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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 Mar 25, 2015)

Reporting period: Mar 15 – 21, 2015 (Week 12)

- The latest surveillance data show that the overall influenza activity has continued to decrease but is still elevated above the baseline. The local influenza activity is expected to remain above the baseline for some time. The public should continue to be vigilant.
- The predominating virus is influenza A(H3N2), but the proportion of influenza B virus 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 Mar 25 noon, there were 565 cases of influenza associated ICU admission or death, in which 424 were fatal cases. In the past week (Mar 15 – 21), 38 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 38.
- 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 12, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) increased to 5.7 ILI cases per 1,000 consultations from 4.5 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors decreased to 34.8 ILI cases per 1,000 consultations from 38.6 recorded in the previous week (Figure 1, right).

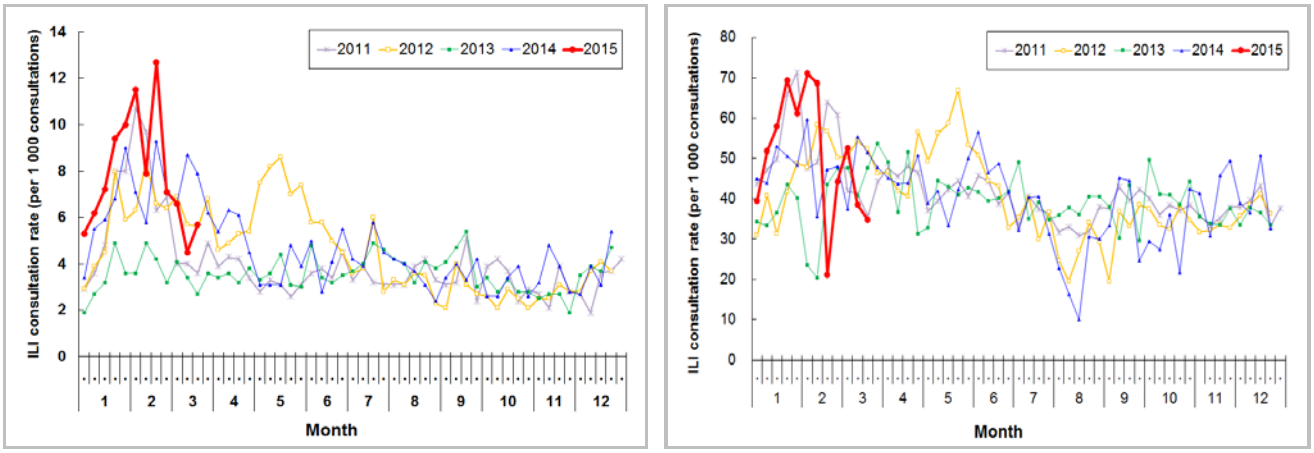

Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2011-15

Laboratory surveillance, 2011-15

Among the respiratory specimens received in week 12, 604 (14.8%) were tested positive for seasonal influenza viruses, including 18 (0.44%) influenza A(H1N1)pdm09, 496 (12.12%) influenza A(H3), 89 (2.17%) influenza B and 1 (0.02%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week decreased to 14.8% from 18.0% in the previous week (Figure 2). Among influenza virus detections, the proportion of A(H3N2) dropped from 84.3% to 82.1% in the last two weeks while that of B correspondingly increased from 12.7% to 14.7%. That of A(H1) and C remained low.

