Synopsis

Influenza is in an epidemic period and shows an increasing trend recently, with A/H1N1 and A/H3N2 co-circulating in the community.

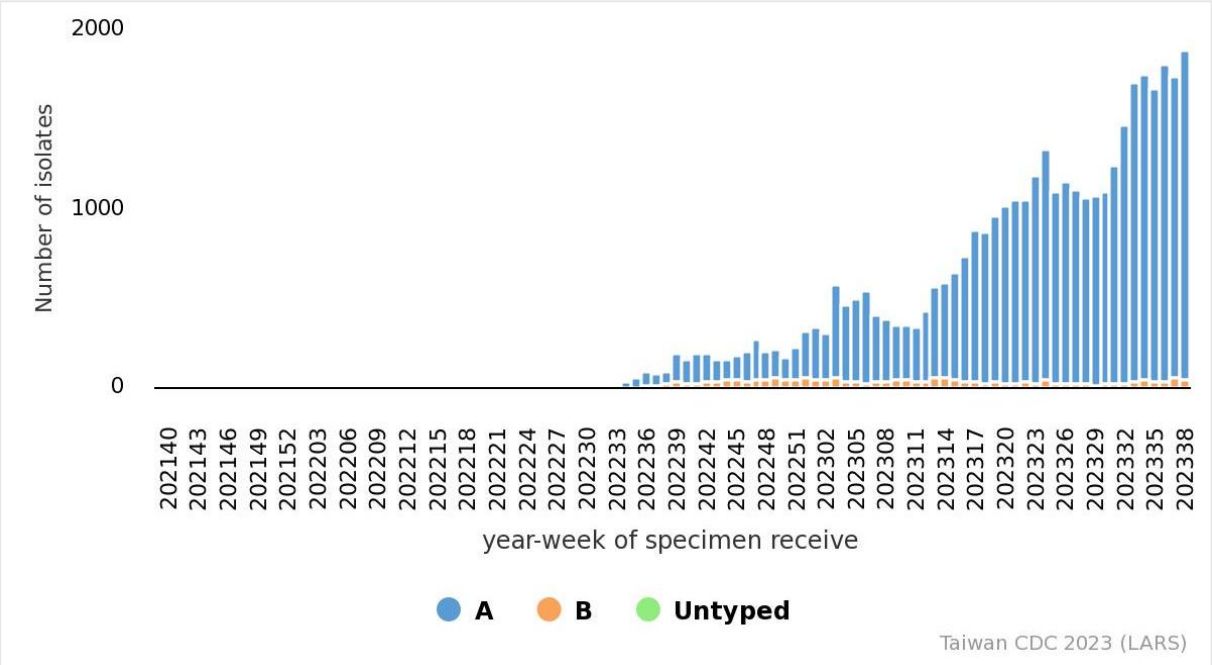
- Influenza A virus is circulating in the community. During the last four weeks, H1N1 and H3N2 were co-circulating.
- The number of medical visits for influenza-like illness (ILI) in outpatient and ER shows an increasing trend recently.
- Since October 1, 2022, there have been 781 influenza cases with severe complications (498 of H1N1, 264 of H3N2, 11 of untyped influenza A, and 8 of influenza B), and among them, 171 cases were fatal.

Laboratory Surveillance[1]

Laboratory Automated Reporting System (LARS)

The number of influenza-positive specimens shows an increasing trend recently. Over the last four weeks, the proportion of influenza A positive specimens was 98%.

