

# 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 Mar 22, 2017)

**Reporting period: Mar 12 – Mar 18, 2017 (Week 11)**

- The latest surveillance data showed that the local influenza activity decreased as compared 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 Mar 22, 37 severe cases (including 22 deaths) were recorded. Separately, one case of severe paediatric influenza-associated complication (aged below 18 years) was 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](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 11, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.8 ILI cases per 1,000 consultations, which was lower than 5.4 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 58.1 ILI cases per 1,000 consultations, which was similar to 59.1 recorded in the previous week (Figure 1, right).

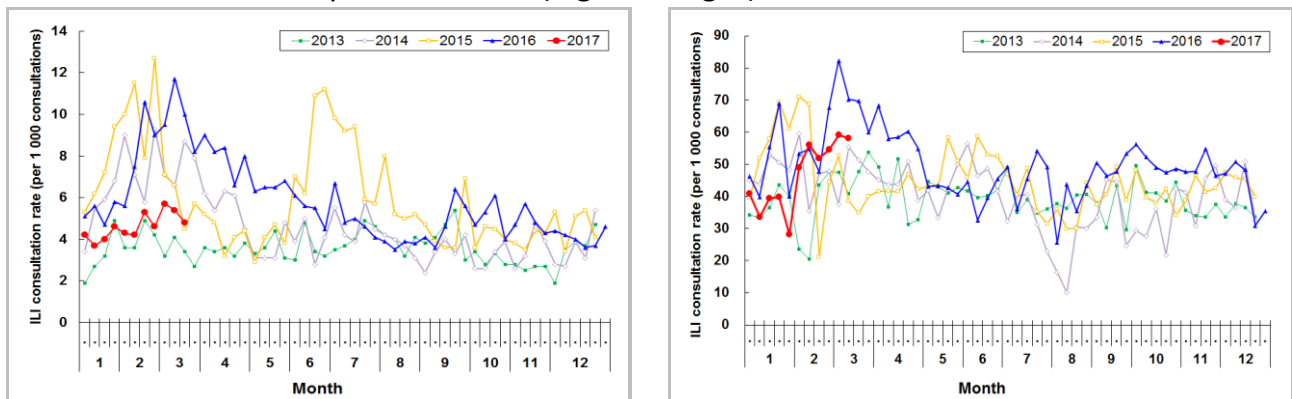


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

## Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 11, 314 (7.54%) were tested positive for seasonal influenza viruses, including 19 (0.46%) influenza A(H1), 255 (6.12%) influenza A(H3), 31 (0.74%) influenza B and 9 (0.22%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 7.54%, which was lower than 8.43% 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 81.2%, 9.9%, 6.1% and 2.9% respectively.

