



Synopsis

Influenza activity continued to decrease and was below the national baseline.

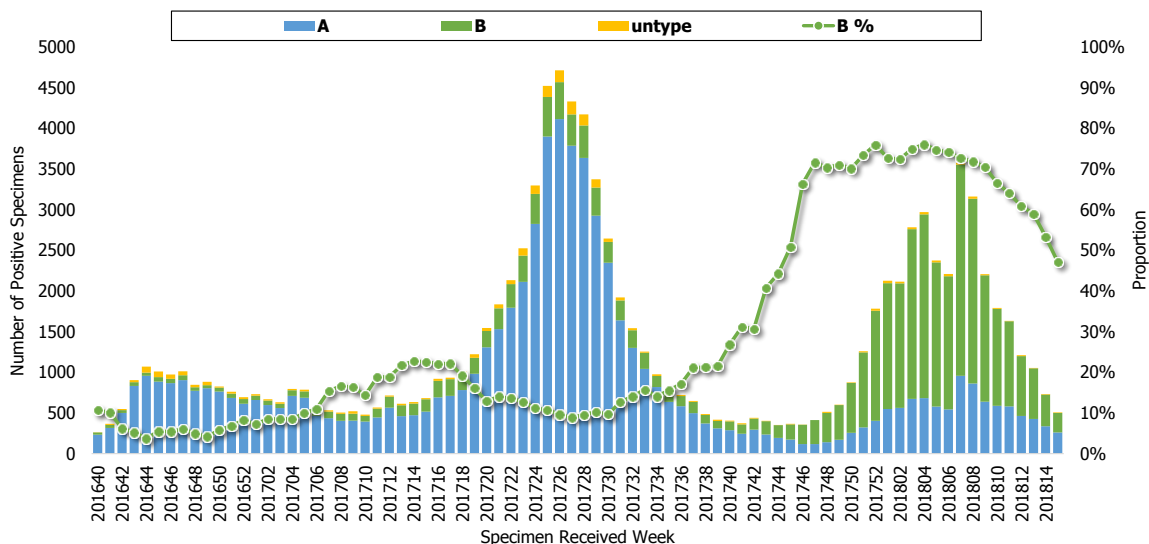
- Both proportions of ILI visit in OPD and ER were decreasing in the past few weeks, and the proportion in ER was below the national baseline.
- The number of influenza positive specimens was decreasing.
- There were 22 newly confirmed severe complicated influenza cases and 2 newly fatal cases. A total of 717 severe complicated influenza cases have been confirmed since October 1, 2017, and 114 of them were fatal. Influenza B was the predominant virus type among severe cases and fatal cases.

Laboratory Surveillance

Types and Trend

According to LARS¹, the number of influenza positive specimens during week 15 was lower than the previous week. Both proportions of positive specimens for influenza B and influenza A virus were 50%.

