

7.4

LOTHIAN NHS BOARD

28 July 2010

Director of Public Health and Health Policy

HEALTHCARE ASSOCIATED INFECTION

1 Purpose of the Report

- 1.1 The purpose of this report is to update the Board on progress and actions to manage and reduce Healthcare Associated Infection across NHS Lothian. For a full report, please see the Healthcare Associated Infection Reporting Template (Appendix 1).

2 Recommendations

- 2.1 The Board is recommended to support the following activities in delivering the agenda to reduce and manage Healthcare Associated Infection:
 - Maintain enhanced weekly surveillance of MRSA and MSSA Bacteraemia to target resources for a sustained reduction and continue the roll-out of the of the MRSA screening programme.
 - Accelerate the development and testing of processes and practice to prevent Healthcare Associated Infection related to central venous and peripheral cannulae as part of Scottish Patient Safety Programme work, along with the ongoing progression of the Clostridium Difficile Infection reduction programme
 - Continuing communications to staff, patients and the public about the importance of hand hygiene, particularly the availability of translated and easy read material.
 - Increased compliance with best practice as recommended by the Antimicrobial Management Team.

3 Summary of the Issues

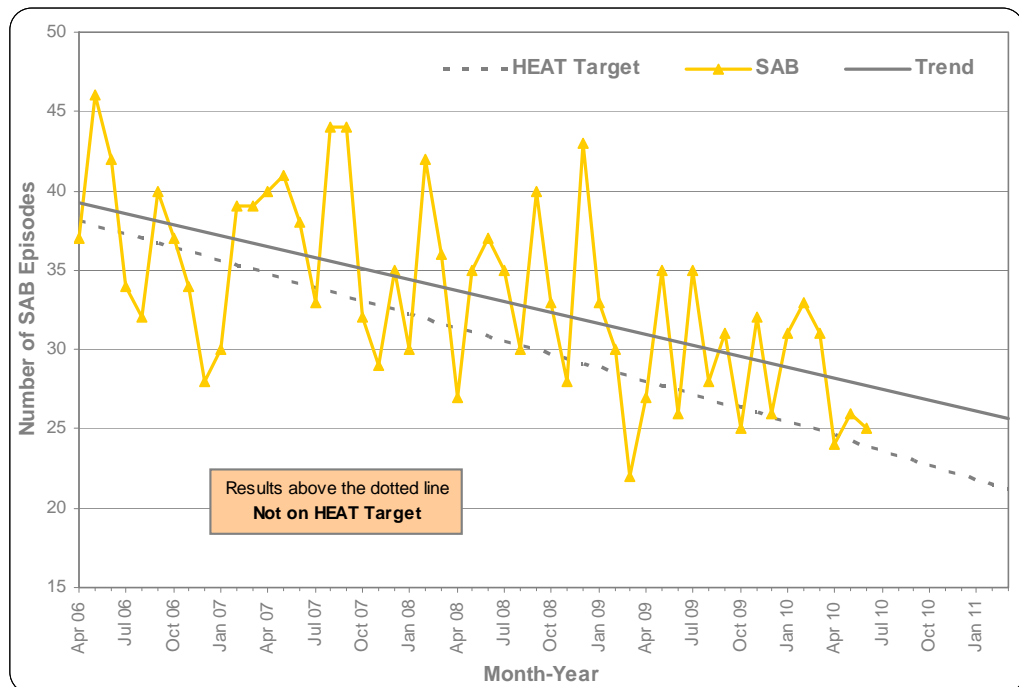
- 3.1 Targets:
 - 3.1.1 NHS Lothian's Health Improvement, Efficiency, Access and Treatment target for *Staphylococcus aureus* Bacteraemia was a 40% reduction, from 498 episodes in 2005/06 to 299 episodes by March 2010. NHS Lothian's actual figure was 360 episodes, which represents a 28% reduction. MRSA was reduced from 244 episodes to 75 episodes, a reduction of 69%; MSSA remains the challenge for NHS Lothian. NHS Lothian's new Health Improvement, Efficiency, Access and Treatment target for all *Staphylococcus aureus* Bacteraemia infections is a 15% reduction based on the 2009/10 figure of 299. Thus the new target to achieve by March 2011 is 254 episodes (49%); we are currently eight above the trajectory required to meet this. The Infection Improvement Support Team will be meeting with senior staff from across NHS

Lothian to help identify areas of best practice where implementation could be accelerated.

3.1.2 The initial Health Improvement, Efficiency, Access and Treatment target for Clostridium Difficile Infection was a minimum 30% reduction by March 2011. At the end of year two, the final figure recorded was 550 episodes, a reduction of 51%. NHS Lothian's new Health Improvement, Efficiency, Access and Treatment target is a 50% reduction, based on the 2007/08 figure of 1,114. Thus the new target to be achieved by March 2011 is 557 episodes (50%); in 2009/10, there were 550 incidents in patients aged 65 and over.

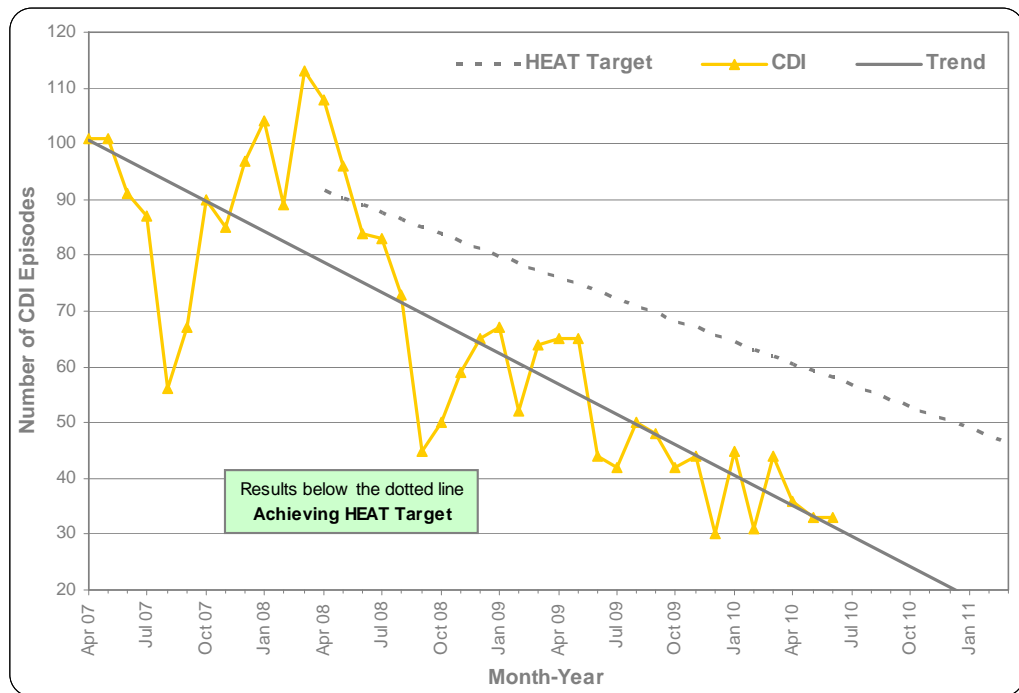
3.2 Staphylococcus aureus Bacteraemia

3.2.1 There were 25 episodes of Staphylococcus aureus Bacteraemia in June 2010 (9 MRSA, 16 MSSA), compared to 26 in May 2010 (6 MRSA, 20 MSSA).



3.3 Clostridium Difficile Infection

3.3.1 There were 44 episodes of Clostridium Difficile Infection in June 2010, 33 in patients aged 65 or over. This is a reduction from 47 in May 2010, when there were also 33 in patients aged 65 or over. This reflects a reduction in the number of cases under in patients aged under 65 from March 2010.



3.3.2 The annual incidence rate of Clostridium Difficile Infection in Scotland is 0.71 cases per 1000 total Occupied Bed Days. NHS Lothian's annual incidence is reported by Health Protection Scotland as just above the national average, at 0.74.

3.3.3 Work is ongoing with the Scottish Patient Safety Programme in progressing the Clostridium Difficile Infection Toolkit utilisation and compliance. Antimicrobial guidelines are widely available to assist clinical teams in prudent antimicrobial prescribing. Surgical prophylaxis has been reviewed in line with Scottish Intercollegiate Guidelines Network (SIGN) 104.

3.4 Hand Hygiene

3.4.1 NHS Lothian has achieved 92% compliance in the last published bi-monthly report from the National Hand Hygiene campaign (May 2010).

3.4.2 To target compliance with hand hygiene in non-acute healthcare settings, Community Health Partnerships and independent contractors (including GPs, optometrists, dentists and community pharmacists) have been issued with Community Campaign materials.

3.4.3 Hand hygiene training and education continues to be delivered throughout all sites, with a record attendance of 116 domestic staff in St John's Hospital participating in one day.

3.4.4 The patient and visitor survey continues and our most recent report indicates that 90.9% of our visitors are now aware that they are expected to clean their hands before and after patient contact. Furthermore, 91.6% of visitors declare they've cleaned their hands before and after touching the patient.

3.5 The Healthcare Environment Inspectorate

3.5.1 The Inspectorate undertook an announced visit to the Western General Hospital on 12-13/4/2010. The areas audited included:

- Acute receiving unit/medical receiving unit
- Nurse led urology unit
- Outpatients department
- Ward 2 (clinical oncology)
- Ward 20 (ITU)
- Ward 22 (General Surgery)
- Ward 26 (General medicine)
- Ward 33 (Clinical neurosciences)
- Ward 54 (Respiratory/cardiothoracic)
- Ward 57 (Urology)

3.5.2 In their report, the team noted they found evidence that NHS Lothian was complying with the majority of Healthcare Associated Infection standards to protect patients, staff and visitors from the risk of acquiring an infection. In particular, they noted:

- The overall standard of cleanliness of wards and departments was of a satisfactory standard.
- The hospital was generally well maintained and in a good state of repair, given the age of many parts of the premises.
- Hospital staff attended regular update training on the topic of infection control.
- Members of the public were strongly involved in cleanliness and hand hygiene monitoring.

