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# CDR WEEKLY



NEWS



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DIARY



BACK ISSUES

## **Main stories this week:**

[Diagnoses of gonorrhoea reach ten-year high](#)

[New guidance for the prevention of malaria in travellers from the United Kingdom](#)

[West Nile virus: enhanced surveillance among cases of encephalitis and viral meningitis](#)

[MMR information pack for health professionals](#)

## **Updated this week:**

[Invasive meningococcal infections, England and Wales: laboratory reports, weeks 18-21/01](#)

[Virus infections, England and Wales: laboratory reports, weeks 25-29/01](#)

[\*Haemophilus influenzae\* by age group and serotype, England and Wales: weeks 14-26/01](#)

[MMR – Why use of single antigens would be inadvisable](#)

[AIDS and HIV infection in the United Kingdom: monthly report – July 2001](#)

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BACK ISSUES

## Contents

[Diagnoses of gonorrhoea reach ten-year high](#)

[New guidance for the prevention of malaria in travellers from the United Kingdom](#)

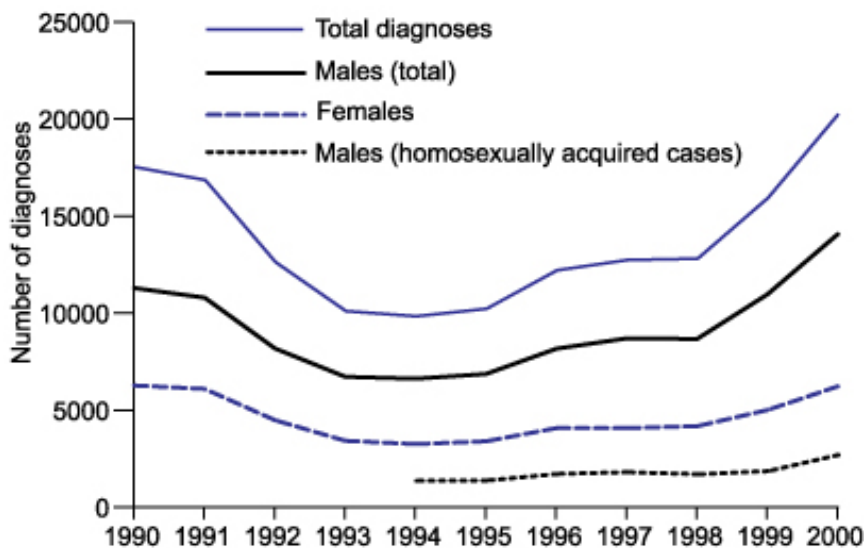
[West Nile virus: enhanced surveillance among cases of encephalitis and viral meningitis](#)

[MMR information pack for health professionals](#)

## Diagnoses of gonorrhoea reach ten-year high

New data on diagnoses made in GUM clinics (KC60) in England and Wales show that the recent rising trend in sexually transmitted infections (STIs) continues unabated. Between 1999 and 2000, the number of new cases of uncomplicated gonorrhoea rose by 27% (15,874 to 20,190), a rise of 29% in males (10,868 to 13,967) and 24% in females (5006 to 6223). The number of gonorrhoea diagnoses has been rising since 1994 and is now at its highest for over a decade (figure). They have not exceeded 20,000 since 1987.

**Figure. Diagnoses of uncomplicated gonorrhoea by sex: England and Wales, 1990-2000\***



\* data for homosexually acquired infection in males only available from 1994 onwards

Numbers of diagnoses of other STIs have also continued to increase. Between 1999 and 2000, cases of genital chlamydial infection rose by 18% (53,221 to 62,565) and, although overall numbers are considerably lower than for other STIs, cases of infectious (primary and secondary) syphilis rose by 55%, from 211 to 326, over the same period.

The increases are not limited to any region, age, or risk group but as with previous years, the large and increasing numbers of STI diagnoses among teenagers and men who have sex with men (MSM) are a serious cause for concern.

During 2000, 38% (2349 of 6223) of gonorrhoea diagnoses and 34% (12,055 of 35,688) of chlamydia diagnoses in females were in those aged from 16 to 19 years. Since 1995, gonorrhoea diagnoses in 16 to 19 year olds have risen by 129% (1025 to 2349) in females and by 169% (690 to 1854) in males. Over the same period, chlamydia diagnoses rose by 145% (4917 to 12055) in females and 213% (1184 to 3702) in males. Diagnoses of chlamydia are likely to substantially underestimate the true burden in the population as most infections are asymptomatic and probably remain undiagnosed and untreated. Untreated chlamydial and gonococcal infections in women can lead to serious long term consequences such as pelvic inflammatory disease, infertility and ectopic pregnancy.

A disproportionate amount of gonorrhoea and syphilis infections in males are homosexually acquired: 19% (2693 of 13967) of gonorrhoea and 46% (117 of 253) of infectious syphilis cases in men in 2000 were homosexually acquired. The latest rises in diagnoses of these infections were also particularly

sharp in this group, with gonorrhoea rising by 45% (1855 to 2693) and syphilis more than doubling (52 to 117) in MSM between 1999 and 2000. Several documented outbreaks of syphilis among MSM in Manchester, Brighton, and London probably account for most of the increase of this infection (1-3). A high proportion of the MSM involved in the syphilis outbreaks were also infected with HIV which is of particular concern as HIV transmission may be enhanced by syphilis coinfections (2).

