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 42 of 2022 are presented in Table 1 below. Influenza A and B are co-circulating, however, the majority of cases reported from week 1 to week 42 2022 have been Influenza A (Figure 1). Caution should be taken when interpreting these data as there are reporting delays.

<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 (42 of 2022)</td>
<td>233,537</td>
<td>11,581</td>
</tr>
<tr>
<td>Cambodia (40 of 2022)</td>
<td>4,801</td>
<td>177</td>
</tr>
<tr>
<td>China (42 of 2022)</td>
<td>400,472</td>
<td>68,429</td>
</tr>
<tr>
<td>Fiji (39 of 2022)</td>
<td>1,444</td>
<td>210</td>
</tr>
<tr>
<td>Japan (41 of 2022)</td>
<td>-</td>
<td>48</td>
</tr>
<tr>
<td>Lao People's Democratic Republic (41 of 2022)</td>
<td>3,724</td>
<td>438</td>
</tr>
<tr>
<td>Malaysia (42 of 2022)</td>
<td>28,024</td>
<td>3,660</td>
</tr>
<tr>
<td>Mongolia (38 of 2022)</td>
<td>4,121</td>
<td>273</td>
</tr>
<tr>
<td>New Caledonia</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>New Zealand</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Philippines (40 of 2022)</td>
<td>2,278</td>
<td>135</td>
</tr>
<tr>
<td>Republic of Korea (42 of 2022)</td>
<td>5,654</td>
<td>57</td>
</tr>
<tr>
<td>Singapore (40 of 2022)</td>
<td>5,470</td>
<td>580</td>
</tr>
<tr>
<td>Viet Nam (41 of 2022)</td>
<td>165</td>
<td>43</td>
</tr>
</tbody>
</table>

Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 42, 2021 to week 42, 2022 (Source: WHO FLUNET)
**Influenza surveillance summary**

Influenza surveillance in the WHO Western Pacific Region is based on outpatient and inpatient 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](https://www.who.int/health-topics/influenza#tab-2) for influenza-like illness (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 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 similar to the corresponding period from previous years.

**Outpatient ILI Surveillance**

**China (North)**

During week 42 of 2022, sentinel hospitals in the northern provinces reported an ILI% of 2.7%, increased from the previous week's level of 2.6% and higher than the same week in 2019–2020 (2.4%, 2.2%, and 2.3%) (Figure 2).

![Figure 2: Percentage of visits for ILI at sentinel hospitals in Northern China, 2019-2022](source: China National Influenza Center)
Mongolia
During week 42 of 2022, the ILI activity in Mongolia increased to 64 ILI cases per 10,000 population. This is higher than the upper tolerance limit (Figure 3).

![Figure 3: Proportion of outpatient ILI visits per 10,000 people in Mongolia, 2020-2022](Source: Mongolia National Influenza Center)

Republic of Korea
In week 43 of 2022, the overall weekly ILI rate was 7.6 ILI cases per 1,000 outpatient visits, which is higher than the previous week (6.2 per 1,000 outpatients) (Figure 4).

![Figure 4: Weekly ILI incidence rate per 1,000 outpatient consultations, Republic of Korea, 2017-2022](Source: Korean Centres for Disease Control and Prevention)
Sentinel influenza surveillance

Japan
In week 41 of 2022, the number of cases reported weekly by sentinel hospital sites remained very low in Japan. The number of cases in 2022 has been consistently low (Figure 5).

![Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2012-2022](Source: Japan National Institute of Infectious Diseases)

Countries/areas in the tropical zone
ILI and influenza activity is similar to the corresponding period from previous years in some of the countries and areas in the tropical zone.

Hong Kong SAR (China) – ILI and hospital Surveillance
The latest surveillance data showed that the overall seasonal influenza activity in Hong Kong remained low. In week 43, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 0.7 ILI cases per 1,000 consultations, which was lower than 0.8 recorded in the previous week (Figure 6). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 18.2 ILI cases per 1,000 consultations, which was higher than 11.9 recorded in the previous week (Figure 7).
Bi-weekly Influenza Situation Update

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China (South) - ILI Surveillance

During week 42 of 2022, the percentage of visits for ILI at national sentinel hospitals in Southern China was 3.1%, higher than the last week (2.9%), higher than the same period in 2019 and 2021 (2.9% and 3.0%), and consistent with the same week of 2020 (3.1%) (Figure 8).

