

## Current major event

### Chikungunya outbreak in Pakistan

During the month of February 2017, Pakistan's Ministry of National Health Services, Regulations and Coordination reported new cases of Chikungunya. Since December 2016 up to 24 February 2017, a total of 816 cases have been reported in the Sindh province, including 29 cases reported from various towns in Karachi.

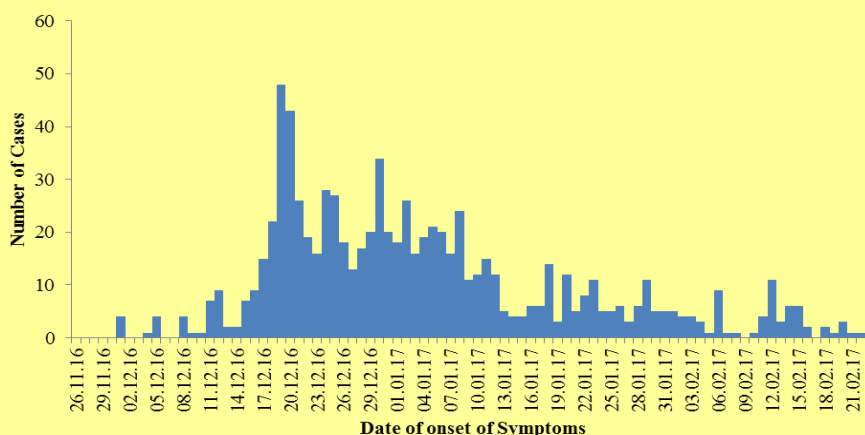
### Editorial note

The current outbreak of Chikungunya virus (CHIKV) in Pakistan represents the first outbreak of the disease in the country. Since the epidemiological week of 51-2016, Pakistan has reported suspected cases using the WHO recommended case definition (*Please see the graph above*). Dengue fever (DF), which is transmitted through the same vector (*Aedes* mosquitoes), is endemic in Pakistan with annual seasonal outbreaks observed every year. This makes the emergence of Chikungunya virus, in Pakistan not unusual or unpredictable.

CHIKV is an arbovirus of the genus Alphavirus (Togaviridae). The viral disease is characterized by an abrupt onset of fever frequently accompanied by joint pain. The virus can cause acute, subacute or chronic disease. Chikungunya has been widely reported in more than 60 countries in Asia, Africa, Europe and the Americas, causing widespread epidemics with significant public health problems. It is primarily transmitted to humans by the bite of infected *Aedes* species mosquitoes, most commonly, mosquitoes involved are *Aedes aegypti* and *Aedes albopictus*.

During the current outbreak, the highest number of cases was reported from Malir town with 609 cases followed by Orangi town with 139 cases and Lyari town with only 68 cases. The overall attack rate is 0.0004%. The age group 30-39 years is the most severely affected age group; this age group has the highest attack rate of 0.0003% followed by 40-49 years (0.0006%) and by 60-69 years (0.0005%) age groups (*Please see the table*). Moreover female patients have higher attack rate (0.0004%) compared to male

Distribution of suspected Chikungunya Cases by date of onset of illness



Chikungunya case distribution by age group

Age group	Num. of cases	%
1-9	53	6.5
10-19	143	17.5
20-29	160	19.6
30-39	223	27.3
40-49	123	15.1
50-59	65	8
60-69	36	4.4
>70	13	1.5

patients.

Emergence of Chikungunya virus in Pakistan, along with the endemicity of Dengue fever in the country, should alert the decision makers in Pakistan as it paves the way to emergence of other globally circulating viruses such as the Zika virus. *Aedes* mosquitoes vector is responsible for Arboviral infections including Zika, Dengue, Chikungunya and Yellow fever.

Up until now, there is no known specific antiviral drug for treatment of the disease nor a vaccine that can be used for prevention. Treatment is directed primarily at relieving the symptoms, including fever and joint pain.

As it seems from the epidemic curve that the cases are coming down in recent time which is a sign that active control measures such as the vector control is working in the city where the cases have been reported. The control measures need to be continued till the outbreak wanes out completely.

## Update on outbreaks

**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) [358 (122), 34.08%]  
Egypt (A/H9N2) [3 (0)]

#### Chikungunya: 2016-2017

Pakistan [816 (0)]

#### MERS-CoV: 2012-2017

Saudi Arabia [1,561 (633), 40.5%]

#### Cholera: 2016-2017

Somalia [20,684 (689), 3.2%]

Yemen [20,583 (103), 0.5%]

#### Rift Valley Fever: 2016-2017

Niger [266 (32), 12%]

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

China [1,223 (380), 31%]

#### Yellow fever

Brazil [1,336 (215), 16%]

#### Wild poliovirus: 2014-2017

Pakistan [276 (0)]

Afghanistan [40 (0)]

#### Zika Virus Infection: 2015-2017

69 countries and territories have reported transmission so far.