

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 5, 2017)

Reporting period: Mar 26 – Apr 1, 2017 (Week 13)

- The latest surveillance data showed that the local influenza activity last week is similar to the previous week.
- 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 5, 56 severe cases (including 37 deaths) were recorded. Separately, four cases 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 13, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 5.0 ILI cases per 1,000 consultations, which was higher than 4.7 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 44.6 ILI cases per 1,000 consultations, which was lower than 55.7 recorded in the previous week (Figure 1, right).

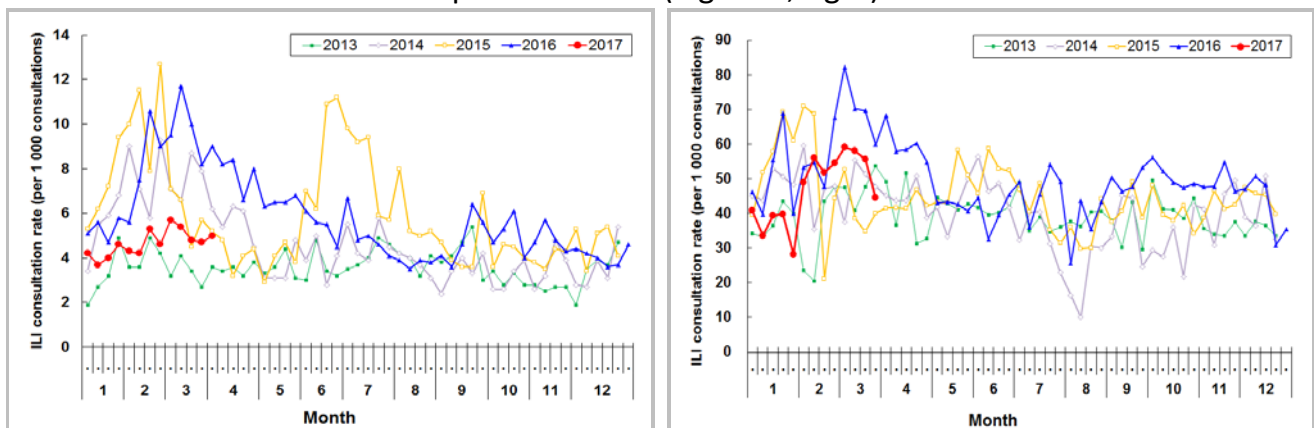


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 13, 232 (5.64%) were tested positive for seasonal influenza viruses, including 35 (0.85%) influenza A(H1), 150 (3.64%) influenza A(H3), 44 (1.07%) influenza B and 3 (0.07%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 5.64%, which was lower than 7.20% 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 64.7%, 19.0%, 15.1% and 1.3% respectively.

