



## Summary

During week 12 (March 21–27, 2010), influenza activity increased in Taiwan, no significant difference compared with the same period of last year.

- Of the 333 specimens tested during week 10–12, 24 (7%) were positive for influenza viruses, 8 (2%) were positive for pandemic (H1N1) 2009 viruses and 16 (5%) were positive for seasonal influenza B viruses; 100% (95% confidence interval 63%–100%) of all subtyped influenza A viruses were pandemic (H1N1) 2009 viruses.
- Since July 1, 2009, there has been 914 reports of complicated pandemic (H1N1) 2009 virus infections (41 deaths). There were 2 new complicated pandemic (H1N1) 2009 influenza cases during week 12.
- The number of deaths mentioning pneumonia and influenza during week 11 was 234, which was below the number for this time of last year (272 deaths).
- The rate of outpatient visits for influenza-like illness is 1.21% and has increased by 4% compared with the previous week (1.16%).
- The rate of emergency room visits for influenza-like illness is 11.93% and has increased by 9% compared with the previous week (10.96%).

## Virologic surveillance

During week 10–12, all (95% confidence interval 63%–100%) 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 10–12	Cumulative data since 6/1/2009
Number of specimens tested	333	13,263
Number of positive specimens (%)	24 (7)	3,587 (27)
Positive specimens by type/subtype (%)		
Influenza A	8 (33)	3,551 (99)
A (pandemic [H1N1] 2009)	8 (100)	3,263 (92)
A (H3)	0 (0)	202 (6)
A (H1)	0 (0)	21 (<1)
A (unable to subtype)	0 (0)	65 (2)
A (subtyping not performed)	0 (0)	0 (0)
Influenza B	16 (67)	36 (1)

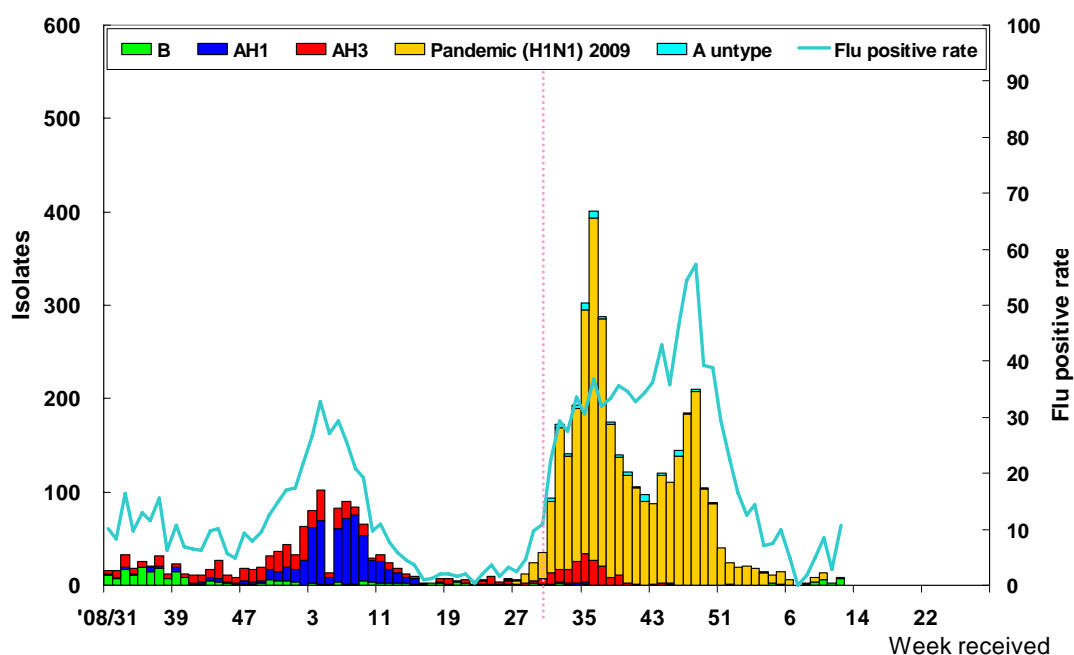
**Antigenic characterization:** Taiwan CDC has antigenically characterized 151 human influenza viruses [1 influenza A (H1), 23 influenza A (H3), 9 influenza B, 118 pandemic (H1N1) 2009] since June 1, 2009.

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 (13%) of the influenza A (H3N2) viruses tested were related to the A (H3N2) vaccine component (A/Brisbane/10/2007). Six (67%) 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, 2008–2010



**Antiviral resistance:** Since June 1, 2009, 16 influenza A (H3N2) and 1,190 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
<b>A (pandemic [H1N1] 2009)</b>	1,190	8 (0.7) <sup>*</sup>	0 (0)	168	168 (100)
<b>A (H3)</b>	16	0 (0)	0 (0)	16	16 (100)

