HSC Public Health Agency

Issue 1

Transmit

Health protection service bulletin June 2010

Foreword

I am delighted to welcome you to the first edition of *Transmit*, the health protection bulletin being produced by the health protection service within the regional Public Health Agency (PHA).

Prior to 1 April 2009, consultants in communicable disease control in each Health and Social Services Board would have issued a regular bulletin with updates on health protection issues.

This new regional bulletin will aim to keep you up-to-date on a range of current health protection issues. To do this, we will provide in-depth coverage of a key health protection work area, including surveillance data, in each issue.

In addition, we will describe the variety of issues and common themes being dealt with in the health protection duty room and provide updated information and guidance as appropriate.

We will continue to develop methods of communicating with health professionals and the public on health protection issues, and we would welcome any feedback you have in relation to this.

I can assure you that you will continue to receive a high quality service from the PHA's health protection service.

Lorraine Doherty

Dr Lorraine Doherty
Assistant Director of Public Health (Health Protection)

Structure of the health protection service

All health protection staff from legacy organisations are now in the PHA. This includes staff from the legacy Health and Social Services Boards, the Communicable Disease Surveillance Centre (CDSC) and the Healthcare Associated Infection Surveillance Centre (HISC).

The health protection service in the PHA has a lead role in protecting the population from infection and environmental hazards through a range of core functions including surveillance and monitoring, operational support and advice, education, training and research.

The service coordinates its acute response functions from the health protection duty room which is located at the PHA Eastern Office in Linenhall Street, Belfast.

This is the first point of call for health professionals and other agencies regarding all health protection incidents/queries during working hours (pha.dutyroom@hscni.net or on 028 9055 3997 or 028 9055 3994).

The health protection service is delivered by a multi-disciplinary team of doctors, nurses, emergency planners, and scientific, surveillance and administrative staff.

Multi-disciplinary, consultant-led health protection teams have been developed around key work areas (see page 2). Surge capacity for major incident response is provided by a range of staff from across the PHA.

Continued on page 2

Health protection teams and team leads		
Area	**Team lead**	**Email address**
Healthcare associated infections strategy	Dr Lourda Geoghegan	lourda.geoghegan@hscni.net
Immunisation and vaccine preventable diseases	Dr Richard Smithson	richard.smithson@hscni.net
Acute response project team	Dr Philip Donaghy	philip.donaghy@hscni.net
Bloodborne viruses and sexually transmitted infections	Dr Maureen McCartney	maureen.mccartney@hscni.net
Gastrointestinal, waterborne and zoonoses	Dr Michael Devine	michael.devine@hscni.net
Emergency preparedness and environmental hazards	Dr Gerry Waldron	gerry.waldron@hscni.net
Training, standards and professional development	Dr Philip Donaghy	philip.donaghy@hscni.net
Respiratory infections	Dr Brian Smyth	brian.smyth@hscni.net
Health protection improvement and inequalities	Dr Lorraine Doherty	lorraine.doherty@hscni.net

Duty room update

A duty room established last year to improve the coordination and response of health protection services to major, and indeed lesser, incidents is proving very effective. This resource is effectively a regional 'hub' and provides a service similar to that offered by health protection units in England.

The case for a hub was overwhelming following the abolition of the legacy Boards and the creation of the PHA. The PHA needed a single point for the collection and assessment of health protection information – and this led to the establishment in October 2009 of the duty room. The duty room also provides a better basis on which to formulate and coordinate a response to incidents of every kind, irrespective of their geographical location.

Since last October, all information originating from primary care, Trusts and laboratories is processed through this central resource, and the necessary action agreed. Communication with the hub is through all modern applications – fax, mail, email and phone.

Professional staffing is provided by a duty officer, who is usually a health protection nurse, with additional cover being provided by one of the health protection consultants.

All the incoming reports, notifications, and laboratory data are initially processed by a small group of dedicated administrative staff. This activity is under the supervision of the duty officer who will assess the situation and decide on the immediate action. All telephone enquiries are recorded by the administrative staff on a local database and answered by the duty officer or consultant.

The duty room has recently supplied all GPs and Trusts with a booklet of infectious disease notification forms, which list those infections that are notifiable in Northern Ireland. We would encourage all clinicians to complete these forms and return them to the duty room as soon as possible.

In future bulletins we will highlight the range and type of enquiry received by the duty room. We would also remind professional staff that all health protection enquiries should be directed to the duty room on 028 9055 3997 or 028 9055 3994. The duty public health doctor can be contacted out of hours via Ambulance Control on 028 9040 4045.

HCAI team update

A priority area for the PHA is the reduction and prevention of avoidable healthcare associated infections (HCAIs) occurring across health and social care (HSC) in Northern Ireland. To this end, a core HCAI team has been established within the regional health protection service.

