

# 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 2, 2018)

**Reporting period: Apr 22 – 28, 2018 (Week 17)**

- The latest surveillance data showed that the overall influenza activity in Hong Kong remained at a low level.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Given that seasonal influenza vaccines (SIV) are safe and effective, all persons aged 6 months or above except those with known contraindications are recommended to receive influenza vaccine to protect themselves against seasonal influenza and its complications, as well as related hospitalisations and deaths.
- Apart from adopting personal, hand and environmental hygiene practices against respiratory illnesses, members of the public aged six months or above who have not yet received any SIV in the 2017/18 season can still receive it for personal protection against seasonal influenza. However, persons who had already completed seasonal influenza vaccination in the 2017/18 season are not recommended to receive any further dose of SIV within the same season.
- The Vaccination Subsidy Scheme (VSS) and the Government Vaccination Programme (GVP) for the 2017/18 season have been launched on Oct 18 and Oct 25, 2017 respectively. The VSS continues to provide subsidised vaccination to children aged 6 months to under 12 years, elderly aged 65 years or above, pregnant women, persons with intellectual disabilities and recipients of Disability Allowance. Eligible groups for free vaccination are the same as those of 2016/17 under the GVP. For more details, please refer to the webpage ([http://www.chp.gov.hk/en/view\\_content/17980.html](http://www.chp.gov.hk/en/view_content/17980.html)).

## Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2014-18

In week 17, 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 higher than 2.4 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 47.1 ILI cases per 1,000 consultations, which was higher than 41.4 recorded in the previous week (Figure 1, right).

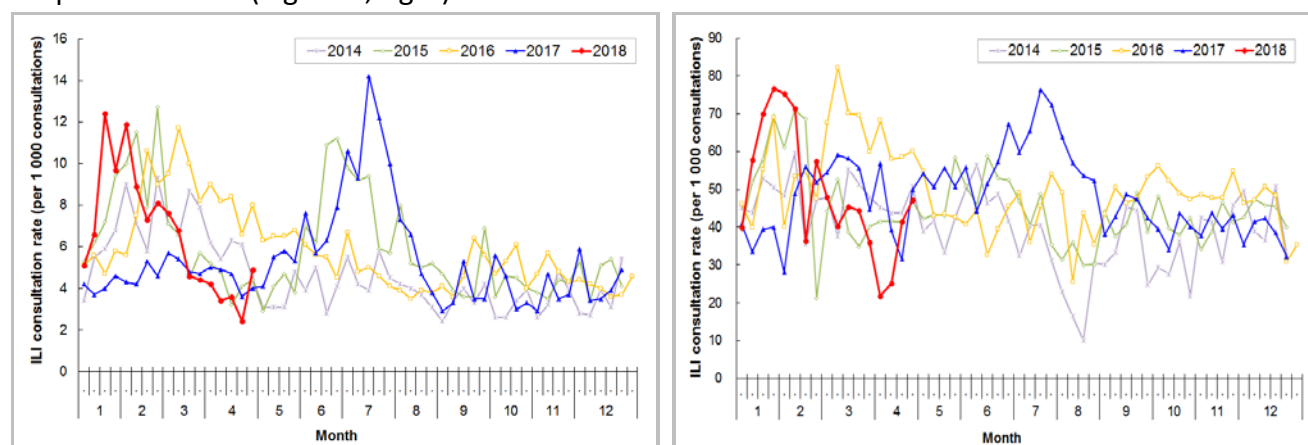


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2014-18

## Laboratory surveillance, 2014-18

Among the respiratory specimens received in week 17, the positive percentage of seasonal influenza viruses was 2.41%, which was below the baseline threshold of 10.7% but higher than 2.16% recorded in the previous week (Figure 2). The 105 influenza viruses detected last week included 63 (1.45%) influenza A(H1), 19 (0.44%) influenza A(H3), 20 (0.46%) influenza B and 3 (0.07%) influenza C.

