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NEWS STORIES:

- Lassa fever in Germany: follow up of possible contacts
- Annual report on mandatory surveillance of healthcare associated infection
- Healthcare Commission report on investigation into outbreaks of *Clostridium difficile* at Stoke Mandeville Hospital
- Draft code of practice for the prevention and control of healthcare associated infection
- Q fever in Forth Valley meat processing plant, Scotland
- *Salmonella* Enteritidis phage type 13a associated with attendees of a charity event

INFECTION REPORTS:

IMMUNISATION

Immunisation routine data reports:

- Laboratory reports of invasive meningococcal infections, England and Wales: weeks 18/06 to 22/06 2006
- Laboratory Reports of *Haemophilus influenzae* by age group and serotype, England and Wales: April to June 2006 (2005)
- Laboratory reports of hepatitis A infection in England and Wales: January to March 2006
- Laboratory reports of hepatitis C infection in England and Wales: January to March 2006

Immunisation infection reports

- Surveillance of viral infections in donated blood: England and Wales, 2005
- Surveillance of viral markers of infection detected in antenatal samples tested by the National Blood Service (NBS): England, 2005

HIV/STIs

- HIV in the United Kingdom quarterly update: data to the end of June 2006
- New diagnoses of HTLV infection in England and Wales: 2002 - 2005

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News

Updated: 27 July 2006 Volume 16, No.30 **Next update:** 3 August 2006

Lassa fever in Germany: follow up of possible contacts

Annual report on mandatory surveillance of healthcare associated infection

Healthcare Commission report on investigation into outbreaks of *Clostridium difficile* at Stoke Mandeville Hospital

Draft code of practice for the prevention and control of healthcare associated infection

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Lassa fever in Germany: follow up of possible contacts

On July 20 2006, a patient who travelled from Freetown (Sierra Leone) to Germany via Abidjan (Ivory Coast) and Brussels on 10/11 July was diagnosed with Lassa fever. The patient had a history of a progressive neurological condition over several months in Sierra Leone but on 5 July they developed a fever with worsening neurological symptoms. On arrival in Germany the patient was taken to a local hospital and is still under specialist medical care. Health officials in Germany have taken the appropriate measures to prevent further transmission of the virus.

Although the risk of fellow passengers contracting Lassa fever from this patient is very small, officials in European Union countries are contacting individuals to ensure they are aware of the situation.

The relevant flight details are:

- SN Brussels Airlines flight SN 0207 on 10 July from Freetown (Sierra Leone) via Abidjan (Cote d'Ivoire) to Brussels (Belgium): seat rows 23 to 29
- SN Brussels Airlines flight SN 2607 on 11 July, which departed Brussels (Belgium) to Frankfurt (Germany) at 0630: all seats

The contact details of a few passengers on these flights cannot be obtained, but it is thought that the risks of importing infection into the United Kingdom are likely to be remote. The infection is not easily spread and then only by direct contact with bodily fluids. Anyone who has not had direct contact with the patient's bodily fluids is therefore not at risk. Although the usual incubation period of seven to ten days has passed, a range of up to 21 days has been reported. Therefore, contacts and passengers on the flight are being followed-up until 2 August after which they are considered not to be at risk of developing the disease. Anyone who travelled on one of these flights and who develops fever up until 2 August 2006, should seek medical attention.

Further information is available on the Chief Medical Officer's public health link at <http://www.info.doh.gov.uk/doh/embroadcast.nsf/vwDiscussionAll/0296308951A0EC6E802571B8002C3FE7>.
Information on Lassa fever and other viral haemorrhagic fevers can be found on the Health Protection Agency website at <http://www.hpa.org.uk/infections/topics_az/VHF/menu.htm>.

Annual report on mandatory surveillance of healthcare associated infection

The annual report on Mandatory Surveillance of Healthcare Associated Infection (HCAI) was published on 24 July [1]. The annual report on Mandatory Surveillance of HCAI encompasses four reports in one. For the first time, the reports on methicillin-resistant *Staphylococcus aureus* (MRSA) and glycopeptide-resistant enterococci (GRE) bacteraemia, *C.difficile* infection, and orthopaedic surgical site infection (SSI) surveillance have been published together. The reports provide the most recent data and also update the tables of named Trust numbers and rates of infection since the beginning of the individual surveillance systems. Named Trust data are not provided for orthopaedic SSI surveillance as the timing does not allow publication of the second year's data yet.

The report also includes the first results from the enhancements to MRSA bacteraemia surveillance, which were implemented last October, and results from the random sampling scheme of *C.difficile* isolates from Trusts. In addition, a new Trust categorisation has been adopted, utilising that used by the Healthcare Commission, which classifies Trusts by size and, to some extent, case mix, thus enabling better comparisons than the previous categorisation by specialist, general acute, and single specialty Trusts.

Key findings

Results of the fifth year of mandatory surveillance of MRSA bacteraemia, including data from the new enhanced surveillance scheme:

- There were sizeable annual increases in MRSA bacteraemia reports up to 2003/04. Since then there have been two annual decreases.
- There were just over 3500 MRSA bacteraemia episodes reported during the period October 2005 to March 2006. This marks a slight fall in the numbers of bacteraemia against the previous year, but it would be premature to state that this indicates the beginning of a downturn in trend.
- The age distribution shows that the largest volume of MRSA bacteraemia are in the elderly, 69% occurring in the 65 years and over age group.
- Numbers of MRSA bacteraemia by trust in the six months from October 2005 to March 2006 varied between 0 and 81. The average number was 20 and the median 16. Six trusts reported no MRSA bacteraemia.
- Acute specialist and acute teaching trusts have contributed significantly to reductions in MRSA bacteraemia. In contrast, marked fluctuations or slight increases have been seen in the aggregate figures for trusts in the other categories between 2003 and 2006.
- Among the government office regions, London region remains the region with the highest numbers overall, despite large decreases. A second region, Yorkshire and the Humber, now has significant decreases in MRSA bacteraemia. Elsewhere, there were less marked changes, except in the North West region where the trend shows a significant increase. This is attributed to improvements in ascertainment and auditing laboratory reporting.
- Analysis of the date of detection of the MRSA bacteraemia in relation to the date of admission showed that the largest proportion of MRSA bacteraemia (67%) was detected after the second day of admission. The finding that 25% were detected on the day of admission or the day after is the subject of further investigation in an attempt to establish the risk-factors for these cases. The remaining 8% of MRSA bacteraemia cases were detected in patients not admitted at the time of blood culture.
- Many bacteraemia are detected after the patient has been in hospital for some considerable time; 25% of MRSA bacteraemia were detected after the 24th day of admission.
- The majority of patients with MRSA bacteraemia were admitted to general medical, general surgical, or care of the elderly wards. Among MRSA bacteraemia patients, 15% were in intensive care or a high dependency ward when their bacteraemia was detected. Eight per cent of renal patients had MRSA bacteraemia.

Mandatory surveillance of *C. difficile* associated disease 2005:

- This report describes results from the second year of the mandatory *C. difficile* case reporting scheme in England. It also includes the data from the first year of the random sampling scheme, whereby strains from individual trusts are characterised.
- Reports were received from all 169 acute trusts treating adult patients in England, an improvement on 2004.
- There were 51,690 reports of *C. difficile* disease in people aged 65 years and over in 2005, a 17.2% increase on 2004.
- Winter seasonality (highest numbers of reports between January and March and October and December) was not as pronounced as in 2004.
- There is some indication that the numbers of case reports have decreased over the four quarters of 2005. It is too early to assess the causes of this apparent trend.
- Rates are highest in small acute trusts.
- The predominant strain in referrals to the Health Protection Agency's Anaerobic Reference Laboratory prior to the random sampling scheme was type 001. Non-001 types, however, predominate in the random sampling scheme, specifically types 106 and 027.
- The epidemiological and clinical significance of these findings remain unclear, as research has not yet shown a predictable relationship between type 027 and clinical severity.

