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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 Oct 31, 2018)

**Reporting period: October 21 – 27, 2018 (Week 43)**

- 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 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.
- In the coming 2018/19 season, the Vaccination Subsidy Scheme (VSS) has been expanded to cover those aged 50 to 64 to receive subsidised seasonal influenza vaccination. It also 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. Under the Government Vaccination Programme (GVP), eligible groups for free vaccination are the same as that of 2017/18. VSS and GVP have been launched on Oct 10 and Oct 24, 2018 respectively. 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 43, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.1 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 32.1 ILI cases per 1,000 consultations, which was higher than 30.5 recorded in the previous week (Figure 1, right).

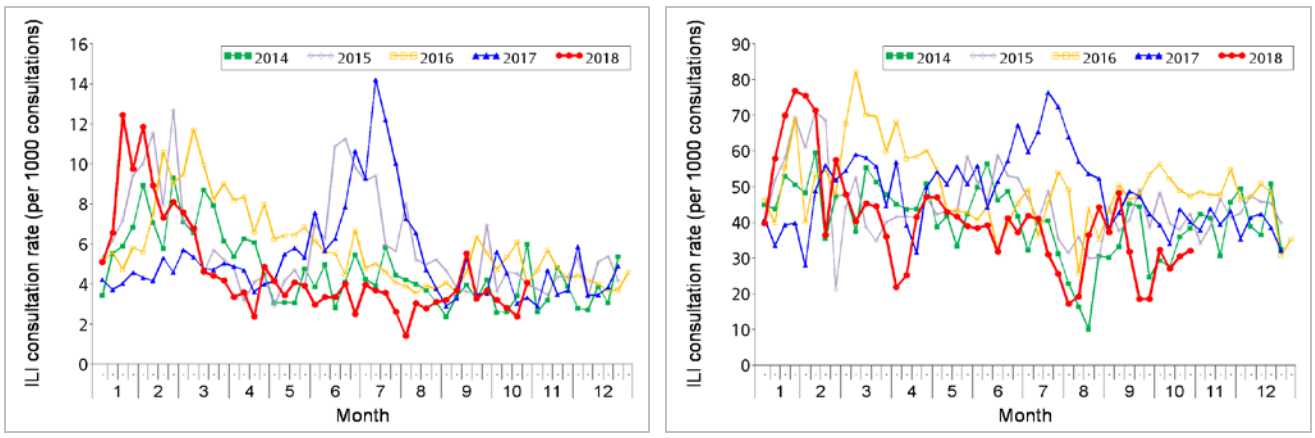


*Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2014-18*

## Laboratory surveillance, 2014-18

Among the respiratory specimens received in week 43, the positive percentage of seasonal influenza viruses was 2.04%, which was below the baseline threshold of 10.7% but was higher than 1.72% recorded in the previous week (Figure 2). The 87 influenza viruses detected last week included 60 (1.41%) influenza A(H1), 22 (0.52%) influenza A(H3), 4 (0.09%) influenza B and 1 (0.02%) influenza C.

