

# 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 24, 2017)

**Reporting period: May 14 – 20, 2017 (Week 20)**

- 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 May 24, 39 severe cases (including 24 deaths) were recorded. Separately, three cases of severe paediatric influenza-associated complication/death (including one death) (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 20, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 5.8 ILI cases per 1,000 consultations, which was higher than 5.5 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 55.7 ILI cases per 1,000 consultations, which was higher than 50.7 recorded in the previous week (Figure 1, right).

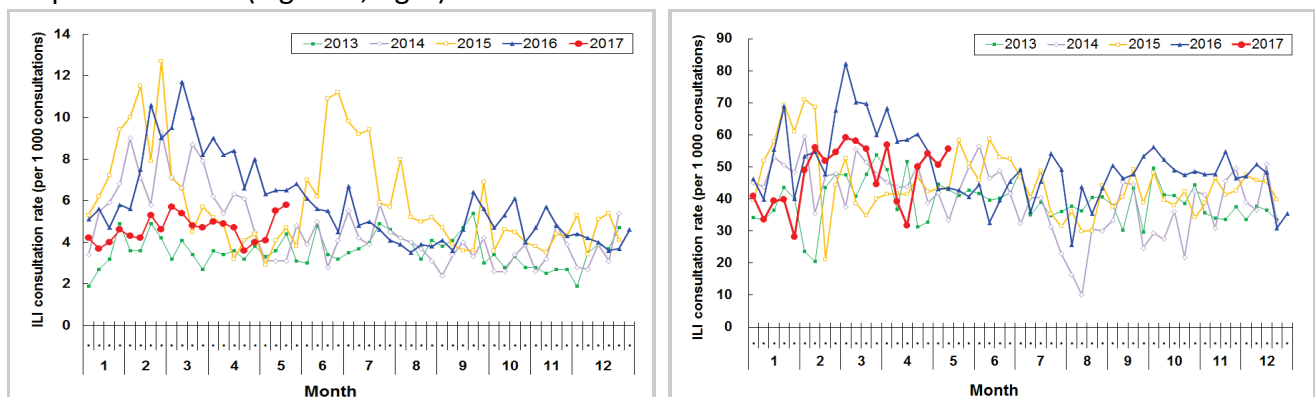


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

## Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 20, 590 (13.51%) were tested positive for seasonal influenza viruses, including 125 (2.86%) influenza A(H1), 421 (9.64%) influenza A(H3), 40 (0.92%) influenza B and 4 (0.09%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 13.51%, which was higher than 12.10% 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 71.4%, 21.2%, 6.8% and 0.7% respectively.

