

Virological Surveillance Summary

The total number of specimens and number of positive specimens reported to FluNet by the Western Pacific Region countries and areas between weeks 1 and 17 are presented in the table below. During this period, both influenza A and B are circulating, with A(H1N1)pdm09 predominating in recent weeks (Figure 1).

Table 1: Countries and areas reporting data to FluNet, Western Pacific Region, weeks 1 to 17, 2018

Country (most recent week of report)	Total number of specimens processed	Total number of influenza positive specimens
Australia (week 17)	10,137	576
Cambodia (week 16)	362	27
China (week 16)	262,340	63,285
Japan (week 16)	NA	5,589
Lao People's Democratic Republic (week 16)	826	118
Mongolia (week 17)	1,979	265
New Caledonia (week 13)	393	102
Philippines (week 16)	424	18
Republic of Korea (week 17)	4,615	1,409
Singapore (week 16)	1,263	444
Viet Nam (week 10)	205	27

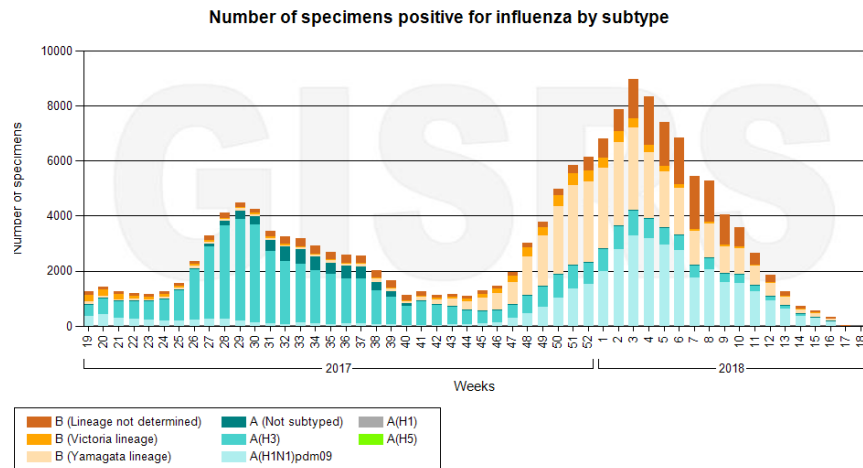


Figure 1: Number of specimens positive for influenza by subtype, Western Pacific Region, week 19 2017 to week 18 2018 (Source: www.who.int/fluNet)

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 $\geq 38^{\circ}\text{C}$ 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 10 days that 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 is lower than the corresponding period from previous years.

Outpatient ILI Surveillance

China (North)

During week 17, the percentage of visits for ILI at national sentinel hospitals in northern China was 2.3%, which is lower than the previous week (2.5%), and lower than the same week of 2015 to 2017 (2.4% and 2.4% and 2.5% respectively) (Figure 2).

Mongolia

During week 17, ILI activity in Mongolia decreased from the previous week, and has decreased since week 51 of 2017 (Figure 3). Mongolia publishes weekly reports, available here:

http://www.flu.mn/eng/index.php?option=com_content&task=section&id=5&Itemid=51

China (North)

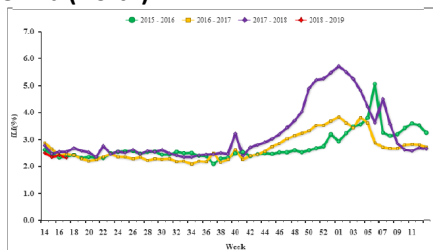


Figure 2: Percentage of visits for ILI at sentinel hospitals in north China, 2015-2018

(Source: China National Influenza Center)

Mongolia

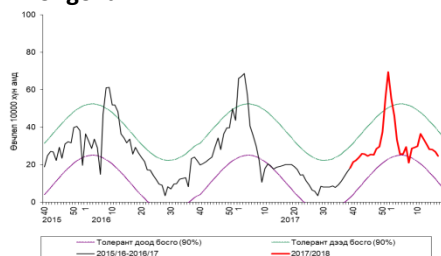


Figure 3: Proportion of outpatient ILI visits (per 10,000 people), 2016-2018

(Source: Mongolia National Influenza Center)

