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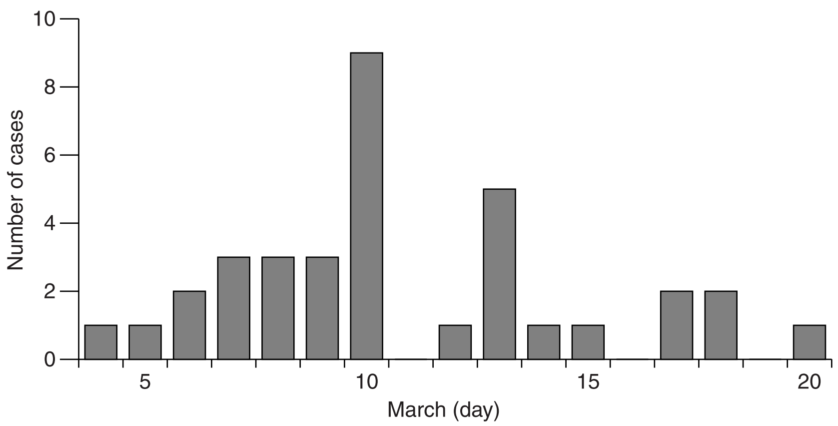
Communicable Disease Report

Outbreak of cryptosporidiosis in Lancashire

An outbreak of cryptosporidiosis is affecting residents in and around the town of Clitheroe, Lancashire. Forty-five cases who live within a single water supply zone that serves 15 000 people had been confirmed by noon on 28 March, an attack rate at that time of 300/100 000. The earliest case became ill on 4 March; most of the others became ill over the next two weeks (figure). One of three 10L grab samples taken from customers' taps on 16 March yielded five oocysts. Filtration of a large volume from the reservoir yielded 76 oocysts/1000L. The reservoir receives water from several spring sources and water was micro-screened and chlorinated, but not filtered, before distribution.

Figure Dates of onset of crytosporidiosis in Lancashire (first 35 cases): March 2000



On 17 March, the water company stopped drawing water from the implicated reservoir and changed to another source. Further 10L grab samples have been taken each day from customers' taps at several points within the distribution system. On 20 March, five out of nine samples were positive (counts of 9, 5, 2, 1, and 1 oocysts/10L) and a 'boil water notice' was issued on 21 March. Oocysts were detected in grab samples from customers' taps throughout the week, but all grab samples taken on Sunday 26 and Monday 27 March were negative. The boil water notice was lifted in the evening of 27 March

All clinical specimens tested so far at the PHLS Cryptosporidium Reference Unit have been of genotype 2, the broad host range type. Examination of the springs has shown that cattle had been grazing near one of the springs recently and could have had access to the spring area.

Guidance published recently in *Communicable Disease and Public Health* focused on new regulations that require drinking water supplies to be sampled regularly for the presence of cryptosporidial oocysts[1]. The guidance discussed the advantages and disadvantages of boil water notices[1]. Two recent surveys of the effectiveness of such notices found that over 80% of households did not comply fully with the notice and offered suggestions for improving their effectiveness[2,3].

1. Hunter PR. Advice on the response from public and environmental health to the detection of cryptosporidial oocysts in treated drinking water. *Commun Dis Public Health* 2000; **3**: 24-7.
2. O'Donnell M, Platt C, Aston R. Effect of a boil water notice on behaviour in the management of a water contamination incident. *Commun Dis Public Health* 2000; **3**: 56-9.
3. Willocks LJ, Sufi F, Wall R, Seng C, Swan AV for the Outbreak Investigation Team. Compliance with advice to boil drinking water during an outbreak of cryptosporidiosis. *Commun Dis Public Health* (in press).

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Sexually transmitted diseases quarterly report: genital chlamydial infection, ectopic pregnancy, and syphilis in England and Wales

This report is based on statistical returns (KC60) from genitourinary medicine (GUM) clinics to the PHLS Communicable Disease Surveillance Centre (CDSC) and CDSC Wales, laboratory reports received by CDSC, Hospital Episodes Statistics (Department of Health), and reports made to CDSC through the PHLS routine treponemal reporting system. KC60 data and laboratory reports are not directly comparable because KC60 data reflect attendance at GUM clinics only, whereas laboratory reports are of specimens from GUM and other clinical services, including general practice. KC60 reports have included genital chlamydial infection as a discrete category since 1988.

Genital chlamydial infection

Genital *Chlamydia trachomatis* infection is the commonest curable bacterial sexually transmitted infection (STI) in England and Wales[1]. Infection is often asymptomatic and thus infected individuals may not seek medical advice. Untreated infection may persist for over a year[2].

Recent trends in genital chlamydial infection have been reviewed using KC60 and laboratory report data. The denominator used to calculate rates of infection derived from KC60 data has been changed recently, and consequently graphs and maps are not comparable with those published previously. The method used to calculate rates shown in the report has been described elsewhere[3]. It has been estimated that only 10% of genital chlamydial infections are seen in GUM clinics, which means that KC60 data substantially underestimate the true burden of infection.

KC60 data show consistently higher rates of genital chlamydial infection in females than males (figure 1), and new diagnoses rose by 13% between 1997 and 1998. In 1998, GUM clinics reported 44 196 new diagnoses of genital *C. trachomatis* infection, (19 049 in males and 25 147 in females). In the same year, CDSC received 40 878 laboratory reports of *C. trachomatis* (genital and anorectal isolates) (12 040 in males, 28 838 in females) (figure 2). Between 1994 and 1998, numbers of laboratory reports increased by 53% in males (from 7881 to 12 040) and 74% in females (from 16 559 to 28 838). This probably reflects increased professional awareness of genital chlamydial infection and increased testing.

Genital chlamydial infection is commonest in young adults. The KC60 data show peak rates of infection in men aged 20 to 24 years and women aged 16 to 19 years (figure 3). Numbers of laboratory reports peaked in men aged 25 to 34, and women aged 20 to 24 years (figure 4). This difference in age distribution may reflect the heterogeneity of the clinic populations represented in the laboratory report data set.

The highest rates of diagnoses in GUM clinics were reported from clinics in the London, Trent, and Northern and Yorkshire regions for both sexes (figure 5). The largest numbers of laboratory reports came from laboratories in the London region for males and and the North West region for females (figure 6). Regional variations in laboratory reports may reflect variations in testing policy and reporting to CDSC.

