



Summary

During week 38 (September 19–25, 2010), influenza activity remained unchanged in Taiwan, and seasonal influenza virus type AH3 is predominant in the community.

- Of the 527 specimens tested during week 36–38, 123 (23%) were positive for influenza viruses, 16 (3%) were positive for pandemic (H1N1) 2009 viruses, 101 (19%) were positive for influenza A (H3N2) virus and 6 (1%) were positive for seasonal influenza B viruses; 14% (95% confidence interval 8%–21%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- Since July 1, 2010, there have been 479 reports of complicated influenza virus infections, including 398 reports of seasonal influenza virus type H3N2 infections and 53 reports of complicated pandemic (H1N1) 2009 virus infections. There were 19 new seasonal H3N2 cases, and 1 new seasonal influenza A untyped case during week 38. Since July 1, 2009, there have been 992 reports of complicated pandemic (H1N1) 2009 virus infections (50 deaths). Since July 1, 2010, there have been 21 reports of death from complicated influenza infection; 6 from the pandemic H1N1 2009, 14 from the seasonal H3N2 and 1 from the seasonal A untyped strain, respectively.
- The number of deaths related to pneumonia and influenza during week 37 was 257, with no obvious change compared with the number for the average of the previous 3 weeks (259 deaths).
- The rate of outpatient visits for influenza-like illness is 1.19%, a 2% increase compared with the previous week (1.17%).
- The rate of emergency room visits for influenza-like illness is 11.61%, an 1% increase compared with the previous week (11.48%).

Virologic surveillance

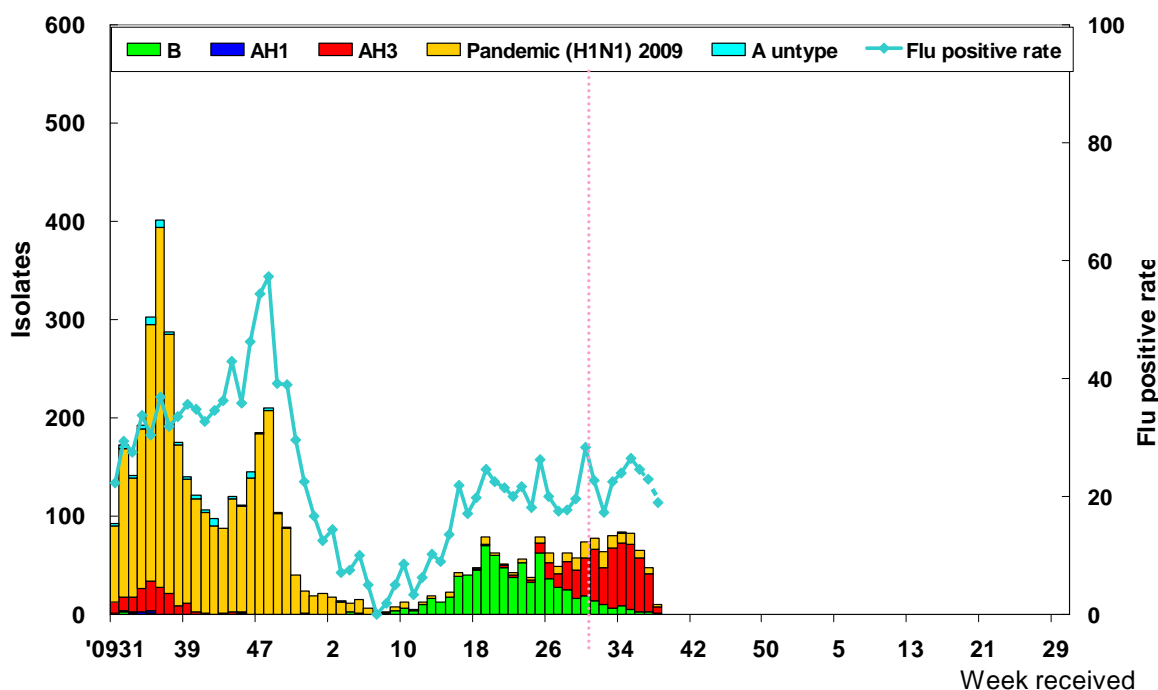
During week 36–38, 14% (95% confidence interval 8%–21%) of all subtyped influenza A viruses being reported to Taiwan CDC through contracted laboratories during this period were pandemic (H1N1) 2009 viruses. The results of tests performed during the past 3 weeks are summarized in the table below.