3.5.3 However, they did note further improvement was required in the following areas:

- Although the overall standard of cleanliness was satisfactory, the recording of carrying out cleaning tasks was poor.
- It was observed that in Ward 2 beds were placed too close together.
- In the medical receiving unit, cubicle areas without doors were being used to isolate some patients with known infections.
- Porter staff were observed handling waste but not wearing the required protective clothing.

3.5.4 The next announced visit to NHS Lothian will be at Saint John's Hospital on 18-19/8/2010.

3.6 Domestic Services

3.6.1 The Healthcare Environment Inspectorate team made the recommendation that a consistent sign-off procedure must be implemented to allow senior charge nurses to be assured cleaning tasks carried out by domestic staff have been completed effectively. A daily/weekly sign off sheet has been developed and introduced at the Western General Hospital. The effectiveness of the document will be monitored over a three month period with changes and amendments made as required. This sign-off procedure will be introduced to all NHS Lothian healthcare facilities.

3.6.2 All domestic service cleaning schedules are being reviewed to ensure consistency across all wards and departments and compliance with the National Cleaning Specifications. The Cleaning Matrix Short Life Working Group has completed their work and the revised documentation will be submitted for consultation in July.

3.7 Education

The new NHS Lothian mandatory update programme started in April 2010. The Infection Control component is delivered as a combination of e-learning and face to face delivery, with the number of session per week increased from four to twelve.

3.8 Antimicrobial Management Team

3.8.1 Production and implementation of prescribing policies/guidelines

The University Hospitals Division Empiric Antibiotic Prescribing Guidelines (full and abbreviated versions) are available on the intranet. They are widely publicised with credit card sized aide memoires, posters, (Lothian Prescribing Bulletin) and Medical Director endorsement. The Lothian Joint Formulary Infection chapter is under review to align it with the most appropriate choice of antibiotic across primary and secondary care. All surgical specialties are now compliant with Scottish Intercollegiate Guidelines Network (SIGN) 104, Guidelines for Surgical Prophylaxis, and have prophylaxis prescribing policies in place, as detailed on the intranet.

3.8.2 Prescribing indicators

Empirical antibiotic prescribing indicators: data has been collected by pharmacists in patient receiving units at Saint John's Hospital, the Western General Hospital and the Royal Infirmary Edinburgh since January 2010. Audit data for performance against the Prescribing indicators has been supplied to the relevant clinical leads for review and discussion with their teams. This data is now also available on the intranet and has been entered into the Institute of Healthcare Improvement extranet site so that national comparison can be made by the Scottish Antimicrobial Prescribing Group. The Chair of the Antimicrobial Management Team and the Clinical Director for Medicine will ensure that the clinical teams collect and act to improve these data as part of their patient safety work.

3.8.3 Surgical prophylaxis prescribing indicators: since April 2010, data from Surgical Site Infection surveillance for obstetric and orthopaedic surgery and Scottish Patient Safety Programme peri-operative data for colorectal, vascular and cardiothoracic surgery has been entered into the Institute of Healthcare Improvement extranet site. Audit data for performance against the Prescribing indicators has been supplied to the lead surgeons of these specialties for review and discussion with their teams and displayed on the intranet.

3.8.4 Education: the Antimicrobial Management Team has delivered education programmes to non-medical prescribers on prudent antibiotic prescribing and is participating in the mandatory induction training programme for junior clinicians. Records of all training activities performed by the Antimicrobial Management Team have been

established. These records include ongoing participation in antimicrobial prescribing education and induction programmes. Training in antimicrobial prescribing for non-medical prescribers at undergraduate level is currently being undertaken.

4 Impact on Health Inequalities

- 4.1 Infection with the organisms used as markers for Healthcare Associated Infection is more common in patients with co-morbidities, diabetes and alcohol problems. As these are socio-economically patterned, reducing the burden of Healthcare Associated Infection will reduce the excess burden of avoidable disease in patients from these groups.

5 Resource Implications

- 5.1 The excess cost of each episode of *Staphylococcus aureus* Bacteraemia and Clostridium Difficile Infection lies between £4,000-£15,000. This is made up of the excess length of stay and additional treatment required. In line with NHS Lothian's NRAC position, the resources deployed to address Healthcare Associated Infection are lower than those of comparable Boards. The major risk to our continued efforts in this area is the transfer of funding for Healthcare Associated Infection from recurrent to non-recurrent budgets by the Scottish Government.

Rona Broom
Acting Head of Service, Infection Control
NHS Lothian

6 July 2010

Appendix 1: NHS Lothian's Healthcare Associated Infection Reporting
Template June 2010

Healthcare Associated Infection Reporting Template (HAIRT)

Section 1 – Board Wide Issues

This section of the HAIRT covers Board wide infection prevention and control activity and actions. For reports on individual hospitals, please refer to the 'Healthcare Associated Infection Report Cards' in Section 2.

A report card summarising Board wide statistics can be found at the end of section 1

Key Healthcare Associated Infection Headlines for July 2010 Report

NHS Lothian achieved a 69% reduction in Meticillin Resistant *Staphylococcus aureus* (MRSA) bacteraemia by March 2010. The overall *S. aureus* bacteraemia (SAB) reduction was 28%. During June 2010 there were 25 episodes of SAB recorded in NHS Lothian (9 MRSA, 16 MSSA).

NHS Lothian achieved a 51% reduction in *Clostridium difficile* Infection (CDI) which was 31% above the set target by March 2010. There were 44 episodes of CDI of which 33 were in patients aged 65 or over in June 2010, compared to 47 episodes in May 2010 of which 33 were in patients aged 65 or over.

Staphylococcus aureus (including MRSA)

Staphylococcus aureus is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. The most common form of this is Meticillin Sensitive *Staphylococcus aureus* (MSSA), but the more well known is MRSA (Meticillin Resistant *Staphylococcus aureus*), which is a specific type of the organism which is resistant to certain antibiotics and is therefore more difficult to treat. More information on these organisms can be found at:

Staphylococcus aureus : http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346

MRSA: http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252

NHS Boards carry out surveillance of *Staphylococcus aureus* blood stream infections, known as bacteraemia. These are a serious form of infection and there is a national target to reduce them. The number of patients with MSSA and MRSA bacteraemia for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for *Staphylococcus aureus* bacteraemia can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/publicationsdetail.aspx?id=30248>

There were 25 episodes of SAB (9 MRSA, 16 MSSA) recorded in June 2010 compared to 26 episodes (6 MRSA, 20 MSSA) in May 2010. NHS Lothian's HEAT target for SAB was a 40% reduction from 498 episodes in 2005/06 to 299 episodes by March 2010. NHS Lothian's actual figure was 360 episodes. This represents a 28% reduction which was 12% short of the target. MRSA was reduced from 244 episodes to 75 episodes, a reduction of 69%. MSSA remains the challenge for NHS Lothian. NHS Lothian's new HEAT target is a 15% reduction based on the 2009/10 figure of 299. Thus the new target to achieve by March 2011 is 254 episodes. To achieve the new target reduction by March 2011, the average for the next nine months should be no more than 19 episodes.

Clostridium difficile

Clostridium difficile is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. More information can be found at:

<http://www.nhs.uk/conditions/Clostridium-difficile/Pages/Introduction.aspx>

NHS Boards carry out surveillance of *Clostridium difficile* infections (CDI), and there is a national target to reduce these. The number of patients with CDI for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for *Clostridium difficile* infections can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/ssdetail.aspx?id=277>

Lothian initial HEAT target for CDI was a minimum 30% reduction by March 2011. At the end of year two, the final figure recorded was 550 episodes, a reduction of 51%. NHS Lothian's new HEAT target is a 50% reduction based on the 2007/08 figure of 1114. Thus the new target to be achieved by March 2011 is 557 episodes. There were 44 episodes of CDI of which 33 were in patients aged 65 or over in June 2010, compared to 47 episodes in May 2010 of which 33 were in patients aged 65 or over. The annual incidence rate in Scotland is 0.71 cases of CDI per 1000 total Occupied Bed Days (OCBDs). NHS Lothian annual incidence is reported by HPS as just above the national average at 0.74.

Hand Hygiene

Good hand hygiene by staff, patients and visitors is a key way to prevent the spread of infections. More information on the importance of good hand hygiene can be found at:

<http://www.washyourhandsofthem.com/>

NHS Boards monitor hand hygiene and ensure a zero tolerance approach to non compliance. The hand hygiene compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national hand hygiene monitoring can be found at:

<http://www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx>

To target compliance with hand hygiene in non-acute healthcare settings, Community Health Partnerships (CHPs) and independent contractors including GPs, optometrists, dentists and community pharmacists have recently been issued with Community Campaign materials.

Hand hygiene training and education continues to be delivered throughout all sites with a record attendance of 116 domestic staff in St John's Hospital participating in one day.

The patient and visitor survey continues and our most recent report indicates that 90.9% of our visitors are now aware that they are expected to clean their hands before and after patient contact. Furthermore 91.6% of visitors admit to having cleaned their hands before and after touching the patient.

Cleaning and the Healthcare Environment

Keeping the healthcare environment clean is essential to prevent the spread of infections. NHS Boards monitor the cleanliness of hospitals and there is a national target to maintain compliance with standards above 90%. The cleaning compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national cleanliness compliance monitoring can be found at:

<http://www.hfs.scot.nhs.uk/online-services/publications/hai/>

Healthcare environment standards are also independently inspected by the Healthcare Environment Inspectorate. More details can be found at:

<http://www.nhshealthquality.org/nhsqis/6710.140.1366.html>

The Healthcare Environment Inspectorate (HEI) undertook an announced visit to the WGH on 12th & 13th April 2010. The areas audited included:

- Acute receiving unit/medical receiving unit
- Nurse led urology unit
- Outpatients department
- Ward 2 (clinical oncology)
- Ward 20 (ITU)
- Ward 22 (General Surgery)
- Ward 26 (General medicine)
- Ward 33 (Clinical neurosciences)
- Ward 54 (Respiratory/cardiothoracic)
- Ward 57 (Urology)

In their report the inspection team report the found evidence that NHS Lothian is complying with the majority of HAI standards to protect patients, staff and visitors from the risk of acquiring an infection. In particular

- The overall standard of cleanliness of wards and departments was of a satisfactory standard.
- The hospital was generally well maintained and in a good state of repair given the age of many parts of the premises.
- Hospital staff attend regular update training on the topic of infection control, and
- Members of the public are strongly involved in cleanliness and hand hygiene monitoring.

