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News

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HIV and other sexually transmitted infections in the United Kingdom, 2007

The Health Protection Agency has released its annual surveillance report on HIV and other sexually transmitted infections (STIs) in the United Kingdom (UK). This year's report, *Testing Times*, launched ahead of World AIDS Day provides up-to-date, detailed information on the continuing HIV and STI epidemics, as well as recommendations aimed at stemming their spread.

An estimated 73,000 adults are now living with HIV in the UK. This figure includes both those who have been diagnosed and also around a third (21,600) who remain unaware of their HIV status. During 2006, 7,093 people were diagnosed with HIV in the UK. This number is expected to rise to an estimated 7,800 in 2006 when all reports are received, a comparable figure to the estimated 7,900 received in 2005.

The report highlights high levels of HIV transmission in gay men in whom over 2,700 new diagnoses of HIV infection are expected in 2006. In recent years there has been a steady increase in all sexually transmitted infections (STI), including HIV, in gay men and since 2003, the number of HIV diagnoses reported annually has consistently increased and exceeded the annual number of diagnoses throughout the 1980s and 1990s. Increased testing will have contributed in part to these recent high numbers of HIV diagnoses, but there is no suggestion that the overall level of underlying HIV transmission in gay men has fallen. Unprotected sex continues to be a very high risk activity for HIV and STI transmission in this group.

Sexual health of young adults has worsened in 2006 with increases in sexually transmitted herpes and warts viruses. One in ten young adults screened through the National Chlamydia Screening Programme in 2006 tested positive for the infection.

In 2006, there were an estimated 750 new HIV diagnoses thought to be due to heterosexual HIV transmission within the UK, many in black ethnic minority communities. This compares to an estimated 700 cases reported in 2005 and 500 in 2003 showing that heterosexual HIV transmission is steadily increasing.

The number of cases who may have acquired HIV heterosexually in Africa has remained stable. When all reports are received this number will be around 3,450 in 2006 compared to 3,700 the previous year and a peak of 3,850 in 2003.

While there have been some encouraging developments in HIV and STI prevention in the last year such as the increase in HIV testing, a marked reduction in waiting times at STI clinics and wider chlamydia testing for young adults, the total number of STI diagnoses increased 2.4% from 606,600 in 2005 to 621,300 in 2006.

The control of HIV and STI transmission is a major public health challenge and testing for STIs, including HIV, in the UK needs to be increased still further. The report makes a number of key recommendations particularly aimed at reducing transmission of HIV and other STIs in the key prevention groups, namely men who have sex with men (MSM), young people and the black communities.

Full copies of the report are available from the HPA's Centre for Infections (HIV/STI@hpa.org.uk) or from the local Health Protection Units of the HPA (see http://www.hpa.org.uk/lars_homepage.htm to find your local HPU).

Alternatively, electronic copies of the annual report, and a slide set of all the tables and figures can be downloaded from: http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/publications/AnnualReport/default.htm.

In addition, more extensive statistics by organism, geography, prevention group and surveillance system are available at: http://www.hpa.org.uk/infections/topics_az/hiv_and_sti.

Tabular data on the National Chlamydia Screening Programme is accessible at: <http://www.chlamydia-screening.nhs.uk>

Confirmed measles cases in England and Wales – an update to end of October 2007

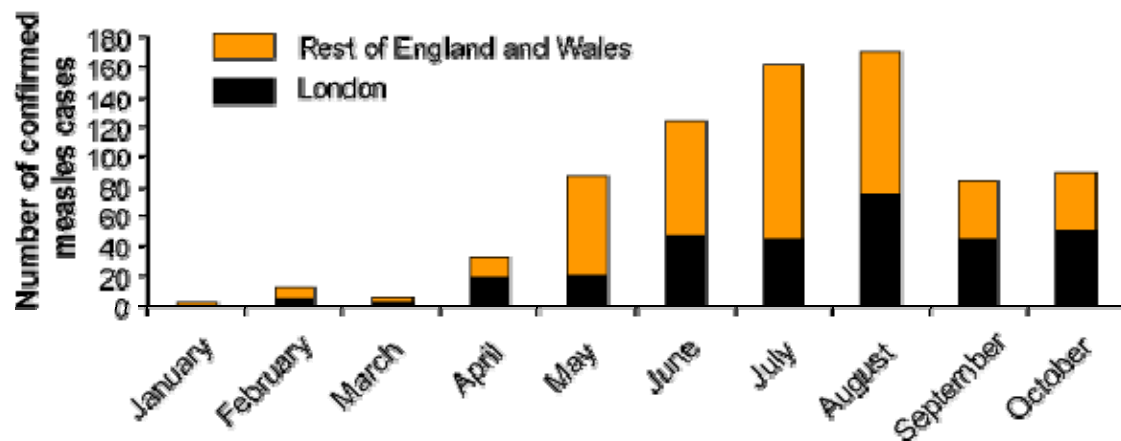
Measles cases have continued to occur since numbers were last published on the 21 September [1]. Up to the end of October, there have been 769 cases confirmed in England and Wales (compared to 596 up to 21 September). Twenty-two percent (172/769) had onset dates after the end of August 2007 (September 83 cases and October 89 cases). During September and October, more cases were reported from London than the rest of England and Wales (figure). Many of these cases were associated with continuing outbreaks in religious communities with poor vaccine coverage (70 cases in London, 11 in North West and two in North East regions), travelling communities, and smaller outbreaks in schools and nurseries. All recent cases without a history of travel where a genotype has been identified have been shown to be the same D4 sequence (MVs/Enfield.GBR/14.07).

