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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 Apr 22, 2015)

Reporting period: Apr 12 – 18, 2015 (Week 16)

- The latest surveillance data show that the overall influenza activity had further decreased last week, indicating the end of the winter influenza season.
- The predominating virus in this season is influenza A(H3N2), but the proportion of influenza B among positive influenza detections is on the rise recently.
- The Centre for Health Protection has collaborated with the Hospital Authority and private hospitals to monitor influenza associated intensive care unit (ICU) admissions or deaths (aged 18 years or above) since Jan 2, 2015. As of Apr 22 noon, there were 641 cases of influenza associated ICU admission or death, in which 495 were fatal cases. In the past week (Apr 12 – 18), 13 cases were recorded. Separately, no new reports of severe paediatric influenza infection (aged below 18 years) were reported in the same period. The total number of severe cases recorded among all age groups in the past week was 13.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Except for those with contraindications, influenza vaccination is suitable for all persons aged 6 months or above.
- Children (aged between six months and less than 6 years, or attending a kindergarten or child care centre in Hong Kong) and elderly (aged 65 years or above), who are eligible, can be subsidized for seasonal influenza vaccination from enrolled private doctors participating in the Government's vaccination subsidy schemes starting from Oct 6, 2014.

Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2011-15

In week 16, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) increased to 4.1 ILI cases per 1,000 consultations from 3.2 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 41.4 ILI cases per 1,000 consultations, which was similar to 41.6 recorded in the previous week (Figure 1, right).

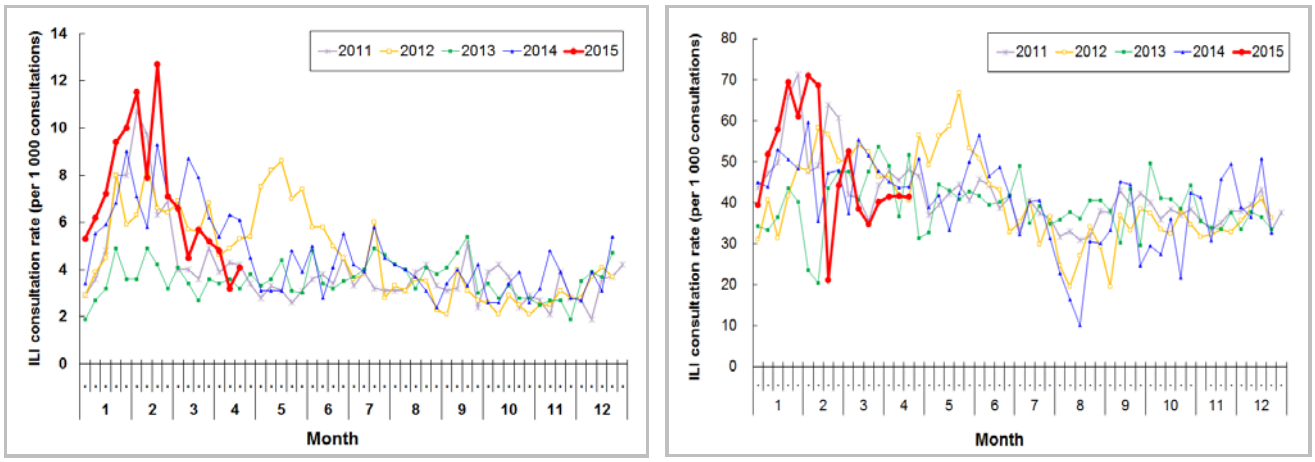

Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2011-15

Laboratory surveillance, 2011-15

Among the respiratory specimens received in week 16, 259 (7.91%) were tested positive for seasonal influenza viruses, including 3 (0.09%) influenza A(H1N1)pdm09, 143 (4.37%) influenza A(H3), 111 (3.39%) influenza B and 2 (0.06%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 7.91%, which was lower than 10.53% recorded in the previous week (Figure 2). Among influenza virus detections, the proportion of A(H3N2) dropped from 64.5% to 55.2% in the last two weeks while that of B correspondingly increased from 31.9% to 42.9%. That of A(H1) and C remained low.

