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**Health, Social Services  
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An Roinn

**Sláinte, Seirbhísí Sóisialta  
agus Sábháilteachta Poiblí**

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# ***Changing the Culture***

**Infection Control Nursing in  
Northern Ireland**

**A Way Forward**

2006/2009

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## **FOREWORD**

This Strategy for Infection Control Nursing in Northern Ireland is both timely and welcome. It should be read in conjunction with “Changing the Culture. An Action Plan for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2006-2009.” DHSSPS (2006)

Cleanliness in our hospitals and facilities, good hygiene and the development of antimicrobial resistance all present challenges. Yet many health care associated infections can be prevented. This requires a multi-disciplinary approach, and ownership by all of us, to ensure that we have a safe environment for our patients. In particular it requires us all to improve our hand hygiene and promote this amongst all healthcare workers.

No matter how much we improve access to health care, no matter how sophisticated our treatment techniques, no matter how good we are at developing new skills, if we do not pay attention and manage the ongoing risks of cross-infection, then we cannot claim to be succeeding in delivering good quality health care.

This Strategy highlights the need for a multi-dimensional approach at both the individual and institutional level. It will necessitate managerial commitment at both the strategic and operational levels. It requires us to embed in our everyday practice the current evidence-based standards for the control and prevention of HCAs.

Together we can do this.

Martin E. Bradley  
Chief Nursing Officer



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## INTRODUCTION

- 1.1 Infection Control Nursing is a rapidly developing specialism within nursing. Its importance and significance for the delivery of safe, effective services has been given greater emphasis in recent years, a result of a growth in the range of issues associated with infection control, including healthcare acquired infection, clinical and social care governance, bacterial resistance and globalisation of disease presentation.
- 1.2 This Report has been initiated by the Chief Nursing Officer at the request of the Regional Advisory Committee on Communicable Disease Control. The Report also addresses the concerns expressed by the Northern Ireland Infection Control Nurses Forum to the Central Nursing Advisory Committee about the future development of this specialist area of nursing and its impact on the provision of services within Northern Ireland.
- 1.3 The Report considers the need for and nature of Infection Control Nursing within the context of the delivery of Health and Personal Social Services. This includes acute hospitals, intermediate care settings, and primary care i.e. General Medical and General Dental Practices. It also covers the independent sector i.e. Nursing and Residential Homes. Settings such as playgroups, and day centres run by the voluntary sector are not included in this report, although the Working Group fully acknowledges that there are infection control issues in these areas that should be examined in a separate review.
- 1.4 For the purposes of this report Infection Control is defined as the management of infection control issues including surveillance, prevention and control of infection<sup>1</sup> The Working Group acknowledges that with new science, technology and the challenge of Healthcare Associated Infection in Northern Ireland the role of the Infection Control Nurse is likely to change. This can be seen already in the development of new Health Protection Nurse posts within some Boards, which have a broad remit including, for example, contact tracing.
- 1.5 It is hoped that this report will help shape these changes in the future, building on the already excellent work carried out by nurses in this specialist area.

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<sup>1</sup> Department of Health and Public Health Laboratory (1995) Hospital Infection Control, Guidance on the Control of Infection in Hospitals.



## **Project Structure**

1.6 A Working group was established with the following remit:

- To scope current structures and systems for infection control in Northern Ireland and the UK, across all sectors
- To outline current Infection Control Nursing provision
- To identify gaps in service provision
- To make recommendations on
  - Service provision
  - Workforce requirements to support service provision
  - Education and Continuing Professional Development
  - Career pathways

## **Membership**

1.7 Membership of the Working Group is set out in Appendix A.

## BACKGROUND

- 2.1 DHSSPS has identified healthcare associated infection (HCA1) as one of the key areas requiring a strategic approach to prevention and control. The document “Protecting Patients and Staff – A Strategy for the Prevention and Control of Healthcare Associated Infections in Northern Ireland 2005-2010” was launched in June 2005. “Protecting Patients and Staff” contains 58 recommendations.

These have now been developed into “Changing the Culture – An Action Plan for the Prevention and Control of Healthcare Associated Infection in Northern Ireland.” DHSSPS 2006.

- 2.2 The Department has taken a number of other measures to reduce HCAs, including heavy investment in prevention and training on SARS<sup>1</sup>, the issuing of guidance on decontamination of reusable medical devices<sup>2</sup> and reusable medical devices<sup>3</sup> as well as guidance on decontamination of surgical instruments<sup>4</sup>. The 2004 Controls Assurance Standard on Infection Control<sup>5</sup> provides a clear framework for control of infection, as part of ongoing governance requirements in the HPSS. Further guidance has been issued by Health Estates on the safe disposal of clinical waste<sup>6</sup>, storage of clinical waste<sup>7</sup> and the management of clinical waste in the community<sup>8</sup> and the Environmental Cleanliness Strategy.<sup>9</sup>

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<sup>1</sup> DHSSPS (December 2003) Interim Northern Ireland Contingency Plan for SARS

<sup>2</sup> DHSS (2004) Decontamination of Re-Usable Medical Devices HSS(SC)3/04

<sup>3</sup> DHSSPS (2001) Decontamination of Reusable Medical Devices HSS(MD)4/01

<sup>4</sup> DHSSPS (2001) Protocol for Local Decontamination of Surgical Instruments. Addendum 3: HSS(MD) 4/01

<sup>5</sup> DHSSPS (2004) Governance in HPSS, Controls Assurance Standards, Infection Control [www.dhsspsni.gov.uk/hss/governance/assurance\\_standards.asp](http://www.dhsspsni.gov.uk/hss/governance/assurance_standards.asp).

