

FLU EXPRESS



Flu Express is a weekly report produced by the Respiratory Disease Office of the Centre for Health Protection. It monitors and summarizes the latest local and global influenza activities.

Local Situation of Influenza Activity (as of Jul 26, 2017)

Reporting period: Jul 16 – 22, 2017 (Week 29)

- The latest surveillance data showed that the local influenza activity remained at a very high level in the past week. It is foreseen that the influenza activity will remain at a very high level in the coming weeks.
- The Centre for Health Protection (CHP) has collaborated with the Hospital Authority (HA) and private hospitals to reactivate the enhanced surveillance for severe seasonal influenza cases (i.e. influenza-associated admissions to intensive care unit or deaths) among patients aged 18 or above since May 5, 2017. As of Jul 26, 361 severe cases (including 252 deaths) were recorded. Separately, 18 cases of severe paediatric influenza-associated complication/death (including three deaths) (aged below 18 years) were recorded in the same period.
- Apart from adopting personal, hand and environmental hygiene practices against respiratory illnesses, those members of the public who have not received influenza vaccine may get the vaccination as soon as possible for personal protection.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Given that seasonal influenza vaccines are safe and effective, all persons aged 6 months or above except those with known contraindications are recommended to receive influenza vaccine for personal protection.
- In the coming 2017/18 season, the Vaccination Subsidy Scheme will continue to provide subsidised vaccination to children aged 6 months to under 12 years, elderly aged 65 years or above, pregnant women, persons with intellectual disabilities and recipients of Disability Allowance. Eligible groups for free vaccination will be the same as that of 2016/17 under the Government Vaccination Programme. The various vaccination programmes will be launched in Oct / Nov 2017 and the details will be announced in due course.

Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2013-17

In week 29, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 12.2 ILI cases per 1,000 consultations, which was lower than 14.2 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 76.4 ILI cases per 1,000 consultations, which was higher than 65.5 recorded in the previous week (Figure 1, right).

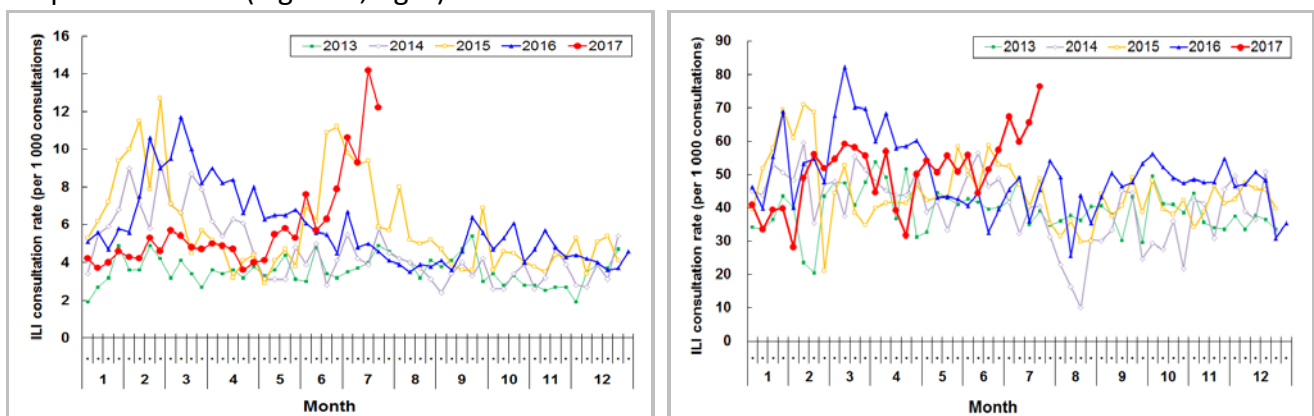


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 29, 2667 (39.00%) were tested positive for seasonal influenza viruses, including 102 (1.49%) influenza A(H1), 2492 (36.44%) influenza A(H3), 52 (0.76%) influenza B and 21 (0.31%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 39.00%, which was lower than 40.86% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of A(H3), A(H1), B and C were 93.4%, 3.8%, 1.9% and 0.8% respectively.

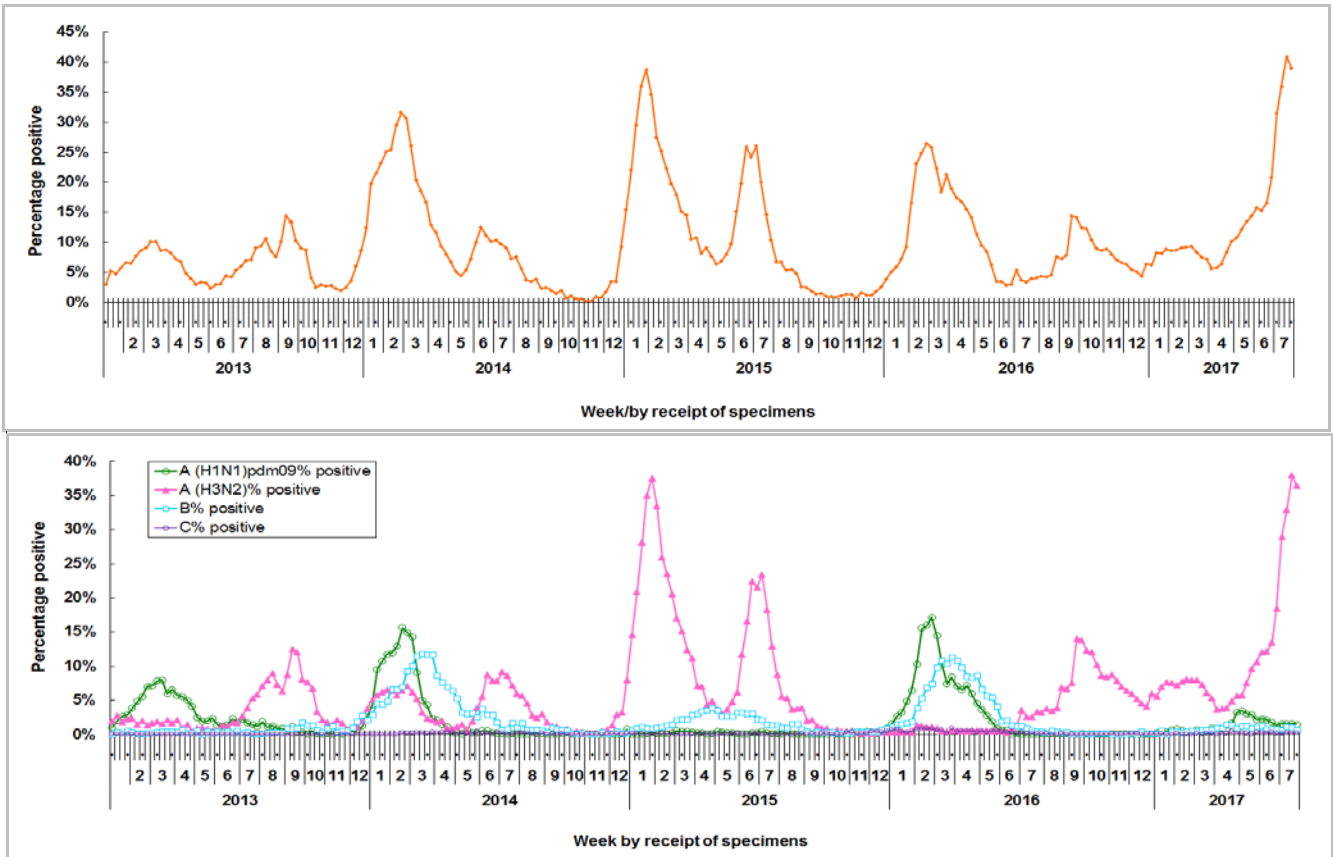


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2013-17

In week 29, 41 ILI outbreaks occurring in schools/institutions were recorded (affecting 204 persons), as compared to 44 outbreaks recorded in the previous week (affecting 233 persons) (Figure 3). In the first 4 days of week 30 (Jul 23 to 26, 2017), 27 institutional ILI outbreaks were recorded (affecting 133 persons).

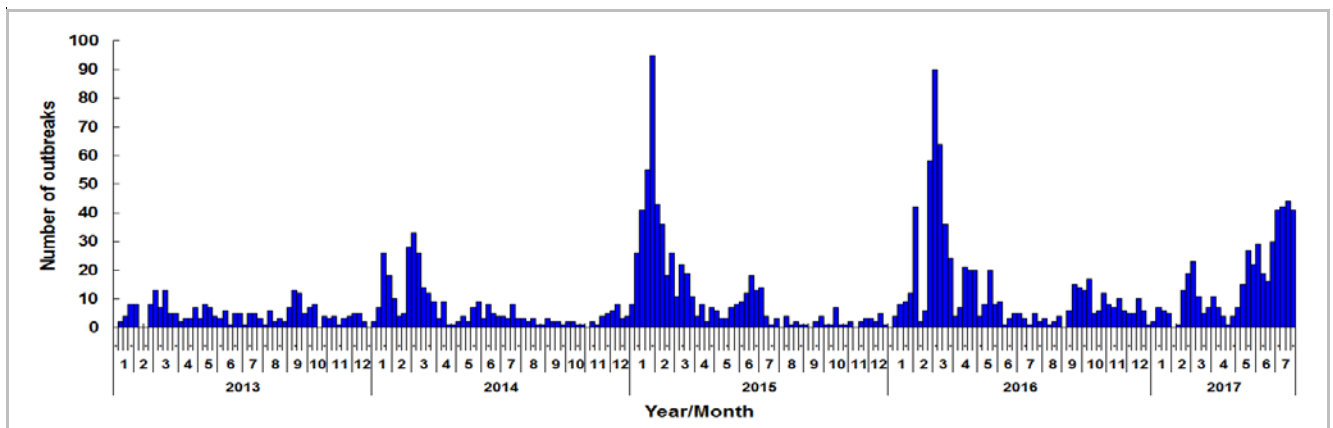


Figure 3 ILI outbreaks in schools/institutions, 2013-17

Rate of influenza-like illness syndrome group in accident and emergency departments, 2013-17[#]

In week 29, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 233.4 (per 1,000 coded cases), which was the same as that in the previous week (Figure 4).

#Note: The influenza-like illness syndrome group includes codes such as influenza, upper respiratory tract infection, fever, cough, throat pain, and pneumonia.

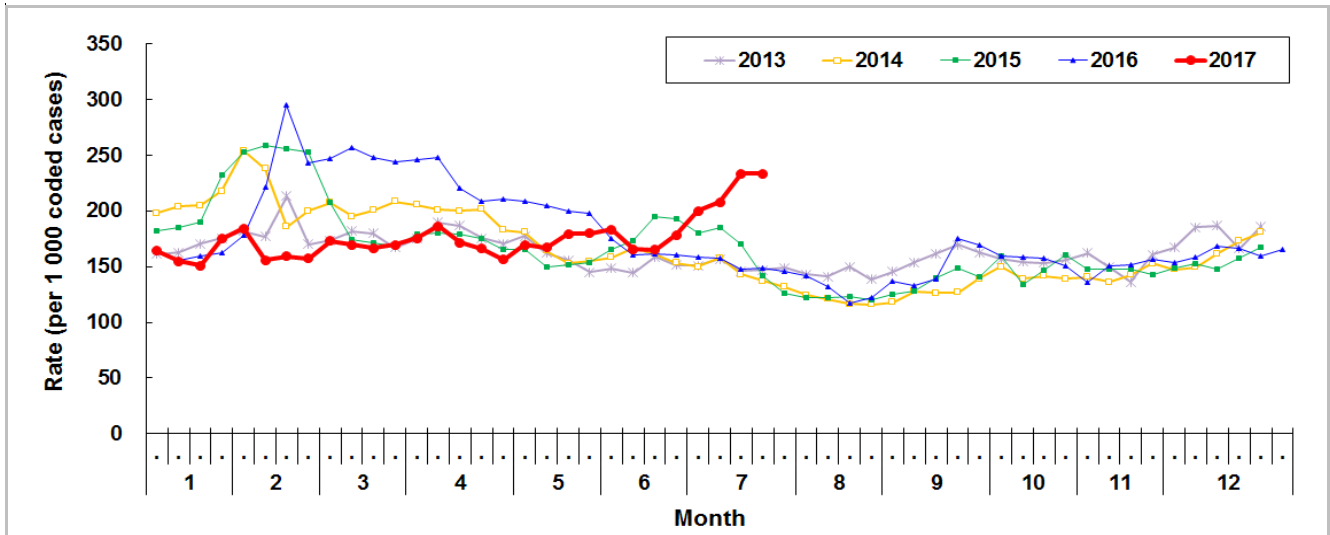


Figure 4 Rate of ILI syndrome group in AED, 2013-17

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2013-17

In week 29, the admission rates in public hospitals with principal diagnosis of influenza for persons aged 0-4 years, 5-9 years, 10-64 years and 65 years or above were 7.16, 1.75, 0.37 and 5.27 cases (per 10,000 people in the age group) respectively, as compared to 9.80, 2.12, 0.51 and 6.40 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