During 2007, the majority of cases have been reported in the south east of England (73%): London region (307), South East (97), and East of England (155), although 87 and 58 cases have been reported from Yorkshire and Humberside and the East Midlands respectively (table).

Table Confirmed cases of measles by age group and region, England and Wales: cumulative total for 2007 up to 31 October 2007

Region/Country	Age Group (years)							Total
	<1	1-4	5-9	10-14	15-19	20-24	≥25	
North East	–	1	–	1	1	–	2	5
North West	3	8	6	–	2	–	2	21
Yorkshire & Humber	9	19	25	13	10	4	7	87
East Midlands	5	19	15	7	5	3	4	58
West Midlands	–	9	7	3	–	1	–	20
East of England	8	38	45	25	14	3	22	155
London	27	107	68	31	28	16	30	307
South East	8	25	32	18	6	2	6	97
South West	1	2	1	–	–	2	–	6
Wales	–	7	5	1	–	–	–	13
Total	61	235	204	99	66	31	73	769

Figure Confirmed cases of measles by month of onset, England and Wales: cumulative total for 2007 up to 31 October 2007



References

1. HPA. Confirmed cases of measles in England and Wales – an update up to 21 September 2007. *Health Protection Report* [serial online] 2007 [cited 28 September 2007]; **1** (39):News. Available at <<http://www.hpa.org.uk/hpr/archives/2007/hpr3907.pdf>>

Infection Surveillance Programme Annual Report, 2006

The third annual report from the National Blood Service (NBS)/Health Protection Agency (HPA) Centre for Infections Surveillance Programme has recently been published, and is now available at <http://www.hpa.org.uk/infections/topics_az/BIBD/publications.htm>.

The Programme is comprised of a series of national schemes, which provide epidemiological information about bloodborne infections in blood, tissue and cell donors in the UK and the associated risk of transmission via transfusion or transplantation, in order to inform donor practices and public health. In addition information about antenatal samples tested by the NBS is presented. This report includes national data from all the schemes within the NBS/HPA programme, and aims further to describe the methods used and the information collected; describing any trends observed and detailing some of the applications of the data.

In addition to this annual report, some of these data from the blood donation surveillance scheme are routinely published on the HPA website [1] and in the HPR, and data from the transfusion transmitted infection surveillance scheme form a part of SHOT (*Serious Hazards of Transfusion*) website <<http://www.shotuk.org>>.

References

1. http://www.hpa.org.uk/infections/topics_az/BIBD/publications.htm

UNAIDS published revised HIV estimates

UNAIDS has published its *2007 AIDS Epidemic Update* [1]. The report reflects improved understanding and expanded epidemiological data and analyses that have led to a better understanding of the global epidemic, and resulting substantial revisions in estimates.

Global HIV incidence – the number of new HIV infections per year – is now estimated to have peaked in the late 1990s at over 3 million [2.4 to 5.1 million] new infections per year, and is

estimated in 2007 to be 2.5 million [1.8 to 4.1 million] new infections, an average of more than 6800 new infections each day. This reflects natural trends in the epidemic, as well as the result of HIV prevention efforts.

The number of people dying from AIDS-related illnesses has declined in the last two years, due in part to the life prolonging effects of antiretroviral therapy. AIDS is, however, still among the leading causes of death globally and remains the primary cause of death in Africa .

