

FLU EXPRESS



Flu Express is a weekly report produced by Surveillance Division of the Communicable Disease Branch of the Centre for Health Protection. It monitors and summarizes the latest local and global influenza activities.

Local Situation of Influenza Activity (as of Dec 18, 2019)

Reporting period: Dec 8 - 14, 2019 (Week 50)

- The latest surveillance data showed that the overall local seasonal influenza activity was still at a low level. Both the percentage of respiratory specimens tested positive for seasonal influenza viruses and influenza-associated hospitalisation rate in public hospitals remained below the baseline thresholds. However, slight increases in some parameters were observed last week.
- Sixteen institutional influenza-like illness (ILI) outbreaks were recorded in the past four weeks, which occurred in primary schools (10), residential care homes for the elderly (3), kindergartens/ child care centres (2), and special child care centre (1).
- 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.
- The 2019/20 seasonal influenza vaccination programmes, including Vaccination Subsidy Scheme (VSS) and Government Vaccination Programme (GVP), have been launched on 9 and 23 October respectively. In the 2019/20 season, VSS continues to provide subsidised seasonal influenza vaccination (SIV) to children aged 6 months to under 12 years, persons aged 50 years or above, pregnant women, persons with intellectual disabilities and recipients of Disability Allowance. Under GVP, eligible groups for free vaccination are also the same as that of 2018/19. Under the Residential Care Home Vaccination Programme (RVP), SIV services have been expanded to all residential child care centres. The SIV school outreach has been regularised to allow all primary schools to join, and extended to kindergartens, child care centres, and kindergarten-cum-child care centres as pilot. For 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, 2015-19

In week 50, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 4.2 ILI cases per 1,000 consultations, which was higher than 3.1 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private medical practitioners (PMP) was 26.4 ILI cases per 1,000 consultations, which was higher than 16.2 recorded in the previous week (Figure 1, right).

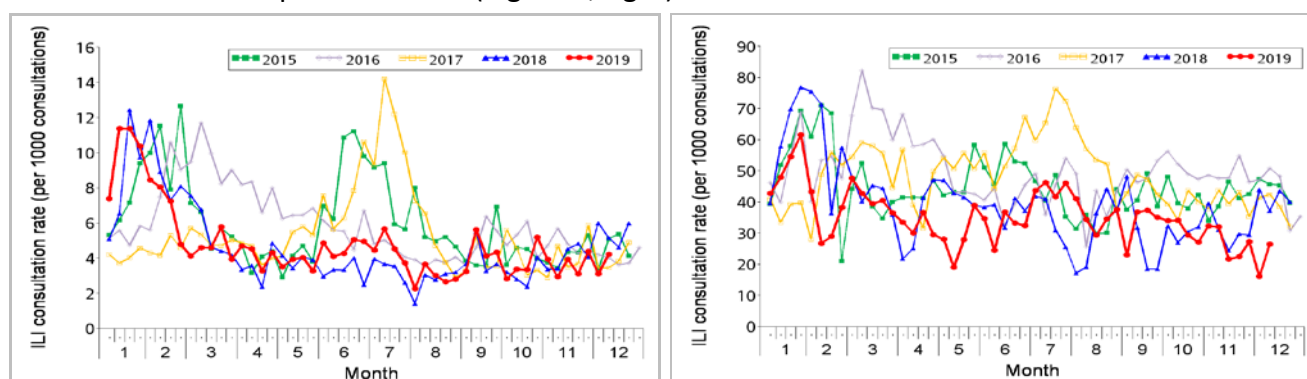


Figure 1 ILI consultation rate at sentinel GOPC (left) and PMP (right), 2015-19

Laboratory surveillance, 2015-19

Among the 5725 respiratory specimens received in week 50, 180 (3.14%) were tested positive for seasonal influenza A or B viruses. These positive detections include 100 (56%) influenza A(H1), 65 (36%) influenza A(H3) and 15 (8%) influenza B viruses. The positive percentage (3.14%) was below the baseline threshold of 9.21% but was higher than 2.35% recorded in the previous week (Figure 2).