Republic of Korea

In week 17, there were 7.6 ILI cases per 1,000 outpatient visits, which was higher than the previous week (5.8) (Figure 4). Korea publishes a weekly report, available here:

<http://www.cdc.go.kr/CDC/info/CdcKrInfo0301.jsp?menuIds=HOME001-MNU1154-MNU0005-MNU0037-MNU1380>

Republic of Korea

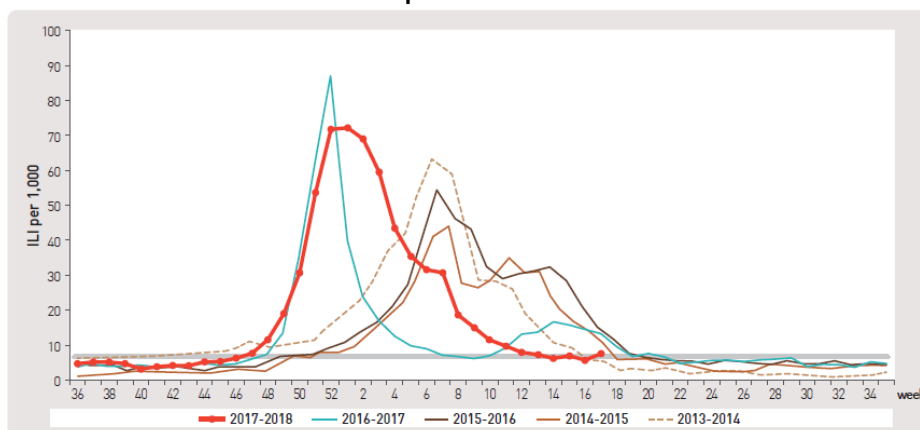


Figure 4: Weekly ILI incidence rate per 1,000 patients, 2013-2018, Republic of Korea

(Source: Korean Centre for Disease Control and Prevention)

Sentinel influenza surveillance

Japan

In week 16, influenza activity in Japan decreased compared to same period in 2016 and 2017 (Figure 5). More information about historical trends are available here:

<https://www.niid.go.jp/niid/en/10/2096-weeklygraph/1644-01flu.html>

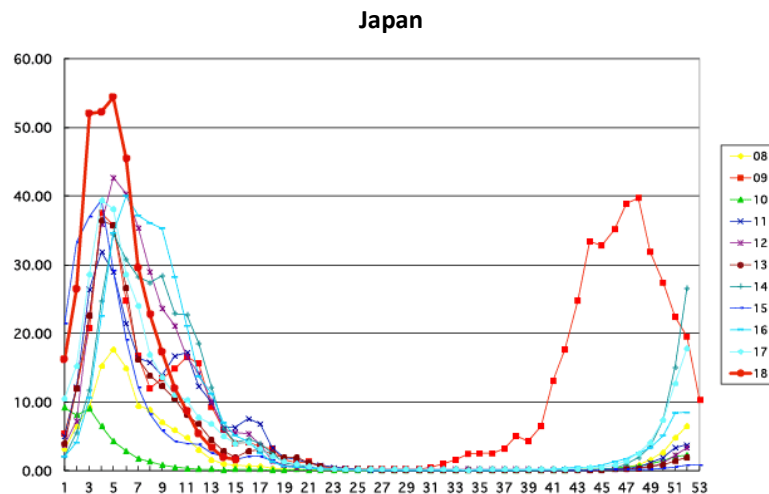


Figure 5: Number of influenza cases reported weekly per reporting sentinel hospital site, Japan 2008-2018
(Source: Japan National Institute of Infectious Diseases)