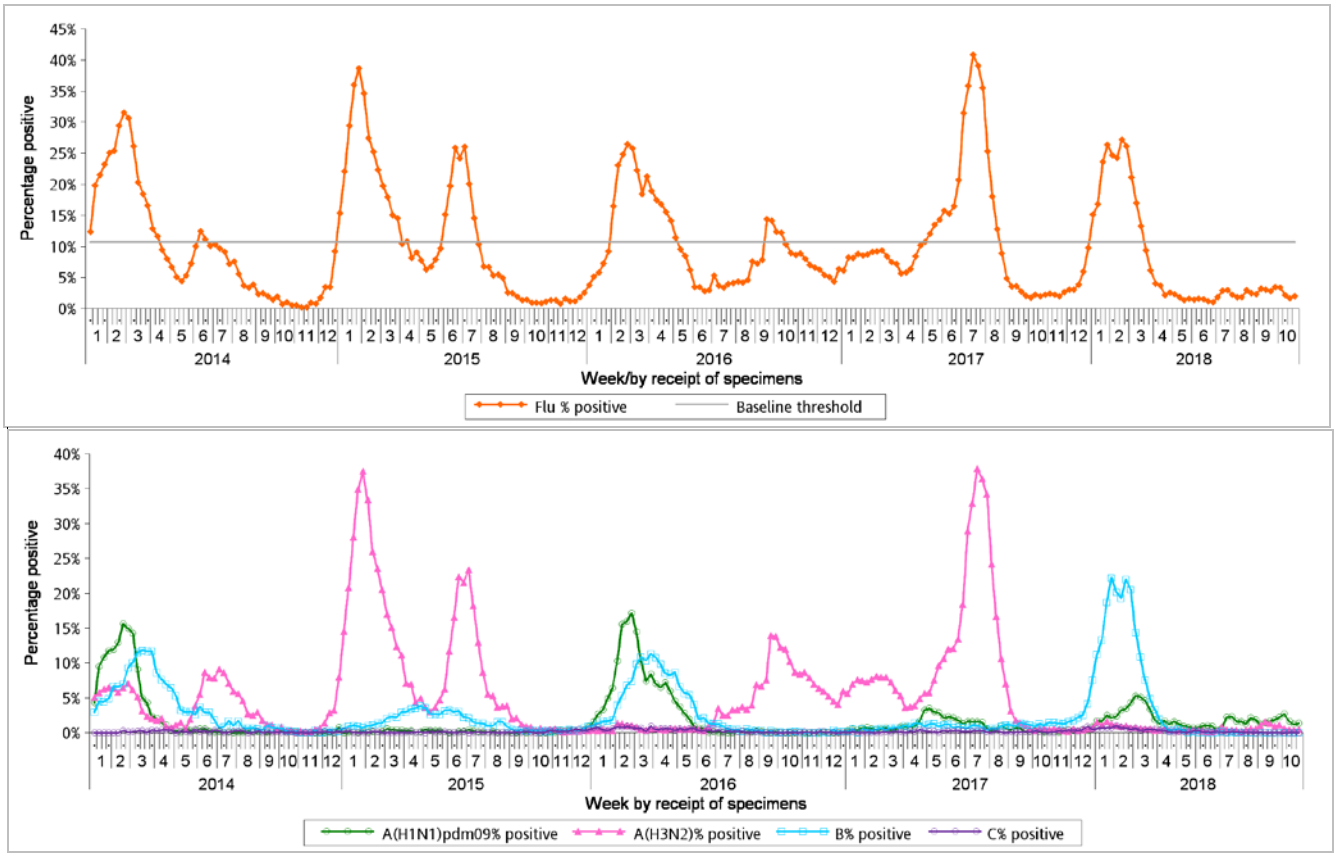


*Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2014-18 (upper: overall positive percentage, lower: positive percentage by subtypes)*

*[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 43, five ILI outbreaks occurring in schools/ institutions were recorded (affecting 29 persons), as compared to three outbreaks recorded in the previous week (affecting 31 persons) (Figure 3). In the first 4 days of week 44 (Oct 28 to 31), two ILI outbreaks in schools/institutions were recorded (affecting six persons).

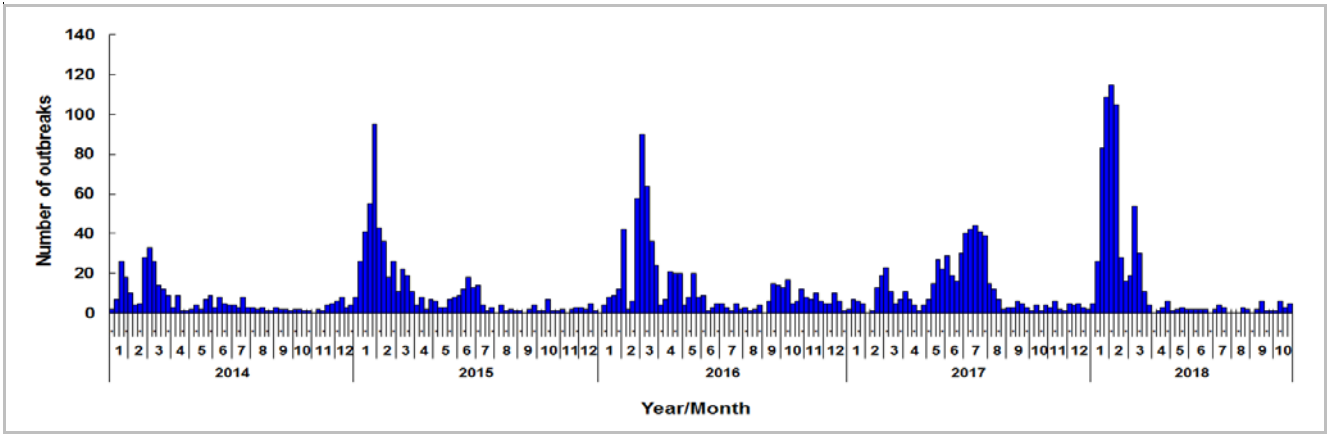


*Figure 3 ILI outbreaks in schools/institutions, 2014-18*

| Type of institutions | Week 42 | Week 43 | First 4 days of week 44 (Oct 28 to 31) |
|---|---|---|---|
| Kindergarten/ child care centre | 3 | 1 | 1 |
| Primary school | 0 | 3 | 0 |
| Secondary school | 0 | 0 | 0 |
| Residential care home for the elderly | 0 | 0 | 0 |
| Residential care home for persons with disabilities | 0 | 0 | 0 |
| Others | 0 | 1 | 1 |
| *Total number of outbreaks* | 3 | 5 | 2 |
| *Total number of persons affected* | 31 | 29 | 6 |

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

In week 43, the overall admission rates in public hospitals with principal diagnosis of influenza was 0.05 (per 10,000 population), which was below the baseline threshold of 0.20 but was higher than 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 0.47, 0.26, 0.01 and 0.09 cases (per 10,000 people in the age group) respectively, as compared to 0.40, 0.16, 0.01 and 0.08 cases in the previous week (Figure 4).