The second year of mandatory glycopeptide-resistant enterococcal bacteraemia surveillance: October 2004 to September 2005:

- This report covers the second year of the mandatory surveillance of glycopeptide resistant enterococcal (GRE) bacteraemia, from October 2004 to September 2005.
- The number of reports are small: 757 bacteraemia compared to 628 in the first year's report.
- Fifty-four trusts had no cases and only 21 trusts had more than ten cases.
- Two-thirds of cases occurred in specialist trusts.
- These bacteraemia were concentrated in London.

Mandatory surveillance of surgical site infection in orthopaedic surgery: report of data collected between April 2004 and December 2005:

- The Surgical Site Infection (SSI) report provides important data for both doctors/clinicians and patients about the risk of wound infection following surgery that can be used to inform and improve practice to reduce the risk of infection [2]. In addition, this surveillance also contributes to tackling rates of MRSA, as SSI is a major cause of *S. aureus* infections and many are caused by MRSA .
- Data have been collected on 79,120 procedures by 155 NHS Trusts between April 2004 and December 2005.
- In most Trusts the rates of SSI in orthopaedic surgery are low, but increase with the number of risk-factors present in the patient.

- Rates of SSI are highest in hip hemiarthroplasty. This is partly explained by patients undergoing these procedures being at greater risk of infection and because they tend to have a longer post-operative stay in hospital, increasing the chance that SSIs will be detected.

- Most of the SSIs reported affected the superficial layers of the wound, but approximately a quarter involved the deeper tissues.

- *Staphylococcus aureus* is recognised as a major cause of SSI and was responsible for half of the infections. Nearly a third of SSIs were due to MRSA.

References

1. HPA. *Mandatory Surveillance of Healthcare Associated Infection Report, 2006*. London: HPA, July 2006. Available at: <http://www.hpa.org.uk/infections/topics_az/hai/mandatory_report_2006.htm>.

2. Department of Health. *Winning ways: working together to reduce healthcare associated infection in England. A report by the Chief Medical Officer*. London: Department of Health, 2003.

Healthcare Commission report on investigation into outbreaks of *Clostridium difficile* at Stoke Mandeville Hospital

On 24 July the Healthcare Commission published its report of the investigation into two *Clostridium difficile* outbreaks at Stoke Mandeville Hospital [1]. Overall, 334 patients contracted the infection and at least 33 people died in the outbreaks, which took place between October 2003 and June 2005. These patients had acquired the infection while being treated in hospital. The Healthcare Commission carried out the investigation at the request of the Secretary of State for Health.

References

1. Healthcare Commission. *Investigation into outbreaks of* Clostridium difficile *at Stoke Mandeville Hospital, Buckinghamshire Hospitals NHS Trust.* London: Healthcare Commission, July 2006. Available at

<http://www.healthcarecommission.org.uk/newsandevents/pressreleases.cfm?cit_id=4178&FAArea1=customWidgets.content_view_1&usecache=false>.

Draft code of practice for the prevention and control of healthcare associated infection

The draft *Code of practice for prevention and control of healthcare associated infections* was published by the Department of Health website this week. The Code is designed to help NHS bodies plan and implement how they can prevent and control healthcare associated infections (HCAI). It sets out criteria by which managers of NHS organisations and other health care providers should ensure that patients are cared for in a clean environment, where the risk of HCAI is kept as low as possible. The Healthcare Commission will be using this code to assess NHS performance and similar requirements will be introduced for the private and voluntary healthcare sector and care homes. The final version will be published in autumn 2006.

References

1. Department of Health. *Draft code of practice for the prevention and control of healthcare associated infection*. London: Department of Health, 24 July 2006. Available at:

http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4137288&chk=1O%2BE%2Bp

Q fever in Forth Valley meat processing plant, Scotland

On 9 July the Public Health Department of NHS Forth Valley became aware of an increase in a flu-like illness in people who worked at a meat processing company in Bridge of Allan, Stirlingshire, Scotland [1]. Blood tests have now confirmed that the illness is Q fever and, as of 24 July, there have been 24 confirmed cases. Although cases are not expected among people who do not work at the plant, there is a small theoretical risk of contracting Q fever by air-borne spread within a half mile radius of the plant. Control measures have been put in place and investigations continue.

Q fever is an uncommon zoonotic infection caused by an organism called *Coxiella burnetii*. In the United Kingdom, the organism is most commonly found in infected farm animals, especially sheep, cattle and goats, but may also be found in cats and wild animal species such as birds, rodents or bats. Transmission of *Coxiella burnetii* occurs primarily through inhalation of aerosols contaminated with faeces or urine or from direct contact with infected animals or their products of conception. It may also be acquired from drinking unpasteurised milk. It is extremely rare for the infection to be passed from person to person. The infective dose can be as low as one organism, and so large outbreaks can be caused by a small source.

Human infection is divided into acute and chronic Q fever, although several distinct syndromes have been described . Usually symptoms occur two or three weeks after exposure (range 9 to 40 days) and illness is typically self limiting and influenza-like, with:

- Fever (high temperature)
- Headache
- Muscle pains
- Fatigue
- Dry cough (some people may develop pneumonia)

Full recovery generally occurs even without treatment but in some cases symptoms can be serious or prolonged, especially with pneumonia or pre-existing valvular disease which may require hospital admission.

References

1. Health Protection Scotland. Q fever in Forth Valley meat processing plant. *HPS Weekly News* 2006; **40**(29). Available at <http://www.ewr.hps.scot.nhs.uk/documents/ewr/pdf2006/0629.pdf>.

Salmonella Enteritidis phage type 13a associated with attendees of a charity event

Twenty-one cases of *Salmonella* Enteritidis phage type 13a have been identified among attendees of an outdoor charity event which was held in Hertsmere, Hertfordshire, on 18 June 2006.

After reports of illness among attendees were received, an investigation led by Hertsmere Borough Council, the London borough of Barnet, Bedfordshire and Hertfordshire Health Protection Unit, and the East of England Regional Epidemiology Office of the Health Protection Agency was started.

About 600 people (mostly children) attended this outdoor charity event which took place during 18 June 2006. The event consisted of two sessions of team games played by children. Those who attended lived in Hertfordshire or north London.

Food was served at the event. This included bread rolls with various fillings including egg, prepared by a caterer. At least 65 attendees are known to have developed illness after the event.

Twenty-seven cases of salmonella have been identified among the attendees and 21 of these cases have *Salmonella* Enteritidis phage type 13a. Inspections have been made by Environmental Health Officers to the site of the venue and to the premises of the supplier of the filled bread rolls. Investigations are continuing and a case-control study is being conducted.

