



Synopsis

The epidemic of influenza-like illness (ILI) remained in a plateau phase. In the community, the predominant influenza strain is A/H3N2. Given that the number of influenza-positive specimens and influenza cases with severe complications remains high, and considering the start of the new semester and Lantern Festival celebration which lead to crowd gathering, the risk of epidemic transmission will be elevated.

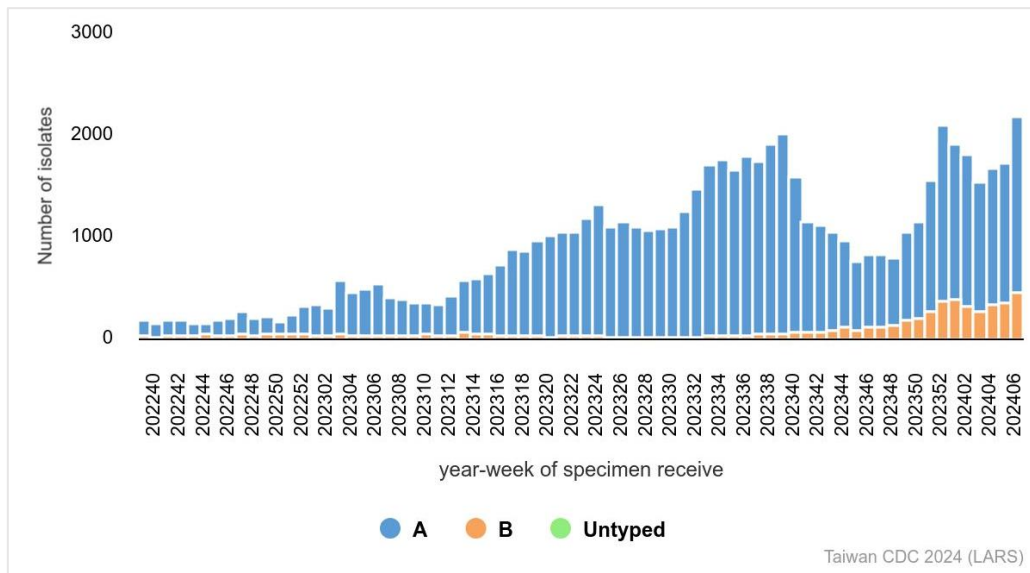
- Due to the closure of some outpatient services during the Lunar New Year holiday, the total number of ILI visits to outpatient and emergency room (ER) was lower than the previous week. However, the proportions of ILI visit increased. It is necessary to continuously monitor subsequent changes in the epidemic.
- 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 513 influenza cases with severe complications, of which 83 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has shown an increase trend recently. Over the last four weeks, the proportion of influenza A positive specimens was 81%, and the proportion of influenza B was 19%. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



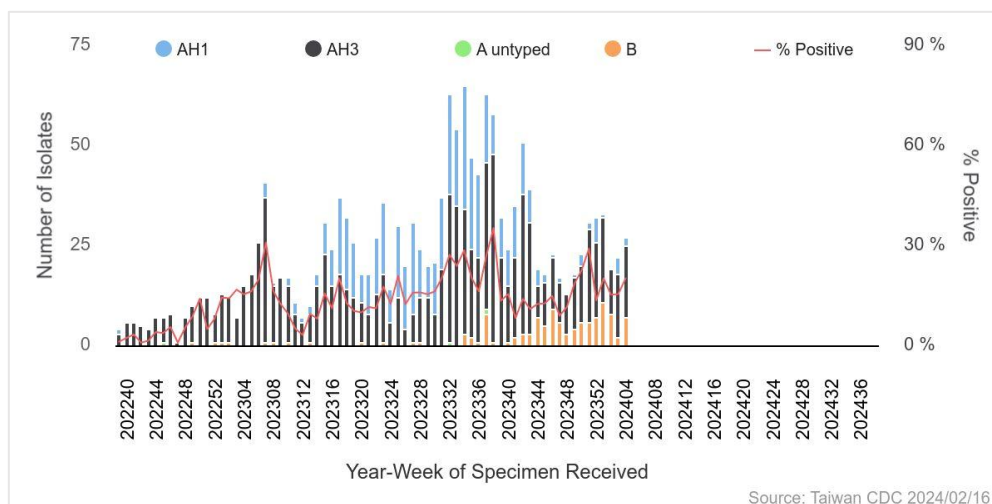
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 2 to 5, 2024, the predominant isolated influenza virus was A/H3N2 (65.3%), followed by influenza B (27.7%) and A/H1N1 (6.9%). 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), 74 of 76 influenza A/H1N1 viruses (97.4%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 192 of 197 influenza A/H3N2 viruses (97.5%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 52 of 52 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	74 (97.4%)	2 (2.6%)
A/Darwin/9/2021 (H3N2)-like virus	192 (97.5%)	5 (2.5%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	52 (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.

