

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 12, 2017)

Reporting period: Jun 2 – Jul 8, 2017 (Week 27)

- The latest surveillance data showed that the local influenza activity has further increased and was at a high level.
- The Centre for Health Protection (CHP) has collaborated with the Hospital Authority (HA) and private hospitals to reactivate the enhanced surveillance for severe seasonal influenza cases (i.e. influenza-associated admissions to intensive care unit or deaths) among patients aged 18 or above since May 5, 2017. As of Jul 12, 223 severe cases (including 155 deaths) were recorded. Separately, 13 cases of severe paediatric influenza-associated complication/death (including two deaths) (aged below 18 years) were recorded in the same period.
- Apart from adopting personal, hand and environmental hygiene practices against respiratory illnesses, those members of the public who have not received influenza vaccine may still get the vaccination for personal protection.
- 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 for personal protection.
- In the coming 2017/18 season, the Vaccination Subsidy Scheme will continue 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 will be the same as that of 2016/17 under the Government Vaccination Programme. The various vaccination programmes will be launched in Oct / Nov 2017 and the details will be announced in due course.

Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2013-17

In week 27, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 9.3 ILI cases per 1,000 consultations, which was lower than 10.6 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 59.8 ILI cases per 1,000 consultations, which was lower than 67.3 recorded in the previous week (Figure 1, right).

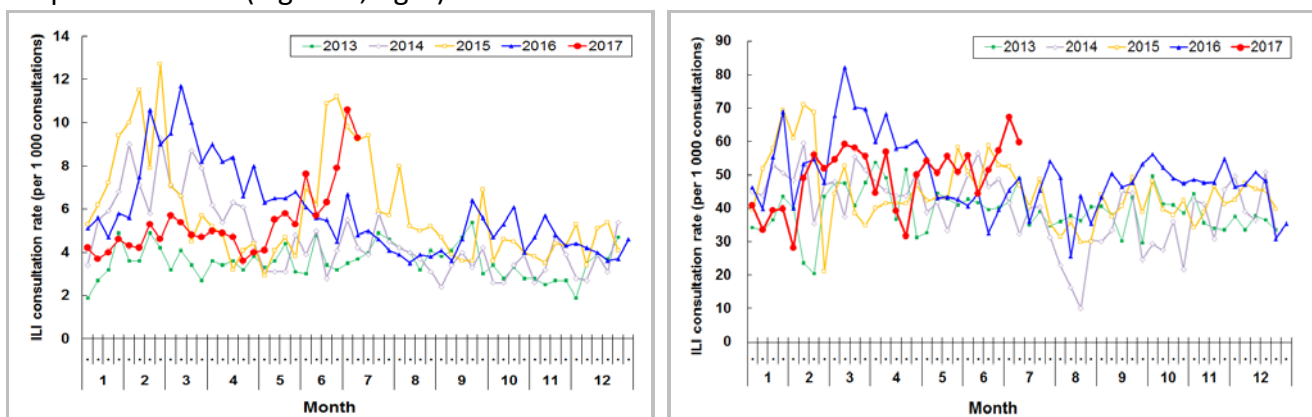


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17

Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 27, 2194 (35.66%) were tested positive for seasonal influenza viruses, including 97 (1.58%) influenza A(H1), 2014 (32.73%) influenza A(H3), 68 (1.11%) influenza B and 15 (0.24%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 35.66%, which was higher than 31.48% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of A(H3), A(H1), B and C were 91.8%, 4.4%, 3.1% and 0.7% respectively.

