



HIV/AIDS

World AIDS Day on 1 December provides an opportunity to review the epidemiology of HIV infection in the United Kingdom.

Surveillance of HIV infection is based on confidential voluntary reporting of cases by clinicians to the Communicable Disease Surveillance Centre (Colindale) and the Scottish Centre for Infection and Environmental Health. The latest AIDS/HIV quarterly surveillance tables for the quarter ending 30 June 2002 are now available on the PHLS website at

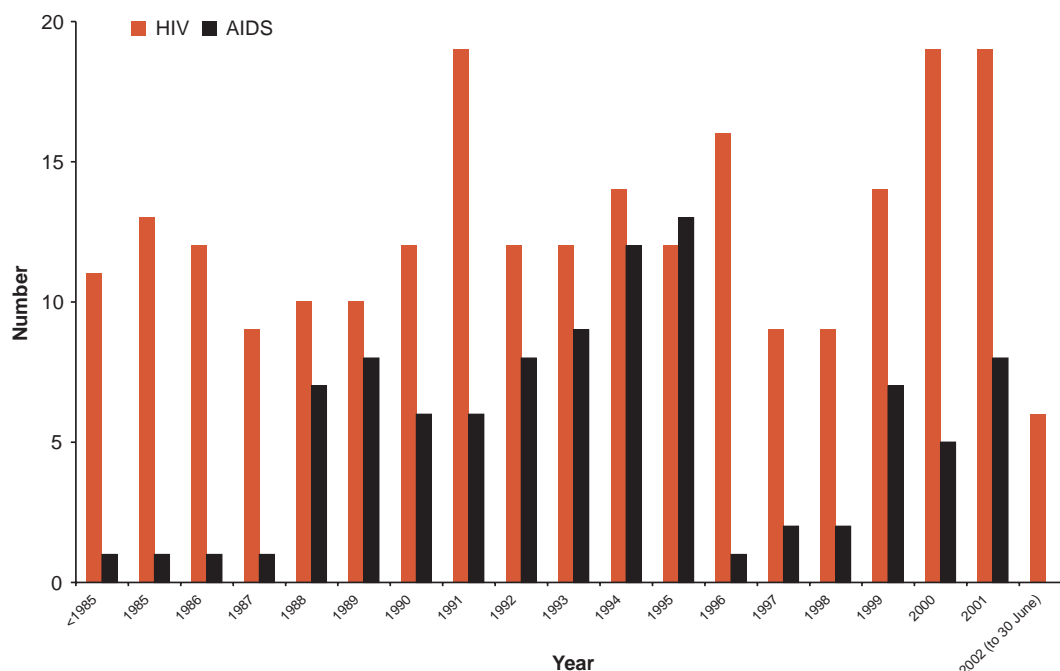
www.phls.org.uk/topics_az/hiv_and_sti/hiv/epidemiology/files/q0206.pdf. By 30 June 2002 51,013 HIV infected individuals had been reported within the United Kingdom since surveillance commenced in the 1980s, with 1,604 having been reported during the first 2 quarters of this year. Table 1 describes the number of HIV infected individuals and those with AIDS for England, Wales, Scotland and Northern Ireland. In England 67% of HIV infected individuals were first reported from the London region.

By 30 June there were 238 reports of HIV infected individuals[§] who were first diagnosed in Northern Ireland. This total excludes those

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initially diagnosed in Great Britain (GB) but who have returned to Northern Ireland and could be receiving treatment for their

Figure 1: HIV infected individuals[§] & AIDS cases by year of diagnosis, 1985-2002*, Northern Ireland



* 2002 data to 30 June

[§] Individuals with laboratory reports of infection plus those with AIDS or death reports for whom no matching laboratory report has been received.

