HSC Public Health Agency

Issue 2

Transmit

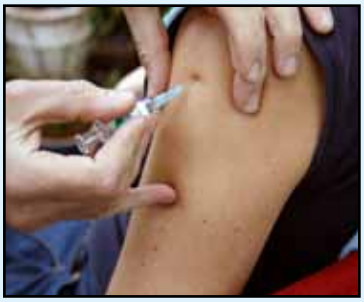
Health protection service bulletin August 2010

Foreword

Welcome to the second edition of our health protection service bulletin – *Transmit*.

In this bulletin you will get a flavour of some of the issues and volume of work being handled by the health protection duty room since January 2010.

It features an outline by Dr Gerry Waldron of the arrangements for the team leading work on emergency preparedness and environmental hazards. This work is a statutory health protection function led by the health protection service on behalf of the Public Health Agency (PHA).



Also in this edition, Dr Richard Smithson provides an update – including the uptake rates – on the childhood vaccines and vaccine preventable diseases. We have a very successful programme in Northern Ireland. Of note, we had our first small outbreak of measles in over 10 years in 2009–2010, which reinforces the need to keep our coverage rates for MMR immunisation at high levels.

The risks associated with exposure to bats and rabies are also highlighted. You may already be aware that the health protection service has recently issued information on the risk of rabies associated with being bitten by animals abroad.

Lastly, you will notice that new guidance has been issued by the DHSSPS in relation to HIV infection and post-exposure prophylaxis, including sexual exposure. There has been recent interest in the increase in HIV infection in those over 50 years of age, and I would urge you to familiarise yourself with the guidance on HIV post-exposure prophylaxis.

Lorraine Doherty

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

Duty room update

Volume of work

The duty room became operational for the whole of Northern Ireland in early January. During the period 1 January to 30 June 2010, a total of 1,379 calls were received, ie approximately 53 weekly.

The table below categorises the calls; over half concern the notification of infectious disease or queries about the immunisation and vaccination programmes.

Call category	No. (%)
Notification	395 (28.6)
Immunisation enquiries	326 (23.6)
Advice on specific infectious disease	165 (12.0)
Outbreaks and outbreak management	117 (8.5)
Nursing home issues	92 (6.7)
Travel health	43 (3.1)
Other	241 (17.5)
Total	**1,379 (100)**

Continued on page 2

E. coli O157

From January to June 2010, 17 cases of *E. coli* O157 were notified. None of these cases was associated with an outbreak.

With the report of the Independent Investigation Committee on the major outbreak of *E. coli* O157 in Surrey in 2009, attention has again been drawn to the risk of visiting open farms and coming into contact with the faeces of ruminant animals. In the report there was some criticism of the delay in identification of the outbreak. The report is available at www.griffininvestigation.org.uk/report/full_report.pdf

Approximately two years ago, we had our largest outbreak of *E. coli* O157 in Northern Ireland – with 17 cases over a seven week period. Ten of the cases were children less than six years old. Two of the cases were admitted to hospital. All made a full recovery. All of these cases were associated with animals on a local open farm. Vigilance in quickly identifying outbreaks is important.

Clostridium difficile *(C. difficile)*

Arrangements for enhanced surveillance of *C. difficile* infections (CDI) in community and primary care have recently been introduced through the duty room. Risk factor information will now be collected on all individuals notified to the duty room who are resident in the community or residential/nursing homes at the time of diagnosis with CDI. Staff in the duty room will risk assess community CDI cases in conjunction with staff in primary and community care, and will provide specialist advice on infection control requirements following CDI diagnosis in these settings.

Community CDI cases (including related risk factor information) are now routinely entered onto the web-based healthcare associated infections (HCAI) surveillance system. Resources supporting this enhanced surveillance programme have been shared with medical directors, directors of nursing, and consultant microbiologists in all trusts.

EmPEnH team update

The PHA has a statutory health protection function that is not limited to the control of communicable disease which, includes emergency preparedness, the development of public health emergency plans for major incidents, and support for trusts and other Health and Social Care (HSC) and non-HSC organisations as required.

