

Weekly Influenza Surveillance Report



Week 20 2004

**Week starting Monday 10th May 2004 &
ending Sunday 16th May 2004**

Report produced: 20/05/2004

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

Summary

No influenza activity was reported through the GP sentinel surveillance system or by the National Virus Reference Laboratory during week 20. This is the last influenza surveillance report of the 2003/2004 influenza season. A summary report of the season will be produced in the forthcoming weeks. GP sentinel surveillance will continue throughout the summer with regular reporting.

Clinical data

During week 20 2004 (the week ending the 16th of May 2004), no influenza-like illness (ILI) cases were reported from sentinel general practices (figure 1). Twenty-nine of the sentinel general practices reported during week 20. 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.

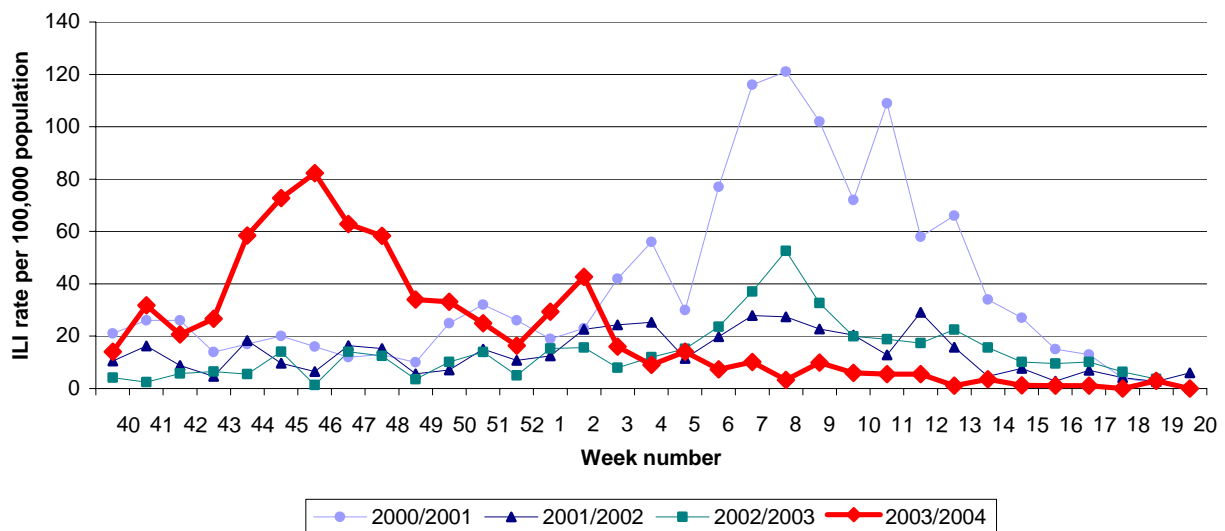


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003 & 2003/2004-influenza seasons.

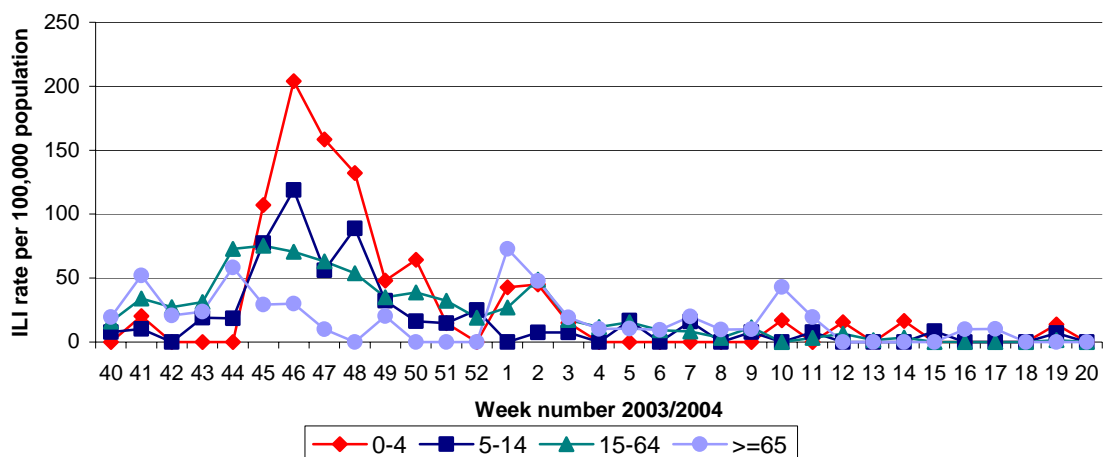


Figure 2: Age specific GP consultation rate for ILI per 100,000 population by week for the 2003/2004-influenza season.

Virological data from the National Virus Reference Laboratory

During week 20, 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 is 149: 6 influenza A (unsubtyped), 136 influenza A (H3N2) and 7 influenza B viruses (figure 3).

The NVRL tested 36 respiratory non-sentinel specimens mainly from hospitals and some GPs during week 20, no specimens were positive for influenza A or B, 5 specimens were positive for respiratory syncytial (RSV) virus and 6 were positive for parainfluenza virus (PIV) type-3 (table 2). During the 2003/2004 season, a total of 1857 respiratory non-sentinel specimens have been tested by the NVRL, 98 were positive for influenza A, 14 for influenza B, 396 RSV, 8 adenovirus, 6 PIV-1, 5 PIV-2 and 38 PIV-3. Of the 98 influenza A positive non-sentinel specimens detected this season, 64 cases were in the 0 to 4 year age group, 6 were 5-14, 24 were 15-64, one was aged 65 years or older and 3 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 261: 240 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-five 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 20 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (unsubtyped)	Influenza A (H3N2)	Influenza B
20	0	0	0.0	0	0	0
Total	350	149	42.6	6	136	7

Table 2: Total number of non-sentinel* respiratory specimens and positive results for week 20 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
20	36	0	0.0	0	0	5
Total	1857	112	6.0	98**	14	396

Table 3: Total number of sentinel and non-sentinel* respiratory specimens and positive results for week 20 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
20	36	0	0.0	0	0	5
Total	2207	261	11.8	240**	21	396

Table 4: Total number of sentinel & non-sentinel* influenza A and B positive specimens by health board for week 20 2004 and the 2003/2004 season to date

	Week 20 2004			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	0	0	0	118	9	127
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	240	21	261

*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.

**Data for week 18 was updated: One influenza A positive specimen was detected.

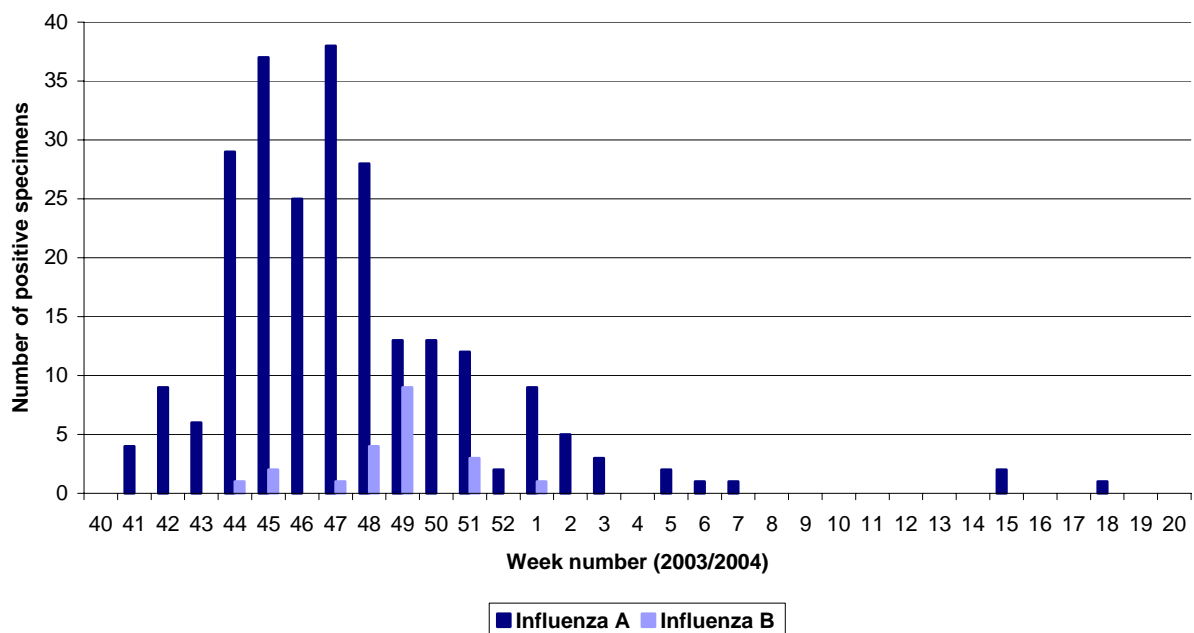


Figure 3: Number of positive influenza A and B sentinel & non-sentinel specimens tested by the NVRL by week number for the 2003/2004 season

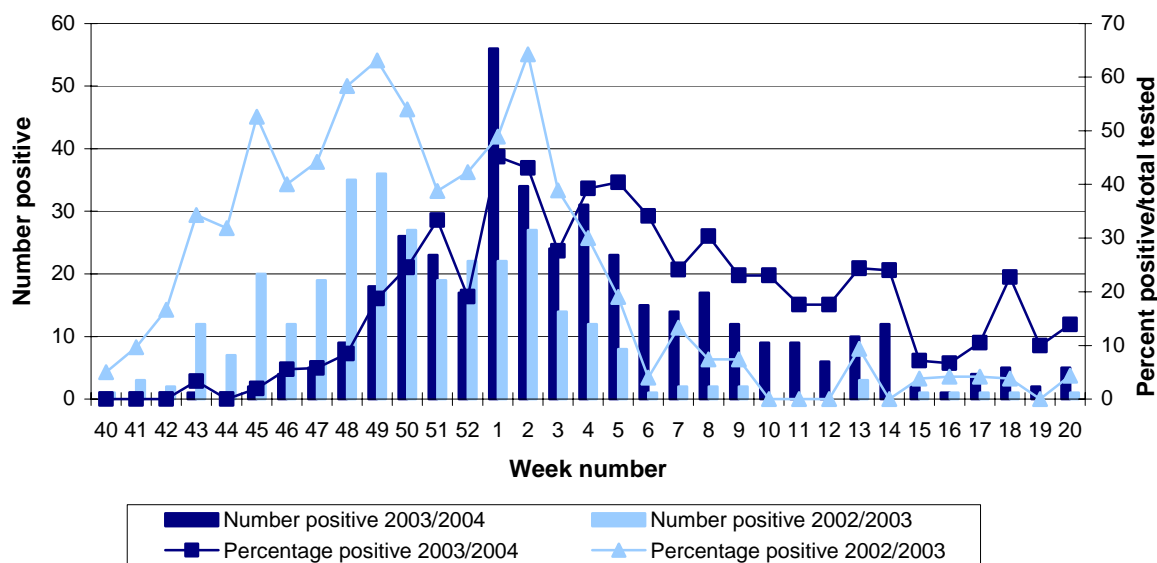


Figure 4: Number and percentage of non-sentinel RSV positive specimens detected during the 2003/2004 and 2002/2003 influenza seasons.

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 week 19.

Sentinel hospital admissions data

There was a slight increase in respiratory admissions from a sentinel hospital in the ERHA during week 19, compared to recent weeks.

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 19, the ERHA and NEHB reported sporadic influenza activity and all other health boards reported no influenza activity (fig. 5).

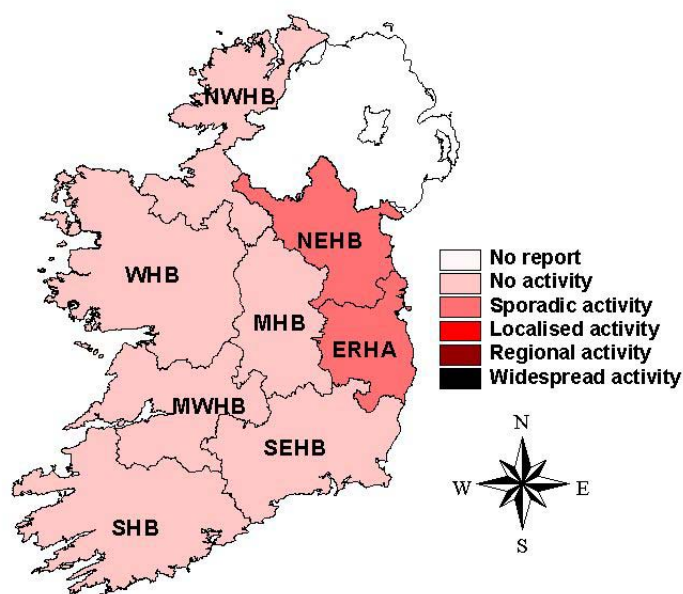


Figure 5: Map of influenza activity by health board/authority during week 19 2004.

