

Current major event

Public Health Mitigation Measures for Hajj Season 2019

This year's Hajj in the Kingdom of Saudi Arabia was attended by over 2.5 million pilgrims from up to 180 countries. The potential risk for spread of infectious diseases associated with mass gatherings is well recognized.

Different public health measures are undertaken by Saudi Ministry of Health for better curative, preventive and promotive health services that provided for pilgrims.

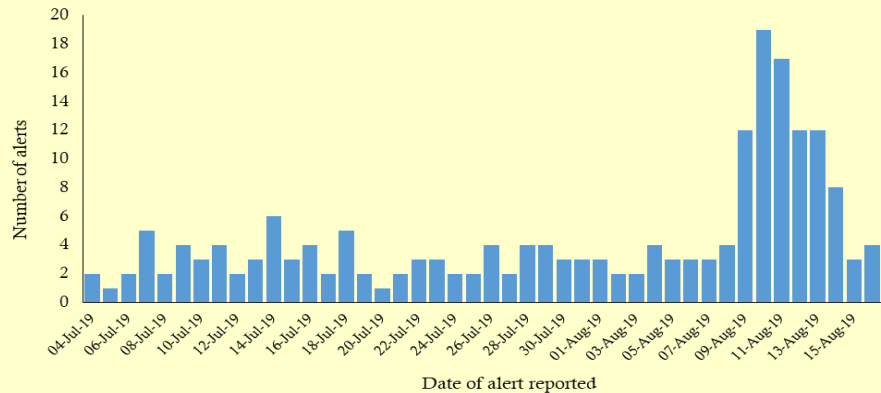
Editorial note

The potential risk for spread of infectious diseases associated with mass gatherings is well recognized. Hajj, the unique annual mass religious gathering of around 2.5 million Muslims from all over the world (including 634,379 from the Kingdom of Saudi Arabia) presents enormous challenges to the authorities in Saudi Arabia. Hajj this year came at a time of numerous threats to global public health. WHO recently recognized the outbreak of Ebola in the Democratic Republic of the Congo as a Public Health Emergency of International Concern (PHEIC), requiring a global response. Moreover, cholera, measles, polio, dengue fever, Lassa fever, and other infectious diseases with epidemic potential are being reported from many countries participating in the hajj, highlighting the need for early detection of, and timely response to, public health emergencies. The Health Early Warning System (HEWS) tool was developed by the Saudi Ministry of Health in collaboration with WHO to facilitate detection and response.

HEWS is building on an existed surveillance system run by Health Information System (HIS) department in Saudi Ministry of Health. The HEWS is an electronic base platform and is being implemented in the entire health facilities in the holy areas. The HEWS surveillance contain all main variables/information to classify the cases by syndromes. The HEWS have interoperability characteristics that facilitates automatic data transfer in real-time from routine HIS to the HEWS data capture system. The transferred data included age, sex, nationality and presenting symptoms.

During the Hajj period (from 4 July to

Daily Signals detected by HEWS, 4 July to 16 August 2019*



*Source: HEWS, Saudi MOH

Distribution of consultation by syndromes*

Syndrome / Events	Patients
Acute Febrile Syndrome without Rash without Neurological Manifestation	1824
Acute Jaundice Syndrome	416
Heat related illness/heat stroke/heat exhaustion	364
Severe Acute Respiratory Infections	342
Injuries/Trauma/Traffic accidents	105
Acute Febrile Syndrome With Rash	35
Acute Febrile Syndrome without Rash with Neurological Manifestation	23
Acute Flaccid Paralysis Syndrome	22
Acute Respiratory Distress Syndrome	6
Acute Bloody Diarrhea Syndrome	4
Chemical exposure or chemical injury	3
Acute Hemorrhagic Fevers	2
Food poisoning	2
Other	341,284
Total consultations	344,432

16 August), more than 190 alert signals were detected through the HEWS. All signals were verified and investigated immediately, and appropriate interventions were then implemented. None of the signals represented a major public health emergency. (see the graph). The referral hospitals within holy sites provided medical services for more than 344,000 pilgrims. The targeted syndromes represented almost 1% of the total consultations (see the table).

The roll out of HEWS during the Hajj was very successfully, and WHO recommends the improvement of HEWS by adding more sources for early detection and timely response for public health alerts. Medical mission, pharmacies, health care workers, media could be the possible extra-sources need to be add to HEWS.

Update on outbreaks

in the Eastern Mediterranean Region

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

Current public health events of concern

[cumulative N^o 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) [3 079 (2 064), 67.03%]

Cholera: 2017-2019

Somalia [8 680 (46), 0.53%]

Yemen [2 104 110 (3 588), 0.17%]

Diphtheria: 2018-2019

Yemen [3 906 (218), 5.58%]

Bangladesh [8 750 (45), 0.51%]

MERS: 2012-2019

Saudi Arabia [2 073 (772), 37.24%]

Multidrug-resistant typhoid fever: 2016-2019

Pakistan [10 660 (0)]