



Synopsis

The percentage of influenza-like illness (ILI) visits to emergency department (ER) has exceeded the epidemic threshold for two consecutive weeks. It is essential to monitor subsequent changes in the epidemic situation and be aware of the risk of severe illness.

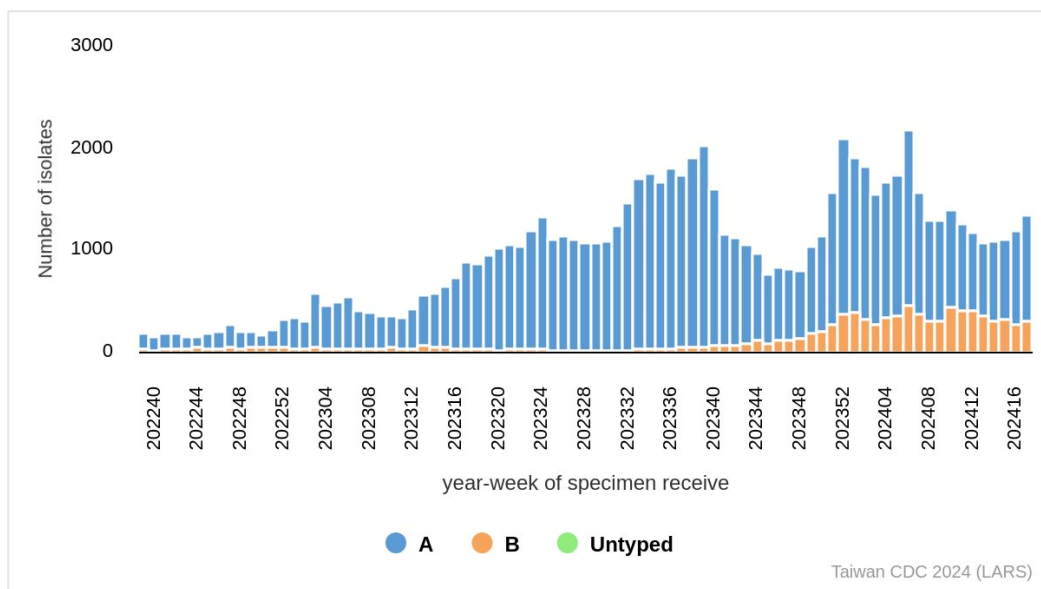
- The number of visits to outpatient and ER for ILI has been similar to recent trends; however, the percentage of ER visits has exceeded the epidemic threshold (11.0%) for two consecutive weeks.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 58.8% and influenza B accounted for 41.2%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 821 influenza cases with severe complications, of which 148 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has slightly increased in recent two weeks. Over the last four weeks, influenza A positive specimens accounted for 74%, and influenza B positive specimens accounted for 26%. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



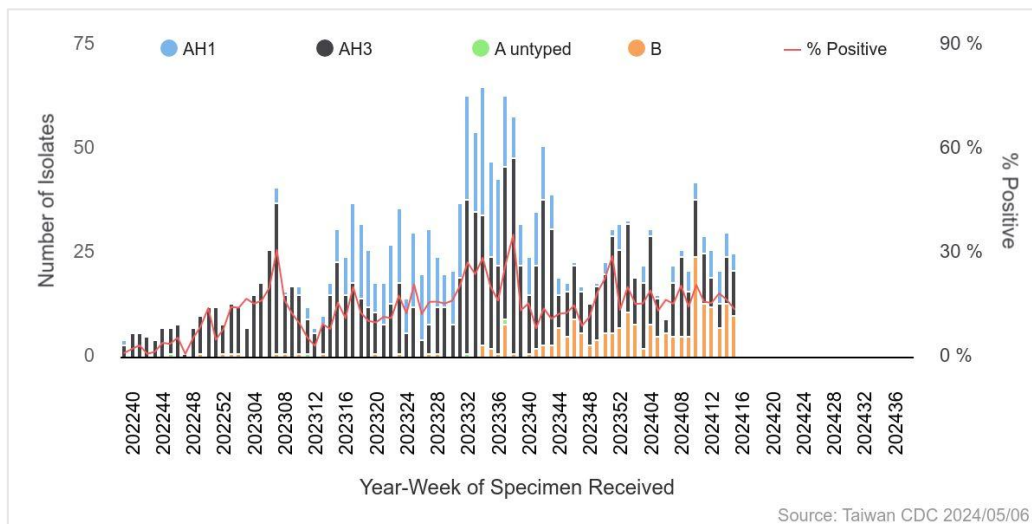
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 13 to 16, the number of isolated influenza A viruses slightly exceeded Influenza B. Among influenza isolates, influenza B accounted for 41.2%, followed by A/H3N2 (34.3%) and A/H1N1 (24.5%). 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), 115 of 120 influenza A/H1N1 viruses (95.8%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 284 of 301 influenza A/H3N2 viruses (94.4%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 129 of 129 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	115 (95.8%)	5 (4.2%)
A/Darwin/9/2021 (H3N2)-like virus	284 (94.4%)	17 (5.6%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	129 (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.