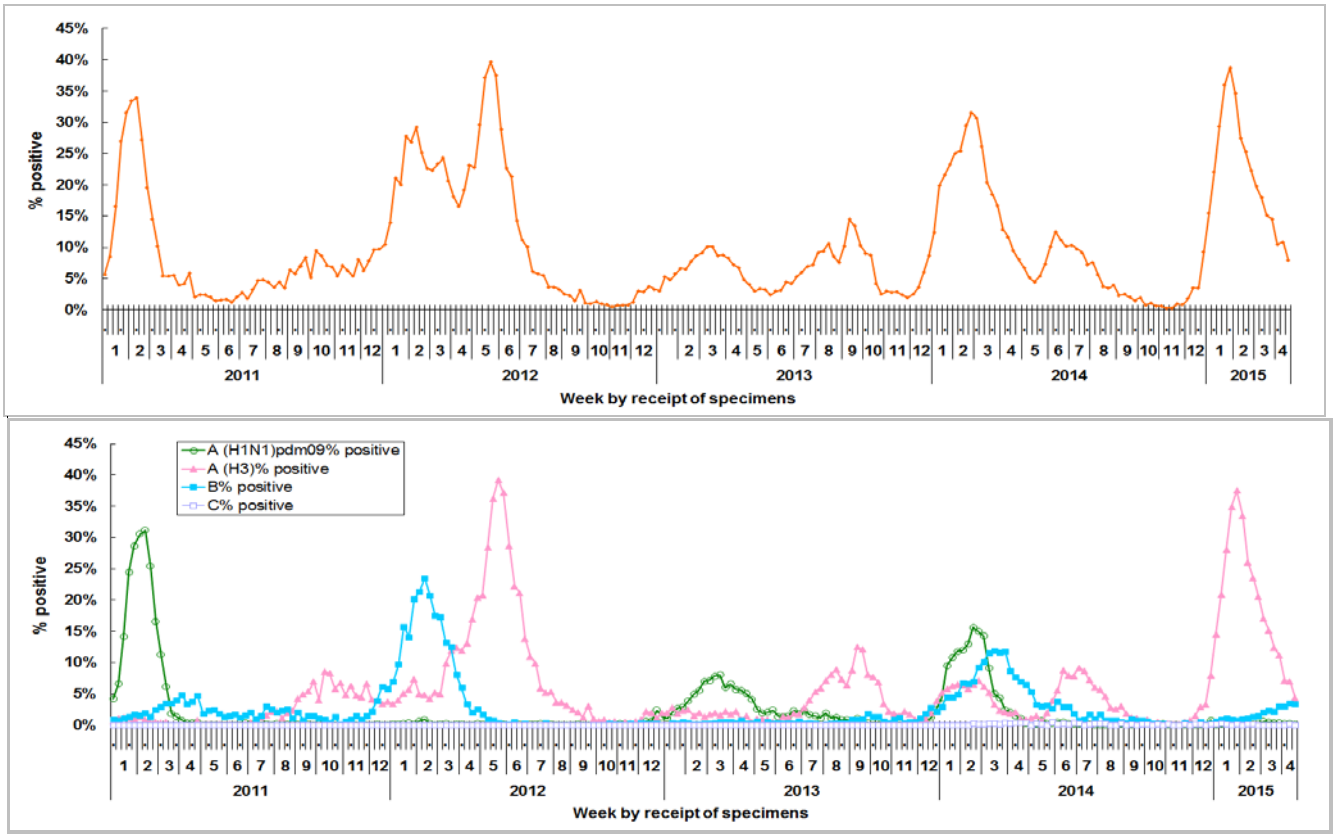

Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2011-15 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2011-15

In week 16, the number of ILI outbreaks occurring in schools/ institutions recorded decreased to 2 from 8 recorded in the previous week (Figure 3). In the first 4 days of week 17 (Apr 19 to 22, 2015), 5 ILI outbreak occurring in an institution were recorded. Majority of the outbreaks in the past four weeks occurred in residential care homes for the elderly (72.0%), and schools (28.0%).