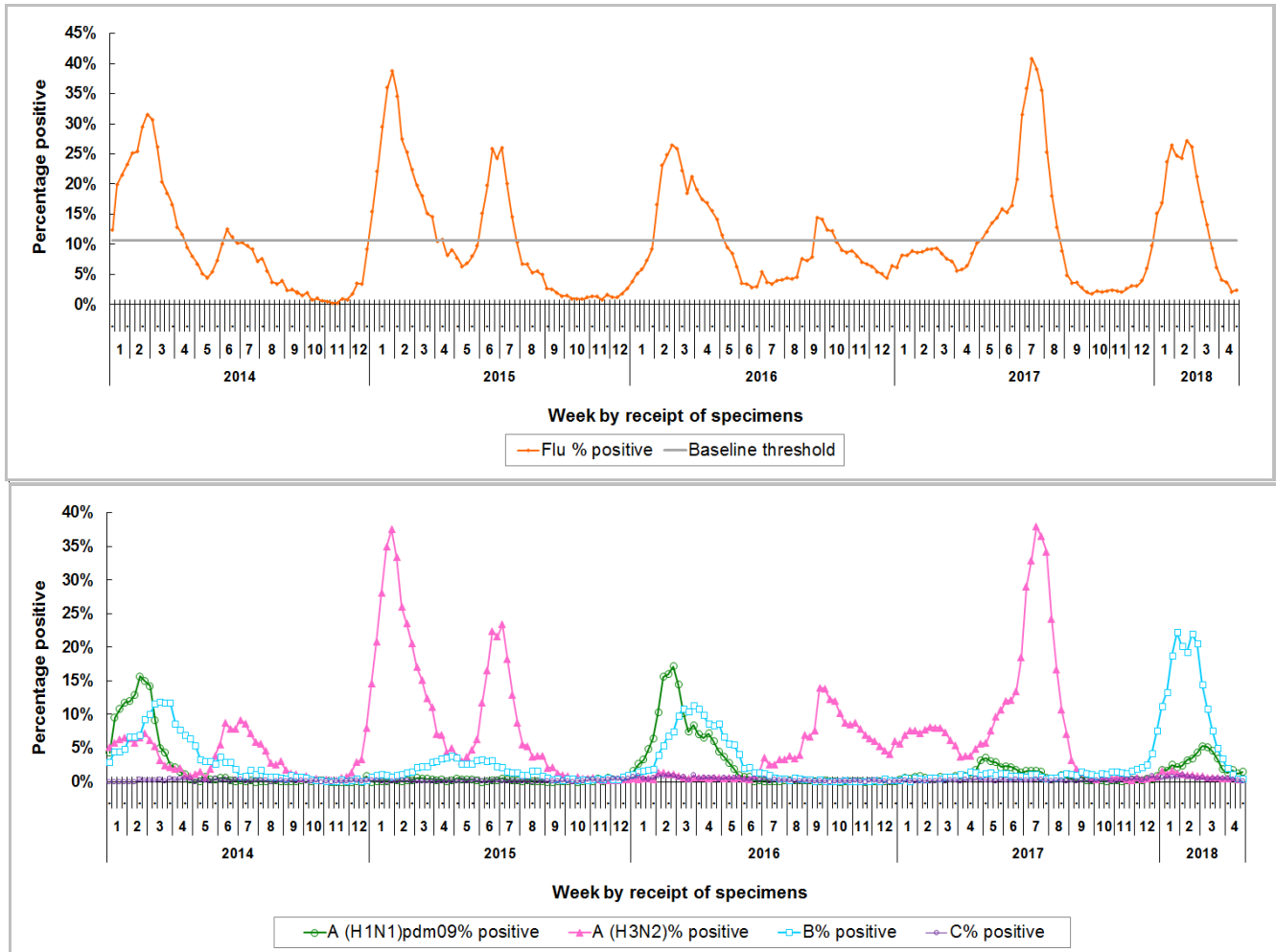


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2014-18 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly positive percentage during non-season periods from 2014-2017.]