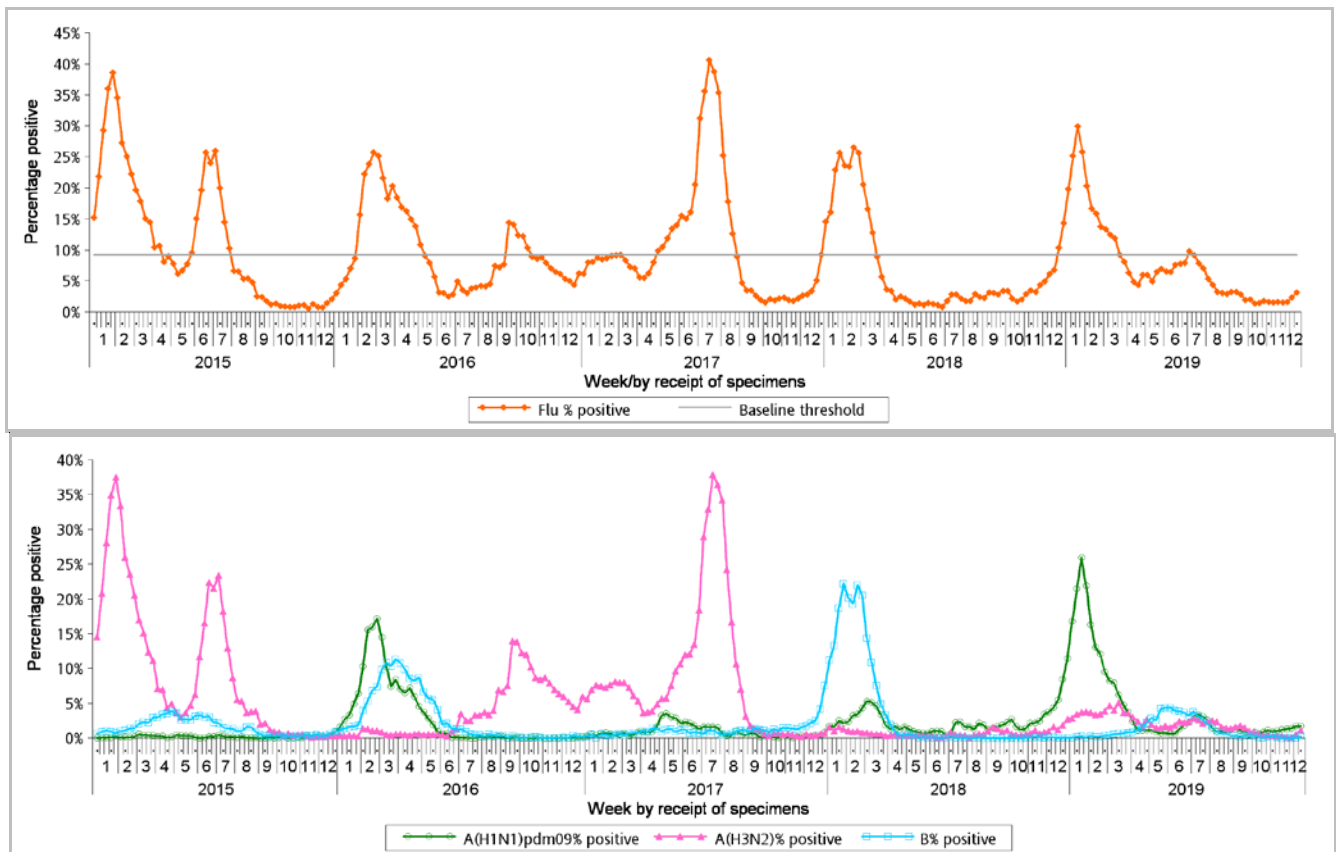


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2015-19 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly positive percentage during non-season periods from 2014 week 49 - 2019 week 48.]

Influenza-like illness outbreak surveillance, 2015-19

In week 50, 6 ILI outbreaks occurring in schools/institutions were recorded (affecting 34 persons), as compared to 5 outbreaks recorded in the previous week (affecting 41 persons) (Figure 3). In the first 4 days of week 51 (Dec 15 to 18), 7 ILI outbreaks in schools/institutions were recorded (affecting 39 persons).

