

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 Feb 25, 2015)

Reporting period: Feb 15 – 21, 2015 (Week 8)

- The overall influenza activity remains at a high level. The public should continue to be vigilant as the influenza activity is expected to remain at a high level for some time.
- The predominating virus is influenza A(H3N2).
- 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 Feb 25 noon, there were 383 cases of influenza associated ICU admission or death, in which 283 were fatal cases. In the past week (Feb 15 – 21), 54 cases were recorded. Separately, two cases of severe paediatric influenza infection (aged below 18 years) were recorded in the same period. The total number of severe cases recorded among all age groups in the past week was 56.
- 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 8, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) increased to 12.7 ILI cases per 1,000 consultations from 7.9 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors decreased to 21.2 ILI cases per 1,000 consultations from 68.6 recorded in the previous week (Figure 1, right). So far, the maximum rates recorded by both systems in this season have already reached a high level comparable to the peak levels recorded in previous seasons with high activities.

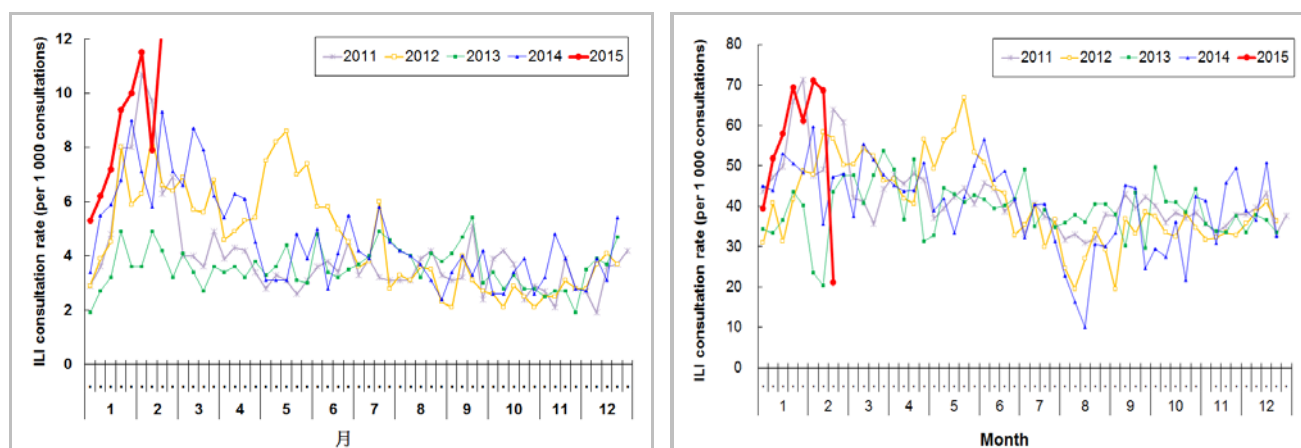


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2011-15

Laboratory surveillance, 2011-15

Among the respiratory specimens received in week 8, 1,018 (25.14%) were tested positive for seasonal influenza viruses, including 6 (0.15%) influenza A(H1N1)pdm09, 951 (23.49%) influenza A(H3), 54 (1.33%) influenza B and 7 (0.17%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week decreased to 25.14% from 27.46% in the previous week (Figure 2).

