteraemia 2017/18 (Actual)

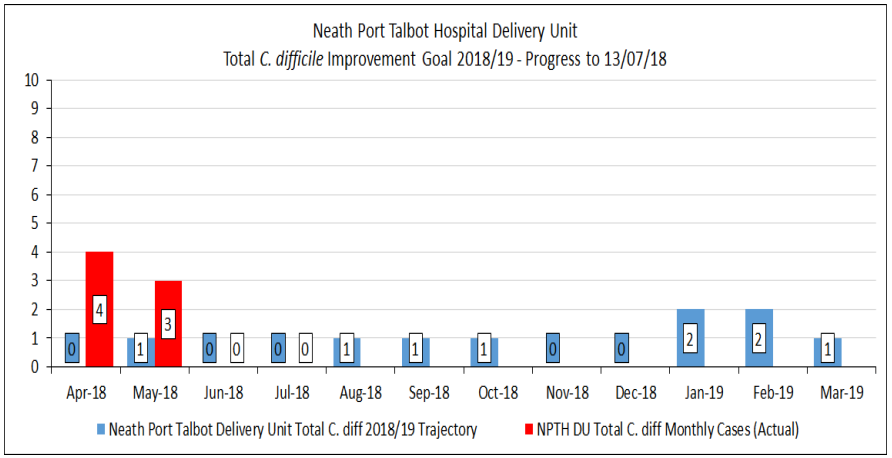

Primary Care & Community Services (PCCS) Delivery Unit
Hospital Acquired E. coli bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
3
2
1
0
0
0
0
1
0
1
0
0
0
0
0
0
0
0
0
0
0
0
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
PCCS HAI E. coli bacteraemia 2018/19 Trajectory
PCCS HAI E. coli bacteraemia 2017/18 (Actual)

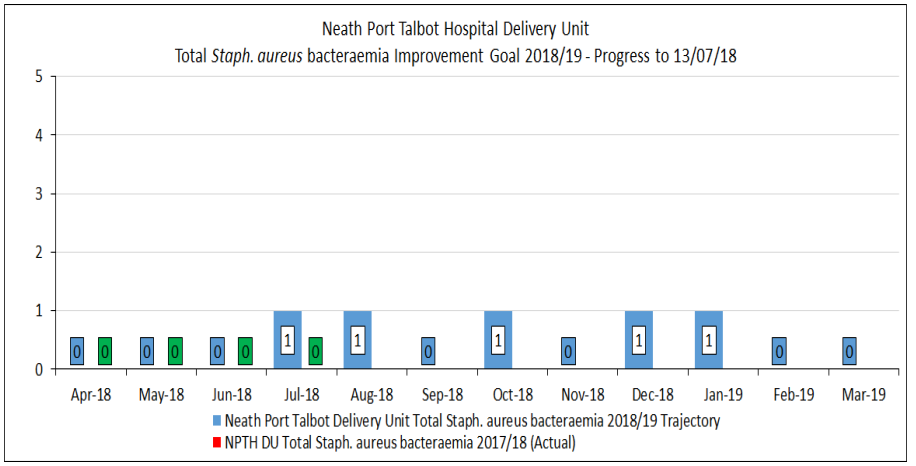

Morriston Hospital Delivery Unit
Total C. difficile Improvement Goal 2018/19 - Progress to 13/07/18
30
25
20
15
10
5
0
9 10
5 6
9 7
7 6
7
7
8
9
4
5
4
7
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
Morriston Hospital DU Total C. diff 2018/19 Trajectory
MHDU Total C. diff Monthly Cases (Actual)

