

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 Apr 12, 2017)

Reporting period: Apr 2 – Apr 8, 2017 (Week 14)

- According to the latest surveillance data, the local influenza activity has returned to the baseline level, indicating the end of the winter influenza season.
- 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 (ICU) or deaths) among patients aged 18 or above since Feb 24, 2017. As of Apr 12, 66 severe cases (including 41 deaths) were recorded. Separately, five cases (including one death) of severe paediatric influenza-associated complication (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.
- 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) and (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 14, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.9 ILI cases per 1,000 consultations, which was similar to 5.0 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 56.9 ILI cases per 1,000 consultations, which was higher than 44.6 recorded in the previous week (Figure 1, right).

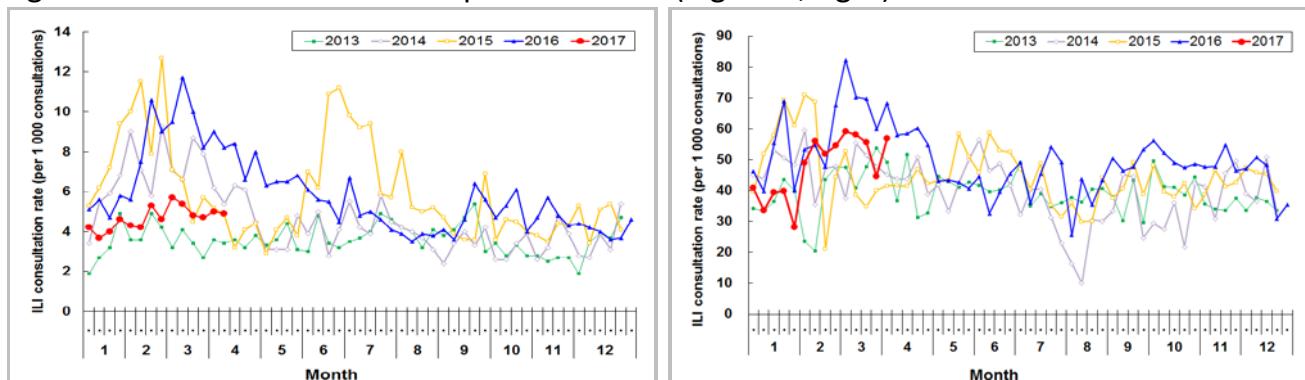


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 14, 235 (5.75%) were tested positive for seasonal influenza viruses, including 35 (0.86%) influenza A(H1), 153 (3.75%) influenza A(H3), 36 (0.88%) influenza B and 11 (0.27%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 5.75%, which was similar to 5.64% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of A(H3), B, A(H1) and C were 65.1%, 15.3%, 14.9% and 4.7% respectively.

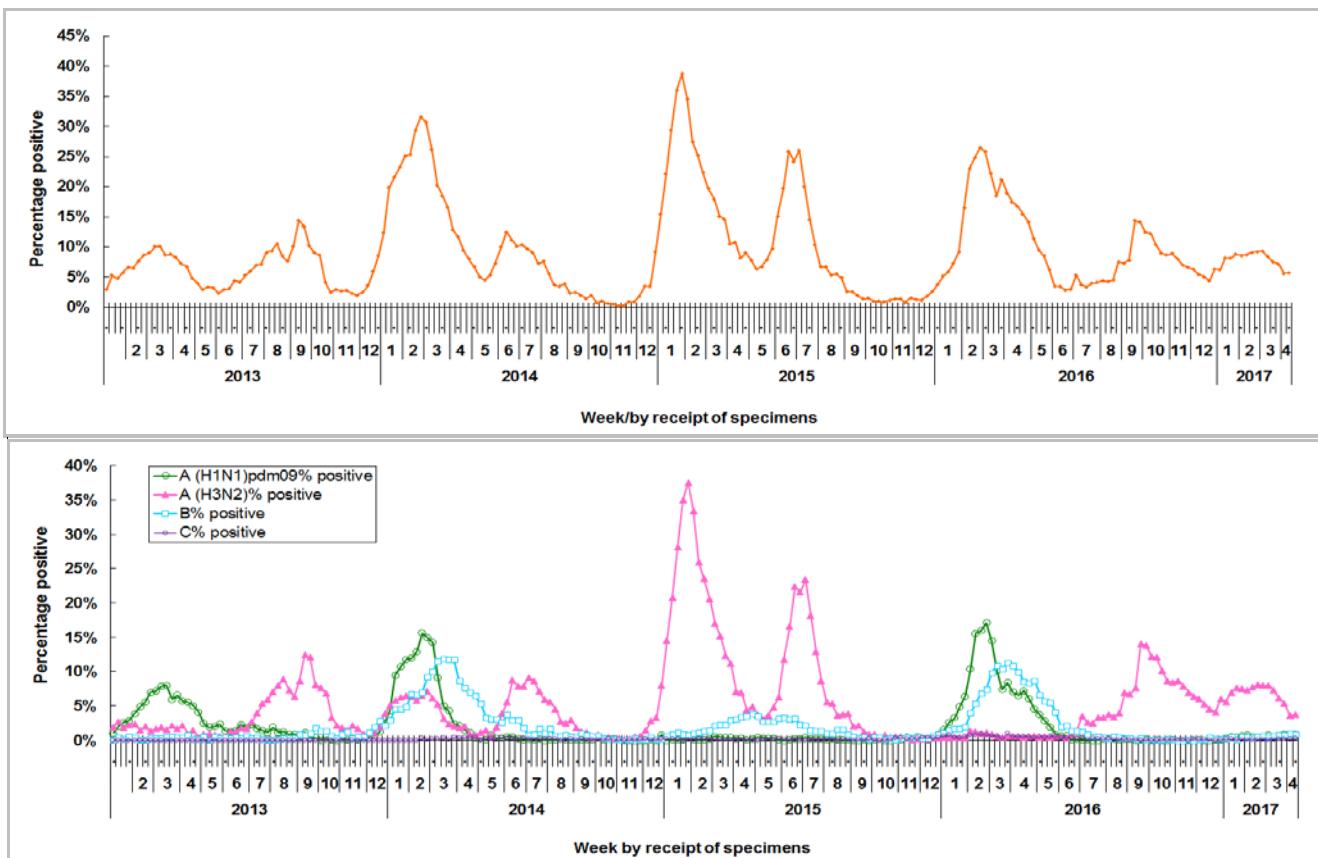


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2013-17

In week 14, seven ILI outbreaks occurring in schools/ institutions were recorded (affecting 27 persons), as compared to 11 outbreaks recorded in the previous week (affecting 79 persons) (Figure 3). In the first 4 days of week 15 (Apr 9 to 12, 2017), two institutional ILI outbreaks were recorded (affecting 8 persons).

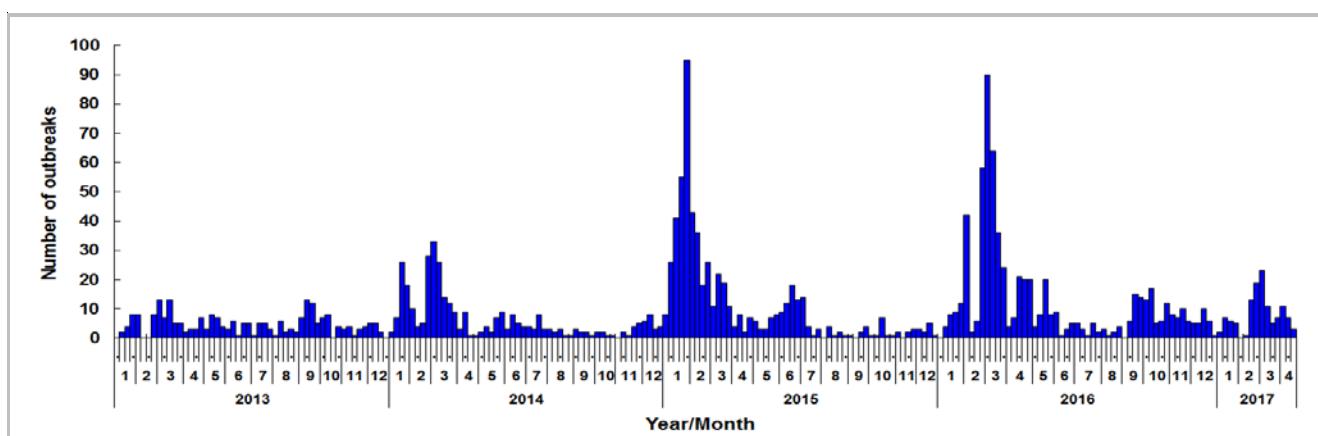


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 14, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 182.1 (per 1,000 coded cases), which was higher than the rate of 174.1 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.

