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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 23, 2016)

**Reporting period: Mar 13 – 19, 2016 (Week 12)**

- The latest surveillance data have shown that the local influenza activity continued to decrease from the peak level but still remained high. It is expected that the influenza activity will remain elevated for some time. The public should continue to be vigilant.
- 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 Mar 23, 259 adult severe cases (including 110 deaths) were recorded. Separately, 15 cases of severe paediatric influenza-associated complication/death among patients aged below 18 years (including one death) 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 12, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 8.2 ILI cases per 1,000 consultations, which was lower than 10.0 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 69.7 ILI cases per 1,000 consultations, which was similar to 70.2 recorded in the previous week (Figure 1, right).

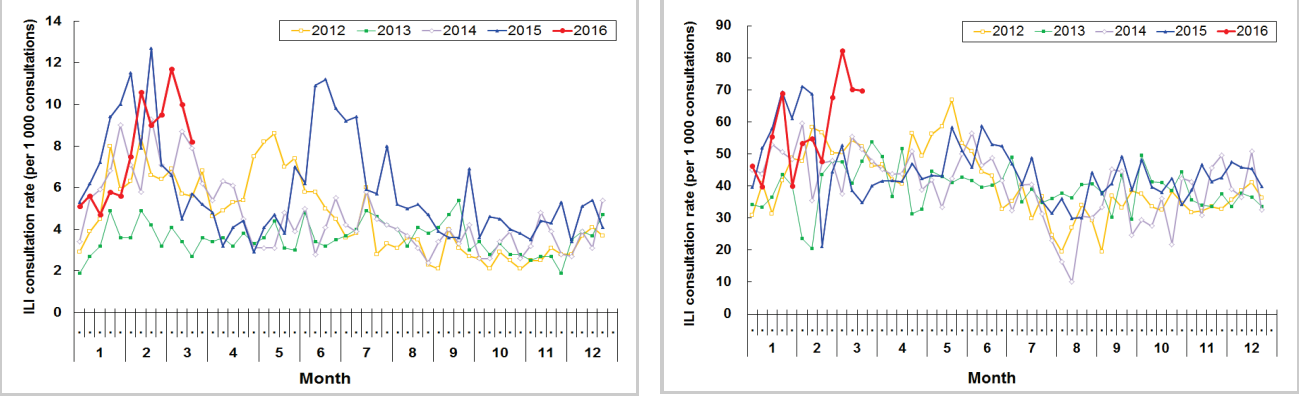


*Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2012-16*

## Laboratory surveillance, 2012-16

Among the respiratory specimens received in week 12, 781 (18.39%) were tested positive for seasonal influenza viruses, including 315 (7.42%) influenza A(H1), 20 (0.47%) influenza A(H3), 437 (10.29%) influenza B and 9 (0.21%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 18.39%, which was lower than 22.23% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of B, A(H1), C and A(H3) were 56.0%, 40.3%, 2.6% and 1.2% respectively. The proportion of influenza B among positive influenza detections has been increasing steadily and has overtaken A(H1) to become the most commonly detected subtype in last two weeks.

