



# Health Protection Report

weekly report

Volume 2 Number 51 Published on: 19 December 2008

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## **Influenza activity is increasing across the UK**

Influenza activity has started earlier this season compared to recent years. Epidemiological, clinical and virological indicators show that influenza viruses are circulating in the community at moderate levels. Influenza is now widespread across parts of the UK and continues to increase.

Figures from the Royal College of General Practitioners (RCGP) sentinel surveillance scheme have shown that GP consultation rates for influenza-like-illness (ILI) in England and Wales increased to 39.5 per 100,000 in week 50, exceeding the baseline threshold level of 30 per 100,000 (see figure). The ILI consultation rates are highest in people aged 15-44 years at 54.4 per 100,000 and in central (56 per 100,000) and southern England (36 per 100,000) [1]. ILI consultation rates have also increased but remain within baseline levels in Scotland and Wales. In Northern Ireland the rate has greatly increased but thresholds have not yet been set [1]. In week 50, the proportion of fever calls to NHS Direct in those 5-14 years of age had risen to 11.5%, exceeding the 9% threshold for over a week. These are the highest levels since winter 2003/4 [2].

The percentage of ILI cases with laboratory confirmed influenza through GP sentinel schemes in England and Wales exceeded the threshold of 30% in week 48 and is currently at 50.6%. A total of 403 samples have tested positive for influenza in the Respiratory Virus Unit (RVU) influenza reference laboratory at the HPA's Centre for Infections (CfI) since week 40. The vast majority of circulating influenza has been influenza A(H3) with 359 (89.1%) isolates. A further 34 (8.4%) influenza A(H1) and 10 (2.5%) influenza B isolates have been detected. All 42 A(H3) isolates tested since week 40/08 have been sensitive to oseltamivir and zanamivir but resistant to amantadine. Of the 28 A(H1) specimens tested, 27 are resistant to oseltamivir but sensitive to zanamivir and amantadine. Viruses characterised at RVU show that the current seasonal influenza vaccine is well matched to circulating strains [1] and should provide good protection. The number of influenza positive detections from other NHS and HPA laboratories in England and Wales has increased in the past few weeks and almost doubled from week 49 to week 50. Similar patterns have been seen in Scotland and Northern Ireland [1].

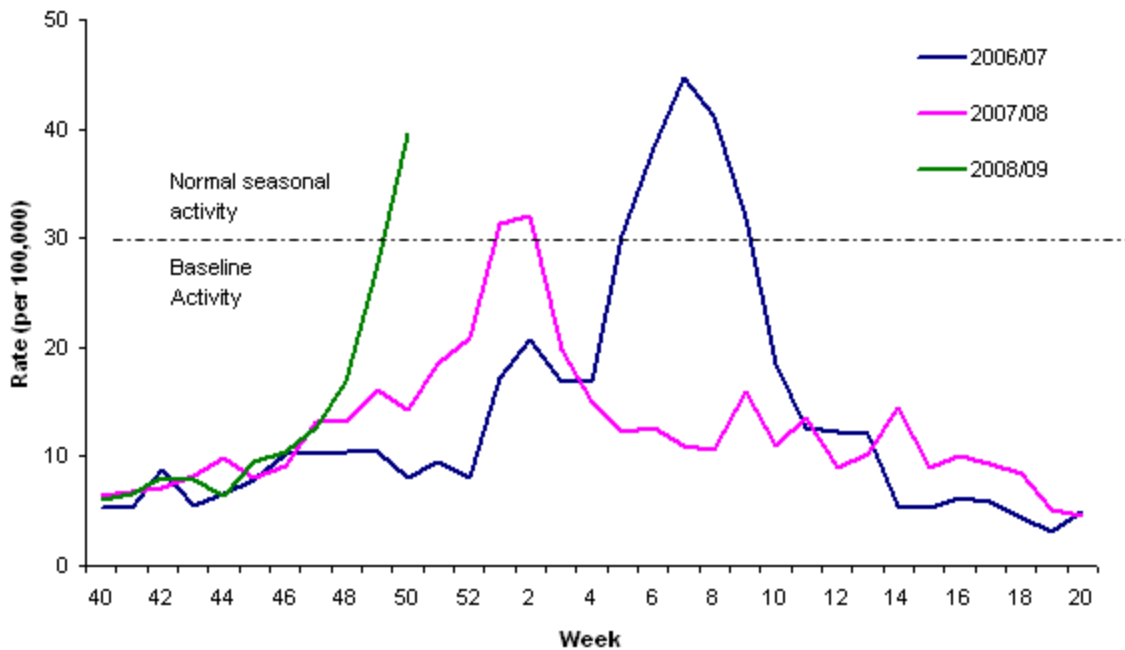
So far this season 32 outbreaks of respiratory illness have been reported, of which 18 (56.3%) have been confirmed as influenza. Several others are still being investigated. The outbreaks have occurred in various institutions including schools, care homes, hospitals and army barracks [1]. CfI welcomes further outbreak reports to [respcdsc@hpa.org.uk](mailto:respcdsc@hpa.org.uk).

