UNIVERSITY HOSPITALS BRISTOL NHS FOUNDATION TRUST

INFECTION CONTROL ANNUAL REPORT 2008 – 2009

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1. Executive Summary

During the year infection control and prevention activity in the Trust was given, as in previous years, absolute priority. Intensified actions to reduce *Clostridium difficile* were successful in reducing the number of patients acquiring the infection. A reduction in the cases of hospital associated MRSA blood stream infection was also achieved.

From November 2008 to February 2009 the Trust experienced a prolonged outbreak of Norovirus. This reflected the national position and problems, however, key differences to previous years' outbreaks were noted which contributed to the extended transmissions and ward closures.

The Trust received a favourable report following the Health Care Commissions unannounced inspection against the hygiene code for 2008/9.

2. Board Commitment

The successful management, prevention and control of infection is recognised by the University Hospitals Bristol NHS Foundation Trust as a key factor in the quality and safety of the care of our patients and in the safety and well being of our staff and visitors.

The Trust Board has collective responsibility for the prevention and control of infection in order to minimise, and where possible, eradicate the risks of infection. The Trust Board receives assurance that the Trust has mechanisms in place for this through the monthly Infection Control Board Report, the monthly Performance Report, the quarterly report on the Assurance Framework (Core Healthcare Standards 4a, 4c and 21). The mechanisms which feed into the provision of this assurance are the quarterly Governance and Risk Management Committee, the quarterly Audit and Assurance Committee, and the Infection Control Committee.

The Director of Infection Control and Prevention attends Board meetings where necessary to make presentations and / or be available for questions. The Director reports on a regular basis directly to the Chief Executive and on a daily basis to the Chief Nurse.

The Infection Control Committee is chaired by the Chief Nurse who is a member of the Trust Board. The Committee produces an annual report for the Board and an annual plan for Board approval.

The Board is committed to the exemplary application of infection control and prevention practice within all areas of the Trust. To this end the Board will ensure that all staff are provided with access to infection control advice from a fully resourced Infection Control Team and Occupational Health Service, access to personal protective equipment, training and policies. Individual and corporate responsibility for infection control will be stipulated, as appropriate, in all job descriptions and contracts of employment with individual annual monitoring through the appraisal systems and personal development plans.

The policies and arrangements outlined above are to encourage, support and foster a culture of clinical divisional responsibility for the control and prevention of infection, with the intention of continually improving the quality and safety of patient care, and ensuring the full confidence of the local population in the quality of care the Trust delivers. The policies and arrangements accord with the aims and objectives of national policy and strategy.

John Savage

Chair

3. Infection Control Arrangements (appendix I)

3a. Infection Control Team

- **Director Infection Prevention and Control.** Christine Perry continued in the role of Director Infection Prevention and Control.

- **Infection Control Doctor.** During 2008 Dr Robert C Spencer resigned from the post of Infection Control Doctor. Although this post was not formally filled at the time, Dr Martin Williams was seconded from the Health Protection Agency to the Trust to support *Clostridium difficile* management. As part of this role Dr Williams also fulfilled the requirements of the Infection Control Doctor role.

- **Infection Control Nurses.** The Infection Control Nurses structure was as below defined in previous years in the budget:

Band 8a **1.0 Whole time equivalent**

Band 7 **3.75 Whole time equivalent**

Band 6 **1.0 Whole time equivalent**

This gives an Infection Control Nurse to bed ratio of 1:173. This ratio is in line with the ratio of 1:189 reported nationally and 1:173 reported regionally.

During the year the team was not up to full establishment due to secondment of one staff member.

- **Antimicrobial Pharmacist.** There is an antimicrobial pharmacist in place who links the Infection Control Committee to the Drugs and Therapeutics Committee. Additional antimicrobial pharmacist time was funded during 2008 but due to recruitment difficulties the additional pharmacists' role in antimicrobial prescribing has only been implemented from February 2009.

- **Clostridium difficile action team.** Two nurses were seconded from the Division of Medicine to support the care and management of *Clostridium difficile* positive patients and to assist in infection reduction activities. Dr Martin Williams was also seconded from the Health Protection Agency for this purpose.

3b. Resources

The Infection Control Doctor role is covered within the Pathology service level agreement with the Health Protection Agency. The nurse staffing budget remains unchanged in the year. The pay budget was overspent in year due to the clinical need for infection control nursing staff to be on site at weekends during times of increased *Clostridium difficile* activity and during outbreaks. The non-pay budget was also overspent but the excess expenditure was offset through income generation from an external service level agreement and teaching activities.

