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UK HIV diagnoses top 50,000

By the end of June 2002 there had been 51081 reports of HIV diagnoses in the UK. This total includes 4419 diagnoses in 2001, a continuation of the upward trend observed over the past decade. The rise is largely a result of increasing numbers of reports of heterosexually acquired infection, most of them attributed to acquisition in sub-Saharan Africa. Although London remains the region most affected, the rate of increase is higher outside London ([view article](#)).

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The state of communicable disease law

The Nuffield Trust for Research and Policy Studies in Health Services has recently published a report on the state of communicable disease law (1). In 1998 a workshop was convened by the Trust to mark the 150th anniversary of the *Public Health Act 1848*. The conclusion of that workshop was that there was a need to 'modernise and adapt the mission, structure and organisation of public health'. One of the case study areas arising from the workshop was communicable disease, and this report by Dr Stephen Monaghan is on the state of communicable disease law in England and Wales.

Dr Monaghan argues that there is a lack of clarity regarding who is in charge locally, regionally, and nationally. He mainly considers issues at the local level and argues that legal control powers between those directed at person-to-person spread and those directed at preventing environmental spread are grossly outdated. In addition he feels that many potentially useful powers are absent and powers that exist are inflexible.

Many examples are given in chapters such as the overall legislative framework; legal authority and organisational framework; notifiable diseases and their linkage to statutory control measures; notification procedures from communicable disease surveillance and outbreak detection; legal provisions for investigation outbreaks and outbreak control.

The booklet makes an interesting read and is at its best considering the wider issues concerning communicable disease law and the moves necessary towards a new legal framework. He concludes that legislation that applies today is fragmented and appeals for an urgent reform of public health law.

"At best the relevant law can be described as untidy, not comprehensive, and in need of updating and streamlining. At the very least a tidying up of the existing statutory framework most directly relevant to public health is required. At worst the UK Government may be in breach of its obligations under the *European Convention on Human Rights* in failing to provide adequate safeguards against the possible abuse of public health powers."

In summary it is a useful, if expensive, reference document, but its main value will be if the agenda for public health law reform is taken forward. The consultation document issued by the Department of

Health in 1989 needs updating and reissuing, particularly updating issues to do with requirements under the *Human Rights Act* and with health now being a devolved responsibility within the UK.

The Nuffield Trust for Research and Policy Studies in Health Services was established by Viscount Nuffield in 1940. The Trust acts as an independent commentator on the UK health scene and the National Health Service. It commissions research and policy studies aimed at the development of policy and improvement of health services.

The state of communicable disease law ISBN 1-902089-68-5 is available from The Nuffield Trust, 59 New Cavendish Street, London W1G 7LP for £19.50 (inc post and packing).

1. Monaghan S. *The state of communicable disease law*. London: The Nuffield Trust, 2002.

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Virus infections, England and Wales: laboratory reports, weeks 26-29/02

Laboratory reports	Number of reports received				Total reports 26-29/02	Cumulative total 2002
	26/02	27/02	28/02	29/02		
Coxsackie A	2	–	1	–	3	11
Coxsackie B	2	–	2	2	6	47
Cytomegalovirus	23	7	22	17	69	563
Echovirus	4	2	5	9	20	189
Parvovirus B19	37	19	69	42	167	812
Varicella zoster virus	2	2	4	19	28	309

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Invasive meningococcal infections, England and Wales: laboratory reports, weeks 17-20/02

	Method of diagnosis			Total reports 17-20/02	Cumulative total* 2002
	CSF and blood		Other sites		
	culture	non-culture**	culture		
Group A	–	–	–	–	1
Group B	41	41	9	91	747
Group C	20	6	–	26	99
Group W135	2	2	–	4	50
Group X	–	–	–	–	2
Group Y	1	1	1	3	14
Group Z	–	–	–	–	–
Group 29E	–	–	–	–	–
Ungroupable	–	–	–	–	–
Ungrouped	–	–	–	–	1
Total	64	53	10	127	977

* combined CDSC and Meningococcal Reference Unit data. ** latex antigen, microscopy, polymerase chain reaction.

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Laboratory reports of hepatitis A in England and Wales: 2001

In 2001, 769 laboratory reports of confirmed hepatitis A virus (HAV) infections in England and Wales were made to the PHLs Communicable Disease Surveillance Centre (CDSC), a fall of approximately 25% from the previous annual total of 1046. Monthly reports peaked at 92 in January, then fell during the year before rising again to a second peak in October (77) (figure 1). A majority of reports (59%) was of cases in adults aged 15 to 44 years and strikingly, 70% of these were men (table 1). The Northern and Yorkshire region accounted for 21% of the total reports. This is attributable to increased surveillance through three laboratories joining in reporting in 2001, and partly to several outbreaks in the region.

