



Summary

During week 35 (August 29–September 4, 2010), influenza activity decreased in Taiwan, and seasonal influenza virus type AH3 is predominant in the community.

- Of the 621 specimens tested during week 33–35, 138 (22%) were positive for influenza viruses, 26 (4%) were positive for pandemic (H1N1) 2009 viruses, 98 (16%) were positive for influenza A (H3N2) virus and 14 (2%) were positive for seasonal influenza B viruses; 21% (95% confidence interval 14%–29%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- Since July 1, 2010, there have been 364 reports of complicated influenza virus infections, including 288 reports of seasonal influenza virus type AH3 infections and 46 reports of complicated pandemic (H1N1) 2009 virus infections. There were 8 new complicated pandemic (H1N1) 2009 influenza cases, 30 new seasonal influenza virus type AH3 cases, 11 new seasonal influenza virus untyped A cases, and 1 new case co-infected with seasonal influenza viruses type A and B during week 35. Since July 1, 2009, there have been 985 reports of complicated pandemic (H1N1) 2009 virus infections (50 deaths). Since July 1, 2010, there have been 13 reports of death from complicated influenza infection; 6 from the pandemic H1N1 2009 and 7 from the seasonal H3N2 strain, respectively.
- The number of deaths related to pneumonia and influenza during week 34 was 223, which was below the number for the same period of last year (254 deaths).
- The rate of outpatient visits for influenza-like illness is 1.1% (last updated on 9/1), an 11% decrease compared with the previous week (1.24%).
- The rate of emergency room visits for influenza-like illness is 11.7%, an 4% decrease compared with the previous week (12.2%).

Virologic surveillance

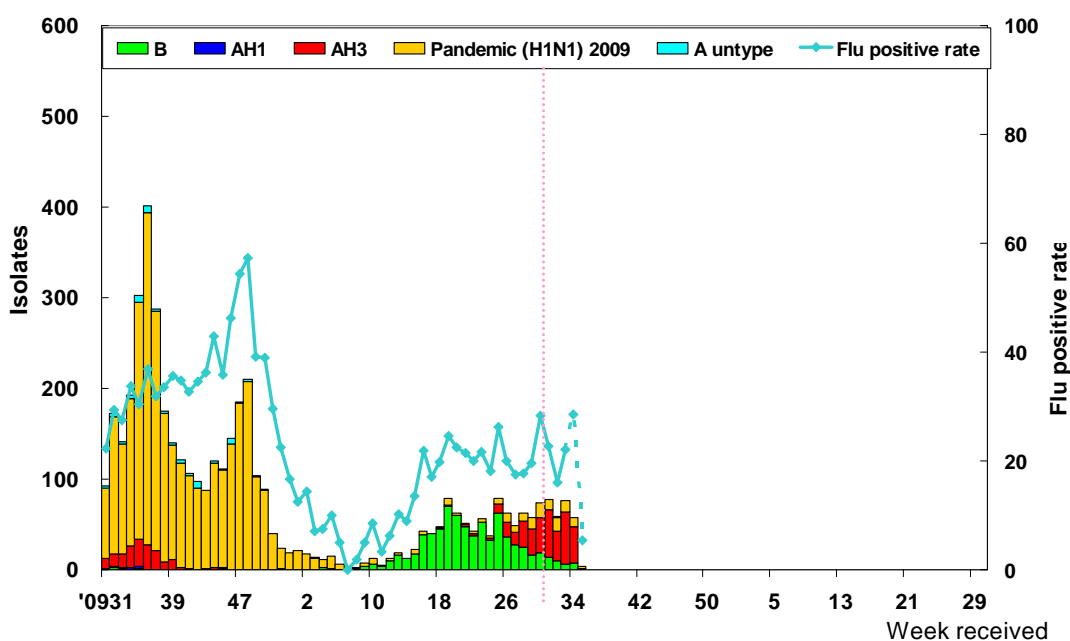
During week 33–35, 21% (95% confidence interval 14%–29%) of all subtyped influenza A viruses being reported to Taiwan CDC through contracted laboratories during this period were pandemic (H1N1) 2009 viruses. The results of tests performed during the past 3 weeks are summarized in the table below.

