



Summary

During week 39 (September 26–October 2, 2010), influenza activity decreased in Taiwan, and seasonal influenza virus type AH3 is predominant in the community.

- Of the 537 specimens tested during week 37–39, 153 (28%) were positive for influenza viruses, 131 (24%) were positive for influenza A (H3N2) viruses, 18 (3%) were positive for pandemic (H1N1) 2009 viruses, 3 (1%) were positive for seasonal influenza B viruses and 1 (<1%) was positive for influenza virus untyped A.
- Since July 1, 2010, there have been 512 reports of complicated influenza virus infections, including 427 reports of seasonal influenza virus type H3N2 infections and 58 reports of complicated pandemic (H1N1) 2009 virus infections. There were 29 new seasonal H3N2 cases and 5 complicated pandemic (H1N1) 2009 influenza cases during week 39. Since July 1, 2009, there have been 997 reports of complicated pandemic (H1N1) 2009 virus infections (51 deaths). Since July 1, 2010, there have been 22 reports of death from complicated influenza infection; 7 from the pandemic H1N1 2009 and 15 from the seasonal H3N2 strain, respectively.
- The number of deaths related to pneumonia and influenza during week 38 was 253, which was below the number for the average of the previous 3 weeks (267 deaths).
- The rate of outpatient visits for influenza-like illness is 1.1%, an 8% decrease compared with the previous week (1.19%).
- The rate of emergency room visits for influenza-like illness is 11.01%, a 5% decrease compared with the previous week (11.61%).

Virologic surveillance

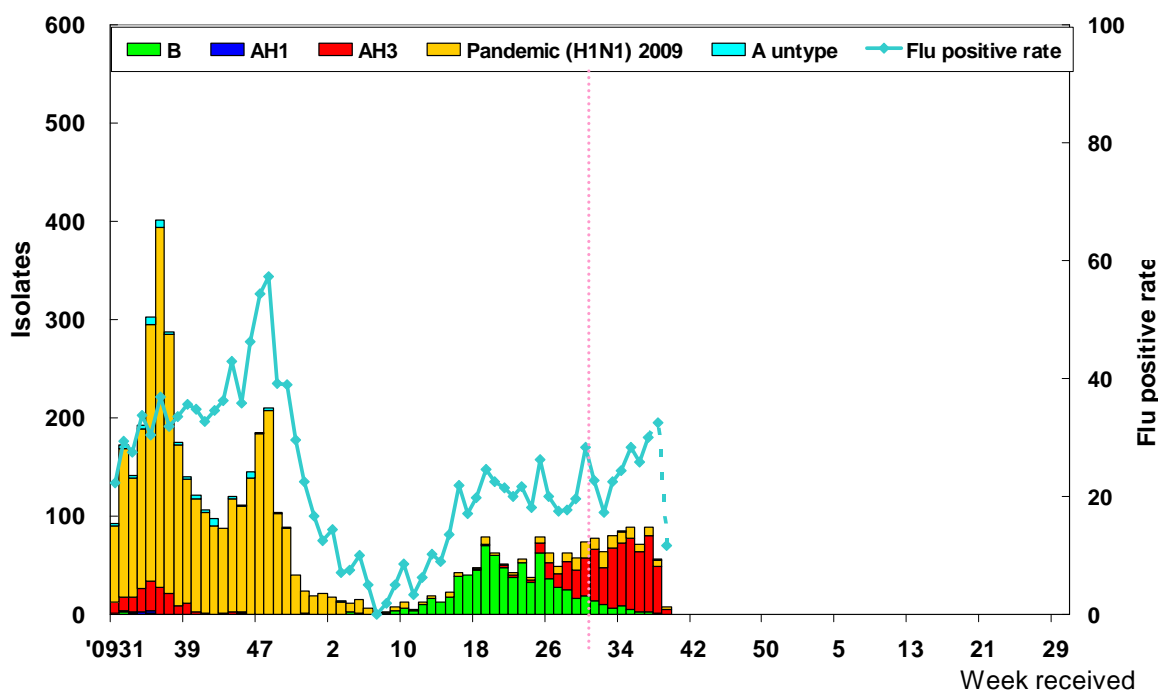
The results of tests performed during the past 3 weeks are summarized in the table below.

