



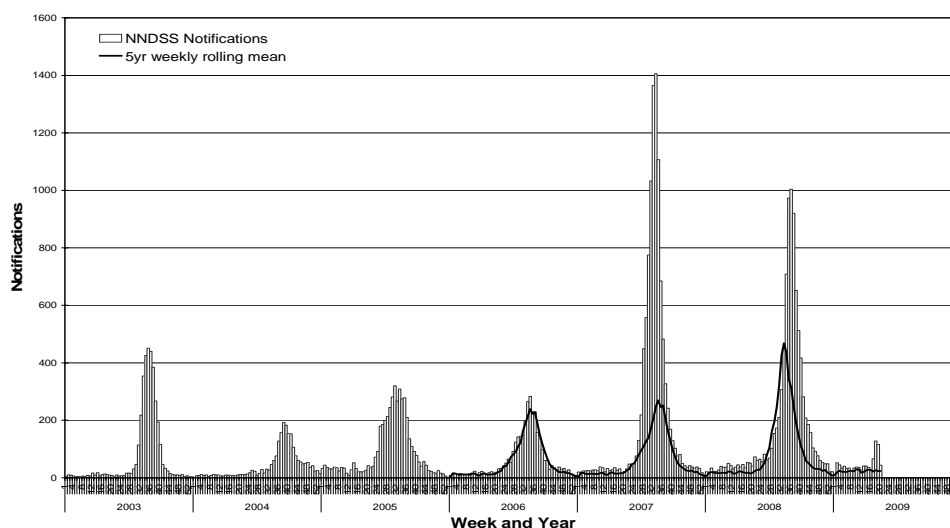
**REPORTING PERIOD: 9 May 2009 – 15 May 2009 (#2-09)**

*This report aims to increase awareness of seasonal influenza in Australia by providing an analysis of the various surveillance data sources throughout Australia. While every care has been taken in preparing this report, the Commonwealth does not accept liability for any injury or loss or damage arising from the use of, or reliance upon, the content of the report. Please note, this report is based on data available as at 18 May 2009. Delays in the reporting of data may cause data to change retrospectively. For further details about information contained in this report please contact the Influenza team through [flu@health.gov.au](mailto:flu@health.gov.au).*

**IN THIS REPORT:**

- There has been an increase in influenza notifications over the last few weeks compared to the 5-year rolling mean (figure 1), likely due to an increase in testing for influenza associated with H1N1 Influenza 09 (Human Swine Influenza).
- This year to date (1 January 2009 to 15 May 2009) there have been 902 cases of influenza notified in Australia. Forty-three percent of these cases have been in New South Wales. The highest rate of notifications as been in the Northern Territory, followed by New South Wales.
- Influenza strains notified to NNDSS have been predominantly Type A (77.3% of typed notifications YTD).
- According to the Victorian Infectious Diseases Reference Laboratory's weekly influenza report, picornavirus followed by Adenovirus were the most commonly detected viruses in Victoria. A very low proportion of samples tested were influenza A.
- Although the WHO has not released a report on oseltamivir resistance since 18 March 2009, during the period 1 October 2008 to 31 January 2009, 95% of seasonal H1N1 viruses analysed from 30 countries were resistant to oseltamivir.
- As of 21 May 2009 there have been five confirmed cases of H1N1 Influenza 09 (Human Swine Influenza) identified in Australia.

**Figure 1: Number of notifications of laboratory-confirmed influenza, NNDSS, Australia 1 January 2003 to 15 May 2009, by week of diagnosis**



SOURCE: NNDSS

As influenza only became nationally notifiable in 2001, a 5 year rolling mean cannot be calculated for years prior to 2006.

## LABORATORY CONFIRMED INFLUENZA

There have been 902 cases of laboratory confirmed influenza diagnosed year-to-date (YTD) in 2009 (Figure 1). There were 721 laboratory confirmed influenza cases in the same period last year.

