



Synopsis

The epidemic of influenza-like illness (ILI) is in a plateau phase. In the community, the predominant influenza strain is A/H3N2. The number of cases and deaths of influenza with severe complications remains high. Additionally, temperature fluctuations are occurring. It is crucial to continuously monitor the changes in the epidemic and the risk of severe case occurrences.

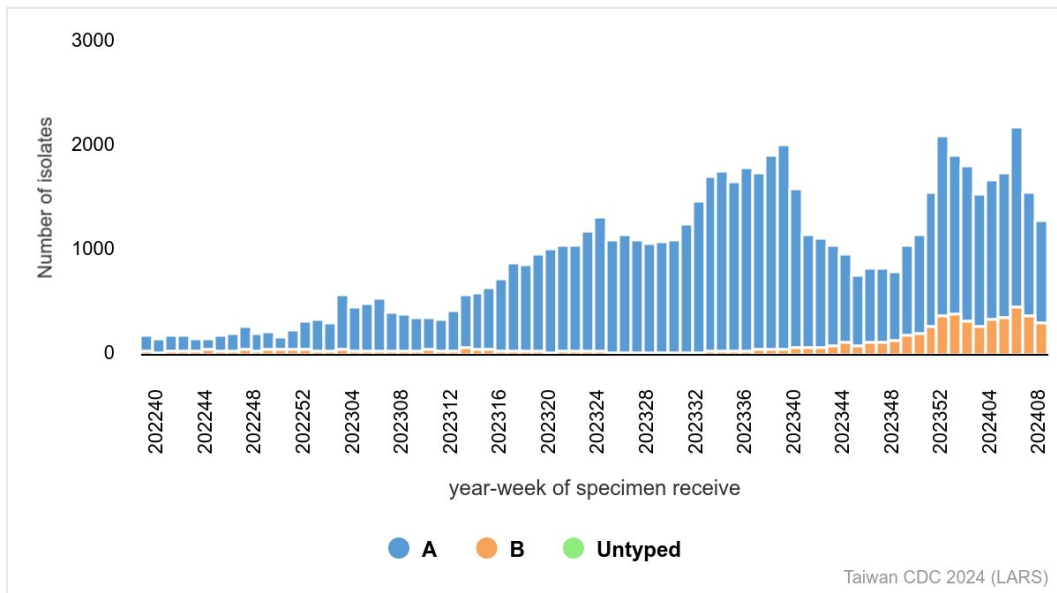
- The number of outpatient and emergency department (ER) visits for ILI has shown a decreasing trend recently. However, it is still higher than the same period of the recent six years, and the epidemic remains in a plateau phase.
- During the last four weeks, A/H3N2 has been the predominant influenza strain circulating in the community, followed by influenza B.
- During 2023-2024 influenza season (since October 1, 2023), there have been 586 influenza cases with severe complications, of which 99 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens was lower than the previous week. Over the last four weeks, influenza A positive specimens accounted for 78%, and influenza B positive specimens accounted for 22%. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