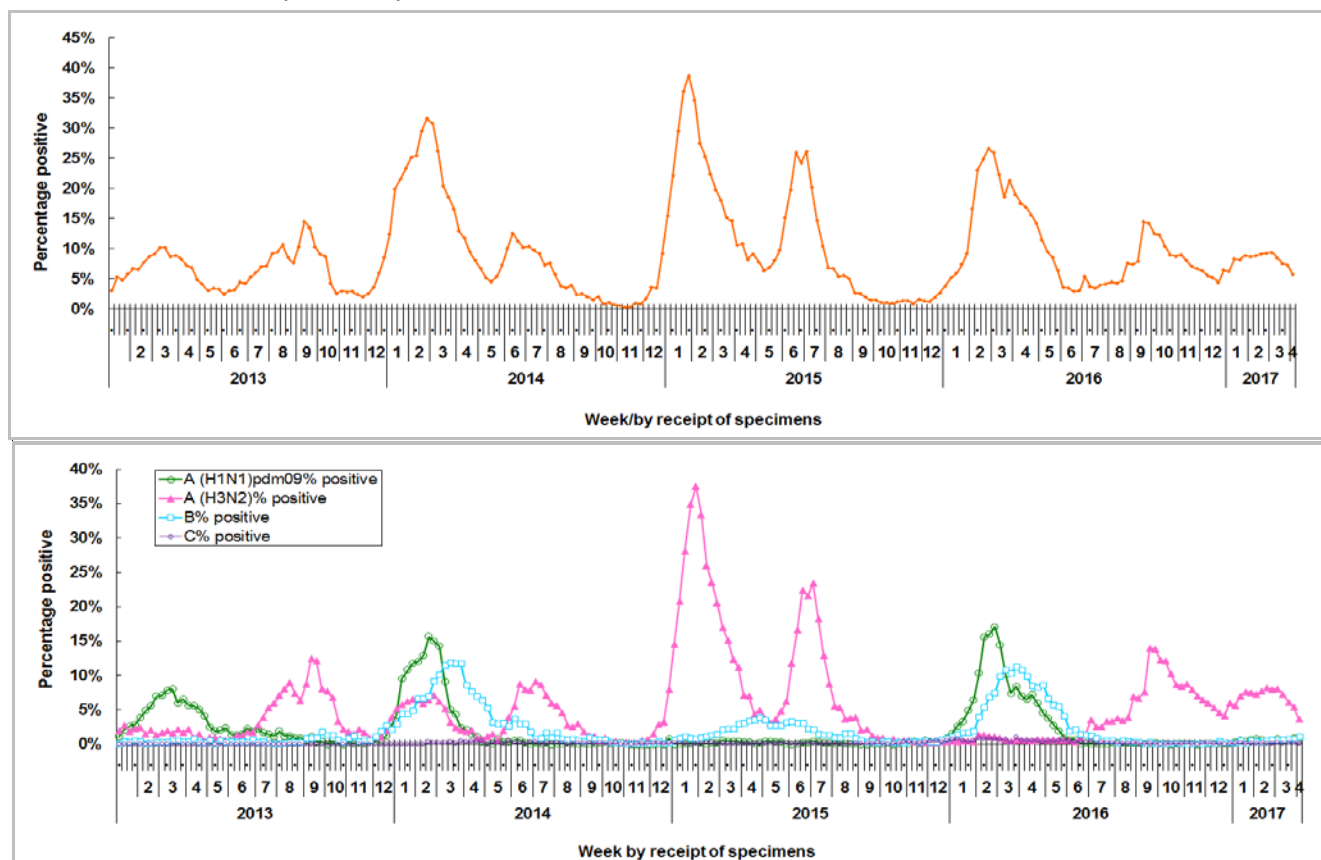


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2013-17

In week 13, 11 ILI outbreaks occurring in schools/ institutions were recorded (affecting 76 persons), as compared to 7 outbreaks recorded in the previous week (affecting 41 persons) (Figure 3). In the first 4 days of week 14 (Apr 2 to 5, 2017), four institutional ILI outbreaks were recorded (affecting 16 persons).

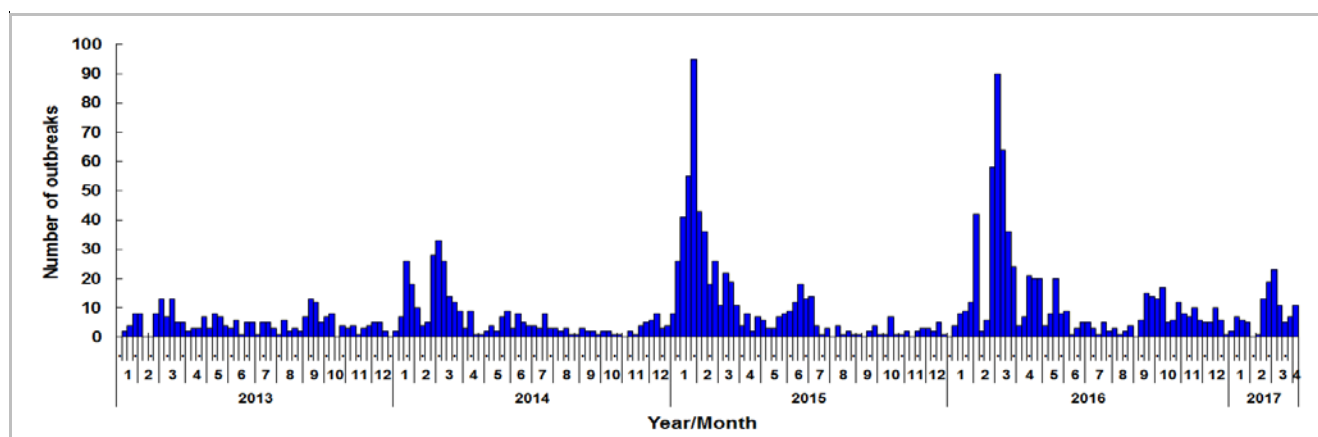


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 13, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 175.2 (per 1,000 coded cases), which was higher than the rate of 167.1 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.

