



Synopsis

The percentage of influenza-like illness (ILI) visits to emergency department (ER) has been below the epidemic threshold for two consecutive weeks, indicating the end of epidemic period. However, the numbers of influenza cases with severe complications and deaths remain high. It is essential to monitor subsequent changes in the epidemic situation and be aware of the risk of severe illness.

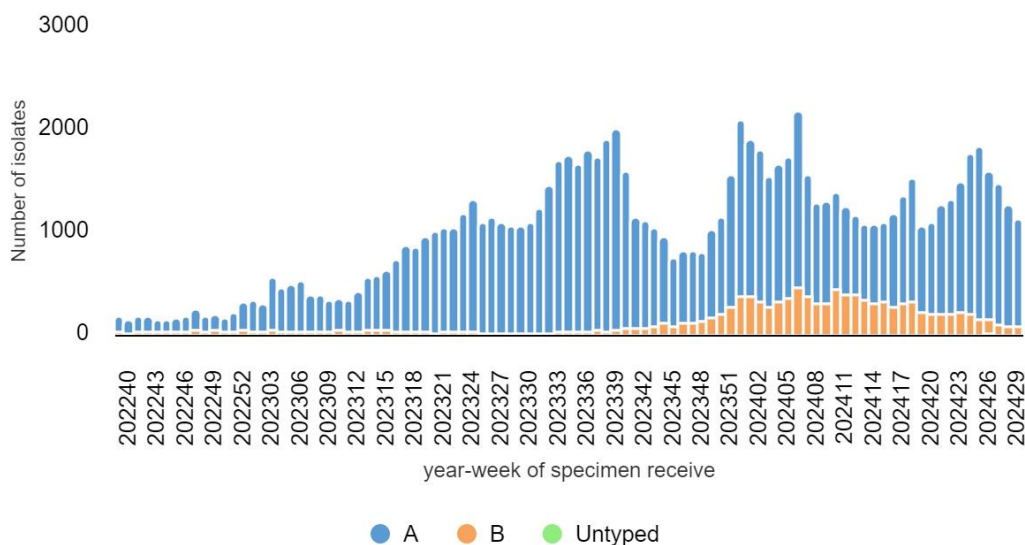
- The number of visits to outpatient and ER for ILI has shown a decreasing trend recently. The percentage of ILI visits to ER has been below the epidemic threshold for two consecutive weeks, indicating the end of epidemic period. However, it is still necessary to monitor subsequent changes in the epidemic situation.
- During the past four weeks, the result of Contracted Virology Laboratories surveillance indicated that among influenza isolates, influenza A accounted for 86.8% and influenza B accounted for 13.2%.
- During 2023-2024 influenza season (since October 1, 2023), there have been 1,433 influenza cases with severe complications, of which 297 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has been decreasing recently, but it remains at a high level. Over the last four weeks, influenza A positive specimens accounted for 93%, and influenza B positive specimens accounted for 7%. The proportion of influenza B has been declining. Data are available at <https://nidss.cdc.gov.tw/>.

Numbers of influenza-positive specimens from LARS



Taiwan CDC 2024 (LARS)

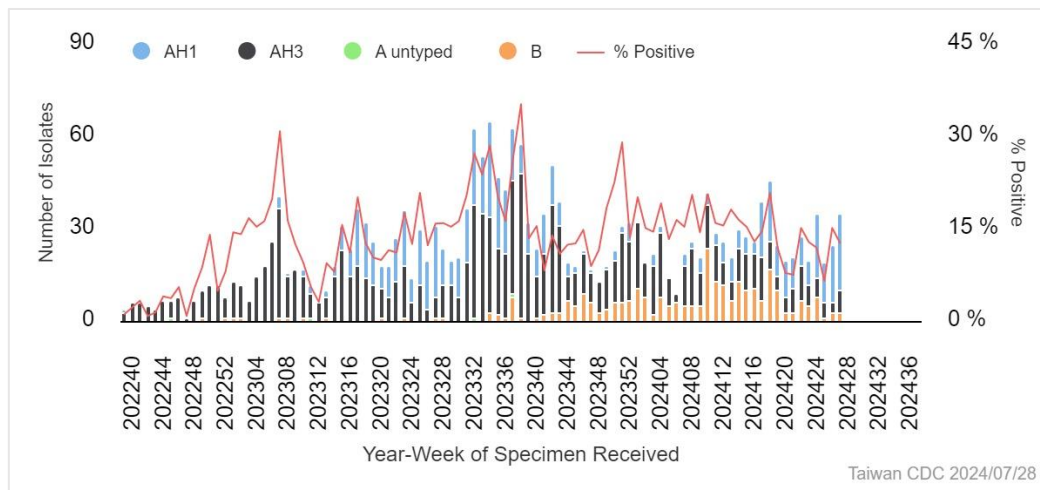
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 25 to 28, the number of isolated influenza A viruses exceeded Influenza B. Among influenza isolates, A/H1N1 accounted for 68.4%, followed by A/H3N2 (18.4%), and influenza B (13.2%). 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), 237 of 244 influenza A/H1N1 viruses (97.1%) were antigenically similar to the vaccine reference strain A/Victoria/4897/2022 (H1N1)pdm09, 339 of 364 influenza A/H3N2 viruses (93.1%) were antigenically similar to the vaccine reference strain A/Darwin/9/2021 (H3N2), and 186 of 186 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	237 (97.1%)	7 (2.9%)
A/Darwin/9/2021 (H3N2)-like virus	339 (93.1%)	25 (6.9%)
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	186 (100.0%)	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.

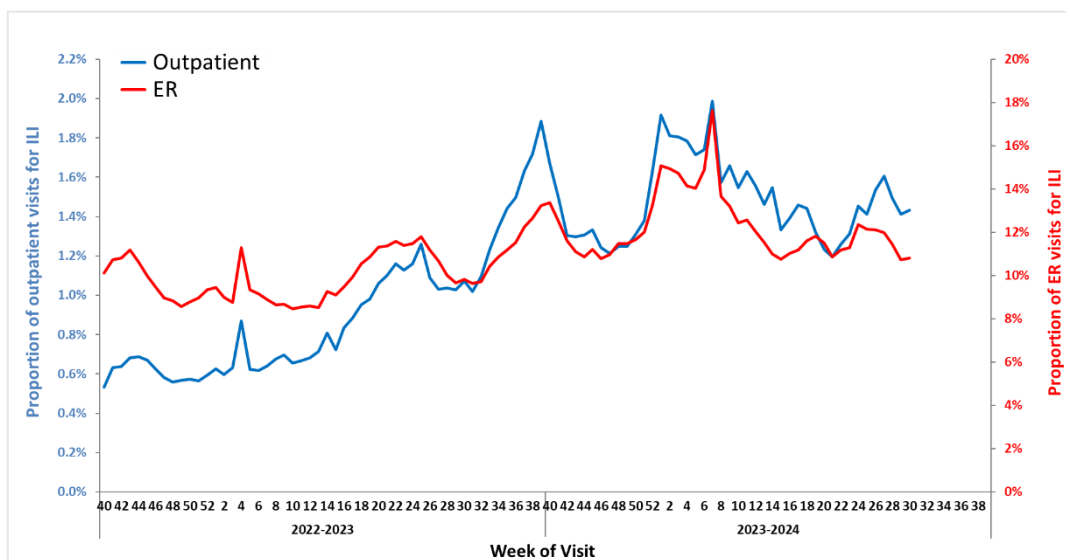
	No. of isolates tested	Resistance Viruses, n (%)
A (H1N1)	195	2 (1.0%)
A (H3N2)	451	2 (0.4%)
B	229	1 (0.4%)



