

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 May 18, 2016)

Reporting period: May 8 – 14, 2016 (Week 20)

- The latest surveillance data showed that the local influenza activity has almost returned to baseline level, indicating the end of the winter influenza season.
- 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 (ICU) or deaths) among patients aged 18 or above since Jan 29, 2016. As of May 18, 405 adult severe cases (including 208 deaths) were recorded. Separately, 27 cases of severe paediatric influenza-associated complication/death among patients aged below 18 years (including 3 deaths) were recorded during the period.
- 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.
- Eligible children (aged between six months and less than 6 years, or 6 years old or above attending a kindergarten or child care centre in Hong Kong), elderly (aged 65 years or above) and eligible persons with intellectual disabilities can be subsidised for seasonal influenza vaccination from enrolled private doctors participating in the Government's vaccination subsidy schemes starting from Oct 15, 2015. Elderly aged 65 or above living in the community can also receive free vaccination from General Out-patient Clinics under the HA and designated Elderly Health Centres of the Department of Health since Nov 10, 2015. Details are available from the vaccination schemes website (http://www.chp.gov.hk/en/view_content/17980.html).

Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2012-16

In week 20, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 6.5 ILI cases per 1,000 consultations, which was same as that recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 43.4 ILI cases per 1,000 consultations, which was similar to 43.1 recorded in the previous week (Figure 1, right).

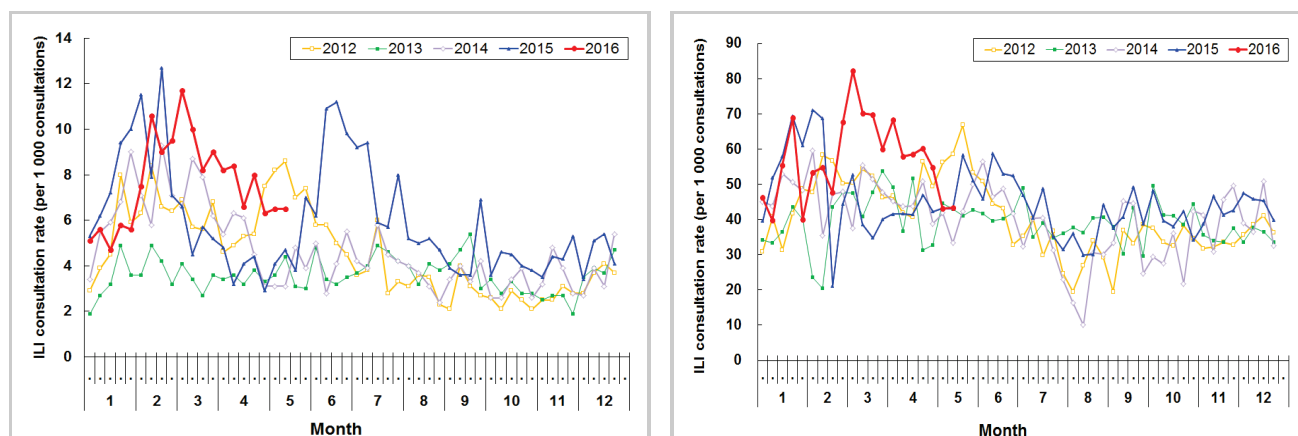


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2012-16

Laboratory surveillance, 2012-16

Among the respiratory specimens received in week 20, 325 (9.46%) were tested positive for seasonal influenza viruses, including 96 (2.80%) influenza A(H1), 21 (0.61%) influenza A(H3), 195 (5.68%) influenza B and 13 (0.38%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 9.46%, which was lower than 11.45% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of B, A(H1), A(H3) and C were 60.0%, 29.5%, 6.5% and 4.0% respectively. The proportion of influenza B among positive influenza detections has been increasing steadily in February and has overtaken A(H1) to become the most commonly detected subtype since the second week of March.

