



Enhanced Surveillance of Influenza in Northern Ireland (ESINI) Summary 2001-2002

The principal aim of the project is to provide early warning of influenza virus circulation in Northern Ireland. The scheme involves the weekly compilation of data from sentinel GP practices, out-of-hours Co-Operatives (Co-Ops) and the Northern Ireland Regional Virus Laboratory.

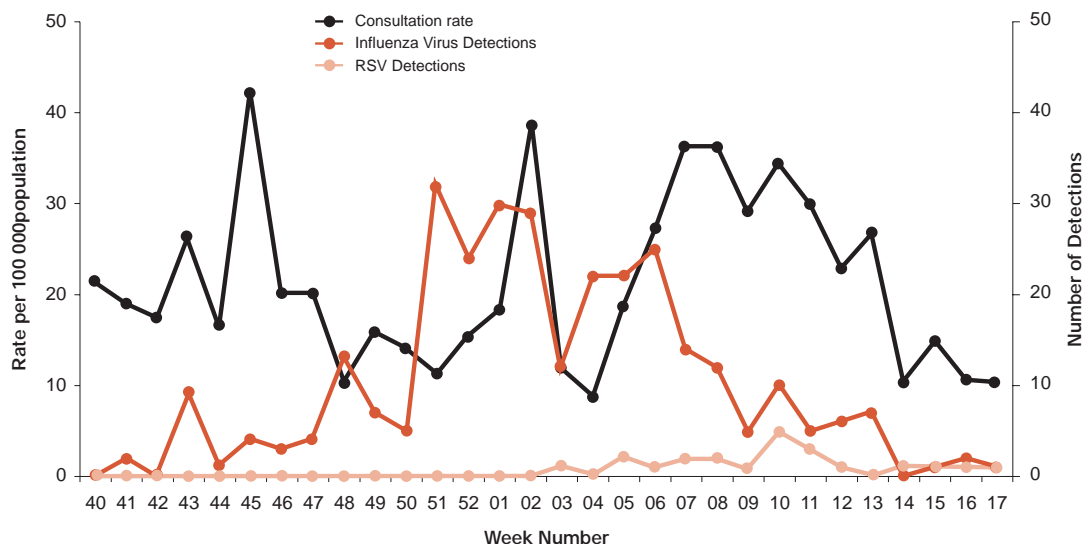
During the 2001/02 season, 20 GP spotter practices took part in ESINI, representing 125 200 patients throughout Northern Ireland (approximately 7.4% of the population).

weekly data on numbers of calls received and the age/sex breakdown of those calls. Co-ops have also been supplying retrospective data for the 2000/01 season.

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Figure 1: Northern Ireland GP Combined Consultation Rates for 'Flu and 'Flu-Like Illness versus Influenza and RSV Virus Detections 2001-2002



Out-of-hours Co-Operatives have, for the first time, also been involved in provision of information for ESINI. Five Co-Ops, covering approximately 1 343 000 people (79% of the population), supplied

Sentinel GPs

Sentinel GP consultation rates for 'flu and 'flu-like illness remained at low levels during the 2001/02

season (Figure 1). This lack of activity is in accordance with that observed throughout the UK and Ireland.

Consultation rates for 'flu-like

illness remained much higher and more variable than those for influenza. During the 2001/02 season, FLI rates ranged from 8.8 to 42.3 per 100 000 population. Rates increased from the beginning of the surveillance period and reached an initial peak in week 45. Two further peaks were observed in week 02 and weeks 07/08, with rates of 38.8 and 36.2 per 100 000 population respectively. Rates continued to drop steadily thereafter until the end of the surveillance period in week 17. As this is only the second year of surveillance, no baseline level of activity is yet available. The baseline level will be calculated once data becomes available for several seasons.

Five swabs submitted by sentinel GPs during 2001/02 were positive, by antigen detection and PCR, for influenza A virus. A further 17 samples were found positive for influenza A virus through routine laboratory testing. Of these 22 isolates, 16 were subtyped as influenza A H3 and 5 were subtyped as influenza A H1. There were no detections of influenza B

virus in Northern Ireland during the current surveillance period.

The earliest peak in consultation rates (week 45) predated the normal end-of-year rise in RSV infection by several weeks. However, during the 2001/02 season, numbers of laboratory reports for RSV were substantially lower than that observed for the same period last year. Other laboratory-confirmed respiratory infections in circulation during the last weeks of 2001 were adenovirus and *Mycoplasma pneumoniae*. Again, these were present in only very low numbers. The second peak in consultation rates (week 02) predated the first influenza virus detection by one week and the third peak (week 07) corresponded to the first two influenza virus detections from sentinel GP swabs.