Figure 1 Laboratory reports of hepatitis A in 2000 and 2001

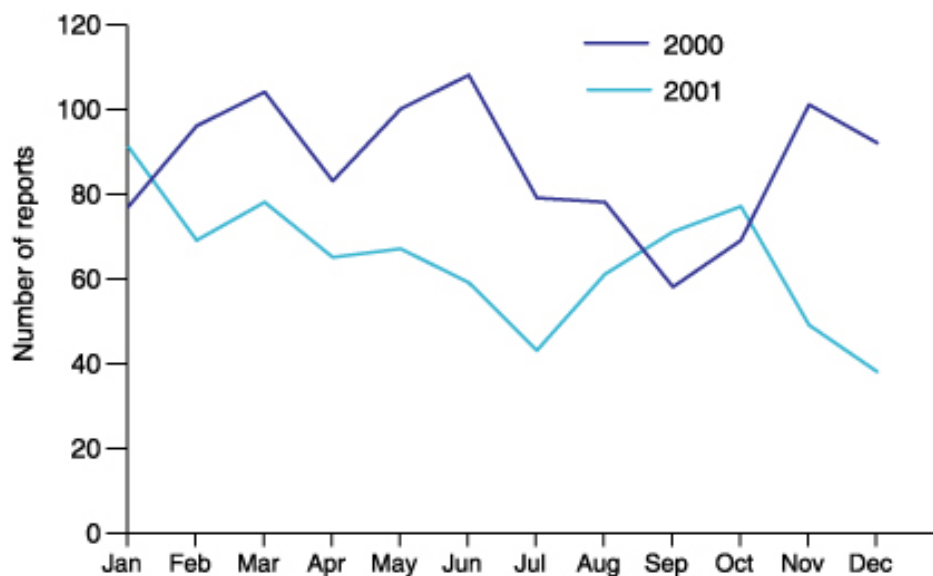


Table 1 Laboratory reports of hepatitis A to PHLS CDSC in England and Wales by sex and age group, 2001

Age group	Male	%	Female	%	Not known	%	Total	%
<1	1	0.2	–	–	–	–	1	0.1
1-4	9	1.9	8	2.9	1	6.7	18	2.3
5 - 9	40	8.3	30	11.0	1	6.7	71	9.2
10-14	23	4.8	28	10.3	3	20.0	54	7.0
15-24	125	25.9	59	21.7	2	13.3	186	24.2
25-34	128	26.6	43	15.8	3	20.0	174	22.6
35-44	64	13.3	28	10.3	–	–	92	12.0
45-54	31	6.4	30	11.0	–	–	61	7.9
55-64	15	3.1	9	3.3	–	–	24	3.1
≥65	25	5.2	27	9.9	4	26.7	56	7.3
Not known	21	4.4	10	3.7	1	6.7	32	4.2
Total	482	100.0	272	100.0	15	100.0	769	100.0

Only a minority of reports (148/769, 19%) included information on risk factors. Intravenous drug use was the most frequent, mentioned for 65 infections or 44% of those for which information was provided. Six infections were reported to have occurred in gay men and 17 cases were thought to have been foodborne. Sixty infections were acquired abroad. Of those with a source country of travel included in the laboratory report, 22/29 named countries within the Indian subcontinent (Pakistan 15, Bangladesh 3, India 2, India and Pakistan 1, country unknown 1).

The fall in the number of laboratory reports of hepatitis A in 2001 shows a continuation of a decline seen since 1991 (1). In general, the number of notified cases has paralleled the number of laboratory reports, with fewer laboratory reports occurring each year since 1990. Between 2000 and 2001, however, notifications fell by 10%, while laboratory reports fell by 27% (table 2). The ratio of notifications to laboratory reports increased from 1.2 in 1999 and 2000 to 1.5 in 2001. The difference between total laboratory reports and notifications in 2001, 33%, is the largest percentage difference in the two systems seen in the last 10 years.

Between 2000 and 2001, the decline in laboratory reports of hepatitis A was seen in most regions of England and Wales and ranged between 13 and 57% (table 2). In Northern and Yorkshire region, however, laboratory reports almost doubled and this was paralleled by a similar increase in notifications. While notifications increased in London and Wales, however, laboratory reports fell, indicating under-reporting, especially by laboratories in London. The discrepancy between notifications and laboratory reports in 2001 was therefore greatest in the London (ratio of notifications to laboratory reports of 4.1) and South East (ratio 2.0) regions of England and Wales. Laboratory reporting is often the trigger for public health action, so under-reporting may have implications for timeliness of control measures for contacts of cases such as the use of HAV vaccine and/or human normal immunoglobulin (HNIG). This is of particular concern in London, where there are large groups at risk of HAV infection.

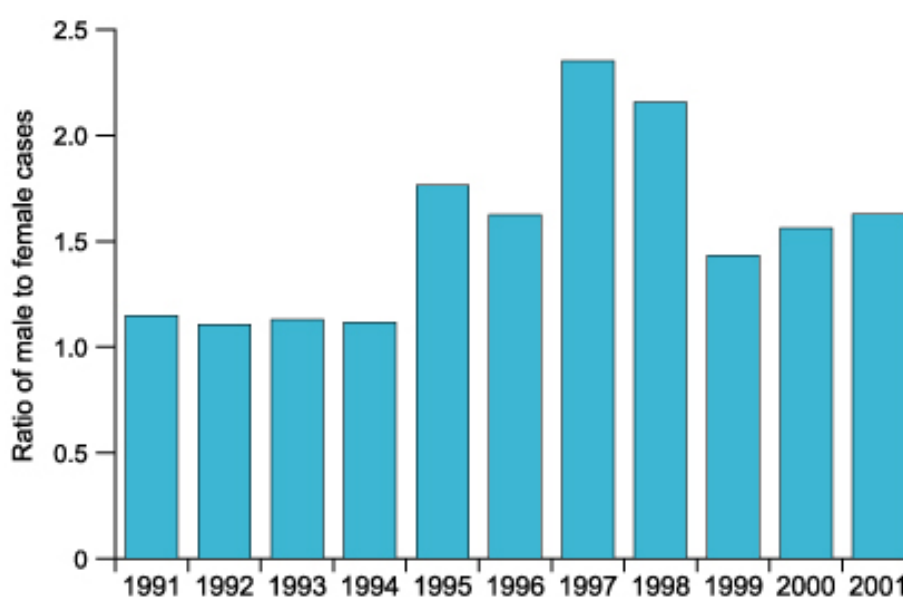
Table 2 Laboratory reports of hepatitis A to PHLS CDSC in England and Wales by sex and age group, 2001

Region	Laboratory reports		Notifications			
	2000	2001	% change	2000	2001	% change
Northern & Yorkshire	83	160	93%	118	226	92%
Trent	121	100	-17%	113	97	-14%
Eastern	69	53	-23%	64	50	-22%
London	68	58	-15%	213	236	11%
South East	160	85	-47%	272	167	-39%