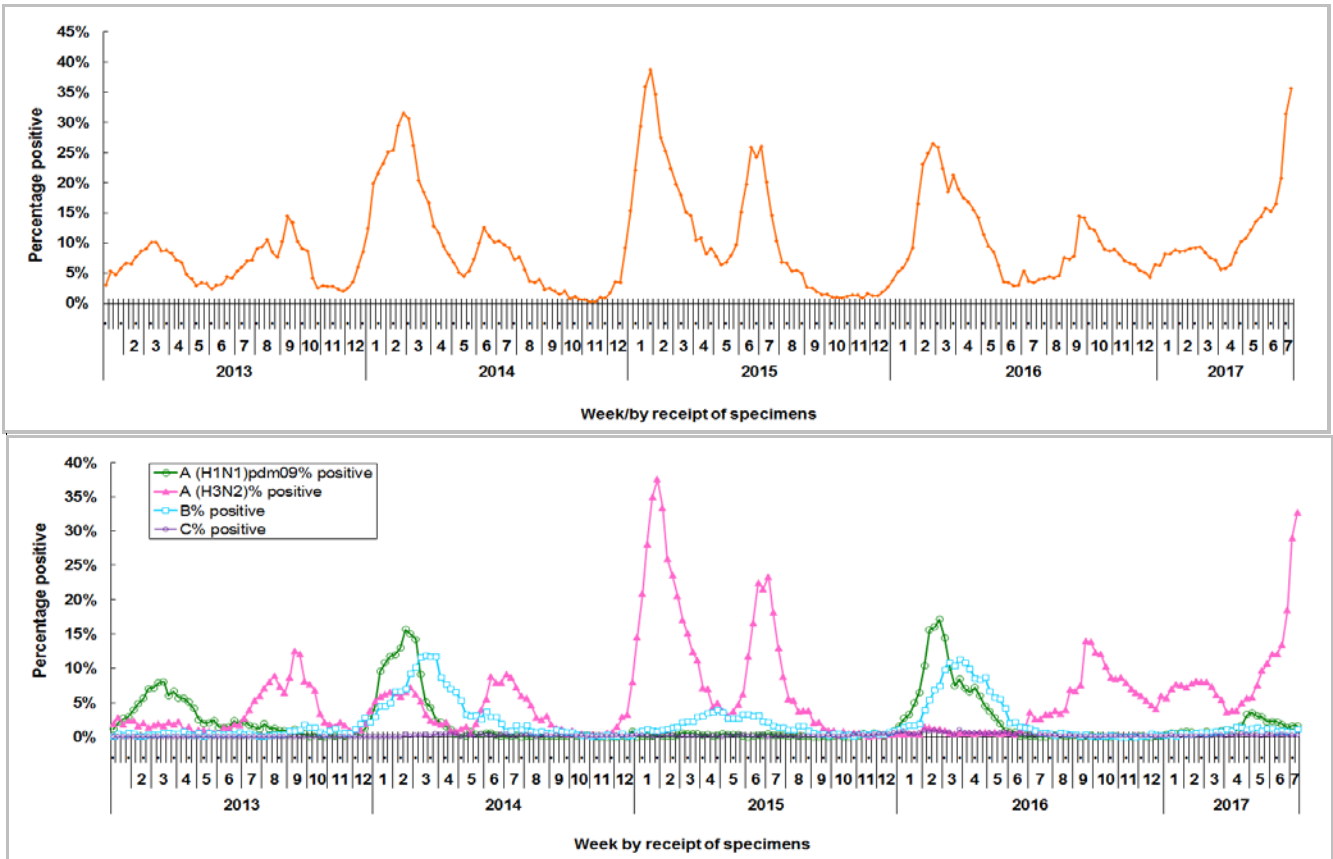


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2013-17

In week 27, 42 ILI outbreaks occurring in schools/institutions were recorded (affecting 234 persons), as compared to 41 outbreaks recorded in the previous week (affecting 236 persons) (Figure 3). In the first 4 days of week 28 (Jul 9 to 12, 2017), 31 institutional ILI outbreaks were recorded (affecting 150 persons).

