Bi-weekly Influenza Situation Update

15 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 3 2019 and week 1 2020 are presented in the table below. Influenza A and B are cocirculating in the region, with influenza A (H3) predominating but influenza B (Victoria lineage) increasing with a slight decrease in levels of activity in recent weeks (**Figure 1**). It should be noted that several countries and areas have not reported in 2020.

Table 1: Cumulative data reported to FluNet from Western Pacific Region, week 3 2019 to week 1 2020

Country (most recent week of report)	Total number of specimens processed	Total number of influenza positive specimens
Australia (1)	91995	13827
Cambodia (52)	1153	305
China (1)	694069	115385
Fiji (50)	496	185
Japan (51)	-	7101
Lao People's Democratic Republic (1)	3826	582
Malaysia (50)	4369	988
Mongolia (52)	3660	720
New Caledonia (52)	2204	538
New Zealand (33)	1963	957
Papua New Guinea (45)	131	18
Philippines (51)	1411	320
Republic of Korea (52)	11623	1500
Singapore (52)	3451	1108
Viet Nam (51)	1610	354

Number of specimens positive for influenza by subtype

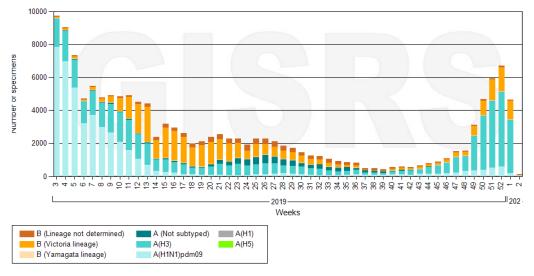


Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 3 2019 to week 1 2020 (Source: WHO FLUNET)

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, ILI and influenza activity increased slightly earlier than in previous seasons in China and Japan.

Outpatient ILI Surveillance

China (North)

During week 1 2020, the percentage of visits for ILI at national sentinel hospitals in Northern China was 5.9%, higher than the last week (5.5%) and the same week of 2016-2019 (3.8%, 5.7% and 5.3%) (Figure 2).

Mongolia

During week 1 2020, ILI activity in Mongolia was lower than the previous week and was back below the upper tolerance limits following a peak at the end of 2019 (Figure 3).

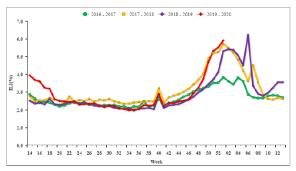


Figure 2: Percentage of visits for ILI at sentinel hospitals in Northern China, 2016-2020

(Source: China National Influenza Center)

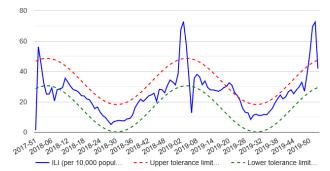


Figure 3: Proportion of outpatient ILI visits per 10,000 people in Mongolia, 2017-2020(Source: Mongolia National Influenza Center)

Republic of Korea

In week 1 2020, the overall weekly ILI rate was 49.1 ILI cases per 1,000 outpatient visits, slightly lower than the previous week with 49.8 ILI cases per 1,000 outpatient visits, lower than rates seen during the same week of previous years (Figure 4).

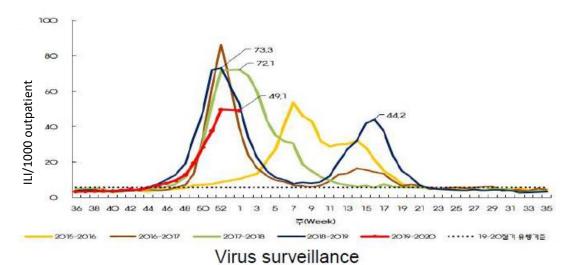


Figure 4: Weekly ILI incidence rate per 1,000 consultations, Republic of Korea, 2015-2020 (Source: Korean Centres for Disease Control and Prevention)

Sentinel influenza surveillance

<u>Japan</u>

In week 51 of 2019, influenza sentinel hospital activity is increasing in Japan and higher than in the same period in recent years. Influenza activity increased slightly earlier than in previous seasons (Figure 5).

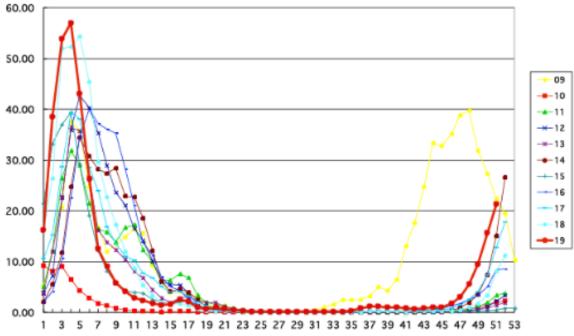


Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2009-2019

(Source: Japan National Institute of Infectious Diseases)

Countries/areas in the tropical zone

ILI and influenza activity continued to increase in most of the countries and areas.

