Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 12, 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 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 12, 2017

<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 12)</td>
<td>6084</td>
<td>389</td>
</tr>
<tr>
<td>Cambodia (week 11)</td>
<td>267</td>
<td>8</td>
</tr>
<tr>
<td>China (week 11)</td>
<td>114,282</td>
<td>15,877</td>
</tr>
<tr>
<td>Fiji (week 38/2016)</td>
<td>349</td>
<td>120</td>
</tr>
<tr>
<td>Japan (week 11)</td>
<td>NA</td>
<td>3169</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic (week 12)</td>
<td>1023</td>
<td>144</td>
</tr>
<tr>
<td>Malaysia (week 30/2016)</td>
<td>2,461</td>
<td>212</td>
</tr>
<tr>
<td>Mongolia (week 12)</td>
<td>1,489</td>
<td>397</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 11)</td>
<td>201</td>
<td>10</td>
</tr>
<tr>
<td>Republic of Korea (week 12)</td>
<td>2,986</td>
<td>441</td>
</tr>
<tr>
<td>Singapore (week 12)</td>
<td>380</td>
<td>189</td>
</tr>
<tr>
<td>Viet Nam (week 10)</td>
<td>326</td>
<td>37</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 11 2016 to week 10 2017 (Source: www.who.int/flunet, accessed 3 April 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 the 2015-2016 season.

**Outpatient ILI Surveillance**

**China (North)**

During weeks 11 and 12, the percentage of visits for ILI at national sentinel hospitals in northern China was 3.0%, slightly lower than week 10 (3.2%). Compared to previous years, ILI activity was slightly higher than the same week of 2015 (2.8%), but lower than the same week of 2016 (4.1%) (Figure 2).

**Mongolia**

ILI activity increased slightly during week 12 of 2017 compared to the previous week but remained low. The most recent peak in ILI activity occurred in week four of 2017 (Figure 3).

**Republic of Korea**

In week 11 2017, there were 9.3 ILI cases per 1000, which was higher than 7 per 1000 in the previous week. ILI cases peaked at 86 per 1000 patients in the last week of 2016. (Figure 4).

![Figure 2: Percentage of visits for ILI at sentinel hospitals in north China, 2012-2017 (Source: China National Influenza Center)](image1.png)

![Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2014-2017 (Source: Mongolia National Influenza Center)](image2.png)
Republic of Korea

![Weekly ILI incidence rate per 1000 patients, 2013-2017](source: Korean Centre for Disease Control and Prevention)

**Sentinel influenza surveillance**

**Japan**

As of week 11 2017, influenza activity is following seasonal trends with 10.3 cases per sentinel site in week 11. This is a decrease compared to week 9, 2017 when 13.6 cases were reported per sentinel. (Figure 5).

![Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2007-2017](source: Japan National Institute of Infectious Diseases)
Countries/areas in the tropical zone

In weeks 1 to 8 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 weeks 11 and 12 of 2017, the consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 4.8 and 4.7 ILI cases per 1,000 consultations respectively, which was lower than the previous fortnight (Figure 6). The average consultation rate for ILI among sentinel private doctors was 58.1 ILI cases per 1000 consultations in week 11 and 55.7 per 1000 consultations in week 12., which was higher than the previous fortnight (Figure 7).

Among the respiratory specimens received in weeks 11 and 12, 7.2% tested positive for seasonal influenza viruses, which was lower than 8.4% and 9.4% in the previous fortnight. Influenza A(H3) was the predominant subtype detected in week 12, comprising 74.5% of respiratory specimens. Other viruses detected were influenza A(H1) (12.6%), influenza B (10.5%), and influenza C (2.4%).

**China (South) - ILI Surveillance**

During weeks 11 and 12, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 3.0%, which was unchanged from weeks nine and ten. This percentage is slightly higher than the same week of 2015 (2.8%) but lower than the same week of 2016 (4.1%).

**Singapore – Acute Respiratory Infection Surveillance**

The average daily number of patients seeking treatment in the polyclinics for acute respiratory infections (ARI) increased from 2711 (over 5.5 working days) in week 11 to 2977 (over 5.5 working days) in week 12 (Figure 9). The proportion of patients with ILI among polyclinic attendances for ARI remained low at 1.8%. The overall positivity rate for influenza virus among 142 ILI samples in the community was 50% in the past four weeks. Of influenza-positive specimens in February 2017, the majority were influenza A(H3N2) (39.4%), followed by influenza B (36.6%) and influenza A(H1N1)pdm09 (19.7%).
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.

**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).

![Graph showing ILI and influenza incidence](image.png)

**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 12, the number of ILI cases reported increased in the Federated States of Micronesia and Vanuatu (Figure 12).

![Graph showing ILI cases in Pacific Island Countries](image.png)

**Figure 12:** Reported cases of influenza-like illness (red line) in Pacific Island Countries, 2017
Global influenza situation updates

Epidemiological update

Virological update:

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

Others:
Recommended composition of influenza virus vaccines for use in the 2017 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

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=8mo8rWWJZkc
  Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
  Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY

Recommended composition of influenza virus vaccines for use in the 2017-2018 northern hemisphere influenza season
http://www.who.int/influenza/vaccines/virus/recommendations/201703_recommendation.pdf?ua=1