<sup>6</sup> Health and Safety Commission (Health Services Advisory Committee)(1999) Safe Disposal of Clinical Waste

<sup>7</sup> Health Estates (March 1999) The Segregation of Primary Packaging, Secondary Packaging and Storage of Clinical Waste./ HSS-E PEL(99)9

<sup>8</sup> Health Estates (2002) The Management of Clinical Waste in the Delivery of Health and Social Care in the Community PEL(01)11

<sup>9</sup> DHSSPS(2004) Environmental Cleanliness Controls Assurance Standards PEL(05)13 “Cleanliness Matters” - A Regional Strategy for improving the standard of Environmental Cleanliness in HSS Trusts

- 2.3 Infection Control Nursing is the provision by nurses of specialist advice and support on infection prevention and control procedures within health and social care settings. In addition to this role a key element of Infection Control Nursing is the public health function including the prevention of disease and injury to patients, clients and communities.
- 2.4 Infection Control Nursing provides advice and support related to service delivery arrangements, the environment of care and management of outbreaks of diseases. This support and advice is provided through education and training initiatives, development of guidance and protocols, participation in surveillance and monitoring, audit and research, outbreak management and on-going advice to service providers.
- 2.5 Infection Control Nursing works as part of and in support of the care team, regardless of the care and treatment environment. Currently Infection Control Nurses provide this service within their own employing HSS Trust and often to those with whom there is either a formal contractual arrangement or an informal professional, collegiate relationship. Whilst the multidisciplinary Infection Control Team has developed specialist expertise, each member of the Team has a responsibility to maintain appropriate knowledge and skills on infection control and to participate in implementing the appropriate guidance.
- 2.6 In addressing its remit the Working Group conducted a review of the current literature and developments in Infection Control nursing, within the United Kingdom (UK) and beyond.
- 2.7 Many factors have impacted on the need for this Review, including:
- **Impaired Immune System** – Advances in medical treatment such as cancer therapy and transplantation have resulted in a group of people living with impaired immunity, making them particularly susceptible to infection.
  - **Antimicrobial Resistance** - Microbes adapt to survive, such as in response to antibiotic use. For example Methicillin Resistant Staphylococcus Aureus (MRSA) evolved and has had a significant impact because of its ability to spread widely among patients<sup>1</sup>

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<sup>1</sup> Department of Health (1997) Standing Medical Advisory Committee, Path of Least Resistance

- **Global travel and trade** – With populations more mobile, diseases previously considered eradicated locally, are now re-emerging. Alongside this is the potential impact of disease spread as a result of Global terrorism and the emergence of new diseases such as SARS<sup>2</sup>.
- **Impact of technology** – The ability to perform increasing invasive procedures within an environment where the risk of infections such as pandemic flu or variant Creutzfeldt-Jakob disease can be spread.
- **Decontamination** - Decontamination of reusable surgical instruments (including endoscopes) is viewed by the DHSSPSNI as a very high priority. The complexity of equipment and their micro-structures can provide challenges for decontamination. Improving purchasing and decontamination procedures can minimize the potential iatrogenic transmission of TSE's. Effective decontamination is best achieved if facilities are planned for the process to be achieved during the “full life cycle” of decontamination of medical devices
- **Increase in Hospital Acquired Infection** – Hospitals are now managing more seriously ill patients who are more susceptible to infection. The growth of invasive procedures, antimicrobial resistant organisms, increasingly mixed patient populations with high levels of dependency and turnover all impact on the increasing levels of hospital acquired infections.
- **Increased public and media knowledge and interest** - A more informed and concerned public is reflected in increased demand for higher quality services.
- **Clinical and Social Care Governance / Controls Assurance** – the value and quality of infection control activities features strongly in risk management, clinical and social care governance and Controls Assurance. ‘Controls Assurance Standard – Infection Control’<sup>3</sup> sets challenging targets for all in the HPSS and will require additional training and surveillance activity. In addition, Infection Control issues are reflected in many other standards such as Decontamination of Medical Devices.
- **Developing Better Services** Following the publication of Developing Better Services major capital schemes are planned for the HPSS in Northern Ireland building on the current Health and Well being Centres. There is a need to understand and assess the risks of infection relating to construction projects and the built environment. It is imperative that infection control is “designed-in” at the planning stage of a healthcare facility new building or renovation project: Infection Control Nurses have an important contribution to make, in this regard. It is also vital that infection control issues are considered during demolition work on hospital sites, as there are potential dangers from release

<sup>2</sup> Department of Health (2002) Getting Ahead of the Curve, A strategy for combating diseases including other aspects of health protection.

<sup>3</sup> DHSSPS (2000) Controls Assurance Standard – Infection Control HSS (MD) 9/2000 (NI)

of Aspergillus fungi spores into the environment. This is particularly important if demolition is taking place near current hospital facilities with vulnerable patients, for example organ transplant patients or patients with immunodeficiency.

- **Variety of Care Environments.** There has been a significant growth in the numbers of acutely ill and immunosuppressed patients being cared for in private nursing and residential homes (Tohani 2002 unpublished). In addition increasing numbers of more dependent individuals are being supported in their own homes through a variety of initiatives, for example hospital at home schemes. These individuals may have PEG tubes, urinary catheters and intravenous cannulae – all risk factors for infection and therefore necessitating a high level of infection control awareness among patients, carers and healthcare workers. Although General Dental Practices primarily serve healthy populations, the same high level of infection control awareness and practice is essential among dentists and dental nurses.

2.8 At UK level there has been significant effort devoted to developing standards to help guide practice both in statutory and primary care setting.<sup>1,2,3,4,5,6</sup> In 2004, the Chief Nursing Officer and the Secretary of State for Health in England launched the Matron's Charter - an action plan to tackle cleanliness and MRSA in England. It is proposed that the CNO in Northern Ireland will launch a Ward Sister/Charge Nurse Charter later in 2006.

2.9 Of particular note is the approach taken by the Scottish Executive which has established a Ministerial HAI Taskforce that has the remit to co-ordinate the development and implementation of a Ministerial Healthcare Associated Infection Action Plan. Work that has been issued includes:

- The NHS Scotland Code of Practice for the local management of hygiene and HAI
- The NHS Scotland National Cleaning Service Specification
- Production of 'Five Top Tips' for members of the public on HAI. (Appendix B)
- National Standards for Infection Control in Adult Care Homes have been launched by the Minister for Health and Community Care.

<sup>1</sup> NHS Scottish Executive. (2003) Infection Control Standards for Adult Care Homes: A Consultation

<sup>2</sup> DOH (2002) Getting Ahead of the Curve. A Strategy for combating infectious diseases.

<sup>3</sup> National Institute for Clinical Excellence (2003) Infection Control. Prevention of healthcare-associated infection in primary and community care.

<sup>4</sup> Royal College of Nursing (2000) Working well Initiative. Good Practice in Infection and Control, Guidance for Nurses working in General Practice.