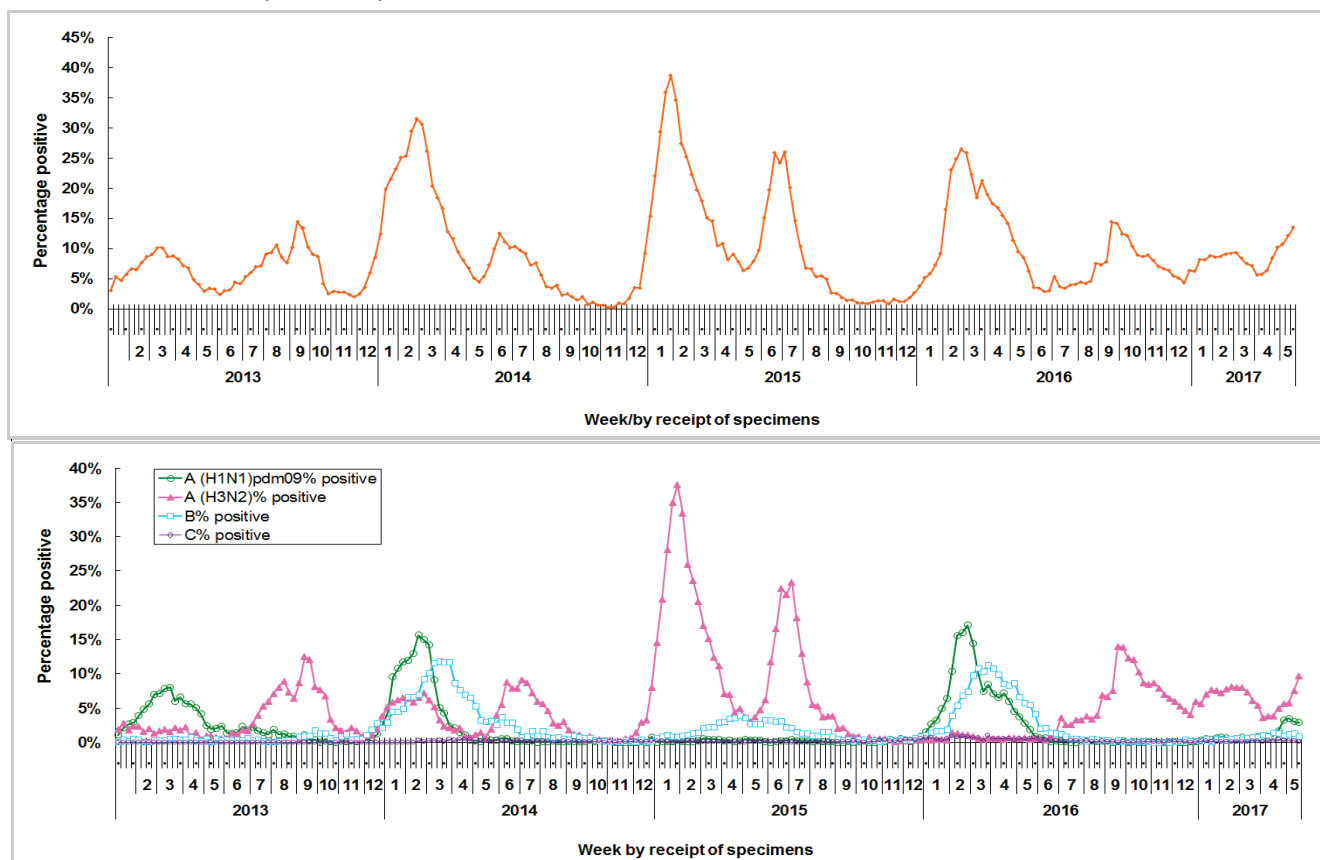


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

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

In week 20, 27 ILI outbreaks occurring in schools/institutions were recorded (affecting 140 persons), as compared to 15 outbreaks recorded in the previous week (affecting 72 persons) (Figure 3). In the first 4 days of week 21 (May 21 to 24, 2017), 14 institutional ILI outbreaks were recorded (affecting 68 persons).

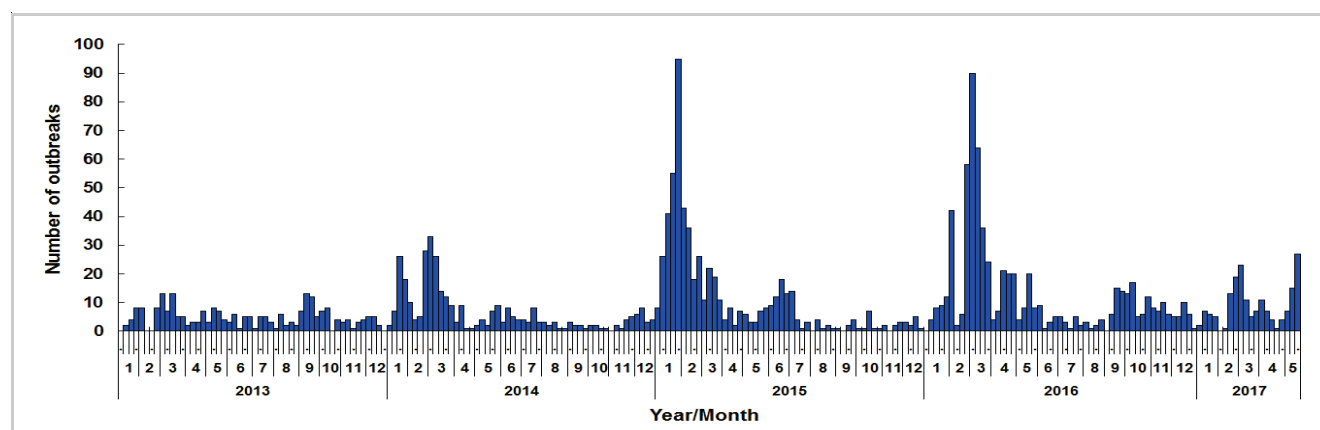


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 20, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 175.9 (per 1,000 coded cases), which was higher than the rate of 164.1 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.*