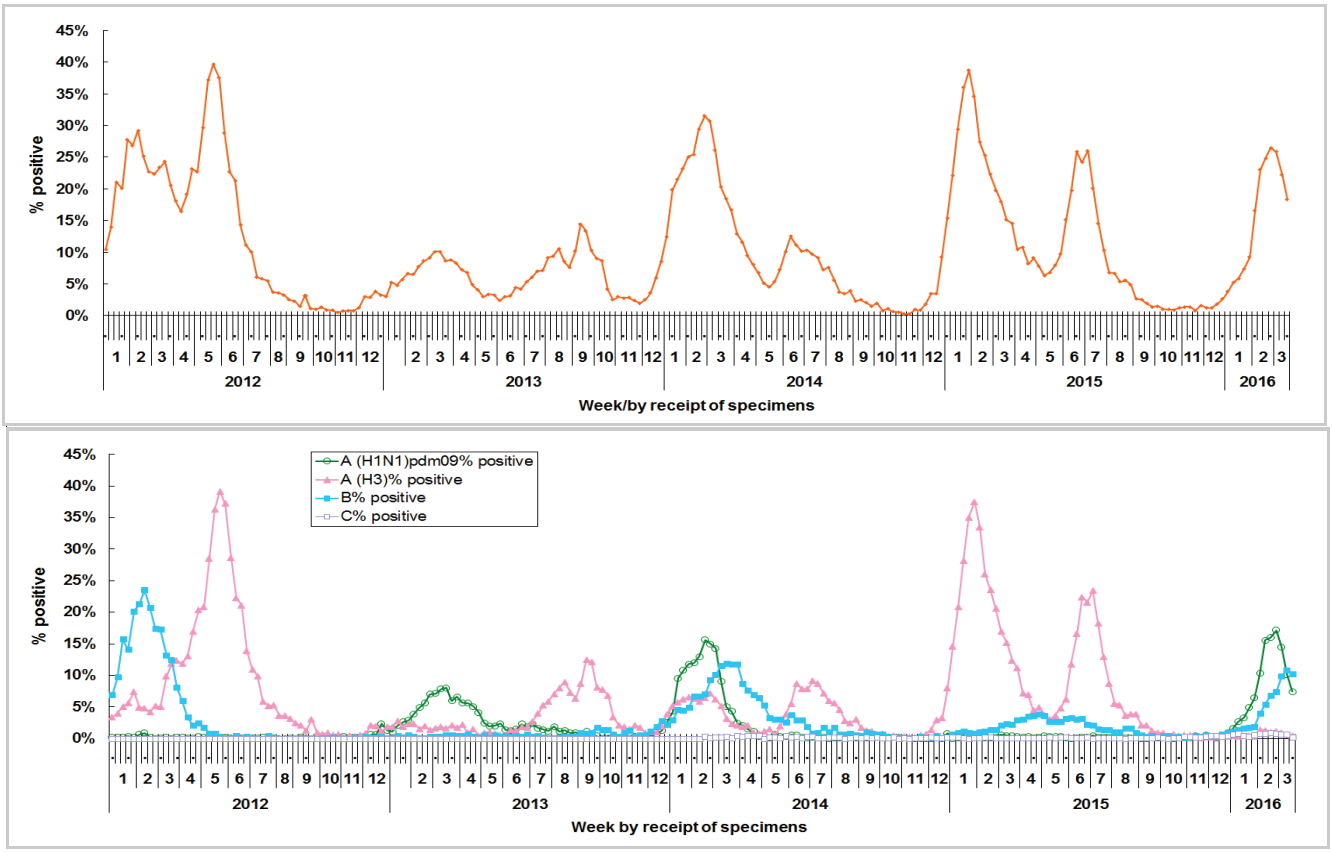


*Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2012-16 (upper: overall positive percentage, lower: positive percentage by subtypes)*

## Influenza-like illness outbreak surveillance, 2012-16

In week 12, 38 ILI outbreaks occurring in schools/institutions (affecting 191 persons) were recorded, as compared to 64 outbreaks (affecting 459 persons) recorded in the previous week (Figure 3). In the first 4 days of week 13 (Mar 20 to 23, 2016), 20 institutional ILI outbreaks (affecting 91 persons) were recorded.