Table 1: HIV infected individuals^s and AIDS cases by country to 30 June 2002

Country	HIV	AIDS
England	46787	17258
Wales	730	279
Scotland	3258	1117
Northern Ireland	238	98
United Kingdom	51013	18752

infection - these individuals are included in the GB total. Six reports were received during the first half of this year. Figure 1 describes the number of HIV infected individuals^s and AIDS cases by year of diagnosis since the start of HIV/AIDS surveillance.

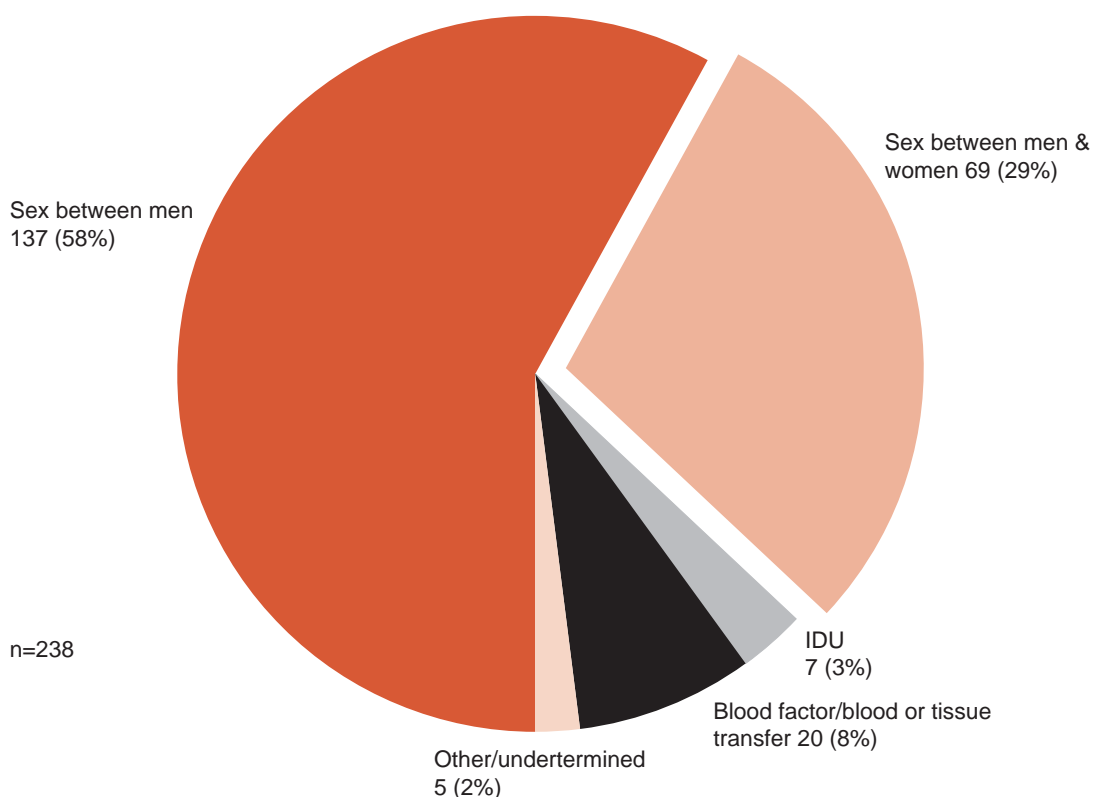
Since HIV surveillance commenced there have been between 9-19 new cases of HIV infection being

reported each year. However, the number of new reports of HIV infection has increased in recent years. In the three-year period 1996-98 there were 34 such reports compared to 52 reports between 1999 and 2001. The effect of enhanced anti-retroviral therapy introduced in 1996 has been to delay progression to AIDS in those who have had their HIV infection previously diagnosed. There have

been 98 AIDS cases diagnosed in the Province to 30 June 2002.