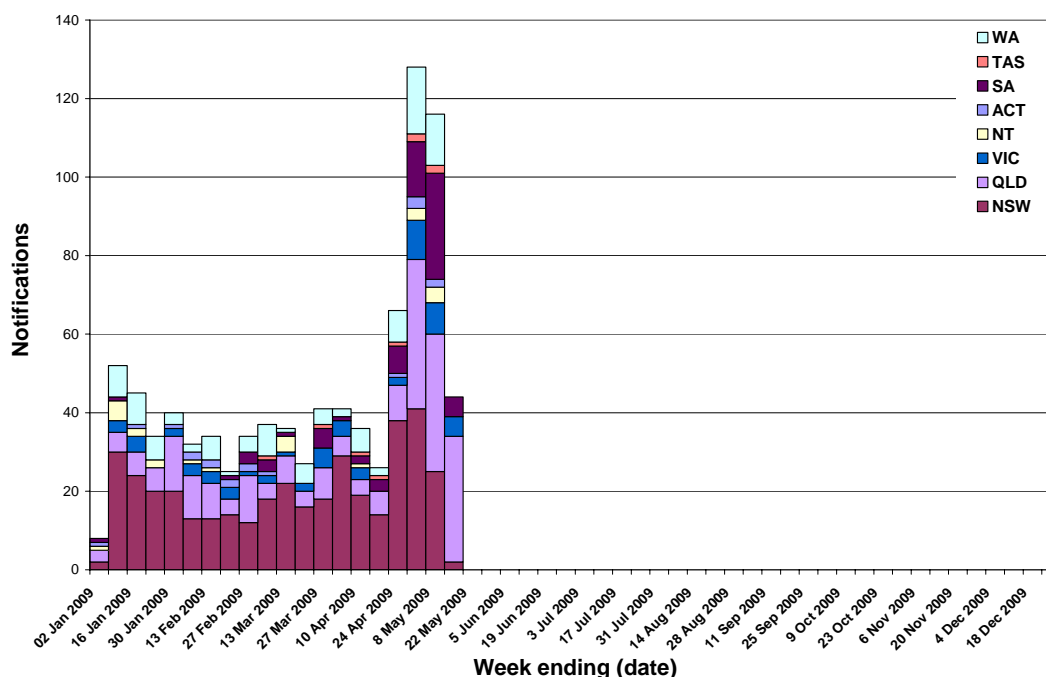
Influenza notifications are above the 5 year rolling mean for this period (Figure 1). The increase in influenza notifications and notification rates in this reporting period (Figures 2 and 3) is likely to be due to increased testing for influenza associated with H1N1 Influenza 09 (Human Swine Influenza).

Notifications in 2009 have been predominantly from New South Wales, with 390 (43.2%) notifications year-to-date and Queensland, 222 (24.6%) cases of influenza notified (Table 1; Figure 2). Influenza notifications can be subject to data lag and numbers may retrospectively change over time (Figure 2).

**Table 1: Number and rate of laboratory-confirmed notifications by jurisdiction, NNDSS, 1 January 2009 to 15 May 2009, NNDSS**

State	Cases	Percentage of Total Notifications	Rate per 100,000	Average Rate YTD 2004-2008
ACT	18	2.0%	5.3	3.1
NSW	390	43.2%	5.7	2.5
NT	24	2.7%	11.2	6.3
QLD	222	24.6%	5.3	3.7
SA	74	8.2%	4.7	0.6
TAS	9	1.0%	1.8	1.3
VIC	61	6.8%	1.2	0.8
WA	104	11.5%	4.9	2.3
<b>AUS</b>	<b>902</b>	<b>100%</b>	<b>4.3</b>	<b>2.2</b>

