

Current major event

Risk of importation of YF to EMR

The currently ongoing outbreak of Yellow Fever (YF) in Angola and the subsequent report of imported cases in China, Democratic Republic of Congo and Kenya have raised heightened concern for the risk of importation of YF cases in the countries of the Eastern Mediterranean Region (EMR) with trade connection with Angola.

Editorial note

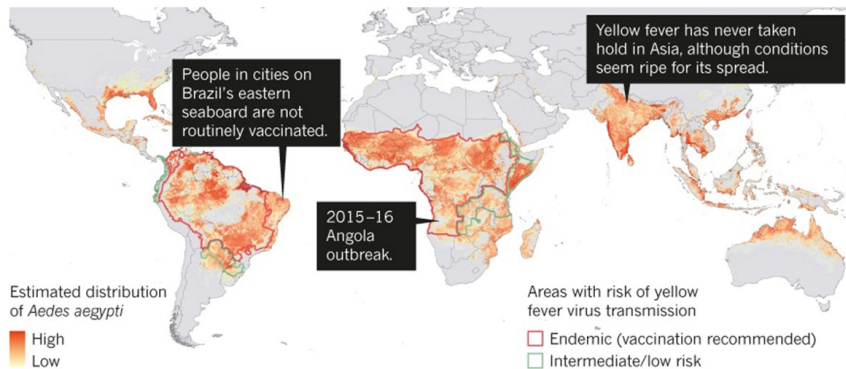
The current Yellow fever (YF) outbreak in Angola is one of the worst in Africa. So far, 1,751 suspected cases including 242 deaths were reported from 16 out of 18 provinces in Angola. In addition, YF cases have been reported amongst the nationals of Cape Verde, Congo, China, Democratic Republic of Congo (DRC), Eritrea, India, Democratic People's Republic of Korea (DPRK) and Kenya living in the capital city of Luanda. In addition, a number of countries have also reported imported cases of YF associated with the returnee travelers from Angola. These countries include China (11 cases), Democratic Republic of Congo (10 cases) and Kenya (2 cases).

Amongst the countries of the EMR, a large number of Lebanese diaspora live in Angola and there is a strong trade connection between Lebanon and Angola. In addition, a number of other countries in the Region, such as Morocco, Tunisia, Egypt and some of the Gulf countries have air connection with Angola and passengers from Angola use these countries as transit point for their onward journey to other countries. Sudan, however, remains the only country in the Region with repeated outbreaks from YF and a number of susceptible pockets remain in the country where the ecological conditions favour the local transmission of YF.

Considering the risk of importation of YF cases to the countries in the Region through returnee travelers, it is of paramount importance to remain vigilant and enhance surveillance for early detection of any suspected case of importation. These countries also need to ensure

WHERE MIGHT YELLOW FEVER GO NEXT?

An ongoing outbreak of yellow fever in Angola has scientists worried that the virus might spread to cities that harbour its urban carrier, the *Aedes aegypti* mosquito.



Some major YF outbreaks in Africa

Year	Country	Cases	Death	CFR (%)
2000	Guinea	512	190	37.1
2005	Sudan	615	183	29.7
2012	Sudan	849	171	20.2
2016	Angola	1751	242	13.8

that appropriate laboratory diagnostic capacity exists for diagnosis of YF using real-time PCR technique.

Yellow fever, which is endemic in parts of South America and Africa (*Please see the map above*), causes at-least 60,000 deaths each year. There may be an estimated 84,000 to 170,000 annual infections, more than 90% of these in Africa. In the current situation, the fear is whether the YF could follow the same path as other less-severe mosquito-borne diseases such as dengue, chikungunya and Zika which have already seen major urban epidemics tied to the resurgence of *Aedes* mosquitoes.

A number of countries in the Region are infested with *Aedes* mosquitoes and while Sudan remains at risk of transmission of YF, it is not clear whether introduction of the YF virus in any of the countries with known vectors such as the *Aedes* mosquitoes will trigger any local transmission. Given these uncertainties, it is prudent that the countries irrespective of risk heighten its public health alert system for early detection and diagnosis of any imported case of YF from Angola.

Update on outbreaks

in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; Avian Influen-

Current public health events of international concern

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

Avian Influenza : 2006-2016

Egypt (A/H5N1)	[350 (117), 33.4%]
Egypt (A/H9N2)	[3 (0)]

MERS-CoV: 2012-2016

Saudi Arabia	[1398 (598), 42.7%]
Jordan	[39 (12), 31%]
Oman	[7 (3), 42%]
UAE	[78 (11), 14.1%]
Kuwait	[3 (1), 33.3%]
Qatar	[14 (5), 35%]
Iran	[6 (2), 33.3%]

Lassa fever : 2015-16

Nigeria	[159(82), 51.5%]
Benin	[71(23),32.3%
Germany	[2(0)]
Togo	[2(0)]

Avian Influenza A (H7N9) : 2013-16

China	[752 (295),39.2%]
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Viral Haemorrhagic Fever (of unknown aetiology)

Sudan	[572 (105),18.1%]
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Wild poliovirus: 2014-16

Pakistan	[368 (0)]
Afghanistan	[52(0)]

Zika Virus Infection: 2007-16

60 countries and territories have reported transmission so far