



Summary

During week 35 (August 23–29, 2009), influenza activity increased in Taiwan.

- Of the 866 specimens tested during week 33–35, 294 (34%) were positive for influenza viruses, and 257 (30%) were positive for pandemic (H1N1) 2009 viruses; 92% (95% confidence interval 88%–95%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- The cumulative number of laboratory-confirmed complicated influenza cases since July 1, 2009 was 160. Of these, 80 (50%) were due to pandemic (H1N1) 2009 virus infections (39 recovery and discharged, 36 hospitalized, and 5 deaths). There were 37 new laboratory-confirmed complicated pandemic (H1N1) 2009 influenza cases during week 35.
- The number of deaths mentioning pneumonia and influenza during week 34 was 221 and above the baseline level (217 deaths).
- The rate of outpatient visits for influenza-like illness is 1.06% and increasing.
- The rate of emergency room visits for influenza-like illness is 17.02% and increasing.
- Taiwan CDC estimates that nationwide there were 14,360 (95% confidence interval 13,790–16,640) new cases of pandemic (H1N1) 2009 influenza during week 35.

Virologic surveillance

During week 33–35, seasonal influenza A (H1, H3) and B viruses have co-circulated at low levels with pandemic (H1N1) 2009 viruses. Ninety-two percent (95% confidence interval 88%–95%) 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.

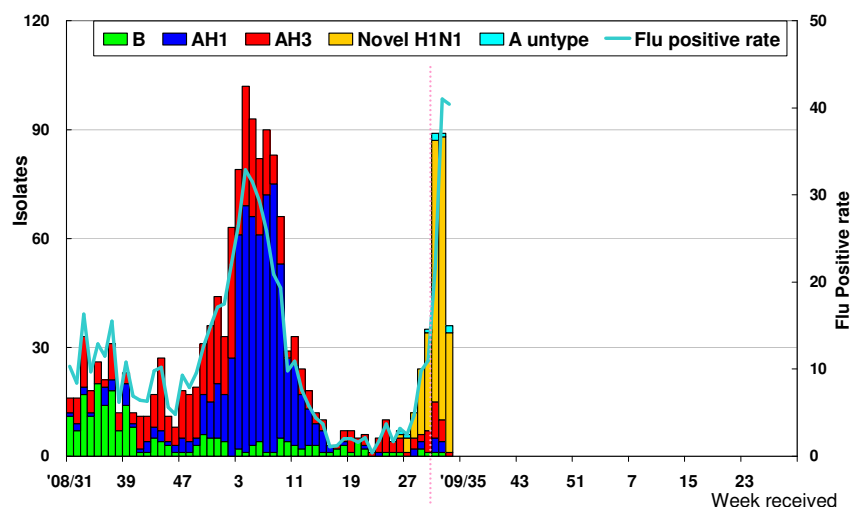
	Data for weeks 33–35	Cumulative data since 6/1/2009
Number of specimens tested	866	3,925
Number of positive specimens (%)	294 (34)	642 (16)
Positive specimens by type/subtype (%)		
Influenza A	293 (100)	632 (98)
A (novel H1N1)	257 (88)	523 (83)
A (H3)	14 (5)	67 (11)
A (H1)	9 (3)	18 (3)
A (unable to subtype)	13 (4)	24 (4)
A (subtyping not performed)	0 (0)	0 (0)
Influenza B	1 (0)	10 (2)

Antigenic characterization: Taiwan CDC has antigenically characterized 13 seasonal human influenza viruses [1 influenza A (H1), 12 influenza A (H3)] since June 1, 2009.

None of the influenza seasonal A (H1) viruses tested was related to the influenza A (H1N1) component of the 2009–10 influenza vaccine (A/Brisbane/59/2007). Two (17%) of the influenza A (H3N2) viruses tested are related to the A (H3N2) vaccine component (A/Brisbane/10/2007).



Influenza positive tests reported to Taiwan CDC by contracted laboratories, 2008–2009



