



Enhanced surveillance of meningococcal disease

During the month of December, four cases of invasive meningococcal disease were notified through the ESMD scheme. One of these has been identified as serogroup B and occurred in a child aged 4 years. The three remaining cases are unconfirmed. No deaths due to meningococcal disease occurred during the month of December.

Between 1 January 2002 and 31 December 2002, CDSC (NI) received 129 notifications of invasive meningococcal disease through the enhanced surveillance of meningococcal disease (ESMD) scheme (Table 1). Of these, seventy-eight (60 %) have been laboratory confirmed to date: 66 (84.5 %) were identified as serogroup B, 7 (9 %) as serogroup C and 5 (6.5 %) were ungrouped or identified as other serogroups. Three cases of serogroup C infection occurred in children aged less than 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 and the third child (aged 3 years) had received a full course of Men C vaccine. All three serogroup C cases have been described previously (Monthly Report Vol 11 No 7 & No 11). 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. There were no confirmed cases of serogroup W135 infection during 2002.

Of the 129 cases notified during 2002, sixty-nine cases presented with septicaemia, twenty-eight with meningitis, nine with both meningitis and septicaemia and twenty with other symptoms. The clinical presentation in three cases was not recorded. Twenty-seven (21 %) of the patients were known to have been treated with pre-admission antibiotics. Seven patients died during 2002: they ranged in age from 4 months to 94 years, with a median age of 2.5 years and an average age of 21 years. Four of the patients who died were aged 0-2 years (Table 2). All four presented with septicaemia and all had laboratory confirmed serogroup B infection. Of the three further cases in which death occurred, one (aged 94 years) was laboratory confirmed as serogroup B infection. Laboratory confirmation was not achieved in the remaining two cases.

Overall, these figures are only marginally different compared to the same period last year, when 132 cases were notified (see Figure 2). The one difference of note is the apparent increase in the proportion of laboratory confirmed serogroup

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B infections during 2002 and the concomitant fall in the proportion of infections that were either ungrouped or caused by other serogroups (see Figure 3). In 2001, eighty-one (61 %) cases were laboratory confirmed: 60 (74 %) were identified as serogroup B, 8 (10 %) as serogroup C and 13 (16 %) were ungrouped or identified as other serogroups. Six patients died during 2001: they ranged in age from 5 months to 90 years, with a median age of 9 years and an average age of 27 years. Four of the six patients who died presented with septicaemia and were laboratory confirmed: two had serogroup B infection and two had serogroup W135 infection. The remaining two patients who died, but were not laboratory confirmed, presented with both meningitis and septicaemia.

Table 1: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to December 2002

HSSB	Confirmed			Not confirmed	Total
	B	C	Other and ungrouped		
E	19	1	1	9	30
N	20	2	4	12	38
S	17	4	0	9	30
W	10	0	0	21	31
Total	66	7	5	51	129

Table 2: Meningococcal disease: case and death by age, Northern Ireland, January to December 2002

Age group	Confirmed			Not confirmed	Incidence per 100,000 population*	Death
	B	C	Other and ungrouped			
0-2	42	0	3	26	103.2	4
3-4	4	3	0	5	24.5	0
5-14	8	0	1	9	6.5	1
15-17	1	0	0	1	2.5	0
18-24	4	0	1	2	4.4	0
>24	7	4	0	4	1.4	2
?	0	0	0	4		0
Total	66	7	5	51	7.6	7

*age-specific incidence rate

Table 3: Meningococcal disease: case and death by age, Northern Ireland, for December 2002

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

Figure 1: Monthly cases of meningococcal disease from January 2000 to December 2002

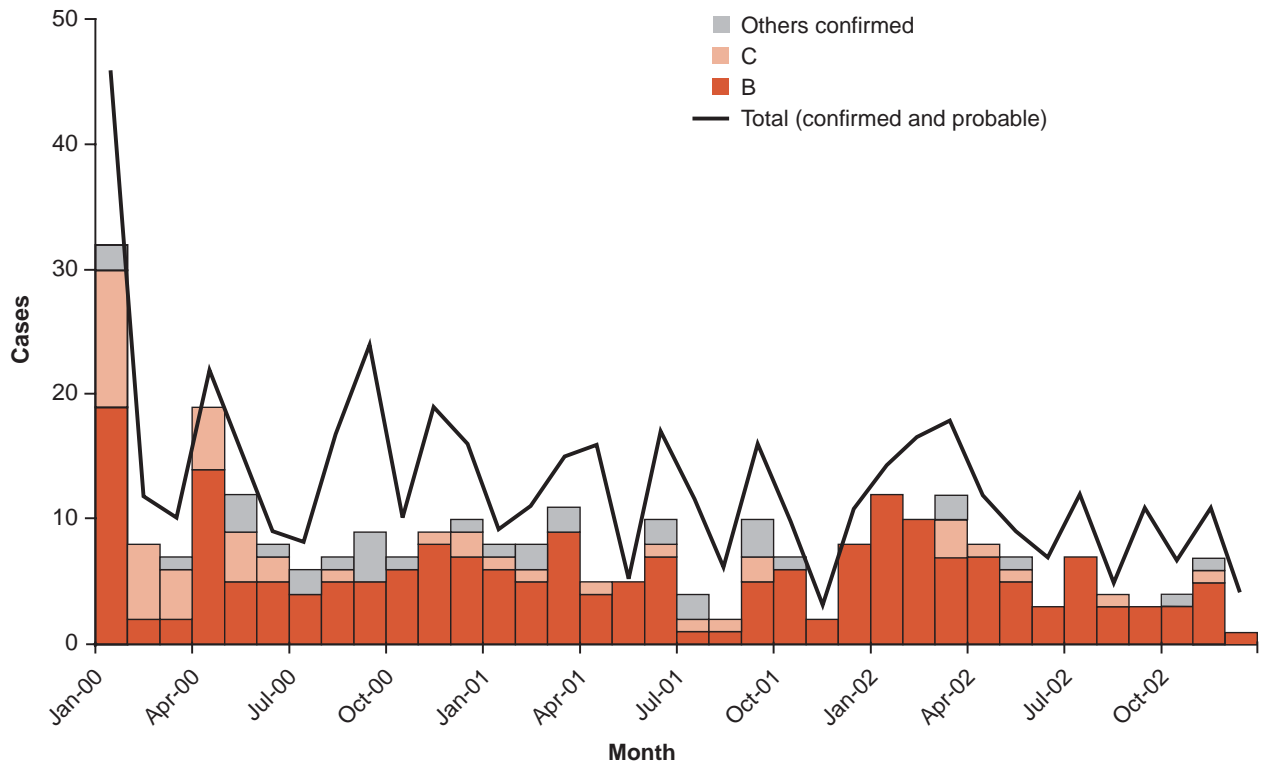


Figure 2: Cumulative cases of meningococcal disease from 