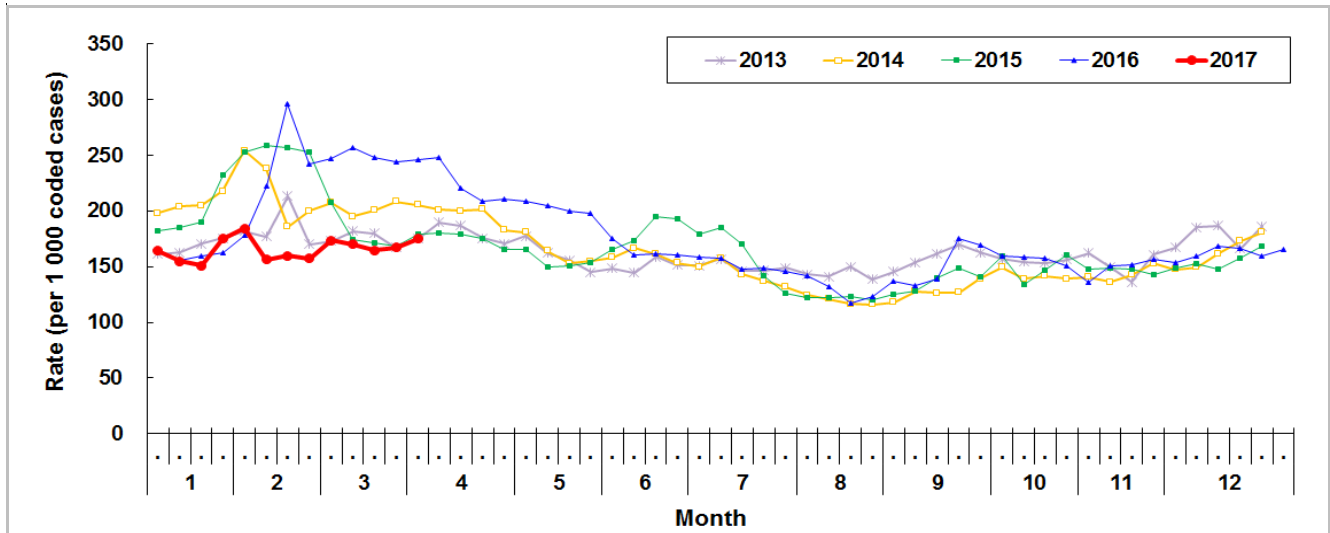


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 13, 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 0.71, 0.24, 0.03 and 0.21 cases (per 10,000 people in the age group) respectively, as compared to 1.04, 0.38, 0.06 and 0.35 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

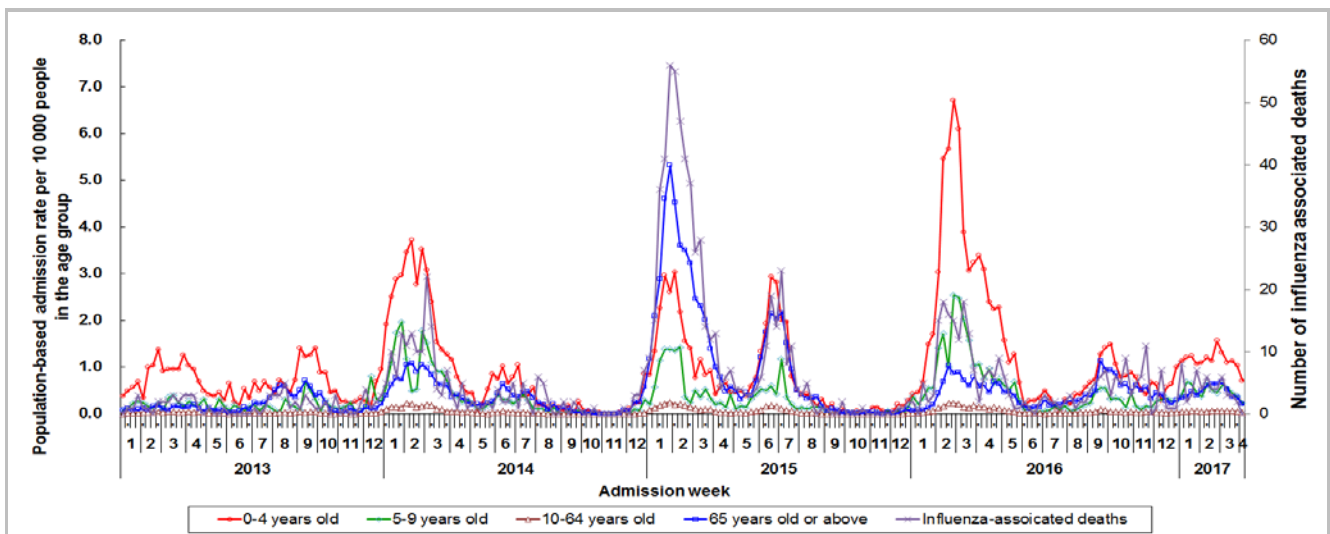


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 13, 0.77% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.76% recorded in the previous week (Figure 6).