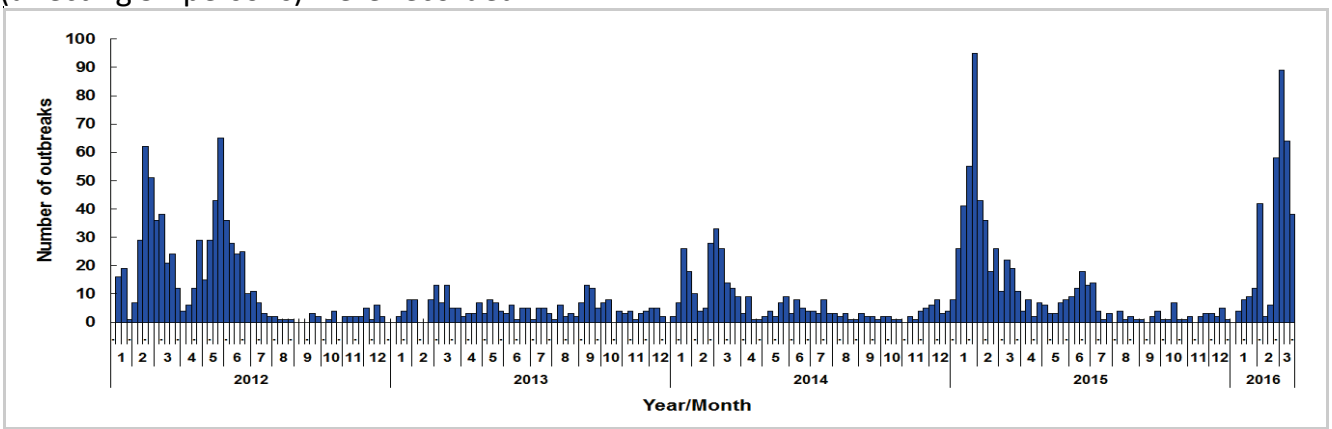


*Figure 3 ILI outbreaks in schools/institutions, 2012-16*

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

In week 12, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 245.7 (per 1,000 coded cases), which was lower than the rate of 249.1 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.*

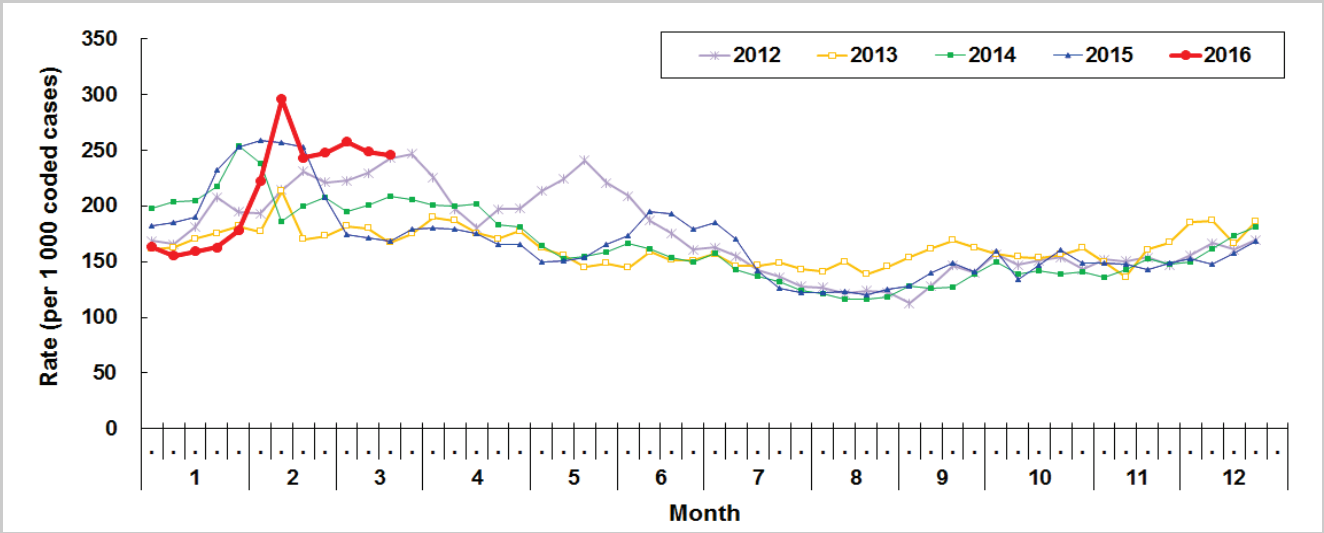


*Figure 4 Rate of ILI syndrome group in AED, 2012-16*

## Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2009-16

In week 12, 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 2.83, 1.34, 0.13 and 0.44 cases (per 10,000 people in the age group) respectively, as compared to 3.45, 1.92, 0.14 and 0.73 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

