Virological Surveillance Summary

In the Western Pacific Region, the following influenza viruses predominated:

<table>
<thead>
<tr>
<th>Week</th>
<th>Predominant viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>A (H3)</td>
</tr>
<tr>
<td>10-16</td>
<td>B (Yamagata lineage), B (lineage not determined)</td>
</tr>
<tr>
<td>17-19</td>
<td>B (Yamagata lineage), A (H3)</td>
</tr>
<tr>
<td>20-37</td>
<td>A (H3)</td>
</tr>
<tr>
<td>38-42</td>
<td>A (H3), B (lineage not determined)</td>
</tr>
<tr>
<td>43-44</td>
<td>Influenza virus activity is low in all subtypes</td>
</tr>
</tbody>
</table>

Countries providing specimens for FluNet reporting from the Western Pacific Region include Australia, Cambodia, China, Fiji, Lao PDR, Malaysia, Mongolia, New Zealand, Philippines, the Republic of Korea, Singapore, and Viet Nam. From week 1 to week 44, 89.3% of influenza specimens provided to FluNet were from China (n=474,255), 3.7% from Australia (n=19,489), 2.7% from New Zealand (n=14,379) and 1.8% from the Republic of Korea (n=9,386).

Influenza surveillance summary

Influenza surveillance in the WHO Western Pacific Region is based on outpatient and inpatient sentinel surveillance systems. Case definitions, populations under surveillance and data formats differ among these countries. This influenza surveillance summary includes countries where routine surveillance is conducted and information is available from syndromic surveillance systems for Influenza-like-illness (ILI) and Severe Acute Respiratory Infections (SARI).
The [WHO surveillance case definition](https://www.who.int/influenza/surveillance/ili_case_definition/en/) for ILI is an acute respiratory infection with a measured fever of $\geq 38$ C° and cough, with symptom onset within the last 10 days. For SARI, it is an acute respiratory infection with a history of fever or measured fever of $\geq 38$ C° and cough, with symptom onset within the last 10 days and requires hospitalization.

### Countries in the temperate zone of the Northern Hemisphere

In most countries within the temperate zone of the Northern Hemisphere, ILI and influenza activity remained at low levels.

#### Outpatient ILI Surveillance

**China (North)**

During week 46, ILI activity remained low and consistent with the seasonal trend of previous years (2011 – 2014). ILI% at national sentinel hospitals in north China was 2.5%, the same as the previous week (2.5 %) (Figure 2). Influenza A (H3N2) was predominant during week 46.

**Mongolia**

In week 45-46, 2015, ILI activity in Mongolia has decreased in week 46 after an increase in week 45 and is close to the lower tolerance limit (Figure 3).

**Republic of Korea**

In week 46, 2015, the proportion of patients visiting sentinel physicians for ILI (4.4/1,000 outpatients) followed the seasonal trend of previous years (2012-2014) and was below baseline (Figure 4).

![Figure 2: Percentage of visits for ILI at sentinel hospitals, 2011-2015 (Source: China National Influenza Center)](image)

![Figure 3: Proportion of outpatients that were ILI (per 10,000 people), 2013-2015 (Source: Mongolia National Influenza Center)](image)
Republic of Korea

![Graph showing influenza cases in Republic of Korea](image)

**Figure 4:** Weekly proportion of ILI visits per 1,000 patients 2012-2015 (Source: Korean Centre for Disease Control and Prevention)

**Hospital influenza surveillance**

**Japan**

In Japan, the number of influenza cases reported weekly per hospital sentinel site follows the known seasonal trend (2005–2014), with case numbers remaining low (Figure 5).

![Graph showing influenza cases in Japan](image)

**Figure 5:** Number of influenza cases reported weekly per sentinel hospital site, Japan 2005-2015 (Source: Japan National Institute of Infectious Diseases)

**Countries/areas in the tropical zone**

In week 44-46 of 2015, ILI or Acute Respiratory Infection (ARI) activity followed previous seasonal trends in countries/areas in the tropical zone.
**Outpatient Surveillance**

**Hong Kong (China) - ILI Surveillance**

During week 46, the overall influenza activity in the past week remained low. The average consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 4.4 ILI cases per 1,000 consultations, which was higher than 3.5 ILI cases per 1,000 consultations recorded in the previous week (Figure 6).

The average consultation rate for ILI among sentinel private doctors was 46.6 ILI cases per 1,000 consultations, which was higher than the 38.7 cases recorded in the previous week (Figure 7).

The percentage of respiratory specimens in week 46 which tested positive for seasonal influenza viruses was 1.32% (n=37), similar to the previous week (1.37%). Of the positive results in week 46, 32.4% were influenza B viruses, 29.7% were influenza A(H1) and 24.3% were influenza A(H3N2), compared to 29.7% and in the previous week.

**China (South) - ILI Surveillance**

During week 46, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in south China was 2.4%, the same as the previous week (2.4%) (Figure 8). The level of influenza A(H3N2) (55.4%) and influenza B (44.6%) were the predominant strains detected.

**Singapore – ARI Surveillance**

In week 44-45, the average daily number of patients seeking treatment in the polyclinics for ARI increased from 2,533 (over 5.5 working days) in week 44 to 2,721 (over 5.5 working days) in week 45 (Figure 9). The proportion of patients with influenza-like illness (ILI) among the polyclinic attendances for ARI remained low at approximately 1%.

**Hong Kong (China) - ILI Surveillance**

![Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong 2011-2015 (Source: Hong Kong Centre for Health Protection)](image)

![Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong 2011-2015 (Source: Hong Kong Centre for Health Protection)](image)
Countries in the temperate zone of the southern hemisphere

Influenza surveillance data from Australia and New Zealand is reported during their influenza season and will not be updated in this report unless unusual activity is apparent.

Pacific Island Countries and Areas (PICs)- ILI Surveillance (no update)

In the PICs, the numbers of cases reported are above threshold in Guam, Nauru, New Caledonia and Marshall Islands. There is an on-going influenza vaccination campaign in Marshall Islands (Figure 10).
Global influenza situation updates

Epidemiological update:

Virological update:

Global update:
Influenza Situation Update

Others:
Recommended composition of influenza virus vaccines for use in the 2016 southern hemisphere influenza season

Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines
http://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/

4th WHO Informal Consultation on Improving Influenza Vaccine Virus Selection
http://www.who.int/influenza/gisrs_laboratory/updates/summaryreport

Video on influenza on WHO’s YouTube Channel
Arabic: https://www.youtube.com/watch?v=PwW6Pg1Anwl
Chinese: https://www.youtube.com/watch?v=xW9gDKePitQ
English: https://www.youtube.com/watch?v=yhhJfT86Bgg
French: https://www.youtube.com/watch?v=8mo8rWWJZkc
Russian: https://www.youtube.com/watch?v=XQO6nbKUWQ
Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY