



HIV and AIDS

World AIDS Day on 1 December provides an opportunity to review the epidemiology of AIDS and HIV infection in Northern Ireland and the rest of 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 September 2003 are now available on the Health Protection Agency (HPA) website at http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/hiv/epidemiology/files/quarterly.pdf

By 30 September 2003 59,418 HIV infected individuals had been reported within the United Kingdom since surveillance commenced in the 1980s. Table 1 describes the number of HIV

infected individuals and those with AIDS for England, Wales, Scotland and Northern Ireland. In England 64% of HIV infected individuals were first reported from the London region.

Table 1: HIV infected individuals^s and AIDS cases by country to 30 September 2003

Country	HIV	AIDS
England	54 726	18 281
Wales	837	291
Scotland	3 580	1 173
Northern Ireland	275	106
United Kingdom	59 418	19 851

By 30 September there were 275 reports of HIV infected individuals^s who were first diagnosed in Northern Ireland. This total excludes those initially diagnosed in Great Britain (GB) but who have returned to Northern Ireland and could be receiving treatment for their infection - these individuals

are included in the GB total. To date, twenty four reports have been received for 2002, compared to 19 reports received in both 2000 and 2001 (an increase of 26%). There have been 18 reports received for the first three quarters of 2003. Figure 1 describes the number of HIV infected individuals^s and

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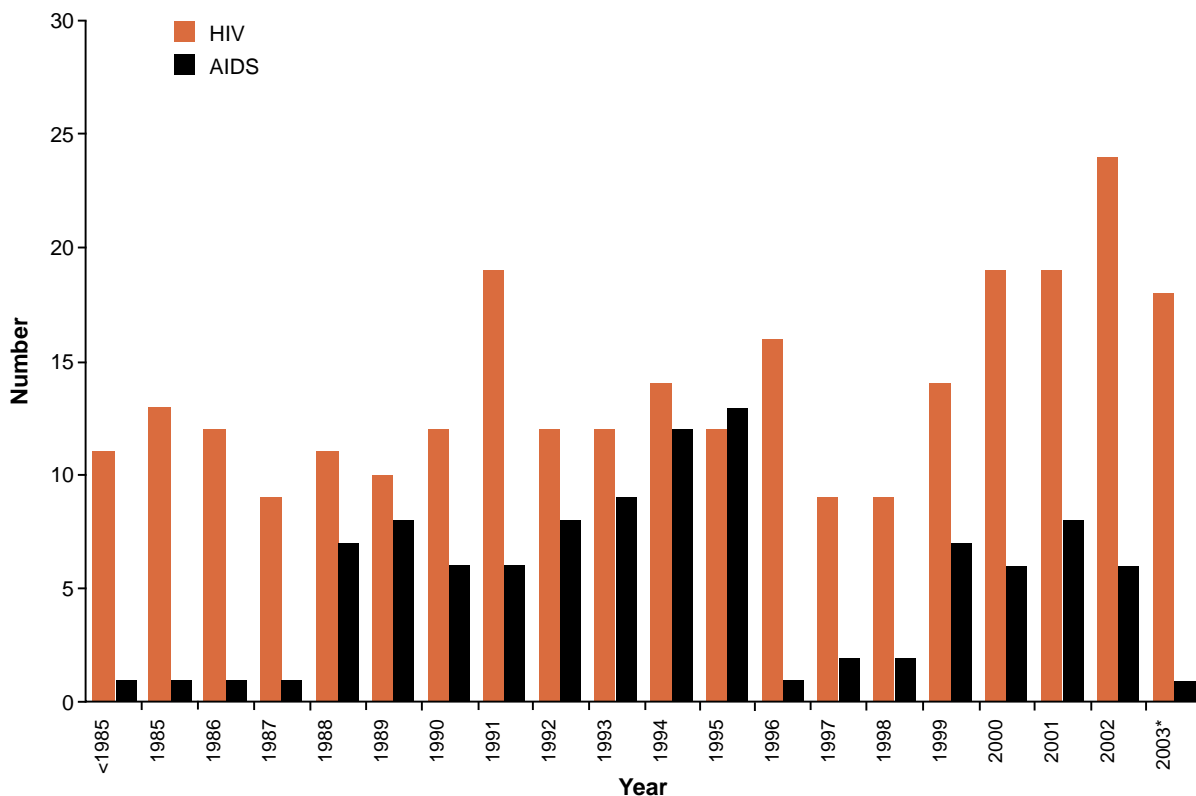
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AIDS cases by year of diagnosis since the start of HIV/AIDS surveillance.

Since HIV surveillance commenced there have been between 9-24 new cases of HIV infection being reported each year. However, the number of new reports of HIV infection has increased in recent years. The mean annual number of cases reported between 1988-2002 was 14 - last year saw the highest number of cases (24) reported in a single year since surveillance began.

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 106 AIDS cases diagnosed in the Province to 30 September 2003.

