Virological Surveillance Summary

The total number of specimens and number of positive specimens reported to FluNet by Western Pacific Region countries and areas between weeks 1 and 49 are presented in the table below. Influenza A and B have co-circulated throughout the year and A(H1N1) has predominated in recent weeks (Figure 1).

<table>
<thead>
<tr>
<th>Country (most recent week of report)</th>
<th>Total number of specimens processed</th>
<th>Total number of influenza positive specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (week 49)</td>
<td>40837</td>
<td>3369</td>
</tr>
<tr>
<td>Cambodia (week 49)</td>
<td>1138</td>
<td>220</td>
</tr>
<tr>
<td>China (week 49)</td>
<td>625879</td>
<td>70758</td>
</tr>
<tr>
<td>Fiji (week 35)</td>
<td>329</td>
<td>102</td>
</tr>
<tr>
<td>Japan (week 48)</td>
<td>-</td>
<td>7494</td>
</tr>
<tr>
<td>Lao People's Democratic Republic (week 49)</td>
<td>3491</td>
<td>576</td>
</tr>
<tr>
<td>Malaysia (week 39)</td>
<td>3223</td>
<td>337</td>
</tr>
<tr>
<td>Mongolia (week 49)</td>
<td>3171</td>
<td>291</td>
</tr>
<tr>
<td>New Caledonia (week 41)</td>
<td>1406</td>
<td>291</td>
</tr>
<tr>
<td>New Zealand (week 41)</td>
<td>1558</td>
<td>475</td>
</tr>
<tr>
<td>Philippines (week 48)</td>
<td>1430</td>
<td>195</td>
</tr>
<tr>
<td>Republic of Korea (week 49)</td>
<td>11053</td>
<td>1669</td>
</tr>
<tr>
<td>Singapore (week 47)</td>
<td>2916</td>
<td>908</td>
</tr>
<tr>
<td>Viet Nam (week 48)</td>
<td>1315</td>
<td>209</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region week 51, 2017 to week 49, 2018 (Source: www.who.int/flunet)

Influenza surveillance summary

Influenza surveillance in the WHO Western Pacific Region is based on outpatient and inpatient sentinel indicator based surveillance (IBS) systems, as well as event-based surveillance. Case definitions, population groups included, and data formats differ among countries. This influenza surveillance summary includes countries and areas where routine IBS is conducted and information is available.
The **WHO surveillance case definition** for influenza-like illness (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 10 days that requires hospitalization. Sentinel site data should be interpreted with caution since the number of sites reporting may vary between weeks.

**Countries in the temperate zone of the Northern Hemisphere**

In most countries within the temperate zone of the Northern Hemisphere, ILI and influenza activity is low and similar to the corresponding period from previous years.

**Outpatient ILI Surveillance**

**China (North)**

During week 49, the percentage of visits for ILI at national sentinel hospitals in northern China was 3.2%, higher than the last week (3.0%), but lower than the same week of 2017 (3.5%) (Figure 2).

**Mongolia (no update)**

During week 40, ILI activity in Mongolia slightly increased from the previous week, but is below the upper tolerance limits (Figure 3).

![Figure 2: Percentage of visits for ILI at sentinel hospitals in Northern China, 2015-2018](Source: China National Influenza Center)

![Figure 3: Proportion of outpatient ILI visits, per 10,000 people, 2016-2018](Source: Mongolia National Influenza Center)

**Republic of Korea**

In week 49, overall weekly influenza like illness (ILI) rate was 34.0 ILI cases per 1,000 outpatient visits, an increase from 19.2 ILI cases per 1,000 outpatient visits the previous week (Figure 4).

![Figure 4: Weekly ILI incidence rate per 1,000 consultations, 2014-2018, Republic of Korea](Source: Korean Centres for Disease Control and Prevention)
Sentinel influenza surveillance

Japan
In week 48, influenza activity in Japan remained low, consistent with trends during the same period between 2008 and 2017, excluding 2009 (Figure 5).

![Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2008-2018](Source: Japan National Institute of Infectious Diseases)

Countries/areas in the tropical zone
Countries and areas in the tropical zone are observing influenza activity that is consistent with previous seasons. However, the number of SARI cases reported in Lao PDR is higher than previous years but has been decreasing over the past few weeks.

Surveillance

Hong Kong SAR (China) – ILI and hospital Surveillance
In week 49, the average consultation rate for ILI among sentinel general outpatient clinics was 6.0 ILI cases per 1,000 consultations, which was higher than the previous week (4.1 per 1,000) (Figure 6). The average consultation rate for ILI among sentinel private doctors was 44.0 ILI cases per 1,000 consultations, and it was also higher than the rate recorded in the previous week (29.5 per 1,000) (Figure 7).

![Hong Kong SAR (China) - ILI Surveillance](Source: Hong Kong Centre for Health Protection)
China (South) - ILI Surveillance
During week 49, the percentage of visits for ILI at national sentinel hospitals in southern China was 3.3%, higher than the last week (3.2%), but lower than the same week of 2017 (3.5%). (Figure 8).

Singapore – Acute Respiratory Infection (ARI) Surveillance
The average daily number of patients seeking treatment in the polyclinics for ARI is 3,138 (over 5,5 working days) in week 49. The proportion of patients with influenza-like illness (ILI) among the polyclinic attendances for ARI is 2.4% (Figure 9).

Lao PDR
In week 49, ILI activity decreased compared to the previous week but is still consistent with trends seen in previous years. Although the number of severe acute respiratory infection (SARI) cases remains higher than the previous 5 years,(data not shown).

Countries in the temperate zone of the southern hemisphere
In the temperate zone of the southern hemisphere, influenza activity is reported during the influenza season usually starting in May. Influenza activity in the temperate zone tends to remain at low inter-seasonal levels.
**Australia – Laboratory-confirmed influenza and ILI** (no update)
The numbers of laboratory confirmed influenza cases and presentations of ILI to general practitioners in week 42 are low and within historical range. There were 5.1 ILI cases per 1,000 consultations at sentinel general practitioners and year to date there have been 44,694 laboratory confirmed cases of influenza reported to the National Notifiable Diseases Surveillance System (Figure 11). Australia publishes influenza surveillance reports on a fortnightly basis during the influenza season, typically between May and October.

![Figure 11: Australian notifications of laboratory confirmed influenza](Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

**New Zealand – Influenza like Illness** (no update)
During the week ending 28 October 2018, there were 4.2 general practice visits for influenza-like illness for every 100,000 registered patients. The historical average seasonal rate for the week ending 28 October is 15.6 per 100,000 registered patients. Historical average is based on 2000-2017 seasons (excluding pandemic seasons: 2009).

![Figure 12: Weekly General Practice ILI Rates in New Zealand](Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)
In the Pacific Island Countries and Areas, in week 49 the number of ILI cases reported in Kiribati and Vanuatu increased compared to week 48 (Figure 13).

Figure 13: Reported cases of influenza-like illness in Pacific Island Countries
(Source: PacNet bulletin)
Global influenza situation updates

Virological update

Global update

Others:

- Recommended composition of influenza virus vaccines for use in the 2018 southern hemisphere influenza season [Link]
- Recommended composition of influenza virus vaccines for use in the 2018-2019 northern hemisphere influenza season [Link]
- Antigenic and genetic characteristics of zoonotic influenza viruses and candidate vaccine viruses developed for potential use in human vaccines [Link]
- 4th WHO Informal Consultation on Improving Influenza Vaccine Virus Selection [Link]

WHO's YouTube Channel: film exploring a number of key aspects of the constant evolution of influenza viruses and associated impacts on public health. [Arabic], [Chinese], [English], [French], [Russian], [Spanish]