Countries/areas in the tropical zone

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

Surveillance

Hong Kong SAR (China) – ILI and hospital Surveillance

In week 17, the average consultation rate for ILI among outpatient clinics was 4.9 ILI cases per 1,000, which was higher than that recorded in the previous week (2.4 per 1,000) (Figure 6). The average consultation rate for ILI among private doctors was 47.1 ILI cases per 1,000 consultations, which was higher than the rate recorded in the previous week (41.4 per 1,000) (Figure 7). Hong Kong SAR, China publishes a weekly report, available here:

http://www.chp.gov.hk/en/guideline1_year/29/134/441/304.html

Hong Kong (China) - ILI Surveillance

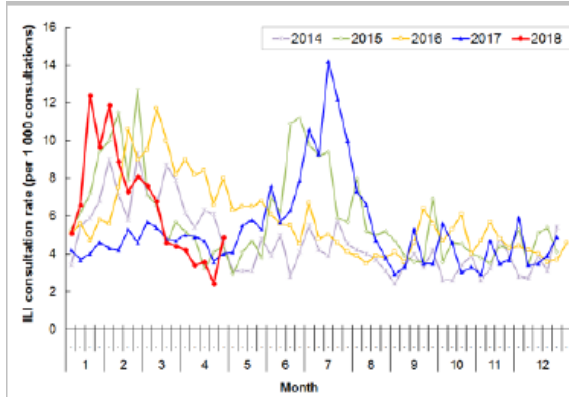


Figure 6: ILI consultation rates at sentinel general outpatient clinics, Hong Kong 2014-2018
(Source: Hong Kong Centre for Health Protection)

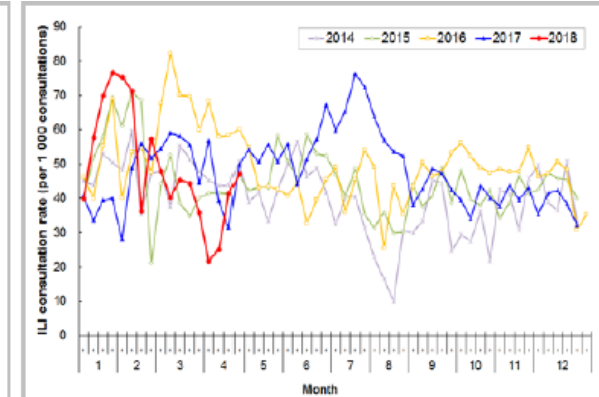


Figure 7: ILI consultation rates at sentinel private doctors, Hong Kong 2014-2018
(Source: Hong Kong Centre for Health Protection)

China (South) - ILI Surveillance

During week 17, the percentage of outpatient or emergency visits for ILI at national sentinel hospitals in southern China was 3.6%. This is the same as in the previous week (3.6%) and higher than the same weeks in 2015-2017 (2.9%, 3.5% and 3.1% respectively) (Figure 8).

Singapore – Acute Respiratory Infection (ARI) Surveillance

The average daily number of patients seeking treatment in polyclinics for acute respiratory infection increased from 2,984 (over 5.5 working days) in week 16 to 3,044 (over 5.5 working days) in week 17 (Figure 9). The proportion of patients with ILI among polyclinic attendances for ARI was 2.0%. Singapore publishes a weekly report, available here:

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

China (South) - ILI Surveillance

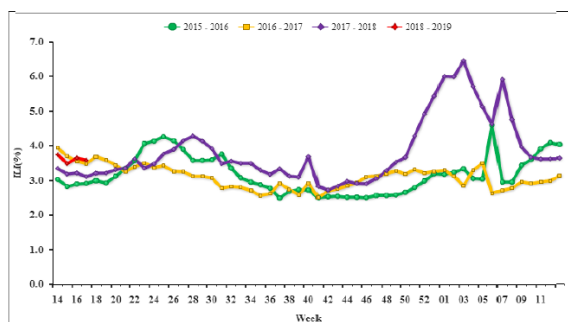


Figure 8: Percentage of visits due to ILI at national sentinel hospitals in South China, 2015-2018
(Source: China National Influenza Center)

Singapore – ARI Surveillance

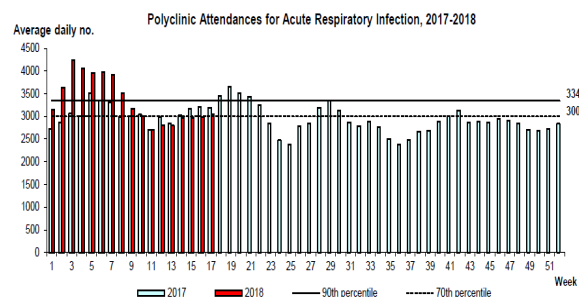


Figure 9: Average daily polyclinic attendances for ARI in Singapore, 2017-2018
(Source: Singapore Ministry of Health)

Lao PDR

In week 16, ILI activity decreased compared to the previous week. The number of ILI presentations at sentinel sites was lower than that reported in the corresponding week in 2016 but higher than 2017. (see Figure 10).