Figure 8: Percentage of visits due to ILI at national sentinel hospitals in Southern China, 2019-2022
(Source: China National Influenza Center)

Singapore – Acute Respiratory Infection (ARI) Surveillance

In week 42 of 2022, the average daily number of patients seeking treatment in the polyclinics for ARI is 3,342 (over 5.5 working days) (Figure 9). The proportion of patients with influenza-like illness (ILI) among the polyclinic attendances for ARI is 0.7. Of 1,187 samples tested for influenza in the past four weeks, the positivity rate in the community was 21.1%. Of the 253 specimens tested positive for influenza in Sep 2022, 244 were positive for Influenza A(H3N2) (96.4%), 2 were positive for Influenza A(pH1N1) (0.8%) and 7 were positive for Influenza B (2.8%) (Figure 10).
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Figure 9: Average daily polyclinic attendances for ARI in Singapore, 2021-2022
(Source: Singapore Ministry of Health)

Figure 10: Monthly influenza surveillance for ARI in Singapore, 2020-2022
(Source: Singapore Ministry of Health)

Lao PDR
During week 42 of 2022, the number of ILI cases presenting at sentinel sites was 33 cases higher than the previous week. There were 111 samples tested for influenza in week 42, 2022. All 111 samples tested positive for influenza, including 8 cases for Influenza B Victoria and 12 cases for Flu A/H3 (Figure 11).

Figure 11: Weekly number of ILI cases at sentinel sites (2018 to 2022)
(Source: Lao National Center for Laboratory and Epidemiology)

Cambodia
In week 42 of 2022, Ministry of Health received data from all seven-sentinel sites in Cambodia. The number of ILI cases in Cambodia slightly increased in week 42 of 2022 (126 cases) compared to week 41 of 2022 (123 cases). The influenza positivity rate increased and peaked in week 41 of 2022 (72.73%). The influenza positivity rate in week 42 was 72.22% (Figure 12).
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 in Australia and New Zealand.

**Australia – Laboratory-confirmed influenza**

In the year to date (until 09 October 2022), there have been 225,332 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia. Of these, 698 notifications had a diagnosis date in the latest reported fortnight (26 September–09 October 2022). This is lower than the number of notifications with a diagnosis date in the previous fortnight (n=841). The weekly number of notifications of laboratory-confirmed influenza in 2022 has decreased to below the weekly 5 year average since mid-July. (Figure 13).
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Figure 13: Notifications of laboratory-confirmed influenza by month and week from 2017 to 2022 in Australia
(Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand – Influenza like Illness
There were no updates in this reporting period. In the fortnight to 30 September, influenza like illness (ILI) activity increased slightly (Figure 14). The ILI consultation rate remained stable in the week to 30 September and is at the lowest point since May, lower than the historical rate for this time of year. The districts with the highest ILI consultation rates were Counties Manukau and Tairawhiti.

Figure 14: Weekly rates of general practice ILI consultations per 100,000 people in New Zealand in 2020-2022
(Source: New Zealand Institute of Environmental Science and Research)
Pacific Island Countries and Areas (PICs) - ILI Surveillance
In week 42 of 2022, 12 out of 18 PICs reported ILI surveillance data. The following countries reported increased influenza-like illness activity, compared with 2019–2021 trends: Marshall Islands, Commonwealth of Northern Mariana Islands, Solomon Islands, Tonga, Tuvalu, and Vanuatu (Figure 15).
CNMI ILI Trend 2019 - 2022 (WK 42)

New Caledonia ILI Trend 2019 -2022 (WK 42)

Niue ILI Trend 2019 - 2022 (WK42)

Palau ILI Trend 2019 - 2022 (WK 42)

Pitcairn Islands ILI Trend 2019 - 2022 (WK 42)

Samoa ILI Trend 2019 -2022 ( WK 42)
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*Caution should be taken in interpreting these data as there may be changes in the number of sentinel sites reporting to the Pacific Syndromic Surveillance System.

** FSM: Federated States of Micronesia, CMNI: Commonwealth of Northern Mariana Islands

** Figure 15: Reported cases of influenza-like illness in Pacific Island Countries, 2019-2022
(Source: Pacific Syndromic Surveillance System Weekly Bulletin)
Global influenza situation updates

Virological update

Global update

Others:
- New recommended composition of influenza virus vaccines for use in the 2023 southern hemisphere influenza season [Link]
- Recommended composition of influenza virus vaccines for use in the 2022-2023 northern hemisphere influenza season [Link]
- WHO Consultation on the Composition of Influenza Virus Vaccines for Use in the 2023 Southern Hemisphere Influenza Season 19-22 September 2022 [Link]
- WHO issues updated influenza vaccines position paper [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