



Synopsis

The number of visits to outpatient and emergency room (ER) for influenza-like illness (ILI) is showing a decreasing trend. However, 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.

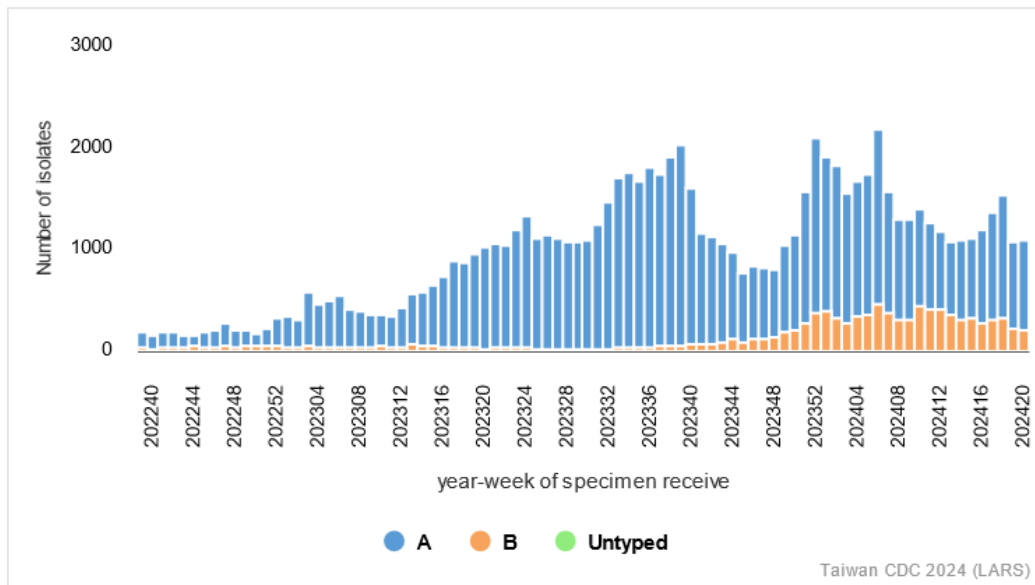
- The number of visits to outpatient and ER for ILI is showing a decreasing trend, with the percentage of emergency visits slightly below the epidemic threshold.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 67.6% and influenza B accounted for 32.4%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 938 influenza cases with severe complications, of which 170 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens was similar to the previous week. Over the last four weeks, influenza A positive specimens accounted for 79%, and influenza B positive specimens accounted for 21%. 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



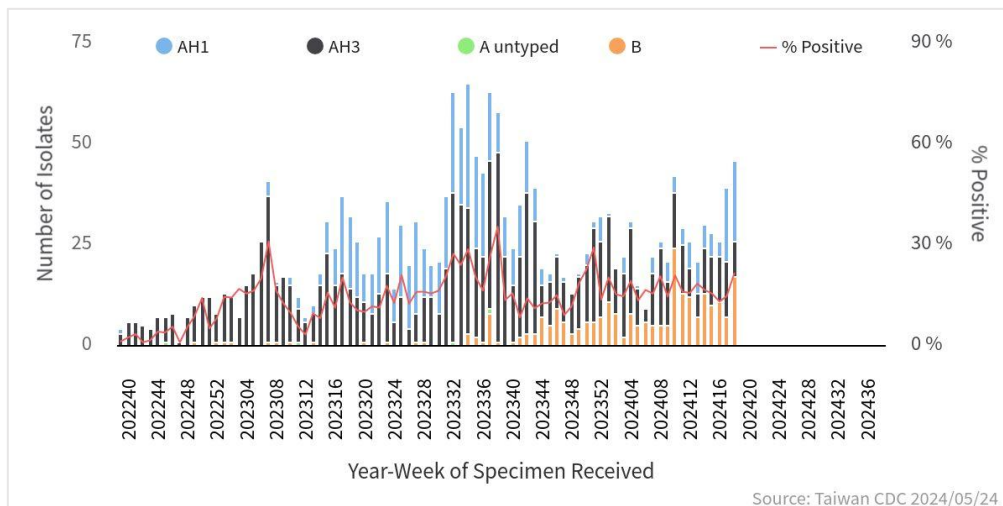
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 16 to 19, the number of isolated influenza A viruses exceeded Influenza B. Among influenza isolates, A/H1N1 accounted for 34.5%, followed by A/H3N2 (33.1%), and influenza B (32.4%). 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), 133 of 140 influenza A/H1N1 viruses (95.0%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 298 of 319 influenza A/H3N2 viruses (93.4%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 150 of 150 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	133 (95.0%)	7 (5.0%)
A/Darwin/9/2021 (H3N2)-like virus	298 (93.4%)	21 (6.6%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	150 (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.

