

# 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 May 10, 2017)

**Reporting period: Apr 30 – May 6, 2017 (Week 18)**

- The latest surveillance data showed that the local influenza activity has increased in the past few 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 May 10, 14 severe cases (including six deaths) were recorded. Separately, no new cases of severe paediatric influenza-associated complications or 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 18, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.1 ILI cases per 1,000 consultations, which was similar to 4.0 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 54.2 ILI cases per 1,000 consultations, which was higher than 49.9 recorded in the previous week (Figure 1, right).

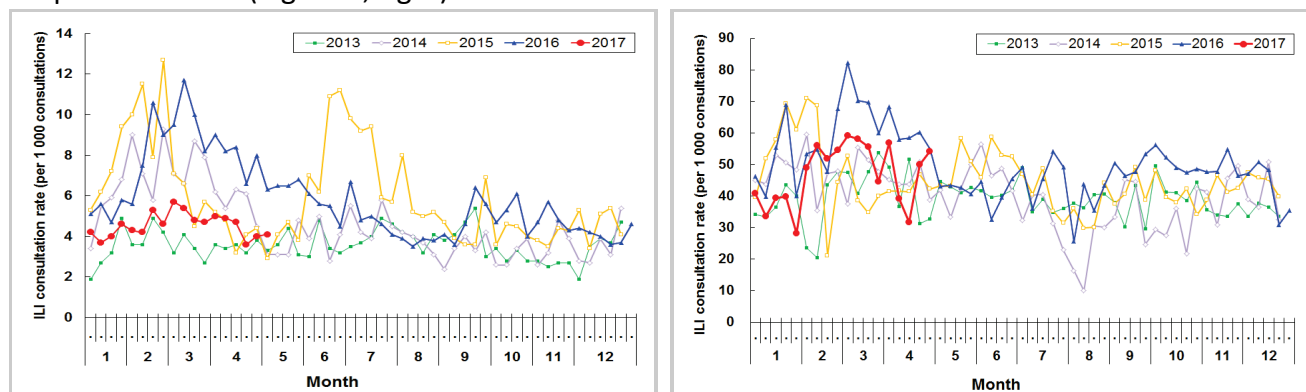


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

## Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 18, 443 (10.75%) were tested positive for seasonal influenza viruses, including 145 (3.52%) influenza A(H1), 238 (5.78%) influenza A(H3), 51 (1.24%) influenza B and 9 (0.22%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 10.75%, which was higher than 10.18% 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 53.7%, 32.7%, 11.5% and 2.0% respectively.

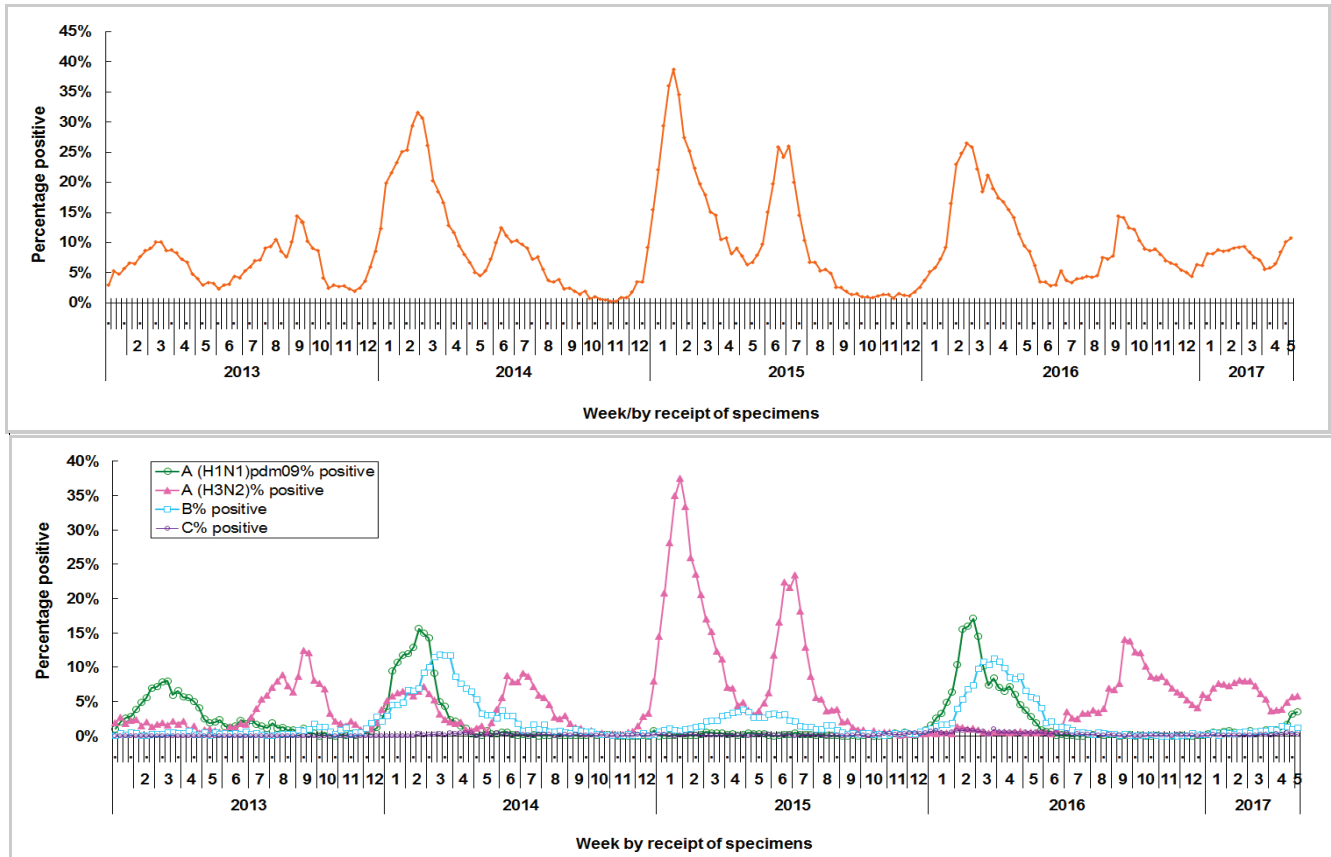


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

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

In week 18, seven ILI outbreaks occurring in schools/institutions were recorded (affecting 28 persons), as compared to four outbreaks recorded in the previous week (affecting 21 persons) (Figure 3). In the first 4 days of week 19 (May 7 to 10, 2017), seven institutional ILI outbreaks were recorded (affecting 28 persons).

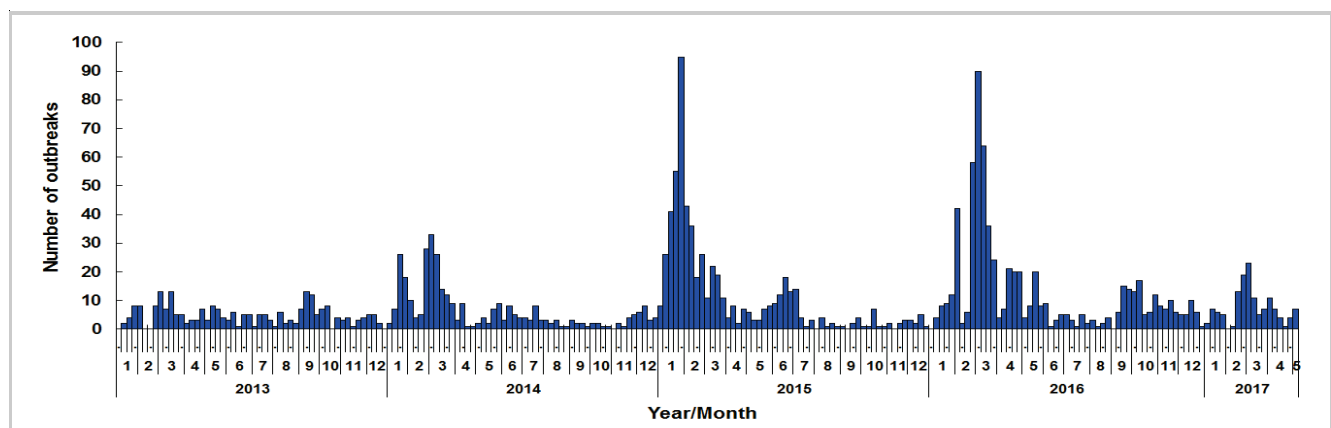


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 18, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 163.4 (per 1,000 coded cases), which was higher than the rate of 153.1 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.*