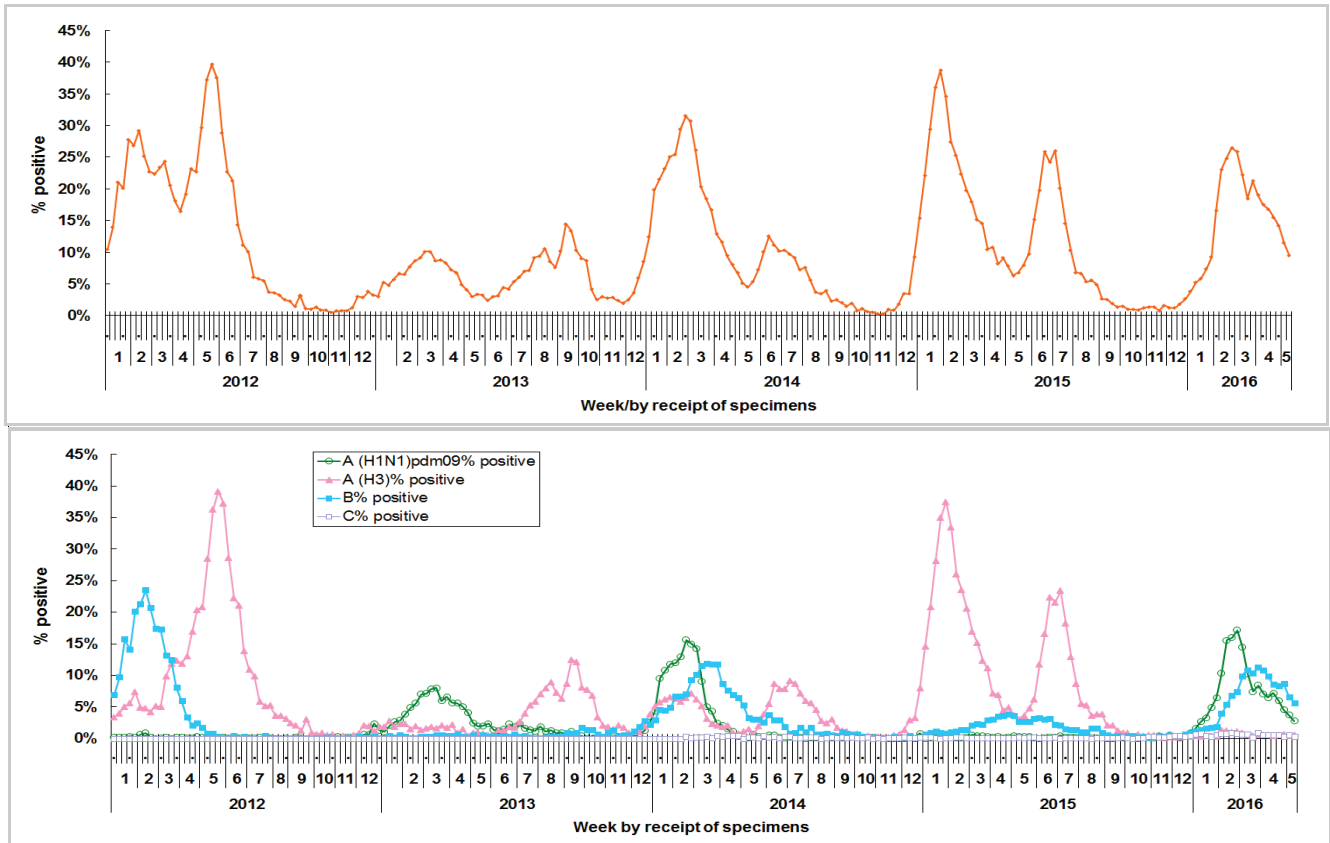


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2012-16 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2012-16

In week 20, 8 ILI outbreaks occurring in schools/institutions (affecting 42 persons) were recorded, as compared to 5 outbreaks (affecting 24 persons) recorded in the previous week (Figure 3). In the first 4 days of week 21 (May 15 to 18, 2016), 12 institutional ILI outbreaks (affecting 53 persons) were recorded.