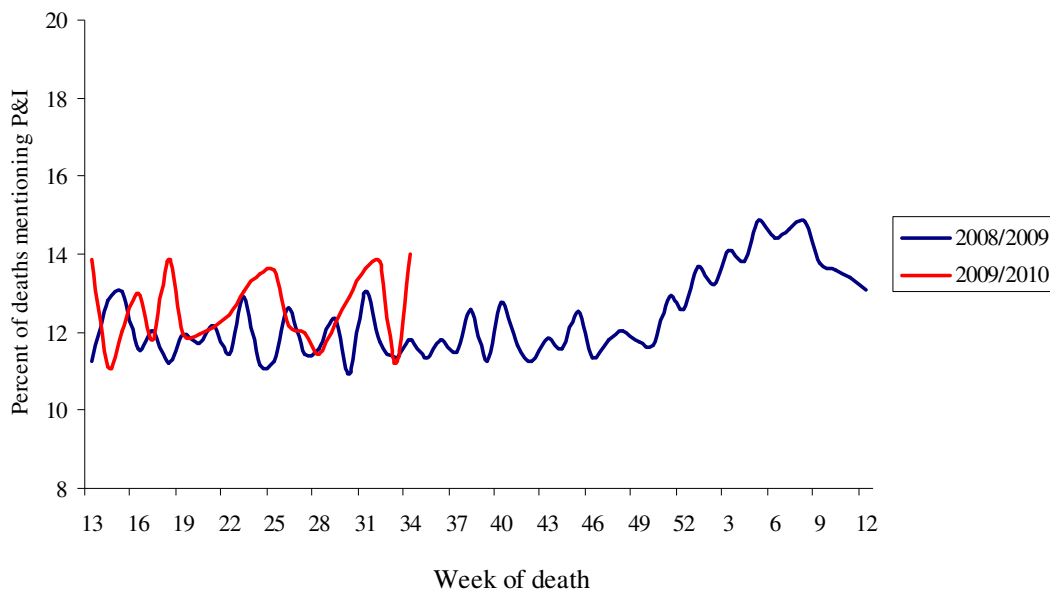
Antiviral resistance: Since June 1, 2009, 16 influenza A (H3N2) and 45 pandemic (H1N1) 2009 viruses have been tested for resistance to the neuraminidase inhibitors (oseltamivir and zanamivir) and adamantanes (amantadine and rimantadine). The results of antiviral resistance testing performed on these viruses are summarized in the table below.

	Isolates tested (n)	Resistance Viruses, n (%)		Isolates tested (n)	Resistant Viruses, n (%)
		Oseltamivir	Zanamivir		Adamantanes
A (pandemic [H1N1] 2009)	45	0 (0)	0 (0)	6	6 (100)
A (H3)	16	0 (0)	0 (0)	16	16 (100)

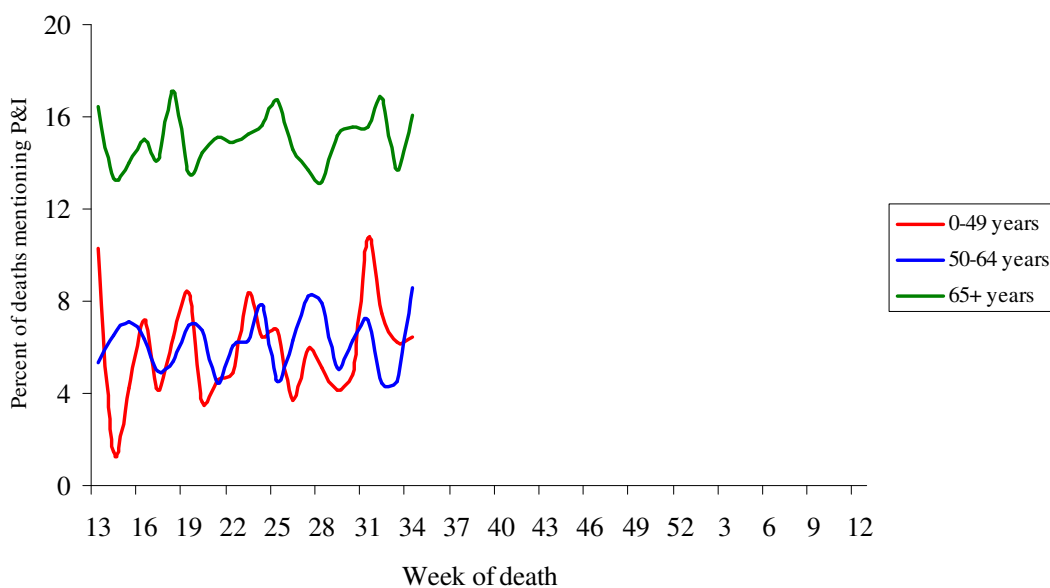
Pneumonia and influenza (P&I) mortality surveillance

During week 34, 221 (14%) of all deaths reported through the National Death Certificate System mentioned P&I as the cause of death. P&I proportional death was the highest for adult greater than 65 years of age. The number of deaths mentioning P&I during week 34 was above the baseline number (217 deaths).

