## 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 June 20, 2018)

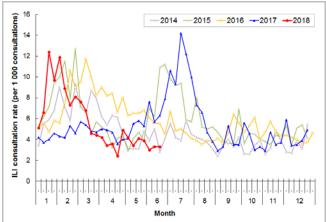
### Reporting period: June 10 - 16, 2018 (Week 24)

- 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 24, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 3.3 ILI cases per 1,000 consultations, which was the same as that recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 31.8 ILI cases per 1,000 consultations, which was lower than 39.2 recorded in the previous week (Figure 1, right).



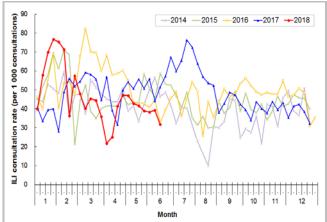


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2014-18

### Laboratory surveillance, 2014-18

Among the respiratory specimens received in week 24, the positive percentage of seasonal influenza viruses was 1.51%, which was below the baseline threshold of 10.7% and 1.60% recorded in the previous week (Figure 2). The 62 influenza viruses detected last week included 43 (1.05%) influenza A(H1), 6 (0.15%) influenza A(H3), 4 (0.10%) influenza B and 9 (0.22%) influenza C.

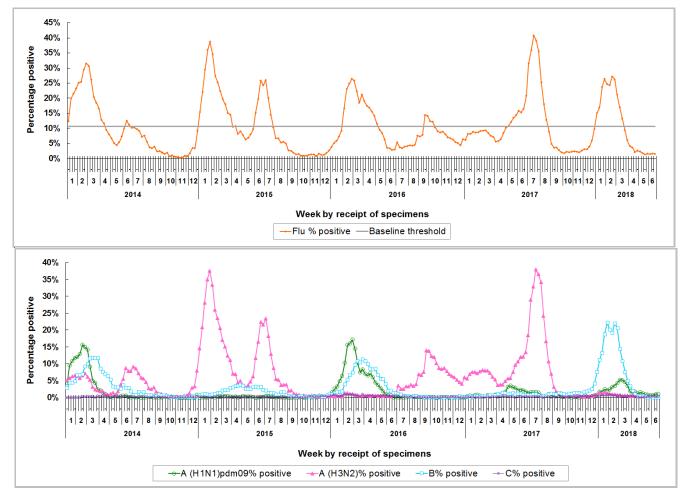


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2014-18 (upper: overall positive percentage, lower: positive percentage by subtypes)

[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 24, two ILI outbreaks occurring in schools/institutions were recorded (affecting six persons), as compared to two outbreaks recorded in the previous week (affecting seven persons) (Figure 3). In the first 4 days of week 25 (June 17 to 20), one ILI outbreak in a school was recorded (affecting seven persons).

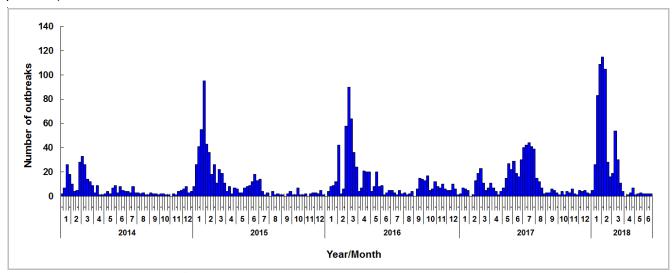


Figure 3 ILI outbreaks in schools/institutions, 2014-18

| Type of institutions                                | Week 23 | Week 24 | First 4 days of week 25<br>(June 17 to 20) |
|---|---------|---------|--|
| Kindergarten/ child care centre                     | 0       | 1       | 1  |
| Primary school                                      | 1       | 0       | 0  |
| Secondary school                                    | 0       | 0       | 0  |
| Residential care home for the                       | 1       | 0       | 0  |
| elderly   |         |         |  |
| Residential care home for persons with disabilities | 0       | 0       | 0  |
| Others  | 0       | 1       | 0  |
| Total number of outbreaks                           | 2       | 2       | 1  |
| Total number of persons affected                    | 7       | 6       | 7  |

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

In week 24, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.03 (per 10,000 population), which was below the baseline threshold of 0.20 and 0.04 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 0.29, 0.07, 0.01 and 0.06 cases (per 10,000 people in the age group) respectively, as compared to 0.22, 0.13, 0.01 and 0.08 cases in the previous week (Figure 4).

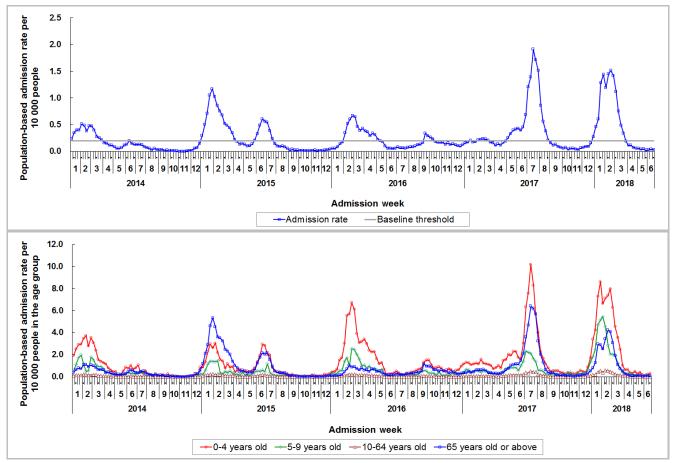


Figure 4 Influenza-associated hospital admission rates, 2014-18 (upper: overall rate, lower: rates by age groups)
[Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014-2017.]