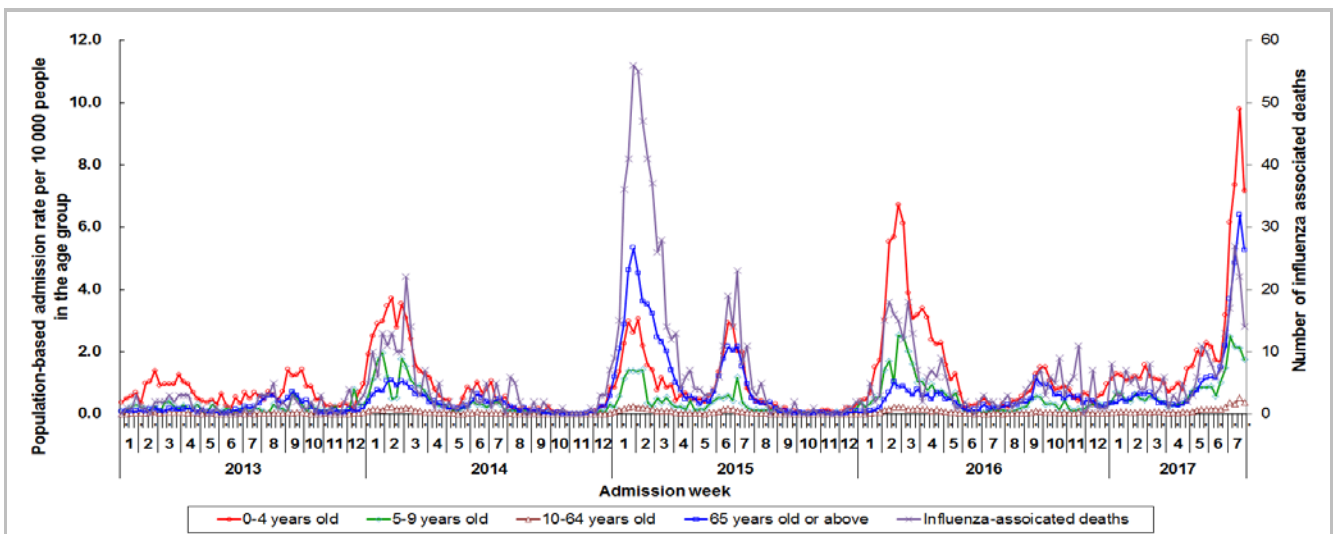


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

Fever surveillance at sentinel child care centres/ kindergartens, 2013-17

In week 29, 1.25% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.89% recorded in the previous week (Figure 6).

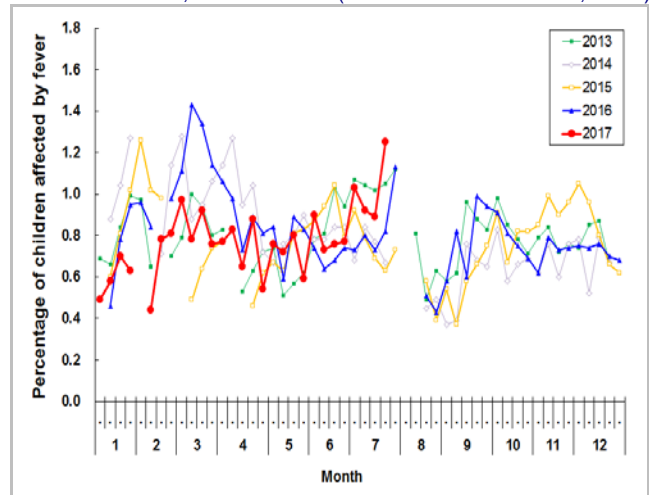


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

Fever surveillance at sentinel residential care homes for the elderly, 2013-17

In week 29, 0.19% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above) as compared to 0.20% recorded in the previous week (Figure 7).

