Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 4, and the number of influenza positive specimens are presented in the table below. Influenza A (H3) is currently the predominant circulating subtype (Figure 1).

<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 4)</td>
<td>1948</td>
<td>112</td>
</tr>
<tr>
<td>Cambodia (week 4)</td>
<td>99</td>
<td>5</td>
</tr>
<tr>
<td>China (week 2)</td>
<td>7,774</td>
<td>552</td>
</tr>
<tr>
<td>Fiji (week 38 /2016)</td>
<td>349</td>
<td>120</td>
</tr>
<tr>
<td>Japan (week 3)</td>
<td>NA</td>
<td>253</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 /2016)</td>
<td>2,461</td>
<td>212</td>
</tr>
<tr>
<td>Mongolia (week 4)</td>
<td>559</td>
<td>299</td>
</tr>
<tr>
<td>New Caledonia (week 51/2016)</td>
<td>1,459</td>
<td>302</td>
</tr>
<tr>
<td>New Zealand (week 39/2016)</td>
<td>942</td>
<td>298</td>
</tr>
<tr>
<td>Papua New Guinea (week 51/2016)</td>
<td>410</td>
<td>144</td>
</tr>
<tr>
<td>Philippines (week 3)</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>Republic of Korea (week 3)</td>
<td>712</td>
<td>224</td>
</tr>
<tr>
<td>Singapore (week 4)</td>
<td>102</td>
<td>50</td>
</tr>
<tr>
<td>Viet Nam (week 2)</td>
<td>92</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 1: Number of influenza positive specimens by subtype and week, Western Pacific Region, 2016-17 (accessed 06 February 2017)
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 are consistent with seasonal trends but indicate an earlier start to the influenza season compared to 2016.

Outpatient ILI Surveillance

**China (North)**

During week 3, the percentage of visits for ILI at national sentinel hospitals in northern China was 3.8%, lower than last week (3.9%) but higher than the same week of 2015 and 2016 (both 3.6%) (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 4, 2017, there were 12.5 ILI cases per 1,000 patient consultations, which was lower than 17.0 ILI cases per 1,000 patients reported in the previous week. (Figure 4).
Sentinel influenza surveillance

**Japan**

As of 25 January 2017, influenza activity is increasing and following seasonal trends (Figure 5).
Countries/areas in the tropical zone

In weeks 1 to 4 of 2017, ILI or ARI activity followed previous seasonal trends in countries/areas in the tropical zone.

Outpatient Surveillance

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

In week 4, the average consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 4.6 ILI cases per 1,000 consultations, which was higher than the rate of 4.0 recorded in the previous week (Figure 6). 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 7).

Among the respiratory specimens received in week 4, 306 (8.83%) tested positive for seasonal influenza viruses, which was similar to 8.17% recorded in the previous week. Influenza A(H3) was the predominant subtype detected comprising 85.3% of respiratory specimens. Other viruses detected were influenza A(H1) (7.8%), influenza B (6.2%), and influenza C (0.7%).

**China (South) - ILI Surveillance**

During week 3, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in southern China was 2.9%, which was lower than the previous week, the same week of 2015 and 2016 (3.1%, 3.0% and 3.3%)

**Singapore – ARI Surveillance**

The average daily number of patients seeking treatment in the polyclinics for ARI increased from 2,864 (over 5.5 working days) in week 3 of 2017 to 3,060 (over 5.5 working days) in week 4 of 2017 (Figure 9).

The proportion of patients with ILI among polyclinic attendances for ARI remained low at 1.5%. The overall positivity rate for influenza virus among ILI samples (n=101) in the community was 49.5% in the past 4 weeks. Of influenza-positive specimens in January 2017, the majority were influenza A(H3N2) (68.0%), followed by influenza B (24.0%) and influenza A(H1N1)pdm09 (8.0%).
Countries in the temperate zone of the southern hemisphere

In the temperate zone of the southern hemisphere, influenza activity followed seasonal trends.

**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. Australia publishes influenza surveillance reports on a fortnightly basis during the influenza season, typically between May and October.


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2012-2017
(Source: China National Influenza Center)

Figure 9: Average daily polyclinic attendances for ARI, Singapore 2015-2017
(Source: Singapore Ministry of Health)

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 ILI cases per 100,000 patients. Of the 14 tested ILI cases, 4 were positive for influenza viruses, yielding an influenza-associated ILI incidence rate of 1.3 ILI cases per 100,000 patients (adjusted).

![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 4, the number of ILI cases reported showed an increasing trend in American Samoa, Federated States of Micronesia and Kiribati. The number of ILI cases in Fiji, Solomon Islands, and Samoa showed a decreasing trend (Figure 12).

![Figure 12: Reported cases of influenza-like illness (red line) in Pacific Island Countries, 2017](source: Pacific Syndromic Surveillance System, 2017)
Global influenza situation updates


Global update: http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/

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/


Video on influenza on WHO's YouTube Channel

Arabic: https://www.youtube.com/watch?v=PxW6Pg1Anwl
Chinese: https://www.youtube.com/watch?v=xW9gDKEPltQ
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=qXr75cKwxTY