In general, viral STIs tend to exhibit less dramatic changes. Genital warts are the most commonly diagnosed STI in GUM clinics, with 64,370 first episodes diagnosed in England and Wales in 2000. Although there has been little change since 1999 (64,651 cases), numbers of genital warts diagnoses have risen by 19% since 1995 (from 54,225 cases). Genital herpes simplex virus (HSV) infection is the commonest ulcerative STI seen in GUM clinics and numbers of first episode diagnoses rose by 2% between 1999 and 2000 (16,304 to 16,584) and by 7% since 1995 (from 15,541).

New diagnoses of HIV infection in the United Kingdom reported by laboratories reached their highest ever level in 2000, at 3551 diagnoses. There are indications that the figure for 2001 will be even higher, as there has been an 11% rise (1246 to 1387) in diagnoses reported in the first six months of 2001 compared with equivalent period in 2000. Of the 3551 HIV infections diagnosed in 2000, 1746 (53%) were probably acquired through heterosexual sex and 1375 (42%) through sex between men.

These latest figures on STIs and HIV are disturbing. Trends in gonorrhoea are thought to be a reasonable indicator of changes in sexual behaviour (4) and the recent syphilis outbreaks have been associated with risky behavioural practices and HIV coinfections (1-3). It therefore seems likely that the sustained increase in STIs over the past six years is attributable to the increasing practice of unsafe sexual behaviour in both heterosexuals (particularly young heterosexuals) and homo/bisexual men. The rise in chlamydial infections will also, however, have been influenced by increased awareness and testing. The decline in HIV transmission and diagnoses of other STIs during the mid-late 1980s may have been achieved by encouraging safer sex through HIV and AIDS awareness campaigns (5). The need for coordinated and renewed efforts aimed at improving awareness of these infections, their longer term consequences, and effective prevention strategies, cannot be overemphasised.

The PHLS website [www.phls.co.uk/facts/STI/sti.htm](http://www.phls.co.uk/facts/STI/sti.htm) contains additional information about STIs and HIV as well as these latest data.

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5. Nicoll A, Hughes G, Donnelly M, Livingstone S, De Angelis D, Fenton K, *et al*. Assessing the impact of national anti-HIV sexual health campaigns: trends in the transmission of HIV and other sexually transmitted infections in England. *Sex Transm Inf* 2001;**77**:242-7.

## **New guidance for the prevention of malaria in travellers from the United Kingdom**

The PHLS Advisory Committee on Malaria Prevention (ACMP) has published new guidelines on the prevention of malaria (1). The guidelines aim to provide health professionals with the most comprehensive information on malaria and the preventative measures available. This will continue to improve the quality of advice available to travellers who are planning to visit malaria endemic regions.

The guidelines are published on the PHLS web-site at [www.phls.co.uk/publications/CDPHVol4/No%202/malaria%20guidelines.pdf](http://www.phls.co.uk/publications/CDPHVol4/No%202/malaria%20guidelines.pdf).

In 2000, 2069 cases of malaria were reported in the United Kingdom (UK), resulting in 16 deaths, most of which should be preventable. Cases seen in the UK are contracted abroad. Between a quarter and a third of cases are among those visiting friends and relatives in countries where malaria is endemic, with holidaymakers comprising the next largest group. This illustrates the importance of UK travellers visiting high-risk areas being made aware of the risk of malaria and having access to advice and information about the prevention measures available. More than half of deaths from malaria are due to people having taken no chemoprophylaxis prior to travelling, not completing the course, or having taken inappropriate prophylaxis for the area they are visiting. A recent report from the United States reinforces the message that inappropriate prophylaxis can result in avoidable deaths (2).

Four steps (ABCD) remain essential in malaria prevention: Awareness of the risk; Bites by mosquitoes: prevention; Compliance with appropriate chemoprophylaxis; Diagnosis and rapid treatment. Most chemoprophylaxis should be taken for at least a week before travel to a high-risk area and for four weeks on return. The choice of drug will depend on the estimated level of transmission and drug resistance of the malaria at the destination. The type of travel whether urban or rural, season, duration of stay, and medical history of the individual will all be considered, as will the contraindications and possible side effects of the drug. The ACMP guidelines include the variables to be considered at each consultation to enable the nurse or doctor to advise upon the best treatment for the individual traveller.

This comprehensive and up to date information source for health professionals should improve the quality and consistency of advice to UK travellers. It is to be hoped that many cases of malaria, and in particular deaths, can be prevented by the dissemination of accurate advice. It is especially important to broadcast this message at this time of the year when many people are about to go on holiday.

1. DJ Bradley and B Bannister on behalf of the Advisory Committee on Malaria Prevention. Guidelines for malaria prevention in travellers from the United Kingdom for 2001. *Commun Dis Public Health* 2001; **4** (2): 84-101. Available online at [www.phls.co.uk/publications/CDPHVol4/No%202/ malaria%20guidelinesp.pdf](http://www.phls.co.uk/publications/CDPHVol4/No%202/ malaria%20guidelinesp.pdf).

2. CDC. Malaria deaths following inappropriate malaria prophylaxis – United States, 2001. *MMWR Morb Mortal Wkly Rep* 2001; **50** (28): 597-9.