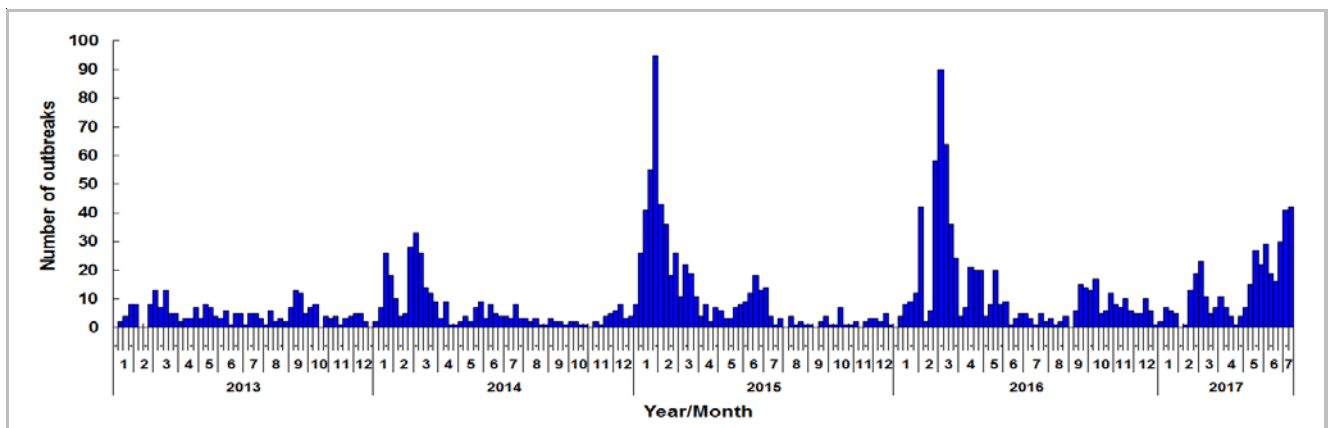


Figure 3 ILI outbreaks in schools/institutions, 2013-17

Rate of influenza-like illness syndrome group in accident and emergency departments, 2013-17[#]

In week 27, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 208.9 (per 1,000 coded cases), which was higher than the rate of 200.3 in the previous week (Figure 4).

#Note: The influenza-like illness syndrome group includes codes such as influenza, upper respiratory tract infection, fever, cough, throat pain, and pneumonia.

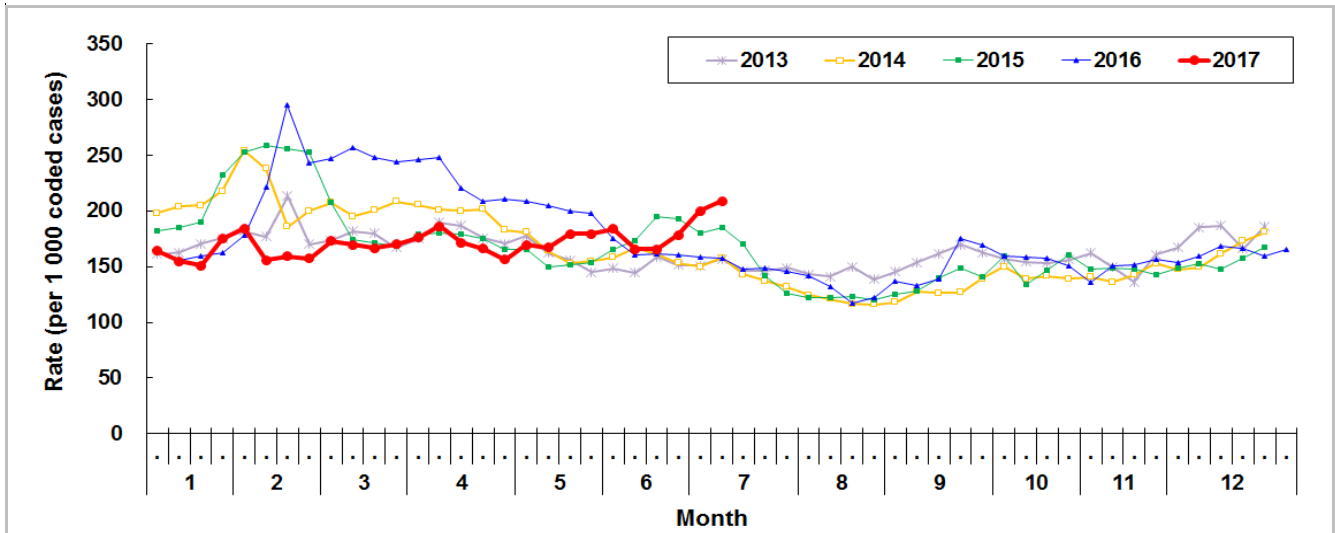


Figure 4 Rate of ILI syndrome group in AED, 2013-17

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2013-17

In week 27, the admission rates in public hospitals with principal diagnosis of influenza for persons aged 0-4 years, 5-9 years, 10-64 years and 65 years or above were 6.83, 2.06, 0.29 and 3.93 cases (per 10,000 people in the age group) respectively, as compared to 6.12, 2.43, 0.37 and 3.58 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

