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 4 are presented in the table below. Influenza A and B co-circulated throughout 2018 but in recent weeks influenza A(H1N1)pdm09 was predominant (Figure 1).

Table 1: Cumulative data reported to FluNet from Western Pacific Region, weeks 1 to 4, 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 4)</td>
<td>3249</td>
<td>410</td>
</tr>
<tr>
<td>Cambodia (week 4)</td>
<td>87</td>
<td>14</td>
</tr>
<tr>
<td>China (week 4)</td>
<td>78310</td>
<td>26434</td>
</tr>
<tr>
<td>Japan (week 4)</td>
<td>0</td>
<td>750</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic (week 4)</td>
<td>287</td>
<td>74</td>
</tr>
<tr>
<td>Mongolia (week 4)</td>
<td>1221</td>
<td>538</td>
</tr>
<tr>
<td>Philippines (week 4)</td>
<td>102</td>
<td>55</td>
</tr>
<tr>
<td>Republic of Korea (week 4)</td>
<td>1068</td>
<td>337</td>
</tr>
<tr>
<td>Singapore (week 3)</td>
<td>174</td>
<td>78</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region weeks 1 to 5 2019 (Source: www.who.int/flu)
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 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 4, the percentage of visits for ILI at national sentinel hospitals in Northern China was 5.1%, lower than the last week (5.4%), but higher than the same week from 2016 to 2018 (3.6%, 3.8% and 4.8%) (Figure 2).

Mongolia

During week 5, ILI activity in Mongolia decreased from the previous week, and below the upper tolerance limits (Figure 3).
**Republic of Korea**
In week 5, overall weekly ILI rate was 11.3 ILI cases per 1,000 outpatient visits, continues to decrease and showing a similar trend observed during the same period in 2017-2018.

![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 4 of 2019, influenza activity in Japan has increased from 53.9 in week 3 to 57.09 and continues to increase above the same period in 2018 and 2017.

![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 5, the average consultation rate for ILI among sentinel general outpatient clinics was 8.5 ILI cases per 1,000 consultations, which was lower than the previous week (10.4 per 1,000) (Figure 6). The average consultation rate for ILI among sentinel private medical practitioners was 43.3 ILI cases per 1,000 consultations, which was lower than the previous week (61.5 per 1,000) (Figure 7).

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

![Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong SAR 2014-2019](source: Hong Kong Centre for Health Protection)

![Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong SAR 2014-2019](source: Hong Kong Centre for Health Protection)

China (South) – ILI Surveillance

During week 4, the percentage of visits for ILI at national sentinel hospitals in Southern China was 5.4%, lower than the last week (5.9%). It is higher than the same week in 2016 and 2017 (3.1% and 3.3%), but lower than the same week of 2018 (5.7%) (Figure 8).

Singapore – Acute Respiratory Infection (ARI) Surveillance

In week 5, the average daily number of patients seeking treatment in the polyclinics for ARI was 3,428. The proportion of patients with ILI among the polyclinic attendances for ARI was 1.9% (Figure 9).
Lao PDR
In week 5, ILI activity decreased slightly compared to the previous week and is trending similar to previous years (Figure 10).
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 (update until 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.

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

**New Zealand – Influenza like Illness**

As expected for this time of year, across all district Health Boards, rates of GP visit for ILI have remained low over the months as expected. 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 5 the number of ILI cases reported increased in Federated States of Micronesia, and Solomon Islands (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