## Influenza-like illness outbreak surveillance, 2014-18

In week 17, seven ILI outbreaks occurring in schools/institutions were recorded (affecting 37 persons), as compared to three outbreaks recorded in the previous week (affecting 10 persons) (Figure 3). In the first 4 days of week 18 (Apr 29 to May 2), one ILI outbreak in a school was recorded (affecting three persons).

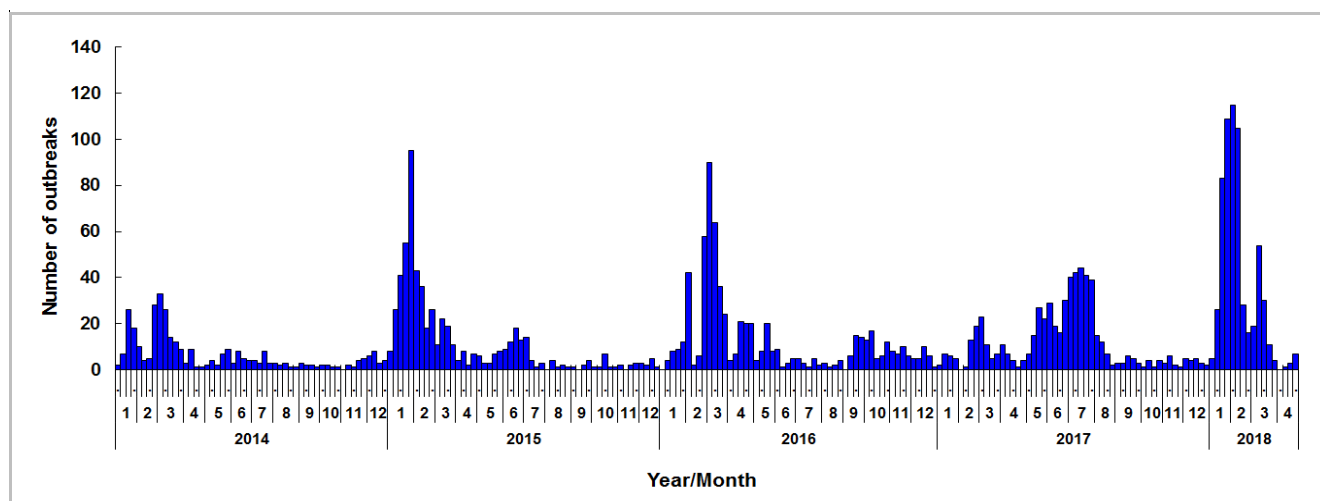


Figure 3 ILI outbreaks in schools/institutions, 2014-18

Type of institutions	Week 16	Week 17	First 4 days of week 18 (Apr 29 to May 2)
Kindergarten/ child care centre	0	0	1
Primary school	2	3	0
Secondary school	1	0	0
Residential care home for the elderly	0	1	0
Residential care home for persons with disabilities	0	2	0
Others	0	1	0
<i>Total number of outbreaks</i>	3	7	1
<i>Total number of persons affected</i>	10	37	3

## Influenza-associated hospital admission rates in public hospitals based on discharge coding, 2014-18

In week 17, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.05 (per 10,000 population), which was below the baseline threshold of 0.20 and 0.07 recorded in the previous week. The influenza-associated admission rates for persons aged 0-4 years, 5-9 years, 10-64 years and 65 years or above were 0.36, 0.16, 0.03 and 0.05 cases (per 10,000 people in the age group) respectively, as compared to 0.36, 0.23, 0.04 and 0.09 cases in the previous week (Figure 4).