Ectopic pregnancy

The importance of genital chlamydial infection lies in the associated burden of largely preventable reproductive morbidity. Sequelae can be severe, particularly in women, in whom infection may lead to pelvic inflammatory disease (PID), ectopic pregnancy, tubal factor infertility, and chronic abdominal pain. The prevalence of PID among women of reproductive age attending general practice has been estimated at 1.7%, but diagnosis is difficult and surveillance data are hard to interpret[4,5].

In contrast, ectopic pregnancy is an acute condition that invariably results in hospital treatment and in England accounts for 10% of the deaths that result from complications of pregnancy, the puerperium, and childbirth[6]. As *C. trachomatis* causes 43% of ectopic pregnancies, many such pregnancies and associated deaths are preventable. Surveillance of hospital admissions therefore provides a useful indicator of this source of reproductive morbidity in women. The incidence of ectopic pregnancy has risen in several European countries, including England (figure 7), and the United States since the mid-1980s. This may be because an increasing number of women become pregnant later in life, when the risk of ectopic pregnancy is higher due to the cumulative risk over time of damage to the upper reproductive tract from STI and PID[5]. In 1997 the incidence of ectopic pregnancy in women aged 40 years or over was seven times that in women aged 17 to 19 years. Between 1990 and 1997, the number of births to women aged 35 to 39 years and 30 to 34 years age rose by 44% and 20% respectively, and fell by 20%, 34%, and 17% in the 25 to 29, 20 to 24, and under 20 years, respectively[7].

Figure 1 New cases of genital chlamydial infection (KC60) by sex: 1988 to 1998

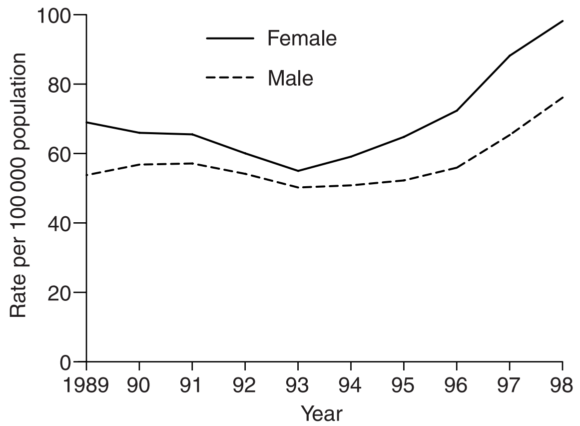


Figure 2 Laboratory reports of *C. trachomatis* by sex and area: 1990 to 1998

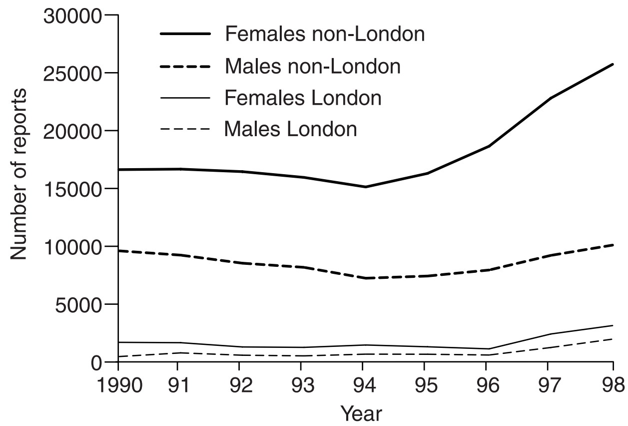


Figure 3 New cases of genital chlamydial infection (KC60) by age and sex: 1998

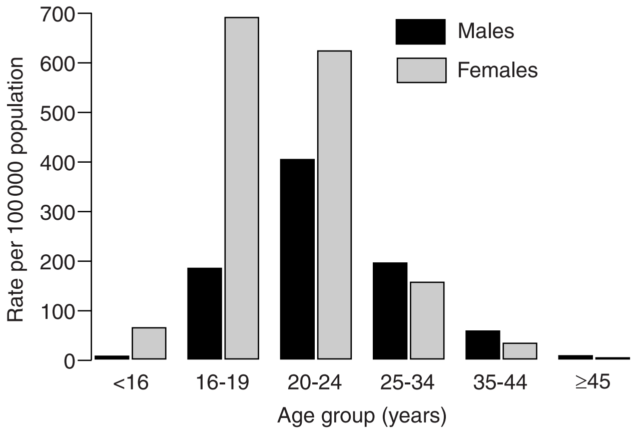


Figure 4 Laboratory reports of *C. trachomatis* infection by age and sex: 1998

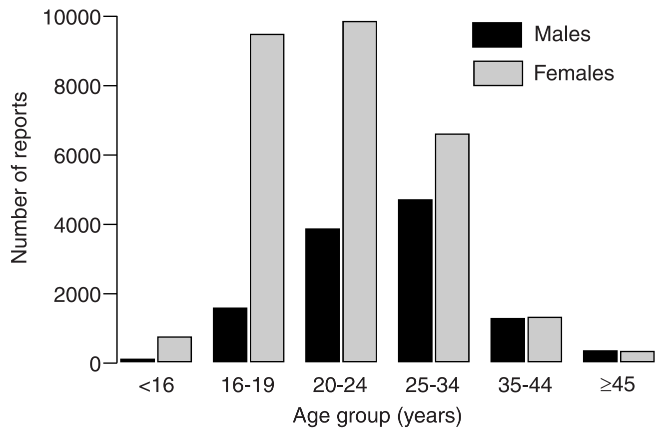
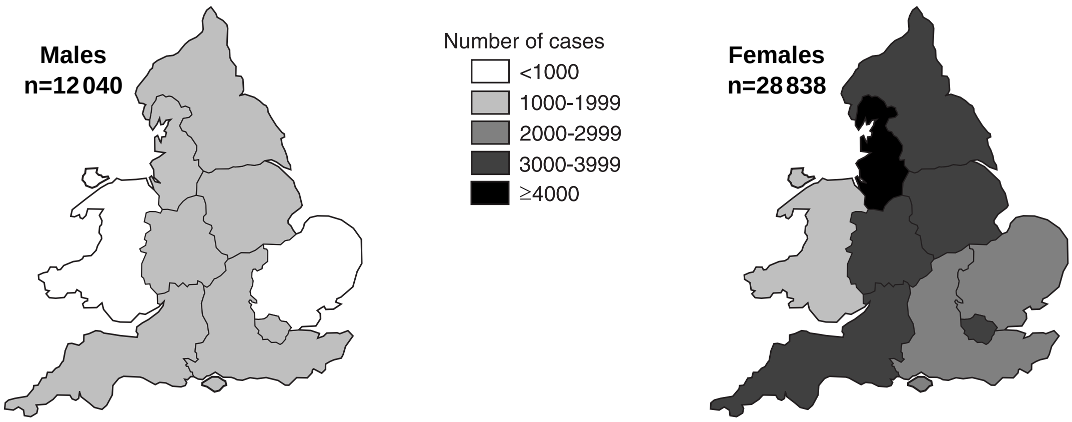


Figure 5 New cases of genital chlamydial infection (KC60) by age and region: 1998

Figure 6 Laboratory reports of *C. trachomatis* by sex and region: 1998



Syphilis

In 1998 GUM clinics in England and Wales made 127 new diagnoses of primary and secondary infectious syphilis (84 males and 43 females), 147 new diagnoses of early latent syphilis (85 males and 62 female), and 53 adults (17 males and 36 females) were treated because they were suspected to have syphilis (epidemiological treatment). Two children under 2 years of age and 15 other people were diagnosed with congenital syphilis. A further 994 diagnoses of other acquired syphilis (late latent, neurological and cardiovascular syphilis) were made. Among males 26% (22 of 84) of cases of primary and secondary syphilis and 22% (19/85) of cases of early latent syphilis were attributed to sex between men. The modal age group for new diagnoses of syphilis is 25 to 34 years, older than for infections with gonorrhoea and chlamydia and more like that seen for first attacks of genital herpes and genital warts[1].

Diagnoses of infectious syphilis fell from 150 in 1997 to 127 in 1998, while epidemiological treatments fell from 103 to 53 and numbers of new diagnoses of early latent syphilis did not change. No trend was seen in the numbers of diagnoses of infectious syphilis in England from 1995 to 1998 despite a substantial increase in transmission of heterosexually acquired syphilis reported from Bristol in 1997 and 1998[1,8].

It is likely that the number of new diagnoses of infectious syphilis attributed to sex between men will increase in 1999, as a result of a substantial increase reported by clinics in Manchester for that year[9].

Only limited information is available from KC60 returns: more data are provided by reporting through the five PHLS reference laboratories, although reporting by this route is incomplete since not all primary laboratories take advantage of the service[10]. These reports focus on infections of public health importance and exclude old cases of syphilis – those acquired years previously and non-infectious. Five hundred and six reports were received from April 1994 to December 1999, 70% derived from GUM clinics. Sixty-three per cent (250/396) of cases of primary and secondary infectious syphilis whose ethnic group were reported were men and women of white ethnic group. Fifty-three per cent (186/353) of cases of infectious syphilis and early latent syphilis whose country of probable acquisition was reported were probably acquired in the UK and 15% (52/353) elsewhere in Europe, 27 of which were probable acquired in Russia (17) or other countries in eastern Europe (10). All were heterosexually acquired. A further nine cases, all women, were reported to have acquired infection from a man who had acquired infection in Eastern Europe. Overall 10% (36/353) of heterosexually acquired cases of primary, secondary, and early latent syphilis were directly or indirectly connected with transmissions in Russia or other countries in eastern Europe.

Antenatal screening for syphilis

Thirteen per cent (18 of 142) of reports of infectious syphilis and early latent syphilis in females derived from PHLS reference laboratories whose initial source was known were reported as having been detected through antenatal testing. Most antenatal clinics screen all pregnant women, a practice whose evidence base has been supported by a recent cost-effectiveness analysis[10,11].

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2. McCormack WM, Alpert S, McComb DE, Nichols RL, Semine DZ, Zinner SH. Fifteen-month follow-up study of women infection with Chlamydia trachomatis. *N Engl J Med* 1979; **300**: 123-5.

Figure 8 Reference laboratory reports of cases of infectious syphilis (primary, secondary, and early latent syphilis) by ethnic group: 1994 to 1999

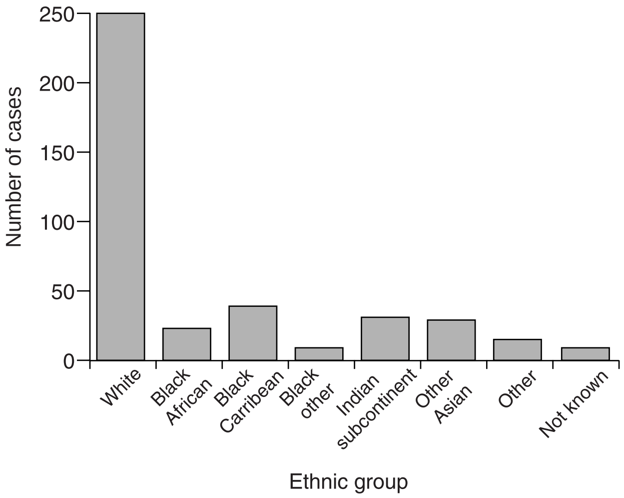
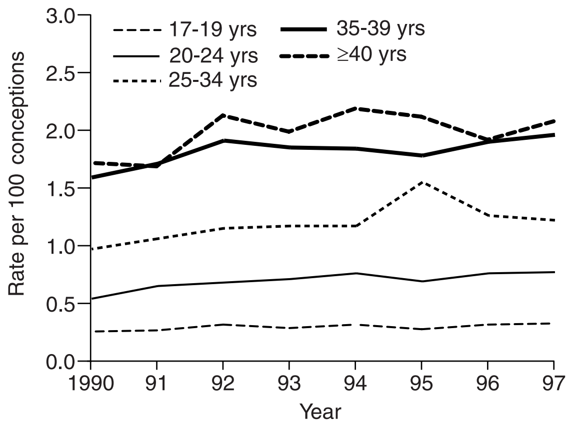


Figure 7 Incidence of ectopic pregnancy by year and age group: England, 1990 to 1997



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4. Simms I, Rogers P, Charlett A. The rate of diagnosis of pelvic inflammatory disease in general practice: England and Wales. *Int J STD AIDS* 1999; **10**: 448-51.
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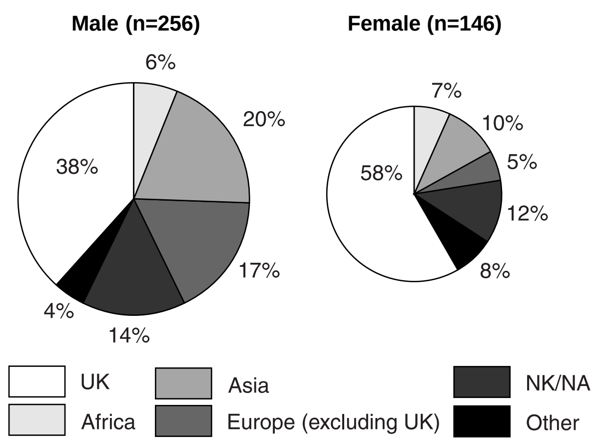
11. Connor N, Roberts J, Nicoll A with the PHLS Syphilis Working Group. Strategic options for antenatal screening for syphilis in the UK: a cost effectiveness analysis. *J Med Screening* 2000 (in press).

