



Summary

During week 40 (October 3–October 9, 2010), influenza activity remained unchanged in Taiwan, and seasonal influenza virus type AH3 is predominant in the community. Most of the influenza viruses match the 2010–11 vaccine component.

- Of the 466 specimens tested during week 38–40, 118 (25%) were positive for influenza viruses, 103 (22%) were positive for influenza A (H3N2) viruses, 14 (3%) were positive for pandemic (H1N1) 2009 viruses and 1 (<1%) was positive for seasonal influenza B virus.
• Since July 1, 2010, there have been 535 reports of complicated influenza virus infections, including 450 reports of seasonal influenza virus type H3N2 infections and 58 reports of complicated pandemic (H1N1) 2009 virus infections. There were 22 new seasonal H3N2 cases and 1 new seasonal influenza A untyped case during week 40. 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 39 was 264, which was below the number for the average of the previous 3 weeks (275 deaths).
• The rate of outpatient visits for influenza-like illness is 1.11%, with no obvious change compared with the previous week (1.1%).
• The rate of emergency room visits for influenza-like illness is 11.09%, with no obvious change compared with the previous week (11.01%).

Virologic surveillance

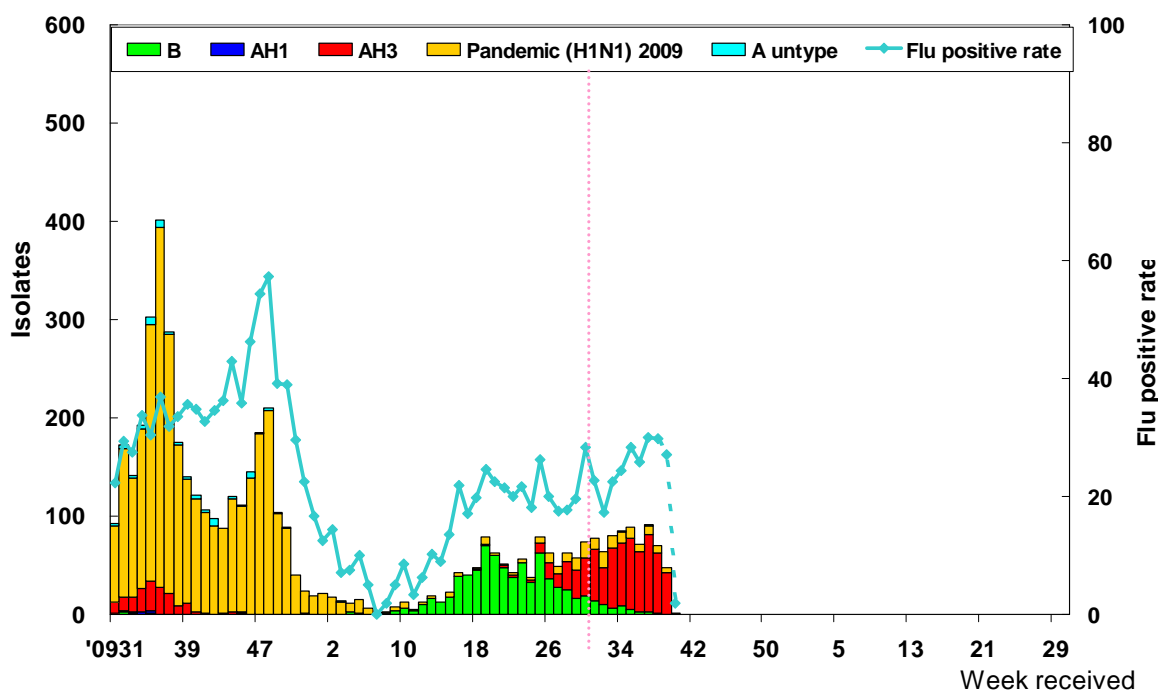
The results of tests performed during the past 3 weeks are summarized in the table below.

Table with 3 columns: Category, Data for weeks 38-40, and Cumulative data since 7/1/2010. Rows include: Number of specimens tested (466, 4,275), Number of positive specimens (%) (118(25), 980(23)), Positive specimens by type/subtype (%), Influenza A (% of all positive specimens) (117(99), 807(82)), A (pandemic [H1N1] 2009) (% of all Influenza A) (14(12), 145(18)), A (H3) (103(88), 660(82)), A (H1) (0(0), 0(0)), A (unable to subtype) (0(0), 2(<1)), A (subtyping not performed) (0(0), 0(0)), and Influenza B (1(1), 173(18)).



**Antigenic characterization:** Taiwan CDC has antigenically characterized 102 human influenza viruses [53 influenza A (H3), 22 pandemic (H1N1) 2009, 27 influenza B] since July 1, 2010. Fifty-two (98%) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Perth/16/2009). Twenty-one (95%) of the pandemic (H1N1) 2009 viruses tested were related to the A/California/07/2009 vaccine component. Twenty-three (85%) 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, 105 influenza A (H3N2), 39 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.