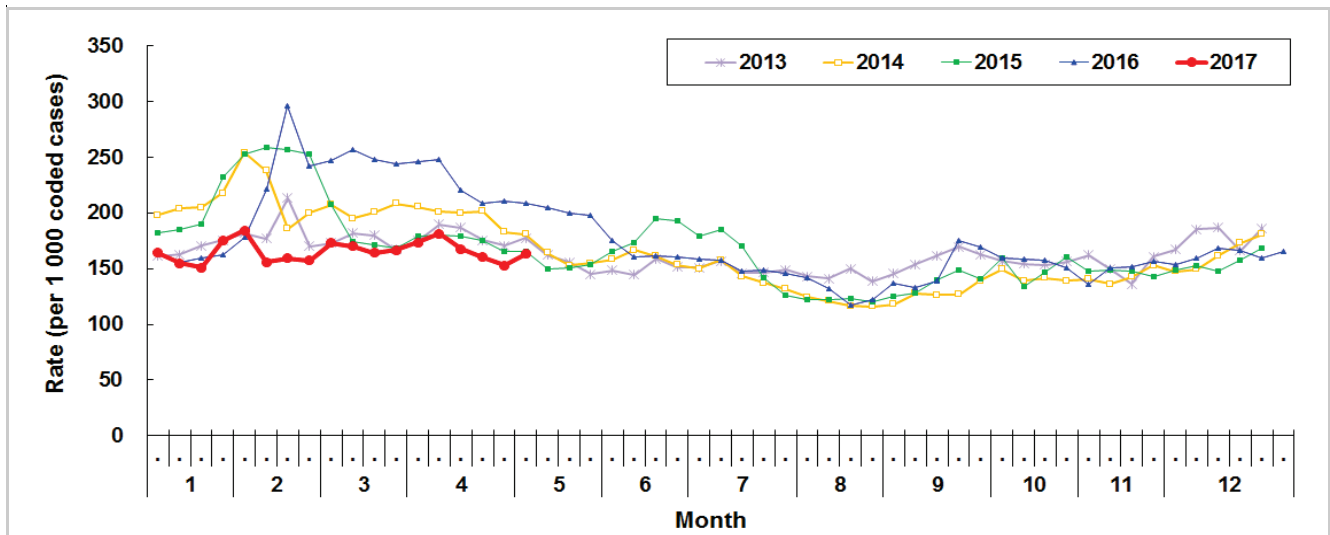


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 18, 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 1.54, 0.65, 0.08 and 0.54 cases (per 10,000 people in the age group) respectively, as compared to 1.57, 0.51, 0.07 and 0.37 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

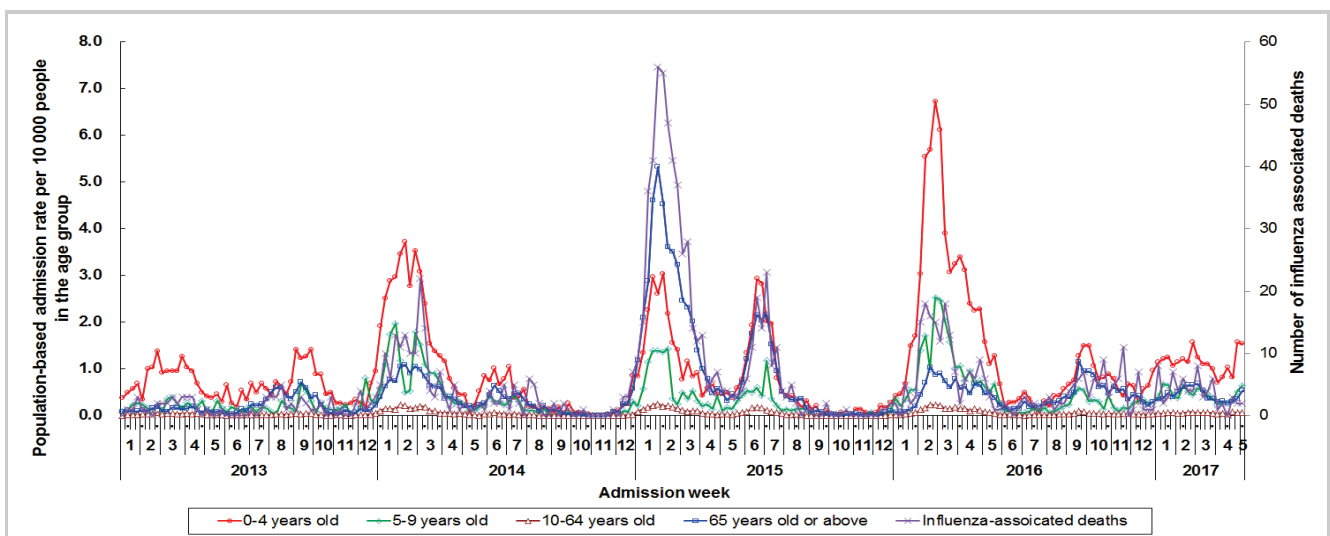


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 18, 0.76% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.54% recorded in the previous week (Figure 6).