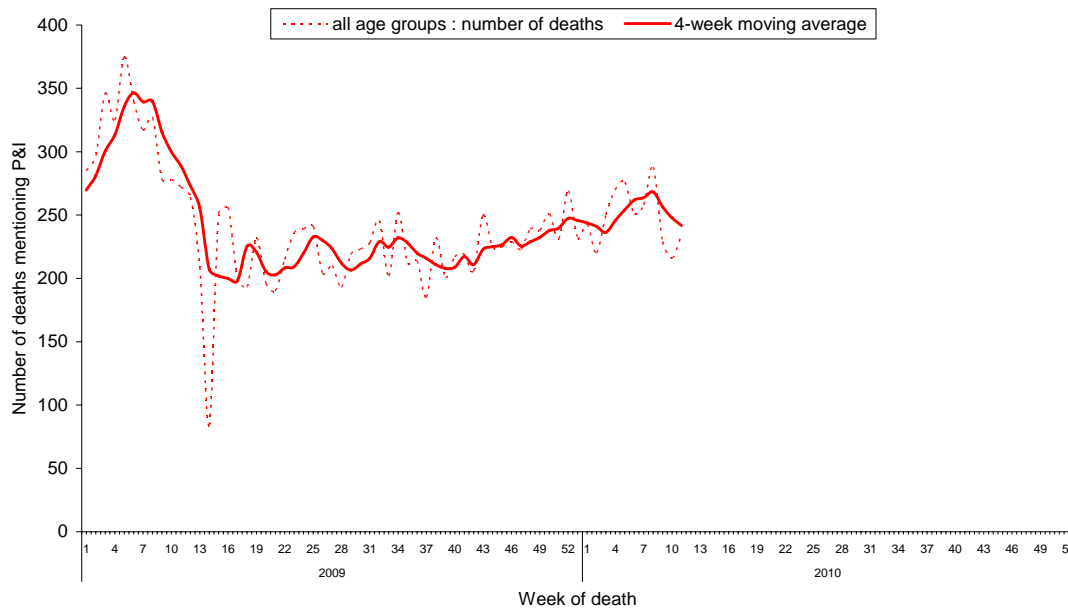
<sup>\*</sup>All patients had documented exposure to oseltamivir through treatment



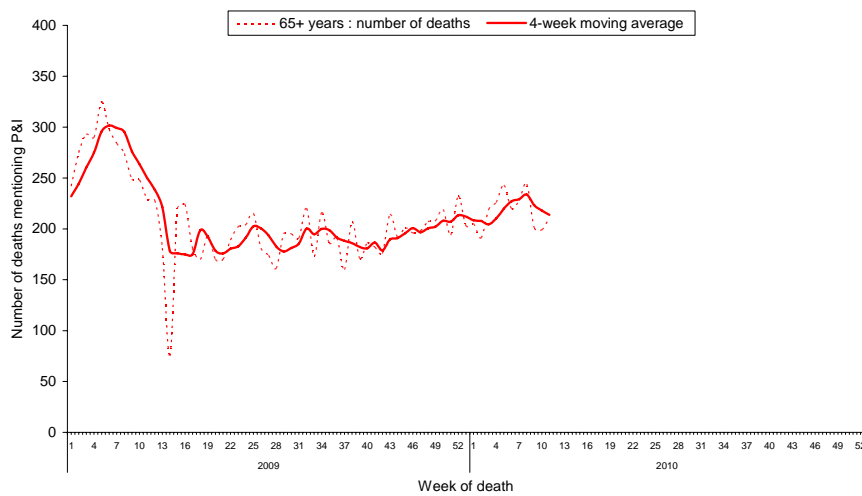
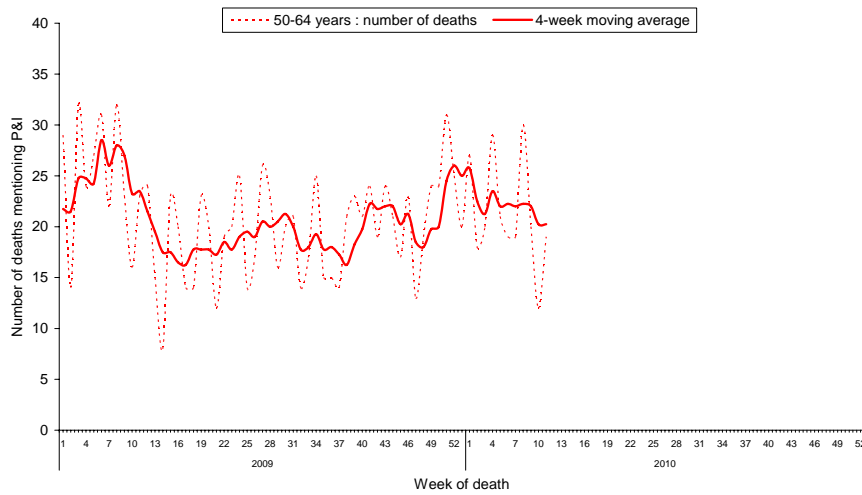
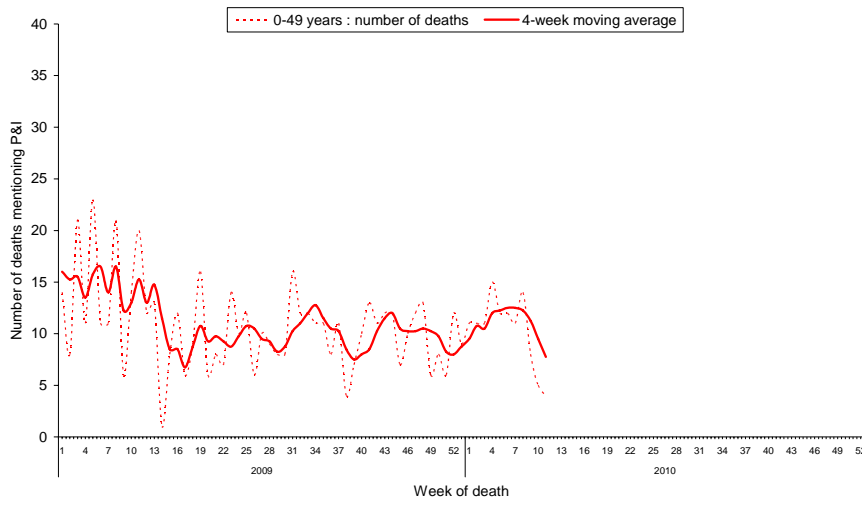
## Pneumonia and influenza (P&I) mortality surveillance