Based on advice from the HPA that clinical, epidemiological and virological indicators were showing that influenza viruses were circulating within the community, on 12 December the Department of Health issued

recommendations for the use of antivirals for treatment and prophylaxis of influenza according to NICE guidance [3].

The best method of preventing influenza remains vaccination. The proportion of those over 65 years of age vaccinated this season in England has now reached 72% and for those under 65 years of age in a clinical risk group, it is 44% [1]. Vaccine uptake amongst health care workers in direct contact with patients has been historically low (13.4% in the 2007/08 season) [4]. It is important to ensure these groups receive their influenza vaccination [5].

**Figure. Royal College of General Practitioners influenza-like-illness rate in the 2008/09 season and recent years**



## References

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## National active surveillance system for VTEC in England

Verotoxin-producing *Escherichia coli* (VTEC) can cause severe gastrointestinal disease in humans. The disease spectrum ranges from asymptomatic carriage or mild diarrhoeal disease through haemorrhagic colitis to haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP) [1]. In England, VTEC of serogroup O157 are routinely tested for in clinical laboratories and form over 99% of VTEC isolated annually.

Incidence is highest in children, who account for over 40% of all laboratory-confirmed cases, and a third of all cases are admitted to hospital as a result of their illness [2]. The case-fatality rate has been estimated at approximately two percent for all cases [2].

Our current understanding of the epidemiology of VTEC infection is incomplete. Following a number of high profile outbreaks in the 1990s, VTEC O157 infection was thought to be mainly a foodborne disease. However, most cases are not linked to identified outbreaks and case-control studies of sporadic cases conducted in the United Kingdom in the early to mid-1990s demonstrated that contact with the environment, and with animals and/or their excreta in particular, was commonly associated with illness [3-5]. Ten years on, the impact of these and emerging risk factors for apparent sporadic infections need to be assessed.

Significant local resources are channelled into the investigation of individual cases of VTEC O157 infection each year. However, variations in practice mean that the epidemiological data collected are not readily comparable. Hence disseminated local outbreaks, or those occurring across several regions, might not be recognised, or their investigation might be slowed down, potentially delaying the introduction of control measures.

To better understand the epidemiology of VTEC infection and to assess its impact more accurately, an active national surveillance system for VTEC infection in England is to be introduced. The protocol and questionnaire were developed by a multidisciplinary collaborative group drawn from specialists and practitioners based in the HPA Centre for Infections, Local and Regional Services and Regional Microbiology Network. The scheme will commence on 1 January 2009 and will run for five years in the first instance. The aims and objectives are to:

- a) Assemble a standard core clinical, epidemiological and microbiological dataset on all primary indigenous VTEC cases; and
- b) Create a comprehensive epidemiological and microbiological database which will enable:
  - improved outbreak recognition to facilitate public health investigations;
  - improved access to surveillance data to all those working across the public/environmental health spectrum to assist in the control of infection at local, regional and national levels;
  - elucidation of the epidemiology of VTEC in England;
  - markers of disease severity including hospitalisations, severe complications and death to be systematically recorded so that the burden of VTEC infection in England can be more accurately assessed;
  - examination of the relationship between geographic variables and disease occurrence; and
  - the clinical manifestations and exposure histories from patients infected with different strain types of VTEC to be compared.

The questionnaire, protocol and case-classification algorithm can be found on the Health Protection Agency website [6]. Health Protection Units are requested to fax the complete questionnaire to us once it has been filled in. Hospital microbiologists are requested to continue to send all presumptive VTEC O157 isolates to the national reference laboratory, as well as stool specimens from cases where VTEC infection is suspected but VTEC O157 has not been isolated. For further information on this surveillance scheme please contact Dr Naomi Boxall ([naomi.boxall@hpa.org.uk](mailto:naomi.boxall@hpa.org.uk); tel. 020 8327 6214) or Dr Iain Gillespie ([iain.gillespie@hpa.org.uk](mailto:iain.gillespie@hpa.org.uk); tel. 020 8200 7486). For further information on VTEC/VTEc O157 strain characterisation please contact Dr Geraldine Smith ([Geraldine.Smith@hpa.org.uk](mailto:Geraldine.Smith@hpa.org.uk); tel 020 8327 6146).

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## MRSA bloodstream infections continue to fall

The latest quarterly HPA report on MRSA bloodstream infections in England [1] has shown a fall by 13% in the third quarter of this year (compared with the previous quarter) to a level 33% below the corresponding quarter of 2007.