## **West Nile virus: enhanced surveillance among cases of encephalitis and viral meningitis**

West Nile virus (WNV) is a flavivirus originally isolated in Africa. The principal hosts are a wide variety of birds and WNV is termed an 'arbovirus' (arthropod borne) as mosquitoes are the main vectors. Mosquitoes may occasionally transmit the infection to humans and horses and other animals. In recent years WNV has received increasing international attention following outbreaks of human disease in New York State in 1999 and 2000 (1, 2).

In temperate areas, cases typically occur in the summer and early autumn months. Human infection is usually asymptomatic or results in a mild influenza-like illness. A small proportion, however, (estimated to be less than 1% of those infected) develop severe illness. In the 1999 New York City outbreak, acute encephalitis was the most frequent presentation in hospitalised patients (about 60%) but aseptic meningitis (about 30%) or a Guillain-Barré-like syndrome can also occur (one third of cases presented with encephalitis and weakness) (1). A very few cases were fatal, more commonly in those aged over 50 years. The case fatality rate among hospitalised patients in the New York outbreak in 1999 was 12% (1).

Interventions that have been employed to protect the public from WNV include removing mosquito breeding sites, killing larval or adult mosquitoes, and educating the public about mosquito bite avoidance.

The recent expansion of West Nile Virus into new regions such as the United States is documented (1) and outbreaks of animal and human infection have also occurred in Europe, with infection identified in horses in the Carmague in France (3, 4). No infection of birds or mosquitoes has been reported in the United Kingdom (UK) and there have been no documented human cases of WNV infection acquired in the UK.

The risk of WNV infection becoming established in the UK leading to human cases is considered to be low as there is little evidence of transmission of any infection to humans through mosquitoes in this country. Infected birds migrating from endemic regions such as Africa could, however, potentially introduce WNV infection into the UK, where the species of mosquitoes (*Culex* spp.) that may transmit the infection are present. Furthermore, the extensive flooding during the autumn of 2000 may have favoured the expansion of mosquitoes, thus increasing the transmission potential.

Hospital episode statistics indicate that there are around 700 admissions for encephalitis every year and 2000 admissions for viral meningitis in England, although currently knowledge of the infectious causes of these is limited. In more than half of the encephalitis admissions no aetiological agent is identified (CDSC unpublished data) and WNV is rarely tested for among humans, or among birds or other animals. Encephalitis and viral meningitis are statutory notifiable diseases. Only around 25 cases of encephalitis are notified per year, however, about 4% of the cases of viral encephalitis identified by Hospital Episode Statistics. The corresponding figure for viral meningitis is 38%, based on approximately 760 notifications per year. Both these conditions are therefore under-notified, especially encephalitis.

Existing surveillance systems therefore seem to be insensitive and may not detect small clusters of unexplained encephalitis and meningitis, including cases that might be caused by WNV. Hence CDSC is reminding reporters of the importance of notifying all cases of encephalitis and meningitis cases to the proper officer (typically the local consultant in communicable disease control). In addition CDSC, working with the Central Public Health Laboratory and the Centre for Applied Microbiology and Research, encourages the following (especially among physicians most likely to deal with potential cases of WNV such as care of the elderly physicians, infectious disease specialists, neurologists, and clinical microbiologists):

- to include WNV as a differential diagnosis for cases of unexplained encephalitis and presumed viral meningitis from August to the end of September
- the testing of suspected cases at the Centre for Applied Microbiological Research, Porton Down according to the criteria shown in the table below.

<b>Criteria for a suspected case</b>	
A case of encephalitis or meningitis, defined by the specific criteria below, presenting between August and the end of September 2001	
<b>1. Encephalitis</b>	1. Fever >38° <b>and</b>
Any adult over 50 years with suspected viral encephalitis with <b>all</b> the following criteria	2. Altered mental state (altered level of consciousness, agitation, lethargy) and/or other evidence of cortical involvement (eg focal neurological findings, seizures) <b>and</b>
	3. Cerebrospinal fluid (CSF) pleocytosis with predominant lymphocytes and/or elevated protein and a negative Gram stain and culture <b>and</b>
	4. No alternative microbiological cause identified eg HSV
<b>2. Meningitis</b>	1. Fever >38° <b>and</b>
Any adult over 50 years with suspected viral (aseptic) meningitis with <b>all</b> the following criteria	2. Headache, stiff neck and/or other meningeal signs and
	3. CSF pleocytosis with predominant lymphocytes and/or elevated protein and a negative Gram stain and culture <b>and</b>
	4. No alternative microbiological cause identified eg Enterovirus
<b>Details about testing</b>	
For testing for West Nile virus in suspected cases as defined above, the following specimens should be sent to the Centre for Applied Microbiology and Research, Porton Down, Salisbury, Wiltshire, SP4 OJG (tel: 01980 612100):	
1. Paired whole blood specimens. The acute phase specimen 0 to 8 days after onset and the convalescent phase sample 14 to 21 days after onset.	
<i>By the eighth day of illness, the large majority of infected persons will have detectable IgM antibody to West Nile virus. In most cases this will still be detectable 1 to 2 months post illness and can be detected in some cases 12 months post infection. By 3 weeks post-infection serum IgG to West Nile virus is detectable.</i>	
2. Acute phase CSF	
As early as the first few days, anti-capture ELISA can detect IgM to West Nile virus. Virus may also be isolated or be detected by reverse transcriptase-polymerase chain reaction (RT-PCR), in acute phase CSF within 8 days of onset.	

