HSC Public Health Agency

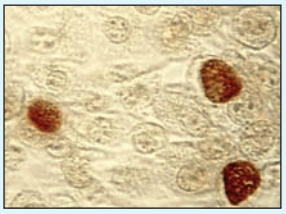
2012: Issue 1

Transmit

Health protection service bulletin January 2012

Foreword

HIV and sexually transmitted infections (STIs) continue to pose a public health challenge in Northern Ireland. Detailed information on HIV and STIs has just been published and is available on the PHA website at: www.publichealth.hscni.net/publications/hiv-and-sti-surveillance-northern-ireland-2011-analysis-data-calendar-year-2010



The data show an increase of 20% in new HIV diagnoses between 2009 and 2010, and increases in cases of syphilis, chlamydia, gonorrhoea, genital herpes and genital warts.

The human papillomavirus (HPV) immunisation programme in Northern Ireland was introduced in 2008/09 and had a good uptake rate from the start. Current uptake levels are around 84% for girls completing all three doses of the vaccine by the end of Year 9. However, there is no room for complacency and we should be aiming for an uptake of 90% or higher. The HPV vaccine prevents cervical cancer and is therefore an important preventive intervention. Of note, the DHSSPS has recently changed its policy on the vaccine that will be used in the HPV immunisation programme. Details of this are on the DHSSPS website at: www.dhsspsni.gov.uk/hss-md-26-2011.pdf

This month's *Transmit* also contains information on carbon monoxide poisoning, which can be rapidly fatal. It is important to be aware of the non-specific symptoms of carbon monoxide poisoning, especially in the winter. Advice on minimising the risk of carbon monoxide poisoning is available on the PHA website and at: www.nidirect.gov.uk

An update on leptospirosis is included in this month's bulletin. Three cases of leptospirosis were reported to the health protection duty room in 2011, two of which were acquired in Northern Ireland. The Health Protection Agency (HPA) has published advice on reducing the risk of leptospirosis and this is available on its website at: www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Leptospirosis/GeneralInformation/lepto005GeneralInformation/

At the time of writing, the levels of flu circulating in Northern Ireland are extremely low. Good progress has been made with the flu immunisation programme. Most up-to-date information on flu in Northern Ireland is available on www.fluawareni.info and you can also follow Flu Aware NI on Facebook and Twitter.

Dr Lorraine Doherty

Assistant Director of Public Health (Health Protection)

Contents

HIV and sexually transmitted infections (STIs) in Northern Ireland

This section provides a brief overview of HIV/STI surveillance data for 2010. A more detailed analysis is presented in the PHA's annual HIV/STI surveillance report, published on World AIDS Day on 1 December and available at: www.publichealth.hscni.net/publications/hiv-and-sti-surveillance-northern-ireland-2011-analysis-data-calendar-year-2010

Regularly updated summary statistics for diagnoses of STIs made in Northern Ireland GUM clinics are available at: www.publichealthagency.org/directorate-public-health/health-protection/sexually-transmitted-infections and statistics for HIV are available at: www.hpa.org.uk

HIV and STIs represent an increasing public health problem in Northern Ireland. Young people are at particular risk from chlamydia and genital wart infections, with men who have sex with men (MSM) disproportionately at risk from HIV, infectious syphilis, Lymphogranuloma venereum (LGV) and gonorrhoea.

New HIV diagnoses

- 79 new first-UK HIV diagnoses were made in Northern Ireland during 2010, an increase of 20% on 2009 (66).
- 34 (provisional) new first-UK HIV diagnoses were reported during the first two quarters of 2011 (29 male and five female).

Prevalent HIV infections

474 people resident in Northern Ireland received HIV-related care during 2010, an increase of 12% on 2009.

New infectious syphilis diagnoses

- 58 new episodes of infectious syphilis were diagnosed in Northern Ireland during 2010, an increase of 4% on 2009.
- 83% of episodes (48/58) in 2010 were diagnosed in MSM.
- 22 new diagnoses were reported during the first two quarters of 2011.

