



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. In the community, the predominant influenza strain is A/H3N2. The trend of influenza cases with severe complications is rising, indicating a heightened risk of severe cases occurrence.

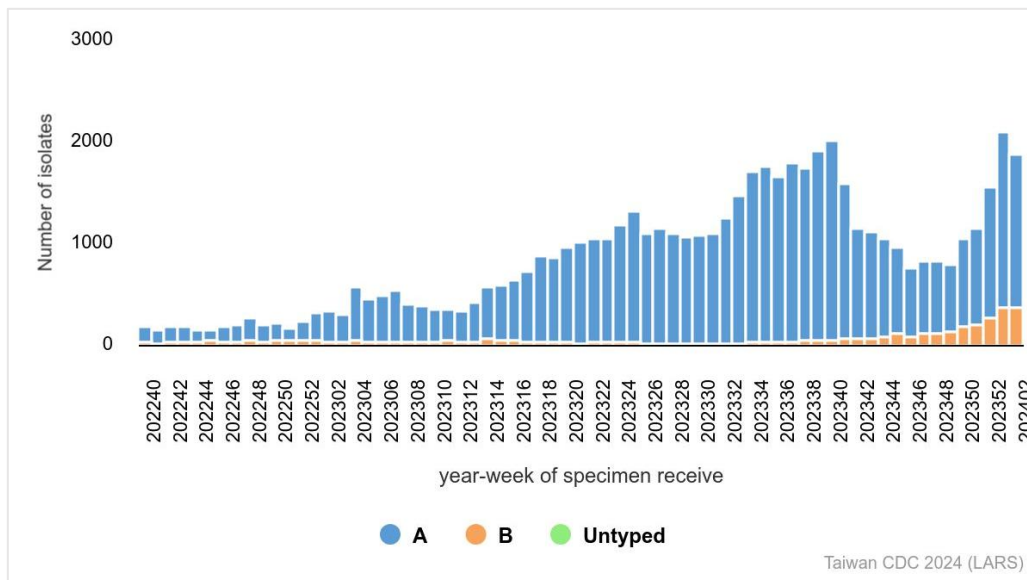
- During the last four weeks, A/H3N2 has been the predominant influenza strain circulating in the community, followed by influenza B.
- The total number of ILI visits in outpatient and ER have been increasing recently, and it was higher than the same period over the past ten years.
- During 2023-2024 influenza season (since October 1, 2023), there have been 335 influenza cases with severe complications, of which 50 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens was slightly lower than the previous week, however, the trend has been increasing recently. Over the last four weeks, the proportion of influenza A positive specimens was 82%, and the proportion of influenza B was 18%. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



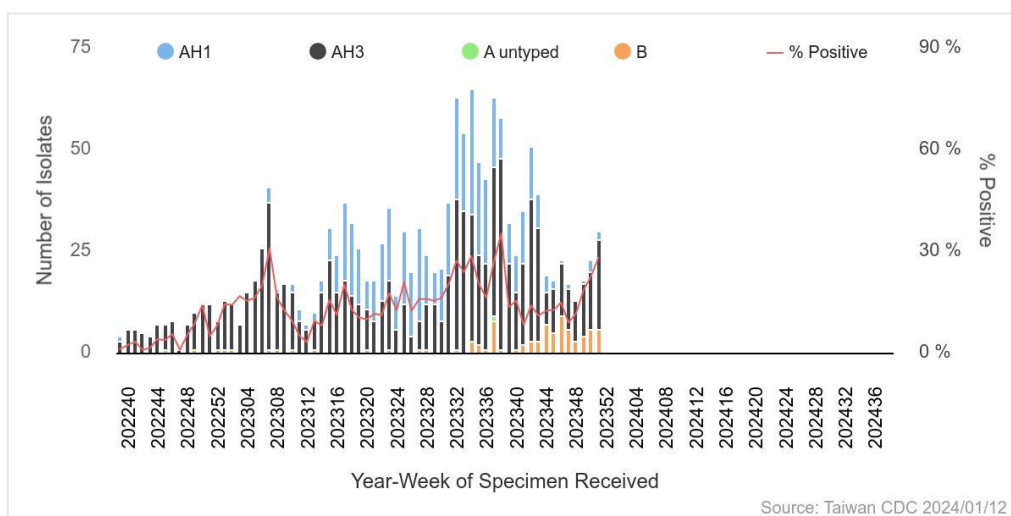
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 49 to 52 in 2023, the predominant isolated influenza virus was A/H3N2 (70.2%), followed by influenza B (22.6%). 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), 67 of 69 influenza A/H1N1 viruses (97.1%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 149 of 152 influenza A/H3N2 viruses (98.0%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 34 of 34 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	67 (97.1%)	2 (2.9%)
A/Darwin/9/2021 (H3N2)-like virus	149 (98.0%)	3 (2.0%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	34 (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.

