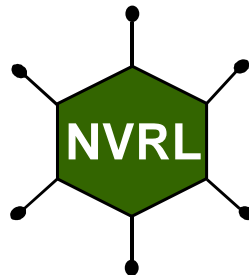


Weekly Influenza Surveillance Report



Week 40 2003

Report produced: 09/10/2003

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

Background to the sentinel influenza surveillance scheme

Welcome to the first influenza surveillance report of the 2003/2004-influenza season. This is the fourth year of influenza surveillance using computerised sentinel general practices in Ireland. The National Disease Surveillance Centre (NDSC) is working in collaboration with the National Virus Reference Laboratory (NVRL) and the Irish College of General Practitioners (ICGP) on the sentinel surveillance project.

Sentinel GPs

Thirty-four general practices have been recruited to report electronically, on a weekly basis, the number of patients with influenza-like illness (ILI). ILI is defined as the sudden onset of symptoms with a temperature of 38⁰C or more, with two or more of the following: headache, sore throat, dry cough and myalgia. Patients are those attending for the first time with these symptoms. In total, the 34 sentinel general practices cover an estimated total practice population size of 93859, representing 2.4% of the population. Practices are located in all health boards with their location based on the population of each health board.

Sentinel GPs send a combined nasopharyngeal and throat swab, to the NVRL, on at least one patient per week where a clinical diagnosis of ILI is made. The NVRL report on a weekly basis, positive or negative results by PCR and/or Shell Vial by influenza type and subtype to NDSC.

Regional influenza activity

The Departments of Public Health send an influenza activity index (no report, no activity, sporadic-, localised-, regional- or widespread activity) for each health board/authority every week, to NDSC. The activity index is analogous to that used by the WHO global influenza surveillance system and the European Influenza Surveillance Scheme. The index is based on sentinel GP ILI consultation rates, laboratory confirmed cases of influenza, sentinel hospital admissions data and/or sentinel school absenteeism levels. Sentinel hospital data are based on: total admissions per week, total A & E admissions per week and total respiratory admissions per week (the definition of respiratory illness in this instance includes upper respiratory tract infection, lower respiratory tract infection, pneumonia, asthma, chronic bronchitis, and exacerbations of chronic obstructive airways disease). One sentinel hospital is located in each health board. Sentinel primary and secondary schools in each health board are located in close vicinity to the sentinel GPs. Each sentinel school reports absenteeism data to the Departments of Public Health on a weekly basis. The activity index by health board is included in a map of Ireland in the weekly influenza surveillance report.

Weekly influenza surveillance report

NDSC is responsible for producing a weekly influenza report, which is sent to all those involved in influenza surveillance and also posted on the NDSC website every Thursday www.ndsc.ie. Results of clinical and virological data are reported, along with a map of influenza activity, and a summary of influenza activity worldwide.

The influenza surveillance period runs from week 40 in October to week 20 in May, with the week running Monday to Sunday.

Summary

The first confirmed cases of influenza in Ireland this season occurred in a Dublin boarding school in mid September. During week 40 2003, influenza activity was at low levels.

Clinical data from sentinel GPs

During week 40 2003 (the week ending the 5th of October 2003), 11 influenza-like illness (ILI) cases were reported from sentinel general practices, corresponding to an ILI consultation rate of 13.8 per 100,000 population. Twenty-nine of the 34 (85.3%) sentinel practices reported during week 40 2003, with 5 reporting ILI (figure 1). One ILI case was aged between 5 and 14 years, 10 cases were in the 15-64 year age group and no cases were aged 65 years or older.

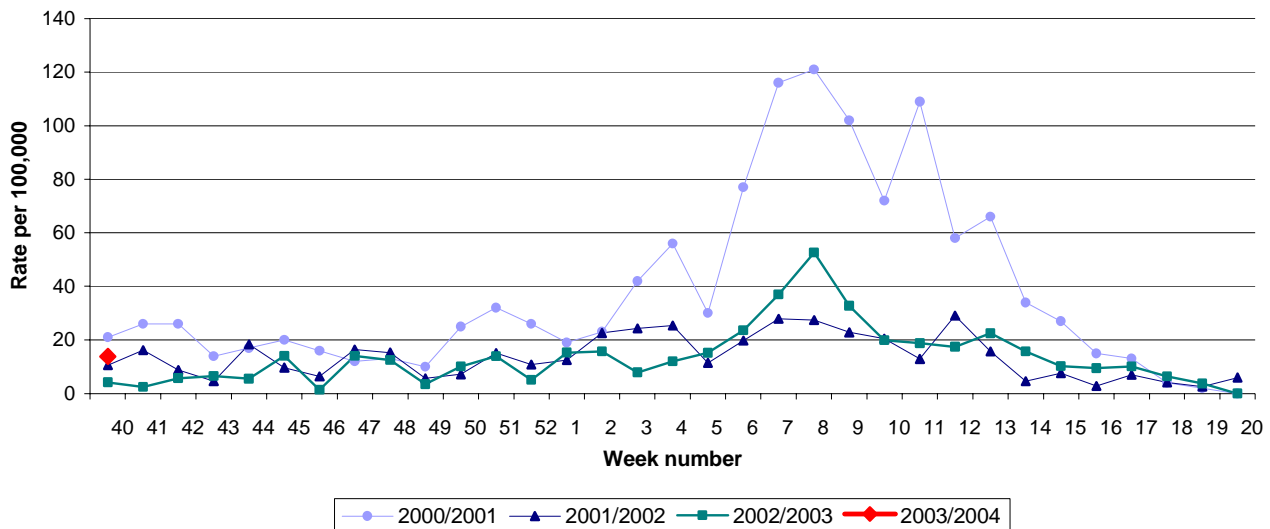


Figure 1: GP consultation rate for influenza-like illness per 100,000 population by report week, during the 2000/2001, 2001/2002 and 2002/2003 influenza seasons.

Virological data

During week 40, the National Virus Reference Laboratory (NVRL) received 9 swabs from sentinel GPs. All were negative for influenza virus.

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, sentinel hospital admissions data, and/or sentinel school absenteeism data. Reporting of influenza activity by health board will begin next week.

Influenza outbreak in Dublin school

An outbreak of influenza was reported in a Dublin boarding school in mid September 2003. In total, 81 pupils and one staff member were ill. The student attack rate was 26%. Influenza A (H3N2) has been identified by the National Virus Reference Laboratory in four of 9 specimens tested. Investigations are ongoing to determine if the virus strain identified is similar to that in the 2003/2004-influenza vaccine. This is

the first report of an influenza outbreak in Europe this season and the first confirmed cases of influenza in Ireland this season. <http://www.eiss.org/index.cgi>
<http://www.eurosurveillance.org/ew/2003/031002.asp>

Influenza activity in Northern Ireland

In Northern Ireland during week 40, 21 sentinel general practices reported a GP consultation rate for combined influenza and ILI of 22.7 per 100,000 population. Results are pending on 2 sentinel GP swabs <http://www.cdscni.org.uk/>

Influenza activity in England, Scotland and Wales

Clinical indicators of influenza activity are at low levels in the UK during week 40. The first detections of influenza viruses were reported in England and Wales. In England, 2 isolates have been characterised as A (H3N2) Fujian/411/2002-like. Although, the influenza A (H3N2) component of the 2003/2004 vaccine is A/Panama/2007/99, there will be some cross protective immunity to Fujian-like strains. http://www.hpa.org.uk/infections/topics_az/influenza/fluactivity0304.htm

Influenza activity in Europe

No influenza activity was reported in Denmark, Switzerland, Portugal, France, Latvia or Poland during week 40. <http://rhone.b3e.jussieu.fr/flunet/www/activity.html>. Only isolated cases of influenza have been reported to the European Influenza Surveillance Scheme (EISS). EISS will begin publishing its seasonal Weekly Electronic Bulletin on the 17th October. <http://www.eiss.org>

Influenza activity in Canada

During week 37 in Canada, sporadic activity was reported in parts of Ontario and Alberta. Sentinel physicians reported 37 cases of ILI per 1000 patient visits in week 38. During the two-week period, September 7 to September 20, Health Canada received 1179 reports of laboratory tests for influenza, including two (0.17%) influenza A detections and one (0.08%) influenza B detection. <http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>

Influenza activity in the United States

Reports on influenza surveillance for the 2003/2004 season in the US will be available on October 14th 2003. <http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>

Influenza activity Worldwide

Sporadic influenza activity was reported in Hong Kong, the Russian Federation and in Australia during week 40. In Hong Kong, 3 influenza A (unsubtyped), 31 influenza A (H3N2) and 1 influenza B viruses were detected. <http://oms2.b3e.jussieu.fr/flunet/>

During August 2003, large outbreaks of influenza were reported all over Australia and New Zealand. Most isolates analysed to date are influenza A (H3N2) viruses. Virtually no influenza type B or A (H1) viruses have been detected this season in Australia. This year some antigenic drift has been detected in the virus strains circulating in Australia and New Zealand and the viruses occurring most recently have been classified as A/Fujian-like. The A/Fujian-like viruses are still related to the A/Moscow-like strain included in the current vaccine and there will be some cross protective immunity. <http://www.eiss.org/news.cgi>

Southern Hemisphere influenza vaccine for 2004/2005

The WHO announced on the 6th of October 2003 the composition of the Southern Hemisphere influenza vaccine for the 2004 winter.

- A/New Caledonia/20/99(H1N1)-like virus
- A/Fujian/411/2002(H3N2)-like virus*
- B/Hong Kong/330/2001-like virus**

*A/Kumamoto/102/2002 and A/Wyoming/3/2003 are egg-grown A/Fujian/411/2002-like viruses.

**Currently used vaccine viruses include B/Shandong/7/97, B/Hong Kong/330/2001, B/Hong Kong/1434/2002. B/Brisbane/32/2002 is also available as a vaccine virus.

<http://www.who.int/csr/disease/influenza/vaccinerecommendations1/en/index.html>

Northern Hemisphere influenza vaccine for the 2003/2004

On February the 28th 2003, WHO published a recommendation on the composition of influenza vaccines for use in the 2003-2004 Northern Hemisphere influenza season.

- A/New Caledonia/20/99(H1N1)-like virus
- A/Moscow/10/99(H3N2)-like virus*
- B/Hong Kong/330/2001-like virus**

* The widely used vaccine strain is A/Panama/2007/99

** Currently used vaccine strains include B/Shandong/7/97, B/Hong Kong/330/2001, B/Hong Kong/1434/2002

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

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