

Current major event

Arboviral diseases' outbreaks in the region & EMRO's response

Behind the scenes of currently ongoing COVID-19 outbreak, Eastern Mediterranean Region is facing a significant public health threat due to newly emerging or re-emerging infections of arboviral diseases. A range of risk factors have been identified i.e. worsening climatic conditions, humanitarian emergencies, conflicts, fragile health systems, weak surveillance, and inadequate laboratory capacities, domesticating animals and slaughtering them during religious festivals. WHO Eastern Mediterranean Regional Office (EMRO) has swiftly responded to these outbreaks and provided technical support to build the capacities of the Member States.

Editorial note

There are many ongoing arboviral disease outbreaks in EMR countries. Dengue Fever outbreak is currently the most widely spread mosquito-borne disease in Sudan, Pakistan, Yemen, & Afghanistan. Chikungunya, first found in Pakistan in 1983, was reported in Yemen, Pakistan, Sudan, and Somalia. Sporadic human cases and outbreaks of Crimean-Congo hemorrhagic fever (CCHF) have been reported from Afghanistan, the Islamic Republic of Iran, Iraq, Kuwait, Oman, Pakistan, Saudi Arabia, Sudan, and the United Arab Emirates. Currently, the CCHF cases are reported in Afghanistan & Pakistan only. Rift Valley Fever, started in Egypt, was reported in Djibouti, Egypt, Saudi Arabia, Somalia, Sudan, and Yemen. Moreover, yellow fever was only reported in Sudan and its serological evidence has been documented in Djibouti as well. These disease outbreaks were detected early, carefully investigated, and rapidly contained by working closely with countries in the early health preparedness, robust outbreak response, strengthened surveillance systems and addressing critical knowledge gaps.

EM countries have increased their efforts with the unending support of WHO to strengthen health systems and supporting national governments and communities to prevent arboviral diseases during the acute and protracted emergencies, including natural disasters as well.

As part of such extensive efforts, EMRO has created an Outbreak and Public Health Event Portal (OPHEP) which is useful for monitoring the disease trends in the region, and the progress of response measures of all the arboviral and zoonotic diseases and other outbreaks. EMRO also supports countries with close vector surveillance and management. It has developed an action plan for the Global Vector Control Response, One-health framework for emerging zoonotic infections, a training manual on prevention, surveillance, and

Arboviral Disease outbreaks in the Eastern Mediterranean Region countries in the last five years

Disease	Vector/Reservoir	Incubation period (days)	Country	Years Affected
Rift Valley Fever	Aedes aegypti	2-5	Sudan	2017, 2018, 2019
Crimean-Congo hemorrhagic fever	Hyalomma ticks	20-100	Afghanistan	2017, 2018, 2019, 2020
			Pakistan	2016, 2017, 2018, 2019, 2020
Dengue fever	Aedes aegypti	3-15	Oman	2018
			Pakistan	2017, 2018, 2019
			Sudan	2017, 2019
			Yemen	2016, 2018, 2019
Chikungunya	Aedes Aegypti and Aedes albopictus	4-7 days	Pakistan	2016, 2017, 2018
			Somalia	2016
			Sudan	2018, 2019

control of Aedes vectors, a guidance document for surveillance of the same vectors, and an online "Zika- Country risk assessment tool".

EM Region is also facing some challenges such as poor vector surveillance capacities, weak inter-sectoral collaboration, lack of partner coordination, and inadequate integrated vector management approaches. Other challenges include knowledge gaps on the risk factors for transmission of emerging infections, weak and variable surveillance systems for early detection and response, limited laboratory diagnostic capacities, insufficient investment in disease surveillance. Additionally, the low-risk perception of the serious nature of the disease among policy and decision-makers, the lack of transparency in reporting the number of cases, lack of interconnectedness, and cross-collaboration between different ministries makes it difficult for WHO experts to work smoothly.

Conclusively, many countries in the Eastern Mediterranean Region are facing the likelihood of the emergence and rapid transmission of arboviral and zoonotic diseases. Various factors have been identified that ranges from climatic conditions to acute and protracted humanitarian emergencies that result in fragile health systems and heavy migrations. Along with that weak surveillance and limited laboratory diagnostic capacity, and increased human-animal interaction have also contributed to the increase in the number of cases. Keeping in view the magnitude of these threats, it is important to develop a multi-sectoral and cross-organizational strategy for early detection and response to disease outbreaks. The strategy should also consider an organizational collaboration between animal and human health sectors, prior preparedness and the constitution of the rapid response teams, developing arboviral epidemic preparedness plans and response activities. Additionally, strengthening surveillance for early detection of diseases can also help along with the strengthening of laboratory capacities for identifying novel disease pathogens, and improving clinical case management and prevention and control and well-integrated vector control management.

Update on outbreaks

in the Eastern Mediterranean Region

COVID-19 in 22 EMR countries;

Current public health events of concern [cumulative N° of cases (deaths), CFR %]

Coronavirus disease 2019 (COVID-19): 2019-2020

Afghanistan	[2469 (72), 2.9%]
Bahrain	[3273 (8), 0.2%]
Djibouti	[1112 (2), 0.2%]
Egypt	[5895 (406), 6.9%]
Iran	[96448 (6156), 6.4%]
Iraq	[2153 (94), 4.4%]
Jordan	[459 (9), 4.4%]
Kuwait	[4619 (33), 0.7%]
Lebanon	[733 (25), 3.4%]
Libya	[63 (3), 4.8%]
Morocco	[4687 (172), 3.7%]
occupied Palestinian territory (oPt)	[353 (2), 0.6%]
Oman	[2483 (12), 0.5%]
Pakistan	[18770 (432), 2.3%]
Qatar	[14872 (12), 0.1%]
Saudi Arabia	[25459 (176), 0.7%]
Somalia	[671 (31), 4.6%]
Sudan	[533 (36), 6.8%]
Syrian Arab Republic	[44 (3), 6.8%]
Tunisia	[998 (41), 4.1%]
United Arab Emirates	[13038 (111), 0.9%]
Yemen	[7 (2), 28.6%]