Other STI diagnoses provided in GUM clinics in Northern Ireland

During 2010:

- new diagnoses of uncomplicated chlamydia decreased by 4% – 1,832 in 2010 compared with 1,906 in 2009;
- new diagnoses of uncomplicated gonorrhoea increased by 13% – 203 in 2010 compared with 180 in 2009;
- new diagnoses of genital herpes simplex (first episode) increased by 18% – 410 in 2010 compared with 346 in 2009;
- new diagnoses of genital warts (first episode) increased by 2% – 2,120 in 2010 compared with 2,086 in 2009.

Figure 1: Rates of selected STI diagnoses, Northern Ireland, 2000–2010

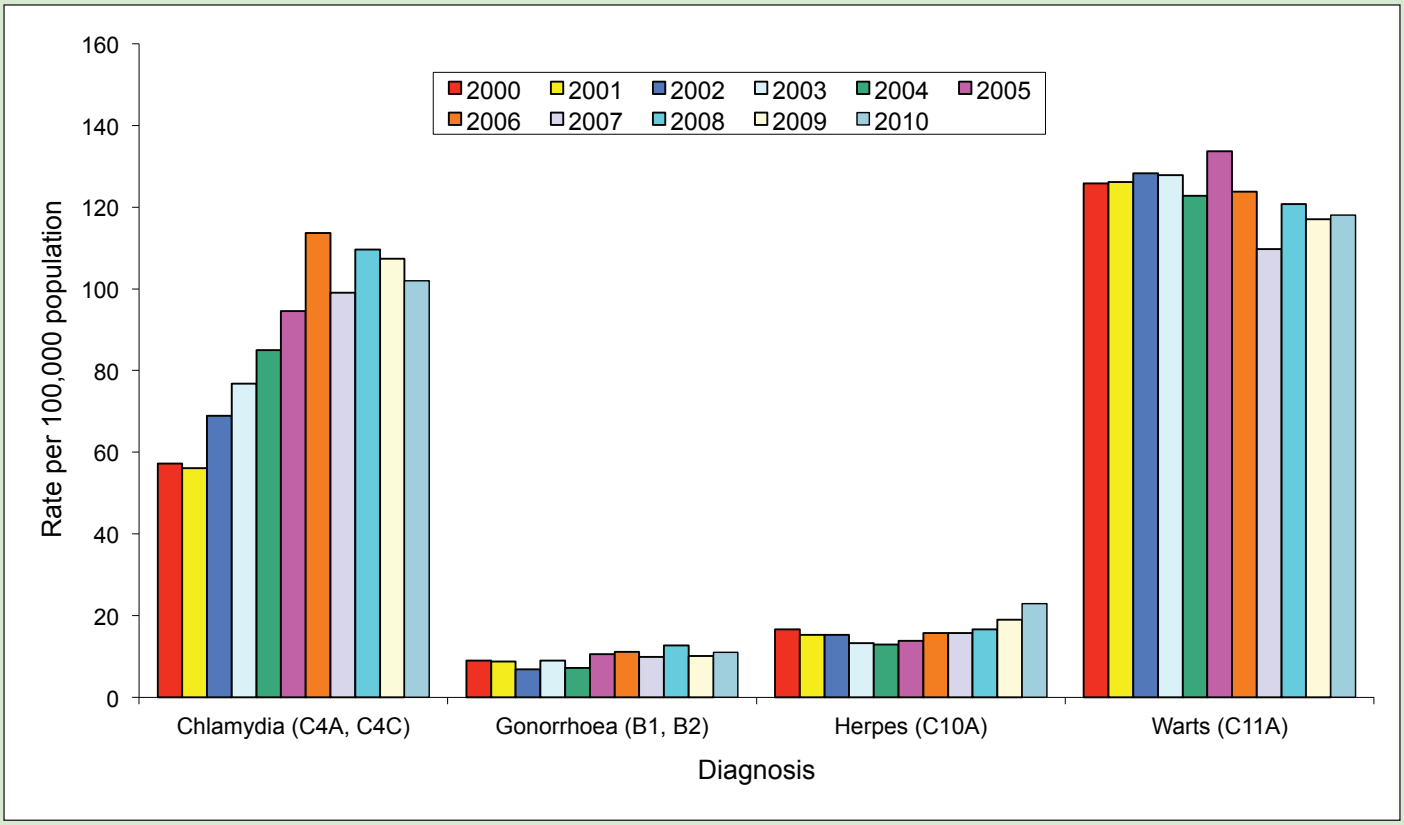


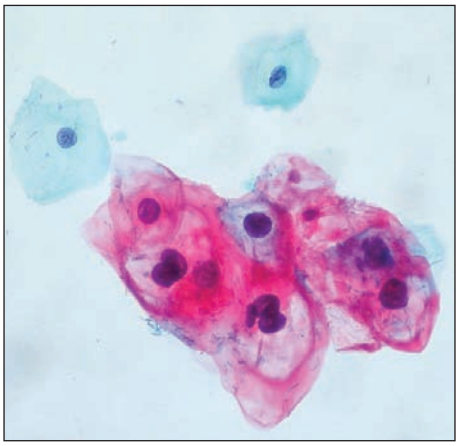
Table 1: Number of new STI diagnoses made by Northern Ireland GUM clinics, January–June 2011

	Chlamydia	Gonorrhoea	Syphilis	Herpes	Warts	Total diagnoses	Total workload
Female	380	34	*	130	522	2,800	5,810
Male	482	99	*	70	614	3,587	6,762
% in MSM	16%	41%	95%	9%	7%		
Total	862	133	21	200	1,136	6,387	12,572

HPV vaccine

We are now into the fourth year of offering the human papillomavirus (HPV) vaccine in schools. The vaccine is routinely offered to girls aged 12–13 years (Year 9) in schools across Northern Ireland. In addition, in the first two years of the campaign (2008/09 and 2009/10) there was a catch-up programme so that all girls aged up to 18 years at the time were offered the vaccine.

