



## Synopsis

Influenza is in an epidemic period, with A/H3N2 as the predominant strain, and the proportion of influenza B among influenza virus has slightly increased recently. The proportions of influenza-like illness (ILI) visits in outpatient and emergency room (ER) remain similar to the previous week. However, it is still necessary to be cautious due to the recent fluctuation in temperature.

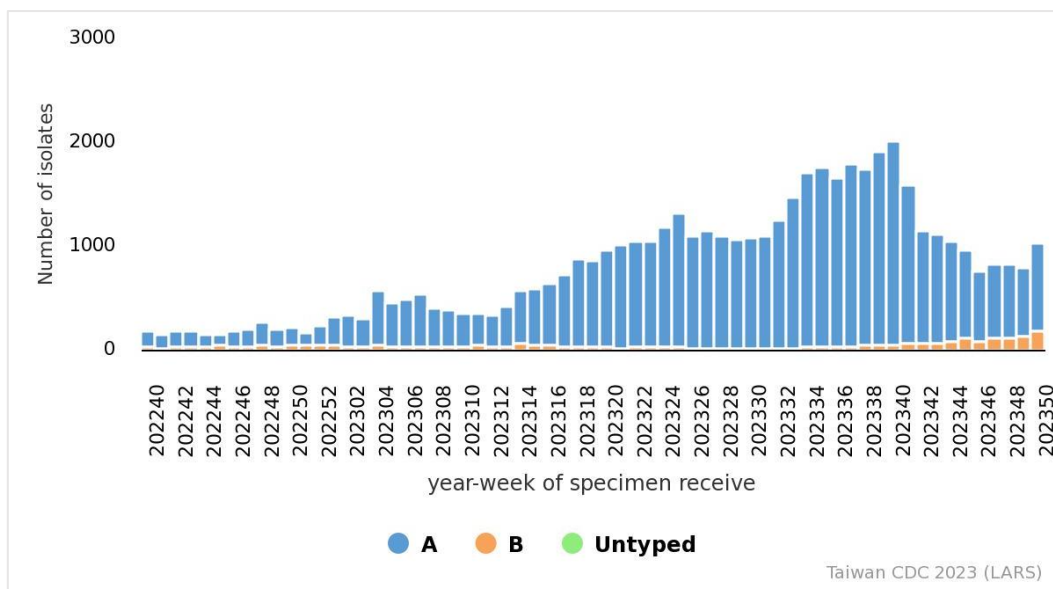
- During the last four weeks, A/H3N2 has been the predominant influenza strain circulating in the community, whereas the proportion of influenza B among influenza virus slightly increased.
- The proportions of ILI visits in outpatient and ER remain similar to the previous week.
- During 2023-2024 influenza season (since October 1, 2023), there have been 212 influenza cases with severe complications, of which 31 cases were fatal.

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

### Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens is higher than the previous week. Over the last four weeks, the proportion of influenza A positive specimens was 85%, and the proportion of influenza B slightly increased.

Numbers of influenza-positive specimens from LARS



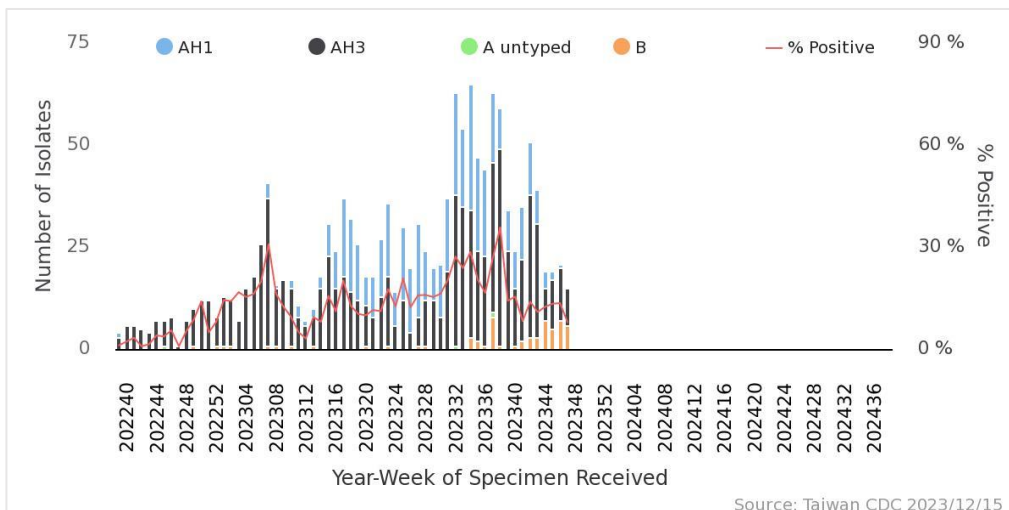
<sup>1</sup> In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



## Contracted Virology Laboratories Surveillance

During week 45 to week 48, the predominant isolated influenza virus was A/H3N2 (56.8%), and the proportion of influenza B (33.8%) has increased in recent weeks. Weekly virus data are available at <https://nidss.cdc.gov.tw/>.

**Influenza isolates according to Contracted Virology Laboratories**



## Antigenicity

The antigenic characterization of the 2023-2024 influenza season is shown in the table below. The hemagglutination inhibition (HI) method is used to compare the similarity between presently circulating influenza viruses and the reference viruses recommended by WHO for the 2023-2024 Northern Hemisphere vaccines.

2023-2024 influenza season vaccine	No. of isolates tested	LR*, n (%)
A/Victoria/4897/2022 (H1N1)pdm09-like virus	57	1 (1.8%)
A/Darwin/9/2021 (H3N2)-like virus	73	1 (1.4%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	19	0 (0.0%)

\* The titer of the isolated virus was at least 8-fold lower than that of the reference virus, identifying it as a low-reactor (LR).

## Antiviral Resistance

The table below summarizes the antiviral resistance to neuraminidase inhibitor (Oseltamivir) of the isolates during the 2023-2024 influenza season.

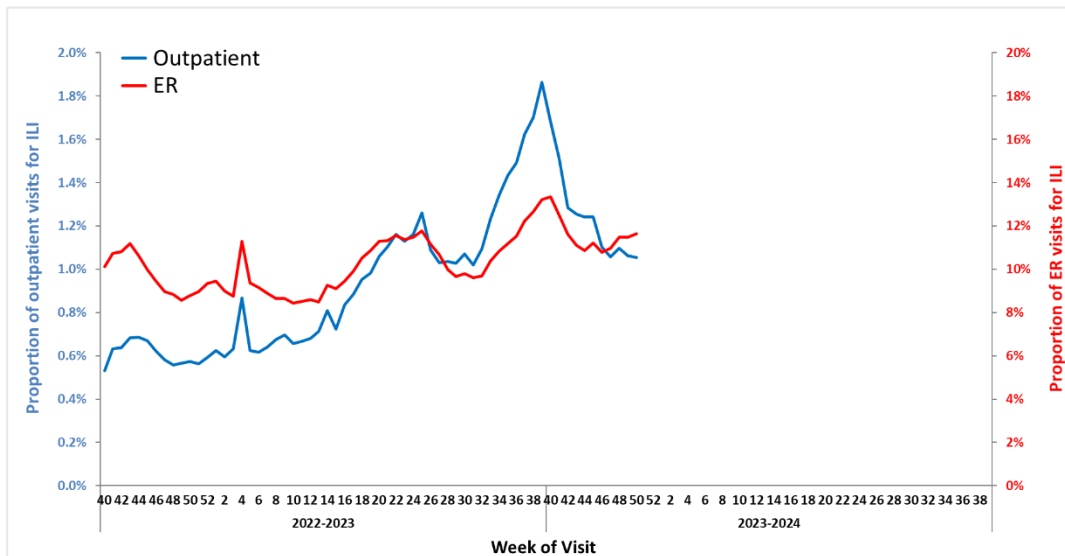
	No. of isolates tested	Resistance Viruses, n (%)
<b>A (H1N1)</b>	59	0 (0%)
<b>A (H3N2)</b>	136	0 (0%)
<b>B</b>	23	0 (0%)



## Influenza-like Illness (ILI) Surveillance

During week 50, the proportions of ILI visits were 1.1% and 11.6% in outpatient and ER, respectively, and remained similar to the previous week.

Proportion of outpatient and ER visits for ILI



## Influenza Case with Severe Complications

There were 16 newly confirmed influenza cases with severe complications (4 of H1N1, 8 of H3N2, 3 of untyped influenza A, and 1 of influenza B), and 1 fatal cases (H1N1). During 2023-2024 influenza season, a total of 212 influenza cases with severe complications (85 of H1N1, 115 of H3N2, 4 of untyped influenza A, and 8 of influenza B) were confirmed, of which 31 cases were fatal (18 of H1N1, 12 of H3N2, and 1 of influenza B).

### Incidence of influenza cases with severe complications and mortality rate

2023-2024 influenza season (from Oct 1, 2023, to Dec 18, 2023)

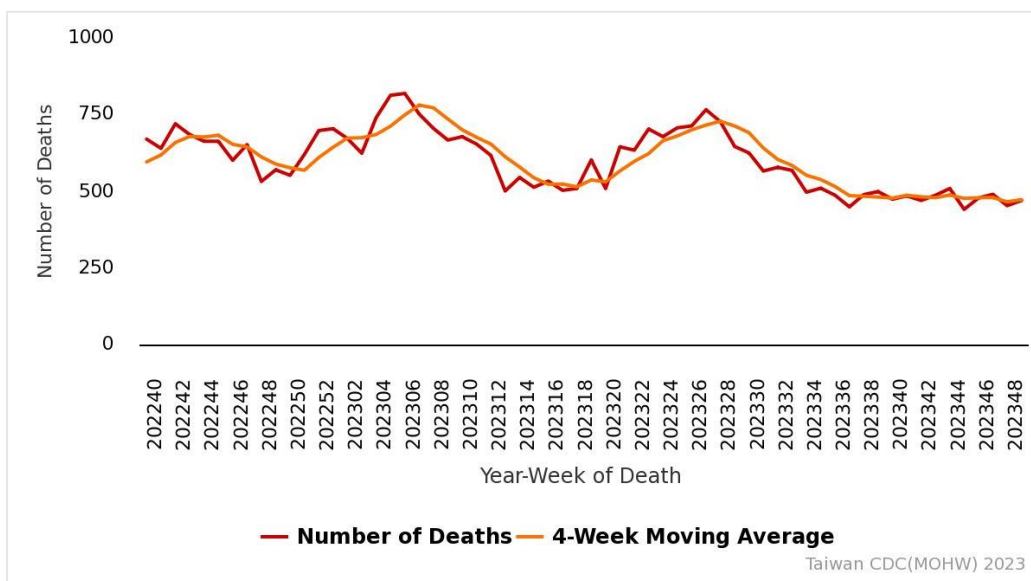
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	1	0	0.13	0.00
7-18 y	8	0	0.33	0.00
19-24 y	0	0	0.00	0.00
25-49 y	28	2	0.32	0.02
50-64 y	41	7	0.77	0.13
65 +	131	21	3.13	0.50
Total	212	31	0.91	0.13



## 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 been stable in 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 P&I 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.

