



## Synopsis

The epidemic of influenza-like illness (ILI) is above the threshold. The number of visits to outpatient and emergency room (ER) for ILI has been increasing. Additionally, 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.

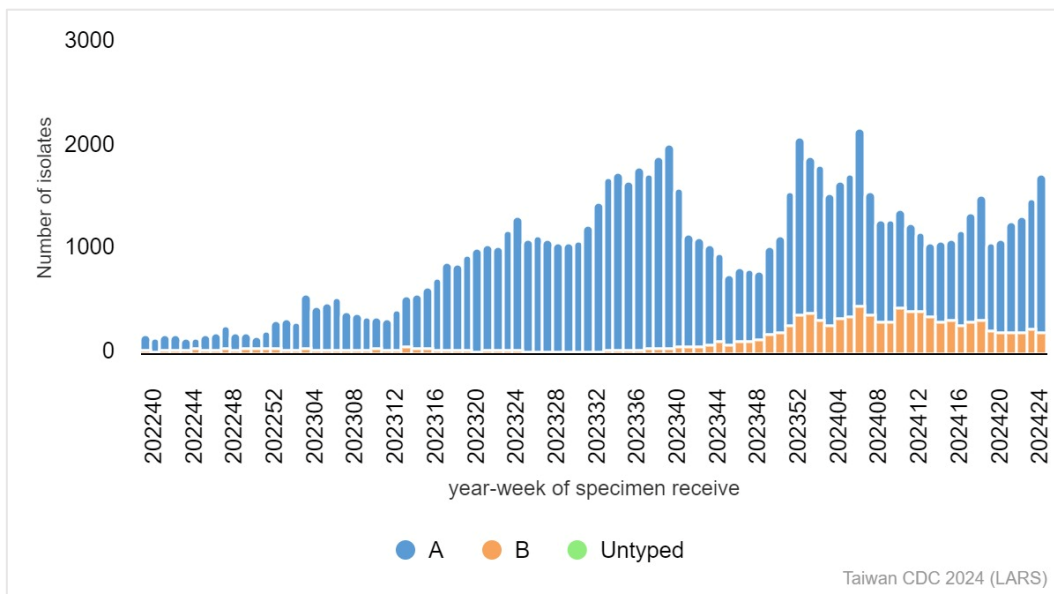
- The number of visits to outpatient and ER for ILI has shown an increasing trend. The percentage of emergency visits is above the epidemic threshold.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 75.8% and influenza B accounted for 24.2%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 1,144 influenza cases with severe complications, of which 214 cases were fatal.

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

### Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has showed an increasing trend. Over the last four weeks, influenza A positive specimens accounted for 86%, and influenza B positive specimens accounted for 14%. 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



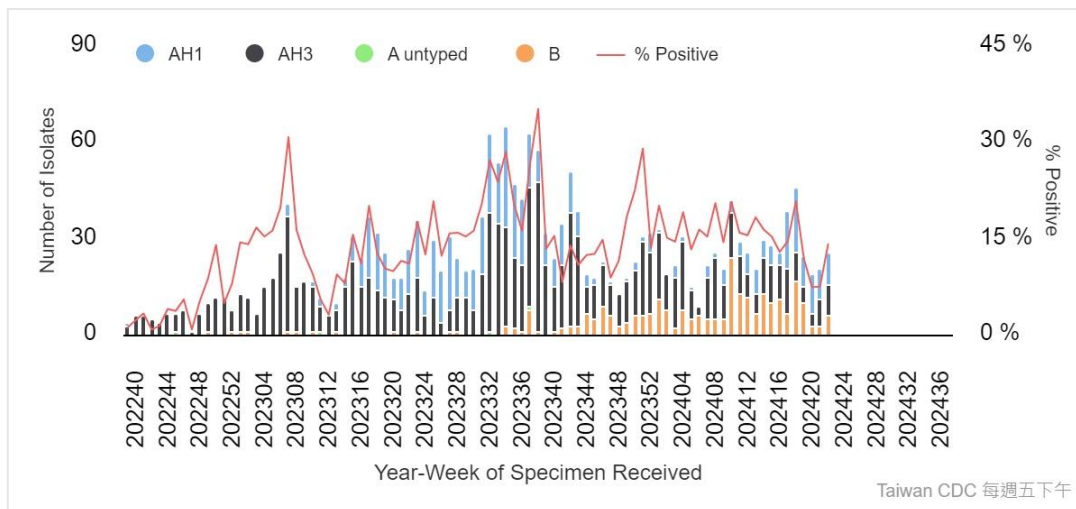
<sup>1</sup> In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



## Contracted Virology Laboratories Surveillance

During week 20 to 23, the number of isolated influenza A viruses exceeded Influenza B. Among influenza isolates, A/H1N1 accounted for 46.1%, followed by A/H3N2 (29.7%), and influenza B (24.2%). 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), 172 of 179 influenza A/H1N1 viruses (96.1%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 322 of 345 influenza A/H3N2 viruses (93.3%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 171 of 171 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	172 (96.1%)	7 (3.9%)
A/Darwin/9/2021 (H3N2)-like virus	322 (93.3%)	23 (6.7%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	171 (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.