	Data for weeks 36–38	Cumulative data since 7/1/2010
Number of specimens tested	527	3,747
Number of positive specimens (%)	123(23)	815(22)
Positive specimens by type/subtype (%)		
Influenza A (% of all positive specimens)	117(95)	642(79)
A (pandemic [H1N1] 2009) (% of all Influenza A)	16(14)	131(20)
A (H3)	101(86)	510(80)
A (H1)	0(0)	0(0)
A (unable to subtype)	0(0)	1(<1)
A (subtyping not performed)	0(0)	0(0)
Influenza B	6(5)	173(21)



Antigenic characterization: Taiwan CDC has antigenically characterized 82 human influenza viruses [42 influenza A (H3), 22 influenza B, 18 pandemic (H1N1) 2009] since July 1, 2010. Forty-one (98%) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Perth/16/2009). Twenty (91%) 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). Seventeen (94%) of the pandemic (H1N1) 2009 viruses tested were related to the A/California/07/2009 vaccine component.

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



Antiviral resistance: Since July 1, 2010, 36 influenza A (H3N2), 5 influenza B and 35 pandemic (H1N1) 2009 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.

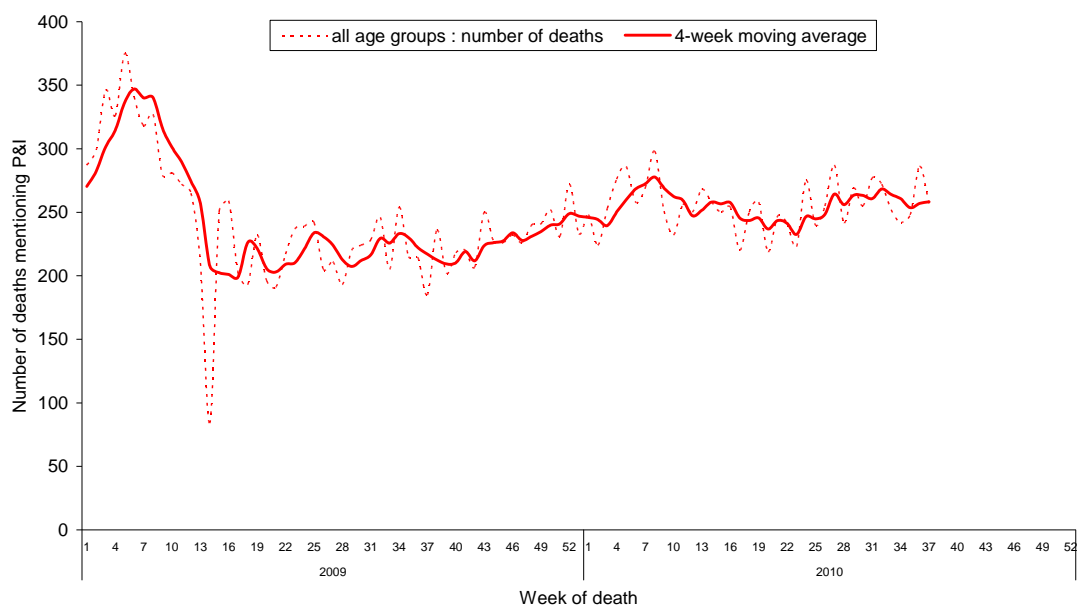
	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
A (H3)	36	0 (0)
B	5	0 (0)
A (pandemic [H1N1] 2009)	35	0 (0)