2000 to 2002

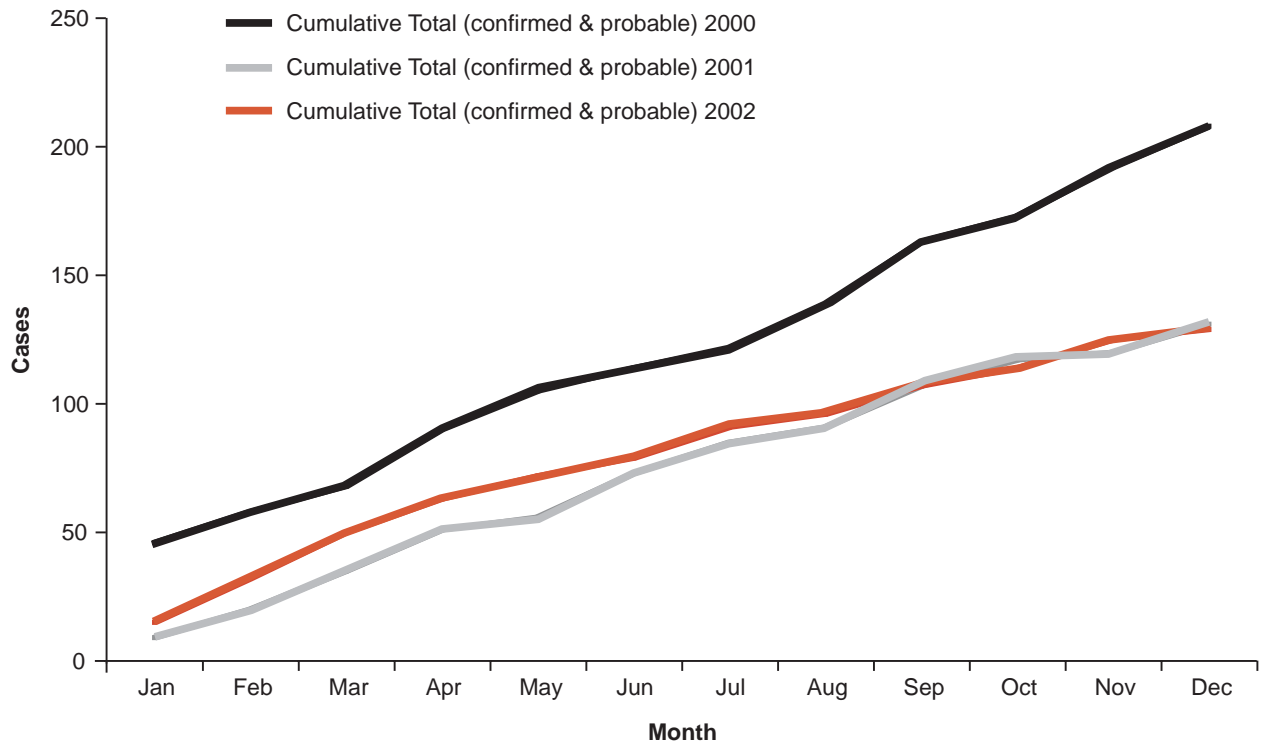
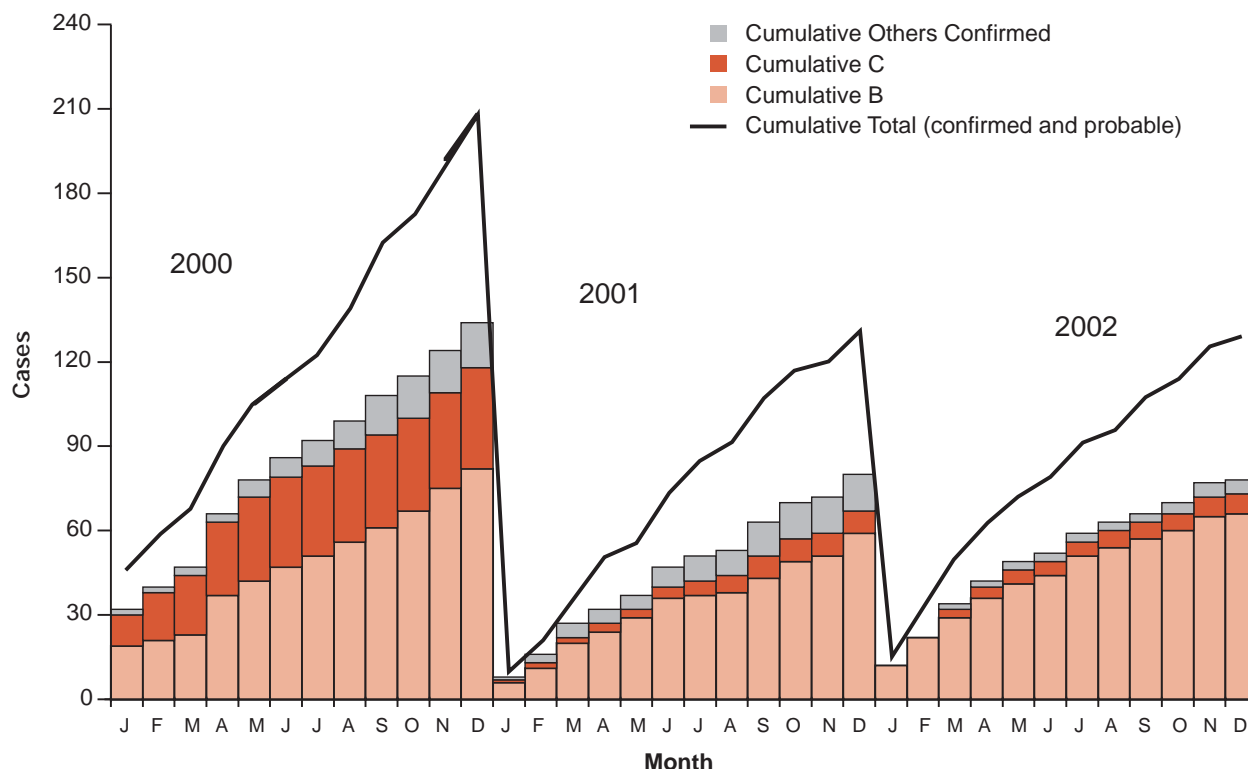