However, they did note further improvement is required in the following areas:

- Although the overall standard of cleanliness was satisfactory, the recording of carrying out cleaning tasks was poor.
- It was observed in Ward 2 that beds were placed too close together.
- In the medical receiving unit, cubicle areas without doors were being used to isolate some patients with known infections, and
- Porter staff were observed handling waste, but not wearing the required protective clothing.

The next announced visit to NHS Lothian will be at St Johns Hospital on 18th and 19th August.

Outbreaks

Norovirus

We continue to see incidences of Norovirus in NHS Lothian, during May-June 2010 there have been 22 incidences of Norovirus (6 community based). In total 139 patients and 35 staff were affected. The majority of the staff presented in a community outbreak.

Other HAI Activity

Education

There are a number of the infection control team members attending the NHS QIS iiiP Programme improvement sessions.

The Mandatory Update Programme continues, with infection control providing 12 sessions per week. It is planned to have a review of the whole mandatory programme at the end of September.

Antimicrobial Management Team

Production and implementation of prescribing policies/guidelines

The UHD Empiric Antibiotic Prescribing Guidelines (full and abbreviated versions) are sited on the AMT intranet page; access is possible from the intranet home page. They are widely publicised with credit card sized aide memoires, posters, Lothian Prescribing Bulletin (LPB) and Medical Director endorsement. The Lothian Joint Formulary (LJF) Infection chapter is under review to align it with UHD choices of antibiotics for treatment of infection. All surgical specialties are now compliant with SIGN 104- Guidelines for Surgical Prophylaxis, and have prophylaxis prescribing policies in place, as detailed on the intranet.

Prescribing indicators (PIs)

- Empirical antibiotic prescribing indicators (appendix2) - data collection has been performed by pharmacists in patient receiving units at St John's Hospital (SJH), the Western General Hospital (WGH) and the Royal Infirmary Edinburgh (RIE) since January 2010. Audit data for performance against the PIs has been supplied to the relevant clinical leads for review and discussion with their teams. This data is now also available on the intranet and has been entered into the Institute of Healthcare Improvement (IHI) extranet site so that national comparison can be made by the Scottish Antimicrobial Prescribing Group (SAPG). The results to date are shown in Appendix 2. The responsibility for collection of this prescribing data now needs to be assumed by clinical teams in admission areas of the RIE, WGH and SJH and systems require to be embedded in practice.
- Surgical prophylaxis prescribing indicators – data from Surgical Site Infection (SSI) surveillance for obstetric and orthopaedic surgery and SPSP peri-operative data for colorectal, vascular and cardiothoracic surgery has been entered into the IHI extranet site since April 2010. Audit data for performance against the PIs has been supplied to the lead surgeons of these specialties for review and discussion with their teams, it is also displayed on the intranet.
- Primary care prescribing indicators: NHS Lothian continues to monitor and report prescribing of antimicrobials in Primary Care with three existing antibiotic prescribing indicators: Total antibiotics; Co-amoxiclav; Quinolones (measured as items/100 patients/annum). Additionally there is the National prescribing indicator for primary care (seasonal variation in prescribing of quinolones – target being <5%) For 2009/2010 NHS Lothian has achieved a 4% reduction in the seasonal variation in quinolone prescribing from 08/09 figures demonstrating a rate of 4%.

Education

The AMT has delivered education programmes to non-medical prescribers on prudent antibiotic prescribing and is participating in the mandatory induction training programme for junior clinicians. Records of all training activities performed by the AMT have been established. These records include ongoing participation in antimicrobial prescribing education and induction programmes. The review of antimicrobial prescribing for non-medical prescribers at undergraduate level is currently being undertaken.

Scottish Patient Safety Programme (SPSP)

SAB reductions are being targeted through the 'Model for Improvement' and local ownership of compliance with 3 care bundles in particular:

- Central Venous Cannula (CVC) insertion
- Central Venous Cannula (CVC) maintenance bundle, and latterly
- Peripheral Vascular Cannula (PVC) bundle compliance.

Central Line Blood Stream Infection at WGH ITU passed the target '300 days since last infection' in late June, which is a goal met in SPSP terms.

Work is ongoing with Theatres to ensure increased compliance with the CVC insertion bundle, through use of visual reminders of stickers or working towards having the documentation of the care bundle embedded in next revision of their standard documentation.

The CDI toolkit is being implemented and monitored across increasing numbers of clinical areas.

There has been national work with HPS in coordinating the Hand Hygiene audits for compliance with opportunities taken and technique used - NHS Lothian already incorporates the majority of these aspects in its audit tool.

MRSA National Screening Programme

The roll-out of the MRSA Screening Programme has been completed in all in scope areas and progress has been made within all remits of the project. The remit covers all elective admissions within Lothian and emergency admissions to the four key areas: Dermatology, Renal, Vascular and Medicine of the Elderly.

NHS Board

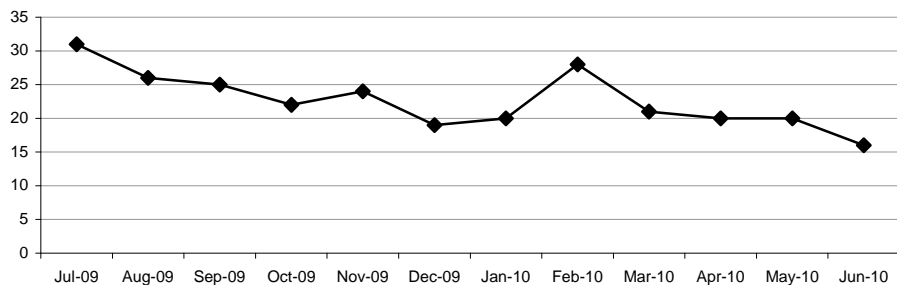
SAB: Twenty five episodes (9 MRSA and 16 MSSA) recorded in June 2010, a decrease of 1 compared to May 2010.

CDI: Forty four episodes recorded in June 2010, a decrease of 3 compared to May 2010.

SAB HEAT Target: NHS Lothian's target by March 2011 is 254 episodes, 49% reduction from the base line figure of 498 (2005/06). To date (June 2010) the actual figure recorded is 75 episodes.

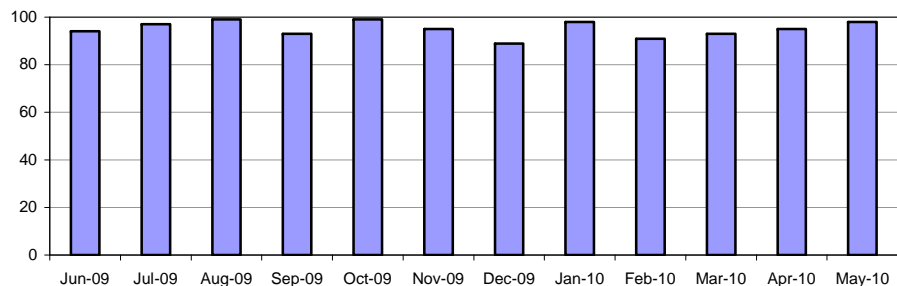
CDI HEAT Target: NHS Lothian's target by March 2011 is 557 episodes for patients 65 and over, 50% reduction from the base line figure of 1114 (2007/08). To date (June 2010) the actual figure recorded is 102 episodes.

MSSA Bacteraemia Cases



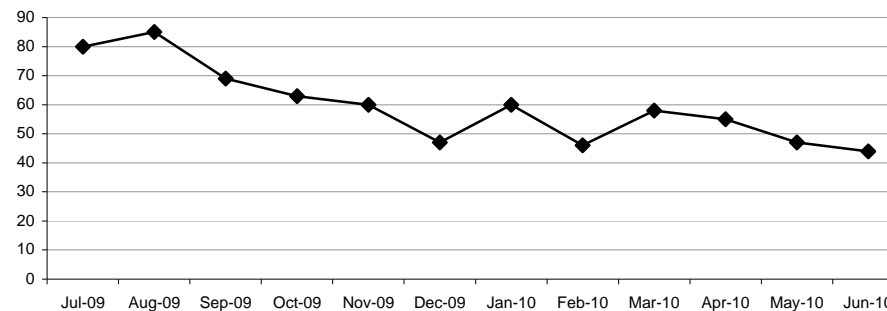
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
31	26	25	22	24	19	20	28	21	20	20	16

Hand Hygiene Compliance



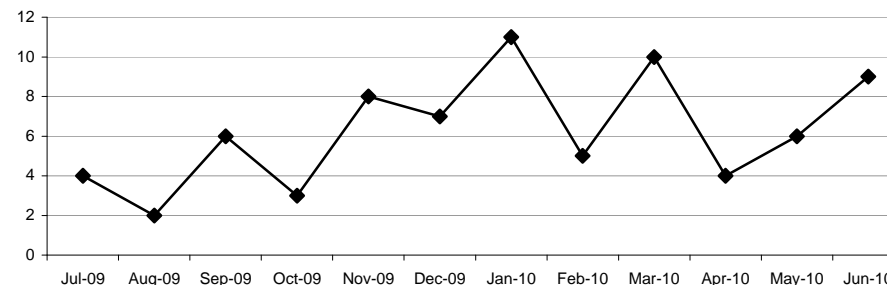
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
94	97	99	93	99	95	89	98	91	93	95	98

Clostridium difficile Infection Cases



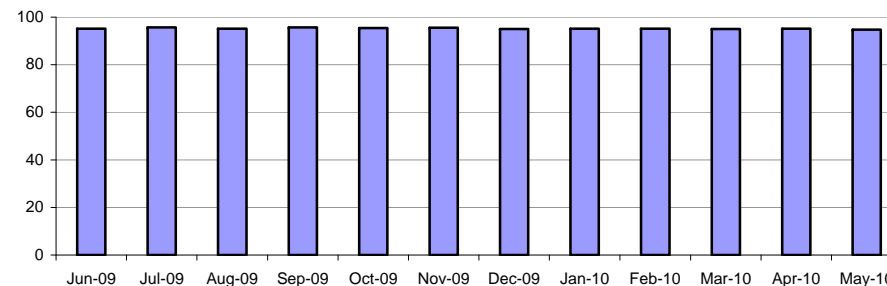
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
80	85	69	63	60	47	60	46	58	55	47	44