No specific budget remains allocated for outbreak management. However, the explicit acceptance of the costs associated with managing an outbreak and a commitment to meet them accepted by the Trust Executive Group remains in place.

The Heads of Nursing continue with the delegated lead role for infection prevention in their respective Divisions. Medical Consultant staff are also identified in all Divisions to lead on antimicrobial prescribing and to support the Heads of Nursing in implementation of the infection

control programmes in their respective Divisions. All Divisions have an established link practitioner system.

3c. Reporting

The Trust Board has received monthly reports on infection prevention and control.

A direct line of accountability from the Director of Infection Prevention and Control to the Chief Executive is in place. The Director met on a formal basis with the Chief Executive at least quarterly. The Infection Control Committee is responsible for monitoring implementation of the annual programme and the assurance framework for core standards 4a and 4c.

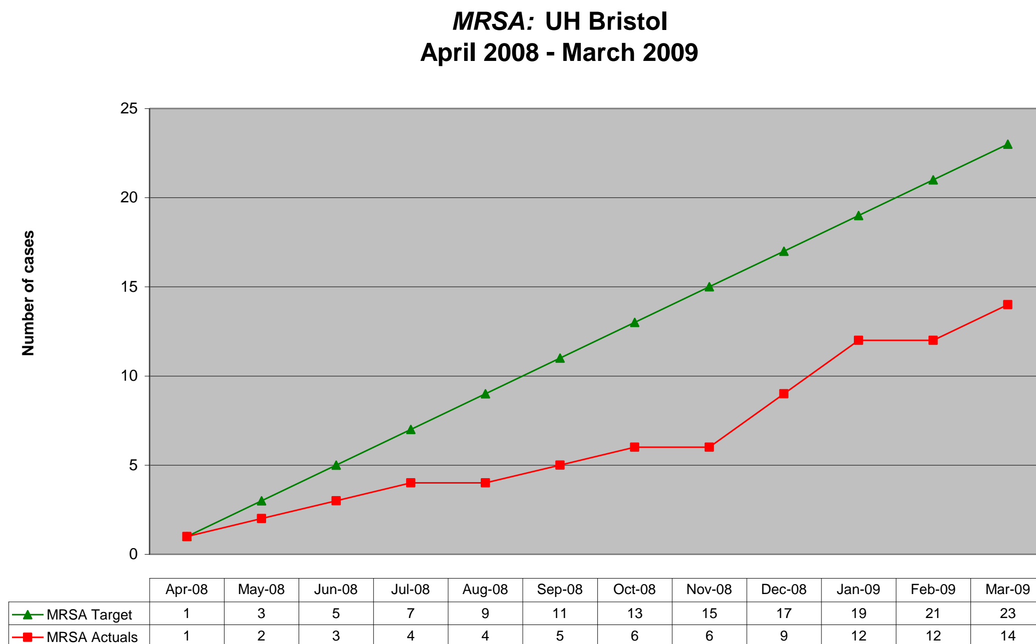
3d. Infection Control Committee

The Committee did not achieve the quarterly meetings required during 2008/9. Three meetings were held during the year. The Chief Nurse and Director of Governance is the Chairman of this Committee. Minutes of the meeting are distributed widely and are posted on the Trust intranet, along with other information such as current terms of reference and membership.

