



## Synopsis

### Influenza activity remained low and was below the national baseline.

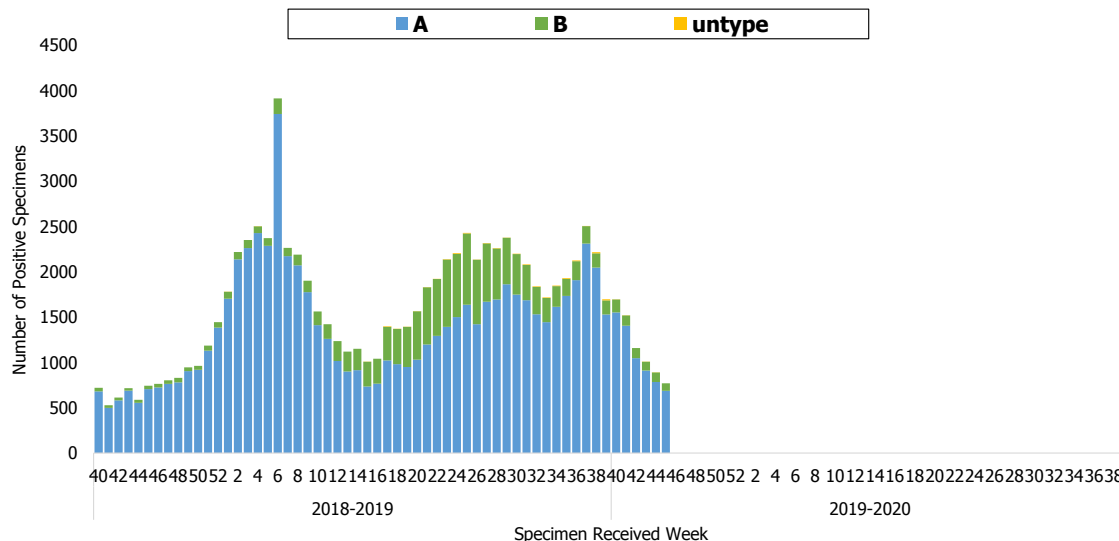
- In the past four weeks, A/H1N1 (90.7%) was the major virus type in community.
- The number of medical visits for ILI increased slightly, and the proportion of ER visits for ILI was below the national baseline in the past few weeks.
- During the 2019-2020 season, there have been 142 severe complicated influenza cases since October 1, 2019, including 3 deaths.

## Laboratory Surveillance

### Types and Trend

According to LARS<sup>1</sup>, the number of influenza-positive specimens decreased, and the proportion of positive specimens for influenza A virus was 89%.

### Trend of influenza-positive specimens according to LARS

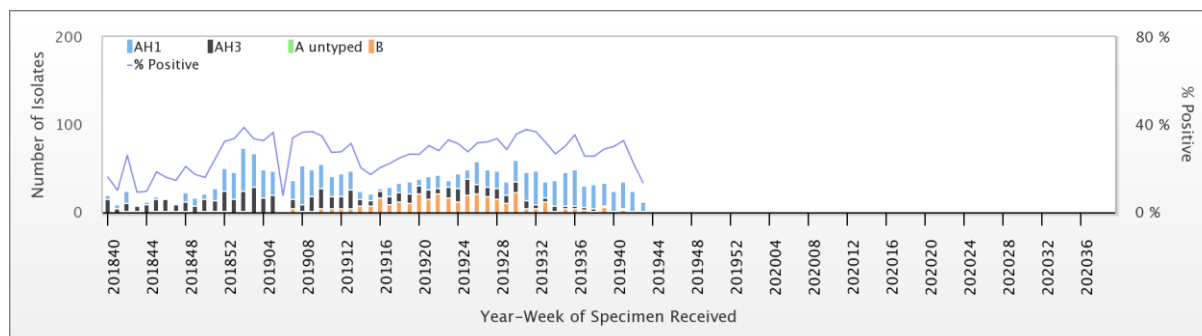


<sup>1</sup> In order to present the trend of influenza virus in real-time, the Laboratory Automated Reporting System (LARS) has been established by Taiwan CDC since 2014. The data presented here collected from 66 participating hospitals. All positive specimens data uploads to LARS automatically.



According to laboratory surveillance<sup>2</sup>, the proportion of influenza-positive specimens was 13.5% during week 43, 2019. In the previous four weeks, the proportions of A/H1N1, B, and A/H3N2 were 90.7%, 6.2%, 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 42 to week 45, 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 matched the A (H3N2) component of the 2019-20 influenza vaccine (A/Kansas/14/2017). Among influenza B isolates, 100% were B/Victoria lineage, and 22% 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. All the influenza isolates were susceptible to Oseltamivir.

	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
<b>Influenza A (H1N1)</b>	49	0
<b>Influenza A (H3N2)</b>	4	0
<b>Influenza B</b>	12	0

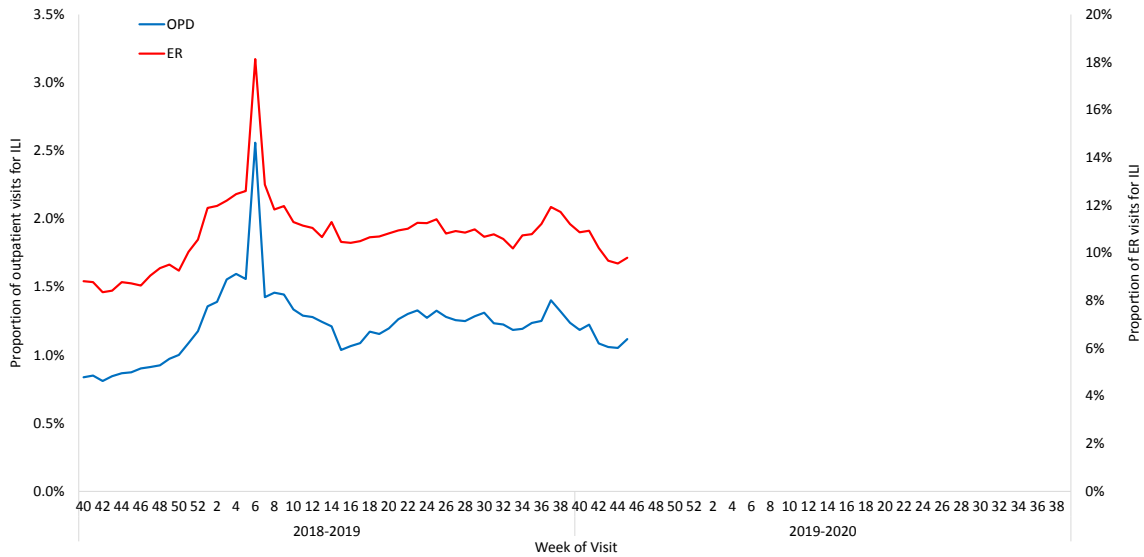
<sup>2</sup> In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



