



Synopsis

Influenza is in an epidemic period. The epidemic trend decreases recently, with A/H3N2 circulating in the community. However, it is still necessary to be cautious as the epidemic remains higher than the same period in the past three years.

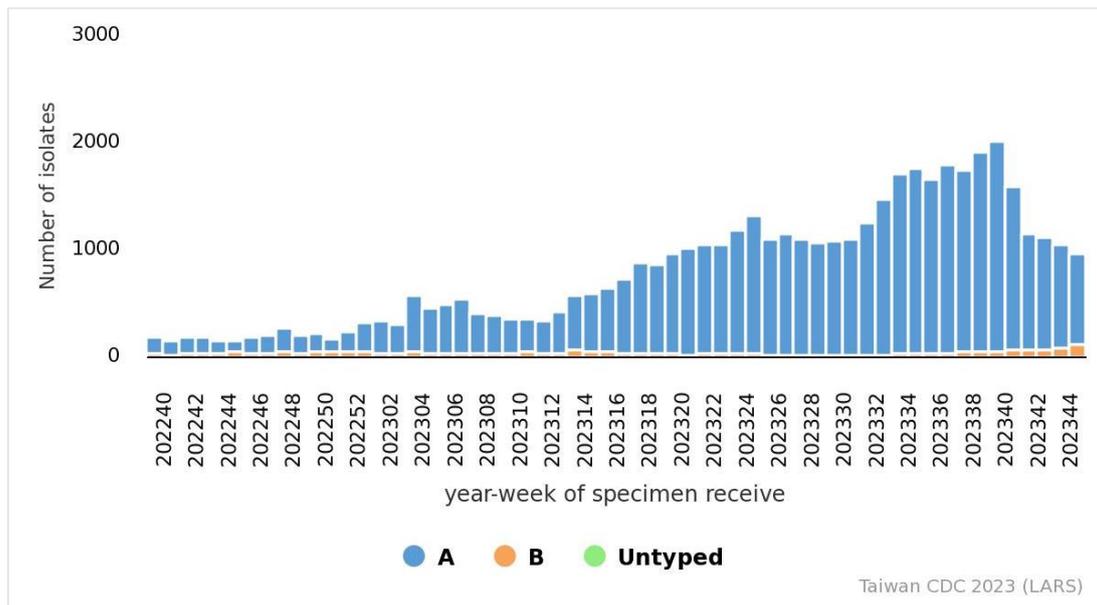
- During the last four weeks, A/H3N2 has been the predominant strain circulating in the community.
- The number of medical visits for influenza-like illness (ILI) in outpatient and ER has shown a decreasing trend recently, but still higher than the same period in the last three years.
- During 2023-2024 influenza season (since October 1, 2023), there have been 135 influenza cases with severe complications, of which 14 cases were fatal.

Laboratory Surveillance¹

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens has been decreasing recently. Over the last four weeks, the proportion of influenza A positive specimens was 94%, and the proportion of influenza B slightly increased.

Numbers of influenza-positive specimens from LARS



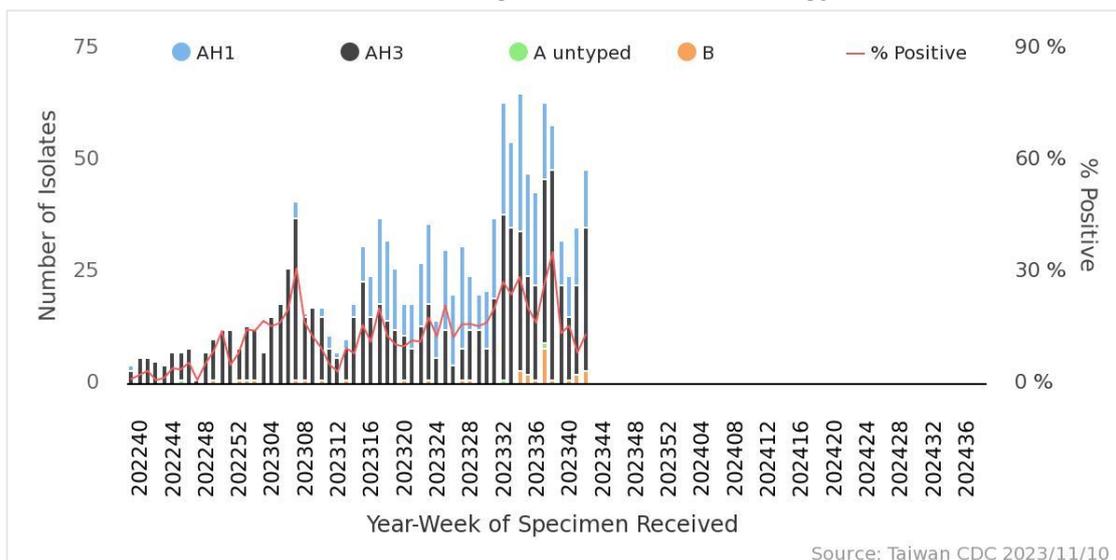
¹ In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.