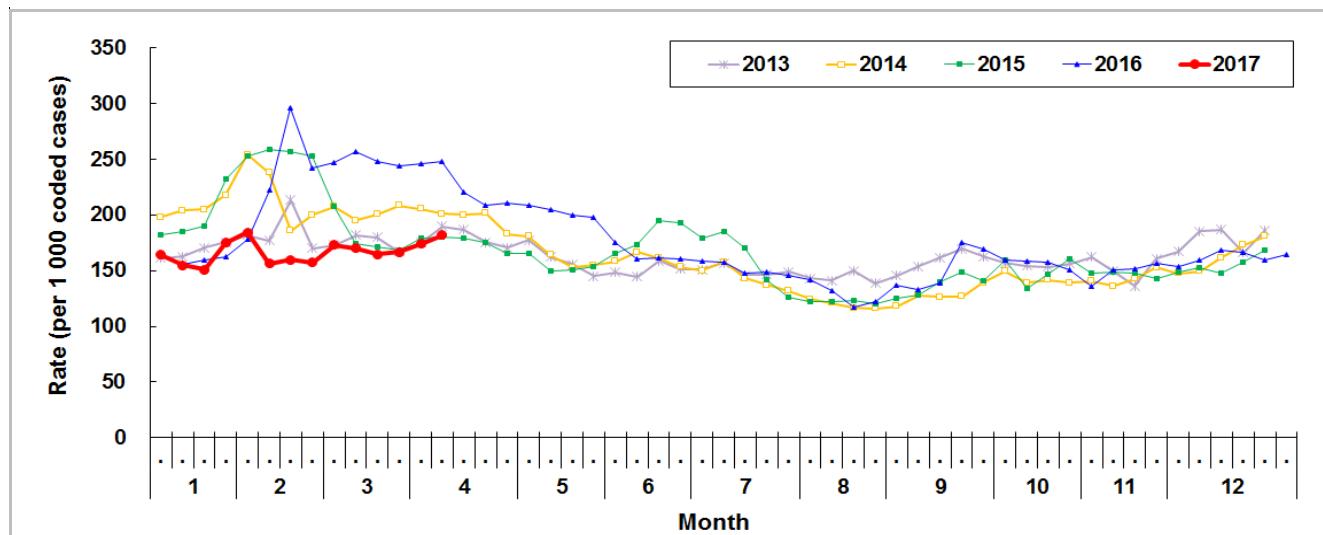


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 14, 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 0.75, 0.28, 0.05 and 0.27 cases (per 10,000 people in the age group) respectively, as compared to 0.68, 0.21, 0.04 and 0.27 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

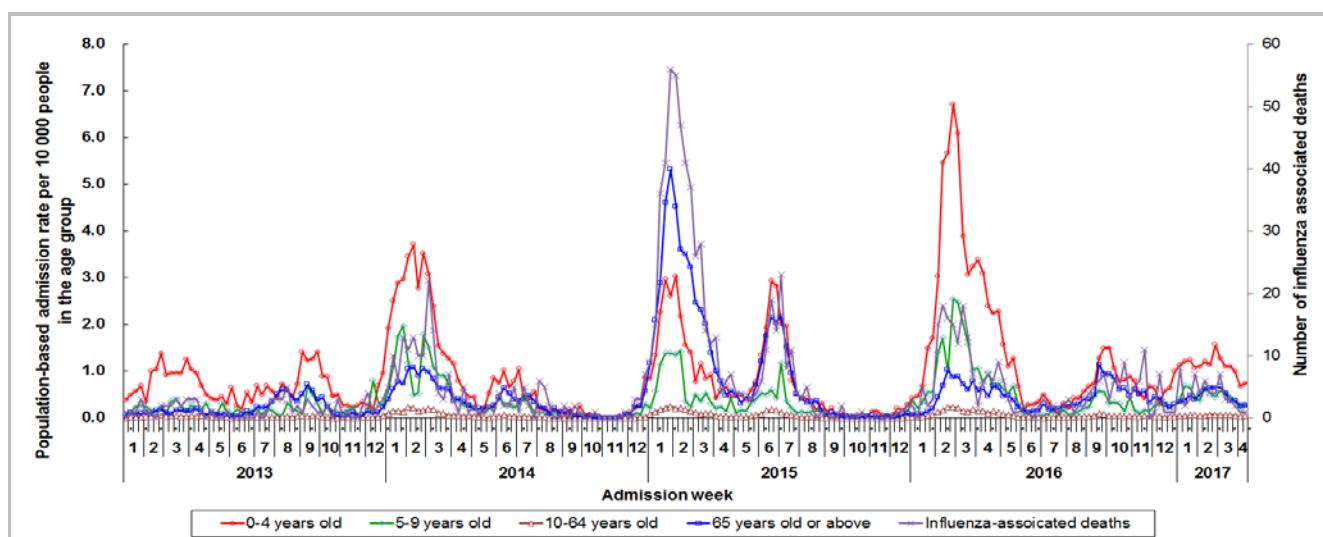


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 14, 0.83% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.77% recorded in the previous week (Figure 6).

