Bi-weekly Influenza Situation Update

1 January 2020

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 51 are presented in the table below. Influenza A and B are cocirculating in the region, with influenza A (H3) and influenza B (Victoria lineage) showing increasing trend in levels of activity in recent weeks (**Figure 1**).

Table 1: Cumulative data reported to FluNet from Western Pacific Region, weeks 1 to 51, 2019

Country (most recent week of report)	Total number of specimens processed	Total number of influenza positive specimens
Australia (51)	90851	13934
Cambodia (50)	1147	302
China (51)	695775	114731
Fiji (50)	496	185
Japan (50)	0	7763
Lao People's Democratic Republic (51)	3823	570
Malaysia (48)	4326	919
Mongolia (49)	3531	754
New Caledonia (45)	2160	540
New Zealand (33)	1963	957
Papua New Guinea (45)	134	19
Philippines (51)	1449	346
Republic of Korea (51)	11815	1584
Singapore (49)	3276	511
Viet Nam (46)	1478	327

Number of specimens positive for influenza by subtype

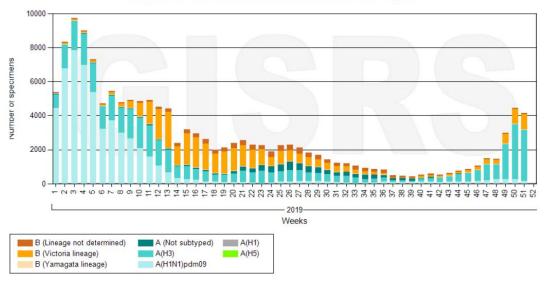


Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, weeks 1 to 51, 2019 (Source: WHO FLUNET)

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, 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 countries within the temperate zone of the Northern Hemisphere, influenza activity is within normal seasonal trends observed during the corresponding period from previous years.

Outpatient ILI Surveillance

China (North)

During week 51, the percentage of visits for ILI at national sentinel hospitals in Northern China was 5.3%, higher than the last week (4.7%), higher than the same week of 2016-2018 (3.5%, 5.2% and 3.7%) (Figure 2).

Mongolia

During week 51 ILI activity in Mongolia was higher than the previous week and became above the seasonal trend (Figure 3).

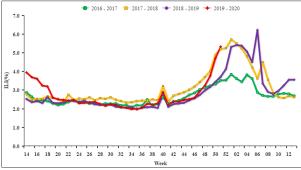


Figure 2: Percentage of visits for ILI at sentinel hospitals in Northern China, 2016-2020

(Source: China National Influenza Center)

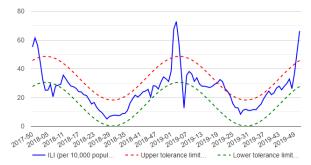


Figure 3: Proportion of outpatient ILI visits per 10,000 people in Mongolia, 2017-2019 (Source: Mongolia National Influenza Center)

Republic of Korea

In week 51, the overall weekly ILI rate was 37.8 ILI cases per 1,000 outpatient visits, higher than the previous week with 28.5 ILI cases per 1,000 outpatient visits, following trends seen in previous years (Figure 4).

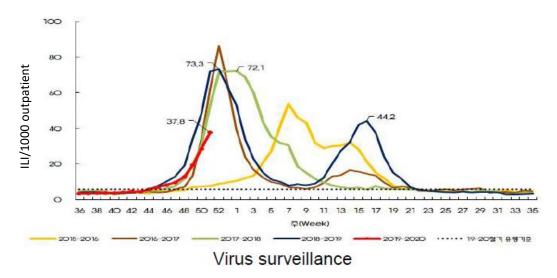


Figure 4: Weekly ILI incidence rate per 1,000 consultations, Republic of Korea, 2014-2019 (Source: Korean Centres for Disease Control and Prevention)

Sentinel influenza surveillance

<u>Japan</u>

In week 50 of 2019, influenza sentinel hospital activity is increasing in Japan and higher than the same period in recent years (Figure 5).

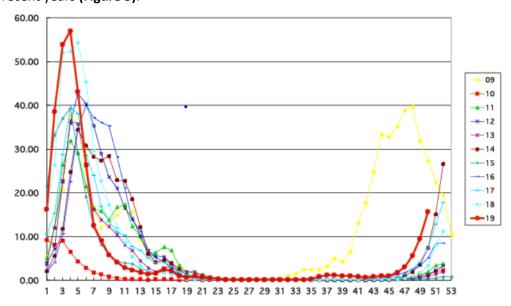


Figure 5: Number of influenza cases reported weekly per reportingsentinel hospital site, Japan 2009-2019 (Source: Japan National Institute of Infectious Diseases)

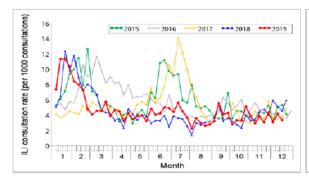
Countries/areas in the tropical zone

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

Surveillance

Hong Kong SAR (China) – ILI and hospital Surveillance

In week 51, the average consultation rate for ILI among sentinel general outpatient clinics was 3.4 ILI cases per 1,000 consultations, which was lower than 4.2 ILI cases per 1,000 consultations recorded in the previous week and within expected seasonal levels compared to previous years (Figure 6). The average consultation rate for ILI among sentinel private medical practitioners was 28.0 ILI cases per 1,000 consultations, which was higher than 26.4 recorded in the previous week (Figure 7).