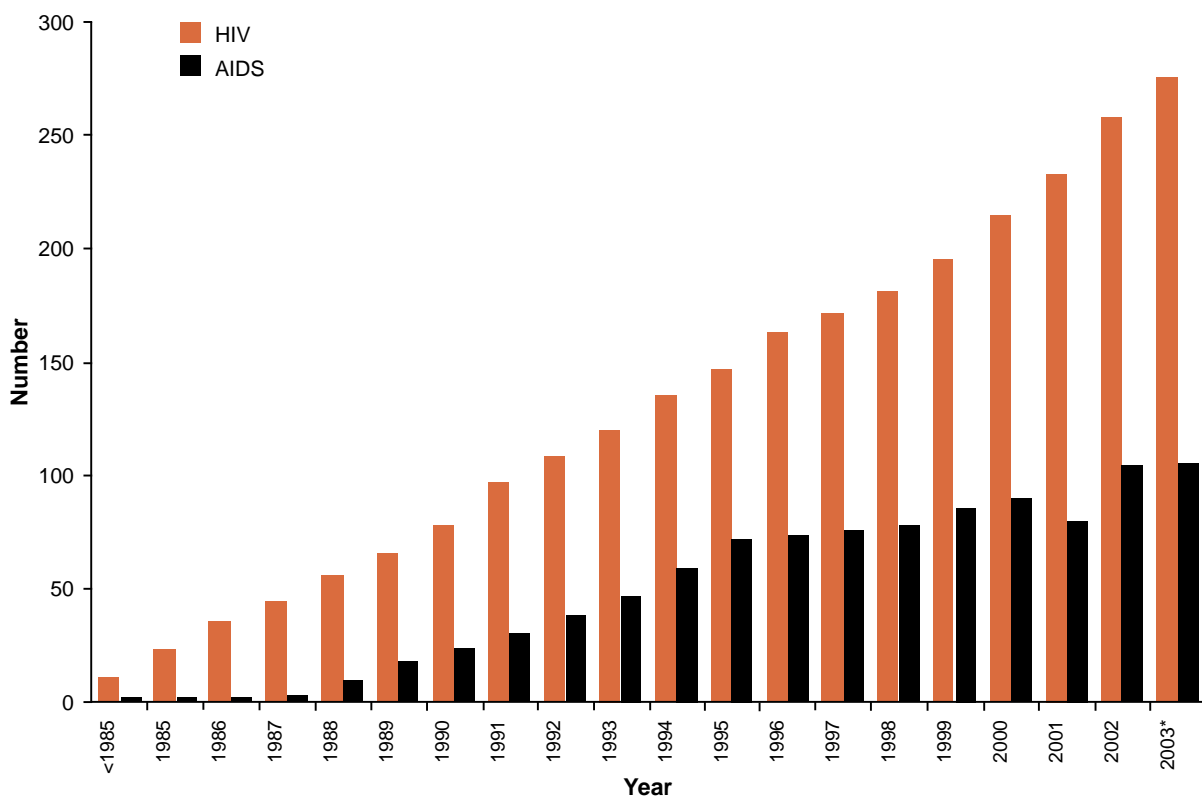
Figure 1: HIV infected individuals^s & AIDS cases by year of diagnosis, 1985-2003*, Northern Ireland



*2003 data to 30 September

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

Figure 2: HIV^s and AIDS cases: cumulative total by year of diagnosis, 1985-2003*, Northern Ireland



*2003 data to 30 September

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

On average, there have been 7 cases of AIDS diagnosed annually between 1988-2002. Fig 2 shows that whilst cumulative cases of HIV are increasing, cumulative cases of AIDS are increasing at a much lower rate.

There is an ongoing syphilis outbreak in Northern Ireland since 1 July 2000, predominately affecting men who have sex with men. To 30 September 2003, 75 individuals have been involved in

this outbreak, eight of whom were HIV positive.

Globally, the main exposure category for HIV infection is via heterosexual intercourse. The main exposure category for HIV infection in Northern Ireland remains sex between men and this accounted for 152/275 (55%) 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%, 28%, 29% by the end of 2000, 2001 and 2002 respectively, rising to 32% by 30 September 2003). Eight (3%) are thought to have acquired HIV infection through injecting drug use, and this number has shown little change in recent years. In the UK as a whole, the proportion of those HIV infected individuals thought to have acquired their infection through injecting drug use is 7%, but in Scotland this proportion is much higher - 34%.

Figure 3: HIV infected individuals^s by exposure category to 30 September 2003, Northern Ireland