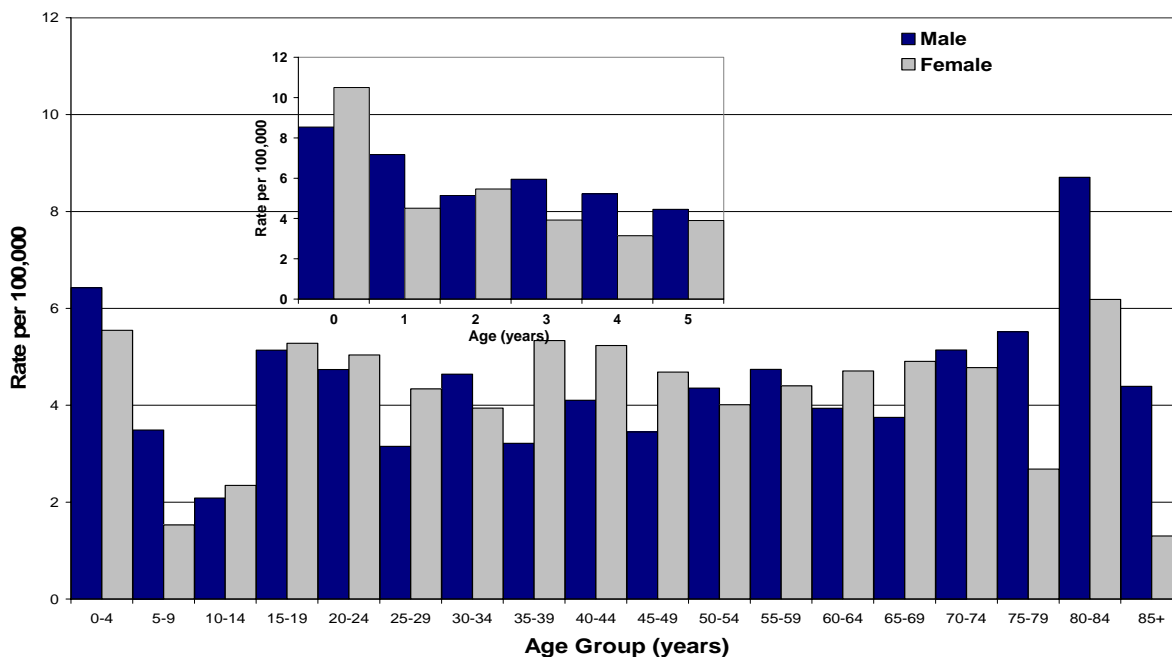
**Figure 2: Number of laboratory-confirmed influenza notifications, NNDSS, 1 January 2009 to 15 May 2009, by jurisdiction and week of diagnosis**



SOURCE: NNDSS

National age-specific notification rates YTD show the highest rate of notifications occurred in males 80-84 years and children aged less than one year (Figure 3; Figure 3 insert).

**Figure 3: Notification rates of laboratory-confirmed influenza, NNDSS, Australia, 1 January 2009 to 15 May 2009, by age group and sex, NNDSS**

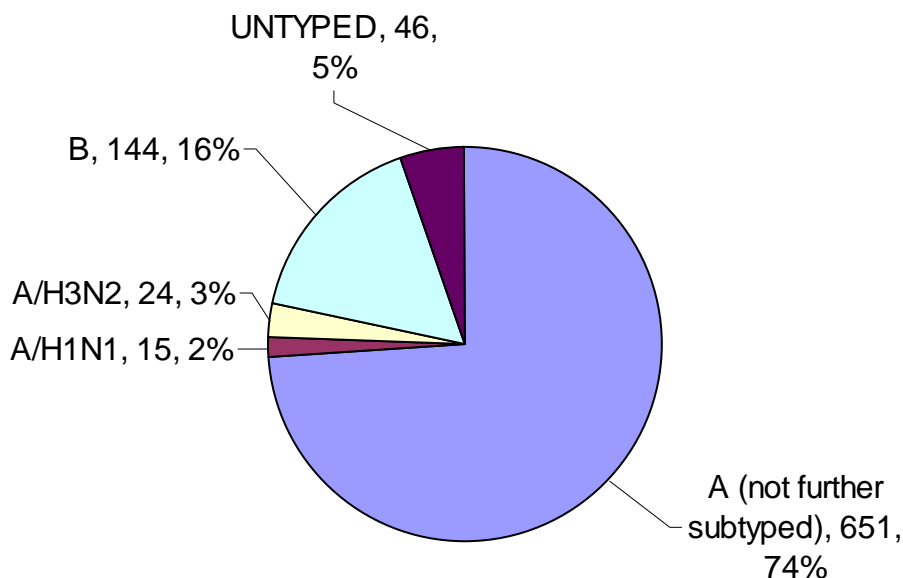


SOURCE: NNDSS

### ANTIGENIC CHARACTERISTICS

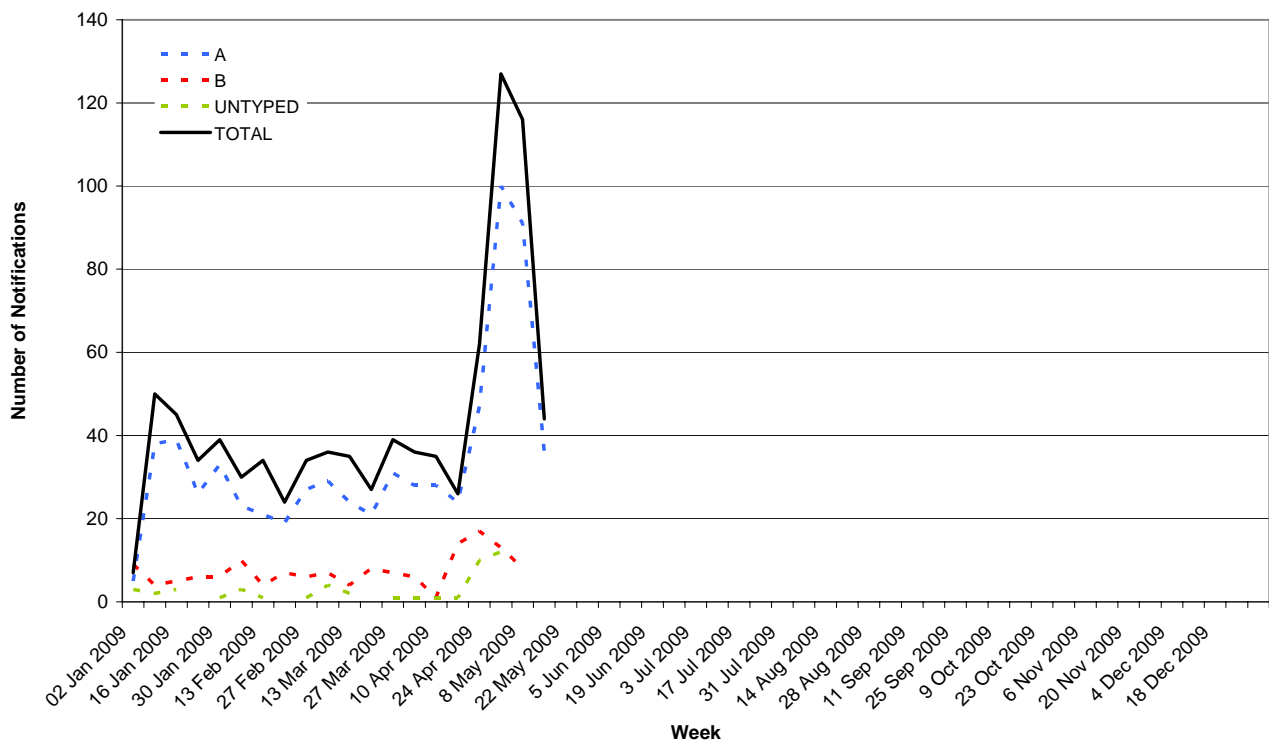
The proportion of influenza A and influenza B samples has been relatively stable in 2009. YTD, 690 cases (78.4%) of influenza notifications to NNDSS have been influenza type A, 144 cases (16.4%) have been influenza type B and 46 cases (5.2%) were untyped (Figure 4; Figure 5). Of the type A notifications that were subtyped, 24 were H3N2 and 15 were H1N1 (seasonal).