The main exposure category for HIV infection in Northern Ireland remains sex between men and this accounted for 137/238 (58%) reports; this proportion is very similar to that noted for the UK. Nevertheless, the proportion of cases in who acquired their infection through heterosexual intercourse is slowly increasing (27% by 31 December 2000, 28% by 31 December 2001, and 29% to 30 June 2002). Seven (3%) are thought to have acquired HIV infection through injecting drug use. However this number has shown little change in recent years despite a significant increase in injecting drug use in Northern Ireland. In Scotland 37% of HIV infected individuals are thought to have acquired their infection through injecting drug use.

Figure 2: HIV infected individuals^s by exposure category to 30 June 2002, Northern Ireland



^s Individuals with laboratory reports of infection plus those with AIDS or death reports for whom no matching laboratory report has been received.

Table 2: AIDS cases by exposure category in Northern Ireland to 30 June 2002

EXPOSURE CATEGORY	Male	Female	Total
Sexual intercourse; between men	55	-	55
between men & women	13	10	23
Injecting drug use	2	2	4
Blood/blood factor	12	1	13
Other/undetermined	2	1	3
Total	84	14	98

Table 3: HIV infected individuals^s and AIDS cases by year of diagnosis to 30 June 2002, Northern Ireland

NB: Numbers, particularly for recent years will rise as further reports are received. Tables will include some records of (a) the same individuals which are unmatchable because of the differences in the information supplied, and (b) of individuals who left the country at some date after diagnosis.

	1986 or earlier	1987	1988	1989	1990	1991	1992	1993	1994
HIV infected individuals ^s by year of HIV diagnosis	36	9	10	10	12	19	12	12	14
AIDS cases by year of AIDS diagnosis	3	1	7	8	6	6	8	9	12

	1995	1996	1997	1998	1999	2000	2001	2002*	Total
HIV infected individuals ^s by year of HIV diagnosis	12	16	9	9	14	19	19	6	238
AIDS cases by year of AIDS diagnosis	13	1	2	2	7	5	8	0	98

* 2002 data to 30 June

^s Individuals with laboratory reports of infection plus those with AIDS or death reports for whom no matching laboratory report has been received.

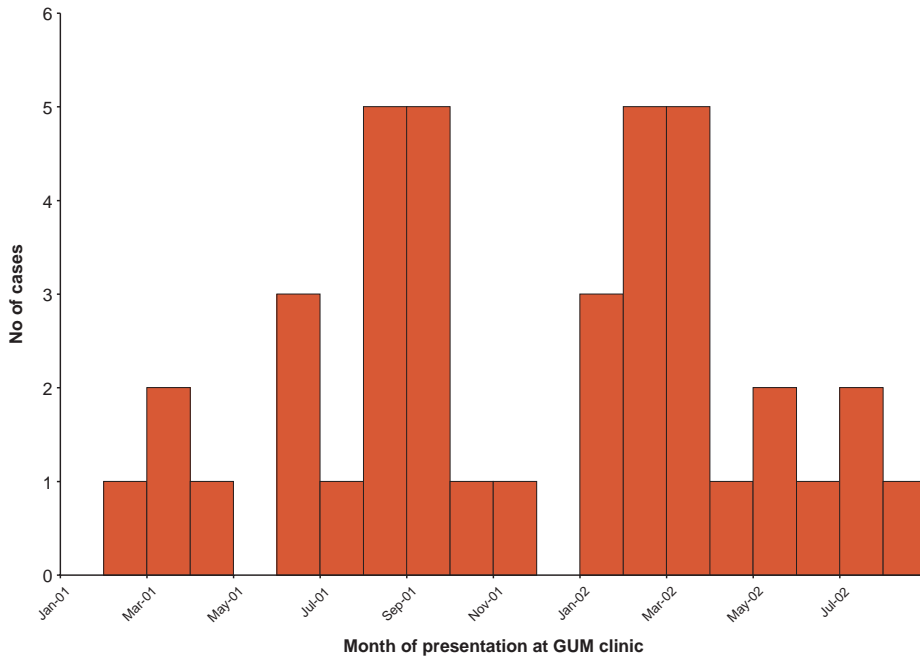
Ongoing Syphilis Outbreak in Northern Ireland

