



Summary

During week 39 (September 20–26, 2009), influenza activity decreased in Taiwan but the level of influenza-like illness was still higher than that is normal for this time of year.

- Of the 979 specimens tested during week 37–39, 352 (36%) were positive for influenza viruses, and 325 (33%) were positive for pandemic (H1N1) 2009 viruses; 97% (95% confidence interval 95%–99%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- Since July 1, 2009, there has been 298 reports of complicated pandemic (H1N1) 2009 virus infections (250 recovery and discharged, 31 hospitalized, and 17 deaths) and 141 reports of complicated seasonal influenza virus infections (127 recovery and discharged, 12 hospitalized, and 2 deaths). There were 27 new complicated pandemic (H1N1) 2009 influenza cases and 7 new complicated seasonal influenza cases during week 39.
- The number of deaths mentioning pneumonia and influenza during week 38 was 220 and below the baseline level (225 deaths).
- The rate of outpatient visits for influenza-like illness is 1.50% and has decreased by 6% compared with the previous week (1.60%) .
- The rate of emergency room visits for influenza-like illness is 16.95% and has decreased by 10% compared with the previous week (18.74%) .
- Taiwan CDC estimates that nationwide there were 23,700 (95% confidence interval 21,500–25,900) new cases of pandemic (H1N1) 2009 influenza during week 38.

Virologic surveillance

During week 37–39, seasonal influenza AH3 viruses have co-circulated at low levels with pandemic (H1N1) 2009 viruses. Ninety-seven percent (95% confidence interval 95%–99%) 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 37–39	Cumulative data since 6/1/2009
Number of specimens tested	979	7,146
Number of positive specimens (%)	352 (36)	1,736 (24)
Positive specimens by type/subtype (%)		
Influenza A	352 (100)	1,725 (99)
A (pandemic [H1N1] 2009)	325 (92)	1,465 (85)
A (H3)	9 (3)	152 (9)
A (H1)	0 (0)	22 (1)
A (unable to subtype)	18 (5)	86 (5)
A (subtyping not performed)	0 (0)	0 (0)
Influenza B	0 (0)	11 (1)

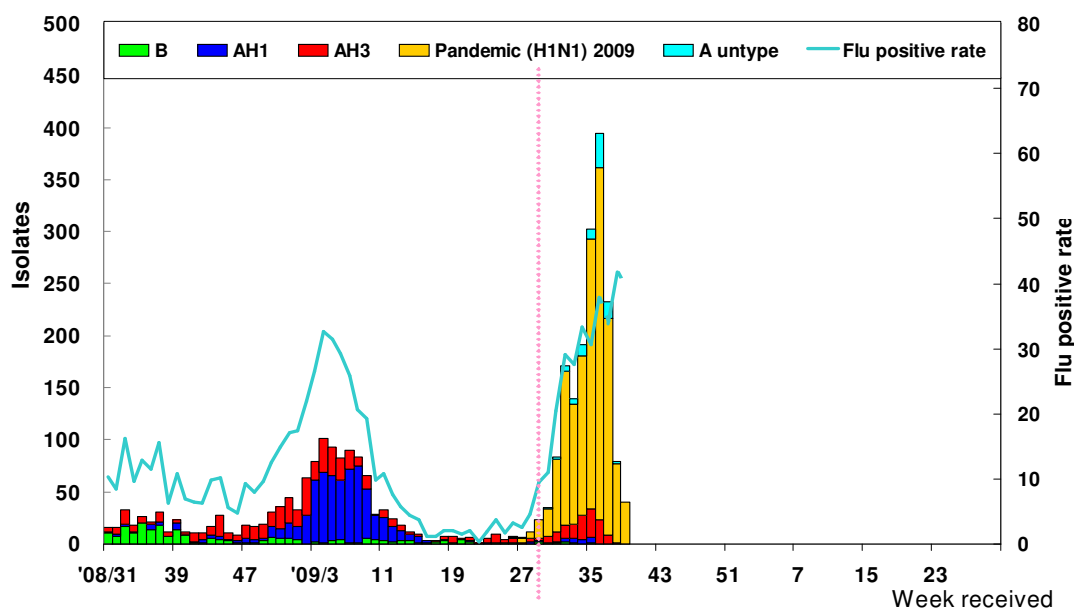
Antigenic characterization: Taiwan CDC has antigenically characterized 29 seasonal human influenza viruses [1 influenza A (H1), 19 influenza A (H3), 4 influenza B, 5 pandemic (H1N1) 2009]