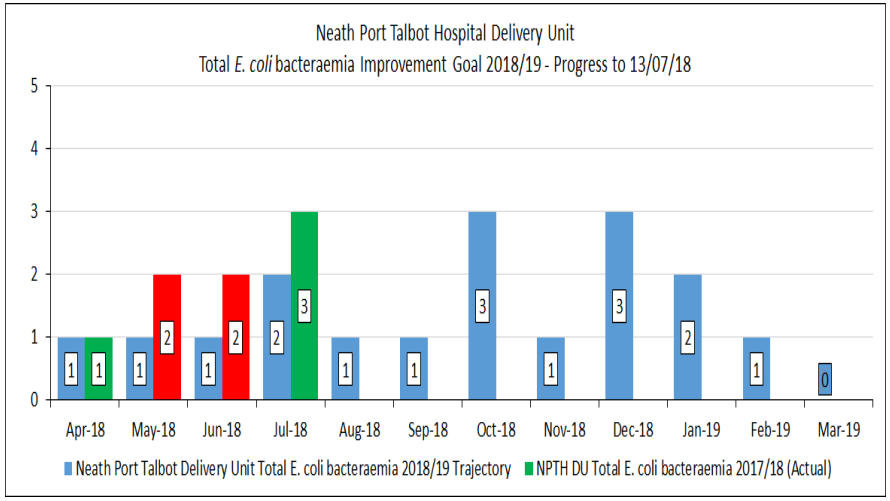

Morriston Hospital Delivery Unit
Total Staph. aureus bacteraemia Improvement Goal 2018/19 -Progress to 13/07/18
7
6
5
4
3
2
1
0
4 3
5 5
3 5
5 0
4
3
3
2
6
5
5
6
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
Morriston Hospital Total Staph. aureus bacteraemia 2018/19 Trajectory
MHDU Total Staph. aureus bacteraemia 2017/18 (Actual)

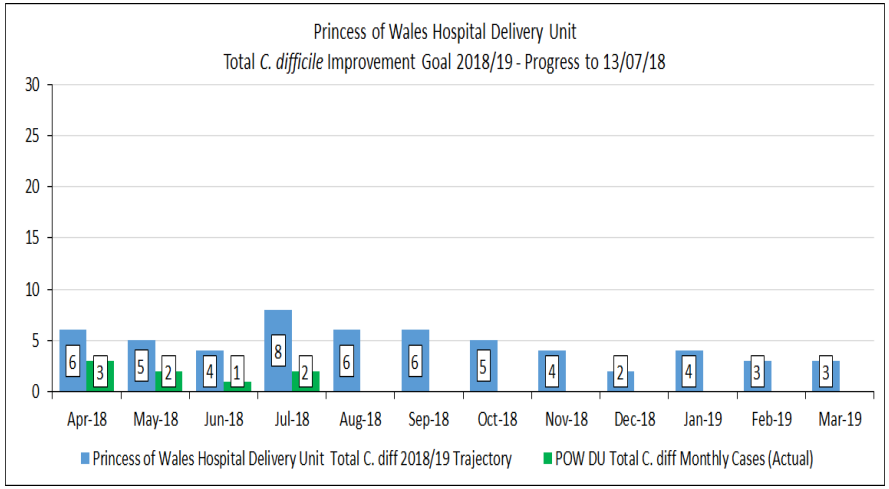

Morriston Hospital Delivery Unit,
Total E. coli bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
10
9
8
7
6
5
4
3
2
1
0
8 2
3 3
6 4
4 3
6
4
4
6
7
9
4
5
Apr-18 May-18 Jun-18 Jul-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 Jan-19 Feb-19 Mar-19
Morriston Hospital Delivery Unit Total E. coli bacteraemia 2018/19 Trajectory
MHDU Total E. coli bacteraemia 2017/18 (Actual)

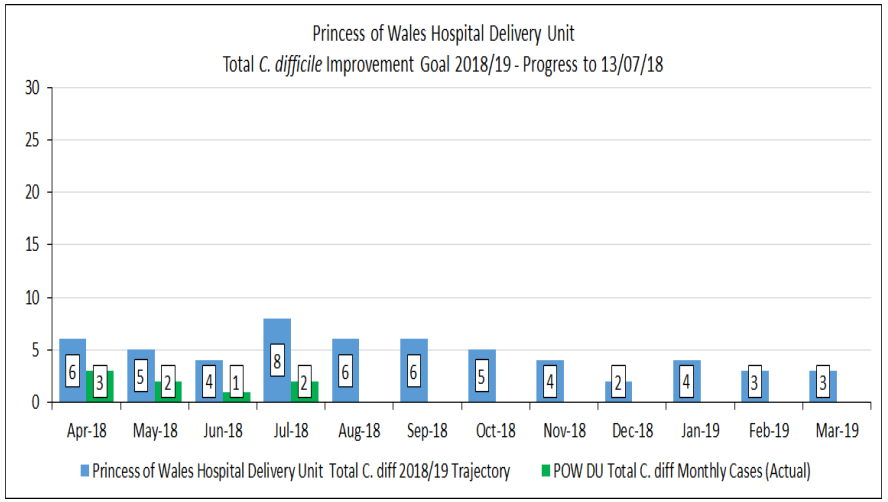
Appendix 2: Service Delivery Unit Monthly Performance to 13/07/2018

