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Roll-out of cervical cancer vaccination programmes in the United Kingdom

Programmes of vaccination against infection by human papillomavirus (HPV) were officially launched throughout the United Kingdom this week.

Although the scheduling of the programmes may differ in the different jurisdictions, essentially similar schemes are being rolled out in England, Wales, Scotland and Northern Ireland, focusing initially on girls aged 12-13 years (school year 8 in England) who are being offered the vaccine through collaborations between health service trusts and education authorities.

Over the next three years “catch-up programmes” will provide for vaccination of older girls/young women. In England, for example, older girls/young women will be offered vaccination in three cohorts as follows:

- ▶ in 2008/09, girls/young women aged 17-18 years (school year 13) will be offered the vaccine;
- ▶ in 2009/10, girls aged 16-18 (school years 12 and 13); and
- ▶ in 2010/11, girls aged 15-17 (school years 11 and 12).

By July 2011, over two million young women, born between 1 September 1990 and 31 August 1995, will have been offered the HPV vaccine in the UK.

Since the identification of HPV as a sexually-transmitted, potentially cancer-causing infection [1], more than 100 types of the virus have been identified, of which around 12 so-called “high-risk” (HR) types have been causally associated with cancer. Low-risk (LR) types are not associated with cancer but cause warts (genital and other). Although the vast majority of HPV infections, including HR HPV infections, resolve without any consequences, two HR types, HPV 16 and HPV 18, are of particular importance as they are associated with about 70% of all cervical cancers. Cervical cancer causes around 1,000 deaths in the UK each year.

The key features of the national programme were outlined in a Chief Medical Officer letter to health professionals in May 2008 [2], when a new chapter (18a) was added to *Immunisation against infectious disease 2006* (“Green Book”), concerned with clinical aspects of the subject [3].

Information for the public about the programme in England is available via NHS Direct Health Encyclopaedia [4] and via a dedicated About HPV section of the Department of Health's Immunisation micro-site [5], which also links to similar sites covering the programmes in Wales, Scotland and Northern Ireland.

The contract for the supply of the vaccine (GlaxoSmithKline's Cervarix™) for the HPV programmes was made by the Department of Health following a procurement exercise in which the vaccines were examined against predefined criteria including scientific qualities, price and cost-effectiveness [6].

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Confirmed measles cases in England and Wales – an update to July 2008

The total number of laboratory confirmed cases of measles in England and Wales with onset dates between 1 January and the end of July this year has reached 797. The total for the whole of 2007 was 990. Two thirds of 2008 cases were reported by London (528, 66%; table 1). The proportion of saliva tests confirmed by IgM or PCR has been ranging between 20 and 25%.

Following the high numbers of cases in the summer of 2007, measles cases declined in the latter part of 2007 and early 2008. Cases began to increase again in March, particularly in London. During July, the number of cases observed declined in London but increased in the rest of the England and Wales (figure 1). The increase outside of London was mainly due to cases on a traveller site in the East of England, a school outbreak in Kent, and continuation of the outbreaks in the North West of England.

Nearly three-quarters (579,73%) of all laboratory confirmed cases so far this year were in children aged one to 18 years (figure 2). Only 36 (4.5%) were reported as having received one dose of a measles containing vaccine and 11 (1.4%) cases had had two doses.

To limit the extent of this measles outbreak, the Chief Medical Officer recently recommended that Primary Care Trusts undertake catch-up programmes to immunise children and young people up to the age of 18 years who have not received a full course of vaccination (figure 2) [1].

Table 1. Confirmed cases of measles by region and month of onset, England and Wales up to end of July 2008

Month	Lond.	East Mids.	East of Eng.	North East	North West	South East	South West	West Mids	Wales	York & Humb.
Jan-08	60	1	8	1	1	1	–	3	1	12
Feb-08	44	–	4	3	–	7	–	–	–	3
Mar-08	67	1	1	–	–	6	1	1	1	5
Apr-08	91	–	8	3	1	6	15	2	–	14
May-08	103	1	6	–	23	7	7	3	–	5
Jun-08	95	–	10	1	20	6	3	5	–	3
Jul-08	68	1	11	–	22	14	3	7	–	1
Total	528	4	48	8	67	47	29	21	2	43

Figure 1. Confirmed cases of measles by month of onset, England and Wales: January 2007 to July 2008

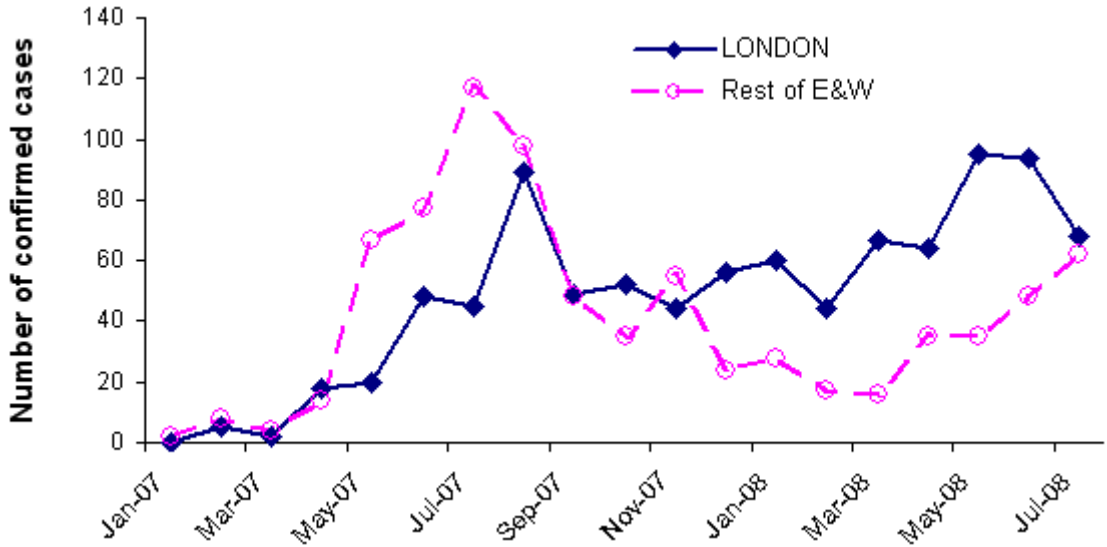
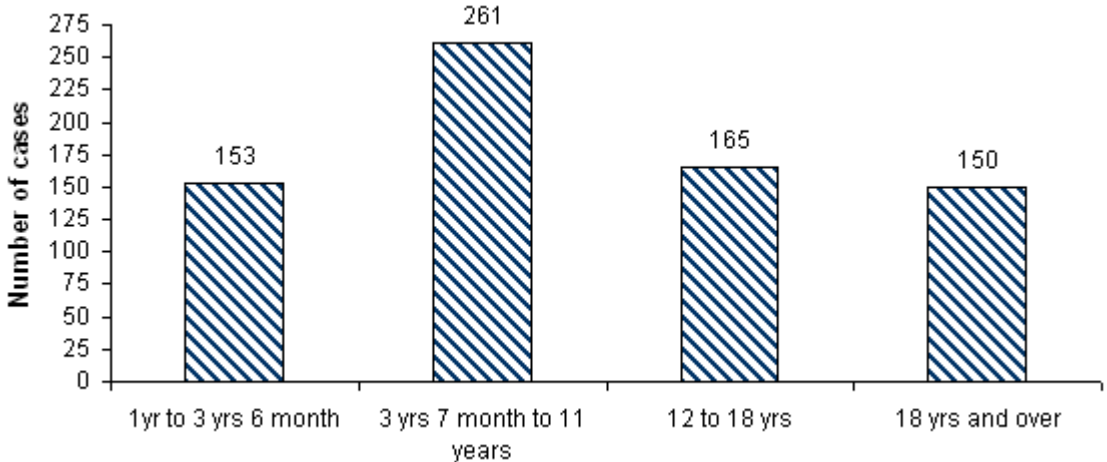


Figure 2: Confirmed cases by age groups targeted by the MMR catch-up programme, England and Wales: January–July 2008



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British Paediatric Surveillance Unit annual report

The 22nd annual report of the British Paediatric Surveillance Unit (BPSU) [1] summarises the results of the surveillance of diseases and infections of childhood that, although rare, represent significant causes of morbidity and mortality.

Partly funded by the Department of Health, the Unit facilitates the involvement of paediatricians in the UK and Ireland in the surveillance and study of such rare conditions as congenital rubella, vitamin K deficiency bleeding and childhood scleroderma. Although its surveillance activity is limited to monitoring a dozen disorders at one time, since 1986 the Unit has facilitated the study of over 70 paediatric conditions and continues to contribute to public health policy in the UK.

Highlights of the latest report are the results of studies of HIV infection and of MRSA bacteraemia in children which are being sponsored by the Department of Health and the Health Protection Agency, respectively.

The latest results of the National Study of HIV Infection in Pregnancy and Childhood (NSHPC), which covers the UK and Ireland, have confirmed that HIV antenatal screening has been instrumental in reducing the rate of mother-to-child transmission since 2000, even though the number of births to HIV-infected women has increased substantially. Screening has allowed most infected pregnant women to be diagnosed in time to take advantage of effective interventions and the proportion of infants who are themselves infected has declined to less than one per cent.

The MRSA study aims to record the number of MRSA bloodstream infections occurring in children in the UK and Ireland, and their clinical features and patterns. The study found that MRSA bacteraemia in children is relatively uncommon in contrast to adults, accounting for only 1-2 per cent of MRSA bloodstream infections in patients of all ages. Of the 265 cases of MRSA bloodstream infections reported over a two year period, most were in very young children with risk factors that made them prone to infection. The strains of MRSA found were types that are associated with healthcare settings, findings that have implications for future control measures aimed at reducing further infection.

