

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 18, 2018)

Reporting period: Apr 8 – 14, 2018 (Week 15)

- 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).

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

In week 15, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 3.6 ILI cases per 1,000 consultations, which was higher than 3.4 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 25.1 ILI cases per 1,000 consultations, which was higher than 21.8 recorded in the previous week (Figure 1, right).

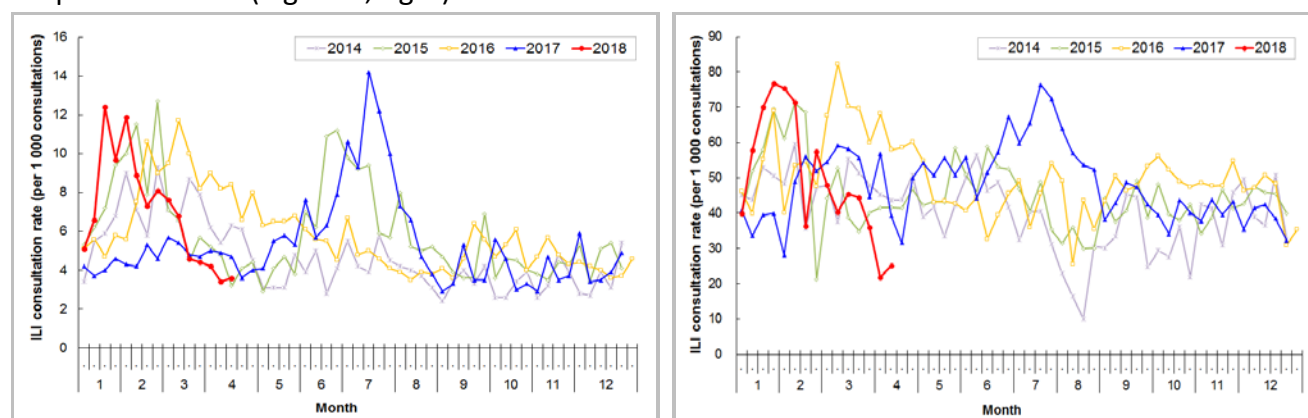


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2014-18

Laboratory surveillance, 2014-18

Among the respiratory specimens received in week 15, the positive percentage of seasonal influenza viruses was 3.71%, which was below the baseline threshold of 10.7% and lower than 4.08% recorded in the previous week (Figure 2). The 167 influenza viruses detected last week included 78 (1.73%) influenza A(H1), 28 (0.62%) influenza A(H3), 47 (1.04%) influenza B and 14 (0.31%) influenza C.