MRSA Bacteraemia Cases



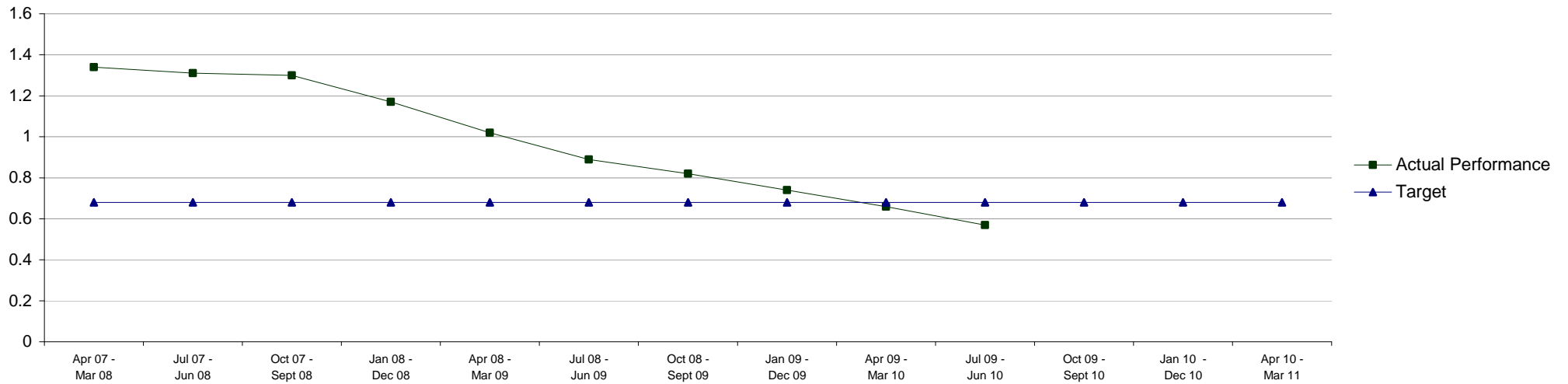
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
4	2	6	3	8	7	11	5	10	4	6	9

Cleaning Compliance



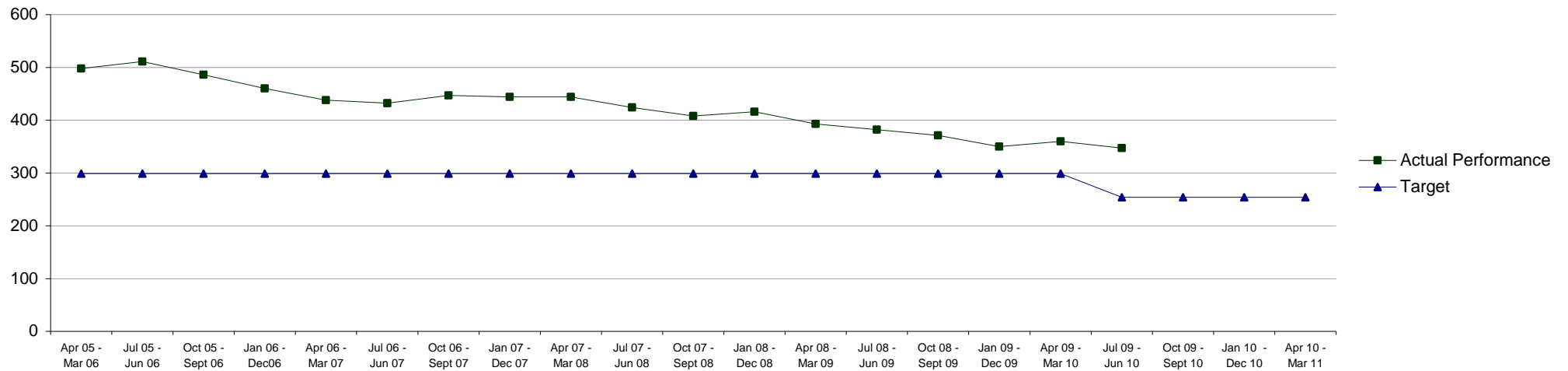
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
95	96	95	96	95	96	95	95	95	95	95	95

Quarterly rolling year Clostridium difficile Infection Cases in patients aged 65 and over per 1000 total occupied bed days for HEAT Target



	Apr 07 - Mar 08	Jul 07 - Jun 08	Oct 07 - Sept 08	Jan 08 - Dec 08	Apr 08 - Mar 09	Jul 08 - Jun 09	Oct 08 - Sept 09	Jan 09 - Dec 09	Apr 09 - Mar 10	Jul 09 - Jun 10	Oct 09 - Sept 10	Jan 10 - Dec 10	Apr 10 - Mar 11
Actual Performance	1.34	1.31	1.30	1.17	1.02	0.89	0.82	0.74	0.66	0.57			
Target	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68

Quarterly rolling year Staphylococcus aureus bacteraemia Cases for HEAT Target



	Apr 05 - Mar 06	Jul 05 - Jun 06	Oct 05 - Sept 06	Jan 06 - Dec 06	Apr 06 - Mar 07	Jul 06 - Jun 07	Oct 06 - Sept 07	Jan 07 - Dec 07	Apr 07 - Mar 08	Jul 07 - Jun 08	Oct 07 - Sept 08	Jan 08 - Dec 08	Apr 08 - Mar 09	Jul 08 - Jun 09	Oct 08 - Sept 09	Jan 09 - Dec 09	Apr 09 - Mar 10	Jul 09 - Jun 10	Oct 09 - Sept 10	Jan 10 - Dec 10	Apr 10 - Mar 11
Actual Performance	498	511	486	460	438	432	447	444	444	424	408	416	393	382	371	350	360	347			
Target	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	254	254	254	254

Healthcare Associated Infection Reporting Template (HAIRT)

Section 2 – Healthcare Associated Infection Report Cards

The following section is a series of 'Report Cards' that provide information, for each acute hospital [and key community hospitals – *delete if appropriate*] in the Board, on the number of cases of *Staphylococcus aureus* blood stream infections (also broken down into MSSA and MRSA) and *Clostridium difficile* infections, as well as hand hygiene and cleaning compliance. In addition, there is a single report card which covers all community hospitals [which do not have individual cards], and a report which covers infections identified as having been contracted from outwith hospital. The information in the report cards is provisional local data, and may differ from the national surveillance reports carried out by Health Protection Scotland and Health Facilities Scotland. The national reports are official statistics which undergo rigorous validation, which means final national figures may differ from those reported here. However, these reports aim to provide more detailed and up to date information on HAI activities at local level than is possible to provide through the national statistics.

Understanding the Report Cards – Infection Case Numbers

Clostridium difficile infections (CDI) and *Staphylococcus aureus* bacteraemia (SAB) cases are presented for each hospital, broken down by month. *Staphylococcus aureus* bacteraemia (SAB) cases are further broken down into Meticillin Sensitive *Staphylococcus aureus* (MSSA) and Meticillin Resistant *Staphylococcus aureus* (MRSA). Data are presented as both a graph and a table giving case numbers. More information on these organisms can be found on the NHS24 website:

Clostridium difficile : http://www.nhs24.com/content/default.asp?page=s5_4&articleID=2139§ionID=1

Staphylococcus aureus : http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346

MRSA: http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252§ionID=1

For each hospital the total number of cases for each month are those which have been reported as positive from a laboratory report on samples taken more than 48 hours after admission. For the purposes of these reports, positive samples taken from patients within 48 hours of admission will be considered to be confirmation that the infection was contracted prior to hospital admission and will be shown in the "out of hospital" report card.

Understanding the Report Cards – Hand Hygiene Compliance

Good hand hygiene is crucial for infection prevention and control. More information can be found from the Health Protection Scotland's national hand hygiene campaign website:

<http://www.washyourhandsofthem.com/>

Hospitals carry out regular audits of how well their staff are complying with hand hygiene. The first page of each hospital report card presents the percentage of hand hygiene compliance for all staff in both graph and table form.

Understanding the Report Cards – Cleaning Compliance

Hospitals strive to keep the care environment as clean as possible. This is monitored through cleaning compliance audits. More information on how hospitals carry out these audits can be found on the Health Facilities Scotland website:

<http://www.hfs.scot.nhs.uk/online-services/publications/hai/>

The first page of each hospital Report Card gives the hospitals cleaning compliance percentage in both graph and table form.

Understanding the Report Cards – 'Out of Hospital Infections'

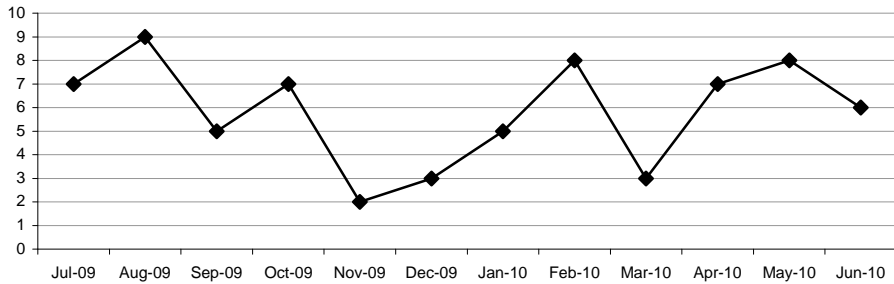
Clostridium difficile infections and *Staphylococcus aureus* (including MRSA) bacteraemia cases are all associated with being treated in hospitals. However, this is not the only place a patient may contract an infection. This total will also include infection from community sources such as GP surgeries and care homes. The final Report Card report in this section covers 'Out of Hospital Infections' and reports on SAB and CDI cases reported to a Health Board which are not attributable to a hospital. Given the complex variety of sources for these infections it is not possible to break this data down in any more detail.

RIE

SAB: There were 9 episodes (>48 h after admission) recorded during June 2010 (3 MRSA and 6 MSSA) which is the same as May 2010 figures.