| | Data for weeks 37–39 | Cumulative data since 7/1/2010 |
|--|-------------------------|-----------------------------------|
| Number of specimens tested | 537 | 4,038 |
| Number of positive specimens (%) | 153(28) | 924(23) |
| Positive specimens by type/subtype (%) | | |
| Influenza A (% of all positive specimens) | 150(98) | 751(81) |
| A (pandemic [H1N1] 2009) (% of all Influenza A) | 18(12) | 140(19) |
| A (H3) | 131(87) | 609(81) |
| A (H1) | 0(0) | 0(0) |
| A (unable to subtype) | 1(1) | 2(<1) |
| A (subtyping not performed) | 0(0) | 0(0) |
| Influenza B | 3(2) | 173(19) |



Antigenic characterization: Taiwan CDC has antigenically characterized 94 human influenza viruses [49 influenza A (H3), 20 pandemic (H1N1) 2009, 25 influenza B] since July 1, 2010. Forty-eight (98%) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Perth/16/2009). Nineteen (95%) of the pandemic (H1N1) 2009 viruses tested were related to the A/California/07/2009 vaccine component. Twenty-two (88%) 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, 68 influenza A (H3N2), 38 pandemic (H1N1) 2009 and 6 influenza B viruses have been tested for resistance to the neuraminidase inhibitors (oseltamivir). The results of antiviral resistance testing performed on these viruses are summarized in the table below.

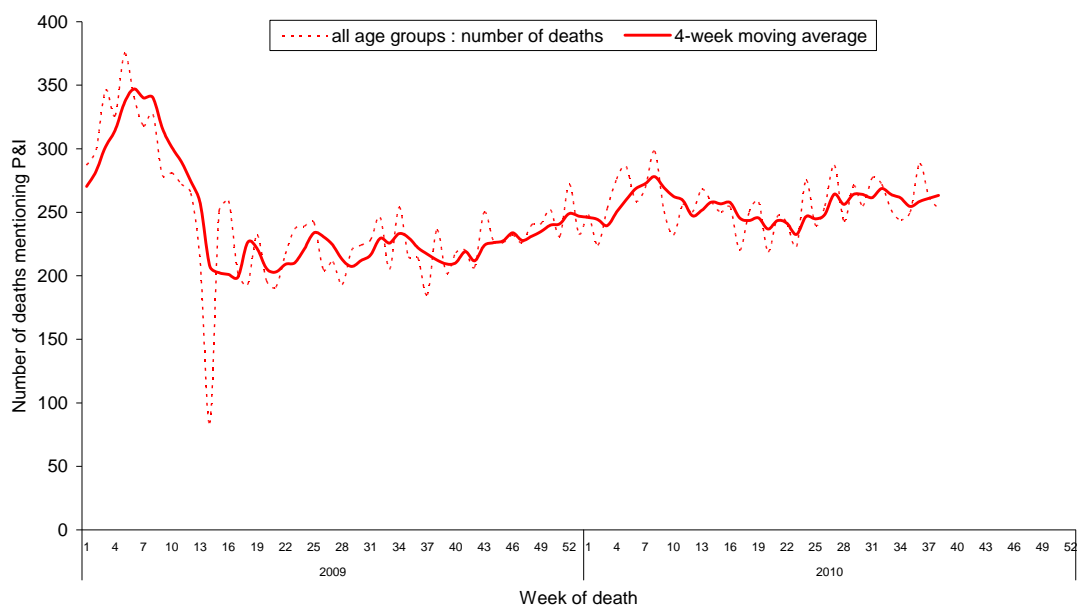
| | Isolates tested (n) | Resistance Viruses, n (%) |
|--------------------------|---------------------|---------------------------|
| | | Oseltamivir |
| A (H3) | 68 | 0 (0) |
| A (pandemic [H1N1] 2009) | 38 | 0 (0) |
| B | 6 | 0 (0) |



