Summary： Week 2 (Jan. 5 – Jan. 11, 2014)

Influenza activity continued to increase in Taiwan during week 2, 2014. Influenza A (H3N2) remained the predominant virus subtype in Taiwan, followed by A (H1N1) virus and B virus.

- Of the 151 specimens tested during week 52, 2013, 39 (25.8%) were positive for influenza viruses, 29 (19.2%) were positive for influenza A (H3N2) virus, and 8 (5.3%) were positive for influenza A (H1N1) virus, and 2(1.3%) were positive for influenza B virus.
- During week 2, 2014, there were 76 new cases of complicated influenza, including 46 cases with influenza A (H3N2) virus infection, 24 cases with influenza A (H1N1) virus infection, and 6 cases with influenza B virus infection; 4 reports of death from complicated influenza with A (3 H1N1 and 1 H3N2) virus infection. Since July 1, 2013, 335 cases of complicated influenza infection have been confirmed, including 230 cases from influenza A (H3N2) virus infection, 89 cases from influenza A (H1N1) virus infection, 1 case due to un-typed influenza A virus infection, and 15 cases from influenza B virus infection. 102 cases of complicated influenza infection received the intensive care. Since July 1, 2013, there have been 23 reports of death from complicated influenza infection; 15 cases from influenza A (H3N2) virus infection and 8 cases from influenza A (H1N1) virus infection respectively.
- The proportion of outpatient visits for influenza-like illness (ILI) was 1.64%, a 7.9% increase compared with the proportion of previous week (1.52%).
- The proportion of emergency room visits for ILI was 13.10%, a 4.4% increase compared with the proportion of previous week (12.55%).

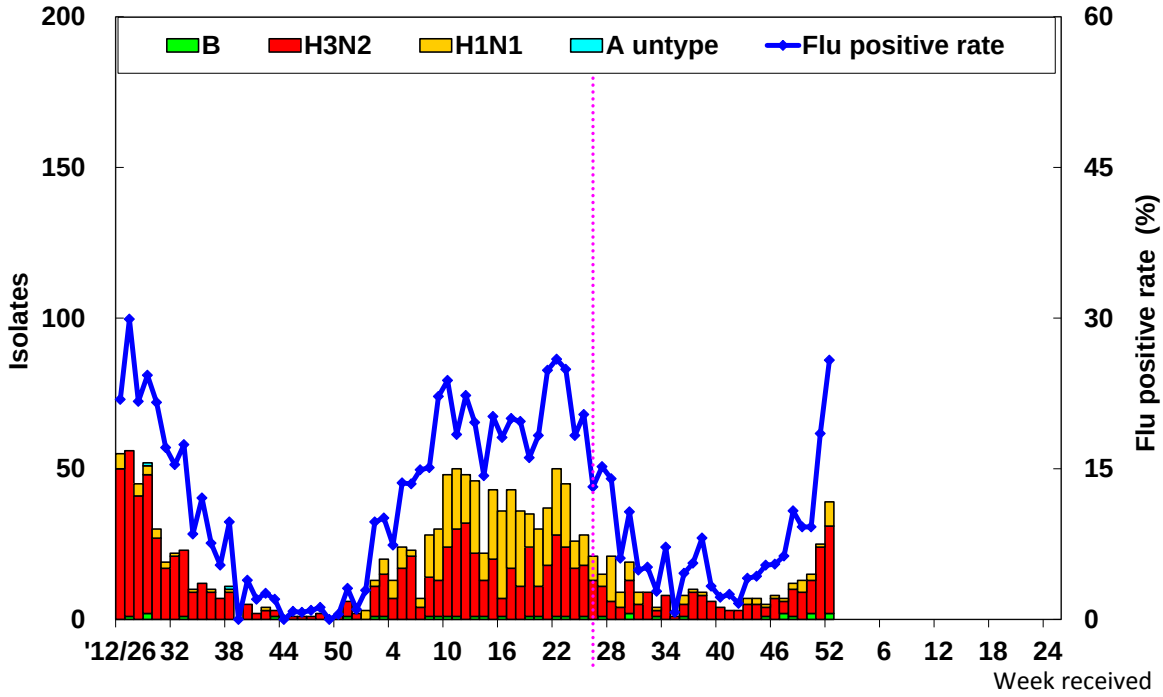
Virologic surveillance

During week 52, 2013, the results of tests performed summarized in the table below.

	Data for week 52	Cumulative data since 7/1/2013
Number of specimens tested	151	4009
Number of positive specimens (%)	39(25.8)	297(7.4)
Positive specimens by type/subtype (%)		
Influenza A (% of all positive specimens)	37(95)	284(96)
A (H1N1) (% of all Influenza A)	8(22)	72(25)
A (H3N2)	29(78)	212(75)
A (unable to subtype)	0(0)	0(0)
A (subtyping not performed)	0(0)	0(0)
Influenza B	2(5)	13(4)

Antigenic characterization: Taiwan CDC has antigenically characterized 47 human influenza viruses [13 influenza A (H1N1) viruses, 29 influenza A (H3N2) viruses, and 5 influenza B viruses] since October 1, 2013. 100% (n=13) influenza A (H1N1) viruses tested were related to the A (H1N1) component of the 2013-14 trivalent influenza vaccine (A/California/7/2009(H1N1)pdm09). 97% (n=28) of the influenza A (H3N2) viruses tested were related to the A (H3N2) component of the 2013-14 influenza vaccine (A/Victoria/361/2011(H3N2)). 5 influenza B (4 B/Victoria-lineage, 1 B/Yamagata-lineage) viruses were not related to the B component of the 2013-14 trivalent influenza vaccine (B/Massachusetts/2/2012-like(B/Yamagata-lineage virus)).