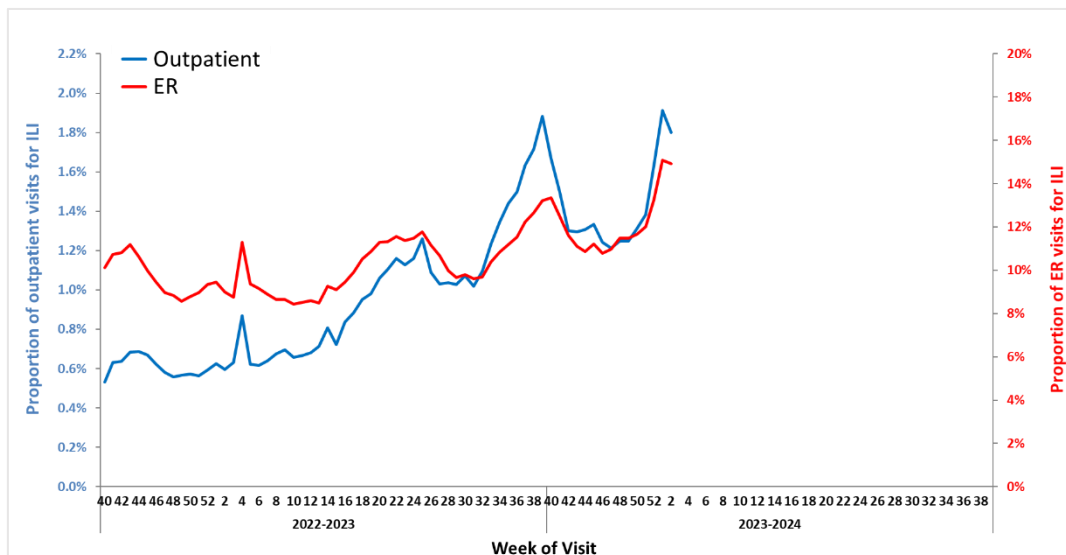
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	60	0 (0%)
A (H3N2)	164	0 (0%)
B	29	0 (0%)



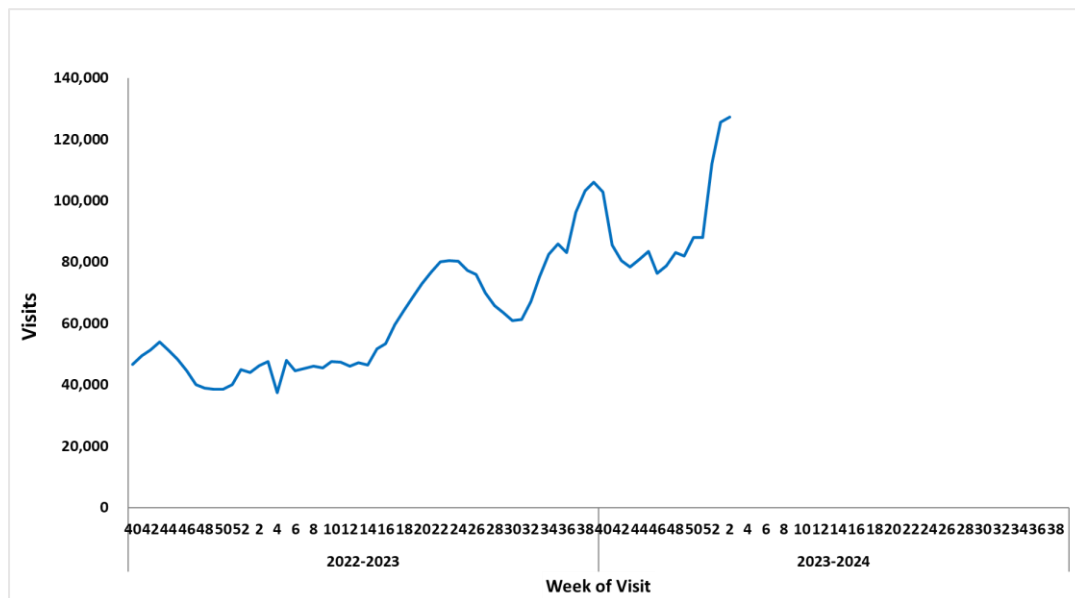
Influenza-like Illness (ILI) Surveillance

During week 2, the proportions of ILI visits were 1.80% in outpatient and 14.9% in the ER. The total number of visits was 127,229, which has been increasing and was higher than the same period over the past ten years. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