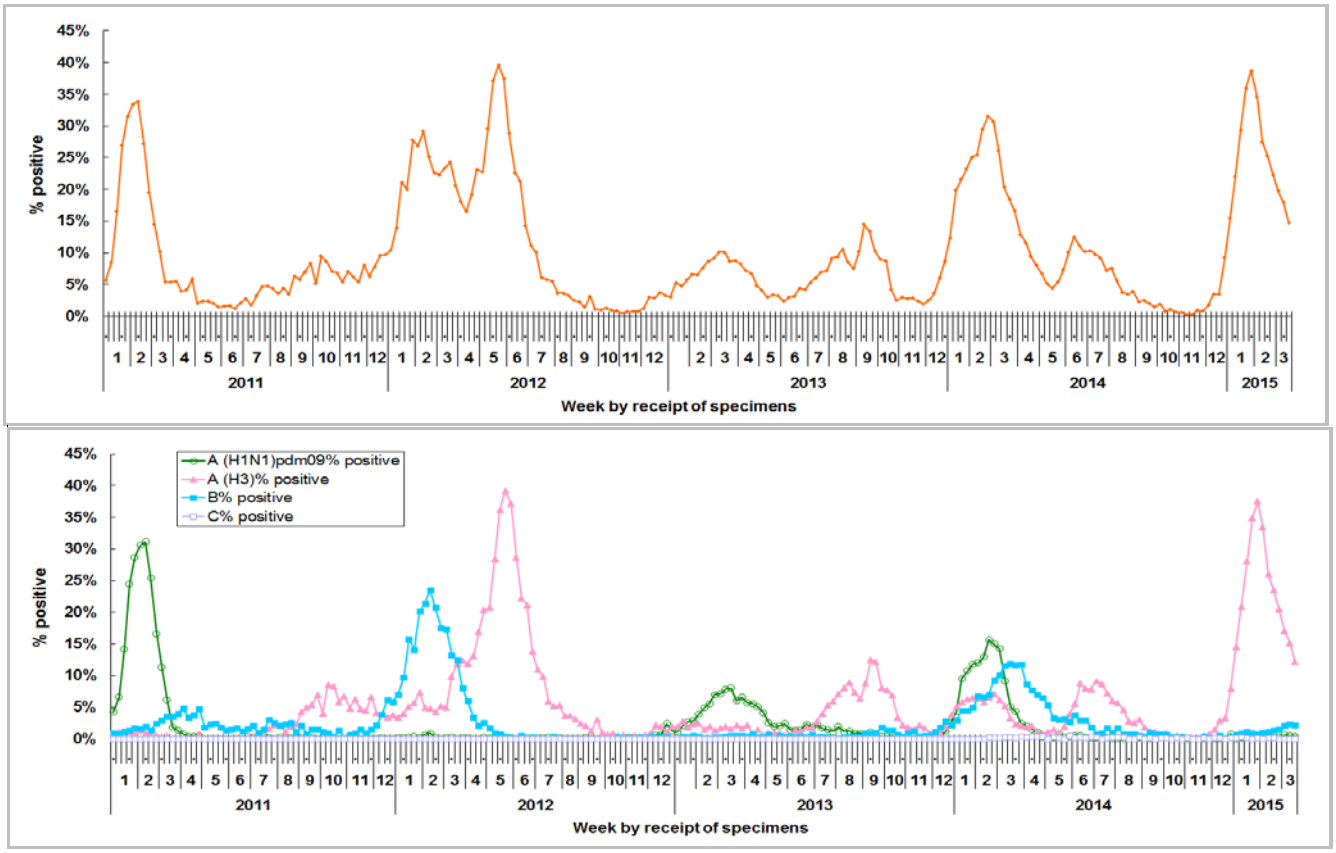

Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2011-15 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2011-15

In week 12, the number of ILI outbreaks occurring in schools/ institutions recorded decreased to 19 from 22 recorded in the previous week (Figure 3). In the first 4 days of week 13 (Mar 22 to 25, 2015), 10 ILI outbreaks occurring in schools/ institutions were recorded. Majority of the outbreaks in the past four weeks occurred in residential care homes for the elderly (71.8%), and schools (19.2%).