Numbers of influenza-positive specimens from LARS

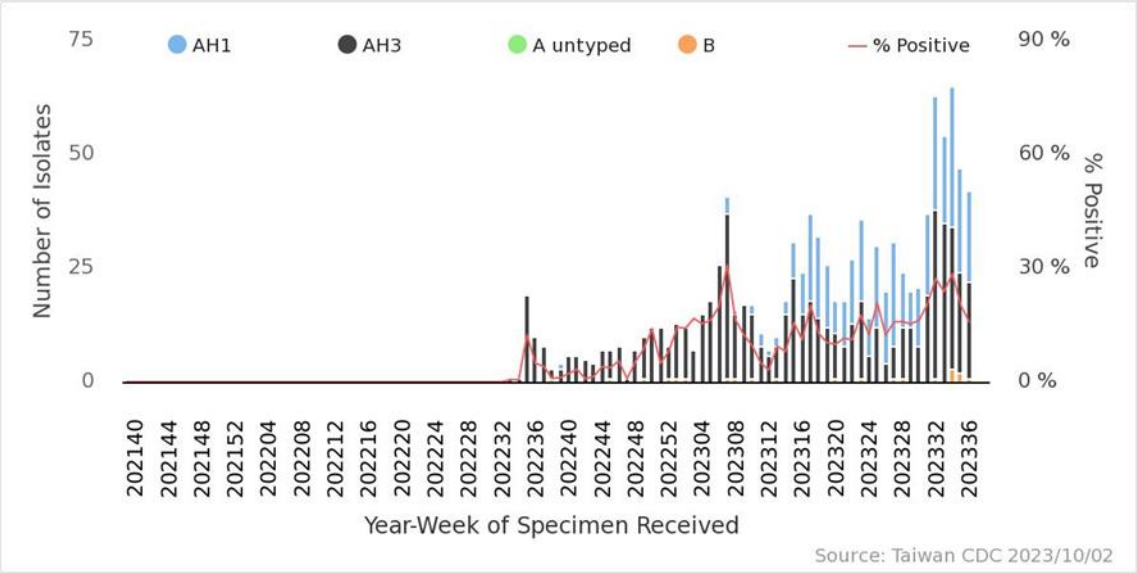


[1] In terms of the surveillance systems in Taiwan, please see: Jian, S. W., Chen, C. M., Lee, C. Y., & Liu, D. P. (2017). Real-Time Surveillance of Infectious Diseases: Taiwan's Experience. Health security, 15(2), 144-153.

Contracted Virology Laboratories Surveillance

The proportion of influenza-positive specimens of week 37 was 15.8%. During the last four weeks (week 34 to week 37), influenza A was the predominant virus type, with H3N2 and H1N1 accounting for 52.4% and 44.7%, respectively. Weekly virus data are available at https://nidss.cdc.gov.tw/.

Influenza isolates according to Contracted Virology Laboratories



Antigenicity

Since October 1, 2022, among those influenza isolates that were antigenically characterized, 100% of the influenza A (H1N1) virus isolates matched the A (H1N1) component of the 2022-23 influenza vaccine (A/Victoria/2570/2019 (H1N1)pdm09), and 98% of influenza A (H3N2) virus isolates matched the A (H3N2) component of the 2022-23 influenza vaccine (A/Darwin/9/2021). Among influenza B isolates, 100% were B/Victoria lineage, and 100% of those isolates matched the B component of the 2022-23 influenza vaccine (B/Austria/1359417/2021).