4. Healthcare Associated Infection Statistics

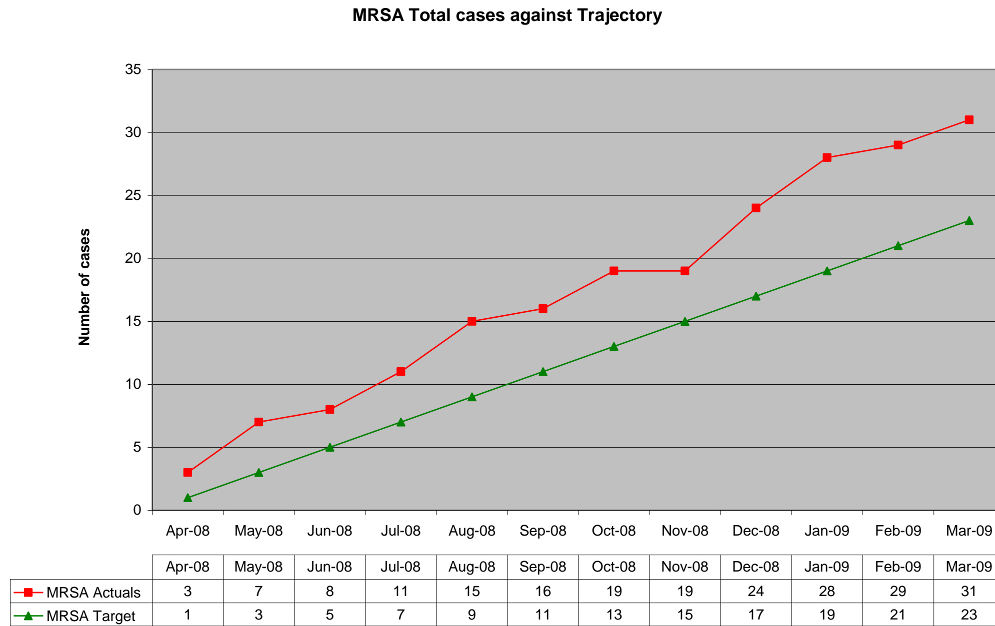
4a. MRSA

Figure 1: Post-48 hour MRSA cases 2008/9



	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09
MRSA Target	1	3	5	7	9	11	13	15	17	19	21	23
MRSA Actuals	1	2	3	4	4	5	6	6	9	12	12	14

Figure 2: Total MRSA cases 2008/9



	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09
MRSA Actuals	3	7	8	11	15	16	19	19	24	28	29	31
MRSA Target	1	3	5	7	9	11	13	15	17	19	21	23

The Trust reported 31 MRSA blood stream infections in 2008/9 compared to 46 cases in 2007/8. Of the 31 cases, 14 were in patients in hospital for longer than two days (post-48 hour) and, therefore, related to the care received within the Trust; this compares to 24 such cases in 2006/7. The reduction target for 2008/9 agreed with NHS Bristol was for 23 post-48 hour cases; this reduction was achieved. This figure of 23 post-48 hour cases was incorrectly submitted by NHS Bristol to the Department of Health as the figure for the total MRSA cases (both pre- and post-48 hour cases). The figure for total cases that should have been submitted is 29 cases. The Trust reported 31 total cases against this figure of 29.

4b. Clostridium difficile

Figure 3: Total *Clostridium difficile* cases 2008/9

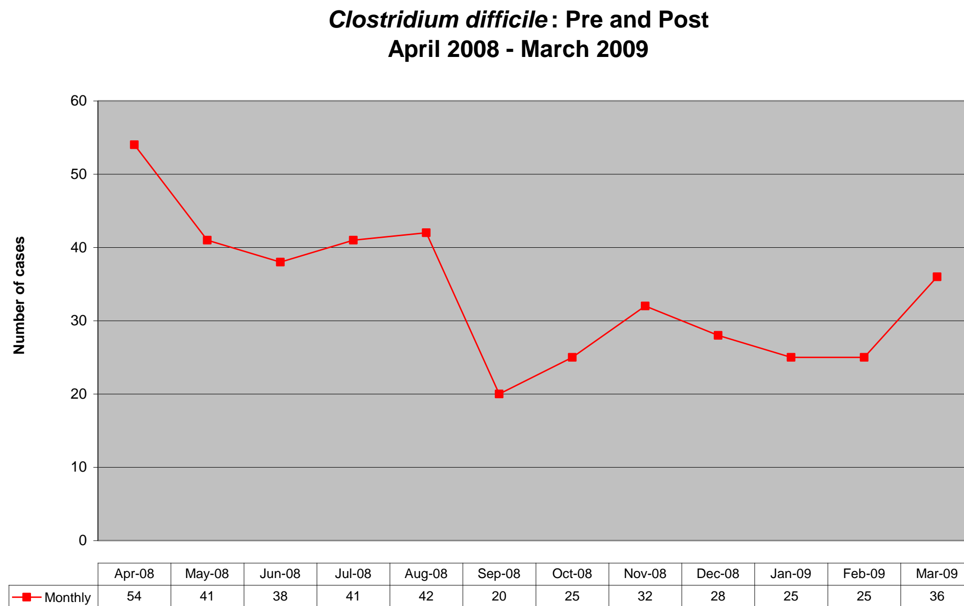
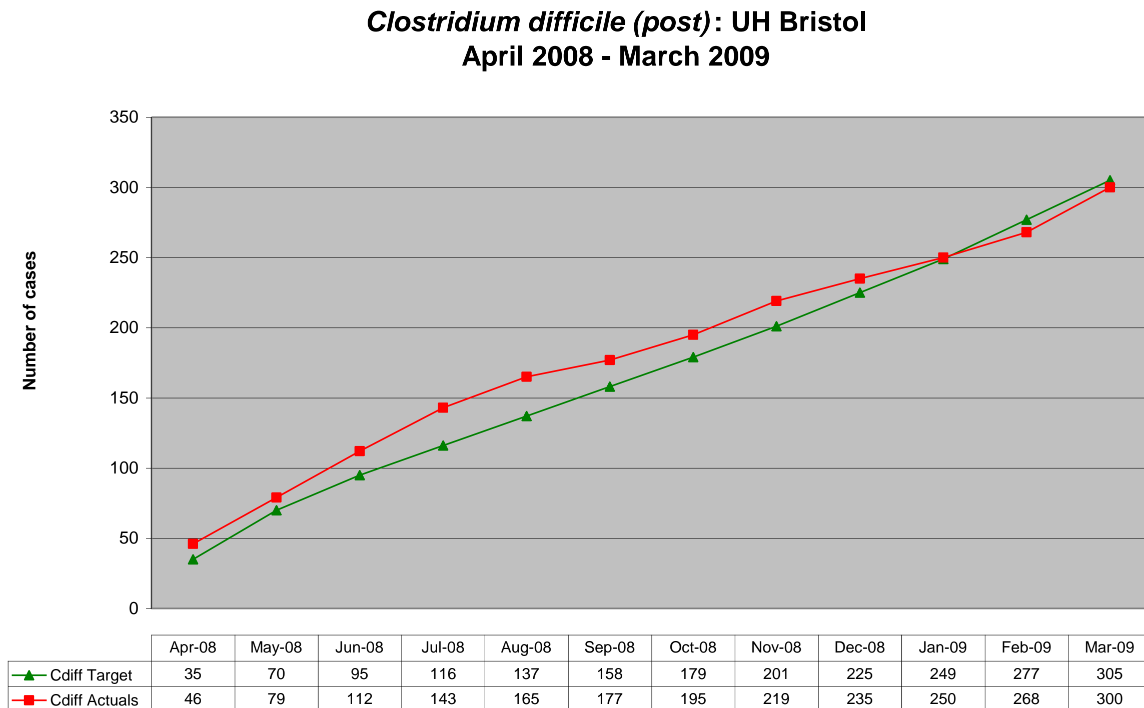


