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>38-40</td>
<td>A (H3), B (lineage not determined)</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 39 (as of 12 October) 89.6% of influenza specimens provided to FluNet were from China (n=423,455), 3.4% from Australia (n=16,080), 2.9% from New Zealand (n=13,615) and 1.7% from the Republic of Korea (n=8,040).

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** for ILI is an acute respiratory infection with a measured fever of $\geq 38 \, ^\circ\text{C}$ 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 $\geq 38 \, ^\circ\text{C}$ 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 39, ILI activity remained low and consistent with the seasonal trend of previous years (2011 –2014). ILI% at national sentinel hospitals in north China was 2.3%, which was same as the previous week (2.3 %) (Figure 2). Influenza A (H3N2) was dominant during week 39.

**Mongolia**

In week 39-40, 2015, ILI activity in Mongolia has decreased after a sharp increase in week 38 and is below the upper tolerance limit. (Figure 3).

**Republic of Korea**

In week 39, 2015, the proportion of patients visiting sentinel physicians for ILI (4.0/1,000 outpatients) followed the seasonal trend of previous years (2011-2014) and was below baseline(Figure 4).
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).

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

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 36-38 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 40, the overall influenza activity in the past week remained low and the average consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 3.6 ILI cases per 1,000 consultations, which was lower than 6.9 recorded in the previous week (Figure 6).

The average consultation rate for ILI among sentinel private doctors was 48.2 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 which tested positive for seasonal influenza viruses last week was 1.45%. Of the positive results, the proportions of influenza A(H3N2) and influenza B viruses in the last week were 61.5% and 25.6%, respectively, compared to 66.7% and 18.0% in the previous week.

China (South)- ILI Surveillance
During week 39, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in south China was 2.7%, higher than the previous week in 2011, 2012,2013 and 2014 (2.4%, 2.2%, 2.4% and 2.5%, respectively) (Figure 8). Influenza A(H3N2) was dominant in week 39 (85.0%); however, influenza B was also detected (15.0%).

Singapore – ARI Surveillance
In week 38-39, the average daily number of patients seeking treatment in the polyclinics for ARI increased from 2,738 (over 4.5 working days) in week 38 to 2,929 (over 5.5 working days) in week 39 (Figure 9).
Countries in the temperate zone of the southern hemisphere

Influenza activity appears to have peaked in week 36-37 in Australia and has passed the peak in New Zealand.

**Australia – Laboratory-confirmed influenza (No Update)**

Influenza activity has decreased with a downward trend since 15 August 2015. As of 11 September, Australia reported 74,220 laboratory confirmed cases of influenza for the year so far. In the fortnight ending 11 September, 14,408 notifications were reported (Figure 10). Influenza B continues to be the dominant influenza virus type nationally, comprising over two thirds of all notifications.
**New Zealand – Influenza like Illness**

During week 39, ILI through sentinel surveillance was reported from 17 out of 20 District Health Boards resulting in a national consultation rate of 39.3 per 100,000 (118 ILI consultations). This is slightly above the seasonal threshold, but below the alert threshold (Figure 11 and 12). In New Zealand, the predominant strain in positive swabs was influenza B.

![Figure 11. Weekly consultation rates for influenza-like illness in New Zealand, 2009–2015](image)

![Figure 12: Weekly consultation rates for influenza-like illness in New Zealand in 2015 in comparison to the average seasonal curve, 2000–2013 (exc. 2009)](image)
**Pacific Island Countries and Areas (PICs)- ILI Surveillance**

- In the PICs, ILI activity was variable with an increasing trend in ILI activity observed in a number of islands, in particular Guam, Nauru, New Caledonia, Palau and Vanuatu (Figure 13).
- An outbreak is ongoing in the Northern Marianna Islands however there has been a decrease in the weekly number of cases reported for week ending 4 October, 2015.

![Pacific Syndromic Surveillance System](image)

**Figure 13: Weekly consultation rates for influenza-like illness in PICs, 2014–2015**

**Global influenza situation updates**

Epidemiological update:  

Virological update:  

Global 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=PxW6Pg1Anwl
  Chinese: https://www.youtube.com/watch?v=xW9gDKEPitQ
  English: https://www.youtube.com/watch?v=yhhjFT86Bgg
  French: https://www.youtube.com/watch?v=8mo8rWJZkc
  Russian: https://www.youtube.com/watch?v=XQO6nKKUWQ
  Spanish: https://www.youtube.com/watch?v=qXr75cKwTY