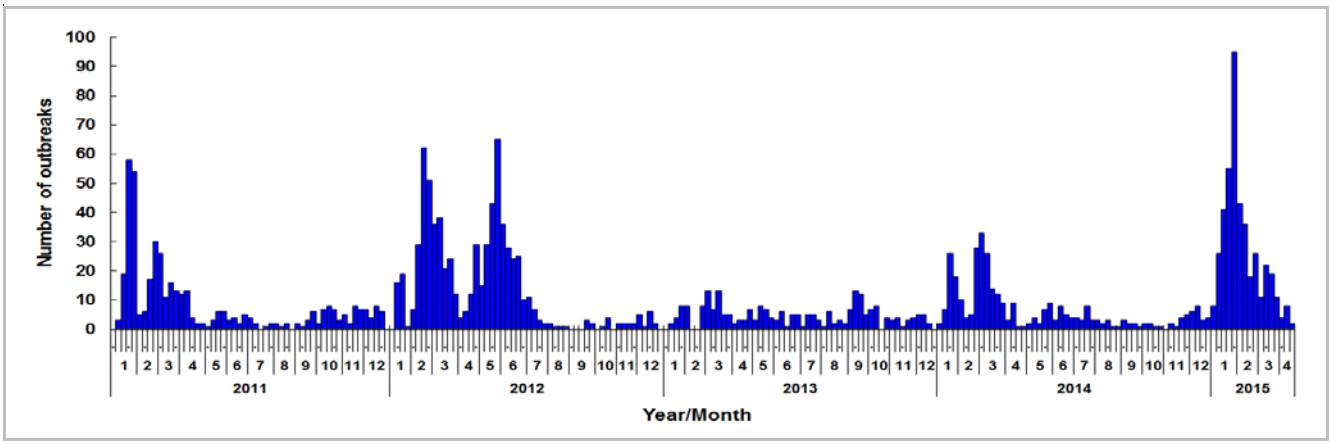

Figure 3 ILI outbreaks in schools/institutions, 2011-15

Rate of influenza-like illness syndrome group in accident and emergency departments, 2011-15#

In week 16, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) decreased to 176.0 (per 1,000 coded cases) from the rate of 180.7 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.

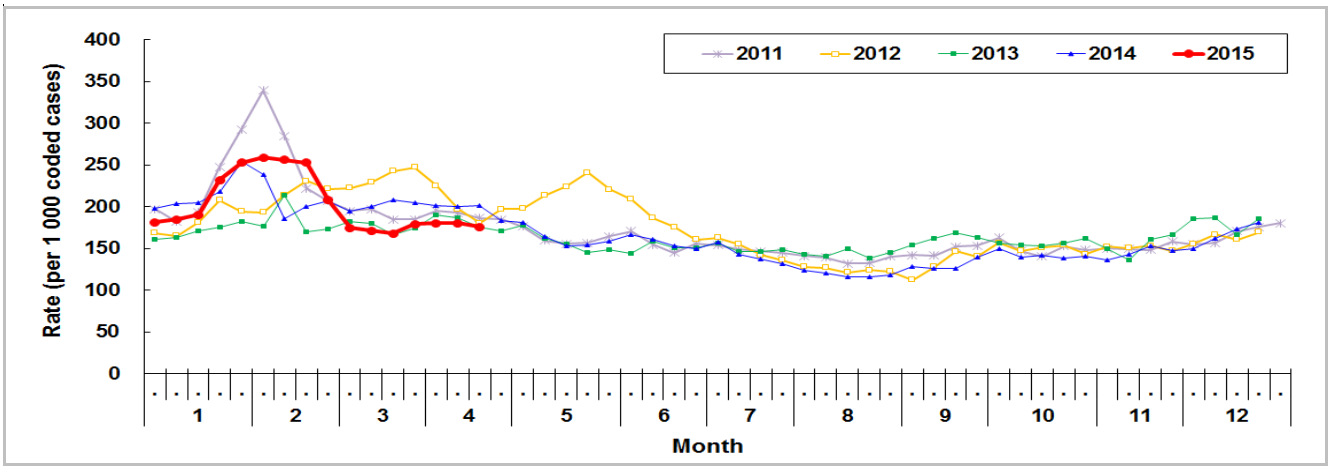

Figure 4 Rate of ILI syndrome group in AED, 2011-15

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2011-15

In week 16, the admission rates in public hospitals with principal diagnosis of influenza for persons aged 0-4 years, 5-64 years and 65 years or above were 0.57, 0.04 and 0.36 cases (per 10,000 people in the age group) respectively, as compared to 0.72, 0.05 and 0.80 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

