



## Synopsis

The number of outpatient and emergency room (ER) visits of influenza-like illness (ILI) has recently been in a plateau phase, and this week is the second highest in the past decade for the same period. In the community, the predominant influenza strain is A/H3N2. The trend of influenza cases with severe complications has increased recently, indicating a heightened risk of severe cases occurrence.

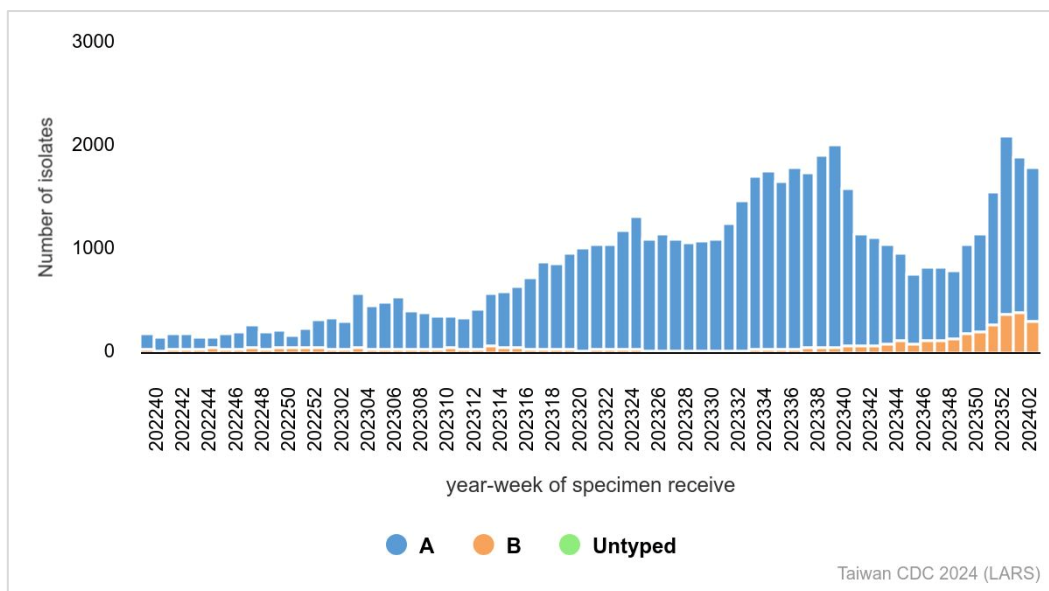
- During the last four weeks, A/H3N2 has been the predominant influenza strain circulating in the community, followed by influenza B.
- The number of outpatient and ER visits of ILI has recently been in a plateau phase, and this week is the second highest in the past decade for the same period.
- During 2023-2024 influenza season (since October 1, 2023), there have been 365 influenza cases with severe complications, of which 55 cases were fatal.

## Laboratory Surveillance<sup>1</sup>

### Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens slightly decreased in the past two weeks. 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



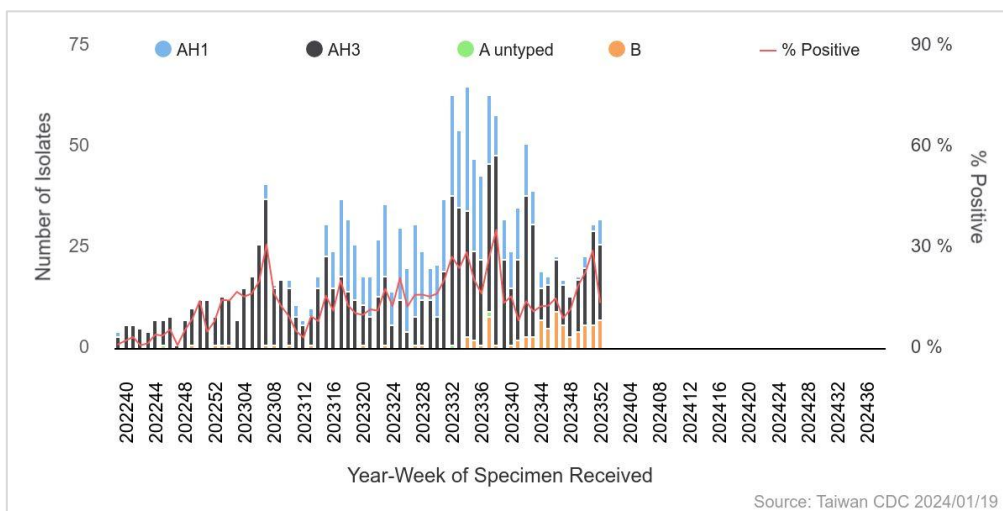
<sup>1</sup> In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



## Contracted Virology Laboratories Surveillance

During week 50, 2023 to week 1, 2024, the predominant isolated influenza virus was A/H3N2 (66.3%), followed by influenza B (22.1%) and A/H1N1 (11.5%). 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), 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.

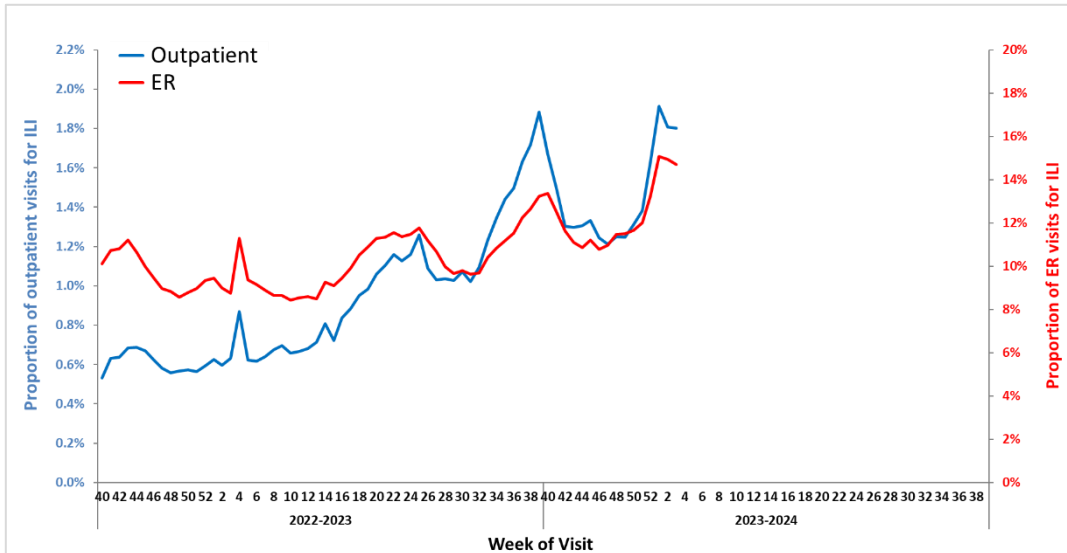
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	63	0 (0%)
A (H3N2)	197	0 (0%)
B	44	0 (0%)



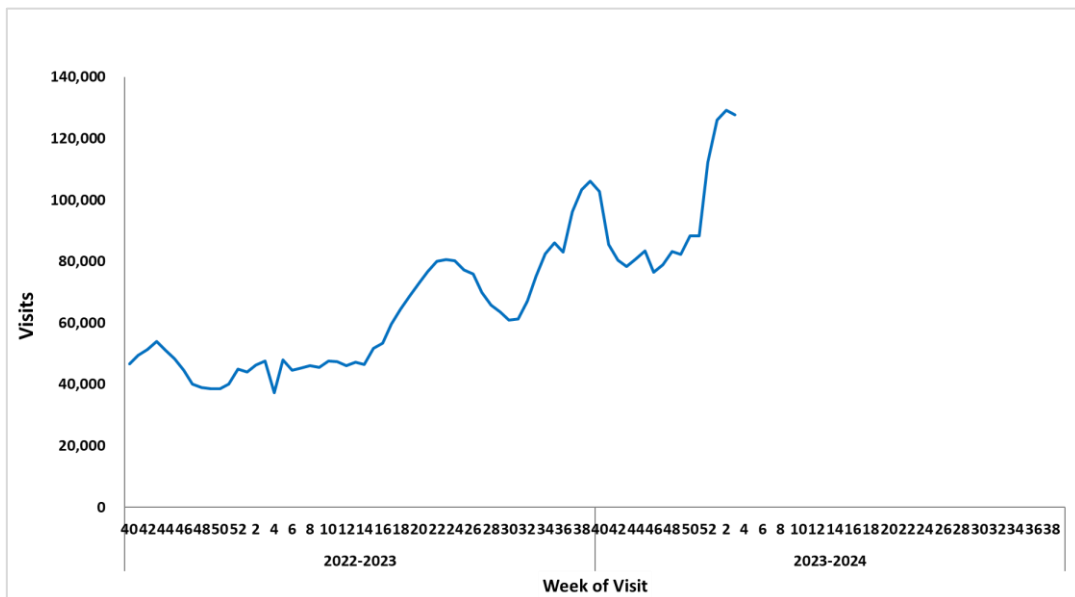
## Influenza-like Illness (ILI) Surveillance

During week 3, the proportions of ILI visits were 1.8% in outpatient and 14.7% in the ER. The total number of visits was 127,638, which was the second highest in the past decade for the same period. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