Antiviral Resistance

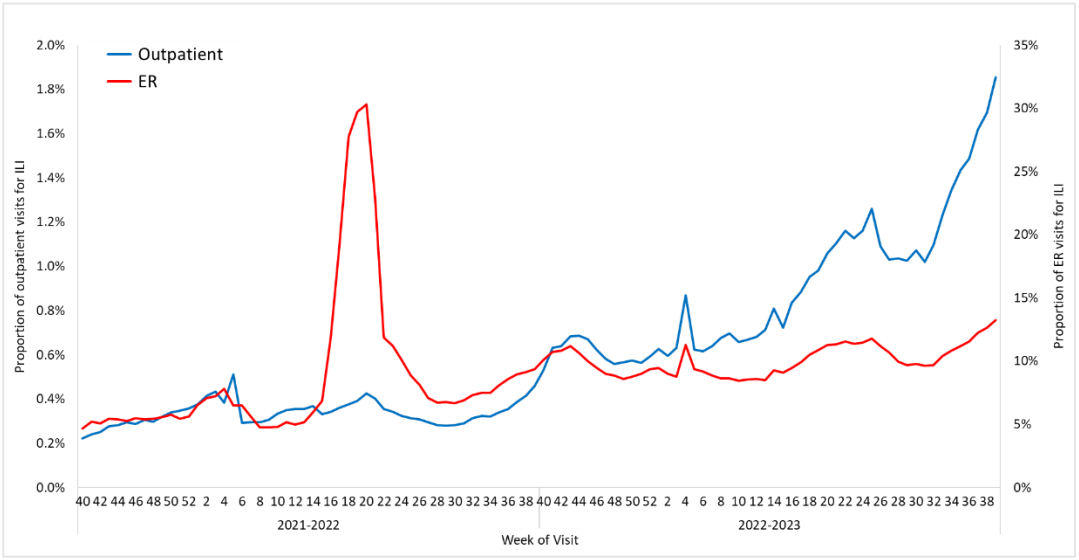
The table below summarized the antiviral resistance to neuraminidase inhibitor (Oseltamivir) of the isolates since October 1, 2022.

	Isolates tested (n)	Resistance Viruses, n (%)
		Oseltamivir
A (H1N1)	284	2 (0.7%)
A (H3N2)	580	0
B	15	0

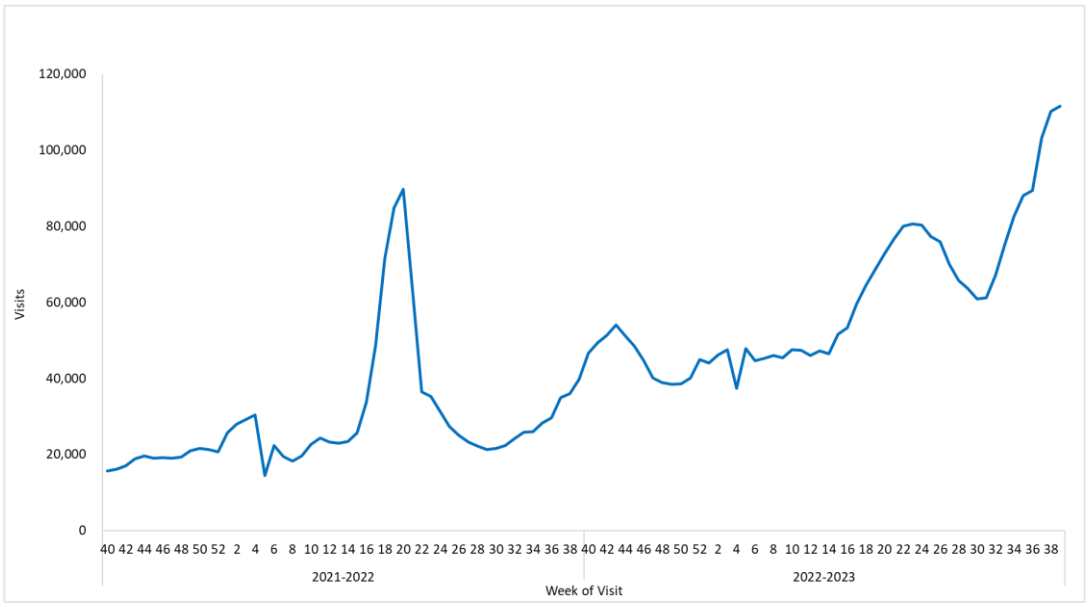
Influenza-like Illness (ILI) Surveillance

During week 39, the proportions of ILI visits were 1.9% and 13.2% in outpatient and ER, respectively. The total number of visits for ILI in outpatient and ER was 111,536 in week 39, and the trend has been increasing recently.