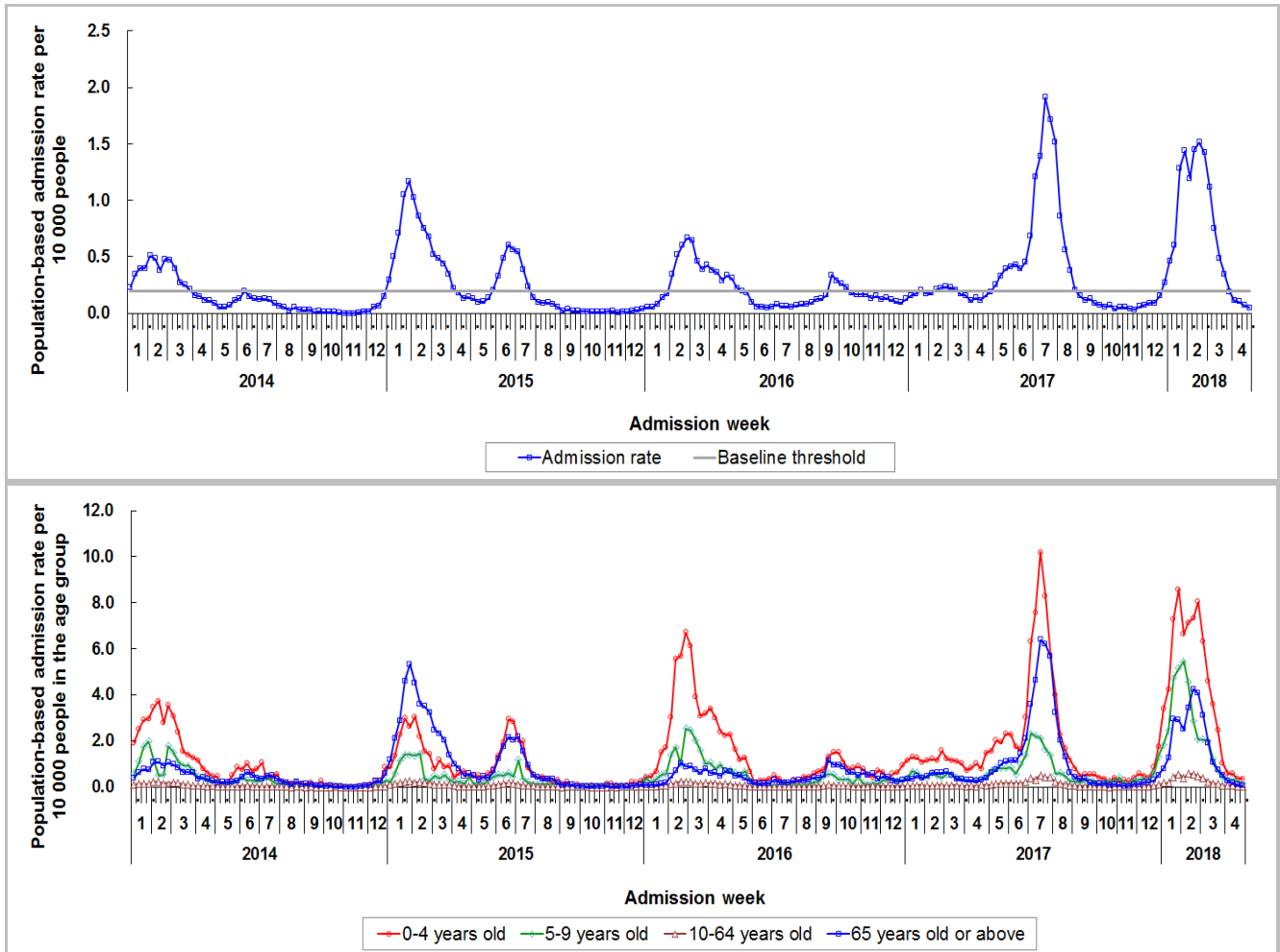


Figure 4 Influenza-associated hospital admission rates, 2014-18 (upper: overall rate, lower: rates by age groups)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014-2017.]