Contracted Virology Laboratories Surveillance

During week 40 to week 43, the predominant isolated influenza virus was A/H3N2 (63.3%), followed by A/H1N1 (32.4%) and influenza B (4.3%). 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. isolates tested	LR*	LR%
A/Victoria/4897/2022 (H1N1)pdm09-like virus	15	0	0.0%
A/Darwin/9/2021 (H3N2)-like virus	12	1	8.3%
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	4	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.

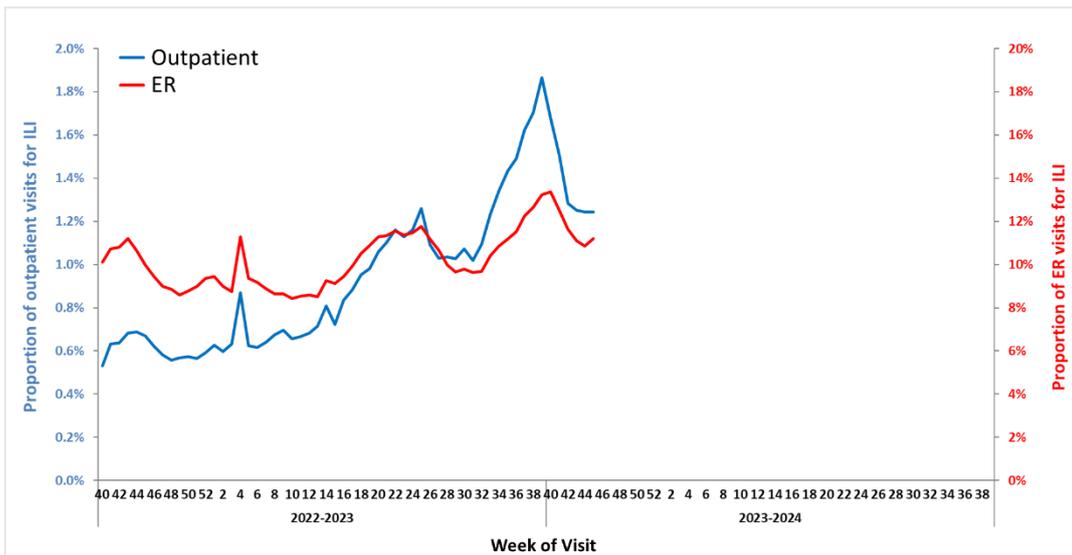
	No. isolates tested	Resistance Viruses, n (%)
A (H1N1)	32	0 (0%)
A (H3N2)	49	0 (0%)
B	6	0 (0%)



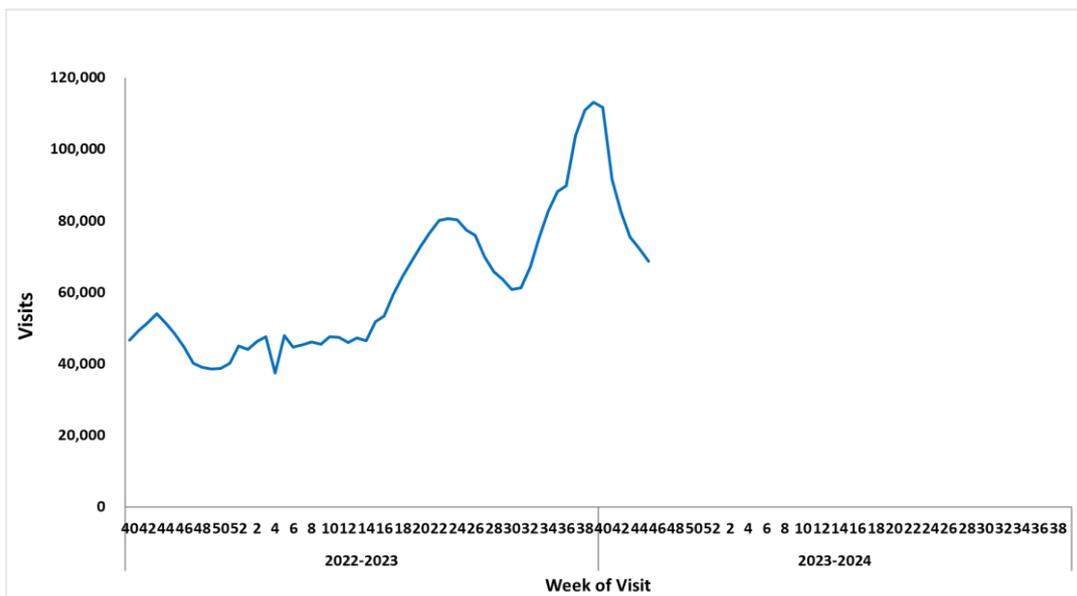
Influenza-like Illness (ILI) Surveillance

