

Virological Surveillance Summary

The number of specimens reported to FluNet by the Western Pacific Region countries and areas between week 1 and week 37, and the number of Influenza positive specimens are presented in the table below. Influenza A (H3) is reported to be the predominantly circulating subtype currently (Figure 1).

Table 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 37, 2016

Country (most recent week)	Total number of specimens processed	Total number of influenza positive specimens
Australia (week 37)	27,412	4,721
Cambodia (week 36)	966	256
China (week 37)	410,140	65,860
Fiji (week 35)	349	120
Japan (week 31)	NA	7,000
Lao People's Democratic Republic (week 35)	3,564	195
Malaysia (week 30)	2,461	212
Mongolia (week 35)	2,768	335
New Caledonia (week 35)	1,238	298
New Zealand (week 34)	733	209
Papua New Guinea (week 35)	377	143
Philippines (week 35)	790	221
Republic of Korea (week 36)	7,571	1,287
Singapore (week 36)	2,002	1,082
Viet Nam (week 35)	771	274

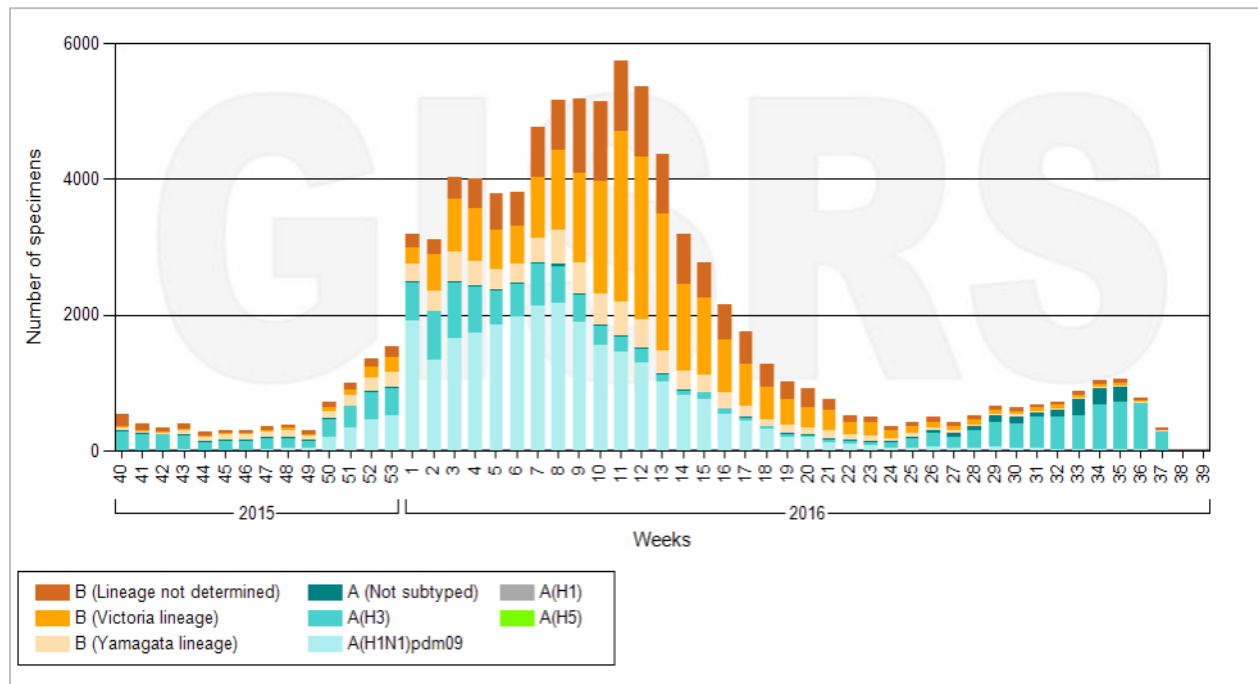


Figure 1: Number of influenza positive specimens by subtype and week, Western Pacific Region, 2015-16 (accessed 27 September 2016)

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 $\geq 38^{\circ}\text{C}$ 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 $\geq 38^{\circ}\text{C}$ 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)

During week 37, the percentage of ILI visits at national sentinel hospitals in Northern China was 2.7%. This is higher than the previous week of 2016 (2.4%) and the same week of 2015 (2.1%) (Figure 2).