<sup>5</sup> Welsh Assembly Government (2004) Healthcare Associated Infections – a strategy for hospitals in Wales

<sup>6</sup> Scottish Executive (2004) The Ministerial HAI Action Plan

## Northern Ireland Policy on infection Control

- 2.10 Within Northern Ireland infection control Issues have been given more prominence recently and there has been strong media interest for example in norovirus outbreaks in hospitals, rising rates of MRSA and decontamination of endoscopes. As in other parts of the UK, emergency planning is now a high priority and DHSSPS has produced a SARS Contingency Plan<sup>1</sup> that should be transferable to other emergency situations, for example deliberate or natural epidemics such as pandemic flu. There are a number of initiatives underway which will provide the overall strategic framework and structures to promote and support the implementation of this report, for example:
- A Review of the Public Health Function in Northern Ireland.
  - The development of an action plan for the prevention and control of healthcare acquired infection.<sup>2</sup>
- 2.11 Priorities For Action 2003/2004 sets out the Department of Health, Social Services and Public Safety's (DHSSPS) planning priorities for the HPSS and included specific reference to Infection control issues:
- Health Development – implementation of the Action Plan for Antimicrobial Resistance (AMRAP)
  - Making services responsive to need: " Boards and Trusts (and where appropriate LHSCGs) in conjunction with GPs should develop and agree with the Department by 30 September 2003, action plans for full compliance with Department guidance on decontamination of medical devices, including best practice and standards. These action plans should be supported by business cases where appropriate".
- 2.12 This emphasis is repeated in Priorities for Action 2004/2005 which requires, as one of the five action priorities for health development, that Boards, Trusts and Local Health and Social Care Groups should "implement the recommendations of the Action Plan for Antimicrobial Resistance"
- 2.13 Recent events in the HPSS have highlighted the importance of infection control expertise in the management of decontamination of instrumentation. As a result the DHSSPS has moved the controls assurance target of compliance against the Control Assurance Standard for Decontamination from moderate to high.

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<sup>1</sup> DHSSPS (December 2003) Interim Northern Ireland contingency plan for SARS

<sup>2</sup> DHSSPS (March 2006) Changing the Culture - An Action Plan for the Prevention and Control of Healthcare Associated Infections in Northern Ireland

## Infection Control Nurses Association (NI)

- 2.14 The Infection Control Nurses Association in Northern Ireland was established in 1997 as the Infection Control Nurses Forum. Its aims are to facilitate collaboration and networking within the profession and provide a key point for access to specialist advice on infection control issues. To date the Forum has contributed to various regional and national working groups including, for example, the Hospital Acquired Infection Sub-Group, Standards for Environmental Cleanliness in Hospital and Infection Control Practices for Ambulance Services. Forum Members have also been actively involved in issues such as the safe management of clinical waste and the development of protocols and standards for emerging diseases such as new variant CJD and SARS.
- 2.15 In March 2004 the UK and Ireland Infection Control Nurses Association agreed that Infection Control Nurses in Northern Ireland should become a separate Regional Group. The primary objective of the Infection Control Nurses Association (NI) mirrors the original objectives of the Forum, through the advancement of education in the art and science of infection control for the benefit of the whole community and in particular the provision of relevant educational programmes and literature.

## Nursing Homes

- 2.16 Since the 1980's there has been an increase in the number of patients in private nursing homes following a major shift of patients from HPSS long stay hospital beds, with the total number of nursing and residential home beds currently exceeding 15,000. As there have been no studies in Northern Ireland relating to nursing homes the current position with respect to control and prevention of infections is unknown. However, extrapolation from transatlantic studies suggests that on average a 36-bed nursing home might have 50 – 80 acute infections per year with 5 or 6 residents affected at any one time.<sup>1</sup>
- 2.17 We know that nursing homes are implicated in 78% of outbreaks of infective diarrhoea in the UK<sup>2</sup> and may have reservoirs of methicillin resistant staph aureus (MRSA) with up to 27% of residents being colonised<sup>3</sup> In 2003 of 47 outbreaks of food poisoning and gastrointestinal infection reported to the Communicable

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<sup>1</sup> Stone SP. Soil, seed and climate – developing a strategy for prevention and management

<sup>2</sup> O'Sullivan NP, Keane CT. The prevalence of methicillin-resistant Staphylococcus aureus among the residents of six nursing homes for the elderly. J Hospital Infection 2000;45:322-9.

<sup>3</sup> Roberts CR, Mayon-White R, Grant Casey J. Audit of infection control practice in nursing homes 1996-8. London: PHLS, 2000. www.phls.co.uk

Disease and Surveillance Centre (NI), 20 were from nursing and residential homes. In June 2000 the Public Health Laboratory Service published an audit of infection control practice in nursing homes<sup>4</sup>. This used a tool based on guidelines issued to homes by the Public Health Medicine Environmental Group.<sup>5</sup> They found that whilst certain standards were well met there was much potential for improvement in key procedures such as hand washing, use of isolation and disposal of excreta and other bodily fluids. Critical standards relating to the infection control aspects of caring for residents with MRSA, urinary catheters or wounds were met in only 19%, 5%, 19% and 40% of homes respectively even after feedback and re-audit.

- 2.18 This illustrates the importance of effective, consistent infection prevention and control advice being provided to nursing homes.

### **Workforce**

- 2.19 There is a paucity of information available in relation to recommended workforce provision for Infection Control Nursing services.
- 2.20 An American study<sup>6</sup> recommends a ratio of 0.8 to 1.0 whole time equivalent (WTE) Infection Control Practitioners (ICPs) for every 100 occupied beds in acute care and specialised facilities (children's hospitals). It recommends a ratio of 0.8 WTE ICPs for every 100 beds in long term care facilities. The authors comment that recommendations for staffing must include not only the number of occupied beds but also the scope of the service, the complexity of the healthcare facility, the characteristics of the patient population, and the unique or urgent needs of the facility and community. This comment reflects the difficulties in recommending a single specified level of service.
- 2.21 In the US, it was found that hospitals in the National Nosocomial Infection Surveillance System had a median staffing level of one ICP for acute facilities with an average daily census of 115 patients<sup>7</sup>.

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<sup>4</sup> Roberts CR, Mayon-White R, Grant Casey J. Audit of infection control practice in nursing homes 1996-8. London: PHLS, 2000. [www.phls.co.uk](http://www.phls.co.uk)

<sup>5</sup> Public Health Medicine Environmental Group. Guidelines on the control of infection in residential and nursing homes. London: Department of Health, 1996.

<sup>6</sup> O'Boyle C, Jackson M and Hanly SJ (2002) Staffing requirements for infection control programs in US health care facilities: Delphi project. *American Journal of Infection Control* Oct 2002, vol 30, no 6, 321-33

<sup>7</sup> Richards C, Emori T, Edwards J et al. Characteristics of Hospitals and infection control professionals participating in the National Nosocomial Infection Surveillance System 1999. *American Journal of Infection Control* 2001, 29;400-403

2.22 There may be a possible shortfall of up to 18.4 WTE ICNs in NI, if these and other suggested baselines<sup>1</sup> are used. The current NI complement of Trust employed ICNs is 28.6 (see appendix C).