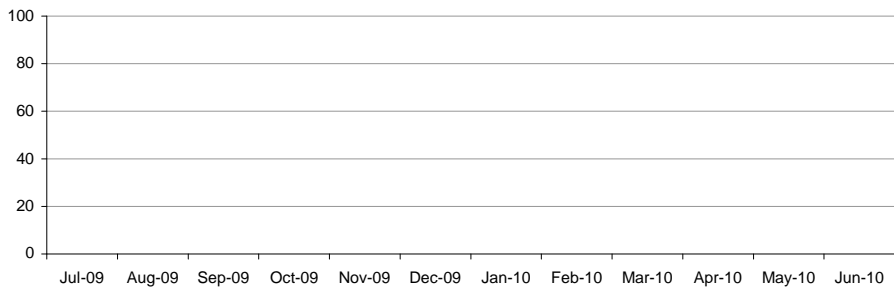
CDI: During June 2010 there were 8 episodes of *C. difficile* Infection recorded, which is a decrease of 13 compared to May 2010.

MSSA Bacteraemia Cases



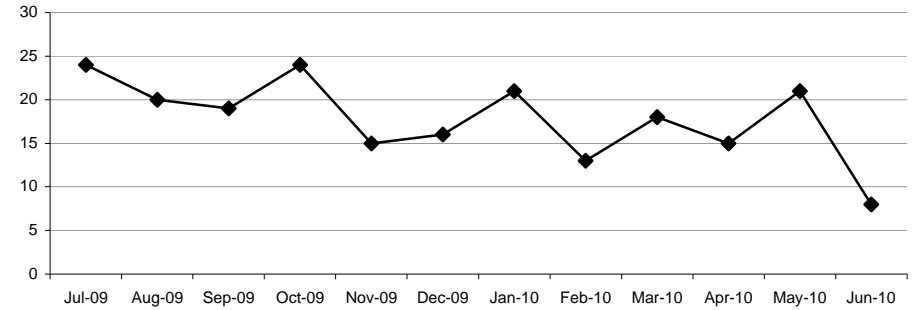
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
7	9	5	7	2	3	5	8	3	7	8	6

Hand Hygiene Compliance



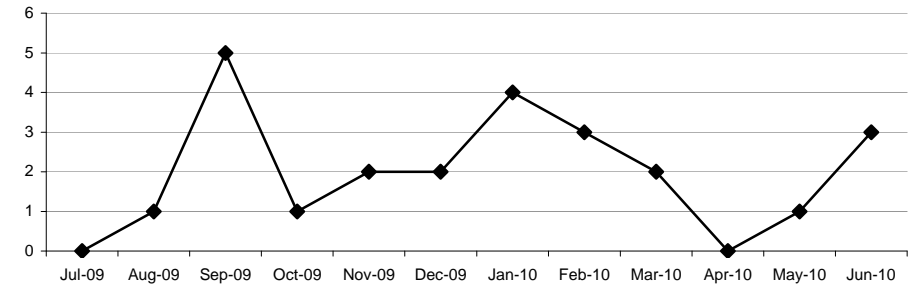
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Clostridium difficile Infection Cases



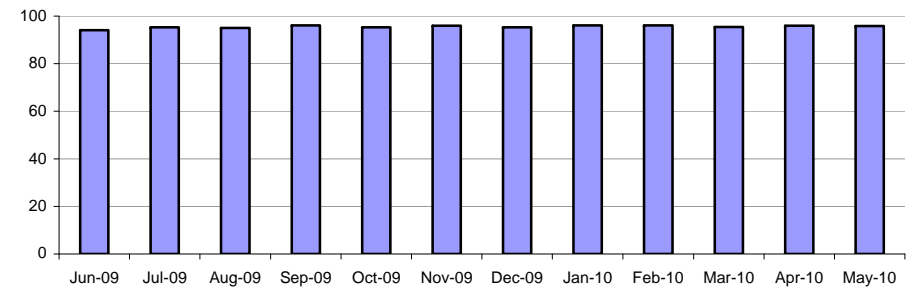
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
24	20	19	24	15	16	21	13	18	15	21	8

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	1	5	1	2	2	4	3	2	0	1	3

Cleaning Compliance



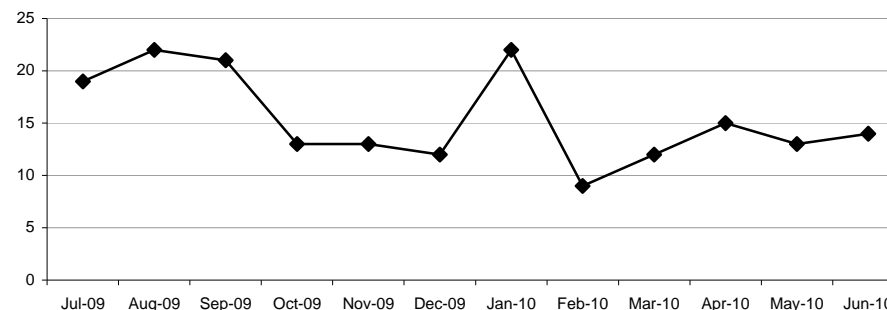
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
94	95	95	96	95	96	95	96	96	95	96	96

WGH

SAB: There was 1 episode (>48 h after admission) recorded during June 2010 (1 MRSA and 0 MSSA) which is a decrease of 4 compared to May 2010 figures.

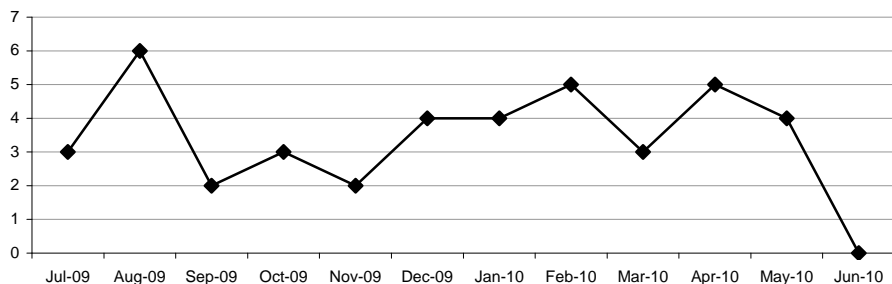
CDI: During June 2010 there were 14 episodes of *C. difficile* Infection recorded, which is an increase of 1 compared to May 2010.

Clostridium difficile Infection Cases



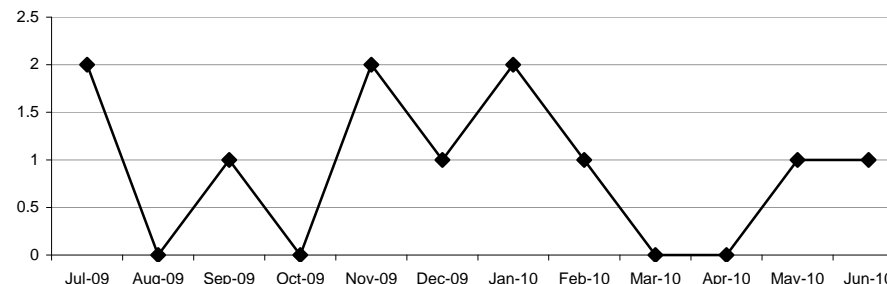
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
19	22	21	13	13	12	22	9	12	15	13	14

MSSA Bacteraemia Cases



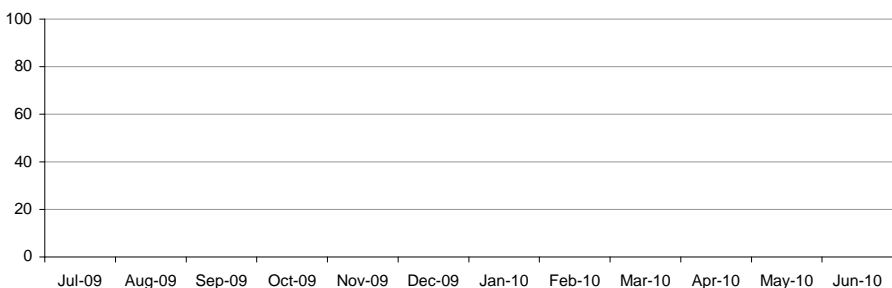
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
3	6	2	3	2	4	4	5	3	5	4	0

MRSA Bacteraemia Cases



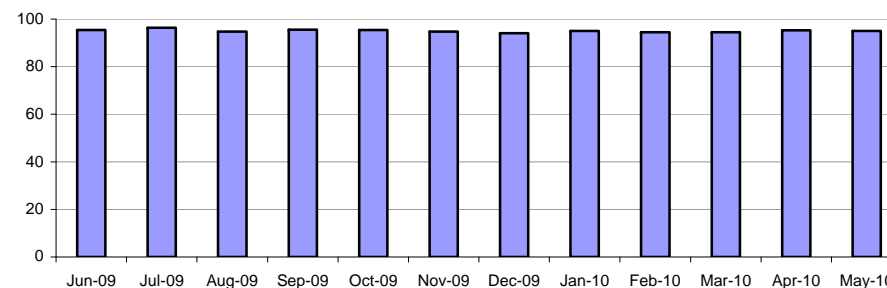
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
2	0	1	0	2	1	2	1	0	0	1	1

Hand Hygiene Compliance



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Cleaning Compliance



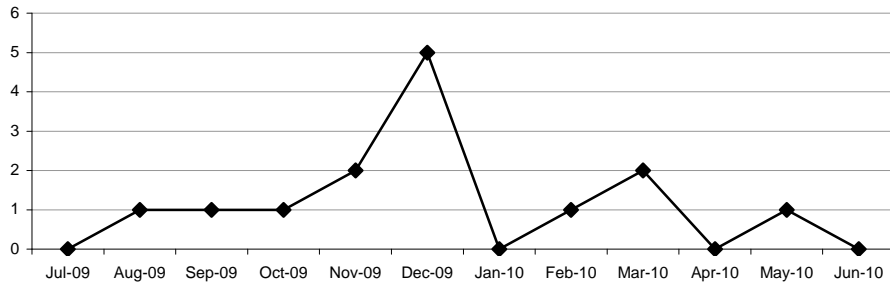
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
95	96	95	96	95	95	94	95	94	94	95	95

SJH

SAB: There was 1 episode (>48 h after admission) recorded during June 2010 (1 MRSA and 0 MSSA) which is a decrease of 1 compared with May 2010 figures.