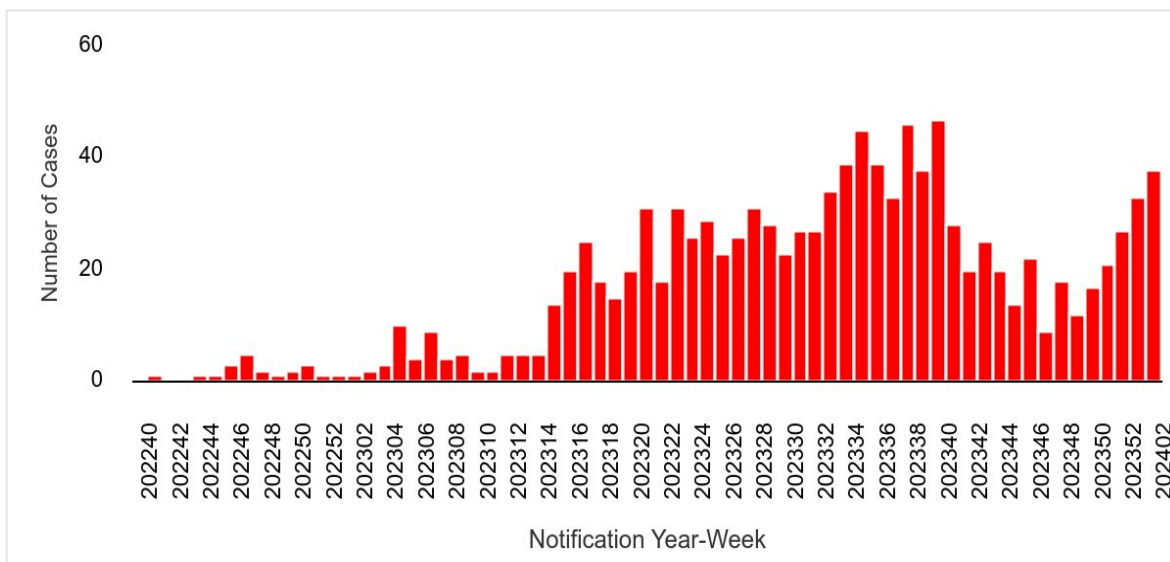
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 42 newly confirmed influenza cases with severe complications (5 of H1N1, 34 of H3N2, and 3 of influenza B), and 11 fatal cases (3 of H1N1, 7 of H3N2, and 1 of influenza B). The trend of influenza cases with severe complications has been on the rise recently. During 2023-2024 influenza season, a total of 335 influenza cases with severe complications (116 of H1N1, 197 of H3N2, 4 of untyped influenza A, and 18 of influenza B) were confirmed, of which 50 cases were fatal (23 of H1N1, 24 of H3N2, 1 of untyped influenza A, and 2 of influenza B).

Notification trend of confirmed cases of 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

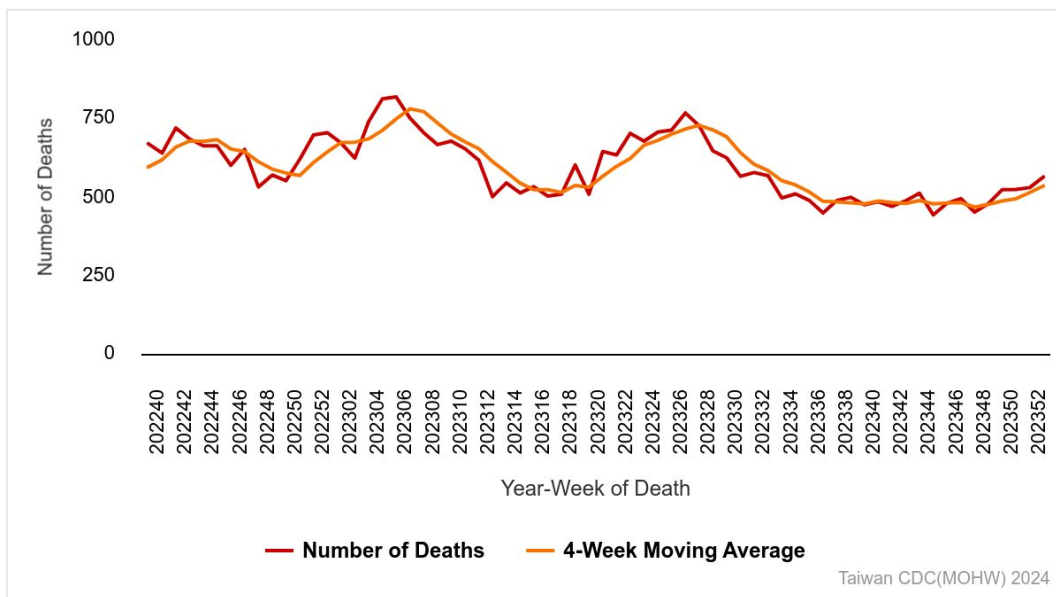
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	5	0	0.67	0.00
7-18 y	15	1	0.61	0.04
19-24 y	1	0	0.06	0.00
25-49 y	50	5	0.57	0.06
50-64 y	68	11	1.29	0.21
65 +	193	32	4.61	0.76
Total	335	50	1.43	0.21



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.