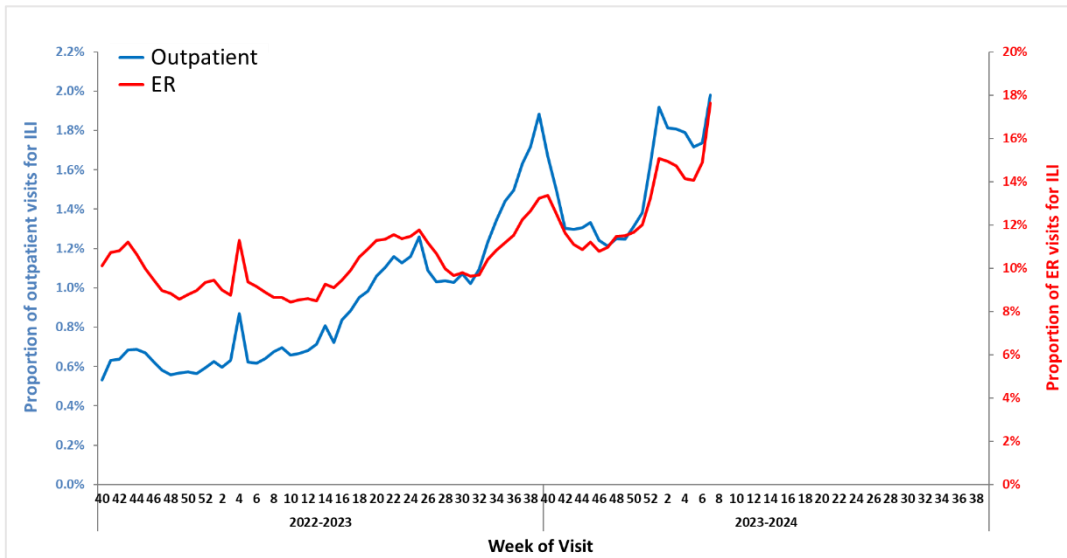
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	72	0 (0%)
A (H3N2)	235	0 (0%)
B	64	0 (0%)



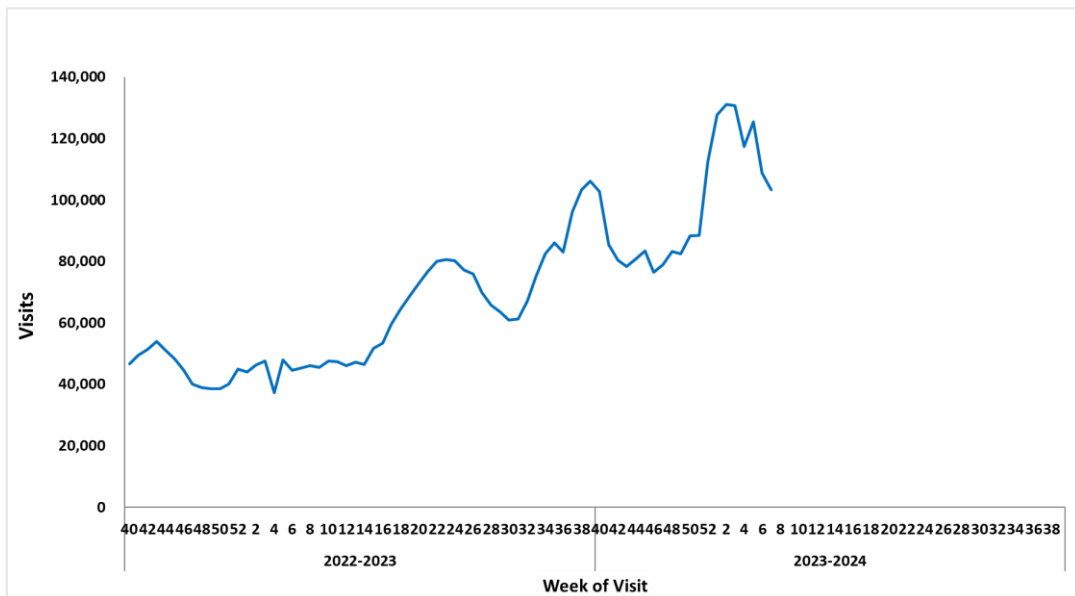
Influenza-like Illness (ILI) Surveillance

During week 7, due to the closure of some outpatient services during the Lunar New Year holiday, the total number of ILI visits to outpatient and ER was 103,250, which was lower than the previous week. However, the proportions of ILI visit were 2.0% in outpatient and 17.6% in the ER, both of which were higher than the previous week, with the latter percentage remaining above the threshold of 11.0%. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



