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FLU EXPRESS

衞生防護中心 Centre for Health Protection
保障市民健康 Protecting Hong Kong's health

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 Jan 10, 2018)

Reporting period: Dec 31, 2017 – Jan 6, 2018 (Week 1)

- The latest surveillance data showed that the local influenza activity has continued to increase in the past week and exceeded the baseline level, indicating that Hong Kong has entered the 2017/18 winter influenza season. It is anticipated that the local seasonal influenza activity will continue to rise in the coming weeks and remain at an elevated level for some time.
- 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 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, those members of the public who have not received influenza vaccine are urged to get vaccinated as soon as possible for personal protection.
- In the 2017/18 season, the Vaccination Subsidy Scheme (VSS) and the Government Vaccination Programme (GVP) 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 1, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 5.1 ILI cases per 1,000 consultations, which was higher than 4.9 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 39.8 ILI cases per 1,000 consultations, which was higher than 32.2 recorded in the previous week (Figure 1, right).

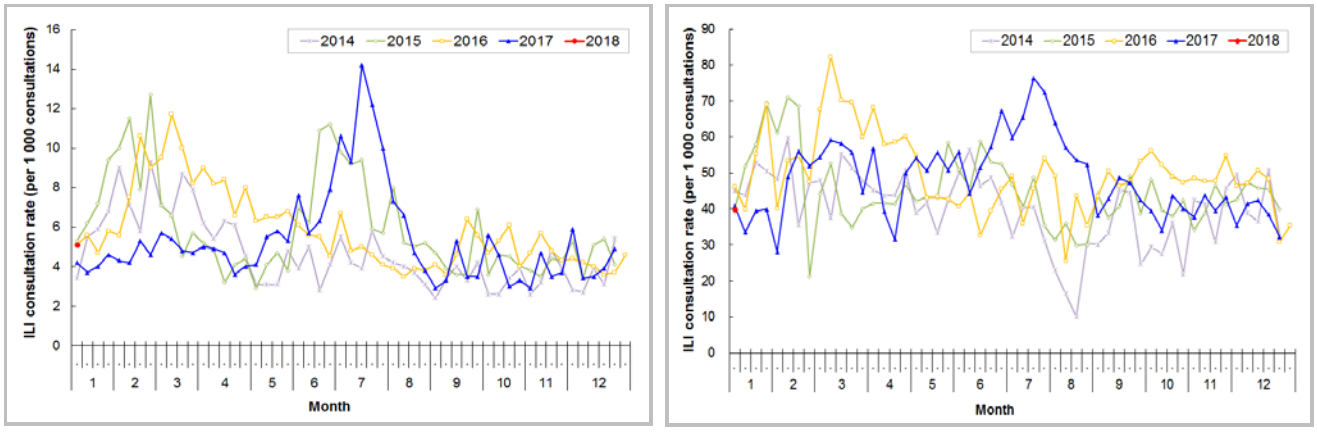

Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2014-18

Laboratory surveillance, 2014-18

Among the respiratory specimens received in week 1, the positive percentage of seasonal influenza viruses was 15.05%, which was above the baseline threshold of 10.7% and higher than 9.76% recorded in the previous week (Figure 2). The 706 influenza viruses detected last week included 80 (1.71%) influenza A(H1), 74 (1.58%) influenza A(H3), 524 (11.17%) influenza B and 28 (0.60%) influenza C.

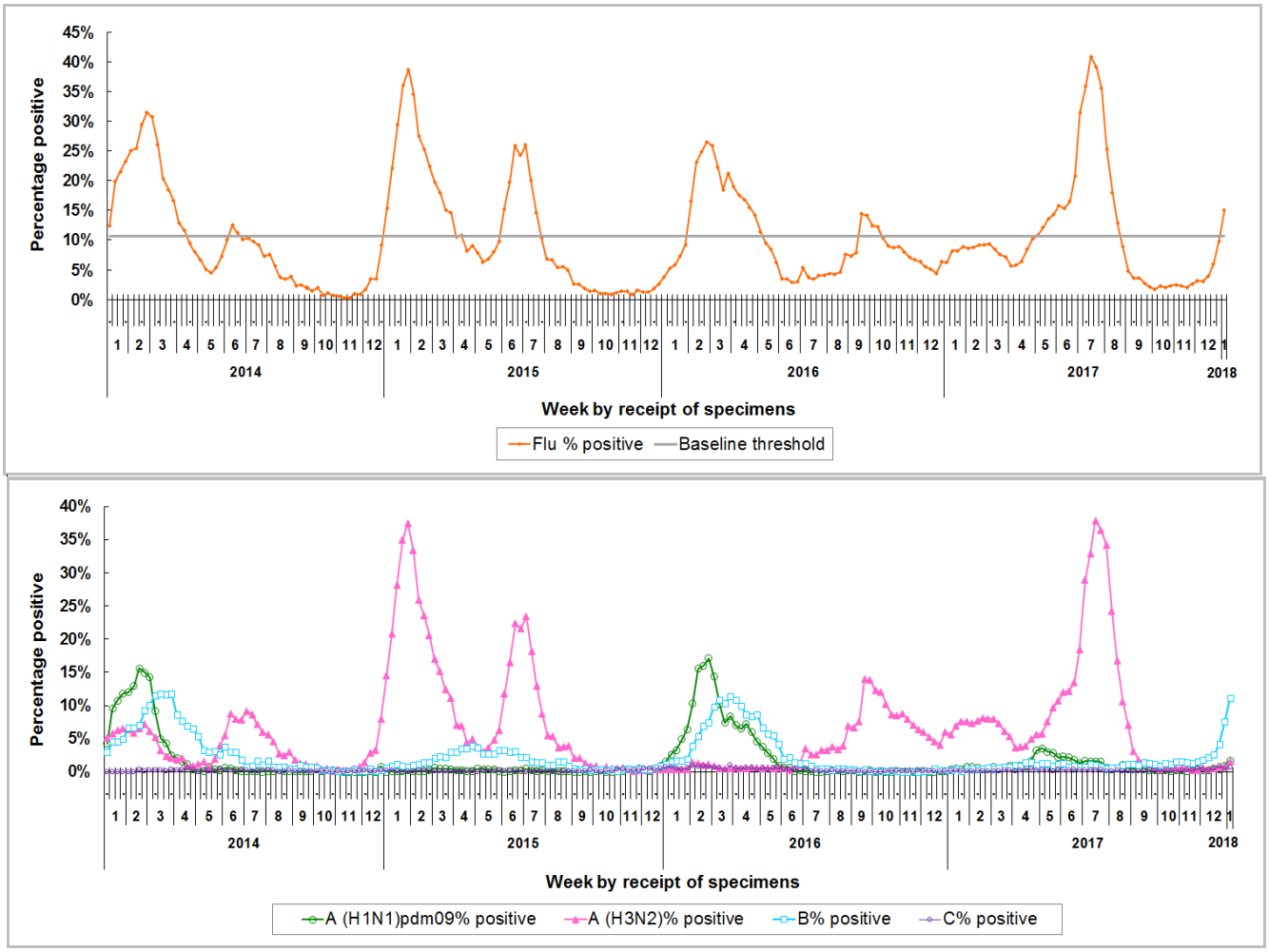

Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2014-18 (upper: overall positive percentage, lower: positive percentage by subtypes)

[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 1, five ILI outbreaks occurring in schools/institutions were recorded (affecting 21 persons), as compared to two outbreaks recorded in the previous week (affecting 6 persons) (Figure 3). In the first 4 days of week 2 (Jan 7-10, 2018), 14 ILI outbreaks in schools/institutions were recorded (affecting 51 persons).

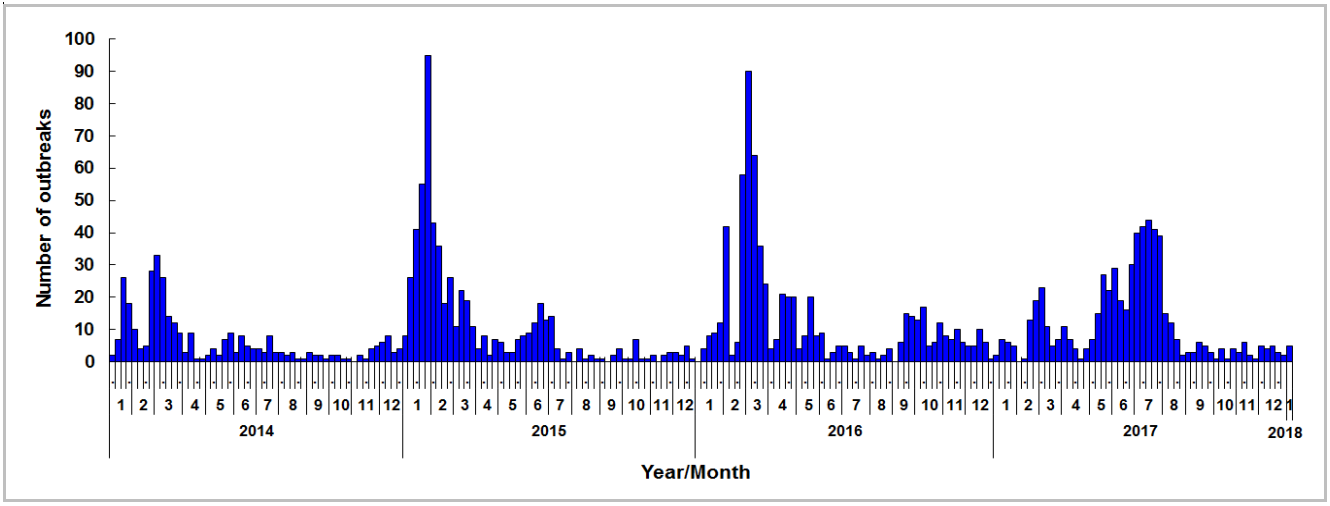

Figure 3 ILI outbreaks in schools/institutions, 2014-18

Type of institutions	Week 52 of 2017	Week 1	First 4 days of week 2 (Jan 7-10, 2018)
Kindergarten/ child care centre	0	1	4
Primary school	0	0	8
Secondary school	0	0	0
Residential care home for the elderly	1	3	2
Residential care home for the disabled	0	1	0
Others	1	0	0
Total number of outbreaks	2	5	14
Total number of persons affected	6	21	51

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

In week 1, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.40 (per 10,000 population), which was above the baseline threshold of 0.20 and higher than 0.26 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 3.11, 1.75, 0.15 and 0.40 cases (per 10,000 people in the age group) respectively, as compared to 1.74, 1.25, 0.09 and 0.26 cases in the previous week (Figure 4).