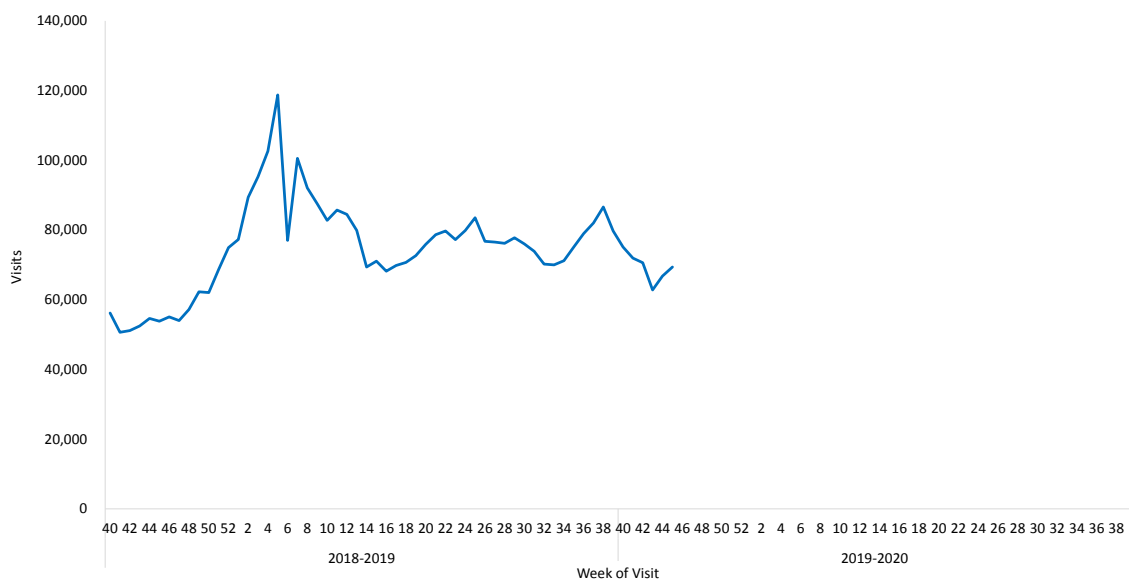
## Influenza-like Illness (ILI) Surveillance

During week 45, the proportion of ILI visits was 9.80% for the ER visits, below the national baseline of 11.5%. The total number of visits for ILI in outpatient and ER was slightly higher than the previous week.

### Proportions of outpatient and ER visits for ILI



### Total number of outpatient and ER visits for ILI



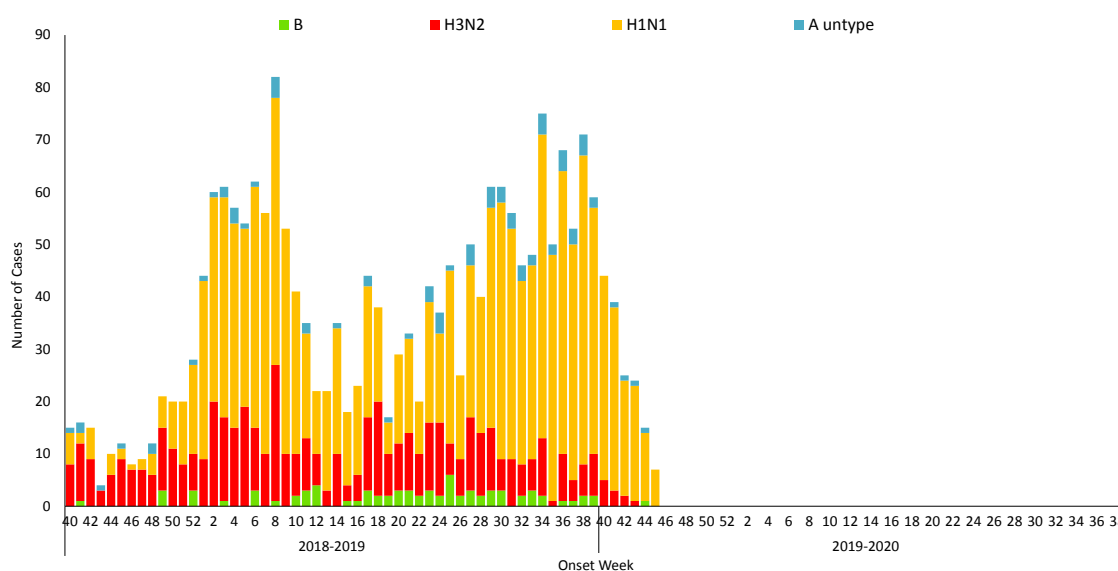
\* The number of visits was incomplete during week 43, 2019.



## Severe Complicated Influenza Case

There have been 142 severe complicated influenza cases (127 H1N1) since October 1, 2019, including 3 fatal cases. Most of these cases were adults aged 65 and older.