A key role of the HCAI team is surveillance and monitoring of HCAIs. The HCAI team delivers *Staphylococcus aureus* (SA) – Methicillin resistant (MRSA) and Methicillin sensitive (MSSA) – and *Clostridium difficile* surveillance, as well as a full programme of surveillance for surgical site infections (SSIs) including orthopaedic, caesarean section, cardiac, and neurosurgery. Surveillance of HCAIs occurring in intensive care units is planned and is due to commence in 2010–2011. The following section of this bulletin summarises the most recently available data for the main HCAI surveillance programmes.

The HCAI team provides operational support and advice to HSC organisations – Health and Social Care Board (HSCB), Trusts, primary and community care services. The team provides HCAI improvement support to Trusts, along with support for risk assessment and management of HCAI incidents/outbreaks as they arise. The HCAI team also provides support for, and leads as appropriate, the risk assessment and management of incidents, clusters and outbreaks in the community setting.

The PHA has established a joint HCAI operational team with the HSCB. This team includes representation from commissioning, service planning, finance/resource management, primary care, and pharmacy divisions of the HSCB. The joint HCAI team is accountable to a PHA/HSCB HCAI project board through the assistant director of public health (health protection). The project board includes the directors of public health and nursing and the assistant director of public health (health protection) within the PHA as well as the director and assistant director of performance and planning in the HSCB. The HSCB leads the assessment and management of performance relating to HCAI, supported in this role by PHA.

The key work areas for the HCAI team within the health protection service and also for the PHA/HSCB regional groups are as outlined in *Changing the Culture 2010*.

These include (among others) extension of the 'clean**your**hands' hand hygiene campaign to primary and community care settings, development of an HCAI action plan to address priority areas in the community, and extension of HCAI surveillance programmes in acute settings.

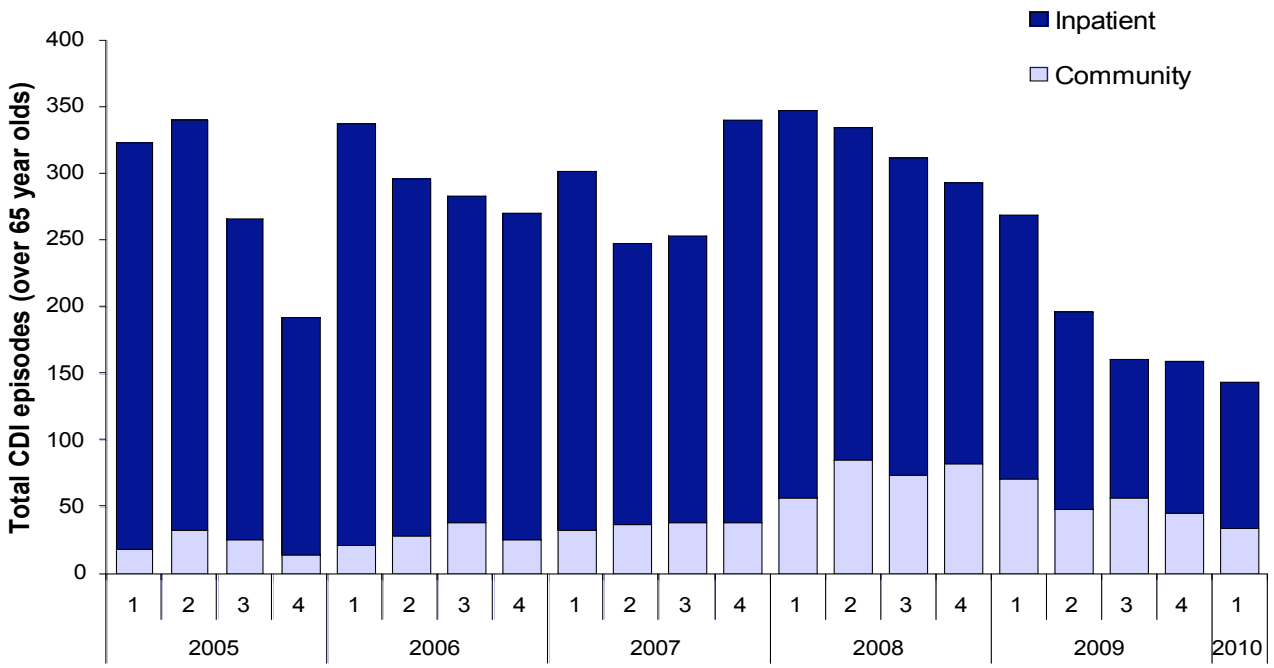
During 2010–2011 the HCAI team will continue to focus on HCAI improvement support to Trusts. Further editions of this bulletin will include updates on ongoing progress/achievements across these work areas. We will also introduce and profile HCAI team members delivering this work agenda.

