



Summary

During week 34 (August 16–22, 2009), influenza activity increased in Taiwan.

- Of the 880 specimens tested during week 32–34, 306 (35%) were positive for influenza viruses, and 266 (30%) were positive for pandemic (H1N1) 2009 viruses; 91% (95% confidence interval 87%–94%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- The number of confirmed complicated influenza cases is increasing. There were 31 newly reported laboratory-confirmed complicated influenza cases (18 were due to pandemic [H1N1] 2009 virus infections). Cumulative number of laboratory-confirmed complicated influenza cases since July 1, 2009 was 69. Of these, 43 (62%) were due to pandemic (H1N1) 2009 virus infections (27 recovery and discharged, 6 hospitalized to ward, 6 in intensive care, and 4 deaths).
- The number of deaths mentioning pneumonia and influenza during week 33 was 183 and below the baseline level (217 deaths).
- The rate of outpatient visits for influenza-like illness is 1.04% and increasing.
- The rate of emergency room visits for influenza-like illness is 12.96%, increasing and above the epidemic threshold (12.30%).
- Taiwan CDC estimates that nationwide there were 12,950 (95% confidence interval 11,570–14,150) new cases of pandemic (H1N1) 2009 influenza during week 34.

Virologic surveillance

During week 32–34, seasonal influenza A (H1, H3) and B viruses have co-circulated at low levels with pandemic (H1N1) 2009 viruses. Ninety-one percent (95% confidence interval 87%–94%) 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.

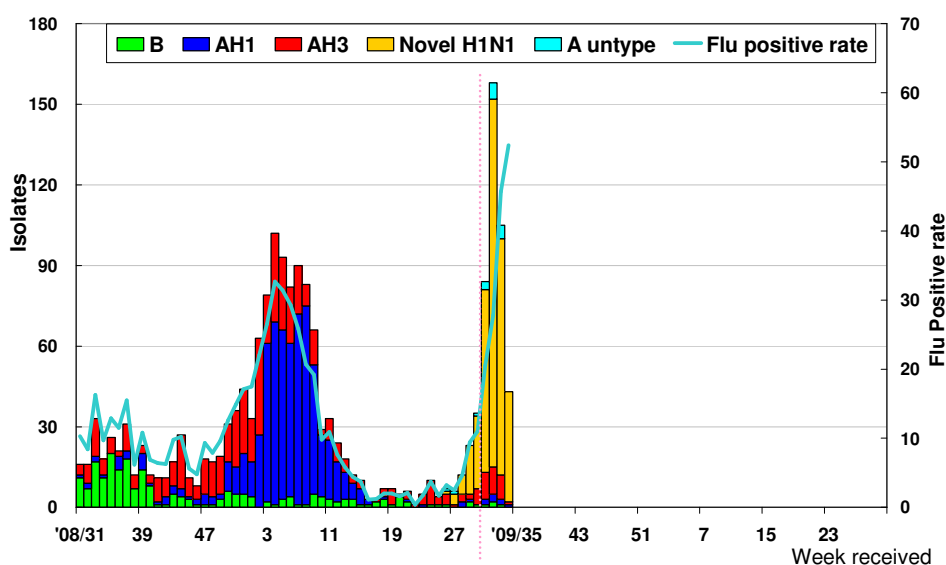
	Data for weeks 32–34	Cumulative data since 6/1/2009
Number of specimens tested	880	3,354
Number of positive specimens (%)	306 (35)	492 (15)
Positive specimens by type/subtype (%)		
Influenza A	303 (99)	482 (98)
 A (novel H1N1)	266 (88)	391 (81)
 A (H3)	20 (7)	62 (13)
 A (H1)	6 (2)	12 (2)
 A (unable to subtype)	11 (4)	17 (4)
 A (subtyping not performed)	0 (0)	0 (0)
Influenza B	3 (1)	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



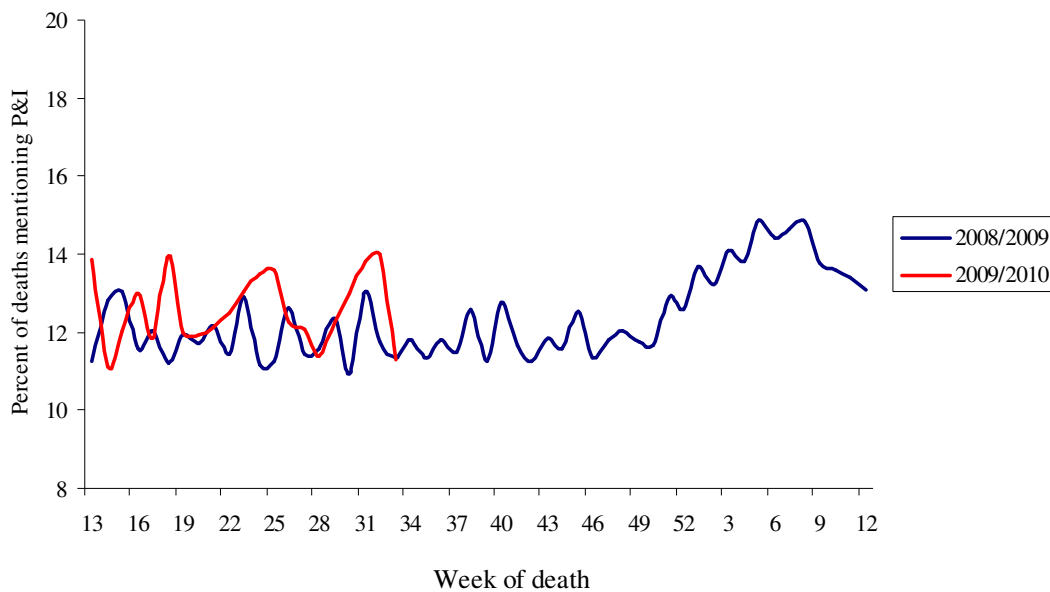
Antiviral resistance: Since June 1, 2009, 16 influenza A (H3N2) and 18 pandemic (H1N1) 2009 viruses have been tested for resistance to the neuraminidase inhibitors (oseltamivir and zanamivir) and adamantanes (amantadine and rimantadine). The results of antiviral resistance testing performed on these 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)	18	0 (0)	0 (0)	6	6 (100)
A (H3)	16	0 (0)	0 (0)	16	16 (100)