### Contact details:

Surveillance: Paul Crook, Communicable Disease Surveillance Centre, 61 Colindale Avenue, London NW9 5EQ (tel: 020 8200 6868 ext 4885, email: [pcrook@phls.org.uk](mailto:pcrook@phls.org.uk))

Testing: Graham Lloyd, Centre for Applied Microbiological Research, Porton Down.

Risk assessment and clinical enquiries: local Infectious Diseases Unit.

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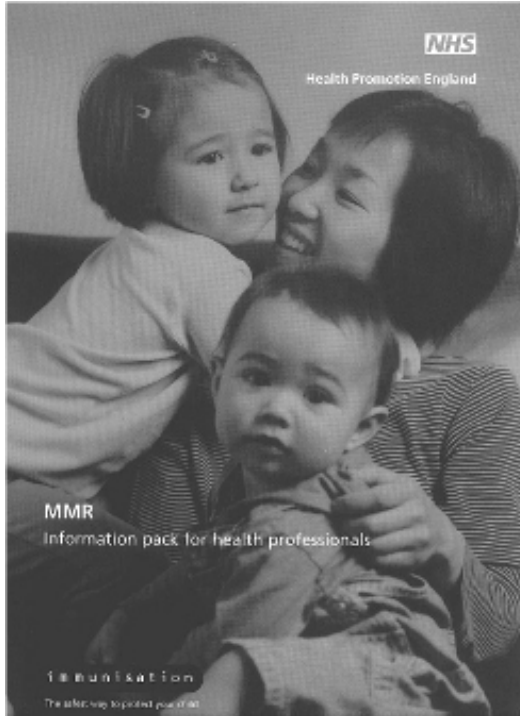
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4. Office International des Epizooties. West Nile Fever in France, Follow-up report No 3 (lifting of sanitary measures). *Disease Information* [serial online] 2001 [cited 26 July 2001]; **14** (2): ais\_66. Available at <[www.oie.int/eng/info/hebdod/ais\\_66.htm#Sec1](http://www.oie.int/eng/info/hebdod/ais_66.htm#Sec1)>

## MMR information pack for health professionals

Health Promotion England has published an information pack for health professionals as part of a £3 million campaign from the Department of Health. The information pack is a timely tool for assisting anyone providing information and advice to parents on immunisation. It seeks to address current myths about the combined measles, mumps, rubella (MMR), and provides accurate, evidence-based information on which to base an informed discussion. It provides the health professional with the tools to review practice and to improve active communication with clients and colleagues.



Previously well-received fact sheets have been included in the pack along with a new fact sheet on MMR (version 3) gathering together latest research on the safety of MMR and discussing the issues around single vaccines. The pack has been distributed by Health Promotion England to clinic and practice nurses, health visitors, consultants in communicable disease control, general practitioner (GP) trainees, hospital and community paediatricians, health educators, nurse managers and trainers, GPs, public health physicians, immunisation coordinators, school nurses, midwives, pharmacists, and accident and emergency staff.

Further MMR Resources including leaflets, poster, video (available in several languages), Book (£4.99), and copies of the pack are available from Health Promotion England at HPE Customer Services, PO Box 269, Abingdon, Oxford OX14 4YN or can be viewed and downloaded from the HPE website: <[www.immunisation.org.uk/immprof.html](http://www.immunisation.org.uk/immprof.html)>. Alternatively, people in the categories listed earlier who have not received a copy can fax an order to Marston Book Services on 01234 465556.

Further information on MMR and single vaccines can be obtained from the PHLS website at <[www.phls.org.uk/news/bulletins/2001/010112id.htm](http://www.phls.org.uk/news/bulletins/2001/010112id.htm)>

[Back to top](#)



## Contents

[Invasive meningococcal infections, England and Wales: laboratory reports, weeks 18-21/01](#)

[Virus infections, England and Wales: laboratory reports, weeks 25-29/01](#)

[Haemophilus influenzae by age group and serotype, England and Wales: weeks 14-26/01](#)

[MMR – Why use of single antigens would be inadvisable](#)

## Invasive meningococcal infections, England and Wales: laboratory reports, weeks 18-21/01

	Method of diagnosis			Total reports 18-21/01	Cumulative total* 2001	Annual total 2000
	CSF and blood		Other sites			
	culture	non-culture**	culture			
Group A	–	–	–	–	2	2
Group B	49	55	8	112	940	1645
Group C	14	11	–	25	194	712
Group W135	5	3	1	9	78	109
Group X	–	–	–	–	4	4
Group Y	2	–	–	2	15	29
Group Z	–	–	–	–	–	–
Group 29E	–	–	–	–	–	–
Ungroupable	–	–	4	4	10	22
Ungrouped	–	7	–	7	95	137
<b>Total</b>	<b>70</b>	<b>76</b>	<b>13</b>	<b>159</b>	<b>1338</b>	<b>2660</b>

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

## Virus infections, England and Wales: laboratory reports, weeks 25-29/01

Laboratory reports	Number of reports received					Total reports 25-29/01	Cumulative total 2001
	25/01	26/01	27/01	28/01	29/01		
Coxsackie A	–	1	–	–	–	1	17
Coxsackie B	4	2	2	–	–	8	50
Cytomegalovirus	28	18	34	24	16	120	523
Echovirus	8	8	33	12	18	79	235
Parvovirus B19	12	16	13	19	15	75	295
Varicella zoster virus	4	11	5	11	10	41	234

## Haemophilus influenzae by age group and serotype, England and Wales: weeks 14-26/01

The number of cases with serotype b isolates continues to show an increase in the 1 to 5 year age group, although the overall numbers of cases in the under 15 year age groups due to *Haemophilus influenzae* for this quarter are similar to the numbers for the same quarter of 2000.