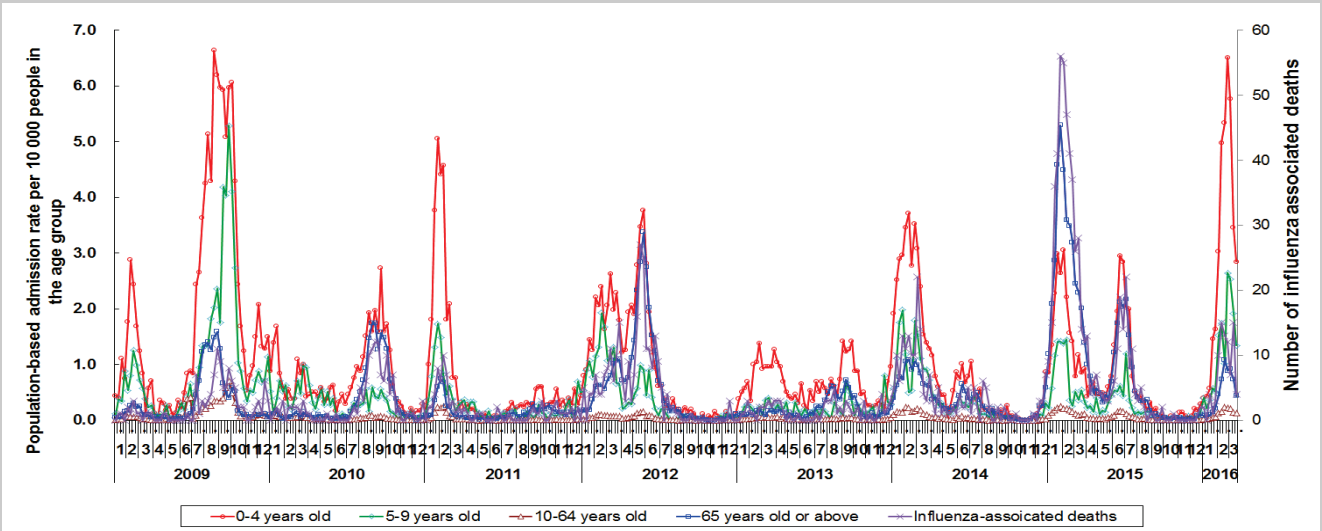


*Figure 5 Influenza associated hospital admission rates and deaths, 2009-16*

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

In week 12, 1.14% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 1.34% in the previous week (Figure 6).

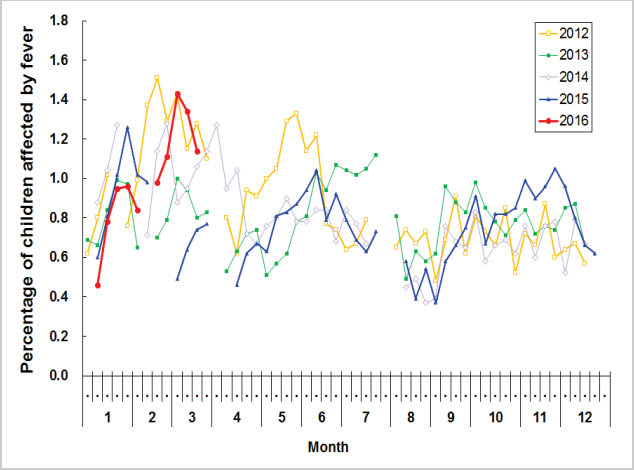


*Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2012-16*

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

In week 12, 0.10% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), which is the same as that recorded in the previous week (Figure 7).