The full course of the vaccine consists of three doses spread out over approximately six months. To fit in with the school year, the first dose is offered early in the autumn term, with the aim of completing the course by late spring/early summer term. Girls who miss out on a dose, for example if they are off sick when the school nurses are present, will be offered that dose next time the school nurses are there. In addition, any girl who does not complete the course in Year 9, or who has perhaps not even started, will be offered the chance to have the remainder of the vaccine in Year 10 when the school nurses are present to visit the Year 9s. By the end of Year 10, girls will have been offered the opportunity to have the vaccine up to six times.



© Ed Uthman

If a girl is past Year 10 and has not had the vaccine but now she/her parents decide they would like her to be vaccinated they can approach her GP who can prescribe the vaccine.

Uptake for the vaccine has been good from the start of the campaign and has remained fairly constant over the three years it has run to date (see Table 2). It stands at around 84% for girls completing all three doses by the end of Year 9. This rises to an average of approximately 88% by the end of Year 10. These figures are above the UK average, with the UK in turn having one of the highest uptakes in the world.

Although these figures are obviously encouraging, there is no room for complacency and we should be aiming for an uptake of 90% or higher. The HPV vaccine helps prevent cervical cancer and has the potential to prevent up to 70% of cases. However, its full potential will only be realised if we can raise our uptake rates even higher.