Of the 15 isolates of serotype b in the 1 to 5 year age group (table), six were aged 1 year, six aged 2, and three aged 3. In the second quarter of 2000, the seven isolates of serotype b in the same age band comprised one aged 1 year, two aged 2, two aged 3, and two aged 4.

The apparent drop in cases aged over 15 years for the quarter (table) could be due to late reporting

from the laboratories, and an updated table will be included in the next report.

**Table Laboratory reports of *Haemophilus influenzae*, by serotype and age group: second quarter 2001 (2000)**

Serotype	Age					Total
	<1 year	1-5 years	5-14 years	15 years+	not known	
b	3 (4)	15 (7)	2 (2)	9 (11)	– (1)	29 (25)
nc	4 (10)	2 (4)	2 (2)	34 (36)	1 (–)	43 (52)
a, e, f	– (1)	2 (1)	1 (2)	2 (5)	– (–)	5 (9)
not typed	5 (–)	2 (3)	– (–)	20 (29)	– (6)	27 (38)
total	12 (15)	21 (15)	5 (6)	65 (81)	1 (7)	104 (124)

**Update Table Laboratory reports of *Haemophilus influenzae*, by serotype and age group: first quarter 2001 (2000)**

Serotype	Age					Total
	<1 year	1-5 years	5-14 years	15 years+	not known	
b	5 (2)	11 (13)	3 (–)	13 (7)	– (–)	32 (22)
nc	14 (7)	4 (6)	5 (3)	62 (52)	2 (3)	87 (71)
a, e, f	2 (1)	2 (1)	– (1)	9 (5)	– (–)	13 (8)
not typed	6 (1)	2 (–)	2 (3)	30 (35)	2 (3)	42 (42)
total	27 (11)	19 (20)	10 (7)	114 (99)	4 (6)	174 (143)

### MMR – Why use of single antigens would be inadvisable

Despite official guidance (1) there have been some calls for to make single antigen measles, mumps, and rubella (MMR) vaccines available. These calls are misguided as they are based on two misconceptions. First, that the combined MMR vaccine causes autism and second, that having three vaccine viruses together 'overwhelms an immature immune system'. While there is no serious scientific evidence in support of these myths and much evidence against them, they have nevertheless been used to justify opinions that single vaccines should be made available to provide parental choice and because they are better than nothing. These purported justifications are both fallacious and dangerous.

The claim that MMR vaccine causes autism is but the latest in a series of hypotheses about measles virus, (either wild or vaccine-type, on its own or in the presence of mumps and/or rubella viruses) causing either Crohn's disease (CD) but not ulcerative colitis (UC), or both CD and UC, or autism associated with an inflammatory bowel condition that is neither CD or UC. These disparate hypotheses lack any substantive supporting scientific evidence. In contrast, the evidence against them has been robust and provided by different scientific groups in the United Kingdom (UK) and elsewhere (2, 3).

While there is no credible evidence to link autism with MMR vaccine, and powerful evidence against a link, there nevertheless exists a parental and political lobby group that argues that, at least on grounds of parental choice and safeguarding vaccine coverage, single antigen vaccines should be provided. To accede to this view would introduce the precedent of allocation of health service resources on the basis of subjective opinion rather than objective scientific evidence. Furthermore, while the argument of 'better single vaccines than nothing' appears superficially beguiling, it poses a public health threat.

Firstly, it has been suggested that each antigen should be separated by at least a year. The basis of this advice appears to be a paper hypothesising that infection with wild measles and mumps in the same year is a risk factor for CD and UC, although wild mumps on its own by 2 years of age causes only UC. Even if these hypotheses were to be substantiated, the relevance of such observations to MMR vaccine, let alone autism, remains obscure. On the other hand, the dangers of delaying completion of immunisation by up to two years are not in doubt (4,5).

Secondly, NHS provision of single antigen vaccines would inevitably undermine the confidence of the 88% of parents currently accepting MMR vaccine, a figure that has not declined in the last months (6). In the 1970s parents in the UK were offered a choice between combined diphtheria/tetanus/pertussis (DTP) vaccine and separate pertussis and diphtheria /tetanus vaccines. Most parents rejected pertussis vaccine on a misconceived perception that their children were at risk from the pertussis component (6). There was a resultant drop in DTP coverage to around 30% and a resurgence of whooping cough that resulted in over 200,000 cases and at least seventy deaths (7, 8).

Thirdly, provision of separate vaccines would inevitably encourage some parents to pick which of the three vaccines they wanted for their child and would probably result in a decline in overall protection (3). This would undermine the scientific rationale of the MMR programme, which is to eliminate all three diseases; prevention of congenital rubella syndrome cannot be achieved by selective vaccination alone, as was shown in the 20 years before MMR was introduced. The prospect of parents opting for single antigen rubella for girls and mumps vaccine for boys is real.

The UK immunisation programme is internationally highly regarded, both because of its high coverage without compulsion and its innovative approach, as evidenced by the success of its recent meningococcal C conjugate vaccination programme. To succumb to unsubstantiated calls for provision of single antigen measles, mumps and rubella vaccines with its attendant risks and in the absence of any evidence of benefit over the combined MMR vaccine would be a major disservice to UK parents and to those in other countries who look to the UK to provide a rational approach to disease prevention (2).

