

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 Jul 3, 2019)

Reporting period: Jun 23 – 29, 2019 (Week 26)

- The overall local seasonal influenza activity in the past few weeks was higher than that in early May. The latest surveillance data showed that the influenza-associated hospitalisation rate in public hospitals was around the baseline threshold in the past four weeks while the percentage of respiratory specimens tested positive for seasonal influenza viruses was still below the baseline threshold.
- The influenza-like illness (ILI) outbreaks reported in the past week was 24, which was within the range of 19-32 per week recorded in the previous three weeks. In the past four weeks, the ILI outbreaks mainly occurred in primary schools (45%), followed by kindergartens/child care centres (29%) and secondary schools (6%).
- The majority of the seasonal influenza viruses detected in the past four weeks were influenza B (49%), followed by influenza A(H3)(30%).
- Members of the public aged six months or above (except those with known contraindications) who have not yet received any seasonal influenza vaccine in this season can still receive it for personal protection against seasonal influenza. For detail of the Vaccination Subsidy Scheme and Government Vaccination Programme, 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, 2015-19

In week 26, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 4.9 ILI cases per 1,000 consultations, which was lower than 5.1 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private medical practitioners (PMP) was 32.4 ILI cases per 1,000 consultations, which was lower than 33.2 recorded in the previous week (Figure 1, right).

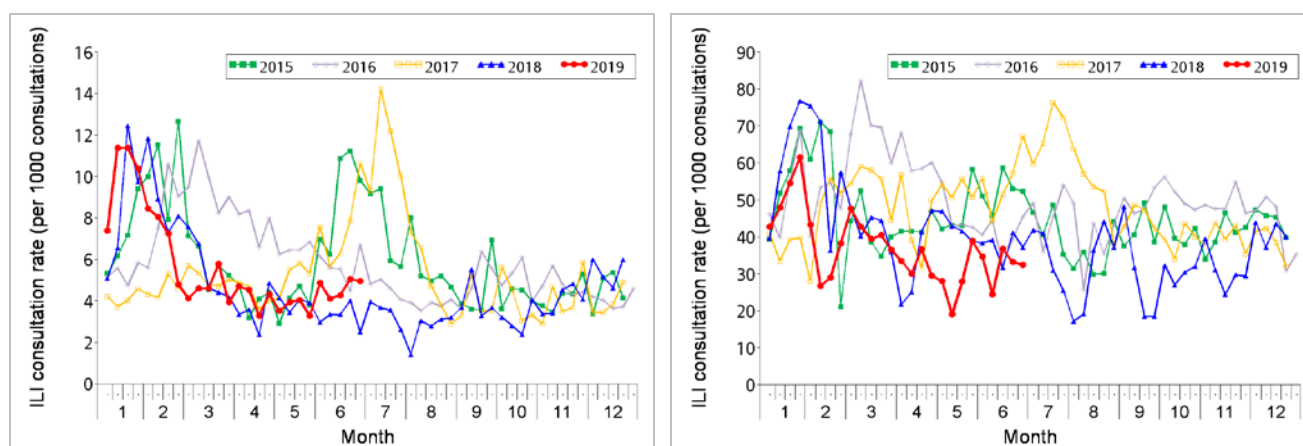


Figure 1 ILI consultation rate at sentinel GOPC (left) and PMP (right), 2015-19

Laboratory surveillance, 2015-19

Among the respiratory specimens received in week 26, the positive percentage of seasonal influenza viruses was 7.94%, which was below the baseline threshold of 10.3% but was higher than 7.81% recorded in the previous week (Figure 2). The 418 influenza viruses detected last week included 119 (2.26%) influenza A(H1), 122 (2.32%) influenza A(H3), 171 (3.25%) influenza B and 6 (0.11%) influenza C.

