Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 47, and the number of Influenza positive specimens are presented in the table below. Influenza A (H3) is reported to be the predominantly circulating subtype currently (Figure 1).

Table 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 47, 2016

<table>
<thead>
<tr>
<th>Country (most recent week)</th>
<th>Total number of specimens processed</th>
<th>Total number of influenza positive specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (week 47)</td>
<td>35,572</td>
<td>6,166</td>
</tr>
<tr>
<td>Cambodia (week 45)</td>
<td>1,254</td>
<td>343</td>
</tr>
<tr>
<td>China (week 47)</td>
<td>506,169</td>
<td>74,614</td>
</tr>
<tr>
<td>Fiji (week 38)</td>
<td>349</td>
<td>120</td>
</tr>
<tr>
<td>Japan (week 46)</td>
<td>NA</td>
<td>7,190</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic (week 42)</td>
<td>4,495</td>
<td>403</td>
</tr>
<tr>
<td>Malaysia (week 30)</td>
<td>2,461</td>
<td>212</td>
</tr>
<tr>
<td>Mongolia (week 47)</td>
<td>3,336</td>
<td>335</td>
</tr>
<tr>
<td>New Caledonia (week 41)</td>
<td>1,360</td>
<td>301</td>
</tr>
<tr>
<td>New Zealand (week 39)</td>
<td>942</td>
<td>298</td>
</tr>
<tr>
<td>Papua New Guinea (week 39)</td>
<td>388</td>
<td>143</td>
</tr>
<tr>
<td>Philippines (week 47)</td>
<td>999</td>
<td>250</td>
</tr>
<tr>
<td>Republic of Korea (week 47)</td>
<td>9,870</td>
<td>1,298</td>
</tr>
<tr>
<td>Singapore (week 47)</td>
<td>2,231</td>
<td>1,141</td>
</tr>
<tr>
<td>Viet Nam (week 43)</td>
<td>1,219</td>
<td>326</td>
</tr>
</tbody>
</table>

Figure 1: Number of influenza positive specimens by subtype and week, Western Pacific Region, 2015-16 (accessed 5 December 2016)
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 ≥38°C and cough, with symptom onset within the last 10 days. For SARI, it is an acute respiratory infection (ARI) with a history of fever or measured fever of ≥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 47 ILI% at national sentinel hospitals in north China was 3.4%, higher than last week and the same week of 2014 and 2015 (Figure 2).

Mongolia
There has been an increase in ILI activity in Mongolia since week 30, which follows seasonal trends (Figure 3).

Republic of Korea
In week 47 2016, overall weekly ILI rate was 5.9‰, which is higher than 4.5 recorded in the previous week (Figure 4).

Figure 2: Percentage of visits for ILI at sentinel hospitals, 2012-2016 (Source: China National Influenza Center)  
Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2014-2016 (Source: Mongolia National Influenza Center)
Republic of Korea

Figure 4: Weekly proportion of ILI visits per 1,000 patients 2012-2016
(Source: Korean Centre for Disease Control and Prevention)

Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2006-2016
(Source: Japan National Institute of Infectious Diseases)

**Sentinel influenza surveillance**

**Japan**

As of 16 November 2016, influenza activity is increasing and following seasonal trends (Figure 5).
Countries/areas in the tropical zone

In weeks 1 to 47 of 2016, ILI or ARI activity followed previous seasonal trends in countries/areas in the tropical zone.

**Outpatient Surveillance**

**Hong Kong (China) - ILI Surveillance**
In week 48, the average consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 4.4 ILI cases per 1,000 consultations, which was similar to 4.3 recorded in the previous week (Figure 6). The average consultation rate for ILI among sentinel private doctors was 46.4 ILI cases per 1,000 consultations, which was lower than 54.8 recorded in the previous week (Figure 7).

Among the respiratory specimens received in week 48, 231 (6.67%) were tested positive for seasonal influenza viruses, including 1 (0.03%) influenza A(H1), 223 (6.44%) influenza A(H3), 1 (0.03%) influenza B and 6 (0.17%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 6.67%, which was lower than 7.08% recorded in the previous week. Among the influenza viruses detected in the last week, the proportions of A(H3), C, A(H1) and B were 96.5%, 2.6%, 0.4% and 0.4% respectively.

**China (South) - ILI Surveillance**
During week 47, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in south China was 3.1%, same as last week (3.1%), higher than the same week of 2014 and 2015 (2.2% and 2.6%) (Figure 8).

**Singapore – ARI Surveillance**
The average daily number of patients seeking treatment in the polyclinics for ARI decreased from 2,651 (over 5.5 working days) in week 46 to 2,620 (over 5.5 working days) in week 47 (Figure 9). The proportion of patients with ILI among the polyclinic attendances for ARI remained low at 1.2%. The overall positivity rate for influenza among ILI samples (n=69) in the community was 40.6% in the past 4 weeks. Of the specimens tested positive for influenza in October 2016, these were positive for influenza A(H3N2) (84.6%), influenza A(H1N1)pdm09 (7.7%) and influenza B (7.7%).

Hong Kong (China) - ILI Surveillance

Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong 2012-2016 (Source: Hong Kong Centre for Health Protection)

Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong 2012-2016 (Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance

Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2012-2016 (Source: China National Influenza Center)

Singapore - ARI Surveillance

Figure 9: Average daily polyclinic attendances for ARI, Singapore 2015-2016 (Source: Singapore Ministry of Health)
Countries in the temperate zone of the southern hemisphere

In the temperate zone of the southern hemisphere, influenza activity followed seasonal trends, declining in Australia and remaining at low levels in New Zealand.

**Australia – Laboratory-confirmed influenza (no update)**

As of 28 October 2016, a total of 83,092 notifications of laboratory confirmed influenza were reported to the National Notifiable Diseases Surveillance System (Figure 10). Ninety percent of notifications were influenza A (73% A (unsubtyped), 6% influenza A(H1N1)pdm09 and 11% influenza A(H3N2), 10% were influenza B and less than 1% were influenza C, influenza A&B co-infections or untyped.


**New Zealand – Influenza like Illness (no update)**

In week 39, ending 2 October 2016, 24 patients with ILI consulted sentinel general practices in 20 District Health Boards. The weekly ILI incidence was 4.4 ILI cases per 100,000 patients. Of the 14 tested ILI cases, 4 were positive for influenza viruses, yielding an influenza-associated ILI incidence of 1.3 per 100,000 patients (adjusted).

**Pacific Island Countries and Areas (PICs)- ILI Surveillance**

In the Pacific Island Countries and Areas, in week 47, the number of ILI cases reported was higher than the previous week in American Samoa. The number of ILI cases in Guam, Tokelau and Tonga decreased from the previous week (Figure 12).

**Global influenza situation updates**


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

Video on influenza on WHO's YouTube Channel

- Arabic: https://www.youtube.com/watch?v=PxW6Pq1Anwl
- Chinese: https://www.youtube.com/watch?v=xW9gDKEPi7Q
- English: https://www.youtube.com/watch?v=yhhJfT86Bgg
- French: https://www.youtube.com/watch?v=8mo8rWWI7kc
- Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
- Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY