



## Synopsis

The epidemic of influenza-like illness (ILI) is above the threshold. 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.

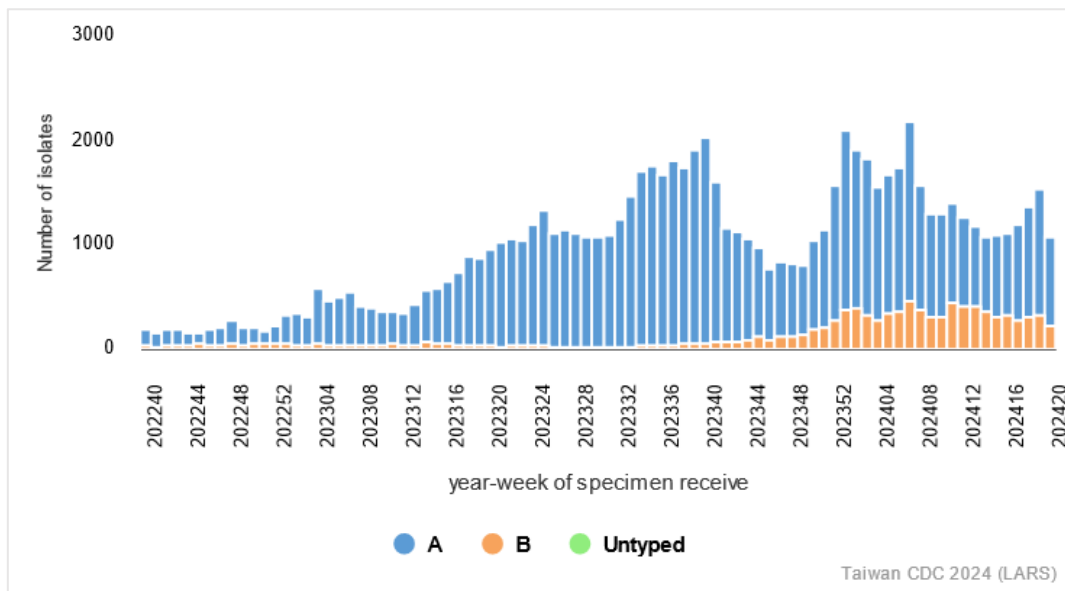
- The number of visits to outpatient and ER for ILI has decreased for two consecutive weeks; however, the percentage of ER visits remains above the epidemic threshold.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 66.4% and influenza B accounted for 33.6%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 907 influenza cases with severe complications, of which 162 cases were fatal.

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

### Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens was lower than the previous week. Over the last four weeks, influenza A positive specimens accounted for 78%, and influenza B positive specimens accounted for 22%. 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



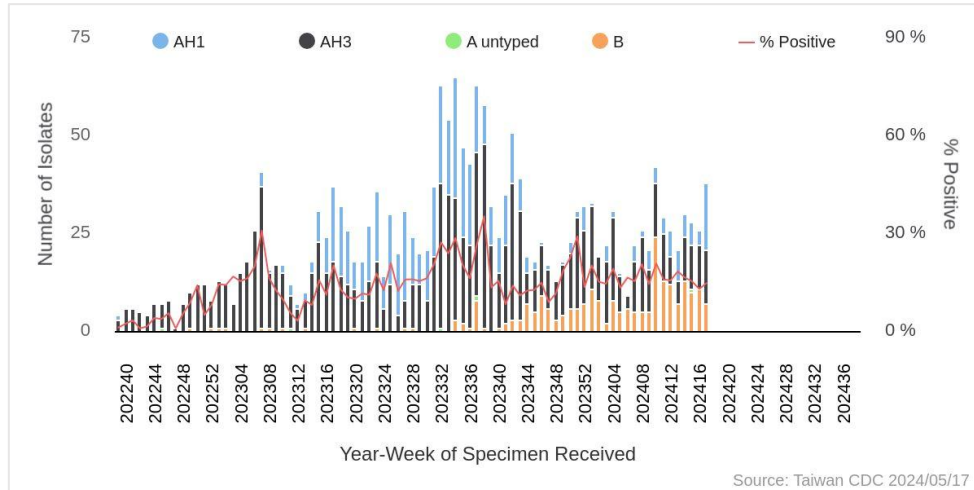
<sup>1</sup> In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



## Contracted Virology Laboratories Surveillance

During week 15 to 18, the number of isolated influenza A viruses exceeded Influenza B. Among influenza isolates, A/H3N2 accounted for 38.5%, followed by influenza B (33.6%), A/H1N1 (27.0%) and untyped influenza A (0.8%). 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), 130 of 135 influenza A/H1N1 viruses (96.3%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 298 of 315 influenza A/H3N2 viruses (94.6%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 145 of 145 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	130 (96.3%)	5 (3.7%)
A/Darwin/9/2021 (H3N2)-like virus	298 (94.6%)	17 (5.4%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	145 (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.

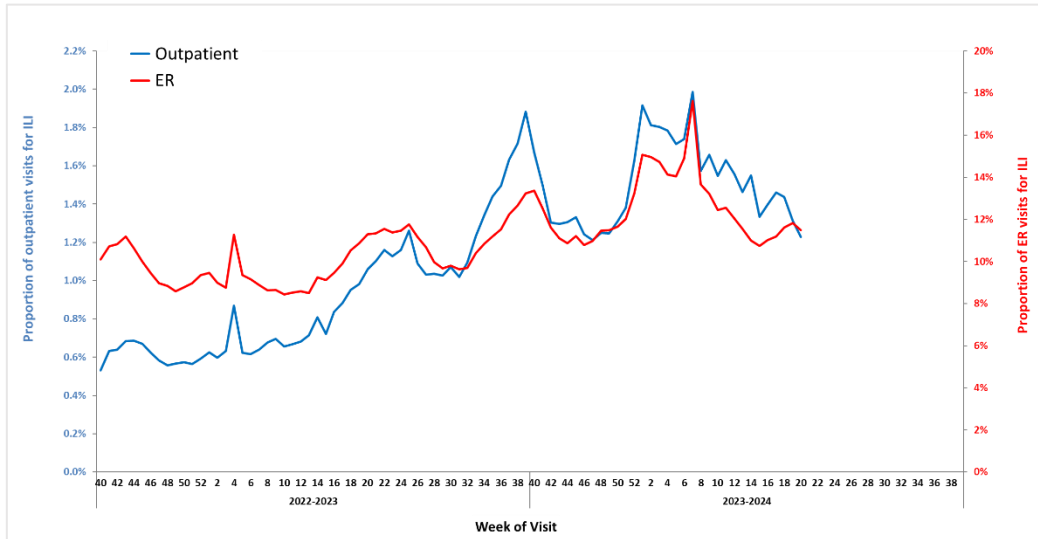
	No. of isolates tested	Resistance Viruses, n (%)
<b>A (H1N1)</b>	120	1 (0.8%)
<b>A (H3N2)</b>	390	1 (0.3%)
<b>B</b>	184	1 (0.5%)



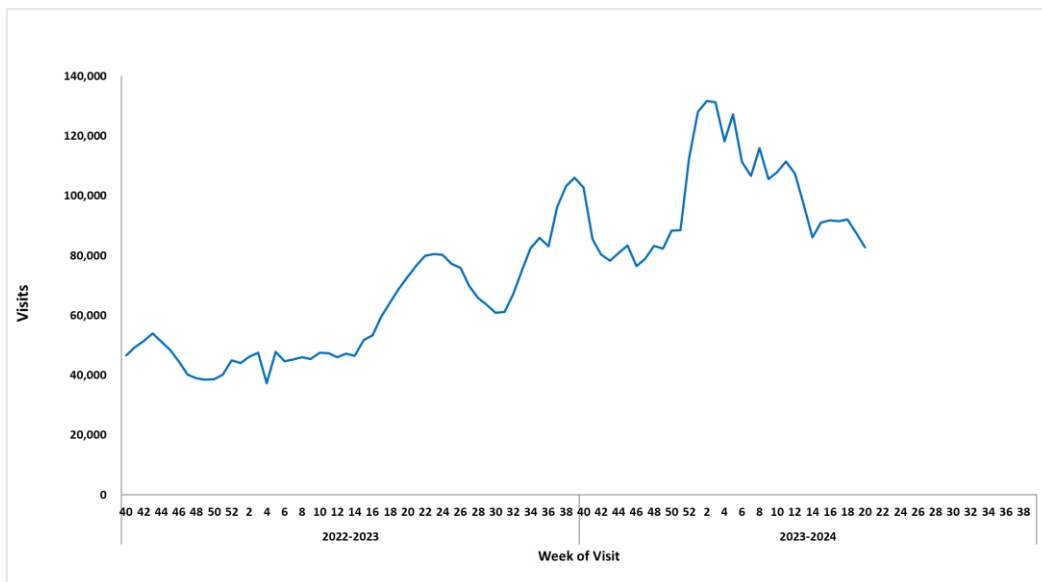
## Influenza-like Illness (ILI) Surveillance

During week 20, the proportions of ILI visits were 1.2% in outpatient and 11.5% in the ER, with the latter percentage remaining above the epidemic threshold (11.0%). The total number of visits for ILI was 82,839, showing a decrease for the consecutive two weeks. Data are available at <https://nidss.cdc.gov.tw/>.