Immunisation

Updated: 27 July 2006, Volume 16, No. 30 **Next update:** 24 August 2006

Immunisation Routine Data Reports

Laboratory reports of invasive meningococcal infections, England and Wales: weeks 18/06 to 22/06 2006

Laboratory Reports of *Haemophilus influenzae* by age group and serotype, England and Wales: April to June 2006 (2005)

Laboratory reports of hepatitis A infection in England and Wales: January to March 2006

Laboratory reports of hepatitis C infection in England and Wales: January to March 2006

Immunisation Infection Reports

Surveillance of viral infections in donated blood: England and Wales, 2005

Surveillance of viral markers of infection detected in antenatal samples tested by the National Blood Service (NBS): England, 2005

Laboratory reports of invasive meningococcal infections, England and Wales: weeks 18/06 to 22/06

	Method of diagnosis			Total reports	Cumulative*
	CSF and blood Culture	Non-culture	Other sites	18/06-22/06	Total to week 22/2006
Group A	1	–	–	**1**	**1**
B	38	45	4	**87**	**585**
C	2	2	–	**4**	**18**
W135	2	3	–	**5**	**15**
X	–	–	–	**–**	**–**
Y	2	1	–	**3**	**19**
29E	–	–	–	**–**	**–**
Ungroupable	–	–	–	**–**	**–**
Ungrouped	–	4	–	**4**	**19**
Total	**45**	**55**	**4**	**104**	**657**

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

Laboratory Reports of *Haemophilus influenzae* by age group and serotype, England and Wales: April to June 2006 (2005)

Serotype	Age					Total
	<1 year	1-4 years	5-14 years	≥15 years	Not known	
b	1 (5)	6 (8)	4 (1)	10 (16)	– (–)	**21 (30)**
nc	6 (7)	4 (10)	1 (3)	62 (59)	1 (7)	**74 (86)**
a,e,f	– (1)	– (–)	2 (–)	11 (7)	– (–)	**13 (8)**
not typed†	1 (3)	– (1)	1 (1)	22 (22)	– (–)	**24 (27)**
Total	**8 (16)**	**10 (19)**	**8 (5)**	**105 (104)**	**1 (7)**	**130 (154)**

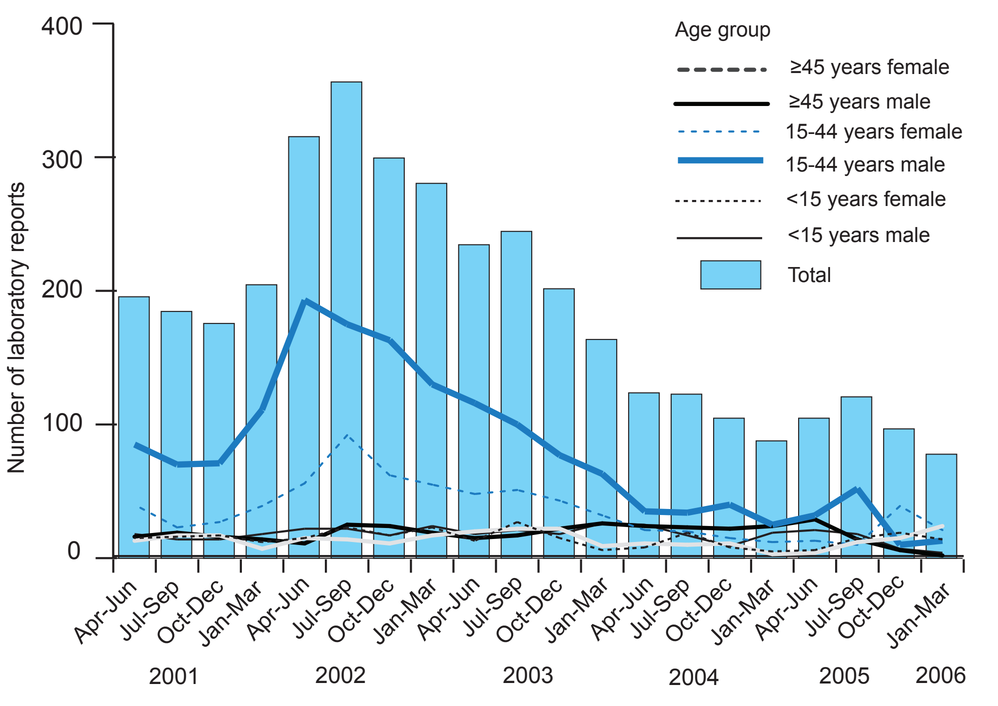
Laboratory reports of hepatitis A infection in England and Wales: January to March 2006

During the first quarter of 2006, 81 laboratory reports of hepatitis A were made to the Health Protection Agency Centre for Infections. This continues the downward trend in the overall number of cases of hepatitis A reported in each quarter since the third quarter of 2002. In this quarter, twenty-six per cent of the cases were men aged between 15 and 44 years (table, figure) and females accounted for 16% of the cases in this age group. Of those aged 45 years and over, 17% of cases were females and 30% males. In those aged under fifteen years, males and females accounted for 5% and 2% of cases respectively.

Table. Laboratory reports of hepatitis A infection in England and Wales: January to March 2006

Age Group (years)	Female	Male	Unknown	Total
<1 year	1	0	0	1
1-4	0	2	0	**2**
5-9	1	2	0	**3**
10-14	0	0	0	**0**
15-24	4	6	2	**12**
25-34	5	6	0	**11**
35-44	4	9	0	**13**
45-54	5	8	0	**13**
55-64	3	7	0	**10**
>65	6	9	1	**16**
Total	**29**	**49**	**3**	**81**

Figure. Number of laboratory reports of hepatitis A by age group and sex: January to March 2006



Laboratory reports of hepatitis C infection in England and Wales: January to March 2006

A total of 1916 reports of hepatitis C infection were reported in the first quarter of 2006 (table). Sixty-four per cent (1213/1891) of the cases occurred in the 25 to 44 years age group. The ratio of males to females is 2.2:1.

Age Group (years)	Male	Female	unknown	Total
1-4	9	6	0	**15**
5-9	0	0	0	**0**
10-14	1	1	0	**2**
15-24	87	67	3	**157**
25-34	446	184	13	**643**
35-44	420	139	11	**570**
45-54	225	98	3	**326**
55-64	63	42	2	**107**
≥65	33	38	0	**71**
Unknown	11	5	9	**25**
Total	**1295**	**580**	**41**	**1916**

Surveillance of viral infections in donated blood: England and Wales, 2005

Donated blood is collected from volunteer (unpaid) adult donors who do not acknowledge any medical conditions, travel histories, or behaviours, that are known to be associated with an increased risk of blood-borne infections. In 2005, all blood donations made in England and Wales were tested for antibodies to HIV, hepatitis C virus (HCV), and human t-cell lymphotrophic virus (HTLV), hepatitis B surface antigen (HBsAg), hepatitis C RNA on pools of up to 48 donations (and in some instances HIV RNA) and antibodies to syphilis. In addition, some donations were tested for antibodies to hepatitis B core antigen (anti-HBc), malaria, and *Trypanosoma cruzi* depending on the donor's history. A donation found positive for any of these markers is excluded from the blood supply. The donor is informed of their infection, told to stop donating and referred to specialist services to receive appropriate care.

In 2005, a total of 220 donations collected by the English and Welsh blood services were positive for markers of viral infections (table). Of these infected donations, 79 (36%) were positive for anti-HCV, 93 (42%) were positive for HBsAg, 33 (15%) were positive for anti-HIV, and 15 (7%) were positive for anti-HTLV.

Table. Infections detected in blood donations collected in England and Wales during 2005

		Infections in blood donations			
Donations with confirmed marker of infection	**HBV (HBsAg)**	**HCV (anti-HCV/HCV RNA)**	**HIV (anti-HIV)**	**HTLV (anti-HTLV)**	**Any of these four markers***
All donations	93	79	33	15	220
– per 100,000 donations tested	4.21	3.57	1.49	0.68	9.95
– 1 in x donations	23,777	27,991	67,010	14,7422	10,051
donations from new donors†	87	72	18	14	191
– per 100,000 donations tested	37.94	31.40	7.85	6.11	83.30
– 1 in x donations	2635	3184	12,738	16,378	1200
donations from repeat donors‡	6	7	15	1	29
– per 100,000 donations tested	0.30	0.35	0.76	0.05	1.46
– 1 in x donations	330,339	2,831,48	1,321,35	1,982,038	68,346

*Three donors had markers of two infections: 1 HBsAg and anti-HIV; 1 HBsAg and TP; 1 anti-HCV and TP.

