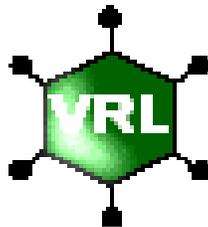


Weekly Influenza Surveillance Report



Week 5 2002

Report produced: 07/02/2002

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

Influenza Activity in Ireland

During week 5, the week ending the 3rd of February 2002, the GP consultation rate for influenza-like illness (ILI) decreased. Six ILI cases were reported from sentinel general practices, corresponding to a consultation rate of 10 per 100,000 population. Reports were received from 24 sentinel GPs, with 6 reporting ILI cases. Data for week 4 2002 has been updated, with a GP consultation rate of 25 per 100,000.

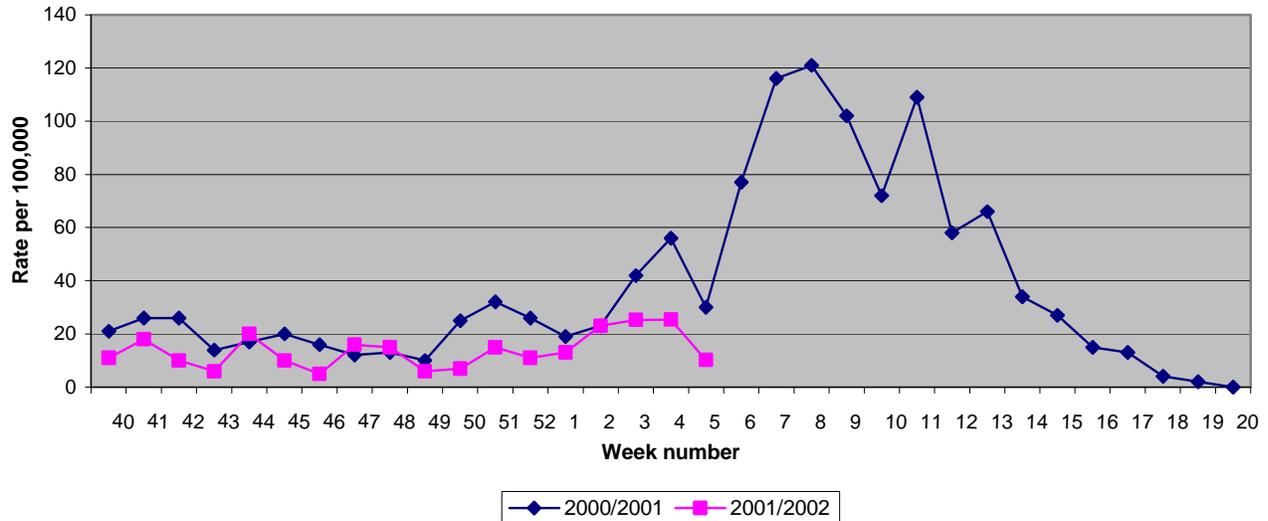


Figure 1: GP consultation rate for influenza-like illness per 100,000 population by report week, during the 2000/2001 and 2001/2002 influenza seasons.

Virological Data from the Virus Reference Laboratory (VRL)

During week 5 2002, 14 swabs were received from sentinel GPs, 2 of these were positive for influenza virus. One swab was positive for influenza A (H1N1) and one was positive for influenza A (H3N2). The results of 6 swabs are pending. The results for week 4 have been updated; 6 influenza A (H3N2) viruses were isolated. No influenza B viruses have been detected this season.

The VRL have tested 403 respiratory specimens from non-sentinel specimens (hospitals and GPs), since the start of the influenza season. During week 5, 19 specimens were positive for RSV, bringing the total RSV cases detected this season to 117. No influenza viruses have been isolated from non-sentinel specimens.

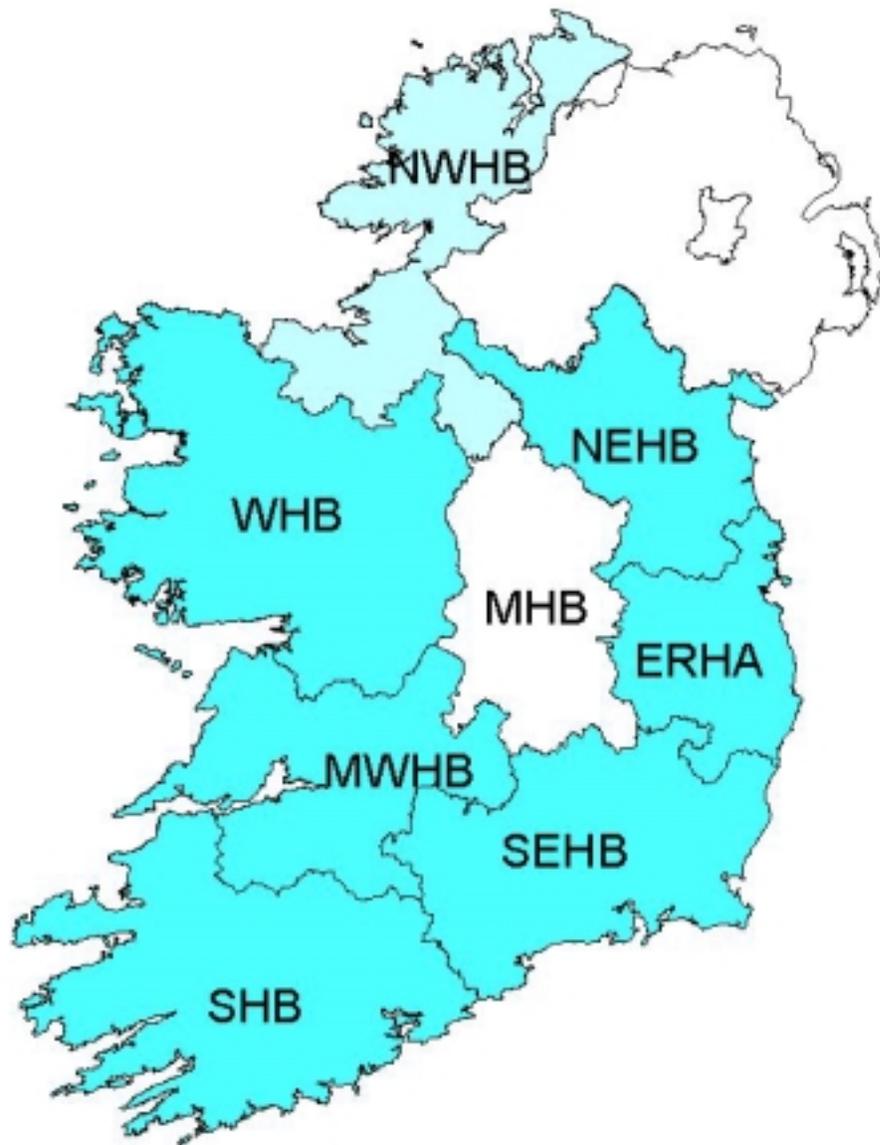
Table 1: Sentinel influenza results by type, subtype and report week for 2001/2002

| Week number | Number of swabs | Percentage Positive | Influenza A (unsubtyped) | Influenza A (H1N1) | Influenza A (H3N2) | Influenza B |
|--------------------|------------------------|----------------------------|---------------------------------|---------------------------|---------------------------|--------------------|
| 40 | 5 | 0% | | | | |
| 41 | 4 | 0% | | | | |
| 42 | 4 | 0% | | | | |
| 43 | 2 | 0% | | | | |
| 44 | 2 | 0% | | | | |
| 45 | 6 | 0% | | | | |
| 46 | 3 | 0% | | | | |
| 47 | 10 | 0% | | | | |
| 48 | 8 | 0% | | | | |
| 49 | 6 | 0% | | | | |
| 50 | 8 | 0% | | | | |
| 51 | 9 | 0% | | | | |
| 52 | 1 | 0% | | | | |
| 1 | 7 | 0% | | | | |
| 2 | 9 | 0% | | | | |
| 3 | 12 | 42% | | 2 | 3 | |
| 4 | 14 | 43% | | | 6 | |
| 5 | 14 | 14% | | 1 | 1 | |
| Total | 124 | 11% | 0 | 3 | 10 | 0 |

Influenza Activity by Health Board/Authority

Influenza activity for week 4 (week ending the 30th of January 2002) was reported from the Departments of Public Health. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed cases of influenza, hospital admissions data, and/or school absenteeism levels. During week 4, six health boards reported sporadic activity and one reported no activity.

Influenza Activity - Week 4 2002



New strain of influenza A virus

The WHO has announced the isolation of a new strain of influenza A virus, influenza A (H1N2), based on information from the WHO global influenza surveillance programme and PHLS surveillance in England and Wales. This new subtype contains a H component which is very similar to that contained in the currently circulating H1N1 strains and an N component which is very similar to that contained in the currently circulating H3N2 strains. The new H1N2 strain appears to have arisen by reassortment of the two human viruses (H1N1 and H3N2). Influenza A (H1N2) has been isolated from humans in England, Israel and Egypt in the last few weeks. Influenza A (H1N2) viruses were also previously detected in China during the 1988/1989 influenza season, and these were determined to have arisen from reassortment. Further spread of these reassortment viruses in humans did not occur at that time. The PHLS National Influenza Laboratory is carrying out further work on the new strain. As the new strain is a combination of the two components (H1N1 and H3N2) present in this seasons vaccine, people who have received the vaccine should have a good level of immunity to the new strain. People in the general population who haven't been vaccinated should also have some immunity as the H1N1 and H3N2 strains have been in circulation for the last two decades. To date, PHLS data indicates that the severity of symptoms caused by this new strain are similar to those caused by the H1N1 and H3N2 subtypes of influenza A, and there are no unusual clinical illnesses associated with the new strain. In light of this, the 3 influenza A (H1) viruses detected in Ireland during this influenza season are undergoing characterisation.

Influenza vaccine composition for the 2002/2003 influenza season

The WHO announced the composition of the vaccine for the 2002/2003 Northern Hemisphere influenza season on the 6th of February. The strains of influenza virus recommended by the WHO to be included in the vaccine are:

- A/New Caledonia/20/99 (H1N1)-like virus
- A/Panama (H3N2)-like virus (the widely used vaccine strain A/Panama/2007/99 is an A/Moscow/10/99-like virus)
- B/Hong Kong/330/2001 (a B Victoria-like virus)

The H1N1 and H3N2 components are unchanged from the current vaccine and are considered to provide good protection against the new influenza A (H1N2) strain.

Influenza Activity in Northern Ireland

The GP consultation rate for combined influenza and ILI increased from a rate of 6.6 per 100,000 in week 4 to 19.8 per 100,000 in week 5. No swabs were submitted from sentinel GPs during week 5. One positive influenza A swab was detected from a hospital in-patient during week 5. This is the third positive swab of influenza A detected in Northern Ireland since the start of the season, all in paediatric cases.

Influenza Activity in England, Scotland and Wales

During week 4, the GP consultation rates for ILI in the UK continue to remain within the range for baseline activity. A total of 9 outbreaks have been reported since the beginning of January, 6 from schools and 3 from nursing homes or geriatric hospitals. Three of the school outbreaks are due to the new strain of influenza A (H1N2). All influenza A (H1) detections from this season are undergoing characterisation. Influenza A (H1N2) has been detected in both hospital and community sources, with

the majority in the 5-15 year age group. Twenty-five influenza A (H1N2) viruses have been detected in the community, with a further 7 in hospitals and 5 associated with outbreaks.

Influenza Activity in Europe

Heterogeneous levels of influenza activity were reported throughout Europe, during week 4. Influenza activity was described as widespread or regional in 5 countries: Belgium, France, Portugal, Spain and Switzerland. Clinical influenza morbidity rates are increasing in most countries. Only Spain reported a higher than usual intensity, compared to historical data. Influenza A (H3N2) remained the dominant virus in Europe during week 4. All characterised influenza A and B viruses resemble the strains in the 2001/2002 vaccine.

Influenza Activity in Canada

During week 4, sentinel physicians reported 29 cases of ILI per 1000 patient visits, which remains below the expected rate. Health Canada received 1999 reports of laboratory tests for influenza: 15% were positive for influenza A and 0.8% were positive for influenza B. All influenza A viruses identified to date have been similar to the strains included in this season's vaccine. The B/Hong Kong/22/01-like viruses characterised this season are antigenically different from the vaccine strain and the current vaccine is expected to provide limited cross-protection against this antigenic variant of influenza B viruses.

Influenza Activity in the United States

During week 4, the overall proportion of patient visits to sentinel physicians for ILI was 3.2%, which is above the national baseline of 1.9%. Eight state and territorial health departments reported widespread influenza activity, 15 reported regional activity, and 25 reported sporadic activity. Ninety-one influenza A (H3N2), 297 influenza A (unsubtyped), and 4 influenza B viruses were identified, in week 4. The CDC has characterised 134 influenza viruses collected from US laboratories since October 1st 2001, all viruses are covered by the current vaccine.

Influenza Activity Worldwide

No influenza activity was reported in Argentina during week 4. Sporadic activity was reported in Hong Kong and Mexico. In Hong Kong, 2 influenza A (unsubtyped), 3 influenza A (H1N1), 27 influenza A (H3N2) and 17 influenza B viruses were detected. The Russian Federation reported regional influenza activity, with 34 influenza B isolates detected mostly in Kirov and Khabarovsk.

This report was prepared by Lisa Domegan, Surveillance Scientist, NDSC.