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

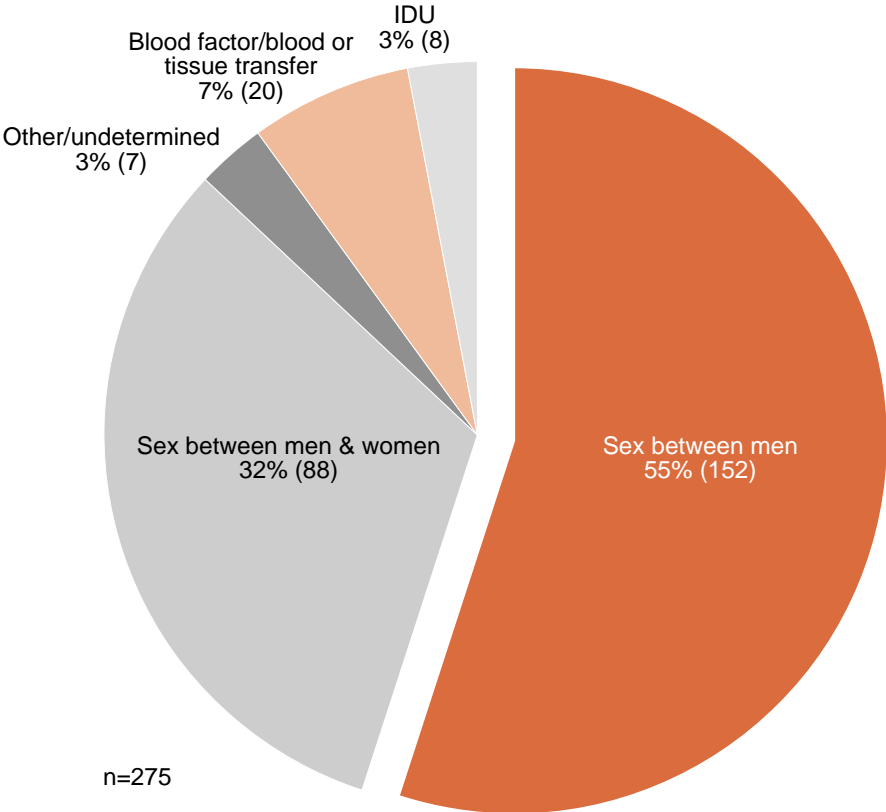


Table 2: AIDS cases by exposure category to 30 September 2003, Northern Ireland

Exposure category	Male	Female	Total
Sexual intercourse:			
between men	59		59
between men & women	15	11	26
Injecting drug use	2	2	4
Blood/blood factor	12	1	13
Other/undetermined	2	2	4
Total	90	16	106

Update on Ongoing Syphilis Outbreak in Northern Ireland

The re-emergence of syphilis has been documented in a series of recent outbreaks throughout Europe. Between 1999 and 2001 there have been outbreaks in Brighton, Manchester¹ and London² predominately affecting men who have sex with men (MSM). The outbreaks in Oslo³, Dublin⁴ and Antwerp⁵ were associated with anonymous sexual contact in gay saunas.

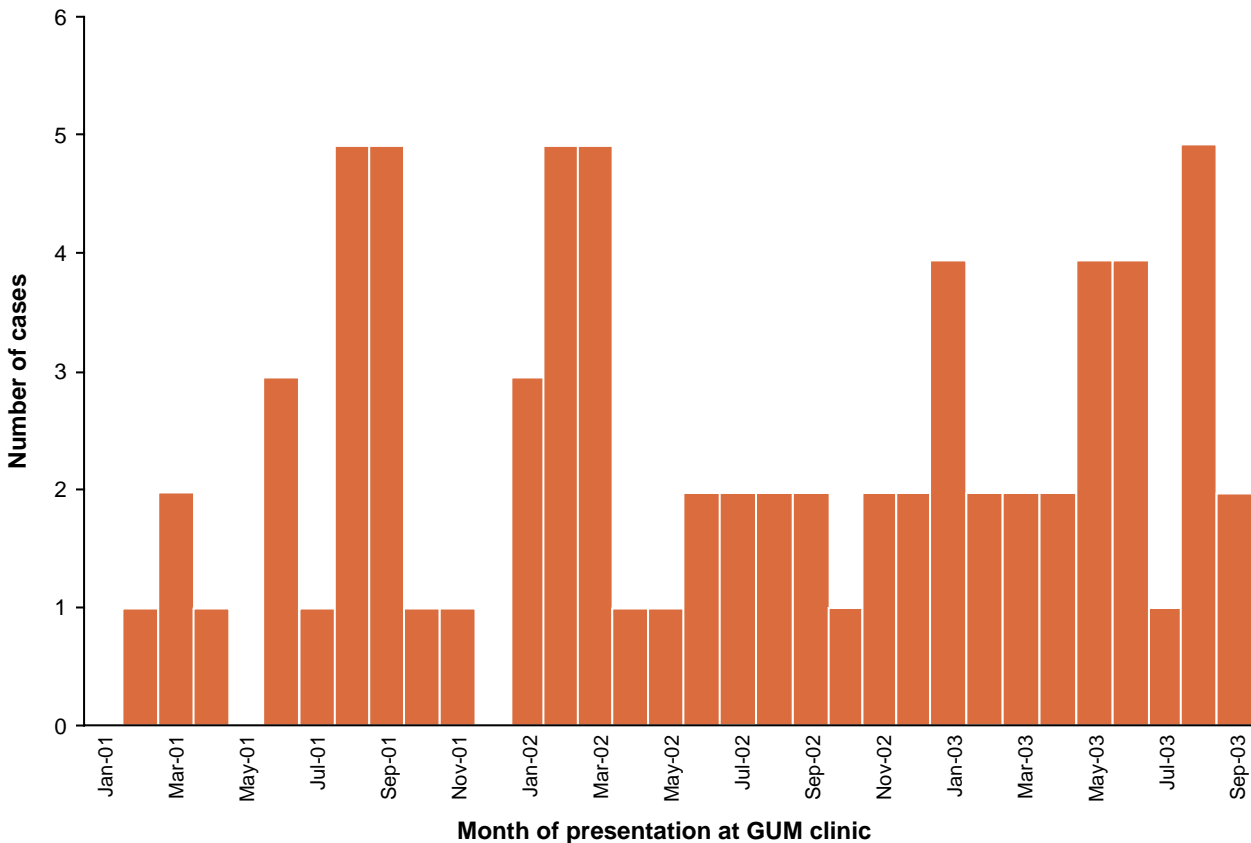
During the 1990s approximately 3 new cases of syphilis were diagnosed annually in Northern Ireland, but in September 2001 genitourinary medicine (GUM) physicians reported an increase in cases of infectious syphilis

occurring in MSM leading to the establishment of an Outbreak Control Team (OCT). 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.