Table 2: HPV vaccine uptake by the end of Year 9

Girls completing Year 9 in:	% completing full course
June 2009	83.9
June 2010	83.4
June 2011	84.6

Table 3: HPV vaccine uptake by the end of Year 10

Girls completing Year 10 in:	% completing full course
June 2010	89.7
June 2011	86.8

Duty room updates

Carbon monoxide awareness

Carbon Monoxide Awareness Week took place from 21–25 November 2011. Carbon monoxide (CO) is a colourless, tasteless, odourless gas that is non-irritating, and as a result can be very hard to detect. CO poisoning can be rapidly fatal, but at lesser concentrations can cause sub-acute, intermittent or chronic symptoms such as headaches, nausea and vomiting, exhaustion, drowsiness, dizziness and lightheadedness, 'flu-like' symptoms, palpitations, chest pain and loss of consciousness. It is important to be aware that these non-specific symptoms may be caused by CO poisoning, especially in the winter or if they are worse at a particular location. Children, students, the elderly, pregnant women and anyone with heart or breathing problems are more vulnerable to its effects.
For more information visit: www.dhsspsni.gov.uk/hss-md-45-2010.pdf

If chronic poisoning is suspected, a neurological examination should be conducted. This should include tests of fine movement and balance (finger-nose testing, movement, Romberg's test, gait and heel-toe walking), a mini mental state examination and testing of short-term memory with serial 7s.

The following are suggestive of domestic CO poisoning:

- more than one person in the house is affected;
- symptoms are better when away from the house, eg on holiday, but recur on returning home;
- symptoms are related to cooking, with a stove in use;
- symptoms are worse in winter, with heating in use.

Advice on the risks and measures that can be taken to prevent CO poisoning are available online at: www.nidirect.gov.uk

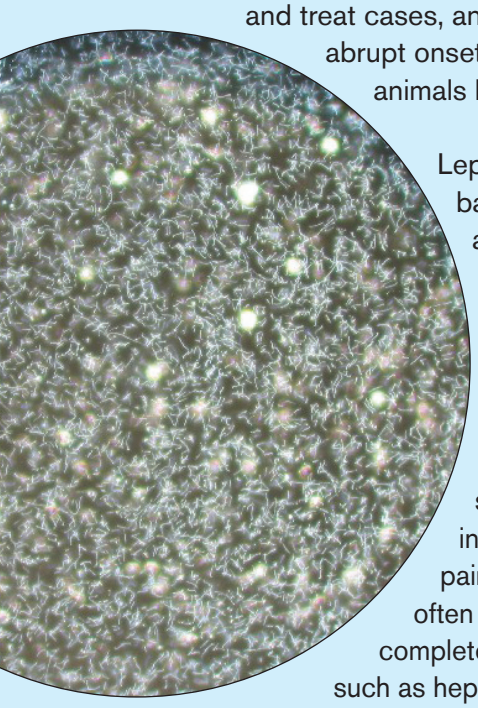
To minimise the risk of CO poisoning, the PHA recommends:

- annual servicing of all fuel-burning appliances;
- sweeping chimneys and flues every year if you use solid fuel;
- installing an audible carbon monoxide alarm;
- if in rented accommodation, including holiday homes, checking that appliances have been serviced and asking the landlord to provide an up-to-date gas safety record;
- keeping flues, air vents and grilles clear and ensuring rooms are well ventilated.

Leptospirosis

Leptospirosis is a notifiable disease, with three cases reported to the duty room in 2011. Of these three cases, two are believed to have been acquired in Northern Ireland.

Leptospirosis is relatively rare in the UK, with around 50–60 cases reported each year. It is important to identify and treat cases, and leptospirosis should be considered a differential diagnosis in patients with abrupt onset of fever who have a history of contact with animal-urine-contaminated water or animals known to carry leptospirosis.



Leptospirosis is caused by spiral shaped bacteria of the genus *Leptospira*. The bacteria infect a variety of wild and domestic animals, often asymptomatically, and are excreted in their urine. Common sources of infection in the UK include rats and cattle. Person-to-person spread is rare. Infection occurs when infected animal urine or secretions come into contact with broken skin or mucosal membranes, directly or via water, soil or vegetation. The risk is therefore higher in farmers, vets and people taking part in water sports.