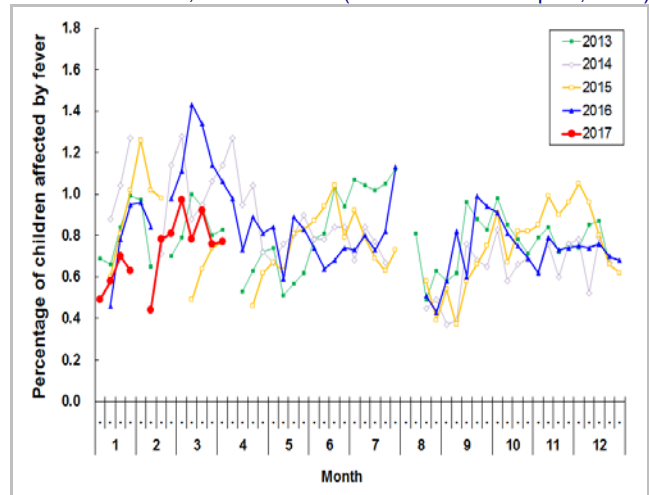


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 13, 0.10% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), which was the same as the previous week (Figure 7).

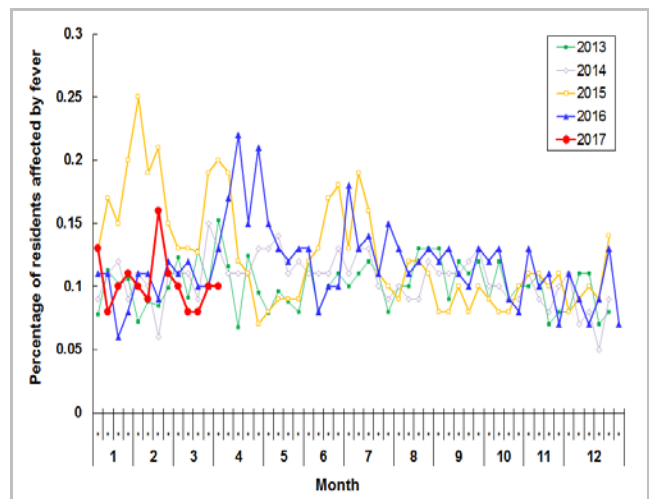


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 13, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.33 ILI cases per 1,000 consultations as compared to 2.58 recorded in the previous week (Figure 8).

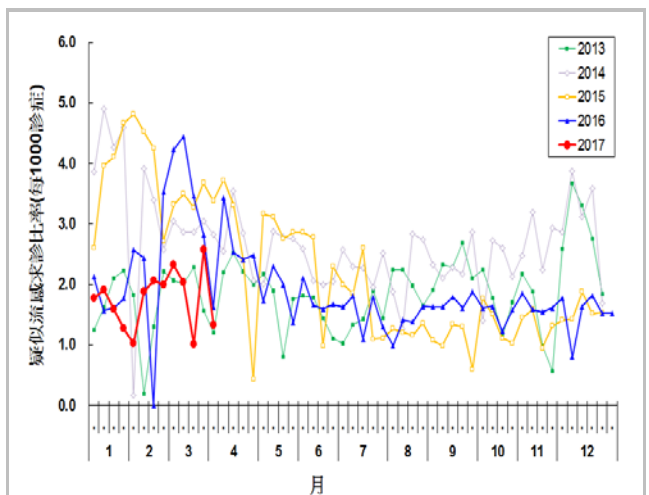


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

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 60 severe cases (including 37 deaths) were recorded cumulatively (as of Apr 5) (Figure 9). These included:

- 56 cases (including 37 deaths) among adult patients aged 18 years or above. Among them, 43 patients had infection with influenza A(H3N2), six patients with influenza A(H1N1)pdm09, six patients with influenza B and one patient with influenza A pending subtype. Nineteen (33.9%) were known to have received the influenza vaccine for this season. Among the 37 fatal cases, fifteen (40.5%) 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.
- Four cases of severe paediatric influenza-associated complication. Among them, three patients had infection with influenza A(H3N2) and one patient with influenza B. All 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 13, 16 cases of influenza associated ICU admission/death were recorded, in which 12 of them were fatal. In the first 4 days of week 14 (Apr 2 to 5), one case of influenza associated death was recorded.