Mandatory surveillance results show that there were 725 cases reported in England during the July to September 2008 quarter compared with 837 between April and June 2008 and 1,082 between July and September 2007.

The next set of quarterly data on MRSA bloodstream infections (October to December 2008) will be published on March 19 2009. Quarterly figures for *C. difficile* infections (July to September 2008) will be published on January 15 2009.

MRSA bloodstream infection figures - a summary of cases reported under mandatory surveillance in England

Quarter	Number of MRSA bloodstream infection reports
April 2006 – June 2006	1,742
July 2006 – September 2006	1,651
October 2006 – December 2006	1,543
January 2007 – March 2007	1,447
April 2007 – June 2007	1,306
July – September 2007	1,082
October – December 2007	1,091
January 2008 – March 2008	969
April 2008 – June 2008	837
July 2008 – September 2008	725

Note: Data are collected at Trust level and are not published by the HPA for individual hospitals within a Trust.

## Reference

1. Reports of MRSA bloodstream infections for individual Trusts are available at <http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942126522?p=1191942126522>.

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## Case of imported rabies in the UK

A case of imported human rabies has been identified in Northern Ireland. The diagnosis was confirmed by tests on samples sent to the United Kingdom National Reference Laboratory for Rabies at the Veterinary Laboratory Agency, Weybridge, Surrey. The case had worked as a volunteer with animals in South Africa for short periods during the past two years, and had close contact with various animals including dogs. Rabies is endemic in South Africa where bites from infected dogs are the main source of rabies in humans.

In the last 10 years there have been three previous cases of imported human rabies in the UK.

Although an estimated 55,000 cases of classical rabies occur worldwide each year, there has never been a virologically confirmed case of natural human to human transmission of rabies. Despite the lack of evidence for human to human transmission, some people who have been exposed to the secretions of a patient with rabies may be offered post-exposure immunisation, purely as a precautionary measure.

If bitten, scratched, or licked by a warm blooded animal in a rabies-endemic country, people should wash the wound or site of exposure (e.g. mucous membrane) with plenty of soap and water and seek medical advice without delay, even if previously vaccinated. If they do not seek medical treatment while abroad, they should still seek it when they come home, even if some time after the event.

Following exposure an individual risk assessment should be undertaken to determine the need for post-exposure prophylaxis (PEP) with rabies vaccine and/or immunoglobulin. PEP is highly effective in preventing rabies if given promptly and there have been no cases of rabies in the UK in people who have received rabies post exposure prophylaxis.

Travellers should always be advised to seek travel health advice well in advance of their visit overseas to ensure that the risks of all travel associated illness, not just rabies, have been explained. Although rabies vaccine is not routinely advised for all travellers, pre-exposure immunisation is recommended for those:

- working abroad (eg veterinary staff or zoologists) who by the nature of their work are at risk of contact with rabid animals.
- living in or travelling for more than one month to rabies-zoonotic areas unless there is reliable access to prompt, safe medical care .
- travelling for less than one month to zoonotic areas but who may be exposed to rabies because of their travel activities;
- who would have limited access to post-exposure medical care.

This advice should be specifically brought to the attention of those planning to do voluntary work with animals in rabies-endemic areas.

Further information on rabies prevention for the traveller is available from the National Travel Health Network and Centre at <http://www.nathnac.org/pro/factsheets/rabies.htm>. Immunisation considerations are covered in [chapter 27](#) of the Green Book [1].

## References

1. DH. *Immunisation against infectious disease* ("the Green Book"). Available at: [http://www.dh.gov.uk/en/Publichealth/Healthprotection/Immunisation/Greenbook/DH\\_4097254](http://www.dh.gov.uk/en/Publichealth/Healthprotection/Immunisation/Greenbook/DH_4097254).

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## Group A streptococcal infections: seasonal activity 2008/09

Surveillance data for invasive and non-invasive group A streptococcal (*Streptococcus pyogenes*) infections are indicating higher levels of incidence than seen since the last peak year, 2003. A total of 79 bacteraemia reports have been received to date through routine laboratory reporting (England, Wales and Northern Ireland) for the month of November, higher than 2005-2007 and likely to rise further with delayed reports, with increases seen across several regions. Scarlet fever notifications are also elevated: 166 for weeks 45-48 (England), higher than for 2004-2007, with increases seen across several regions during October and November. Primary care surveillance data for pharyngitis/scarlet fever similarly indicate higher incidence compared to the previous season [1].

Further seasonal updates will be published in the *Health Protection Report*. Clinicians, microbiologists and HPU's should be mindful of these early indications that 2008/09 could be a peak year for group A streptococcal infections and maintain a high index of suspicion in relevant patients. Invasive disease isolates and those from suspected clusters or outbreaks should be submitted to the Respiratory and Systemic Infection Laboratory at the Health Protection Agency, Centre for Infections, 61 Colindale Avenue, London NW9 5HT. Guidelines for the management of close community contacts of invasive group A streptococcal disease are available on the Agency's website at [2].

