



## Summary : Week 16 (April 17– April 23, 2011)

Influenza activity in Taiwan peaked at week 4 and the rate of emergency room visits for influenza-like illness decreased gradually. Seasonal influenza B virus is predominant in community in week 16. Most of the influenza viruses match the 2010–11 vaccine component.

- Of the 351 specimens tested during week 14–week 16, 28 (8%) were positive for influenza viruses, 26 (7%) were positive for influenza B viruses, 2 (1%) were positive for pandemic (H1N1) 2009 viruses.
- There were 2 new complicated influenza infections during week 16. Both were seasonal influenza B cases. Since July 1, 2010, there have been 132 reports of death from complicated influenza infection; 94 from the pandemic H1N1 2009, 30 from the seasonal H3N2 strain, 4 from the seasonal influenza B strain and 4 from seasonal influenza A un-typed strain, respectively.
- The number of deaths related to pneumonia and influenza during week 15 was 331, which was below the average number during the past 3 weeks (335 deaths).
- The rate of outpatient visits for influenza-like illness is 1.33%, which was comparable with the previous week (1.33%).
- The rate of emergency room visits for ILI is 13.54%, a 3.8% decrease compared with the previous week (14.08%).

## Virologic surveillance

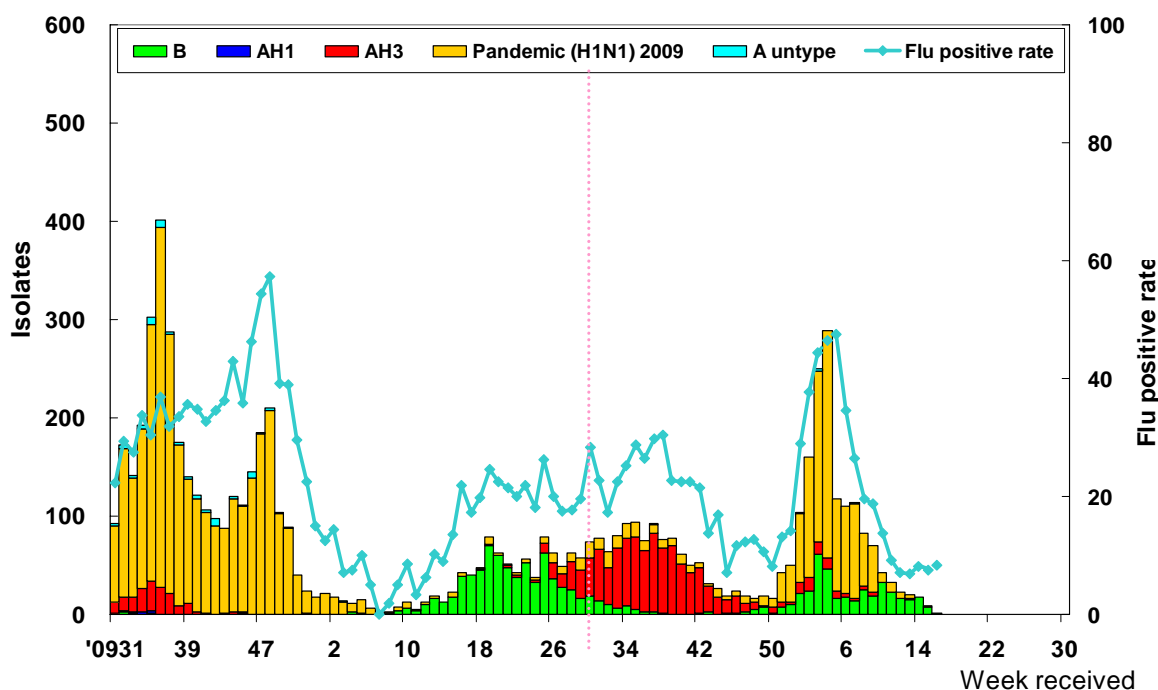
The results of tests performed during the past 3 weeks are summarized in the table below.

|  | Data for weeks<br>14–16 | Cumulative data since<br>7/1/2010 |
|--|-------------------------|-----------------------------------|
| <b>Number of specimens tested</b>                      | 351                     | 12754                             |
| <b>Number of positive specimens (%)</b>                | 28(8)                   | 2902(23)                          |
| <b>Positive specimens by type/subtype (%)</b>          |                         |                                   |
| <b>Influenza A (% of all positive specimens)</b>       | 2(7)                    | 2336(80)                          |
| <b>A (pandemic [H1N1] 2009) (% of all Influenza A)</b> | 2(100)                  | 1308(56)                          |
| <b>A (H3)</b>  | 0(0)                    | 1023(44)                          |
| <b>A (H1)</b>  | 0(0)                    | 0(0)                              |
| <b>A (unable to subtype)</b>                           | 0(0)                    | 5(<1)                             |
| <b>A (subtyping not performed)</b>                     | 0(0)                    | 0(0)                              |
| <b>Influenza B</b>                                     | 26(93)                  | 566(20)                           |



**Antigenic characterization:** Taiwan CDC has antigenically characterized 300 human influenza viruses [138 influenza A (H3), 65 pandemic (H1N1) 2009, 97 influenza B] since July 1, 2010. 99% (n=137) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Perth/16/2009). 95% (n=62) of the pandemic (H1N1) 2009 viruses tested were related to the A/California/07/2009 vaccine component. 86% (n=83) of the influenza B viruses tested belonged to the B/Victoria lineage and were related to the B component of the 2010-11 influenza vaccine (B/Brisbane/60/2008) .

### Influenza positive tests reported to Taiwan CDC by contracted laboratories, 2009–2011



**Antiviral resistance:** Since July 1, 2010, 566 pandemic (H1N1) 2009, 297 influenza A (H3N2), and 47 influenza B viruses have been tested for resistance to the neuraminidase inhibitors (oseltamivir). Since July 1, 2010 seven pandemic (H1N1) 2009 viruses which were resistant to oseltamivir has been detected. The results of antiviral resistance testing performed on these viruses are summarized in the table below.

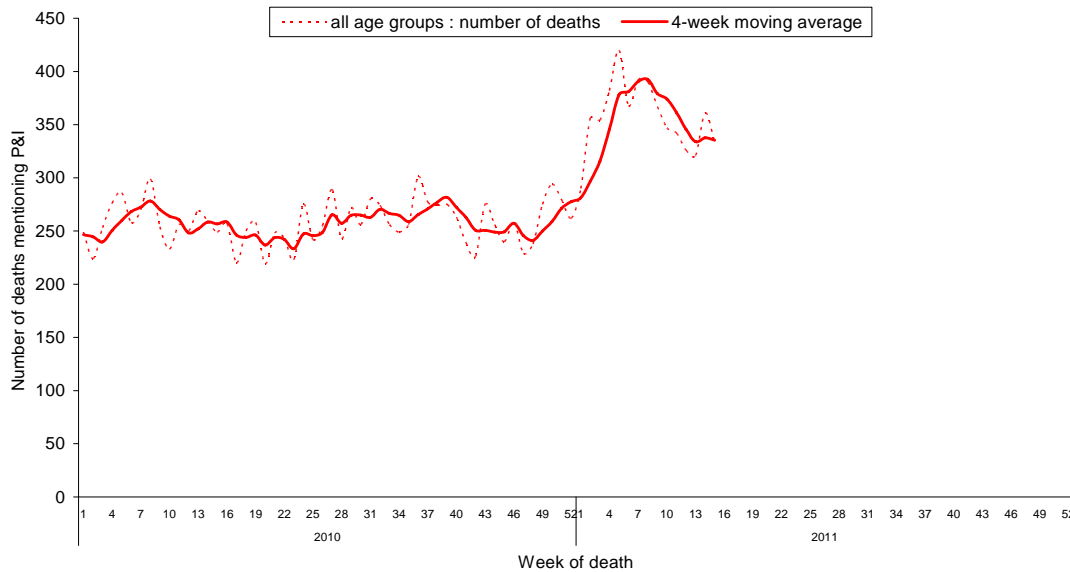
|                                 | Isolates tested (n) | Resistance Viruses, n (%) |
|---------------------------------|---------------------|---------------------------|
|                                 |                     | Oseltamivir               |
| <b>A (pandemic [H1N1] 2009)</b> | 556                 | 7 (1.3)                   |
| <b>A (H3)</b>                   | 297                 | 0 (0)                     |
| <b>B</b>                        | 47                  | 0 (0)                     |



