

# 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 Aug 23, 2017)

**Reporting period: Aug 13 – 19, 2017 (Week 33)**

- The latest surveillance data showed that the local influenza activity has further decreased in the past week but some indicators have not yet returned to the levels recorded during inter-season periods. The public should continue to be vigilant.
- 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 Aug 23, 560 severe cases (including 414 deaths) were recorded. Separately, 19 cases of severe paediatric influenza-associated complication/death (including three deaths) (aged below 18 years) were recorded in the same period.
- 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 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 33, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.7 ILI cases per 1,000 consultations, which was lower than 6.6 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 53.6 ILI cases per 1,000 consultations, which was lower than 57.0 recorded in the previous week (Figure 1, right).

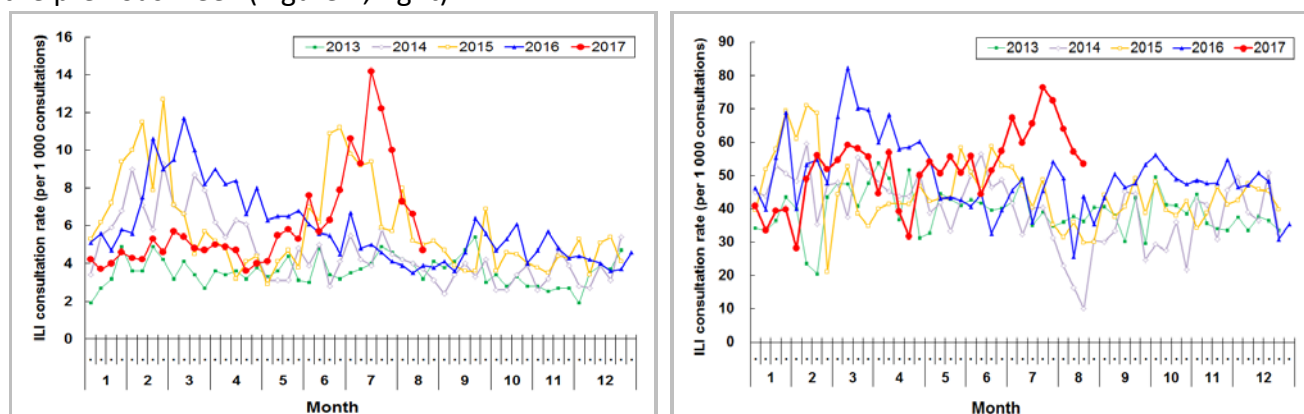


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

## Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 33, 585 (12.75%) were tested positive for seasonal influenza viruses, including 47 (1.02%) influenza A(H1), 487 (10.61%) influenza A(H3), 45 (0.98%) influenza B and 6 (0.13%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 12.75%, which was lower than 18.02% 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 83.2%, 8.0%, 7.7% and 1.0% respectively.