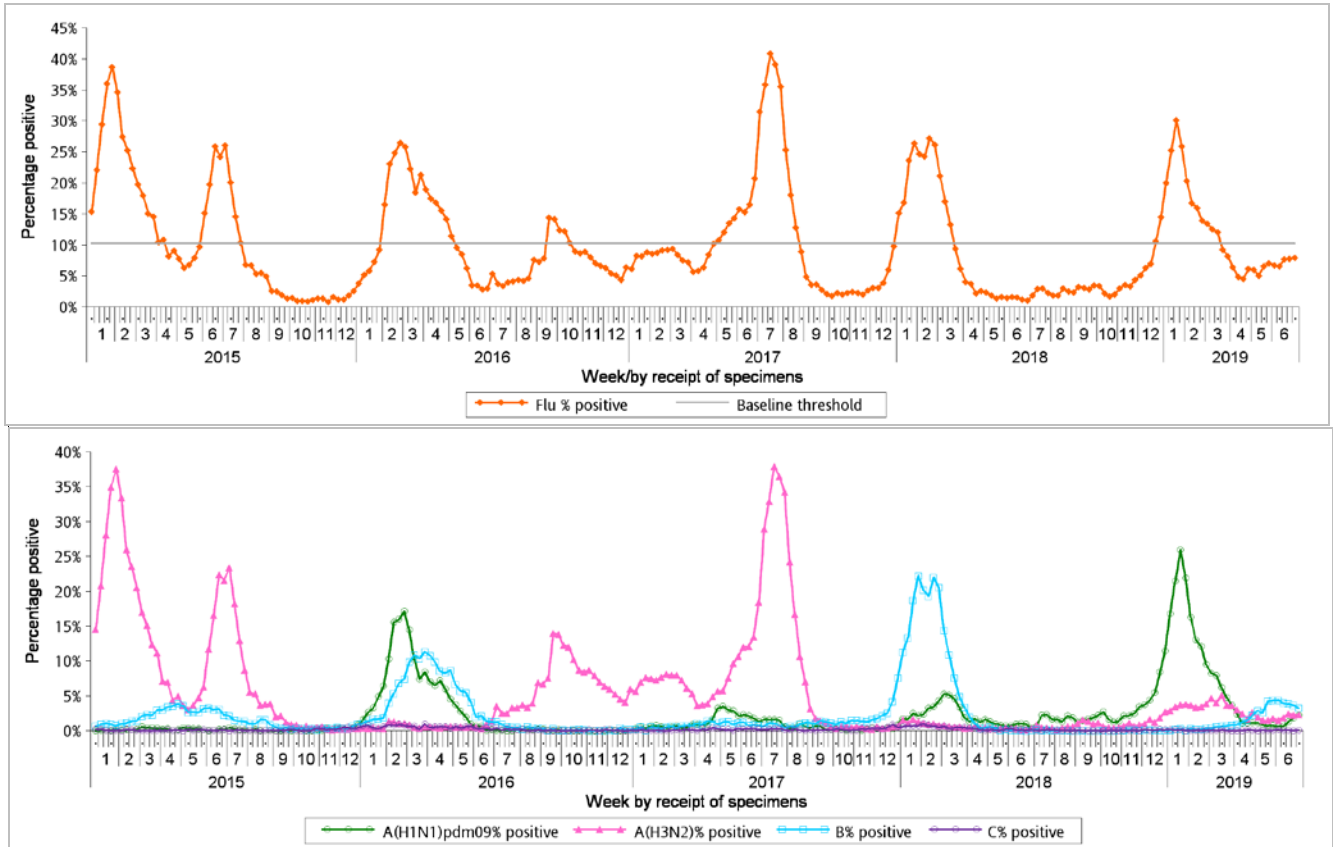


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2015-19 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly positive percentage during non-season periods from 2014-2018.]

Influenza-like illness outbreak surveillance, 2015-19

In week 26, 24 ILI outbreaks occurring in schools/institutions were recorded (affecting 136 persons), as compared to 32 outbreaks recorded in the previous week (affecting 191 persons) (Figure 3). In the first 4 days of week 27 (Jun 30 to Jul 3), nine ILI outbreaks in schools/institutions were recorded (affecting 56 persons).

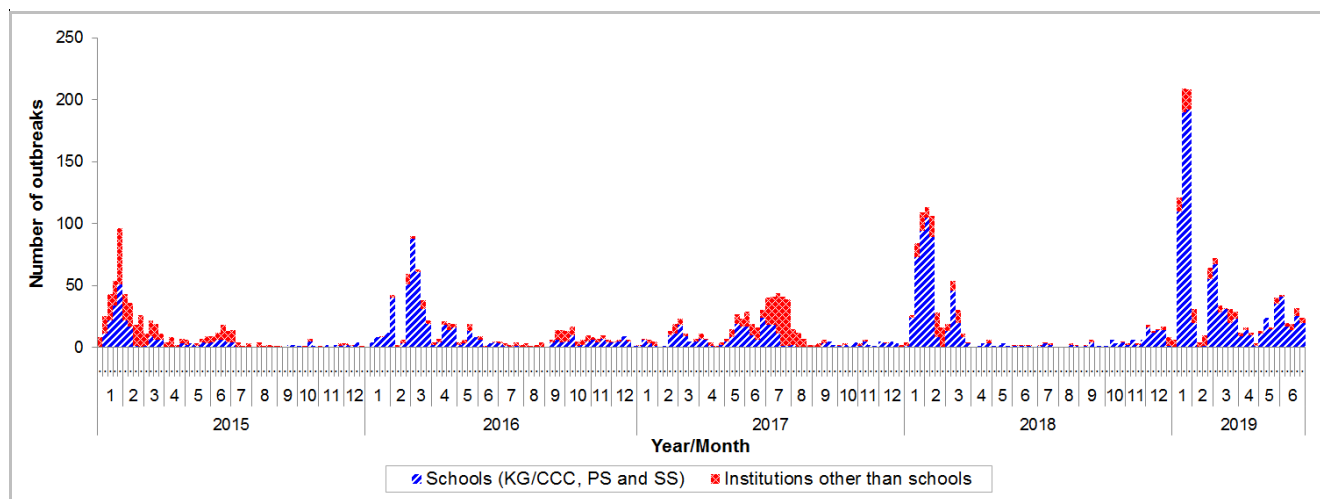


Figure 3 ILI outbreaks in schools/institutions, 2015-19

Type of institutions	Week 25	Week 26	First 4 days of week 27 (Jun 30 to Jul 3)
Kindergarten/ child care centre (KG/CCC)	7	10	5
Primary school (PS)	17	9	2
Secondary school (SS)	1	1	0
Residential care home for the elderly	2	1	0
Residential care home for persons with disabilities	1	1	1
Others	4	2	1
<i>Total number of outbreaks</i>	32	24	9
<i>Total number of persons affected</i>	191	136	56

Influenza-associated hospital admission rates in public hospitals based on discharge coding, 2015-19

In week 26, the overall admission rates in public hospitals with principal diagnosis of influenza was 0.22 (per 10,000 population), which was below the baseline threshold of 0.23 and was lower than 0.27 recorded in the previous week. The influenza-associated admission rates for persons aged 0-5 years, 6-11 years, 12-17 years, 18-49 years, 50-64 years and 65 years or above were 1.52, 0.87, 0.31, 0.11, 0.08 and 0.17 cases (per 10,000 people in the age group) respectively, as compared to 1.64, 1.28, 0.24, 0.09, 0.09 and 0.36 cases in the previous week (Figure 4).

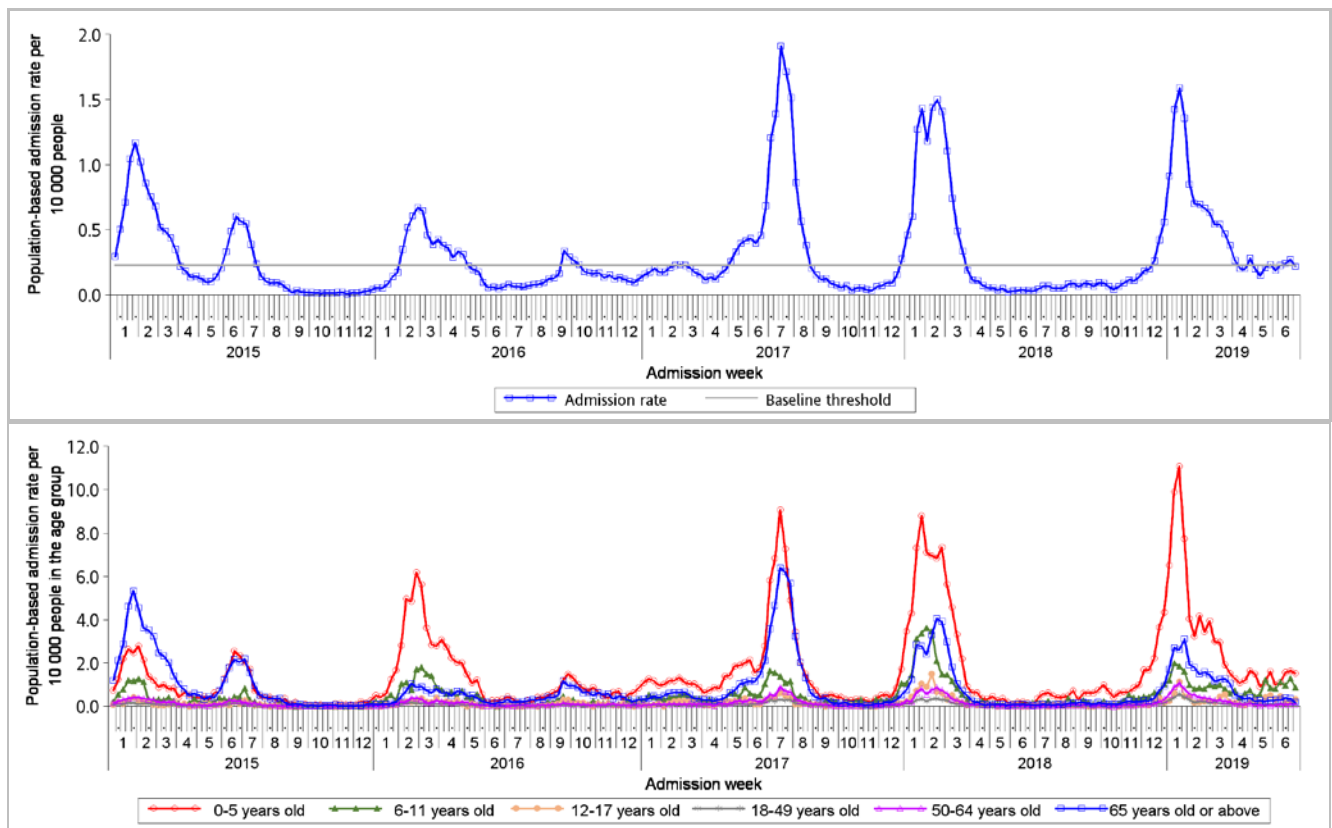


Figure 4 Influenza-associated hospital admission rates, 2015-19 (upper: overall rate, lower: rates by age groups)
 [Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014-2018.]

Rate of ILI syndrome group in accident and emergency departments, 2015-19[#]

In week 26, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 165.5 (per 1,000 coded cases), which was lower than the rate of 172.5 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.

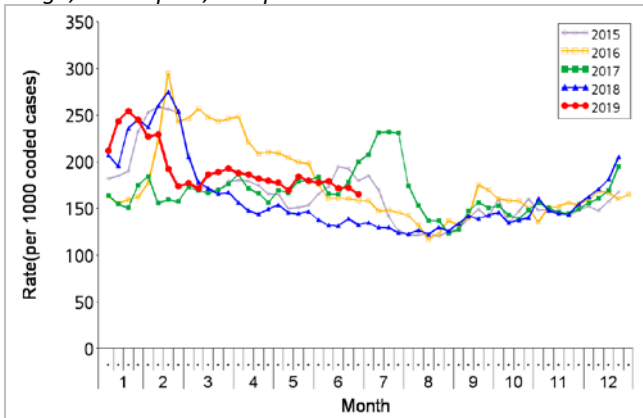


Figure 5 Rate of ILI syndrome group in AEDs, 2015-19

Fever surveillance at sentinel child care centres/ kindergartens, 2015-19

In week 26, 1.06% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.89% recorded in the previous week (Figure 6).