Seventy five cases have been reported to 30 September 2003, with 8 presenting during the July-September quarter. All except six were male, and most (61) were men who have sex with men (MSM); three of whom were bisexual. The mean age of the cohort was 36 years, range 17-64 years. Cases were resident in all four boards in Northern Ireland and 5 were non-Northern Ireland residents.

Figure 3: Epidemic Curve: month of presentation at GUM clinic (n=74)



One individual presented to the GUM clinic in February 2000 and is not included in the epidemic curve, 20 in 2001, 28 in 2002 and 26 during the first 3 quarters of 2003.

Most people cited more than one reason for attending the GUM clinic. The majority of cases presented because they were symptomatic for syphilis or another sexually transmitted disease (STI). Fifteen cases were identified through contact tracing; four of these were contacts of cases

involved in the Dublin outbreak, and eleven cases were identified as a result of contact tracing from this outbreak. One case was a pregnant woman identified through antenatal screening and her partner was subsequently identified through contact tracing. Two cases, a bisexual male and a heterosexual

female, who were sexual partners were identified by the Northern Ireland Blood Transfusion Service.

Thirty one cases were diagnosed with primary syphilis, 20 with secondary syphilis, 14 with early latent syphilis and staging was unable to be confirmed in 10 cases.

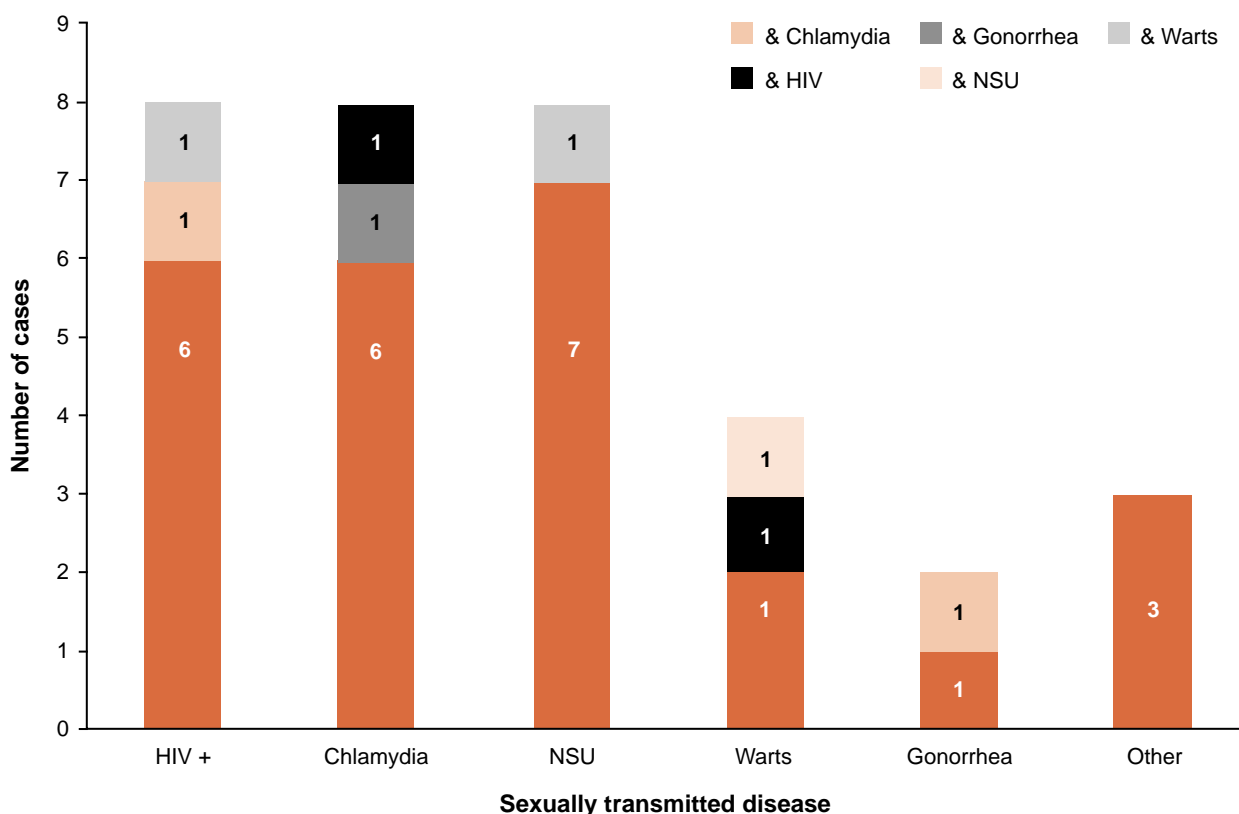
High risk behaviour

None of the 75 cases admitted to intravenous drug use, and in general, the number of sexual contacts associated with this cohort is not large. Most (52) had 1 or 2 partners in the three months preceding infection, although one, a commercial sex worker had between 60 and 70. Only one of the

cases was a commercial sex worker (CSW), and none of the other cases admitted contact with a commercial sex worker in the three months preceding diagnosis. The CSW was also HIV positive and worked in both Northern Ireland and Republic of Ireland. Twenty nine cases had concomitant sexually transmitted

infections (STIs), and of these, four had two STIs in addition to syphilis infection. Eight cases were HIV positive (7 of whom were previously aware of their status). This is of particular concern as HIV transmission may be enhanced by syphilis co-infection.