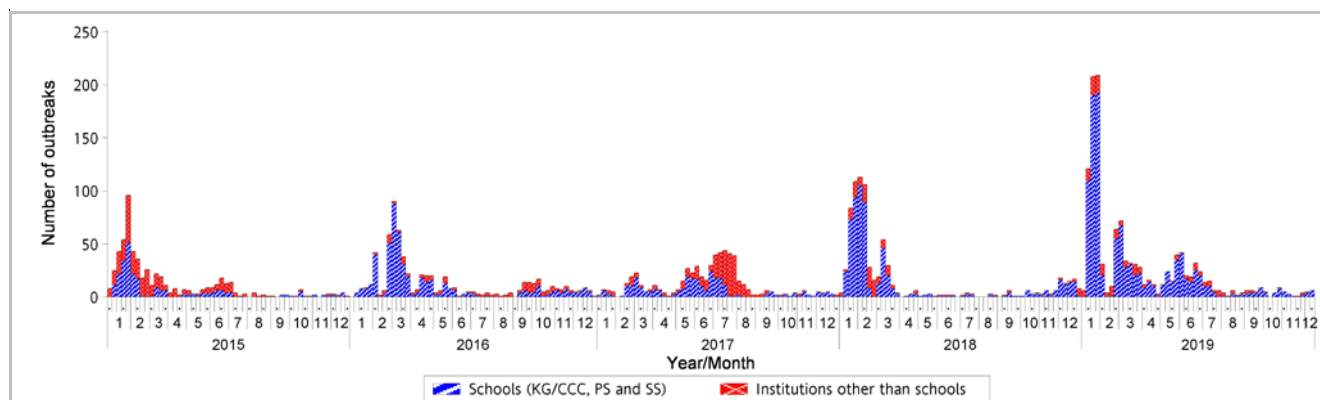


Figure 3 ILI outbreaks in schools/institutions, 2015-19

Type of institutions	Week 49	Week 50	First 4 days of week 51 (Dec 15 to 18)
Kindergarten/ child care centre (CCC/KG)	1	1	2
Primary school (PS)	3	5	2
Secondary school (SS)	0	0	0
Residential care home for the elderly	1	0	0
Residential care home for persons with disabilities	0	0	2
Others	0	0	1
<i>Total number of outbreaks</i>	5	6	7
<i>Total number of persons affected</i>	41	34	39

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

In week 50, the overall admission rates in public hospitals with principal diagnosis of influenza was 0.10 (per 10,000 population), which was below the baseline threshold of 0.25 and was higher than 0.09 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 0.78, 0.32, 0.09, 0.04, 0.02 and 0.16 cases (per 10,000 people in the age group) respectively, as compared to 0.69, 0.27, 0.09, 0.01, 0.01 and 0.17 cases in the previous week (Figure 4).