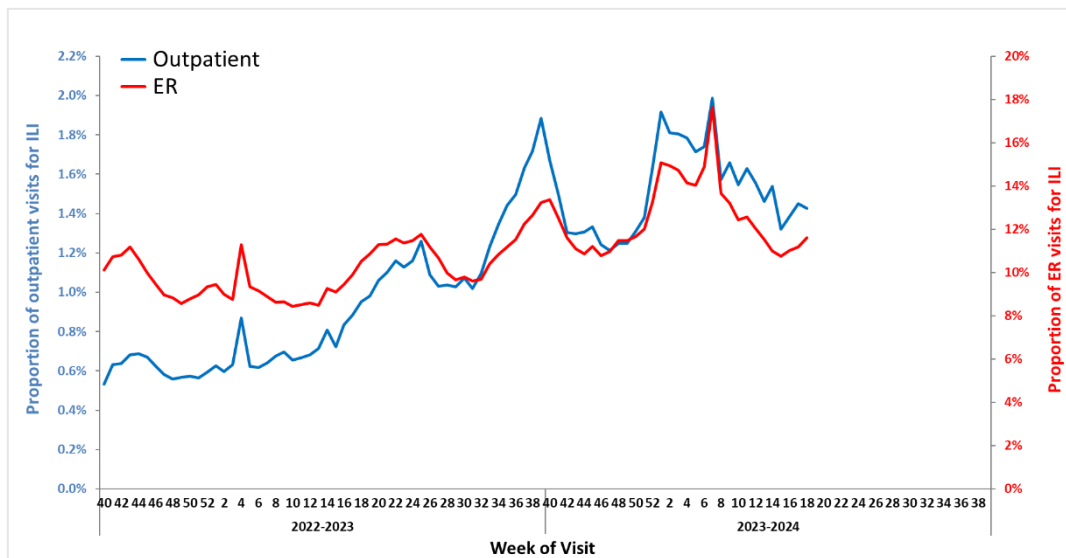
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	111	1 (0.9%)
A (H3N2)	377	1 (0.3%)
B	164	1 (0.6%)



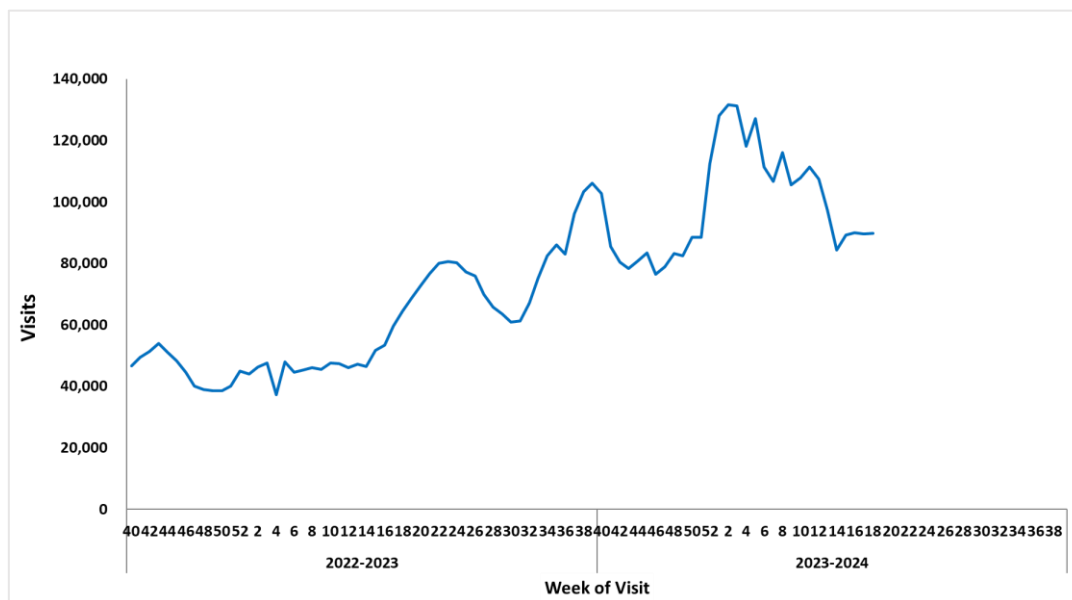
Influenza-like Illness (ILI) Surveillance

During week 18, the proportions of ILI visits were 1.4% in outpatient and 11.6% in the ER, with the latter percentage exceeding the epidemic threshold (11.0%) for two consecutive weeks. The total number of visits for ILI was 89,814, which has been similar to recent trends. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



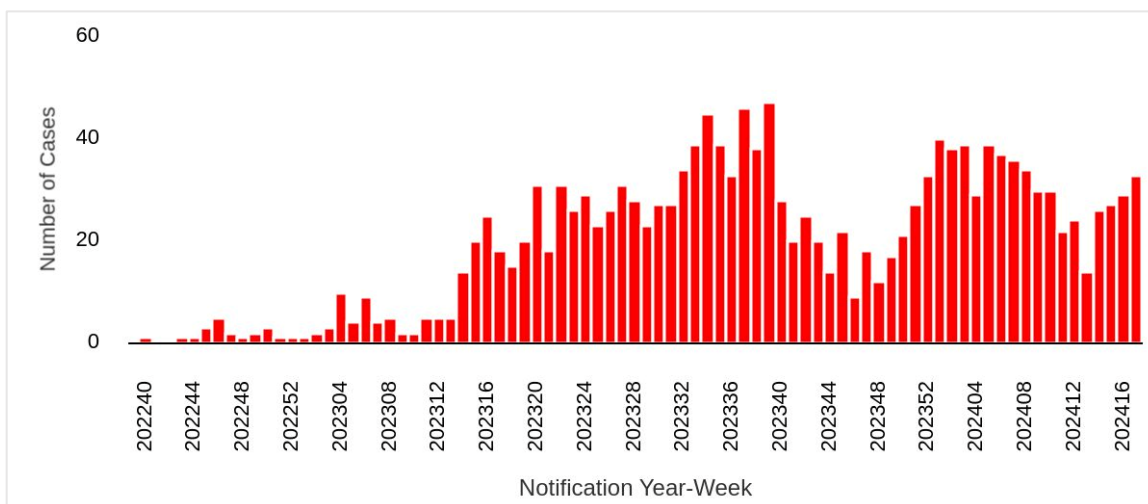
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 32 newly confirmed influenza cases with severe complications (20 of H1N1, 8 of H3N2, and 4 of influenza B), and 6 fatal cases (5 of H1N1 and 1 of H3N2). During 2023-2024 influenza season, a total of 821 influenza cases with severe complications (281 of H1N1, 458 of H3N2, 8 of untyped influenza A, and 74 of influenza B) were confirmed, of which 148 cases were fatal (52 of H1N1, 84 of H3N2, 2 of untyped influenza A, and 10 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

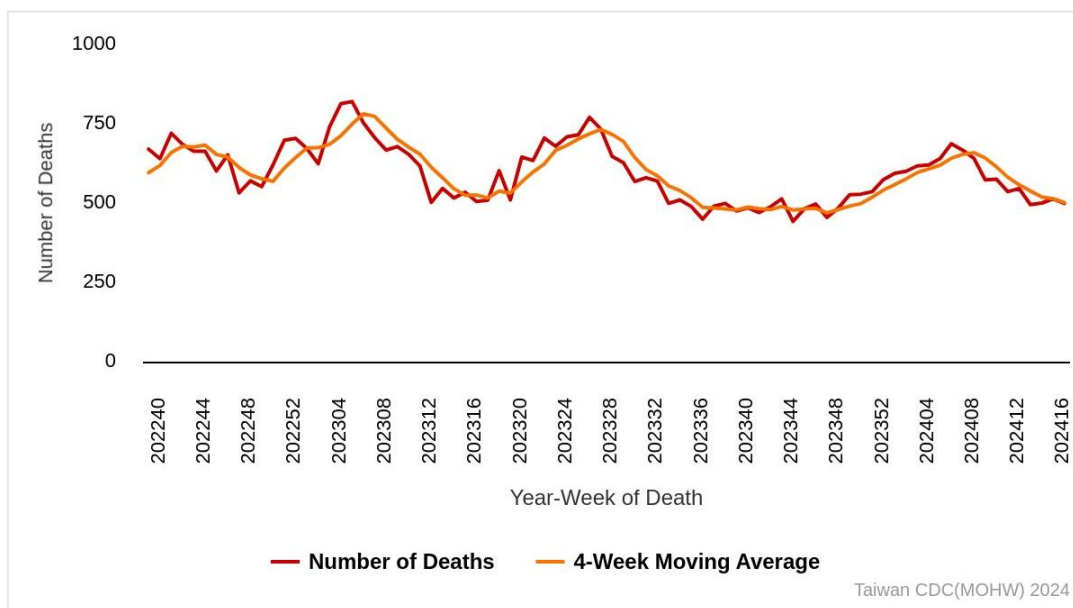
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	5	1	1.13	0.23
3-6 y	19	1	2.55	0.13
7-18 y	46	3	1.88	0.12
19-24 y	6	1	0.39	0.06
25-49 y	120	17	1.38	0.20
50-64 y	158	20	2.99	0.38
65 +	467	105	11.15	2.51
Total	821	148	3.51	0.63



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

Weekly Number of Deaths from 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.