Pictured at the launch of the 'clean**your**hands' campaign: Dr Michael McBride, Chief Medical Officer, DHSSPS; Dr Lourda Geoghegan, Consultant in Health Protection, PHA; and Dr Lorraine Doherty, Assistant Director of Public Health (Health Protection) PHA.

Clostridium difficile infection (CDI)

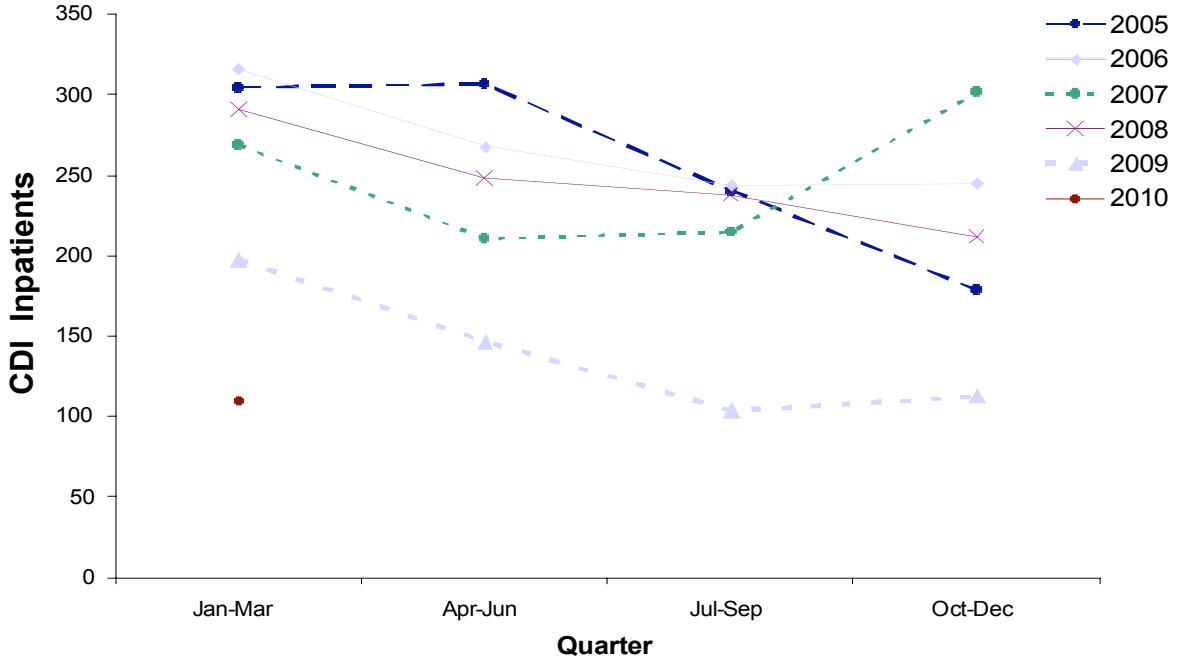
Surveillance of CDI in Northern Ireland is mandatory. The total number of CDI patient episodes is defined as the total number of patients aged two years and over, from whom a diarrhoeal specimen tested positive for *C. difficile* toxins A and B. If repeat specimens are collected from a single patient at least 28 days apart, the patient is considered to have had two episodes of CDI.

Figure 1: Total CDI reports, inpatients and community, in Northern Ireland, by quarter (patients ≥ 65 years), between 2005 and 2010