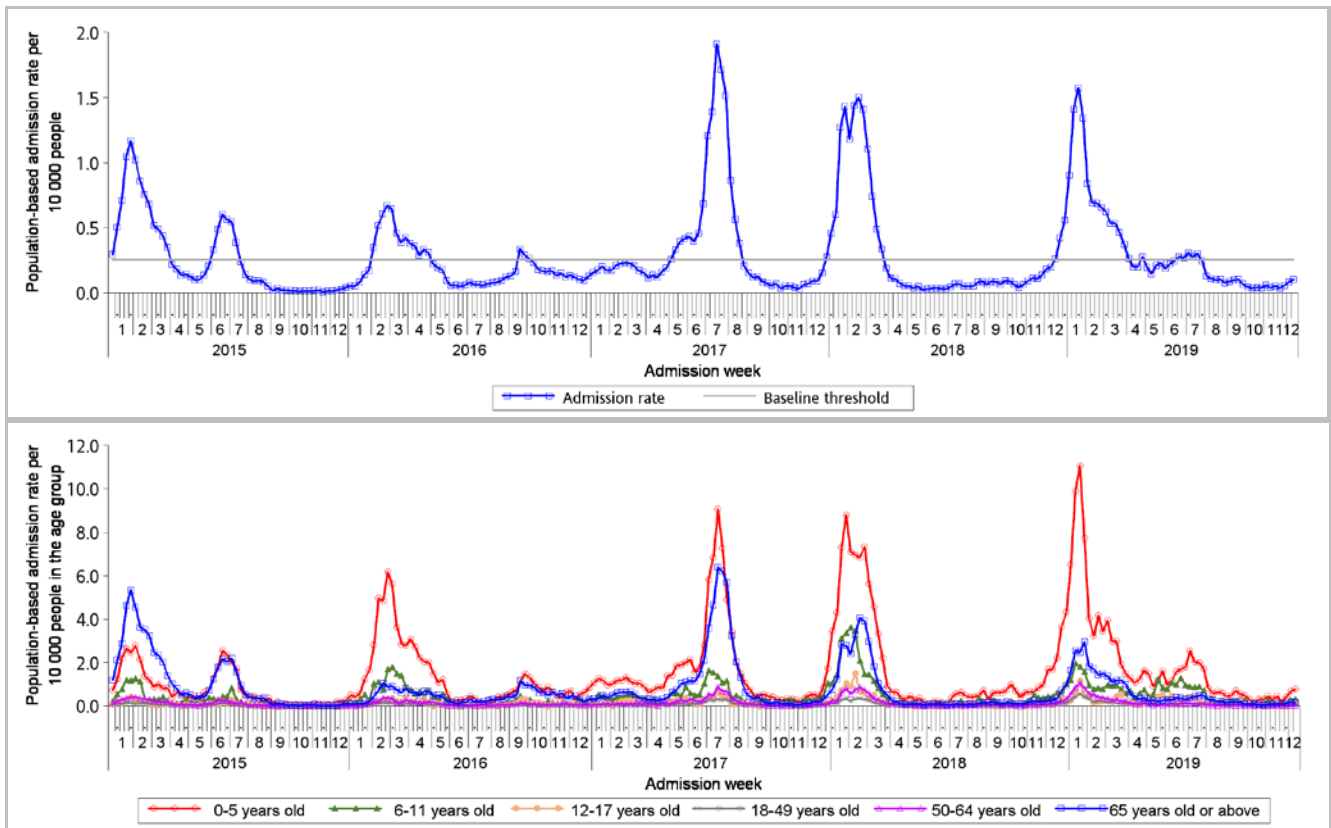


Figure 4 Influenza-associated hospital admission rates, 2015-19 (upper: overall rate, lower: rates by age groups)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014 week 49 – 2019 week 48.]

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

In week 50, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 175.6 (per 1,000 coded cases), which was higher than the rate of 166.4 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.

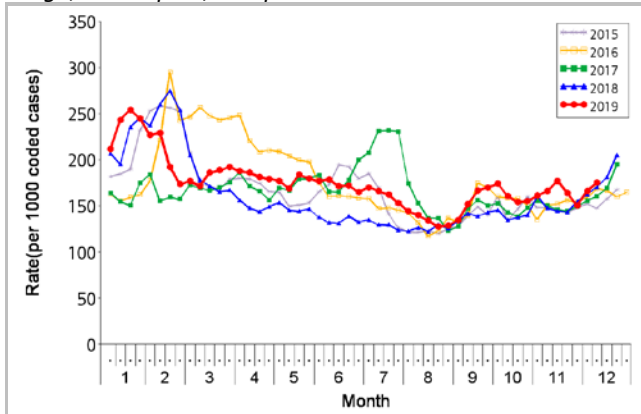


Figure 5 Rate of ILI syndrome group in AEDs, 2015-19

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

In week 50, 0.83% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.73% recorded in the previous week (Figure 6).

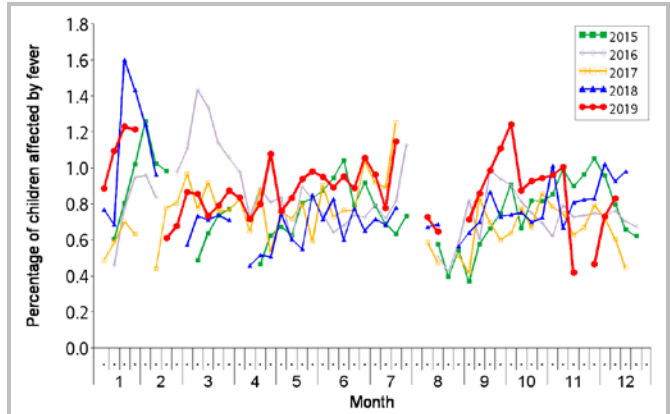


Figure 6 Percentage of children with fever at sentinel CCCs/KGs, 2015-19

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

In week 50, 0.13% 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).