†New donors are classified by blood centres as donating for the first time.

‡Repeat donors are classified by blood centres to have previously donated. Some donations from repeat donors may be newly tested for markers of infection.

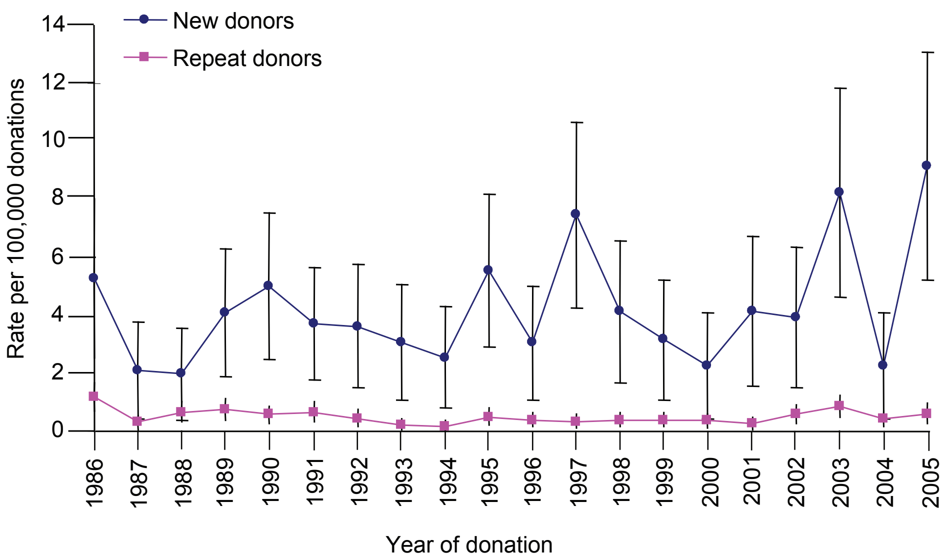
In 2005, new donors contributed 10% of all blood donations, but 93% of HBsAg, 91% of anti-HCV and 93% of anti-HTLV infected donors. In contrast, only 55% of anti-HIV positive donations were donated by new donors. Fifteen out of 33 anti-HIV positive donations (45%) were made by repeat donors who were known by blood centres to have previously donated blood in the UK; fourteen had evidence of becoming infected in the period between donating, *ie*, had been found anti-HIV negative on a donation made within three years of the positive donation. The other donor tested negative for HIV more than three years prior to their positive donation.

There was one anti-HTLV positive donation made by repeat donor who had previously been tested for anti-HTLV since national routine testing began in autumn 2002. This donor was confirmed to have acquired HTLV infection in the UK in the period between donating.

The prevalence of anti-HIV in blood donations has been low since testing was introduced in 1985 in England and Wales . In 2003 and 2005 there was some evidence of an increase of anti-HIV frequency in new and repeat donors, however, the number of infections is small (figure 1). Anti-HCV testing of blood donations began in 1991. Since that time the prevalence of anti-HCV has continued to decline each year in blood donations from both new and repeat donors (figure 2). Blood donations have been tested for HBsAg since 1972, and national surveillance data have been available since 1995. Annual prevalence of HBsAg in donations from new and repeat donors are shown in figure 3.

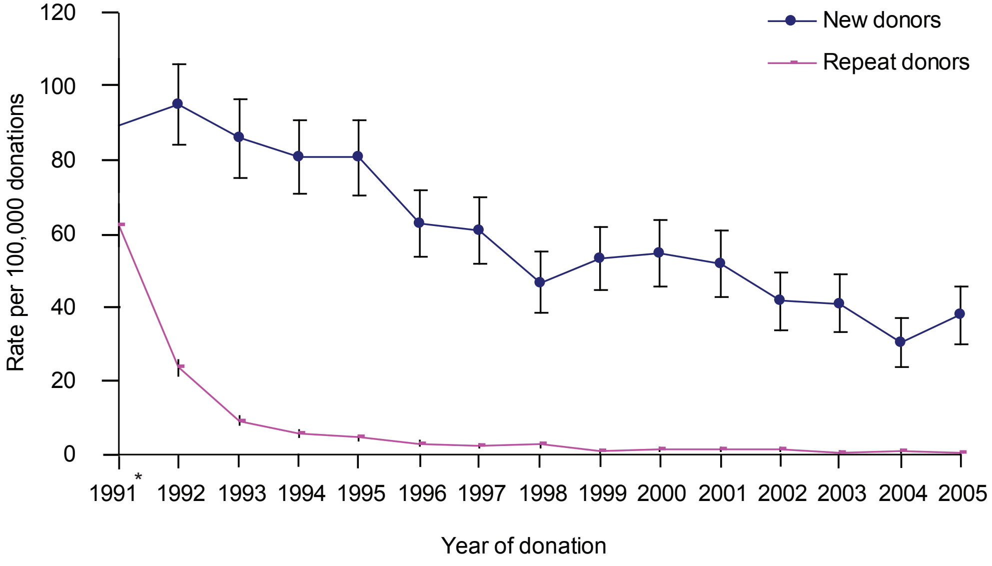
The prevalence of HBsAg has been at a higher level among new donors since 2002. Between 1999 and 2001, 31% of HBsAg positive donors were of non-white ethnicity compared to 62% between 2002 and 2005 suggesting that the increase may be due to an increase in HBsAg positive donations made by non-white donors, most of whom have been infected in childhood.

Figure 1. HIV infected blood donations: England and Wales. Donations collected from 1 October 1985 to 31 December 2005



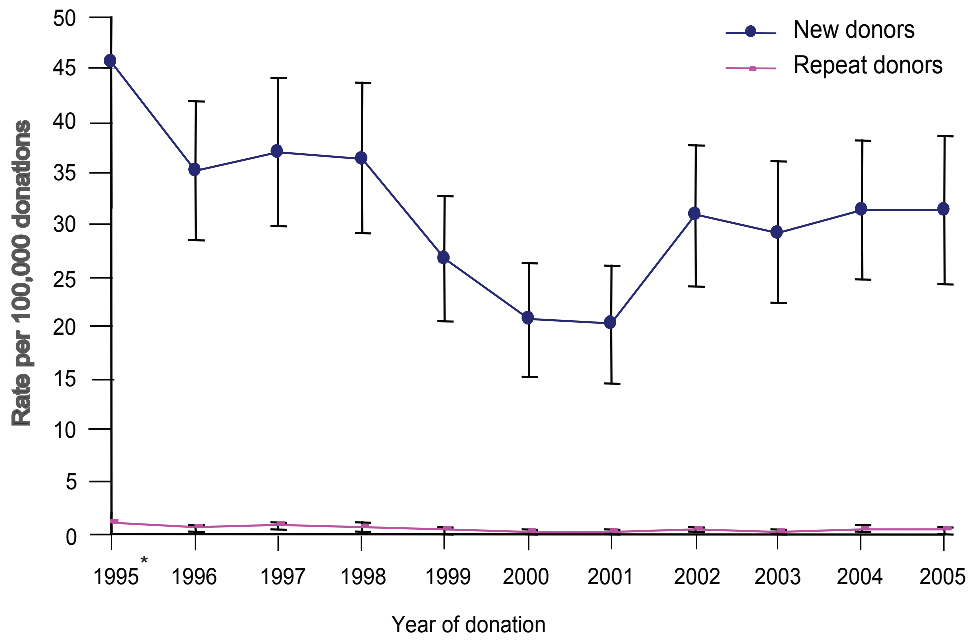
Error bars show 95% confidence.