Mongolia

There has been a steady increase in ILI activity in Mongolia since week 30 until week 37 (Figure 3).

Republic of Korea

In week 38, overall weekly ILI rate was 3.9/1,000 outpatients, which is lower than 4.6 recorded in the previous week and the national baseline of 11.3/1,000 outpatients (Figure 4).

China (North)

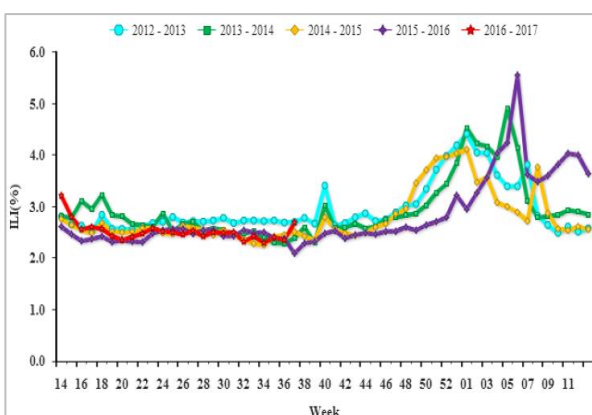


Figure 2: Percentage of visits for ILI at sentinel hospitals, 2012-2016 (Source: China National Influenza Center)

Mongolia

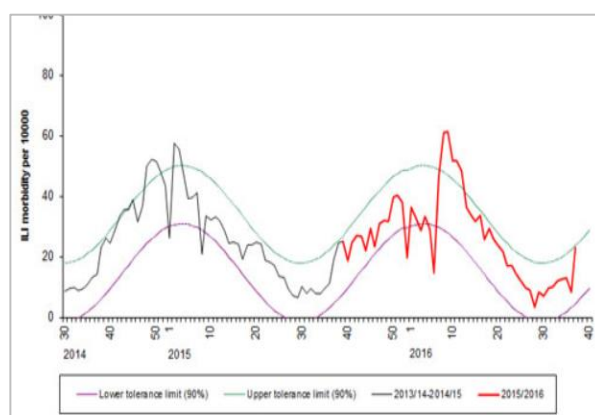


Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2014-2016 (Source: Mongolia National Influenza Center)

Republic of Korea

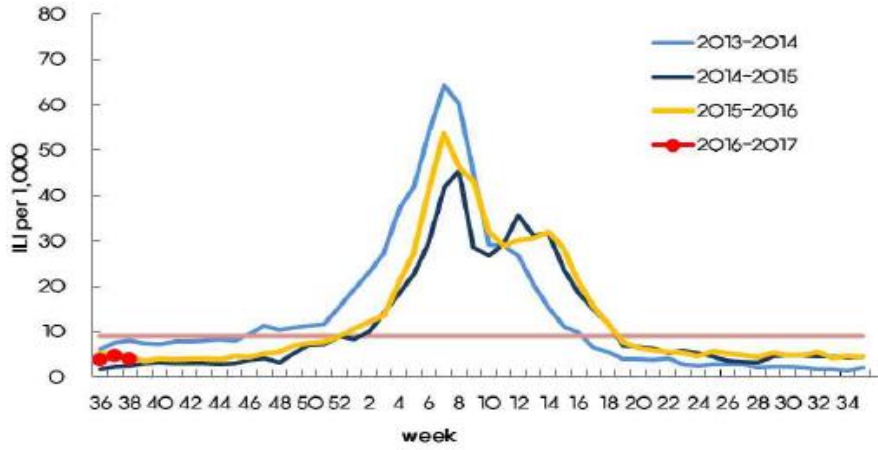


Figure 4: Weekly proportion of ILI visits per 1,000 patients 2012-2016 (Source: Korean Centre for Disease Control and Prevention)

Sentinel influenza surveillance

Japan

As of 14 September 2016, influenza activity is low and following seasonal trends (Figure 5).

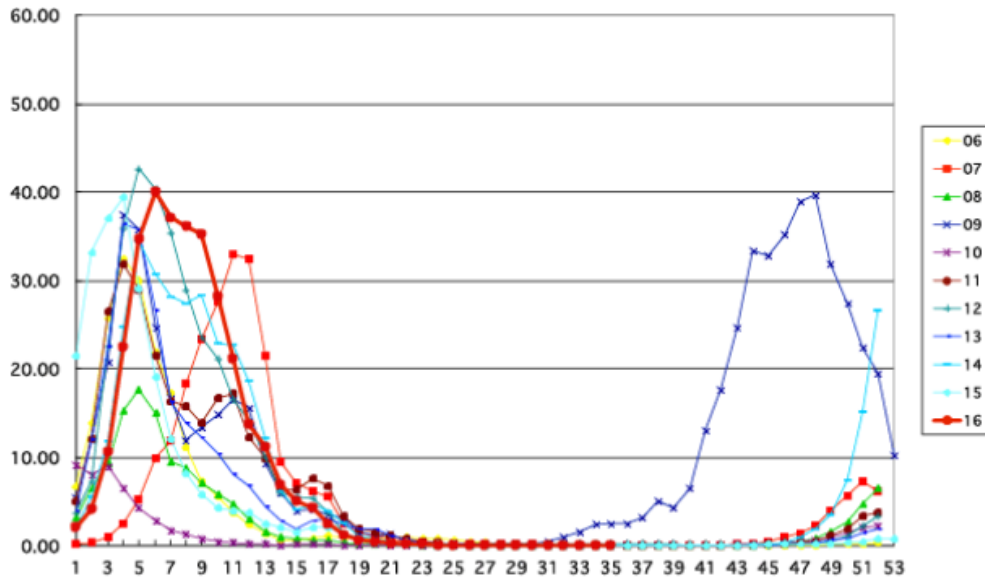


Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2006-2016 (Source: Japan National Institute of Infectious Diseases)

Countries/areas in the tropical zone

In weeks 1 to 38 of 2016, ILI or ARI activity followed previous seasonal trends in countries/areas in the tropical zone.

Outpatient Surveillance

Hong Kong (China) - ILI Surveillance

As of week 38, there is an increase in local influenza activity. The average consultation rate for ILI among sentinel general outpatient clinics was 6.4 ILI cases per 1,000 consultations, which is an increase from 4.6 ILI cases per 1,000 consultations recorded in the previous week (Figure 6).

The average consultation rate for ILI among sentinel private doctors was 47.7 ILI cases per 1,000 consultations, which was higher than 46.4 ILI cases per 1,000 consultations recorded in the previous week (Figure 7).

The percentage of respiratory specimens in week 38 which tested positive for seasonal influenza viruses was 14.4%. This is higher than 7.8% recorded in the previous week. Influenza A (H3) was the predominant circulating subtype comprising 97.1% of positive respiratory specimens. Other viruses detected were influenza B (2.1%), influenza A (H1) (0.6%), and influenza C virus (0.2%).

China (South) - ILI Surveillance

During week 38, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 2.9%. This is higher than the previous week of 2016 (2.6%) and the same week of 2015 (2.5%) (Figure 8).

Singapore – ARI Surveillance

The average daily number of patients seeking treatment in the polyclinics for ARI was 2,566 (over 5.5 working days) in week 37, an increase from previous week of 2,371 in week 36 (Figure 9). The proportion of patients with ILI among the polyclinic attendances for ARI remained low at 1.3%. The overall influenza virus positivity of ILI samples (n=164) in the community was 31.7% in the past 4 weeks. Of the specimens tested positive for influenza virus in August 2016, 85.0% were positive for influenza A(H3N2), 13.1% for influenza B and 1.9% for influenza A(H1N1)pdm09.

Source:

https://www.moh.gov.sg/content/moh_web/home/statistics/infectiousDiseasesStatistics/weekly_infectiousdiseasesbulletin.html).