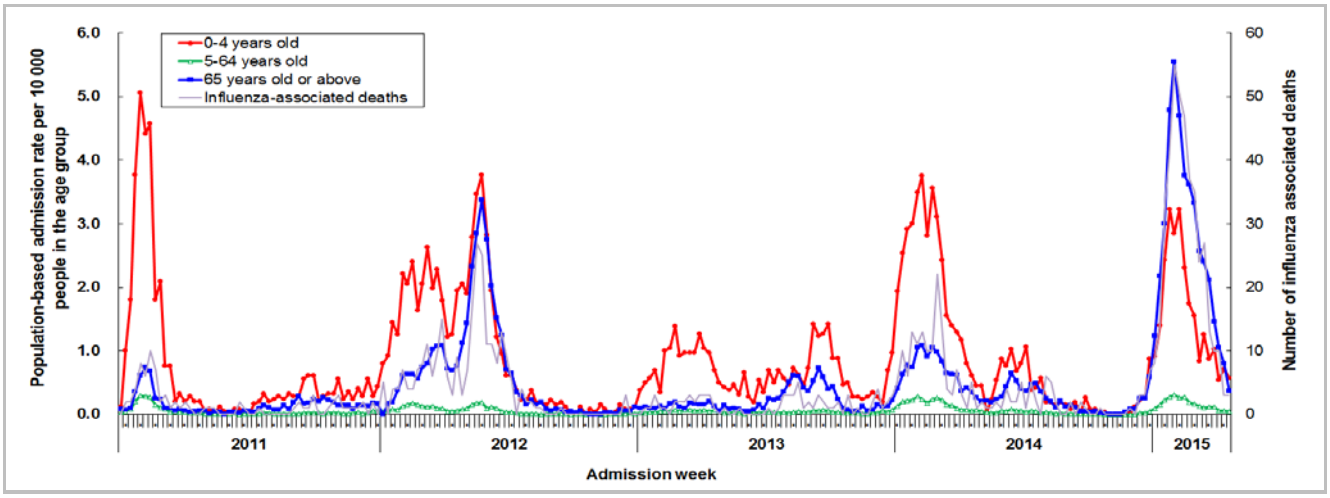

Figure 5 Influenza associated hospital admission rates and deaths, 2011-15

Fever surveillance at sentinel child care centres/ kindergartens, 2011-15

In week 16, 0.46% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.77% in week 13 (Figure 6). The surveillance for week 14-15 was suspended due to school holiday.

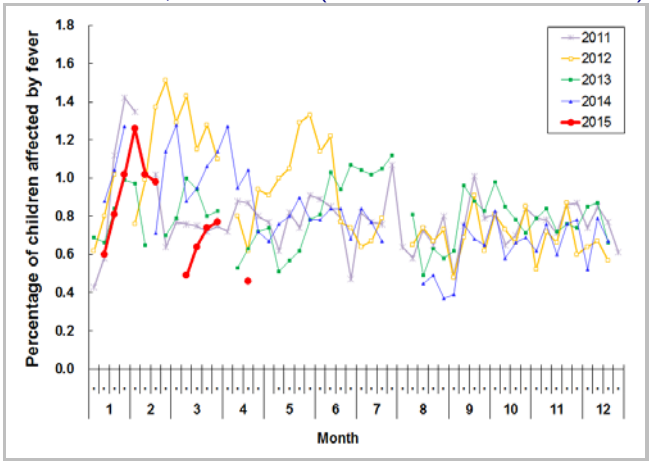

Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2011-15

Fever surveillance at sentinel residential care homes for the elderly, 2011-15

In week 16, 0.11% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), as compared to 0.12% in the previous week (Figure 7).