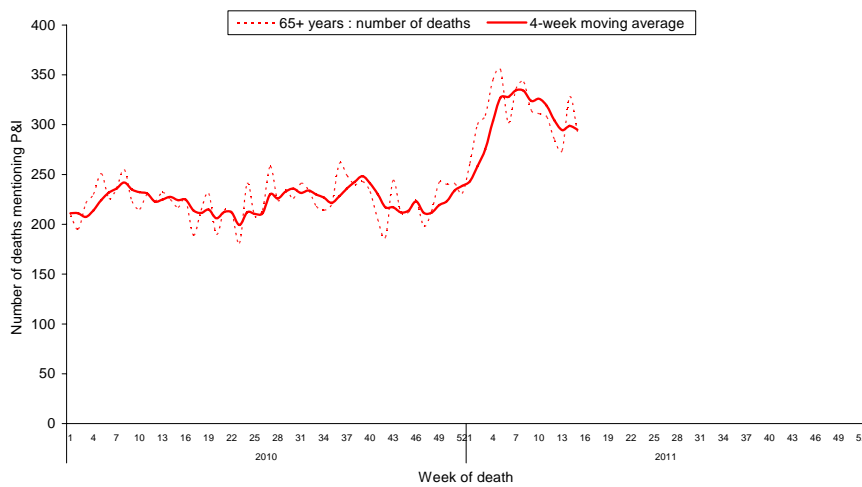
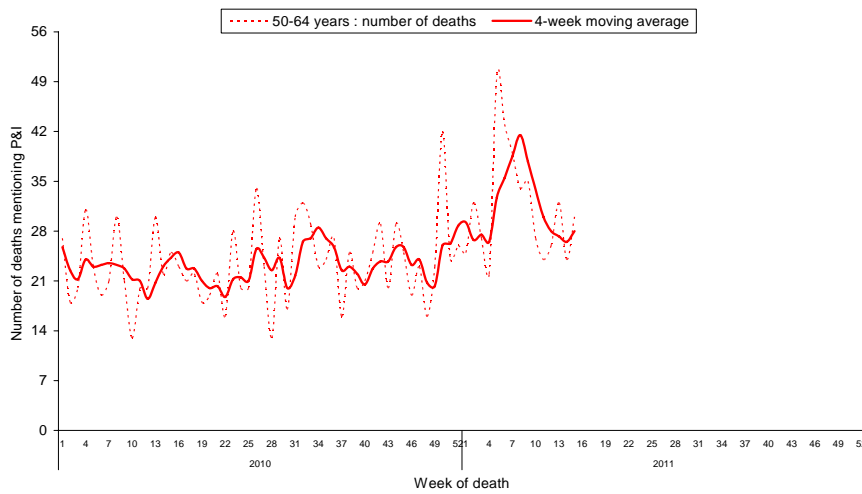
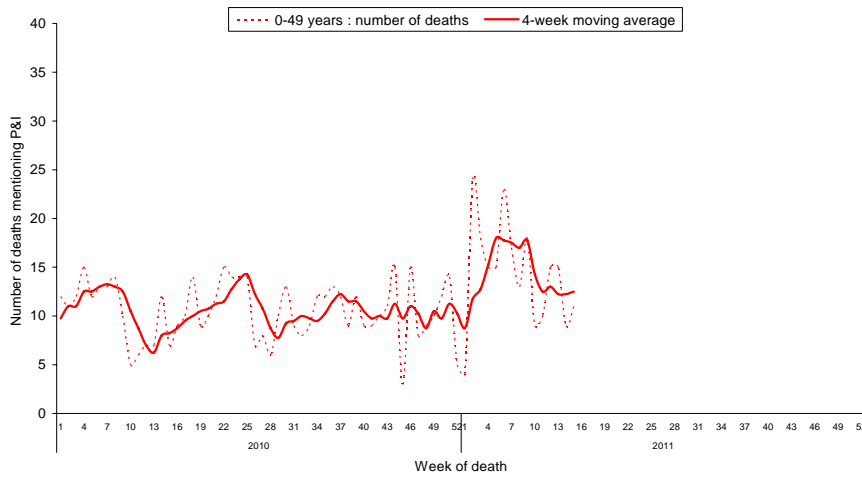
## Pneumonia and influenza (P&I) mortality surveillance

During week 15, 331 deaths reported through the National Death Certificate System mentioned P&I as the cause of death. This number was below the average number during the past 3 weeks (335 deaths). The number of deaths related to P&I for age groups 0–49, 50–64, and greater than 65 years was the highest for adult greater than 65 years of age.

### National pneumonia and influenza mortality Week ending 4/16/2011



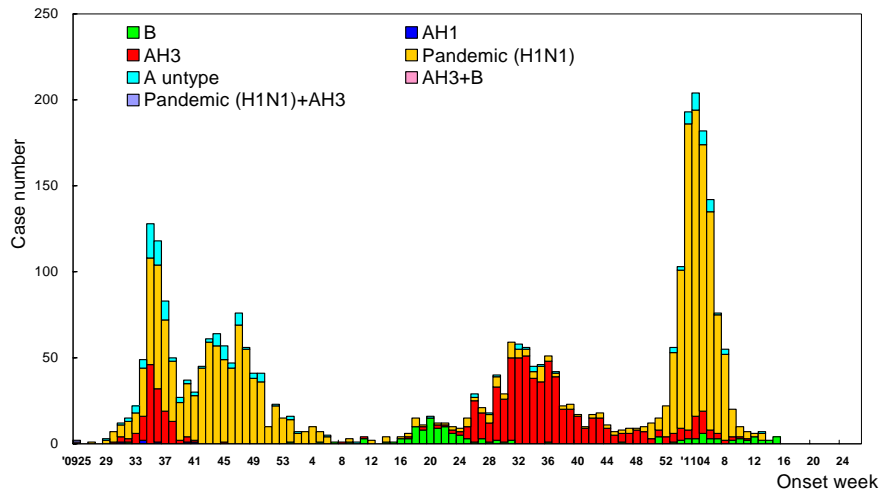
## National pneumonia and influenza mortality by age group Week ending 4/16/2011



## Reports of complicated influenza\*

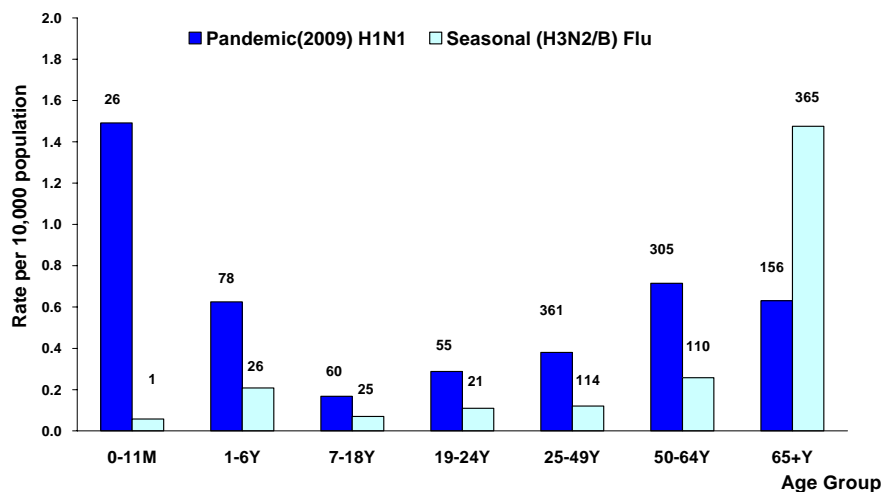
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### Number of complicated influenza reports by week of onset 7/1/2009 to present



\*Defined as influenza infection with pulmonary complication, neurologic complication, myocarditis, pericarditis, invasive bacterial infection, or those requiring intensive care or resulting deaths.

### Rate of complicated influenza reports by age groups 7/1/2010 to present



\*Numbers represent number of complicated influenza reports for that specific age stratum.

\* The number of patients with pandemic (2009) H1N1 includes one co-infected with pandemic (2009) H1N1 and seasonal H3N2 strains; one co-infected with pandemic (2009) H1N1 and seasonal B strains.



## Outpatient and emergency room influenza-like illness surveillance

Nationwide during week 16, 1.33% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI), this rate was comparable with the previous week (1.33%)

The rate of emergency room visits for ILI is 13.54%, a 3.8% decrease compared with the previous week (14.08%).

### Rate of outpatient and emergency room (ER) visits for influenza-like illness

6/14/2009 to present

