Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 10, and the number of influenza positive specimens 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 10, 2017

<table>
<thead>
<tr>
<th>Country (most recent week)</th>
<th>Total number of specimens processed</th>
<th>Total number of influenza positive specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (week 10)</td>
<td>5027</td>
<td>329</td>
</tr>
<tr>
<td>Cambodia (week 10)</td>
<td>244</td>
<td>8</td>
</tr>
<tr>
<td>China (week 9)</td>
<td>105,893</td>
<td>15,220</td>
</tr>
<tr>
<td>Fiji (week 38 /2016)</td>
<td>349</td>
<td>120</td>
</tr>
<tr>
<td>Japan (week 97)</td>
<td>NA</td>
<td>2,389</td>
</tr>
<tr>
<td>Lao People's Democratic Republic (week 10)</td>
<td>878</td>
<td>139</td>
</tr>
<tr>
<td>Malaysia (week 30 /2016)</td>
<td>2,461</td>
<td>212</td>
</tr>
<tr>
<td>Mongolia (week 10)</td>
<td>1310</td>
<td>395</td>
</tr>
<tr>
<td>New Caledonia (week 51/2016)</td>
<td>1,459</td>
<td>302</td>
</tr>
<tr>
<td>New Zealand (week 39/2016)</td>
<td>942</td>
<td>298</td>
</tr>
<tr>
<td>Papua New Guinea (week 51/2016)</td>
<td>410</td>
<td>144</td>
</tr>
<tr>
<td>Philippines (week 10)</td>
<td>184</td>
<td>8</td>
</tr>
<tr>
<td>Republic of Korea (week 10)</td>
<td>2,406</td>
<td>393</td>
</tr>
<tr>
<td>Singapore (week 10)</td>
<td>304</td>
<td>147</td>
</tr>
<tr>
<td>Viet Nam (week 6)</td>
<td>191</td>
<td>22</td>
</tr>
</tbody>
</table>

Figure 1: Number of influenza positive specimens by subtype and week, Western Pacific Region, 2016-17 (accessed 20 March 2017)
Influenza surveillance summary

Influenza surveillance in the WHO Western Pacific Region is based on outpatient and inpatient sentinel surveillance systems. Case definitions, populations under surveillance and data formats differ among these countries. This influenza surveillance summary includes countries where routine surveillance is conducted and information is available from syndromic surveillance systems for Influenza-like-illness (ILI) and Severe Acute Respiratory Infections (SARI).

The WHO surveillance case definition for 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 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 but indicate an earlier start to the influenza season compared to 2016.

Outpatient ILI Surveillance

China (North)

During week 10, the percentage of visits for ILI at national sentinel hospitals in northern China was 3.2%, higher than last week and the same week of 2015 (3.0% and 2.6% respectively), but lower than the same week of 2016 (3.8%).(Figure 2).

Mongolia

ILI activity in Mongolia increased around week 30 of 2016, following seasonal trends. During week 10 of 2017, the ILI activity increased compared to the previous week (Figure 3).

Republic of Korea

In December 2016, the number of ILI cases was higher than usual (152.2 per 1,000 outpatient consultations from 11 – 17 December) and ILI cases peaked at 86.2 per 1,000 patients in week 52; this was in part due to an increase in the number of ILI cases from elementary, middle and high schools. In week 10, 2017, there were 7.0 ILI cases per 1,000, which was higher than 6.1 ILI cases per 1,000 patients reported in the previous week. (Figure 4).

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Figure 2: Percentage of visits for ILI at sentinel hospitals in north China, 2012-2017 (Source: China National Influenza Center)

Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2014-2017 (Source: Mongolia National Influenza Center)
Sentinel influenza surveillance

Japan
As of 3 March 2017 (week 9), influenza activity is following seasonal trends with 13.55 cases per sentinel site in week 9. This is a decrease compared to week 8, 2017 when 16.87 cases were reported per sentinel. (Figure 5).
Countries/areas in the tropical zone

In weeks 1 to 8 of 2017, ILI or ARI activity followed previous seasonal trends in countries/areas in the tropical zone.

Outpatient Surveillance

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

In week 10, the average consultation rate for ILI among sentinel general outpatient clinics (GOPCs) was 5.4 ILI cases per 1,000 consultations, which was lower than 5.7 recorded in the previous week (Figure 6). The average consultation rate for ILI among sentinel private doctors was 59.1 ILI cases per 1,000 consultations, which was higher than 54.5 recorded in the previous week (Figure 7).

Among the respiratory specimens received in week 10, 8.43% tested positive for seasonal influenza viruses, which was lower than 9.38% recorded in the previous week. Influenza A(H3) was the predominant subtype detected comprising 86.5% of respiratory specimens. Other viruses detected were influenza A(H1) (4.5%), influenza B (7.9%), and influenza C (1.1%).

**China (South) - ILI Surveillance**

During week 10, the percentage of outpatient or emergency visits for ILI (ILI %) at national sentinel hospitals in southern China was 3.0%, same as last week (3.0%), higher than the same week of 2015 (2.4%), lower than the same week of 2016 (3.6%).

**Singapore – ARI Surveillance**

The average daily number of patients seeking treatment in the polyclinics for ARI decreased from 3,008 (over 5.5 working days) in week 9 to 3,038 (over 5.5 working days) in week 10 (Figure 9).

The proportion of patients with ILI among polyclinic attendances for ARI remained low at 2.2%. The overall positivity rate for influenza virus among ILI samples (n=136) in the community was 42.6% in the past 4 weeks. Of influenza-positive specimens in February 2017, the majority were influenza A(H3N2) (39.4%), followed by influenza B (36.6%) and influenza A(H1N1)pdm09 (19.7%).
China (South) - ILI Surveillance

Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2012-2017 (Source: China National Influenza Center)

Singapore - ARI Surveillance

Figure 9: Average daily polyclinic attendances for ARI, Singapore 2015-2017 (Source: Singapore Ministry of Health)

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)

As of 28 October 2016, a total of 83,092 notifications of laboratory confirmed influenza were reported to the National Notifiable Diseases Surveillance System (Figure 10). Ninety percent of notifications were influenza A (73% A (unsubtyped), 6% influenza A(H1N1)pdm09 and 11% influenza A(H3N2), 10% were influenza B and less than 1% were influenza C, 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. Source: [http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm/$File/Australian-Influenza-Surveillance-Report.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm/$File/Australian-Influenza-Surveillance-Report.pdf)

Figure 10: Australian notifications of laboratory confirmed influenza (Source: National Notifiable Diseases Surveillance System, Australian Department of Health)
**New Zealand – Influenza like Illness (no update)**

In week 39, ending 2 October 2016, 24 patients with ILI consulted sentinel general practices in 20 District Health Boards. The weekly ILI incidence was 4.4 ILI cases per 100,000 patients. Of the 14 tested ILI cases, 4 were positive for influenza viruses, yielding an influenza-associated ILI incidence rate of 1.3 ILI cases per 100,000 patients (adjusted).

![Weekly resident ILI and influenza incidence since (Week 18) 2 May 2016 in New Zealand](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 10, the number of ILI cases reported increased in Solomon Islands and Vanuatu (Figure 12).

![Reported cases of influenza-like illness (red line) in Pacific Island Countries, 2017](source: Pacific Syndromic Surveillance System)
Global influenza situation updates


Global update: http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/

Others:

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/


Video on influenza on WHO's YouTube Channel
Arabic: https://www.youtube.com/watch?v=PxW6Pa1Anwl
Chinese: https://www.youtube.com/watch?v=xW9gDKEPitQ
English: https://www.youtube.com/watch?v=yhhJfT86Bgg
French: https://www.youtube.com/watch?v=Bmo8rWWJZkc
Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ
Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY

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