South West	177	103	-42%	191	120	-37%
West Midlands	189	107	-43%	125	92	-26%
North West	142	85	-40%	148	119	-20%
Wales	37	16	-57%	27	31	15%
Not known	-	2	-	-	-	-
Total	1046	767	-27%	1271	1138	-10%

The ratio of male to female cases of HAV infection has been consistently above 1 since 1995, and has been particularly high in 1995 and 1997-8 (figure 2), which may reflect outbreaks that are known to have occurred in gay men (2). Several large outbreaks have occurred in injecting drug users (IDUs), some linked to prisons. Although the incidence of HAV infection is difficult to quantify in IDUs, the risk is likely to be high. For example, more cases were reported in IDUs than in than travellers to high incidence countries, although the population of IDUs is probably smaller. Prevention strategies such as the vaccination of travellers, gay men, and IDUs, along with continuing improvement in the standard of living may account for some of the decline in HAV infection.

Figure 2 Ratio of male to female cases of hepatitis A, England and Wales: 1991-2001*



*Provisional data

The continuing excess of cases in men indicates the need for better prevention in high risk groups. The incidence in these populations may be significantly above the background rate in the general population, although rates are difficult to estimate because risk factor information and denominators are incomplete (1). For IDUs the prison, in addition to community outreach facilities, may be an effective point of access. In 2000 an IDU survey of current injectors (those who had injected in the previous 28 days) found that 61% (1355/2215) had been in a prison or young offenders institution (3). HAV vaccination of gay men at risk can be carried out successfully through genitourinary clinics (4) following current recommendations (1,5,6).

Sporadic cases and outbreaks of HAV infection continued to occur in England and Wales in 2001, including in the general community, in schools and in high risk communities such as gay men, injecting drug users and homeless people. Vaccination of high risk groups offers a good opportunity to prevent cases and outbreaks. Incomplete reporting of cases and incomplete reporting of risk factors by laboratories require addressing if surveillance is to be improved.

The continuing low incidence of HAV infection in the absence of any other than highly selective immunisation is reflected in high levels of susceptibility to HAV. Breakdowns in food hygiene or other exposures may lead to future outbreaks in England and Wales.

Current PHLS recommendations for post-exposure prophylaxis are that vaccine be offered to contacts of cases if they can be vaccinated within one week of onset of illness in the index case (usually defined by onset of jaundice) (1). HNIG licensed for HAV prophylaxis is available from CDSC for contacts of cases

of HAV infection in England and Wales identified more than one week from onset of illness in the index case. HNIG is no longer recommended or available for travellers. To obtain HNIG, please contact Joan Vurdien; tel 020 8200 6868 ext 4405.

1. NS Crowcroft, B Walsh, KL Davison, U Gungabissoon. Guidelines for the control of hepatitis A virus infection. *Commun Dis Public Health* 2001; **4** (3): 213-27.

2. Paine TC, Hope VD, Rogers P, Kelly C, Jordan L, Barnett S, *et al*. Is imprisonment of drug injectors associated with hepatitis B and C infection? In: *Proceedings of the 13th International conference on the reduction of drug related harm. 3-7 March 2002; Ljubljana, Slovenia*.

3. Lee JD, Clarke J. Acceptability and utility of hepatitis A vaccination in homosexual men. *Int J STD AIDS* 2002; **13**: 431-2

4. Clinical Effectiveness Group: Association for Genitourinary Medicine (AGUM) and Medical Society for the Study of Venereal Diseases (MSSVD). UK national guidelines on sexually transmitted infections and closely related conditions. *Sex Transm Infect* 1999; **75** (suppl).

5. Salisbury DM, Begg NT. *Immunisation against infectious diseases*. London: The Stationery Office, 1996.

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Laboratory reports of hepatitis A in England and Wales: first quarter 2002

During the first quarter of 2002, 205 laboratory reports of hepatitis A were made to the PHLS. Fifty-four per cent (111) were men aged 15 to 44 years (table 1). Four people acquired their infection abroad (country not stated) and 12 infections were in injecting drug users (IDUs).

The disparity between clinical notifications and laboratory reports observed in 2001 ([view article](#)) continued in the first quarter of 2002. A total of 240 cases of hepatitis A were formally notified, 14.6% more than laboratory confirmed. The greatest disparity was in the London region with eight laboratory reports made and 48 cases formally notified. Under-reporting by London laboratories continues to impede surveillance, and potentially control measures, in the capital, although populations at highest risk are concentrated in the city.

Table 1 Laboratory reports of hepatitis A to PHLS CDSC in England and Wales by sex and age group, first quarter 2002 (provisional data)

Age Group (years)	Jan - Mar 2002		
	Male	Female	Not known
<1	0	0	0
1-4	2	1	0
5 - 9	5	1	0
10-14	5	5	0
15-24	45	19	1
25-34	44	14	2
35-44	22	6	0
45-54	7	2	0
55-64	1	5	0
≥65	6	11	0
Not known	1	0	0
Total	138	64	3

Laboratory reports of hepatitis B infection – 2001

Five hundred and forty-five reports of acute hepatitis B infection were reported in 2001. The majority of cases (78%) were aged from 15 to 44 years. Cases in males exceeded those in females in each quarter by approximately two to one.

