Bi-weekly Influenza Situation Update

05 July 2016

Virological Surveillance Summary

In the WHO Western Pacific Region, influenza virus B (Victoria lineage) predominated during week 25, 2016.

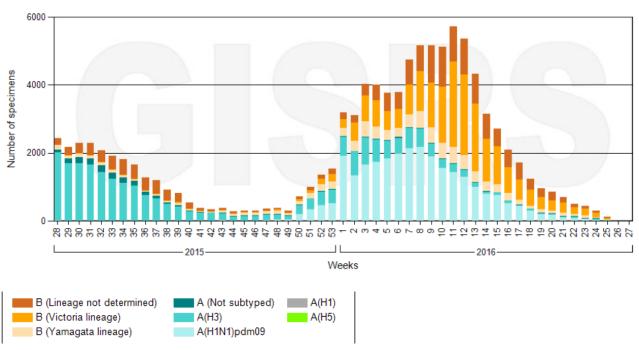
The number of specimens provided to FluNet by each of the Western Pacific Region countries and areas that reported between week 1 and week 25, and proportion of all specimens contributed by each country is presented in the table below.

Table 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 25, 2016

Country	Total (%)
China	331434 (95.7)
Republic of Korea	5547 (1.6)
Mongolia	2638 (0.8)
Lao People's Democratic Republic	1748 (0.5)
Malaysia	1648 (0.5)
Singapore	1004 (0.3)
Cambodia	610 (0.2)
New Caledonia	605 (0.2)
Philippines	481 (0.1)
Viet Nam	404 (0.1)
Papua New Guinea	285 (0.1)

Figure 1: Number of specimens positive for influenza by subtype and week, Western Pacific Region, 2015-16 (accessed 04 July 2016)

Number of specimens positive for influenza by subtype



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 ≥38°C and cough, with symptom onset within the last 10 days. For SARI, it is an acute respiratory infection 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 remained at low levels.

Outpatient ILI Surveillance

China (North) (No update)

During week 21 2016, the percentage (%) of visits for ILI at national sentinel hospitals in north China was 2.4%, the same as last week, and lower than the same week in 2014 (2.5%), but higher than the same week in 2015 (2.3%) (Figure 2).

Mongolia

In week 24, 2016, ILI activity in Mongolia continued to decrease (Figure 3).

Republic of Korea

In week 25, 2016, the rate of ILI patient visits to sentinel physicians was 5.1/1,000 outpatients which is below the national baseline of 11.3/1,000 (Figure 4).

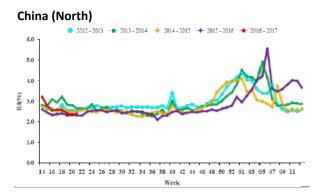


Figure 2: Percentage of visits for ILI at sentinel hospitals, 2012-2016 (Source: China National Influenza Center)

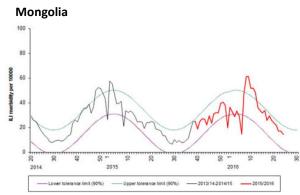


Figure 3: Proportion of outpatients that were ILI (per 10,000 people), 2013-2016 (Source: Mongolia National Influenza Center)

Republic of Korea

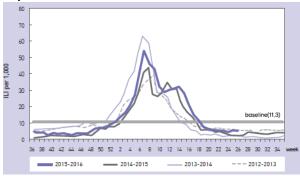


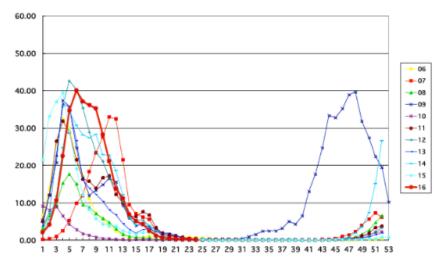
Figure 4: Weekly proportion of ILI visits per 1,000 patients 2012-2016 (Source: Korean Centre for Disease Control and Prevention)

Sentinel influenza surveillance

<u>Japan</u>

As of 29 June 2016, the number of influenza cases reported weekly, 0.04 per sentinel hospital site, continued to decrease in line with the seasonal pattern (Figure 5).