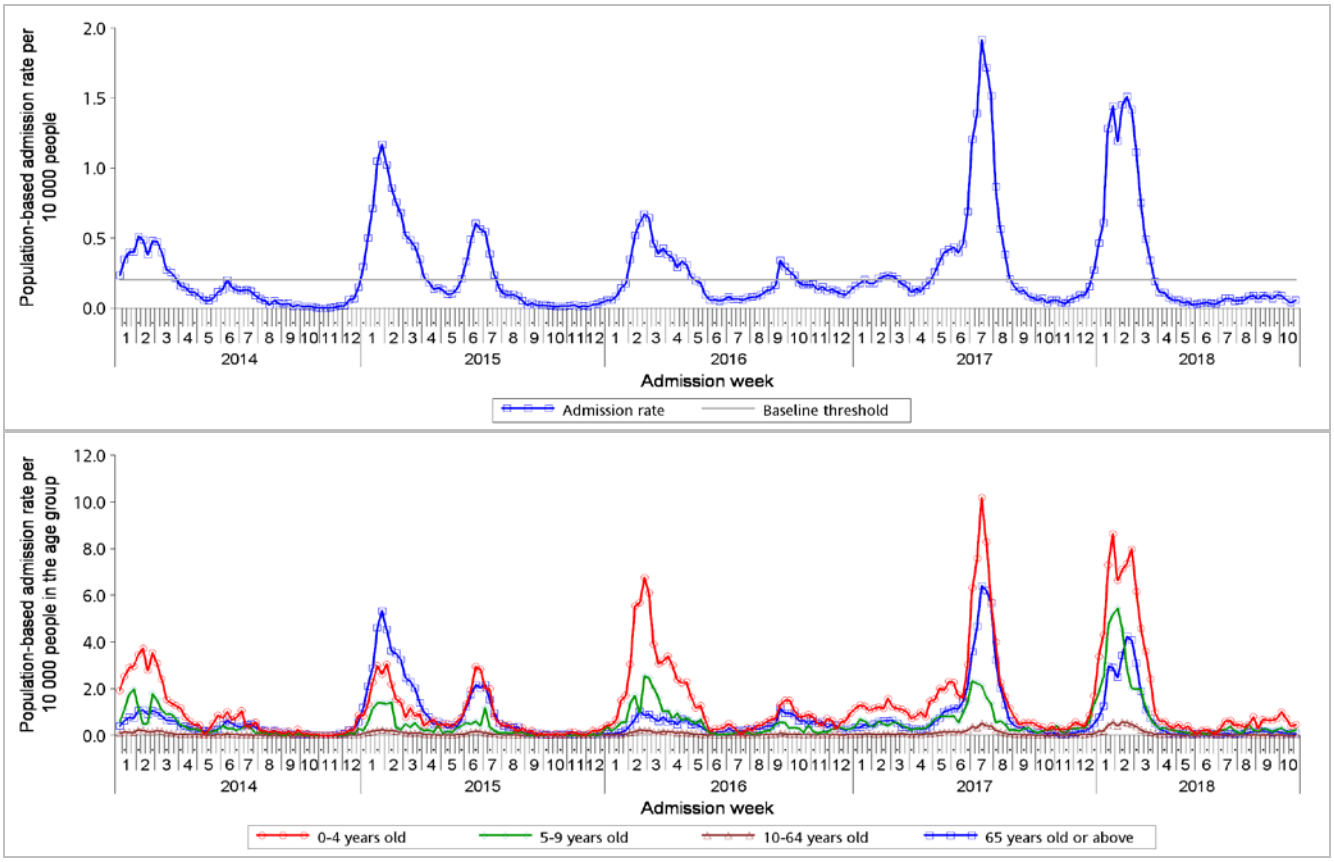


*Figure 4 Influenza-associated hospital admission rates, 2014-18 (upper: overall rate, lower: rates by age groups)*

*[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 43, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 141.0 (per 1,000 coded cases), which was higher than the rate of 138.0 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.*

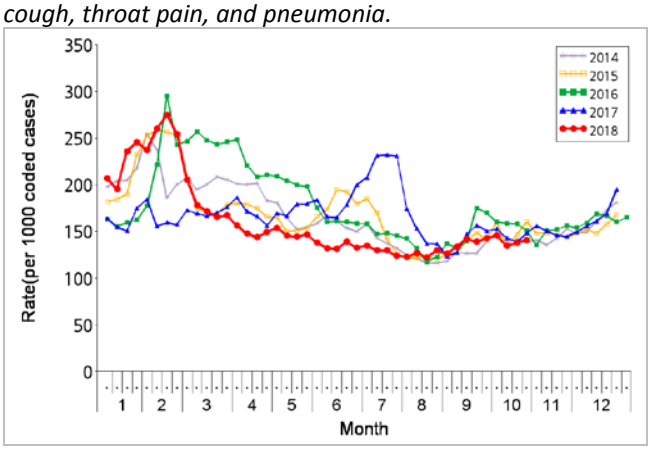


*Figure 5 Rate of ILI syndrome group in AEDs, 2014-18*

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

In week 43, 0.72% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.70% recorded in the previous week (Figure 6).

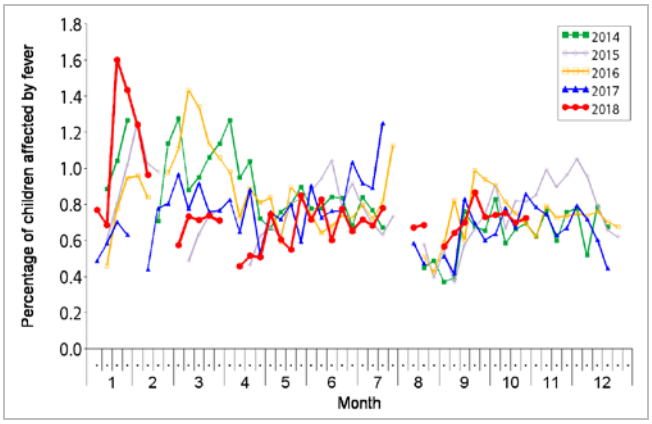


*Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2014-18*

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

In week 43, 0.10% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), compared to 0.06% recorded in the previous week (Figure 7).