Table 1 Laboratory reports of hepatitis B to PHLS CDSC in England and Wales by sex and age group, first quarter 2002 (provisional data)

Age(years)	Jan-Mar			Apr-Jun			Jul-Sept			Oct-Dec		
	Male	Female	NK	Male	Female	NK	Male	Female	NK	Male	Female	NK
<15	–	–	–	–	1	–	1	–	–	–	–	–
15-24	18	13	1	16	20	1	14	17	–	15	20	1
25-34	35	16	2	25	9	–	32	11	1	23	12	1
35-44	25	10	1	24	6	1	20	6	1	20	6	–
45-54	16	1	–	11	2	2	11	2	1	13	2	–
55-64	4	–	–	4	1	–	8	1	–	3	1	–
≥65	3	–	–	4	2	–	5	3	–	3	–	–
nk	3	–	1	3	–	–	3	–	1	5	1	–
Total	104	40	5	87	41	4	94	40	4	82	42	2

Injecting drug use was the main risk factor associated with hepatitis B infection, accounting for 37% (94/254) of individuals with known risk factors. This figure was lower than the previous year (48%; 172/360). The proportion of cases with no identified risk was 53% (291/545) compared to 36% (205/565) in the previous year.

Table 2 Laboratory reports of hepatitis B to PHLS CDSC in England and Wales by exposure category, first quarter 2002 (provisional data)

Risk exposure	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Total
IVDU*	25	26	21	22	94
Sex between men	14	11	10	11	46
Sex between men & women	23	28	17	12	80
Other identified risk	9	7	10	8	34
No identified risk	78	61	79	73	291
Total	149	133	137	126	545

In 2001, heterosexual exposure accounted for 31% (80/254) of cases with a known risk exposure, sex between men 18% (46/254) and 13% (34/254) of cases were associated with other identified risk exposures.

Laboratory reports of acute hepatitis B infection in England and Wales: first quarter 2002

One hundred and forty-five reports of acute hepatitis B infection were received in the first quarter of 2002. There were three times as many cases in males compared to females and of those with known risk exposures, injecting drug use was the most common (28/66).

Table 1 Laboratory reports of acute hepatitis B infection by age group and sex, England and Wales: first quarter 2002*

Age group (years)	Jan-Mar			Total
	Female	Male	Not known	
<15y	–	–	–	–
15-24	10	21	2	33
25-34	9	38	2	49
35-44	3	28	–	31
45-54	7	11	–	18
55-64	3	2	1	6
>=65	–	–	–	–
Not known	1	7	–	8
Total	33	107	5	145

*All data are provisional

Table 2 Laboratory reports of acute hepatitis B infection by exposure category in England and Wales: first quarter 2002*

Risk Exposure	Jan-Mar
IVDU*	28
Sex between men	18
Sex between men & women	12
Other identified risk	8
No identified risk	79
Total	145

*All data are provisional

Laboratory reports of hepatitis C infection – 2001

There were 4836 reports of hepatitis C infection in 2001. The majority of cases (62%) were aged from 25 to 44 years. As in previous years the number of cases in males exceeded those in females in each quarter.

Table Laboratory reports of Hepatitis C infection by sex and age group, England and Wales: 2001

Age group (years)	Jan-Mar			Apr-Jun			Jul-Sept			Oct-Dec			Total
	M	F	NK	M	F	NK	M	F	NK	M	F	NK	
<15y	1	3	–	3	2	–	4	3	4	8	8	–	36
15-24	76	71	2	76	58	8	71	49	4	74	50	6	545
25-34	291	119	10	236	121	9	311	130	12	286	99	8	1632
35-44	253	94	6	219	81	15	266	97	6	235	85	14	1371
45-54	136	53	4	115	42	5	123	54	8	117	45	5	707
55-64	24	15	1	25	16	3	27	18	1	37	7	1	175
≥65	31	16	1	22	19	5	31	19	2	37	29	–	212
Not known	18	9	4	17	17	3	36	20	3	19	7	5	158
Total	830	380	28	713	356	48	869	390	40	813	330	39	4836

NK: Not known

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Laboratory reports of hepatitis C infection in England and Wales: first quarter 2002

A total of 1084 reports of hepatitis C infection were reported in the first quarter of 2002. Over 70% of cases were in males and the majority (62%) were aged between 25 and 44 years.

Age group (years)	Jan-Mar			
	Male	Female	Not known	Total
<15y	8	3	1	12
15-24	89	52	2	143
25-34	269	90	6	365
35-44	220	79	8	307
45-54	116	22	1	139
55-64	15	13	0	28
≥65	30	18	0	48
Not known	25	14	3	42
Total	772	291	21	1084

*All data are provisional

Note, data based on date of specimen

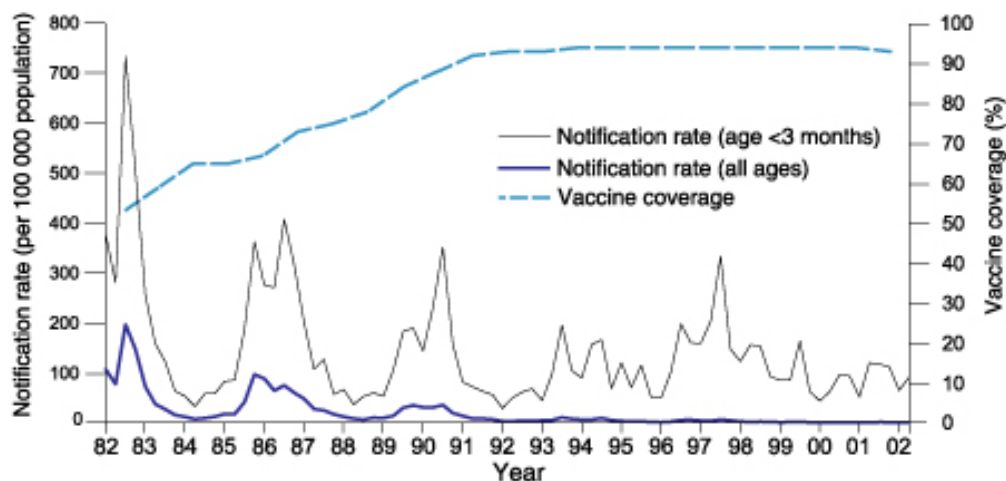
Whooping cough: enhanced laboratory surveillance of pertussis, first quarter and statutory notifications to week 26: 2002

Enhanced laboratory surveillance of pertussis was established in 1994 at the PHLS Communicable Disease Surveillance Centre (CDSC). CDSC receives reports on culture confirmed cases of *Bordetella pertussis* from laboratories in England and Wales. Manchester University provides reports on isolates sent for serotyping and since 2001 the PHLS Respiratory and Systemic Infection Laboratory (RSIL) has also reported on cases diagnosed by high titre pertussis toxin (PT) IgG serology, polymerase chain reaction (PCR), and isolation. For all these cases, the reporting medical doctor is approached for further information on vaccination history, severity and complications of associated with the illness, antibiotic and prophylaxis and treatment, as well as history of exposure.