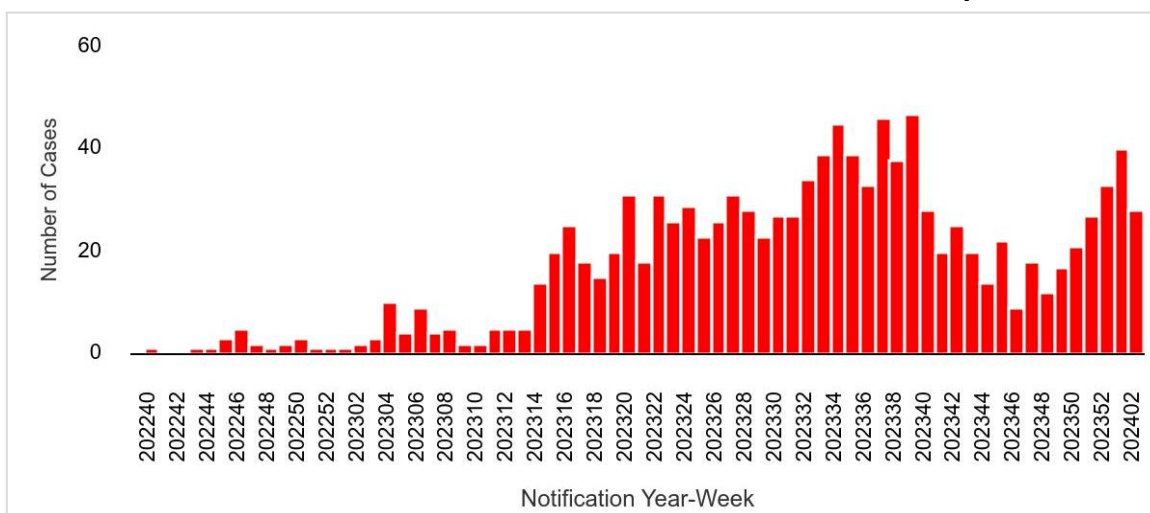
Total number of ILI visits in outpatient and ER



## Influenza Case with Severe Complications

There were 30 newly confirmed influenza cases with severe complications (5 of H1N1, 22 of H3N2, and 3 of influenza B), and 5 fatal cases (4 of H3N2 and 1 of untyped influenza A). The trend of severe cases has increased recently. During 2023-2024 influenza season, a total of 365 influenza cases with severe complications (121 of H1N1, 219 of H3N2, 4 of untyped influenza A, and 21 of influenza B) were confirmed, of which 55 cases were fatal (23 of H1N1, 28 of H3N2, 2 of untyped influenza A, and 2 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

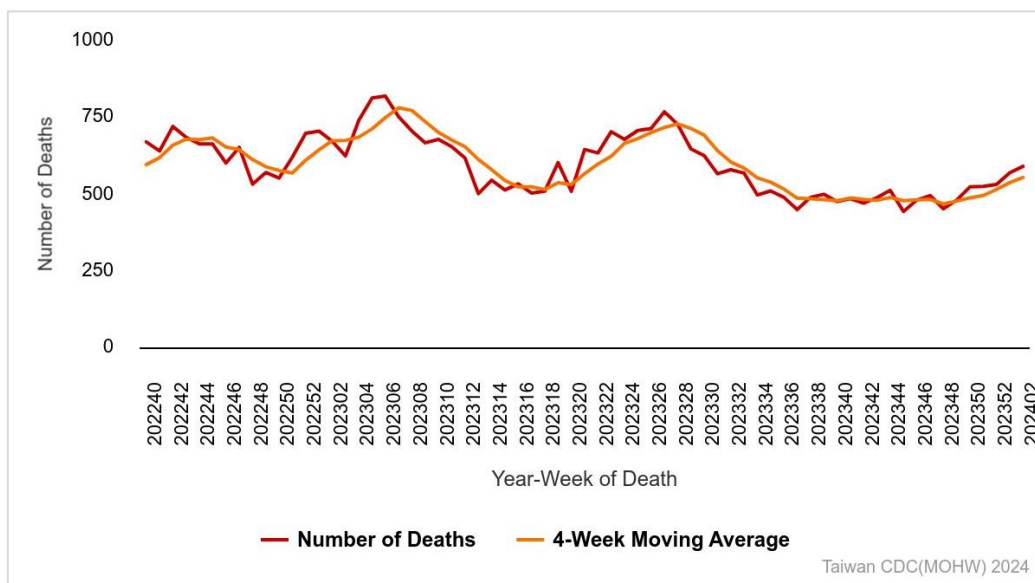
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	6	0	0.81	0.00
7-18 y	18	1	0.74	0.04
19-24 y	2	1	0.13	0.06
25-49 y	53	5	0.61	0.06
50-64 y	69	11	1.30	0.21
65 +	214	36	5.11	0.86
Total	365	55	1.56	0.24



## Pneumonia and Influenza (P&I) Mortality Surveillance

Based on the Internet System for Death Reporting (ISDR)<sup>2</sup> 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



<sup>2</sup> 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.