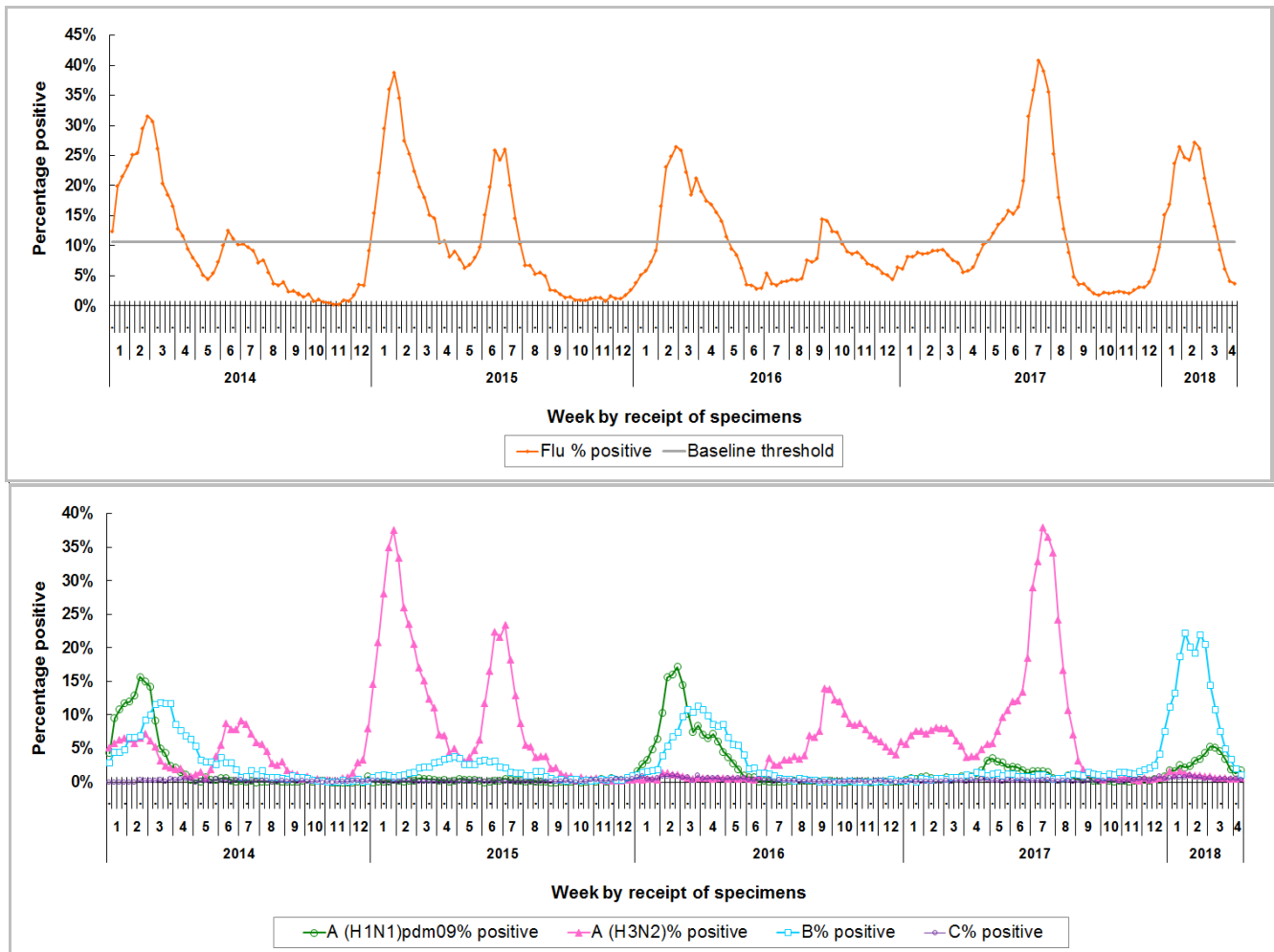


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2014-18 (upper: overall positive percentage, lower: positive percentage by subtypes)

[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 15, one ILI outbreak occurring in a school was recorded (affecting 7 persons), while no outbreaks were recorded in the previous week (Figure 3). In the first 4 days of week 16 (Apr 15-18), two ILI outbreaks in schools/institutions were recorded (affecting 6 persons).