Influenza positive tests reported to Taiwan CDC by contracted laboratories, 2012–2014



Antiviral resistance: Since October 1, 2013, one influenza A (H1N1) virus and 3 influenza A (H3N2) virus 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
Influenza A (H1N1)	1	0
Influenza A (H3N2)	3	0
Influenza B	0	0

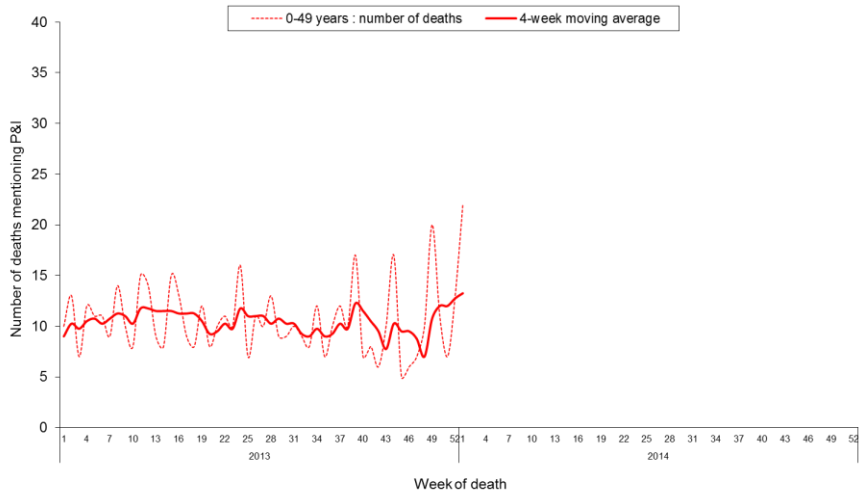
Pneumonia and influenza (P&I) mortality surveillance

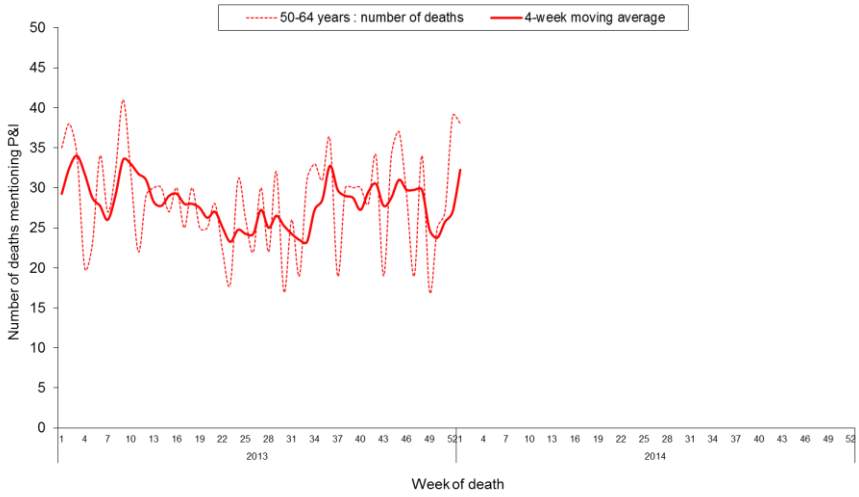
Since week 50, 2013, the trend of P&I has increased steadily. The number of deaths related to P&I for adults of 65 or greater is the highest among the three age groups (0–49, 50–64, and 65^{+}).

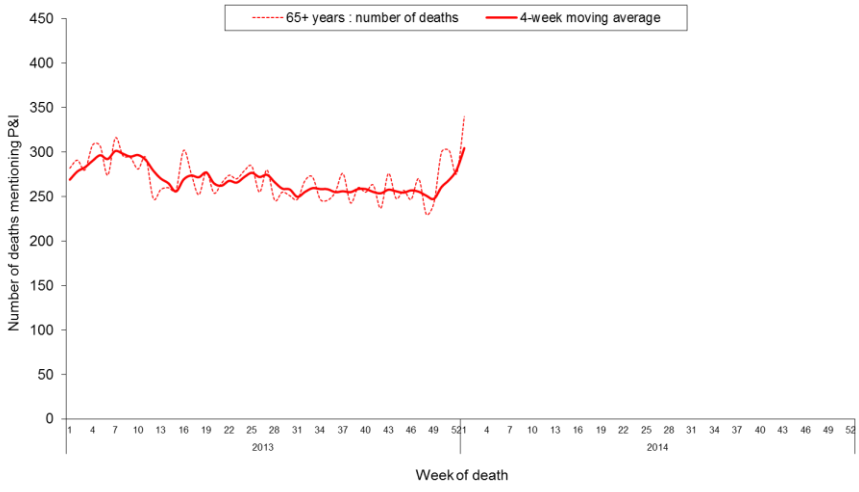
National pneumonia and influenza mortality
Week ending at January 4, 2014

* Medical institutions were required to report any mortality case to Ministry of Health and Welfare (MOHW) within 7 days after a death certification is issued through the Internet System for Death Reporting (ISDR). The last field of immediate cause or the underlying cause of death was used to identify P&I death cases. Only those with keywords texts containing ‘pneumonia’, ‘influenza’ or ‘common cold’ were counted as a P&I death. Since January 1, 2014, the ISDR has been improved in coverage and the data in 2013 has been updated simultaneously.

National pneumonia and influenza mortality by age group
Week ending at January 4, 2014



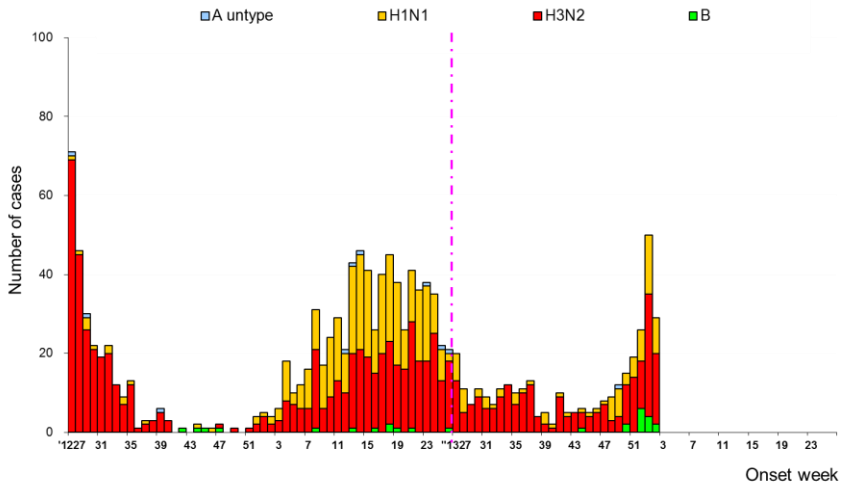




Reports of complicated influenza*

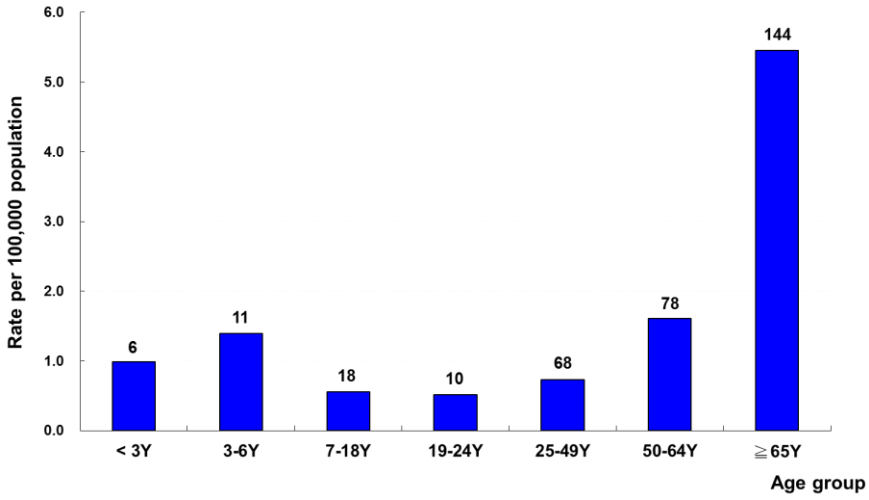
During week 2, 2014, there were 76 new cases of complicated influenza, including 46 cases with influenza A (H3N2) virus infection, 24 cases with influenza A (H1N1) virus infection, and 6 cases with influenza B virus infection; 4 reports of death from complicated influenza with A (3 H1N1 and 1 H3N2) virus infection. Since July 1, 2013, 335 cases of complicated influenza infection have been confirmed, including 230 cases from influenza A (H3N2) virus infection, 89 cases from influenza A (H1N1) virus infection, 1 case due to un-typed influenza A virus infection, and 15 cases from influenza B virus infection. 102 cases of complicated influenza infection received the intensive care. Since July 1, 2013, there have been 23 reports of death from complicated influenza infection; 15 cases from influenza A (H3N2) virus infection and 8 cases from influenza A (H1N1) virus infection respectively.

Number of complicated influenza reports by week of onset
July 1, 2012 to present



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

Rate of complicated influenza reports by age groups
July 1, 2013 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 2, 2014, 1.64% of outpatient visits reported through the National Health Insurance Database were due to influenza-like illness (ILI), a 7.9% increase compared with the proportion of previous week (1.52%).

The proportion of emergency room visits for ILI was 13.10%, a 4.4% increase compared with the proportion of previous week (12.55%).

Proportions of outpatient and emergency room (ER) visits for influenza-like illness (July 1, 2012 to present)