Influenza activity in Northern Ireland

Influenza surveillance reporting for the 2003/2004 season finished during week 19. A summary report of the season will be produced shortly. Influenza monitoring will continue throughout the summer. <http://www.cdscni.org.uk/>

Influenza activity in England, Scotland and Wales

During week 20, 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. Week 20 is the last influenza report for the 2003/2004 influenza season. Surveillance of influenza and other respiratory diseases will continue throughout the summer and reporting will be reactivated if new activity emerges. A summary report of the 2003/2004 season will be produced in the forthcoming weeks. 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/> No influenza activity was reported in Denmark and the Czech Republic during week 19. <http://rhone.b3e.jussieu.fr/flunet/www/>

Influenza activity in Canada

Sporadic activity was reported in British Columbia and Nova Scotia during week 19, and no activity was reported in the rest of the country. Across Canada, during week 19, sentinel physicians reported 11 cases of ILI per 1000 patient visits, which is below the expected range for this time of year. Health Canada received 1,107 reports of laboratory tests for influenza, including 6 (0.54%) influenza A detections and two (0.18%) influenza B detections. The National Microbiology Laboratory has antigenically characterised 810 influenza viruses to date, 780/810 (96.3%) were influenza A viruses, including 752/780 (96.5%) A/Fujian/411/02(H3N2)-like, 25 (3.2%) A/Panama/2007/99(H3N2)-like, two A/NewCaledonia/20/99(H1N1)-like and one H1N2. Thirty (30/810) were influenza B viruses, including seven B/Hong Kong/330/2001-like and 23 B/Sichuan/379/99-like. Detections of other respiratory viruses are at or below the expected range for this time of year. To date this season, there have been a total of 736 outbreaks reported; including 452 influenza confirmed outbreaks in long term care facilities/retirement lodges and hospitals, and 284 ILI outbreaks in schools and other sources.

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

Influenza activity in the United States

Influenza activity remained low during week 18 in the US. The percentage of patient visits for ILI has remained below the national baseline since the week ending January 17th. During week 18, mortality due to pneumonia and influenza remained below the epidemic threshold. Five states, New York City, and the District of Columbia reported sporadic activity; and 39 states reported no influenza activity. During week 18, WHO and NREVSS laboratories reported 349 specimens tested for influenza viruses, one of which was positive for an influenza B virus. Since September 28, 2003, WHO and NREVSS laboratories have tested 124,372 specimens for influenza viruses, of which 24,581 (19.8%) were positive. Of these, 24,361 (99.1%) were influenza A viruses, and 220 (0.9%) were influenza B viruses. Of the 24,361 influenza A viruses, 7,190 (29.5%) have been subtyped; 7,188 (99.9%) were influenza A (H3N2) viruses and 2 (0.1%) were influenza A (H1) viruses.

<http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>

Influenza activity Worldwide

During week 19, sporadic influenza activity was reported in Argentina (6 A H3 & 4 A untyped), China (143 A H3, 9 A untyped & 3 B) and Uruguay. A localised outbreak was reported in Brazil associated with 3 A (untyped) virus detections. Regional activity was reported in Chile during week 19, associated with 75 A (untyped) and 2 B virus detections. Also, during week 19, 2 influenza A (untyped) virus detections were reported from New Caledonia and 11 influenza A (untyped) virus detections were reported from Paraguay.

<http://rhone.b3e.jussieu.fr/flunet/www/>

Avian influenza

East and Southeast Asia

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

In early 2004, there were detections of low pathogenic avian influenza in eastern United States and a detection of highly pathogenic avian influenza in Texas. Each of these viruses was different from the strain of highly pathogenic avian influenza in Asia. There have been no further detections of either disease in the United States.

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

Canada

The number of avian influenza infected commercial poultry farms has reached 41 in the Fraser Valley region, British Columbia (BC). All positive premises have been depopulated and disinfection activities are underway. Testing of geese on a farm revealed that they are not infected with H7 or H5 avian influenza but possibly infected by an H6 virus, which is not known to have any serious health effects on birds or humans. Two human cases of avian influenza A (H7) were reported in poultry workers, the symptoms of both cases have resolved. According to BC Health Authorities, 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>

The NVRL, ICGP and NDSC would like to thank the sentinel GPs who participated in this surveillance scheme throughout the 2003/2004 influenza season. Many thanks are also due to the Departments of Public Health and sentinel hospitals and schools that provided data throughout the season.

This report was produced by Dr Lisa Domegan, NDSC