## Rate of ILI syndrome group in accident and emergency departments, 2014-18<sup>#</sup>

In week 17, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 150.8 (per 1,000 coded cases), which was higher than the rate of 144.9 in the previous week (Figure 5).

*#Note: This syndrome group includes codes related to ILI such as influenza, upper respiratory tract infection, fever, cough, throat pain, and pneumonia.*

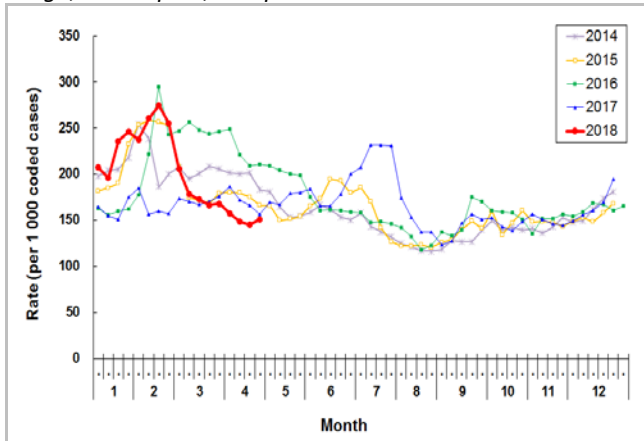


Figure 5 Rate of ILI syndrome group in AEDs, 2014-18

## Fever surveillance at sentinel child care centres/ kindergartens, 2014-18

In week 17, 0.51% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above), which was the same as that recorded in the previous week (Figure 6).

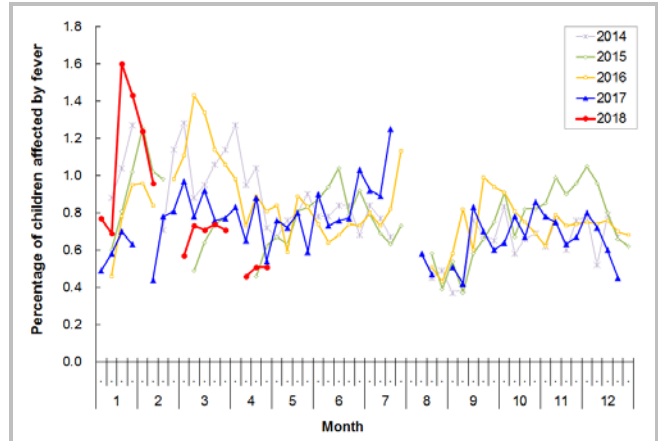


Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2014-18

## Fever surveillance at sentinel residential care homes for the elderly, 2014-18

In week 17, 0.10% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.07% recorded in the previous week (Figure 7).

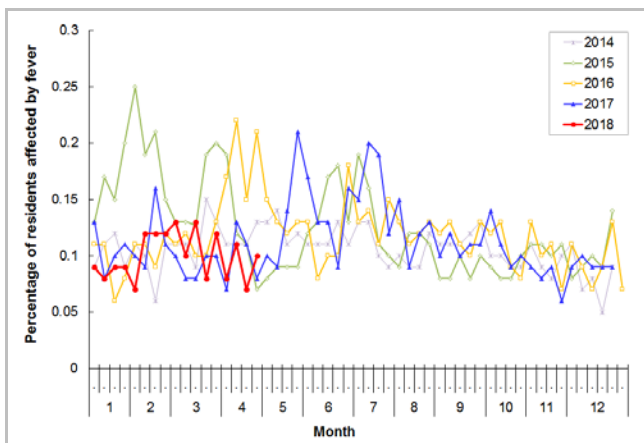


Figure 7 Percentage of residents with fever at sentinel RCHes, 2014-18

## Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2014-18

In week 17, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.51 ILI cases per 1,000 consultations as compared to 1.67 recorded in the previous week (Figure 8).