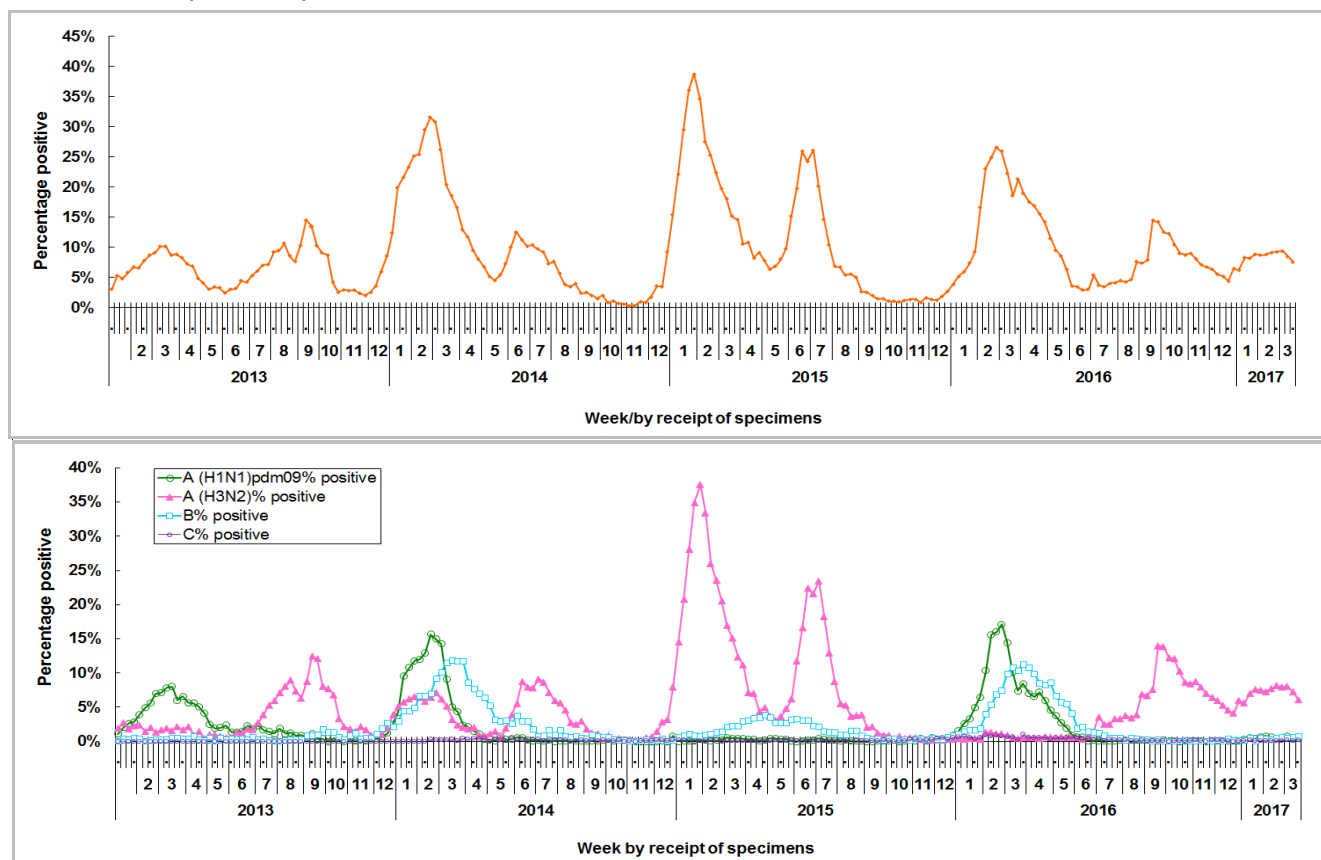


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

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

In week 11, five ILI outbreaks occurring in schools/ institutions were recorded (affecting 25 persons), as compared to eleven outbreaks recorded in the previous week (affecting 49 persons) (Figure 3). In the first 4 days of week 12 (Mar 19 to 22, 2017), five institutional ILI outbreaks were recorded (affecting 27 persons).

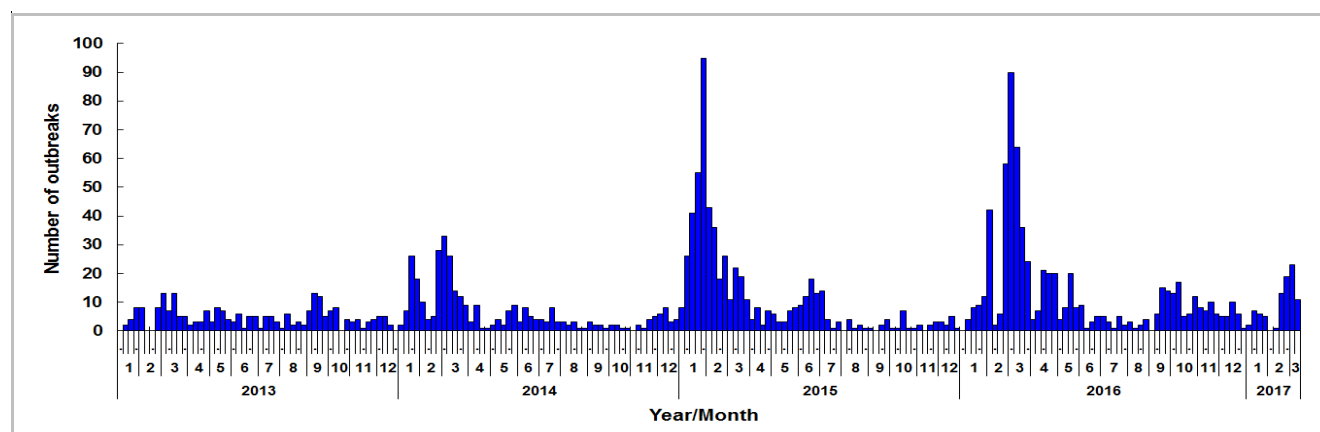


Figure 3 ILI outbreaks in schools/institutions, 2013-17

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

In week 11, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 165.6 (per 1,000 coded cases), which was lower than the rate of 170.6 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.*