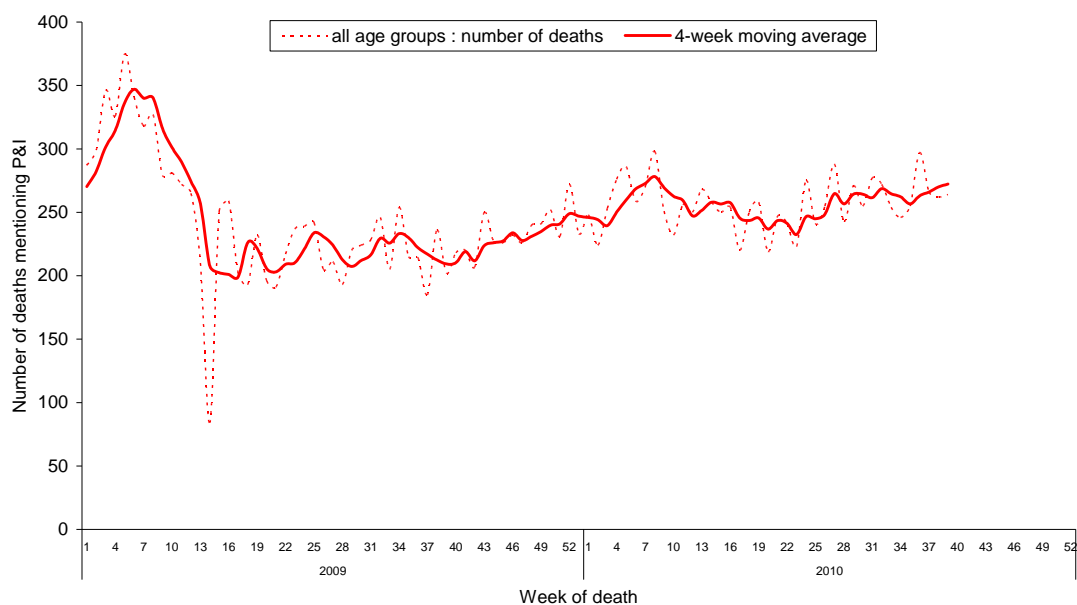
	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
A (H3)	105	0 (0)
A (pandemic [H1N1] 2009)	39	0 (0)
B	6	0 (0)



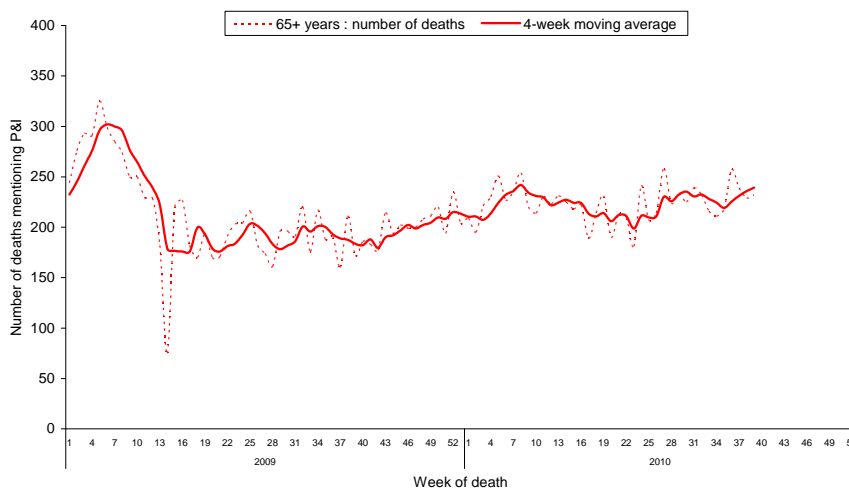
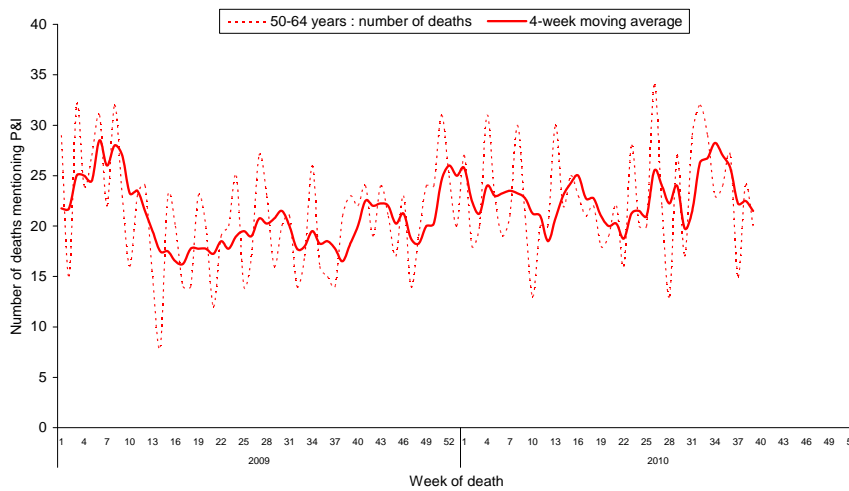
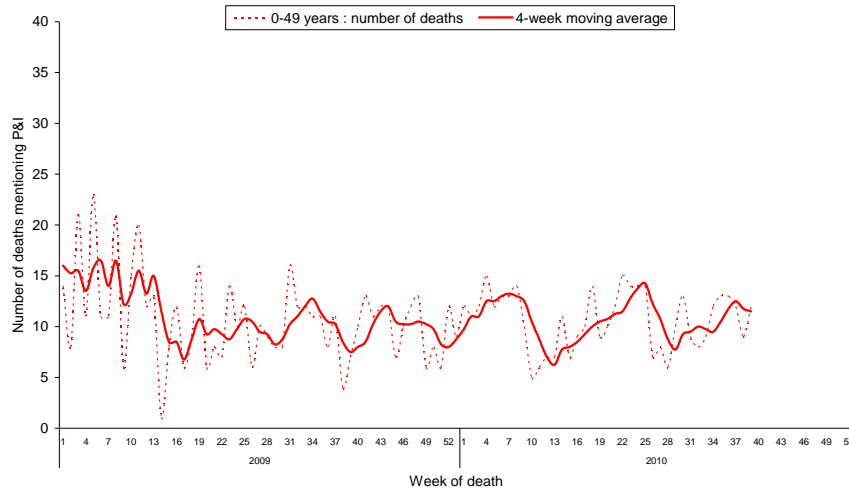
## Pneumonia and influenza (P&I) mortality surveillance