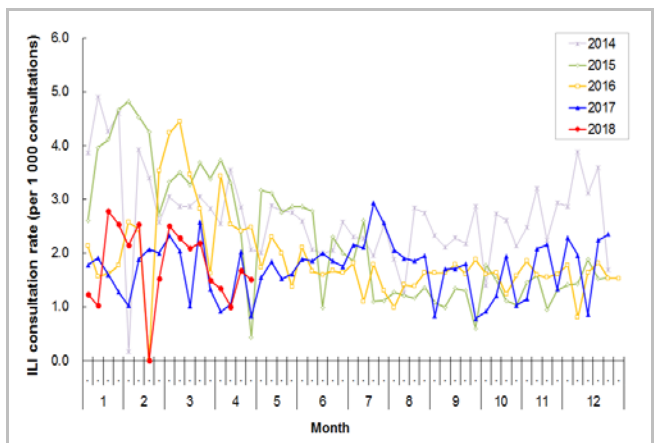


Figure 8 ILI consultation rate at sentinel CMPs, 2014-18

## Surveillance of severe influenza cases

(Note: The data reported are provisional figures and subject to further revision.)

### **Surveillance for intensive care unit (ICU) admissions/deaths with laboratory confirmation of influenza among adult patients (Aged 18 years or above)**

*For surveillance purpose, the cases refer to laboratory-confirmed influenza patients who required ICU admission or died within the same admission of influenza infection. Their causes of ICU admission or death may be due to other acute medical conditions or underlying diseases.*

- In week 17, seven adult cases of ICU admission/death with laboratory confirmation of influenza (including four deaths) were recorded, as compared to five cases (including four deaths) in the previous week. Two of the seven severe adult cases were known to have received the 2017/18 influenza vaccine.

Week	Influenza type				
	A(H1)	A(H3)	B	C	A (pending subtype)
Week 16	0	1	4	0	0
Week 17	2	0	2	0	3

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

- In week 17 and the first 4 days of week 18 (Apr 29 to May 2), there was one case of severe paediatric influenza-associated complication. The case details are as follow:

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving 2017/18 influenza vaccine
17	11 years	Female	Sepsis and status epilepticus	No	Influenza A (H3)	Yes

Data as of May 2, 2018

- In 2018, 22 paediatric cases of influenza-associated complication/death were recorded, in which two of them were fatal (as of May 2). 20 (90.9%) did not receive the influenza vaccine for the 2017/18 season.