Hong Kong (China) - ILI Surveillance

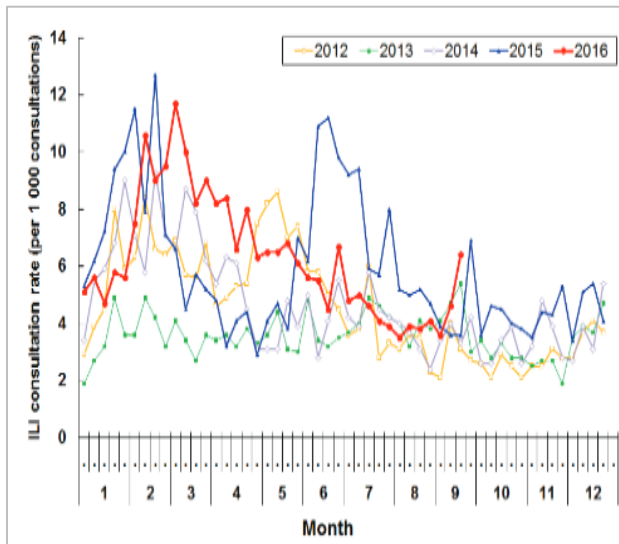


Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong 2012-2016 (Source: Hong Kong Centre for Health Protection)

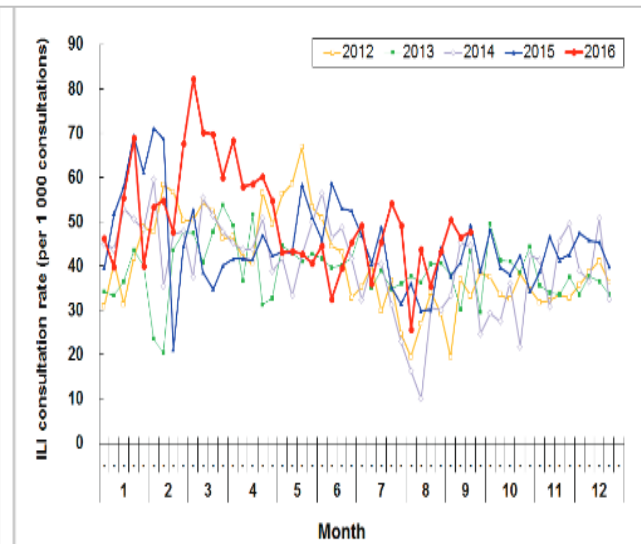


Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong 2012-2016 (Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance

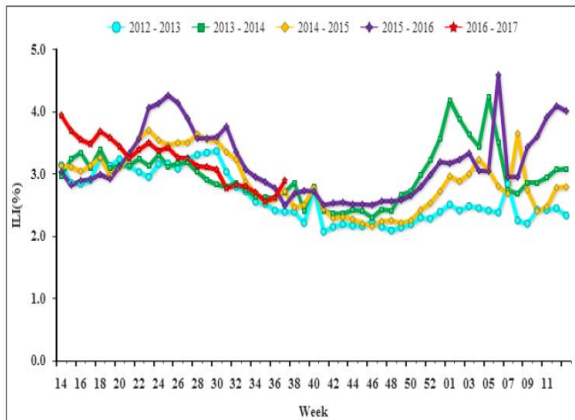


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2012-2016 (Source: China National Influenza Center)

Singapore - ARI Surveillance

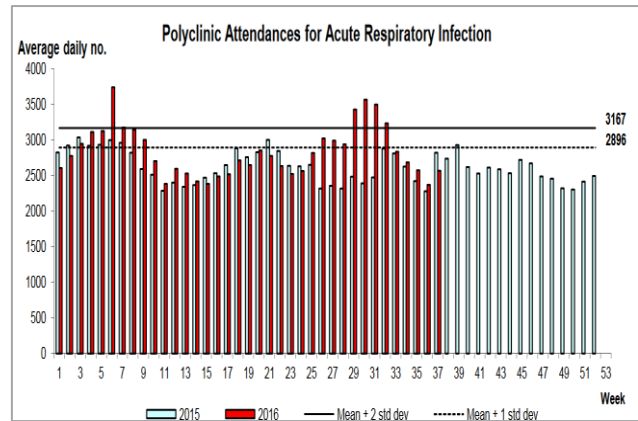


Figure 9: Average daily polyclinic attendances for ARI, Singapore 2015-2016 (Source: Singapore Ministry of Health)

Countries in the temperate zone of the southern hemisphere

In the temperate zone of the southern hemisphere, influenza activity followed seasonal trends, declining in Australia and remaining at low levels in New Zealand.