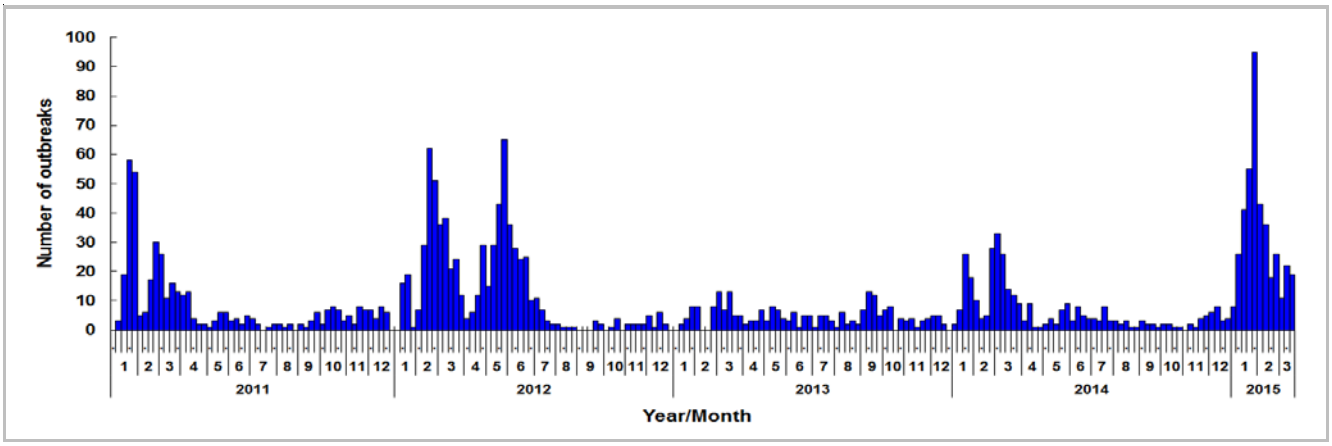

Figure 3 ILI outbreaks in schools/institutions, 2011-15

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

In week 12, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) decreased to 168.8 (per 1,000 coded cases) from the rate of 171.9 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.

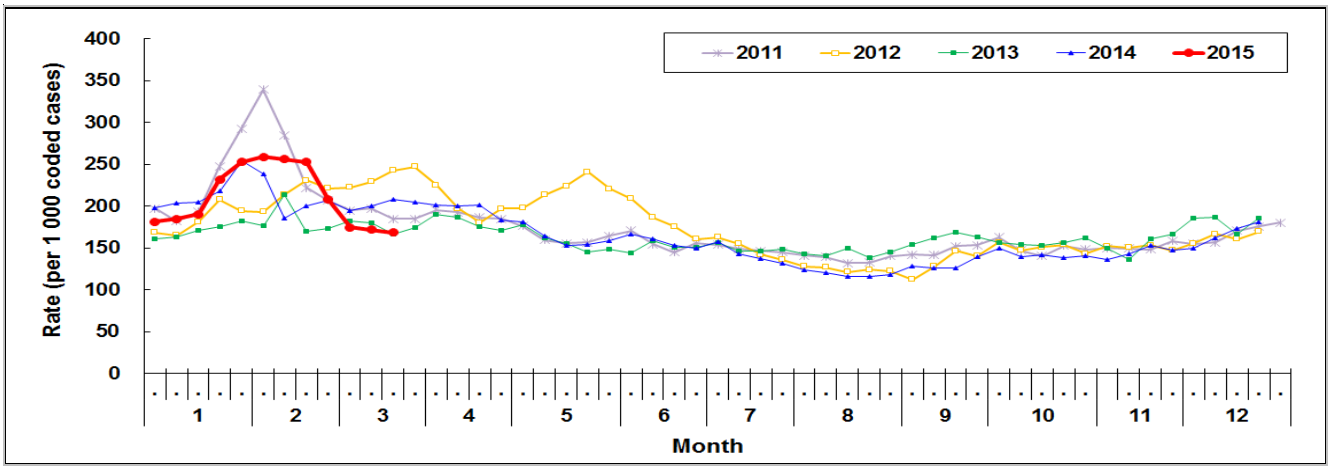

Figure 4 Rate of ILI syndrome group in AED, 2011-15

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

In week 12, 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 0.76, 0.10 and 1.70 cases (per 10,000 people in the age group) respectively, as compared to 1.14, 0.11 and 2.32 cases in the previous week. Persons over age 65 years or above continue to have the highest admission rate (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

