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Each year, around the time of World AIDS Day, we publish an epidemiological overview of sexually transmitted infections (STIs) in Northern Ireland. This year's review is published in a supplement to this report. The upward trend in reports of some of the major STIs continues with the number of newly diagnosed patients with HIV first reported in the UK from Northern Ireland nearly doubling in 2004. Many of these trends are similar to those described elsewhere in the UK though, in general, rates of STI are lower in Northern Ireland.

The weekly seasonal 'flu surveillance bulletin containing all the relevant monitoring indices has recommenced and is published each Wednesday. So far this autumn all the indices of respiratory viral infection are low and GP consultation rates for 'flu and 'flu-like illness are within expected ranges. Work continues to further develop surveillance arrangements as part of pandemic preparedness.

The seasonal increase in meningococcal infection is now due and increased meningococcal activity is expected over the next two to three months. Overall meningococcal activity this year is similar to that in 2004. It is noteworthy there have been no reports of meningococcal Group C infection this year reflecting the continuing individual and population impact of the MenC immunisation programme. Should there be significant influenza A activity this winter this might be followed by an increase in meningococcal infection.

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HIV and Sexually Transmitted Infection (STI) surveillance in Northern Ireland

December 1 was World AIDS day and this provides a good opportunity to review the epidemiology of HIV and STIs in Northern Ireland, for 2004.

Compared with 2003

- New cases of HIV infection whose first UK diagnosis was made in Northern Ireland in 2004 have increased by 98% to 63 cases
- New diagnoses of chlamydia in 2004 have increased by 10.5% to 1,446 cases
- New diagnoses of infectious syphilis have increased by 320% to 42 cases

A more detailed statistical report from the HIV/STI surveillance systems is presented in a supplement to this Monthly Report, available at www.cdscni.org.uk

Enhanced Surveillance of Influenza in Northern Ireland (ESINI)

Enhanced surveillance of influenza in Northern Ireland (ESINI) for the 2005-06 season commenced on 01 October 2005 (Week 40). Surveillance arrangements for this winter have been described previously (Monthly Report Vol. 14 No. 9).

Clinical data

From Week 40 to Week 43 inclusive, a total of 154 cases of 'flu-like illness have been reported across the 24 sentinel GP practices which participate in the ESINI scheme. No cases of clinical 'flu have been reported. Overall, GP consultation rates for 'flu and 'flu-like illness have been at the level expected for the time of year. Out-of-Hours Centres call rates from Week 40 to Week 43 are also in accordance with those of previous years.

Virological data

Since the 2005-06 season commenced, there have been no influenza virus detections in Northern Ireland; either from sentinel GP swabs or from hospitalised patient samples. Numbers of detections of other respiratory viruses, such as RSV, are also low at present.

Influenza surveillance using sentinel community pharmacies

Data provided for the 2005-06 season to date show that sales of paediatric cough, cold and antipyretic medicines are as expected for the time of year.

Weekly Influenza Bulletin

An Influenza Bulletin is issued each week during the 2005-06 season (Week 40 of 2005 to Week 20 of 2006). This is circulated to the Department of Health, Social Services and Public Safety, Boards and Trusts, participating GP practices and Out-of-Hours Centres 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 9026 3765 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.

Northern Ireland is a member of the European Influenza Surveillance Scheme (EISS) and local age-specific and virological data are entered weekly onto the EISS database. Up-to-date detailed information, on the incidence of influenza throughout Europe, may be accessed via the website <http://www.eiss.org>.

Foodborne and gastrointestinal infections: July to September 2005

Four hundred and fifty three notifications of food poisoning were received between weeks 27 and 39 making a total of 1,081 food poisoning notifications to week 39 this year. This is a 34% decrease compared with 685 notifications in the third quarter last year and a reduction of 17% compared with a total of 1297 notifications for the January/September 2004 period (Fig 1, weeks 27-39 only). Food poisoning notifications during the third quarter of 2004 were significantly influenced by three large salmonella outbreaks (see previous *Monthly Reports*).