Figure 9 Reference laboratory reports of cases of infectious syphilis (primary, secondary, and early latent syphilis) by probably global region of acquisition: 1994 to 1999



Notifications of infectious diseases

Doctors in England and Wales have a statutory duty to notify a 'proper officer' of the local authority (usually the consultant in communicable disease control) of cases of certain infectious diseases (*CDR Review* 1993; **3**: R19-25). Notifications of infectious diseases, not all of which are microbiologically confirmed, prompt local investigation and action to control the diseases. Proper officers are required each week to inform the Registrar General of the number of cases of each disease that have been notified. The responsibility for collating the weekly returns from proper officers, and publishing analyses of local and national trends has been transferred to CDSC from ONS (*CDR Weekly* 1997; **7**: 145). Data published here – and an expanded form of table 2 with data to district level – are also available in an electronic format to Epinet subscribers on the PHLS network.

Table 1 Notifications of infectious diseases* in the past 6 weeks, with totals for the current year compared with corresponding periods of the two preceding years

		Week						Cumulative totals to week 11[†]			Cumulative totals from mid-year to week 11[‡]		
		06/00	07/00	08/00	09/00	10/00	11/00	1998 (i)	1999 (ii)	2000 (iii)	97/98(a)	98/99(b)	99/00(c)
Tuberculosis	Cases[¶]	159	140	113	143	104	125	1196	1255	1413	4045	4408	4447
Scarlet fever	Cases	46	50	57	48	51	55	1126	699	525	2419	1831	1245
Malaria	Cases	9	18	11	26	6	7	309	145	184	1185	710	818
Leptospirosis	Cases	–	2	–	–	–	–	8	6	6	22	26	17
Food poisoning	Cases	1224	1231	1185	1222	1249	1180	15062	13708	12638	69426	67656	60026
formally notified	Cases	662	656	685	646	652	645	8673	8210	6887	39802	39077	32417
ascertained	Cases	562	575	500	576	597	535	6389	5498	5751	29624	28579	27609
Typhoid fever	Cases	2	2	–	1	3	2	26	35	18	110	99	81
presumed contracted	abroad[§]	2	2	–	1	3	2	22	30	18	94	88	76
	GB	–	–	–	–	–	–	4	5	–	16	11	5
Paratyphoid fever	Cases	1	1	–	–	1	4	13	19	10	68	85	73
presumed contracted	abroad[§]	–	1	–	–	1	3	13	16	8	65	75	68
	GB	1	–	–	–	–	1	–	3	2	3	10	5
Dysentery	Cases	21	25	38	15	24	22	247	283	250	1270	1415	1065
Viral hepatitis	Cases	80	66	84	65	54	50	620	697	720	2424	2383	2507
hepatitis A	Cases	33	22	30	26	29	19	310	381	277	1418	1117	1121
hepatitis B	Cases	17	22	21	20	13	13	175	149	202	548	644	679
hepatitis C	Cases	23	20	33	17	10	18	82	129	212	266	508	623
other and unknown	Cases	7	2	–	2	2	–	53	38	29	192	114	84
Meningitis	Cases	44	40	42	38	31	44	590	638	633	1541	1589	1529
meningococcal	Cases	28	25	25	18	15	26	363	372	371	854	869	837
influenzal (*Haemophilus influenzae*)	Cases	1	–	–	1	1	–	6	4	13	24	19	31
other specified	Cases	10	10	14	16	9	15	163	187	183	495	496	474
unspecified	Cases	5	5	3	3	6	3	58	75	66	168	205	187
Meningococcal septicaemia (without meningitis)	Cases	54	24	21	27	30	37	421	638	551	1047	1295	1251
Acute encephalitis	Cases	–	–	2	–	–	–	4	4	2	19	19	10
infective	Cases	–	–	1	–	–	–	4	2	1	12	11	9
post-infective	Cases	–	–	1	–	–	–	–	2	1	7	8	1
Whooping cough	Cases	11	11	7	5	6	11	391	205	104	2103	991	694
Tetanus	Cases	–	–	–	–	–	–	–	1	–	5	8	2
Measles	Cases	56	54	53	47	59	79	1037	610	638	2896	2081	1748
Mumps	Cases	37	27	32	32	45	82	391	342	457	1285	1083	1302
Rubella	Cases	40	39	41	44	41	42	868	456	407	2360	1602	1230
Ophthalmia neonatorum	Cases	4	4	6	6	4	3	46	28	41	160	124	117
Special cases													
Cholera	Cases	–	–	–	–	1	–	11	4	3	31	26	18
Diphtheria	Cases	1	–	–	–	–	–	6	7	4	14	21	12
Viral haemorrhagic fever	Cases	–	1	–	–	–	1	2	–	2	3	–	3

All figures include late returns
* includes notifications from Port Health Authorities
† Cumulative totals commencing week ended (i) 2 Jan (ii) 8 Jan (iii) 7 Jan
‡ Cumulative totals from mid-year commencing week ended (a) 5 July (b) 4 July (c) 9 July
§ Includes cases of unstated origin
¶ Excluding chemoprophylaxis

Table 2 Notifications of infectious diseases in week 11/00 (standard regions, counties, and *unitary authorities*)