# Rate of ILI syndrome group in accident and emergency departments, 2014-18#

In week 24, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 131.7 (per 1,000 coded cases), which was lower than the rate of 132.8 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.

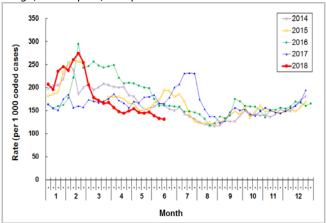


Figure 5 Rate of ILI syndrome group in AEDs, 2014-18

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

In week 24, 0.60% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above), compared to 0.83% recorded in the previous week (Figure 6).

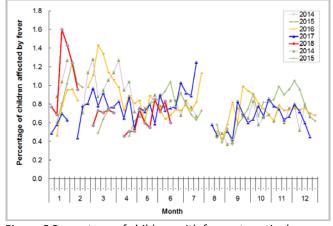


Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2014-18

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

In week 24, 0.07% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), compared to 0.10% recorded in the previous week (Figure 7).

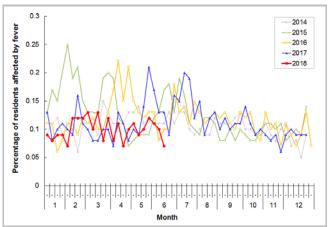


Figure 7 Percentage of residents with fever at sentinel RCHEs, 2014-18

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

In week 24, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.64 ILI cases per 1,000 consultations as compared to 0.70 recorded in the previous week (Figure 8).

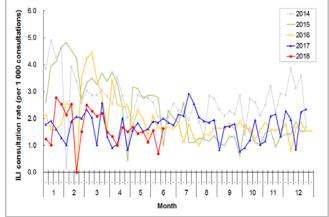


Figure 8 ILI consultation rate at sentinel CMPs, 2014-18

#### Surveillance of severe influenza cases

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

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

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 24, three adult cases of ICU admission/death with laboratory confirmation of influenza (including two deaths) were recorded, as compared to two cases (including one death) in the previous week. One of the three severe adult cases was known to have received the 2017/18 influenza vaccine.

| Week    | Influenza type |       |   |   |                     |  |  |
|---------|----------------|-------|---|---|---------------------|--|--|
|         | A(H1)          | A(H3) | В | С | A (pending subtype) |  |  |
| Week 23 | 1              | 1     | 0 | 0 | 0                   |  |  |
| Week 24 | 1              | 1     | 1 | 0 | 0                   |  |  |

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

- In week 24 and the first 4 days of week 25 (June 17 to 20), there were no cases of severe paediatric influenza-associated complication/death.
- In 2018, 24 paediatric cases of influenza-associated complication/death were recorded, in which two of them were fatal (as of June 20). 21 (87.5%) did not receive the influenza vaccine for the 2017/18 season.

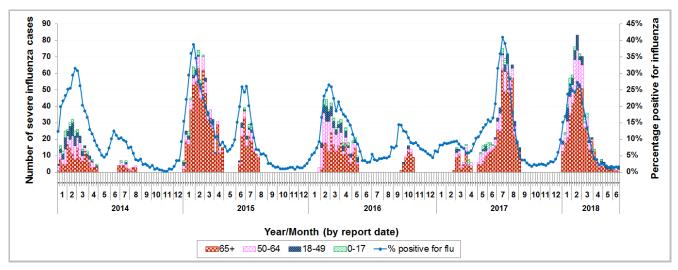


Figure 9 Weekly number of severe influenza cases by age groups, 2014-18 (the percentage positive for influenzas viruses in Figure 2 is also shown in this graph)

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 24 and the first 4 days of week 245 (June 17 to 20), 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. Increased influenza activity was reported in some countries in tropical America. Influenza detections continued to increase in recent weeks in Southern Africa, however influenza activity remained under seasonal thresholds in most other countries of the temperate zone of the southern hemisphere. Worldwide, seasonal influenza subtype A accounted for the majority of influenza detections.

- In the United States (week ending June 9, 2018), influenza activity was below the national baseline. The proportion of outpatient visits for ILI was 1.0%, which was below the national baseline of 2.2%. The percentage of respiratory specimens testing positive for influenza was 0.79%. Since early March, influenza B viruses have been more frequently reported than influenza A viruses.
- In the United Kingdom (week ending June 3, 2018), indicators for influenza showed low levels of activity. The positivity of influenza detection was 0.5% in the week ending Jun 3, 2018, which was below the baseline threshold of 8.6%.
- In Australia (fortnight ending June 3, 2018), influenza activity was low and remained at inter-seasonal levels.
- In New Zealand (week ending June 10, 2018), influenza activity remained low and below the seasonal average.
- In Mainland China (week ending June 10, 2018), influenza activity in both northern and southern provinces
  was at inter-seasonal levels. Influenza viruses were barely detected in northern provinces, while there were
  few influenza viruses detected in southern provinces with majority being influenza A(H1N1).
- In Macau (week ending June 9, 2018), the proportion of ILI cases in emergency departments among adults
  was at a low level, while that among children decreased as compared to the previous week. The proportion
  of influenza detections remained at a low level.

#### Sources:

Information have been extracted from the following sources when updates are available: <u>World Health Organization</u>, <u>United States Centers for Disease Control and Prevention</u>, <u>Public Health England</u>, <u>Australian Department of Health</u>, <u>New Zealand Ministry of Health</u>, <u>Chinese National Influenza Center</u> and <u>Health Bureau of Macao Special Administrative Region</u>.