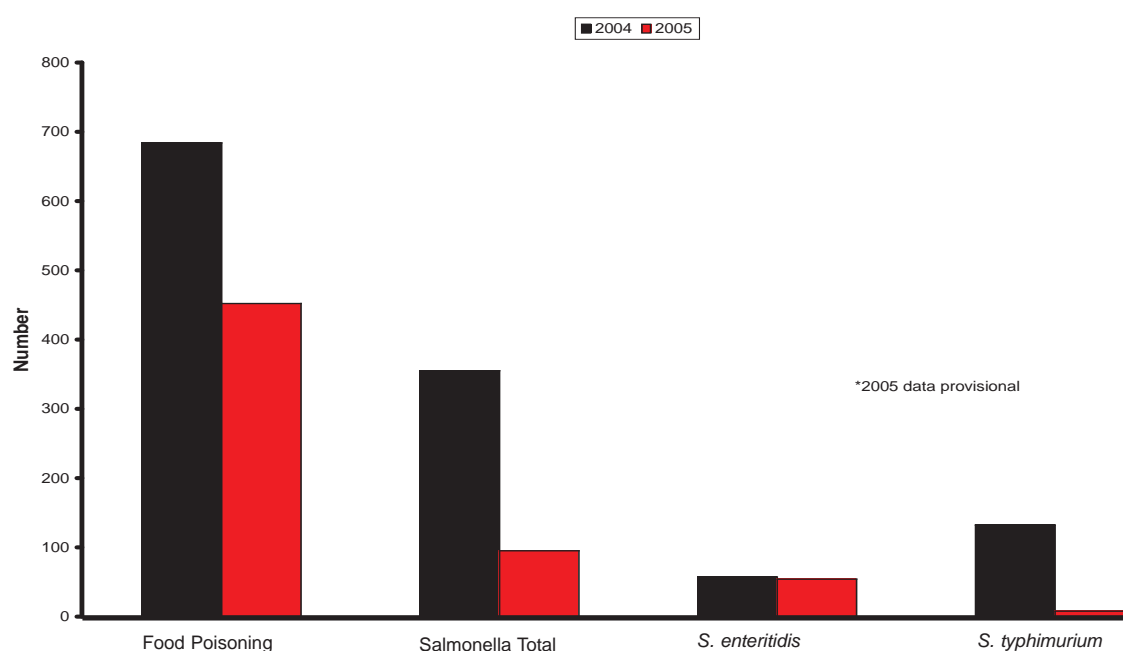
Gastrointestinal laboratory data should be interpreted with caution and viewed as being provisional as additional reports, including reference laboratory typing, relating to this period are still being received. There were 96 salmonella reports received between weeks 27 and 39 (inclusive) compared with 356 reports during the same period in 2004 (which included 58 reports of *S. enteritidis* and 133 reports of *S. typhimurium*) (Fig 1). This year's third quarter total includes 55 reports of *S. enteritidis* and 9 of *S. typhimurium*. The total number of salmonella reports to week 39 this year is 158 compared with 397 for 2004 and 180 for 2003.

There were 257 campylobacter reports for the third quarter this year which is very similar to that for 2004 (257 reports). The cumulative total to week 39 is 676 (compared with 652 in 2004) – a 3.7% increase).

Reports of cryptosporidiosis increased this quarter compared with last year. Thirty-five reports were received compared to 27 last year. The cumulative total for 2005 is 126 compared to 117 in 2004.

Increases were also noted with *E. coli* O 157 with 18 reports in this quarter compared with 5 in 2004. These are presumed to have been sporadic cases as no outbreaks or clusters were reported. The cumulative total this year is 33 reports (12 in 2004). However, 2004 was a year with an unusually low number of reports and numbers this year are projected to be similar to those noted in previous years (40-50 reports per annum).

Fig 1: Food Poisoning Notifications and Salmonella Laboratory Reports Weeks 27- 39, 2004 and 2005*



Foodborne and gastrointestinal outbreaks: July-September 2005

Outbreak surveillance is primarily based on reports from Consultants in Communicable Disease Control.

No foodborne outbreaks were reported during this quarter. There were three institutional outbreaks of gastroenteritis affecting patients and staff, two of which were confirmed as norovirus and the other was presumed to be viral in light of the epidemiological history and the absence of any bacterial pathogens. This compares with 15 gastrointestinal outbreaks (including 12 norovirus outbreaks) in the preceding quarter.