### Proportions of ILI visits in outpatient and ER



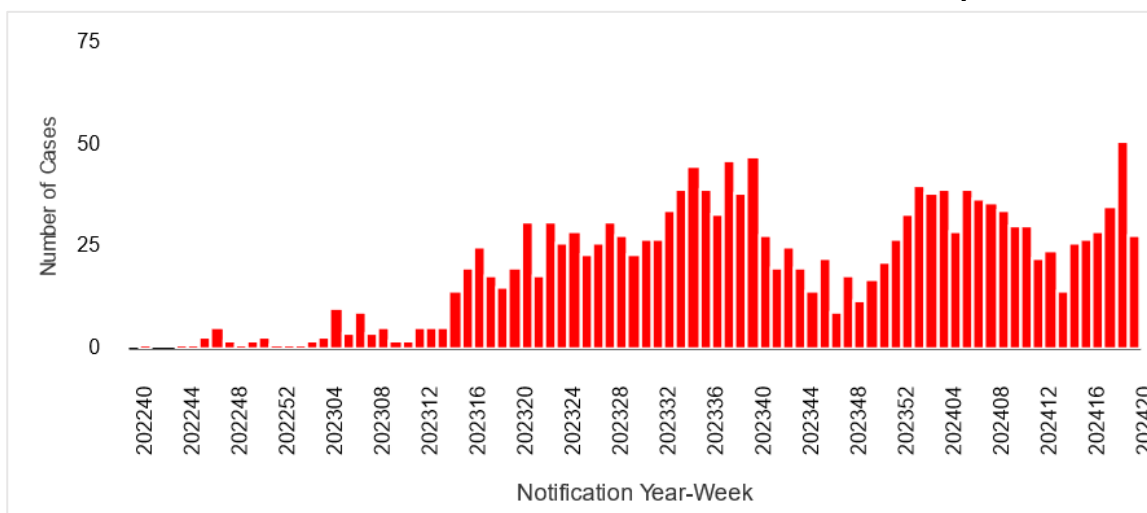
### Total number of ILI visits in outpatient and ER



## Influenza Case with Severe Complications

There were 38 newly confirmed influenza cases with severe complications (24 of H1N1, 5 of H3N2, 3 of untyped influenza A, and 6 of influenza B), and 9 fatal cases (all of H1N1). During 2023-2024 influenza season, a total of 907 influenza cases with severe complications (339 of H1N1, 472 of H3N2, 12 of untyped influenza A, and 84 of influenza B) were confirmed, of which 162 cases were fatal (64 of H1N1, 84 of H3N2, 2 of untyped influenza A, and 12 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

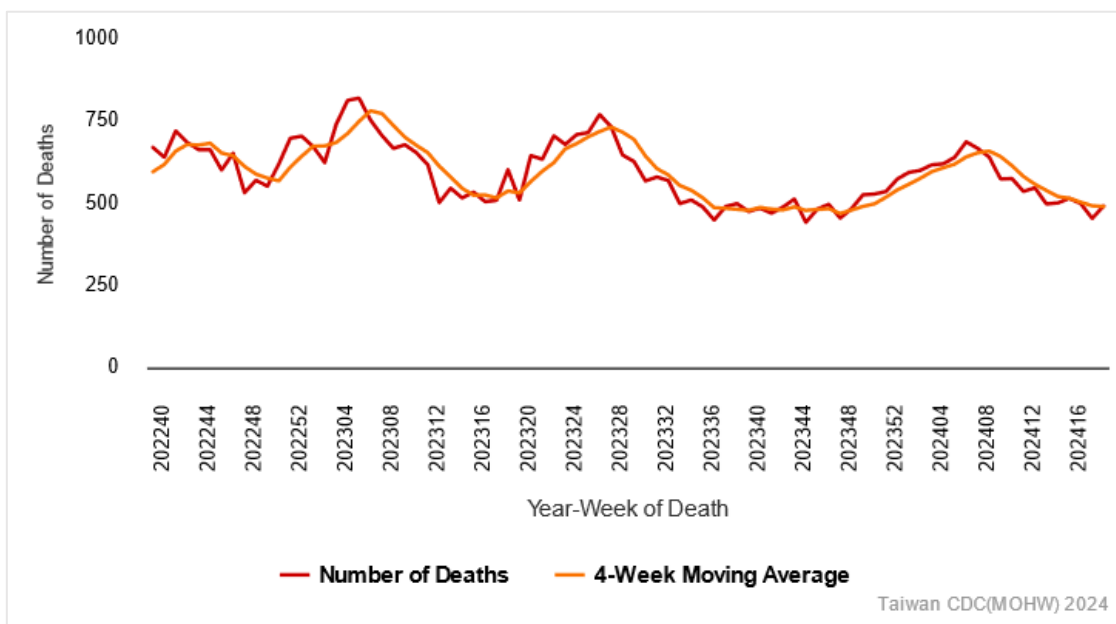
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	5	1	1.13	0.23
3-6 y	19	1	2.55	0.13
7-18 y	48	3	1.96	0.12
19-24 y	7	1	0.45	0.06
25-49 y	134	18	1.54	0.21
50-64 y	175	22	3.31	0.42
65 +	519	116	12.39	2.77
Total	907	162	3.88	0.69



## 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) slightly increased compared to the previous week, but the recent trend has been slowing down. 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.