This role also includes advice to these organisations and to the public on more 'slow burning' issues that could pose a threat to the health of the population. Within the health protection service this function is delivered by the emergency preparedness and environmental hazards team (EmPEnH).

The responsibilities of the team include:

- responding to public health emergencies (including chemical and biological) through the provision of robust local arrangements 24/7;
- providing an early risk assessment of the actual or likely impact these incidents may have on public health or public safety;
- ensuring that an effective ongoing public health response/advice is provided for chemical contamination or other pollution that could have an adverse impact on the health of the population;
- ensuring that out of hours contact and 'on-call' arrangements are maintained and that the provision of 24/7 public health advice is sufficient during an emergency response;
- establishing, running and contributing to a scientific and technical advice cell (STAC) as and when required;
- participating in multi-agency emergency preparedness and response as set out within the civil contingencies framework;
- working with the resources available to provide HSC organisations with emergency preparedness guidance, advice and training as required.

Team members

- **Dr Gerry Waldron**, Consultant in Health Protection, team lead, environmental hazards, gerry.waldron@hscni.net
- **Dr Anne Wilson**, Consultant in Health Protection, emergency preparedness, anne.wilson@hscni.net
- **Mr Adrian McAuley**, Emergency Planning Officer, adrian.mcauley@hscni.net
- **Mr James Devlin**, Emergency Planning Officer, james.devlin@hscni.net

Although individual team members have specific topic and lead responsibilities, the team works on a regional basis and provides cross-cover for all issues and areas. Individual team members may also be contacted directly regarding non-urgent issues.

The team may be contacted Mon–Fri (9am–5pm) as follows:
Tel: 028 9055 3994 or 028 9055 3997
Fax: 028 9055 3930
Email: pha.dutyroom@hscni.net

Outside the above hours, ie evenings and weekends and bank holidays, contact Northern Ireland Ambulance Service (NIAS) control centre on 028 9040 4045 and ask for the first on-call public health doctor to be paged. Since EmPEnH was established earlier this year, it has been involved in several incidents including fires, chemical contamination and severe weather alerts. The team has participated in multi-agency meetings, providing advice and guidance on the potential impact of the incident on the health of the local population.

The team has also been proactive in contacting stakeholders and establishing working relationships, particularly within the wider emergency preparedness community in Northern Ireland. To date, the team has met with DHSSPS emergency planning and environmental health leads, HSCTs' emergency planning officers and local emergency responder groups. The team has also maintained links established by the legacy Western and Southern boards with colleagues in the Republic of Ireland to share experiences and plan responses to potential cross-border incidents.

The team, on behalf of the PHA, now jointly chairs the health emergency planning forum with the DHSSPS. This forum allows all those working within emergency preparedness in HSC in Northern Ireland to discuss and jointly plan for relevant priority issues. The team is also represented on the multi-agency climate change and health group.

A lower profile, but no less important, role of the team is to advise, in response to specific planning applications, on the public health implications of existing or planned industrial facilities, or to advise, through the PHA's statutory consultee role, in integrated pollution prevention and control (IPPC) applications.

Where highly specific and technical advice is occasionally required and the expertise is not available within Northern Ireland (eg radiation issues), the team has strong links with the HPA in England and is working with colleagues in the DHSSPS to develop a comprehensive memorandum of understanding with that organisation.

The fact that the four team members were emergency planning leads in the four legacy boards means that previous good practice and established local networks have not been lost. This has been most evident in the team's work with colleagues in the HSC Board (HSCB) and the Business Services Organisation (BSO) to produce a joint major incident plan for our three organisations.

This has resulted in the approval of interim arrangements for major incidents by the management teams, and substantive compliance with the controls assurance standards for emergency preparedness. The team is working to produce a full, tested and approved major incident plan by March 2011 in accordance with the relevant target in *Priorities for Action 2010/11*.

Childhood vaccines and vaccine preventable diseases

Vaccinations

The childhood vaccination programme has been a tremendous success in Northern Ireland over recent years. Our uptake rates for all vaccines, apart from MMR, are at an all-time high. For MMR, they are now almost back to where they were before the scare caused by the discredited Wakefield paper.