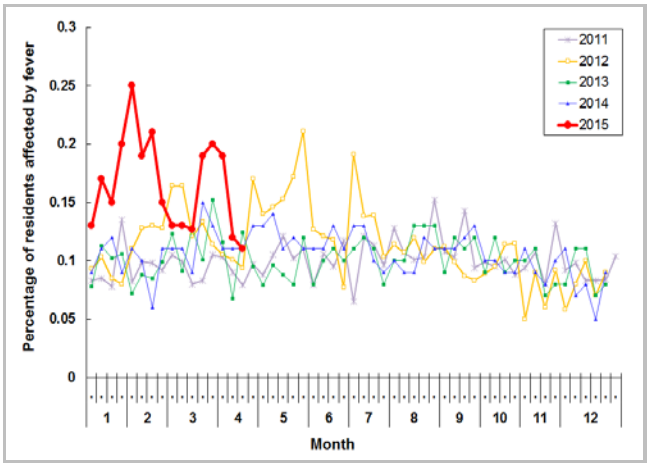

Figure 7 Percentage of residents with fever at sentinel RCHE, 2011-15

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2011-15

In week 16, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.39 ILI cases per 1,000 consultations as compared to 3.31 in the previous week (Figure 8).

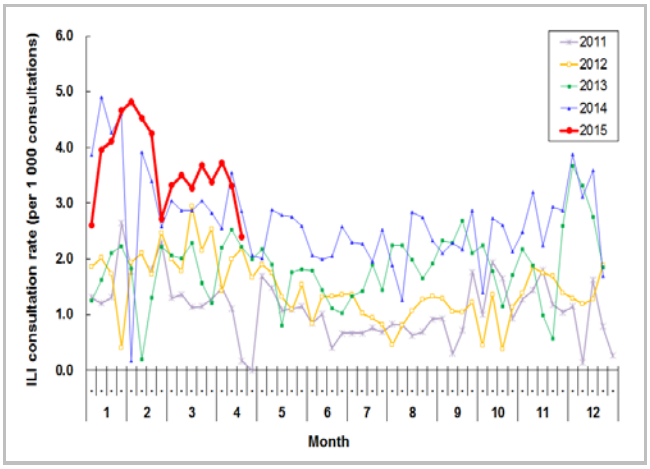

Figure 8 ILI consultation rate at sentinel CMP, 2011-15

Surveillance of severe influenza cases

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

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

- In week 16, 13 cases of influenza associated ICU admission/ death were recorded, in which 10 of them were fatal.

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

- In week 16 and the first 4 days of week 17 (Apr 19 to 22, 2015), there were no new cases of severe paediatric influenza-associated complication/death.

In summary, a total of 13 severe cases (among all age groups) including 10 deaths were recorded in week 16 (Apr 12 to 18, 2015). The number of severe cases recorded in the previous week was 31 (including 27 deaths)[#]. The highest weekly number recorded in previous influenza seasons since 2011 was 33 (Figure 9). The weekly number of severe cases counted by admission date peaked in the first week of February and then has gradually decreased to a low level in early April (Figure 10).

[#] The cases included 21 additional cases reported on April 9, which were recorded under the enhanced surveillance and identified through retrospective case review into unclassified cases by the Hospital Authority (http://www.info.gov.hk/gia/general/201504/09/P201504090633.htm). These cases do not reflect the latest influenza activity or disease severity.