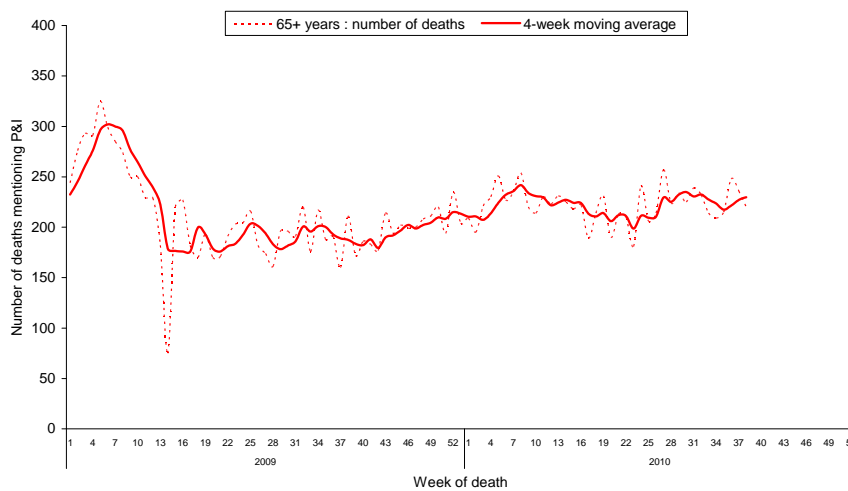
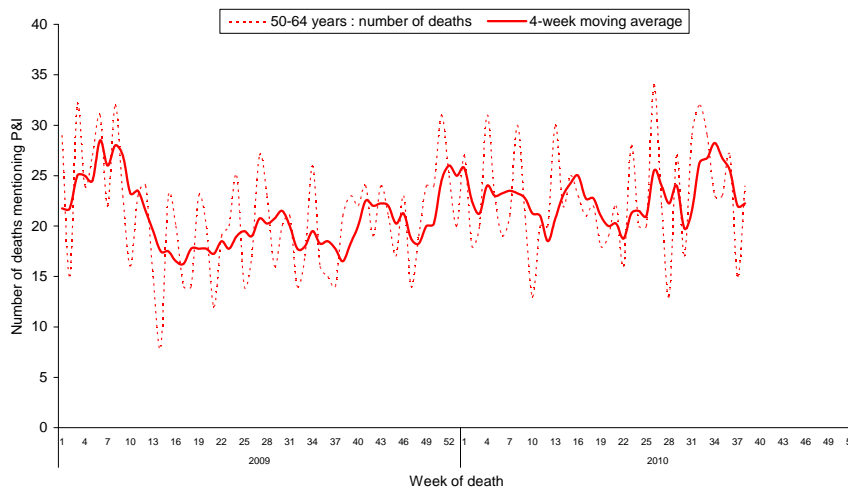
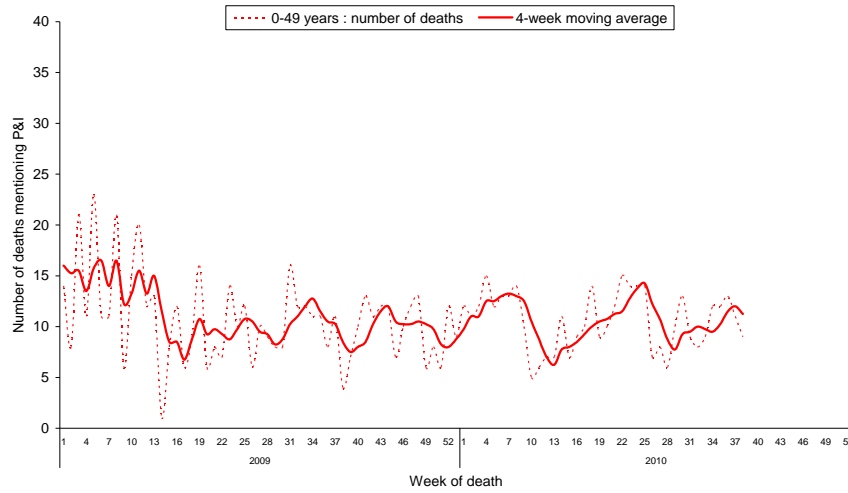
Pneumonia and influenza (P&I) mortality surveillance

During week 38, 253 deaths reported through the National Death Certificate System mentioned P&I as the cause of death. This number was below that for the average of the previous 3 weeks (267 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 9/25/2010