Figure 4: Concomitant STIs during this episode (n=29)



The 3 concomitant STIs categorised as 'other' were balanitis, bacterial vaginosis (BV), and scabies together with thrush. NSU - non-specific urethritis

None of the heterosexuals (6 females, 8 males) considered anal intercourse as the likely route of their infection. Nine considered that vaginal intercourse was the most likely route of infection, but five were unable to determine whether their infection was more likely to have been acquired via oral or vaginal intercourse. Data on consistency of condom use in the six months prior to presentation is available for nine of the heterosexuals. The majority (7/9) never used a condom for either vaginal or oral intercourse, one always used a condom for vaginal intercourse but never for oral intercourse, and one sometimes used a condom for vaginal intercourse and had not indulged in oral intercourse in the previous six months.

Three of the MSMs were bisexual, but none considered that their

infection had been acquired via vaginal intercourse. Data on the most likely of infection was available for sixty of the MSMs. Twenty eight considered that oral intercourse was the most likely route of infection and fourteen considered that anal intercourse was the most likely route. Eighteen could not determine whether their infection was more likely to have been acquired via oral or anal intercourse. Data on consistency of condom use in the six months prior to presentation is available for 28 of the 61 MSMs. Four of those who always used a condom and eight of those who sometimes used a condom for anal intercourse, never used one for oral intercourse. Six individuals always used a condom for anal intercourse, but only sometimes for oral intercourse. Two individuals used condoms sporadically for both anal and oral intercourse and six individuals

never used a condom for any kind of sexual activity during the previous six months.

Of the twenty nine individuals who had concomitant STIs, data on consistency of condom use is available for fourteen. Three of these were HIV positive and previously aware of their status, and four others were aware that they had an STI. Of these seven individuals, one stated that a condom was never used for any kind of sexual activity, and three others stated that a condom was never used for oral intercourse and only sometimes for anal intercourse.

Individuals diagnosed at the beginning of the outbreak reported sexual contacts in Dublin whereas individuals presenting more recently appear to have contracted syphilis within Northern Ireland.

Table 3: Likely location at which infection was acquired (n=75)

Dublin	N Ireland	Elsewhere in UK	Outside British Isles	Unknown
14	37	6	8	10

Of the eight cases who believed they were infected outside the British Isles, two were infected in Holland, one in the USA, one in Spain, two in Gran Canaria, one in Ibiza - but the contact was a Dublin resident - and the other was infected in Dusseldorf.

Three cases have had more than one episode of infection since the outbreak began in July 2000. Two cases have had 2 episodes of infection while the third individual has had three episodes of 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 syphilis outbreak questionnaire was not designed to analyse perceptions of what constitutes 'safe sex', but the data collected suggests that oral sex may be perceived as being less risky than anal sex, and condoms are not always used even when the subject is aware that they have an STI. This highlights the need to reiterate the importance of using a condom for oral sex. The challenge is to

raise awareness of sexual health issues, particularly in the heterosexual community, and to educate the sexually active population about the long-term consequences of infectious syphilis and other STIs, and of the importance of prevention and early detection if at risk of infection.

For further information contact Ms Audrey Lynch at CDSC (NI) or e-mail audrey.lynch@hpa.org.uk.

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 transmission among homosexual and bisexual men in London and Manchester. *Commun Dis Rep CDR Wkly* 2001; 11 (27).
3. Blystad et al. An outbreak of syphilis among homosexual men in Oslo, Norway. *Eurosurveillance Weekly* 1999; 47.
4. Domegan L et al. Enhanced Surveillance of Syphilis. *Epi-Insight* 2002; 3 (7).
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Enhanced Surveillance of Influenza in Northern Ireland (ESINI)

Enhanced surveillance of influenza in Northern Ireland (ESINI) for the 2003-04 season commenced on 27th September 2003 (Week 40). Surveillance arrangements for this winter have been described previously (Monthly Report Vol 12 No 9).

Clinical Data

From Week 40 to Week 44 inclusive, a total of twenty-one cases of clinical 'flu have been reported under the ESINI scheme. Between Week 40 and Week 44, GP

consultation rates for 'flu-like illness have been rising sharply and, for the time of year, are very much higher than those observed during any of the three previous years of the ESINI scheme. Co-Op call rates from Week 40 to Week 44 are also consistently higher than those of previous years.