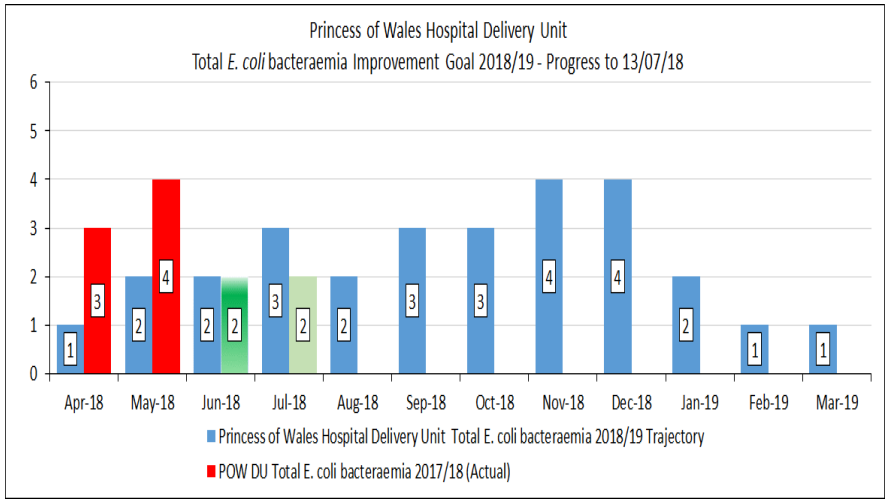




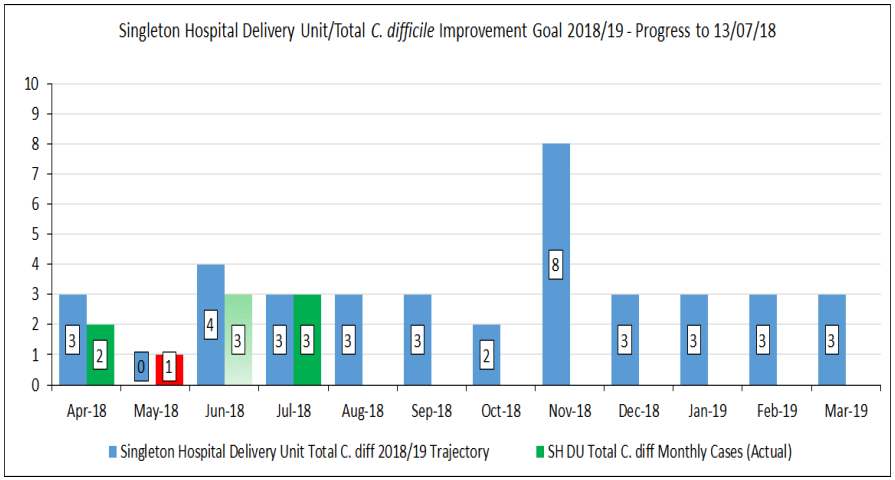


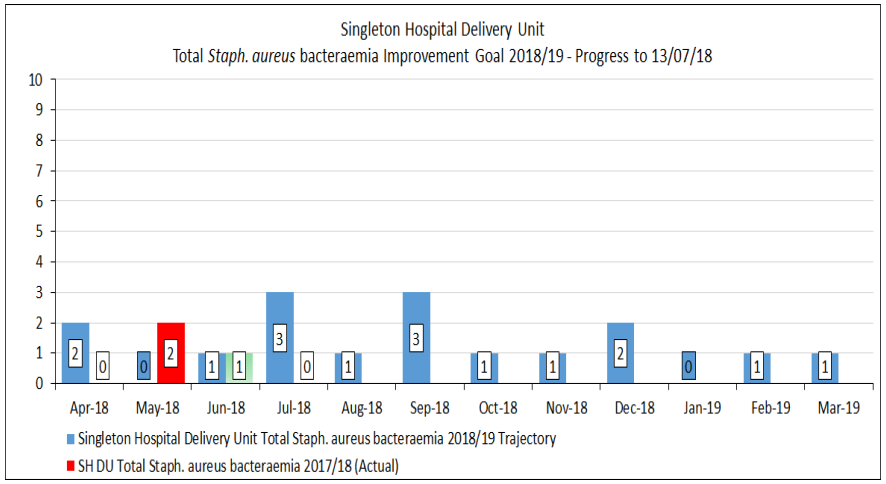

Princess of Wales Hospital Delivery Unit
Total C. difficile Improvement Goal 2018/19 - Progress to 13/07/18
30
25
20
15
10
5
0
6 3
5 2
4 1
8 2
6
6
5
4
2
4
3
3
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
Princess of Wales Hospital Delivery Unit Total C. diff 2018/19 Trajectory
POW DU Total C. diff Monthly Cases (Actual)

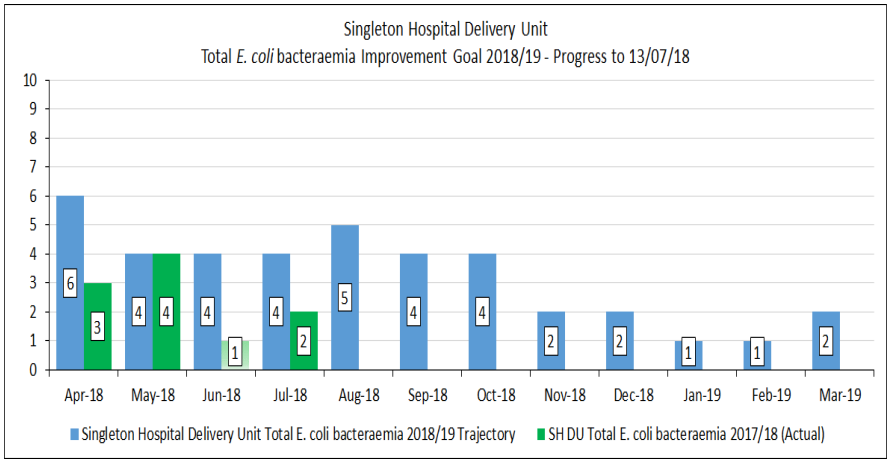

Princess of Wales Hospital Delivery Unit
Total C. difficile Improvement Goal 2018/19 - Progress to 13/07/18
30
25
20
15
10
5
0
6 3
5 2
4 1
8 2
6