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). Three (16%) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Brisbane/10/2007). Two (50%) of the influenza B viruses tested belonged to the B/Victoria lineage and were related to the B component of the 2009–10 influenza vaccine (B/Brisbane/60/2008). All (100%) 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, 2008–2009



Antiviral resistance: Since June 1, 2009, 16 influenza A (H3N2) and 222 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.

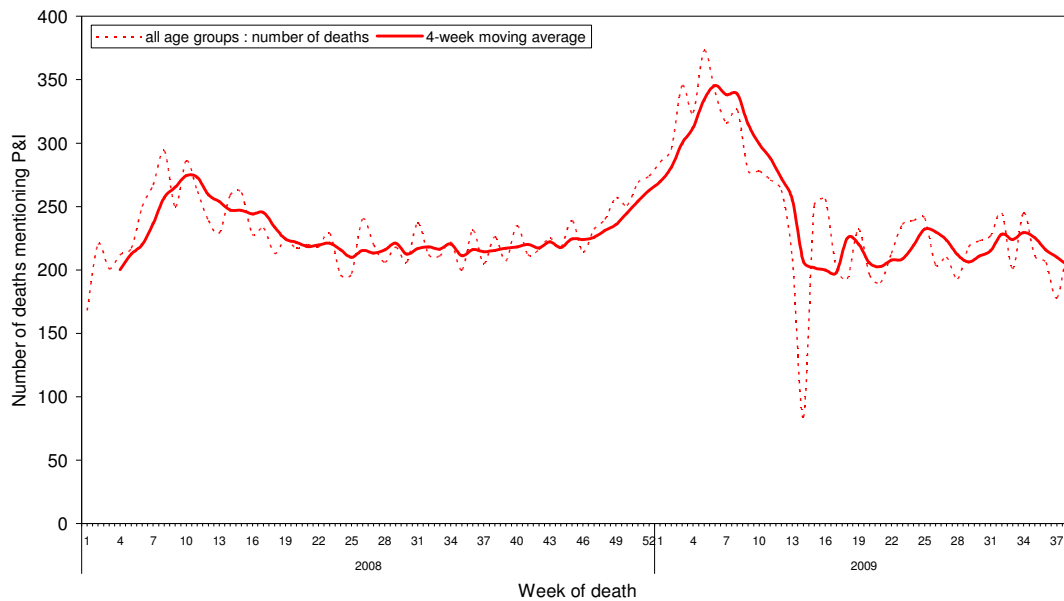
	Isolates tested (n)	Resistance Viruses, n (%)		Isolates tested (n)	Resistant Viruses, n (%)
		Oseltamivir	Zanamivir		Adamantanes
A (pandemic [H1N1] 2009)	222	0 (0)	0 (0)	117	117 (100)
A (H3)	16	0 (0)	0 (0)	16	16 (100)