Figure 4: *Clostridium difficile* target cases 2008/9



The Trust reported 428 cases of *Clostridium difficile* infection in patients 2 years and over in 2008/9 compared to 538 in 2007/8. Of the 428 cases, 300 were in patients in hospital for longer than two days and, therefore, related to the care received within the Trust. The Trust achieved the

agreed reduction target of 305 for 2008/9. From April 2007 an additional requirement to report cases of *Clostridium difficile* in the 2-64 years age group was introduced. The Trust reported a total of 153 cases in this age group in 2007/8.

4c. Other

Glycopeptide-resistant *Enterococci*

Bacteraemias due to Glycopeptide-resistant *Enterococci* have also been mandatorily reportable through the Health Protection Agency since October 2003. The Trust bacteraemia numbers for 2008/9 are in figure 5. No further figures have been received or published.

Figure 5: Glycopeptide-resistant *Enterococci* bacteraemia reports

Glycopeptide-resistant *Enterococci* bacteraemia reports as supplied by Health Protection Agency			
April 08- June 08	July 08- September 08	October 08- December 08	June 09-March 09
5	2	4	6

Orthopaedic surgical site infection surveillance
Data collection for the three-month mandatory orthopaedic surgical site infection surveillance (January to March 2009) is still being completed, therefore, results are not available for this report. Surveillance was carried out for all patients undergoing hip hemiarthroplasty (surgery for fractured neck of femur). From April 2009 this surveillance will be performed continuously and results reported in regular Trust Board reports.

4d. Outbreaks

There was an extended outbreak of Norovirus in 2008/09. This reflected the national position and problems, however, key differences to previous years' outbreaks were noted, in particular, an extended length of incubation period and continued excretion of the virus in some patients for an extended time after they had recovered. The information on ward closures and numbers of patients affected is in figure 6.

Figure 6: Ward outbreak and closure details

Ward outbreak closure details April 2008 – March 2009				
Month	**Number of wards/bays closed**	**Number with confirmed Norovirus**	**Total days of ward/bay closures**	**Total number of patients affected**
April	4	0	8	12
May	1	1	14	10
June	0	0	0	0
July	2	1	11	16
August	4	0	18	16
September	4	2	36	31
October	1	1	5	6
November	7	5	68	61
December	13	10	121	109
January	14	11	240	136
February	14	10	102	93
March	6	4	22	33

An internal debrief was conducted and the Director of Infection Prevention and Control will be leading actions during the summer to ensure plans and resources are in place in advance of autumn 2009.

5. Hand Hygiene and Cleanliness

5a. Hand Hygiene

Regular monthly hand hygiene audits continued during 2008/09. These audits monitor all aspects of the hand hygiene policy. Following a Department of Health review, weekly cross check hand hygiene monitoring was introduced in May 2009. These observational checks monitor compliance to hand hygiene at the point of patient contact.

Figure 7: Monthly hand hygiene compliance audits April 2008 – February 2009

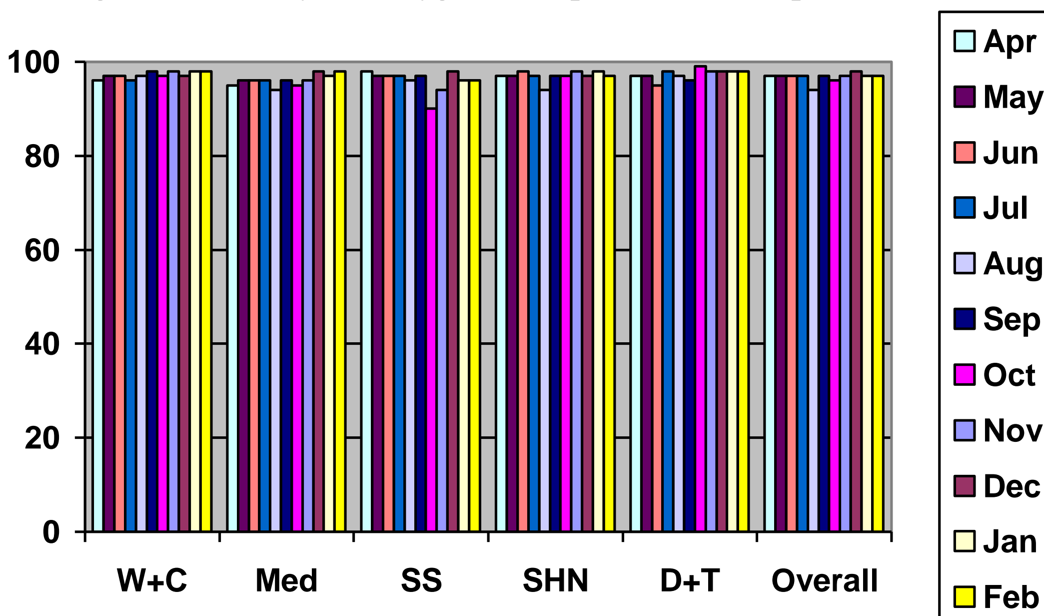
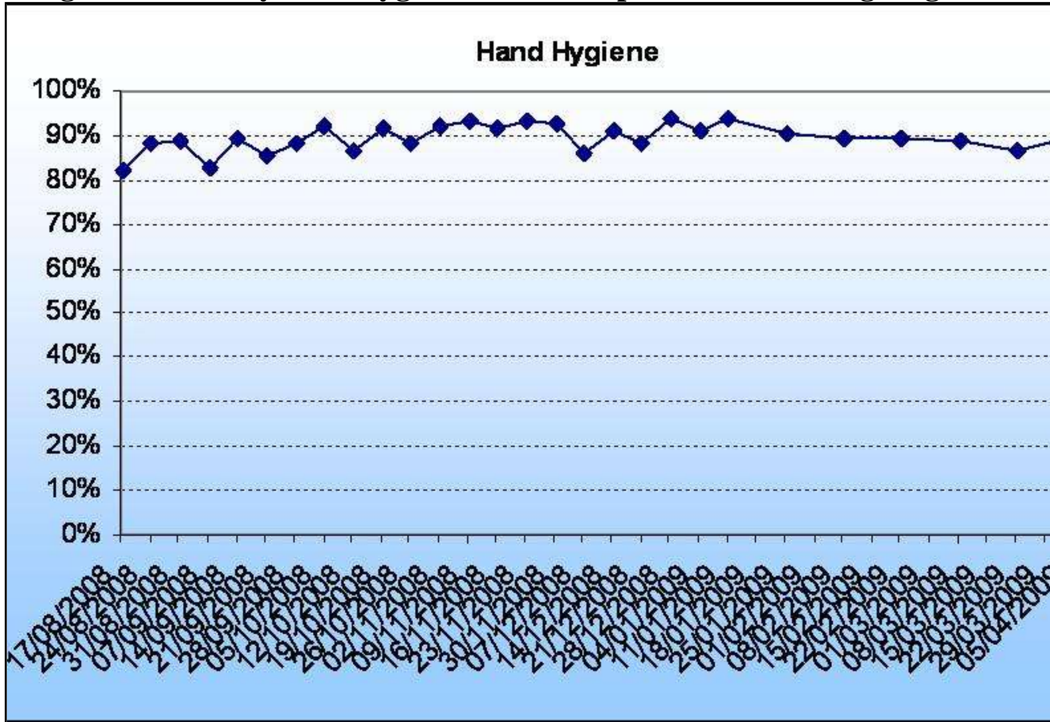


Figure 8: Weekly hand hygiene check compliance monitoring August 2008 – March 2009



5b. Cleanliness

Management

The Facilities department has a clear departmental structure in relation to its cleaning services. Each member of staff has an Agenda for Change moderated job description which explicitly details the role they are expected to perform. Senior Facilities representatives attend the Infection Control Committee and the *Clostridium difficile* Action Team meetings. Appropriate actions are delegated to the facilities team for completion.

Cleaning schedules have been developed in accordance with the NHS Cleaning Manual guidance for each area of the Trust. Cleaning frequencies are clearly spelled out on the schedules and in the Provision of Cleaning Service Level Agreements and are arrived at on the basis of risk. Cleaning schedules are located in public areas of wards and clinical areas so that nursing staff, patients and visitors are aware of the cleaning activities that should be occurring each day.

Cleaning staff are required to deliver the cleaning standards set out in the NHS Healthcare Cleaning Manual. Trust Health Service Assistants are familiarised with the relevant methodologies during induction and on-the-job training. A training programme is in place for Health Service Assistants, and this is administrated by the Training Manager and the date training was provided is recorded. During 2008 the induction programme has been rolled out to long term agency staff and a shorter induction session implemented for all agency staff who attend site for the first time.

During 2008 Toilet and Bathroom cleanliness monitoring forms have been introduced Trust wide at ward level and results reflected in the trust wide Infection Control *Clostridium difficile* Dashboard.

Monitoring and Cleanliness Figures

Independent cleanliness monitoring audits are carried out around the Trust and a summary report tracks the scores received throughout the year. Remedial Action is taken to address areas of poor performance. Regular monitoring reports are produced for all parts of the Trust, with frequencies determined by the risk rating applied to the area. These range from Very High Risk, which is inspected at least once per week, and if scores continually above 90% achieved then inspected once a fortnight. High Risk areas which are programmed to be inspected on a monthly basis with significant and low risk areas taking lower priority with the exception of public toilets and main entrances (significant risk category) being inspected monthly.

The Management Cleanliness Monitoring Sheets are completed independently by the cleanliness auditor. To improve the level of cleanliness auditing undertaken across the Trust Hotel Services Managers and their management and supervisory have been involved in the process during 2008. The scores are fed into a Trust-wide analysis, which builds up a picture of the overall Trust's cleanliness. The Audit Scores spreadsheet is reported to both clinical and facilities management and areas of poor performance are discussed and remedial Action Plans completed. Monthly cleanliness scores and supporting data are issued to Trust Executives, Matrons, Infection Control Nurses and Facilities teams.

Areas that have been identified as having performed poorly against monitoring standards are revisited more promptly than the usual performance monitoring timescales would suggest, i.e. the following day for Very High Risk or the next week for other areas. From September 2008 the traffic light scoring system was set at a higher level with the achievement of 90% and above required to attain a Green Status in the traffic light system. 70% - 89% to achieve amber and under 70% denotes a red status. Achievement of below 88% in one functional area will trigger the completion of a remedial Action Plan by the Hotel Services Management team.

Whole year averages by hospital are documented in the following table.

Figure 9: Overall Cleaning Index by Hospital

	BEH	BGH	BHOC	BRCH	BRI	SMH	BDH
2007	95%	89%	94%	87%	84%	85%	94%
2008	92%	87%	95%	88%	85%	86%	92%

Financial Performance

The Facilities directorate achieved an £12K under spend financial position at year end 2008 on a budget in excess of £15million. During 2008 following submission of Local Delivery Plan bids funding was granted to support a deep cleaning team at BRI, (£96K) additional cleaning staff for Central Delivery Suite SMH (£75K), Bed Head Services Cleaning (£63K) and a Cleanliness Practical Skills Training post (£25K). Cleaning services in some sites resulted in an overspend position predominantly due to the high level of additional staffing used to support the newly appointed deep clean teams to undertake the level of deep cleaning necessary to support the Trust in the reduction of hospital acquired infections. Moving forward this has been financially supported for 2009 to a value of £210K through successful Local Delivery Plan bids to extend deep clean teams at Bristol Royal Infirmary, Bristol Haematology and Oncology Centre and Bristol Royal Childrens Hospital.

