Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 43, 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 43, 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 43)</td>
<td>33,815</td>
<td>6,067</td>
</tr>
<tr>
<td>Cambodia (week 41)</td>
<td>1,121</td>
<td>316</td>
</tr>
<tr>
<td>China (week 42)</td>
<td>457,877</td>
<td>69,483</td>
</tr>
<tr>
<td>Fiji (week 38)</td>
<td>349</td>
<td>120</td>
</tr>
<tr>
<td>Japan (week 42)</td>
<td>NA</td>
<td>7,093</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 41)</td>
<td>2,871</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 43)</td>
<td>953</td>
<td>248</td>
</tr>
<tr>
<td>Republic of Korea (week 42)</td>
<td>8,622</td>
<td>1,291</td>
</tr>
<tr>
<td>Singapore (week 43)</td>
<td>2,161</td>
<td>1,114</td>
</tr>
<tr>
<td>Viet Nam (week 39)</td>
<td>1,025</td>
<td>308</td>
</tr>
</tbody>
</table>
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 $\geq 38^\circ C$ 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 $\geq 38^\circ C$ 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 43, the percentage of ILI visits at national sentinel hospitals in Northern China was 2.7%. This is higher than the previous week of 2016 (2.6%) and same as the same week of 2015 (2.4%) (Figure 2).

Mongolia
There has been a increase in ILI activity in Mongolia since week 30, which follows the seasonal trends (Figure 3).
Republic of Korea

In week 44, overall weekly ILI rate was 4.8/1,000 outpatients, which is the same as the previous week and the national baseline of 8.9/1,000 outpatients (Figure 4).

China (North)

Figure 2: Percentage of visits for ILI at sentinel hospitals, 2012-2016 (Source: China National Influenza Center)

Mongolia

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)
Sentinel influenza surveillance

**Japan**

As of 26 October 2016, influenza activity is low and following seasonal trends (Figure 5).

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

**Countries/areas in the tropical zone**

In weeks 1 to 44 of 2016, ILI or ARI activity followed previous seasonal trends in countries/areas in the tropical zone.

**Outpatient Surveillance**

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

As of week 44, the average consultation rate for ILI among sentinel general outpatient clinics was 4.7 ILI cases per 1,000 consultations, which was higher than 4.0 ILI cases per 1,000 consultations recorded in the previous week (Figure 6).

The average consultation rate for ILI among sentinel private doctors was 48.6 ILI cases per 1,000 consultations, which was lower than 47.4 ILI cases per 1,000 consultations recorded in the previous week (Figure 7).

The average consultation rates for ILI among sentinel general outpatient clinics and private doctors were the highest in the previous 5 years.

The percentage of respiratory specimens in week 44 which tested positive for seasonal influenza viruses was 8.68%. This is lower than 8.98% recorded in the previous week. Influenza A(H3) was the predominant circulating subtype comprising 97.3% of positive respiratory specimens. Other viruses detected were influenza B (1.4%), influenza C (0.7%) and influenza A(H1) (0.7%)
China (South) - ILI Surveillance
During week 43, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 2.8%. This is higher than that in the previous week of 2016 (2.7%) and higher than that in the same week of 2015 (2.3%) (Figure 8).

Singapore – ARI Surveillance
The average daily number of patients seeking treatment in the polyclinics for ARI was 2,408 (over 5.5 working days) in week 43, decreased from previous week of 2,398 in week 42 (Figure 9). The proportion of patients with ILI among the polyclinic attendances for ARI remained low at 1.5%. The overall influenza virus positivity of ILI samples (n=50) in the community was 22.0% in the past 4 weeks. Of the specimens tested positive for influenza virus in September 2016, 81.8% were positive for influenza A(H3N2), 9.1% for influenza B and 9.1% for influenza A(H1N1)pdm09.

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**

As of 14 October 2016, a total of 79,534 notifications of laboratory confirmed influenza were reported to the National Notifiable Diseases Surveillance System (Figure 10). Ninety percent of notifications were influenza A (72% A(unsubtyped), 7% 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. Source: [http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm/$File/Australian-Influenza-Surveillance-Report.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm/$File/Australian-Influenza-Surveillance-Report.pdf)

![Figure 10: Australian notifications of laboratory confirmed influenza](Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

**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 per 100 000 patient population. Of the 14 tested ILI cases, 4 were positive for influenza viruses. This gives an ILI related influenza incidence (adjusted) of 1.3 per 100 000 patient population.

![Figure 11: Weekly resident ILI and influenza incidence since (Week 18) 2 May 2016 in New Zealand](Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)
**Pacific Island Countries and Areas (PICs)- ILI Surveillance**

In the Pacific Island Countries and Areas, in week 43, the number of ILI cases reported in Federated States of Micronesia, Guam and Takelau shows above the threshold of 90% historical values (Figure 12).

![Pacific Syndromic Surveillance System](image.png)

**Figure 12:** Reported cases of influenza-like illness (red line) in Pacific Island Countries, 2015–2016

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**Global influenza situation updates**


Others:

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=PxW6Pg1AnwI
Chinese: https://www.youtube.com/watch?v=xW9gDKEPtQ
English: https://www.youtube.com/watch?v=yhhJfT86Bgg
French: https://www.youtube.com/watch?v=8mo8rWWJZkc
Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY