Synopsis

Influenza is in an epidemic period. The epidemic trend decreases recently, with A/H3N2 circulating in the community. However, it is still necessary to be cautious as the epidemic remains higher than the same period in the past four years.

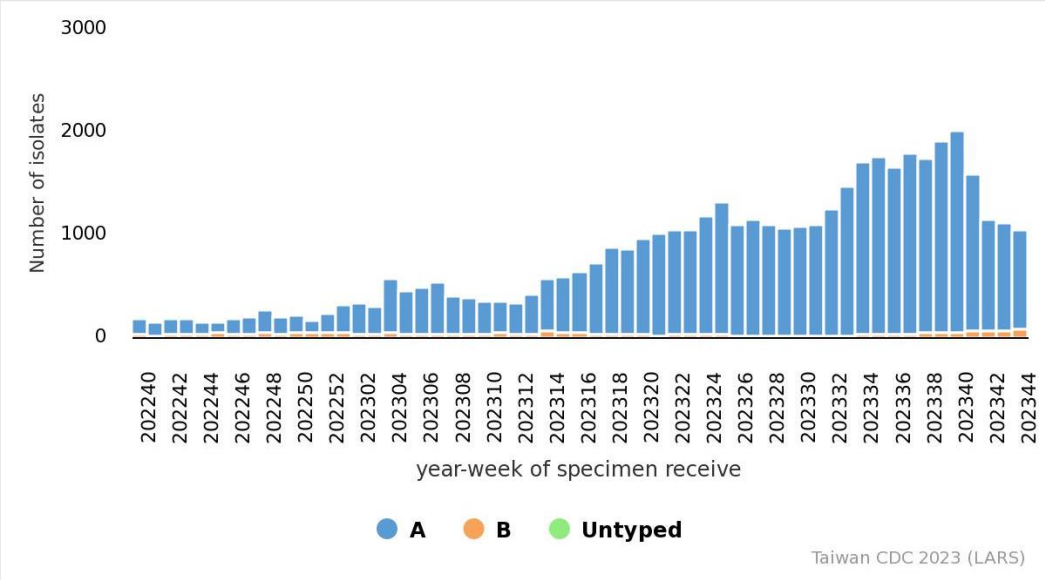
- During the last four weeks, A/H3N2 has been the predominant strain circulating in the community.
- The number of medical visits for influenza-like illness (ILI) in outpatient and ER has showed a decreasing trend recently, but still higher than the same period of 2019 to 2022.
- During 2023-2024 influenza season (since October 1, 2023), there have been 120 influenza cases with severe complications, of which 11 cases were fatal.

Laboratory Surveillance[1]

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has been decreasing recently. Over the last four weeks, the proportion of influenza A positive specimens was 94%, and the proportion of influenza B slightly increased.

Numbers of influenza-positive specimens from LARS

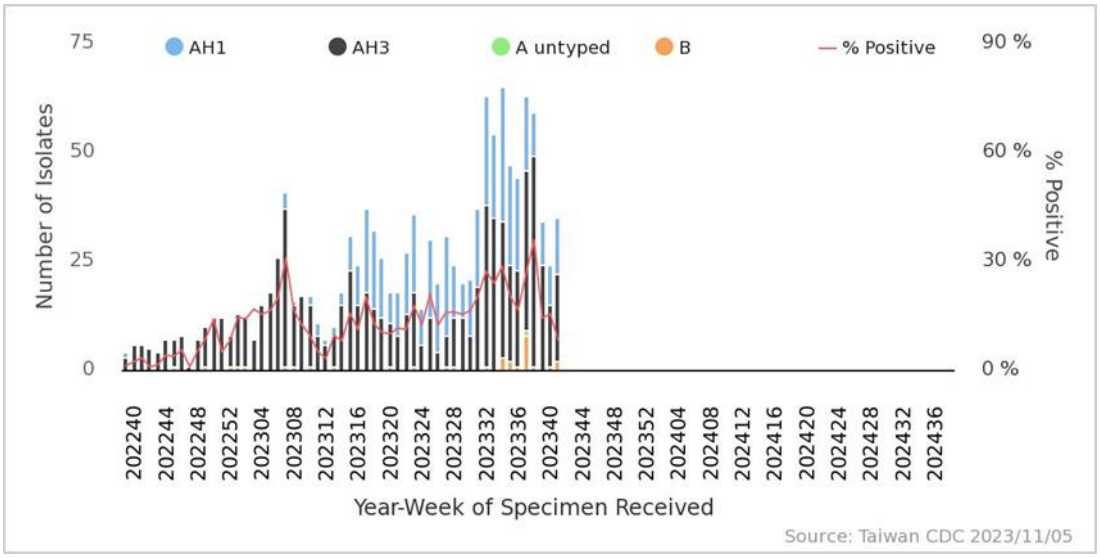


[1] In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.