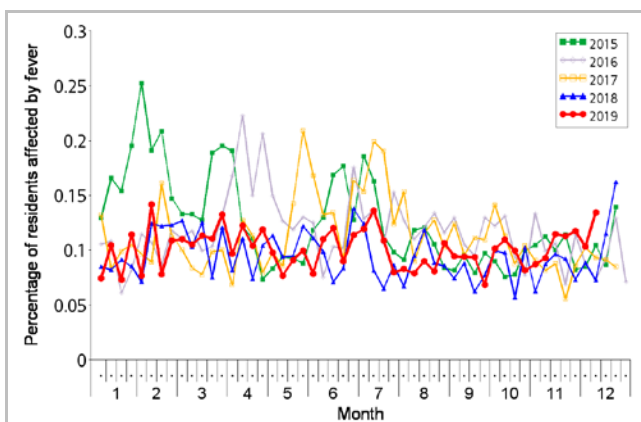


Figure 7 Percentage of residents with fever at sentinel RCHes, 2015-19

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

In week 50, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.04 ILI cases per 1,000 consultations as compared to 2.22 recorded in the previous week (Figure 8).

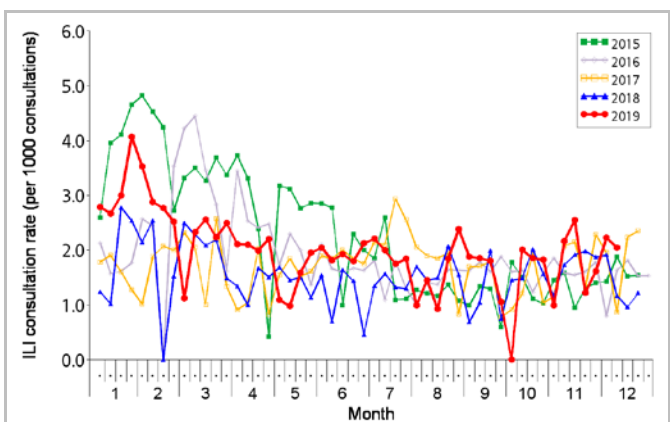


Figure 8 ILI consultation rate at sentinel CMPs, 2015-19

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 50, three adult cases of ICU admission/death with laboratory confirmation of influenza were recorded (including one death), as compared to four cases (including one death) in the previous week.

Week	Influenza type				
	A(H1)	A(H3)	B	C	A (pending subtype)
Week 49	3	0	0	0	1
Week 50	1	1	0	0	1

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

- In week 50 and the first 4 days of week 51 (Dec 15 to 18), there was one case of severe paediatric influenza-associated complication.

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	Ever received influenza vaccine for this season
51	7 years	Male	Transient encephalopathy	No	Influenza C	No

- In 2019, 40 paediatric cases of influenza-associated complication/death were recorded, in which one of them was fatal (as of Dec 18). About 71% had not ever received the influenza vaccine for the respective seasons.