The Trust currently employs 429 Band 1 Health Service Assistants to undertake cleaning and food service at ward level, however there are 470 funded posts in the budget. The number of vacancies is the primary contributing factor in the Trust's expenditure in excess of £1 million on agency employment during 2008. Considerable work is underway within Facilities to reduce vacancy levels to a minimum and increase Bank usage where feasible and financially viable.

Patient Environment Action Team (PEAT) Scores

Figure 10: Patient Environment Action Team Scores.

	Environment Score		**Food Service**	
	2007	2008	2007	2008
BEH	Good	Good	Good	Excellent
BGH	Good	Good	Excellent	Excellent
BHOC	Good	Acceptable	Excellent	Excellent
BRCH	Acceptable	Good	Excellent	Good
BRI	Acceptable	Acceptable	Good	Good
St Michaels	Acceptable	Acceptable	Excellent	Good

The above PEAT results illustrate a steady progression and illustrate that the environment scores have achieved a zenith in the older buildings. Action: The patient environment investment programme for 2009/10 should prioritise work that improves these indicators. (The Trust Operational Group has already agreed that the £250K capital budget for patient environment works to be devoted to this). Key consideration will need to be given to how St Michaels's hospital can be included in a refurbishment and redecoration programme beyond that funding. Following the assessments, a schedule of environment – related issues has been drawn up by Facilities and passed to the Maintenance teams to cost. This will be taken to Trust Operational Group imminently for prioritization to be funded from the £250 capital budget.

Considerable progress had been made in this field over recent years and in 2008 the PEAT assessment team included Foundation Members representing patient's views. Over several years now there has been a steady increase in the outcome of the focus on cleaning for which short term monthly key performance indicators are reported to the Infection Control Committee.

6. Assurance Framework and Risk Register

6a. Core Standard and Assurance Framework

The Infection Control Committee continues to review the Assurance Framework for Core Standards 4a (infection control), on a quarterly basis. In doing so it then advises the Governance and Risk Management Committee on compliance, prior to the reports made to the Trust Board and the Audit and Assurance Committee. Compliance was declared in the Board declaration in April 2009 for 2008/09. An external inspection by the Health Care Commission confirmed the Trust's compliance to the Hygiene Code with this inspection identifying one minor area of technical non-compliance that was rectified immediately.

6b. Risk Register

The Committee also reviewed all risk registers in the Trust quarterly for any risks relating to infection control. These were reported accordingly, for all high and seriously high residual risks, to the Trust Board via the Governance and Risk Management Committee.

6c. Audit and Assurance

A full programme of audit and assurance took place in 2008/09, with extended monitoring in some key areas carried out weekly and reported to the Board monthly. The specific audits conducted were identified in the three infection control action plans.

6d. 2008/09 Infection Control Programme

During 2008/09 the Trust infection control programme was delivered through three action plans:

- *Clostridium difficile* action plan
- MRSA action plan
- Universal action plan

The plans were updated with additional actions as needed throughout 2008/09. All high risk elements of the plan were achieved, however, there were some low risk actions that were not achieved; these will be addressed in 2009/10.

7. Decontamination

- **Decontamination Lead** – Dr Robert Spencer continued as Trust decontamination lead until March 2009
- **Decontamination Manager** – Maureen Hornsby is the Trust Decontamination Manager with responsibility for the Sterile Services Departments as well as advising on areas undertaking local decontamination.
- **Clinical Scientist** – Dr John Leeming provides support to the above and expertise in endoscope decontamination
- **Authorised Person** - the Trust continues to employ the services of Tom Hall as independent adviser to the Trust

In a report to Trust Board in April 2009, risks and issues in relation to decontamination were outlined. Whilst this report identified risks and gaps in the assurance and reporting processes and a small proportion of instruments were decontaminated through equipment that had not been regularly tested, there was no evidence of failure of decontamination or of patient harm. An improvement programme for 2009/10 has been developed and implementation will be monitored via the Clinical Risk Assurance Committee.

8. Training

Statutory infection control training continues to be provided at corporate induction and update days. At the year end there was an overall coverage figure percentage of staff trained) of 87.9% and compliance percentage trained within mandatory required period) of 75.9%.