The re-emergence of syphilis has been documented in a series of recent outbreaks in the UK^{1,2,3}, Ireland⁴ and mainland Europe⁵, predominately affecting men who have sex with men (MSM). Three hundred and twenty three cases of infectious syphilis were reported between January 2000 and May 2002 in an ongoing outbreak in Dublin⁶. During the 1990s approximately 3 new cases of syphilis were diagnosed annually in Northern Ireland, but in September

2001 genitourinary medicine (GUM) physicians reported an increase in cases of infectious syphilis occurring in MSM. An Outbreak Control Team (OCT) chaired by the Eastern Health and Social Services Board was established, with 2 specialist sub-groups - one to advise on the epidemiology of the outbreak and the other to advise on appropriate interventions. Any case meeting the agreed criteria for primary, secondary or early latent syphilis

and diagnosed at any GUM clinic in Northern Ireland since 1 July 2000 was deemed to meet the epidemiological case definition. This outbreak has previously been mentioned in the Monthly Reports of November 2001 and March 2002 (available on www.cdscni.org.uk). By 30 September 2002, 41 cases met the case definition. All except three were male, and most (33) were men who have sex with men (MSM); two were bisexual. The mean age of the cohort was 36

Figure 3: 'Epidemic' Curve: month of presentation at GUM clinic (n=40)



One individual presented to the GUM clinic in February 2000 and is not included in the epidemic curve.

years, range 17-64 years. Cases have been reported from all four Health and Social Services Boards in Northern Ireland and 4 were non-Northern Ireland residents.

The current syphilis outbreak in Northern Ireland is primarily affecting MSMs, and the most common route of infection is via anal intercourse. However, as a substantial proportion of cases either reported that they acquired their infection orally, or were unable to discount this route, the need to reiterate the importance of condom use for oral sexual contact has been highlighted. Of the 33 MSMs, 13 (39%) reported that the likely route of infection was anal, whilst 10 (30%) reported that the likely route of infection was oral; 10 could not conclusively determine the likely route of transmission.

Ten cases were identified through contact tracing. Four of these were contacts of cases involved in the Dublin outbreak and six cases in the Northern Ireland outbreak were identified as a result of contact tracing from this outbreak. To date,

no case has been detected through antenatal screening. The stage of infection remains unconfirmed in 3 cases; 21 (51%) were diagnosed with primary syphilis, 10 (24%) with secondary syphilis, and 7 (17%) with early latent syphilis. The average time to diagnosis from date of onset of symptoms was 21 days and this has remained relatively constant to date.

Seven cases were HIV positive (6 of whom were previously aware of their status and 1 was diagnosed as part of the outbreak investigation); this is of particular concern as HIV transmission may be enhanced by syphilis co-infection. Almost half the cases were diagnosed with concomitant sexually transmitted infections (STIs).

Table 4: Number of sexual partners in the three months preceding diagnosis (n=40)

Total partners	1	2	3	>3	>10	>=50
Number of cases	12	16	4	8	4	2
Number of anonymous partners	0	1	2	>3	>10	>=50
Number of cases	17	9	5	3	6	4

In general, this cohort did not appear to be associated with multiple anonymous partners, although 12 individuals had only anonymous sexual contacts in this time period. Seventeen individuals had no anonymous partners.

Most (28) had either 1 or 2 sexual partners in the three months leading up to the diagnosis. One individual who estimated 65 anonymous partners in the three months prior to diagnosis was a commercial sex worker.

There were substantive links with the Dublin outbreak initially, but later cases were indigenous. Four cases were unable to determine exactly where they had acquired their infection.