Figure 3: Cumulative monthly cases of meningococcal disease from 2000 to 2002



Training Fellowships for Intervention Epidemiology in Europe

The European Programme for Intervention Epidemiology Training started in 1995. The programme is funded by the European Commission and by various EU member states as well as WHO and Norway. Subject to agreement for another round of funding, the ninth cohort of fellows is planned, starting in September 2003. The programme invites applications for eight fellowships for this 24-month training programme in communicable disease field epidemiology.

Fellowships

Applicants for the 2003 cohort must be nationals of an EU member country or Norway and should have experience in public health, a keen interest in fieldwork and be pursuing a career involving public health infectious disease epidemiology. They should have a good knowledge of English and of at least one other EU language, and be prepared to live abroad for a

period of 24 months. The appropriately experienced professional is likely to be below 40 years of age.

Aim of the training

The aim of the training is to enable the fellow to assume service responsibilities in communicable disease epidemiology. The in-service training will focus on outbreak investigations, disease surveillance, applied research, and

communications with decision makers, the media, the public and the scientific community.

Fellows will attend a three-week intensive introductory course and then be located in a host institute in one of the 15 participating European countries and Norway. Further training modules are organised during the two-year programme, normally in one of the participating national institutes with responsibility for communicable disease surveillance.

Detailed information can be obtained from the EPIET programme office at the address below. Letters of application accompanied by curriculum vitae should be submitted by 28 February 2003 to:

The Swedish Institute for Infectious Disease Control, EPIET Programme Office, SE-171 82 Solna. Fax: 00 46 8 30 06 26. Email: carole.desmoulin@smi.ki.se

Influenza Vaccination Programme: winter 2002/03

The Department of Health, Social Services and Public Safety (DHSSPS) set a regional target of 70% influenza immunisation uptake among the over 65 population for winter 2002/03. By 30 November 2002, 161,036 individuals aged 65 years or more had received influenza immunisation. This is equivalent to an overall Northern Ireland uptake rate of 69.5% and is only very slightly lower than that recorded for the equivalent time period of 2001 (70.3%). Uptake rates by Health and Social Services Board ranged from 68.2% to 70.6%.

In addition to the immunisation of those aged over 65 years, a target of 60% influenza immunisation uptake among the under 65 "at risk" population was also set by DHSSPS for winter 2002/03. It is estimated that approximately 10% of the under 65 population fall into the "at risk" group. This group includes individuals with heart,

renal or lung disease, diabetes, those who are immuno-suppressed through disease or chemotherapy and those living in residential homes. By 30 November 2002, 83,111 "at risk" individuals under 65 years of age had received influenza immunisation. The overall uptake rate in this group at 30 November 2002 was 53.8%.

Uptake rates by Health and Social Services Board ranged from 49.6% to 58.7%.

The total number of individuals receiving influenza immunisation by 30 November was 244,147 (Table 4). This total excludes those not in either of the above risk groups who may have received influenza immunisation as a result of workplace initiatives.

Final influenza immunisation uptake figures will be collected at the end of the 2002/03 campaign and a detailed report, including clinical risk profile of vaccinated individuals, will be prepared. CDSC(NI) appreciates the efforts of those involved in the timely supply of vaccination uptake data from each Health and Social Service Board.

Table 4: Influenza Vaccination Coverage data to November 2002, Northern Ireland

Board	EHSSB	NHSSB	SHSSB	WHSSB	NI TOTAL
No of Practices	147	80	76	58	361
No of Practices which made return by specified date	146	80	73	58	357
No of 65+ individuals vaccinated by 30 Nov	70,632	39,012	28,234	23,158	161,036
Registered 65+ population	100,877	57,210	40,929	32,789	231,805
Vaccination uptake rate among 65+ population	70.0%	68.2%	69.0%	70.6%	69.5%
Presumed "at risk" population under 65 (10% of registered population under 65 years)	61,391	35,902	29,927	27,241	154,461
Total number of "at risk" individuals under 65 vaccinated by 30 Nov	32,152	20,135	14,841	15,983	83,111
Vaccination uptake rate among "at risk" under 65 population	52.4%	56.1%	49.6%	58.7%	53.8%
Total number of patients (all ages) who have received influenza vaccine by 30 Nov	102,784	59,147	43,075	39,141	244,147

Routine Antenatal Infection Screening extended to include HIV Infection

Pregnant women in Northern Ireland have been screened for Hepatitis B since the mid-1970s¹, and for syphilis² and rubella infection for many years.