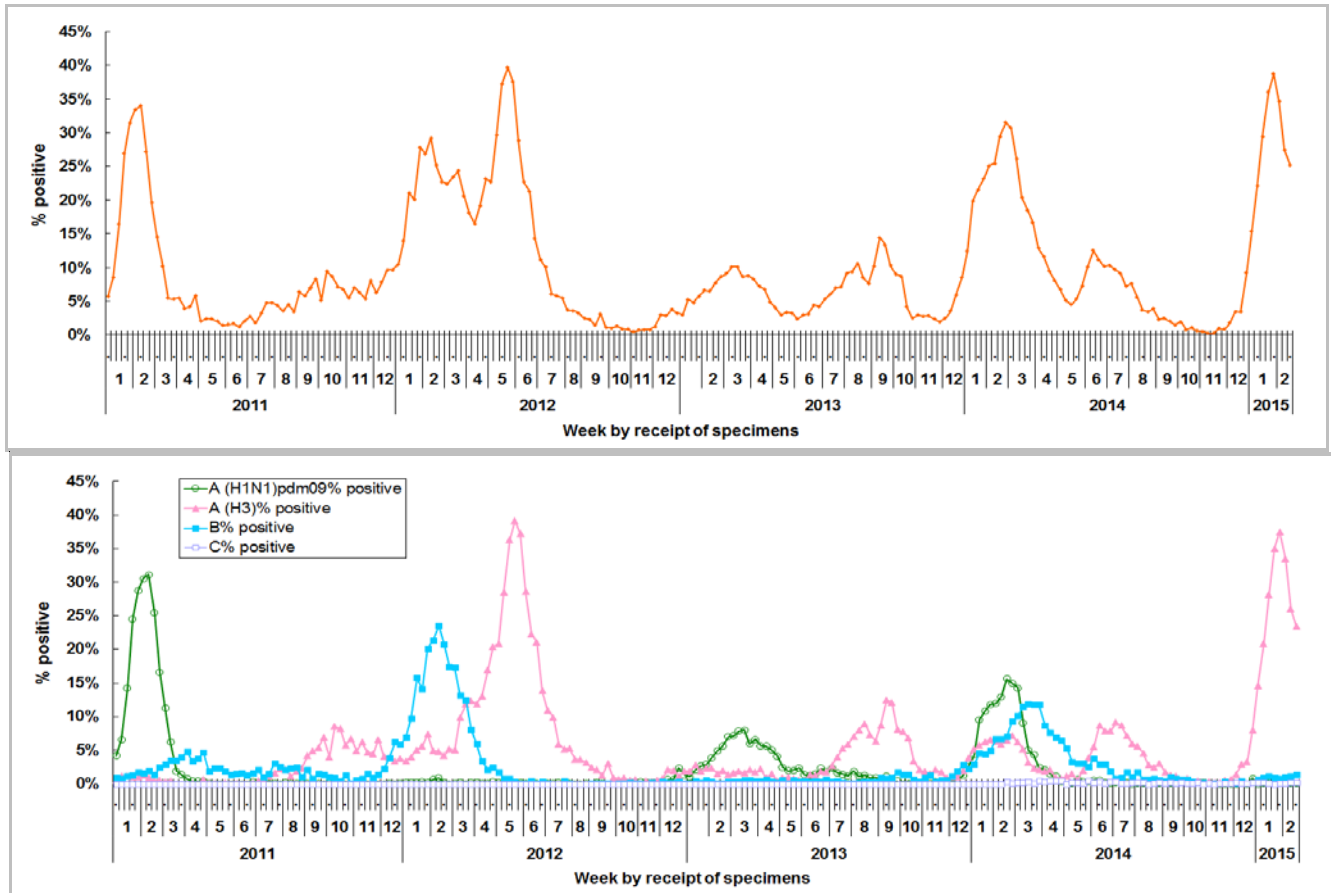


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2011-15 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2011-15

In week 8, the number of ILI outbreaks occurring in schools/ institutions recorded decreased to 18 from 37 recorded in the previous week (Figure 3). In the first 4 days of week 9 (Feb 22 to 25, 2015), 19 ILI outbreaks occurring in schools/ institutions were recorded. The outbreaks in the past four weeks mainly occurred in residential care homes for the elderly (39.4%), primary schools (28.0%) and secondary schools (11.4%).

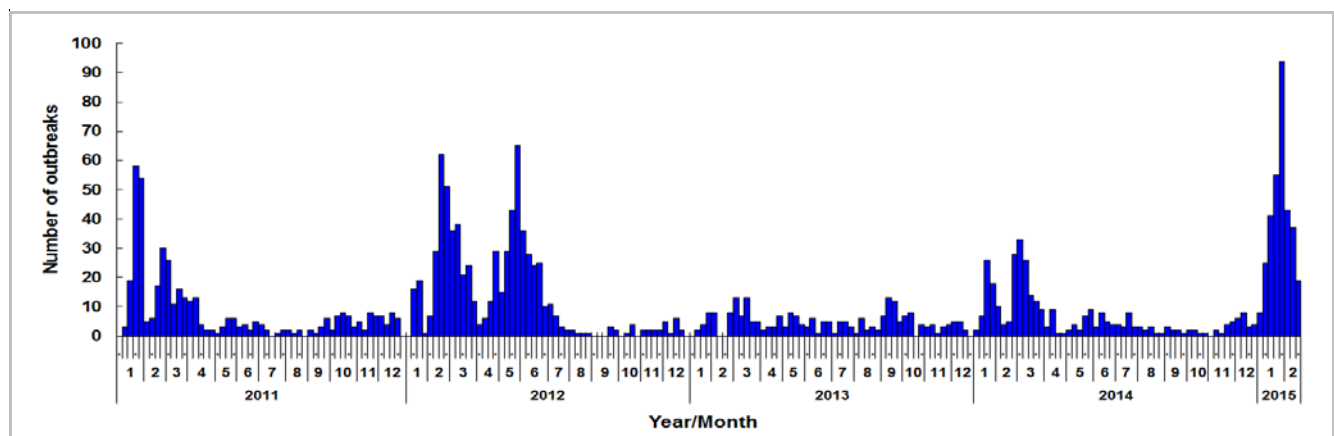


Figure 3 ILI outbreaks in schools/institutions, 2011-15

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

In week 8, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 254.6 (per 1,000 coded cases) which was similar to the rate of 256.7 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.

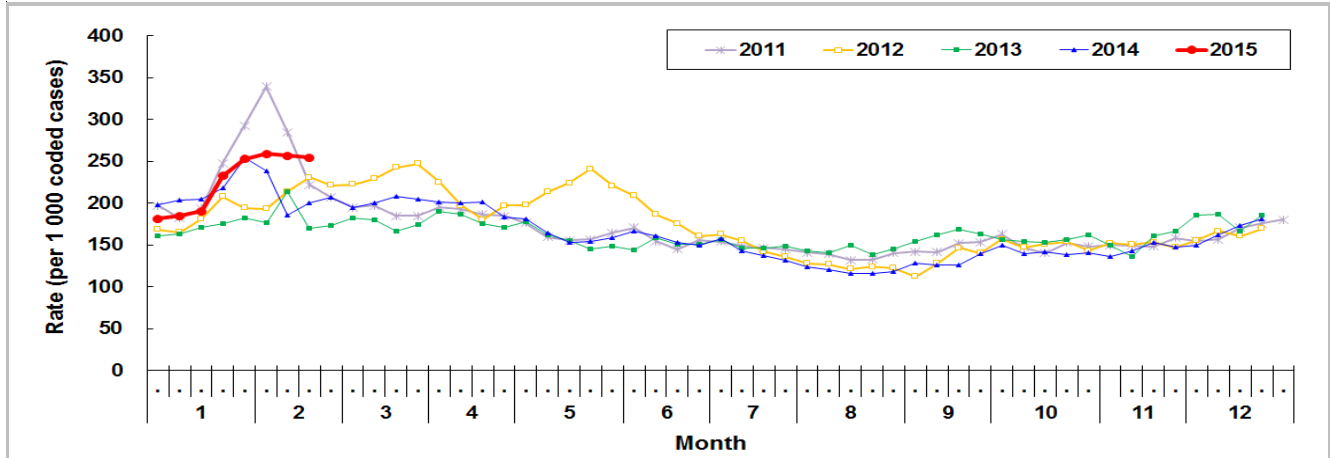


Figure 4 Rate of ILI syndrome group in AED, 2011-15

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

In week 8, 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 1.56, 0.17 and 2.89 cases (per 10,000 people in the age group) respectively, as compared to 2.39, 0.27 and 3.57 cases in the previous week. The rate for the elderly still remained at a high level (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