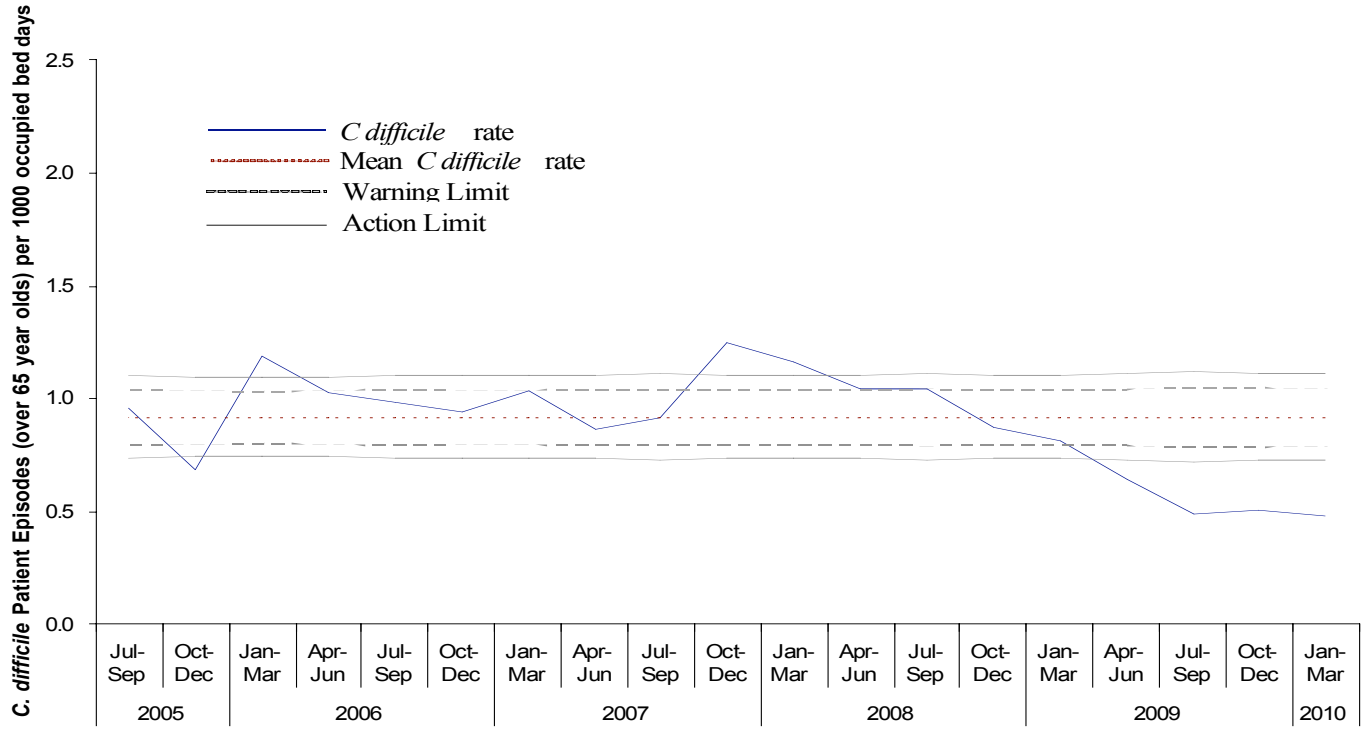
During Quarter 1 2010, a total of 143 episodes of CDI were reported for persons aged 65 years and over in Northern Ireland. This quarter's CDI figures are lower than those reported during the same period in previous years, and are the lowest recorded for Quarter 1 since reporting began in 2005. CDIs among hospital in-patients aged 65 years and over decreased by 4% (decrease of four episodes) during Quarter 1 2010 compared to Quarter 4 2009 (Oct–Dec 2009). CDI reports for community patients aged 65 years and over decreased by 26% (decrease of 12 episodes) during Quarter 1 2010 compared to Quarter 4 2009 (Figure 1).

Figure 2: Total CDI 'Inpatients' reports, Northern Ireland, by quarter (patients ≥ 65 years), between 2005 and 2010



CDI reports for hospital in-patients aged 65 years and over fell by 47% between the 2008–2009 and 2009–2010 financial years (Figure 2).

Figure 3: Statistical process control chart for quarterly *C. difficile* rates in inpatients aged 65 years and over, in Northern Ireland



Statistical process control (SPC) charts facilitate distinction between natural variation and 'special cause variation' where something unusual may be happening. During Quarter 1 2010 the rate of CDI has remained below the lower action limit of the SPC chart. This indicates a continuing significant reduction in the number/ episodes of CDI not explained by natural variation (Figure 3).

Staphylococcus aureus (SA) bacteraemia

Surveillance of SA bacteraemia in Northern Ireland is mandatory, and includes both MRSA and MSSA SA bacteraemias. If repeat specimens are collected from a single patient at least 14 days apart, the patient is considered to have had two SA bacteraemias.

Figure 4: MRSA, MSSA and *S.aureus* patient episode rates in Northern Ireland by quarter, with 95% Confidence Intervals, April 2001 – March 2010