Initiatives to raise awareness of the re-emergence of syphilis commenced in mid-October 2001 and are ongoing. As the cohort was not generally associated with a high number of sexual partners, or multiple anonymous partners, or specific locations, it was difficult to identify a target group within the general population to implement intervention strategies. However, the outbreak was identified promptly and a strong network of organisations is continuing to provide information and raise public and professional awareness. The challenge is to improve awareness of the long-term consequences of infectious syphilis and other STIs, and of the importance of prevention and early detection if at risk of infection.

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Figure 4: Concomitant STIs during this episode (n=18)

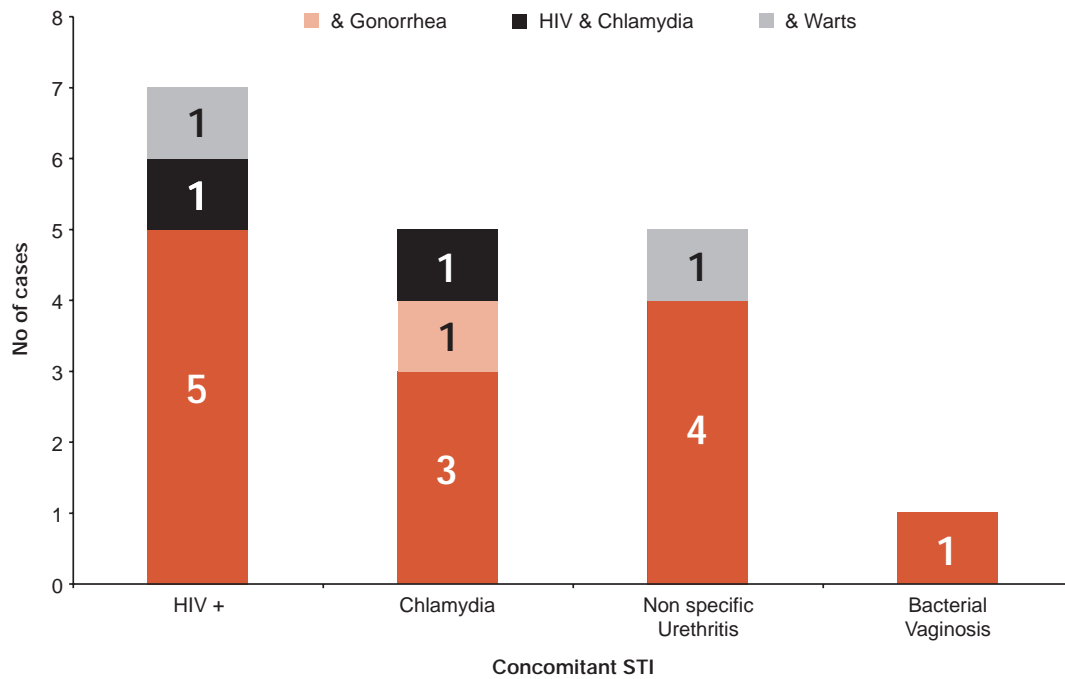
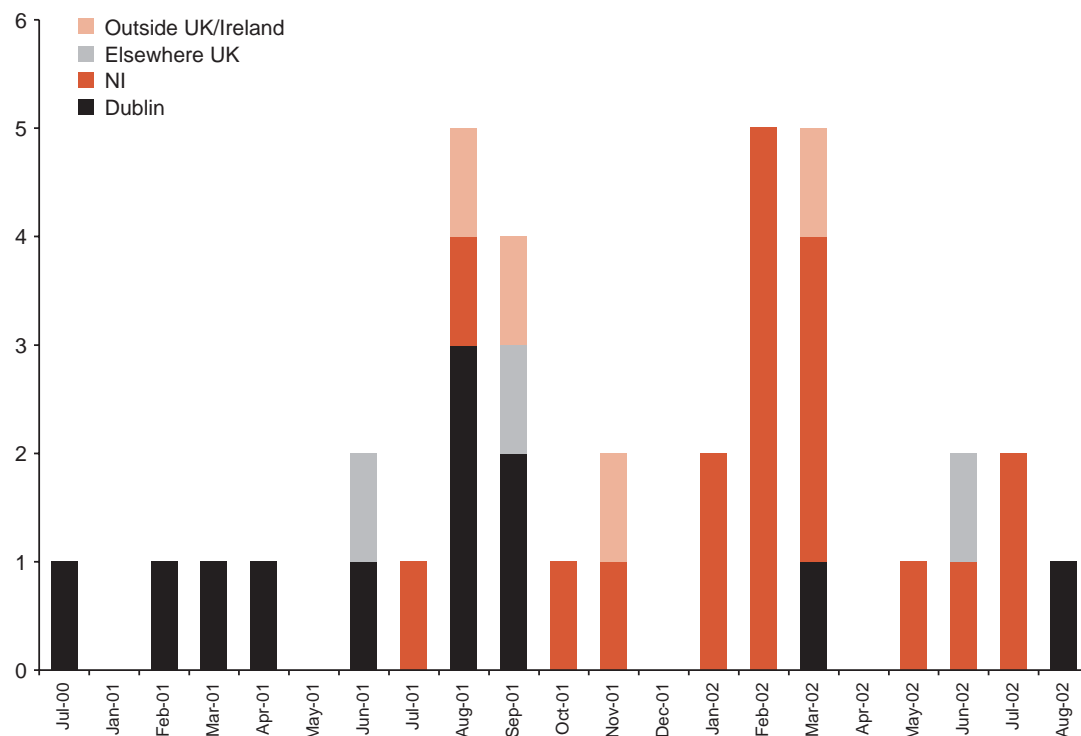


