

Current major event

Risk of Transmission of ZIKV in the Eastern Mediterranean Region

After the declaration of WHO that the recent cluster of microcephaly cases and other neurologic disorders might be associated with the transmission and circulation of Zika Virus Infection (ZIKV) in the America region, focus has been renewed on the areas where the risk of potential transmission of ZIKV exist in the Eastern Mediterranean Region.

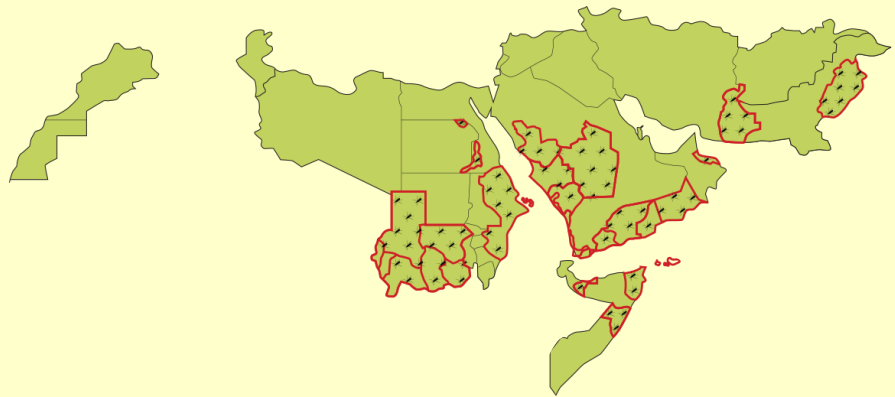
Editorial note

Current available evidence suggests that the *Aedes* mosquitoes that primarily transmit the Zika virus infection to humans have been found to have existed in a number of countries in the Eastern Mediterranean Region (EMR) of WHO. These countries include Djibouti, Egypt, Oman, Pakistan, Saudi Arabia, Somalia and Sudan. The presence of *Aedes* mosquitoes in these countries make these areas high risk for local transmission of ZIKV following introduction of the virus that might be associated with a viremic patient returning to any of these countries from the America region where the transmission of ZIKV is currently ongoing.

Sporadic cases of dengue fever, either locally transmitted or imported, have been reported from Djibouti, Egypt, and Oman while explosive outbreaks of dengue fever were reported, in the past, from Pakistan, Sudan and Yemen, chikungunya fever from Yemen and yellow fever from Sudan. These outbreaks have been propagated by high densities of *Aedes* mosquitoes in these countries (Please see the map above)

The current experience suggests that the density of *Aedes* mosquitoes usually peak during the summer months and also during the rainy season in the Region when water are temporarily stored in household containers

Figure-1: Probable distribution of *Aedes* mosquitoes in the Eastern Mediterranean Region



Priorities for response strategy

Intervention	Countries with known vectors	Countries without known vectors
Risk communication	√	√
Entomological survey		√
Entomological surveillance	√	
Vector control	√	

specially in water in-secured urban areas. It has also been seen in the past that temperature plays a role in adult vector survival, viral replication and infective period. These climatic conditions which can not be predicted may favour the geographic expansion of the *Aedes* mosquitoes distribution and the risk of spread of Zika virus in the endemic belt of the Eastern Mediterranean Region.

While *Aedes* mosquitoes have been found in eight countries of the Region, the presence *Aedes* mosquitoes in other countries in the region is yet to be ascertained. While entomological surveillance need to be enhanced in the countries with known presence of *Aedes* mosquitoes, surveys need to be conducted in rest of the countries in the region to determine presence or absence of *Aedes* mosquitoes and thereby the risk of potential local transmission of ZIKV in these countries. Accordingly appropriate response strategies need to be implemented

Update on outbreaks

in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; Undiagnosed viral haemorrhagic fever in Sudan.

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

Avian Influenza : 2006-2016

Egypt (A/H5N1)	[346 (117), 33.8%]
Egypt (A/H9N2)	[3 (0)]

MERS-CoV: 2012-2016

Saudi Arabia	[1277 (549), 42.9%]
Jordan	[39 (12), 31%]
Oman	[7 (3), 42.8%]
UAE	[78 (11), 14.1%]
Kuwait	[3 (1), 33.3%]
Republic of Korea	[186 (36), 19.3%]
Qatar	[14 (5), 35%]
Iran	[6 (2), 33.3%]

Lassa fever: 2015-2016

Nigeria	[159(82), 51.5%]
Benin	[71(23),32.3%

Ebola Virus Disease: 2014-2016

Guinea	[3804 (2536),66.6%]
Liberia	[10675 (4809),45%]
Sierra Leone	[14124 (3956),28%]

Viral Haemorrhagic Fever (of unknown aetiology)

Sudan	[558 (101),18.1%]
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Wild poliovirus: 2014-2016

Pakistan	[360 (0)]
Afghanistan	[47(0)]