

**Communicable Disease Surveillance Centre (NI)  
Dept. of General Practice, QUB, Data Retrieval Project  
Regional Virus Laboratory  
Northern Ireland Statistics and Research Agency**

**Enhanced Surveillance of Influenza  
in Northern Ireland**

**Summary  
Season 2006-2007**

**This summary is circulated to Trust Chief Executives, Directors of Public Health, Consultants in Communicable Disease Control, participating practices and other interested parties. We would encourage you to disseminate it internally to any relevant personnel. For further information or any comments on the contents or presentation of this document, please contact Dr B Smyth or Eileen Morelli at 028 9026 3765 or E-mail [eileen.morelli@hpa.org.uk](mailto:eileen.morelli@hpa.org.uk)**

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## **Enhanced Surveillance of Influenza in Northern Ireland**

- *Higher than average seasonal activity*
- *Peak activity weeks 2-9*
- *Rates highest in 0-4, 5-14 age groups*
- *All confirmed cases - influenza A H3*
- *3 institutional care home outbreaks (1 confirmed influenza AH3)*

### ***Introduction***

This ESINI bulletin is produced as part of the enhanced surveillance of influenza in Northern Ireland. The principal aim of the project is to provide an early warning scheme for influenza virus circulation in Northern Ireland. The scheme involves the weekly compilation of data from sentinel GP practices and Out-of-Hours Centres (formerly Co-Operatives), the Regional Virus Laboratory and the Northern Ireland Statistics and Research Agency.

### ***Sentinel GP Practices***

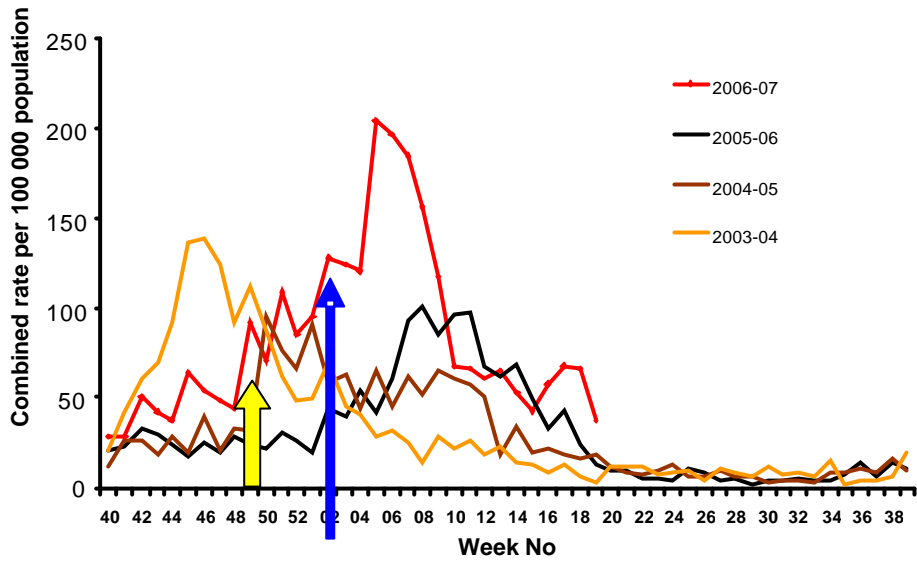
During the 2006-07 season, consultation-based information regarding 'flu and 'flu-like illness was supplied by twenty-two spotter practices across the Province. Together, these practices account for 125 812 persons, which is approximately 7.3 % of the population.

### ***Out-of-Hours Centres***

Five NI Out-of-Hours Centres agreed to supply information to the scheme for the 2006-07 season. These Out-of-Hours Centres cover 1 262 892 persons (74% of the population). Data was supplied to CDSC (NI) in the form of total calls to each Centre per week and included a breakdown of those calls by age and sex. It is hoped that, for the 2007-08 season, it will be possible to identify the proportion of calls each week coded as 'flu' or FLI illness or acute respiratory infection by a number of Out-of-Hours Centres. This is being facilitated by the roll-out of a new software system across the Province.

