



Synopsis

Influenza activity increased and was close to the national baseline.

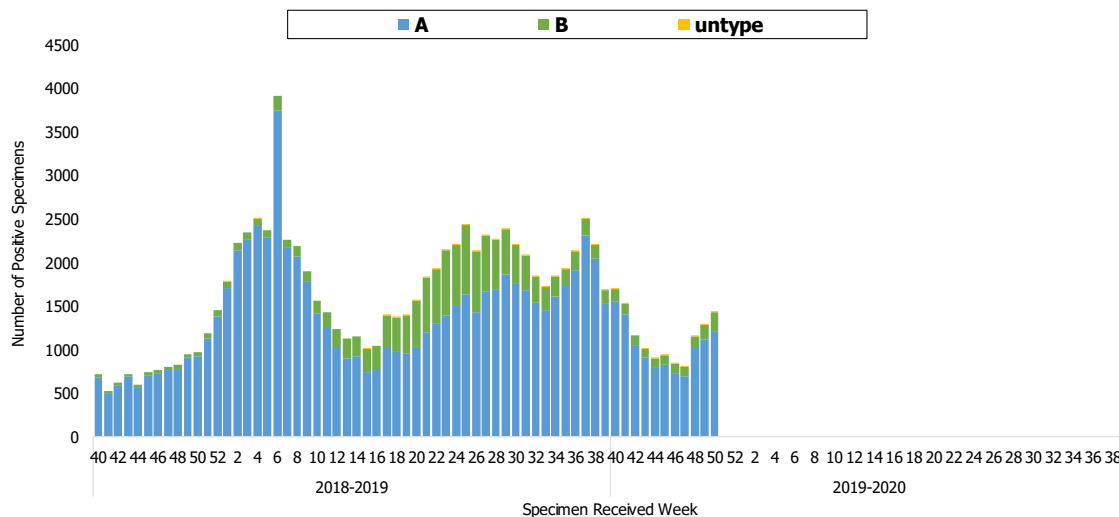
- In the past four weeks, A/H1N1 (85.7%) was the major virus type in community.
- The number of medical visits for ILI was significantly higher than the previous week. The proportion of ER visits for ILI was below the national baseline.
- During the 2019-2020 season, there have been 303 influenza cases with severe complications since October 1, 2019, including 17 deaths.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens increased, and the proportion of positive specimens for influenza A virus was 85%.

Trend of influenza-positive specimens according to LARS



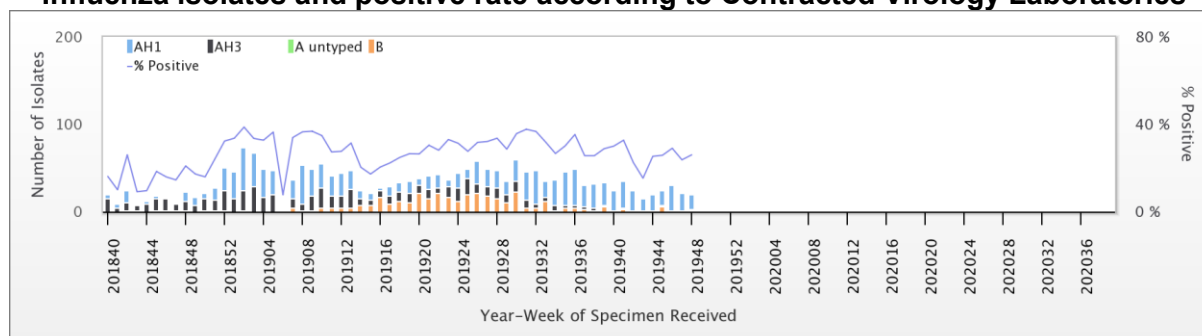
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

The proportion of influenza-positive specimens was 26% during week 48, 2019. In the previous four weeks, the proportions of A/H1N1, B, and A/H3N2 were 85.7%, 11.2%, and 3.1%, respectively. Weekly virus data are available at <http://nidss.cdc.gov.tw/>.