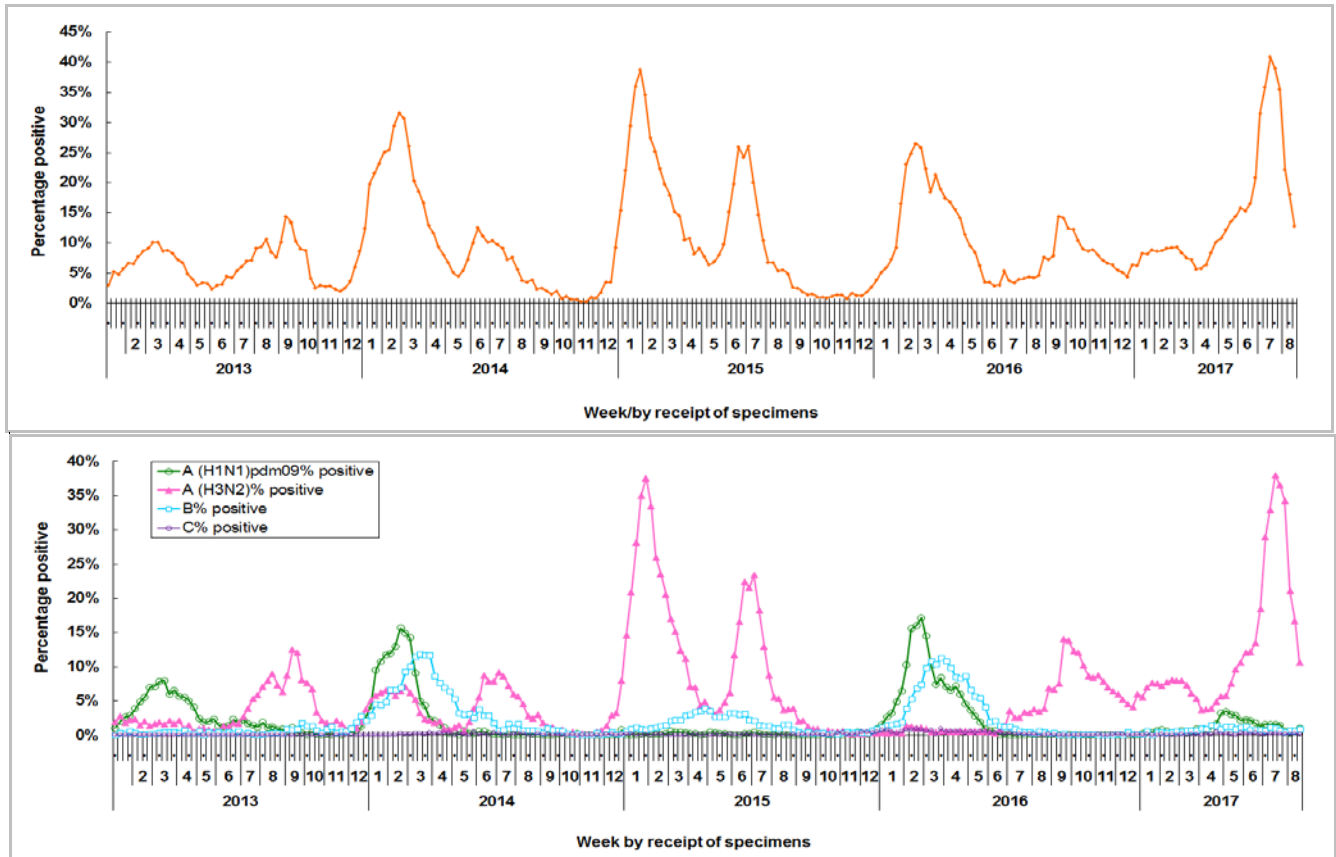


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

## Influenza-like illness outbreak surveillance, 2013-17

In week 33, seven ILI outbreaks occurring in schools/institutions were recorded (affecting 25 persons), as compared to 12 outbreaks recorded in the previous week (affecting 75 persons) (Figure 3). In the first 4 days of week 34 (Aug 20 to 23, 2017), two institutional ILI outbreaks were recorded (affecting ten persons).