Area	Measles	Mumps	Rubella	Dysentery	Scarlet fever	Whooping cough	Viral hepatitis	TB all forms*	Meningitis†	Food poisoning notified§	Food poisoning ascertained#	Malaria
Northern and Yorkshire	**11**	**4**	**10**	**3**	**9**	**5**	**4**	**12**	**5**	**56**	**60**	**–**
Cumbria	–	–	–	–	–	1	–	–	2	4	7	–
Durham	3	–	–	–	2	–	–	–	–	10	7	–
North Yorkshire	–	–	–	–	–	–	–	2	–	9	5	–
Northumberland	–	–	1	–	–	–	–	1	–	–	4	–
Tyne and Wear¶	1	–	3	1	2	–	2	2	2	2	7	–
West Yorkshire¶	6	4	5	2	5	4	2	7	–	20	24	–
City of Kingston upon Hull	–	–	–	–	–	–	–	–	–	2	–	–
Darlington	1	–	1	–	–	–	–	–	–	3	6	–
East Riding of Yorkshire	–	–	–	–	–	–	–	–	1	1	–	–
Hartlepool	–	–	–	–	–	–	–	–	–	1	–	–
Middlesbrough	–	–	–	–	–	–	–	–	–	2	–	–
Redcar and Cleveland	–	–	–	–	–	–	–	–	–	–	–	–
Stockton-on-Tees	–	–	–	–	–	–	–	–	–	1	–	–
York	–	–	–	–	–	–	–	–	–	1	–	–
Trent	**15**	**5**	**7**	**2**	**10**	**1**	**7**	**15**	**6**	**72**	**53**	**2**
Derbyshire	–	1	2	–	1	–	–	1	–	13	1	1
Leicestershire	1	–	1	–	2	1	–	2	1	16	–	–
Lincolnshire	–	1	–	2	1	–	–	1	1	2	10	–
Nottinghamshire	4	2	–	–	1	–	1	–	–	11	13	–
South Yorkshire¶	3	1	–	–	1	–	2	2	1	16	10	–
Derby	1	–	1	–	–	–	2	3	–	5	4	–
Leicester	4	–	–	–	–	–	–	5	2	–	4	–
North East Lincolnshire	1	–	–	–	1	–	2	1	–	1	1	–
North Lincolnshire	–	–	1	–	1	–	–	–	–	5	–	–
Nottingham	1	–	2	–	2	–	–	–	1	3	10	–
Rutland	–	–	–	–	–	–	–	–	–	–	–	1
Eastern	**7**	**2**	**3**	**–**	**4**	**–**	**3**	**2**	**4**	**56**	**67**	**1**
Bedfordshire	–	–	1	–	–	–	–	–	–	5	7	–
Cambridgeshire	–	–	–	–	–	–	–	–	1	5	5	–
Essex	–	–	–	–	–	–	1	1	1	17	7	–
Hertfordshire	2	–	–	–	3	–	–	–	1	5	25	1
Norfolk	1	–	–	–	–	–	–	–	–	5	15	–
Suffolk	–	–	–	–	1	–	–	–	–	9	6	–
Luton	1	1	2	–	–	–	1	–	–	3	2	–
Peterborough	–	–	–	–	–	–	–	–	–	2	–	–
Southend-on-Sea	–	1	–	–	–	–	–	1	1	–	–	–
Thurrock	3	–	–	–	–	–	1	–	–	5	–	–
London	**17**	**7**	**3**	**4**	**8**	**–**	**7**	**42**	**1**	**112**	**13**	**3**
Greater London	17	7	3	4	8	–	7	42	1	112	13	3
South East	**7**	**3**	**9**	**4**	**12**	**2**	**6**	**13**	**10**	**130**	**107**	**1**
Buckinghamshire	1	–	–	1	–	–	–	–	–	6	14	–
East Sussex	–	–	–	–	–	–	1	–	–	5	1	–
Hampshire	1	1	1	–	1	–	–	–	1	16	22	–
Kent	2	–	3	–	1	–	–	3	1	16	2	–
Northamptonshire	–	–	–	–	2	–	–	3	1	9	10	–
Oxfordshire	–	–	–	–	2	–	–	–	1	1	22	1
Surrey	1	–	2	1	1	1	2	–	–	28	12	–
West Sussex	–	1	–	2	2	–	–	1	–	8	19	–
Bracknell Forest	–	–	1	–	–	1	–	1	–	7	–	–
Brighton and Hove	1	–	1	–	3	–	–	–	–	5	–	–
Isle of Wight	–	–	–	–	–	–	–	–	–	–	–	–
Medway Towns	1	–	–	–	–	–	1	1	2	3	–	–
Milton Keynes	–	–	–	–	–	–	–	–	–	3	–	–
Newbury	–	–	–	–	–	–	1	1	–	7	1	–
Portsmouth	–	–	–	–	–	–	–	–	–	2	–	–
Reading	–	–	1	–	–	–	–	–	–	3	–	–
Slough	–	–	–	–	–	–	–	–	–	–	–	–
Southampton	–	–	–	–	–	–	–	1	4	3	4	–
Windsor and Maidenhead	–	1	–	–	–	–	1	2	–	5	–	–
Wokingham	–	–	–	–	–	–	–	–	–	3	–	–
South West	**2**	**5**	**2**	**2**	**3**	**1**	**8**	**4**	**4**	**79**	**74**	**–**
Cornwall and Isles of Scilly	–	1	–	–	–	1	–	–	–	5	6	–
Devon	–	–	–	–	–	–	–	–	–	13	6	–
Dorset	–	–	1	–	2	–	–	–	1	5	14	–
Gloucestershire	–	–	–	–	–	–	–	2	–	5	–	–
Somerset	2	1	–	1	–	–	2	–	–	29	–	–
Wiltshire	–	–	–	–	–	–	–	–	–	7	–	–
Bath and NE Somerset	–	1	–	–	–	–	1	–	1	3	6	–
Bournemouth	–	–	–	–	–	–	2	1	–	5	1	–
Bristol	–	1	1	1	–	–	2	–	1	1	14	–
North Somerset	–	–	–	–	–	–	–	–	–	–	9	–
Plymouth	–	–	–	–	–	–	–	–	–	–	8	–
Poole	–	1	–	–	–	–	1	–	1	1	1	–
South Gloucestershire	–	–	–	–	–	–	–	–	–	–	3	–
Swindon	–	–	–	–	1	–	–	1	–	3	–	–
Torbay	–	–	–	–	–	–	–	–	–	2	6	–

