Virological Surveillance Summary

The total number of specimens and number of positive specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 5 are presented in the table below. In week 5, 2018, both influenza A (H1N1)pdm09 and B(Yamagata lineage) circulated, with minor predominance of A(H1N1)pdm09. (Figure 1).

Table 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 5, 2018

<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 5)</td>
<td>956</td>
<td>99</td>
</tr>
<tr>
<td>Cambodia (week 4)</td>
<td>92</td>
<td>9</td>
</tr>
<tr>
<td>China (week 5)</td>
<td>83,067</td>
<td>31,571</td>
</tr>
<tr>
<td>Japan (week 4)</td>
<td>NA</td>
<td>642</td>
</tr>
<tr>
<td>Lao People's Democratic Republic (week 5)</td>
<td>250</td>
<td>36</td>
</tr>
<tr>
<td>Mongolia (week 5)</td>
<td>725</td>
<td>168</td>
</tr>
<tr>
<td>New Caledonia (week 2)</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td>Philippines (week 4)</td>
<td>85</td>
<td>4</td>
</tr>
<tr>
<td>Republic of Korea (week 5)</td>
<td>1527</td>
<td>892</td>
</tr>
<tr>
<td>Singapore (week 4)</td>
<td>260</td>
<td>120</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 5 2017 to week 5 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, populations under surveillance and data formats differ among countries. This influenza surveillance summary includes countries/areas where routine IBS is conducted and information is available.
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 is higher than the corresponding period of previous years.

Outpatient ILI Surveillance

China (North)

During week 5, the percentage of visits for ILI at national sentinel hospitals in northern China was 4.2%, which is lower than the previous week (4.8%) but higher than the same week of 2015, 2016 and 2017 (3.0%, 3.8% and 3.6%) (Figure 2).

Mongolia

ILI activity in Mongolia increased between week 35 and week 51 of 2017 (Figure 3). ILI activity has since decreased. Mongolia publishes weekly reports, available here: http://www.flu.mn/eng/index.php?option=com_content&task=section&id=5&Itemid=51

Figure 2: Percentage of visits for ILI at sentinel hospitals in north China, 2014-2018
(Source: China National Influenza Center)

Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2015-2018
(Source: Mongolia National Influenza Center)

Republic of Korea

In week 5, there were 35.3 ILI cases per 1,000 outpatient visits, which was lower than the previous week (43.6) (Figure 4). Korea publishes a weekly report, available here: http://www.cdc.go.kr/CDC/info/CdcKrInfo0301.jsp?menuIds=HOME001-MNU1154-MNU0005-MNU0037-MNU1380
Republic of Korea

Figure 4: Weekly ILI incidence rate per 1,000 patients, 2013-2018
(Source: Korean Centre for Disease Control and Prevention)

Sentinel influenza surveillance

Japan
In week 5, influenza activity in Japan has increased to higher levels than previous years (Figure 5). More information about historical trends are available here: https://www.niid.go.jp/niid/en/10/2096-weeklygraph/1644-01flu.html

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/areas in the tropical zone are observing influenza activity that is consistent with previous seasons.

**Surveillance**

**Hong Kong SAR (China) – ILI and hospital Surveillance**

In week 5, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 11.9 ILI cases per 1,000 consultations, which was higher than that recorded in the previous week (9.7) (Figure 6). The average consultation rate for ILI among sentinel private doctors was 75.4 ILI cases per 1,000 consultations, which was lower than the rate recorded in the previous week (76.8) (Figure 7). Hong Kong SAR, China publishes a weekly report, available here: [http://www.chp.gov.hk/en/guideline1_year/29/134/441/304.html](http://www.chp.gov.hk/en/guideline1_year/29/134/441/304.html)

**China (South) – ILI Surveillance**

During week 5, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 5.1%, which is lower than the last week (5.9%), but higher than the same week of 2014, 2015 and 2016 (3.1%, 3.0% and 3.5%) (Figure 6).

**Singapore – Acute Respiratory Infection Surveillance**

The average daily number of patients seeking treatment in polyclinics for acute respiratory infection decreased from 4,048 per working day in week 4, to 3,960 per working day in week 5 (Figure 9). The proportion of patients with ILI among polyclinic attendances for ARI remained at 2.6%. Singapore publishes a weekly report, available here: [http://www.moh.gov.sg/content/moh_web/home/statistics/infectiousDiseasesStatistics/weekly_infectiousdiseasesbulletin.html](http://www.moh.gov.sg/content/moh_web/home/statistics/infectiousDiseasesStatistics/weekly_infectiousdiseasesbulletin.html)
Lao PDR
In week 5, influenza activity decreased compared to the previous week. In week 5 the number of cases is higher than reported in the same week between 2013 and 2016 but similar to reported in week 5 in 2017 (see Figure 10).

Figure 10: Weekly number of ILI presentations at sentinel sites, 2013 to week 5 2018, Lao PDR
(Source: Lao National Center for Laboratory and Epidemiology)
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)**
The number of laboratory confirmed influenza cases has decreased from a peak reached in week 33. As of 27 October 2017 (week 42), a total of 229,579 notifications of laboratory confirmed influenza were reported to the National Notifiable Diseases Surveillance System (Figure 11). Sixty-three percent of notifications were influenza A (57% A(unsubtyped), 4% influenza A(H3N2) and 1% influenza A(H1N1pdm09)), 37% were influenza B and less than 1% were 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. For more information: http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm#current

**New Zealand – Influenza like Illness (no update)**
During week 39, 80 patients with influenza-like illness consulted sentinel general practices in 20 district health boards (DHBs). The weekly ILI incidence was 19.5 per 100 000 patient population. Of the 36 laboratory tested ILI cases, eight were positive for influenza viruses. This gives an ILI related influenza incidence (adjusted) of 4.3 per 100 000 patient population. New Zealand publishes a weekly report, available here: https://surv.esr.cri.nz/virology/influenza_weekly_update.php
Pacific Island Countries and Areas (PICs) - ILI Surveillance

In the Pacific Island Countries and Areas, in week 5, the number of ILI cases reported compared to previous weeks increased in Kiribati, Micronesia, and Tonga (Figure 13). The PICs submit a report on a weekly basis, for more information: http://www.wpro.who.int/southpacific/programmes/communicable_diseases/disease_surveillance_response/page/en/index2.html
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

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

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=8mo8rW/1Zkc
Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY

Figure 13: Reported cases of influenza-like illness in Pacific Island Countries, 2018