

**National Hygiene Services
Monitoring Assessment Report**

**Children's University Hospital, Temple Street,
Dublin**

Date of monitoring assessment: 19 March 2010

About the Health Information and Quality Authority

The Health Information and Quality Authority (the Authority) is the independent Authority which has been established under the Health Act 2007 to drive continuous improvement in Ireland's health and social care services. The Authority was established as part of the Government's overall Health Service Reform Programme.

The Authority's mandate extends across the quality and safety of the public, private (within its social care function) and voluntary sectors. Reporting directly to the Minister for Health and Children, the Authority has statutory responsibility for:

- **Setting Standards for Health and Social Services** - Developing person-centred standards, based on evidence and best international practice, for health and social care services in Ireland (except mental health services)
- **Social Services Inspectorate** - Registration and inspection of residential homes for children, older people and people with disabilities. Inspecting children detention schools and foster care services. Monitoring day- and pre-school facilities¹
- **Monitoring Healthcare Quality** - Monitoring standards of quality and safety in our health services and implementing continuous quality assurance programmes to promote improvements in quality and safety standards in health. As deemed necessary, undertaking investigations into suspected serious service failure in healthcare
- **Health Technology Assessment** - Ensuring the best outcome for the service user by evaluating the clinical and economic effectiveness of drugs, equipment, diagnostic techniques and health promotion activities
- **Health Information** - Advising on the collection and sharing of information across the services, evaluating information and publishing information about the delivery and performance of Ireland's health and social care services.

¹ Not all parts of the relevant legislation, the Health Act 2007, have been commenced. Those parts that apply to children's services are likely to be commenced in 2010.

1 Background and Context

Good hygiene practices play a key role in the reduction of the occurrence of Healthcare Associated Infections. In Ireland, the cleanliness of hospitals has been assessed since 2004. In 2007 and 2008, the Health Information and Quality Authority (the Authority) undertook two independent national hygiene services quality reviews to monitor the compliance of 50 hospitals with the *National Hygiene Services Quality Standards*. As part of these reviews, the Authority carried out a number of follow-up visits to hospitals where serious risks had been identified.

The Authority published national and individual hospital reports following the 2007 and 2008 reviews which are available on the Authority's website www.hiqa.ie. These reports contained several recommendations for the hospitals as well as the Health Service Executive (HSE).

Following the Authority's hygiene review in 2008, each hospital was asked to prepare plans and implement the necessary improvements that reflected the findings from the 2008 National Hygiene Services Quality Review. In response to these recommendations, the HSE applied 'targeted interventions' to hospitals that had been identified as needing more support. In May 2009, the HSE made its findings publicly available in a national improvement strategy for all hospitals (available from www.hse.ie). The main conclusions from the 2008 National Review were that hospitals should continue to strive towards excellence in their management of hygiene and aim to achieve the highest level of compliance against the standards.

In May 2009, the Authority launched the new *National Standards for the Prevention and Control of Healthcare Associated Infections*. Whilst incorporating the key quality and safety requirements for hygiene services, these standards focus on a broader set of issues rather than solely on hygiene. They were approved by the Board of the Authority and mandated by the Minister for Health and Children. They represent a critical component in supporting the ongoing requirement to prevent and control Healthcare Associated Infections in Ireland.

All services are expected to undertake a gap analysis² in relation to the new *National Standards for the Prevention and Control of Healthcare Associated*

² The Authority expects the HSE to carry out national and local gap analyses for its directly managed services and to develop a nationally coordinated, prioritised implementation plan informed by these gap analyses. In the voluntary and independent sectors, and services led by independent practitioners, the Authority expects that a local plan will be developed. For such services funded by the HSE, its network or local health office management structure should ensure facilities have a local implementation plan, the progress against which should become part of the reporting requirements within any service level agreement between the provider and commissioner of the service.

Infections. Implementation plans should encompass a programme of changes leading to compliance with these standards in acute hospitals by 1 June 2010.

From this date, in relation to Healthcare Associated Infections, acute hospitals will be monitored by the Authority for compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* only. The monitoring of compliance with the new standards will take into account the key quality and safety requirements of the hygiene standards.

Each hospital in Ireland should provide care in an environment that is clean. Patients and their families expect to receive high quality, safe care that meets their needs. Recent Healthcare Associated Infection and communicable / transmissible disease outbreaks have highlighted the continued need to 'raise the bar' in the delivery of hygiene services.

At this stage the Authority expects that all hospitals in Ireland are achieving levels of compliance greater than 85%, with the essential requirements to deliver safe, efficient and effective hygiene services as set out in the *National Hygiene Services Quality Standards*. This latest series of randomised unannounced monitoring assessments focuses specifically on the day-to-day delivery of hygiene services and in particular cleanliness, hand hygiene and waste and linen management practices.

This report presents the findings of such a monitoring assessment.

2 Focus of the Monitoring Assessment

For this monitoring assessment, the Authority's focus was on the delivery of hygiene services. The Service Delivery (SD) Standard 4 contains seven core criteria. Each criterion contains specific compliance requirements that, taken together, are essential elements for the provision of safe, efficient and effective hygiene services (Appendix 1 contains the full list of the *National Hygiene Services Quality Standards*).

Service Delivery (SD) Standard 4:

Hygiene services are delivered safely, efficiently and effectively.

SD 4.1 The team ensures the organisation's physical environment and facilities are clean.

This refers to the overall cleanliness of the physical environment. Services should be provided in an environment that is clean and hospitals should have systems in place to ensure that high levels of cleanliness are maintained.

SD 4.2 The team ensures the organisation's equipment, medical devices and cleaning devices are managed and clean.

This refers to the implementation of cleaning practices to ensure that all medical and cleaning devices are clean and that systems exist to ensure that high levels of cleanliness are maintained.

SD 4.3 The team ensures the organisation's cleaning equipment is managed and clean.

This refers to the implementation of cleaning practices to ensure that all cleaning equipment is clean and that systems exist to ensure that the equipment is maintained to a high standard.

SD 4.4 The team ensures the organisation's kitchens, including ward/departmental kitchen, are managed and maintained in accordance with evidence-based best practice and current legislation.

This refers to the overall cleanliness of ward/departmental kitchens to ensure that areas where food is prepared, organised and/or handled is clean and that systems exist to maintain appropriate hygiene practices in kitchens.

SD 4.5 The team ensures the inventory, handling, storage, use and disposal of hygiene services hazardous materials, sharps and waste in accordance with evidence-based codes of best practice and current legislation.

This refers to the management of hazardous materials, sharps and waste, including inventory, handling, segregation, storage, use and disposal, to ensure the safety of all service users is protected.

SD 4.6 The team ensures the organisation's linen supply and soft furnishings are managed and maintained.

This refers to the management, segregation, maintenance and safe handling of linen and soft furnishings to ensure that all linen and soft furnishings are clean and that systems exist to ensure that they are maintained to a high standard.

SD 4.7 The team works with the Governing Body and / or its Executive Management Team to manage hand hygiene effectively and in accordance with Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) guidelines.

Hand hygiene is recognised as the single most important preventative measure in the transmission of Healthcare Associated Infections, particularly in health services. In the 2008 national hygiene review the Authority focused on hand-washing technique. The H1N1 influenza pandemic emphasised how essential it is that a culture of hand hygiene is embedded and that every opportunity for hand hygiene is taken. During this monitoring assessment, the Authority focused on opportunities for hand hygiene and whether or not staff took these opportunities and used the correct technique.

The Authority expects hospitals to have in place well-established arrangements to achieve levels of compliance greater than 85% with the requirements of these core criteria, and the necessary evidence to demonstrate such compliance.

It must be emphasised that findings from these monitoring assessments reflect a point in time and may not reflect the fluctuations in the quality of hygiene services (improvement or deterioration) over an extended period of time. However, as patients do not always choose which day they attend hospital, the Authority's unannounced one-day assessment is an indicator of how patients, in a given hospital, experience arrangements for hygiene.

3 Monitoring Process

The monitoring methodology consisted of an unannounced on-site assessment to monitor compliance with the Service Delivery Standard 4 listed previously. The process (outlined in Table 1 below) sought to draw on multiple sources of information to assess compliance with Service Delivery Standard 4.

Table 1: Evidence gathering processes

Process or instrument for gathering evidence	Contribution to the monitoring process
Observation	To obtain information about the environment, practices and patient experience. Structural and equipment observation undertaken in a range of clinical and non-clinical areas.
Documentation review	To assess documentary evidence to establish whether the hospital complied with the requirements of the service delivery standard.
Patient interview	To elicit the views of service users to assist the monitoring team in their deliberations.
Staff interview	To assess the roles, responsibility and quality assurance mechanisms.

There were three phases to this monitoring process: pre-visit, on-site visit, and follow up and reporting.

3.1 Before the on-site visit

The main elements of the process prior to the site visit were as follows:

- The Authority prepared a confidential schedule for the monitoring assessments, with the unannounced assessment dates for each hospital selected at random.
- Selection of patient areas: the number of patient areas selected was proportionate to the type of services provided and the size of the hospital and at a minimum included, as relevant, one medical and one surgical ward, the emergency department, outpatient department, laundry and waste areas:
 - Category-one hospitals (up to 150 beds): the Authority selected a minimum of four patient areas to be visited
 - Category-two hospitals (151 – 450 beds): the Authority selected a minimum of six patient areas to be visited
 - Category-three hospitals (greater than 450 beds): the Authority selected a minimum of eight patient areas to be visited.

3.2 During the visit

During the visit the following took place:

- The monitoring assessment of compliance with the *National Hygiene Services Quality Standards*, with a focus on Service Delivery Standard 4, was undertaken by a team of trained assessors from the Authority. Each team member had been authorised by the Minister for Health and Children to conduct the assessments under section 70 of the Health Act 2007.
- Where assessors identified specific issues that they believed could present a significant risk to the health or welfare of patients, hospitals were formally notified in writing of where action was needed, with the requirement to report back to the Authority with a plan to reduce and effectively manage the risk within a specified period of time.
- Hospitals were rated by the team against Service Delivery Standard 4. Evidence was gathered in a number of ways outlined in Table 1 and based on this evidence the monitoring team assigned a rating to the seven core criteria. The compliance rating scale used for this is shown in Table 2.

Table 2: Compliance rating score

A	The organisation demonstrated exceptional compliance of greater than 85% with the requirements of the criterion.
B	The organisation demonstrated extensive compliance of between 66% and 85% with the requirements of the criterion.
C	The organisation demonstrated broad compliance of between 41% and 65% with the requirements of the criterion.
D	The organisation demonstrated minor compliance of between 15% and 40% with the requirements of the criterion.
E	The organisation demonstrated negligible compliance of less than 15% with the requirements of the criterion.

Please note, the percentage compliance within any rating covers a range of performance. For example, 66% compliance will be rated as a B as would 85% compliance.

3.3 Following the visit

Following the visit, the quality assurance process was as follows:

- A draft report was compiled based on the findings of the monitoring assessment. The report highlights the areas where the hospital has not achieved greater than 85% compliance with the requirements of the criteria.
- Each report was reviewed by the Authority to ensure consistency and accuracy.
- The draft report was provided to the hospital, outlining their compliance ratings. The hospital was given an opportunity to comment on the factual accuracy of the findings and all comments were considered fully by the Authority.
- The final published report was based on the findings, the level of compliance of each organisation with the Standard and confirmation of the factual accuracy of these findings.
- The Authority reports on its findings publicly and, in accordance with section 8(1)(I) of the Act, will (as necessary) advise the Minister for Health and Children and the Health Service Executive as to the level of compliance with the Standard by the hospital visited.

4 Hospital profile

4.1 Hospital - organisational profile

Founded in 1872, the Children's University Hospital, Temple Street is an acute paediatric hospital in Dublin providing a full range of inpatient and outpatient services and paediatric critical and intensive care. It is the National Centre for Inherited Metabolic Disorders and operates the National Screening Laboratory. Additionally, the Hospital is the National Centre for Paediatric Ophthalmology, the National Craniofacial Centre, the National Airway Management Centre, National Pediatric Neurosurgery Centre and the National Meningococcal Reference Laboratory. The National Sudden Infant Death Register is also located in the Hospital. Major specialties include neonatal and paediatric surgery, nephrology, neurology, orthopaedic, ENT and plastic surgery. The Emergency Department with approximately 45,000 attendances per annum is one of the largest in the country and is the biggest paediatric emergency department nationally.

The Hospital has a bed complement of 155. On the day of the monitoring assessment visit 10 beds were out of commission, 12 beds were closed off due

to infection prevention and control restrictions and 7 beds were unoccupied, therefore 126 beds were occupied.

4.2 Areas visited

The Children's University Hospital was visited by the assessment team on the 19 March 2010 between 8:30hrs and 12:45hrs. During the monitoring of compliance with the *National Hygiene Services Quality Standards*, the following areas were visited:

Top Flat Medical and Surgical
Emergency Department
Waste Compound

St Brigid's Ward
Outpatients Department
Laundry Services.

5 Findings and Compliance Ratings

5.1 Main findings

Service Delivery (SD) Standard 4:

Hygiene services are delivered safely, efficiently and effectively.

The Service Delivery (SD) Standard 4 describes seven core criteria that must be complied with to meet the requirements for the provision of safe, efficient and effective hygiene services.

SD 4.1 The team ensures the organisation's physical environment and facilities are clean.

Rating: B (66-85% compliance with this criterion)

- Overall, the standard of hygiene was good in the areas visited.
- There was a minimal amount of high and low dust observed.
- A daily cleaning schedule was demonstrated for each of the clinical areas visited. This was observed to be signed off daily by the contract cleaner and ward manager.
- The bathrooms / washrooms were clean in three of the areas visited. Bathroom / toilet checklists were completed consistently in each of the areas visited.
- All signage was laminated and clean.
- Chairs and stools in the clinical areas were covered appropriately in an impermeable material.
- Curtains in areas visited were clean. However, in three of the areas visited, records provided did not demonstrate a consistent approach to curtain changing.
- There was limited storage space available in three of the areas visited which provided challenges for effective cleaning. Items such as patients' belongings, boxes and mattresses, were stored on the floor.
- Wall and skirting paint was chipped in two of the areas visited.
- The toilet in the bathroom of Top Flat Ward was visibly unclean and the impermeable wall covering was broken in a number of areas. In St Brigid's Ward, inappropriate items were stored in the main bathroom, i.e. toiletries and a commode. In addition, a toilet seat was missing and a parent mattress was in an en-suite room.
- Ventilation was noted to be poor in the public toilets in the Outpatient Department.

SD 4.2 The team ensures the organisation's equipment, medical devices and cleaning devices are managed and clean.

Rating: A (>85% compliance with this criterion)

- The organisation's equipment, medical devices and facilities were clean in each of the areas visited.
- The team observed a process for managing and cleaning medical equipment.
- Equipment was reported to be cleaned after each patient use and on a weekly basis. Staff were observed cleaning medical equipment after patient use.
- Dirt was visible on workstation keyboards in one of the consultant rooms in the Outpatients Department and the workstation in St Brigid's Ward.

SD 4.3 The team ensures the organisation's cleaning equipment is managed and clean.

Rating: A (>85% compliance with this criterion)

- Cleaning equipment in the areas visited was clean.
- Cleaning products were stored in locked rooms.
- A colour coding system was demonstrated.
- Cleaning policies were demonstrated.
- Personal protective equipment was readily available and used appropriately in the areas visited.

SD 4.4 The team ensures the organisation's kitchens (including ward/department kitchens) are managed and maintained in accordance with evidence-based best practice and current legislation.

Rating: A (>85% compliance with this criterion)

- Overall, ward kitchen areas visited were clean and managed in accordance with best practice with separate hand-wash facilities, fly screens and bait boxes.
- Access to ward kitchens was restricted to designated personnel through coded doors and appropriate signage was in place. However, signage in the kitchen on Top Flat Ward requested staff members to wash their personal dishes.
- Personal protective equipment was readily available and used appropriately in the areas visited.
- Ward kitchen food safety policies were in place.
- There is an ongoing improvement programme for the replacement of domestic with commercial dishwashers.

SD 4.5 The team ensures the inventory, handling, storage, use and disposal of Hygiene Services hazardous materials, sharps and waste is in accordance with evidence-based codes of best practice and current legislation.

Rating: A (>85% compliance with this criterion)

- A waste management policy was available to all staff via the Hospital's document management system.
- The management of hazardous materials and waste was in line with best practice, including the segregation of clinical and non-clinical waste.
- The appropriate waste destruction documentation (C1 and destruction certificates) was demonstrated.
- An inventory of safety data sheets was demonstrated to be available to staff through the Hospital's intranet.

SD 4.6 The team ensures the organisation's linen supply and soft furnishings are managed and maintained.

Rating: B (66-85% compliance with this criterion)

- Linen was clean and in good condition and the organisation demonstrated a linen policy.
- There was evidence that the management of laundry in the clinical areas and central storage area was in line with best practice. However, in the Emergency Department clean linen was stored on open shelving in a corridor with a cloth curtain cover. It was reported that this corridor was an exit point for transporting waste bins from around the Hospital to the external waste compound.
- Inappropriate items were stored in the designated clean linen rooms of two of the areas visited.

SD 4.7 The team works with the Governing Body and / or its Executive Management team to manage hand hygiene effectively and in accordance with the Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) guidelines.

Rating: B (66-85% compliance with this criterion)

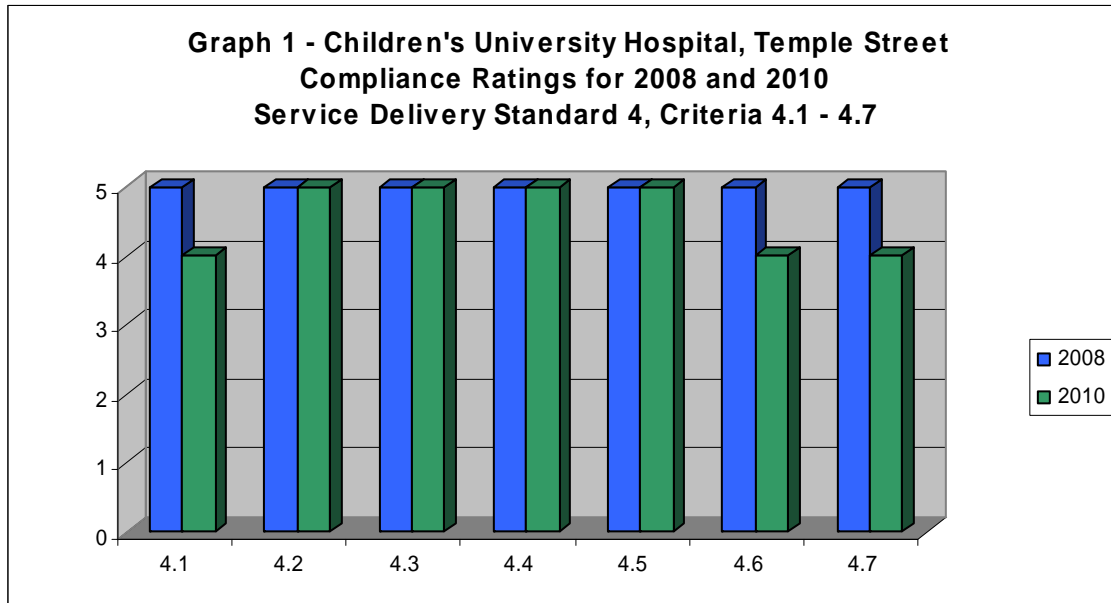
- The sinks in each of the areas visited complied with the Health Service Executive (HSE) Health Protection Surveillance Centre's guidelines for hand hygiene (2005).
- Alcohol-based hand gel was widely available for use.
- Hand-wash posters were on display at each hand-wash sink.
- The organisation reported that attendance at hand hygiene training was mandatory for all staff on an annual basis, with monthly training being

provided by the Infection Control Team. Hand hygiene training records were demonstrated for nursing staff in clinical areas visited.

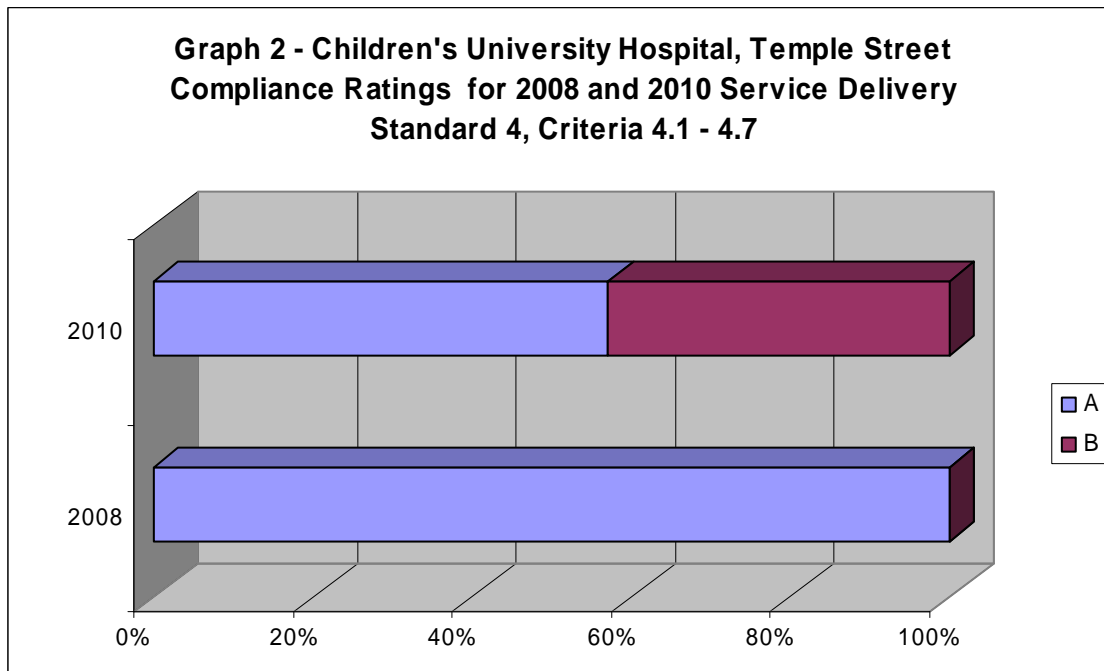
- Records provided by the Hospital demonstrated that 35% of staff were trained in hand hygiene in 2009.
- There was no evidence of a corporate approach to monitoring or trending attendance at hand hygiene training to ensure all staff attended training on an annual basis.
- It was demonstrated that one hand hygiene audit had been undertaken in the previous 12-month period.
- Hand-washing opportunities were observed in clinical areas. However, during observation:
 - not all opportunities to practice hand hygiene were taken
 - the hand-washing technique used did not always comply with best practice.
- The findings from this observation were consistent with the Hospital's Infection Control Team's audit of hand hygiene practices as referred to above.

5.2 Ratings Summary

The graph below (Graph 1) illustrates the organisation's individual ratings for each of the criteria under Service Delivery Standard 4 – implementing hygiene services, in comparison with the equivalent 2008 ratings.



The graph below (Graph 2) illustrates the organisation's level of compliance (A to D) with the seven core criteria of Service Delivery Standard 4 in comparison with 2008.



5.3 Conclusion

Based on the findings of this monitoring assessment against Service Delivery Standard 4, the Children's University Hospital, Temple Street has not maintained its level of performance in relation to the delivery of hygiene services compared to 2008. The monitoring assessment found that the Children's University Hospital did not meet all the requirements in relation to the standard assessed to ensure that the key aspects of hygiene services are delivered safely, efficiently and effectively.

The Authority expects that all hospitals achieve levels of compliance over 85% with all of the *National Hygiene Services Quality Standards*, including the seven core criteria of Service Delivery Standard 4.

The Children's University Hospital achieved over 85% compliance in four of the seven core criteria of Service Delivery Standard 4.

The Children's University Hospital must improve its performance in order to provide safe, efficient and effective hygiene services.

Appendix 1

The National Hygiene Services Quality Standards

Standards for Corporate Management

The Corporate Management Standards allow an organisation to assess and evaluate its activities in relation to hygiene services at an organisational management level. Responsibility for these standards lies with the Governing Body and Executive Management Team in conjunction with the Hygiene Services Committee. There are 14 standards within the Corporate Management Standards, all of which are focused on four critical areas that are leadership and partnerships, environment and facilities, human resources and information management. Eight criteria within these standards are core.

The 14 standards are as follows:

- 1. Planning and Developing Hygiene Services:** organisational planning in response to the changing needs of the population it serves in relation to hygiene services.
- 2. Linkages and Partnerships:** organisational linkages and how it works in partnership with patients / clients, staff, other organisations and the community.
- 3. Corporate Planning:** strategic planning to achieve identified goals in relation to hygiene services.
- 4. Governing and Managing Hygiene Services:** effective and efficient governance for hygiene services.
- 5. Organisational Structure:** defined organisational structures to ensure the coordinated provision of hygiene services.
- 6. Allocating and Managing Resources:** allocation, protection, management and control of human, physical and financial resources for the hygiene services.
- 7. Managing Risk:** assessment, management and prevention of risk in relation to hygiene services.
- 8. Contractual Agreements:** shared responsibility for the delivery of hygiene services involving contractual services.
- 9. Physical Environment, Facilities and Resources:** effective and efficient planning and management of the organisation's physical

environment, facilities and resources.

10. Selection and Recruitment of Hygiene Staff: selection, recruitment and retention of adequate and appropriate human resources.

11. Enhancing Staff Performance: orientation / induction, ongoing education, training and continuous professional development and evaluation of hygiene services staff performance.

12. Providing a Healthy Work Environment: safe, healthy and positive work environment for all hygiene services staff.

13. Collecting and Reporting Data and Information: timely, efficient, accurate and complete collection and reporting of relevant hygiene services data and information.

14. Assessing and Improving Performance: quality improvement systems for monitoring, evaluating and improving the quality of the organisation's Hygiene Service delivery.

Standards for Services Delivery

The Service Delivery Standards allow an organisation to assess and evaluate its activities in relation to hygiene services at a team level. These standards relate directly to operational day-to-day work and responsibility for these standards lies primarily with the Hygiene Services Team (the team) in conjunction with ward / departmental managers and the Hygiene Services Committee. There are seven core criteria within these standards.

The six Service Delivery Standards are as follows:

1. Evidence-based Best Practice and New Interventions in Hygiene Services: establishment, adoption, maintenance and evaluation of best practice guidelines and establishing processes for new interventions.

2. Prevention and Health Promotion: health and hygiene promotion and encouraging individuals to take responsibility for their own health.

3. Integrating and Coordinating Hygiene Services: integration and coordination of hygiene services.

4. Implementing Hygiene Services: safe, efficient and effective hygiene services.

5. Patients'/Clients' Rights: promoting and protecting patients' / clients' Rights.

6. Assessing and Improving Performance: quality improvement, managing risk and managing utilisation of services to improve the quality of the hygiene services and the performance of the team.