### References

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### Corrigendum: Zoonoses report in HPR 2(50), 12 December 2008

In last week's report "**Toxoplasma gondii infections diagnosed by the Toxoplasma Reference Unit , England and Wales: weeks 27-39/08**", the data tables, and some of the text, had not been properly updated due to a production error.

Please refer to the latest version online, or download the amended PDF file at:  
<http://www.hpa.org.uk/hpr/archives/2008/hpr5008.pdf>

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## Infection reports

Volume 2 Number 51 Published on: 19 December 2008

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### Immunisation

#### **COVER programme: July to September 2008 quarterly vaccination coverage statistics for children aged up to five years in the United Kingdom**

*This report of the COVER programme presents quarterly coverage data for children in the United Kingdom (UK) who reached their first, second, or fifth birthday during the evaluation quarter, July to September 2008.*

Children who reached their first birthday in the quarter (born July to September 2007) were the fifth quarterly birth cohort to have been scheduled to receive their primary vaccinations according to the new schedule introduced on 4 September 2006 [1] (three doses diphtheria, tetanus, acellular pertussis, polio, and Haemophilus influenzae type b vaccine (DTaP/IPV/Hib vaccine) two doses each of meningococcal serogroup C conjugate vaccine (MenC vaccine) and pneumococcal conjugate vaccine (PCV), completing between November 2007 and January 2008.

Children who reached their second birthday in the quarter (born July to September 2006) would have been scheduled to receive their third dose primary vaccinations between November 2006 and January 2007 and first measles, mumps, and rubella (MMR) vaccination between August 2007 and January 2008. These children are the fourth quarterly birth cohort to be routinely scheduled to receive a booster dose of Hib and MenC vaccine (given as a combined Hib/MenC vaccine) at 12 months, and a PCV vaccine at 13 months of age [1].

Children who reached their fifth birthday in the quarter (born July to September 2003) would have been scheduled to receive their third dose primary vaccinations between November 2003 and January 2004, their first MMR between August 2004 and January 2005, their pre-school diphtheria, tetanus, acellular pertussis, inactivated polio (DTaP/IPV) booster and second dose MMR from November 2006 onwards, and a catch-up dose of a Hib-containing vaccine from September 2007 [2].

#### **Methods**

Methods of data collection for COVER, sentinel MMR coverage and neonatal hepatitis B vaccination coverage are described on the HPA website at:

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListDate/Page/1209454766294?p=1209454766294>.

#### **Results**

Data were received from all Health Boards (HBs) in Scotland and Northern Ireland, Administrative Regions (ARs) in Wales, and 149/152 Primary Care Trusts (PCTs) in England.

Three PCTs were unable to provide any data this quarter: one PCT in North West region and two London PCTs using the Child Health Interim Application (CHIA) child health system. Problems with producing coverage data using the CHIA system have been reported previously [4]. Ongoing data quality concerns and caveats have been issued by five London PCTs. These factors contribute to the continuing need for caution in evaluating the vaccination programme in London. A small number of PCTs that have recently moved onto the TPP child health system and have experienced some difficulties with producing either PCV or Hib/MenC booster coverage from migrated data.

Individual PCT data for this quarter are published on the HPA website at:

[http://www.hpa.org.uk/infections/topics\\_az/cover/default.htm](http://www.hpa.org.uk/infections/topics_az/cover/default.htm).

## Coverage at 12 months

Fifty eight of the 170 participating PCTs/HBs/ARs (34%) achieved at least 95% coverage at 12 months for three doses of diphtheria, tetanus, pertussis, polio and Hib vaccine (DTaP/IPV/Hib3) and 51 (30%) at least two doses of MenC vaccine. In this fifth evaluation of PCV coverage at 12 months, 50 PCTs/HBs/ARs (29%) achieved at least 95%. At least 90% coverage at 12 months for DTaP/IPV/Hib3, MenC2 and PCV2 was achieved for all countries and all English SHAs apart from London and South East Coast (coverage in the South East Coast region was above 90% in the previous quarter).

UK coverage at 12 months for DTaP/IPV/Hib3 increased by 0.3% compared with the previous quarter, and MenC2 and PCV2 both increased by 0.6% (Table 1) [3]. Country-specific comparisons for coverage at 12 months show Scotland and Northern Ireland achieved at least 96% coverage and Wales at least 95% for all three immunisations. In England DTaP/IPV/Hib increased by 0.3% to 91.0%, MenC2 and PCV2 coverage increased 0.6% to 90.6% and 90.5% respectively (table 1) [3].

**Table 1. Completed primary immunisations (all antigens) by 12 months: July to September 2008**

Strategic Health Authorities (SHAs)/Country	PCT/HB/AR* † (total)	DTaP/IPV/Hib3 %	MenC2 %	PCV2 %
<b>English SHAs</b>				
North East	12 (12)	94.2	93.6	93.4
North West	23 (24)	93.5	93.3	93.2
Yorkshire and the Humber	14 (14)	91.9	91.4	91.4
East Midlands	9 (9)	93.4	93.1	92.9
West Midlands	17 (17)	93.8	93.7	93.7
East of England	14 (14)	93.6	93.1	93.0
London	29 (31)	81.4	80.5	79.8
South Central	9 (9)	94.3	93.2	93.9
South East Coast	8 (8)	88.6	88.6	89.0
South West	14 (14)	94.1	94.3	94.7
<b>England (Total)</b>	<b>149 (152)</b>	<b>91.0</b>	<b>90.6</b>	<b>90.5</b>
<b>Wales</b>	<b>3 (3)</b>	<b>95.5</b>	<b>95.4</b>	<b>95.2</b>
<b>Northern Ireland</b>	<b>4 (4)</b>	<b>96.7</b>	<b>96.6</b>	<b>96.6</b>
<b>Scotland §</b>	<b>14 (14)</b>	<b>97.0</b>	<b>96.9</b>	<b>97.0</b>
<b>United Kingdom</b>	<b>170 (173)</b>	<b>91.8</b>	<b>91.5</b>	<b>91.4</b>

\* Primary Care Trusts/health boards/administrative regions

† Number of trusts reporting DTaP/IPV/Hib3 coverage

§ Scottish data will be available from 30th September at <http://www.show.scot.nhs.uk/scieh/>

## Coverage at 24 months

Ninety seven of the 170 PCTs/HBs/ARs (57%) achieved at least 95% coverage at 24 months for DTaP/IPV/Hib3, 75 (44%) for MenC, and one Scottish Health Board achieved 97% for MMR at 24 months. In addition, at least 95% coverage was achieved by five PCTs/HBs/ARs for the PCV booster, and seven achieved at least 95% for the Hib/MenC booster.

Compared to the previous quarter, UK MMR coverage increased by 0.9%, with all countries and English regions showing improvement (2% in Wales, up to 88.4%; 1% in England, up to 83.4%; 1.3% in Northern Ireland, up to 90.1%; and 0.6% in Scotland, up to 92.3%) [3] (table 2). UK PCV booster coverage, reported for the fourth time this quarter, increased by 5.5%, to 82.3% and Hib/MenC booster increased by 5.2% to 85.1%, with each country again improving on the previous quarter's estimates (table 2) [3].

Compared to the previous quarter, UK coverage for DTaP/IPV/Hib at 24 months decreased by 0.3%, and MenC remained similar at 91.9%. Country-specific comparisons for these two immunisations show Scotland, Northern Ireland and Wales still achieved at least 95%, whilst in England coverage was 93.4% for DTaP/IPV/Hib ( six regions achieved at least 95%) and 91.2% for infant MenC coverage, ranging from 96% in the North East to 77.6% in London. (table 2) [3].

**Table 2. Completed primary immunisations (all antigens) by 24 months: July to September 2008**

Strategic Health Authorities (SHAs)/Country	PCT/HB/AR* † (total)	DTaP/IPV /Hib3 %	Infant MenC%	PCV Booster%	Hib/MenC%	MMR1%
<b>English SHAs</b>						
North East	12 (12)	96.1	96.0	84.1	89.6	87.5
North West	23 (24)	95.2	92.9	83.4	87.6	86.0
Yorkshire and the Humber	14 (14)	94.2	93.8	82.8	86.1	85.0
East Midlands	9 (9)	96.0	95.9	84.6	87.6	86.9
West Midlands	17 (17)	96.2	94.5	89.1	90.6	88.2
East of England	14 (14)	94.8	95.2	81.5	88.7	82.5
London	29 (31)	85.7	77.6	63.4	66.6	71.5
South Central	9 (9)	95.2	93.3	86.6	88.7	86.7
South East Coast	8 (8)	91.4	89.8	78.3	81.8	81.3
South West	13 (14)	95.8	95.2	88.3	89.7	89.1
<b>England (Total)</b>	<b>149 (152)</b>	<b>93.4</b>	<b>91.2</b>	<b>80.8</b>	<b>84.2</b>	<b>83.4</b>
<b>Wales</b>	<b>3 (3)</b>	<b>96.9</b>	<b>95.1</b>	<b>87.2</b>	<b>92.4</b>	<b>88.4</b>
<b>North. Ireland</b>	<b>4 (4)</b>	<b>97.6</b>	<b>95.3</b>	<b>88.9</b>	<b>85.8</b>	<b>90.1</b>
<b>Scotland §</b>	<b>14 (14)</b>	<b>98.1</b>	<b>95.8</b>	<b>93.0</b>	<b>90.6</b>	<b>92.3</b>
<b>United Kingdom</b>	<b>170 (173)</b>	<b>94.0</b>	<b>91.9</b>	<b>82.3</b>	<b>85.1</b>	<b>84.5</b>

\* Primary Care Trusts/health boards/administrative regions.