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

- One case of severe paediatric influenza-associated complication was reported in week 13 and two cases were reported in the first 4 days of week 14 (Apr 2 to 5). The details are as follow:

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving influenza vaccine for this season
13	6 years	Female	Encephalitis	No	Influenza B	No
14	14 months	Female	Myocarditis	No	Influenza A(H3)	No
14	2 years	Female	Status epilepticus and encephalopathy	No	Influenza A(H3)	No

Data as of Apr 5, 2017

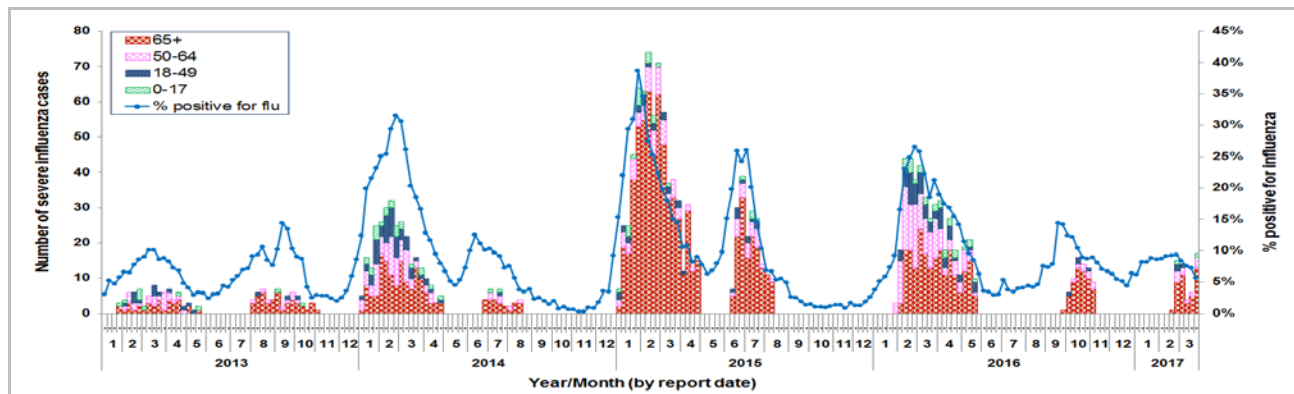


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

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 13 and the first 4 days of week 14 (Apr 2 to 5, 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 Mar 25, 2017), influenza activity remained elevated. The proportion of outpatient visits for ILI was 3.2%, which was above the national baseline of 2.2%.
- In Canada (week ending Mar 25, 2017), the slow decline in influenza activity has continued in week 12. However, many parts of Canada are still reporting elevated activity. Influenza A(H3N2) continues to be the most common subtype detected, but influenza activity due to influenza B is slowly increasing.
- In the United Kingdom (week ending Mar 26, 2017), influenza activity continues to decrease across all indicators. The positivity of influenza detection was 3.0% in the week ending Mar 26, which was below the threshold of 8.6% for 2016/17.
- In Europe (week ending Mar 26, 2017), influenza activity across the region continued to decrease with the great majority of countries reporting low intensity. The proportion of influenza virus detections (18%) among sentinel surveillance specimens remained at the same level as the previous week, and was still above the seasonal threshold of 10%. The majority of influenza viruses detected was influenza A(H3N2).
- In Taiwan (week ending Mar 25, 2017), the proportion of ILI cases in emergency departments and outpatient departments and the number of specimens positive for influenza has increased as compared to the previous week. The predominating viruses were influenza A(H3N2).
- In Japan (week ending Mar 26, 2017), the average number of reported ILI cases per sentinel site decreased to 7.71 in the week ending Mar 26 from 10.33 recorded in the previous week, but was still higher than the baseline level of 1.00.
- In Korea (week ending Mar 18, 2017), the weekly ILI rate increased to 9.3 from 7.0 recorded in previous week, and was above the baseline of 8.9. The proportion of influenza detections also increased to 6.9% from 3.9%.

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](#), [Japan Ministry of Health](#) and [Korean Centers for Disease Control and Prevention](#).