

Weekly Influenza Surveillance Report



Week 18 2004

**Week starting Monday 26th April 2004 &
ending Sunday 2nd May 2004**

Report produced: 05/05/2004

This report is produced in collaboration with the Departments of Public Health

Summary

No influenza activity was reported through the GP sentinel surveillance scheme and no influenza virus positive specimens were detected by the NVRL during week 18.

Clinical data

During week 18 2004 (the week ending the 2nd of May 2004), no influenza-like illness (ILI) cases were reported from sentinel general practices (figure 1). Thirty of the sentinel general practices reported during week 18. The rates for weeks 6 to 18 have been the lowest rates reported for these weeks for any season since surveillance began in 2000. Age specific GP ILI consultation rates per 100,000 population by week for the 2003/2004-influenza season are detailed in figure 2. It is important to note that the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

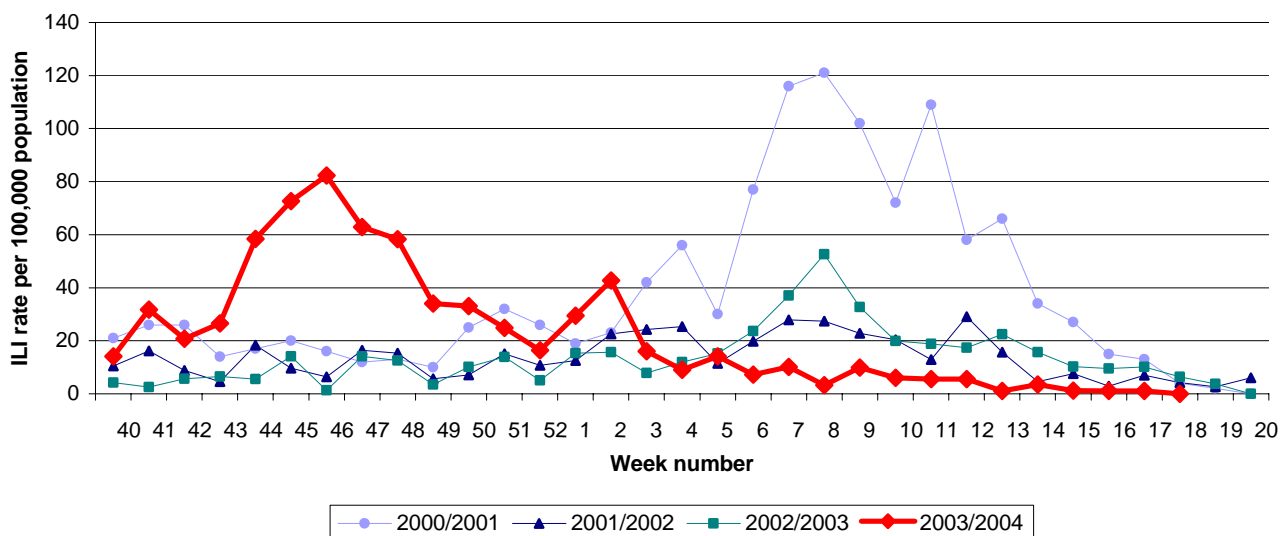


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003 & 2003/2004-influenza seasons.

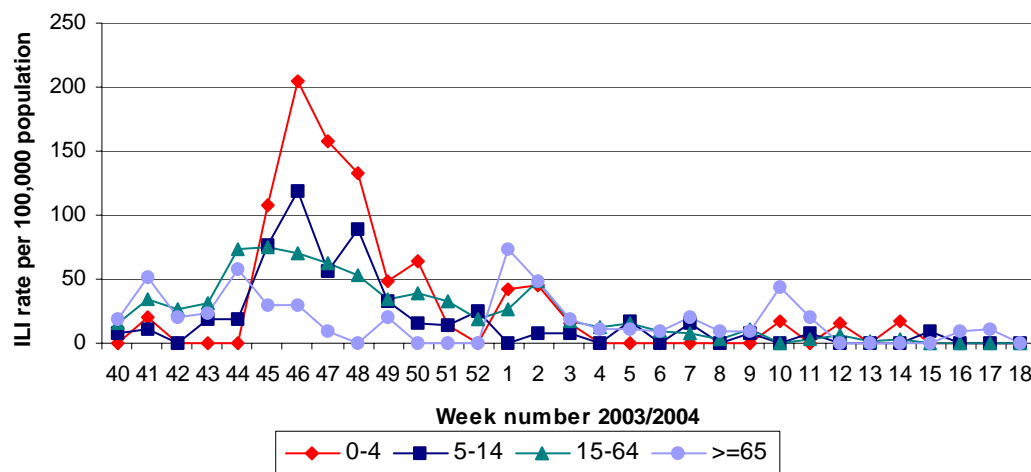


Figure 2: Age specific GP consultation rate for ILI per 100,000 population by week for the 2003/2004-influenza season.