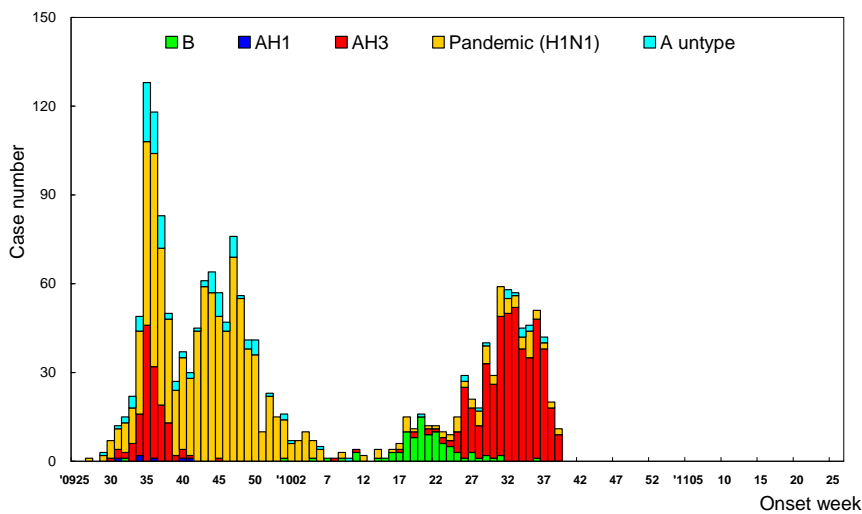
National pneumonia and influenza mortality by age group Week ending 9/25/2010



Reports of complicated influenza*

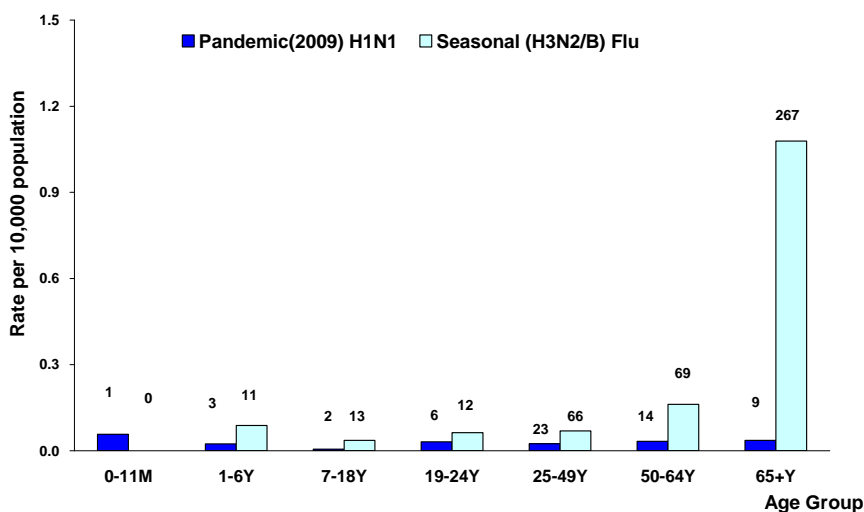
Since July 1, 2010, there have been 512 reports of complicated influenza virus infections, including 427 reports of seasonal influenza virus type H3N2 infections and 58 reports of complicated pandemic (H1N1) 2009 virus infections. There were 29 new seasonal H3N2 cases and 5 complicated pandemic (H1N1) 2009 influenza cases during week 39. Since July 1, 2009, there have been 997 reports of complicated pandemic (H1N1) 2009 virus infections (51 deaths). Since July 1, 2010, there have been 22 reports of death from complicated influenza infection; 7 from the pandemic H1N1 2009 and 15 from the seasonal H3N2 strain, respectively.

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.



Outpatient and emergency room influenza-like illness surveillance

Nationwide during week 39, 1.1% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has decreased by 8% compared with the previous week (1.19%).

Nationwide during week 39, 11.01% of emergency room patient visits reported through the Real-time Outbreak and Disease Surveillance System (RODS) were due to ILI. This rate has decreased by 5% compared with the previous week (11.61%).

Rate of outpatient and emergency room (ER) visits for influenza-like illness 6/14/2009 to present