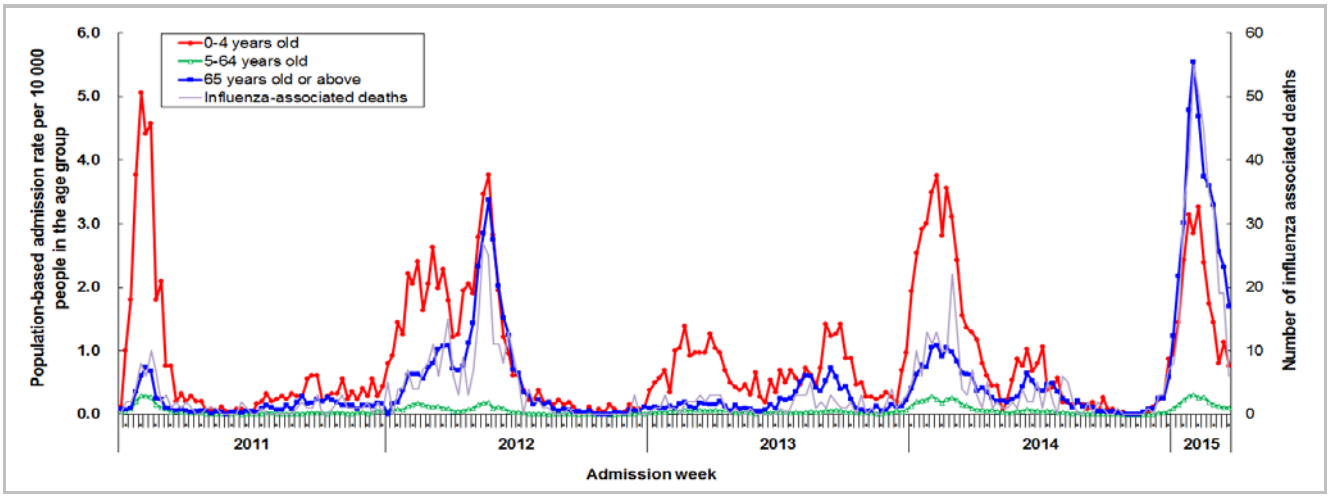

Figure 5 Influenza associated hospital admission rates and deaths, 2011-15

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

In week 12, 0.74% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.64% in the previous week (Figure 6).

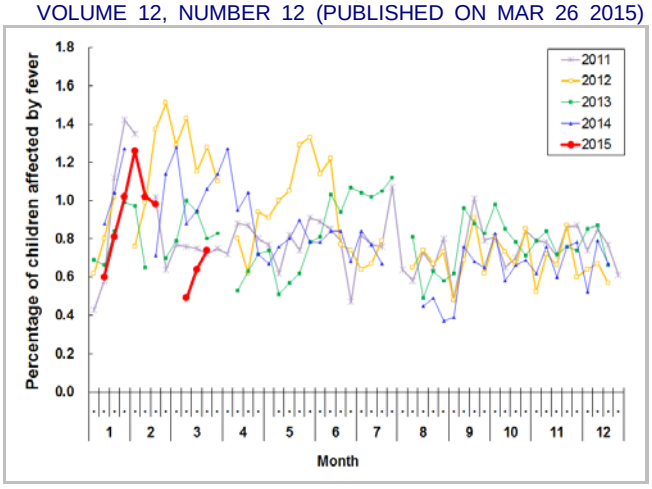

Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2011-15

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

In week 12, 0.19% 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).

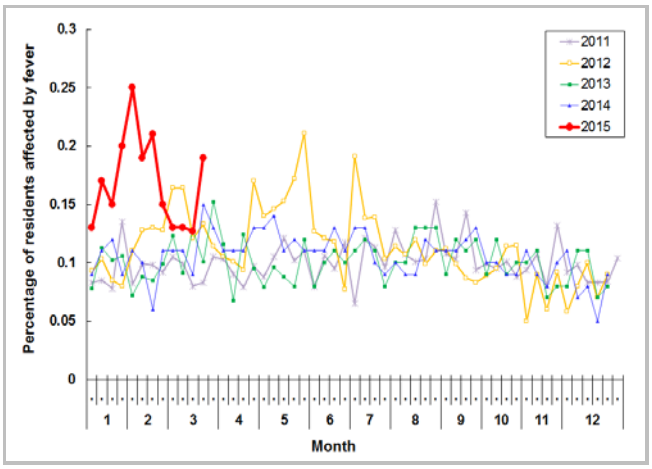

Figure 7 Percentage of residents with fever at sentinel RCHE, 2011-15

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

In week 12, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 3.68 ILI cases per 1,000 consultations as compared to 3.27 in the previous week (Figure 8).