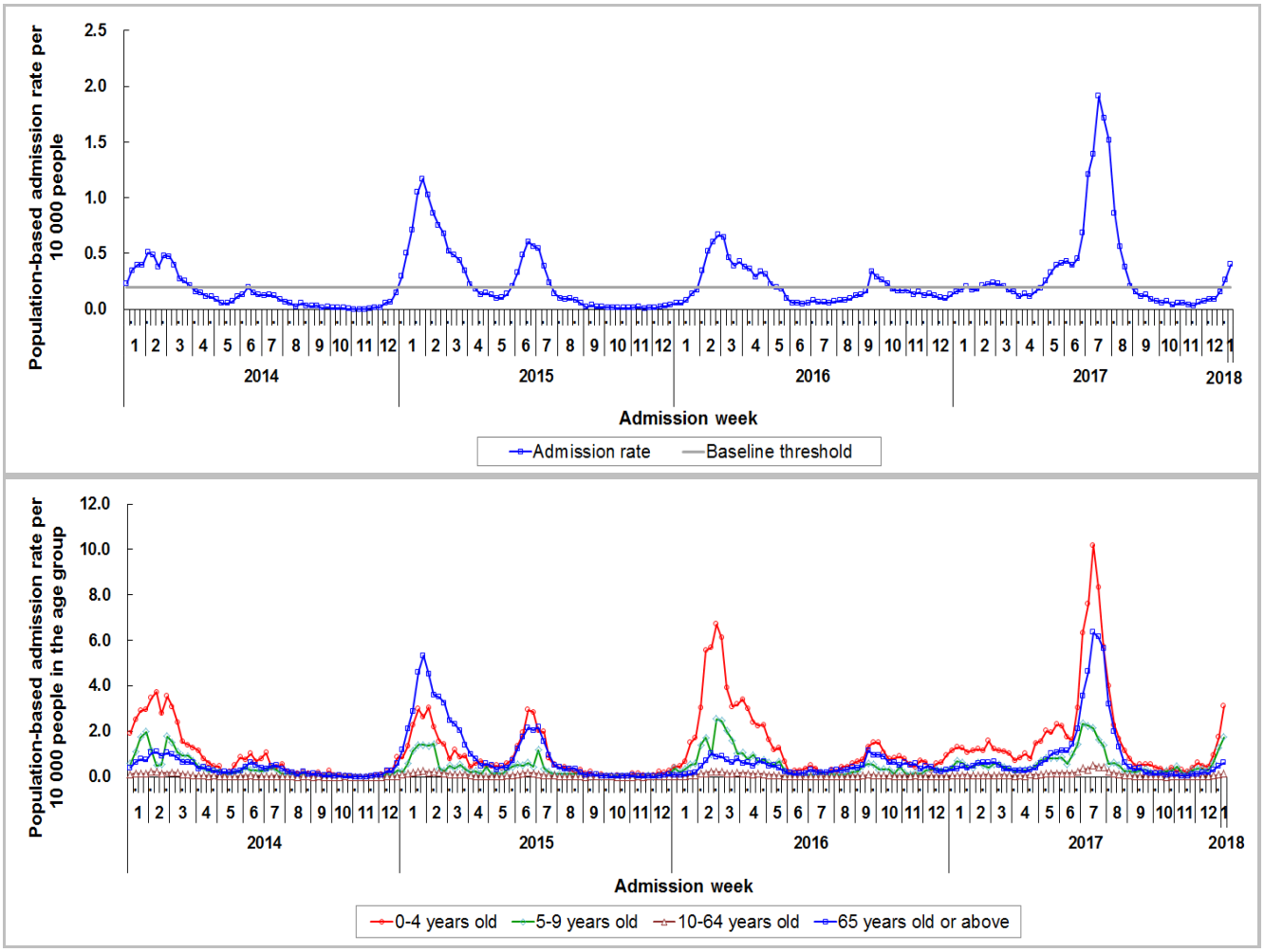

Figure 4 Influenza-associated hospital admission rates, 2014-18 (upper: overall rate, lower: rates by age groups)

[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 1, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 208.8 (per 1,000 coded cases), which was higher than the rate of 195.3 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.

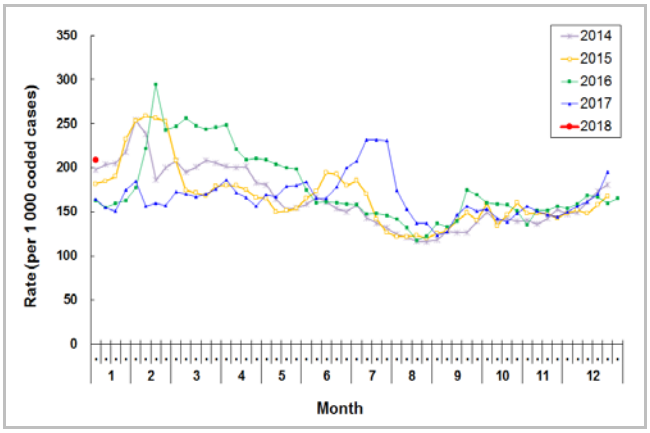

Figure 5 Rate of ILI syndrome group in AEDs, 2014-18

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

In week 1, 0.77% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.45% recorded in week 51, 2017 (Figure 6). The surveillance for week 52, 2017 was suspended due to Christmas holiday.

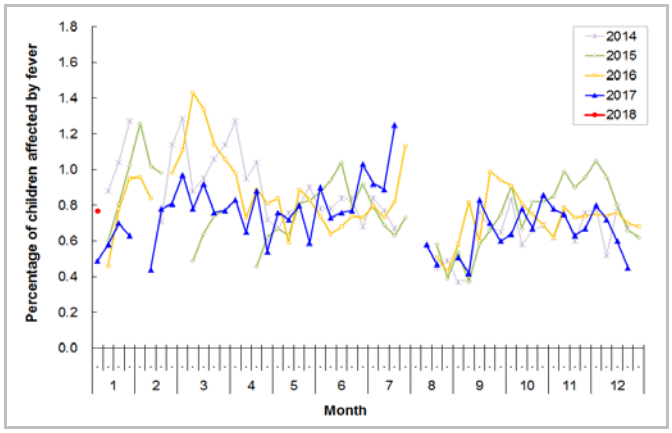

Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2014-18

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

In week 1, 0.09% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), which was the same as that recorded in the previous week (Figure 7).