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[Back to top](#)



NEWS



ENTERIC



RESPIRATORY



IMMUNISATION



HIV/STIs



BACTERAEMIA



ZOOSES



DIARY



BACK ISSUES



## Contents

[AIDS and HIV infection in the United Kingdom: monthly report – July 2001](#)

### **AIDS and HIV infection 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 Directors' Organisation)*

The United Kingdom (UK) HIV data set recorded 46,131 reports of HIV infected individuals between the beginning of AIDS reporting in 1982 and the end of June 2001; 68 of them were first reported from the Channel Islands or the Isle of Man. Twenty-six thousand three hundred and seventy-nine (57%) reports were of HIV infection only, and 17,993 (39%) were reported as having AIDS. Of the AIDS cases, 12168 (68%) had died. A further 2183 (5% of the total) had died without AIDS being reported. Included in the total will be reports of individuals who have left the country, and unrecognised multiple reports; 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.

By the end of June 2001, 3551 new diagnoses of HIV infection in 2000 had been reported (table 1). The annual totals have risen each year since 1994, for which year 2564 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; 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. It is known, however, that 531 of the 3551 diagnoses in 2000 were reported by clinicians only. There are some centres where clinicians have taken up reporting and for which laboratories have reported irregularly in the past; laboratory reports are no longer being actively sought in every case. It cannot be assumed, therefore, that all the 531 new diagnoses reported by clinicians only would have been previously unreported, though the introduction of clinician reporting at HIV diagnosis will have served to increase the numbers reported. Even without any of these reports, however, the annual total would have been the highest ever for diagnoses in the UK.

#### **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 an 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 those recorded in the 'undetermined' in recent years (table 1). Follow-up delay particularly affects allocation to the appropriate subcategory of those infected in the UK through exposure to heterosexually infected partners.

**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
	<1992	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001#	
Sex between men##	12770	1638	1497	1478	1467	1539	1383	1336	1311	1375	449	26243
Sex between men and women												
'High risk' (HR) partner+	383	88	85	69	68	64	75	67	40	34	10	983
Acquired abroad – no evidence of HR partner	1656	626	610	622	666	679	780	922	1145	1371	362	9439
UK acquired – no evidence of HR partner	175	56	65	94	97	75	127	120	130	120	32	1091
Undetermined	40	10	5	6	18	14	22	41	69	221	256	720
Sub total	2254	780	765	791	849	832	1004	1150	1384	1746	660	12215
Injecting drug use	2300	187	202	168	181	172	168	128	107	94	25	3732
Blood products eg for haemophilia	1333	4	4	2	–	2	2	2	1	1	1	1352
Blood/tissue transfer	163	19	13	15	19	18	25	7	16	19	4	318
Mother to infant	116	57	67	63	59	59	82	92	76	87	13	771
Other/undetermined	527	53	63	47	63	58	53	70	102	229	235	1500
<b>Total</b>	<b>19463</b>	<b>2738</b>	<b>2611</b>	<b>2564</b>	<b>2638</b>	<b>2680</b>	<b>2717</b>	<b>2785</b>	<b>2997</b>	<b>3551</b>	<b>1387</b>	<b>46131</b>

\* individuals with laboratory reports of infection, plus those with AIDS or death reports for whom no matching laboratory report has been received.

\*\*includes 68 individuals first reported from the Channel Islands or the Isle of Man. # reported in first six months of the year.

##includes 655 also exposed through injecting drug use.

+ history of heterosexual contact with bisexual man, injecting drug user, or person infected by blood product treatment or through blood /tissue transfer.

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

### Infections acquired through sex between men

Until the late 1990s sex between men (SBM) has remained the dominant route of transmission for those diagnosed in the UK 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 acquired abroad, usually by people who have acquired infection before coming to the UK. There is little evidence of any substantial change in the annual number of diagnoses of HIV infection acquired through SBM in recent years.

### 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 substantially more new diagnoses in this exposure category (1746) have been reported than for those exposed through sex between men (1375) for the year 2000. Sub-categorisation has been established for 1525 of the 1746 heterosexually acquired infections (table 1). Of the 1525, 1374 (90%) were categorised as infected abroad, mainly in Africa, and 120 (8%) as probably acquired within the UK from individuals themselves heterosexually infected. The number in the latter category particularly is likely to rise as follow-up is completed, as is the number of those infected through contact with a 'high risk' partner. Last year 61% of all the heterosexually acquired infections diagnosed were in females. This partly reflects the promotion of antenatal testing which has followed the Department of Health's introduction of targets to reduce mother to infant transmissions of infection (2) - of the 690 heterosexually infected women reported by clinicians, 137 (20%) were recorded as having been tested antenatally.

### Infections associated with injecting drug use

Diagnoses of HIV infections reported as due to injecting drug use have declined from around 200 in the early 1990s to around 100 in more recent years, although 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 HIV infections related to injecting drug use may not be maintained (3).

### HIV infections attributed to blood products or blood transfusion

There has been no transmission 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 for transfusion in the UK has been screened, and only two instances of infectious blood being passed for transfusion have been recorded 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 rigorous screening is not always possible.