Figure 5: Trends in relation to location where infection was believed to have been acquired (n=37)



References

1. CDSC. Increased transmission of syphilis in Brighton and Greater Manchester among men who have sex with men. *Commun Dis Rep CDR Wkly* 2000; **10** (43).
2. CDSC. Syphilis continues to spread in Greater Manchester. *Comm Dis Rep CDR Wkly* 2001; **11** (15).
3. CDSC. Syphilis transmission among homosexual and bisexual men in London and Manchester. *Commun Dis Rep CDR Wkly* 2001; **11** (27).
4. Domegan L et al. Enhanced Surveillance of Syphilis. *Epi-Insight* 2002; **3** (7).
5. Doherty L et al. Evidence for increased transmission of syphilis among homosexual men and heterosexual men and women in Europe. *Eurosurveillance Wkly* 2000; **4**.

Enhanced surveillance of meningococcal disease

During the month of October, five cases of invasive meningococcal disease were notified through the ESMD scheme. Two of these have been identified as serogroup B. Both occurred in males, one aged 2 years and the other aged over 25 years. The three remaining cases are unconfirmed. No deaths due to meningococcal disease occurred during the month of October (see Table 7).

Between 1 January 2002 and 31 October 2002, CDSC (NI) received 103 notifications of invasive meningococcal disease through the enhanced surveillance of meningococcal disease (ESMD) scheme. Of these, sixty-six (64 %) were laboratory confirmed: 58 (88 %) were identified as serogroup B, 6 (9 %) as serogroup C and 2 (3 %) were ungrouped or identified as other serogroups. Two cases of serogroup C infection occurred in children aged under 18 years. The first child (aged 4 years) failed to attend for vaccination. The second child (aged 3 years) had been vaccinated 24 months prior to the onset of disease. This is the only incidence of vaccine failure in Northern Ireland since the implementation of the Men C vaccine campaign in November 1999 and has been reported previously (Monthly Report Vol 11 No 7). The remaining 4 cases of

serogroup C infection occurred in adults over 24 years of age who, under current guidelines, do not receive Men C vaccine. To date, 6 deaths have occurred. Three of these have been in children less than 2 years of age. All 3 cases presented with septicaemia and all were confirmed as having serogroup B infection.