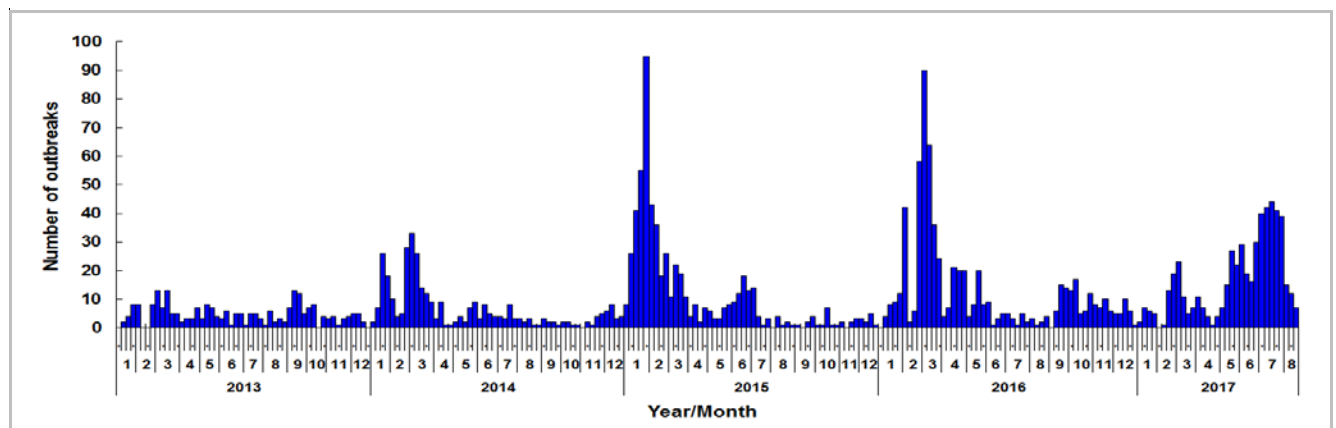


Figure 3 ILI outbreaks in schools/institutions, 2013-17

## Rate of influenza-like illness syndrome group in accident and emergency departments, 2013-17<sup>#</sup>

In week 33, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 137.7 (per 1,000 coded cases), which was lower than 154.0 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.*

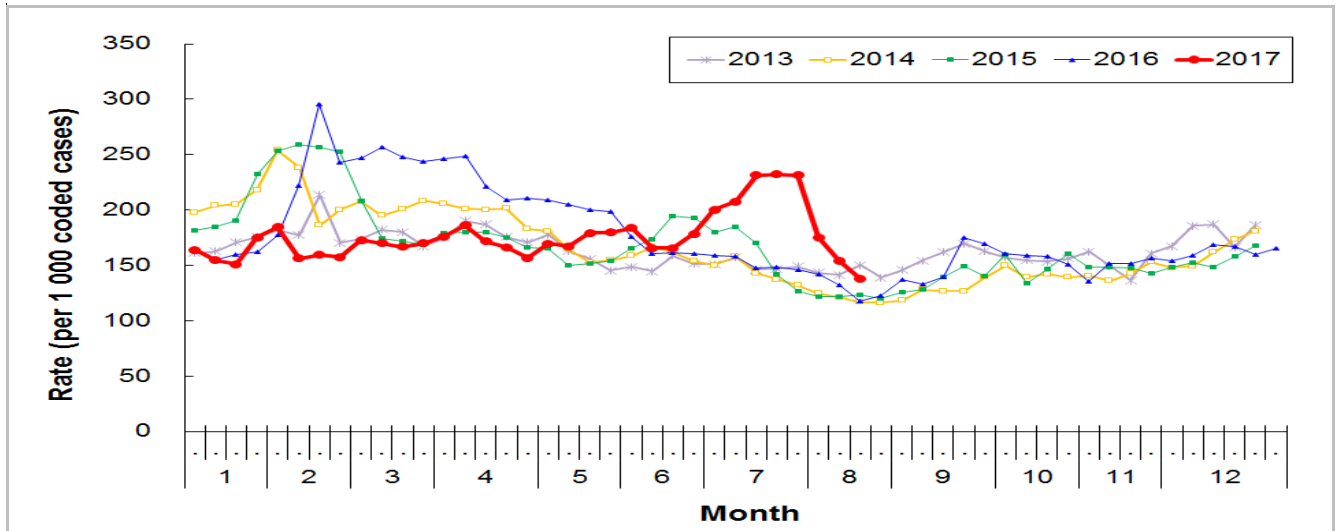


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 33, 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 1.50, 0.45, 0.10 and 1.12 cases (per 10,000 people in the age group) respectively, as compared to 2.11, 0.69, 0.16 and 1.97 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

