

# 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 Jun 28, 2017)

**Reporting period: Jun 18 – 24, 2017 (Week 25)**

- The latest surveillance data showed that the local influenza activity continued to increase.
- 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 Jun 28, 133 severe cases (including 100 deaths) were recorded. Separately, ten cases of severe paediatric influenza-associated complication/death (including two 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 are urged to get vaccinated 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.
- The Vaccination Subsidy Scheme (VSS) 2016/17 was launched on Oct 20, 2016. Subsidised vaccination has been provided for children aged 6 months to under 12 years, elderly aged 65 years or above, pregnant women, persons with intellectual disabilities and persons receiving Disability Allowance (DA). In addition, starting from Nov 3, 2016, the eligibility of free vaccination under the Government Vaccination Programme has been expanded to include children aged 6 years to under 12 years from families receiving Comprehensive Social Security Assistance or holding valid Medical Waiver Certificates as well as persons receiving DA who are existing clients of public clinics and hospitals. Please refer to the webpages ([http://www.chp.gov.hk/en/view\\_content/46107.html](http://www.chp.gov.hk/en/view_content/46107.html)) and ([http://www.chp.gov.hk/en/view\\_content/18630.html](http://www.chp.gov.hk/en/view_content/18630.html)) for details.

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

In week 25, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 7.9 ILI cases per 1,000 consultations, which was higher than 6.3 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 57.3 ILI cases per 1,000 consultations, which was higher than 51.5 recorded in the previous week (Figure 1, right).

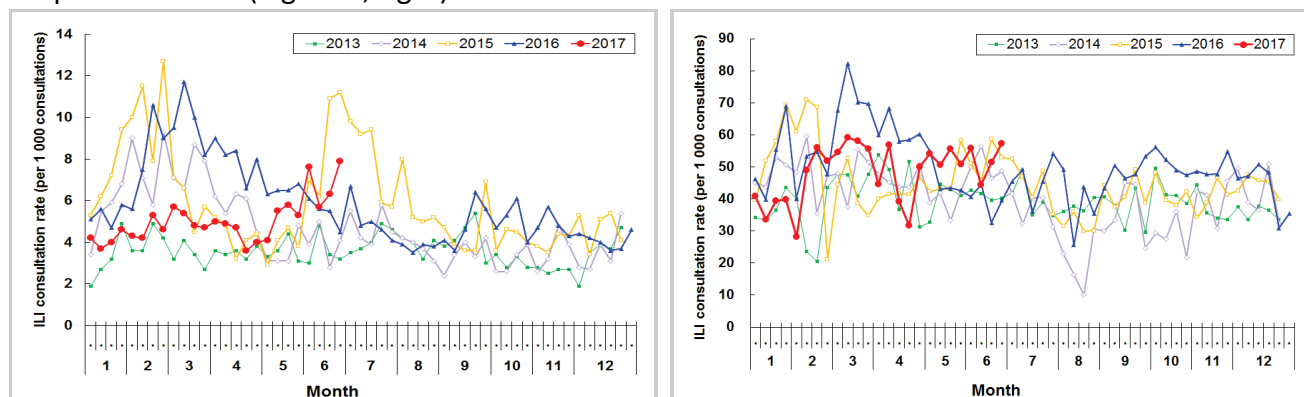


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

## Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 25, 921 (20.74%) were tested positive for seasonal influenza viruses, including 58 (1.31%) influenza A(H1), 819 (18.44%) influenza A(H3), 35 (0.79%) influenza B and 9 (0.20%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 20.74%, which was higher than 16.48% 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 88.9%, 6.3%, 3.8% and 1.0% respectively.

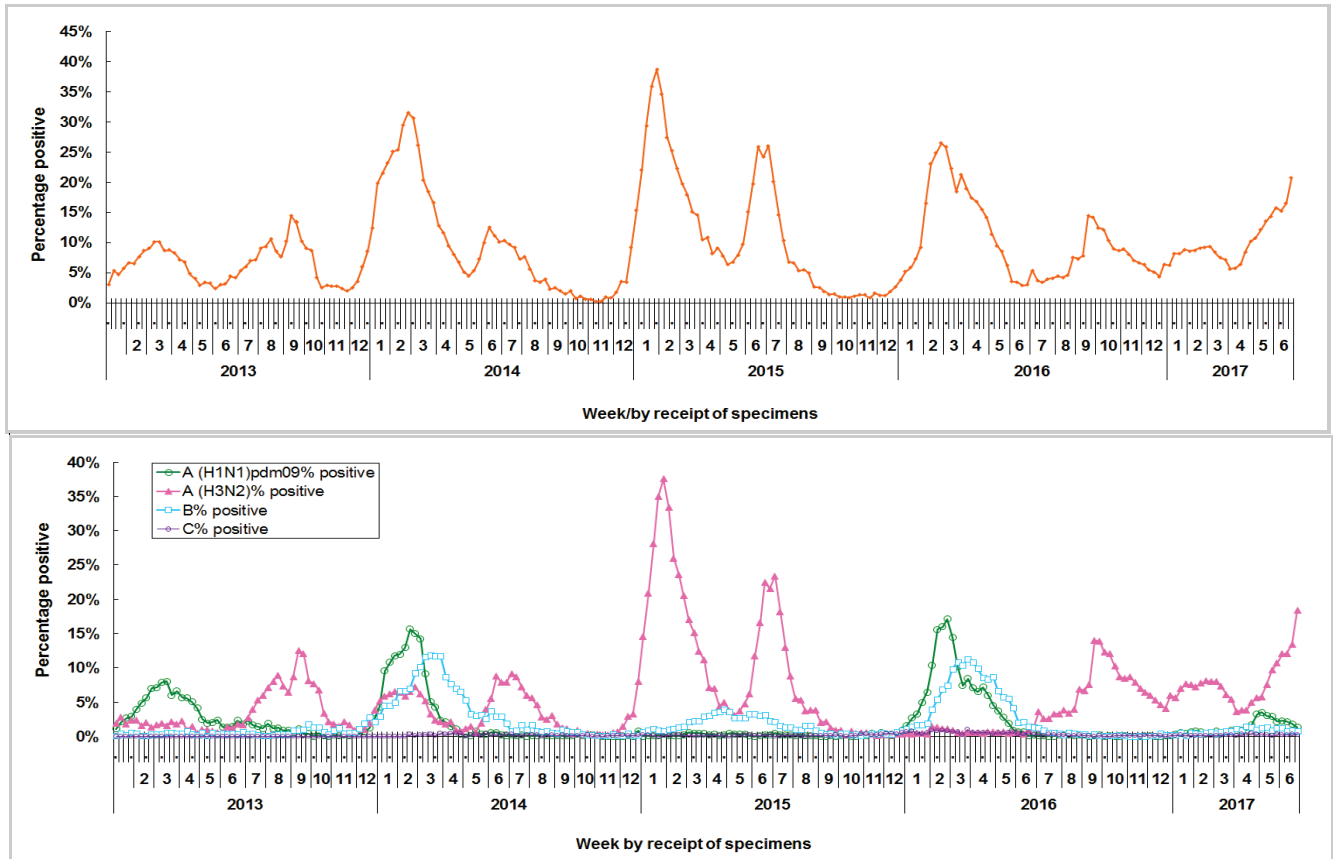


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

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

In week 25, 30 ILI outbreaks occurring in schools/institutions were recorded (affecting 192 persons), as compared to 16 outbreaks recorded in the previous week (affecting 86 persons) (Figure 3). In the first 4 days of week 26 (Jun 25 to 28, 2017), 30 institutional ILI outbreaks were recorded (affecting 161 persons).