Table 1: General Outbreaks¹ of foodborne and other gastrointestinal illness reported to CDSC (NI), July - September 2005*

Foodborne outbreaks						
Month	Board	Location	Organism	Suspect vehicle ²	No. ill ³	Cases +ve
None						

Other gastrointestinal outbreaks						
Month	Board	Location	Organism	Suspect vehicle ²	No. ill ³	No +ve
Jul	W	Hospital	Norovirus	Person/person	n/k	1
Jul	N	Residential Institution	?Viral	Person/person	12 residents, 2 staff	n/k
Jul	W	Residential Institution	Norovirus	Person/person	9 residents, 8 staff	1

*Data Provisional

¹General outbreaks involve members of more than one household;

²Local investigations may not provide conclusive evidence of vehicles of infection. Vehicles are therefore designated 'suspect';

³The number known to be ill.

Salmonella Goldcoast

An international outbreak of this unusual serotype was reported in October. By 3 November, 178 cases had been reported from eight countries in Northern Europe with the majority from the UK. Forty one per cent had travelled to Majorca though Spanish authorities reported no indigenous cases. All age groups were affected though a high proportion were children. At the time of writing no source of infection had been identified.

Three reports of *S. Goldcoast* had been received by CDSC (NI) over the relevant period of which two were associated with travel to Majorca. Epidemiological data on the Northern Ireland cases was forwarded to the international outbreak control team.

(Ref: *S. Goldcoast* infections in tourists returning from Majorca. *Eurosurveillance* 2005; 10 (11). <http://www.eurosurveillance.org/ew/2005/051103.asp#2>)

Enhanced surveillance of meningococcal disease (ESMD)

During the month of October 2005, three cases of invasive meningococcal disease were notified through the enhanced surveillance of meningococcal disease (ESMD) scheme. One of these has been identified as serogroup B, one is ungrouped and the remaining case has not yet been laboratory confirmed. Two of the three notified cases were young children. No deaths due to meningococcal disease occurred during October 2005.

Between 01 January 2005 and 31 October 2005, CDSC (NI) received 80 notifications of invasive meningococcal disease through the ESMD scheme (Table 2), three fewer than for the same period of 2004. To date, 47 of these 80 notifications (59%) have been laboratory confirmed: 45 (96%) have been identified as serogroup B, one as serogroup Y and one remains ungrouped. There have been no laboratory confirmed cases of serogroup C infection in Northern Ireland since December 2004. Three deaths have been attributed to meningococcal disease in 2005 to date, but none have been in children under four years of age. One death occurred in a child under 14 years of age who presented with septicaemia and had serogroup B infection. The remaining two deaths occurred in adults. One presented with symptoms of both meningitis and septicaemia and had serogroup B infection. The other presented with symptoms of meningitis, but infection has not been laboratory confirmed.

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, therefore, appear in Monthly Reports throughout the meningococcal season.

Table 2: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to October 2005

HSSB	Confirmed			Not Confirmed	Total
	B	C	Other and ungrouped		
E	15	0	1	3	19
N	12	0	1	8	21
S	12	0	0	8	20
W	6	0	0	14	20
Total	45	0	2	33	80

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

	Number of Reports received		Cumulative total	
	05/37 - 40	04/37 - 40	05/01-40	04/01-40
<i>Campylobacter</i>	55	59	681	660
<i>C. difficile</i> Toxin	87	65	1170	1048
<i>C. perfringens</i>	1	4	14	10
<i>E. coli</i> O 157	4	2	33	12
<i>Salmonella</i> total	16	140	153	410
<i>S. enteritidis</i> (PT 4)	12 (2)	10 (2)	74 (13)	78 (11)
<i>S. typhimurium</i> (DT 104)	0	0	26 (3)	139 (92)
<i>Salmonella</i> other	4	130	53	193
<i>Shigella</i>	2	0	5	8
<i>Cryptosporidium</i>	10	7	127	117
<i>Giardia</i>	0	1	14	13
Adenovirus (faeces)	9	10	135	115
Enterovirus (faeces)	2	2	23	11
Rotavirus	2	10	412	438
Norovirus	1	20	192	97

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

S. Gold-coast 1
S. Kottbus 1
S. sp 1
S. unnamed 1

Comment:

The following were associated with foreign travel:

Male, age 44 years, *S. enteritidis*, Turkey; Female, age 48 years, *S. enteritidis*, Spain; Male, age 20 months, *S. Gold-coast*, Majorca; Male, age 39 years, *Campylobacter sp*, Turkey.