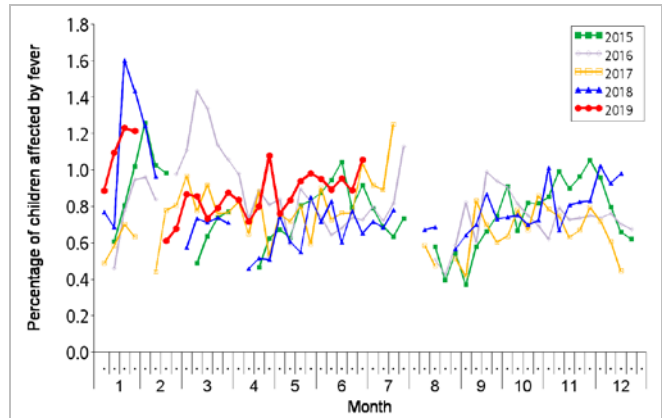


Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2015-19

Fever surveillance at sentinel residential care homes for the elderly, 2015-19

In week 26, 0.11% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.09% recorded in the previous week (Figure 7).

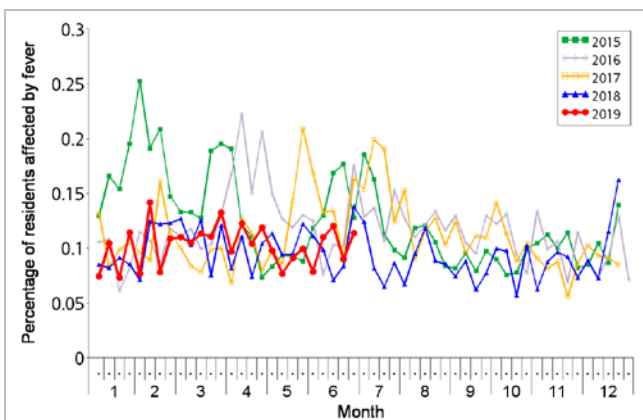


Figure 7 Percentage of residents with fever at sentinel RCHes, 2015-19

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2015-19

In week 26, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.12 ILI cases per 1,000 consultations as compared to 1.80 recorded in the previous week (Figure 8).

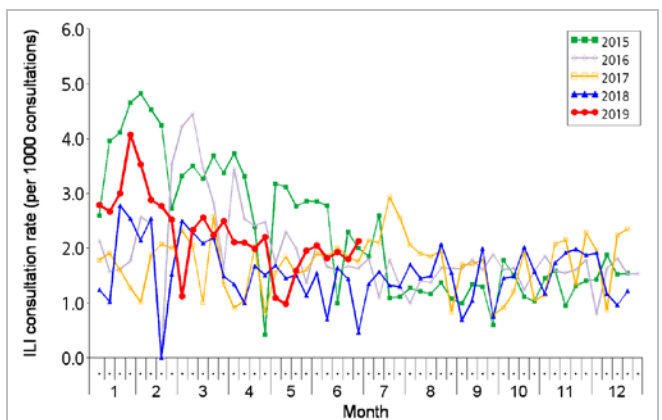


Figure 8 ILI consultation rate at sentinel CMPs, 2015-19

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 26, eight adult cases of ICU admission/deaths with laboratory confirmation of influenza were recorded (including two deaths) as compared to 10 cases (including two deaths) recorded in the previous week. Four of the eight severe adult cases were known to have received the 2018/19 influenza vaccine.

Week	Influenza type				
	A(H1)	A(H3)	B	C	A (pending subtype)
Week 25	5	2	3	0	0
Week 26	3	2	2	0	1

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

- In week 26 and the first 4 days of week 27 (Jun 30 to Jul 3), there were no cases of severe paediatric influenza-associated complication/death.
- In 2019, 31 paediatric cases of influenza-associated complication/death were recorded, in which one of them was fatal (as of Jul 3). About 75% had not ever received the influenza vaccine for the 2018/19 season.