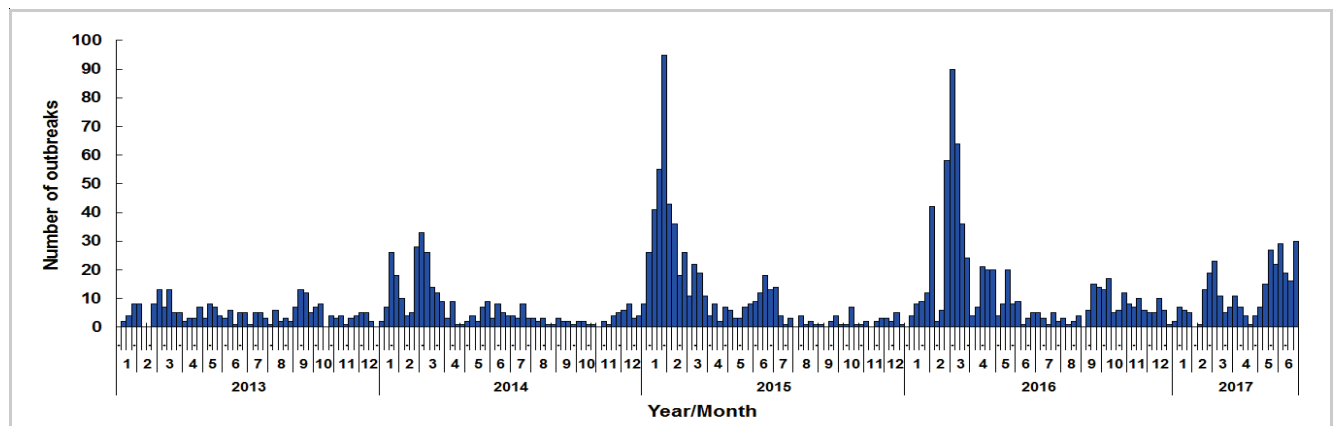


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 25, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 179.2 (per 1,000 coded cases), which was higher than the rate of 166.1 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.*

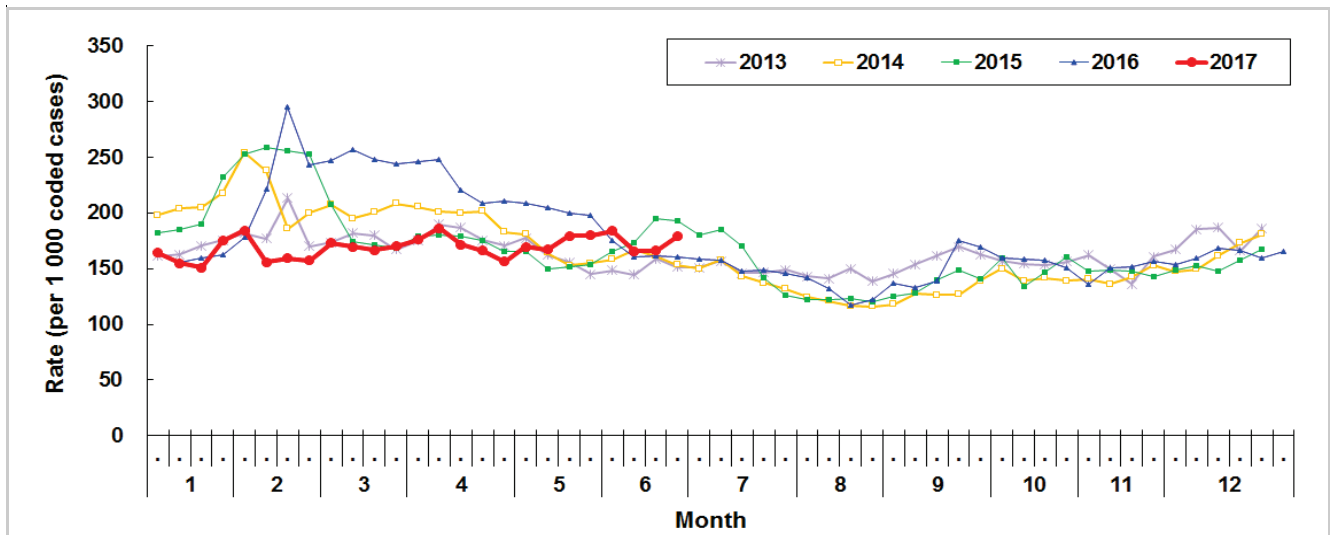


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 25, 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 3.08, 1.44, 0.20 and 1.81 cases (per 10,000 people in the age group) respectively, as compared to 1.61, 1.06, 0.15 and 1.45 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