Laboratory reports of *Salmonella*, *Shigella* and Rotavirus are showing a decline compared to the same period last year. Cumulative total *Salmonellas* have more than halved.

Cumulative reports of *Campylobacter*, *Cryptosporidium* and *C. difficile* Toxin have risen slightly by 3%, 9% and 12% respectively.

Reports of Adenovirus, Norovirus and Enterovirus are also exhibiting an increase of 17%, 98% and 109% respectively.

Cumulative reports of *E. coli* O 157 have almost tripled compared to the same period last year – this was due to an outbreak at a school in the Northern Board in May/June.

Hepatitis: Laboratory Reports Quarter 3 (July - September 2005)

	Number of Reports received			
	Quarter 3, 2005	Quarter 3, 2004	Cumulative Total to September 2005	Cumulative Total to September 2004
Hepatitis A	2	0	6	5
Hepatitis B	28	13	62	48
Hepatitis C	41 (13)	18 (1)	111 (13)	75 (4)
Hepatitis E	0	0	0	1

The figure in brackets represents those reports for which an association with intravenous drug use was noted on the laboratory form.

Comment:

Hepatitis A

There were two reports of Hepatitis A during the third quarter of 2005. One case was male aged 74 years and the other was female aged 49 years.

Hepatitis B

Twenty-eight cases of Hepatitis B were reported during this reporting period, 4 of which were classified as acute Hepatitis B infection. Ten were male, aged between 26 and 60 years; sixteen cases were female, aged between 23 and 48 years. The sex was unknown in two cases aged 34 and 35 years.

Hepatitis C

Forty-one cases of Hepatitis C were reported during the third quarter of 2005. Thirty cases were male, aged between 18 and 53 years; eleven cases were female, aged between 24 and 88 years.

Positive Blood Cultures: Laboratory Reports, Weeks 01 - 40

	2005/01-40	2004/01-40	2003/01-40
Gram negative bacteria			
<i>Acinetobacter sp</i>	38	34	31
<i>Aeromonas sp</i>	2	3	2
<i>Brucella sp</i>	0	0	1
<i>Campylobacter sp</i>	2	1	1
<i>Citrobacter sp</i>	17	19	23
<i>Enterobacter sp</i>	68	62	58
<i>Escherichia coli</i>	512	540	489
<i>Escherichia sp</i>	2	0	2
<i>Haemophilus influenzae</i> (all types)	10	9	15
<i>Haemophilus parainfluenzae</i>	1	0	2
<i>Klebsiella sp</i>	126	115	132
<i>Legionella sp</i>	0	0	0
<i>Leptospira</i>	0	0	0
<i>Neisseria meningitidis</i>	6	3	16
<i>Neisseria sp</i>	2	0	1
<i>Proteus sp</i>	57	67	79
<i>Providencia sp</i>	2	5	5
<i>Pseudomonas aeruginosa</i>	62	47	56
<i>Pseudomonas sp</i>	44	44	36
<i>Salmonella sp</i>	5	9	6
<i>Serratia sp</i>	62	53	61
Other gram negative bacteria	25	28	25
Total	1043	1039	1041
Gram positive bacteria			
Corynebacterium sp & Diphtheroids	8	11	8
Staphylococci:			
<i>S. aureus</i>	393	458	433
coagulase negative	290	270	258
Streptococci:			
group A	21	27	28
group B	39	35	40
group C	9	11	2
group D	7	10	7
group F	14	7	8
group G	12	8	8
α- and non-haemolytic	34	33	48
<i>S. pneumoniae</i>	101	106	132
Other Streptococci	20	29	19
Enterococci:			
<i>E. faecalis</i>	80	74	59
<i>E. faecium</i>	60	61	28
Other Enterococci	11	22	49
<i>Listeria monocytogenes</i>	3	4	3
Other gram positive bacteria	16	17	9
Total	1118	1183	1139
Anaerobic bacteria			
Anaerobic cocci	9	2	3
<i>Bacteroides sp</i>	35	48	44
<i>Clostridium sp</i>	20	20	25
Other anaerobic bacteria	2	0	2
Total	66	70	74
Grand Total	2227	2292	2254

Contributing Laboratories

Altnagelvin	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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