Trend of influenza positive specimens according to LARS

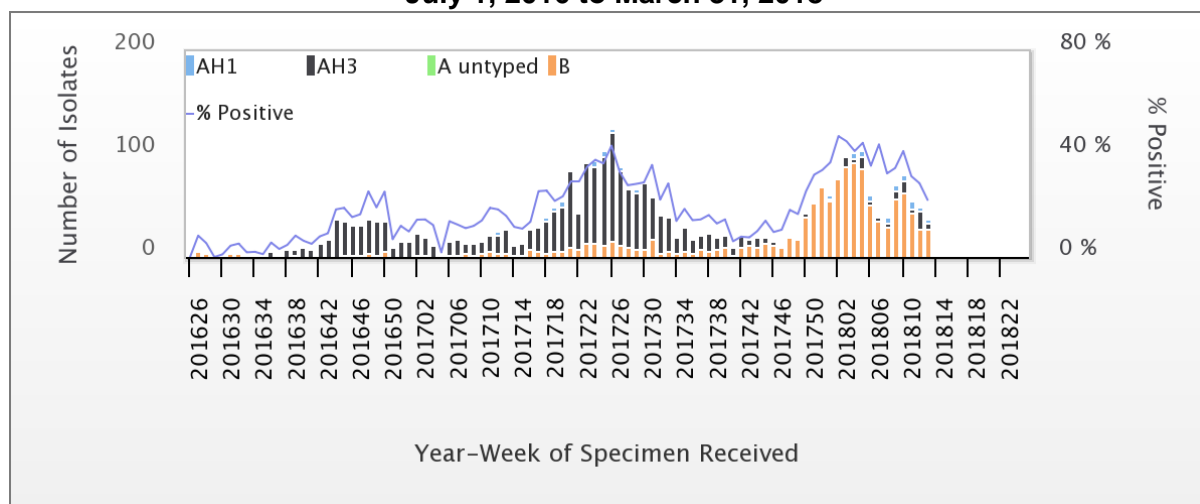


¹ In order to present the trend of influenza virus in real-time, the Automated Laboratory Reporting System (LARS) has been established by Taiwan CDC since 2014. The data presented here collected from 51 participating hospitals. All positive specimens data uploads to LARS automatically.



According to the Taiwan CDC Contracted Virology Laboratories², the proportion of influenza positive specimens was 22.2%. Among these, 75.7% were influenza B virus during week 13, 2018. Weekly virus data are available at: <http://nidss.cdc.gov.tw/>.

Influenza isolates and positive rate according to Contracted Virology Laboratories July 1, 2016 to March 31, 2018



Antigenicity

In the past 4 weeks, among those influenza isolates that were antigenically characterized, all (100%) of the influenza A (H1N1) virus isolates matched the A (H1N1) component of the 2017-18 influenza vaccine (A/Michigan/45/2015), and 100% of the H3N2 virus isolates matched the A (H3N2) component of the 2017-18 influenza vaccine (A/Hong Kong/4801/2014). Among influenza B isolates, 100% were B/Yamagata lineage, and 98% of those isolates matched the B component of the 2017-18 influenza vaccine B/Phuket/3073/2013 (tetraivalent).

Antiviral Resistance

The table below summarized antiviral resistance to neuraminidase inhibitor (Oseltamivir) from October 1, 2017. All of the influenza isolates were susceptible to Oseltamivir.

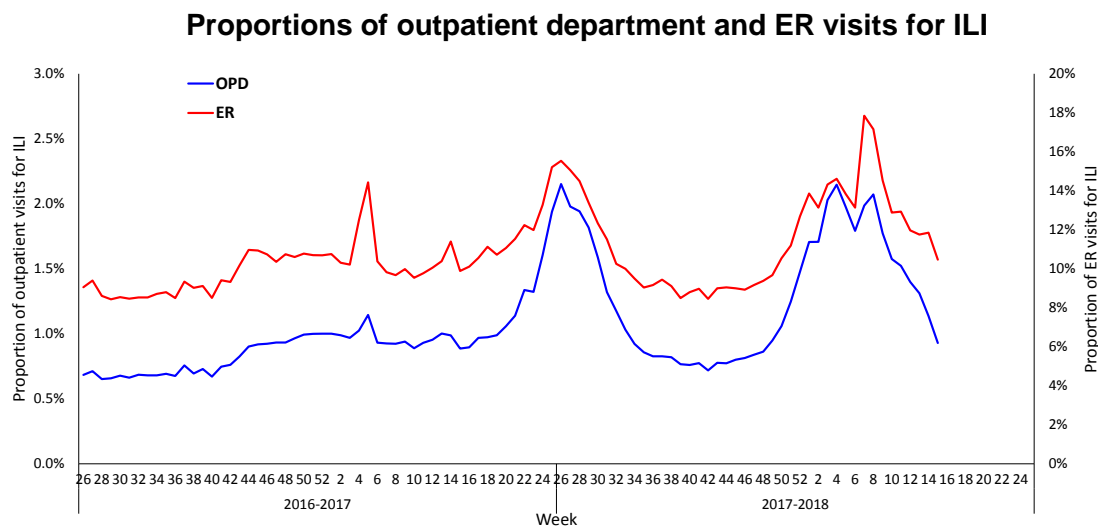
	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
Influenza A (H1N1)	39	0
Influenza A (H3N2)	80	0
Influenza B	251	0

² The Contracted Virology Laboratories, including 8 laboratories of medical centers, have been established by Taiwan CDC since March, 1999 to monitor the subtype, antigenicity and drug resistance of influenza viruses in the community.



Influenza-like Illness (ILI) Surveillance

During week 15, the proportion of ILI visits was 0.93% in the outpatient department and 10.47% in the ER, which was below the national baseline (11.4%). Both proportions continued to decrease in recent weeks.