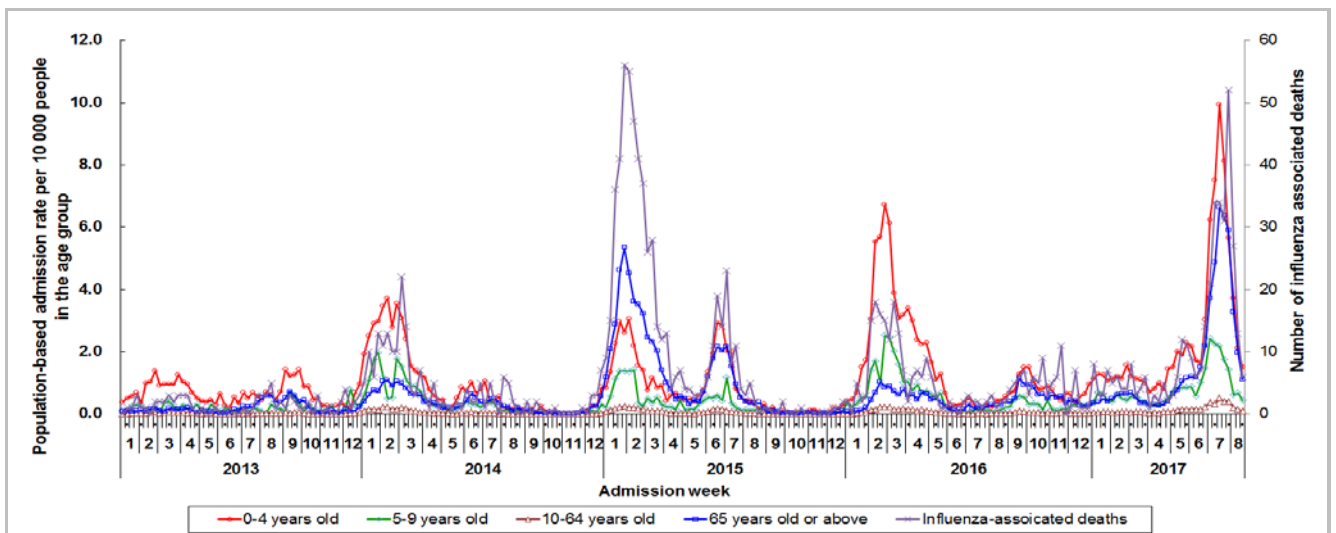


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 33, 0.47% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.58% in week 32 (Figure 6).

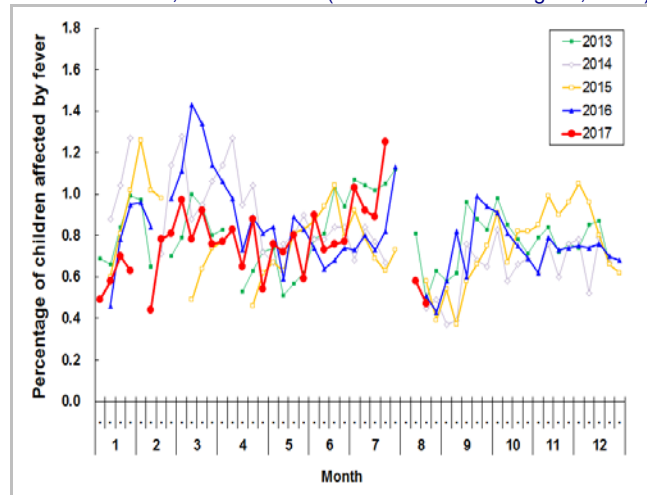


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 33, 0.12% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.09% recorded in the previous week (Figure 7).