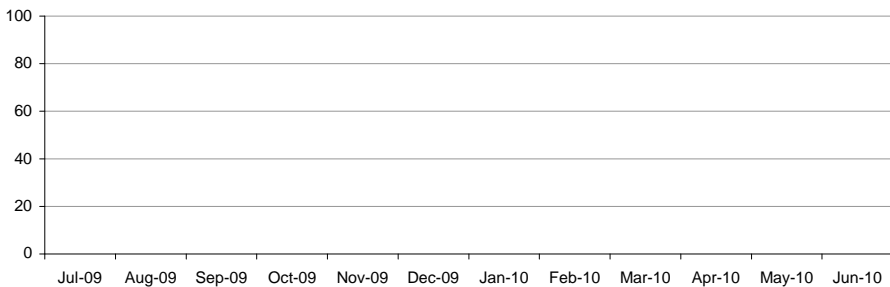
CDI: During June 2010 there were 4 episodes of *C. difficile* Infection recorded, which is a decrease of 2 compared to May 2010.

MSSA Bacteraemia Cases



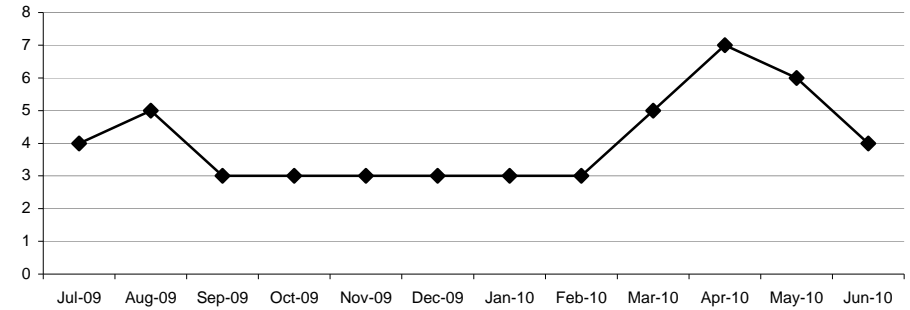
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	1	1	1	2	5	0	1	2	0	1	0

Hand Hygiene Compliance



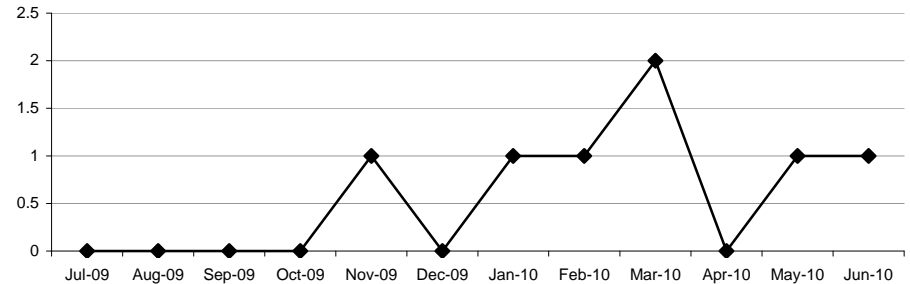
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Clostridium difficile Infection Cases



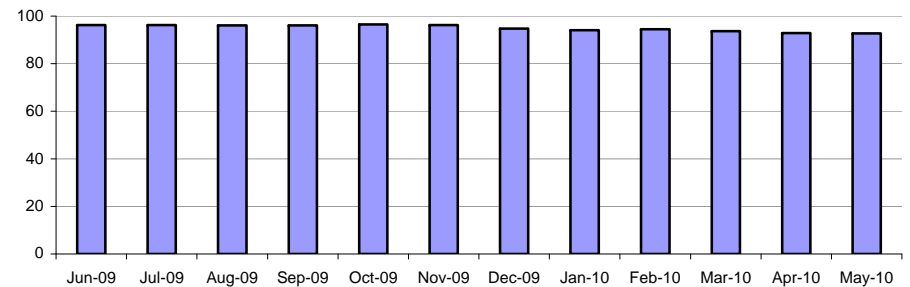
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
4	5	3	3	3	3	3	3	5	7	6	4

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	0	1	0	1	1	2	0	1	1

Cleaning Compliance



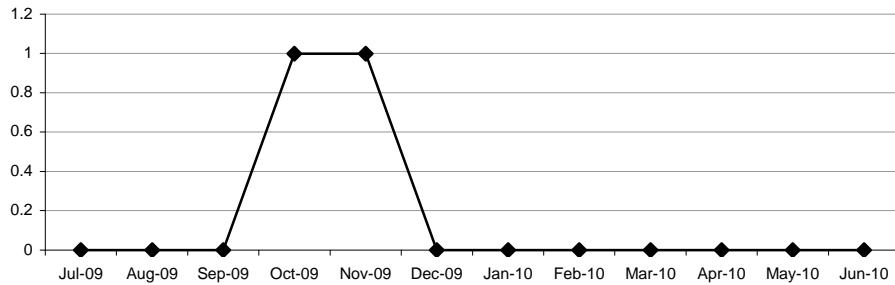
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
96	96	96	96	96	96	95	94	94	94	93	93

Liberton

SAB: There were NO episode (>48 h after admission) recorded during June 2010 (0 MRSA and 0 MSSA) which is a decrease of 1 compared with June 2010 figures.

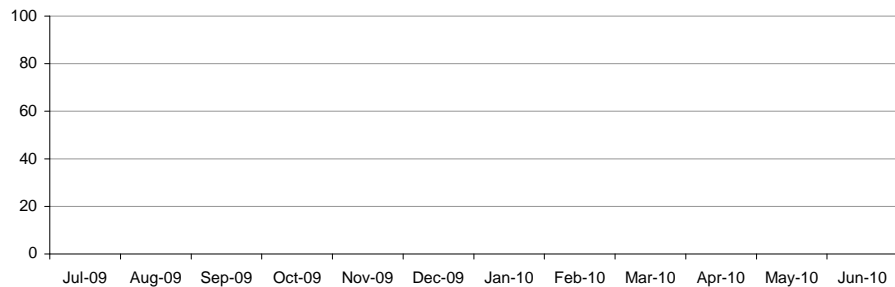
CDI: During June 2010 there were NO episodes of *C. difficile* Infection recorded, which is same as May 2010.

MSSA Bacteraemia Cases



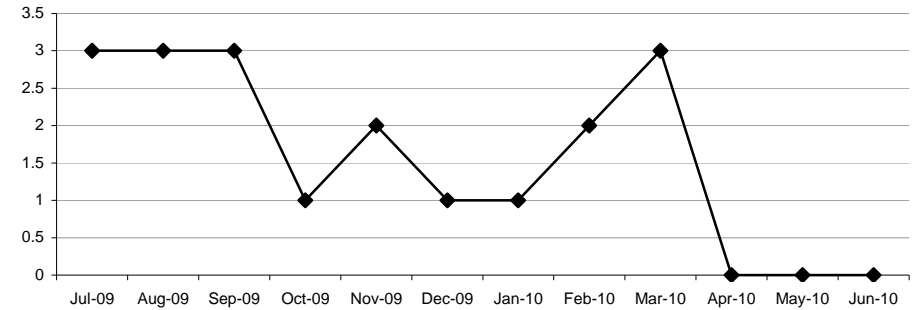
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	1	1	0	0	0	0	0	0	0

Hand Hygiene Compliance



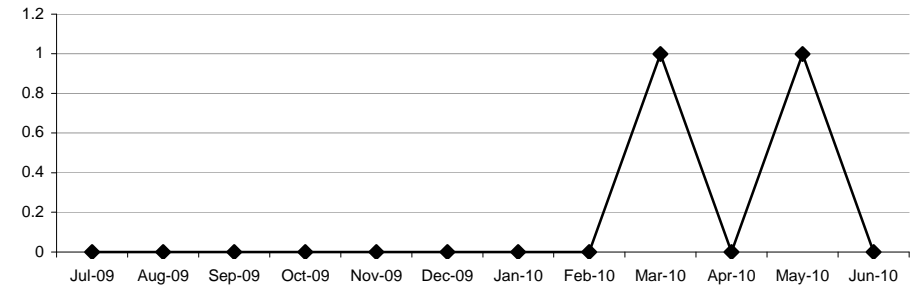
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Clostridium difficile Infection Cases



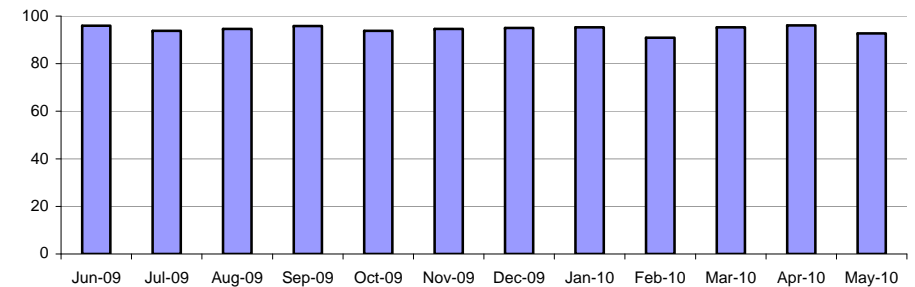
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
3	3	3	1	2	1	1	2	3	0	0	0

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	0	0	0	0	0	1	0	1	0

Cleaning Compliance



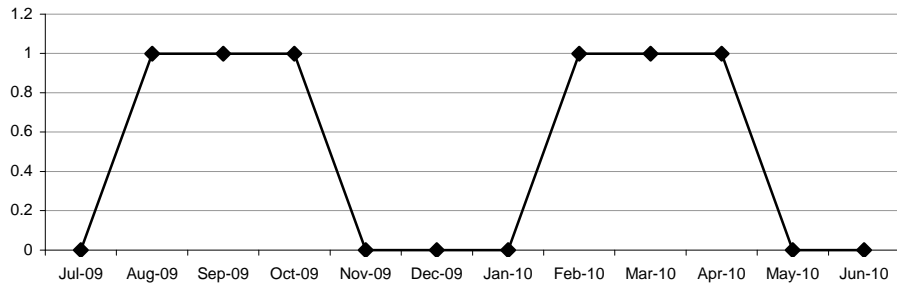
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
96	94	95	96	94	95	95	95	91	95	96	93

RHSC

SAB: There were NO episode (>48 h after admission) recorded during June 2010 (0 MRSA and 0 MSSA) which is the same as May 2010 figure.