2.23 A survey of the management and control of hospital acquired infection in acute hospitals in Northern Ireland<sup>2</sup> carried out in 2002/3 recommends that:

“There needs to be an urgent increase in infection control doctor sessions and the number of infection control nurses if healthcare associated infection is to be adequately controlled and to comply with current best practice”.

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<sup>1</sup> Scottish Centre for Infection and Environmental Health (2002) A Model of Infection Control and Communicable Disease Control for Scotland(Consultation Document)

<sup>2</sup> Communicable Disease Surveillance Centre (Northern Ireland) 2002/3. The Management and Control of Hospital Acquired Infection: A Survey of Acute Hospital Trusts in Northern Ireland.

## CURRENT MODELS OF SERVICE DELIVERY

3.1 There are a range of service models developed to provide specialist Infection Control Nursing services:

- Hospital Trust Infection Control Nurses providing services to the hospital(s) within that Trust
- Community Trust Infection Control Nurses serving Community Trust's facilities and staff.
- Hospital Trust Infection Control Nurses providing services to hospital and Community Trusts as per agreed contracts.
- Integrated Hospital and Community Trusts where Infection Control teams provide a service to HPSS Trusts.
- HPSS Board provided service.

3.2 **Eastern Health and Social Services Board area**

- **Acute Hospital Services**

Royal Group Hospitals, Belfast City Hospital, Musgrave Hospital and Mater Hospitals all have Infection Control Nursing Services.

- **Community Services**

South and East Belfast Community Trust have their own Infection Control nurse and since mid 2004, a contractual arrangement with the Mater Hospitals Microbiologist. Infection Control Nursing services to North and West Belfast Community Trust are provided through a contractual arrangement with the Mater Hospital.

- **Integrated Trusts**

The Ulster Community and Hospitals Trust and Down Lisburn HSST are combined hospital and community Trusts, each with an Infection Control Nursing Team providing services to hospital and community facilities.

- Microbiology Support is provided formally within the Royal Group Hospitals, Belfast City Hospital, Mater Hospital and Greenpark Health Care Trust. Informal arrangements are currently in place for the provision of microbiology support to Down Lisburn Trust and the Trust is currently seeking resource for a proactive microbiology/infection control service.

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- The EHSSB has currently no resources to provide Infection Control Nursing service and advice to the independent sector. Advice is currently provided through the CCDC.
- The EHSSB would require further resources to take forward its future plan for Infection Control Nursing Services. This issue has been reviewed by the Board which aims, subject to resources to employ a further two infection control nurses to work across both the private nursing and residential home sector.

### 3.3 Western Health and Social Services Board area

- **Acute Hospital Services**

Altnagelvin has an Infection Control Team, including microbiology services that provides a service to the hospital plus Waterside Elderly Care Facility, Roe Valley Hospital (which provides outpatient services), and Spruce Villa which houses young chronically sick and disabled people.

- **Community Trust**

Foyle Trust has a part time Infection Control Nurse who provides a service to Foyle Community Trust which includes Gransha Mental Health Hospital, and learning disability and care of the elderly.

- **Integrated Trust**

Sperrin Lakeland Trust has an Infection Control Team that provides a service to the Trust's two acute hospitals, the mental health hospital and its community facilities, the Trust's community facilities i.e. two residential homes, plus the Trust staffed primary care facilities as well as the Trust learning disability services and facilities.

- Consultant Microbiologist support is provided through a contractual arrangement with Altnagelvin Trust.
- The independent and private sectors in the Sperrin Lakeland catchment area get advice from the CCDC or by good will from the local Infection Control Nursing Team.

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- **Other**

The WHSSB has directly appointed a full time Health Protection Nurse who provides a specialist advisory, prevention and education service for communicable diseases and infection control.

The WHSSB Northern Sector has a part time Infection Control Nurse who provides a service to independent practitioners i.e. GPs, dentists and optometrists. Hospital and Community Trusts in the WHSSB have link persons to provide advice and support in infection control issues.

### **3.4 Northern Health and Social Services Board area**

- The Infection Control service is provided by a central team employed by the United Hospitals Trust. This team provides a service to United Hospitals directly and through a contractual arrangement to Homefirst Community Trust and Causeway (Acute and Community). Operationally there is a full time Infection Control Nurse based in Homefirst and Causeway Trusts.
- The ICN team have led in the development of Infection Control Link nurses. IC Link Nurses raise awareness of the evidence base for infection control and of infection control policies that cover patients, visitors and health care workers. Link nurses are supervised by Trust Infection Control Nurses and they act as a resource and role model for ward based colleagues. The Link Nurse Network also covers community hospitals and includes Community Link Nurses.
- A work-based education programme has been developed and delivered by the United Hospitals Trust Infection Control Nurses and United Hospitals In-Service Education Team. This programme is validated by the University of Ulster. There is significant input by the Regional Epidemiologist, and demonstrable outcomes have included a reduction in the duration of outbreaks, improved standards of practice in wards, and a reduction in MRSA infections.
- Microbiology support is provided to United Hospitals Trust and Homefirst Trust from United Hospitals. In Causeway Trust microbiology support is provided in-house. The Infection Control Doctor is based in United Hospitals Trust and covers all three Trusts.

- The NHSSB currently has no infection control nursing service and/ or contractual arrangement for the provision of advice to the independent sector. Advice is provided by the CCDC.
- There are recognised systems for handling infection and these are largely under the control of the Director of Public Health and the CCDC. When a problem arises, there are good lines of communication between the CCDC and Trust Infection control staff.
- Problems arise when there is an infection in a Nursing Home. Whilst Trust Infection Control staff can give advice, no other mechanisms are in place.
- One positive benefit of this model of service is the ability to standardise policies and advice within the Board area.

### **3.5 Southern Health and Social Services Board**

- The service models in the Southern Board area are a combination of stand alone hospital services at Craigavon Hospital and integrated services such as in Newry & Mourne. Craigavon and Banbridge employs and funds 0.5 WTE ICN. Armagh and Dungannon Trust provides ICN services to Craigavon Area Hospital through 0.50 Whole Time Equivalent (WTE) and in-house through a further 0.5 WTE ICN.
- The CCDC in the SHSSB identified gaps in service provision to the independent sector. There are also gaps in the level and quality of infection control advice given to GPs, dentists and their staff.
- Since 2002, resources have been used to develop an Infection Control manual available as hard copy or on CD ROM, and to audit antimicrobial prescribing in general practices. The Board has developed a model of service including a Health Protection Team to support the development of an infection control service.
- A health protection model is being developed with a remit that is wider than that of focused infection control. Health Protection Nurse Specialists will address issues of decontamination and waste disposal in general and dental practices and the independent sector, general infection control practice, communicable disease control and contact tracing when required. It is proposed that this would be an area wide service working in close partnership with existing infection control nursing staff, the CCDC and consultants in

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public health medicine and dental public health at the Board and the consultant microbiologist at Craigavon Area Hospital. The proposal will significantly strengthen the local arrangements.