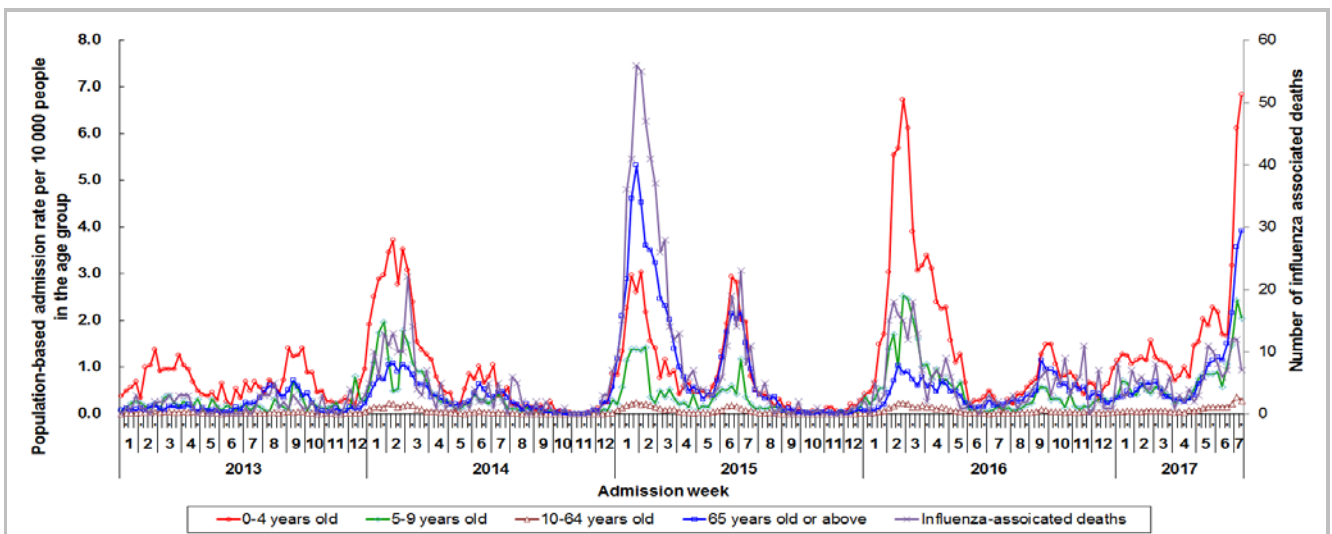


Figure 5 Influenza associated hospital admission rates and deaths, 2013-17

Fever surveillance at sentinel child care centres/ kindergartens, 2013-17

In week 27, 0.92% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 1.03% recorded in the previous week (Figure 6).

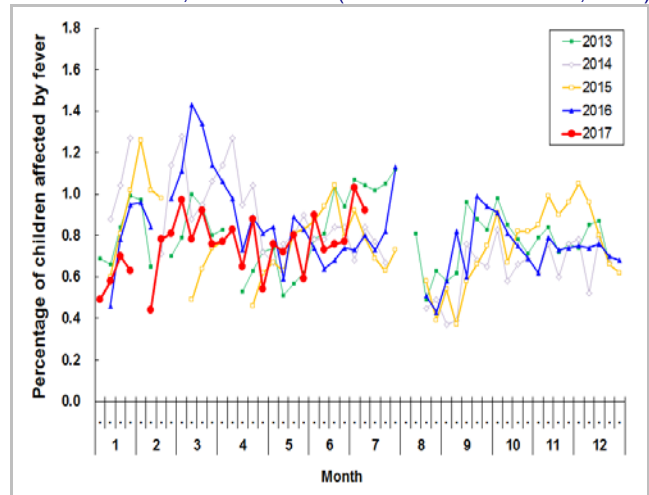


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

Fever surveillance at sentinel residential care homes for the elderly, 2013-17

In week 27, 0.15% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above) as compared to 0.16% recorded in the previous week (Figure 7).