Infection may cause a range of illnesses, from asymptomatic or mild, flu-like illness to severe disease with hepatic and renal failure (known as Weil's disease). Symptoms include fever, headache, chills, muscle aches, vomiting, jaundice, red eyes, abdominal pain, diarrhoea and rash. The incubation period is usually 7–13 days. There are often two phases to the disease: an initial bacteraemic phase from which there may be complete recovery, followed by an immune phase, during which there may be complications such as hepatic and renal failure, meningism, vasculitic manifestations and clotting abnormalities.

Diagnosis is based on clinical suspicion and can be confirmed by laboratory testing. Treatment involves antibiotic therapy, which should be given early in the course of the disease. Patients usually make a complete recovery; however, leptospirosis can be fatal, usually as a result of renal failure.

The public health role includes advising on prevention and responding to potential or confirmed cases of leptospirosis. Prevention strategies include control of the rodent population, immunisation and treatment of infected animals, and the avoidance of swimming or wading in potentially contaminated water. Education and advice for those at risk due to their occupation or leisure activities is also important. There is no vaccine available for humans in the UK, but pre-exposure prophylaxis can be considered in those known to be at high risk for limited periods.

When a potential or confirmed case is reported, the initial public health action is to gather information about the patient, risk factors and possible exposures. Exclusion is not recommended; however, others with similar exposure who may be at risk should be identified to enable the provision of education and advice. Screening of contacts and pets may be indicated in some situations.

The HPA recommends the following advice to reduce the risk of leptospirosis in those who are in contact with fresh, surface water – eg canals, ponds or rivers – or with rats.

- Cover cuts, scratches or sores with a waterproof plaster and thoroughly clean cuts or abrasions received during activities.
- Wear appropriate protective clothing, gloves or footwear.
- Wash or shower promptly after water sports, especially if immersed.
- Avoid capsize drills or rolling in stagnant or slow moving water.
- Wear thick gloves when handling rats.
- Wash hands after handling any animal, and before eating.

Useful resources

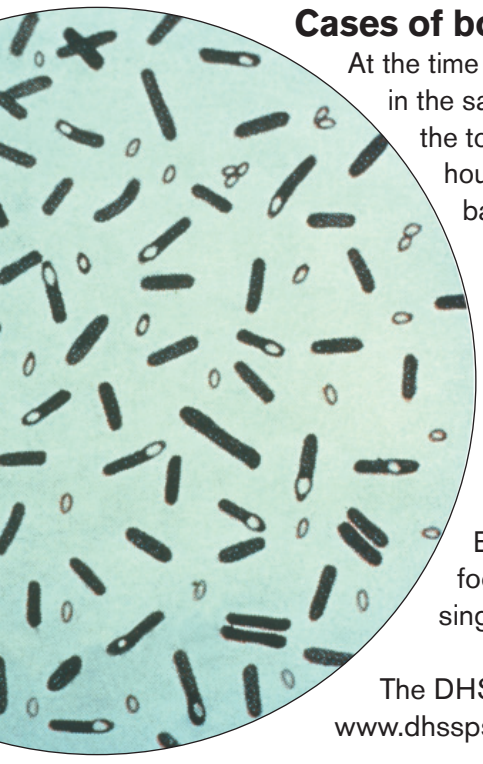
HPA website:
www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Leptospirosis

National Travel Health Network and Centre:
www.nathnac.org/pro/factsheets/leptospirosis.htm

Leptospira Reference Unit: www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1200660022261

Judith Ewing FY2 Public Health

News and links



Cases of botulism in Scotland

At the time of writing, two cases of botulism, and a third suspected case, have been identified in the same family living in Scotland. Preliminary tests carried out by the HPA identified the toxin that causes botulism from a used jar of Loyd Grossman korma sauce in the household and the Food Standards Agency (FSA) issued a full recall of the implicated batch of product. Investigations are ongoing.