During week 11, 234 deaths reported through the National Death Certificate System mentioned P&I as the cause of death, which was below the number for this time of last year (272 deaths). The number of deaths mentioning 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 3/20/2010



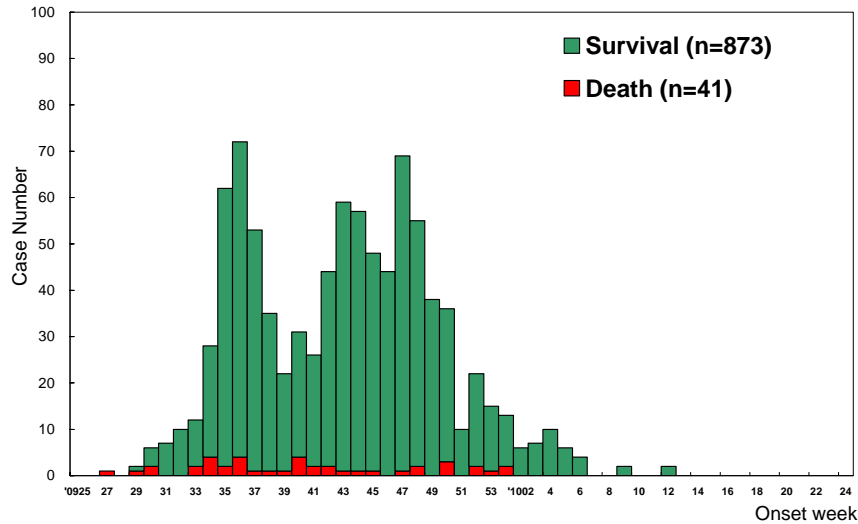
## National pneumonia and influenza mortality by age group Week ending 3/20/2010



## Reports of complicated influenza\*

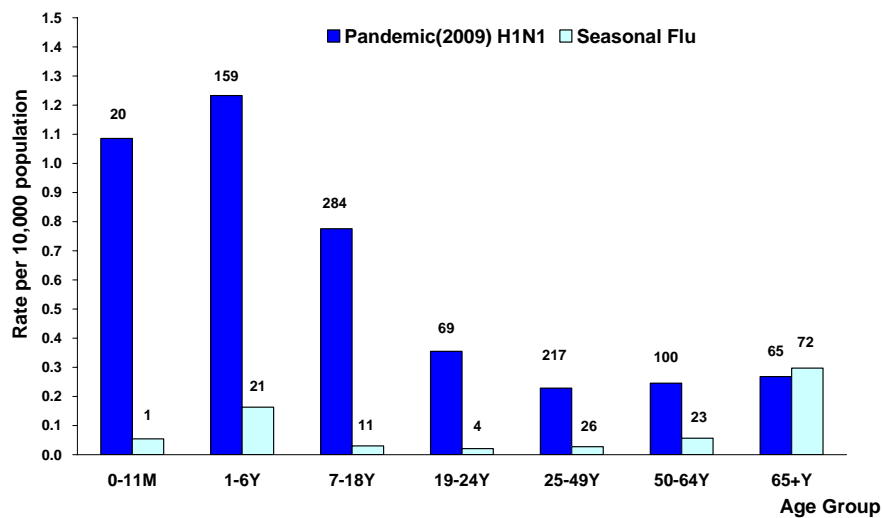
Since July 1, 2009, Taiwan CDC has received 914 reports of complicated pandemic (H1N1) 2009 virus infections (41 deaths). There were 2 new pandemic (H1N1) 2009 influenza cases during week 12.

### 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 influenza reports by age groups 7/1/2009 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 12, 1.21% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI). This rate has increased by 4% compared with the previous week (1.16%).

Nationwide during week 12, 11.93% 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 9% compared with the previous week (10.96%).

### Rate of outpatient and emergency room (ER) visits for influenza-like illness 6/15/2008 to present