Figure 2. HCV infected blood donations: England and Wales. Donations collected from 1 September 1991 to 31 December 2005



*September to December only.
Error bars show 95% confidence.

Figure 3. HBsAg infected blood donations: England & Wales. Donations collected from 1 October 1995 to 31 December 2005



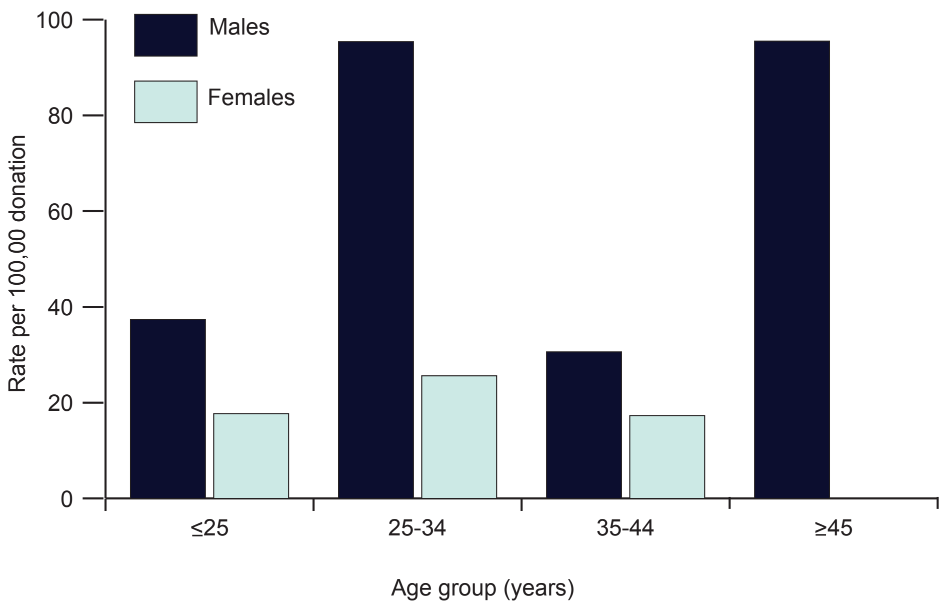
*October to December.
Error bars show 95% confidence.

The prevalence of HBsAg, anti-HCV, and anti-HIV in donations collected from new donors during 2005 by age group and sex of donors is shown in figure 4. For all three markers, there was a higher prevalence among donations from male donors than females. The prevalence of HBsAg and anti-HIV in male donors peaked in the 25 to 34 years and over age group 45 age groups, with no apparent trend among females. The prevalence of anti-HCV increased with increasing age in both male and female donors.

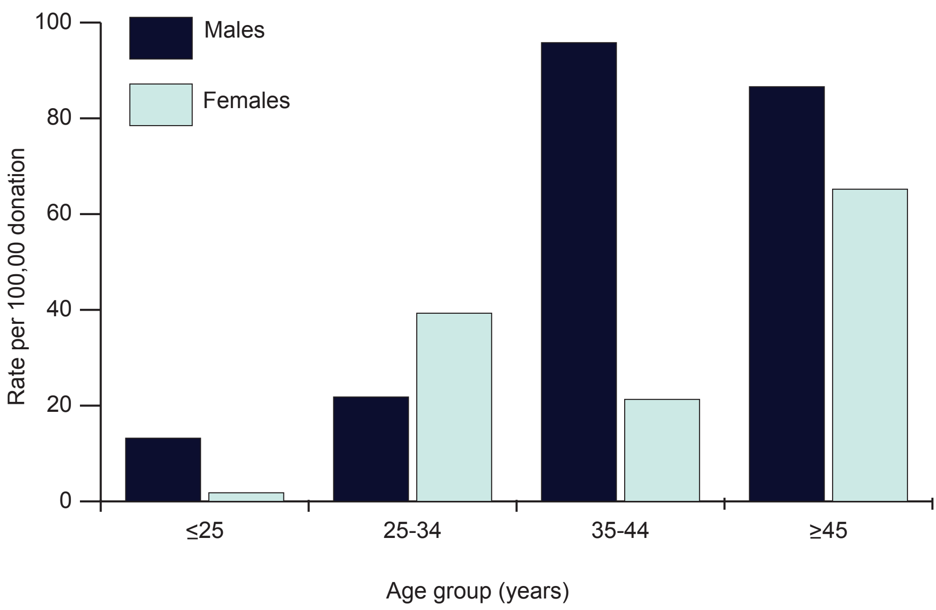
The rate of infection for HIV, HCV, HBV and HTLV remains low among blood donors.

Figure 4. Age and sex of infected blood donors: newly tested donors* Donations collected during 2005

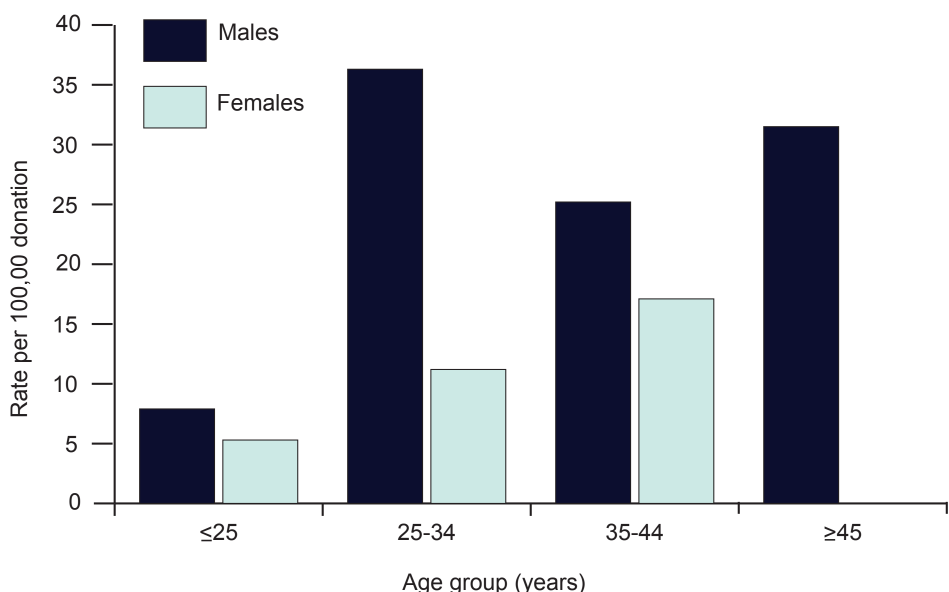
HBsAG



Anti-HCV



Anti-HIV (note different scale)



* Rates adjusted for under-reporting by multiplying the denominator estimate for each age and sex group by the proportion of all detected infections for which age and sex information has been reported.