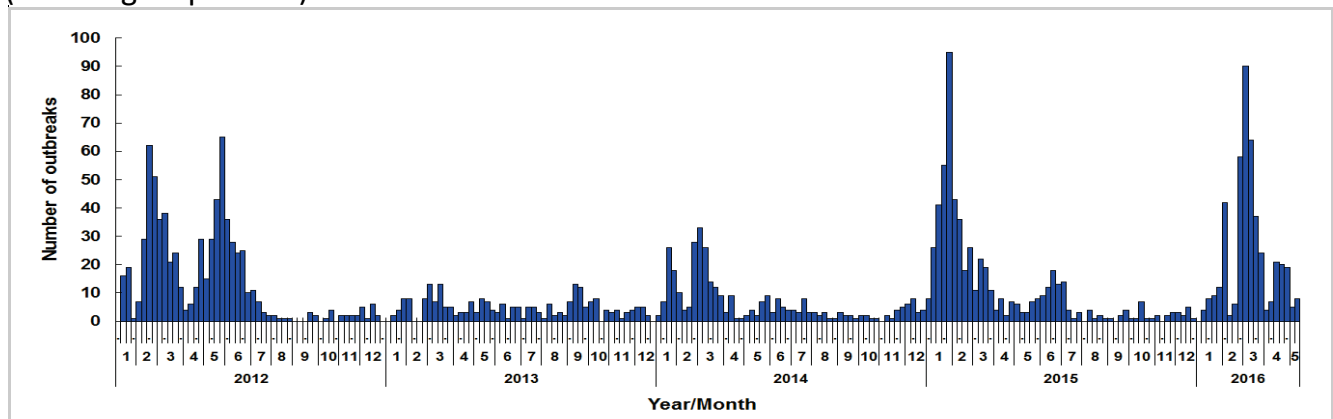


Figure 3 ILI outbreaks in schools/institutions, 2012-16

Rate of influenza-like illness syndrome group in accident and emergency departments, 2012-16[#]

In week 20, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 201.3 (per 1,000 coded cases), which was lower than the rate of 204.7 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.

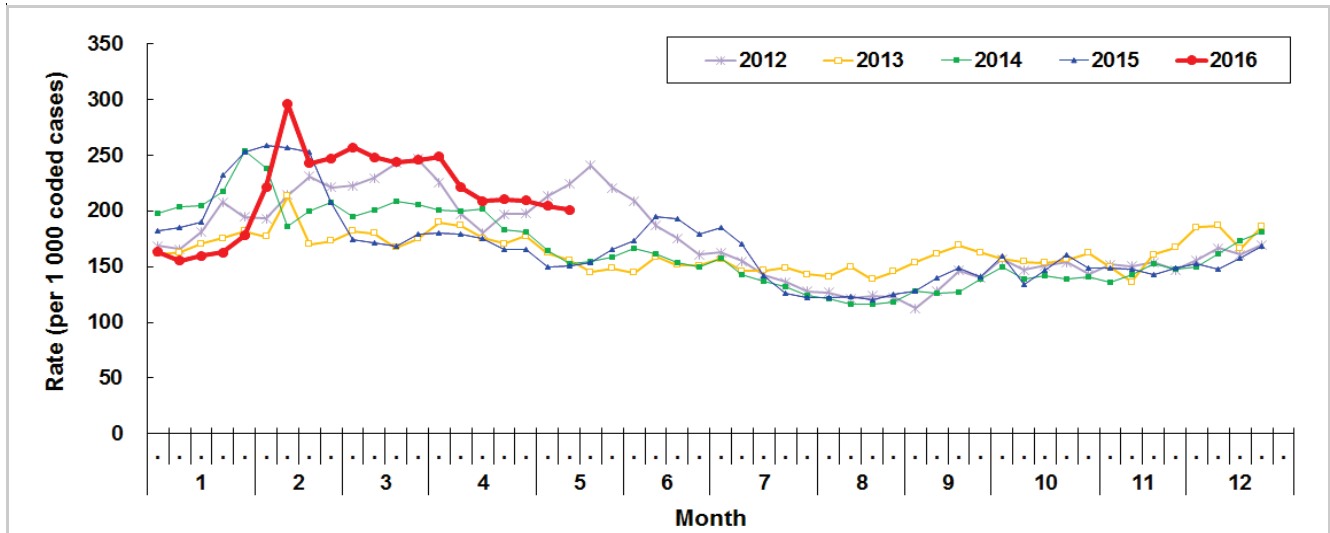


Figure 4 Rate of ILI syndrome group in AED, 2012-16

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2012-16

In week 20, 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 0.78, 0.54, 0.06 and 0.38 cases (per 10,000 people in the age group) respectively, as compared to 1.52, 0.64, 0.08 and 0.48 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