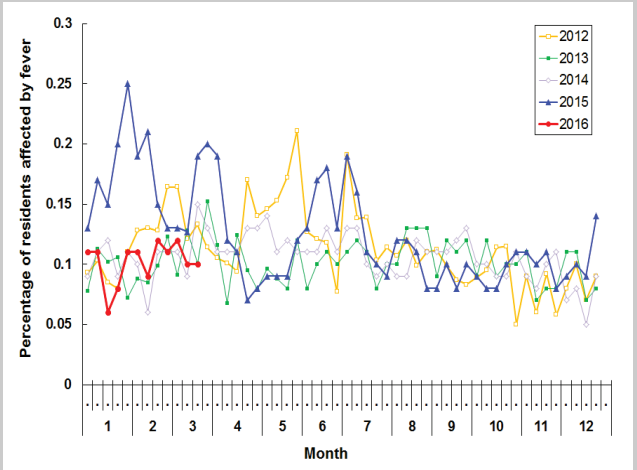


*Figure 7 Percentage of residents with fever at sentinel RCHE, 2012-16*

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

In week 12, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.83 ILI cases per 1,000 consultations as compared to 3.46 in the previous week (Figure 8).

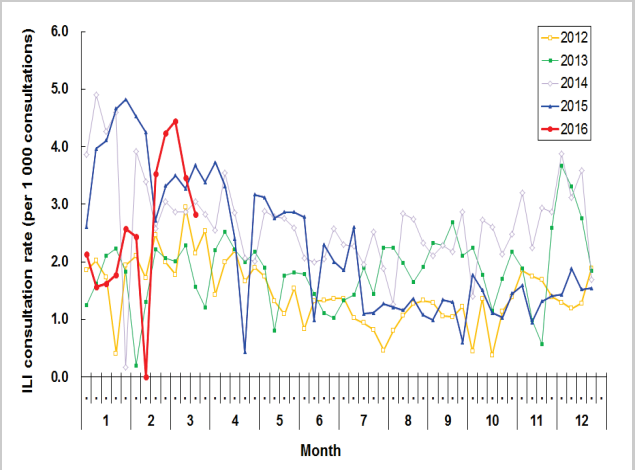


*Figure 8 ILI consultation rate at sentinel CMP, 2012-16*

## 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 259 adult severe cases (including 110 deaths) and 15 paediatric severe cases (including one death) were recorded (as of Mar 23)(Figure 9). Among them, 189 patients had infection with influenza A(H1N1)pdm09, 58 patients with influenza B, 15 patients with influenza A(H3N2), one patient with influenza C, 10 patients with influenza A pending subtype and one patient with both influenza A(H3N2) and B. 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 12, 27 cases of influenza associated ICU admission/death were recorded, in which 12 of them were fatal. In the first 4 days of week 13 (Mar 20 to 23), 22 cases of influenza associated ICU admission/death were recorded, in which 11 of them were fatal.

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

- One case and two cases of severe paediatric influenza-associated complication were reported in week 12 and in the first 4 days of week 13 (Mar 20 to 23) respectively. The details are as follow:

| Reporting week | Age | Sex | Complication | Influenza subtype |
|---|---|---|---|---|
| 12 | 18 months | Male | Pneumonia | Influenza A(H1N1)pdm09 |
| 13 | 23 months | Male | Pneumonia and myocarditis | Influenza A(H1N1)pdm09 |
| 13 | 13 years | Male | Sepsis | Influenza B |