In the first quarter of 2002, 67 cases of pertussis were reported to the pertussis enhanced laboratory surveillance system in England and Wales. In January, February and March there were 20, 28, and 19 cases respectively. This compares with 45 reports in the equivalent quarter of 2001, and with 82 reports in the last quarter of 2001 (1). Of the 67 laboratory confirmed cases in the first quarter of 2002, 11 were culture negative and confirmed by PCR and/or serology. Of these 11 cases, seven were in individuals age 15 years and over.

Statutory notifications are always higher than laboratory reports because laboratory diagnosis by culture is insensitive and the diagnosis of whooping cough is often made clinically without investigation, especially in older children. In the first two quarters of 2002 there have been 472 notifications (provisional data) compared with 339 in the same period in 2001. The lowest annual number of statutory notifications on record occurred in 2000 with 712 reports, and notifications remained low in 2001 at 888 reports (figure 1).

Figure 1 Quarterly notification rates of whooping cough (all ages and infants aged 0-2 months, per 100,000 population) and pertussis vaccine coverage, England and Wales: 1982 to second quarter of 2002*



* Provisional data for 2002

Pertussis has seasonal cycles with a peak each autumn and an epidemic cycle of three to four years. An epidemic year for pertussis is overdue as the last peak year occurred in 1997 when there were almost 3000 notified cases. The periodicity of the epidemic cycle has gradually got longer, however, and the amplitude lower as high vaccination coverage has been sustained since the early 1990s (figure 1) (2). In addition, the epidemiology is being changed by a pre-school pertussis vaccine booster added to the national vaccination schedule in November 2001. Sporadic outbreaks and clusters have been reported to CDSC this year (3) indicating that pertussis may be increasing, but this may also reflect improved awareness and laboratory diagnostic facilities with the provision of high titre PT IgG serology and PCR by RSIL. PCR enhances diagnosis of infection in infants in particular (4), while serology has proved an important method for detecting infection in older children and adults who have been coughing for more than two weeks (figure 2) (5). The pattern of notifications indicates that England and Wales may be moving from an inter-epidemic period into an epidemic period again (figure 3) but irrespective of whether this is the case, a seasonal peak can be anticipated in the coming autumn.

Figure 2 Method of confirmation for pertussis cases diagnosed by PCR and/or serology: January to June 2002

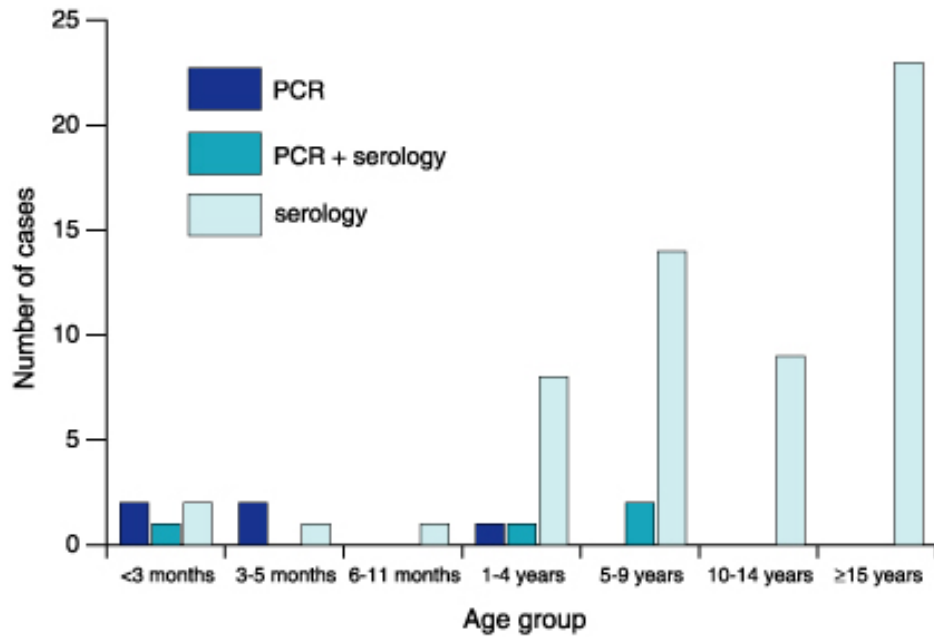
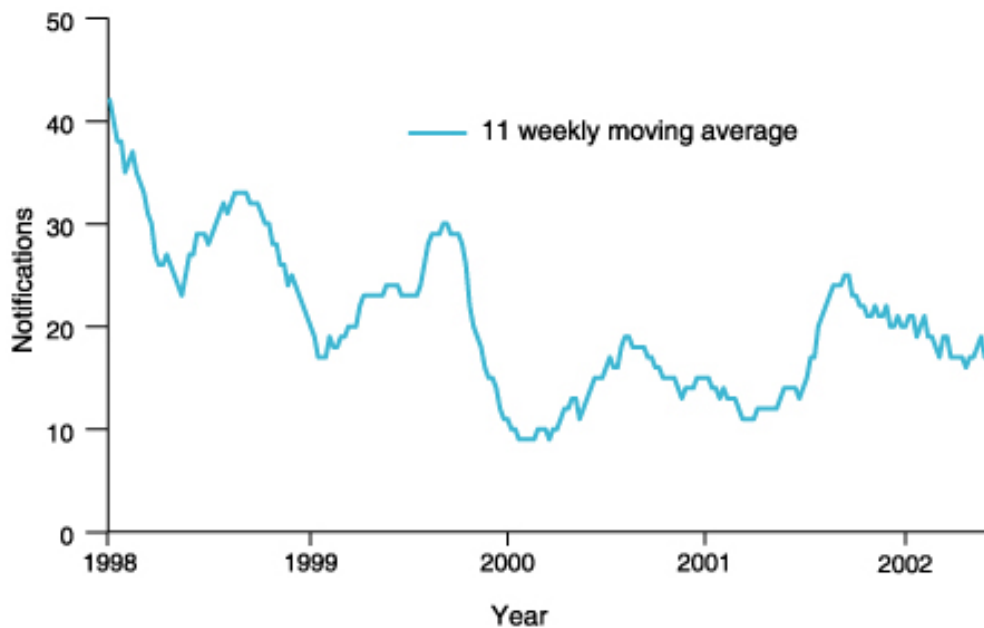