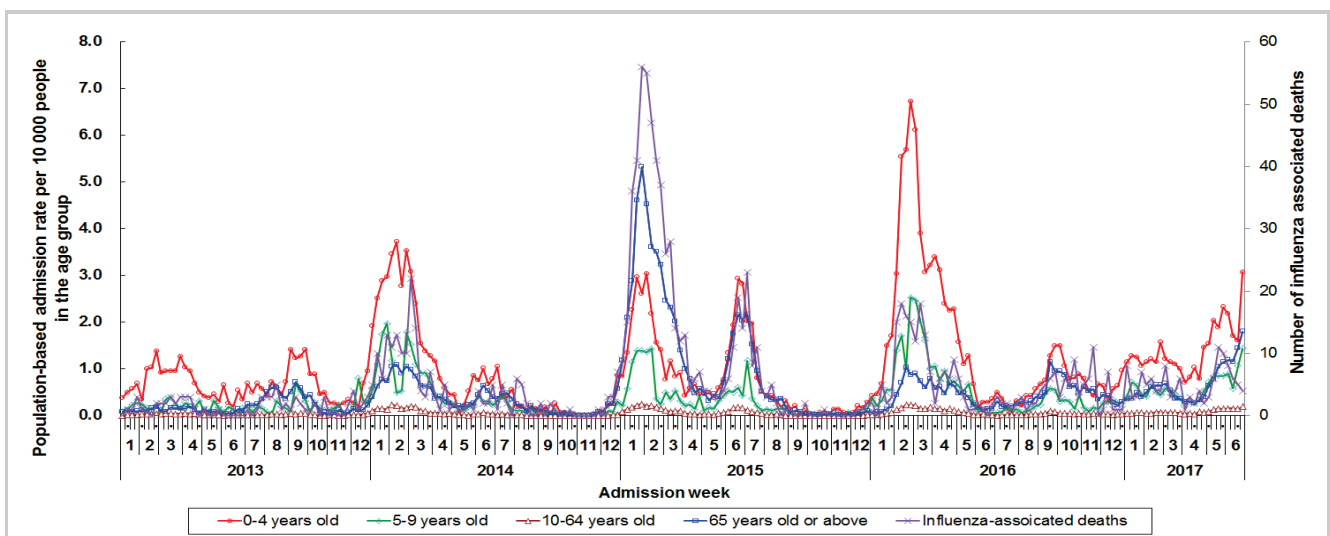


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 25, 0.77% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.76% recorded in the previous week (Figure 6).

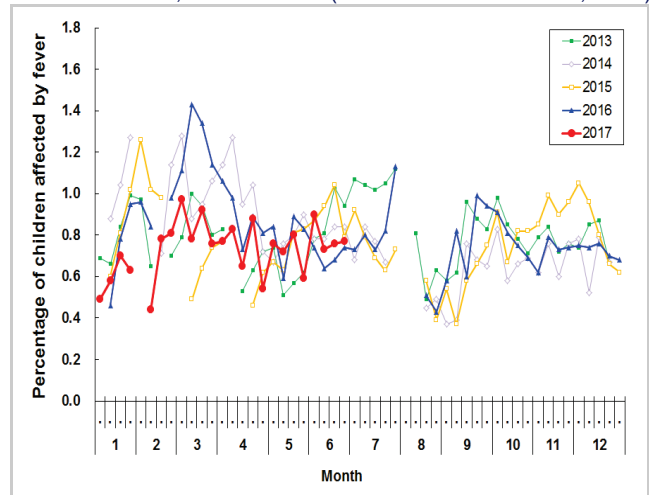


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 25, 0.09% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.13% recorded in the previous week (Figure 7).