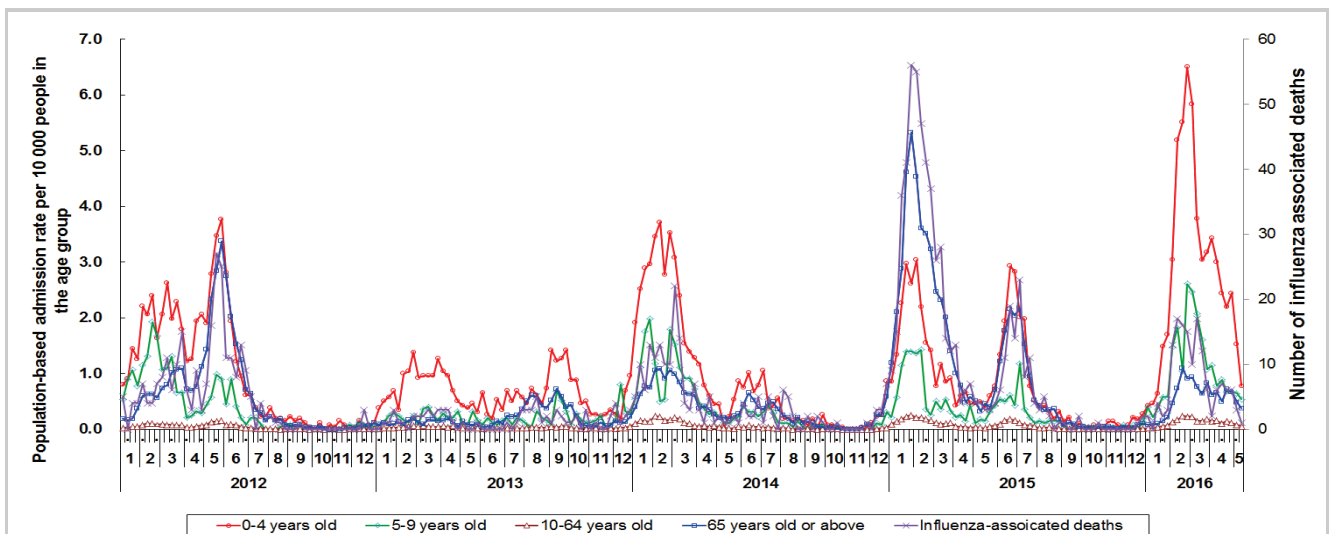


Figure 5 Influenza associated hospital admission rates and deaths, 2012-16

Fever surveillance at sentinel child care centres/ kindergartens, 2012-16

In week 20, 0.89% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.59% in the previous week (Figure 6).

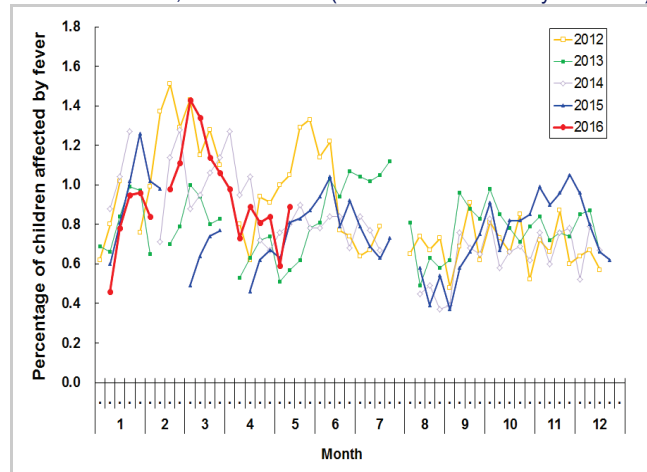


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2012-16

Fever surveillance at sentinel residential care homes for the elderly, 2012-16

In week 20, 0.12% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above) as compared to 0.13% in the previous week (Figure 7).