Virological data from the National Virus Reference Laboratory

During week 18, the National Virus Reference Laboratory (NVRL) received no swabs from sentinel GPs (table 1). The total number of positive influenza swabs from sentinel GPs for the 2003/2004 season to date is 149: 6 influenza A (unsubtyped), 136 influenza A (H3N2) and 7 influenza B viruses (figure 3).

The NVRL tested 22 respiratory non-sentinel specimens mainly from hospitals and some GPs during week 18, no specimens were positive for influenza A or B, 4 specimens were positive for respiratory syncytial (RSV) virus, 2 were positive for parainfluenza virus (PIV) type-3 (table 2). Between weeks 40 2003 and 18 2004, a total of 1801 respiratory non-sentinel specimens have been tested by the NVRL, 97 were positive for influenza A, 14 for influenza B, 388 RSV, 8 adenovirus, 6 PIV-1, 5 PIV-2 and 27 PIV-3. Of the 97 influenza A positive non-sentinel specimens detected this season, 64 cases were in the 0 to 4 year age group, 6 were 5-14, 23 were 15-64, one was aged 65 years or older and three were of unknown age group. The total number of RSV positive specimens for the 2003/2004 season is represented in figure 4. Please note that non-sentinel specimens include all specimens referred to the NVRL, these specimens are mainly from hospitals and some GPs and may include more than one specimen from each case.

The total number of influenza positive specimens from all sources (sentinel and non-sentinel) this season is 260: 239 influenza A and 21 influenza B (table 3). Influenza positive specimens by health board are detailed in table 4. Seventy-five influenza positive cases this season were in the 0 to 4 year age group and 31 were in the 5-14 year age group. Detection of influenza in younger age groups is not unexpected as there has been very little influenza in circulation for the last few seasons, therefore the opportunity for development of immunity has been limited. One hundred and forty-four influenza positive specimens this season were in cases aged between 15 and 64 years of age, 6 cases were 65 years or older and 4 cases were of unknown age group.

Table 1: Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 18 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (unsubtyped)	Influenza A (H3N2)	Influenza B
18	0	0	0.0	0	0	0
Total	349	149	42.7	6	136	7

Table 2: Total number of non-sentinel** respiratory specimens and positive results for week 18 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
18	22	0	0.0	0	0	4
Total	1801	111	6.2	97	14	388

Table 3: Total number of sentinel and non-sentinel** respiratory specimens and positive results for week 18 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
18	22	0	0.0	0	0	4
Total	2150	260	12.1	239	21	388

Table 4: Total number of sentinel & non-sentinel** influenza A and B positive specimens by health board for week 18 2004 and the 2003/2004 season to date

	Week 18 2004			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	0	0	0	117	9	126
MHB	0	0	0	9	2	11
MWHB	0	0	0	22	1	23
NEHB	0	0	0	35	3	38
NWHB	0	0	0	16	0	16
SEHB	0	0	0	20	3	23
SHB	0	0	0	11	0	11
WHB	0	0	0	9	3	12
Total	0	0	0	239	21	260

** Please note that non-sentinel specimens include all specimens referred to the NVRL, these specimens are mainly from hospitals and some GPs and may include more than one specimen from each case.