Northern Ireland also has uptake rates well above the UK average and we compete with Scotland for top spot overall. This is a tremendous tribute to GPs and all their staff, health visitors and everyone else involved in the vaccination programme who have worked so hard to achieve this.

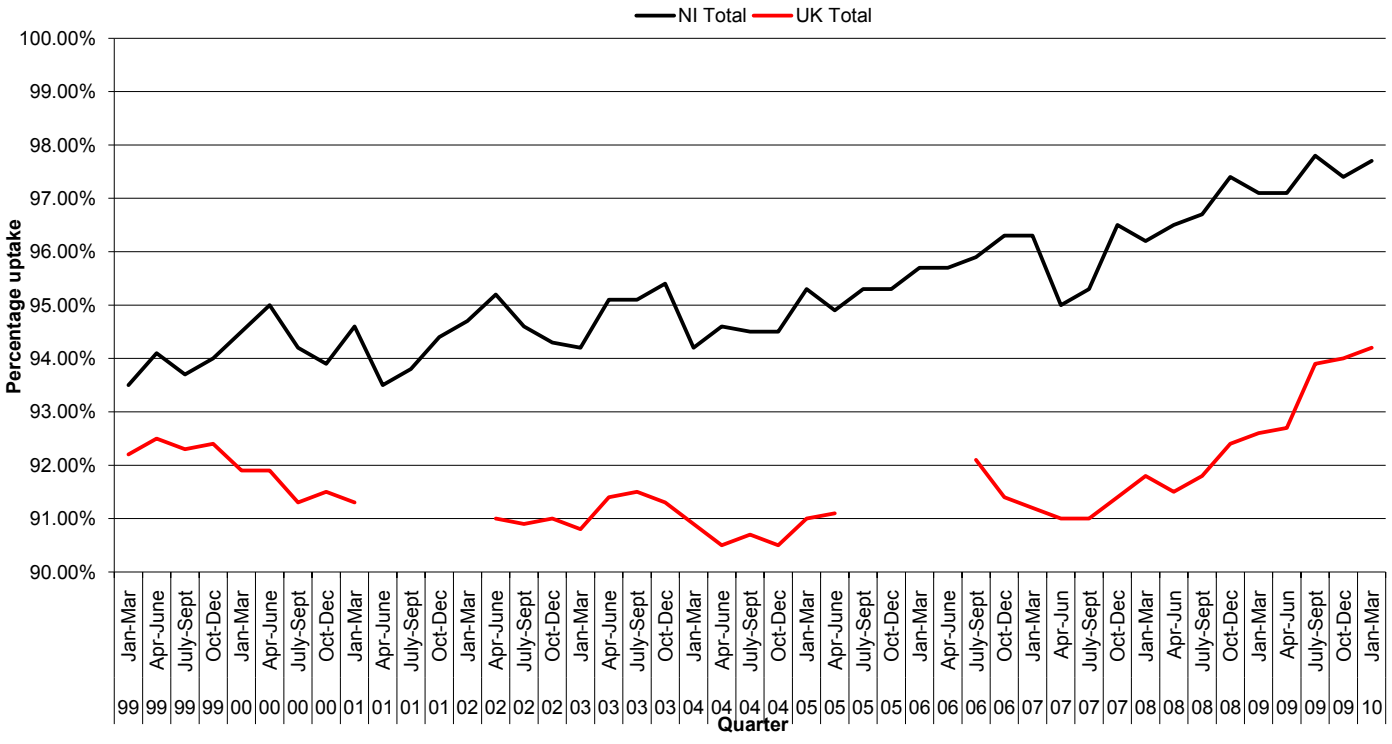
The latest vaccine coverage statistics (COVER/Korner Programme) available for Northern Ireland are for the first quarter of 2010. Uptake of vaccine by 12 months of age shows that all areas have excellent figures, although they are slightly lower in the Eastern area than elsewhere (Table 1).