Figure 3 Whooping cough notifications, England and Wales: 1998-2002 week 23* (11 weekly moving average)



For further information about diagnostic services, please contact Tim Harrison at RSIL, PHLS Central Public Health Laboratory, tel: 020 8200 4400 ext 3906; email: tharrison@phls.org.uk.

1. PHLS. Laboratory confirmed cases of pertussis by age group, England and Wales, 2001. *Commun Dis Rep CDR Wkly* [serial online] 2002 [cited 25 June 2002]; **12** (13): immunisation. Available at <http://www.phls.org.uk/publications/cdr/PDFfiles/2002/cdr1302.pdf>.

2. Gay NJ, Miller E. Pertussis transmission in England and Wales. *Lancet* 2000; **355**: 1553-4.

3. PHLS. An outbreak of pertussis at a school in Leicestershire. *Commun Dis Rep CDR Wkly* [serial online] 2002 [cited 25 June 2002]; **12** (24): news. Available at <http://www.phls.org.uk/publications/cdr/PDFfiles/2002/cdr2402.pdf>.

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5. Miller E, Fleming DM, Ashworth LA, Mabbett DA, Vurdien JE, Elliott TS. Serological evidence of pertussis in patients

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Parvovirus B19 Infections in England and Wales

Parvovirus B19 is the cause of one of the childhood rash fever illness commonly called 'slapped cheek', fifth disease, or erythema infectiosum. The rash can take a number of forms but most typically causes erythema of the cheeks (hence the name) and a lace-like rash of the trunk and extremities which may fade and recur over some weeks. The rash can be confused with other infections including measles, rubella, and scarlet fever.

Parvovirus B19 infections show seasonal variation, with peaks in spring and early summer and epidemic cycles of four or five years, usually characterised by two high years and two to three low years. Laboratory reports of parvovirus B19 have increased in 2002 in line with the epidemic cycles of infection (figure) with 1085 reports by week 30 compared with 700 reports in the whole of 2001 (table).

Figure Laboratory reports of parvovirus B19: 1993 to 2002

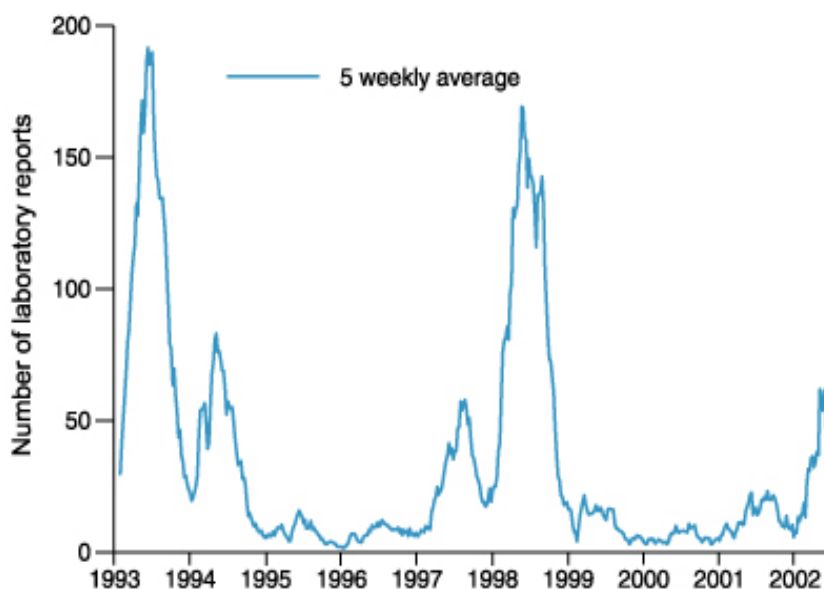


Table Laboratory reports of parvovirus B19 infection, England and Wales: 1993 to 2002*

Year	Number of reports
1993	5056
1994	2014
1995	376
1996	391
1997	1499
1998	4760
1999	564
2000	305
2001	700
2002*	1085

* provisional to week 30

Parvovirus B19 infection is usually mild in children. Its public health importance lies in the fact that infection can cause severe complications in three groups of people. Firstly, if susceptible women are

infected during the first 20 weeks of pregnancy, this can lead to the development of fetal hydrops and fetal death. Secondly, people with haemoglobinopathies such as sickle cell disease can develop transient aplastic crises when they are infected. Finally, immunosuppressed individuals may develop severe chronic anaemia because of chronic infection.

Guidance on the control of parvovirus infection and on a generic approach to management of rash and contact with rash illness in pregnancy have been published and are available on the PHLS website (1,2).