During week 39, 264 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 (275 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 10/2/2010



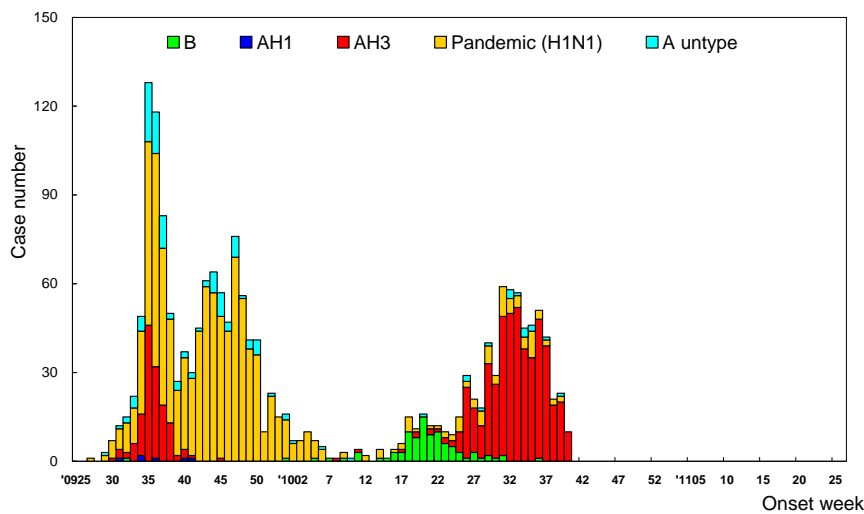
## National pneumonia and influenza mortality by age group Week ending 10/2/2010



## Reports of complicated influenza\*

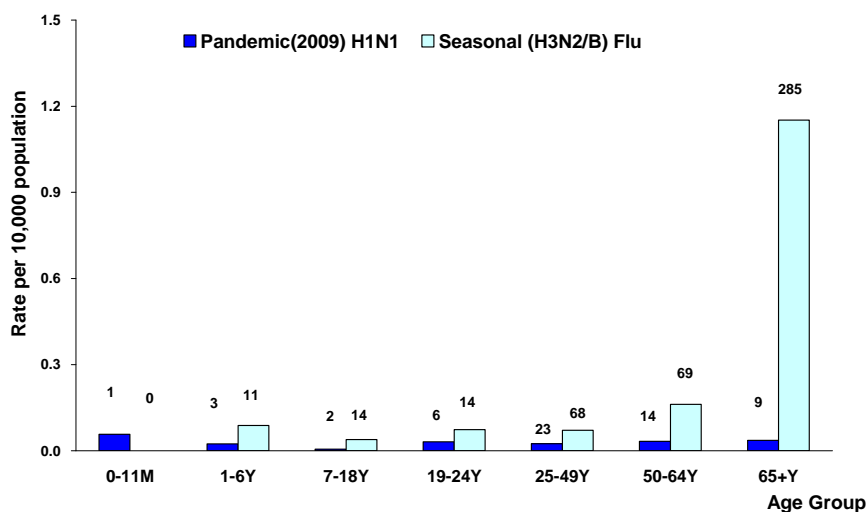
Since July 1, 2010, there have been 535 reports of complicated influenza virus infections, including 450 reports of seasonal influenza virus type H3N2 infections and 58 reports of complicated pandemic (H1N1) 2009 virus infections. There were 22 new seasonal H3N2 cases and 1 new seasonal influenza A untyped case during week 40. 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 40, 1.11% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has no obvious change compared with the previous week (1.1%).

Nationwide during week 40, 11.09% of emergency room patient visits reported through the Real-time Outbreak and Disease Surveillance System (RODS) were due to ILI. This rate has no obvious change compared with the previous week (11.01%).

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