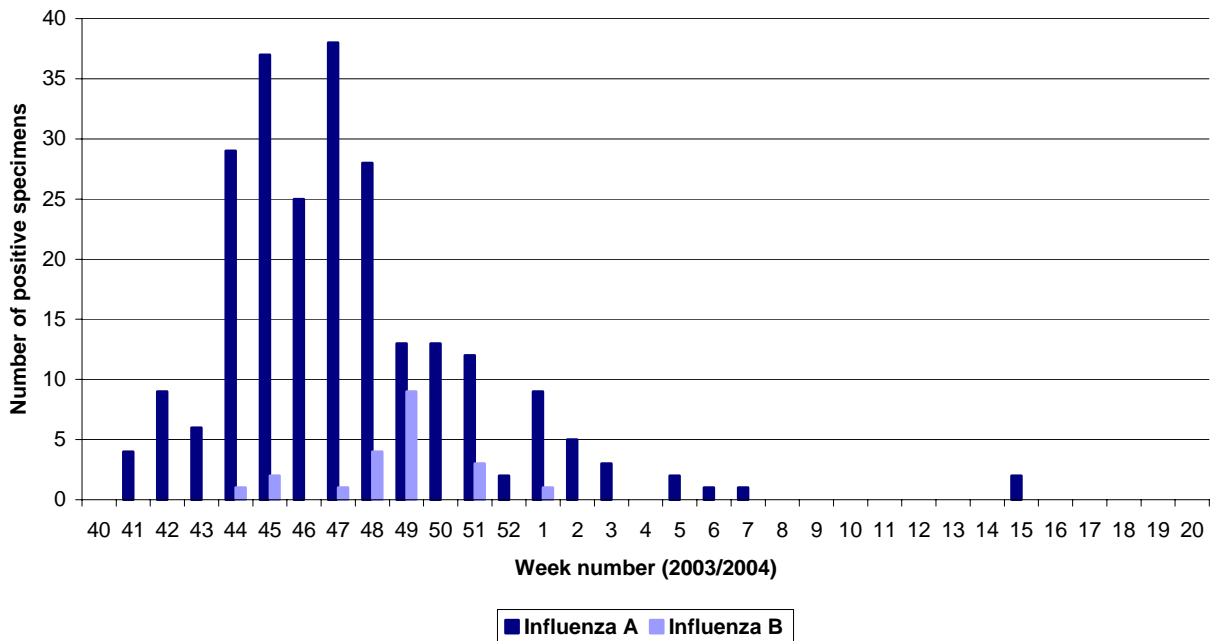


Figure 3: Number of positive influenza A and B sentinel and non-sentinel specimens tested by the NVRL by week number for the 2003/2004 season

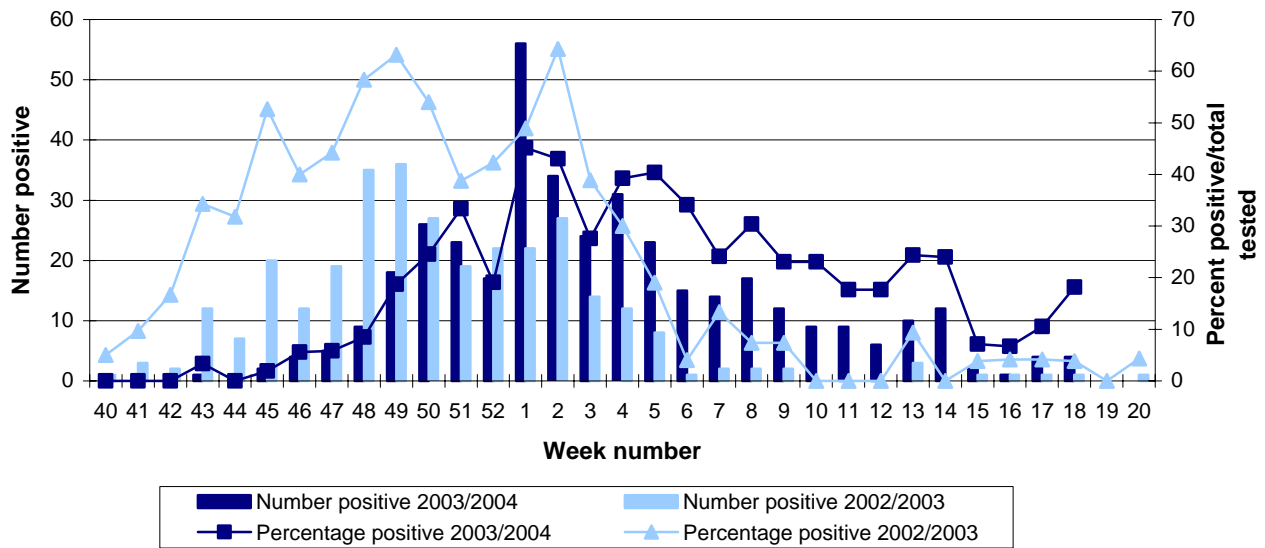


Figure 4: Number and percentage of non-sentinel RSV positive specimens detected during the 2003/2004 and 2002/2003 influenza seasons.