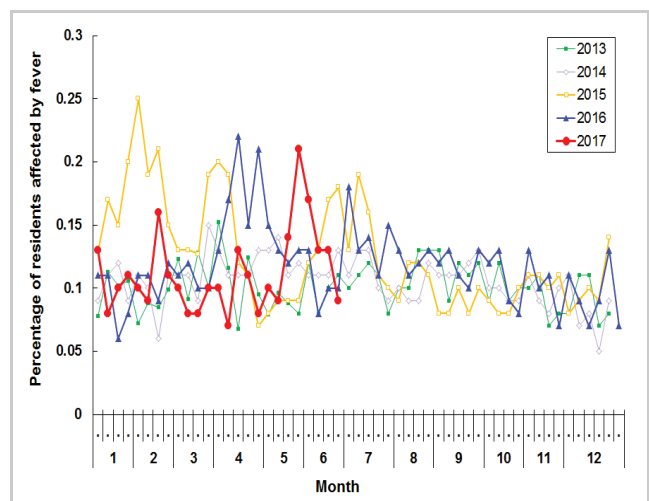


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 25, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.85 ILI cases per 1,000 consultations as compared to 2.00 recorded in the previous week (Figure 8).

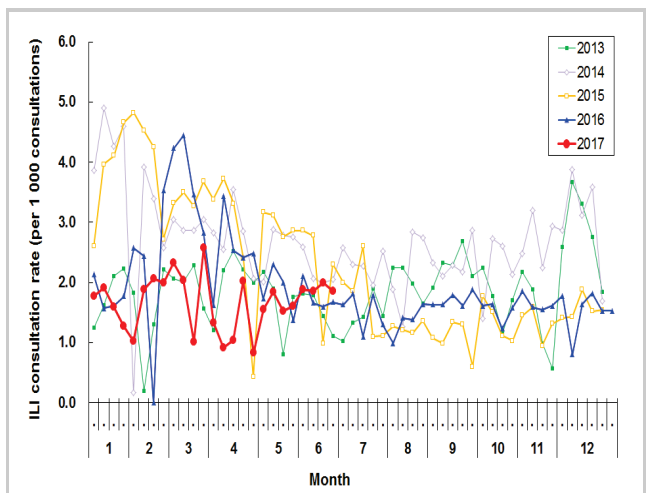


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

## **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 143 severe cases (including 102 deaths) were recorded cumulatively (as of Jun 28) (Figure 9). These included:

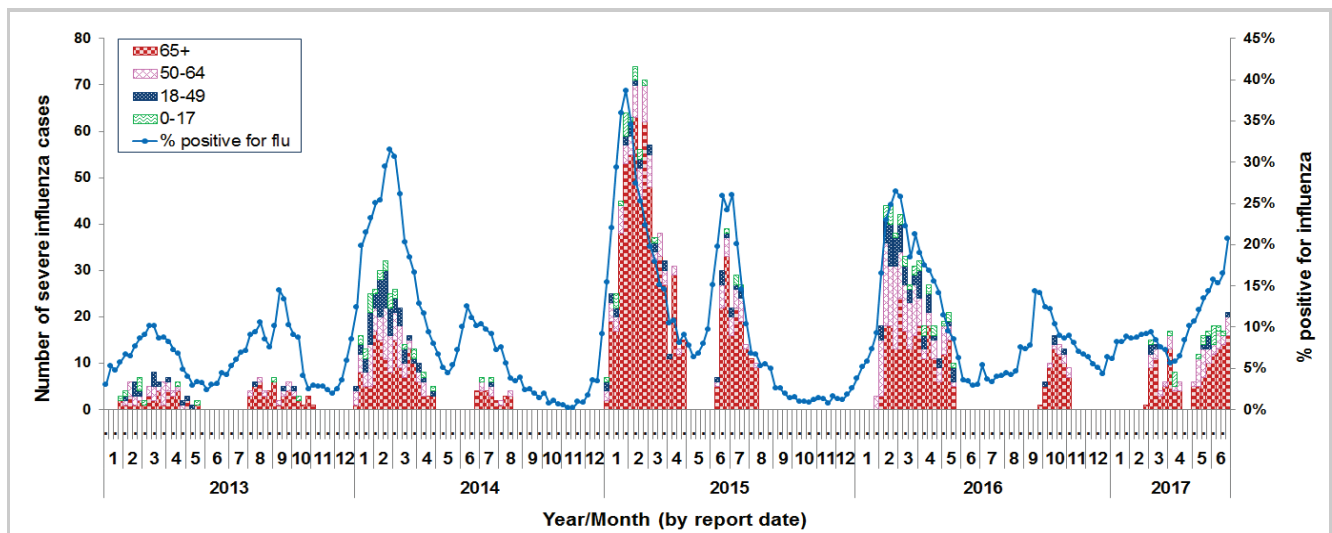
- 133 cases (including 100 deaths) among adult patients aged 18 years or above. Among them, 104 patients had infection with influenza A(H3N2), 16 patients with influenza A(H1N1)pdm09, seven patients with influenza B and six patients with influenza A pending subtype. Forty-two (31.6%) were known to have received the influenza vaccine for the 2016/17 season. Among the 100 fatal cases, 39 (39.0%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- Ten cases (including two deaths) of severe paediatric influenza-associated complication/death. Nine (90.0%) cases did not receive the influenza vaccine for the 2016/17 season. To date in 2017, 18 paediatric cases (including three deaths) were filed.