Botulism is caused by a toxin produced by the bacterium *Clostridium botulinum*, which attacks the nervous system.

The infection is not passed from person to person and symptoms usually occur between 12 and 36 hours after eating contaminated food, although symptoms can also appear in as little as six hours, or take longer.

Botulism is rare in the UK – there have only been 33 recorded cases of food-borne botulism in England and Wales since 1989, with 27 of these linked to a single outbreak.

The DHSSPS issued an urgent letter, outlining key points, available at:
www.dhsspsni.gov.uk/hss-md-24-2011.pdf

Clinicians should suspect botulism in any patient with an afebrile, descending, flaccid paralysis.

Patients with botulism typically present with difficulty speaking, seeing and/or swallowing. They may have double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing and muscle weakness. If untreated, paralysis may progress to the arms, legs, trunk and respiratory muscles. There is usually no fever, no loss of sensation and no loss of awareness. There may also be autonomic signs with dry mouth, fixed or dilated pupils, and cardiovascular, gastrointestinal and urinary autonomic dysfunction. If onset is very rapid, there may be no symptoms before sudden respiratory paralysis occurs, which may be fatal.

Where there is definite clinical suspicion of botulism, treatment with antitoxin should not be delayed. The use of antitoxin should be discussed with a consultant neurologist if feasible.

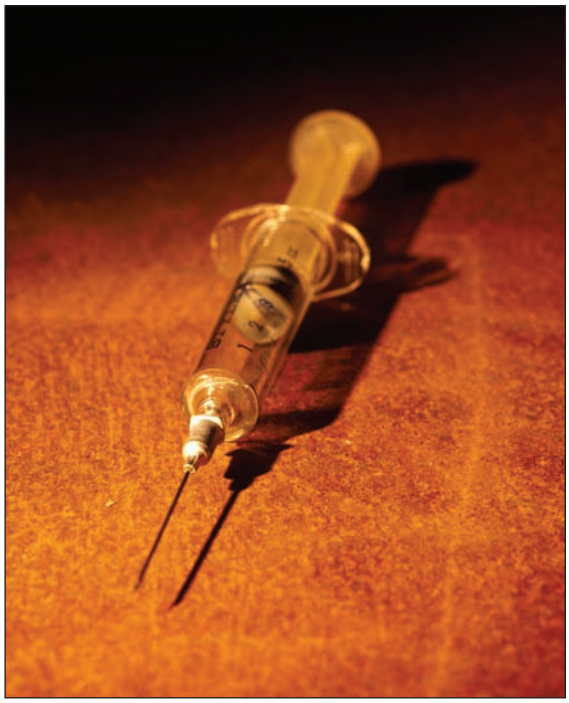
Supplies of botulism antitoxin are strictly arranged by contacting Consultant Microbiologist, Dr C Goldsmith, Dr A Loughrey or Dr P Rooney at the Belfast Royal Victoria Hospital. Telephone 028 9024 0503 during working hours, or outside office hours, telephone the Microbiologist Registrar on call, via the Belfast City Hospital switchboard, on 028 9032 9241.

Suspected cases of botulism should be reported urgently to the PHA duty room, or out-of-hours to the public health on-call doctor.

Infections among people who inject drugs in the United Kingdom 2010

This report, on infections among people who inject drugs, was published by the HPA recently, with contributions from the PHA and DHSSPS. The following points underline the risks of infection from injecting drugs.