	Data for weeks 33–35	Cumulative data since 7/1/2010
Number of specimens tested	621	2,824
Number of positive specimens (%)	138(22)	579(21)
Positive specimens by type/subtype (%)		
Influenza A (% of all positive specimens)	124(90)	418(72)
A (pandemic [H1N1] 2009) (% of all Influenza A)	26(21)	107(26)
A (H3)	98(79)	310(74)
A (H1)	0(0)	0(0)
A (unable to subtype)	0(0)	1(<1)
A (subtyping not performed)	0(0)	0(0)
Influenza B	14(10)	161(28)



Antigenic characterization: Taiwan CDC has antigenically characterized 57 human influenza viruses [21 influenza A (H3), 22 influenza B, 14 pandemic (H1N1) 2009] since July 1, 2010. Twenty (95%) 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). Thirteen (93%) 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, 25 influenza A (H3N2), 4 influenza B and 17 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.

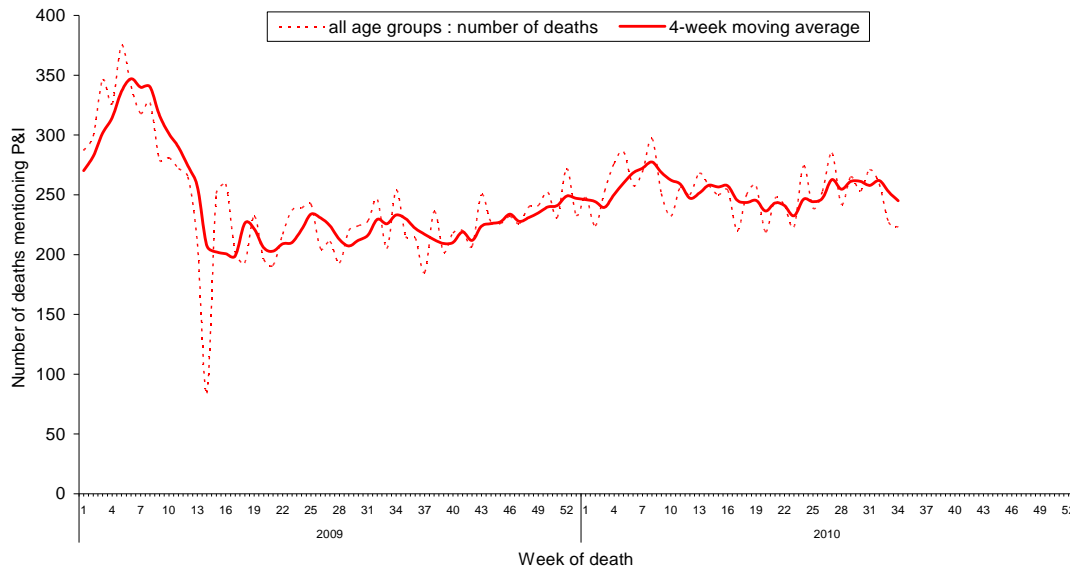
	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
A (H3)	25	0 (0)
B	4	0 (0)
A (pandemic [H1N1] 2009)	17	0 (0)