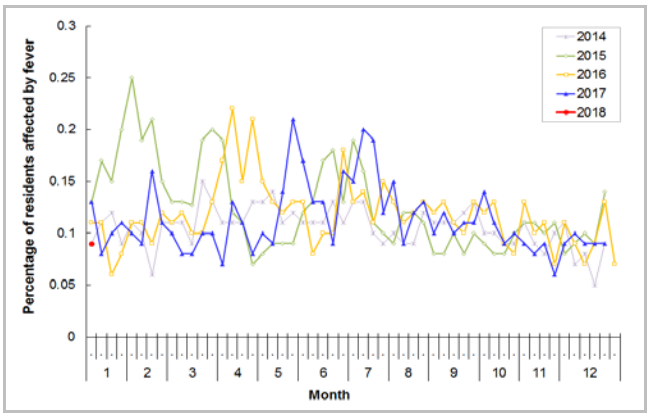

Figure 7 Percentage of residents with fever at sentinel RCHEs, 2014-18

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

In week 1, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.24 ILI cases per 1,000 consultations as compared to 2.35 recorded in the previous week (Figure 8).

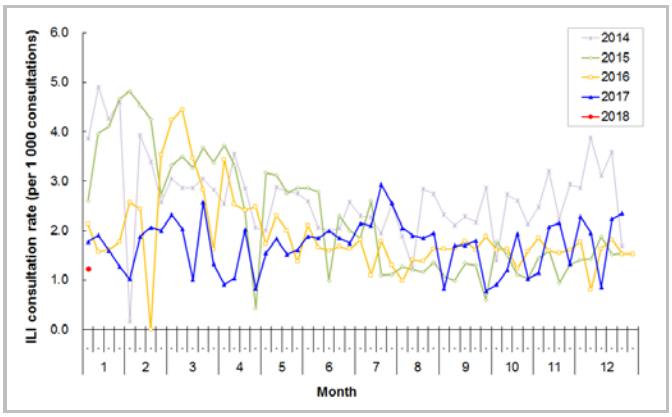

Figure 8 ILI consultation rate at sentinel CMPs, 2014-18

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)

Since 2018, the Centre for Health Protection (CHP) has collaborated with the Hospital Authority and private hospitals to monitor ICU admissions and deaths with laboratory confirmation of influenza among adult patients regularly. 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 1, 19 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 7 of them were fatal. Four of the 19 severe adult cases were known to have received the 2017/18 influenza vaccine. In the first 4 days of week 2 (Jan 7 to 10), 8 cases were recorded, in which 6 of them were fatal.

Week	Influenza type				
	A(H1)	A(H3)	B	C	Pending
Week 1	4	2	12	0	1
First 4 days of week 2 (Jan 7 to 10)	2	0	6	0	0

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

- In week 1 and the first 4 days of week 2 (Jan 7 to 10), 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 influenza vaccine for this season
2	3 years	Female	Encephalopathy	No	Influenza B	No