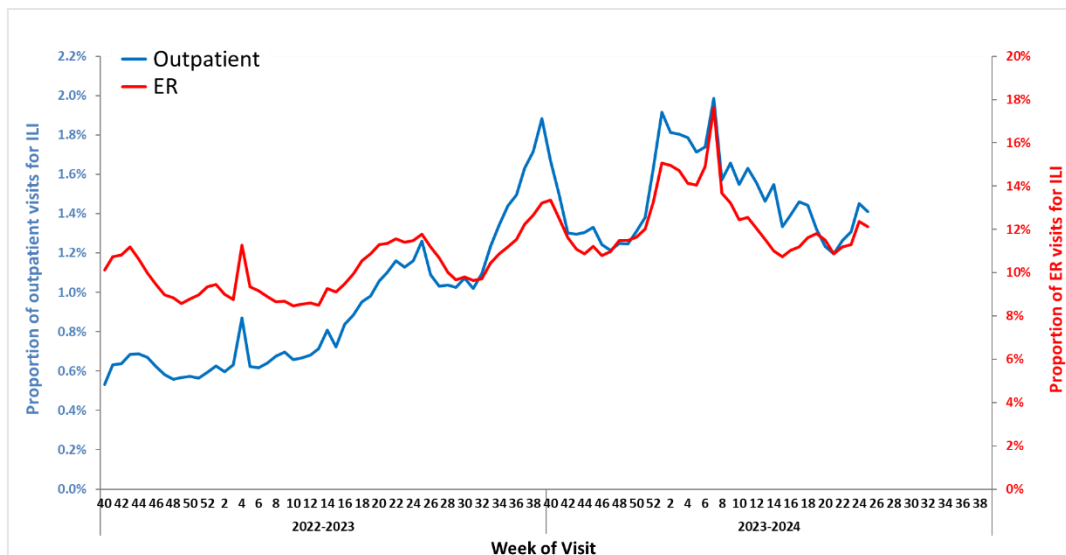
	No. of isolates tested	Resistance Viruses, n (%)
<b>A (H1N1)</b>	140	2 (1.4%)
<b>A (H3N2)</b>	421	2 (0.5%)
<b>B</b>	208	1 (0.5%)



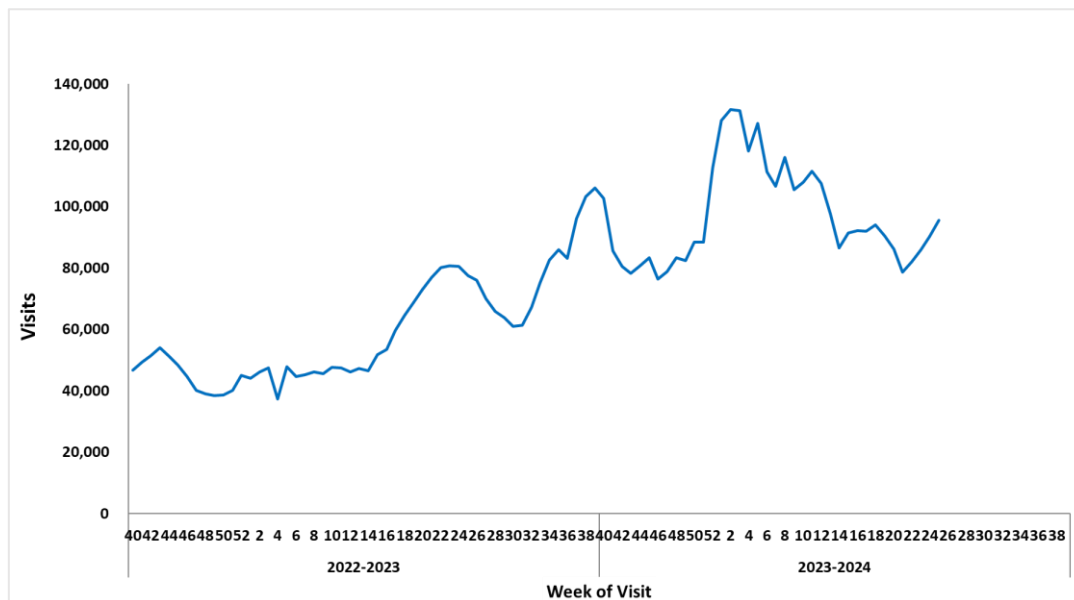
## Influenza-like Illness (ILI) Surveillance

During week 25, the proportions of ILI visits were 1.4% in outpatient and 12.1% in ER, with the latter percentage above the epidemic threshold (11.0%). The total number of visits for ILI was 95,519, which has been increasing recently. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



