Virological Surveillance Summary

The total number of specimens and number of positive specimens reported to FluNet by Western Pacific Region countries and areas between week 1 and week 17 are presented in the table below. Influenza A and B are cocirculating in the region, with influenza B (Victoria lineage) and A(H3) predominant in recent weeks (Figure 1).

Table 1: Cumulative data reported to FluNet from Western Pacific Region, weeks 1 to 17, 2019

<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 17)</td>
<td>16961</td>
<td>1868</td>
</tr>
<tr>
<td>Cambodia (week 16)</td>
<td>361</td>
<td>57</td>
</tr>
<tr>
<td>China (week 16)</td>
<td>262682</td>
<td>71596</td>
</tr>
<tr>
<td>Japan (week 15)</td>
<td>-</td>
<td>4594</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic (week 16)</td>
<td>1057</td>
<td>143</td>
</tr>
<tr>
<td>Malaysia (week 13)</td>
<td>998</td>
<td>161</td>
</tr>
<tr>
<td>Mongolia (week 16)</td>
<td>2632</td>
<td>718</td>
</tr>
<tr>
<td>New Caledonia (week 13)</td>
<td>437</td>
<td>140</td>
</tr>
<tr>
<td>Philippines (week 17)</td>
<td>454</td>
<td>115</td>
</tr>
<tr>
<td>Republic of Korea (week 17)</td>
<td>4235</td>
<td>1077</td>
</tr>
<tr>
<td>Singapore (week 15)</td>
<td>912</td>
<td>210</td>
</tr>
<tr>
<td>Viet Nam (week 14)</td>
<td>274</td>
<td>41</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region weeks 1 to 17 2019 (Source: WHO 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 ≥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 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 countries within the temperate zone of the Northern Hemisphere, ILI and influenza activity is variable, with higher than normal activity in Northern China and the Republic of Korea compared to the corresponding period from previous years but normal seasonal trends being observed in Mongolia and Japan.

Outpatient ILI Surveillance

China (North)
During week 17, the percentage of visits for ILI at national sentinel hospitals in Northern China was 3.3%, which is lower than the last week (3.6%) but higher than week in 2016 - 2018 (2.5%, 2.5% and 2.3%) (Figure 2).

Mongolia
During week 17, ILI activity in Mongolia was similar to the previous week, and remains below the upper tolerance limits (Figure 3).

Figure 2: Percentage of visits for ILI at sentinel hospitals in Northern China, 2015-2019
(Source: China National Influenza Center)

Figure 3: Proportion of outpatient ILI visits per 10,000 people, 2016-2019
(Source: Mongolia National Influenza Center)
**Republic of Korea**

In week 17, overall weekly ILI rate was 37.3 ILI cases per 1,000 outpatient visits, lower than last week, 44.2 %, and was higher than the same period in 2014-2015, 2015-2016 and 2016-2017.

![Figure 4: Weekly ILI incidence rate per 1,000 consultations, 2014-2019, Republic of Korea](source: Korean Centres for Disease Control and Prevention)

**Sentinel influenza surveillance**

**Japan**

In week 15 of 2019, influenza activity in Japan increased slightly from 1.46 cases per sentinel hospital in week 14 to 1.67 in week 15, and it is lower than the same period in recent years.

![Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2008-2019](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 with the exception of Southern China, where trends are higher than the past three seasons.

Surveillance

Hong Kong SAR (China) – ILI and hospital Surveillance

In week 17, the average consultation rate for ILI among sentinel general outpatient clinics was 4.3 ILI cases per 1,000 consultations, which was higher compared to the rate recorded in the previous week and showing a trend similar trend to 2018 (Figure 6). The average consultation rate for ILI among sentinel private medical practitioners was 29.6 ILI cases per 1,000 consultations, which was lower than 36.6 recorded in the previous week. (Figure 7).

China (South) - ILI Surveillance

During week 17, the percentage of visits for ILI at national sentinel hospitals in Southern China was 4.2%, same as the last week but higher than the same weeks of 2016-2018 (3.5%, 3.1% and 3.6%) (Figure 8).

Singapore – Acute Respiratory Infection (ARI) Surveillance

In week 17, the average daily number of patients seeking treatment in the polyclinics for ARI was 2,963, a decrease compared to the previous week of 2,995. The proportion of patients with ILI among the polyclinic attendances for ARI was 1.8 % (Figure 9).
Lao PDR

In week 17, ILI activity increased compared to the previous week but remains within the range of previous years (Figure 10).

Figure 8: Percentage of visits due to ILI at national sentinel hospitals in Southern China, 2015-2019
(Source: China National Influenza Center)

Figure 9: Average daily polyclinic attendances for ARI in Singapore, 2017-2019
(Source: Singapore Ministry of Health)

Figure 10: Weekly number of ILI presentations at sentinel sites, 2015-2019, Lao PDR
(Source: Lao National Center for Laboratory and Epidemiology)
In the temperate zone of the southern hemisphere, influenza activity is reported during the influenza season usually starting in May. Influenza activity is unusually high in Australia for this time of year.

**Australia – Laboratory-confirmed influenza and ILI (last update 16 Nov 2018)**

The numbers of laboratory confirmed influenza cases and presentations of ILI to general practitioners in week 43 are low and within historical range. There were 5.9 ILI cases per 1,000 consultations at sentinel general practitioners which was lower than the five year average for the same period (11.8 per 1000 consultations) and year to date there have been 48,276 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.

State and Territory level governments publish year-round reports, and based on these data and data from the Nationally Notifiable Disease Surveillance, influenza activity is unusually high for this time of year. ([source](#))

![Figure 11: Australian notifications of laboratory confirmed influenza](#)

(Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

**New Zealand – Influenza like Illness (last update February 2019)**

As expected for this time of year, across all district Health Boards, rates of GP visits for ILI have remained low over the past few months. The 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 17, the number of ILI cases reported increased in American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Tokelau and Vanuatu. (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 2019 southern hemisphere influenza season Link
- Recommended composition of influenza virus vaccines for use in the 2019-2020 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