The BPSU is a unit within the research division of the Royal College of Paediatrics and Child Health and a joint venture with the Health Protection Agency, the Institute of Child Health (University College London), the Royal College of Physicians (Ireland) and the Health Protection Scotland.

Reference

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Infection reports

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Respiratory

Laboratory reports of respiratory infections made to Cfl from HPA and NHS laboratories in England and Wales: weeks 31-35/2008

Data are recorded by week of report, but include only specimens taken in the last eight weeks (ie recent specimens).

Table 1 Reports of influenza infection made to Cfl, by week of report: weeks 31-35/2008

Week	Week 31	Week 32	Week 33	Week 34	Week 35	Total
Week ending	03/08/08	10/08/08	17/08/08	24/08/08	31/08/08	
Influenza A	3	2	–	1	–	6
Isolation	–	–	–	–	–	–
*DIF	1	–	–	–	–	1
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	2	–	–	–	–	2
†Other	–	2	–	1	–	3
Influenza B	1	4	–	–	–	5
Isolation	–	–	–	–	–	–
*DIF	–	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	1	–	–	–	–	1
†Other	–	4	–	–	–	4
Influenza (untyped)	–	–	–	–	–	–
Isolation	–	–	–	–	–	–
*DIF	–	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	–	–	–	–	–	–
†Other	–	–	–	–	–	–

* DIF = Direct Immunofluorescence.

† 'Other' = 'Antibody detection - Single high titre' or 'Method not specified'.

Table 2 Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera or single high serology titre), by week of report: weeks 31-35/2008

Week	Week 31	Week 32	Week 33	Week 34	Week 35	Total
Week ending	03/08/08	10/08/08	17/08/08	24/08/08	31/08/08	
Adenovirus*	18	19	9	13	5	64
Coronavirus	–	–	–	–	1	1
Parainfluenza†	14	26	9	20	11	80
Rhinovirus	12	30	10	15	13	80
Respiratory Syncytial Virus (RSV)	9	16	4	14	11	54

* Respiratory samples only. Excludes diagnoses made by electron microscopy (EM)

† Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 3 Respiratory viral detections by age group: weeks 31-35/2008

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Un-known	Total
Adenovirus*	18	26	5	12	3	–	–	64
Coronavirus	–	–	–	1	–	–	–	1
Influenza A	–	2	–	2	1	1	–	6
Influenza B	–	–	–	2	3	–	–	5
Parainfluenza†	28	19	4	11	14	4	–	80
Rhinovirus	33	15	11	7	10	2	2	80
Respiratory syncytial virus (RSV)	39	3	–	3	6	3	–	54

* Respiratory samples only.

† Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 31-35/2008

Week	Week 31	Week 32	Week 33	Week 34	Week 35	Total
Week ending	03/08/08	10/08/08	17/08/08	24/08/08	31/08/08	
<i>Coxiella burnettii</i>	2	–	1	1	1	5
Respiratory <i>Chlamydia</i> sp.*	1	1	–	1	8	11
<i>Mycoplasma pneumoniae</i>	4	15	11	10	7	47
<i>Legionella</i> sp.	18	9	11	6	13	57

* Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5a Reports of Legionnaires' Disease cases in England and Wales, by week of report: weeks 31-35/2008

Week	Week 31	Week 32	Week 33	Week 34	Week 35	Total
Week ending	03/08/08	10/08/08	17/08/08	24/08/08	31/08/08	
Nosocomial	–	–	–	–	–	–
Community	14	3	6	5	9(2*)	37
Travel Abroad	3	4	2	1	3	13
Travel UK	1	2	3	–	1	7
Total	18	9	11	6	13	57
Male	14	9	9	5	11	48
Female	4	–	2	1	2	9

(*) Non-pneumonic case(s)

Fifty-five cases were reported with pneumonia and two with non-pneumonic infection; 48 males aged 39-86 years and nine females aged 40-74 years. Thirty-seven cases had community acquired infection. Five deaths were reported in four males aged 46-69 years and one female aged 74 years.

Twenty cases were travel-associated, as follows: Austria/Belgium/France/Germany/Italy/Netherlands (1), Barbados/United Kingdom (1), France (2), Germany (1), Greece (1), Malta (1), Poland (1), Spain (3), Switzerland (1), Turkey (1) and United Kingdom (7).

Table 5b Reports of Legionnaires' Disease cases by region of report in England and Wales: weeks 31-35/2008

Region/country	Nosocomial	Community	Travel abroad	Travel UK	Total
North East	–	–	1	–	1
Yorkshire & Humber	–	1	–	1	2
East Midlands	–	3 (1*)	1	–	4
East of England	–	5	3	–	8
London	–	7	4	2	13
South East	–	10 (1*)	1	1	12
South West	–	2	–	–	2
West Midlands	–	6	2	3	11
North West	–	2	1	–	3
Wales	–	1	–	–	1
Unknown	–	–	–	–	–
Total	–	37	13	7	57

(*) Non-pneumonic case(s)