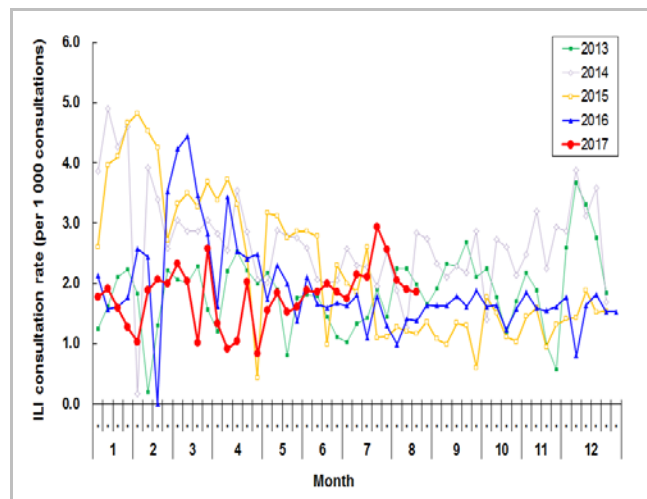


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 33, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.85 ILI cases per 1,000 consultations as compared to 1.90 recorded in the previous week (Figure 8).

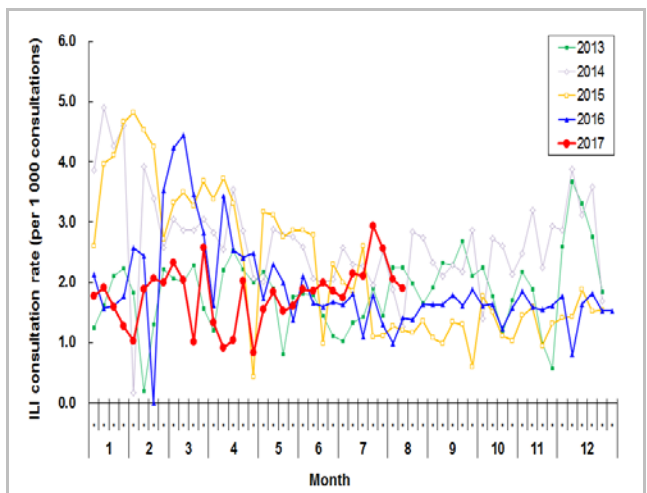


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

## 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 579 severe cases (including 417 deaths) were recorded cumulatively (as of Aug 23) (Figure 9). These included:

- 560 cases (including 414 deaths) among adult patients aged 18 years or above. Among them, 504 patients had infection with influenza A(H3N2), 24 patients with influenza A(H1N1)pdm09, 17 patients with influenza B, 1 patient with influenza C and 14 patients with influenza A pending subtype. 218 (38.9%) were known to have received the influenza vaccine for the 2016/17 season. Among the 414 fatal cases, 190 (45.9%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- 19 cases (including three deaths) of severe paediatric influenza-associated complication/death. Seventeen (89.5%) cases did not receive the influenza vaccine for the 2016/17 season. To date in 2017, 27 paediatric cases (including four deaths) were filed.

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

- In week 33, 31 cases of influenza associated ICU admission/death were recorded (including 27 deaths), which was lower than 65 cases (including 52 deaths) recorded in week 32. In the first 4 days of week 34 (Aug 20 to 23, 2017), 12 cases of influenza associated ICU admission/death were recorded and all of them were fatal.

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

- In week 33 and the first 4 days of week 34 (Aug 20 to 23, 2017), there were no cases of severe paediatric influenza-associated complication/ death.