The proposal is experimental and will be evaluated over the next two years with a view to continuing funding.

### **Primary Care**

- 3.6 Primary Medical and Dental Practices have not developed co-ordinated infection control services in the same way as HSS Trusts.
- 3.7 Locally, some work has already taken place in response to the perceived need in general practice for guidance. In the EHSSB area, an EHSSB/Mater Hospital Trust collaboration resulted in the publication of "Infection Control – a General Practice Guide" in 1999 with supporting awareness training. The folder comprises guidance and an audit workbook which practices are encouraged to work through with relevant staff. All General Medical Practices in the EHSSB area have received a copy. The document is formally reviewed annually and updates are circulated to practices as required. A complete revision took place in 2002 and another was undertaken in 2005 to take account of the new GMS Contract requirements. It is envisaged that a re-launch will be supported by further local training.
- 3.8 The New General Medical Services Contract contains contractual and statutory requirements for practices to meet minimum national standards for premises, equipment and arrangements for infection control and decontamination. In addition, the contract introduces a voluntary quality and outcomes framework around four key areas: clinical; organisational; additional services; and patient experience. Practices that partake are financially rewarded. One example under organisational indicators requires recording the Hepatitis B status of all doctors and relevant employed practice staff and recommending immunisation if required in accordance with national guidance.
- 3.9 Also in the category of organisational indicators, quality points are awarded if “all practice-employed nurses have personal learning plans which have been reviewed at annual appraisal” (p.80)<sup>1</sup> This should provide practice nurses with an opportunity to include updating of their knowledge and skills in infection control as part of their overall plan for continuing professional development.

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<sup>1</sup> The NHS Confederation/BMA (2003) New GMS Contract 2003. London, BMA and NHS Confederation. [www.bma.org.uk](http://www.bma.org.uk) [www.nhsconfed.org](http://www.nhsconfed.org)

## Local Health and Social Care Groups

- 3.10 Local Health and Social Care Groups are tasked with developing the interface of primary care with other areas, improving and developing chronic disease management and service delivery across the primary, secondary and community care sectors. LHSCGs should have a lead role in commissioning at least some 20% (by value) of secondary, community and/or intermediate care service encompassing at least two programmes of care.
- 3.11 This offers a further opportunity to prioritise infection control within a more integrated system for delivering health and social care at local level. It is important that those who currently have a lead role in infection control should link with LHSCGs, using best evidence and pressure to raise awareness and ensure that health protection is promoted as a major agenda item.

## Current Services to the Independent Sector<sup>1</sup>

- 3.12 Nursing and residential homes are required under the Registered Homes Order (1993) NI and associated regulations to:  
*'Provide adequate arrangements for the prevention of infection, toxic conditions, or spread of infection in the Home.'*
- 3.13 Practitioners in the independent sector meet this requirement through the implementation of guidance provided in the in the PHMEG<sup>2</sup> Guidelines for Infection Control in Nursing and Residential Homes 1996, and the EHSSB Infection Control – A General Practice Guide First Update – July 2002. Homes within the Western Health and Social Services Board are also provided with infection control guidelines drawn up by Foyle Community Trust.
- 3.14 The Registration and Quality Improvement Authority (RQIA) will evaluate the extent to which homes' policies and procedures are based on these guidelines. The provision of a nominated member of staff who has an interest in infection control and staff training opportunities should be included in this evaluation. The Infection Control Nurses Association has recently developed an Audit Tool<sup>3</sup> to review and standardise infection control practice.

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<sup>1</sup> The independent sector is taken here to include nursing and residential homes

<sup>2</sup> Guidelines on the Control of Infection in Residential and Nursing Homes DOH PHMEG – March 1996

<sup>3</sup> Infection Control Nurses Association and DOH (2004) Audit Tools for Monitoring Infection Control Standards

- 3.15 RQIA have assisted in the delivery of training programmes for nursing and residential home staff in Infection Control. Currently the unit source their expertise from the Infection Control nursing teams within HPSS Trusts.
- 3.16 Within the primary dental care independent sector, a cross infection control audit tool and manual have been developed and are currently being used on a regional basis to benchmark and improve standards. The proposed programme of training and improvement associated with this initiative complements the recommendations in a Way Forward for Infection Control Nursing in Northern Ireland 2006.

### **Ambulance Services**

- 3.17 Ambulance services have a pivotal role as first point of contact in the patient care pathway. The Northern Ireland Ambulance Service was the first in the UK to introduce a specific policy for the management of MRSA. All its staff are trained in infection control as part of their induction and as appropriate during regular post proficiency training. In addition, the Trust has reviewed its compliance with the 2004 Controls Assurance Standard for the Control of Infections.

### **Schools**

- 3.18 Arrangements are in place to address issues in relation to school health, hygiene and infection control. Advice and support is provided by the CCDCs with Community Health Doctors and Environmental Health Officers.
- 3.19 The school nursing service provides health promotion, health surveillance and targeted input to the school age population, in response to assessed need. This may include advice on communicable disease prevention and management, and implementing immunisation programmes. DHSSPS is leading a project to enhance the public health role of the school nursing service and it will be important that this complements the current strategy. One possibility is that the school nursing service would link with the Infection Control Nursing Service, which would then liaise with the Consultant in Communicable Disease Control, as well as Environmental Health Officers.

- 3.20 The Community Practitioners and Health Visitors Association (CPHVA) is driving a major UK wide campaign to improve the state of school toilets as a basic right for children and young people.

### **Occupational Health**

- 3.21 Health in the workplace has achieved growing emphasis in recent years. Investing for Health gives a clear message that health-promoting workplaces can have an important positive influence on people's physical and mental wellbeing. This includes the provision of an environment that complies with health and safety legislation and has effective health and safety policies in place.
- 3.22 It is important that workplaces are tied in to the overall system for infection control and health protection. DHSSPS has recently published a Review of Occupational Health in the Workplace<sup>1</sup> that recommends full access to occupational health services for all employees in the HPSS, including those working in General Medical Practices.
- 3.23 Occupational health nurses within and outside the HPSS are key players in building healthy workplaces and they will need to be included in the network of information and support for nurses whose remit includes infection control. They play a vital role in the management of outbreaks and incidents of infection where staff screening is required. Core working arrangements should be developed between Occupational Health Departments and Infection Control Nurses.