Influenza isolates and positive rate according to Contracted Virology Laboratories



Antigenicity

During week 47 to week 50, among those influenza isolates that were antigenically characterized, 100% of the influenza A (H1N1) virus isolates matched the A(H1N1) component of the 2019-20 influenza vaccine (A/Brisbane/02/2018). None of influenza A (H3N2) virus isolates were tested. Among influenza B isolates, 100% were B/Victoria lineage, and 0% of those isolates matched the B component of the 2019-20 influenza vaccine (B/Colorado/06/2017).

Antiviral Resistance

The table below summarized the antiviral resistance to neuraminidase inhibitor (Oseltamivir) of the isolates from October 1, 2019.

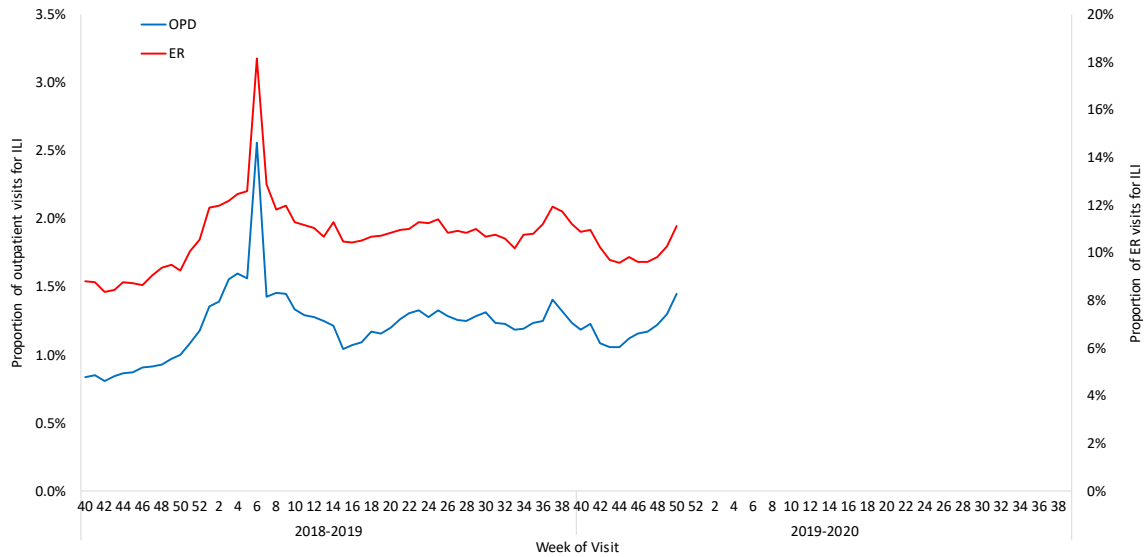
	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
Influenza A (H1N1)	97	2 (2.1%)
Influenza A (H3N2)	8	0
Influenza B	22	0