Co-Operatives

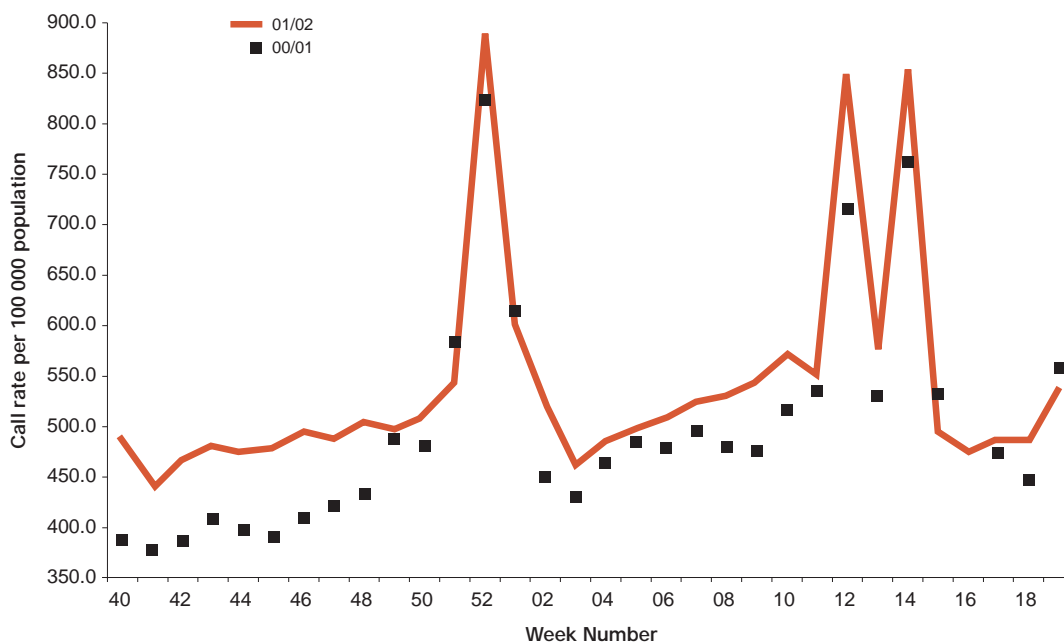
Call rates to Co-operatives showed three major peaks during the 2001/02 season (Figure 2). These corresponded to the Christmas/New Year period, the St Patrick's Day

weekend and Easter, when GP surgeries would be closed. Retrospective call rates for the 2000/01 season were also very similar to those observed during the current period of surveillance.

In conclusion, influenza activity during the 2001/02 season was very much lower than that observed during either of the previous two seasons. A similar situation occurred in the rest of the UK. Despite this, information obtained from general practice relating to FLI may serve as an early indicator of other respiratory infections circulating amongst the general population. It should be noted that such timely access to consultation data from general practice, and call rate data from Co-Ops would not be collected through any other means. As a consequence, this type of monitoring may well also provide early warning of an increase in workload and pressure on resources in the healthcare sector.

The full ESINI 2001-2002 Report is available from hkennedy@phls.org.uk. It will also be available shortly on the CDSC(NI) website.

Figure 2: Total calls to GP co-operatives in Northern Ireland



Influenza Vaccination Programme: Winter 2001/02

The analysis of the winter 2001/02 Influenza Vaccination Programme was completed at the end of March.

Over two hundred and forty thousand influenza vaccines were administered to those patients considered 'at risk' - ie all those over 65 years of age, all those in long stay residential care, and those with underlying 'high risk' conditions, namely chronic respiratory, cardiac or renal disease, those patients who are immuno-suppressed, and diabetics. This is a 10% increase on the number that were administered during winter 2000/01, and more than twice the number that were administered the

previous winter.