Surveillance

Hong Kong SAR (China) – ILI and hospital Surveillance

In week 1 2020, the average consultation rate for ILI among sentinel general outpatient clinics was 4.1 ILI cases per 1,000 consultations, which was higher than 3.2 ILI cases per 1,000 consultations recorded in the previous week and similar with last year (Figure 6). The average consultation rate for ILI among sentinel private medical practitioners was 28.7 ILI cases per 1,000 consultations, which was lower than 29.1 recorded in the previous week and lower than previous years (Figure 7).

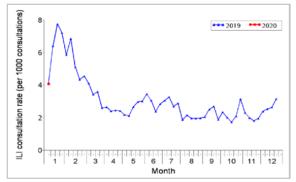


Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong SAR 2019-2020 (Source: Hong Kong Centre for Health Protection)

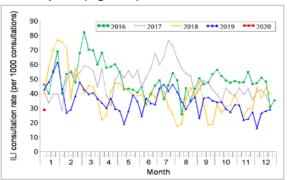


Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong SAR 2016-2020 (Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance

During week 1 2020, the percentage of visits for ILI at national sentinel hospitals in Southern China was 6.6%, higher than the previous week (5.3%) and the same week of 2016-2019 (3.3%, 6.0% and 4.9%). ILI activity increased slightly earlier and to a higher level compared with previous seasons (Figure 8).

Singapore – Acute Respiratory Infection (ARI) Surveillance

In week 1 2020, the average daily number of patients seeking treatment in the polyclinics for ARI was 3,842 over 4 working days, which is slightly higher than the previous week (Figure 9).

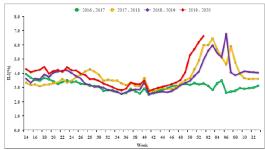


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in Southern China, 2016-2020 (Source: China National Influenza Center)

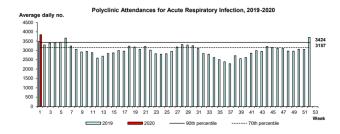


Figure 9: Average daily polyclinic attendances for ARI in Singapore, 2019-2020 (Source: Singapore Ministry of Health)

Lao PDR

In week 1 2020, the number of ILI cases presenting to sentinel sites was higher compared to the previous week (Figure 10).

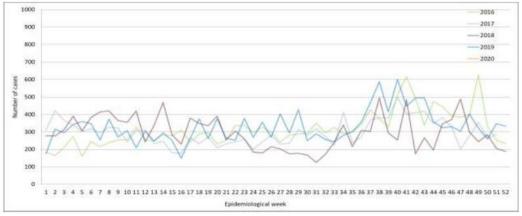


Figure 10: Weekly number of ILI presentations at sentinel sites, 2016-2020, Lao PDR (Source: Lao National Center for Laboratory and Epidemiology)

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. Currently influenza activity remained at low inter-seasonal levels.

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).

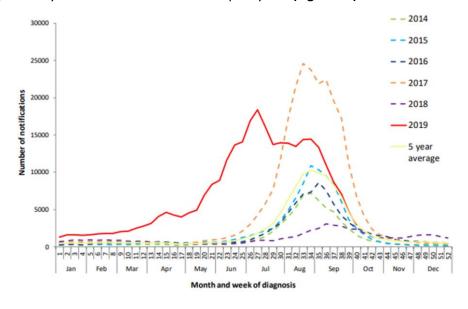


Figure 11: Australian notifications of laboratory confirmed influenza (Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand - Influenza like Illness (No update)

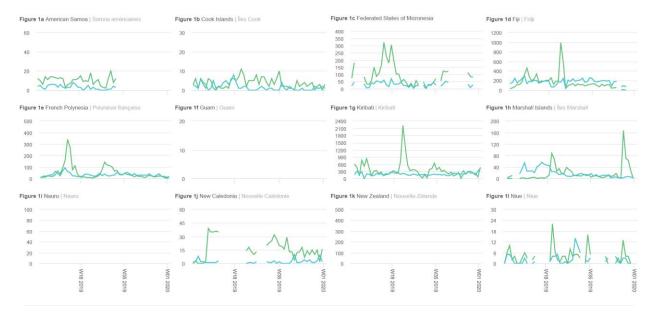
There were 4 general practice visits for Influenza-like Illness per every 100,000 registered patients followed in New Zealand during the week ending 29 September. General Practice visits for influenza-like illness are well below the baseline level in the week ending 29 September, with a decrease compared 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 1 2020, the number of ILI cases reported increased in several PICs, including in Cook Islands, French Polynesia, Kiribati, New Caledonia, and Palau (Figure 13).



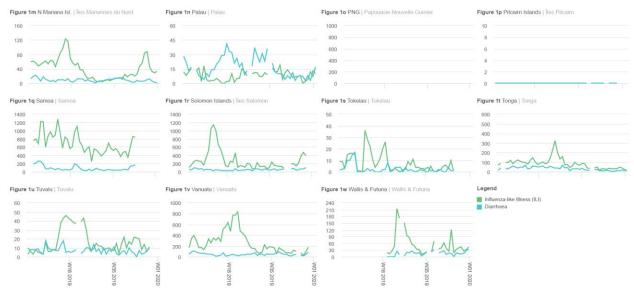


Figure 13: Reported cases of influenza-like illness in Pacific Island Countries (Source: PacNet bulletin)

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