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 45 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 45, 2017

<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 45)</td>
<td>48,371</td>
<td>9,769</td>
</tr>
<tr>
<td>Cambodia (week 43)</td>
<td>1,122</td>
<td>207</td>
</tr>
<tr>
<td>China (week 45)</td>
<td>555,427</td>
<td>74,904</td>
</tr>
<tr>
<td>Fiji (week 42)</td>
<td>424</td>
<td>107</td>
</tr>
<tr>
<td>Japan (week 44)</td>
<td>NA</td>
<td>7,564</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic (week 45)</td>
<td>4,363</td>
<td>735</td>
</tr>
<tr>
<td>Malaysia (week 35)</td>
<td>3,503</td>
<td>467</td>
</tr>
<tr>
<td>Mongolia (week 42)</td>
<td>2,512</td>
<td>414</td>
</tr>
<tr>
<td>New Caledonia (week 42)</td>
<td>848</td>
<td>155</td>
</tr>
<tr>
<td>New Zealand (week 18-39)</td>
<td>2,307</td>
<td>945</td>
</tr>
<tr>
<td>Papua New Guinea (week 39)</td>
<td>281</td>
<td>24</td>
</tr>
<tr>
<td>Philippines (week 37)</td>
<td>942</td>
<td>191</td>
</tr>
<tr>
<td>Republic of Korea (week 42)</td>
<td>9,212</td>
<td>755</td>
</tr>
<tr>
<td>Singapore (week 44)</td>
<td>1,756</td>
<td>910</td>
</tr>
<tr>
<td>Viet Nam (week 37)</td>
<td>1,535</td>
<td>389</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 47 2016 to week 45 2017 (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 are consistent with seasonal trends.

Outpatient ILI Surveillance

China (North)

During week 45, the percentage of visits for ILI at national sentinel hospitals in northern China was 2.8%, which is higher than the previous week (2.7%) as well as the same week of 2014, 2015 and 2016 (2.6%, 2.5% and 2.7%) (Figure 2).

Mongolia

ILI activity remained at expected levels during week 45 compared to the previous week and seasons. The most recent peak in ILI activity occurred in week 4 of 2017 (Figure 3). 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 northern China, 2014-2017
(Source: China National Influenza Center)

Republic of Korea

In week 45, there were 5.3 ILI cases per 1,000 outpatient visits, which was higher than the previous week (5.2). ILI activity remained stable and below the established baseline (6.6 per 1,000 outpatient visits) (Figure 4). Korea publishes a weekly report, available here: http://www.cdc.go.kr/CDC/info/CdcKrlInfo0301.jsp?menulds=HOME001-MNU1154-MNU0005-MNU0037-MNU1380

Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2014-2017
(Source: Mongolia National Influenza Center)
Figure 4: Weekly ILI incidence rate per 1,000 patients, 2013-2017
(Source: Korean Centre for Disease Control and Prevention)

Sentinel influenza surveillance

Japan
In week 44, influenza activity in Japan shows a similar seasonal pattern to previous years with few influenza cases reported weekly per reporting sentinel hospital (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 2007-2017
(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 45, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 4.7 ILI cases per 1,000 consultations, which was higher than that recorded in the previous week (2.9) (Figure 6). The average consultation rate for ILI among sentinel private doctors was 43.8 ILI cases per 1,000 consultations, which was higher than the rate recorded in the previous week (37.8) (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
China (South) - ILI Surveillance
During week 45, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 2.9%, lower than the last week (3.0%), higher than the same week of 2014 and 2015 (2.2% and 2.5%, respectively) and equal to the same week of 2016 (2.9%) (Figure 6).

Singapore – Acute Respiratory Infection Surveillance
The average daily number of patients seeking treatment in polyclinics for acute respiratory infection decreased from 2,882 per working day in week 44, to 2,862 per working day in week 45 (Figure 9). The proportion of patients with ILI among polyclinic attendances for ARI remained at 1.6%. 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 45 (seven sentinel sites reporting), influenza activity decreased compared to the previous week (six sentinel sites reporting). In week 45 the number of cases is higher than that reported in the same week between 2012 and 2015 but lower than that reported in 2016 (see Figure 10).

![Figure 10: Weekly number of ILI presentations at sentinel sites, 2012 to week 45 2017, 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
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](http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm#current)

![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 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

![Weekly resident ILI and influenza incidence since Week 1 of 2017 in New Zealand](image)
(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 44, the number of ILI cases reported compared to previous weeks increased in several PICs, including Kiribati, Niue, Samoa and Vanuatu (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=8mo8rWUIZkc
Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY