



Synopsis

The epidemic of influenza-like illness (ILI) is above the threshold. The number of visits to outpatient and emergency room (ER) for ILI has been increasing. Additionally, the number of influenza cases with severe complications remains high. It is essential to monitor subsequent changes in the epidemic situation and be aware of the risk of severe illness.

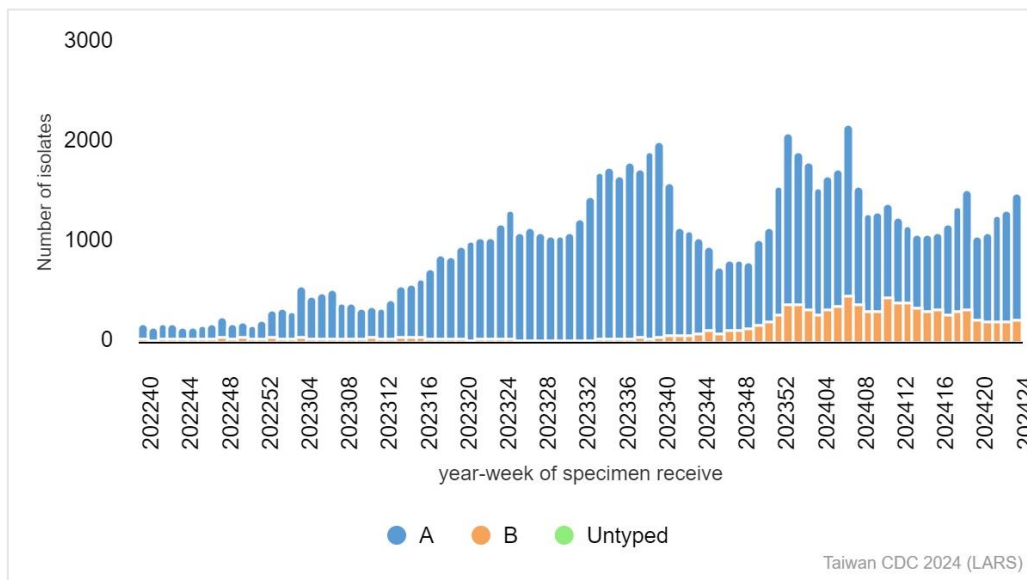
- The number of visits to outpatient and ER for ILI has been increasing for the three consecutive weeks. The percentage of emergency visits is above the epidemic threshold.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 70.3% and influenza B accounted for 29.7%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 1,067 influenza cases with severe complications, of which 204 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has showed an increasing trend recently. Over the last four weeks, influenza A positive specimens accounted for 84%, and influenza B positive specimens accounted for 16%. The proportion of influenza B has been slightly decreasing recently. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



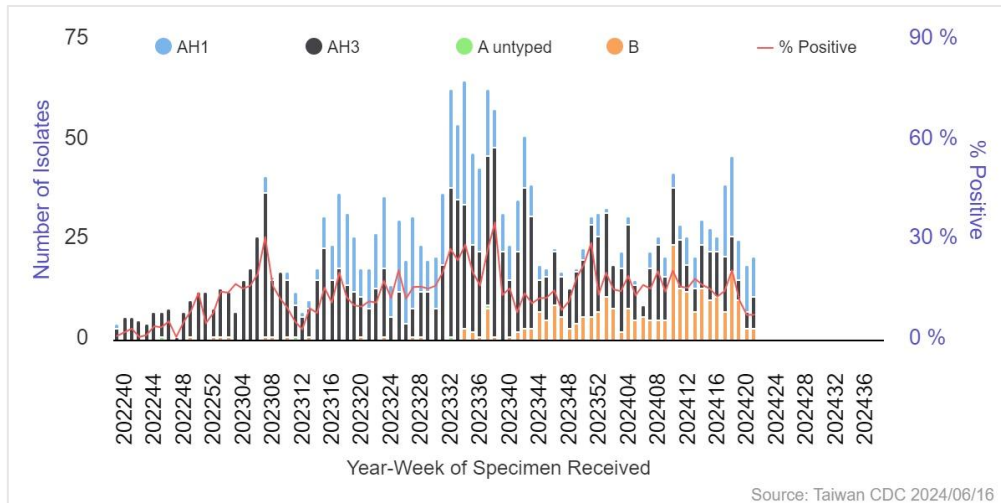
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 19 to 22, the number of isolated influenza A viruses exceeded Influenza B. Among influenza isolates, A/H1N1 accounted for 46.8%, followed by influenza B (29.7%), and A/H3N2 (23.4%). 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), 160 of 167 influenza A/H1N1 viruses (95.8%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 318 of 341 influenza A/H3N2 viruses (93.3%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 168 of 168 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	160 (95.8%)	7 (4.2%)
A/Darwin/9/2021 (H3N2)-like virus	318 (93.3%)	23 (6.7%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	168 (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.

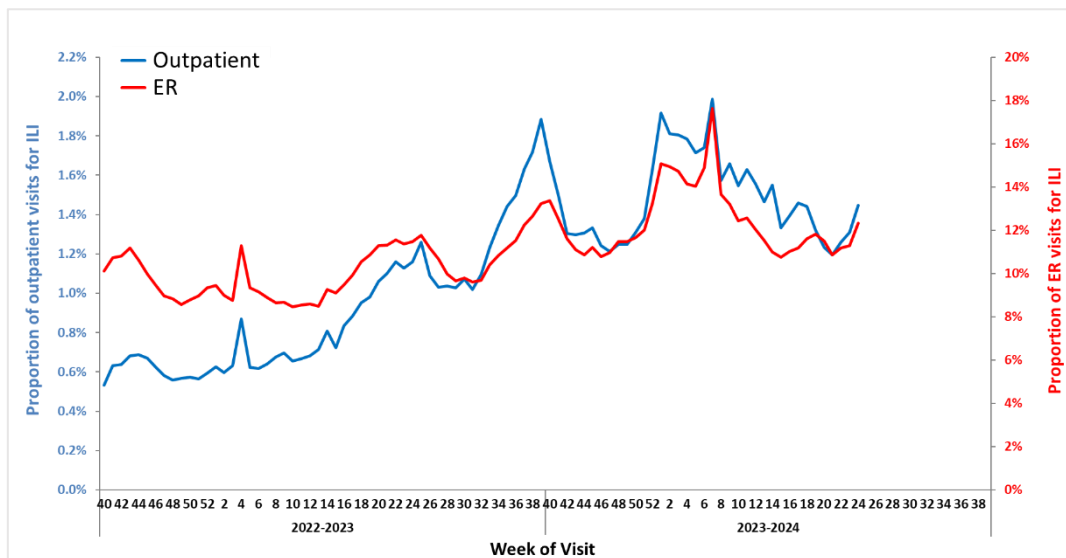
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	132	2 (1.5%)
A (H3N2)	418	2 (0.5%)
B	205	1 (0.5%)



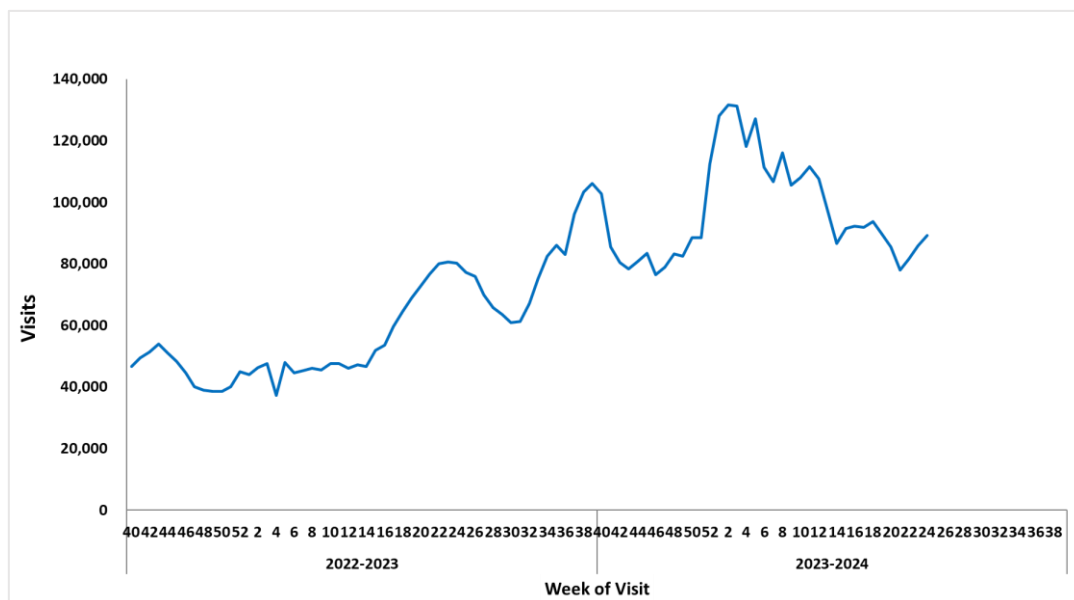
Influenza-like Illness (ILI) Surveillance

During week 24, the proportions of ILI visits were 1.4% in outpatient and 12.3% in ER, with the latter percentage above the epidemic threshold (11.0%). The total number of visits for ILI was 89,175, which has been increasing for the three consecutive weeks. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