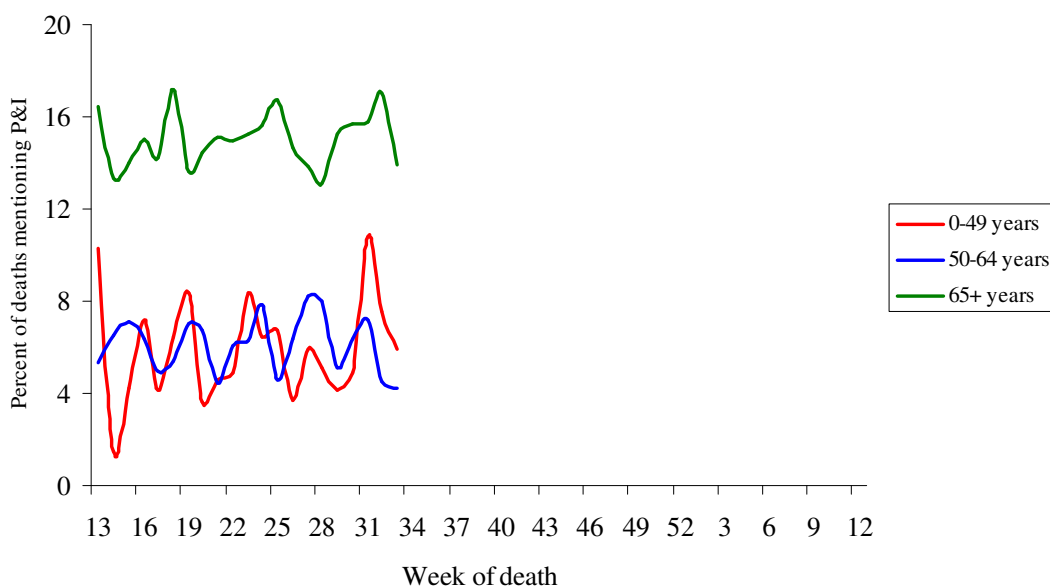
Pneumonia and influenza (P&I) mortality surveillance

During week 33, 183 (11%) 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 33 was below the baseline number (217 deaths).

National pneumonia and influenza mortality Week ending 8/15/2009



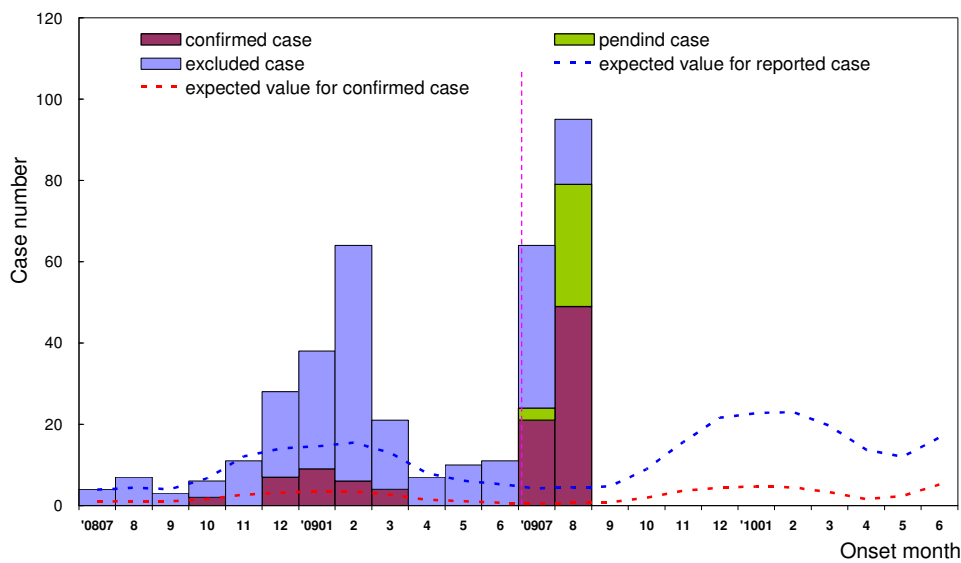
National pneumonia and influenza mortality by age group* Week ending 8/15/2009



Reports of complicated influenza*

During week 34, 31 laboratory-confirmed complicated influenza cases were reported to Taiwan CDC; 18 (58%) were due to pandemic (H1N1) 2009 virus infections. Since July 1, 2009, Taiwan CDC has received 69 reports of laboratory-confirmed complicated influenza. Of these, 43 (62%) were due to pandemic (H1N1) 2009 virus infections (27 recovery and discharged, 6 hospitalized to ward, 6 intensive care, and 4 deaths). The number of laboratory-confirmed complicated influenza cases is increasing.

**Number of complicated influenza reports by month 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.

Outpatient and emergency room influenza-like illness surveillance

Nationwide during week 34, 1.04% 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 one week (1.03%).

Nationwide during week 34, 12.96% 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 slightly increasing compared with the past one week and is above the epidemic threshold (12.30%).

Taiwan CDC estimates that nationwide there were 12,950 (95% confidence interval 11,570–14,150) new cases of pandemic (H1N1) 2009 influenza during week 34. 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