Hepatitis B infection can be transmitted from infected mothers to their babies at or around the time of birth (perinatal transmission), and babies who acquire infection at this time have a high risk of becoming a chronic carrier of the virus. Syphilis can be passed from infected mothers to their babies during pregnancy (usually after the 18th week), and congenital syphilis can lead to stillbirth, premature birth, neonatal death, disorders of infancy (eg hepatomegaly, jaundice, osteochondritis) and later manifestations (most commonly keratitis). Babies of mothers acquiring rubella infection in early pregnancy are at high risk of being born with serious abnormalities of the heart, brain, eyes and also deafness.

By screening antenatal patients, the mothers and their babies who are at risk can be identified and the risk significantly reduced through appropriate management during antenatal care. The development of Hepatitis B carrier state following perinatal transmission can be prevented in 90-95% of cases by appropriate immunisation. Effective and safe treatment of syphilis is available for most diagnosed infections and the current outbreak of syphilis infection in Northern Ireland highlights the importance of ensuring that all pregnant women are offered and recommended screening for syphilis in every pregnancy. Women without rubella

immunity can be offered rubella vaccine after the birth of their baby, in order to confer protection in future pregnancies.

The 1997 unlinked anonymous dried blood spot survey showed that more than 70% of HIV infections in pregnant women remain undiagnosed at the time of delivery. HIV infection can be transmitted from infected mothers to their babies during pregnancy, delivery or by breast feeding but many women only realise that they are infected when their child becomes symptomatic with HIV infection or is diagnosed with AIDS. If women are aware of their HIV infection during pregnancy, the majority of them choose to accept interventions to reduce the risk of vertical transmission. For example, if the following interventions are accepted, the risk of vertical transmission can be reduced from 25% to less than 5%:

- use of antiretroviral drugs
- delivery by caesarean section
- careful obstetric management
- bottle feeding.

A phased implementation of additional HIV antenatal screening is planned for Northern Ireland^{3,4}, which will bring antenatal screening arrangements in the Province into line with those in Great Britain. It commenced on 1 October 2002, with pregnant women booked for delivery in the Ulster and Antrim Hospitals being

offered antenatal HIV screening. This phased introduction will inform the roll out the programme regarding issues such as training requirements, offering of the test, and monitoring of the programme. All Health and Social Services Boards and Trusts should make arrangements by April 2003 to incorporate the offer of an HIV test into routine antenatal screening for all pregnant women, and also for the appropriate management of mothers found to be infected and their babies. These arrangements should be designed to achieve:

- 100% of pregnant women being offered an antenatal HIV test by April 2004
- an initial uptake of antenatal HIV testing to a minimum of 50% by April 2004 and
- an uptake of antenatal HIV testing of 90% per annum by April 2005.

CDSC (NI) will carry out regional collation and analysis on behalf of the Department of Health, Social Services and Public Safety, and an annual report will be produced.

References:

1. HSS(MD)17/98
2. HSS(MD)24/01
3. HSS(MD)11/02
4. HSS(MD)26/02

Availability of PHLS Standard Operating Procedures, algorithms and guidance notes

The PHLS standard methods are a comprehensive referenced collection of clinical and public health microbiology Standard Operating Procedures (SOPs), algorithms (for virology and serology), and guidance notes. PHLS standard methods have been developed since 1996 by working groups of experienced laboratory-based medical and scientific microbiologists from throughout the PHLS and the NHS. Each document undergoes a comprehensive consultation process involving staff in all laboratories, Reference Laboratories and other experts to ensure the best possible practice is reflected in the methods.