### **Summary**

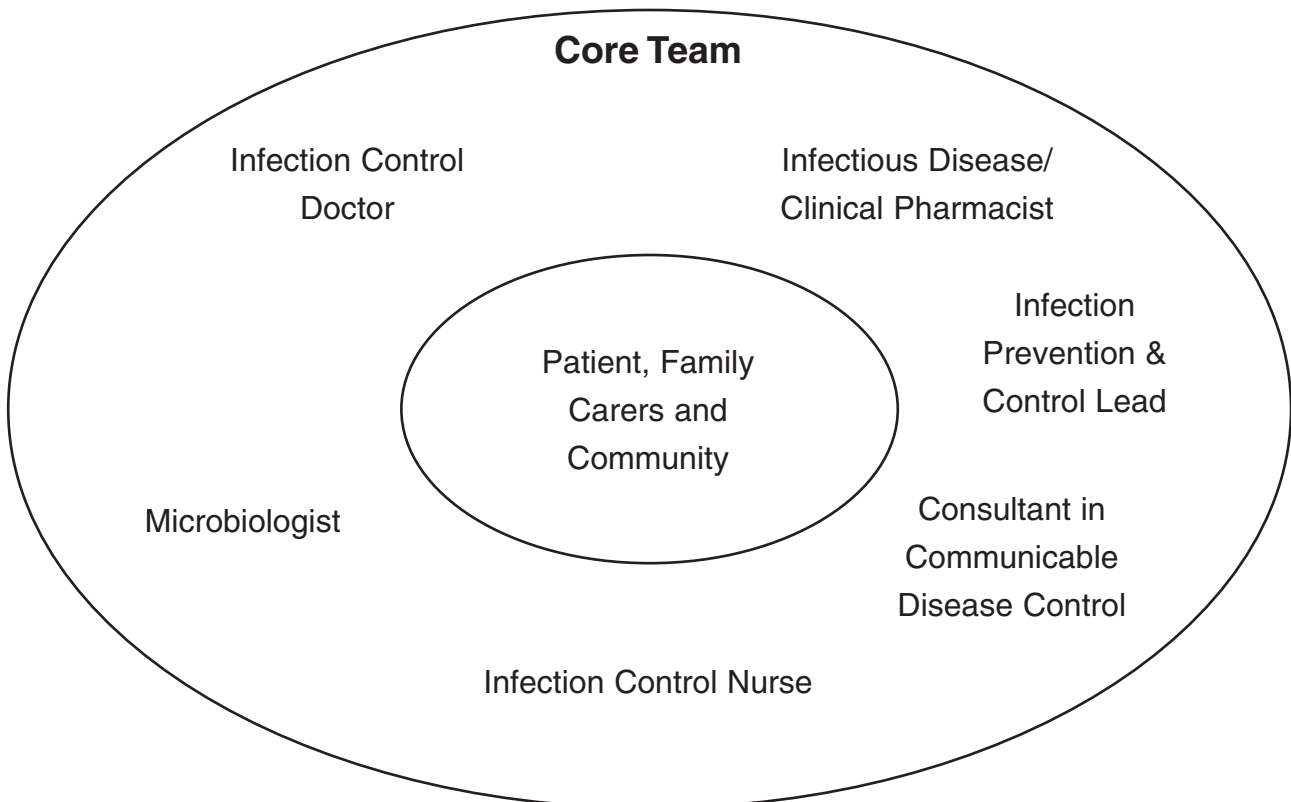
- 3.24 The scale of each team or service varies significantly and staffing complements in each HSS Trust are detailed in Appendix C. Currently there is little evidence to support the effectiveness of any of these models of service delivery.
- 3.25 What emerges clearly from almost all of the current models is the limited and often non-existent support and advice to Nursing and Residential homes and to General Medical and Dental Practices. Since patients regularly move between sectors, if proper processes are not in place, apart from core quality issues specific to each, there is the risk of transfer of infection from one area to another. It is therefore crucial that fully resourced and support infection control nursing services should be available to all sectors.

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<sup>1</sup> DHSSPS (2004) Review of Occupational Health Services in the HPSS – Supporting Healthier Workforce

## THE WAY FORWARD

- 4.1 The Review Group acknowledges that Infection Control Nursing has not been a priority in the HPSS. In particular, systematic infection control cover, including Infection Control Nursing services for Nursing and Residential Homes are weak or non-existent and arrangements for General Medical and Dental Practices are poorly developed. This must change if the health and social care services are to be adequately prepared for the future.
- 4.2 The Review Group has suggested a way forward for Infection Control Nursing with recommendations on strategic direction, service models, workforce and career pathways, and leadership. The key building block of the future development of Infection Control Services is the Infection Control Team as illustrated below.



This team works in support of the wider HPSS service to maximise patient safety. The ability to provide this service is dependent on the skills and competencies of the team, along with the recognition from the whole care and treatment team, regardless of location that infection control is everyone's business. Of particular note is the need for strong and committed leadership from the Chief Executive and Infection Control Leader within Trusts and Boards to this service. There is also a need for collaborative working across sectors, in particular between community Trusts, the independent sector and general practices.

### **Strategic Direction**

- 4.3 The development of the HPSS and the development of Infection Control Nursing are inextricably linked. The rapidly changing organisation and delivery of Health and Social Services challenges all involved in policy development, capital planning and service delivery to prepare a health and social service which is responsive to patient and client need, is safe and is prepared for the changes which can be predicted for the future. The emphasis is on the responsibility of each individual to prevent and manage infection, and this includes staff, patients and the public. The most fundamental message to arise from this review is that infection prevention and control is everyone's business.

### ***Recommendation One***

- 4.4 Infection control services including Infection Control Nursing must be a priority at policy, commissioning and service delivery levels. The review illustrates that this will require an investment in the service over the coming years, with particular emphasis on a more robust infection prevention and control service to primary care and the independent sector.

### ***Recommendation Two***

- 4.5 The Health and Personal Social Services Regulation, Quality and Improvement Authority (RQIA) should consider, as an urgent priority, the need to monitor and ensure infection control standards across all sectors of health & social care including Nursing and Residential Homes, General Medical and General Dental Practices and the HPSS, within the overall framework for clinical and social care governance.