**Consultation rates  
Sentinel GP Practices**

**Sentinel GP combined consultation rate for 'flu and 'flu-like illness 2006/07**

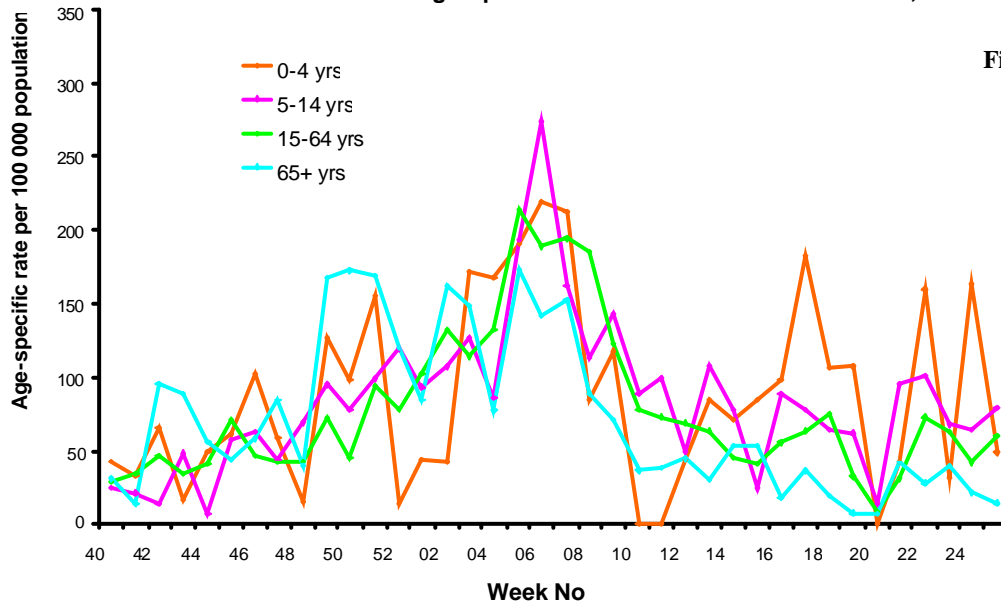


**Fig 1**

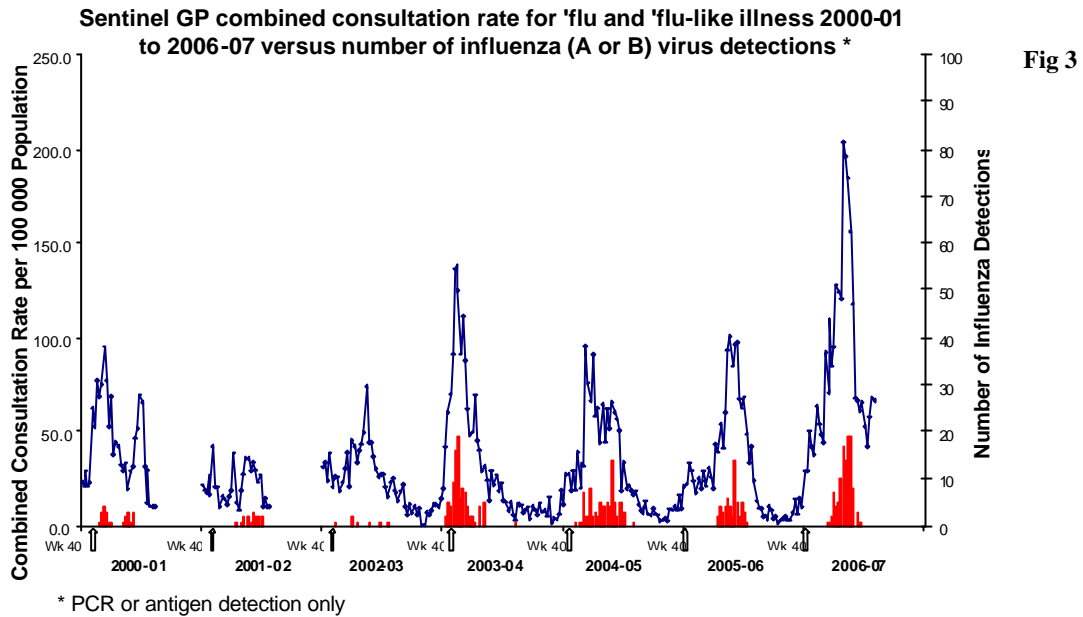
★ DHSSPS alert 8 Jan  
First Influenza A detection 2006/2007 ( x1 Week 50). No Flu B detections to date.

Consultation rates were highest in the under 14's with peak activity occurring in Week 2 to Week 9. (Fig 2). The DHSSPS subsequently issued an alert on the 8<sup>th</sup> January

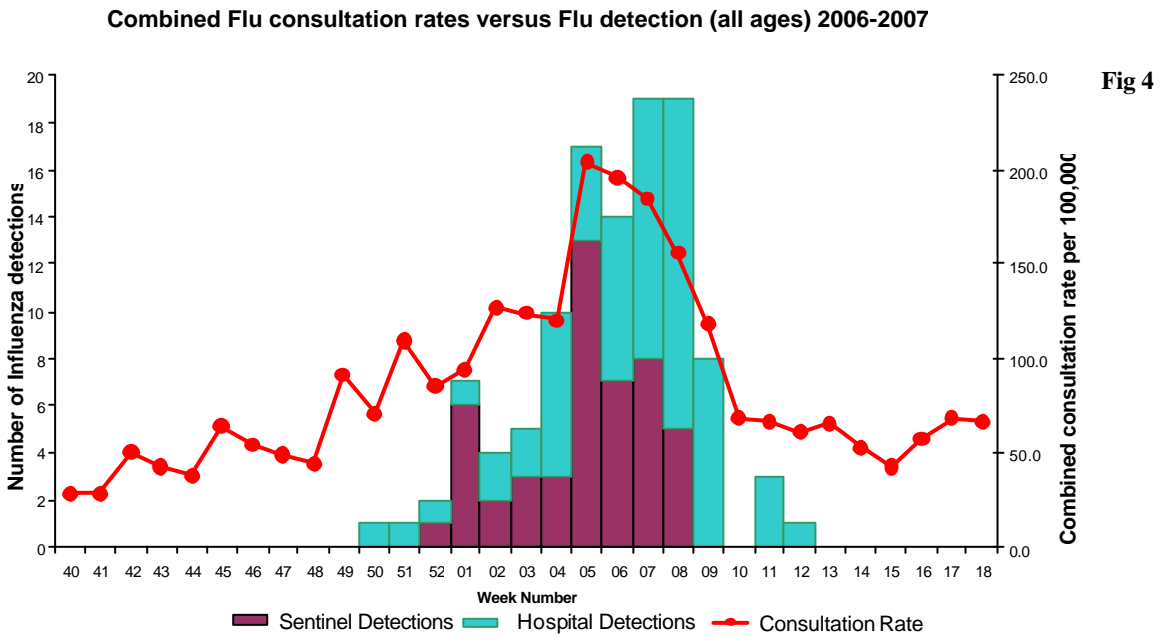
**Sentinel GP Combined Age-Specific Rates for 'Flu & Flu-Like Illness, 2006-07**



**Fig 2**



Rates for 'flu' and 'FLI' were the highest ever recorded in the seven years of the ESINI programme. (Fig 3)



The rise in Consultation rates coincided with the rise in influenza viral detections. (Fig 4)

## Virus Surveillance 2006/2007

### 1. Sentinel GP Practice Swabs:

- A subset (16/22) of GP sentinel Practices participated in collection of nasal and pharyngeal swabs from patients presenting with clinical influenza
- Flu A: 47 swabs positive (7 in 05/06 ) all H3  
Flu B: 0 swabs found positive (25 in 2005/6)

### . Routine Laboratory Testing:

Swabs submitted from hospital wards or from non-sentinel GP practices to Regional Virus Laboratory.

- 190 in 2006/07 found positive for respiratory viruses
- 64 influenza detections – all influenza A H3 (compared to 26 in 2005/06 – majority influenza A )

GP combined age-specific consultation rate versus respiratory virus detections, 0-4 years, 2006-2007

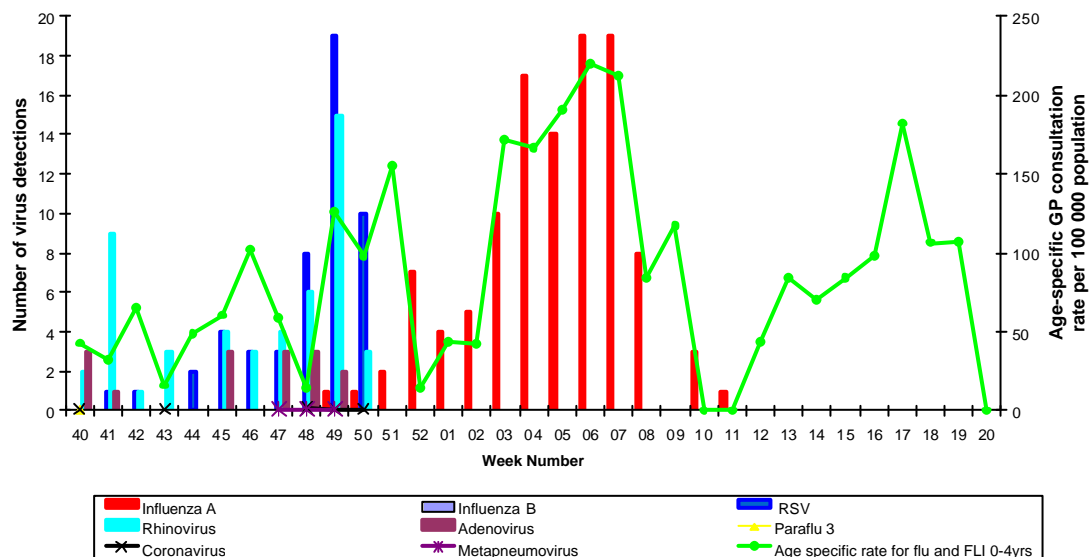
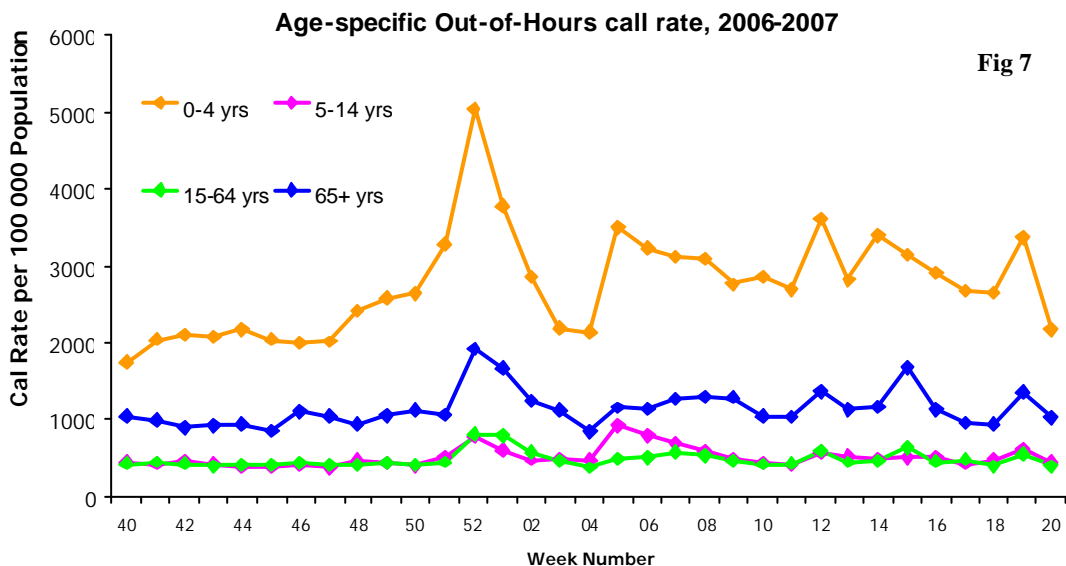
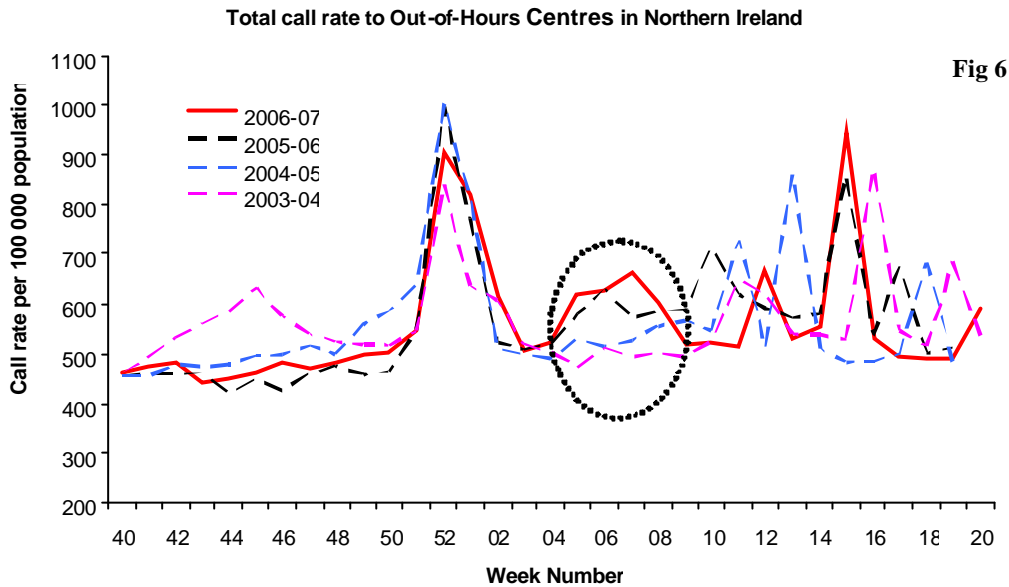