Area	Measles	Mumps	Rubella	Dysentery	Scarlet fever	Whooping cough	Viral hepatitis	TB all forms*	Meningitis†	Food poisoning notified§	Food poisoning ascertained#	Malaria
West Midlands	**10**	**37**	**4**	**3**	**6**	**1**	**1**	**21**	**5**	**48**	**70**	**–**
Shropshire	–	–	–	–	1	–	1	–	1	–	9	–
Staffordshire	3	–	–	1	–	–	–	1	–	11	7	–
Warwickshire	1	–	1	–	–	–	–	2	–	4	2	–
West Midlands	6	37	1	1	3	1	–	18	4	21	33	–
Worcestershire	–	–	1	1	2	–	–	–	–	8	10	–
Hereford	–	–	1	–	–	–	–	–	–	3	–	–
Stoke-on-Trent	–	–	–	–	–	–	–	–	–	–	8	–
Telford and Wrekin	–	–	–	–	–	–	–	–	–	1	1	–
North West	**9**	**17**	**3**	**3**	**2**	**1**	**8**	**16**	**5**	**55**	**52**	**–**
Cheshire	–	–	–	–	–	–	–	1	3	11	6	–
Cumbria	–	–	–	–	–	–	–	–	–	4	3	–
Greater Manchester	7	1	2	–	2	1	4	6	2	10	16	–
Lancashire	–	4	1	–	–	–	3	8	–	10	5	–
Merseyside	1	1	–	2	–	–	1	–	–	17	11	–
Blackburn	–	11	–	–	–	–	–	–	–	–	4	–
Blackpool	–	–	–	–	–	–	–	1	–	–	4	–
Halton	1	–	–	–	–	–	–	–	–	3	–	–
Warrington	–	–	–	1	–	–	–	–	–	–	3	–
Wales	**1**	**2**	**1**	**1**	**1**	**–**	**6**	**–**	**4**	**37**	**39**	**–**
Blaenau Gwent	–	–	–	–	–	–	–	–	–	–	–	–
Bridgend	–	–	–	–	–	–	–	–	1	–	–	–
Caerphilly	–	–	–	–	–	–	–	–	–	–	4	–
Cardiff	–	1	–	–	–	–	–	–	–	3	11	–
Carmarthenshire	–	–	–	–	–	–	–	–	–	–	–	–
Ceredigion	–	–	–	1	–	–	–	–	–	1	–	–
Conwy	–	–	–	–	1	–	2	–	–	1	1	–
Denbighshire	1	–	–	–	–	–	1	–	–	7	–	–
Flintshire	–	1	–	–	–	–	–	–	–	1	1	–
Gwynedd	–	–	1	–	–	–	1	–	–	2	4	–
Isle of Anglesey	–	–	–	–	–	–	–	–	–	3	2	–
Merthyr Tydfil	–	–	–	–	–	–	–	–	–	–	–	–
Monmouthshire	–	–	–	–	–	–	–	–	–	–	3	–
Neath and Port Talbot	–	–	–	–	–	–	–	–	–	–	–	–
Newport	–	–	–	–	–	–	1	–	–	–	2	–
Pembrokeshire	–	–	–	–	–	–	–	–	–	1	–	–
Powys	–	–	–	–	–	–	–	–	–	–	–	–
Rhondda, Cynon, Taff	–	–	–	–	–	–	–	–	–	1	–	–
Swansea	–	–	–	–	–	–	–	–	3	11	2	–
Torfaen	–	–	–	–	–	–	–	–	–	2	–	–
Vale of Glamorgan	–	–	–	–	–	–	–	–	–	1	6	–
Wrexham	–	–	–	–	–	–	1	–	–	3	3	–

* Excluding prophylaxis. † All forms. § Formally notified. # Ascertained by other means. ¶Metropolitan county.

Unitary authorities are shown in italics.

Notifications in week 11/00 of infectious diseases not shown in table 2

Meningitis (meningococcal): 26 cases; three in Cheshire and in Swansea, two in each of Cumbria, Southampton, Tyne and Wear, and West Midlands, and one in each of Cambridgeshire, Dorset, Essex, Hertfordshire, Kent, Medway Towns, Northamptonshire, Nottingham, Oxfordshire, Poole, Southend-on-Sea, and South Yorkshire.

Meningococcal septicaemia (without meningitis): 37 cases; four in Brighton and Hove, three in West Midlands, two in each of Cheshire, Greater Manchester, Hertfordshire, Southampton, South Yorkshire, Swansea, Tyne and Wear, and West Yorkshire, and one in each of Bridgend, Carmarthenshire, Conwy, East Sussex, Flintshire, Hampshire, Hartlepool, Leicester, Nottingham, North Yorkshire, Poole, Shropshire, Torbay, and West Sussex.

Ophthalmia neonatorum: three cases; one in each of Greater London, Stoke-on-Trent, and West Midlands.

Paratyphoid fever: four cases; two presumed to have been contracted abroad – from West Sussex and West Yorkshire; one presumed to have been contracted in Great Britain – from Greater Manchester; and one of unknown orgin – from Greater Manchester.

Typhoid fever: two cases; one presumed to have been contracted abroad – from Worcestershire; and one of unknown origin – from West Yorkshire.

Viral haemorrhagic fever: one case; from Medway Towns.

No cases of acute encephalitis, acute poliomyelitis, anthrax, cholera, diphtheria, leptospirosis, meningitis influenzal (*Haemophilus influenzae*), plague, rabies, relapsing fever, smallpox, tetanus, typhus, or yellow fever were notified.

Table 3 Weekly analysis report of notifications above expected rates in week 11/00