Antigenic characterisation

To date this season, 8 influenza A (H3N2) samples were sequenced at the NVRL and phylogenetic analysis was carried out at Mill Hill laboratories. All 8 samples were characterized as A/Fujian/411/2002-like strains. This year some antigenic drift has been detected in the A (H3N2) strains circulating in Europe, America, Australia and New Zealand. The A/Fujian-like strains are related to the A/Panama-like strain included in the current 2003/2004 vaccine and antibodies induced against this vaccine strain cross-react with A/Fujian-like strains, but generally to a reduced level. The current vaccine should give good protection against the virus strains in the vaccine, and it is also likely to give significant protection against the A/Fujian strain. The current vaccine is the best protection for those aged 65 years and over and in at risk groups.

School outbreak reports & sentinel school absenteeism data

To date this season, a total of 4 school outbreaks associated with ILI have been reported to NDSC. No increased absenteeism associated with ILI was reported to NDSC for weeks 17 or 18.

Sentinel hospital admissions data

There were no increases in RTI admissions from sentinel hospitals reported to NDSC during week 17 or 18.

Mortality data

To date this season, two influenza-associated deaths in 0-4 year olds have been reported to NDSC, one in week 47 and one in week 48.

Influenza activity by health board/authority

Influenza activity is reported on a weekly basis from the Departments of Public Health. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed cases of influenza, and/or sentinel hospital admissions data, and/or sentinel school absenteeism data. During week 17, the ERHA reported sporadic influenza activity and the remaining health boards reported no activity (fig. 2).

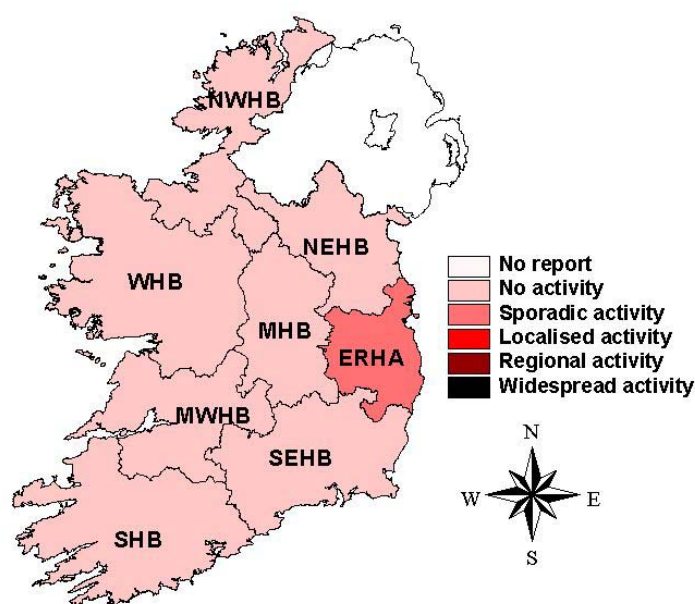


Figure 2: Map of influenza activity by health board/authority during week 17 2004.

Influenza activity in Northern Ireland

Influenza activity in Northern Ireland remained at low levels during week 18. The GP combined ILI and clinical influenza consultation rate for week 18 was 5.6 per 100,000, a decrease on the updated rate of 13.4 per 100,000 for week 17. No influenza viruses have been detected in Northern Ireland since week 6.

<http://www.cdscni.org.uk//>

Influenza activity in England, Scotland and Wales

Both clinical and virological indicators of influenza and other respiratory virus activity are currently low in England, Scotland and Wales. GP consultations for ILI in England, Scotland and Wales remain low and within baseline activity. During week 17, no influenza virus detections were reported from the ERNVL. Data for week 18 was not available at the time of publication of this report.

http://www.hpa.org.uk/infections/topics_az/influenza/fluactivity0304.htm

Influenza activity in Europe

The European Influenza Surveillance Scheme (EISS) produced its last weekly report for the 2003/2004 season during the week ending the 25th April 2004. Most countries will continue to monitor influenza activity and this surveillance data can be viewed

via the national/regional websites (click [here](#)). The EISS weekly electronic bulletin will resume publication in October 2004, at the beginning of the 2004/2005 influenza season. <http://www.eiss.org/> Sporadic influenza activity was reported in Italy during week 17. Denmark, Latvia, Norway and Romania all reported no influenza activity during week 17. <http://rhone.b3e.jussieu.fr/flunet/www/>