† Number of trusts reporting DTaP/IPV/Hib3 coverage

§ Scottish data will be available from 3h September at: <http://www.show.scot.nhs.uk/scieh/>

## Coverage at five years

All countries and English regions, except for London, achieved 90% coverage for DTP/Pol3, Hib3 and MenC, with four regions in England reporting at least 95% coverage for all three immunisations (table 3). UK MMR1 coverage increased by 0.5% to 89.2% compared to the previous quarter, with Scotland and Northern Ireland achieving at least 95%. UK MMR2 coverage increased in by 1.5% to 77.9%. In England, coverage increased by 1% for MMR2 and 0.8% for DTaP/IPV; coverage for both of these booster vaccines increasing in all regions of England except for the South East Coast and the North East. In Wales, coverage increased by 0.8% for MMR2 and 0.7% for DTaP/IPV. Coverage for most antigens at five years increased in London by 1 to 3% compared to the previous quarter, but despite this, coverage was still lower than corresponding values for other English regions. In particular, coverage for MMR2 was 58.4% and DTaP/IPV was 56.4%, at least 15% lower than coverage in other regions.

**Table 3. Completed primary immunisations and boosters (all antigens) by 5 years: July to September 2008**

Strategic Health Authorities (SHAs)/country	PCT/HB/AR* † (total)	Primary				Pre-school booster	
		DTP/Pol3 %	Hib3 %	MenC %	MMR1 %	MMR2 %	DTaP/IPV %
<b>English SHAs</b>							
North East	12 (12)	95.8	95.5	96.8	93.6	83.9	86.6
North West	23 (24)	95.6	94.7	94.7	92.5	80.8	80.6
Yorkshire & Humber	14 (14)	94.3	93.9	94.0	90.7	80.4	82.1
East Midlands	9 (9)	95.7	95.4	95.3	91.4	83.1	85.4
West Midlands	17 (17)	96.2	95.1	95.2	90.9	81.5	86.7
East of England	14 (14)	93.4	92.8	93.4	86.6	76.7	81.3
London	29 (31)	84.4	82.9	81.8	79.4	58.4	56.4
South Central	9 (9)	92.6	91.7	91.7	89.1	77.9	83.1
Sth. East Coast	8 (8)	91.2	91.4	91.4	85.6	72.8	78.0
South West	14 (14)	96.3	95.6	95.7	91.7	83.6	88.7
<b>England (Total)</b>	<b>149 (152)</b>	<b>92.9</b>	<b>92.2</b>	<b>92.1</b>	<b>88.3</b>	<b>76.3</b>	<b>79.0</b>
<b>Wales</b>	<b>3 (3)</b>	<b>95.6</b>	<b>94.9</b>	<b>93.4</b>	<b>91.1</b>	<b>82.0</b>	<b>87.5</b>
<b>Northern Ireland</b>	<b>4 (4)</b>	<b>97.4</b>	<b>93.4</b>	<b>95.1</b>	<b>95.9</b>	<b>88.9</b>	<b>91.0</b>
<b>Scotland §</b>	<b>14 (14)</b>	<b>98.2</b>	<b>97.3</b>	<b>97.5</b>	<b>95.4</b>	<b>87.4</b>	<b>90.5</b>
<b>United Kingdom</b>	<b>170 (173)</b>	<b>93.6</b>	<b>92.8</b>	<b>92.7</b>	<b>89.2</b>	<b>77.9</b>	<b>80.7</b>

\* Primary Care Trusts/health boards/administrative regions

† Number of trusts reporting DTP/Pol3 coverage

§ Scottish data will be available from 30 September at <http://www.show.scot.nhs.uk/scieh/>

## MMR sentinel surveillance scheme coverage in England

For methods of data collection see

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListDate/Page/1209454766294?p=1209454766294>.