Table 1: Completed primary immunisations by 12 months of age (January–March 2010), Northern Ireland

Area	% coverage at 12 months			
	No of children in cohort	DTaP/IPV/Hib3	MenC2	PCV2
Eastern	2170	96.30%	96.10%	96.50%
Northern	1418	98.10%	98.10%	98.20%
Southern	1355	99.00%	99.10%	99.00%
Western	1082	98.30%	98.20%	98.30%
NI total	**6025**	**97.70%**	**97.60%**	**97.80%**

Figure 1 shows how vaccine uptake at 12 months has risen over the past 10 years. It also compares Northern Ireland with the UK average, showing how our uptake has risen more than the rest of the UK. (Uptake rates for polio are used as a proxy for all vaccines in this age group, as uptake rates for these vaccines are virtually identical.)

Figure 1 **Polio vaccination uptake rates at 12 months, NI and UK, 1999-2010**



Uptake at 24 months of age shows that virtually every child in this cohort has now had their full course of Pediacel (DTaP/IPV/Hib) and there is less variation between areas (Table 2).

However, MMR vaccine uptake remains slightly lower than that of other vaccines and it is here that the biggest difference is evident between the Eastern area and other areas. It is also evident that uptake of the pneumococcal booster is affected by being given at the same time as MMR.

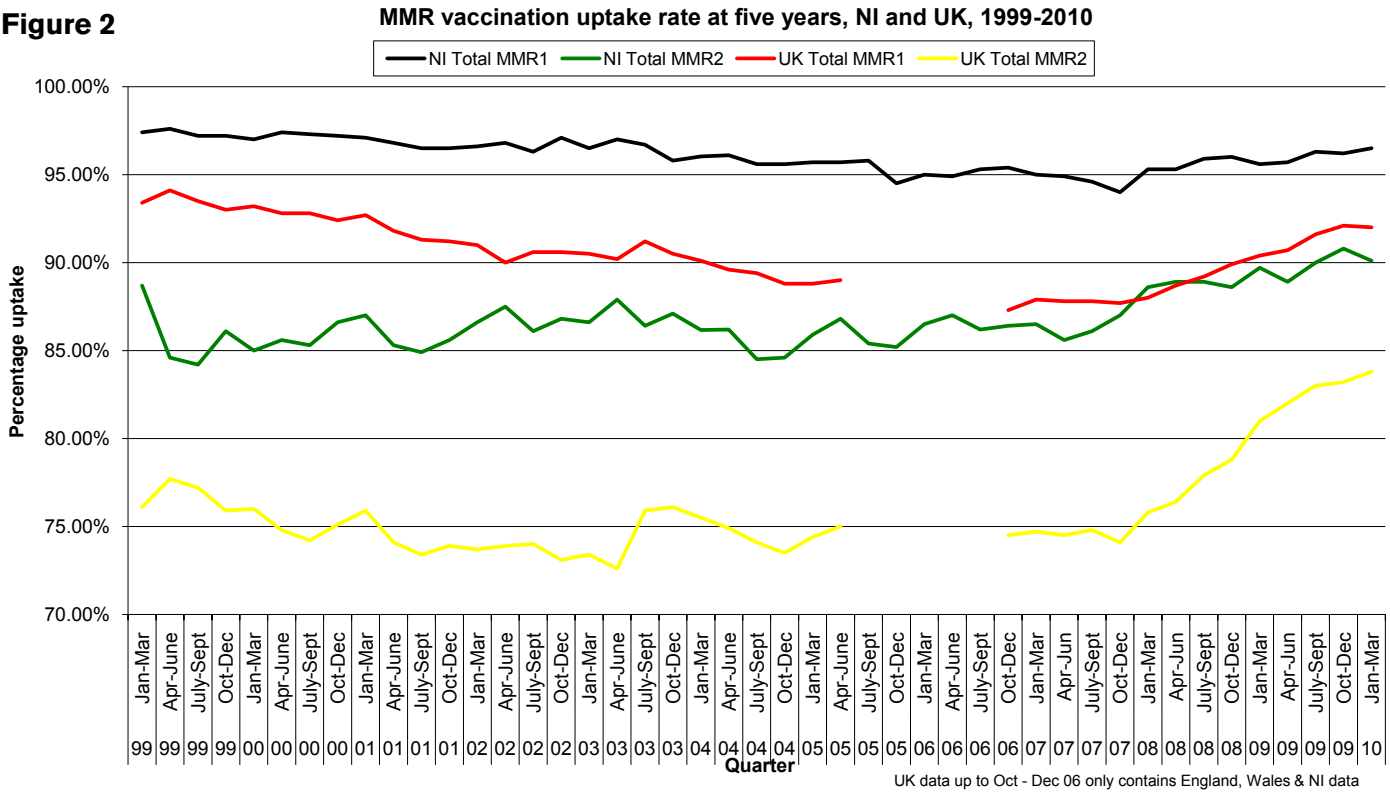
Table 2: Completed primary immunisations by 24 months of age (January–March 2010), Northern Ireland