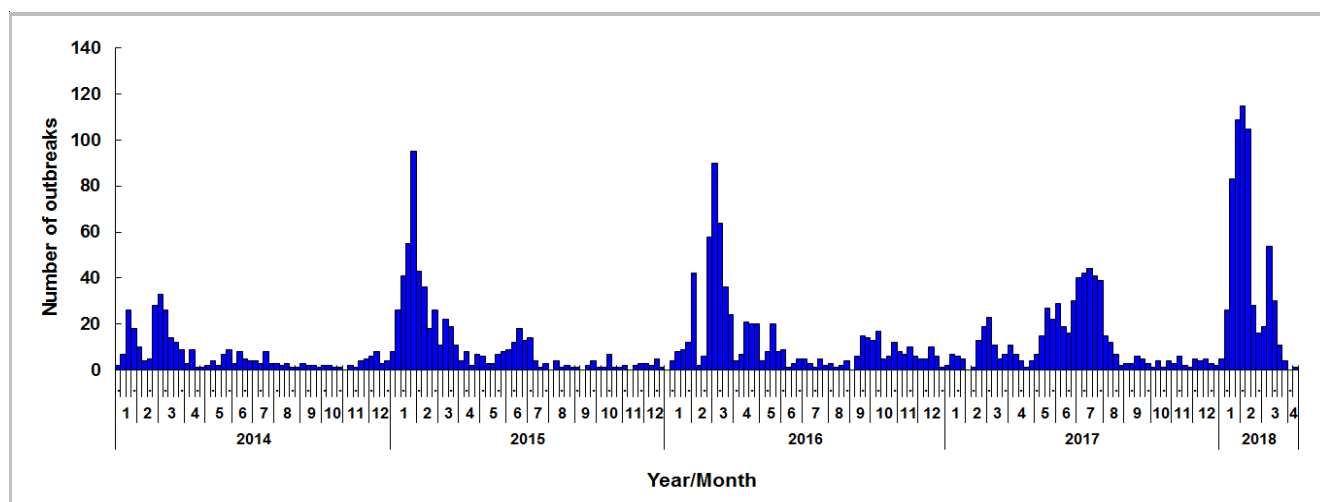


Figure 3 ILI outbreaks in schools/institutions, 2014-18

Type of institutions	Week 14	Week 15	First 4 days of week 16 (Apr 15-18)
Kindergarten/ child care centre	0	0	0
Primary school	0	1	2
Secondary school	0	0	0
Residential care home for the elderly	0	0	0
Residential care home for the disabled	0	0	0
Others	0	0	0
<i>Total number of outbreaks</i>	0	1	2
<i>Total number of persons affected</i>	0	7	6

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

In week 15, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.10 (per 10,000 population), which was below the baseline threshold of 0.20 and 0.11 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 0.47, 0.30, 0.05 and 0.17 cases (per 10,000 people in the age group) respectively, as compared to 0.58, 0.30, 0.05 and 0.25 cases in the previous week (Figure 4).