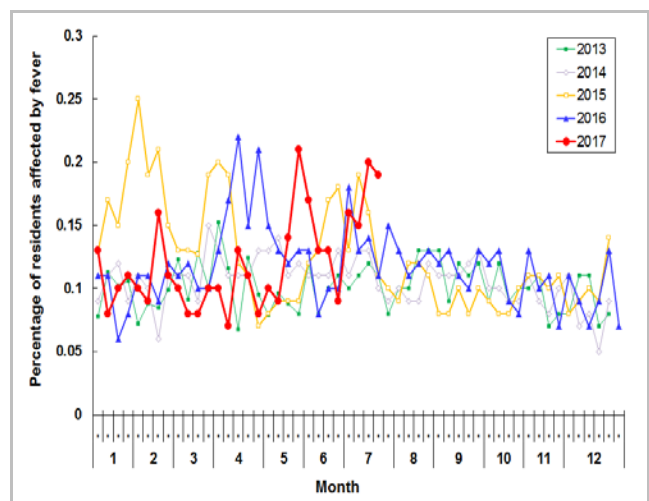


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2013-17

In week 29, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.93 ILI cases per 1,000 consultations as compared to 2.10 recorded in the previous week (Figure 8).

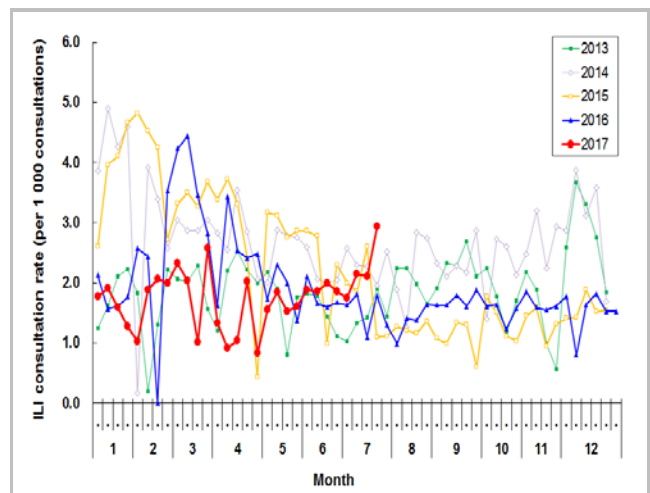


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

Surveillance of severe influenza cases

(Note: The data reported are provisional figures and subject to further revision)

Since the activation of the enhanced surveillance for severe influenza infection on May 5, 2017, a total of 379 severe cases (including 255 deaths) were recorded cumulatively (as of Jul 26) (Figure 9). These included:

- 361 cases (including 252 deaths) among adult patients aged 18 years or above. Among them, 316 patients had infection with influenza A(H3N2), 21 patients with influenza A(H1N1)pdm09, 13 patients with influenza B and 11 patients with influenza A pending subtype. 131 (36.3%) were known to have received the influenza vaccine for the 2016/17 season. Among the 252 fatal cases, 113 (44.8%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- 18 cases (including three deaths) of severe paediatric influenza-associated complication/death. Sixteen (88.9%) cases did not receive the influenza vaccine for the 2016/17 season. To date in 2017, 26 paediatric cases (including four deaths) were filed.

Enhanced surveillance for severe seasonal influenza (Aged 18 years or above)

- In week 29, 65 cases of influenza associated ICU admission/death were recorded (including 39 deaths), which was lower than 72 cases (including 52 deaths) recorded in week 28. In the first 4 days of week 30 (Jul 23 to 26), 37 cases of influenza associated ICU admission/death were recorded, in which 29 of them were fatal.

Surveillance of severe paediatric influenza-associated complication/death (Aged below 18 years)

- In week 29, four cases of severe paediatric influenza-associated complication were reported. In the first 4 days of week 30 (Jul 23 to 26), one case of severe paediatric influenza-associated complication was reported. The case details are as follow:

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving influenza vaccine for this season
29	5 years	Female	Shock	No	Influenza A (H3)	Yes
29	9 months	Male	Encephalitis	No	Influenza A (H3)	No
29	21 months	Male	Pneumonia	No	Influenza A (H3)	No
29	4 years	Male	Pneumonia, shock, status epilepticus	No	Influenza A	No
30	2 years	Male	Pneumonia	No	Influenza A (H3)	No