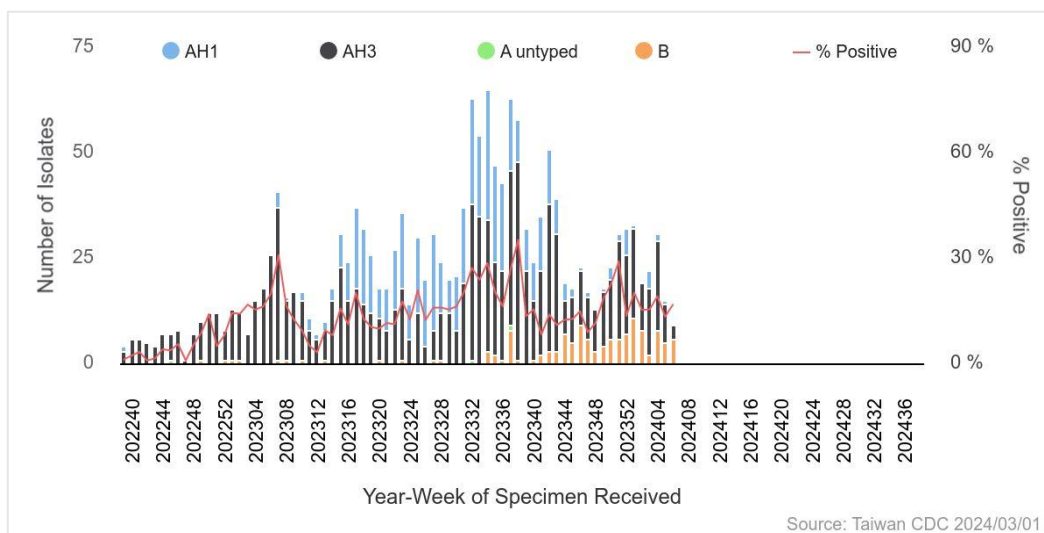
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 4 to 7, 2024, the predominant isolated influenza virus was A/H3N2 (63.6%), followed by influenza B (27.3%) and A/H1N1 (9.1%). Data are available at <https://nidss.cdc.gov.tw/>.

Influenza isolates according to Contracted Virology Laboratories



Antigenicity

During the 2023-2024 influenza season (since Oct 1, 2023), 76 of 78 influenza A/H1N1 viruses (97.4%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 211 of 216 influenza A/H3N2 viruses (97.7%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 63 of 63 influenza B/Victoria viruses (100%) were antigenically similar to the vaccine reference strain B/Austria/1359417/2021 (B/Victoria lineage).

WHO recommended vaccine strains for the northern hemisphere in the 2023-2024 influenza season	Vaccine-like (%)	Low reactor (%)
A/Victoria/4897/2022 (H1N1)pdm09-like virus	76 (97.4%)	2 (2.6%)
A/Darwin/9/2021 (H3N2)-like virus	211 (97.7%)	5 (2.3%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	63 (100%)	0 (0.0%)

Note: The hemagglutination inhibition (HI) method was used to investigate the antigenicity, and the titer of the isolated virus was at least 8-fold lower than that of the reference virus, identifying it as a low reactor.

Antiviral Resistance

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

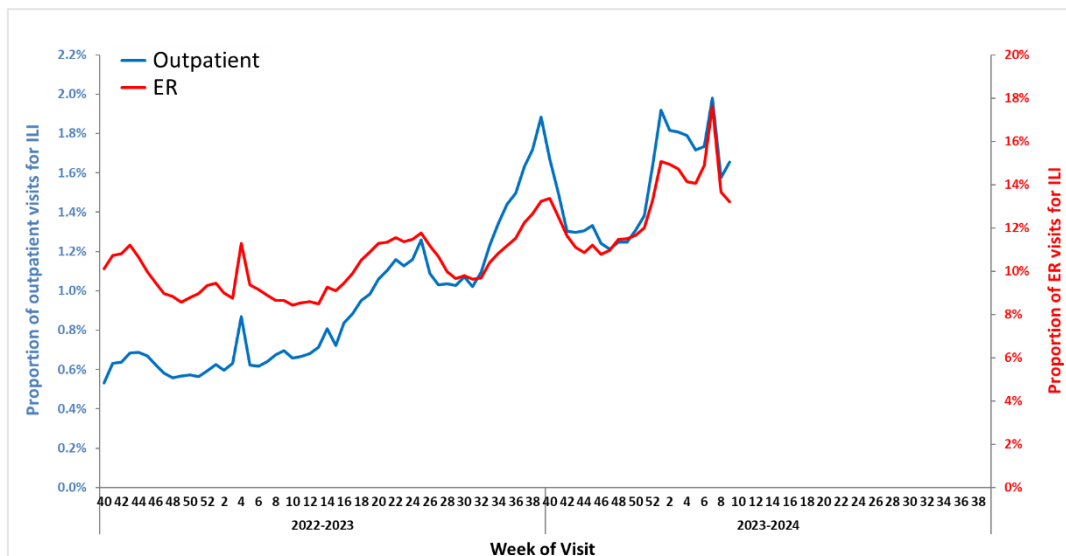
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	73	0 (0%)
A (H3N2)	266	0 (0%)
B	74	0 (0%)