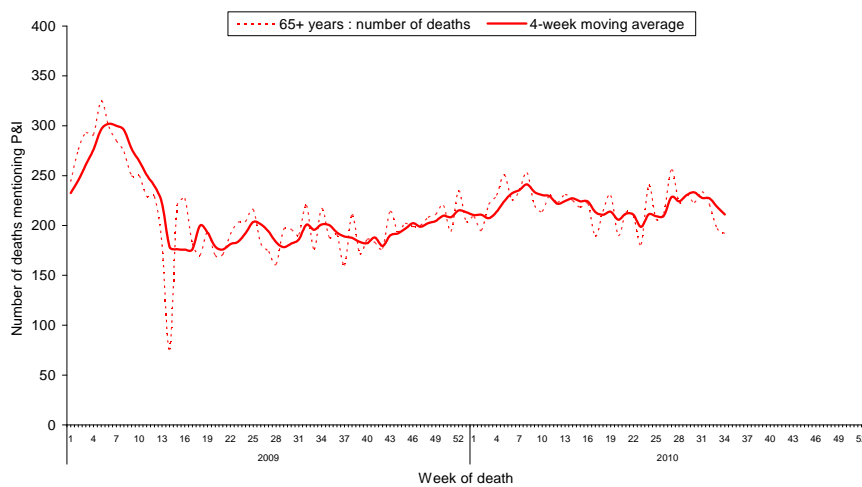
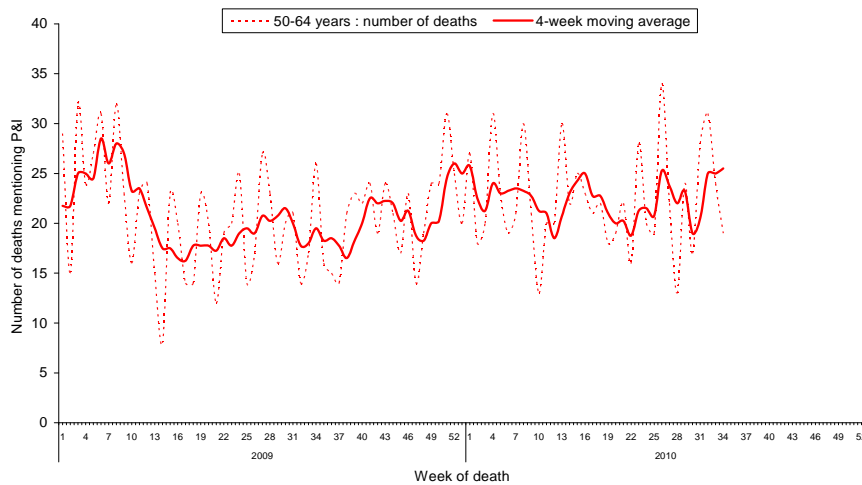
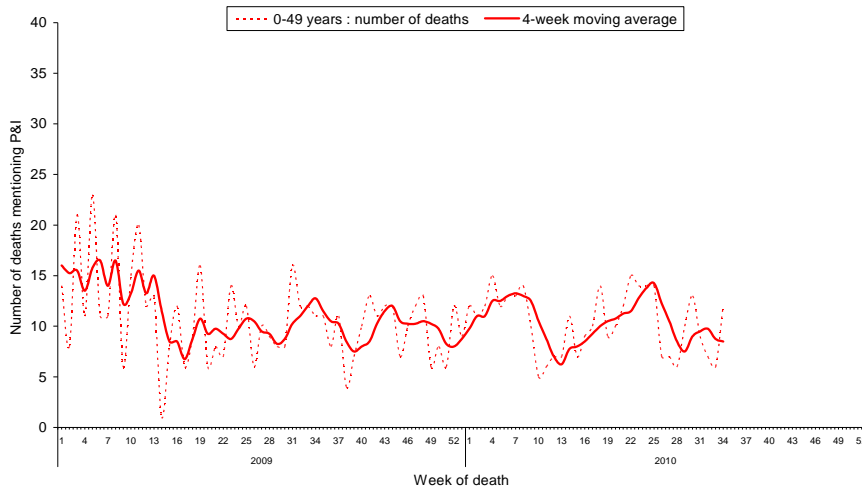
Pneumonia and influenza (P&I) mortality surveillance

During week 34, 223 deaths reported through the National Death Certificate System mentioned P&I as the cause of death. This number was lower than that for the same period of last year (254 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 8/28/2010