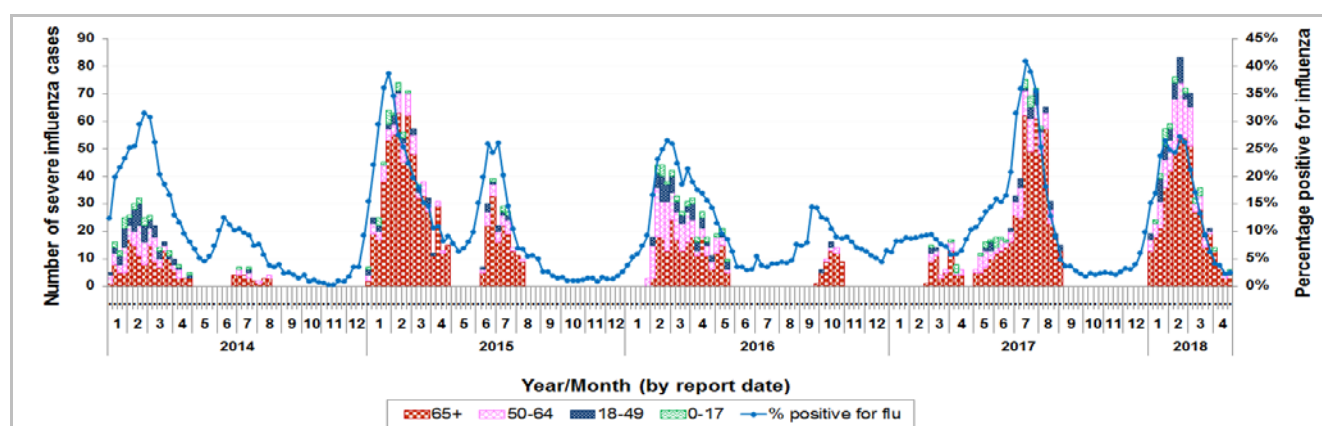


Figure 9 Weekly number of severe influenza cases by age groups, 2014-18 (the percentage positive for influenza viruses in Figure 2 is also shown in this graph)

Note: The surveillance system for severe influenza cases among adult patients aged 18 years or above was only activated intermittently during influenza seasons before 2018.

## Surveillance of oseltamivir resistant influenza A(H1N1)pdm09 virus infection

- In week 17 and the first 4 days of week 18 (Apr 29 to May 2), 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 returned to inter-seasonal levels in most of the countries in the temperate zone of the northern hemisphere except for Eastern Europe. In the temperate zone of the southern hemisphere, influenza activity remained below seasonal threshold. Worldwide, influenza A and influenza B accounted for approximately the same proportion of influenza detections.

- In the United States (week ending Apr 21, 2018), influenza activity decreased. The proportion of outpatient visits for ILI was 1.7%, which was lower than the national baseline of 2.2%. Overall, influenza A(H3) viruses have predominated this season. Since early March, influenza B viruses have been more frequently reported than influenza A viruses. The percentage of respiratory specimens testing positive for influenza decreased.
- In Canada (week ending Apr 21, 2018), the influenza activity continued to decrease but parts of the country are still reporting localized activity. Overall, laboratory detections of influenza are steadily decreasing. The percentage of tests positive for influenza in the week ending Apr 21, 2018 was 12%, and influenza A accounted for 57% of influenza detections.
- In the United Kingdom (week ending Apr 22, 2018), influenza continued to circulate with most indicators around baseline threshold levels. Influenza A and B were co-circulating. The positivity of influenza detection was 5.7% in the week ending Apr 22, 2018, which was below the baseline threshold of 8.6%.
- In Europe (week ending Apr 22, 2018), influenza activity was at inter-seasonal levels in all but one reporting country. Both influenza A and B viruses were co-circulating with the majority being type A viruses. 12% of sentinel specimens were tested positive for influenza virus.
- In Mainland China (week ending Apr 22, 2018), influenza activity in both northern and southern provinces was at inter-seasonal levels. Influenza A(H1N1) viruses were predominating.
- In Macau (week ending Apr 28, 2018), the proportions of ILI cases in emergency departments among adults and children were at low levels. The proportion of influenza detections was 4.7%, which was higher than that in the previous week (1.5%).
- In Taiwan (week ending Apr 14, 2018), influenza activity was gradually decreasing, and the influenza season ended. In the week ending Apr 14, the proportion of ILI cases in emergency department was 10.47%, which was below the threshold of 11.4%. The predominating virus was influenza B.
- In Japan (week ending Apr 22, 2018), the influenza season started in late November 2017. The average number of reported ILI cases per sentinel site was 1.76 in the week ending Apr 22, 2018, as compared to 1.66 in the previous week. It was still higher than the baseline level of 1.00. The predominating virus in the past five weeks were influenza A(H3) and influenza B, followed by influenza A(H1N1)pdm09.

### Sources:

Information have been extracted from the following sources when updates are available: [World Health Organization](#), [United States Centers for Disease Control and Prevention](#), [Public Health Agency of Canada](#), [Public Health England](#), [Joint European Centre for Disease Prevention and Control-World Health Organization/Flu News Europe](#), [Chinese National Influenza Center](#), [Health Bureau of Macao Special Administrative Region](#), [Taiwan Centers for Disease Control](#) and [Japan Ministry of Health, Labour and Welfare](#).