1. Crowcroft NS, Roth C, Cohen B, Miller E. Guidance for control of parvovirus B19 infections in healthcare settings and the community. *J Public Health Med* 1999; **21** (4): 439-6. Available online at <http://www.phls.org.uk/topics_az/parvovirus/parvovirusB19.pdf>.

2. Morgan-Capner P, Crowcroft NS, PHLS Joint Working Party of the Advisory Committees of Virology and Vaccines and Immunisation. Guidelines on the management of, and exposure to, rash illness in pregnancy (including consideration of relevant antibody screening programmes in pregnancy). *Commun Dis Public Health* 2002; **5** (1): 59-71. Available online at <http://www.phls.org.uk/publications/cdph/issues/CDPHVol5/No1/rash_illness_guidelines.pdf>.

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HIV/STIs

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HIV infection and AIDS in the United Kingdom: monthly report - July 2001

United Kingdom data from the PHLS AIDS and STD Division, Scottish Centre for Infection and Environmental Health, Institute of Child Health, London, and Oxford Haemophilia Centre (on behalf of UK Haemophilia Centre Doctors' Organisation).

The United Kingdom (UK) HIV data set recorded 51,081 reports of HIV infected individuals between the beginning of AIDS reporting in 1982 and the end of June 2002: 68 of them were first reported from the Channel Islands or the Isle of Man. Twenty-nine thousand nine hundred and six (59%) of the reports were of HIV infection only, and 18,759 (37%) were reported as having AIDS. Of the AIDS cases, 12,452 (66%) had died. A further 2371 (5% of the total) had died without AIDS being reported. Included in the total there will be some reports of individuals who have left the country, and unrecognisable multiple reports of others. Factors such as incomplete reports, transcription errors and name (and hence soundex code) changes mean that, despite every effort to do so, matches between related records cannot always be made.

Four thousand four hundred and nineteen new diagnoses of HIV infection had been reported for 2001 by the end of June 2002 (table 1). The annual totals have risen each year since 1994, for which year 2571 diagnoses have been reported. The interval between HIV infection, AIDS being diagnosed or death occurring, and the event concerned being reported to the surveillance system can be considerable. This means that all totals based on the year of an event are subject to revision as further reports are received, and that numbers, particularly for recent years, are likely to be higher in later summaries. In the past it has been possible to assess on the basis of previous experience how many further HIV diagnoses were likely to be reported. This is not practicable at present as clinician reporting at HIV diagnosis, introduced at the beginning of 2000 (1), is too new for its associated reporting delay and its ultimate effect on the number of reports to be estimated. At the same time in 2001, 15% of the diagnoses in 2000 had been reported only by clinicians (ie. the diagnosis had not been reported from a laboratory), but by the end of June 2002 that proportion had fallen to 10%. To date, 17% of diagnoses for 2001 have been reported by clinicians only. There are some centres where clinicians have taken up reporting for which laboratories reported inconsistently in the past; laboratory reports are no longer being actively sought in this case. This means that it cannot be assumed that all diagnoses reported by clinicians only would have been previously unreported, though the introduction of clinician reporting at HIV diagnosis will have increased the number reported overall.

Table 1 HIV infected individuals* by year of first reported United Kingdom diagnosis: UK data to end June 2001**

How infection was probably acquired	Year of diagnosis of HIV infection											Total
	>1993	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002#	
Sex between men##	14417	1497	1481	1465	1539	1393	1344	1332	1457	1415	498	27838
Sex between men and women												
High risk' (HR) partner†	472	85	69	67	65	76	70	44	41	55	7	1051
Acquired abroad - no evidence of HR partner	2286	614	628	674	685	791	934	1187	1633	1929	497	11858

<i>UK acquired - no evidence of HR partner</i>	229	63	93	93	74	119	123	133	173	165	41	1306
<i>Heterosexual sub-category undetermined</i>	47	5	5	16	12	18	27	43	83	295	216	767
Sub total	3034	767	795	850	836	1004	1154	1407	1930	2444	761	14982
Injecting drug use	2488	204	167	181	172	168	130	109	104	104	29	3856
Blood products eg for haemophilia	1337	4	2	–	2	2	2	1	1	2	–	1353
Blood/tissue transfer	183	13	15	20	19	25	8	18	21	19	3	344
Mother to infant	174	66	60	59	60	81	91	80	96	74	20	861
Other/undetermined	580	63	51	65	56	50	70	95	163	361	293	1847
Total	22213	2614	2571	2640	2684	2723	2799	3042	3772	4419	1604	51081

*individuals with reports of HIV diagnoses, plus those with AIDS or death reports for whom no matching reports of HIV diagnosis have been received.

** includes 68 individuals first reported from the Channel Islands or the Isle of Man.

reported in the first six months of the year.

includes reports of 677 individuals exposed to infection through both sex between men and IDU.

†history of heterosexual contact with bisexual man, injecting drug user, or person infected through blood product treatment or blood transfusion.

Numbers, particularly for recent years will rise as further reports are received.

Exposure category by year of diagnosis

All reports of HIV diagnoses for which exposure categorisation cannot be decided on the basis of the information supplied are followed up. When necessary, and both the clinician and patient agree, this follow-up involves interview by a research nurse. Those recorded as heterosexually infected are further divided on the basis of their partner's probable route of infection, and if this is heterosexual, on where the patient is likely to have acquired infection. The time taken to establish these categories is often considerable, which explains the rise in the proportion recorded as 'undetermined' in the most recent time periods (table 1). Follow-up delay particularly affects final allocation to the appropriate subcategory of those reported as infected in the UK through exposure to partners infected heterosexually.

Infections acquired through sex between men

In the UK, until the late 1990s, sex between men (SBM) remained the dominant route of transmission for those diagnosed as HIV infected (table 1). Since 1999, however, it has been overtaken by sex between men and women, largely as a result of the rise in the number of infections heterosexually acquired abroad, usually by people who are infected before coming to the UK. There is little evidence of any substantial change in recent years in the numbers of diagnoses each year of HIV infection acquired through SBM, and this remains the most significant route for infections occurring in the UK.