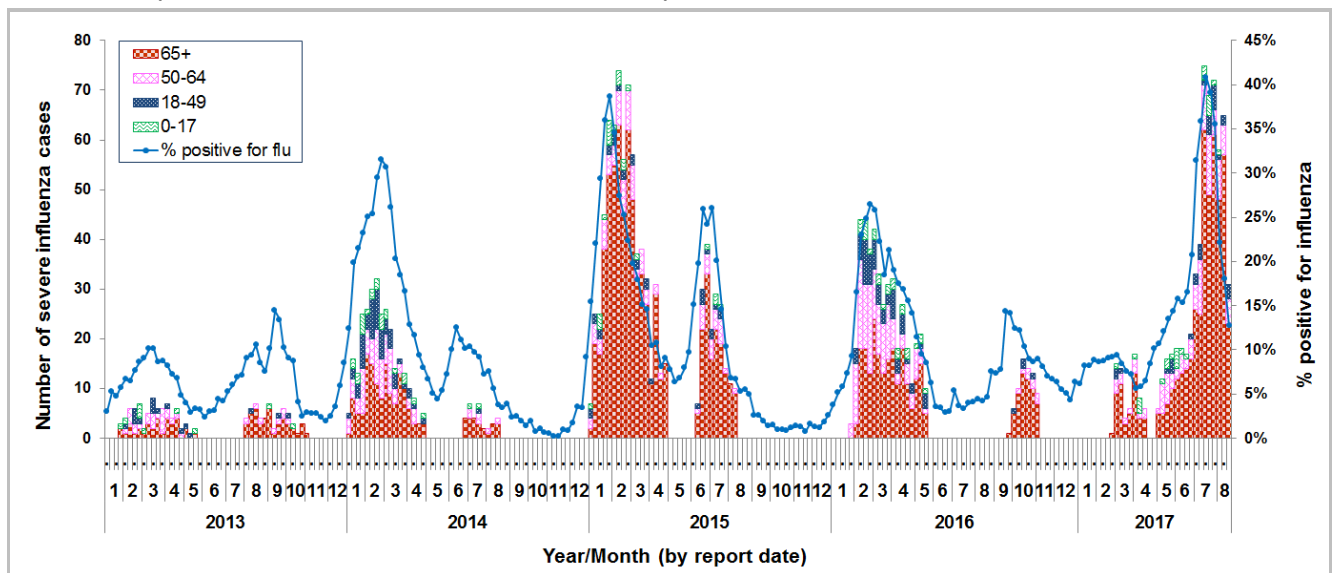


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

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 33 and the first 4 days of week 34 (Aug 20 to 23, 2017), 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 remained at low levels in the temperate zone of the northern hemisphere. In the temperate zone of the southern hemisphere and in some countries of South and South East Asia, high levels of influenza activity continued to be reported. In Central America and the Caribbean, influenza activity continued to be reported in a few countries. Worldwide, influenza A(H3N2) viruses are predominating.

- The 2016/17 winter influenza season in the United States, Canada, the United Kingdom and Europe had ended and the influenza activity in these areas remained at low levels.
- In Southern China (week ending Aug 13, 2017), influenza activity remained at high level. The proportion of ILI cases in emergency and outpatient departments reported by sentinel hospitals was 3.6%, the same as that reported in the previous week, but higher than that in the corresponding period in 2014-2016 (3.2%, 3.4%, 2.8%). The proportion of influenza detections was 26.2%, higher than 22.7% recorded in the previous week. The predominant circulating subtype was Influenza A (H3N2).
- In Macau (week ending Aug 12, 2017), the proportion of ILI cases among both adults and children in emergency departments decreased from the previous week. The proportion of influenza detections was 28.7%, lower than 37.3% in the previous week. Influenza A(H3) constituted 96.6% of the influenza detections.
- In Taiwan (week ending Aug 12, 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 14% of the influenza detection in the week ending Aug 12.
- In New Zealand (week ending Aug 13, 2017), ILI consultation rates decreased compared to the previous week, while remaining above the seasonal threshold level. The overall influenza positivity rate of tested samples has dropped to about 30%. Influenza A(H3N2) are the predominant viruses in New Zealand this year.
- In Australia (two-week period ending Aug 4, 2017), influenza activity at the national level continued to increase this reporting fortnight with many surveillance systems at levels comparable to the peak of the 2016 season. Influenza A(H3N2) is currently the predominant circulating virus nationally, however influenza B viruses also continue to circulate.

### 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](#), [New Zealand Ministry of Health](#) and [Australian Department of Health](#)..