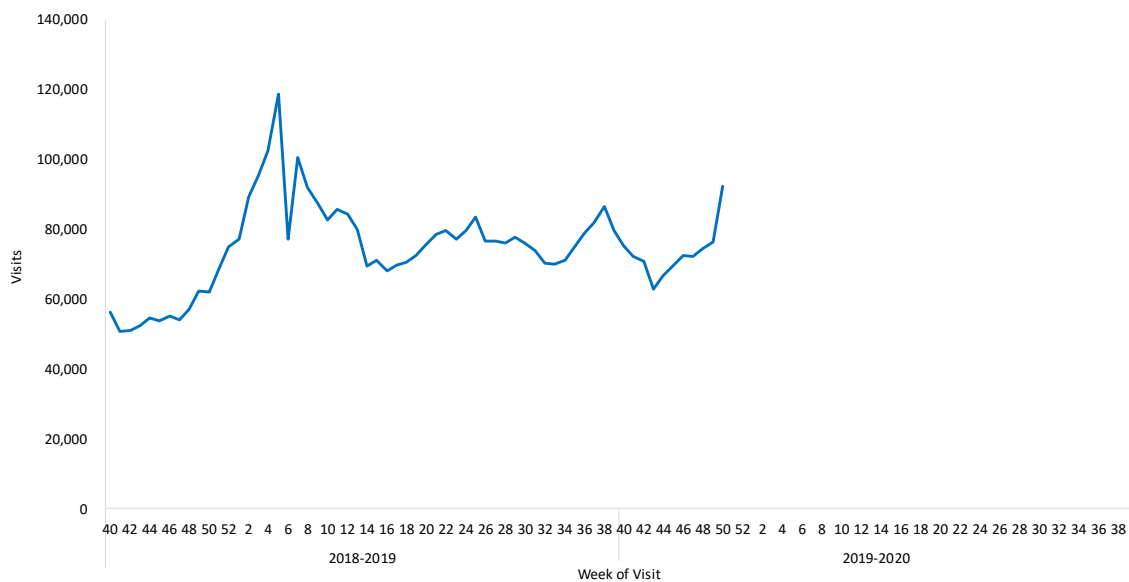
Influenza-like Illness (ILI) Surveillance

During week 50, the proportion of ILI visits was 11.1% for the ER visits, below the national baseline of 11.5%. The total number of visits for ILI in outpatient and ER was higher than the previous week.

Proportions of outpatient and ER visits for ILI



Total number of outpatient and ER visits for ILI



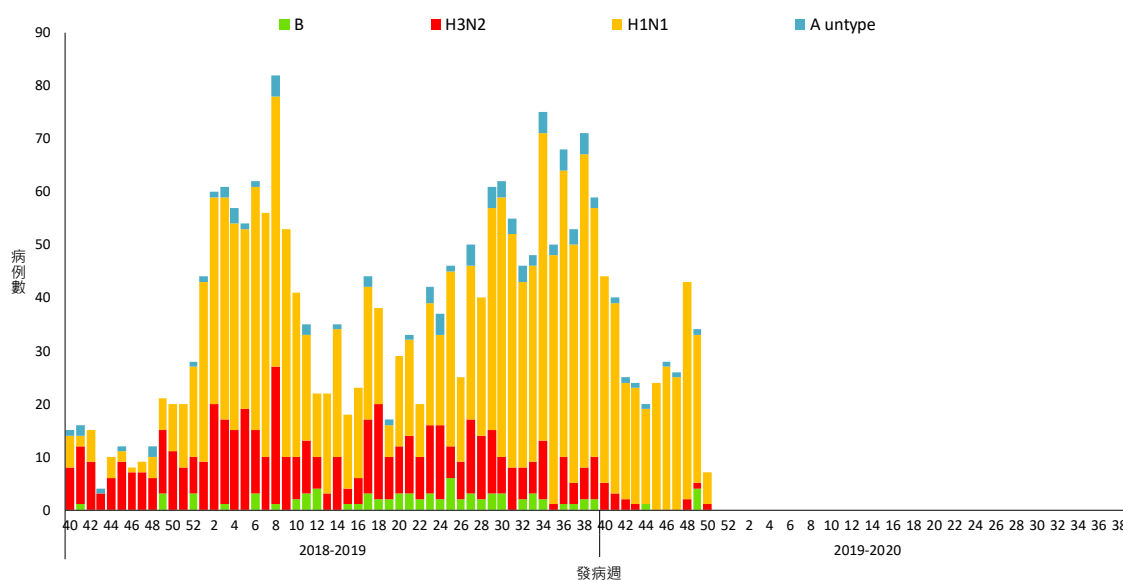
* The number of visits was incomplete during week 43, 2019.



Influenza Case with Severe Complications

There have been 303 influenza cases with severe complications (277 H1N1) since October 1, 2019, including 17 fatal cases. Most of these cases were adults aged 65 and older.