Area	% coverage at 12 months					
	No of children in cohort	DTaP/IPV/Hib3	Infant MenC	PCV Booster	Hib/MenC	MMR1
Eastern	2310	98.20%	96.40%	86.70%	93.90%	90.40%
Northern	1415	98.90%	97.00%	94.40%	97.50%	92.70%
Southern	1404	99.10%	97.90%	95.10%	96.00%	95.20%
Western	1040	99.50%	98.50%	95.90%	96.70%	94.80%
NI total	**6169**	**98.80%**	**97.20%**	**91.90%**	**95.70%**	**92.80%**

In contrast to the other vaccines where uptake has steadily risen over the past 10 years, uptake for MMR has been more variable (Figure 2). Uptake fell from early 2000 onwards as a result of the Wakefield paper published in 1998, before starting to climb again from 2004 onwards.

Uptake is now back to the level it was at before the Wakefield controversy. It should be noted that the decline in uptake in Northern Ireland was significantly less than elsewhere in the UK.

Figure 2



We can see in Table 3 how Northern Ireland compares with other countries in the UK for uptake at 12 and 24 months. We have the highest uptake figures for all vaccines apart from MMR and the PCV booster, where Scotland is slightly higher.

Table 3: Completed primary immunisations by 12 and 24 months of age (January–March 2010), UK

Country	% coverage at 12 months			% coverage at 12 months				
	DTaP/IPV/Hib3	MenC2	PCV2	DTaP/IPV/Hib3	Infant MenC	PCV Booster	Hib/MenC	MMR1
England	93.70%	93.00%	93.10%	95.60%	94.60%	87.70%	90.00%	88.30%
Scotland	97.20%	97.10%	97.30%	98.30%	96.70%	94.30%	93.90%	93.50%
Wales	96.10%	95.80%	95.90%	97.40%	96.40%	91.80%	91.40%	92.50%
Northern Ireland	97.70%	97.60%	97.80%	98.80%	97.20%	91.90%	95.70%	92.80%
UK	94.20%	93.60%	93.70%	95.90%	94.90%	88.50%	90.70%	89.00%