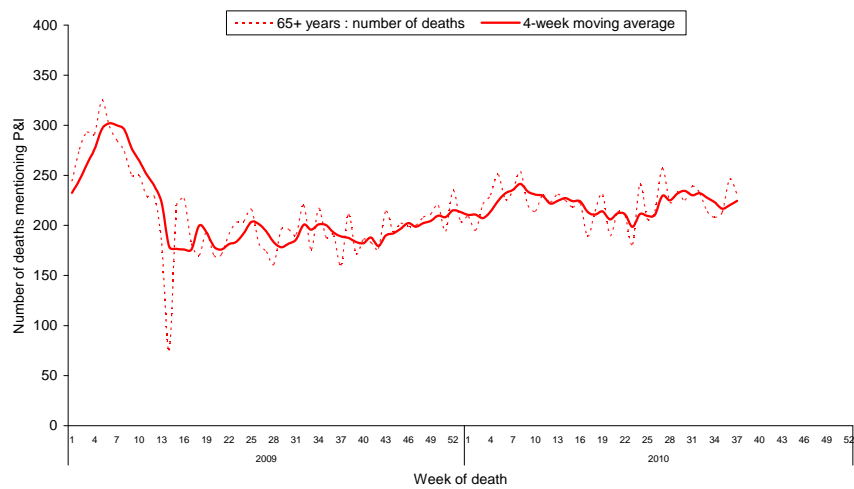
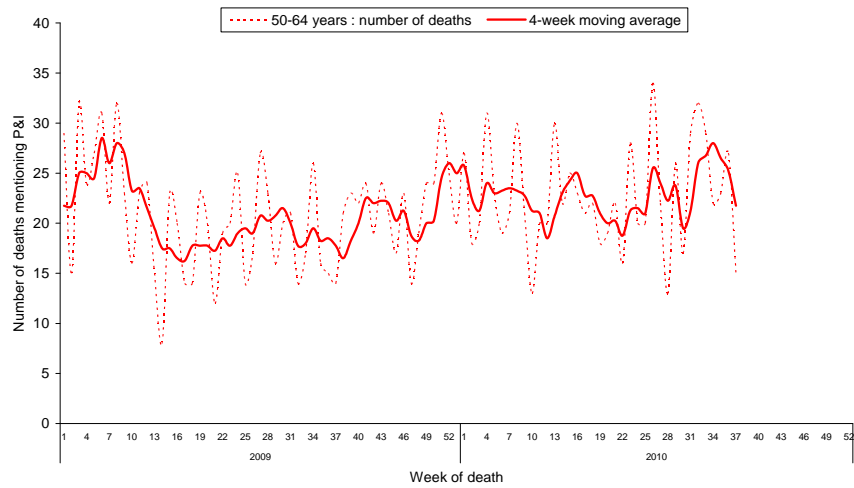
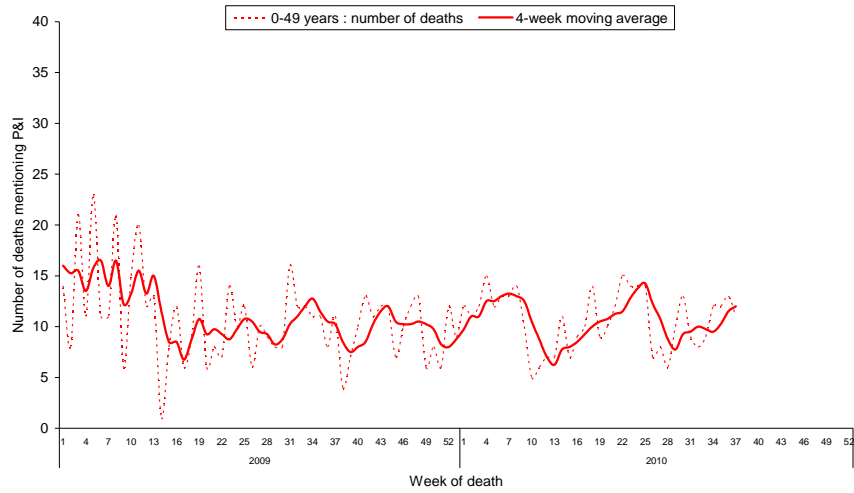
Pneumonia and influenza (P&I) mortality surveillance