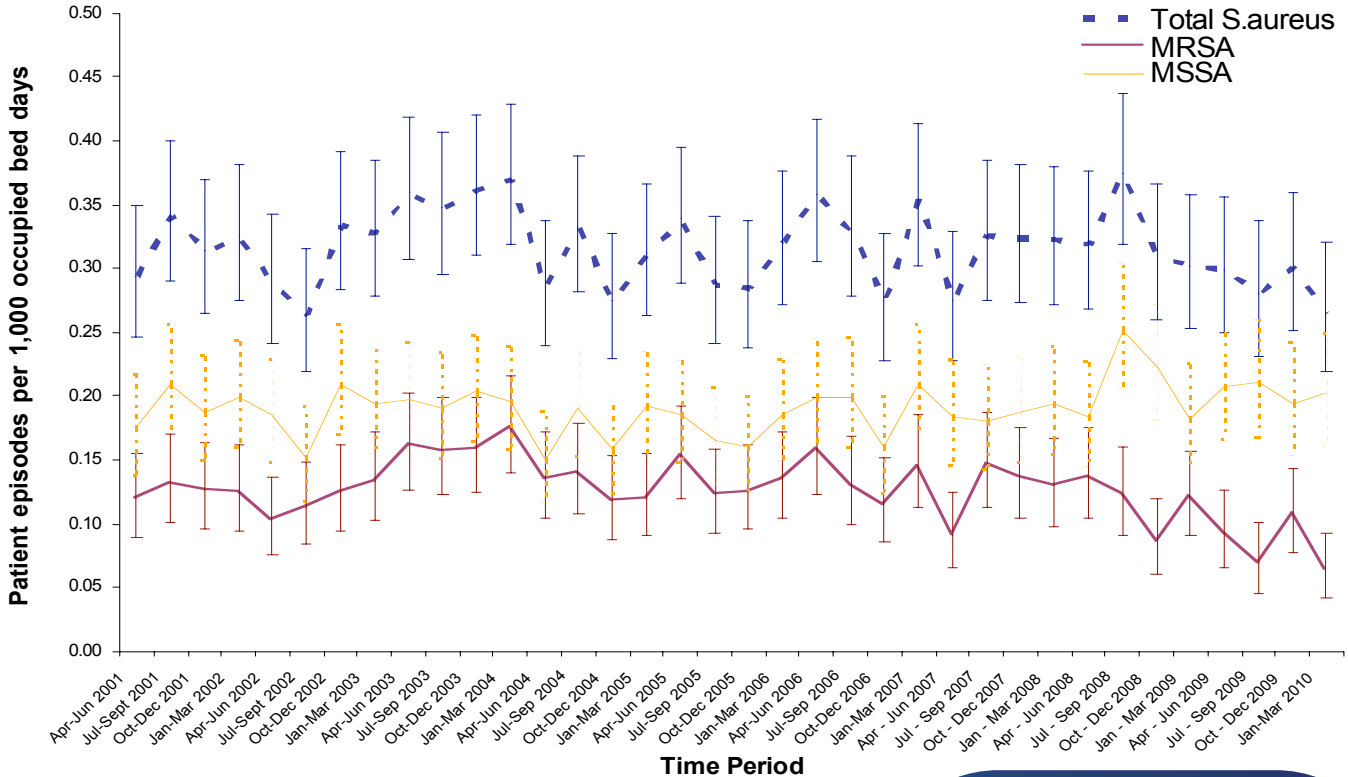
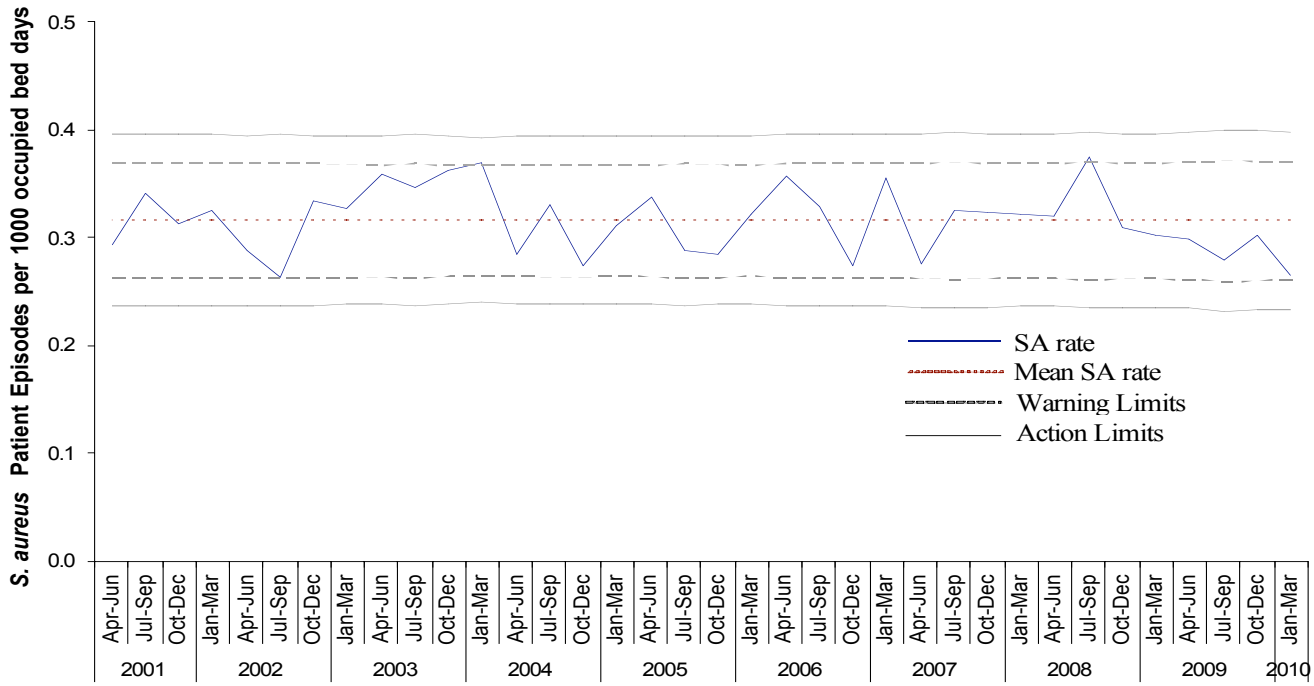