### Stage of disease progression at HIV diagnosis

Among the information asked for in the clinician report of HIV diagnosis is the base-line CD4 count. From reports for diagnoses made in 2000 it is clear that HIV infection is being diagnosed at an earlier stage for those who acquired infection through SBM than for heterosexually infected females, with heterosexually infected males being diagnosed even later (table 2). It should be noted, however that even for those infected through SBM, half were not diagnosed until their CD4 count was 340 cells/ml or less, and only a quarter had a CD4 count of more than 553 at diagnosis.

**Table 2 Distribution of CD4 counts (cells/ml) at HIV diagnosis for diagnoses made in 2000, reported by clinicians by the end of June 2001**

How infection was probably acquired	CD4 count not known	CD4 count known	Median	Interquartile range
Sex between men and women				
Male	40	407	156	50-335
Female	71	619	240	100-420
Sex between men	41	738	340	126-553

### The UK distribution of new HIV diagnoses, AIDS cases and deaths in HIV infected individuals

London has been the source of over 60% of diagnoses both overall and in 2000, but the numbers of HIV diagnoses have been sustained throughout the 1990s in all regions of the UK (table 3a). In 2000 there was a rise in reported diagnoses of around 50% for both West Midlands and South East England reporting by clinicians may have contributed to these rises. Only in Scotland has there been a reduction since the mid-1980s, when the great majority of the infections associated with injecting drug use were diagnosed.

**Table 3a HIV infected individuals\* by year of first reported UK diagnosis and region or country of report: UK data to end of June 2001**

Country and region of diagnosis	Year of diagnosis of HIV infection											Total
	<1992	1992	1992	1994	1995	1996	1997	1998	1999	2000	2001#	
<b>England</b>												
Northern and Yorkshire	783	103	71	83	67	90	84	79	100	112	51	1623
North West	1082	172	143	140	173	178	145	174	197	218	42	2664
Trent	497	84	89	70	83	73	63	80	85	106	49	1279
West Midlands	606	83	83	75	96	60	97	106	91	136	28	1461
Eastern	462	90	83	60	76	55	75	86	91	167	77	1322
London	11711	1696	1624	1580	1680	1703	1715	1757	1921	2159	873	28419
South East	1619	230	227	236	174	227	222	209	227	354	148	3873
South West	638	85	69	109	86	77	91	100	95	96	30	1476
<b>England (total)</b>	<b>17398</b>	<b>2543</b>	<b>2389</b>	<b>2353</b>	<b>2435</b>	<b>2463</b>	<b>2492</b>	<b>2591</b>	<b>2807</b>	<b>3348</b>	<b>1298</b>	<b>42117</b>
<b>Wales</b>	<b>275</b>	<b>51</b>	<b>41</b>	<b>45</b>	<b>46</b>	<b>36</b>	<b>43</b>	<b>30</b>	<b>34</b>	<b>3444</b>	<b>14</b>	<b>659</b>
<b>Northern Ireland</b>	<b>95</b>	<b>12</b>	<b>12</b>	<b>14</b>	<b>12</b>	<b>16</b>	<b>9</b>	<b>9</b>	<b>14</b>	<b>18</b>	<b>5</b>	<b>216</b>
<b>Scotland</b>	<b>1667</b>	<b>131</b>	<b>167</b>	<b>144</b>	<b>144</b>	<b>159</b>	<b>165</b>	<b>150</b>	<b>141</b>	<b>140</b>	<b>63</b>	<b>3071</b>
<b>UK Total</b>	<b>19435</b>	<b>2737</b>	<b>2609</b>	<b>2556</b>	<b>2637</b>	<b>2674</b>	<b>2709</b>	<b>2780</b>	<b>2996</b>	<b>3550</b>	<b>1380</b>	<b>46063</b>
Channel Isles/Isle of Man	28	1	2	8	1	6	8	5	5	1	1	68

\* individuals with laboratory reports of infection plus those with AIDS or death reports for whom no matching laboratory report has been received.

# reported in the first six months of the year.

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

In contrast to the rising number of new diagnoses of HIV infection observed in recent years the number of diagnoses of AIDS has increased and then decreased (table 3b). The decrease is attributable to the effect of the introduction of highly active antiretroviral therapy (HAART) in delaying the onset of AIDS in those whose HIV infection was already recognised. A similar trend has been observed in all parts of the UK. The effect of HAART in reducing the numbers progressing to AIDS is influenced by the number of HIV infected individuals who are not diagnosed until too late in disease progression for the development of an AIDS defining condition to be averted.

**Table 3b AIDS cases by year of first reported UK diagnosis and region or country of report: UK data to end of June 2001**