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

- In week 25, 21 cases of influenza associated ICU admission/death were recorded, in which 16 of them were fatal. In the first 4 days of week 26 (Jun 25 to 28), 18 cases of influenza associated ICU admission/death were recorded, in which 13 of them were fatal.

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

- In week 25 and the first 4 days of week 26 (Jun 25 to 28), 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 25 and the first 4 days of week 26 (Jun 25 to 28), 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 continued to decrease. In the temperate zone of the southern hemisphere, influenza activity continued to increase and was above seasonal threshold levels in South America. Worldwide, influenza A(H3N2) and influenza B viruses co-circulated.

- In the United States (week ending Jun 17, 2017), influenza activity decreased. The proportion of outpatient visits for ILI was 0.8%, which was below the national baseline of 2.2%.
- In Canada (week ending Jun 17, 2017), influenza activity has crossed the seasonal threshold indicating the end of the 2016/17 influenza season, although regions across the country continued to report low-level circulation of influenza. Influenza B continued to be the predominant circulating influenza virus in the past four weeks.
- In the United Kingdom (week ending Jun 18, 2017), indicators for influenza showed low levels of activity. The positivity of influenza detection was 2.0% in the week ending Jun 18, which was below the threshold of 8.6% for 2016/17.
- In Taiwan (week ending Jun 24, 2017), influenza activity has increased as compared to the previous week. The numbers and proportions of ILI cases in emergency and outpatient departments increased as compared to the previous week. The predominating viruses were influenza A(H3N2), and influenza B constituted 10% of the influenza detection in the week ending Jun 24.
- In Korea (week ending Jun 17, 2017), the weekly ILI rate was 5.6, which was below the baseline of 8.9. The proportion of influenza detections increased to 3.8% from 1.7% recorded in the previous week.
- In New Zealand (week ending Jun 25, 2017), influenza activity continued to increase nationwide and surpassed the seasonal threshold level last week. Influenza A(H3N2) and influenza B/Yamagata lineage viruses co-circulated with slightly more A(H3N2) than B viruses detected.
- In Australia (two-week period ending Jun 9, 2017), influenza activity is variable across the country, increasing in some regions, while low and stable in others. Detections of influenza B viruses have increased in recent weeks, consistent with the predominance of influenza B viruses worldwide currently.

### Sources:

Information have been extracted from the following sources when updates are available: [United States Centers for Disease Control and Prevention](#), [Public Health Agency of Canada](#), [Public Health England](#), [Taiwan Centers for Disease Control](#), [Korean Centers for Disease Control and Prevention](#), [New Zealand Ministry of Health](#) and [Australian Department of Health](#).