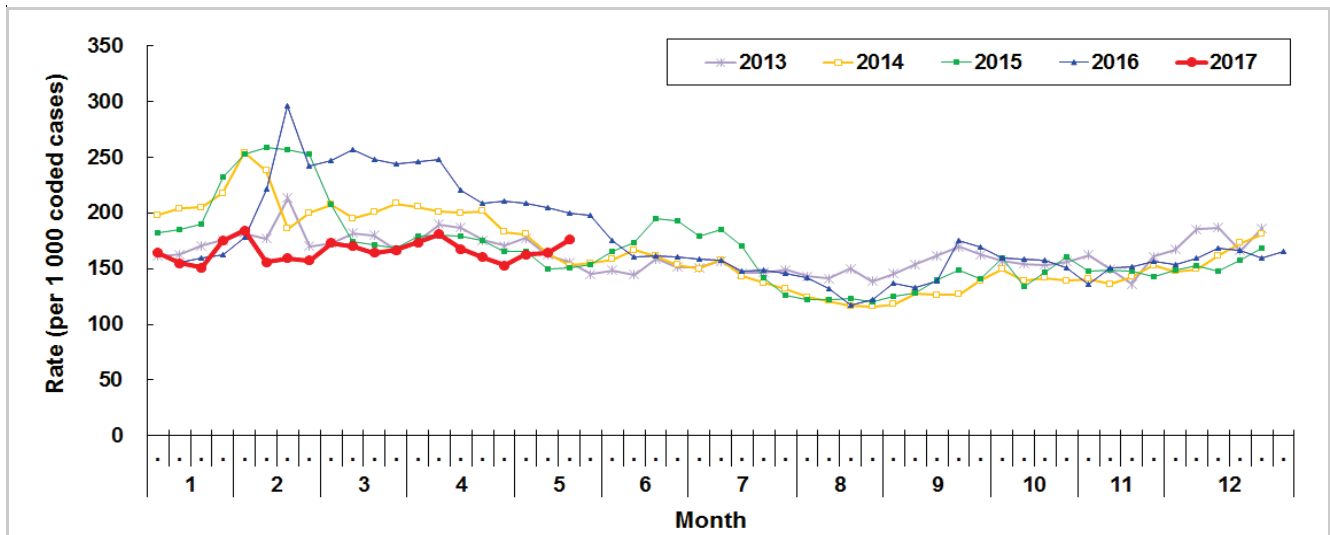


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 20, 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 1.72, 0.86, 0.14 and 0.90 cases (per 10,000 people in the age group) respectively, as compared to 1.93, 0.82, 0.12 and 0.76 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

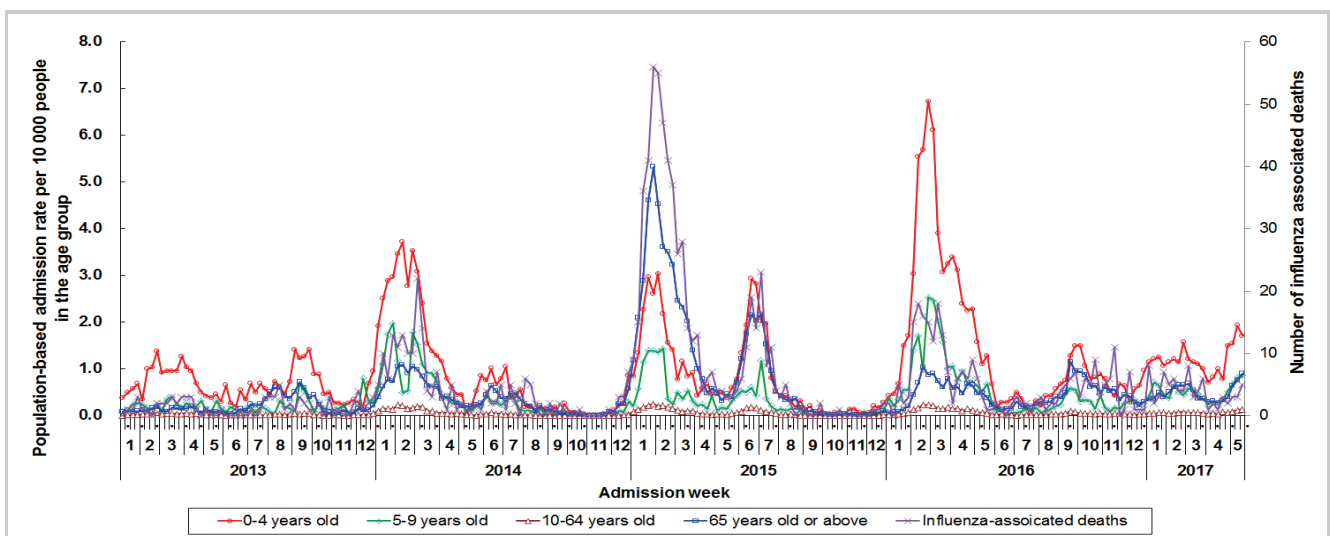


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 20, 0.80% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.72% recorded in the previous week (Figure 6).