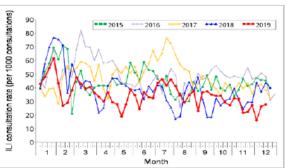


Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong SAR 2015-2019

(Source: Hong Kong Centre for Health Protection)

Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong SAR 2015-2019

(Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance

During week 51, the percentage of visits for ILI at national sentinel hospitals in Southern China was 5.6%, higher the previous week (5.3%), higher than the same week of 2016-2018 (3.3%, 4.3% and 3.8%). (Figure 8)

Singapore – Acute Respiratory Infection (ARI) Surveillance

In week 51, the average daily number of patients seeking treatment in the polyclinics for ARI was 3,050 over 5.5 working days, which is slightly lower than the previous week (30,62 over 5.5 working days). (Figure 9).

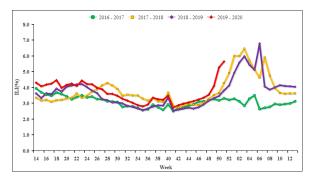


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in Southern China, 2016-2019 (Source: China National Influenza Center)

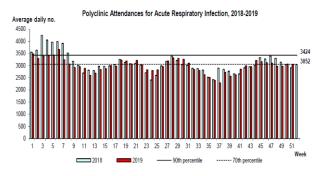


Figure 9: Average daily polyclinic attendances for ARI in Singapore, 2018-2019 (Source: Singapore Ministry of Health)

Lao PDR

In week 51, the number of ILI cases presenting to sentinel sites was lower compared to the previous week and is within trends seen in past years. (Figure 10).

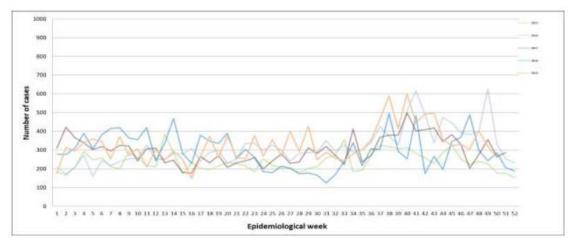


Figure 10: Weekly number of ILI presentations at sentinel sites, 2015-2019, Lao PDR (Source: Lao National Center for Laboratory and Epidemiology)

Countries in the temperate zone of the southern hemisphere

In the temperate zone of the southern hemisphere, influenza activity is reported during the influenza season usually starting in May. Influenza activity increased unusually early in Australia however there are indications that activity is now decreasing.

Australia – Laboratory-confirmed influenza and ILI (No update)

In week 40, there were 3.9 ILI per 1,000 consultations at sentinel general practitioners, decreasing from the seasonal high of 13.3 per 1,000 consultations in week 28 and lower than the 5 year average for this time of year. There have been 298,120 laboratory-confirmed cases of influenza reported to the National Notifiable Diseases Surveillance System. While number of cases was slightly lower than the five year average, there has been a marked decrease in notifications per week following a peak in week 27 and now showing a weekly trend similar to that seen in past years. (Figure 11).

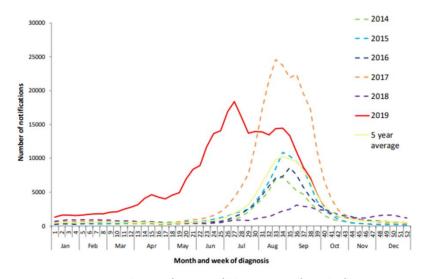


Figure 11: Australian notifications of laboratory confirmed influenza (Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand - Influenza like Illness (No update)

There were 4 general practice visits for Influenza-like Illness per every 100,000 registered patients followed in New Zealand during the week ending 29 September. General Practice visits for influenza-like illness are well below the baseline level in the week ending 29 September, with a decrease compared to the previous week. (Figure 12).

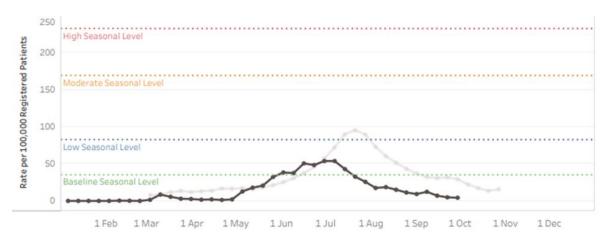


Figure 12: Weekly General Practice ILI Rates in New Zealand (Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)

Pacific Island Countries and Areas (PICs) - ILI Surveillance

In the Pacific Island Countries and Areas, in week 50 the number of ILI cases reported increased in several PICs, including Samoa, RMI, Solomon Island and Mariana Islands. (Figure 13).



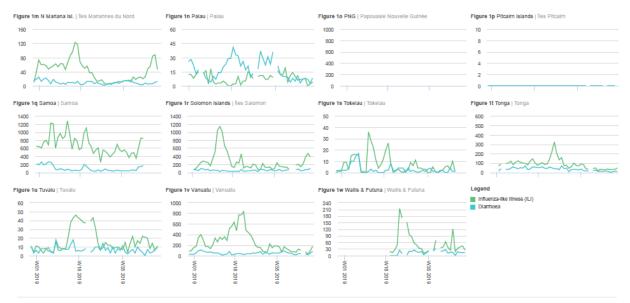


Figure 13: Reported cases of influenza-like illness in Pacific Island Countries (Source: PacNet bulletin)

Global influenza situation updates

Virological update

Global update

Others:

- Recommended composition of influenza virus vaccines for use in the 2019 southern hemisphere influenza season Link
- Recommended composition of influenza virus vaccines for use in the 2019-2020 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