Data as of July 26, 2017

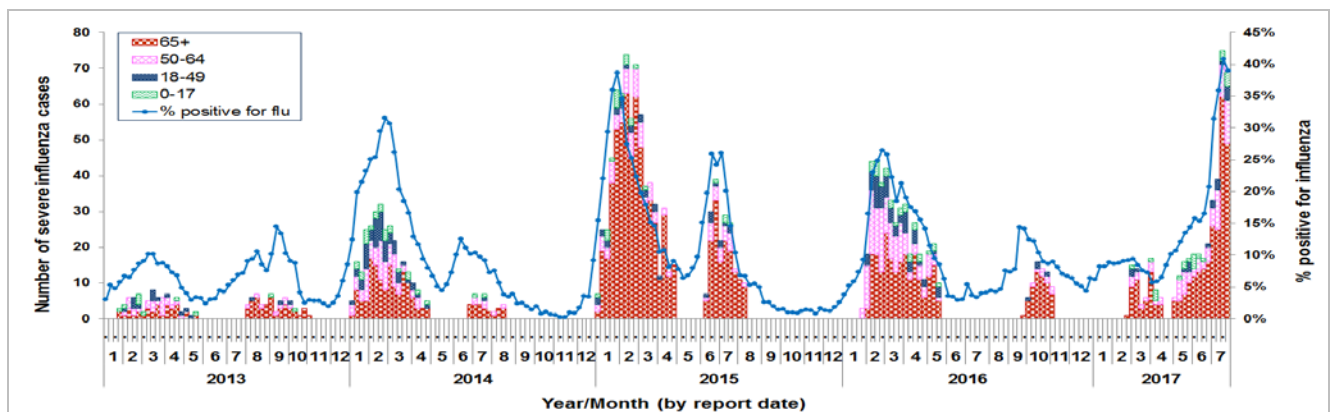


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

Remark: The surveillance system for severe influenza cases aged 18 years or above was only activated intermittently during influenza seasons.

Surveillance of oseltamivir resistant influenza A(H1N1)pdm09 virus infection

- In week 29 and the first 4 days of week 30 (Jul 23 to 26), there were no new reports of oseltamivir (Tamiflu) resistant influenza A(H1N1)pdm09 virus infection. There are totally 48 reports of oseltamivir resistant influenza A(H1N1)pdm09 virus detected in Hong Kong since 2009.

Global Situation of Influenza Activity

Influenza activity in the temperate zone of the northern hemisphere was reported at low levels. In the temperate zone of the southern hemisphere, influenza activity continued to increase, especially in temperate South America. A few countries in Central America, the Caribbean and South East Asia also reported increased influenza activity. Worldwide, influenza A(H3N2) and B viruses co-circulated.

- The 2016/17 winter influenza season in the United States, Canada, United Kingdom and Europe had ended and the influenza activity in these areas remained at low levels.
- In Southern China (week ending Jul 16, 2017), influenza activity continued to increase. The proportion of ILI cases in emergency and outpatient departments reported by sentinel hospitals was 4.3%, higher than that reported in the previous week (4.2%) and the corresponding period in 2014-2016 (3.6%, 3.6%, 3.1%). The proportion of influenza detections was 16.7%, higher than 12.7% recorded in the previous week. Influenza A (H3N2) constituted 82.8% of the influenza detections.
- In Macau (week ending Jul 22, 2017), the proportion of ILI cases among both adults and children in emergency departments increased from the previous week. The proportion of influenza detections was 53.6%, higher than 44.9% in the previous week. Influenza A(H3) constituted 82.3% of the influenza detections.
- In Taiwan (week ending Jul 22, 2017), the numbers and proportions of ILI cases in emergency and outpatient departments showed a decreasing trend. The predominating viruses were influenza A(H3N2), and influenza B constituted approximately 9% of the influenza detection in the week ending Jul 22.
- In Korea (week ending Jul 15, 2017), the weekly ILI rate was 6.0, which was below the baseline of 8.9. The proportion of influenza detections decreased to 0.5% from 1.0% recorded in the previous week.
- In New Zealand (week ending Jul 16, 2017), influenza-like illness consultation rates decreased slightly compared to the previous week, and remained above the seasonal threshold level. Influenza A(H3N2) and influenza B/Yamagata lineage viruses were the two predominant co-circulating strains this week with more A(H3N2) than B/Yamagata lineage viruses detected.
- In Australia (two-week period ending Jul 7, 2017), influenza activity is increasing in the majority of Australian jurisdictions. Nationally, notifications of laboratory confirmed influenza B viruses have continued to increase over the reporting fortnight, however influenza A(H1N1)pdm09 and influenza A(H3N2) are also co-circulating in some parts of the country.

Sources:

Information have been extracted from the following sources when updates are available: [Chinese National Influenza Center](#), [Health Bureau of Macau Special Administrative Region](#), [Taiwan Centers for Disease Control](#), [Korean Centers for Disease Control and Prevention](#), [New Zealand Ministry of Health](#) and [Australian Department of Health](#).