Figure 5: Number of influenza cases reported weekly per sentinel hospital site, Japan 2006-2016 (Source: Japan National **Institute of Infectious Diseases)**



Countries/areas in the tropical zone

In weeks 1 to 25 of 2016, ILI or Acute Respiratory Infection (ARI) activity followed previous seasonal trends in countries/areas in the tropical zone.

Outpatient Surveillance

Hong Kong (China) - ILI Surveillance

During week 26, the latest surveillance data showed that local influenza activity increased compared with the past few weeks. The average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics was 6.7 ILI cases per 1,000 consultations, which was higher than 4.5 recorded in the previous week (Figure 6).

The average consultation rate for ILI among sentinel private doctors was 45.5 ILI cases per 1,000 consultations, which was higher than 39.5 recorded in the previous week (Figure 7).

The percentage of respiratory specimens in week 26 which tested positive for seasonal influenza viruses was 2.89%, which was similar to the record of 2.88 in the previous week. Of all respiratory specimens tested in week 26, 100 (2.89%) tested positive for seasonal influenza viruses, including 6 (0.17%) influenza A (H1), 43 (1.25%) influenza A (H3), 45 (1.30%) influenza B and 6 (0.17%) influenza C.

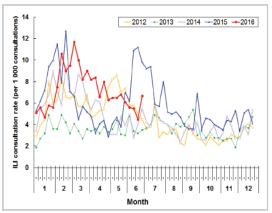
China (South) - ILI Surveillance (No update)

During week 21, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in south China was 3.3% which was lower than the last week (3.4%) but the same as in 2014 and 2015 (3.3%) (Figure 8). In South China, influenza B was the predominant type of influenza detected (78.3%). Of the influenza B subtypes, Victoria lineage was predominant (72.9%).

Singapore - ARI Surveillance

The average daily number of patients seeking treatment in polyclinics for ARI increased from 2,564 (over 5.5 working days) in week 24 to 2,819 (over 5.5 working days) in week 25 (Figure 9). The proportion of patients with ILI among the polyclinic attendances for ARI remained low at 2.1 %. The overall prevalence of influenza among ILI samples (n=130) in the community was 63.1% in the past 4 weeks. Of specimens that tested positive for influenza in April 2016, 55.1% were positive for influenza B, 30.6% for influenza A(H1N1)pdm09, and 14.3% for influenza A(H3N2).

Hong Kong (China) - ILI Surveillance



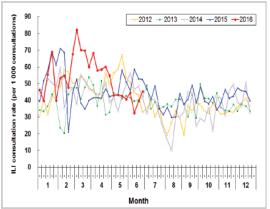
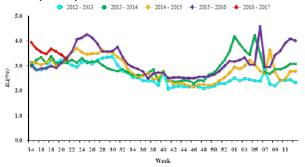


Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong 2012-2016 (Source: Hong Kong Centre for **Health Protection)**

Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong 2012-2016 (Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance



Singapore - ARI Surveillance

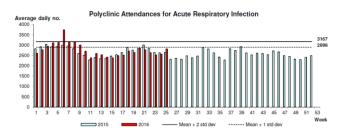


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2012-2016 (Source: China National Influenza Center)

Figure 9: Average daily polyclinic attendances for Acute Respiratory Infection, Singapore 2015-2016 (Source: Singapore Ministry of Health)

Countries in the temperate zone of the southern hemisphere

Influenza activity remained at inter-seasonal levels in most of the reporting countries in the southern hemisphere.

Australia - Laboratory-confirmed influenza

As of 24 June2016, a total of 12,269 notifications of laboratory confirmed influenza were reported (Figure 10). In the most recent fortnight, 85% of notifications were influenza A (58% A(unsubtyped), 16% influenza A(H1N1)pdm09 and 11% influenza A (H3N2)), 14% were influenza B and less than 1% were influenza A and B co-infections or untyped.