Surveillance of viral markers of infection detected in antenatal samples tested by the National Blood Service (NBS): England, 2005

The National Blood Service (NBS) provide a routine screening service for antenatal samples to Primary Care and Acute trusts in England for blood grouping and detection of markers of HBV, HIV and syphilis (*T.Pallidum*) infection and of 'susceptibility' to rubella (*ie*, HBsAg and antibodies for HIV, syphilis, and rubella). Consent for this testing is obtained locally during antenatal care and varies between markers. The number of antenatal samples tested, number identified negative for rubella antibodies or positive for hepatitis B surface antigen (HBsAg) and antibodies to HIV or syphilis is reported to the NBS/HPA Centre for Infections Antenatal Surveillance Scheme by NBS testing laboratories each month. If an antenatal sample is positive for HBsAg, antibodies to HIV or syphilis or negative for antibodies to rubella, the local health provider requesting the testing is advised to undertake confirmatory testing, and refer the patient for appropriate care.

In 2005, the NBS in England tested more than 140,000 antenatal samples from England (all participating centres were outside London). A total of 650 antenatal samples were identified by the NBS as positive for at least one marker of infection (table). Of these samples, 362 (56%) were positive for HBsAg, 137 (21%) were positive for anti-HIV, and 151 (23%) were positive for anti-*T.pallidum*. Only 1.6% of all antenatal samples lacked antibodies to rubella. The frequency of detection of markers varied noticeably between collection centres. However, the only significant difference was established between the syphilis positivity rates in each testing centre ($\chi2=19.08$, 4df, $p<0.001$). This could reflect the differences in the population covered by the centre.

Table: Infections detected in antenatal samples tested by the National Blood Service in England 2005

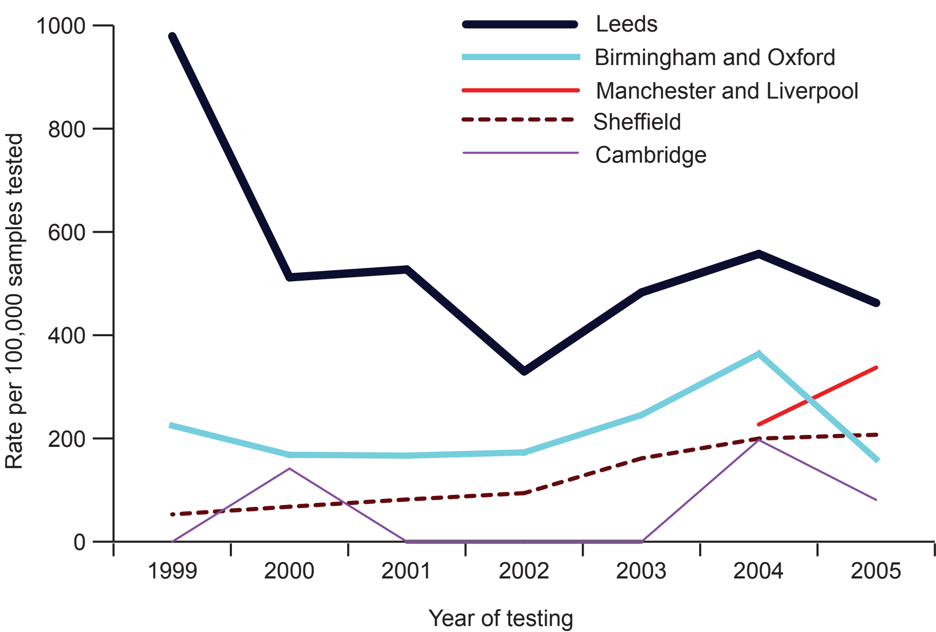
Collection centre*	Number	HBsAg	Anti-HIV	Anti-*T.pallidum*	Anti-rubella†
Birmingham and Oxford	Reactive	191	67	88	1,076
	Tested	67,138	61,286	67,138	67,138
	frequency per 100,000 samples tested	284	109	131	1603
Cambridge	Reactive	15	8	4	–
	Tested	7,681	7,533	7,636	–
	frequency per 100,000 samples tested	195	106	52	–
Leeds	Reactive	9	1	4	–
	Tested	2,439	2,341	11,190	–
	frequency per 100,000 samples tested	369	43	36	–
Manchester and Liverpool	Reactive	26	5	14	65
	Tested	9,150	3,594	20,546	4,159
	frequency per 100,000 samples tested	284	139	68	1563
Sheffield	Reactive	121	56	41	–
	Tested	54,861	47,486	55,128	–
	frequency per 100,000 samples tested	221	118	74	–
Total	Reactive	362	137	151	1,141
	Tested	141,269	122,240	161,638	71,297
	frequency per 100,000 samples tested	256	112	93	1600

† NBS centre where samples were received but not necessarily where samples have been tested.
‡ Includes samples confirmed non-reactive for rubella antibodies.

The NBS is contracted to provide antenatal testing for specific trusts, for some or all four markers and the number of women booking antenatal care within each trust is not available. Uptake of testing is therefore difficult to estimate. Testing for syphilis should be almost universal. Using the number of syphilis tests as an indicator of the total number of antenatal women we can estimate that the

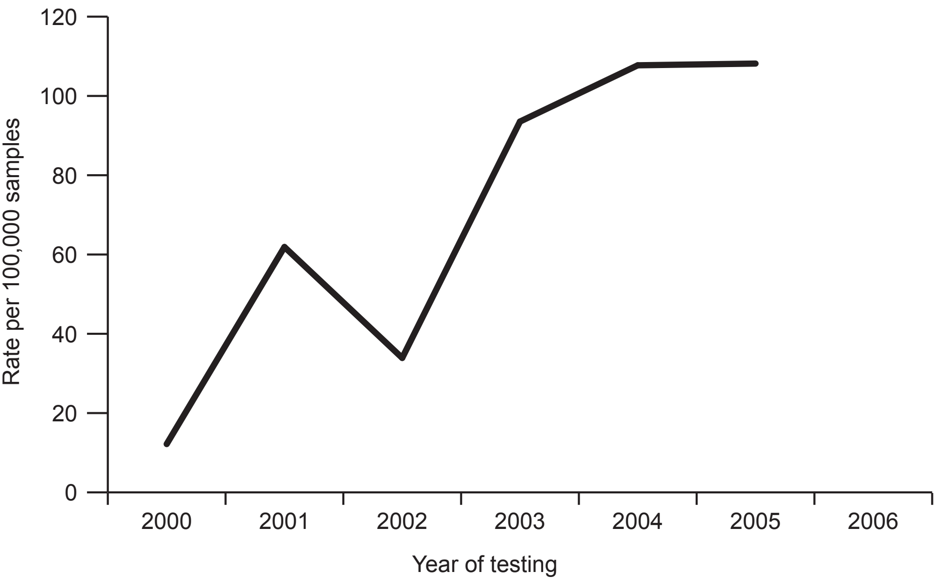
number of women not receiving an HBsAg test (by NBS) ranges between 2% and 5% by Strategic Health Authority and between 5% and 10% for HIV antibody test.

Figure 1. The frequency of HBsAg positive antenatal samples tested by the NBS, England 1999-2005



In the period 1999-2005, the average annual frequency of antenatal samples positive for HBsAg was 193 per 100,000 (95% CI 183 - 202 per 100,000). The frequency of HBsAg in antenatal samples has changed over time for centres where surveillance data was available throughout the period (figure 1). Although the observed variation may be due to differences in detecting HBsAg in antenatal women, it may also be due to changes in the reporting system and contracts with health trusts, as well as changes in policy in offering hepatitis B (HBV) testing to all antenatal women since April 2000 [1] and increasing awareness of HBV transmission.

Figure 2. The frequency of anti-HIV positive antenatal samples tested by the NBS, England 2000-2005



Anti-HIV testing for antenatal women was introduced in 2000 and since then the annual increase in frequency of antibodies positive has been 19 per 100,000 (figure 2). This increase may be due to changes in uptake of HIV testing and greater awareness in the population of HIV infection. However, in the last two years the number of antenatal samples found positive has stabilised at about 100 per 100,000 antenatal samples tested.