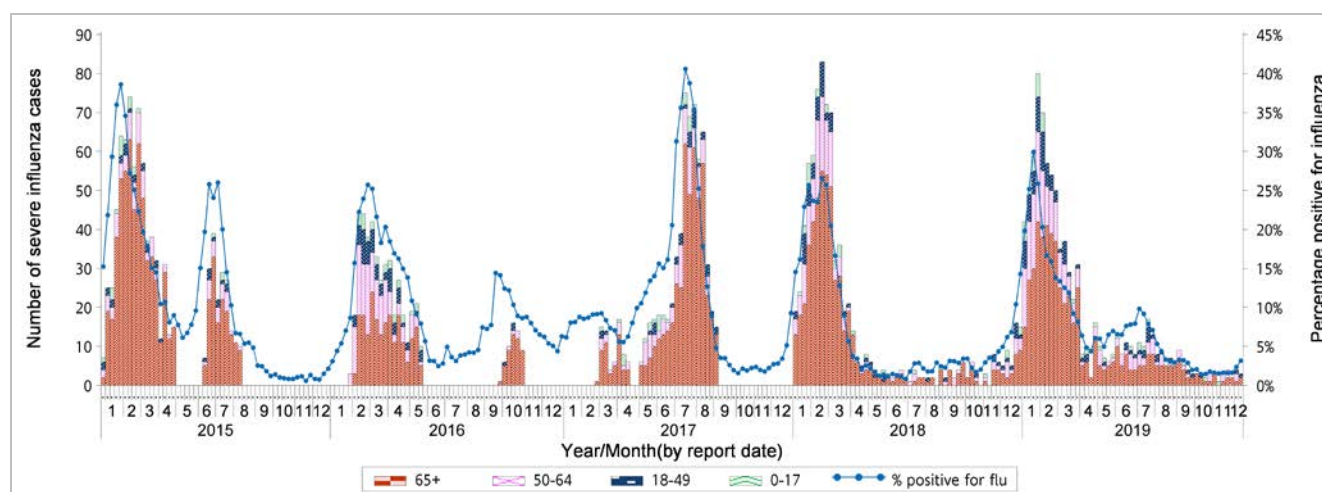


Figure 9 Weekly number of severe influenza cases by age groups, 2015-19 (the percentage positive for influenza viruses in Figure 2 is also shown in this graph)

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 and B viruses

- In October, there were no new reports of oseltamivir (Tamiflu) resistant influenza A and B viruses.
- For the results of previous months, please refer to the following webpage:
<https://www.chp.gov.hk/en/statistics/data/10/641/695/6835.html>

Global Situation of Influenza Activity

In the temperate zone of the northern hemisphere, influenza activity started to increase in most countries. Influenza activity was elevated across the countries in Western Asia. In Southern Asia, influenza activity was low across reporting countries. In South East Asia, influenza activity continued to be reported in Lao PDR and Vietnam. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels in most countries. Worldwide, seasonal influenza A(H3N2) viruses accounted for the majority of detections.

- In the United States (week ending Dec 7, 2019), influenza activity had been elevated for five weeks and continued to increase. The proportion of outpatient visits for ILI was 3.2%, which was above the national baseline of 2.4%. The percentage of respiratory specimens testing positive for influenza increased to 11.3% from 10.4% recorded in the previous week. Nationally, influenza B (Victoria) viruses were the most common followed by influenza A(H1N1)pdm09 and influenza A(H3N2) viruses.
- In Canada (week ending Dec 7, 2019), the influenza season started in the week ending November 23 and the influenza activity continued to increase. The percentage of tests positive for influenza increased to 9.1%, above the seasonal threshold of 5%. Influenza A(H3N2) continued to be the most common influenza virus circulating in Canada for the season to date.
- In the United Kingdom (week ending Dec 8, 2019), influenza activity had continued to increase for several indicators. The positivity of influenza detection increased to 17.9%, above the baseline threshold of 9.7%. The most common influenza viruses detected were influenza A(H3).
- In Europe (week ending Dec 8, 2019), influenza season has started in late November and influenza activity continued to increase. The majority of reported influenza virus detections were influenza A, but some countries had reported influenza B virus dominance or co-dominance of types A and B virus.
- In Mainland China (week ending Dec 8, 2019), influenza activity in both northern and southern provinces continued to increase with more outbreaks reported. Some provinces have entered the influenza seasons and the influenza activity in southwest areas were in medium levels. Influenza A(H3N2) and influenza B(Victoria) viruses were predominant in southern provinces, while influenza A(H3N2) viruses were predominant in northern provinces.
- In Macau (week ending Dec 7, 2019), the overall number of ILI cases was on a decreasing trend but the positive detections for influenza viruses had increased.
- In Taiwan (week ending Dec 7, 2019), influenza activity slightly increased but was still below the seasonal threshold. In the recent four weeks, influenza A(H1N1) was the predominant strain (86.7%) in the community.
- In Japan (week ending Dec 8, 2019), the influenza season has started in mid-November. The average number of reported ILI cases per sentinel site increased to 9.52 from 5.52 in the previous week, which was above the baseline level of 1.00. The predominating virus detected in the past five weeks was influenza A(H1)pdm09 (95%), followed by influenza A(H3) (4%) and influenza B (2%).
- In Korea (week ending Dec 7, 2019), the weekly ILI rate was 19.5, higher than 12.7 recorded in the previous week. The proportion of influenza detections was 18.6%, and the most common detected viruses were influenza A(H1)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 Centres for Disease Control](#), [Japan Ministry of Health, Labour and Welfare](#) and [Korean Centers for Disease Control and Prevention](#).