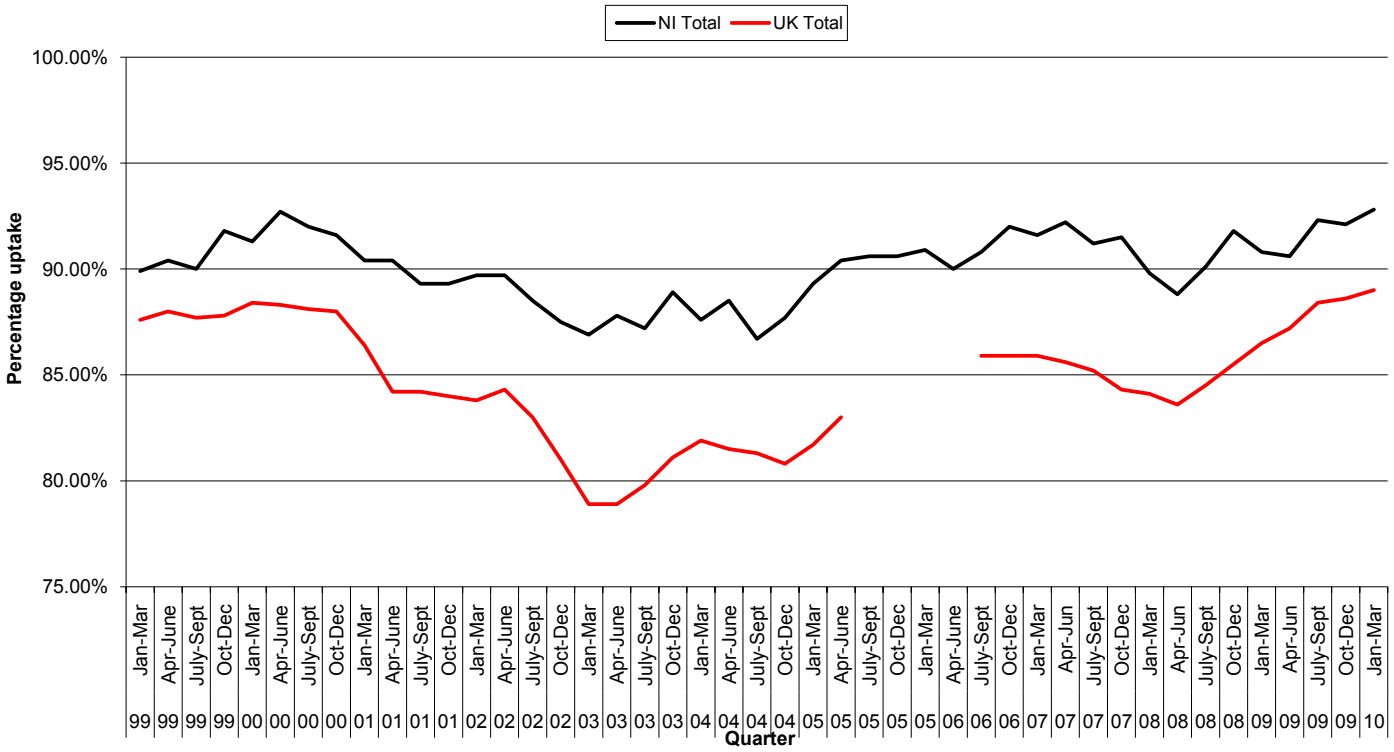
Vaccine uptake at five years of age shows high uptake for one dose of MMR across all areas (Table 4). Uptake for two doses of MMR remains lower in the Eastern area, however, leaving school-age children more vulnerable in this area.

Table 4: Completed primary immunisations and boosters by five years of age (January – March 2010), Northern Ireland and UK

Area	% coverage at five years					
	DTP/Pol3	Hib3	MenC	MMR1	MMR2	DTaP/IPV
Eastern	97.00%	92.80%	94.60%	95.10%	86.90%	89.30%
Northern	99.00%	95.80%	96.10%	97.70%	92.80%	95.10%
Southern	97.10%	93.60%	93.60%	96.50%	90.50%	91.80%
Western	98.40%	94.60%	95.10%	97.60%	92.00%	94.00%
NI total	**97.80%**	**94.00%**	**94.80%**	**96.50%**	**90.10%**	**92.10%**
England	94.30%	93.80%	93.10%	91.30%	82.90%	85.00%
Scotland	98.30%	97.50%	97.60%	96.20%	89.80%	91.90%
Wales	97.00%	96.40%	95.40%	93.70%	87.00%	90.70%
UK	94.80%	94.20%	93.60%	92.00%	83.80%	86.00%

MMR uptake at five years of age again shows the effect of the Wakefield paper (Table 4). As at 24 months of age, the decline in uptake was significantly less than elsewhere in the UK (Figure 3).