6
5
4
2
4
3
3
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
Princess of Wales Hospital Delivery Unit Total C. diff 2018/19 Trajectory
POW DU Total C. diff Monthly Cases (Actual)


Princess of Wales Hospital Delivery Unit
Total E. coli bacteraemia Improvement Goal 2018/19 - Progress to 13/07/18
6
5
4
3
2
1
0
1 3
2 4
2 2
3 2
2
3
3
4
4
2
1
1
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
Princess of Wales Hospital Delivery Unit Total E. coli bacteraemia 2018/19 Trajectory
POW DU Total E. coli bacteraemia 2017/18 (Actual)

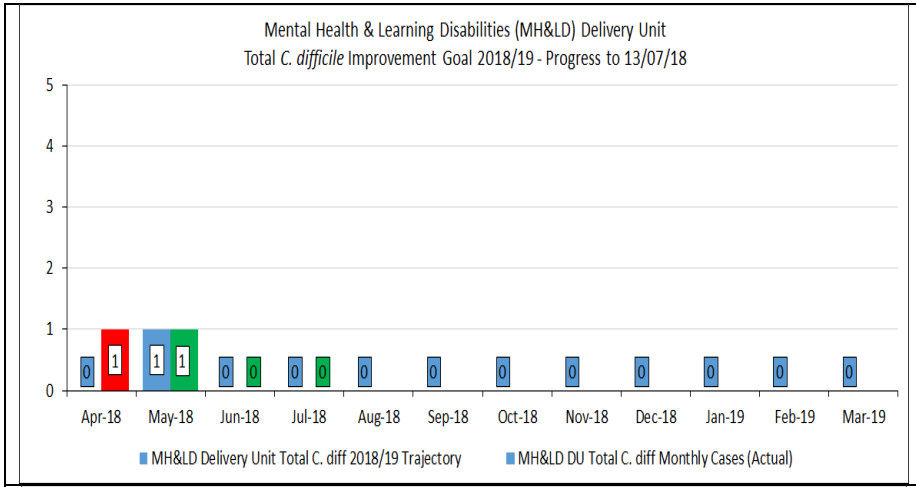
Appendix 2: Service Delivery Unit Monthly Performance to 13/07/2018