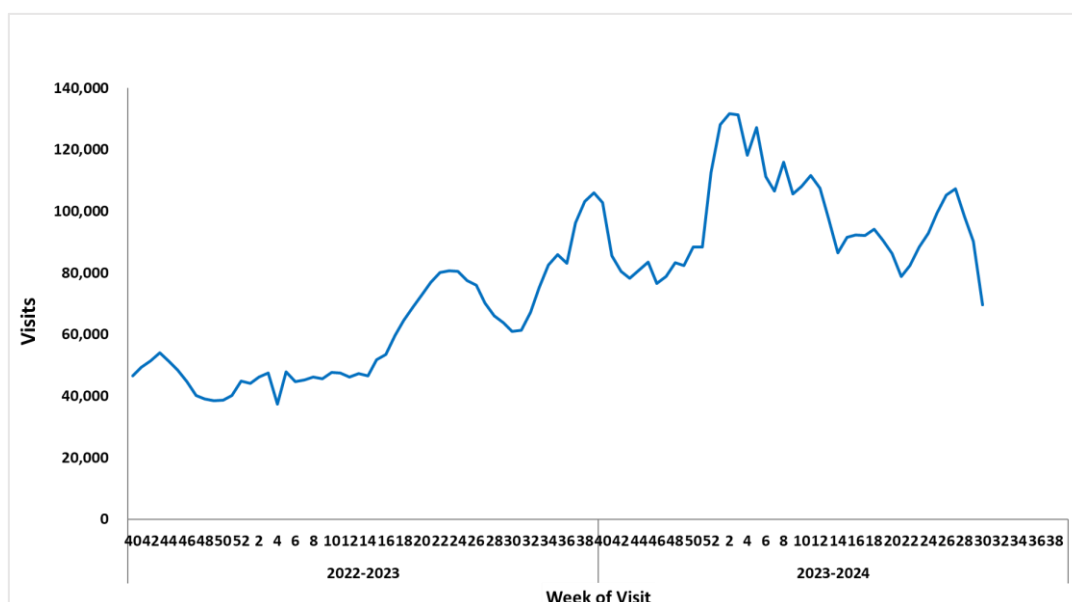
Influenza-like Illness (ILI) Surveillance

During week 30, the proportions of ILI visits were 1.4% in outpatient and 10.8% in ER, with the latter percentage has been below the epidemic threshold (11.0%) for two consecutive weeks, indicating that the epidemic period has ended. Due to the closure of some outpatient services caused by the typhoon, the total number of visits for ILI was 69,596. It is still necessary to monitor subsequent changes in the epidemic situation. Data are available at <https://nidss.cdc.gov.tw/>.

Proportions of ILI visits in outpatient and ER



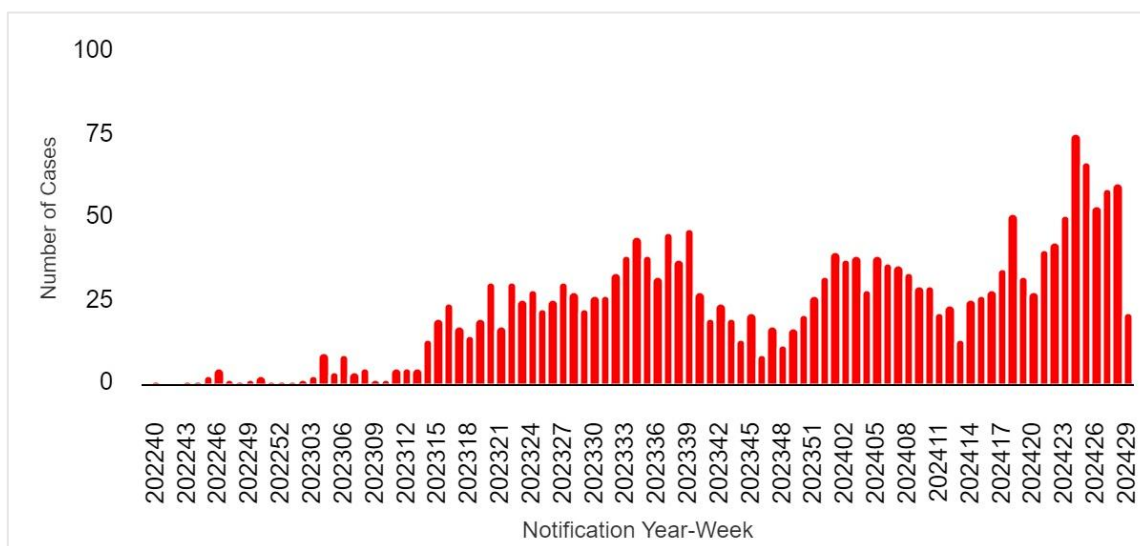
Total number of ILI visits in outpatient and ER



Influenza Case with Severe Complications

There were 44 newly confirmed influenza cases with severe complications (40 of H1N1, 2 of H3N2, and 2 of untyped influenza A), and 16 fatal cases (all of H1N1). During 2023-2024 influenza season, a total of 1,433 influenza cases with severe complications (802 of H1N1, 505 of H3N2, 22 of untyped influenza A, and 104 of influenza B) were confirmed, of which 297 cases were fatal (176 of H1N1, 95 of H3N2, 7 of untyped influenza A, and 19 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

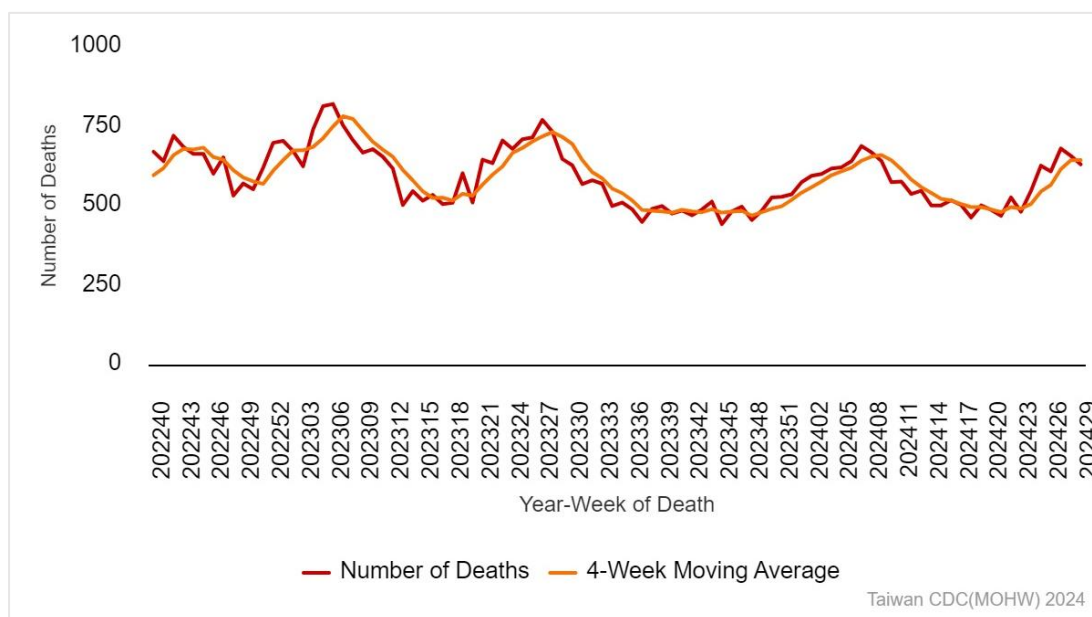
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	6	1	1.35	0.23
3-6 y	29	3	3.89	0.40
7-18 y	72	6	2.94	0.25
19-24 y	8	1	0.52	0.06
25-49 y	195	31	2.24	0.36
50-64 y	298	42	5.63	0.79
65 +	825	213	19.70	5.09
Total	1,433	297	6.13	1.27



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, but the 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



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.

