

Current major event

Dengue outbreak Kech, Pakistan

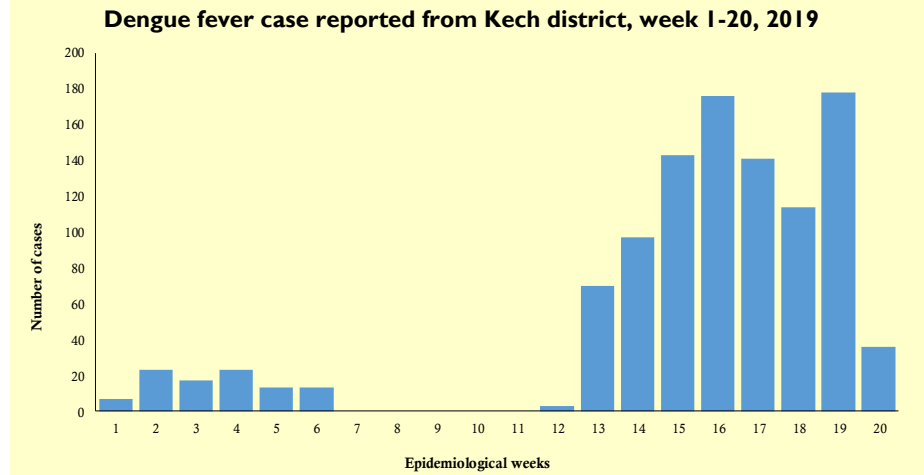
Provincial Health department of Balochistan reported an outbreak of dengue in southern districts of the province. The outbreak started during the first week of January and as of 6th May 2019, a total of 1 577 suspected and confirmed dengue fever cases and 3 related deaths (CFR 0.19%) have been reported from Kech and Guwader districts.

Editorial note

Dengue fever is an arboviral disease caused by the dengue virus (DENV) and transmitted to humans through the bites of infected female mosquitoes, *Aedes aegypti* and *Aedes albopictus*. These mosquitoes also transmit chikungunya, yellow fever and zika virus. Dengue fever affects infants, young children and adults, but seldom causes death.

Dengue fever is endemic in Pakistan, with recurring outbreaks reported in almost all the provinces over the last ten years. The current outbreak started in early January 2019 when 4 cases were reported. In late February, due to heavy rains, the cases started appearing again and have continued since then. A total of 1 577 dengue fever cases have been reported from two districts of Balochistan Province (Kech and Gawadar). In addition to the reported cases, three associated deaths have also been reported. The upsurge in reported cases started from epidemiological week 13 and peaked between week 16 and week 19, when 176 and 178 cases were reported respectively (See graph).

The age group of the reported cases ranging from 1 year to 80 years and the most affected age group is 21 to 30 years of age (See table). The laboratory diagnosis is mainly carried out by complete blood count (CBC) and confirmation of diagnosis through serology using rapid diagnostic test (RDTs) for NS1 (nonstructural protein 1). All the suspected cases have also tested for malarial parasite (MP). As part of outbreak response measures, the Provincial Health Department has enhanced vector control activities by applying Indoor Residual Spray (IRS) and as well as larvaciding activities by involving more teams and extending the activities in the affected areas as well as the neigh-



Age group wise distribution of the reported dengue fever cases from Kech district

Age groups	Cases
1-10	38
11-20	183
21-30	198
31-40	105
41-50	47
51-60	11
≥ 60	5

boring Union councils (UCs) of the affected and adjoining districts.

Even though the vector for the disease is known to be present in the country, other factors that are believed to have played a part in this outbreak of dengue fever include population movement, climate change, poor water and sanitation conditions, water supply and storage (containers), and high population density areas that increase contacts between vectors and humans.

There is urgent need to scale up the ongoing response measures to prevent geographic spread of the disease. Surveillance needs to be strengthened in all the districts of the Balochistan province as well as in the neighbouring Provinces. Surveillance data should be used to monitor the progression of the outbreak, and to map out cases to enhance targeted interventions for vector control. Entomological surveillance also needs to be scaled up in the affected areas to guide interventions and for early detection of any sign of outbreak spread such as increased population of *Aedes* mosquitoes.

Update on outbreaks

in the Eastern Mediterranean Region

MERS in Saudi Arabia; **MERS** in Oman; **cholera** in Somalia; **cholera** in Yemen; **Multidrug-resistant typhoid fever** in Pakistan.

Current public health events of concern

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

Avian influenza: 2006-2017

Egypt (A/H5N1) [359 (122), 33.98%]

Egypt (A/H9N2) [4 (0)]

Ebola virus disease (EVD): 2018-2019

Democratic Republic of Congo (DRC) [1 680 (1 117), 66.48%]

Cholera: 2017-2019

Somalia [7 235 (46), 0.63%]

Yemen [1 709 158 (3 331), 0.19%]

Diphtheria: 2018-2019

Yemen [3 524 (203), 5.76%]

Bangladesh [8 620 (45), 0.52%]

MERS: 2012-2019

Saudi Arabia [2 040 (767), 37.40%]

Oman [24 (7), 29.16%]

Multidrug-resistant typhoid fever: 2016-2019

Pakistan [7 187 (0)]