Percentages of outpatient and ER visits for ILI



Total number of outpatient and ER visits for ILI



Influenza Case with Severe Complications

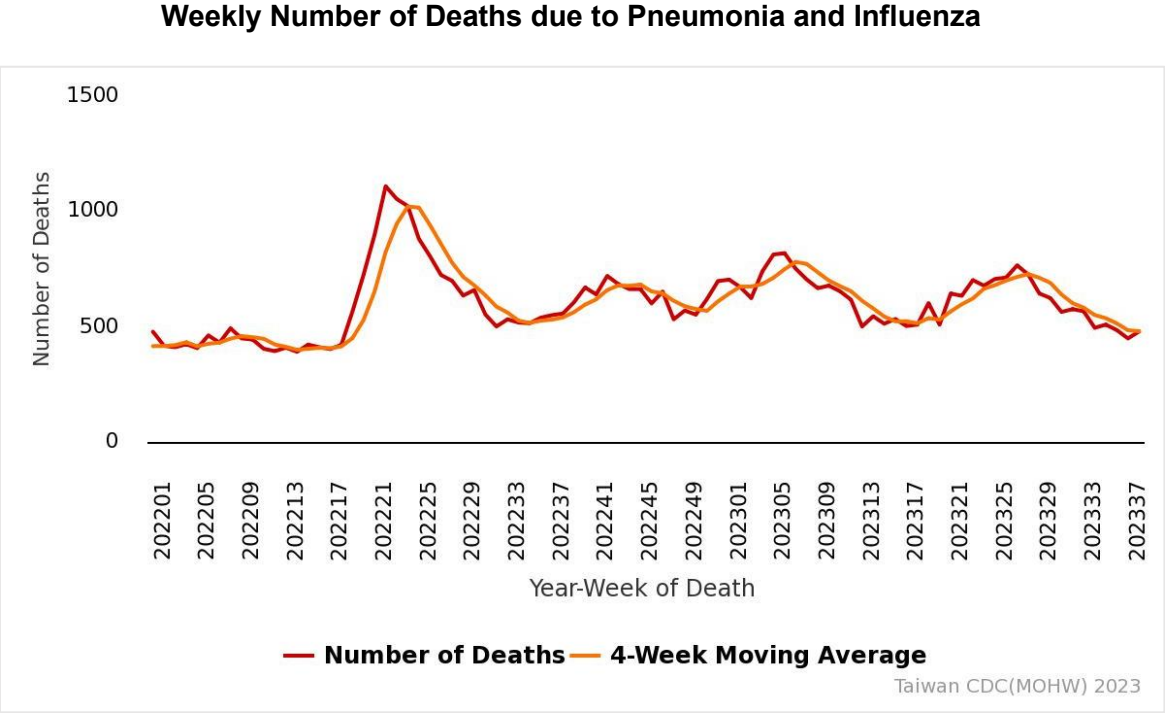
There were 41 newly confirmed influenza cases with severe complications (25 of H1N1, 15 of H3N2 and 1 of untyped influenza A), and 7 fatal cases (4 of H1N1 and 3 of H3N2). Since October 1, 2022, a total of 781 influenza cases with severe complications (498 of H1N1, 264 of H3N2, 11 of untyped influenza A, and 8 of influenza B) have been confirmed, and among them, 171 cases (125 of H1N1, 41 of H3N2, 3 of untyped influenza A, and 2 of influenza B) were fatal.

Incidence of influenza cases with severe complications and mortality rate
October 1, 2022, to September 30, 2023

Age Group	Cases	Deaths	Cumulative incidence per 100,000 population	Cumulative mortality per 100,000 population
< 3 y	7	0	1.5	0
3-6 y	18	2	2.3	0.3
7-18 y	39	3	1.6	0.1
19-24 y	6	0	0.4	0
25-49 y	104	16	1.2	0.2
50-64 y	184	38	3.5	0.7
65 +	423	112	10.6	2.8
Total	781	171	3.4	0.7

Pneumonia and Influenza (P&I) Mortality Surveillance

Based on the Internet System for Death Reporting (ISDR)[2] data, the trend of deaths attributed to pneumonia and influenza (P&I) shows a decrease trend 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/.



[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.