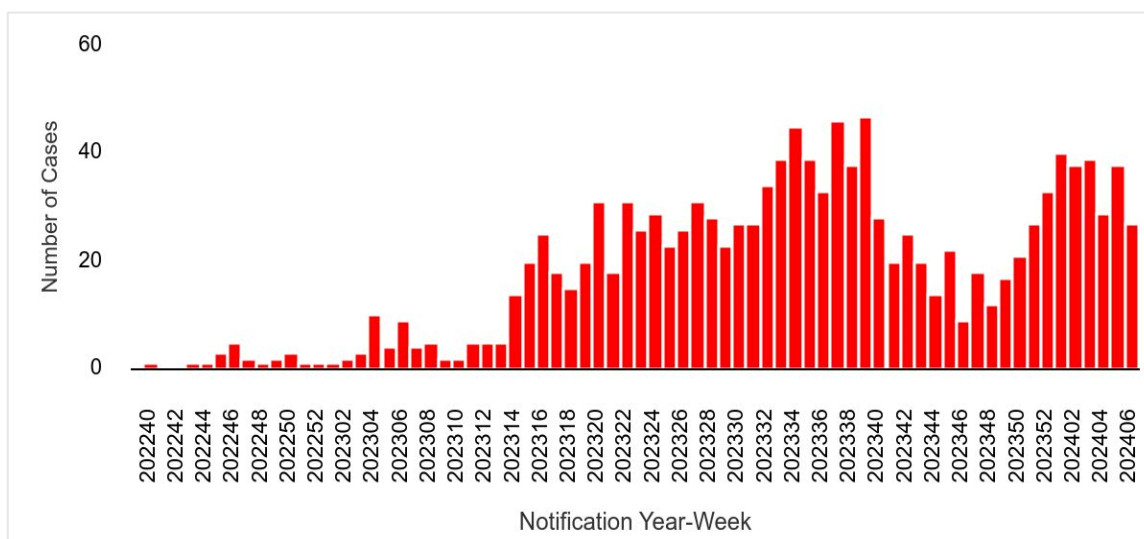
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 40 newly confirmed influenza cases with severe complications (7 of H1N1, 28 of H3N2, and 5 of influenza B), and 5 fatal cases (2 of H1N1 and 3 of H3N2). During 2023-2024 influenza season, a total of 513 influenza cases with severe complications (147 of H1N1, 325 of H3N2, 6 of untyped influenza A, and 35 of influenza B) were confirmed, of which 83 cases were fatal (29 of H1N1, 49 of H3N2, 2 of untyped influenza A, and 3 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

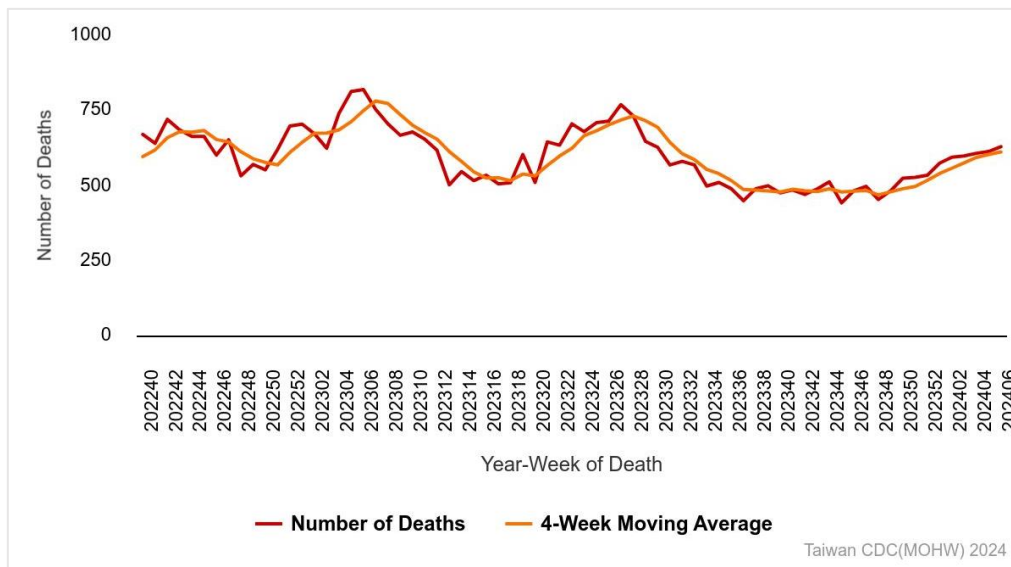
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	12	1	1.61	0.13
7-18 y	27	1	1.10	0.04
19-24 y	3	1	0.19	0.06
25-49 y	75	8	0.86	0.09
50-64 y	93	14	1.76	0.26
65 +	300	57	7.16	1.36
Total	513	83	2.19	0.36



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.

