



Synopsis

The total number of influenza-like illness (ILI) visits in outpatient and emergency room (ER) has been increasing recently and was higher than the same period over the past ten years. The predominant influenza strain is A/H3N2.

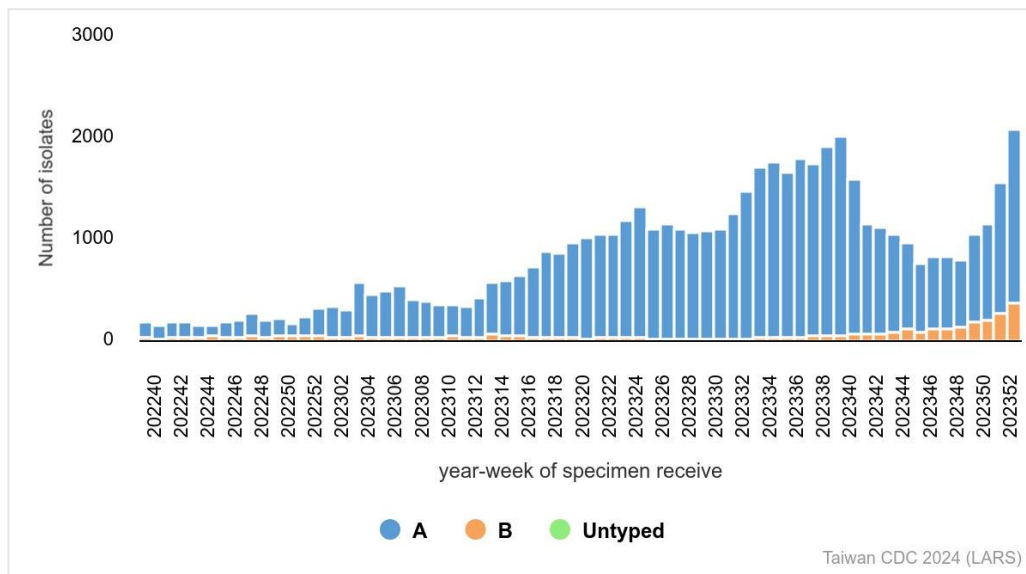
- During the last four weeks, A/H3N2 has been the predominant influenza strain circulating in the community, followed by influenza B. The proportions of each strain have remained similar in recent weeks.
- Both the proportion and the total number of ILI visits in outpatient and ER have been increasing recently, and the latter was higher than the same period over the past ten years.
- During 2023-2024 influenza season (since October 1, 2023), there have been 293 influenza cases with severe complications, of which 39 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has been increasing in recent weeks. Over the last four weeks, the proportion of influenza A positive specimens was 82%, and the proportion of influenza B was 18%.

Numbers of influenza-positive specimens from LARS



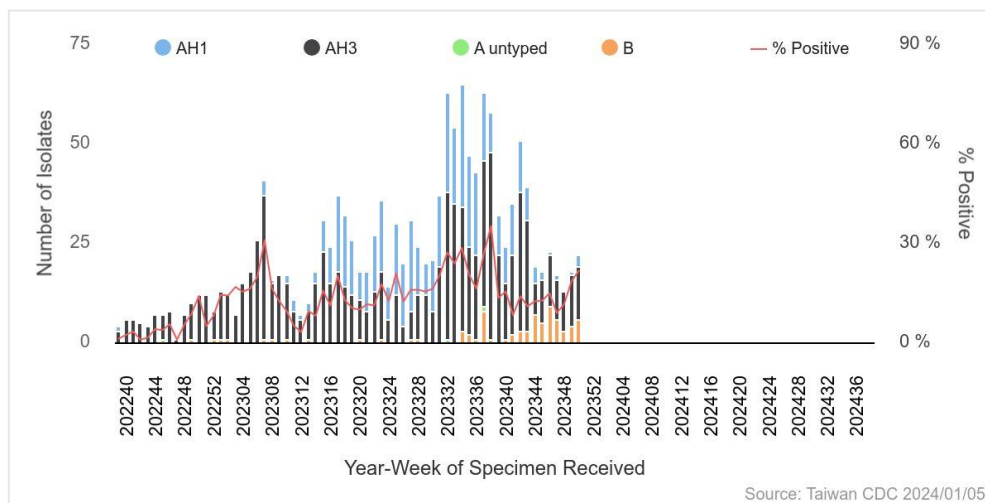
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 48 to 51, the predominant isolated influenza virus was A/H3N2 (65.7%), followed by influenza B (27.1%). Weekly virus data are available at <https://nidss.cdc.gov.tw/>.

Influenza isolates according to Contracted Virology Laboratories



Antigenicity

During the 2023-24 influenza season (from Oct 1, 2023 to Sep 30, 2024), 65 of 67 influenza A/H1N1 viruses (97.0%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 144 of 146 influenza A/H3N2 viruses (98.6%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 33 of 33 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 2023-24 influenza season	Vaccine-like (%)	Low reactor (%)
A/Victoria/4897/2022 (H1N1)pdm09-like virus	65 (97.0%)	2 (3.0%)
A/Darwin/9/2021 (H3N2)-like virus	144 (98.6%)	2 (1.4%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	33 (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.

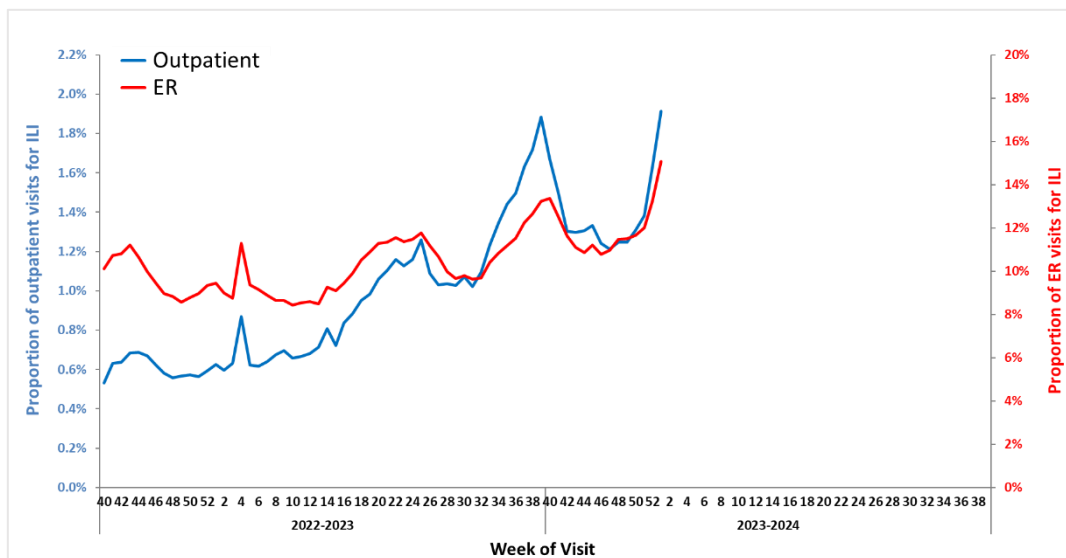
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	59	0 (0%)
A (H3N2)	148	0 (0%)
B	27	0 (0%)



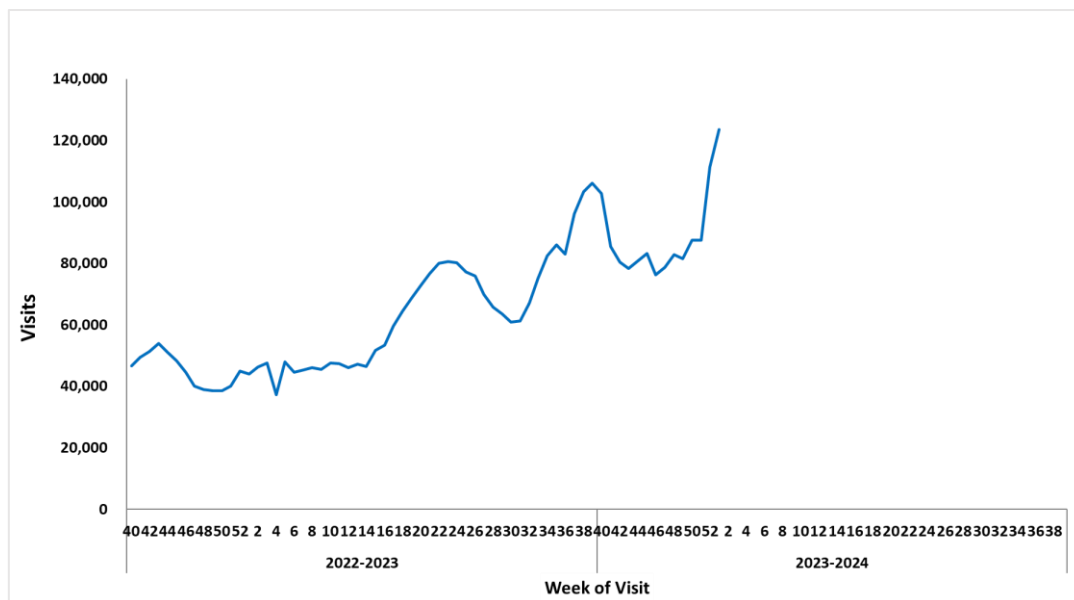
Influenza-like Illness (ILI) Surveillance