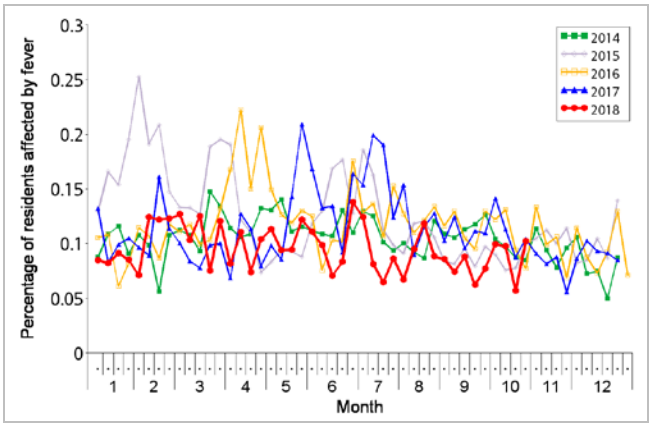


*Figure 7 Percentage of residents with fever at sentinel RCHEs, 2014-18*

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

In week 43, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.57 ILI cases per 1,000 consultations as compared to 2.01 recorded in the previous week (Figure 8).

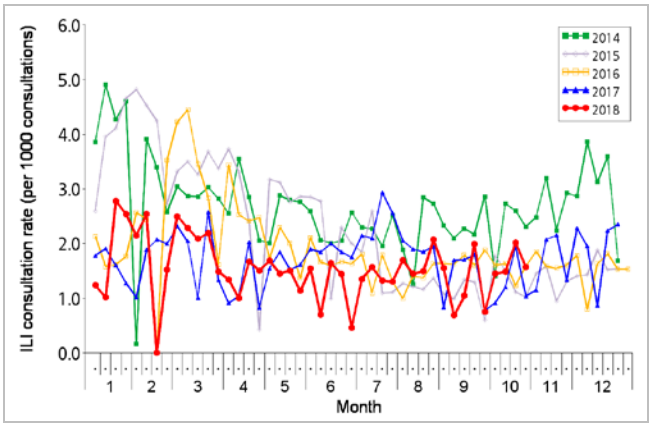


*Figure 8 ILI consultation rate at sentinel CMPs, 2014-18*

## 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 43, no adult cases of ICU admission/deaths with laboratory confirmation of influenza were recorded as compared to three non-fatal cases recorded in the previous week.

| Week | Influenza type | | | | |
|---|---|---|---|---|---|
| | A(H1) | A(H3) | B | C | A (pending subtype) |
| Week 42 | 1 | 2 | 0 | 0 | 0 |
| Week 43 | 0 | 0 | 0 | 0 | 0 |

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

- In week 43 and the first 4 days of week 44 (Oct 28 to 31), there were no cases of severe paediatric influenza-associated complication/death.
- In 2018, 26 paediatric cases of influenza-associated complication/death were recorded, in which three of them were fatal (as of Oct 31). 21 (81%) did not receive the influenza vaccine for the 2017/18 season.

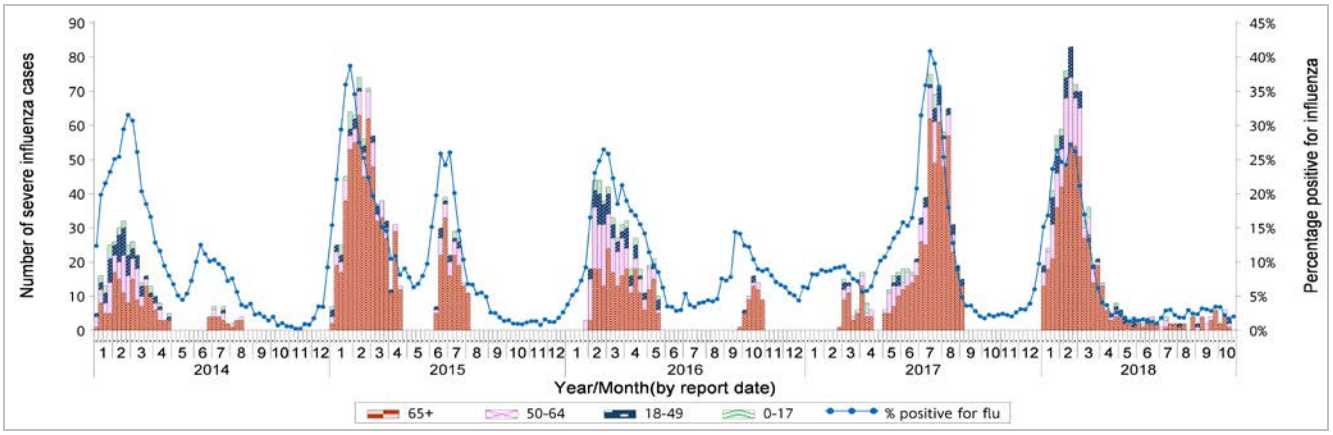


*Figure 9 Weekly number of severe influenza cases by age groups, 2014-18 (the percentage positive for influenzas viruses in Figure 2 is also shown in this graph)*

*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 43 and the first 4 days of week 44 (Oct 28 to 31), 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 remained at inter-seasonal levels in temperate zone of the northern hemisphere. Increased influenza detections were reported in some countries of Southern and South-East Asia. In the temperate zones of southern hemisphere, influenza activity appeared to decrease overall though influenza percent positivity remained elevated in Southern Africa. Influenza activity remained at low levels and even below seasonal threshold during the entire season in Australia and New Zealand. Worldwide, seasonal influenza subtype A viruses accounted for the majority of detections.

- In the United States (week ending Oct 20, 2018), influenza activity remained low. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate, with influenza A(H1N1)pdm09 viruses reported most commonly during the most recent three weeks. The proportion of outpatient visits for ILI was 1.5%, which was below the national baseline of 2.2%.
- In Canada (Oct 14 to 20, 2018), influenza activity increased slightly this week, but remained at interseasonal levels across the country. The majority of regions in Canada reported no influenza activity. Influenza A was the most common influenza virus.
- In the United Kingdom (week ending Oct 21, 2018), there is no influenza circulation in the community with all indicators below baseline threshold levels. The positivity of influenza detection was 0.5% in the week ending October 21, 2018, which was below the baseline threshold of 9.2%.
- In Europe (week ending Oct 21, 2018), influenza activity was low throughout the Region. Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care. Both influenza A and B type viruses were detected.
- In Australia (Oct 8 to 21, 2018), indicators for person to person transmission of influenza and ILI continued to decline after reaching a peak in early September. Activity levels have returned to or are approaching baseline levels. Majority of confirmed influenza cases reported nationally were influenza A (83%).
- In New Zealand (week ending Oct 28, 2018), the last weekly respiratory virus surveillance update for 2018 confirmed that the 2018 season has ended.
- In Mainland China (week ending Oct 21, 2018), influenza activity was still at a low level. Influenza viruses detected were mainly influenza A(H1N1).
- In Macau (week ending Oct 20, 2018), the proportion of ILI cases in emergency departments among adults remained low and that among children increased as compared to the previous week. The proportion of influenza detections remained low.
- In Japan (week ending Oct 21, 2018), the average number of reported ILI cases per sentinel site was 0.19 in the week ending Oct 21, 2018, which was below the baseline level of 1.00. The predominating virus in the past five weeks was influenza A.

*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, Australian Department of Health, New Zealand Ministry of Health, Chinese National Influenza Center, Health Bureau of Macao Special Administrative Region and Japan Ministry of Health, Labour and Welfare.