National pneumonia and influenza mortality Week ending 8/22/2009



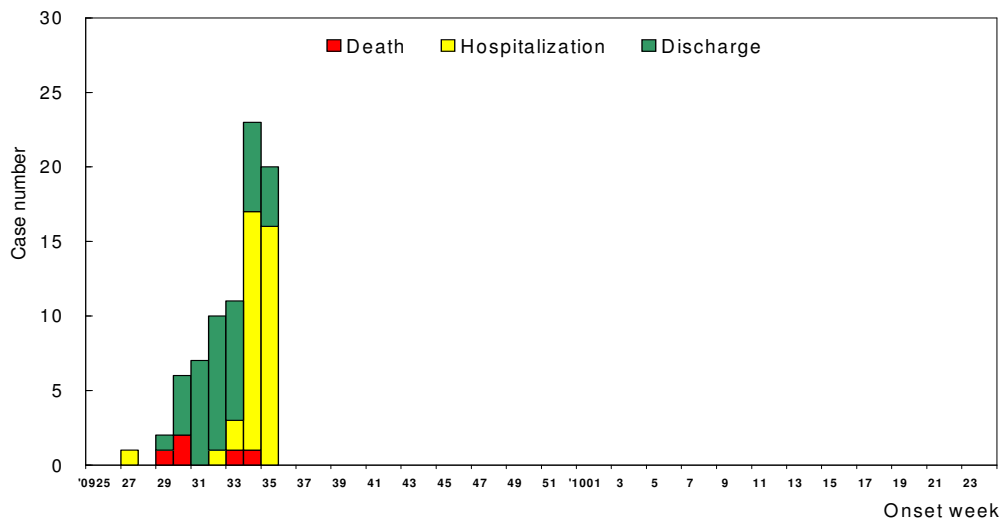
National pneumonia and influenza mortality by age group* Week ending 8/22/2009



Reports of complicated influenza*

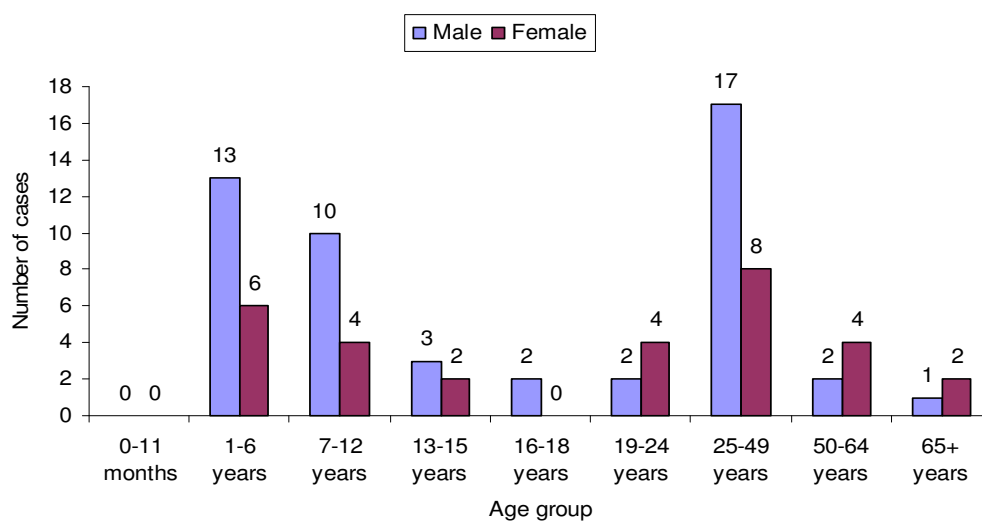
Since July 1, 2009, Taiwan CDC has received 160 reports of laboratory-confirmed complicated influenza. Of these, 80 (50%) were due to pandemic (H1N1) 2009 virus infections (39 recovery and discharged, 36 hospitalized, and 5 deaths). There were 37 new laboratory-confirmed complicated pandemic (H1N1) 2009 influenza cases during week 35.

Number of complicated pandemic H1N1 influenza reports by week of onset 7/1/2008 to present



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

Number of complicated pandemic H1N1 influenza reports by sex and age groups 7/1/2008 to present



Outpatient and emergency room influenza-like illness surveillance

Nationwide during week 35, 1.06% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has been slightly increasing compared with the previous week (1.04%).

Nationwide during week 35, 17.02% of emergency room patient visits reported through the Real-time Outbreak and Disease Surveillance System (RODS) were due to influenza-like illness (ILI). This rate has been increasing compared with the previous week (12.96%).

Taiwan CDC estimates that nationwide there were 14,360 (95% confidence interval 13,790–16,640) new cases of pandemic (H1N1) 2009 influenza during week 35. This estimate is based on the average weekly outpatient ILI consultation visits, and taking into consideration positivity rates for pandemic (H1N1) 2009 from virological surveillance.

Rate of outpatient and emergency room (ER) visits for influenza-like illness 7/1/2008 to present