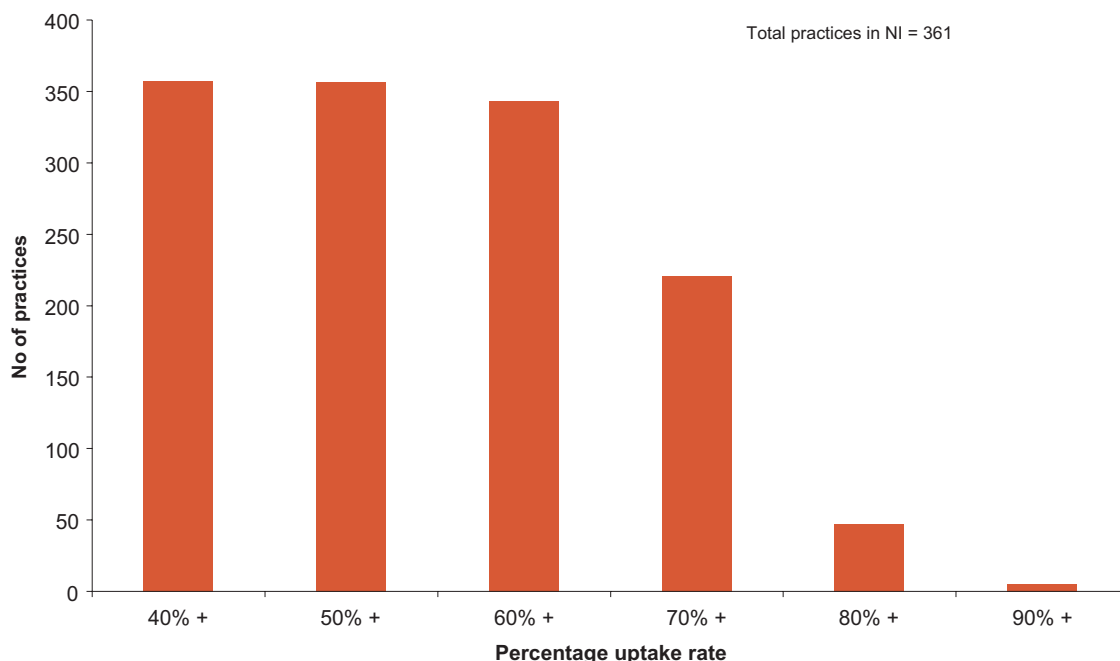
Of the total 243 159 vaccines administered, 163 972 (67%) were given to the 65+ age group. Almost 7 000 were administered to patients under 15 years, 88% of which were given to children with chronic respiratory disease. Of the 72 222 patients within the 15-64 years age group who were vaccinated, 45% were categorised as suffering from chronic respiratory disease, 27% from chronic cardiac disease and 17% from diabetes.

By the end of the winter 2001/02 campaign 358 of the 361 practices in the Province were included in the analysis. The regional target uptake rate of 70% in the over 65 population was reached by the end of November, and by the end of the campaign had been exceeded in each of the four Health Boards (range 70%-73%). The overall uptake in the over 65 population was 72%. This compares to an uptake of 68% in the same population during 2000/01. Sixty one per cent of practices in Northern Ireland achieved an uptake rate of 70% or more in the 65+ age group.

Table 1: Influenza Vaccine Programme Summary: Winter 2001/02

	EHSSB	NHSSB	SHSSB	WHSSB	NI TOTAL
No of Practices in Board (CSA Oct 01)	147	80	76	58	361
Size of registered population in Board (CSA Oct 01)	715331	415142	337740	303748	1771961
Size of registered 65+ population in Board (CSA Oct 01)	101243	54882	40356	32513	228994
No of practices submitting return by specified date	144	80	76	58	358
Size of total registered population of practices which submitted return	709523	415142	337740	303748	1766153
% of registered Board population covered by practices which submitted return	99.19%	100%	100%	100%	99.67%
No of vaccines administered per practice which submitted return					
Total number administered in Board	102927	59341	43632	37259	243159
Range	64-2714	109-1965	172-1560	153-1454	64-2714
Median	569	643	497	590	582
Mean	715	742	574	642	679
% vaccine uptake rate among 65+ population per practice submitting return					
Total no of vaccines administered to 65+ population	71194	40196	29198	23384	163972
Range	50% - 84%	54% - 92%	38% - 94%	62% - 93%	38% - 94%
Median	72%	74%	72%	72%	72%
Mean uptake rate as percentage of 65+ population (CSA Oct 01) in Board	70%	73%	72%	72%	72%
Percentage of practices achieving >= 70% uptake rate	56%	66%	67%	59%	61%

Figure 3: percentage Uptake Rate in 65+ age Group: Winter 2001/02



Update on Syphilis Outbreak

The November edition of the *Monthly Report* reported an outbreak of syphilis in Northern Ireland which had links with the outbreak in Dublin. An Outbreak Control Team chaired by the Eastern Health and Social Services Board is coordinating the investigation.