Fig 5

RSV activity was mainly from Week 44 to 50 and was not associated with any marked increase in flu/FLI consultation rate among the 0-4 year age group. Whereas the increased consultation rate in subsequent weeks coincided with laboratory detections of influenza A. (Fig 5)

## Out-of-Hours Centres

Co-Op call rate data for 2006-07 followed a very well-defined pattern throughout the period of surveillance, with peaks in call rates occurring during the holiday periods of Christmas/New Year, St Patrick's Day and Easter. Call rates were higher than expected between Wks 4-8 2006-2007. This time period also corresponded to that of the highest sentinel GP consultation rates and to the largest number of laboratory detections of influenza.



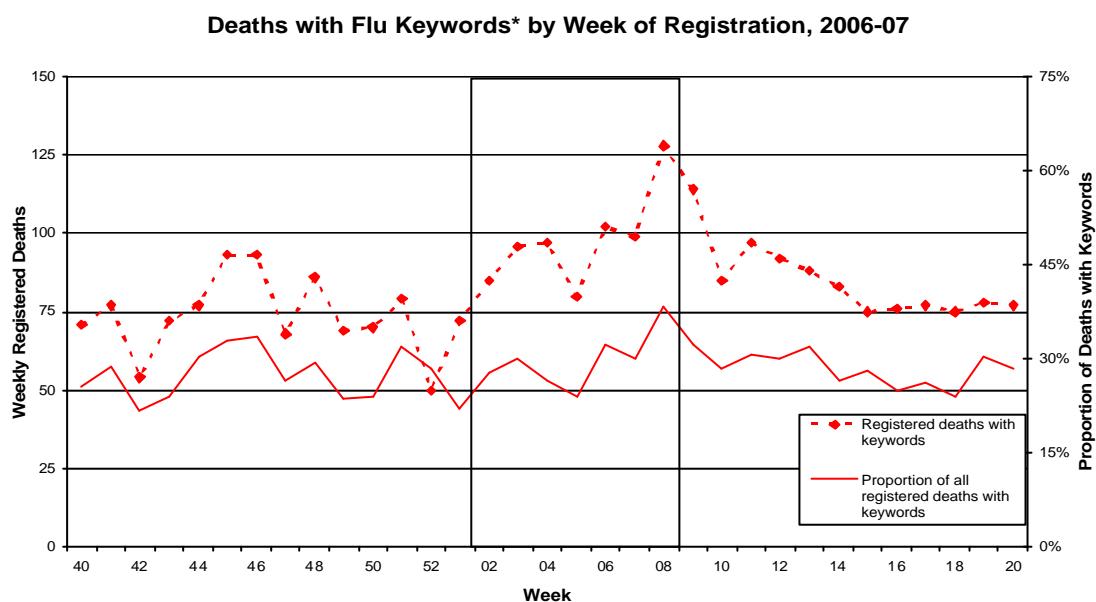
Throughout the reporting period call rates were highest among the 0-4 years age group. (Fig 7)

## Outbreaks

**Three FLI outbreaks were reported from elderly care homes, one of which was confirmed as Influenza A/H3. Despite the increased consultation rate noted by sentinel GPs for the 0-14 year age group, there were no reported school outbreaks for winter 06/07.**

## Weekly Mortality Data (NISRA)

During the 2006-07 season, NISRA provided the ESINI scheme with data relating to the number of deaths, which may be attributable to influenza or complications thereof, registered each week in Northern Ireland. Searches were carried out using a number of keywords stated on death certificates (bronchiolitis, bronchitis, influenza and pneumonia). It should be noted that death data is recorded by week of registration and not week of death. (Fig 8)



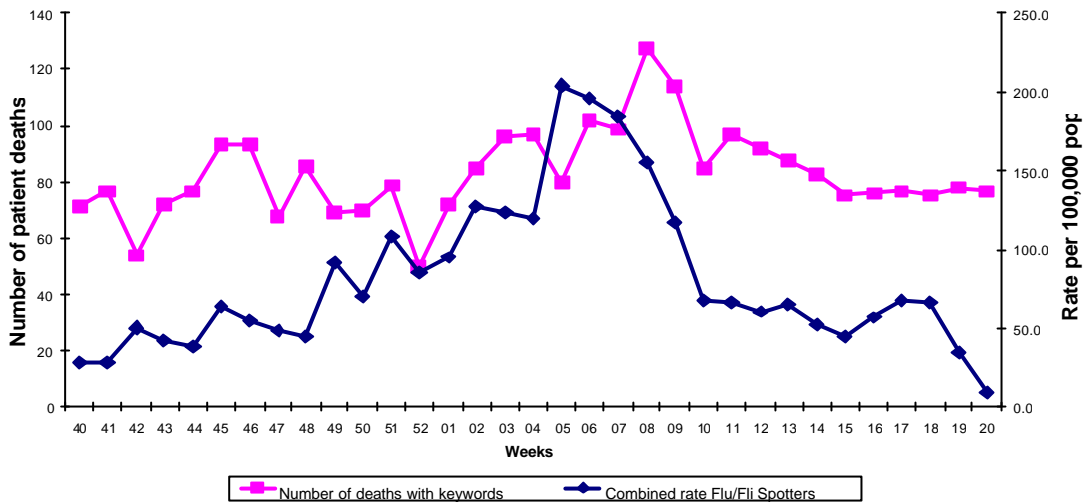
**Fig8**

The shaded area represents weeks 2 to 9 which are associated with increased levels of consultation rates for 'flu and FLI. (Fig 8)

Total registered deaths and the percentage due to pneumonia, bronchitis, 'flu and 'flu-like illnesses reached a peak in week 8. This was approximately two weeks after the peak GP consultation rate for 'flu' and 'flu like' illnesses. (Fig 9)

Combined Flu/Fli rate versus number of death using keywords 2006-2007

Fig 9



### Flu surveillance elsewhere

A summary of the 2006-07 surveillance data for England, Wales, and Scotland may be found at the HPA website

[http://www.hpa.org.uk/infections/topics\\_az/influenza/seasonal/activity0506/flureport.htm](http://www.hpa.org.uk/infections/topics_az/influenza/seasonal/activity0506/flureport.htm)

.ROI summary of the 2006-07 season will be published shortly on the HPSC website:

<http://www.ndsc.ie/A-Z/Respiratory/Influenza/Publications/20052006Season/>

**CDSC (NI) would like to thank Sentinel GPs and their Practice Staff, Out-of-Hours Centres, Regional Virus Laboratory, Consultants in Communicable Disease Control, staff of the Northern Ireland Statistics and Research Agency and Influenza Surveillance Centres throughout the UK and ROI for providing timely data over the past year. Without the co-operation of all concerned, the further development of enhanced surveillance of influenza in Northern Ireland would not be possible.**