- Around one third of people who inject drugs report having a symptom of a bacterial infection (such as a sore or abscess) at an injecting site in the past year.
- *Staphylococcus aureus* and Group A streptococcal infections continue to cause severe illnesses.
- Since 2000, there have been 163 cases of wound botulism, 93 cases of *Clostridium novyi* infection, 52 confirmed cases of anthrax and 35 confirmed cases of tetanus associated with injecting drug use in the UK. Although there have been no reported cases of these infections in Northern Ireland, they remain a risk.
- Around a half of people who inject drugs in the UK have been infected with hepatitis C, and one sixth with hepatitis B.
- The prevalence of HIV among those who have injected drugs remains comparatively low in the UK at an estimated one in every 100.
- Needle and syringe sharing is lower than a decade ago, although one fifth of people who inject drugs continue to share needles and syringes.



Health Protection Agency. *Shooting up: Infections among people who inject drugs in the United Kingdom 2010*. London: HPA, November 2011. Available at: www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317131221703

Surgical site infection (SSI) surveillance in Northern Ireland

This report is a summary of procedure-associated data collected and reported by hospitals participating in the surgical site infections (SSI) surveillance programme delivered by the PHA. SSI surveillance, with feedback of appropriate data to frontline service providers, has been shown to be an important component of strategies to reduce SSI risk and incidence.

The PHA is committed to working in collaborative partnerships with Health and Social Care Trusts, hospitals and key stakeholders within Northern Ireland to achieve this aim. Results are now reported and accessed through a secure internet site (PASW).

- Results are uploaded quarterly.
- The website creates interactive tables and charts.
- Usernames and passwords are issued.
- You can have multiple users from the same site.
- Results can be exported to a variety of programmes (eg Excel, Word).

Caesarean section SSI surveillance quarterly report (April–June 2011)

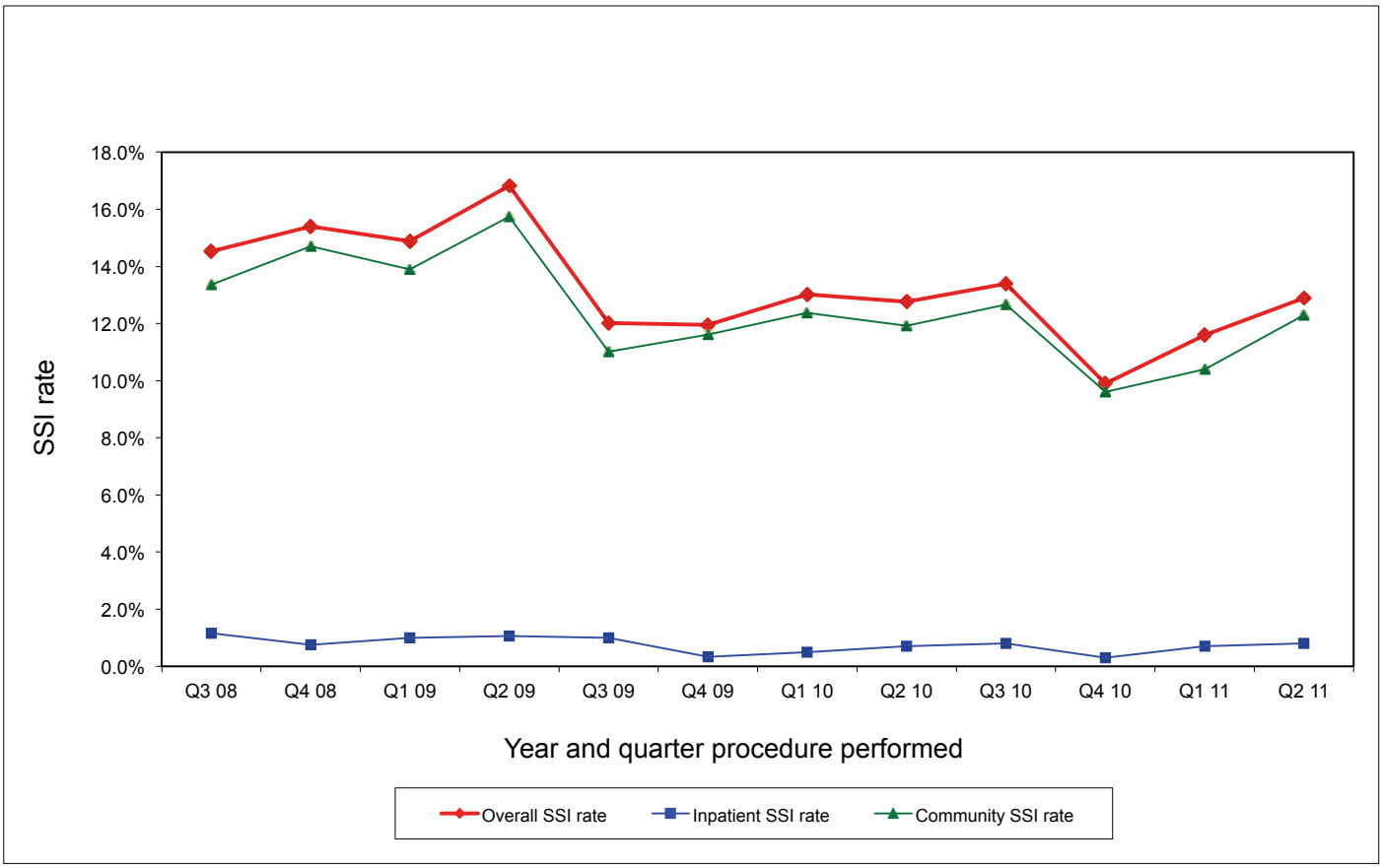
Table 4 : Caesarean section SSI surveillance compliance by quarter, 2008–2011 *