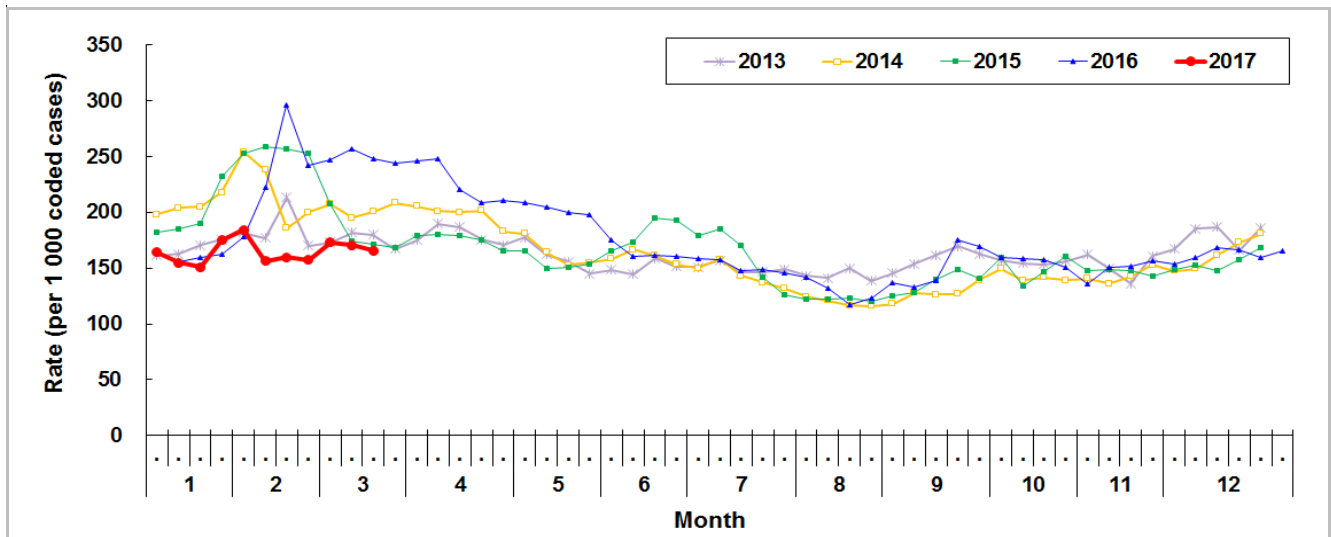


Figure 4 Rate of ILI syndrome group in AED, 2013-17

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

In week 11, 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 1.00, 0.45, 0.06 and 0.27 cases (per 10,000 people in the age group) respectively, as compared to 1.11, 0.52, 0.07 and 0.49 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

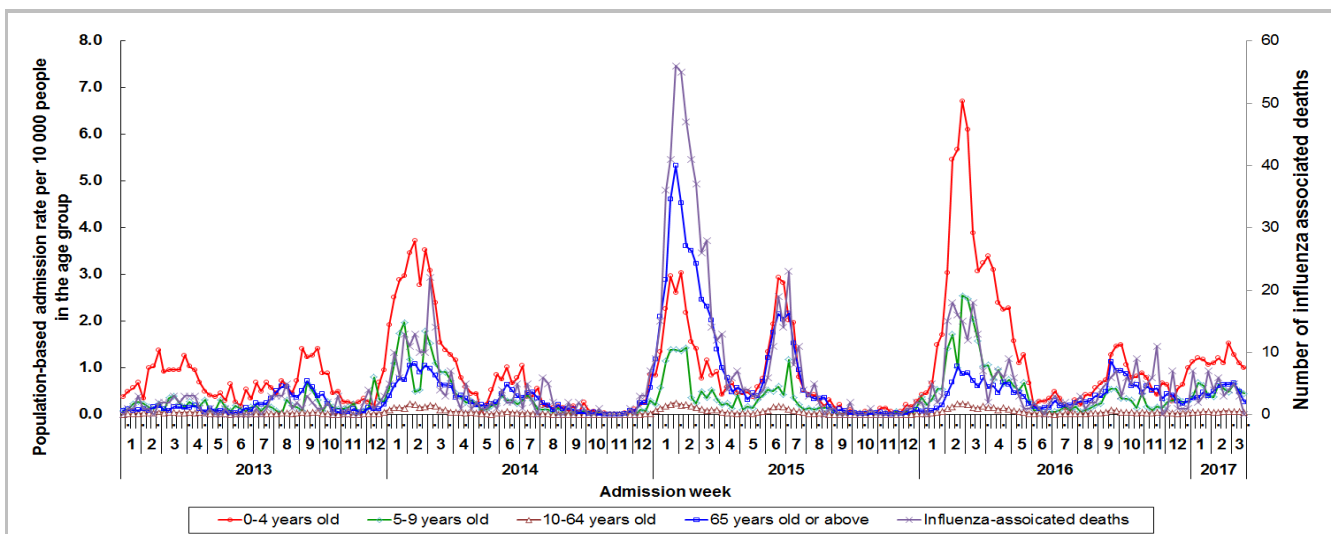


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

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

In week 11, 0.92% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever ( $38^{\circ}\text{C}$  or above) as compared to 0.78% in the previous week (Figure 6).