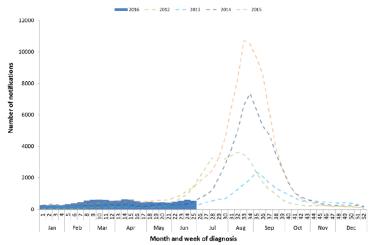


Figure 10: Australian notifications of laboratory confirmed influenza (Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand - Influenza like Illness

In week 25, 31 patients were reported with ILI through sentinel surveillance in 20 District Health Boards, with a weekly ILI incidence rate of 13.5 ILI cases per 100,000 residents (Figure 11). Of the 38 tested ILI cases, 5 were positive for influenza virus, giving an ILI associated influenza incidence (adjusted) of 1.8 per 100,000 patient population.

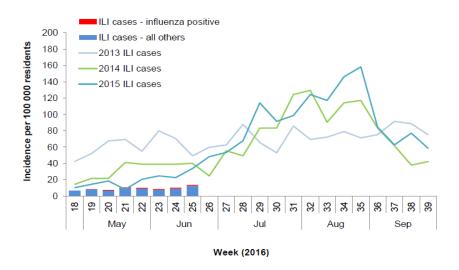


Figure 11: Weekly resident ILI and influenza incidence since (Week 18) 2 May 2016 in New Zealand (Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)

Pacific Island Countries and Areas (PICs)- ILI Surveillance

In the Pacific Island Countries and Areas, in week 25 the number of ILI cases reported was higher than the previous weeks in American Samoa, Cook Islands, Federated States of Micronesia, Marshall Islands and Vanuatu. The number of ILI cases in Fiji, Kiribati, Niue and Tonga decreased from the previous week (Figure 12).

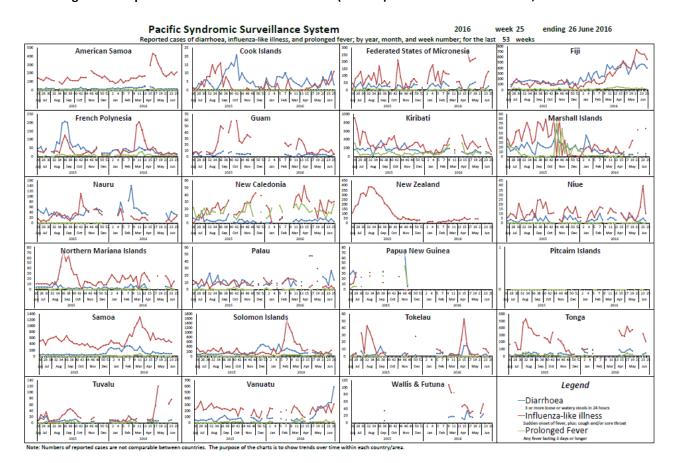


Figure 12: Reported cases of influenza-like illness (red line) in Pacific Island Countries, 2015–2016

Global influenza situation updates

Epidemiological

update:http://www.who.int/influenza/surveillance monitoring/updates/latest update GIP surveillance/en/

Virological update:

http://www.who.int/influenza/gisrs laboratory/updates/summaryreport/en/

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 2016 southern hemisphere influenza season

http://www.who.int/influenza/vaccines/virus/recommendations/2016 south/en/

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 http://www.who.int/influenza/vaccines/virus/4thmtg_improve_vaccine_virus_selection/en/

Video on influenza on WHO's YouTube Channel

Arabic: https://www.youtube.com/watch?v=PxW6Pg1Anwl Chinese: https://www.youtube.com/watch?v=xW9qDKEPitQ English: https://www.youtube.com/watch?v=yhhJfT86Bqq French: https://www.youtube.com/watch?v=8mo8rWWJZkc Russian: https://www.youtube.com/watch?v=XQO6nbkKUWQ Spanish: https://www.youtube.com/watch?v=qXr75cKxwTY