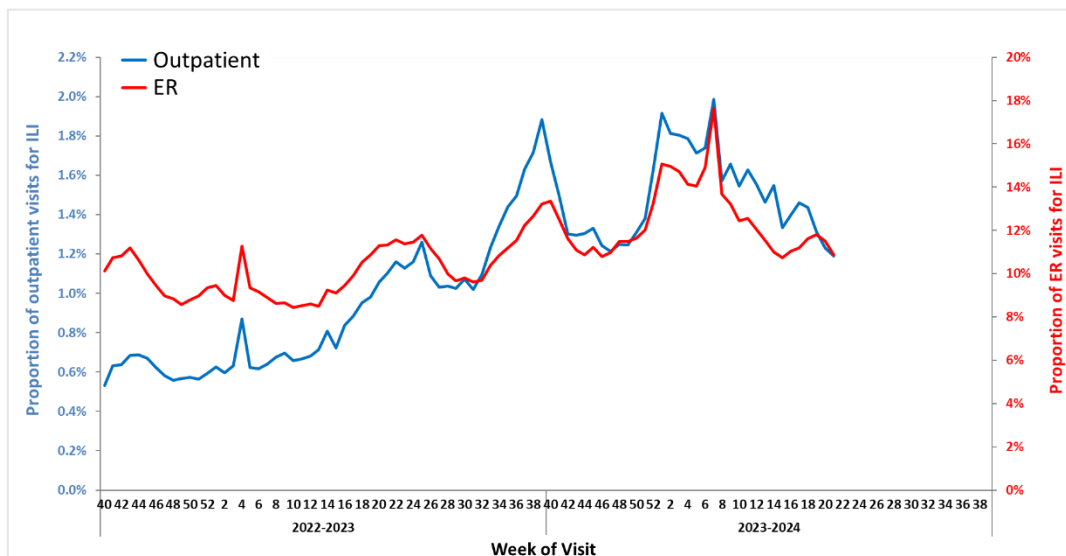
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	132	2 (1.5%)
A (H3N2)	408	2 (0.5%)
B	199	1 (0.5%)



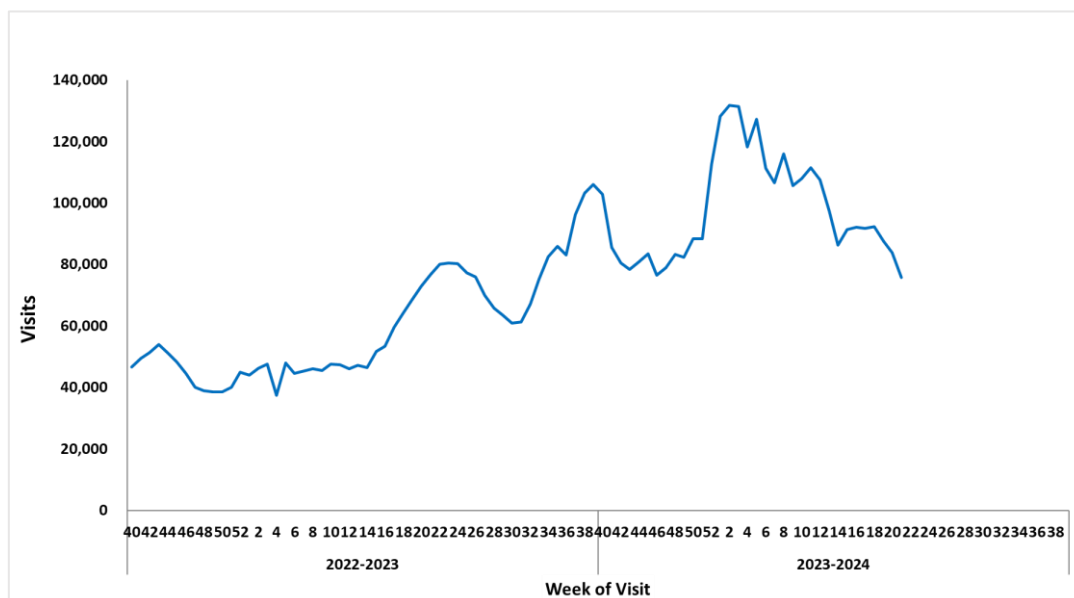
Influenza-like Illness (ILI) Surveillance

During week 21, the proportions of ILI visits were 1.2% in outpatient and 10.9% in the ER, with the latter percentage slightly below the epidemic threshold (11.0%). The total number of visits for ILI was 75,673, showing a decreasing trend recently. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