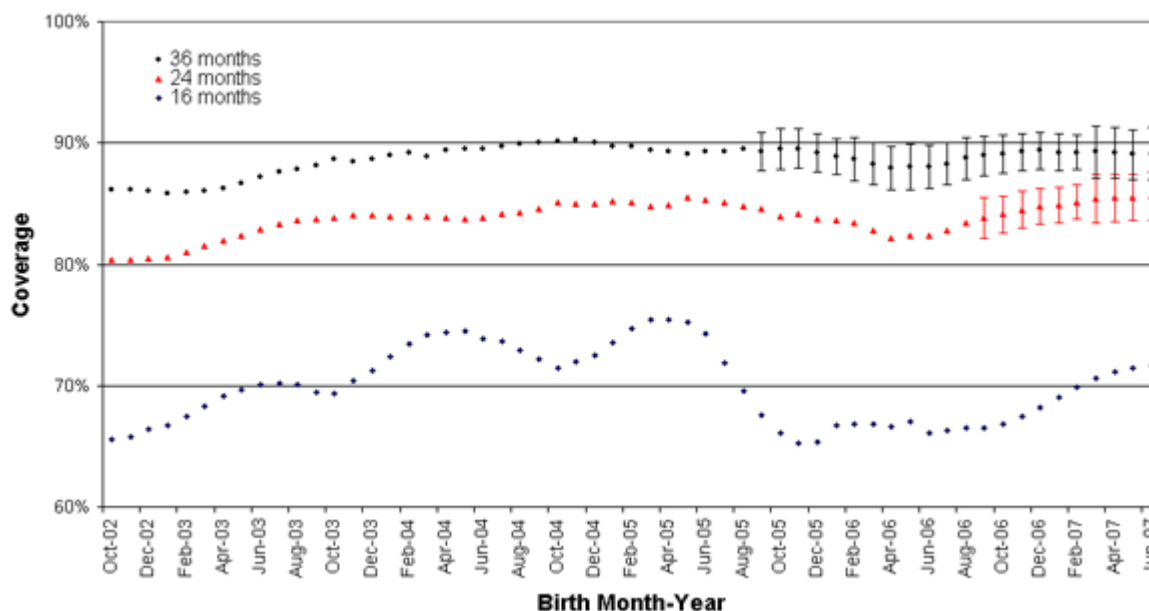
Data collected from September to November 2008 for children in the four age cohorts is summarised in table 4, and ranged from 71.3 to 72.2% at 16 months, 80.4 to 81.5% at 20 months, 83.1% to 84.7% at 24 months, and 89.6% to 90.0% at 36 months.

**Table 4. Monthly sentinel estimates of measles, mumps rubella (MMR) coverage at 16, 20, 24 and 36 months: July to September 2008**

Evaluation month	Proportion of children vaccinated at each age				
	Number of PCT/trusts	16 months	20 months	24 months	36 months
September 2008	35	71.4	80.4	83.1	89.8
October 2008	35	72.2	81.0	84.0	89.6
November 2008	35	71.3	81.5	84.7	90.0

The figure shows observed and projected MMR coverage at 16, 24 and 36 months in England for birth cohorts from October 2002 to June 2007. Projections of coverage at 24 and 36 months were made using the most recent coverage data for the same birth cohort and an estimate of the proportion,  $p$ , of those unvaccinated at each earlier age who were subsequently vaccinated by the later age. The proportion was estimated using the most recent 18 months data where final coverage was known. 95% confidence intervals were calculated based on the variability of  $p$  in the past data. The estimates of  $p$  were as follows: 49.2% for 16 to 24 months, 61.7% for 16 to 36 months, 20.8% for 20 to 24 months, 44.4% for 20 to 36 months and 32.0% for 24 to 36 months. Projections make the assumption that  $p$  remains constant over the period of the projection, however, this assumption is likely to be affected by the current MMR catch-up campaign and therefore the projections will probably be under-estimated. Data at 20 months is not shown to simplify the graph as the line is close to that plotted for the 24-month data.

**Figure. Observed and projected MMR coverage at 16, 24 and 36 months, by birth year and month, in England**



Note. Data shown are five-month moving averages. Projections are shown with 95% confidence intervals.

## Neonatal hepatitis B vaccine coverage data in England

The data presented in table 5 represents coverage for three doses of hepatitis B vaccine in those infants born to hepatitis B surface antigen (HBsAg) positive mothers who reached the age of one year in this quarter (i.e. those born between July and September 2007), and coverage of four doses of vaccine in infants who reached two years of age (i.e. those born between July and September 2006).

**Table 5. Neonatal hepatitis B coverage in England: July to September 2008**

Region	Returns with 12 month data	12 month denom- inator	Coverage at 12 months	Returns with 24 month data	24 month denom- inator	Coverage at 24 months
North East	9 (12)	3	100%	9 (12)	1	100%
North West	16 (24)	52	77%	16 (24)	41	59%
Yorkshire & the Humber	12 (14)	21	86%	13 (14)	20	90%
East Midlands	7 (9)	14	86%	7 (9)	19	42%
West Midlands	14 (17)	47	47%	14 (17)	57	49%
East of England	13 (14)	48	46%	13 (14)	52	42%
London	23 (31)	272	60%	23 (31)	200	52%
South Central	8 (9)	24	92%	8 (9)	22	82%
South East Coast	8 (8)	10	60%	8 (8)	10	40%
South West	11 (14)	14	14%	11 (14)	19	5%
<b>Total</b>	<b>121(152)</b>	<b>505</b>	<b>61%</b>	<b>122 (152)</b>	<b>441</b>	<b>51%</b>