Figure 5: Statistical process control chart for quarterly total *S.aureus* rates in Northern Ireland



Overall, SA bacteraemia rates for Northern Ireland (MRSA plus MSSA) have decreased by approximately 12% during Quarter 1 2010 compared to Quarter 4 2009. SA rates for Quarter 1 2010 remain within expected parameters for Northern Ireland. During Quarter 1 2010, MRSA rates were significantly reduced: the rate decreased by approximately 40% compared to Quarter 4 2009. Overall, MRSA reports during 2009–2010 fell 32% compared to 2008–2009.

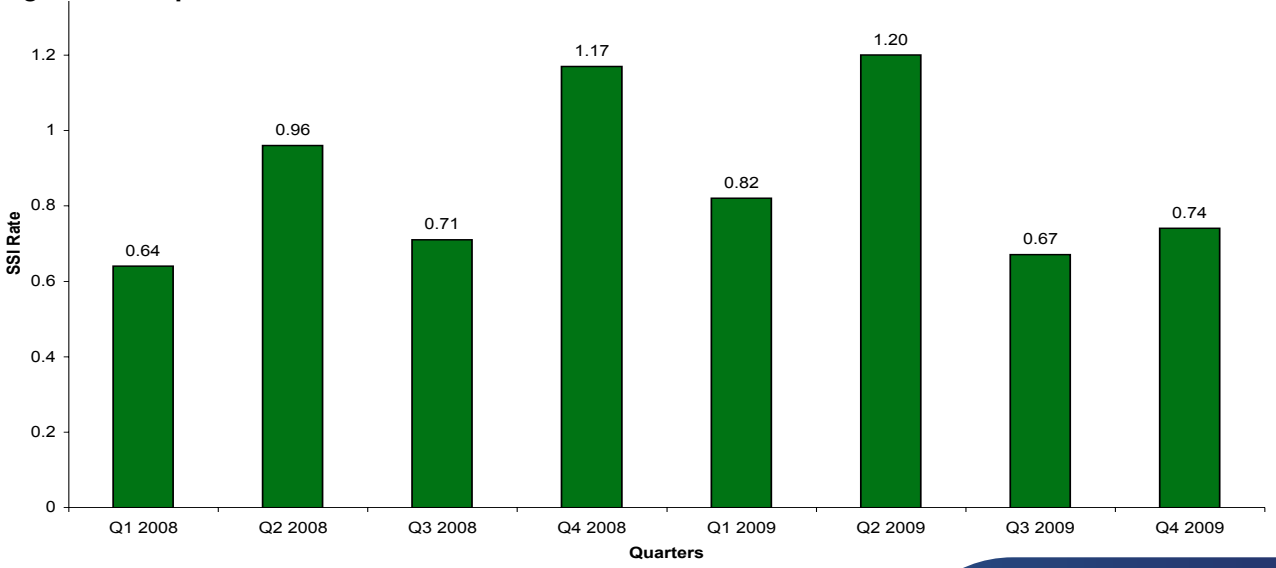
MSSA rates for Quarter 1 2010 increased by approximately 4% compared to Quarter 4 2009. MSSA rates for Quarter 1 remain within expected parameters for Northern Ireland. Overall, MSSA reports during 2009–2010 fell by 8% compared to 2008–2009 (Figures 4 and 5).

Surgical site infection (SSI) – orthopaedics

Since October 2001, HSC Trusts that provide orthopaedic services are required to undertake surveillance of SSIs following certain procedures: hip arthroplasty, knee arthroplasty, hip hemiarthroplasty and internal fixation of femoral trochanteric fractures. Trusts also collect information on all other orthopaedic procedures.

The overall SSI rate in 2008 was 0.90 per 100 operations (95%CI 0.73 to 1.11) compared to the rate in 2009 of 0.94 (95%CI 0.77 to 1.16). SSI rates were not significantly different for 2008 when compared to 2009 (p>0.5) (Figure 6).

Figure 6: Orthopaedic SSI rate Northern Ireland 2008-2009



Surgical site infection (SSI) – Caesarean section

All HSC Trusts in Northern Ireland are required to have systems in place for post-discharge surveillance of SSIs following Caesarean section (as per *Priorities for Action 2007–2008*).