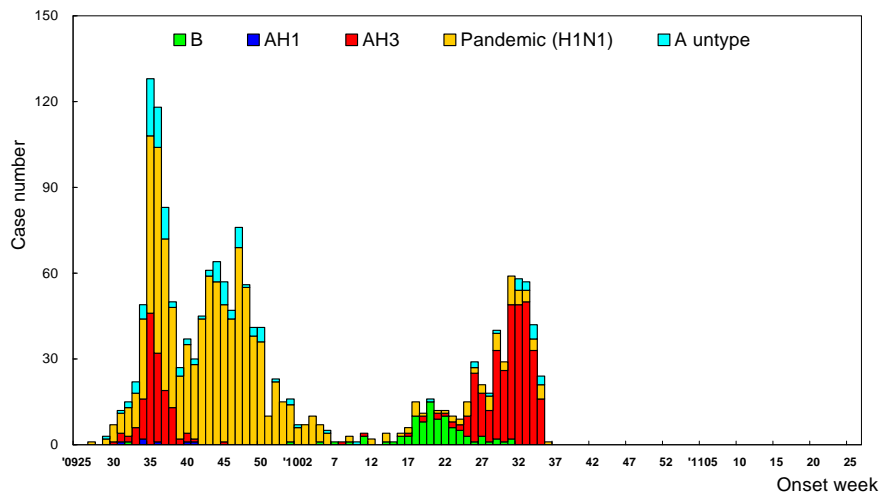
National pneumonia and influenza mortality by age group Week ending 8/28/2010



Reports of complicated influenza*

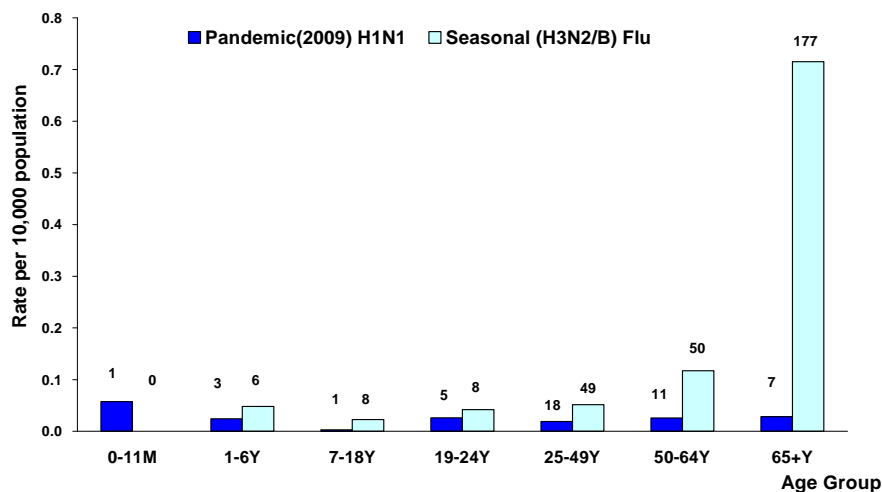
Since July 1, 2010, there have been 364 reports of complicated influenza virus infections, including 288 reports of seasonal influenza virus type AH3 infections and 46 reports of complicated pandemic (H1N1) 2009 virus infections. There were 8 new complicated pandemic (H1N1) 2009 influenza cases, 30 new seasonal influenza virus type AH3 cases, 11 new seasonal influenza virus untyped A cases, and 1 new case co-infected with seasonal influenza viruses type A and B during week 35. Since July 1, 2009, there have been 985 reports of complicated pandemic (H1N1) 2009 virus infections (50 deaths). Since July 1, 2010, there have been 13 reports of death from complicated influenza infection; 6 from the pandemic H1N1 2009 and 7 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 35, 1.1% (last updated on 9/1) of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate decreased by 11% compared with the previous week (1.24%).

Nationwide during week 35, 11.7% of emergency room patient visits reported through the Real-time Outbreak and Disease Surveillance System (RODS) were due to ILI. This rate decreased by 4% compared with the previous week (12.2%).

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