Influenza activity in Canada

During week 17 in Canada, localised influenza activity and an influenza outbreak was reported in Ontario. Sporadic or no activity was reported in the rest of Canada. Sentinel physicians reported 9 cases of ILI per 1000 patient visits, which is below the expected range for this time of year. Health Canada received 1,381 reports of laboratory tests for influenza, including 10 (0.72%) influenza A detections and five (0.36%) influenza B detections. The National Microbiology Laboratory has antigenically characterised 797 influenza viruses this season, 772/797 (96.9%) were influenza A viruses, including 744/772 (96.4%) A/Fujian/411/02(H3N2)-like, 25 (3.2%) A/Panama/2007/99(H3N2)-like, 2 A/NewCaledonia/20/99(H1N1)-like and 1 H1N2. Twenty five (25/797) were influenza B viruses, including six B/Hong Kong/330/2001-like and 19 B/Sichuan/379/99-like.

<http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>

Influenza activity in the United States

Influenza activity remained low during week 16. The percentage of patient visits for ILI has remained below the national baseline since the week ending January 17. During week 16, mortality due to pneumonia and influenza remained below the epidemic threshold. New York reported regional influenza activity for the second consecutive week; 5 states, New York City, Guam, and Puerto Rico reported sporadic activity; and 43 states and the District of Columbia reported no influenza activity. During week 16, WHO and NREVSS laboratories reported 333 specimens tested for influenza viruses, 13 (3.9%) of which were positive: 1 A (H3N2), 8 A (unsubtyped) and 4 influenza B viruses. <http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>

Influenza activity Worldwide

During week 17, sporadic influenza activity was reported in Argentina (2 A unsubtyped), China (125 A H3, 7 A unsubtyped & 3 B) and Uruguay. Localised influenza activity was reported in Chile (33 A unsubtyped & 1 B). Two influenza A (H1) and one influenza A (unsubtyped) viruses were detected in New Caledonia during week 17. Four influenza A (unsubtyped) viruses were detected in Paraguay during the same week. <http://rhone.b3e.jussieu.fr/flunet/www/>

Avian influenza

East and Southeast Asia

There is currently a widespread epidemic in East and Southeast Asia of highly pathogenic avian influenza (HPAI), caused by influenza A (H5N1) in animal populations, particularly domestic fowl and a variety of other birds, that poses a considerable potential human public health risk. For further information on the avian influenza outbreaks please consult the following websites:

NDSC: <http://www.ndsc.ie/DiseaseTopicsA-Z/AvianInfluenza/>

WHO: http://www.who.int/csr/disease/avian_influenza/en/

US

Currently, there are detections of low pathogenic avian influenza in the eastern United States and a detection of highly pathogenic avian influenza in Texas. Each of these viruses is different from the strain of highly pathogenic avian influenza in Asia.

http://www.aphis.usda.gov/lpa/issues/ai_us/ai_us.html

Canada

As of April 30th, ongoing surveillance in Canada has led to the detection of avian influenza on 39 commercial poultry farms in the Fraser Valley region, British Columbia (BC). The disease has also been detected in 10 backyard flocks. Depopulation of poultry continues on a priority basis, approximately 19 million birds will be destroyed. As movement of people and equipment is likely contributing to the spread of avian influenza in the region, poultry owners are required to control access to their premises. Two human cases of avian influenza A (H7) have been reported in poultry workers. The symptoms of both cases have resolved. No additional confirmed human cases of H7 have been identified and follow-up is underway with individuals who have reported mild symptoms following possible exposure to avian influenza contaminated material.

Canada: <http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>

WHO: http://www.who.int/csr/disease/avian_influenza/en/

Northern Hemisphere influenza vaccine for the 2004/2005

The WHO has published its recommendations on the composition of influenza vaccines for use in the 2004-2005 Northern Hemisphere influenza season.

- an A/New Caledonia/20/99(H1N1)-like virus
- an A/Fujian/411/2002(H3N2)-like virus^a
- a B/Shanghai/361/2002-like virus^b

^a The currently used vaccine virus is A/Wyoming/3/2003. A /Kumamoto/102/2002 is also available as a vaccine virus.

^b Candidate vaccine viruses include B/Shanghai/361/2002 and B/Jilin/20/2003, which is a B/Shanghai/361/2002-like virus.

<http://www.who.int/csr/disease/influenza/vaccinerecommendations1/en/>
www.emea.eu.int

Weekly influenza reports and further information on influenza are available on the NDSC website:

<http://www.ndsc.ie/Publications/InfluenzaWeeklySurveillanceReport/>

<http://www.ndsc.ie/DiseaseTopicsA-Z/Influenza>

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