During week 45, the proportions of ILI visits were 1.2% and 11.2% in outpatient and ER, respectively. The total number of visits for ILI in outpatient and ER was 68,564, showing a decreasing trend recently; however, it is still higher than the same period in the past three years.

Percentages of outpatient and ER visits for ILI



Total number of outpatient and ER visits for ILI



Influenza Case with Severe Complications

There were 15 newly confirmed influenza cases with severe complications (4 of H1N1, 8 of H3N2, 1 of untyped influenza A, and 2 of influenza B), and 4 fatal cases (3 of H1N1 and 1 of H3N2). During 2023-2024 influenza season, a total of 135 influenza cases with severe complications (63 of H1N1, 67 of H3N2, 1 of untyped influenza A, and 4 of influenza B) were confirmed, of which 14 cases were fatal (9 of H1N1 and 5 of H3N2).

Incidence of influenza cases with severe complications and mortality rate

2023-2024 influenza season (from October 1, 2023, to November 13, 2023)

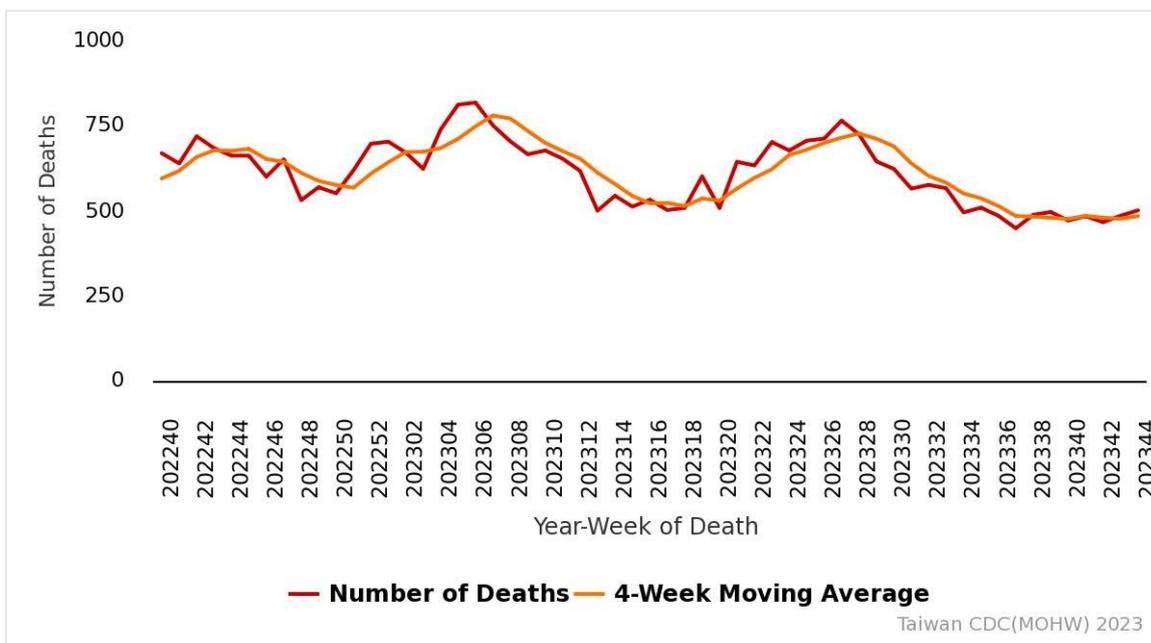
Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	3	1	0.68	0.23
3-6 y	1	0	0.13	0.00
7-18 y	5	0	0.20	0.00
19-24 y	0	0	0.00	0.00
25-49 y	16	1	0.18	0.01
50-64 y	31	5	0.59	0.09
65 +	79	7	1.89	0.17
Total	135	14	0.58	0.06



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 shown a slightly increase 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 P&I data are available at <https://nidss.cdc.gov.tw/>.

Weekly Number of Deaths due to 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.