Data were received from 122/152 (80%) PCTs in England, 3% fewer than reported in the last quarter [3]. Some of the returns may relate to only part of the PCT due to mergers [5]. Coverage in England for three doses in those aged one year decreased 4% to 61% [3] (table 5). Although this is lower than the coverage obtained for routine antigens at this age (table 1) the population at risk are highly mobile and high uptake is difficult to achieve. By far the largest number of infants at risk is in London. Coverage in England for four doses in those aged 24 months increased by 5% to 51% compared to the last quarter [3].

## Commentary

UK MMR coverage at 24 months increased by 0.9% this quarter to 84.5%, reversing the downward trend observed in the previous five quarters [3]. This trend was observed in all countries and all English regions. In addition, UK coverage of two doses of MMR at five years of age increased by 1.5% to 77.9%, giving the highest level recorded since the COVER programme started evaluating MMR2 in April to June 1998 [6]. A more modest increase of 0.5%, to 89.2%, was observed for UK coverage of at least one dose of MMR at aged five, however, in Northern Ireland coverage of MMR1 at five years has exceeded 95% for the second successive quarter [3] and in Scotland this level has been achieved for the first time [7]. Sentinel MMR surveillance in England also shows coverage at 16 and 20 months of age, recorded between September and November this year, increasing compared to the previous quarter suggesting further increases in routine 24 month coverage can be expected next year. These increases in MMR coverage for all ages evaluated by the COVER programme observed this quarter may be linked to local efforts to increase MMR uptake in all unvaccinated children following the widely reported increased measles incidence across England and Wales during 2008 [8-11]. By the end of October a total of 1049 cases had been reported, exceeding the total (990) for the whole of 2007 [11].

Changes introduced into the childhood immunisation programme in September 2006 included a new pneumococcal conjugate vaccine (PCV) offered at two and four months of age with DTaP/IPV/Hib vaccine, and a change from three to two MenC vaccines given before 12 months of age (offered at three and four months with DTaP/IPV/Hib). Children who reached their first birthday in the quarter (born July to September 2007) were the fifth quarterly birth cohort recorded by COVER to have been scheduled to receive their primary vaccinations according to this new schedule. UK coverage for MenC2 and PCV2 at 12 months is now 91.5% and 91.4% respectively, very similar to coverage of DTaP/IPV/Hib3 (91.8%) offered at the same time.

Children reaching their second birthday in the quarter (born July to September 2006) were the fourth quarterly birth cohort recorded by COVER to be offered at 12 months and 13 months respectively the new booster Hib/MenC and PCV vaccines, also introduced in September 2006. UK coverage for both booster vaccines evaluated at 24 months increased considerably this quarter and are now at similar levels to MMR coverage in this age group; PCV coverage was up 5.5% to 82.3%, and Hib/MenC booster was up 5.2% to 85.1% on the previous quarter [3].

Relevant links for country-specific coverage data are as follows:

### Wales

<http://www.wales.nhs.uk/sites/page.cfm?OrgID=368&PID=2278>

### Scotland

<http://www.show.scot.nhs.uk/scieh/>

### Northern Ireland

<http://www.cdscni.org.uk/surveillance/Coveragestats/default.asp>

### England

<http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation>

### Other relevant links

[http://www.hpa.org.uk/infections/topics\\_az/cover/default.htm](http://www.hpa.org.uk/infections/topics_az/cover/default.htm)

<http://www.mmrthefacts.nhs.uk/>

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## Diary

### **Asbestos-contaminated land seminar, British Occupational Hygiene Society, 25 February 2009, London**

All developed countries have a legacy of industrial sites, potentially contaminated with asbestos materials from previous use, whose future redevelopment may leave the new occupants at risk of exposure. In some countries, particularly in the US, there is also a perceived problem of “naturally occurring asbestos”. How to assess this risk is a problem because asbestos does not migrate through the soil as other industrial pollutants may do. So how should sites be examined and the risk to future occupants assessed ? There has been some activity addressing this problem in the UK, US, Netherlands and Australia. This seminar, providing a platform for discussion of the issues, includes speakers from the Health and Safety Executive and the Environment Agency.

#### **Venue:**

Society of Chemical Industry,  
14-15 Belgrave Square,  
London SW1X 8PS

#### **Contact for further information or enquiries:**

British Occupational Hygiene Society  
(London and South East region).  
Web: <http://www.bohs.org/eventDetails.aspx?event=166>  
Registration email: [london.southeast@bohs.org](mailto:london.southeast@bohs.org)

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