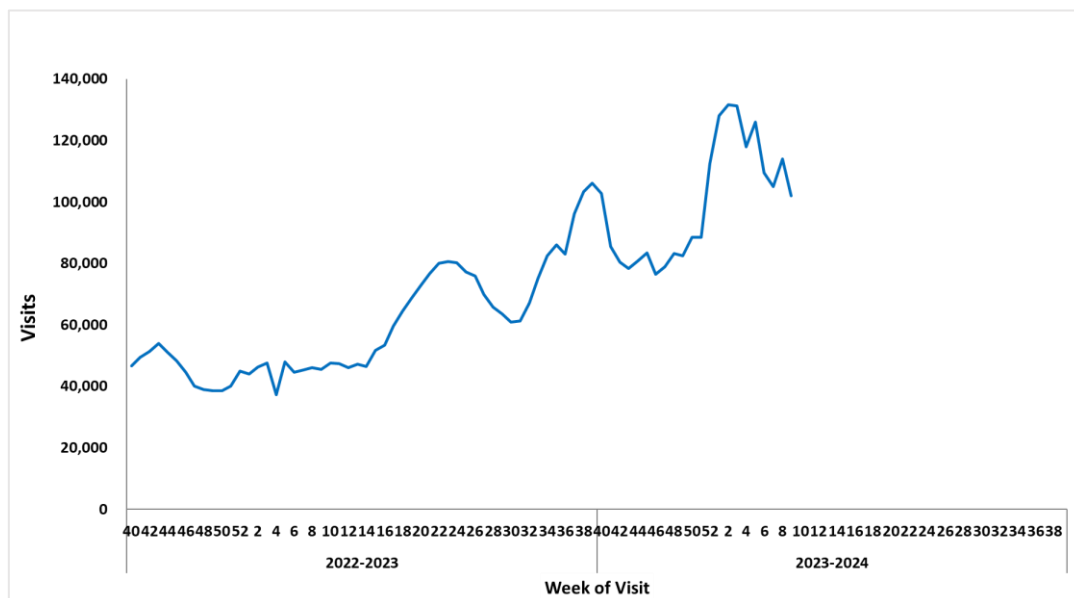
Influenza-like Illness (ILI) Surveillance

During week 9, the proportions of ILI visits were 1.7% in outpatient and 13.2% in the ER, with the latter percentage remaining above the threshold of 11.0%. The number of total visits for ILI was 102,031, and the epidemic remains in a plateau phase. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