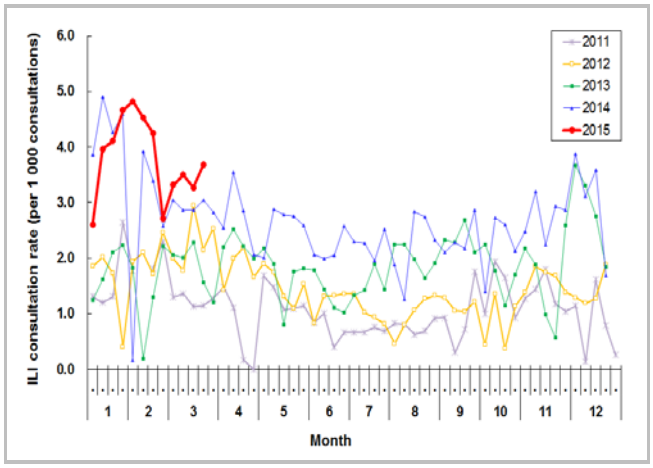

Figure 8 ILI consultation rate at sentinel CMP, 2011-15

Surveillance of severe influenza cases

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

- In week 12 (Mar 15 to 21, 2015), a total of 38 severe cases (among all age groups) including 25 deaths (an average of 5.4 severe cases and 3.6 deaths per day) were recorded, as compared to the 37 cases including 31 deaths (an average of 5.3 severe cases and 4.4 deaths per day) recorded in the previous week (Figure 9). The weekly number recorded in the past nine weeks already exceeded the highest weekly number of 33 recorded during influenza seasons since 2011 (Figure 10).

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

- In week 12, 38 cases of influenza associated ICU admission/ death were recorded, in which 25 of them were fatal. In the first 4 days of week 13 (Mar 22 to 25, 2015), 24 cases of influenza associated ICU admission/ death were recorded, in which 16 of them were fatal.

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

- In week 12 and the first 4 days of week 13 (Mar 22 to 25, 2015), there were no new cases of severe paediatric influenza-associated complication/death..

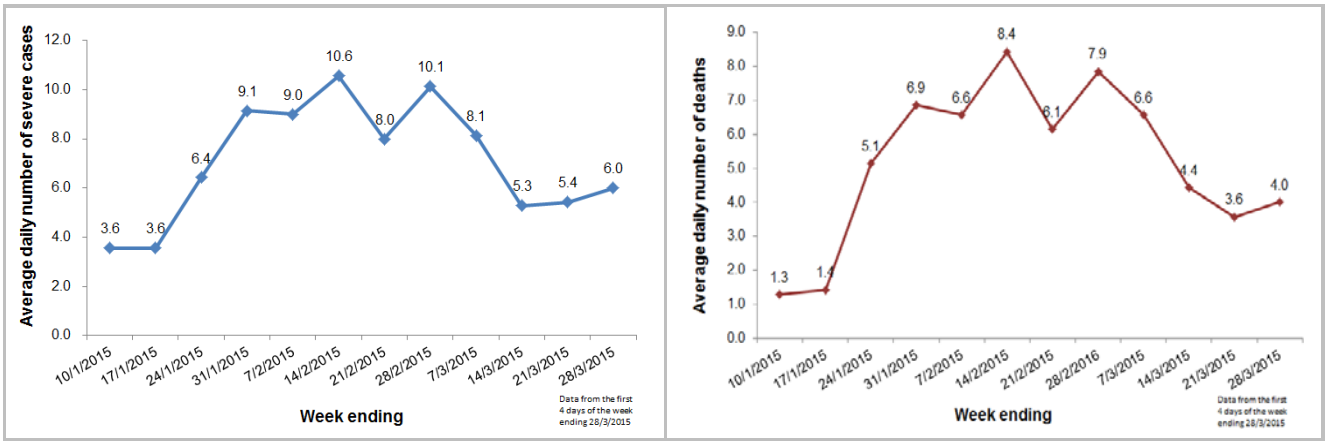

Figure 9 Average daily number of severe influenza cases (left) and average daily number of deaths (right).