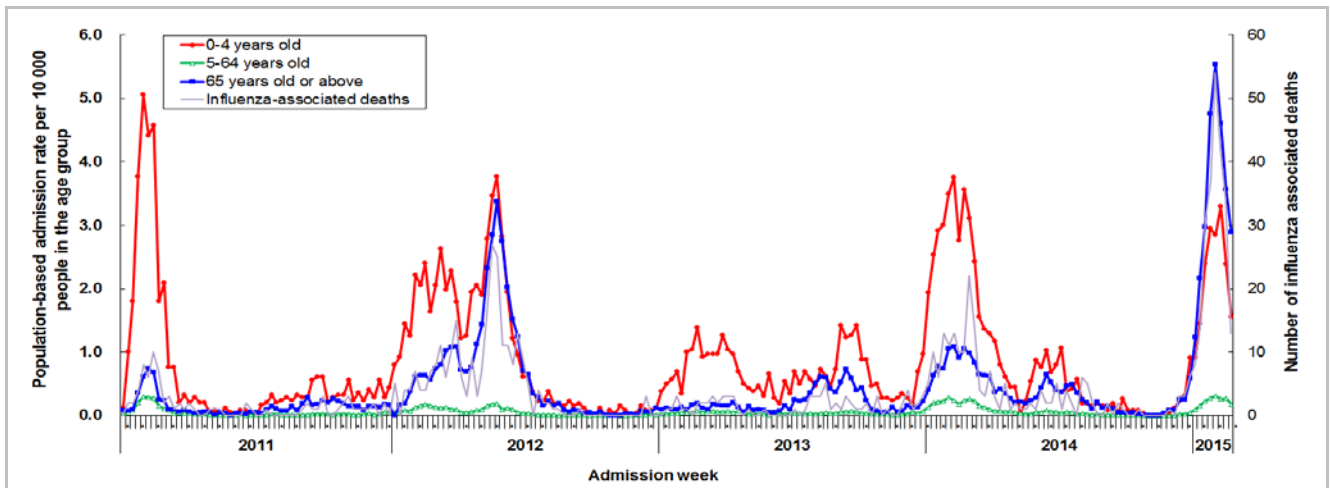


Figure 5 Influenza associated hospital admission rates and deaths, 2011-15

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

In week 7, 0.98%% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 1.02% in week 6 (Figure 6). The surveillance for week 8 was suspended due to Chinese New Year holiday.

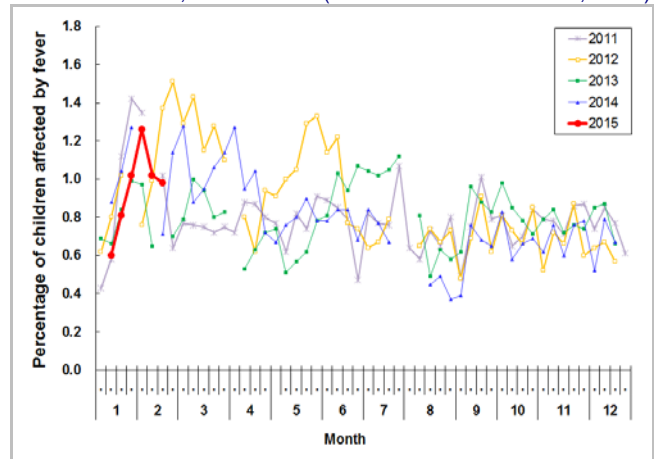


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2011-15

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

In week 8, 0.15% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above) as compared to 0.21% in the previous week (Figure 7).

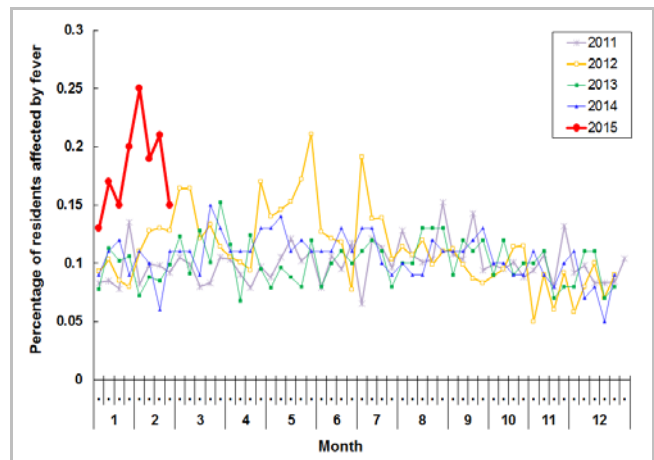


Figure 7 Percentage of residents with fever at sentinel RCHE, 2011-15

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

In week 8, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.72 ILI cases per 1,000 consultations as compared to 4.25 in the previous week (Figure 8) as compared to 4.25 in the previous week.