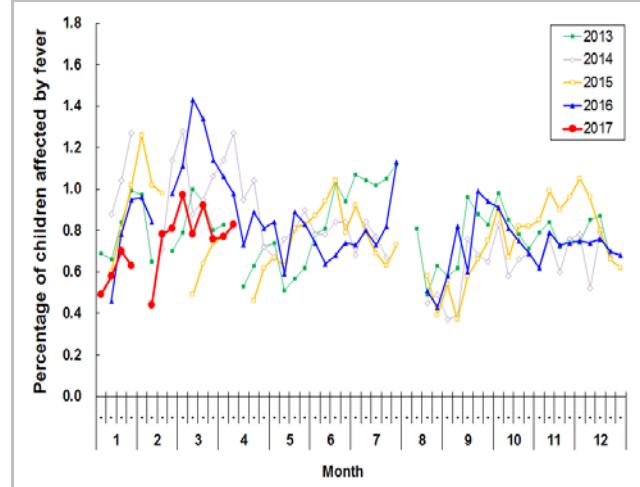


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 14, 0.07% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), as compared to 0.10% recorded in the previous week (Figure 7).

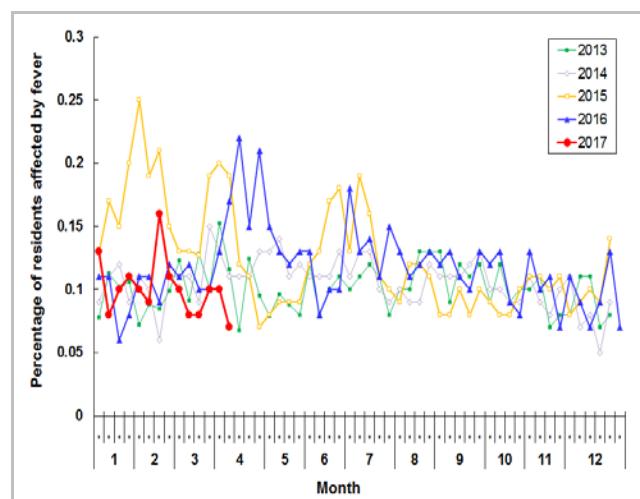


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 14, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 0.91 ILI cases per 1,000 consultations as compared to 1.33 recorded in the previous week (Figure 8).

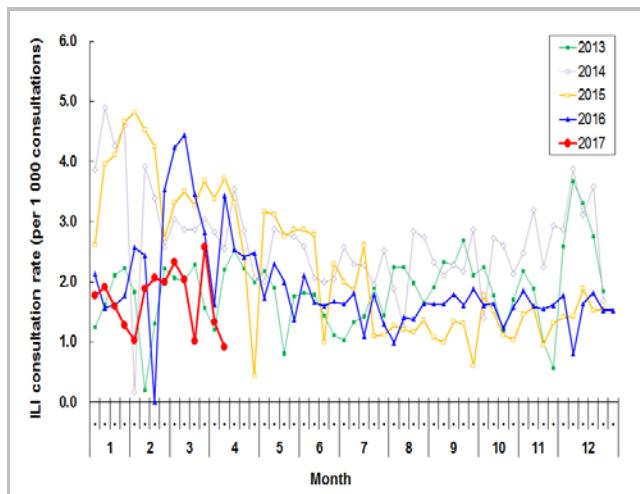


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

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 Feb 24, 2017, a total of 71 severe cases (including 42 deaths) were recorded cumulatively (as of Apr 12) (Figure 9). These included:

- 66 cases (including 41 deaths) among adult patients aged 18 years or above. Among them, 50 patients had infection with influenza A(H3N2), seven patients with influenza A(H1N1)pdm09, eight patients with influenza B and one patient with influenza A without subtype. Twenty (30.3%) were known to have received the influenza vaccine for this season. Among the 41 fatal cases, sixteen (39.0%) were known to have received the influenza vaccine for this season. In the last winter season in early 2016, 409 adult severe cases (including 211 deaths) were filed.
- Five cases (including one death) of severe paediatric influenza-associated complication/death. Among them, three patients had infection with influenza A(H3N2), one patient with influenza A (H1N1) pdm09 and one patient with influenza B. Four (80.0%) cases did not receive the influenza vaccine for this season. In the last winter season in early 2016, 27 paediatric cases (including three deaths) were filed.