**Figure 4: Typing characteristics of notifications of laboratory-confirmed influenza, Australia, 1 January 2009 to 15 May 2009, NNDSS**



SOURCE: NNDSS

**Figure 5: Typing characteristics of notifications of laboratory-confirmed influenza, Australia, 1 January 2009 to 15 May 2009, by week of diagnosis, NNDSS**

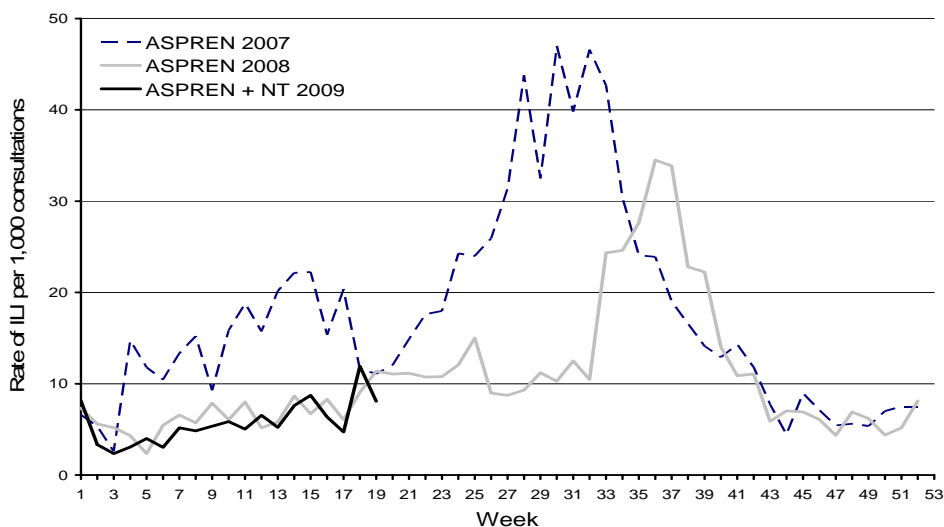


SOURCE: NNDSS

### SENTINEL GENERAL PRACTICE SURVEILLANCE

Data available from the Australian Sentinel Practices Research Network (ASPREN) and the Northern Territory GP surveillance system up until 10 May 2009 show that ILI consultation rates continue to remain at similar levels to those seen by ASPREN GPs only during the same period in 2008 (Figure 6). There is no apparent increase in the number of people visiting their GPs with ILI as a result of the large amount of media around H1N1 Influenza 09 (Human Swine Influenza).

**Figure 6: Rate of ILI reported from GP ILI surveillance systems from 1 January 2007 to 10 May 2009 by week**



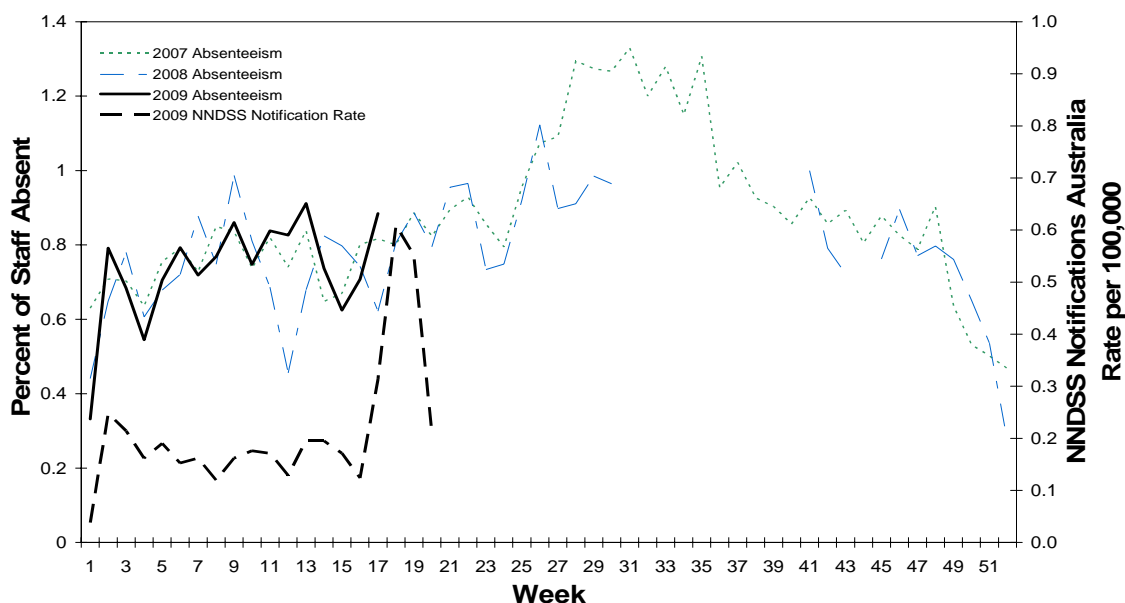
SOURCE: ASPREN and NT

## ABSENTEEISM SURVEILLANCE

A national organisation provides data on the number of employees that have been on sick leave for a continuous period of more than three days. These data are not influenza or ILI specific and absenteeism may be a result of other illnesses.

Absenteeism rates in 2009 continue to follow similar trends to recent years (Figure 7).

**Figure 7: Absenteeism rates, 1 January 2007 to 29 April 2009, by week and NNDSS influenza notifications, Rate per 100,000 population, 1 January 2009 to 15 May 2009, by week**

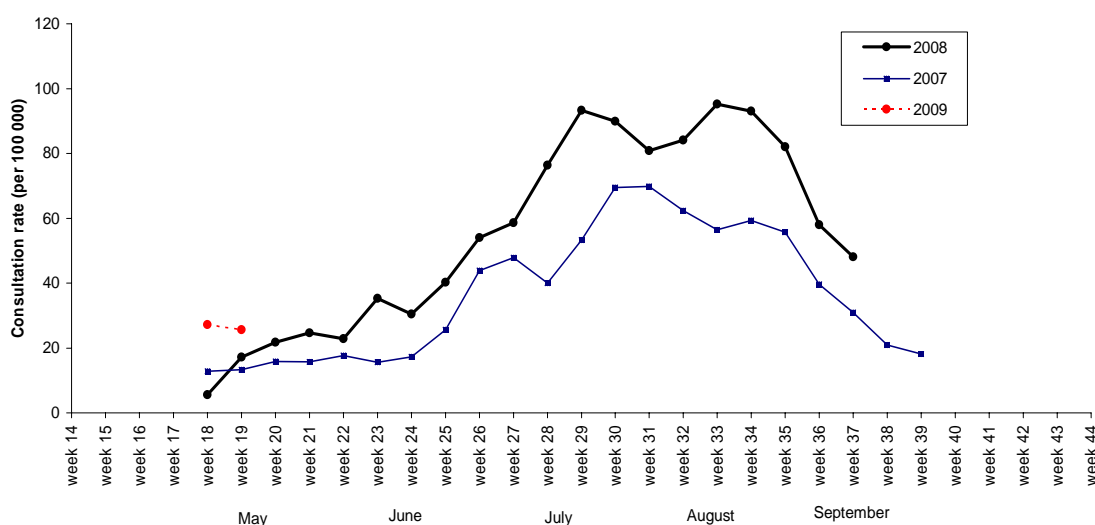


SOURCE: Absenteeism data

## INTERNATIONAL SEASONAL ACTIVITY SUMMARY

The current rate of influenza in New Zealand is higher than at the same time last year (figure 8).

**Figure 8: Weekly consultation rates for ILI in New Zealand, 2007, 2008 and 2009**



SOURCE: New Zealand Influenza Weekly Update

For further information please contact: [flu@health.gov.au](mailto:flu@health.gov.au)

## **DATA CONSIDERATIONS**

### NNDSS (National Notifiable Diseases Surveillance System)

NNDSS comprises of notifications from jurisdictions of laboratory-confirmed influenza cases. Influenza is notifiable in all jurisdictions in Australia. Data included in this report was extracted and analysed on 18 May 2008.

### GP Surveillance

ASPREN, the Australian Sentinel Practices Research Network, has Sentinel GPs who report ILI presentation rates in NSW, SA, ACT, VIC, QLD, TAS and WA. As jurisdictions joined ASPREN at different times and the number of GPs reporting has changed over time, the representativeness of ASPREN data in 2009 may be different to that of previous years.

ASPREN data are sent to the Surveillance Branch on a weekly basis, and are currently available up until 10 May 2009.

Northern Territory GP surveillance data are sent to the Surveillance Branch on a weekly basis, and are currently available up to 10 May 2009.

### Absenteeism Surveillance

Absenteeism data are provided weekly to the Surveillance Branch by a national employer and are currently available up until 29 April 2009.