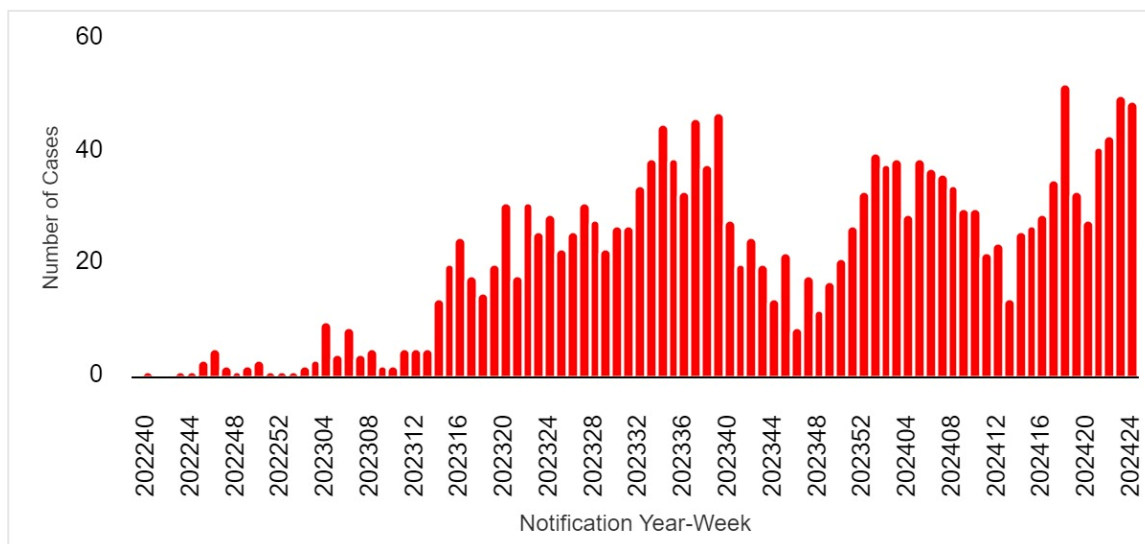
Total number of ILI visits in outpatient and ER



## Influenza Case with Severe Complications

There were 77 newly confirmed influenza cases with severe complications (65 of H1N1, 5 of H3N2, 3 of untyped influenza A, and 4 of influenza B), and 10 fatal cases (all of H1N1). During 2023-2024 influenza season, a total of 1,144 influenza cases with severe complications (535 of H1N1, 492 of H3N2, 16 of untyped influenza A, and 101 of influenza B) were confirmed, of which 214 cases were fatal (105 of H1N1, 90 of H3N2, 2 of untyped influenza A, and 17 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

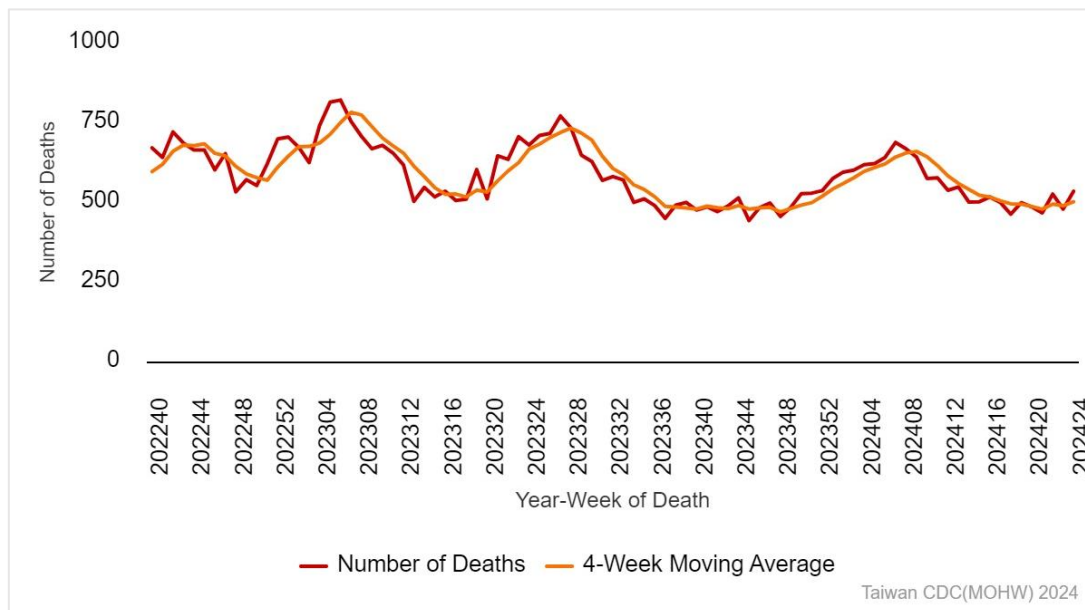
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	6	1	1.35	0.23
3-6 y	22	1	2.95	0.13
7-18 y	59	5	2.41	0.20
19-24 y	8	1	0.52	0.06
25-49 y	167	24	1.92	0.28
50-64 y	231	30	4.37	0.57
65 +	651	152	15.54	3.63
Total	1,144	214	4.89	0.92



## 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 slightly increased. 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



<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.