Evidence of using SOPs is an

essential requirement of accreditation schemes. PHLS SOPs remove the need for laboratories to write and update, from first principles, their own methods. An additional bonus is that all PHLS SOPs are well referenced and tried in PHLS before issue, have advice on current health and safety legislation and are edited by a senior microbiologist before issue. The production of PHLS SOPs has been part of a continuing process of quality development in the PHLS that will allow for the monitoring and updating of methods as required by changing practice and technology. Importantly standardising methods across laboratories also improves the quality of epidemiological data

collected.

Microbiologists are invited to comment on the documents to contribute to the process of developing the methods. To facilitate this an extranet site has been developed, where drafts and documents under review are available but are password protected. Registration for access can be applied for on-line, or by contacting Valerie Bevan, Head of Technical Services, PHLS Headquarters, Email vbevan@phls.org.uk.

The SOPs cover bacteriology, virology, quality, media, dairy, food and water. A training manual is also available.

Laboratory Reports

Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 45-48

NB: there has been a delay in receipt of a number of laboratory reports from one major laboratory for the latter half of 2002. Cumulative figures may therefore increase by date of next publication.

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

S. infantis1
S. montevideo1
S. sp3

Comment:

The following were associated with foreign travel:
 Female, age 45, *S. montevideo*, Africa; male, age 44, *Campylobacter*, Tunisia.

To week 48 of 2002, the cumulative number of laboratory reports of *Campylobacter*, *E Coli* O 157, *Salmonella*, *Shigella*, *Cryptosporidium*, *Giardia lamblia*, and Rotavirus all exhibit a reduction compared to the same period of 2001; laboratory reports

	Number of Reports received		Cumulative total	
	02/45-48	01/45-48	02/01-48	01/01-48
<i>Campylobacter</i>	58	53	706	839
<i>C. difficile</i> Toxin	27	18	340	291
<i>C. perfringens</i>	0	0	18	12
<i>E. coli</i> 0157	2	2	24	52
<i>Salmonella</i> total	11	17	224	359
<i>S. enteritidis</i> (PT 4)	6 (4)	5 (2)	90 (30)	178 (94)
<i>S. typhimurium</i> (DT 104)	0	4 (2)	58 (14)	77 (20)
<i>Salmonella</i> other	5	8	76	104
<i>Shigella</i>	1	2	9	16
<i>Cryptosporidium</i> sp	4	5	113	356
<i>Giardia</i>	1	1	10	15
Adenovirus (faeces)	7	14	148	130
Enterovirus (faeces)	1	8	47	38
Rotavirus	1	7	334	421
SRSV	33	11	400	95

of *C. difficile* toxin, *C. perfringens*, Adenovirus, Enterovirus and SRSV have risen.

A more detailed analysis will be available in the next monthly report, which will be a provisional summary for 2002.

Reports of positive blood cultures: Laboratory Reports, Weeks 01-48

	2002/01-48	2001/01-48
Gram negative bacteria		
<i>Acinetobacter sp</i>	37	34
<i>Aeromonas sp</i>	5	0
<i>Brucella sp</i>	19	13
<i>Citrobacter sp</i>	13	12
<i>Enterobacter sp</i>	59	37
<i>Escherichia coli</i>	532	479
<i>Haemophilus influenzae</i>	22	19
<i>Haemophilus sp</i>	0	2
<i>Klebsiella sp</i>	131	117
<i>Neisseria meningitidis</i>	67	54
<i>Neisseria sp</i>	2	1
<i>Proteus sp</i>	67	77
<i>Providencia sp</i>	4	3
<i>Pseudomonas aeruginosa</i>	62	64
<i>Pseudomonas sp</i>	41	49
<i>Salmonella sp</i>	5	9
<i>Serratia sp</i>	53	61
Other gram negative bacteria	43	26
Totals	1162	1057
Gram positive bacteria		
Corynebacterium sp & Diphtheroids	21	15
Staphylococci:		
<i>S. aureus</i>	456	376
coagulase negative	331	378
Streptococci and enterococci:		
group A	23	28
group B	35	48
group C	8	4
group G	4	14
<i>Enterococcus sp</i>	182	155
α- and non-haemolytic	91	83
<i>S. pneumoniae</i>	114	125
Other gram positive bacteria	12	15
Totals	1277	1241
Anaerobic bacteria		
Anaerobic cocci	6	5
<i>Bacteroides sp</i>	38	52
<i>Clostridium sp</i>	35	18
Other anaerobic bacteria	4	1
Totals	83	76
Grand Total	2522	2374

Contributing Laboratories

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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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