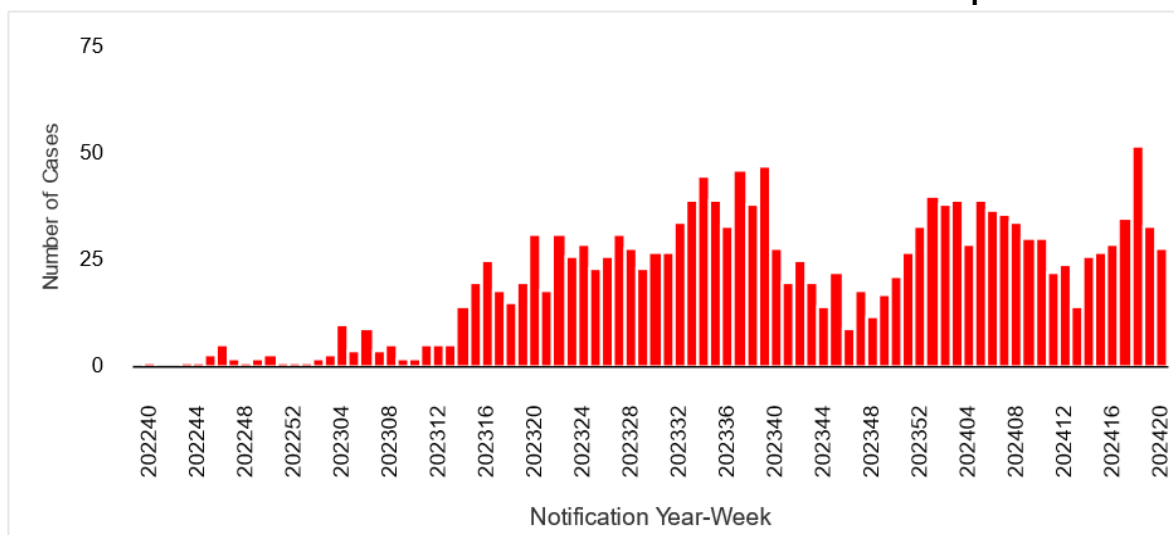
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 31 newly confirmed influenza cases with severe complications (21 of H1N1, 4 of H3N2, 2 of untyped influenza A, and 4 of influenza B), and 8 fatal cases (7 of H1N1 and 1 of influenza B). During 2023-2024 influenza season, a total of 938 influenza cases with severe complications (363 of H1N1, 476 of H3N2, 11 of untyped influenza A, and 88 of influenza B) were confirmed, of which 170 cases were fatal (71 of H1N1, 84 of H3N2, 2 of untyped influenza A, and 13 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

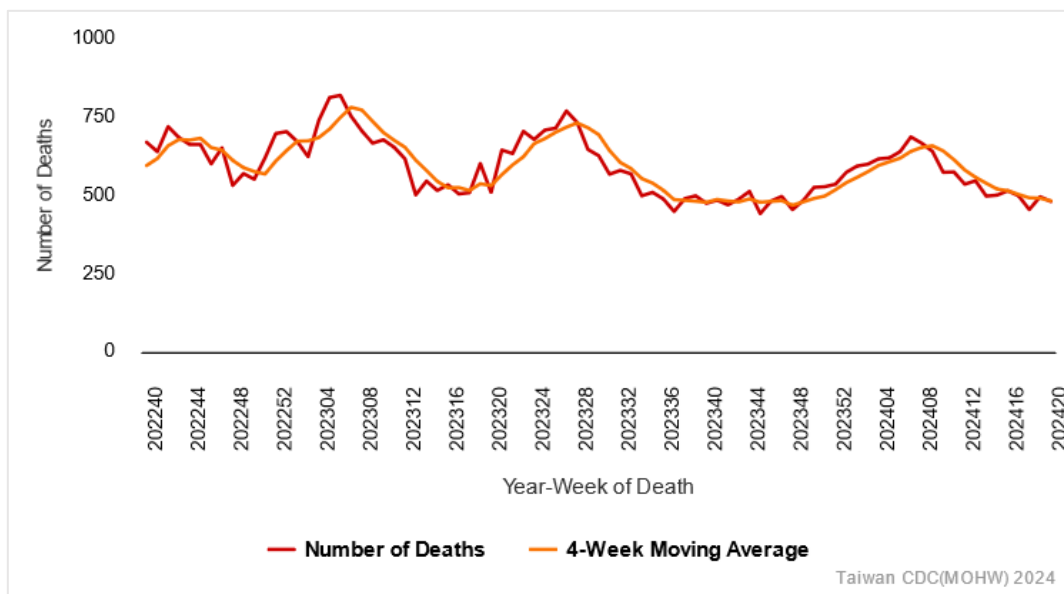
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	5	1	1.13	0.23
3-6 y	19	1	2.55	0.13
7-18 y	49	3	2.00	0.12
19-24 y	7	1	0.45	0.06
25-49 y	138	20	1.58	0.23
50-64 y	184	24	3.48	0.45
65 +	536	120	12.80	2.87
Total	938	170	4.01	0.73



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 slightly decreased 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 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.