Figure 3 **MMR vaccination uptake rate at 24 months, NI and UK, 1999-2010**



While this is good news overall, there is no room for complacency. These rates have only been achieved through a lot of hard work and that has to continue to maintain them. For MMR in particular, while we have done very well compared to elsewhere, we are still not achieving the 95% uptake for both doses that is required to ensure we keep these diseases away.

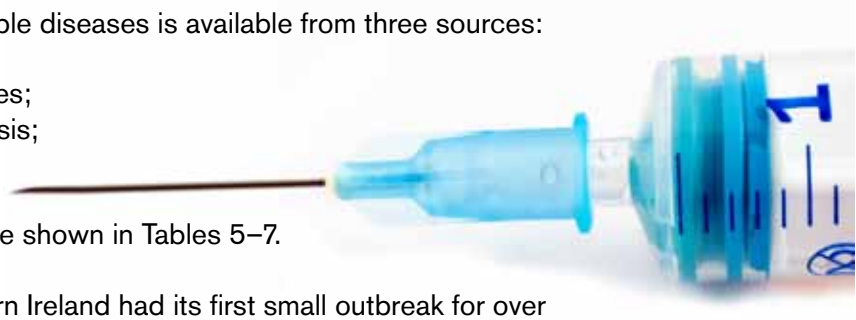
There are areas within Northern Ireland where uptake is lower. It is, therefore, our intention to concentrate on areas of low uptake and aim for an uptake of 95% for both doses in the future.

Vaccine preventable diseases

Of course, the whole aim of our childhood vaccination programme is not to show we have the best rates in the UK but to protect our children against serious disease and even death. High uptake rates will ensure better protection.

Routine information on childhood vaccine preventable diseases is available from three sources:

- statutory notifications based on clinical diagnoses;
- salivary antibody tests to confirm clinical diagnosis;
- laboratory reports.



Data is available for the first quarter of 2010 and are shown in Tables 5–7.

The main point of interest is measles where Northern Ireland had its first small outbreak for over 10 years. A total of 11 laboratory confirmed cases have been reported during the first quarter of 2010, either through salivary antibody sampling or through the Regional Virology Laboratory.

This represents the second half of the outbreak that started in December 2009 in the Craigavon area and resulted from the introduction of measles from outside Northern Ireland. In total, 24 cases were associated with this outbreak, and there have been no cases reported since early April 2010. The fact that this was contained so well, for what is probably the most infectious disease in the world, is a reflection of our high MMR uptake rates.

Mumps continues to be present, particularly in late teenage years and the early twenties. Ninety two cases were notified, compared with 83 the previous year.

There were three laboratory confirmed cases of pertussis compared with none the previous year and two the year before. As expected, there were no cases of diphtheria, polio or tetanus, but there were also no confirmed cases of rubella.

Table 5: Notifications of vaccine preventable infectious diseases, Northern Ireland*

Disease	Quarter 1 (Weeks 1-13), 2010	Quarter 1 (Weeks 1-13), 2009	Quarter 1 (Weeks 1-13), 2008
Diphtheria	0	0	0
Measles	17	11	4
Mumps	92	83	34
Polio	0	0	0
Rubella	5	7	7
Tetanus	0	0	0
Whooping cough	3	6	4

* Data provisional

Table 6: Laboratory confirmed reports of vaccine preventable infectious diseases, Northern Ireland*

Disease	Quarter 1 (Weeks 1-13), 2010	Quarter 1 (Weeks 1-13), 2009	Quarter 1 (Weeks 1-13), 2008
Diphtheria	0	0	0
Measles**	7	0	0
Mumps**	8	7	0
Polio	0	0	0
Rubella**	0	0	0
Tetanus	0	0	0
Whooping cough	3	0	2

* Data provisional

** Serologicallt confirmed by RVL

Table 7: Salivary antibody testing results Quarter 1, 2010, Northern Ireland*

	Area	Quarter 1 Notifications	Salivary test completed	Confirmed Case	Not Confirmed
Measles	Northern	0	3	0	3
	Southern	11	5	4	1
	Eastern	3	0	0	0
	Western	3	2	1	1
	Total	**17**	**10**	**5**	**5**
Mumps	Northern	14	9	1	8
	Southern	35	19	9	10
	Eastern	35	23	8	15
	Western	8	0	0	0
	Total	**92**	**51**	**18**	**33**
Rubella	Northern	1	1	0	1
	Southern	1	0	0	0
	Eastern	1	0	0	0
	Western	2	0	0	0
	Total	**5**	**1**	**0**	**1**