Virological Data

Between Week 40 and Week 44 there have been a total of 20 influenza A virus detections in Northern Ireland. Thirteen originated from swabs submitted by

sentinel GPs and eight originated from hospitalised patients. All have been identified as influenza A H3 and one has been further characterised as influenza A/Fujian 411/2002 (H3N2)-like. The majority of those affected, whether seen by their GP or hospitalised, have been babies, young children and young adults. As there has been very little 'flu in circulation over the past few years the opportunity for development of immunity has been restricted. Illness in these age groups is, therefore, not unexpected.

Figure 1: Combined consultation rates for influenza and 'flu-like illness (FLI) in General Practice, Northern Ireland

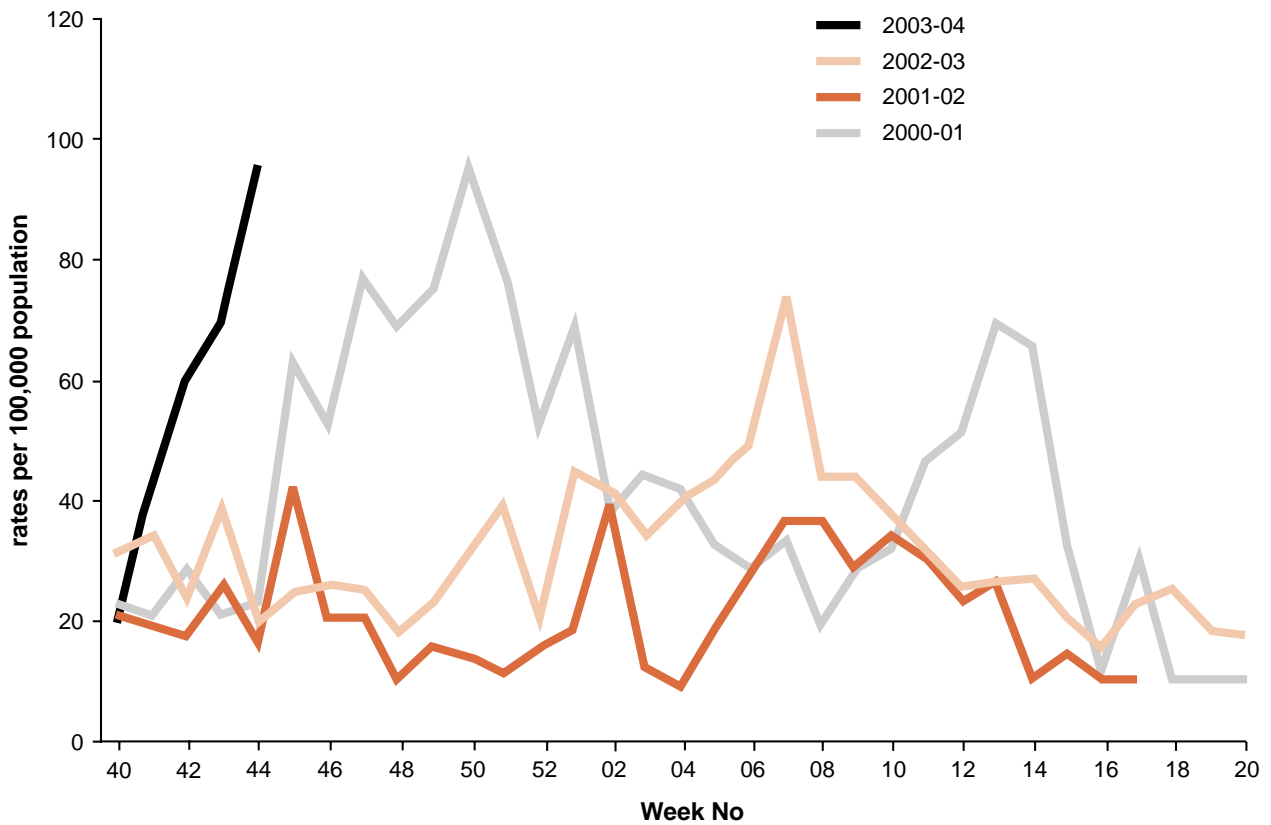
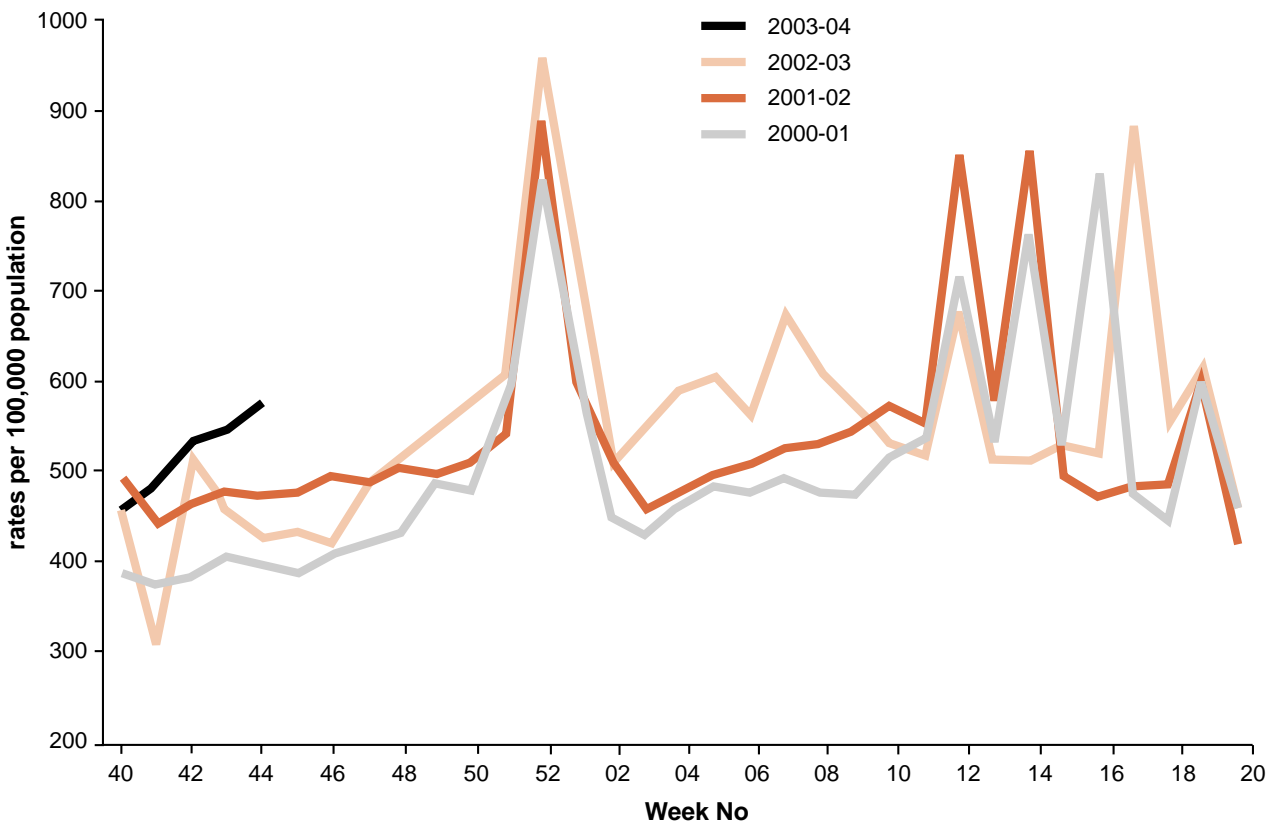