By 31 March 2002 thirty two cases had been identified. All except three were male, and most (27) were men who have sex with men (MSM); one was bisexual. The mean age of the cohort was 34 years (range 17-64 years). Cases have been reported from each Health and Social Services Board. In general, the number of sexual contacts associated with this cohort was not large. Most (23) had 1 or 2 partners in the three months preceding

infection, although one had as many as fifty.

Nine cases were identified through contact tracing. Four of these were contacts of cases involved in the Dublin outbreak. Eleven cases implicate Dublin as the likely location at which they were infected. As the outbreak progressed more cases reported acquiring their infection in Northern Ireland, and five cases

have been identified as a result of contact tracing from the Northern Ireland outbreak.

Four cases had early latent syphilis, 18 had primary, 8 had secondary, and staging is unconfirmed in 2 cases. Four cases are also known to be HIV positive.

Public awareness raising initiatives are continuing in conjunction with the voluntary sector.

Foodborne and gastrointestinal outbreaks: 2001

Outbreak surveillance is primarily based on reports received from Consultants in Communicable Disease Control (CCDCs). During 2001, CDSC (NI) was made aware of six foodborne outbreaks affecting 69 people, and twenty four other gastrointestinal outbreaks affecting at least 759 people. This compares with five foodborne outbreaks and sixteen other gastrointestinal outbreaks in 2000.

There was only one *Salmonella* outbreak reported last year, resulting in 15 positive cases. This accounted for 4% of the total *Salmonella* laboratory reports received in 2001.

During 2001 there was a major waterborne outbreak of *Cryptosporidium* in the Eastern Health and Social Services Board;

residents of the Northern Health Board were also affected. This outbreak was associated with 191 confirmed cases of cryptosporidiosis, and accounted for 43% of all cases of *Cryptosporidium* reported in 2001.

The causative organism in two of the foodborne outbreaks was small round structured virus (SRSV).

Oysters were considered to be the cause of one of these. The source of the other, which resulted in illness in 30 people, was an infected food handler. In the foodborne outbreak which was secondary to *Campylobacter*, it was considered that the infection was acquired abroad.

Viral or suspect viral infections were thought to be the cause of twenty one outbreaks of gastroenteritis. These infections can spread rapidly in institutions such as hospitals and residential/nursing care facilities. There were six hospital outbreaks and eleven in residential homes reported during 2001. Of the confirmed viral outbreaks, eight were secondary to SRSV and one outbreak in a child care facility was caused by rotavirus.

Table 2: General outbreaks¹ of foodborne illness reported to CDSC (NI) during 2001

Foodborne outbreaks						
Month	Board	Location	Organism	Suspect vehicle ²	No. ill ³	Cases +ve
Jan	E	Hotel	SRSV	Oysters	3	n/a
Mar	N	Glengormley	<i>S. enteritidis</i> PT4	Unknown	15	15
Apr	E	Sandwich Bar	SRSV	Infected food handler	30	7
Aug	N	Abroad	<i>Campylobacter</i>	? Chicken	3	3
Sept	N	Hospital	<i>C. perfringens</i>	Unknown food	7	5
Oct	E	Hotel	<i>C. perfringens</i>	Turkey pasta	11	6

Other gastrointestinal outbreaks						
Month	Board	Location	Organism	Suspect vehicle ²	No. ill ³	Cases +ve
Jan	S	Residential Home	? Viral	Person/person	17	0
Jan/Feb	W	Hospital	SRSV	Person/person	37 staff, 21 patients	9
Feb	N	Hospital	? Viral	Person/person	4 staff, 12 patients	n/a
Mar	W	Nursing Home	? Viral	Person/person	2 staff, 10 patients	n/a
Mar	E	Hospital	SRSV	Unknown	48 staff, 73 patients	n/a
Mar	N	Nursery/Creche	Rotavirus	Person/person	9	1
Mar	W	Security Base	SRSV	Unknown	47	9
Apr	S	Nursing Home	? Viral	Person/person	6	0
Apr	E	Belfast	<i>Cryptosporidium</i>	Water	191	191
May	W	Primary School	? Viral	Person/person	18	n/a
May	E	Hotel	? Viral	Unknown	87	0
Jun	E	Nursery/Primary School	<i>E coli</i> O157	Unknown	16	16
Jul	E	Summer Camp	SRSV	Person/person	34	5
Jul	S	Nursing Home	? Viral	Person/person	5	0
Aug	E	Hospital	Unknown	Unknown	n/a	n/a
Aug	S	Nursing Home	? Viral	Person/person	9	0
Dec	E	Hospital	SRSV	Person/person	6	6
Dec	N	Residential Home	SRSV	Person/person	4 staff, 16 residents	n/a
Dec	N	Nursing Home	SRSV	Person/person	16	n/a
Dec	N	Nursing Home	? Viral	Person/person	31	n/a
Dec	S	Nursing Home	? Viral	Person/person	4	0
Dec	S	Nursing Home	? Viral	Person/person	12	0
Dec	S	Nursing Home	? Viral	Person/person	11	0
Dec	S	Hospital	SRSV	Person/person	13	2

