

## Current major event

### Recommended Seasonal Influenza Vaccine for use in 2019-2020

In February 2019, WHO has recommended influenza viruses for inclusion in the seasonal influenza vaccines for the countries of northern hemisphere for 2019-2020. These recommendations are based on the antigenic and genetic analysis of the circulating seasonal influenza viruses shared by the countries with WHO through the Global Influenza Surveillance and Response System (GISRS).

#### Editorial note

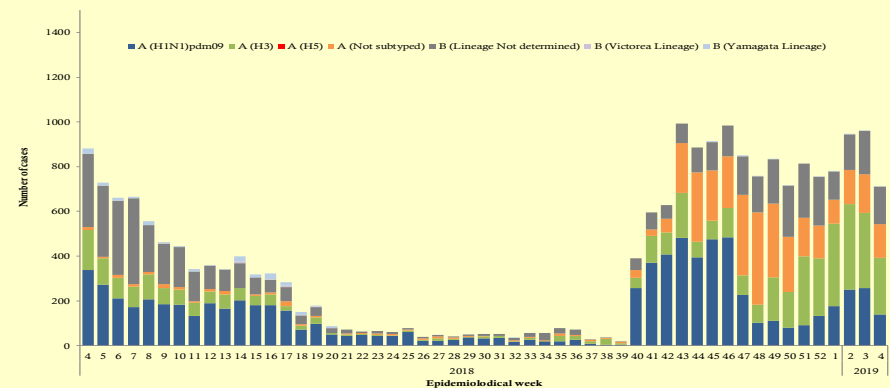
Immunization against influenza is considered to be an essential public health intervention to control both seasonal epidemic and pandemic influenza.

The WHO's recommendations provide guidance for the countries and the vaccine manufacturers on the seasonal influenza virus to be included in the human influenza vaccines against seasonal influenza (*See table*). The regulatory agencies make the final decision about which influenza strains may be used in influenza vaccine to be licensed in their country. In contrast to many other vaccines, influenza vaccine strains are updated frequently to contain representative circulating viruses as human influenza virus evolves continuously.

Many different sources of data and information are used to determine the recommended vaccine viruses, including surveillance data, antigenic and genetic characterization of viruses, human serology studies with inactivated influenza virus vaccines, antiviral resistance, vaccine effectiveness, etc. These data are evaluated during the WHO Consultations that are held in February/March and September of each year.

This year, WHO recommended four different viruses to be included. In trivalent vaccine three viruses were included and additional one virus with the above three viruses were included for the Quadrivalent vaccines for use in the 2019-2020 northern hemisphere influenza season. There has been some difference in the recommendation this year on the inclusion of A (H3N2) virus in the vaccine strain. Therefore, the composition of Quadrivalent vaccines include two type of influenza A viruses (an A (H3N2) and an A(H1N1)pdm09) and two type B viruses (one from each lineage). The trivalent vaccines, on the other hand, include three components- two type A viruses -an A(H3N2) and an A(H1N1)pdm09 and one type B virus. During February 2019, in

### Number of positive cases of influenza by subtype, Epidemiological week 4/2018 – 4/2019, Eastern Mediterranean Region



### Recommended influenza virus to be included in the 2019-2020 seasonal influenza vaccine for northern hemisphere

#### Trivalent vaccine:

- an A/Brisbane/02/2018 (H1N1)pdm09-like virus
- an A (H3N2) virus to be announced on 21 March 2019\*
- a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage)

#### Quadrivalent vaccine:

- The above three viruses and
- a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage)

\*the recommendation for the A(H3N2) component has been postponed.

In light of recent changes in the proportions of genetically and antigenically diverse A (H3N2) viruses, the recommendation for the A(H3N2) component has been postponed till March 2019.

Influenza viruses circulate at varying times throughout the year in tropical and sub-tropical countries. In selecting which vaccine formulation to use, the countries should consider their surveillance information, in particular epidemiological and virological data to decide when to start vaccination and whether to use the formulation recommended for the northern or southern hemisphere influenza season.

This necessitates enhancing influenza surveillance and use the data to guide decisions on the type of influenza vaccines to use. Vaccines will only be proven effective if it contains the right strains matching the viruses circulating in that particular country.

### Update on outbreaks

in the Eastern Mediterranean Region

**MERS** in Saudi Arabia; **MERS** in Oman; **cholera** in Somalia; **cholera** in Yemen; **Multidrug-resistant typhoid fever** in Pakistan.

### Current public health events of concern

[cumulative N° of cases (deaths), CFR %]

#### Avian influenza: 2006-2017

Egypt (A/H5N1)	[359 (122), 33.98%]
Egypt (A/H9N2)	[4 (0)]

#### Ebola virus disease (EVD): 2018-2019

Democratic Republic of Congo (DRC)	[838 (534), 63.72%]
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#### Cholera: 2017-2019

Somalia	[6 761 (46), 0.68%]
Yemen	[1 436 206 (2 781), 0.19%]

#### Diphtheria: 2018-2019

Yemen	[3 392 (194), 5.71%]
Bangladesh	[8 435 (45), 0.53%]

#### MERS: 2012-2019

Saudi Arabia	[1 974 (743), 37.63%]
Oman	[24 (7), 29.16%]

#### Multidrug-resistant typhoid fever: 2016-2019

Pakistan	[6 152 (0)]
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