Number of influenza cases with severe complications by week of onset



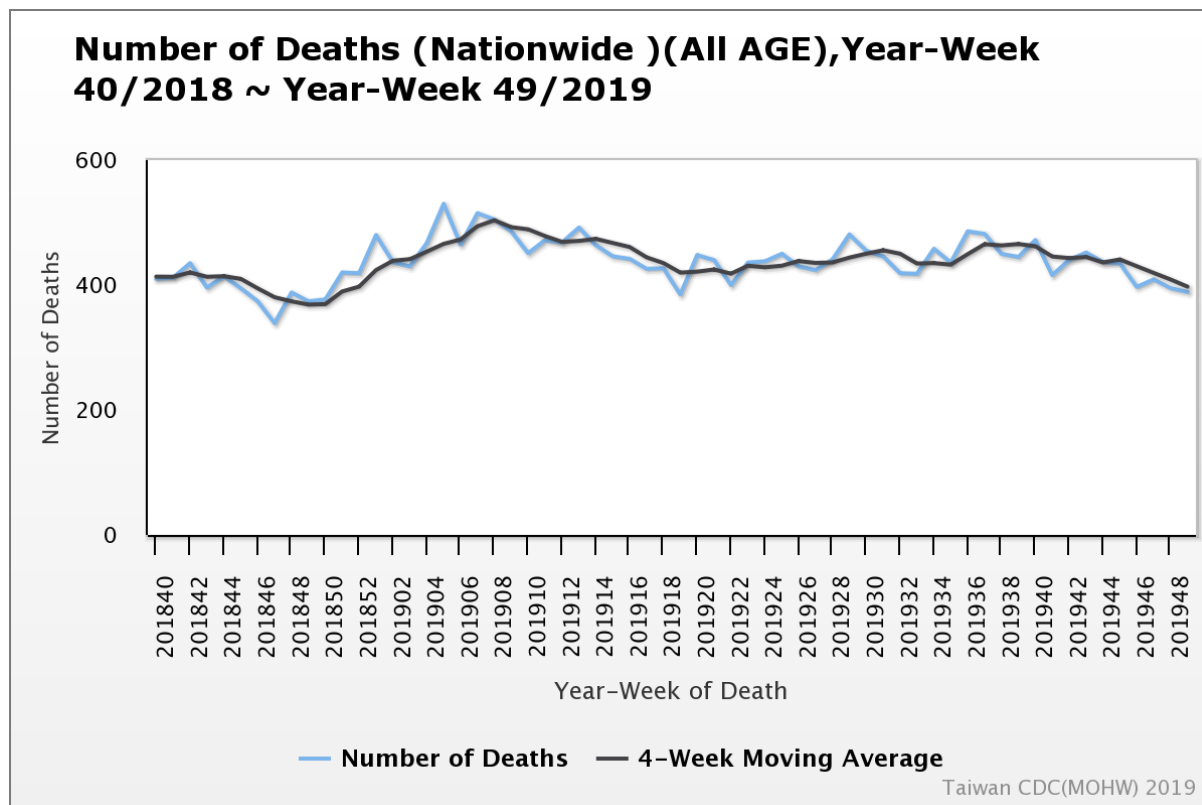
Incidence of influenza cases with severe complications and mortality rate
October 1, 2019, to December 16, 2019

Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	2	0	0.4	0.00
3-6 y	11	0	1.3	0.00
7-18 y	12	0	0.5	0.00
19-24 y	3	0	0.2	0.00
25-49 y	55	0	0.6	0.00
50-64 y	94	6	1.8	0.11
65 +	126	11	3.5	0.31
Total	303	17	1.3	0.07



Pneumonia and Influenza (P&I) Mortality Surveillance

Based on the Internet System for Death Reporting (ISDR)² data, the number of deaths attributed to pneumonia and influenza (P&I) was decreasing in recent 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/>.



² 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.