Australia – Laboratory-confirmed influenza

As of 16 September 2016, a total of 66,648 notifications of laboratory confirmed influenza were reported to the National Notifiable Diseases Surveillance System (Figure 10). Ninety percent of notifications were influenza A (71% A(untsubtyped), 7% 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.

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)

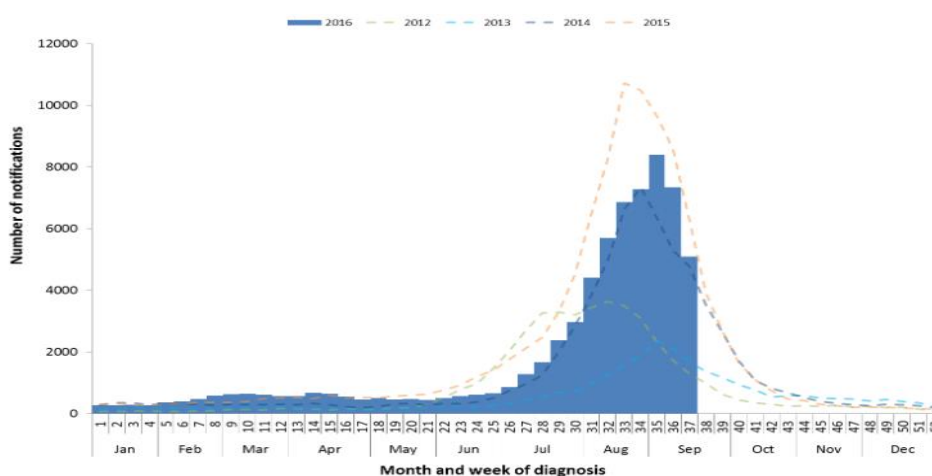


Figure 10: Australian notifications of laboratory confirmed influenza (Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand – Influenza like Illness

In week 37, ending 18 September 2016, 48 patients with ILI consulted sentinel general practices in 20 District Health Boards. The weekly ILI incidence was 9.1 per 100 000 patient population. Of the 30 tested ILI cases, 16 were positive for influenza viruses. This gives an ILI related influenza incidence (adjusted) of 4.9 per 100 000 patient population.