1. General outbreaks involve members of more than one household;

2. The number known to be ill;

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

Update on MRSA Bacteraemia Surveillance

The DHSSPS has a requirement that 'acute Trusts' provide information on MRSA bacteraemia from 1 April 2002. Retrospective data for the previous year has been collected, and is being used to validate the recording process and identify difficulties. The data collection process and data definitions are similar to those being used in England and Wales, allowing comparison of results. The first publication of data from the scheme in England and Wales can be found at the following web address: www.phls.org.uk/

[publications/CDR%20Weekly/PDF%20files/2002/MRSA0602.pdf.](#)

Information is being collected from 'acute Trusts' on a quarterly basis. Arrangements have been made for the collection of each dataset approximately 4 weeks after the relevant quarter. Feedback will be provided at regular intervals to participating Trusts, and an annual report for the period April 2001-April 2002 will be produced in due course. For further information,

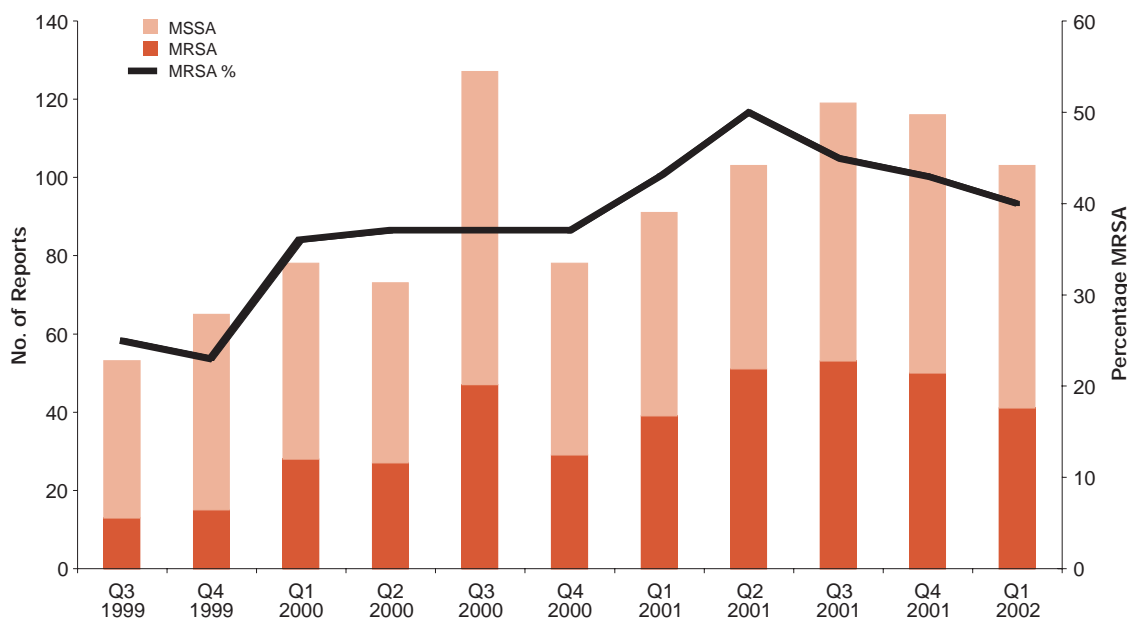
please contact Dr Julie McCarroll at CDSC (NI) or E-mail at jmccarroll@phls.org.uk.