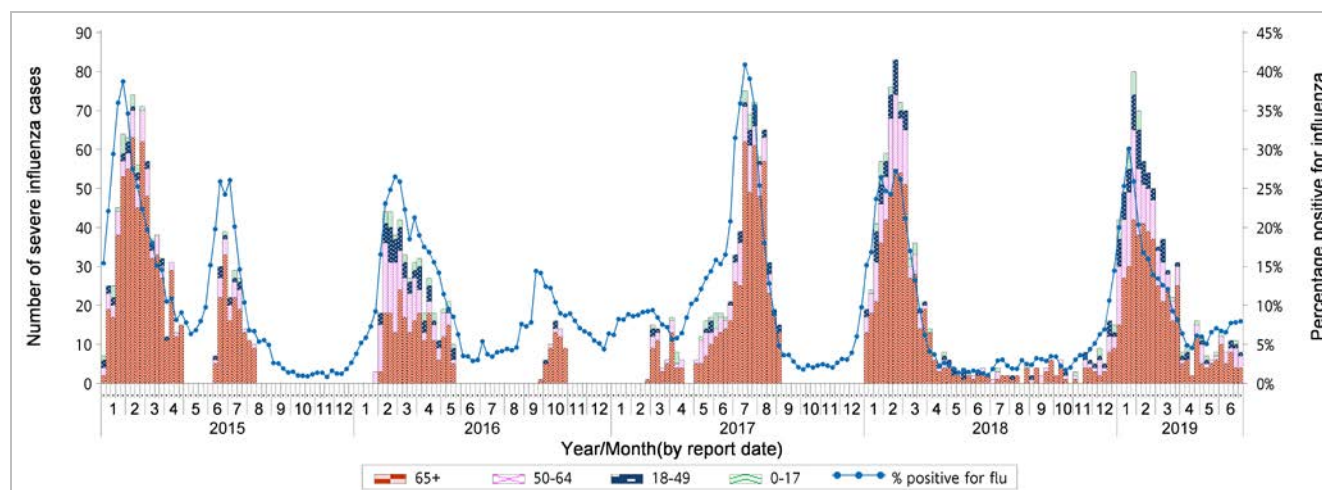


Figure 9 Weekly number of severe influenza cases by age groups, 2015-19 (the percentage positive for influenza viruses in Figure 2 is also shown in this graph)

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 26 and the first 4 days of week 27 (Jun 30 to Jul 3), 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

In the temperate zone of the northern hemisphere influenza activity returned to inter-seasonal level in most countries. In Southern Asia and South East Asia, influenza activity was low across reporting countries. In the temperate zones of the southern hemisphere, influenza detections continued to increase. The 2019 influenza season appeared to have started earlier than previous years in Australia, Chile, South Africa and New Zealand. Worldwide, seasonal influenza A viruses accounted for the majority of detections.

- In the United States (week ending Jun 22, 2019), influenza activity remained low. 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 2.28%, slightly lower than 2.43% recorded in the previous week. Influenza A and B viruses were co-circulating.
- In Canada (May 19 to Jun 22, 2019), influenza activity continued to decline. Influenza A(H3N2) and influenza B continue to co-circulate. Over the past five weeks, 61% of detections were influenza A, and 86% of subtyped influenza A detections were A(H3N2).
- In the United Kingdom (week ending Jun 16, 2019), indicators for influenza showed low levels of activity. The positivity of influenza detection was 1.6%, below the baseline threshold of 9.2%. The most common influenza viruses detected were influenza A.
- In Europe (May 20 to 23 Jun, 2019), influenza activity was at interseason levels. 1.6% of sentinel specimens were tested positive for influenza virus.
- In Australia (fortnight ending Jun 16, 2019), influenza and ILI activity were high for this time of year compared to previous years. The majority of confirmed influenza cases reported nationally were influenza A (86%), however the proportion of influenza B nationally has been increasing each week since early May.
- In New Zealand (week ending Jun 30, 2019), ILI activity had increased last week and remained above the seasonal baseline threshold. A higher proportion of ILI was due to influenza viruses than usual at this time of year. Over 50% of samples tested in general practices and over 40% of samples tested in hospitals were influenza positive, which was one of the highest positivity rates for this period in recent years. Currently, influenza A(H3N2) and B(Victoria) viruses are co-circulating.
- In Mainland China (week ending Jun 23, 2019), influenza activity in both northern and southern provinces continued to decrease, and that in northern provinces is now at inter-seasonal level. Influenza B(Victoria) virus detections remained dominant.
- In Macau (week ending Jun 22, 2019), the proportions of ILI cases in emergency departments among both adults and children remained at elevated levels. Influenza surveillance data showed that the predominating viruses was influenza B, followed by influenza A(H3) viruses.

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](#) and [Health Bureau of Macao Special Administrative Region](#).