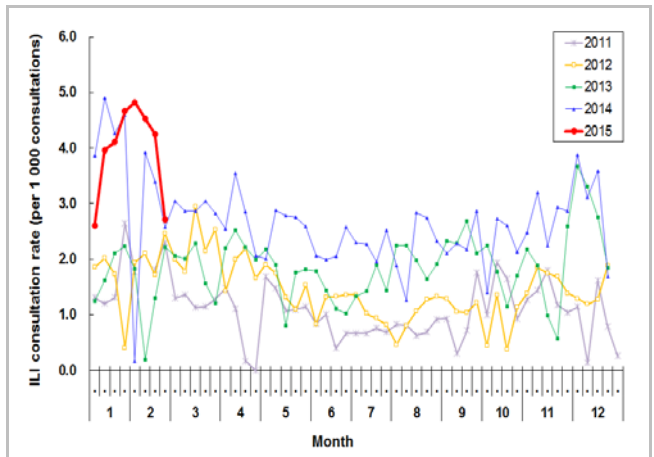


Figure 8 ILI consultation rate at sentinel CMP, 2011-15

Surveillance of severe influenza cases

- In week 8 (Feb 15 to 21, 2015), a total of 56 severe cases including 42 deaths (an average of 8.0 severe cases and 6.0 deaths per day) were recorded, which were lower than 74 cases including 57 deaths (an average of 10.6 severe cases and 8.1 deaths per day) recorded in the previous week (Figure 9). The weekly number recorded in the past five 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 8, 54 cases of influenza associated ICU admission/ death were recorded, in which 41 of them were fatal. In the first 4 days of week 9 (Feb 22 to 25, 2015), 44 cases of influenza associated ICU admission/ death were recorded, in which 37 of them were fatal.

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

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

- In week 8, two cases of severe paediatric influenza-associated complications / death (including one fatal case) were reported. The first case was a one-year-old boy who had developed sepsis. The second case was a fatal case involving a one-year-old girl who had developed encephalopathy. The respiratory specimens of both cases were tested positive for influenza A(H3). In the first 4 days of week 9 (Feb 22 to 25, 2015), one case of severe paediatric influenza-associated complication was reported involving a 9-month-old boy who had developed sepsis. His respiratory specimen was tested positive for influenza A (pending subtype).