District	County	Observed number	Expected number	Ratio observed/ expected
Dysentery				
Horsham	West Sussex	2	0.05	40.46
South Holland	Lincolnshire	2	0.03	66.16
Food poisoning (all)				
Arun	West Sussex	11	3.11	3.54
Aylesbury Vale	Buckinghamshire	14	3.50	4.00
Chesterfield	Derbyshire	8	2.30	3.48
Chester-le-Street	Durham	6	1.26	4.76
Darlington	Darlington	9	2.30	3.92
East Dorset	Dorset	7	1.86	3.76
Greenwich	Greater London	13	4.82	2.70
Harborough	Leicestershire	7	1.65	4.25
Leeds	West Yorkshire	31	16.54	1.87
Mendip	Somerset	9	2.25	4.00
Mole Valley	Surrey	7	1.81	3.87
Richmondshire	North Yorkshire	5	1.06	4.73
South Somerset	Somerset	10	3.43	2.92
Swansea	Swansea	13	5.26	2.47
Tandridge	Surrey	7	1.76	3.98
Food poisoning (formally notified)				
Bracknell Forest	Bracknell Forest	7	1.34	5.21
Chesterfield	Derbyshire	8	1.26	6.36
Denbighshire	Denbighshire	7	1.14	6.13
Fylde	Lancashire	5	0.93	5.38
Greenwich	Greater London	13	2.64	4.93
Harborough	Leicestershire	7	0.90	7.78
Lambeth	Greater London	11	3.26	3.37
Liverpool	Merseyside	14	5.87	2.38
Macclesfield	Cheshire	9	1.89	4.76
Mendip	Somerset	9	1.23	7.32
Mole Valley	Surrey	7	0.99	7.07
Newbury	Newbury	7	1.78	3.94
Salisbury	Wiltshire	7	1.38	5.07
South Somerset	Somerset	10	1.87	5.33
Swansea	Swansea	11	2.88	3.83
Taunton Deane	Somerset	7	1.23	5.69
Waverley	Surrey	7	1.44	4.87
Malaria				
Rutland	Rutland	1	0.00	213.43
Measles				
Hackney	Greater London	8	0.34	23.24
Leicester	Leicester	4	0.51	7.79
Thurrock	Thurrock	3	0.22	13.85
Meningitis (all)				
Allerdale	Cumbria	2	0.08	24.51
Ellesmere Port and Neston	Cheshire	2	0.07	29.04
Southampton	Southampton	4	0.18	22.02
Swansea	Swansea	3	0.20	15.29
Meningitis (meningococcal)				
Allerdale	Cumbria	2	0.05	41.47
Ellesmere Port and Neston	Cheshire	2	0.04	49.15
North Tyneside	Tyne And Wear	2	0.10	20.52
Swansea	Swansea	3	0.12	25.88
Mumps				
Birmingham	West Midlands	22	1.83	12.02
Blackburn	Blackburn	11	0.27	40.46
Calderdale	West Yorkshire	3	0.32	9.47
Walsall	West Midlands	14	0.44	31.86
Rubella				
Erewash	Derbyshire	2	0.09	23.02
Scarlet fever				
Brighton and Hove	Brighton and Hove	3	0.16	18.52
Derwentside	Durham	2	0.09	22.55
Hertsmere	Hertfordshire	2	0.10	20.74
Hinckley and Bosworth	Leicestershire	2	0.10	20.27
Kettering	Northamptonshire	2	0.09	23.46
West Dorset	Dorset	2	0.08	24.55
Wyre Forest	Worcestershire	2	0.10	20.11
Tuberculosis *				
Birmingham	West Midlands	9	2.46	3.66
Bolton	Greater Manchester	5	0.64	7.80
Brent	Greater London	8	0.59	13.50
Leicester	Leicester	5	0.71	7.00
Preston	Lancashire	5	0.32	15.41
Southwark	Greater London	5	0.56	8.92
Thanet	Kent	3	0.30	9.91
Wolverhampton	West Midlands	4	0.59	6.77
Viral hepatitis (all)				
Burnley	Lancashire	2	0.09	23.04
Mendip	Somerset	2	0.10	20.99
Wandsworth	Greater London	4	0.26	15.61
Whooping cough				
Leeds	West Yorkshire	3	0.15	19.70

Note: This table shows those districts from which the rates of notifications reported this week were significantly higher than expected (P<0.005). The number of notifications in each district is shown in the third column (observed). The number expected if the national rate is applied to the district population is shown in the fourth column (expected). The fifth column shows by how many times the number of notifications exceeds the expected number (ratio observed/expected). Caution must be exercised when interpreting this table, as listing is wholly dependent on comparable reporting of notifiable infectious diseases from all districts of England and Wales and on local patterns of disease.

AIDS and HIV infection in the United Kingdom: monthly report

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

The effect of highly active antiretroviral therapy (HAART) on progression to AIDS

The impact of highly active antiretroviral therapy (HAART) in delaying the onset of AIDS continues to be reflected in the fall in numbers of AIDS cases diagnosed since the mid-1990s (figure 1). Those who have developed AIDS during the period covered have been divided on the basis of the interval between being diagnosed with HIV infection and the development of an AIDS defining condition. Those with a 'long' diagnosis interval, (three months or more) will have been able to benefit from pre-AIDS antiretroviral therapy, while those whose infection was only recognised around the time of the development of AIDS ('short' diagnosis interval) will not. Only those AIDS diagnoses that were reported in the year during which they were made have been included, so as to avoid the distortion caused by reporting delay in selectively reducing the numbers for the most recent periods.

The number of promptly reported AIDS cases has decreased markedly from 1187 in 1994 to 507 in 1999. The decline was steepest between 1996 and 1998, from 941 to 522, and may be levelling off as the limits of currently available treatment options to delay the onset of AIDS are reached. The reduction has been confined largely to those with a long diagnosis interval, while the number of cases with a short diagnosis interval has remained more or less constant over time (figure 1). Similar numbers of individuals have been presenting each year with HIV related disease at or around the time when their level of immune suppression allows an AIDS defining condition to develop. It is unlikely that the numbers of AIDS cases will fall much further unless the numbers presenting so late in disease progression can be reduced. So far the benefit has been greatest for those infected through sex between men; the number of promptly reported long diagnosis interval cases in this category fell from 577 in 1994 to 97 in 1999. For those infected heterosexually, long diagnosis AIDS cases fell too, from 110 in 1995 to 46 in 1999, but the numbers diagnosed at or around the time when diagnoses with AIDS increased, with the result that there has been little change in the overall numbers of AIDS cases for this exposure category. For those infected through injecting drug use the numbers of promptly reported cases fell from nearly 100 to 20, and over the five year period three quarters of these were long diagnosis interval cases – the small number of HIV infections only being recognised at AIDS onset confirms that for this risk group the majority of established infections have been diagnosed.

Indicator diseases recorded at AIDS diagnosis

The pattern of AIDS indicator diseases when AIDS is diagnosed might be expected to have been influenced by the widespread use of HAART, but this is the case only for those diagnosed long enough before developing an AIDS defining condition for the therapy to have had an influence (table 1a). The indicator diseases present at AIDS diagnosis will be largely uninfluenced by HAART for those with a short interval between the diagnoses of HIV infection and AIDS (table 1b).