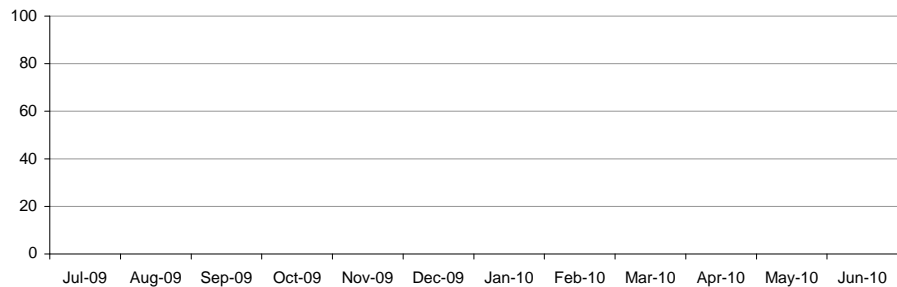
CDI: During June 2010 there was 1 episode of *C. difficile* Infection recorded, which is the same as May 2010.

MSSA Bacteraemia Cases



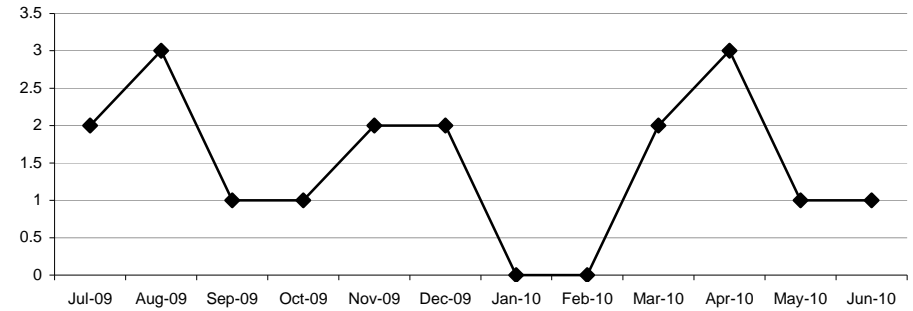
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	1	1	1	0	0	0	1	1	1	0	0

Hand Hygiene Compliance



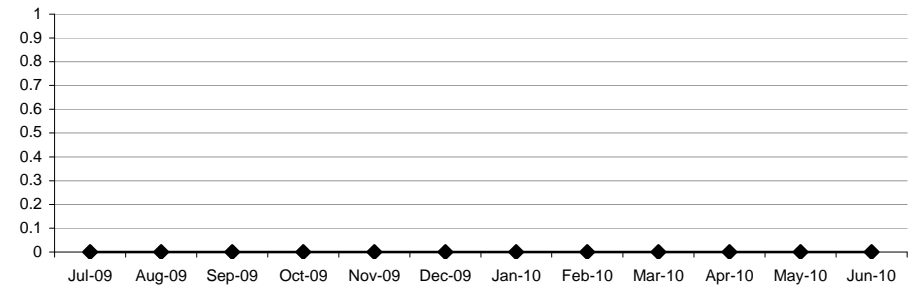
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Clostridium difficile Infection Cases



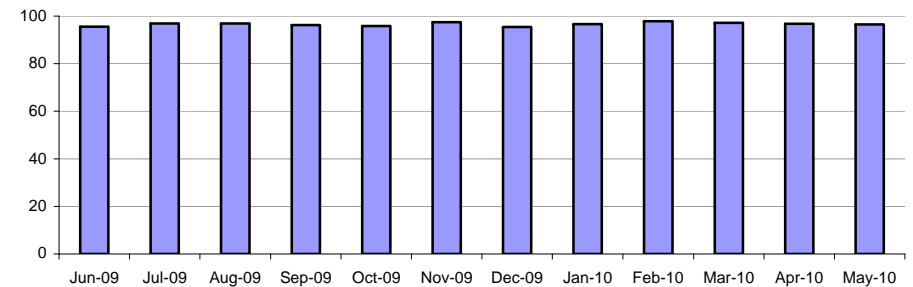
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
2	3	1	1	2	2	0	0	2	3	1	1

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	0	0	0	0	0	0	0	0	0

Cleaning Compliance



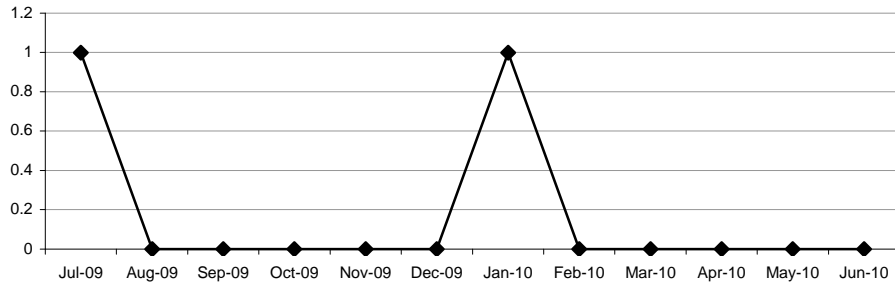
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
96	97	97	96	96	97	95	97	98	97	97	97

RVH

SAB: There was 1 episode (>48 h after admission) recorded during June 2010 which is an increase of 1 compared with May 2010 figure.

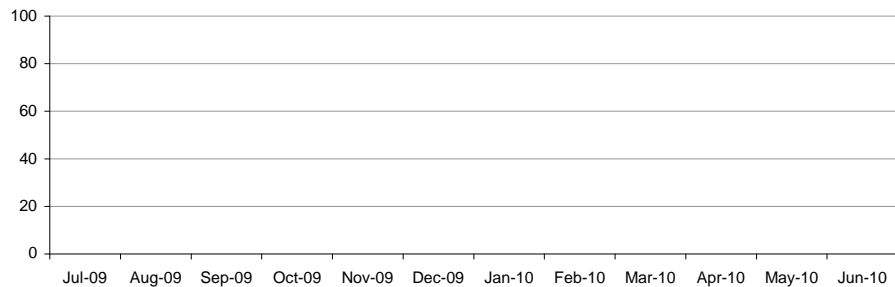
CDI: During June 2010 there were 3 episodes of *C. difficile* Infection recorded, which is an increase of 3 compared to May 2010.

MSSA Bacteraemia Cases



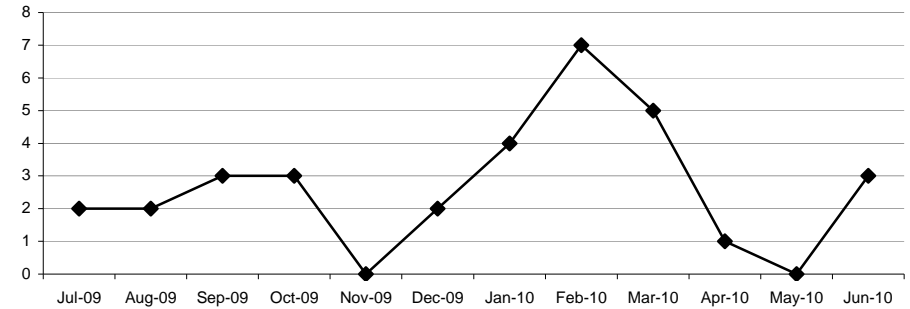
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
1	0	0	0	0	0	1	0	0	0	0	0

Hand Hygiene Compliance



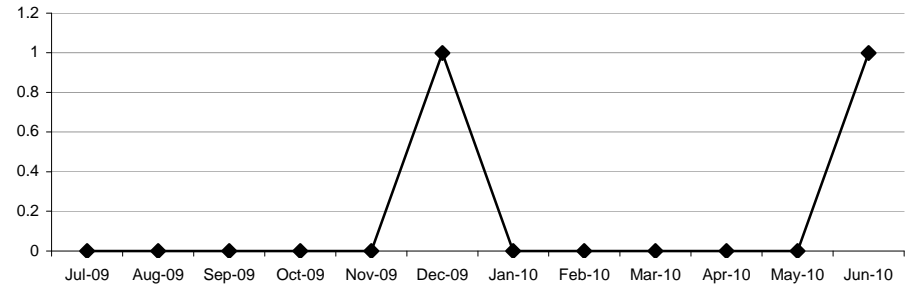
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
na	na	na	na	na	na	na	na	na	na	na	na

Clostridium difficile Infection Cases



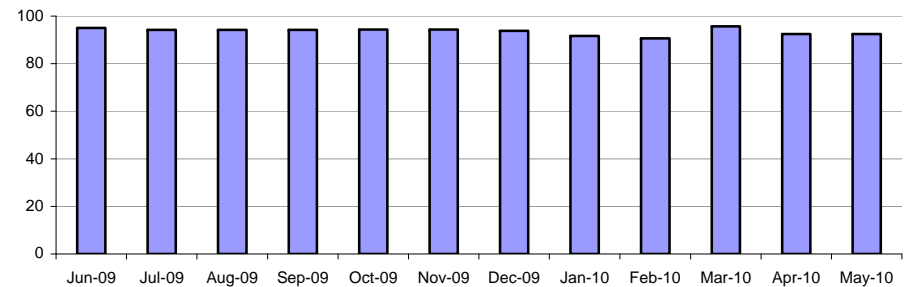
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
2	2	3	3	0	2	4	7	5	1	0	3

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	0	0	1	0	0	0	0	0	1

Cleaning Compliance



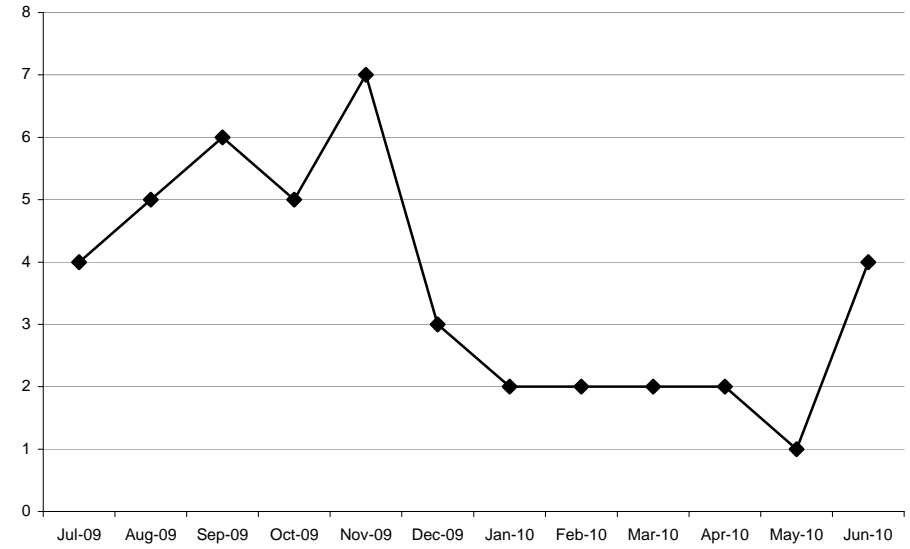
Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10
95	94	94	94	94	94	94	92	91	96	92	92

Community Hospitals

SAB: There were NO episodes (>48 h after admission) recorded during June 2010 (0 MRSA and 0 MSSA) which is a decrease of 1 compared to May 2010 figure.