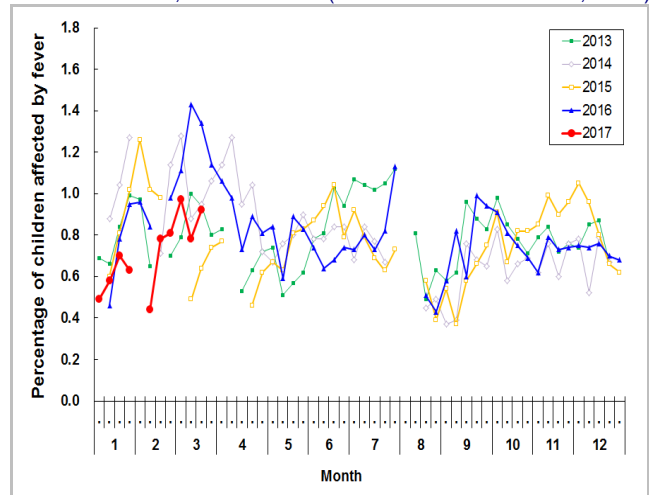


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

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

In week 11, 0.08% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever ( $38^{\circ}\text{C}$  or above) which was the same as the previous week (Figure 7).

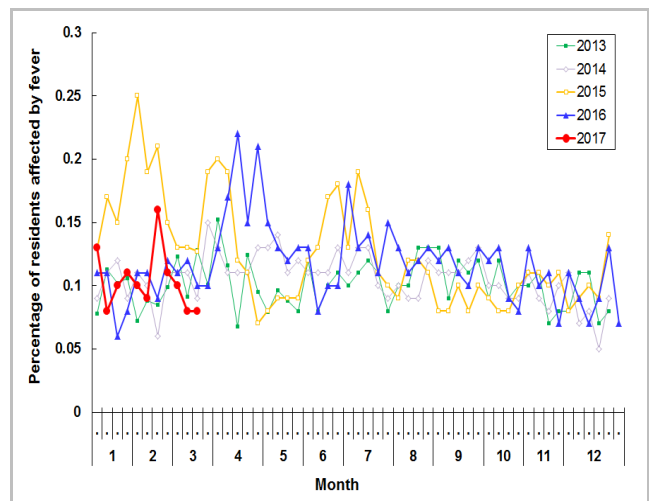


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

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

In week 11, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.01 ILI cases per 1,000 consultations as compared to 2.04 recorded in the previous week (Figure 8).

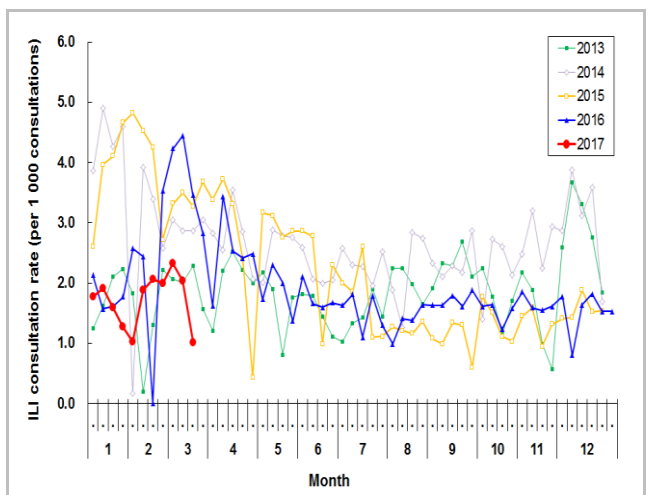


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

## 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 38 severe cases (including 22 deaths) were recorded cumulatively (as of Mar 22) (Figure 9). These included:

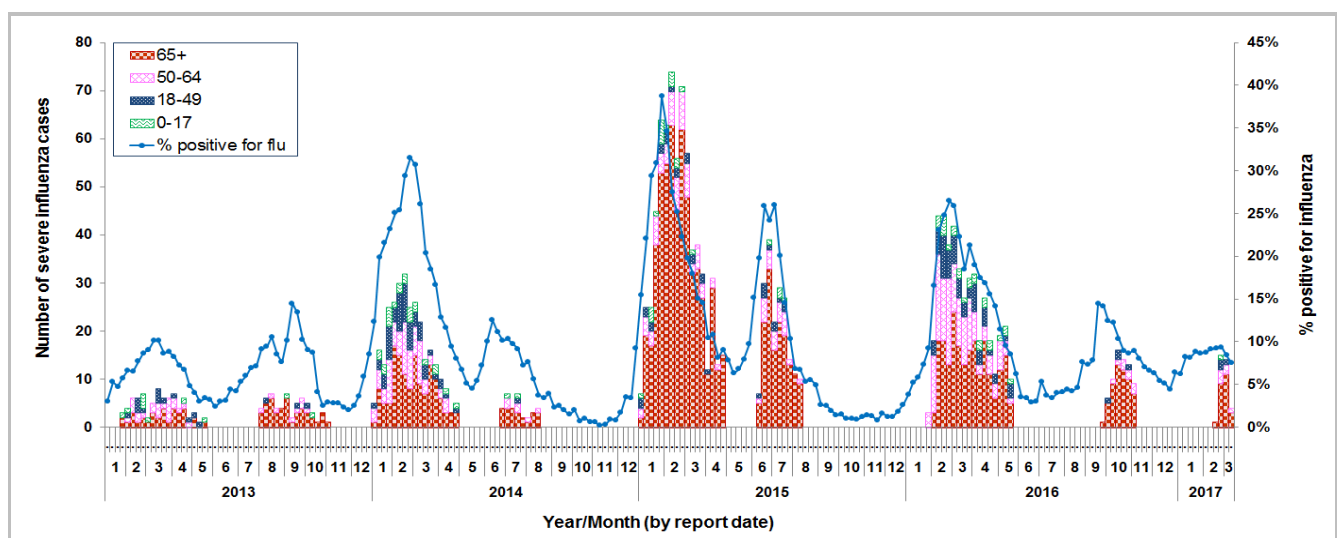
- 37 cases (including 22 deaths) among adult patients aged 18 years or above. Among them, 29 patients had infection with influenza A(H3N2), four patients with influenza A(H1N1)pdm09, three patients with influenza B and one patient with influenza A pending subtype. Eleven (29.7%) were known to have received the influenza vaccine for this season. Among the 22 fatal cases, eight (36.4%) 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.
- one case of severe paediatric influenza-associated complication. The case had infection with influenza A(H3N2) and 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 11, four cases of influenza associated ICU admission/death were recorded, in which two of them were fatal. In the first 4 days of week 12 (Mar 19 to Mar 22), four cases of influenza associated ICU admission/death were recorded, in which one of them was fatal.

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

- In week 11 and the first 4 days of week 12 (Mar 19 to 22, 2017), 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 11 and the first 4 days of week 12 (Mar 19 to 22, 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).

- In the United States (week ending Mar 11, 2017), influenza activity decreased, but remained elevated. The proportion of outpatient visits for ILI was 3.7%, which was above the national baseline of 2.2%.
- In Canada (week ending Mar 11, 2017), many parts are still reporting elevated activity. The decline in influenza activity has been slow compared to previous seasons. Influenza A(H3N2) continues to be the most common subtype detected.
- In the United Kingdom (week ending Mar 12, 2017), influenza continues to circulate with further decreases noted in most indicators. The positivity of influenza detection was 7.3% in the week ending Mar 12, which was below the threshold for 2016/17 season of 8.6%.
- In Europe (week ending Mar 12, 2017), influenza activity across the region continued to decrease with the great majority of countries reporting low intensity. The proportion of virus detections among sentinel surveillance specimens decreased to 21% from 27% in the previous week, but was still above the seasonal threshold of 10%. The majority of influenza viruses detected was influenza A(H3N2).
- In Taiwan (week ending Mar 18, 2017), the proportion of ILI cases in emergency departments and outpatient departments slightly increased, while the number of reported cases of severe influenza was stable in the past few weeks. The number of specimens positive for influenza slightly increased in the past few weeks. The predominating viruses were influenza A(H3N2).
- In Japan (week ending Mar 12, 2017), the average number of reported ILI cases per sentinel site decreased to 11.09 in the week ending Mar 12 from 13.55 recorded in the previous week, but was still higher than the baseline level of 1.00.
- In Korea (week ending Mar 11, 2017), influenza activity has reached its peak in late December last year. The weekly ILI rate increased to 7.0 from 6.1 recorded in previous week while the baseline is 8.9. The proportion of influenza detections also decreased to 3.9% from 5.5%.

### 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](#).