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

- In week 14, five cases of influenza associated ICU admission/death were recorded, in which three of them were fatal. In the first 4 days of week 15 (Apr 9 to 12), six cases of influenza associated ICU admission/death were recorded, in which two of them were fatal.

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

- In week 14, three cases (including one imported case) of severe paediatric influenza-associated complication/death were reported. In the first 4 days of week 15 (Apr 9 to 12), there were no new cases of severe paediatric influenza-associated complication/death. The details are as follow:

| Reporting week | Age | Sex | Complication | Fatal case? | Influenza subtype | History of receiving influenza vaccine for this season |
|----------------|-----------|--------|---------------------------------------|-------------|--------------------------|--|
| 14 | 14 months | Female | Myocarditis | No | Influenza A(H3N2) | No |
| 14 | 2 years | Female | Status epilepticus and encephalopathy | No | Influenza A(H3N2) | No |
| 14 | 20 months | Female | Status epilepticus and encephalitis | Yes | Influenza A (H1N1) pdm09 | Yes |

Data as of Apr 12, 2017

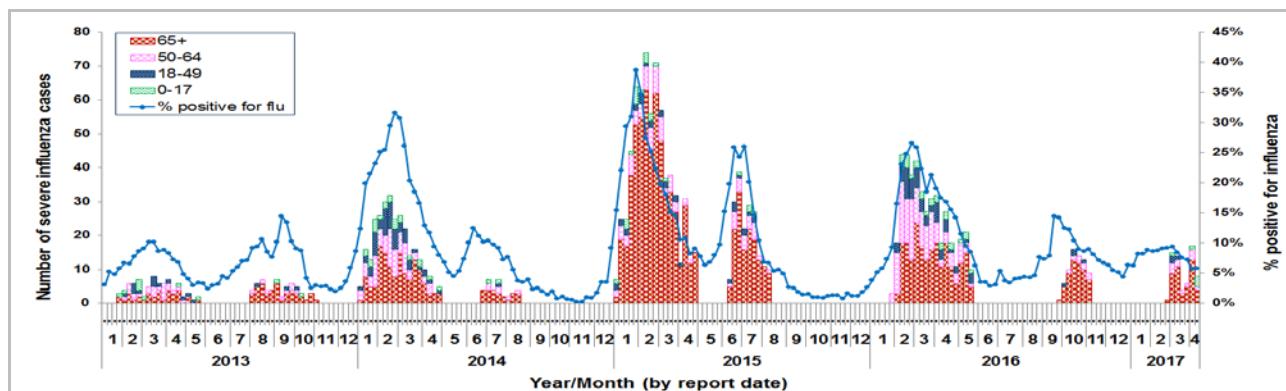


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

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 14 and the first 4 days of week 15 (Apr 9 to 12, 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

In most areas in the Northern Hemisphere, the influenza activities were decreasing, but some areas remained above the seasonal threshold. The predominating virus was influenza A(H3N2), but the proportion of influenza B is increasing.

- In the United States (week ending Apr 1, 2017), influenza activity decreased but remained elevated. The proportion of outpatient visits for ILI was 2.9%, which was above the national baseline of 2.2%.
- In Canada (week ending Apr 1, 2017), the overall influenza activity is slowly declining. Influenza activity due to influenza B is slowly increasing but is low compared to the same time period in the previous two seasons. Influenza A continues to be the most common subtype detected.
- In the United Kingdom (week ending Apr 2, 2017), influenza activity continues to decrease across all indicators. The positivity of influenza detection was 3.1% in the week ending Apr 2, which was below the threshold of 8.6% for 2016/17.
- In Europe (week ending Apr 2, 2017), influenza activity across the region continued to decrease with all countries reporting low intensity of influenza activity. The proportion of influenza virus detections (16%) among sentinel surveillance specimens was lower compared to the previous week, but was still above the seasonal threshold of 10%. The proportion of type B viruses exceeded the proportion of type A viruses in sentinel detections, but the overall number of type B virus detections remained low. The majority of influenza viruses detected was still influenza A(H3N2).
- In Taiwan (week ending Apr 1, 2017), the proportion of ILI cases in emergency departments and outpatient departments has slightly increased, while the number of specimens positive for influenza slightly decreased as compared to the previous week. The predominating viruses were influenza A(H3N2), but the number of specimens positive for influenza B virus was increasing recently.
- In Japan (week ending Apr 2, 2017), the average number of reported ILI cases per sentinel site decreased to 6.78 in the week ending Apr 2 from 7.71 recorded in the previous week, but 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](#).