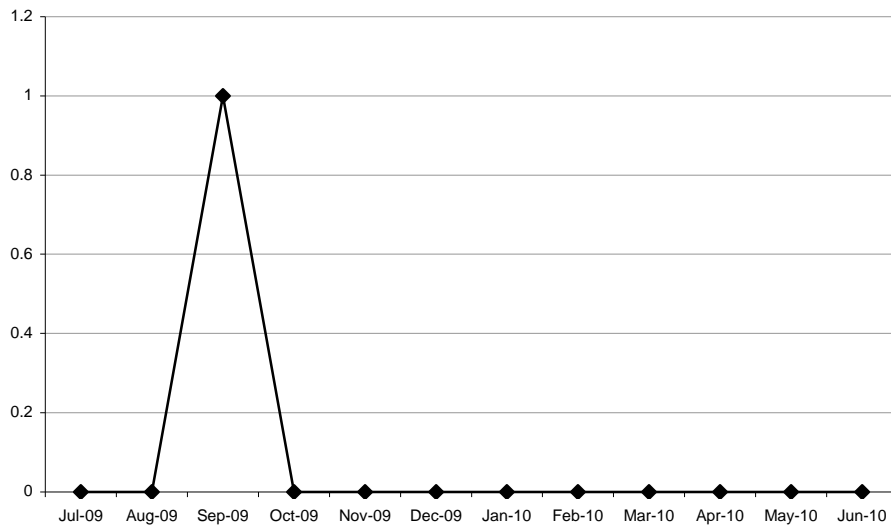
CDI: During June 2010 there were 4 episodes of *C. difficile* Infection recorded, which is an increase of 3 compared to May 2010.

Clostridium difficile Infection Cases



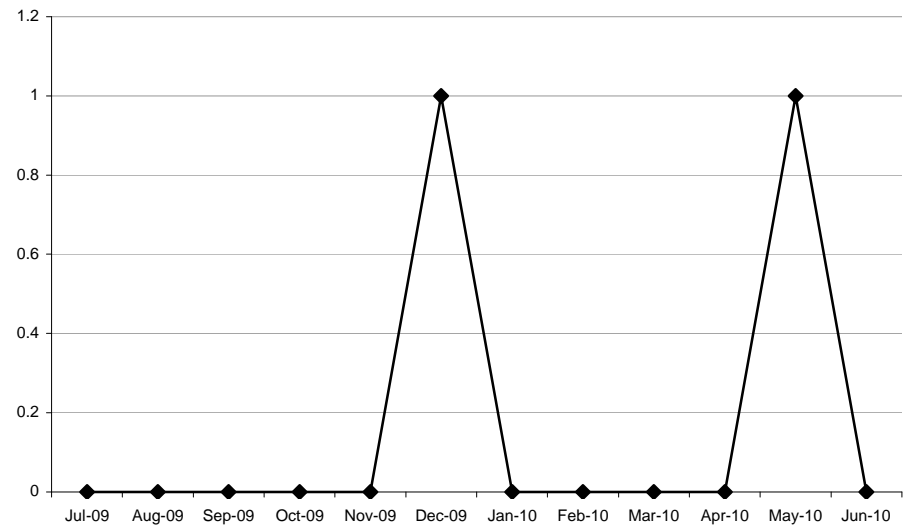
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
4	5	6	5	7	3	2	2	2	2	1	4

MSSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	1	0	0	0	0	0	0	0	0	0

MRSA Bacteraemia Cases



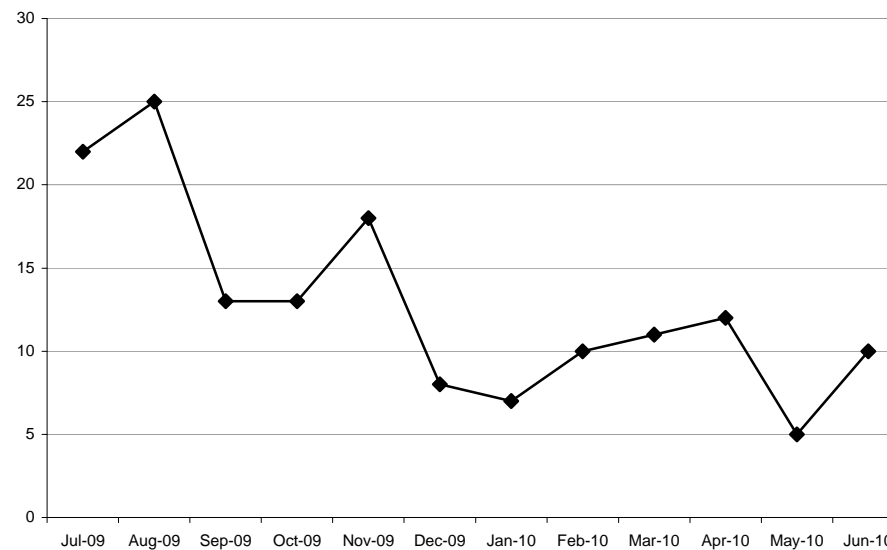
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
0	0	0	0	0	1	0	0	0	0	1	0

Out of Hospital Infections

SAB: There were 13 episodes (<48 h of admission) recorded during June 2010 (3 MRSA and 10 MSSA) which is an increase of 5 compared with May 2010 figures.

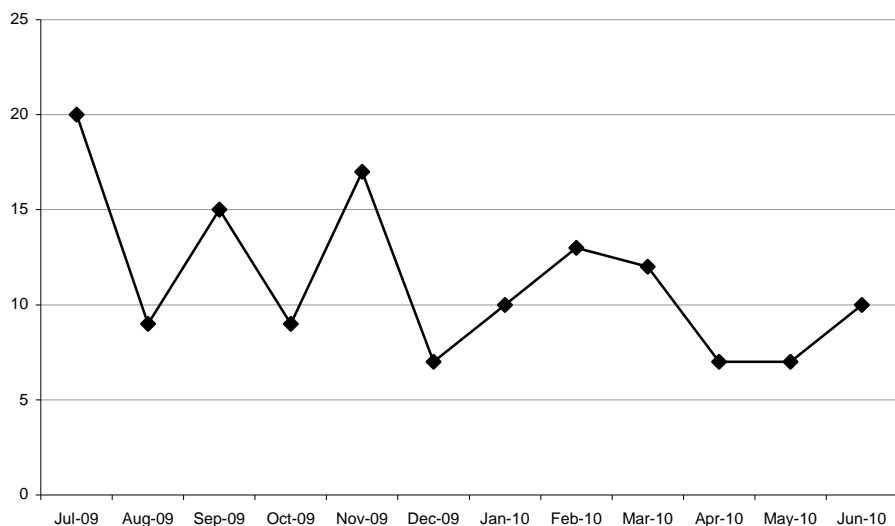
CDI: During June 2010 there were 10 episodes recorded from GP samples, which is an increase of 5 compared to May 2010. Data on samples collected >48 hours is not available.

Clostridium difficile Infection Cases



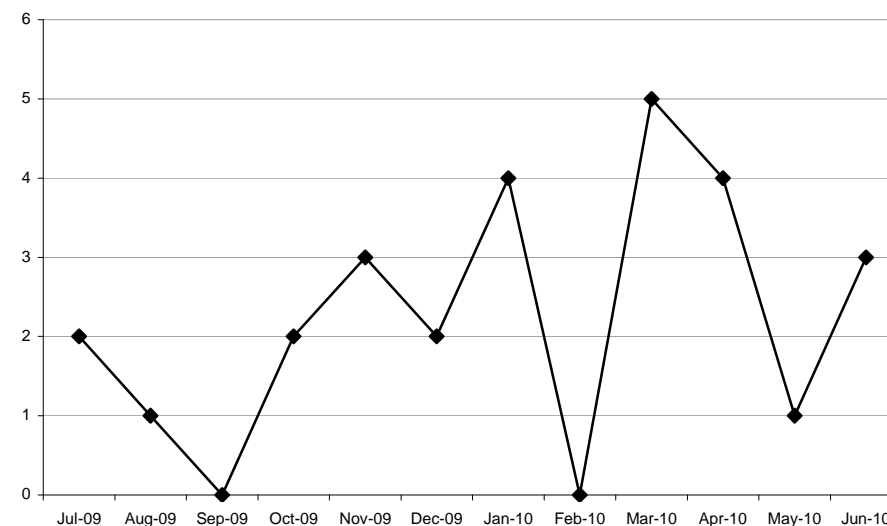
Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
22	25	13	13	18	8	7	10	11	12	5	10

MSSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
20	9	15	9	17	7	10	13	12	7	7	10

MRSA Bacteraemia Cases



Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
2	1	0	2	3	2	4	0	5	4	1	3