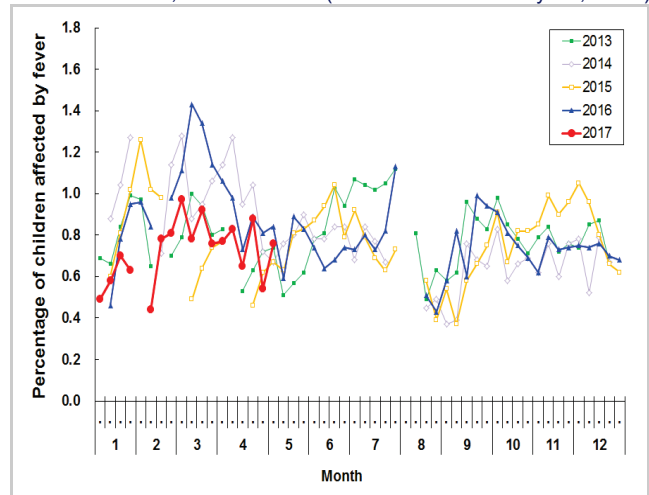


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 18, 0.10% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever ( $38^{\circ}\text{C}$  or above), as compared to 0.08% recorded in the previous week (Figure 7).

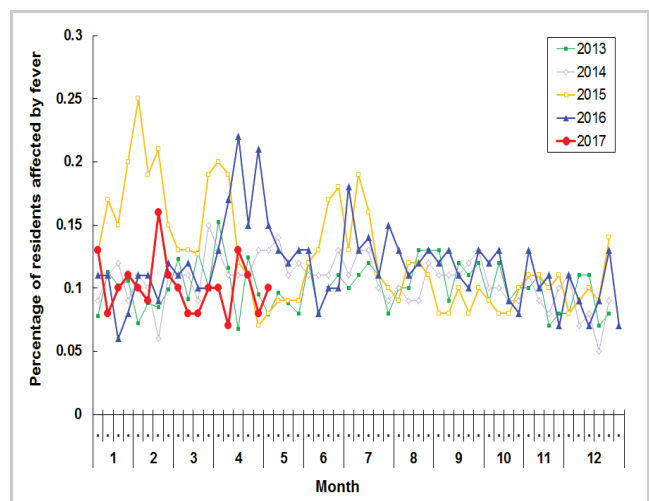


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 18, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.55 ILI cases per 1,000 consultations as compared to 0.83 recorded in the previous week (Figure 8).

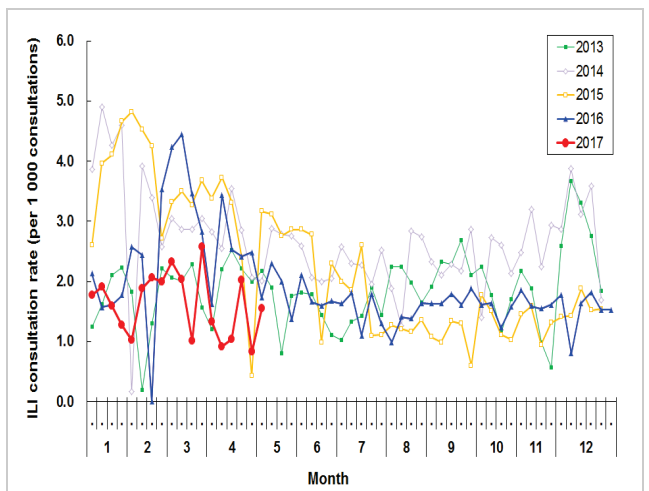


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

## **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 14 severe cases (including 6 deaths) were recorded cumulatively (as of May 10) (Figure 9). These included:

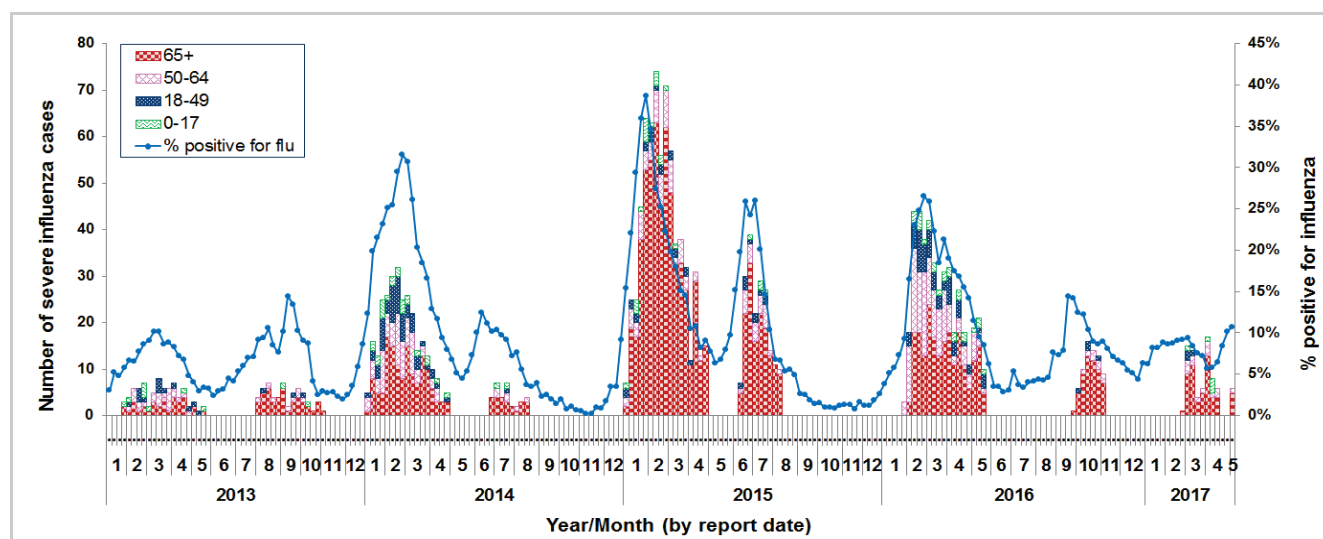
- 14 cases (including 6 deaths) among adult patients aged 18 years or above. Among them, seven patients had infection with influenza A(H3N2), three patients with influenza A(H1N1)pdm09, one patient with influenza B and three patients with influenza A with subtype pending. Two (14.3%) were known to have received the influenza vaccine for the 2016/17 season. Among the six fatal cases, one (16.7%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- No cases of severe paediatric influenza-associated complication/death. To date in 2017, 8 paediatric cases (including one death) were filed.

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

- In the last 2 days of week 18 and the first 4 days of week 19 (May 5 to 10), 6 cases and 8 cases of influenza associated ICU admission/death were recorded respectively. Among all the cases, 6 cases were fatal.

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

- In week 18 and the first 4 days of week 19 (May 7 to 10), there were no new 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 18 and the first 4 days of week 19 (May 7 to 10), 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. Worldwide, influenza A(H3N2) and B viruses were predominant, with an increased proportion of influenza B viruses detected in recent weeks.

- In the United States (week ending Apr 29, 2017), influenza activity decreased. The proportion of outpatient visits for ILI was 1.4%, which was below the national baseline of 2.2%.
- In Canada (week ending Apr 29, 2017), the overall influenza activity continued to decline slowly. The number and the percentage of tests positive for influenza decreased from the previous week. Influenza B accounted for 66% of total detection in week 17. To date this season, influenza A(H3N2) is the most common subtype detected.
- In the United Kingdom (week ending Apr 30, 2017), influenza activity continued to decrease across all indicators with circulation of influenza B. The positivity of influenza detection was 3.9% in the week ending Apr 30, which was below the threshold of 8.6% for 2016/17.
- In Europe (week ending Apr 30, 2017), influenza activity across the region decreased further and all 40 countries reporting low influenza activity. The proportion of influenza virus detections among sentinel surveillance specimens returned to the epidemic threshold value of 10%. Influenza B viruses represented 95% of sentinel detections, but the overall number of influenza B virus detections remained low.
- In Taiwan (week ending Apr 29, 2017), the proportions of ILI cases in emergency and outpatient departments slightly increased as compared to the previous week. The predominating viruses were influenza A(H3N2), but influenza B constituted 23% of the influenza detection recently.
- In Japan (week ending Apr 30, 2017), the average number of reported ILI cases per sentinel site decreased to 3.13 in the week ending Apr 30 from 4.06 recorded in the previous week, and was still higher than the baseline level of 1.00.

### 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](#), [Joint European Centre for Disease Control and Prevention-World Health Organization/Flu News Europe](#), [Taiwan Centers for Disease Control](#) and [Japan Ministry of Health](#).