Data as of Jan 10, 2018

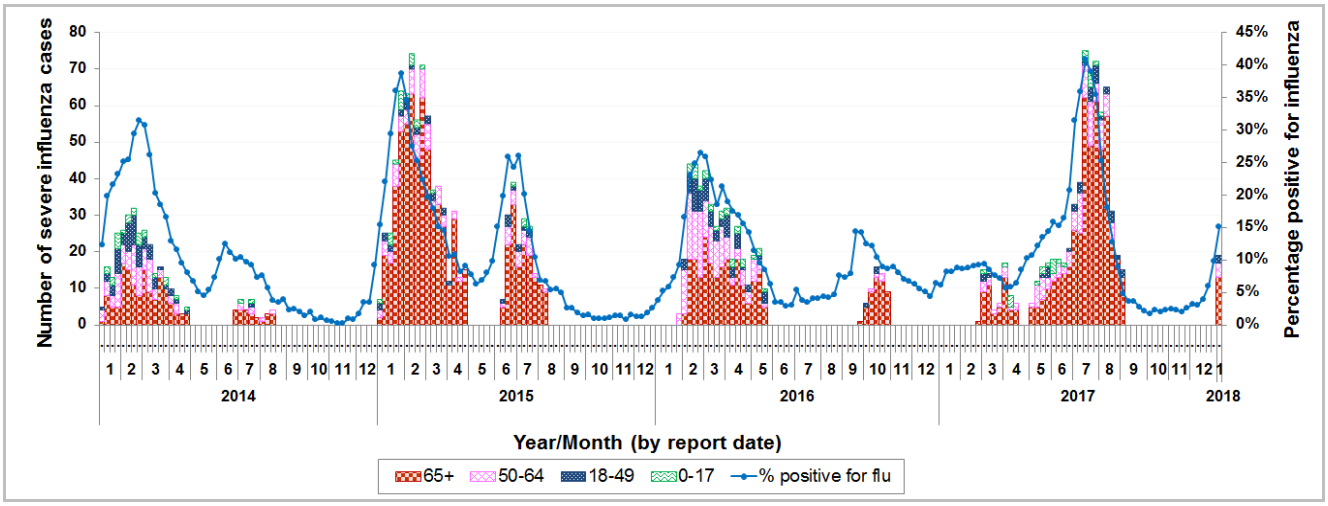

Figure 9 Weekly number of severe influenza cases by age groups, 2014-18 (the percentage positive for influenzas viruses in Figure 2 is also shown in this graph)

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 1 and the first 4 days of week 2 (Jan 7 to 10), 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 continued to increase in the temperate zone of the northern hemisphere. In the temperate zone of the southern hemisphere, activity was at inter-seasonal levels. Worldwide, influenza A(H3N2) and B viruses accounted for the majority of influenza detections although influenza A(H1N1)pdm09 viruses were predominant in some countries.

- In the United States (week ending Dec 30, 2017), influenza activity sharply increased. The proportion of outpatient visits for ILI was 5.8%, which was above the national baseline of 2.2%. The most frequently identified influenza virus type reported by public health laboratories in the week ending Dec 30, 2017 was influenza A (H3).
- In Canada (two-week period ending Dec 30, 2017), the overall influenza activity continued to increase. The percentage of tests positive for influenza were 25.0% and 28.0% in week 51 and week 52 respectively, which was higher than 17.7% recorded in the week before. The majority of influenza detections continue to be A(H3N2) although the proportion of influenza B detections has been increasing steadily.
- In the United Kingdom (week ending Dec 31, 2017), influenza activity continues to increase with notable increases for respiratory outbreaks and influenza confirmed hospitalisations. Influenza A and B are co-circulating. The positivity of influenza detection was 27.1% in the week ending Dec 31, 2017, above the baseline threshold of 8.6%.
- In Europe (week ending Dec 31, 2017), influenza activity was increasing in countries in northern, southern and western Europe. Both influenza A and B viruses are co-circulating. 44% of sentinel specimens were tested positive for influenza virus, an increase from 38% in the previous week.
- In Mainland China (week ending Dec 31, 2017), the influenza activity in both southern and northern provinces was at the seasonal level for winter influenza season, and was still on an increasing trend. In southern provinces, the proportion of ILI cases in emergency and outpatient departments reported by sentinel hospitals was 5.0%, higher than that reported in the previous week (4.3%) and that in the corresponding period in 2014-2016 (2.5%, 3.0%, 3.2%). In northern provinces, that proportion was 5.3%, higher than that reported in the previous week (5.2%) and that in the corresponding period in 2014-2016 (4.0%, 3.7%, 3.5%). The proportion of influenza detections in the week ending December 31, 2017 was 42.8%. The most common influenza virus detected currently was influenza B.
- In Macau (Dec 30, 2017), the proportions of ILI cases in emergency departments among both adults and children increased. The proportion of influenza detections was 17.0%, an increase from 11.3% in the previous week.
- Taiwan (week ending Jan 6, 2018) was at influenza season, and the influenza activity continued to increase. In the week ending January 6, the proportion of ILI cases in emergency department was 13.87% which was above the threshold of 11.4%. The predominating virus was influenza B.
- In Japan (week ending Dec 31, 2017), the influenza season has started in late November 2017. The average number of reported ILI cases per sentinel site increased to 17.88 in the week ending December 31, 2017, which was higher than the baseline level of 1.00. The most frequently identified influenza virus type in the past five weeks was influenza A(H1N1)pdm09, followed by influenza B and A(H3N2).

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.