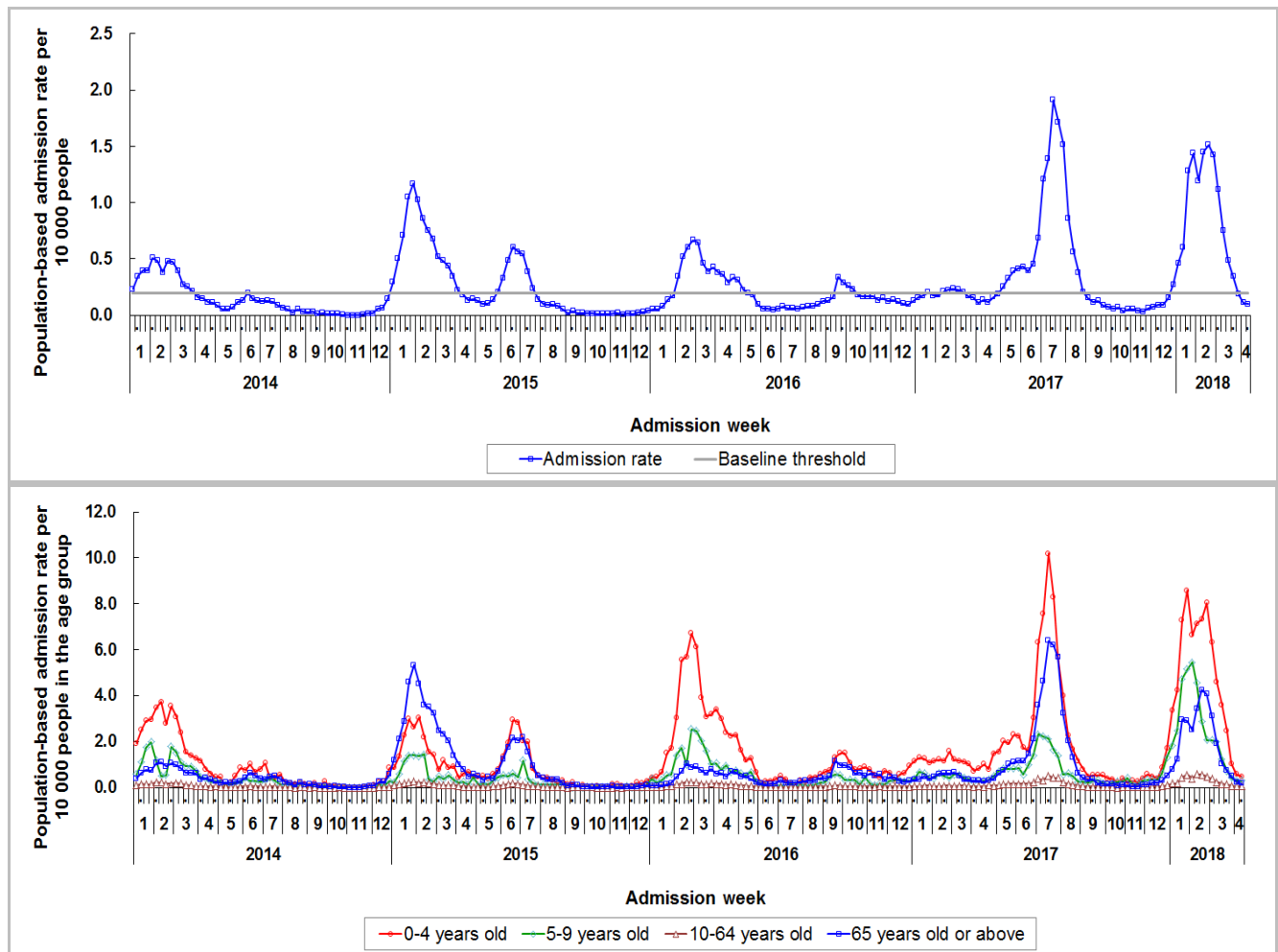


Figure 4 Influenza-associated hospital admission rates, 2014-18 (upper: overall rate, lower: rates by age groups)

[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[#]

In week 15, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 148.5 (per 1,000 coded cases), which was lower than the rate of 157.5 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.

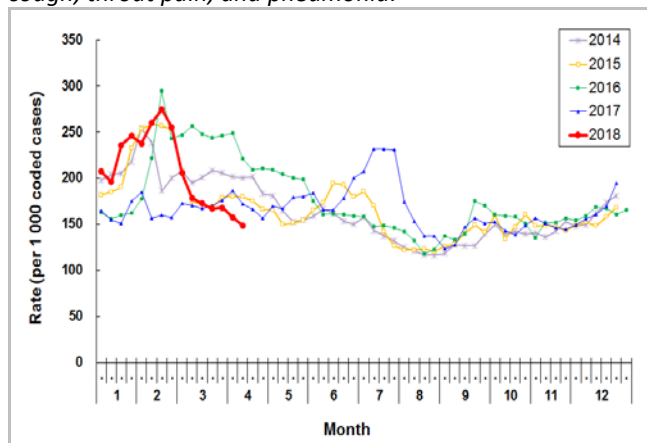


Figure 5 Rate of ILI syndrome group in AEDs, 2014-18

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

In week 15, 0.46% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.71% recorded in week 13 (Figure 6). The surveillance for week 14 was suspended due to Easter holiday.