These figures are lower than the same period last year, when 112 cases were notified and 5 deaths occurred. Sixty-five (68 %) cases were laboratory confirmed: 44 (68 %) were identified as serogroup B, 8 (12 %) as serogroup C and 13 (20 %) were ungrouped or identified as other serogroups. Five of the 8 cases of serogroup C infection occurred in adults over 24 years of age. The remaining 3 cases occurred in individuals aged under 24 years, none of whom had received Men C vaccine.

Case definitions for invasive meningococcal disease

Confirmed case: final clinical diagnosis of meningitis, septicaemia or other invasive disease and *at least one of the following:*

- *Neisseria meningitidis* isolated from blood, CSF or rash
- Gram negative diplococci in CSF
- Meningococcal DNA in blood, CSF or rash
- Meningococcal antigen in blood, CSF or urine
- >4 fold rise in IgG antibody to C polysaccharide

Probable case: final clinical diagnosis of meningitis, septicaemia or other invasive disease where meningococcal infection is considered the most likely diagnosis by the CCDC in consultation with the physician managing the case.

Meningococcal infection occurs most frequently between the months of November and March. Updates on disease activity will appear in Monthly Reports throughout the meningococcal season.

Table 5: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to October 2002

HSSB	Confirmed			Not confirmed	Total
	B	C	Other and ungrouped		
E	16	1	0	10	27
N	18	1	2	12	33
S	16	4	0	6	26
W	8	0	0	9	17
Total	58	6	2	37	103

Table 6: Meningococcal disease: case and death by age, Northern Ireland, January to October 2002

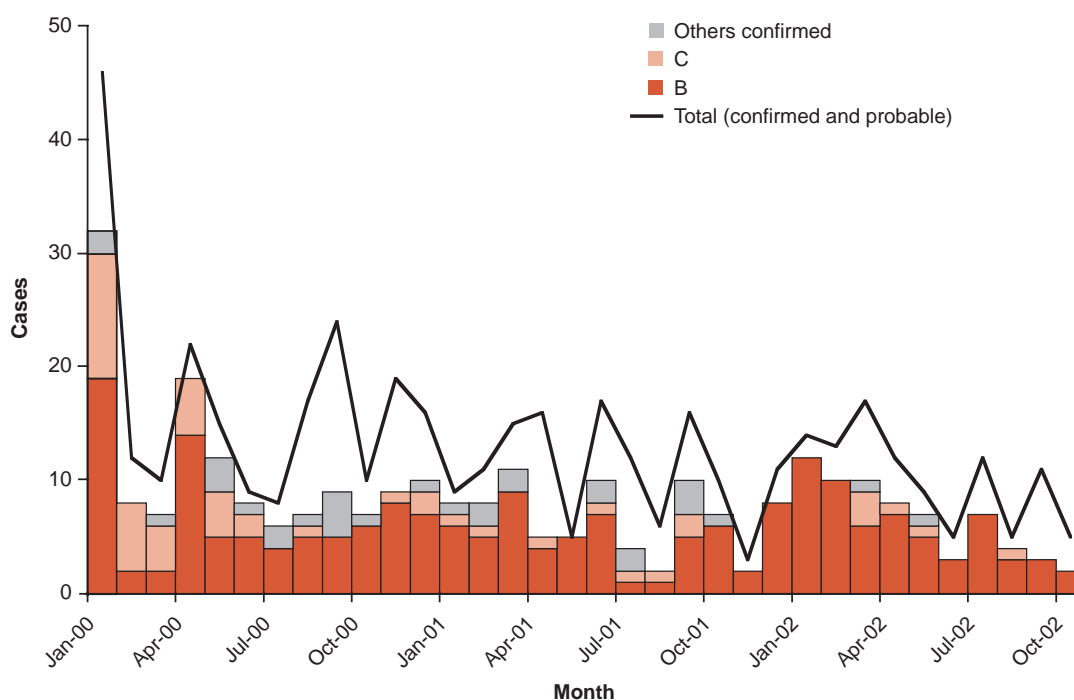
Age group	Confirmed			Not confirmed	Incidence per 100,000 population*	Death
	B	C	Other and ungrouped			
0-2	37	0	1	19	81.7	3
3-4	3	2	0	3	16.4	0
5-14	7	0	0	7	5.3	1
15-17	1	0	0	0	1.3	0
18-24	4	0	1	2	4.4	0
>24	6	4	0	1	1.0	2
?	0	0	0	5		0
Total	58	6	2	37	6.1	6