9. 2009/10 Infection Control Programme

In May 2009, the Board agreed the infection control compliance and improvement plan for 2009/10. The implementation of this will be monitored through the Infection Control Committee and the Trust Board.

Report prepared by:

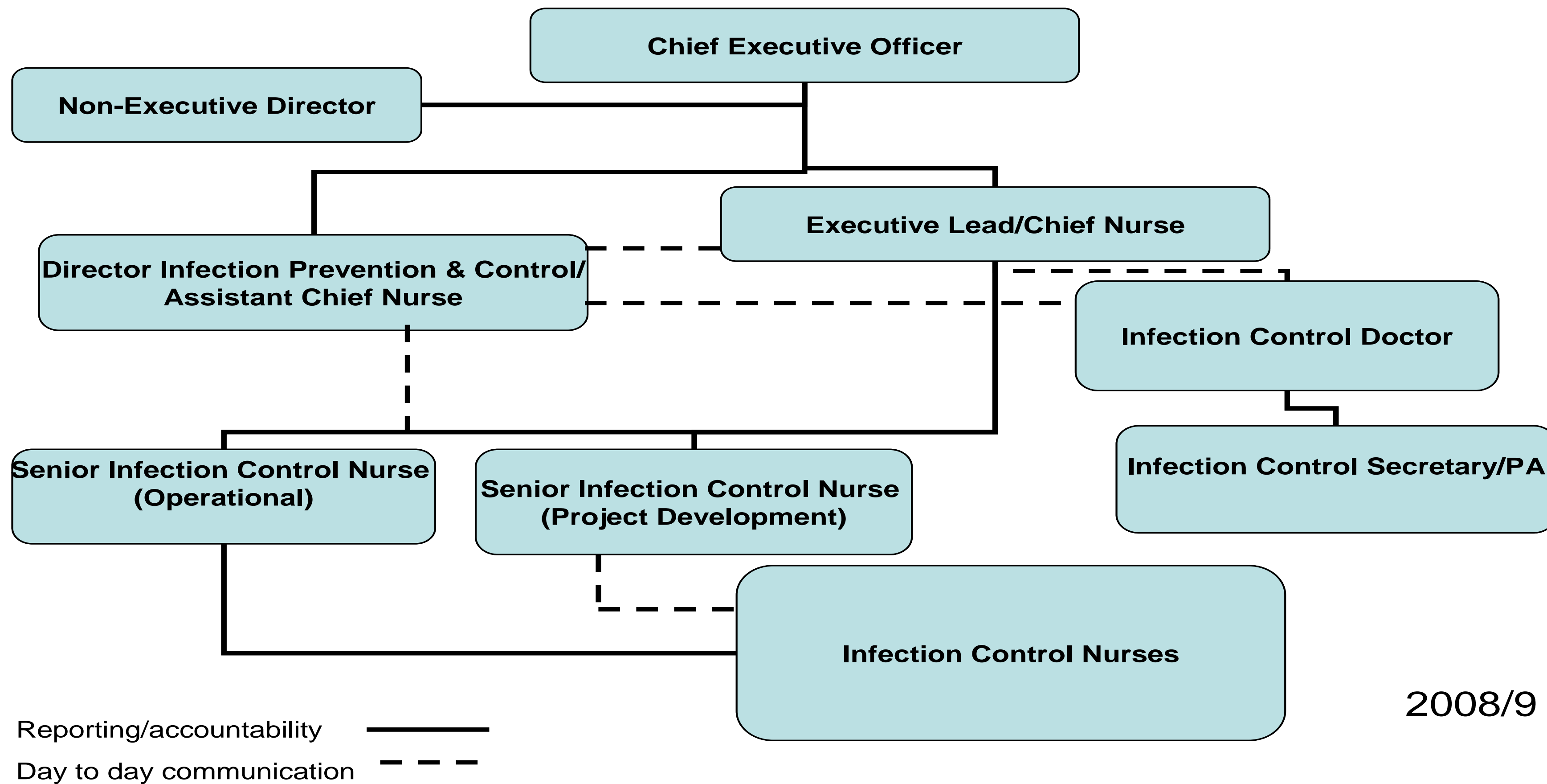
Christine Perry
Assistant Chief Nurse
Director Infection Prevention and Control

Report presented by:
Alison Moon
Chief Nurse

July 2009.

Appendix I

UHBT Infection Control Team Structure



2008/9

UHBT Infection Control Structures