	Q3 08	Q4 08	Q1 09	Q2 09	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11	Q2 11
Northern Ireland	43.2	50.3	58.4	68.5	76.1	78.3	80.5	80.4	82.0	77.6	76.2	77.3
South Eastern Trust	25.8	41.6	75.8	73.7	79.4	81.5	85.2	84.0	85.1	87.1	75.1	81.5
Western Trust	73.7	83.7	93.8	96.3	99.0	99.6	99.6	98.4	100.0	100.0	100.0	100.0
Northern Trust	32.8	30.8	60.8	94.0	92.6	95.3	90.2	89.0	89.4	82.3	79.2	80.3
Southern Trust	36.1	47.4	37.3	45.8	66.0	71.1	72.8	77.3	70.9	75.6	74.1	74.6
Belfast Trust	49.2	49.6	50.1	57.4	62.1	62.1	68.1	67.5	76.4	61.5	63.8	62.3

* Compliance = number of returns/number of Caesarean sections performed x 100.

Compliance in quarter two 2011 increased in all HSC Trusts with the exception of the Belfast Trust (62.3%). Percentage compliance is based on matched returns (both in-hospital and community forms). Further increases in compliance are expected as outstanding surveillance forms are received for analysis.

Figure 2: Northern Ireland Caesarean section SSI rates, quarter three 2008 to quarter two 2011



The overall Caesarean section SSI rate for quarter two 2011 was 12.9%, a slight increase on the previous quarterly rate of 10.4%. However, trends indicate an overall decrease in rates.

Northern Ireland orthopaedic SSI surveillance

The release of orthopaedic SSI surveillance data for quarter two 2011 has been delayed due to problems identified during validation of data received from the Belfast Trust.

Further information for health professionals and other agencies:

Health protection duty room
Public Health Agency
4th Floor
12–22 Linenhall Street
Belfast
BT2 8BS

Tel: 028 9055 3994 or 028 9055 3997
Email: pha.dutyroom@hscni.net

HSC Public Health Agency

DHSSPS
Department of Health, Social Services and Public Safety
www.dhsspsni.gov.uk

Published by the Public Health Agency, Ormeau Avenue Unit, 18 Ormeau Avenue, Belfast BT2 8HS.
Tel: 028 9031 1611. Textphone/Text Relay: 18001 028 90311611. www.publichealth.hscni.net