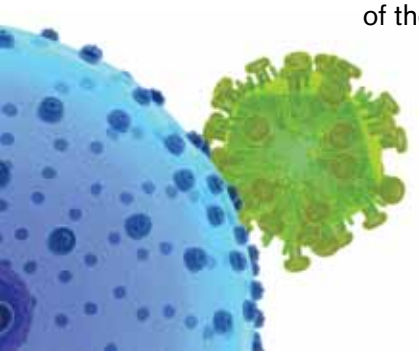
News items

HIV post-exposure prophylaxis

The DHSSPS has issued updated guidance on management of HIV infection and post-exposure prophylaxis. It wrote to all doctors, nurses and pharmacists highlighting the importance of awareness of local protocols on post-exposure prophylaxis following sexual exposure, so those potentially exposed to HIV can undergo a timely assessment and be prescribed prophylactic treatment if appropriate.

Trusts are to ensure that protocols and pathways are in place so assessment for post-exposure prophylaxis can occur within 72 hours of exposure. The letter (HSSMD 23/2010) includes web links to the appropriate guidance documents. See www.dhsspsni.gov.uk/hss-md-23-2010.pdf

An annual report on the epidemiology of HIV and other sexually transmitted infections in Northern Ireland is published every November. This provides details on trends and, where appropriate, comparisons with the rest of the UK.



See www.cdscni.org.uk/publications/AnnualReports/pdf/HIVSTIinNorthernIreland2009.pdf

Transmissible Spongiform Encephalopathy (TSE)

The DHSSPS has also published updated guidance from the advisory committee on dangerous pathogens working group on TSE's. This includes updates on infection control of Creutzfeldt–Jakob Disease (CJD) and related disorders in the healthcare setting.

It also clarifies how best to manage patients who suffer from CJD and other human prion diseases in healthcare and community settings. See www.dhsspsni.gov.uk/hss-md-20-2010.pdf

2009 influenza pandemic response

An independent review of the 2009 influenza pandemic, chaired by Dame Deirdre Hine, examined the strategic decisions made and the way in which all four nations and government departments worked together to develop a UK-wide strategy to manage the domestic consequences of the pandemic.

The review concluded that, overall, the UK response was highly satisfactory and went on to state: "The planning for the pandemic was well developed, the personnel involved were fully prepared, the scientific advice was expert, communication was excellent, the NHS and public health services across the UK and their suppliers responded splendidly, and the public response was calm and collaborative."

The review did warn about the dangers of complacency and a more severe pandemic in the future. The review contains 28 recommendations to inform future pandemic planning.

See the review at: www.cabinetoffice.gov.uk/ukresilience/ccs/news/100701-flu-pandemic-review.aspx

Rabies risk from Daubenton's bats

With the start of the fly fishing season, the Health Protection Agency has renewed its warning to anglers not to handle any bats that they might accidentally hook, as there is a small risk of contracting a rabies-like virus from these animals.

A small proportion of Daubenton's bats, the species most frequently seen skimming the surface of water in search of insects, carry European Bat Lyssavirus 2 (EBLV2), which can cause rabies.

If a bat is accidentally hooked while fishing, the angler should try to land the bat on the riverbank, where it may free itself from the line. If handling the bat cannot be avoided, then appropriate thick protective gloves should be worn at all times.

Anyone who is bitten, scratched or exposed to the saliva or nervous tissue of the bat should clean the wound as soon as possible with soap and water and seek medical advice immediately. A vaccine is available, which is highly effective in preventing rabies and will pose no long-term risk to health.

See www.hpa.org.uk/NewsCentre/NationalPressReleases/2010PressReleases/100618flyfishermen/

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 3997 or 028 9055 3994
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