### ***Recommendation Three***

- 4.6 Under Priorities for Action, Boards, Trusts and Local Health and Social Care Groups were required to implement AMRAP. In future this should include developing the Infection Control Nursing Service in accordance with the recommendations in this report on strategic direction, service models, workforce and leadership.

### ***Recommendation Four***

- 4.7 'Changing the Culture for the prevention and control of Healthcare Associated Infections in Northern Ireland 2006' requires Boards to work with Trusts to ensure the complement of Infection Control Nursing Staff within each Organisation is increased by December 2006.

### **Service Model**

- 4.8 The Review Group is not recommending any one model of service. The shape, size and management arrangements of each team will vary according to local need and local circumstances. These local circumstances themselves will vary according to the size, scope and management arrangements within each organisation and are likely to change in the near future as a consequence of the Review of Public Administration and Developing Better Services.

### ***Recommendation Five***

- 4.9 The Review Group considers that any future development of Infection Control Nursing Services should be underpinned by the following principles:
- Adequate resources should be made available to deliver an efficient Infection Control Nursing service, including support structures.
  - An Infection Control Nursing Service must be provided to all care areas including hospital and community Trusts, nursing and residential homes, general practices, allied health profession services and dentistry to ensure an appropriate initial response at the time of an outbreak (whenever this should occur) as well as ongoing advice and support. Although outside the scope of this review, the Working Group considers it essential that work should be undertaken to ensure that future service and workforce development covers private hospitals, crèches, nurseries, voluntary sector day centres and other high risk situations where children or adults gather. This could be driven under the statutory duty of quality that enables regulation to be extended to a wider range of services.

- Infection Control Nursing teams should have clear lines of professional accountability to senior nurses within their organisations and sound links with the organisation's management structures to include the Infection Prevention and Control lead.
- There should be clear formal links between Infection Control Nursing services with Consultant Microbiology and Infection Control Doctor services. The nature of these arrangements will vary according to local management systems.
- There should be clear formal links with the Consultants in Communicable Disease Control and close communication with Clinical Pharmacists.
- Support mechanisms including managerial support, the capacity to collate relevant infection control and surveillance data, and clear lines of communication and accountability should be in place for all Infection Control Nurses including those working in community settings.
- The role of the Clinical Team in Infection Control Management should be strengthened to include surveillance, identification of infection rates, and the design and delivery of solutions to issues of infection control and evaluating interventions across organisational boundaries and management structures, to ensure the best possible service to local populations.
- There should be clear linkages between the Infection Control Nursing Service in acute, community and independent sectors, founded on good communication, information sharing and systematic collaboration between Infection Control Nurses across the region.
- Skills and competencies must match job function, with updating and ongoing continuing professional development as required, and within the overall framework of Agenda for Change and Changing the Culture – Action Plan
- Appropriate administrative/secretarial support should be available to maximise the effectiveness of the ICN Nursing Service
- Maximum use should be made of Information and Communication Technology in support of Infection Control Nursing Services.

### ***Recommendation Six***

- 4.10 Each HPSS Provider in partnership with commissioners should benchmark current services against the above principles and develop a joint action plan for the further development of Infection Control Nursing Services. A benchmarking tool designed for this purpose is included in Appendix D.

## **Workforce and career pathways**

- 4.11 A workforce plan is needed to develop an optimum service, including the development of nurses and skill-mix to take on the Infection Control Nursing roles required to deliver this strategy within agreed timescales.

### ***Recommendation Seven***

- 4.12 HPSS Trusts in partnership with commissioners will develop an agreed workforce plan for Infection Control Nursing with priority given to the next five years. This action plan will detail the priority service areas and the training needs of (i) the general nursing population (ii) nurses who wish to become specialists in infection control, and (iii) Infection Control Nurses themselves. The workforce plan will need to identify the recurrent resources required for effective implementation.

## **Training and Development**

- 4.13 Infection prevention and control is fundamental to safe nursing practice, which in turn is predicated on effective pre and post registration education. The principles of infection control and associated competencies should be embedded in pre and post registration curriculum development across the range of nursing and midwifery. Access to regular updating on infection control should be built into continuing professional development (CPD) and appraisal plans for nurses working in all sectors including primary care and the independent sector. Users of agency staff must assure themselves, through the contracting or other processes that staff are fully updated and competent in the area of infection prevention and control.

### ***Recommendation Eight***

- 4.14 DHSSPS, in partnership with NIPEC, education, commissioners and Trusts should carry out a review of pre and post registration education on Infection Control Nursing and how infection control is covered in existing nurse education programmes. This should identify current patterns and shortfalls, and assess the need for programmes at different levels, including degree and masters level, to be provided locally within NI. This should include consideration of the needs of nurses working in General Medical Practices and in the independent sector.
- 4.15 The Review Group considers that there would be value in examining and developing multi disciplinary educational and training solutions to the issue of infection control within primary care including general medical and general dental practices as well as in secondary care. We would look forward to working with our colleagues, including Environmental Health Officers, in the development of these programmes.

### ***Recommendation Nine***

- 4.16 In the short term, the Review Group recommends that the post registration Education Commissioning Groups should encourage and assess demand for specialist training in Infection Control Nursing locally.

### ***Recommendation Ten***

- 4.17 To improve accessibility, particularly for nursing staff working within the private, voluntary and independent sectors (who cannot access funding through the Education Commissioning Framework) a range of educational formats should be explored including E- learning opportunities. Lecturers who hold joint appointments, and other healthcare professionals with practical expertise in infection control, may be particularly well positioned to provide up to date clinical and theoretical education: this has already been developed successfully for the Infection Control Link Nurse programme (see 3.4).

### ***Recommendation Eleven***

- 4.18 Trusts and Boards should actively promote Link Nurse infection control programmes within the Education Commissioning Group Framework for Post Registration Education for nurses and midwives.

### ***Recommendation Twelve***

- 4.19 Educational Institutions should maximise the opportunities for multi disciplinary learning on infection control. They should draw upon the infection control expertise and experiences currently available in Trusts, Boards and elsewhere.

## **Leadership**

- 4.20 In numerical terms Infection Control Nursing is a small speciality which can create some difficulties for career progression and succession planning. This Review considers that to meet the needs of all key stakeholders the Infection Control Nursing workforce will expand. This cannot happen without raised awareness and clear leadership from senior nurses within Northern Ireland and Infection Control nurses themselves.

### ***Recommendation Thirteen***

- 4.21 Infection Control Nurses should actively seek career development and promote Infection Control Nursing as a challenging and rewarding career.

### ***Recommendation Fourteen***

- 4.22 The Review Group recommends the development a Nurse Consultant post in Infection Control Nursing to help support the implementation of this report's recommendations and to contribute to standardising guidelines and best practice across Northern Ireland.