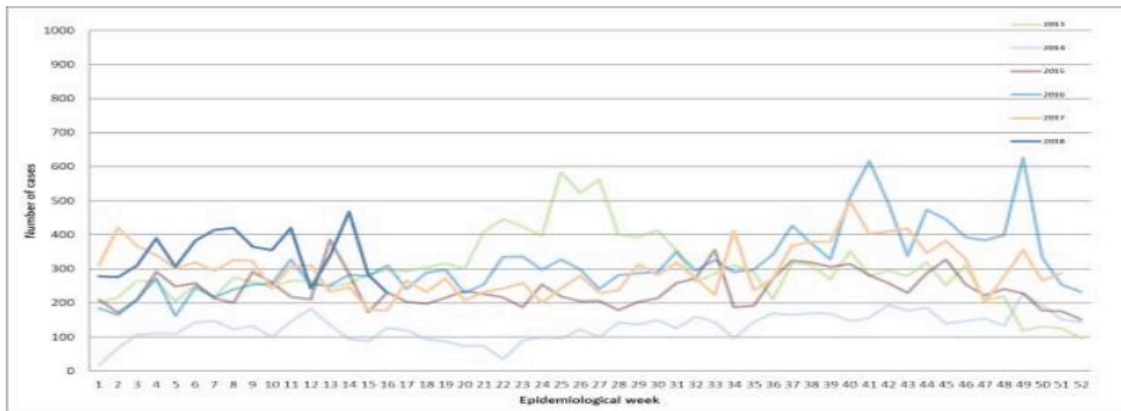


Figure 10: Weekly number of ILI presentations at sentinel sites, 2013 to week 16 2018, Lao PDR
(Source: Lao National Center for Laboratory and Epidemiology)

Countries in the temperate zone of the southern hemisphere

In the temperate zone of the southern hemisphere, influenza activity followed seasonal trends.

Australia – Laboratory-confirmed influenza (no update)

The number of laboratory confirmed influenza cases has decreased from a peak reached in week 33. From 1 January 2017 to 27 October 2017, a total of 229,579 laboratory-confirmed cases of influenza were reported to the National Notifiable Diseases Surveillance System (Figure 11). Sixty-three percent of notifications were influenza A (57% A(unsubtyped), 4% influenza A(H3N2) and 1% influenza A(H1N1pdm09)), 37% were influenza B and less than 1% were influenza A&B co-infections or untyped. Australia publishes influenza surveillance reports on a fortnightly basis during the influenza season, typically between May and October. For more information:

<http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm#current>

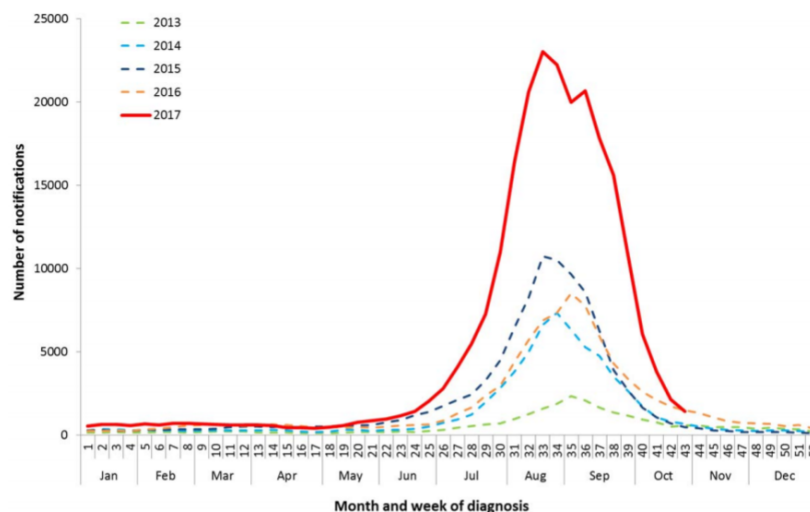


Figure 11: Australian notifications of laboratory confirmed influenza
(Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

