

## Current major event

### Chikungunya in Pakistan

The IHR National Focal Point of Pakistan recently notified WHO of laboratory-confirmation of Chikungunya in 5 blood samples collected from Sindh province between 19 to 20 December 2016.

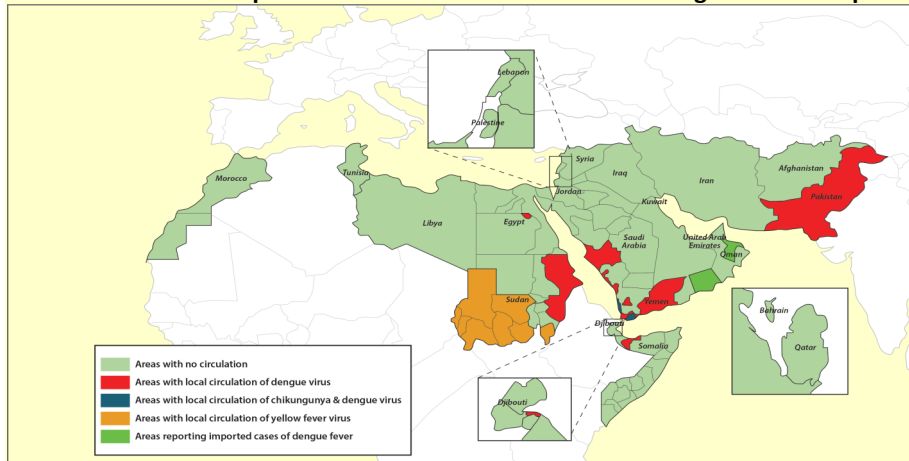
### Editorial note

This is the first time, Pakistan has reported laboratory-confirmed cases of Chikungunya. Although dengue virus (DENV) and chikungunya virus (CHIKV) share the same vector for transmission and dengue fever as well as other arboviral disease is indigenous in many countries of the WHO Eastern Mediterranean region (*Please see the map above*), causing geographically wide-ranging epidemics in the past, the evidence for the presence of CHIKV from the region came fortuitously through serological surveys conducted in Pakistan in 1983 and from Sudan in 2005 (*Please see the table*). Since 2004, Yemen has reported several dengue fever outbreaks but chikungunya was never reported from the country until 2011 when the first outbreak from CHIKV was identified following a field investigation conducted by WHO at Al-Hudaydah governorate.

Chikungunya Fever is an epidemic arboviral disease caused by the CHIKV and transmitted to humans by the bite of infected mosquitoes. Chikungunya virus can cause acute, sub-acute and chronic disease. The primary risk in Pakistan for CHIKV is its possibility for sustained transmission and its spread to other provinces/areas due to the presence of the competent vector— *Aedes* sup mosquitoes in the country. As the country is endemic to dengue fever, these mosquitoes are abundant in the country. We have also seen in the past that in the event of co-circulation of DENV and CHIKV, there can be an increase of severe disease outcomes due to secondary infections.

As the occurrence of Chikungunya is not unexpected in Pakistan owing to the presence of the competent vector and factors for its propagation in the coun-

### Arboviral diseases reported in the Eastern Mediterranean Region in recent past



### Countries reporting presence of Chikungunya virus in the Region

Year	Country	Reason for detection
1983	Pakistan	Serological survey
2005	Sudan	Serological survey
2011	Yemen	Outbreak
2012	Yemen	Outbreak
2016	Pakistan	Suspected case

try, efforts must be geared up to contain its rapid spread. This is the first time, laboratory confirmed cases of chikungunya fever has been reported from the country. As such, the natural immunity of the population to this virus may not be adequately protective although as there was serological evidence that the virus has circulated in the past and owing to cross reactivity between CHIKV and DENV, we may or may not see any sudden rise or a major outbreak in the coming days. In some other countries, CHIKV has been associated with major outbreaks every 10-30 years.

In the current situation, both epidemiological and entomological surveillance needs to be enhanced in the hot spots (in areas known for high vector density and competency). At the same time, vector control should be given the top-most priority. The National Institute of Health (NIH) should also consider genetic sequencing of CHIKV as the data may reveal either importation or re-introduction which may be important to know the propagation of the virus transmission. At the same time, the neighbouring states need to be informed of the detection of CHIKV as the virus may spread to these areas as well.

## Update on outbreaks

### in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; Cholera in Somalia; Cholera in Yemen; Chikungunya in Pakistan;

### Current public health events of international concern

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

#### Avian Influenza : 2006-2017

Egypt (A/H5N1)	[356 (121), 33.9%]
Egypt (A/H9N2)	[3 (0)]

#### Chikungunya

Pakistan	[230 (0)]
----------	-----------

#### MERS-CoV: 2012-2017

Saudi Arabia	[1414 (601), 42.5%]
--------------	---------------------

#### Cholera : 2016-2017

Somalia	[14 710 (497), 3.3%]
Yemen	[12773 (97), 0.76%]

#### Rift Valley Fever : 2016-2017

Niger	[266(32), 12%]
-------	----------------

#### Avian Influenza A (H7N9) : 2013-2017

China	[808(307),36%]
-------	----------------

#### Avian Influenza A (H5N6) : 2016-2017

China	[4 (0)]
-------	---------

#### Wild poliovirus: 2014-2017

Pakistan	[379(0)]
Afghanistan	[60(0)]

#### Zika Virus Infection: 2015-2017

69 countries and territories have reported transmission so far