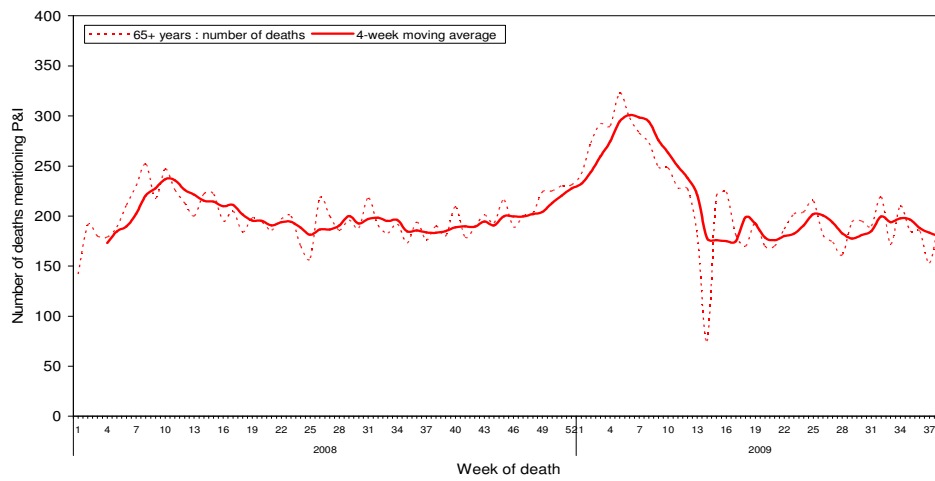
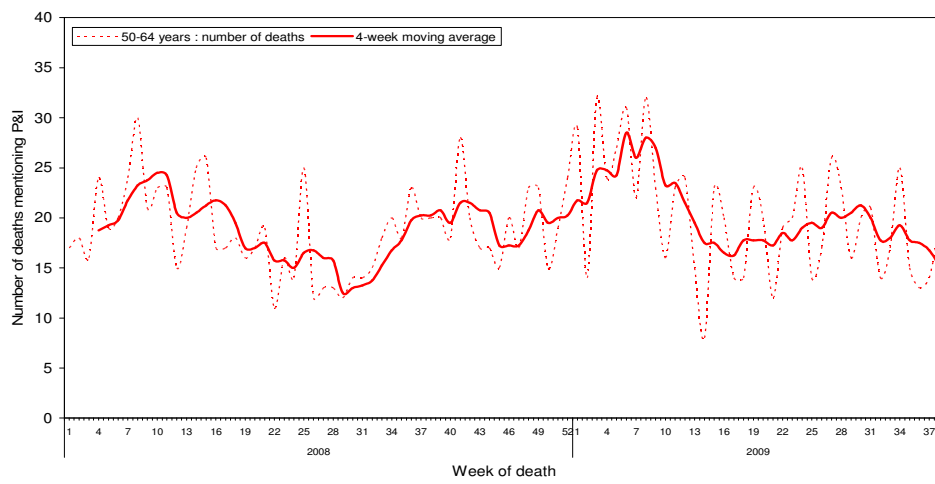
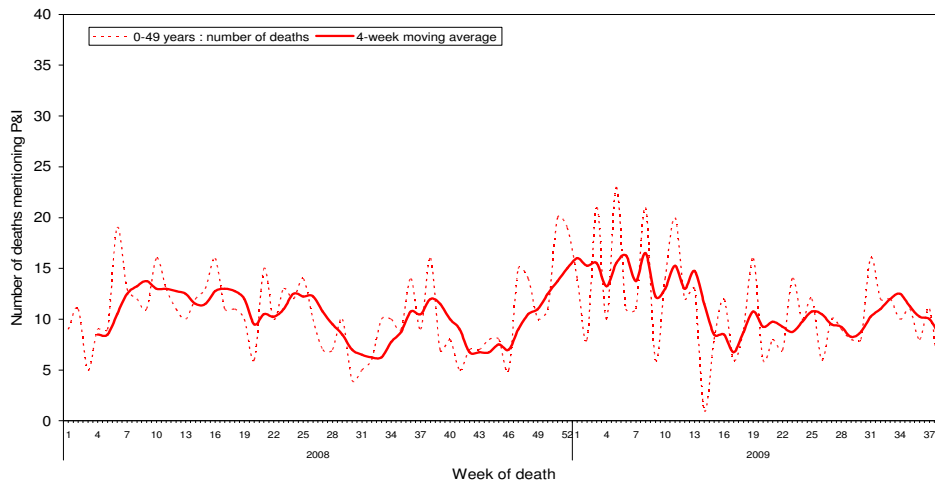
Pneumonia and influenza (P&I) mortality surveillance

During week 38, 220 deaths reported through the National Death Certificate System mentioned P&I as the cause of death, which was below the baseline number (225 deaths). The numbers of deaths mentioning P&I for age groups 0–49, 50–64, and greater than 65 years were all below the baseline number for that age group and was the highest for adult greater than 65 years of age.

National pneumonia and influenza mortality Week ending 9/19/2009



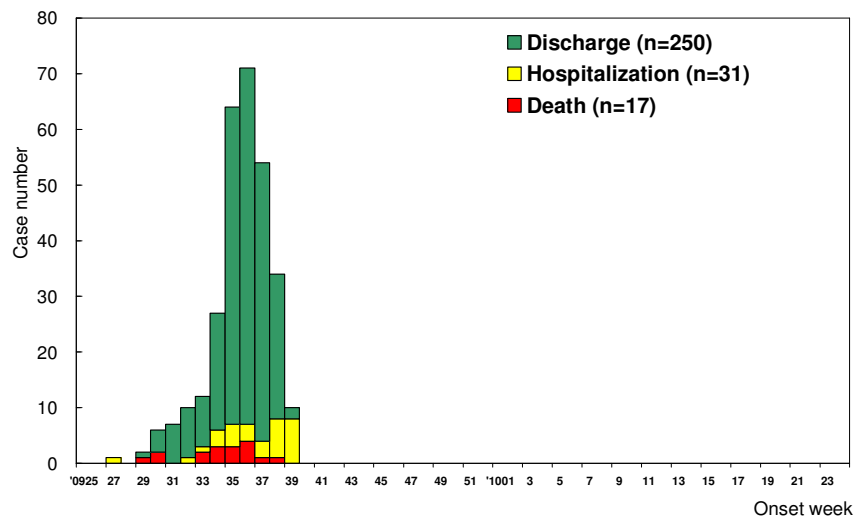
National pneumonia and influenza mortality by age group Week ending 9/19/2009



Reports of complicated influenza*

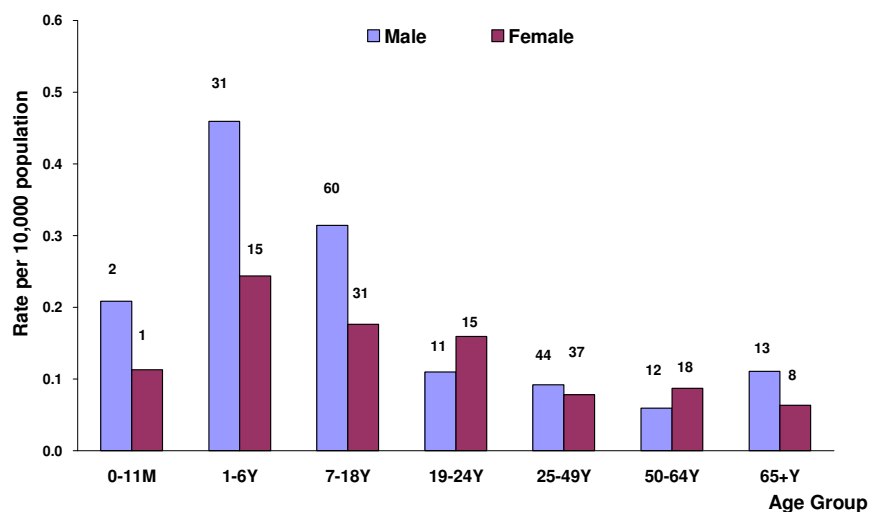
Since July 1, 2009, Taiwan CDC has received 298 reports of complicated pandemic (H1N1) 2009 virus infections (250 recovery and discharged, 31 hospitalized, and 17 deaths) and 141 reports of complicated seasonal influenza virus infections (127 recovery and discharged, 12 hospitalized, and 2 deaths). There were 27 new pandemic (H1N1) 2009 influenza cases and 7 new complicated seasonal influenza cases during week 39.

Number of complicated pandemic H1N1 influenza reports by week of onset 7/1/2009 to present



*Defined as pandemic (H1N1) 2009 influenza infection with pulmonary complication, neurologic complication, myocarditis, pericarditis, invasive bacterial infection, or those requiring intensive care or resulting deaths.

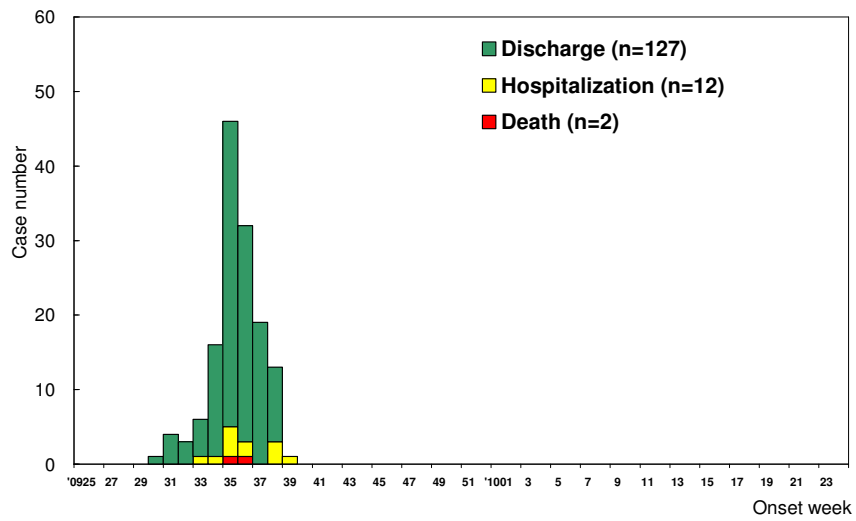
Rate of complicated pandemic H1N1 influenza reports by sex and age groups 7/1/2009 to present



*Numbers represent number of complicated pandemic H1N1 influenza reports for that specific age and sex stratum

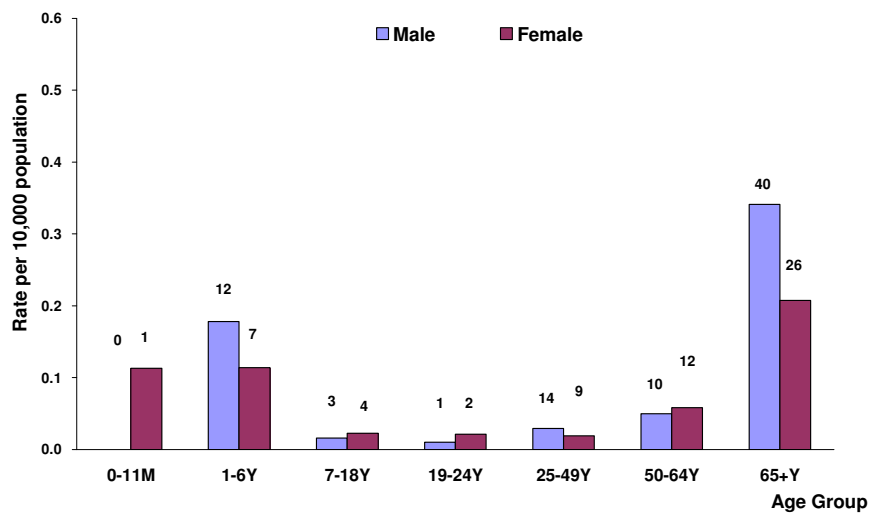


Number of complicated seasonal influenza reports by week of onset 7/1/2009 to present



*Defined as seasonal influenza AH1, AH3, or B infection with pulmonary complication, neurologic complication, myocarditis, pericarditis, invasive bacterial infection, or those requiring intensive care or resulting deaths.

Rate of complicated seasonal influenza reports by sex and age groups 7/1/2009 to present



*Numbers represent number of complicated seasonal influenza reports for that specific age and sex stratum.



Outpatient and emergency room influenza-like illness surveillance

Nationwide during week 39, 1.50% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has decreased by 6% compared with the previous week (1.60%).

Nationwide during week 39, 16.95% 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 decreased by 10% compared with the previous week (18.74%).

Taiwan CDC estimates that nationwide there were 23,700 (95% confidence interval 21,500–25,900) new cases of pandemic (H1N1) 2009 influenza during week 38. 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 6/15/2008 to present