New Zealand – Influenza like Illness (no update)

During week 39, 80 patients with influenza-like illness consulted sentinel general practices in 20 district health boards (DHBs). The weekly ILI incidence was 19.5 per 100,000. Of the 36 laboratory tested ILI cases, eight were positive for influenza viruses. This gives an ILI related influenza incidence of 4.3 per 100,000 patient population. New Zealand publishes a weekly report, available here:

https://surv.esr.cri.nz/virology/influenza_weekly_update.php

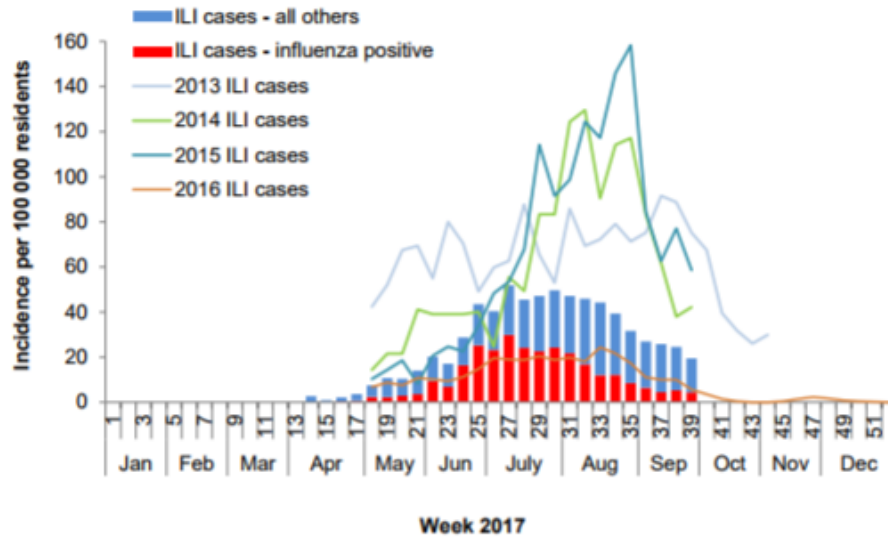
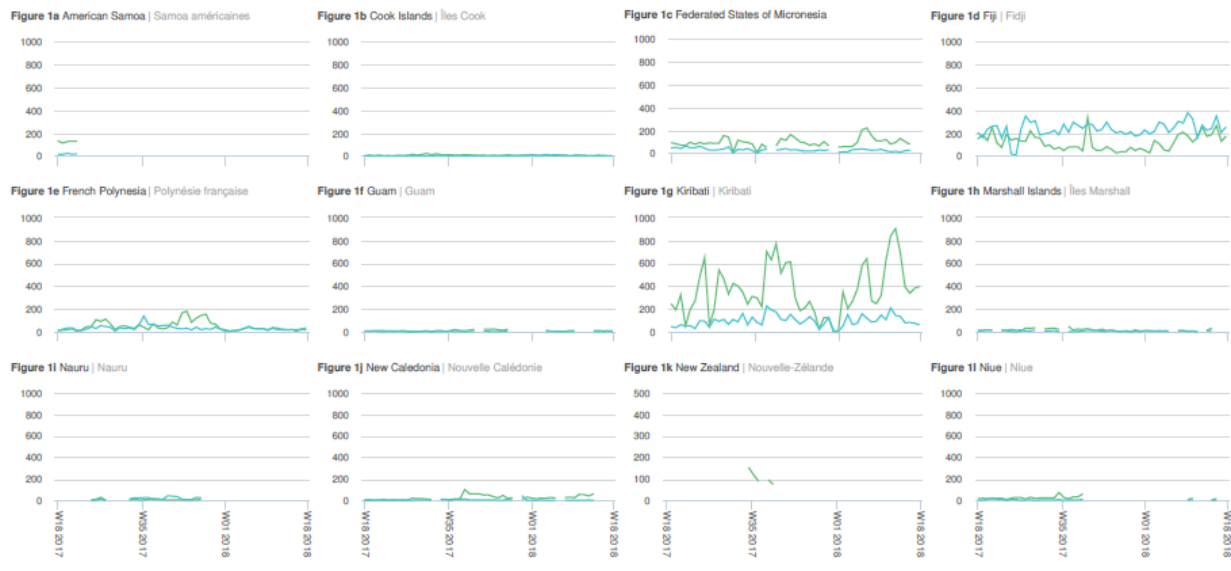