*age-specific incidence rate

Table 7: Meningococcal disease: case and death by age, Northern Ireland, for October 2002

Age group	Confirmed			Not confirmed	Total	Death
	B	C	Other and ungrouped			
0-2	1	0	0	1	2	0
3-4	0	0	0	0	0	0
5-14	0	0	0	1	1	0
15-17	0	0	0	0	0	0
18-24	0	0	0	0	0	0
>24	1	0	0	0	1	0
?	0	0	0	1	1	0
Total	2	0	0	3	5	0

Figure 6: Monthly cases of meningococcal disease from January 2000 to October 2002



Enhanced Surveillance of Influenza in Northern Ireland (ESINI)

Due to space restrictions in this issue, we are unable to publish a weekly analysis of 'flu activity in the Province. However, the current weekly 'flu bulletin is available on the CDSC NI website in the Latest Reports section of our homepage - www.cdscni.org.uk. If you would like to be added to the electronic bulletin distribution list, please advise Dr Hilary Kennedy of your email address - hkennedy@phls.org.uk.

Laboratory Reports

Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 37-40

Comment:

The following were associated with foreign travel:

Female, age 23, *Salmonella enteritidis*, Gran Canaria; Female, age 18, *Salmonella virchow*, Turkey.

Laboratory reports of *Clostridium difficile* toxin and *Clostridium perfringens* have increased by 9% and 25% respectively. Reports of Adenovirus, and Enterovirus have also increased. Sixty-one cases of SRSV were reported in this 4 week period and these were attributable to outbreaks in residential institutions.

Cumulative reports of *Salmonella* continue to decline with 194 confirmed cases reported to week 40 compared to 324 for the same period last year. Reports of *E coli* O 157 have decreased by almost 60% compared with the same surveillance period last year.

	Number of Reports received		Cumulative total	
	02/37-40	01/37-40	02/01-40	01/01-40
<i>Campylobacter</i>	44	63	589	709
<i>C. difficile</i> Toxin	28	24	280	255
<i>C. perfringens</i>	1	3	16	12
<i>E. coli</i> O157	3	10	18	44
<i>Salmonella</i> total	36	38	194	324
<i>S. enteritidis</i> (PT 4)	11 (5)	17 (1)	73 (21)	166 (88)
<i>S. typhimurium</i> (DT 104)	5 (2)	9 (1)	50 (14)	68 (16)
<i>Salmonella</i> other	20	12	71	90
<i>Shigella</i>	0	0	6	8
<i>Cryptosporidium</i> sp	6	9	106	348
<i>Giardia</i>	0	2	8	12
Adenovirus (faeces)	4	11	132	109
Enterovirus (faeces)	3	7	44	28
Rotavirus	2	11	328	409
SRSV	61	7	262	74

Salmonella (other than *enteritidis* or *typhimurium*):

<i>S. dublin</i>	1
<i>S. hadar</i>	1
<i>S. virchow</i>	1
<i>Salmonella.sp</i>	17

Contributing Laboratories

Allnagelvin	Mater
Antrim	Musgrave Park
Belfast City	Regional Mycology
Belvoir Park	Regional Virus
Causeway	Royal Victoria
Craigavon	Tyrone County
Daisyhill	Ulster
Erne	

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Monthly numbers are provisional and should not be used to indicate trends.

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