### **Summary**

- 4.23 The HPSS must adopt a philosophy that the prevention of health care associated infections requires the commitment of everyone, not just the specialist in infection control.
- 4.24 This Review of Infection Control Nursing Services comes at a time when advances in new science and technology and the globalisation of disease, are at their height. It is imperative that the HPSS in all its settings is prepared for these new demands.
- 4.25 Through this Strategy, the Review Group hopes to make a significant contribution to ensuring a safe, supportive environment of care for users and professionals within a service that is prepared for the local and global infection control challenges of the future.

## Appendix A

### Working Group Membership

Mary Hinds	Director of Nursing, Mater Hospital (Chair)
Dr Carolyn Mason	Nursing Officer, Department of Health, Social Services and Public Safety.
Elizabeth Qua	Nursing Officer, Department of Health, Social Services and Public Safety.
Dr Richard Smithson	Consultant in Communicable Disease Control, Western Health and Social Services Board
Dr Vinod Tohani	Consultant in Communicable Disease Control, Southern Health and Social Services Board
Jemima Keys	Infection Control Nurse, Craigavon Area Hospital
Dr Marion Traynor	School of Nursing and Midwifery, Queens University Belfast
Marian Martin	Infection Control Nurse, Sperrin Lakeland HSS Trust
Marie Nesbitt	In Service Education Unit, United Hospitals Trust
Mary McElroy	Infection Control Nurse, Mater Hospital & North and West Belfast Community Trust.
Morag White	Nurse Practitioner, Cherryvalley Health Centre
Hilary Brownlee	Standards Development Task Group, Department of Health, Social Services and Public Safety
Ann Gardiner	Infection Control Nurse, United Hospitals Trust
Irene Thompson	Infection Control Nurse, Royal Group of Hospitals
Monica Merron	Senior Nurse Infection Control, Down Lisburn Trust
Dr Paddie Kearney	Consultant Microbiologist / Infection Control Doctor, United HSS Trust
Mr Phelim Quinn	Chief Nurse, Southern Health and Social Services Board
Dr Wilson Coulter	Consultant Oral Microbiologist, School of Dentistry, Royal Group of Hospitals

***The review group would like to thank the following respondents who kindly commented on or contributed to the development of this report: Dr Brian Smyth, CDSC NI; Mr Brendan McGrath, NIPEC; Mr Donncha O'Carolan, DHSSPS Dentistry; Mrs Mary Waddell, Director of Nursing EHSSB***

## Appendix B

Chief Medical Officer, Scotland, "Five Top Tips" for members of the public on healthcare associated infection

- Think about keeping patients safe before you visit. If you, or someone at home has a cold or are feeling unwell - especially if it's diarrhoea - stay away until you're better;
- Think about what you take in to patients. Food is a treat best saved until they get home. Don't sit on the bed and keep the number of visitors to a minimum at any one time;
- The most important thing you can do is to wash and dry your hands before visiting the ward, particularly after going to the toilet. If there is alcohol hand gel provided at the ward door or at the bedside, use it;
- Never touch dressings, drips, or other equipment around the bed;
- Don't be afraid to raise concerns with members of staff in your hospital. Busy doctors (and that includes me) can sometimes forget simple things like cleaning hands before examining a patient. No NHS worker should take offence at a gentle and polite reminder.

## Appendix C

### Current Infection Control Nursing Workforce

Trust	Whole Time Equivalents
United Hospitals Trust	2.33
Homefirst Trust	1.33
Causeway Trust	1.33
Sperrin Lakeland	1.48
Foyle Community Trust	0.53
Altnagelvin Hospital Trust	3.00
Craigavon Hospital Trust	1.60
Newry & Mourne Hospital and Community Trust	1.00
Belfast City Hospital	2.50
Ulster Community & Hospitals Trust	2.00
Down Lisburn Trust	2.00
Mater Hospital / North & West Belfast Community Trust	2.00
Greenpark Healthcare Trust	1.00
South & East Belfast Community Trust	1.00
Royal Group Hospitals	3.00
Armagh and Dungannon Community Trust	0.40
Craigavon Area Hospital Trust A further 0.5 funded recently with responsibility for Craigavon and Banbridge Community Trust	1.50
Craigavon and Banbridge Trust	0.50 (temp to March 2004)
Newry and Mourne Trust	1.00
<b>TOTAL</b>	<b>30.00</b>

## Appendix D

### HPSS Provider/Commissioner Benchmarking Tool

Issue	Met Fully	Met in part	Not met	Proposed Action	Review Timescale
<p>Priority Areas for infection Control Nursing identified in partnership with Commissioners. <i>Trusts and Commissioners</i></p> <p>Adequate resources should be made available to deliver an effective Infection Control Nursing service. <i>Trusts and Commissioners</i></p> <p>Five year workforce plan developed including training needs. <i>Trusts and Commissioners</i></p> <p>Infection Control Nursing Service must be provided in all care areas including hospital and community Trusts, nursing homes, residential homes, general practices, dentistry and private hospitals. <i>Trust and Commissioners</i></p>					

<p>Future service and workforce development should ensure the provision of services to crèches, day centres or other high risk situations where vulnerable adults /children gather. <i>Trusts and Commissioners</i></p> <p>Infection Control nursing teams should have clear lines of professional accountability to senior nurses within their organisations. <i>Trusts</i></p> <p>There should be clear formal links between Infection Control Nursing Services and the Consultant Microbiology and Infection Control Doctor <i>Trusts and Commissioners</i></p> <p>There should be clear formal links with the Consultants in Communicable Disease Control. <i>Trusts and Commissioners</i></p> <p>Support mechanisms should be in place for all Infection Control Nurses including those working in community settings. <i>Trusts</i></p>					
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<p>There should be clear linkages between the Infection Control Nursing Service in acute, community and independent sectors, founded on good communication and information sharing. <i>Trusts and Commissioners</i></p> <p>Skills and competencies must match job function, with updating and ongoing continuing professional development as required. <i>Trusts</i></p> <p>Appropriate administrative/secretarial support should be available to maximise the effectiveness of the ICN Nursing Service <i>Trusts and Commissioners</i></p>					
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*infection prevention and control is everyone's responsibility*

Produced by:  
Department of Health, Social Services and Public Safety,  
Castle Buildings, Belfast BT4 3SQ

email: [health.protection@dhsspsni.gov.uk](mailto:health.protection@dhsspsni.gov.uk)

Telephone (028) 9052 2059

Textphone: (028) 9052 7668

[www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)

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