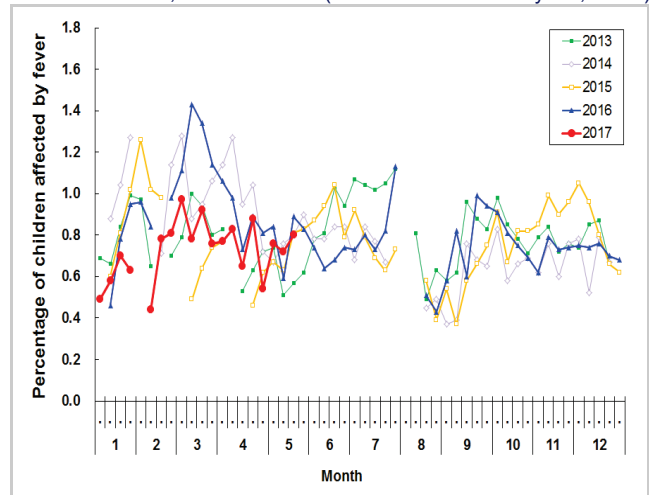


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 20, 0.14% 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).

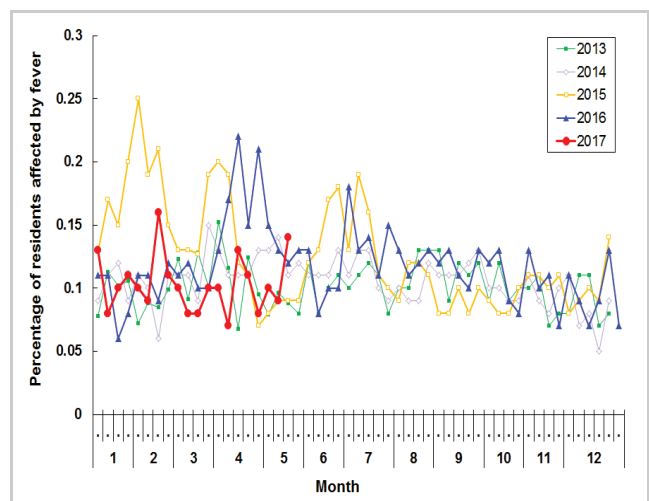


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 20, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.52 ILI cases per 1,000 consultations as compared to 1.84 recorded in the previous week (Figure 8).

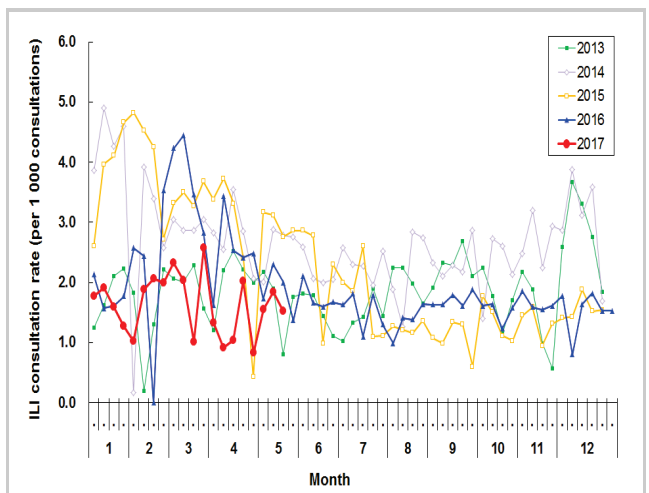


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

## 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 42 severe cases (including 25 deaths) were recorded cumulatively (as of May 24) (Figure 9). These included:

- 39 cases (including 24 deaths) among adult patients aged 18 years or above. Among them, 21 patients had infection with influenza A(H3N2), 10 patients with influenza A(H1N1)pdm09, four patients with influenza B and four patients with influenza A with subtype pending. Six (15.4%) were known to have received the influenza vaccine for the 2016/17 season. Among the 24 fatal cases, six (25.0%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- Three cases (including one death) of severe paediatric influenza-associated complication/death. All of them did not receive the influenza vaccine for the 2016/17 season. To date in 2017, 11 paediatric cases (including two deaths) were filed.