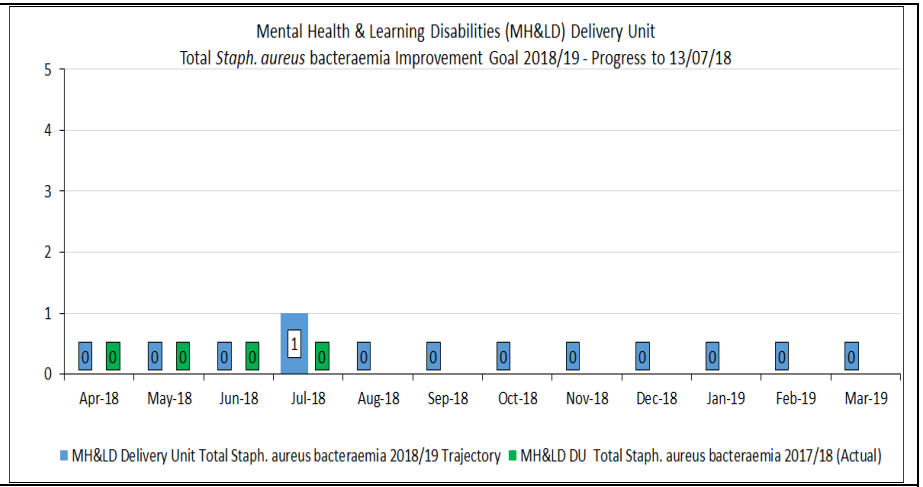


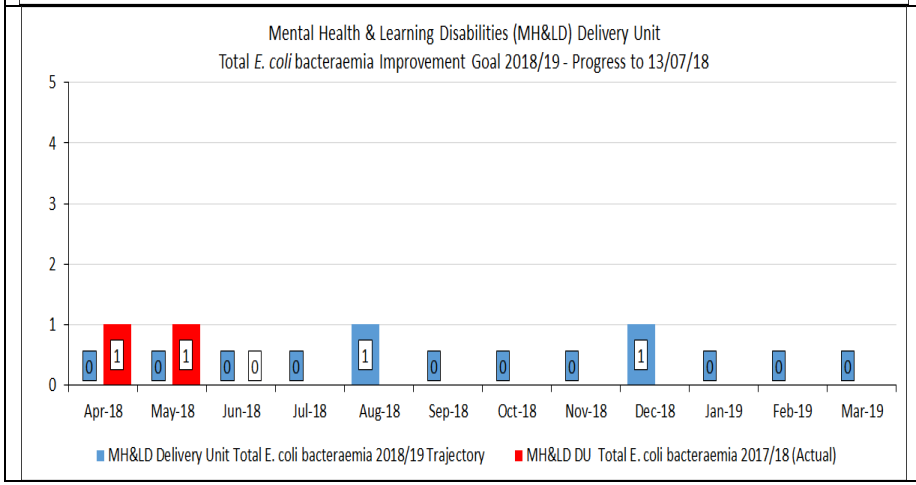




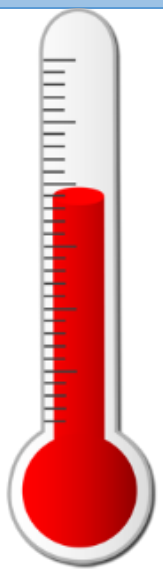
Appendix 2: Service Delivery Unit Monthly Performance to 13/07/2018







Appendix 3: HEALTH BOARD WIDE "HOT SPOT" WARDS

"Hot Spot" Wards (April – June 2018) -in descending order			
	***C. difficile***	***Staph. aureus* bacteraemia**	***E. coli* bacteraemia**
	• MH AMAU W • MH Ward B • MH Gowers • MH Ward T • NPTH Ward E • NPTH Ward B2 • POW Ward 7	• MH ITU • MH Ward H • SH Ward 12	• **MH ITU** • MH Ward V • POW Ward 6 • SH Ward 8 • SH Ward 4 • NPTH Ward C

Any wards highlighted in **bold** font, appear within the "hot spot" wards for more than one infection.