Surveillance data on syphilis positivity has been reported to the NBS/HPA Infection Surveillance since 2004. Over this time, the syphilis positivity rate in antenatal women screened by the NBS was lower than that of other markers.

Testing for rubella susceptibility is carried out in only two centres in the NBS and covers around 70,000 women each year. All antenatal samples that are either non-reactive or close to the test cut-off value are sent for confirmatory testing at the NBS reference laboratory. The rubella susceptibility rate (1.6%) observed in antenatal samples tested by the NBS during those two years were lower than those observed earlier in London (2.4%) [2] and a national seroepidemiological survey (2.0%) [3].

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3. Vyse AJ, Gay NJ, White JM, Ramsay ME, Brown DW, Cohen BJ, *et al*. Evolution of surveillance of measles, mumps, and rubella in England and Wales: providing the platform for evidence-based vaccination policy. *Epidemiol Rev* 2002; **24**(2):125-36.

More information is available on the HPA website or alternatively by email at <infection.surveillance@nbs.nhs.uk>.

HIV/Sexually Transmitted Infections (STIs)

Updated: 27 July 2006, Volume 16, No. 30 **Next update:** 28 September 2006

HIV in the United Kingdom quarterly update: data to the end of June 2006

New diagnoses of HTLV infection in England and Wales: 2002 - 2005

HIV in the United Kingdom quarterly update: data to the end of June 2006

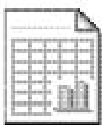
Data from the Health Protection Agency Centre for Infections, Health Protection Scotland, and the Institute of Child Health.

By the end of June 2006, 80,556 diagnoses of HIV were reported in the United Kingdom (UK; excluding Channel Islands) since surveillance began in 1982. Surveillance of HIV diagnoses is subject to reporting delay, the number of diagnoses for 2005 currently stands at 7208, and the final figure for 2005 is expected to rise and exceed that of 2004 (7472).

Of the 7208 diagnoses so far reported for 2005, 53% (3839/7208) were acquired through heterosexual contact, 31% (2252/7208) through sex between men and 2.0% (147/7208) through injecting drug use.Table 1 shows new diagnoses of HIV over time by probable route of infection. A further 1.5% (108/7208) of infections was acquired through mother to infant and 12% (862/7208) through other routes, including where probable route of infection is undetermined.

Table 1. New diagnoses of HIV in the UK by infection route, sex and year of diagnosis: data to end of June 2006

click icon to view full table



Men who have sex with men (MSM) remain most at risk of acquiring HIV infection in the UK. Table 2 provides more detailed information about where and how infections were acquired. Where reported, 84% (1093/1305) of MSM diagnosed in 2005 probably acquired their infection in the UK compared to 13% (4081/30,925) of heterosexually acquired infections: about one in ten of these reported a partner also heterosexually infected in the UK.

In contrast, three-quarters (2565/3416) of new diagnoses in heterosexual men and women were probably acquired in Africa. An additional 423 cases with country unspecified are under follow-up.

Of the diagnoses acquired through injecting drug use and with a reported country of infection, 53% (52) were probable acquired in the UK. Diagnoses acquired through infections transmitted through blood transfusion or from mother to child are for the most part acquired outside the UK.

Table 2. New diagnoses of HIV in the UK in those infected through sex between men, heterosexual contact and injecting drug use by year of diagnosis: data to end of June 2006

click icon to view full table

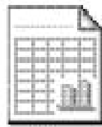


Table 1 New diagnoses of HIV in the UK by infection route, sex and year of diagnosis: data to end of June 2006

Year of diagnosis		1990 or earlier	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Sex between men*		11,076	1716	1646	1515	1483	1477	1555	1407	1369	1383	1517	1766	1894	2066	2279	2252	519	**36,920**
Heterosexual contact	Men	767	315	343	360	353	388	359	451	521	607	765	1074	1399	1590	1638	1393	309	**12,632**
	Women	842	334	437	416	442	465	481	562	645	850	1260	1830	2435	2937	2823	2446	517	**19,722**
Sub total †		1613	649	781	776	795	853	840	1013	1167	1458	2025	2904	3834	4527	4461	3839	826	**32,361**
Injecting drug use	Men	1399	166	127	150	120	122	121	122	97	78	73	96	88	109	103	111	28	**3110**
	Women	663	77	61	52	46	59	54	48	36	36	41	36	28	49	30	36	8	**1360**
Sub total †		2062	243	188	202	166	181	175	170	133	114	114	132	116	158	133	147	36	**4470**
Mother to infant	Boys/ Men	39	21	29	26	35	33	29	50	48	34	56	55	56	79	61	55	6	**712**
	Girls/ Women	41	18	27	40	31	28	32	33	52	42	46	47	64	65	77	51	14	**708**
Sub total †		80	39	56	66	67	61	61	84	100	76	102	103	120	144	142	108	20	**1429**
Recipient of blood/ tissue products	Men	1381	11	15	9	9	13	10	16	4	11	10	14	14	16	10	7	3	**1553**
	Women	87	13	9	8	8	8	11	13	7	11	15	10	20	19	14	9	2	**264**
Sub total †		1469	24	24	17	17	21	21	29	11	22	25	24	34	35	24	16	5	**1818**
Other/ undetermined	Men	390	48	46	44	40	49	44	38	43	59	55	93	131	198	233	432	254	**2197**
	Women	51	8	8	15	8	10	10	13	16	21	28	38	97	138	200	414	257	**1332**
Sub total †		468	56	54	60	48	59	54	51	59	81	83	131	228	336	433	846	511	**3558**
Total		**16,768**	**2727**	**2749**	**2636**	**2576**	**2652**	**2706**	**2754**	**2839**	**3134**	**3866**	**5060**	**6226**	**7266**	**7472**	**7208**	**1917**	**80,556**

Table will include some records of the same individuals which are unmatchable because of differences in the information supplied. Numbers will rise as further reports are received, particularly recent years.

*Includes 778 men who also reported injecting drug use.
†Includes individuals with sex not stated on report.

Table 2 Individuals diagnosed with HIV in United Kingdom: by probable exposure and world region of infection, partner exposure and year of diagnosis Cumulative data to the end of June 2006

How HIV infection was probably acquired			1990 or earlier	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Sex between men																				
probably infected in:	**–UK**		2226	399	383	298	283	241	348	354	331	338	619	734	800	955	916	1093	299	**10,617**
	–Abroad		1990	224	223	178	127	158	114	116	95	80	136	138	168	195	185	212	53	**4392**
	–Unspecified		6860	1093	1040	1039	1073	1078	1093	937	943	965	762	894	926	916	1178	947	167	**21,911**
Sub total			**11,076**	**1716**	**1646**	**1515**	**1483**	**1477**	**1555**	**1407**	**1369**	**1383**	**1517**	**1766**	**1894**	**2066**	**2279**	**2252**	**519**	**36,920**
Heterosexual																				
		Partner exposure:																		
probably infected in:	**–UK**	**Sex between men**	28	3	7	11	15	8	6	8	8	10	11	17	24	12	18	5	1	**192**
		Heterosexual *	134	62	61	64	89	103	82	128	135	157	194	262	327	412	466	495	122	**3293**
		Injecting drug use	75	22	28	38	30	22	28	30	26	17	13	26	21	24	25	12	1	**438**
		Other †	22	3	4	9	8	8	14	11	11	8	11	7	8	17	7	9	1	**158**
	–Africa	**Sex between men**	2	0	0	0	3	0	2	0	1	0	0	4	5	2	1	1	0	**21**
		Heterosexual	970	451	524	512	534	562	554	647	754	1014	1522	2262	3013	3536	3337	2562	505	**23,259**
		Injecting drug use	0	0	1	0	0	1	2	1	1	1	0	2	0	2	1	0	0	**12**
		Other †	2	0	1	0	0	0	1	1	1	1	0	2	2	0	0	2	0	**13**
	–Abroad other		226	73	111	115	102	123	132	154	202	215	246	270	352	415	412	330	61	**3539**
	–Unspecified ‡		154	35	44	27	14	26	19	33	28	35	28	52	82	107	194	423	135	**1436**
Sub total			**1613**	**649**	**781**	**776**	**795**	**853**	**840**	**1013**	**1167**	**1458**	**2025**	**2904**	**3834**	**4527**	**4461**	**3839**	**826**	**32,361**