Infections acquired through sex between men and women

In contrast to the situation for men who have acquired HIV infection through sex between men, infections attributed to sex between men and women have shown a sustained upward trend and for 2001, substantially more new diagnoses have been of infection attributed to this route of transmission (2444) than to sex between men. (1415). Sub-categorisation has been established for 2194 of the 2444 heterosexually acquired infections diagnosed in 2001 (table 1). Of the 2194, 1929 (90%) were categorised as infected abroad, mainly in Africa. One hundred and sixty-five (8%) of infections were classified as probably acquired within the UK from individuals themselves heterosexually infected. The number in this category is particularly likely to rise as follow-up is completed, as is the number of those infected through contact with a 'high risk' partner. In 2001, 57% of all the heterosexually acquired infections diagnosed were in females. This partly reflects the promotion of antenatal testing which has followed the setting of targets by the Department of Health in 1999 (2) - of the 1014 heterosexually infected women whose diagnoses clinicians had reported, 203 (20%) were recorded as tested antenatally.

Infections associated with IDU

Diagnoses of HIV infections reported as due to injecting drug use have declined from around 200 in the early 1990s to closer to 100 for more recent years, though the later totals are likely to rise as more reports are received and currently unresolved exposure categorisations are established. The rise in markers of unsafe drug using practice noted previously means that the current low numbers of diagnoses of IDU related HIV infections may not be maintained (3).

HIV infections attributed to blood products or blood transfusion

There have been no new transmissions through blood products in the UK since the introduction of heat treatment in the mid-1980s, although there have been later diagnoses of established infections. Since October 1985 all blood collected in the UK for transfusion has been screened, and only two instances of HIV infectious blood being passed for transfusion have been proven since then. Further transfusion-associated transmissions of HIV, however, continue to be reported from areas of the world where the background prevalence of HIV is high, and screened donations are always available.

The UK distribution of new HIV diagnoses

The 17% rise so far in reports of new diagnoses between 2000 and 2001 has not been evenly distributed through the UK (table 2). London was the source of 58% of the diagnoses reported for 2001, but the rise there was 11%. In all other English regions except for the North West the rate of increase was higher, ranging from 17% in the West Midlands to 98% in Trent. The final total for the North West is also likely to show a rise, as the current low number is the result of a temporary interruption in reporting. Wales showed a substantial rise, from 45 diagnoses in 2000 to 62 in 2001 (38%), while in Scotland there was a 7% rise to 156.

Table 2 HIV infected individuals* by year of first reported UK diagnosis and region or country of report: UK data to end June 2001

Country and region of diagnosis	Year of diagnosis of HIV infection											Total
	<1993	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002#	
Northern and Yorkshire	888	71	83	67	90	87	79	100	111	166	68	1810
Trent	581	91	71	83	74	65	83	89	111	220	97	1565
Eastern	552	83	60	76	55	75	85	92	183	290	151	1702
London	13404	1624	1583	1681	1702	1713	1759	1949	2296	2550	856	31117
South East	1852	228	238	174	230	224	209	229	364	506	212	4466
South West	723	69	109	86	77	91	104	100	101	128	36	1624
West Midlands	693	83	75	97	60	97	106	93	177	207	73	1761
North West	1254	144	140	172	178	145	178	198	218	108	7	2742
England Total	19947	2393	2359	2436	2466	2497	2603	2850	3561	4175	1500	46787
Wales	327	40	46	46	36	44	30	34	45	62	20	730
Northern Ireland	108	12	14	12	16	9	9	14	19	19	6	238
Scotland	1802	167	144	145	160	165	152	143	146	156	78	3258
UK total	22184	2612	2563	2639	2678	2715	2794	3041	3771	4412	1604	51013
Channel Is/Isle of Man	29	2	8	1	6	8	5	1	1	7	0	68

*Individuals with reports of HIV diagnoses, plus those with AIDS or death reports for whom no matching reports of HIV diagnosis have been received.

reported in the first six months of the year.

Numbers, particularly for recent years will rise as further reports are received.

The numbers of new diagnoses of HIV infections acquired through sex between men have remained broadly similar over the last decade both within and outside London (table 3). For diagnoses of heterosexually acquired infection, however, the numbers have risen more steeply outside London where they have more than doubled between 1999 and 2001. Most of this increase is attributable to infections acquired in Africa, which rose from 242 to 810. The numbers reported from London increased by little more than a third over the same period, with the sub group of infections reported as heterosexually

acquired in Africa increasing from 739 to 929.

Table 3 Broad route of infection category over time, London region compared with the rest of the UK: Data to the end of June 2002

Probable route of infection	Region	Year of diagnosis											Total
		<1993	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002#	
Sex between men	London	9781	937	891	922	972	888	850	799	868	888	297	18093
	Rest of UK	4636	560	590	543	567	505	494	533	589	527	201	9745
Sex between men and women	London	1748	497	531	569	564	642	747	978	1201	1332	359	9168
	Rest of UK	1286	270	264	281	272	362	407	429	729	1112	402	5814
Other/undetermined	London	1875	190	161	190	166	183	162	172	227	330	200	3856
	Rest of UK	2887	160	134	135	143	143	139	131	158	230	145	4405
Total		22213	2614	2571	2640	2684	2723	2799	3042	3772	4419	1604	51081

reported in the first six months of the year

Numbers, particularly for recent years, will rise as further reports are received

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3. CDSC. HIV and AIDS in injecting drug users in the United Kingdom. *Commun Dis Rep CDR Wkly* 2001; **11** (25); HIV/STIs. Available at <<http://www.phls.org.uk/publications/cdr/PDFfiles/2001/cdr2501.pdf>>.

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