* Since 2016, the analysis of the ILI data from National Health Insurance Database is based on the ICD-10 diagnosis codes.

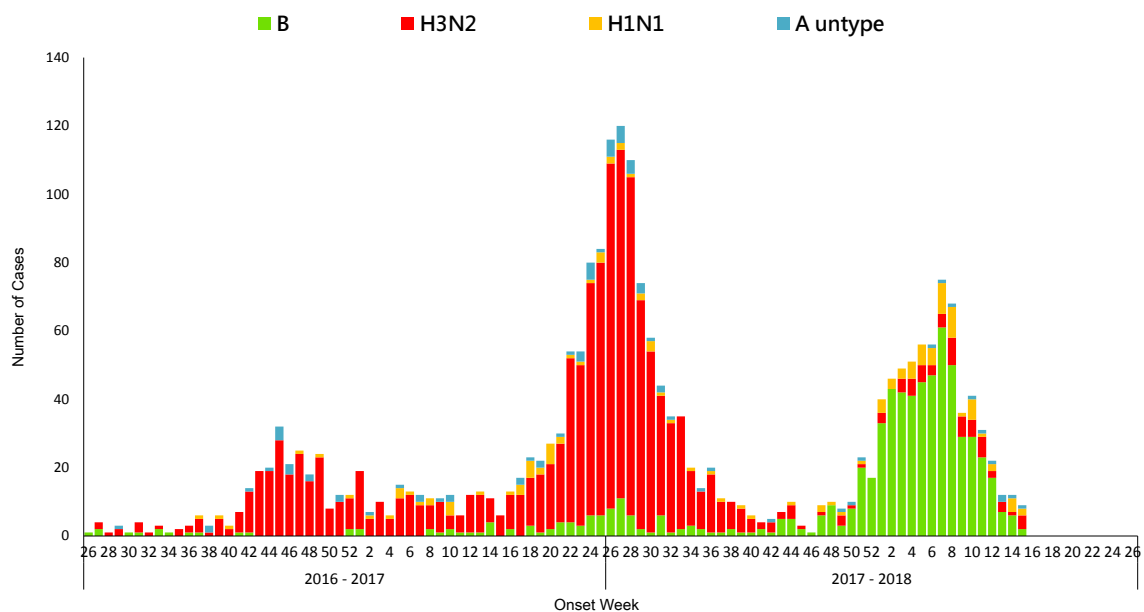
Severe Complicated Influenza Report

There were 22 newly confirmed influenza cases with severe complications [9 were influenza B, 6 were H1N1, 5 were H3N2, 2 were influenza A (unknown subtype)] and 2 newly fatal cases (1 was influenza B, 1 was H1N1).

In the previous influenza outbreak, the activity returned to the baseline in mid-August 2017 and the number of severe cases continuously declined until September. Since October 1, 2017, a total of 717 severe complicated influenza cases have been confirmed, and 114 of them were fatal [the majority of detected virus was influenza B (about 80%), followed by influenza A/H3N2 (about 10%)]. Among these cases, incidence and mortality rates were the highest for adults aged 65 and older.



Number of severe complicated influenza confirmed cases by week of onset



* A person who has ILI symptoms become severely ill (includes pulmonary complication, neurologic complication, myocarditis, invasive bacterial infection, or pericarditis) that requires intensive care or results in death within 14 days and with influenza virus infection confirmed by the laboratory is defined as a confirmed severe complicated influenza case.

Number and incidence of severe complicated influenza confirmed cases and deaths by age groups

October 1, 2017 to April 16, 2018

Age Group	Cases	Deaths	Cumulative incidence per ten thousand population	Cumulative mortality per ten thousand population
< 3 y	14	1	2.2	0.2
3-6 y	10	0	1.2	0.0
7-18 y	18	0	0.6	0.0
19-24 y	4	1	0.2	0.1
25-49 y	73	9	0.8	0.1
50-64 y	163	28	3.1	0.5
65 +	435	75	13.7	2.4
Total	717	114	3.0	0.5