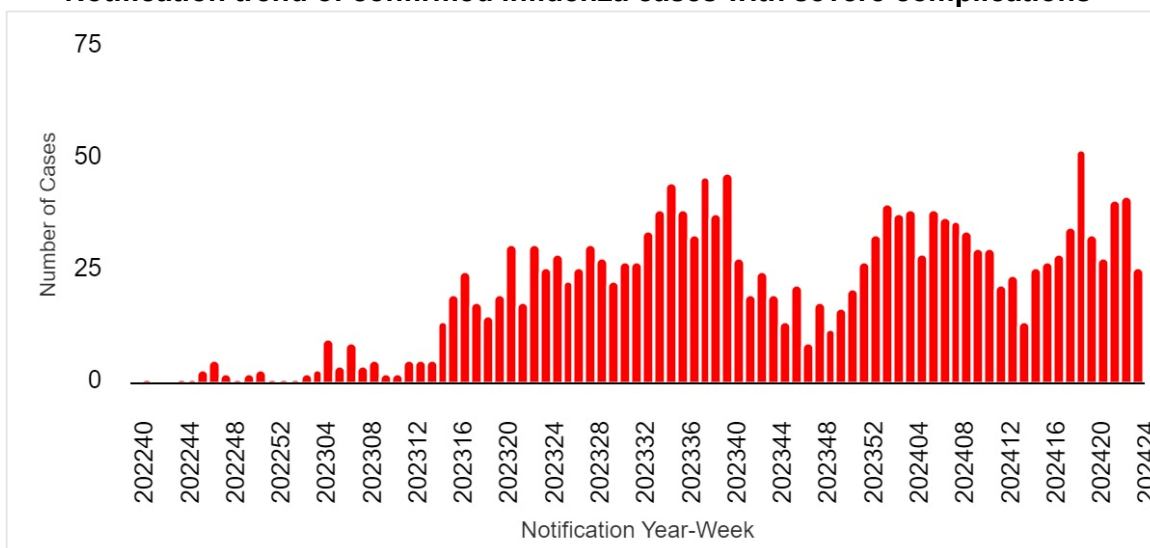
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 55 newly confirmed influenza cases with severe complications (47 of H1N1, 3 of H3N2, 1 of untyped influenza A, and 4 of influenza B), and 14 fatal cases (10 of H1N1, 2 of H3N2 and 2 of influenza B). During 2023-2024 influenza season, a total of 1,067 influenza cases with severe complications (470 of H1N1, 487 of H3N2, 13 of untyped influenza A, and 97 of influenza B) were confirmed, of which 204 cases were fatal (95 of H1N1, 90 of H3N2, 2 of untyped influenza A, and 17 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

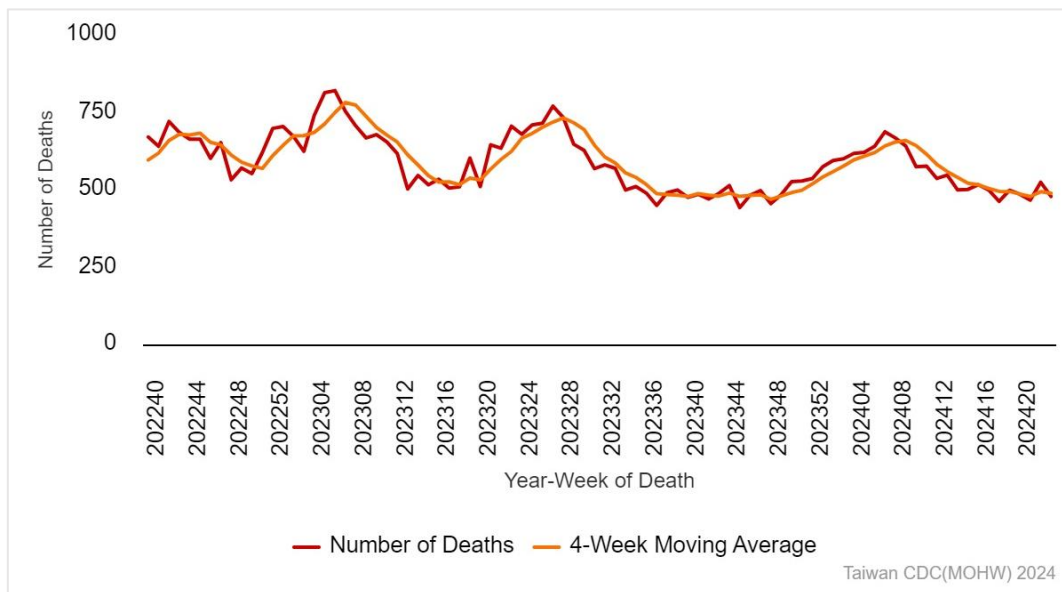
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	5	1	1.13	0.23
3-6 y	22	1	2.95	0.13
7-18 y	55	4	2.25	0.16
19-24 y	8	1	0.52	0.06
25-49 y	159	24	1.83	0.28
50-64 y	212	29	4.01	0.55
65 +	606	144	14.47	3.44
Total	1,067	204	4.57	0.87



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 to 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.