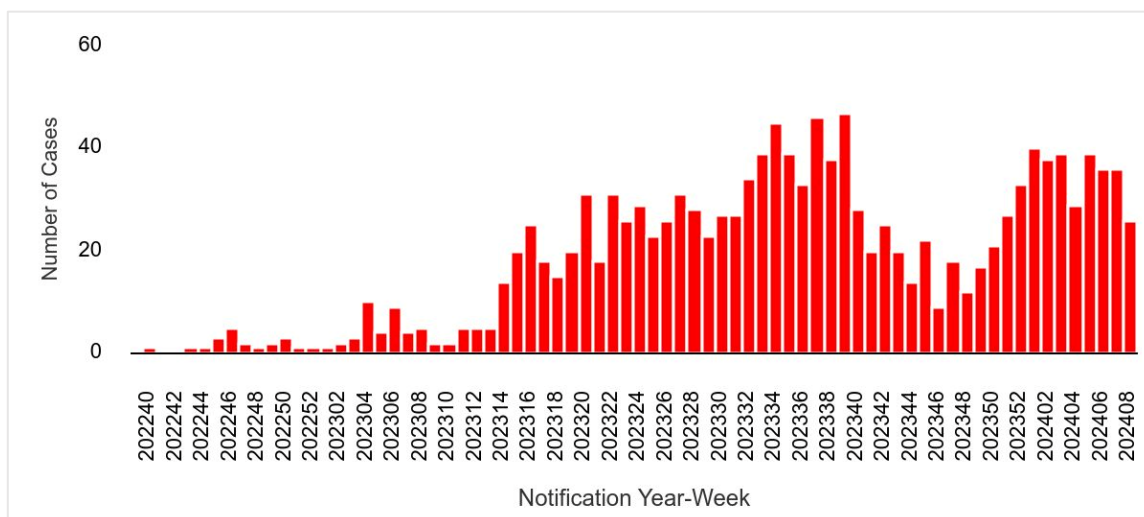
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 34 newly confirmed influenza cases with severe complications (8 of H1N1, 24 of H3N2, 1 of untyped influenza A, and 1 of influenza B), and 11 fatal cases (2 of H1N1, 7 of H3N2, and 2 of influenza B). During 2023-2024 influenza season, a total of 586 influenza cases with severe complications (167 of H1N1, 372 of H3N2, 7 of untyped influenza A, and 40 of influenza B) were confirmed, of which 99 cases were fatal (32 of H1N1, 60 of H3N2, 2 of untyped influenza A, and 5 of influenza B).

Notification trend of confirmed influenza cases with severe complications



Data are available at <https://nidss.cdc.gov.tw/>.

Incidence of influenza cases with severe complications and mortality rate during 2023-2024 influenza season

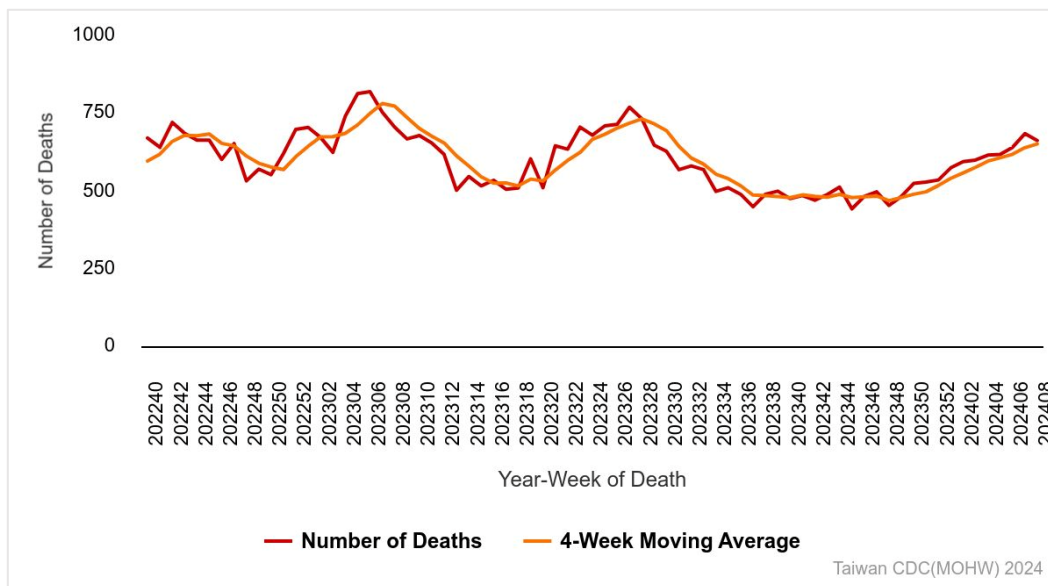
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	12	1	1.61	0.13
7-18 y	28	1	1.14	0.04
19-24 y	3	1	0.19	0.06
25-49 y	89	10	1.02	0.11
50-64 y	107	14	2.02	0.26
65 +	344	71	8.21	1.70
Total	586	99	2.51	0.42



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) has increased recently. 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 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.