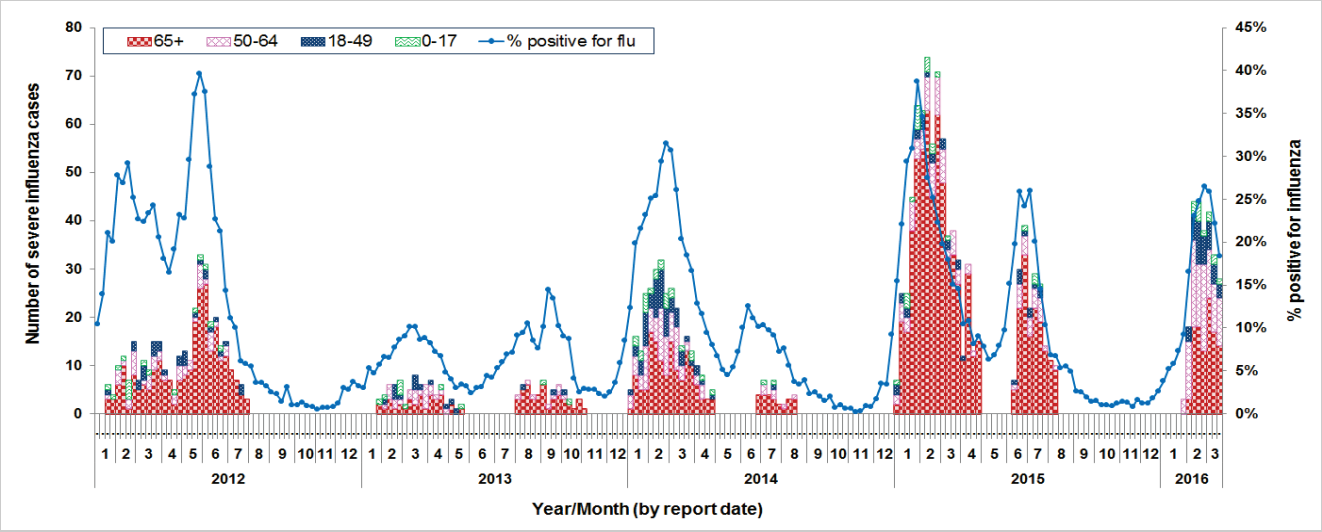


*Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2012-2016*
*Remark: The surveillance system for severe influenza cases aged 18 years or above was only activated intermittently during influenza seasons.*

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

- In week 12 and the first 4 days of week 13 (Mar 20 to 23, 2016), 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 12, 2016), influenza activity increased. The proportion of outpatient visits for ILI was 3.7%, which was above the national baseline of 2.1%.
- In Canada (week ending Mar 12, 2016), the influenza activity continued to increase and was typical of peak season levels. Influenza A(H1N1)pdm09 is the most common circulating virus subtype.
- In the United Kingdom (week ending Mar 13, 2016), the influenza indicators remained stable. Influenza B circulation further increased. The weekly ILI consultation rate has increased and remained above the baseline threshold in England. The ILI rates in Northern Ireland and Wales remained similar while that of Scotland increased. The percentage of positive influenza detection increased to 26.6%, which was above the threshold for 2015/16 season of 7.4%.
- In Europe (week ending Mar 13, 2016), influenza activity may have peaked in some parts of the Region. Majority of the countries reported decreasing or stable trends. Influenza B virus constituted 62% of influenza virus detections in sentinel samples as compared to 55% for the previous week, indicating a shift towards influenza B circulation.
- In Mainland China (week ending Mar 13, 2016), the influenza activities in both southern and northern China were at seasonal epidemic levels. Influenza outbreaks have increased. Proportion of influenza B detection overtook that of influenza A.
- In Taiwan (week ending Mar 12, 2016), the overall influenza activity gradually decreased. Proportion of influenza B detection has been increasing. During the past four weeks, the antigenic match between the seasonal influenza vaccine and the circulating influenza virus strains were 100% in H1N1 and H3N2 viruses, but 58% in influenza B virus.
- In Japan (week ending Mar 13, 2016), the influenza season has started since early January. The average number of reported ILI cases per sentinel site decreased to 28.2 in the week ending Mar 13 from 35.35 in the previous week, but still much higher than 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.