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

- In week 20, 14 cases of influenza associated ICU admission/death were recorded, in which nine of them were fatal. In the first 4 days of week 21 (May 21 to 24), eight cases of influenza associated ICU admission/death were recorded, in which six of them were fatal.

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

- In week 20, there were two cases of severe paediatric influenza-associated complication/death. In the first 4 days of week 21 (May 21 to 24), no cases of severe paediatric influenza-associated complication/death were reported. The case details are as follow:

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving influenza vaccine for this season
20	16 months	Male	Encephalopathy	Yes	Influenza A (H1)	No
20	15 months	Male	Encephalopathy and suspected Reye's syndrome	No	Influenza A (H1)	No

Data as of May 24, 2017

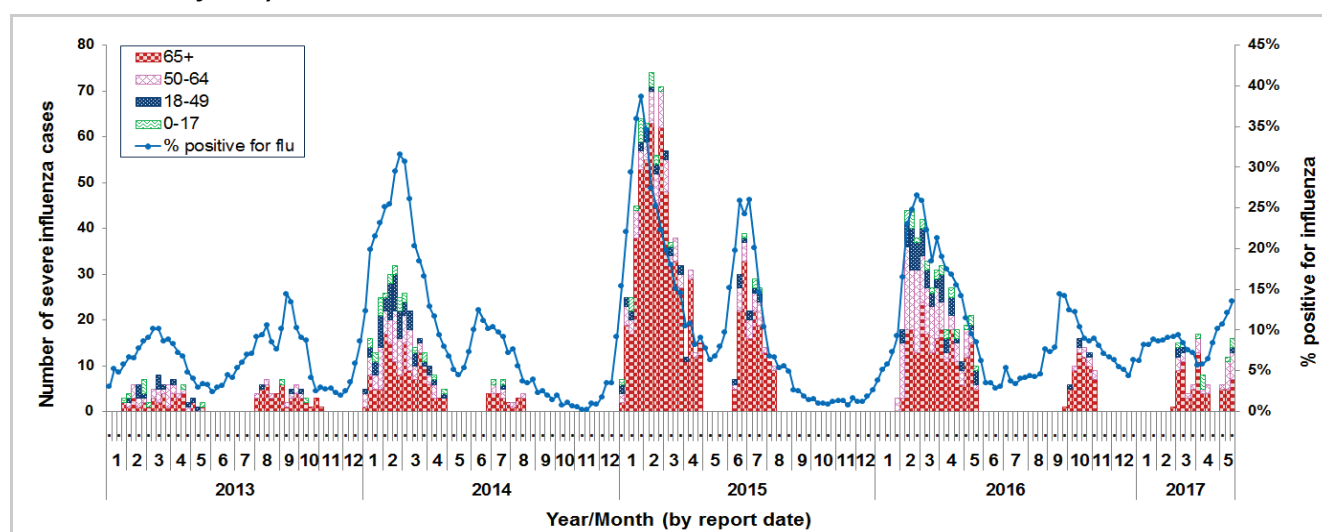


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

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 20 and the first 4 days of week 21 (May 21 to 24), 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 reached seasonal thresholds in some countries, but remained low in general. Worldwide, influenza B viruses were predominant.

- In the United States (week ending May 13, 2017), influenza activity decreased. The proportion of outpatient visits for ILI was 1.3%, which was below the national baseline of 2.2%.
- In Canada (week ending May 13, 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 the majority of influenza activity, with 70% or more of reported influenza laboratory detections, hospitalizations and outbreaks due to influenza B. This increase in influenza B activity is expected as influenza B often appears later in the flu season.
- In the United Kingdom (week ending May 14, 2017), influenza activity continued to decrease across all indicators with some circulation of influenza B. The positivity of influenza detection was 3.0% in the week ending May 14, which was below the threshold of 8.6% for 2016/17.
- In Europe (week ending May 14, 2017), influenza activity has returned to out-of-season levels in most countries. All 35 reporting countries have reported low intensity of influenza. The proportion of sentinel specimens testing positive for influenza viruses was 6%, and lower than in the previous week (12%). Influenza viruses were detected in seven countries only and numbers were low. All sentinel detections were type B viruses and their numbers have declined since week 15.
- In Taiwan (week ending May 20, 2017), the proportion and number 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 15% of the influenza detection in the week ending May 20.
- In Japan (week ending May 14, 2017), the average number of reported ILI cases per sentinel site decreased to 1.37 in the week ending May 14 from 2.03 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](#).