**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 1, 2017)

**Reporting period: Jan 22 – 28, 2017 (Week 4)**

- The latest surveillance data showed that the local influenza activity was largely similar to the previous week. The activity in recent weeks has increased as compared to early January.

- 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.

- The Vaccination Subsidy Scheme (VSS) 2016/17 was launched on October 20, 2016. Subsidised vaccination has been provided for children aged 6 months to under 12 years, elderly aged 65 years or above, pregnant women, persons with intellectual disabilities and persons receiving Disability Allowance (DA). In addition, starting from November 3, 2016, the eligibility of free vaccination under the Government Vaccination Programme has been expanded to include children aged 6 years to under 12 years from families receiving Comprehensive Social Security Assistance or holding valid Medical Waiver Certificates as well as persons receiving DA who are existing clients of public clinics and hospitals. Please refer to the webpages ([http://www.chp.gov.hk/en/view_content/46107.html](http://www.chp.gov.hk/en/view_content/46107.html)) and ([http://www.chp.gov.hk/en/view_content/18630.html](http://www.chp.gov.hk/en/view_content/18630.html)) for details.

### Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2013-17

In week 4, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.6 ILI cases per 1,000 consultations, which was higher than 4.0 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 39.9 ILI cases per 1,000 consultations, which was similar to 39.4 recorded in the previous week (Figure 1, right).

*Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2013-17*
Laboratory surveillance, 2013-17

Among the respiratory specimens received in week 4, 306 (8.83%) were tested positive for seasonal influenza viruses, including 24 (0.69%) influenza A(H1), 261 (7.53%) influenza A(H3), 19 (0.55%) influenza B and 2 (0.06%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 8.83%, which was similar to 8.17% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of A(H3), A(H1), B and C were 85.3%, 7.8%, 6.2% and 0.7% respectively.

Influenza-like illness outbreak surveillance, 2013-17

In week 4, five ILI outbreaks occurring in school/institution were recorded (affecting 27 persons), as compared to six outbreaks (affecting 46 persons) recorded in the previous week (Figure 3). In the first 4 days of week 5 (Jan 29 to Feb 1, 2017), no institutional ILI outbreaks were recorded.

Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2013-17 (upper: overall positive percentage, lower: positive percentage by subtypes)

Figure 3 ILI outbreaks in schools/institutions, 2013-17
Rate of influenza-like illness syndrome group in accident and emergency departments, 2013-17#

In week 4, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 176.0 (per 1,000 coded cases), which was higher than the rate of 151.9 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, 2013-17](image)

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2013-17

In week 4, 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 1.00, 0.41, 0.06 and 0.30 cases (per 10,000 people in the age group) respectively, as compared to 1.21, 0.62, 0.07 and 0.47 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, 2013-17](image)
Fever surveillance at sentinel child care centres/ kindergartens, 2013-17

In week 4, 0.63% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.70% in the previous week (Figure 6).

Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2013-17

Fever surveillance at sentinel residential care homes for the elderly, 2013-17

In week 4, 0.11% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above) as compared to 0.10% in the previous week (Figure 7).

Figure 7 Percentage of residents with fever at sentinel RCHE, 2013-17

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2013-17

In week 4, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.28 ILI cases per 1,000 consultations as compared to 1.60 recorded in the previous week (Figure 8).

Figure 8 ILI consultation rate at sentinel CMP, 2013-17
Surveillance of severe paediatric influenza-associated complication/death (Aged below 18 years)

- In week 4, one case of severe paediatric influenza-associated complication was reported. In the first 4 days of week 5 (Jan 29 to Feb 1, 2017), there were no new reports of severe paediatric influenza-associated complication/death. The case details are as follow:

<table>
<thead>
<tr>
<th>Reporting week</th>
<th>Age</th>
<th>Sex</th>
<th>Complication</th>
<th>Fatal case?</th>
<th>Influenza subtype</th>
<th>History of receiving influenza vaccine for this season</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>8 years</td>
<td>Male</td>
<td>Pneumonia</td>
<td>No</td>
<td>Influenza A(H3)</td>
<td>Not vaccinated</td>
</tr>
</tbody>
</table>

Data as of Feb 1, 2017

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

- In week 4 and the first 4 days of week 5 (Jan 29 to Feb 1, 2017), 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 most areas in the Northern Hemisphere, the influenza activities either remained elevated or have reached their peak levels for the 2016/17 winter season. The predominating virus was influenza A(H3N2).

- In the United States (week ending Jan 21, 2017), the influenza activity increased. The proportion of outpatient visits for ILI was 3.4%, which was above the national baseline of 2.2%.
- In Canada (week ending Jan 21, 2017), influenza activity from several indicators including laboratory detections, outbreaks and hospitalizations declined from the previous week indicating that nationally the influenza season may have reached its peak in second week of January. Influenza A(H3N2) continues to be the most common subtype detected.
- In the United Kingdom (week ending Jan 22, 2017), influenza activity stabilized with decreases noted in some indicators such as GP consultations for influenza-like illness and influenza-related hospital admission. The positivity of influenza detection was 24.5% in the week ending January 22, which was above the threshold for 2016/17 season of 8.6%.
- In Europe (week ending Jan 22, 2017), the influenza activity remained elevated across the region with 32 of 43 reporting countries reporting increased activity. The proportion of virus detections among sentinel surveillance specimens was 49%, similar to that in the previous week and was above the seasonal threshold of 10%. The majority of influenza viruses detected was influenza A(H3N2).
- In Taiwan (week ending Jan 21, 2017), the influenza activity slightly decreased. The proportions of ILI cases in out-patient clinics and emergency departments slightly decreased recently. The number of severe influenza cases and hospital admission for influenza was also on downward trend recently. The predominating viruses were influenza A(H3N2).
- In Japan (week ending Jan 22, 2017), the influenza season started in mid-November last year. The average number of reported ILI cases per sentinel site increased to 28.66 in the week ending January 22, 2017, higher than the baseline level of 1.00.
- In Korea (week ending Jan 21, 2017), the influenza activity has reached its peak in late December last year and has been decreasing in January. The weekly ILI rate decreased to 17.0 from 23.9 recorded in previous week, but it was still above the baseline of 8.9. The proportion of influenza detections also decreased to 23.9% from 32.3%.

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, Taiwan Centers for Disease Control, Japan Ministry of Health and Korean Centers for Disease Control and Prevention.