Country and region of diagnosis	Year of diagnosis of HIV infection											
	<1992	1992	1992	1994	1995	1996	1997	1998	1999	2000	2001#	Total
<b>England</b>												
Northern and Yorkshire	257	53	71	65	53	53	45	27	37	36	10	707
North West	371	96	114	114	92	82	53	43	23	17	3	1008
Trent	129	53	60	55	38	61	34	35	30	34	9	538
West Midlands	158	35	41	49	55	44	33	19	29	44	4	511
Eastern	105	54	45	36	56	40	36	31	32	39	6	480
London	3997	969	1075	1148	1077	860	632	458	382	376	65	11039
South East	502	162	170	157	150	132	104	75	84	86	27	1649
South West	198	53	49	74	75	48	44	28	28	35	10	642
<b>England (total)</b>	<b>5717</b>	<b>1475</b>	<b>1625</b>	<b>1698</b>	<b>1596</b>	<b>1320</b>	<b>981</b>	<b>716</b>	<b>645</b>	<b>667</b>	<b>134</b>	<b>16574</b>
<b>Wales</b>	<b>94</b>	<b>15</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>20</b>	<b>11</b>	<b>13</b>	<b>13</b>	<b>6</b>	<b>2</b>	<b>262</b>
<b>Northern Ireland</b>	<b>31</b>	<b>8</b>	<b>9</b>	<b>12</b>	<b>13</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>91</b>
<b>Scotland</b>	<b>337</b>	<b>80</b>	<b>122</b>	<b>111</b>	<b>125</b>	<b>83</b>	<b>70</b>	<b>36</b>	<b>50</b>	<b>40</b>	<b>5</b>	<b>1059</b>
<b>UK Total</b>	<b>6179</b>	<b>1578</b>	<b>1784</b>	<b>1851</b>	<b>1764</b>	<b>1424</b>	<b>1064</b>	<b>767</b>	<b>715</b>	<b>718</b>	<b>142</b>	<b>17986</b>
Channel Isles/Isle of Man	5	-	1	-	-	1	-	-	-	-	-	7

# reported in the first six months of the year.  
Numbers, particularly for recent years, will rise as further reports are received.

During the last quarter there has been a major reconciliation of the data held at CDSC with that from the Office for National Statistics (ONS). ONS records have been computerised since 1993 and a file comparison of all ONS records of deaths at age less than 60, with surname replaced by its soundex code, has been made with CDSC records. This has resulted in about 300 further HIV related deaths which have occurred since ONS computerisation being identified and recorded in the UK HIV data set (table 3c). Despite the inclusion of these records the decline in deaths is still greater than the decline in AIDS cases. This is because HAART can be effective in delaying death even in those whose HIV infection is not recognised until they develop an AIDS defining condition.

**Table 3c Deaths of HIV infected individuals by year of first reported UK diagnosis and region or country of report: UK data to end of June 2001**

Country and region of diagnosis	Year of diagnosis of HIV infection											
	<1992	1992	1992	1994	1995	1996	1997	1998	1999	2000	2001#	Total
<b>England</b>												
Northern and Yorkshire	187	53	77	65	68	65	40	25	20	16	9	625
North West	282	69	103	103	98	91	38	34	29	24	7	878
Trent	96	46	51	44	69	35	36	27	23	22	8	457
West Midlands	116	42	50	55	68	47	40	19	22	22	9	490
Eastern	89	28	50	64	51	33	28	22	18	26	4	413
London	2480	725	867	948	930	824	349	248	235	195	56	7857
South East	389	108	172	177	172	144	80	53	46	44	13	1398
South West	146	45	52	71	72	68	41	17	15	16	10	553
<b>England (total)</b>	<b>3785</b>	<b>1116</b>	<b>1422</b>	<b>1527</b>	<b>1528</b>	<b>1307</b>	<b>1307</b>	<b>652</b>	<b>408</b>	<b>365</b>	<b>116</b>	<b>12671</b>
<b>Wales</b>	<b>72</b>	<b>16</b>	<b>25</b>	<b>27</b>	<b>27</b>	<b>19</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>9</b>	<b>4</b>	<b>223</b>
<b>Northern Ireland</b>	<b>27</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>72</b>
<b>Scotland</b>	<b>315</b>	<b>99</b>	<b>109</b>	<b>138</b>	<b>152</b>	<b>124</b>	<b>67</b>	<b>55</b>	<b>42</b>	<b>39</b>	<b>12</b>	<b>1152</b>
<b>UK Total</b>	<b>4199</b>	<b>1236</b>	<b>1563</b>	<b>1699</b>	<b>1717</b>	<b>1459</b>	<b>735</b>	<b>505</b>	<b>459</b>	<b>413</b>	<b>133</b>	<b>14118</b>
Channel Isles/Isle of Man	6	-	-	1	1	1	-	-	-	-	-	9

# reported in the first six months of the year.  
Numbers, particularly for recent years, will rise as further reports are received.

### Clinician reporting at HIV diagnosis

Since the beginning of 2000 clinicians in England, Wales, and Northern Ireland have been asked to report to CDSC all first UK diagnoses of HIV infection in patients aged over 14 years (1). Of the 3315 diagnoses in this category reported for the year 2000 by the end of June 2001, 2018 (61%) had been reported by clinicians (table 4). Sixty-six per cent of diagnoses made outside London, and 58% of those made in London, had been reported by clinicians. Methods of improving the level of clinician reporting are being sought, particularly for London. Clinician reports greatly enhance the quality of information available as exemplified by the information on CD4 count at diagnosis summarised in table 2. It is planned to provide detailed feed back to HIV/AIDS reporters and to consultants in communicable disease control in each health authority on all the diagnoses made locally in 2000 reported by the end of June 2001. It is hoped to give a national summary of the outcome of clinician reporting of HIV infections diagnosed in 2000 in CDR Weekly in September 2001.

**Table 4 Source of information (number [%]) for HIV infections diagnosed at age greater than 14 years for England, Wales, and Northern Ireland, in 2000 – reported by end of June 2001**

	Laboratory report only	Clinicians report only	Reported from both sources	Total number
<b>London</b>	878 (41)	258 (12)	962 (46)	2098
<b>Out of London</b>	419 (34)	273 (22)	525 (43)	1217
<b>Combined</b>	1297 (39)	531 (16)	1487 (45)	3315

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