In 2001, 429 laboratory reports of *S. aureus* isolated from blood were received by CDSC (NI). Of these, 192 (44.8%) were reported as MRSA. Data for England and Wales by region indicates that a similar proportion of isolates are being reported as MRSA (range 28% to 43%). Information regarding methicillin susceptibility was unavailable for some regions (see CDR Volume 12 Number 12).

Table 3: *Staphylococcus aureus* blood cultures: Laboratory reports, Weeks 01-16

Total reports of <i>S. aureus</i>			Reports of MRSA (%)			Reports of MSSA (%)		
02/01-16	01/01-16	00/01-16	02/01-16	01/01-16	00/01-16	02/01-16	01/01-16	00/01-16
121	112	93	46 (38%)	49 (44%)	32 (34%)	75 (60%)	63 (56%)	61 (66%)

Figure 4: Laboratory reports of *S. aureus* blood cultures, 1999-2002. Northern Ireland



Laboratory Reports

Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 13-16

	Number of Reports received		Cumulative total	
	02/13-16	01/13-16	02/01-16	01/01-16
<i>Campylobacter</i>	38	46	180	171
<i>C. difficile</i> Toxin	12	31	94	110
<i>C. perfringens</i>	2	3	7	3
<i>E. coli</i> 0157	2	0	2	1
<i>Salmonella</i> total	7	6	35	61
<i>S. enteritidis</i> (PT 4)	1	2 (1)	5 (1)	36 (28)
<i>S. typhimurium</i> (DT 104)	1	1	12 (3)	12 (3)
<i>Salmonella</i> other	5	3	18	13
<i>Shigella</i>	0	0	3	0
<i>Cryptosporidium</i> sp	15	95	40	169
<i>Giardia lamblia</i>	2	1	6	4
Adenovirus (faeces)	11	11	64	48
Enterovirus (faeces)	1	2	14	5
Rotavirus	35	84	101	159
SRSV	20	2	149	48

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

S. senftenberg 1
S. spp 4

Comment:

The following were associated with foreign travel:

Male, age not known, *S. enteritidis*, Canary Islands.

Cumulative reports of *Campylobacter* continue to rise and

are currently showing a 5% increase on weeks 1-16 of 2001.

Cumulative reports of *Salmonella* have almost halved due to the very marked reduction in *S. enteritidis*, which is currently showing an 86% decrease compared to the same period last year. Reports of *S. typhimurium* and *S. typhimurium* DT 104 are on a par with weeks 1-16 of 2001.

There were 15 reports of *Cryptosporidium* during weeks 13-

16 of 2002 compared to 95 during the same 4-week period of 2001 (84% decrease). The large number of reports in 2001 represents the beginning of the waterborne outbreak that occurred in the Eastern Health Board.

Reports of SRSV continue to rise and current levels are more than 3 times the level reported to week 16 last year.

Reports of positive blood cultures: Laboratory Reports, Weeks 01-16

	2002/01-16	2001/01-16
Gram negative bacteria		
<i>Acinetobacter sp</i>	11	6
<i>Aeromonas sp</i>	1	0
<i>Citrobacter sp</i>	4	5
<i>Enterobacter sp</i>	18	17
<i>Escherichia coli</i>	161	130
<i>Haemophilus influenzae</i>	12	5
<i>Haemophilus sp</i>	30	1
<i>Klebsiella sp</i>	33	20
<i>Neisseria meningitidis</i>	2	20
<i>Neisseria sp</i>	19	0
<i>Proteus sp</i>	1	12
<i>Providencia sp</i>	18	1
<i>Pseudomonas aeruginosa</i>	13	16
<i>Pseudomonas sp</i>	1	13
<i>Salmonella sp</i>	16	0
<i>Serratia sp</i>	6	10
Other gram negative bacteria	0	6
Totals	346	262
Gram positive bacteria		
Corynebacterium sp & Diphtheroids	10	1
Staphylococci:		
<i>S. aureus</i>	141	108
coagulase negative	119	93
Streptococci and enterococci:		
group A	10	15
group B	9	11
group C	0	0
group G	1	5
<i>Enterococcus sp</i>	52	54
α- and non-haemolytic	34	22
<i>S. pneumoniae</i>	50	51
Other gram positive bacteria	1	0
Totals	427	360
Anaerobic bacteria		
Anaerobic cocci	1	1
<i>Bacteroids sp</i>	12	12
<i>Clostridium sp</i>	14	8
Other anaerobic bacteria	0	1
Totals	27	22
Grand Total	800	644

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

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