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

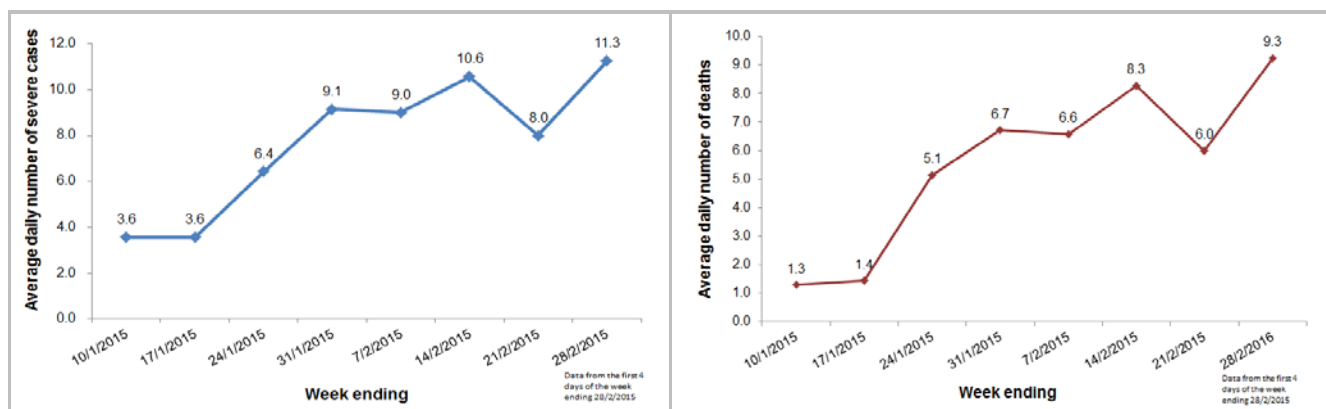


Figure 9 Average daily number of severe influenza cases (left) and average daily number of deaths (right).

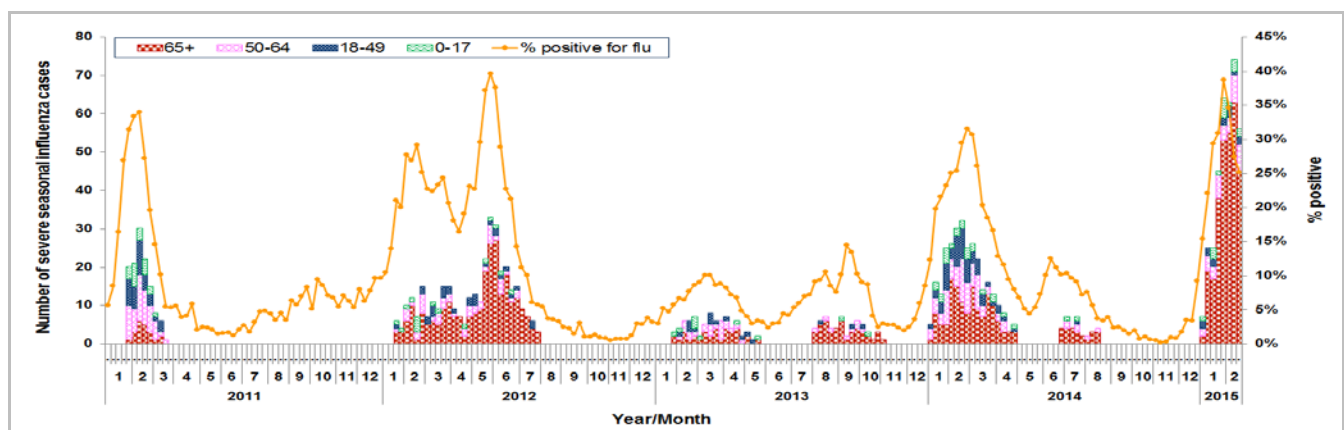


Figure 10 Weekly number of severe influenza cases recorded during influenza seasons, 2011-2015

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 8 and the first 4 days of week 9, 2015 (Feb 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 Feb 14, 2015), the influenza activity has peaked as the percentage that tested positive for influenza viruses has peaked at 31.79% in the last week of 2014 and dropped to 13.0% in the week ending February 14.
- In Canada (week ending Feb 14, 2015), all influenza indicators have declined, or remained similar to the previous week. The percentage that tested positive for influenza A virus declined to 16.3% in the week ending February 14 from 19.1% in the preceding week. The number of outbreaks of influenza A in long-term care facilities in Canada recorded a peak of 152 in the week ending January 10 and then dropped to 60 in the week ending February 14.
- In the United Kingdom (week ending Feb 15, 2015), the percentage that tested positive for influenza viruses in England reached a peak of 31.7% in the first week of 2015. The percentage tested positive for influenza viruses increased to 15.1% in the week ending February 15 from 12.4 in the previous week.
- In Europe (week ending Feb 15, 2015), the percentage tested positive for influenza viruses remained at a high level of 49% in the week ending February 15, which is over the threshold of 10%.
- In Japan (week ending Feb 15, 2015), the average number of reported ILI cases per sentinel site dropped to 12.15 in the week ending February 15 from 39.42 in the week ending January 25.
- In Taiwan (week ending Feb 21, 2015), the percentage that tested positive for influenza viruses increased from 17.2% in the week ending January 31 to 41.3% in the week ending February 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](#).