Figure 7: Caesarean section surgical site infection surveillance compliance Northern Ireland Q2 2008 – Q4 2009

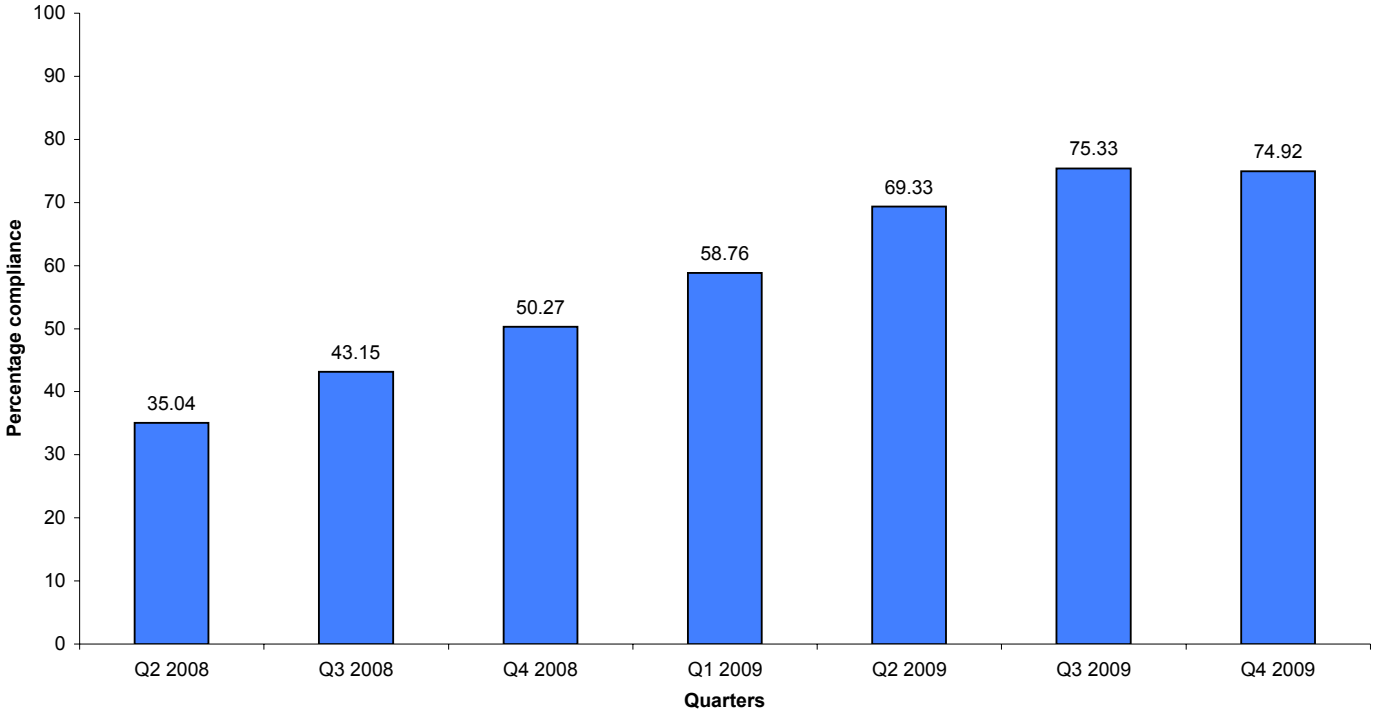
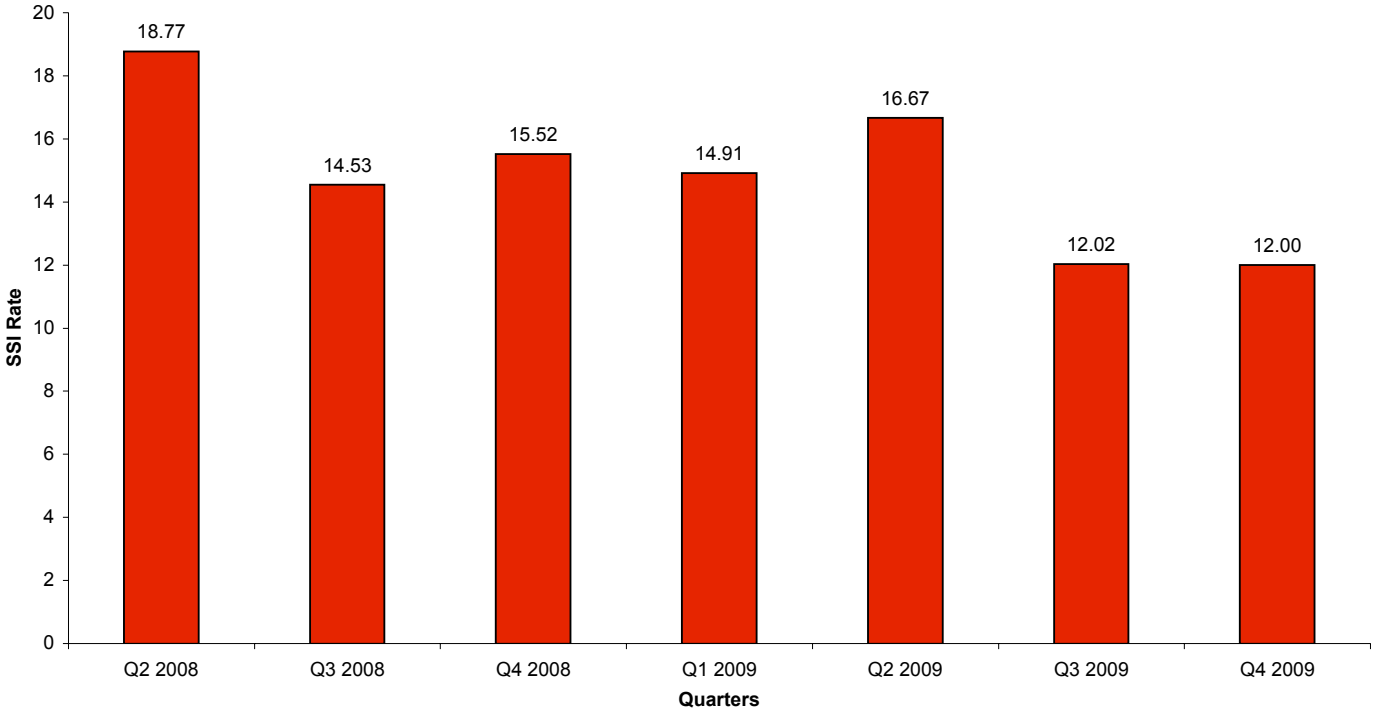