Injecting drug use																				
probably infected in:	**–UK**		1005	76	41	63	46	31	51	45	32	28	33	40	29	53	37	52	16	**1678**
	–Abroad		254	41	45	42	46	46	37	45	28	26	34	46	42	42	45	47	8	**874**
	–Unspecified		803	126	102	97	74	104	87	80	73	60	47	46	45	63	51	48	12	**1918**
Sub total			**2062**	**243**	**188**	**202**	**166**	**181**	**175**	**170**	**133**	**114**	**114**	**132**	**116**	**158**	**133**	**147**	**36**	**4470**
Other			1560	65	85	87	86	86	85	114	115	106	133	136	160	186	172	131	26	**3333**
Undetermined			457	54	49	56	46	55	51	50	55	73	77	122	222	329	427	839	510	**3472**
Total			**16,768**	**2727**	**2749**	**2636**	**2576**	**2652**	**2706**	**2754**	**2839**	**3134**	**3866**	**5060**	**6226**	**7266**	**7472**	**7208**	**1917**	**80,556**

Numbers will rise as further reports are received and the final figures for 2005 are expected to exceed those for 2004.

*All reports followed up and no evidence of partner(s) with risks other than heterosexual exposure found.
†Includes individuals infected with HIV through other risk exposures such as blood/ tissue recipient, mother to infant and nosocomial.
‡Investigation continuing.

The HIV epidemic in the UK continues to be focused in London and accounted for 43% (3132) of new diagnoses in 2005. Gradual increases in new diagnoses have been seen in all regions since 1999, including areas that previously saw relatively few HIV cases such as the North East, Yorkshire and Humberside, East of England, and Wales.

To date, 22,291 individuals have been diagnosed with AIDS. There has been a reduction in AIDS reporting since the advent of HAART (highly active antiretroviral therapy), and AIDS defining illnesses are more likely to be reported at the time of HIV diagnosis. In 2005, of the 684 AIDS diagnoses so far reported, 85% (579) were made within three months of HIV diagnosis.

HIV related deaths have also declined after the introduction of HAART, with the number of deaths remaining relatively constant at around 500 deaths per year since 1998. The figure for 2005 to date is 492.

Additional new HIV diagnoses surveillance tables with data to the end of June 2006 can be accessed via the Health Protection Agency website.

New diagnoses of HTLV infection in England and Wales: 2002 - 2005

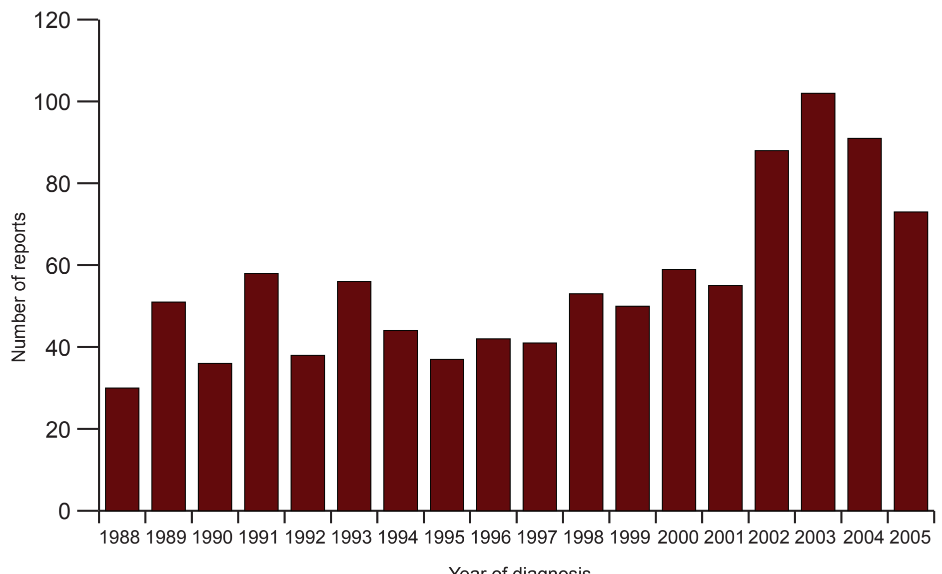
The Health Protection Agency's Centre for Infections undertakes the surveillance of Human T cell lymphotropic virus (HTLV), a retroviral infection. HTLV types I and II are transmissible through breast feeding, sexual contact, and blood transfusion, with HTLV-II particularly associated with injecting drug use in Europe. HTLV-I is endemic in the Caribbean, Japan, South America, and parts of Africa, with HTLV-II found among some native American groups. An infected individual's lifetime risk of developing disease is low (less than 5%). Clinically, HTLV-I infection may cause adult T cell lymphoma (ATLL), HTLV-I associated myelopathy/tropical spastic paraparesis (HAM/TSP) and other inflammatory conditions [1]. There is some evidence that HTLV-II infection is associated with neurological and lymphoproliferative disorders [2].

Surveillance of new diagnoses of HTLV infection in England and Wales began in the late 1980s, and was enhanced in 2002 by the routine follow-up of all laboratory reports through clinicians [3]. Additionally, in August 2002, the National Blood Service (NBS) introduced testing of all blood donations for HTLV in England and Wales, with reports of any infections identified passed to the routine surveillance scheme.

This update presents surveillance findings for new HTLV diagnoses made in England and Wales between 2002 and 2005, for reports received by the end of June 2006.

Of the 73 new HTLV diagnoses made in England and Wales during 2005, 22 (30%) were male and 51 (70%) female, with median age at diagnosis 51 and 52.5 years respectively (figure).Where available (68) 63 reports were from individuals infected with HTLV-1, and 4 with HTLV-2 and infected with both HTLV-1 and HTLV-2.

Figure. Number of HTLV infections by year of diagnosis 1988-2005



A clinician report, collecting detailed information, was received for 46 (63%) individuals diagnosed during 2005. Where probable route of infection was reported (32/46) 9 (28%) were infected heterosexually, six (19%) through mother to infant transmission, 14 (44%) through either route, and three (9%) through blood transfusion. Probable country of infection was reported for 20 (43%), of whom nine (45%) were infected in the Caribbean and nine (45%) were infected in the UK.

Where reported (45/46) 15 (33%) individuals were tested as blood donors, 21 (47%) because they were symptomatic, three (7%) had a positive partner, two had a blood relative, and four other. Clinical presentation at diagnosis was reported for 35 (76%) individuals with clinician reports, of whom 13 (37%) were asymptomatic, 8 (23%) had ATLL, 11 (31%) had HAM/TSP and 3 had non-HTLV symptoms Of all 73 individuals diagnosed in 2005, 4 are known to have died.

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