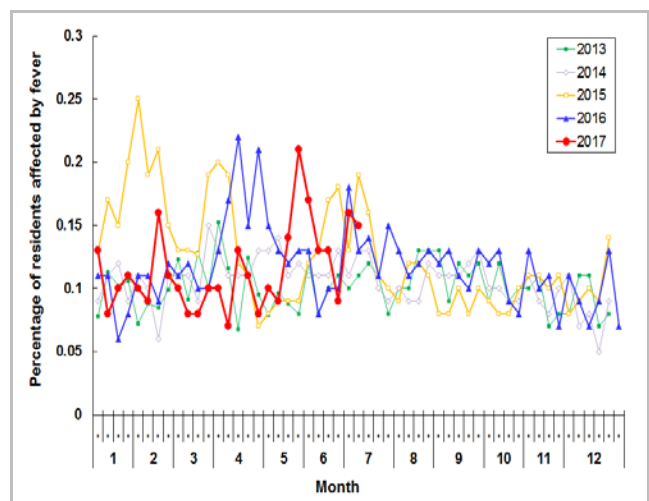


Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2013-17

In week 27, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.15 ILI cases per 1,000 consultations as compared to 1.75 recorded in the previous week (Figure 8).

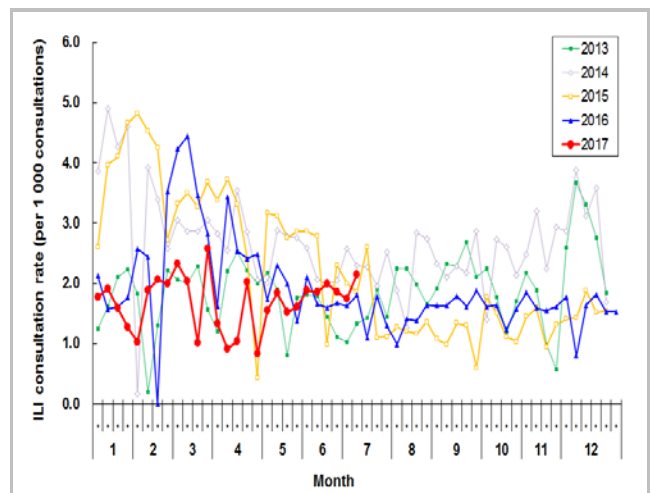


Figure 8 ILI consultation rate at sentinel CMP, 2013-17

Surveillance of severe influenza cases

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

Since the activation of the enhanced surveillance for severe influenza infection on May 5, 2017, a total of 236 severe cases (including 157 deaths) were recorded cumulatively (as of Jul 12) (Figure 9). These included:

- 223 cases (including 155 deaths) among adult patients aged 18 years or above. Among them, 189 patients had infection with influenza A(H3N2), 18 patients with influenza A(H1N1)pdm09, nine patients with influenza B and seven patients with influenza A pending subtype. 73 (32.7%) were known to have received the influenza vaccine for the 2016/17 season. Among the 155 fatal cases, 63 (40.6%) were known to have received the influenza vaccine. In the winter season in early 2017, 66 adult severe cases (including 41 deaths) were filed.
- 13 cases (including two deaths) of severe paediatric influenza-associated complication/death. Twelve (92.3%) cases did not receive the influenza vaccine for the 2016/17 season. To date in 2017, 21 paediatric cases (including three deaths) were filed.

Enhanced surveillance for severe seasonal influenza (Aged 18 years or above)

- In week 27, 39 cases of influenza associated ICU admission/death were recorded (including 16 deaths), which was higher than 33 cases (including 24 deaths) recorded in week 26. In the first 4 days of week 28 (Jul 9 to 12), 36 cases of influenza associated ICU admission/death were recorded, in which 27 of them were fatal.