Figure 8: Caesarean section surgical site infection rate Northern Ireland Q2 2008 – Q4 2009



Compliance with surveillance of SSIs following Caesarean section has increased from 35% in Quarter 2 2008 to 75% in Quarter 4 2009. The overall rate of SSI following Caesarean section, in the period Quarter 2 2008 to Quarter 4 2009, was 14.50 per 100 operations (95%CI 13.74 to 15.30); 93.3% of all Caesarean section SSIs were detected in the community (Figures 7 and 8).

Swine flu

All influenza activity indices are at a low level, with the last laboratory confirmed case of pandemic A (H1N1) in Northern Ireland being reported in mid-February. A similar picture exists in GB and the Republic of Ireland. According to the World Health Organization (WHO), the most active areas of pandemic influenza virus transmission are in parts of west Africa, the Caribbean, and southeast Asia.

Influenza surveillance in Northern Ireland continues throughout the year, with the health protection service collating and interpreting consultation data on influenza/influenza-like illness from sentinel general practices and out-of-hours centres, hospital admission data from Trusts, and laboratory reports from the regional virus laboratory. The regular influenza bulletin will not be produced over the summer months and is scheduled to resume in early October unless influenza activity increases.

Ticks and Lyme disease

The Health Protection Agency (HPA) is advising people to take care when visiting areas where ticks are present, to prevent tick bites and reduce the risk of catching Lyme disease. Late spring, early summer and autumn are peak times for tick bites.

Approximately 800 laboratory-confirmed cases are reported annually in patients from England, Wales and Northern Ireland, with an estimated 2,000–3,000 cases a year in total. Most cases reported in the UK are acquired in the UK rather than overseas, often through recreational activities including walking, trekking and mountain-biking.

Many are reported as coming from the southern counties of England, especially from the southeast and southwest, the Yorkshire moors and the Scottish highlands. Very few cases have been reported from, or acquired in, Northern Ireland.

Ticks are about the size of a poppy seed. Most ticks do not carry the infection. If one is found it should be removed promptly, as infected ticks are unlikely to transmit the organism if they are removed in the early stages of attachment. Ticks can be removed with tweezers or special tick hooks, pulling gently upwards away from the skin.

To minimise the risk of being bitten by an infected tick:

- Wear appropriate clothing in tick-infested areas (a long sleeved shirt and long trousers tucked into socks).
- Consider using insect repellents, eg DEET-containing preparations.
- Inspect skin frequently and remove any attached ticks.
- At the end of the day, check again thoroughly for ticks, especially in skin folds.
- Make sure that children's head and neck areas, including scalps, are properly checked.
- Check that ticks are not brought home on clothes.
- Check that pets do not bring ticks into the home on their fur.

Lyme disease leaflets produced by the HPA in conjunction with The Royal Parks are available at: www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1271256716650

Further information for health professionals and other agencies:

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