Contracted Virology Laboratories Surveillance

During week 39 to week 42, the predominant isolated influenza virus was A/H3N2 (69.7%), followed by A/H1N1 (27.6%) and influenza B (2.6%). Weekly virus data are available at https://nidss.cdc.gov.tw/.

Influenza isolates according to Contracted Virology Laboratories



Antigenicity

During the 2023-2024 influenza season (since October 1, 2023), among those influenza isolates that were antigenically characterized, 100% of the influenza A (H1N1) virus isolates matched the component of the 2023-24 influenza vaccine A/Victoria/4897/2019 (H1N1)pdm09, and 100% of influenza A (H3N2) virus isolates matched the component of the 2023-24 influenza vaccine A/Darwin/9/2021 (H3N2). Among influenza B isolates, 100% were B/Victoria lineage, and 100% of those isolates matched the component of the 2023-24 influenza vaccine B/Austria/1359417/2021(B/Victoria lineage).

Antiviral Resistance

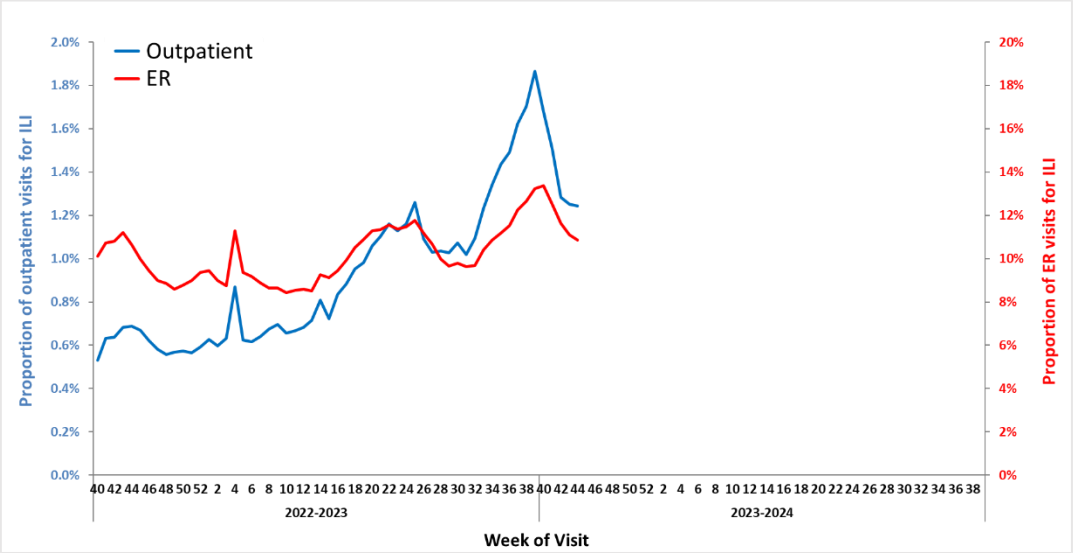
The table below summarized the antiviral resistance to neuraminidase inhibitor (Oseltamivir) of the isolates during the 2023-2024 influenza season.

	Isolates tested	Resistance Viruses, n (%)
		Oseltamivir
A (H1N1)	12	0 (0%)
A (H3N2)	21	0 (0%)
B	0	0

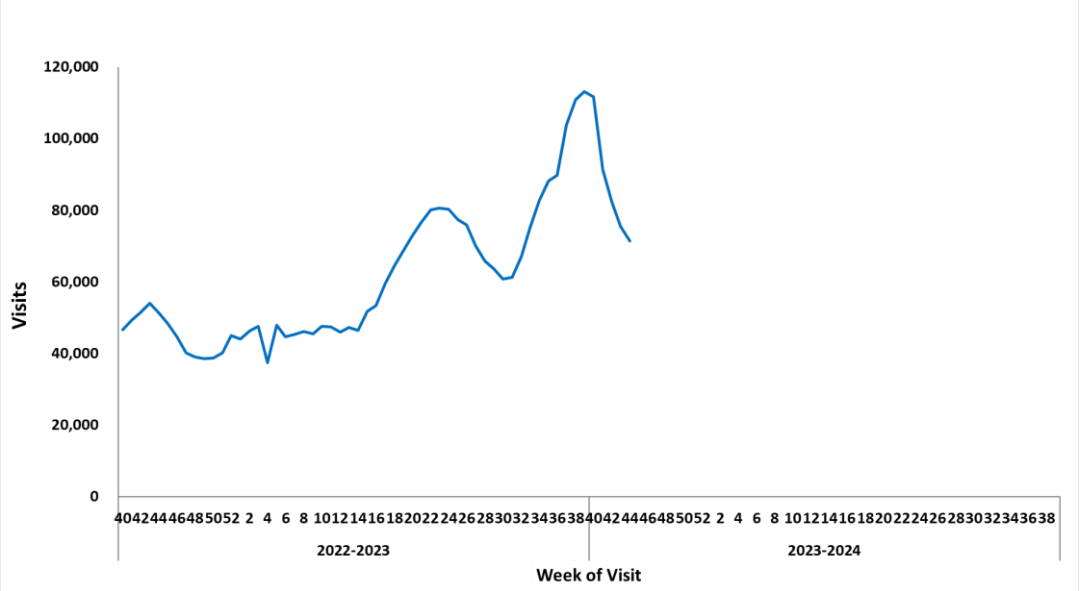
Influenza-like Illness (ILI) Surveillance