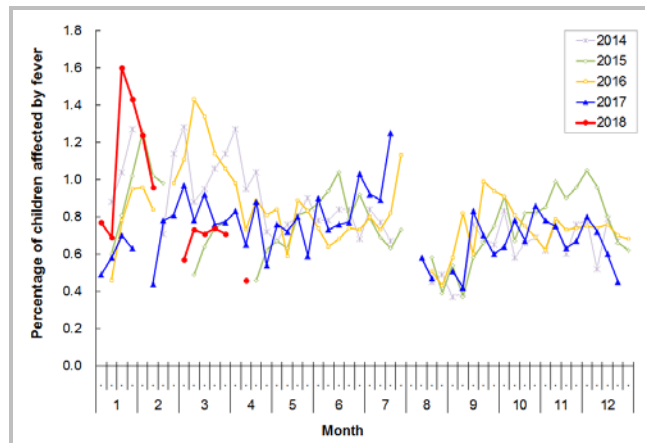


Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2014-18

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

In week 15, 0.11% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.08% recorded in the previous week (Figure 7).

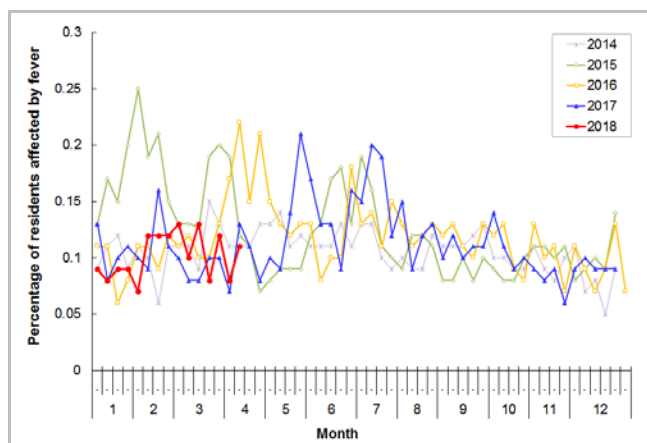


Figure 7 Percentage of residents with fever at sentinel RCHes, 2014-18

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

In week 15, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.00 ILI cases per 1,000 consultations as compared to 1.34 recorded in the previous week (Figure 8).

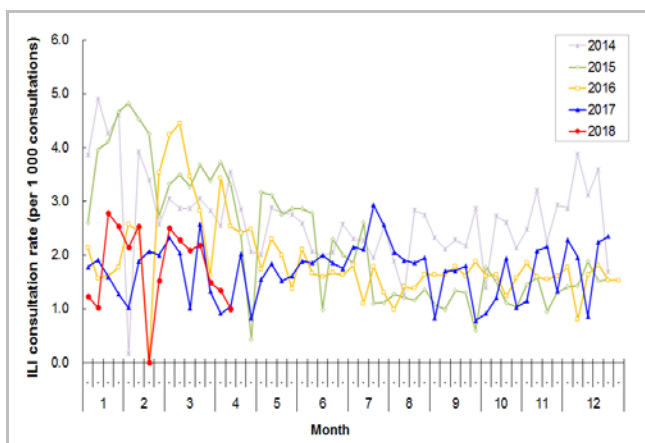


Figure 8 ILI consultation rate at sentinel CMPs, 2014-18

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 15, six adult cases of ICU admission/death with laboratory confirmation of influenza (including 6 deaths) were recorded, as compared to 13 cases (including 12 deaths) in the previous week. One of the six 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 14	2	0	10	0	1
Week 15	2	1	3	0	0

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

- In week 15 and the first 4 days of week 16 (Apr 15 to 18), there were no cases of severe paediatric influenza-associated complication/death.
- In 2018, 21 paediatric cases of influenza-associated complication/death were recorded, in which two of them were fatal (as of Apr 18). 20 (95%) did not receive the influenza vaccine for the 2017/18 season.