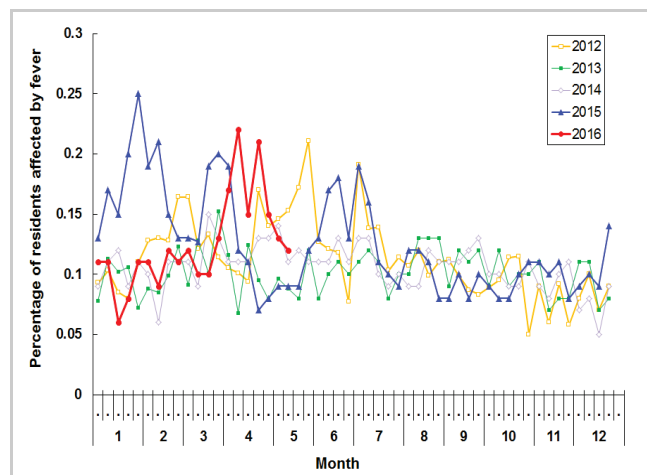


Figure 7 Percentage of residents with fever at sentinel RCHE, 2012-16

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2012-16

In week 20, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.00 ILI cases per 1,000 consultations as compared to 2.30 in the previous week (Figure 8).

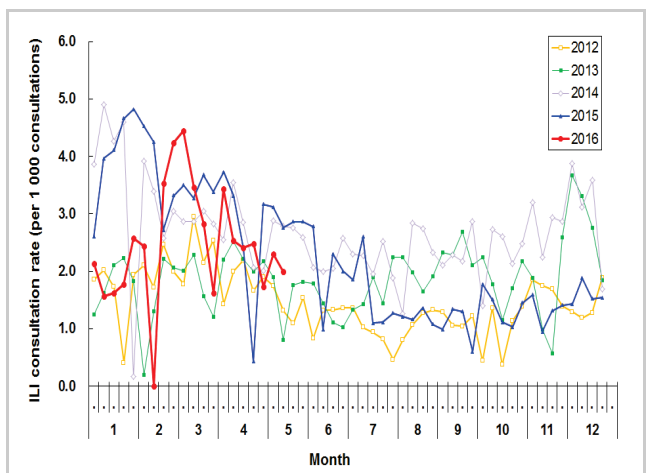


Figure 8 ILI consultation rate at sentinel CMP, 2012-16

Surveillance of severe influenza cases

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

- Since activation of the enhanced surveillance for severe influenza infection on Jan 29, 2016, a total of 405 adult severe cases (including 208 deaths) and 27 paediatric severe cases (including 3 deaths) were recorded (as of May 18)(Figure 9). 77 (19.0%) adult cases and 4 (14.8%) paediatric cases were known to have received the 2015/16 seasonal influenza vaccination. Among all cases, 255 patients had infection with influenza A(H1N1)pdm09, 139 patients with influenza B, 19 patients with influenza A(H3N2), two patients with influenza C, 15 patients with influenza A pending subtype, one patient with both influenza A(H1N1) and B, and one patient with both influenza A(H1N1) and C. In the last winter season in early 2015, 647 adult cases (including 501 deaths) and 18 paediatric cases (including 1 death) were filed.

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

- In week 20, 19 cases of influenza associated ICU admission/death were recorded, in which 15 of them were fatal. In the first 4 days of week 21 (May 15 to 18), 5 cases of influenza associated ICU admission/death were recorded, in which 3 of them were fatal.

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

- There were two cases of severe paediatric influenza-associated complication reported in week 20 and one case in the first 4 days of week 21 (May 15 to 18). The details are as follow:

Reporting week	Age	Sex	Complication	Influenza subtype	Influenza vaccination
20	10 years	Female	Sepsis	Influenza B	No
20	7 years	Male	Encephalitis	Influenza A(H1N1)pdm09	No
21	8 years	Male	Pneumonia and pleural effusion	Influenza B	No