During week 37, 257 deaths reported through the National Death Certificate System mentioned P&I as the cause of death. This number has no obvious change with that for the average of the previous 3 weeks (259 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 9/18/2010



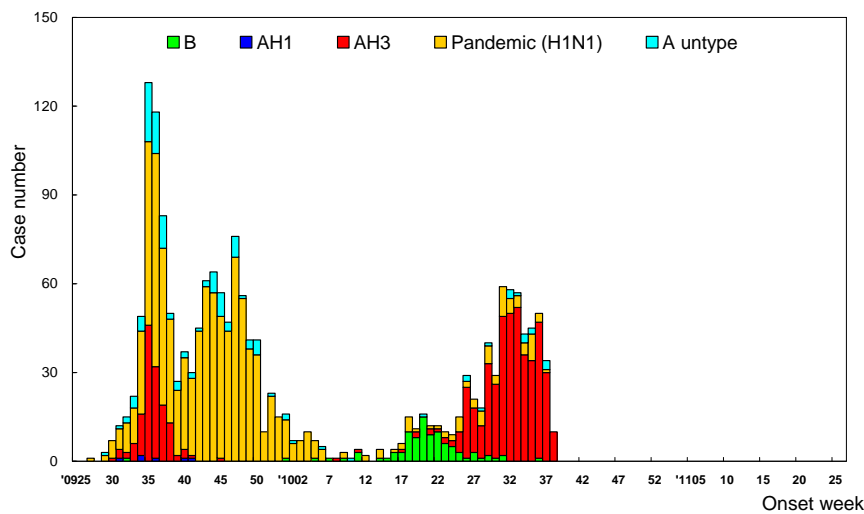
National pneumonia and influenza mortality by age group Week ending 9/18/2010



Reports of complicated influenza*

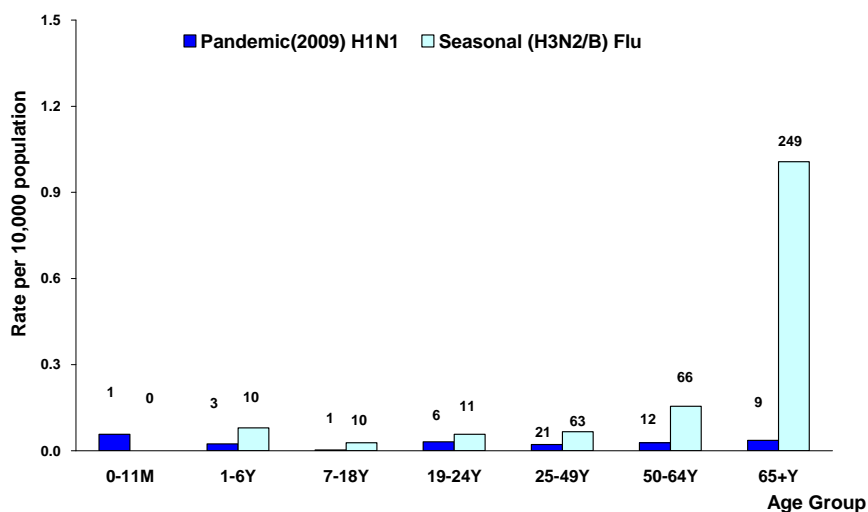
Since July 1, 2010, there have been 479 reports of complicated influenza virus infections, including 398 reports of seasonal influenza virus type H3N2 infections and 53 reports of complicated pandemic (H1N1) 2009 virus infections. There were 19 new seasonal H3N2 cases, and 1 new seasonal influenza A untyped case during week 38. Since July 1, 2009, there have been 992 reports of complicated pandemic (H1N1) 2009 virus infections (50 deaths). Since July 1, 2010, there have been 21 reports of death from complicated influenza infection; 6 from the pandemic H1N1 2009, 14 from the seasonal H3N2 and 1 from the seasonal A untyped 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 38, 1.19% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has increased by 2% compared with the previous week (1.17%).

Nationwide during week 38, 11.61% of emergency room patient visits reported through the Real-time Outbreak and Disease Surveillance System (RODS) were due to ILI. This rate has increased by 1% compared with the previous week (11.48%).

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