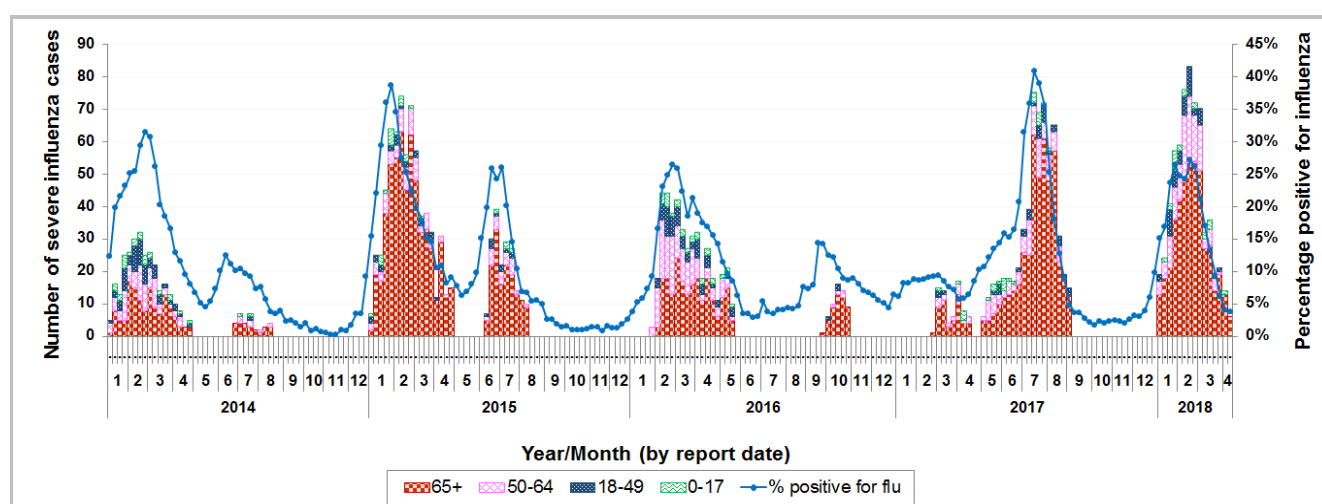


Figure 9 Weekly number of severe influenza cases by age groups, 2014-18 (the percentage positive for influenza viruses in Figure 2 is also shown in this graph)

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 15 and the first 4 days of week 16 (Apr 15 to 18), 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 decreased in most of the countries in the temperate zone of the northern hemisphere, with exception of Eastern Europe where activity continued to increase. In the temperate zone of the southern hemisphere, influenza activity remained at inter-seasonal levels. Worldwide, influenza A and influenza B accounted for a similar proportion of influenza detections.

- In the United States (week ending Apr 7, 2018), influenza activity decreased. The proportion of outpatient visits for ILI was 2.1%, 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 7, 2018), the influenza activity continued to decrease but many 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 7, 2018 was 17%, and influenza B accounted for 51% of influenza detections.
- In the United Kingdom (week ending Apr 8, 2018), influenza continued to circulate but decreases were noted across most indicators. Influenza A and B were co-circulating. The positivity of influenza detection was 16.3% in the week ending Apr 8, 2018, above the baseline threshold of 8.6%.
- In Europe (week ending Apr 8, 2018), influenza continued to circulate in the Region, while all countries reported low or medium intensity of activity of respiratory infections. Both influenza A and B viruses were co-circulating with the majority being type A viruses. 28% of sentinel specimens were tested positive for influenza virus.
- In Mainland China (week ending Apr 8, 2018), influenza activity in both northern and southern provinces was at a low level, and it continued to decrease. Influenza A(H1N1) viruses were predominating.
- In Macau (week ending Apr 7, 2018), the proportions of ILI cases in emergency departments among adults and children were at low levels. The proportion of influenza detections was 6.6%, which was lower than that in the previous week (13.5%).
- 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 8, 2018), the influenza season started in late November 2017. The average number of reported ILI cases per sentinel site has decreased to 2.00 in the week ending Apr 8, 2018 from 3.39 in the previous week. It was still higher than the baseline level of 1.00. The predominating virus in the past five weeks was influenza B, followed by influenza A(H3N2) and 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](#).