Figure 12: Weekly ILI and influenza incidence from Week 1 of 2017 in New Zealand (Source: Institute of Environmental Science and Research Ltd (ESR), New Zealand)

Pacific Island Countries and Areas (PICs) - ILI Surveillance

In the Pacific Island Countries and Areas, in week 17, the number of ILI cases reported in Fiji, Kiribati, New Caledonia and Niue increased compared to previous weeks (Figure 13). The PICs submit a report on a weekly basis, found here:

http://www.wpro.who.int/southpacific/programmes/communicable_diseases/disease_surveillance_response/page/en/index2.html



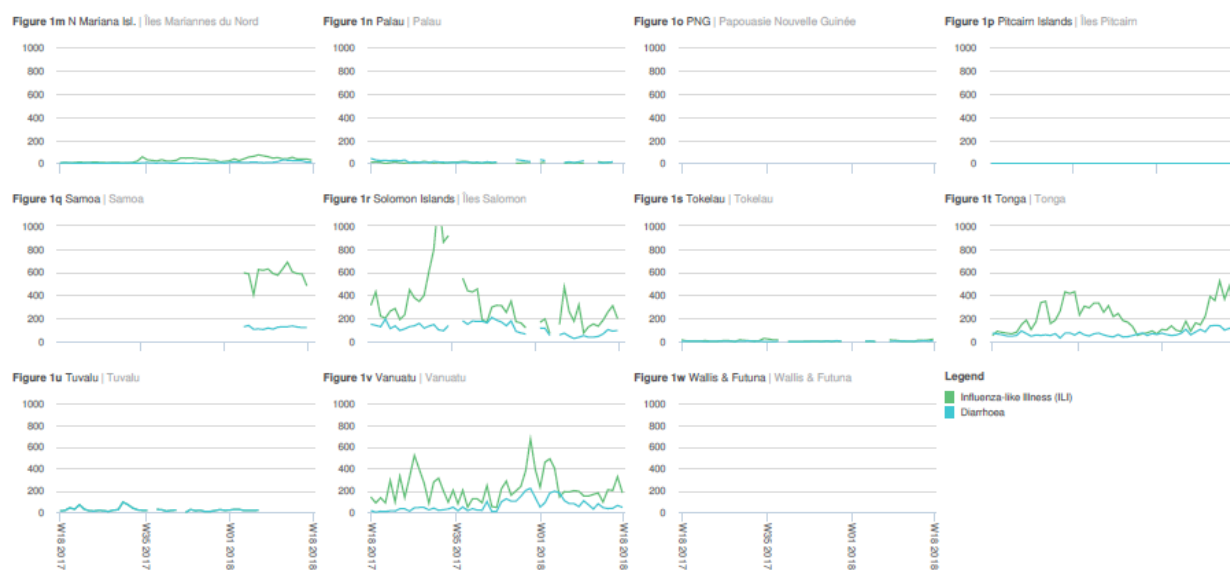


Figure 13: Reported cases of influenza-like illness in Pacific Island Countries, 2018

Global influenza situation updates

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 2017 southern hemisphere influenza season

http://www.who.int/influenza/vaccines/virus/recommendations/2017_south/en/

Recommended composition of influenza virus vaccines for use in the 2018-2019 northern hemisphere influenza season

http://www.who.int/influenza/vaccines/virus/recommendations/2018_19_north/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=xW9gDKEPitQ>

English: <https://www.youtube.com/watch?v=yhhJfT86Bgg>

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

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

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