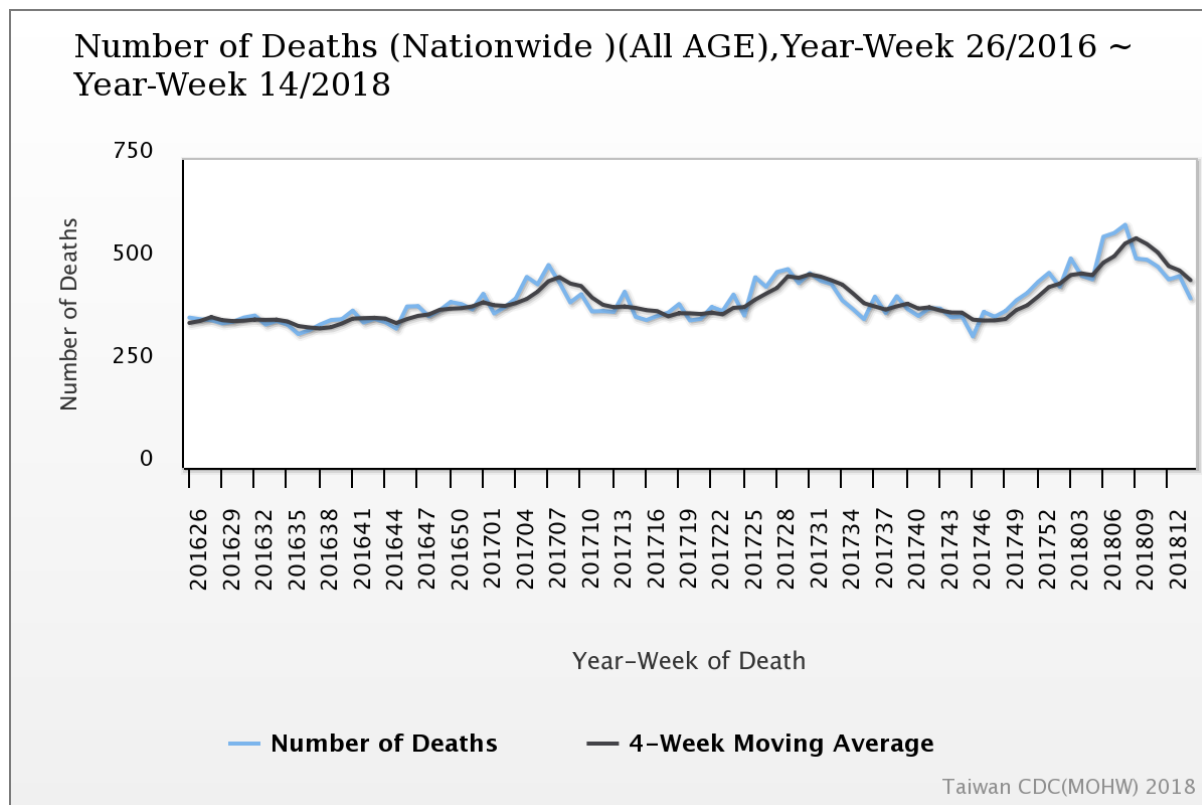
July 1, 2017 to April 16, 2018 (by flu season)

Age Group	Cases	Deaths	Cumulative incidence per ten thousand population	Cumulative mortality per ten thousand population
< 3 y	24	1	3.8	0.2
3-6 y	19	1	2.3	0.1
7-18 y	21	0	0.8	0.0
19-24 y	10	1	0.5	0.1
25-49 y	118	18	1.3	0.2
50-64 y	252	45	4.9	0.9
65 +	848	147	26.6	4.6
Total	1,292	213	5.5	0.9



Pneumonia and Influenza (P&I) Mortality Surveillance

Based on the Internet System for Death Reporting (ISDR) surveillance data, the number of deaths attributed to pneumonia and influenza (P&I) decreased in the past few weeks. The proportion of deaths attributed to P&I for adults aged 65 and older was the highest among the three age groups (0–49, 50–64, and 65+). Weekly P&I data are available at: <http://nidss.cdc.gov.tw/>.



* Medical institutions are required to report any mortality case to the Ministry of Health and Welfare (MOHW) within 7 days after a death certificate is issued through the Internet System for Death Reporting (ISDR). Either the immediate cause of death or the underlying cause of death was used to identify P&I death cases. Only those with keyword texts containing 'pneumonia', 'influenza' or 'common cold' were counted as a P&I death.