Number of severe complicated influenza confirmed cases by week of onset



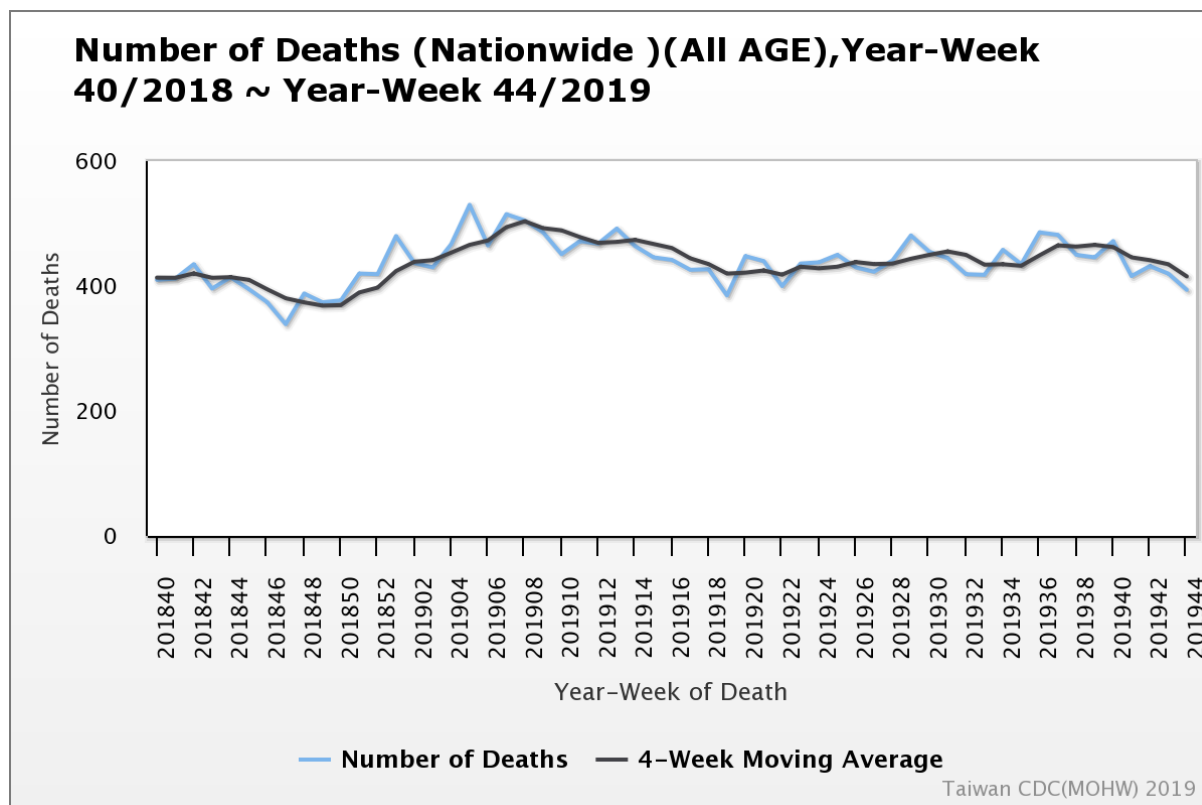
Number and incidence of severe complicated influenza confirmed cases and deaths by age groups  
October 1, 2019, to November 11, 2019

Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	0	0	0.0	0
3-6 y	3	0	0.4	0
7-18 y	5	0	0.2	0
19-24 y	1	0	0.1	0
25-49 y	26	0	0.3	0
50-64 y	51	1	1.0	0.02
65 +	56	2	1.6	0.1
Total	142	3	0.6	0.01



## Pneumonia and Influenza (P&I) Mortality Surveillance

Based on the Internet System for Death Reporting (ISDR)<sup>3</sup> 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/>.



<sup>3</sup> 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.