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

- In week 27, there were no cases of severe paediatric influenza-associated complication/death. In the first 4 days of week 28 (Jul 9 to 12), three cases of severe paediatric influenza-associated complication were reported. The case details are as follow:

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving influenza vaccine for this season
28	19 months	Male	Encephalopathy	No	Influenza A (H3)	No
28	2 years	Female	Encephalopathy and shock	No	Influenza A (H3)	No
28	3 years	Female	Encephalopathy	No	Influenza A (H3)	No

Data as of July 12, 2017

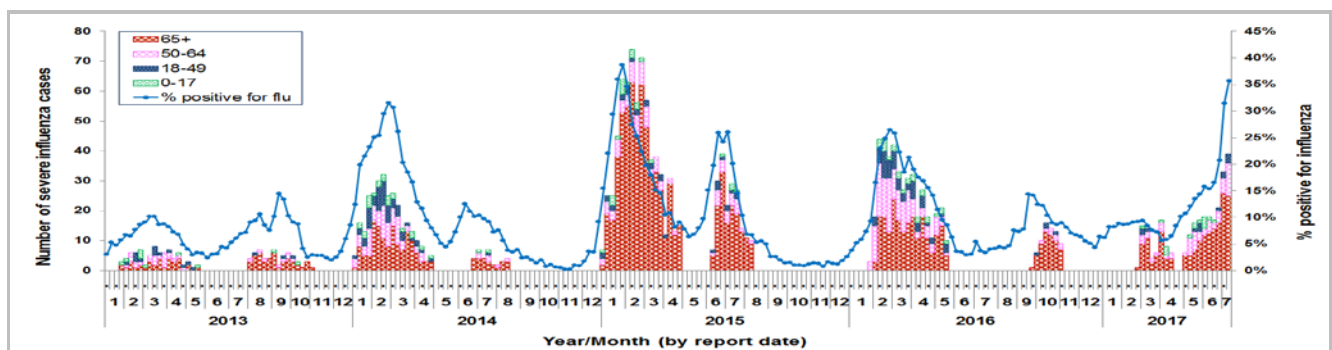


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2013-2017

Remark: The surveillance system for severe influenza cases aged 18 years or above was only activated intermittently during influenza seasons.

Surveillance of oseltamivir resistant influenza A(H1N1)pdm09 virus infection

- In week 27 and the first 4 days of week 28 (Jul 9 to 12), 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 in the temperate zone of the northern hemisphere was reported at low levels. In the temperate zone of the southern hemisphere, influenza activity continued to increase, especially in temperate South America. A few countries in Central America, the Caribbean and South East Asia also reported increased influenza activity. Worldwide, influenza A(H3N2) and B viruses co-circulated.

- In the United States (week ending Jul 1, 2017), influenza activity decreased. The proportion of outpatient visits for ILI was 0.7%, which was below the national baseline of 2.2%.
- In Europe (six-week period ending 2 July, 2017), influenza activity has returned to out-of-season levels in all countries. All reporting countries continued to report low influenza intensity. Influenza viruses were detected sporadically both in sentinel and non-sentinel specimens, with influenza B predominating.
- In the United Kingdom (week ending Jul 2, 2017), indicators for influenza showed low levels of activity. The positivity of influenza detection was 1.3% in the week ending Jul 2, which was below the threshold of 8.6% for 2016/17.
- In Taiwan (week ending Jul 8, 2017), the numbers and proportions of ILI cases in emergency and outpatient departments decreased as compared to the previous week. The predominating viruses were influenza A(H3N2), and influenza B constituted 8% of the influenza detection in the week ending Jul 8.
- In Korea (week ending Jul 1, 2017), the weekly ILI rate was 5.3, which was below the baseline of 8.9. The proportion of influenza detections decreased to 1.0% from 2.3% recorded in the previous week.
- In New Zealand (week ending Jul 2, 2017), influenza-like illness consultation rates decreased slightly compared to the previous week, but were above the seasonal threshold level. Influenza A(H3N2) and influenza B viruses were the two predominant co-circulating strains this week with more A(H3N2) than B viruses detected.
- In Australia (two-week period ending Jun 23, 2017), influenza activity is increasing in most of the southern and central regions while sporadic and stable in the northern regions of the country. Nationally, notifications of laboratory confirmed influenza B viruses have continued to increase over the reporting fortnight, however influenza A(H1N1)pdm09 and influenza A(H3N2) are also co-circulating in some parts of the country.

Sources:

Information have been extracted from the following sources when updates are available: [United States Centers for Disease Control and Prevention](#), [Joint European Centre for Disease Control and Prevention-World Health Organization/Flu News Europe](#), [Public Health England](#), [Taiwan Centers for Disease Control](#), [Korean Centers for Disease Control and Prevention](#), [New Zealand Ministry of Health](#) and [Australian Department of Health](#).