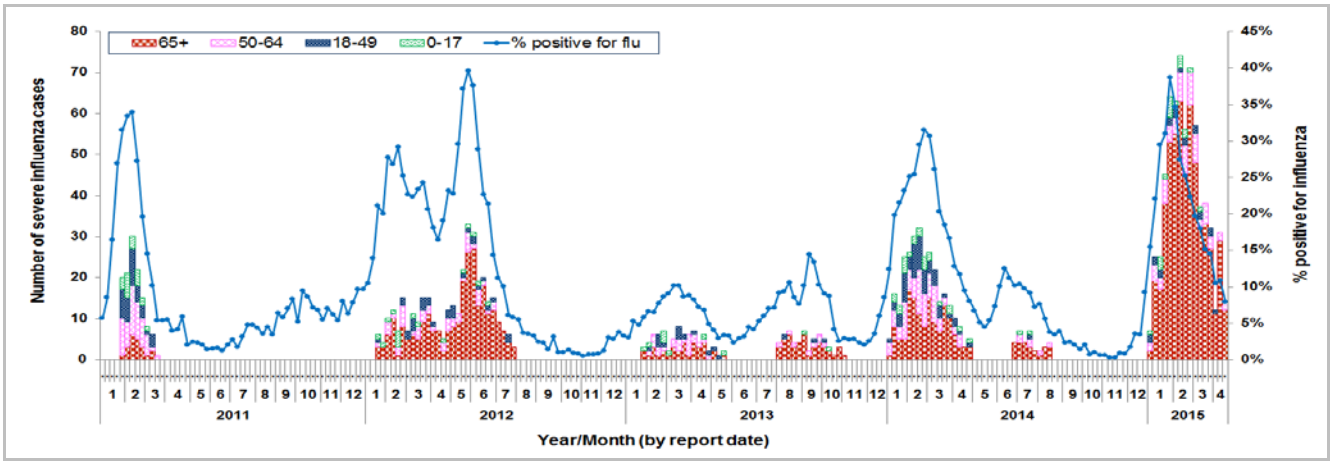

Figure 9 Weekly number of severe influenza cases recorded during influenza seasons and influenza positive percentage, 2011-2015
Remark: The surveillance system for severe influenza cases aged 18 and above was only activated intermittently during influenza seasons.

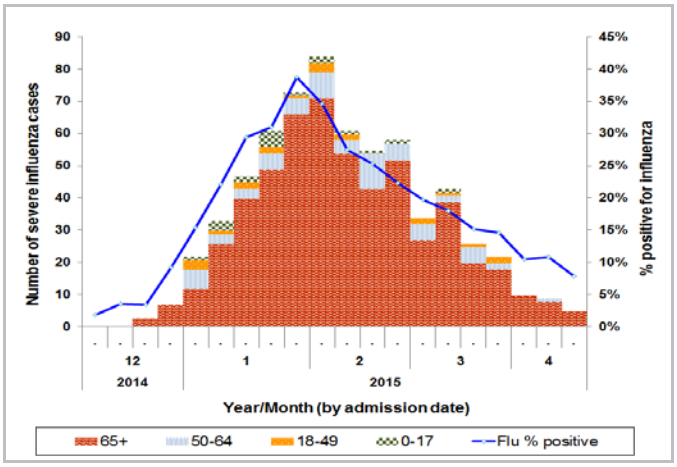

Figure 10 Weekly number of severe influenza cases by date of admission and influenza positive percentage in current season (data as of April 22, noon)
Remark: The data in recent weeks may be subject to revision upon receipt of new reports.

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

- In week 16 and the first 4 days of week 17, 2015 (Apr 19 to 22, 2015), there were no new reports of oseltamivir (Tamiflu) resistant influenza A(H1N1)pdm09 virus infection. There are totally 47 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 Apr 11, 2015), the proportion of outpatient visits for influenza-like illness is below the national baseline. The percentage that tested positive for influenza viruses has peaked at 31.79% in the last week of 2014 and dropped to 9.6% in the week ending April 11. Influenza B viruses accounted for more than 87% of all influenza viruses reported in this reporting period.
- In Canada (week ending Apr 11, 2015), the percentage positive for influenza A (2.2%) and B (12.2%) in the week ending April 11 declined from the previous week.
- In the United Kingdom (week ending Apr 12, 2015), indicators of influenza activity are at low levels, with influenza B predominating. The percentage that tested positive for influenza viruses in England reached a peak of 31.7% in the first week of 2015 and decreased to 8.1% in the week ending April 12.
- In Europe (week ending Apr 12, 2015), influenza activity continued to decrease. The positivity rate decreased to 28% in the week ending April 12, which is however still over the threshold of 10%. Influenza B viruses accounted for 69% of detections.
- In Japan (week ending Apr 12, 2015), the average number of reported ILI cases per sentinel site dropped to 1.57 in the week ending April 12 from 39.42 in the week ending January 25.
- In Taiwan (week ending Apr 18, 2015), the influenza season persisted as the percentage tested positive for influenza viruses increased to 27.3 % in the week ending April 4 from 19.8% in the preceding one. While H3N2 viruses still predominate, influenza B detections are increasing.

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, Japan Ministry of Health, Labour and Welfare and Taiwan Centers for Disease Control.