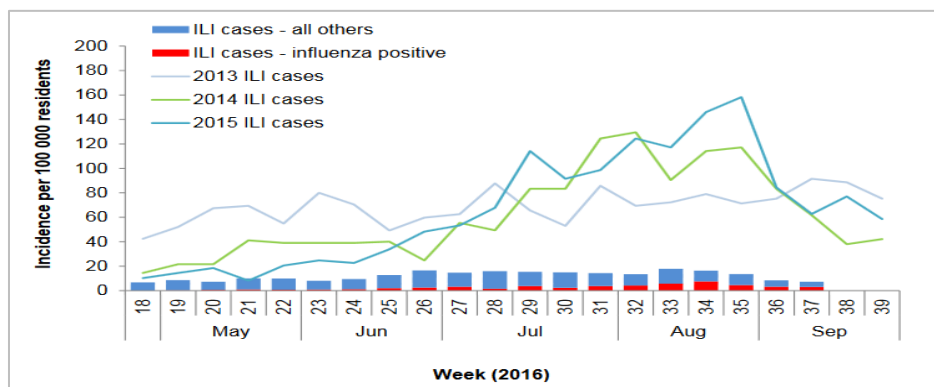
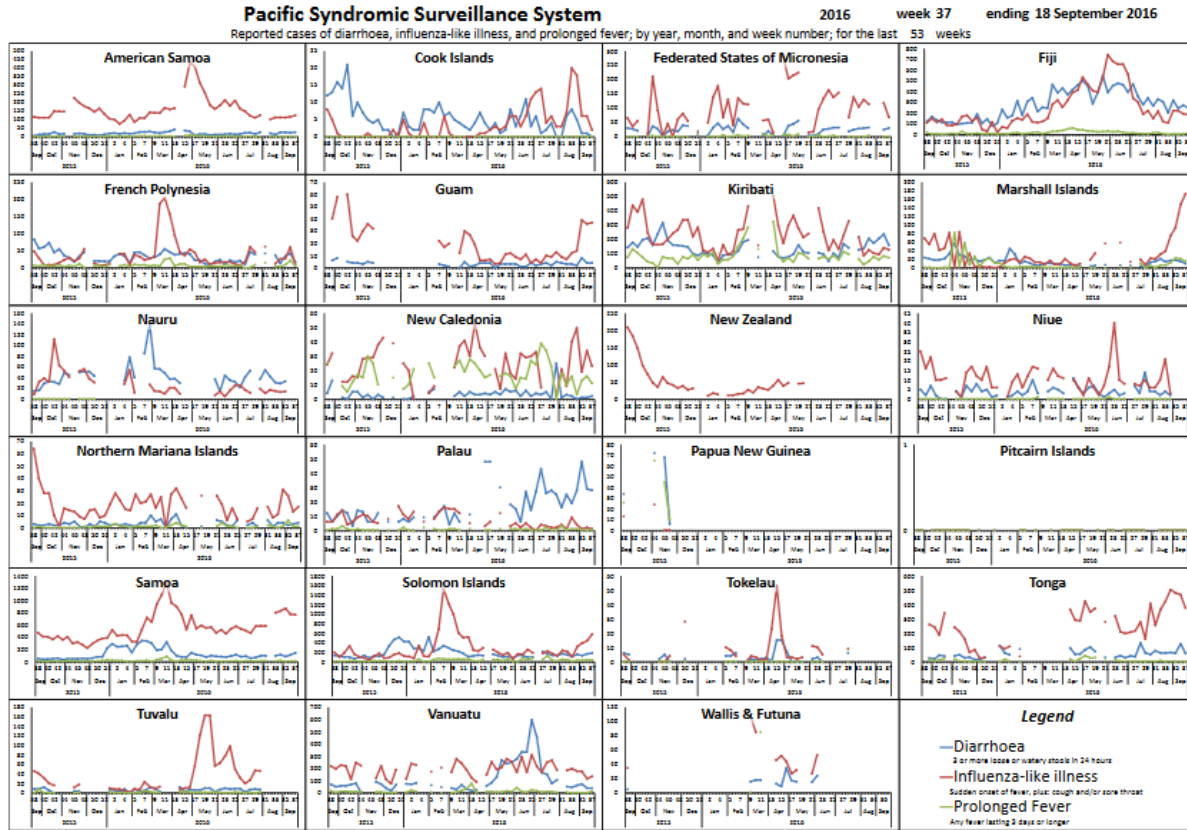


Figure 11: Weekly resident ILI and influenza incidence since (Week 18) 2 May 2016 in New Zealand (Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)

Pacific Island Countries and Areas (PICs)- ILI Surveillance

In the Pacific Island Countries and Areas, in week 37, the number of ILI cases reported in Guam and Marshall Islands shows an increasing trend and are above the threshold of 90% historical value (Figure 12).



World Health Organization, Division of Pacific Technical Support in collaboration with the Pacific Community

Date of report: 22/09/2016

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=PxW6Pg1AnwI>

Chinese: <https://www.youtube.com/watch?v=xW9qDKEpitQ>

English: <https://www.youtube.com/watch?v=yhhJfT86Bqg>

French: <https://www.youtube.com/watch?v=8mo8rWWJZkc>

Russian: <https://www.youtube.com/watch?v=XQO6nbkKUWQ>

Spanish: <https://www.youtube.com/watch?v=qXr75cKxwTY>