The current estimate of 33.2 million [30.6 to 36.1 million] people living with HIV replaces the 2006 estimate of 39.5 million [34.1 to 47.1 million]. Applying the improved methodology retrospectively to the 2006 data, the 2007 report revises that figure, now estimating that in 2006 there were 32.7 million [30.2 to 35.3 million] people living with HIV. The single biggest reason for the reduction in global HIV prevalence figures in the past year was the recent revision of estimates in India after an intensive reassessment of the epidemic in that country. The revised estimates for India, combined with important revisions of estimates in five sub-Saharan African countries (Angola, Kenya, Mozambique, Nigeria, and Zimbabwe) account for 70% of the reduction in HIV prevalence as compared to 2006 estimates.

UNAIDS, WHO and the Reference Group on Estimates, Modelling and Projections have recently undertaken the most comprehensive review of their methodologies and monitoring systems since 2001. The epidemic estimates presented in this year's report reflect improvements in country data collection and analysis, as well as a better understanding of the natural history and distribution of HIV infection. This information is vital in helping countries understand their epidemics and respond to them more effectively. UNAIDS and WHO are now working with better information from many more countries. In the past few years a number of countries, most notably in sub-Saharan Africa and Asia, have expanded and improved their HIV surveillance systems, conducting new, more accurate studies that provide more precise information about HIV prevalence than earlier studies. In addition, 30 countries mostly in Africa have conducted national representative population-based household surveys. These have also informed adjustments for other countries with similar epidemics that have not conducted these surveys. New assumptions have also been made as a result of a better understanding of the natural history of untreated HIV infection.

UNAIDS and WHO officials point out that the new estimates do not change the need for immediate action and increased funding to scale up towards universal access to HIV prevention, treatment, care and support services.

References

1. UNAIDS. *AIDS epidemic update: December 2007*. Geneva: UNAIDS, 2007. Available at <http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf>.

Immunisation

- ▶ Invasive meningococcal infections, England and Wales, laboratory reports: weeks 41-45/2007
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Invasive meningococcal infections, England and Wales, laboratory reports: weeks 41-45/2007

	Method of diagnosis			Total reports 41-45/2007	Cumulative* total to week 45/2007
	CSF and blood Culture	Non- culture	Other sites		
Group A	–	–	–	–	1
B	33	73	1	107	928
C	2	1	–	3	33
W135	2	1	–	3	27
X	–	–	–	–	1
Y	3	–	1	4	34
Z/29E	–	–	–	–	1
Ungroupable	–	–	–	–	2
Ungrouped	–	18	–	18	77
Total	40	93	2	135	1104

*Latex antigen, microscopy, polymerase chain reaction combined Health Protection Agency Centre for Infections data and Meningococcal Reference Unit data.

Laboratory confirmed cases of pertussis reported to the enhanced pertussis surveillance programme: April to September 2007

There were 129 laboratory confirmed cases of pertussis reported to the pertussis enhanced surveillance programme during April to June 2007, and 209 laboratory confirmed cases reported during July to September 2007. Both of these numbers of reports represent an increase on the 104 laboratory confirmations reported during January to March 2007 [1], consistent with seasonal increases usually observed in these quarters. Tables 1 and 2 show the total numbers of reports by laboratory test, for each age group.

Table 1 Laboratory confirmed cases of pertussis in England and Wales by age group, April to June 2007

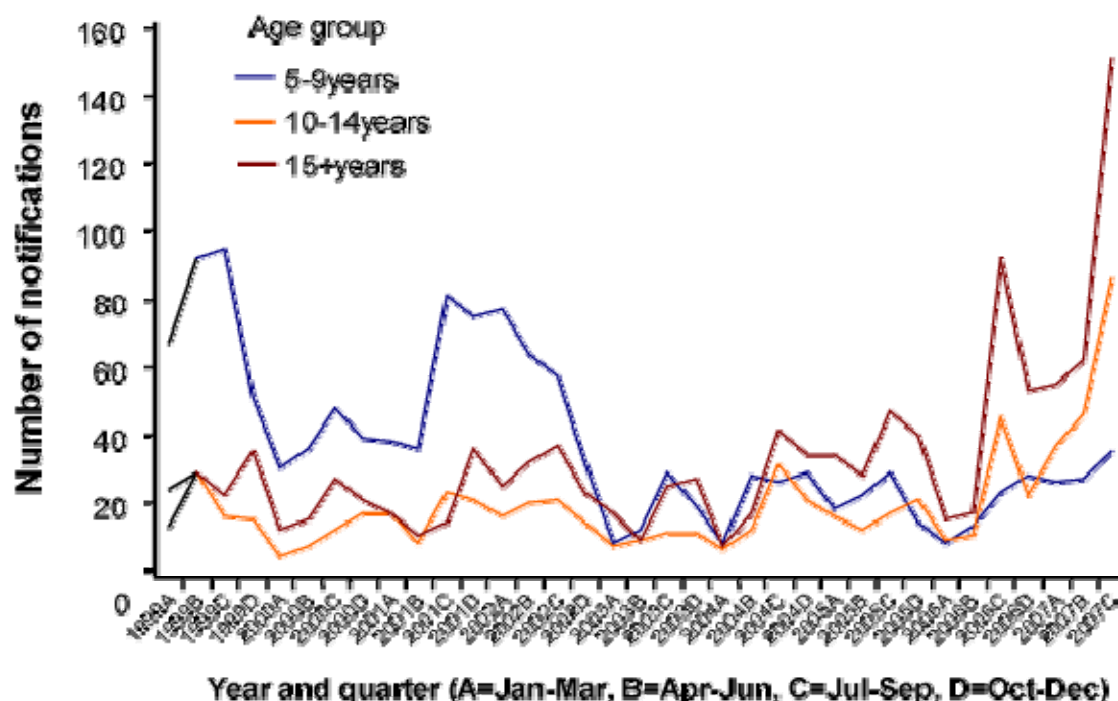
Age group	Culture only	Culture and other	PCR only	Serology only	Total	% in each age group
<3 months	13	1	5	3	22	17.1%
3-5 months	3	–	1	1	5	3.9%
6-11 months	–	–	–	–	0	0.0%
1-4 years	1	–	–	2	3	2.3%
5-9 years	–	–	–	4	4	3.1%
10-14 years	4	–	–	15	19	14.7%
≥15 years	–	1	–	75	76	58.9%
Not known	–	–	–	–	–	
Total	21	2	6	100	129	

Table 2 Laboratory confirmed cases of pertussis in England and Wales by age group, July to September 2007

Age group	Culture only	Culture and other	PCR only	Serology only	Total	% in each age group
<3 months	25	1	15	3	44	21.1%
3-5 months	5	1	–	1	7	3.3%
6-11 months	1	–	1	–	2	1.0%
1-4 years	2	–	1	1	4	1.9%
5-9 years	–	1	–	8	9	4.3%
10-14 years	2	1	1	37	41	19.6%
≥15 years	1	1	1	96	99	47.4%
Not known	1	–	1	1	3	1.4%
Total	37	5	20	147	209	

Figure 1 shows the trend in whooping cough statutory notifications of infectious diseases (NOIDS) over the last nine years in those aged five years and over [2]. The greatest increase in notifications is seen in the 10 to 14 years and 15 years and above age groups. This disproportionate increase may be due to increased awareness due to the launch of the new enhanced surveillance test for pertussis [3].

Figure 1 Whooping cough notifications in England and Wales between 1999 and 2007 for over five-year-olds



<http://www.hpa.org.uk/infections/topics_az/measles/data_not_confirmed.htm>
 <http://www.hpa.org.uk/infections/topics_az/mumps/data_quarter.htm>
 <http://www.hpa.org.uk/infections/topics_az/rubella/data_rub_not.htm>

and annual total numbers of confirmed cases by health region and age from:

<http://www.hpa.org.uk/infections/topics_az/measles/data_reg_age.htm>
 <http://www.hpa.org.uk/infections/topics_az/mumps/data_reg_age.htm>
 <http://www.hpa.org.uk/infections/topics_az/rubella/data_reg_age.htm>

Table 1 Total confirmed cases of measles, mumps, and rubella, and oral fluid IgM antibody tests in notified cases: weeks 27-39/2007

	Cases			Oral fluid IgM antibody results		Results		
	Notified	Tested	%	Total Positive	Recently vaccinated	Oral fluid IgM confirmed	Other lab confirmed	Total Confirmed cases
Measles	1348	975	72	293	21	272	144	416
Mumps	1385	1034	75	172	3	169	88	254
Rubella	224	178	79	2	1	1	4	5

*Some oral fluid specimens were submitted early from suspected cases and may not have been subsequently notified, thus the proportion tested may be artificially high for this quarter.

Measles

Four hundred and sixteen cases of confirmed measles with onset dates in the third quarter of 2007 were reported, over twice as many reported in the previous quarter (1). The rate of confirmed measles amongst oral fluid samples tested is around 28% – higher than for any previous quarter. About a quarter (110) were associated with an outbreak in a religious community in North London (2), as well as the continuing outbreak in the travelling community that began in late March (3-5). London, East of England, and Yorkshire and Humber regions reported 70% of the cases, although cases linked to the traveller's outbreak were also identified in East Midlands and the South East of England. Eighty-three per cent of the cases were distributed in forty-eight clusters with the number per cluster ranging from two to 86. Some of the clusters encompass cases in the second and/or fourth quarter. Eighty-six cases in this quarter were confirmed by PCR alone and a further ten epidemiologically linked cases were identified.

Three hundred and seventeen cases were in children aged less than 15 years (29 less than one year; 131 aged from 1 to 4 years; 105 aged from 5 to 9 years; and 52 aged from 10 to 14 years). Ninety-nine cases were aged over 14 years. Twenty-five of the cases in this quarter reported receiving measles-containing vaccines: three had single measles vaccine (28 years old and two 29 years old), four cases reported receiving two doses of MMR, although for two of these the GP was unable to confirm their vaccination status, eighteen cases reported having one MMR but for three confirmatory information was not available.

Cases were reported from all English regions and from Wales (London 165, East of England 62, Yorkshire and the Humber 62, East Midlands 50, South East 43, North West 15, West Midlands 3, Wales 13, North East 3 and South West 1). The predominant measles genotype, in both the traveller and religious community outbreaks and in cases with no link to the outbreaks, continues to be a D4 strain (MVs/Enfield.GBR/14.07).

A history of recent travel was reported for twelve cases; five had been to Spain or the Balearic Isles, one each to France, Greece, Pakistan, Poland (D4), and Qatar (B3). Two foreign nationals has come to the UK whilst infectious, a 5 yrs old US national travelled from Tanzania (B3) and a 27 year old from Switzerland attending the World Scout jamboree in August in the East of

England (D5). Infections in a travelling family residing in the East of England were found to be D8 genotype but no source for that genotype was identified.

Mumps

Two hundred and fifty-seven cases of mumps with onset dates in the third quarter of 2007 were confirmed compared to 477 in the previous quarter (1). Cases continue to be confirmed predominantly in those aged between 16 and 27 years (59%), known to be at highest risk due either to not having been routinely offered MMR vaccination in childhood, or having only received one dose (table 2).

Table 2 Confirmed cases of mumps by age group and region, England and Wales: weeks 27-39/2007

Region/Country	Age Group (years)								Total
	<1	1-4	5-9	10-14	15-19	20-24	≥25	Not known	
North East	–	1	1	–	5	8	6	–	24
North West	–	–	1	2	10	10	18	–	42
Yorkshire & Humber	–	–	1	2	7	12	7	1	28
East Midlands	–	–	–	4	10	9	4	–	24
West Midlands	–	1	–	–	5	5	9	–	20
East of England	–	3	–	–	15	15	20	–	53
London	–	–	3	1	1	4	10	1	21
South East	–	2	–	1	1	7	14	–	23
South West	–	–	–	1	3	4	11	–	19
Wales	–	–	–	2	–	–	–	–	–
Not known	–	–	–	1	–	–	–	–	–
Total	–	7	6	12	57	74	99	2	257

Rubella

Five cases of rubella were confirmed in the third quarter of 2007 in comparison to eight cases in the second quarter (1). No cases were detected in pregnant women. Four cases were in males aged between 21 months and 43 years, one case was in baby girl, but it is believed not to be congenital rubella.

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1. HPA. Laboratory confirmed cases of measles, mumps and rubella, England and Wales : April to June 2007. *Health Protection Report* [serial online] 2007 [cited 28 September 2007]; 1 (39): Immunisation. Available at <http://www.hpa.org.uk/hpr/archives/2007/hpr3907.pdf>
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Diary

Engineering aspects of infection control

There will be two courses in 2008: one from 12 to 16 May and another from 29 September to 3 October.

Cost: The fee is £1400 (residential) or £1120 (non-residential).

Venue: Eastwood Park Training Centre in Falfield (near Bristol), a specialist centre for healthcare engineering.

This course will explore those aspects of infection control where engineering criteria need to be understood. It includes consideration of specialist ventilation, such as that of operating theatres, thermal (surgical instrument) and chemical (endoscope) washer disinfectors, steam sterilisers, healthcare laundry and other aspects of hospital hygiene.

The course is a module for the Diploma in Hospital Infection Control, but can also be taken by experienced infection control practitioners not registered for the DipHIC. This course is registered for 35 CPD points.

For details regarding registration or further information about the courses please write to Sheila Culkin, Laboratory of Healthcare Associated Infection, HPA, 61 Colindale Avenue, London NW9 5EQ, or email Sheila.Culkin@hpa.org.uk.