Throughout the decade *Pneumocystis carinii* pneumonia (PCP) was the commonest AIDS indicator disease in both diagnosis interval groups, accounting for 40% (2186/5464) of all AIDS defining conditions recorded at diagnosis in the short interval group and 24% (2028/8430) in the long. The proportion was lower in those with identified HIV infection, due to the availability to this group of effective PCP prophylaxis. In the short diagnosis interval group the proportion of indicator diseases formed by Kaposi's sarcoma (KS) has fallen from 13% to 7%, while tuberculosis (TB) has risen. The rise in the relative importance of TB reflects partly the addition of pulmonary TB to the list of AIDS defining conditions in 1993, but also the increasing contribution to AIDS cases of HIV infections acquired heterosexually, often in Africa, where TB is widespread. If prophylaxis was effectively preventing TB progression in

Figure 1 Cases of AIDS diagnosed and reported in the same calendar year by exposure category: 1994 to 1998
Interval between diagnosis of HIV infection and of AIDS: UK data to end December 1999

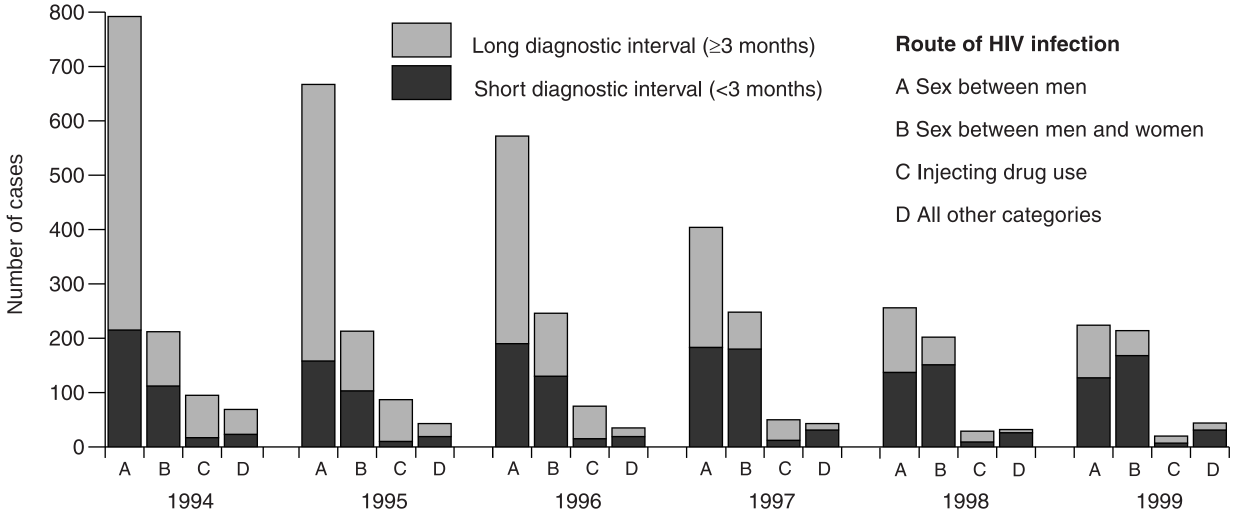


Table 3 AIDS indicator diseases as a percentage of all indicator diseases by year of diagnosis
Adult AIDS cases reported from England, Wales, and Northern Ireland: data to end of December 1999

a) Interval between diagnosis of HIV infection and AIDS – three months or greater

	Year of diagnosis of AIDS									
Indicator disease	1990	1991	1992	1993	1994	1995	1996	1997‡	1998‡	1999‡
Pneumocystis carinii pneumonia (PCP)	35	27	24	22	21	22	22	22	23	24
Candidiasis	16	19	20	16	17	17	15	13	13	15
Kaposi's sarcoma (KS)	13	16	14	13	14	11	12	14	13	16
*Mycobacterium tuberculosis**	1	2	2	6	6	6	7	12	12	9
Wasting	9	10	9	8	8	7	8	5	6	4
Encephalopathy	5	3	5	5	6	6	6	3	4	–
Lymphoma	4	4	4	3	3	4	4	9	11	9
Mycobacterium – other	2	3	3	6	6	6	6	6	4	6
Cytomegalovirus	6	4	6	6	4	6	5	3	2	2
Toxoplasma	3	2	4	3	3	3	3	2	3	2
Other opportunistic infections†	6	9	9	12	12	13	11	10	9	12
Total indicator diseases (100%)	803	930	1063	1246	1328	1248	893	477	279	163
Total number of AIDS cases (long interval)	678	817	945	1114	1158	1106	792	431	258	153

* Includes pulmonary TB from 1993 onwards
† Includes 3 diagnoses of cervical carcinoma
‡ numbers of cases, particularly for recent years, are likely to increase as delayed reports are received

b) Interval between diagnosis of HIV infection and AIDS – less than three months

	Year of diagnosis of AIDS									
Indicator disease	1990	1991	1992	1993	1994	1995	1996	1997‡	1998‡	1999‡
Pneumocystis carinii pneumonia (PCP)	46	44	41	40	40	38	37	43	34	35
Candidiasis	13	13	14	12	11	11	10	10	13	12
Kaposi's sarcoma (KS)	11	11	10	11	10	10	10	7	8	7
*Mycobacterium tuberculosis**	3	5	5	9	10	11	12	12	16	12
Wasting	7	7	8	5	7	5	7	6	5	8
Encephalopathy	3	3	2	2	2	4	3	3	1	3
Lymphoma	2	3	4	4	2	3	4	3	4	3
Mycobacterium – other	1	1	1	2	3	3	1	2	3	3
Cytomegalovirus	1	3	3	2	2	2	4	2	3	3
Toxoplasma	3	2	4	4	4	4	5	4	3	3
Other opportunistic infections†	9	9	8	9	9	9	8	8	9	11
Total indicator diseases (100%)	557	519	609	574	618	552	589	577	486	383
Total AIDS cases (short interval)	445	428	487	472	503	459	475	484	389	303

* Includes pulmonary TB from 1993 onwards
† Includes 2 diagnoses of cervical carcinoma
‡ numbers of cases, particularly for recent years, are likely to increase as delayed reports are received

those known to be HIV infected, TB would be expected to form a smaller contribution to AIDS defining conditions in the long interval group. There is some evidence that this is the case – TB forms 5% of AIDS defining conditions in the long interval group and 9% in the short. The impact of HAART on AIDS presentation would be expected to be identifiable from the mid-1990s onward in table 1a. Only lymphoma has shown a clear rise over this period.

The ratio of the number of AIDS cases to the number of indicator diseases at AIDS diagnosis has been consistently higher each year for those with a short diagnosis interval (ranging from 1:1.19 to 1:1.26) than for those with a longer diagnosis interval (1:1.07 to 1:1.18). This is presumably because in those already diagnosed as HIV infected a single diagnosing condition is more likely to be recognised than in those who are not known to be infected.