Figure 2: Total call rate for GP Co-Operatives, Northern Ireland



Although Influenza A is now circulating across the UK and Republic of Ireland, the number of laboratory confirmed cases still remains low. There are also several other respiratory viruses circulating currently (adenovirus, rhinovirus, parainfluenza 2, parainfluenza 3 and RSV), which may, in part, be responsible for the observed increased rates in 'flu-like illness. It is, therefore, still too early to predict what the incidence of influenza A infection will be in the coming weeks.

Weekly Influenza Bulletin

An Influenza Bulletin is issued each week during the 2003-04 season (Week 40 of 2003 to Week 20 of 2004). This is circulated to the Department of Health, Social Services and Public Safety, Boards and Trusts, participating GP practices and Co-Operatives, and other national influenza surveillance centres. If you wish to be added to the mailing list for this bulletin, please contact Dr Hilary

Kennedy on 028 90 263765 or by email hilary.kennedy@hpa.org.uk. Alternatively, current bulletins are posted on the website <http://www.cdscni.org.uk> and may be downloaded directly from there.

In April 2002, Northern Ireland was admitted to the European Influenza Surveillance Scheme (EISS) as an associate member. Data, on the incidence of influenza throughout Europe, may be accessed via the EISS website <http://www.eiss.org>.

Monthly Surveillance Figures for Creutzfeldt-Jakob Disease

Table 4 shows surveillance figures for definite and probable cases of Creutzfeldt-Jakob disease (CJD) in the United Kingdom up to 6 October 2003. To date in 2003, there have been 114 referrals to the

CJD Surveillance Unit with 16 confirmed as vCJD.

While this version of the table does not show figures for years prior to 1995 (the first year for which there

are vCJD confirmations), a more extended version can be accessed on the Department of Health website (http://www.doh.gov.uk/cjd/cjd_stat.htm).

Table 4: Deaths of definite and probable CJD cases in the UK from 1995 to 6 October 2003

Year	Referrals for investigation	Deaths					vCJD Probable still alive
		Sporadic	Iatrogenic	Familial	GSS*	vCJD confirmed	
1995	87	35	4	2	3	3	-
1996	134	40	4	2	4	10	-
1997	161	60	6	4	1	10	-
1998	154	63	3	4	1	18	-
1999	170	62	6	2	0	15	-
2000	178	49	1	2	1	28	-
2001	179	57	3	3	2	20	-
2002	163	73	0	4	1	17	-
2003	114**	43	4	1	1	16	6
Total	-	-	-	-	-	137	-

*Gerstmann-Straussler-Scheinker syndrome

**As at 6 October 2003

Enhanced surveillance of meningococcal disease

During the month of October 2003, three cases of invasive meningococcal disease were notified through the ESMD scheme. Two of these have been identified as serogroup B and occurred in children aged 2 years or under. The serogroup in the remaining case has not yet been determined. No deaths due to meningococcal disease occurred during the month of October.