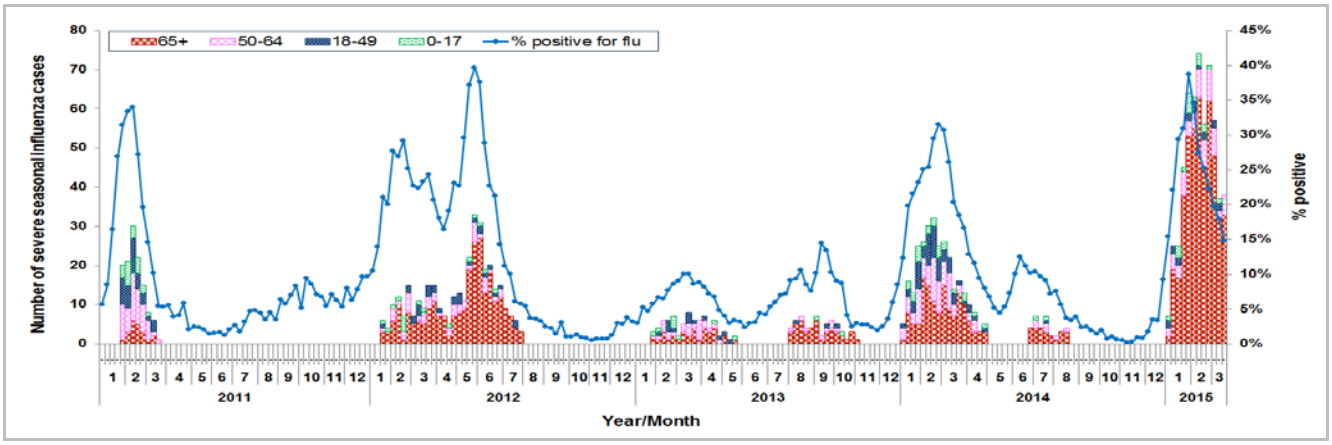

Figure 10 Weekly number of severe influenza cases recorded during influenza seasons, 2011-2015
Remark: The surveillance system for severe influenza cases aged 18 and above was only activated intermittently during influenza seasons.

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

- In week 12 and the first 4 days of week 13, 2015 (Mar 22 to 25, 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 Mar 14, 2015), the influenza activity is still elevated but continues to decrease. The percentage that tested positive for influenza viruses has peaked at 31.79% in the last week of 2014 and dropped to 11.2% in the week ending March 14.
- In Canada (week ending Mar 14, 2015), all influenza indicators have declined, or remained similar to the previous week. In the week ending March 14, the percentage that tested positive for influenza A virus (6.6%) has continued to decline from the previous week while the percentage that tested positive for influenza B virus has continued to increase to 10.0% in the week ending March 14.
- In the United Kingdom (week ending Mar 15, 2015), indicators of influenza activity generally were at similar levels compared to the previous week. 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 12.2% in the week ending March 15.
- In Europe (week ending Mar 15, 2015), following a consistently high proportion of influenza virus detections of 50% or higher in sentinel specimens since the week ending January 25, the positivity rate decreased to 41% in the week ending March 15, which is however still over the threshold of 10%.
- In Japan (week ending Mar 15, 2015), the average number of reported ILI cases per sentinel site dropped to 3.99 in the week ending March 15 from 39.42 in the week ending January 25.
- In Taiwan (week ending Mar 21, 2015), the influenza season persisted as the percentage tested positive for influenza viruses was still at a high level of 29.4% in the week ending Mar 7.

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.