During week 1, the proportions of ILI visits were 1.91% in outpatient and 15.1% in the ER, respectively, with a total of 123,614 visits. Recently, both the proportion and the total number of ILI visits have been increasing, and the latter was higher than the same period over the past ten years.

Proportions of ILI visits in outpatient and ER



Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 41 newly confirmed influenza cases with severe complications (10 of H1N1, 25 of H3N2, 1 of untyped influenza A, and 5 of influenza B), and 3 fatal cases (1 of H1N1 and 2 of H3N2). During 2023-2024 influenza season, a total of 293 influenza cases with severe complications (111 of H1N1, 161 of H3N2, 6 of untyped influenza A, and 15 of influenza B) were confirmed, of which 39 cases were fatal (20 of H1N1, 17 of H3N2, 1 of untyped influenza A, and 1 of influenza B).

Incidence of influenza cases with severe complications and mortality rate

2023-2024 influenza season (from Oct 1, 2023, to Jan 8, 2024)

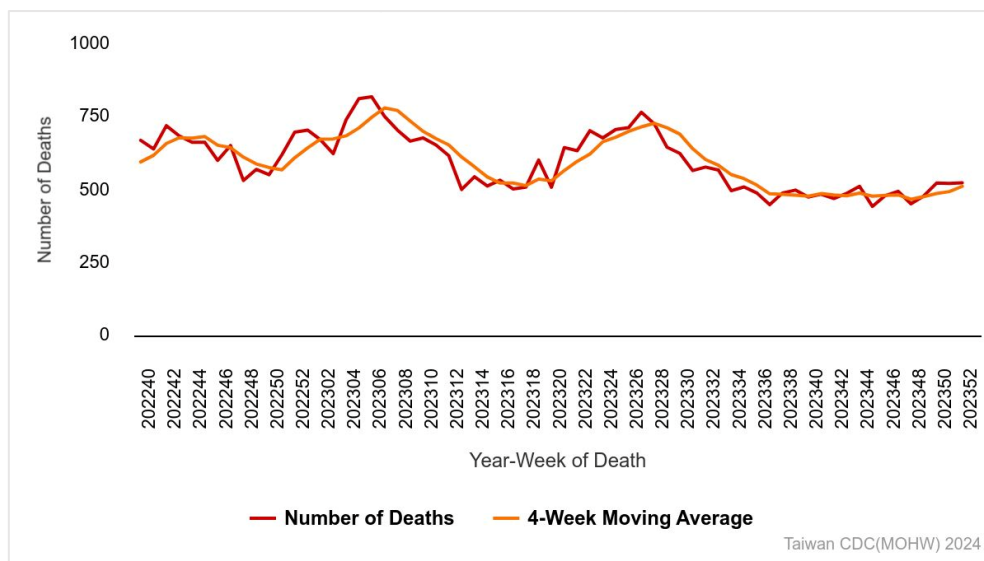
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	4	0	0.54	0.00
7-18 y	11	0	0.45	0.00
19-24 y	1	0	0.06	0.00
25-49 y	43	4	0.49	0.05
50-64 y	60	9	1.13	0.17
65 +	171	25	4.08	0.60
Total	293	39	1.25	0.17



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 shown a slight increase 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 P&I 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.