During week 44, the proportions of ILI visits were 1.2% and 10.9% in outpatient and ER, respectively, and the total number of visits for ILI in outpatient and ER was 71,436, which has showed a decreasing trend recently, but is still higher than the same period of 2019 to 2022.

Percentages of outpatient and ER visits for ILI



Total number of outpatient and ER visits for ILI



Influenza Case with Severe Complications

There were 20 newly confirmed influenza cases with severe complications (6 of H1N1, 12 of H3N2, 1 of untyped influenza A, and 1 of influenza B), and 4 fatal cases (3 of H1N1 and 1 of H3N2). During 2023-2024 influenza season, a total of 120 influenza cases with severe complications (59 of H1N1, 58 of H3N2, 1 of untyped influenza A, and 2 of influenza B) were confirmed, of which 11 cases were fatal (6 of H1N1 and 5 of H3N2).

Incidence of influenza cases with severe complications and mortality rate

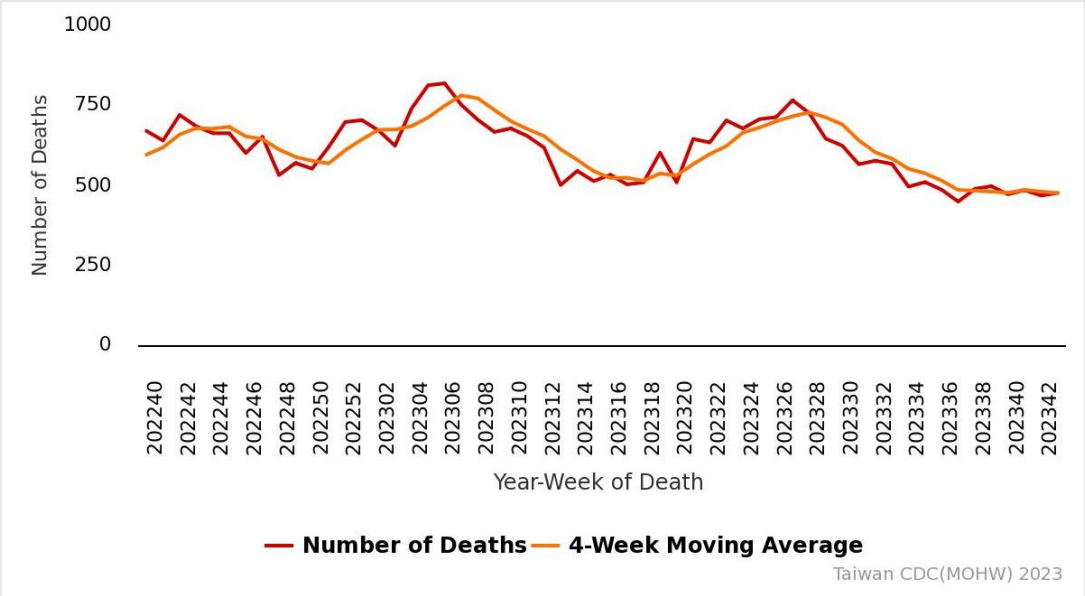
2023-2024 influenza season (from October 1, 2023, to November 6, 2023)

Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	0	0	0.00	0.00
7-18 y	5	0	0.20	0.00
19-24 y	0	0	0.00	0.00
25-49 y	14	1	0.16	0.01
50-64 y	29	4	0.55	0.08
65 +	69	5	1.65	0.12
Total	120	11	0.51	0.05

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 similar 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 https://nidss.cdc.gov.tw/.

Weekly Number of Deaths due to Pneumonia and Influenza



[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.