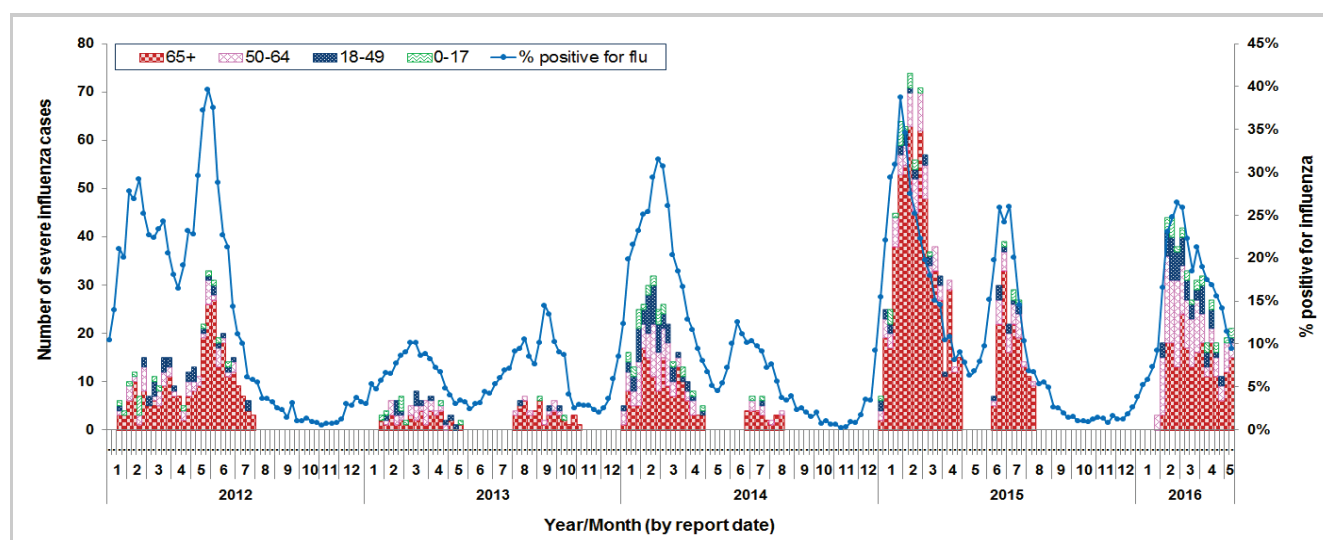


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2012-2016

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

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

- In week 20 and the first 4 days of week 21 (May 15 to 18, 2016), 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 United States (week ending May 7, 2016), influenza activity continued to decrease. The proportion of outpatient visits for ILI was 1.8%, which was below the national baseline of 2.1%. The percentage of respiratory specimens positive for influenza in clinical laboratories decreased.
- In Canada (week ending Apr 30, 2016), influenza indicators declined from the previous week. Influenza B accounted for the majority of influenza detections in the reporting period.
- In the United Kingdom (week ending May 8, 2016), influenza activity continued to decrease and had reached or nearing the expected baseline levels across surveillance schemes. Overall weekly ILI consultation rate has decreased further and was below the baseline threshold in England. The percentage of positive influenza detection was 8.2%, which was above the threshold of 7.4% for 2015/16 season.
- In Europe (week ending May 8, 2016), influenza activity continued to decrease. Most countries reported low intensity. Influenza B constituted 82% of influenza virus detections from sentinel sources.
- In Mainland China (week ending May 1, 2016), the influenza activities in both southern and northern China decreased. The activity in the northern China was at the inter-season level, while that in the southern China still remained active. Influenza B is the most common circulating virus subtype.
- In Taiwan (week ending May 14, 2016), the peak of the season has been over and the influenza activity has persistently declined. The numbers of ILI consultations in AED and severe influenza cases continued to decrease. Influenza B constituted 81% of influenza detection. During the past four weeks, the antigenic match between the seasonal influenza vaccine and the circulating influenza virus strains were 100% for H1N1, 100% for H3N2 viruses, and 41% for influenza B virus.
- In Japan (week ending May 8, 2016), the influenza activity continued to decrease after peaking in February. The average number of reported ILI cases per sentinel site decreased to 1.24 in the week ending May 8 from 2.51 in the previous week, close to the baseline level of 1.00.

Sources:

Information have been extracted from the following sources when updates are available: [United States Centers for Disease Control and Prevention](#), [Public Health Agency of Canada](#), [Public Health England](#), [Joint European Centre for Disease Control and Prevention-World Health Organization/Flu News Europe](#), [Chinese National influenza Center](#), [Taiwan Centers for Disease Control](#) and [Japan Ministry of Health](#).