Between 1 January 2003 and 31 October 2003, CDSC (NI) received 92 notifications of invasive meningococcal disease through the enhanced surveillance of

meningococcal disease (ESMD) scheme (Table 1), eleven fewer than for the same period last year. To date, 66 of these 92 notifications (72%) have been laboratory

confirmed: 57 (86.5%) were identified as serogroup B, 3 (4.5%) as serogroup C and 6 (9%) were ungrouped or identified as other serogroups. To date, there have been two deaths due to meningococcal disease. Both occurred in children aged 2 years or under who presented with septicaemia and had serogroup B infection.

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. As influenza is circulating within

Northern Ireland at present and rates of 'flu-like illness are higher than in previous years, there is a possibility that the incidence of meningococcal infection will

increase also. Updates on disease activity will appear in Monthly Reports throughout the meningococcal season.

Table 1: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to October 2003

HSSB	Confirmed			Not confirmed	Total
	B	C	Other and ungrouped		
E	12	0	1	6	19
N	28	0	4	5	37
S	12	2	0	5	19
W	5	1	1	10	17
Total	57	3	6	26	92

Laboratory Reports

Reports of Positive blood cultures: Laboratory Reports, Weeks 01-40

	2003/01-40	2002/01-40
Gram negative bacteria		
<i>Acinetobacter</i> sp	29	29
<i>Aeromonas</i> sp	2	5
<i>Brucella</i> sp	8	17
<i>Campylobacter</i> sp	1	5
<i>Citrobacter</i> sp	20	8
<i>Enterobacter</i> sp	56	51
<i>Escherichia coli</i>	456	451
<i>Haemophilus influenzae</i>	13	17
<i>Haemophilus</i> sp	2	0
<i>Klebsiella</i> sp	124	106
<i>Legionella</i> sp	0	1
<i>Leptospira</i>	0	1
<i>Neisseria meningitidis</i>	54	56
<i>Neisseria</i> sp	1	2
<i>Proteus</i> sp	69	53
<i>Providencia</i> sp	4	3
<i>Pseudomonas aeruginosa</i>	49	56
<i>Pseudomonas</i> sp	33	40
<i>Salmonella</i> sp	6	3
<i>Serratia</i> sp	54	39
Other gram negative bacteria	25	26
Totals	1006	969
Gram positive bacteria		
Corynebacterium sp & Diphtheroids	8	20
Staphylococci:		
<i>S. aureus</i>	391	365
coagulase negative	235	278
Streptococci and enterococci:		
group A	24	19
group B	37	32
group C	2	6
group G	7	3
<i>Enterococcus</i> sp	135	156
α- and non-haemolytic	49	73
<i>S. pneumoniae</i>	121	106
Other gram positive bacteria	12	19
Totals	1022	1077
Anaerobic bacteria		
Anaerobic cocci	3	4
<i>Bacteroides</i> sp	39	38
<i>Clostridium</i> sp	24	32
Other anaerobic bacteria	1	6
Totals	67	80
Grand Total	2095	2126

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

	Number of Reports received		Cumulative total	
	03/37-40	02/37-40	03/01-40	02/01-40
<i>Campylobacter</i>	56	56	582	651
<i>C. difficile</i> Toxin	78	71	721	721
<i>C. perfringens</i>	1	1	16	17
<i>E. coli</i> O157	13	4	35	22
<i>Salmonella</i> total	27	40	174	207
<i>S. enteritidis</i> (PT 4)	11 (2)	14 (5)	71 (13)	79 (21)
<i>S. typhimurium</i> (DT 104)	5 (1)	9 (2)	37 (8)	60 (15)
<i>Salmonella</i> other	11	17	66	68
<i>Shigella</i>	1	0	11	6
<i>Cryptosporidium</i>	9	7	126	114
<i>Giardia</i>	1	0	14	10
Adenovirus (faeces)	20	5	105	144
Enterovirus (faeces)	2	3	24	44
Rotavirus	8	5	547	364
SRSV	2	64	102	264

Comment:

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

- S. bredeney* 1
- S. typhi* 1
- S. unnamed* 6
- S. spp* 3

The following was associated with foreign travel:

Unknown sex, age 1 year, Adenovirus, Spain; Female, age 5 years, *Cryptosporidium*, Majorca; Female, age 20 years,

Cryptosporidium, Spain; Female, age 48, *C. difficile* Toxin, Spain; Male, age 46 years, *C difficile* Toxin, Spain; Female, age 2 years, *Giardia Lamblia*, RoI; Female, age 9 years, *Salmonella* sp, Spain; Male, age 29 years, *Salmonella* sp, Lanzarote; Male, age 45 years, *Salmonella* sp, Spain; Male, age 3 years, SRSV, Spain.

Laboratory reports of *E Coli* O 157 and *Shigella* have increased by 59% and 83% respectively. Thirteen cases of *E Coli* O 157 were reported in the 4 week period and 11 of these were attributable to an outbreak in a nursery school in

Antrim. Reports of *Giardia* and Rotavirus have also increased.

Cumulative reports of *Salmonella* continue to decline with 174 confirmed cases reported to week 40 compared to 207 for the same period last year. Reports of *S. enteritidis* and *S. typhimurium* have also declined by 10% and 38% respectively.

Reports of *Campylobacter*, *C. perfringens*, Adenovirus, Enterovirus and SRSV continue to exhibit a decline compared with the same period last year.

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

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